What to Consider When Shopping for a Propeller

Cup is the small curved lip added to the edges of some propellers. Cupping acts like a seal on the edge of the blade. It keeps water on the high pressure blade face from flowing around the trailing edge to the low pressure area on the blade back. This reduces ventilation and slipping, especially when operating in disturbed or aerated water.

Propellers with cup excel in sharp turns and applications where the engine is mounted higher than normal. Cupping also allows the outboard to be trimmed higher for more bow lift.

Cupping the tips of the blades increases the effective rake, adding to the bow lift capabilities of the propeller. Adding cup to the trailing edge of the blades has the effect of increasing pitch. As a result, you can expect a slight loss of engine speed (150-300 RPM) when cup is added. However, the additional cup may allow the propeller to work at a higher transom height. Raising the motor will reduce drag on the gearcase and will often recover the engine speed.

Ventilation is the result of air bubbles from surface air or exhaust gases being drawn into the blades. These pockets of air make a propeller lose its bite or thrust. Your RPM may climb wildly, yet you may not gain or lose speed. This is most common with high transom mountings, extreme trim settings, or sharp turns.

To help prevent ventilation, the outboard has an anti-ventilation plate directly above the propeller. For most applications, this plate should be within an inch above or below the bottom of the boat. On a high-performance boat, this rule does not necessarily apply. The anti-ventilation plate may be several inches above the boat bottom.

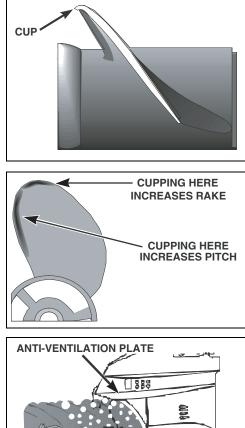
Water testing is the best way to determine the correct engine mounting height.

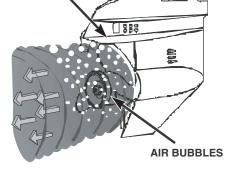
Cupped or high performance propellers help minimize ventilation.

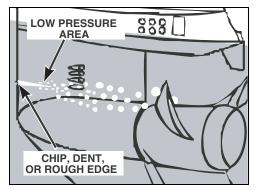
Cavitation is caused by a disturbance of the water flow in front of the propeller. An irregularity in the boat bottom or gearcase, a misplaced transducer or speedometer pickup, or even a loose rivet can cause this problem.

Cavitation begins when a disturbance creates a low-pressure area in the water flow. As speed increases, the low pressure intensifies enough to vaporize (boil) some of the surrounding water. When the vapor bubbles approach a high pressure area, they collapse, releasing energy and causing damage.

The results of cavitation usually appear as burned areas on the gearcase or propeller blades. If the damage is substantial, performance is lost and the propeller should be replaced. In addition, the cause of the disturbance should be repaired to prevent further problems.









Material—Aluminum propellers provide a good balance of cost, performance, and durability for most applications.

Stainless steel propellers offer improved performance, fuel economy, and durability. Because stainless steel is five times stronger than aluminum, it is much less susceptible to damage from striking underwater objects.

However, the main advantage of stainless steel is in performance. Because of its strength, stainless propeller blades can be cast much thinner, which reduces drag. Stainless steel blades are also stiffer, which increases efficiency.

Composite and plastic propellers are generally used for emergency situations.

Blade Count—Theoretically, the fewer number of blades a propeller has, the more efficient it will be. But as the number of blades is increased, vibration is decreased. For most applications, three blade propellers provide the best balance between efficiency and smoothness.

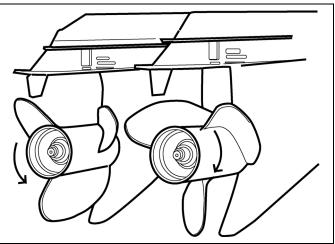
However, *BRP/Evinrude* engineers have created a series of four blade propellers that provide increased efficiency and a superior grip on the water. The result is improved acceleration and better cornering in all water conditions.

In addition, when operated in a surfacing application, a four blade propeller keeps more blades in the water for maximum thrust and efficiency.

Rotation—Right-hand propellers are considered standard rotation propellers. To move the boat forward, the propeller rotates in a right-hand (clockwise) direction as viewed from the rear.

Left-hand propellers are considered counter-rotation propellers. To move the boat forward, the propeller rotates in a left-hand (counterclockwise) direction as viewed from the rear. Left-hand propellers must ONLY be used on an outboard equipped with a counter-rotation gearcase.

In a dual-outboard installation, the use of both right-hand and left-hand propellers balances the torque created by the rotation of the propellers. This helps to reduce the effort needed in steering and also helps to keep the boat level from side to side.



WARNING

For dual-outboard installations, always check to be sure propellers are installed on the correct engines before aggressively operating the boat.

Matching the Right Propeller to Your Boat and Outboard

Step One: Choose the propeller type designed for the way the boat will be used:

- · Fishing, skiing, cruising, commercial, racing, etc?
- · How many people will be on board?
- Is the water shallow, or are there rocks or other underwater objects?
- Will the boat be used for multiple purposes?

Use the propeller family descriptions in the following pages as a guide. For example, a Rebel[™] propeller could be a good choice for a large, offshore boat. In contrast, a Raker[®] propeller provides bow lift, for increased top speed, on small, fast boats.

Step Two: Find the correct sized propeller for your specific outboard, boat, and load combination.

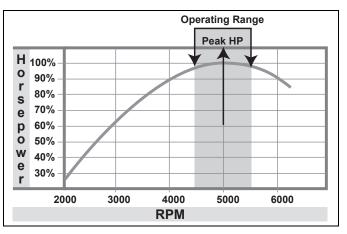
When selecting a propeller, start with the propeller charts in the following pages. These charts group all of the propellers designed for a particular outboard and provide detailed information such as pitch, diameter, style, and the number of blades.

To complete the selection process, you must perform a water test. During this running test, you will determine the best combination of engine mounting height, propeller style, and propeller pitch.

