DF200A/200AP

Model Selection

Way of Life!

- **DF200ATX**
  - Compact, light weight, 2.9-liter, 4-cylinder engine
  - Advanced fuel injection with Lean Burn Control
  - Variable Valve Timing and Multi-Stage Induction
  - Knock sensor, O2 sensor, water detection system
  - Semi-direct air intake system and intake resonator
  - 25” transom applications (X)
- **DF200ATXZ**
  - Same features as DF200ATX, plus:
  - Counter-rotation
- **DF200APX**
  - Same features as DF200ATX, plus:
  - Selective Rotation
  - Suzuki Precision Control
  - Keyless start

Note: A = 2nd generation model
P = Suzuki Precision Control, Selective Rotation, PTT
Z = Counter-rotation engine
G = Suzuki Precision Control

High Performance Engine

SUZUKI Way of Life!

- The DF200A/AP provides 200 HP, V6 performance in a lighter and more compact 4-cylinder design
- The powerhead is based on the counterbalanced, 16-valve, DOHC DF150/175
- Since engine displacement and compression ratio have a direct affect on acceleration, the DF200A/AP has the largest displacement (2.9 L) when compared to competitor's 4-cylinder engines and a high compression ratio (10.2 : 1)

Counter Balancer System

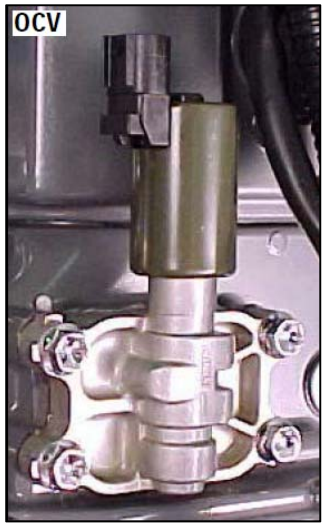
SUZUKI Way of Life!

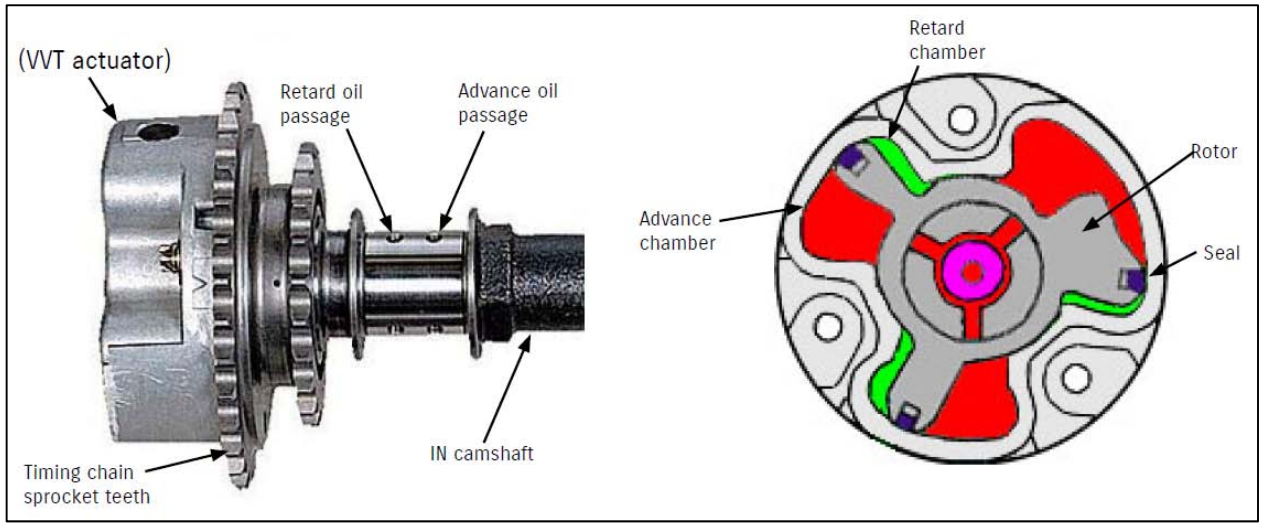
- Secondary vibration is inherent in 4-cylinder engines when operated at high r/min
- To neutralize this vibration, the DF200A/AP uses balancer shafts which counter piston movement with a horizontal motion

Variable Valve Timing

SUZUKI Way of Life!

