GENERAL INFORMATION

1

CONTENTS

VIN AND SERIAL NUMBER LOCATIONS 1-1

FUEL, OIL AND COOLING SOLUTION RECOMMENDATIONS 1-1

BREAKING-IN PROCEDURES 1-2

SPECIAL MATERIALS 1-3

PRECAUTIONS AND GENERAL INSTRUCTIONS 1-6

SPECIFICATIONS 1-7

Produced with ScanToPDF

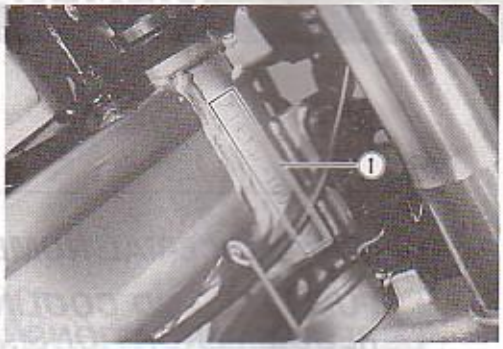
www.scantopdf.co.uk

Produced with ScanToPDF

www.scantopdf.co.uk

VIN AND SERIAL NUMBER LOCATIONS

The frame serial number or V.I.N. (Vehicle Identification Number) ① is stamped on the steering head pipe. The engine serial number ② is located on the left side of the crankcase. These numbers are required especially for registering the machine and ordering spare parts.



FUEL, OIL AND COOLING SOLUTION RECOMMENDATIONS

FUEL

For Finland and Switzerland

Use only unleaded gasoline of graded 85 – 95 octane or higher.

For the others

Gasoline used should be graded 85–95 octane or higher. An unleaded gasoline is recommended.

ENGINE OIL

Use SUZUKI "CCI" oil or SUZUKI CCI Super oil. They are formulated to give best engine performance with least combustion chamber deposits, least preignition, maximum spark plug life and best lubrication. If they are not available, a good quality TWO-STROKE OIL (non-diluent type) should be used.

TRANSMISSION OIL

Use a good quality SAE 10W/40 multi-grade motor oil.

FRONT FORK OIL

Use fork oil #10.

99000-99044-10G : SUZUKI FORK OIL # 10

BRAKE FLUID

Specification and classification : DOT 4

99000-23110 : SUZUKI BRAKE FLUID

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

COOLING SOLUTION

Use an anti-freeze & Summer coolant compatible with aluminum radiator, mixed with distilled water only, at ratio of 50 : 50.

WATER FOR MIXING

Use distilled water only. Water other than distilled water can corrode and clog the aluminum radiator.

ANTI-FREEZE & SUMMER COOLANT

The coolant performs as corrosion and rust inhibitor as well as anti-freeze. Therefore, the coolant should be used at all times even though the atmospheric temperature in your area does not go down to freezing point.

SUZUKI recommends the use of SUZUKI GOLDEN CRUISER 1200NA anti-freeze & summer coolant. If this is not available, use an equivalent which is compatible with aluminum radiator.

99000-99032-10X : SUZUKI GOLDEN CRUISER 1200NA
(Non-Amine type)

REQUIRED AMOUNT OF WATER/COOLANT

Solution capacity (total) : 1 050 ml (0.9 Imp qt)

CAUTION:

Mixing of anti-freeze & summer coolant should be limited to 60%. Mixing beyond it would reduce its efficiency. If the anti-freeze & summer coolant mixing ratio is below 30%, rust inhibiting performance is greatly reduced. Be sure to mix it above 30% even though the atmospheric temperature does not go down to freezing point.

BREAKING-IN PROCEDURES

During manufacture only the best possible materials are used and all machined parts are finished to a very high standard, but it is still necessary to allow the moving parts to "BREAK-IN" before subjecting the engine to maximum stresses. The future performance and reliability of the engine depends on the care and restraint exercised during its early life. The general rules are as follows.

- Keep to these breaking-in engine speed limits.

Initial 800 km (500 miles) : Below 6 000 r/min
Up to 1 600 km (1 000 miles) : Below 9 000 r/min
Over 1 600 km (1 000 miles) : Below 12 500 r/min

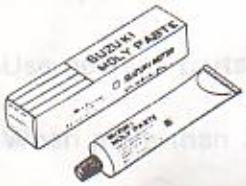
Produced with ScanToPDF
www.scantopdf.co.uk

SPECIAL MATERIALS

The materials listed below are needed for maintenance work on the RG125F, and should be kept on hand for ready use. They supplement such standard materials as cleaning fluids, lubrications, emery cloth and the like. How to use them and where to use them are described in the text of this manual.

Material	Part	Page	Part	Page
SUZUKI SUPER GREASE "A" 99000-25010	• Throttle grip • Clutch lever • Speedometer cable • Speedometer gear box • Brake pedal shaft • Side stand • Crankcase oil seal • Starter motor oil seal	2- 2 2- 2 2- 2 2- 2 7- 5 2- 2 2- 2 3-27 6-10	• Wheel bearings • Front fork oil seal • Steering stem bearing • Swingarm bearing and dust seal • Cushion lever and rod bearing	2- 2 7- 5 7-30 7-22 7-28 7-29 7-38 7-43 7-38 7-43
SUZUKI BOND No. 1207B 99000-31140	• Water pump mechanical seal	4- 8		
SUZUKI BOND No. 1215 99000-31110	• Crankcase mating surface • Water thermo-gauge • Exhaust valve holder stud bolt	3-31 4- 9		
THREAD LOCK SUPER "1322" 99000-32110	• Engine sprocket bolt • Exhaust pulley bolt • Exhaust valve arm screw • 2nd drive gear	3- 5 3- 5 3-18 3-26		
THREAD LOCK SUPER "1303" 99000-32030	• Starter clutch bolt • Gearshift arm stopper	3-22 3-33		
THREAD LOCK SUPER "1324" 99000-32120	• Magneto rotor nut	3-37		

Produced with ScanToPDF
www.scantopdf.co.uk

Material	Part	Page	Part	Page
THREAD LOCK SUPER "1360" 99000-32020	• Disc bolt	7- 5 7-30		
THREAD LOCK "1342" 99000-32050	• Bearing retainer screw • Gearshift retainer screw and bolt • Pawel lifter nut and cam guide screw • Cam driven gear bolt	3-31 3-33 3-33 3-33		
 SUZUKI MOLY PAST 99000-25140	• Starter motor armature end	6-10		
SUZUKI SILICONE GREASE 99000-25100	• Caliper axle	7-33		
SUZUKI BRAKE FLUID 99000-23110 (0.5L)	• Brakes	1- 1 2-10		
SUZUKI GOLDEN CRUISER 1200NA (Non-Amine type) 99000-99032-10X	• Cooling solution	1- 2		

Produced with ScanToPDF
www.scantopdf.co.uk

Material	Part	Page	Part	Page
 SUZUKI FORK OIL # 10 99000-99044-10G	• Front fork	1- 1 7-23		

Produced with ScanToPDF
www.scantopdf.co.uk

PRECAUTIONS AND GENERAL INSTRUCTIONS

Observe the following items without fail when disassembling and reassembling motorcycles.

- Do not run engine indoors with little or no ventilation.
- Be sure to replace packings, gaskets, circlips, O-rings and cotter pins with new ones.

CAUTION:
Never reuse a circlip after a circlip has been removed from a shaft, it should be discarded and a new circlip must be installed.
When installing a new circlip, care must be taken not to expand the end gap larger than required to slip the circlip over the shaft.
After installing a circlip, always insure that is completely seated in its groove and securely fitted.

- Tighten cylinder head and case bolts and nuts beginning with larger diameter and ending with smaller diameter, and from inside to outside diagonally, to the specified tightening torque.
- Use special tools where specified.
- Use genuine parts and recommended oils.
- When more than 2 persons perform work together, pay attention to the safety of each other.
- After the reassembly, check parts for tightness and operation.
- *Treat gasoline, which is extremely flammable and highly explosive, with greatest care. Never use* gasoline as cleaning solvent.

Warning, Caution and Note are included in this manual occasionally, describing the following contents.

WARNING ..... ***The personal safety of the rider or bystanders may be involved. Disregarding*** **this information could result in personal injury.**

CAUTION ..... **These instructions point out special service procedures or precautions that must be followed to avoid damaging the machine.**

NOTE ..... *This provides special information to make maintenance easier or important instructions clearer.*

REPLACEMENT PARTS

When you replace any parts, use only genuine SUZUKI replacement parts, or their equivalent. Genuine SUZUKI parts are high quality parts which are designed and built specifically for SUZUKI vehicles.

CAUTION:
Use of replacement parts which are not equivalent in quality to genuine SUZUKI parts can lead to performance problems and damage.

Produced with ScanToPDF
www.scantopdf.co.uk

SPECIFICAITONS

DIMENSIONS AND DRY MASS	
Overall length	2 065 mm (81.3 in) E15, 17, 18
	2 005 mm (78.9 in) .... Others
Overall width	720 mm (28.3 in)
Overall height	1 090 mm (42.9 in)
Wheelbase	1 335 mm (52.6 in)
Ground clearance	140 mm (5.5 in)
Seat height	775 mm (30.5 in)
Dry mass	125 kg (275 lbs)
ENGINE	
Type	Two-stroke, water -cooled
Intake system	Reed valve
Number of cylinder	1
Bore	56.0 mm (2.205 in)
Stroke	50.6 mm (1.992 in)
Piston displacement	124 cm^3 (7.57 cu. in)
Corrected compression ratio	7.5 : 1 .... E01, 15
	9.4 : 1 .... E02, 04, 17, 18
Carburetor	MIKUNI TM32, single E15, 18
	MIKUNI TM30, single .... Others
Air cleaner	Polyurethane foam element
Starter system	Primary kick
Lubrication system	SUZUKI "CCI"
TRANSMISSION	
Clutch	Wet multi-plate type
Transmission	6-speed constant mesh
Gearshift pattern	1-down, 5-up
Primary reduction	3.350 (67/20)
	3.133 (47/15)... E15, 18
Final reduction	2.937 (47/16)... Others
Gear ratios, Low	2.636 (29/11)
2nd	1.857 (26/14)
3rd	1.333 (20/15)
4th	1.095 (23/21)
5th	0.916 (22/24)
Top	0.833 (20/24)
Drive chain	DAIDO D.I.D. 428 VCA, TAKASAGO RJ428HO, 130 links
CHASSIS	
Front suspension	Telescopic, coil spring, oil damped
Rear suspension	Swingarm, coil spring, oil damped
Steering angle	30° (right & left)
Caster	64° 30'
Trail	97 mm (3.8 in)
Turning radius	3.0 m (9.8 ft)
Front brake	Disc brake
Rear brake	Disc brake
Front tire size	100/80-17 52S
Rear tire size	120/80-17 61S
Front fork stroke	116 mm (4.5 in)
Rear wheel travel	118 mm (4.6 in)
ELECTRICAL	
Ignition type	SUZUKI "PEI"
Ignition timing	18° BTDC at 1400 rpm E15, 18
	14° BTDC at 1400 rpm .... Others
Spark plug	NGK BR9ECM or NIPPON DENSO W27EMR-C
Battery	12V 14.4kC (4 Ah)/10 HR
Fuse	15A
Headlight	12V 60/55W
Tail/Brake light	12V 5/21W
Turn signal light	12V 21W
Position light	12V 4W
Turn signal indicator light	12V 3.4W
High beam indicator light	12V 1.7W
Oil level indicator light	12V 3.4W
Neutral indicator light	12V 3.4W
Speedometer light	12V 1.7W
Tachometer light	12V 3W
Coolant temperature meter light	12V 3.4W
CAPACITIES	
Fuel tank including reserve	14.5 L (3.2 Imp gal)
Reserve	3.0 L (0.7 Imp gal)
Engine oil tank	1.2 L (1.1 Imp qt)
Front fork oil (each leg)	367 ml (12.9 Imp oz)
Transmission oil	1050 ml (0.9 Imp qt)
Coolant	1050 ml (0.9 Imp qt)

These specifications are subject to change without notice.

NOTE:
E02...U.K. E04... France E15... Finland E17...Sweden E18...Switzerland

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

PERIODIC MAINTENANCE AND TUNE-UP PROCEDURES

2

CONTENTS

PERIODIC MAINTENANCE SCHEDULE 2- 1
PERIODIC MAINTENANCE CHART 2- 1
LUBRICATION POINTS 2- 2
MAINTENANCE PROCEDURES 2- 3
BATTERY 2- 3
CYLINDER NUTS, CYLINDER HEAD NUTS AND EXHAUST PIPE NUTS 2- 3
CYLINDER HEAD, CYLINDER AND MUFFLER 2- 4
SPARK PLUG 2- 4
AIR CLEANER 2- 5
TRANSMISSION OIL 2- 6
COOLING SYSTEM 2- 6
CARBURETOR 2- 7
FUEL LINE 2- 8
OIL PUMP 2- 8
CLUTCH 2- 8
DRIVE CHAIN 2- 9
BRAKES 2-10
TIRES 2-13
STEERING 2-14
FRONT FORK 2-14
REAR SUSPENSION 2-14
CHASSIS BOLTS AND NUTS 2-15

Produced with ScanToPDF
www.scantopdf.co.uk

PERIODIC MAINTENANCE SCHEDULE

The chart below lists the recommended intervals for all the required periodic service work necessary to keep the motorcycle operating at peak performance and economy. Traveling distances are expressed in terms of kilometers.

NOTE:
More frequent servicing may be performed on motorcycles that are used under severe conditions.

PERIODIC MAINTENANCE CHART

This interval should be judged by odometer reading or months, whichever comes first.	km	1 000	6 000	12 000	18 000	24 000
	months	2	12	24	36	48
Battery		—	I	I	I	I
Cylinder nuts, cylinder head nuts and exhaust pipe nuts		T	T	T	T	T
Cylinder head, cylinder and muffler		—	C	C	C	C
Spark plug		I	R	R	R	R
Air cleaner		Clean every 3 000 km				
Transmission oil		R	—	R	—	R
Radiator hoses		I	—	I	—	I
		Replace every 4 years				
Coolant		Replace every 2 years				
Carburetor		I	I	I	I	I
Fuel line		I	I	I	I	I
		Replace every 4 years				
Oil pump		I	I	I	I	I
Clutch		I	I	I	I	I
Drive chain		I	I	I	I	I
		Clean and lubricate every 1 000 km				
Brakes		I	I	I	I	I
Brake hoses		I	I	I	I	I
		Replace every 4 years				
Brake fluid		I	I	I	I	I
		Replace every 2 years				
Tires		I	I	I	I	I
Steering		I	I	I	I	I
Front fork		—	—	I	—	I
Rear suspension		—	—	I	—	I
Chassis bolts and nuts		T	T	T	T	T

I: Inspection and adjust, clean, lubricate or replace as necessary
C: Clean R: Replace T: Tighten

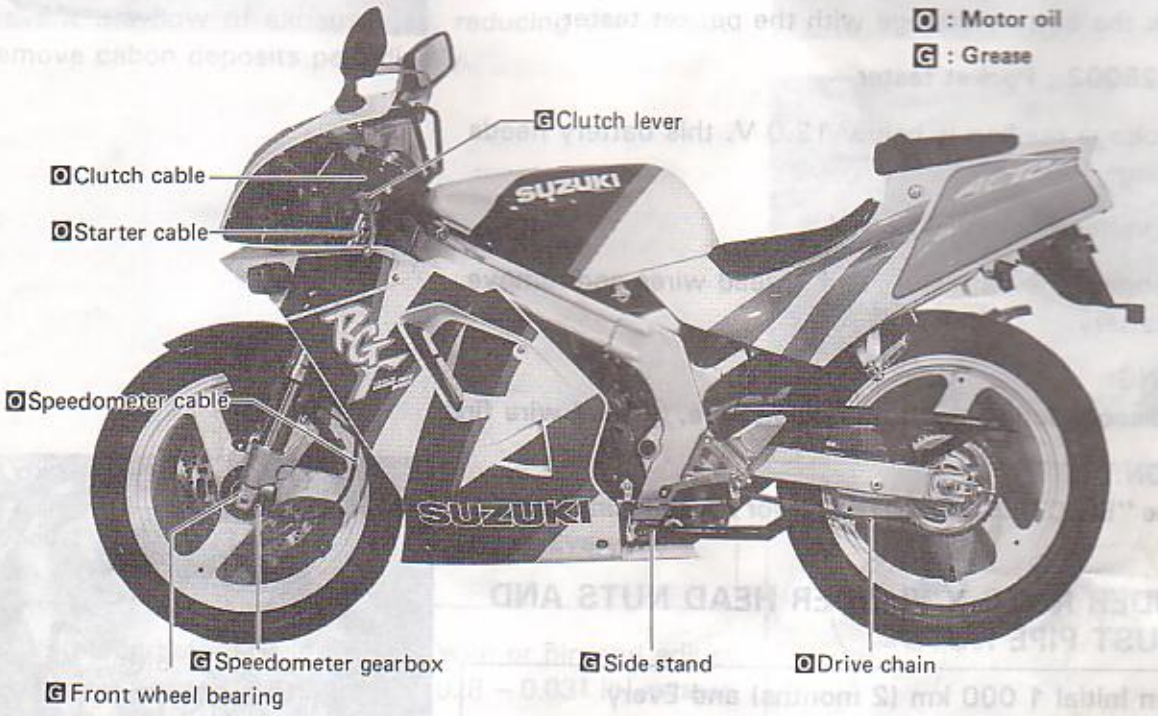
Produced with ScanToPDF
www.scantopdf.co.uk

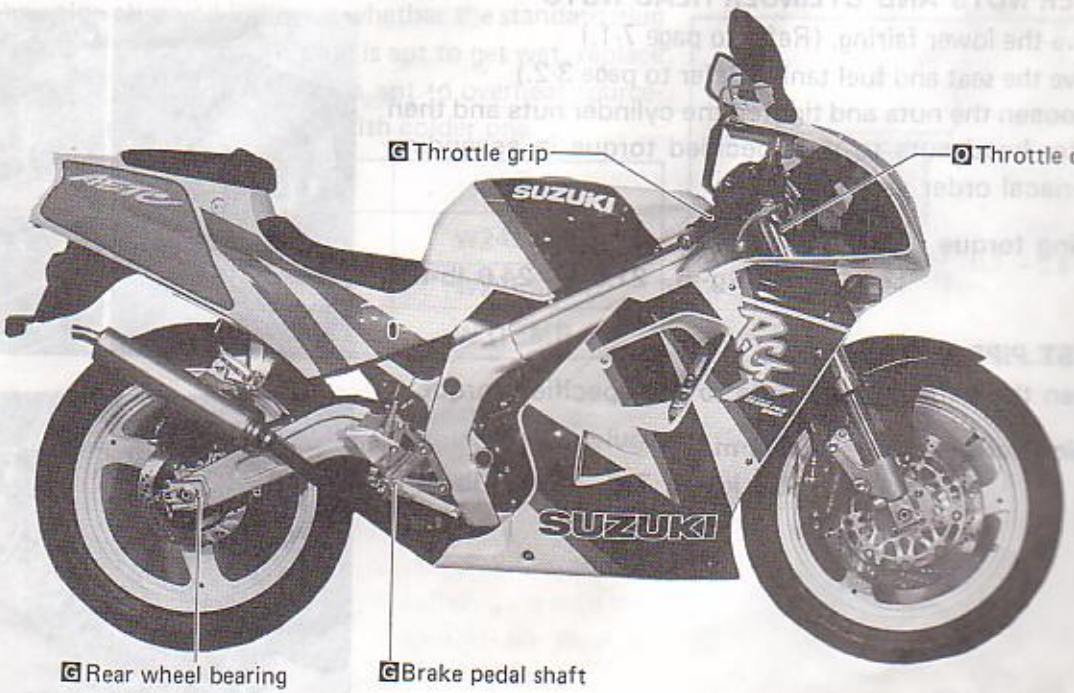
LUBRICATION POINTS

Proper lubrication is important for smooth operation and long life of each working parts of the motorcycle. Major lubrication points are indicated below.

NOTE:

* *Before lubricating each part, clean off any rusty spots and wipe off any grease, oil, dirt or grime.*
* *Lubricate exposed parts which are subject to rust, with motor oil or grease.*

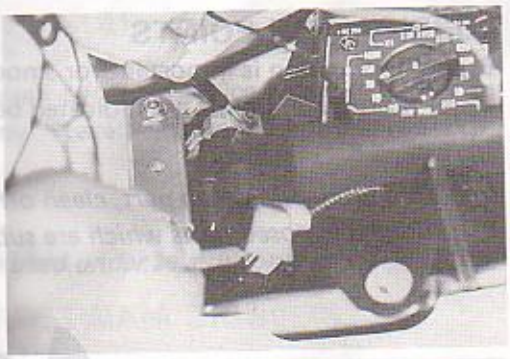




Produced with ScanToPDF
www.scantopdf.co.uk

MAINTENANCE PROCEDURES

This section describes the service procedures for each section of Periodic Maintenance.



BATTERY

Inspect Every 6 000 km (12 months)

- Remove the seat.
- Check the battery voltage with the pocket tester.

09900-25002 : Pocket tester

If the voltage reading is below 12.0 V, this battery needs recharging.

Battery voltage : Above 12.0 V

- Disconnect the battery ⊖ and ⊕ lead wires and remove the battery.

WARNING:
When disconnecting the battery lead wire, ⊖ lead wire first.

CAUTION:
Read the "ELECTRICAL SECTION", for the servicing battery.

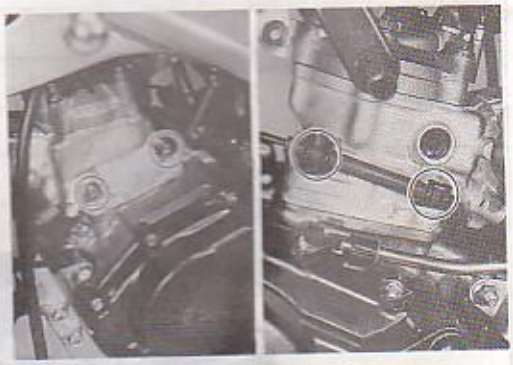
CYLINDER NUTS, CYLINDER HEAD NUTS AND EXHAUST PIPE NUTS

Tighten Initial 1 000 km (2 months) and Every 6 000 km (12 months)

CYLINDER NUTS AND CYLINDER HEAD NUTS

- Remove the lower fairing. (Refer to page 7-1.)
- Remove the seat and fuel tank. (Refer to page 3-2.)
- First loosen the nuts and tighten the cylinder nuts and then cylinder head nuts to the specified torque in ascending numeriacal order as shown.

Tightening torque : 29 — 33 N·m (2.9 — 3.3 kg-m, 21.0 — 24.0 lb-ft)



EXHAUST PIPE NUTS

- Tighten the exhaust pipe nuts to the specified torque.

Tightening torque : 10 — 16 N·m (1.0 — 1.6 kg-m, 7.0 — 11.5 lb-ft)

Produced with ScanToPDF
www.scantopdf.co.uk

CYLINDER HEAD, CYLINDER AND MUFFLER

Remove carbon Every 6 000 km (12 months)

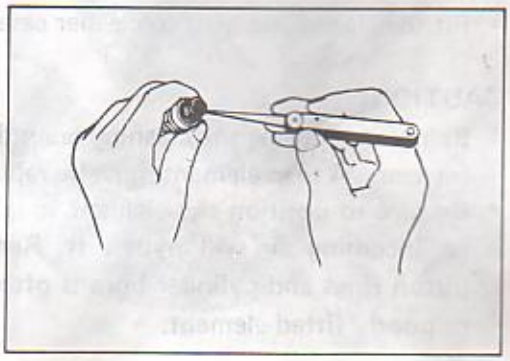
- Carbon deposits in the combustion chamber of the cylinder head and at the piston crown will raise the compression ratio and may cause preignition or overheating.
- Carbon deposited at the exhaust port of the cylinder will prevent the flow of exhaust gas, reducing the output. Remove cabon deposits periodically.

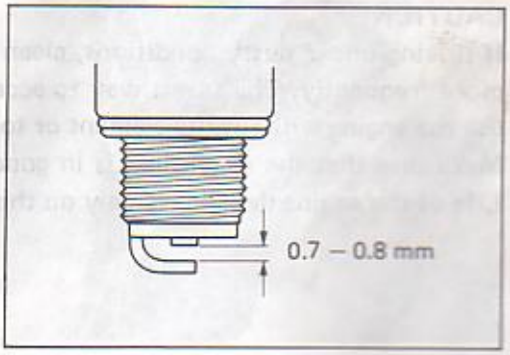
SPARK PLUG

Inspect 1 000 km (2 months) and Replace Every 6 000 km (12 months)

Remove the carbon deposits with a wire or pin and adjust the spark plug gap to 0.7 – 0.8 mm (0.028 – 0.031 in) measuring with a thickness gauge.

When removing carbon deposits, be sure to observe the appearance of the plug, noting the color of the carbon deposits. The color observed indicates whether the standard plug is suitable or not. If the standard plug is apt to get wet, replace with hotter one. If the standard plug is apt to overheat (porcelain is whitish in appearance), replace with colder one.





	NGK	ND
Hotter type	BR8ECM	W24EMR-C
Standard	BR9ECM	W27EMR-C
Colder type	BR10ECM	W31EMR-C

CAUTION:
Confirm the thread size and reach when replacing the plug.

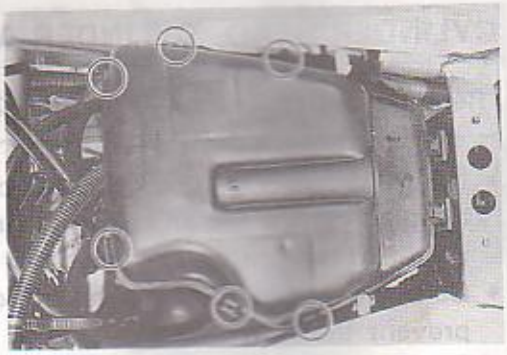
Produced with ScanToPDF
www.scantopdf.co.uk

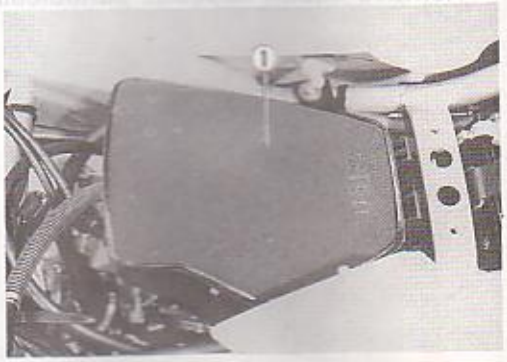
AIR CLEANER

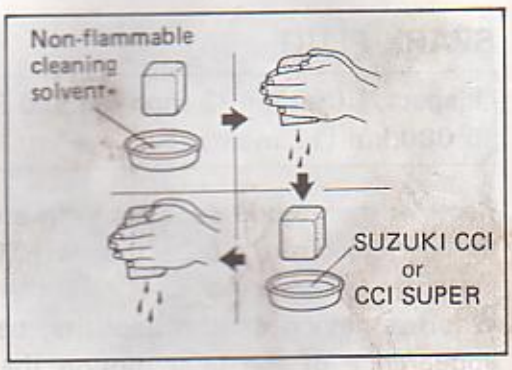
Clean Every 3 000 km

If the air cleaner is clogged with dust, intake resistance will be increased with a resultant decrease in power output and an increase in fuel consumption.
Check and clean the element in the following manner.

- Remove the seat and fuel tank.
- Remove the air cleaner case cover.
- Remove the polyurethan foam element ①.
- Fill a washing pan of a proper size with nonflammable cleaning solvent. Immerse the element in the cleaning solvent and wash it clean.
- Squeeze the cleaning solvent out of the washed element by pressing it between the palms of both hands: do not twist or wring the element or it will develop tears.
- Immerse the element in SUZUKI CCI or CCI SUPER oil, and squeeze the oil out of the element leaving it slightly wet with oil.
- Fit the cleaner element to cleaner case properly.







CAUTION:

* **Before and during the cleaning operation, inspect the element for tears. A torn element must be replaced.**
* **Be sure to position the element snugly and correctly, so that no incoming air will bypass it. Remember, rapid wear of piston rings and cylinder bore is often caused by a defective or poorly fitted element.**

CAUTION:

If driving under dusty conditions, clean the air cleaner element more frequently. The surest way to accelerate engine wear is to use the engine without the element or to use a ruptured element. Make sure that the air cleaner is in good condition at all times. Life of the engine depends largely on this component!

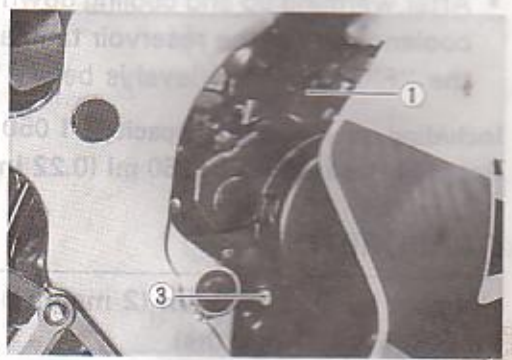
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

TRANSMISSION OIL

Replace (change) Initial 1 000 km (2 months) and Every 12 000 km (24 months)

After a long period of use, the transmission oil will deteriorate and quicken the wear of sliding and interlocking surfaces. Replace the transmission oil periodically following the procedure below.

- Keep the motorcycle upright.
- Start the engine to warm up the oil, this will facilitate draining of oil. Shut off the engine.
- Place the oil pan below the engine and drain the oil by removing the filler cap ① and drain plug ②.
- After draining the oil completely, fit the drain plug ② securely.



Drain plug tightening torque : 20—25 N·m (2.0—2.5 kg-m, 14.5—18.0 lb-ft)

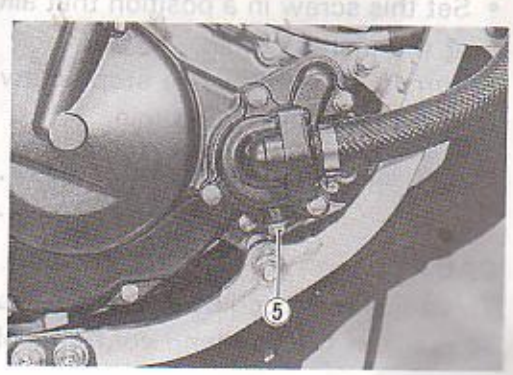
- Add the good quality SAE10W/40 multi-grade motor oil. The transmission will hold about 1 050 ml of oil.
- Install the filler cap correctly.
- Start up the engine and allow it to run for several seconds at idling speed.
- Turn off the engine and wait for about one minute, and check the oil level screw ③. If the oil does not run out from the hole, add the oil until it runs out.

COOLING SYSTEM

Inspect Initial 1 000 km (2 months) and Every 12 000 km (24 months)
Replace (change) coolant Every 2 years
Replace hoses Every 4 years

- Loosen the screw and remove the radiator cap ④.
- Remove the lower fairing. (Refer to page 7-1.)
- Remove the drain plug ⑤ and drain the coolant thoroughly while holding the motorcycle upright.

WARNING:
Do not open the radiator cap when the engine is hot, as you may be injured by escaping hot liquid or vapor.



WARNING:
Cooling solution may be harmful if swallowed or if it comes in contact with skin or eyes. If cooling solution gets into the eyes or in contact with the skin, it should be flushed thoroughly with plenty of water. If swallowed, induce vomitting and call physician immediately.

Produced with ScanToPDF
www.scantopdf.co.uk

- Flush the radiator with fresh water.
- Tighten the drain plug securely.
- Fill the specified coolant up to the radiator inlet hole.

NOTE:
For coolant information, refer to "COOLING SYSTEM" section page 4-2.)

- Fill the reservoir tank to the "F" level with coolant.
- Close the radiator cap securely.
- After warming up and cooling down the engine, check the coolant level of the reservoir tank and add the coolant to the "F" level if the level is below "L".

Including reservoir tank capacity : 1 050 ml (0.9 Imp qt)
Reservoir tank capacity: 250 ml (0.22 Imp qt)

CARBURETOR

Inspect Initial 1 000 km (2 months) and Every 6 000 km (12 months)

ADJUSTING THROTTLE CABLE

- Loosen the lock nut ①.
- Adjust the cable play Ⓐ to 0.5 — 1.0 mm by turning adjuster ②.

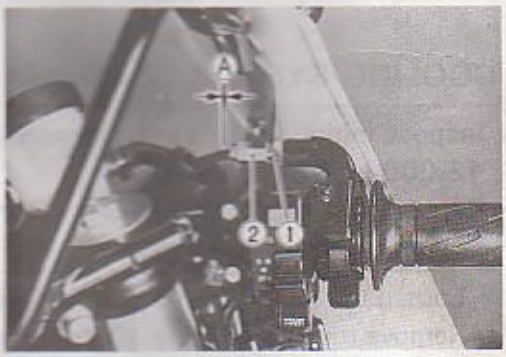
Throttle cable play Ⓐ : 0.5 — 1.0 mm (0.02 — 0.04 in)

- After adjusting the cable play, tighten the lock nut ①.

