Chantey

NEWSLETTER FOR YAMAHA MARINE DEALERS

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YAMAHA
Revs Your Heart

CONTENTS

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Chantey Special

Only the right propeller brings out the outboard's high performance potential

In *Chantey* issue No. 142, our special feature talked about outboard motor rigging components. This time, we focus on one of the most important rigging items for any outboard, the propeller. The choice of propeller makes a huge difference in a Yamaha outboard's acceleration, top-end speed, handling and even its fuel efficiency. Often, the propeller to be used is pre-determined by the size of the boat and how the boat is used. Genuine Yamaha Propellers are meticulously developed and manufactured to get the maximum performance from the engine based on the different uses each motor is intended for, such as maximizing top speed to reach fishing grounds as quickly as possible or providing maximum power for pushing heavy loads through the water. This issue's Chantey Special introduces various Genuine Yamaha Propellers and their benefits.

A full lineup of propellers designed for different types of outboards and use conditions

Only Yamaha has access to the proprietary information and testing facilities that can produce a propeller specifically designed to perfectly match your Yamaha outboard's unique specifications.

Yamaha's engineers continue to design and refine a growing range of propellers that push the performance of both existing and emerging marine technology to levels that surpass all expectations. You won't know what Yamaha outboards are really capable of until you pair them with a flawlessly engineered and meticulously manufactured Yamaha propeller that has the proper fit, the right materials and is proven in exhaustive testing. Only a Genuine Yamaha propeller can bring out the full potential of a Yamaha outboard motor.

As you know, Genuine Yamaha Propellers are specifically designed and manufactured to fit models from our full range of outboards, from 2 hp all the way up to 350 hp. The materials used in our Genuine propellers include plastic, aluminum, black-finished stainless steel and polished stainless steel propellers. Among the polished propellers are models with the Shift Dampener System (SDS) to absorb gear-shift shock and rattle noise in use on larger horsepower outboards, and models with four blades instead of the standard three blades in order to expand the range of choices to fit each type of use. This allows users to choose the right propeller for the type of performance they want.

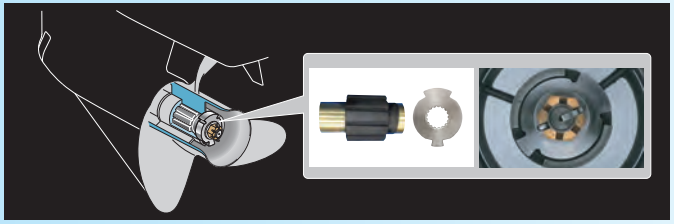
Only the right propeller brings out the outboard's high performance potential

Performance and benefits of an SDS propeller and four-blade propeller

Here we explain the SDS feature that is particularly important on stainless steel propellers for larger horsepower outboard models, and the effects and performance benefits of four-blade propellers.

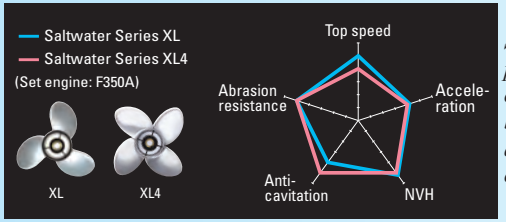
SDS propellers

An SDS propeller basically uses a special hub design that absorbs much of the shock produced when a running outboard motor is initially shifted into gear. By eliminating the annoying "clunk," Yamaha's patent-pending SDS technology delivers a smoother, quieter shifting action that every boat operator will appreciate.
Utilizing this innovative invention, Yamaha has produced a new SDS propeller for the top-of-the-line F350A. To achieve this technological improvement, a completely new spacer mechanism is adopted to connect the propeller to the engine for effective dampening of the shift shock. SDS propellers have now been developed for V6 engines and below.



Four-blade propellers

For users who want to get more power from their engine, a four-blade propeller is an effective solution. These specialized polished-stainless-steel propellers are the next step up from the standard three-blade series propellers. They can enhance performance of certain boats and can improve their ability to handle particular conditions.
The four-blade version is ideal for rougher conditions and gives improved acceleration, which makes it perfect for waterskiing or wakeboarding uses.



