DF9.9B, DF15A, DF20A
Model Selection

- DF9.9BTHL
- DF9.9BTL
- DF15AS, DF20AS
- DF15AES, DF20AES
- DF15AEL, DF20AEL
- DF20ATL

Note:  
A = 2\textsuperscript{nd} generation model  
B = 3\textsuperscript{rd} generation model  
E = Tiller control, electric start  
TH = Tiller control, electric start, power tilt  
T = Remote control, electric start, power tilt  
S = For boats with 15” transom  
L = For boats with 20” transom
Batteryless Fuel Injection

- The DF9.9B, DF15A and DF20A are the first outboards in this category to offer fuel injection
- Fuel injection has many advantages over carbureted systems, especially with the leaner air/fuel ratios required for compliance with emission standards
- Advantages include:
  - Easier starting
  - Smooth running during warm-up
  - Smooth running throughout the operating range
  - Lower emissions
  - Reduced fuel consumption
The system operates without a battery and consists of a compact and lightweight inline high-pressure fuel pump, throttle body, small fuel cooler, vapor separator and fuel injector.
Oil Change Reminder System

- The oil change reminder system will advise the operator when the oil needs to be changed by flashing the light on the front of the motor.
- On remote models, the light will flash when the ignition switch is turned on and the buzzer will sound for several seconds after the engine is started.
- After the oil is changed, cancel the reminder using the specified pattern with the engine stop switch.
Caution Systems

- To warn the operator of a problem, the DF9.9B/15A/20A is equipped with over-revolution, low oil pressure and overheat caution systems.
- When a problem occurs, the system will activate the rev limit, turn the caution lamp on or sound the buzzer on remote control models.
Self-Diagnostic System

- The DF9.9B/15A/20A is equipped with a self-diagnostic system to assist the technician if a problem occurs.
- Trouble codes and engine data can be viewed using the PC based Suzuki Diagnostic System (SDS).

<table>
<thead>
<tr>
<th>Circuit</th>
<th>Diagnostic Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manifold Absolute Pressure (MAP) Sensor 1</td>
<td>3-4</td>
</tr>
<tr>
<td>Cylinder Temperature Sensor</td>
<td>1-4</td>
</tr>
<tr>
<td>Intake Air Temperature (IAT) Sensor</td>
<td>2-3</td>
</tr>
<tr>
<td>Crankshaft Position (CKP) Sensor</td>
<td>4-3</td>
</tr>
<tr>
<td>Camshaft Position (CMP) Sensor</td>
<td>2-4</td>
</tr>
<tr>
<td>Air intake system</td>
<td>2-2</td>
</tr>
<tr>
<td>Manifold Absolute Pressure (MAP) Sensor 2</td>
<td>3-2</td>
</tr>
<tr>
<td>Fuel injector</td>
<td>2-3</td>
</tr>
<tr>
<td>Throttle Position (TP) Sensor</td>
<td>2-1</td>
</tr>
<tr>
<td>Overcharging (regulator/rectifier)</td>
<td>1-1</td>
</tr>
<tr>
<td>Oil pressure switch</td>
<td>5-3</td>
</tr>
</tbody>
</table>
• Power tilt provides greater convenience and easier operation
• Power tilt is available on the DF9.9BTHL, DF9.9BTL and DF20ATL
The DF9.9B, DF15A and DF20A are protected against corrosion by a special Suzuki anti-corrosion finish applied to the aluminum alloy.

