

XS650H

1981 SERVICE DATA

This bulletin replaces M80-035.

Please remove and destroy bulletin M80-035. A Denotes a change from the original bulletin.

MODEL - IBM I.D. NUMBER	XS650H	4N9
Initial Engine Number / Frame Number	4N9-000101 / 4N9-000101	
Basic Color(s)	Indigo Blue / New Ruby Red	
Fuel Type/Fuel Tank Capacity/Reserve Capacity	Regular / 11.5 Lit. (3.0 Gal.) / 2.3 Lit. (0.5 Gal.)	
Dry Vehicle Weight	206 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	9.7:1 / 9.5 ~ 11.5 kg/cm ²	
Piston Skirt Clearance New/Max	0.060 ~ 0.065mm / 0.1mm	
Ring End Gap Top / 2nd / 3rd	0.2 ~ 0.4mm / 0.2 ~ 0.4mm / 0.3 ~ 0.5mm	
Valve Clearance (Cold) Intake/Exhaust	0.08mm / 0.15mm	
Oil Pressure Hot / rpm	∅	
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	∅	
Minimum Output @ 200 Cycles	∅	
Maximum Output @ 200 Cycles	∅	
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	
Max CO* / Max HC* / Set CO	▲ 5.0 % / 500 ppm / 2.0 % (All Settings @ Idle)	
SUSPENSION		
Front Forks: Oil Type / Level / Qty	10 Wt. Fork Oil* / ∅ / 169cc	
Gas Pressure	∅	
Spring Length Std.	482mm	
Monoshock: Oil Type / Qty	∅	
Gas Pressure	∅	
Minimum Brake Lining Thickness	Front: 6.0mm Rear: 2.0mm	
Tire Size (Nominal Pressure)	F:3.50S19(1.8kg/cm ² /22 psi) R:1.30/90-16 87S(2.0kg/cm ² /28 psi)	
TRANSMISSION - Oil Type/Qty Chg/Qty Reassemble	See ENGINE Lubricant	
Primary Drive Type / Teeth / Ratio	Spur Gear / 72-27 / 2.666	
Secondary Drive Type / Teeth / Chain	Chain / 34-17 / DID530HDS-104L	
Clutch Friction Plate Thickness Std ~ Min.	3.0 ~ 2.7mm	
Clutch Spring Length Std ~ Min.	34.6 ~ 33.6mm	
Middle Gear Case Capacity	∅	
Final Gear Case Capacity	∅	
Gear Case Lubricant: Temp above 5°C (40°F)	∅	
Temp below 15°C (60°F)	∅	
All Weather Conditions	∅	

CHARGING SYSTEM	AC Generator / 3 Phase / Full Wave
Battery: Model / Specific Gravity / Charge Rate	Yuasa YB14L-A2 (12V14AH) / 1.28 / 1.4A
Maximum Output	14V 16A @ 5000 rpm
TROUBLESHOOTING	
Field Coil Color Code / Ω	Rotor: Grn \sim / 5.3 Ω \pm 10% Stator: Wht \sim Wht / 0.46 Ω \pm 10%
Charge Coil Color Code / Ω	\emptyset
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 \sim 0.8mm / 2.0 m-kg / 10K Ω
Point Gap / Condenser Capacitance	\emptyset / \emptyset
TROUBLESHOOTING	
Ignition Coil Test Gap/Primary Ω /Secondary Ω	6.0mm / 2.5 Ω \pm 10% / 11K Ω \pm 20%
Pulser Coil or Pickup Coil Color Code / Ω	Org \sim Blk, Gry \sim Blk / 700 Ω \pm 20%
Source Coil Color Code / Ω	\emptyset
LIGHTING SYSTEM	
Headlight / Taillight / Signal Rating	12V50-40W / 12V27-8W / 12V27W
TROUBLESHOOTING	
Lighting Coil Color Code / Ω	\emptyset
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	\emptyset
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

\emptyset = Does Not Apply To This Model

N/A = Information Not Available

*Available From Yamaha Parts Distributors Inc.