IDLE R/MIN ADJUSTMENT

- Adjust the throttle cable paly.

NOTE:
Make this adjustment when the engine is hot.



- Connect a tachometer.
- Start the engine and turn the throttle valve stop screw ③ so that engine idles at 1 400 r/min.
- Turn the air screw ④ in or out around 1/4 turn from the original setting. (Refer to page 8-19.)
- The engine r/min will increase or decrease in accordance with the turning of the air screw.
- Set this screw in a position that allows the engine to idle at the highest r/min.
- Turn the throttle valve stop screw again and adjust the specified engine idle r/min.

Engine idle r/min : 1 400 ± 50 r/min . . . For Switzerland
1 400 ± 100 r/min . . . For the others

CAUTION:
This adjustment could affect the oil pump control cable play, so readjust the oil pump control cable play if necessary.

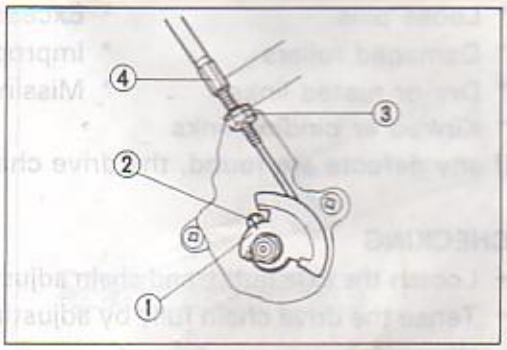
Produced with ScanToPDF
www.scantopdf.co.uk

FUEL LINE

Inspect Initial 1 000 km (2 months) and Every 6 000 km (12 months)
Replace Every 4 years

OIL PUMP

Inspect Initial 1 000 km (2 months) and Every 6 000 km (12 months)



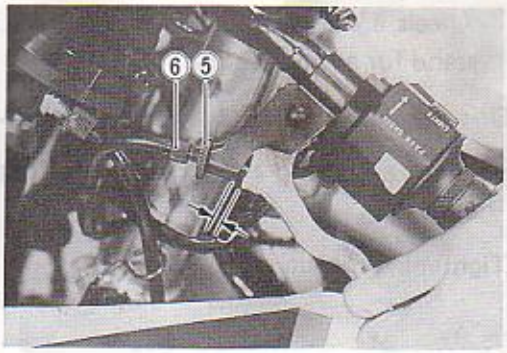
The engine oil is fed by the oil pump to the engine. The amount of oil fed to it is regulated by engine speed and the oil pump control lever which is controlled by the amount of throttle opening.
Check the oil pump in the following manner to confirm correct operation for throttle valve full opening position.

- Turn the throttle grip full open.
- Check whether the red mark ① on the oil pump control lever is aligned with the index mark ② when the throttle valve is positioned as above.
- If the marks are not aligned, loosen the lock nut ③ and turn the adjuster ④ in or out to align the marks.
- After aligning the marks, tighten the lock nut ③.

CAUTION:
Oil pump cable adjustment must be done after throttle cable adjustment.

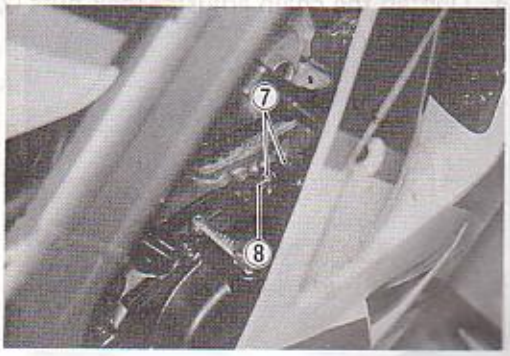
CLUTCH

Inspect Initial 1 000 km (2 months) and Every 6 000 km (12 months)



- Loosen the lock nut ⑤ and turn the adjuster ⑥ fully in.
- Loosen the cable lock nuts ⑦ and adjust the play of the cable with the adjuster ⑧ until play of the clutch lever is 2 – 3 mm.

Cable play Ⓐ : 2 – 3 mm (0.08 – 0.12 in)



- Tighten the lock nuts ⑤, ⑦.
- If the specified play can not be obtained with adjuster ⑧, carry out the adjustment using the adjuster ⑥ on the clutch lever side.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

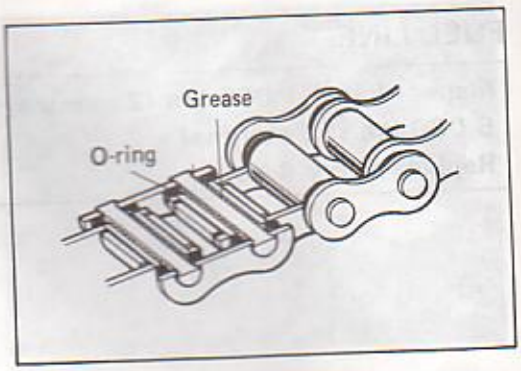
DRIVE CHAIN

Inspect Initial 1 000 km (2 months) and Every 6 000 km (12 months)
Clean and Lubricate Every 1 000 km

Visually inspect the drive chain for the below listed possible malconditions. (Lift the rear wheel and place a jack or block under the engine, and turn the rear wheel slowly by hand, with the transmission in NEUTRAL).

* Loose pins
* Damaged rollers
* Dry or rusted links
* Kinked or binding links
* Excessive wear
* Improper chain adjustment
* Missing O-ring or seals

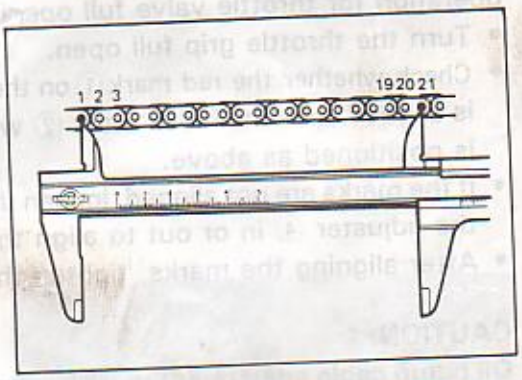
If any defects are found, the drive chain must be replaced.



CHECKING

- Loosen the exle nut ① and chain adjuster lock nuts ②.
- Tense the drive chain fully by adjusting the chain adjusters ③.
- Count out 21 pins on the chain and measure the distance between the two. If the distance exceeds following limit, the chain must be replaced.

Service Limit : 255.5 mm (10.06 in)



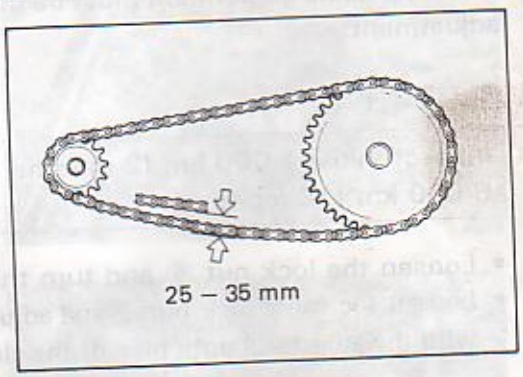
ADJUSTING

- Adjusting the chain adjusters ③ until the chain has 25 — 35 mm of slack at the middle between engine and rear sprockets. The mark ④ on both chain adjusters must be at the same position on the scale to ensure that the front and rear wheels are correctly aligned. Place the motorcycle on the side stand for accurate adjustment.

Drive chain slack : 25 — 35 mm (1.0 — 1.4 in)

- After adjusting the drive chain, tighten the axle nut ① securely.

Tightening torque : 57 — 89 N·m (5.7 — 8.9 kg-m, 41.0 — 64.5 lb-ft)

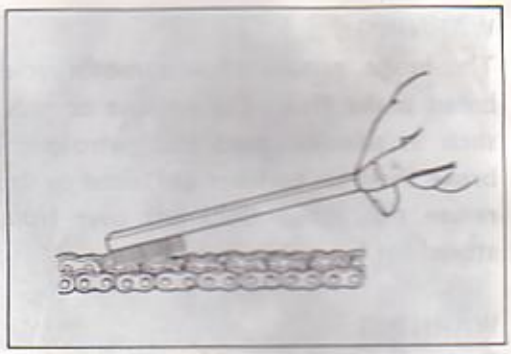


- Tighten the chain adjuster lock nuts ②.

Produced with ScanToPDF
www.scantopdf.co.uk

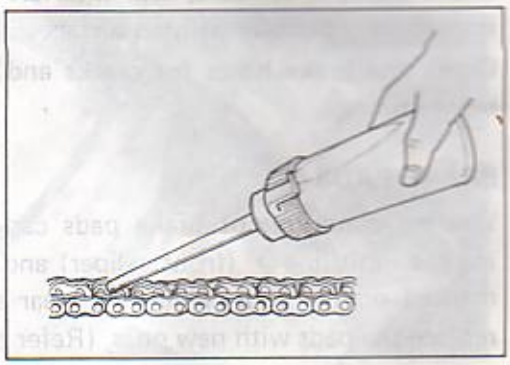
CLEANING AND LUBRICATING

- Wash the chain with kerosene. If the chain tends to rust faster, the intervals must be shortened.



CAUTION:
Do not use trichlene, gasoline or any similar fluids: These fluids have too great a dissolving power for this chain and, what is more important, can spoil the "O" rings (or seals) confining the grease in the bush to pin clearance. Remember, high durability comes from the presence of grease in that clearance.

- After washing and drying the chain, oil it with a heavy-weight motor oil.

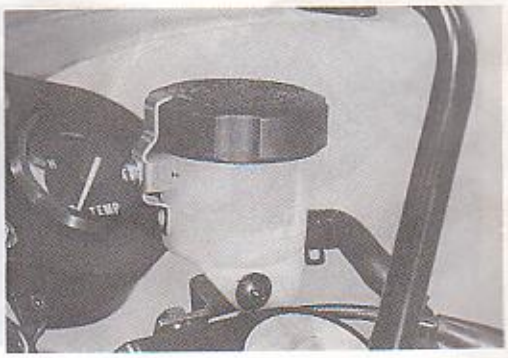


CAUTION:
Do not use any oil sold commercially as "drive chain oil". Such oil too can spoil the "O" rings (or seals).

CAUTION:
The standard drive chain is DAIDO DID428VCA or TAKASAGO RK428HO. SUZUKI recommends that the abovementioned standard drive chain be used for the replacement.

BRAKES

Inspect Initial 1 000 km (2 months) and Every 6 000 km (12 months)
Replace hoses Every 4 years
Replace (change) fluid Every 2 years



BRAKE FLUID LEVEL

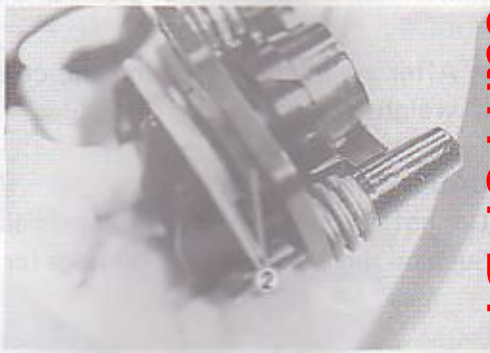
- Keep the motorcycle upright and place the handlebar straight.
- Check the brake fluid level by observing the upper and lower limit lines on the brake fluid reservoirs.
- When the level is below the lower limit line, replenish with brake fluid that meets the following specification.

Specification and classification : DOT 4
99000-23110 : SUZUKI BRAKE FLUID

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

WARNING:
The brake system of this motorcycle is filled with a glycol-based brake fluid. Do not use or mix different types of fluid such as silicone-based and petroleum-based. Do not use any brake fluid taken from old, used or unsealed containers. Never re-use the brake fluid left over from the last servicing and stored for long periods.

WARNING:
Brake fluid, if it leaks, will interfere with safe running and immediately discolor painted surfaces.
Check the brake hoses for cracks and hose joints for leakage before riding.



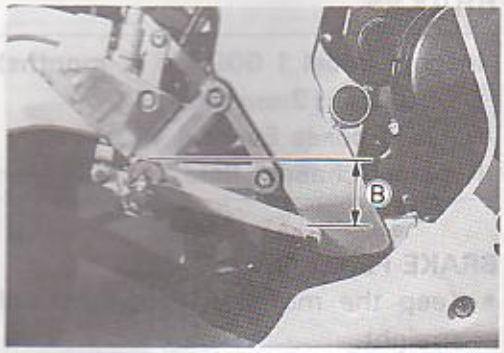
BRAKE PADS

Wearing condition of brake pads can be checked by observing the limit line ① (front caliper) and groove ② (rear caliper) marked on the pads. When the wear exceeds the limit mark, replace the pads with new ones. (Refer to page 7-6 and 7-35.)

BRAKE PEDAL HEIGHT

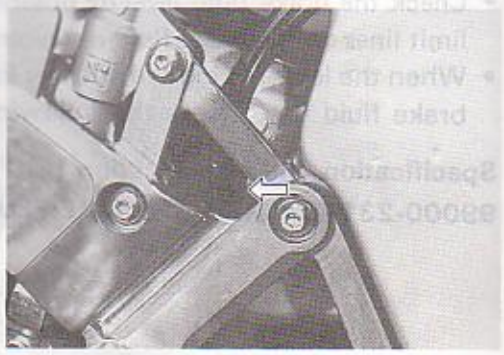
- Loosen the lock nut ③, and rotate push rod ④ to locate brake pedal 55 mm Ⓑ below the top face of the footrest.
- Retighten the lock nut ③ to secure the push rod ④ in the proper position.

Brake pedal height Ⓑ : 55 mm (2.2 in)



REAR BRAKE LIGHT SWITCH

Adjust the rear brake light switch, so that brake light will come on just before a pressure is felt when the brake pedal is depressed.



Produced with ScanToPDF
www.scantopdf.co.uk

BLEEDING AIR FROM THE BRAKE FLUID CIRCUIT

Air trapped in the fluid circuit acts like a cushion to absorb a large proportion of the pressure developed by the master cylinder and thus interferes with the full braking performance of the brake caliper. The presence of air is indicated by "sponginess" of the brake lever and also by lack of braking force. Considering the danger to which such trapped air exposes the machine and rider, it is essential that, after remounting the brake and restoring the brake system to the normal condition, the brake fluid circuit be purged of air in the following manner:

- Fill up the master cylinder reservoir to the upper line. Replace the reservoir cap to prevent entry of dirt.
- Attach a pipe to the caliper bleeder valve, and insert the free end of the pipe into a receptacle.

Front brake : Bleed the air from the bleeder valve.

- Squeeze and release the brake lever several times in rapid succession, and squeeze the lever fully without releasing it. Loosen the bleeder valve by turning it a quarter of a turn so that the brake fluid runs into the receptacle: this will remove the tension of the brake lever causing it to touch the handlebar grip. Then, close the valve, pump and squeeze the lever, and open the valve. Repeat this process until the fluid flowing into the receptacle no longer contains air bubbles.

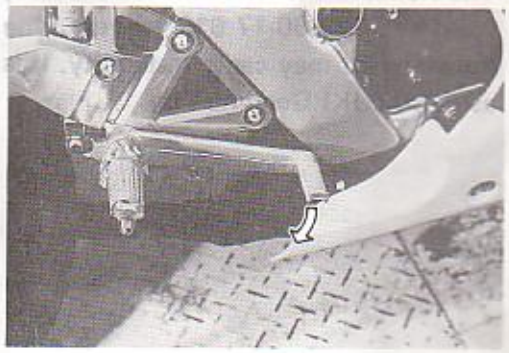
NOTE:
Replenish the brake fluid reservoir as necessary while bleeding the brake system.
Make sure that there is always some fluid visible in the reservoir.

- Close the bleeder valve, and disconnect the pipe. Fill the reservoir to the upper line.

Rear brake: Differences between front and rear are that the master cylinder is actuated by a pedal.

Bleeder valve
Tightening torque : 6 — 9 N·m
(0.6 — 0.9 kg-m, 4.5 — 6.5 lb-ft)

CAUTION:
Handle the brake fluid with care: the fluid reacts chemically with paint, plastics, rubber materials, etc.



Produced with ScanToPDF
www.scantopdf.co.uk

TIRES

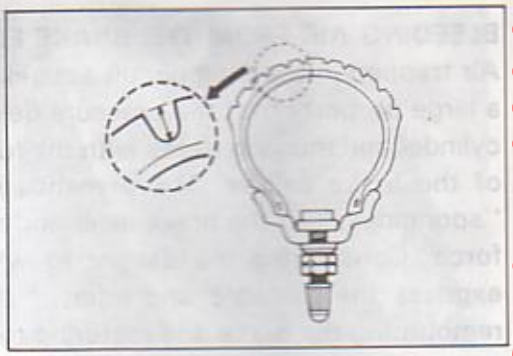
Inspect Initial 1 000 km (2 months) and Every 6 000 km (12 months)

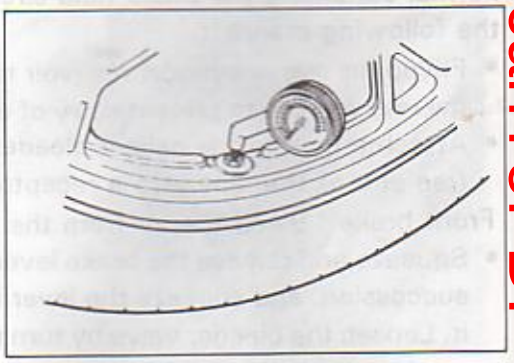
TIRE TREAD CONDITION

Operating the motorcycle with excessively worn tires will decrease riding stability and consequently invite a dangerous situation. It is highly recommended to replace the tire when the remaining depth of tire tread reaches the following specifications.

Tire tread depth (Front and Rear)
Service Limit : 1.6 mm (0.06 in)

09900-20805 : Tire depth gauge





TIRE PRESSURE

If the tire pressure is too high or too low, steering will be adversely affected and tire wear increased. Therefore, maintain the correct tire pressure for good roadability or shorter tire life will result. Cold inflation tire pressure is as follows.

	Solo riding			Dual riding		
	kPa	kg/cm²	psi	kPa	kg/cm²	psi
FRONT	175	1.75	25	175	1.75	25
REAR	200	2.00	29	225	2.25	33

CAUTION:
The standard tire fitted on this motorcycle is 100/80-17 52S for front and 120/80-17 61S for rear. The use of a tire other than the standard may cause instability. It is highly recommended to use a SUZUKI Genuine Tire.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

STEERING

Inspect Initial 1 000 km (2 months) and Every 6 000 km (12 months)

Tapper roller type bearings are applied on the steering system for better handling.
Steering should be adjusted properly for smooth turning of handlebar and safe running. Too stiff steering prevents smooth turning of handlebar and too loose steering will cause poor stability.
Check that there is no play in the front fork assembly by supporting the machine so that the front wheel is off the ground, with wheel straight ahead, grasp lower fork tubes near the axle and pull forward. If play is found, perform steering bearing adjustment. (Refer to page 7-30.)

FRONT FORK

Inspect Every 12 000 km (24 months)

Inspect the front forks for oil leakage, scoring and scratches on the outer surface of the inner tubes.
Replace any defective parts, if necessary.

REAR SUSPENSION

Inspect Every 12 000 km (24 months)

Inspect the rear shock absorber for oil leakage and check that there is no play in the swingarm assembly.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

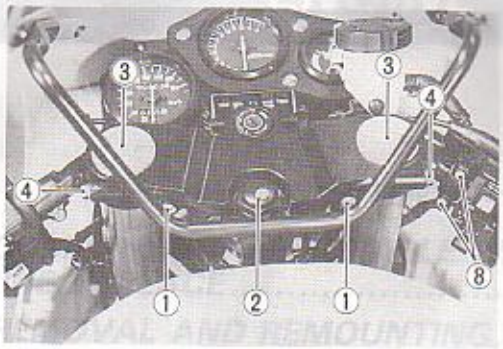
CHASSIS BOLTS AND NUTS

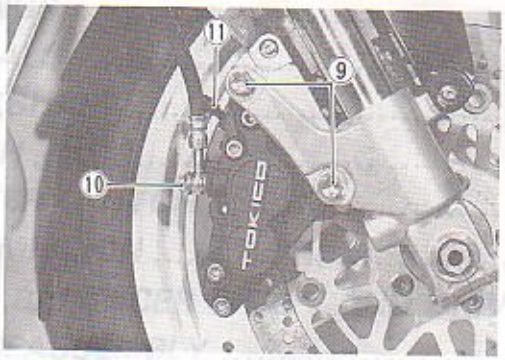
Tighten Initial 1 000 km (2 months) and Every 6 000 km (12 months)

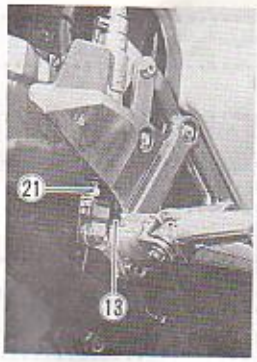
The bolts and nuts listed below are important safety parts. They must be retightened when necessary to the specified torque.

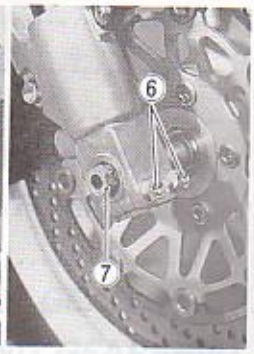
ITEM	N·m	kg-m	lb-ft
① Handlebar bolt	19 – 28	1.9 – 2.8	13.5 – 20.0
② Steering stem head nut	82 – 102	8.2 – 10.2	59.5 – 74.0
③ Front fork cap	30 – 40	3.0 – 4.0	21.5 – 29.0
④ Front fork upper clamp bolt	19 – 28	1.9 – 2.8	13.5 – 20.0
⑤ Front fork lower clamp bolt	23 – 35	2.3 – 3.5	16.5 – 25.5
⑥ Front axle clamp bolt	19 – 28	1.9 – 2.8	13.5 – 20.0
⑦ Front axle shaft	51 – 81	5.1 – 8.1	37.0 – 58.5
⑧ Front brake master cylinder bolt	6 – 9	0.6 – 0.9	4.5 – 6.5
⑨ Front brake caliper mounting bolt	31 – 48	3.1 – 4.8	22.5 – 34.5
⑩ Brake hose union bolt (Front & Rear)	16 – 20	1.6 – 2.0	11.5 – 14.5
⑪ Air bleeder valve (Front & Rear)	6 – 9	0.6 – 0.9	4.5 – 6.5
⑫ Front footrest bracket bolt	19 – 28	1.9 – 2.8	13.5 – 20.0
⑬ Front footrest bolt	28 – 43	2.8 – 4.3	20.0 – 31.0
⑭ Swingarm pivot nut	86 – 97	8.6 – 9.7	62.0 – 70.0
⑮ Rear shock absorber mounting nut (Upper & Lower)	49 – 73	4.9 – 7.3	35.5 – 53.0
⑯ Rear cushion lever nut (Front)	62 – 97	6.2 – 9.7	45.0 – 70.0
⑰ Rear cushion lever nut (Center)	62 – 97	6.2 – 9.7	45.0 – 70.0
⑱ Rear cushion rod nut	62 – 97	6.2 – 9.7	45.0 – 70.0
⑲ Rear axle nut	57 – 89	5.7 – 8.9	41.0 – 64.5
⑳ Rear brake master cylinder bolt	11 – 16	1.1 – 1.6	8.0 – 11.5
㉑ Rear brake rod lock nut	16 – 20	1.6 – 2.0	11.5 – 14.5
㉒ Rear brake caliper mounting bolt	21 – 31	2.1 – 3.1	15.0 – 22.5

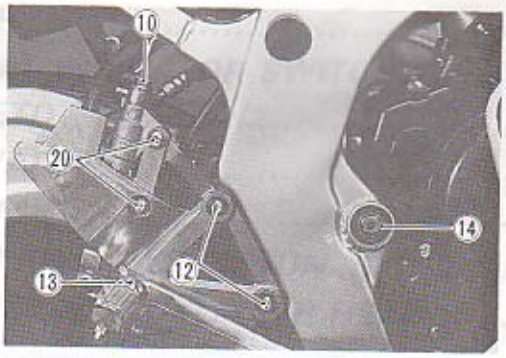
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

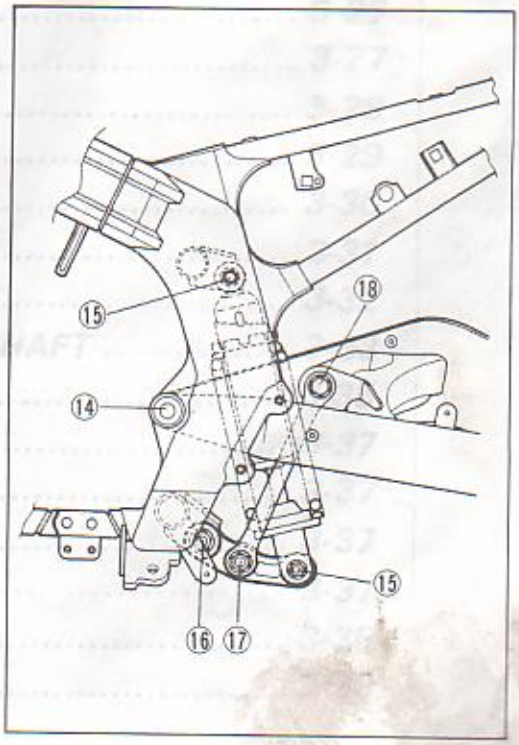












Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

CONTENTS

ENGINE COMPONENTS REMOVABLE WITH THE ENGINE IN PLACE 3- 1
ENGINE REMOVAL AND REMOUNTING 3- 2
ENGINE REMOVAL 3- 2
ENGINE REMOUNTING 3- 5
ENGINE DISASSEMBLY 3- 7
ENGINE COMPONENTS INSPECTION AND SERVICING 3-15
CYLINDER HEAD 3-15
CYLINDER AND EXHAUST VALVE 3-15
PISTON 3-18
REED VALVE 3-20
BEARINGS 3-20
OIL SEALS 3-20
CRANKSHAFT 3-20
CLUTCH 3-21
STARTER CLUTCH 3-22
TRANSMISSION 3-23
CRANK BALANCER SHAFT AND DRIVEN GEAR 3-26
ENGINE REASSEMBLY 3-27
BEARINGS 3-27
OIL SEALS 3-27
CRANKSHAFT 3-28
CRANKSHAFT SHIM SELECTION 3-29
GEARSHIFT CAM AND FORK 3-30
CRANKCASE 3-31
BALANCER SHAFT AND GEAR 3-32
CAM DRIVEN GEAR AND GEARSHIFT SHAFT 3-33
CLUTCH 3-35
NEUTRAL INDICATOR SWITCH 3-37
MAGNETO 3-37
REED VALVE 3-37
OIL PUMP 3-37
PISTON RING AND PISTON 3-38
CYLINDER AND CYLINDER HEAD 3-39

Produced with ScanToPDF
www.scantopdf.co.uk

Produced with ScanToPDF
www.scantopdf.co.uk

ENGINE COMPONENTS REMOVABLE WITH THE ENGINE IN PLACE

The parts listed below can be removed and reinstalled without removing the engine from the frame. Refer to the page listed in this section for removal instruction.

ENGINE LEFT SIDE

Engine sprocket 3- 4
Magneto cover 3- 9
Magneto rotor 3- 9
Starter clutch 3- 9
Starter idle gear 3- 9
Neutral indicator switch 3- 9

ENGINE CENTER

Carburetor 3- 4
Cylinder head 3- 7
Cylinder 3- 7
Piston 3- 7
Starter motor 3- 8
Oil pump 3- 8
Intake pipe 3- 8
Reed valve 3- 8
Exhaust valve 3-15
Thermostat 4- 5
Water thermo-gauge 4- 9

ENGINE RIGHT SIDE

Clutch cover 3-10
Clutch assembly 3-10
Primary driven gear 3-10
Oil pump driven gear 3-10
Oil pump idle gear 3-10
Oil pump drive gear 3-11
Gearshift shaft 3-11
Gearshift cam driven gear 3-11
Crank balancer driven gear and balancershaft 3-12
Water pump drive gear 3-12
Primary drive gear 3-12
Crank balancer drive gear 3-12
Water pump 4- 6

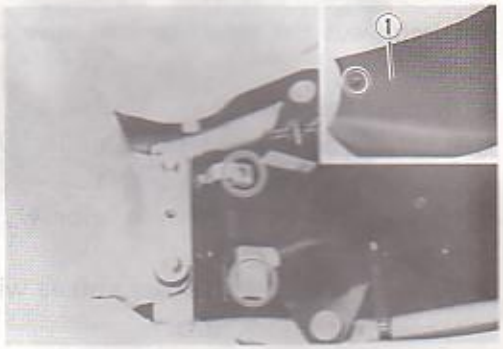
Produced with ScanToPDF
www.scantopdf.co.uk

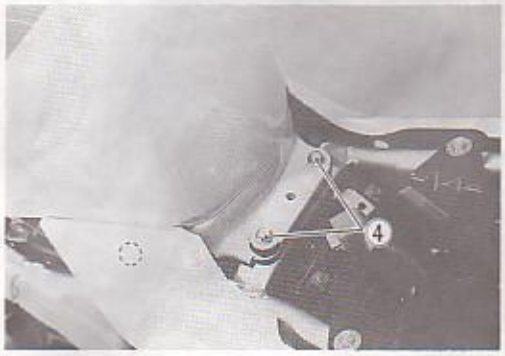
ENGINE REMOVAL AND REMOUNTING

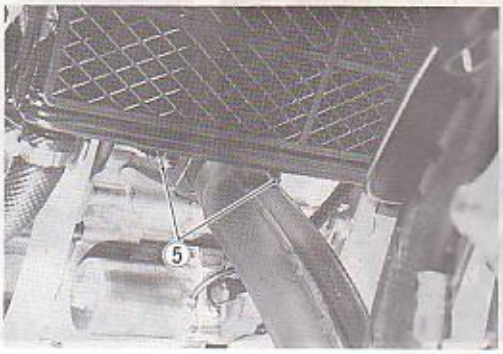
ENGINE REMOVAL

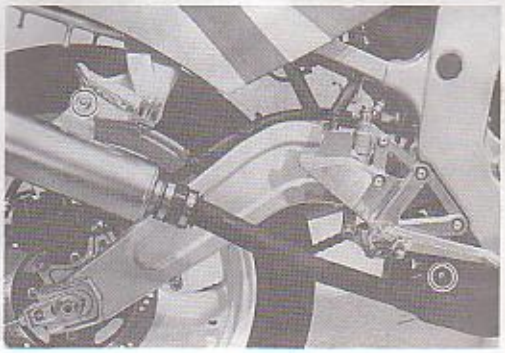
Before taking the engine out of the frame, thoroughly clean the engine with a suitable cleaner. The procedure of engine removal is sequentially explained in the following steps.

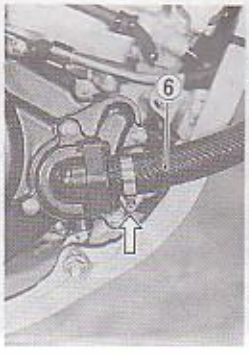
- Remove the lower fairing. (Refer to page 7-1.)
- Drain transmission oil. (Refer to page 2-6.)
- Drain coolant. (Refer to page 2-6.)
- Remove the seat ①.
- Disconnect the battery ⊖ lead wire and then ⊕ lead wire.
- Turn the fuel cock lever to "OFF" position, and disconnect the fuel hose ②.
- Remove the clamp ③.
- Remove the fuel tank by removing the mounting bolts ④ and disconnecting the front boss of frame covers.
- Remove the exhaust pipe nuts ⑤.
- Remove the muffler by removing the mounting bolts.
- Disconnect the water hoses ⑥, ⑦ by loosening the clamp screws.
- Disconnect the exhaust valve breather hose ⑧.
- Disconnect the spark plug cap ⑨ and water temp. gauge lead wire ⑩.

