

MAINTENANCE AND LUBRICATION CHART

Periodic maintenance emission control system

No.	Item	Remarks	Initial break-in		Thereafter every	
			1,000 km (600 mi) or 1 month	5,000 km (3,000 mi) or 7 months	4,000 km (2,500 mi) or 6 months	8,000 km (5,000 mi) or 12 months
1*	Cam chain	Adjust chain tension.	○	○		○
2*	Valve clearance	Check and adjust valve clearance when engine is cold.		○		○
3	Spark plugs	Check condition. Adjust gap/Clean. Replace after initial 13,000 km (8,000 mi) or 18 months and thereafter every 12,000 km (7,500 mi) or 18 months.		○	○	
4*	Crankcase ventilation system	Check ventilation hose for cracks or damage. Replace if necessary.		○		○
5*	Fuel line	Check fuel hose and vacuum pipe for cracks or damage. Replace if necessary.		○		○
6*	Exhaust system	Check for leakage. Retighten as necessary. Replace gasket(s) if necessary.		○	○	
7*	Carburetor synchronization	Adjust synchronization of carburetors.		○	○	
8*	Idle speed	Check and adjust engine idle speed. Adjust cable free play if necessary.		○	○	

*It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

General maintenance/lubrication

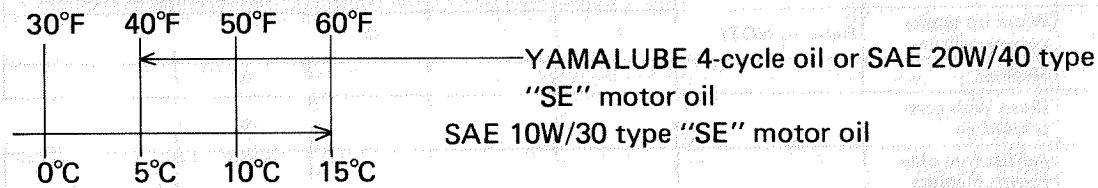
No.	Item	Remarks	Type	Initial break-in		Thereafter every		
				1,000 km (600 mi) or 1 month	5,000 km (3,000 mi) or 7 months	4,000 km (2,500 mi) or 6 months	8,000 km (5,000 mi) or 12 months	16,000 km (10,000 mi) or 24 months
1	Engine oil	Warm-up engine before draining.	Refer to NOTE.	○	○	○		
2	Oil filter	Replace.	—	○	○		○	
3*	Air filter	Clean with compressed air.	—		○		○	
4*	Brake system	Adjust free play. Front: Replace pads if necessary. Rear: Replace shoes if necessary.	—	○	○	○		
5*	Clutch	Adjust free play.	—	○	○	○		
6	Drive chain	Check chain condition. Adjust and lubricate chain thoroughly.	Yamaha chain and cable lube or SAE 10W/30 motor oil	CHECK CHAIN TENSION AND LUBE EVERY 500km (300mi).				
7*	Control and meter cable	Apply chain lube thoroughly	Yamaha chain and cable lube or SAE 10W/30 motor oil	○	○	○		
8*	AC generator	Replace generator brushes. Replace at initial 13,000 km (8,000 mi) and thereafter every 16,000 km (10,000 mi).	—					Replace

No.	Item	Remarks	Type	Initial break-in		Thereafter every		
				1,000 km (600 mi) or 1 month	5,000 km (3,000 mi) or 7 months	4,000 km (2,500 mi) or 6 months	8,000 km (5,000 mi) or 12 months	16,000 km (10,000 mi) or 24 months
9	Brake/clutch lever pivot shaft	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil		○	○		
10	Change/Brake pedal shaft pivot	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil		○	○		
11	Center and side stand pivots	Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W/30 motor oil		○	○		
12*	Front fork oil	Drain completely. Refill to specification.	Yamaha fork oil 10Wt or equivalent.					○
13*	Steering Ball Bearing and races	Check bearings assembly for looseness. Moderately repack every 16,000 km (10,000 mi)	Medium weight wheel bearing grease		○	○		Repack
14*	Wheel bearings	Check bearings for smooth rotation. Replace if necessary.	—		○	○		
15	Battery	Check specific gravity. Check breather pipe for proper operation.	—		○	○		

*It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

NOTE:

Engine oil type:



SPECIFICATIONS

General Specifications

	XJ550H
Basic color	New Yamaha Black or New Ruby Red
Dimensions:	
Overall length	2,145 mm (84.4 in)
Overall width	865 mm (34.1 in)
Overall height	1,165 mm (45.9 in)
Seat height	760 mm (29.9 in)
Wheelbase	1,420 mm (55.9 in)
Minimum ground clearance	160 mm (6.3 in)
Caster (steering head angle)	28°
Trail	114 mm (4.49 in)
Weight:	
Net	185 kg (407 lb)
Engine:	
Type	D.O.H.C. air-cooled, gasoline
Bore x stroke x cylinders	57.0 x 51.8 mm x 4 (2.244 x 2.039 in x 4)
Displacement	528 cc (32.22 cu.in)
Compression ratio	9.5 : 1
Lubrication:	
Lubrication system	Pressure lubricated, wet sump
Delivery pump type	Trochoid
Carburetion:	
Manufacture	MIKUNI
Type	BS28, constant velocity
Rated venturi size	28 mm (1.10 in)
Air filter:	Dry type element
Ignition:	
Type	Battery ignition (Full transistor ignition)
Spark plug	D8EA (NGK) or X24ES-U (ND)
Charging:	
Type	Three-phase, regulated alternator
Manufacture, I.D. No.	HITACHI, LD117-03
Maximum output	14V 17A
Battery type	12N12A-4A
Battery dimensions	80 x 160 x 134 mm (3.15 x 6.30 x 5.28 in)
Regulator/Rectifier	S8515, I.C. type, full wave
Regulating voltage (No. load)	14.2 ~ 14.8V
Starting:	Electric starter
Primary drive:	
Type	Spur gear
Teeth, ratio	22/21 x 65/28 (2.432)
Clutch:	Wet, multiple disc
Transmission:	
Type	Constant mesh, 6-speed drum shifter

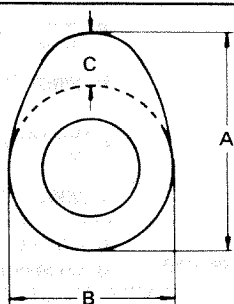
	XJ550H
Teeth, ratio	1st 41/15 (2.733) 2nd 37/19 (1.947) 3rd 34/22 (1.545) 4th 31/25 (1.240) 5th 29/28 (1.036) 6th 27/30 (0.900)
Secondary drive:	
Type	Chain
Teeth, ratio	45/16 (2.813)
Chassis.	
Frame	Tubular steel double cradle
Suspension: Front (type, travel)	Telescopic fork 150 mm (5.91 in)
Rear (type, travel)	Swing arm, 100 mm (3.94 in)
Tires: Front	3.25H19-4PR, Tubeless
Rear	130/90-16 67H, Tubeless
Brakes: Front	Single hydraulic disc
Rear	Drum brake
Fuel tank: Total	13 lit. (3.4 US. gal)
Reserve	3.6 lit. (1.0 US. gal)
Wheels: Front	MT1.85 x 19, Cast Aluminium
Rear	MT2.15 x 18, Cast Aluminium