**The Saltwater Series II SDS propeller also comes with a four-blade version as an added choice for certain uses.*

Features of Genuine Yamaha Propellers by series

Reliance Series

V6 engines F(L)250(G/A/B), F(L)225(A/B), F(L)200(A/B), F(L)150(A/B), (L)250G

The standard polished-stainless-steel propellers offer a more aggressive look and performance than the standard black stainless steel series and are specifically designed for operation with the more powerful engines from 150 hp upwards. They offer excellent performance under a wide range of conditions.
Reliance Series propellers feature impressive cast-in naming on the barrel, excellent corrosion resistance and are now offered in SDS versions.

Stainless Steel Black

M/K Series: F(L)250, F(L)225, F(L)200, F(L)150, (L)250G, (L)200A, (L)150F, (L)150A
K Series: 2-stroke 60-130 4-stroke F(T)50-F115

Little explanation is necessary for these familiar propellers. Our full lineup of black series propellers are an excellent general-purpose choice. Stainless steel construction allows for a blade that is thinner, more efficient and more durable than an aluminum propeller, and they are finished with a cost-effective, black paint coating.

Aluminum White

K Series: 2-stroke 60-130 and 4-stroke F(T)50-F115
G Series: 2-stroke E40-55 and 4-stroke F30-F60
J Series: 2-stroke 9.9-15 and 4-stroke F9.9-F20
F Series: 2-stroke 20-30 and 4-stroke F25
Dual Thrust Series Alloy White: FT9.9, FT25 and FT60

This series offers Yamaha design, quality and performance in a low-cost, lightweight propeller. They are a good all-around choice for Yamaha outboards. They are available in a wide variety of sizes and pitches to best fit the various models of the Yamaha outboard lineup.
Specially designed for sailboats and other large-displacement boats, Yamaha's Dual Thrust propellers are built to handle the job of pushing heavy loads through the water. The hub is carefully designed to redirect exhaust flow away from the blades, so the dual thrust models cut cleanly through water for higher efficiency and better acceleration. Thrust is improved up to 70% in reverse and 10% for forward thrust.
Furthermore, Yamaha's aluminum propellers have also been developed in a variety of shapes to match a particular outboard's horsepower, type of use and market area. One example is the two different use-specific types developed for 15 hp outboards - the "683" and "63V" propellers. The initially developed 683 is used primarily to achieve a high top speed. In contrast, the 63V is designed for uses where the priority is more often on power for pushing heavy loads rather than top speed.

Dual Thrust propeller

Reflecting the voices from the market in product development

The "pre-rigging" business model

In marine product markets, particularly those of North America, Europe and Oceania, offering an increasingly large selection of products for each type of boat, support for user customization and boats already fitted with rigging components, i.e., "pre-rigging" is the mainstream business model. Four-stroke outboards of 40 hp and over (30 hp and over in some markets) are designated as "rigging-less" outboards for which rigging components and accessories are supplied separately. In order to make this rigging sales business model successful, Yamaha engages in grassroots efforts such as working with boat builders to test each boat model to find the optimal propeller match, along with other sales promotion efforts. These efforts also contribute to a higher level of customer satisfaction regarding the outboards themselves.

Conducing market surveys for propellers

On the other hand, for markets besides North America, Europe and Oceania, rigging components are often packaged together with the outboards when they are shipped from the factories. However, it is sometimes difficult to get information to ensure that the rigging components actually fit the needs of the customers that get them.

Surveys are made together with distributors to gather information from various regions of a market and contribute to the development of propellers that best fit the area's needs.

Leaflets are prepared to show the propellers available and their features in an informative format.

In light of this situation, surveys are made at times to find out if the rigging components are meeting the needs of the markets. The surveys include direct interviews with customers and market studies regarding prices and competitor products in the market in order to identify possibilities for better products or new marketing measures and policies. One example is a propeller market survey conducted together with a distributor in Southeast Asia. Thanks to the cooperation of many dealers and customers, this survey brought valuable information about the market-based activities of the distributor and dealers, and the fierce competition with other makers. This is the kind of information that Yamaha values so much in the job of developing better products. What these experiences revealed about the importance of full knowledge about the product lineup led to the production of the familiar propeller product leaflets that are now used in the market.

