

DT250E DT400E

Supplementary Service Manual

Includes DT250D/400D Service Manual changes and new material

LIT-11616-00-74 1M1-28197-11

FOREWORD

This Supplementary Service Manual for DT250E/400E has been published to supplement the Service Manual for the DT250D/400D P/No. (1MI-28197-10) and includes changes in specifications and addition to the data.

For complete information on service procedures, it is necessary to use this Supplementary Service Manual together with the Service Manual for the DT250D/400D (P/NO IMI-28197-10)

YAMAHA DT250E/400E
SUPPLEMENTARY SERVICE MANUAL
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MOTOR COMPANY LTD., JAPAN
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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 basic knowledge, repairs or service to this model may render the machine unsafe, and for this reason we must advise that all repairs and/or service by performed by an Authorized Yamaha Dealer who is in possession of the requisite basic product knowledge.

The Research, Engineering and overseas Service Department 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 in-

specting or repairing the machine.

SERVICE DEPT.
INTERNATIONAL DIVISION
YAMAHA MOTOR CO., LTD.

Page numbers shown in brackets correspond to page numbers of the DT250D/DT400D Service Manual.

(PAGE 8)

2-2 ENGINE

A. Carburetor

- Idle mixture and idle speed adjustment
- a. Fully warm up the engine and turn the pilot air screw in until lightly seated.
- b. Back out pilot air acrew as specified.
- c. Turn the idle speed adjust screw until idle is at desired rpm.
- d. Turn the pilot air screw in or out until speed is at highest rpm.
- e. Turn the idle speed adjust screw in or out until idle speed is at specified rpm.

	DT250E	DT400E
Pilot air screw (Turns out)	2.0	1½
Idle speed (rpm)	1200 - 1300	1300 - 1400

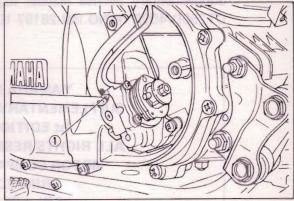
- 2. Throttle cable and analysis analysis and analysis analysis and analysis analysi
- d. The play in turning direction should be 5 - 8 mm (0.20 - 0.31 in) at grip flange. After adjusting, be sure to tighten the lock nut properly.
- B. Air Filter
- 1. Cleaning method Clean the element with solvent. After and added to provide additional and Then apply 30 wt motor oil. Foam should pump cover. but not dripping. Coat the sealing edges with light grease, and all banks and NOTE:----
- 2. The air filter element should be cleaned once a month or every 3,200 km (2,000 maged, replace with a new one. miles). It should be cleaned more often if dusty areas.

- C. Autolube pump
- 1. Air bleeding

The Autolube Pump and delivery lines naust be bled on the following occasions:

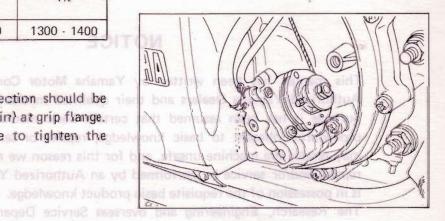
Setting up a new machine out of the crate.

- Whenever the Autolube tank has run dry.
- Whenever any portion of the Autolube system is disconnected.
- a. Bleeding the pump case and/or oil pipe
 - 1) Remove the pump cover and remove the the bleed screw.



1. Bleed screw

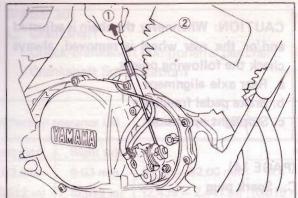
2) Keep the oil running out until air bubbles disappear.



cleaning, remove the remaining solvent by 3) When air bubbles are expelled completely, squeezing the foam rubber and let dry. tighten the bleed screw and install the

Check the bleed screw gasket, and if da-

- the machine is operated in extremely b Bleeding the pump distributor and/or delivery pipe
 - ed Burn Stadt southerned labour south 1) Start the engine. 20444 PAW
- (PAGE 9) and more all the way out to set the pump stroke to a maximum.



1. Pull 2. Pump wire

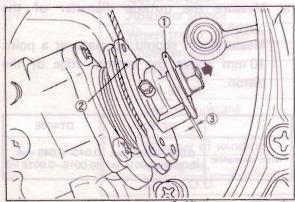
NOTE:-

It is difficult to bleed the distributor completely with the pump stroke at a minimum, and therefore the pump stroke should be set to a maximum.

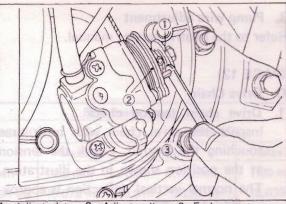
- Keep the engine running at about 2,000 rpm for two minutes or so, and both distributor and delivery pipe can be completely bled.
- Minimum pump stroke check and adjustment

Normally the checking and adjustment of the pump stroke are not required, but if any sign of trouble resulting from an incorrect minimum pump stroke is noticed (e.g., excessive engine oil consumption or engine seizure), proceed as follows:

- Remove the pump cover and start the engine.
- b. While running the engine idle, observe the pump adjust plate carefully, and stop the engine the moment that the adjust plate moves out to the limit.



