YAMAHA

DT175D '92

3FJ-ME1

SERVICE MANUAL

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DT175D
SERVICE MANUAL

1st Edition, August 1991

NOTICE

This manual was written by the Yamaha Motor Company primarily for use by Yamaha dealers and their qualified mechanics. It is not possible to put an entire mechanic's education into one manual, so it is assumed that persons using this book to perform maintenance and repairs on Yamaha motorcycle have a basic understanding of the mechanical concepts and procedures inherent in motorcycle repair technology. Without such knowledge, attempted repairs or service to this model may render it unfit to use and/or unsafe.

Yamaha Motor Company, Ltd. is continually striving to improve all models manufactured by Yamaha. Modifications 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

This material is distinguished by the following notation.

⚠ The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

⚠ WARNING Failure to follow WARNING instructions could result in severe injury or death to the motorcycle operator, a bystander, or a person inspecting or repairing the motorcycle.

CAUTION: A CAUTION indicates special precautions that must be taken to avoid damage to the motorcycle.

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

HOW TO USE THIS MANUAL

CONSTRACTION OF THIS MANUAL

This manual consists of chapters for the main categories of subjects. (See "Illustrated symbols")

1st title ① : This is a chapter with its symbol on the upper right of each page.

2nd title ② : This title appears on the upper of each page on the left of the chapter symbol. (For the chapter "Periodic inspection and adjustment" the 3rd title appears.)

3rd title ③ : This is a final title.

MANUAL FORMAT

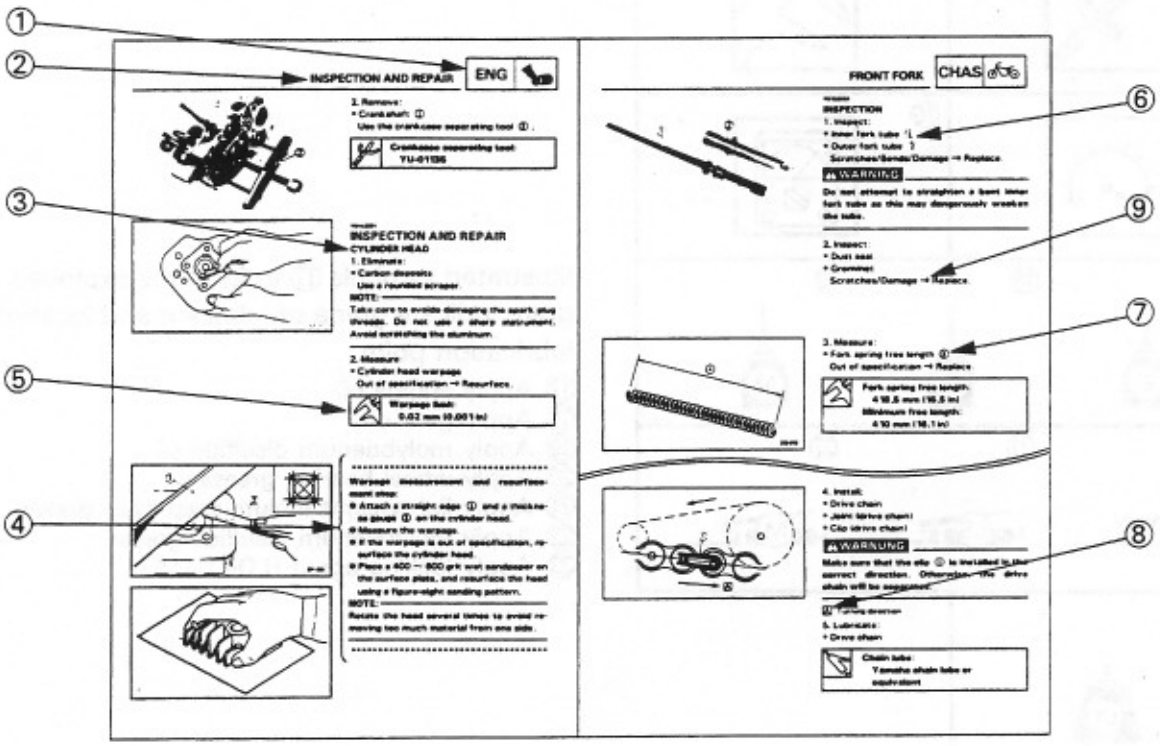
All of the procedures in this manual are organized in a sequential, step-by-step format. The information has been compiled to provide the mechanic with an easy to read, handy reference that contains comprehensive explanations of all disassembly, repair, assembly, and inspections.
A set of particularly important procedure ④ is placed between a line of asterisks "∗" with each procedure preceded by "●".

IMPORTANT FEATURES

- Data and a special tool are framed in a box preceded by a relevant symbol ⑤ .
- An encircled numeral ⑥ indicates a part name, and an encircled alphabetical letter data or an alignment mark ⑦ , the others being indicated by an alphabetical letter in a box ⑧ .
- A condition of a faulty component will precede an arrow symbol and the course of action required the symbol ⑨ .

EXPLODED DIAGRAM

Each chapter provides exploded diagrams before each disassembly section for ease in identifying correct disassembly and assembly procedures.



ILLUSTRATED SYMBOLS (Refer to the illustration)

Illustrated symbols ① to ⑨ are designed as thumb tabs to indicate the chapter's number and content.

① General information
② Specifications
③ Periodic inspection and adjustment
④ Engine
⑤ Cooling system
⑥ Carburetion
⑦ Chassis
⑧ Electrical
⑨ Troubleshooting

Illustrated symbols ⑩ to ⑯ are used to identify the specifications appearing in the text.

⑩ Filling fluid
⑪ Lubricant
⑫ Special tool
⑬ Tightening
⑭ Wear limit, clearance
⑮ Engine speed
⑯ Ω, V, A

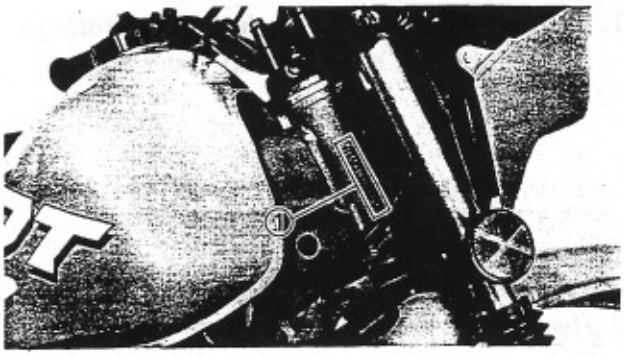
Illustrated symbols ⑰ to ㉓ in the exploded diagram indicate grade of lubricant and location of lubrication point.