All *Evinrude* and *Johnson* outboards have a recommended full throttle operating range. This means that, at full throttle, engine RPM must never be below or above this range. These specifications can be found in the **Operator's Guide**.

The propeller provides the load that controls engine RPM. Reducing propeller pitch size will increase engine RPM at full throttle. Increasing propeller pitch size will decrease engine RPM at full throttle.

You have the correct propeller pitch when the engine runs at the midpoint of the full throttle oper-



ating RPM range with the normal, expected load in the boat. This is usually the point of peak horsepower. Choosing the correct propeller pitch for a given boat and application will ensure long engine life, along with best overall fuel economy and performance. When you have a selection of propellers ready for testing:

- 1. Use an accurate tachometer to measure RPM and an accurate speedometer to measure boat speed.
- 2. Testing should be performed with the typical load—number of people, gear, water in live wells, etc.
- 3. Make sure that every test is with an identical setup.
- 4. Test each propeller at wide open throttle (WOT).
- 5. Engines should be tested at their optimum trim angle. This is the highest trim position the engine can be run without excessive ventilation, either in a straight line or in turns.
- 6. If the RPM is too low at WOT, try a reduced pitch and retest.
- 7. If the RPM is too high at WOT, test a propeller with more pitch. One pitch size usually results in a change of 200-300 RPM.
- 8. If the boat will be used for two applications, like water skiing and cruising, it may be necessary to test propellers for each type of use.

Step Three: Adjust the engine mounting height for peak performance.

The ideal engine mounting height provides the fastest boat speed without sacrificing acceleration, maneuverability, or engine water pressure. It is achieved by a trial and error method.

- 1. Start with the outboard's anti-ventilation plate even with the bottom of the boat.
- 2. Raise the outboard one mounting hole at a time until engine performance is no longer acceptable. Then, lower the outboard back down one hole.

Optimum engine height is affected by propeller style, diameter, and pitch. As you raise the engine, you may need to experiment with a variety of propellers to maximize performance.

Things to Remember

Check full throttle RPM often. It is possible that the propeller pitch size may have to change as the boating application or load changes.

- Adding or removing people can significantly change the power requirements placed on the engine.
- Changes in atmospheric pressure, temperature, and humidity all affect engine performance, which directly affects propeller performance.
- Salt water is more buoyant than fresh water; this may cause some hulls to run faster when moving from a fresh water to salt water location.
- The accumulation of marine growth or dirt—moss, barnacles, lime deposits, etc—is a major cause of poor boat performance.

Rebel[™] - Offshore and Cruising

The Rebel[™] propeller is designed and engineered to deliver improved midrange cruising and top end performance on V6 Evinrude® E-TEC®. Large diameter and efficient blade contour provide faster speeds at lower RPMs to deliver significant improvement in fuel economy. Your customers will get more miles to the gallon and a longer cruising range. Standard rotation and counter rotation models are available from 15 to 25 inch pitch. Use the Rebel[™] propeller on offshore boats, large runabouts, and even large pontoon boats to make them perform to their maximum potential.

- High polish stainless steel
- · Designed and engineered for efficient midrange cruising
- Improved fuel economy with longer cruising range
- Use on offshore boats, large runabout, and pontoon boats.

Raker® & Raker II® - Bass and High Performance

Looking to plane fast — and run faster? The Raker II® prop is specially designed for building up engine RPMs and getting you on plane faster. A great prop in surfacing conditions, especially when the boat is running over 50 mph. Perfect for bass boats and high performance boats. The Raker® propeller utilizes vent holes in the outer exhaust hub to allow exhaust gases to ventilate the blade area. This allows the engine to build up RPMs and get the boat on plane faster. At higher speeds, the water rushing past the hub blocks these vent holes, preventing them from ventilating the blades. V6 Raker II® 22, 24, 26, & 28 use the TBX™ hub system.

- Fast, Fast, Fast...
- Custom cupped high rake blades provide superior bow lift and exceptional top end speed
- · Special vent holes for powerful acceleration
- V4 & V6 engines

Cyclone™ - 4-Blade Offshore Cruising and Runabouts

When you need a prop that can hold course straight and true in all water conditions, trust the Cyclone[™] prop to maintain compass headings and stay hooked up in big water. Designed for heavier and twin-engine boats as well as runabouts. **Cyclone[™]** uses the TBX[™] hub system.

- Ultimate performance 4–blade offshore and runabout propeller
- Stays on plane with minimum RPM
- Tracks true in all water conditions
- Less vibrations and improved fuel economy
- V6 engines

Viper™ - Runabouts and General Recreation

If you want speed, you want the Viper[™] prop. It's longer swept blades and a larger diameter give this prop a better grip on the water faster acceleration, and greater top end speed. Excellent on any recreational boat, from runabouts and cruisers to deck boats.

- Versatile 3–blade performance
- Custom high luster finish
- Balance of speed and durability
- V4 & V6 engines















Rogue™

The new Rogue™ propeller for the 20" shaft, 40 through 115 hp Evinrude® E-TEC® provides faster acceleration and faster top speeds in stern heavy boats. Flats boat operators will appreciate this propellers ability to lift the transom and accelerate cleaner in shallower water.

- Stainless steel 4-blade design
- Polished, high luster finish
- Carry a 3 year limited warranty
- Available in 13, 15, 17, 19, and 21 inch pitch sizes

SSP Prop - General Purpose and Durability

Since stainless steel is five times stronger than aluminum, the SSP can be designed and cast with thinner blades...blades that are cupped to provide better performance.

This versatile prop is an ideal upgrade replacement for aluminum propellers and provides greater performance for water skiing. If a customer has an aluminum propeller, a "direct pitch" replacement (same pitch and diameter) is recommended when upgrading to an SSP.

