YAMAHA

DT100E

Supplementary

Service Manual

LIT-11616-00-83

2F5-28197-10

FOREWORD

This Supplementary Service Manual for DT100E has been published to supplement the Service Manual for the DT100D, and provides updated information for the DT100D model as well as new data concerning the DT100E. For complete information on service procedures, it is necessary to use this Supplementary Service Manual together with the Service Manual for the DT100D. Please make the indicated changes and addition to the basice service manual.

SERVICE DEPT.
INTERNATIONAL DIVISION
YAMAHA MOTOR CO., LTD

NOTICE

This manual has been written by Yamaha Motor Company for use by Authorized Yamaha Dealers and their qualified mechanics. In light of this purpose it has been assumed that certain basic mechanical precepts and procedures inherent to our product are already known and understood by the reader. This service manual has been written to acquaint the mechanic with common disassembly, inspection, reassembly, maintenance, and troubleshooting procedures associated with this machine.
The Resarch, Engineering, and Service Departments of Yamaha are continually striving to further improve all models manufactured by the company. Modifications are therefore inevitable and significant changes in specifications or procedures will be forwarded to all Authorized Yamaha Dealers and will, where applicable, appear in future editions of this manual.

Particularly important information is distinguished in this manual by the following notations:

NOTE: . . . . . A NOTE provides key information to make procedures easier or clearer.

CAUTION: . . A CAUTION indicates special procedures that must be followed to avoid damage to the machine.

WARNING: . A WARNING indicates special procedures that must be followed to avoid injury to a machine operator or person inspecting or repairing the machine.

YAMAHA DT100E
SUPPLEMENTARY SERVICE MANUAL
1st edition, June 1977

PRINTED IN JAPAN
LIT-11616-00-83

Page numbers shown in brackets correspond to page numbers of the DT100D Service Manual.

(PAGE 2)

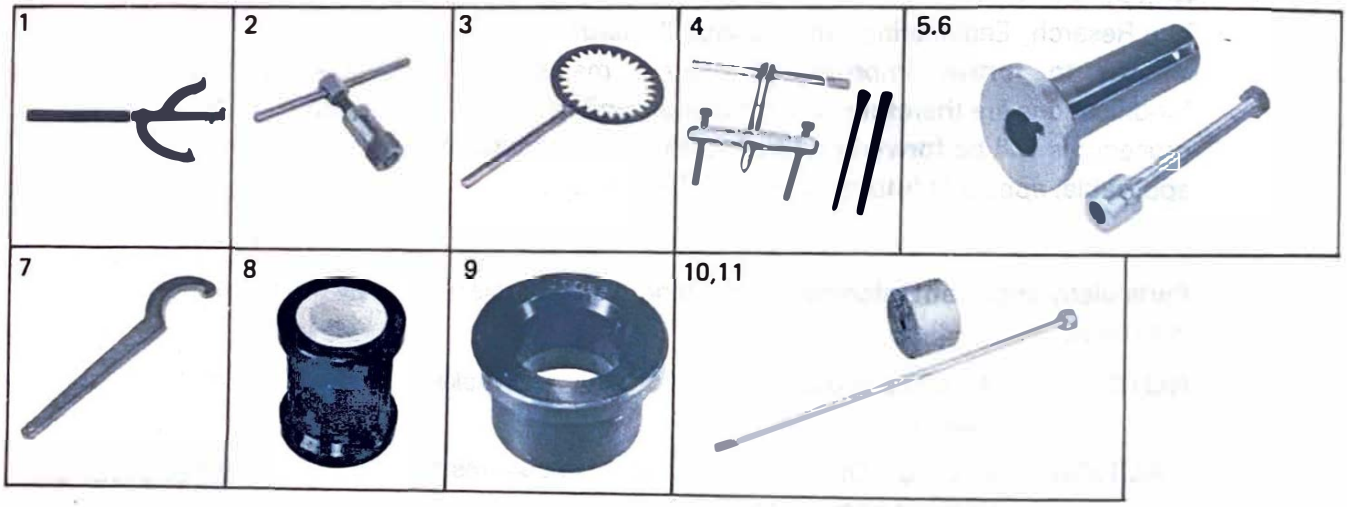
1-1. MACHINE IDENTIFICATION

Starting serial number:
2F5-000101

1-2. SPECIAL TOOLS AND GAUGES

A. Special tools

No.	Part name	Part No.	No.	Part name	Part No.
1	Flywheel holding tool	90890 - 01235	7	Steering nut wrench	90890 - 01051
2	Flywheel puller	90890 - 01189	8	Oil seal insertion weight	90890 - 01184
3	Clutch holding	90890 - 01022	9	Oil seal insertion attachment	90890 - 01273
4	Crankcase separating tool	90890 - 01135	10	Armature shock puller bolt	90890 - 01049
5	Crankshaft setting pot	90890 - 01012	11	Weight	90890 - 01050
6	Crankshaft setting tool	90890 - 01015			



(PAGE 6)

2-1. MAINTENANCE AND LUBRICATION INTERVAL CHARTS

A. Periodic Maintenance Chart

Item	Remarks	Initial				Thereafter every	
		400 km (250 mi)	800 km (500 mi)	1,600 km (1,000 mi)	3,200 km (2,000 mi)	1,600 km (1,000 mi)	3,200 km (2,000 mi)
Ignition timing	Check and clean contact breaker points. Adjust ignition timing. Replace points if necessary.		O	Check	O		O
Spark plug	Check spark plug condition and plug gap. Replace plug as required.	O	O	O	O		O
Decarbonization	If heavy power loss is evident, decarbonize the cylinder head, piston head and exhaust system.			O			O
Fuel petcock and fuel hose	Check fuel petcock and hose for proper operation, cracs and damage.		O	O		O	
Air filter	Check and clean if necessary. Dampen, with oil.		O	O		O	
Carburetor	Check operation/Adjust/Repair as required.			Check	O		O
Brake system	Inspect and adjust. Replace shoes if necessary.	O	O	O		O	
Clutch	Check/Adjust as required.	O	O	O		O	
Autolube pump	Check and adjust pump cable and minimum pump stroke			Check	O		O
Drive chain	Check chain tension and condition. Adjust if necessary.	CHECK TENSION EVERY 500 Km (300 mi)					
Wheels and tires	Check tire pressure, wear, damage, spoke tension and wheel runout.		O	O		O	
Fittings and fasteners	Visually check all fittings and fasteners.		O	O		O	
Battery	Check fluid level, top-up with distilled water if necessary. Check specific gravity monthly or		O	O		O	

