

Prop Shop

Propeller profile: Pontoon Performance Series

Don't let the name fool you! This stainless steel prop is great for any boat that requires a little extra 'push'.



A significantly larger blade area helps provide outstanding thrust and control, with added 'grip' and reduced ventilation in turns and high trim angles. They're ideal for many pontoon boats, work boats, or other displacement or semi-planing craft. They're also excellent for many applications using Yamaha's F70 outboard, especially lightweight flats boats. Available in 9", 10", 11", 12", and 13" pitches, to fit T50, T60, and F70-F115 four stroke outboards and 70hp-130hp two stroke outboards.



Pontoon 1 props are available for other outboard brands too, in pitches up to 15". Check: youtube/yamahaoutboardsusa/pontoonperformance

> Why Yamaha propellers?

Proper boat performance is all about propeller solutions, and Yamaha has them.

Yamaha propeller options have always been tops in performance for Yamaha outboards. Now, our propeller selection has more than doubled with the addition of Yamaha's Turbo® line of propellers from its wholly owned subsidiary, Precision Propeller Industries, Inc. And, since they utilize a universal hub system, Turbo propellers fit other brands of outboards and most sterndrives, too. Together, these brands offer propeller solutions for a wide array of both Yamaha-powered applications and those boats using competitive power.



> **We offer a full range of propeller solutions.** What's it mean for you? Quite simply, with all that Yamaha has to offer in regard to propellers, virtually any boat can be propped to perform at its peak. That includes yours. All our props are designed around helping you get the most from your marine engine, regardless of



brand. High-power props. High-speed props. Polished stainless steel props. Painted stainless steel props. Dual Thrust™ props. High thrust props. Aluminum props. Over 35 families of propellers in all. With a simple method to select the prop that's right for you. It's what we call "Endless Propeller Solutions by Yamaha".

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What's news?

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Yamaha's Prop Shop

➤ Why Yamaha propellers? | continued

- **They're all Yamaha.** From the design phase using CAD/CAM technology, through testing at our state-of-the-art test facility, through manufacturing in our own foundry and production facility, our standards are both rigorous and meticulous. No other propellers offer Yamaha quality. Period.
- **We've got a prop for that.** Many of the boats you see around today have special propping needs. Who knew a pontoon boat would one day be powered by a bass boat engine and go 50-something mph? Or maybe you've got a monster offshore fishing rig with triple outboards? And what about large bay boats with big bore, high horsepower engines? Or a small flats boat with midrange power. Maybe you've got to contend with boating at high altitude, and the performance changes that brings. All these boats have special propping needs, but no worries...Yamaha has a prop for that.



"Endless Propeller Solutions by Yamaha" is not about having the most propellers. It's about offering a performance solution for you...and your boat...in your particular application...to meet your personal needs and desires. All the horsepower in the world does you no good if it doesn't translate to the water effectively, so we continuously search for and develop the propeller solutions you need for your particular boat, situation, and performance goal.

For more information about Yamaha and the vast number of propeller solutions we offer, check this out: [youtube/yamahaoutboardsusa/endless propeller solutions](https://www.youtube.com/channel/UCyamaoutboardsusa/endless-propeller-solutions)

➤ What's in a hub?

Every propeller uses a hub system to attach the propeller to the engine. Benefits, features, and construction materials vary, however. Here's a very brief summary of the three basic types Yamaha propellers use.

Shift Dampener System (SDS™)



- Patented splined design
- Soft rubber
- Eliminates shifting clunk
- Select Yamaha branded propellers only
- Fits Yamaha engines

Pressed-In Rubber



- Hard round rubber
- Pressed-in, friction fit
- Must be installed by prop repair shop
- Yamaha branded and Turbo Hot Shot props
- Fits Yamaha engines

Guardian SQ-Lok™ (Universal)



- Square nylon design
- User replaceable
- Turbo branded props
- Fits most outboard and sterndrive brands and universally-hubbed props



Yamaha's Prop Shop

➤ You've got propeller questions? We've got answers.

Our continuing series, aimed at 'demystifying' the world of propellers.

Q. I have tested a multitude of props on my boat and it's still not right. What now?

A. Most likely, this is a hull or a set-up issue. For hull issues, check the running surface (bottom of the hull, toward the stern) for unusual deformations, such as a 'rocker' or a 'hook'. These conditions can sometimes be caused by external factors such as a trailer or boat hoist, or they may be designed into the boat for performance or handling reasons. You may want to check with the manufacturer of the boat for additional information and assistance.



Regarding set-up, here's a general tip to remember:

If you're consistently having difficulty turning to the right, your outboard may be mounted too low. If it's consistent trouble turning to the left, your outboard may be mounted too high.