- The VVT system is designed to provide optimum valve timing under various operating conditions
- VVT improves mid-range power for faster plaining and acceleration, reduces fuel consumption and lowers emissions without sacrificing maximum power

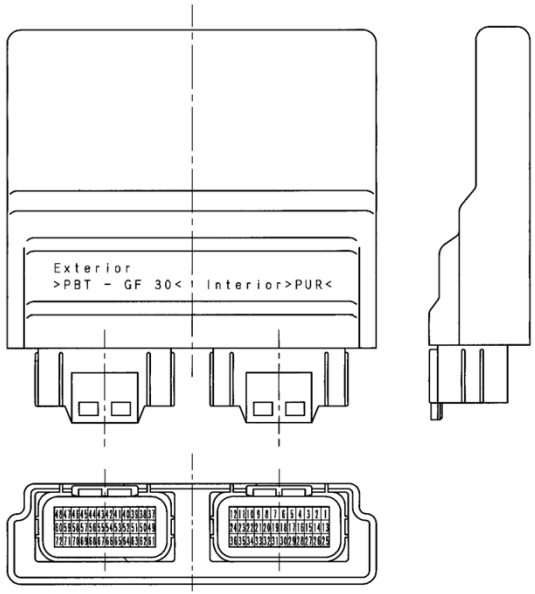




Advanced Electronics

SUZUKI Way of Life!

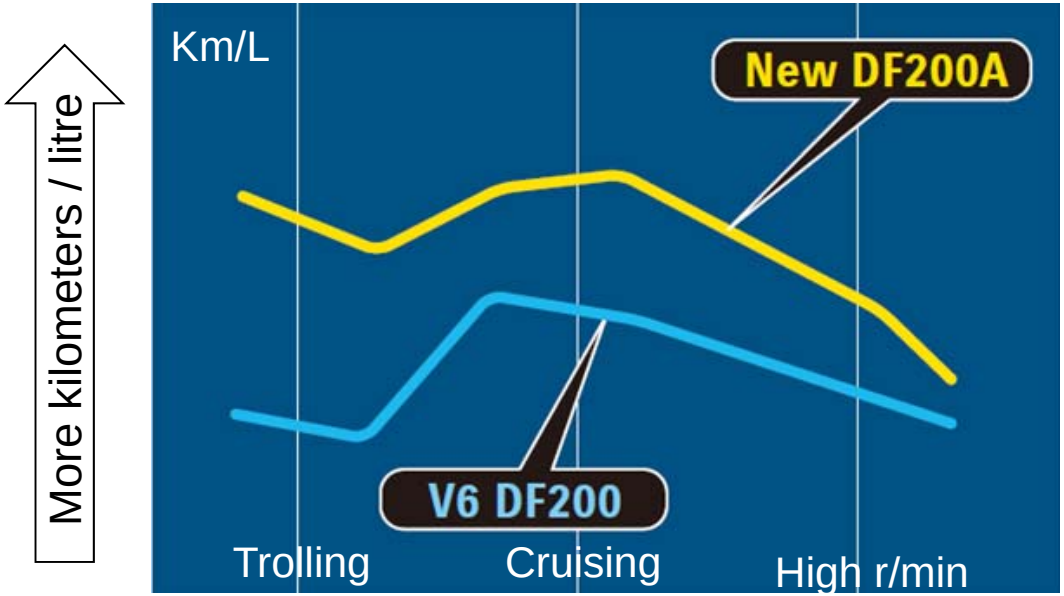
- The latest type 32-bit Engine Control Module (ECM) provides fast precision control over the ignition system and the multi-point sequential fuel injection system
- To provide this control, the ECM monitors various sensors
- Some of these sensors include the Manifold absolute pressure sensor, Crankshaft position sensor, Camshaft position sensor, Throttle position sensor, Intake air temperature sensor, Shift sensor, Cylinder wall temperature sensor and Exhaust manifold temperature sensor



Lean Burn Control

SUZUKI Way of Life!

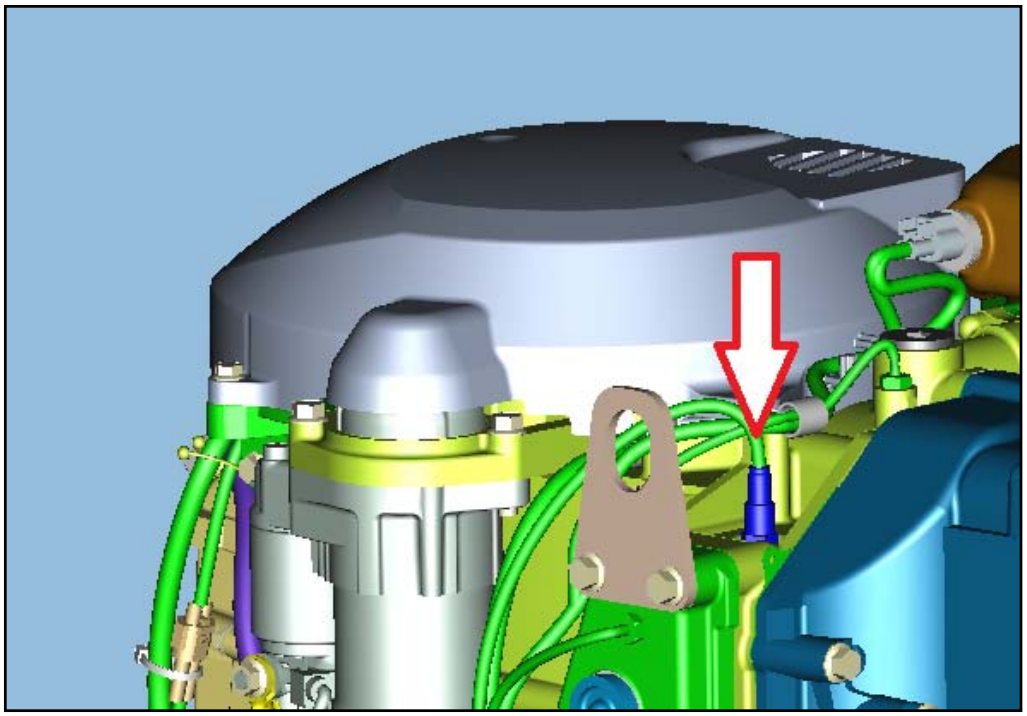
- **Lean Burn Control** LEAN BURN **is an intelligent fuel delivery system which reduces fuel consumption**
- **The system uses a 32-bit ECM to predict fuel needs and deliver a more precise mixture through the operating range**
- **Compared to the V6 DF200, the DF200A improves fuel efficiency by 19% in the cruising range**



