PRODUCT INFORMATION

DF250SS / 150SS / 115SS

SS SERIES 4-STROKE OUTBOARD MOTORS

Way of Life!
In A Word: Excitement

Suzuki is bringing a new level of excitement to the water with its new SS-Series 4-stroke outboards. The 115, 150 and 250 horsepower models all take advantage of Suzuki’s “Big Block” displacement, offset driveshaft layout with two-stage gear reduction, and multi-point sequential electronic fuel injection. These Suzuki innovations deliver a powerful hole shot, exhilarating mid-range punch and great fuel economy. With the exclusive SS Trim Package, matte black paint job and striking cowling graphics, this is a perfect match to the performance of these proven engines. There’s no reason to buy another quart of 2-stroke oil when you can get performance and power like this from a Suzuki 4-stroke.

DF250SS Main Features

- The DF250SS is designed to deliver performance and reliability that today’s sport users demand.
- 4.0-liter Big Block engine—combined with Suzuki’s Variable Valve Timing (VVT) and Multi Stage Induction delivers superior acceleration throughout the entire powerband.
- The 20-inch transom is perfect for bass boats, sport pontoon boats, ski boats, flats and bay boats or any boat that is designed for the sportsman who is serious about outboard performance.
- Gear case features a hydrodynamic design, introduced first on the flagship DF300, that reduces drag resistance for fast acceleration and increased top speed.
- The DF250SS complies with the California Air Resources Board’s (CARB) 3-Star Ultra Low Emission Rating.

Forged Pistons

The upper portion of each piston used in the DF250SS is treated with an alumite coating that increases heat resistance. A resin coating applied to the piston skirt improves resistance to wear and reduces friction.

Fuel Cooler

The cooler the fuel the denser it is, and the denser it is, the more performance it delivers. The DF250SS incorporates a water-cooled fuel rail in the fuel delivery system. The fuel is cooled before it is injected into the cylinder resulting in better combustion and better performance.
Suzuki Technologies Deliver Outstanding Performance

VVT (Variable Valve Timing)

Suzuki engineers started off in a big way by designing the DF250SS based on a big block 4.0-liter engine. This V6 engine features an aggressive cam profile, delivering maximum output and performance at high rpm, and Suzuki’s advanced Variable Valve Timing (VVT), provides the DF250SS with the torque needed to boost low- to mid-range acceleration. VVT provides this boost by adjusting the intake valve timing, allowing intake valves to open before the exhaust valves are fully closed. This process creates a momentary overlap in the timing where both sets of valves are open. With VVT, this overlap can be increased or decreased by altering intake timing with the camshafts to optimize timing for low- and mid-range operation.

Multi-Stage Induction

Suzuki engineers also utilized Suzuki’s Multi-Stage Induction, which changes intake manifold pipe length according to engine rpm to enhance engine performance. The DF250SS utilizes two intake manifold pipes per cylinder; one operates at low engine rpm and the other takes over at higher rpm. During low engine rpm, air enters the combustion chamber through the longer, curved manifold pipe. The particular length of this pipe allows just the right amount of fresh air into the chamber to improve combustion and boost low-end torque.

As engine rpm increases, a valve on the intake manifold opens, letting air enter directly into the combustion chamber through the short, straight intake pipe. This allows a greater volume of air into the chamber, increasing the engine’s ability to breathe at high rpm, thus improving high-end power output.

Offset Driveshaft

Suzuki incorporates a number of innovative designs into its outboards. As a result, Suzuki offers some of the most compact outboards in their class. One such design innovation is the offset driveshaft.

Positioning the crankshaft in front of the driveshaft, the outboard’s center of gravity is moved forward. This contributes to the overall compact size and provides improved power and performance. It also greatly reduces engine vibration since the engine’s axis of inertia, the point where vibrations are at a minimum, is in line with the upper engine mounts.

