TECHNICAL BULLETIN

IT175D
1977 SERVICE DATA

MODEL – IBM I.D. NUMBER	IT175D	1W3	
Starting Engine and Frame Number	1W3-000101	1W3-000101	
Basic Color (Fuel tank)	Sky Blue		
Net Weight	218 lbs.		
ENGINE (type, induction system)	2-stroke, 7-port, single, air-cooled		
Bore x Stroke x Cylinder(s) Displacement	66mm x 50mm x 1 171cc		
Compression Ratio (pressure)	7.4:1		
Piston Skirt Clearance (new/max.)	0.040 ~ 0.045mm (.0015 ~ .0017") / 0.1mm (.004")		
Ring End Gap (top/2nd/3rd)	0.3 ~ 0.3mm (.012 ~ .020") / Same / ϕ		
Ring Groove Clearance (top/2nd/3rd)	0.02~0.06mm (.0007~.002") / 0.03~0.07mm (.001~.002") / ϕ		
Valve Clearance (eng. cold) Intake/Exhaust	ϕ		
AUTOLUBE – Minimum Pump Stroke/Color Code	ϕ		
CARBURETOR (mfr.) (type) (I.D. number)	Mikuni / VM34SS / 1W200		
Main Jet	No. 360		
Needle Jet	P-4		
Jet Needle/Clip Position	6F21-3		
Cutaway	2.0		
Pilot Jet	No. 80		
Air Jet	2.5		
Starter Jet	No. 80		
Air Screw (turns out) (idle speed)	1¼		
Float Level	23.5mm		
Air Filter (type x quantity)	Oiled Foam Rubber x 1		
DRIVE – Primary (type) (teeth) (ratio)	Helical Gear	31/33	0.939
Secondary (type) (teeth) (ratio)	O-RING, 94L	41/12	3.417
Transmission Ratios 1st (teeth) (ratio) (O.A.)	34/11	3.090	34.081
2nd	31/16	2.066	22.788
3rd	27/18	1.500	16.539
4th	25/21	1.190	13.130
5th	23/23	1.000	11.029
6th	21/25	0.840	9.262
CAPACITIES – Transmission	650cc (21.8oz.) SAE10W30 Oil or Yamalube 4-cycle*		
Oil Tank or Engine Sump	ϕ		
Fuel Tank	2.5 gal. (Premium gas and Yamalube R) (premix 20:1		
Front Forks	282cc, 20 wt. fork oil*		
Rear Shocks	OilCarbon Monoshock: See Tech. Bull. M7-003		
Tires (size/normal pressure)	Front: 3.00-21/13psi / Rear: 4.10-18/15psi		
ELECTRICAL – Charging System (mfr.) (type)	Mitsubishi / CDI Magneto		
No Load Voltage Adj. (AC & DC generators)	ϕ		
Max. Generator (Magneto) Output	ϕ		
Field Coil (and/or) Charging Coil Resistance	0.38 Ω (Yellow-red/black)		
Battery (mfr.) (model) (rating) (charge rate)	ϕ		
Headlight/Taillight Ratings	6V 25W/25W 6V 5.3W		
Ign. Coil Min. Spark Gap/Pri. Res./Sec. Res.	6mm / 1.0 Ω/8.0KΩ ± 20%		
Source Coil Res.	420Ω (Brown-black)		
Pulse Coil Res.	12.4Ω ± 10%		
Point Gap/Spark Plug (type/gap)	ϕ / Champion N2G / 0.6 ~ 0.7mm (.023 ~ .027")		
Timing (advanced) (retarded)	2.3 ± 0.1mm B.T.D.C. / ϕ		

