

# Michigan Wheel<sup>®</sup> Corporation



## OUTBOARD & STERNDRIVE PROPELLERS 2009 Catalog

Evinrude® • Johnson® • OMC • Force • Chrysler • U.S. Marine • Mercruiser® • Mercury • Mariner®  
Nissan • Tohatsu • Suzuki • Honda • SX Cobra™ • Volvo Penta® • Yamaha

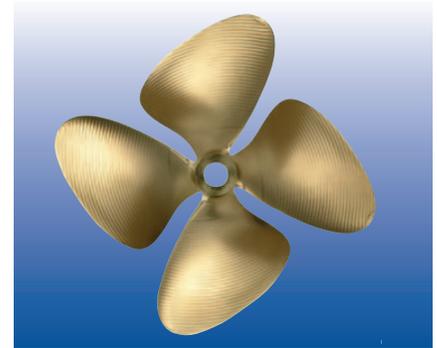
# Michigan Wheel, introducing new props and improving old ones...since 1903.



'Old Faithful' with improved powder coating & beefier bushings. Great primary prop, yet priced as a weekend-saver spare!



High-performance stainless props with proven Power Tip. Finest materials, design and the industry's best warranty!

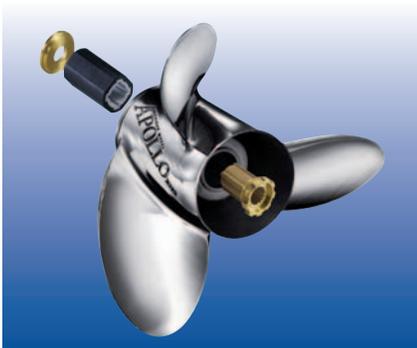


The New and Improved Ambush propellers are 100% CNC machined for the ultimate in accuracy and consistency.

## XHS™ Propeller Series

Carry less inventory, cover more applications! High performance propellers with an exchangeable hub system. Michigan Wheel's Xchangeable Hub System absorbs impact and stress caused by shifting gears and is designed to spin under significant impact to help protect your lower unit. XHS® is also designed to be interchangeable with Mercury's Flo-Torq II™ hub system, potentially saving you money when replacing or upgrading your propeller.

**NEW for 2009 season - Vortex XHS large diameter 3-blade propellers for V4 Outboards.**



Highly polished, ultimate performance, stainless steel propeller featuring CAD designed blade geometry. Available in standard 3-blade, large diameter 3-blade, and 4-blade propellers.



High performance aluminum replacement propeller featuring high performance blade geometry, and high gloss black powder coat finish. Available in 3 & 4 blade propellers.

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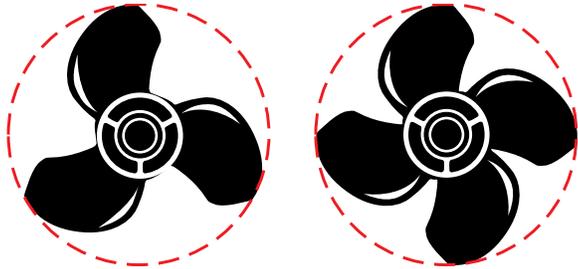
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# PROPELLER BASICS

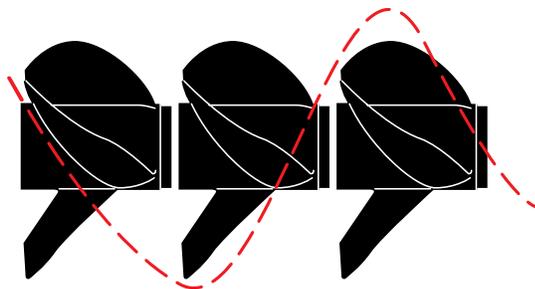
## Diameter

Diameter is two times the distance from the center of the hub to the tip of the blade. It also can be looked at as the distance across the circle that the propeller would make when rotating. It is the first number listed when describing a propeller.



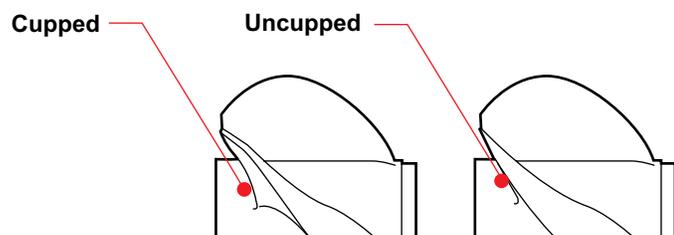
## Pitch

Pitch is defined as the theoretical forward movement of a propeller during one revolution — assuming there is no “slippage” between the propeller blade and the water. For most boats, there is slippage and therefore the distance advanced is less than the design pitch. The amount of slippage varies from boat to boat. Pitch is the second number listed in the propeller description.



## Cupping

Many of today’s propellers incorporate a cup at the trailing edge of the propeller blade. This curved lip on the propeller allows it to get a better bite on the water. This results in reduced ventilation, slipping, and allows for a better hole shot in many cases. A cupped propeller also works very well where the motor can be trimmed so that the propeller is near the surface of the water. The cup will typically result in higher top end speed on one of these applications.

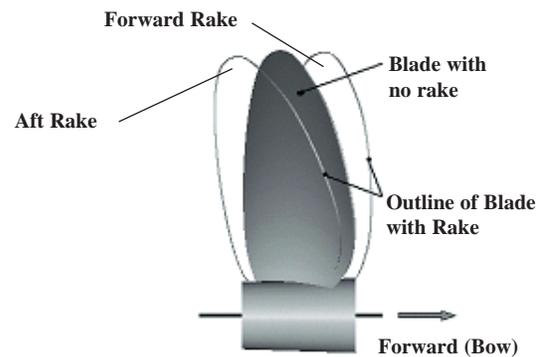


## Rake

Rake is the degree that the blades slant forward or backwards in relation to the hub. Rake can affect the flow of water through the propeller, and as implications with respect to boat performance.

Aft Rake helps to trim the bow of the boat upwards, which often results in less wetted surface area and therefore higher top end speed. Aft rake propellers also typically “bite” better on ventilating type applications.

Forward, or negative rake, helps hold the bow of the boat down. This is more common in workboat type applications.



## Ventilation

Ventilation is a situation where surface air or exhaust gasses are drawn into the propeller blades. When this situation occurs, boat speed is lost and engine RPM climbs rapidly. This can result from excessively tight cornering, a motor that is mounted very high on the transom, or by over-trimming the engine.

## Cavitation

Cavitation, (which is often confused with ventilation), is a phenomena of water vaporizing or “boiling” due to the extreme reduction of pressure on the back of the propeller blade. Many propellers partially cavitate during normal operation, but excessive cavitation can result in physical damage to the propeller’s blade surface due to the collapse of microscopic bubbles on the blade.

There may be numerous causes of cavitation such as incorrect matching of propeller style to application, incorrect pitch, physical damage to the blade edges, etc...

Be advised disturbances in the water flow forward of the propeller can result in blade damage which appears to be blade cavitation, but is actually due to non-favorable water flow into the propeller.

# PROPELLER BASICS

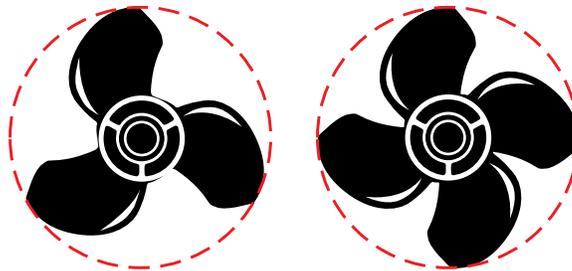
Finding the right match between the propeller, engine type and boat size will optimize the following performance factors — increased top end, faster planing speed, improved low end punch and load carrying capability.

If you want to modify your boat's performance, consider the following before making your selection.

## 3 blades ... or 4?

We recommend 3-blade propellers for recreational boats with 3, 4, and 6 cylinder outboards and I/O engines. These propellers provide good "hole shot" and top-speed performance.

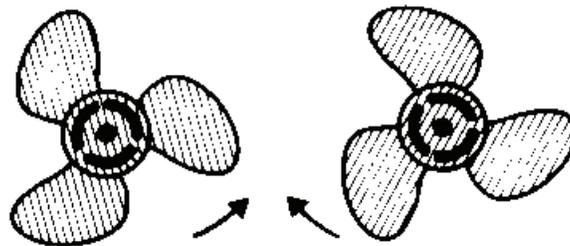
We recommend 4-blade propellers for bass boats and boats with high performance hulls running high horsepower outboard engines. Compared to 3 blades, they provide better "hole shot" performance with less steering torque and less vibration at high speeds.



## What's the advantage of a left-hand prop?

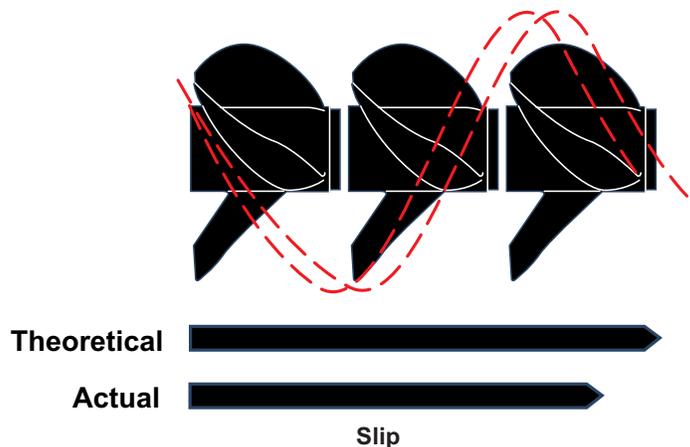
Two propellers spinning the same direction on twin engine boats will create steering torque. In other words, two right-hand propellers pull the stern hard to the right and the bow to the left.

Two opposite-direction propellers on twin engines eliminate this steering torque because the left-hand propeller balances out the right-hand propeller. This results in better straight-line tracking and helm control at high speed.



## How does wheel diameter, pitch, and slip affect performance ... and how is it measured?

Slip is the difference between actual and theoretical travel of the propeller blades through water. A properly matched propeller will actually move forward about 80 to 90 percent of the theoretical pitch.



# PROPELLER BASICS

## What is the difference between thru-hub exhaust, over-hub exhaust, and non thru-hub exhaust?

**Thru-hub exhaust** propellers consist of a round barrel to which the blades are attached. The exhaust passes through the barrel and out the back, without making contact with the propeller blades. This provides a good clean water flow to the blades, usually resulting in good acceleration and hole shot.

**Over-hub exhaust** propellers have the blades attached directly to the smaller tube that fits over the propeller shaft, eliminating the larger exhaust tube. These types of propellers are often used for attaining maximum top speeds. (On some boats, the hole shot can often suffer due to the extreme exhaust flooding that occurs around the propeller blades during acceleration.)

**Thru-hub exhaust** and **over-hub exhaust** propellers are used on boats where the exhaust passes out through the rear of the “torpedo” on the lower unit, around the propeller shaft. Most outboards utilize this type of exhaust.

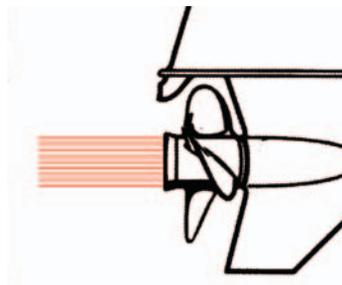
**Over/Thru-hub exhaust propellers** are a combination of thru-hub and over-hub exhaust propellers. This allows some exhaust to escape at lower RPM, providing a controlled amount of exhaust flooding. These types of propellers will allow the propeller to be slightly easier to turn during initial acceleration, allowing for a better hole shot on some engine/boat combinations.

**Non thru-hub exhaust** propellers are used for inboards using shaft driven propellers, sterndrives using through hull exhaust, and on some outboards that don't route the exhaust through the lower unit torpedo.

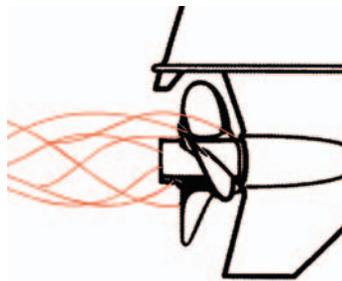
## Aluminum vs. Stainless Steel?

Most pleasure boats are factory equipped with aluminum propellers. Aluminum propellers are relatively inexpensive, easy to repair, and under normal conditions can last for many years.

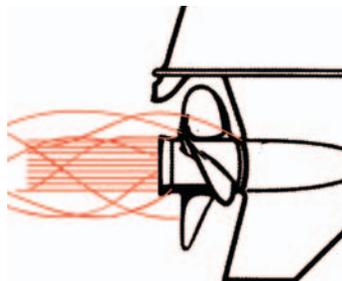
Stainless steel is more expensive, but much stronger and durable than aluminum. If you are looking for better performance than can be provided by your aluminum propeller, such as ultimate top speed or better acceleration, a stainless steel propeller may be required.



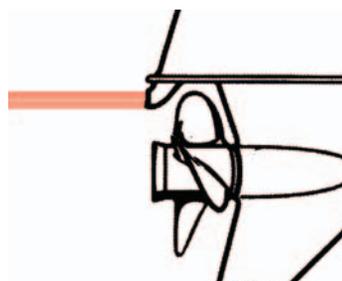
THRU-HUB EXHAUST  
PROPELLERS



OVER-HUB EXHAUST  
PROPELLERS



OVER/THRU-HUB EXHAUST  
PROPELLERS



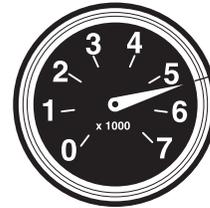
NON THRU-HUB EXHAUST  
PROPELLERS

# CHOOSING THE CORRECT PITCH PROPELLER

For safety and efficient performance, it is critical that your engine operates within the RPM range recommended by the manufacturer. Matching the right prop for the load is the most significant factor when choosing a new propeller.

## First, Determine Manufacturer's Recommended RPM

Find the manufacturer's recommended RPM range in the owner's manual or ask your dealer. A reference chart showing common engine applications is shown on Page A6 of this catalog.



Manufacturer's Recommended WOT RPM

## Test for Maximum RPM

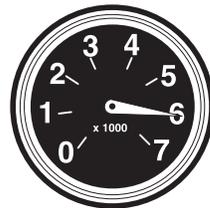
Using the existing propeller or a new propeller, make test runs to determine the maximum RPM and boat speed. Vary the trim angle for optimum performance.



Test Run WOT RPM

## RPM Higher Than Recommended

If the actual WOT RPM are *above* the recommended RPM range, install the next larger pitch propeller to *decrease* your WOT RPM. Re-test the WOT RPM.



Increase in Prop Pitch Equals...



Decrease in RPM

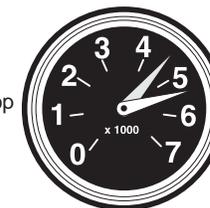
## RPM Lower Than Recommended

If the actual WOT RPM range is below the recommended range, install the next smaller pitch propeller to increase your WOT RPM. Re-test the WOT RPM.

When you combine all these factors, you have the information you need to select the correct propeller for maximum performance, safety, and fuel efficiency.



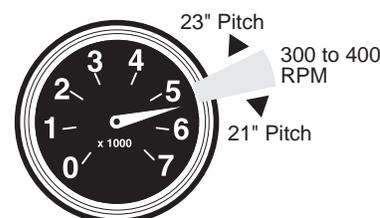
Decrease in Prop Pitch Equals...



Increase in RPM

## Effect of Prop Pitch on RPM

A pitch change can increase or decrease the RPM and bring RPM into the recommended range. A 2" *increase* in pitch (for example, from 21" to 23") typically results in a *decrease* of approximately 300-400 RPM.



# ENGINE RPM CHART

## EVINRUDE RPM CHART

HP/Model	WOT RPM	Gear Ratio
5 4-Stroke	5500-6500	2.23
6 4-Stroke	5500-6500	2.23
8 4-Stroke	5000-6000	2.42
9.9 4-Stroke	5000-6000	2.42
9.9 HT 4-Stroke	4000-5000	2.42
15 4-Stroke	5000-6000	2.42
25 4-Stroke	4700-5300	2.09
30 4-Stroke	5200-5800	2.09
40 4-Stroke	5200-5800	2.27
50 4-Stroke	5900-6500	2.27
65 Commercial	5500-6000	2.67
70 4-Stroke	5200-5800	2.42
75 Ficht	4750-5250	2
90 Commercial	4500-5500	2
90 Ficht	5250-5750	2
115 Ficht	5250-5750	2
135 Ficht	4750-5250	1.86
150 Ficht	4750-5250	1.86
175 Ficht	5250-5750	1.86
200 Ficht	5500-6000	1.86
225 Ficht	5500-6000	1.86
225 Ficht HO	5500-6000	1.86
250 Ficht	5500-6000	1.86
250 H.O.	4500-6000	1.71
250 V6	4500-5800	1.85

## EVINRUDE E-TEC RPM CHART

HP/Model	WOT RPM
40	5500-6000
50	5500-6000
60	5500-6000
75	4500-5500
90	4500-5500
115	5500-6000
130	5000-6000
150	4850-5850
150 H.O.	4850-5850
175	4850-5850
200	4750-5750
200 H.O.	4500-5800
200	4850-5850
225	4500-5800
225 H.O.	4500-5800

## HONDA RPM CHART

HP/Model	WOT RPM	Gear Ratio
2	4000-5000	2.4
5	4000-5000	2.1
8	4950-5500	2.4
9.9	4500-5500	2.1
15	5000-6200	2.1
20 4-Stroke	5000-6000	2.08
25	5000-6000	2.08
30	5500-6000	2.08
35 4-Stroke	5500-6000	
40	5000-6000	2.09
50	5500-6000	2.09
65 4-Stroke	5000-6000	
75	5000-6000	2.3
90	5000-6000	2
105 4-Stroke	5000-6000	
115	5000-6000	2
130	5000-6000	2
150 4-Stroke Inline	5000-6000	2.14
200	5000-6000	1.86
225	5000-6000	1.86

## JOHNSON RPM CHART

HP/Model	WOT RPM	Gear Ratio
2	4000-5000	1.85
3.3	4500-5500	1.85
3.5	4500-5500	1.85
4	4500-5500	2.08
4 4-Stroke	4000-5000	1.92
5	4600-5400	1.92
6	4500-5500	2.23
6 4-Stroke	5500-6500	2.23
8	5000-6000	2.23
8 4-Stroke	5000-6000	2.42
9.9	5000-6000	2.23
9.9 4-Stroke	4500-5500	1.92
15	5000-6000	2.23
15 4-Stroke	5400-6000	1.92
25	4500-5500	2.15
25	5200-5800	2.15
25 4-Stroke	5000-5600	2.09
30	5200-5800	2.15
30 4-Stroke	5500-6100	2.09
35	5200-5800	2.15
40	4500-5500	2.23
40 4-Stroke	5200-5800	2.27
50	4500-5500	2.23
50 4-Stroke	5900-6500	2.27
60	5000-6000	2.23
60 4-Stroke	4700-5300	2.42
70	5000-6000	2.23
70 4-Stroke	5200-5800	2.42
90	4500-5500	2
90 4-Stroke	4500-5500	2.59
90 OP	4500-5500	2
115	4500-5500	2
115 4-Stroke	5000-6000	2.59
115 OP	4500-5500	2
135	5000-6000	2.25
135 OP	5000-6000	2.25
140 4-Stroke	5600-6200	2.38
150	4500-5500	1.86
150 OP	4500-5500	1.86
175	4500-5500	1.86
175 OP	4500-5500	1.86
200	5000-6000	1.86
200 4-Stroke	5000-6000	2.29
200 OP	5000-6000	1.86
225	5000-6000	1.86
225 4-Stroke	5000-6000	2.29
225 OP	5000-6000	1.86
225 HO	5000-6000	1.86
250 OP	5000-6000	1.86

## MERCURISER RPM CHART

HP/Model	WOT RPM	Gear Ratio
3.0 L 135	4400-4800	2.00 A1
4.3 L 190	4400-4800	1.81 A1
4.3 LH 205	4400-4800	1.62 A1
4.3 L EFI 210	4400-4800	1.62 A1
4.3 L MPI 220 HP	4400-4800	1.62 A1
5.0 L 220	4400-4800	1.62 A1
5.0 L 220	4400-4800	1.65 B1
5.0 L EFI 240	4400-4800	1.47 A1
5.0 L EFI 240	4400-4800	1.65 B1
5.0 L MPI 260 HP	4600-5000	1.62 A1
5.0 L MPI 260 HP	4600-5000	1.50 B1
5.7 L 250	4400-4800	1.47 A1
5.7 L 250	4400-4800	1.65 B1
5.7L EFI 260	4400-4800	1.47 A1
5.7L EFI 260	4400-4800	1.65 B1
350 Mag MPI 300	4800-5200	1.47 A1
350 Mag MPI 300	4800-5200	1.50 B1
350 Mag MPI Horizon 300 HP	4800-5200	1.5 B1
350 Horizon 300	4600-5000	1.47 A1
350 Horizon 300	4600-5000	1.50 B1
MX 6.2 L MPI 320	4800-5200	1.65 B1
496 Mag 375	4400-4800	1.5 B1
496 Mag HO 425	4600-5000	1.5 B1

## MERCURY RPM CHART

HP/Model	WOT RPM	Gear Ratio
2.5	4000-5000	1.85
2.5 4-Stroke	5000-6000	2.15
3.3	4500-5500	2.15
3.5 4-Stroke	5000-6000	2.15
4	4500-5500	2.15
4 4-Stroke	4500-5500	2.15
5	4000-5000	2.15
5 4-Stroke	4500-5500	2.15
6	4000-5000	2
6 4-Stroke	5000-6000	2.15
8	4500-5500	2
8 4-Stroke	5000-6000	2.08
9.9	5000-6000	2
9.9 4-Stroke	4500-5500	2.01
9.9 Big Foot	4500-5500	2.42
9.9 Prokicker 4-Stroke	5000-6000	2.42
9.9 Saltwater	4500-5500	2.42
15	5000-6000	2
15 4-Stroke	4500-5500	2
15 Big Foot	4500-5500	2.42
20	4500-5500	2.25
20 4-Stroke	5400-6100	2.15
25 Classic	5000-6000	2.25
25 Big Foot	5500-6000	2.4
25 EFI 4-Stroke Jet Drive	5000-5500	
25 EFI 4-Stroke	5000-6000	1.92
30	4500-5500	2
30 4-Stroke	5500-6000	2
30 EFI 4-Stroke	5200-6200	1.92
40 Classic	4500-5500	2
40	5000-5500	1.83
40 4-Stroke	5500-6000	2
40 Big Foot	5500-6000	2.3
40 EFI 4-Stroke	5000-5500	
50 Classic	5000-5500	1.83
50 4-Stroke	5500-6000	1.83
50 Big Foot	5500-6000	2.3
50 EFI Big Foot 4-Stroke	5500-6000	2.33
60 Classic	5000-5500	1.64
60 Big Foot	5000-5500	2.3
60 4-Stroke	5500-6000	1.83
60 EFI Big Foot 4-Stroke	5500-6000	2.33
75 Classic	4750-5250	2.3
75 4-Stroke	5000-6000	2.3
75 EFI 4-Stroke	5000-6000	2.33
75 OptiMax	5000-5750	2.33
90 Classic	5000-5500	2.3
90 SW	5000-5500	2.3
90 4-Stroke	5000-6000	2.3
90 4-Stroke SW	5000-6000	2.3
90 OptiMax	5000-5750	2.33
90 EFI 4-Stroke	5000-6000	2.33
115	4750-5250	2.07
115 4-Stroke	5000-6000	2.07
115 4-Stroke SW	5000-6000	2.07
115 EFI 4-Stroke	5800-6400	2.07
115 OptiMax	5000-5700	2.07
125 Classic	4750-5250	2.07
125 SW	4750-5250	2.07
135 OptiMax	5000-5600	2
135 SW OptiMax	5000-5600	2
150 XR6	5000-5600	1.87
150 SW	5000-5600	1.87
150 EFI	5000-5600	1.87
150 SW EFI	5000-5600	1.87
150 OptiMax	5250-5750	1.87
175 EFI	5000-5600	1.87
175 OptiMax	5250-5750	1.87
175 OptiMax Pro XS	5500-6000	1.87
200 Classic	5000-5600	1.87
200 SW	5000-5600	1.87
200 EFI	5000-5800	1.87
200 EFI SW	5000-5600	1.87
200 OptiMax	5000-5750	1.75
225 EFI	5000-5800	1.75
225 EFI SW	5000-5500	1.75
225 OptiMax	5000-5750	1.75
225 OptiMax Pro XS	5500-6000	1.75
225 XL OptiMax SW	5000-5750	1.75
250 XL EFI SW	5000-5800	1.75
250 OptiMax	5500-6000	1.75
250 OptiMax Pro XS	5500-6000	1.75
300 Verado	5800-6400	1.75

# ENGINE RPM CHART

MERCURY VERADO RPM CHART		
HP/Model	WOT RPM	Gear Ratio
135	5200-6400	2.08
150	5800-6400	2.08
175	5800-6400	2.08
200	5800-6400	2.08
225	5800-6400	1.85
250	5800-6400	1.85
275	5800-6400	1.85

NISSAN/TOHATSU RPM CHART		
HP/Model	WOT RPM	Gear Ratio
2.5	3800-5200	1.85
2.5 4-Stroke	4500-5500	2.15
3.5	5000-6000	2.15
4 4-Stroke	4500-5500	2.15
5	4500-5500	2.15
5 4-Stroke	4500-5500	2.15
6 4-Stroke	5000-6000	2.15
8	4500-5500	2.08
8 4-Stroke	5000-6000	2.08
9.8	5000-5800	2.08
9.8 4-Stroke	5000-6000	2.08
9.9 4-Stroke	4500-5500	2.08
15 4-Stroke	5000-6000	1.85
15 4-Stroke	5000-6000	2.15
18	4750-5500	1.85
20 4-Stroke	5400-6100	2.15
25	4800-5500	1.92
25 4-Stroke	5000-6000	1.92
30	4800-5500	1.92
30 4-Stroke	5250-6250	1.92
40	4500-5500	1.85
40 TLDI	5150-5850	1.85
50	5000-5700	1.85
50 Orbital	5000-5700	1.85
50 TLDI	5150-5850	1.85
70	4900-5600	2.3
70 TLDI	5150-5850	2.3
90	5000-5500	2.3
90 TLDI	5150-5850	2
115	5200-5700	2
115 TLDI	5150-5850	2
120	5200-5700	2
140	5200-5700	2

SUZUKI RPM CHART		
HP/Model	WOT RPM	Gear Ratio
5	4500-5400	1.91
6	4500-5500	1.91
DF9.9	4500-5500	1.91
DF15	5400-6000	1.91
DT25	4500-5500	1.91
DF25	4700-5300	2.09
DF30	5500-6100	2.09
DF40	5200-5800	2.09
DF50	5500-6500	2.09
DF60	4700-5300	2.42
DF70	5200-5800	2.42
DT85	5000-5600	2.08
DF90	4500-5500	2.59
DT100	5250-5750	2.08
115 EFI	5500-6000	2.08
DF115	5000-6000	2.59
140 EFI	5250-5750	2.08
DF 140	5600-6200	2.59
150 EFI	5200-6000	1.86
DF 150	5000-6000	2.5
DF 175	5500-6100	2.5
DF 200	5000-6000	2.29
225 EFI	5000-5600	1.86
DF 225	5000-6000	2.29
DF 250	5500-6100	2.29
DF250 SS	5300-6300	2.08
DF300	5700-6300	2.08

YAMAHA RPM CHART		
HP/Model	WOT RPM	Gear Ratio
2	4000-5000	2.08
3	4500-5500	2.08
4 4-Stroke	4000-5000	2.08
5	4500-5500	2.08
6 4-Stroke	4500-5500	2.08
8	4500-5500	2.08
8 4-Stroke	5000-6000	2.08
8 4-Stroke HT	5000-6000	2.92
9.9	4500-5500	2.08
9.9 4-Stroke	4500-5500	2.92
9.9 4-Stroke HT	4000-5000	2.92
15	4500-5500	2.08
15 4-Stroke	4500-5500	2.08
25	4500-5500	2.08
25	4500-5500	1.85
25 4-Stroke	5500-6000	2.08
25 4-Stroke HT	5000-6000	2.41
30	4500-5500	1.85
30 4-Stroke	5000-6000	2
40	4500-5500	1.85
C40	4500-5500	1.85
F40 4-Stroke	5000-6000	2
50	4500-5500	1.85
C50	4500-5500	1.85
F50 4-Stroke	5000-6000	1.85
T50 HT	5000-6000	2.33
60	4500-5500	2.33
C60	4500-5500	2.33
70	5000-6000	2.33
C70	5000-6000	2.33
F80 4-Stroke	5000-6000	2.31
90	4500-5500	2
F90	4500-5500	2
F100 4-Stroke	5000-6000	2.31
115	4500-5500	2
F115 4-Stroke	5000-6000	2.15
130	5000-6000	2
150 SW EFI	4500-5500	1.86
150 HPDI	4500-5500	1.86
F150 4-Stroke	5000-6000	2
V Max 150 HPDI	4500-5500	2
V Max 150 TRP	4500-5500	2
V Max 150	4500-5500	2
V Max 150 EFI	4500-5500	2
175 HPDI	4500-5500	1.86
V Max 175	4500-5500	1.86
V Max 175 HPDI	4500-6000	1.86
200 SW EFI	4500-5500	1.86
200 HPDI	4500-5500	1.86
F200 4-Stroke V6	5000-6000	2
V Max 200 HPDI	4500-5500	1.86
V Max 200 3.1 EFI	4500-5500	1.81
V Max 200 3.3 HPDI Series 2	5000-6000	1.81
225 SW EFI	4500-5500	1.81
F225 4-Stroke V6	5000-6000	2
V Max 225 3.1 EFI	4500-5500	1.81
V Max 225 3.3 HPDI Series 2	5000-6000	1.75
V Max 250 3.1	4500-5500	1.81
V Max 250 3.3 HPDI Series 2	5000-6000	1.75
250 SW EFI	4500-5500	1.81
F250 4-Stroke V6	5000-6000	2
F300 4-Stroke V8 5.3L	5000-6000	1.73
V Max 300 3.3 HPDI Series 2	4500-6000	1.75
F350 4-Stroke V8 5.3L	5000-6000	1.73

Volvo RPM Chart		
HP/Model	WOT RPM	Gear Ratio
3.0 GL	4200-4600	1.85
3.0 GS	4200-4600	1.97
3.0 GS	4200-4600	2.18
3.0 GS	4400-4800	1.85
4.3 GL	4400-4800	1.66
4.3 GL	4200-4600	1.79
4.3 GL	4200-4600	1.85
4.3 GL	4200-4600	1.89
4.3 Gi	4400-4800	1.85
4.3 Gi	4400-4800	1.79
4.3 Gi	4400-4800	1.66
4.3 GS	4400-4800	1.66
4.3 GS	4400-4800	1.79
4.3 GS	4400-4800	1.85
5.0 FL	4200-4600	1.6
5.0 Fi	4200-4800	1.6
5.0 Fi	4200-4800	1.66
5.0 GL	4400-4800	1.51
5.0 GL	4400-4800	1.6
5.0 Gi	4600-5000	1.51
5.0 Gi	4600-5000	1.6
5.7 Gi	4200-4600	1.51
5.7 GL	4200-4600	1.6
5.7 GS	4400-4800	1.43
5.7 GS	4200-4600	1.51
5.7 GS	4400-4800	1.51
5.7 Gsi	4600-5100	1.51
5.7 Gsi	4600-5000	1.43
5.8 FL	4000-4400	1.51
5.8 Fi	4200-4600	1.51
5.8 Fsi	4600-5000	1.51
7.4 GL	4200-4600	1.43
7.4 Gi	4200-4600	1.43

# 2009 MICHIGAN PROPELLERS

INFLATABLE	ALUMINUM	BASS BOAT	BAY BOAT	FLAT
✓	✓			
✓	✓			
✓	✓			
		✓	✓	

## MICHIGAN MATCH®

We pass the savings on to you in the form of a high quality, better-performing propeller that typically costs less than the motor manufacturer prop you're replacing. Every Michigan Match prop features a NAVAL brass spindle with rubber cushioned hub which absorbs impact and the stress caused by shifting gears. The rubber bushing is designed to spin free under significant impact, reducing the potential for lower unit damage. Great primary prop, yet priced as a weekend-saver spare!

- Improved powder coating and beefier bushing
- Perfect replacement propeller
- Available in aluminum and stainless steel



## VORTEX™ 3-BLADE

High performance aluminum propeller utilizing the XHS exchangeable hub system. Features such as high performance blade geometry, precision balanced blades and high gloss powder coat and interchangeability with the Mercury Flo-Torq II™ system, make the Vortex XHS™ a great choice for a replacement or spare propeller for boaters.

- V6/V8 applications (15" - 21" pitch)
- V4 applications (15" - 21" pitch)
- 20-70 HP applications (9" - 17" pitch)
- All in RH rotations



## VORTEX™ 4-BLADE

For quicker planing, improved handling and acceleration. These Vortex 4-blade aluminum propellers are a great alternative to a comparable 3-blade propeller, offering enhancing performance when towing water skiers, tubers, knee and wakeboarders.

- High performance blade geometry
- Precision performance
- V6/V8 applications (16", 18", 20" pitch)
- 20-70 HP applications (8" - 10" pitch)
- All in RH rotations

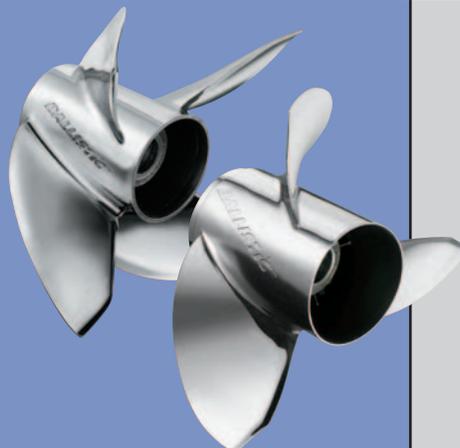


## BALLISTIC™/3- & 4-blade

\* Gold Metal Winner \*  
Bass & Walleye Boats Magazine  
February 2004

High performance stainless steel prop with proven Power Tip for peak efficiency. Blade tip and cup combine to improve bite and reduce power losses caused by cavitation. Highly cambered blade sections provide for higher speed and better bow lift.

- Tapered leading edges minimizes drag
- Performance characteristics of racing style props
- Maintains optimum blade strength and thickness.



SPORTS BOAT	WALLEYE BOAT	OFFSHORE SINGLE	OFFSHORE DUAL	SPORT BOAT SINGLE	SPORT BOAT DUAL	PONTOON	SKI BOAT	FAMILY CRUISER	HOUSEBOAT	WORKBOAT
	✓	✓				✓	✓	✓	✓	✓
	✓	✓				✓	✓	✓		
	✓	✓				✓	✓	✓		
✓				✓	✓		✓			

# 2009 MICHIGAN PROPELLERS

	INFLATABLE	ALUMINUM	BASS BOAT	BAY BOAT	FLAT
<p><b>APOLLO XHS™ / 3-blade</b>            NEW! Highly polished, ultimate performance, stainless steel propeller. Designed to use Michigan Wheel's XHS hub system or Mercury's Flo-Torq II™ hub system.</p> <p>Standard 3-blade propeller can be utilized on typical outboard and sterndrive applications.</p> <ul style="list-style-type: none"> <li>• 30-70 HP - 12" to 15" pitch, RH rotations</li> <li>• V4 OB - 15" to 21" pitch, RH &amp; LH rotations</li> <li>• V6/V8 OBSD - 15" to 23" pitch, RH &amp; LH rotations</li> </ul>	✓	✓	✓		
<p><b>APOLLO XHS™ / Lg. Diameter</b>            3-blade large diameter is great for heavier applications that require increased blade area.</p> <ul style="list-style-type: none"> <li>• High performance blade geometry</li> <li>• V6/V8 applications (17" - 23" pitch) RH &amp; LH rotations</li> </ul>				✓	
<p><b>APOLLO XHS™ / 4-blade</b>            4-blade improves hole shot on heavier loads and great for pulling/towing in water sports.</p> <ul style="list-style-type: none"> <li>• High performance blade geometry</li> <li>• V6/V8 applications (16" - 22" pitch) RH &amp; LH rotations</li> </ul>		✓		✓	



SPORTS BOAT	WALLEYE BOAT	OFFSHORE SINGLE	OFFSHORE DUAL	SPORT BOAT SINGLE	SPORT BOAT DUAL	PONTOON	SKI BOAT	FAMILY CRUISER	HOUSEBOAT	WORKBOAT
✓				✓	✓					
		✓	✓	✓	✓	✓		✓	✓	✓
	✓	✓	✓	✓	✓		✓			

# New and improved !

**AMBUSH-2008**

From the leader in propeller manufacturing technology comes the latest generation of Ambush towboat propellers. These propellers are 100% CNC machined for the ultimate in accuracy and consistency. Michigan Wheel Corporation developed the CNC machining process for propellers in the mid - 1980's and revolutionized the way propellers were manufactured. Originally, the CNC machining technology was used to manufacture custom propellers for large mega-yachts where accuracy is critical and design geometry is complex. Now, that same technology is being used to provide the best towboat propeller on the market.



Ambush<sup>4</sup>

Part Number	Dia. x Pitch	Rotation	Bore
635101	13 x 13	LH	1"
635103	13 x 13	LH	1-1/8"
635300	13 x 16	RH	1"
635302	13 x 16	RH	1-1/8"
635400	14 x 18	RH	1"
635401	14 x 18	LH	1"
635402	14 x 18	RH	1-1/8"
635403	14 x 18	LH	1-1/8"
635404	14 x 18	RH	1-1/4"
635405	14 x 18	LH	1-1/4"

## Dyna-Jet Cupped

Michigan Wheel Corporation's Federal Series ski boat propellers provide consistent response to your throttle commands. The 3-blade Dyna-Jet Cupped Propellers are made of a NiBrAl alloy which provides extra strength, less flex, and greater durability. All are cupped to minimize the performance draining effects of cavitation.

Part Number	Dia. x Pitch	Rotation	Bore
310649	13 x 12	LH	1"
310625	13 x 12-1/2	LH	1-1/8"
310660	13 x 13	RH	1"
310661	13 x 13	LH	1"
310659	13 x 13	LH	1-1/8"
310705	13 x 13-1/2	LH	1-1/8"
310724	13 x 14	RH	1"
310725	13 x 14	LH	1"
310727	13 x 14	LH	1-1/8"
310763	13 x 15	LH	1"
310765	13 x 15	LH	1-1/8"
310801	13 x 15-1/2	LH	1-1/8"
310836	13 x 17	RH	1"
311244	14 x 15	RH	1"
311284	14 x 16	RH	1"
311360	14 x 18	RH	1-1/8"
311361	14 x 18	LH	1-1/8"

# HOW TO USE THE APPLICATION GUIDE

- If original equipment part number (OEM) is known and a size or style change is not desired, then refer to Part Number Cross Reference on Pages B3 - B35 to locate the equivalent Michigan propeller.
- If an original part number is not known, the part number can not be found in the Part Number reference, or a propeller size or style change is desired, use the following procedure for selecting a propeller.

- 1 Locate the brand of outboard or sterndrive using the table of contents.
- 2 Locate the **Horsepower/Model** and **Year** that corresponds with the engine brand.
- 3 Find the range of your **Boat Length**, and the boat use that best describes your vessel and usage.
- 4 Select the propeller **Diameter/Pitch** that best meets your vessel and usage. Refer to pages A2 - A6 for information on choosing the right propeller.
- 5 Order the propeller using the **Michigan Part Number**. (If aluminum is desired, read across to the correct column for the part number. If stainless is desired, read across to the correct column for the part number.)
- 6 If **Vortex<sup>XHS</sup>**, **Rapture<sup>XHS</sup>**, or **Apollo<sup>XHS</sup>** propellers are selected, the **XHS<sup>TM</sup> Hub Kit** indicated must be ordered.

*Unless otherwise noted: The XHS<sup>TM</sup> hub kit is sold separately from the propeller. See page 104 for XHS<sup>TM</sup> hub kit and miscellaneous hardware information. Vortex<sup>XHS</sup> and Rapture<sup>XHS</sup> propellers fit existing Mercury Flo-Torq II<sup>TM</sup> hubs. Check existing hub for wear or damaged and replace if necessary with Michigan Wheel XHS<sup>TM</sup> hub.*

**Note:** This is a "general" application guideline for determining the appropriate propeller size for you vessel. Performance characteristics may vary due to the many kinds of boats, hull styles, loads and style of boating.

## 1 MERCURY<sup>TM</sup>, MARINER<sup>1</sup>, SEA RAY OUTBOARDS

### 40-140 HORSEPOWER • 4-1/4" GEARCASE Thru Hub Exhaust & 15 Tooth Spline

40, 50 HP (Bigfoot, 4-Stroke) .....All Years	90 HP (2 & 4-Stroke) .....1978 & Newer	▼ 650 2 Cyl. ....Thru 1971
60 HP (Bigfoot / 4-Stroke) .....1995 & Newer	100 HP .....1988 & Newer	▼ 800-850 6 Cyl. ....Thru 1972
60 HP (Sea Pro/Marathon) .....1995 & Newer	115 HP .....1978 & Newer	▼ 800-850 4 Cyl. ....1972-77
70 HP .....1987-89	115 HP 4-Stroke .....2001 & Newer	▼ 900-1500 Models .....Thru 1977
75 HP (2 & 4-Stroke) .....1984 & Newer	125 HP .....1994 & Newer	▼ 80 HP (Yamaha) .....1977
75 HP (Sea Pro/Marathon) .....All Years	140 HP (Includes Sea Pro & Offshore) 1978 - 81	▼ 80 HP (Mariner) .....1978-83
80 HP .....1978-89	▼ 650 4 Cyl. (2:1) .....1961-70	

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS				APOLLO <sup>XHS</sup> ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS			
	3-BLADE WIDE				STD 3-BLADE			
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
	14	R	13	992112				
16-18' - Runabouts, SK	13-3/4	R	15	992113	13-3/8	R	17	99314
16-18' - Runabouts, SK					13-3/8	R	15	993153
15-17' - Runabouts, SK	13-1/4	R	17	992114	13-1/2	R	17	993144
15-17' - Runabouts, SK					13-1/2	R	17	993154
14-16' - Runabouts, SK	13	R	19	992115	13-1/8	R	19	993145
14-16' - Runabouts, SK					13-1/8	L	19	993155
13-15' - Runabouts, SK	12-3/4	R	21	992116	13	R	21	993146
13-15' - Runabouts, SK					13	L	21	993156

**Drop-In Hub**

Use XHS<sup>TM</sup> Hub Kit **102**

**6**

Use Gearcase Adapter Ring supplied with propeller.

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	MATCH REPLACEMENT PROPELLERS							BALLISTIC <sup>TM</sup> HIGH PERFORMANCE STAINLESS STEEL PROPELLERS									
	ALUMINUM PROPS							BALLISTIC		BALLISTIC XL							
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
25' & Up - AL	14	R	11	3	AL	48-77338A40	031054										
22' & Up - AL	14	R	13	3	AL	48-7734A40	031055										
19-24' - SK	13-3/4	R	15	3	AL	48-77342A40	031041	13-5/8	R	15	3	335130					
17-20' - AL, SK	13-1/4	R	17	3	AL	48-77344A40	031042	13-1/2	R	17	3	335131					
16-19' - AL, SK	13	R	19	3	AL	48-77346A40	031043	13-3/8	R	19	3	335132					
15-18' - AL, SK	12-3/4	R	21	3	AL	48-77348A40	031044	13-1/8	R	21	3	335133					
Lt. Runabouts	12-1/2	R	23	3	AL	48-77350A40	031045						13-12	R	22	3	335134
High Performance													13-1/2	R	24	3	335135

**Rubber Hub Bushing**

Use OEM fwd washer 13191 tab washer 14-816629 or MWC Kit 990332 or 9660-1

See Page 22 for details.

