PREFACE

This manual covers service procedures for the HONDA BF75and BF100 Ouboard Motors, serial numbers 1000004 and subsequent.

HONDA MOTOR CO., LTD.
SERVICE PUBLICATIONS OFFICE

CONTENTS

1. SPECIFICATIONS

Dimensions · Weight

	BF 75 Short	BF 75 Long	BF 100 Short	BF 100 Long
Overall length	515 mm (20.3 in)	←	←	←
Overall width	315 mm (12.4 in)	←	←	←
Overall height	1,010 mm (39.8 in)	1,160 mm (45.7 in)	1,010 mm (39.8 in)	1,160 mm (45.7 in)
Dry weight	34 kg (75.0 lb)	35 kg (77.2 lb)	34 kg (75.0 lb)	35 kg (77.2 lb)
Operating weight (incld. oil)	35 kg (77.2 lb)	36 kg (79.4 lb)	35 kg (77.2 lb)	36 kg (79.4 lb)
Transom height	422 mm (16.6 in)	572 mm (22.5 in)	422 mm (16.6 in)	572 mm (22.5 in)
Transom angle	4-stage (3° – 8° – 13° – 18°)			
Tilting	2-stage (32.5° – 72°)			
Swivel angle	R: 45°, L: 45°			

Engine

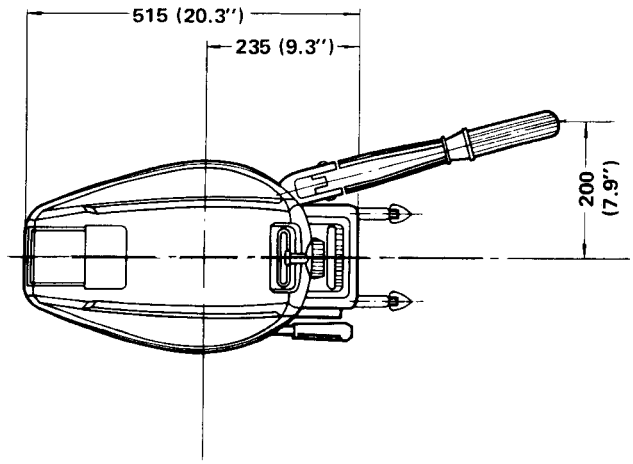
Type	2 cylinder, in–line, 4 stroke, water-cooled, OHC			
Total piston displacement	197 cc (12.0 cu in)			
Bore x stroke	56 x 40 mm (2.20 x 1.57 in)			
Maximum horsepower	7.5 ps (7.4 hp)/5,200 rpm	←	9.9 ps (9.8 hp)/5,700 rpm	←
Maximum torque	110 kg-cm (7.96 ft-lb)	←	130 kg-cm (9.40 ft-lb)	←
Compression ratio	8.6 : 1			
Fuel consumption ratio	270 g/ps·h (0.60 lb/hp·h)			
Cooling system	Forced water circulation by impeller pump with thermostat			
Ignition system	Engine serial number 1000004–1199999: Flywheel magneto Engine serial number 1200001 and subsequent: CDI			
Ignition timing	15° – 35° B.T.D.C.			
Spark plug	DR–5HS (NGK) (Standard)			
Carburetor	Horizontal type, butterfly valves			
Advance type	Centrifugal spark advance			
Lubrication system	Pressure lubrication by trochoid pump			
Lubricant capacity	0.8ℓ (0.85 US qt, 0.70 Imp qt) (SAE 10W–40 Service Classification SE or SF)			
Starting system	Recoil starter			
Stopping system	Grounding of primary circuit			
Fuel	Regular automotive gasoline			
Fuel tank capacity	13ℓ (3.4 US gal, 2.9 Imp gal)			
Fuel pump	Diaphragm type			
Exhaust system	In–water type			

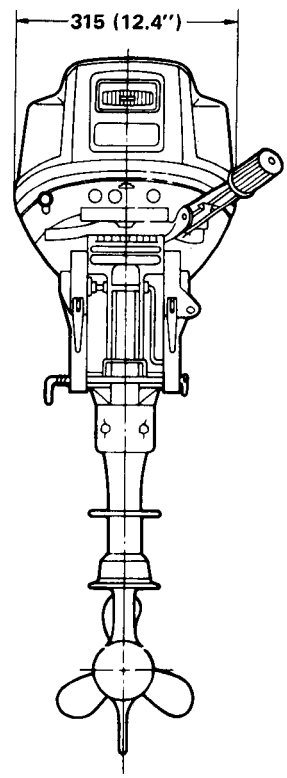
Lower Unit

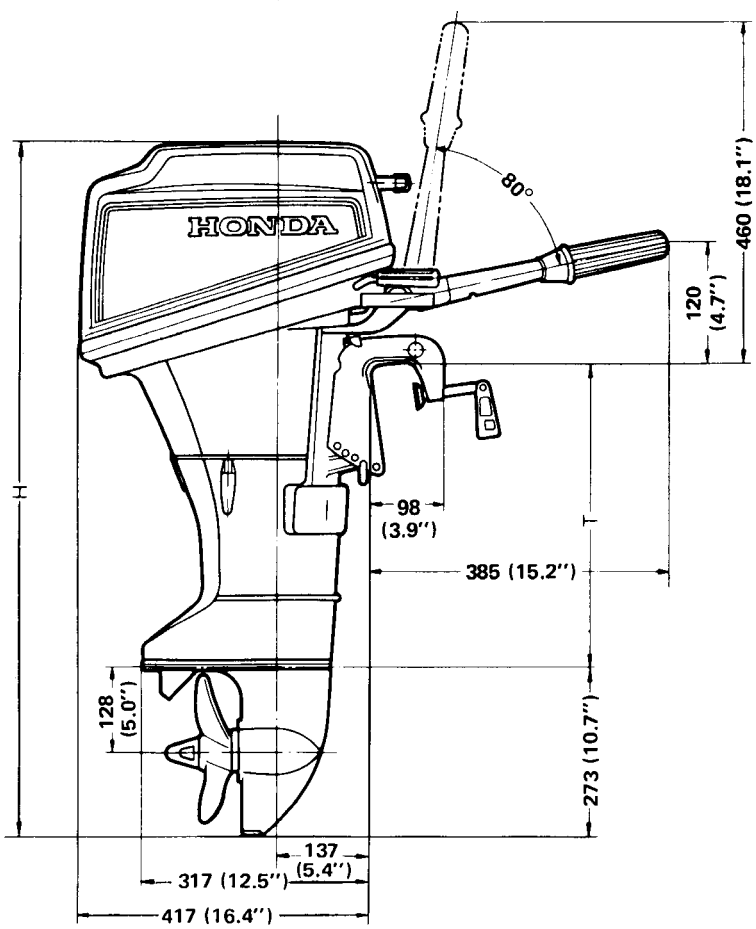
Clutch	Dog clutch (Forward – Neutral – Reverse)
Gear ratio	12 : 29
Gear case oil capacity	0.23ℓ (0.49 US pt)
Propeller	
No. of blades-Dia. x Pitch	3 – 240 mm x 220 mm (3 – 9-1/2 x 8-3/4 in)
Rotating direction	Clockwise (viewed from rear)

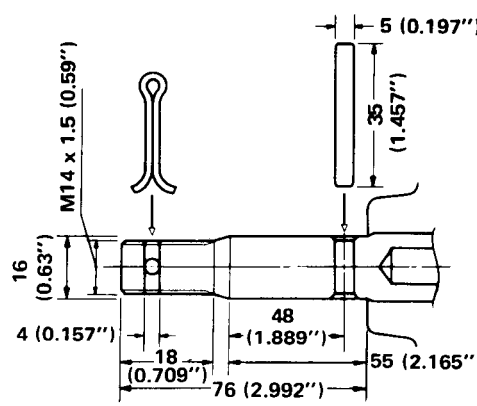
2. DIMENSIONAL DRAWINGS

	H: HEIGHT	T: TRANSOM HEIGHT
BF 75S BF 100S	1,010 mm (39.8 in)	422 mm (16.6 in)
BF 75L BF 100L	1,160 mm (45.7 in)	572 mm (22.5 in)









II. SERVICE INFORMATION

1. GENERAL SAFETY

Pay attention to these symbols and their meaning:

WARNING Indicates a strong possibility of severe personal injury or loss of life if instructions are not followed.

CAUTION: Indicates a possibility of personal injury or equipment damage if instructions are not followed.

WARNING

If the motor must be running to do some work, make sure the area is well ventilated. Never run the engine in a closed area. The exhaust contains poisonous carbon monoxide gas.

WARNING

Gasoline is extremely flammable and is explosive under certain conditions. Do not smoke or allow flames or sparks in your working area.

CAUTION:
Keep away from rotating or hot parts and high tension wires when the engine is run with the cover off.

CAUTION:
Make sure the water level is above the anti-cavitation plate when testing the unit in a tank. Otherwise the pump will be destroyed and the engine will overheat.

2. SERVICE RULES

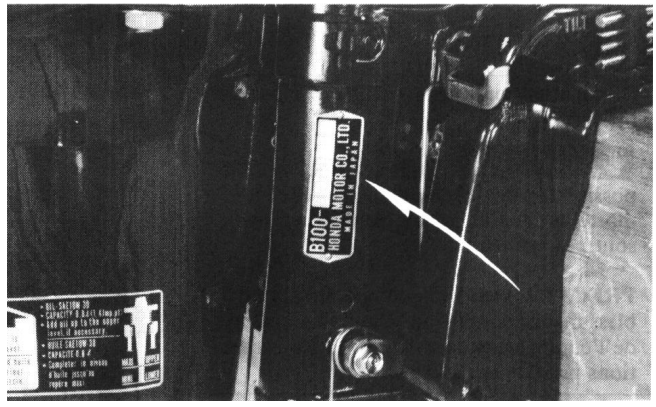
1. Use genuine Honda or Honda-recommended parts and lubricants or their equivalents. Parts that do not meet Honda's design specifications may damage the unit.
2. Use the special tools designed for the product.
3. Install new gaskets, O-rings, etc. when reassembling.
4. When torquing bolts or nuts, begin with larger-diameter or inner bolt first and tighten to the specified torque diagonally, unless a particular sequence is specified.
5. Clean parts in cleaning solvent upon disassembly. Lubricate any sliding surfaces before reassembly.
6. After reassembly, check all parts for proper installation and operation.
7. Follow the instructions represented by these symbols when they are used:

: Apply grease.