NOTE:

#1 DRIVE CHAIN: In addition to tension and alignment, chain must be lubricated every 500 km (300 mi). If unit is subjected to extremely hard usage and wet weather riding, chain must be checked frequently. See "Lubrication Interval Chart" for additional details.

#2 See Assembly Manual for more completely pre-delivery set-up information.

B. Lubrication Interval Chart

Item	Remarks	Type	Initial				Thereafter every	
			400 km (250 mi)	800 km (500 mi)	1,600 km (1,000 mi)	3,200 km (2,000 mi)	3,200 km (2,000 mi)	6,400 km (4,000 mi)
Transmission oil	Warm-up engine before draining	Yamalube 4-cycle oil or SAE 10W/30 "SE" motor oil		O	O		O	
Drive chain	Clean and lube	Yamaha chain and cable lube or SAE 10W/30 motor oil	LUBE EVERY 500 km (300 mi)					
Control and Meter cable	Apply throughly	Yamaha chain and cable lube or SAE 10W/30 motor oil			O	O	O	
Throttle grip/Housing	Lightly lubrication	Lithium base grease				O	O	
Brake and Change Pedal Shafts	Lubricates. Apply lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil			O		O	
Side Stand pivot shaft	Lubricates. Apply lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil			O		O	
Front Fork oil	Drain completely. Fill to specification.	Yamaha fork oil 10Wt, 20Wt or equivalent			Check	O	Check	O
Steering Ball Bearing and Races	Moderately repack	Medium weight wheel bearing grease				Check		O
Wheel bearings	Moderately repack	Medium weight wheel bearing grease				O		O
Point cam lubrication wick	Lubricate. Apply very lightly.	Light weight machine oil			O	O	O	

NOTE: See Assembly Manual for pre-delivery set-up lubrication

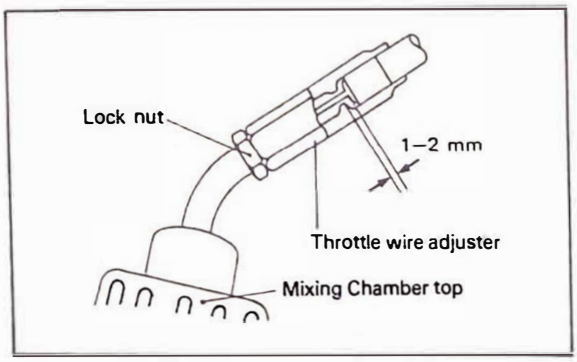
(PAGE 7)

2-2. ENGINE

A. Carburetor

5. Throttle cable 2

Check to see whether this cable allows a play of 1-2 mm (0.04-0.08 in) on the mixing cahmber top. If not, loosen the locknut and adjust it to specified play with the wire adjuster.

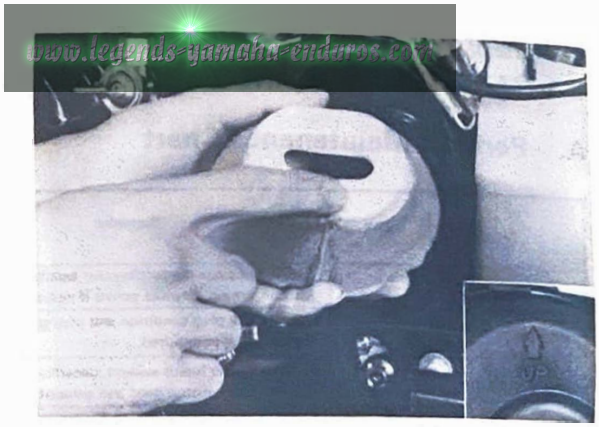


B. Air cleaner

The air filter protects the engine from dirt which can enter with the intake air and cause rapid engine wear. This dirt is filtered from the air by air filter element.

1. Removal
   a. Remove the side cover, and remove the air filter case cap.
   b. Pull out the element from its case, remove element from guide.
2. Cleaning method

   Clean the element with solvent. After it is completely cleaned and dry, pour a small quantity of Yamalube 2-cycle oil or SAE 20 motor oil onto the element and work it throughly into the entire porous foam material. Then wrap the element in a clean cloth and squeeze it in the hands (never twist it) to remove the excess oil from it. Coat the sealing edges of the filter element with light grease.



3. Reassembly by reversing the removal procedure. Check whether the element is seated completely against the case.

   NOTE:

   Install the case cap with the mark (UP) place upward.

4. The air filter element should be checked once a month or every 1,600 km (1000 mi).

   It should be cleaned more often if the machine is operated in dusty or wet areas.

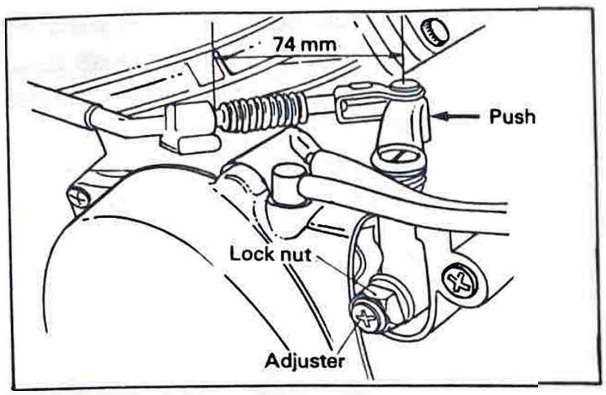
CAUTION:

The engine should never be run without the air cleaner element installed; excessive piston and/or cylinder wear may result.

