









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**GEN  
INFO 1**



**SPEC 2**



**INSP  
ADJ 3**



**ENG 4**



**COOL 5**



**CARB 6**



**CHAS 7**



**ELEC 8**



**TRBL  
SHTG 9**

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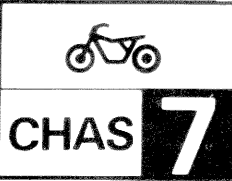
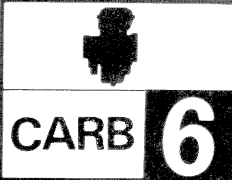
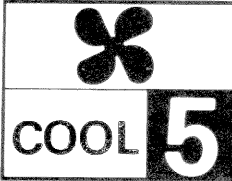
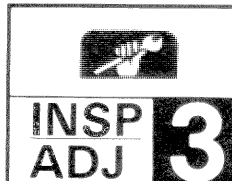
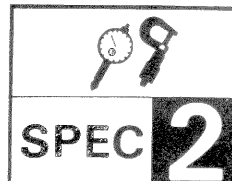
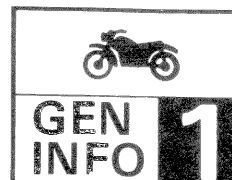
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**GEN  
INFO 1**



**SPEC 2**



**INSP  
ADJ 3**



**ENG 4**



**COOL 5**



**CARB 6**



**CHAS 7**



**ELEC 8**



**TRBL  
SHTG 9**

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**FZR600W/WC WIRING DIAGRAM**



**GEN INFO 1**



**SPEC 2**




**INSP ADJ 3**




**ENG 4**




**COOL 5**



**CARB 6**



**CHAS 7**



**ELEC 8**

**? TRBL SHTG 9**

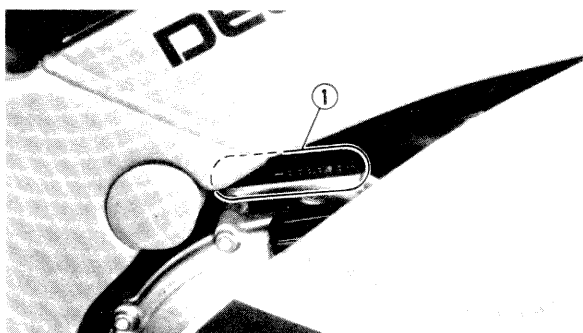


## GENERAL INFORMATION

### MOTORCYCLE IDENTIFICATION VEHICLE IDENTIFICATION NUMBER

The vehicle identification number ① is stamped into the right side of the steering head.

Starting Serial Number:  
FZR600W (Except for California):  
JYA3HHE0 \* KA000101  
FZR600WC (For California):  
JYA3HWC0 \* KA000101



### ENGINE SERIAL NUMBER

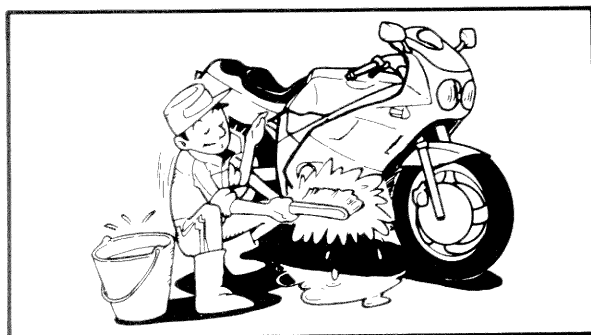
The engine serial number ① is stamped into the right side of the engine.

Starting Serial Number:  
FZR600W (Except for California):  
3HH-000101  
FZR600WC (For California):  
3HW-000101

#### NOTE:

- The first three digits of these numbers are for model identifications; the remaining digits are the unit production number.
- Designs and specifications are subject to change without notice.

1



**IMPORTANT INFORMATION**

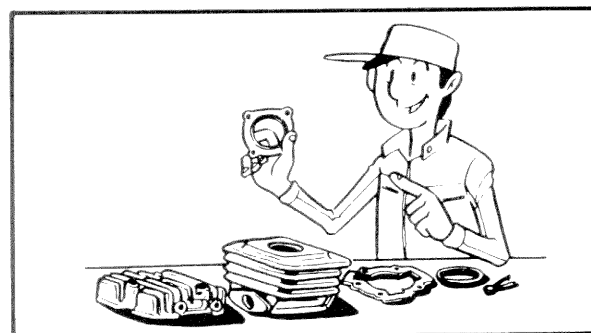
**PREPARATION FOR REMOVAL**

1. Remove all dirt, mud, dust, and foreign material before removal and disassembly.

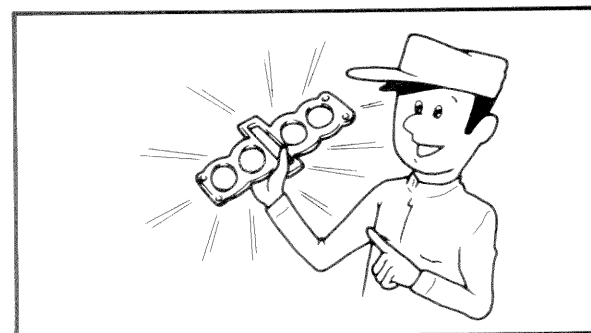


2. Use proper tools and cleaning equipment. Refer to "SPECIAL TOOL".

3. When disassembling the machine, keep mated parts together. This includes gears, cylinders, pistons, and other mated parts that have been "mated" through normal wear. Mated parts must be reused as an assembly or replaced.



4. During the machines disassembly, clean all parts and place them in trays in the order of disassembly. This will speed up assembly time and help assure that all parts are correctly reinstalled.



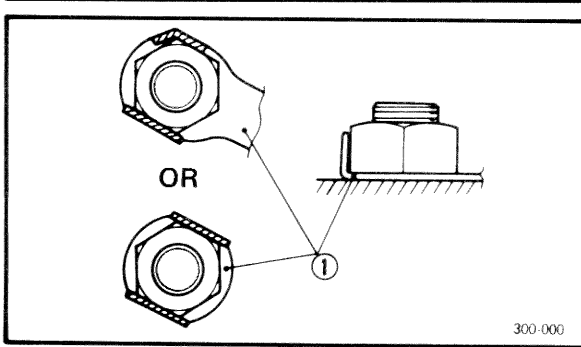
**ALL REPLACEMENT PARTS**

1. We recommended to use Yamaha genuine parts for all replacements. Use oil and/or grease recommended by Yamaha for assembly and adjustment. Other brands may be similar in function and appearance, but inferior in quality.

**GASKETS, OIL SEALS, AND O-RINGS**

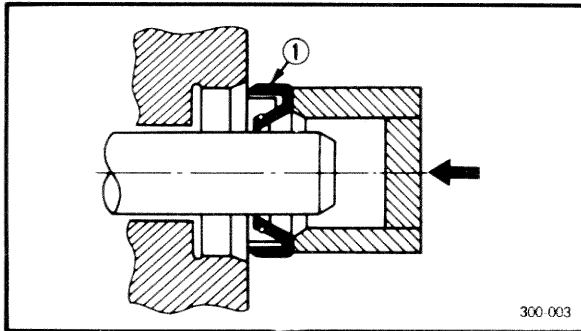
1. All gaskets, seals, and O-rings should be replaced when an engine is overhauled. All gasket surfaces, oil seal lips, and O-rings must be cleaned.

2. Properly oil all mating parts and bearings during reassembly. Apply grease to the oil seal lips.



**LOCK WASHERS/PLATES AND COTTER PINS**

1. All lock washers/plates ① and cotter pins must be replaced when they are removed. Lock tab(s) should be bent along the bolt or nut flat(s) after the bolt or nut has been properly tightened.



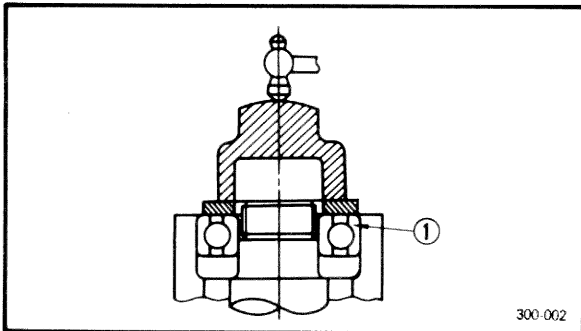
**BEARINGS AND OIL SEALS**

1. Install the bearing(s) and oil seal(s) with their manufacturer's marks or numbers facing outward. (In other words, the stamped letters must be on the side exposed to view.) When installing oil seal(s), apply a light coating of light-weight lithium base grease to the seal lip(s). Oil the bearings liberally when installing.