: Apply oil.

3. SERIAL NUMBER LOCATION

The serial number is stamped on the name plate attached to the swivel case. Always specify this number when inquiring or ordering parts in order to get correct parts for the unit being serviced.



4. MAINTENANCE STANDARDS

Item			Standard	Service Limit
Engine	Idle speed		1,200 ± 100 rpm (in neurral)	
	Cylinder compression	BF75	10.0 kg/cm² (142 lb/in²)/600 rpm	
		BF100	10.6 kg/cm² (151 lb/in²)/600 rpm	
Carburetor	Main jet		#88	
	Pilot screw opening		2-1/4 turns [1-3/4 turns]	
	Float height		10.0 mm (0.39 in)	
Thermostat	Opens		60°–70°C (140°–158°F)	
			[70°–80°C (158°–176°F)]	
	Valve lift		3–4 mm (0.12–0.16 in)	
Spark plug	Gap		0.6–0.7 mm (0.024–0.028 in)	
Valve	Valve tappet clearance (IN/EX)		0.06–0.1 mm (0.02–0.004 in)	
	Valve stem O.D.	IN	5.5 mm (0.22 in)	5.08 mm (0.2 in)
		EX	5.5 mm (0.22 in)	4.75 mm (0.187 in)
	Valve guide I.D.		5.5 mm (0.22 in)	5.54 mm (0.218 in)
	Valve seat width		0.7 mm (0.03 in)	2.0 mm (0.079 in)
	Valve spring free length		28.9 mm (1.138 in)	27.4 mm (1.079 in)
Rocker arm	Rocker arm I.D.		13.0 mm (0.51 in)	13.06 mm (0.514 in)
	Rocker arm shaft O.D.		13.0 mm (0.51 in)	12.92 mm (0.509 in)
Camshaft	Cam height	IN BF75	26.5mm (1.04 in) [23.0 mm (0.91 in)]	26.25 mm (1.033 in) [22.75 mm (0.896 in)]
		BF100	25.2 mm (0.99 in) [25.0 mm (0.98 in)]	24.95 mm (0.982 in) [24.75 mm (0.974 in)]
		EX BF75	23.2 mm (0.91 in) [23.0 mm (0.91 in)]	22.95 mm (0.904 in) [22.75 mm (0.896 in)]
		BF100	25.2 mm (0.99 in) [25.0 mm (0.98 in)]	24.95 mm (0.982 in) [24.75 mm (0.974 in)]
	O.D. (at oil pump)		16.0 mm (0.63 in)	15.916 mm (0.627 in)
Oil pump	Body I.D.		23.0 mm (0.91 in)	23.23 mm (0.915 in)
	Inner rotor-to-outer rotor clearance		0.15 mm (0.006 in)	0.20 mm (0.008 in)
	Outer rotor-to-body clearance		0.15 mm (0.006 in)	0.26 mm (0.010 in)
Piston	O.D. (at skirt)		56.0 mm (2.2 in)	55.880 mm (2.2 in)
	Piston pin hole I.D.		14.0 mm (0.55 in)	14.048 mm (0.553 in)
	Piston pin O.D.		14.0 mm (0.55 in)	13.954 mm (0.549 in)
	Piston ring width	Top	1.5 mm (0.06 in)	1.36 mm (0.054 in)
		Second	1.5 mm (0.06 in)	1.37 mm (0.054 in)
		Oil	2.5 mm (0.10 in)	2.37 mm (0.093 in)
	Piston ring side clearance			
		Top	0.025 mm (0.001 in)	0.10 mm (0.004 in)
		Second	0.025 mm (0.001 in)	0.10 mm (0.004 in)
		Oil	0.015 mm (0.0006 in)	0.10 mm (0.004 in)
	Ring end gap	Top	0.15 mm (0.006 in)	1.0 mm (0.039 in)
		Second	0.15 mm (0.006 in)	1.0 mm (0.039 in)
		Oil	0.15 mm (0.006 in)	1.0 mm (0.039 in)
Cylinder	Sleeve I.D.		56.0 mm (2.2 in)	56.165 mm (2.211 in)
	Piston-to-cylinder clearance		0.010–0.055 mm (0.0004–0.0022 in)	
Connecting rod	Small end I.D.		14.0 mm (0.55 in)	14.070 mm (0.554 in)
	Big end radial clearance		0.04 mm (0.002 in)	0.083 mm (0.003 in)
	Big end axial clearance		0.6 mm (0.02 in)	1.3 mm (0.051 in)
Crankshaft	Crankpin O.D.		28.0 mm (1.10 in)	27.952 mm (1.100 in)
Propeller shaft	O.D. (at bevel gear)		17.0 mm (0.67 in)	16.930 mm (0.667 in)
	Bevel gear I.D.		17.0 mm (0.67 in)	17.06 mm (0.672 in)

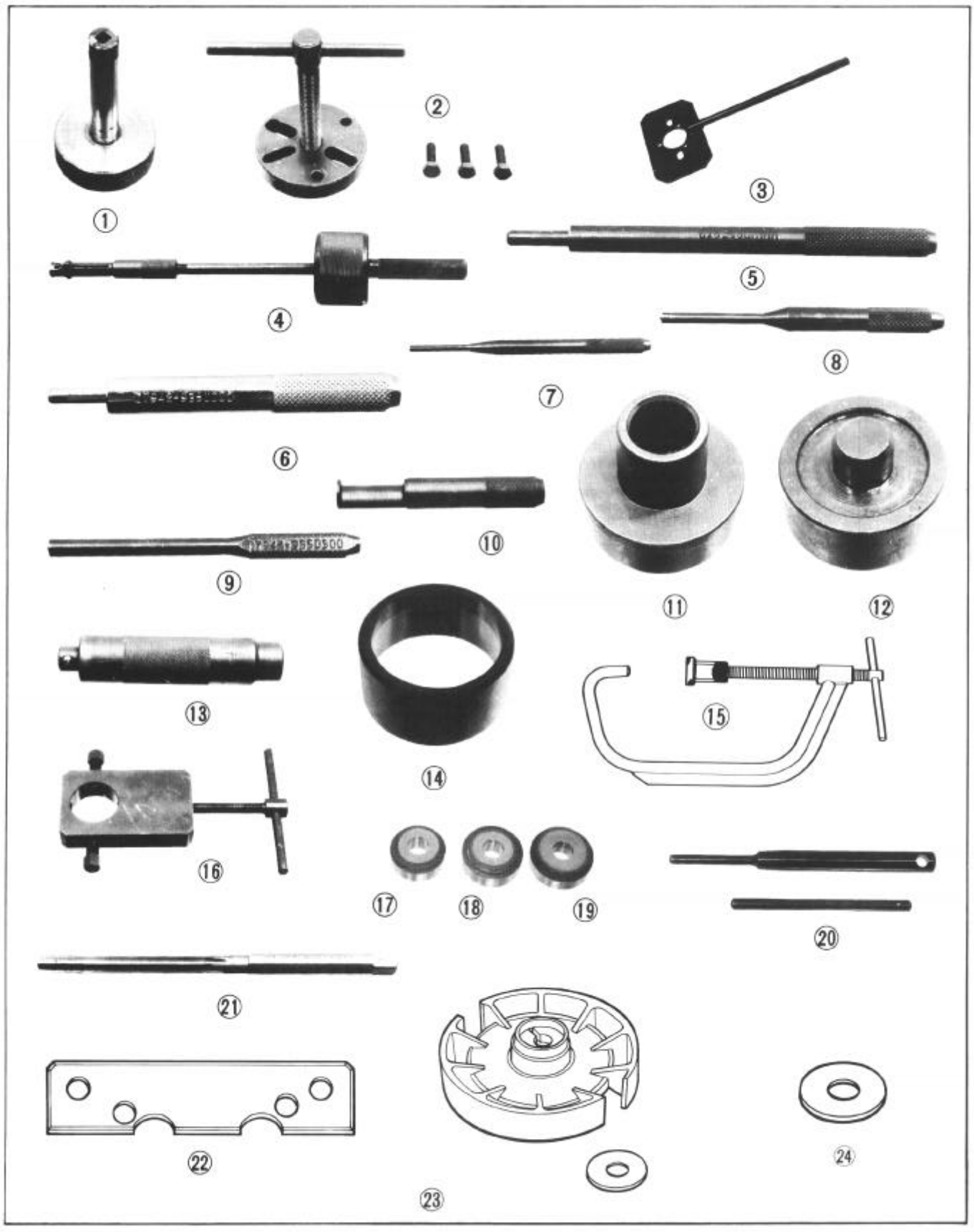
[ ] : Engine serial number range 1000004–1199999

5. TORQUE VALUES

Part	Fasteners	Torque (kg-m) (ft-lb)
Flywheel	14 mm nut	6.0–7.0 (43.4–50.8)
Timing pulley	24 mm nut	2.0–2.5 (14.5–18.1)
Cam pulley	6 mm bolt	0.8–1.2 (5.8–8.7)
Cylinder head	8 mm bolt	2.0–2.5 (14.5–18.1)
Crankcase	8 mm bolt	2.0–2.4 (14.5–17.4)
	6 mm bolt	0.9–1.2 (6.5–8.7)
Connecting rod	6 mm special bolt	0.9–1.1 (6.5–8.0)
Engine mounting	6 mm bolt	0.8–1.2 (5.8–8.7)
Pressure switch		0.7–1.0 (5.1–7.2)
Steering handlebar	Handlebar pivot screw	2.0–2.8 (14.5–20.2)
Standard torques	5 mm bolt and nut	0.4–0.7 (2.9–5.1)
	6 mm bolt and nut	0.8–1.2 (5.8–8.7)
	8 mm bolt and nut	2.0–2.8 (14.5–20.2)
	10 mm bolt and nut	3.5–4.0 (25.3–28.9)