(PAGE 11)

E. Clutch

1. Mechanism adjustment
   a. Fully loosen the cable in-line length adjuster lock nut and screw in the adjuster until tight.
   b. Loosen the adjuster lock nut and screw the adjuster in until it lightly seats against push cam.
   c. Push the push lever forward with your finger until it stops. With the push lever in this position, back out the adjuster (within full one turn) and adjust the distance to specified distance.



d. Tighten the adjuster lock nut.

(PAGE 15)

2-4. ELECTRICAL

A. Contact breaker point

1. The contact breaker should be checked for the following:
   a. Wear of the brakelight cam heel
   b. Damage of contact point surfaces
   c. Rust or wear on the breaker arm or arm shaft
   d. Faulty insulation of the contact breaker ass'y
2. Apply a few drops of light-weight machine oil or distributor lubricant to the point cam lubricator. Do not over oil.
3. To clean the points, run a point file between the points until the grey deposits and pits have been removed. Spray the points with ignition point cleaner or lacquer thinner, and place a piece of clean paper between the points, let them close, and remove the paper. Repeat until no residue shows.
4. Point replacement should be necessary when the points becomes severely pitted, or if the heel is broken or worn unevenly, or if the points become shorted or show faulty operation.

NOTE:
New points must be cleaned.

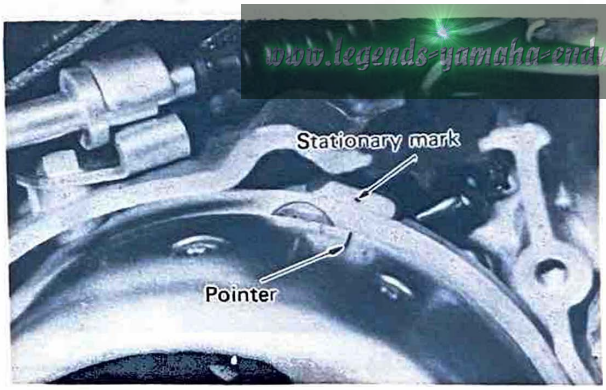
(PAGE 15)

B. Ignition timing

1. Ignition timing is checked with a timing light by observing the position of the stationary mark stamped on the crankcase and the pointers on the magneto flywheel.
2. Connect timing light to spark plug lead wire.
3. Start the engine and keep the engine speed as specified. Use a tachometer for checking.

Engine speed:
1,350 r/min

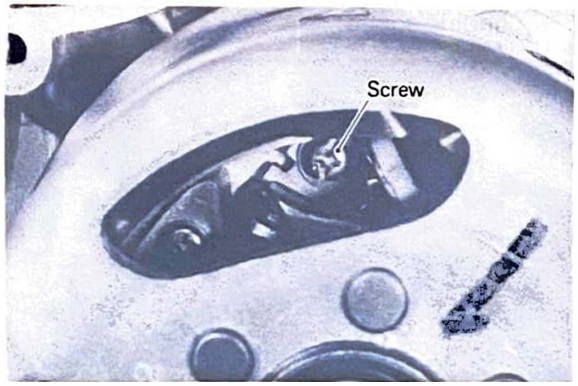
4. The center pointer of the magneto flywheel should line up the stationary mark on the crankcase at a specified engine speed.



5. If they are not aligned or a new crankcase is used for replacement, proceed as follows.
6. Switch on point checker and adjust zero point. Disconnect magneto harness from main harness. connect red lead of point checker to black/white lead in wire harness coming from magneto.
7. Connect black lead of point checker to unpainted surface of cylinder fin or unpainted crankcase bolt.
8. Rotate magneto flywheel until the center pointer on the magneto flywheel lines up the stationary mark on the crankcase. At this time, point checker

needle should swing from "CLOSE" to "OPEN" position, indicating the contact breaker(ignition points) have just begun to open.

9. Adjust ignition timing by slightly loosening Phillips head screw and carefully rotating contact breaker assembly with a slotted screw driver, and retighten Phillips head screw before rechecking timing.
   Recheck the timing by repeating step 8 and 2-4.



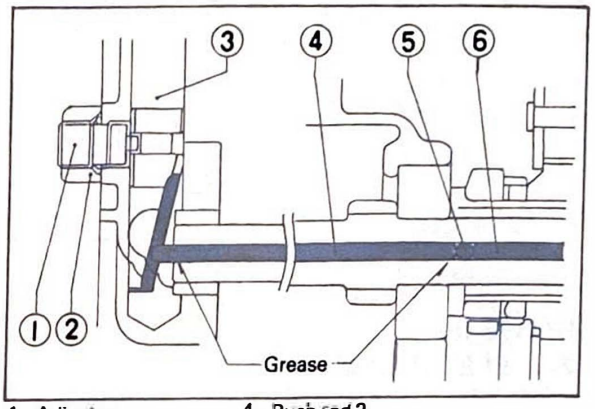
NOTE:

After ignition timing has been set, check point gap. If it is over tolerance (0.3—0.4 mm). If it is, the contact breaker assembly should be replaced. Do not attempt to bend the fixed point breaker to decrease maximum point gap. This will only result in point misalignment, difficulty in setting timing and premature point failure.