 Adjust plate 2. Adjust pulley 3. Minimum pump stroke
 Measure the gap with the thickness gauge between the raised boss on the pump adjust pulley and the adjust plate.



1. Adjust plate 2. Adjust pulley 3. Feeler gauge

d. Repeat steps b and c above a few times. When the gap measured is the largest, the pump stroke is considered to be a minimum.

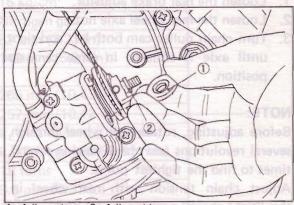
NOTE:-

When inserting the thickness gauge between the adjusting plate and the adjusting pulley, be careful so that either the plate or the pulley is not moved. In other words, do not force the thickness gauge into the gap.

Minimum pump stroke: 0.25-0.30 mm (0.010-0.012 in)

Maximum pump stroke: 1.85-2.05 mm (0.073-0.081 in)

 e. If clearance is not correct, remove the adjust plate lock nut and the adjust plate.



1. Adjust plate 2. Adjust shim

- f. Remove or add an adjust shim as required.
- g. Reinstall adjust plate and lock nut. Tighten the lock nut. Re-measure gap. Repeat procedure as required.

3. Pump wire adjustment
Refer to the relative service manual.

(PAGE 12)

- C. Drive Chain
- Drive chain tension check
 Inspect the drive chain with both tires touching the ground. Check the tension at the position shown in the illustration. The normal vertical deflection is approximately 40 50 mm (1.6 2.0 in). If the deflection exceeds 50 mm (2.0 in) adjust the chain tension.

NOTE:-

Tension inspection and adjustment should be made with the tensioner in the relaxed position.



- 2. Drive chain tension adjustment
- 1. Loosen the rear brake adjustor.
- 2. Loosen the rear wheel axle nut.
- Turn chain puller cam both left and right, until axle is situated in same cam slot position.

NOTE:-

Before adjusting, rotate rear wheel through several revolutions and check tension several times to find the tightest point.

Adjust chain tension with rear wheel in this "tight chain" position.

4. Tighten the rear axle nut.

CAUTION: Whennever the chain is adjusted and/or the rear wheel is removed, always check the following points.

- a. Rear axle alignment
- b. Brake pedal freeplay
- c. Stoplight operation

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C. Spark plug

Spark plug type:

NGK B-8ES, or Champion N-2

Plug gap:

0.7-0.8 mm (0.028-0.0031 in)

(PAGE 16)

- E. Headlight was a second to the second to t
- Replacing the headlight bulb Delete the photo in this section.

(PAGE 24/25)

B. Cylinder/E. Piston

of (e.g., akcasalu	DT250E	DT400E
Cylinder bore Max.	70.00—70.02 mm 70.1 mm	85.00-85.02 mm 85.1 mm
Cylinder taper Max.	0.08 mm	0.08 mm

(PAGE 25)

- E. Piston
- Wash piston in solvent and wipe dry.
- Measure the outside diameter of the piston.

Measurement should be made at a point 10 mm above the bottom edge of the piston.

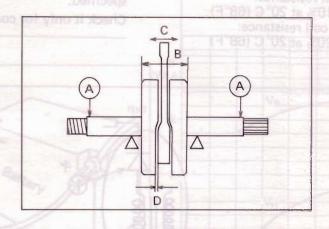
A STATE OF	DT250E	DT400E
Piston clearance:	0.035-0.040 mm (0.0014-0.0016 in)	0.040-0.045 mm (0.0016-0.0018 in)

(PAGE 30)

Crankshaft
 Check crankshaft components per chart.

Crankshaft Specifications

D (1	MEY WHE COM	51 1 1 1 (1) (D)	Rod clearance			
Deflection t	toerance (A)	Flywheel width(B)	Axial (C) no vietno	Side (D)
Left side	Right side	nia lina vismina	New	Max.	New	Max.
0.03 mm	0.03 mm	61.95 - 62.00 mm	0.4 - 1.0 mm	2.0 mm	0.25 - 0.75 mm	1.00 mm
(0.012 in)	(0.012 in)	(2.439 – 2.441 in)	(0.016 - 0.0394 in)	(0.079 in)	(0.010 - 0.030 in)	(0.0394)



(PAGE 33)

G. Cylinder

2. Tighten cylinder holding nuts.

(PAGE 38)

4-3. REED VALVE ASSEMBLY Delete the photo in this section.

Tightening torque: 10 mm nut

4.0 m-kg (29 ft-lb)

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E. REAR SHOCK ABSORBER Service Data:

Gas pressure	15 kg/cm ²
Gas properties	Nitrogen gas
Absorber stroke	82 mm (3.23 in)
Wheel travel	140 mm (5.51 in)
Absorber spring:	
Free length	265 mm (10.43 in)
Set length	257 mm (10.12 in)
Spring constant	k ₁ =4.5 kg/mm (0-62 mm)
	k ₂ =7.5 kg/mm (62-82 mm)
Number of winding	18 turns
Spring dia.	9.5 mm (0.37 in)
Spring O.D.	58 mm (2.28 in)

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6-1. IGNITION SYSTEM

- C. Direct Current Resistance Test
- a. DT400E

Use a pocket tester or equivalent ohmmeter to determine resistance and continuity of primary and secondary coil windings.