6. SPECIAL TOOLS

Ref. No.	Tool No.	Tool Name	Application	Ref. Page
1	07708—0030400	Adjusting wrench B	Valve adjuster	26
2	07935—8050002	Flywheel puller	Flywheel (disassembly)	38
3	07925—8930000	Pulley holder or commercially available band strap wrench	Flywheel (dis/reassembly)	38
4	07936—9350001	Bearing remover set	6302 bearing (disassembly) Gear case needle roller bearing	83 85
5	07742—0010100	Valve guide remover	Valve guide (disassembly)	60
6	07942—9350000	Valve guide driver	Valve guide (assembly)	60
7	07944—9350100	2.5 mm Pin driver	Spring pin	
8	07944—9350200	4 mm Pin driver	Spring pin	78
9	07944—9350300	6 mm Pin driver	Spring pin	73
10	07945—9350001	Bearing remover	6203 bearing (disassembly) 17 mm water sed (disassembly)	79 79
11	07946—9350101	Attachment driver A	Coupling seal (assembly) 6203 bearing (assembly) 17 mm water seal (assembly)	79 79 79
12	07946—9350200	Attachment driver B	15 mm water seal (assembly) 6302 bearing (assembly)	83 83
13	07749—0010000	Driver handle	• Handle for tools (11) and (12)	
14	07955—8810000	Piston slider or commercially available piston ring compressor	Piston (assembly)	67
15	07757—0010000	Valve spring compressor	Valve cotter	59
16	07968—9350000	4 mm pin, pin flare tool	Shifter pin	85
17	07780—0010200	45° Cutter	Valve seat (refacing)	65
18	07780—0012100	Flat cutter (IN)	Valve seat (refacing)	65
19	07780—0012000	Flat cutter (EX)	Valve seat (refacing)	65
20	07781—0010100	Cutter holder	• Holder for cutters (17) thru (19)	65
21	07984—2000000	Valve guide reamer (5.5 mm)	Valve guide (reaming)	60
22	07973—8810001	Water tube guide	Water tube (assembly)	81
23 24	07975—8810002 07979—8810010	Test propeller, SPACER SPACER	For testing in water tank	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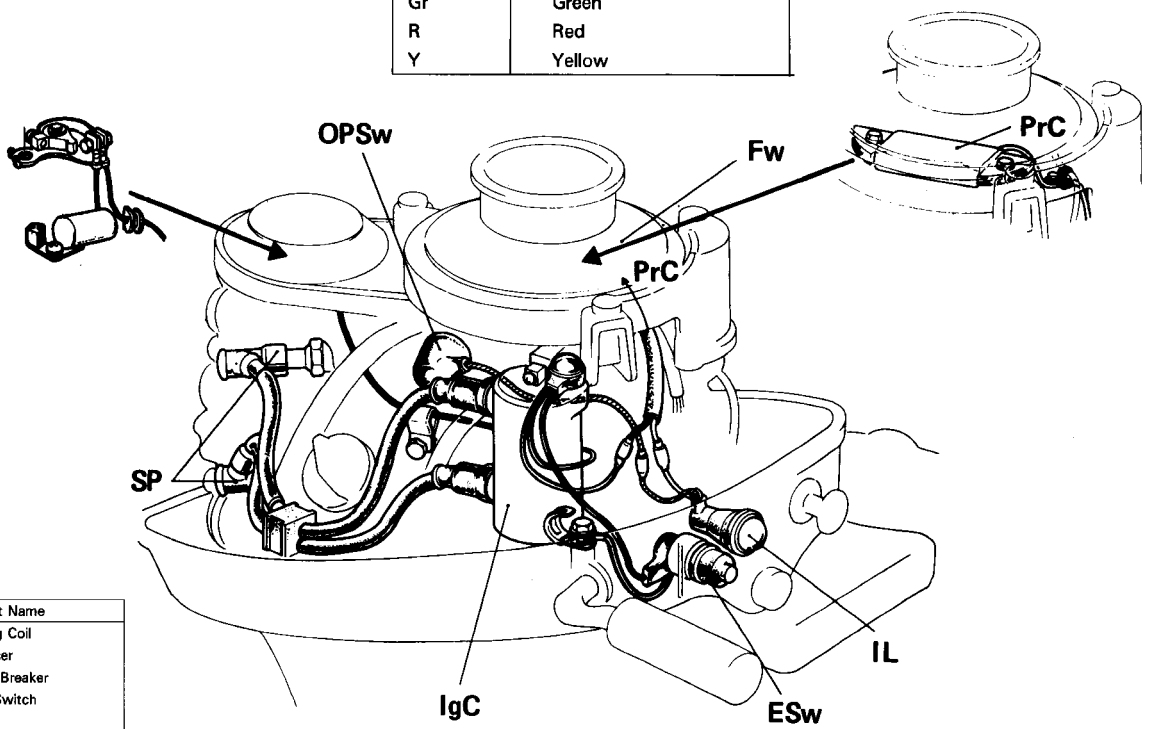
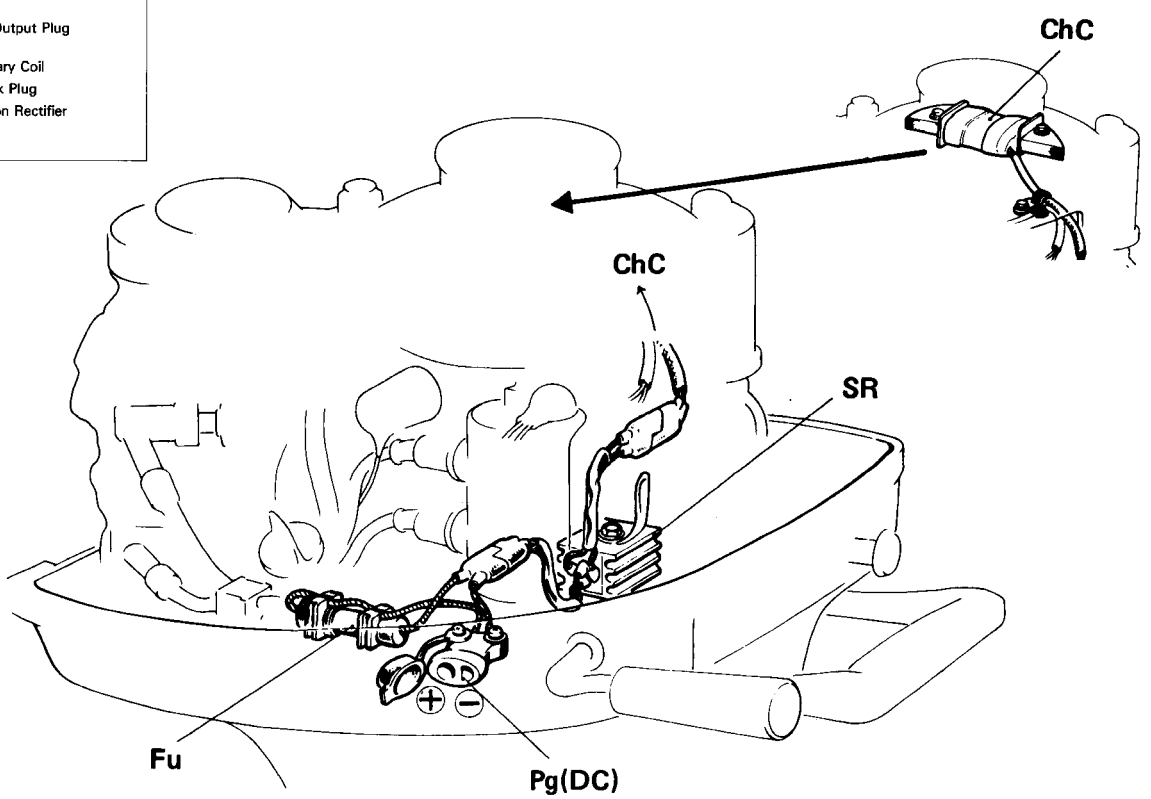
Engine serial number 1000004–1199999

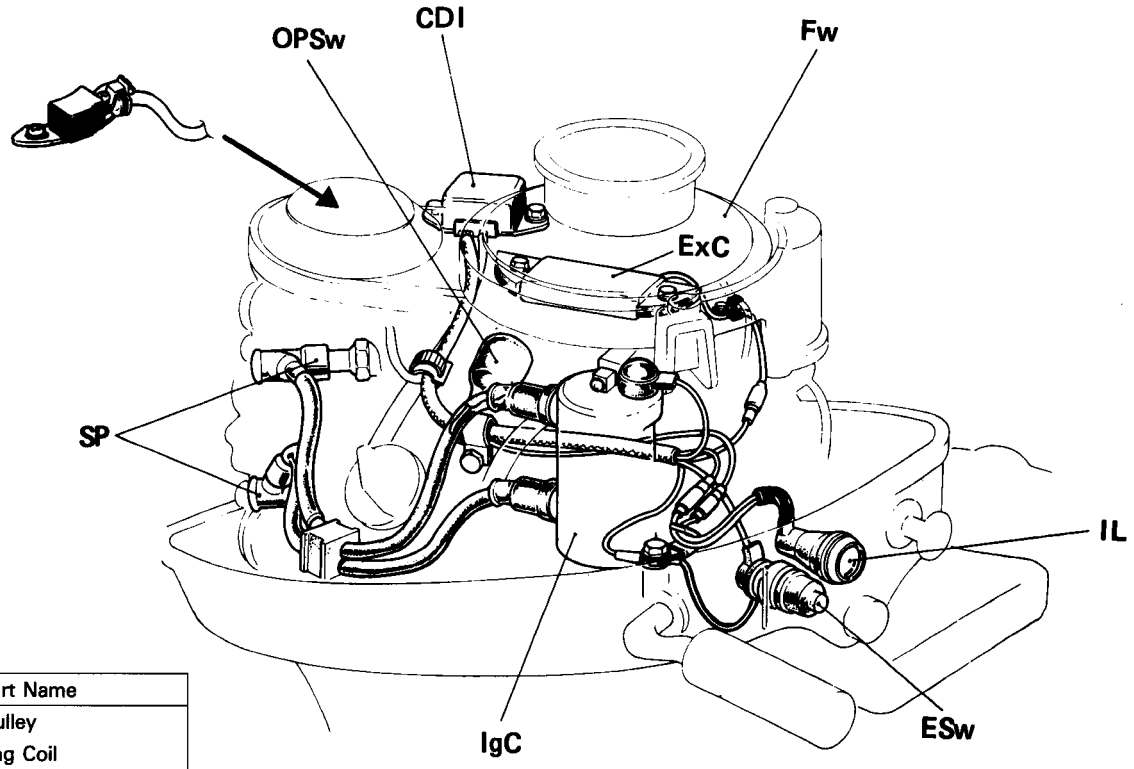
Code	Wire Color
B	Black
Bl	Blue
Gr	Green
R	Red
Y	Yellow