※ To avoid damage or injury, replace standard trim tab with trim tab 822777A1.  
 ▼ When using rubber hub propeller, use thrust washer 13191A1.    ▶ LIMITED INVENTORY ITEMS.

**5.5-6 HORSEPOWER**

Non-Thru Hub Exhaust & Pin Drive

5.5-6 HP .....1954-65

● Hub is not included with propeller.

BOAT DESCRIPTION/LENGTH								No Hub See ●
	<b>ALUMINUM &amp; STAINLESS STEEL PROPS</b>							
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	
12-14' - LL	8	R	7-1/4	2	AL	376968	● 012060	

**4-8 HORSEPOWER**

Non-Thru Exhaust & Pin Drive

4 HP .....1980-83

4.5 HP Deluxe .....1986-95

6, 7.5, 8 HP .....1980 & Newer

BOAT DESCRIPTION/LENGTH								 012032	Rubber Hub Bushing
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
Standard Replacement	8-1/2	R	9	3	AL	390237	012032		

**6-15 HORSEPOWER**

Non-Thru Hub Exhaust & Pin Drive

6 HP .....1966-79

10 HP .....1958-63

8-15 HP .....2000 & Newer

9.5 HP .....1964-73

10, 12, 14 HP \*\*\* .....1982-94

BOAT DESCRIPTION/LENGTH								 012008	Rubber Hub Bushing
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
14-16' - AL	8-1/4	R	8	3	AL	387334	012008		
12-14' - LL	8	R	7-1/4	2	AL	376968	012005		
12-14' - LL	8-1/4	R	8-1/2	3	AL	377635	012007		

**8, 9.9-15 HORSEPOWER**

Thru Hub Exhaust & 13 Tooth Spline

9.9-15 HP (Non 4-Stroke) .....1974 - 2005

8, 9.9, 15 HP (4-Stroke) .....1995 - 2001

BOAT DESCRIPTION/LENGTH								 012111	Rubber Hub Bushing
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
14-16' - AL	10	R	7	3	AL	398126	012112		
Standard Replacement	9-1/2	R	10	3	AL	174950	012111		

**9.9-15 HORSEPOWER (4-Stroke)**

Thru Hub Exhaust & 10 Tooth Spline

9.9-15 HP (4-Stroke) .....2002 & Newer

BOAT DESCRIPTION/LENGTH								 062016	Rubber Hub Bushing
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
14-18' - AL	9-1/4	R	9	3	AL	5005384	062016		

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

● Hub is not included with propeller.

▶ LIMITED INVENTORY ITEMS.

\*\*\* Engines offered in European Market only.

**10-25 HORSEPOWER**

Non-Thru Hub Exhaust & Pin Drive

10 HP .....1951-57                      18 HP .....1957-73                      25 HP .....1969-77  
 15 HP .....1953-56                      20 HP .....1969-73

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS							ALUMINUM PROPS	 <p>012011</p>	Rubber Hub Bushing
	ALUMINUM PROPS									
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.			
CR, HB, SB	9-1/4	R	7	3	AL	388294	012102			
14-16' - HL	9	R	9	3	AL	379717	012109			
12-14' - LL	9	R	10	3	AL	383629	012011			
12-14' - LL	9-1/4	R	11	3	AL	388088	012013			

**14-28 HORSEPOWER**

Non-Thru Hub Exhaust & 13 Tooth Spline

14 HP .....1989                      25 HP § .....1978-91                      28 HP .....1986-96  
 25 HP .....1978-84

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS							ALUMINUM PROPS	 <p>012015</p>	Rubber Hub Bushing
	ALUMINUM PROPS									
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.			
16-18' - HL	9	R	9	3	AL	389068	012021			
15-17' - AL	9	R	10	3	AL	389069	012015			
14-17' - AL	9-1/4	R	11	3	AL	388883	012016			
14-17' - LL	9-1/4	R	12	3	AL	389944	012030			

**25-30 HORSEPOWER (4-STROKE) • 3-1/2" GEARCASE**

Thru Hub Exhaust & 10 Tooth Spline

25 HP (4-Stroke) .....2004 & Newer                      30 HP (4-Stroke) .....2004 & Newer

BOAT DESCRIPTION/LENGTH	VORTEX <sup>®</sup> XHS™ HIGH PERFORMANCE ALUMINUM PROPELLERS				 <p>992504</p> <p>Vortex XHS™ Aluminum Propeller</p>	Drop-In Hub Use XHS™ Hub Kit <b>121</b> Refer to pages 39-40 for more details.
	3-BLADE					
	Dia.	Rot.	Pitch	Part No.		
	10-1/2	R	9	992501		
	10-1/2	R	10	992502		
16-18' - AL	10-1/2	R	11	992503		
14-16' - AL	10-1/8	R	12	992504		
14-16' - AL	10-1/8	R	13	992505		
	10-1/8	R	14	992506		

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS							BALLISTIC™ STAINLESS STEEL PROPS					 <p>Ballistic High Performance Stainless Steel Propeller</p>	Rubber Hub Bushing
	ALUMINUM PROPS							BALLISTIC						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.		
14-16' - AL								10-1/8	R	13	3	305529		
								10-1/8	R	15	3	305530		

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

§ Commercial & Workhorse Applications.

**20-35 HORSEPOWER • 3-1/4" GEARCASE**

Thru Hub Exhaust & 14 Tooth Spline

20 HP 2 Cyl. ....1984-97      25 HP 2 & 3 Cyl. ....1984 & Newer      35 HP 2 & 3 Cyl. ....1976 & Newer  
 25 HP (Commercial) ....1993 & Newer      30 HP 2 Cyl. ....1984 & Newer      Vortex prop may interfere with skeg on any models.

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS™</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS			
	3-BLADE			
	Dia.	Rot.	Pitch	Part No.
17-20' - AL, SK	10-1/2	R	9	<b>992501</b>
17-20' - AL, SK	10-1/2	R	10	<b>992502</b>
16-18' - AL, SK	10-1/2	R	11	<b>992503</b>
16-18' - AL, SK	10-1/8	R	12	<b>992504</b>
15-17' - AL, SL	10-1/8	R	13	<b>992505</b>
13-15' - AL, SK	10-1/8	R	14	<b>992506</b>



**Drop-In Hub**  
Use XHS™ Hub Kit **118**  
Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS						
	ALUMINUM PROPS						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
CR, HB	11-1/4	R	7	3	AL		▶ <b>011032</b>
17-20' - AL, SK	11	R	9	3	AL	386317	<b>012054</b>
17-20' - AL, SK	11	R	9	3	AL		▶ <b>011033</b>
16-18' - AL, SK	10-1/2	R	11	3	AL	175190	<b>012055</b>
15-17' - AL, SK	10	R	13	3	AL	175191	<b>012056</b>
13-15' - AL, SK	10	R	15	3	AL	390380	<b>012057</b>

BOAT DESCRIPTION/LENGTH	BALLISTIC <sup>™</sup> STAINLESS STEEL PROPS				
	BALLISTIC				
	Dia.	Rot.	Pitch	Bld#	Part No.
15-17' - AL, SK	10-1/8	R	13	3	<b>305029</b>
13-15' - AL, SK	10-1/8	R	15	3	<b>305030</b>



**Rubber Hub Bushing**

**25-40 HORSEPOWER**

Non-Thru Hub Exhaust & Pin Drive

25 HP ....1951-55      33 HP ....1965-70      40 HP ....1960-76  
 28 HP ....1962-64      35 HP ....1957-59      40 HP § ....1978-85  
 30 HP ....1956

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS						
	ALUMINUM PROPS						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
17-19' - AL, SK	10-3/8	R	11-1/2	3	AL	385955	<b>012023</b>
14-16' - AL, SK	10-1/2	R	12	3	AL	380637	<b>012024</b>
14-16' - LL	10-3/8	R	13-1/4	3	AL	378579	▶ <b>012025</b>



**Rubber Hub Bushing**

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

★ Indicates a cupped propeller.

▶ LIMITED INVENTORY ITEMS.

§ Commercial & Workhorse Applications.



**40-50 HORSEPOWER (4-STROKE) • 3-1/4" GEARCASE**

Thru Hub Exhaust & 13 Tooth Spline

40 HP (4-Stroke) .....1999 & Newer      50 HP (4-Stroke) .....1999 & Newer

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS™</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS				APOLLO <sup>XHS™</sup> ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS			
	3-BLADE		4-BLADE		STD 3-BLADE			
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
				11-1/2	R	8	<b>992401</b>	
				11-1/2	R	9	<b>992402</b>	
18-21' - AL				11-1/2	R	10	<b>992403</b>	
17-19' - AL	10-3/8	R	11	<b>992404</b>				
16-18' - AL	10-3/8	R	12	<b>992405</b>			10-3/4	R 12 <b>993405</b>
14-16' - LL	10-3/8	R	13	<b>992406</b>			10-1/2	R 13 <b>993406</b>
12-14' - LL	10-3/8	R	14	<b>992407</b>			10-3/8	R 14 <b>993407</b>
12-14' - LL	10	R	15	<b>992408</b>			10-1/8	R 15 <b>993408</b>
12-14' - LL	10	R	16	<b>992409</b>				



Apollo XHS Stainless Steel

**Drop-In Hub**  
Use XHS™ Hub Kit **115**

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS ALUMINUM PROPS						BALLISTIC™ STAINLESS STEEL PROPS				
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Part No.
	18-21' - AL	11-3/4	R	10	3	AL	778606	<b>032045</b>			
18-21' - AL	12-1/4	R	10	3	AL		▶ <b>031072</b>				
17-19' - AL	12	R	11	3	AL	778607	<b>032044</b>				
15-17' - LL	11-3/8	R	12	3	AL	778608	<b>032043</b>				
14-16' - LL	11-1/8	R	13	3	AL	778609	<b>032042</b>	10-1/8	R	13	3 <b>395929</b>
12-14' - LL	11-1/4	R	14	3	AL	778610	<b>032041</b>				
12-14' - LL	11	R	15	3	AL		<b>032040</b>	10-1/8	R	15	3 <b>395930</b>



032042

**Rubber Hub Bushing**

**40-75 HORSEPOWER • SMALL (3-3/8") GEARCASE**

Thru Hub Exhaust & 13 Tooth Spline

40 HP 2 Cyl. ....1984 & Newer      60 HP 2 Cyl. ....1980-85      Sprint .....1986-92  
 48 HP .....1987-96      75 HP 3 Cyl. ....1975-85      Formula E .....1986-92  
 50 HP 2 Cyl. ....1975 & Newer

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS™</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS							
	3-BLADE		4-BLADE					
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
				11-1/2	R	8	<b>992401</b>	
				11-1/2	R	9	<b>992402</b>	
				11-1/2	R	10	<b>992403</b>	
15-18' - AL, SK	11-3/4	R	13	<b>992301</b>				
14-17' - AL, SK	11-3/4	R	15	<b>992302</b>				
13-15' - AL, SK	11-3/4	R	17	<b>992303</b>				



Vortex XHS™ Aluminum Propeller



992402

Vortex XHS™ Aluminum Propeller

**Drop-In Hub**  
Use XHS™ Hub Kit **111**

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS ALUMINUM PROPS						BALLISTIC™ STAINLESS STEEL PROPS					
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
	CR, HB	13	R	11	3	AL	386907	<b>012036</b>				
CR, HB	13	R	11	3	AL		★ <b>011034</b>					
15-18' - AL, SK	12-1/2	R	13	3	AL	386909	<b>012037</b>					
15-18' - AL, SK	12-1/2	R	13	3	AL		★ <b>011035</b>					
14-17' - AL, SK	12-1/4	R	15	3	AL	176421	★ <b>011027</b>	12-3/8	R	15	3	<b>325030</b>
13-15' - LL	11-3/4	R	17	3	AL	386841	▶ <b>012039</b>	12	R	17	3	<b>325031</b>
13-15' - LL	11-3/4	R	17	3	AL	176422	★ <b>011028</b>					



Ballistic High Performance Stainless Steel Propeller

**Rubber Hub Bushing**

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

★ Indicates a cupped propeller.      ▶ LIMITED INVENTORY ITEMS.

## 45-75 HORSEPOWER • LARGE ( 4-1/4" ) GEARCASE

Thru Hub Exhaust & 13 Tooth Spline

40 HP (E-TEC) .....2004 & Newer  
 45 HP 2 Cyl. Commercial .....1986 & Newer  
 50 HP (E-TEC) .....2004 & Newer  
 50 HP 2 Cyl. Commercial .....1977-79  
 55 HP 2 Cyl. Commercial .....1980 & Newer  
 65 HP 3 Cyl. Commercial .....1984 & Newer

50 HP 2 Cyl. Pleasure .....1971-74  
 50 HP 3 Cyl. Pleasure .....1994 & Newer  
 55 HP 3 Cyl. Pleasure .....1968-69  
 60 HP 3 Cyl. Pleasure .....1970-71,1986 & Newer  
 60 HP (E-TEC) .....2004 & Newer  
 65 HP 3 Cyl. Pleasure .....1972-73

70 HP 3 Cyl. Pleasure .....1974 & Newer  
 75 HP 3 Cyl. Pleasure .....1975-84  
 75 HP (E-TEC) .....2004 & Newer  
 60 HP (4-Stroke) .....1998 & Newer  
 70 HP (4-Stroke) .....1998 & Newer

BOAT DESCRIPTION/LENGTH	 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS			
	3-BLADE WIDE				STD 3-BLADE			
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
	14	R	13	992112				
16-18' - Runabouts, SK	13-3/4	R	15	992113	13-3/8	R	15	993143
16-18' - Runabouts, SK					13-3/8	L	15	993153
15-17' - Runabouts, SK	13-1/4	R	17	992114	13-1/4	R	17	993144
15-17' - Runabouts, SK					13-1/4	L	17	993154
14-16' - Runabouts, SK	13	R	19	992115	13-1/8	R	19	993145
14-16' - Runabouts, SK					13-1/8	L	19	993155
13-15' - Runabouts, SK	12-3/4	R	21	992116	13	R	21	993146
13-15' - Runabouts, SK					13	L	21	993156



Vortex XHS Aluminum Propeller



Apollo XHS Stainless Steel

Drop-In Hub

Use XHS™ Hub Kit 106 & 110

**Note:** For 60 HP & 70 HP 4-Stroke engine applications, 1998 & Newer, use XHS (Drop-In Hub) Kit # 110. For all other engine applications, use XHS™ (Drop-In Hub) Kit # 106 (do not use Gearcase Adapter Ring supplied with propeller).

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS							 BALLISTIC				
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
	CR, HB	14	R	11	3	AL	382761	012047				
CR, HB	14	R	11	3	AL	391668	★ 011038					
CR, HB	14	R	13	3	AL	391668	* 011001					
17-19' - AL, SK	13-3/4	R	15	3	AL	391198	* 011002	13-5/8	R	15	3	335030
15-18' - AL, SK	13-1/4	R	17	3	AL	391199	* 011003	13-1/2	R	17	3	335031
15-18' - AL, SK	14	R	17	3	AL	176214	* 011024					
14-16' - AL, SK	13	R	19	3	AL	390896	* 011004	13-3/8	R	19	3	335032
14-16' - AL, SK	14	R	19	3	AL	176215	* 011025					
13-15' - AL, SK	12-3/4	R	21	3	AL	389788	* 011005	13-1/8	R	21	3	335033



Ballistic High Performance Stainless Steel Propeller

Rubber Hub Bushing

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

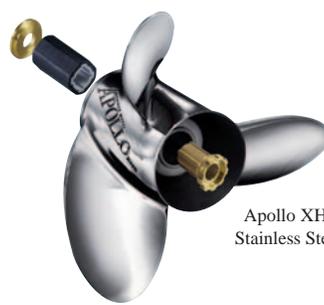
- ★ Indicates a cupped propeller.
- ▶ LIMITED INVENTORY ITEMS.
- \* If currently using uncupped propeller, use cupped propeller having 2" less pitch. Boats with power trim use same pitch.



## 85-140 HORSEPOWER • V-4 (4-1/4") GEARCASE

Thru Hub Exhaust & 13 Tooth Spline

85 HP .....1969-80, 1991-95	110 HP .....1986-89	125 HP .....1971-72
88 HP .....1981-1996	112 HP .....1994-96	130 HP (E-TEC) .....2004 & Newer
90 HP .....1981 & Newer	115 HP .....1973 & Newer	135 HP .....1973-76
90 HP (E-TEC) Std. Length .....2004 & Newer	115 HP (E-TEC) .....2004 & Newer	140 HP .....1977-94
100 HP .....1979-80, 1988-93	120 HP .....1986-94	

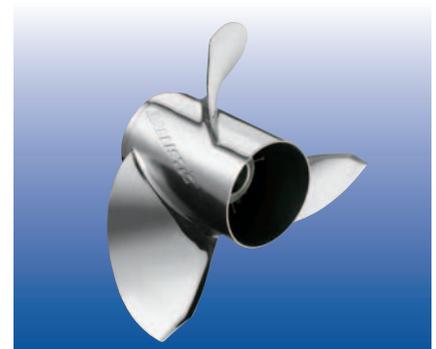
BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS				 Vortex XHS Aluminum Propeller	APOLLO <sup>XHS</sup> ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS				 Apollo XHS Stainless Steel	Drop-In Hub  Use XHS <sup>TM</sup> Hub Kit 106  Do NOT use Gearcase Adapter Ring supplied with propeller.  Refer to pages 39-40 for more details.
	3-BLADE WIDE					STD 3-BLADE					
	Dia.	Rot.	Pitch	Part No.		Dia.	Rot.	Pitch	Part No.		
	14	R	13	992112							
19-22' - Runabouts, SK	13-3/4	R	15	992113		13-3/8	R	15	993143		
19-22' - Runabouts, SK						13-3/8	L	15	993153		
18-21' - Runabouts, SK	13-1/4	R	17	992114		13-1/4	R	17	993144		
18-21' - Runabouts, SK						13-1/4	L	17	993154		
17-20' - Runabouts, SK	13	R	19	992115		13-1/8	R	19	993145		
17-20' - Runabouts, SK						13-1/8	L	19	993155		
15-18' - Runabouts, SK	12-3/4	R	21	992116		13	R	21	993146		
15-18' - Runabouts, SK						13	L	21	993156		

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH <sup>TM</sup> REPLACEMENT PROPELLERS							BALLISTIC <sup>TM</sup> STAINLESS STEEL PROPS					HIGH PERFORMANCE STAINLESS STEEL PROPELLERS  RUBBER HUB BUSHING				
	ALUMINUM PROPS							BALLISTIC						BALLISTIC XL			
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
CR, HB	14	R	11	3	AL	382761	012047										
CR, HB	14	R	11	3	AL	391668	★ 011038										
CR, HB	14	R	13	3	AL	391668	011001										
20-24' - AL, SK	13-3/4	R	15	3	AL	391198	011002	13-5/8	R	15	3	335030					
19-22' - AL, SK	13-1/4	R	17	3	AL	391199	011003	13-1/2	R	17	3	335031					
19-22' - AL, SK	14	R	17	3	AL	176214	011024										
17-19' - AL, SK	13	R	19	3	AL	390896	011004	13-3/8	R	19	3	335032					
17-19' - AL, SK	14	R	19	3	AL	176215	011025										
15-18' - AL, SK	12-3/4	R	21	3	AL	389788	011005	13-1/8	R	21	3	335033					
High Performance													13-1/2	R	22	3	335034
High Performance													13-1/2	R	24	3	335035

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

★ Indicates a cupped propeller.

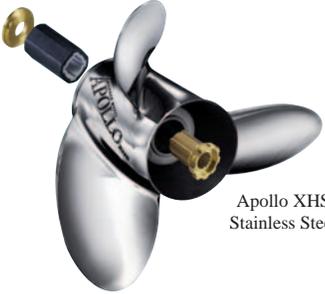
▶ LIMITED INVENTORY ITEMS.



**90, 115 & 140 HORSEPOWER (4-STROKE) • 4-1/4" GEARCASE**

Thru Hub Exhaust & 15 Tooth Spline

90 HP (4-Stroke) .....2003 & Newer      115 HP (4-Stroke) .....2003 & Newer      140 HP (4-Stroke) .....2003 & Newer

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS					APOLLO <sup>XHS</sup> ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS				
	3-BLADE WIDE					STD 3-BLADE				
	Dia.	Rot.	Pitch	Part No.		Dia.	Rot.	Pitch	Part No.	
	14	R	13	992112						
19-22' - Runabouts, SK	13-3/4	R	15	992113	13-3/8	R	15	993143		
19-22' - Runabouts, SK					13-3/8	L	15	993153		
18-21' - Runabouts, SK	13-1/4	R	17	992114	13-1/4	R	17	993144		
18-21' - Runabouts, SK					13-1/4	L	17	993154		
17-20' - Runabouts, SK	13	R	19	992115	13-1/8	R	19	993145		
17-20' - Runabouts, SK					13-1/8	L	19	993155		
15-18' - Runabouts, SK	12-3/4	R	21	992116	13	R	21	993146		
15-18' - Runabouts, SK					13	L	21	993156		

Drop-In Hub

Use XHS™  
Hub Kit  
**125**  
&  
**126**

Use Gearcase Adapter Ring supplied with propeller.

Refer to pages 39-40 for more details.

Note: For 90 & 115 HP 4-Stroke applications use XHS™ (Drop-in Hub) Kit # 125. For 140 HP 4-Stroke applications use XHS™ (Drop-in Hub) Kit # 126. Use Gearcase Adapter Ring supplied with propeller.

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH ALUMINUM PROPS						BALLISTIC <sup>™</sup> HIGH PERFORMANCE STAINLESS STEEL PROPELLERS										
	ALUMINUM PROPS						BALLISTIC		BALLISTIC XL								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
25' - AL	14	R	11	3	AL		101036										
22' - AL	13-5/8	R	13	3	AL		101031										
20-24' - AL, SK	13-1/2	R	15	3	AL		101032	13-5/8	R	15	3	335930					
17-19' - AL, SK	13-1/4	R	17	3	AL	777024	101033	13-1/2	R	17	3	335931					
16-18' - AL, SK	13	R	19	3	AL	777025	101034	13-3/8	R	19	3	335932					
15-18' - AL, SK	12-5/8	R	21	3	AL	777026	101035	13-1/8	R	21	3	335933					
High Performance													13-1/2	R	22	3	335934
High Performance													13-1/2	R	24	3	335935

Rubber Hub Bushing

**200 & 225 HORSEPOWER (4-STROKE) • 4-3/4" GEARCASE**

Thru Hub Exhaust & 15 Tooth Spline

200 HP (4-Stroke) \* .....2004 & Newer      225 HP (4-Stroke) \* .....2004 & Newer

(\* see note below)

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS					APOLLO <sup>XHS</sup> ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS													
	3-BLADE		4-BLADE			STD 3-BLADE		LG. DIAMETER 3-BLADE		4-BLADE									
	Dia.	Rot.	Pitch	Part No.		Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.		
15-1/4	R	15	992002			14-3/8	R	15	993042										
						14-3/8	L	15	993052										
15	R	17	992003	15	R	16	992202	14-1/4	R	17	993043	15-1/2	R	17	993023	14-5/8	R	16	993203
								14-1/4	L	17	993053	15-1/2	L	17	993033	14-5/8	L	16	993213
14-1/2	R	19	992004	14-1/2	R	18	992203	14-1/8	R	19	993044	15-1/4	R	19	993024	14-3/8	R	18	993204
								14-1/8	L	19	993054	15-1/4	L	19	993034	14-3/8	L	18	993214
14-1/4	R	21	992005	14	R	20	992204	14	R	21	993045	14-3/4	R	21	993025	14-1/8	R	20	993205
								14	L	21	993055	14-3/4	L	21	993035	14-1/8	L	20	993215
14	R	23	992006					13-7/8	R	23	993046	14-5/8	R	23	993026	14	R	22	993206
								13-7/8	L	23	993056	14-5/8	L	23	993036	14	L	22	993216

Drop-In Hub

Use XHS™  
Hub Kit  
**104**

Refer to pages 39-40 for more details.

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

\* Vortex and Apollo propeller diameters are slightly less than original equipment propellers.

**90-300 HORSEPOWER • V-6 (4-3/4") GEARCASE (Includes E-Tec Engines)**

Thru Hub Exhaust & 15 Tooth Spline

90 HP .....1995 & Newer	150 HP Commercial .....1993 & Newer	235 HP .....1978-85
90 HP V6 Gearcase .....2004 & Newer	150 HP .....1978 & Newer	250 HP .....1991 & Newer
100 HP Commercial .....1984 & Newer	155 HP Commercial .....1978 & Newer	275 HP .....1986-88
115 HP .....1995 & Newer	175 HP .....1977 & Newer	300 HP .....1986-95
120-140 HP .....1985	185 HP .....1984-85	2.6 Liter .....1984-85
130 HP .....1995 & Newer	200 HP .....1976 & Newer	3.6 Liter .....1986-87
140 (25") HP .....1989-94	225 HP .....1986 & Newer	* For engines 300 HP or higher, use "high horsepower sleeve".

See Page 39 for more details.

 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS															
3-BLADE				4-BLADE				STD 3-BLADE				LG. DIAMETER 3-BLADE				4-BLADE			
Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
15-1/4	R	15	992002					14-3/8	R	15	993042								
								14-3/8	L	15	993052								
15	R	17	992003	15	R	16	992202	14-1/4	R	17	993043	15-1/2	R	17	993023	14-5/8	R	16	993203
								14-1/4	L	17	993053	15-1/2	L	17	993033	14-5/8	L	16	993213
14-1/2	R	19	992004	14-1/2	R	18	992203	14-1/8	R	19	993044	15-1/4	R	19	993024	14-3/8	R	18	993204
								14-1/8	L	19	993054	15-1/4	L	19	993034	14-3/8	L	18	993214
14-1/4	R	21	992005	14	R	20	992204	14	R	21	993045	14-3/4	R	21	993025	14-1/8	R	20	993205
								14	L	21	993055	14-3/4	L	21	993035	14-1/8	L	20	993215
14	R	23	992006					13-7/8	R	23	993046	14-5/8	R	23	993026	14	R	22	993206
								13-7/8	L	23	993056	14-5/8	L	23	993036	14	L	22	993216



Vortex XHS Aluminum Propeller



Apollo XHS Stainless Steel

Drop-In Hub  
Use XHS™  
Hub Kit  
**100**  
&  
**101**  
Refer to pages 39-40 for more details.

Note: For engine applications 1976-1990 use XHS™ (Drop-In Hub) Kit # 101. For engine applications 1991 & Newer, use XHS™ (Drop-In Hub) Kit # 100. Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	 HIGH PERFORMANCE ALUMINUM PROPELLERS								 HIGH PERFORMANCE STAINLESS STEEL PROPELLERS									
	ALUMINUM PROPS								BALLISTIC				BALLISTIC XL					
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
CR, HB	15-1/2	R	13	3	AL	391536	011016											
CR, HB	15-1/2	R	15	3	AL	391535	011006	14-7/8	R	15	3	345031						
20-26' - AL, SK	15	R	17	3	AL	391200	011007	14-3/4	R	17	3	345032						
20-26' - AL, SK								14-3/4	L	17	3	345062						
18-22' - AL, SK	14-1/2	R	19	3	AL	391201	011008	14-1/2	R	19	3	345033						
18-22' - AL, SK								14-1/2	L	19	3	345063						
17-19' - AL, SK	14-1/4	R	21	3	AL	391202	011009	14-3/8	R	21	3	345034						
17-19' - AL, SK								14-3/8	L	21	3	345064						
15-18' - AL, SK	14-1/4	R	23	3	AL	391203	011010											
15-18' - AL, SK								14-1/4	R	23	3	345035						
High Performance													14-1/2	R	22	3	345041	
High Performance													14-1/2	R	24	3	345037	
High Performance													14-1/2	R	26	3	345038	
<b>High Performance 4-Blade Propellers</b>																		
50-62 MPH													13-3/4	R	23	4	** 435035	
55-67 MPH													13-3/4	R	25	4	** 435036	
60-72 MPH													13-3/4	R	27	4	** 435037	

Rubber Hub Bushing

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

† Skeg modification may be required for proper fit. Use thrust washer 333592.      ▶ LIMITED INVENTORY ITEMS.  
\*\* Forward thrust washer A-9500-111 comes with propeller and replaces the standard OMC thrust washer, except when used on a 1991 or 1992.

**3.5-3.6 HORSEPOWER**

**Pin Drive**

3.5-3.6 HP .....1969-76

<b>BOAT DESCRIPTION/LENGTH</b>								 <b>072017</b>	<b>Rubber Hub Bushing</b>
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
Standard Replacement	7-1/2	L	4-1/2	2	AL	48-FP19	<b>072017</b>		

**3.5-8 HORSEPOWER**

**Non-Thru Hub Exhaust & 9 Tooth / Pin Drive**

3.5 HP .....1980-84                      5 HP .....1987-98                      4, 4.4, 6, 6.6, 7, 7.5 & 8 HP .....1968-88

<b>BOAT DESCRIPTION/LENGTH</b>								 <b>072123</b>	<b>Rubber Hub Bushing</b>
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
Standard Replacement	7-1/4	R	5-1/2	3	AL	48-FP488	<b>072123</b>		

**6-10 HORSEPOWER**

**Non-Thru Hub Exhaust & 14 Tooth / Pin Drive**

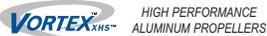
6-10 HP Sailor .....1976-78                      Sailor 180-250 .....1979-84

<b>BOAT DESCRIPTION/LENGTH</b>								 <b>072014</b>	<b>Rubber Hub Bushing</b>
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
SB	10-3/8	R	10	3	AL	FP-278	<b>072014</b>		

**25 HORSEPOWER • 3-1/4" GEARCASE**

**Thru Hub Exhaust & 10 Tooth Spline**

25 HP 3 Cyl. ....1995-98

<b>BOAT DESCRIPTION/LENGTH</b>					 <b>992504</b> Vortex XHS™ Aluminum Propeller	<b>Drop-In Hub</b> Use XHS™ Hub Kit <b>120</b>  Refer to pages 39-40 for more details.
	<b>3-BLADE</b>					
	Dia.	Rot.	Pitch	Part No.		
	10-1/2	R	9	<b>992501</b>		
	10-1/2	R	10	<b>992502</b>		
15-17'	10-1/2	R	11	<b>992503</b>		
15-17'	10-1/8	R	12	<b>992504</b>		
13-17'	10-1/8	R	13	<b>992505</b>		
Up to 14'	10-1/8	R	14	<b>992506</b>		

<b>BOAT DESCRIPTION/LENGTH</b>												 <b>Ballistic High Performance Stainless Steel Propeller</b>	<b>Rubber Hub Bushing</b>
	<b>ALUMINUM PROPS</b>							<b>BALLISTIC</b>					
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#		
15-19'	10-3/8	R	11	3	AL	48-19638A40	<b>031049</b>						
13-17'	10-3/8	R	13	3	AL	48-19640A40	<b>031048</b>	10-1/8	R	13	3	<b>305129</b>	
Up to 14'								10-1/8	R	15	3	<b>305130</b>	

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

▶ LIMITED INVENTORY ITEMS

**20-60 HORSEPOWER**

**Non-Thru Hub Exhaust & 14 Tooth / Pin Drive**

20-25 HP .....1979-81	40 HP .....1992-94	50 HP .....1982-94
30 HP .....1966-82	45 HP .....1966-84	55-60 HP❖ .....1966-84
35 HP .....1966-91		

BOAT DESCRIPTION/LENGTH	 <b>ALUMINUM PROPS</b>						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
CR, HB, SB	10-3/8	R	10	3	AL	48-819337A40	<b>072014</b>
17-19' - AL, SK	10-3/8	R	11-1/2	3	AL	48-819336A40	<b>072131</b>
16-17' - AL, SK	10-3/8	R	12-1/2	3	AL	48-819335A40	<b>072132</b>
14-16' - AL, SK	10-3/8	R	13-1/2	3	AL	48-819334A4	<b>072133</b>



**Rubber Hub Bushing**

**40-75 HORSEPOWER • 3-1/4" GEARCASE**

**Thru Hub Exhaust & 13 Tooth Spline**

40, 50 HP .....1995-98	70 HP .....1991-95	75 HP .....1996-98
------------------------	--------------------	--------------------

BOAT DESCRIPTION/LENGTH	 <b>3-BLADE</b>				HIGH PERFORMANCE ALUMINUM PROPELLERS <b>4-BLADE</b>				 <b>STD 3-BLADE</b>			
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
19' & Up					11-1/2	R	8	<b>992401</b>				
19' & Up					11-1/2	R	9	<b>992402</b>				
17-19' - AL, SK					11-1/2	R	10	<b>992403</b>				
16-18' - AL, SK	10-3/8	R	11	<b>992404</b>								
15-17' - AL, SK	10-3/8	R	12	<b>992405</b>					10-3/4	R	12	<b>993405</b>
14-17' - AL, SK	10-3/8	R	13	<b>992406</b>					10-1/2	R	13	<b>993406</b>
14-16' - LL	10-3/8	R	14	<b>992407</b>					10-3/8	R	14	<b>993407</b>
13-15' - LL	10	R	15	<b>992408</b>					10-1/8	R	15	<b>993408</b>
13-15' - LL	10	R	16	<b>992409</b>								



Apollo XHS Stainless Steel

**Drop-In Hub**

Use XHS™ Hub Kit **114**

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	 <b>ALUMINUM PROPS</b>							 <b>BALLISTIC</b>				
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
19' & Up	12-1/2	R	8	3	AL	48-42738A10	<b>032141</b>					
17-19' -AL, SK	11-1/4	R	10	3	AL	48-73132A40	<b>031015</b>					
16-18' - AL, SK	12	R	10-1/2	3	AL	48-42740A10	<b>032142</b>					
16-18' - AL, SK	10-7/8	R	11	3	AL	48-85632A40	<b>031053</b>					
15-17' - AL, SK	10-3/4	R	12	3	AL	48-816702A40	<b>031056</b>					
15-17' - AL, SK	10-5/8	R	12	3	AL	48-73134A40	<b>031016</b>					
14-17' - AL, SK	10-1/2	R	13	3	AL	48-816704A40	<b>031057</b>	10-1/8	R	13	3	<b>395129</b>
14-17' - AL, SK	10-3/8	R	13	3	AL	48-73136A40	<b>031017</b>					
14-16' - LL	10-3/8	R	14	3	AL	48-816706A40	<b>031058</b>					
14-16' - LL	10-1/4	R	14	3	AL	48-73138A40	<b>031018</b>					
13-15' - LL	10-1/8	R	15	3	AL	48-73140A40	<b>031019</b>	10-1/8	R	15	3	<b>395130</b>
Up to 15'	10	R	17	3	AL	48-73144A40	<b>031020</b>					



Ballistic High Performance Stainless Steel Propeller

**Rubber Hub Bushing**

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

❖❖ Two-piece lower unit.

## 70-140 HORSEPOWER • SINGLE EXHAUST UNITS

Non-Thru Hub Exhaust & 15 Tooth Spline

70-140HP ♦ .....1977-89

BOAT DESCRIPTION/LENGTH	ALUMINUM PROPS						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
16-17' - AL, SK	13-1/8	R	15	3	AL	FPS519	<b>072055</b>
14-16' - AL, SK	13-1/4	R	17	3	AL	FPS623	<b>072107</b>
14-16' - LL	13	R	19	3	AL	FPS625	<b>072108</b>



Rubber Hub Bushing

## 85-150 HORSEPOWER • DUAL EXHAUST UNITS • 4-1/4" GEARCASE

Thru Hub Exhaust & 15 Tooth Spline

85, 125 HP .....1988-89      90 HP L-DRIVE .....1989-91      150 HP .....1989-94  
 90, 120 HP .....1990-94      120 HP L-DRIVE .....1989-91      150 HP L-DRIVE .....1991

BOAT DESCRIPTION/LENGTH	ALUMINUM PROPS						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
17-22' - AL, SK	13-1/2	R	15	3	AL	48-FP669-1	* <b>071035</b>
17-22' - AL, SK	13-1/2	R	15	3	AL	48-FP692-1	<b>072127</b>
16-20' - AL, SK	13-1/2	R	17	3	AL	48-FP685-1	* <b>071036</b>
16-20' - AL, SK	13-1/2	R	17	3	AL	48-FP685-1	<b>072128</b>
16-18' - AL, SK	13	R	19	3	AL	48-FP686-1	▶ <b>072129</b>



Rubber Hub Bushing

BOAT DESCRIPTION/LENGTH	3-BLADE WIDE			
	Dia.	Rot.	Pitch	Part No.
16-18' - Runabouts, SK	14	R	13	<b>992112</b>
16-18' - Runabouts, SK	13-3/4	R	15	<b>992113</b>
15-17' - Runabouts, SK	13-1/4	R	17	<b>992114</b>
14-16' - Runabouts, SK	13	R	19	<b>992115</b>
14-16' - Runabouts, SK	13	R	19	<b>992115</b>
13-15' - Runabouts, SK	12-3/4	R	21	<b>992116</b>
13-15' - Runabouts, SK	12-3/4	R	21	<b>992116</b>



Vortex XHS™ Aluminum Propeller

Drop-In Hub

Use XHS™ Hub Kit **102**

Do NOT use Gearcase Adapter Ring supplied with propeller.

Refer to pages 39-40 for more details.

## 75-150 HORSEPOWER • Using Mercury 4-1/4" Gearcase (1995 & NEWER)

Thru Hub Exhaust & 15 Tooth Spline

75-150 HP .....1995 & Newer

BOAT DESCRIPTION/LENGTH	VORTEX XHS™ HIGH PERFORMANCE ALUMINUM PROPELLERS				Vortex XHS Aluminum Propeller
	3-BLADE WIDE				
	Dia.	Rot.	Pitch	Part No.	
	14	R	13	<b>992112</b>	
16-18' - Runabouts, SK	13-3/4	R	15	<b>992113</b>	
16-18' - Runabouts, SK	13-3/4	R	15	<b>992113</b>	
15-17' - Runabouts, SK	13-1/4	R	17	<b>992114</b>	
15-17' - Runabouts, SK	13-1/4	R	17	<b>992114</b>	
14-16' - Runabouts, SK	13	R	19	<b>992115</b>	
14-16' - Runabouts, SK	13	R	19	<b>992115</b>	
13-15' - Runabouts, SK	12-3/4	R	21	<b>992116</b>	
13-15' - Runabouts, SK	12-3/4	R	21	<b>992116</b>	

STD 3-BLADE	APOLLO XHS™ ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS				Apollo XHS Stainless Steel
	Dia.	Rot.	Pitch	Part No.	
	13-3/8	R	15	<b>993143</b>	
	13-3/8	L	15	<b>993153</b>	
	13-1/4	R	17	<b>993144</b>	
	13-1/4	L	17	<b>993154</b>	
	13-1/8	R	19	<b>993145</b>	
	13-1/8	L	19	<b>993155</b>	
	13	R	21	<b>993146</b>	
	13	L	21	<b>993156</b>	

Drop-In Hub

Use XHS™ Hub Kit **102**

Use Gearcase Adapter Ring supplied with propeller.

Refer to pages 39-40 for more details.

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

- ♦ One piece lower unit.
- ▶ LIMITED INVENTORY ITEMS.
- \* Cupped Propeller. If currently using uncupped propeller, use cupped propeller having 2" less pitch. Boats with power trim use same pitch.

## 75-150 HORSEPOWER • (Using Mercury 4-1/4" Gearcase - See Below)

### Thru Hub Exhaust & 15 Tooth Spline

75 HP †† .....1999 & Newer	90, 120 HP †† .....1995-98	150 HP † .....1989-94
90 HP L-Drive † .....1990-91	120 HP L-Drive † .....1990-91	150 HP L-Drive † .....1991

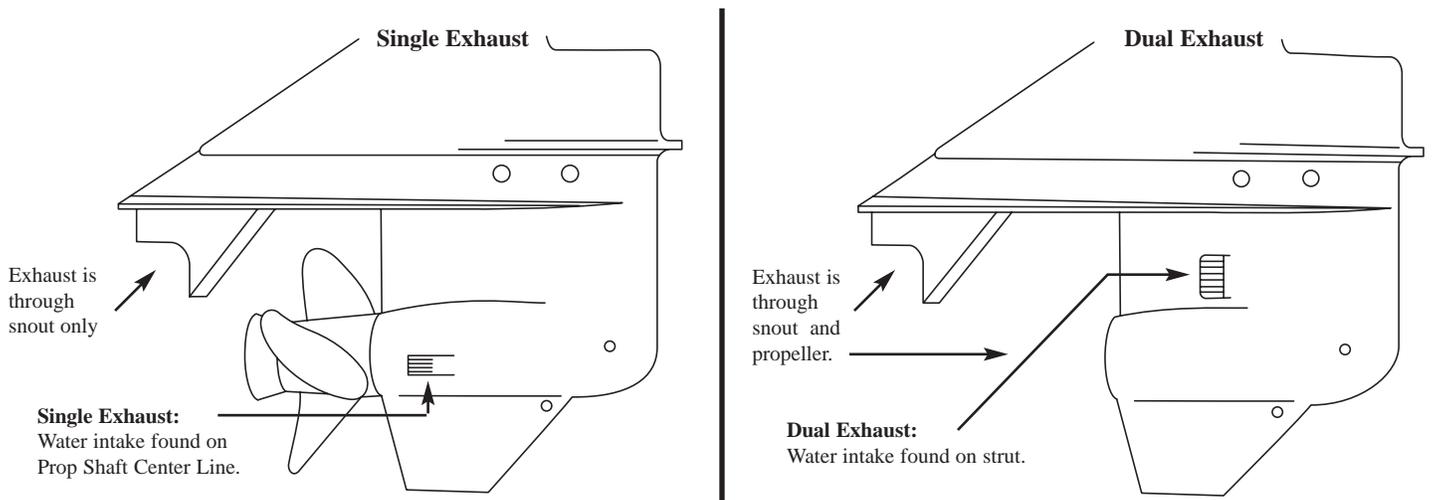
BOAT DESCRIPTION/LENGTH													Rubber Hub Bushing					
	ALUMINUM PROPS							BALLISTIC										
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.		Dia.	Rot.	Pitch	Bld#	Part No.
25' & Up - AL	14	R	11	3	AL	48-77338A40	<b>031054</b>											
Pontoon	14	R	11	3	AL	48-77338CP1	◆ <b>031200</b>											
25' & Up - AL	14	R	12	3	AL		<b>031060</b>											
Pontoon	14	R	12	3	AL		◆ <b>031201</b>											
22' & Up - AL	14	R	13	3	AL	48-77340A40	<b>031055</b>											
Pontoon	14	R	13	3	AL	48-77340CP1	◆ <b>031202</b>											
19-24' - AL, SK	13-3/4	R	15	3	AL	48-77342A40	<b>031041</b>	13-5/8	R	15	3	<b>335130</b>						
17-20' - AL, SK	13-1/4	R	17	3	AL	48-77344A40	<b>031042</b>	13-1/2	R	17	3	<b>335131</b>						
16-19' - AL, SK	13	R	19	3	AL	48-77346A40	<b>031043</b>	13-3/8	R	19	3	<b>335132</b>						
15-18' - AL, SK	12-3/4	R	21	3	AL	48-77348A40	<b>031044</b>	13-1/8	R	21	3	<b>335133</b>	13-12	R	22	3	★ <b>335134</b>	
Up to 17" - LL	12-1/2	R	23	3	AL	48-77350A40	▶ <b>031045</b>						13-1/2	R	24	3	★ <b>335135</b>	

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

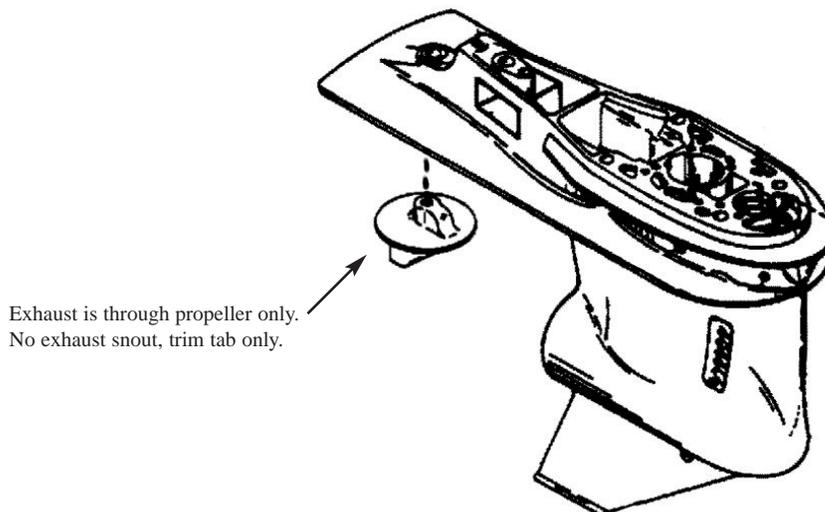
† For dual exhaust units only & requires thrust washer 23-819057.  
 ★ Requires special exhaust snout Part No. F744116 for proper fit.