⑰ Apply engine oil
⑱ Apply gear oil
⑲ Apply molybdenum disulfide oil
⑳ Apply wheel bearing grease
㉑ Apply lightweight lithium-soap base grease
㉒ Apply molybdenum disulfide grease
㉓ Apply locking agent (LOCTITE®)

INDEX

CHAPTER 1.
GENERAL INFORMATION

GENERAL INFORMATION



MOTORCYCLE IDENTIFICATION

VEHICLE IDENTIFICATION NUMBER (For AUS)

The vehicle identification number ① is stamped into the steering head pipe.

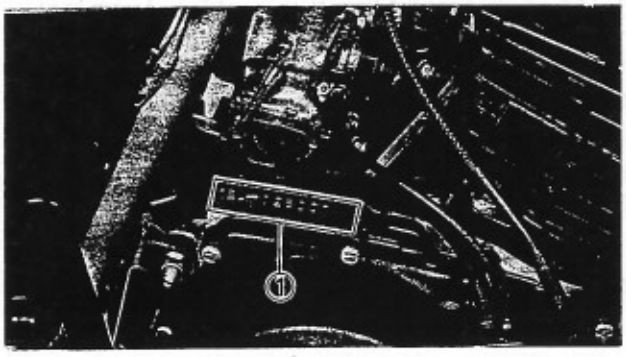
Starting serial number:
JYA1EJT0*NA028101

NOTE:

The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.

FRAME SERIAL NUMBER (Except for AUS)

The frame serial number ① is stamped into the right side of the steering head pipe.



Starting serial number:
1EJ-028101

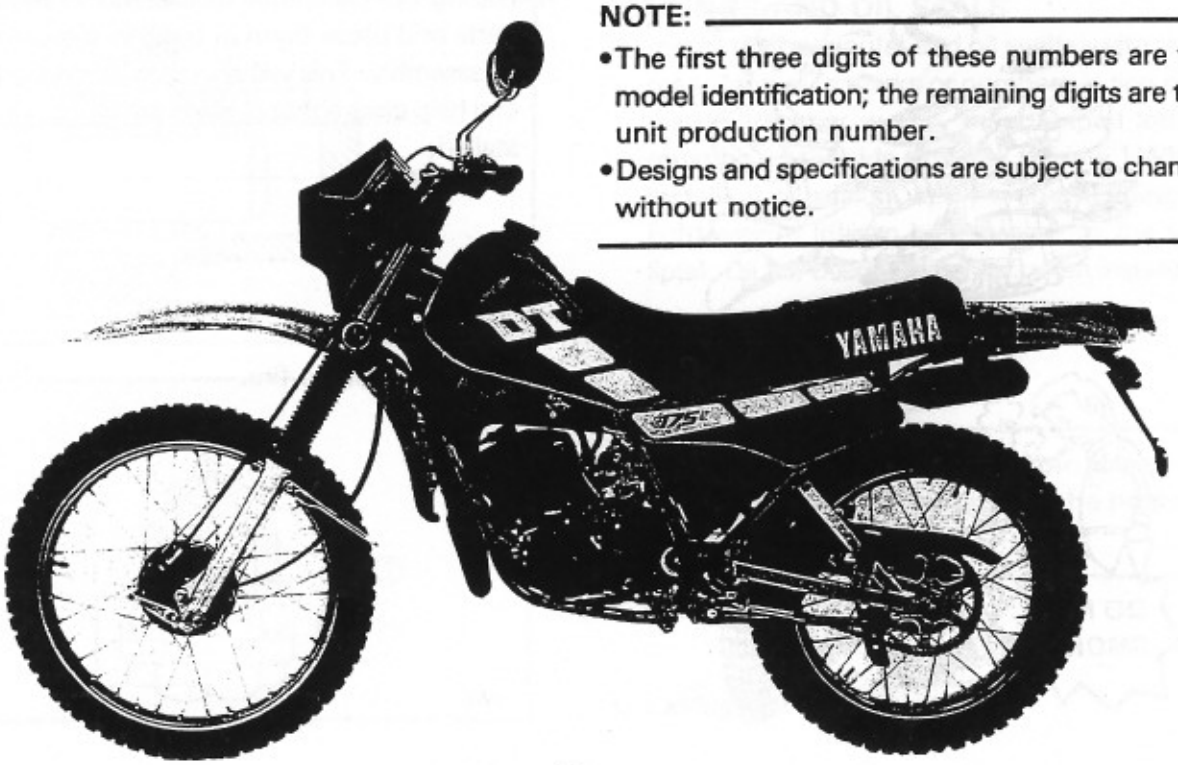
ENGINE SERIAL NUMBER

The engine serial number ① is stamped into the elevated part of the right rear section of the engine.

Starting serial number:
1EJ-028101

NOTE:

- The first three digits of these numbers are for model identification; the remaining digits are the unit production number.
- Designs and specifications are subject to change without notice.

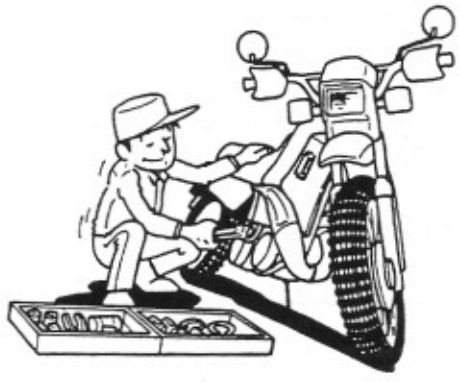


IMPORTANT INFORMATION

PREPARATION FOR REMOVAL

1. Remove all dirt, mud, dust, and foreign material before removal and disassembly.

2. Use proper tools and cleaning equipment. Refer to "SPECIAL TOOL".



3. When disassembling the machine, keep mated parts together. This includes gears, cylinders, pistons, and other mated parts that have been "mated" through normal wear. Mated parts must be reused as an assembly or replaced.

4. During the machines disassembly, clean all parts and place them in trays in the order of disassembly. This will speed up assembly time and help assure that all parts are correctly reinstalled.

5. Keep away from fire.

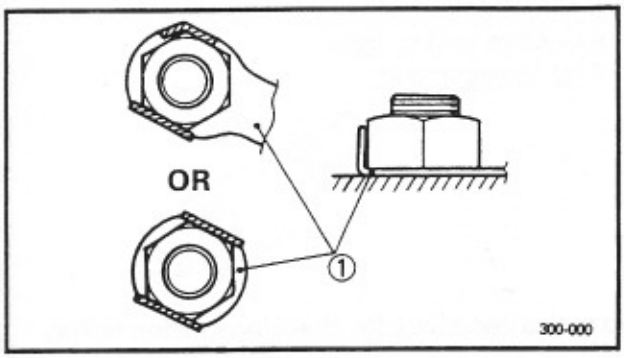
ALL REPLACEMENT PARTS

1. Use only genuine Yamaha parts for all replacements. Use oil and/or grease recommended by Yamaha for assembly and adjustment. Other brands may be similar in function and appearance, but inferior in quality.