Developing area-specific model specifications

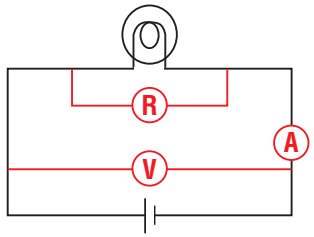
There are also times when we work in cooperation with the outboard motor development divisions to create new specifications of existing models in these markets to better fit the local conditions. A good example comes from Indonesia where the Palembang-spec model, which resulted from a development project based on the results of surveys conducted together with the local distributor, has been very well received in the market. This spec fits the "E40J" model with a black paint finished stainless steel propeller. This is the result of market-based efforts to answer the needs of a severe use environment that the standard aluminum propellers proved deficient in. We may visit your market next to try and find ways to answer your specific needs.

The Palembang-spec E40J model was developed especially for use in the area's environment.

How to use a digital circuit tester

In this edition of our "Advice from a veteran mechanic" series, I want to discuss the use of a digital circuit tester. Running a search on the Internet the other day, I found many blog entries from people asking how to use a digital circuit tester or how to use one to measure electric current. I thought that many of the people reading this One-point Service Advice column may be asking the same questions, so this time I would like to provide a simple explanation of the digital circuit tester's use.

Circuit diagrams and measurement symbols



The circuit diagram at the right is what you can find in a science textbook and shows a circuit for lighting a bulb from a battery. Usually, in a classroom lesson an experiment is performed in the following way:

1) Measure the voltage (**V**) in the circuit.
2) Measure the amperage (**A**) in the circuit.
3) Measure the resistance (**R**) of the light bulb.

In this column, I will explain the use of the digital circuit tester while running through the steps of this experiment described above.

How to connect the digital circuit tester to the circuit

As you know, there are three steps to using the digital circuit tester:

1) Turn the selection knob to the desired function.
2) Connect the tips of the test probes to the circuit.
3) Read the measurement that appears on the display.

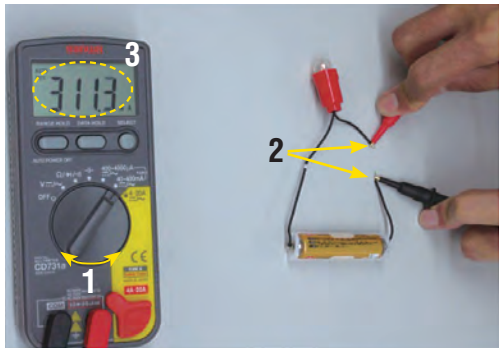
Of these, the easy one to make a mistake on is step **2**.

This is because there are parallel circuit and series circuit differences and you have to select the correct one when measuring voltage, resistance and amperage.

For voltage and resistance, a parallel circuit connection is used, and for amperage, a series circuit is used. (Photos **V**, **R** and **A**)

To make a series circuit connection, the circuit has to be cut at one point and the digital circuit tester connected into the circuit. A correct measurement of amperage can't be made unless all of the current passes through the tester.

Just remember to make measurements by connecting to the circuit as shown in the circuit diagram. (Photos **V**, **R** and **A**)



Think about why it is done this way

Measuring an electric current is a matter of measuring the amount of electricity flowing in the electrical wire. Specifically, you are directing the current through the digital circuit tester and measuring the amount of electricity flowing through it.

For example, when the digital circuit tester probes are attached to the circuit as shown in photo **V**, the current is divided into electricity that flows through digital circuit tester and electricity that flows through the light bulb. If you then moved the selection knob to measure amperage with the same probe connection, the electric current going through the bulb would not go through the digital circuit tester and the measurement shown on the display would not be the same as the correct measurement shown in photo **A**.

