

GSX1300RK1 (2001-MODEL)

FOREWORD

This manual includes the service data, service specifications and servicing procedures which differ from those of the GSX1300RY (00-model).

NOTE:

- Any differences between the GSX1300RY (2000-model) and GSX1300RK1 (2001-model) in specifications and service data are indicated with an asterisk mark (*).
- Please refer to the service manual for details which are not given in this manual.

SUZUKI

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GSX1300R

SUPPLEMENTARY SERVICE MANUAL

USE THIS MANUAL WITH:
 GSX1300R SERVICE MANUAL (99500-39180-03E)



GSX1300RK1 (2001-MODEL)

FOREWORD

This manual describes service data, service specifications and servicing procedures which differ from those of the GSX1300RY ('00-model).

NOTE:

- Any differences between the GSX1300RY (2000-model) and GSX1300RK1 (2001-model) in specifications and service data are indicated with an asterisk mark (*).
- Please refer to the service manual for details which are not given in this manual.

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SUZUKI MOTOR CORPORATION

Motorcycle Service Department

CAPACITIES

Fuel tank, including reserve	18 L (5.0 US/imp gal)	For E-33
Engine oil, oil change	2 L (0.5 US/imp gal)	For the others
with filter change	3 L (0.8 US/imp qt)	
overhaul	4 L (1.1 US/imp qt)	
Coolant	2.960 L (0.78 US/imp qt)	
Front fork	40 ml (1.4 US/imp oz)	

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These specifications are subject to change without notice.

SPECIFICATIONS

DIMENSIONS AND DRY MASS

Overall length	2 140 mm (84.3 in)
Overall width	740 mm (29.1 in)
Overall height	1 155 mm (45.5 in)
Wheelbase	1 485 mm (58.5 in)
Ground clearance	120 mm (4.7 in)
Seat height	805 mm (31.7 in)
Dry mass	* 218 kg (480 lbs) (For E-33)
	* 217 kg (478 lbs) (For the others)

ENGINE

Type	Four-stroke, Liquid-cooled, DOHC
Number of cylinders	4
Tapet clearance, IN	0.10 – 0.20 mm (0.004 – 0.008 in)
EX	0.20 – 0.30 mm (0.008 – 0.012 in)
Bore	81.0 mm (3.189 in)
Stroke	63.0 mm (2.480 in)
Piston displacement	1 299 cm ³ (79.3 cu. in)
Compression ratio	11.0 : 1
Fuel system	Fuel injection system
Air cleaner	Non-woven fabric element
Starter system	Electric starter
Lubrication system	Wet sump

TRANSMISSION

Clutch	Wet multi-plate type
Transmission	6-speed constant, mesh
Gearshift pattern	1-down, 5-up
Primary reduction ratio	1.596 (83/52)
Gear ratios, Low	2.615 (34/13)
2nd	1.937 (31/16)
3rd	1.526 (29/19)
4th	1.285 (27/21)
5th	1.136 (25/22)
Top	1.043 (24/23)
Final reduction ratio	2.352 (40/17)
Drive system	RK GB50GSV Z3, 112 links

CHASSIS

Front suspension	Inverted telescopic, coil spring, oil damped, spring pre-load fully adjustable, compression damping force 13-way adjustable, rebound damping force 14-way adjustable.
Rear suspension	Link type system, gas/oil damped, coil spring, spring pre-load fully adjustable, compression damping force 22-way adjustable, rebound damping force 22-way adjustable.
Front fork stroke	120 mm (4.7 in)
Rear wheel travel	140 mm (5.5 in)
Steering angle	30° (right & left)
Caster	24° 12'
Trail	97 mm (3.8 in)
Turning radius	3.3 m (10.8 ft)
Front brake	Disc brake, twin hydraulically operated
Rear brake	Disc brake, hydraulically operated
Front tire size	120/70 ZR17 (58 W), tubeless
Rear tire size	190/50 ZR17 (73 W), tubeless

ELECTRICAL

Ignition type	Electronic ignition (Transistorized)
Ignition timing	4° B.T.D.C. at 1 200 r/min For E-03, 28, 33 11° B.T.D.C. at 1 150 r/min (1 & 4 cylinders) For the 3° B.T.D.C. at 1 150 r/min (2 & 3 cylinders) others
Spark plug	NGK CR9E, DENSO U27ESR-N
Battery	12V 36.0 kC(10 Ah)/10HR
Generator	Three-phase A.C. Generator
Main fuse	30 A
Fuse	15/15/15/15/10/10 A
Headlight	12 V 65 + 55/55 W
Turn signal light	12 V 21 W × 4
Position light	12 V 5 W Except for E-03, 24, 28, 33 models
Brake light/Taillight	12 V 21/5 W × 2
License plate light	12 V 5 W
Combination meter light	LED
Neutral indicator light	LED
High beam indicator light	LED
Turn signal indicator light	LED
Oil pressure indicator light	LED
Fuel level indicator light	LED
Engine coolant temp. indicator light	LED
FI indicator light	LED

CAPACITIES

Fuel tank, including reserve	* 19 L (5.0/4.2 US/Imp gal) For E-33 * 21 L (5.5/4.6 US/Imp gal) For the others
Engine oil, oil change	3 100 ml (3.3/2.7 US/Imp qt)
with filter change	3 300 ml (3.5/2.9 US/Imp qt)
overhaul	4 000 ml (4.2/3.5 US/Imp qt)
Coolant	2 950 ml (3.1/2.6 US/Imp qt)
Front fork oil (each leg)	480 ml (16.2/16.9 US/Imp oz)

These specifications are subject to change without notice.

FUEL SYSTEM

FUEL TANK REMOVAL

- Lift and support the fuel tank with the fuel tank prop stay.
- Disconnect the fuel pump lead wire coupler ①.
- Place a rag under the fuel feed hose and remove the fuel feed hose ②.

⚠ CAUTION

When removing the fuel tank, do not remain the fuel feed hose ② at the fuel tank side.

⚠ WARNING

Gasoline is highly flammable and explosive. Keep heat, spark and flame away.

- Remove the fuel tank bracket mounting bolts.
- Remove the fuel tank.

FUEL TANK INSTALLATION

- Installation is in the reverse order of removal.

FUEL PRESSURE INSPECTION

- Lift and support the fuel tank with its prop stay.
- Place a rag under the fuel feed hose.
- Remove the fuel feed hose and install the special tools between the fuel tank and fuel delivery pipe.

- TOOL** 09940-40211: Fuel pressure gauge adaptor
- 09940-40220: Fuel pressure gauge hose attachment
- 09915-77330: Oil pressure gauge
- 09915-74520: Oil pressure gauge hose

Turn the ignition switch ON and check the fuel pressure.

DATA Fuel pressure: Approx. 300 kPa (3.0 kgf/cm², 43 psi)

If the fuel pressure is lower than the specified, inspect the following items:

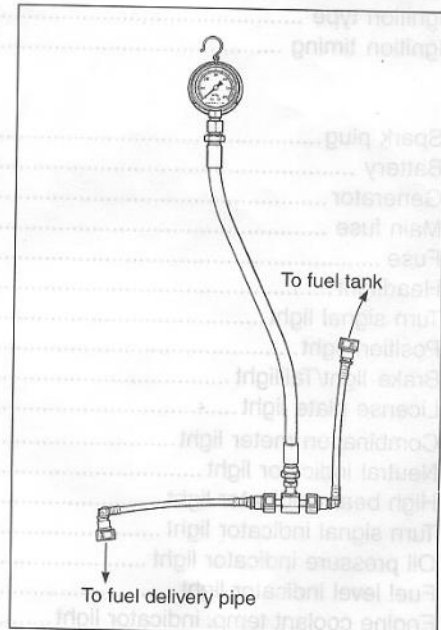
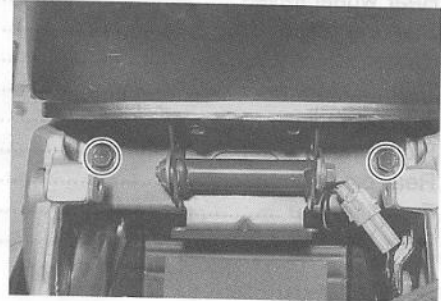
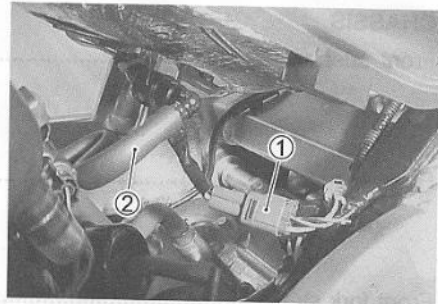
- * Fuel hose leakage
- * Pressure regulator
- * Clogged fuel filter
- * Fuel pump

If the fuel pressure is higher than the specified, inspect the following items:

- * Fuel pump check valve
- * Pressure regulator

⚠ WARNING

- * Before removing the special tools, turn the ignition switch OFF position and release the fuel pressure slowly.
- * Gasoline is highly flammable and explosive. Keep heat, sparks and flame away.



FUEL PUMP INSPECTION

Turn the ignition switch ON and check that the fuel pump operates for few seconds.

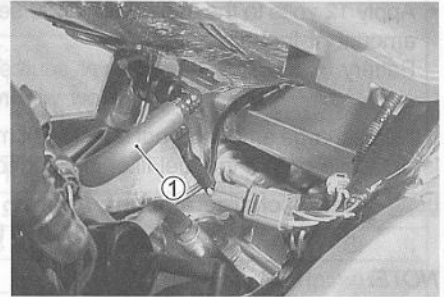
If the fuel pump motor does not make operating sound, replace the fuel pump assembly or inspect the fuel pump relay and tip over sensor.

FUEL DISCHARGE AMOUNT INSPECTION

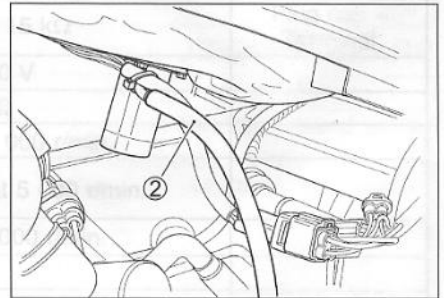
⚠ WARNING

Gasoline is highly flammable and explosive. Keep heat, spark and flame away.

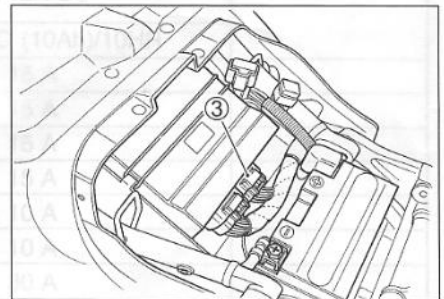
- Lift and support the fuel tank with its prop stay.
- Disconnect the fuel feed hose ① from the fuel pump.



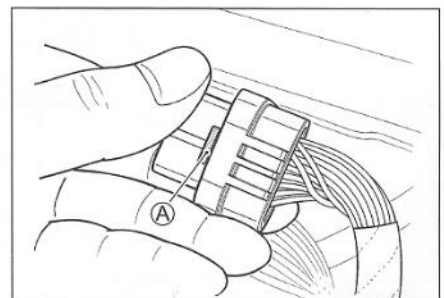
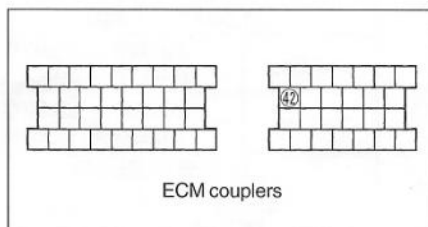
- Connect a proper fuel hose ② to the fuel pump.