†† For all units 1995 thru current. Requires thrust washer 13191A1.  
 ◆ New Pontoon Boat Propellers - Extended Cup!      ▶ LIMITED INVENTORY ITEMS.

### Single vs. Dual Exhaust



### Force Using Mercury Gearcase



## 7.5-10 HORSEPOWER

Non-Thru Hub Exhaust & Pin Drive

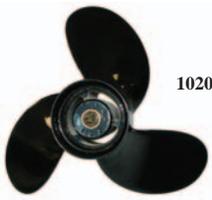
BF 7.5 .....1978-87      BF 8 .....1987-99      BF 100 (10 HP) .....All Years

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS							Part No.	 012011	Rubber Hub Bushing
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.			
14-16' - LL	9	R	9	3	AL	58130-881-840ZA	<b>012109</b>			
12-14'	9	R	10	3	AL		<b>012011</b>			
12-14' - LL	9-1/4	R	11	3	AL		<b>012013</b>			

## 8-20 HORSEPOWER

Thru Hub Exhaust & 8 Tooth Spline

BF 8 TH .....2000 & Newer      BF 15 .....All Years      BF 20 .....2003 & Newer  
 BF 9.9 .....1988 & Newer

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS							Part No.	 102003	Rubber Hub Bushing
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.			
HL, HB	9-3/4	R	6-1/2	3	AL	58110-ZV4-DT15	<b>112004</b>			
13-17' - AL	9-1/4	R	8	3	AL	58130-ZV4-008AH	<b>102003</b>			
12-15' - AL	9-1/4	R	9	3	AL	58130-ZV4-701ZA	<b>102004</b>			
12-15' - LL	9-1/4	R	10-1/2	3	AL	58130-ZV4-030ZA	<b>102005</b>			

## 25-30 HORSEPOWER • 3-1/4" GEARCASE

Thru Hub Exhaust & 10 Tooth Spline

BF 25 .....1994 & Newer      BF 30 .....1995 & Newer

BOAT DESCRIPTION/LENGTH	 HIGH PERFORMANCE ALUMINUM PROPELLERS 3-BLADE				Part No.	 992504 Vortex XHS™ Aluminum Propeller	Drop-In Hub Use XHS™ Hub Kit <b>119</b> Refer to pages 39-40 for more details.
	Dia.	Rot.	Pitch	Part No.			
	10-1/2	R	9	<b>992501</b>			
	10-1/2	R	10	<b>992502</b>			
	10-1/2	R	11	<b>992503</b>			
	10-1/8	R	12	<b>992504</b>			
	10-1/8	R	13	<b>992505</b>			
	10-1/8	R	14	<b>992506</b>			

 Ballistic High Performance Stainless Steel Propeller	 HIGH PERFORMANCE STAINLESS STEEL PROPELLERS										Rubber Hub Bushing
	BALLISTIC					BALLISTIC XL					
	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	
	10-1/8	R	13	3	<b>305229</b>						
	10-1/8	R	15	3	<b>305230</b>						

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

▶ LIMITED INVENTORY ITEMS.

★ Indicates a cupped propeller.

◆ New Pontoon Boat Propellers - Extended Cup! (see page 15)

## 35-50 HORSEPOWER • 3-1/4" GEARCASE

Thru Hub Exhaust & 13 Tooth Spline

BF 35 .....1991-94      BF 45 .....1991-94      BF 50/50A .....1995 & Newer  
 BF 40 .....1995 & Newer

BOAT DESCRIPTION/LENGTH	 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS							
	3-BLADE		4-BLADE		STD 3-BLADE							
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
				11-1/2	R	8	<b>992401</b>					
				11-1/2	R	9	<b>992402</b>					
19-21' - AL, SK				11-1/2	R	10	<b>992403</b>					
17-19' - AL, SK	10-3/8	R	11	<b>992404</b>								
15-17' - AL, SK	10-3/8	R	12	<b>992405</b>				10-3/4	R	12	<b>993405</b>	
15-17' - AL, SK	10-3/8	R	13	<b>992406</b>				10-1/2	R	13	<b>993406</b>	
14-16' - AL, SK	10-3/8	R	14	<b>992407</b>				10-3/8	R	14	<b>993407</b>	
13-15' - AL, SK	10	R	15	<b>992408</b>				10-1/8	R	15	<b>993408</b>	
12-14' - AL, SK	10	R	16	<b>992409</b>								



**Drop-In Hub**  
 Use XHS™ Hub Kit **113**  
 Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	 REPLACEMENT PROPELLERS						 STAINLESS STEEL PROPS					
	ALUMINUM PROPS						BALLISTIC					
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
19-21' - AL, SK	11-3/4	R	10	3	AL	58130-ZV5-860ZA	<b>032045</b>					
19-21' - AL, SK	12-1/4	R	10	3	AL		★ <b>031072</b>					
17-19' - AL, SK	12	R	11	3	AL		<b>032044</b>					
16-17' - AL, SK	11-3/8	R	12	3	AL	58130-ZV5-850ZA	<b>032043</b>					
15-17' - AL, SK	11-1/8	R	13	3	AL	58130-ZV5-000ZA	<b>032042</b>	10-1/8	R	13	3	<b>395929</b>
14-16' - AL, SK	11-1/4	R	14	3	AL		<b>032041</b>					
13-15' - AL, SK	11	R	15	3	AL	58130-ZV5-870ZA	<b>032040</b>	10-1/8	R	15	3	<b>395930</b>



**Rubber Hub Bushing**

## 75-130 HORSEPOWER • 4-1/4" GEARCASE

Thru Hub Exhaust & 15 Tooth Spline

BF 75 .....1995 & Newer      BF 115 .....1998 & Newer      BF 130 .....1998 & Newer  
 BF 90 .....1995 & Newer

BOAT DESCRIPTION/LENGTH	 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS			
	3-BLADE WIDE				STD 3-BLADE			
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
	14	R	13	<b>992112</b>				
19-24' - AL, SK	13-3/4	R	15	<b>992113</b>	13-3/8	R	15	<b>993143</b>
19-24' - AL, SK					13-3/8	L	15	<b>993153</b>
17-20' - AL, SK	13-1/4	R	17	<b>992114</b>	13-1/4	R	17	<b>993144</b>
17-20' - AL, SK					13-1/4	L	17	<b>993154</b>
16-19' - AL, SK	13	R	19	<b>992115</b>	13-1/8	R	19	<b>993145</b>
16-19' - AL, SK					13-1/8	L	19	<b>993155</b>
15-18' - AL, SK	12-3/4	R	21	<b>992116</b>	13	R	21	<b>993146</b>
15-18' - AL, SK					13	L	21	<b>993156</b>



**Drop-In Hub**  
 Use XHS™ Hub Kit **102 & 107**  
 Refer to pages 39-40 for more details.

**Note:** For 75-90 HP 1995-1998 engine applications use XHS (Drop-In- Hub) Kit # 102. For 75-90 HP 1999 & Newer, 115 HP and 130 HP 1998 & Newer engine applications, use XHS (Drop-In- Hub) Kit #107. Use Gearcase Adapter Ring supplied with propeller.

BOAT DESCRIPTION/LENGTH	 REPLACEMENT PROPELLERS						 HIGH PERFORMANCE STAINLESS STEEL PROPELLERS					
	ALUMINUM PROPS						BALLISTIC		BALLISTIC XL			
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
25' & Up - AL	14	R	11	3	AL	58130-ZW1-W01ZA	<b>031054</b>					
Pontoon	14	R	11	3	AL		◆ <b>031200</b>					
25' & Up - AL	14	R	12	3	AL		<b>031060</b>					
Pontoon	14	R	12	3	AL		◆ <b>031201</b>					
22' & Up - AL	14	R	13	3	AL	58130-ZW1-W11ZA	<b>031055</b>					
Pontoon	14	R	13	3	AL		◆ <b>031202</b>					
19-24' - AL, SK	13-3/4	R	15	3	AL	58130-ZW1W21ZA	<b>031041</b>	13-5/8	R	15	3	<b>335130</b>
17-20' - AL, SK	13-1/4	R	17	3	AL	58130-ZW1-W31ZA	<b>031042</b>	13-1/2	R	17	3	<b>335131</b>
16-19' - AL, SK	13	R	19	3	AL	58130-ZW1-W61ZA	<b>031043</b>	13-3/8	R	19	3	<b>335132</b>
15-18' - AL, SK	12-3/4	R	21	3	AL	58130-ZW1-W41ZA	<b>031044</b>	13-1/8	R	21	3	<b>335133</b>
Up to 17" - LL	12-1/2	R	23	3	AL	58130-ZW1-W51ZA	▶ <b>031045</b>	13-1/2	R	24	3	<b>335135</b>

**Rubber Hub Bushing**

## 135-225 HORSEPOWER • 4-3/4" GEARCASE

Thru Hub Exhaust & 15 Tooth Spline

BF 135 .....2004 & Newer  
 BF 150 .....2004 & Newer

BF 200 .....2002 & Newer

BF 225 .....2002 & Newer

 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS																
3-BLADE				4-BLADE				STD 3-BLADE		LG. DIAMETER 3-BLADE		4-BLADE								
Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	
15-1/4	R	15	992002					14-3/8	R	15	993042									
								14-3/8	L	15	993052									
15	R	17	992003	15	R	16	992202	14-1/4	R	17	993043	15-1/2	R	17	993023	14-5/8	R	16	993203	
								14-1/4	L	17	993053	15-1/2	L	17	993033	14-5/8	L	16	993213	
14-1/2	R	19	992004	14-1/2	R	18	992203	14-1/8	R	19	993044	15-1/4	R	19	993024	14-3/8	R	18	993204	
								14-1/8	L	19	993054	15-1/4	L	19	993034	14-3/8	L	18	993214	
14-1/4	R	21	992005	14	R	20	992204	14	R	21	993045	14-3/4	R	21	993025	14-1/8	R	20	993205	
								14	L	21	993055	14-3/4	L	21	993035	14-1/8	L	20	993215	
14	R	23	992006					13-7/8	R	23	993046	14-5/8	R	23	993026	14	R	22	993206	
								13-7/8	L	23	993056	14-5/8	L	23	993036	14	L	22	993216	



Vortex XHS™ Aluminum Propeller



Apollo XHS™ Stainless Steel

Drop-In Hub

Use XHS™ Hub Kit 107

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS						 HIGH PERFORMANCE STAINLESS STEEL PROPELLERS										
	ALUMINUM PROPS						BALLISTIC		BALLISTIC XL								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
CR, HB	16	R	12	3	AL		031063										
CR, HB	16	R	13	3	AL	58130-ZY3-013A	031022										
22-25' - AL	16	R	14	3	AL		031050										
21-24' - AL	15-1/4	R	15	3	AL	58130-ZY3-015A	031023	14-7/8	R	15	3	345131					
20-23' - AL, SK	16	R	16	3	AL		031051										
19-23' - AL, SK	14-1/2	R	17	3	AL	58130-ZY3-017A	031024	14-3/4	R	17	3	345132					
19-23' - AL, SK	15	R	17	3	AL		031064	14-3/4	L	17	3	345162					
19-22' - AL, SK	15-1/2	R	18	3	AL		031052										
18-22' - AL, SK	14	R	19	3	AL	58130-ZY3-019A	031025	14-1/2	R	19	3	345133					
18-22' - AL, SK	14-1/2	R	19	3	AL		031065	14-1/2	L	19	3	345163					
18-20' - AL, SK	13-3/4	R	21	3	AL	58130-ZY3-021A	031026	14-3/8	R	21	3	345134					
18-20' - AL, SK	14-1/4	R	21	3	AL		031066	14-3/8	L	21	3	345164					
17-20' - AL, SK								14-1/4	R	23	3	345135					
17-20' - AL, SK								14-1/4	L	23	3	345165					
Up to 18'	13-3/8	R	25	3	AL		031067	14-1/4	R	25	3	345136					
High Performance													14-1/2	R	22	3	345141
High Performance													14-1/2	R	24	3	345137
High Perf. (EFI Engine)													14	R	24	3	345139
High Performance													14-1/2	R	26	3	345138
High Perf. (EFI Engine)													14	R	26	3	345140
<b>High Performance 4 Blade Propellers</b>																	
50-62 MPH													13-3/4	R	23	4	435135
55-67 MPH													13-3/4	R	25	4	435136
60-72 MPH													13-3/4	R	27	4	435137

Rubber Hub Bushing

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

▶ LIMITED INVENTORY ITEMS.

**4-10 HORSEPOWER**

Thru Hub Exhaust & 8 Tooth Spline

MODEL 40 .....1973-75                      MODEL 45 .....1973-81                      7.5 HP .....1976

		<b>ALUMINUM PROPS</b>					
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
Standard Replacement	9	R	9	2	AL	48-47922A10	<b>032021</b>
14-16' - AL	9	R	7	3	AL	48-47670A10	<b>032020</b>



**Rubber Hub Bushing**

**6-15 HORSEPOWER**

Thru Hub Exhaust & 8 Tooth Spline

6, 8, 9, 9 HP (2-Stroke) .....1986 & Newer                      9.9 HP (4-Stroke - Not Bigfoot) .....1995 - 2004                      10, 15 HP (Sea Pro/Marathon) .....1995 & Newer  
 8 HP (4-Stroke - Not Bigfoot) .....1995 - 2004                      10 HP .....1995 & Newer                      15 HP (2 & 4-Stroke) .....1989 - 2006

		<b>ALUMINUM PROPS</b>					
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
16-20' - AL	9-1/4	R	7	3	AL	48-828152A12	<b>032056</b>
14-18' - AL	9	R	9	3	AL	48-828156A12	<b>032052</b>
14-16' - AL	9	R	10-1/2	3	AL	48-828158A12	<b>032050</b>



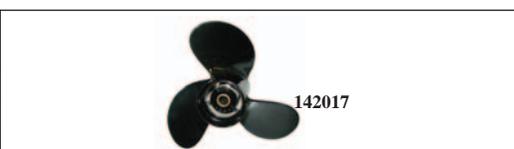
**Rubber Hub Bushing**

**8-9.9 HORSEPOWER**

Thru Hub Exhaust & 14 Tooth Spline

8 HP (4-Stroke - Not Bigfoot) .....2005 & Newer                      9.9 HP (4-Stroke - Not Bigfoot) .....2005 & Newer

		<b>ALUMINUM PROPS</b>					
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
12-16' - AL	9.2	R	8.4	3	AL	362-64102-0	<b>142017</b>



**Rubber Hub Bushing**

**MERC 20**

Thru Hub Exhaust & 8 Tooth Spline

Merc. 20 .....1963-81

		<b>ALUMINUM PROPS</b>					
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
Standard Replacement	9-7/8	R	11	2	AL	48-33480A1	<b>032135</b>
14-16' - AL	10	R	9	3	AL	48-86962A4	<b>032136</b>



**Rubber Hub Bushing**

**9.9-25 HORSEPOWER**

Thru Hub Exhaust & 10 Tooth Spline

9.9, 15 HP (4-Stroke, Bigfoot / Sail) .1999 - 2005                      20 HP (Mercury) .....1986 & Newer                      25 HP (2-Stroke Mariner) .....1985 & Newer  
 18 HP (Mercury) .....1980-85                      25 HP (2-Stroke Mercury) .....1980 & Newer                      25 HP (Sea Pro/Marathon) .....All Years

		<b>3-BLADE</b>			
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Part No.	
	10-1/2	R	9	<b>992501</b>	
	10-1/2	R	10	<b>992502</b>	
15-19'	10-1/2	R	11	<b>992503</b>	
13-17'	10-1/8	R	12	<b>992504</b>	
13-17'	10-1/8	R	13	<b>992505</b>	
Up to 14'	10-1/8	R	14	<b>992506</b>	



**Drop-In Hub**  
 Use XHS™ Hub Kit **120**  
 Refer to pages 39-40 for more details.

		<b>ALUMINUM PROPS</b>					
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
15-19'	10-3/8	R	11	3	AL	48-19638A40	<b>031049</b>
13-17'	10-3/8	R	13	3	AL	48-19640A40	<b>031048</b>
Up to 14'							

<b>BALLISTIC</b>				
Dia.	Rot.	Pitch	Bld#	Part No.
10-1/8	R	13	3	<b>305129</b>
10-1/8	R	15	3	<b>305130</b>



**Rubber Hub Bushing**

**15-25 HORSEPOWER • MARINER**

Non-Thru Hub & Pin Drive

15 HP .....1976-81                      W15 .....1977-85                      25 HP .....1977-79  
 15A .....1979-82                      20 HP .....1976-79

BOAT DESCRIPTION/LENGTH									Rubber Hub Bushing
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
	HB, SB	9-1/4	R	7	3	AL	48-96628		
12-14' HL	9	R	10	3	AL	48-96625	<b>012011</b>		
12-14' - AL	9-1/4	R	11	3	AL	48-96623	<b>012013</b>		

**25-30 HORSEPOWER • MARINER • 3-1/4" GEARCASE**

Thru Hub Exhaust & 10 Tooth Spline

25 HP .....1980-84                      28 HP .....1976-79                      30 HP .....1979-90

BOAT DESCRIPTION/LENGTH									Rubber Hub Bushing
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
	16-18' - AL, SK	9-7/8	R	9	3	AL	48-81647		
14-17' - AL, SK	9-7/8	R	10-1/2	3	AL	48-81649	<b>022002</b>		
13-16' - LL	9-3/8	R	12	3	AL	48-82826	<b>022003</b>		

**25-30 HORSEPOWER • MERCURY • 3-1/4" GEARCASE**

Thru Hub Exhaust & 10 Tooth Spline

25 HP (4-Stroke - Not Bigfoot) ....2006 & Newer                      30 HP (4-Stroke - Not Bigfoot) ...2006 & Newer

BOAT DESCRIPTION/LENGTH						Drop-In Hub Use XHS™ Hub Kit <b>122</b> Refer to pages 39-40 for more details.	
	<b>3-BLADE</b>						
	Dia.	Rot.	Pitch	Part No.			
	16-20' - AL	10-1/2	R	9			<b>992501</b>
	14-18' - AL	10-1/2	R	10			<b>992502</b>
	14-18' - AL	10-1/2	R	11			<b>992503</b>
	14-18' - AL	10-1/8	R	12			<b>992504</b>
12-16' - AL	10-1/8	R	13	<b>992505</b>			
12-16' - AL	10-1/8	R	14	<b>992506</b>			

BOAT DESCRIPTION/LENGTH												Rubber Hub Bushing		
	<b>ALUMINUM PROPS</b>							<b>BALLISTIC</b>						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch			Bld#	Part No.
	16-20' - AL	10.2	R	8.3	3	AL	346-64106-5	<b>142020</b>	10-1/8	R			13	3
12-16' - AL								10-1/8	R	15	3	<b>305430</b>		
12-16' - AL														

**MODELS 402-500 (1974-76), 650, 60 HP**

Thru Hub Exhaust & 13 Tooth Spline

MODEL 402-500 .....1974-76                      MODEL 650 .....1972-76                      60 HP (Mariner) .....1976

BOAT DESCRIPTION/LENGTH										Drop-In Hub Use XHS™ Hub Kit <b>114</b> Refer to pages 39-40 for more details.				
	<b>3-BLADE</b>				<b>4-BLADE</b>						<b>STD 3-BLADE</b>			
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.			Dia.	Rot.	Pitch	Part No.
					11-1/2	R	8	<b>992401</b>						
				11-1/2	R	9	<b>992402</b>							
19-22' - AL, SK				11-1/2	R	10	<b>992403</b>							
17-19' - AL, SK	10-3/8	R	11	<b>992404</b>				10-3/4	R	12	<b>993405</b>			
16-17' - AL, SK	10-3/8	R	12	<b>992405</b>				10-1/2	R	13	<b>993406</b>			
14-16' - LL	10-3/8	R	13	<b>992406</b>				10-3/8	R	14	<b>993407</b>			
12-14' - LL	10	R	15	<b>992408</b>				10-1/8	R	15	<b>993408</b>			
12-14' - LL	10	R	16	<b>992409</b>										

**MODELS 402-500 (1974-76), 650, 60 HP (Continued)**

Thru Hub Exhaust & 13 Tooth Spline

MODEL 402-500 .....1974-76                      MODEL 650 .....1972-76                      60 HP (Mariner) .....1976

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS							BALLISTIC™ STAINLESS STEEL PROPS				
	ALUMINUM PROPS							BALLISTIC				
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
19-22' - AL	11-3/4	R	10	3	AL	48-61812A1	<b>032045</b>					
19-22' - AL	12-1/4	R	10	3	AL		★ <b>031072</b>					
17-19' - AL, SK	12	R	11	3	AL	48-61814A1	<b>032044</b>					
16-17' - AL, SK	11-3/8	R	12	3	AL	48-61816A1	<b>032043</b>					
14-16' - LL	11-1/8	R	13	3	AL	48-61818A1	<b>032042</b>	10-1/8	R	13	3	<b>395929</b>
12-14' - LL	11-1/4	R	14	3	AL	48-61820A1	<b>032041</b>					
12-14' - LL	11	R	15	3	AL	48-61822A1	<b>032040</b>	10-1/8	R	15	3	<b>395930</b>



032042

**Rubber Hub Bushing**

Use OEM fwd washer 65758 aft washer 62124

**25-70 HORSEPOWER • 3-1/4" GEARCASE**

Thru Hub Exhaust & 13 Tooth Spline

MODEL 402-500-700 .....1977-84                      40 HP (2 & 4-Stroke) (Not Bigfoot) ..1977 & Newer                      55 HP (Mercury/Sea Pro/Marathon) ...1995 & Newer  
 25 HP Bigfoot (4-Stroke) .....1999-2005                      40 HP (Sea Pro/Marathon) .....1977 & Newer                      60 HP (Not Bigfoot or Sea Pro) ....1978 & Newer  
 30 HP (2 & 4-Stroke) .....1994-2005                      45 HP .....1986-89                      60 HP (2 & 4-Stroke) (Not Bigfoot) .1978 & Newer  
 30 HP (Sea Pro/Marathon) .....1994 & Newer                      48 HP (Mariner) .....All Years                      70 HP .....Thru 1983  
 35 HP .....1984-89                      50 HP (2 & 4-Stroke) (Not Bigfoot) ..1977 & Newer

BOAT DESCRIPTION/LENGTH	VORTEX XHS™ HIGH PERFORMANCE ALUMINUM PROPELLERS				APOLLO™ ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS							
	3-BLADE		4-BLADE		STD 3-BLADE							
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
					11-1/2	R	8	<b>992401</b>				
					11-1/2	R	9	<b>992402</b>				
					11-1/2	R	10	<b>992403</b>				
16-18' - AL, SK	10-3/8	R	11	<b>992404</b>								
15-17' - AL, SK	10-3/8	R	12	<b>992405</b>					10-3/4	R	12	<b>993405</b>
14-17' - AL, SK	10-3/8	R	13	<b>992406</b>					10-1/2	R	13	<b>993406</b>
14-16' - LL	10-3/8	R	14	<b>992407</b>					10-3/8	R	14	<b>993407</b>
Up to 15' - LL	10	R	15	<b>992408</b>					10-1/8	R	15	<b>993408</b>
Up to 15' - LL	10	R	16	<b>992409</b>								



Apollo XHS Stainless Steel

**Drop-In Hub**

Use XHS™ Hub Kit **114**

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS							BALLISTIC™ STAINLESS STEEL PROPS				
	ALUMINUM PROPS							BALLISTIC				
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
19' & Up	12-1/2	R	8	3	AL	48-42738A10	<b>032141</b>					
17-19' - AL, SK	11-1/4	R	10	3	AL	48-73132A40	<b>031015</b>					
16-18' - AL, SK	12	R	10-1/2	3	AL	48-42740A10	<b>032142</b>					
16-18' - AL, SK	10-7/8	R	11	3	AL	48-85632A40	<b>031053</b>					
15-17' - AL, SK	10-3/4	R	12	3	AL	48-816702A40	<b>031056</b>					
15-17' - AL, SK	10-5/8	R	12	3	AL	48-73134A40	<b>031016</b>					
14-17' - AL, SK	10-1/2	R	13	3	AL	48-816704A40	<b>031057</b>	10-1/8	R	13	3	<b>395129</b>
14-17' - AL, SK	10-3/8	R	13	3	AL	48-73136A40	<b>031017</b>					
14-16' - LL	10-3/8	R	14	3	AL	48-816706A40	<b>031058</b>					
14-16' - LL	10-1/4	R	14	3	AL	48-73138A40	<b>031018</b>					
Up to 15' - LL	10-1/8	R	15	3	AL	48-73140A40	<b>031019</b>	10-1/8	R	15	3	<b>395130</b>
Up to 15' - LL	10	R	17	3	AL	48-73144A40	<b>031020</b>					



031017

**Rubber Hub Bushing**

Use OEM fwd washer 73345A1 tab washer 14-76281



Ballistic Stainless Steel Propeller

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

★ Indicates a cupped propeller.                      ► LIMITED INVENTORY ITEMS.

40-140 HORSEPOWER • 4-1/4" GEARCASE

Thru Hub Exhaust & 15 Tooth Spline

40, 50 HP (Bigfoot, 4-Stroke) . . . . .All Years	90 HP (2 & 4-Stroke) . . . . .1978 & Newer	▼ 650 2 Cyl. . . . .Thru 1971
60 HP (Bigfoot / 4-Stroke) . . . . .1995 & Newer	100 HP . . . . .1988 & Newer	▼ 800-850 6 Cyl. . . . .Thru 1972
60 HP (Sea Pro/Marathon) . . . . .1995 & Newer	115 HP . . . . .1978 & Newer	▼ 800-850 4 Cyl. . . . .1972-77
70 HP . . . . .1987-89	115 HP 4-Stroke . . . . .2001 & Newer	▼ 900-1500 Models . . . . .Thru 1977
75 HP (2 & 4-Stroke) . . . . .1984 & Newer	125 HP . . . . .1994 & Newer	▼ 80 HP (Yamaha) . . . . .1977
75 HP (Sea Pro/Marathon) . . . . .All Years	140 HP (Includes Sea Pro & Offshore) 1978 - 81	▼ 80 HP (Mariner) . . . . .1978-83
80 HP . . . . .1978-89	▼ 650 4 Cyl. (2:1) . . . . .1961-70	

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS</sup> ™ HIGH PERFORMANCE ALUMINUM PROPELLERS					APOLLO <sup>XHS</sup> ™ ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS				
	3-BLADE WIDE					STD 3-BLADE				
	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
	14	R	13		992112					
16-18' - Runabouts, SK	13-3/4	R	15		992113	13-3/8	R	15		993143
16-18' - Runabouts, SK						13-3/8	L	15		993153
15-17' - Runabouts, SK	13-1/4	R	17		992114	13-1/4	R	17		993144
15-17' - Runabouts, SK						13-1/4	L	17		993154
14-16' - Runabouts, SK	13	R	19		992115	13-1/8	R	19		993145
14-16' - Runabouts, SK						13-1/8	L	19		993155
13-15' - Runabouts, SK	12-3/4	R	21		992116	13	R	21		993146
13-15' - Runabouts, SK						13	L	21		993156



Vortex XHS Aluminum Propeller



Apollo XHS Stainless Steel

Drop-In Hub

Use XHS™ Hub Kit 102

Use Gearcase Adapter Ring supplied with propeller.

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH <sup>REPLACEMENT PROPELLERS</sup> ALUMINUM PROPS							BALLISTIC <sup>STAINLESS STEEL PROPS</sup> HIGH PERFORMANCE STAINLESS STEEL PROPELLERS									
	ALUMINUM PROPS							BALLISTIC					BALLISTIC XL				
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
25' & Up - AL	14	R	11	3	AL	48-77338A40	031054										
Pontoon	14	R	11	3	AL	48-77338CP1	◆ 031200										
25' & Up - AL	14	R	12	3	AL		031060										
Pontoon	14	R	12	3	AL		◆ 031201										
22' & Up - AL	14	R	13	3	AL	48-77340A40	031055										
Pontoon	14	R	13	3	AL	48-77340CP1	◆ 031202										
19-24' - AL, SK	13-3/4	R	15	3	AL	48-77342A40	031041	13-5/8	R	15	3	◆ 335130					
17-20' - AL, SK	13-1/4	R	17	3	AL	48-77344A40	031042	13-1/2	R	17	3	◆ 335131					
16-19' - AL, SK	13	R	19	3	AL	48-77346A40	031043	13-3/8	R	19	3	◆ 335132					
15-18' - AL, SK	12-3/4	R	21	3	AL	48-77348A40	031044	13-1/8	R	21	3	◆ 335133					
High Performance	12-1/2	R	23	3	AL	48-77350A40	◆ 031045						13-12	R	22	3	◆ 335134
High Performance													13-1/2	R	24	3	◆ 335135

Rubber Hub Bushing

Use OEM fwd washer 13191 tab washer 14-816629 or MWC Kit 990332 or 9660-1

See Page 22 for details.

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

- ◆ To avoid damage or injury, replace standard trim tab with trim tab 822777A1. ▶ LIMITED INVENTORY ITEMS.
- ▼ When using rubber hub propeller, use thrust washer 13191A1. ◆ New Pontoon Boat Propellers - Extended Cup!



**135-300 HORSEPOWER • V-6 (4-3/4") GEARCASE**

Thru Hub Exhaust & 15 Tooth Spline

135 HP .....1987 & Newer	220 HP .....1987-88	275 HP .....1990-94
150 HP .....1978 & Newer	225 HP .....1980 & Newer	300 HP .....1983, 1999 & Newer
175 HP .....1978 & Newer	225 HP (Sea Pro/Marathon) .....All Years	350 HP .....2008 & Newer
200 HP .....1978 & Newer	250 HP .....1994 & Newer	3.4 Litre .....1984-86

Includes DFI, EFI, Magnum, Offshore, Optimax, Sea Pro XRI, & Verado

Use thrust washer 13171 - (see note \*\*).

Add 4" pitch for twin motors

\* For engines 300 HP or higher, use "high horsepower sleeve".

See Page 39 for more details.

 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS															
3-BLADE				4-BLADE				STD 3-BLADE				LG. DIAMETER 3-BLADE				4-BLADE			
Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
15-1/4	R	15	992002					14-3/8	R	15	993042								
15	R	17	992003	15	R	16	992202	14-3/8	L	15	993052								
14-1/2	R	19	992004	14-1/2	R	18	992203	14-1/4	R	17	993043	15-1/2	R	17	993023	14-5/8	R	16	993203
14-1/4	R	21	992005	14	R	20	992204	14-1/4	L	17	993053	15-1/2	L	17	993033	14-5/8	L	16	993213
14	R	23	992006					14-1/8	R	19	993044	15-1/4	R	19	993024	14-3/8	R	18	993204
								14-1/8	L	19	993054	15-1/4	L	19	993034	14-3/8	L	18	993214
								14	R	21	993045	14-3/4	R	21	993025	14-1/8	R	20	993205
								14	L	21	993055	14-3/4	L	21	993035	14-1/8	L	20	993215
								13-7/8	R	23	993046	14-5/8	R	23	993026	14	R	22	993206
								13-7/8	L	23	993056	14-5/8	L	23	993036	14	L	22	993216



Vortex XHS™ Aluminum Propeller



Apollo XHS™ Stainless Steel

**Drop-In Hub**  
Use XHS™ Hub Kit 102

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS							 HIGH PERFORMANCE STAINLESS STEEL PROPELLERS									
	ALUMINUM PROPS							BALLISTIC				BALLISTIC XL					
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
CR, HB	16	R	12	3	AL	48-16436A40	031063										
CR, HB	16	R	13	3	AL	48-78114A40	031022										
22-25' - AL	16	R	14	3	AL	48-16438A40	031050										
21-24' - AL	15-1/4	R	15	3	AL	48-78116A40	031023	14-7/8	R	15	3	345131					
20-23' - AL, SK	16	R	16	3	AL	48+16440A40	031051										
19-23' - AL, SK	14-1/2	R	17	3	AL	48-78118A40	031024	14-3/4	R	17	3	345132					
19-23' - AL, SK	15	R	17	3	AL	48-832828A45	031064	14-3/4	L	17	3	345162					
19-22' - AL, SK	15-1/2	R	18	3	AL	48-11324A45	031052										
18-22' - AL, SK	14	R	19	3	AL	48-78120A40	031025	14-1/2	R	19	3	345133					
18-22' - AL, SK	14-1/2	R	19	3	AL	48-382830A45	031065	14-1/2	L	19	3	345163					
18-20' - AL, SK	13-3/4	R	21	3	AL	48-78122A40	031026	14-3/8	R	21	3	345134					
18-20' - AL, SK	14-1/4	R	21	3	AL	48-832832A45	031066	14-3/8	L	21	3	345164					
17-20' - AL, SK								14-1/4	R	23	3	345135					
17-20' - AL, SK								14-1/4	L	23	3	345165					
Up to 18'	13-3/8	R	25	3	AL	48-78126A40	031067	14-1/4	R	25	3	345136					
High Performance												14-1/2	R	22	3	345141	
High Performance												14-1/2	R	24	3	345137	
High Perf. (EFI Engine)												14	R	24	3	345139	
High Performance												14-1/2	R	26	3	345138	
High Perf. (EFI Engine)												14	R	26	3	345140	
<b>High Performance 4 Blade Propellers</b>																	
50-62 MPH												13-3/4	R	23	4	435135	
55-67 MPH												13-3/4	R	25	4	435136	
60-72 MPH												13-3/4	R	27	4	435137	

**Rubber Hub Bushing**

Use OEM fwd washer 12-835467 aft wash 12-31211A3 tab washer 14-816629 or MWC Kit 990312 or 9661-1

See Page 22 for details.

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

♦ LIMITED INVENTORY ITEMS.      \*\* To avoid damage or injury, replace standard trim tab with trim tab 822777A1.  
\*\* 13171 Forward Thrust Washers are for 1983 & Newer applications (Michigan Match props only). This is equivalent to the 12-835467 indicated on page 22.

## Replacing a Flo-Torq™ Hub with Michigan Propellers

### Replacing a Flo-Torq II™ Drop In Hub Design with Michigan Propellers

Propellers supplied from Mercury™, Mariner™ and Force® since 1996 come with Flo-Torq II™ drop in hubs equipped with attaching hardware A,B,C,F & G per the following illustrations. When switching to Michigan Match™ or Rapture™ propellers, change the attaching hardware set up as follows.

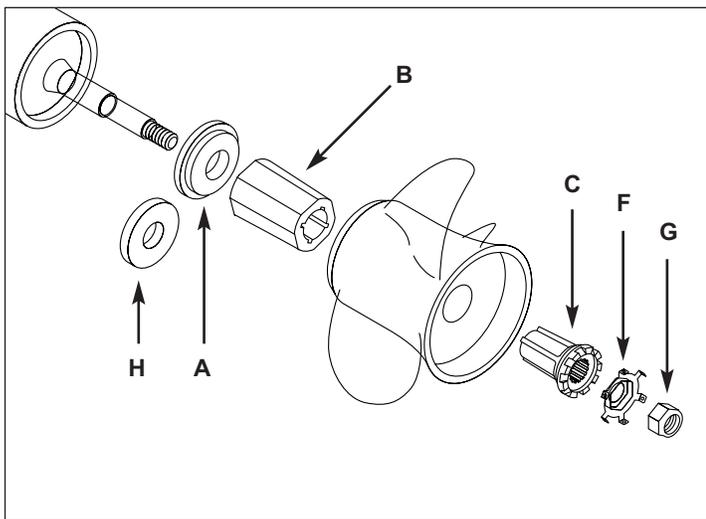
When converting to a Michigan Propeller on a **V-4 gearcase**, eliminate B & C, replace A with H and use existing hardware F & G.

When converting to a Michigan Propeller on a **V-6 gearcase**, eliminate B & C and use A, D, E, F & G as attaching hardware (D & E replaces C). Be sure to use high-performance trim tab 822777A1 for Rapture™ installations.

Michigan Wheel offers the following attaching hardware kits for these installations:

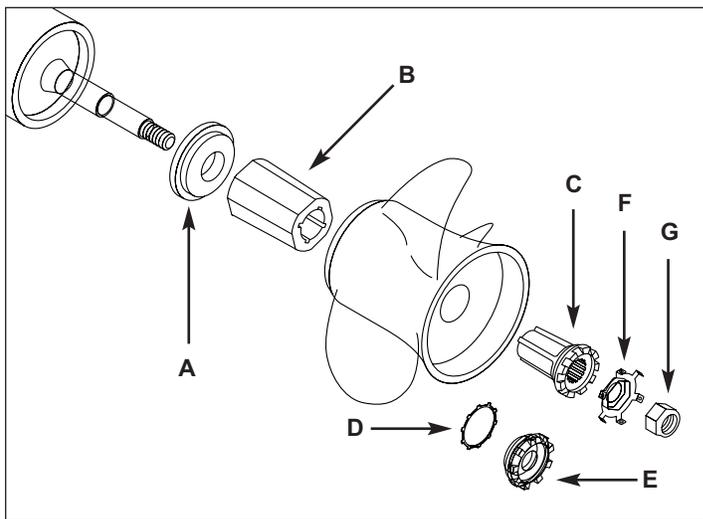
- 990312 Includes D & E for the V-6 gearcase.
- 990332 Includes Forward Thrust Washer H for V-4 gearcase.
- 9661-1 Includes A, D, E, F & G for the V-6 gearcase.
- 9660-1 Includes H, F & G for the V-4 gearcase.

#### V-4 Gearcase Example part No. 031042



- A) 12-835467 Forward Thrust Washer
- B) 827703 Plastic Drive Sleeve
- C) 826074-1 Metal Sleeve adapter
- D) 13-42351-1 Conductivity (star) washer

#### V-6 & Sterndrive Gearcase Example Part No. 031025



- E) 12-31211A2 Aft Castle Thrust Washer
- F) 14-816629 Locking Tab Washer
- G) 11-827614 Shaft Prop Nut
- H) 13191A1 Forward Thrust Washer

## 9.9-20 HORSEPOWER

### Thru Hub Exhaust & 14 Tooth Spline

9.9 HP .....1984 & Newer	15 HP (4-Stroke) .....2000 & Newer	18 HP (4-Stroke) .....2001 & Newer
9.9 HP (4-Stroke) .....2000 & Newer	15, 18 HP .....1985 & Newer	20 HP (4-Stroke) .....2007 & Newer
12 HP .....1985-88		

<b>ALUMINUM PROPS</b>							
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
12-16' - AL	9.2	R	8.4	3	AL	362-64102-0	<b>142017</b>



**Rubber  
Hub  
Bushing**

## 25-30 HORSEPOWER • 3-1/4" GEARCASE

### Thru Hub Exhaust & 10 Tooth Spline

25 HP .....1986 & Newer	30 HP .....1985 & Newer	30 HP (4-Stroke) .....2002 & Newer
25 HP (4-Stroke) .....2002 & Newer		

<b>3-BLADE</b>				
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Part No.
16-20' - AL	10-1/2	R	9	<b>992501</b>
14-18' - AL	10-1/2	R	10	<b>992502</b>
14-18' - AL	10-1/2	R	11	<b>992503</b>
14-18' - AL	10-1/8	R	12	<b>992504</b>
12-16' - AL	10-1/8	R	13	<b>992505</b>
12-16' - AL	10-1/8	R	14	<b>992506</b>



**992504**  
Vortex XHS™  
Aluminum Propeller

**Drop-In Hub**

Use XHS™  
Hub Kit  
**122**

Refer to pages 39-40  
for more details.

<b>ALUMINUM PROPS</b>							
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
16-20' - AL	10.2	R	8.3	3	AL	346-64106-5	<b>142020</b>
12-16' - AL							
12-16' - AL							



Ballistic High  
Performance Stainless  
Steel Propeller

**Rubber  
Hub  
Bushing**

## 35-50 HORSEPOWER • 3-1/4" GEARCASE

### Thru Hub Exhaust & 13 Tooth Spline

35 HP (35B only) .....Thru 1984	40 HP .....1984 & Newer	50 HP (All series except 50C) .....1992 & Newer
---------------------------------	-------------------------	---

<b>3-BLADE</b>				<b>4-BLADE</b>				<b>STD 3-BLADE</b>				
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
					11-1/2	R	8	<b>992401</b>				
					11-1/2	R	9	<b>992402</b>				
20' & Up					11-1/2	R	10	<b>992403</b>				
17-21' - AL	10-3/8	R	11	<b>992404</b>					10-3/4	R	12	<b>993405</b>
16-17' - AL	10-3/8	R	12	<b>992405</b>					10-1/2	R	13	<b>993406</b>
14-16' - AL	10-3/8	R	13	<b>992406</b>					10-3/8	R	14	<b>993407</b>
12-14' - AL	10-3/8	R	14	<b>992407</b>					10-1/8	R	15	<b>993408</b>
Up to 13' - AL	10	R	15	<b>992408</b>								
	10	R	16	<b>992409</b>								



ULTIMATE PERFORMANCE  
STAINLESS STEEL PROPELLERS



Apollo XHS  
Stainless Steel

**Drop-In Hub**

Use XHS™  
Hub Kit  
**116**

Refer to pages 39-40  
for more details.