GASKETS, OIL SEALS, AND O-RINGS

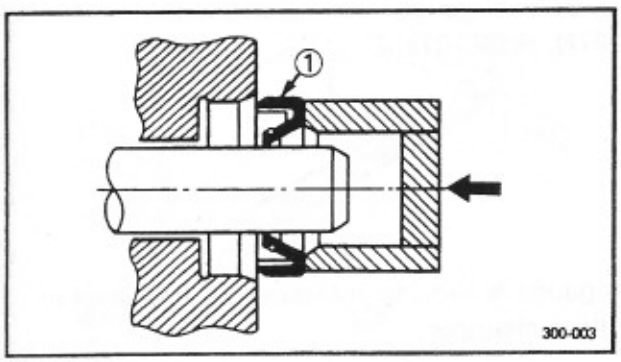
1. All gaskets, seals, and O-rings should be replaced when an engine is overhauled. All gasket surfaces, oil seal lips, and O-rings must be cleaned.

2. Properly oil all mating parts and bearings during reassembly. Apply grease to the oil seal lips.



LOCK WASHERS/PLATES AND COTTER PINS

1. All lock washers/plates ① and cotter pins must be replaced when they are removed. Lock tab(s) should be bent along the bolt or nut flat(s) after the bolt or nut has been properly tightened.



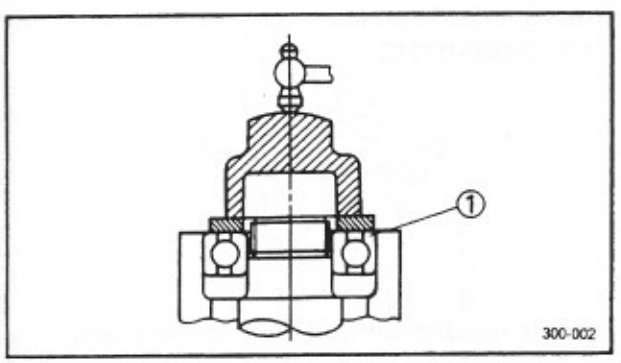
BEARINGS AND OIL SEALS

1. Install the bearing(s) and oil seal(s) with their manufacturer's marks or numbers facing outward. (In other words, the stamped letters must be on the side exposed to view.) When installing oil seal(s), apply a light coating of light-weight lithium base grease to the seal lip(s). Oil the bearings liberally when installing.

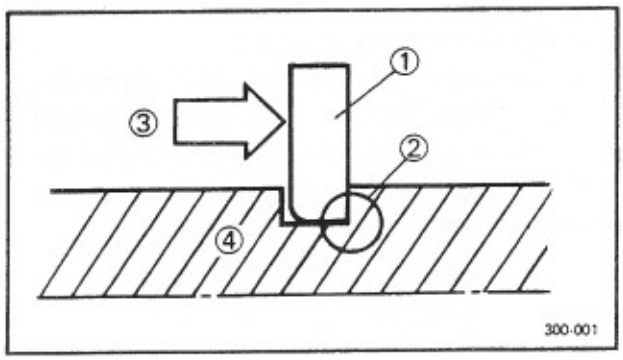
① Oil seal

CAUTION:

Do not use compressed air to spin the bearings dry. This causes damage to the bearing surfaces.



① Bearing



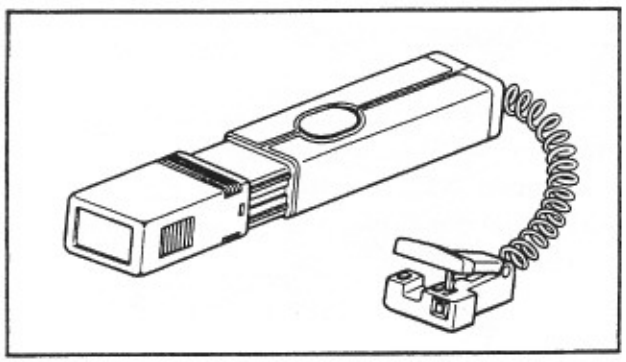
CIRCLIPS

1. All circlips should be inspected carefully before reassembly. Always replace piston pin clips after one use. Replace distorted circlips. When installing a circlip ①, make sure that the sharp edged corner ② is positioned opposite to the thrust ③ it receives. See the sectional view.

④ Shaft

SPECIAL TOOLS

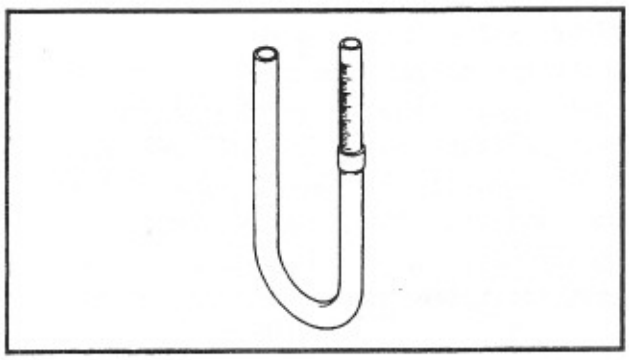
The proper special tools are necessary for complete and accurate tune-up and assembly. Using the correct special tool will help prevent damage caused by the use of improper tools or improvised techniques.



FOR TUNE UP

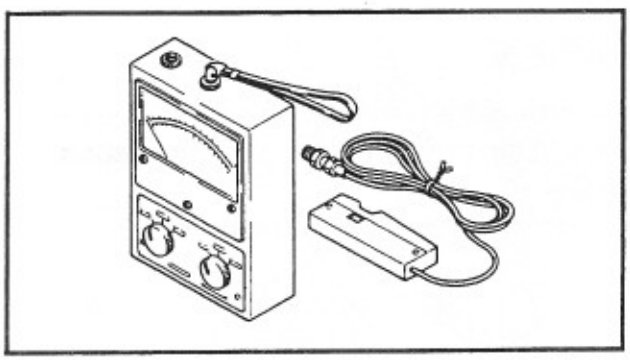
1. Inductive timing light
   P/N. 90890-03141

This tool is necessary for checking ignition timing.



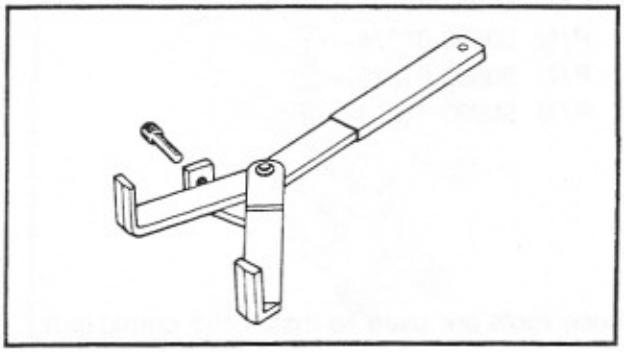
2. Fuel level gauge
   P/N. 90890-01312

This gauge is used to measure the fuel level in the float chamber.



