NISSAN OUTBOARD MOTOR

NS 40D
NS 50D

OWNER'S OPERATING MANUAL
Thank you very much for selecting a Nissan Marine Outboard Motor. This operator's manual contains information on the operating procedures, preventive maintenance and inspection procedures of the Nissan Outboard Motor Models NS40D and NS50D. These outboard motors are available in four and three different types respectively to meet a wide variety of customers needs. Please read this manual thoroughly before operating your Nissan outboard motor. You should become familiar with correct operating procedures so as to assure many years of safe and pleasant boating.

- The specifications and designs are subject to change without prior notice.
- If you have questions concerning your Nissan outboard motor, please feel free to contact your Nissan Marine distributor.
Table of Contents

WARNING-SAFETY ............................................................. 3
GENERAL PRECAUTIONS ................................................ 4
SPECIFICATIONS .................................................................. 5
NAMES OF MAJOR PARTS ............................................... 7
MODEL AND OUTBOARD MOTOR SERIAL NUMBER ................. 12
INSTALLATION ................................................................... 13
  Outboard motor ............................................................. 13
  Remote control unit installation ..................................... 18
  Meter installation .......................................................... 23
  Battery installation ......................................................... 25
  Drag link installation (EP type) ........................................ 26
FUEL AND LUBRICATING OIL .................................... 27
OPERATION .......................................................................... 29
  Run-in operation ............................................................ 29
  Preparations for starting the engine ............................... 30
  Engine starting .............................................................. 31
  Starting the engine (when the recoil starter/starter motor fails) ............................................................. 33
  Warm-up operation ........................................................ 34
  Overheat buzzer (optional) .............................................. 35
  Forward and reverse operation ...................................... 35
  Shallow water boating .................................................. 37
  Stopping the engine ...................................................... 37
  Mooring (Tilt up) ........................................................... 39
  Removal and transit of outboard motor ......................... 40
ADJUSTMENT .................................................................... 42
  Control lever operation adjustment ............................... 42
  Trim tab adjustment ........................................................ 42
  Steering operation adjustment ....................................... 43
  Throttle grip adjustment (F and EFO types) ................. 43
INSPECTION AND MAINTENANCE .............................. 44
  Daily inspection ........................................................... 44
  Periodic inspection ........................................................ 47
  Pre-storage inspection and service ............................... 51
  Inspection after long-term storage ............................... 51
  When the motor is immersed in water ......................... 52
  Mooring in cold weather .............................................. 52
TROUBLESHOOTING ..................................................... 53
  Accessories .............................................................. 53
PROPELLERS ........................................................................ 56
OPTIONAL ACCESSORIES .............................................. 57
WIRING DIAGRAM ........................................................... 55
WARNING-SAFTY

1. Gasoline is a highly flammable fuel and its gasses can burn and explode. Handle and store gasoline very carefully.

2. Do not attempt to modify the outboard motor.

3. Always wear a life-jacket while boating.

4. Respect and take care of the environment.
GENERAL PRECAUTIONS

1. Do not coat the bottom of the boat with paints which contain copper since they cause premature corrosion of the engine.
2. Operating in salt water
   After operating your boat in salt water, use fresh water to rinse out the cooling system to avoid salt residue buildup.
3. Replacement parts
   Use only genuine Nissan parts if required. Use of cheaper or generic parts should be avoided since they could cause injury, damage or loss of control.

NOTE — Gives either essential information to make doing things easier or are points of clarification.
CAUTION — Indicates special procedures that you must follow in order to keep from damaging the outboard motor.
WARNING — Indicates special procedures which must be followed in order not to cause human injury or damage to the product.

Carefully read the contents of the Outboard Motor Warranty and in sure that your Nissan distributor's seal stamped on the back. Please keep this warranty in a safe place.

The Owner's Manual contains very important information and is noted in the following ways:
# SPECIFICATIONS

* Descriptions not included in this manual but in the corresponding catalog.  

<table>
<thead>
<tr>
<th>Model</th>
<th>NS40D</th>
<th>NS40DEFO</th>
<th>NS40DEPO</th>
<th>NS40DEPTO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>NS50DEFO</td>
<td>NS50DEPO</td>
<td></td>
</tr>
<tr>
<td>Type *</td>
<td>F</td>
<td>EFO</td>
<td>EP</td>
<td></td>
</tr>
<tr>
<td>Overall length</td>
<td>mm (in)</td>
<td>1,107 (43.58)</td>
<td>630 (24.80)</td>
<td></td>
</tr>
<tr>
<td>Overall width</td>
<td>mm (in)</td>
<td>381 (15.00)</td>
<td>340 (13.39)</td>
<td>355 (13.98)</td>
</tr>
<tr>
<td>Overall height</td>
<td>mm (in)</td>
<td>1,352 (53.23)</td>
<td>1,319 (51.93)</td>
<td></td>
</tr>
<tr>
<td>Weight</td>
<td>kg (lb)</td>
<td>69.0 (152.1)</td>
<td>75.0 (165.4)</td>
<td>70.5 (155.5)</td>
</tr>
<tr>
<td>Transom height</td>
<td>mm (in)</td>
<td>S: 403 (15.87), L: 530 (20.87), XL: 657 (25.87)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. output</td>
<td>PS (HP)</td>
<td>NS40D: 40 (39.5), NS50D: 50 (49.3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. speed range at full throttle</td>
<td>rpm</td>
<td>NS40D: 4,500 - 5,500, NS50D: 5,000 - 5,700</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. of cylinders</td>
<td></td>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Displacement</td>
<td>cm³ (cu in)</td>
<td>697 (42.53)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bore x stroke</td>
<td>mm (in)</td>
<td>68 x 64 (2.68 x 2.52)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exhaust system</td>
<td>Through-hub type</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lubrication system</td>
<td>Mixture lubrication</td>
<td>Auto mixing (Separate refueling)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixture ratio of fuel to oil</td>
<td></td>
<td>50:1 (after run-in period)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cooling system</td>
<td>Forced cooling (w/thermostat)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Starting system</td>
<td>Recoil hand starter</td>
<td>Electric starter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignition system</td>
<td>Contactless CD ignition</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Spark plug | NS40D: NGKB7HS-10 or Champion L82C [gap: 1.0 mm (0.039 in)] (*1) NGKB7HS-10  
NS50D: NGKB8HS-10 or Champion L78 [gap: 1.0 mm (0.039 in)] (*1) NGKB8HS-10 |
| Charging performance | 12V 130W |

(*1): For Canada
<table>
<thead>
<tr>
<th>Model</th>
<th>NS40D</th>
<th>NS40DEFO NS50DEFO</th>
<th>NS40DEPO NS50DEPO</th>
<th>NS40DEFTO NS50DEPTO</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of tilt stages</td>
<td>6</td>
<td>6</td>
<td>6</td>
<td>5 (*1)</td>
</tr>
<tr>
<td>Engine oil</td>
<td>NISSAN 2-cycle Motor Oil</td>
<td>NISSAN 2-cycle Motor Oil Super</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gear oil</td>
<td>NISSAN Gear Oil SAE #30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel tank capacity</td>
<td>22.7US gal, 5 Imp gal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Engine oil tank capacity</td>
<td>–</td>
<td>2US qt, 1-3/4 Imp qt</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reduction ratio</td>
<td>13:24</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*1): Outboard motors with power trim & tilt
NAMES OF MAJOR PARTS

