

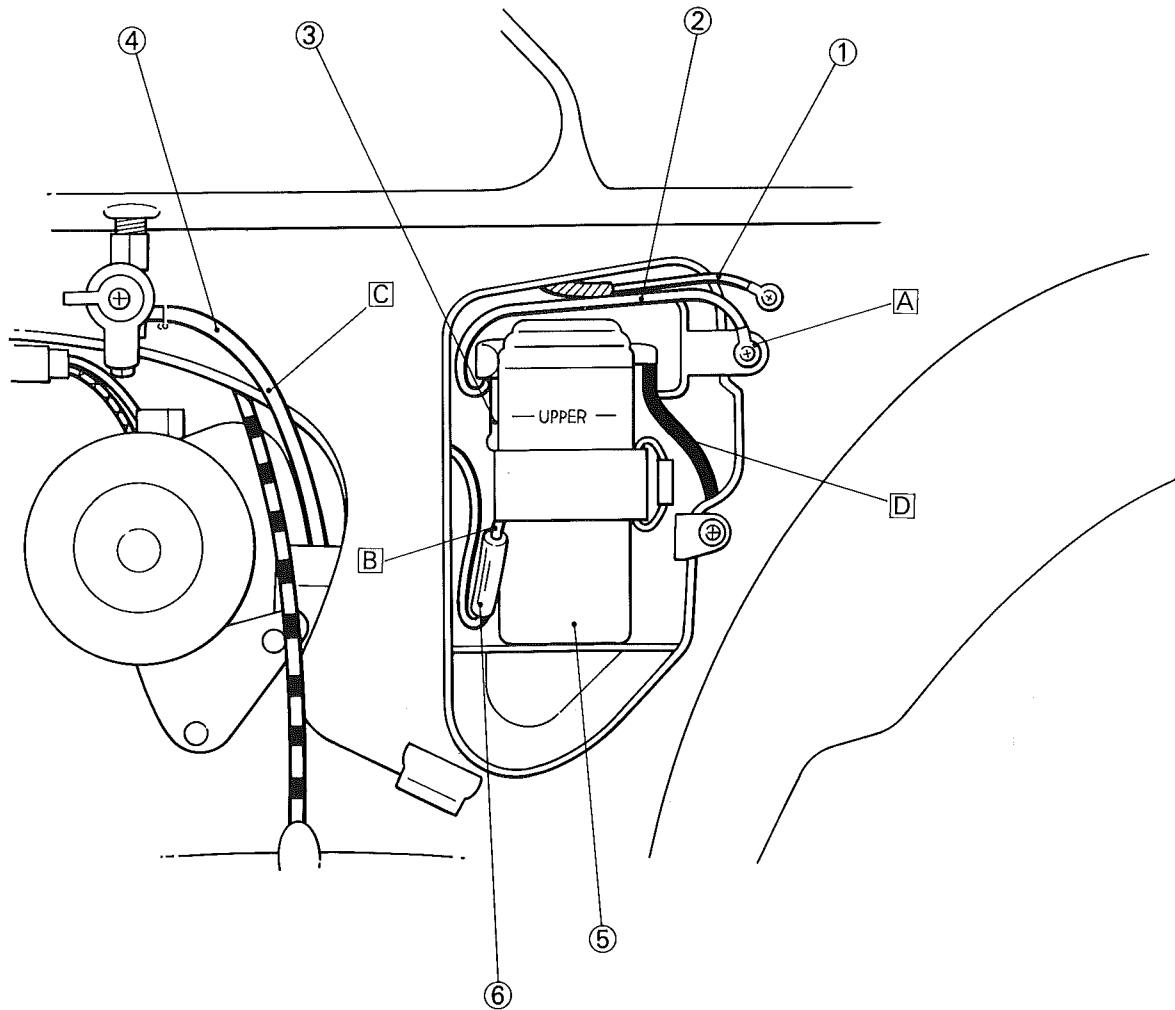
CABLE ROUTING

SPEC



- ① Negative lead (Wireharness)
- ② Negative lead (Battery)
- ③ Positive lead (Battery)
- ④ Fuel hose
- ⑤ Battery
- ⑥ Fuse holder

- A Install terminal (Negative) over battery.
- B Secure battery lead (Positive) underneath battery band.
- C Pass fuel hose back of clutch cable.
- D Pass battery breather hose through frame and between frame-cross-tube and rear-arm-cross-member.