<b>ALUMINUM PROPS</b>							
BOAT DESCRIPTION/LENGTH	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.
20' & Up - AL							
17-21' - AL	10.6	R	11.3	3	AL	361-64113-0	<b>142001</b>
16-17' - AL	10.6	R	11.7	3	AL	361-64114-0	<b>142002</b>
14-16' - AL							
12-14' - AL	10.2	R	13.9	3	AL	348-64103-0	<b>142004</b>
Up to 13' - AL							



**142001**

**Rubber  
Hub  
Bushing**

## 50-70 HORSEPOWER • 3-1/4" GEARCASE

Thru Hub Exhaust & 13 Tooth Spline

50 HP (50C only) .....1987-91      60A .....1986 & Newer      70A & 70B .....1981 & Newer  
 55 HP .....1981-88

BOAT DESCRIPTION/LENGTH	HIGH PERFORMANCE ALUMINUM PROPELLERS								 <p><b>992302</b> Vortex XHS™ Aluminum Propeller</p>	 <p><b>992402</b> Vortex XHS™ Aluminum Propeller</p>	<b>Drop-In Hub</b>  Use XHS™ Hub Kit <b>112</b>  Refer to pages 39-40 for more details.
	3-BLADE				4-BLADE						
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.			
				11-1/2	R	8	<b>992401</b>				
				11-1/2	R	9	<b>992402</b>				
				11-1/2	R	10	<b>992403</b>				
15-18' -AL, SK	11-3/4	R	13	<b>992301</b>							
14-17' -AL, SK	11-3/4	R	15	<b>992302</b>							
13-15' -AL, SK	11-3/4	R	17	<b>992303</b>							

BOAT DESCRIPTION/LENGTH	ALUMINUM PROPS							BALLISTIC					 <p>Ballistic Stainless Steel Propeller</p>	<b>Rubber Hub Bushing</b>
	MICHIGAN MATCH REPLACEMENT PROPELLERS							BALLISTIC™ STAINLESS STEEL PROPS						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.		
CR, HB	11.6	R	11	3	AL	353-64103-0	<b>▶ 142005</b>							
14-17' -AL, SK	11	R	15	3	AL	353-64107-0	<b>▶ 142007</b>	<b>12-3/8</b>	<b>R</b>	<b>15</b>	<b>3</b>	<b>325030</b>		
13-15' -AL, SK	10.7	R	16.4	3	AL	353-64108-0	<b>▶ 142008</b>							
12-14' -AL, SK	10.9	R	17.6	3	AL	353-64109-0	<b>▶ 142009</b>	<b>12</b>	<b>R</b>	<b>17</b>	<b>3</b>	<b>325031</b>		

## 60-140 HORSEPOWER • 4-1/4" GEARCASE

Thru Hub Exhaust & 15 Tooth Spline

60C (Large Gearcase) .....Thru 1999      90 HP .....1987 & Newer      120 HP .....1988 & Newer  
 70C (Large Gearcase) .....Thru 2002      115 HP .....1992 & Newer      140 HP .....1988 & Newer

BOAT DESCRIPTION/LENGTH	HIGH PERFORMANCE ALUMINUM PROPELLERS								ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS					 <p>Apollo XHS Stainless Steel</p>	<b>Drop-In Hub</b>  Use XHS™ Hub Kit <b>109</b>  Use Gearcase Adapter Ring supplied with propeller.  Refer to pages 39-40 for more details.
	3-BLADE WIDE				STD 3-BLADE										
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.							
	14	R	13	<b>992112</b>											
19-22' - Runabouts, SK	13-3/4	R	15	<b>992113</b>	13-3/8	R	15	<b>993143</b>							
19-22' - Runabouts, SK					13-3/8	L	15	<b>993153</b>							
18-21' - Runabouts, SK	13-1/4	R	17	<b>992114</b>	13-1/4	R	17	<b>993144</b>							
18-21' - Runabouts, SK					13-1/4	L	17	<b>993154</b>							
17-20' - Runabouts, SK	13	R	19	<b>992115</b>	13-1/8	R	19	<b>993145</b>							
17-20' - Runabouts, SK					13-1/8	L	19	<b>993155</b>							
15-18' - Runabouts, SK	12-3/4	R	21	<b>992116</b>	13	R	21	<b>993146</b>							
15-18' - Runabouts, SK					13	L	21	<b>993156</b>							

BOAT DESCRIPTION/LENGTH	ALUMINUM PROPS							BALLISTIC					 <p>Rubber Hub Standard OEM Replacement Aluminum</p>	<b>Rubber Hub Bushing</b>
	MICHIGAN MATCH REPLACEMENT PROPELLERS							BALLISTIC™ STAINLESS STEEL PROPS						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.		
20-24' -AL, SK								<b>13-5/8</b>	<b>R</b>	<b>15</b>	<b>3</b>	<b>335930</b>		
17-19' -AL, SK								<b>13-1/2</b>	<b>R</b>	<b>17</b>	<b>3</b>	<b>335931</b>		
16-18' -AL, SK								<b>13-3/8</b>	<b>R</b>	<b>19</b>	<b>3</b>	<b>335932</b>		
15-18' -AL, SK	12.5	R	19.9	3	AL	3B7-64545-0	<b>▶ 142013</b>							
15-18' -AL, SK								<b>13-1/8</b>	<b>R</b>	<b>21</b>	<b>3</b>	<b>335933</b>		

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

▶ LIMITED INVENTORY ITEMS.

### 9.9-15 HORSEPOWER

Thru Hub Exhaust & 10 Tooth Spline

DT 9.9 .....1983-87      DT 15 .....1983-88      DF 15 (4-Stroke) .....1997 & Newer  
 DF 9.9 (4-Stroke) .....1997 & Newer      DT 15C .....1989-97

BOAT DESCRIPTION/LENGTH									<b>Rubber Hub Bushing</b>
	<b>ALUMINUM PROPS</b>								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
14-18' - AL	9-1/4	R	9	3	AL	58100-93723-019	<b>062016</b>		
14-16' - AL	9-1/4	R	11	3	AL	58100-93743-019	<b>062017</b>		

### 25-30 HORSEPOWER • 3-1/4" GEARCASE

Thru Hub Exhaust & 10 Tooth Spline

DT 25C .....1989 & Newer      DT 30, 30C .....1987-97      DF 25 (4-Stroke) .....2000 & Newer  
 DT 20, 25 .....1987-88      DT 30 @ .....1983-86      DF 30 (4-Stroke) .....2000 & Newer  
 DT 20, 25 @ .....1983-86

BOAT DESCRIPTION/LENGTH	 HIGH PERFORMANCE ALUMINUM PROPELLERS					<b>992504</b> Vortex XHS™ Aluminum Propeller	<b>Drop-In Hub</b> Use XHS™ Hub Kit <b>121</b> Refer to pages 39-40 for more details.
	<b>3-BLADE</b>						
	Dia.	Rot.	Pitch	Part No.			
	10-1/2	R	9	<b>992501</b>			
	10-1/2	R	10	<b>992502</b>			
16-18' - AL	10-1/2	R	11	<b>992503</b>			
14-16' - AL	10-1/8	R	12	<b>992504</b>			
14-16' - AL	10-1/8	R	13	<b>992505</b>			
	10-1/8	R	14	<b>992506</b>			

BOAT DESCRIPTION/LENGTH							 STAINLESS STEEL PROPS						<b>Rubber Hub Bushing</b>
	<b>ALUMINUM PROPS</b>						<b>BALLISTIC</b>						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#		
14-16' - AL								10-1/8	R	13	3	<b>305529</b>	
14-16' - AL								10-1/8	R	15	3	<b>305530</b>	

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

@ Use stopper 57632-96400 (for rubber hub prop only).      ▶ LIMITED INVENTORY ITEMS.



**35-65 HORSEPOWER • 3-1/4" GEARCASE**

Thru Hub Exhaust & 13 Tooth Spline

DT 35C .....1987-90	DT 55 .....1985-97	DF 40 (4-Stroke) .....1999 & Newer
DT 40 .....1983 & Newer	DT 60 .....1983-84	DF 50 (4-Stroke) .....1999 & Newer
DT 50 & 50M .....1983-84	DT 65 .....1985-97	

BOAT DESCRIPTION/LENGTH	 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS							
	3-BLADE				4-BLADE				STD 3-BLADE			
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
				11-1/2	R	8	<b>992401</b>					
				11-1/2	R	9	<b>992402</b>					
18-21' - AL				11-1/2	R	10	<b>992403</b>					
17-19' - AL	10-3/8	R	11	<b>992404</b>								
16-18' - LL	10-3/8	R	12	<b>992405</b>				10-3/4	R	12	<b>993405</b>	
14-16' - LL	10-3/8	R	13	<b>992406</b>				10-1/2	R	13	<b>993406</b>	
12-14' - LL	10-3/8	R	14	<b>992407</b>				10-3/8	R	14	<b>993407</b>	
12-14' - LL	10	R	15	<b>992408</b>				10-1/8	R	15	<b>993408</b>	
12-14' - LL	10	R	16	<b>992409</b>								



Apollo XHS Stainless Steel

**Drop-In Hub**  
Use XHS™ Hub Kit **115**

Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS							 BALLISTIC				
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
	18-21' - AL	11-3/4	R	10	3	AL	58100-95212-019	<b>032045</b>				
18-21' - AL	12-1/4	R	10	3	AL		<b>★ 031072</b>					
17-19' - AL	12	R	11	3	AL	58100-95222-019	<b>032044</b>					
16-18' - LL	11-3/8	R	12	3	AL	58100-95393-019	<b>032043</b>					
14-16' - LL	11-1/8	R	13	3	AL	58100-94313-019	<b>032042</b>	10-1/8	R	13	3	<b>395929</b>
12-14' - LL	11-1/4	R	14	3	AL	58100-95353-019	<b>032041</b>					
12-14' - LL	11	R	15	3	AL	58100-95363-019	<b>032040</b>	10-1/8	R	15	3	<b>395930</b>



Ballistic High Performance Stainless Steel Propeller

**Rubber Hub Bushing**

**60-140 HORSEPOWER • 4-1/4" GEARCASE**

Thru Hub Exhaust & 13 Tooth Spline

DF 60, 70 + (4-Stroke) .....1998 & Newer	DT 85 ++ .....1992 & Newer	DT 100 + .....1989 & Newer
DT 75 ++ .....1992-97	DT 85 # .....1979-91	DT 115, 140 ++ .....1992 & Newer
DT 75 # .....1983-91	DT 90 + .....1989-2000	DT 115, 140 # .....1981-91

BOAT DESCRIPTION/LENGTH	 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS			
	3-BLADE WIDE				STD 3-BLADE			
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
	14	R	13	<b>992112</b>				
19-22' - Runabouts, SK	13-3/4	R	15	<b>992113</b>	13-3/8	R	15	<b>993143</b>
19-22' - Runabouts, SK					13-3/8	L	15	<b>993153</b>
18-21' - Runabouts, SK	13-1/4	R	17	<b>992114</b>	13-1/4	R	17	<b>993144</b>
18-21' - Runabouts, SK					13-1/4	L	17	<b>993154</b>
17-20' - Runabouts, SK	13	R	19	<b>992115</b>	13-1/8	R	19	<b>993145</b>
17-20' - Runabouts, SK					13-1/8	L	19	<b>993155</b>
15-18' - Runabouts, SK	12-3/4	R	21	<b>992116</b>	13	R	21	<b>993146</b>
15-18' - Runabouts, SK					13	L	21	<b>993156</b>



Vortex XHS Aluminum Propeller



Apollo XHS Stainless Steel

**Drop-In Hub**  
Use XHS™ Hub Kit **110**

Do NOT use Gearcase Adapter Ring supplied with propeller.

Refer to pages 39-40 for more details.

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

- ★ Indicates a cupped propeller.
- ◆ LIMITED INVENTORY ITEMS.
- + Use stopper 57632-87E10, spacer 57633-95501, washer 09160-18028 (for rubber hub prop only).
- ++ Use stopper 57635-95510, spacer 57633-95501, washer 09160-18028 (for rubber hub prop only).
- # Requires stopper 57635-95503, spacer 57633-95501, lock washer 09160-18028 (supplied with engine). (For rubber hub prop only.)

**90, 115 & 140 HORSEPOWER (4-STROKE) • 4-1/4" GEARCASE**

Thru Hub Exhaust & 15 Tooth Spline

DF 90 (4-Stroke) \* .....2001 & Newer      DF 115 (4-Stroke) \* .....2001 & Newer      DF 140 (4-Stroke)\* .....2002 & Newer  
 (\* see note below)

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS™</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS					APOLLO <sup>XHS™</sup> ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS				
	3-BLADE WIDE					STD 3-BLADE				
	Dia.	Rot.	Pitch	Part No.		Dia.	Rot.	Pitch	Part No.	
	14	R	13	<b>992112</b>						
19-22' - Runabouts, SK	13-3/4	R	15	<b>992113</b>	13-3/8	R	15	<b>993143</b>		
19-22' - Runabouts, SK					13-3/8	L	15	<b>993153</b>		
18-21' - Runabouts, SK	13-1/4	R	17	<b>992114</b>	13-1/4	R	17	<b>993144</b>		
18-21' - Runabouts, SK					13-1/4	L	17	<b>993154</b>		
17-20' - Runabouts, SK	13	R	19	<b>992115</b>	13-1/8	R	19	<b>993145</b>		
17-20' - Runabouts, SK					13-1/8	L	19	<b>993155</b>		
15-18' - Runabouts, SK	12-3/4	R	21	<b>992116</b>	13	R	21	<b>993146</b>		
15-18' - Runabouts, SK					13	L	21	<b>993156</b>		

Drop-In Hub

Use XHS™ Hub Kit **125 & 126**

Refer to pages 39-40 for more details.

**Note:** For 90 & 115 HP 4-Stroke applications use XHS™ (Drop-in Hub) Kit # 125. For 140 HP 4-Stroke applications use XHS™ (Drop-in Hub) Kit # 126. Use Gearcase Adapter Ring supplied with propeller.

BOAT DESCRIPTION/LENGTH	HIGH END MATCH REPLACEMENT PROPELLERS ALUMINUM PROPS							BALLISTIC™ STAINLESS STEEL PROPS HIGH PERFORMANCE STAINLESS STEEL PROPELLERS									
	ALUMINUM PROPS							BALLISTIC		BALLISTIC XL							
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
25' - AL	14	R	11	3	AL		<b>101036</b>										
22' - AL	13-5/8	R	13	3	AL		<b>101031</b>										
20-24' - AL, SK	13-1/2	R	15	3	AL		<b>101032</b>	13-5/8	R	15	3	<b>335930</b>					
17-19' - AL, SK	13-1/4	R	17	3	AL	58100-90J00-019	<b>101033</b>	13-1/2	R	17	3	<b>335931</b>					
16-18' - AL, SK	13	R	19	3	AL	58100-90J10-019	<b>101034</b>	13-3/8	R	19	3	<b>335932</b>					
15-18' - AL, SK	12-5/8	R	21	3	AL	58100-90J20-019	<b>101035</b>	13-1/8	R	21	3	<b>335933</b>					
High Performance													13-1/2	R	22	3	<b>335934</b>
High Performance													13-1/2	R	24	3	<b>335935</b>

Rubber Hub Bushing

**150-300 HORSEPOWER • 4-3/4" GEARCASE**

Thru Hub Exhaust & 15 Tooth Spline

DT 150 .....1986 & Newer      DT 200 .....1986 & Newer      DF 225 \* .....2004 & Newer  
 DF 150 .....2006 & Newer      DF 200 \* .....2004 & Newer      DF 250 \* .....2004 & Newer  
 DT 175 .....1986-92      DT 225 .....1986 & Newer      DF 300 \* .....2007 & Newer  
 DF 175 .....2006 & Newer  
 (\* see note below)

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS™</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS					APOLLO <sup>XHS™</sup> ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS													
	3-BLADE		4-BLADE			STD 3-BLADE		LG. DIAMETER 3-BLADE		4-BLADE									
	Dia.	Rot.	Pitch	Part No.		Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.						
15-1/4	R	15	<b>992002</b>																
15	R	17	<b>992003</b>	15	R	16	<b>992202</b>	14-3/8	R	15	<b>993042</b>								
								14-3/8	L	15	<b>993052</b>								
								14-1/4	R	17	<b>993043</b>	15-1/2	R	17	<b>993023</b>	14-5/8	R	16	<b>993203</b>
								14-1/4	L	17	<b>993053</b>	15-1/2	L	17	<b>993033</b>	14-5/8	L	16	<b>993213</b>
								14-1/8	R	19	<b>993044</b>	15-1/4	R	19	<b>993024</b>	14-3/8	R	18	<b>993204</b>
								14-1/8	L	19	<b>993054</b>	15-1/4	L	19	<b>993034</b>	14-3/8	L	18	<b>993214</b>
								14	R	21	<b>993045</b>	14-3/4	R	21	<b>993025</b>	14-1/8	R	20	<b>993205</b>
								14	L	21	<b>993055</b>	14-3/4	L	21	<b>993035</b>	14-1/8	L	20	<b>993215</b>
								13-7/8	R	23	<b>993046</b>	14-5/8	R	23	<b>993026</b>	14	R	22	<b>993206</b>
								13-7/8	L	23	<b>993056</b>	14-5/8	L	23	<b>993036</b>	14	L	22	<b>993216</b>

Drop-In Hub

Use XHS™ Hub Kit **104**

Refer to pages 39-40 for more details.

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

▶ LIMITED INVENTORY ITEMS.

\* Listed propeller diameters are slightly less than original equipment propellers.

## 6-8 HORSEPOWER

### Thru Hub Exhaust & 7 Tooth Spline

6 HP (2 & 4-Stroke) .....1986 & Newer      8 HP (2 & 4-Stroke) .....1986 & Newer

BOAT DESCRIPTION/LENGTH								102002 	Rubber Hub Bushing
	ALUMINUM PROPS								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
General Usage	8-1/2	R	7-1/2	3	AL	6G1-45943-00-EL	102002		

## 8 HORSEPOWER

### Non-Thru Hub Exhaust & Pin Drive

8 HP .....1976-83

BOAT DESCRIPTION/LENGTH								012008 	Rubber Hub Bushing
	ALUMINUM PROPS								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
14-16' - AL	8-1/4	R	8	3	AL		012008		

## 9.9-15 HORSEPOWER

### Thru Hub Exhaust & 8 Tooth Spline

9.9 HP (2 & 4-Stroke) .....1984 & Newer      15 HP (2 & 4-Stroke) .....1984 & Newer

BOAT DESCRIPTION/LENGTH								102003 	Rubber Hub Bushing
	ALUMINUM PROPS								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
13-17' - HL	9-1/4	R	8	3	AL	683-45947-00-EL	102003		
12-15' - AL	9-1/4	R	9	3	AL	683-45945-00-EL	102004		
12-15' - AL	9-1/4	R	10-1/2	3	AL	683-45943-00-EL	102005		

## 15-28 HORSEPOWER

### Non-Thru Hub Exhaust & Pin Drive

15A & W15 HP .....1976-83      25 HP 2 Cyl. ....1977-79      28 HP .....1976-78  
20 HP .....1976-78

BOAT DESCRIPTION/LENGTH								012011 	Rubber Hub Bushing
	ALUMINUM PROPS								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
HB, SB	9-1/4	R	7	3	AL	650-45943-01-36	012102		
12-14' - HL	9	R	9	3	AL		012109		
12-14' - HL	9	R	10	3	AL	651-45947-00-36	012011		
12-14' - AL	9-1/4	R	11	3	AL	653-45941-01-36	012013		

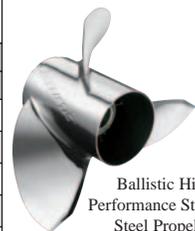
Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

**20-30 HORSEPOWER • 3-1/4" GEARCASE**

Thru Hub Exhaust & 10 Tooth Spline

20 HP .....1996-97                                      F25 (4-Stroke) .....1998 - 2006                                      30 HP .....1979 - 2002  
 25 HP .....1980 & Newer

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS™</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS				992504 Vortex XHS™ Aluminum Propeller	Drop-In Hub Use XHS™ Hub Kit <b>123</b> Refer to pages 39-40 for more details
	3-BLADE					
	Dia.	Rot.	Pitch	Part No.		
16-18' - AL	10-1/2	R	9	992501		
14-17' - AL	10-1/2	R	10	992502		
14-17' - AL	10-1/2	R	11	992503		
13-16' - LL	10-1/8	R	12	992504		
14-17'	10-1/8	R	13	992505		
13-15'	10-1/8	R	14	992506		

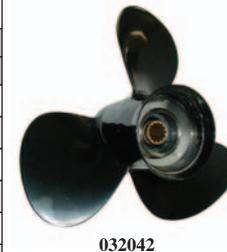
BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS							BALLISTIC™ STAINLESS STEEL PROPS				Ballistic High Performance Stainless Steel Propeller	Rubber Hub Bushing
	ALUMINUM PROPS							BALLISTIC					
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	
16-18' - AL	9-7/8	R	9	3	AL	664-45941-01-EL	022001						
14-17' - AL	9-7/8	R	10-1/2	3	AL	664-45945-00-EL	022002						
13-16' - LL	9-3/8	R	12	3	AL	664-45954-00-EL	022003						
14-17' - General Usage								10-1/8	R	13	3	305929	
14-17' - General Usage								10-1/8	R	15	3	305930	

**30-60 HORSEPOWER • 3-1/4" GEARCASE**

Thru Hub Exhaust & 13 Tooth Spline

F30 (4-Stroke) .....2001-05                                      48 HP .....1995 & Newer                                      55 HP .....1976-95  
 40 HP .....1984 & Newer                                      50 HP (not T50) .....1984 & Newer                                      60 HP .....1976-91  
 F40 (4-Stroke) .....1999 & Newer                                      F50 (4-Stroke) .....1995 & Newer                                      F60 (4-Stroke) .....1999 & Newer

BOAT DESCRIPTION/LENGTH	VORTEX <sup>XHS™</sup> HIGH PERFORMANCE ALUMINUM PROPELLERS				APOLLO <sup>XHS™</sup> ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS				Apollo XHS Stainless Steel	Drop-In Hub Use XHS™ Hub Kit <b>117</b> Refer to pages 39-40 for more details			
	3-BLADE		4-BLADE		STD 3-BLADE								
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	
					11-1/2	R	8	992401					
					11-1/2	R	9	992402					
19-22' - LL					11-1/2	R	10	992403					
17-19' - AL, SK	10-3/8	R	11	992404					10-3/4	R	12	993405	
16-17' - AL, SK	10-3/8	R	12	992405					10-1/2	R	13	993406	
14-16' - AL, SK	10-3/8	R	13	992406					10-3/8	R	14	993407	
12-14' - LL	10-3/8	R	14	992407					10-1/8	R	15	993408	
12-14' - LL	10	R	15	992408									
12-14' - LL	10	R	16	992409									

BOAT DESCRIPTION/LENGTH	MICHIGAN MATCH REPLACEMENT PROPELLERS							BALLISTIC™ STAINLESS STEEL PROPS				032042	Rubber Hub Bushing
	ALUMINUM PROPS							BALLISTIC					
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	
19-22' - LL	11-3/4	R	10	3	AL		032045						
19-22' - LL	12-1/4	R	10	3	AL		★ 031072						
17-19' - AL, SK	12	R	11	3	AL	663-45947-02-EL	032044						
16-17' - AL, SK	11-3/8	R	12	3	AL	6H5-45952-00-EL	032043						
14-16' - AL, SK	11-1/8	R	13	3	AL	6H5-45945-00-EL	032042	10-1/8	R	13	3	395929	
12-14' - LL	11-1/4	R	14	3	AL	663-45958-01-EL	032041						
12-14' - LL	11	R	15	3	AL	6H5-45943-00-EL	032040	10-1/8	R	15	3	395930	

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

▶ LIMITED INVENTORY ITEMS.                                      ★ Indicates a cupped propeller.

**50-130 HORSEPOWER • 4-1/4" GEARCASE**

Thru Hub Exhaust & 15 Tooth Spline

150 HP .....1996 & Newer	F80 (4-Stroke) .....1999-2002	F100 (4-Stroke) .....1999 & Newer
60 HP .....1992 & Newer	85 HP .....1991-97	115 HP .....1984 & Newer
70 HP .....1984 & Newer	F90 (4-Stroke) .....1999 & Newer	F115 (4-Stroke) .....2000 & Newer
75 HP .....1994 & Newer	90 HP .....1984 & Newer	130 HP .....1984 & Newer
80 HP .....1997		

BOAT DESCRIPTION/LENGTH	 <b>VORTEX XHS™</b> HIGH PERFORMANCE ALUMINUM PROPELLERS					 <b>APOLLO XHS™</b> ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS				
	3-BLADE WIDE					STD 3-BLADE				
	Dia.	Rot.	Pitch	Part No.		Dia.	Rot.	Pitch	Part No.	
	14	R	13	992112						
19-22' - Runabouts, SK	13-3/4	R	15	992113		13-3/8	R	15	▼993143	
19-22' - Runabouts, SK						13-3/8	L	15	▼993153	
18-21' - Runabouts, SK	13-1/4	R	17	992114		13-1/4	R	17	▼993144	
18-21' - Runabouts, SK						13-1/4	L	17	▼993154	
17-20' - Runabouts, SK	13	R	19	992115		13-1/8	R	19	▼993145	
17-20' - Runabouts, SK						13-1/8	L	19	▼993155	
15-18' - Runabouts, SK	12-3/4	R	21	992116		13	R	21	▼993146	
15-18' - Runabouts, SK						13	L	21	▼993156	

**Drop-In Hub**  
Use XHS™ Hub Kit **108 & 103**

Use Gearcase Adapter Ring supplied with propeller.

**Note:** For 115 HP, FS 115 (4-Stroke), and 130 HP engine applications, use XHS™ (Drop-In Hub) Kit # 103. For all other engine applications, use XHS™ (Drop-In Hub) Kit # 108. Refer to pages 39-40 for more details. Trim Tab 6E5-45371-10-00 is required when using the Apollo.

BOAT DESCRIPTION/LENGTH	 <b>MICHIGAN MATCH</b> REPLACEMENT PROPELLERS							 <b>BALLISTIC™</b> HIGH PERFORMANCE STAINLESS STEEL PROPELLERS									
	ALUMINUM PROPS							BALLISTIC									
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
25' - AL	14	R	11	3	AL	6E5-45954-00-EL	101036										
22' - AL	13-5/8	R	13	3	AL	6E5-45949-00-EL	101031										
20-24' - AL, SK	13-1/2	R	15	3	AL	6E5-45947-00-EL	101032	13-5/8	R	15	3	335930					
17-19' - AL, SK	13-1/4	R	17	3	AL	6E5-45945-00-EL	101033	13-1/2	R	17	3	335931					
16-18' - AL, SK	13	R	19	3	AL	6E5-45941-00-EL	101034	13-3/8	R	19	3	335932					
15-18' - AL, SK	12-5/8	R	21	3	AL	6E5-45943-00-EL	101035	13-1/8	R	21	3	335933					
High Performance													13-1/2	R	22	3	335934
High Performance													13-1/2	R	24	3	335935

**Rubber Hub Bushing**

**80-140 HORSEPOWER**

Thru Hub Exhaust & 15 Tooth Spline

80, 90, 115 HP .....1978-83	80 HP .....1977	140 HP .....1978-79
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**See Mercury 40-140 HP Product Offering on page 20.**

**150-175 HORSEPOWER**

Thru Hub Exhaust & 15 Tooth Spline

150 HP .....1979-83	175 HP .....1978-79	175 HP (DI & VMAX) .....2001 & Newer
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**See Mercury V-6 Product Offering on page 21.**

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

- ▶ LIMITED INVENTORY ITEMS.
- ▼ Trim Tab 6E5-45371-10-00 is required when using the Apollo propeller on Yamaha V4 engines, 50-130 HP.

**150-300 HORSEPOWER • 4-3/4" GEARCASE**

Thru Hub Exhaust & 15 Tooth Spline

150 HP .....1986 & Newer	220 HP (Special) .....1984-85	F200 (4-Stroke) .....2002 & Newer
F150 HP (4-Stroke) .....2004 & Newer	225 HP (Excel) .....1987-88	F225 (4-Stroke) .....2002 & Newer
175 HP .....1984 & Newer	225 HP .....1986 & Newer	300 HP .....2003 & Newer
200 HP .....1984 & Newer	250 HP .....1990 & Newer	300 HPDI .....2004 & Newer
200 HP (VMAX) .....2001	250 HP (VMAX) .....2001	

\* For engines 300 HP or higher, use "high horsepower sleeve".  
See Page 39 for more details.

 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS															
3-BLADE				4-BLADE				STD 3-BLADE			LG. DIAMETER 3-BLADE			4-BLADE					
Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
15-1/4	R	15	992002					14-3/8	R	15	993042								
								14-3/8	L	15	993052								
15	R	17	992003	15	R	16	992202	14-1/4	R	17	993043	15-1/2	R	17	993023	14-5/8	R	16	993203
								14-1/4	L	17	993053	15-1/2	L	17	993033	14-5/8	L	16	993213
14-1/2	R	19	992004	14-1/2	R	18	992203	14-1/8	R	19	993044	15-1/4	R	19	993024	14-3/8	R	18	993204
								14-1/8	L	19	993054	15-1/4	L	19	993034	14-3/8	L	18	993214
14-1/4	R	21	992005	14	R	20	992204	14	R	21	993045	14-3/4	R	21	993025	14-1/8	R	20	993205
								14	L	21	993055	14-3/4	L	21	993035	14-1/8	L	20	993215
14	R	23	992006					13-7/8	R	23	993046	14-5/8	R	23	993026	14	R	22	993206
								13-7/8	L	23	993056	14-5/8	L	23	993036	14	L	22	993216



Vortex XHS™ Aluminum Propeller



Apollo XHS™ Stainless Steel

**Drop-In Hub**  
Use XHS™ Hub Kit **103**  
Refer to pages 39-40 for more details

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS							 HIGH PERFORMANCE STAINLESS STEEL PROPELLERS									
	ALUMINUM PROPS							BALLISTIC					BALLISTIC XL				
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
20-22' - AL, SK								14-7/8	R	15	3	345931					
19-21' - AL, SK	14-1/2	R	17	3	AL	6G5-45947-01-98	101027	14-3/4	R	17	3	345932					
19-21' - AL, SK								14-3/4	L	17	3	345962					
18-20' - AL, SK	14	R	19	3	AL	6G5-45945-01-98	101028	14-1/2	R	19	3	345933					
18-20' - AL, SK								14-1/2	L	19	3	345963					
18-20' - AL, SK								14-3/8	R	21	3	345934					
18-20' - AL, SK								14-3/8	L	21	3	345964					
18-19' - AL, SK	13-1/2	R	23	3	AL	6G5-45949-00-98	101030	14-1/4	R	23	3	345935					
Up to 18' - AL, SK								14-1/4	R	25	3	345936					
High Performance												14-1/2	R	22	3	345941	
High Performance												14-1/2	R	24	3	345937	
High Performance												14-1/2	R	26	3	345938	
<b>High Performance 4-Blade Propellers</b>																	
High Performance												13-3/4	R	23	4	435935	
High Performance												13-3/4	R	25	4	435936	
High Performance												13-3/4	R	27	4	435937	

**Rubber Hub Bushing**

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

▶ LIMITED INVENTORY ITEMS.

**MERCUISER™, ALPHA ONE™ • BRAVO ONE™ • 4-3/4" GEARCASE**

Thru Hub Exhaust & 15 Tooth Spline

MODELS 1A, 1B, 1C .....  
 MODELS 120, 140, 145 DTS .....  
 MODELS 165, 228, 470, 485, 888, 898  
 MODELS 225S, 233, 255TRS .....  
 MODELS 260, 280TRS, 330TRS ...  
 120-190 HP Mercruiser™ .....1983-85  
 200-260 HP Mercruiser™ .....1983-85

**Alpha One™** .....  
 2.5L - 5.7L Alpha One™ .....All Years  
 6.2L MPI Alpha One™ .....All Years  
 262, 350, 354 Magnum .....All Years  
 320 EFI Alpha One™ .....All Years  
 D2.8L - D7.3L (Diesel) .....All Years

**Bravo One™ (Rubber Hub)**  
 320 EFI, 350, 454 Magnum .....All Years  
 5.0L - 7.4L Bravo One™ .....All Years

 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS															
3-BLADE				4-BLADE				STD 3-BLADE				LG. DIAMETER 3-BLADE				4-BLADE			
Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
15-1/4	R	15	992002					14-3/8	R	15	993042								
15	R	17	992003	15	R	16	992202	14-3/8	L	15	993052								
14-1/2	R	19	992004	14-1/2	R	18	992203	14-1/4	R	17	993043	15-1/2	R	17	993023	14-5/8	R	16	993203
14-1/4	R	21	992005	14	R	20	992204	14-1/4	L	17	993053	15-1/2	L	17	993033	14-5/8	L	16	993213
14	R	23	992006					14-1/8	R	19	993044	15-1/4	R	19	993024	14-3/8	R	18	993204
								14-1/8	L	19	993054	15-1/4	L	19	993034	14-3/8	L	18	993214
								14	R	21	993045	14-3/4	R	21	993025	14-1/8	R	20	993205
								14	L	21	993055	14-3/4	L	21	993035	14-1/8	L	20	993215
								13-7/8	R	23	993046	14-5/8	R	23	993026	14	R	22	993206
								13-7/8	L	23	993056	14-5/8	L	23	993036	14	L	22	993216



Vortex XHS™ Aluminum Propeller



Apollo XHS™ Stainless Steel

**Drop-In Hub**  
 Use XHS™  
 Hub Kit  
**102**

Refer to pages 39-40 for more details

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS						 HIGH PERFORMANCE STAINLESS STEEL PROPELLERS										
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
Non-Plane Heavy CR	16	R	12	3	AL	48-16436A40	031063										
Non-Plane Heavy CR	16	R	13	3	AL	48-78114A40	031022										
21-27' - (17-31 MPH)	16	R	14	3	AL	48-16438A40	031050										
21-28' - (18-38 MPH)	15-1/4	R	15	3	AL	48-78116A40	031023	14-7/8	R	15	3	345131					
19-26' - (26-35 MPH)	16	R	16	3	AL	48-16440A40	031051										
19-26' - (27-45 MPH)	14-1/2	R	17	3	AL	48-78118A40	031024	14-3/4	R	17	3	345132					
19-26' - (27-45 MPH)	15	R	17	3	AL	48-832828A45	031064	14-3/4	L	17	3	345162					
17-25' - (32-42 MPH)	15-1/2	R	18	3	AL	48-11324A45	031052										
17-25' - (33-49 MPH)	14	R	19	3	AL	48-78120A40	031025	14-1/2	R	19	3	345133					
17-25' - (33-49 MPH)	14-1/2	R	19	3	AL	48-832830A45	031065										
17-25' - (33-49 MPH)								14-1/2	L	19	3	345163					
Up to 23' - (37-56 MPH)	13-3/4	R	21	3	AL	48-78122A40	031026	14-3/8	R	21	3	345134					
Up to 23' - (37-56 MPH)	14-1/4	R	21	3	AL	48-832832A45	031066	14-3/8	L	21	3	345164					
Up to 20' - (40-62 MPH)	14	R	23	3	AL	48-832834A45	031068	14-1/4	R	23	3	345135					
Up to 20' - (40-62 MPH)								14-1/4	L	23	3	345165					
Up to 18' - (43-65 MPH)	13-3/8	R	25	3	AL	48-78126A40	031067	14-1/4	R	25	3	345136					

**Rubber Hub Bushing**

Use OEM  
 fwd washer 12-835467  
 aft washer 12-31211A3  
 tab washer 14-816629  
 or  
 MWC Kit 990312  
 or 9661-1

See Page 22 for details.

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

- ▶ LIMITED INVENTORY ITEMS.
- ⚙ When using Ballistic and Apollo propellers, to avoid damage or injury, replace standard trim tab with trim tab 822777A1.
- ▼ These applications will require an anode plate 76214Q5 (Quicksilver part number) in place of the 822777A1 trim tab.

**BRAVO ONE™ • OVER 365 HP • (SOLID HUB) • 4-3/4" GEARCASE**

Thru Hub Exhaust & 15 Tooth Spline

454 Magnum (385 HP) .....1995 & Newer	502 Magnum (390-415 HP) .....1990 & Newer	500 HP .....1996 & Newer
496 Magnum (375 HP) .....All Years	450 HP .....1995	525 HP (SC) (490-500) .....1992 & Newer
496 Magnum H.O. (425 HP) .....All Years	465 HP .....1991 & 94	

 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS											
STD 3-BLADE				LG. DIAMETER 3-BLADE				4-BLADE			
Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
14-3/8	R	15	993042								
14-3/8	L	15	993052								
14-1/4	R	17	993043	15-1/2	R	17	993023	14-5/8	R	16	993203
14-1/4	L	17	993053	15-1/2	L	17	993033	14-5/8	L	16	993213
14-1/8	R	19	993044	15-1/4	R	19	993024	14-3/8	R	18	993204
14-1/8	L	19	993054	15-1/4	L	19	993034	14-3/8	L	18	993214
14	R	21	993045	14-3/4	R	21	993025	14-1/8	R	20	993205
14	L	21	993055	14-3/4	L	21	993035	14-1/8	L	20	993215
13-7/8	R	23	993046	14-5/8	R	23	993026	14	R	22	993206
13-7/8	L	23	993056	14-5/8	L	23	993036	14	L	22	993216



Apollo XHS Stainless Steel

Drop-In Hub

Use XHS™  
Hub Kit  
**102SH**

Refer to pages 39-40 for more details

**OMC - OUTBOARD MARINE**

**STERNDRIVES**

**MODEL 400, COBRA® • 4-1/4" GEARCASE**

Thru Hub Exhaust & 13 Tooth Spline

Model 400	Cobra®
2.3 L (120 HP) .....Thru 1991	2.3 L (128 HP) .....1988-91
2.5 L (120 HP) .....1978-84	2.5 L (120 HP) .....1985-87
3.0 L (140 HP) .....Thru 1989	3.0 L (140 HP) .....1985-87

BOAT DESCRIPTION/LENGTH	 HIGH PERFORMANCE ALUMINUM PROPELLERS				 Vortex XHS Aluminum Propeller	 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS			
	3-BLADE WIDE					STD 3-BLADE			
	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	
	14	R	13	992112					
19-22' - Runabouts, SK	13-3/4	R	15	992113	13-3/8	R	15	993143	
19-22' - Runabouts, SK					13-3/8	L	15	993153	
18-21' - Runabouts, SK	13-1/4	R	17	992114	13-1/4	R	17	993144	
18-21' - Runabouts, SK					13-1/4	L	17	993154	
17-20' - Runabouts, SK	13	R	19	992115	13-1/8	R	19	993145	
17-20' - Runabouts, SK					13-1/8	L	19	993155	
15-18' - Runabouts, SK	12-3/4	R	21	992116	13	R	21	993146	
15-18' - Runabouts, SK					13	L	21	993156	



Apollo XHS Stainless Steel

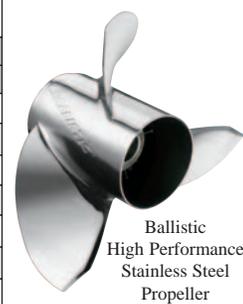
Drop-In Hub

Use XHS™  
Hub Kit  
**106**

Do NOT use Gearcase Adapter Ring supplied with propeller.

Refer to pages 39-40 for more details

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS						 BALLISTIC					
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
WB - (6-16 MPH)	14	R	11	3	AL	382761	012047					
CR, HB - (14-26 MPH)	14	R	13	3	AL	391668	011001					
19-22' - (24-37 MPH)	13-3/4	R	15	3	AL	391198	011002	13-5/8	R	15	3	335030
17-20' - (30-45 MPH)	13-1/4	R	17	3	AL	391199	011003	13-1/2	R	17	3	335031
17-20' - (30-45 MPH)	14	R	17	3	AL	176214	011024					
16-19' - (36-50 MPH)	13	R	19	3	AL	390896	011004	13-3/8	R	19	3	335032
16-19' - (36-50 MPH)	14	R	19	3	AL	176215	011025					
15-18' - (41-53 MPH)	12-3/4	R	21	3	AL	389788	011005	13-1/8	R	21	3	335033



Ballistic High Performance Stainless Steel Propeller

Rubber Hub Bushing

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

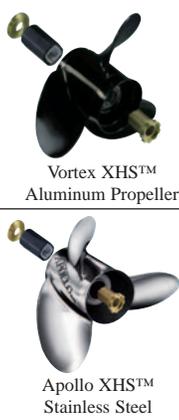
- ▶ LIMITED INVENTORY ITEMS.
- ⊛ When using Ballistic and Apollo propellers, to avoid damage or injury, replace standard trim tab with trim tab 822777A1.
- ▼ These applications will require an anode plate 76214Q5 (Quicksilver part number) in place of the 822777A1 trim tab.

**MODEL 800, KING COBRA®, COBRA®, SEA DRIVE® • 4-3/4" Large Gearcase**  
**Thru Hub Exhaust & 15 Tooth Spline**

3.0 L - 8.2 L (Non SX Drive) . . . . .1990-93      5.8 L (Cobra®) . . . . .1989-93      Sea Drive® 2.0 L - 4.0 L . . . . .All Years  
 Includes H.O. & EFI Models

Note: For SX Drive, see Volvo Penta Section on page 37.

 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS															
3-BLADE				4-BLADE				STD 3-BLADE				LG. DIAMETER 3-BLADE				4-BLADE			
Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
15-1/4	R	15	992002					14-3/8	R	15	993042								
15	R	17	992003	15	R	16	992202	14-3/8	L	15	993052								
								14-1/4	R	17	993043	15-1/2	R	17	993023	14-5/8	R	16	993203
								14-1/4	L	17	993053	15-1/2	L	17	993033	14-5/8	L	16	993213
								14-1/8	R	19	993044	15-1/4	R	19	993024	14-3/8	R	18	993204
								14-1/8	L	19	993054	15-1/4	L	19	993034	14-3/8	L	18	993214
								14	R	21	993045	14-3/4	R	21	993025	14-1/8	R	20	993205
								14	L	21	993055	14-3/4	L	21	993035	14-1/8	L	20	993215
								13-7/8	R	23	993046	14-5/8	R	23	993026	14	R	22	993206
								13-7/8	L	23	993056	14-5/8	L	23	993036	14	L	22	993216



**Drop-In Hub**  
 Use XHS™ Hub Kit **100 & 101**  
 Refer to pages 39-40 for more details

Note: For engine applications 1978-1990 use XHS™ (Drop-In Hub) Kit # 101. For engine applications 1991 & Newer, use XHS™ (Drop-In Hub) Kit # 100. Refer to pages 39-40 for more details.

BOAT DESCRIPTION/LENGTH	 REPLACEMENT PROPELLERS							 HIGH PERFORMANCE STAINLESS STEEL PROPELLERS									
	ALUMINUM PROPS							BALLISTIC				BALLISTIC XL					
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
Non-Plane Heavy CR	15-1/2	R	13	3	AL	391536	011016										
22-28' - (22-32 MPH)	15-1/2	R	15	3	AL	391535	011006										
19-26' - (28-39 MPH)								14-7/8	R	15	3	345031					
18-26' - (30-46 MPH)	15	R	17	3	AL	391200	011007	14-3/4	R	17	3	345032					
18-26' - (30-46 MPH)								14-3/4	L	17	3	345062					
17-24' - (36-52 MPH)	14-1/2	R	19	3	AL	391201	011008	14-1/2	R	19	3	345033					
17-24' - (36-52 MPH)								14-1/2	L	19	3	345063					
16-22' - (40-60 MPH)	14-1/4	R	21	3	AL	391202	011009	14-3/8	R	21	3	345034					
16-22' - (40-60 MPH)								14-3/8	L	21	3	345064					
15-20' - (45-66 MPH)	14-1/4	R	23	3	AL	391203	011010	14-1/4	R	23	3	345035					
15-20' - (45-66 MPH)								14-1/4	L	23	3	345065					
High Perf. (50-66 MPH)								14-1/4	R	25	3	345036					

**Rubber Hub Bushing**

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

† Skeg modification may be required for proper fit. Use thrust washer 333592.

## MODEL 14 LARGE GEARCASE 1967-77

Non-Thru Hub Exhaust & Pin Drive

Suggestion: For twin installation increase pitch 2".

HP RANGE: 120-245

BOAT DESCRIPTION/LENGTH								 012091	Rubber Hub Bushing
	ALUMINUM PROPS								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.		
HP Range: 120-245	14	R	14	3	AL	381185	012091		
	14	R	16	3	AL	381186	012092		

## SEA DRIVE® 1982 & NEWER • 4-1/4" GEARCASE

Thru Hub Exhaust & 13 Tooth Spline

1.6 L V-4 .....1982 & Newer

1.8 L V-4 .....1987 & Newer

For twin installation increase pitch 2".