Code	Part Name
ChC	Charging Coil
Co	Condenser
CoB	Contact Breaker
ESw	Engine Switch
Fu	Fuse
Fw	Flywheel
IgC	Ignition Coil
IL	Indicator Lamp
OPSw	Oil Pressure Switch
Pg (DC)	DC Output Plug
PrC	Primary Coil
SP	Spark Plug
SR	Silicon Rectifier

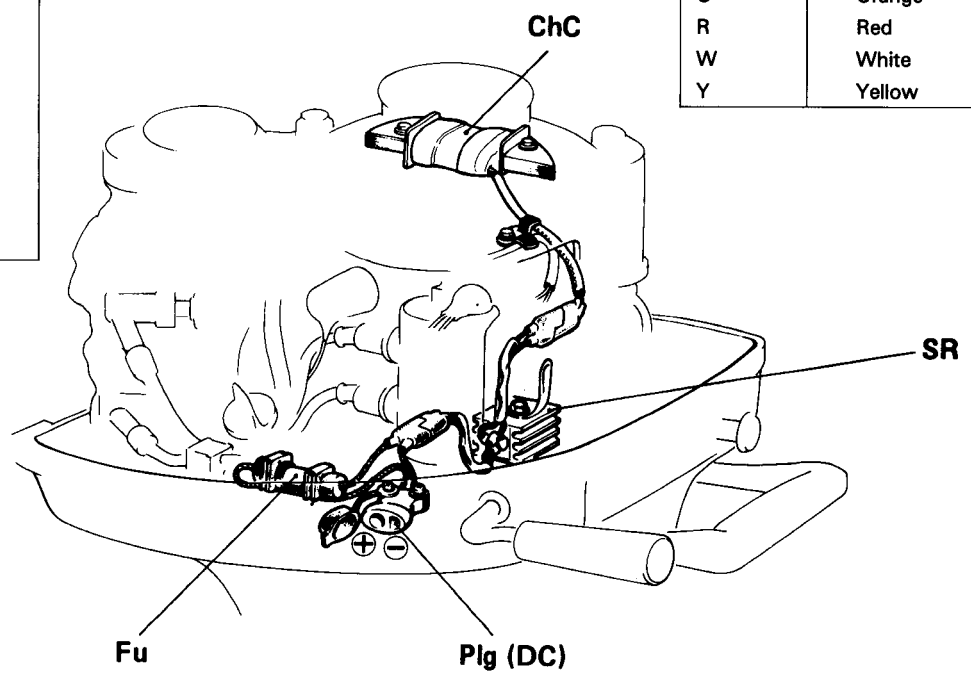


- **Engine serial number 1200001–1299999**

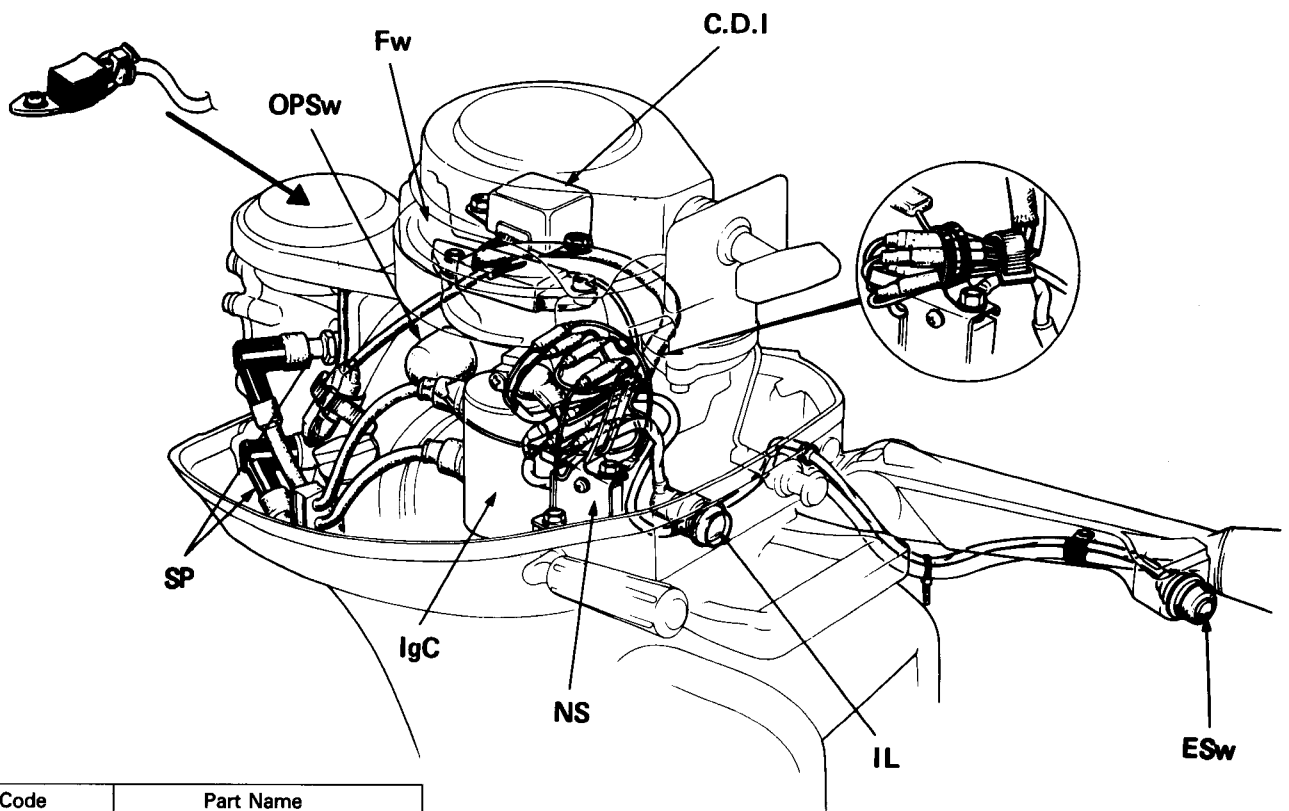


Code	Part Name
Cap	Cam Pulley
ChC	Charging Coil
ESw	Engine Switch
ExC	Exciter Coil
Fu	Fuse
Fw	Flywheel
IgC	Ignition Coil
IL	Indicator Lamp
NS	Neutral Switch
Plg (DC)	DC Output Plug
PIC	Pulser Coil
SP	Spark Plug
SR	Silicon Rectifier
OPSw	Oil Pressure Switch

Code	Wire Color
B	Black
Bl	Blue
Br	Brown
G	Green
O	Orange
R	Red
W	White
Y	Yellow



- **Engine serial numbers 1300001 and subsequent**



Code	Part Name
Cap	Cam Pulley
ChC	Charging Coil
ESw	Engine Switch
ExC	Exciter Coil
Fu	Fuse
Fw	Flywheel
IgC	Ignition Coil
IL	Indicator Lamp
NS	Neutral Switch
Plg (DC)	DC Output Plug
PIC	Pulser Coil
SP	Spark Plug
SR	Silicon Rectifier
OPSw	Oil Pressure Switch

Code	Wire Color
B	Black
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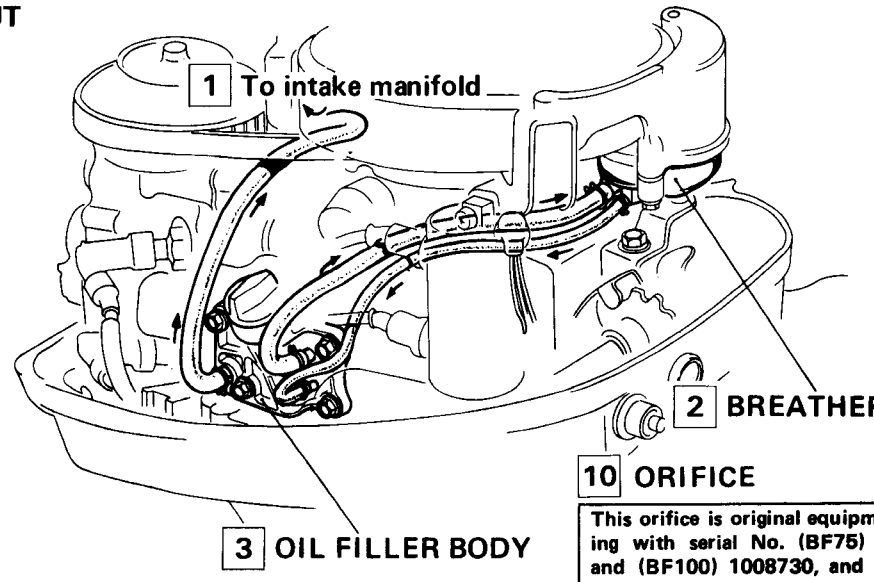
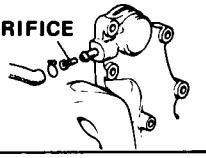
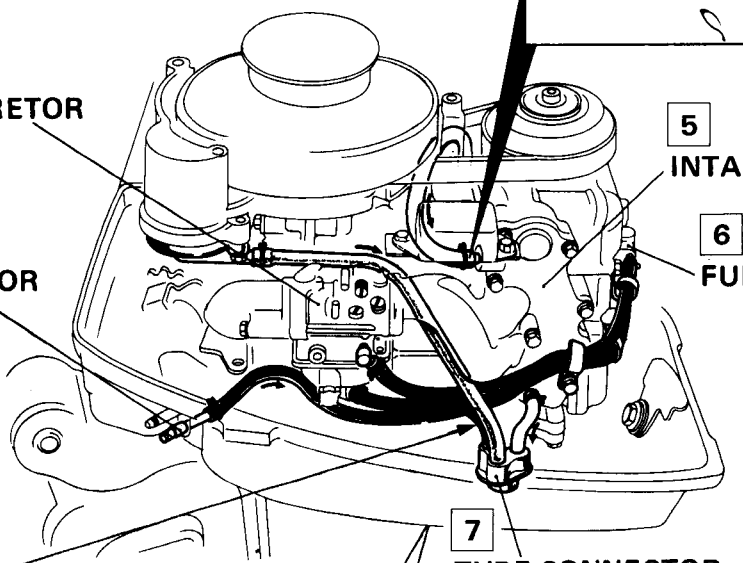
Br	Brown
G	Green
O	Orange
R	Red
W	White
Y	Yellow

8. TUBING LAYOUT

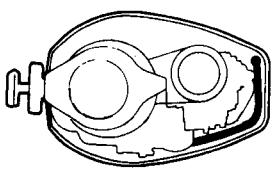


This orifice is original equipment starting with serial No. (BF75) 1004080 and (BF100) 1008730, and is recommended for all motors.