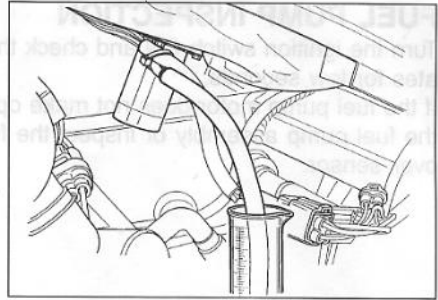
- Disconnect the ECM lead wire coupler ③.



- Push the lock (A) to pull out the power source lead wire (Yellow with red tracer ④).



- Place the measuring cylinder and insert the fuel hose end into the measuring cylinder.

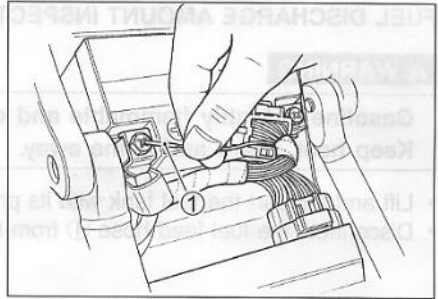


- Apply 12 volts to the fuel pump for 30 seconds and measure the amount of fuel discharged.

Battery ⊕ terminal — Power source lead wire ①
(Yellow with red tracer)

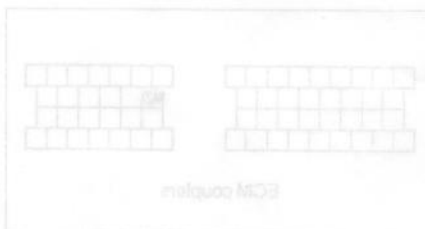
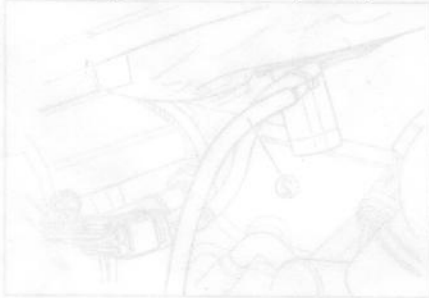
If the discharge amount is not specified it means that the fuel pump is defective or that the fuel filter is clogged.

DATA Fuel discharge amount: Approx. 1 200 ml/30 sec.
(1.3/1.1 US/lmp oz)/30 sec.



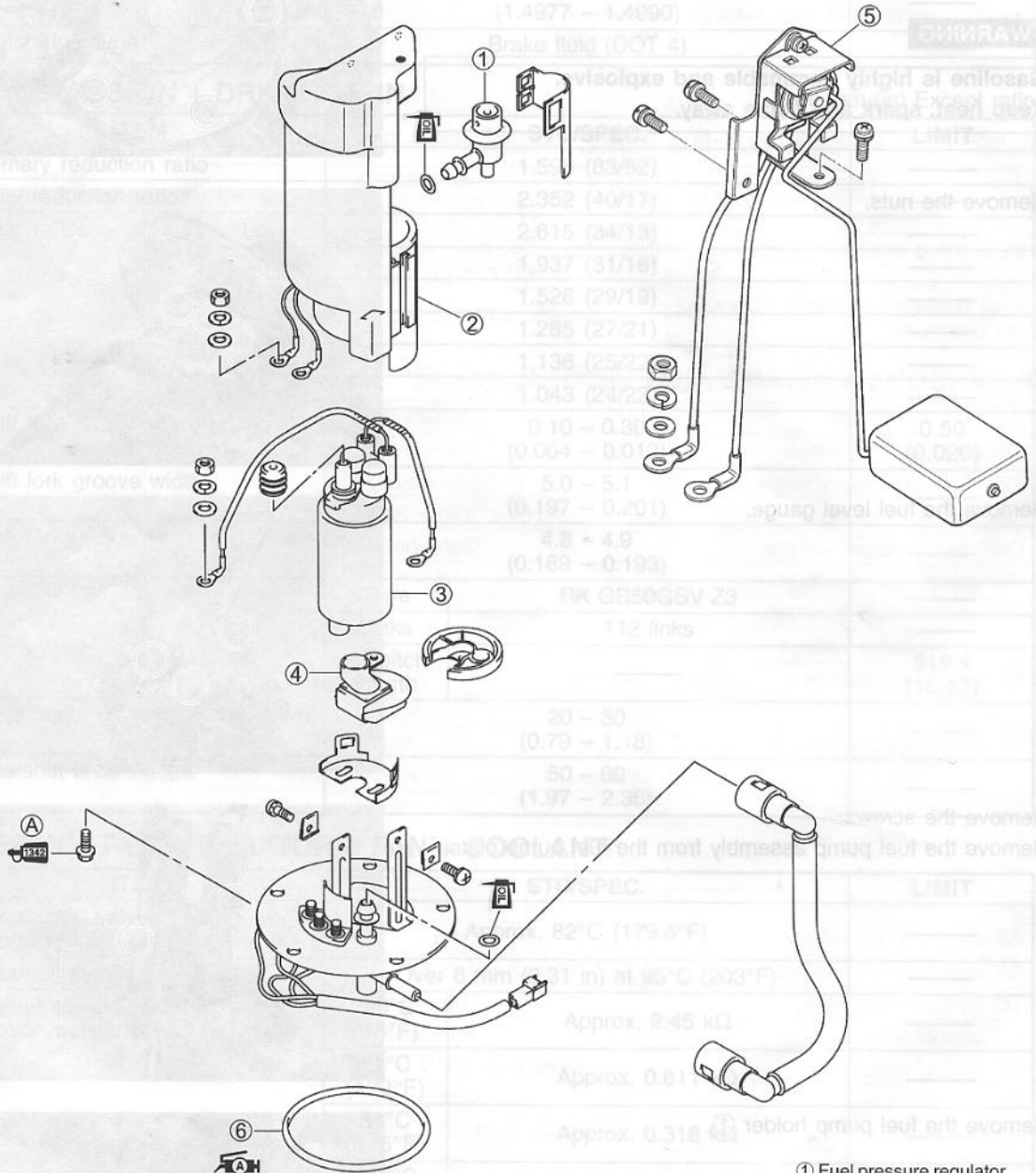
NOTE:

The battery must be in fully charged condition.



FUEL PUMP, FUEL LEVEL GAUGE AND FUEL FILTER REMOVAL

CONSTRUCTION



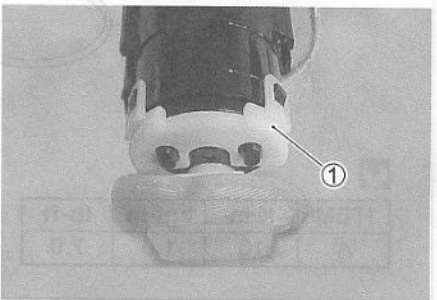
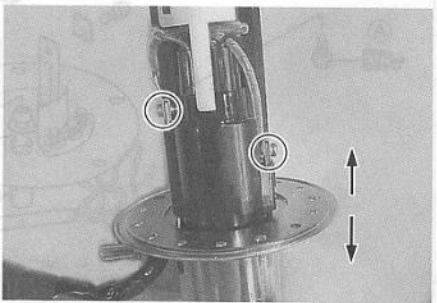
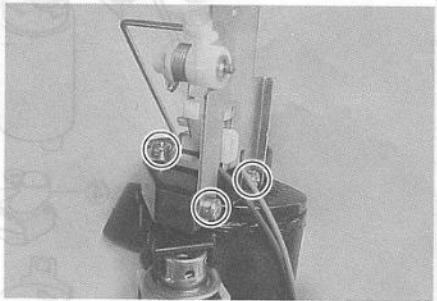
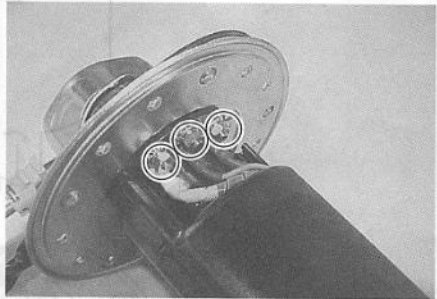
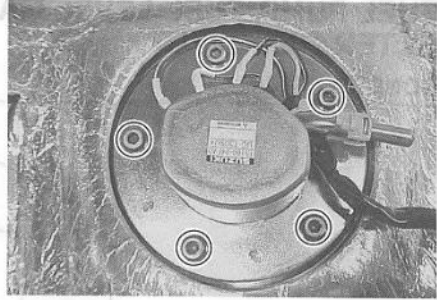
- ① Fuel pressure regulator
- ② Fuel pump case/Fuel filter cartridge
(For high pressure)
- ③ Fuel pump
- ④ Fuel mesh filter
(For low pressure)
- ⑤ Fuel level gauge
- ⑥ O-ring



ITEM	N·m	kgf·m	lb·ft
Ⓐ	10	1.0	7.0

REMOVAL

- Remove the fuel tank.
- Remove the fuel pump assembly by removing its mounting bolts diagonally.



⚠ WARNING

**Gasoline is highly flammable and explosive.
Keep heat, spark and flame away.**

- Remove the nuts.

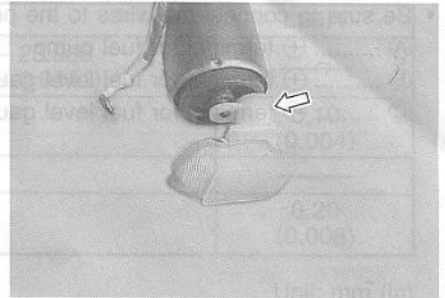
- Remove the fuel level gauge.

- Remove the screws.
- Remove the fuel pump assembly from the fuel pump plate.

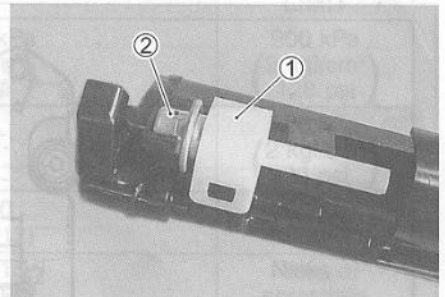
- Remove the fuel pump holder ①.

- ① Fuel pressure regulator
- ② Fuel pump case/fuel filter
- ③ Fuel pump
- ④ Fuel mesh filter
- ⑤ Fuel level gauge
- ⑥ O-ring

- Remove the fuel mesh filter.



- Remove the fuel pressure regulator holder ① and the fuel pressure regulator ②.

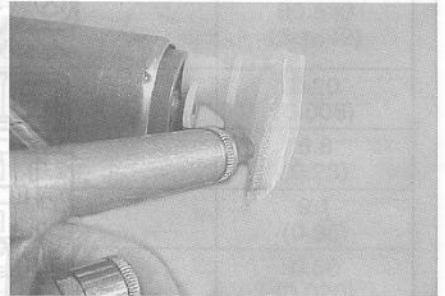


FUEL MESH FILTER INSPECTION AND CLEANING

If the fuel mesh filter is clogged with sediment or rust, fuel will not flow smoothly and loss in engine power may result. Blow the fuel mesh filter with compressed air.

NOTE:

If the fuel mesh filter is clogged with many sediment or rust, replace the fuel filter cartridge with a new one.