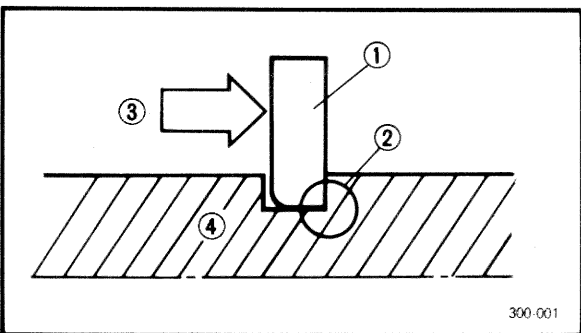
① Oil seal

**⚠ CAUTION:**

**Do not use compressed air to spin the bearings dry. This causes damage to the bearing surfaces.**



① Bearing



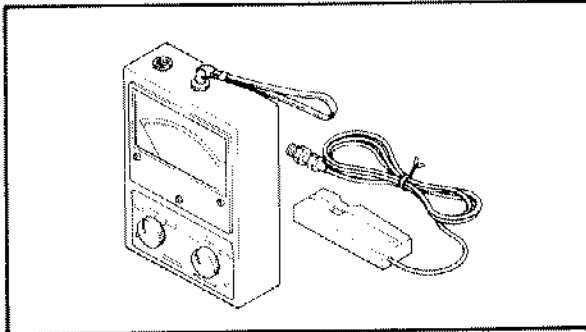
**CIRCLIPS**

1. All circlips should be inspected carefully before reassembly. Always replace piston pin clips after one use. Replace distorted circlips. When installing a circlip ①, make sure that the sharp edged corner ② is positioned opposite to the thrust ③ it receives. See the sectional view.

④ Shaft

**SPECIAL TOOLS**

The proper special tools are necessary for complete and accurate tune-up and assembly. Using the correct special tool will help prevent damage caused by the use of improper tools or improvised techniques.

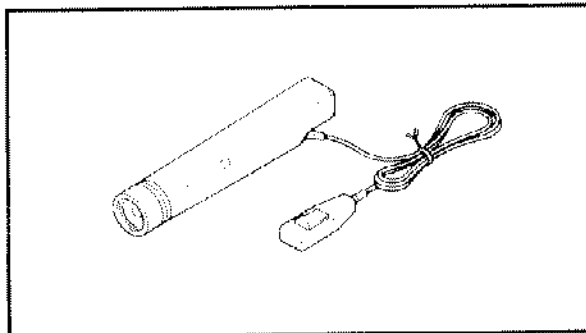
**FOR TUNE UP**

1. Inductive Tachometer

P/N YU-08036

90890-03113

This tool is needed for detecting engine rpm.

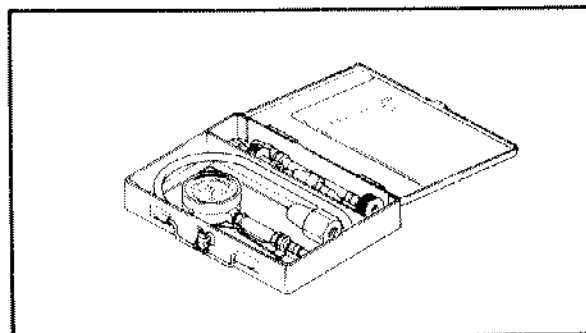


2. Inductive Timing Light

P/N YM-33277 - A

90890-03109

This tool is necessary for checking ignition timing.

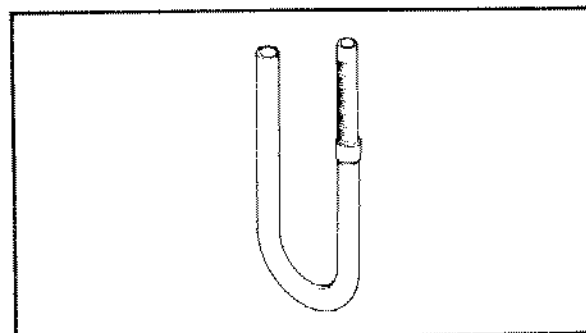


3. Compression Gauge

P/N YU-33223

90890-03081

This gauge is used to measure the engine compression.



4. Fuel Level Gauge

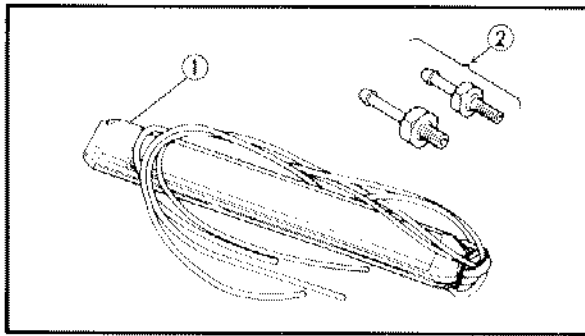
P/N YM-01312

90890-01312

This gauge is used to measure the fuel level in the float chamber.

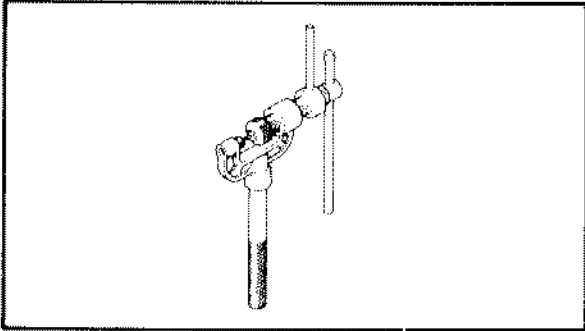
## SPECIAL TOOLS

GEN  
INFO



5. Vaccum Gauge ①  
Adapter ②  
P/N YU-08030 - A  
90890-03094  
P/N 90890-03060

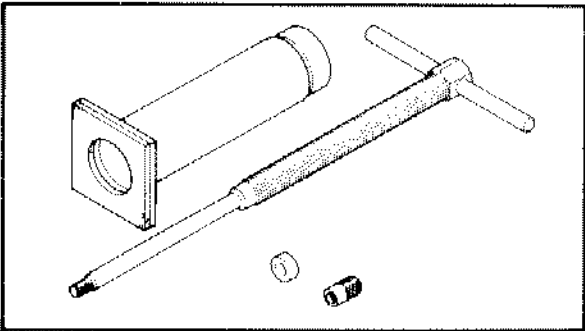
This gauge is needed for carburetor synchronization.



### FOR ENGINE SERVICE

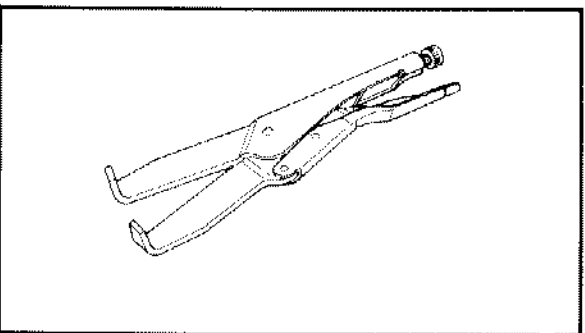
1. Cam Chain Cutter  
P/N YM-01112  
90890 01112

This tool is used when cutting the cam chain.



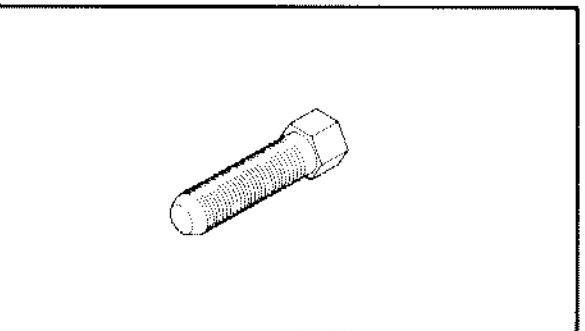
2. Piston Pin Puller  
P/N YU-01304  
90890 01304

This tool is used to loosen or tighten the cylinder head securing nut.



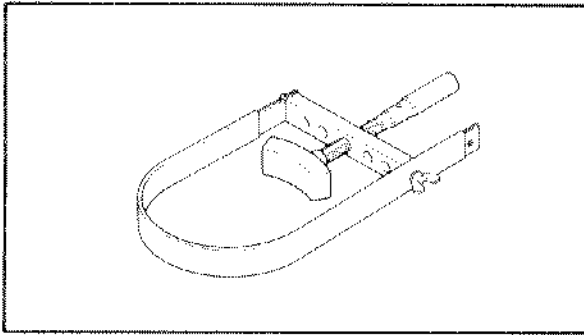
3. Universal Clutch Holder  
P/N YM-91042  
90890-04086

This tool is used to remove the piston pin.



4. Rotor Puller  
P/N YM-01080  
90890-01080

This tool is used to remove the rotor.

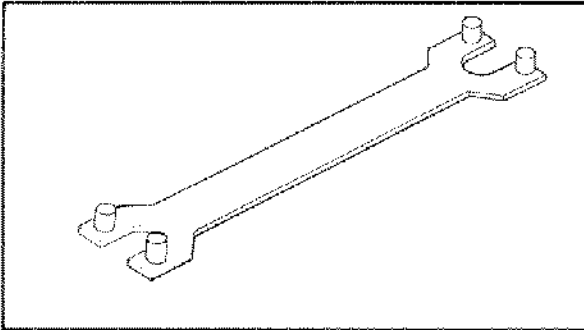


## 5. Universal Rotor Holder

P/N YS-01880

90890-01701

This tool is used to loosen and tighten the A.C. magneto.