Streamlined Gear Case

The DF250SS takes advantage of the streamlined gear case introduced on the DF300 to reduce drag created as the lower unit moves through the water. This contributes to faster acceleration and increased speed.

High Output Alternator

The DF250SS generates electricity from a high output alternator that delivers 54A (12V) of electrical power. Suzuki’s design allows the alternator to produce a majority of its output at low rpm, so even when operating at 1000 RPM it can produce approximately 38A of power. In most situations, this is enough power to keep an assortment of electronics up and running.
Suzuki’s DF150SS is based on an inline four-cylinder DOHC powerhead with a 174.9 cu.in. (2,867cm³) displacement—one of the largest in the four-stroke, four-cylinder category. While the added displacement contributes greatly to exceptional acceleration and velocity, it doesn’t mean that this engine is comparatively larger or heavier in size. To the contrary, Suzuki’s engineers have targeted this big block motor to be one of the lightest four-strokes in the class.

Taking advantage of the advances Suzuki engineers have made in four-stroke engine performance, the DF150SS inherits advanced features including multi-stage induction and a 32-bit onboard computer that monitors and controls engine functions.

The entire SS Series not only meet the 2010 EPA* exhaust emission standards, their clean, efficient operation has allowed them to comply with CARB** 3 Star Ultra Low Emission Standards.

* Exhaust emission standards set by the U.S. Environmental Protection Agency.
** Exhaust emission standards set by the California Air Resources Board.
Multi-Stage Induction (MSI)
The DF150SS incorporates a multi-stage induction system to enhance engine performance by changing the length of intake manifold pipes according to engine speed. The system utilizes two intake manifold pipes per cylinder, one for operating at low engine speed and another for operating at high. At lower rpm, air enters the combustion chamber through the longer manifold pipe, which is designed to deliver an optimum volume of fresh air into the chamber to improve combustion and boost low-end torque.

As the engine speed surpasses a preset threshold, the valve on the direct intake pipe opens up, letting air enter instantly into the combustion chamber. Shorter and lacking resistance, this pipe gets a greater volume of air into the chamber, increasing the engine’s ability to breathe at high rpm, thus improving high speed power output.

Suzuki engineers have equipped this outboard with many other advanced features that contribute to engine performance.

A spherical bore throttle body produces smoother airflow during acceleration. This results in greater engine control and stable operation at low rpm.

High Output Alternators
The DF150SS is equipped with alternators that produce a maximum output of 44A (12V) and are capable of producing almost 80% of their total output at a low 1,000 rpm. In most cases, that’s enough power to keep an assortment of electronics up and running.

Water-Cooled Voltage Regulator with Isolator
Both outboards incorporate a water-cooled voltage regulator which dissipates heat in the regulator to enhance the engine’s durability.

The regulator also includes isolator function in the battery charging system that allows use of two batteries. Electric current is split into two circuits. If the sub battery becomes drained, this system will safeguard the main battery.

Regulator with Dual Circuit Charging System
The DF150SS features a built in dual circuit charging system that can be adapted* for use with dual-battery configurations. When used in this configuration, the system charges both main and auxiliary batteries simultaneously on independent circuits. With this design, you can drain down the accessory battery powering your electronics and still have a fully charged main battery for starting the motor.

*Requires purchase of optional wiring harness.

Offset Drive Shaft
Suzuki’s offset drive shaft has proven successful in reduction of size for the DF70, DF90, DF115, DF115SS, DF140, DF150, DF175, DF200A, DF225, DF250SS, and DF250AP/DF300AP. The DF150SS benefits from this same design, which positions the crankshaft in front of the drive shaft, simultaneously moving the outboard’s center of gravity forward. While adding to the compactness of the outboard and providing an improvement in power performance, this system also places the engine’s axis of inertia, the point where vibrations produced by the engine are at a minimum, up over the upper engine mount thus, greatly reducing vibration.