BOAT DESCRIPTION/LENGTH													 Ballistic High Performance Stainless Steel Propeller	Rubber Hub Bushing
	ALUMINUM PROPS							BALLISTIC						
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.		
Barges, HB - (1-18 MPH)	14	R	11	3	AL	382761	012047							
26' & Up - (14-28 MPH)	14	R	13	3	AL	391668	011001							
22-26' - (24-36 MPH)	13-3/4	R	15	3	AL	391198	011002	13-5/8	R	15	3	335030		
19-22' - (30-40 MPH)	13-1/4	R	17	3	AL	391199	011003	13-1/2	R	17	3	335031		
19-22' - (30-40 MPH)	14	R	17	3	AL	176214	011024							
17-20' - (38-50 MPH)	13	R	19	3	AL	390896	011004	13-3/8	R	19	3	335032		
17-20' - (38-50 MPH)	14	R	19	3	AL	176215	011025							
15-18' - (44-56 MPH)	12-3/4	R	21	3	AL	389788	011005	13-1/8	R	21	3	335033		

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless



  
PERFORMANCE PROPELLERS







  
STAINLESS STEEL PROPS

## AQUAMATIC 200, 250, 270, 275, 280, 290 SP

Motor Horsepower	Gear Ratio	Approximate Boat Length			Houseboats Barges
		Thru 17'	18 - 21'	22 - 25'	
110 - 140 HP	1.35 : 1	14 x 15	14 x 15	14 x 15	15 x 13
	1.62 : 1	14 x 17	14 x 15	14 x 17	
	2.15 : 1	14 x 19	14 x 17	14 x 17	
150 - 185 HP	1.35 : 1	14 x 17	14 x 17	15 x 13	15 x 15 15 x 13
	1.61 : 1	14 x 21	14 x 21	15 x 17	
	1.89 : 1	14 x 19	14 x 19	15 x 15	
190 - 255 HP	1.35 : 1	14 x 21	15 x 19	15 x 17	16 x 13
	1.61 : 1	14 x 23	16 x 17	16 x 17	
230 - 260 HP	1.61 : 1	14 x 23	14 x 23	14 x 23	
290 HP	1.61 : 1	14 x 23	14 x 23	14 x 23	



Volvo Long Hub Aluminum



Volvo Standard Hub Aluminum

### Long Hub Propellers

#### Non-Thru Hub Exhaust & 17 Tooth Spline

Nearest Michigan Match™ OEM Equivalent

Dia. x Pitch	Rot.	Blade #	Aluminum Part No.	
			OEM	Michigan
14 x 17	LH	3	854977-6	◆ 082001-1
14 x 19	RH	3	854993-3	◆ 082004-1
14 x 21	LH	3	854979-2	◆ 082009-1
15 x 21	LH	3	854984-2	◆ 082015-1
16 x 15	RH	3	872001-3	◆ 082090-1
16 x 17	RH	3	872002-1	◆ 082092-1

### Standard Hub Propellers

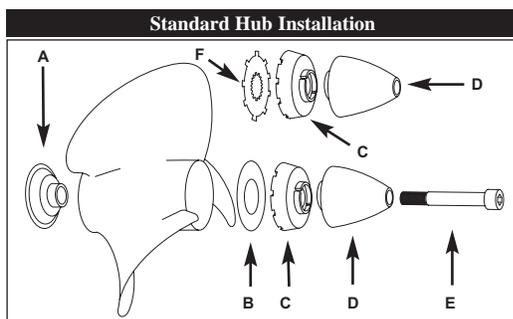
#### Non-Thru Hub Exhaust & 17 Tooth Spline

Nearest Michigan Match™ OEM Equivalent

Dia. x Pitch	Rot.	Blade #	Aluminum Part No.	
			OEM	Michigan
15 x 13	LH	3	813319-7	◆ 082087-1
15 x 19	LH	3	-	◆ 082021

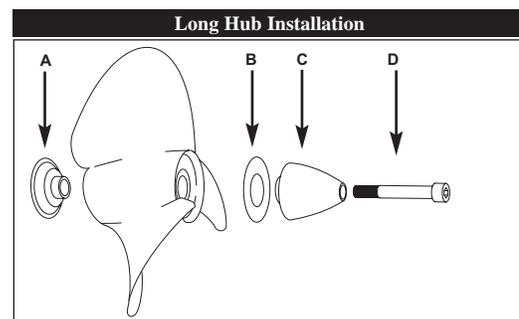
**Long Hub Propellers** are for use with model 275, 280 & 290 outdrives and late production 270 outdrives which have drilled propeller shaft.  
**Standard Hub Propeller** installations are from outdrive serial #PZ2877179, and are NOT for use with V-6 diesel engines.  
**Propeller Hardware** is available thru Volvo Distributors.

- ◆ Note: Bushings for above propellers suggested for max. 240 HP UNLESS marked with a ◆.
- ◆ LIMITED INVENTORY ITEMS.



#### Standard Hub Propeller installations require:

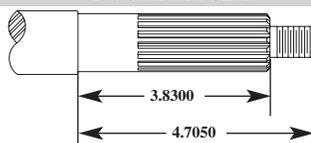
- A) Thrust Washer #839534-5 (Depth: .625")
- B) Washer #850888-9 or F) Washer #897367-9
- C) Spacer Ring #854047-8
- D) Propeller Cone #8504045-2
- E) Allen bolt #850889-7



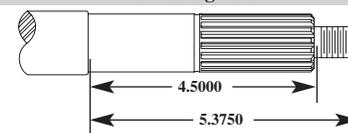
#### Long Hub Propeller Hardware:

- A) Thrust Washer #839423-1 (Depth: 1.3")
- B) Washer #850888-9
- C) Propeller Cone #8504045-2
- D) Allen bolt #850889-7

#### Volvo Standard Shaft



#### Volvo Long Shaft

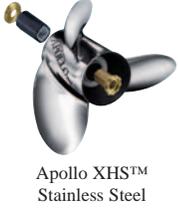


## SX COBRA™, VOLVO PENTA SX • 4-3/4" GEARCASE

Thru Hub Exhaust & 19 Tooth Spline

3.0 L .....1994 & Newer	5.7 L .....1994 & Newer	7.4 L .....1997 & Newer
4.3 L .....1994 & Newer	5.8 L .....1994-97	8.2 L .....1997
5.0 L .....1994 & Newer		

 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS															
3-BLADE				4-BLADE				STD 3-BLADE				LG. DIAMETER 3-BLADE				4-BLADE			
Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
15-1/4	R	15	992002					14-3/8	R	15	993042								
								14-3/8	L	15	993052								
15	R	17	992003	15	R	16	992202	14-1/4	R	17	993043	15-1/2	R	17	993023	14-5/8	R	16	993203
								14-1/4	L	17	993053	15-1/2	L	17	993033	14-5/8	L	16	993213
14-1/2	R	19	992004	14-1/2	R	18	992203	14-1/8	R	19	993044	15-1/4	R	19	993024	14-3/8	R	18	993204
								14-1/8	L	19	993054	15-1/4	L	19	993034	14-3/8	L	18	993214
14-1/4	R	21	992005	14	R	20	992204	14	R	21	993045	14-3/4	R	21	993025	14-1/8	R	20	993205
								14	L	21	993055	14-3/4	L	21	993035	14-1/8	L	20	993215
14	R	23	992006					13-7/8	R	23	993046	14-5/8	R	23	993026	14	R	22	993206
								13-7/8	L	23	993056	14-5/8	L	23	993036	14	L	22	993216



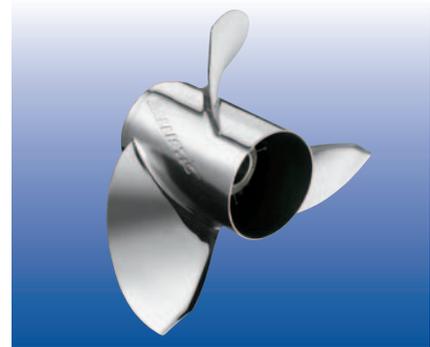
**Drop-In Hub**  
Use XHS™ Hub Kit **105**  
Refer to pages 39-40 for more details

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS							 BALLISTIC				
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
	24-28' - (26-36 MPH)	15-1/2	R	15	3	AL	3850299	161001	14-7/8	R	15	3
22-27' - (34-44 MPH)	15	R	17	3	AL	3850300	161002	14-3/4	R	17	3	346032
22-27' - (34-44 MPH)								14-3/4	L	17	3	346062
19-25' - (39-50 MPH)	14-1/2	R	19	3	AL	3850301	161003	14-1/2	R	19	3	346033
19-25' - (39-50 MPH)								14-1/2	L	19	3	346063
17-22' - (39-50 MPH)	14-1/4	R	21	3	AL	3850302	161004	14-3/8	R	21	3	346034
17-22' - (39-50 MPH)								14-3/8	L	21	3	346064
17-20' - (44-57 MPH)	14-1/4	R	23	3	AL	3850303	161005	14-1/4	R	23	3	346035
17-20' - (44-57 MPH)								14-1/4	L	23	3	346065



**Rubber Hub Bushing**

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless



## YAMAHA STERNDRIVES • 4-3/4" GEARCASE

Thru Hub Exhaust & 15 Tooth Spline

3.0 L (130 HP) EST/PSR . . . . .1989-93

5.0 L (205 HP) EST/PSR/YEMS . . .1989-93

7.4 L (300 HP) HYDRA DRIVE (EST) 1992-93

4.3 L (205 HP) EST/YEMS/PRS . . .1989-93

5.7 L (260 HP) EST/PSR/YEMS . . .1989-93

\* For engines 300 HP or higher, use "high horsepower sleeve". See page 39 for more details.

 HIGH PERFORMANCE ALUMINUM PROPELLERS				 ULTIMATE PERFORMANCE STAINLESS STEEL PROPELLERS							
3-BLADE		4-BLADE		STD 3-BLADE		LG. DIAMETER 3-BLADE		4-BLADE			
Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.	Dia.	Rot.	Pitch	Part No.
15-1/4	R	15	992002								
15	R	17	992003	15	R	16	992202				
14-1/2	R	19	992004	14-1/2	R	18	992203				
14-1/4	R	21	992005	14	R	20	992204				
14	R	23	992006								



Vortex XHS™  
Aluminum Propeller



Apollo XHS™  
Stainless Steel

**Drop-In Hub**

Use XHS™  
Hub Kit  
**103**

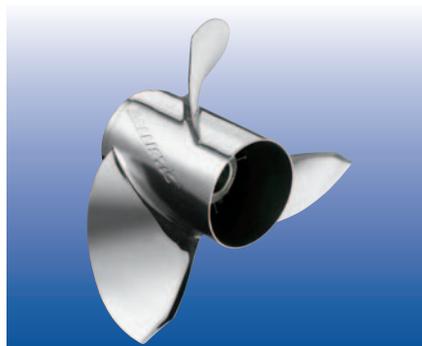
Refer to pages 39-40  
for more details

BOAT DESCRIPTION/LENGTH	 ALUMINUM PROPS								 HIGH PERFORMANCE STAINLESS STEEL PROPELLERS								
	Dia.	Rot.	Pitch	Bld#	Mat'l	OEM Part No.	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.	Dia.	Rot.	Pitch	Bld#	Part No.
21-26' - (18-31 MPH)								14-7/8	R	15	3	345931					
19-23' - (27-37 MPH)	14-1/2	R	17	3	AL	6G5-45947-01-98	101027	14-3/4	R	17	3	345932					
19-23' - (27-37 MPH)								14-3/4	L	17	3	345962					
17-21' - (33-42 MPH)	14	R	19	3	AL	6G5-45945-01-98	101028	14-1/2	R	19	3	345933					
17-21' - (33-42 MPH)								14-1/2	L	19	3	345963					
18-19' - (37-46 MPH)								14-3/8	R	21	3	345934					
18-19' - (37-46 MPH)								14-3/8	L	21	3	345964					
17-19' - (39-48 MPH)	13-1/2	R	23	3	AL	6G5-45949-00-98	101030	14-1/4	R	23	3	345935					
17-19' - (39-48 MPH)								14-1/4	L	23	3	345965					

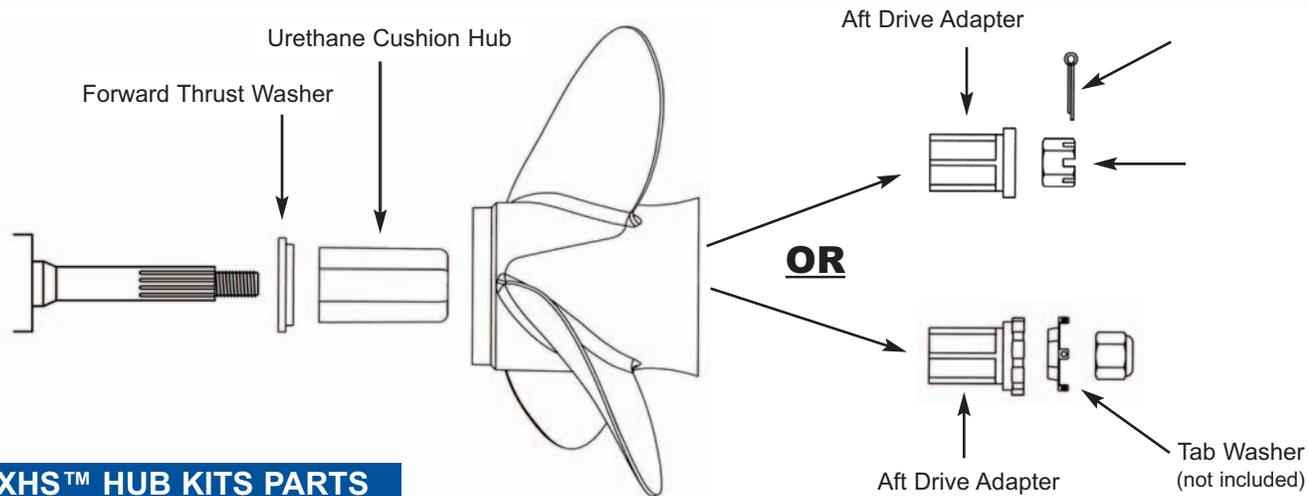
**Rubber Hub Bushing**

Key to abbreviations: LL = Light Loads; SB = Sailboat; AL = All Loads; SK = Skiboat; WB = Workboat; HB = Houseboat; CR = Cruisers; HL = Heavy Loads; WD = Weedless

▶ LIMITED INVENTORY ITEMS.



# XHS™ PROPELLER ACCESSORIES



## XHS™ HUB KITS PARTS

Hub Kit	Description	Parts	
<b>V4/V6 &amp; Sterndrive XHS™ Hub Kits</b>			
100	Evinrude/Johnson Outboards - OMC Sterndrives (V6/V8 Gearcase 1991 to present)	991202 991201 991203	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
101	Evinrude/Johnson Outboards - OMC Sterndrives (V6/V8 Gearcase 1984 - 1990)	991204 991201 991203	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
102	Mer cruiser Alpha One & Bravo One (less than 400 HP) Mercury/Mariner 60HP Bigfoot, 70-125 HP Mercury/Mariner/Force 135-250 HP Force 90-120 HP Honda Outboards 75-90 HP thru 1998 Yamaha Outboards thru 1983	991204 991201 991205 990346 990344	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter Propeller Nut Tab Washer
103	Yamaha Outboards & Sterndrives (115-130 HP, 150-250 HP, V6 Gearcase 1984 to present)	991213 991201 991206	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
104	Suzuki Outboards (150-225 HP, V6 Gearcase)	991207 991201 991208	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
105	Volvo SX Sterndrives (19 tooth spline 1994 to present)	991202 991201 991209	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
106	Evinrude/Johnson Outboards - OMC Sterndrives (V4 Gearcase 1968 to present)	991210 991201 991211	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
107	Honda Outboards (115-130 HP 1998 to present, 75-90 HP 1999 to present) 135 & 150 HP 2004 & Newer, 200 & 225 HP 2003 & Newer)	991207 991201 991205	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
108	Yamaha Outboards (50-100 HP, splined front thrust washer)	991212 991201 991206	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
109	Nissan/Tohatsu Outboards (90-140 HP)	991213 991201 991214	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
110	Suzuki V4 Outboards (60-140 HP)	991215 991201 991211	Forward Thrust Washer Urethane Cushion Hub Aft Drive Adapter
125	90-115 4-Stroke Suzuki/Johnson	991201 991205 991253 990337	Urethane Cushion Hub Aft Drive Adapter Forward Thrust Washer (1) - Washer SS 32 x 19.2 x 2.5MM

**NOTE:** V4/V6 Solid Hub Kits are available by special order. Add "SH" to end of any V4/V6 Hub kit number to order. Example: "100SH". Contact Customer Service for details.

# XHS™ PROPELLER ACCESSORIES

## XHS™ HUB KITS PARTS

Hub Kit	Description	Parts
<b>V4/V6 &amp; Sterndrive XHS™ Hub Kits (continued)</b>		
126	140 4-Stroke Suzuki/Johnson	<b>991201</b> Urethane Cushion Hub <b>991205</b> Aft Drive Adapter <b>991204</b> Forward Thrust Washer <b>990337</b> (1) - Washer SS 32 x 19.2 x 2.5MM
High Horsepower Inner Hub (Mercury part # 850821A2)		<b>991272</b> Solid Hub
V4 Gearcase Adapter Ring		<b>991216</b> Adapter Ring
<b>20-70 HP XHS™ Hub Kits</b>		
111	Evinrude/Johnson Outboards (40-70 HP)	<b>991225</b> Urethane Cushion Hub <b>991247</b> Thrust Washer <b>991232</b> Drive Adapter
112	Tohatsu/Nissan Outboards (50-70 HP)	<b>991225</b> Urethane Cushion Hub <b>991273</b> Thrust Washer <b>991232</b> Drive Adapter
113	Honda Outboards (35-50 HP)	<b>991225</b> Urethane Cushion Hub <b>991234</b> Thrust Washer <b>991227</b> Drive Adapter
114	Mercury/Mariner/Force Outboards (30-70 HP)	<b>991225</b> Urethane Cushion Hub <b>991236</b> Thrust Washer <b>991227</b> Drive Adapter
115	Suzuki Outboards (30-70 HP)	<b>991225</b> Urethane Cushion Hub <b>991239</b> Forward Thrust Washer <b>991232</b> Aft Drive Adapter <b>990337</b> (2) - Washer SS 32 x 19.2 x 2.5MM
116	Tohatsu/Nissan Outboards (35-50 HP)	<b>991225</b> Urethane Cushion Hub <b>991241</b> Forward Thrust Washer <b>991227</b> Aft Drive Adapter <b>990338</b> (2) - Washer SS 17 x 30 x 2.5MM
117	Yamaha Outboards (40-60 HP)	<b>991225</b> Urethane Cushion Hub <b>991243</b> Forward Thrust Washer <b>991227</b> Aft Drive Adapter <b>990338</b> (1) - Washer SS 17 x 30 x 2.5MM
118	Evinrude/Johnson Outboards (20-35 HP)	<b>991225</b> Urethane Cushion Hub <b>991237</b> Thrust Washer <b>991229</b> Drive Adapter
119	Honda Outboards (20-30 HP)	<b>991225</b> Urethane Cushion Hub <b>991233</b> Thrust Washer <b>991226</b> Drive Adapter
120	Mercury/Mariner/Force Outboards (18-25 HP)	<b>991225</b> Urethane Cushion Hub <b>991235</b> Thrust Washer <b>991228</b> Drive Adapter
121	Suzuki Outboards (25-30 HP)	<b>991225</b> Urethane Cushion Hub <b>991238</b> Forward Thrust Washer <b>991230</b> Aft Drive Adapter <b>990338</b> (1) - Washer SS 17 x 30 x 2.5MM
122	Nissan/Tohatsu Outboards (25-30 HP)	<b>991225</b> Urethane Cushion Hub <b>991240</b> Thrust Washer <b>991226</b> Drive Adapter
123	Yamaha Outboards (20-30 HP)	<b>991225</b> Urethane Cushion Hub <b>991242</b> Forward Thrust Washer <b>991230</b> Aft Drive Adapter <b>990338</b> (1) - Washer SS 17 x 30 x 2.5MM
20-30 HP Gearcase Adapter Ring		<b>991244</b> Package including all three sizes

**NOTE:** V4/V6 Solid Hub Kits are available by special order. Add "SH" to end of any V4/V6 Hub kit number to order  
 Example: "100SH". Contact Customer Service for details.

# **PROPELLER CROSS REFERENCE**

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**MWC ALPHA-NUMERIC CROSS REFERENCE**

**(PAGE B2)**

**OEM CROSS REFERENCE**

**(PAGES B3 - B39)**

**XHS™ HUB SYSTEM TO MERCURY FLO-TORQ™ II  
HUB SYSTEM CROSS REFERENCE**

**(PAGE B39)**

# MICHIGAN WHEEL ALPHA-NUMERIC CROSS REFERENCE

Alpha Numeric	Numeric	Alpha Numeric	Numeric	Alpha Numeric	Numeric
AM431	012067	PJ 95	012054	PR126	
AMC308	072014	PJ 96	012055	PR151	032089
AMC310	072131	PJ 97	012056	PR153	032090
AMC314	072133	PJ 98	012057	PR155	032091
AMC316	072134	PJ199-C	011015	PR155-C	031001
AMC394	072132	PJ200-C	011016	PR157	032092
AMC422	012068	PJ201-C	011006	PR157-C	031002
AMC490	152002	PJ202-C	011007	PR159	032093
AMC580-S	032077	PJ203-C	011008	PR159-C	031003
DQ320		PJ204-C	011009	PR161	032094
DQ328	012075	PJ205-C	011010	PR161-C	031004
EWC19		PJ300	012060	PR276	072054
G 20	072017	PM 8	032014	PR278	072055
G 30	152014	PM 19	032019	PR339	032099
NP 74	302001	PM 20	032020	SMC 18	
PC 12	072024	PM 21	032021	SMC 39	012102
PC 20	072026	PM 22-C	031047	SMC292	082022
PC 28	072122	PM 23-C	031048	SMC293	082021
PC 32	072121	PM 24-C	031049	SMC295	082023
PC112	072123	PM 39	022001	SMC348	082033
PJ 3		PM 40	022002	SMC349	082034
PJ 7	012004	PM 42	022003	SMC374-C	031035
PJ 8	012005	PM211-C	031021	SMC376-C	031036
PJ 9	012006	PM213-C	031022	SMC378-C	031037
PJ 10	012007	PM215-C	031023	SMC380-C	031038
PJ 11	012008	PM217-C	031024	SMC382-C	031039
PJ 15		PM219-C	031025	SMC504-C	031034
PJ 16	012011	PM221-C	031026	SMC921	082045
PJ 18	012013	PM223-C	031027	SMC980	082057
PJ 19	012109	PM311-C	031054	SPC180	072107
PJ 21	012014	PM313-C	031055	SPC182	072108
PJ 22	012015	PM315-C	031041	SPC184	072109
PJ 24	012016	PM317-C	031042	SSC315-C	073002
PJ 29	012021	PM319-C	031043	SSC317-C	073003
PJ 30	012022	PM321-C	031044	SSC319-C	073004
PJ 31	012023	PM323-C	031045	SSM212-C	033001
PJ 32	012024	PM513	032039	SSM245-C	033002
PJ 35	012025	PM515	032040	SSM247-C	033003
PJ 40		PM518	032041	SSM249-C	033004
PJ 41	012027	PM521	032042	SSM251-C	033005
PJ 42		PM524	032043	SSM253-C	033006
PJ 45	012030	PM527	032044	SSM350-C	033007
PJ 47		PM530	032045	SSM354-C	033008
PJ 49	012032	PM600-C	031015	SSM358-C	033009
PJ 50	012033	PM612-C	031016	SSM615-C	033016
PJ 58	012036	PM613-C	031017	SSM617-C	033017
PJ 59	012037	PM614-C	031018	SSM619-C	033018
PJ 60		PM615-C	031019	SSM621-C	033019
PJ 61	012039	PM617-C	031020	SSO315-C	
PJ 62	012040	PR 33	032084	SSV171-C	083001
PJ 74		PR 35	032085	SSV172-C	083002
PJ 75		PR 37	032086	SSV191-C	083003
PJ 76	012044	PR 39	032087	SSV192-C	083004
PJ 77	012045	PR 78	072032	SSV211-C	083005
PJ 83-C	011005	PR 80	072033	SSV212-C	083006
PJ 87	012047	PR 82	072034	SSY615-C	103025
PJ 88-C	011001	PR115	012089	SSY617-C	103026
PJ 89-C	011002	PR118		SSY619-C	103027
PJ 90-C	011003	PR120	012091	SSY717-C	103018
PJ 91-C	011004	PR122	012092	SSY719-C	103020
PJ 94	012053	PR124		SSY721-C	103022

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>BRP, EVINRUDE, JOHNSON, OMC</b>									
174811	VIPER™(LH)	.345063			.993054	.993034	.993214	..See Note 2	9, 34
174812	VIPER™(LH)	.345064			.993055	.993035	.993215	..See Note 2	9, 34
174813	VIPER™(LH)	.345065			.993056	.993036	.993216	..See Note 2	9, 34
174814	VIPER™	.345033			.993044	.993024	.993204	..See Note 2	9, 34
174815	VIPER™	.345034			.993045	.993025	.993205	..See Note 2	9, 34
174816	VIPER™	.345035			.993046	.993026	.993206	..See Note 2	9, 34
174889	VIPER™	.345032			.993043	.993023	.993203	..See Note 2	9, 34
174890	VIPER™(LH)	.345062			.993053	.993033	.993213	..See Note 2	9, 34
174926	SST II®	.013052	.345031		.993042	.993022		..See Note 2	9, 34
174927	SST II® (LH)	.013051			.993052	.993032		..See Note 2	9, 34
174950		.012111							3
175190		.012055			.992503			..118	4
175191		.012056	.305029		.992505			..118	4
175738	Renegade™ Bass		.435036						9
175739	Renegade™ Bass		.435037						9
176058	Renegade™ Bass		.435035						9
176196	Renegade™ Bass	.013034	.335033	.335034	.993146			..106	6, 7, 33
176214		.011024	.335031		.992114	.993144		..106	6, 7, 33
176215		.011025	.335032		.992115	.993145		..106	6, 7, 33
176216		.011026	.335033		.992116	.993146		..106	6, 7, 33
176421		.011027	.325030						5
176422		.011028	.325031						5
176423		.011029							Obsolete
176424					.992504			..118	4
176425					.992506			..118	4
176571			.335030		.993143			..106	6, 7, 33
176572	SST II®		.335031		.993144			..106	6, 7, 33
176573	SST II®		.335032		.993145			..106	6, 7, 33
176574	SST II®		.335033	.335034	.993146			..106	6, 7, 33
176575	Renegade™ O.S.(RH)	.345032			.993043	.993023	.993203	..See Note 2	9, 34
176576	Renegade™ O.S.(RH)	.345033			.993044	.993024	.993204	..See Note 2	9, 34
176577	Renegade™ O.S.(RH)	.345034			.993045	.993025	.993205	..See Note 2	9, 34
176578	Renegade O.S.(LH)	.345062			.993053	.993033	.993213	..See Note 2	9, 34
176579	Renegade O.S.(LH)	.345063			.993054	.993034	.993214	..See Note 2	9, 34
176580	Renegade O.S.(LH)	.345064			.993055	.993035	.993215	..See Note 2	9, 34
176615	Swept-Blade™	.345032			.993043	.993023	.993203	..See Note 2	9, 34
176616	Swept-Blade™(LH)	.345062			.993053	.993033	.993213	..See Note 2	9, 34
176617	Swept-Blade™	.345033			.993044	.993024	.993204	..See Note 2	9, 34
176618	Swept-Blade™(LH)	.345063			.993054	.993034	.993214	..See Note 2	9, 34
176619	Swept-Blade™	.345034			.993045	.993025	.993205	..See Note 2	9, 34
176620	Swept-Blade™(LH)	.345064			.993055	.993035	.993215	..See Note 2	9, 34
176623	VIPER™	.335031			.993144			..106	6, 7, 33
176624	VIPER™	.335032			.993145			..106	6, 7, 33
176625	VIPER™	.335033			.993146			..106	6, 7, 33
176626	Viper	.345032			.993043	.993023	.993203	..See Note 2	9, 34
176627	Viper	.345033			.993044	.993024	.993204	..See Note 2	9, 34
176628	Viper	.345034			.993045	.993025	.993205	..See Note 2	9, 34
176629	Viper (LH)	.345062			.993053	.993033	.993213	..See Note 2	9, 34
176630	Viper (LH)	.345063			.993054	.993034	.993214	..See Note 2	9, 34
176902	Viper (LH)	.345064			.993055	.993035	.993215	..See Note 2	9, 34
176969	SST®				.993044	.993024	.993204	..See Note 2	9, 34
176970	SST®				.993044	.993024	.993204	..See Note 2	9, 34
176971	SST®				.993045	.993025	.993205	..See Note 2	9, 34
176973	SST® (LH)				.993053	.993033	.993213	..See Note 2	9, 34
176999	Renegade O.S.(RH)				.993046	.993026	.993206	..See Note 2	9, 34
177000	Renegade O.S.(LH)				.993056	.993036	.993216	..See Note 2	9, 34

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>BRP, EVINRUDE, JOHNSON, OMC (Continued)</b>									
177034	.SST®				.993143			.106	6, 7, 33
177035	.SST®				.993144			.106	6, 7, 33
177036	.SST®	.335032			.993145			.106	6, 7, 33
177042	.VIPER™	.335030			.993143			.106	6, 7, 33
177128	.Renegade Bass TBX (4)	.435035							9
177129	.Renegade Bass TBX (4)	.435036							9
177130	.Renegade Bass TBX (4)	.435037							9
177131		.011024	.335031		.992114	.993144		.106	6, 7, 33
177134				.992003	.993043	.993023	.993203	..See Note 2	9, 34
177135				.992004	.993044	.993024	.993204	..See Note 2	9, 34
177136				.992005	.993045	.993025	.993205	..See Note 2	9, 34
177137				.992006	.993046	.993026	.993206	..See Note 2	9, 34
177139		.011025	.335032		.992115	.993145		.106	6, 7, 33
177140		.011026	.335033		.992116	.993146		.106	6, 7, 33
177151		.011002	.335030		.992113	.993143		.106	6, 7, 33
177153		.012037			.992301			.111	5
177159		.012111							3
177187		.012057							4
177234	.Cyclone TBX (4)						.993206	..See Note 2	9, 34
177235	.Cyclone TBX (4) (LH)						.993216	..See Note 2	9, 34
177258	.Viper	.335030			.993143			.106	6
177259	.Viper	.335031			.993144			.106	6
177264	.Raker II	.345041							9, 34
177265	.Raker II	.345037							9, 34
177266	.Raker II	.345038							9, 34
178811	.VIPER™(LH)				.993054	.993034	.993214	..See Note 2	9, 34
178814	.VIPER™				.993044	.993024	.993204	..See Note 2	9, 34
203120		.012001							2
203682		.012001							2
203919		.012001							2
204347		.012001							2
277212		.012076							3
277440		.012060							2
277443		.012076							3
277580		.012024							4
277581		.012024							4
277583		.012076							3
277595		.012006							Obsolete
277599		.012011							3
277617		.012028							Obsolete
277759		.012008							2
278194		.012026							Obsolete
375605		.012109							3
376072		.012060							2
376506		.012076							3
376732		.012024							4
376735		.012109							3
376737		.012076							3
376738		.012027							Obsolete
376777		.012060							2
376805		.012011							3
376841		.012109							3
376917		.012028							Obsolete
376968		.012060							2
377410		.012023							4
377632		.012060							2

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>BRP, EVINRUDE, JOHNSON, OMC (Continued)</b>									
377635	.012007								2
377636	.012011								3
377978	.012044								Obsolete
378039	.012045								Obsolete
378040	.012043								7
378571	.012026								Obsolete
378579	.012025								Obsolete
378580	.012022								Obsolete
378581	.012023								4
379260	.012042								7
379717	.012109								3
380104	.012004								2
380637	.012024								4
380958	.012005								2
381185	.012091								35
381186	.012092								35
381187	.012093								Obsolete
381446	.012044								Obsolete
381801	.012011								3
382017	.012090								Obsolete
382676	.012089								Obsolete
382761	.012047								6, 7, 33, 35
382762	.011001								6, 7, 33
382763	.011002			.992113	.993143			.106	6, 7, 33
382764	.011003			.992114	.993144			.106	6, 7, 33
382765	.011004			.992115	.993145			.106	6, 7, 33
382766	.011005			.992116	.993146			.106	6, 7, 33
382768				.992116	.993146			.106	6, 7, 33
383287	.012094								Obsolete
383315	.012008								2
383629	.012011								3
384139	.SST®				.993144			.106	6, 7, 33
384140		.011005		.992116	.993146			.106	6, 7, 33
384141	.SST®				.993146			.106	6, 7, 33
384142	.SST®				.993145			.106	6, 7, 33
384144	.SST®				.993143			.106	6, 7, 33
384460		.012028							Obsolete
384702	.SST®				.993146			.106	6, 7, 33
385319		.012005							2
385940	.SST®								2
385955		.012023							4
386118		.012111							3
386317		.012054		.992501				.118	4
386637		.012055							4
386669		.012113							Obsolete
386786		.012038		.992302				.111	5
386841		.012039		.992303				.111	5
386907		.012036							5
386908		.012040							5
386909		.012037		.992301				.111	5
386933		.012056							4
386955		.012005							2
386980	.SST®	.013026							Obsolete
386981	.SST®	.013010							Obsolete
386982	.SST®	.013024							Obsolete
387158		.011016							9, 34

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>BRP, EVINRUDE, JOHNSON, OMC (Continued)</b>									
387159	.011006			.992002	.993042			See Note 2	9, 34
387160	.011007			.992003	.993043		.993203	See Note 2	9, 34
387161	.011008			.992004	.993044		.993204	See Note 2	9, 34
387162	.011009			.992005	.993045		.993205	See Note 2	9, 34
387163	.011010			.992006	.993046		.993206	See Note 2	9, 34
387320	.012053								4
387334	.012008								2
387519	SST®				.993044		.993204	See Note 2	9, 34
387520	SST®				.993045		.993205	See Note 2	9, 34
387636	.012056								4
388088	.012013								3
388294	.012102								3
388883	.012016								3
389019	SST II®	.345035			.993046		.993206	See Note 2	9, 34
389029	SST®	.013032							Obsolete
389068	.012021								3
389069	.012015								3
389510	SST II®				.993145			.106	6, 7, 33
389512	SST II®				.993146			.106	6, 7, 33
389619	.012015								3
389627	.012101								3
389788	.011005	.335033	.335034	.992116	.993146			.106	6, 7, 33
389855	.012023								4
389923	SST II®	.345034			.993045		.993205	See Note 2	9, 34
389924	SST II®	.345033			.993044		.993204	See Note 2	9, 34
389925	SST®	.345032							9, 34
389944									6, 7, 33
389948	SST II®	.335031			.993144			.106	6, 7, 33
389949	SST II®	.335030			.993143			.106	6, 7, 33
390113	SST®				.993145			.106	6, 7, 33
390114	SST®				.993144			.106	6, 7, 33
390237	.012032								2
390380	.012057	.305030							4
390725	SST®	.345036							9, 34
390729	SST®	.305029							4
390730	SST®	.305030							4
390821	SST II® (LH)	.345063			.993054	.993034	.993214	See Note 2	9, 34
390822	SST II® (LH)	.345064			.993055	.993035	.993215	See Note 2	9, 34
390823	SST II® (LH)	.345065			.993056	.993036	.993216	See Note 2	9, 34
390830	.012031								2
390833	.012024								4
390849	SST®	.013024							Obsolete
390850	SST®	.325030							5
390851	SST®	.325031							5
390852	SST®	.013032							Obsolete
390896	.011004	.335032		.992115	.993145			.106	6, 7, 33
391096	.012031								2
391198	.011002	.335030		.992113	.993143			.106	6, 7, 33
391199	.011003	.335031		.992114	.993144			.106	6, 7, 33
391200	.011007	.345032		.992003	.993043	.993023	.993203	See Note 2	9, 34
391201	.011008	.345033		.992004	.993044	.993024	.993204	See Note 2	9, 34
391202	.011009	.345034	.345041	.992005	.993045	.993025	.993205	See Note 2	9, 34
391203	.011010	.345035	.345037	.992006	.993046	.993026	.993206	See Note 2	9, 34
391290	SST II®	.345032			.993043	.993023	.993203	See Note 2	9, 34
391534	.012101								3
391535	.011006	.345031		.992002	.993042	.993022		See Note 2	9, 34

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>BRP, EVINRUDE, JOHNSON, OMC (Continued)</b>									
391536	.011016								9, 34
391668	.011001								6, 7, 33, 35
393160	Aluminum .011025			.992115	.993145			.106	6, 7, 33
394752	Raker® .345032				.993043		.993203		See Note 2 9, 34
394753	Raker® .345033				.993044		.993204		See Note 2 9, 34
394754	Raker® .345034	.345041			.993045		.993205		See Note 2 9, 34
394755	Raker® .345035	.345037			.993046		.993206		See Note 2 9, 34
394756	Raker® .345036	.345038			.993047		.993207		See Note 2 9, 34
394758	Raker® .335031				.993144			.106	6, 7, 33
394759	Raker® .335032				.993145			.106	6, 7, 33
394760	Raker® .335033	.335034			.993146			.106	6, 7, 33
394761	Raker® .335035								7
398126	.012112								2
398502	Raker® (LH) .345063				.993054		.993214		See Note 2 9, 34
398503	Raker® (LH) .345064				.993055		.993215		See Note 2 9, 34
398504	Raker® (LH)				.993056		.993216		See Note 2 9, 34
398505	Raker® (LH)								See Note 2 9, 34
431717	.SHOOTER®	.435035							9
431718	.SHOOTER®	.435036							9
431930	.SST II® (LH) .345062				.993053		.993213		See Note 2 9, 34
591389	.012060								2
591920	.012024								4
591925	.012076								3
591978	.012060								2
592038	.012076								3
592063	.012060								2
592959	.012076								3
763300	.012074								6, 7
763301	.012047								6, 7, 33
763302	.011001			.992112				.106	6, 7, 33
763304	.346031			.992002	.993042		.993022	.105	37
763305					.993052		.993032	.105	37
763306	.161002	.346032		.992003	.993043		.993023	.105	37
763307	.346062				.993053		.993023	.105	37
763308	.161003	.346033		.992004	.993044		.993024	.105	37
763309					.993054		.993034	.105	37
763310	.161004	.346034		.992005	.993045		.993025	.105	37
763311	.346064				.993055		.993035	.105	37
763315	.161001	.346031		.992002	.993042		.993022	.105	37
763316	.161002	.346032		.992003	.993043		.993023	.105	37
763317	.161003	.346033		.992004	.993044		.993024	.105	37
763318	.161004	.346034		.992005	.993045		.993025	.105	37
763319	.161005	.346035		.992006	.993046		.993026	.105	37
763453	.011016								9, 34
763456	.012112								2
763459	Aluminum .012055			.992503				.118	4
763460	Aluminum .012055			.992504				.118	4
763461	Aluminum .012037								5
763462	Aluminum .011028	.325031		.992303				.111	5
763463	.011003	.335031		.992114	.993144			.106	6, 7, 33
763464	.011004	.335032		.992115	.993145			.106	6, 7, 33
763465	.011005	.335033		.992116	.993146			.106	6, 7, 33
763466	.011002	.335030		.992113	.993143			.106	6, 7, 33
763467	.011007	.345032		.992003	.993043		.993023	.993203	See Note 2 9, 34
763468	.011008	.345032		.992004	.993044		.993024	.993204	See Note 2 9, 34
763469	.011009	.345033		.992005	.993045		.993025	.993205	See Note 2 9, 34

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>BRP, EVINRUDE, JOHNSON, OMC (Continued)</b>									
763470	.011010	.345034		.992006	.993046	.993026	.993206	..See Note 2	9, 34
763471	.011006	.345031		.992002	.993042	.993022		..See Note 2	9, 34
763486	.012057	.305030							4
763487	.Aluminum .012054			.992501				.118	4
763488	.Aluminum .012036								5
763568	.Rebel					.993023		..See Note 2	9, 34
763569	.Rebel (LH)					.993033		..See Note 2	9, 34
763570	.Rebel					.993024		..See Note 2	9, 34
763571	.Rebel (LH)					.993034		..See Note 2	9, 34
763572	.Rebel					.993025		..See Note 2	9, 34
763573	.Rebel (LH)					.993035		..See Note 2	9, 34
763574	.Rebel					.993026		..See Note 2	9, 34
763575	.Rebel (LH)					.993036		..See Note 2	9, 34
763583	.012011								3
763584	.012016								3
763585	.012021								3
763586	.012101								3
763587	.012109								3
763588	.012005								2
763589	.012015								3
763590	.012030								3
763912	.Viper TBX	.345031			.993023			..See Note 2	9, 34
763913	.Viper TBX (LH)				.993033			..See Note 2	9, 34
763914	.Viper TBX	.345032			.993043	.993023	.993203	..See Note 2	9, 34
763915	.Viper TBX (LH)	.345062			.993053	.993033	.993213	..See Note 2	9, 34
763918	.Viper TBX	.345033			.993044	.993024	.993204	..See Note 2	9, 34
763919	.Viper TBX (LH)	.345063			.993054	.993034	.993214	..See Note 2	9, 34
763922	.Viper TBX	.345034			.993045	.993025	.993205	..See Note 2	9, 34
763923	.Viper TBX (LH)	.345064			.993055	.993035	.993215	..See Note 2	9, 34
763924	.Viper TBX	.345041							9, 34
763929	.Viper 3	.335030			.993143			.106	6
763930	.Viper 3	.335031			.993144			.106	6
763931	.Viper 3	.335032			.993145			.106	6
763932	.Viper 3	.335033			.993146			.106	6
763938	.Cyclone TBX (4)					.993203		..See Note 2	9, 34
763939	.Cyclone TBX (4) (LH)					.993213		..See Note 2	9, 34
763940	.Cyclone TBX (4)					.993204		..See Note 2	9, 34
763941	.Cyclone TBX (4) (LH)					.993214		..See Note 2	9, 34
763944	.Cyclone TBX (4)					.993205		..See Note 2	9, 34
763945	.Cyclone TBX (4) (LH)					.993215		..See Note 2	9, 34
763950	.SS Polished	.335030			.993143			.106	6
763951	.SS Polished	.335031			.993144			.106	6
763952	.SS Polished	.335032			.993145			.106	6
763956	.Raker 3	.335035							7
763962	.SST TBX	.345031			.993042			..See Note 2	9, 34
763963	.SST TBX (LH)				.993052			..See Note 2	9, 34
763986	.Rebel TBX					.993023		..See Note 2	9, 34
763987	.Rebel TBX (LH)					.993033		..See Note 2	9, 34
763990	.Rebel TBX					.993024		..See Note 2	9, 34
763991	.Rebel TBX (LH)					.993034		..See Note 2	9, 34
763994	.Rebel TBX					.993025		..See Note 2	9, 34
763995	.Rebel TBX (LH)					.993035		..See Note 2	9, 34
763998	.Rebel TBX					.993026		..See Note 2	9, 34
763999	.Rebel TBX (LH)					.993036		..See Note 2	9, 34
775713	.012037			.992301				.111	5
776891	.011001			.992112				.106	6, 7, 33