N/A = Information Not Available
ϕ = Does Not Apply To This Model

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TECHNICAL BULLETIN

MOTORCYCLE
M7-048

IT175E
1978 SERVICE DATA

MODEL – IBM I.D. NUMBER	**IT175E – 1W2**
Initial Engine Number/Frame Number	1W2-020101 / 1W2-020101
Basic Color(s)	Sky Blue
ENGINE TYPE	2-stroke, air-cooled, reed valve
Bore/Stroke/Number Cylinders/Displacement (cc)	66mm / 50mm / 1 / 171cc
Compression Ratio/Compression Pressure min.~max.	7.4:1 / ϕ
Piston Skirt Clearance new/max.	.040 ~ .048mm / 0.1mm
Ring End Gap top/2nd/3rd	0.3 ~ 0.5mm / same / ϕ
Valve Clearance (cold) Intake/Exhaust	ϕ
Oil Pressure hot/rpm	ϕ
Oil Tank or Engine Sump Capacity	Premix Yamalube R* 20:1
AUTOLUBE – Min. stroke/Color code	ϕ
Minimum Output @ 200 strokes	ϕ
Maximum Output @ 200 strokes	ϕ
CARBURETOR – mfr./type/I.D. number	Mikuni / VM34SS / 1W2-00
Main Jet/Pilot Jet	360/60
Needle Jet/Jet Needle-Clip Position	P-4 / 6F 2nd-3
Slide Cutaway or Throttle Valve	2.0
Float Level	23.5 ± 1mm
Mixture Screw – turns out/idle rpm	1½ / ϕ
SUSPENSION	
Front Forks: Oil type/level/qty	35wt Fork Oil* / ϕ / 360cc
Gas Pressure	ϕ
Spring Length std	560mm
Monoshock: Oil type/qty	ϕ
Gas Pressure	18 kg/cm²
TRANSMISSION – oil type/qty chg/qty reassemble	SAE 20W40 (Yamalube 4*) / 900cc / 650cc
Primary drive type	Helical Gear
Secondary type/teeth/chain	Chain / 41-12 / DID520TR - 94L
Clutch Friction Plate Thickness std ~ min.	3.0 ~ 2.7mm
Clutch Spring Length std ~ min.	36.0 ~ 35.0mm
Tires size (nominal pressure)	Front: 3.00-21 (13psi) Rear: 4.10-18 (18psi)
ELECTRICAL – System/Type	AC Magneto / CDI
Maximum Output	ϕ
Field Coil Color Code/Ω	ϕ
Charging Coil Color Code/Ω	ϕ
Source Coil Color Code/Ω	Brn ~ Blk / 420Ω ± 10%
Lighting Coil Color Code/Ω	Yel Red~Blk/0.46Ω±10%/Blk Red~/13.6Ω±10%
Pulse Coil or Pickup Coil Color Code/Ω	Wht red ~ Blk / 12.4Ω ± 10%
Ignition Coil inst gap Primary Ω / Secondary Ω	6mm / 1.0Ω ± 10% / 5.0KΩ ± 20%
Battery – model/spec. grav./chg rate x hour	ϕ
Headlight/Taillight/Signal Rating	6V25-25W / 6V 5.3W / ϕ
Point Gap/Condenser Capacitance	ϕ
Spark Plug Type	Champion N-2G
Spark Plug Gap/Torque/Cap Ω	0.6 ~ 0.7mm / 2.0 m-kg / ϕ
Timing Static	2.3mm / 0.15mm BTDC
Dynamic	Center Line @ 2000 rpm

ϕ = Does Not Apply To This Model * Available from Yamaha Parts Distributors, Inc.

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TECHNICAL BULLETIN

MOTORCYCLE
M8-039

IT175F
1979 SERVICE DATA

MODEL – VIM I.D. NUMBER	IT175F 2W6
Initial Engine Number/Frame Number	2W6-000101 / 2W6-000101
Basic Color(s)	Sky Blue
Fuel Type/Fuel Tank Capacity/Reserve Capacity	Premium / 9.0 Lit. (2.5 Gal.) / 1.0 Lit. (0.3 Gal.)
Dry Vehicle Weight	98 kg (216 lbs.)
ENGINE TYPE	2-Stroke, Air-Cooled, Reed Valve
Bore/Stroke/Number Cylinders/Displacement (cc)	66mm / 50mm / 1 / 171cc
Compression Ratio/Compression Pressure min ~ max	7.4:1 / ϕ
Piston Skirt Clearance new/max.	0.040 ~ 0.045mm / 0.1mm
Ring End Gap top/2nd/3rd	0.2 ~ 0.4mm / 0.2 ~ 0.4mm / ϕ
Valve Clearance (cold) Intake/Exhaust	ϕ
Oil Pressure hot/rpm	ϕ
Oiling System	Premix (Ratio 20:1)
Capacity: Dry	ϕ
Oil and Filter Change	ϕ
Oil Change	ϕ
Lubricant: Temp above 5°C (40°F)	Yamalube A*
Below 15°C (60°F)	Yamalube A*
AUTOLUBE – Min. Stroke/Color Code	ϕ
Minimum Output @ 200 cycles	ϕ
Maximum Output @ 200 cycles	ϕ
CARBURETOR – Mfr./Type/I.D. Number	Mikuni / VM34SE / 2W600
Main Jet/Pilot Jet	360 / 70
Needle Jet/Jet Needle Clip Position	P-4 / 6F31-4
Slide Cutaway or Throttle Valve	3.0
Float Level	23.5 ± 1mm
Idle RPM	ϕ
CO % @ Idle (Diagnostic Use Only)	ϕ
SUSPENSION	
Front Forks: Oil Type/Level/Qty.	10 wt. Fork Oil* / ϕ / 208.5cc
Gas Pressure	ϕ
Spring Length Std.	468mm
Monoshock: Oil Type/Qty.	Not Relavitable
Gas Pressure	15 kg/cm² (213 psi)
Minimum Brake Lining Thickness	Front: 2mm Rear: 2mm
Tire Size (Nominal Pressure)	F:3.00-21(1.0kg/cm²/14 psi)R:4.10-18(1.2kg/cm²/17 psi
TRANSMISSION – Oil Type/Qty Chg/Qty Reassemble	SAE 10W30 SE / 950cc / 750cc
Primary Drive Type/Teeth/Ratio	Helical Gear / 71-22 / 3.227
Secondary Drive Type/Teeth/Chain	Chain / 41-13 / DID520TR-96L
Clutch Friction Plate Thickness Std ~ min.	3.0mm ~ 2.7mm
Clutch Spring Length Std ~ min.	36.0 ~ 35.0mm
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