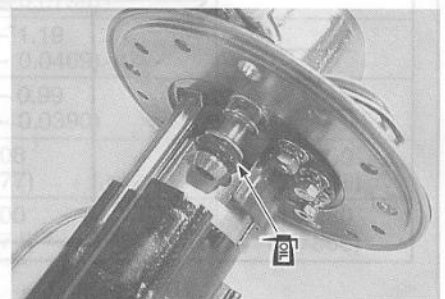
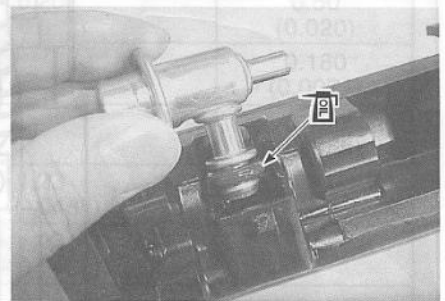
FUEL PUMP AND FUEL MESH FILTER INSTALLATION

Install the fuel pump and fuel mesh filter in the reverse order of removal, and pay attention to the following points:

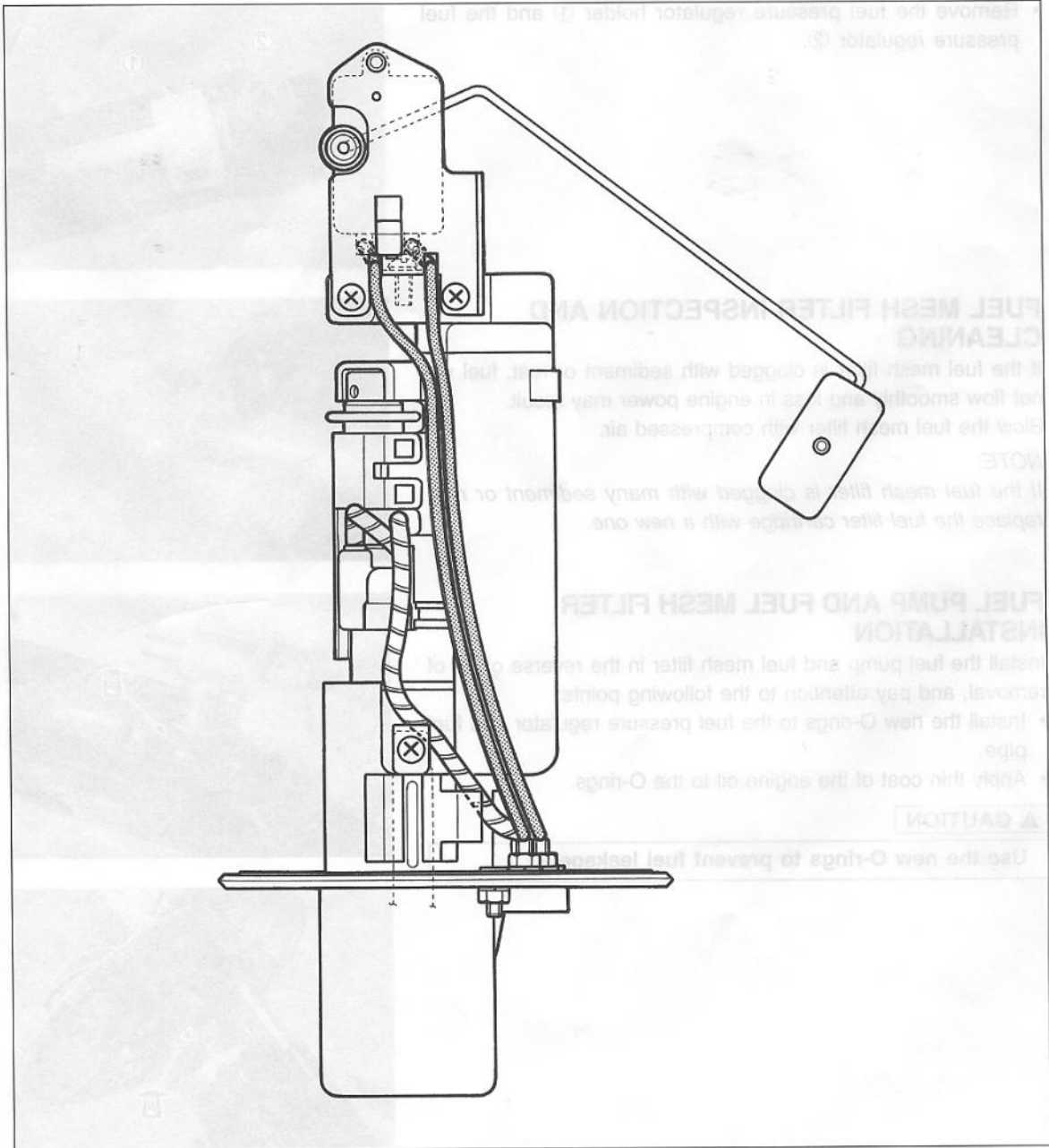
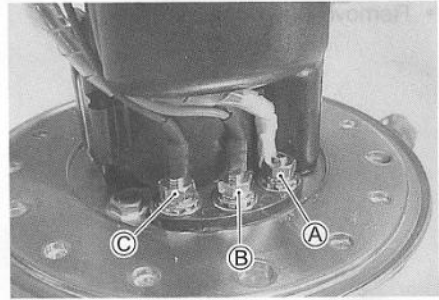
- Install the new O-rings to the fuel pressure regulator and fuel pipe.
- Apply thin coat of the engine oil to the O-rings.

▲ CAUTION

Use the new O-rings to prevent fuel leakage.



- Be sure to connect the wires to the proper terminals.
A ⊕ terminal for fuel pump
B ⊕ terminal for fuel level gauge
C ⊖ terminal for fuel level gauge



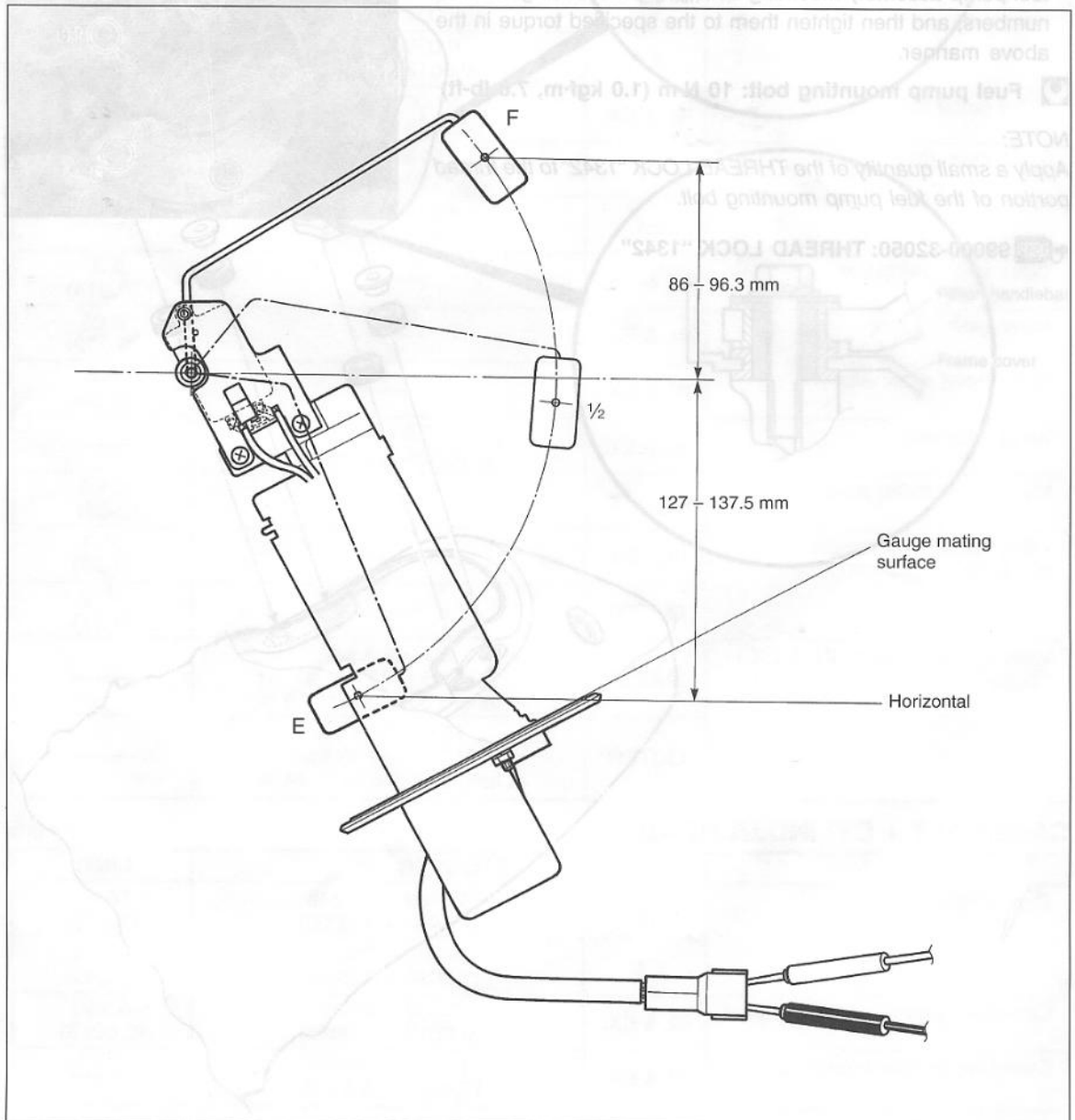
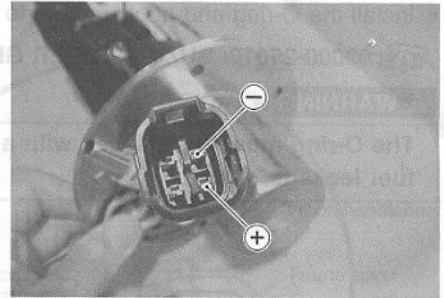
FUEL LEVEL GAUGE INSPECTION

Measure resistance between the terminals when the float is at the position listed below.


TOOL 09900-25008: Multi-circuit tester

Gauge position	Resistance between terminals
Full (F)	11 - 13 Ω
$\frac{1}{2}$	70 - 77 Ω
Empty (E)	130 - 135 Ω

If the resistance measured is out of the specification, replace the gauge with a new one.

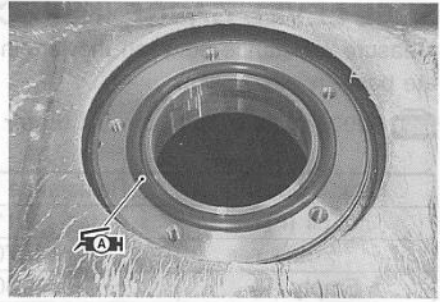


- Install the O-ring and apply grease to it.

 99000-25010: SUZUKI SUPER GREASE "A"

⚠ WARNING

The O-ring must be replaced with a new one to prevent fuel leakage.

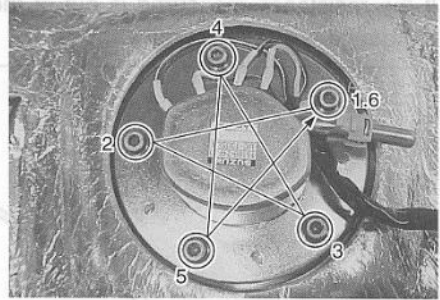


- When installing the fuel pump assembly, lightly tighten all the fuel pump assembly mounting bolts in the ascending order of numbers, and then tighten them to the specified torque in the above manner.