Standard values:

Primary coil resistance: 1.0Ω ± 10% at 20°C (68°F) Secondary coil resistance: 5.9Ω ± 20% at 20°C (68°F)

b. DT250E

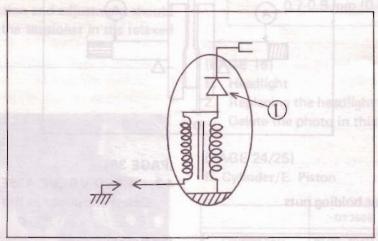
Determine resistance and continuity of secondary coil windings.

5.9 KΩ ± 20 % at 20°C (68°F)

NOTE:-

The primary coil circuit has a rectififier built in it for prevention of reverse revolution, and its DC resistance value cannot be specified.

Check it only for continuity.

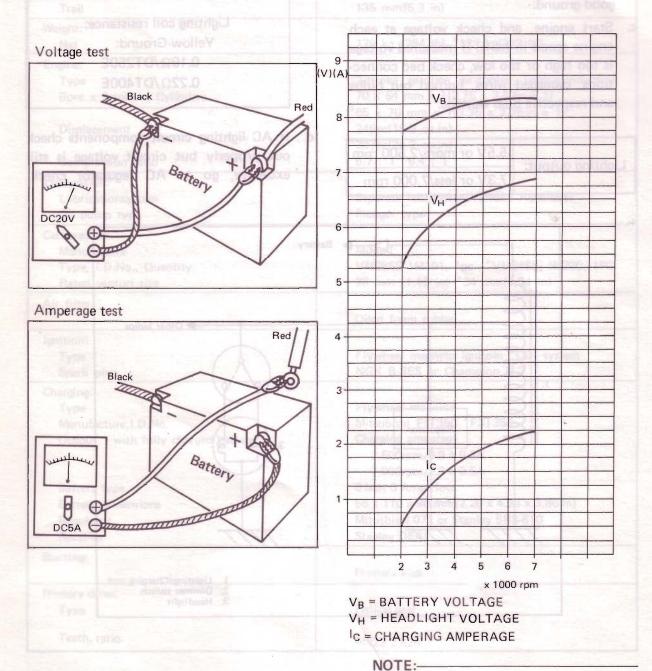


1. Rectifier for prevention of reverse revolution

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6-2. CHARGING SYSTEM

- A. Charging Output Test
- 1. Voltage test
- a. Remove left sidecover and locate red battery wire connection.
- b. Connect DC voltmeter (or Yamaha Pocket Tester) as shown.
- c. Start engine and note voltage readings.
- 2. Amperage test
- a. Connect DC amperemeter as shown.
- b. Start engine and note amperage readings.



These curves are an example when the battery is fully charged.

(PAGE 54)

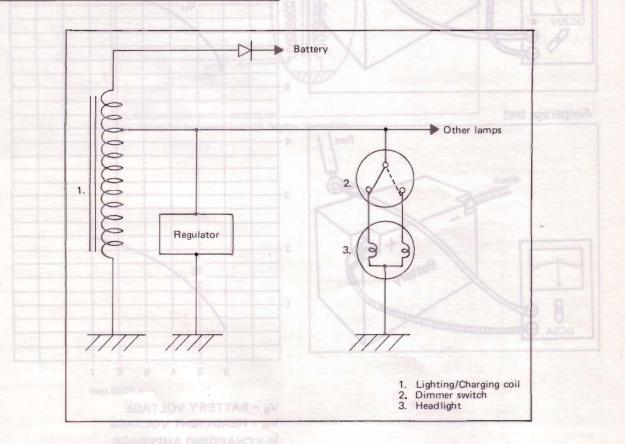
- C. Lighting Tests and Checks (A. C. circuit)
- A.C. circuit output test
 With all A.C. lights in operation the
 circuit will be balanced and the voltage
 will be the same at all points at a given
 rom
- a. Switch Pocket Tester to "AC 20V" position.
- b. Connect positive (+) test lead to yellow connection and negative (-) test lead to a good ground.
- c. Start engine, and check voltage at each engine speed in table. If measured voltage is too high or too low, check bad connections, damaged wires, burned out bulbs and respective bulb wattage.

Lighting output: 5.5V or more/2,500 rpm 7.3V or less/7,000 rpm

- Lighting coil resistance check
 If voltage is incorrect in AC lighting
 circuit, check the resistance of the yellow
 wire windings of the lighting coil
- a. Switch Pocket Tester "Ω X 1" position and zero meter.
- b. Connect positive (+) test lead to yellow wire from magneto and negative (-) test lead to a good ground on engine. Read the resistance on ohms scale.

Lighting coil resistance: Yellow-Ground: $0.19\Omega/DT250E$ $0.22\Omega/DT400E$

c. If AC lighting circuit components check out properly but circuit voltage is still excessive, go to AC regurator check.



NOTE: These curves are an example when the battery is fully charged.