3. Inductive tachometer
   P/N. 90890-03113

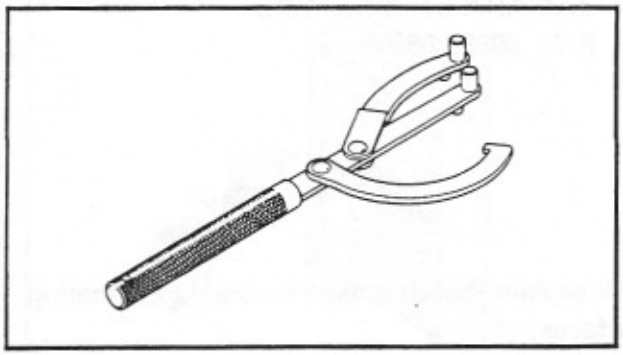
This tool is needed for detecting engine rpm.



FOR ENGINE SERVICE

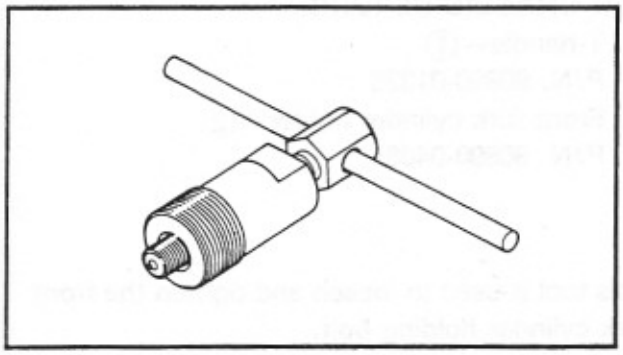
1. Universal clutch holder
   P/N. 90890-04086

This tool is used to hold the clutch when loosening or tightening the clutch boss locknut.



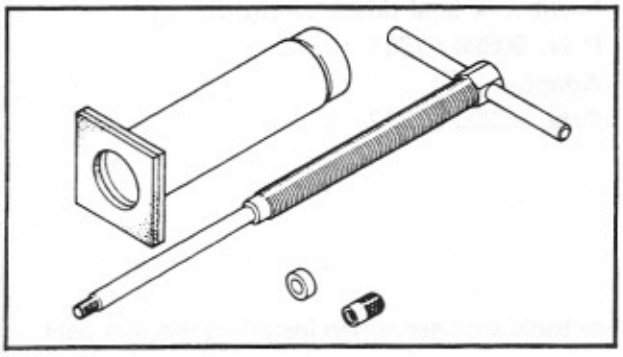
2. Universal rotor holder
   P/N. 90890-01235

This tool is used when loosening or tightening the flywheel magneto securing bolt.



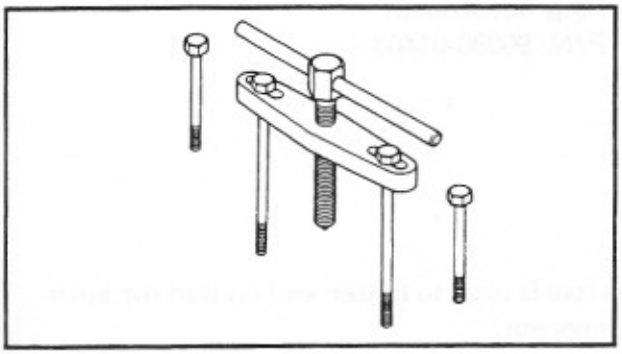
3. Flywheel puller
   P/N. 90890-01189

This tool is used for removing the flywheel.



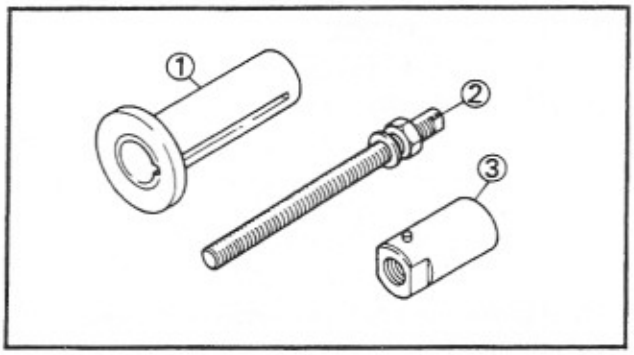
4. Piston pin puller
   P/N. 90890-01304

This tool is used to remove the piston pin.



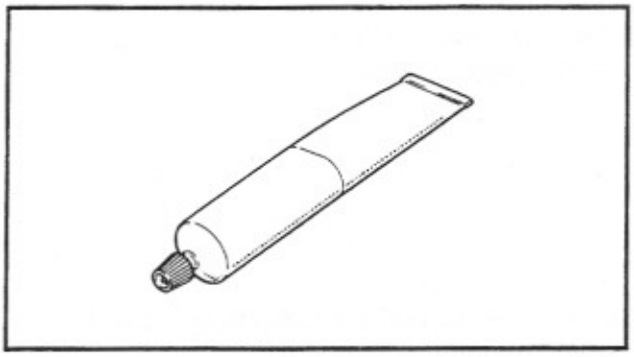
5. Crankcase separating tool
   P/N. 90890-01135

This tool is used to remove the crankshaft or separate the crankcase.



6. Crankshaft installing tool
   P/N. 90890-01274—①
   P/N. 90890-01275—②
   P/N. 90890-01278—③

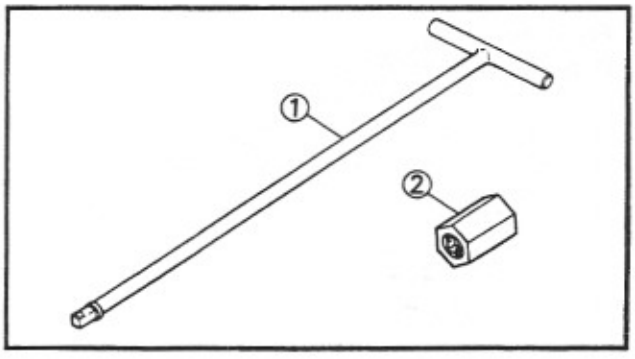
These tools are used to install the crankshaft.



7. YAMAHA bond No. 1215
   P/N. 90890-85505

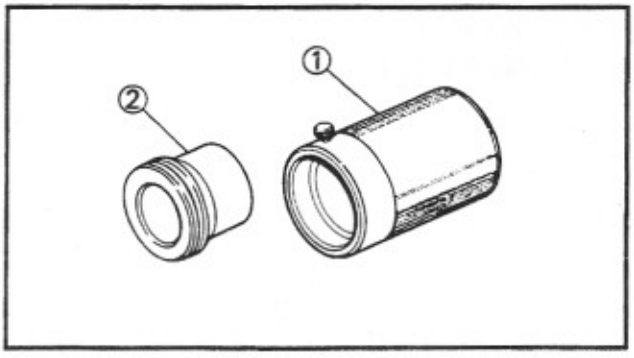
This sealant (bond) is used for crankcase mating surfaces, etc.