O2 Feedback System

SUZUKI Way of Life!

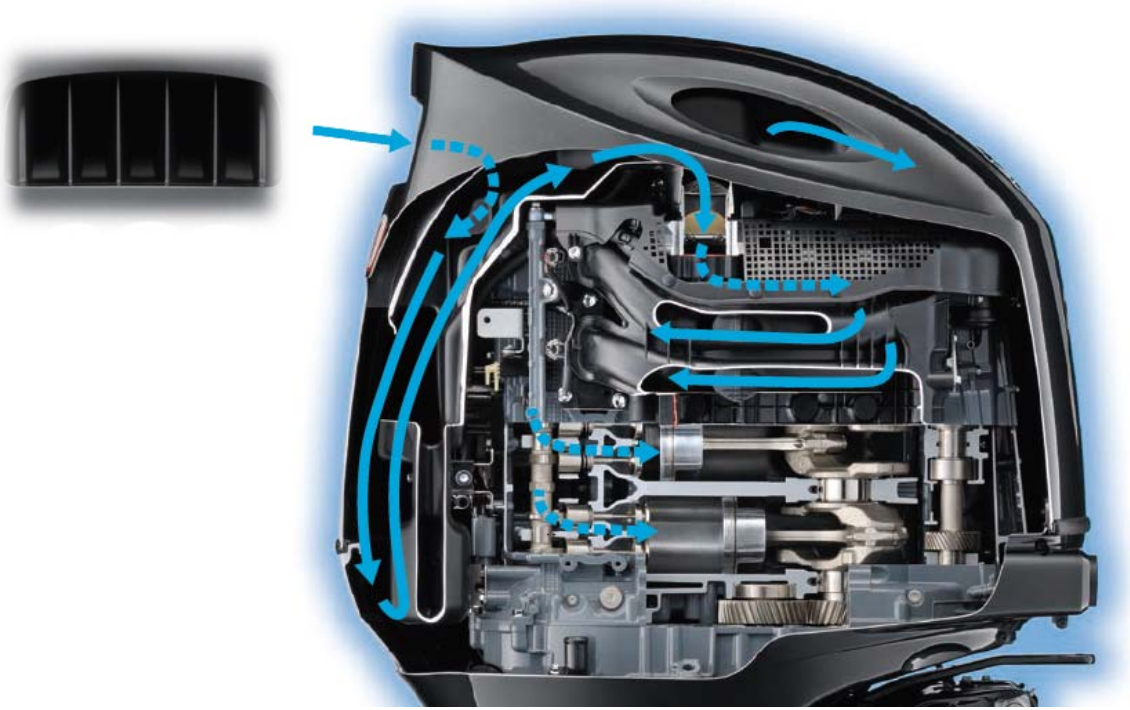
- The O2 Feedback Control System monitors engine operating conditions and sends this information to the ECM
- The ECM uses this input to accurately manage the fuel/air mixture for maximum performance across the engine operating range



Semi-Direct Air Intake System

SUZUKI Way of Life!