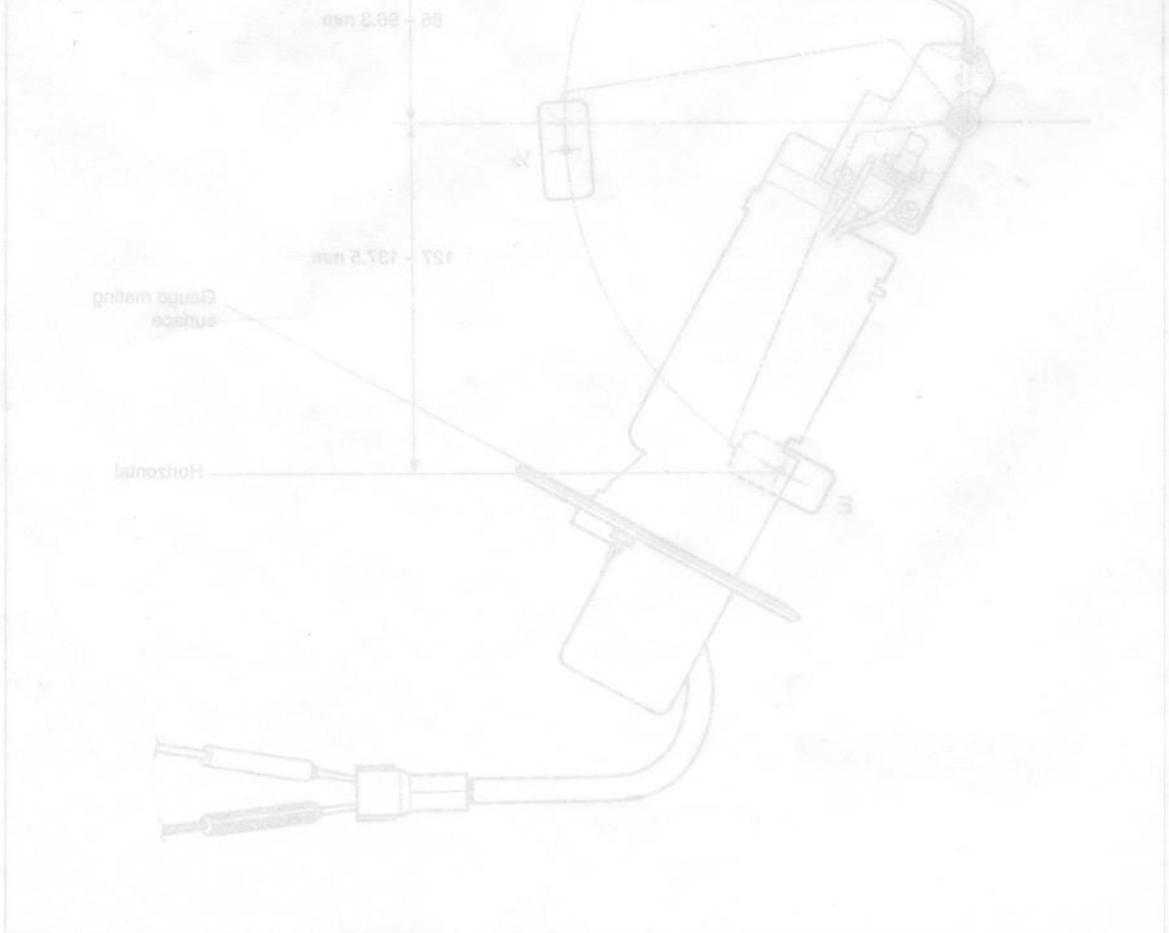
 Fuel pump mounting bolt: 10 N·m (1.0 kgf·m, 7.0 lb-ft)

NOTE:

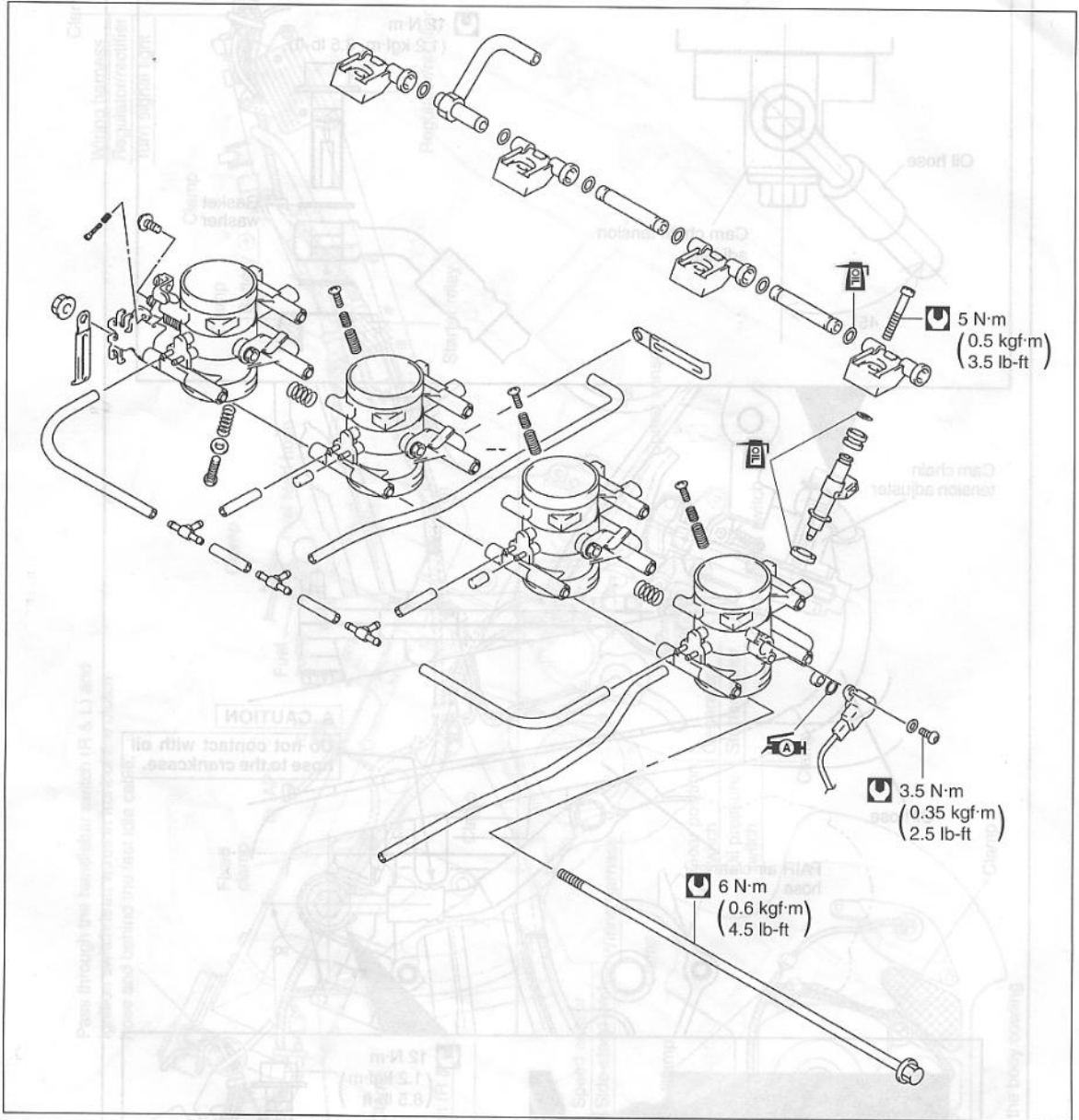
Apply a small quantity of the **THREAD LOCK "1342"** to the thread portion of the fuel pump mounting bolt.



 99000-32050: **THREAD LOCK "1342"**



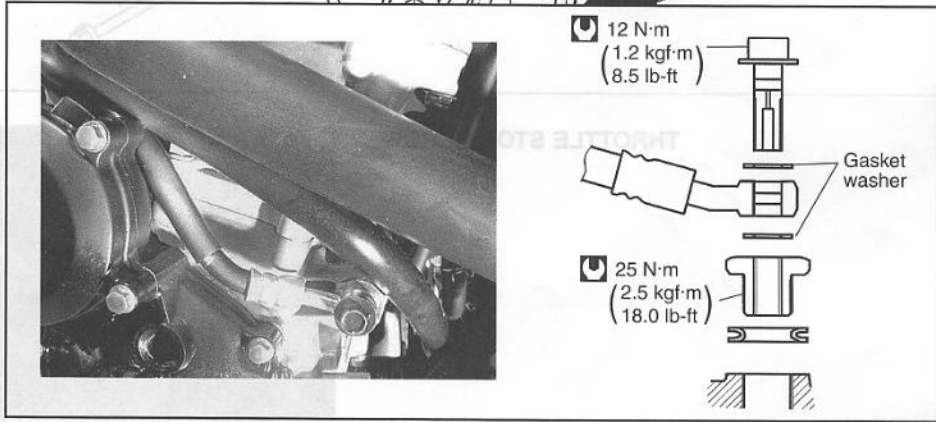
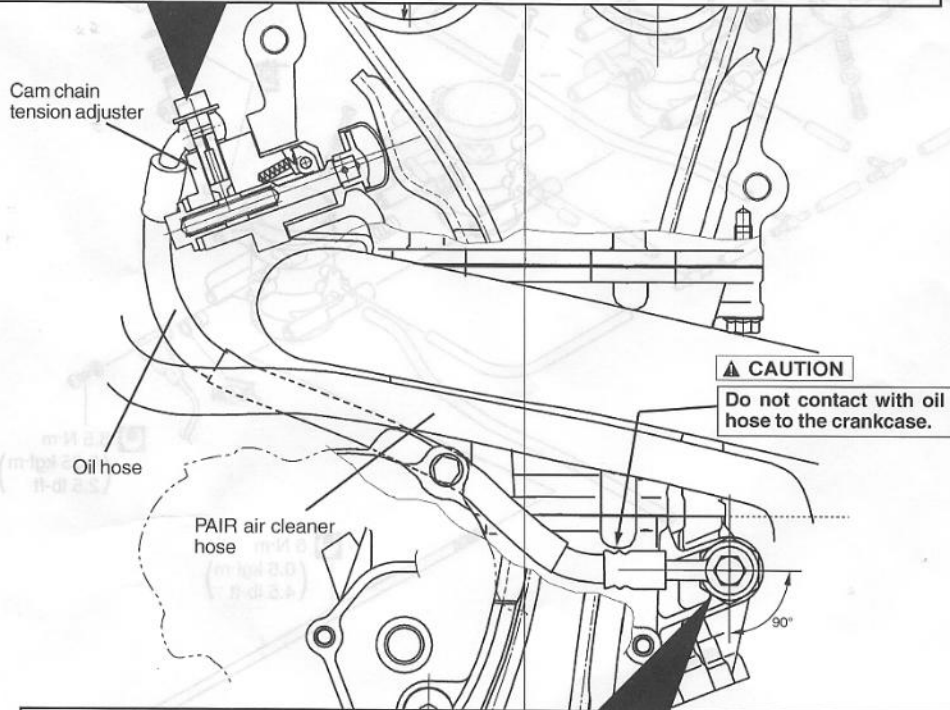
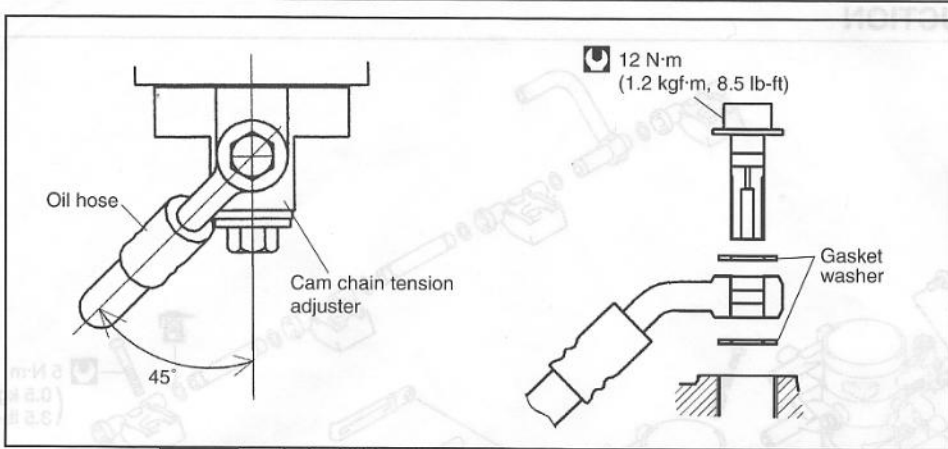
THROTTLE BODY CONSTRUCTION