Service Class: _____ Service Mgr. _____ Mechanic _____ Mechanic _____ Mechanic _____ Driver _____

Office Class: _____ Service Mgr. _____ Sales _____ Parts _____ Driver _____

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CHARGING SYSTEM	Flywheel Magneto
Battery: Model / Spec. Grav. / Chg. Rate	ϕ
Maximum Output	ϕ
TROUBLESHOOTING	
Field Coil Color Code / Ω	ϕ
Charge Coil Color Code / Ω	ϕ
IGNITION SYSTEM	Capacitor Discharge Ignition
Ignition Timing	2.8mm BTDC
Spark Plug Type	Champion N-3G
Spark Plug Gap / Torque / Cap Ω	0.6 ~ 0.7mm / 2.3 m-kg / ϕ
Point Gap / Condenser Capacitance	ϕ / ϕ
TROUBLESHOOTING	
Ignition Coil Test Gap / Primary Ω / Secondary Ω	6mm / 1.6 Ω ± 10% / 6.8K Ω ± 20%
Pulse Coil or Pick-up Coil Color Code / Ω	Wht/Red ~ Blk / 12.4 Ω ± 10%
Source Coil Color Code / Ω	Lo: Brn ~ Blk / 420 Ω ± 10% Hi: Red ~ Blk / 13.6 Ω ± 10%
LIGHTING SYSTEM	
Headlight / Taillight / Signal Rating	6V25-25W / 6V5.3W / ϕ
TROUBLESHOOTING	
Lighting Coil Color Code / Ω	Yel/Red ~ Blk / 0.48 Ω ± 10%
TORQUE VALUES	
Front Axle Nut	14 x 1.5: 8.5 m-kg
Front Axle Holder Nut	ϕ
Rear Axle Nut	14 x 1.5: 8.5 m-kg
Rear Axle Pinch Bolt	ϕ
Clutch Nut	14 x 1.0: 5.0 m-kg
Drain Plug	14 x 1.25: 3.0 m-kg
Cylinder Head Cover	ϕ
Cylinder Head:	Nut - 8 x 1.25: 2.5 m-kg
	Stud - 8 x 1.25: 2.4 m-kg
Engine Mounting Bolts: Engine, Front	8 x 1.5: 2.5 m-kg
Rear, Upper	8 x 1.5: 2.5 m-kg
Rear, Lower	10 x 1.5: 3.9 m-kg