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>BRP, EVINRUDE, JOHNSON, OMC (Continued)</b>									
777021	SST High Luster		.395929		.993406			.115	5
777022					.993407			.115	5
777023	SST High Luster		.395930		.993408			.115	5
777024	SS Polished	.101033	.335931	.992114	.993144			See Note 4	8
777025	SS Polished	.101034	.335932	.992115	.993145			See Note 4	8
777026	SS Polished	.101035	.335933	.992116	.993146			See Note 4	8
777027	SS Polished		.335935						8
777029	SS Polished (LH)				.993154			See Note 4	8
777030	SS Polished (LH)				.993155			See Note 4	8
777031	SS Polished (LH)				.993156			See Note 4	8
778606	4-Stroke	.032045							5
778607	4-Stroke	.032044		.992404				.115	5
778608	4-Stroke	.032043		.992405	.993405			.115	5
778609	4-Stroke	.032042	.395929	.992406	.993406			.115	5
778610	4-Stroke	.032041		.992407	.993407			.115	5
778703	4-Stroke			.992503				.121	3
778704	4-Stroke			.992504				.121	3
778705	4-Stroke		.305529	.992505				.121	3
778706	4-Stroke			.992506				.121	3
778772		.012111							3
778774		.011027	.325030	.992302				.111	5
778796		.012031							2
778797		.012032							2
778863		.012056	.305029	.992505				.118	4
5005384	Aluminum	.062016							2
5031619	4-Stroke	.032042	.395929	.992406	.993406			.115	5
5031627	4-Stroke	.032040	.395930	.992408	.993408			.115	5
5031628	4-Stroke	.032039		.992409				.115	5
5032107	4-Stroke			.992502				.121	3
5032108	4-Stroke			.992503				.121	3
5032109	4-Stroke			.992504				.121	3
5032110	4-Stroke		.305529	.992505				.121	3
5032171	4-Stroke			.992501				.121	3
5033201	Aluminum	.062016							2
5033322	4-Stroke	.101032	.335930	.992113	.993143			See Note 4	8
5033323	4-Stroke	.101033	.335931	.992114	.993144			See Note 4	8
5033324	4-Stroke	.101034	.335932	.992115	.993145			See Note 4	8
5033325	4-Stroke	.101035	.335933	.992116	.993146			See Note 4	8
5033327	4-Stroke	.101033	.335931	.992114	.993144			See Note 4	8
5033328	4-Stroke	.101034	.335932	.992115	.993145			See Note 4	8
5033329	4-Stroke	.101035	.335933	.992116	.993146			See Note 4	8
<b>FORCE, CHRYSLER, U.S. MARINE</b>									
48-16986A45	Vengeance		.335130		.993143			See Note 3	12, 13
48-16986A5	QSS™		.335130		.993143			See Note 3	12, 13
48-16988A40	QSS™		.335131		.993144			See Note 3	12, 13
48-16988A45	Vengeance		.335131		.993144			See Note 3	12, 13
48-16990A40	Laser II™		.335132		.993145			See Note 3	12, 13
48-16990A45	Laser II™		.335132		.993145			See Note 3	12, 13
48-16992A40	Laser II™		.335133	.335134	.993146			See Note 3	12, 13
48-16992A45	Laser II™		.335133	.335134	.993146			See Note 3	12, 13
48-19636A10				.992501				.120	10
48-19638A40	Black Max™	.031049		.992503				.120	10
48-19639A40				.992504				.120	10
48-19640A40	Black Max™	.031048	.305129	.992505				.120	10
48-19642A40	Black Max™	.031047	.305130	.992506				.120	10

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Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>FORCE, CHRYSLER, U.S. MARINE (Continued)</b>									
48-42738A10 . . . . . Black Max™	.032141			.992401				.114	11
48-42740A10 . . . . . Black Max™	.032142								11
48-64724A1 . . . . .	.031020								11
48-64724A4 . . . . .	.031020								11
48-73132A4 . . . . .	.031015			.992403				.114	11
48-73132A40 . . . . . Black Max™	.031015			.992403				.114	11
48-73134A4 . . . . .	.031016			.992405	.993405			.114	11
48-73134A40 . . . . . Black Max™	.031016			.992405	.993405			.114	11
48-73136A4 . . . . .	.031017	.395129		.992406	.993406			.114	11
48-73136A40 . . . . . Black Max™	.031017	.395129		.992406	.993406			.114	11
48-73138A4 . . . . .	.031018			.992407	.993407			.114	11
48-73138A40 . . . . . Black Max™	.031018			.992407	.993407			.114	11
48-73140A4 . . . . .	.031019	.395130		.992408	.993408			.114	11
48-73140A40 . . . . . Black Max™	.031019	.395130		.992408	.993408			.114	11
48-73142A40 . . . . .				.992409				.114	11
48-73144A4 . . . . .	.031020								11
48-73144A40 . . . . . Black Max™	.031020								11
48-76228A4 . . . . . QSS™		.395129			.993406			.114	11
48-76228A5 . . . . . Vengeance		.395129			.993406			.114	11
48-76230A4 . . . . . QSS™					.993407			.114	11
48-76230A5 . . . . . Vengeance					.993407			.114	11
48-76232A4 . . . . . QSS™		.395130			.993408			.114	11
48-76232A5 . . . . . Vengeance		.395130			.993408			.114	11
48-77338A40 . . . . .	.031054								13
48-77338A45 . . . . . Black Max™	.031054								13
48-77338CP1 . . . . . Pontoon	.031200								13
48-77340A40 . . . . .	.031055								13
48-77340A45 . . . . . Black Max™	.031055								13
48-77340CP1 . . . . . Pontoon	.031202								13
48-77342A40 . . . . .	.031041	.335130		.992113	.993143			.See Note 3	12, 13
48-77342A45 . . . . . Black Max™	.031041	.335130		.992113	.993143			.See Note 3	12, 13
48-77344A40 . . . . .	.031042	.335131		.992114	.993144			.See Note 3	12, 13
48-77344A45 . . . . . Black Max™	.031042	.335131		.992114	.993144			.See Note 3	12, 13
48-77346A40 . . . . .	.031043	.335132		.992115	.993145			.See Note 3	12, 13
48-77346A45 . . . . . Black Max™	.031043	.335132		.992115	.993145			.See Note 3	12, 13
48-77348A40 . . . . .	.031044	.335133	.335134	.992116	.993146			.See Note 3	12, 13
48-77348A45 . . . . . Black Max™	.031044	.335133	.335134	.992116	.993146			.See Note 3	12, 13
48-77350A40 . . . . .	.031045								13
48-77350A45 . . . . . Black Max™	.031045								13
48-77350A45 . . . . . Black Max™	.031045								13
48-79792A4 . . . . . QSS™				.992405	.993405			.114	11
48-79792A5 . . . . . Vengeance				.992405	.993405			.114	11
48-816702A40 . . . . .	.031056			.992405	.993405			.114	11
48-816704A40 . . . . .	.031057	.395129		.992406	.993406			.114	11
48-816706A40 . . . . .	.031058			.992407	.993407			.114	11
48-819334A40 . . . . .	.072133								11
48-819335A40 . . . . .	.072132								11
48-819336A40 . . . . .	.072131								11
48-819337A40 . . . . .	.072014								10, 11
48-819337A45 . . . . .	.072014								10, 11
48-855858A5 . . . . . Vengeance	.031057			.992406	.993406			.114	11
48-85632A40 . . . . . Black Max™	.031053			.992404				.114	11
48-FP19 . . . . .	.072017								10
48-FP372 . . . . .	.072033								13
48-FP488 . . . . . Black Max™	.072123								10
48-FP6430 . . . . . Black Max™	.072026								10

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>FORCE, CHRYSLER, U.S. MARINE (Continued)</b>									
48-FP669-1									12
48-FP669-2									12
48-FP669-3									12
48-FP685-1									12
48-FP685-2									12
48-FP685-3									12
48-FP686-1									Obsolete
48-FP686-3									Obsolete
48-FP686-4									Obsolete
48-FP692-1									12
48-FP692-2									12
48-FP692-3									12
48-FP694									Obsolete
48-FP70	Black Max™								10
FA282265									11
FA287265									11
FA378265									11
FP273									11
FP274									10, 11
FP276									10, 11
FP277									11
FP278									10, 11
FP282									11
FP286									10
FP287									11
FP293									11
FP319									10
FP327									10
FP328									10, 11
FP330									10
FP366									10, 11
FP372									13
FP378									11
FP383									Obsolete
FP389									Obsolete
FP395	Black Max™								10
FP408									10
FP472	Black Max™								10
FP501									Obsolete
FP509									Obsolete
FP510									Obsolete
FP511									Obsolete
FP519									12
FP523									12
FP524									12
FP526									Obsolete
FP539									Obsolete
FP540									Obsolete
FP623									12
FP654									12
FP664									Obsolete
FP665									12
FP668									13
FP669									12
FP669-1									12
FP682									12

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>FORCE, CHRYSLER, U.S. MARINE (Continued)</b>									
FP685	.072128								12
FP685-1	.072128								12
FP686	.072129								12
FP686-1	.071037								Obsolete
FP686-2	.072129								12
FP692	.072127								12
FP692-1	.072127								12
FP694	.071038								Obsolete
FP696	.073010								Obsolete
FP699	.073007								Obsolete
FPM736	.031020								11
FPM738	.031019			.992408	.993408			.114	11
FPM752	QSS™			.992407	.993407			.114	11
FPM754	QSS™			.992405	.993405			.114	11
FPM756	.031015								11
FPS501	.072054								Obsolete
FPS509	.073008								Obsolete
FPS510	.073004								Obsolete
FPS511	.073010								Obsolete
FPS519	.072055								12
FPS523	.072107								12
FPS524	.072108								12
FPS526	.072109								Obsolete
FPS623	.072107								12
FPS625	.072108								12
FPS626	.072109								12
FPS654	.072108								12
FPS686	.072129								12
FS501265	.072054								Obsolete
<b>HONDA</b>									
08M60-ZW7-A00	Honda "Turbo" 3-Blade	.335130			.993143			.See Note 3	15
08M60-ZW7-A10	Honda "Turbo" 3-Blade	.031042	.335131		.992114	.993144		.See Note 3	15
08M60-ZW7-A20	Honda "Turbo" 3-Blade	.031043	.335132		.992115	.993145		.See Note 3	15
08M60-ZW7-A30	Honda "Turbo" 3-Blade	.031044	.335133		.992116	.993146		.See Note 3	15
08M60-ZW7-B00	Honda "Turbo" 3-Blade (LH)				.993153			.See Note 3	15
08M60-ZW7-B10	Honda "Turbo" 3-Blade (LH)				.993154			.See Note 3	15
08M60-ZW7-B20	Honda "Turbo" 3-Blade (LH)				.993155			.See Note 3	15
08M60-ZW7-B30	Honda "Turbo" 3-Blade (LH)				.993156			.See Note 3	15
58110-ZV4-300		.102005							14
58110-ZV4-DT15		.112004							14
58110-ZV5-E00	Honda "Turbo" 3-Blade	.395930			.993408			.113	15
58110-ZV5-E10	Honda "Turbo" 3-Blade				.993407			.113	15
58110-ZV5-E20	Honda "Turbo" 3-Blade	.395929			.993406			.113	15
58110-ZV5-E30	Honda "Turbo" 3-Blade				.993405			.113	15
58130-881-840ZA		.012109							14
58130-881-840ZB		.012109							14
58130-935-000N		.012109							14
58130-935-600N		.012109							14
58130-ZV4-000ZA		.102005							14
58130-ZV4-008AH		.102003							14
58130-ZV4-009AH		.102004							14
58130-ZV4-010ZA		.102005							14
58130-ZV4-020ZA		.102005							14
58130-ZV4-030ZA		.102005							14
58130-ZV4-030ZB		.102005							14

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Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>HONDA (Continued)</b>									
58130-ZV4-700ZA .....	102004 .....								14
58130-ZV4-701ZA .....	102004 .....								14
58130-ZV4-702ZA .....	102004 .....								14
58130-ZV4-703ZA .....	102004 .....								14
58130-ZV4-703ZB .....	102004 .....								14
58130-ZV5-000ZA .....	.032042 .....	.395929 .....		.992406 .....	.993406 .....			.113	15
58130-ZV5-011AH .....	.032044 .....			.992404 .....	.993404 .....			.113	15
58130-ZV5-012AH .....	.032043 .....			.992405 .....	.993405 .....			.113	15
58130-ZV5-013AH .....	.032042 .....			.992406 .....	.993406 .....			.113	15
58130-ZV5-014AH .....	.032041 .....			.992407 .....	.993407 .....			.113	15
58130-ZV5-015AH .....	.032040 .....			.992408 .....	.993408 .....			.113	15
58130-ZV5-850ZA .....	.032043 .....			.992405 .....	.993405 .....			.113	15
58130-ZV5-860ZA .....	.032045 .....			.992404 .....				.113	15
58130-ZV5-870ZA .....	.032040 .....	.395930 .....		.992408 .....	.993408 .....			.113	15
58130-ZV7-009AH .....				.992501 .....				.119	14
58130-ZV7-010AH .....				.992502 .....				.119	14
58130-ZV7-011AH .....				.992503 .....				.119	14
58130-ZV7-012AH .....				.992504 .....				.119	14
58130-ZV7-013AH .....	.Solas Honda 3-Blade .....	.305229 .....		.992505 .....				.119	14
58130-ZW1-011AH .....	.031054 .....								15
58130-ZW1-013AH .....	.031055 .....								15
58130-ZW1-013AH .....	.Solas Honda .....	.031055 .....		.992112 .....				.See Note 3	15
58130-ZW1-015AH .....	.....	.031041 .....	.335130 .....	.992113 .....	.993143 .....			.See Note 3	15
58130-ZW1-015AH .....	.Solas Honda .....	.031041 .....	.335130 .....	.992113 .....	.993143 .....			.See Note 3	15
58130-ZW1-015B .....	.Solas Honda (LH) .....				.993153 .....			.See Note 3	15
58130-ZW1-017AH .....	.....	.031042 .....	.335131 .....	.992114 .....	.993144 .....			.See Note 3	15
58130-ZW1-017B .....	.Solas Honda (LH) .....				.993154 .....			.See Note 3	15
58130-ZW1-019AH .....	.....	.031043 .....	.335132 .....	.992115 .....	.993145 .....			.See Note 3	15
58130-ZW1-021AH .....	.....	.031044 .....	.335133 .....	.335134 .....	.992116 .....	.993146 .....		.See Note 3	15
58130-ZW1-V01 .....	.....		.335131 .....		.993144 .....			.See Note 3	15
58130-ZW1-V11 .....	.....		.335132 .....		.993145 .....			.See Note 3	15
58130-ZW1-V31 .....	.....		.335133 .....	.335134 .....	.993146 .....			.See Note 3	15
58130-ZW1-W01ZA .....	.031054 .....								15
58130-ZW1-W11ZA .....	.031055 .....			.992112 .....				.See Note 3	15
58130-ZW1-W21ZA .....	.031041 .....	.335130 .....		.992113 .....	.993143 .....			.See Note 3	15
58130-ZW1-W31ZA .....	.031042 .....	.335131 .....		.992114 .....	.993144 .....			.See Note 3	15
58130-ZW1-W41ZA .....	.031044 .....	.335133 .....	.335134 .....	.992116 .....	.993146 .....			.See Note 3	15
58130-ZW1-W51ZA .....	.031045 .....								15
58130-ZW1-W61ZA .....	.031043 .....	.335132 .....		.992115 .....	.993145 .....			.See Note 3	15
58130-ZW1-W91 .....	.....	.335130 .....			.993143 .....			.See Note 3	15
58130-ZY3-013A .....	.031022 .....								16
58130-ZY3-013A .....	.Solas Honda .....	.031022 .....							16
58130-ZY3-015A .....	.....	.031023 .....	.345131 .....	.992002 .....	.993042 .....	.993022 .....		.107	16
58130-ZY3-017A .....	.....	.031024 .....	.345132 .....	.992003 .....	.993043 .....	.993023 .....	.993203 .....	.107	16
58130-ZY3-017AP .....	.Solas Honda .....	.031064 .....	.345132 .....	.992003 .....		.993023 .....	.993203 .....	.107	16
58130-ZY3-017B .....	.Solas Honda (LH) .....		.345162 .....		.993053 .....			.107	16
58130-ZY3-017BP .....	.Solas Honda (LH) .....		.345162 .....		.993033 .....	.993213 .....		.107	16
58130-ZY3-017P .....	.Solas Honda .....	.031064 .....	.345132 .....	.992003 .....		.993023 .....	.993203 .....	.107	16
58130-ZY3-019A .....	.....	.031025 .....	.345133 .....	.992004 .....	.993044 .....	.993024 .....	.993204 .....	.107	16
58130-ZY3-019AP .....	.Solas Honda .....	.031065 .....	.345133 .....	.992004 .....		.993024 .....	.993204 .....	.107	16
58130-ZY3-019B .....	.Solas Honda (LH) .....		.345163 .....		.993054 .....			.107	16
58130-ZY3-021A .....	.Solas Honda .....	.031026 .....	.345134 .....	.992005 .....	.993045 .....	.993025 .....	.993205 .....	.107	16
58130-ZY3-021B .....	.Solas Honda (LH) .....		.345164 .....		.993055 .....	.993035 .....	.993215 .....	.107	16
58130-ZY3-023A .....	.....	.031027 .....	.345135 .....	.992006 .....	.993046 .....	.993026 .....	.993206 .....	.107	16
58130-ZY3-15B .....	.Solas Honda (LH) .....				.993052 .....			.107	16
58133-ZV4-008AH .....	.Solas "Saturn" 3-Blade .....	.102003 .....							14

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>HONDA (Continued)</b>									
58133-ZV4-009AH . . .Solas "Saturn" 3-Blade . . . . .102004 . . . . .									14
58133-ZV4-010AH . . .Solas "Saturn" 3-Blade . . . . .102005 . . . . .									14
58133-ZV5-012AH . . .Solas "Saturn" 3-Blade . . . . .					.993405			.113	15
58133-ZV5-013AH . . .Solas "Saturn" 3-Blade . . . . .395929 . . . . .					.993406			.113	15
58133-ZV5-014AH . . .Solas "Saturn" 3-Blade . . . . .					.993407			.113	15
58133-ZV5-015AH . . .Solas "Saturn" 3-Blade . . . . .395930 . . . . .					.993408			.113	15
58133-ZV7-013AH . . .Solas "Saturn" 3-Blade . . . . .305229 . . . . .									14
58133-ZW1-A11P . . .Solas "New Saturn" Pontoon 031200 . . . . .									15
58133-ZW1-A13P . . .Solas "New Saturn" Pontoon 031202 . . . . .									15
58133-ZW1-A15AH . .Solas "Titan" Perf. . . . .335130 . . . . .					.993143			.See Note 3	15
58133-ZW1-A15HR . .Solas Titan HR3 . . . . .335130 . . . . .					.993143			.See Note 3	15
58133-ZW1-A17AH . .Solas "Titan" Perf. . . . .335131 . . . . .					.993144			.See Note 3	15
58133-ZW1-A17HR . .Solas Titan HR3 . . . . .335131 . . . . .					.993144			.See Note 3	15
58133-ZW1-A19AH . .Solas "Titan" Perf. . . . .335132 . . . . .					.993145			.See Note 3	15
58133-ZW1-A19HR . .Solas Titan HR3 . . . . .335132 . . . . .					.993145			.See Note 3	15
58133-ZW1-A21HR . .Solas Titan HR3 . . . . .335133 . . . . .					.993146			.See Note 3	15
58133-ZW1-B15AH . .Solas "Titan" Perf. (LH) . . . . .335130 . . . . .					.993153			.See Note 3	15
58133-ZW1-B17AH . .Solas "Titan" Perf. (LH) . . . . .335131 . . . . .					.993154			.See Note 3	15
58133-ZW1-B17HR . .Solas Titan HR3 (LH) . . . . .335131 . . . . .					.993154			.See Note 3	15
58133-ZW1-B19AH . .Solas "Titan" Perf. (LH) . . . . .335132 . . . . .					.993155			.See Note 3	15
58133-ZW1-B19HR . .Solas Titan HR3 (LH) . . . . .335132 . . . . .					.993155			.See Note 3	15
58133-ZW1-B21HR . .Solas Titan HR3 (LH) . . . . .335133 . . . . .					.993156			.See Note 3	15
58133-ZY3-A15AH . . . . .345131 . . . . .					.993042	.993022		.107	16
58133-ZY3-A15AH . .Solas "New Saturn" . . . . .345131 . . . . .					.993042			.107	16
58133-ZY3-A15LX . .Solas "Lexus" HP . . . . .						.993023		.107	16
58133-ZY3-A15S . . .Solas "Titan" . . . . .345131 . . . . .									16
58133-ZY3-A17AH . . . . .345132 . . . . .					.993043	.993023	.993203	.107	16
58133-ZY3-A17HR . .Solas "HR Titan" . . . . .					.993043		.993203	.107	16
58133-ZY3-A17LX . .Solas "Lexus" HP . . . . .						.993024		.107	16
58133-ZY3-A17S . . .Solas "Titan" . . . . .345132 . . . . .						.993023	.993203	.107	16
58133-ZY3-A19AH . . . . .345133 . . . . .					.993044	.993024	.993204	.107	16
58133-ZY3-A19HR . .Solas "HR Titan" . . . . .					.993044		.993204	.107	16
58133-ZY3-A19LX . .Solas "Lexus" HP . . . . .						.993025		.107	16
58133-ZY3-A19S . . .Solas "Titan" . . . . .345133 . . . . .						.993024	.993204	.107	16
58133-ZY3-A21AH . . . . .345134 . . . . .					.993045	.993025	.993205	.107	16
58133-ZY3-A21HR . .Solas "HR Titan" . . . . .					.993045		.993205	.107	16
58133-ZY3-A21LX . .Solas "Lexus" HP . . . . .						.993026		.107	16
58133-ZY3-A21S . . .Solas "Titan" . . . . .345134 . . . . .						.993025	.993205	.107	16
58133-ZY3-A23S . . .Solas "Titan" . . . . .345135 . . . . .						.993026	.993206	.107	16
58133-ZY3-A25AH . . . . .345136 . . . . .									16
58133-ZY3-B15AH . .Solas "New Saturn" (LH) . . . . .					.993052			.107	16
58133-ZY3-B15LX . .Solas "Lexus" HP (LH) . . . . .						.993033		.107	16
58133-ZY3-B17AH . .Solas "New Saturn" (LH) . . . . .345162 . . . . .					.993053	.993033	.993213	.107	16
58133-ZY3-B17HR . .Solas "HR Titan" (LH) . . . . .					.993053		.993213	.107	16
58133-ZY3-B17LX . .Solas "Lexus" HP (LH) . . . . .						.993034		.107	16
58133-ZY3-B17S . . .Solas "Titan" (LH) . . . . .345162 . . . . .						.993033	.993213	.107	16
58133-ZY3-B19AH . .Solas "New Saturn" (LH) . . . . .345163 . . . . .					.993054	.993034	.993214	.107	16
58133-ZY3-B19HR . .Solas "HR Titan" (LH) . . . . .					.993054		.993214	.107	16
58133-ZY3-B19LX . .Solas "Lexus" HP (LH) . . . . .						.993035		.107	16
58133-ZY3-B19S . . .Solas "Titan" (LH) . . . . .345163 . . . . .						.993034	.993214	.107	16
58133-ZY3-B21AH . .Solas "New Saturn" (LH) . . . . .345164 . . . . .					.993055	.993035	.993215	.107	16
58133-ZY3-B21HR . .Solas "HR Titan" (LH) . . . . .					.993055		.993215	.107	16
58133-ZY3-B21LX . .Solas "Lexus" HP (LH) . . . . .						.993036		.107	16
58133-ZY3-B21S . . .Solas "Titan" (LH) . . . . .345164 . . . . .						.993035	.993215	.107	16
58133-ZY3-B23S . . .Solas "Titan" (LH) . . . . .345165 . . . . .						.993036	.993216	.107	16
58134-ZV5-009AH . . . . .					.992402			.113	15

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Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>HONDA (Continued)</b>									
58134-ZV5-010AH				.992403				.113	15
58134-ZY3-017A	Solas Honda 4			.992202			.993203	.107	16
58134-ZY3-017B	Solas Honda 4 (LH)						.993213	.107	16
58134-ZY3-019A	Solas Honda 4			.992203			.993204	.107	16
58134-ZY3-019B	Solas Honda 4 (LH)						.993214	.107	16
58134-ZY3-021A	Solas Honda 4			.992204			.993205	.107	16
58134-ZY3-021B	Solas Honda 4 (LH)						.993215	.107	16
58134-ZY3-A18HR	Solas "HR Titan" 4-bl						.993204	.107	16
58134-ZY3-A20HR	Solas "HR Titan" 4-bl						.993205	.107	16
58134-ZY3-A21HR	Solas "HR Titan" 4-bl						.993205	.107	16
58134-ZY3-B18HR	Solas "HR Titan" 4-bl (LH)						.993214	.107	16
58134-ZY3-B20HR	Solas "HR Titan" 4-bl (LH)						.993215	.107	16
58134-ZY3-B21HR	Solas "HR Titan" 4-bl (LH)						.993215	.107	16
58233-ZY3-A15H	Honda "Turbo"	.031023	.345131	.992002	.993042	.993022		.107	16
58233-ZY3-A17H	Honda "Turbo"	.031024	.345132	.992003	.993043	.993023	.993203	.107	16
58233-ZY3-A19H	Honda "Turbo"	.031025	.345133	.992004	.993044	.993024	.993204	.107	16
58233-ZY3-A21H	Honda "Turbo"	.031026	.345134	.992005	.993045	.993025	.993205	.107	16
58233-ZY3-A23H	Honda "Turbo"	.031027	.345135	.992006	.993046	.993026	.993206	.107	16
58233-ZY3-A23HP	Honda "Turbo" Perf.						.993026	.107	16
58233-ZY3-A25H	Honda "Turbo"	.031067	.345136						16
58233-ZY3-B15H	Honda "Turbo" (LH)				.993052			.107	16
58233-ZY3-B17H	Honda "Turbo" (LH)		.345162		.993053	.993033	.993213	.107	16
58233-ZY3-B19H	Honda "Turbo" (LH)		.345163		.993054	.993034	.993214	.107	16
58233-ZY3-B21H	Honda "Turbo" (LH)		.345164		.993055	.993035	.993215	.107	16
58233-ZY3-B23H	Honda "Turbo" (LH)		.345165		.993056		.993216	.107	16
58234-ZY3-A20H	Honda "Turbo" 4-BI						.993205	.107	16
58234-ZY3-A22H	Honda "Turbo" 4-BI						.993206	.107	16
58234-ZY3-A23HP	Honda "Turbo" 4-BI Perf.						.993205	.107	16
58234-ZY3-A23HP	Honda "Turbo" 4-BI Perf.						.993206	.107	16
58333-ZY3-A15CL	PowerTech OFS 3-BI Perf		.345131						16
58333-ZY3-A17CL	PowerTech OFS 3-BI Perf		.345132				.993023	.107	16
58333-ZY3-A19CL	PowerTech OFS 3-BI Perf		.345133				.993024	.107	16
58333-ZY3-A21CL	PowerTech OFS 3-BI Perf		.345134				.993025	.107	16
58333-ZY3-A23CL	PowerTech OFS 3-BI Perf		.345135				.993026	.107	16
58333-ZY3-B17CL	PowerTech OFS 3-BI Perf (LH)		.345162				.993033	.107	16
58333-ZY3-B19CL	PowerTech OFS 3-BI Perf (LH)		.345163				.993034	.107	16
58333-ZY3-B21CL	PowerTech OFS 3-BI Perf (LH)		.345164				.993035	.107	16
58333-ZY3-B23CL	PowerTech OFS 3-BI Perf (LH)		.345165				.993036	.107	16
<b>MERCURY, MARINER, MERCUISER</b>									
48-11070A40	Laser™		.345134	.345141	.993045	.993025	.993205	.102	21, 32
48-11074A40	Laser™		.345135	.345137	.993046	.993026	.993206	.102	21, 32
48-11320A40		.031050		.992002	.993042	.993022		.102	21, 32
48-11322A40		.031051		.992003	.993043	.993023	.993203	.102	21, 32
48-11324A40		.031052	.345133	.992004	.993044	.993024	.993204	.102	21, 32
48-11324A45	Black Max™	.031052	.345133	.992004	.993044	.993024	.993204	.102	21, 32
48-13242A5	Mirage®	.033052							obsolete
48-13242A50	Mirage®	.033052							obsolete
48-13243A5	Mirage®(LH)	.033053							obsolete
48-13243A50	Mirage®(LH)	.033053							obsolete
48-13244A5	Mirage®	.033054							obsolete
48-13244A50	Mirage®	.033054							obsolete
48-13245A5	Mirage®(LH)	.033055							obsolete
48-13245A50	Mirage®(LH)	.033055							obsolete
48-13247A5	Mirage®(LH)	.033057							obsolete
48-13247A50	Mirage®(LH)	.033057							obsolete

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-13248A5	Mirage®	.033058							obsolete
48-13248A50	Mirage®	.033058							obsolete
48-13700A46	Mirage Plus					.993024		.102	21, 32
48-13701A40	Mirage®(LH)	.345163							21, 32
48-13701A41	Mirage®(LH)	.345163							21, 32
48-13701A45	Mirage®Plus(LH)	.345163							21, 32
48-13701A46	Mirage Plus (LH)	.345163		.993054	.993034	.993214		.102	21, 32
48-13702A40	Mirage®	.345134		.993045	.993025	.993205		.102	21, 32
48-13702A41	Mirage®	.345134		.993045	.993025	.993205		.102	21, 32
48-13702A45	Mirage®Plus	.345134		.993045	.993025	.993205		.102	21, 32
48-13702A46	Mirage®Plus	.345134		.993045	.993025	.993205		.102	21, 32
48-13702A55	Mirage®Plus	.345134		.993045	.993025	.993205		.102	21, 32
48-13703A40	Mirage®(LH)	.345164		.993055	.993035	.993215		.102	21, 32
48-13703A41	Mirage®(LH)	.345164		.993055	.993035	.993215		.102	21, 32
48-13703A45	Mirage®Plus(LH)	.345164		.993055	.993035	.993215		.102	21, 32
48-13703A46	Mirage Plus (LH)	.345164		.993055	.993035	.993215		.102	21, 32
48-13703A55	Mirage®Plus(LH)	.345164		.993055	.993035	.993215		.102	21, 32
48-13704A40	Mirage®	.345135		.993046				.102	21, 32
48-13704A41	Mirage®	.345135		.993046				.102	21, 32
48-13704A45	Mirage®Plus	.345135		.993046				.102	21, 32
48-13704A46	Mirage®Plus	.345135		.993046	.993026			.102	21, 32
48-13705A40	Mirage®(LH)	.345165		.993056	.993036			.102	21, 32
48-13705A41	Mirage®(LH)	.345165		.993056	.993036			.102	21, 32
48-13705A45	Mirage®Plus(LH)	.345165		.993056	.993036			.102	21, 32
48-13705A46	Mirage®Plus(LH)	.345165		.993056	.993036	.993216		.102	21, 32
48-13705A55	Mirage®Plus(LH)	.345165							21, 32
48-13706A40	Mirage®	.345136							21, 32
48-13706A41	Mirage®	.345136							21, 32
48-13706A45	Mirage®Plus	.345136							21, 32
48-13706A46	Mirage®Plus	.345136							21, 32
48-13707A41	Mirage®(LH)	.033035							obsolete
48-13707A45	Mirage®Plus(LH)	.033035							obsolete
48-13707A55	Mirage®Plus(LH)	.033057							obsolete
48-137706A55	Mirage®Plus	.033058							obsolete
48-16312A4	QSS™	.345131		.993042	.993022			.102	21, 32
48-16312A45	Vengeance	.345131		.993042	.993022			.102	21, 32
48-16312A46	Vengeance	.345131		.993042	.993022			.102	21, 32
48-16312A5	QSS™	.345131		.993042	.993022			.102	21, 32
48-16314A4	QSS™	.345132		.993043	.993023	.993203		.102	21, 32
48-16314A45	Vengeance	.345132		.993043	.993023	.993203		.102	21, 32
48-16314A46	Vengeance	.345132		.993043	.993023	.993203		.102	21, 32
48-16314A5	QSS™	.345132		.993043	.993023	.993203		.102	21, 32
48-16315A4	QSS™ (LH)	.345162		.993053	.993033	.993213		.102	21, 32
48-16315A45	Vengeance(LH)	.345162		.993053	.993033	.993213		.102	21, 32
48-16315A46	Vengeance (LH)	.345162		.993053	.993033	.993213		.102	21, 32
48-16315A5	QSS™ (LH)	.345162		.993053	.993033	.993213		.102	21, 32
48-16316A4	QSS™	.345133		.993044	.993024	.993204		.102	21, 32
48-16316A45	Vengeance	.345133		.993044	.993024	.993204		.102	21, 32
48-16316A46	Vengeance	.345133		.993044	.993024	.993204		.102	21, 32
48-16316A5	QSS™	.345133		.993044	.993024	.993204		.102	21, 32
48-16317A4	QSS™ (LH)	.345163		.993054	.993034	.993214		.102	21, 32
48-16317A45	Vengeance(LH)	.345163		.993054	.993034	.993214		.102	21, 32
48-16317A46	Vengeance (LH)	.345163		.993054	.993034	.993214		.102	21, 32
48-16317A5	QSS™ (LH)	.345163		.993054	.993034	.993214		.102	21, 32
48-16318A4	QSS™	.345134		.993045	.993025	.993205		.102	21, 32
48-16318A45	Vengeance	.345134		.993045	.993025	.993205		.102	21, 32

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #'s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-16318A46 . . . . . Vengeance . . . . .		.345134			.993045	.993025	.993205	.102	21, 32
48-16318A5 . . . . . QSS™ . . . . .		.345134			.993045	.993025	.993205	.102	21, 32
48-16319A4 . . . . . QSS™ (LH) . . . . .		.345164			.993055	.993035	.993215	.102	21, 32
48-16319A45 . . . . . Vengeance(LH) . . . . .		.345164			.993055	.993035	.993215	.102	21, 32
48-16319A46 . . . . . Vengeance (LH) . . . . .		.345164			.993055	.993035	.993215	.102	21, 32
48-16319A5 . . . . . QSS™ (LH) . . . . .		.345164			.993055	.993035	.993215	.102	21, 32
48-16320A4 . . . . . QSS™ . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16320A4 . . . . . QSS™ . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16320A45 . . . . . QSS™ . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16320A45 . . . . . Vengeance . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16320A46 . . . . . Vengeance . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16320A5 . . . . . QSS™ . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16320A5 . . . . . QSS™ . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16321A4 . . . . . QSS™ (LH) . . . . .		.345165			.993056	.993036	.993216	.102	21, 32
48-16321A45 . . . . . Vengeance(LH) . . . . .		.345165			.993056	.993036	.993216	.102	21, 32
48-16321A46 . . . . . Vengeance (LH) . . . . .		.345165			.993056	.993036	.993216	.102	21, 32
48-16321A5 . . . . . QSS™ (LH) . . . . .		.345165			.993056	.993036	.993216	.102	21, 32
48-16322A4 . . . . . QSS™ . . . . .		.345136							21, 32
48-16322A45 . . . . . . . . . .		.345136							21, 32
48-16322A46 . . . . . Vengeance . . . . .		.345136							21, 32
48-16436A40 . . . . . . . . . .	.031063								21, 32
48-16436A45 . . . . . Black Max™ . . . . .	.031063								21, 32
48-16438A40 . . . . . . . . . .	.031050			.992002	.993042	.993022		.102	21, 32
48-16438A45 . . . . . Black Max™ . . . . .	.031050			.992002	.993042	.993022		.102	21, 32
48-16440A40 . . . . . . . . . .	.031051			.992003	.993043	.993023	.993203	.102	21, 32
48-16440A45 . . . . . Black Max™ . . . . .	.031051			.992003	.993043		.993203	.102	21, 32
48-16543A40 . . . . . Laser II™(LH) . . . . .		.345163			.993054	.993034	.993214	.102	21, 32
48-16543A41 . . . . . Laser II™(LH) . . . . .		.345163			.993054	.993034	.993214	.102	21, 32
48-16543A45 . . . . . Laser II™(LH) . . . . .		.345163			.993054	.993034	.993214	.102	21, 32
48-16543A46 . . . . . Laser II (LH) . . . . .		.345163			.993054		.993214	.102	21, 32
48-16544A40 . . . . . Laser II™ . . . . .		.345133			.993044	.993024	.993204	.102	21, 32
48-16544A41 . . . . . Laser II™ . . . . .		.345133			.993044	.993024	.993204	.102	21, 32
48-16544A45 . . . . . Laser II™ . . . . .		.345133			.993044	.993024	.993204	.102	21, 32
48-16544A46 . . . . . Laser II™ . . . . .		.345133			.993044	.993024	.993204	.102	21, 32
48-16545A40 . . . . . Laser II™(LH) . . . . .		.345164			.993055	.993035	.993215	.102	21, 32
48-16545A41 . . . . . Laser II™(LH) . . . . .		.345164			.993055	.993035	.993215	.102	21, 32
48-16545A45 . . . . . Laser II™(LH) . . . . .		.345164			.993055	.993035	.993215	.102	21, 32
48-16545A46 . . . . . Laser II (LH) . . . . .		.345164			.993055		.993215	.102	21, 32
48-16546A40 . . . . . Laser II™ . . . . .		.345134			.993045	.993025	.993205	.102	21, 32
48-16546A41 . . . . . Laser II™ . . . . .		.345134			.993045	.993025	.993205	.102	21, 32
48-16546A45 . . . . . Laser II™ . . . . .		.345134			.993045	.993025	.993205	.102	21, 32
48-16546A46 . . . . . Laser II . . . . .		.345164			.993055		.993215	.102	21, 32
48-16547A40 . . . . . Laser II™(LH) . . . . .		.345165			.993056	.993036	.993216	.102	21, 32
48-16547A41 . . . . . Laser II™(LH) . . . . .		.345165			.993056	.993036	.993216	.102	21, 32
48-16547A45 . . . . . Laser II™(LH) . . . . .		.345165			.993056	.993036	.993216	.102	21, 32
48-16547A46 . . . . . Laser II (LH) . . . . .		.345165			.993056		.993216	.102	21, 32
48-16548A40 . . . . . Laser II™ . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16548A41 . . . . . Laser II™ . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16548A45 . . . . . Laser II™ . . . . .		.345135			.993046	.993026	.993206	.102	21, 32
48-16548A46 . . . . . Laser II . . . . .		.345165			.993056		.993216	.102	21, 32
48-16550A40 . . . . . Laser II™ . . . . .		.345136							21, 32
48-16550A41 . . . . . Laser II™ . . . . .		.345136							21, 32
48-16550A45 . . . . . Laser II™ . . . . .		.345136							21, 32
48-16550A46 . . . . . Laser II . . . . .		.345136							21, 32
48-16986A45 . . . . . Vengeance . . . . .					.993143			.See Note 3	20
48-16986A46 . . . . . Vengeance . . . . .		.335131			.993143			.See Note 3	20

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-16986A5 . . . . . QSS™					.993143			.See Note 3	20
48-16988A45 . . . . . Vengeance					.993144			.See Note 3	20
48-16988A46 . . . . . Vengeance		.335132			.993144			.See Note 3	20
48-16988A5 . . . . . QSS™					.993144			.See Note 3	20
48-16990A40 . . . . . Laser II™		.335132			.993145			.See Note 3	20
48-16990A45 . . . . . Laser II™		.335132			.993145			.See Note 3	20
48-16992A40 . . . . . Laser II™		.335133			.993146			.See Note 3	20
48-16992A45 . . . . . Laser II™		.335133			.993146			.See Note 3	20
48-16992A46 . . . . . Laser II		.335134							20
48-16994A46 . . . . . Laser II		.335135							20
48-17874A12 . . . . .	.032050								17
48-18278A46 . . . . .		.345132			.993043	.993023		.102	21, 32
48-18278A46 . . . . . Mirage Plus						.993023		.102	21, 32
48-18278A46 . . . . . Mirage Plus						.993023		.102	21, 32
48-19636A10 . . . . . Black Max				.992501					18
48-19638A40 . . . . . Black Max™	.031049			.992503				.120	17
48-19638A40 . . . . . Black Max	.031049			.992503				.120	17
48-19639A40 . . . . . Black Max				.992504				.120	17
48-19640A40 . . . . . Black Max™	.031048	.305129		.992505				.120	17
48-19642A40 . . . . . Black Max™	.031047	.305130		.992506				.120	17
48-19644A 5 . . . . . Vengeance		.305129						.120	17
48-19841A46 . . . . . Mirage Plus (LH)				.993052	.993032			.102	21, 32
48-22575A2 . . . . .	.032077								19
48-30388A1 . . . . .	.031042								20
48-30390A1 . . . . .	.031041								20
48-30396A1 . . . . .	.031054								20
48-30396A3 . . . . .	.031054								20
48-30396A4 . . . . .	.031054								20
48-31072A4 . . . . .	.031041								20
48-31080A1 . . . . .	.031042								20
48-31082A1 . . . . .	.031041								20
48-31454A3 . . . . .	.031043								20
48-31456A3 . . . . .	.031042								20
48-31458A3 . . . . .	.031041								20
48-32180A1 . . . . .	.032087								19, 35
48-32180A4 . . . . .	.032087								19, 35
48-32182A1 . . . . .	.032087								19, 35
48-32182A4 . . . . .	.032087								19, 35
48-32184A1 . . . . .	.032086								19, 35
48-32184A4 . . . . .	.032086								19, 35
48-32186A1 . . . . .	.032086								19, 35
48-32188A1 . . . . .	.032085								19, 35
48-32188A4 . . . . .	.032085								19, 35
48-32190A1 . . . . .	.032085								19, 35
48-32192A1 . . . . .	.032084								19, 35
48-32192A4 . . . . .	.032084								19, 35
48-32264A3 . . . . .	.031041								20
48-32386A3 . . . . .	.031043								20
48-32386A4 . . . . .	.031045								20
48-32388A3 . . . . .	.031042								20
48-32390A3 . . . . .	.031055								20
48-32392A3 . . . . .	.031054								20
48-32392A4 . . . . .	.031055								20
48-32746A3 . . . . .	.031043								20
48-32748A3 . . . . .	.031042								20
48-32750A3 . . . . .	.031042								20

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Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-33480A1	.032135								17
48-33482A1	.032136								17
48-33772A1	.032084								19, 35
48-33772A4	.032084								19, 35
48-33774A1	.032084								19, 35
48-33774A4	.032084								19, 35
48-35936A3	.031054								20
48-35936A4	.032039								19
48-36008A1	.031027			.992006	.993042			.102	21, 32
48-36010A1	.031026			.992005	.993045		.993205	.102	21, 32
48-36010A4	.031027			.992006	.993046		.993206	.102	21, 32
48-36012A1	.031052			.992004	.993044		.993204	.102	21, 32
48-36012A4	.031026			.992005	.993045		.993205	.102	21, 32
48-36012A5	.031051			.992002	.993043		.993203	.102	21, 32
48-36014A1	.031051			.992002	.993043		.993203	.102	21, 32
48-36014A4	.031052			.992004	.993044		.993204	.102	21, 32
48-36016A4	.031051			.992002	.993043		.993203	.102	21, 32
48-36018A1	.031022								21, 32
48-36020A1	.031022								21, 32
48-36020A4	.031022								21, 32
48-36022A1	.031021								obsolete
48-36022A4	.031021								obsolete
48-37902A4	.031042								20
48-38090A1	.032087								19, 35
48-38094A1	.032086								19, 35
48-38094A4	.032087								19, 35
48-38098A1	.032085								19, 35
48-38098A4	.032086								19, 35
48-42518A10	.032060								17
48-42518A11	.032060								17
48-42520A10	.032058								17
48-42520A11	.032058								17
48-42520A12	.032058								17
48-42522A10	.032052								17
48-42522A11	.032052								17
48-42522A12	.032052								17
48-42738A10	.Black Max™ .032141								19
48-42738A11	.Black Max (RB) .032141								19
48-42738A13	.Black Max (RB) Ex. Cup .032141								19
48-42740A10	.Black Max™ .032142								19
48-42740A11	.Black Max (RB) .032142								19
48-43584A40	.031049			.992503				.120	17
48-43586A40	.031048			.992505				.120	17
48-43590A40	.031047			.992506				.120	17
48-47670A1	.032020								17
48-47670A10	.032020								17
48-47670A3	.032020								17
48-47922A1	.032021								17
48-47922A10	.032021								17
48-47926A1	.032019								17
48-47926A10	.032019								17
48-49632A3	.031042								20
48-49632A4	.031043								20
48-49634A1	.031052			.992004	.993044		.993204	.102	21, 32
48-49634A4	.031052			.992004	.993044		.993204	.102	21, 32
48-52008A3	.031045								20