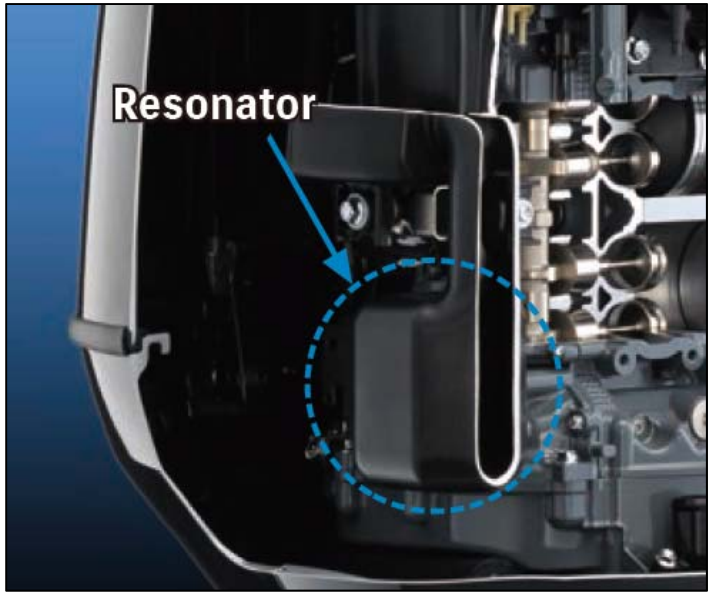
- The Semi-Direct Air Intake System is incorporated into the modern upswept engine cover design
- The system directs cooler air into the Multi-Stage Induction System to improve operating efficiency
- Along with the rotating flywheel, the system also expels warm air out of the engine cover



Resonator

Way of Life!

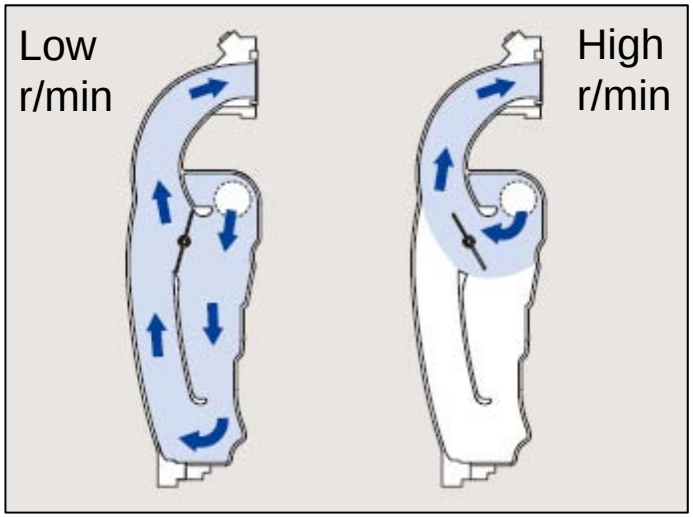
- The exhaust system is a well known source of engine noise but an often overlooked source is the intake system
- Air being sucked through the intake system at high velocity can generate a harsh sound
- The DF200A/AP incorporates an intake resonator to reduce this sound and combined with other noise reduction systems, the DF200A/AP is the quietest motor in its class



Multi-Stage Induction

SUZUKI Way of Life!

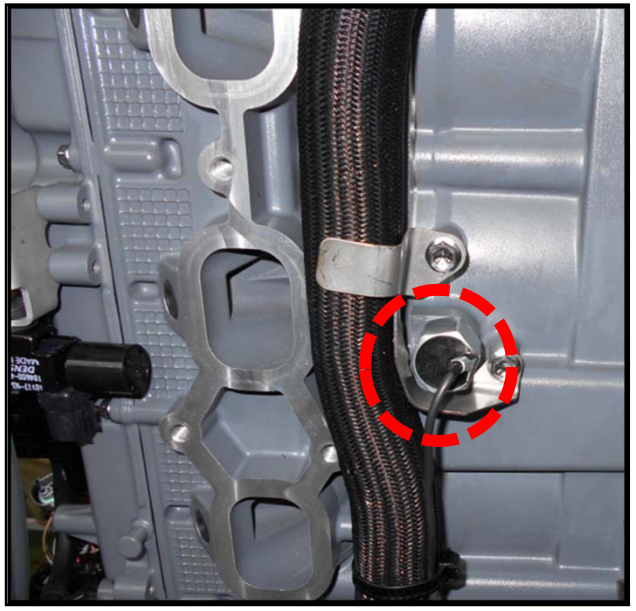
- High speed operation requires a greater amount of air, low speed less
- At low engine speed, air enters the combustion chamber through a longer curved intake manifold pipe to improve combustion and improve low r/min torque
- As the r/min increases, the valves open on the intake pipes, increasing the engine's ability to breathe for more power at high speed



Knock Sensor

SUZUKI Way of Life!