THROTTLE STOP SCREW

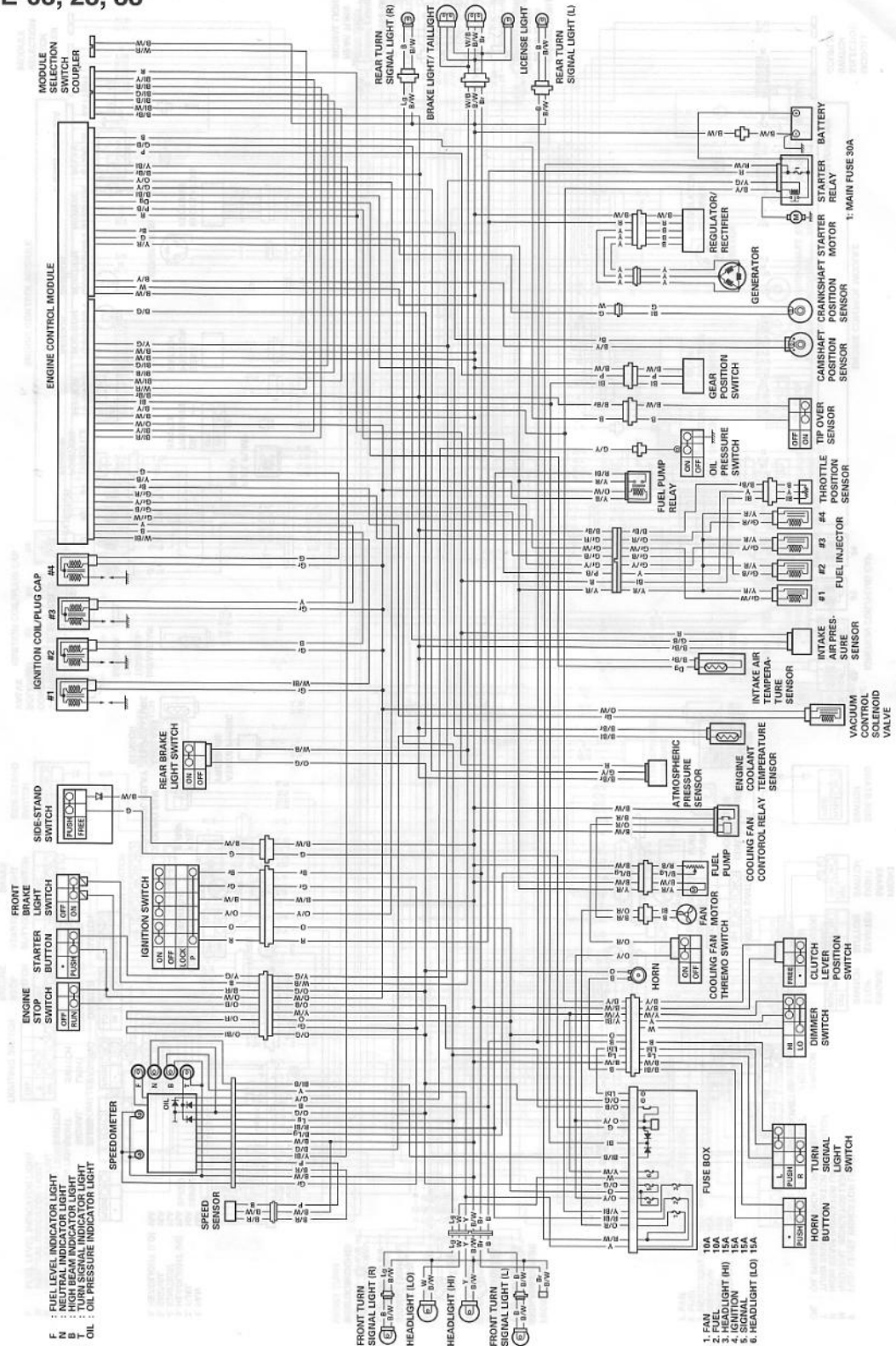


CAM CHAIN TENSION ADJUSTER



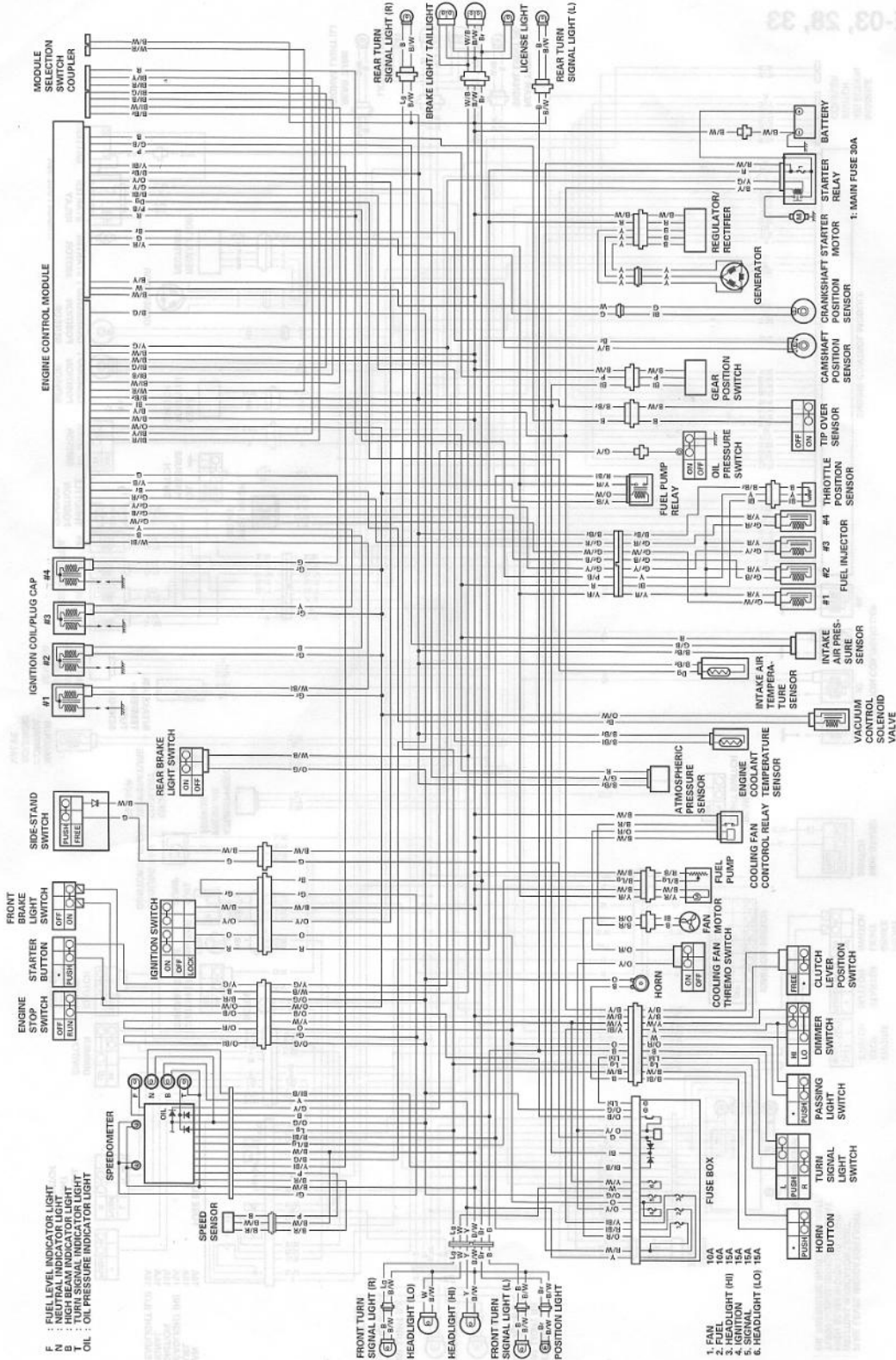
WIRING DIAGRAM

For E-03, 28, 33

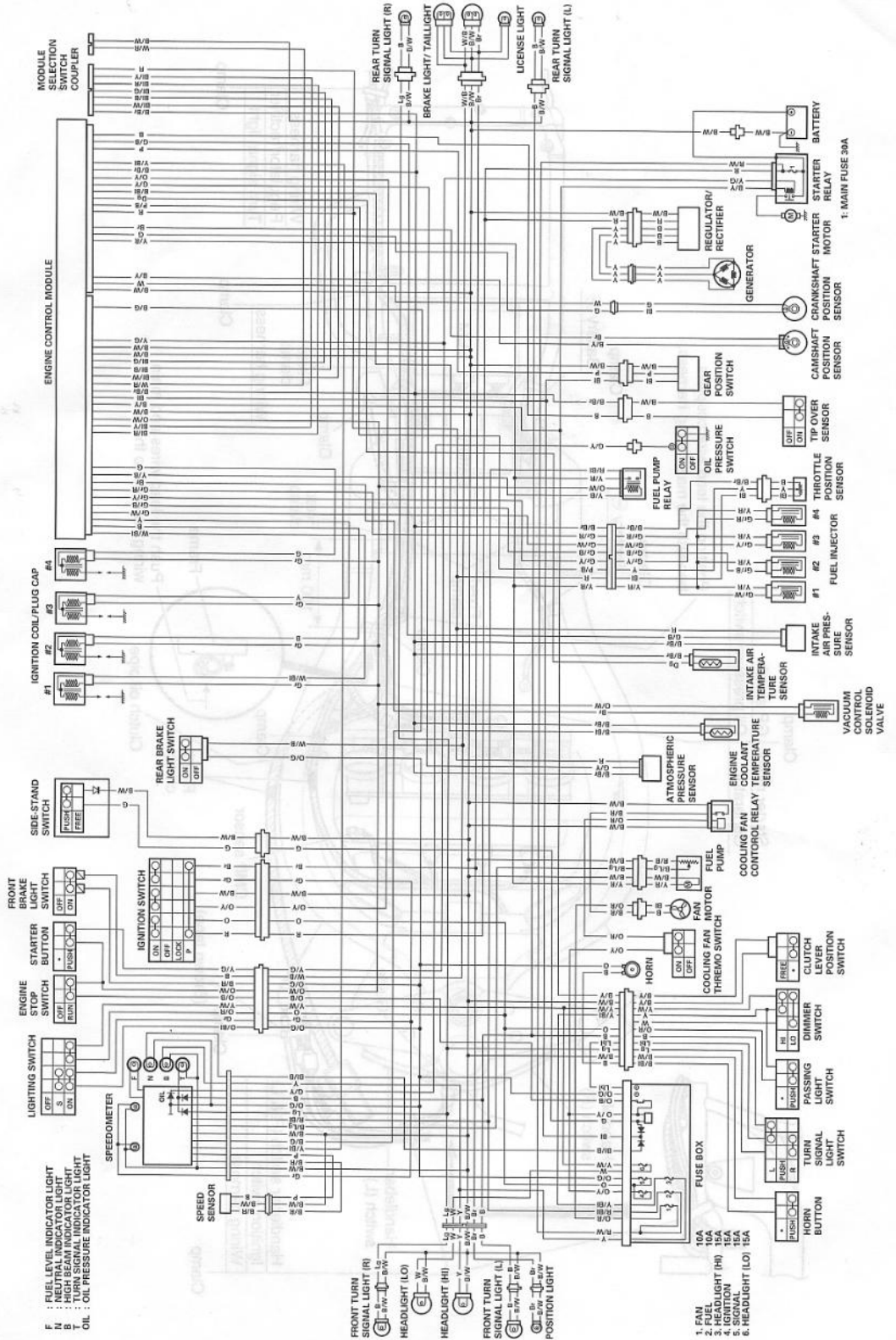


For E-24

WIRING DIAGRAM
For E-03, 08, 33



For the others



MODULE
SELECTION
SWITCH
COUPLER

ENGINE CONTROL MODULE

IGNITION COIL/PLUG CAP
#1
#2
#3
#4

SIDE STAND SWITCH

FRONT
BRAKE
LIGHT
SWITCH

ENGINE
STOP
SWITCH

STARTER
BUTTON
SWITCH

LIGHTING SWITCH

SPEEDOMETER

SPEED SENSOR

REAR TURN
SIGNAL LIGHT (R)

HEADLIGHT (LO)

HEADLIGHT (HI)

REAR TURN
SIGNAL LIGHT (L)

BRAKE LIGHT/TAILLIGHT

LICENSE LIGHT

REGULATOR/RECTIFIER

GENERATOR

BATTERY

STARTER RELAY

STARTER MOTOR

CRANKSHAFT POSITION SENSOR

CAMSHAFT POSITION SENSOR

GEAR POSITION SWITCH

FUEL PUMP

FUEL RELAY

OIL PRESSURE SWITCH

TIP OVER SENSOR

THROTTLE POSITION SENSOR

FUEL INJECTOR #1

FUEL INJECTOR #2

FUEL INJECTOR #3

FUEL INJECTOR #4

INTAKE AIR PRESSURE SENSOR

INTAKE AIR TEMPERATURE SENSOR