FOR CHASSIS SERVICE



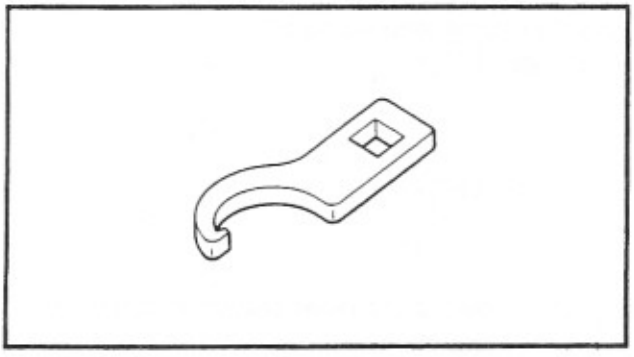
1. T-handle—①
   P/N. 90890-01326
   Front fork cylinder holder—②
   P/N. 90890-04084

This tool is used to loosen and tighten the front fork cylinder holding bolt.



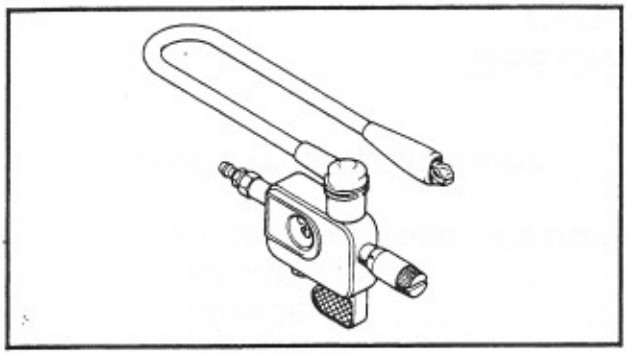
2. Front fork seal driver (weight)—①
   P/N. 90890-01367
   Adapter—②
   P/N. 90890-01372

These tools are used when installing the fork seal.



3. Ring nut wrench
   P/N. 90890-01403

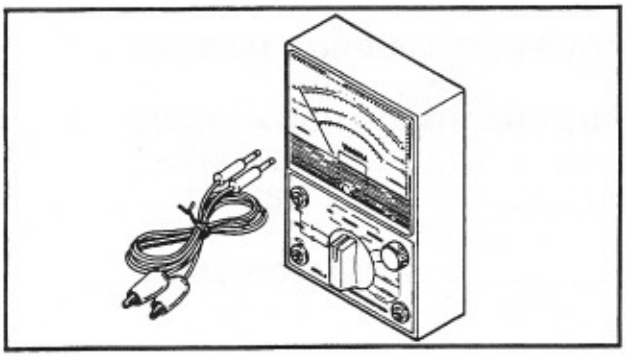
This tool is used to loosen and tighten the steering ring nut.



FOR ELECTRICAL COMPONENTS

1. Ignition checker
   P/N. 90890-06754

This instrument is necessary for checking the ignition system components.



2. Pocket tester
   P/N. 90890-03112

This tester is invaluable for checking the electrical system.

CHAPTER 2.
SPECIFICATIONS

SPECIFICATIONS

GENERAL SPECIFICATIONS

Model	DT175D
Model code number	3FJ5
Vehicle identification number (For AUS)	JYA1EJT0*NA028101
Frame serial number (Except for AUS)	1EJ-028101
Engine starting number	1EJ-028101
Dimensions:	
Overall length	2,110 mm (83.1 in)
Overall width	865 mm (34.1 in)
Overall height	1,165 mm (45.9 in)
Seat height	830 mm (32.7 in)
Wheel base	1,340 mm (52.8 in)
Minimum ground clearance	260 mm (10.2 in)
Basic weight:	
With oil and full fuel tank	107 kg (236 lb)
Minimum turning radius:	2,100 mm (82.7 in)
Engine:	
Engine type	Air cooled 2-stroke, regular gasoline
Induction system	Reed valve
Cylinder arrangement	Single cylinder, forward inclined
Displacement	171 cm^3
Bore × stroke	66.0 × 50.0 mm (2.60 × 1.97 in)
Compression ratio	6.7 : 1
Starting system	Kick starter
Lubrication system	Separate lubrication (Yamaha Autolube)
Engine oil:	
Type	Air-cooled 2-stroke engine oil
Capacity	0.90 L (0.79 Imp qt, 0.95 US qt)
Transmission oil:	
Type	SAE 10W30 type SE motor oil
Capacity:	
Periodic oil change	0.60 L (0.53 Imp qt, 0.63 US qt)
Total amount	0.65 L (0.57 Imp qt, 0.69 US qt)
Air filter:	
Type	Wet element
Fuel:	
Type	For AUS: Unleaded fuel only Except for AUS: Regular gasoline
Fuel tank capacity:	
Full amount	9.5 L (8.36 Imp gal, 10.04 US gal)
Reserve amount	1.0 L (0.88 Imp gal, 1.06 US gal)

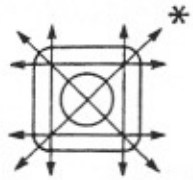
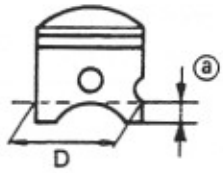
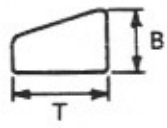
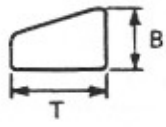
Model	DT175D	
Carburetor:		
Type/Quantity	VM26SS/1 pc.	
Manufacturer	MIKUNI	
Spark plug:		
Type/Quantity	B8ES/1 pc.	
Manufacturer	NGK	
Plug gap	0.7 ~ 0.8 mm (0.028 ~ 0.032 in)	
Clutch:		
Type	Wet, multiple disc	
Transmission:		
Type	Constant mesh 6-speed	
Primary reduction system	Helical gear	
Primary reduction ratio	71/22 (3.227)	
Secondary reduction system	Chain drive	
Secondary reduction ratio	49/16 (3.062)	
Operation	Left foot operation	
Gear ratio:		
1st	35/11 (3.181)	
2nd	29/15 (1.933)	
3rd	26/19 (1.368)	
4th	24/22 (1.090)	
5th	22/23 (0.956)	
6th	21/25 (0.840)	
Chassis:		
Frame type	Semi double cradle	
Caster angle	29.66°	
Trail	123 mm (4.84 in)	
Tire:		
Type	With tube	
Size:		
Front	2.75-21 4PR	
Rear	4.10-18 4PR	
Maximum load*:	213 kg (470 lb)	
Cold tire pressure:	Front	Rear
Up to 90 kg (198 lb) load*	150 kPa (1.5 kg/cm^2, 21 psi)	200 kPa (2.0 kg/cm^2, 29 psi)
90 kg (198 lb) ~ Maximum load*	150 kPa (1.5 kg/cm^2, 21 psi)	230 kPa (2.3 kg/cm^2, 33 psi)
Off-road riding	150 kPa (1.5 kg/cm^2, 21 psi)	200 kPa (2.0 kg/cm^2, 28.5 psi)

*Load is total weight of cargo, rider, passenger and accessories.