Maintenance specifications

1. Engine

Engine oil capacity:	
Total amount	2.9 lit. (3.1 US. qt)
Oil and filter change	2.5 lit. (2.6 US. qt)
Oil change	2.2 lit. (2.3 US. qt)
Recommended lubricant:	
If temperature does not go below 5°C (40°F)	SAE 20W/40 SE motor oil
If temperature does not go above 15°C (60°F)	SAE 10W/30 SE motor oil
Cranking pressure (at sea level):	8.5 kg/cm ² (121 psi)
Maximum difference between cylinders:	1 kg/cm ² (14 psi)

Camshafts:



Camshaft bearing surface diameter:

Camshaft-to-cap clearance:

Standard

Maximum

Camshaft runout limit

Dimensions		Standard size	Wear limit
Intake	A	34.80 mm (1.370 in)	34.65 mm (1.364 in)
	B	28.00 mm (1.102 in)	27.85 mm (1.096 in)
	C	6.80 mm (0.268 in)	—
Exhaust	A	34.80 mm (1.370 in)	34.65 mm (1.364 in)
	B	28.00 mm (1.102 in)	27.85 mm (1.096 in)
	C	6.80 mm (0.268 in)	—

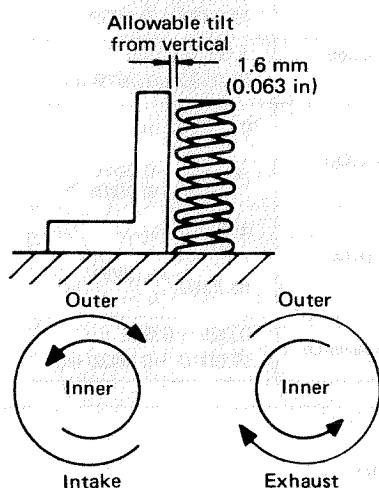
24.967 ~ 24.980 mm (0.9830 ~ 0.9835 in)

0.020 ~ 0.054 mm (0.0008 ~ 0.0021 in)

0.160 mm (0.006 in)

0.1 mm (0.004 in)

Valve springs:

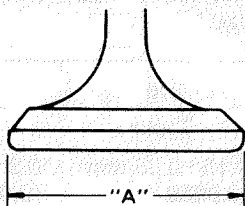


	Inner Intake/Exhaust	Outer Intake/Exhaust
Free length	35.5 mm (1.398 in)	37.2 mm (1.465 in)
Spring rate	2.429 kg/mm (136.0 lb/in)	4.726 kg/mm (264.7 lb/in)
Installed length (valve closed)	30.5 mm (1.201 in)	32.0 mm (1.260 in)
Installed pressure (valve closed)	9.3 kg (20.5 lb)	18.5 kg (40.8 lb)
Compressed length (valve open)	IN: 24.0 mm (0.945 in) EX: 25.5 mm (1.004 in)	IN: 24.0 mm (0.945 in) EX: 25.5 mm (1.004 in)
Wire diameter	2.7 mm (0.106 in)	3.8 mm (0.150 in)
Number of windings	7.6	6.0
Winding O.D.	19.9 ^{+0.3} ₀ mm (0.783 ^{+0.012} ₀ in)	28.3 ⁰ _{-0.3} mm (1.114 ⁰ _{-0.012} in)

Valves:

Valve stem run-out maximum

Valve seat width standard/maximum

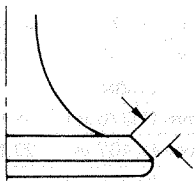
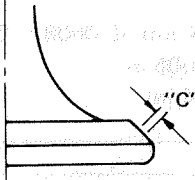
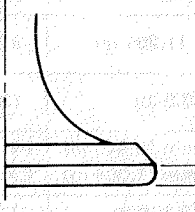


0.03 mm (0.0012 in)

1.0 mm (0.039 in)/2.0 mm (0.080 in)

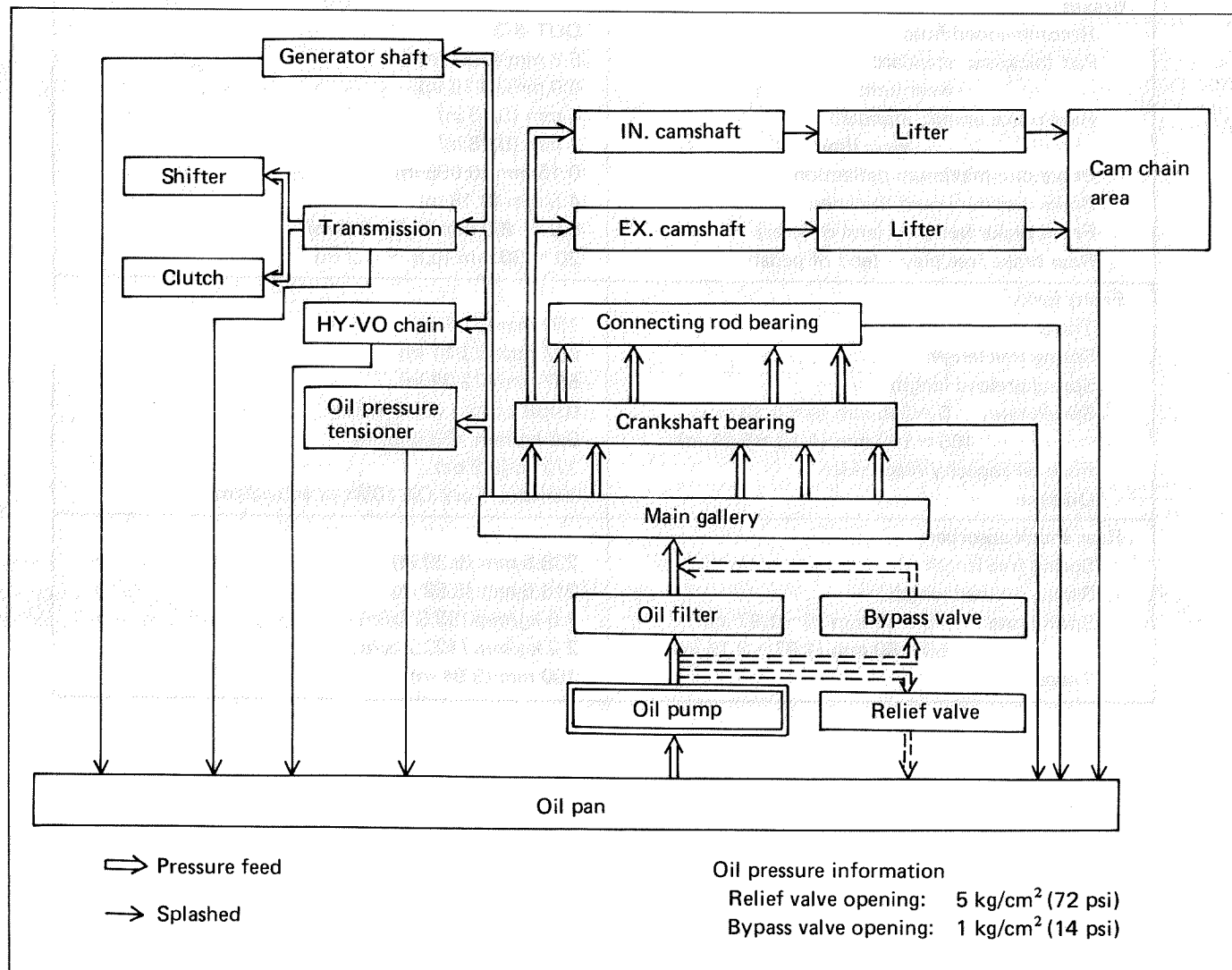
INTAKE

Clearance (Cold engine)	0.11 ~ 0.15 mm (0.004 ~ 0.006 in)
"A" head diameter	30 ± 0.1 mm (1.181 ± 0.0039 in)
"B" face width	2.3 mm (0.0906 in)
"C" seat width	1.0 ± 0.1 mm (0.0394 ± 0.0039 in)
"D" margin thickness (minimum)	1.2 ± 0.2 mm (0.0472 ± 0.0079 in)