Q. I don't see a particular family of props listed in the Performance Bulletins. Why?

A. It might be the type or limited amount of search criteria you're using to conduct your Performance Bulletin search. Each propeller family has specific applications, or types of boats, where you will typically find its members listed. If you limit your search to only those particular applications, you most likely will not encounter the many families of props we have to offer. You may also need to click the "Show Archive" link at the top of the selection page if you're searching for older boat, outboard, and propeller combinations. Keep in mind that Turbo® propellers are relatively new to Yamaha Performance Bulletins. You'll see more of these as time progresses, but at present, there are relatively few. Finally, we typically don't publish Performance Bulletins for outboards below 50hp (although there are a handful out there), so it may be that there aren't any Performance Bulletins suited to the type of boat and outboard combination you're searching for.

Yamaha Performance Bulletin

YPB#: PB_SDC_FX17Flicker_F25LA_6-24-09_FLT Test Date: 6/24/09




Sundance FX 17 Flicker

Length 17' 1"
Beam 6' 6"
Dry Weight (w/ outboard) 845 lbs.
Maximum HP 70 hp
Fuel Capacity 12 gals.
Weight as Tested (approximate) 1,563 lbs.

Yamaha F25LA

Horsepower 25
Displacement 30.4 cu. in.
Weight (w/ outboard) 181 lbs.
Gear Ratio 2.08

Engine Mounting Height

Moving Hole Position #1

Propeller

Series Aluminum Series
Diameter/Pitch 9-7/8 x 11-1/4
Yamaha Part # 664-45947-01-EL
Propeller Material Aluminum

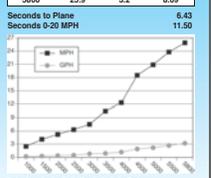
Test Conditions

Number of People 2
Air/Water Temperature (approximate) 96° / 73°
Elevation 445'
Wind Velocity 0-5 MPH

Performance Data

RPM	MPH	GPH	MPG
1000	2.5	0.2	12.50
1500	4.1	0.3	13.67
2000	5.2	0.4	13.00
2500	6.3	0.5	12.60
3000	7.5	0.8	9.38
3500	10.5	0.9	11.67
4000	12.3	1.2	10.25
4500	18.5	1.8	9.74
5000	20.9	2.2	9.50
5500	23.8	2.7	8.82
5800	25.9	3.2	8.09

Seconds to Plane 6.43
Seconds 0-20 MPH 11.50



Test performed and verified by Yamaha Application Engineers.

For More Information:
Yamaha Motor Corp., USA • 12000 Crossville, Marine Group
1200 Crossville Road, SE • Crossville, TN 38015 • (615) 887-8666
For other Performance Bulletins, visit www.yamaha-motor.com.

Propeller

Series	Aluminum Series
Diameter/Pitch	9-7/8 x 11-1/4
Yamaha Part #	664-45947-01-EL
Propeller Material	Aluminum



Yamaha's Prop Shop

Yamaha or Turbo®?

Even though they're all Yamaha propellers, there will always be questions regarding which brand to use, and when. Let us help differentiate between the two.

Yamaha is rightfully regarded as a premium brand, including our outboards and propellers. Typically, the performance of a Yamaha outboard will excel with a Yamaha-branded prop. These props are designed by many of the same engineers that designed the outboard, so they have access to proprietary information that allows them to create the ultimate propeller for the job.



That said, there are certain times when a particular Turbo® propeller works best on a Yamaha outboard. There are also users of competitive engine brands who want both the performance and quality of a Yamaha prop. Turbo fills those roles. Turbo propellers represent a high-quality, high-performance alternative brand under the Yamaha umbrella. Both are competitively priced in their respective markets, and are available through Yamaha Marine dealers.

To find a Yamaha Marine dealer near you, go to: yamahaoutboards.com/dealer-locator.

➤ Unusual application of the month

Expand your thinking.

There will always be particular applications which call for a slightly different propeller than what is branded "Yamaha". Maybe just one pitch lower or higher would do the trick? Or perhaps a slightly different diameter or blade shape will create just the different level of performance that's needed?



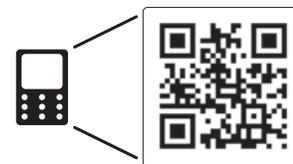
This is where Yamaha's Turbo line of propellers excel. As mentioned before, they're Yamaha propellers through and through, and, many times, they're virtually identical in performance. But many Turbo propeller families are available in a broader range of pitches than are Yamaha-branded propellers, which can often mean they are just the right prop for the application at hand. Turbo props can also be used on competitive outboard and sterndrive engine brands, for maximum performance and flexibility.

So next time you're facing a decision about what prop to use, remember the expanded line of props available from Yamaha. The perfect solution is more than likely right there.



If you'd like more information about which Yamaha propeller is right for your needs, contact your local authorized Yamaha Marine Dealer at yamaha-motor.com/outboard/dealers/dealerhome/home.aspx

For short videos on Yamaha propellers; including proper installation, maintenance, and more; scan this symbol using your smart phone or tablet.



Message and data rates may apply.
May not be available on all devices.

Also, please join us on Facebook at facebook.com/yamahaoutboards

We'll be happy to help you get pointed in the right direction.

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