Model	DT175D
Brake:	
Front brake type	Drum brake
Front brake operation	Right hand operation
Rear brake type	Drum brake
Rear brake operation	Right foot operation
Suspension:	
Front suspension type	Telescopic fork
Rear suspension type	Swingarm (Monocross suspension)
Shock absorber:	
Front shock absorber	Coil spring/Oil damper
Rear shock absorber	Coil and gas spring/Oil damper
Wheel travel:	
Front wheel travel	200 mm (7.8 in)
Rear wheel travel	155 mm (6.1 in)
Electrical:	
Ignition system	CDI
Generator system	Flywheel magneto
Battery:	
Type	GM3-3B
Capacity	12V 3AH
Headlight:	
Type	Bulb type
Bulb wattage (Quantity):	
Headlight	6V 35W/35W
Tail/Brake light	6V 5.3W/25W
Flasher light	6V 17W (4 pcs.)
Auxiliary light	12V 4W (1 pc.)
Meter light	12V 3.4W (2 pcs.)
"NEUTRAL" indicator light	12V 3W (1 pc.)
"HIGH BEAM" indicator light	12V 3W (1 pc.)
"OIL" indicator light	12V 3W (1 pc.)
"TURN" indicator light	12V 3W (1 pc.)

MAINTENANCE SPECIFICATIONS

ENGINE

Model		DT175D
Cylinder head: Warpage limit		0.05 mm (0.002 in) *Lines indicate straightedge measurement.
Cylinder: Bore size Taper limit Out of round limit		 66.00~66.02 mm (2.598~2.599 in) 0.05 mm (0.002 in) 0.01 mm (0.0004 in)
Piston: Piston size "D" Measuring point "a"		 65.94~66.00 mm (2.596~2.598 in) 10 mm (0.4 in)
Piston off-set Piston-to-cylinder clearance <Limit> Over size: 1st 2nd		0 mm (0 in) 0.040~0.045 mm (0.0016~0.0018 in) <0.1 mm (0.004 in)> 66.25 mm (2.61 in) 66.5 mm (2.62 in)
Piston ring: Sectional sketch	Top ring 	 Keystone type B=1.2 mm (0.047 in) T=2.4 mm (0.095 in)
	2nd ring 	 Plain type B=1.2 mm (0.047 in) T=2.4 mm (0.095 in)
End gap (Installed)	Top ring 2nd ring	0.30~0.50 mm (0.012~0.020 in) 0.30~0.50 mm (0.012~0.020 in)
Side clearance	Top ring 2nd ring	0.030~0.050 mm (0.0012~0.0020 in) 0.030~0.050 mm (0.0012~0.0020 in)

Model	DT175D
Crankshaft:	
Crank width "A"	55.90 ~ 55.95 mm (2.201 ~ 2.203 in)
Runout limit "B"	0.02 mm (0.0008 in)
Big end side clearance "C"	0.20 ~ 0.70 mm (0.008 ~ 0.028 in)
<Limit>	<1.0 mm (0.040 in)>
Small end free play "D"	0.8 ~ 1.2 mm (0.031 ~ 0.047 in)
Clutch:	
Friction plate:	
Thickness	2.9 ~ 3.1 mm (0.114 ~ 0.122 in)
Quantity	7 pcs.
Wear limit	2.7 mm (0.106 in)
Clutch plate:	
Thickness	1.2 mm (0.047 in)
Quantity	6 pcs.
Warpage limit	0.05 mm (0.002 in)
Clutch spring:	
Free length	34.5 mm (1.358 in)
Quantity	4 pcs.
Minimum free length	33.5 mm (1.319 in)
Clutch release method	Inner push, cam push
Push rod bending limit	0.5 mm (0.020 in)
Transmission:	
Main axle runout limit	0.08 mm (0.003 in)
Drive axle runout limit	0.08 mm (0.003 in)
Shifter:	
Type	Guide bar
Kick starter:	
Type	Kick and mesh type
Air filter:	
Oil grade	Foam-air-filter oil or air cooled 2 stroke engine oil

Model		DT175D
Carburetor:		
I.D. mark		18L00
Main jet	(M.J.)	#170
Air jet	(A.J.)	φ0.5
Jet needle-position	(J.N.)	4L6-3
Needle jet	(N.J.)	O-8
Cutaway	(C.A.)	1.5
Pilot outlet	(P.O.)	φ0.6
Pilot jet	(P.J.)	#20
Air screw	(A.S.)	1-1/2
Bypass 1	(B.P. 1)	φ1.4
Valve seat size	(V.S.)	φ2.5
Starter jet	(G.S.)	#20
Power jet	(PW.J.)	#40
Fuel level	(F.L.)	0 ~ 1 mm (0 ~ 0.04 in)
Float height	(F.H.)	20 ~ 22 mm (0.79 ~ 0.87 in)
Idling speed		1,300 ~ 1,400 r/min
Reed valve:		
Valve thickness		0.2 mm (0.008 in)
Valve stopper height		4.7 ~ 5.1 mm (0.185 ~ 0.201 in)
Valve bending limit		0.5 mm (0.02 in)
Lubrication system:		
Autolube pump:		
Color code		Black
Minimum stroke		0.30 ~ 0.35 mm (0.012 ~ 0.014 in)
Maximum stroke		1.85 ~ 2.05 mm (0.073 ~ 0.081 in)
Minimum output		0.38 ~ 0.44 cm^3
Maximum output		2.33 ~ 2.58 cm^3
Pulley adjusting mark		At idle □

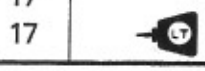
Tightening torque:

Parts to be tightened	Part name	Q'ty	Thread size	Tightening torque			Remarks
				Nm	m•kg	ft•lb	
Spark plug		1	M14×1.25	25	2.5	18	
Cylinder head	Nut	6	M 8×1.25	25	2.5	18	
Cylinder	Stud bolt	4	M10×1.25	15	1.5	11	
	Nut	4	M10×1.25	35	3.5	25	
Oil pump	Panhead screw	2	M 5×0.8	8	0.8	5.8	LT
Reed valve	Panhead screw	4	M 3×0.5	1	0.1	0.7	
Carburetor joint	Bolt	4	M 6×1.0	8	0.8	5.8	
Exhaust pipe							
exhaust pipe	Nut	2	M 6×1.0	11	1.1	8	
cylinder	Stud bolt	2	M 6×1.0	0.5	0.05	0.36	
stay	Bolt	1	M 6×1.0	10	1	7.2	
frame mount	Bolt	1	M 6×1.0	10	1	7.2	
Transmission oil drain	Bolt	1	M12×1.5	20	2.0	14	
Crankcase cover (left)	Screw	6	M 6×1.0	10	1.0	7.2	
Crankcase cover (right)	Screw	9	M 6×1.0	10	1.0	7.2	
Oil pump cover	Screw	3	M 6×1.0	8	0.8	5.8	
Crankcase	Screw	12	M 6×1.0	8	0.8	5.8	
Kick crank boss	Bolt	1	M 8×1.25	23	2.3	17	
Oil seal retainer	Screw	1	M 8×1.25	10	1.0	7.2	
Primary drive gear	Nut	1	M12×1.0	60	6.0	43	
Clutch boss	Nut	1	M14×1.0	40	4.0	29	
Clutch spring	Bolt	4	M 5×0.8	6	0.6	4.3	
Clutch lever stopper	Bolt	1	M 8×1.25	10	1.0	7.2	
Clutch free play adjusting	Nut	1	M 6×1.0	8	0.8	5.8	
Plate bearing cover	Screw	2	M 6×1.0	10	1.0	7.2	LT
Plate cover	Bolt	2	M 6×1.0	10	1.0	7.2	
Drive sprocket	Nut	1	M16×1.0	55	5.5	40	
Tachometer housing	Screw	1	M 6×1.0	8	0.8	5.8	
Shifter stopper lever	Bolt	1	M 6×1.0	10	1.0	7.2	LT
Shifter adjusting nut	Nut	1	M 8×1.25	30	3.0	22	LT
Shift pedal	Bolt	1	M 6×1.0	11	1.1	8.0	
Neutral switch		1	M10×1.25	5	0.5	3.6	
CDI (CDI magneto)	Nut	1	M12×1.25	70	7.0	50	
Stator magneto	Screw	2	M 6×1.0	8	0.8	5.8	

CHASSIS

Model	DT175D
Steering system:	
Bearing type	Ball bearing
Bearing size (Quantity):	
Upper	3/16 in (22 pcs.)
Lower	1/4 in (19 pcs.)
Front suspension:	
Front fork travel	200 mm (7.87 in)
Fork spring free length	428.5 mm (16.87 in)
<Limit>	<423 mm (16.65 in)>
Spring rate (K_1)	6.0 N/mm (0.6 kg/mm, 4.3 lb/in)
Stroke (K_1)	0~200 mm (0~7.87 in)
Optional spring	No.
Oil capacity	254 cm^3 (8.94 Imp oz, 8.59 US oz)
Oil level	467 mm (18.39 in) From top of inner tube fully extended without spring.
Oil grade	Fork oil 10W or equivalent
Rear suspension:	
Shock absorber travel	84 mm (3.31 in)
Spring free length	258 mm (10.16 in)
<Limit>	<256 mm (10.08 in)>
Fitting length	230 mm (9.06 in)
Spring rate (K_1)	36.5 N/mm (3.65 kg/mm, 25 lb/in)
Stroke (K_1)	0~84 mm (0~0.14 in)
Optional spring	No.
Enclosed gas pressure	1176.8 kPa (12 kg/cm^2, 171 psi)
Swingarm:	
Free play limit (swingarm end)	1.0 mm (0.04 in) Move swingarm end side to side
Front wheel:	
Type	Spoke wheel
Rim size	1.60×21
Rim material	Steel
Rim runout limit:	
Vertical	2.0 mm (0.08 in)
Lateral	2.0 mm (0.08 in)
Rear wheel:	
Type	Spoke wheel
Rim size	1.85×18
Rim material	Steel
Rim runout limit:	
Vertical	2.0 mm (0.08 in)
Lateral	2.0 mm (0.08 in)

Tightening torque:

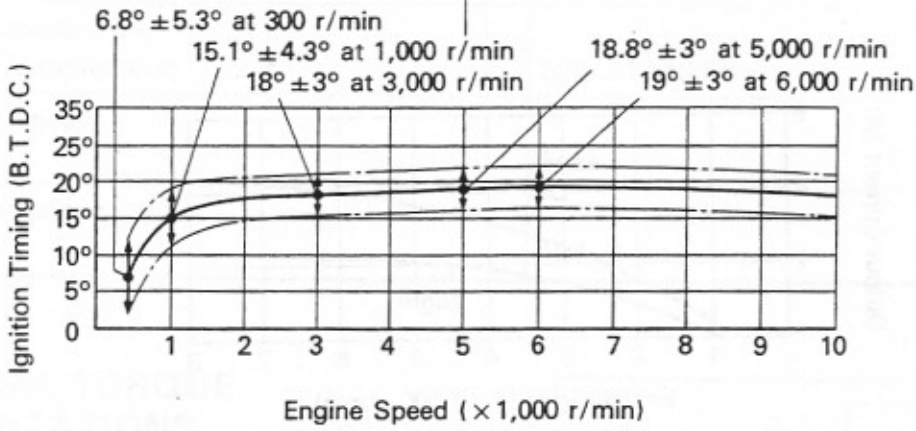
Parts to be tightened	Thread size	Tightening torque			Remarks
		Nm	m•kg	ft•lb	
Handle crown and inner tube	M10×1.25	34	3.4	24	
Handle crown and steering shaft (upper)	M14×1.25	54	5.4	39	
Handle crown and steering shaft (side)	M 8×1.25	23	2.3	17	
Handlebar holder	M 8×1.25	15	1.5	11	
Steering shaft and locknut	M25×1.0	6	0.6	4.3	See "NOTE".
Handle crown pinch bolt	M 8×1.25	23	2.3	17	
Engine stay (front) and frame	M 8×1.25	32	3.2	23	
Engine and frame (rear upper)	M 8×1.25	32	3.2	23	
Engine and frame (rear lower)	M10×1.25	39	3.9	28	
Pivot shaft and frame	M12×1.25	53	5.3	38	
Rear shock absorber and frame	M10×1.25	32	3.2	23	
Chain guide	M 6×1.0	7	0.7	5.1	
Chain cover	M 6×1.0	4	0.4	2.9	
Fuel tank	M 6×1.0	5	0.5	3.6	
Seat bracket	M 8×1.25	15	1.5	11	
Front wheel axle	M10×1.25	39	3.9	28	
Rear wheel axle and nut	M14×1.5	85	8.5	61	
Camshaft lever bolt	M 6×1.0	8	0.8	5.8	
Wheel sprocket and hub	M10×1.25	39	3.9	25	
Sidestand	M10×1.25	40	4.0	29	
Sidestand switch	M 5×0.8	4	0.4	2.9	
Cap bolt	M30×1.0	23	2.3	17	
Damper rod (bolt)	M10×1.0	23	2.3	17	