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-52008A4	.031045								20
48-52012A3	.031045								20
48-53892A3	.031043								20
48-53896A3	.031042								20
48-53896A4	.031043			.992115	.993145			See Note 3	20
48-53900A3	.031041								20
48-54723A1	.032114								obsolete
48-54724A1	.032113								obsolete
48-54725A1	.032116								obsolete
48-54726A1	.032115								obsolete
48-54727A1	.032118								obsolete
48-54727A4	.032118								obsolete
48-56234A1	.032099								19
48-56234A4	.032099								19
48-56236A1	.032099								19
48-56236A4	.032099								19
48-56254A1	.032099								19
48-56254A4	.032099								19
48-57262A1	.032117								obsolete
48-57263A1	.032118								obsolete
48-58422A1	.031051			.992003	.993043		.993203	.102	21, 32
48-58422A4	.031052			.992004	.993044		.993204	.102	21, 32
48-58424A4	.031026			.992005	.993045		.993205	.102	21, 32
48-58426A1	.031026			.992005	.993045		.993205	.102	21, 32
48-58426A4	.031027			.992006	.993046		.993206	.102	21, 32
48-58826A3	.031054								20
48-58826A4	.031055								20
48-61812A1	.032045								19
48-61812A4	.032045								19
48-61814A1	.032044			.992404				.114	18, 19
48-61814A4	.032044			.992404				.114	18, 19
48-61816A1	.032043	.395929		.992405	.993405			.114	18, 19
48-61816A4	.032043	.395929		.992405	.993405			.114	18, 19
48-61818A1	.032042	.395929		.992406	.993406			.114	18, 19
48-61818A4	.032042	.395929		.992406	.993406			.114	18, 19
48-61820A1	.032041			.992407	.993407			.114	18, 19
48-61820A4	.032041			.992407	.993407			.114	18, 19
48-61822A1	.032040	.395930		.992408	.993408			.114	18, 19
48-61822A4	.032040	.395930		.992408	.993408			.114	18, 19
48-61824A1	.032039			.992409				.114	18, 19
48-62274A1	.032045								20
48-62274A4	.032045								20
48-63303A1	.032114								obsolete
48-63304A1	.032113								obsolete
48-63305A1	.032116								obsolete
48-63306A1	.032115								obsolete
48-63456A1	.032099								19
48-63456A4	.032099								19
48-63494A1	.032014								obsolete
48-63494A10	.032014								obsolete
48-63538A1	.032039								19
48-63540A1	.032040	.395930		.992408	.993408			.114	19
48-63542A1	.032041			.992407	.993407			.114	19
48-63542A4	.032041			.992407	.993407			.114	19
48-63544A1	.032042	.395929		.992406	.993406			.114	19
48-63544A4	.032042	.395929		.992406	.993406			.114	19

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-63546A4	.032043	.395929		.992406	.993406			.114	19
48-64724A1	.031020								19
48-64724A4	.031020								19
48-65022A1	.031041								20
48-65024A1	.031042								20
48-65480A1	.031027			.992006	.993046		.993206	.102	21, 32
48-65588A1	.031042								20
48-65588A4	.031042								20
48-65736A1	.031045								20
48-65736A4	.031045								20
48-65748A1	.031041								20
48-65992A1	.031026			.992005	.993045		.993205	.102	21, 32
48-65992A4	.031026			.992005	.993045		.993205	.102	21, 32
48-66432A1	.031051			.992003	.993043		.993203	.102	21, 32
48-66432A4	.031052			.992004	.993044		.993204	.102	21, 32
48-66450A4	.031051			.992003	.993043		.993203	.102	21, 32
48-67280A1	.031043								20
48-67874A4	.031027			.992006	.993046		.993206	.102	21, 32
48-68556A4	.Cleaver™ .033052								obsolete
48-68557A4	.Cleaver™ .033053								obsolete
48-68558A4	.Cleaver™ .033054								obsolete
48-69260A1	.032115								obsolete
48-69262A1	.032117								obsolete
48-72764A4	.QSS™ .033017				.993144			.See Note 3	20
48-72764A5	.QSS™ .033017				.993144			.See Note 3	20
48-73132A4	.031015								19
48-73132A40	.Black Max™ .031015								19
48-73134A4	.031016			.992405	.993405			.114	19
48-73134A40	.Black Max™ .031016			.992405	.993405			.114	19
48-73136A4	.031017	.395129		.992406	.993406			.114	19
48-73136A40	.Black Max™ .031017	.395129		.992406	.993406			.114	19
48-73138A4	.031018			.992407	.993407			.114	19
48-73138A40	.Black Max™ .031018			.992407	.993407			.114	19
48-73140A4	.031019	.395130		.992408	.993408			.114	19
48-73140A40	.Black Max™ .031019	.395130		.992408	.993408			.114	19
48-73142A40				.992409				.114	19
48-73144A4	.031020								19
48-73144A40	.Black Max™ .031020								19
48-73500A4	.031021								obsolete
48-73502A4	.031022								21, 32
48-73504A4	.031023			.992002	.993042			.102	21, 32
48-73506A4	.031024			.992003	.993043		.993203	.102	21, 32
48-73508A4	.031025			.992004	.993044		.993204	.102	21, 32
48-73510A4	.031026			.992005	.993045		.993205	.102	21, 32
48-73512A4	.031027			.992006	.993046		.993206	.102	21, 32
48-73980A4	.QSS™ .033017				.993044		.993204	.102	21, 32
48-73980A5	.QSS™ .033017				.993044		.993204	.102	21, 32
48-73982A4	.QSS™ .033017				.993045		.993205	.102	21, 32
48-73982A5	.QSS™ .033017				.993045		.993205	.102	21, 32
48-74266A4	.QSS™ .033017				.993044		.993204	.102	21, 32
48-74268A4	.QSS™ .033017				.993045		.993205	.102	21, 32
48-74598A4	.Cleaver™ .033052								obsolete
48-74599A4	.Cleaver™ .033053								obsolete
48-74600A4	.Cleaver™ .033054								obsolete
48-74601A4	.Cleaver™ .033055								obsolete
48-74603A4	.Mirage® .033057								obsolete

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-74604A4 . . . . . Mirage®	.033058								obsolete
48-74872A4 . . . . .	.031051			.992003	.993043		.993203	.102	21, 32
48-74874A4 . . . . .	.031052			.992004	.993044		.993204	.102	21, 32
48-74876A4 . . . . .	.031026			.992005	.993045		.993205	.102	21, 32
48-74886A4 . . . . .	.031052			.992004	.993044		.993204	.102	21, 32
48-74888A4 . . . . .	.031026			.992005	.993045		.993205	.102	21, 32
48-75058A4 . . . . . QSS™					.993046		.993206	.102	21, 32
48-75160A4 . . . . .	.031027			.992006	.993046		.993206	.102	21, 32
48-75724A4 . . . . . QSS™					.993046		.993206	.102	21, 32
48-75724A5 . . . . . QSS™					.993046		.993206	.102	21, 32
48-75760A4 . . . . .	.031023			.992002	.993042			.102	21, 32
48-76230A4 . . . . . QSS™					.993407			.114	19
48-76230A5 . . . . . Vengeance					.993407			.114	19
48-76232A4 . . . . . QSS™		.395130			.993408			.114	19
48-76232A5 . . . . . Vengeance		.395130			.993408			.114	19
48-77338A33 . . . . . Black Max™	.031054								20
48-77338A4 . . . . .	.031054								20
48-77338A40 . . . . .	.031054								20
48-77338A45 . . . . . Black Max™	.031054								20
48-77338CP1 . . . . . Black Max Pontoon	.031200								20
48-77340A33 . . . . . Black Max (RB)	.031055			.992112				.See Note 3	20
48-77340A4 . . . . .	.031055								20
48-77340A40 . . . . .	.031055								20
48-77340A45 . . . . . Black Max™	.031055			.992112				.See Note 3	20
48-77340CP1 . . . . . Black Max Pontoon	.031202								20
48-77342A33 . . . . . Black Max (RB)	.031041	.335130		.992113	.993143			.See Note 3	20
48-77342A4 . . . . .	.031041	.335130		.992113	.993143			.See Note 3	20
48-77342A40 . . . . .	.031041	.335130		.992113	.993143			.See Note 3	20
48-77342A45 . . . . . Black Max™	.031041	.335130		.992113	.993143			.See Note 3	20
48-77344A4 . . . . .	.031042	.335131		.992114	.993144			.See Note 3	20
48-77344A40 . . . . .	.031042	.335131		.992114	.993144			.See Note 3	20
48-77344A45 . . . . . Black Max™	.031042	.335131		.992114	.993144			.See Note 3	20
48-77346A4 . . . . .	.031043	.335132		.992115	.993145			.See Note 3	20
48-77346A40 . . . . .	.031043	.335132		.992115	.993145			.See Note 3	20
48-77346A45 . . . . . Black Max™	.031043	.335132		.992115	.993145			.See Note 3	20
48-77348A4 . . . . .	.031044	.335133	.335134	.992116	.993146			.See Note 3	20
48-77348A40 . . . . .	.031044	.335133	.335134	.992116	.993146			.See Note 3	20
48-77348A45 . . . . . Black Max™	.031044	.335133	.335134	.992116	.993146			.See Note 3	20
48-77350A4 . . . . .	.031045								20
48-77350A40 . . . . .	.031045								20
48-77350A45 . . . . . Black Max™	.031045								20
48-77896A1 . . . . .	.032113								obsolete
48-77896A10 . . . . .	.032113								obsolete
48-77897A1 . . . . .	.032114								obsolete
48-77897A10 . . . . .	.032114								obsolete
48-77898A1 . . . . .	.032115								obsolete
48-77898A10 . . . . .	.032115								obsolete
48-77899A1 . . . . .	.032116								obsolete
48-77899A10 . . . . .	.032116								obsolete
48-77900A1 . . . . .	.032117								obsolete
48-77900A10 . . . . .	.032117								obsolete
48-77901A1 . . . . .	.032118								obsolete
48-77901A10 . . . . .	.032118								obsolete
48-78112A4 . . . . .	.031021								obsolete
48-78112A40 . . . . .	.031021								obsolete
48-78112A45 . . . . . Black Max™	.031021								obsolete

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Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-78114A4	.031022								21, 32
48-78114A40	.031022								21, 32
48-78114A45	.Black Max™ .031022								21, 32
48-78116A4	.031023	.345131		.992002	.993042	.993022		.102	21, 32
48-78116A40	.031023	.345131		.992002	.993042	.993022		.102	21, 32
48-78116A45	.Black Max™ .031023	.345131		.992002	.993042	.993022		.102	21, 32
48-78118A4	.031024	.345132		.992003	.993043	.993023	.993203	.102	21, 32
48-78118A40	.031024	.345132		.992003	.993043	.993023	.993203	.102	21, 32
48-78118A45	.Black Max™ .031024	.345132		.992003	.993043	.993023	.993203	.102	21, 32
48-78120A4	.031025	.345133		.992004	.993044	.993024	.993204	.102	21, 32
48-78120A40	.031025	.345133		.992004	.993044	.993024	.993204	.102	21, 32
48-78120A45	.Black Max™ .031025	.345133		.992004	.993044	.993024	.993204	.102	21, 32
48-78122A4	.031026	.345134	.345141	.992005	.993045	.993025	.993205	.102	21, 32
48-78122A40	.031026	.345134	.345141	.992005	.993045	.993025	.993205	.102	21, 32
48-78122A45	.Black Max™ .031026	.345134	.345141	.992005	.993045	.993025	.993205	.102	21, 32
48-78124A4	.031027	.345135	.345137	.992006	.993046	.993026	.993206	.102	21, 32
48-78124A40	.031027	.345135	.345137	.992006	.993046	.993026	.993206	.102	21, 32
48-78124A45	.Black Max™ .031027	.345135	.345137	.992006	.993046	.993026	.993206	.102	21, 32
48-78126A4	.031067	.345136	.345138	.992007				.102	21, 32
48-78126A40	.031067	.345136	.345138	.992007				.102	21, 32
48-78126A45	.Black Max™ .031067	.345136	.345138	.992007				.102	21, 32
48-79572A4	.031051			.992003	.993043	.993023	.993203	.102	21, 32
48-79574A4				.992004	.993044	.993024	.993204	.102	21, 32
48-79576A4				.992005	.993045	.993025	.993205	.102	21, 32
48-79578A4				.992006	.993046	.993026	.993206	.102	21, 32
48-79792A4	.QSS™				.993405			.114	19
48-79792A5	.Vengeance				.993405			.114	19
48-79794A4	.QSS™				.993043	.993023	.993203	.102	21, 32
48-79794A5	.QSS™				.993043	.993023	.993203	.102	21, 32
48-79830A4	.QSS™				.993043	.993023	.993203	.102	21, 32
48-81645M	.022002								18
48-81647M	.022001								18
48-81649M	.022002								18
48-816702A40	.Black Max™ .031056			.992405	.993405			.114	19
48-816704A40	.Black Max™ .031057	.395129		.992406	.993406			.114	19
48-816706A40	.Black Max™ .031058			.992407	.993407			.114	19
48-825860A47		.345133			.993044	.993024		.102	21, 32
48-825861A47	.Tempest Plus (LH)	.345163							21, 32
48-825862A47	.Tempest Plus	.345134			.993045	.993025		.102	21, 32
48-825863A47	.Tempest Plus (LH)	.345164							21, 32
48-825864A47	.Tempest Plus	.345135							21, 32
48-825865A47	.Tempest Plus (LH)	.345165							21, 32
48-825866A47	.Tempest Plus	.345136							21, 32
48-825872A47	.Tempest Plus		.345137						21, 32
48-825874A47	.Tempest Plus		.345138						21, 32
48-825898A48	.VenSura 4						.993203	.102	21, 32
48-825898A48	.VenSura 4						.993203	.102	21, 32
48-825899A48	.VenSura 4 (LH)						.993213	.102	21, 32
48-825899A48	.VenSura 4 (LH)						.993213	.102	21, 32
48-825900A48	.VenSura 4						.993204	.102	21, 32
48-825900A48	.VenSura 4						.993204	.102	21, 32
48-825901A48	.VenSura 4 (LH)						.993214	.102	21, 32
48-825901A48	.VenSura 4 (LH)						.993214	.102	21, 32
48-825902A48	.VenSura 4						.993205	.102	21, 32
48-825902A48	.VenSura 4						.993205	.102	21, 32
48-825903A48	.VenSura 4 (LH)						.993215	.102	21, 32

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Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-825903A48 . . . . . VenSura 4 (LH) . . . . .								.993215 . . . . .102	21, 32
48-825906A48 . . . . . VenSura 4 . . . . .								.993206 . . . . .102	21, 32
48-825906A48 . . . . . VenSura 4 . . . . .								.993206 . . . . .102	21, 32
48-825907A48 . . . . . VenSura 4 (LH) . . . . .								.993216 . . . . .102	21, 32
48-825907A48 . . . . . VenSura 4 (LH) . . . . .								.993216 . . . . .102	21, 32
48-825938A47 . . . . . Trophy Plus 4 . . . . .			.435135						21
48-825940A47 . . . . . Trophy Plus . . . . .		.033040							obsolete
48-825942A47 . . . . . Trophy Plus 4 . . . . .			.435136						21
48-825944A47 . . . . . Trophy Plus . . . . .		.033042							obsolete
48-825946A47 . . . . . Trophy Plus 4 . . . . .			.435137						21
48-827312A11 . . . . . Black Max (RB) . . . . .		.032142							19
48-82767 . . . . .		.012102							18
48-82768 . . . . .		.012011							18
48-82770 . . . . .		.012010							obsolete
48-828148A12 . . . . . Black Max™ . . . . .		.032060							17
48-828150A12 . . . . . Black Max™ . . . . .		.032058							17
48-828152A12 . . . . . Black Max™ . . . . .		.032056							17
48-828154A12 . . . . . Black Max™ . . . . .		.032054							17
48-828156A12 . . . . . Black Max™ . . . . .		.032052							17
48-828158A12 . . . . . Black Max™ . . . . .		.032050							17
48-82826 . . . . .		.022003							18
48-832828A45 . . . . . Black Max™ . . . . .		.031064	.345132	.992003	.993043	.993023	.993203	.102	21, 32
48-832830A45 . . . . . Black Max™ . . . . .		.031065	.345133	.992004	.993044	.993024	.993204	.102	21, 32
48-832832A45 . . . . . Black Max™ . . . . .		.031066	.345134	.992005	.993045	.993025	.993205	.102	21, 32
48-832834A45 . . . . . Black Max™ . . . . .		.031068	.345135	.992006	.993046	.993026	.993206	.102	21, 32
48-834850A45 . . . . . Alpha 4 . . . . .				.992202			.993203	.102	21, 32
48-834850A45 . . . . . Alpha 4 . . . . .				.992202			.993203	.102	21, 32
48-834851A45 . . . . . Alpha 4 (LH) . . . . .							.993213	.102	21, 32
48-834851A45 . . . . . Alpha 4 (LH) . . . . .							.993213	.102	21, 32
48-834852A45 . . . . . Alpha 4 . . . . .				.992203			.993204	.102	21, 32
48-834852A45 . . . . . Alpha 4 . . . . .				.992203			.993204	.102	21, 32
48-834853A45 . . . . . Alpha 4 (LH) . . . . .							.993214	.102	21, 32
48-834853A45 . . . . . Alpha 4 (LH) . . . . .							.993214	.102	21, 32
48-834854A45 . . . . . Alpha 4 . . . . .				.992204			.993205	.102	21, 32
48-834854A45 . . . . . Alpha 4 . . . . .				.992204			.993205	.102	21, 32
48-834855A45 . . . . . Alpha 4 (LH) . . . . .							.993215	.102	21, 32
48-834855A45 . . . . . Alpha 4 (LH) . . . . .							.993215	.102	21, 32
48-854354A46 . . . . . Vengeance . . . . .		.335130			.993143			See Note 3	20
48-855856A 5 . . . . . Vengeance . . . . .					.993405			.114	19
48-855858A 5 . . . . . Vengeance . . . . .		.395129			.993406			.114	19
48-855860A 5 . . . . . Vengeance . . . . .					.993407			.114	19
48-855862A 5 . . . . . Vengeance . . . . .		.395130			.993408			.114	19
48-85632A4 . . . . .		.031053		.992404				.114	19
48-85632A40 . . . . . Black Max™ . . . . .		.031053		.992404				.114	19
48-86848A4 . . . . .		.031048							17
48-86962A4 . . . . .		.032136							17
48-878612A40 . . . . . Trophy Sport . . . . .		.031016			.993405			.114	19
48-88438A4 . . . . . QSS™ . . . . .					.993043		.993203	.102	21, 32
48-88440A4 . . . . . QSS™ . . . . .					.993044		.993204	.102	21, 32
48-88442A4 . . . . . QSS™ . . . . .					.993045		.993205	.102	21, 32
48-88444A4 . . . . . QSS™ . . . . .					.993046		.993206	.102	21, 32
48-896890A10 . . . . . Black Max (RB) . . . . .		.142020							18
48-896892A40 . . . . . Black Max (RB) . . . . .				.992501				.122	18
48-896896A40 . . . . . Black Max (RB) . . . . .				.992502				.122	18
48-897614A10 . . . . . Black Max . . . . .		.142015							Obsolete
48-897618A10 . . . . . Black Max . . . . .		.142017							17

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Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
48-897620A10 . . . . .Black Max . . . . .	.142019 . . . . .								Obsolete
48-89852A4 . . . . .	.031049 . . . . .								17
48-89854A4 . . . . .	.031047 . . . . .								Obsolete
48-898990A46 . . . . .Enertia . . . . .	.345131 . . . . .			.993042 . . . . .				.102	21, 32
48-898990A46 . . . . .Enertia . . . . .	.345131 . . . . .			.993042 . . . . .				.102	21, 32
48-898991A46 . . . . .Enertia (LH) . . . . .	.345131 . . . . .			.993052 . . . . .				.102	21, 32
48-898991A46 . . . . .Enertia (LH) . . . . .	.345131 . . . . .			.993052 . . . . .				.102	21, 32
48-898994A46 . . . . .Enertia . . . . .	.345132 . . . . .			.993043 . . . . .				.102	21, 32
48-898994A46 . . . . .Enertia . . . . .	.345132 . . . . .			.993043 . . . . .				.102	21, 32
48-898995A46 . . . . .Enertia (LH) . . . . .	.345162 . . . . .			.993053 . . . . .				.102	21, 32
48-898995A46 . . . . .Enertia (LH) . . . . .	.345162 . . . . .			.993053 . . . . .				.102	21, 32
48-898998A46 . . . . .Enertia . . . . .	.345133 . . . . .			.993044 . . . . .				.102	21, 32
48-898998A46 . . . . .Enertia . . . . .	.345133 . . . . .			.993044 . . . . .				.102	21, 32
48-898999A46 . . . . .Enertia (LH) . . . . .	.345163 . . . . .			.993054 . . . . .				.102	21, 32
48-898999A46 . . . . .Enertia (LH) . . . . .	.345163 . . . . .			.993054 . . . . .				.102	21, 32
48-899002A46 . . . . .Enertia . . . . .	.345134 . . . . .			.993045 . . . . .				.102	21, 32
48-899002A46 . . . . .Enertia . . . . .	.345134 . . . . .			.993045 . . . . .				.102	21, 32
48-899003A46 . . . . .Enertia (LH) . . . . .	.345164 . . . . .			.993055 . . . . .				.102	21, 32
48-899003A46 . . . . .Enertia (LH) . . . . .	.345164 . . . . .			.993055 . . . . .				.102	21, 32
48-899004A46 . . . . .Laser II . . . . .	.335132 . . . . .			.993145 . . . . .				.102	21, 32
48-899006A46 . . . . .Laser II . . . . .	.335133 . . . . .			.993146 . . . . .				.102	21, 32
48-90159A46 . . . . .	.345162 . . . . .			.993053 . . . . .	.993033 . . . . .			.102	21, 32
48-93272A4 . . . . .QSS™ . . . . .				.993042 . . . . .				.102	21, 32
48-93272A5 . . . . .QSS™ . . . . .				.993042 . . . . .				.102	21, 32
48-96622M . . . . .	.012010 . . . . .								Obsolete
48-96623M . . . . .	.012013 . . . . .								18
48-96625M . . . . .	.012011 . . . . .								18
48-96628M . . . . .	.012102 . . . . .								18
QA1912X . . . . .Black Diamond . . . . .	.031064 . . . . .	.345132 . . . . .		.992003 . . . . .	.993043 . . . . .	.993023 . . . . .	.993203 . . . . .	.102	21, 32
QA1916X . . . . .Black Diamond . . . . .	.031065 . . . . .	.345133 . . . . .		.992004 . . . . .	.993044 . . . . .	.993024 . . . . .	.993204 . . . . .	.102	21, 32
QA1918X . . . . .Black Diamond . . . . .	.031066 . . . . .	.345134 . . . . .		.992005 . . . . .	.993045 . . . . .	.993025 . . . . .	.993205 . . . . .	.102	21, 32
QA1920X . . . . .Black Diamond . . . . .	.031027 . . . . .	.345135 . . . . .		.992006 . . . . .	.993046 . . . . .	.993026 . . . . .	.993206 . . . . .	.102	21, 32
QA2000X . . . . .Black Diamond . . . . .	.031021 . . . . .								Obsolete
QA2002X . . . . .Black Diamond . . . . .	.031063 . . . . .								21, 32
QA2004X . . . . .Black Diamond . . . . .	.031022 . . . . .								21, 32
QA2006X . . . . .Black Diamond . . . . .	.031050 . . . . .	.345131 . . . . .		.992002 . . . . .				.102	21, 32
QA2008X . . . . .Black Diamond . . . . .	.031023 . . . . .	.345131 . . . . .		.992002 . . . . .	.993042 . . . . .	.993022 . . . . .		.102	21, 32
QA2010X . . . . .Black Diamond . . . . .	.031051 . . . . .	.345132 . . . . .		.992003 . . . . .	.993043 . . . . .	.993023 . . . . .	.993203 . . . . .	.102	21, 32
QA2012X . . . . .Black Diamond . . . . .	.031024 . . . . .	.345132 . . . . .		.992003 . . . . .	.993043 . . . . .	.993023 . . . . .	.993203 . . . . .	.102	21, 32
QA2014X . . . . .Black Diamond . . . . .	.031052 . . . . .	.345133 . . . . .		.992004 . . . . .	.993044 . . . . .	.993024 . . . . .	.993204 . . . . .	.102	21, 32
QA2016X . . . . .Black Diamond . . . . .	.031025 . . . . .	.345133 . . . . .		.992004 . . . . .	.993044 . . . . .	.993024 . . . . .	.993204 . . . . .	.102	21, 32
QA2018X . . . . .Black Diamond . . . . .	.031026 . . . . .	.345134 . . . . .		.992005 . . . . .	.993045 . . . . .	.993025 . . . . .	.993205 . . . . .	.102	21, 32
QA2022X . . . . .Black Diamond . . . . .	.031067 . . . . .	.345136 . . . . .							21, 32
QA2028X . . . . .	.031043 . . . . .			.992115 . . . . .	.993145 . . . . .			.See Note 3	20
QA2030X . . . . .	.031054 . . . . .								20
QA2032X . . . . .	.031055 . . . . .			.992112 . . . . .				.See Note 3	20
QA2034X . . . . .	.031041 . . . . .	.335130 . . . . .		.992113 . . . . .	.993143 . . . . .			.See Note 3	20
QA2036X . . . . .	.031042 . . . . .	.335131 . . . . .		.992114 . . . . .	.993144 . . . . .			.See Note 3	20
QA2038X . . . . .	.031043 . . . . .	.335132 . . . . .		.992115 . . . . .				.See Note 3	20
QA2040X . . . . .	.031044 . . . . .	.335133 . . . . .		.992116 . . . . .	.993146 . . . . .			.See Note 3	20
QA2042X . . . . .	.031045 . . . . .								20
QA2060R . . . . .Black Diamond . . . . .	.032141 . . . . .								19
QA2064R . . . . .Black Diamond . . . . .	.032044 . . . . .			.992404 . . . . .				.114	18, 19
QA2064R . . . . .Black Diamond . . . . .	.031015 . . . . .								19
QA2064R . . . . .Black Diamond . . . . .	.032045 . . . . .								19
QA2066R . . . . .Black Diamond . . . . .	.032142 . . . . .								19

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
QA2070R . . . . . Black Diamond	.031053			.992404				.114	19
QA2072R . . . . . Black Diamond	.031056			.992405	.993405			.114	19
QA2074R . . . . . Black Diamond	.031016			.992405	.993405			.114	19
QA2076R . . . . . Black Diamond	.031057	.395129		.992406	.993406			.114	19
QA2078R . . . . . Black Diamond	.032043			.992405	.993405			.114	19
QA2078R . . . . . Black Diamond	.031017	.395129		.992406	.993406			.114	19
QA2078R . . . . . Black Diamond	.032042	.395929		.992406	.993406			.114	19
QA2080R . . . . . Black Diamond	.031058			.992407	.993407			.114	19
QA2082R . . . . . Black Diamond	.031018	.395130		.992407	.993407			.114	19
QA2082R . . . . . Black Diamond	.032041			.992407	.993407			.114	19
QA2084R . . . . . Black Diamond	.031019	.395130		.992408	.993408			.114	19
QA2084R . . . . . Black Diamond	.032040	.395930		.992408	.993408			.114	19
QA2084R . . . . . Black Diamond	.032039			.992409	.993409			.114	19
QA2088R . . . . . Black Diamond	.031020								19
QA2102R . . . . . Black Diamond	.031049			.992503				.120	17
QA2106R . . . . . Black Diamond	.031048	.305129		.992505				.120	17
QA2108R . . . . . Black Diamond		.305130		.992506				.120	17
QA2120R . . . . . Black Diamond	.032060								17
QA2122R . . . . . Black Diamond	.032058								17
QA2124R . . . . . Black Diamond	.032056								17
QA2126R . . . . . Black Diamond	.032054								17
QA2128R . . . . . Black Diamond	.032052								17
QA2130R . . . . . Black Diamond	.032050								17
QA2154R . . . . . Black Diamond	.142015							.Obsolete	17
QA2158R . . . . . Black Diamond	.142017							.Obsolete	17
QA2160R . . . . . Black Diamond	.142019							.Obsolete	17
QA2182X . . . . . Diamond 4				.992202		.993203		.102	21, 32
QA2183X . . . . . Diamond 4 (LH)						.993213		.102	21, 32
QA2184X . . . . . Diamond 4				.992203		.993204		.102	21, 32
QA2185X . . . . . Diamond 4 (LH)						.993214		.102	21, 32
QA2186X . . . . . Diamond 4				.992204		.993205		.102	21, 32
QA2187X . . . . . Diamond 4 (LH)						.993215		.102	21, 32
QA2190R . . . . . Black Diamond	.142020								18
QA2196R . . . . . Black Diamond	.142022								Obsolete
QA2226R . . . . .	.032044			.992404	.993405			.114	18, 19
QA2230R . . . . . Black Diamond	.032042	.395929		.992406	.993406			.114	18, 19
QA2232R . . . . .	.032041			.992407	.993407			.114	18, 19
QA2234R . . . . . Black Diamond	.032040	.395930		.992408	.993408			.114	18, 19
QA2830X . . . . .	.031200								20
QA2832X . . . . .	.031202								20
QA3150R . . . . . Black Diamond	.012011								18
QA3808R . . . . .	.022002								18
QA3812R . . . . .	.022003								18
QA6000 . . . . . QA3	.031021								Obsolete
QA6004 . . . . . QA3	.031022								21, 32
QA6010 . . . . . QA3	.031051								21, 32
QA6012 . . . . . QA3	.031024			.992003	.993043	.993203		.102	21, 32
QA6016 . . . . . QA3	.031025			.992004	.993044	.993204		.102	21, 32
QA6018 . . . . . QA3	.031026			.992005	.993045	.993205		.102	21, 32
QA6020 . . . . . QA3	.031027			.992006	.993046	.993206		.102	21, 32
QA6030 . . . . . QA3	.031054								20
QA6032 . . . . . QA3	.031055								20
QA6034 . . . . . QA3	.031041			.992113	.993143			.See Note 3	20
QA6036 . . . . . QA3	.031042			.992114	.993144			.See Note 3	20
QA6038 . . . . . QA3	.031043			.992115	.993145			.See Note 3	20
QA6040 . . . . . QA3	.031044			.992116	.993146			.See Note 3	20

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
QA6042	QA3	.031045							20
QA6060T	QA3	.032141							19
QA6064T	QA3	.031015							19
QA6070T	QA3	.031053		.992404			.114		19
QA6074T	QA3	.031016		.992405	.993405		.114		19
QA6078T	QA3	.031017		.992406	.993406		.114		19
QA6082T	QA3	.031018		.992407	.993407		.114		19
QA6084T	QA3	.031019		.992408	.993408		.114		19
QA6102T	QA3	.031049		.992503			.120		17
QA6106T	QA3	.031048	.305129	.992505			.120		17
QA6128T	QA3	.032021							17
QS5004X	Thunderbolt					.993023	.102		21, 32
QS5005X	Thunderbolt (LH)					.993033	.102		21, 32
QS5006X		.345133		.992004	.993044	.993024	.993204	.102	21, 32
QS5007X	Thunderbolt (LH)	.345163			.993054	.993034	.993214	.102	21, 32
QS5008X	Thunderbolt	.345134		.992005	.993045	.993025	.993205	.102	21, 32
QS5009X	Thunderbolt (LH)	.345164			.993055	.993035	.993215	.102	21, 32
QS5010X	Thunderbolt	.345135		.992006	.993046	.993026	.993206	.102	21, 32
QS5011X	Thunderbolt (LH)	.345165			.993056	.993036	.993216	.102	21, 32
QS5050X	Silverado	.345131		.992002	.993042	.993022	.102		21, 32
QS5052X	Silverado	.345132		.992003	.993043	.993023	.993203	.102	21, 32
QS5052X	Silverado	.345132		.992003	.993043	.993023	.993203	.102	21, 32
QS5053X	Silverado (LH)	.345162			.993053	.993033	.993213	.102	21, 32
QS5054X	Silverado	.345133		.992004	.993044	.993024	.993204	.102	21, 32
QS5054X	Silverado	.345133			.993044		.993204	.102	21, 32
QS5055X	Silverado (LH)	.345163			.993054		.993214	.102	21, 32
QS5056X	Silverado	.345134		.992005	.993045	.993025	.993205	.102	21, 32
QS5056X	Silverado	.345134		.992005	.993045	.993025	.993205	.102	21, 32
QS5057X	Silverado (LH)	.345164			.993055		.993215	.102	21, 32
QS5058X	Silverado	.345135		.992006	.993046	.993026	.993206	.102	21, 32
QS5059X	Silverado (LH)	.345165			.993056		.993216	.102	21, 32
QS5070X		.345133		.992004	.993044	.993024	.993204	.102	21, 32
QS5071X	(LH)	.345163			.993054	.993034	.993214	.102	21, 32
QS5072X		.345134		.992005	.993045	.993025	.993205	.102	21, 32
QS5073X	(LH)	.345164			.993055	.993035	.993215	.102	21, 32
QS5074X		.345135	.345141	.992006	.993046	.993026	.993206	.102	21, 32
QS5075X	(LH)	.345165			.993056	.993036	.993216	.102	21, 32
QS5076X		.345136	.345137				.102		21, 32
QS5076X			.345139						21
QS5116X	Silverado	.335130		.992113	.993143		.102		20
QS5118X	Silverado	.335131		.992114	.993144		.102		20
QS5120X	Silverado	.335132		.992115	.993145		.102		20
QS5122X	Silverado	.335133	.335134	.992116	.993146		.102		20
QS5124X	Silverado		.335135						20
QS5164R	Silverado				.993405		.114		19
QS5166R	Silverado	.395129			.993406		.114		19
QS5168R	Silverado	.395130			.993407		.114		19
QS5170R	Silverado	.395130			.993408		.114		19
QS5180R	Silverado	.305129							17
QS5862X	Torrent					.993025	.102		21, 32
QS5864X	Torrent					.993026	.102		21, 32
QS5866X	Torrent								
QS6003X	Typhoon 4 (LH)					.993214	.102		21, 32
QS6004X	Typhoon 4					.993204	.102		21, 32
QS6005X	Typhoon 4 (LH)					.993215	.102		21, 32
QS6006X	Typhoon 4					.993205	.102		21, 32

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Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
TA1916X . . . . .	Black Diamond XT . . . . .	.031065	.345133	.992004	.993044	.993024	.993204	.102	21, 32
TA1918X . . . . .	Black Diamond XT . . . . .	.031066	.345134	.992005	.993045	.993025	.993205	.102	21, 32
TA1920X . . . . .	Black Diamond XT . . . . .		.345135	.992006	.993046	.993026	.993206	.102	21, 32
TA2000 . . . . .	Black Diamond . . . . .	.031021							Obsolete
TA2004X . . . . .	Black Diamond . . . . .	.031034							21, 32
TA2008 . . . . .	Black Diamond . . . . .	.031023		.992002	.993042	.993022		.102	21, 32
TA2010 . . . . .	Black Diamond . . . . .	.031051		.992003	.993043	.993023	.993203	.102	21, 32
TA2012 . . . . .	Black Diamond . . . . .	.031024		.992003	.993043	.993023	.993203	.102	21, 32
TA2014 . . . . .	Black Diamond . . . . .	.031052		.992004	.993044	.993024	.993204	.102	21, 32
TA2016 . . . . .	Black Diamond . . . . .	.031025		.992004	.993044	.993024	.993204	.102	21, 32
TA2018 . . . . .	Black Diamond . . . . .	.031026		.992005	.993045	.993025	.993205	.102	21, 32
TA2020 . . . . .	Black Diamond . . . . .	.031027		.992006	.993046	.993026	.993206	.102	21, 32
TA2022X . . . . .	Black Diamond . . . . .	.031067		.992007				.102	21, 32
TA2030X . . . . .	Black Diamond . . . . .	.032089							Obsolete
TA2032X . . . . .	Black Diamond . . . . .	.032091							Obsolete
TA2034 . . . . .	Black Diamond . . . . .	.031041		.992113	.993143			.See Note 3	20
TA2036 . . . . .	Black Diamond . . . . .	.031042		.992114	.993144			.See Note 3	20
TA2038 . . . . .	Black Diamond . . . . .	.031043		.992115	.993145			.See Note 3	20
TA2040 . . . . .	Black Diamond . . . . .	.031044		.992116	.993146			.See Note 3	20
TA2048 . . . . .	Black Diamond . . . . .	.031041		.992113	.993143			.See Note 3	20
TA2050 . . . . .	Black Diamond . . . . .	.031042		.992114	.993144			.See Note 3	20
TA2052 . . . . .	Black Diamond . . . . .	.031043		.992115	.993145			.See Note 3	20
TA2054 . . . . .	Black Diamond . . . . .	.031044		.992116	.993146			.See Note 3	20
TA2060T . . . . .	Black Diamond . . . . .	.032141							19
TA2064T . . . . .	Black Diamond . . . . .	.031015							19
TA2066T . . . . .	Black Diamond . . . . .	.032142							19
TA2070T . . . . .	Black Diamond . . . . .	.031053							19
TA2072T . . . . .	Black Diamond . . . . .	.031056							19
TA2074T . . . . .	Black Diamond . . . . .	.031016							19
TA2076T . . . . .	Black Diamond . . . . .	.031057							19
TA2078T . . . . .	Black Diamond . . . . .	.031017							19
TA2080T . . . . .	Black Diamond . . . . .	.031058							19
TA2082T . . . . .	Black Diamond . . . . .	.031018							19
TA2084T . . . . .	Black Diamond . . . . .	.031019							19
TA2088T . . . . .	Black Diamond . . . . .	.031022							21, 32
TA2102T . . . . .	Black Diamond . . . . .	.032060							17
TA2106T . . . . .	Black Diamond . . . . .	.031048							17
TA2122T . . . . .	Black Diamond . . . . .	.032058							17
TA2126T . . . . .	Black Diamond . . . . .	.032054							17
TA2128T . . . . .	Black Diamond . . . . .	.032052							17
TA2202 . . . . .	Black Diamond . . . . .	.031044		.992116	.993146			.See Note 3	20
TA2204 . . . . .	Black Diamond . . . . .	.031043		.992115	.993145			.See Note 3	20
TA2206 . . . . .	Black Diamond . . . . .	.031042		.992114	.993144			.See Note 3	20
TA2208 . . . . .	Black Diamond . . . . .	.031041		.992113	.993143			.See Note 3	20
TA3150T . . . . .	Black Diamond . . . . .	.012011							18
TA3152T . . . . .	Black Diamond . . . . .	.012013							18
TA3808T . . . . .	Black Diamond . . . . .	.022002							18
TS1006 . . . . .	Thunderbolt . . . . .	.033030							Obsolete
TS1007 . . . . .	Thunderbolt . . . . .	.033029							Obsolete
TS1008 . . . . .	Thunderbolt . . . . .	.033032							Obsolete
TS1009 . . . . .	Thunderbolt . . . . .	.033031							Obsolete
TS1010 . . . . .	Thunderbolt . . . . .	.033034							Obsolete
TS1011 . . . . .	Thunderbolt . . . . .	.033033							Obsolete
TS1052 . . . . .	Silverado . . . . .			.993043	.993023	.993203		.102	21, 32
TS1053 . . . . .	Silverado . . . . .			.993053	.993033	.993213		.102	21, 32
TS1054 . . . . .	Silverado . . . . .			.993044	.993024	.993204		.102	21, 32

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>MERCURY, MARINER, MERCUISER (Continued)</b>									
TS1055	..Silverado				..993054	..993034	..993214	..102	21, 32
TS1056	..Silverado				..993045	..993025	..993205	..102	21, 32
TS1057	..Silverado				..993055	..993035	..993215	..102	21, 32
TS1070	..Lightspeed				..993044	..993024	..993204	..102	21, 32
TS1071	..Lightspeed				..993054	..993034	..993214	..102	21, 32
TS1072	..Lightspeed				..993045	..993025	..993205	..102	21, 32
TS1073	..Lightspeed				..993055	..993035	..993215	..102	21, 32
TS1074	..Lightspeed				..993046	..993026	..993206	..102	21, 32
TS1075	..Lightspeed				..993056	..993036	..993216	..102	21, 32
TS1116	..Silverado				..993143			..See Note 3	20
TS1118	..Silverado				..993144			..See Note 3	20
TS1120	..Lightspeed				..993145			..See Note 3	20
TS1122	..Lightspeed				..993146			..See Note 3	20
TS1164T	..Silverado				..993405			..114	19
TS1166T	..Silverado				..993406			..114	19
TS1168T	..Silverado				..993407			..114	19
<b>NISSAN, TOHATSU</b>									
348641020					..992406			..116	23
348641030					..992407			..116	23
348641080					..992401			..116	23
353641010					..992401			..112	24
353641010					..992401			..112	24
353641020					..992402			..112	24
353641020					..992402			..112	24
353641030					..992403			..112	24
353641030					..992403			..112	24
353641050					..992301			..112	24
353641050					..992301			..112	24
353641070					..992302			..112	24
353641070					..992302			..112	24
353641090					..992303			..112	24
353641090					..992303			..112	24
361641130					..992404			..116	23
361641140					..992405			..116	23
362641020	..142017								23
346-64101-5					..992501			..122	23
34664-1015M					..992501			..122	23
346-64102-5	..142022								Obsolete
34664-1025M					..992502			..122	23
346-64103-5					..992503			..122	23
346-64104-5	..142024								Obsolete
346-64105-5					..992506			..122	23
34664-1055M					..992506			..122	23
346-64106-5	..142020								23
346W641055					..992506			..122	23
346W641065	..142020								23
348-64102-0					..993406			..116	23
348-64103-0	..142004				..993407			..116	23
348-64104-0					..993405			..116	23
348W641080					..992401			..116	23
353-64103-0	..142005							..112	24
353-64105-0					..992301			..112	24
35364-1050M					..992301			..112	24
353-64107-0	..142007				..992302			..112	24
35364-1070M					..992302			..112	24

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>NISSAN, TOHATSU (Continued)</b>									
353-64108-0	142008								24
353-64109-0	142009			.992303			.112		24
35364-1090M				.992303			.112		24
361-64102-0				.992406			.116		23
361-64103-0				.992407			.116		23
361-64113-0	142001			.992404			.116		23
361-64114-0	142002			.992405			.116		23
362-64102-0	142017								23
362-64105-0	142015								Obsolete
362-64108-0	142019								Obsolete
362W641020	142017								23
3B7-64527-0				.992112			.See Note 4		24
3B7-64532-0	142010	.335930		.992113	.993143		.See Note 4		24
3B7-64536-0	142011	.335931		.992113	.993143		.See Note 4		24
3B7-64541-0	142012	.335932		.992114	.993144		.See Note 4		24
3B7-64545-0	142013	.335933		.992115	.993145		.See Note 4		24
3B7-64549-0		.335933							24
3C7645140	142012	.335932		.992114	.993144		.See Note 4		24
3C7645360	142011	.335931		.992114	.993144		.See Note 4		24
3C7645360M				.992113			.See Note 4		24
3C7645410M				.992114			.See Note 4		24
3C7645490M				.992115			.See Note 4		24
3C7645540M				.992116			.See Note 4		24
3E0641810M				.992112			.See Note 4		24
3E0641850M				.992113			.See Note 4		24
3E0641890M				.992114			.See Note 4		24
3E0641940M				.992115			.See Note 4		24
3E0641960M				.992116			.See Note 4		24
3E3645260M				.992405			.See Note 4		24
3E3645280M				.992406			.See Note 4		24
3E3645310M				.992407			.See Note 4		24
3E3645360M				.992408			.See Note 4		24
3N4W645271				.992112			.See Note 4		24
3N4W645321				.992113			.See Note 4		24
3N4W645361				.992114			.See Note 4		24
3N4W645411				.992115			.See Note 4		24
3N4W645451				.992116			.See Note 4		24
3R064-5250M				.992504			.122		23
3R0W645210				.992502			.122		23
3R0W645230				.992503			.122		23
3R0W645250				.992504			.122		23
3R0W645270		.305429		.992505			.122		23
3R0W645480				.992501			.122		23
3T5645230				.992404			.116		23
3T5645250				.992405			.116		23
3T5645270				.992406			.116		23
3T5645290				.992407			.116		23
3T5645320				.992408			.116		23
NM889210130		.305429							23
NM889410120					.993405		.116		23
NM889410130					.993406		.116		23
NM889410140					.993407		.116		23
NM889410150					.993408		.116		23
NM889510150		.325030							24
NM889510170		.325031							24
NM889610150		.335930			.993143		.109		24