7-1. SPECIFICATIONS

A. General Specifications

Model	DT250E *DT400E
Dimensions:	
Overall length	2,185 mm(86.0 in)
Overall width	870 mm(34.3 in)
Overall hight	1,165 mm(45.9 in)
Seat hight	855 mm (33.7 in)
Wheelbase	1,420 mm(55.9 in) *1,415 mm(55.7 in)
Minimum ground clearance	255 mm(10.0 in)
Caster	60°
Trail BOBY ATTS MARE	135 mm(5.3 in)
Weight:	0.2 - 0.4 mm (0.0079 - 0.01%) Inf
Net Moderate Management (Net M	129 kg (284 lb) *133 kg(293 lb)
Engine:	
Type	2-stroke, gasoline, air-cooled, Torque induction
Bore x Stroke x Cylinders	70 x 64 mm x 1(2.76 x 2.52in x 1)
man and an a second	*85 x 70 mm x 1(3.35 x 2.76 in x 1)
Displacement	246cc(15.0 cu.in)
OKS200S, Daids	*397cc(24.2 cu.in)
Compression ratio	6.7 : 1 *6.4 : 1
Lubrication:	A 35 mm (0.0020 ms
Lubricationsystem	Separate lubrication(Yamaha Autolube)
Oil pump type	Plunger type
Carburetion:	1 = 1000 1000
Manufacture	Mikuni Mi
Type, I.D.No., Quantity	VM28SS 1M101, 1pc *VM34SS, IM200, 1PC
Rated venturi size	28 mm (1.10 in) *34 mm(1.34 in)
Air filter:	
and the second s	Oiled foam rubber
3.00 - 21 428 Dunting	
· · · · · · · · · · · · · · · · · · ·	4 -0.05 mm (2.441 0 month of m
	Flywheel magneto ignitoin *CDI system
Ignition:	Flywheel magneto ignitoin *CDI system
Ignition: Type Spark plug Charging:	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2
Ignition: Type Spark plug Charging: Type	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2
Ignition: Type Spark plug Charging:	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350
Ignition: Type Spark plug Charging: Type	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage
Ignition: Type Spark plug Charging: Type Manufacture,I.D.No. Output with fully charged battery	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage 2,500rpm/0.9 ± 0.3A
Ignition: Type Spark plug Charging: Type Manufacture,I.D.No.	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage
Ignition: Type Spark plug Charging: Type Manufacture,I.D.No. Output with fully charged battery	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage 2,500rpm/0.9 ± 0.3A
Ignition: Type Spark plug Charging: Type Manufacture,I.D.No. Output with fully charged battery	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage 2,500rpm/0.9 ± 0.3A 7,000rpm/2.3 ± 0.5A
Ignition: Type Spark plug Charging: Type Manufacture,I.D.No. Output with fully charged battery Battery type	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage 2,500rpm/0.9 ± 0.3A 7,000rpm/2.3 ± 0.5A 6 bolt 6 Amp-Hour
Ignition: Type Spark plug Charging: Type Manufacture,I.D.No. Output with fully charged battery Battery type Battery dimensions	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage 2,500rpm/0.9 ± 0.3A 7,000rpm/2.3 ± 0.5A 6 bolt 6 Amp-Hour 56 x 110 x 98 mm(2.20 x 4.33 x 3.86 in)
Ignition: Type Spark plug Charging: Type Manufacture,I.D.No. Output with fully charged battery Battery type Battery dimensions Regurator Rectifier	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage 2,500rpm/0.9 ± 0.3A 7,000rpm/2.3 ± 0.5A 6 bolt 6 Amp-Hour 56 x 110 x 98 mm(2.20 x 4.33 x 3.86 in) Mitusbishi 071 or Stanley SRS-610 Stanley DE41
Ignition: Type Spark plug Charging: Type Manufacture,I.D.No. Output with fully charged battery Battery type Battery dimensions Regurator Rectifier	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage 2,500rpm/0.9 ± 0.3A 7,000rpm/2.3 ± 0.5A 6 bolt 6 Amp-Hour 56 x 110 x 98 mm(2.20 x 4.33 x 3.86 in) Mitusbishi 071 or Stanley SRS-610
Ignition: Type Spark plug Charging: Type Manufacture,I.D.No. Output with fully charged battery Battery type Battery dimensions Regurator Rectifier Starting:	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage 2,500rpm/0.9 ± 0.3A 7,000rpm/2.3 ± 0.5A 6 bolt 6 Amp-Hour 56 x 110 x 98 mm(2.20 x 4.33 x 3.86 in) Mitusbishi 071 or Stanley SRS-610 Stanley DE41 Primary kick
Ignition: Type Spark plug Charging: Type Manufacture, I.D.No. Output with fully charged battery Battery type Battery dimensions Regurator Rectifier Starting:	Flywheel magneto ignitoin *CDI system NGK B-8ES or Champion N-2 Flywheel magneto Mitsubishi FIT350 *F3T350 Charging amperage 2,500rpm/0.9 ± 0.3A 7,000rpm/2.3 ± 0.5A 6 bolt 6 Amp-Hour 56 x 110 x 98 mm(2.20 x 4.33 x 3.86 in) Mitusbishi 071 or Stanley SRS-610 Stanley DE41