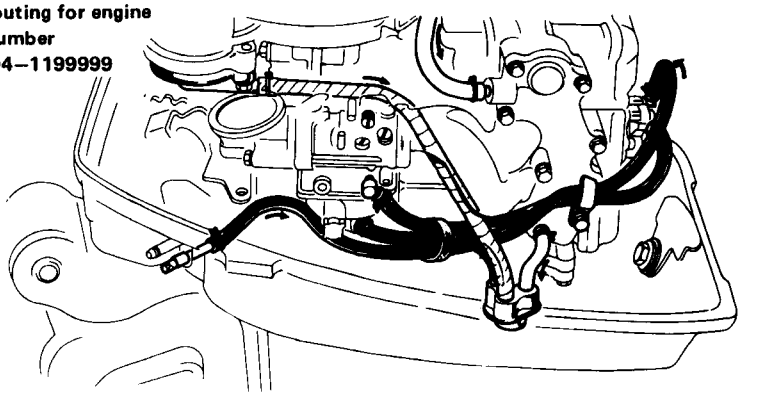




Routing for engine serial number 1500001 and subsequent.

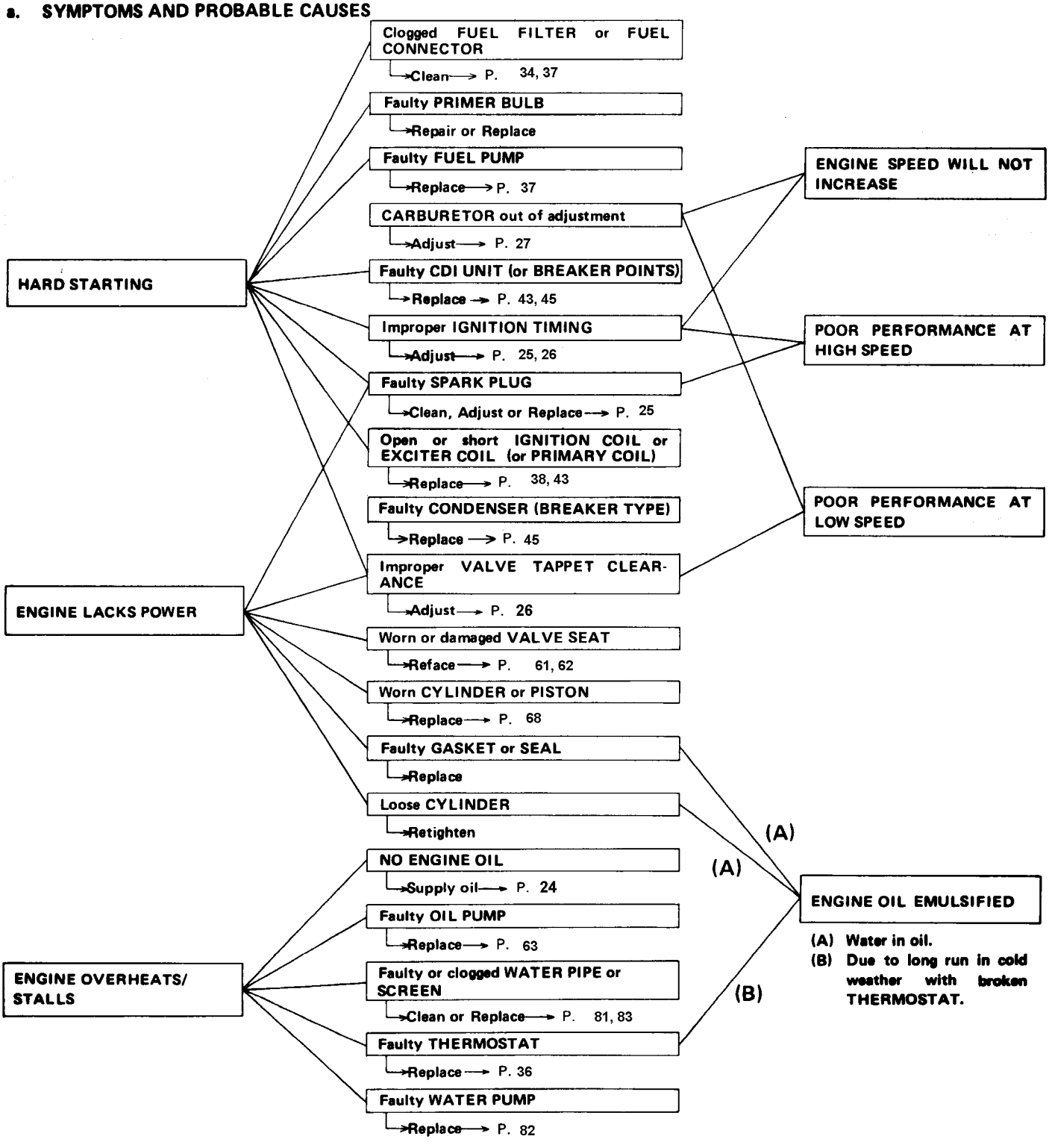


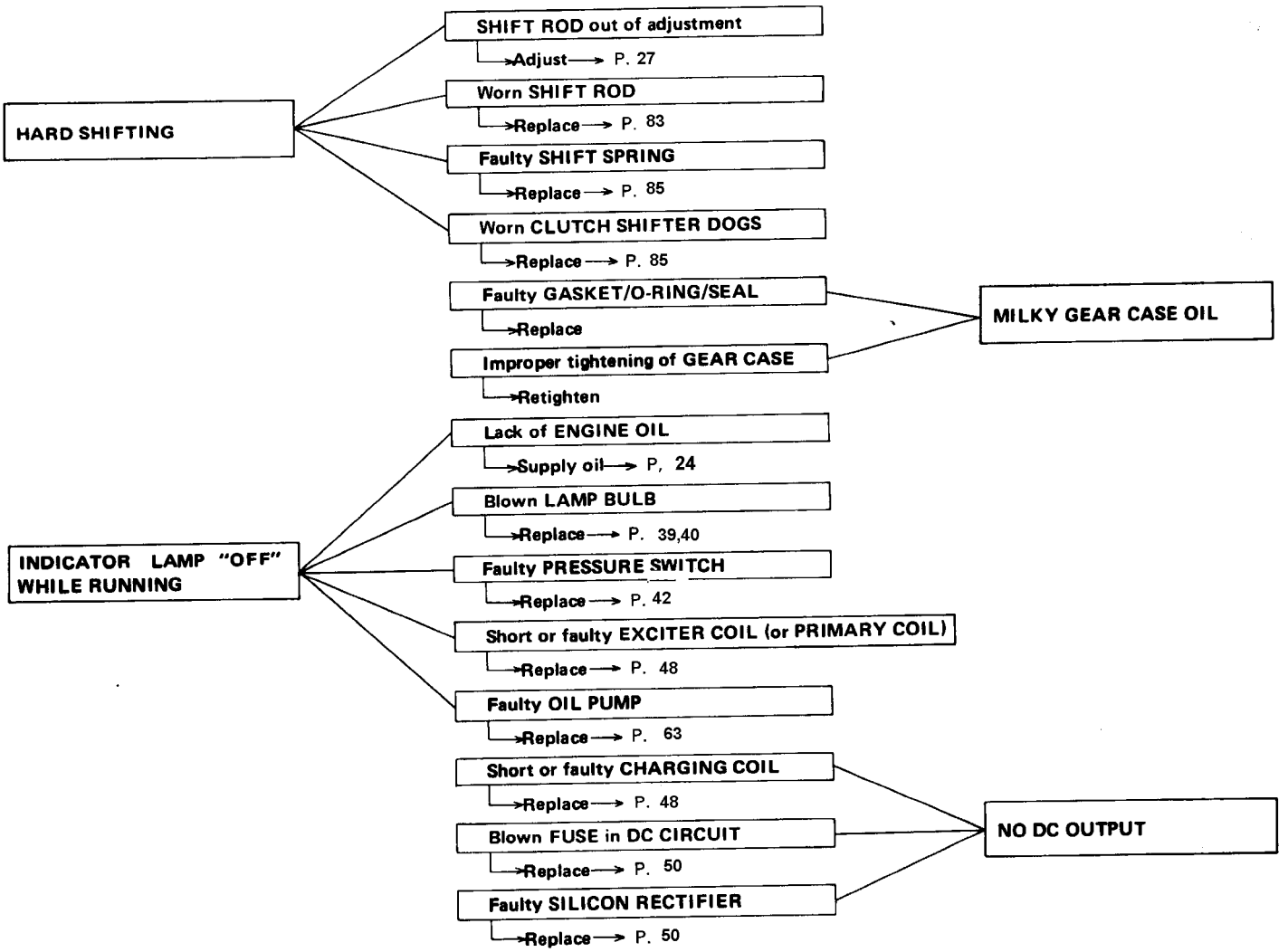
Tube routing for engine serial number 1000004–1199999