- The knock sensor monitors combustion and send this information to the ECM
- Based on this information, the ECM sets the optimum ignition timing to maximize engine power output and increase durability



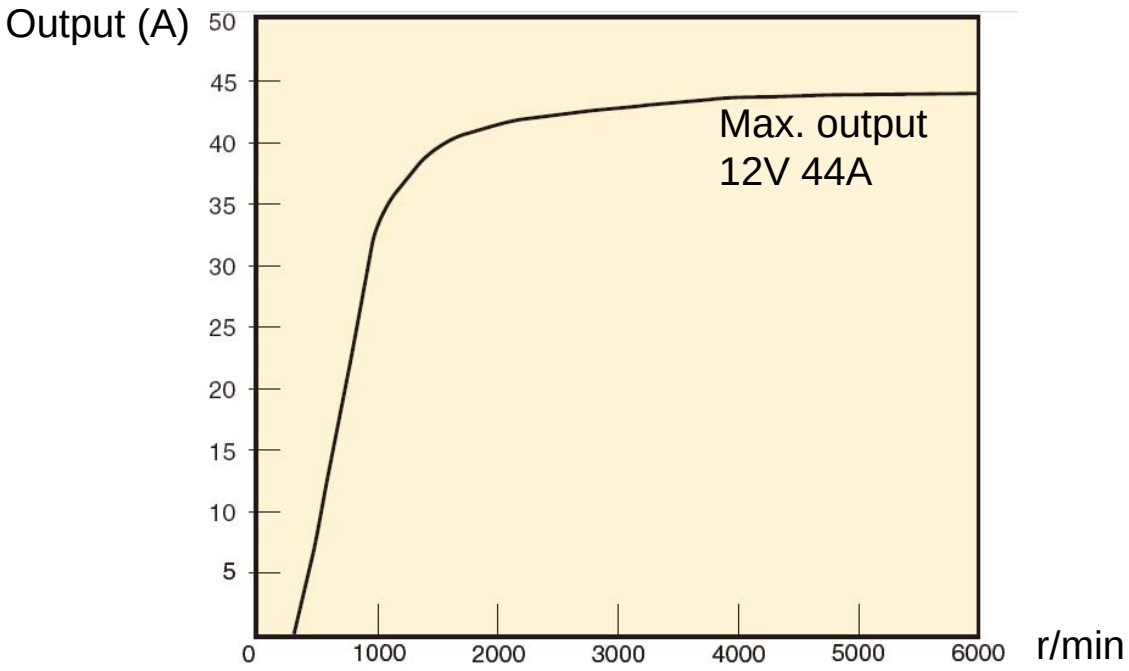
Suzuki Water Detecting System

Way of Life!

- Water in the fuel can lead to poor combustion, low power output and corrosion
- To help protect the engine, the Suzuki Water Detecting System uses a water detecting fuel filter to alert the operator when water is present in the fuel
- If present, water can easily be eliminated by removing the fuel filter bowl

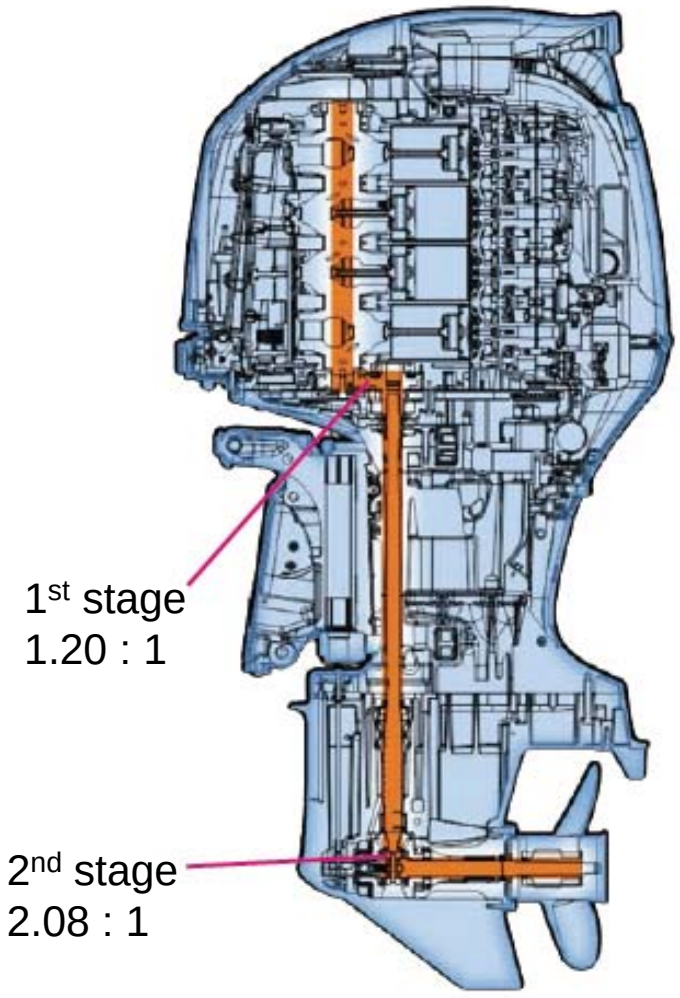
Battery Charging System

- **The battery charging system includes a generator which produces high output even at low engine speeds and a water cooled regulator/rectifier for improved durability**
- **The battery charging system also has an isolator function which protects the main battery in event that the sub-battery becomes drained**