(PAGE 32)

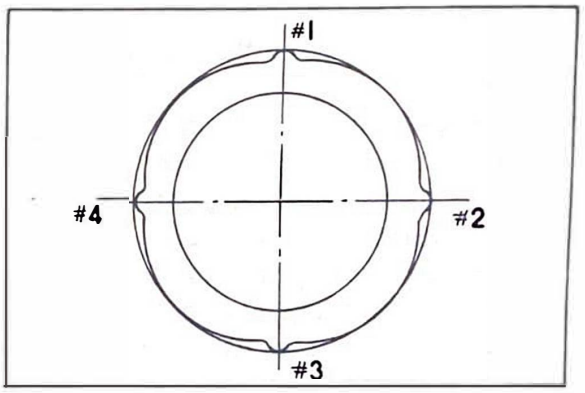
G. Clutch

1. Before installation, apply grease to push lever axle, push rod 1, ball and push rod 2.
2. Make sure that push rod 2 is installed with its rounded end on the push lever axle side and with its flat end on the ball side.



1. Adjuster
2. Adjuster lock nut
3. Push lever axle
4. Push rod 2
5. Ball
6. Push rod 1

3. Install a clutch plate with cutaway offset approximately 90° from previous plate cutaway.



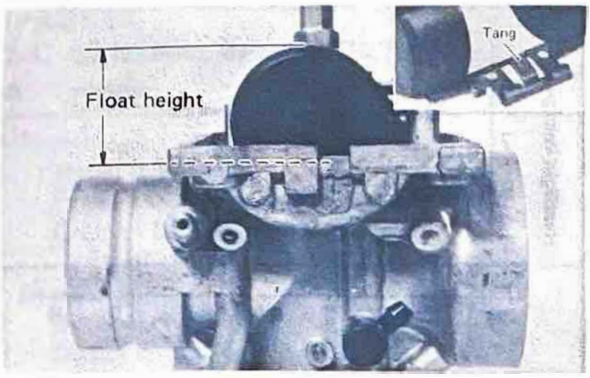
(PAGE 35)

4-1. CARBURETOR

B. Adjustment

1. Float height
   Hold the carburetor in an upside down position. While holding the floats so the tang is just touching the float needle, measure the distance from the top of the float to the float bowl gasket surface. Bend the tang on the float arm is adjustment is necessary. Both floats must be at the same height. If the floats are too height, a lean air/fuel mixture will occur.If too low, a rich mixture will result.

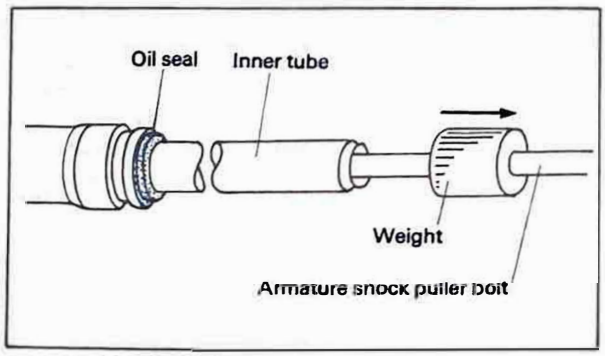
Float height:
21.0 ± 2.5 mm (0.83 ± 0.1 in)



5-4. FRONT FORK

A. Disassembly

1. Remove the front wheel assembly.
2. Remove the cap bolt and the drain plug. Drain the oil.
3. Loosen the handle crown and under bracket pinch bolts.
4. Slide the front fork (inner and outer tube as an assembly) down and out of the bracket.
5. Remove the dust seal, oil seal clip and washer.
6. Using the special tools (Armature shock puller and weight), remove the inner tube assembly and damper assembly from the outer tube.



Weight: 90890-01050
Bolt: 90890-01049

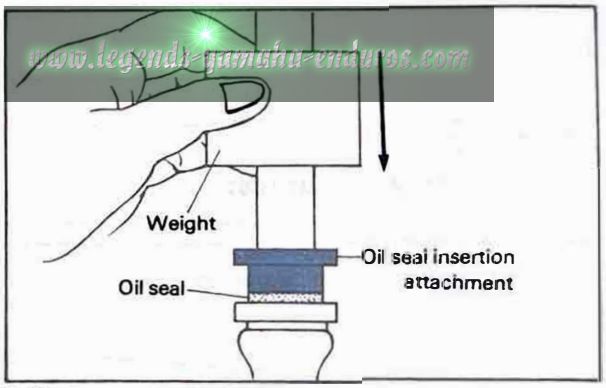
B. Inspection

1. Examine fork inner tube for scratches and straightness. If the tube is scratched severely or bent, it should be replaced.
2. If the lips of the oil seal are worn, or the oil seal is leaking, replace it.
3. Check the outer tube for dents. If any dent causes the inner tube to "hang up" during operation, the outer tube should be replaced.

C. Reassembly

When reassembling, reverse the removal procedure taking care of following points.

1. Make sure all components are clean before reassembly.
2. To install the fork oil seal;
   a. Put the inner tube into the outer tube, and place the oil seal over the inner tube.
   b. Slip the attachment over the inner tube until it contacts the oil seal.
   c. Tap the attachment by sliding the oil seal insertion weight up and down so that the oil seal moves in.