	and Checks (A. C. circuit)	Wet, multiple disc	
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	2nd	34/19 1.789 5.056	
	3rd	26/20 1.300 3.674	
	4th	23/23 1.000 2.826	
nemiko a ed	5th	20/26 0.769 2.173	Type BOYT
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Type	The sea D. Bring DAC	Roller chain, 104 link (includes cha	ain join) *102
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Reduction ratio	The state of the s	47/14 3.357*43/16 2.687	
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Frame Suspension: Front (type, traveler (type, trave	Transfer Tra	Tubler, double cradle Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in)	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel)	VM28SS 1M101, 1pc VN (le	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension)	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel)	VM28SS 1M101, 1pc VN (le	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in)	,140 mm (5.5
Frame Suspension: Front (type, training Rear (type, travel) Tires:	VM28SS 1M101, fpc *Vkl(le 28 mm (1.16 in) *34 mm(1.3	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension)	,140 mm (5.5
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Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear	VM28SS 1M101, fpc *Vk (le 28 mm (1.16 in) *34 mm(k.s Okad Your, rubbit	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes:	VM28SS 1M101, fpc *Vk (le 28 mm (1.16 in) *34 mm(k.s Okad Your, rubbit	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes: Front Rear	VM28SS 1M101, 1pc *VM(le Z8 mm (1.16 in) *34 mm(l.) Olled Tolin, qubbin NGK 8.865 or Champion M. Elywhael magaste Millsubjan F.I.350 1F3136	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop Drum brake Drum brake	,140 mm (5.5
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Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes: Front Rear Rims:	VM28SS 1M101, 1pc *VII.(19 28 mm (1.18 in) *34 mm(1.3 Olled Your, cubbin NGK 8-8ES in Champion 14 Flywhiel rugsete Charging amprises 2.500cm/0.9 x 0.3A 2.500cm/2.3 ± 0.5A	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop Drum brake Drum brake 1.60 - 21 Aluminum 1.85 - 18 Aluminum	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes: Front Rear Rims: Front Rear	VM28SS 1M101, 1pc *VII.(19 28 mm (1-16 in) *34 mm(1-16 Oliso Your, cubbin NGK 8-8ES in Champion Ha NGW 8-8ES in Champion Ha Champing amprase 2,500cm/0.9 x 0.3A 2,500cm/0.9 x 0.3A 2,500cm/0.9 x 0.3A 2,500cm/0.9 x 0.3A	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop Drum brake Drum brake Drum brake 1.60 - 21 Aluminum 1.85 - 18 Aluminum	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes: Front Rear Rims: Front Rear	VM28SS 1M101, 1pc *VM(le 28 mm (1.16 in) *34 mm(l. Olked Tokin, cubbin NGK 8.5ES or Champion M. Flywhitel magnetic Missobem F.H. Skil 1F-31304 Charging amprage 2.500cpm/0.9 ± 0.3A 2.500cpm/2.3 ± 0.5A 2.500cpm/2.3 ± 0.5A 3.000cm/2.3 ± 0.5A 5.000cm/2.3 ± 0.5A	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop Drum brake Drum brake Drum brake 1.60 - 21 Aluminum 1.85 - 18 Aluminum	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes: Front Rear Rims: Front Rear	VM28SS 1M101, 1pc *VII.(19 28 mm (1-16 in) *34 mm(1-16 Oliso Your, cubbin NGK 8-8ES in Champion Ha NGW 8-8ES in Champion Ha Champing amprase 2,500cm/0.9 x 0.3A 2,500cm/0.9 x 0.3A 2,500cm/0.9 x 0.3A 2,500cm/0.9 x 0.3A	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop Drum brake Drum brake Drum brake 1.60 - 21 Aluminum 1.85 - 18 Aluminum	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes: Front Rear Rims: Front Rear	VM28SS 1M101, 1pc *VM(le 28 mm (1.18 in) *34 mm(l. Olled Your, cubbin Flywheel negsets Missuspen F1, 58) P 51 585 Charging amprise Charging amprise \$ 500 pm/0.9 \$ 0.3A 2,500 pm/0.9 \$ 0.3A Albushein 0.7 or Sharley SRS Stanley DE43	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop Drum brake Drum brake 1.60 - 21 Aluminum 1.85 - 18 Aluminum	, 140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes: Front Rear Rims: Front Rear	VM28SS 1M101, 1pc *VM(le 28 mm (1.16 in) *34 mm(l. Olled Tourn cubbin NGK 8-8ES or Champion Ma Mittubian Fillsso 1F313M Charging amparage Mittubian 6.3A Charging amparage 2.500 pm./0.9 ± 0.3A 2.500 pm./2.3 ± 0.5A Mittubian 027 or Sharley SRS Mittubian 027 or Sharley SRS	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop Drum brake Drum brake 1.60 - 21 Aluminum 1.85 - 18 Aluminum	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes: Front Rear Rims: Front Rear	VM28SS 1M101, 1pc *VM(19 28 mm (1.18 in) *34 mm(1.28 Olled Your, cubbin NGK 8.8ES or Champion Hamber of the second of the seco	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop Drum brake Drum brake 1.60 - 21 Aluminum 1.85 - 18 Aluminum	,140 mm (5.5
Frame Suspension: Front (type, travel) Rear (type, travel) Tires: Front Rear Brakes: Front Rear Rims: Front Rear	VM28SS 1M101, 1pc *VM(le 28 mm (1.18 in) *34 mm(l. Olled Your, cubbin Flywheel negsets Missuspen F1, 58) P 51 585 Charging amprise Charging amprise \$ 500 pm/0.9 \$ 0.3A 2,500 pm/0.9 \$ 0.3A Albushein 0.7 or Sharley SRS Stanley DE43	Telescopic fork, 195 mm (7.6 in) Swing arm (Monocross suspension) 82 mm (Absorber travel) (3.23 in) 3.00 - 21 4PR Dunlop 4.00 - 18 4PR Dunlop Drum brake Drum brake 1.60 - 21 Aluminum 1.85 - 18 Aluminum	, 140 mm (5.5