Offset Drive Shaft

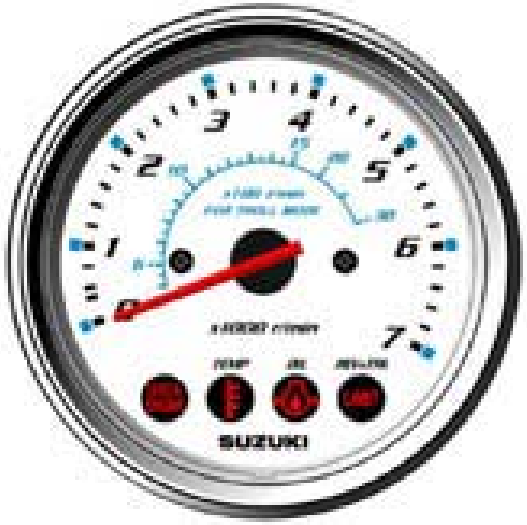
- **Pioneered by Suzuki, the offset drive shaft employed on the DF200A/AP and other 70 HP and larger models has many advantages**
- **It moves the axes of inertia up over the engine mount to reduce vibration**
- **It contributes to a more compact engine**
- **It enables the largest drive ratio (2.50 : 1) to deliver powerful torque for quick acceleration and high top speed**



Total reduction
2.50 : 1

Troll Mode

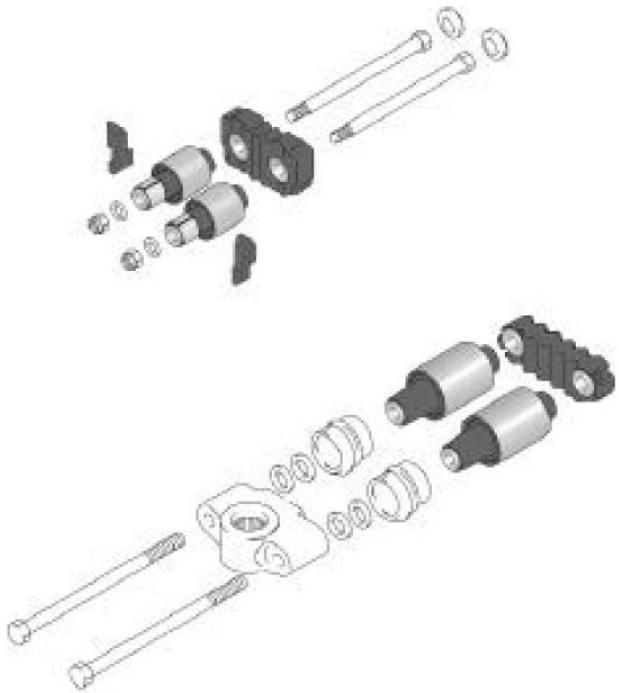
- The ECM on the DF200A/AP is designed for troll mode
- Troll mode allows the operator to accurately adjust trolling speed from the standard 650 r/min to a maximum speed of 1,200 r/min in 50 r/min increments
- To use troll mode, install the optional troll mode switch
- When installing an analog tachometer, use one with a troll mode scale



Thrust Mount System

SUZUKI Way of Life!

- Vibration is generally most detectable from idle speed to 2,000 r/min
- To counter low speed vibration, a combination of soft type and high thrust rubber mounts are used on both the upper and lower positions



Tilt Limit System

- To protect the boat and motor from damage that can occur if the motor is tilted up too far, a tilt limit system is employed
- Set the tilt limit position when rigging a new boat and motor