ϕ Does Not Apply to This Model

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TECHNICAL BULLETIN

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IT175G
1980 SERVICE DATA

MODEL : IBM I.D. NUMBER	IT175G 3R6
Initial Engine Number / Frame Number	3R6-000101 / 3R6-000101
Basic Color(s)	Sky Blue
Fuel Type/Fuel Tank Capacity/Reserve Capacity	Premium / 11 Lit. (2.9 Gal.) / #
Dry Vehicle Weight	94 kg (207 lbs.)
ENGINE TYPE	2 Stroke, Air Cooled, Reed Valve
Bore/Stroke/Number Cylinders/Displacement (cc)	66mm / 52mm / 1 / 171cc
Compression Ratio/Compression Pressure Min*-Max	7.0: 1 / #
Piston Skirt Clearance New-Max	0.050 ~ 0.085mm / 0.1mm
Ring End Gap Top / 2nd / 3rd	0.2 ~ 0.4mm / 0.2 ~ 0.4mm / #
Valve Clearance (Cold) Intake/Exhaust	# / #
Oil Pressure Hot / rpm	#
Oiling System	Premix (32:1 Using Yamalube R*)
Capacity: Dry	#
Oil and Filter Change	#
Oil Change	#
Lubricant: Temp. above 5°C (40°F)	Yamalube R*
Below 15°C (60°F)	Yamalube R*
AUTOLUBE – Min. Stroke / Color Code	#
Minimum Output @ 200 Cycles	#
Maximum Output @ 200 Cycles	#
CARBURETOR : Mfr. / Type/I.D. Number	Mikuni / VM34SS / 3R6 00
Main Jet / Pilot Jet	210 / 60
Needle Jet / Jet Needle-Clip Position	P-6 / 6F21-4
Slide Cutaway or Throttle Valve	2.0
Float Level	N/A
Idle rpm	#
CO % @ Idle (Diagnostic Use Only)	#
SUSPENSION	
Front Forks: Oil Type / Level /Qty	10 Wt. Fork Oil* / # / 313cc
Gas Pressure	0 kg/cm²
Spring Length Std	607.5mm
Monoshock: Oil Type / Qty	Non Rebuildable
Gas Pressure	15 kg/cm² (213.4 psi)
Minimum Brake Lining Thickness	Front: 2.0mm Rear: 2.0mm
Tire Size (Nominal Pressure)	F-3.00-21 (Pressure Opt.) - R-4.10-18 (Pressure Opt.)
TRANSMISSION – Oil Type/Qty Chg/Qty Reassemble	SAE 10W-30 SE / 800cc / 700cc
Primary Drive Type / Teeth / Ratio	Helical Gear / 62:17 / 3.058
Secondary Drive Type / Teeth / Chain	Chain Drive / 44:12 / DID520DS-100L
Clutch Friction Plate Thickness Std ~ Min.	1.2 ~ 1.0mm
Clutch Spring Length Std ~ Min.	35mm ~ 35mm
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	Flywheel Magneto
Battery: Model / Spec. Grav. / Chg. Rate	#
Maximum Output	#
TROUBLESHOOTING	
Field Coil Color Code / Ω	#
Charge Coil Color Code / Ω	#
IGNITION SYSTEM	Capacitor Discharge Ignition
Ignition Timing	2.6mm BTDC
Spark Plug Type	Champion N-3J
Spark Plug Gap / Torque / Cap Ω	0.7mm / 2.5 m-kg / #
Point Gap / Condenser Capacitance	# / #
TROUBLESHOOTING	
Ignition Coil Test Gap/ Primary Ω/ Secondary Ω	6mm / 1.0 Ω ± 10% / 5.5K Ω ± 20%
Pulser Coil or Pick-up Coil Color Code / Ω	W/R-Red/ ~ Bk / 12.4 Ω ± 10%
Source Coil Color Code / Ω	Br ~ Bk / 400 Ω ± 10% Red ~ Bk / 152 Ω ± 10%
LIGHTING SYSTEM	
Headlight / Taillight / Signal Rating	6V25-25W / 6V5W / #
TROUBLESHOOTING	
Lighting Coil Color Code / Ω	Y/W-Red ~ Bk / 0.48 Ω ± 10%
TORQUE VALUES	
Front Axle Nut	14 x 1.5: 8.5 m-kg
Front Axle Holder Nut	8 x 1.25: 1.0 m-kg
Rear Axle Nut	14 x 1.5: 8.5 m-kg
Rear Axle Pinch Bolt	#
Clutch Nut	14 x 1.0: 5.0 m-kg (With Lock Washer)
Drain Plug	14 x 1.25: 2.0 m-kg
Cylinder Head Cover	#
Cylinder Head:	Nut 8 x 1.25: 2.5 m-kg
	Stud 8 x 1.25: 2.4 m-kg
Engine Mounting Bolts: Engine Front	8 x 1.5: 3.0 m-kg
Engine Corner	8 x 1.5: 3.0 m-kg