	<table><tr><td>Stem diameter (O.D.)</td><td>$6 \begin{matrix} -0.010 \\ -0.025 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} -0.0004 \\ -0.0010 \end{matrix} \text{ in})$</td></tr><tr><td>Guide diameter (I.D.)</td><td>$6 \begin{matrix} +0.012 \\ 0 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} +0.0005 \\ 0 \end{matrix} \text{ in})$</td></tr><tr><td>Stem-to-guide clearance</td><td>$0.010 \sim 0.037 \text{ mm}$ $(0.0004 \sim 0.0015 \text{ in})$</td></tr></table>	Stem diameter (O.D.)	$6 \begin{matrix} -0.010 \\ -0.025 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} -0.0004 \\ -0.0010 \end{matrix} \text{ in})$	Guide diameter (I.D.)	$6 \begin{matrix} +0.012 \\ 0 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} +0.0005 \\ 0 \end{matrix} \text{ in})$	Stem-to-guide clearance	$0.010 \sim 0.037 \text{ mm}$ $(0.0004 \sim 0.0015 \text{ in})$												
Stem diameter (O.D.)	$6 \begin{matrix} -0.010 \\ -0.025 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} -0.0004 \\ -0.0010 \end{matrix} \text{ in})$																		
Guide diameter (I.D.)	$6 \begin{matrix} +0.012 \\ 0 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} +0.0005 \\ 0 \end{matrix} \text{ in})$																		
Stem-to-guide clearance	$0.010 \sim 0.037 \text{ mm}$ $(0.0004 \sim 0.0015 \text{ in})$																		
 	<p>EXHAUST</p> <table><tr><td>Clearance (cold engine)</td><td>$0.16 \sim 0.20 \text{ mm}$ $(0.006 \sim 0.008 \text{ in})$</td></tr><tr><td>"A" head diameter</td><td>$26 \pm 0.1 \text{ mm}$ $(1.024 \pm 0.0039 \text{ in})$</td></tr><tr><td>"B" face width</td><td>$2.3 \text{ mm (0.0906 in)}$</td></tr><tr><td>"C" seat width</td><td>$1.0 \pm 0.1 \text{ mm}$ $(0.0394 \pm 0.0039 \text{ in})$</td></tr><tr><td>"D" margin thickness (minimum)</td><td>$1.0 \pm 0.2 \text{ mm}$ $(0.0392 \pm 0.0079 \text{ in})$</td></tr><tr><td>Stem diameter (O.D.)</td><td>$6 \begin{matrix} -0.025 \\ -0.040 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} -0.0010 \\ -0.0016 \end{matrix} \text{ in})$</td></tr><tr><td>Guide diameter (I.D.)</td><td>$6 \begin{matrix} +0.012 \\ 0 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} +0.0005 \\ 0 \end{matrix} \text{ in})$</td></tr><tr><td>Stem-to-guide clearance</td><td>$0.025 \sim 0.052 \text{ mm}$ $(0.0010 \sim 0.0020 \text{ in})$</td></tr></table>	Clearance (cold engine)	$0.16 \sim 0.20 \text{ mm}$ $(0.006 \sim 0.008 \text{ in})$	"A" head diameter	$26 \pm 0.1 \text{ mm}$ $(1.024 \pm 0.0039 \text{ in})$	"B" face width	$2.3 \text{ mm (0.0906 in)}$	"C" seat width	$1.0 \pm 0.1 \text{ mm}$ $(0.0394 \pm 0.0039 \text{ in})$	"D" margin thickness (minimum)	$1.0 \pm 0.2 \text{ mm}$ $(0.0392 \pm 0.0079 \text{ in})$	Stem diameter (O.D.)	$6 \begin{matrix} -0.025 \\ -0.040 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} -0.0010 \\ -0.0016 \end{matrix} \text{ in})$	Guide diameter (I.D.)	$6 \begin{matrix} +0.012 \\ 0 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} +0.0005 \\ 0 \end{matrix} \text{ in})$	Stem-to-guide clearance	$0.025 \sim 0.052 \text{ mm}$ $(0.0010 \sim 0.0020 \text{ in})$		
Clearance (cold engine)	$0.16 \sim 0.20 \text{ mm}$ $(0.006 \sim 0.008 \text{ in})$																		
"A" head diameter	$26 \pm 0.1 \text{ mm}$ $(1.024 \pm 0.0039 \text{ in})$																		
"B" face width	$2.3 \text{ mm (0.0906 in)}$																		
"C" seat width	$1.0 \pm 0.1 \text{ mm}$ $(0.0394 \pm 0.0039 \text{ in})$																		
"D" margin thickness (minimum)	$1.0 \pm 0.2 \text{ mm}$ $(0.0392 \pm 0.0079 \text{ in})$																		
Stem diameter (O.D.)	$6 \begin{matrix} -0.025 \\ -0.040 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} -0.0010 \\ -0.0016 \end{matrix} \text{ in})$																		
Guide diameter (I.D.)	$6 \begin{matrix} +0.012 \\ 0 \end{matrix} \text{ mm}$ $(0.2362 \begin{matrix} +0.0005 \\ 0 \end{matrix} \text{ in})$																		
Stem-to-guide clearance	$0.025 \sim 0.052 \text{ mm}$ $(0.0010 \sim 0.0020 \text{ in})$																		
<p>Cylinder and piston:</p> <p>Cylinder material Cylinder liner Bore size: standard wear limit Cylinder taper limit Cylinder out-of-round limit Piston clearance: Standard maximum</p>	<p>Aluminum alloy Pressed in; special cast iron 57.00 mm (2.2441 in) 57.10 mm (2.2480 in) 0.05 mm (0.0020 in) 0.01 mm (0.0004 in) 0.025 ~ 0.045 mm (0.0010 ~ 0.0018 in) 0.1 mm (0.0039 in)</p>																		
<p>Piston rings:</p> <p>Design End gap (installed): standard limit Side clearance: standard limit</p>	<table><tr><td>Top</td><td>2nd</td><td>Oil</td></tr><tr><td>Barrel</td><td>Taper</td><td>Expander</td></tr><tr><td>0.15 ~ 0.35 mm (0.0059 ~ 0.0138 in)</td><td>0.15 ~ 0.35 mm (0.0059 ~ 0.0138 in)</td><td>0.3 ~ 0.9 mm (0.0118 ~ 0.035 in)</td></tr><tr><td>1.0 mm (0.0394 in)</td><td>1.0 mm (0.0394 in)</td><td>1.5 mm (0.0591 in)</td></tr><tr><td>0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in)</td><td>0.02 ~ 0.06 mm (0.008 ~ 0.0024 in)</td><td>—</td></tr><tr><td>0.15 mm (0.0059 in)</td><td>0.15 mm (0.0059 in)</td><td>—</td></tr></table>	Top	2nd	Oil	Barrel	Taper	Expander	0.15 ~ 0.35 mm (0.0059 ~ 0.0138 in)	0.15 ~ 0.35 mm (0.0059 ~ 0.0138 in)	0.3 ~ 0.9 mm (0.0118 ~ 0.035 in)	1.0 mm (0.0394 in)	1.0 mm (0.0394 in)	1.5 mm (0.0591 in)	0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in)	0.02 ~ 0.06 mm (0.008 ~ 0.0024 in)	—	0.15 mm (0.0059 in)	0.15 mm (0.0059 in)	—
Top	2nd	Oil																	
Barrel	Taper	Expander																	
0.15 ~ 0.35 mm (0.0059 ~ 0.0138 in)	0.15 ~ 0.35 mm (0.0059 ~ 0.0138 in)	0.3 ~ 0.9 mm (0.0118 ~ 0.035 in)																	
1.0 mm (0.0394 in)	1.0 mm (0.0394 in)	1.5 mm (0.0591 in)																	
0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in)	0.02 ~ 0.06 mm (0.008 ~ 0.0024 in)	—																	
0.15 mm (0.0059 in)	0.15 mm (0.0059 in)	—																	