Making measurements with a digital circuit tester and the like is not a task that you will be doing often, so you may get confused at times about how to do it properly. If you do get confused, it is important to stop and think whether or not you are doing it right. In that case, if you are able to go back to the basic principles and rules as you think, the correct answer will come naturally. The more you understand the basic principles and rules, the more effectively you can perform your daily work.

Dr. Sugimoto Chantey Editorial Room

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Sport Angler Kurt on

Tourism for enjoying a traditional Japanese fishing method

One evening after work, my friends from work and I gathered together and headed for Lake Hamana. Our aim was to enjoy some fishing in the *Takiya-ryo* (torch fishing) style. We boarded *wasen* Japanese utility boats mounting Yamaha 4-stroke outboards with our fishing guides and motored out onto Lake Hamana as night began to fall.

Takiya-ryo is a traditional type of fishing that was long practiced by the fishermen of Lake Hamana. In olden times, the fishermen lit torches on their boats to attract the fish at night. The name *Takiya-ryo* means fishing (*ryo*) by the fishermen of fish shops (*ya*) who lit torches (*taki*) to fish at night. Fishery throughout Japan has become more labor-saving and modernized, and Lake Hamana is no exception. For commercial fishermen today, it is difficult to make a living just on the fish they can catch with the *Takiya-ryo* method, so they have linked this fishing method to the tourist industry by taking customers out to actually catch fish at night using nets or spears.

The boats take us out in the evening, just as the sunset paints beautiful colors across the sky. As we cruise toward the fishing grounds, the excitement is already building among everyone on board. When it gets dark enough, the lights hung out over the bow serve as the modern-day substitute for the torches of old and are turned on to light the water while the boats move slowly over shallower waters. Some of us take nets in hand while others take up spears. The *Takiya-ryo* is about to begin.

The motor is used when moving from one fishing point to another, but during the actual fishing the engine is stopped and the boat is propelled with a long push pole. Most of the outboard motors used on the boats here are tiller-handle types around 40 hp. The target catch changes with the seasons and a variety of species can be caught, including Japanese tiger prawn, Japanese blue crab, octopus, Japanese halfbeak, Japanese sea bass and Japanese black porgy.

Our target at the first fishing point we visited this night was Japanese halfbeak. When the lights were turned on we could look in the water and see them gathering around the boat. Nets are used to scoop them up, but it wasn't an easy task and they quickly slipped out at first. But once we got the hang of it, we found that we could catch the halfbeak with surprising ease. From each of the boats we could hear excited shouts as schools of halfbeak swam by. Once we had a good catch of halfbeak, the boats moved on to the next fishing point to look for octopus and bigger game fish. This time we took spears in hand and peered into the lighted waters. It was hard to even find a target in the water and we all had a tough time of it, but we eventually managed to get some delicious-looking octopus and Japanese flathead. After the *Takiya-ryo* on Lake Hamana is finished, our guide takes us to a raft out on the water where they prepare and cook our fresh catch for dinner. The tempura and deep-fried fish, shrimp and octopus, together with the added spice of knowing we had caught them with our own hands, all tasted delicious. *Takiya-ryo* is a traditional fishing method of Lake Hamana, and I believe it can be practiced in many places that have similar shallow waters with good transparency. If there is a place that fits this description in your local waters, take a spear or net in hand and give it a try. It offers a joy and satisfaction that is different from most types of sport fishing.

News Round Up

Activities from distributors around the world, and more

Aquaculture inspection tour from Mexico visits YMC

In July of this year, a 16-member group of Mexican government officials and representatives of the fishery industries in the major Mexican fishery states of Sinaloa and Jalisco visited YMC.
Taking advantage of the "sister state" agreement between the State of Sinaloa and Wakayama Prefecture, the group visited a prefectural aquaculture laboratory facility, Kinki University's Fisheries Laboratory, famous for its tuna aquaculture, and toured the facilities of the local fisheries cooperative union from July 16-18. The members were able to observe all stages of the aquaculture cycle, from egg extraction and hatching to raising, prepping/shipping and sales, making it a meaningful trip towards starting up aquaculture operations in Mexico in the future. The group was also very interested in the highly reputed Yamaha outboard motors used in the Mexican fishing industry, and a visit was made to the Fukuroi South Factory and the Communication Plaza at YMC's Iwata headquarters on July 19.
After the tours, the participants commented on the impressive spirit of Yamaha's engineering and manufacturing craftsmanship and how the factory and facilities are so systematically run. It had clearly been a productive visit for all.