- Fast planing 3–blade versatile prop
- Ideal upgrade from aluminum
- · Cupped blades provide superior performance

Hydrus® - Pontoon and Work Boats

A high-thrust prop designed and manufactured to meet the specific performance needs of pontoon boats and work boats. This three-blade prop provides an oversized blade area for maximum thrust and stability (it will keep its grip even when most of the weight is near the bow) and aggressive cupping for tight, balanced turning. The result? A high-thrust prop that bites the water and hangs on tight.

- · Aggressive cupping holds tight in turns
- Big blade area for high reverse thrust
- Special blade contour delivers maximum thrust in any water condition

Evinrude®/Johnson® Aluminum™ Props

More Performance for the Money! Evinrude®/Johnson® props are cast with a custom aluminum alloy to give them greater strength and longer life than ordinary propellers. Many of the Evinrude®/Johnson® outboards are speed cupped for better top end performance. Special baked-on corrosion-resistant paint gives added protection against salt water and galvanic corrosion.
 Precision casting provides greater strength and longer life

Baked-on corrosion-resistant pant gives added protection
Engineered to match the power curve of your outboard for superior performance











TBX[™] Propeller Hub System

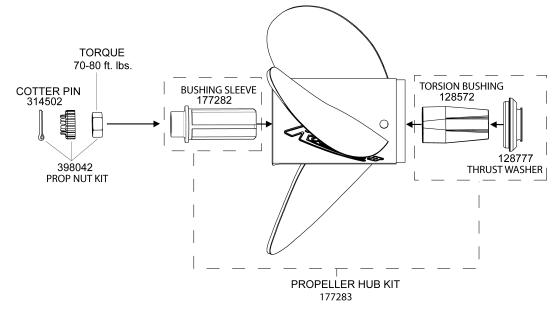
For Evinrude®/Johnson® Introducing the TBX™ Multiple Piece Propeller Hub System from Evinrude®/Johnson® Genuine

Parts. The TBX[™] prop hub system adds a new level of durability and reliability to the Raker II®, Renegade® Bass, and Cyclone[™] propellers. TBX[™] is designed to flex and cushion shock loads to help protect the lower unit drivetrain. The patented torsion sleeve and drive spline withstand extreme temperatures especially in high performance applications.

A TBXTM prop hub kit comes with the propeller and the multi-piece design slips together keeping the installation simple. Replacement parts are available in kits or separately.

Look for the TBX™ designation in the V6 prop chart to determine availability.

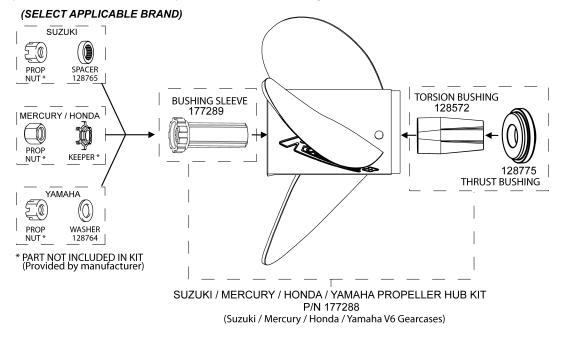
TBX™ Propeller Hub Kit P/N 177283 for Évinrude®/Johnson® Outboards



TBX[™] Competitor Propeller Hub System

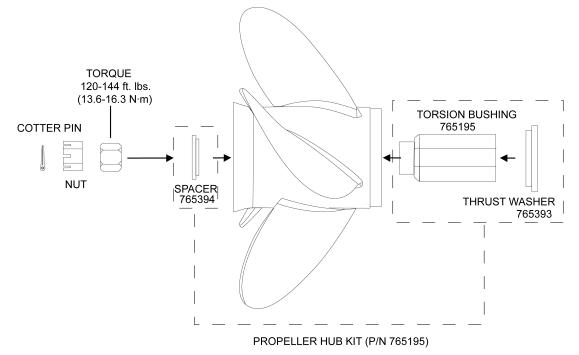
We DARE You to Try Our Props on Competitor Outboards! Our interchangeable TBX[™] hub kit is designed to fit Mercury®, Yamaha®, Honda®, and Suzuki® V6 outboard engines.

This kit lets you install a Raker II® TBX[™], Renegade® Bass TBX[™], and Cyclone[™] TBX[™] propellers on competitor outboards. TBX[™] Propeller Hub Kit P/N 177288 for competitor outboards available July 2009.



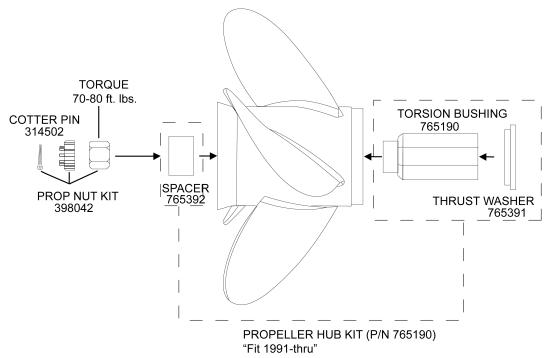
Aluminum Propeller Interchangeable V4 Hub System

For Evinrude®/Johnson® Each propeller incudes a hub kit of either P/N 765190 for a V6 or 765195 for a V4, fitting an Evinrude®/Johnson® outboard. Each hub kit includes the rubber torsion bushing, thrust washer, spacer and instructions. Accessory hub kits are required to install the propeller on competitive brands of engines. Select the accessory hub kit for competitive engines from the listing in this section.