GENERAL SPECIFICATIONS

SPEC



SPECIFICATIONS

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(H): For Holland (B): For Belgium
(E): For England

Model	FS-1
Model Code Number:	2RU (H), 2RT (B), 2RV (E)
Frame Serial Number:	2RU-000101 (H)
Engine Serial Number:	2RT-000101 (B) 3F6-105101 (E)
Dimensions:	
Overall Length	1,770 mm (69.7 in) (H)(B), 1,825 mm (71.9 in) (E)
Overall Width	750 mm (29.5 in)
Overall Height	1,015 mm (40.0 in)
Seat Height	780 mm (30.7 in)
Wheelbase	1,160 mm (45.7 in)
Minimum Ground Clearance	145 mm (5.7 in)
Basic Weight:	
With Oil and Full Fuel Tank	81 kg (179 lb) (H)(B), 82 kg (181 lb) (E)
Minimum Turning Radius:	1,900 mm (74.8 in)
Engine:	
Engine Type	Air cooled 2-stroke
Induction System	Rotary valve
Cylinder Arrangement	Forward inclined single cylinder
Displacement	49 cm ³
Bore × Stroke	40.0 × 39.7 mm (1.57 × 1.56 in)
Compression Ratio	5.8 : 1
Starting System	Kick starter
Lubrication System:	
Type	Separate lubrication (Yamaha Autolube)
Engine Oil Type	Yamaha oil 2T or equivalent
Transmission Oil Type	Air cooled 2-stroke engine oil SAE 10W30 type SE motor oil
Oil Capacity:	
Engine Oil (Oil Tank)	1.4 L (1.2 Imp qt, 1.5 US qt)
Transmission Oil:	
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 (H), Dry element (B)(E)

GENERAL SPECIFICATIONS

SPEC



Model	FS-1	
Fuel: Type Fuel Tank Capacity: Full Amount Reserve Amount	Regular gasoline 9.0 L (2.0 Imp gal, 2.4 US gal) 0.4 L (0.09 Imp gal, 0.1 US gal)	
Carburetor: Type/Quantity Manufacturer	VM10SC/1 (H), VM16SC/1 (B)(E) MIKUNI	
Spark Plug: Type/Quantity Manufacturer Plug Gap	BR-6HS (H), BR-7HS (B)(E) NGK 0.6~0.7 mm (0.02~0.03 in)	
Clutch: Type	Wet, multiple disc	
Transmission: Type Primary Reduction System Primary Reduction Ratio Secondary Reduction System Secondary Reduction Ratio Operation Gear Ratio: 1st 2nd 3rd 4th	Constant mesh 4-speed Helical gear 74/19 (3.895) Chain drive 45/12 (3.750) (H), 39/12 (3.250) (B), 39/13 (3.000) (E) Left foot operation 40/13 (3.077) 34/18 (1.889) 30/23 (1.304) 27/26 (1.038)	
Chassis: Frame Type Caster Angle Trail	Pressed backbone 26.5° 80 mm (3.1 in)	
Tire: Type Size: Front Rear	With tube 2.50-17 4PR 2.50-17 4PR	
Tire Pressure:	Front	Rear
	250 kPa (2.5 kg/cm ² , 36 psi)	250 kPa (2.5 kg/cm ² , 36 psi)

GENERAL SPECIFICATIONS

SPEC



Model	FS-1
Brake: Front Brake Type Front Brake Operation Rear Brake Type Rear Brake Operation	Drum brake Right hand operation Drum brake Right foot operation
Suspension: Front Suspension Type Rear Suspension Type	Telescopic fork Swingarm
Shock Absorber: Front Shock Absorber Rear Shock Absorber	Coil spring/Oil damper Coil spring/Oil damper
Wheel Travel: Front Wheel Travel Rear Wheel Travel	85 mm (3.3 in) 67 mm (2.6 in)
Electrical: Ignition System Generator System	Flywheel magneto Flywheel magneto
Battery: Type Capacity	6N4A-4D 6V4AH
Headlight: Type	Bulb
Bulb Wattage (Quantity): Headlight Tail/Brake Light Flasher Light Meter Light "NEUTRAL" Indicator Light "HIGH BEAM" Indicator Light (England only) "TURN" Indicator Light (England only)	6V 15W/15W (H)(B), 6V 18W/18W (E) (1 pc.) 6V 2W/5W (H), 6V 5.3W/17W (B) 6V 5W/21W (E) (1 pc.) 6V 10W (H)(B), 6V 21W (E) (4 pcs.) 6V 3W (1 pc.) 6V 3W (1 pc.) 6V 3W (1 pc.) 6V 3W (1 pc.)