Weight: 90890-01184
Attachment: 90890-01273

3. Pour specified amount of oil into the inner tube through the upper end opening.

Recommended fork oil:
Yamaha fork oil 10W, 20W

4. Tighten the cap and pinch bolts.

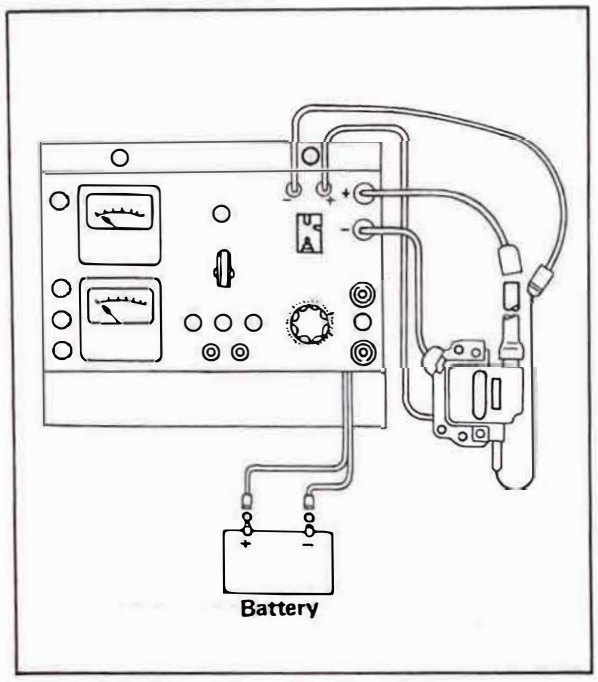
Tightening torque:	
Cap bolt	2.0 m-kg (14.5 ft-lb)
Pinch bolt	
upper	2.5 m-kg (18 ft-lb)
lower	3.0 m-kg (22 ft-lb)

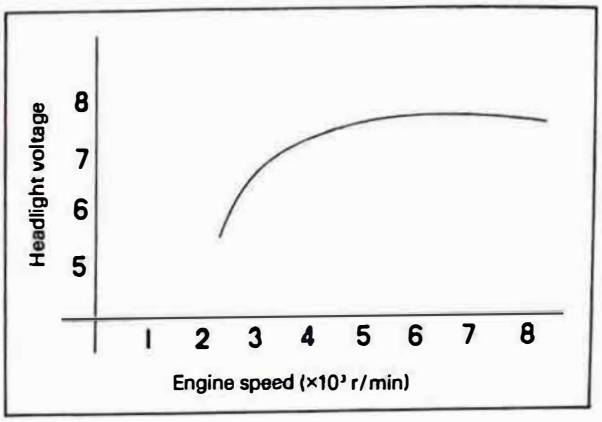
(PAGE 48)

6-1. IGNITION SYSTEM

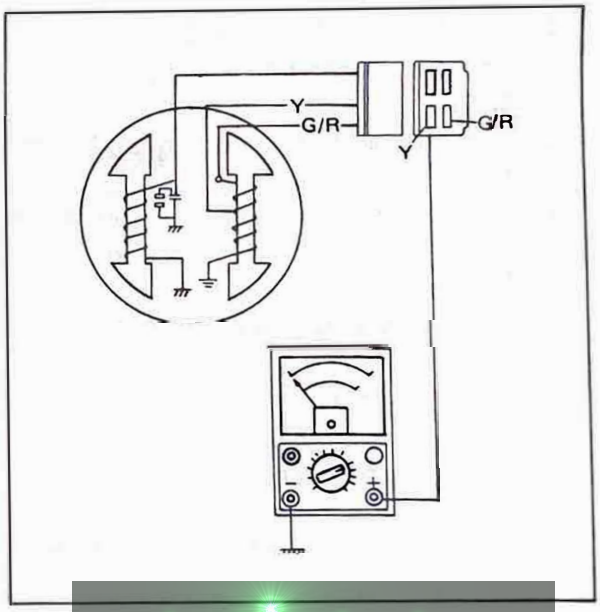
B. Ignition coil test

1. Coil spark gap test



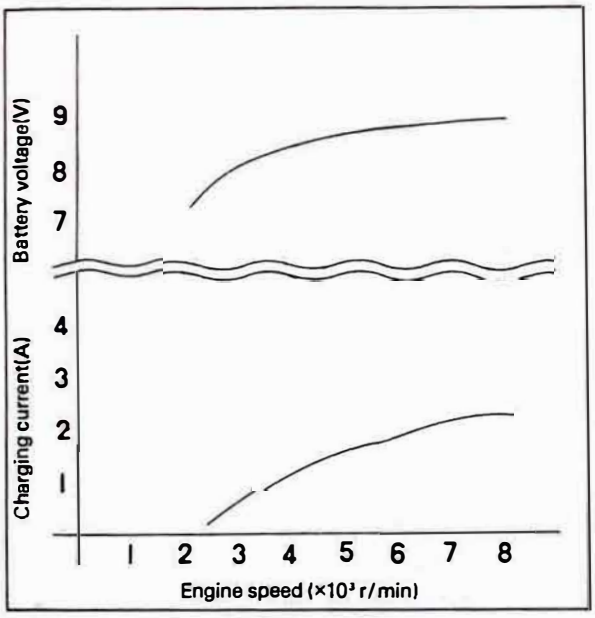


2. Lighting coil resistance check



(PAGE 51)

A. Charging output test



(PAGE 52)

6-3. LIGHTING AND SIGNAL SYSTEM

A. Lighting tests and checks -A.C. circuit

1. A.C. circuit output test

Engine r/min	Voltage
2.500 r/min	5.4V or more
8.000 r/min	8.0V or less

(PAGE 56)

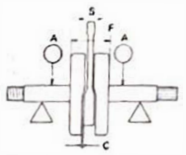
7-1. GENERAL SPECIFICATION

A. General

Model:	
Model (I.B.M. No.)	2F5
Frame I.D. & Starting Number	2F5-000101
Engine I.D. & Starting Number	2F5-000101
Dimension:	
Overall Length	1,880 mm (74.0 in)
Overall Width (standard)	800 mm (31.5 in)
Overall Height (standard)	990 mm (39.0 in)
Seat Height	730 mm (28.7 in)
Wheelbase	1,190 mm (46.9 in)
Minimum Ground Clearance	200 mm (7.9 in)
Weight:	
Net Weight	80 kg (176.4 lb.)
Performance:	
Minimum Turning Radius	1,810 mm (71.3 in)