Aluminum Propeller Interchangeable V6 Hub System

For Evinrude®/Johnson®



Propeller Hub System - TBX™

P/N	Description	Pack qty
177283	TBX™ bushing kit (POP) - Evinrude®/Johnson® outboards	1
177288	TBX [™] bushing kit (POP) - competitive outboards	1

Propeller Hub System-Aluminum Interchangeable Chart

Application	Spline	Year	P/N
Evinrude®/Johnson® V4 45-75 HP, large gearcase 4¼"	13	1968-current	765195
Evinrude®/Johnson® V4 85-140 HP	13	1969-current	765195
Evinrude®/Johnson® 90-140 HP, large gearcase	15	1991-current	765190
Force® 75-150 HP	15	1995-current	765192
Honda® 75-150 HP	15	1995-1998	765192
Honda® BF 135 HP, 150 HP, 200 & 225 HP	15	2003-current	765192
Mercury®/Mariner®/MerCruiser® 60 HP Bigfoot	15		765192
Mercury®/Mariner®/MerCruiser® 70-140 HP (except 135 HP), XR-4, XR-6	15	1961-current	765192
Mercury®/Mariner®/MerCruiser® 135 HP	15	1987-current	765192
Mercury®/Mariner®/MerCruiser® 150-300 HP	15	1978-current	765192
Yamaha® 80-140 HP	15	1978-1983	765192
Yamaha® 150-175 HP	15	1978-1983	765192
Yamaha® 115 HP, FS115 (4-stroke), 130 HP	15	1984-current	765193
Yamaha® 150-130 HP	15	1984-current	765193
Yamaha® Sterndrives	15	1989-1993	765193
OMC Cobra® SX	19	1994-current	765194
Volvo® SX Sterndrives	19	1994-current	765194
Honda® 75-90 HP	15	1999-current	765196
Honda® 115-130 HP	15	1999-current	765196
Nissan®/Tohatsu® 90-140 HP	15	1987-current	765197
$Mercury \ensuremath{\mathbb{R}}\xspace{\ensuremath{\mathbb{R}}\ensuremath$	15		765198
Evinrude®/Johnson® 90, 115 HP (4-stroke)	15	2003-current	765199
Suzuki® DF90, DF115 (4-stroke)	15	2001-current	765199
Suzuki® DF140 (4-stroke)	15	2001-current	765200

Propeller Hub System - Aluminum Interchangeable

P/N	Description	Pack qty
765195	V4 Aluminum Interchangeable Prop hub kit (POP) - Evinrude®/Johnson®	1
765190	V6 Aluminum Interchangeable Prop hub kit (POP) - Evinrude®/Johnson®	1
765192	Aluminum Interchangeable Prop hub kit (POP) - Mercury®, Yamaha®, Honda®	1
765193	Aluminum Interchangeable Prop hub kit (POP) - Yamaha®	1
765194	Aluminum Interchangeable Prop hub kit (POP) - Volvo® SX Sterndrive, Cobra® SX	1
765196	Aluminum Interchangeable Prop hub kit (POP) - Honda®	1
765197	Aluminum Interchangeable Prop hub kit (POP) - Nissan®, Tohotsu®	1
765198	Aluminum Interchangeable Prop hub kit (POP) - Mercury® 225 EFI (Yamaha®)	1
765199	Aluminum Interchangeable Prop hub kit (POP) - Suzuki® DF90, DF115	1
765200	Aluminum Interchangeable Prop hub kit (POP) - Suzuki® DF140	1

Propeller Quick Reference Guide, 15H.O. - 130 HP

15H.O30 H	IP Evinrude® E-TEC®	, 2–Stroke			
P/N	Туре	Blades	Diameter	Pitch	Notes
5008225	Aluminum	4	11"	7"	15H.O. High Thrust
765048	Aluminum	3	11"	9"	
765049	Aluminum	3	10 1/2"	11"	
765135	Aluminum	4	10.2"	11"	
765050	Aluminum	3	10 1/2"	12"	
765136	Aluminum	4	10.1"	12"	Concerned Diversions and Economic
778863	Aluminum	3	10"	13"	General Purpose and Economy
765137	Aluminum	4	10"	13"	
765138	Aluminum	4	10"	14"	
763486	Aluminum	3	10"	15"	
765139	Aluminum	4	10"	15"	
765176	SSP	3	10"	11"	
765174	SSP	4	10"	11"	
765177	SSP	3	10"	12"	
765175	SSP	4	10"	12"	Durability and General Purpose
765178	SSP	3	10"	12	Durability and General Fulpose
765179	SSP	3	10"	13 14"	
765180	SSP	3	10"	14	
	Evinrude® E-TEC® (Ex	-		15	
_		_		_	
P/N	Туре	Blades	Diameter	Pitch	Notes
763300	Aluminum™	3	14"	9"	
763301	Aluminum™	3	14"	11"	
763302	Aluminum™	3	13 3/4"	13"	
763466	Aluminum™	3	13 1/2"	15"	General Purpose and Economy
763463	Aluminum™	3	13 1/4"	17"	
763464	Aluminum™	3	13"	19"	
763465	Aluminum™	3	13"	21"	
177201	Hydrus™ Aluminum	3	13 7/8"	9"	
177202	Hydrus™ Aluminum	3	13 7/8"	11"	Pontoon boats, High Reverse Thrust
177203	Hydrus™ Aluminum	3	13 7/8"	13"	
763957	SSP	3	13 3/4"	13"	
763950	SSP	3	13 1/2"	15"	Durphility and Constal Durpass
763951	SSP	3	13 1/4"	17"	Durability and General Purpose
763952	SSP	3	13"	19"	
763929	Viper™	3	13 7/8"	15"	
763930	Viper™	3	13 7/8"	17"	Swept blade design, General use,
			13 7/8"	19"	Bow Lifter
763931	Viper™	3	10 110	10	
763931 763932	Viper™ Viper™	3 3	13 7/8"	21"	
	•				
763932	Viper™	3	13 7/8"	21"	
763932 763953	Viper™ Raker®	3 3	13 7/8" 13 1/2"	21" 18"	High Performance Bow Lifter
763932 763953 763954	Viper™ Raker® Raker®	3 3 3	13 7/8" 13 1/2" 13 1/2"	21" 18" 20"	High Performance Bow Lifter
763932 763953 763954 394760	Viper™ Raker® Raker® Raker®	3 3 3 3	13 7/8" 13 1/2" 13 1/2" 13 1/2" 13 1/2"	21" 18" 20" 22"	
763932 763953 763954 394760 763956	Viper™ Raker® Raker® Raker® Raker® Raker®	3 3 3 3 3 3	13 7/8" 13 1/2" 13 1/2" 13 1/2" 13 1/2" 13 1/2"	21" 18" 20" 22" 24"	High Performance Bow Lifter High Performance Bass Boats
763932 763953 763954 394760 763956 763971 176198	Viper™ Raker® Raker® Raker® Raker® Renegade® Bass Renegade® Bass	3 3 3 3 3 4	13 7/8" 13 1/2" 13 1/2" 13 1/2" 13 1/2" 13 1/2" 13 1/2" 13 1/4" 13 1/4"	21" 18" 20" 22" 24" 21"	
763932 763953 763954 394760 763956 763971 176198 763964	Viper™ Raker® Raker® Raker® Raker® Renegade® Bass Renegade® Bass Renegade™	3 3 3 3 3 4 4	13 7/8" 13 1/2" 13 1/2" 13 1/2" 13 1/2" 13 1/2" 13 1/4" 13 1/4" 13 1/2"	21" 18" 20" 22" 24" 21" 23"	
763932 763953 763954 394760 763956 763971 176198 763964 763965	Viper™ Raker® Raker® Raker® Raker® Renegade® Bass Renegade® Bass Rogue™ Rogue™	3 3 3 3 3 4 4 4 4 4 4	13 7/8" 13 1/2" 13 1/2" 13 1/2" 13 1/2" 13 1/4" 13 1/4" 13 1/2" 13 1/4" 13 1/4" 13 1/2" 13 1/4"	21" 18" 20" 22" 24" 21" 23" 13" 15"	High Performance Bass Boats
763932 763953 763954 394760 763956 763971 176198 763964	Viper™ Raker® Raker® Raker® Raker® Renegade® Bass Renegade® Bass Renegade™	3 3 3 3 3 4 4 4 4	13 7/8" 13 1/2" 13 1/2" 13 1/2" 13 1/2" 13 1/2" 13 1/4" 13 1/4" 13 1/2"	21" 18" 20" 22" 24" 21" 23" 13"	