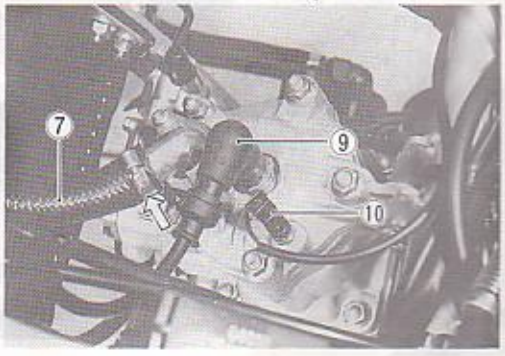








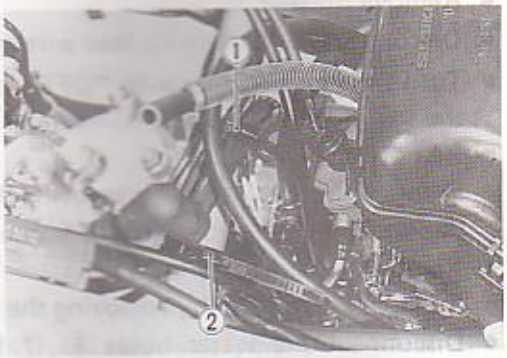


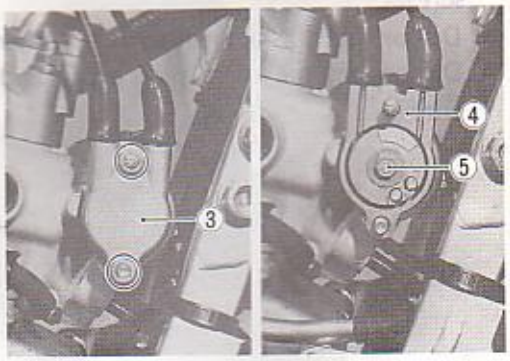


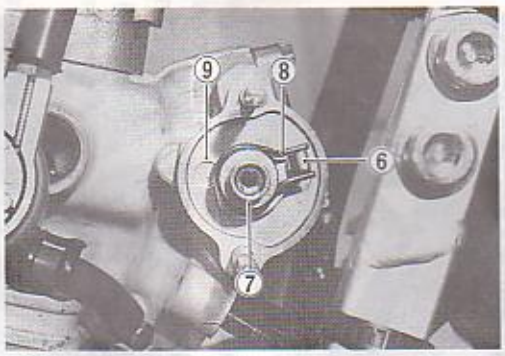
Produced with ScanToPDF
www.scantopdf.co.uk

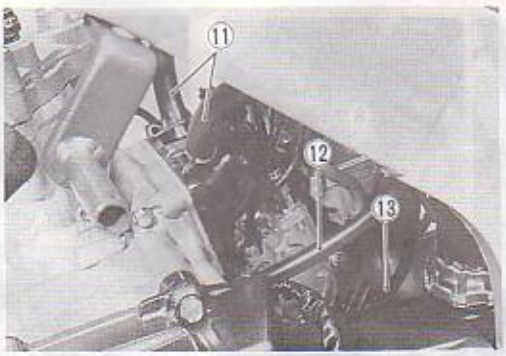
- Disconnect the magneto lead wire couplers and clamps ①, ②.
- Remove the exhaust valve holder cap ③.
- Remove the exhaust valve holder ④ with the exhaust valve cables by removing the bolt ⑤.
- Remove the exhaust valve lever ⑥, spacer ⑦, spring ⑧ and holder ⑨.
- Remove the clutch release arm ⑩ with the clutch cable after loosening the lock nuts.
- Disconnect the interference hose ⑪.
- Disconnect the crankcase breather hose ⑫.
- Disconnect the oil hose ⑬.
- Remove the oil pump cover by removing the screws ⑭.
- Disconnect the oil pump cable by removing the oil pump inner cable ⑮.
- Disconnect the oil hose ⑯.

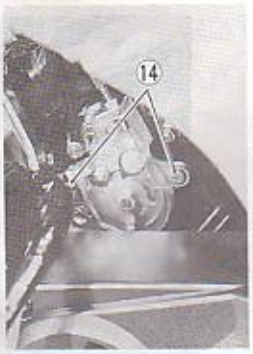
NOTE:
To prevent oil flow, connect the suitable cap to the oil hose.

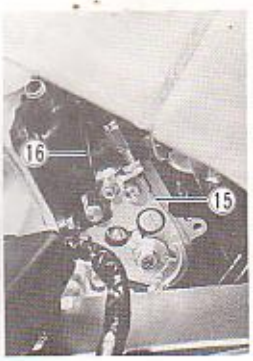












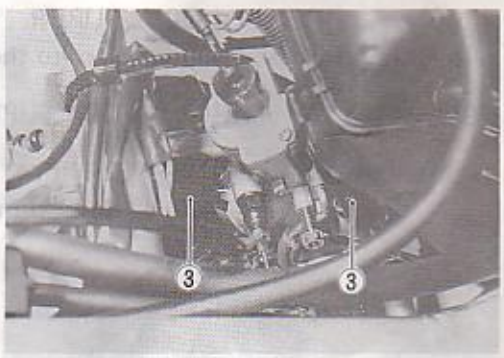
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

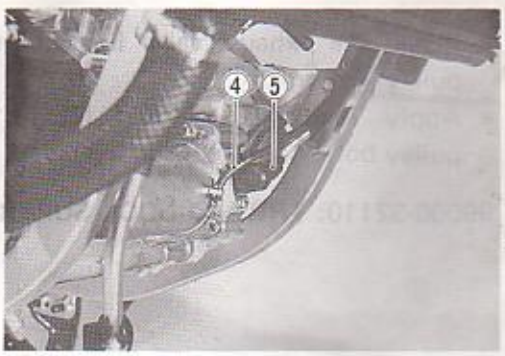
- Remove the gearshift lever arm ①.
- Remove the engine sprocket cover.
- Slacken the chain slack by adjusting the chain adjusters after loosening the rear axle nut.
- Remove the engine sprocket with the chain by removing the mounting bolts ②.

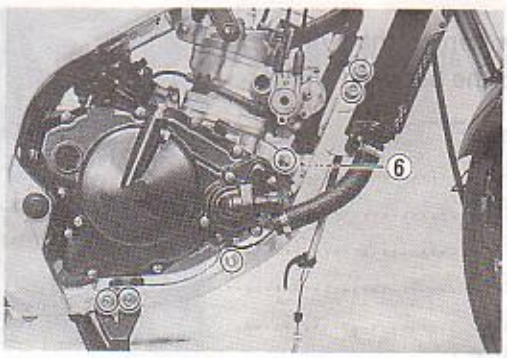
NOTE:
When loosening the engine sprocket bolts ②, apply rear brake firmly.

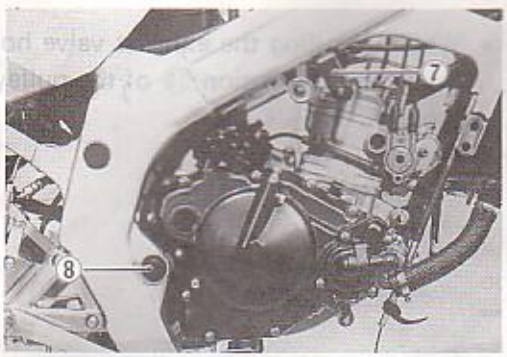
- Remove the carburetor by loosening the clamp screws ③.
- Disconnect the starter motor lead wires ④, ⑤.
- Remove the engine mounting bracket ⑥ by removing the mounting bolts.
- Remove the lower fairing bracket ⑦.
- Remove the engine by removing the engine mounting bracket, mounting bolts and swingarm pivot shaft ⑧.

NOTE:
Be careful not to draw out the swingarm pivot shaft completely from the left side swingarm pivoting hole. Insert the suitable shaft into the right side privoting hole from the right side of the frame. To keep the alignment of the frame holes and swingarm pivoting holes.









Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

ENGINE REMOUNTING

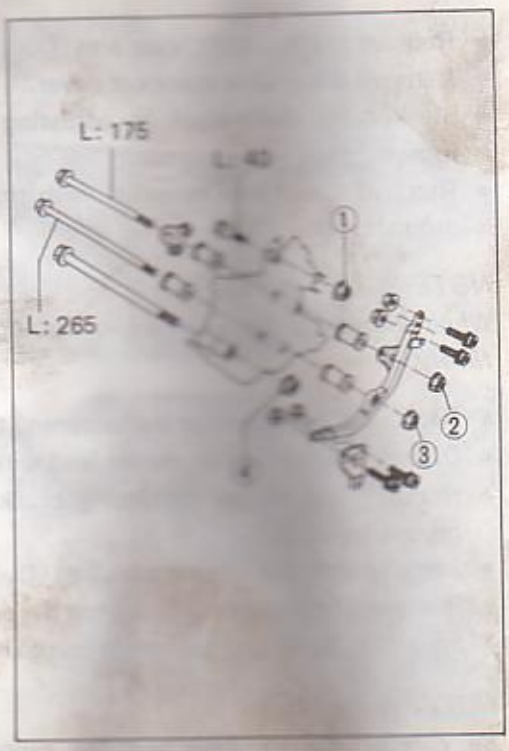
The engine can be mounted in the reverse order of removal.

NOTE:

The engine mounting nuts are self-lock type. Once the nut has been removed, it is no longer of at any use. Be sure to use new nuts and tighten them to the specified torque.

Tightening torque

ITEM	N·m	kg-m	lb-ft
①, ②, ③	28 – 34	2.8 – 3.4	20.0 – 24.5
④	86 – 97	8.6 – 9.7	62.0 – 70.0



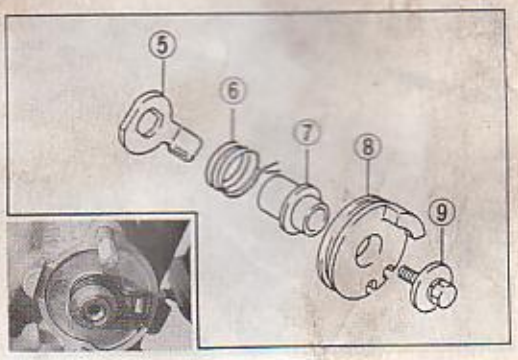
- Apply THREAD LOCK SUPER "1322" to the engine sprocket bolts and tighten them to the specified torque.

99000-32110 : THREAD LOCK SUPER "1322"

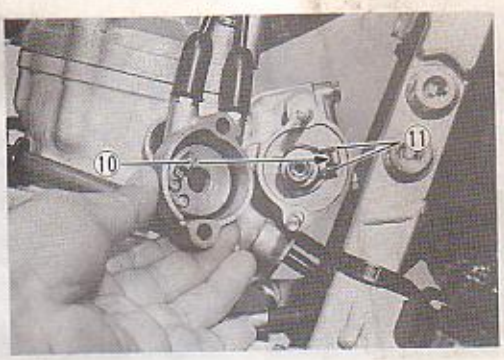
Tightening torque : 10 – 12 N·m (1.0 – 1.2 kg-m, 7.5 – 8.5 lb-ft)

- Install the exhaust valve lever ⑤, spring ⑥, spacer ⑦ and pulley ⑧ correctly.
- Apply THREAD LOCK SUPER "1322" to the exhaust pulley bolt ⑨ before installing it.

99000-32110: THREAD LOCK SUPER "1322"



- When installing the exhaust valve holder cap to the cylinder, insert the protrusion ⑩ of the pulley to the between the springs ⑪.

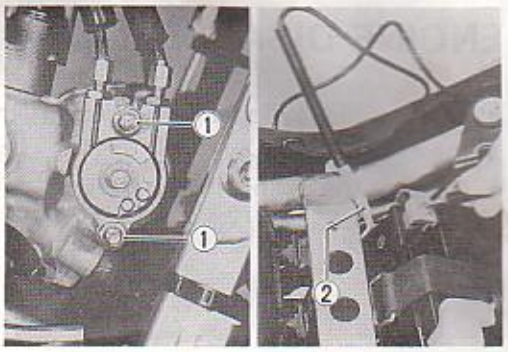


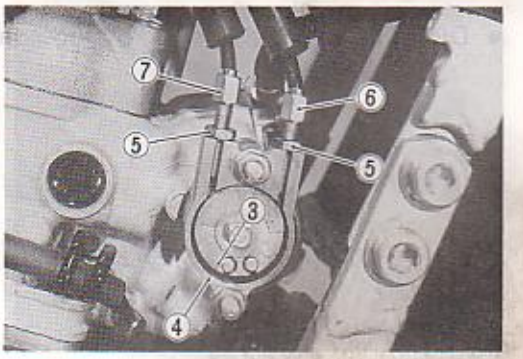
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

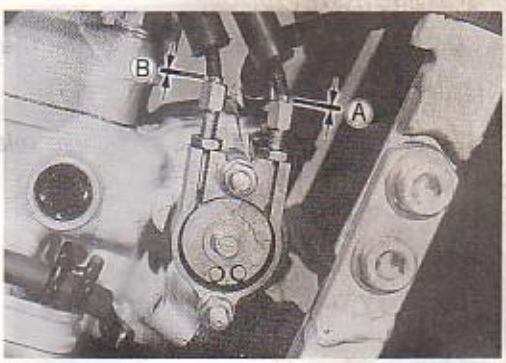
EXHAUST VALVE CABLE ADJUSTMENT

Exhaust valve adjustment are as follows.

- Tighten the holder cover nuts ①.
- Connect the suitable lead wire to the Y/W (Yellow with White tracer) lead wire ② and connect it to the battery ⊖ terminal.
- Operate the pulley by turning the ignition switch to the "ON" position.
- Turn the ignition switch to the "OFF" position.
- Check whether the protrusion mark ③ on the pulley is aligned with the aligning mark ④ on the exhaust valve holder.
- If the marks are not aligned, loosen the lock nuts ⑤ and turn the adjusters ⑥, ⑦ to align the marks.
- Adjust the exhaust cable play Ⓐ to 0.3 – 0.5 mm by turning the adjusters.
- Tighten the lock nuts.
- Disconnect the Y/W lead wire from the battery.







NOTE:
Other cable play Ⓑ is 0 mm.

CAUTION:
Make sure that the marks ③, ④ are align, after adjustment is completed.

TRANSMISSION OIL

- Before starting the engine, make sure to pour the specified amount of transmission oil in the crankcase. (Refer to page 2-6.)

Transmission oil capacity: 1 050 ml (0.9 Imp qt) ..... (oil change)
1 100 ml (1.0 Imp qt) ..... (overhaul)

ADJUSTMENT

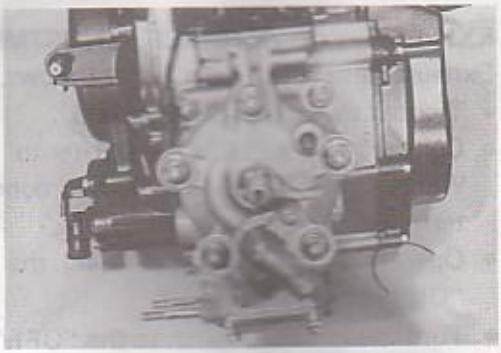
- After remounting the engine, following adjustments are necessary.

	Page
* Throttle cable play	2-7
* Oil pump control cable	2-8
* Clutch cable play	2-8
* Drive chain slack	2-9
* Air bleeding at oil pump	5-5
* Engine idle r/min	2-7
* Filling cooling solution	2-7

Produced with ScanToPDF
www.scantopdf.co.uk

ENGINE DISASSEMBLY

- Loosen the cylinder head nuts in the descending order on the cylinder head.
- Remove the cylinder head.



- Disconnect the oil hose ① by loosening the clamps.

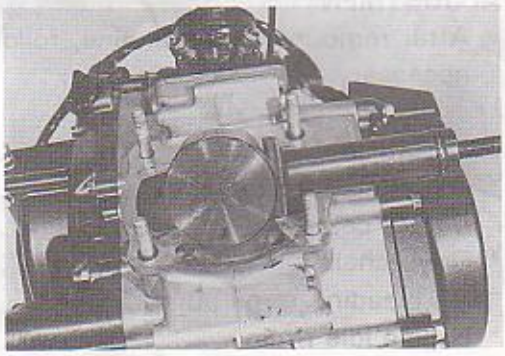
- Remove the cylinder by removing the four nuts.

NOTE:
For disassembling the exhaust valve related parts, refer to page 3-15.

- Place a clean rag over the cylinder base to prevent piston pin circlip from dropping into the crankcase and then, remove the piston pin circlip with long-nose pliers.

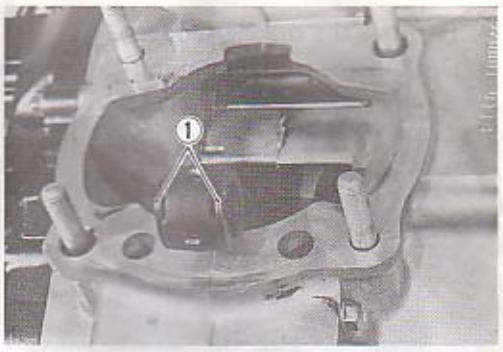
- Remove the piston pin with the special tool.

09910-34510 : Piston pin puller



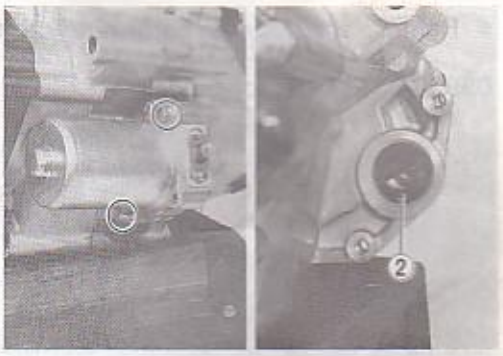
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the washers ① and bearing.



- Remove the starter motor and O-ring ②.

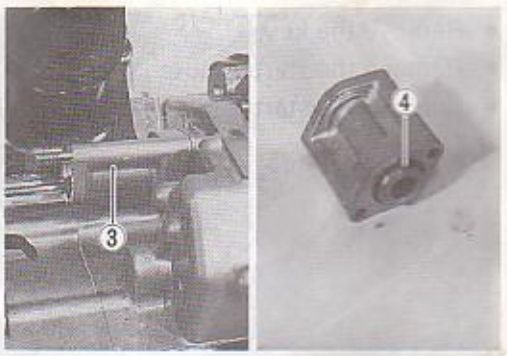
CAUTION:
The removed O-ring should be replaced with a new one.



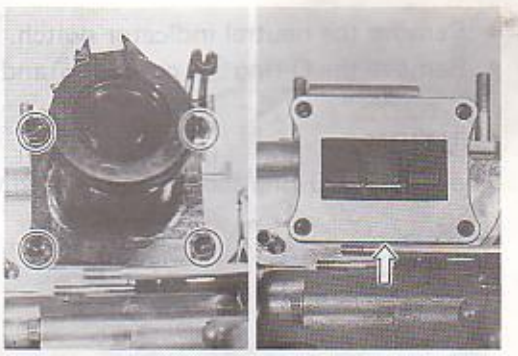
- Remove the oil pump.

- Remove the oil pump spacer ③ and O-ring ④.

CAUTION:
The removed O-ring should be replaced with a new one.

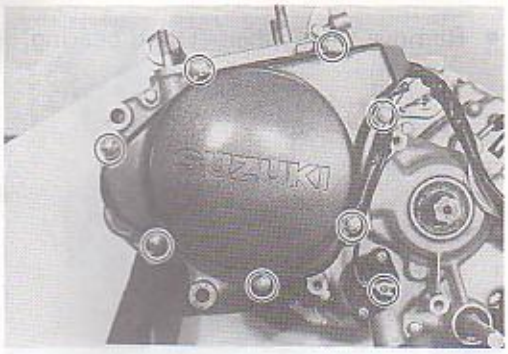


- Remove the intake pipe and reed valve.



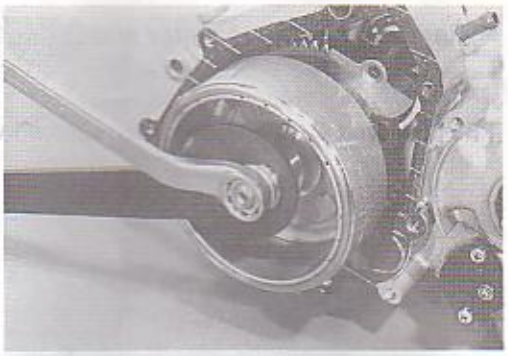
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the magneto cover.
- Disconnect the neutral indicator switch lead wire.



- Remove the magneto rotor nut with the special tool.

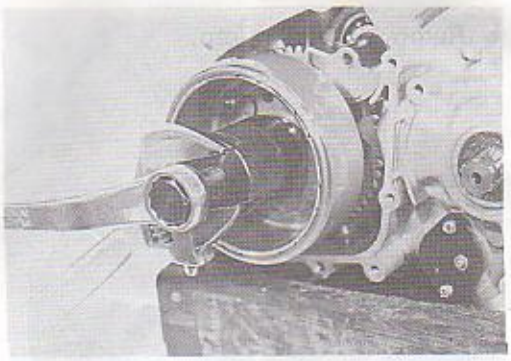
09930-44511: Rotor holder



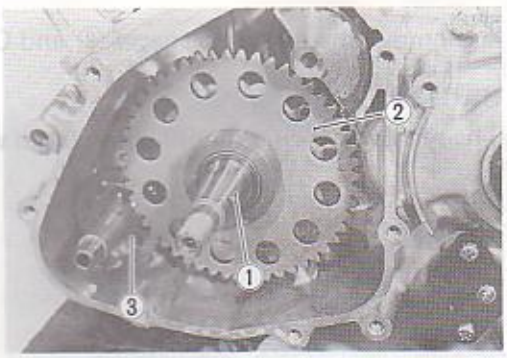
- Remove the magneto rotor with the special tool.

09930-34932: Rotor remover

CAUTION:
Do not hit the rotor with a hammer.

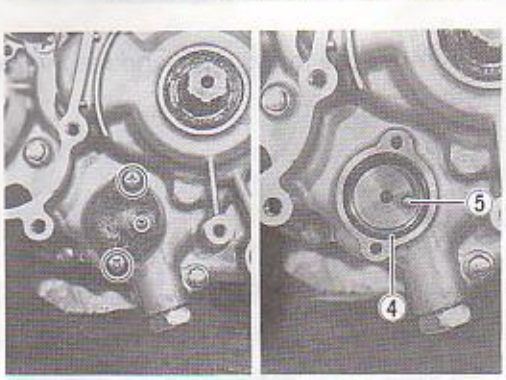


- Remove the key ①.
- Remove the starter clutch gear ②.
- Remove the starter idle gear ③ with shaft.



- Remove the neutral indicator switch.
- Remove the O-ring ④, contact ⑤ and spring.

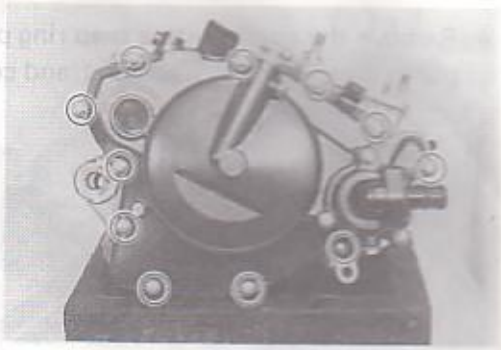
CAUTION:
The removed O-ring should be replaced with a new one.



Produced with ScanToPDF
www.scantopdf.co.uk
www.scantopdf.co.uk
Produced with ScanToPDF

- Remove the clutch cover.

NOTE:
For disassembling the water pump related parts, refer to page 4-7.



- Remove the clutch spring bolts diagonally with the special tool.

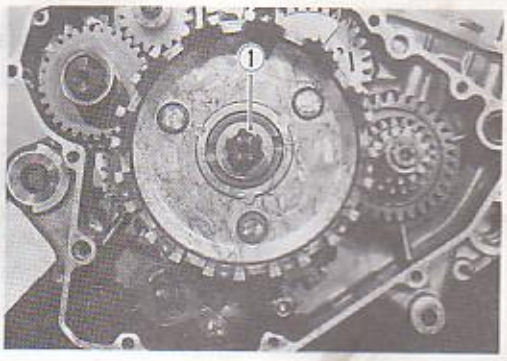
09910-20115 : Conrod holder

- Remove the clutch pressure plate, push piece and drive/driven plates.

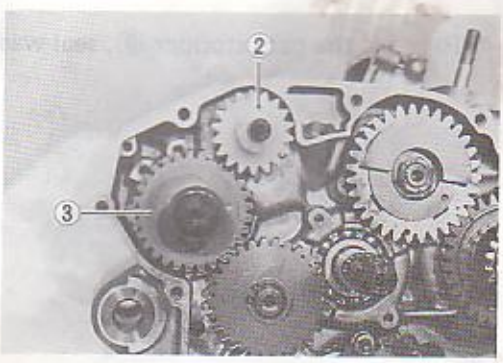
- Flatten the lock washer, and remove the clutch sleeve hub nut with the special tool.

09920-53740 : Clutch sleeve hub holder

- Remove the washer ① and primary driven gear assembly.



- Remove the oil pump driven gear ②.
- Remove the oil pump idle gear ③ with shaft.

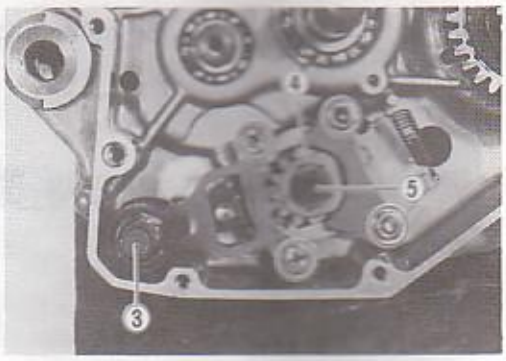


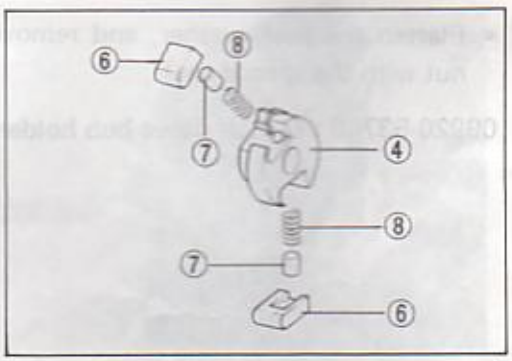
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the circlip with a snap ring pliers, and remove the oil pump drive gear ①, washers ② and concaved washer.

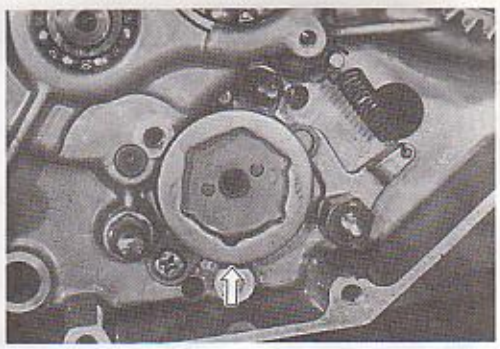
- Remove the gearshift shaft ③.
- Remove the pawl lifter and cam guide.
- Remove the cam driven gear ④ by removing the bolt ⑤.

NOTE:
When removing the cam driven gear ④, do not loose the gear-shift pawl ⑥, pin ⑦ and spring ⑧.

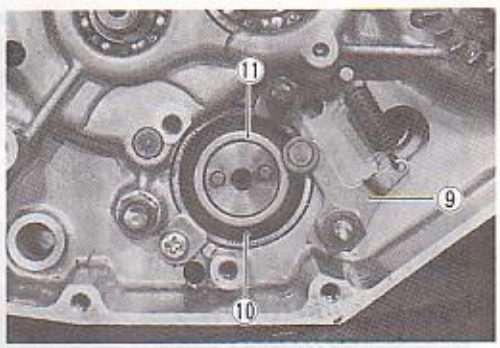




- Remove the gearshift cam stopper plate.



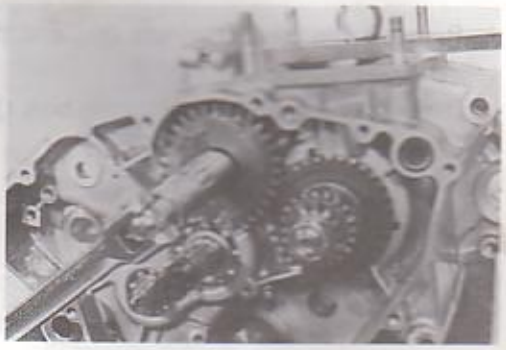
- Remove the cam stopper ⑨, seal washer ⑩ and spacer ⑪.



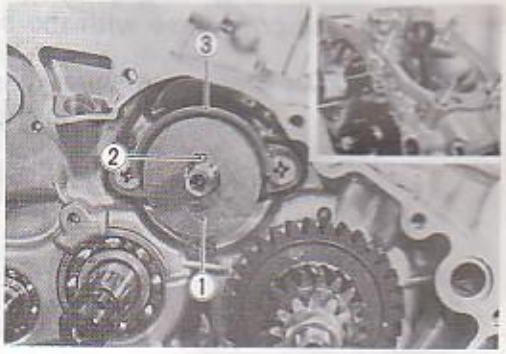
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the crank balancer driven gear by removing the nut with the special tool.

09910-20115: Conrod holder



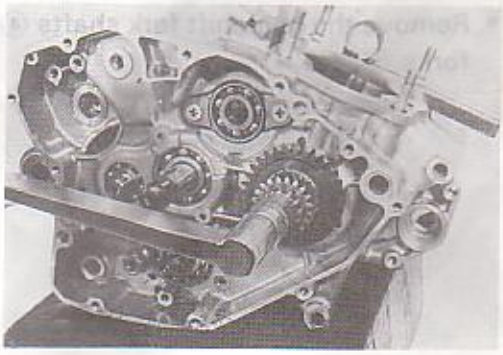
- Remove the washer ①, key ② and balancer weight ③.
- Remove the balancershaft with a plastic hammer.



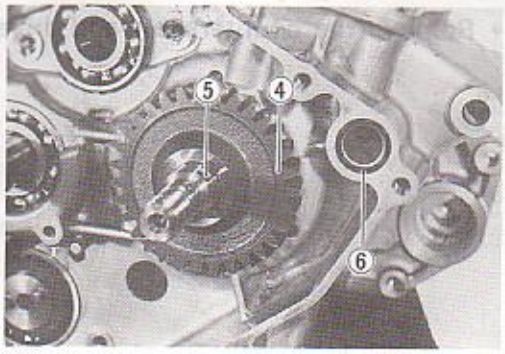
- Remove the water pump drive gear and primary drive gear by removing the nut with the special tool.

09910-20115 : Conrod holder

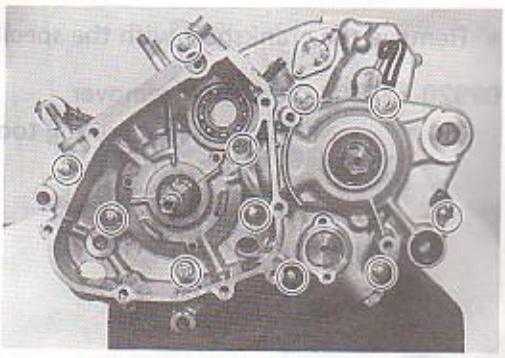
CAUTION:
This nut has left-hand threads.



- Remove the balancer drive gear ④ and key ⑤.
- Remove the O-ring ⑥.

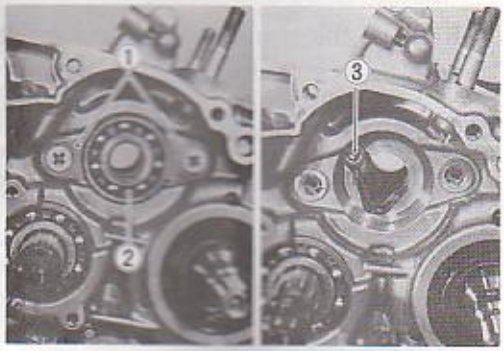


- Remove the crankcase securing bolts and screw.



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

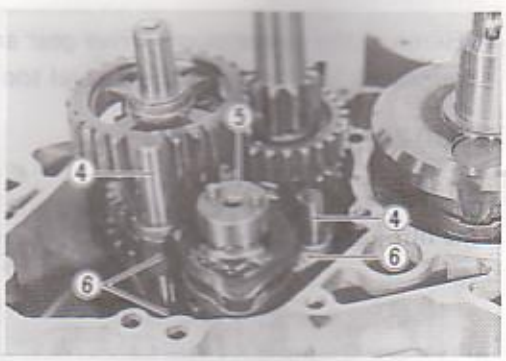
- Remove the two retainers ①, and then remove the bearing ②.
- Remove the crankcase securing bolt ③.



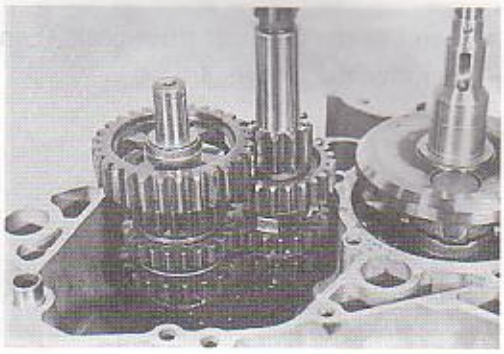
- Separate the crankcase with the special tool.

09920-13120 : Crankcase separating tool.

- Remove the gearshift fork shafts ④, gearshift cam ⑤ and forks ⑥.



- Remove the countershaft and driveshaft together.

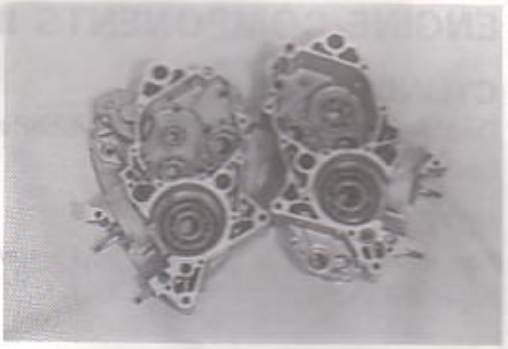


- Remove the crankshaft with the special tool.