NS40D

1. Tilt handle
2. Upper motor cover
3. Hook lever
4. Inspection port
5. Reverse lock lever
6. Water plug
7. Anti-cavitation plate
8. Trim tab
9. Propeller
10. Lower oil plug
11. Water strainer
12. Upper oil plug
13. Stern bracket
14. Thrust rod
15. Clamp screw
16. Throttle grip
17. Shift lever
18. Starter handle
19. Safety switch
20. Choke knob
NS40DEFO, 50DEFO

1. Tilt handle
2. Upper motor cover
3. Hook lever
4. Inspection port
5. Reverse lock lever
6. Water plug
7. Anti-cavitation plate
8. Trim tab
9. Propeller
10. Oil plug
11. Water strainer
12. Upper oil plug
13. Stern bracket
14. Thrust rod
15. Clamp screw
16. Throttle grip
17. Shift lever
18. Starter handle
19. Safety switch
20. Choke knob
21. Pilot lamp
22. Main switch
23. Battery cord
1. Tilt handle
2. Upper motor cover
3. Hook lever
4. Inspection port
5. Reverse lock lever
6. Water plug
7. Anti-cavitation plate

8. Trim tab
9. Propeller
10. Lower oil plug
11. Water strainer
12. Upper oil plug
13. Stern bracket

14. Thrust rod
15. Clamp screw
16. Choke knob
17. Filler lid
18. Fuel connector
19. Battery cord
1. Tilt handle
2. Upper motor cover
3. Hook lever
4. Inspection port
5. Tilt stopper
6. Water plug
7. Anti-cavitation plate
8. Trim tab
9. Propeller
10. Lower oil plug
11. Water strainer
12. Oil plug
13. Stern bracket
14. Thrust rod
15. Clamp screw
16. Choke knob
17. Filler lid
18. Fuel connector
19. Power trim & tilt switch (engine side)
20. Battery cord
21. Power trim & tilt

NS40DEPTO, 50DEPO

NSW006A
1. Remote control box
2. Control lever
3. Power trim & tilt switch (box side)
4. Free accelerator lever
5. Main switch
6. Cord assembly B
7. Safety switch
8. Fuel tank
9. Air vent screw
10. Fuel connector
11. Primary valve
12. Tachometer (EPO and EPTO types)
13. Trim meter
MODEL AND OUTBOARD MOTOR SERIAL NUMBER

It's a good idea to record your engine model and serial number to help in ordering parts or in case of theft.

NOTE:
Always mention both the engine model and serial number when requesting service or ordering parts.

WARNING:
Installation of an engine that exceeds the rated capacity of the boat is dangerous. Too much power causes serious instability. Check your capacity plate or consult your dealer/manufacturer.
**INSTALLATION**

**OUTBOARD MOTOR**

Mounting position
Mount the outboard motor on the centerline of the boat using cushion(s) or plate(s) as required. (Fig. 1)

Mounting height
When two outboard motors are to be mounted on the boat, maintain a distance of 470 to 660 mm (18.50 to 25.98 in) between the two. (Fig. 2) After mounting the motors, maintain a distance of 0 to 30 mm (0 to 1.18 in) between the anti-cavitation plate and the bottom of the boat.

- The location of the stern bracket may be shifted at an interval of 18 mm (0.71 in) on outboard motors equipped with the power trim & tilt. On the other models, it may be shifted at an interval of 25 mm (0.98 in).

**Stern bracket**
(1) While aligning the transom board with the mounting holes of the motor's stern bracket, drill four holes on the board and tighten with the furnished M12 x 90 mm bolts. Refer to the outline dimensions of the stern bracket on page 14.
(2) Before drilling the holes, secure the transom board using a clamp to prevent misalignment.

**NOTE:**
Apply a coat of silicone sealant to the drilled holes and bolts before tightening the nuts and bolts.
Manual tilt

[Diagram showing the stern bracket installation with dimensions labeled in millimeters (mm) and inches (in).]

Washer (large)
Washer (small)
Bolt (12 x 90)
Nut

Unit: mm (in)

[Dimensions and labels in the diagram indicate specific measurements for the installation.]
PTT tilt

Unit: mm (in)

NSW011A
Mounting angle
The position of the outboard motor can be adjusted, depending on the transom angle, loads, etc. Select a position so that the anti-cavitation plate is parallel to the water surface while operating the boat.
- Correct trim angle
  The boat is parallel to the water surface and the thrust rod position is correct.
- Incorrect trim angle (Bow down)
The bow moves down and is splashed by water. Set the thrust rod at a higher position.

Power trim & tilt type
The power trim & tilt unit is designed to properly adjust the mounting (trim) angle of the outboard motor in relation to transom shape and load conditions.

NOTE:
The trim angle can be continuously adjusted over the specified adjustment range. Except for shallow water operations, avoid operating the boat while tilted.
*Trim meter
Familiarize yourself with the trim meter indicator in relation to the optimum trim angle to make the best use of the power trim & tilt unit.

A. Correct trim angle
The trim angle is correct when the boat is nearly parallel to the water surface during operation.

B. Incorrect trim angle (Bow up)
Too great a trim angle moves the bow up and reduces boat speed. This in turn causes the bow to swing from side to side or the bottom of the boat to hit the waves. If this occurs, reduce the trim angle.
- Press the "DN" section of the power trim & tilt switch (or the control lever grip).
C. Incorrect trim angle (Bow down)
   Too small a trim angle moves the bow down and reduces boat speed. It also pours water onto the boat. When this occurs, reduce the trim angle as required.
   • Press the “UP” section of the power trim & tilt switch (or the control lever grip).

REMOTE CONTROL UNIT
INSTALLATION
Descriptions concerning the remote control unit apply to the right-hand drive model.

EP type
Remote control box position and cable length

A. Remote control box position
   Select a place that does not interfere with the control levers and switches. Ensure that there are no obstacles for the remote control cable.

B. Remote control cable length
   After selecting the remote control box position, determine the cable length between A and B (shown in the figure below) plus 300 mm (1 ft).

NOTE:
Be careful not to bend the remote control cable less than a diameter of 406 mm (16 inches).
Cable installation (on the remote control side)

A. Loosen the two screws on the back panel, and remove the back panel.

B. Screw terminal eye 1 approximately 11 mm (0.43 in) (equivalent to approximately 11 bolt threads) into the remote control end, and secure with nut 2.

C. Position the outer groove of the shift remote control cable in the housing clamp groove, install the terminal eye onto the shift arm pin and secure with the E-ring.

D. Position the grommet (furnished with the remote control box) in the clamp groove.

E. Connect the throttle remote control cable to the throttle arm using a manner similar to the installation of the shift remote control cable.