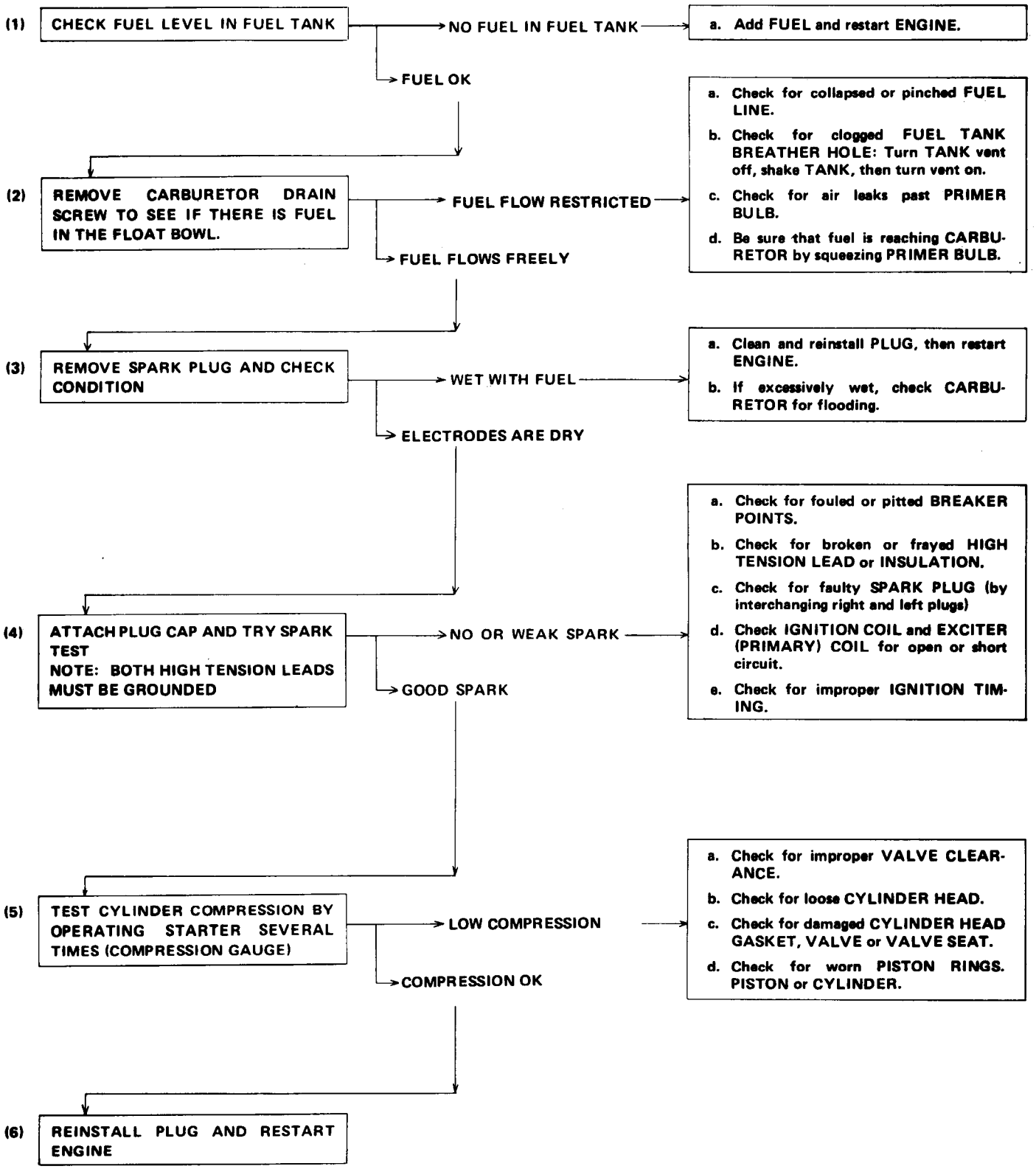
9. TROUBLESHOOTING

a. SYMPTOMS AND PROBABLE CAUSES




HARD SHIFTING
SHIFT ROD out of adjustment
→Adjust→ P. 27
Worn SHIFT ROD
→Replace→ P. 83
Faulty SHIFT SPRING
→Replace→ P. 85
Worn CLUTCH SHIFTER DOGS
→Replace→ P. 85
Faulty GASKET/O-RING/SEAL
→Replace
Improper tightening of GEAR CASE
→Retighten
MILKY GEAR CASE OIL
INDICATOR LAMP "OFF" WHILE RUNNING
Lack of ENGINE OIL
→Supply oil→ P. 24
Blown LAMP BULB
→Replace→ P. 39,40
Faulty PRESSURE SWITCH
→Replace→ P. 42
Short or faulty EXCITER COIL (or PRIMARY COIL)
→Replace→ P. 48
Faulty OIL PUMP
→Replace→ P. 63
Short or faulty CHARGING COIL
→Replace→ P. 48
Blown FUSE in DC CIRCUIT
→Replace→ P. 50
Faulty SILICON RECTIFIER
→Replace→ P. 50
NO DC OUTPUT

b. HARD STARTING



10. MAINTENANCE SCHEDULE

ITEM	Regular Service Period. Perform at every indicated month or operating hour interval, whichever occurs first.	First 15 hours or 1 Month	Every 100 hours or 6 Months	Every 200 hours or 1 Year	Ref. Page
ENGINE OIL	CHANGE	○	○		P. 24
GEAR CASE OIL	CHANGE	○		○	P. 24
GEAR CASE OIL	CHECK FOR WATER	EVERY 50 HOURS			P. 24
SPARK PLUG	CLEANING · ADJUST		○		P. 25
IGNITION TIMING (Contact breaker type only)	ADJUSTMENT	○		○	P. 25
VALVE TAPPET CLEARANCE	ADJUSTMENT	○		○	P. 26
CARBURETOR LINKAGE	CHECK	○	○		P. 34
FUEL FILTER	CHECK			○	P. 37
FUEL LINE	CHECK (Replace, If necessary)			○	
FUEL TANK	CLEANING			○	
THERMOSTAT	CHECK			○	P. 36
SHEAR PIN	CHECK		○		P. 79
LUBRICATION	GREASE		○		P. 23

11. RECOMMENDED SERVICE MATERIALS

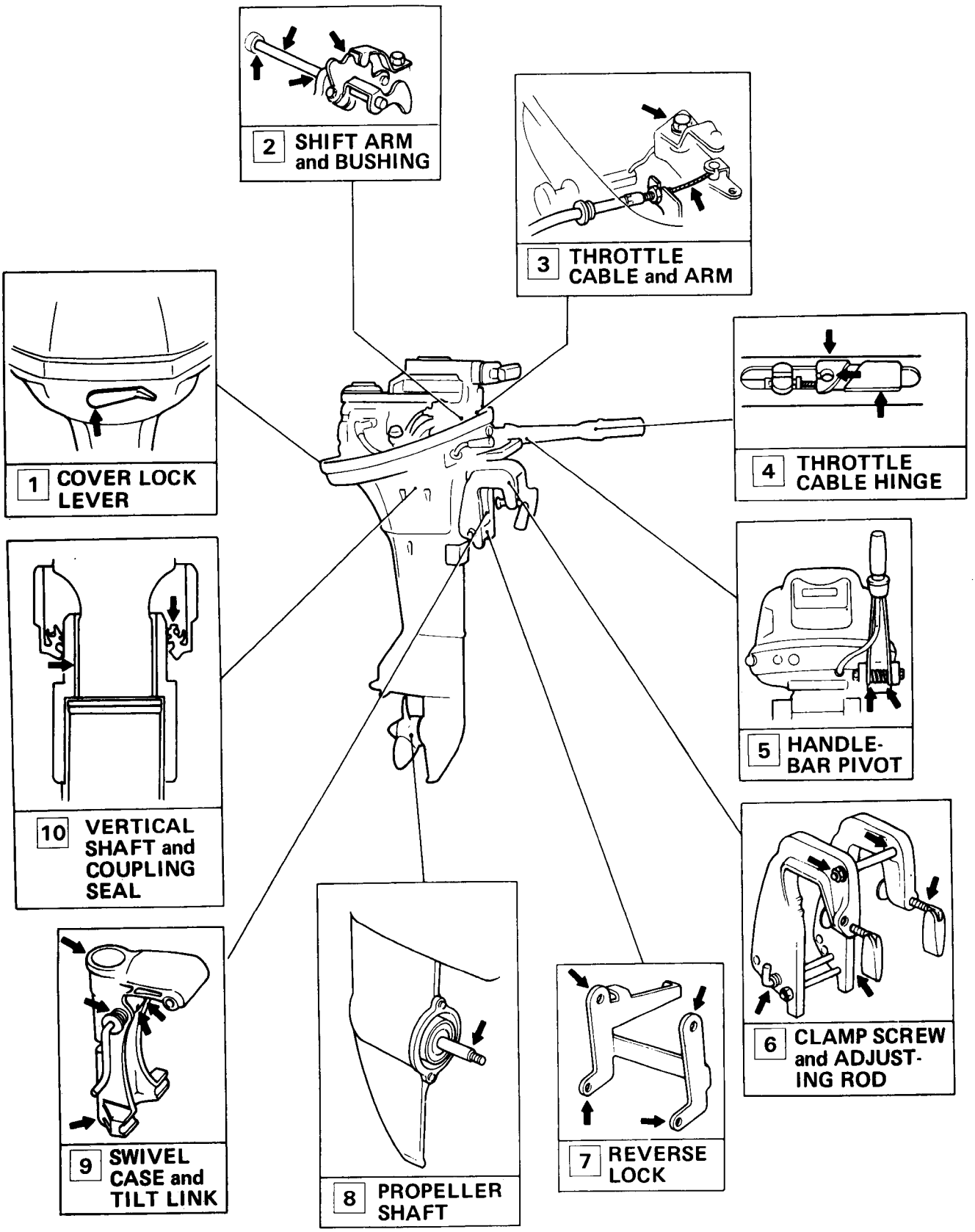
Types of Lubricants or Materials	Items to be Serviced	Brand	Remarks
OIL	ENGINE OIL PAN	SAE 10W–40 SE or SF Rated	Capacity: 0.8ℓ (0.85 US qt, 0.70 Imp qt)
	GEAR CASE	SAE 90 MARINE	Capacity: 0.23ℓ (0.49 US pt, 0.40 Imp pt)
PACKING	CRANKCASE		
	EXTENSION CASE	THREE-BOND · 5TW	
ADHESIVE	OIL FILLER BODY	CEMEDINE 521	
	OIL FILTER	CEMEDINE 521	or equivalent
	OIL PRESSURE SWITCH	THREE-BOND · No. 50	
	HANDLEBAR GRIP RUBBER	CEMEDINE 521	
SEALER	BOLTS	LOCTITE	With anti–rust agent