B. Engine

Description:	
Engine Type	Air cooled, 2-stroke gasoline, Torque inducation
Engine Model	2F5
Displacement	97 cc
Bore x Stroke	52 x 45.0 mm (2.05 x 1.77 in)
Compression Ratio	9.7 : 1
Starting System	Primary kick starter
Ignition System	Magneto ignition
Lubrication System	Separate lubrication (Yamaha Autolube)
Cylinder Head:	
Combustion Chamber Volume (with plug)	11.2 cc
Combustion Chamber Type	Squish
Head Gasket Thickness	0.7 mm (0.027 in)
Cylinder:	
Material	Cast iron
Bore Size	52 mm (2.05 in)
Taper Limit	0.05 mm (0.002 in)
Out of Rond Limit	0.01 mm (0.0004 in)
Pistion:	
Piston Skirt Clearance	0.035 – 0.040 mm
Piston Over Size	52.25, 52.50 52.75, 53.00 mm
Piston Pin Outside Diameter x Length	14 x 41 mm (0.55 x 1.61 in)
Pistons Ring:	
Piston Ring Design (Top)	Keystone
" (2nd)	Plane (with expander)
Ring End Gap (Installed) (Top/2nd)	0.3 – 0.5 mm (0.012 – 0.020 in)
Ring Groove Side Clearance (Top/2nd)	0.03 – 0.05 mm (0.001 – 0.0020 in)

Small End Bearing: Type	Needle bearing
Big End Bearing: Type	Needle bearing
Crankshaft: Crankshaft Assembly Width (F) Crankshaft Deflection (A) Connecting Rod big End Side Clearance (C) Connecting Rod Small End Deflection (S) Crank Pin Outside Diameter x Length Crank Pin Type Crank Bearing Type (Left) x Q'ty " (Right) " Crank Oil Seal Type (Left) " " (Right) "	$50^{-0.05}_{-0.10}$ mm ($1.97^{-0.002}_{-0.004}$ in) 0.03 mm (0.001 in) 0.2 – 0.7 mm (0.008 – 0.027 in) 0.8 – 2.0 mm (0.031 – 0.079 in) 22 x 49.6 mm (0.87 x 1.95 in) Hollow type 6304 x 1 6304 x 1 SD–20–40–8 SW–28–40–8 
Clutch: Clutch Type Clutch Operating Mechanism Primary Reduction Ratio & Method Friction Plate - Thickness/Quantity - Wear Limit Clutch Plate - Thickness/Quantity - Warp Limit Clutch Spring - Free Length/Quantity - Warp Limit Clutch Housing Axial Play (Wear Limit) Push Rod Bending Limit	Wet, multiple disc type Inner push type, Cam axle 74/19 (3.895), Helical gear 3.0 mm (0.12 in) x 5 pcs. 2.7 mm (0.11 in) 1.2 mm (0.047 in) x 4 pcs. 0.05 mm (0.002 in) 31.5 mm (1.24 in) x 5 pcs. 0.05 mm (0.002 in) 0.15 – 0.45 mm (0.006 – 0.018 in) 0.15 mm (0.006 in)
Transmission: Type Gear Ratio 1st (Teeth) (Ratio) 2nd 3rd 4th 5th Transmission Gear Oil Quantity & Type Secondary Reduction Ratio & Method	Constant mesh, 5-speed forward 35/11 (3.181) 30/15 (2.000) 26/19 (1.368) 23/23 (1.000) 20/25 (0.800) 650 cc (Yamalube 4-cyle or SAE 10W/30 "SE" motor oil) 45/14, Chain
Shifting Mechanism: Type	Cum drum, return type
Kick Starter: Type	Kick-and-mesh
Intake: Air Cleaner - Type/Quantity - Oil Grade Induction System Reed Valve Type Bending Limit	Wet-foam rubber Yamalube 2-cycle oil Reed valve V type 0.3 mm (0.012 in)

Valve Lift	7 mm (0.28 in)
Carburetor:	
Type & Manufacturer/Quantity	Mikuni/1
I.D. Mark	2F5 60
Main Jet (M.J.)	# 130
Air Jet (A.J.)	2.5
Jet Needle-Clip Position (J.N.)	4L6 - 3
Needle Jet (N.J.)	0 – 6
Cutaway (C.A.)	2.0
Pilot Jet (P.J.)	# 17.5
Air Screw (turns out) (A.S.)	1 – 1/2
Starter Jet (G.S.)	30
Float Arm Height (F.H.)	21.0 mm ± 1.5 mm (0.83 ± 0.06 in)
Engine Idling Speed	1,300 – 1,450 rpm
Lubrication:	
Autolube Pump -Color Code	Green
" -Minimum Stroke	0.18 – 0.27 mm (0.007 – 0.01 in)
" -Maximum Stroke	1.85 – 2.05 mm (0.07 – 0.08 in)
Autolube Pump -Reduction Ratio	40/1 x 28/19
" -Minimum Output/200 stroke	0.5 – 0.7 cc
" -Maximum Output/200 stroke	4.65 – 5.15 cc
Throttle Position (Adjusting Mark)	▲
Oil Tank Capacity	1.0 lit
Oil Grade	Yamalube 2-cycle oil or Air cooled 2-cycle engine oil

C. Chassis

Frame:	
Frame Design	Tubler, dlouble cradle
Steering system:	
Caster	61°
Trail	103 mm (4.06 in)
Number & Size of Balls in Steering Head	
Upper Race	3/16 in x 22
Lower Race	1/4 in x 19
Lock to Lock Angle	47°
Front suspension:	
Type	Telescopic fork
Damper Type	Coil spring, oil damper
Front Fork Cushion Travel	110 mm (4.33 in)
Front Fork Spring	
Free Length	418.5 mm (16.48 in)
Wire Diameter x Winding Diameter	3 mm x 17.5 mm (0.12 x 0.69 in)
Spring Constant	0.42 kg/mm, 0.57 kg/mm (0-70 mm) (70-110 mm)
Inner Tube Outside Diameter	27 mm (1.06 in)
Oil Seal Type	PJ 27-39-10.5
Front Fork Oil Quantity & Type	116 ± 2 cc, SAE 10W, 20W
Rear suspension:	
Type	Swing Arm
Damper Type	Coil spring, Oil damper