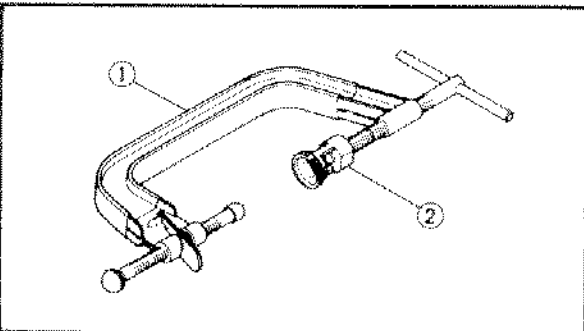


## 6. Camshaft Wrench

P/N YM-04115

90890-04115

This tool is used to turn the crankshaft.



## 7. Valve Spring Compressor ①

P/N YM-04019

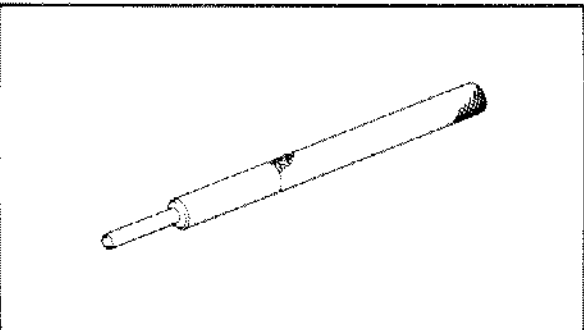
90890-04019

Attachment ②

P/N YM-04108

90890-04108

This tool is needed to remove and install the valve assemblies.

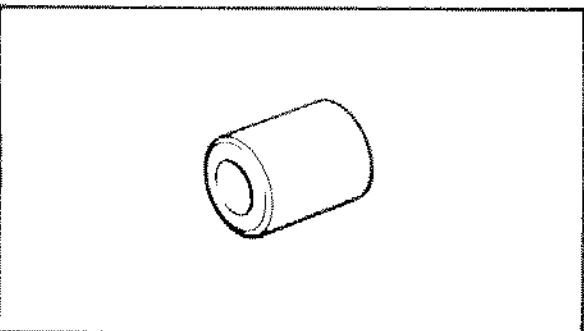


## 8. Valve Guide Remover (4.5 mm)

P/N YM-04116

90890-04116

This tool is used to remove the valve guides.

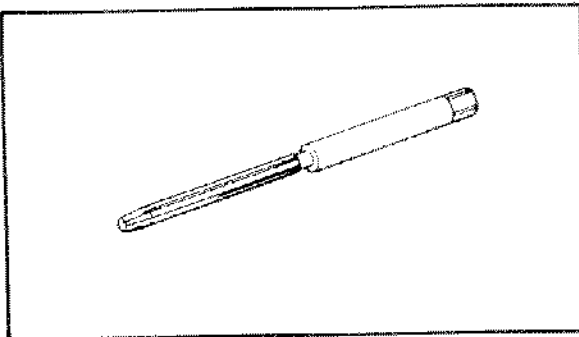


## 9. Valve Guide Installer

P/N YM-04117

90890-04117

This tool is needed to install the valve guides properly.

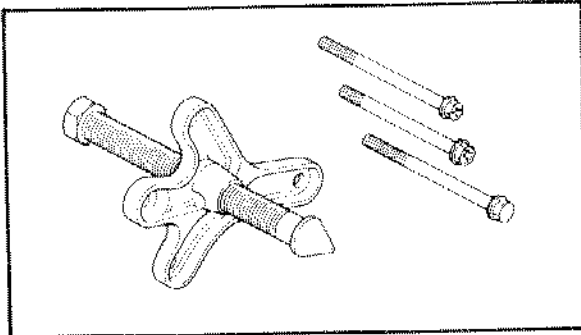


## 10. Valve Guide Reamer (4.5 mm)

P/N YM-04118

90890-04118

This tool is used to rebore the new valve guide.

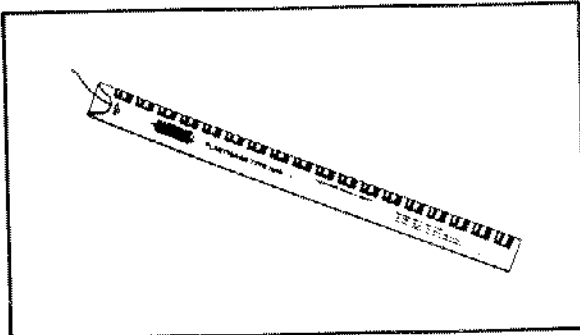


## 11. Flywheel Puller Set

P/N YU-33270

90890-01362

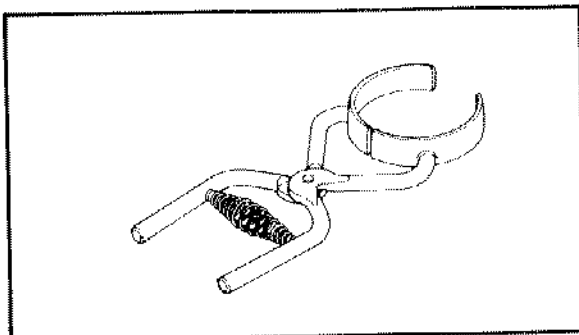
This tool is used to loosen or tighten the main axle bearing retainer bolt.



## 12. Plastigage® Set "Green"

P/N YU-33210

This gauge is needed to measure the clearance for the connecting rod bearing and the crank shaft bearing.

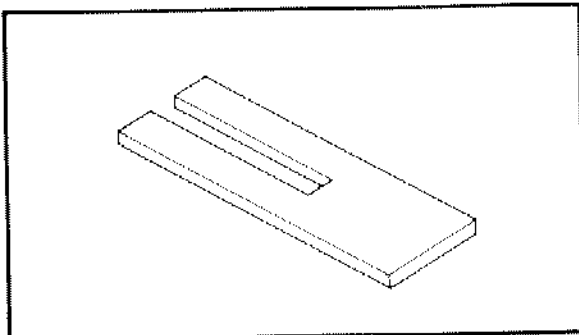


## 13. Piston Ring Compressor

P/N YM-8037

90890-04048

This tool is used to compress piston rings when installing the cylinder.



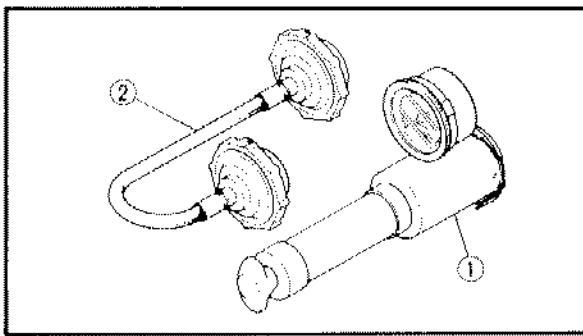
## 14. Piston Base

P/N YM-01067

90890-01067

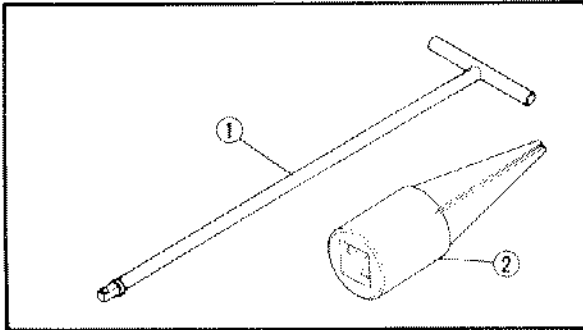
Use four pieces of these to hold the pistons during cylinder installation.





15. Radiator Cap Tester ①  
 P/N YU-24460-01  
 P/N 90890-01325  
 Adapter ②  
 P/N YU-33984  
 P/N 90890-01352

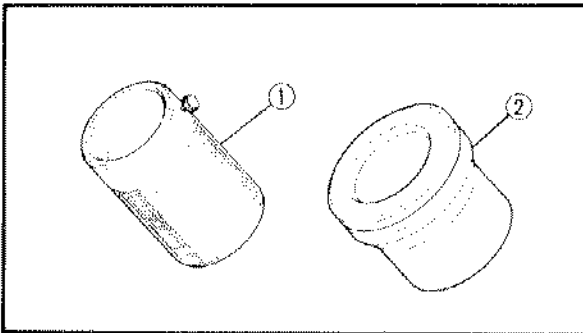
This tester is needed for checking the cooling system.



**FOR CHASSIS SERVICE**

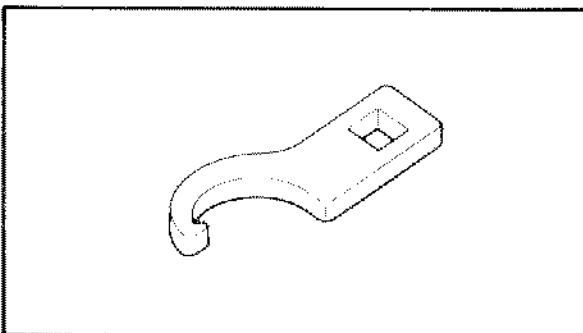
1. T Handle ①  
 P/N YM-01326  
 90890-01326  
 Fork Damper Rod Holder ②  
 P/N YM-01300-01  
 90890-01294

This tool is used to loosen and tighten the front fork damper rod holding bolt.