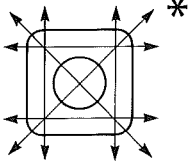
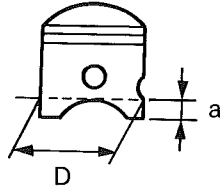
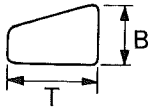
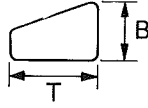
MAINTENANCE SPECIFICATIONS

SPEC



MAINTENANCE SPECIFICATIONS

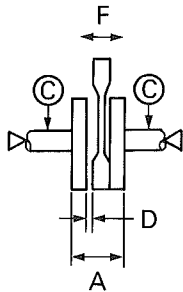
ENGINE

Model	FS-1
<p>Cylinder Head: Warpage Limit</p> 	<p>0.03 mm (0.0012 in) *Lines indicate straightedge measurement.</p>
<p>Cylinder: Bore Size Taper Limit Out of Round Limit</p>	<p>40.00 ~ 40.02 mm (1.575 ~ 1.576 in) 0.05 mm (0.002 in) 0.01 mm (0.0004 in)</p>
<p>Piston: Piston Size "D" Measuring Point "a"</p>  <p>Piston Off-Set Piston-to-Cylinder Clearance < Limit > Over Size 1st Over Size 2nd</p>	<p>39.96 ~ 39.98 mm (1.573 ~ 1.574 in) 10 mm (0.4 in) 0.2 mm (0.008 in) 0.035 ~ 0.040 mm (0.0014 ~ 0.0016 in) < 0.1 mm (0.004 in) > 40.25 mm (1.58 in) 40.50 mm (1.59 in)</p>
<p>Piston Ring: Sectional Sketch</p> <div style="display: flex; align-items: center;"> <div style="margin-right: 20px;"> <p>Top Ring</p>  <p>2nd Ring</p>  </div> <div> <p>Top Ring</p> <p>2nd Ring</p> <p>Top Ring</p> <p>2nd Ring</p> </div> </div> <p>End Gap (Installed)</p> <p>Side Clearance</p>	<p>Keystone type B = 1.5 mm (0.06 in) T = 1.8 mm (0.07 in) Keystone type B = 1.5 mm (0.06 in) T = 1.8 mm (0.07 in) 0.15 ~ 0.35 mm (0.006 ~ 0.014 in) 0.15 ~ 0.35 mm (0.006 ~ 0.014 in) 0.03 ~ 0.08 mm (0.001 ~ 0.003 in) 0.03 ~ 0.08 mm (0.001 ~ 0.003 in)</p>

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SPEC



Model	FS-1
<p>Crankshaft:</p> <p>Crank Width "A"</p> <p>Runout Limit "C"</p> <p>Big End Side Clearance "D"</p> <p>Small End Free Play "F"</p> 	<p>37.90 ~ 37.95 mm (1.492 ~ 1.494 in)</p> <p>0.03 mm (0.0012 in)</p> <p>0.2 ~ 0.7 mm (0.008 ~ 0.028 in)</p> <p>0.8 ~ 1.0 mm (0.03 ~ 0.04 in)</p>
<p>Clutch:</p> <p>Friction Plate:</p> <p>Thickness</p> <p>Quantity</p> <p>Wear Limit</p> <p>Clutch Plate:</p> <p>Thickness</p> <p>Quantity</p> <p>Warpage Limit</p> <p>Clutch Spring:</p> <p>Free Length</p> <p>Quantity</p> <p>Minimum Free Length</p> <p>Clutch Release Method</p>	<p>3.5 mm (0.14 in)</p> <p>2 pcs.</p> <p>3.2 mm (0.13 in)</p> <p>1.6 mm (0.06 in)</p> <p>1 pcs.</p> <p>0.05 mm (0.002 in)</p> <p>34.0 mm (1.34 in)</p> <p>4 pcs.</p> <p>31.0 mm (1.22 in)</p> <p>Inner push, Screw push</p>
<p>Transmission:</p> <p>Main Axle Runout Limit</p> <p>Drive Axle Runout Limit</p>	<p>0.08 mm (0.003 in)</p> <p>0.08 mm (0.003 in)</p>
<p>Shifter:</p> <p>Type</p> <p>Guide Bar Bending Limit</p>	<p>Guide bar</p> <p>0.03 mm (0.001 in)</p>
<p>Kick Starter:</p> <p>Type</p>	<p>Kick & mesh type</p>
<p>Air Filter:</p> <p>Oil Grade (Holland only)</p>	<p>SAE 10W30 motor oil</p>