F. Install the back panel.
G. After properly installing the remote control cables, install the remote control box using the furnished screws, spacers, washers and nuts (three each).

CAUTION:
Completely loosen the panhead phillip screws (420). Connect the throttle and clutch cables to their positions and secure with the screws.

C) Remove the R pins from the throttle and shift cable joints, and remove the two cable joints.

Installation of remote control cable (on the engine side)
A) Move the hook lever (on the lower motor cover) down and remove the upper motor cover.

B) Remove the bracket from the front of the lower motor cover, pass both cord assembly B and the remote control cable through the grommet. Secure the remote control cable to the bracket and then to the lower motor cover.

D) Screw the cable joints approximately 15 mm (0.59 in) (32° in terms of angle) into the ends of the remote control cables.
H) Turn the cable joint in either direction so that the hole in the cable joint is aligned with the shift arm and advancer arm pins. Tighten the nut to lock the cable joint, and secure the arm pin using the R pin and washer.

NOTE:
- Ensure that the outboard motor shifts in when the control lever is set at the 1st stop (approximately 32°) position in both the FORWARD (F) and REVERSE (R) directions. Also check that the throttle operates and is set at the fully open position when the control lever is turned further than the 1st stop position.
- Return the control lever to Neutral (N) to ensure that the advancer arm (on the outboard motor side) is fully closed. If it is not closed, adjust the cable joint position on the outboard motor side.
- When installing the throttle cable to the advancer arm pin, turn the rod snap in the direction shown in the figure and remove the link rod. After installing the cable, replace the link rod in the original position.

I) ① Connect cord assembly B to cord assembly A.

WARNING:
NEVER DISCONNECT THE CORD ASSEMBLY WHILE THE ENGINE IS OPERATING.

② Connect the pink and blue leads wires of cord assembly B to the corresponding colored lead wires of cord assembly A.
- Turn the control lever (on the remote control box) approximately 32° in the FORWARD direction until it stops at the 1st lower position. At this point, identify the shift cable by checking which cable end responds to control lever movement.

E) Ensure that the control lever (on the remote control box) is at Neutral, and that the free accelerator lever is set at the fully closed throttle position.

F) Move the shift arm from the F to the N and R position, and return to the N position.

G) Move the advancer arm to the fully closed position.
- Lead wire connections
  Connect lead wires using the following figure as a guide.
  Tachometer:
    EPO and PETO
  Trim meter:
    EPTO
  Trim sensor:
    EPTO

Key to cord color symbols

B : Black
L : Blue
Lg : Light green
O : Orange
P : Pink
R : Red
Sb : Sky blue
W : White
Y : Yellow

NOTE:
Terminals marked with an asterisk ** are connected only when the optional meter lamp switch is installed.
METER INSTALLATION

Install the meters in the dashboard so that they are easily seen and away from streaming water. A dashboard ranging from 2 to 11 mm (0.08 to 0.43 in) thick can be installed as required. If it exceeds a thickness of 11 mm (0.43 in), cut down the fitting plate accordingly.

(1) Tachometer (EP type)
Set the selector pointer to the “6P” mark on the back of the meter.

(2) Mounting angle
Install each meter at a mounting angle of 50° to 80° as shown.
DRAG LINK INSTALLATION (EP TYPE)
Improper installation of the drag link may damage the boat or hamper operation of the controls. It is advisable that the drag link be installed by your authorized Nissan marine dealer. The following figure furnishes information on the installation of the drag link. The optional spacer may be required, depending on the steering cable used.

1. Install the rod to the end of the cable, and tighten the nylon nut so that the rod can still rotate.
2. Install the bolt, washer and collar on the steering bracket, as shown, and install the bolt from the lower side of the rod and secure with the upper cotter pin.

NOTE:
Apply a coat of grease to the frictional parts and points during installation.
BATTERY INSTALLATION

① Place the battery in a suitable case and secure in a location that is relatively free from shock, vibration, splashing water, etc.

② Connect the positive "+" (red) and negative "-" (black) cords to the battery terminal in that order. When disconnecting these cords, disconnect the negative cord first.

③ Use a standard battery which is rated at 12V70AH.

NOTE:
- The battery cords must be long enough to accommodate steering.
- Be careful not to allow the battery cords to be pinched, rubbed or fractured during steering.
- Check that the cords are connected securely. If not, the starter may not operate properly.
- Never reverse the polarity of the cords. Otherwise, damage to the charging system may result.
- Always maintain the battery in a fully charged condition.

WARNING:
When handling the battery, carefully observe the following instructions:
The battery emits flammable gases. Failure to follow instructions may cause the battery to explode or result in severe burns to the skin.
- Flammables
  Do not short the terminals or jump sparks across the terminals. Do not smoke near the battery.
- Recharging the battery
  Select a well ventilated place.
- Do not allow battery electrolyte (sulfuric acid) to come in contact with your skin, eyes or clothing.

FIRST AID
- If battery electrolyte comes in contact with your skin or clothing, immediately rinse with running water. If it gets in your eye, immediately flush with running water and see doctor for treatment.
Warning release
Decrease engine speed, move the boat to a safe area and turn the main switch "OFF". Refill the oil tank. The buzzer ceases when the shift lever is moved to "N" (NEUTRAL). After refilling the oil tank, start the engine and move the shift lever to "F" (FORWARD). Ensure that the warning lamp (in the tachometer) is off and the buzzer stops, or the oil lamp (on the front of the lower motor cover) is off.

NOTE:
Refill the oil tank after the engine has been stopped.

Refilling oil (Auto mixing system)
Use only genuine Nissan Motor Oil Super in the oil tank. Never mix different brands of oil as damage to the engine may result.

① Open the filler lid on the upper motor cover (EP type) or open the upper cover (EFO type).
② Open the oil tank cap.
③ Top off the oil tank with Nissan Motor Oil Super.
④ Tighten the tank cap securely.

CAUTION:
If gasoline is accidentally poured into the oil tank, immediately drain and consult your Nissan marine dealer.

Bleeding air from oil pump (EFO and EP types)
Visually check the vinyl tube (between the oil tank and oil pump) for indications of air bubbles. If air bubbles are present, bleed air from the oil line as follows:
- Loosen the air vent screw on the oil pump. When air bubbles in the inlet tube oil disappear, tighten the air vent screw.

NOTE:
Wipe clean spilled oil completely using a cloth, and dispose of the cloth in a suitable way.
**FUEL AND LUBRICATING OIL**

**Fuel**
1. Fuel .................. Regular gasoline
2. Fuel tank capacity 22.7 liters (6 US gal, 5 Imp gal)

**Lubricating oil**
1. For the auto mixing type (Separate refueling) (EFO and EP types)
   - Nissan Motor Oil Super
2. For the mixing type (F type)

- Fuel-mixture lubrication 
  - **Mixture ratio 50 : 1**

- Nissan Motor Oil Super is also recommended for use in the mixing type.