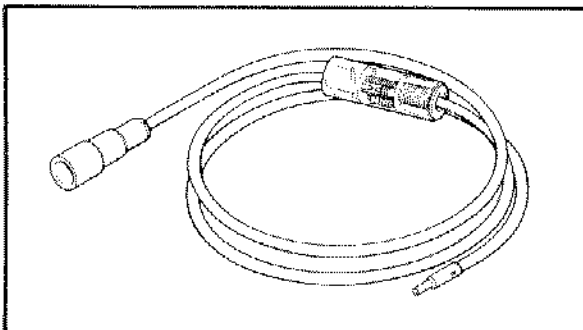
2. Front Fork Seal Driver (weight) ①  
 P/N YM-33963  
 90890-01367  
 Adapter (38 mm) ②  
 P/N YM-1372  
 90890-01372

These tools are used when installing the fork seat.



3. Ring Nut Wrench  
 P/N YU-33975  
 90890 01403

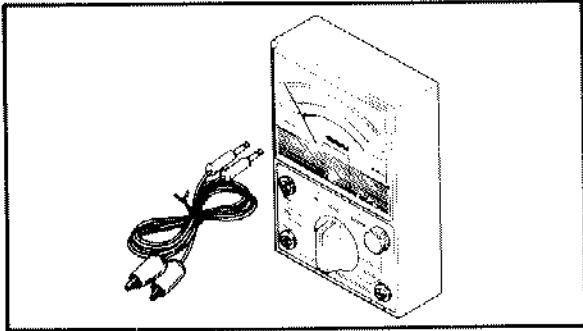
This tool is used to loosen and tighten the steering ring nut.



**FOR ELECTRICAL COMPONENTS**

1. Dynamic Coil Tester  
 P/N YM-34487  
 90890-03144

This instrument is necessary for checking the ignition system components.



- 2. Pocket Tester  
P/N YU 03112  
90890-03112

This instrument is invaluable for checking the electrical system.



## SPECIFICATIONS

## GENERAL SPECIFICATIONS

Model	FZR600W/WC	
	FZR600W	FZR600WC
Model Code Number	3HH1	3HW1
Vehicle Identification Number	JYA3HHE0 * KA000101	JYA3HWC0 * KA000101
Engine Starting Number	3HH-000101	3HW-000101
Dimensions:		
Overall Length	2,095 mm (82.5 in)	
Overall Width	700 mm (27.6 in)	
Overall Height	1,160 mm (45.7 in)	
Seat Height	785 mm (30.9 in)	
Wheelbase	1,420 mm (55.9 in)	
Minimum Ground Clearance	135 mm ( 5.3 in)	
Basic Weight:		
With Oil and Full Fuel Tank	199 kg (439 lb), 204 kg (450 lb) (FZR600WC)	
Minimum Turning Radius:	3,500 mm (138 in)	
Engine:		
Engine Type	Liquid cooled 4-stroke, gasoline, DOHC	
Cylinder Arrangement	4-cylinder parallel	
Displacement	599 cm <sup>3</sup>	
Bore x Stroke	59.0 x 54.8 mm (2.323 x 2.158 in)	
Compression Ratio	12 : 1	
Compression Pressure	1,200 kPa (12 kg/cm <sup>2</sup> , 171 psi)	
Starting System	Electric starter	
Lubrication System:	Wet sump	
Engine Oil Type or Grade:		
	YAMALUBE 4 (20W40) or SAE 20W40 type SE motor oil YAMALUBE 4 (10W30) or SAE 10W30 type SE motor oil	
Engine Oil Capacity:		
Engine Oil:	2.2 L (1.9 Imp qt, 2.4 US qt)	
Periodic Oil Change:	2.5 L (2.2 Imp qt, 2.7 US qt)	
With Oil Filter Replacement	3.0 L (2.6 Imp qt, 3.2 US qt)	
Total Amount		
Coolant Total Amount:		
(Including All Routes)	2.2 L (1.9 Imp qt, 2.3 US qt)	
Air Filter:	Dry type element	
Fuel:		
Type	UNLEADED FUEL RECOMMENDED	
Tank capacity	18 L (4.0 Imp gal, 4.8 US gal)	
Reserve Amount	3.4 L (0.75 Imp gal, 0.90 US gal)	

# GENERAL SPECIFICATIONS



Model	FZR600W/WC	
Carburetor: Type x Quantity Manufacturer	BDST32 x 4 MIKUNI	
Spark Plug: Type (Manufacture) Gap	CR9E (NGK), U27ESR-N (N.D.) 0.7 ~ 0.8 mm (0.028 ~ 0.032 in)	
Clutch Type:	Wet, multiple-disc	
Transmission: Primary Reduction System Primary Reduction Ratio Secondary Reduction System Secondary Reduction Ratio Transmission Type Operation Gear Ratio	Spur gear 82/48 (1.708) Chain drive 46/15 (3.267) Constant-mesh, 6-speed Left foot operation 1st 42/15 (2.800) 2nd 43/22 (1.955) 3rd 31/20 (1.550) 4th 28/21 (1.333) 5th 31/26 (1.192) 6th 30/27 (1.111)	
Chassis: Frame Type Caster Angle Trail	Double cradle 25° 94 mm (3.7 in)	
Tire: Type Size Manufacture (Type)	Front	Rear
	Tubeless 110/70V17-V240 Bridgestone (G549) Dunlop (K275F)	Tubeless 130/70V18-V240 Bridgestone (G550) Dunlop (K275)
Maximum Load*	159 kg (351 lb) 154 kg (340 lb) (FZR600WC)	
Tire Pressure (Cold tire): Up to 90 kg (198 lb) load*  90 kg (198 lb) ~ Maximum load*  High speed riding	Front	Rear
	250 kPa (2.5 kg/cm <sup>2</sup> , 36 psi)	250 kPa (2.5 kg/cm <sup>2</sup> , 36 psi)
	250 kPa (2.5 kg/cm <sup>2</sup> , 36 psi)	290 kPa (2.9 kg/cm <sup>2</sup> , 42 psi)
	250 kPa (2.5 kg/cm <sup>2</sup> , 36 psi)	290 kPa (2.9 kg/cm <sup>2</sup> , 42 psi)
* Load is total weight of cargo, rider, passenger, and accessories.		
Brake: Front Brake Type Operation Rear Brake Type Operation	Dual disc brake Right hand operation Single disc brake Right foot operation	
Suspension: Front Suspension Rear Suspension	Telescopic fork Swingarm (Link suspension)	

GENERAL SPECIFICATIONS

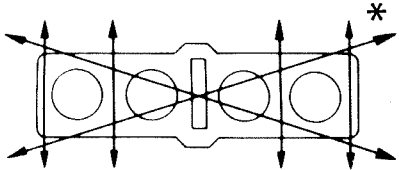
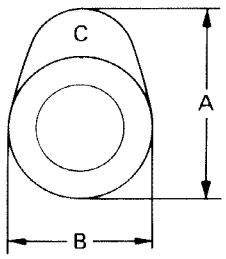
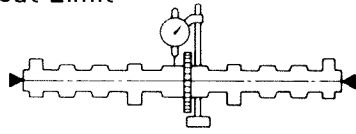
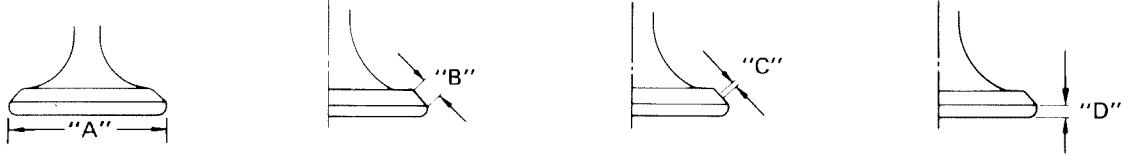


Model	FZR600W/WC
Shock Absorber: Front Shock Absorber Rear Shock Absorber	Coil-air spring, oil damper Coil-gas spring, gas-oil damper
Wheel Travel: Front Wheel Travel Rear Wheel Travel	130 mm (5.12 in) 115 mm (4.53 in)
Electrical: Ignition System Generator System Battery Type or Model Battery Capacity	T.C.I. (Digital ignition) A.C. generator GM12AZ 12V12AH
Headlight type:	Quartz bulb
Bulb Wattage x Quantity: Headlight Tail/Brake Light Flasher Light Meter Light	12V 35W/35W x 2 12V 8W/27W x 2 12V 27W x 4 12V 1.7W x 5
Indicator Light: Wattage x Quantity "NEUTRAL" "NIGH BEAM" "TURN" "OIL LEVEL"	12V 3.4W x 1 12V 3.4W x 1 12V 3.4W x 1 12V 3.4W x 1



MAINTENANCE SPECIFICATIONS

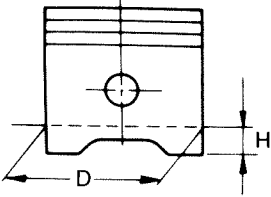
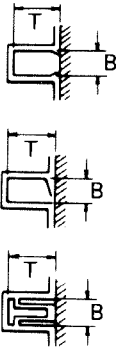
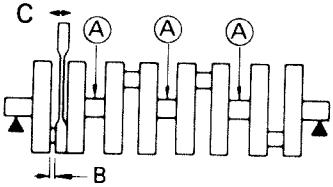
ENGINE