Dual Engine Flush Ports

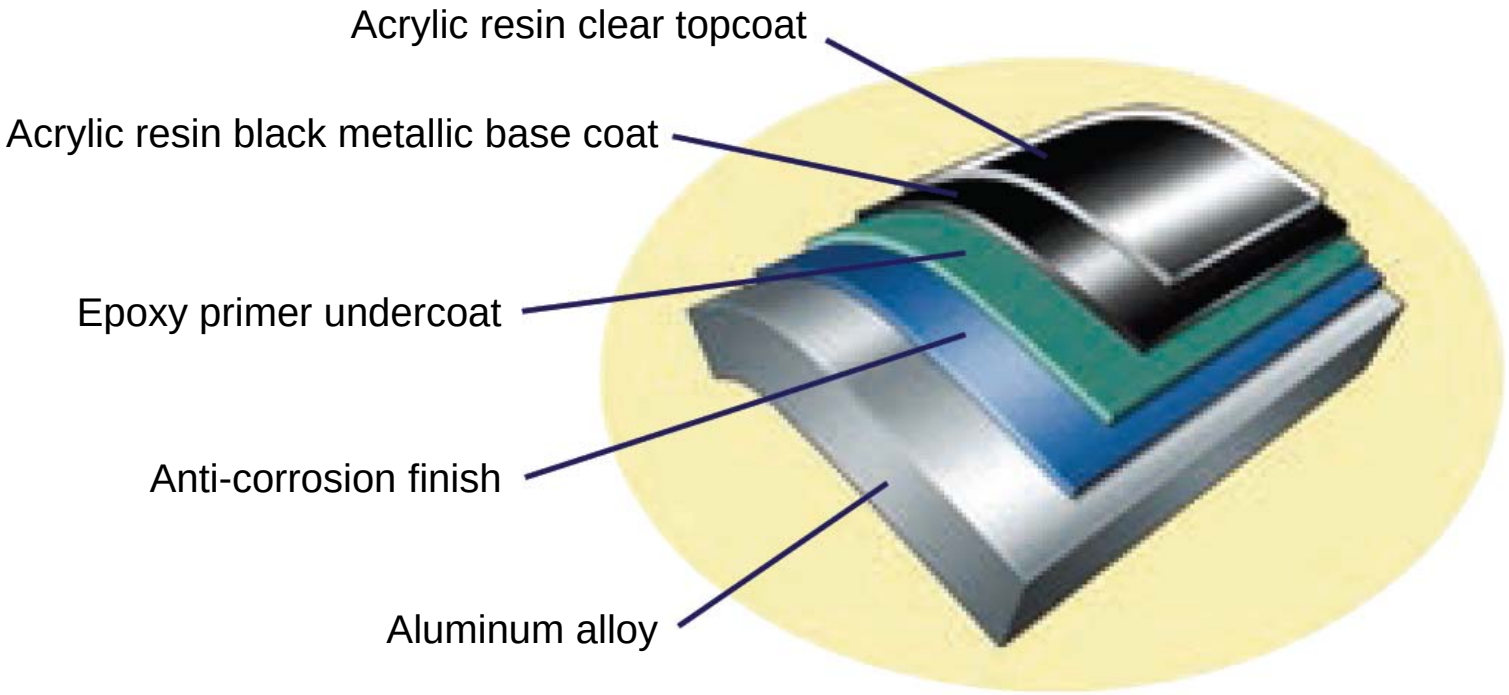
SUZUKI Way of Life!

- Salt sand and dirt can restrict cooling water flow
- To prevent such buildup in the cooling system, the DF200A/AP has two freshwater flush ports
- One flush port is located at the front panel and the other is on the port side of the mid-unit

Anti-Corrosion Finish

SUZUKI Way of Life!

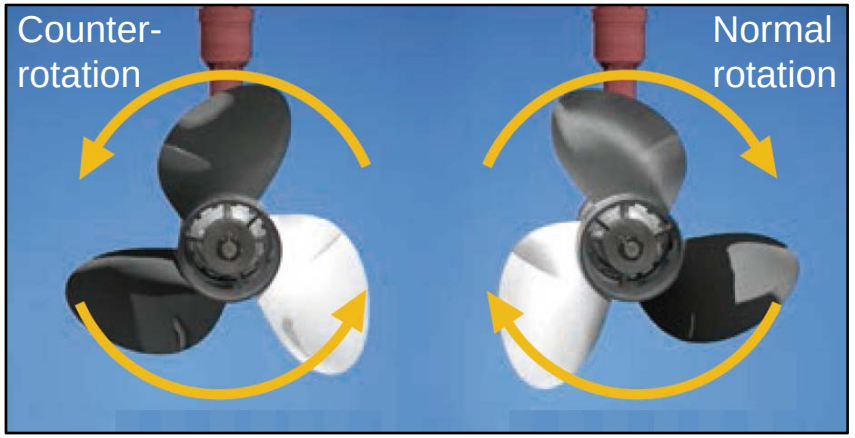
- **The DF200A/AP is protected against corrosion by a special Suzuki anti-corrosion finish applied to the aluminum alloy**



Suzuki Selective Rotation (DF200AP)

Way of Life!

- To keep large boats with multiple outboard installations travelling straight and on an even keel, a dedicated counter-rotation engine is commonly used
- The DF200AP utilizes a special lower unit that will operate efficiently in both directions, eliminating the need for a special counter-rotation engine
- To switch to counter-rotation mode, connect an activation switch to the wiring harness and install a counter-rotation propeller



Suzuki Precision Control (DF200AP)

Way of Life!