Note: All Evinrude®/Johnson® Propellers have a 3–Year Limited Warranty!

Propeller Quick Reference Guide, 150 - 300 HP

150 - 300 HPEvinrude® E-TEC®, 25" Models - 90, 115, 130 E-TEC®

Right Hand Standard Rotation	Left Hand Counter Rotation	Туре	Blades	Diameter	Pitch	Notes
763453		Aluminum	3	15 1/2"	13"	
763471		Aluminum	3	15"	15"	
763467		Aluminum	3	14 7/8"	17"	Conorol Burnoso and Economy
763468		Aluminum	3	14 1/2"	19"	General Purpose and Economy
763469		Aluminum	3	14 1/4"	21"	
763470		Aluminum	3	14 1/4"	23"	
763959		SSP TBX™	3	15 7/8"	11"	
763960	763961	SSP TBX™	3	15 7/8"	13"	Durability and General Purpose
763962	763963	SSP TBX™	3	15"	15"	
763910	763911	Viper™ TBX™	3	15"	14"	
763912	763913	Viper™ TBX™	3	14 3/4"	16"	
763914	763915	Viper™ TBX™	3	14 3/4"	17"	
763916	763917	Viper™ TBX™	3	14 3/4"	18"	All-around General Purpose,
763918	763919	Viper™ TBX™	3	14 3/4"	19"	Bow Lifter
763920	763921	Viper™ TBX™	3	14 3/4"	20"	
763922	763923	Viper™ TBX™	3	14 1/2"	21"	
763924	763925	Viper™ TBX™	3	14 1/4"	22"	
763936	763937	Cyclone™ TBX™	4	14 1/2"	15"	
763938	763939	Cyclone™ TBX™	4	14 1/4"	17"	
763940	763941	Cyclone™ TBX™	4	14 1/8"	18"	
763942	763943	Cyclone™ TBX™	4	14 1/8"	19"	Cruising and Transom Lift
763944	763945	Cyclone™ TBX™	4	14"	20"	-
763946	763947	Cyclone™ TBX™	4	14"	21"	
763948	763949	Cyclone™ TBX™	4	14"	23"	
177264		Raker II® TBX™	3	14 1/2"	22"	
177265		Raker II® TBX™	3	14 1/2"	24"	
177309 (Big Bass - special vent holes)		Raker II® TBX™	3	14 1/2"	24"	High Performance Bow Lifter
177299		Raker II® TBX™	3	14 1/2"	25"	
177266		Raker II® TBX™	3	14 1/2"	26"	
177267		Raker II® TBX™	3	14 1/2"	28"	
763984	763985	Rebel TBX™	3	15 3/4"	15"	
763986	763987	Rebel TBX™	3	15 1/2"	17"	
763988	763989	Rebel TBX™	3	15 3/8"	18"	
763990	763991	Rebel TBX™	3	15 1/4"	19"	
763992	763993	Rebel TBX™	3	15 1/8"	20"	Faster Cruising Speeds and
763994	763995	Rebel TBX™	3	15"	21"	Improved Fuel Economy
763996	763997	Rebel TBX™	3	147/8"	22"	
763998	763999	Rebel TBX™	3	14 3/4"	23"	
764000	764001	Rebel TBX™	3	14 1/2"	25"	

Note: All Evinrude®/Johnson® Propellers have a 3–Year Limited Warranty!

Propeller Selection - Application/Boat Type

Which Propeller is Right for You?