VACUUM CONTROL SOLENOID VALVE

ATMOSPHERIC PRESSURE SENSOR

ENGINE COOLANT TEMPERATURE SENSOR

COOLING FAN MOTOR

COOLING FAN CONTROL RELAY

FAN MOTOR

THREMO SWITCH

HORN

CLUTCH POSITION SWITCH

SHIFTER SWITCH

PASSING LIGHT SWITCH

TURN SIGNAL SWITCH

HORN BUTTON

FUSE BOX

10A

15A

15A

15A

15A

15A

15A

15A

15A

15A

1. FAN

2. FUEL

3. HEADLIGHT (HI)

4. HEADLIGHT (LO)

5. SIGNAL

6. HEADLIGHT (LO)

1. MAIN FUSE 30A

1. FAN

2. FUEL

3. HEADLIGHT (HI)

4. HEADLIGHT (LO)

5. SIGNAL

6. HEADLIGHT (LO)

1. MAIN FUSE 30A

1. FAN

2. FUEL

3. HEADLIGHT (HI)

4. HEADLIGHT (LO)

5. SIGNAL

6. HEADLIGHT (LO)

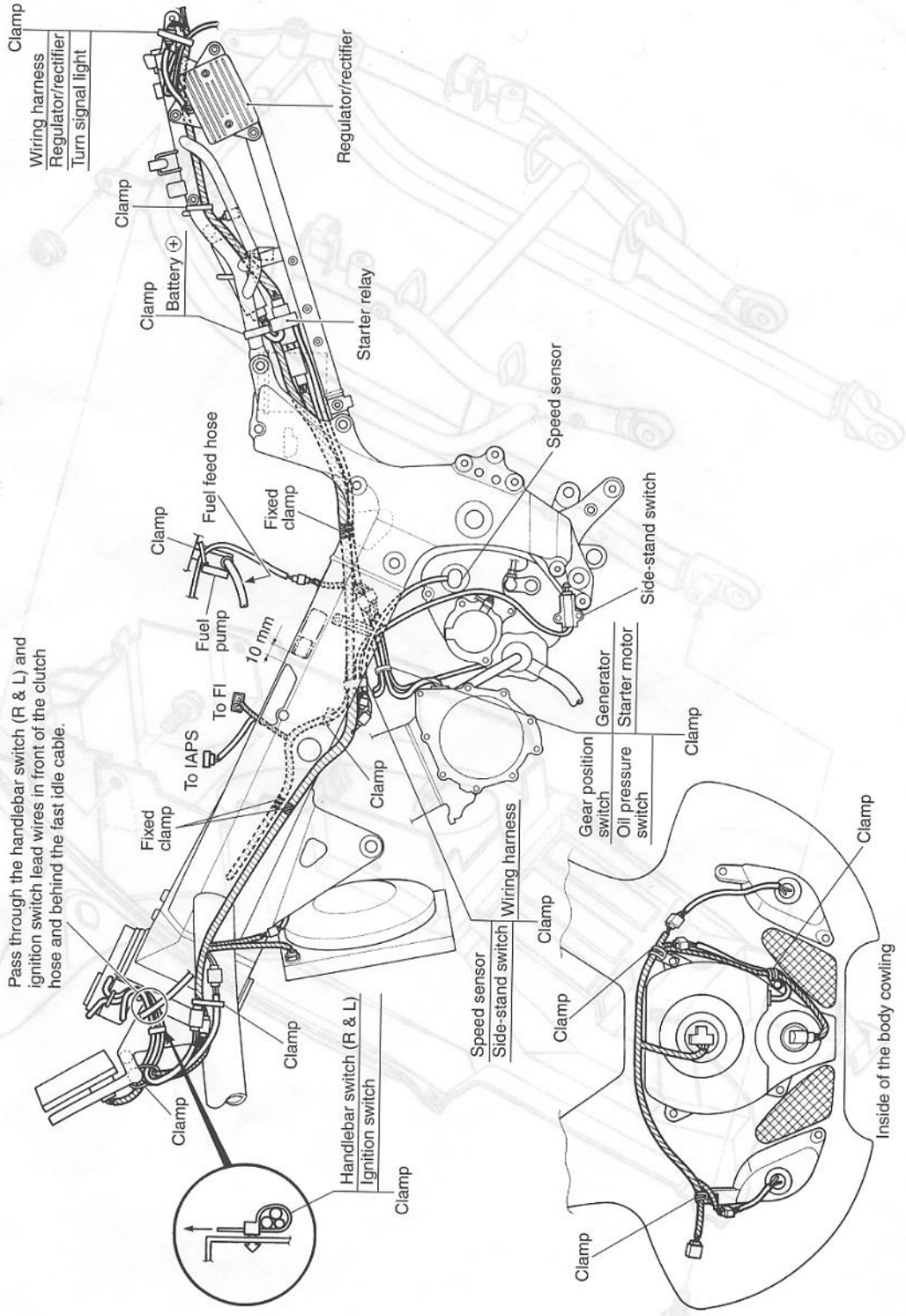
1. MAIN FUSE 30A

1. FAN

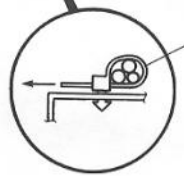
2. FUEL

WIRE HARNESS ROUTING

SEAT RAIL AND REAR FENDER

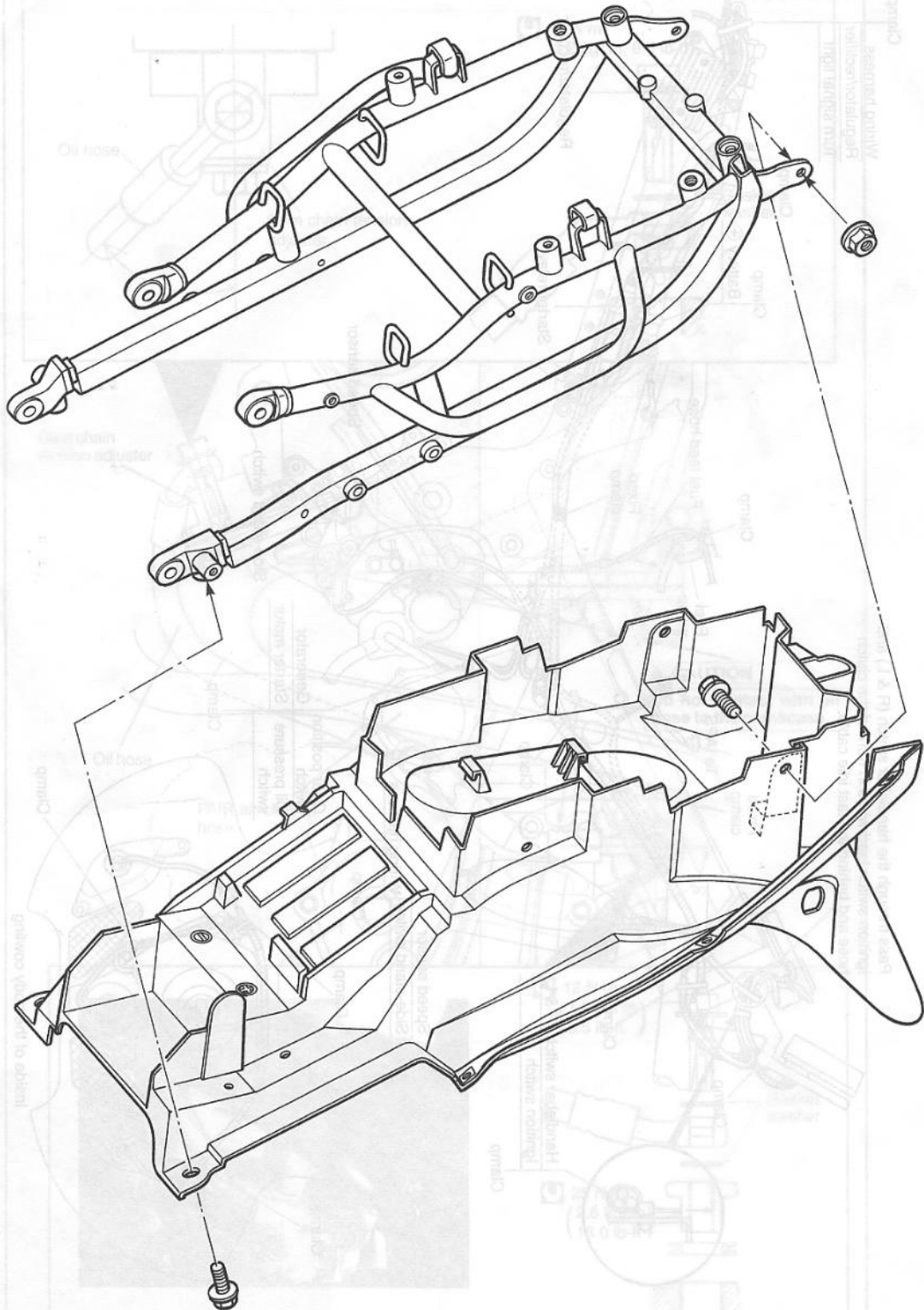


Pass through the handlebar switch (R & L) and ignition switch lead wires in front of the clutch hose and behind the fast idle cable.