Does Not Apply To This Model
N/A Information Not Available

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TECHNICAL BULLETIN

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IT175H
1981 SERVICE DATA

MODEL - IBM I.D. NUMBER	IT175H 3R9
Initial Engine Number / Frame Number	3R9-020101 / 3R9-020101
Basic Colorist	White
Fuel Type / Fuel Tank Capacity / Reserve Capacity	Premium / 11 Lit. (2.9 Gal.) / #
Dry Vehicle Weight	94 kg (207 lbs.)
ENGINE TYPE	2 Stroke, Air Cooled, Reed Valve
Bore/Stroke/Number Cylinders/Displacement (cc)	66mm / 50mm / 1 / 171cc
Compression Ratio/Compression Pressure Min↔Max	7.9: 1 / #
Piston Skirt Clearance New / Max	0.060 ~ 0.080mm / 0.1mm
Ring End Gap Top / 2nd / 3rd	0.2 ~ 0.4mm / 0.2 ~ 0.4mm / #
Valve Clearance (Cold) Intake / Exhaust	# / #
Oil Pressure Hot / rpm	#
Oiling System	Premix 16:1 Using Yamalube #*
Capacity: Dry	#
Oil and Filter Change	#
Oil Change	#
Lubricant: Temp. Above 5°C (40°F)	Yamalube #*
Temp. Below 15°C (60°F)	Yamalube #*
AUTOLUBE - Min Stroke / Color Code	#
Minimum Output @ 200 Cycles	#
Maximum Output @ 200 Cycles	#
CARBURETOR - Mfr. / Type / I.D. Number	Mikuni / VM34SS / 3R9-00
Main Jet / Pilot Jet	210 / 40
Needle Jet / Jet Needle Clip Position	P-8 / 6F21-4
Slide Cutaway or Throttle Valve	2.0
Float Level / Fuel Level	NA / NA
Idle rpm	#
Max CO* / Max HC* / Set CO	#
SUSPENSION	
Front Forks: Oil Type / Level / Qty	10 Wt. Fork Oil* / # / 317cc
Gas Pressure	0 kg / cm²
Spring Length Std	607.5mm
Monoshock: Oil Type / Qty	Not Rebuildable
Gas Pressure	15 kg / cm² (213.4 psi)
Minimum Brake Lining Thickness	Front: 2.0mm Rear: 2.0mm
Tire Size (Nominal Pressure)	F: 3.00-21 (Pressure Opt.) R: 4.10-18 (Pressure Opt.)
TRANSMISSION - Oil Type/Qty Chg/ Qty Reassemble	SAE 10W30 SE / 900cc / 700cc
Primary Drive Type / Teeth / Ratio	Helical Gear / 82-17 / 3.058
Secondary Drive Type / Teeth / Chain	Chain Drive / 44-12 / DK520SS-100L
Clutch Friction Plate Thickness Std ~ Min	1.3 ~ 1.0mm
Clutch Spring Length Std ~ Min	36mm ~ 35mm
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	Flywheel Magneto
Battery: Model / Specific Gravity / Charge Rate	#
Maximum Output	#
TROUBLESHOOTING	
Field Coil Color Code / Ω	#
Charge Coil Color Code / Ω	#
IGNITION SYSTEM	Capacitor-Discharge Ignition
Ignition Timing	2.8mm BTDC
Spark Plug Type	Champion N-20
Spark Plug Gap / Torque / Cap Ω	0.7mm / 2.5 m-kg / #
Point Gap / Condenser Capacitance	# / #
TROUBLESHOOTING	
Ignition Coil Test Gap / Primary Ω / Secondary Ω	6mm / 1.9 Ω ± 10% / 5.9K Ω ± 20%
Pulser Coil or Pickup Coil Color Code / Ω	Wht-Red ~ Blk / 12.4 Ω ± 10%
Source Coil Color Code / Ω	Brn ~ Blk / 420 Ω ± 10% Red ~ Blk / 0.6 Ω ± 10%
LIGHTING SYSTEM	
Headlight / Taillight / Signal Rating	6V25-25W / 6V5W / #
TROUBLESHOOTING	
Lighting Coil Color Code / Ω	Yel-Red ~ Blk / 0.48 Ω ± 10%
TORQUE VALUES	
Front Axle Nut	14 x 1.5: 8.5 m-kg
Front Axle Holder Nut	8 x 1.25: 1.0 m-kg
Rear Axle Nut	14 x 1.5: 8.3 m-kg
Rear Axle Pinch Bolt	#
Clutch Nut	14 x 1.0: 6.0 m-kg (With Lock Washer)
Drain Plug	14 x 1.25: 2.0 m-kg
Cylinder Head Cover	#
Cylinder Head	Nut 8 x 1.25: 2.5 m-kg
	Stud 8 x 1.25: 2.4 m-kg
Engine Mounting Bolts: Engine Front	8 x 1.5: 3.0 m-kg
Engine Center	8 x 1.5: 3.0 m-kg

# = Does Not Apply To This Model
NA = Information Not Available

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*For Diagnostic Use Only

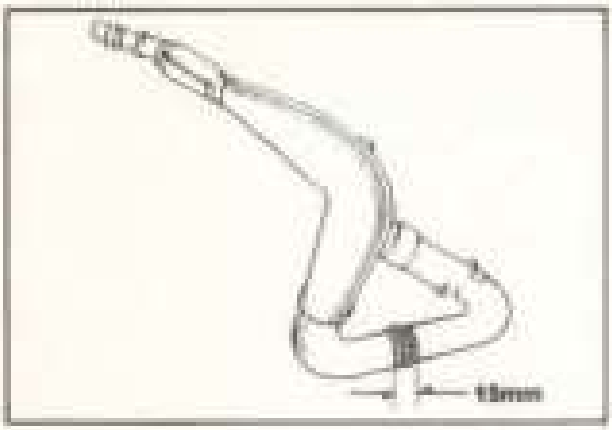
DATE March 25, 1983

IT175J, K
PERFORMANCE MODIFICATIONS

The optional modifications described here can be done to improve the performance of the IT175J and the IT175K. Bear in mind that some of these modifications will affect the warranty; read the Owner's Warranty Guide for details.