- Acrylic resin clear topcoat
- Acrylic resin black metallic base coat
- Epoxy primer undercoat
- Anti-corrosion finish
- Aluminum alloy
Lean Burn Control

- Lean Burn Control has been adopted to the latest generation Fuel Injection Systems including the DF9.9B, DF15A and DF20A
- This graph shows the DF20A Lean Burn Air/Fuel Ratio
Lean Burn Control

- The A/F ratio at partial throttle opening for most outboards is 13:1 to 14.7:1 while the A/F ratio at partial throttle opening for the DF20A is 17:1
- As a result, the DF20A consumes less fuel and emissions are reduced
Fuel Economy

- With fuel injection and lean burn control fuel economy has improved compared to previous generation carbureted models
- The illustration compares the fuel economy of the DF20A to the Yamaha F20

When tested under the same conditions, the DF20A can travel more kilometers on 1 litre of fuel:
- 27% further at 5 km/h
- 50% further at 20 km/h
- 7% further at WOT
Light Weight

- Light weight is of particular importance on portables to make them easy to carry and to promote good acceleration and speed
- The DF20A weighs only 44 kg which is the lightest in the 20 HP class and the same weight as the original DF15
Compact Size

- The DF20A is the most compact outboard in its class
- Length x Width x Height:
  - DF20A: 520 x 336 x 1,220 mm
  - F20: 545 x 350 x 1,205 mm
  - BF20: 510 x 350 x 1,240 mm
- The power and torque curve of the DF20A is very smooth, making the engine easy to operate
- The illustration compares the power and torque of the DF20A to the Yamaha F20
Speed & Acceleration

• The charts compare the maximum speed and acceleration of the DF20A, F20, DF15A and DF15 on the same 3.4m rib boat

<table>
<thead>
<tr>
<th>Engine</th>
<th>Maximum Speed (km/h)</th>
<th>Acceleration (0 - 50m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DF20A</td>
<td>39.3 @ 5800</td>
<td>7.1 sec.</td>
</tr>
<tr>
<td>F20</td>
<td>38.9 @ 5550</td>
<td>7.2 sec.</td>
</tr>
<tr>
<td>DF15A</td>
<td>34.6 @ 5750</td>
<td>7.5 sec.</td>
</tr>
<tr>
<td>DF15</td>
<td>34.1 @ 5700</td>
<td>7.8 sec.</td>
</tr>
</tbody>
</table>
Easy Starting

- Recoil starting is made easy with a modern design recoil assembly, a decompression system built into the camshaft and batteryless fuel injection
The following equipment is supplied with the DF9.9B/15A/20A:

- 12 L fuel tank and hose
- Engine mounting hardware
- Owner’s Manual and tool set
- Remote control box and drag link (DF9.9BTL, DF20ATL)
- 3 x 9¼ x 9 propeller (DF15AS/AES/AEL, DF20ATL)
- 3 x 9¼ x 10 propeller (DF20AS/AES/AEL)
- 4 x 10 x 5 high thrust propeller (DF9.9BTL/BTHL)
• 4-stroke outboards in this category are commonly twin cylinder with single overhead camshaft and 2-valves per cylinder
• What sets the Suzuki apart from the competition in this category is light weight and batteryless fuel injection

<table>
<thead>
<tr>
<th></th>
<th>Suzuki</th>
<th>Yamaha</th>
<th>Honda</th>
<th>Mercury</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>DF15A/20A</td>
<td>F15/20</td>
<td>BF15/20</td>
<td>15/20</td>
</tr>
<tr>
<td>Displacement</td>
<td>327 cc</td>
<td>362 cc</td>
<td>350 cc</td>
<td>351 cc</td>
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<tr>
<td>Cylinders</td>
<td>L2</td>
<td>L2</td>
<td>L2</td>
<td>L2</td>
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<tr>
<td>Valve layout</td>
<td>OHC 2V</td>
<td>OHC 2V</td>
<td>OHC 2V</td>
<td>OHC 2V</td>
</tr>
<tr>
<td>Fuel system</td>
<td>Injection</td>
<td>Carb</td>
<td>Carb</td>
<td>Carb</td>
</tr>
<tr>
<td>Weight (man, 15”)</td>
<td>44 kg</td>
<td>51.7 kg</td>
<td>46 kg</td>
<td>52 kg</td>
</tr>
</tbody>
</table>