09920-13120: Crankshaft remover
(Crankcase separating tool)

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the respective oil seals and bearings with a suitable drift.



CAUTION:
The removed oil seals and bearings should be replaced with new ones.

- Remove the clutch release arm pinion.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

ENGINE COMPONENTS INSPECTION AND SERVICING

CYLINDER HEAD

Decarbon the combustion chamber and clean the cylinder head.

NOTE:
For servicing the thermostat and water thermo-gauge, refer to pages 4-5 and 4-9.

CYLINDER HEAD DISTORTION

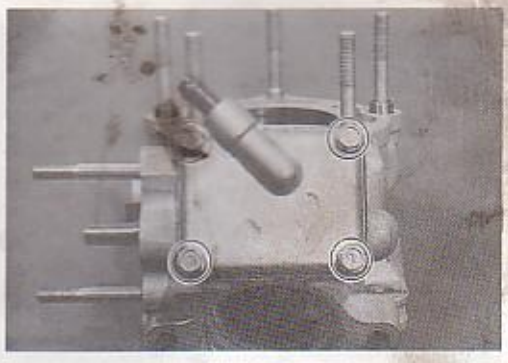
Check the gasketed surface of the cylinder head for distortion with a straightedge and thickness gauge, taking a clearance reading at several places.

Service Limit : 0.05 mm (0.002 in)
09900-20803 : Thickness gauge

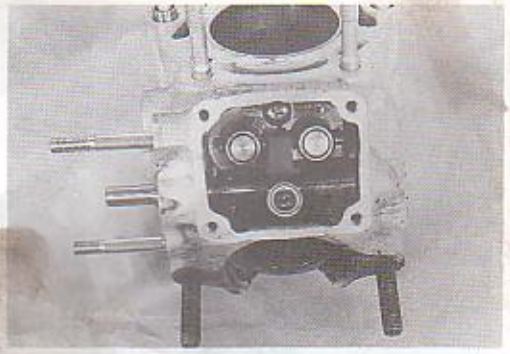
If the largest reading at any portion of the straightedge exceeds the limit, rework the surface by rubbing it against emery paper (of about #400) laid flat on the surface plate in a lapping manner.
The gasketed surface must be smooth and perfectly flat in order to secure a tight joint. A leaky joint can be the cause of reduced power output and increased fuel consumption.

CYLINDER AND EXHAUST VALVE

- Remove the exhaust valve cover.



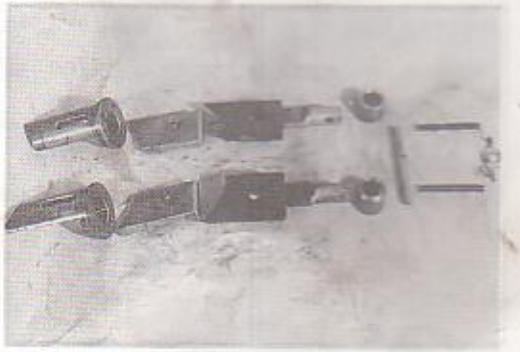
- Remove the exhaust valve shaft, arm and spacer by removing the screw.

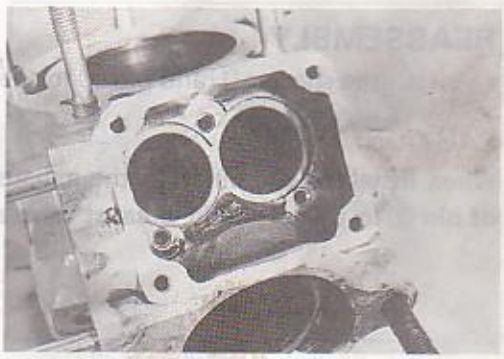


Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the exhaust valve component by removing the mounting screws.

- Inspect the exhaust valve and cylinder sliding surface for nicks, scratches, wear or other damage.





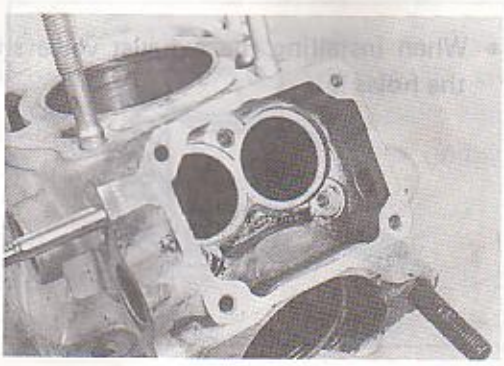
- Remove the oil seal with the special tools.

09921-20200 : Bearing remover
09930-30102 : Sliding shaft

CAUTION:
The removed oil seal should be replaced with a new one.

CYLINDER DECARBON

Decarbon the exhaust port and the upper part of the cylinder, taking care not to damage the cylinder wall surface.



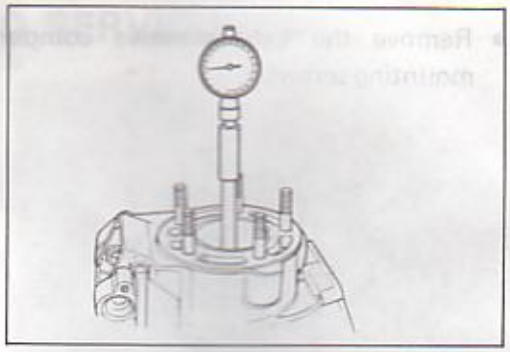
Produced with ScanToPDF
www.scantopdf.co.uk

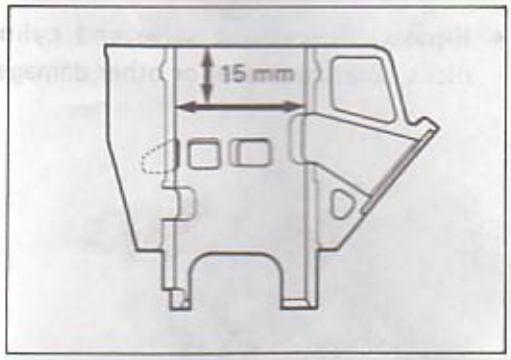
CYLINDER BORE

Inspect the cylinder wall for nicks, scratches or other damage.

Standard : 56.000 – 56.023 mm
(2.2047 – 2.2056 in)

09900-20508 : Cylinder gauge set

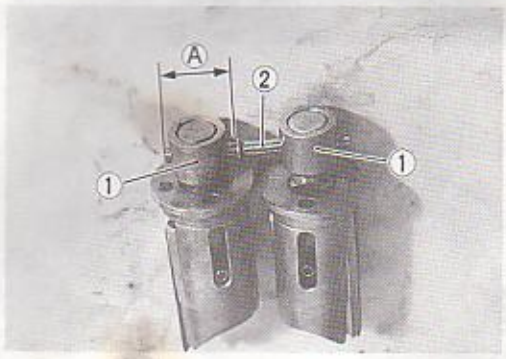




REASSEMBLY

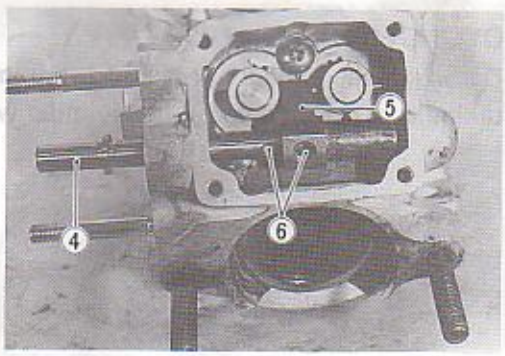
- Install the spacers ① and pin ② to the exhaust valves.

CAUTION:
When installing the pin ② to the exhaust valve, the short side Ⓐ of pin ② to the left hand exhaust valve as shown in photo.



- Install the exhaust valve to the cylinder correctly.
- Install the spring retainer ③ with springs to the exhaust valve and tighten the screw.
- Tighten the other screws securely.

- When installing the exhaust valve shaft ④ and arm ⑤, align the holes ⑥.



Produced with ScanToPDF
www.scantopdf.co.uk

- Apply THREAD LOCK SUPER 1322 to the bolt and tighten it to the specified torque.

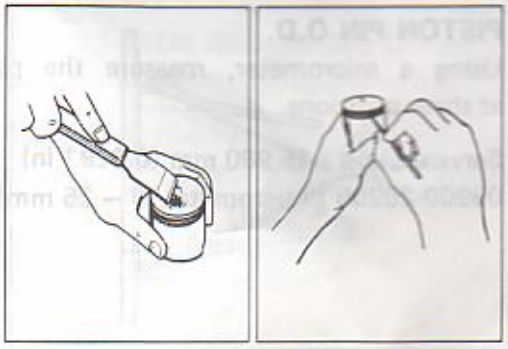
99000-32110 : THREAD LOCK SUPER "1322"

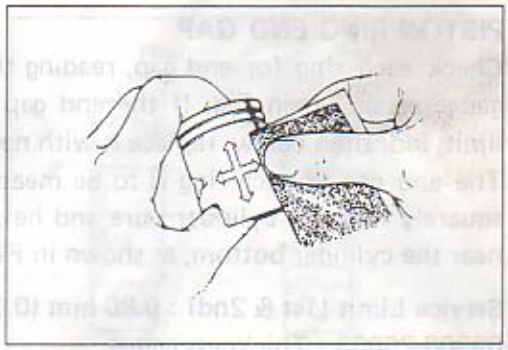
Tightening torque : 8 – 12 N·m
(0.8 – 1.2 kg-m, 6.0 – 8.5 lb-ft)

PISTON

PISTON DECARBON

- De-carbon the crown of the piston and piston ring grooves. After cleaning the grooves, fit the rings and rotate them in their respective grooves to be sure that they move smoothly.
- Carbon in groove is liable to cause the piston ring to get stuck in the groove, and this condition will lead to reduced engine power output.
- A piston whose sliding surface is badly grooved or scuffed due to overheating must be replaced.
- Shallow grooves or minor scuff can be removed by grinding with emery paper of about # 400.

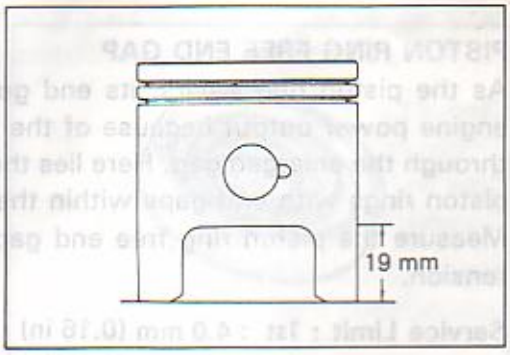




PISTON DIAMETER

Using a micrometer, measure the piston outside diameter at the place 19 mm from the skirt end as shown in Fig.
If the measurement is less than the limit, replace the piston.

Service Limit : 55.880 mm (2.2000 in)
09900-20203 : Micrometer (50 – 75 mm)



PISTON-CYLINDER CLEARANCE

As a result of the above measurement, if the piston to cylinder clearance exceeds the limit, overhaul the cylinder and use an oversize piston, or replace both cylinder and piston.

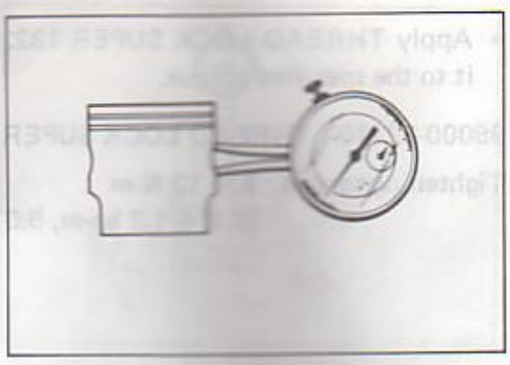
Service Limit : 0.120 mm (0.0047 in)

Produced with ScanToPDF
www.scantopdf.co.uk

PISTON PIN BORE I.D.

Using a caliper gauge, measure the piston pin bore inside diameter.
If reading exceeds the following service limit, replace it with a new one.

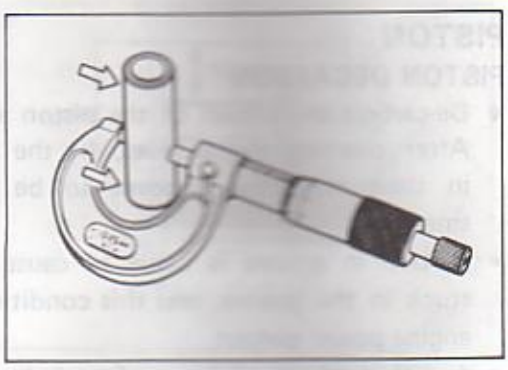
Service Limit : 16.030 mm (0.6311 in)
09900-20605 : Dial calipers



PISTON PIN O.D.

Using a micrometer, measure the piston outside diameter at three positions.

Service Limit : 15.980 mm (0.6291 in)
09900-20205 : Micrometer (0 – 25 mm)



PISTON RING END GAP

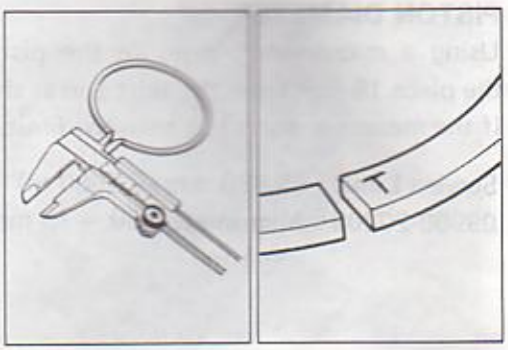
Check each ring for end gap, reading the gap with a thickness gauge as shown in Fig. If the end gap is found to exceed the limit, indicated below, replace it with new one.
The end gap of each ring is to be measure with the ring fitted squarely into the cylinder bore and held at the least worn part near the cylinder bottom, as shown in Fig.

Service Limit (1st & 2nd) : 0.80 mm (0.031 in)
09900-20803 : Thickness gauge

PISTON RING FREE END GAP

As the piston ring wears, its end gap increases reducing engine power output because of the resultant blowby gas through the enlarged gap. Here lies the importance of using piston rings with end gaps within the limit.
Measure the piston ring free end gap to check the spring tension.

Service Limit : 1st : 4.0 mm (0.16 in)
2nd : 4.8 mm (0.19 in)

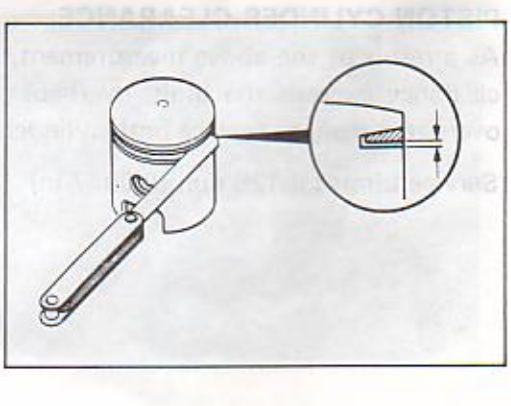


PISTON RING TO GROOVE CLEARANCE

Fix the piston ring in the piston ring groove, measure the ring side clearance with the thickness gauge while matching the sliding surface of piston and ring.

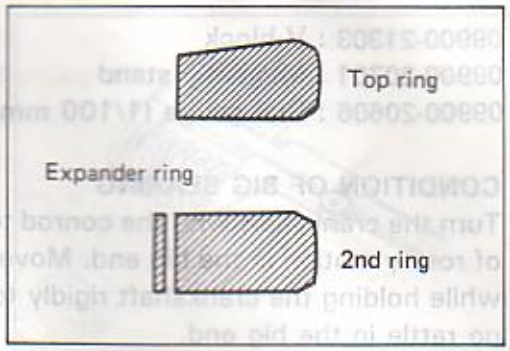
STD clearance
1st : 0.017 – 0.057 mm (0.0007 – 0.0022 in)
2nd : 0.025 – 0.060 mm (0.0008 – 0.0024 in)

09900-20803 : Tickness gauge



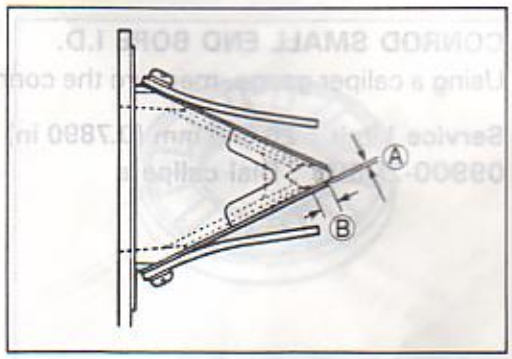
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

NOTE:
1st ring and 2nd ring differ in the shape. Be sure to bring the "T" (1st) and "T" (2nd) marked side to top when fitting them to the piston.



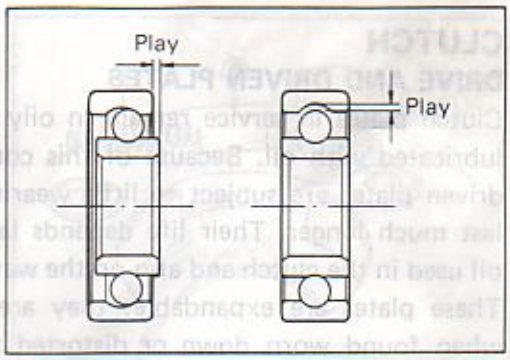
REED VALVE

Check the clearnace Ⓐ between reed valve and its seat and the dimension Ⓑ. if the clearance Ⓐ is noted to exceed 0.2 mm, replace the reed valve assembly. The dimension Ⓑ is at least 1 mm.



BEARINGS

Wash the bearing with cleaning solvent and lubricate with motor oil before inspecting.
Turn the inner ring and check to see that the inner ring turns smoothly.
If it does not turn lightly, quietly and smoothly, or if noise is heard, the bearing is defective and must be replaced with a new one.



OIL SEALS

Damage to the lip of the oil seal may result in leakage of the fuel-air mixture or oil. Inspect for damage and be sure to replace damaged parts if there are any.

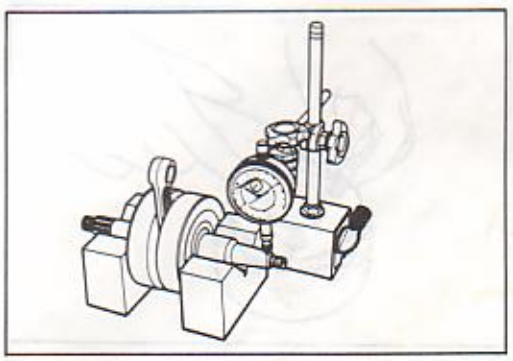
CRANKSHAFT

CRANKSHAFT RUNOUT

Support the crankshaft by "V" blocks, with a dial gauge rigged to read the runout as shown.

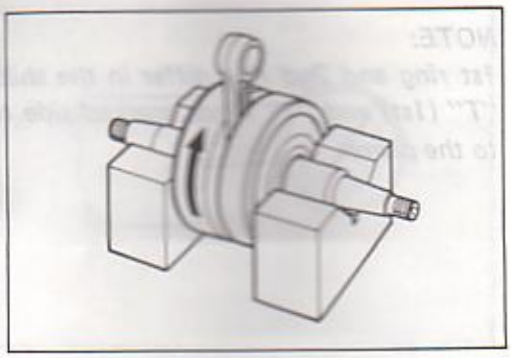
Service Limit : 0.05 mm (0.002 in)

Excessive crankshaft runout is often responsible for abnormal engine vibration. Such vibration shortens engine life.



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

09900-21303 : V-block
09900-20701 : Magnetic stand
09900-20606 : Dial gauge (1/100 mm)



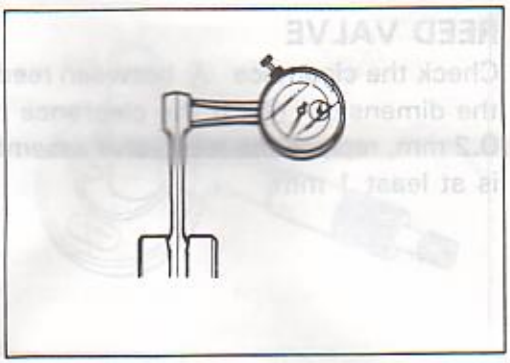
CONDITION OF BIG BEARING

Turn the crankshaft with the conrod to feel the smoothness of rotary motion in the big end. Move the rod up and down while holding the crankshaft rigidly to be sure that there is no rattle in the big end.

CONROD SMALL END BORE I.D.

Using a caliper gauge, measure the conrod small end diameter.

Service Limit : 20.040 mm (0.7890 in)
09900-20605 : Dial calipers



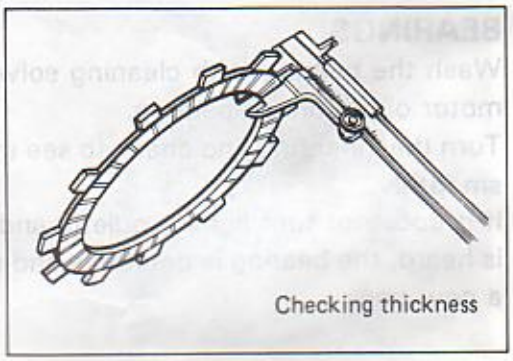
CLUTCH

DRIVE AND DRIVEN PLATES

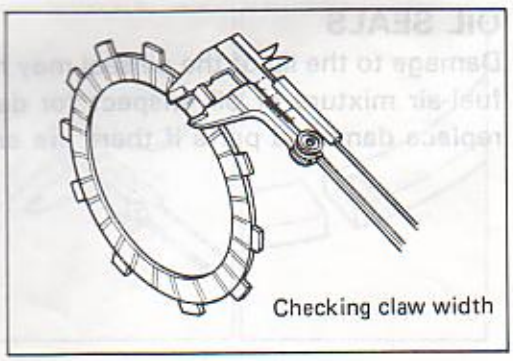
Clutch plates in service remain in oily condition as they were lubricated with oil. Because of this condition, both drive and driven plates are subject to little wearing action and therefore last much longer. Their life depends largely on the quality of oil used in the clutch and also on the way the clutch is operated. These plates are expandable: they are meant to be replaced when found worn down or distorted to the respective limit: use a caliper to check thickness and claw width and a thickness gauge and surface plate to check distortion.

Service Limit
Thickness : 2.6 mm (0.10 in)
Claw width : 11.0 mm (0.43 in)
Distortion : 0.10 mm (0.004 in)

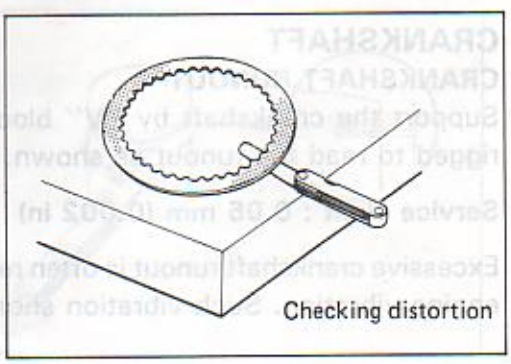
09900-20101 : Vernier calipers
09900-20803 : Thickness gauge



Checking thickness



Checking claw width



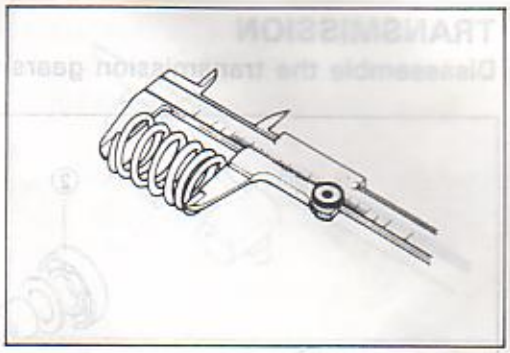
Checking distortion

Produced with ScanToPDF
www.scantopdf.co.uk

CLUTCH SPRING FREE LENGTH

Measure the free length of each coil spring with a vernier calipers, and compare the elastic strength of each with the specified limit. Replace all the springs of any spring is not within the limit.

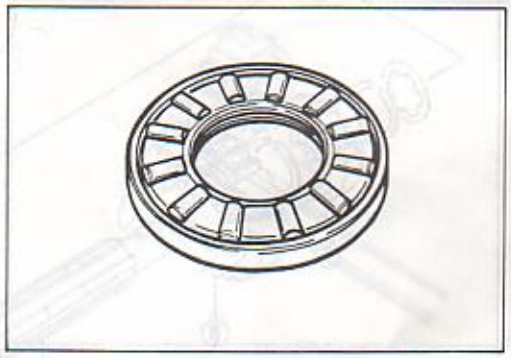
Service Limit : 29.9 mm (1.18 in)



CLUTCH RELEASE BEARING

Inspect clutch bearing for any abnormality, particularly cracks, upon removal from the clutch, to decide whether it can be reused or should be replaced.

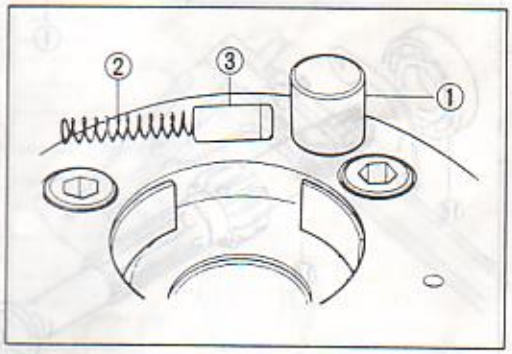
Smooth engagement and disengagement of the clutch depends much on the condition of this bearing.



STARTER CLUTCH

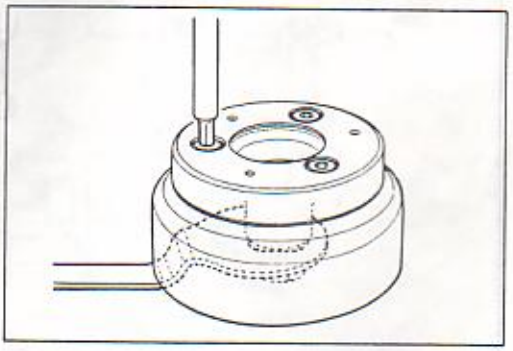
DISASSEMBLY

- Remove the starter driven gear.
- Remove the roller ①, spring ② and push piece ③.



- Hold the generator rotor with the rotor holder and remove the starter clutch securing bolts.

09930-44511 : Rotor holder

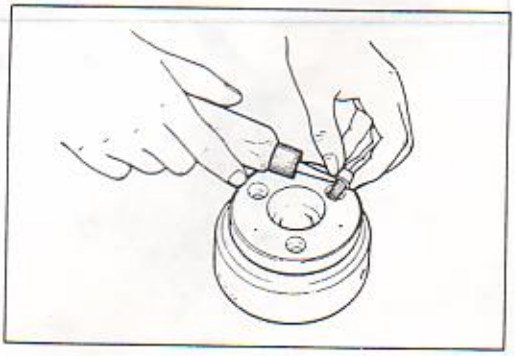


REASSEMBLY

- Apply a small quantity of THREAD LOCK SUPER "1303" to the starter clutch securing bolts and tighten them to the specified torque by holding the rotor holder.

99000-32030 : THREAD LOCK SUPER "1303"

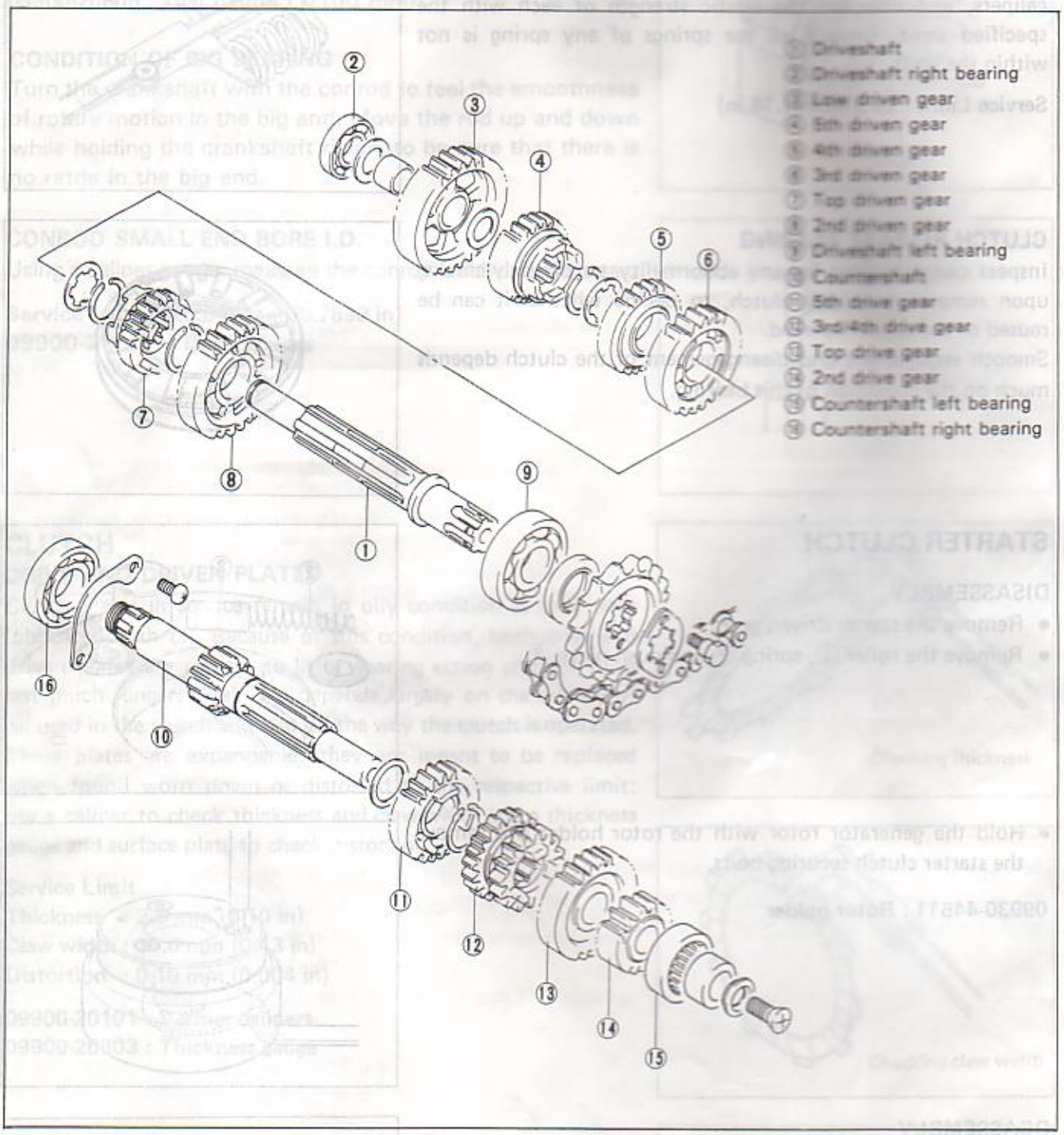
Tightening torque : 15 – 20 N·m
(1.5 – 2.0 kg-m, 11.0 – 14.5 lb-ft)



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

TRANSMISSION

Disassemble the transmission gears as shown in the illustration.



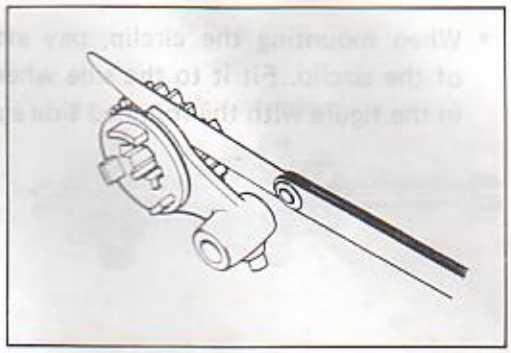
Produced with ScanToPDF
www.scantopdf.co.uk

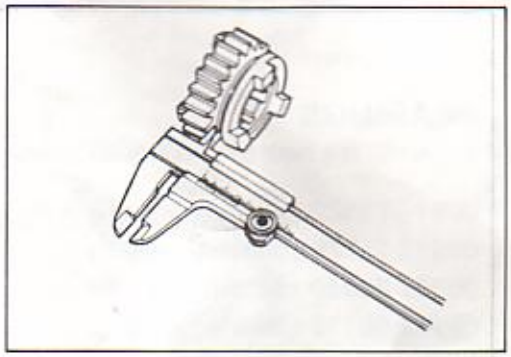
GEARSHIFT FORK CLEARANCE

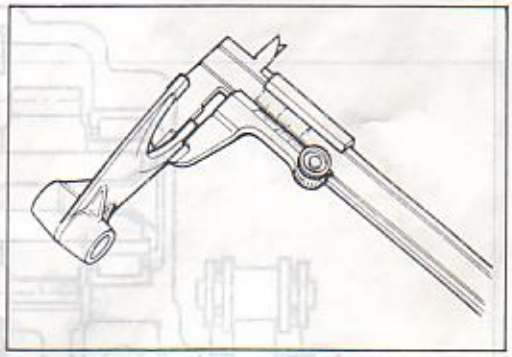
Using a thickness gauge, check the shift fork clearance in the groove of its gear.