SMOOTH OPERATION

Counter Balancer System
In-line four-cylinder engines operating at high rpms generate a secondary vibration that is directionally in line with the pistons’ movement. In order to counter this vibration, Suzuki engineers utilize a secondary balancer system, which produces a horizontal motion against pistons’ movement. To produce this horizontal motion, the balancer is divided into left and right sections, each rotating in an opposite direction. Rotating at twice the speed of the crankshaft, the balancers effectively counter these secondary vibrations and produce a smoother operating engine.

Thrust Mount System
In order to reduce vibration and provide stable operation, the DF150SS uses a combination of two different rubber mount types. On both the upper and lower mounts, a combination of soft type and high thrust rubber mounts are utilized. The soft rubber mounts used in this configuration are designed to absorb vibrations produced in the idling through 2,000 rpm operating range. While adding to the compact design and providing an improvement in power and performance, this system also places the high thrust rubber mounts in the best position to provide stable operation under high loads.
DF115SS Main Features

- 2,044cc³ DOHC 16-valve High Performance Big Block Engine
- Suzuki Lean Burn Control System
- O₂ Sensor Feedback Control System
- Knock Sensor
- Suzuki Water Detecting System
- Multi-Point Sequential Electronic Fuel Injection
- Suzuki Troll Mode System (Optional)
- Multi Function Tiller Handle (Optional)

Suzuki Lean Burn Control System

Recognizing a need for more fuel-efficient outboards, Suzuki developed and introduced its innovative Suzuki Lean Burn Control System on the DF90A/70A outboards, which received great acclaim from boaters and the media alike. The system predicts fuel needs according to operating conditions allowing the engine to run on a more efficient fuel mixture through the use of a lean air to fuel ratio. Its benefits are delivered over a wide operating range providing significant improvements in fuel economy from low-speed operation up into the cruising range.

O₂ Sensor Feedback Control System

The DF115SS features an O₂ Sensor Feedback Control system that keeps emissions cleaner and more stable. By controlling the air to fuel ratio across each of the engine's operating ranges, the system provides an optimum amount of fuel to the engine regardless of RPM.

Knock Sensor

The DF115SS incorporates Suzuki’s knock sensor as found on some V6 models, this system is used to detect and control abnormal combustion allowing the engine to operate at optimum performance. The system increases engine durability and helps deliver maximum power.

Suzuki Water Detecting System

Water in the fuel can lead to problems that include poor combustion, lower power output, and corrosion. The Suzuki Water Detecting System is designed to help protect the engine from moisture in the fuel utilizing a water detecting fuel filter to alert the operator with both visual and audio warnings when water is present in the fuel. The filter also designed to let you check for water visually.

Transom Height: 20” and 25”
Obtaining Maximum Performance

The DF115SS utilizes an enhanced air intake system that maximizes airflow into the engine to obtain greater power output. In order for this system to achieve full potential, greater exhaust efficiency is required as well, so the engines are designed with an efficient “4 into 2 into 1” exhaust system that reduces drag in the exhaust letting it flow smoothly out of the cylinders. This design increases low to mid-range torque on these outboards and provides the wide powerband that boaters want.

The DF115SS also feature a two-stage reduction gear that delivers the torque needed to turn a large diameter propeller. This is normally done using larger gears or a larger gearbox, but Suzuki has long employed a two-stage system that provides the required torque without adding unwanted bulk or weight to the engine. With a final drive ratio of 2.59, these outboards produce plenty of torque for quick acceleration.

Suzuki Troll Mode System (Optional)

The Suzuki Troll Mode System is optionally available on the DF115SS. This system provides finer control over engine speed at low rpms keeping the boat moving at a steady speed while trolling. When the system is engaged, engine speed is controlled with an independent control switch that adjusts engine revs in 50rpm increments over a range that spans from idle to 1,200rpm. In addition to the controls switch, which can be mounted nearly anywhere on the console, the system includes a tachometer and is compatible with Suzuki’s SMIS digital gauges or the dual scale analog gauges.

