XS650G
1980 SERVICE DATA

MODEL – IBM I.D. NUMBER	XS650G 3G0
Initial Engine Number/Frame Number	3G0-000101 / 3G0-000101
Basic Color(s)	Black Gold
Fuel Type/Fuel Tank Capacity/Reserve Capacity	Regular / 11.5 Lit. (3.0 Gals.) / 2.3 Lit. (0.5 Gals.)
Dry Vehicle Weight	205 kg (452 lbs.)
ENGINE TYPE	4-Stroke, SOHC, Air-Cooled
Bore/Stroke/Number Cylinders/Displacement (cc)	75mm / 74mm / 2 / 654cc
Compression Ratio/Compression Pressure min ~ max	8.7:1 / 9.5 ~ 11.5 kg/cm^2
Piston Skirt Clearance new/max	0.050 ~ 0.055mm / 0.1mm
Ring End Gap top/2nd/3rd	0.2 ~ 0.4mm / 0.2 ~ 0.4mm / 0.3 ~ 0.9mm
Valve Clearance (cold) Intake/Exhaust	0.06mm / 0.15mm
Oil Pressure hot/rpm	ϕ
Oiling System	Wet Sump
Capacity: Dry	2500cc
Oil and Filter Change	2000cc
Oil Change	2000cc
Lubricant: Temp above 5°C (40°F)	Yamalube 4* or SAE 20W40 SE
Below 15°C (60°F)	Yamalube 4* or SAE 20W40 SE
AUTOLUBE – Min. Stroke/Color Code	ϕ
Minimum Output @ 200 cycles	ϕ
Maximum Output @ 200 cycles	ϕ
CARBURETOR – Mfr./Type/I.D. Number	Mikuni / BS34 / 3G1-00
Main Jet/Pilot Jet	132.5 / 42.5
Needle Jet/Jet Needle Clip Position	Y-O / 5HX12-Fixed
Slide Cutaway or Throttle Valve	135
Float Level	27.3 ± 0.5mm
Idle RPM	1200
CO % @ Idle (Diagnostic Use Only)	N/A
SUSPENSION	
Front Forks: Oil Type/Level/Qty	10 W* Fork Oil* / ϕ / 169cc
Gas Pressure	ϕ
Spring Length Std	482mm
Monoshock: Oil Type/Qty.	ϕ
Gas Pressure	ϕ
Minimum Brake Lining Thickness	Front 6.0mm Rear 6.0mm
Tire Size (Nominal Pressure)	F:3.50S19(1.6 kg/cm^2/22psi) R:130/90 16 67S(2.0 kg/cm^2/28 psi)
TRANSMISSION – Oil Type, Qty Cap/Qty Reassemble	See ENGINE Lubricant
Primary Drive Type/Teeth/Ratio	Spur Gear / 72-27 2.666
Secondary Drive Type/Teeth Chain	Chain / 34-17 / DID530HOS-104L
Clutch Friction Plate Thickness Std ~ min	3.0 ~ 2.7mm
Clutch Spring Length Std ~ min	34.6 ~ 33.6mm
Middle Gear Case Capacity	ϕ
Final Gear Case Capacity	ϕ
Gear Case Lubricant: Temp above 5°C (40°F)	ϕ
Temp below 15°C (60°F)	ϕ
All Weather Conditions	ϕ

CHARGING SYSTEM		A.C. Generator / 3 Phase / Full Wave
Battery: Model / Spec. Grav. / Chg. Rate		Yuasa YB14L-A2 (12V14AH) / 1.28 / 1.4A
Maximum Output		14 V 16A @ 5000 rpm
TROUBLESHOOTING		
Field Coil Color Code / Ω		Rotor: Grn~Brn/5.3 Ω ± 10% Stator: Wht~Wht/0.46 Ω ± 10%
Charge Coil Color Code / Ω		ϕ
IGNITION SYSTEM		Transistor Controlled Ignition
Ignition Timing		15° Mark
		Std: 15° @ 1200 rpm Adv: 40° @ Approx. 3200 rpm
Spark Plug Type		NGK BP7ES or Champion N7Y
Spark Plug Gap / Torque / Cap Ω		0.7 ~ 0.8mm / 2.0 m-kg / 10K Ω
Point Gap / Condenser Capacitance		ϕ / ϕ
TROUBLESHOOTING		
Ignition Coil Test Gap / Primary Ω / Secondary Ω		6.0mm / 2.5 Ω ± 10% / 13K Ω ± 20%
Pulse Coil or Pick-up Coil Color Code / Ω		Org ~ Blk, Gry ~ Blk / 700 Ω ± 20%
Source Coil Color Code / Ω		ϕ
LIGHTING SYSTEM		
Headlight / Taillight / Signal Rating		12V50-40W / 12V27-8W / 12V27W
TROUBLESHOOTING		
Lighting Coil Color Code / Ω		ϕ
TORQUE VALUES		
Front Axle Nut		14 x 1.5: 10.8 m-kg
Front Axle Holder Nut		8 x 1.25: 1.4 m-kg
Rear Axle Nut		18 x 1.5: 15.0 m-kg
Rear Axle Pinch Bolt		ϕ
Clutch Nut		18 x 1.0: 8.0 m-kg
Drain Plug		30 x 1.5: 4.2 m-kg
Cylinder Head Cover		8 x 1.25: 2.1 m-kg
Cylinder Head		6 x 1.0: 0.9 m-kg
		10 x 1.25: 3.7 m-kg
Engine Mounting Bolts	Engine, Upper	8 x 1.25: 1.8 m-kg 10 x 1.25: 3.0 m-kg
	Engine, Front	10 x 1.25: 4.6 m-kg
	Engine, Rear	10 x 1.25: 4.0 m-kg
	Rear, Lower	10 x 1.25: 4.6 m-kg
	Engine, Lower	10 x 1.25: 9.0 m-kg

ϕ Does Not Apply to This Model

* Available From Yamaha Parts Distributors, Inc