MAINTENANCE SPECIFICATIONS

SPEC




Model	FS-1	
	Holland	Belgium, England
Carburetor:		
I.D. Mark	2RU 00	3F6 00
Main Jet (M.J.)	#78	#150
Air Jet (A.J.)	φ2.3	φ0.5
Jet Needle-Position (J.N.)	3E11-4	3G9-3
Needle Jet (N.J.)	E-4	←
Cutaway (C.A.)	2.5	1.5
Pilot Outlet (P.O.)	φ0.9	←
Pilot Jet (P.J.)	#25	←
Air Screw (A.S.)	1 ~ 1 1/2	1 1/2 ~ 2
Valve Seat Size (V.S.)	φ1.2	←
Starter Jet (G.S.)	#35	←
Idling Speed	1,250 ~ 1,350 r/min	←
Rotary Valve:		
Valve Thickness	3.0 mm (0.12 in)	
Disc Outside Diameter	100.0 mm (4 in)	
Lubrication System:		
Autolube Pump:		
Color Code	Dark blue	
Minimum Stroke	0.20 ~ 0.25 mm (0.008 ~ 0.010 in)	
Maximum Stroke	1.45 ~ 1.70 mm (0.057 ~ 0.067 in)	
Pulley Adjusting Mark	Auto adjuster	

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SPEC



Tightening Torque:						
Part to be tightened	Q'ty	Thread size	Tightening torque			Remarks
			Nm	m•kg	ft•lb	
Cylinder head nut	4	M6	10	1.0	7.2	

MAINTENANCE SPECIFICATIONS

SPEC



CHASSIS

Model	FS-1
Steering System: Bearing Type Bearing Size (Quantity): Upper Lower	Ball bearing 1/4 in (19 pcs.) 1/4 in (19 pcs.)
Front Suspension: Front Fork Travel Fork Spring Free Length < Limit > Spring Rate (K ₁) Stroke (K ₁) Optional Spring Oil Capacity Oil Grade	85 mm (3.35 in) 153 mm (6.02 in) < 151 mm (5.94 in) > 4.51 N/mm (0.46 kg/mm, 25.8 lb/in) 0 ~ 85 mm (0 ~ 3.35 in) No. 160 cm ³ (5.64 Imp oz, 5.41 US oz) Fork oil 10W or equivalent
Rear Suspension: Shock Absorber Travel Spring Free Length Spring Rate (K ₁) Stroke (K ₁) Optional Spring	65 mm (2.56 in) 211.5 mm (8.33 in) 27.9 N/mm (2.85 kg/mm, 160 lb/in) 0 ~ 65 mm (0 ~ 2.56 in) No.
Swingarm: Free Play Limit (Swingarm end)	1.0 mm (0.04 in) Move swingarm end side to side
Front Wheel: Type Rim Size Rim Material Rim Runout Limit: Vertical Lateral	Spoke wheel 1.20 × 17 Steel 2.0 mm (0.08 in) 2.0 mm (0.08 in)
Rear Wheel: Type Rim Size Rim Material Rim Runout Limit: Vertical Lateral	Spoke wheel 1.40 × 17 Steel 2.0 mm (0.08 in) 2.0 mm (0.08 in)

MAINTENANCE SPECIFICATIONS

SPEC



Model	FS-1
Drive Chain: Type/Manufacturer Number of Links Chain Free Play	420/DAIDO 100 Links (H), 96 Links (B)(E) 15 ~ 20 mm (0.6 ~ 0.8 in)
Front Drum Brake: Type Brake Drum Inside Dia <Wear Limit> Lining Thickness <Wear Limit> Shoe Spring Free Length	Leading, trailing 110 mm (4.33 in) < 111 mm (4.37 in) > 4 mm (0.16 in) < 2 mm (0.08 in) > 34.5 mm (1.36 in)
Rear Drum Brake: Type Brake Drum Inside Dia <Wear Limit> Lining Thickness <Wear Limit> Shoe Spring Free Length	Leading, trailing 110 mm (4.33 in) < 111 mm (4.37 in) > 4 mm (0.16 in) < 2 mm (0.08 in) > 34.5 mm (1.36 in)
Brake Lever and Brake Pedal: Brake Lever Free Play Brake Pedal Position Brake Pedal Free Play	5 ~ 8 mm (0.20 ~ 0.32 in) At lever pivot side 15 mm (0.60 in) 20 ~ 30 mm (0.8 ~ 1.2 in)
Clutch Lever and Throttle Grip Clutch Lever Free Play Throttle Cable Free Play	2 ~ 3 mm (0.08 ~ 0.12 in) At lever pivot side 2 ~ 5 mm (0.08 ~ 0.20 in) At grip flange