**Lubricating method**
1. Fuel-mixture lubrication ...... F type

<table>
<thead>
<tr>
<th></th>
<th>Gasoline : oil</th>
</tr>
</thead>
<tbody>
<tr>
<td>During run-in period</td>
<td>25 : 1</td>
</tr>
<tr>
<td>After run-in period</td>
<td>50 : 1</td>
</tr>
</tbody>
</table>

**Auto mixing system (EFO and EP types)**

- The lubricating oil is delivered from the oil tank to the engine via the oil pump which discharges the required amount of oil which meets the engine operation. Gasoline is delivered from a separate route to the engine.

**CAUTION:**
During the run-in period, prepare the specified oil/fuel mixture (50 : 1) separately even for the auto mixing type.

**Oil level warning (EFO and EP types)**

- When the remaining lubricating oil drops below the specified level, the following warning units activate.

**Warning unit**
- On the EP type (remote controlled), the pilot lamp in the tachometer illuminates and, at the same time, the buzzer (in the remote control box) sounds. On any other type (EFO type, etc.), the pilot lamp (on the front surface of the lower motor cover) illuminates.

**NOTE:**
Before starting the engine, check the oil level in the tank. Top off the oil tank at all times.
PREPARATIONS FOR STARTING THE ENGINE

1. Loosen the air vent screw on the tank cap.

2. Connect the fuel connector to the connector on the engine side.

3. Pump the primary valve by hand to supply fuel to the carburetor.

CAUTION:
Never operate the engine without cooling water.

4. Ensure that the safety lock switch is inserted properly.

CAUTION:
The safety switch is designed for operator safety. When the lock is removed from the safety switch, the engine will stop. The engine does not start with the lock removed. Always hook the rope fitting of the rope to the operator's belt, etc. while boating. If the operator loses balance or thrown into the water, the lock will be pulled out to stop the engine. Do not operate the engine without cooling water.

NOTE:
Unless the control lever is set to "N" (Neutral), the free accelerator lever will not operate and the engine will not start.
**OPERATION**

**RUN-IN OPERATION**

1. Total run-in period .......... 10 hours

<table>
<thead>
<tr>
<th>Time</th>
<th>0 ~ 10 minutes</th>
<th>10 minutes ~ 1 hour</th>
<th>1 hour ~ 2 hours</th>
<th>2 hours ~ 10 hours</th>
<th>More than 10 hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Run-in operation</td>
<td>Operate at idling speed (with throttle fully closed)</td>
<td>Operate at less than 1/2 throttle.</td>
<td>1-minute full throttle operation is permissible every 10 minutes. Operate at less than 3/4 throttle.</td>
<td>Full throttle operation is permissible for a short period of time. Operate at less than 3/4 throttle.</td>
<td>Normal operation</td>
</tr>
<tr>
<td>Engine speed</td>
<td>Approx. 3,000 rpm, min.</td>
<td>Approx. 4,000 rpm, min.</td>
<td>Approx. 4,000 rpm</td>
<td>Approx. 4,500 to 5,500 rpm</td>
<td></td>
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</tbody>
</table>

2. Fuel mixture ratio

<table>
<thead>
<tr>
<th>Type</th>
<th>Mixture ratio</th>
<th>After 10-hour run-in operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>25 (gasoline) : 1 (Nissan Motor Oil Super)</td>
<td>Fuel mixture ratio – 50 (gasoline) : 1 (Nissan Motor Oil Super)</td>
</tr>
<tr>
<td>EFO and EPO</td>
<td>50 (gasoline) : 1 (Nissan Motor Oil Super)</td>
<td>Gasoline only</td>
</tr>
</tbody>
</table>

**NOTE:**

During the run-in period, prepare the fuel mixture separately.

**NOTE:**

Use only high quality gasoline and genuine Nissan Motor Oil in your engine to prolong service life and ensure trouble-free operation.

**CAUTION:**

- Before refilling fuel, stop the engine and place the fuel tank in a ventilated area outside the boat. Be careful not to spill fuel. When refilling the fuel tank inside the boat, wipe clean spilled fuel completely using a cloth to prevent the possibility of fire or explosion.

- Do not allow fuel to exceed the specified tank level.

Dispose of the cloth in a suitable manner.
(7) Pull the choke knob all the way back. (F type).

**EP type**

1. Insert the key switch into the slot.
2. Move the control lever to "N" (NEUTRAL) and move the free accelerator lever up to the full throttle position. A hot engine can be started without moving the free accelerator lever.

3. Press the key into the 1st position to activate the choke. The key does not need to be pressed when the engine is hot.
ENGINE STARTING
F type
(1) Slowly pull the starter handle until
resistance is felt, and then pull it
forcefully in a quick motion.
(2) After the engine starts, return the
starter handle slowly.
(3) Return the choke knob (if it was
pulled).
(4) Gradually return the throttle grip so
that the engine runs close to idling.

EFO type
(1) Turn the key to the START posi-
tion to start the engine.
(2) After the engine starts, release the
key.
(3) Return the choke knob (if it was
pulled).
(4) Gradually return the throttle grip so
that the engine runs close to idling.

CAUTION:
• Do not operate the starter motor
for more than 3 seconds at a time.
Wait approximately 5 seconds be-
fore trying again. Failure to follow
this rule may cause the battery to
run down.
• After starting the engine, quickly
release the key.

(5) Ensure that the shift lever is set to
"N" (NEUTRAL).

NOTE:
The starter lock mechanism does not
allow the engine to start when the
shift lever is set at any position other
than "N" (NEUTRAL).

(6) Turn the handle grip to the START
(convex) position.
WARNING:
Be careful not to catch your clothes in the rope.

WARM-UP OPERATION
Before running the boat, warm up the engine at low speed for approximately 3 minutes to lubricate the functional parts. Failure to do so may shorten the service life of the outboard motor. During the warm-up period, check that cooling water is discharging from the inspection port.

CAUTION:
Do not continue without cooling water since the engine overheats, resulting in engine seizure.

- Engine speed
  Engine idles properly when it runs at speeds as indicated in the table below.
- Do not allow engine speed to exceed the specified maximum speed range indicated in the table below.
(4) While pressing the key, turn it to the START position to start the engine.

NOTE:
When restarting a hot engine, turn the key to the START position (without pressing it).

(5) After the engine starts, release the key. It will automatically return to "ON".
(6) Return the free accelerator lever so that the engine runs close to idling.

CAUTION:
- Do not operate the starter motor for more than 3 seconds at a time. Wait approximately 5 seconds before trying again. Failure to follow this rule may cause the battery to run down.
- After starting the engine, quickly release the key.

STARTING THE ENGINE (WHEN THE RECOIL STARTER/STARTER MOTOR FAILS)
(1) Remove the upper motor cover.
(2) Remove the recoil starter. (F and EFO types)
(3) Remove the flywheel cover. (EP type)
(4) Turn the main switch "ON". (EFO and EP types)
(5) Wind 2 or 3 turns of the safety rope on the flywheel rotor, and pull the rope to start the engine.
NOTE:
- Ensure that the reverse lock lever is in the "LOCK" position before moving the shift lever to "F".
- Do not rev up the engine unnecessarily before moving the shift lever to "R".
- When moving the shift lever to "R", ensure that the handle grip returns to the low speed position. Otherwise, the shift lever cannot move into "R".