Propeller type and style	Purpose of Application
Aluminum - 3 blade	General purpose, good balance between cost and performance, lowest cost, good value, least durable
Hydrus™ - 3 blade, aluminum	Pontoon boats, work boats, high forward and reverse thrust, aggressive cupping to reduce ventilation in turns, 40 - 90 HP engine
SSP - 3 blade, stainless steel	Upgrade from aluminum, general purpose, improved durability, cupped blades, limited pitch size
Rogue™ - 4 blade, stainless steel	Improved bite in turbulent / rough water, good transom lift, strong acceleration, cupped blades, minimize vibration and reduce slip, In-line and V4 engines
Raker® - 3 blade, stainless steel	60 mph plus, bass boats, bow lift, vent holes for strong acceleration, aggressive cupping to run elevated transom heights and high trim
Viper™ - 3 blade, stainless steel	Most popular - general recreation use, good bow lift , strong acceleration and top speed over SSP, wide selection of pitch and rotation
Rebel™ - 3 blade, stainless steel	Improved mid range fuel economy, strong acceleration, large diameter for greater thrust, cupped blades, V6 engines, bow heavy boats
Cyclone™ - 4 blade, stainless steel	Improved bite in turbulent / rough water, less vibration, transom lift, strong acceleration, cupped blades to reduce slip, V6 engines

Application Chart, Propeller-Engine to Propeller Style

		Propeller Styles						
Engine Type	Aluminum	Hydrus®	SSP	Rogue™	Raker®	Viper™	Rebel™	Cyclone™
I2 40-60 HP	•	•	•	•	•	•		
I3 75-90 HP*	•	•	•	•	•	•		
V4 115-130 HP	•	•	•	•	•	•		
V6 150-300 HP	•		•		•	•	•	•
Rotation - Standard RH	•	•	•	•	•	•	•	•
Rotation - Counter LH			•			•	•	•

Application Chart, Propeller-Boat Type to Propeller Style

	Propeller Styles							
Boat Type	Aluminum	Hydrus®	SSP	Rogue™	Raker®	Viper™	Rebel™	Cyclone™
Runabout - Fiberglass	•		•	•		•		•
Runabout - Aluminum	•		•	•		•		•
Deck Boat	•					•	•	•
Flats Boat	•			•		•		•
Bay Boat	•			•		•	•	•
Multi-Species Boat - Aluminum	•					•		•
Multi-Species Boat - Fiberglass					•	•	•	•
Bass Boat					٠			
Sport Runabout 150 HP+					•			
Offshore - small, single engine	•			•		•	•	•
Offshore - multiple engine						•	•	•
Pontoon - twin log	•	٠	•	•		•	•	
Pontoon - triple log						•	•	

Electric Models-Plastic Propellers

Evinrude®/Johnson® plastic propellers for electric models.

- 116063, 116437, 116438 retained by nut on the propshaft
 See Service Bulletins 2148, 2240, 2303 for electric outboards



116063

RH P/N	LH P/N	Description	Blades	Dia.	Pitch
325185		Electric, 1974-1978	2	5 3/4"	3"
115827		Electric, 1992-1995	2	8 3/4"	3.8"
116063		Electric, 1996 thru	2	8 3/4"	3.8"
116437		Electric, 1996 thru	2	8 3/4"	4"
124709		Electric, 1982-1995	2	8 3/4"	4"
126583		Electric, 1991 thru	2	8 3/4"	4"
116438		Electric, 1996 thru	2	12 1/2"	4"
331707		Electric, 1986-1995	2	12 1/2"	4"

Aluminum 4 Deluxe-8 HP Pin Drive, 2-Stroke

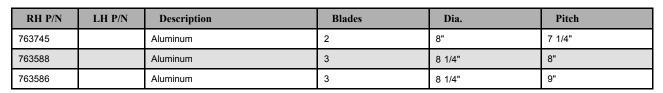
- 4 & 4.5 HP, 1980–1986 6 / 7.5 / 8 HP, 1980 thru
- 7 HP Commercial, 1991 2000



RH P/N	LH P/N	Description	Blades	Dia.	Pitch
778796		Aluminum	3	8"	8"

Aluminum 6 HP Pin Drive, 2-Stroke

• 1966 - 1979



Aluminum 9.5-10 HP Pin Drive, 2-Stroke

• 9.5 HP, 1964 - 1973

• 10 HP, 1958 - 1963



RH P/N	LH P/N	Description	Blades	Dia.	Pitch
763588		Aluminum	3	8 1/4"	8"
763586		Aluminum	3	8 1/4"	9"

Point of Purchase Packaged

Stainless Steel 9.9-15 HP Spline Drive, Thru-hub Exhaust

13 Spline

• 9.9 / 15 HP 2-Stroke, 1974 thru

• 8 HP 4–Stroke, 1996 thru • 9.5 / 15 HP 4–Stroke, 1995–2001

RH P/N	LH P/N	Description	Blades	Dia.	Pitch
763892		Stainless Steel	3	9 1/4"	9"

Aluminum 9.9-15 HP Spline Drive, Thru-hub Exhaust

13 Spline

- 9.9 / 15 HP 2-Stroke, 1974 thru
- 8 HP 4-Stroke, 1996 thru
- 9.5 / 15 HP 4-Stroke, 1995-2001



RH P/N	LH P/N	Description	Blades	Dia.	Pitch
763456		Aluminum	3	9 1/4"	7"
763457		Aluminum	3	9 1/4"	8"
763458		Aluminum	3	9 1/4"	9"
778772		Aluminum	3	9 1/4"	10"
778773		Aluminum	3	9 1/4"	11"

Aluminum 15-25 HP Pin Drive

2-Stroke

- 10 HP, 1956 15 & 18 HP, 1957 1973
- 20 HP, 1969 1973 25 HP, 1967 1977 28 HP, 1964

RH P/N	LH P/N	Description	Blades	Dia.	Pitch
763587		Aluminum	3	9"	9"
763583		Aluminum	3	9"	10"

Aluminum 14-28 HP Split GC Spline Drive

13 Spline, 2-Stroke

- 14 HP, 1988 1989
- 25 HP, 1978 1984
- 25 HP Commercial, 1978 1981 & 1994 thru
- 28 HP, 1986 thru



RH P/N	LH P/N	Description	Blades	Dia.	Pitch
763585		Aluminum	3	9"	9"
763589		Aluminum	3	9"	10"
763584		Aluminum	3	9 1/4"	11"
763590		Aluminum	3	9 1/4"	12"