Model	FZR600W/WC
<p>Cylinder Head: Warp Limit*</p> 	<p>0.05 mm (0.002 in) *Lines indicate straightedge measurement</p>
<p>Cylinder: Bore Size Taper Limit Out of Round Limit</p>	<p>59.00 ~ 59.01 mm (2.3228 ~ 2.3232 in) 0.09 mm (0.004 in) 0.07 mm (0.003 in)</p>
<p>Camshaft: Drive Method Cam Cap Inside Dia.</p> <p>Camshaft Outside Dia. Shaft-to-Cap Clearance &lt; Limit &gt;</p> <p>Cam Dimensions: Intake</p>  <p>Exhaust</p> <p>Camshaft Runout Limit</p> 	<p>Chain drive (Center) 23.000 ~ 23.021 mm (0.9055 ~ 0.9063 in)</p> <p>22.967 ~ 22.980 mm (0.9042 ~ 0.9047 in) 0.020 ~ 0.054 mm (0.0008 ~ 0.0021 in) 0.08 mm (0.0031 in)</p> <p>Intake "A" &lt; Limit &gt; 32.75 ~ 32.85 mm (1.2894 ~ 1.2933 in) "B" &lt; Limit &gt; 32.7 mm (1.2799 in) 24.998 ~ 25.098 mm (0.9842 ~ 0.9881 in) 24.95 mm (0.982 in)</p> <p>Exhaust "A" &lt; Limit &gt; 32.55 ~ 32.65 mm (1.2815 ~ 1.2854 in) "B" &lt; Limit &gt; 32.5 mm (1.280 in) 24.998 ~ 25.098 mm (0.9842 ~ 0.9881 in) 24.95 mm (0.982 in)</p> <p>0.06 mm (0.0024 in)</p>
<p>Cam Chain: Cam Chain Type/No. of Links Cam Chain Adjustment Method</p> <p>Valve, Valve Seat, Valve Guide: Valve Clearance (Cold):</p> <p>Valve Dimensions:</p> 	<p>DID215F/118 Links Automatic</p> <p>IN. 0.11 ~ 0.20 mm (0.004 ~ 0.008 in) EX. 0.21 ~ 0.30 mm (0.008 ~ 0.012 in)</p>

MAINTENANCE SPECIFICATIONS



Model		FZR600W/WC
"A" Head Dia.	IN.	23.9 ~ 24.1 mm (0.941 ~ 0.949 in)
	EX.	20.9 ~ 21.1 mm (0.823 ~ 0.831 in)
"B" Face Width	IN.	1.56 ~ 2.40 mm (0.061 ~ 0.095 in)
	EX.	1.56 ~ 2.40 mm (0.061 ~ 0.095 in)
"C" Seat Width	IN.	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)
	EX.	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)
< Limit >	IN.	1.6 mm (0.063 in)
	EX.	1.6 mm (0.063 in)
"D" Margin Thickness	IN.	0.6 ~ 0.8 mm (0.0236 ~ 0.0315 in)
	EX.	0.6 ~ 0.8 mm (0.0236 ~ 0.0315 in)
< Limit >	IN.	0.5 mm (0.020 in)
	EX.	0.5 mm (0.020 in)
Stem Outside Diameter	IN.	4.475 ~ 4.490 mm (0.1762 ~ 0.1768 in)
	EX.	4.460 ~ 4.475 mm (0.1756 ~ 0.1762 in)
< Limit >	IN.	4.45 mm (0.1752 in)
	EX.	4.435 mm (0.1746 in)
Guide Inside Diameter	IN.	4.500 ~ 4.512 mm (0.1772 ~ 0.1776 in)
	EX.	4.500 ~ 4.512 mm (0.1772 ~ 0.1776 in)
< Limit >	IN.	4.542 mm (0.179 in)
	EX.	4.542 mm (0.179 in)
Stem-to-Guide Clearance	IN.	0.010 ~ 0.037 mm (0.0004 ~ 0.0015 in)
	EX.	0.025 ~ 0.052 mm (0.001 ~ 0.002 in)
< Limit >	IN.	0.08 mm (0.0031 in)
	EX.	0.1 mm (0.0039 in)
Stem Runout Limit		0.04 mm (0.002 in)
Valve Seat Width	IN.	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)
	EX.	0.9 ~ 1.1 mm (0.0354 ~ 0.0433 in)
< Limit >	IN.	1.6 mm (0.063 in)
	EX.	1.6 mm (0.063 in)
<b>Valve Spring:</b>		
Free Length	IN.	43.15 mm (1.70 in)
	EX.	43.15 mm (1.70 in)
Installed Length (Valve Closed)	IN.	37.5 mm (1.48 in)
	EX.	37.5 mm (1.48 in)
Compressed Pressure (Valve closed)	IN.	11.6 ~ 13.4 kg (25.9 ~ 29.6 lb)
	EX.	11.6 ~ 13.4 kg (25.9 ~ 29.6 lb)
< Limit >	IN.	10.4 kg (22.1 lb)
	EX.	10.4 kg (22.1 lb)
Tilt Limit	IN.	2.5°/1.8 mm (0.0709 in)
	EX.	2.5°/1.8 mm (0.0709 in)
Direction of Winding (Top view)	IN.	
	EX.	

Model	FZR600W/WC
<p>Piston: Piston Size "D" Measuring Point "H"</p>  <p>Piston-to-Cylinder Clearance &lt; Limit &gt; Oversize:      2nd                      4th</p>	<p>58.940 ~ 58.955 mm (2.321 ~ 2.322 in) 5 mm (0.197 in) (From bottom line of piston skirt)</p> <p>0.045 ~ 0.070 mm (0.0018 ~ 0.0028 in) &lt; 0.15 mm (0.006 in) &gt; 59.5 mm (2.343 in) 60.0 mm (2.362 in)</p>
<p>Piston Ring: Sectional Sketch</p>  <p>End Gap (Installed): Side Clearance:</p>	<p>Top Ring Barrel B = 0.8 mm (0.0315 in) T = 2.1 mm (0.0827 in)</p> <p>2nd Ring Taper B = 0.8 mm (0.0315 in) T = 2.1 mm (0.0827 in)</p> <p>Oil Ring Expander B = 1.5 mm (0.0591 in) T = 2.2 mm (0.0866 in)</p> <p>Top Ring      0.15 ~ 0.30 mm (0.0059 ~ 0.0118 in) 2nd Ring      0.15 ~ 0.30 mm (0.0059 ~ 0.0118 in) Oil Ring      0.2 ~ 0.6 mm (0.0079 ~ 0.0236 in)</p> <p>Top Ring      0.03 ~ 0.07 mm (0.0012 ~ 0.0028 in) &lt; Limit &gt;    0.10 mm (0.004 in) 2nd Ring      0.02 ~ 0.06 mm (0.0008 ~ 0.0024 in) &lt; Limit &gt;    0.10 mm (0.004 in) Oil Ring      -</p>
<p>Connecting Rod: Connecting Rod Oil Clearance Bearing Size No. Color Code</p>	<p>0.043 ~ 0.066 mm (0.0017 ~ 0.0026 in) 1. Blue   2. Black   3. Brown   4. Green</p>
<p>Crankshaft:</p>  <p>Runout Limit "A" Big End Side Clearance "B" Small End Free Play "C"</p>	<p>0.03 mm (0.0012 in) 0.160 ~ 0.262 mm (0.0063 ~ 0.0103 in) 0.32 ~ 0.50 mm (0.0126 ~ 0.0197 in)</p>



# MAINTENANCE SPECIFICATIONS

## SPEC



Model	FZR600W/WC	
Main Journal Oil Clearance Bearing Size No. Color Code	0.025 ~ 0.043 mm (0.0010 ~ 0.0017 in) 1. Blue 2. Black 3. Brown 4. Green 5. Yellow	
Clutch: Friction Plate Thickness x Quantity Wear Limit Clutch Plate Thickness x Quantity Warp Limit Clutch Spring Free Length x Quantity Clutch Spring Minimum Length Clutch Housing Thrust Clearance Clutch Release Method Push Rod Bending Limit	2.9 ~ 3.1 mm (0.114 ~ 0.122 in) x 9 2.8 mm (0.11 in) 1.8 ~ 2.2 mm (0.072 ~ 0.085 in) x 8 0.1 mm (0.04 in) 33.5 mm (1.32 in) x 5 32.6 mm (1.28 in) 0.05 ~ 0.13 mm (0.002 ~ 0.005 in) Inner push, screw push 0.5 mm (0.020 in)	
Transmission: Main Axle Deflection Limit Drive Axle Deflection Limit	0.08 mm (0.0031 in) 0.08 mm (0.0031 in)	
Shifter: Shifter Type	Cam Drum	
Carburetor:	FZR600W	FZR600WC
Type/Manufacture x Quantity	BDST32/MIKUNI x 4	←
I.D. Mark	3HH-00	3HW00
Main Jet (M.J.)	#107.5	←
Main Air Jet (M.A.J.)	#65	←
Jet Needle-Clip Position (J.N.)	5CFZ4-2	5CFZ7-1
Needle Jet (N.J.)	Y-0	←
Pilot Jet (P.J.)	#32.5	←
Pilot Outlet Size (P.O.)	0.8	←
Pilot Air Jet (P.A.J.)	#132.5	←
Pilot Screw (P.S.)	3.0	←
Valve Seat Size (V.S.)	1.2	←
Starter Jet (G.S <sub>1</sub> )	#52.5	#50
(G.S <sub>2</sub> )	0.6	0.5
Bypass 1 (B.P. 1)	0.8	←
Bypass 2 (B.P. 2)	0.8	←
Throttle Valve Size (Th. V)	#130	←
Fuel Level (F.L.)	3.8 ~ 4.8 mm (0.15 ~ 0.19 in) From the float chamber line	
Lubrication System: Oil Filter Type Oil Pump Type Tip Clearance < Limit > Side Clearance < Limit > Bypass Valve Setting Pressure  Relief Valve Operating Pressure	Paper Trochoid pump 0.03 ~ 0.09 mm (0.0012 ~ 0.0035 in) < 0.15 mm (0.006 in) > 0.03 ~ 0.08 mm (0.0012 ~ 0.0031 in) < 0.15 mm (0.006 in) > 80 ~ 120 kPa (0.8 ~ 1.2 kg/cm <sup>2</sup> , 11.38 ~ 17.06 psi) 450 ~ 550 kPa (4.5 ~ 5.5 kg/cm <sup>2</sup> , 63.99 ~ 78.21 psi)	