- Suzuki Precision Control is a computer operated throttle and shift control system which replaces mechanical control cables
- The system provides crisp immediate shifting and improves fuel efficiency when combined with the Suzuki Lean Burn system

Keyless Start System (DF200AP)

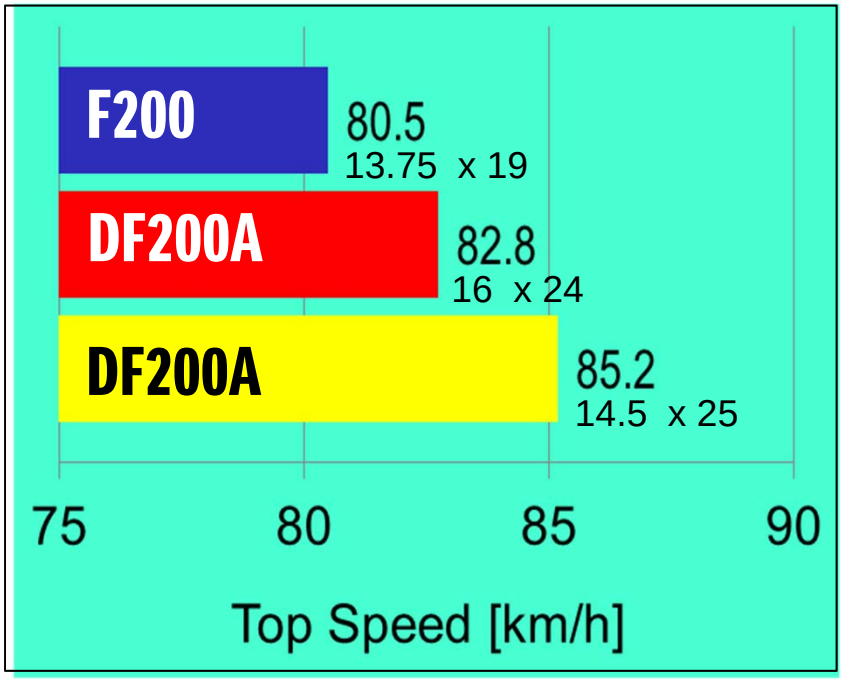
SUZUKI Way of Life!

- The keyless start system on the DF200AP transmits an access code to the engine's start system
- To start the engine with the key fob on your person, stand within one meter of the console, turn the main switch on and push the start button
- The system prevents lost keys since the fob can stay safely in a pocket and it even floats if it goes overboard
- The system is also an excellent theft deterrent since the engine will not start without detecting the access code from the key fob

Performance Comparison

SUZUKI Way of Life!

- **Top speed and acceleration was compared to a Yamaha F200 using a Sea Pro 2100 with 2 people and different stainless propellers**



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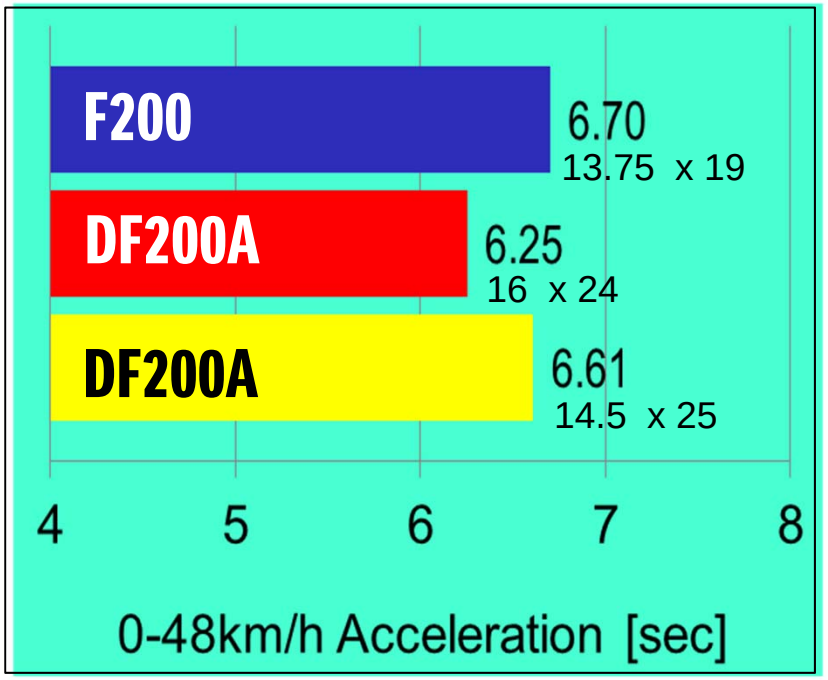

Better

Specification Comparison

SUZUKI Way of Life!

- **The DF200A is lighter and more compact than the original DF200 V6**

	DF200A	DF200	DF150, DF175	DF150G	Yamaha F200
Engine Type	L4	V6	L4	L4	L4
Bore x Stroke (mm)	97 x 97	95 x 85	97 x 97	97 x 97	96 x 96.2
Displacement (cc)	2,867	3,614	2,867	2,867	2,785
Compression Ratio	10.2 : 1	9.5 : 1	9.5 : 1	9.5 : 1	10.3 : 1
Dry Weight (X) (kg)	231	263	220	228	227
Cam Drive System	Chain	Chain	Chain	Chain	Belt
Lean Burn	Yes	No	No	Yes	No
Gear Ratio	2.50:1	2.29:1	2.50:1	2.50:1	1.86:1


SUZUKI
200
END