Stainless Steel 15H.O.-35 HP, 2-Stroke Thru-hub Exhaust

14 Spline

- 15H.O. Evinrude® E-TEC® 20 & 25 HP, 1984 thru
- 25 HP Commercial, 1993 2005
- 30 HP, 1984 thru 35 HP, 1984 2005
- 25 30 HP Evinrude® E-TEC®, 2009 thru

RH P/N	LH P/N	Description	Blades	Dia.	Pitch
765176		Stainless Steel	3	10"	11"
765174		Stainless Steel	4	10"	11"
765177		Stainless Steel	3	10"	12"
765175		Stainless Steel	4	10"	12"
765178		Stainless Steel	3	10"	13"
765179		Stainless Steel	3	10"	14"
765180		Stainless Steel	3	10"	15"

Aluminum 15H.O.-35 HP, 2-Stroke Thru-hub Exhaust

14 Spline

- 15H.O. Evinrude® E-TEC®
- 20 & 25 HP, 1984 thru • 25 HP Commercial, 1993 – 2005
- 30 HP, 1984 thru 35 HP, 1984 2005
- 25 30 HP Evinrude® E-TEC®, 2009 thru



RH P/N	LH P/N	Description	Blades	Dia.	Pitch
765048		Aluminum	3	11"	9"
765049		Aluminum	3	10 1/2"	11"
765050		Aluminum	3	10 1/2"	12"
778863		Aluminum	3	10"	13"
763486		Aluminum	3	10"	15"
5008225		Aluminum 15H.O. High thrust	4	11"	7"
765135		Aluminum	4	10.2"	11"
765136		Aluminum	4	10.1"	12"
765137		Aluminum	4	10"	13"
765138		Aluminum	4	10"	14"
765139		Aluminum	4	10"	15"

Stainless Steel 40-75 HP Small Gearcase, 2-Stroke

14 Spline, 2-Cylinder and 3-Cylinder

• 40 HP, 1985 – 2005	• 65 HP, 1980 – 1985
 48 HP, 1987 thru 	• 75 HP, 1975 – 1985
• 50 HP, 1975 – 2005	 Sprint, 1986 – 1992
• 55 HP, 1976 – 1979	• Formula E, 1986 – 1992

RH P/N	LH P/N	Description	Blades	Dia.	Pitch
763896		Stainless Steel Polished	3	12 1/2"	13"
763897		Stainless Steel Polished	3	12 1/4"	15"
763898		Stainless Steel Polished	3	12"	17"

Aluminum 40-75 HP Small Gearcase, 2-Stroke

14 Spline, 2-Cylinder and 3-Cylinder

- 40 HP, 1985 2005 48 HP, 1987 thru 50 HP, 1975 2005 55 HP, 1976 1979 • 65 HP, 1980 – 1985 • 75 HP, 1975 – 1985
- Sprint, 1986 1992
- Formula E, 1986 1992



RH P/N	LH P/N	Description	Blades	Dia.	Pitch
776807		Hydrus®	3	12 1/2"	9"
775713		Hydrus®	3	12 1/2"	13"
763488		Aluminum	3	13"	11"
763461		Aluminum	3	12 1/2"	13"
778774		Aluminum	3	12 1/4"	15"
763462		Aluminum	3	12"	17"

Stainless Steel 40-140 HP, 2-Stroke 13 Spline

- 40/ 50/ 60 HP, Evinrude® E-TEC®, 2004 thru
- 45 HP Commercial, 1986 thru • 50 HP & 50 HP Commercial, 1971 -1974
- 55 HP Commercial, 1980 thru
- 55 HP, 1968 1969 60 HP, 1970 1971 & 1986 1996
- 65 HP & 65 HP Commercial, 1972 -
- 1973
- 70 HP, 1974 2001 • 75/ 90/ 115 HP, Evinrude® E-TEC®,
- 2004 thru
- 75 HP, 1975 1984 & 2004 thru • 85 HP, 1969 – 1980 & 1991 – 1995
- 88 HP, 1981 thru
- 90 HP, 1981 thru
- 100 HP, 1979 1980 & 1988 thru

- 110 HP, 1986 1989
- 115 & 115 H.O. HP, 1973 thru
- 120 HP, 1986 1994
- 130 HP Evinrude® E-TEC®, 2009 - 2010
- 125 HP, 1971 1972
- 135 HP, 1973 1976
- 140 HP, 1977 1984 &
- 1986 1994



RH P/N	LH P/N	Description	Blades	Dia.	Pitch
763957		Stainless Steel Polished	3	13 3/4"	13"
763950		Stainless Steel Polished	3	13 1/2"	15"
763951		Stainless Steel Polished	3	13 1/4"	17"
763952		Stainless Steel Polished	3	13"	19"
763929		Viper™	3	13 7/8"	15"
763930		Viper™	3	13 7/8"	17"
763931		Viper™	3	13 7/8"	19"
763932		Viper™	3	13 7/8"	21"
763964		Rogue™	4	13 1/2"	13"
763965		Rogue™	4	13 1/4"	15"
763966		Rogue™	4	13"	17"
763967		Rogue™	4	13"	19"
763968		Rogue™	4	13"	21"
763953		Raker®	3	13 1/2"	18"
763954		Raker®	3	13 1/2"	20"
763956		Raker®	3	13 1/2"	24"

Aluminum 40-140 HP, 2-Stroke 13 Spline

• 40/ 50/ 60 HP, Evinrude® E-TEC®, 2004 thru • 45 HP Commercial, 1986 thru

• 50 HP & 50 HP Commercial, 1971 -

55 HP Commercial, 1980 thru
55 HP, 1968 – 1969
60 HP, 1970 – 1971 & 1986 – 1996

• 65 HP & 65 HP Commercial, 1972 -

1974

1973

- 70 HP, 1974 2001
- 2004 thru

- 100 HP, 1979 1980 & 1988 thru
- 110 HP, 1986 1989
- 115 & 115 H.O. HP, 1973 thru
- 120 HP, 1986 1994
- 125 HP, 1971 1972
- 130 HP Evinrude®
- E-TEC®, 2009 2010
- 135 HP, 1973 1976
- 140 HP, 1977 1984 &
- 1986 1994