Model	FZR600W/WC
<p>Cooling System:</p> <p>Radiator Core Size    Width                                  Height                                  Thickness</p> <p>Radiator Cap Opening Pressure</p> <p>Reservoir Tank Capacity &lt; To Full level &gt;</p> <p>Water Pump   Type   Reduction Ratio</p>	<p>350 mm (13.8 in) 185 mm (7.3 in) 32 mm (1.26 in) 95 ~ 125 kPa (0.95 ~ 1.25 kg/cm<sup>2</sup>, 13.5 ~ 17.8 psi)</p> <p>0.28 L (0.25 Imp qt, 0.30 US qt)</p> <p>Single-suction centrifugal pump 89/41 x 48/49 (2.126)</p>

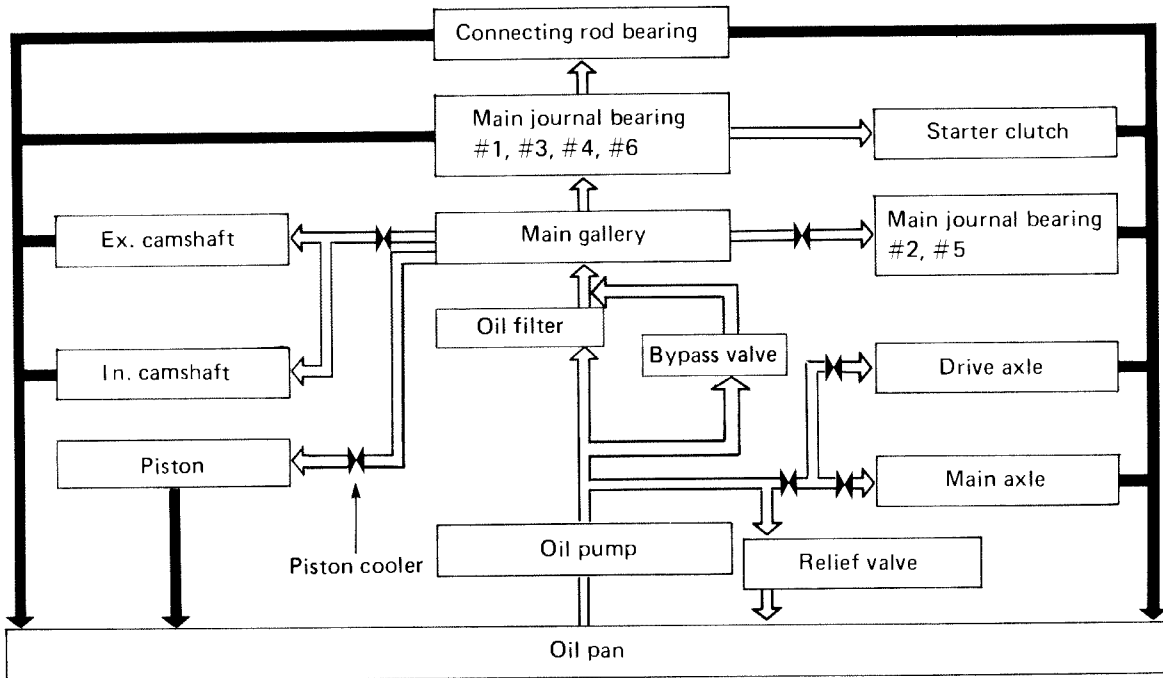


Model

FZR600W/WC

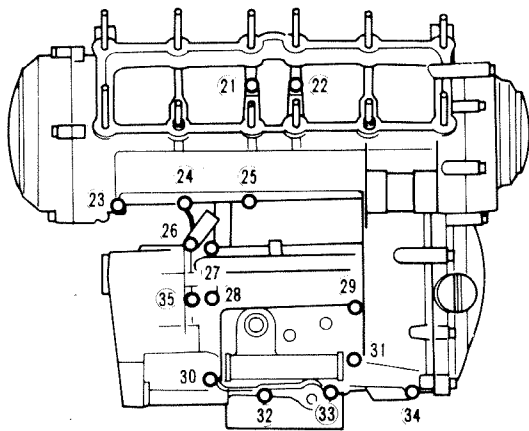
Lubrication chart:

- ⇨ Pressured feed
- ➔ Splashed
- ⋈ Nozzle

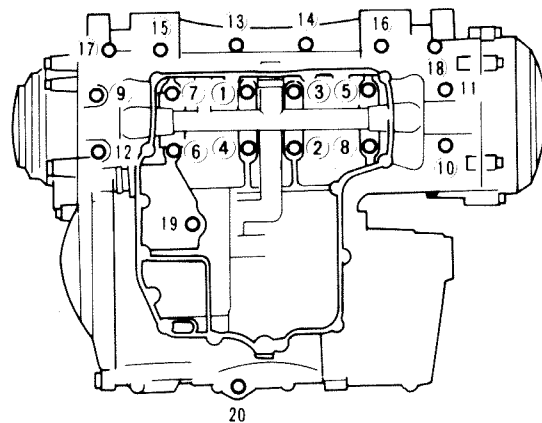


Crankcase Tightening Sequence:

Crankcase (Upper)



Crankcase (Lower)



- ① ~ ⑫ , ③①      8 mm Bolt: 24 Nm (2.4 m·kg, 17 ft·lb)
- ⑬ ~ ⑲ , ③② ~ ③⑤    6 mm Bolt: 12 Nm (1.2 m·kg, 8.7 ft·lb)



**Tightening torque**

Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m · kg	ft · lb	
Camshaft Cap	Bolt	M6	24	10	1.0	7.2	
Stud Bolt (Cylinder head)	—	M6	8	10	1.0	7.2	
Cylinder Head	Nut	M8	12	25	2.5	18	
Spark Plug	—	M10	4	13	1.3	9.4	
Cylinder Head Cover	Bolt	M6	8	10	1.0	7.2	
Blind Plug (Sand)	Screw	M12	6	37	3.7	27	
Blind Plug (Water)	Screw	M6	3	7	0.7	5.1	
Connecting Rod	Nut	M7	8	23	2.3	17	
Timing Chain Sprocket	Bolt	M7	4	24	2.4	17	
Timing Chain Tensioner	Bolt	M6	2	10	1.0	7.2	
Timing Chain Guide (Intake)	Bolt	M6	2	10	1.0	7.2	
Timing Chain Tensioner End	Bolt	M6	1	10	1.0	7.2	
Pipe Stopper	Bolt	M6	6	10	1.0	7.2	
Thermostat Housing Assembly	Bolt	M6	1	7	0.7	5.1	
Thermostat Housing Cover	Bolt	M6	2	10	1.0	7.2	
Radiator	Bolt	M6	2	10	1.0	7.2	
Water Pipe Joint	Bolt	M6	4	10	1.0	7.2	
Water Pump	Bolt	M6	2	10	1.0	7.2	
Water Pump Cover	Bolt	M6	2	10	1.0	7.2	
Radiator Cover	Screw	M5	4	7	0.7	5.1	
Oil Pump Housing	Screw	M6	1	7	0.7	5.1	
Oil Pump Mount	Bolt	M6	3	10	1.0	7.2	
Drain Plug	Bolt	M14	1	43	4.3	31	
Oil Delivery Pipe	Bolt	M10	2	20	2.0	14	
Carburetor Joint	Bolt	M6	8	10	1.0	7.2	
Exhaust Pipe	Nut	M6	8	10	1.0	7.2	
Muffler Bracket	Bolt	M8	1	20	2.0	14	
Exhaust Pipe Blind Plug (CO test)	Bolt	M6	4	10	1.0	7.2	
Exhaust Pipe Joint	Bolt	M8	2	20	2.0	14	
Crankcase	Bolt	M8	12	24	2.4	17	
Stud Bolt (Crankcase)	—	M8	13	12	1.2	9.4	
Crankcase	Bolt	M6	21	12	1.2	8.7	
Oil Baffle Plate	Screw	M6	4	7	0.7	5.1	
Crankcase Cover (Left)	Bolt	M6	5	10	1.0	7.2	
Crankcase Cover (Right)	Bolt	M6	10	10	1.0	7.2	
Bearing Plate	Bolt	M6	2	10	1.0	7.2	
Generator Cover	Bolt	M6	5	10	1.0	7.2	
Starter Clutch Cover	Bolt	M6	7	10	1.0	7.2	
Starter Clutch	Bolt	M10	1	80	8.0	58	
Starter Clutch Outer and Starter Wheel	Bolt	M8	3	30	3.0	22	
Pressure Plate	Bolt	M5	5	6	0.6	4.3	
Clutch Boss	Nut	M18	1	70	7.0	51	Use lock washer
Push Lever	Screw	M5	2	5	0.5	3.6	
Push Rod	Nut	M6	1	16	1.6	11	
Drive Sprocket	Nut	M18	1	70	7.0	51	Use lock washer
Stopper Plate	Bolt	M6	1	10	1.0	7.2	
Stopper Lever	Bolt	M6	1	10	1.0	7.2	