Rear Shock Absorber Travel	75 mm (2.95 in)
Rear Wheel Travel	84 mm (3.31 in)
Swing Arm Free Play	None
Pivot Shaft -Outside Diameter	12 mm (0.47 in)
-Type	Rubber bush
Fuel Tank:	
Capacity	4.5 lit (1.2 us gal)
Fuel Grade	Legular or low lead gasoline
Wheel:	
Tire Size (Front)	2.50-18-4PR
(Rear)	3.00 -16 -4PR
Tire Pressure (Front)	1.6 kg/cm^2
(Rear)	2.0 kg/cm^2
Rim Size (Front)	1.40 x 18
(Rear)	1.60 x 16
Rim Run Out Limit (Front/Rear)	
Vertical	2 mm (0.08 in)
Lateral	2 mm (0.08 in)
Drive Chain Type	
Type	RS420
Number of Links	101
Chain Free Play	20 mm (0.79 in)
Brake:	
Front Brake	
Type	Leading, Trailing
Drum Diameter (Limit)	110 mm
Shoe Diameter x width	110 x 25 mm (4.33 x 0.98 in)
Shoe Spring Free Length	34.5 mm (1.36 in)
Lining Thickness (Wear Limit)	2 mm (0.08 in)
Rear Brake	
Type	Leading, Trailing
Drum Diameter	110 mm (4.33 in)
Shoe Dimater x Wider	109.6 x 25 mm (4.32 x 0.98 in)
Shoe Spring Free Length	34.5 mm (1.36 in)
Lining Thickness (Wear Limit)	2 mm (0.08 in)

D. Electrical

Ignition System:	
Type-Flywheel magneto (Contact breaker point)	
Model/Manufacturer	F1T15271/Mitsubishi
Voltage	6V
Sourse coil resistance	1.70 Ω ± 10%
Flywheel puller thread size	27 mm (1.08 in)
Ignition Timing:	1.8 mm ± 0.15 mm (0.072 ± 0.006 in)
Ignition Coil:	
Model/Manufacturer	F6T411/Mitsubishi
Spark gap	10 mm
Primary winding resistance	1.0Ω ± 15% at 20°C
Secondary winding resistance	5.9 kΩ ± 20% at 20°C
Diode	Yes

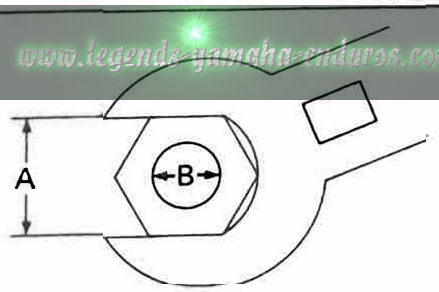
Spark plug:	
Type/Manufacture	B-8ES/NGK
Spark plug gap	0.6 – 0.7 mm (0.012 in – 0.016 in)
Contact breaker:	
Point gap	0.3 – 0.4 mm (0.024 in – 0.028 in)
Point spring pressure	650 – 850 g
Condenser:	
Capacity	0.25 uF
Insulation resistance	5MΩ
Charging System:	
Flywheel magneto	F1T15271
Charging output	0.1A or more/2,500 rpm 2.3 ± 0.5A/8,000 rpm
Charg coil resistance (Green/Red)	0.36Ω ± 10%
Lighting output	5.4 V or more/2,500 rpm 6.9 – 8V/8,000 rpm
Lighting coil resistance (Yellow)	0.23Ω ± 10%
Rectifier	
Type	Single phase half wave
Capacity	4A
Withstand voltage	400V
Rating	Silicon
Battery	
Model/Manufacture	6N4-2A-2/G.S.
Capacity	6V-4AH
Charging rate	0.4A x 10 hour
Specific gravity	1.26
Lighting System:	
Heat light type	Sealed beam
Bulb wattage/Q'ty	
Head light wattage	6V, 30W/30W
Tail/stop light wattage	6V, 5.3W/25W
Flasher light wattage	6V, 17W
Flasher pilot light wattage	6V, 3W
Meter light wattage	6V, 3W
High beam indicator light wattage	6V, 3W
Neutral light wattage	6V, 3W
Oil level indicator light wattage	6V, 3W
Horn:	
Model	MF 2 – 6
Maximum amperage	1.5A
Flasher Relay:	
Type	Condenser
Flasher frequency	85 cycle/min.
Fuse:	
Rating/Q'ty	10A/1

7-2. TORQUE SPECIFICATIONS

The list at right covers those stud/bolt sizes with standard I.S.O. pitch threads. Torque specifications for components with thread pitches other than standard are given within the applicable chapter.

Torque specifications call for dry, clean threads. Components such as the cylinder or cylinder head should be at room temperature prior to torquing. A cylinder head or any other item with several fasteners should be torqued down in a cross-hatch pattern in successive stages until torque specification is reached. The method is similar to installing an automobile wheel and will avoid warping the component.