Crankshaft:	
Crank journal/bearing oil clearance	0.040 ~ 0.064 mm (0.0016 ~ 0.0025 in)
Main journal run-out (maximum)	0.03 mm (0.0012 in)
Connecting rods	
Rod bearing oil clearance	0.03 ~ 0.09 mm (0.0012 ~ 0.0035 in)
Oil pump:	
Housing-to-outer rotor clearance	0.09 ~ 0.15 mm (0.0035 ~ 0.0059 in)
Outer rotor-to-inner rotor clearance	0.03 ~ 0.09 mm (0.0012 ~ 0.0035 in)
Clutch:	
Friction plate: thickness/q'ty	3.0 mm (0.12 in)/8
minimum thickness	2.8 mm (0.11 in)
Clutch plate: thickness	1.6 mm (0.063 in)/7
warp limit	0.05 mm (0.0020 in)
Clutch spring: length/q'ty	41.2 mm (1.622 in)/5
minimum length	40.2 mm (1.583 in)
spring rate	1.22 kg/mm (68.3 lb/in)
Clutch lever freeplay (at lever pivot point)	2 ~ 3 mm (0.08 ~ 0.12 in)

LUBRICATION CHART



2. Carburetion

Manufacturer	MIKUNI	Fuel level	2 ± 1 mm (0.079 ± 0.039 in)
Model I.D. No.	5K500	Pilot screw	Preset
Main jet	# 112.5	Air jet, Main	# 70
Needle jet	O-8	Air jet, Pilot	# 165
Pilot jet	# 35	Throttle valve	# 130
Starter jet	# 35 (φ 0.7)	Float valve seat	φ 2.0
Jet needle	4GN	Engine idle speed	1,200 r/min

3. Chassis

*Total weight of accessories, etc. excepting motorcycle.

Wheels and tires:		
Rim run-out: vertical	2.0 mm (0.079 in)	
horizontal	2.0 mm (0.079 in)	
Tire pressure (cold):	Front	Rear
Up to 90 kg (198 lb) load*	1.8 kg/cm ² (26 psi)	2.0 kg/cm ² (28 psi)
90 kg (198 lb) ~ 192 kg (423 lb) load* (Maximum load)	2.0 kg/cm ² (28 psi)	2.8 kg/cm ² (40 psi)
High speed riding	2.0 kg/cm ² (28 psi)	2.3 kg/cm ² (32 psi)
Minimum tire tread depth	0.8 mm (0.03 in)	0.8 mm (0.03 in)
Brakes:		
Recommended fluid	DOT # 3	
Pad thickness: standard	6.8 mm (0.27 in)	
wear limit	4.0 mm (0.16 in)	
Rear brake lining: standard	4 mm (0.16 in)	
wear limit	2 mm (0.08 in)	
Brake disc maximum deflection	0.15 mm (0.006 in)	
Brake disc minimum thickness	4.5 mm (0.18 in)	
Front brake free play (end of lever)	5.0 ~ 8.0 mm (0.2 ~ 0.3 in)	
Rear brake free play (end of pedal)	20 ~ 30 mm (0.8 ~ 1.2 in)	
Front forks:		
Travel	150 mm (5.91 in)	
Spring free length	587 mm (23.11 in)	
Spring preload length	567 mm (22.32 in)	
Spring rate: 0 ~ 105 mm (0 ~ 4.13 in)	0.468 kg/mm (26.2 lb/in)	
105 ~ 150 mm (4.13 ~ 5.91 in)	0.6 kg/mm (33.6 lb/in)	
Fork oil capacity (each side)	272 cc (9.2 oz)	
Oil type	Yamaha Fork Oil 10Wt or equivalent	
Rear shock absorber:		
Spring free length	238.5 mm (9.39 in)	
Spring preload length	216.5 mm (8.52 in)	
Spring rate: 0 ~ 50 mm (0 ~ 1.97 in)	1.6 kg/mm (89.6 lb/in)	
50 ~ 80 mm (1.97 ~ 3.15 in)	2.2 kg/mm (123.2 lb/in)	
Travel	100 mm (3.94 in)	

4. Electrical

Ignition timing retarded: Ignition timing advance:	<p>5° at 1,200 r/min</p> <p>Advance (Rotor Shaft Degree)</p> <p>40° 30° 20° 10° 0°</p> <p>0 1 2 3 4 5 6 (x 1,000 r/min)</p> <p>1,850 ± 200 r/min at 7°</p> <p>3,300 ± 250 r/min at 36°</p> <p>38° ± 2° at 4,000 r/min</p>
Spark plug: Electrode gap	D8EA (NGK) or X24ES-U (ND) 0.6 ~ 0.7 mm (0.024 ~ 0.028 in)
Spark plug cap resistance:	10KΩ
Pick up coil: Resistance	650Ω ± 20% at 20°C (68°F)
Ignition coil type: Spark gap Primary resistance Secondary resistance	HITACHI CM12-10 2.5Ω ± 10% at 20°C (68°F) 11kΩ ± 20% at 20°C (68°F)
Starter motor type: Armature coil resistance Brush length: standard minimum Brush spring pressure Armature mica undercut	MITSUBA SM-8204 0.012Ω ± 6% at 20°C (68°F) 12.0 mm (0.472 in) 5.0 mm (0.20 in) 400 ± 60g (14.08 ± 2.11 oz) 0.8 mm (0.031 in)
Battery type: Charging rate	G.S. 12N12A-4A 1.2 Amps for 10 Hours
Generator type: Output Field (inner) coil resistance Stator (outer) coil resistance	HITACHI LD117-03 14V-17A at 5,000 r/min 4.5Ω ± 10% at 20°C (68°F) 0.5Ω ± 10% at 20°C (68°F)
Regulator type: Regulated voltage Allowable amperage	I.C. (S8515) 14.5 ± 0.3V 4A
Starter relay switch: Cut-in voltage	8V
Headlight: Tail/brake light: Flasher light: Pilot lights: TURN HIGH BEAM NEUTRAL OIL LEVEL Meter light	12V, 50W/40W 12V, 8W (3CP)/27W (32CP) x 2 12V, 27W (32CP) x 4 12V, 3.4W x 2 12V, 3.4W x 1 12V, 3.4W x 1 12V, 3.4W x 1 12V, 3.4W x 2