RH P/N	LH P/N	Description	Blades	Dia.	Pitch
177201		Hydrus® [see service bulletin 2005-01(P)]	3	13 7/8"	9"
177202		Hydrus® [see service bulletin 2005-01(P)]	3	13 7/8"	11"
177203		Hydrus® [see service bulletin 2005-01(P)]	3	13 7/8"	13"
763300		Aluminum	3	14"	9"
763301		Aluminum	3	14"	11"
765181		Aluminum	3	13 3/4"	13"
765182		Aluminum	3	13 1/2"	15"
765183		Aluminum	3	13 1/4"	17"
765184		Aluminum	3	13"	19"
765185		Aluminum	3	13"	21"

- - **Propeller Selection Guide**

- 88 HP, 1981 thru 90 HP, 1981 thru
- 75/ 90/ 115 HP, Evinrude® E-TEC®,
- 75 HP, 1975 1984 & 2004 thru 85 HP, 1969 1980 & 1991 1995

Stainless Steel V6 150-300 HP & 90-130 HP, 25" Shaft, 2-Stroke

15 Spline

- 90 & 115 HP Evinrude® E-TEC®, 25" Shaft, 2004 thru
 140 HP (25"), 1989 thru
 150 & 155 HP Commercial,
- 100 HP, 2004 thru 100 HP Commercial, 1984 thru
- 120 & 140 HP, 1985
- 130 HP, 1995 1996
- 130 HP Evinrude® E-TEC®, 2009 2010

• 135 HP, 200 thru

- 1978 thru
- 150-300 HP, Evinrude®
- E-TEC®, 2004 thru
- 175 HP, 1977 thru
 185 HP, 1984 1985
 200 HP, 1976 thru
- 225 HP, 1986 thru • 235 HP, 1978 - 1985 2.6 liter, 1984 – 1985
 250 HP, 1991 thru
 275 HP, 1986 – 1988
- 300 HP, 1988 thru • 3.6 liter, 1986 - 1987



RH P/N	LH P/N	Description	Blades	Dia.	Pitch		
763959		Stainless Steel Polished	3	15 5/8"	11"		
763960	763961	Stainless Steel Polished	3	15 5/8"	13"		
763962	763963	Stainless Steel Polished	3	15"	15"		
763910	763911	Viper™ TBX™	3	15"	14"		
763912	763913	Viper™ TBX™	3	14 3/4"	16"		
763914	763915	Viper™ TBX™	3	14 3/4"	17"		
763916	763917	Viper™ TBX™	3	14 3/4"	18"		
763918	763919	Viper™ TBX™	3	14 3/4"	19"		
763920	763921	Viper™ TBX™	3	14 3/4"	20"		
763922	763923	Viper™ TBX™	3	14 1/2"	21"		
763924	763925	Viper™ TBX™	3	14 1/4"	22"		
763936	763937	Cyclone™ TBX™	4	14 1/2"	15"		
763938	763939	Cyclone™ TBX™	4	14 1/4"	17"		
763940	763941	Cyclone™ TBX™	4	14 1/8"	18"		
763942	763943	Cyclone™ TBX™	4	14 1/8"	19"		
763944	763945	Cyclone™ TBX™	4	14"	20"		
763946	763947	Cyclone™ TBX™	4	14"	21"		
763948	763949	Cyclone™ TBX™	4	14"	23"		
763984	763985	Rebel™ TBX™	3	15 3/4"	15"		
763986	763987	Rebel™ TBX™	3	15 1/2"	17"		
763988	763989	Rebel™ TBX™	3	15 3/8"	18"		
763990	763991	Rebel™ TBX™	3	15 1/4"	19"		
763992	763993	Rebel™ TBX™	3	15 1/8"	20"		
763994	763995	Rebel™ TBX™	3	15"	21"		
763996	763997	Rebel™ TBX™	3	14 7/8"	22"		
763998	763999	Rebel™ TBX™	3	14 3/4"	23"		
764000	764001	Rebel™ TBX™	3	14 1/2"	25"		
177264		Raker II® TBX™	3	14 1/2"	22"		
177265		Raker II® TBX™	3	14 1/2"	24"		
177266		Raker II® TBX™	3	14 1/2"	26"		
177267		Raker II® TBX™	3	14 1/2"	28"		
763933		Renegade® Bass TBX™	4	13 1/2"	23"		

Aluminum V6 150-300 HP & 90-130 HP, 25" Shaft, 2-Stroke

15 Spline

- 90 & 115 HP Evinrude® E-TEC®, 25" Shaft, 175 HP, 1977 thru 2004 thru 185 HP. 1984 19 • 100 HP, 2004 thru • 100 HP Commercial, 1984 thru
- 120 & 140 HP, 1985 130 HP, 1995 1996
- 130 HP Evinrude® E-TEC®, 2009 2010 135 HP, 200 thru

- 140 HP (25"), 1989 thru 150 & 155 HP Commercial, 1978 thru • 150-300 HP, Evinrude® E-TEC®, 2004
- thru

• 185 HP, 1984 – 1985 • 200 HP, 1976 thru • 225 HP, 1986 thru • 235 HP, 1978 – 1985 • 2.6 liter, 1984 – 1985 250 HP, 1991 thru
255 HP, 1986 – 1988
300 HP, 1988 thru • 3.6 liter, 1986 - 1987



V6 Gearcase Magnum Lighting

• Offshore

RH P/N	LH P/N	Description	Blades	Dia.	Pitch
763453		Aluminum	3	15 1/2"	13"
765186		Aluminum	3	15"	15"
765187		Aluminum	3	14 7/8"	17"
765188		Aluminum	3	14 1/2"	19"
765189		Aluminum	3	14"	21"
763470		Aluminum	3	14"	23"

Notes