This clearance for each of the three shift forks plays an important role in the smoothness and positiveness of shifting-action. Each fork has its prongs fitted into the annular groove provided in its gear. In operation, there is sliding contact between fork and gear and, when a shifting action is initiated, the fork pushes the gear axially. Too much a clearance is, therefore, liable to cause the meshed gears to slip apart.

If the clearance checked is noted to exceed the limit specified, replace the fork or its gear, or both.







Shift fork to groove clearance
Service Limit : 0.45 mm (0.018 in)
Shift fork groove width
Standard
No. 1 & No. 3 : 4.45 – 4.55 mm (0.175 – 0.179 in)
No. 2 : 5.45 – 5.55 mm (0.215 – 0.219 in)

Shift fork thickness
Standard
No. 1 & No. 3 : 4.3 – 4.4 mm (0.169 – 0.173 in)
No. 2 : 5.3 – 5.4 mm (0.209 – 0.212 in)

09900-20101 : Vernier calipers
09900-20803 : Thickness gauge

REASSEMBLY

Assemble the countershaft and driveshaft, in the reverse order of disassembly.

Pay attention to the following points:

NOTE:

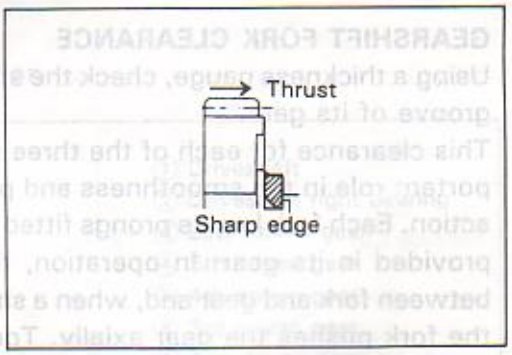
In reassembling the transmission, attention must be given to the locations and positions of washers and circlips. The cross sectional view given here will serve as a reference for correctly mounting the gears, washers and circlips.

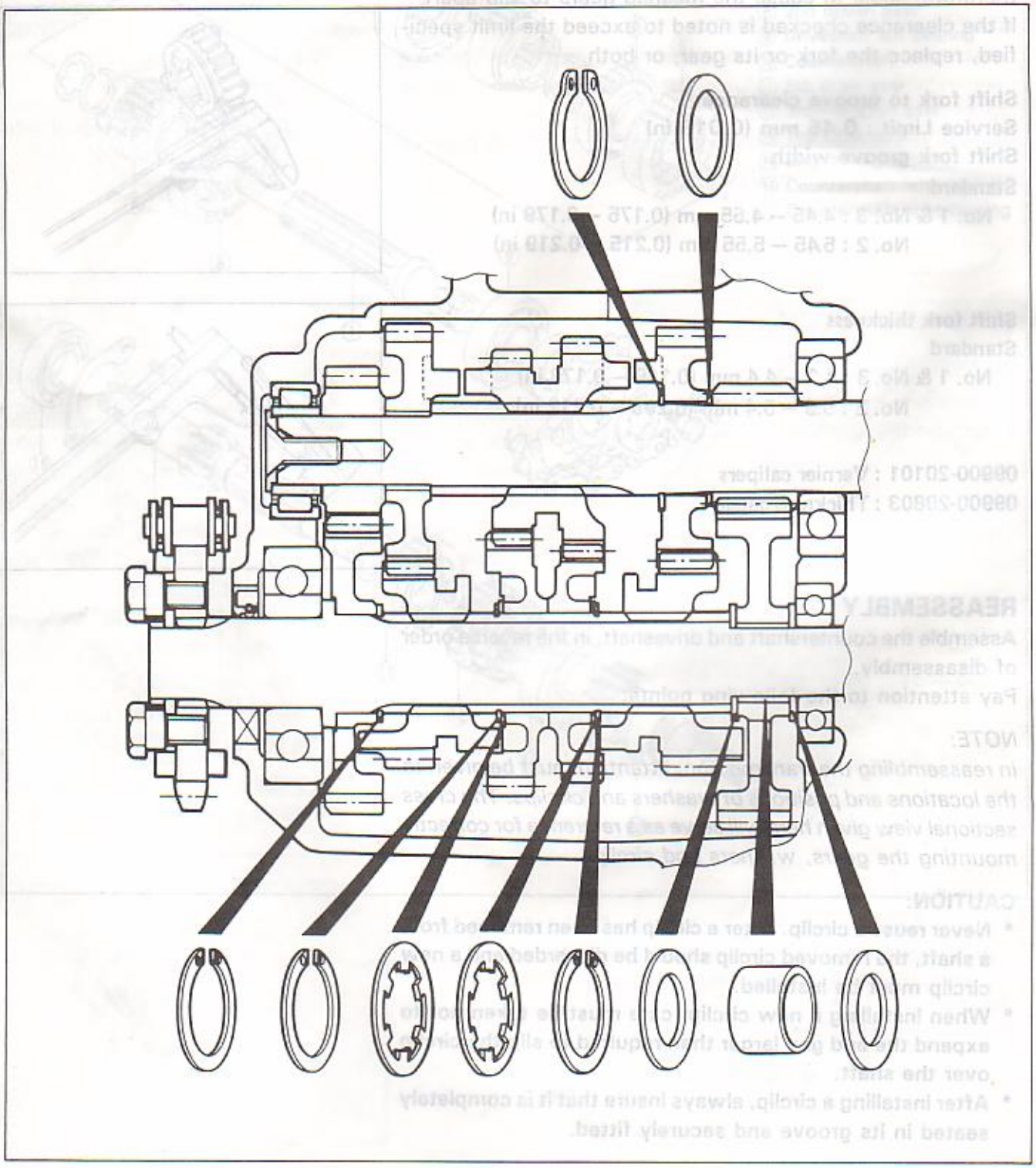
CAUTION:

- **Never reuse a circlip. After a circlip has been removed from a shaft, the removed circlip should be discarded and a new circlip must be installed.**
- **When installing a new circlip, care must be taken not to expand the end gap larger than required to slip the circlip over the shaft.**
- **After installing a circlip, always insure that it is completely seated in its groove and securely fitted.**

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- When mounting the circlip, pay attention to the direction of the circlip. Fit it to the side where the thrust is as shown in the figure with the rounded side against the gear surface.





Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

MOUNTING THE 2ND DRIVE GEAR

- Press fit the 2nd drive gear onto the countershaft.

Countershaft length Ⓐ (Low to 2nd)
105.2 – 105.3 mm (4.1417 – 4.1457 in)

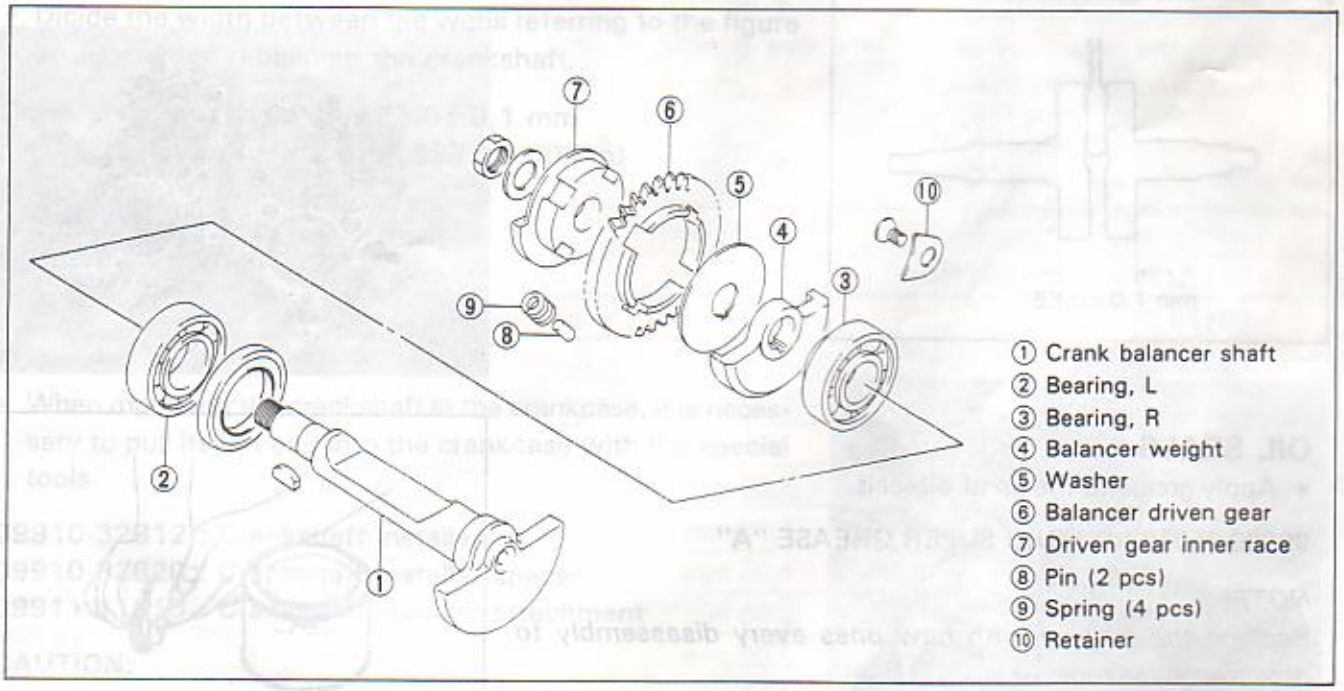
NOTE:
Before reassembling, coat the internal face of the 2nd drive gear with THREAD LOCK SUPER "1322" and install it.

99000-32110 : THREAD LOCK SUPER "1322"

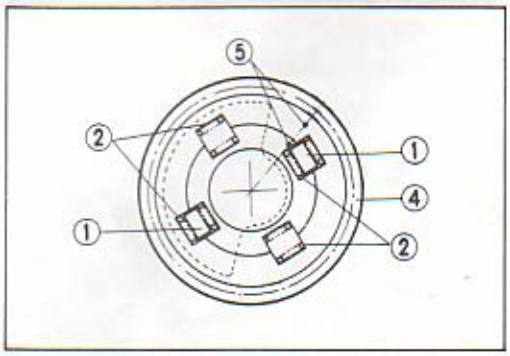
NOTE:
Take care not to smear TOP drive gear with THREAD LOCK SUPER "1322"

NOTE:
* *After mounting the 2nd drive gear, check that TOP drive gear spins smoothly by moving it with your fingers.*
* *This procedure may be performed only twice before shaft replacement is required.*

CRANK BALANCER SHAFT AND DRIVEN GEAR



- When installing the pins ①, springs ② and inner race ③ to the balancer driven gear ④, set the pins ① to the symmetrical position, and align the punched marks ⑤ as shown in the illustration.



Produced with ScanToPDF
www.scantopdf.co.uk

ENGINE REASSEMBLY

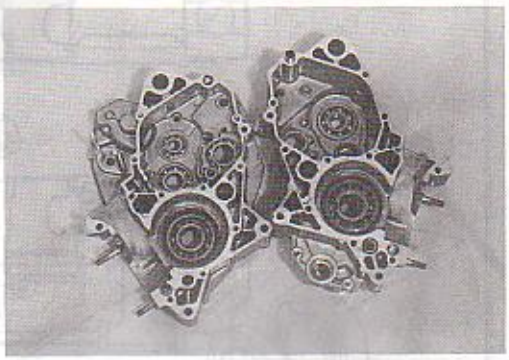
Reassembly is generally performed in the reverse order of disassembly, but there are numbers of reassembling steps that demand or deserve detailed explanation or emphasis. These steps will be taken up for respective parts and components.

NOTE:
Apply engine oil to each running and sliding part before reassembling.

BEARINGS

- Install the new bearings with the special tools.

09913-75520 : Bearing installer
09913-75810 : Bearing installer
09913-76010 : Bearing installer
09913-80112 : Bearing installer



OIL SEALS

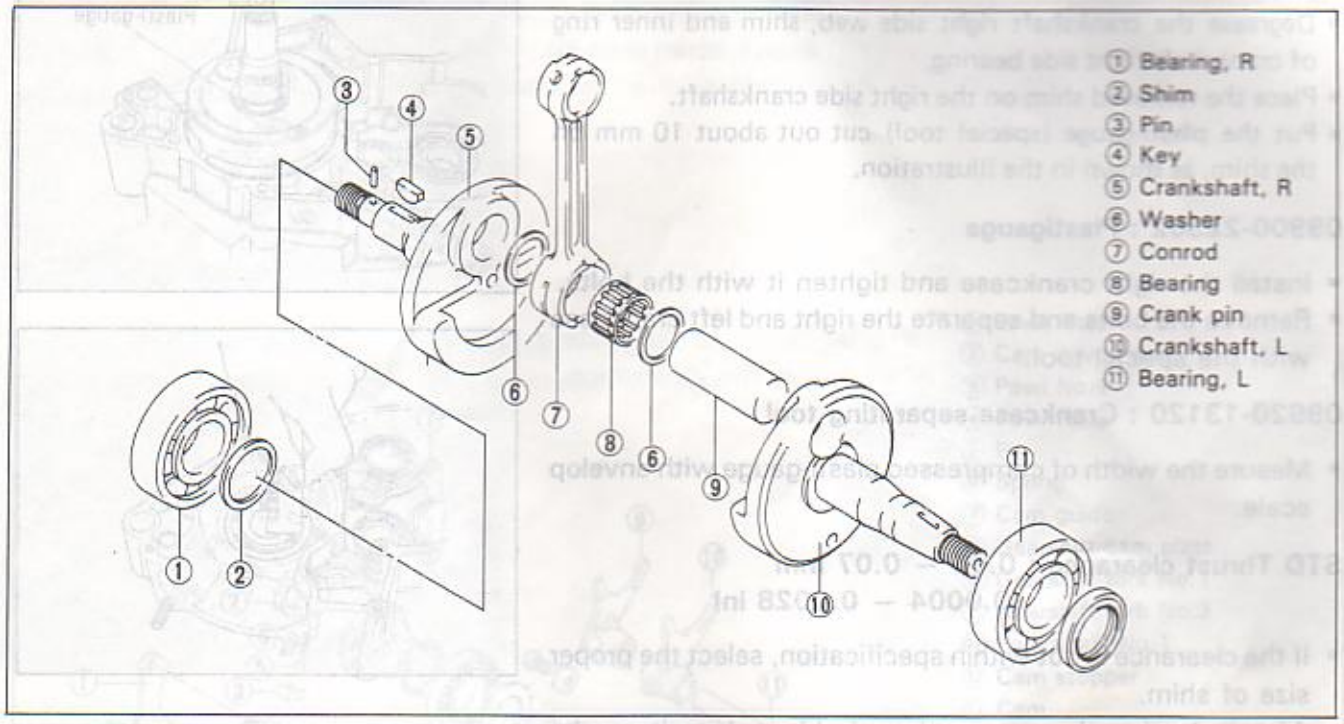
- Apply grease to the lip of oil seals.

99000-25010 : SUZUKI SUPER GREASE "A"

NOTE:
Replace the oil seal with new ones every disassembly to prevent oil leakage.

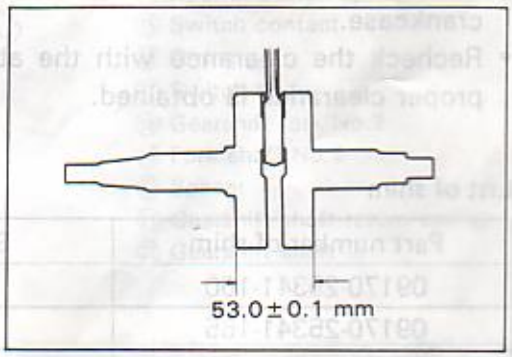
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

CRANKSHAFT



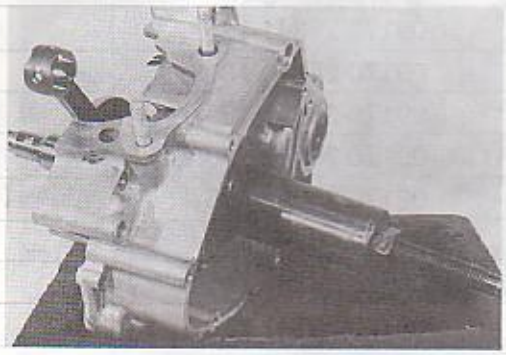
- Dicide the width between the webs referring to the figure at right when rebuilding the crankshaft.

Crank web to web width : 53.0 ± 0.1 mm (2.087 ± 0.004 in)



- When mounting the crankshaft in the crankcase, it is necessary to pull its left end into the crankcase with the special tools.

09910-32812 : Crankshaft installer
09910-32820 : Crankshaft installer spacer
09911-11310 : Crankshaft installer attachment

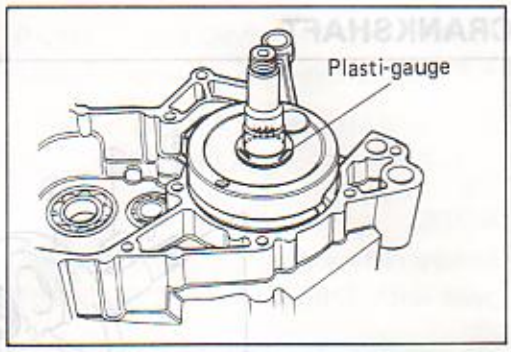


CAUTION:
Never fit the crankshaft into the crankcase by tapping it with a plastic hammer.
Always use the special tools, otherwise crankshaft alignment accuracy will be affected.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

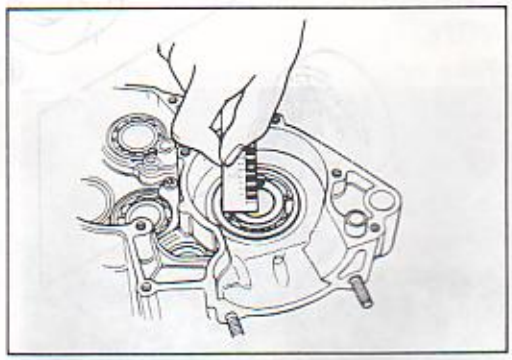
CRANKSHAFT SHIM SELECTION

- Degrease the crankshaft right side web, shim and inner ring of crankshaft right side bearing.
- Place the removed shim on the right side crankshaft.
- Put the plasti-gauge (special tool) cut out about 10 mm on the shim, as shown in the illustration.



09900-22302 : Plastigauge

- Install the right crankcase and tighten it with the bolts.
- Remove the bolts and separate the right and left crankcase with the specail tool.



09920-13120 : Crankcase separating tool

- Mesure the width of compressed plasti-gauge with envelop scale.

STD Thrust clearance : 0.01 — 0.07 mm
(0.0004 — 0.0028 in)

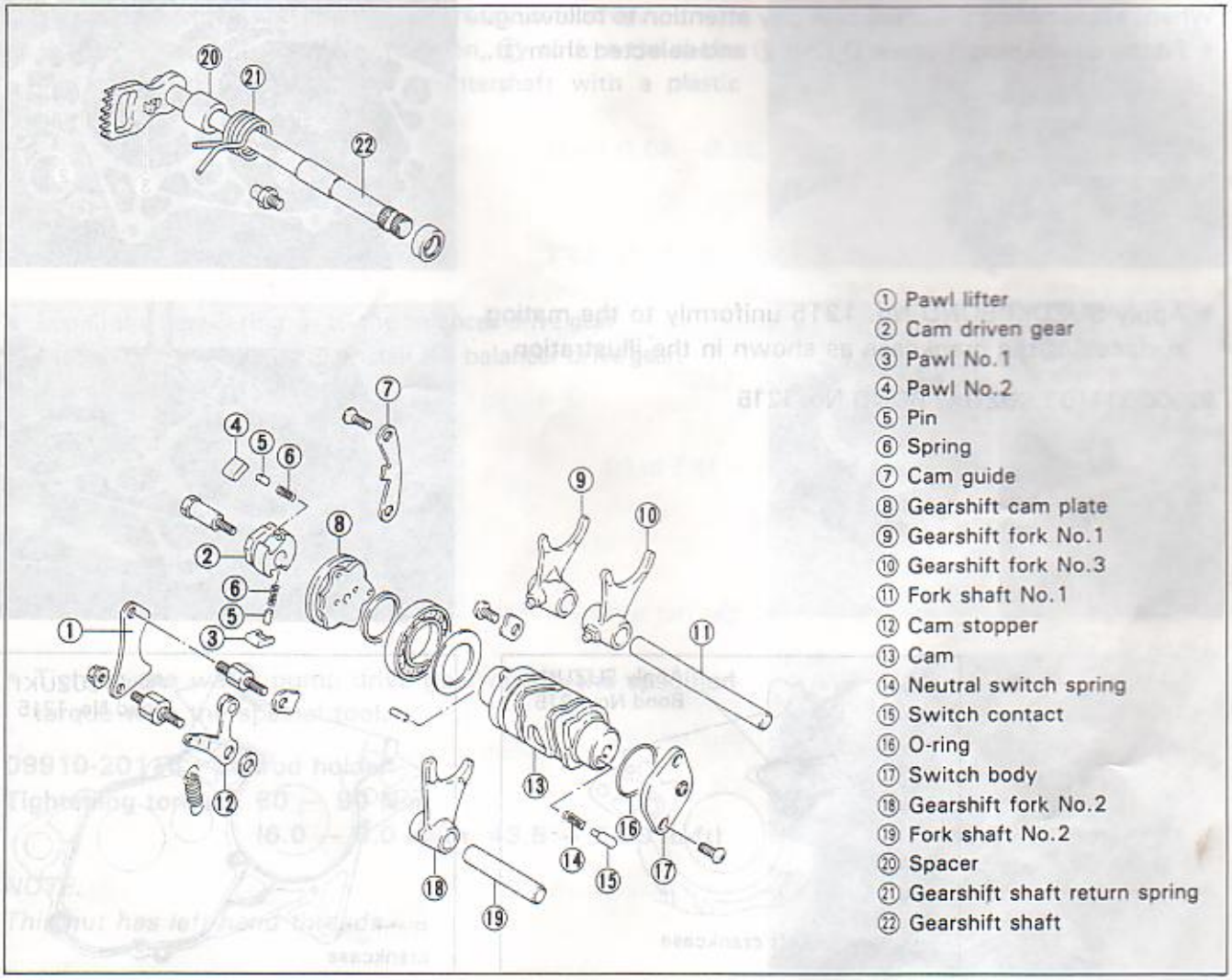
- If the clearance is not within specification, select the proper size of shim.
- After selecting the proper size of shim, place it on the crankcase.
- Recheck the clearance with the above procedure until proper clearance is obtained.

List of shim

Part number of shim	Shim thickness
09170-25341-160	1.60 mm
09170-25341-165	1.65 mm
09170-25341-170	1.70 mm
09170-25341-175	1.75 mm
09170-25341-180	1.80 mm
09170-25341-185	1.85 mm
09170-25341-190	1.90 mm
09170-25341-195	1.95 mm
09170-25341-200	2.00 mm
09170-25341-205	2.05 mm
09170-25341-210	2.10 mm
09170-25341-215	2.15 mm
09170-25341-220	2.20 mm
09170-25341-225	2.25 mm
09170-25341-230	2.30 mm

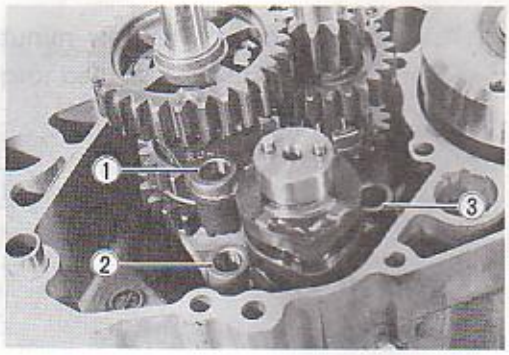
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

GEARSHIFT CAM AND FORK

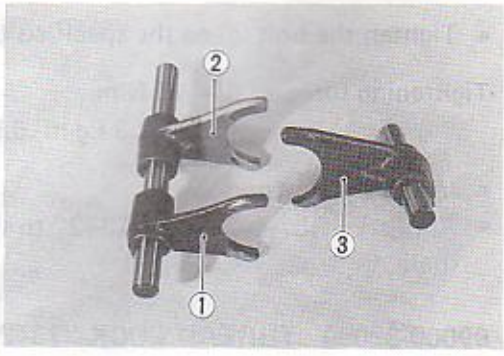


- After fitting the gearshift forks ①, ② and ③ into the gearshift grooves, fit the gearshift cam on the crankcase.

NOTE:
Three kinds of gearshift forks ①, ② and ③ are used. They reassemble each other very closely in external appearance and configuration.
Carefully examine the photograph for correct installing positions and directions.



① For 5th driven gear (No. 1)
② For Top driven gear (No. 3)
③ For 3rd/4th drive gear (No. 2)

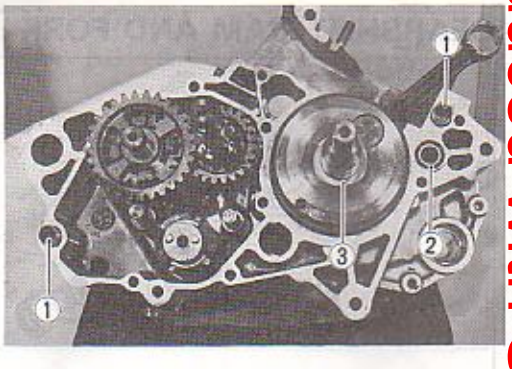


Produced with ScanToPDF
www.scantopdf.co.uk

CRANKCASE

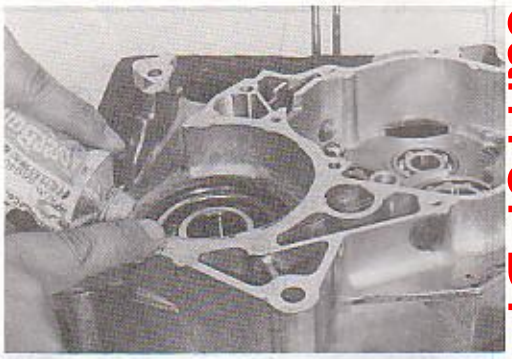
When reassembling the crankcase pay attention to following.

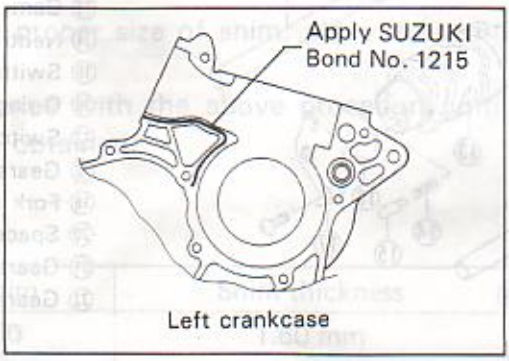
- Fit the dowel pins ①, new O-ring ② and selected shim ③.

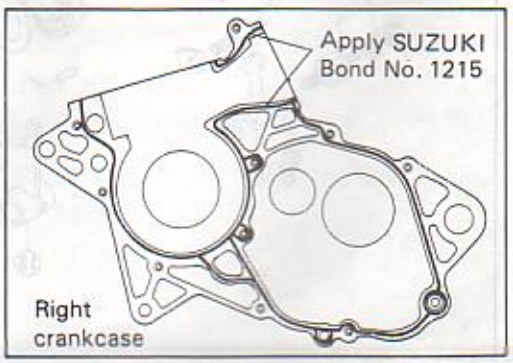


- Apply SUZUKI BOND No. 1215 uniformly to the mating surfaces of the crankcase as shown in the illustration.

99000-31110 : SUZUKI BOND No. 1215





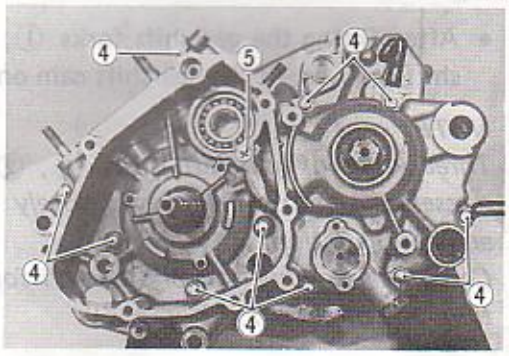


- Assemble the cases after few minutes and tighten the bolts ④ and screw ⑤ to the specified torque.

Tightening torque

④ : 9 – 13 N·m (0.9 – 1.3 kg-m, 6.5 – 9.5 lb-ft)

⑤ : 6 – 10 N·m (0.6 – 1.0 kg-m, 4.5 – 7.0 lb-ft)

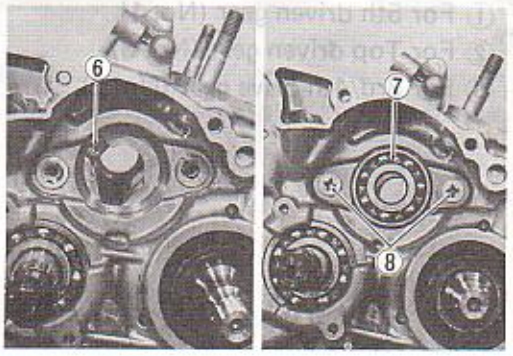


- Tighten the bolt ⑥ to the specified torque.

Tightening torque : 9 – 13 N·m
(0.9 – 1.3 kg-m, 6.5 – 9.5 lb-ft)

- Install the bearing ⑦ .
- Apply THREAD LOCK "1342" to the screws ⑧ and tighten them.

99000-32050 : THREAD LOCK "1342"



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

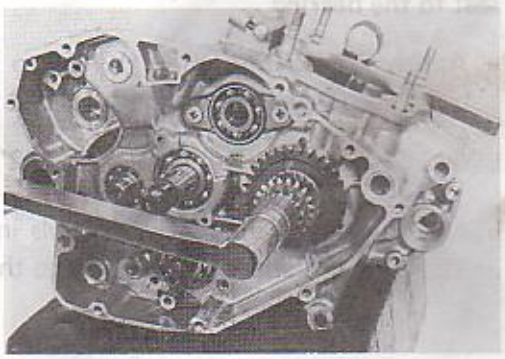
- After the crankcase bolts and screws have been tightened, check if driveshaft and countershaft rotate smoothly.
- If a large resistance is felt to rotation, try to free the shafts by tapping the driveshaft or countershaft with a plastic hammer.

- Install the new O-ring ① to the balancer drive gear.
- Fit the key ② and pin ③, install the balancer drive gear.

- Tighten the water pump drive gear nut to the specified torque with the special tool.

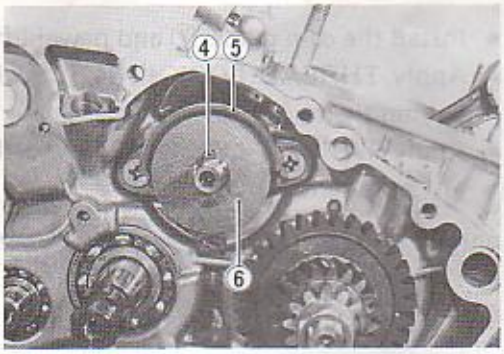
09910-20115 : Conrod holder
Tightening torque : 60 — 80 N·m
(6.0 — 8.0 kg-m, 43.5 — 58.0 lb-ft)

NOTE:
This nut has left-hand threads.

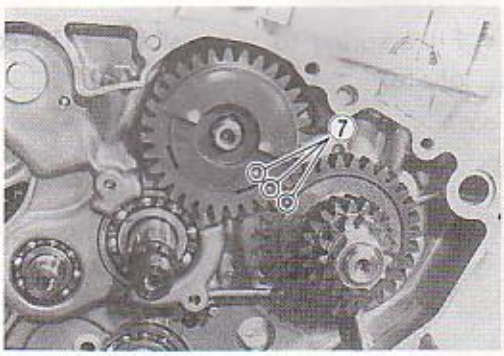


BALANCER SHAFT AND GEAR

- Fit the key ④ and install the balancer weight ⑤ and washer ⑥.



- When installing the balancer driven gear, align the three punched marks ⑦.

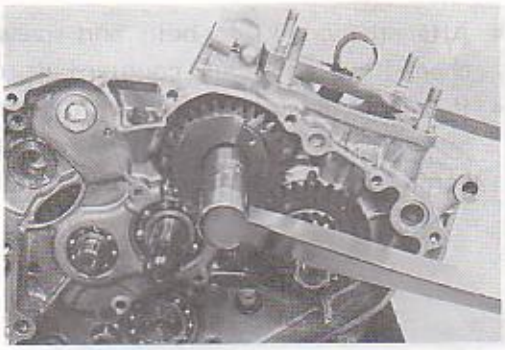


Produced with ScanToPDF
www.scantopdf.co.uk

- Tighten the balancer nut to the specified torque with the special tool.