Tightening torque

Part to be tightened	Part name	Thread size	Q'ty	Tightening torque		Remarks
				m-kg	ft-lb	
ENGINE:						
Cam shaft cap	Bolt	M6 P1.0	24	1.0	7.2	Tighten in 3-stages
Cylinder head (cam chain)	Stud bolt	M6 P1.0	4	0.5	3.6	Apply oil
Cylinder head (Exhaust pipe)	Stud bolt	M6 P1.0	8	1.0	7.2	Apply oil
Cylinder head	Stud bolt	M8 P1.25	2	1.5	11.0	Apply oil
Cylinder head	Nut	M8 P1.25	2	2.0	14.5	
Cylinder head	Cap nut	M8 P1.25	12	2.2	16.0	Apply oil
Spark plug		M12 P1.25	4	2.0	14.5	
Cylinder head cover	Bolt	M6 P1.0	12	1.0	7.2	
Tachometer gear housing	Bolt	M6 P1.0	1	1.0	7.2	
Cylinder	Stud bolt	M8 P1.25	1	1.5	11.0	Apply oil
Cylinder (YICS blind plug)	Plug	M12 P1.25	2	2.2	16.0	
Cylinder and crankcase	Nut	M8 P1.25	1	2.0	14.5	
Cylinder head and cylinder	Nut	M6 P1.0	4	1.0	7.2	Cam chain (front & rear)
Connecting rod and rod cap	Nut	M7 P0.75	8	2.5	18.0	
Camshaft and sprocket	Bolt	M7 P1.0	4	2.0	14.5	
Cam chain tensioner stopper bolt	Bolt	M6 P1.0	1	0.6	4.3	
Cam chain tensioner case and cylinder	Bolt	M6 P1.0	1	1.0	7.2	
Cam chain tensioner case and cylinder	Nut	M6 P1.0	1	1.0	7.2	
Cam chain tensioner lock nut	Nut	M8 P1.25	1	0.9	6.5	
Crankcase	Plug	M10 P1.25	1	1.0	7.2	
Rotor housing and pump cover	Screw	M6 P1.0	1	0.7	5.1	
Oil pump ass'y and crankcase	Screw	M6 P1.0	3	0.7	5.1	
Strainer housing and crankcase	Bolt	M6 P1.0	2	1.0	7.2	
Strainer cover and crankcase	Bolt	M6 P1.0	12	1.0	7.2	
Filter cover and crankcase	Union bolt	M20 P1.5	1	1.5	11.0	
Strainer cover	Plug	M14 P1.5	1	4.3	31.0	
Carburetor joint and Cylinder head	Bolt	M6 P1.0	8	1.0	7.2	
Air filter	Screw	M5 P0.8	4	0.5	3.6	
Air filter	Bolt	M6 P1.0	3	0.7	5.1	
Exhaust pipe and cylinder head	Nut	M6 P1.0	8	1.0	7.2	
Exhaust pipe joint	Bolt	M8 P1.25	6	2.0	14.5	
Muffler	Bolt	M10 P1.25	2	2.5	18.0	
Muffler protector	Bolt	M10 P1.25	1	2.5	18.0	
Muffler protector	Screw	M6 P1.0	2	0.7	5.1	

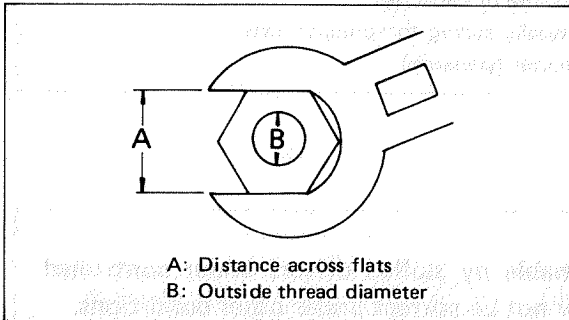
Part to be tightened	Part name	Thread size	Q'ty	Tightening torque		Remarks	
				m-kg	ft-lb		
Crankcase	Stud bolt	M8 P1.25	12	1.3	9.5	Apply oil	
Crankcase (upper and lower)	Bolt	M8 P1.25	11	2.4	17.5	Apply oil	
Crankcase (upper and lower)	Bolt	M6 P1.0	23	1.2	8.5	Apply oil	
Generator cover and crankcase	Bolt	M6 P1.0	3	1.0	7.2		
Bearing cover plate (crankcase right)	Bolt	M6 P1.0	2	1.0	7.2		
Bearing cover plate (crankcase left)	Screw	M6 P1.0	2	1.0	7.2	Use LOCTITE	
Clutch cable holder	Screw	M6 P1.0	1	1.0	7.2		
Crankcase cover	Bolt	M6 P1.0	13	1.0	7.2		
Crankcase (Main gallery blind plug)	Plug	M20 P1.5	2	1.2	8.5	Apply oil	
Clutch pressure plate	Bolt	M6 P1.0	5	0.8	5.8		
Clutch boss	Nut	M20 P1.0	1	7.0	50.5		
Drive sprocket	Bolt	M6 P1.0	2	1.0	7.2		
Cam shift	Screw	M5 P0.8	1	0.7	5.1	Use LOCTITE	
Stopper plate	Bolt	M6 P1.0	1	1.0	7.2		
Change pedal	Bolt	M6 P1.0	1	1.0	7.2		
A.C. Generator	Bolt	M10 P1.25	1	3.5	25.5		
A.C. Generator (brush)	Screw	M6 P1.0	2	0.8	5.8		
A.C. Generator (rotor)	Bolt	M8 P1.25	1	2.4	17.5		
Pick up coil base	Screw	M6 P1.0	2	0.8	5.8		
Timing plate	Screw	M6 P1.0	1	0.8	5.8		
Starter motor	Bolt	M6 P1.0	2	1.0	7.2		
Neutral switch	Screw	M5 P0.8	3	0.3	2.2	Use LOCTITE	
Oil level gauge switch	Bolt	M6 P1.0	2	0.7	5.1		
CHASSIS:							
Engine Mounting Bolt	Front, upper	Nut	M10 P1.25	1	4.2	30.5	
	Front, under	Bolt	M10 P1.25	2	4.2	30.5	
	Rear, under	Nut	M12 P1.25	1	7.0	50.5	
Engine Mounting Stay	Front	Bolt	M8 P1.25	4	2.0	14.5	
Handle crown & Steering shaft	Bolt	M14 P1.25	1	5.4	39.0		
Handle crown & inner tube	Nut cap	M8 P1.25	1	2.0	14.5		
Handle crown & Handlebar holder	Bolt	M8 P1.25	4	2.0	14.5		
Under bracket & Inner tube	Bolt	M8 P1.25	4	1.7	12.5		
Front wheel shaft	Nut castle	M14 P1.5	1	10.5	76.0		
Front wheel Axle pinch bolt	Nut self locking	M8 P1.25	2	2.0	14.5		
Pivot shaft	Nut	M14 P1.5	1	9.0	65.0		