Multi Function Tiller Handle (Optional)

Available on the DF115A only, Suzuki’s Multi-Function Tiller Handle is ergonomically designed using computer modeling to simulate the operator’s body, arm, and eye movements to optimize placement of the shift lever, switches, and indicator and provide easier, more comfortable control of the outboard. The shift lever is also ergonomically designed to provide a comfortable feel whether it’s operated with the left or right hand. The power trim and tilt switch is located on the handle grip allowing simultaneous operation of the throttle and trim and the handle also incorporates a Suzuki Troll Mode System switch.

DOHC 4-Valve Engine

Suzuki has a long history of designing and manufacturing engines for motorcycle, automobile, and marine use. Drawing upon this unrivaled experience Suzuki engineers have designed an in-line four-cylinder big block engine that delivers high power output, high performance, excellent fuel economy, and efficient operation. With a displacement of 124.7 cu.in. (2,044cc), the in-line four-cylinder big block is topped with a high performance 16-valve, dual overhead cam (DOHC) powerhead.

Offset Driveshaft

Suzuki outboards from the DF70A up through the DF300AP incorporate an offset driveshaft that positions the powerhead forward of the drive shaft. This configuration moves the outboard’s center of gravity forward resulting in better weight distribution on the transom and contributes to directional stability. The offset drive-shaft also moves the axis of inertia, the point where vibrations are produced, up over the engine mount, which reduces engine vibration.

Trim and Tilt Limit System

The trim and tilt limit system is designed to help protect the boat from damage that can occur when tilting the outboard. A tilt angle sensor performs as both a tilt limit and trim sender and a step-free, continuous type tilt limiter makes installation of the outboard possible on nearly any type of boat.
### SPECIFICATIONS

<table>
<thead>
<tr>
<th>MODEL</th>
<th>DF250SS</th>
<th>DF150SS</th>
<th>DF115SS</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENGINE TYPE</td>
<td>4-Stroke DOHC 24 Valve</td>
<td>4-Stroke DOHC 16 Valve</td>
<td>4-Stroke DOHC 16 Valve</td>
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<tr>
<td>FUEL DELIVERY SYSTEM</td>
<td>Multi Point Sequential Electronic Fuel Injection</td>
<td>Multi Point Sequential Electronic Fuel Injection</td>
<td>Multi Point Sequential Electronic Fuel Injection</td>
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<td>STARTING SYSTEM</td>
<td>Electric</td>
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<tr>
<td>WEIGHT (lbs.)</td>
<td>578lbs</td>
<td>L: 474lbs X: 485</td>
<td>L: 401.3lbs X: 412.3</td>
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<td>NO. OF CYLINDERS</td>
<td>V6 (55-degree)</td>
<td>In Line 4</td>
<td>In Line 4</td>
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<tr>
<td>DISPLACEMENT</td>
<td>245.6 cu. in. (4,028cc)</td>
<td>174.9 cu. in. (2,867cc)</td>
<td>124.7 cu. in. (2,044cc)</td>
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<td>BORE X STROKE in. (mm)</td>
<td>3.81 x 3.46 in. (98 x 89mm)</td>
<td>3.81 x 3.81 in. (97 x 97)</td>
<td>3.4 x 3.5 in. (86 x 88)</td>
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<td>MAXIMUM OUTPUT /rpm</td>
<td>250 hp</td>
<td>150 hp</td>
<td>115 hp</td>
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<tr>
<td>FULL THROTTLE OPERATING RANGE /rpm</td>
<td>5300-6300</td>
<td>5000-6000</td>
<td>5000-6000</td>
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<td>STEERING</td>
<td>Remote</td>
<td>Remote</td>
<td>Remote / Tiller</td>
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<tr>
<td>OIL PAN CAPACITY</td>
<td>8.5 qt. / 8.0 Lit.</td>
<td>8.5 qt. / 8.0 Lit.</td>
<td>5.8 qt. / 5.5 Lit.</td>
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<td>IGNITION SYSTEM</td>
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<td>Solid State Direct Ignition</td>
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<td>ALTERNATOR</td>
<td>12V 54A</td>
<td>12V 44A</td>
<td>12V 40A</td>
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<td>ENGINE MOUNTING</td>
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<td>TRIM METHOD</td>
<td>Power Trim and Tilt</td>
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<td>GEAR RATIO</td>
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<td>2.50 : 1 Final Drive Ratio</td>
<td>2.59 : 1 Final Drive Ratio</td>
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<td>GEAR SHIFT</td>
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<td>F-N-R</td>
<td>F-N-R</td>
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<td>EXHAUST</td>
<td>Through Prop Hub Exhaust</td>
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<td>DRIVE PROTECTION</td>
<td>Rubber Hub</td>
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<td>3 x 14-3/4 x 29</td>
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<td>3 or 4-BLADE STAINLESS STEEL TYPE (OPTIONAL)</td>
<td>3 x 15-1/2 x 17</td>
<td>4 x 14-3/8 x 23</td>
<td>3 x 15-1/2 x 17</td>
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<td>ALUMINUM SERIES AVAILABLE ONLY FOR DF115SS.</td>
<td>3 x 14 x 16</td>
<td>3 x 14 x 17</td>
<td>3 x 13-1/2 x 15</td>
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</table>