12. ALTERNATE PROPELLERS

The following propellers, or their equivalents, may be used on this unit in place of the Honda part:

Manufacturer	Model	Dia. X Pitch (in)	Application
MICHIGAN	PJ–16	9 x 10	Light duty
MICHIGAN	PJ–21	9 x 8	Medium duty
MICHIGAN	SMC–39	9-1/4 x 7	Heavy duty

13. LUBRICATION CHART



1. ENGINE OIL CHANGE

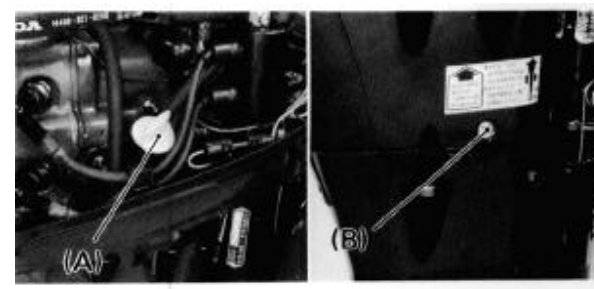
NOTE: Secure the unit vertically to change the oil.

(1) Remove the oil filler cap and drain plug to drain oil thoroughly.

(2) Replace the drain plug and pour fresh oil up to the UPPER level mark on the filler cap/dipstick through the oil filler opening.

ENGINE OIL CAPACITY: 0.8ℓ (0.85 US qt, 0.70 Imp qt)

RECOMMENDED OIL: SAE 10W–40: API Service Classification SE or SF



(A) OIL FILLER CAP/DIPSTICK
(B) DRAIN PLUG
(C) OIL LEVEL GAUGE
(D) UPPER LIMIT
(E) LOWER LIMIT

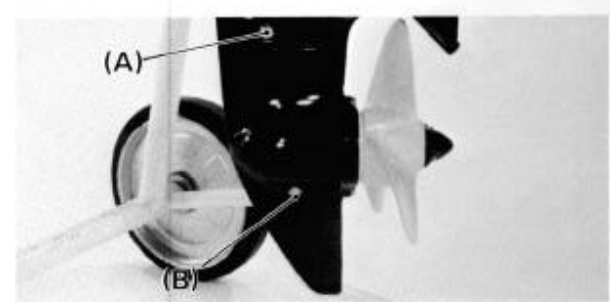
2. GEAR OIL CHANGE

(1) Remove the oil level plug and drain plug to drain oil thoroughly.

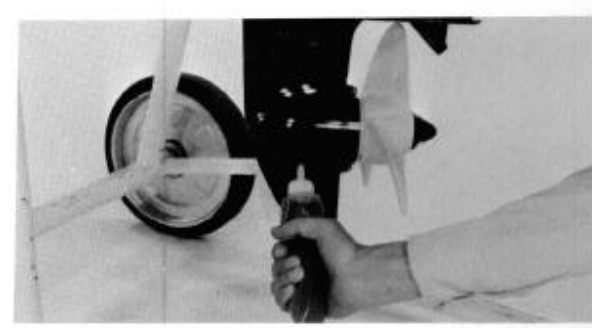
(2) Squeeze fresh oil through the drain plug hole until oil is flowing out of the level plug hole. Use the oil tube available as an optional part.

GEAR OIL CAPACITY: 0.23ℓ (0.49 US pt, 0.40 Imp pt)

RECOMMENDED GEAR OIL: SAE 90 MARINE



(A) LEVEL PLUG
(B) DRAIN PLUG



3. SPARK PLUG CLEANING/ADJUSTMENT

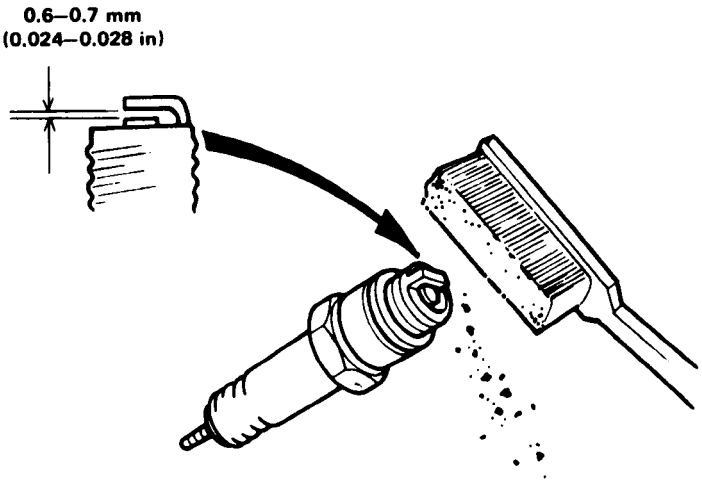
(1) Remove carbon and other deposits from the spark plugs with a stiff wire brush.

(2) Measure the spark plug gap with a feeler gauge. To adjust, bend the negative (grounded) electrode.

STANDARD PLUG GAP: 0.6–0.7 mm (0.024–0.028 in)

STANDARD SPARK PLUG: DR–5HS (NGK)
ALTERNATE: DR–4HS (NGK)

NOTE: If the DR–5HS plugs tend to get heavily carboned or wet fouled, try the DR–4HS type.



4. IGNITION TIMING ADJUSTMENT

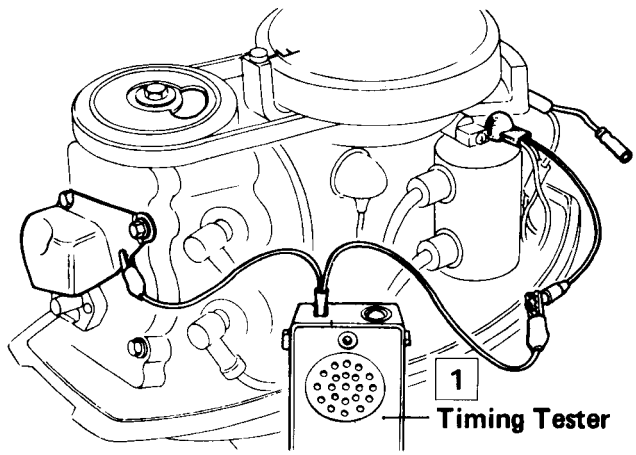
CONTACT BRAKER TYPE

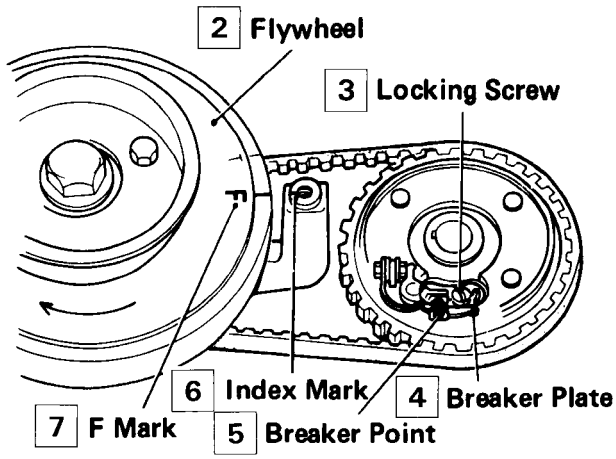
(1) Connect a timing tester or ohmmeter as shown.

(2) Rotate the flywheel to align the "F" mark on the flywheel to the index mark on the starter case. At this time, the contact breaker points should just start to open (15°B.T.D.C.)

(3) To adjust the timing, loosen the breaker plate locking screw and move the contact breaker plate to achieve correct timing. Retighten the locking screw.

(4) Rotate the flywheel one full turn, and check ignition timing for the other cylinder. Readjust the contact breaker points, if necessary, so the ignition timing will be as correct as possible for both cylinders.



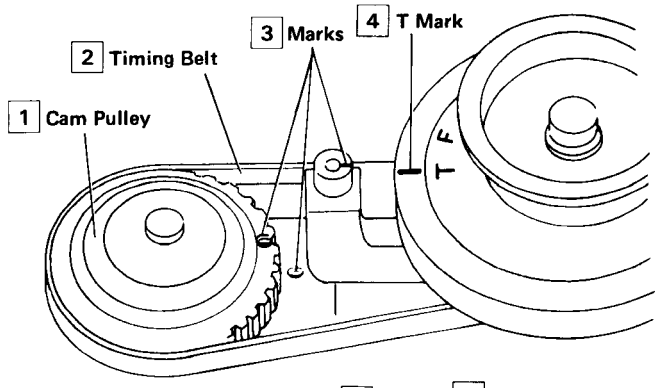


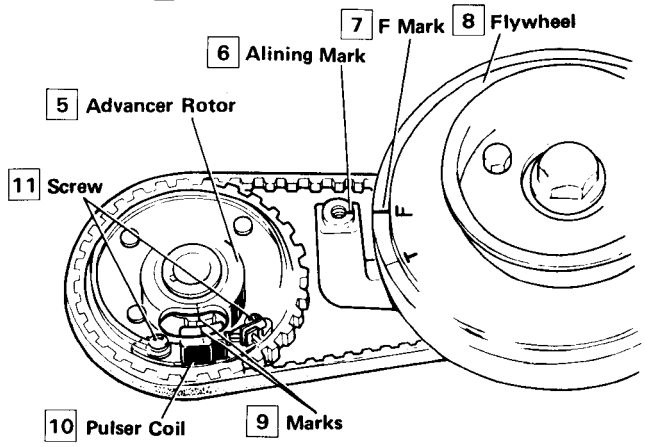
CDI TYPE

NOTE: A CDI system does not require adjustment, except when the CDI unit is replaced and/or the pulser coil is removed. The timing remains unchanged as long as the set parts remain undisturbed.