# MAINTENANCE SPECIFICATIONS


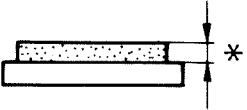


Part to be tightened	Part name	Thread size	Q'ty	Tightening torque			Remarks
				Nm	m · kg	ft · lb	
A.C. Magneto	Bolt	M10	1	80	8.0	58	
Starter Coil	Bolt	M6	3	10	1.0	7.2	
Pickup Coil	Screw	M5	2	5	0.5	3.6	
Starter Motor	Bolt	M6	2	10	1.0	7.2	
Neutral Switch	Screw	M6	2	4	0.4	2.9	
Oil Level Switch	Bolt	M6	2	7	0.7	5.1	
Ignition Coil	Nut	M6	2	7	0.7	5.1	



**CHASSIS**

Model	FZR600W/WC							
Steering System: Steering Bearing Type	Taper Roller Bearing							
Front Suspension:								
Front Fork Travel	130 mm (5.12 in)							
Front Spring Free Length	415 mm (16.3 in)							
< Limit >	410 mm (16.1 in)							
Collar Length	160 mm (6.3 in)							
Spring Rate:	K1	4.4 N/mm (0.45 kg/mm, 25.2 lb/in)						
	K2	7.9 N/mm (0.8 kg/mm, 44.8 lb/in)						
Stroke	K1	0.0 ~ 90 mm (0.0 ~ 3.54 in)						
	K2	90 ~ 130 mm (3.54 ~ 5.12 in)						
Optional Spring	No							
Oil Capacity	435 cm <sup>3</sup> (15.3 Imp oz, 15.3 US oz)							
Oil Level (Fully Compression)	101 mm (3.98 in) Bellow the top of inner fork tube without fork spring							
Oil Grade	Fork Oil 10W or equivalent							
Rear Suspension:								
Shock Absorber Travel	43 mm (1.69 in)							
Spring Free Length	180.5 mm (7.11 in)							
< Limit >	170.5 mm (6.71 in)							
Fitting Length	170 mm (6.69 in)							
Spring Rate	K1	130 N/mm (13 kg/mm, 728 lb/in)						
Stroke	K1	0 ~ 43 mm (0.0 ~ 1.69 in)						
Optional Spring	No							
		Hard				STD	Soft	
Adjusting position	7	6	5	4	3	2	1	
Swingarm:								
Free Play Limit	End Side	1.0 mm (0.04 in)						
	Side	1.0 mm (0.04 in)						
Front Wheel:								
Type	Cast Wheel							
Rim Size	MT3.00 x 17							
Rim Material	Aluminum							
Rim Runout Limit	Radial	2.0 mm (0.08 in)						
	Lateral	2.0 mm (0.08 in)						
Rear Wheel:								
Type	Cast wheel							
Rim Size	MT3.50 x 18							
Rim Material	Aluminum							
Rim Runout Limit	Radial	2.0 mm (0.08 in)						
	Lateral	2.0 mm (0.08 in)						
Drive Chain:								
Type/Manufacturer	50VA6/DAIDO							
No. of Links	106							
Chain Free Play	20 ~ 30 mm (0.8 ~ 1.2 in)							

Model	FZR600W/WC
<p><b>Front Disc Brake:</b></p> <p>Type                      Disc Outside Diameter x Thickness                      &lt; Disc Wear Limit &gt;                      Pad Thickness                      Inner                         &lt; Limit &gt; *                      Pad Thickness                      Outer                         &lt; Limit &gt; *</p>  <p>Master Cylinder Inside Diameter                      Caliper Cylinder Inside Diameter:                      Brake Fluid Type</p>	<p>Dual                      298 x 4 mm (11.7 x 0.16 in)                      3.5 mm (0.14 in)                      4.5 mm (0.18 in)                      0.5 mm (0.02 in)                      4.5 mm (0.18 in)                      0.5 mm (0.02 in)</p> <p>15.87 mm (0.62 in)                      45.4 mm (1.79 in)                      DOT # 4</p>
<p><b>Rear Disc Brake:</b></p> <p>Type                      Disc Outside Diameter x Thickness                      &lt; Disc Wear Limit &gt;                      Pad Thickness                      Inner                         &lt; Limit &gt; *                      Pad Thickness                      Outer                         &lt; Limit &gt; *</p>  <p>Master Cylinder Inside Diameter                      Caliper Cylinder Inside Diameter                      Brake Fluid Type</p>	<p>Single                      245 x 5 mm (9.65 x 0.20 in)                      4.5 mm (0.18 in)                      5.5 mm (0.22 in)                      0.5 mm (0.02 in)                      5.5 mm (0.22 in)                      0.5 mm (0.02 in)</p> <p>14.0 mm (0.55 in)                      42.85 mm (1.69 in)                      DOT # 4                      If DOT # 4 is not available, # 3 can be used.</p>
<p><b>Clutch Lever:</b>                      Clutch Lever Free Play</p>	<p>2 ~ 3 mm (0.08 ~ 0.12 in)</p>
<p><b>Brake Lever and Brake Pedal:</b>                      Brake Lever Free Play                      Brake Pedal Position</p>	<p>2 ~ 5 mm (0.08 ~ 0.20 in)                      44 mm (1.73 in)                      Bellow the top of the footrest.</p>



Parts to be tightened	Thread size	Tightening torque		
		Nm	m · kg	ft · lb
Front Axle and Outer Tube	M14 x 1.5	58	5.8	42
Front Wheel Axle Holder	M8 x 1.25	20	2.0	14
Rear Axle and Nut	M16 x 1.5	107	10.7	77
Handlebar Crown and Inner Tube	M8 x 1.25	26	2.6	19
Handlebar Crown and Steering Stem	M22 x 1.0	110	11.0	80
Steering ring nut (Upper and lower)	—	See "NOTE"		
Brake Caliper (Front/Rear)	M10 x 1.25	35	3.5	25
Bleed Screw and Brake Caliper	M8 x 1.25	6	0.6	4.3
Brake Hose and Union Bolt	M10 x 1.25	26	2.6	19
Front Master Cylinder and Master Cylinder Holder	M6 x 1.0	9	0.9	6.5
Front Master Cylinder and Cylinder Cap	M5 x 0.8	2	0.2	1.4
Front Fender and Outer Tube	M6 x 1.0	6	0.6	4.3
Handlebar Boss and Front Fork	M8 x 1.25	13	1.3	9.5
Handlebar and Handlebar Boss	M8 x 1.25	23	2.3	17
Engine Mounting: Front	M10 x 1.25	55	5.5	40
Rear — Upper	M10 x 1.25	60	6.0	43
Rear — Lower	M10 x 1.25	55	5.5	40
Down Tube and Frame: Front	M10 x 1.25	60	6.0	43
Rear	M8 x 1.25	33	3.3	24
Footrest Bracket and Frame	M8 x 1.25	28	2.8	20
Pivot Axle and Nut	M14 x 1.5	90	9.0	65
Relay Arm and Frame	M10 x 1.25	40	4.0	29
Connecting Rod and Swingarm	M10 x 1.25	40	4.0	29
Connecting Rod and Relay Arm	M10 x 1.25	40	4.0	29
Swingarm and Frame	M10 x 1.25	40	4.0	29
Rear Shock Absorber	M10 x 1.25	40	4.0	29
Footrest and Footrest Bracket	M10 x 1.25	57	5.7	41
Rear Footrest Bracket and Frame	M8 x 1.25	20	2.0	14
Rear Master Cylinder and Rear Arm Bracket	M8 x 1.25	20	2.0	14
Cowling and Stay	M6 x 1.0	4	0.4	2.9
Compression Bar and Brake Caliper Bracket	M8 x 1.25	23	2.3	17
Front Fork Pinch Bolt	M8 x 1.25	20	2.0	14
Sprocket and Clutch Hub	M8 x 1.25	60	6.0	43
Brake Disc and Clutch Hub	M8 x 1.25	20	2.0	14
Inner Tube and Steering Stem	M8 x 1.25	22	2.2	16
Frame and Rear Frame: Upper	M10 x 1.25	64	6.4	46
Lower	M12 x 1.25	88	8.8	64