B. Maintenance Specifications

. Engine (125 - 25.0) - 3200,0) imm (90.0 - 25.0)	
Engine oil capacity:	
Dry	1,200 ± 50 cc (1.27 ± 0.05 qt)
Oil change	1,100 ± 50 cc (1.16 ± 0.05 qt)
Recomended lublicant:	Хааплинизира и
If temperature does not go below 5°C (40°F)	YAMALUBE 4-cycle or SAE 20W40 SE motor oil
If temperature does not go above15°C (60°F)	YAMALUBE 4-cycle or SAE 10W30 SE motor oil
Piston clearance:	0.035 - 0.040 mm (0.0014 - 0.0016 in)
34.9 mm, (1.374 in) & delegant managed	*0.040 - 0.045 mm (0.0016 - 0.0018 in)
Ring end gap (installed), Top	0.2 - 0.4 mm (0.0079 - 0.0157 in)
0.2 mm (0.008 lm) lico noting	*0.3 - 0.5 mm (0.012 - 0.020 in)
2nd	0.2 - 0.4 mm (0.0079 - 0.0157 in)
MUKUNUI GOG SHOUS GOODING DE	*0.3 - 0.5 mm (0.012 - 0.020 in)
Standard bore size/standard	70.00 - 70.02 mm (2.756 - 2.757 in)
0619, 0819	*85.00 - 85.02 mm (3.347 - 3.349 in)
Maximum	70.1 mm (2.760 in) *85.1 mm (3.350 in)
Cylinder taper limit	0.08 mm (0.0031 in)
Cylinder out of limit	0.05 mm (0.0020 in)
Piston ring side clearance	0.03 - 0.05 mm (0.0012 - 0.0020 in)
Maximum M. F. O.S.	0.08 mm (0.0031 in)
Crankshaft:	ii na
Defrection tolerance (A)	0.03 mm (0.0012 in)
Rod side clearance (B)	0.25 - 0.75 mm (0.0098 - 0.030 in) (Max. 1.00mm
Rod axial clearance (C)	0.4 - 1.0 mm (0.016 - 0.039 in) (Max. 2.0 mm), 0.0
Charge cost resistance (nt 950 0) mm 9.1	- LO 2010 + 1.00000000000000000000000000000000
O.5 mm (0.020 in) sometainer lies grittfeid	(Max. 2.0 mm), (0.079 in)
Fly wheel width (D)	$62 \frac{0}{-0.05}$ mm (2.441 $\frac{0}{-0.0020}$ in)
Allowable arrows are	AUG TRANSCOMME ALOR INJURIOR OF THE PROPERTY O
Property of the Assessment of	to breez dgill
1.5 kg/cm² (21.3 lb/m²) sqvT	Tire pressure rear, normal riding 1.85-846
Charges up	0.5.A st 10hrs. so beegs right
(anid 8.35) m	> negresses ritiv
A	6V 55/35W (Sealed b Ain)
(0.88)	3/20W re mails muno topi-1
License piete ligit (() (k.f8) (m 881)	5V 3W veram (to mum) n/M
II (SE) Im Oaf	6V 7W (four but) tomals must vest
(146-min (57,6-in)	6V J.OW (Example) Use in in iM
	CALL THAT
99 mm (16.7 in) (18.7 in) st. mi (15.2 in)	6V3,0W
2 8 100	Pork oil oans ross ross
В →	
B	