Yamaha outboard motor engine unit wins IBEX Innovation Award

Yamaha Motor's 2,785cm^3 in-line 4-cylinder marine-specific engine used in its 4-stroke outboard motors like the "F200F" received the Innovation Award from the National Marine Manufacturers Association (NMMA) at the 2013 International Boat Builders' Exhibition & Conference (IBEX) held in Louisville, Kentucky in the United States from September 17 to 19.
This award from the American marine market, considered the forefront of the industry, recognized not only the outstanding performance, advanced technology and excellent environmental performance of 4-stroke outboards with this engine unit but also the thorough efforts made for weight reduction and compactness that makes it possible to mount a high-performance 4-stroke outboard on a wider variety of boats. One of the judges commented, "This highly versatile 4-stroke power platform featuring a narrow footprint and ability to retro fit has a very broad appeal for both the end user and the marine industry."

Yamaha powers ETNZ's chase boat

The 34th America's Cup, said to be the world's oldest active international trophy in sport starting from 1851, was held in San Francisco from September 7 to 25.
Yamaha "F300B" V6 4-stroke outboards were chosen for Emirates Team New Zealand's (ETNZ) new chase boat. The boat was powered by four of these outboards and was used for carrying the team's paramedic and dive crews.
The F300B delivers exceptional power through the use of plasma-fused sleeveless cylinders. This innovation enables bigger engine displacement without increasing engine weight, making the F300B the lightest 4-stroke in its class.
As for the results of the ETNZ team, they made it to the final winner-take-all race of the Cup as a challenger but were unfortunately beaten by the defending Oracle Team USA by a margin of just 44 seconds.

ETNZ's chase boat with four Yamaha F300Bs boasts an impressive top speed of 58 knots (107 km/h)

Marine GCC Distributors' Workshop in Dubai 2013

Over the two days of September 17 and 18, 2013, a workshop was held in Dubai, UAE, for Yamaha Motor marine product distributors in the six Gulf Cooperation Council (GCC) member states, with 16 representatives in attendance. Initiated by YMC's Middle East marketing group that started operations with new members from January of this year, this workshop aimed to increase cooperation and communication among the region's distributors and strengthen implementation of Yamaha's 3S (Sales, Service, Spare parts) Strategy.
The workshop agenda included explanations from YMC and Yamaha Motor Distribution Singapore Pte. Ltd. (YDS) on the direction, etc., set in YMC's medium-term management plan, presentations from each distributor on best practices involving unique initiatives that have proved successful in their markets, and other exchanges of information aimed at raising the overall level of operations in the GCC's member states.
From the reports of successful practices in each market, it was clear that stressing 3S activities has played an important role.
The final presentation on the first day of the workshop introduced Yamaha Motor's new "Revs your Heart" Brand Slogan using a video that successfully communicated the meaning and the corporate values the slogan represents.
On the second day, individual meetings were held for discussing the marketing strategies for each country in preparation for the coming season.
With the shared values gained over the two days of this workshop, the representatives will now turn their focus on executing plans to bring customers products, parts and after-sales service that embody Yamaha's "Revs your Heart" ideal.

Editor's Note

As this issue's special feature explains, the propeller is an important item for bringing out the full performance potential of a boat and the outboard that powers it. In order to ensure that your customers get full satisfaction with their Yamaha outboards, let's all work together to implement local market-oriented promotional activities, etc. that increase and communicate important knowledge like this about the products!

YAMAHA OUTBOARDS WEB SITE http://global.yamaha-motor.com/business/outboards/index.html

WAVERUNNER FAN SITE http://global.yamaha-motor.com/business/waverunner/

Yamaha Outboards Channel is online on YouTube
View waterside scenes and scenes of Yamaha outboards in use around the world

Yamaha Outboards Channel http://www.youtube.com/user/Yamahaoutboardmotors