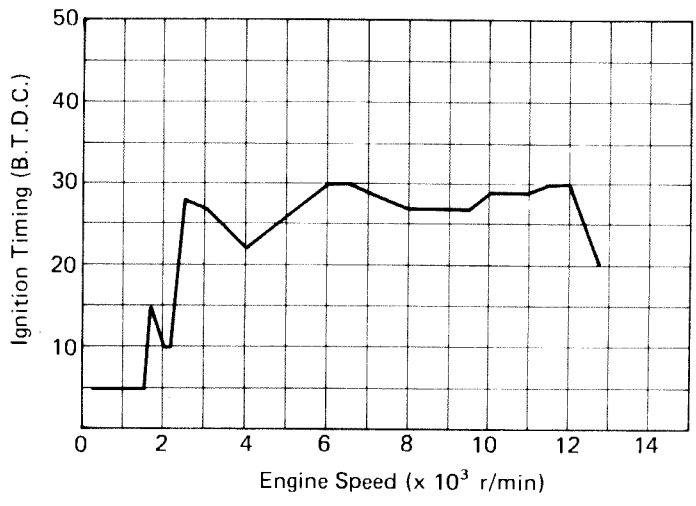
**NOTE:**

1. First, tighten the ring nut (lower) approximately 52 Nm (5.2 m · kg, 37 ft · lb) by using the torque wrench, then loosen the ring nut one turn.
2. Retighten the ring nut (lower) approximately 3 Nm (0.3 m · kg, 2.2 ft · lb).
3. Install the ring nut (upper). And finger tighten the ring nut (upper), then align the slots of both ring nuts. If not aligned, hold the lower ring nut and tighten the other until they are aligned.

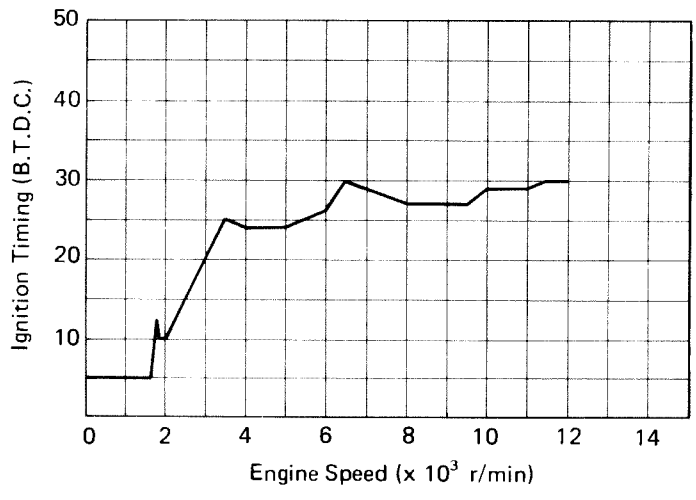


**ELECTRICAL**

Model	FZR600W/WC
Voltage:	12V
Ignition System:	
Ignition Timing (B.T.D.C.)	5° at 1,200 r/min
Advancer Type	Electrical



(For California)





Model	FZR600W/WC
T.C.I.: Pickup Coil Resistance (Color) T.C.I. Unit/Manufacturer	80 ~ 120Ω at 20°C (68°F) (White/Red – White/Black) TID14-73/HITACHI TID14-74/HITACHI (FZR600WC)
Ignition Coil: Model/Manufacturer Minimum Spark Gap Primary Winding Resistance Secondary Winding Resistance Spark Plug Cap Resistance	CM12-39/HITACHI 6 mm (0.24 in) 1.8 ~ 2.2Ω at 20°C (68°F) 9.6 ~ 14.4 kΩ at 20°C (68°F) 10 kΩ
Charging System: Type	A.C. Magneto Generator
A.C. Generator: Model/Manufacturer Nominal Output Stator Coil Resistance	FL118-15/HITACHI 12V, 21A at 5,000 r/min 0.31 ~ 0.37Ω at 20°C (68°F)
Voltage Regulator: Type Model/Manufacturer No Load Regulated Voltage	Semi conductor – short circuit SH569/SHINDENGEN 14.3 ~ 15.3V
Battery: Capacity Specific Gravity	12V, 12AH 1.280

MAINTENANCE SPECIFICATIONS

SPEC

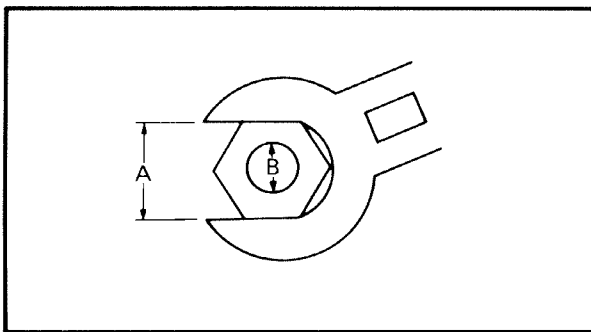


Model	FZR600W/WC
<b>Electrical Starter System:</b> Type Starter Motor: Model/Manufacturer Output Armature Coil Resistance Brush – Overall Length < Limit > Commutator Dia. Wear Limit Mica Undercut Starter Switch: Model/Manufacturer Amperage Rating	Constant mesh type  SM-13/MITSUBA 0.7 kW 0Ω at 20°C (68°F) 12.5 mm (0.49 in) 4 mm (0.16 in) 28 mm (1.10 in) 27 mm (1.06 in) 0.7 mm (0.027 in)  A104-128/HITACHI 100A
<b>Horn:</b> Type/ Model/Manufacturer Maximum Amperage	Plane Type/1 pcs. YF-12/NIKKO 1.5A
<b>Flasher Relay (Relay Assembly):</b> Type Model/Manufacturer Self Cancelling Device Flasher Frequency Wattage	Semi transistor type FX257N/NIPPON DENSO Yes 60 ~ 120 cycle/min 27W x 2 pcs + 3.4W
<b>Oil Level Switch:</b> Model/Manufacturer	1WG/NIPPON DENSO
<b>Starting Circuit Cut-Off Relay:</b> Model/Manufacturer Coil Winding Resistance Diode	G8R-30Y-B/OMRON 203 ~ 248Ω at 20°C (68°F) No
<b>Fuel Pump Relay:</b> Model/Manufacturer Coil Winding Resistance Color Code	G8R-30Y-B/OMRON 203 ~ 248Ω at 20°C (68°F) Black
<b>Electric Fan:</b> Model/Manufacturer	NAAB08/NIPPON DENSO
<b>Thermostat Switch:</b> Model/Manufacturer	47X/NIPPON THERMOSTAT
<b>Thermo Unit:</b> Model/Manufacturer	11H/NIPPON SEIKI
<b>Circuit Breaker:</b> Type Amperage for Individual Circuit x Quantity: MAIN HEADLIGHT SIGNAL IGNITION FAN RESERVE	Fuse  30A x 1 20A x 1 10A x 1 10A x 1 10A x 1 10A x 1, 30A x 1, 20A x 1

**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 a 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		
		Nm	m·kg	ft·lb
10 mm	6 mm	6	0.6	4.3
12 mm	8 mm	15	1.5	11
14 mm	10 mm	30	3.0	22
17 mm	12 mm	55	5.5	40
19 mm	14 mm	85	8.5	61
22 mm	16 mm	130	13.0	94



A: Distance across flats  
B: Outside thread diameter

**DEFINITION OF UNITS**

Unit	Read	Definition	Measure
mm	millimeter	$10^{-3}$ meter	Length
cm	centimeter	$10^{-2}$ meter	Length
kg	kilogram	$10^3$ gram	Weight
N	Newton	$1 \text{ kg} \times \text{m}/\text{sec}^2$	Force
Nm	Newton meter	$\text{N} \times \text{m}$	Torque
m·kg	Meter kilogram	$\text{m} \times \text{kg}$	Torque
Pa	Pascal	$\text{N}/\text{m}^2$	Pressure
N/mm	Newton per millimeter	$\text{N}/\text{mm}$	Spring rate
L	Liter		Volume or Capacity
$\text{cm}^3$	Cubic centimeter		
r/min	Rotation per minute		Engine Speed



LUBRICATION POINT AND GRADE OF LUBRICANT  
ENGINE

Lubrication Point	Symbol
Oil seal lip	
O-Ring	
Bearing	
Piston surface	
Piston pin	
Cylinder head bolt	
Crankshaft pin	
Crankshaft journal	
Connecting rod bolt/Nut	
Camshaft cam lobe/Journal	
Valve stem (IN, EX)	
Valve stem end (IN, EX)	
Valve lifter	
Water pump impeller shaft	
Oil pump rotor (Inner/Outer), housing	
Oil strainer assembly	
O-Ring (Release Valve)	
Oil Level Gauge	
Idle gear surface/Bearing	
O-Ring (Starter Motor)	
Starter idle gear	
Starter idle gear shaft	
Primary driven gear	
Transmission gear (Wheel/Pinion)	
Axe (Main/Drive)	
Push lever assembly	
Push rod	
Shift cam	
Shift fork/Guide bar	
Shift shaft assembly	
Neutral switch O-Ring	