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>NISSAN, TOHATSU (Continued)</b>									
NM889610170		.335931			.993144			.109	24
NM889610180		.335932			.993145			.109	24
NM889610200		.335933			.993146			.109	24
<b>SUZUKI</b>									
58100-90420-019	Aluminum (3) DF 90 / 115	.101035	.335933		.992116			.See Note 4	27
58100-90J00-019	Aluminum (3) DF 90 / 115	.101033	.335931		.992114			.See Note 4	27
58100-90J01-019	Aluminum (3) DF 90 / 115 / 140101033	.101033	.335931		.992114	.993144		.See note 4	27
58100-90J10-019	Aluminum (3) DF 90 / 115	.101034	.335932		.992115			.See Note 4	27
58100-90J11-019	Aluminum (3) DF 90 / 115 / 140101034	.101034	.335932		.992115	.993145		.See note 4	27
58100-90J20-019	Aluminum (3) DF 90 / 115	.101035	.335933		.992116			.See note 4	27
58100-90J21-019	Aluminum (3) DF 90 / 115 / 140101035	.101035	.335933		.992116	.993146		.See note 4	27
58100-90J41-019	Aluminum (3) DF 90 / 115 / 140101032	.101032	.335930		.992113	.993143		.See note 4	27
58100-93703-019	Aluminum (3)	.062015							Obsolete
58100-93723-019	Aluminum (3)	.062016							25
58100-93733-019	Aluminum (3)	.062016							25
58100-93743-019	Aluminum (3)	.062017							25
58100-93763-019	Aluminum (3)	.062016							25
58100-94313-019	Aluminum (3) - Uncupped	.032042	.395929		.992406	.993406		.115	26
58100-94410					.993407			.115	26
58100-94411		.395930			.993407			.115	26
58100-94412					.993407			.115	26
58100-94500-019	Aluminum (3)	.335530			.992113	.993143		.110	26
58100-94512-019	Aluminum (3)	.335531			.992114	.993144		.110	26
58100-94522-019	Aluminum (3)	.335532			.992115	.993145		.110	26
58100-94532-019	Aluminum (3)	.335533			.992116	.993146		.110	26
58100-94554		.335530			.993143			.110	26
58100-94561		.335532			.993145			.110	26
58100-94571		.335532			.993146			.110	26
58100-94581		.335531			.993144			.110	26
58100-95212-019	Aluminum (3) - Uncupped	.032045			.992403			.115	26
58100-95222-019	Aluminum (3) - Uncupped	.032044			.992404			.115	26
58100-95353-019	Aluminum (3) - Uncupped	.032041			.992407	.993406		.115	26
58100-95363-019	Aluminum (3) - Uncupped	.032040	.395929		.992408	.993407		.115	26
58100-95373-019	Aluminum (3) - Uncupped				.992409	.993408		.115	26
58100-95382-019	Aluminum (3) - Uncupped	.395930							26
58100-95393-019	Aluminum (3) - Uncupped	.032043			.992405			.115	26
58100-95500-019	Aluminum (3) - Uncupped	.335530			.992113	.993143		.110	26
58100-95511-019	Aluminum (3) - Uncupped	.335531			.992114	.993144		.110	26
58100-95521-019	Aluminum (3) - Uncupped	.335532			.992115	.993145		.110	26
58100-95530-019	Aluminum (3) - Uncupped	.335533			.992116	.993146		.110	26
58100-95D00-019	Aluminum (3)	.305529			.992505			.121	25
58100-96370-019	Aluminum (3)				.992501			.121	25
58100-96410-019	Aluminum (3)				.992502			.121	25
58100-96420-019	Aluminum (3)				.992503			.121	25
58100-96430-019	Aluminum (3)				.992504			.121	25
58100-96440-019	Aluminum (3)	.305529			.992505			.121	25
58100-96460-019	Aluminum (3)				.992506			.121	25
58100-96470-019	Aluminum (3)				.992502			.121	25
58100-96480-019	Aluminum (3)				.992504			.121	25
58100-96490-019	Aluminum (3)	.305529			.992505			.121	25
58100-99E00-019	Aluminum (3)				.992112			.110	26
58200-96400		.305529							25
990C0-00830-17P	Stainless (3) DF 150 / 175				.993023	.993203		.104	27
990C0-00830-19P	Stainless (3) DF 150 / 175				.993024	.993204		.104	27
990C0-00830-21P	Stainless (3) DF 150 / 175				.993025	.993205		.104	27

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s	
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade			
<b>SUZUKI (Continued)</b>										
990C0-00830-23P ...Stainless (3) DF 150 / 175 .....								.993026 .993206 .....	104 27	
990C0-0083L-17P ...Stainless (3) DF 150 / 175 (LH) .....								.993033 .993213 .....	104 27	
990C0-0083L-19P ...Stainless (3) DF 150 / 175 (LH) .....								.993034 .993214 .....	104 27	
990C0-0083L-21P ...Stainless (3) DF 150 / 175 (LH) .....								.993035 .993215 .....	104 27	
990C0-0083L-23P ...Stainless (3) DF 150 / 175 (LH) .....								.993036 .993216 .....	104 27	
99105-00100-16P ...Stainless Steel (3) .....		.335530						.993143 .....	110 26	
99105-00100-18P ...Stainless Steel (3) .....		.335531						.993144 .....	110 26	
99105-00100-20P ...Stainless Steel (3) .....		.335532						.993145 .....	110 26	
99105-00100-22P ...Stainless Steel (3) .....								.993146 .....	110 26	
99105-00101-20P .....		.335532						.993145 .....	110 26	
99105-00101-22P .....								.993146 .....	110 26	
99105-00101-24P .....		.335535						.....	..... Obsolete	
99105-00103-18P ...SS Thunder DT 75-140 .....								.993144 .....	110 26	
99105-00103-20P ...SS Thunder DT 75-140 .....								.993145 .....	110 26	
99105-00103-22P ...SS Thunder DT 75-140 .....								.993146 .....	110 26	
99105-00200-16P ...Stainless (3) DT 150-225 .....		.345531		.992002	.993042	.993022		.....	104 27	
99105-00200-18P ...Stainless (3) DT 150-225 .....		.345532		.992003	.993043	.993023	.993203	.....	104 27	
99105-00200-20P ...Stainless (3) DT 150-225 .....		.345533		.992004	.993044	.993024	.993204	.....	104 27	
99105-00200-22P ...Stainless (3) DT 150-225 .....		.345534		.992005	.993045	.993025	.993205	.....	104 27	
99105-00200-24P ...Stainless (3) DT 150-225 .....		.345535		.992006	.993046	.993026	.993206	.....	104 27	
99105-00200-26P ...Stainless (3) DT 150-225 .....		.345538						.....	..... Obsolete	
99105-00201-26P .....		.345538						.....	..... Obsolete	
99105-00203-23P ...SS Thunder (3) DT 150-225 .....								.993046 .993026 .993206 .....	104 27	
99105-00203-25P ...SS Thunder (3) DT 150-225 .....		.345538						.....	..... Obsolete	
99105-0020L-16P ...Stainless (3) DT 150-225 (LH) .....								.993052 .993032 .....	104 27	
99105-0020L-18P ...Stainless (3) DT 150-225 (LH) .....		.345562						.993053 .993033 .993213 .....	104 27	
99105-0020L-20P ...Stainless (3) DT 150-225 (LH) .....		.345563						.993054 .993034 .993214 .....	104 27	
99105-0020L-22P ...Stainless (3) DT 150-225 (LH) .....		.345564						.993055 .993035 .993215 .....	104 27	
99105-0020L-24P ...Stainless (3) DT 150-225 (LH) .....		.345565						.993056 .993036 .993216 .....	104 27	
99105-00300-24P .....								.993046 .993026 .993206 .....	104 27	
99105-00400-23P ...SS Thunder (4) DT 150-225 .....								.993206 .....	104 27	
99105-00500-12P ...Stainless Steel (3) .....								.993405 .....	115 26	
99105-00500-13P ...Stainless Steel (3) .....		.395929						.993406 .....	115 26	
99105-00500-14P ...Stainless Steel (3) .....								.993407 .....	115 26	
99105-00500-15P ...Stainless Steel (3) .....		.395930						.993408 .....	115 26	
99105-00600-13P ...Stainless Steel (3) .....		.305529						.....	..... 25	
99105-00600-15P ...Stainless Steel (3) .....		.305530						.....	..... 25	
99105-00700-16P ...Stainless (3) DF 90 / 115 / 140 .....		.335931			.993144			.....	..... See note 4 27	
99105-00700-18P ...Stainless (3) DF 90 / 115 / 140 .....		.335932			.993145			.....	..... See note 4 27	
99105-00700-20P ...Stainless (3) DF 90 / 115 / 140 .....		.335933			.993146			.....	..... See note 4 27	
99105-00700-22P ...Stainless (3) DF 90 / 115 / 140 .....		.335934						.....	..... 27	
99105-00700-24P ...Stainless (3) DF 90 / 115 / 140 .....		.335935						.....	..... 27	
99105-0070L-18P ...Stainless (3) DF 90 / 115 / 140 (LH) .....					.993155			.....	..... See note 4 27	
99105-0070L-20P ...Stainless (3) DF 90 / 115 / 140 (LH) .....					.993156			.....	..... See note 4 27	
<b>VOLVO</b>										
3587517 .....SS - 4BL Polished .....		.346031						.993042 .....	105 37	
3587519 .....SS - 4BL Polished (LH) .....								.993052 .....	105 37	
3587520 .....SS - 4BL Polished .....		.346032						.993043 .....	.993203 .....	105 37
3587521 .....SS - 4BL Polished (LH) .....		.346062						.993053 .....	.993213 .....	105 37
3587522 .....SS - 4BL Polished .....		.346033						.993044 .....	.993204 .....	105 37
3587523 .....SS - 4BL Polished (LH) .....		.346063						.993054 .....	.993214 .....	105 37
3587524 .....SS - 4BL Polished .....		.346034						.993045 .....	.993205 .....	105 37
3587525 .....SS - 4BL Polished (LH) .....		.346064						.993055 .....	.993215 .....	105 37
3587526 .....SS - 4BL Polished .....		.346035						.993046 .....	.993206 .....	105 37
3850299 .....Aluminum .....		.161001			.992002			.....	105 37	

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>VOLVO (Continued)</b>									
3850300	Aluminum	161002	346032	.992003		993023		105	37
3850301	Aluminum	161003	346033	.992004	993044			105	37
3850302		161004	346034	.992005	993045	993025	993205	105	37
3850303	Aluminum	161005	346035	.992006	993046	993026	993206	105	37
3850305	SST®		346031		993042	993022		105	37
3850306	SST®		346032		993043	993023	993203	105	37
3850307	SST®		346032		993043	993023	993203	105	37
3850308	SST®		346033		993044	993024	993204	105	37
3850309	SST®		346034		993045	993025	993205	105	37
3850310	SST®		346035		993046	993026	993206	105	37
3850311	VIPER™		346032		993043	993023	993203	105	37
3850312	VIPER™		346033		993044	993024	993204	105	37
3850313	VIPER™		346034		993045	993025	993205	105	37
3850314	VIPER™		346035		993046	993026	993206	105	37
3850315	(LH)				993052	993032		105	37
3850316	SST® (LH)		346062		993053	993033	993213	105	37
3850317	SST® (LH)		346063		993054	993034	993214	105	37
3850318	SST® (LH)		346064		993055	993035	993215	105	37
3850319	SST® (LH)		346065		993056	993036	993216	105	37
3850320	VIPER™ (LH)		346062		993053	993033	993213	105	37
3850321	VIPER™ (LH)		346063		993054	993034	993214	105	37
3850322	VIPER™ (LH)		346064		993055	993035	993215	105	37
3850323	VIPER™ (LH)		346065		993056	993036	993216	105	37
3855142	Raker®		346034		993044	993024	993204	105	37
3855144	Raker®		346035		993045	993025	993205	105	37
3855146	Raker®		346036		993046	993026	993206	105	37
3855152	Raker® (LH)		346064		993054	993034	993214	105	37
3855154	Raker® (LH)		346065		993055	993035	993215	105	37
3855156	Raker® (LH)				993056	993036	993216	105	37
3855481	Aluminum (LH)		346063		993054			105	37
3860708	SS - 3 BL Polished		346033			993024		105	37
3860709	SS - 3 BL Polished		346034			993025		105	37
3860714	SS - 3 BL Polished (LH)		346062			993033		105	37
3860715	SS - 3 BL Polished (LH)		346063			993034		105	37
3860716	SS - 3 BL Polished (LH)		346064			993035		105	37
3860717	SS - 3 BL Polished (LH)		346065			993036		105	37
3862462	SS - 3 BL Polished		346032			993023		105	37
3870710	SS - 3 BL Polished		346035			993026		105	37
3850298-5	Aluminum	161002	346032	.992003		993023		105	37
3850299-3	Aluminum	161001	346031	.992002	993042	993022		105	37
3850300-9	Aluminum	161002	346032	.992003	993043	993023	993203	105	37
3850301-7	Aluminum	161003	346033	.992004	993044	993024	993204	105	37
3850302-5	Aluminum	161004	346034	.992005	993045	993025	993205	105	37
3850303-3	Aluminum	161005	346035	.992006	993046			105	37
3850305-8	SS Black		346031		993042	993022		105	37
3850307-4	SS Black		346032		993043	993023	993203	105	37
3850308-2	SS Black		346033		993044	993024	993204	105	37
3850309-0	SS Black		346034		993045	993025	993205	105	37
3850310-8	SS Black		346035		993046	993026	993206	105	37
3850311-6	SS - 3 BL Polished		346032		993043			105	37
3850312-4	SS - 3 BL Polished		346033		993044			105	37
3850313-2	SS - 3 BL Polished		346035		993046			105	37
3850314-0	SS - 3 BL Polished		346035		993045	993025	993205	105	37
3850315-7	SS Black (LH)				993052	993032		105	37
3850316-5	SS Black (LH)		346062		993053	993033	993213	105	37
3850317-3	SS Black (LH)		346063		993054	993034	993214	105	37

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>VOLVO (Continued)</b>									
3850318-1	.SS Black (LH)	.346064			.993055	.993035	.993215	.105	37
3850319-9	.SS Black (LH)	.346065			.993056	.993036	.993216	.105	37
3850320-7	.SS - 3 BL Polished (LH)	.346062			.993053			.105	37
3850321-5	.SS - 3 BL Polished (LH)	.346063			.993054			.105	37
3850322-3	.SS - 3 BL Polished (LH)	.346065			.993056			.105	37
3850323-1	.SS - 3 BL Polished (LH)	.346064			.993055	.993035	.993215	.105	37
3855480-4	.Aluminum (LH)					.993033		.105	37
3855481-2	.Aluminum (LH)					.993034		.105	37
3858026-2	.SS - 3 BL Polished	.346032				.993023		.105	37
3858027-0	.SS - 3 BL Polished	.346033				.993024		.105	37
3858028-8	.SS - 3 BL Polished	.346034				.993025		.105	37
3858029-6	.SS - 3 BL Polished (LH)	.346062				.993033		.105	37
3858030-4	.SS - 3 BL Polished (LH)	.346063				.993034		.105	37
3858031-2	.SS - 3 BL Polished (LH)	.346064				.993035		.105	37
813226-		.082045							Obsolete
813228-		.082057							Obsolete
813316-7		.082087-1							Obsolete
814611-0		.082059-1							Obsolete
814611-1		.082059-1							Obsolete
814612-8		.082029-1							Obsolete
814615-1		.082060-1							Obsolete
814616-9		.082030-1							Obsolete
814626-8		.082025-1							Obsolete
814627-6		.082027-1							Obsolete
814628-4		.082031-1							Obsolete
814629-2		.082033							Obsolete
814631-8		.082026-1							Obsolete
814632-6		.082028-1							Obsolete
814633-4		.082032-1							Obsolete
814634-2		.082034							Obsolete
850864-0		.082013-1							Obsolete
850865-7		.082014-1							Obsolete
850866-5		.082015-1							36
850867-3		.082016-1							Obsolete
851035-6		.082089-1							Obsolete
851037-2		.082091-1							Obsolete
851038-0		.082090-1							Obsolete
851039-8		.082093-1							Obsolete
851040-6		.082092-1							Obsolete
851124-8		.082011-1							Obsolete
851125-5		.082012-1							Obsolete
851138-8		.082009-1							36
851139-6		.082010-1							Obsolete
852085-0		.083003							Obsolete
852086-8		.083001							Obsolete
852087-6		.083005							Obsolete
852137-9		.083006							Obsolete
852138-7		.083004							Obsolete
852155-1		.083002							Obsolete
854146-8		.082032-1							Obsolete
854147-6		.082031-1							Obsolete
854148-4		.082030-1							Obsolete
854149-2		.082029-1							Obsolete
854285-4		.082001-1							Obsolete
854286-2		.082002-1							Obsolete
854286-4		.082002-1							Obsolete

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
<b>VOLVO (Continued)</b>									
854288-8	.082003-1								Obsolete
854289-6	.082004-1								36
854977-6	.082001-1								Obsolete
854978-4	.082003-1								Obsolete
854979-2	.082009-1								36
854982-6	.082011-1								Obsolete
854983-4	.082013-1								Obsolete
854984-2	.082015-1								36
854986-7	.082089-1								Obsolete
854987-5	.082091-1								Obsolete
854988-3	.082093-1								Obsolete
854993-3	.082004-1								36
854997-4	.082012-1								Obsolete
854998-2	.082014-1								Obsolete
854999-0	.082016-1								Obsolete
872001-3	.082090-1								36
872002-1	.082092-1								36
<b>YAMAHA</b>									
61A-45972-00-98	.Black Steel		.345934		.993045	.993025	.993205	.103	31, 38
61A-45974-00-98	.Black Steel	.345933			.993044	.993024	.993204	.103	31, 38
61A-45978-00-98	.Black Steel	.345932			.993043	.993023	.993203	.103	31, 38
61B-45972-00-98	.Black Steel (LH)	.345964			.993055	.993035	.993215	.103	31, 38
61B-45974-00-98	.Black Steel (LH)	.345963			.993054	.993034	.993214	.103	31, 38
61B-45978-00-98	.Black Steel (LH)	.345962			.993053	.993033	.993213	.103	31, 38
62A-45970-10-00	.Pro Series		.335934		.993145			.See Note 1	30
62A-45970-10-00	PRO HPPro Series				.993146			.See Note 1	30
62A-45972-10-00	.Pro Series		.335935		.993146			.See Note 1	30
62A-45974-10-00	PRO HPPro Series	.335932			.993145			.See Note 1	30
650-45943-01-36		.012102							28
651-45947-00-36		.012011							28
653-45941-01-36		.012013							28
663-45930-00-98	.Black Steel				.993407			.117	29
663-45943-01-36		.032040			.992408	.993408		.117	29
663-45943-02-36		.032040			.992408	.993408		.117	29
663-45943-02-EL		.032040			.992408	.993408		.117	29
663-45945-01-36		.032042			.992406	.993406		.117	29
663-45945-02-36		.032042			.992406	.993406		.117	29
663-45945-02-EL		.032042			.992406	.993406		.117	29
663-45947-01-36		.032044			.992404			.117	29
663-45947-02-36		.032044			.992404			.117	29
663-45947-02-EL	.Aluminum	.032044			.992404			.117	29
663-45949-01-36	.Aluminum	.032039			.992409			.117	29
663-45949-01-EL	.Aluminum	.032039			.992409			.117	29
663-45952-02-EL	.Aluminum	.032043			.992405	.993405		.117	29
663-45956-01-EL	.Aluminum				.992402			.117	29
663-45958-00-36	.Aluminum	.032041			.992407	.993407		.117	29
663-45958-00-EL	.Aluminum	.032041			.992407	.993407		.117	29
663-45958-01-36	.Aluminum	.032041			.992407	.993407		.117	29
663-45958-01-EL	.Aluminum	.032041			.992407	.993407		.117	29
663-45970-60-98	.Black Steel		.395929		.993406			.117	29
663-45972-60-98	.Black Steel				.993405			.117	29
663-45974-60-98	.Black Steel		.395929		.993406			.117	29
663-45976-00-98	.Black Steel		.395930		.993408			.117	29
663-45978-00-98					.993408			.117	29
664-45941-01-36		.022001			.992501			.123	29

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
664-45941-01-EL . . . Aluminum . . . . .	.022001			.992501				.123	29
664-45945-00-36 . . . Aluminum . . . . .	.022002			.992502				.123	29
664-45945-00-EL . . . Aluminum . . . . .	.022002			.992502				.123	29
664-45947-01-EL . . . Aluminum . . . . .	.022002			.992503				.123	29
664-45949-02-EL . . . Aluminum . . . . .		.305929		.992505				.123	29
664-45952-00-EL . . . Aluminum . . . . .		.305930		.992506				.123	29
664-45954-00-EL . . . Aluminum . . . . .	.022003			.992504				.123	29
664-45954-01-EL . . . Aluminum . . . . .	.022003			.992504				.123	29
664-45970-00-98 . . . Black Steel WD . . . . .		.305929							29
66K-45972-B0-00 . . . Pro Series . . . . .			.345938					.103	31, 38
66K-45974-B0-00 . . . Pro Series . . . . .			.345937		.993046			.103	31, 38
683-45943-00-36 . . . Aluminum . . . . .	.102005								28
683-45943-00-EL . . . Aluminum . . . . .	.102005								28
683-45945-00-36 . . . . .	.102004								28
683-45945-00-EL . . . . .	.102004								28
683-45947-00-36 . . . . .	.102003								28
683-45947-00-EL . . . . .	.102003								28
683-W4591-02-EL . . . ALUMINUM . . . . .	.102003								28
688-45930-01-98 . . . Black Steel . . . . .		.335931		.993144				.See Note 1	30
688-45930-02-98 . . . Black Steel . . . . .		.335931		.993144				.See Note 1	30
688-45930-60-98 . . . Black Steel . . . . .		.335931		.993144				.See Note 1	30
688-45932-60-98 . . . Black Steel . . . . .		.335930							30
688-45970-01-98 . . . Black Steel . . . . .		.335932		.993145				.See Note 1	30
688-45970-02-98 . . . Black Steel . . . . .		.335932		.993145				.See Note 1	30
688-45970-03-98 . . . Black Steel . . . . .		.335932		.993145				.See Note 1	30
688-45972-01-98 . . . Black Steel . . . . .		.335933		.993146				.See Note 1	30
688-45972-02-98 . . . Black Steel . . . . .		.335933		.993146				.See Note 1	30
688-45978-60-98 . . . Black Steel . . . . .		.335931		.993143				.See Note 1	30
68F-45970-00-00 . . . Reliance . . . . .		.345931		.993042				.103	31
68F-45972-00-00 . . . Reliance . . . . .		.345932		.993043		.993203		.103	31
68F-45974-00-00 . . . Reliance . . . . .		.345933		.993044		.993204		.103	31
68F-45976-00-00 . . . Reliance . . . . .		.345934		.993045		.993205		.103	31
68G-45972-00-00 . . . Reliance (LH) . . . . .		.345962		.993053		.993213		.103	31
68G-45974-00-00 . . . Reliance (LH) . . . . .		.345963		.993054		.993214		.103	31
68G-45976-00-00 . . . Reliance (LH) . . . . .		.345964		.993055		.993215		.103	31
68U-45941-00-EL . . . Aluminum DT (T25) . . . . .				.992402				.117	29
69L-45974-20-00 . . . V MAX . . . . .						.993026		.103	31
69W-45943-00-EL . . . Aluminum . . . . .	.032040	.395930		.992408	.993408			.117	29
69W-45945-00-EL . . . Aluminum . . . . .	.032042	.395929		.992406	.993406			.117	29
69W-45947-00-EL . . . Aluminum . . . . .	.032044			.992404				.117	29
69W-45952-00-EL . . . Aluminum . . . . .	.032043			.992405				.117	29
69W-45958-00-EL . . . Aluminum . . . . .	.032041			.992407	.993407			.117	29
6D0-45970-00-00 . . . Saltwater Series II . . . . .						.993024	.993204	.103	31
6D0-45972-00-00 . . . Saltwater Series II . . . . .						.993025	.993205	.103	31
6D0-45978-00-00 . . . Saltwater Series II . . . . .						.993023	.993203	.103	31
6D1-45970-00-00 . . . Saltwater Series II (LH) . . . . .						.993034	.993214	.103	31
6D1-45972-00-00 . . . Saltwater Series II (LH) . . . . .						.993035	.993215	.103	31
6D-45978-00-00 . . . Saltwater Series II (LH) . . . . .						.993033	.993213	.103	31
6E5-45941-00-36 . . . . .	.101034	.335932		.992115	.993145			.See Note 1	30
6E5-45941-00-EL . . . Aluminum . . . . .	.101034	.335932		.992115	.993145			.See Note 1	30
6E5-45943-00-36 . . . Aluminum . . . . .	.101035	.335933		.992116	.993146			.See Note 1	30
6E5-45943-00-EL . . . Aluminum . . . . .	.101035	.335933		.992115	.993146			.See Note 1	30
6E5-45945-00-36 . . . Aluminum . . . . .	.101033	.335931		.992114	.993144			.See Note 1	30
6E5-45945-00-EL . . . Aluminum . . . . .	.101033	.335931		.992114	.993144			.See Note 1	30
6E5-45945-01-EL . . . Aluminum . . . . .	.101033	.335931		.992114	.993144			.See Note 1	30
6E5-45947-00-36 . . . Aluminum . . . . .	.101032	.335930		.992113	.993143			.See Note 1	30
6E5-45947-00-EL . . . Aluminum . . . . .	.101032	.335930		.992113	.993143			.See Note 1	30
6E5-45949-00-36 . . . Aluminum . . . . .	.101031								30

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
6E5-45949-00-EL . . . . .Aluminum	.101031			.992112				See Note 1	30
6E5-45954-00-EL . . . . .Aluminum	.101036								30
6E5-45970-10-00		.345933			.993044		.993204	.103	31, 38
6E5-45970-10-98		.345933			.993044		.993204	.103	31, 38
6E5-45972-10-00		.345935			.993046		.993206	.103	31, 38
6E5-45972-10-98		.345935			.993046		.993206	.103	31, 38
6E5-45976-10-00		.345934			.993045		.993205	.103	31, 38
6E5-45976-10-98		.345934			.993045		.993205	.103	31, 38
6E5-45978-10-00		.345936							31, 38
6E5-45978-10-98		.345936							31, 38
6G1-45943-00-36	.102002								28
6G1-45943-00-EL . . . . .Aluminum	.102002								28
6G1-45947-00-EL . . . . .Aluminum	.102001								Obsolete
6G5-45930-00-98 . . . . .Black Steel		.345936							31, 38
6G5-45941-00-36		.345931		.992002	.993042		.993022	.103	31, 38
6G5-45941-00-98		.345931		.992002	.993042		.993022	.103	31, 38
6G5-45941-00-EL . . . . .Aluminum		.345931		.992002	.993042		.993022	.103	31, 38
6G5-45943-00-36 . . . . .Aluminum		.345934		.992005	.993045		.993025	.103	31, 38
6G5-45943-00-EL . . . . .Aluminum		.345934		.992005	.993045		.993025	.103	31, 38
6G5-45943-01-98 . . . . .Aluminum		.345934		.992005	.993045		.993025	.103	31, 38
6G5-45945-00-36 . . . . .Aluminum	.101028	.345933		.992004	.993044		.993024	.103	31, 38
6G5-45945-00-EL . . . . .Aluminum	.101028			.992004	.993044		.993024	.103	31, 38
6G5-45945-01-98 . . . . .Aluminum	.101028	.345933		.992004	.993044		.993024	.103	31, 38
6G5-45945-01-EL . . . . .Aluminum	.101028			.992004	.993044		.993024	.103	31, 38
6G5-45947-01-98 . . . . .Aluminum	.101027	.345932		.992003	.993043		.993023	.103	31, 38
6G5-45947-01-EL . . . . .Aluminum	.101027			.992003	.993043		.993023	.103	31, 38
6G5-45949-00-36 . . . . .Aluminum	.101030			.992006	.993046		.993026	.103	31, 38
6G5-45949-00-98 . . . . .Aluminum	.101030	.345935		.992006	.993046		.993026	.103	31, 38
6G5-45949-00-EL . . . . .Aluminum	.101030			.992006	.993046		.993026	.103	31, 38
6G5-45952-00-98 . . . . .Aluminum				.992003	.993042		.993022	.103	31, 38
6G5-45952-00-EL				.992003	.993042		.993022	.103	31, 38
6G5-45970-00-98					.993042		.993022	.103	31, 38
6G5-45970-01-98					.993042		.993022	.103	31, 38
6G5-45970-02-98 . . . . .Black Steel		.345931			.993042		.993022	.103	31, 38
6G5-45972-00-98 . . . . .Black Steel					.993045		.993025	.103	31, 38
6G5-45972-01-98 . . . . .Black Steel					.993045		.993025	.103	31, 38
6G5-45972-02-98 . . . . .Black Steel		.345934			.993045		.993025	.103	31, 38
6G5-45972-03-98 . . . . .Black Steel					.993045		.993025	.103	31, 38
6G5-45974-00-98 . . . . .Black Steel					.993044		.993024	.103	31, 38
6G5-45974-01-98 . . . . .Black Steel					.993044		.993024	.103	31, 38
6G5-45974-02-98 . . . . .Black Steel					.993044		.993024	.103	31, 38
6G5-45974-03-98 . . . . .Black Steel		.345933			.993044		.993024	.103	31, 38
6G5-45976-00-98 . . . . .Black Steel					.993046		.993026	.103	31, 38
6G5-45976-01-98 . . . . .Black Steel		.345935			.993046		.993026	.103	31, 38
6G5-45978-00-98 . . . . .Black Steel					.993043		.993023	.103	31, 38
6G5-45978-01-98 . . . . .Black Steel					.993043		.993023	.103	31, 38
6G5-45978-02-98 . . . . .Black Steel					.993043		.993023	.103	31, 38
6G5-45978-03-98 . . . . .Black Steel		.345932			.993043		.993023	.103	31, 38
6H5-45943-00-EL . . . . .Aluminum	.032040	.395930		.992408	.993408			.117	29
6H5-45945-00-EL . . . . .Aluminum	.032042	.395929		.992406	.993406			.117	29
6H5-45952-00-EL . . . . .Aluminum	.032043			.992405	.993405			.117	29
6H5-45958-00-EL . . . . .Aluminum	.032041			.992407	.993407			.117	29
6J9-45972-B0-00 . . . . .Pro Series		.345937			.993046		.993026	.103	31, 38
6J9-45976-10-00 . . . . .Pro Series		.345941			.993045		.993025	.103	31, 38
6K1-45945-00-98 . . . . .Aluminum (LH)		.345963			.993054		.993032	.103	31, 38
6K1-45947-00-98 . . . . .Aluminum (LH)		.345962			.993053		.993033	.103	31, 38
6K1-45970-00-98 (LH)					.993052		.993022	.103	31, 38
6K1-45970-01-98 . . . . .Black Steel (LH)					.993052			.103	31, 38

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
6K1-45970-01-98 . . . .Black Steel (LH) . . . . .					993052	993022		103	31, 38
6K1-45972-00-00 . . . .Black Steel (LH) . . . . .					993055	993035	993215	103	31, 38
6K1-45972-00-98 . . . .Black Steel (LH) . . . . .		345964			993055	993035	993215	103	31, 38
6K1-45972-01-98 . . . .Black Steel (LH) . . . . .		345964			993055	993035	993215	103	31, 38
6K1-45974-00-00 . . . .Black Steel (LH) . . . . .					993054	993034	993214	103	31, 38
6K1-45974-00-98 . . . .Black Steel (LH) . . . . .					993054	993034	993214	103	31, 38
6K1-45974-01-98 . . . .Black Steel (LH) . . . . .					993054	993034	993214	103	31, 38
6K1-45974-02-98 . . . .Black Steel (LH) . . . . .		345963			993054	993034	993214	103	31, 38
6K1-45976-00-98 . . . .Black Steel (LH) . . . . .		345965			993056	993036	993216	103	31, 38
6K1-45976-01-98 . . . .Black Steel (LH) . . . . .					993056	993036	993216	103	31, 38
6K1-45978-00-00 . . . .Black Steel (LH) . . . . .					993053	993033	993213	103	31, 38
6K1-45978-00-98 . . . .Black Steel (LH) . . . . .					993053	993033	993213	103	31, 38
6K1-45978-01-98 . . . .Black Steel (LH) . . . . .					993053	993033	993213	103	31, 38
6K1-45978-02-98 . . . .Black Steel (LH) . . . . .		345962			993053	993033	993213	103	31, 38
6L6-45930-01-98 . . . .Black Steel (LH) . . . . .					993154			See Note 1	30
6L6-45970-00-98 . . . .Black Steel (LH) . . . . .					993155			See Note 1	30
6L6-45972-00-98 . . . .Black Steel (LH) . . . . .					993156			See Note 1	30
6R1-45970-AO-00 . . . .Saltwater Series (LH) . . . . .					993054	993034	993214	103	31, 38
6R1-45972-AO-00 . . . .Saltwater Series (LH) . . . . .					993055	993035	993215	103	31, 38
6R1-45974-AO-00 . . . .Saltwater Series (LH) . . . . .					993056	993036	993216	103	31, 38
6R1-45976-AO-00 . . . .Saltwater Series (LH) . . . . .					993052			103	31, 38
6R1-45978-AO-00 . . . .Saltwater Series (LH) . . . . .					993053	993033	993213	103	31, 38
6R4-45970-AO-00 . . . .Saltwater Series . . . . .					993044	993024	993214	103	31, 38
6R4-45972-AO-00 . . . .Saltwater Series . . . . .					993045	993025	993215	103	31, 38
6R4-45974-AO-00 . . . .Saltwater Series . . . . .					993046	993026	993206	103	31, 38
6R4-45976-AO-00 . . . .Saltwater Series . . . . .							993206	103	31, 38
6R4-45976-AO-00 . . . .Saltwater Series . . . . .					993042	993022	993206	103	31, 38
6R4-45978-AO-00 . . . .Saltwater Series . . . . .					993043	993023		103	31, 38
MAR-GYT3B-02-13 . .Performance 3-Blade . . . . .		305929							29
MAR-GYT3B-03-12 . .Performance 3-Blade . . . . .					993405			117	29
MAR-GYT3B-03-13 . .Performance 3-Blade . . . . .		395929			993406			117	29
MAR-GYT3B-03-14 . .Performance 3-Blade . . . . .					993407			117	29
MAR-GYT3B-03-15 . .Performance 3-Blade . . . . .		395930			993408			117	29
MAR-GYT3B-L4-16 . .Performance 3-Blade (LH) . . . . .					993153			See Note 1	30
MAR-GYT3B-L4-18 . .Performance 3-Blade (LH) . . . . .					993154			See Note 1	30
MAR-GYT3B-L4-20 . .Performance 3-Blade (LH) . . . . .					993155			See Note 1	30
MAR-GYT3B-L4-22 . .Performance 3-Blade (LH) . . . . .					993156			See Note 1	30
MAR-GYT3B-L6-16 . .Performance 3-Blade (LH) . . . . .		345962			993052			103	31, 38
MAR-GYT3B-L6-18 . .Performance 3-Blade (LH) . . . . .		345963			993053			103	31, 38
MAR-GYT3B-L6-20 . .Performance 3-Blade (LH) . . . . .		345964			993054			103	31, 38
MAR-GYT3B-L6-22 . .Performance 3-Blade (LH) . . . . .		345965			993055	993035	993215	103	31, 38
MAR-GYT3B-V4-14 . .Performance 3-Blade . . . . .		335930							30
MAR-GYT3B-V4-16 . .Performance 3-Blade . . . . .		335931			993143			See Note 1	30
MAR-GYT3B-V4-18 . .Performance 3-Blade . . . . .		335932			993144			See Note 1	30
MAR-GYT3B-V4-20 . .Performance 3-Blade . . . . .		335933			993145			See Note 1	30
MAR-GYT3B-V4-22 . .Performance 3-Blade . . . . .					993146			See Note 1	30
MAR-GYT3B-V6-16 . .Performance 3-Blade . . . . .		345932			993042	993022		103	31, 38
MAR-GYT3B-V6-18 . .Performance 3-Blade . . . . .		345933			993043	993023	993203	103	31, 38
MAR-GYT3B-V6-20 . .Performance 3-Blade . . . . .		345934			993044	993024	993204	103	31, 38
MAR-GYT3B-V6-22 . .Performance 3-Blade . . . . .		345935			993045	993025	993205	103	31, 38
MAR-GYT3B-V6-24 . .Performance 3-Blade . . . . .		345936			993046	993026	993206	103	31, 38
MAR-GYT3B-V6-26 . .Performance 3-Blade . . . . .			345938						31, 38
MAR-GYT3B-XL-23 . .Performance XL . . . . .			345937						31, 38
MAR-GYT3B-XL-25 . .Performance XL . . . . .			345938						31, 38
MAR-GYT4B-V6-18 . .Performance 4-Blade . . . . .							993204	103	31, 38
MAR-GYT4B-V6-20 . .Performance 4-Blade . . . . .							993205	103	31, 38
MAR-GYT4B-V6-22 . .Performance 4-Blade . . . . .			435935				993206	103	31, 38
MAR-GYT4B-V6-23 . .Performance 4-Blade . . . . .			435935						31, 38

# MICHIGAN WHEEL OEM CROSS REFERENCE

Original Equipment Manufacturer Part & Trade Mark	Standard Hub Propellers			XHS Hub Propellers				XHS Hub Kits	Catalog Page #s
	Michigan Match	Ballistic	Ballistic XL	Vortex XHS	Apollo Std.	Apollo Lg. Dia	Apollo 4-blade		
MAR-GYT4B-V6-24 Performance 4-Blade			.435936						31, 38
MAR-GYT4B-V6-25 Performance 4-Blade			.435936						31, 38
MAR-GYT4B-V6-26 Performance 4-Blade			.435937						31, 38
MAR-VMAX3-04-18		.335932			.993144			See Note 1	30
MAR-VMAX3-04-20		.335933			.993145			See Note 1	30
MAR-VMAX3-04-22					.993146			See Note 1	30
MAR-VMAX3-06-16		.345932			.993042	.993022		.103	31, 38
MAR-VMAX3-06-18		.345933			.993043	.993023	.993203	.103	31, 38
MAR-VMAX3-06-20		.345934			.993044	.993024	.993204	.103	31, 38
MAR-VMAX3-06-22		.345935	.435935		.993045	.993025	.993205	.103	31, 38
MAR-VMAX3-06-24		.345936	.435936		.993046	.993026	.993206	.103	31, 38
MAR-VMAX3-06-26			.435937						31, 38
MAR-VMAX3-C6-18 (LH)		.345963			.993053	.993033	.993213	.103	31, 38
MAR-VMAX3-C6-20 (LH)		.345964			.993054	.993034	.993214	.103	31, 38
MAR-VMAX3-C6-22 (LH)		.345965			.993056	.993036	.993216	.103	31, 38

Note 1	Yamaha	
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	60-100 HP Including 4-Stroke, 1984 to present, 15 tooth spline	108
	80-140 HP, 1978 thru 1983, 15 tooth spline	102
	115-130 HP, 1984 to present, 15 tooth spline	103

Note 2	Evinrude/Johnson Outboards	
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	90-140 Large Gearcase, 1991 to present, 15 tooth spline	100
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	150-300 HP, 1991 to present, 15 tooth spline	100
	OMC/Cobra Sterndrives	
	Model 800/Cobra/King Cobra, 1978 thru 1990, 15 tooth spline	101
Model 800/Cobra/King Cobra, 1991 thru 1994, 15 tooth spline	100	

Note 3	Mercury/Mariner	
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	75-90 HP, 1999 & Newer, 15 tooth spline	107
	115-130 HP, 1998 & Newer, 15 tooth spline	107
	Force	
	75-150 HP, 1995 & Newer, 15 tooth spline	102
	Yamaha	
80-140 HP, 1978 thru 1983, 15 tooth spline	102	

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	Suzuki	
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	DF140, 2001 & Newer, 15 tooth spline	126
	Johnson	
	90 & 115 HP (4-Stroke), 2003 & Newer, 15 tooth spline	125
	140 HP (4-Stroke), 2003 & Newer, 15 tooth spline	126
	Yamaha	
50-100 HP (including 4-Stroke), 1984 & Newer, 15 tooth spline	108	
115-130 HP, 1984 & Newer, 15 tooth spline	103	

## XHS™ HUB SYSTEM CROSS REFERENCE TO MERCURY FLO-TORQ® HUB SYSTEM

Mercury Flo-Torq®	XHS™ Hub Kit	Mercury Flo-Torq®	XHS™ Hub Kit
835257A1	.102	835272A1	.108
835265A1	.100	835277A1	.102
835266A1	.106	835279A1	.107
835267A1	.101	835281A1	.104
835270A1	.105	835282A1	.110
835271A1	.103	835284A1	.109



## ONE YEAR LIMITED WARRANTY AND DISCLAIMER OF IMPLIED WARRANTIES

Michigan Wheel Corporation warrants to the original consumer purchaser that for the life of the motor originally fitted with the Michigan Match™, Vortex™, Apollo™ or Ballistic™ Propeller, under normal pleasure boat usage, the body of the propeller will be free of any defect in material or workmanship that results in blade or hub fracture or failure. Michigan Wheel Corporation also warrants to the original consumer purchaser, under the same parameters of use described above, that the propeller bushing will be free from any defect in material or workmanship for a period of one year from the date of purchase.

Some surface discoloration is unavoidable in a cast stainless steel alloy and will not be covered by this warranty. This warranty does not cover normal wear, accidental damage, modification, improper installation, improper maintenance, or other circumstances that are not a direct result of a defect in the material or workmanship of the propeller.

The sole obligation of Michigan Wheel Corporation under this warranty is to repair or replace the defective component, in the sole discretion of Michigan Wheel Corporation, and at its expense. In order to make a replacement claim, please contact the Michigan Wheel Corporation Customer Service Department, at (616) 452-6941, for a "Return Goods Authorization" number (RGA#), and shipping address instructions. The warranty will not cover any expense of propeller removal, shipping, or reinstallation of the propeller. The RGA# must be indicated along with our address on the mailing label, and the shipping carton should include your return shipping address, your phone number, and your original purchase receipt.

The above warranty is Michigan Wheel Corporation's sole express warranty for the Michigan Match™, Vortex™, Apollo™ or Ballistic™ Propeller. ALL IMPLIED WARRANTIES, INCLUDING WITHOUT LIMITATION, THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO ONE YEAR FROM THE DATE OF PURCHASE. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Michigan Wheel Corporation also excludes and disclaims all liability for incidental or consequential damages, loss of use of the propeller, costs, and expenses. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from State to State. Any actions arising out of this warranty and the sale of this produce shall be governed by Michigan law and may only be brought, heard, and decided in Kent County Circuit Court, in the State of Michigan, U.S.A., or in the United States District Court for the Western District of Michigan.

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Grand Rapids, MI 49507  
Phone: (616) 452-6941

### Need your Propeller Repaired?

Congratulations, you have chosen a top quality propeller. Should it become damaged during use, you want a qualified trained technician to repair it. Contact the **National Marine Propeller Association (NMPA)** at phone: 616.235.6672, fax: 616.235.0144 or visit them on the web: [www.nmpa.net](http://www.nmpa.net) for a certified propeller repair shop near you.

Warranty claims are to be addressed directly to **Michigan Wheel Corporation** per instructions on this warranty statement and not to the **NMPA**.



Michigan Wheel Corporation - Headquarters

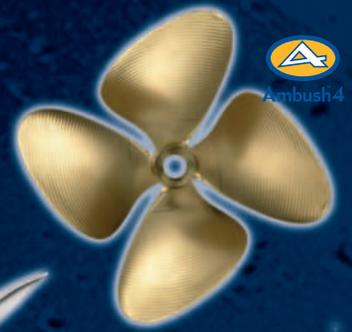




VORTEX XHS  
PERFORMANCE PROPELLERS



APOLLO XHS



Ambush 4



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BALLISTIC™  
STAINLESS STEEL PROPS

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