EXHAUST PIPE

Shorten the head pipe approximately 15mm. Cut out the material at the joint as shown in the illustration; take care to make the cuts parallel to one another. This modification will permit higher revving without appreciably decreasing bottom end power.



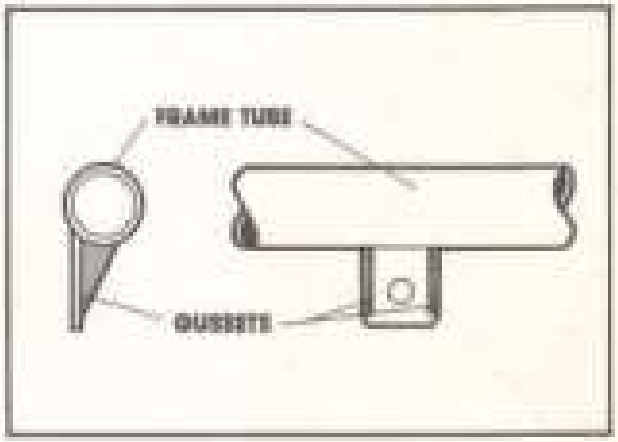
To align all items properly, tack weld the head pipe while it is in place on the motorcycle, remove the entire exhaust system, and complete the welding on a bench.

WARNING

Remove the fuel tank and the carburetor before doing any welding. Welding can produce sparks that could cause a fire. Use a TIG welder when performing this modification; do not use an arc or a gas welder. A TIG welder is the least hazardous welder for this application.

PIPE MOUNT

The rear exhaust-pipe mount could break off the frame under some extreme conditions. Weld gussets where shown in the illustration to reinforce the mount and prevent this from occurring.



CARBURETION

Install a 320 main jet (137-14143-64-00), and set the jet needle clip to the fifth (top) clip position. A 310 main jet and fourth clip position are the standard specifications. These recommendations are starting points; changes may be required to suit local conditions and individual riding skills.

REAR SUSPENSION

Install spring 4V5-22212-00-00; set the spring length to 315 ~ 325mm. This spring provides smoother spring action throughout the entire stroke of the shock. It is suitable for riders weighing up to 175 lbs.

SERVICE COPY	SSS MGR	MECH	MECH	MECH	BRCH
OFFICE COPY	GEN MGR	SALES	PARTS	BRCH	PAGE 1 OF 2

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AIR BOX

Remove the air box cover when riding in dry or no-mud conditions. This gives the engine a bit more air. Be sure to replace the cover when running in muddy conditions.

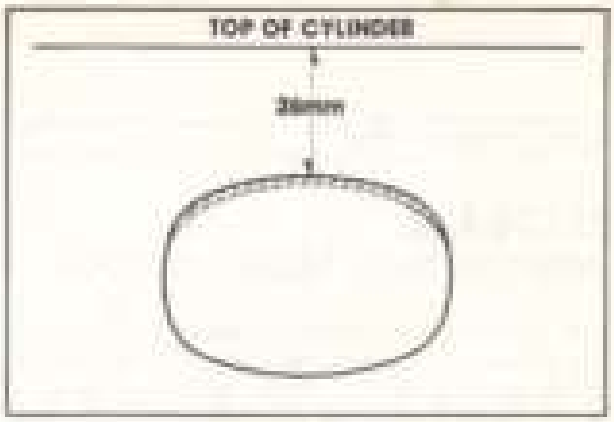
FRONT FORKS

When riding on a sandy course, lowering the forks 10mm in the clamps may help stabilize steering.

CYLINDER

This modification is recommended for expert riders only.

Raise the exhaust port to 26mm from the top of the cylinder for improved mid-range and top-end power. Using a hand grinder, remove the material shown in the shaded portion of the illustration.



When you run an engine with this modification, install a 330 main jet (137-14143-66-00) and a P-6 needle jet (239-14141-45-00) with the clip in the third position.