Oil pump:	D-1*V-II
Color code	Red *Yellow
Min, stroke	0.25 - 0.30 mm (0.0098 - 0.012 in)
Max. Stroke	1.85 - 2.05 mm (0.073 - 0.081 in)
Total reduction ratio	18/23 x 55/1 = 43.0 *18/23 x 32/1 = 25.0
Oil discharge (Minimum stroke)	0.50 - 0.63 cc (0.017 - 0.021 oz)
(Maximum stroke)	4.65 - 5.15 cc (0.157 - 0.174 oz)
Pump adjustmentmark	(at full throttle)
Clutch:	11 (6) 3 8 wolled on fron mob anutrasomm 11
Friction plate thickness standard Q'ty	3.0 mm, (0.12 in) 7 pcs
Minimum	2.7 mm (0.11 in)
Clutch plate warp. limit	0.05 mm (0.002 in)
Clutch spring length standard	34.9 mm, (1.374 in) 6 pcs
Minimum	33.9 mm (1.335 in)
Clutch push rod run-out maximum	0.2 mm (0.008 in)
2. Carburetion	23/23 1,000 2,8665
Manufacturer Manufacturer	MIKUNI
Model, I.D.No.	VM28SS, 1M101 *VM34SS, 1M200
Main jet Main jet	#150 *#190
Needle jet	N-8 *0-2
Pilot jet	#50 *#80
Starter jet	#60 #60
Jet needle § clip position	5DP33-3 *6F9-3
Float level	15.8 mm (0.62 in) *22.9 mm (0.90iin)
Pilot air acrew (turns out)	2.0 *1-1/2
Air jet	φ 2.5 mm (0.098 in)
Engine idle speed	1,200 - 1,300 rpm *1,300 - 1,400 rpm
3. Chassis	Swing ann (Monterger average)
Wheels and tires:	82 mm (Absorber traval) 1323 in large hors
Rim run-out vertival (front)	1.0 mm (0.039 in)
(rear)	0.5 mm (0.020 in)
holizontal (front)	0.5 mm (0.020 in)
(rear)	0.5 mm (0.020 in)
Tire pressure front, normal riding	1.3 kg/cm ² (18.5 lb/in ²)
High speed or	
with paasenger	1.5 kg/cm ² (21.3 lb/in ²)
Tire pressure rear, normal riding	1.5 kg/cm ² (21.3 lb/in ²)
High speed or	0
with passenger	1.8 kg/cm ² (25.6 lb/in ²)
Brakes:	J.85 - 19 Atomirous A
Front drum diameter	160 mm (63.0 in)
Minimum diameter	156 mm (61.4 in)
Rear drum diameter	150 mm (59.1 in)
Minimum diameter	146 mm (57.5 in)
Front forks:	
Spring free length	399 mm (15.7 in)
Preload length	385 mm (15.2 in)
The state of the s	

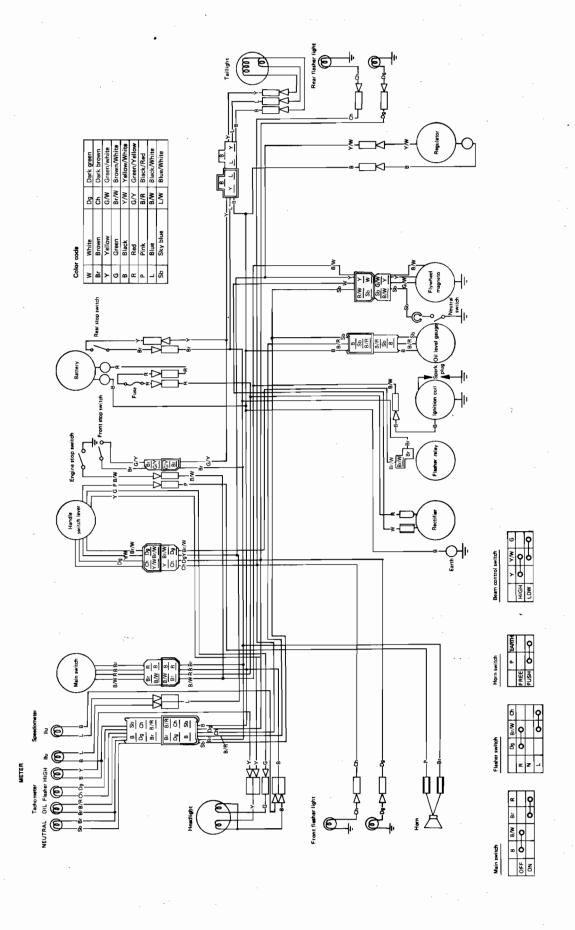
Rear shock absorber:	
Gas pressure	15 kg/cm ² (213 lb/in ²)
Absorber stroke	82 mm (3.23 in)
Spring free length	265 mm (10.43 in)
Preload lenght	257 mm (10.12 in)
Spring constant	$K_1 = 4.5 \text{ kg/mm } (0.62 \text{ mm})$
(8)	K ₂ =7.5 kg/mm (62-82 mm)
4. Electrical	E) (8) (4) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1
Ignition timing	3.2 ± 0.15 mm (0.126 ± 0.006 in) BTDC
	*2.9 ± 0.15 mm (0.114 ± 0.006 in) BTDC
Point gap	0.3 - 0.4 mm (0.012 - 0.016 in)
Condenser capacity	0.25μF
Insulation resistance	50MΩ or more
Ignition coil:	Min Libi SCTA10 *SCTA16
Type	Mitsubishi F6T412 *F6T411
Minimum spark gap	6 mm (0.24 in)
*Primary resistance	$1.0\Omega \pm 10\% (20^{\circ}\text{C}, 68^{\circ}\text{F})$
Secondary resistance	5.9 KΩ ± 20% (20°C, 68°F)
*CDI Unit:	Troit Lower Page 1
Туре	Mitsubishi 8T00371
Flywheel magneto:	FINE WAS USE
Type	Mitsubishi F1T350 *F3T350
Sourse coil resistance	1.65Ω ± 10% (20°C, 68°F)
Coil resistance	166Ω ± 10%
Flasher relay	A 24 I I I I I I I I I I I I I I I I I I
Туре	Condenser
Manufacturer	NIPPONDEDSO
Model	061300-5010
Charge coil resistance	0.33Ω ± 10% *0.38Ω ± 10% 20°C, 68°F
Lighting coil resistance	$0.39\Omega \pm 10\% *0.22\Omega \pm 10\%$
Regurator:	CIDA Jungsidonas asvirū
Regurated voltage	7.0V (Mitsubishi), 7.2V (Stanley)
Allowable amparage	8.0A
Battery:	
Туре	6N6-3B-1
Charging rate	0.6A at 10hrs.
Lighting:	
Headlight	6V35/35W (Sealed beam)
Taillight/Stoplight	6V5.3/25W
License plate light	6V5.3W
Flasher light	6V17W (four bulbs)
Meter lights	6V3.0W (two bulbs)
High beam indicator light	6V3.0W
Oil levell worning light	6V3.0W
Neutral light	6V3.0W