09910-20115 : Conrod holder

Tightening torque : 45—55 N·m (4.5—5.5 kg-m, 32.5—40.0 lb-ft)

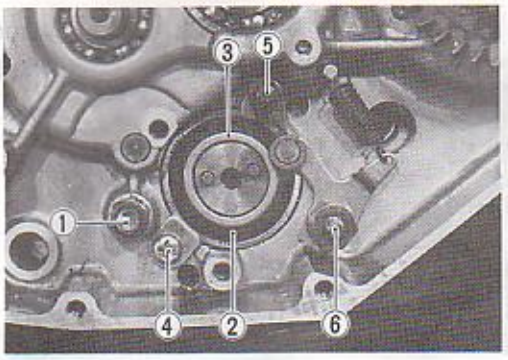


CAM DRIVEN GEAR AND GEARSHIFT SHAFT

- Apply THREAD LOCK SUPER "1303" to the gearshift arm stopper ①, and tighten it to the specified torque.

99000-32030 : THREAD LOCK SUPER "1303"

Tightening torque: 15 – 23 N·m (1.5 – 2.3 kg-m, 11.0 – 16.5 lb-ft)

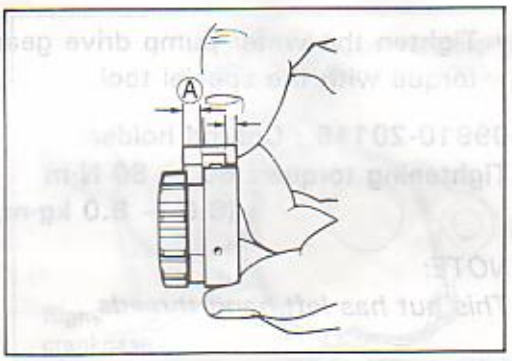


- Install the bearing seat ② and spacer ③.

CAUTION:
When installing the bearing seat ②, face the flat surface of the seat to the bearing.

- Apply THREAD LOCK "1342" to the retainer screw ④, bolt ⑤ and stopper arm bolt ⑥, and tighten them.

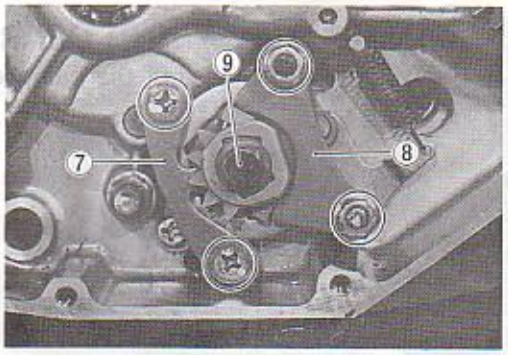
99000-32050 : THREAD LOCK "1342"



- When installing the gearshift pawls into the cam driven gear. The large shoulder Ⓐ must face to the outside as shown.

- Install the cam guide ⑦ and pawel lifter ⑧.
- Apply THREAD LOCK "1342" to the screws and nuts, and tighten them.
- Apply THREAD LOCK "1342" to the cam driven gear bolt ⑨, and tighten it.

99000-32050 : THREAD LOCK "1342"

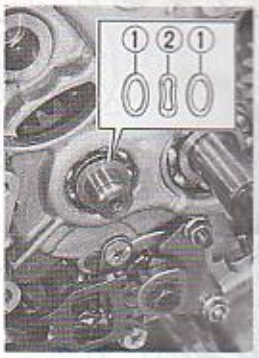


- Fit a spring to the gearshift shaft correctly as shown in the photo.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

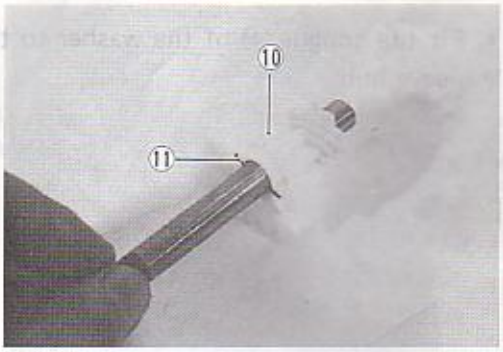
- Install the gearshift shaft. Match the center teeth of the gear on the gearshift shaft with the center teeth on the cam driven gear as shown in photo.

- Install the two washers ① and concaved washer ② as shown in the illustration.
- Install the oil pump drive gear ③ and circlip ④.



- Install the oil pump idle gear ⑤, washer ⑥ and circlips ⑦ to the shaft ⑧.
- Install the oil pump idle gear assembly and washer ⑨.

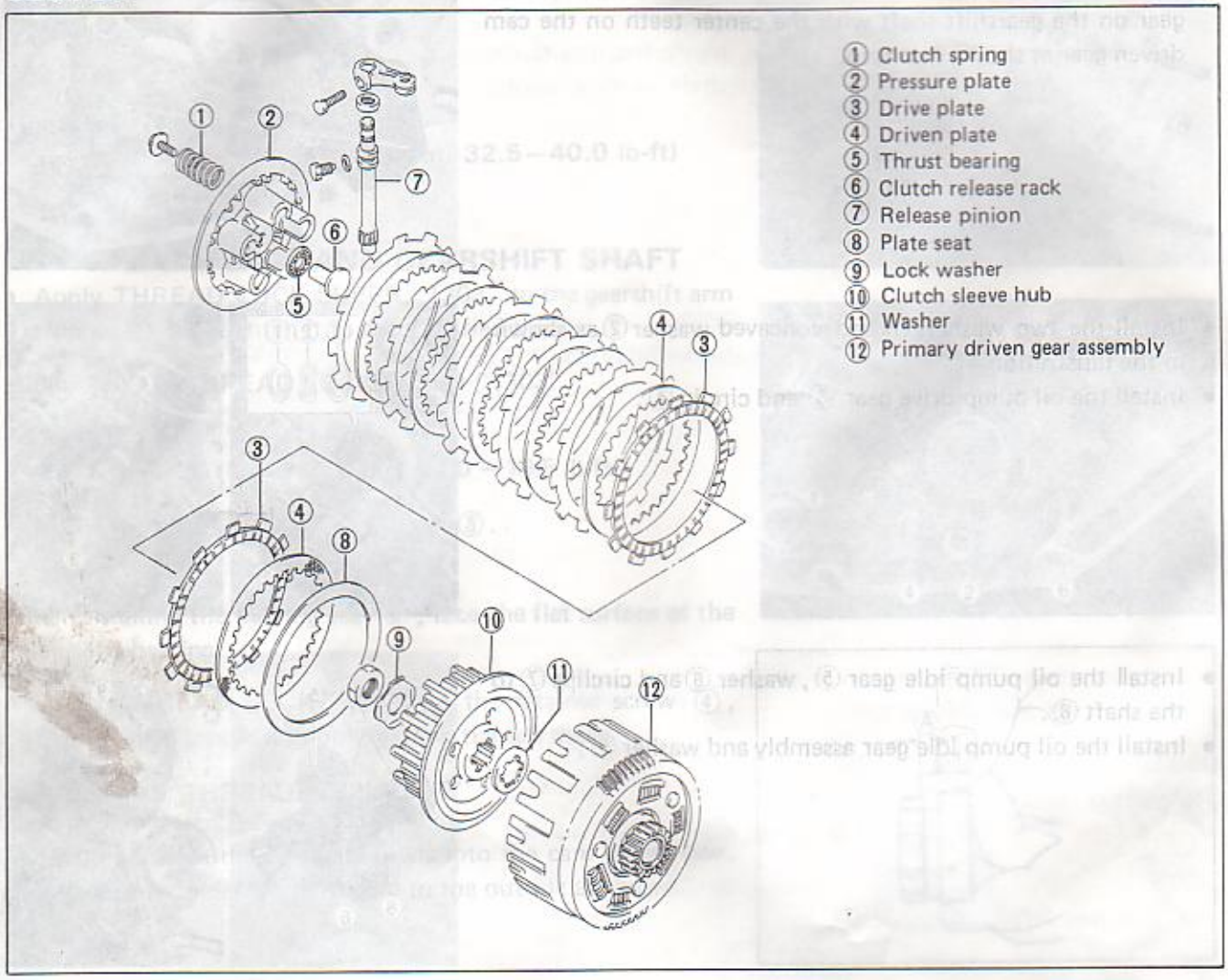
- Install the oil pump driven gear ⑩ and pin ⑪ to the shaft.



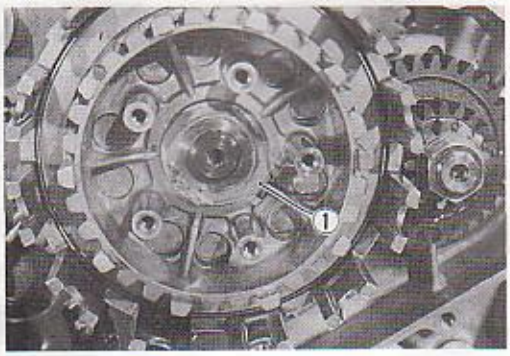
- Install the oil pump driven gear to the crankcase.

Produced with ScanToPDF
www.scantopdf.co.uk

CLUTCH



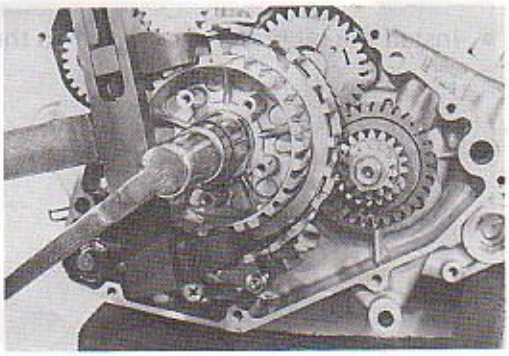
- Fit the tongue ① of the washer to the groove of the clutch sleeve hub.



- Tighten the clutch sleeve hub nut to the specified torque with the special tool.

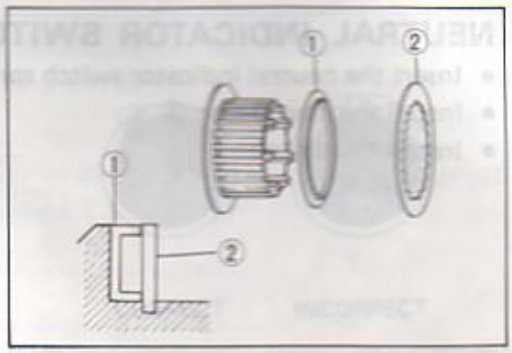
Tightening torque : 40–60 N·m
(4.0–6.0 kg-m, 29.0–43.5 lb-ft)

09920-53740 : Clutch sleeve hub holder



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

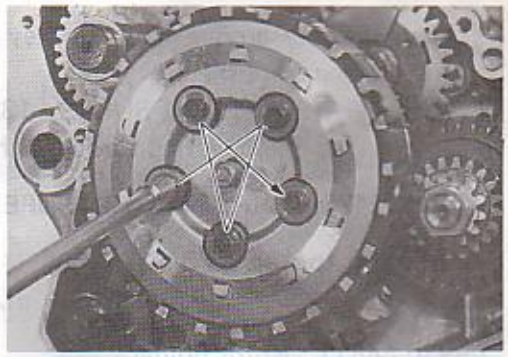
- Install the clutch plate seat ① and driven plate ② as shown in the illustration.
- Install the drive plate and driven plate one by one.



- Insert the clutch release rack and bearing into the pressure plate.

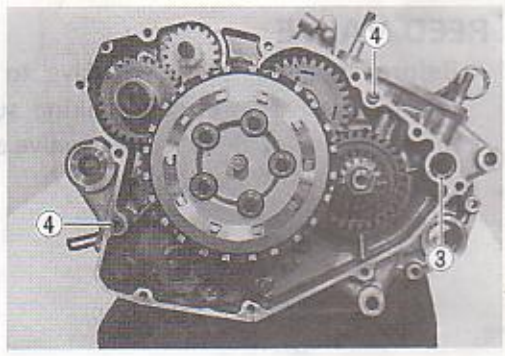
- Tighten the clutch spring bolts diagonally with the special tool.

09910-20115 : Conrod holder

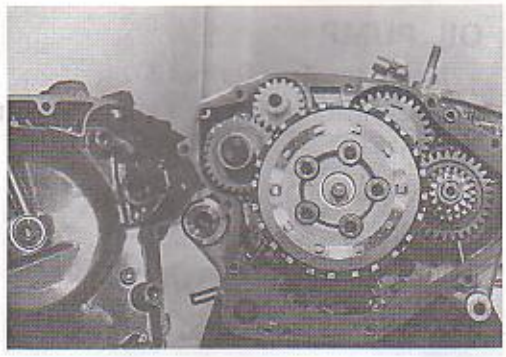


- Fit the new O-ring ③ and dowel pins ④.
- Install the oil pump drive gear with shaft.

CAUTION:
Use a new gasket to prevent oil leakage.



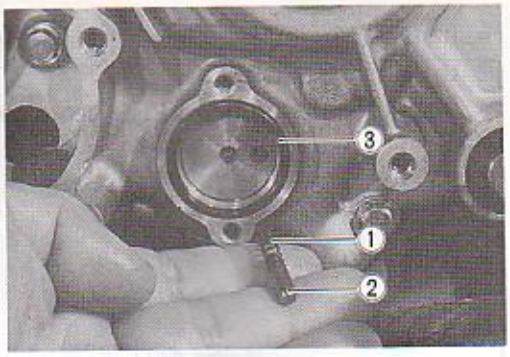
- Engage the teeth of clutch release rack with those of pinion gear at the clutch cover side, and replace the clutch cover. Make sure that the rack and pinion gears engage positively. To install the cover, tap lightly with plastic hummer, and tighten the bolts.



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

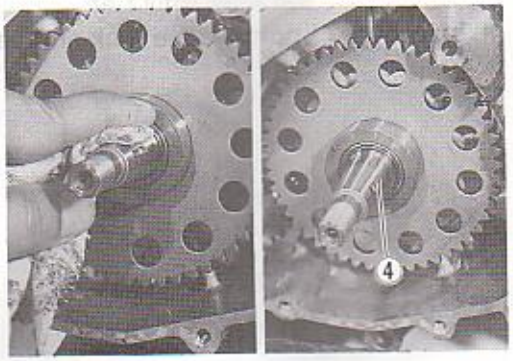
NEUTRAL INDICATOR SWITCH

- Insert the neutral indicator switch spring ① and contact ②.
- Install the new O-ring ③.
- Install the switch.



MAGNETO

- Degrease the tapered portion of the crankshaft and also the magneto rotor.
- Fit the key ④.

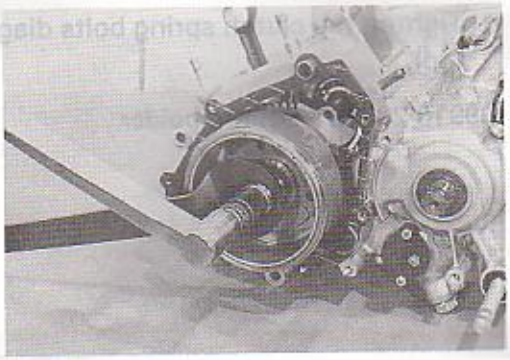


- Align the key groove with the key and install the magneto rotor to the crankshaft.
- Apply THREAD LOCK SUPER "1324" to the rotor nut and tighten it to the specified torque with the special tool.

99000-32120 : THREAD LOCK SUPER "1324"

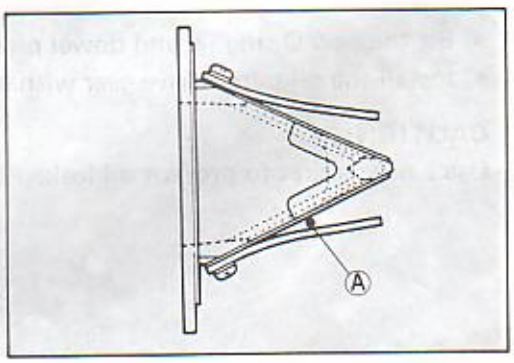
Tightening torque : 75—85 N·m (7.5—8.5 kg-m, 54.0—61.5 lb-ft)

09930-44511 : Rotor holder



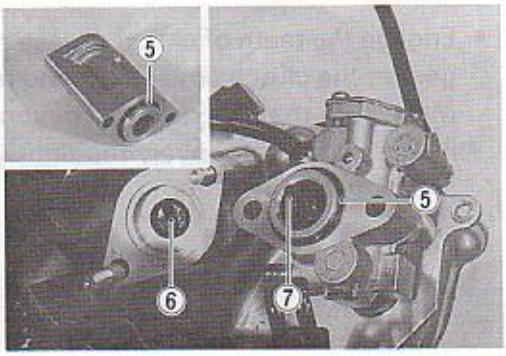
REED VALVE

- Before installing the reed valve to the crankcase, examine the reed valve carefully, making sure there is not foreign matter Ⓐ stuck between reed valve and reed valve stopper.



OIL PUMP

- Install the new O-rings ⑤.
- When installing the oil pump, align the groove ⑥ with protrusion ⑦.

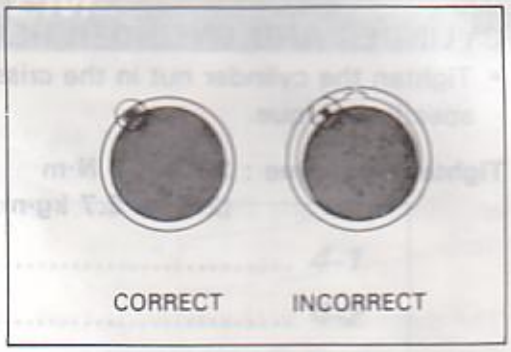


Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

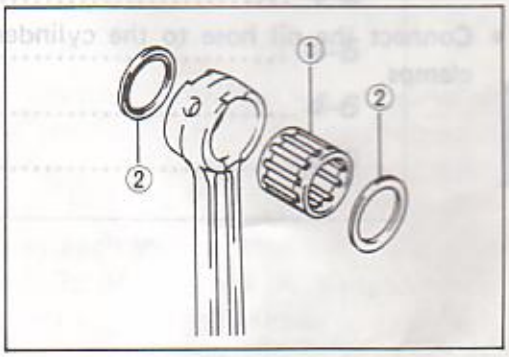
PISTON RING AND PISTON

- Mount the piston rings in the order of expander ring, 2nd ring and top ring.

NOTE:
Top and 2nd rings have letter "T" marked.
Be sure to bring the marked side to top when fitting them to the piston.



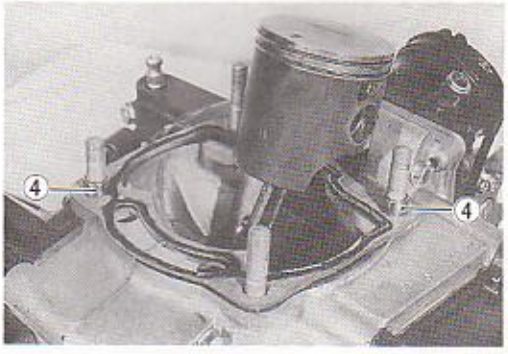
- Each ring in place should be so positioned as to hug the locating pin.
- Install the bearing ① and two thrust washers ② to the conrod.



- Before installing the piston to the conrod, be sure to apply SUZUKI CCI Oil or two-stroke oil to the conrod big end and small end bearings.
- The arrow mark on the piston crown points to the cylinder exhaust port side.

- The circlip should be mounted in such a position ③ that the mating ends of the circlip do not coincide with the groove portion of the piston.

- Before inserting the piston in the cylinder, be sure to apply SUZUKI CCI Oil or two-stroke oil to the outer surface of the piston and piston ring grooves.
- Fit the two dowel pins ④.
- Install the new gasket.

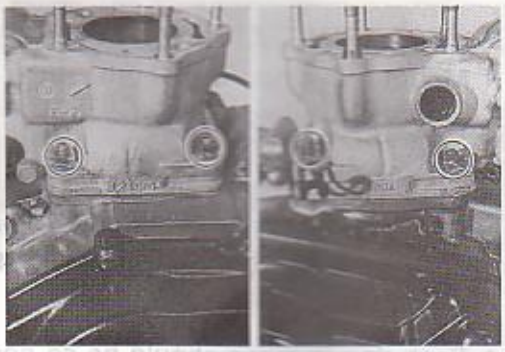


Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

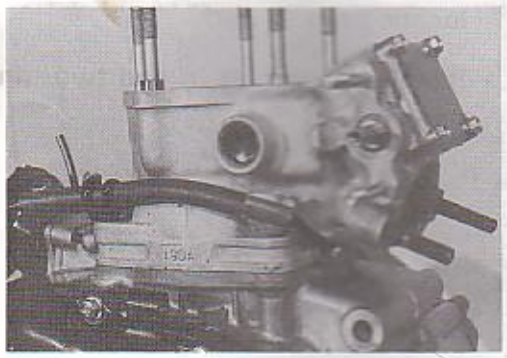
CYLINDER AND CYLINDER HEAD

- Tighten the cylinder nut in the criss-cross manner to the specified torque.

Tightening torque : 23 — 27 N·m
(2.3 — 2.7 kg-m, 16.5 — 19.5 lb-ft)

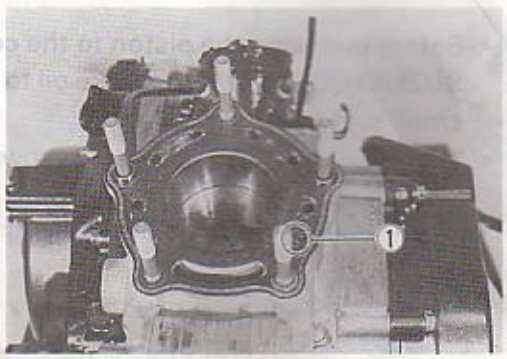


- Connect the oil hose to the cylinder and fix the hose with clamps.



- Install the new cylinder head gasket properly position.

CAUTION:
When installing the cylinder head gasket, be sure to bring "SP" marked ① side to the top as shown in the photograph.



- Install the copper washers ②.
- Tighten the cylinder head nuts to the specified torque in ascending numerical order on the cylinder head.

Tightening torque : 23 — 27 N·m
(2.3 — 2.7 kg-m, 16.5 — 19.5 lb-ft)

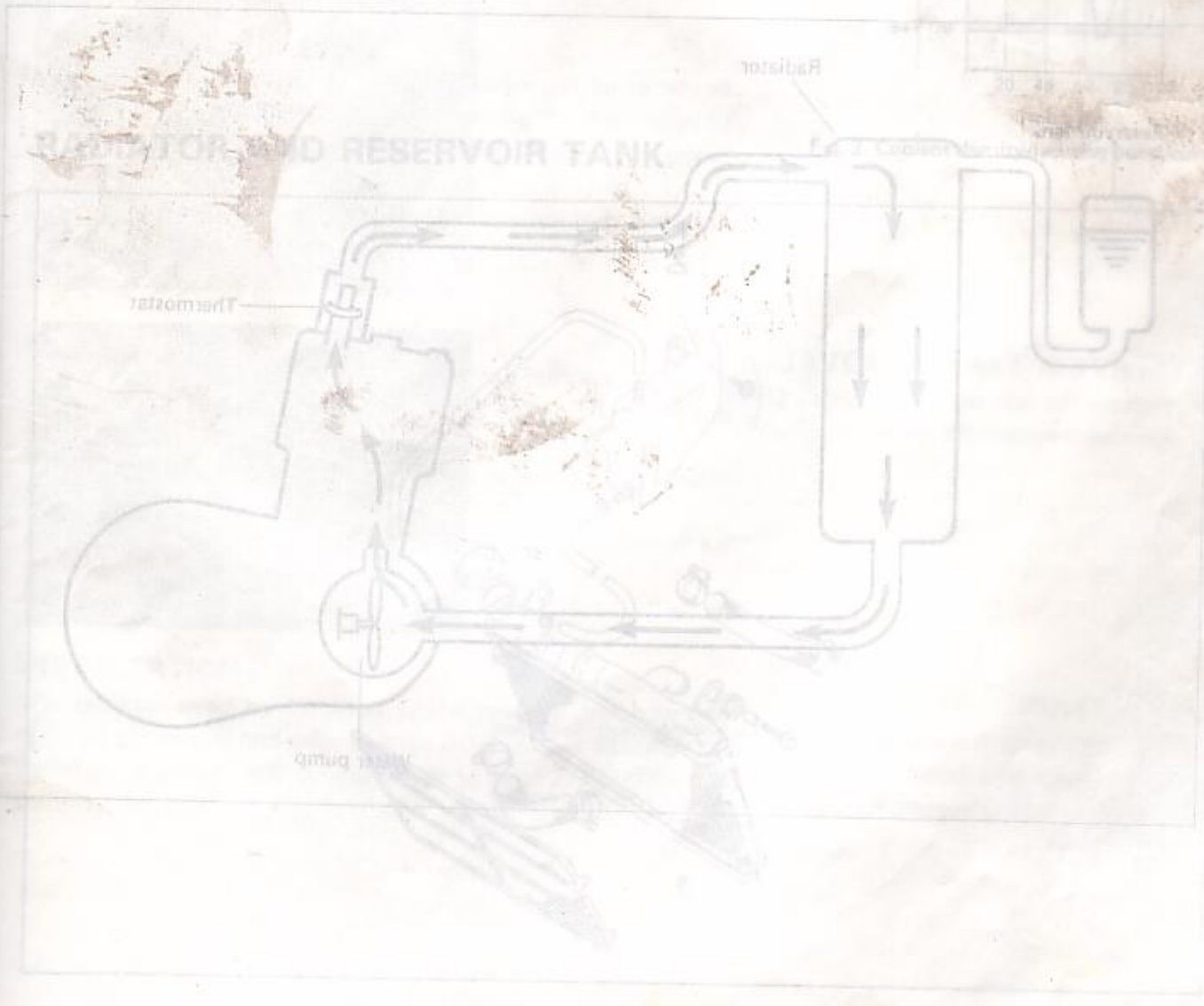
NOTE:
Cap nuts ③ position is as shown in the phtograph.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

COOLING SYSTEM

CONTENTS

COOLING SYSTEM 4-1
COOLING SOLUTION 4-2
RADIATOR AND RESERVOIR TANK 4-2
THERMOSTAT 4-5
WATER PUMP 4-6
WATER THERMO-GAUGE 4-9



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

COOLING SYSTEM

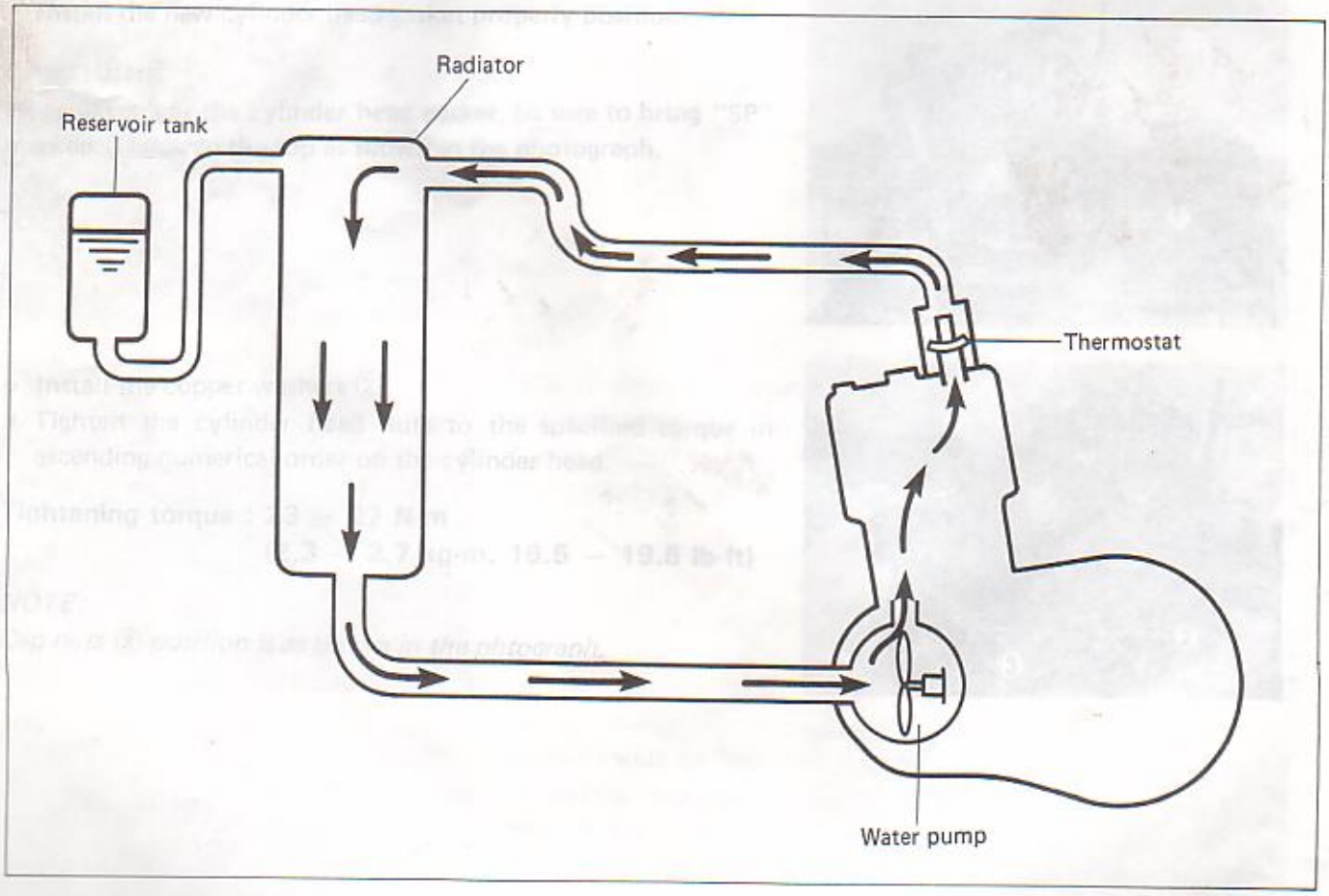
DESCRIPTION

The engine is cooled by coolant set in forced recirculation through jackets formed in the cylinder and head, and through the radiator. For the water pump, a high-capacity centrifugal pump is used. The radiator is tube and fin type made aluminum material, which is characterized by lightness in weight and good heat dissipation.

The thermostat is of wax pellet type, complete with a valve as the means of temperature-dependent control over the flow of coolant through the radiator. The valve is actuated by the temperature-sensive was contained in the pellet.

Referring to the following illustration, the thermostat is in the closed condition, so that water recirculates through the route comprising pump, engine, by-pass holes of the thermostat and radiator in the regulated condition.

As the coolant temperature rises to 50°C and the thermostat valve unseats, the normal coolant flow is established. At about 65°C of coolant temperature, the thermostat becomes completely open and the most of heat is released to the atmosphere through the radiator core.



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

COOLING SOLUTION

At the time of manufacture, the cooling system is filled with a 50 : 50 solution of distilled water and anti-freeze/summer coolant. This 50 : 50 mixture will provide excellent heat protection, and will protect the cooling system from freezing at temperatures above −31°C (−24°F).

If the motorcycle is to be exposed to temperatures below −31°C (−24°F), this mixing ratio sould be increased up to 55% or 60% according to the Fig. 2.

NOTE:

The characteristics of different anti-freezes vary. Read the label to know the protection you will have.

CAUTION:

Do not put in more than 60% anti-freeze or less than 50%.

Do not mix different brands of anti-freeze.