TECHNICAL BULLETIN

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IT175J
1982 SERVICE DATA

MODEL - ENG I.D. NUMBER	IT175J 5X8
Initial Engine Number / Frame Number	5X8-000101 / 5X8-000101
Basic Color(s)	Blue
Fuel Type / Fuel Tank Capacity / Reserve Capacity	Premium / 11 Lit. / 1.5 Lit.
Dry Vehicle Weight	96 kg
ENGINE TYPE	2-Stroke, Reed Valve
Bore/Stroke/Number Cylinders/Displacement [cc]	56mm / 50mm / 1 / 171cc
Compression Ratio/Compression Pressure Min~Max	7.7:1 / #
Piston Skirt Clearance New / Max	0.050 ~ 0.085mm / 0.1mm
Ring End Gap Top / 2nd / 3rd	0.2 ~ 0.35mm / 0.2 ~ 0.35mm / #
Valve Clearance [Cold] Intake / Exhaust	# / #
Oil Pressure Hot / rpm	#
Oiling System	Premix 16:1 Using Yamalube 9*
Capacity: Dry	#
Oil and Filter Change	#
Oil Change	#
Lubricant: Temp. Above 5°C (40°F)	Yamalube 9*
Temp. Below 15°C (60°F)	Yamalube 9*
Cooling System / Capacity	Air / #
Coolant / Mixing Ratio	# / #
AUTOLUBE - Min Stroke / Color Code	#
Minimum Output @ 200 Cycles	#
Maximum Output @ 200 Cycles	#
CARBURETOR - Mfr. / Type / I.D. Number	Mikuni / VM30SS / 5X8-10
Main Jet / Pilot Jet	310 / 70
Needle Jet / Jet Needle-Clip Position	P-4 / 6F21-4
Slide Cutaway or Throttle Valve	2.0
Float Level / Fuel Level	23.5 ± 1.0mm / NA
Idle rpm	1500 rpm
Max CO* / Max HC* / Set CO	#
SUSPENSION	
Front Forks: Oil Type / Level / Qty	10 Wt. Fork Oil* / 169mm / 440cc
Gas Pressure	0 kg/cm²
Spring Length Std	533.5mm
Monoshock: Oil Type / Qty	Not Rebuildable
Gas Pressure	15 kg/cm²
Minimum Brake Lining Thickness	front: 2.0mm rear: 2.0mm
Tire Size (Nominal Pressure)	F-3.00-21 (Pressure Opt.) R-110/90-18 (Pressure Opt.)
TRANSMISSION - Oil Type/Qty Chg/Qty Reassemble	SAE 10W30 SE / 600cc / 700cc
Primary Drive Type / Teeth / Ratio	Helical Gear / 32-17 / 3.058
Secondary Drive Type / Teeth / Chain	Chain Drive / 44-12 / DK520SS-104L
Clutch Friction Plate Thickness Std ~ Min	3.0 ~ 2.7mm
Clutch Spring Length Std ~ Min	34mm ~ 33mm
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	Flywheel Magneto
Battery: Model / Specific Gravity / Charge Rate	#
Maximum Output	#
TROUBLESHOOTING	
Field Coil Color Code / Ω	#
Charge Coil Color Code / Ω	#
IGNITION SYSTEM	Capacitor-Discharge Ignition
Ignition Timing	2.4mm BTDC
Spark Plug Type	Champion N-86
Spark Plug Gap / Torque / Cap Ω	0.5 ~ 0.6mm / 3.5 m-kg / #
Point Gap / Condenser Capacitance	# / #
TROUBLESHOOTING	
Ignition Coil Test Gap / Primary Ω / Secondary Ω	6mm / 1.0 Ω ± 15% / 5.9K Ω ± 15%
Pulser Coil or Pickup Coil Color Code / Ω	Wht-Red ~ Blk / 12.4 Ω ± 10%
Source Coil Color Code / Ω	Brn ~ Blk / 420 Ω ± 10% Red ~ Blk / 13.6 Ω ± 10%
LIGHTING SYSTEM	
Headlight / Taillight / Signal Rating	6V25-25W / 6V8W / #
TROUBLESHOOTING	
Lighting Coil Color Code / Ω	Yel-Red ~ Blk / 0.48 Ω ± 10%
TORQUE VALUES	
Front Axle Nut	14 x 1.5: 6.0 m-kg
Front Axle Holder Nut	8 x 1.0: 1.0 m-kg
Rear Axle Nut	14 x 1.5: 8.5 m-kg
Rear Axle Pinch Bolt	#
Clutch Nut	14 x 1.0: 8.0 m-kg (With Lock Washer)
Drain Plug	14 x 1.25: 2.0 m-kg
Cylinder Head Cover	#
Cylinder Head:	Nut 8 x 1.25: 2.5 m-kg
	Stud 8 x 1.25: 2.4 m-kg
Engine Mounting Bolts: Engine Front	8 x 1.5: 3.0 m-kg
Engine Center	8 x 1.5: 3.0 m-kg

# = Does Not Apply To This Model
NA = Information Not Available

*Available From Yamaha Parts Distributors Inc.
•For Diagnostic Use Only

SERVICE LITERATURE

PUBLICATION	PART NUMBER	REMARKS
Owner's Service Manual Assembly Manual	LIT-11626-03-13 LIT-11666-03-13	Supp. to YZ / IT Basic Assembly Manual (03-31)

TECHNICAL BULLETIN

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IT175K
1983 SERVICE DATA

MODEL - ISM I.D. NUMBER	IT175K 5X8
Initial Engine Number / Frame Number	5X8-050101 / 5X8-050101
Fuel Type/Total Fuel Tank Capacity/Reserve Cap.	Premium / 11 Lit. / 1.5 Lit.