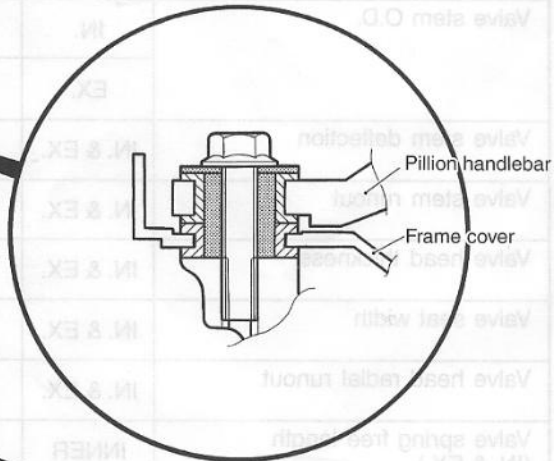
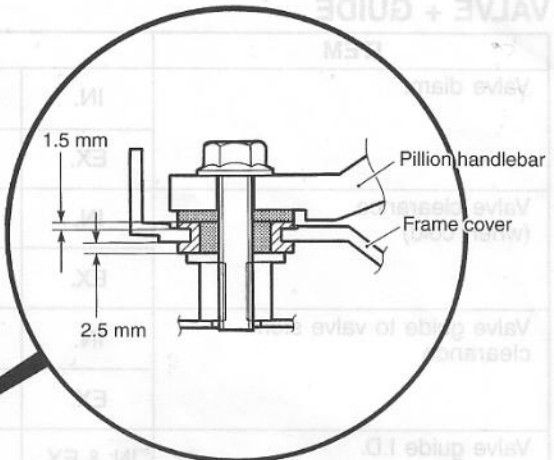
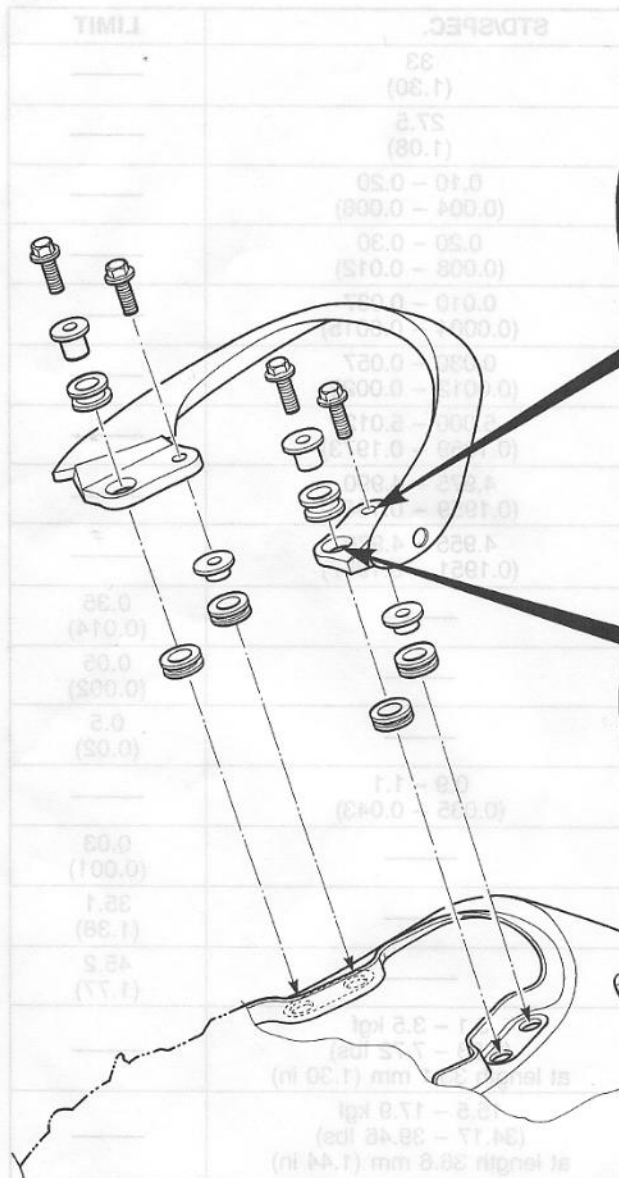
10 mm

SEAT RAIL AND REAR FENDER



PILLION HANDLEBAR MOUNTING

Unit: mm (in)



Unit: mm (in)

ITEM	STDSPEC.	LIMIT
Camshaft journal holder I.D.	34.015 - 34.025 (0.9454 - 0.9459)	
Camshaft journal oil clearance	0.032 - 0.05 (0.0013 - 0.0020)	0.150 (0.0059)
Cam height	38.780 - 38.848 (1.1480 - 1.4808)	35.18 (1.385)
		38.780 - 38.848 (1.438)

SERVICE DATA**VALVE + GUIDE**

Unit: mm (in)

ITEM	STD/SPEC.		LIMIT
Valve diam.	IN.	33 (1.30)	—
	EX.	27.5 (1.08)	—
Valve clearance (when cold)	IN.	0.10 – 0.20 (0.004 – 0.008)	—
	EX.	0.20 – 0.30 (0.008 – 0.012)	—
Valve guide to valve stem clearance	IN.	0.010 – 0.037 (0.0004 – 0.0015)	—
	EX.	0.030 – 0.057 (0.0012 – 0.0022)	—
Valve guide I.D.	IN. & EX.	5.000 – 5.012 (0.1969 – 0.1973)	—
Valve stem O.D.	IN.	4.975 – 4.990 (0.1959 – 0.1965)	—
	EX.	4.955 – 4.970 (0.1951 – 0.1957)	—
Valve stem deflection	IN. & EX.	—	0.35 (0.014)
Valve stem runout	IN. & EX.	—	0.05 (0.002)
Valve head thickness	IN. & EX.	—	0.5 (0.02)
Valve seat width	IN. & EX.	0.9 – 1.1 (0.035 – 0.043)	—
Valve head radial runout	IN. & EX.	—	0.03 (0.001)
Valve spring free length (IN. & EX.)	INNER	—	35.1 (1.38)
	OUTER	—	45.2 (1.77)
Valve spring tension (IN. & EX.)	INNER	3.1 – 3.5 kgf (6.83 – 7.72 lbs) at length 33.1 mm (1.30 in)	—
	OUTER	15.5 – 17.9 kgf (34.17 – 39.46 lbs) at length 36.6 mm (1.44 in)	—

CAMSHAFT + CYLINDER HEAD

Unit: mm (in)

ITEM	STD/SPEC.		LIMIT
Cam height	IN.	36.780 – 36.848 (1.4480 – 1.4506)	36.48 (1.436)
	EX.	35.480 – 35.548 (1.3968 – 1.3995)	35.18 (1.385)
Camshaft journal oil clearance	IN. & EX.	0.032 – 0.066 (0.0013 – 0.0026)	0.150 (0.0059)
Camshaft journal holder I.D.	IN. & EX.	24.012 – 24.025 (0.9454 – 0.9459)	—

ITEM	STD/SPEC.		LIMIT
Camshaft journal O.D.	IN. & EX.	23.959 – 23.980 (0.9433 – 0.9441)	—
Camshaft runout		—	0.10 (0.004)
Cam chain pin (at arrow "3")		15th pin	—
Cylinder head distortion		—	0.20 (0.008)

CYLINDER + PISTON + PISTON RING

Unit: mm (in)

ITEM	STD/SPEC.		LIMIT
Compression pressure	1 200 – 1 600 kPa (12 – 16 kgf/cm ²) (171 – 228 psi)		900 kPa (9 kgf/cm ²) (128 psi)
Compression pressure difference	—		200 kPa (2 kgf/cm ²) (28 psi)
Piston to cylinder clearance	0.020 – 0.030 (0.0008 – 0.0012)		0.120 (0.0047)
Cylinder bore	81.000 – 81.015 (3.1890 – 3.1896)		Nicks or scratches
Piston diam.	80.975 – 80.990 (3.1880 – 3.1886) Measure at 15 mm (0.6 in) from the skirt end.		80.880 (3.1842)
Cylinder distortion	—		0.20 (0.008)
Piston ring free end gap	1st	R	Approx. 7.3 (0.29)
	2nd	RN	Approx. 11.4 (0.45)
Piston ring end gap	1st	R	0.08 – 0.20 (0.003 – 0.008)
	2nd	RN	0.08 – 0.20 (0.003 – 0.008)
Piston ring to groove clearance	1st		—
	2nd		—
Piston ring groove width	1st		1.21 – 1.23 (0.0476 – 0.0484)
	2nd		1.01 – 1.03 (0.0398 – 0.0406)
	Oil		2.01 – 2.03 (0.0791 – 0.0799)
Piston ring thickness	1st		1.17 – 1.19 (0.0461 – 0.0469)
	2nd		0.97 – 0.99 (0.0382 – 0.0390)
Piston pin bore	20.002 – 20.008 (0.7875 – 0.7877)		20.030 (0.7886)
Piston pin O.D.	19.995 – 20.000 (0.7872 – 0.7874)		19.980 (0.7866)

CONROD + CRANKSHAFT

Unit: mm (in)

ITEM	STD/SPEC.	LIMIT
Conrod small end I.D.	20.010 – 20.018 (0.7878 – 0.7881)	20.040 (0.7890)
Conrod big end side clearance	0.10 – 0.20 (0.004 – 0.008)	0.30 (0.012)
Conrod big end width	20.95 – 21.00 (0.825 – 0.827)	—
Crank pin width	21.10 – 21.15 (0.831 – 0.833)	—
Conrod big end oil clearance	0.032 – 0.056 (0.0013 – 0.0022)	0.080 (0.0031)
Crank pin O.D.	37.976 – 38.000 (1.4951 – 1.4960)	—
Crankshaft journal oil clearance	0.016 – 0.040 (0.0006 – 0.0016)	0.080 (0.0031)
Crankshaft journal O.D.	39.976 – 40.000 (1.5739 – 1.5748)	—
Crankshaft thrust bearing thickness	Right side 2.425 – 2.450 (0.0955 – 0.0965)	—
	Left side 2.350 – 2.500 (0.0925 – 0.0984)	—
Crankshaft thrust clearance	0.055 – 0.110 (0.0022 – 0.0043)	—
Crankshaft runout	—	0.05 (0.002)

OIL PUMP

ITEM	STD/SPEC.	LIMIT
Oil pressure (at 60°C, 140°F)	Above 200 kPa (2.0 kgf/cm ² , 43 psi) Below 500 kPa (5.0 kgf/cm ² , 71 psi) at 3 000 r/min.	—

CLUTCH

Unit: mm (in)

ITEM	STD/SPEC.	LIMIT
Drive plate thickness	No. 1 2.92 – 3.08 (0.115 – 0.121)	2.62 (0.103)
	No. 2 3.72 – 3.88 (0.146 – 0.153)	3.42 (0.135)
Drive plate claw width	No. 1 13.85 – 13.96 (0.542 – 0.550)	13.05 (0.514)
	No. 2 13.90 – 14.00 (0.547 – 0.551)	13.10 (0.516)
Driven plate distortion	—	0.10 (0.004)
Clutch spring free height	28.96 (1.140)	27.6 (1.09)
Clutch master cylinder bore	14.000 – 14.043 (0.5512 – 0.5529)	—
Clutch master cylinder piston diam.	13.957 – 13.984 (0.5495 – 0.5506)	—