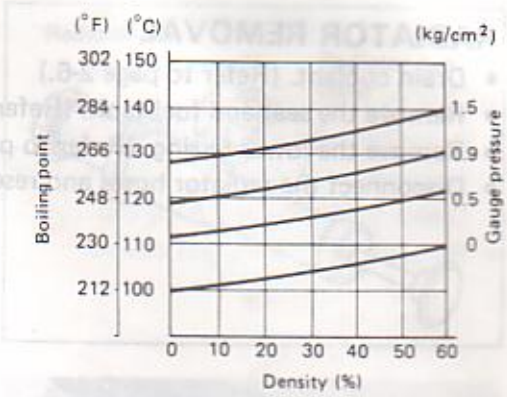


Fig. 1 Coolant density-boiling point curve

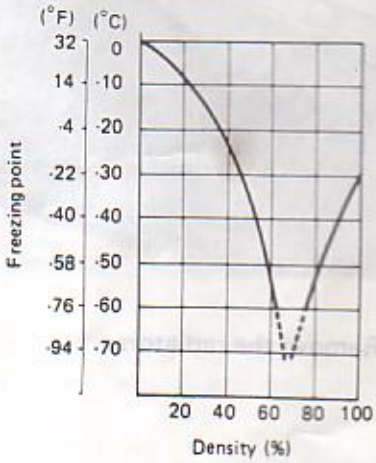
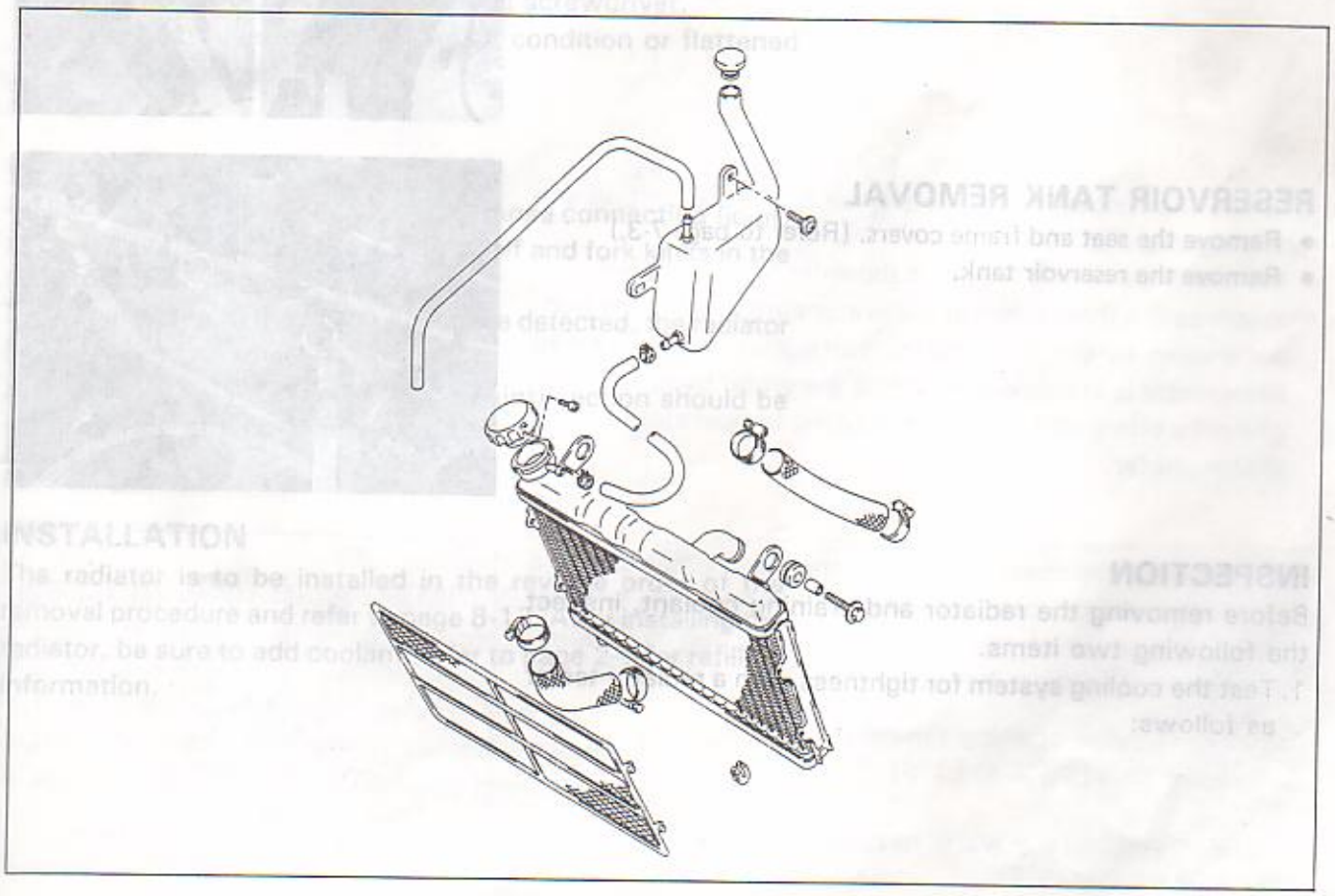


Fig. 2 Coolant density-freezing point curve

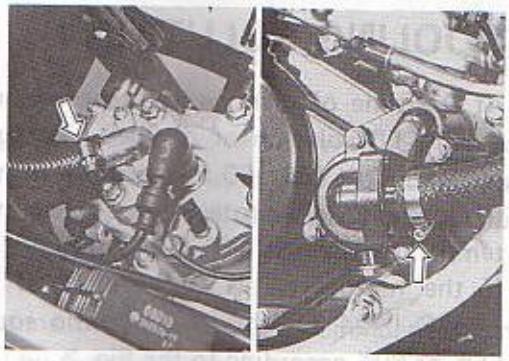
RADIATOR AND RESERVOIR TANK



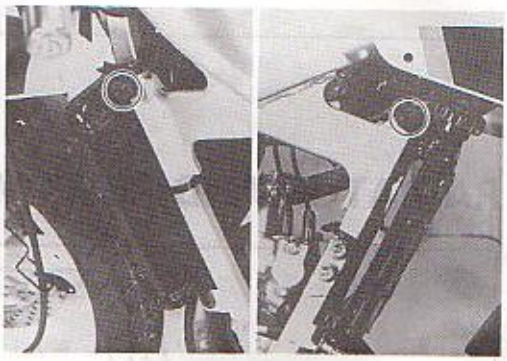
Produced with ScanToPDF
www.scantopdf.co.uk

RADIATOR REMOVAL

- Drain coolant. (Refer to page 2-6.)
- Remove the seat and fuel tank. (Refer to page 3-2.)
- Remove the lower fairing. (Refer to page 7-1.)
- Disconnect the radiator hoses and reservoir hose.

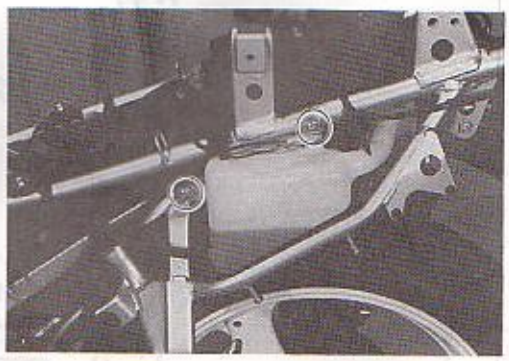


- Remove the radiators.



RESERVOIR TANK REMOVAL

- Remove the seat and frame covers. (Refer to page 7-3.)
- Remove the reservoir tank.



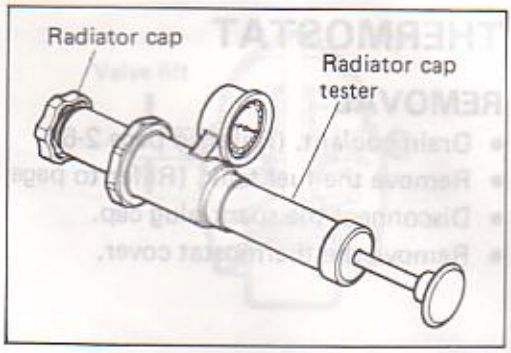
INSPECTION

Before removing the radiator and draining coolant, inspect the following two items.

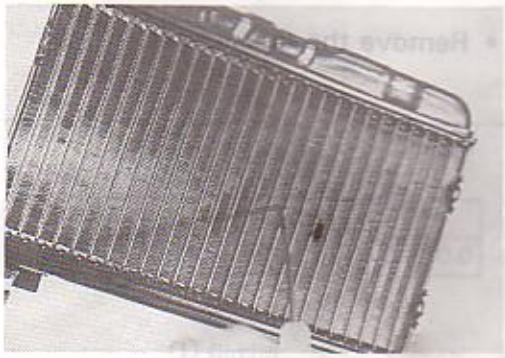
1. Test the cooling system for tightness with a radiator tester as follows:

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

Remove the radiator cap, and connect the tester to the filter. Give a pressure of about 1 kg/cm² (14.2 psi) and see if the system holds this pressure for 10 seconds. If the pressure should fall during this 10-second interval, it means that there is a leaking point in the system; In such a case, inspect the entire system and replace the leaking component or part.



2. Test the radiator cap for relieving pressure by using the radiator tester in the following manner: Fit the cap to the tester, as shown, and build up pressure slowly by operating the tester. Make sure that the pressure build-up stops at 1.10 ± 0.15 kg/cm² and that, with the tester held at a standstill, the cap is capable of that pressure for at least 10 seconds. Replace the cap if it is found not to satisfy eigher of these two requirements.



Radiator cap valve release pressure :
110 ± 15 kPa (1.10 ± 0.15 kg/cm² , 15.6 ± 2.1 psi)

3. Road dirt or trashes stuck to the fins must be removed. Use of compressed air is recommended for this cleaning. Fins bent down or dented can be repaired by straightening them with the blade of a small screwdriver.
4. Any water hose found in cracked condition or flattened must be replaced.

RADIATOR HOSE

Inspect for leakage from the radiator hose connecting (joint) section and from the radiator hose itself and fork kinks in the radiator hose.
If any leakage from the radiator hose are detected, the radiator hose should be replaced.
Any leakages from the connecting (joint) section should be corrected by proper tightening.

INSTALLATION

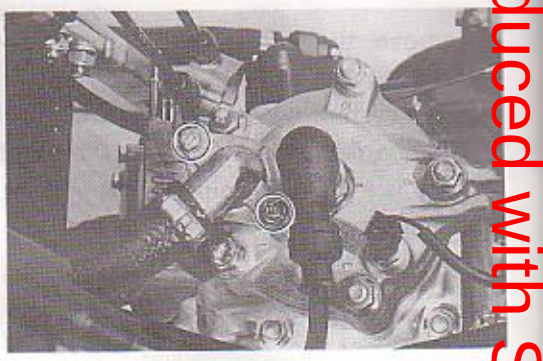
The radiator is to be installed in the reverse order of the removal procedure and refer to page 8-13. After installing the radiator, be sure to add coolant: refer to page 2-7 for refilling information.

Produced with ScanToPDF
www.scantopdf.co.uk

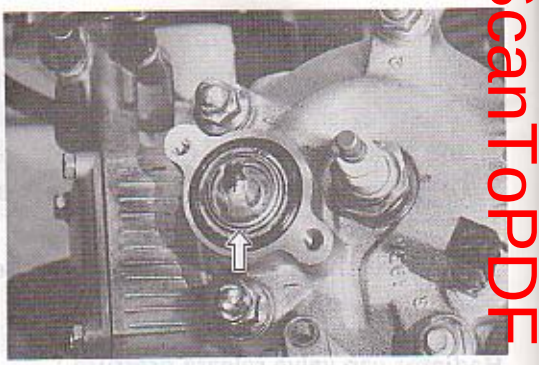
THERMOSTAT

REMOVAL

- Drain coolant. (Refer to page 2-6.)
- Remove the fuel tank. (Refer to page 3-2.)
- Disconnect the spark plug cap.
- Remove the thermostat cover.

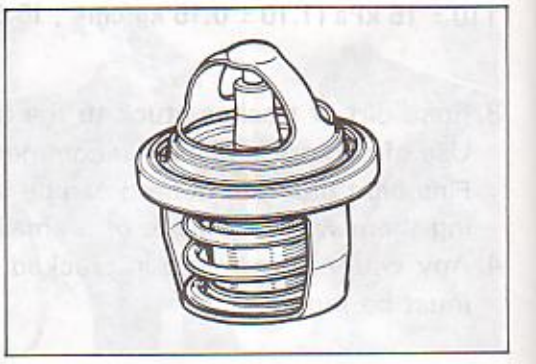


- Remove the thermostat.



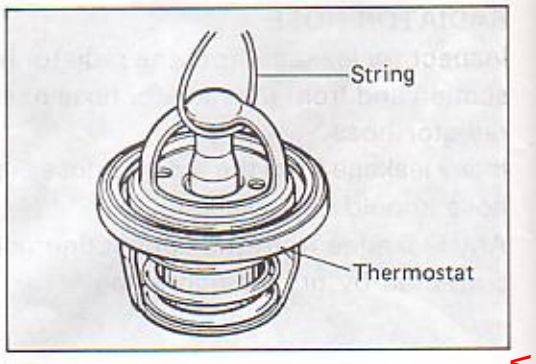
INSPECTION

Inspect the thermostat pellet for signs of cracking.



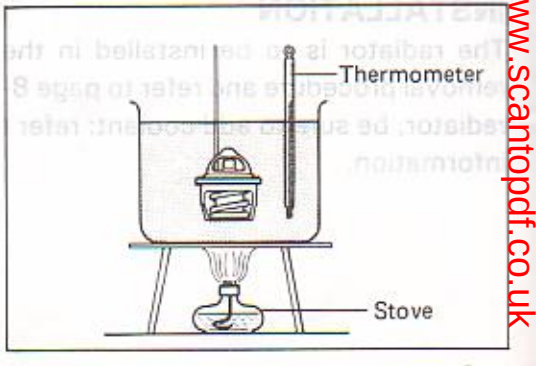
Test the thermostat at the bench for control action, in the following manner.

- Pass a string between flange, as shown in the illustration.
- Immerse the thermostat in the water contained in the pan, as shown in the illustration. Note that the immersed thermostat is in suspension. Heat the water by placing the pan on a stove and observe the rising temperature on the thermometer.



- Read the thermometer just when the thermostat drops to the bottom of the pan. This reading, which is the temperature level at which the thermostat valve begins to open, should be anywhere between 48.5°C and 51.5°C.

Thermostat valve opening temperature :
48.5 – 51.5°C (119.3 – 124.7°F)



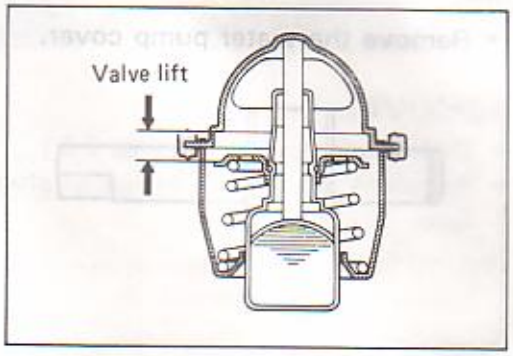
- Keep on heating the water to raise its temperature to and beyond 65°C (149°F).

Produced with ScanToPDF
www.scantopdf.co.uk

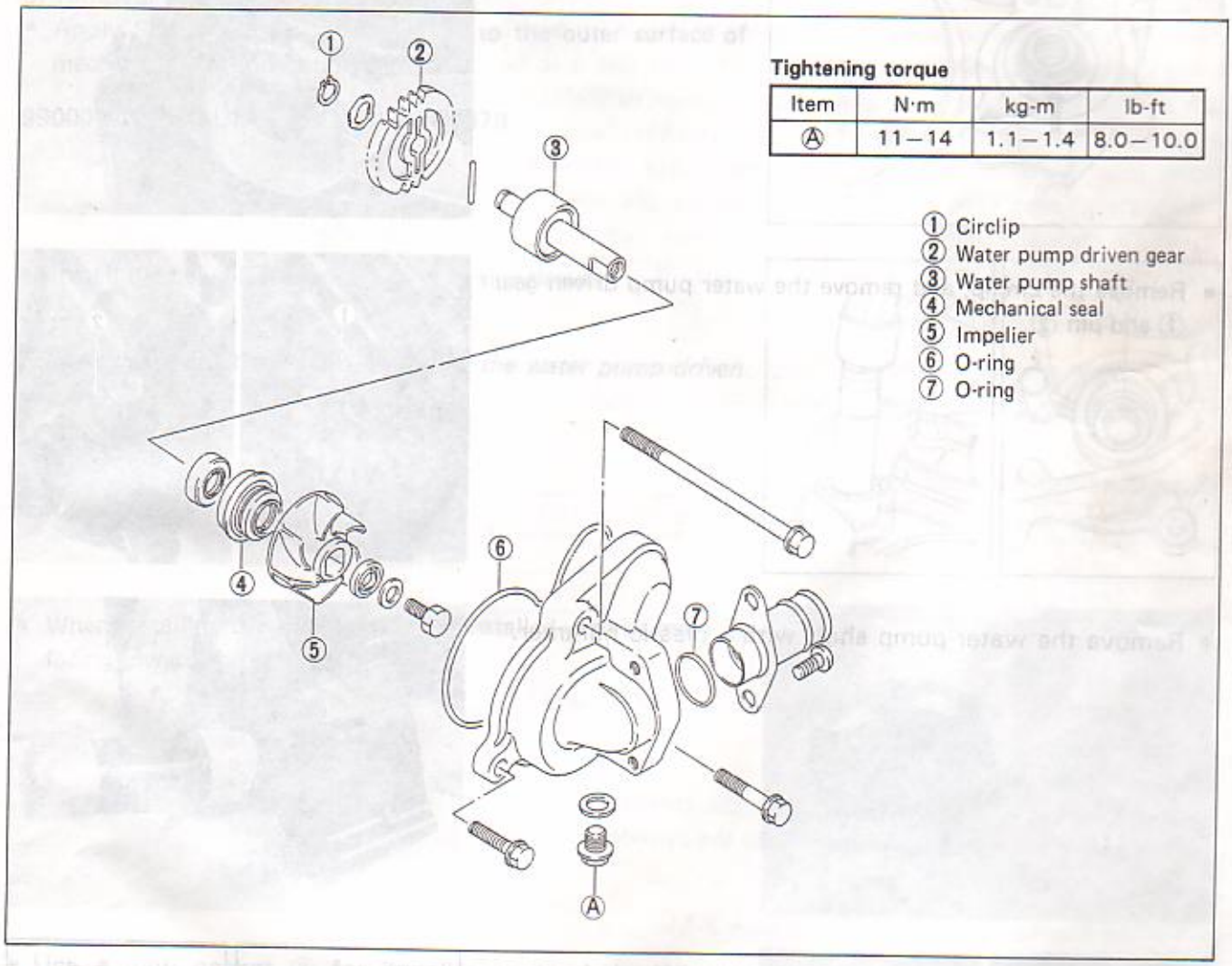
- Just when the water reaches 65 °C, the thermostat valve should have lifted by at least 3.0 mm.

Thermostat valve lift : Over 3.0 mm (0.12 in)
at 65°C (149°F)

- A thermostat failing to satisfy either of the two requirements (start-to-open temperature and valve lift) must be replaced.



WATER PUMP



Tightening torque

Item	N·m	kg-m	lb-ft
Ⓐ	11–14	1.1–1.4	8.0–10.0

① Circlip
② Water pump driven gear
③ Water pump shaft
④ Mechanical seal
⑤ Impelier
⑥ O-ring
⑦ O-ring

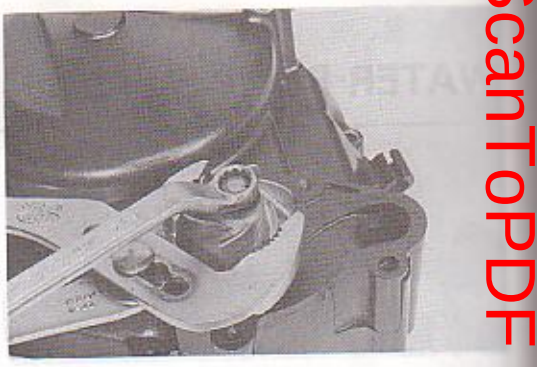
REMOVAL AND DISASSEMBLY

- Drain transmission oil. (Refer to page 2-6.)
- Drain coolant. (Refer to page 2-6.)
- Remove the lower fairing. (Refer to page 7-1.)
- Remove the clutch release arm. (Refer to page 3-3.)
- Remove the clutch cover. (Refer to page 3-10.)

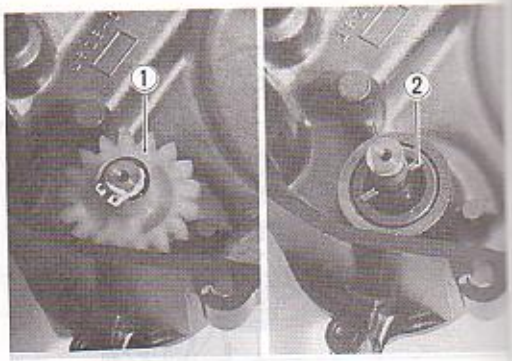
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the water pump cover.

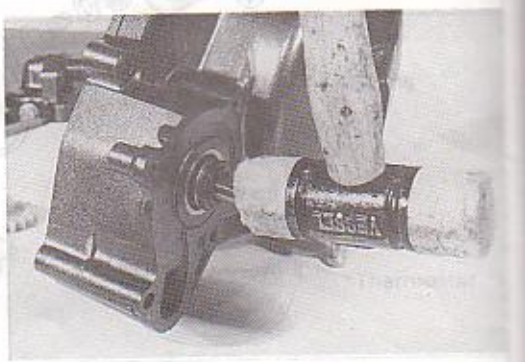
- Remove the impeller with a water pump plier.



- Remove the circlip, and remove the water pump driven gear ① and pin ②.

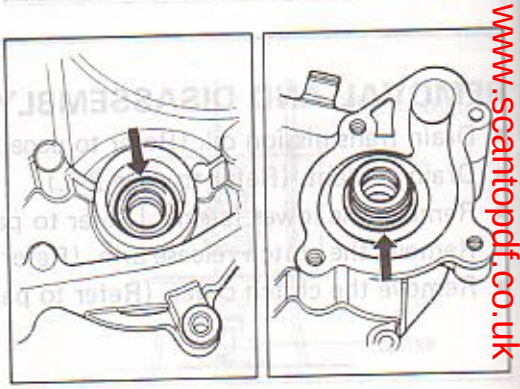


- Remove the water pump shaft with a plastic hummer.



- Remove the oil seal and mechanical seal.

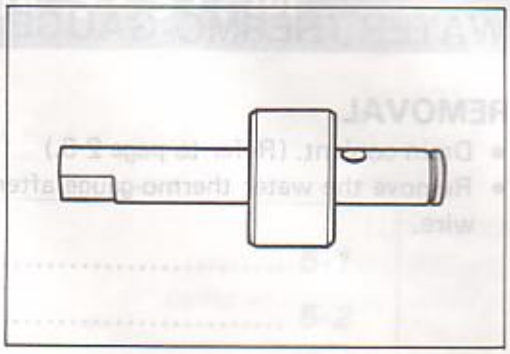
CAUTION:
The removed oil seal and mechanical seal should be replaced with a new one.



Produced with ScanToPDF
www.scantopdf.co.uk

INSPECTION

Rotate the water pump shaft by hand inspect if any abnormal noise occurs or rotating smoothly.
Replace the water pump shaft if there is anything unusual.

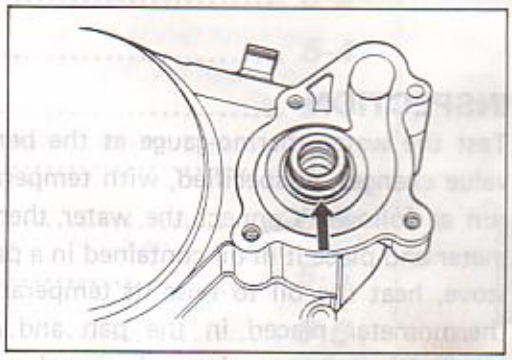


REASSEMBLY

Reassemble and remount the water pump in the reverse order of removal and disassembly.

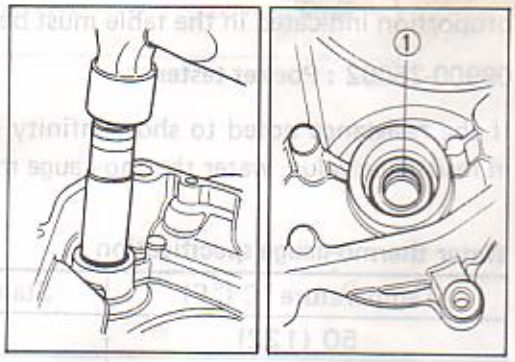
- Apply SUZUKI BOND NO. 1207B to the outer surface of mechanical seal and install it.

99000-31140 : SUZUKI BOND No. 1207B

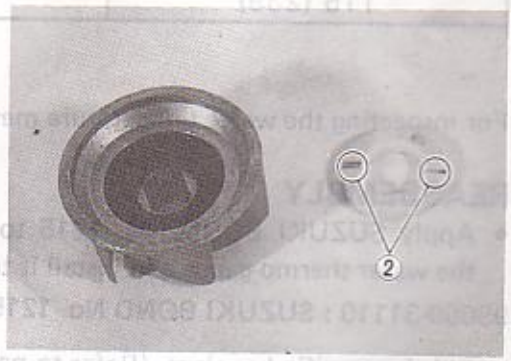


- Install the new oil seal with a suitable size sleeve.

NOTE:
Oil seal lip ① must be installed toward the water pump driven gear.

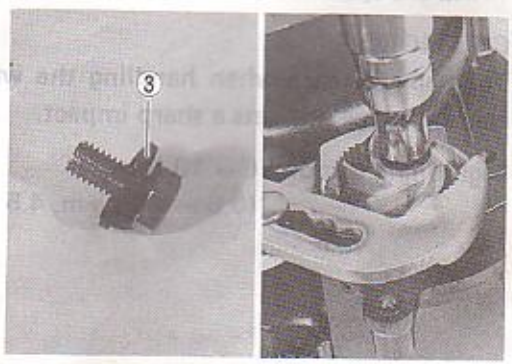


- When installing the ring, it must be installed with its mark ② facing toward the impeller.



- Use a new gasket ③ for impeller center bolt. When installing the gasket, face the iron side to the spring washer and bolthead.
- Tighten the impeller mounting bolt to the specified torque with a water pump plier.

Tightening torque : 7 — 9 N·m
(0.7 — 0.9 kg-m, 5.0 — 6.5 lb-ft)



- Fill the specified coolant. (Refer to page 2-7.)

Produced with ScanToPDF
www.scantopdf.co.uk

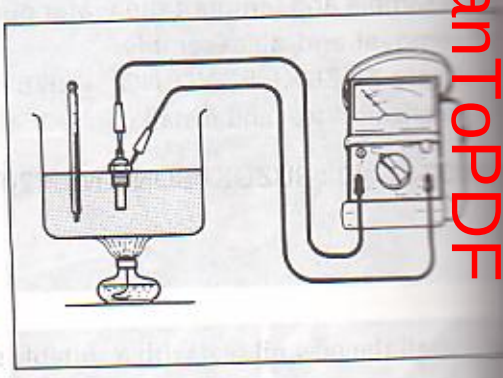
WATER THERMO-GAUGE

REMOVAL

- Drain coolant. (Refer to page 2-6.)
- Remove the water thermo-gauge after disconnecting the lead wire.

INSPECTION

Test the water thermo-gauge at the bench to see if its ohmic value changes, as specified, with temperature. The test is to be run as follows: Connect the water thermo-gauge to the ohmmeter and place it in oil contained in a pan, which is placed on a stove, heat the oil to raise its temperature slowly, reading the thermometer placed in the pan and also the ohmmeter. A water thermo-gauge whose ohmic value does not change in the proportion indicated in the table must be replaced.



09900-25002 : Pocket tester

If the resistance noted to show infinity or too much difference in resistance value, water thermo-gauge must be replaced.

Water thermo-gauge specification

Temperature °C (°F)	Standard resistance (Ω)
50 (122)	190 – 260
115 (239)	23 – 30

For inspecting the water temperature meter, refer to page 6-11.

REASSEMBLY

- Apply SUZUKI BOND NO. 1215 to the thread portion of the water thermo-gauge and install it to the cylinder head.

99000-31110 : SUZUKI BOND No. 1215

- Fill the specified coolant. (Refer to page 2-7.)

CAUTION:
Take special care when handling the water thermo-gauge may cause damage if it gets a sharp impact.

Tightening torque : 6 – 10 N·m
(0.6 – 1.0 kg-m, 4.5 – 7.0 lb-ft)

Produced with ScanToPDF
www.scantopdf.co.uk

FUEL AND LUBRICATION SYSTEM

CONTENTS

FUEL COCK 5-1
CARBURETOR 5-2
REMOVAL AND DISASSEMBLY 5-3
INSPECTION 5-4
NEEDLE VALVE INSPECTION 5-4
FLOAT HEIGHT ADJUSTMENT 5-4
REASSEMBLY AND REMOUNTING 5-5
OIL PUMP 5-5
AIR BLEEDING 5-5
CHECKING OIL PUMP 5-5

5

Produced with ScanToPDF
www.scantopdf.co.uk

FUEL COCK

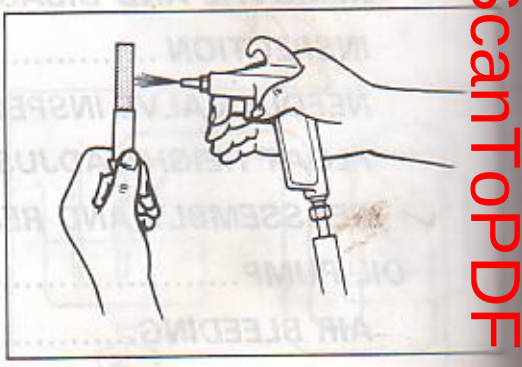
REMOVAL

- Remove the fuel tank. (Refer to page 3-2.)
- Drain fuel.

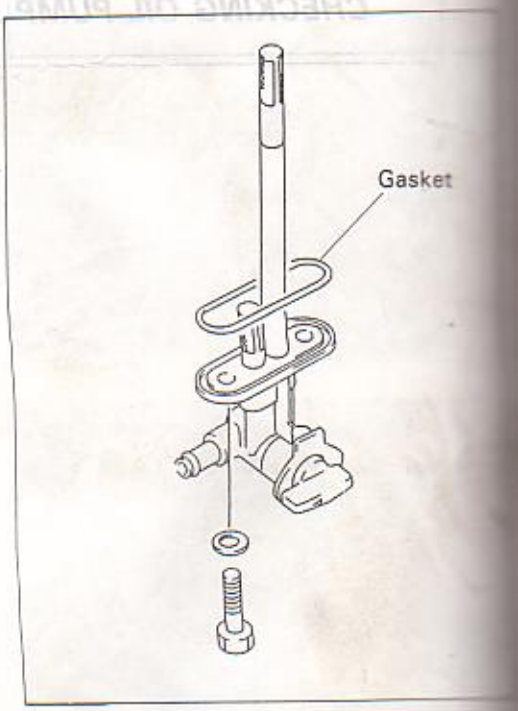
WARNING:
Gasoline is very explosive.
Extreme care must be taken.

CLEANING

Dust from the fuel tank tends to build up in the filter, which, when the filter has been neglected for a long period, inhibits the flow of fuel.
Remove the dust from the filter using compressed air.

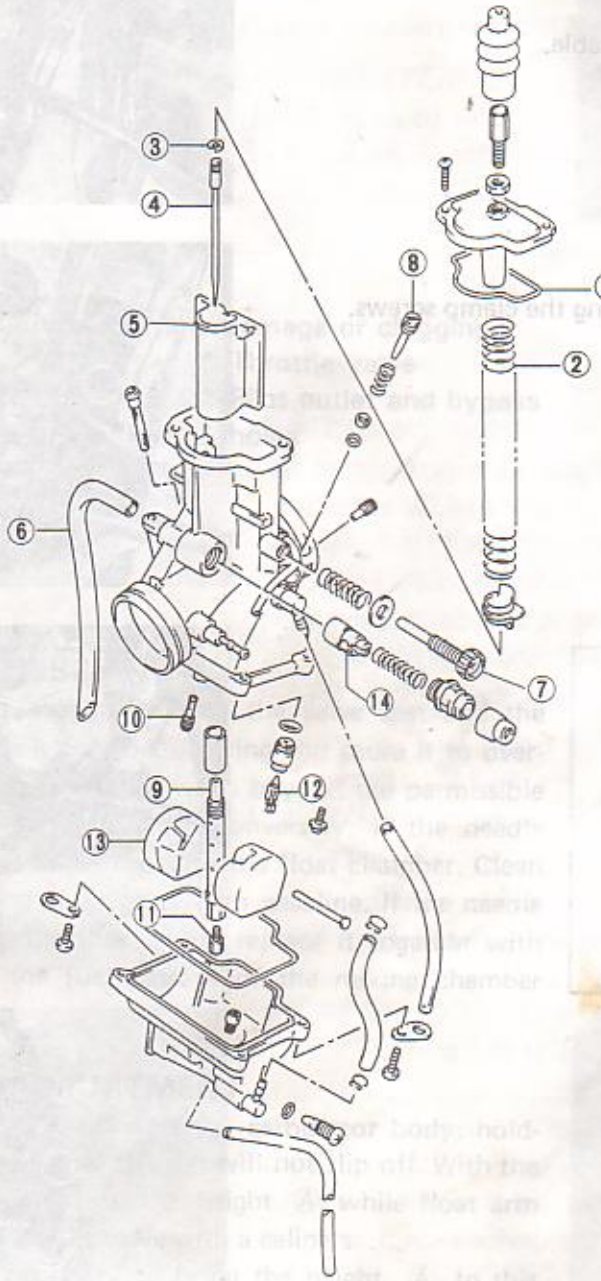


WARNING:
Gasket must be replaced with a new one to prevent fuel leakage.