* The weight of the motors are “Dry-Weight”, not including propeller.

* Boats and motors come in a large variety of combinations. See your authorized dealer for correct propeller selection to meet recommended RPM range at W.O.T.

Please read your owner’s manual carefully. Remember, boating and alcohol or other drugs don’t mix. Always wear a U.S.C.G.-approved life jacket. Please operate your outboard safely and responsibly. Suzuki encourages you to operate your boat safely and with respect for the marine environment.

Suzuki Motor Corporation reserves the right to change, without notice or obligation, equipment, specifications, colors, materials and other items to apply to local conditions. Each model may be discontinued without notice. Please inquire at your local dealer for details of any such changes.

Actual body colors may differ slightly from the colors in this brochure.

### A tradition of Innovation

Suzuki history begins with the founding of Suzuki Loom Works by Michio Suzuki in October 1909. Realizing that weaver wanted to produce cloth both vertical and horizontal patterns, he developed an automated loom capable of weaving patterned cloth from space dyed yarn. His commitment to innovative engineering was the start of an uncompromising focus on creating products that meet people’s needs and offer new life style possibilities.

While the company has diversified, and expanded since then, we have always honored our founder’s commitment to innovative engineering. His philosophy lives on in the “Way of Life!” brand slogan and our dedication to provide our customers with value packed products that bring satisfaction and meet their needs.

### Suzuki Motorports

On the track, Suzuki has captured major championships around the world. The experience, knowledge and expertise gained on the track produces race proven, leading edge technologies that are utilized in every vehicle we make. Suzuki supplies you with the best combination of performance, durability, reliability, efficiency, ease-of-use, and value. It’s why Champions Choose Suzuki. So, what are you gonna ride?

To learn more about Suzuki, visit your local Suzuki dealer or go to [www.suzuki.com](http://www.suzuki.com)

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**CARB THREE-STAR LABEL**

The three-star label identifies engines that meet the California Air Resources Board’s most stringent exhaust emission standards.

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**EPA 2010 LABEL**

Suzuki’s four-stroke technology is compliant with EPA’s stringent 2010 emission standards and 2010 later evaporative emission standards set by the U.S. Environmental Protection Agency.

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**SUZUKI MOTOR OF AMERICA, INC.**

P.O. BOX 1100 BREA, CA 92822-1100

[http://www.suzukimarine.com](http://www.suzukimarine.com)