EP type
Forward
Pull up on the lock button completely (on the lower side of the control lever grip), and move the control lever to "F" until it stops at the 1st position (approximately 32°). Further movement of the control lever sets the engine into the throttle operation.

NOTE:
Note that the control lever does not operate when the free accelerator lever is set at the fully closed throttle position.

Reverse
Pull up on the lock button completely (on the lower side of the control grip), and move the control lever toward "R" until it stops at the 1st position (approximately 32°). Further movement of the control lever sets the engine into the throttle operation.

NOTE:
- Ensure that the reverse lock lever is set at the "LOCK" position.
- Do not rev up the engine unnecessarily when backing up the boat.
- The throttle position is restricted to one-half the full throttle during reverse operation. Do not rev up the engine.
OVERHEAT BUZZER (OPTIONAL)
When the coolant temperature exceeds the specified setting during operation, the overheat buzzer will sound and engine speed will decrease. When this occurs, immediately return the shift or the control lever to Neutral. Check that cooling water is discharging properly from the inspection port, and then stop the engine. Check the gear case exterior for accumulation of weeds or foreign particles. Remove weeds, foreign particles, etc. as required.

<table>
<thead>
<tr>
<th>Model</th>
<th>Maximum speed range (at full throttle)</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS40D</td>
<td>4,500 ~ 5,500 rpm</td>
</tr>
<tr>
<td>NS50D</td>
<td>5,000 ~ 5,700 rpm</td>
</tr>
</tbody>
</table>

EF and EFO types
Check that the overheat buzzer does not sound when the main switch is turned “ON” before starting the engine.

EP type
Check that the overhear buzzer does not sound when the main switch is turned “O” and the control lever is shifted to FORWARD or REVERSE before starting.

CAUTION:
If the buzzer sounds sporadically after starting the engine, consult the nearest Nissan marine dealer.

FORWARD AND REVERSE OPERATION
F and EFO types
Forward
Move the handle grip to the low speed position. When the engine idles at a very low speed, move the shift lever back to “F” (FORWARD).

Reverse
After the engine idles at a very low speed, move the shift lever forward to “R” (REVERSE).

NOTE:
Be sure to run the engine at a very low speed (idle) before moving the shift lever.
EFO type

1. Turn the main switch "OFF".

NOTE:
After cruising at close to full-throttle, do not bring the engine to a full stop immediately but idle it for 2 or 3 minutes.

EP type

1. Before stopping the engine, return the control lever to "N" (NEUTRAL) and operate the engine at idle for 2 or 3 minutes.

2. Turn the main switch key to "OFF" or remove the safety switch lock.

NOTE:
- After the engine stops, close the fuel tank valve and tighten the tank cap vent screw.
- Disconnect the fuel connector on the engine side.
- When the outboard motor is not to be used for an extended period of time, disconnect the cords from the battery.
SHALLOW WATER BOATING
F, EFO and EPO types (without power trim & tilt unit)

1. Move the reverse lock lever to "RELEASE".
2. Raise the outboard motor. It will automatically set the shallow water position.

3. To return the outboard motor to the normal cruising position, return the reverse lock lever to "LOC" and raise up the outboard motor slightly. It can then be returned to the normal cruising position.

EPTO type
Using the same procedure which adjusts the trim angle, set the outboard motor to a position higher than the normal position.

CAUTION:
- Be sure to operate the engine at trolling speeds during shallow water boating.
- Do not expose the anti-cavitation plate to air.

STOPPING THE ENGINE
F type

1. Push the stop switch and release it after the engine has stopped, or remove the safety switch lock.
3. To tilt up, press the UP section of the power trim & tilt switch (for approximately 12 seconds) until the motor's sound changes.

4. To tilt down, press the DN section (for approximately 12 seconds) until the motor's sound changes.

5. Mooring
   Tilt up the outboard motor and raise the tilt stopper to lock.

NOTE:
If the power trim & tilt switch does not operate due to a run down battery, turn the manual valve 2 or 3 rotations in the MANUAL direction using a screwdriver. The outboard motor can then be manually tilted up or down.

REMOVAL AND TRANSIT OF OUTBOARD MOTOR

1. Stop the engine. Disconnect the fuel connector to drain fuel from the carburetor.

NOTE:
Place a cloth at the connector opening to catch fuel, and wipe traces of fuel completely.
MOORING (TILT UP)

F, EFO and EPO type (without power trim & tilt unit)

When the outboard motor is not to be used for an extended period of time, or when the boat is moored in shallow water, the propeller and gear case may be damaged by striking the bottom. To avoid this, tilt the motor up as far as possible and lock with the tilt stopper.

1. Disconnect the fuel connector.
2. Tilting up
   Move the reverse lock lever to “RELEASE” and tilt the motor up. It will automatically set to the tilt-up position.

3. Tilting down
   Move the reverse lock lever to “LOCK” and raise up the motor slightly and lower the motor. The reverse lock will automatically lock.

EPTO type

1. Disconnect the fuel connector.

A. When tilting the outboard motor up or down using the power trim & tilt switch (on the remote control box), turn the main switch “ON”.
B. When tilting the outboard motor up or down on the engine side, leave the main switch “OFF”.

- Power trim & tilt switch (on remote control box)
ADJUSTMENT

CONTROL LEVER OPERATION ADJUSTMENT

Turn the throttle friction adjustment screw (on the front of the remote control box) until the control lever moves with the desired force. When the adjustment screw is turned clockwise, the force required to move the control lever increases; when it is turned counterclockwise, the force decreases.

TRIM TAB ADJUSTMENT

Adjust the trim tab (located under the anti-cavitation plate) to provide directional stability.

- (ex. 1) When the boat tends to turn to the right, turn the trim tab to the right (as viewed from the rear of the boat). See A in the figure below.

- (ex. 2) When the boat tends to turn to the left, turn the trim tab to the left, as shown by B in the figure.

CAUTION:

- The trim tab serves as an anode (zinc electrode). Do not apply paint to the trim tab as it loses its corrosion preventive function.
- After properly adjusting the trim tab, tighten the bolt securely.
2) Remove the wiring associated with the remote control box, remote steering unit, battery cords, transom mounting nuts and bolts and other accessories.

3) Dismount the outboard motor from the boat, and position it vertically. Wait until water no longer comes out of the gear case. When carrying or transporting the outboard motor from one place to another, be careful so that the propeller is not held above the engine head.
INSPECTION AND MAINTENANCE

Before and/or after the outboard motor is used, check and take corrective measures as needed, using the following chart as a guide.