NOTE:

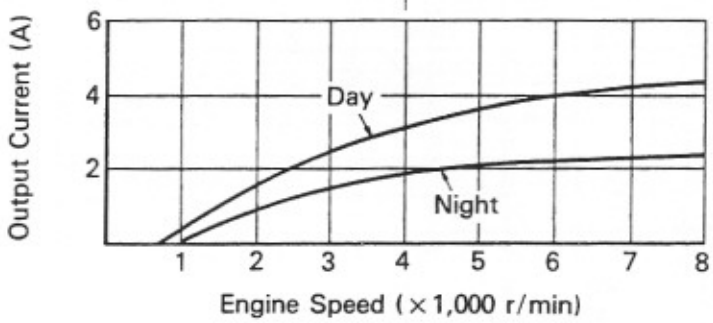
1. First, tighten the ring nut approximately 38 Nm (3.8 m•kg, 27 ft•lb) by using the torque wrench, then loosen the ring nut one turn.
2. Retighten the ring nut to specification.

ELECTRICAL

Model	DT175D
Voltage:	12V
Ignition system: Ignition timing (B.T.D.C.) Advancer type	 18° at 3,000 r/min Electrical type
CDI: Magneto model/Manufacturer CDI unit model/Manufacturer Pickup coil resistance (color) Source coil resistance (color)	 F4T202/YAMAHA 3BN/YAMAHA 8 ~ 12Ω at 20°C (68°F) (White/Red — White/Green) 270 ~ 330Ω at 20°C (68°F) (Black/Red — Black)
Ignition coil: Model/Manufacturer Minimum spark gap Primary coil resistance Secondary coil Resistance	 F06T41174/MITSUBISHI 6 mm (0.24 in) 0.8 ~ 1.2Ω at 20°C (68°F) 4.72 ~ 7.08kΩ at 20°C (68°F)
Spark plug cap: Type Plug cap resistance	 Rubber type 5.46 ~ 7.34kΩ at 20°C (68°F)



Model	DT175D
Charging system:	Flywheel magneto
Flywheel magneto: Model/Manufacturer Charging coil resistance (color) Lighting coil resistance Standard output	 F4T202/YAMAHA 0.24 ~ 0.36Ω at 20°C (68°F) (White/Green—Black) 0.14 ~ 0.22Ω at 20°C (68°F) (Yellow—Black) 12V 1.1A at 2,500 r/min When "LIGHT" switch is turned to "OFF".
Voltage regulator: Type	 Semi conductor—short circuit type
Rectifier: Model/Manufacturer Capacity	 EHU-01TR27/MATSUSHITA 8A
Battery: Specific gravity	 1.280
Horn: Type Quantity Model/Manufacturer Maximum Amperage	 Plane type 1 pc. MF-12/NIKKO 1.5A

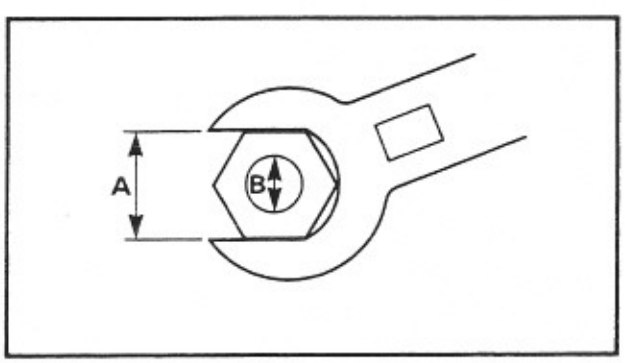


Model	DT175D
Flasher relay:	
Type	Condenser type
Model/Manufacturer	FZ249SD/NIPPONDENSO
Self cancelling device	No
Flasher frequency	75 ~ 95 cycle/min
Wattage	21W × 2 + 3.4W
Ignition control unit:	
Model/Manufacturer	F6T/YAMAHA
Oil level switch:	
Model/Manufacturer	3J0/STANLEY
Circuit breaker:	
Type	Fuse
Circuit (fuse):	
"MAIN"	10A (1 pc.)

GENERAL TORQUE SPECIFICATIONS

This chart specifies torque for standard fasteners with standard I.S.O. pitch threads. Torque specifications for special components or assemblies are included in the applicable sections of this book. To avoid warpage, tighten multi-fastener assemblies in a crisscross fashion, in progressive stages, until full torque is reached. Unless otherwise specified, torque specifications call for clean, dry threads. Components should be at room temperature.

A (Nut)	B (Bolt)	General torque specifications		
		Nm	m•kg	ft•lb
10 mm	6 mm	6	0.6	4.3
12 mm	8 mm	15	1.5	11
14 mm	10 mm	30	3.0	22
17 mm	12 mm	55	5.5	40
19 mm	14 mm	85	8.5	61
22 mm	16 mm	130	13.0	94



A: Distance across flats
B: Outside thread diameter

LUBRICATION POINTS AND LUBRICANT TYPE

ENGINE

Lubrication Points (Part name)	Lubricant Type
Oil seal lips (all)	LS
O-rings (all)	LS
Bearing retainer	
Crankshaft bearings (left and center)	E
Needle bearings (connecting rod)	E
Main axle bearings	G
Drive axle bearings	G
Push lever bearing	G
Crank pins	E
Piston rings, piston pins and pistons	E
Warm shaft (Autolube pump)	E
Kick idle gear	G
Kick axle	G
Primary driven gear (clutch housing)	G
Push rod	G
Push lever axle	G
Sliding gear (transmission)	M
Free movement gear (transmission)	M
Guide bar (shift forks)	G
Crankcase mating surfaces	Yamaha bond No. 1215®

LUBRICATION POINTS AND LUBRICANT TYPE

CHASSIS

Lubrication Points (Part name)	Lubricant Type
Ball bearing (steering shaft)	LS
Oil seal (front wheel)	LS
Gear (speedometer)	LS
Camshaft (front and rear brake)	LS
Oil seal (rear wheel)	LS
Arm head pipe (rear arm)	LS
Inner collar (rear arm)	LS
Outer collar (rear arm)	LS
Shaft (rear brake pedal)	LS
Throttle grip inner surface	LS
Lever pivots and cable end (clutch brake)	LS
Boss (tensioner arm)	LS
Sidestand pivot	LS
Frame head pipe	LS

CABLE ROUTING

① Front brake cable
② Front brake switch lead
③ Throttle cable
④ "ENGINE STOP" switch lead
⑤ Band
⑥ Handlebar switch (left) lead
⑦ Clutch cable
⑧ Cable guide
⑨ Speedometer cable
⑩ Front flasher light lead
⑪ Headlight lead
⑫ Tachometer cable
⑬ Horn lead
⑭ Main switch lead
⑮ Tachometer lead
⑯ Speedometer lead
⑰ Cable guide