Part to be tightened	Part name	Thread size	Q'ty	Tightening torque		Remarks
				m-kg	ft-lb	
Rear wheel shaft	Nut castle	M14 P1.5	1	10.5	76.0	
Sprocket wheel	Nut	M10 P1.25	6	6.2	45.0	
Rear shock absorber (Upper)	Nut cap	M10 P1.25	2	3.0	21.5	
Rear shock absorber (Lower)	Bolt	M10 P1.25	2	3.0	21.5	
Footrest	Bolt	M12 P1.25	2	7.0	50.5	
Tension bar & Brake plate	Bolt	M8 P1.25	1	2.0	14.5	
Tension bar & Rear arm	Bolt	M8 P1.25	1	2.0	14.5	
Camshaft lever & Camshaft	Bolt	M6 P1.0	1	0.9	6.5	
Brake disc & Hub (Front)	Bolt	M8 P1.25	12	2.0	14.5	Lock washer
Master cylinder & Brake hose (Front)	Bolt union	M10 P1.25	1	2.6	19.0	
Brake hose & Joint	Bolt union	M10 P1.25	1	2.6	19.0	
Caliper & Brake hose	Bolt union	M10 P1.25	1	2.6	19.0	
Caliper & Front fork (Front)		M10 P1.25	2	4.5	32.5	
Caliper bleed screw (Front)		M8 P1.25	1	0.6	4.3	
Front fender	Bolt	M8 P1.25	4	1.0	7.2	
Master cylinder cap	Screw	M5 P0.8	2	0.18	1.3	
Muffler bracket & Frame	Bolt	M10 P1.25	4	4.2	30.5	
Muffler bracket & Muffler (rear footrest)	Bolt	M10 P1.25	2	4.5	32.5	
Master cylinder & Master cylinder bracket	Bolt	M6 P1.0	2	0.9	6.5	
Steering shaft & Ring nut	Nut	M25 P1.0	1	3.8	27.5	
Brake pedal & Brake shaft	Bolt	M6 P1.0	1	0.9	6.5	
Sensor & Fuel tank	Bolt	M6 P1.0	4	0.5	3.6	
Rear arm end & Rear arm	Bolt	M6 P1.0	2	0.6	4.3	

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 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	
		m-kg	ft-lb
10 mm	6 mm	0.6	4.5
12 mm	8 mm	1.5	11
14 mm	10 mm	3.0	22
17 mm	12 mm	5.5	40
19 mm	14 mm	8.5	61
22 mm	16 mm	13.0	94

CONVERSION TABLES

METRIC TO INCH SYSTEM			
	KNOWN	MULTIPLIER	RESULT
TORQUE	m-kg	7.233	ft-lb
	m-kg	86.80	in-lb
	cm-kg	0.0723	ft-lb
	cm-kg	0.8680	in-lb
WT	kg	2.205	lb
	g	0.03527	oz
FLOW/DISTANCE	kg/lit	2.352	mpg
	km/hr	0.6214	mph
	km	0.6214	mi
	m	3.281	ft
	m	1.094	yd
	cm	0.3937	in
	mm	0.03937	in
VOL./CAPACITY	cc (cm ³)	0.03382	oz (US liq)
	cc (cm ³)	0.06102	cu.in
	lit (liter)	2.1134	pt (US liq)
	lit (liter)	1.057	qt (US liq)
	lit (liter)	0.2642	gal (US liq)
	lit (liter)	0.2642	gal (US liq)
MISC.	kg/mm	56.007	lb/in
	kg/cm ²	14.2234	psi (lb/in ²)
	Centigrade (°C)	9/5(°C) + 32	Fahrenheit (°F)

INCH TO METRIC SYSTEM			
	KNOWN	MULTIPLIER	RESULT
TORQUE	ft-lb	0.13826	m-kg
	in-lb	0.01152	m-kg
	ft-lb	13.831	cm-kg
	in-lb	1.1521	cm-kg
WT	lb	0.4535	kg
	oz	28.352	g
FLOW/DISTANCE	mpg	0.4252	km/lit
	mph	1.609	km/hr
	mi	1.609	km
	ft	0.3048	m
	yd	0.9141	m
	in	2.54	cm
	in	25.4	mm
	in	25.4	mm
VOL./CAPACITY	oz (US liq)	29.57	cc (cm ³)
	cu.in	16.387	cc (cm ³)
	pt (US liq)	0.4732	lit (liter)
	qt (US liq)	0.9461	lit (liter)
	gal (US liq)	3.785	lit (liter)
	gal (US liq)	3.785	lit (liter)
MISC.	lb/in	0.017855	kg/min
	psi (lb/in ²)	0.07031	kg/cm ²
	Fahrenheit (°F)	5/9(°F-32)	Centigrade (°C)

DEFINITION OF TERMS:

m-kg	=	Meter-kilogram(s) (usually torque)
g	=	Gram(s)
kg	=	Kilogram(s) (1,000 grams)
lit	=	Liter(s)
km/lit	=	Kilometer(s) per liter (fuel consumption)
cc	=	Cubic centimeter(s) (cm ³) (volume or capacity)
kg/mm	=	Kilogram(s) per millimeter (usually spring compression rate)
kg/cm ²	=	Kilogram(s) per square centimeter (pressure)

CONSUMER INFORMATION

Notice

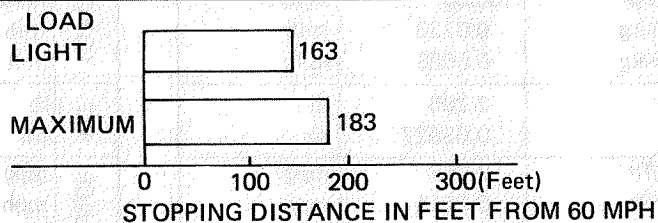
The information presented represents results obtainable by skilled drivers under controlled road and vehicle conditions, and the information may not be correct under other conditions.