DAILY INSPECTION

<table>
<thead>
<tr>
<th>Systems to check</th>
<th>Inspection description</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel and oil systems</td>
<td>o Check fuel level in fuel tank.</td>
<td>Add fuel.</td>
</tr>
<tr>
<td></td>
<td>o Check oil level.</td>
<td>Refer to page 49.</td>
</tr>
<tr>
<td></td>
<td>o Check fuel and oil filters for contamination of water or dirt.</td>
<td>Clean or replace.</td>
</tr>
<tr>
<td></td>
<td>(NGK B7HS-10 or Champion L82C) [Spark gap: 1.0 mm (0.039 in)]</td>
<td>Repair or replace.</td>
</tr>
<tr>
<td></td>
<td>(NGK B7HS-10 or Champion L82C) [Spark gap: 1.0 mm (0.039 in)]</td>
<td>Repair or replace.</td>
</tr>
<tr>
<td></td>
<td>o Check spark plug electrode for carbon accumulation, wear or &quot;bridges&quot;.</td>
<td>Add and recharge.</td>
</tr>
<tr>
<td></td>
<td>o Check main switch for operation.</td>
<td>Tighten or repair.</td>
</tr>
<tr>
<td></td>
<td>o Check safety switch for operation and lock plate for installation.</td>
<td>Adjust.</td>
</tr>
<tr>
<td></td>
<td>o Check battery electrolyte level.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Check battery cords for connection.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>o Check choke for operation.</td>
<td></td>
</tr>
<tr>
<td>Electrical system</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Clutch and propeller systems</td>
<td>o Check clutch for engagement (using remote control unit).</td>
<td>Adjust.</td>
</tr>
<tr>
<td></td>
<td>o Check propeller for bends or damage.</td>
<td>Replace.</td>
</tr>
<tr>
<td></td>
<td>o Check propeller nuts for tightness, and cotter pin for installation.</td>
<td>Adjust or replace.</td>
</tr>
<tr>
<td>Others</td>
<td>o Check trim tab (anode) for corrosion or deformity.</td>
<td>Replace.</td>
</tr>
<tr>
<td></td>
<td>o Check boat mounting bolts for tightness.</td>
<td>Tighten.</td>
</tr>
<tr>
<td></td>
<td>o Check cooling water flow after engine starts.</td>
<td></td>
</tr>
</tbody>
</table>
STEERING OPERATION ADJUSTMENT
F, EFO and EP types (without power trim & tilt unit)

- Adjust the steering adjustment bolt located on the swivel bracket. When the adjustment bolt is turned clockwise, the force required for steering increases; when it is turned counterclockwise, the effort decreases.

EPTO type

THROTTLE GRIP ADJUSTMENT (F AND EFO TYPES)

- Adjust the friction piece adjustment screw (located in the steering wheel) to increase or decrease the effort required to operate the throttle grip.
Propeller replacement
Use of a worn or bent propeller may hamper the satisfactory performance, resulting in poor engine operation.

A. Remove the cotter pin, propeller nut, washer and propeller stopper.
B. Remove the propeller.
C. After installing a new propeller, tighten the nut securely.

CAUTION:
- Before removing the propeller, be sure to remove the spark plug cap.
- Apply a coat of grease to the propeller shaft during installation.
- Discard the old cotter pin; replace with a new one.

Spark plug replacement
Clean carbon which accumulates in the area around the center electrode of the spark plug. If the spark plug is not suitable for further use, replace with a new one.

A. Remove the upper motor cover.
B. Using a 21-mm socket wrench and handle, remove the spark plug by turning it counterclockwise.

CAUTION:
- Before removing the propeller, be sure to remove the spark plug cap.
- Apply a coat of grease to the propeller shaft during installation.
- Discard the old cotter pin; replace with a new one.

Spark gap [0.9 - 1.0 mm (0.035 - 0.039 in)]
Flushing with tap water
After operation in salt or muddy water, flush the outboard exterior and cooling system using tap water.

1. Connect the furnished flushing plug to the WASH hole on the gear case, attach a rubber hose and flush the cooling system by running tap water through the hose.

NOTE:
Be sure to plug the water strainer on the gear case with tape in advance.

NOTE:
While running tap water, move the control (shift) lever to "N" (NEUTRAL) and start the engine to remove salt water, dirt, etc. completely.

NOTE:
Run the engine at Idle during flushing.

NOTE:
Before using the flushing plug, remove the propeller.

CAUTION:
Before storing the outboard motor for an extended period of time, be sure to completely clean the outboard motor and flush the cooling system.
<table>
<thead>
<tr>
<th>Section</th>
<th>Parts to check</th>
<th>Inspection intervals</th>
<th>Description</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frictional (rotational) parts and grease nipples</td>
<td>[ ] Every 10 hours or semi-monthly</td>
<td>[ ] Every 30 hours or monthly</td>
<td>[ ] Every 50 hours or quarterly</td>
<td>[ ] Every 100 hours or semi-annually</td>
</tr>
<tr>
<td>Power trim &amp; tilt</td>
<td>[ ] Every 10 hours or semi-monthly</td>
<td>[ ] Every 30 hours or monthly</td>
<td>[ ] Every 50 hours or quarterly</td>
<td>[ ] Every 100 hours or semi-annually</td>
</tr>
<tr>
<td>Lubrication system</td>
<td>Oil tank</td>
<td>[ ] Every 10 hours or semi-monthly</td>
<td>[ ] Every 30 hours or monthly</td>
<td>[ ] Every 50 hours or quarterly</td>
</tr>
</tbody>
</table>
PERIODIC INSPECTION
Consult your Nissan marine dealer for periodic inspection and maintenance.

<table>
<thead>
<tr>
<th>A Section</th>
<th>Parts to check</th>
<th>Inspection intervals</th>
<th>Description</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fuel system</td>
<td>Carburetor</td>
<td>Every 10 hours or semi-monthly</td>
<td>Disassemble, clean and adjust. *Idle adjustment</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fuel filter</td>
<td>Every 30 hours or monthly</td>
<td>Check and clean.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Piping</td>
<td>Every 50 hours or quarterly</td>
<td>Check for damage or leakage.</td>
<td></td>
</tr>
<tr>
<td>Ignition system</td>
<td>Fuel tank</td>
<td>Every 100 hours or semi-annually</td>
<td>Clean.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Spark plug</td>
<td>Every year</td>
<td>Check spark gap and decarbon.</td>
<td>0.9 - 1.0 mm (0.035 - 0.039 in)</td>
</tr>
<tr>
<td></td>
<td>Ignition timing</td>
<td>Every 18 months</td>
<td>Adjust.</td>
<td></td>
</tr>
<tr>
<td>Starting system</td>
<td>Starter motor</td>
<td>Every two years</td>
<td>Check for traces of salt. Check battery wiring.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Battery</td>
<td>Every 18 months</td>
<td>Check installation, electrolyte level and specific gravity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Starter rope</td>
<td>Every two years</td>
<td>Check for wear or breaks.</td>
<td></td>
</tr>
<tr>
<td>Lower motor cover system</td>
<td>Propeller</td>
<td>Every 100 hours or semi-annually</td>
<td>Check bent blades, damage or wear.</td>
<td>Nissan Gear Oil (SAE #80)</td>
</tr>
<tr>
<td></td>
<td>Gear oil</td>
<td>Every 18 months</td>
<td>Replace or refill. Check water in oil.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bolts and nuts</td>
<td>Every two years</td>
<td>Tighten.</td>
<td></td>
</tr>
</tbody>
</table>
NOTE:
Ensure that the oil tank and oil filter are free from water or foreign particles. If they are not, disconnect all tubes between the outboard motor’s oil tank and oil pump, and drain contaminated oil.
After completely draining the oil, connect the tubes and refill the oil tank with new oil. Bleed air from the oil line as outlined in the instructions on page 40.