ENGINE TYPE	2 Stroke, Reed Valve
Bore/Stroke/Number Cylinders/Displacement	66mm / 50mm / 1 / 171cc
Compression Ratio/Compression Pressure Min~Max	7.7:1 / NA
Piston Skirt Clearance New / Max	0.050 ~ 0.068mm / 0.10mm
Ring End Gap Top / 2nd / 3rd	0.20 ~ 0.35mm / 0.20 ~ 0.35mm / #
Valve Clearance (Cold) Intake / Exhaust	#
Oiling System	Premix 16:1 using Yamalube 8*
Capacity: Dry	#
Oil and Filter Change	#
Oil Change Only	#
Lubricant: Temp. Above 5°C (40°F)	Yamalube 8*
Temp. Below 15°C (60°F)	Yamalube 8*
Cooling System / Capacity	Air / #
Coolant Type / Mixing Ratio	# / #

AUTOLUBE - Min Stroke / Color Code	#
Minimum Output @ 200 Cycles	#
Maximum Output @ 200 Cycles	#

CARBURETOR - Manufacturer / Type / I.D. Number	Mikuni / VM34SS / 5X8-10
Main Jet / Pilot Jet / Pilot Screw (Turns Out)	310 / 70 / 1
Needle Jet / Jet Needle-Clip Position	P-4 / 5F21-4
Slide Cutaway	2.0
Float Level / Fuel Level	23.5 ±1.0mm / #
Idle rpm	Rider's Preference
Max CO* / Max HC* / Set CO	#

SUSPENSION	
Front: Inner Tube Diameter	#
Oil Type / Level / Qty	10 Wt. Fork Oil* / 165mm / 440cc
Gas Pressure Min ~ Max / Standard	0 ~ 1.2 kg/cm² / 0 kg/cm²
Spring Length Std	533.5mm
Rear: Gas Pressure Min ~ Max / Standard	14.5 ~ 15.5 kg/cm² / 15 kg/cm²
Minimum Brake Lining Thickness: Front / Rear	2.0mm / 2.0mm
Tire Size (Nominal Pressure) Front / Rear	3.00-21 (Variable) / 110/90-18 (Variable)

TRANSMISSION - Oil Type / Qty Change / Qty Dry	SAE 10W30 SE or SF / 600cc / 700cc
Secondary Drive Type / Teeth / Chain	Chain / 44-13 / DID520DS104L
Middle Gear Case Capacity	#
Final Gear Case Capacity	#
Gear Case Lubricant	#

CHARGING SYSTEM	#
Battery: Model / Specific Gravity / Charge Rate	#
Maximum Output	#
Field Coil Color Code / Ω	#
Stator Coil Color Code / Ω	#
Charge Coil Color Code / Ω	#

IGNITION SYSTEM	Capacitor Discharge Ignition
Ignition Timing	2.4mm
Spark Plug Type	Champion N-66
Spark Plug Gap / Torque / Cap Ω	0.5 ~ 0.6mm / 2.5 m-kg / #
Point Gap / Condenser Capacitance	#
Ignition Coil Test Gap / Primary Ω / Secondary Ω	6mm / 1.0Ω ± 15% / 5.9kΩ ± 15%
Pulser Coil or Pickup Coil Color Code / Ω	Wht-Red ~ Blk / 12.4Ω ± 10%
Source Coil Color Code / Ω	Brn ~ Blk / 420Ω ± 10%, Red ~ Blk / 13.6Ω ± 10%

LIGHTING SYSTEM	
Headlight / Taillight / Signal Rating	6V25-25W / 6V5W / #
Lighting Coil Color Code / Ω	Yel-Red ~ Blk / 0.48Ω ± 10%

TORQUE VALUES	
Front Axle Nut	M14: 6.0 m-kg
Front Axle Holder Nut	M6: 1.0 m-kg
Rear Axle Nut	M14: 8.5 m-kg
Rear Axle Pinch Bolt	#
Clutch Nut	M14: 8.0 m-kg
Drain Plug	M14: 2.0 m-kg
Flywheel Nut	M12: 8.0 m-kg
Cylinder Head Cover	#
Cylinder Head	M8: 2.5 m-kg
Engine Mounting Bolts: Engine Front	M8: 3.0 m-kg
Engine Center	M8: 3.0 m-kg
Swingarm Pivot	M16: 8.5 m-kg

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SERVICE LITERATURE

PUBLICATION	PART NUMBER	REMARKS
Owner's/Service Manual Assembly Manual	LIT-11625-03-74 LIT-11666-03-74	Supp. to YZ / If Basic Assembly Manual (03-34)