(1) To set timing, align the flywheel "T" mark and the punch mark on the cam pulley as shown, then install the timing belt.

(2) Rotate the flywheel one complete turn and align the "F" mark with the aligning mark.
Loosen the two screws and move the pulser coil so the marks on the coil and advancer rotor are in line.





5. VALVE CLEARANCE ADJUSTMENT

(1) Rotate the flywheel to align the "T" mark on the flywheel to the index mark on the starter case.

(2) Check the clearance of both valves on the camshaft base circle by inserting the feeler gauge between the adjusting screw and the valve stem.

STANDARD CLEARANCE : 0.06 – 0.10 mm(0.002 – 0.004 in) (IN/EX)

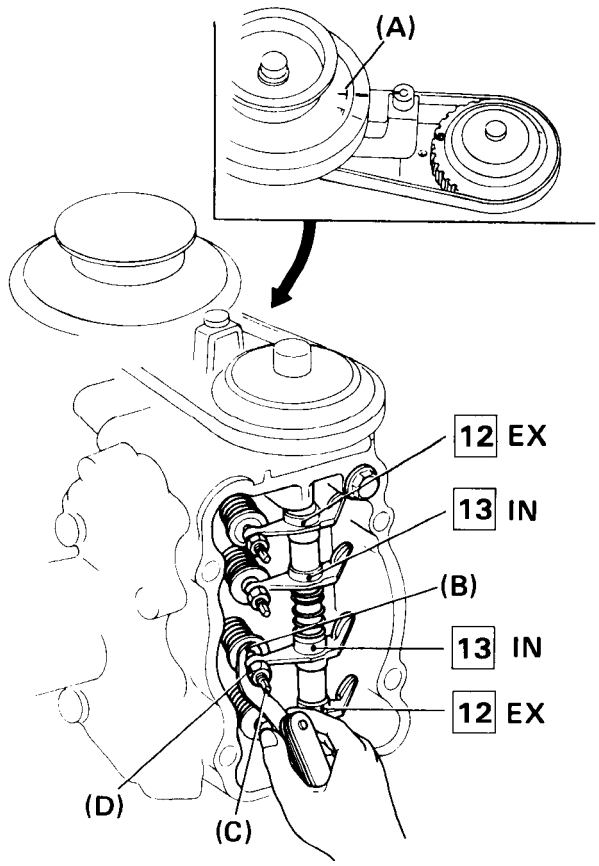
(3) If adjustment is necessary, loosen the lock nut and turn the adjusting screw by using the special tool "Adjusting wrench B 07708–0030400" until there is a slight drag on the feeler gaugl. Hold the adjusting screw in this position and tighten the lock nut. Recheck the clearance with the gauge.

Tightening torque: 60–100 kg-cm (4.3 – 7.2 ft–lb)

NOTE:
- **Perform this operation with the engine cold and the cylinders at T.D.C. on the compression stroke.**
- **When the cylinder is at T.D.C. on the compression stroke, the intake and exhaust valves should be fully closed.**

(4) To adjust the remaining cylinder, rotate the flywheel 360° further.

(A) "T" MARK
(B) FEELER GAUGE
(C) ADJUSTING SCREW
(D) LOCK NUT

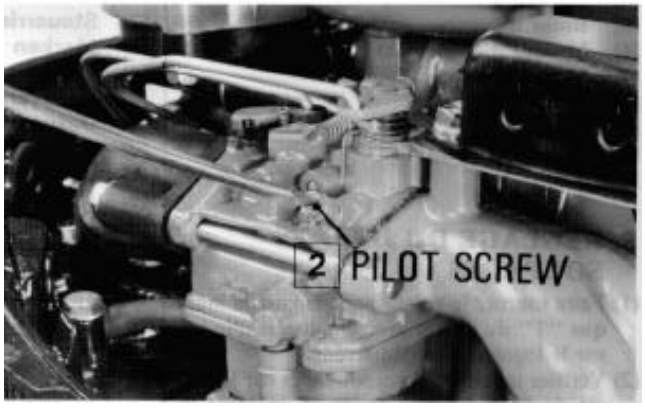


6. CARBURETOR ADJUSTMENT

* Idle Speed
(1) Start the engine and run at idle until a normal operating temperature is obtained.
(2) Turn the throttle stop screw in or out as necessary until the specified idle speed is obtained.

Specified idle speed	1,200 ± 100 rpm (in neutral)

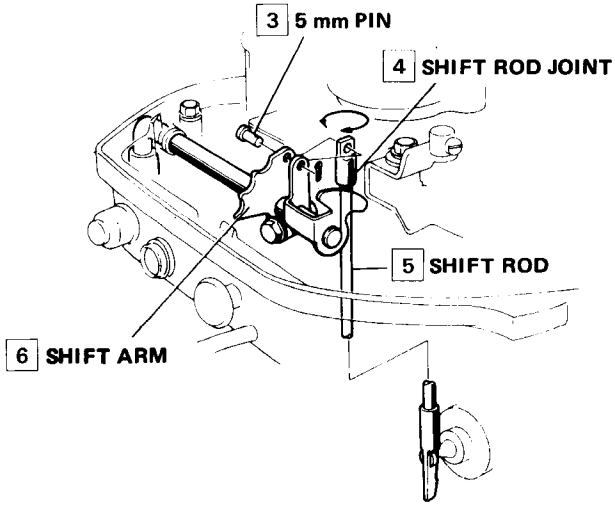
* Pilot Screw
If the pilot screw setting needs adjustment,
(1) Turn the pilot screw in or out nutil the highest idle rpm is reached.
(2) Readjust to the specified idle speed using the throttle stop screw.



7. SHIFT ROD ADJUSTMENT

With the shift rod and shift arm in the forward position, and the linkage pin removed, turn the shift rod joint to align the linkage pin holes. Install the pin.

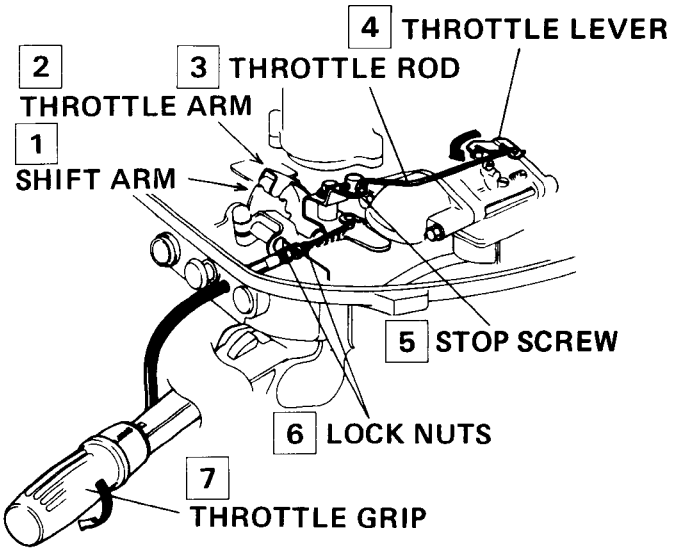
NOTE: The holes will usually align if the shift rod joint is turned all the way in and then unscrewed $4^1/_2$ turns.



8. THROTTLE CABLE ADJUSTMENT

(1) Put the shift lever in NEUTRAL and turn the throttle grip to START position.
(2) Adjust the length of the cable so that the throttle arm contacs with the shift arm by turning the lock nuts.
(3) Tighten the lock nuts securely.
(4) Close the throttle grip fully and adjust the stop screw so that the carburetor throttle is fully closed.
(5) After adjustment, shift the engine into each position and make sure that it attains the following maximum speeds.

Maximum engine speed:
Engine Serial Number 1000004 and subsequent:
F BF75: 5,200 rpm BF100: 5,700 rpm
N 5,000 ± 200 rpm
R 3,200 ± 200 rpm

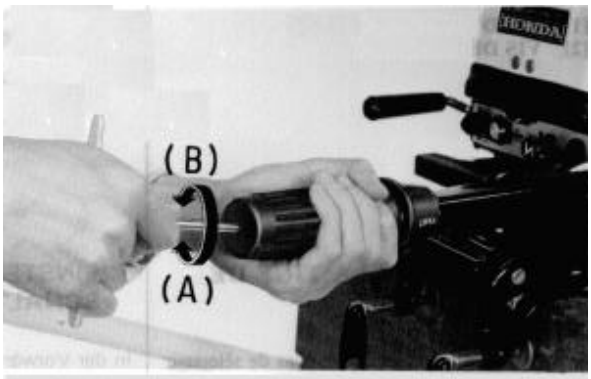


9. THROTTLE GRIP FRICTION ADJUSTMENT

Engine Serial Number 1000004–1299999:

(1) Adjust the friction by turning the throttle grip end screw.

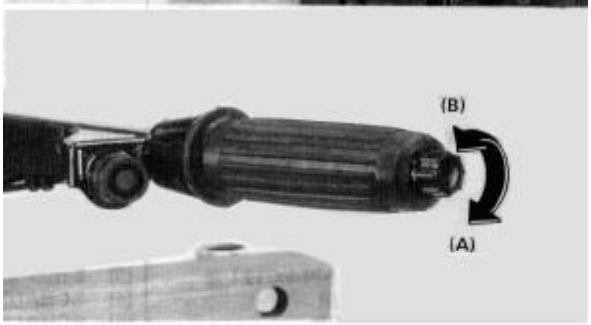
(A) Turn to RIGHT: To tighten
(B) Turn to LEFT : To loosen



Engine Serial Number 1300001 and subsequent:

(1) Adjust the friction by turning the throttle grip end adjuster.

(A) Turn to RIGHT: To tighten
(B) Turn to LEFT : To loosen



10. STEERING HANDLEBAR FRICTION ADJUSTMENT

(1) Adjust the friction by turning the adjusting bolt on the swivel case.

(A) Turn to RIGHT: To tighten
(B) Turn to LEFT : To loosen