Inspection of power trim & tilt oil level and lubrication method
A. Set the reservoir tank vertical as shown and tilt the outboard motor up when checking the oil level. Remove the oil plug by turning it counterclockwise and check the oil level. The oil level is correct if it is even with the lower line of the plug hole.

B. Use Dexron II, Automatic Transmission Fluid in the power trim & tilt unit.

NOTE:
Failure of the outboard motor to tilt up or down can sometimes be caused by air in the oil.
To bleed air, proceed as follows:
- Turn the manual valve to "MANUAL" with the outboard motor installed on the boat, and manually tilt the outboard motor up and down 5 to 6 times.
- After bleeding air, tighten the manual valve by turning it to "POWER".
Gear oil replacement

A. Place a container under the lower case. Remove the drain plug and the filler plug and completely drain oil into the container.

CAUTION:
When replacing gear oil, be sure to remove the spark plug cap in advance.

NOTE:
Use Nissan Gear Oil (SAE #80).
Approximate oil quantity 500 cc (16.9 US fl oz, 17.6 Imp fl oz)

B. Insert the oil container nozzle into the lower oil plug hole and refill with oil until the oil overflows at the upper oil plug hole.

Filter cleaning

Two filters are used. One is on the oil tank and the other on the engine.
A. Clean the filter in the oil tank after removing the four screws which secure the housing and detaching the housing.
B. Clean the fuel and oil filters on the engine after removing the cups.

C. Tighten the upper oil plug. Remove the container and tighten the lower oil plug.
Battery and battery cords for proper installation
Cleanliness of oil filter
Fuel and oil levels
Vinyl tubes (between oil tank and oil pump) for entry of air
Shift and throttle operation
When initially starting the outboard motor after long-term storage, warm up the engine for approximately 3 minutes. In addition, run the boat at low speeds for approximately 5 minutes, then at medium speeds for approximately 10 minutes. This will be a sure way of extending the service life of the engine.

NOTE:
After long-term storage of the outboard motor, use one tankful [22.7 liters (6 US gal, 5 imp gal)] of mixture fuel in the fuel tank, independently of oil in the oil tank.
Mixture of regular gasoline to Nissan Motor Oil Super
50 : 1

Thereafter, use only gasoline in the fuel tank.

WHEN THE MOTOR IS IMMERSED IN WATER
If the outboard motor is dropped into the water, it must be disassembled and serviced as soon as possible. Delayed servicing may lead to rust formation inside the engine.
Conduct the following temporary procedures and ask the nearest Nissan marine dealer for overhaul.

1. Remove the motor from the water as quickly as possible, and wash thoroughly with fresh water.
2. Remove the spark plug. Using the starter rope, drain any water that may have entered the engine through the spark plug hole.
3. Drain the water from the carburetor.

After completely draining water from the engine, pour engine oil into the spark plug hole and carburetor. Then, using the starter rope, distribute oil to every functional part of the engine.

MOORING IN COLD WEATHER
After boating in cold weather (where the ambient temperature drops below 0°C (32°F), cooling water in the water pump may freeze, resulting in damage to the impellers if the boat is moored for an extended period of time.
To prevent freezing, leave the lower unit in the water or tilt the outboard motor up and drain cooling water completely. To drain, remove the safety switch lock and set the main switch key to the START position for 5 seconds to run the engine under no load.
PRE-STORAGE INSPECTION AND SERVICE

Outboard motor
A. Flush the cooling system and completely drain water. Clean the outboard motor exterior by running tap water, and wipe traces of water off completely. Then, wipe the exterior using a cloth dampened with oil.
B. Clean the carburetor, fuel tank and fuel pump after draining fuel completely. It is advisable to pour a richer mixture of fuel and oil into the fuel tank. This helps prevent rust formation.
C. Remove the spark plug. Pour Nissan Engine Oil into the spark plug hole and turn the starter motor a few rotations.
D. Throw away oil from the oil filter and clean the filter. (Keep the filter dry during the storage.)
E. Apply a coat of grease to the propeller shaft.
F. Drain and refill the gear case.
G. Apply a coat of grease to all frictional parts, bolts and nuts.
H. Apply a coat of grease to the starter motor shaft and pinion.

NOTE:
Water and salt are enemies of the electrical parts. Wipe away traces of water and salt completely using a dry cloth.
I. Cover the outboard motor and set it vertical in a dry and cool area.

Battery
A. Disconnect the cords from the battery.
B. Completely clean the battery surface using running water and dry with compressed air. If necessary, wipe clean with a dry cloth.
C. Apply grease or vaseline to the battery terminals.
D. Charge the battery before storing it, and once a month during storage and check the electrolyte level.
E. Cover the battery and store it in a dry and cool place.
F. Before using the battery again, recharge completely.

INSPECTION AFTER LONG-TERM STORAGE
Before starting the outboard motor after long-term storage, it is advisable to contact your Nissan marine dealer for the before-operation inspection. When you do the before-operation inspection yourself, check the following items and take corrective measures as needed.

1. Battery electrolyte level and specific gravity of the electrolyte
   - Measure voltage across the battery terminals or the specific gravity of the electrolyte to determine whether or not the battery is in good condition. Use the following table as a guide.
<table>
<thead>
<tr>
<th></th>
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<td></td>
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<td></td>
<td>Cavitation occurs.</td>
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<td></td>
<td></td>
<td></td>
<td>Improper propeller is used.</td>
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<td></td>
<td></td>
<td>Propeller is damaged or deformed.</td>
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<td></td>
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<td></td>
<td>Cargo is loaded unevenly.</td>
</tr>
<tr>
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<td></td>
<td>Transom height is too high.</td>
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<td></td>
<td>Transom height is too low.</td>
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<td></td>
<td>Throttle link is not adjusted properly.</td>
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<td></td>
<td>Ignition timing is out of adjustment.</td>
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<td></td>
<td></td>
<td>Battery is discharged, or terminals are loose or corroded.</td>
</tr>
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<td></td>
<td></td>
<td>Main switch and power trim &amp; tilt switch are faulty.</td>
</tr>
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<td></td>
<td></td>
<td></td>
<td>Control lever is not set to &quot;N&quot; (NEUTRAL).</td>
</tr>
<tr>
<td></td>
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<td></td>
<td></td>
<td>Safety switch lock plate is not installed.</td>
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<td></td>
<td>Wiring is broken or improperly connected, or connectors do not make contact.</td>
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<td></td>
<td></td>
<td>Starter motor is inoperative.</td>
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<td></td>
<td></td>
<td></td>
<td>Too much air is in pump chamber.</td>
</tr>
</tbody>
</table>
**TROUBLESHOOTING**

When a problem occurs, use the following troubleshooting chart as a guide. It is advisable to consult your Nissan marine dealer for checks and repairs.