STOPPING DISTANCE

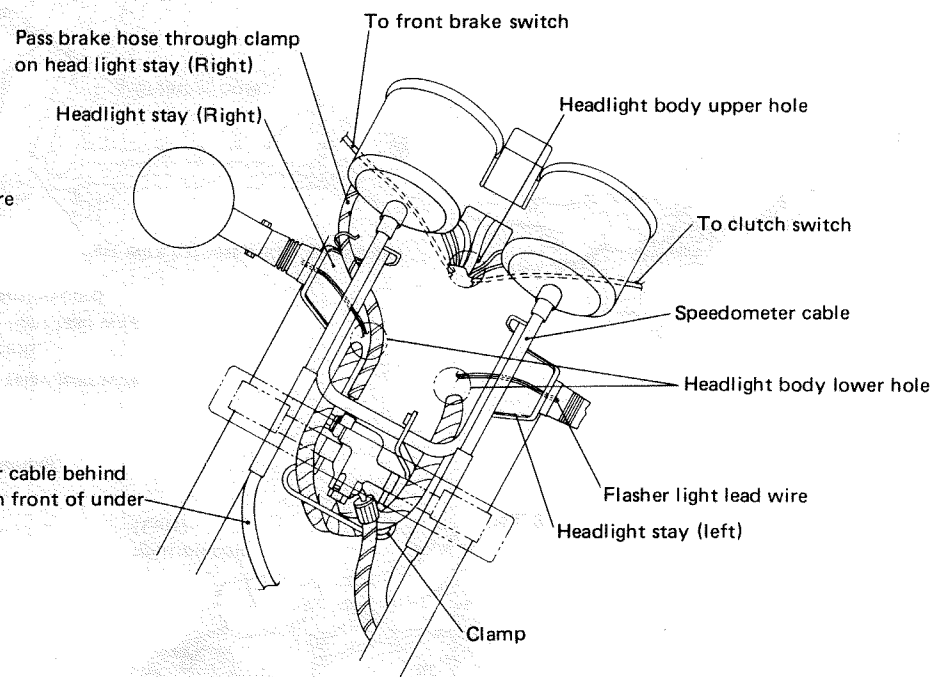
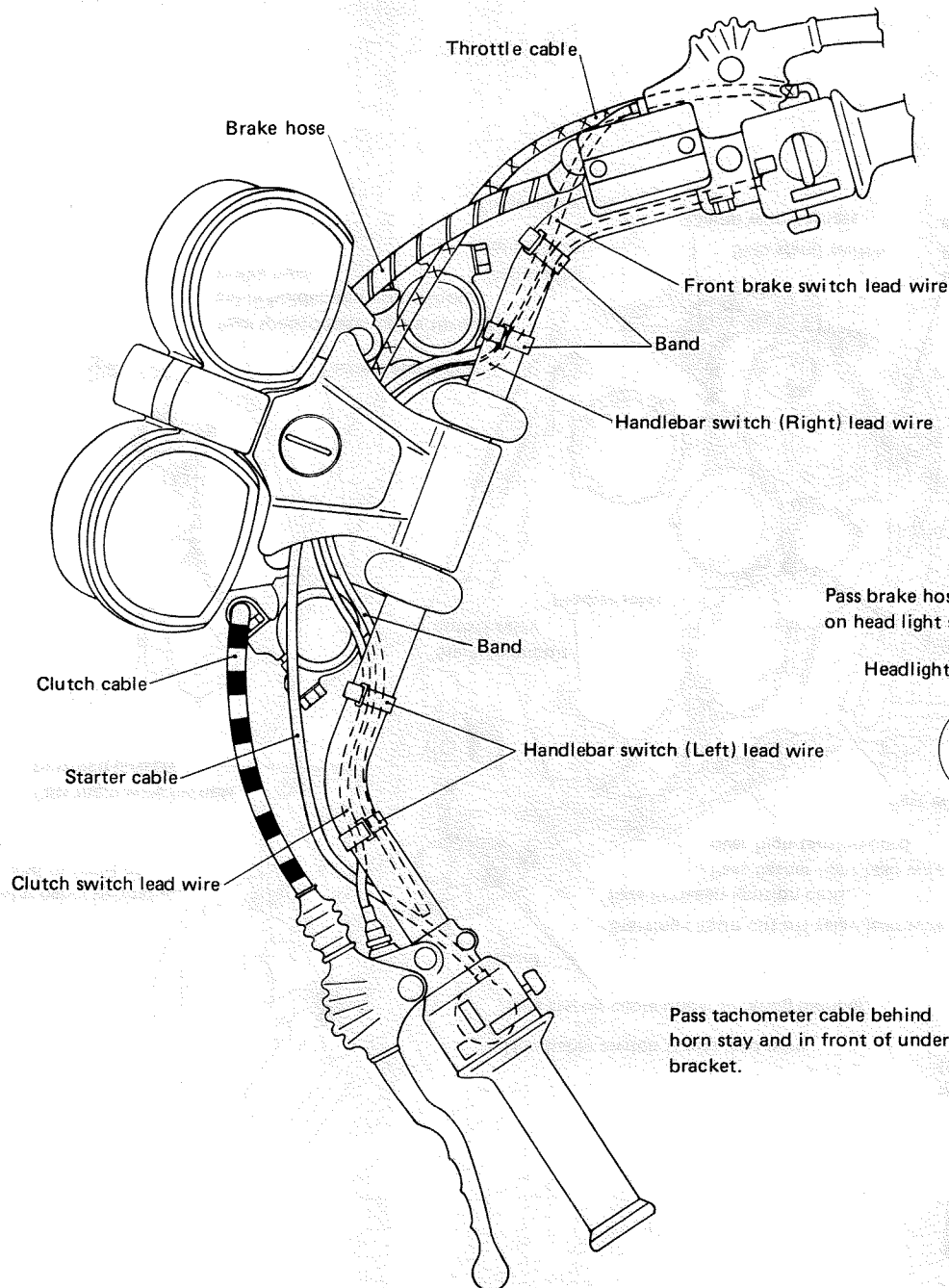
This figure indicates braking performance that can be met or exceeded by the vehicles to which it applies, without locking the wheels, under different conditions of loading and with partial failures of the braking system.