A	B	TORQUE SPECIFICATION		
		m-kg	ft-lb	in-lb
10 mm	6 mm	1.0	7.2	85
12 mm	8 mm	2.0	15	175
14 mm	10 mm	4.0	29	350
17 mm	12 mm	4.5	33	400
19 mm	14 mm	5.0	36	440
22 mm	16 mm	6.0	43	520
24 mm	18 mm	7.0	50	610
27 mm	20 mm	8.0	58	700
Spark plug		2.5	20	230

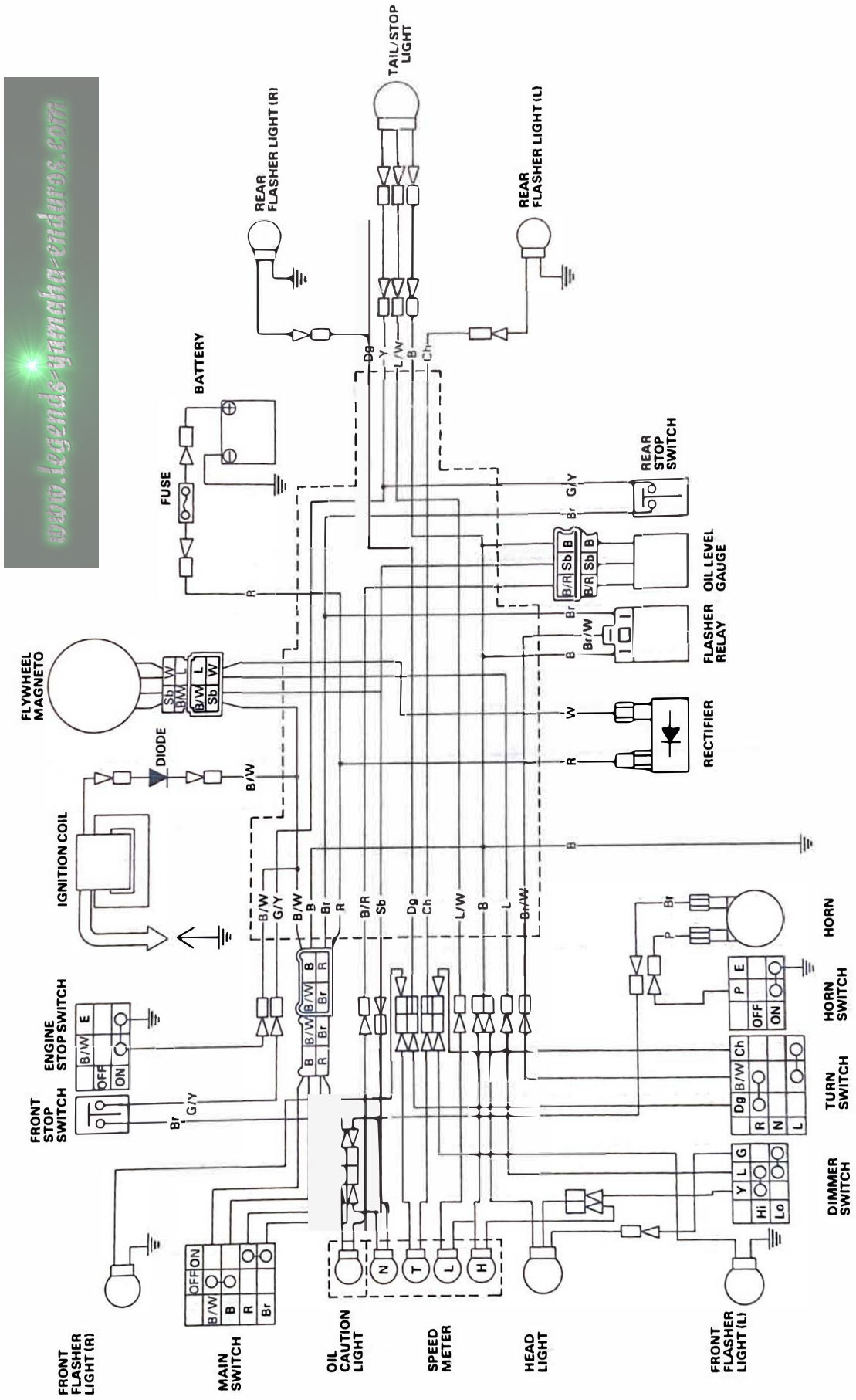


A. Distance across flats
B. Outside thread diameter

Engine	
Cylinder head	2.5 m-kg (18 ft-lb)
Spark plug	2.5 m-kg (18 ft-lb)
Primary drive gear	6.0 m-kg (43 ft-lb)
Clutch boss	5.0 m-kg (36 ft-lb)
Clutch spring	0.6 m-kg (4 ft-lb)
Drive sprocket	6.0 m-kg (43 ft-lb)
Kick crank	1.5 m-kg (11 ft-lb)
Reed valve	1.0 m-kg (7 ft-lb)
Rotor nut	5.0 m-kg (36 ft-lb)
Starter	0.8 m-kg (6 ft-lb)
Chassis	
Engine mount front upper	2.5 m-kg (18 ft-lb)
rear upper	2.5 m-kg (18 ft-lb)
rear lower	4.0 m-kg (29 ft-lb)
Pivot shaft nut	4.5 m-kg (32 ft-lb)
Rear shock absorber (frame)	4.0 m-kg (29 ft-lb)
(swing arm)	2.5 m-kg (18 ft-lb)
Handle crown pinch bolt	2.5 m-kg (18 ft-lb)
fitting bolt	7.0 m-kg (50 ft-lb)
Handle upper bracket	2.0 m-kg (14 ft-lb)
Under bracket pinch bolt	4.0 m-kg (29 ft-lb)
Front axle nut	4.5 m-kg (32 ft-lb)
Rear axle nut	4.0 m-kg (29 ft-lb)
Sprocket shaft nut	15 m-kg (108 ft-lb)
Driven sprocket bolt	2.0 m-kg (14 ft-lb)
Footrest bolt	2.0 m-kg (14 ft-lb)
Tensionbar (brake plate)	2.0 m-kg (14 ft-lb)
(rear arm)	2.0 m-kg (14 ft-lb)

(PAGE 64)

7-4. CIRCUIT DIAGRAM



MEMO

YAMAHA MOTOR CO., LTD.
IWATA JAPAN

PRINTED IN JAPAN
77・7 −2.55×1 ㊊