<table>
<thead>
<tr>
<th></th>
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<td>•</td>
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<td></td>
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<td></td>
<td>Fuel tank is empty.</td>
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<td></td>
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<td></td>
<td></td>
<td>Fuel line is not properly connected.</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Air is in fuel line.</td>
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<tr>
<td>•</td>
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<td>•</td>
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<td>•</td>
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<td></td>
<td></td>
<td></td>
<td>Fuel line is twisted.</td>
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<tr>
<td>•</td>
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<td>•</td>
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<td>•</td>
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<td></td>
<td>Air vent is closed.</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Fuel filter, fuel pump or carburetor is clogged.</td>
</tr>
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<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Engine is of poor quality.</td>
</tr>
<tr>
<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Fuel is of poor quality.</td>
</tr>
<tr>
<td>•</td>
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<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Spark plug is wet with fuel.</td>
</tr>
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<td>•</td>
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<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Carburetor is not properly adjusted.</td>
</tr>
<tr>
<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Recirculation pipe is broken.</td>
</tr>
<tr>
<td>•</td>
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<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Wrong spark plug is used.</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td>Spark plug is fouled and bridged.</td>
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<tr>
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<td>•</td>
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<td></td>
<td></td>
<td></td>
<td>Spark does not occur or is weak.</td>
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<td></td>
<td></td>
<td>Insufficient or no cooling water is supplied (due to faulty pump or clogged water inlet).</td>
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<tr>
<td>•</td>
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<td>•</td>
<td>•</td>
<td>•</td>
<td></td>
<td></td>
<td></td>
<td>Thermostat does not operate properly.</td>
</tr>
</tbody>
</table>
## PROPELLERS

<table>
<thead>
<tr>
<th>Mark</th>
<th>C14.5</th>
<th>14</th>
<th>C13.5</th>
<th>13</th>
<th>12</th>
<th>11</th>
<th>10</th>
<th>9</th>
<th>8.5</th>
<th>7*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size</td>
<td>mm (in)</td>
<td>mm (in)</td>
<td>mm (in)</td>
<td>mm (in)</td>
<td>mm (in)</td>
<td>mm (in)</td>
<td>mm (in)</td>
<td>mm (in)</td>
<td>mm (in)</td>
<td>mm (in)</td>
</tr>
<tr>
<td></td>
<td>286 x 350</td>
<td>260 x 352</td>
<td>279 x 314</td>
<td>262 x 322</td>
<td>268 x 296</td>
<td>268 x 287</td>
<td>275 x 252</td>
<td>276 x 226</td>
<td>285 x 220</td>
<td>290 x 180</td>
</tr>
<tr>
<td></td>
<td>(11.3 x 13.8)</td>
<td>(10.2 x 13.9)</td>
<td>(11.0 x 12.4)</td>
<td>(10.3 x 12.7)</td>
<td>(10.6 x 11.7)</td>
<td>(10.6 x 9.9)</td>
<td>(10.9 x 8.9)</td>
<td>(11.2 x 8.7)</td>
<td>(11.4 x 7.1)</td>
<td></td>
</tr>
</tbody>
</table>

*: 4-blade propeller type (Others: 3-blade types)

Transom
(for S and L types on NS50D)

Transom
(for S and L types on NS40D, for XL type on NS40D)
## ACCESSORIES

<table>
<thead>
<tr>
<th>Description</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service tool</strong></td>
<td></td>
</tr>
<tr>
<td>Tool bag</td>
<td>1</td>
</tr>
<tr>
<td>21-mm socket wrench</td>
<td>1</td>
</tr>
<tr>
<td>Socket wrench (10 x 13)</td>
<td>1</td>
</tr>
<tr>
<td>Socket wrench handle</td>
<td>1</td>
</tr>
<tr>
<td>Pliers</td>
<td>1</td>
</tr>
<tr>
<td>Screwdriver (replaceable cross-head and slot-head blade type)</td>
<td>1</td>
</tr>
<tr>
<td>Wrench (10 x 13)</td>
<td>1</td>
</tr>
<tr>
<td>Wrench (17 x 19)</td>
<td>1</td>
</tr>
<tr>
<td>Safety rope [6 x 1,600 mm (0.24 x 62.99 in)]</td>
<td>1</td>
</tr>
<tr>
<td><strong>Spare parts</strong></td>
<td></td>
</tr>
<tr>
<td>Spark plug</td>
<td>3</td>
</tr>
<tr>
<td>Cotter pin</td>
<td>2</td>
</tr>
<tr>
<td>Pin dia. x length = 3 x 25 mm (0.12 x 0.98 in)</td>
<td>(For Canada) NS40D: NGKB7HS-10 (NGKBR7HS-10) NS50D: NGKB8HS-10 (NGKBR8HS-10)</td>
</tr>
<tr>
<td><strong>Other accessories</strong></td>
<td></td>
</tr>
<tr>
<td>Bracket mounting bolt</td>
<td>4</td>
</tr>
<tr>
<td>Bracket mounting nut</td>
<td>4</td>
</tr>
<tr>
<td>Washers A (large) and B (small)</td>
<td>4 each</td>
</tr>
<tr>
<td>Fuel tank (with primary valve)</td>
<td>1</td>
</tr>
<tr>
<td>Flushing plug</td>
<td>1</td>
</tr>
<tr>
<td>Remote control box set</td>
<td>1</td>
</tr>
<tr>
<td>Drag link set</td>
<td>1</td>
</tr>
<tr>
<td>Tachometer</td>
<td>1</td>
</tr>
<tr>
<td>Trim meter</td>
<td>1</td>
</tr>
<tr>
<td>Meter lead wire</td>
<td>1</td>
</tr>
<tr>
<td>Vinyl motor cover</td>
<td>1</td>
</tr>
<tr>
<td>Owner's manual</td>
<td>1</td>
</tr>
</tbody>
</table>
Drive cleaner (used for flushing with water)

Twin control box kit (for two-engine mount type)

Remote control cable (19 types ranging from 2.1 to 9.1 m (7 to 30 ft.))

Nissan Grease (50 g and 250 g)

Propeller

Nissan Gear Oil (260 cc and 500 cc)

Touch-up spray

Nissan Motor Oil Super (5 l) (EFO/EP type)

Nissan Motor Oil (0.5 l, 1 l, and 20 l) (F type)
OPTIONAL ACCESSORIES

For details concerning accessories, contact the nearest Nissan marine dealer.

1. Speedometer

2. Hourmeter (Service meter)

3. Fuel meter

4. Water pressure meter

5. Water temperature meter

6. Meter lamp switch