ITEM	STD/SPEC.	LIMIT
Clutch release cylinder bore	38.100 – 38.162 (1.5000 – 1.5024)	—
Clutch release cylinder piston diam.	38.042 – 38.075 (1.4977 – 1.4990)	—
Clutch fluid type	Brake fluid (DOT 4)	—

TRANSMISSION + DRIVE CHAIN

Unit: mm (in) Except ratio

ITEM	STD/SPEC.	LIMIT
Primary reduction ratio	1.596 (83/52)	—
Final reduction ratio	2.352 (40/17)	—
Gear ratios	Low	2.615 (34/13)
	2nd	1.937 (31/16)
	3rd	1.526 (29/19)
	4th	1.285 (27/21)
	5th	1.136 (25/22)
	Top	1.043 (24/23)
Shift fork to groove clearance	0.10 – 0.30 (0.004 – 0.012)	0.50 (0.020)
Shift fork groove width	5.0 – 5.1 (0.197 – 0.201)	—
Shift fork thickness	4.8 – 4.9 (0.189 – 0.193)	—
Drive chain	Type	RK GB50GSV Z3
	Links	112 links
	20-pitch length	—
Drive chain slack (on side-stand)	20 – 30 (0.79 – 1.18)	—
Gearshift lever height	50 – 60 (1.97 – 2.36)	—

THERMOSTAT + RADIATOR + FAN + COOLANT

ITEM	STD/SPEC.	LIMIT
Thermostat valve opening temperature	Approx. 82°C (179.6°F)	—
Thermostat valve lift	Over 8 mm (0.31 in) at 95°C (203°F)	—
Engine coolant temperature sensor resistance	20°C (68°F)	Approx. 2.45 kΩ
	50°C (122°F)	Approx. 0.811 kΩ
	80°C (176°F)	Approx. 0.318 kΩ
	110°C (230°F)	Approx. 0.142 kΩ
	130°C (226°F)	Approx. 0.088 kΩ
Radiator cap valve opening pressure	95 – 125 kPa (0.95 – 1.25 kgf/cm ² , 13.5 – 17.8 psi)	—
Cooling fan thermo-switch operating temperature	OFF → ON	Approx. 105°C (221°F)
	ON → OFF	Approx. 100°C (212°F)

ITEM	STD/SPEC.		LIMIT
Engine coolant type	Use an antifreeze/coolant compatible with aluminum radiator, mixed with distilled water only, at the ratio of 50:50.		—
Engine coolant including reserve	Reserve tank side	Approx. 250 ml (0.3/0.2 US/Imp qt)	—
	Engine side	Approx. 2 700 ml (2.9/2.4 US/Imp qt)	—

INJECTOR + FUEL PUMP + FUEL PRESSURE REGULATOR

ITEM	STD/SPEC.	NOTE
Injector resistance	11 – 16 Ω at 20°C (68°F)	—
Fuel pump discharge amount	* Approx. 1 200 ml (1.3/1.1 US/Imp oz)/30 sec. at 300 kPa (3.0 kgf/cm ² , 43 psi)	—
Fuel pressure regulator operating set pressure	Approx. 300 kPa (3.0 kgf/cm ² , 43 psi)	—

FI SENSORS + INTAKE AIR CONTROL VALVE

ITEM	STD/SPEC.		NOTE
CMP sensor resistance	0.9 – 1.3 k Ω		
CMP sensor peak voltage	More than 0.7 V		
CKP sensor resistance	180 – 280 Ω		
CKP sensor peak voltage	More than 3 V		
IAP sensor input voltage	4.5 – 5.5 V		
IAP sensor output voltage	Approx. 2.5 V at idle speed		
TP sensor input voltage	4.5 – 5.5 V		
TP sensor resistance	Closed	Approx. 1.3 k Ω	
	Opened	Approx. 4.5 k Ω	
TP sensor output voltage	Closed	Approx. 1.1 V	
	Opened	Approx. 4.3 V	
ECT sensor input voltage	4.5 – 5.5 V		
ECT sensor resistance	2.3 – 2.6 k Ω at 20°C (68°F)		
IAT sensor input voltage	4.5 – 5.5 V		
IAT sensor resistance	2.2 – 2.7 k Ω at 20°C (68°F)		
AP sensor input voltage	4.5 – 5.5 V		
AP sensor output voltage	Approx. 3.6 V at 100 kPa (760 mmHg)		
TO sensor resistance	60 – 64 k Ω		
TO sensor voltage	Approx. 2.5 V		
GP switch voltage	More than 0.6 V (From 1st to Top)		
Injector voltage	Battery voltage		
Ignition coil primary peak voltage	More than 80 V (When cranking)		
VCSV resistance	36 – 44 Ω		
Intake air control valve operating rpm	Opening	Above 2 500 rpm	
	Closing	Below 2 200 rpm	

THROTTLE BODY

ITEM	STD/SPEC.	
Fast idle r/min.	3 500 r/min. (After warming up)	
Idle r/min.	E-18	1 150 ± 50 r/min.
	The others	1 150 ± 100 r/min.
Throttle cable play	2.0 – 4.0 mm (0.08 – 0.16 in)	

ELECTRICAL

Unit: mm (in)

ITEM	STD/SPEC.		NOTE
Firing order	1-2-4-3		
Spark plug	Type	NGK: CR9E DENSO: U27ESR-N	
	Gap	0.7 – 0.8 (0.028 – 0.031)	
Spark performance	Over 8 (0.3) at 1 atm.		
CKP sensor resistance	180 – 280 Ω		
CKP sensor peak voltage	More than 3 V		G – BI
Ignition coil resistance	Primary	0.8 – 1.2 Ω	Terminal – Terminal
	Secondary	8 – 15 kΩ	Plug cap – Terminal
Ignition coil primary peak voltage	More than 80 V		
Generator coil resistance	0.2 – 0.4 Ω		
Generator Max. output	Approx. 400 W at 5 000 r/min.		
Generator no-load voltage (when cold)	More than 65 V (AC) at 5 000 r/min.		
Regulated voltage	13.5 – 15.0 V at 5 000 r/min.		
Starter relay resistance	3 – 5 Ω		
Battery	Type designation	YT12A-BS	
	Capacity	12V 36kC (10Ah)/10HR	
Fuse size	Headlight	(HI)	15 A
		(LO)	15 A
	Signal	15 A	
	Ignition	15 A	
	Fuel	10 A	
	Fan	10 A	
	Main	30 A	

WATTAGE

ITEM	STD/SPEC.		
	E-03, -24, -28, -33	The other countries	
Headlight	HI	65 + 55 W	←
	LO	55 W	←
Parking or position light			5 W
Brake light / Taillight		21/5 W × 2	←
Turn signal light		21 W × 4	←
License light		5 W	←
Tachometer light		LED	←
Speedometer light		LED	←
Fuel meter light		LED	←
Engine coolant temp. meter light		LED	←
Turn signal indicator light		LED	←
High beam indicator light		LED	←
Neutral indicator light		LED	←
Oil pressure indicator light		LED	←
FI indicator light		LED	←
Fuel level indicator light		LED	←
Engine coolant temp. indicator light		LED	←

BRAKE + WHEEL

Unit: mm (in)

ITEM	STD/SPEC.		LIMIT
Rear brake pedal height	55 - 65 (2.2 - 2.6)		—
Brake disc thickness	Front	4.8 - 5.2 (0.189 - 0.205)	4.5 (0.177)
	Rear	4.8 - 5.2 (0.189 - 0.205)	4.5 (0.177)
Brake disc runout	—		0.30 (0.012)
Master cylinder bore	Front	15.870 - 15.913 (0.6248 - 0.6265)	—
	Rear	12.700 - 12.743 (0.5000 - 0.5017)	—
Master cylinder piston diam.	Front	15.827 - 15.854 (0.6231 - 0.6242)	—
	Rear	12.657 - 12.684 (0.4983 - 0.4994)	—
Brake caliper cylinder bore	Front	Leading	24.000 - 24.076 (0.9449 - 0.9479)
		Trailing	27.000 - 27.076 (1.0630 - 1.0660)
	Rear	38.180 - 38.256 (1.5031 - 1.5061)	
Brake caliper piston diam.	Front	Leading	23.925 - 23.975 (0.9419 - 0.9439)
		Trailing	26.920 - 26.970 (1.0598 - 1.0618)
	Rear	38.098 - 38.148 (1.4999 - 1.5019)	
Brake fluid type	DOT 4		—

ITEM	STD/SPEC.	LIMIT
Wheel rim runout	Axial	2.0 (0.08)
	Radial	2.0 (0.08)
Wheel rim size	Front	17 × MT3.50
	Rear	17 × MT6.00
Wheel axle runout	Front	0.25 (0.010)
	Rear	0.25 (0.010)

TIRE

Unit: mm (in)

ITEM	STD/SPEC.	LIMIT
Cold inflation tire pressure (Solo riding)	Front	290 kPa (2.90 kgf/cm ² , 42 psi)
	Rear	290 kPa (2.90 kgf/cm ² , 42 psi)
Cold inflation tire pressure (Dual riding)	Front	290 kPa (2.90 kgf/cm ² , 42 psi)
	Rear	290 kPa (2.90 kgf/cm ² , 42 psi)
Tire size	Front	120/70 ZR17 (58W)
	Rear	190/50 ZR17 (73W)
Tire type	Front	BRIDGESTONE BT56F J
	Rear	BRIDGESTONE BT56R J
Tire tread depth (Recommended depth)	Front	1.6 (0.06)
	Rear	2.0 (0.08)

SUSPENSION

Unit: mm (in)

ITEM	STD/SPEC.	LIMIT
Front fork stroke	120 (4.7)	—
Front fork spring free length	245.1 (9.65)	240 (9.4)
Front fork oil level (without spring, outer tube fully compressed)	98 (3.9)	—
Front fork oil type	SUZUKI FORK OIL L01 or equivalent fork oil	—
Front fork oil capacity (each leg)	480 ml (16.2/16.9 US/lmp oz)	—
Front fork spring adjuster	5th groove from top	—
Front fork damping force adjuster	Rebound	3 turns back
	Compression	9 turns back
Rear shock absorber spring pre-set length	183 (7.20)	—
Rear shock absorber damping force adjuster	Rebound	11 turns back
	Compression	8 turns back

ITEM	STD/SPEC.	LIMIT
Rear wheel travel	140 (5.5)	—
Swingarm pivot shaft runout	—	0.3 (0.01)

FUEL + OIL

ITEM	STD/SPEC.	NOTE
Fuel type	Use only unleaded gasoline of at least 87 pump octane (R_{2M}) or 91 octane or higher rated by the research method. Gasoline containing MTBE (Methyl Tertiary Butyl Ether), less than 10% ethanol, or less than 5% methanol with appropriate cosolvents and corrosion inhibitor is permissible.	E-03, -28, -33
	Gasoline used should be graded 91 octane or higher. An unleaded gasoline is recommended.	The others
Fuel tank capacity	* 19 L (5.0/4.2 US/Imp gal)	E-33
	* 21 L (5.5/4.6 US/Imp gal)	The others
Engine oil type	SAE 10W/40, API SF or SG	
Engine oil capacity	Change 3.1 L (3.3/2.7 US/Imp qt)	
	Filter change 3.3 L (3.5/2.9 US/Imp qt)	
	Overhaul 4.0 L (4.2/3.5 US/Imp qt)	