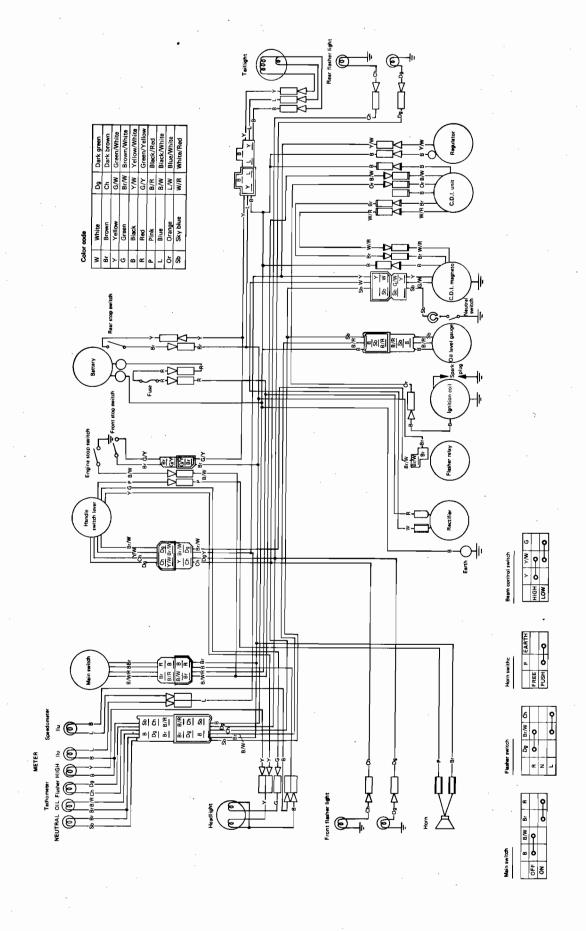
C. Torque Specifications

Unit: m-kg (ft-lb)

THE RESERVE TO THE PROPERTY OF THE PARTY OF		- ATTICSTING SUES
1. Engine		Absorber mone
Cylinder head nut	2.0 (14)	
bolt (m CF OFF mm CAC	2.5 (18)	
Spark plug	2 (14)	
Cylinder nut	4.0 (29)	
bolt	4.5 (33)	
Primary drive gear	7.5 (54)	
Clutch boss	7.5 (54)	
Clutch spring	1.0 (7)	
Drive sprocket	7.5 (54)	
Kick crank	2.5 (18)	
Reed valve	0.1 (0.7)	
Rotor nut		
Srater	7.0 (51) 1.0 (7)	
Clutch plessure plate	2.5 (18)	
	2.5 (10)	Sales Sa
2. Chassis		
Engine mount front upper	2.5 (18)	
front lower	2.5 (18)	
rear upper	2.5 (18)	
rear lower	5.0 (36)	
Rivot shaft nut	6.5 (47)	
Rear shock absorber front	5.0 (36)	
Files No esser (um rear Nor ± Daar	2.5 (18)	
Handle crown pinch bolt	1.5 (11) *2.5 (18)	1817 Supplier Starton I II
Fitting bolt	5.5 (40)	
Handle upper bracket	1.5 (11)	
Under bracket pinch bolt	1.5 (18) *1.9 (14)	
Front axle bracket	1.0 (7)	
Front axle nut	8.5 (61)	
Rear axle nut	11.0 (80)	
Driven sprocket nut	4.0 (29) *3.0 (22)	
Footrest nut	6.0 (43)	

High sports of AO.6	Allowable amparage
	To sign (21.3 thin?) The sign (21.3 thin?) Of arginu rate
Pront drum diameter W8\2.2V8 Pront drum diameter W8\2.2V8 Minknum diameter W5.2V8 Rint drum diameter Tadhud hort W1\0.000 Minknum dalkat awa 0.000 Ev8.20W (rwa takat awa 0.000)	
	High retrieved meet right 309 cms (15.7 int High pointers liquid in 15.2 in) 385 cms (15.2 in)







YAMAHA MOTOR CO.,LTD.

IWATA JAPAN