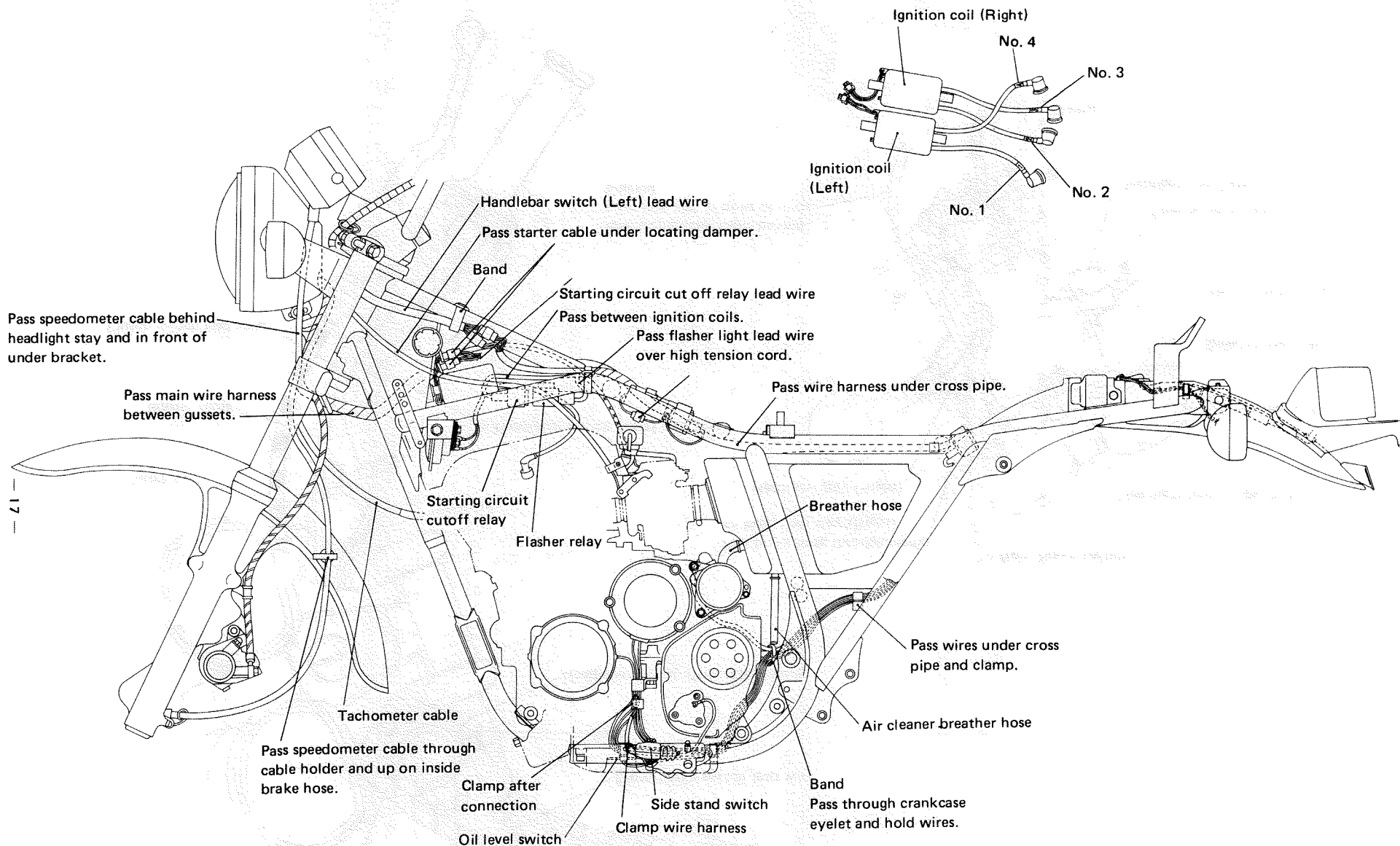
FULL OPERATIONAL SERVICE BRAKE

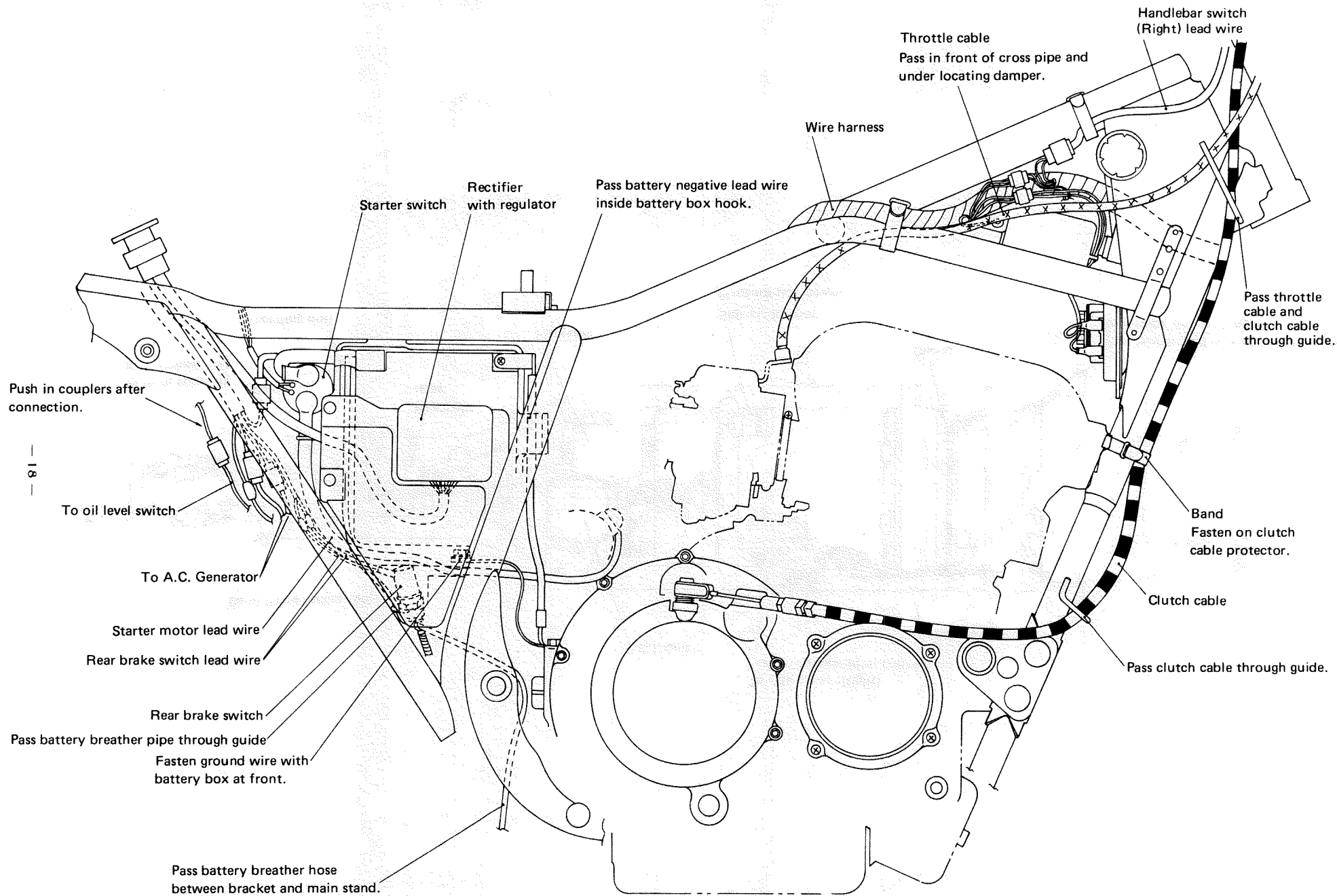
("Partial failure" information is not applicable and is not included)

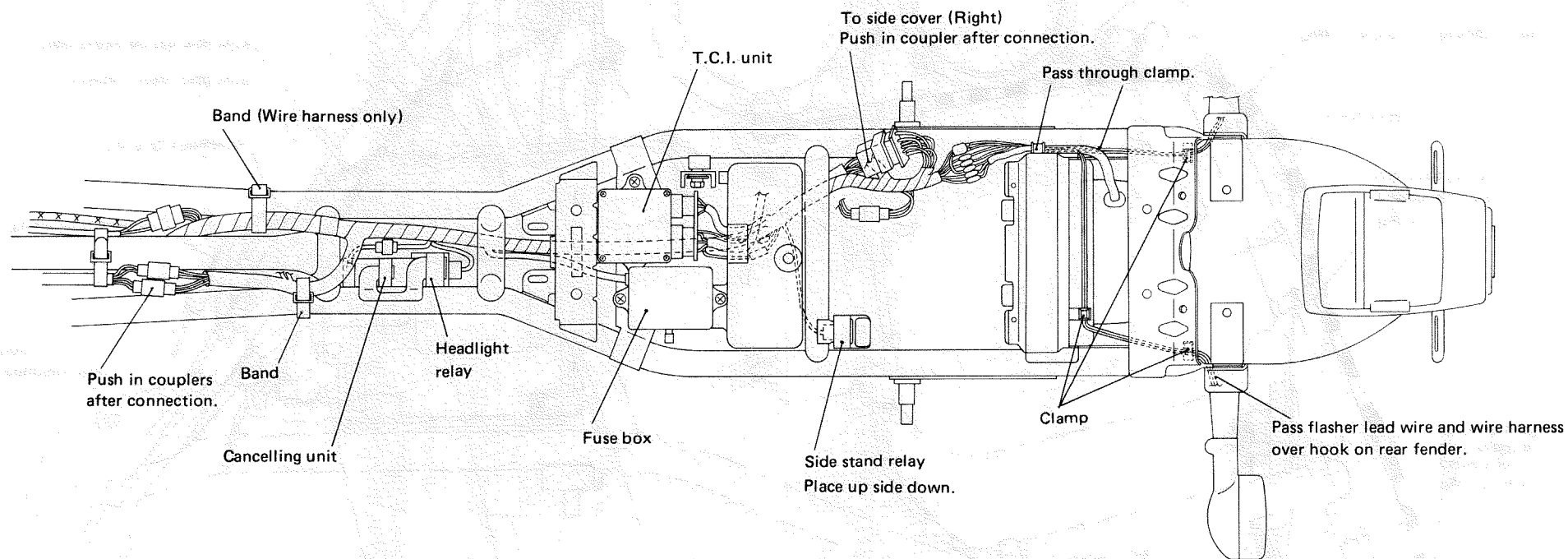


CABLE ROUTING









WIRING DIAGRAM

- * : The key can be removed in this position.
 ** : The handlebar can be locked in this position.