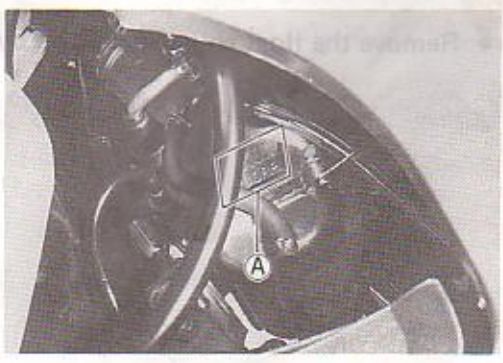
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

CARBURETOR



① Gasket
② Throttle valve spring
③ E-ring
④ Jet needle
⑤ Throttle valve
⑥ Air vent hose
⑦ Throttle valve stop screw
⑧ Air screw
⑨ Needle jet
⑩ Pilot jet
⑪ Main jet
⑫ Needle valve
⑬ Float
⑭ Plunger
⑮ Lever

I.D. NO. LOCATION Ⓐ



CARBURETOR SETTING

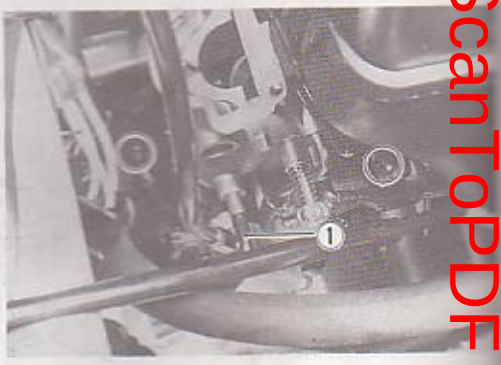
Refer to page 8-23.

Produced with ScanToPDF
www.scantopdf.co.uk

REMOVAL AND DISASSEMBLY

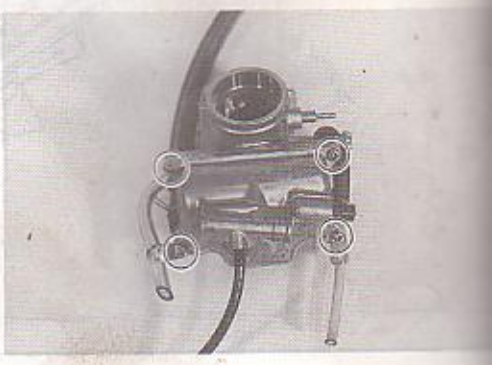
- Remove the seat and fuel tank. (Refer to page 3-2.)
- Remove the carburetor top end cap and remove the throttle valve assembly.
- Remove the starter plunger with cable.

- Disconnect the oil hose ①.
- Remove the carburetor by loosening the clamp screws.



- Disconnect the throttle cable.

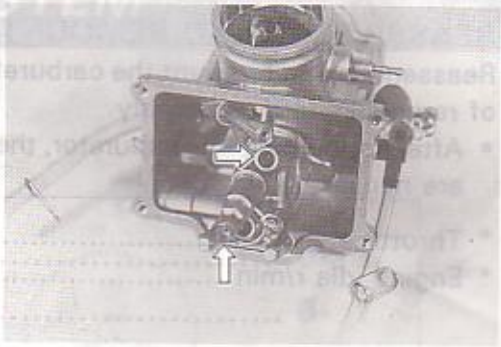
- Remove the float chamber.



- Remove the float and needle valve by removing the float pin.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the main jet, needle jet and pilot jet.



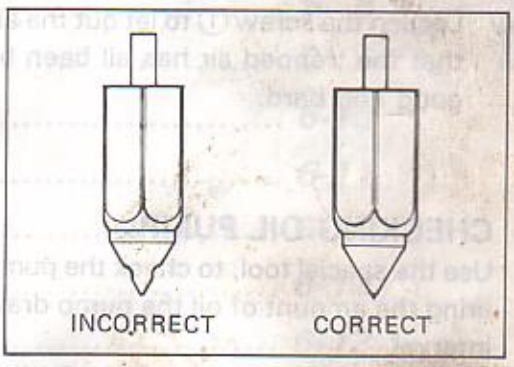
INSPECTION

Check the following items for any damage or clogging.

* Main jet
* Pilot jet
* Needle jet air bleeding hole
* Float
* Needle valve mesh
* Gasket
* Throttle valve
* Pilot outlet and bypass holes

NEEDLE VALVE INSPECTION

If foreign matter is caught between the valve seat and the needle, the gasoline will continue flowing and cause it to overflow. If the seat and needle are worn beyond the permissible limits, similar trouble will occur. Conversely, if the needle sticks, the gasoline will not flow into the float chamber. Clean the float chamber and float parts with gasoline. If the needle is worn as shown in the illustration, replace it together with a valve seat. Clean the fuel passage of the mixing chamber with compressed air.



FLOAT HEIGHT ADJUSTMENT

To check the float height, invert the carburetor body, holding the float arm pin so that the pin will not slip off. With the float arm kept free, measure the height Ⓐ while float arm is just in contact with needle valve with a calipers.
Bend the tongue as necessary to bring the height Ⓐ to this value.

Float height : 8.0 ± 1.0 mm (0.31 ± 0.04 in)
09900-20101 : Vernier calipers

NOTE:
When measuring float height, be sure to remove the gasket.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

REASSEMBLY AND REMOUNTING

Reassemble and remount the carburetor in the reverse order of removal and disassembly.

- After remounting the carburetor, the following adjustments are necessary.

* Throttle cable play ..... Refer to page 2-7.
* Engine idle r/min ..... Refer to page 2-7.

OIL PUMP

AIR BLEEDING

Whenever evidence is noted of some air having leaked into the oil pipe from the oil tank in a machine brought in for servicing, or if the oil pump has to be removed for servicing, be sure to carry out an air bleeding operation with the oil pump in place before returning the machine to the user.

- To bleed the air, hold the machine in standstill condition. Loosen the screw ① to let out the air and after making sure that the trapped air has all been bled, tighten the screw good and hard.

CHECKING OIL PUMP

Use the special tool, to check the pump for capacity by measuring the amount of oil the pump draws during the specified interval.

- Have the tool filled with SUZUKI CCI or CCI SUPER OIL and connect it to the suction side of the pump.
- Run the engine at 2 000 r/min.
- Holding engine speed at the same 2 000 r/min., move the lever up to the fully open position by pulling up the oil pump inner cable and let the pump draw for 2 minutes. For this operation, the reading taken on the device should be 3.0 – 3.6 ml.

09900-21602 : CCI oil gauge
Oil pump discharge rate (Full open) :
3.0 – 3.6 ml (0.11 – 0.13 Imp oz) for 2 minutes at 2 000 r/min

NOTE:
Adjust both throttle and oil pump control cable play after checking oil pump. (Refer to pages 2-7 and 2-8).

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

ELECTRICAL SYSTEM

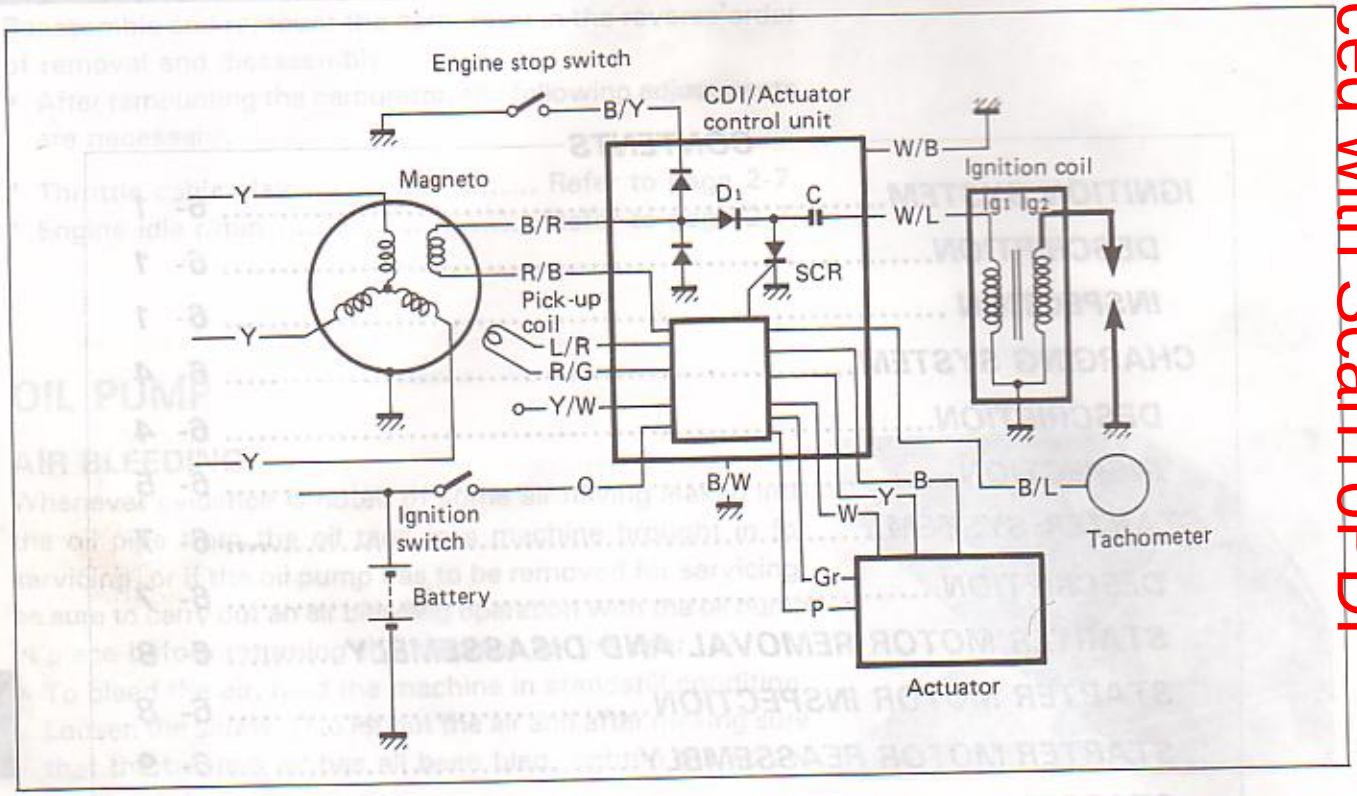
CONTENTS

IGNITION SYSTEM 6- 1
DESCRIPTION 6- 1
INSPECTION 6- 1
CHARGING SYSTEM 6- 4
DESCRIPTION 6- 4
INSPECTION 6- 5
STARTER SYSTEM 6- 7
DESCRIPTION 6- 7
STARTER MOTOR REMOVAL AND DISASSEMBLY 6- 8
STARTER MOTOR INSPECTION 6- 8
STARTER MOTOR REASSEMBLY 6- 9
STARTER RELAY INSPECTION 6-10
EXHAUST VALVE ACTUATOR 6-11
WATER TEMPERATURE METER 6-12
INSPECTION 6-12
OIL LEVEL GAUGE 6-12
LAMPS 6-13
COMBINATION METER 6-14
REMOVAL 6-14
INSPECTION 6-14
SWITCHES 6-14
BATTERY 6-15

6

Produced with ScanToPDF
www.scantopdf.co.uk

IGNITION SYSTEM



DESCRIPTION

This motorcycle is equipped with a new type ignition system. This new system further reduces timing fluctuations. It has an "ignition timing control circuit" which accurately controls ignition timing depending on the engine r/min.

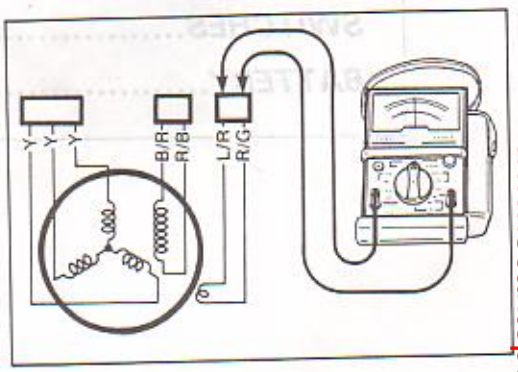
When the magneto rotor rotates, an electric current is generated in the power source coils, and this current charges the capacitor "C" via diode "D_1". On the other hand, when the protrusion on the rotor passes the pick-up coil, the currents are generated, they flow to the ignition timing control circuit, and they are converted into one ignition signal. This signal is sent to "SCR", the "SCR" becomes ON, the circuit "C" → "SCR" → "Ig_1" if formed, and as the electric energy stored in the capacitor "C" is discharged instantly, a high voltage is induced in the ignition secondary coil "Ig_2", and a spark.

INSPECTION

MAGNETO COIL

- Remove the seat and fuel tank. (Refer to page 3-2.)
- Measure the resistance between the lead wires in the following table with a pocket tester.

09900-25002 : Pocket tester



Produced with ScanToPDF
www.scantopdf.co.uk

Magneto coil resistance

Pick-up coil	R/G – L/R 180 – 280 Ω (x 100 Ω range)
Power source coil	B/R – R/B 50 – 100 Ω (x 10 Ω range)
Charging coil	Y – Y 0.1 – 1.0 Ω (x 1 Ω range)

WIRE COLOR
R/G : Red with Green tracer
L/R : Blue with Red tracer
B/R : Black with Red tracer
R/B : Red with Black tracer
Y : Yellow

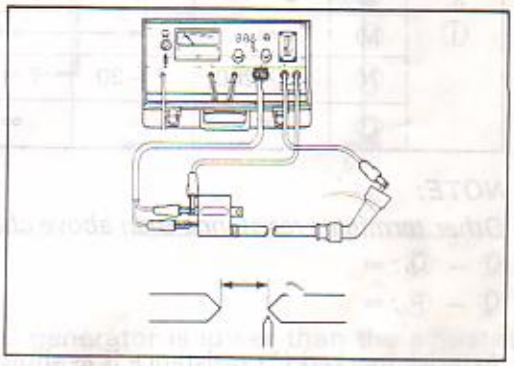
IGNITION COIL

- Remove the seat and fuel tank. (Refer to page 7-3.)
- Remove the ignition coil.

Checking with electro tester

Test the ignition coil for sparking performance.
Test connection is as indicated. Make sure that the three-needle sparking distance is at least 8 mm.

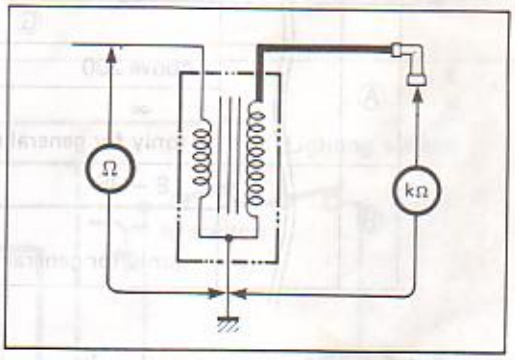
Spark performance (STD) : 8 mm (0.3 in)
09900-28106 : Electro tester



Checking with pocket tester

Ignition coil resistance
Primary (Terminal-Ground) : 0.1 – 1.0 Ω
Secondary (Plug cap-Ground) : 13 – 20 kΩ

09900-25002 : Pocket tester



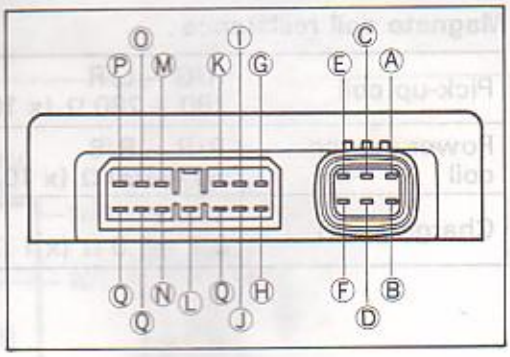
CDI/ACTUATOR CONTROL UNIT

- Remove the seat and frame covers. (Refer to page 7-3.)
- Remove the CDI/Actuator control unit and disconnect the couplers.

Produced with ScanToPDF
www.scantopdf.co.uk

Measure the resistance between the terminals in the following table with the pocket tester.

09900-25002 : Pocket tester



For Ignition circuit

Unit: kΩ

⊖ Probe of tester to:	⊕ Probe of tester to: Ⓐ	Ⓑ	Ⓖ	Ⓗ	Ⓚ	Ⓛ	Ⓜ	Ⓝ	Ⓞ
Ⓐ		Above 80	*	Above 100	∞	Above 80	Above 150	Above 150	Above 200
Ⓑ	5 – 20		*	2 – 11	∞	0	1 – 6	1 – 6	4 – 16
Ⓖ	∞	∞		∞	∞	∞	∞	∞	∞
Ⓗ	17 – 70	4 – 18	4 – 20		∞	4 –18	10 – 40	11 – 45	30 –150
Ⓚ	30 –150	6 – 26	7 – 30	3 – 13		6 – 26	20 – 90	20 – 90	Above 70
Ⓛ	5 – 20	0	8 – 35	2 – 11	∞		1 – 6	1 – 6	4 – 16
Ⓜ	∞	∞	∞	∞	∞	∞		∞	∞
Ⓝ	40 –200	7 – 30	7 – 30	3 – 13	∞	7 – 30	24 – 100		Above 70
Ⓞ	∞	∞	∞	∞	∞	∞	∞	∞	

NOTE:

Other terminals resistance than above chart is as shown below.

Ⓠ – Ⓠ: ∞

Ⓠ – Ⓟ: ∞

Asterisk marked (*) resistance is as shown below.

	Ⓖ
Ⓐ	Above 200
	∞ (only for general market model)
Ⓑ	8 – 35
	∞ (only for general market model)

For Exhaust valve actuator circuit

Unit: kΩ

⊖ Probe of tester to:	⊕ Probe of tester to: Ⓒ	Ⓓ	Ⓔ	Ⓕ	Ⓘ	Ⓙ
Ⓒ		4 – 20	14 – 60	4 – 16	10 – 40	10 – 40
Ⓓ	3 – 13		4 – 20	0.7 – 3	2 – 10	2 – 10
Ⓔ	14 – 60	4 – 20		5 – 22	12 – 50	12 – 50
Ⓕ	4 – 16	0.7 – 3	3 – 15		1.4 – 6	1.4 – 6
Ⓘ	40 –200	13 – 60	Above 50	13 – 50		45 –200
Ⓙ	40 –200	13 – 60	Above 50	13 – 50	45 –200	

CAUTION:

As capacitors, zener diodes, etc. are used inside this unit, the resistance values will deffer when an ohmmeter other than SUZUKI pocket tester is used.

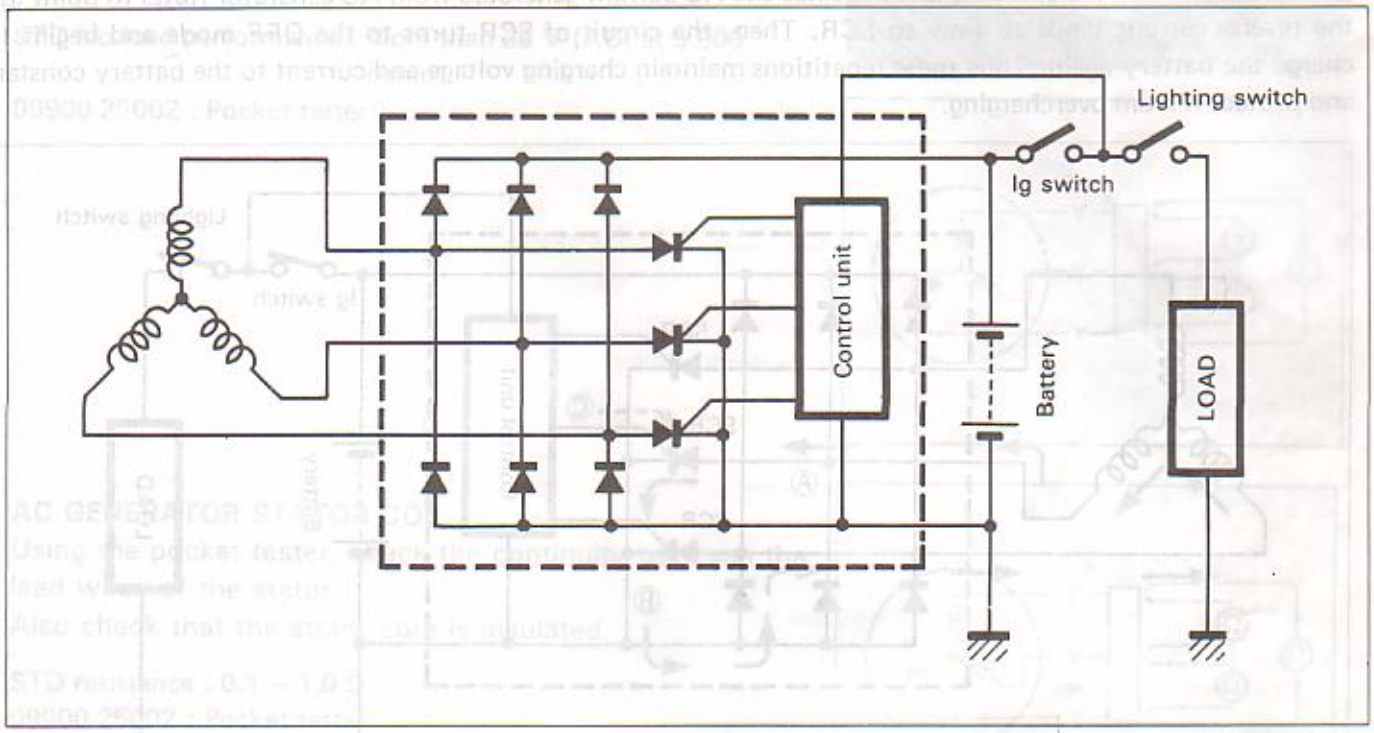
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

CHARGING SYSTEM

DESCRIPTION

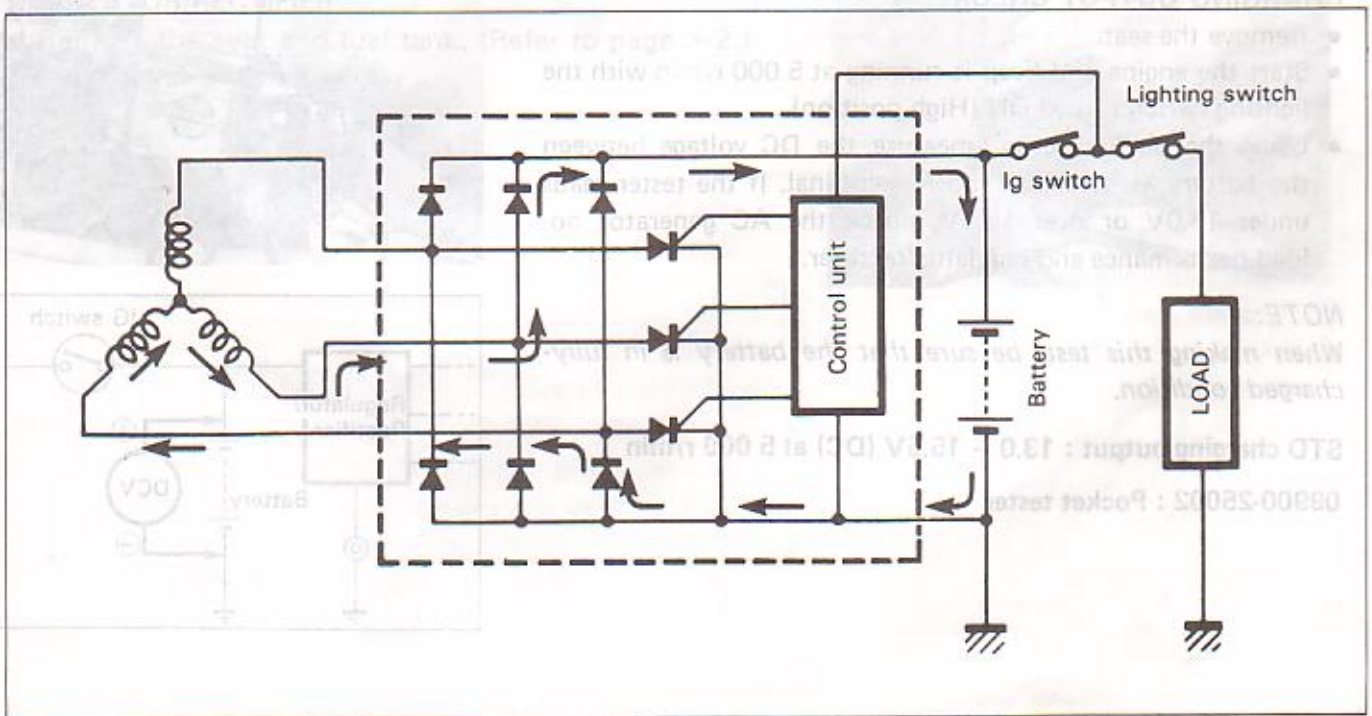
The circuit of the charging system is indicated in figure, which is composed of an AC generator, regulator/rectifier unit and battery.

The AC current generated from AC generator is rectified by rectifier and is turned into DC current, then it charges the battery.



Function of Regulator

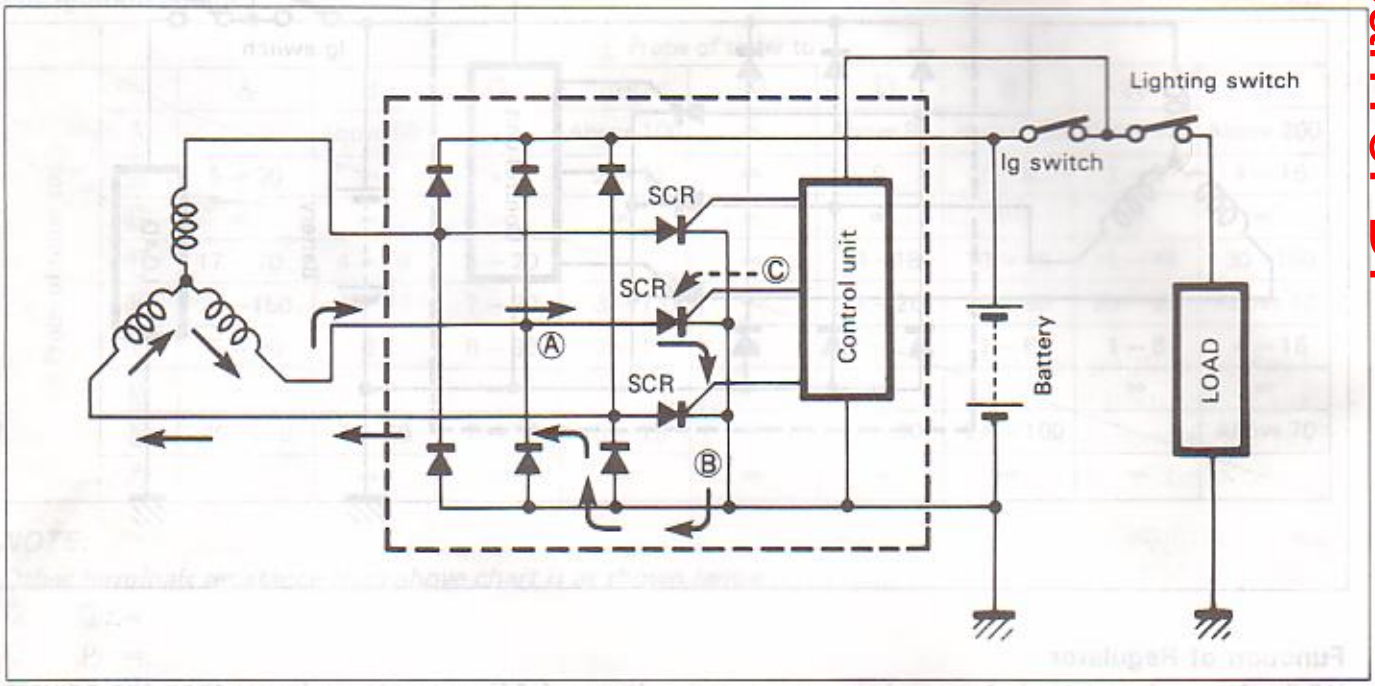
While the engine r/min is low and the generated voltage of AC generator is lower than the adjusted voltage of regulator, the regulator does not function, incidentally the generated current charges the battery directly.



Produced with ScanToPDF
www.scantopdf.co.uk

When the engine r/min becomes higher, the generated voltage of the AC generator also becomes higher and the voltage between the battery terminals becomes high accordingly. When it reaches the adjusted voltage of the control unit and it is turned "ON", a signal Ⓒ will be sent to the SCR (Thyristor) gate probe and the SCR will be turned "ON".

Then, the SCR becomes conductive in the direction from point Ⓐ to point Ⓑ. At this time, the current generated from the AC generator gets through the SCR without charging the battery and returns to AC generator again. At the end of this state, since the AC current generated from AC generator flows to point Ⓑ, the reverse current tends to flow to SCR. Then, the circuit of SCR turns to the OFF mode and begins to charge the battery again. Thus these repetitions maintain charging voltage and current to the battery constant and protect it from overcharging.



INSPECTION

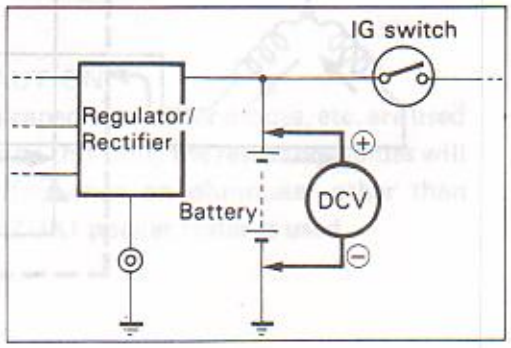
CHARGING OUTPUT CHECK

- Remove the seat.
- Start the engine and keep it running at 5 000 r/min with the lighting switch turned ON (High position).
- Using the pocket tester, measure the DC voltage between the battery ⊕ terminal and ⊖ terminal. If the tester reads under 13.0V or over 15.5V, check the AC generator no-load performance and regulator/rectifier.

NOTE:
When making this test, be sure that the battery is in fully-charged condition.

STD charging output : 13.0 – 15.5V (DC) at 5 000 r/min

09900-25002 : Pocket tester



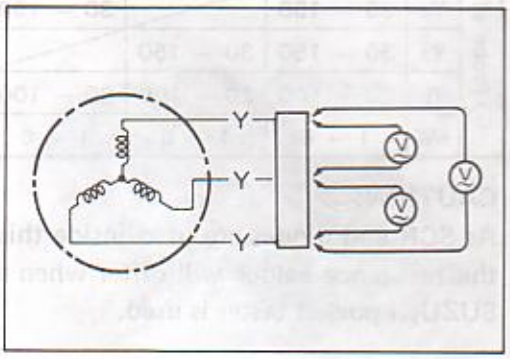
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

AC GENERATOR NO-LOAD PERFORMANCE

- Remove the seat and fuel tank. (Refer to page 3-2.)
- Disconnect the AC generator lead wire coupler.
- Start the engine and keep it running at 5 000 r/min.
- Measure the AC voltage between the three yellow lead wires with the pocket tester.
  If the tester reads under 33 V, the AC generator is faulty.

STD No-load performance : More than 33 V (AC) at 5 000 r/min

09900-25002 : Pocket tester

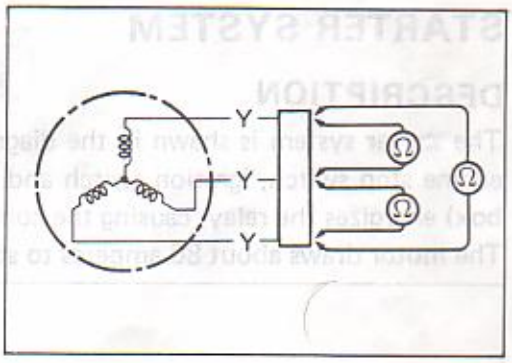


AC GENERATOR STATOR COIL

Using the pocket tester, check the continuity between the lead wires of the stator.
Also check that the stator core is insulated.

STD resistance : 0.1 – 1.0 Ω
09900-25002 : Pocket tester

NOTE:
When making this test, it is not necessary to remove the AC generator.



REGULATOR/RECTIFIER

- Remove the seat and fuel tank. (Refer to page 3-2.)
- Disconnect the lead wires.

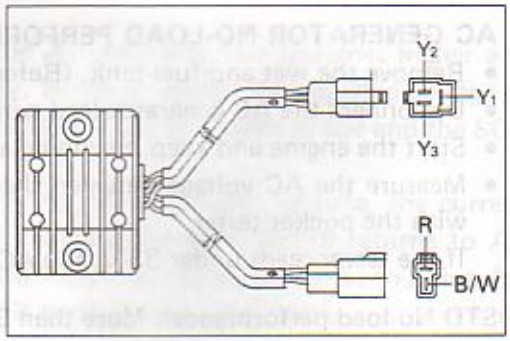
Produced with ScanToPDF
www.scantopdf.co.uk

Using the pocket tester (x 1 kΩ range); measure the resistance between the lead wires in the following table. If the reading is incorrect, replace the regulator/rectifier.

09900-25002 : Pocket tester

Unit : Approx. kΩ

⊖ Probe of tester to:	⊕ Probe of tester to:				
	Y_1	Y_2	Y_3	R	B/W
Y_1		30 – 150	30 – 150	1 – 6	20 – 100
Y_2	30 – 150		30 – 150	1 – 6	20 – 100
Y_3	30 – 150	30 – 150		1 – 6	20 – 100
R	20 – 100	20 – 100	20 – 100		10 – 60
B/W	1 – 6	1 – 6	1 – 6	2 – 10	



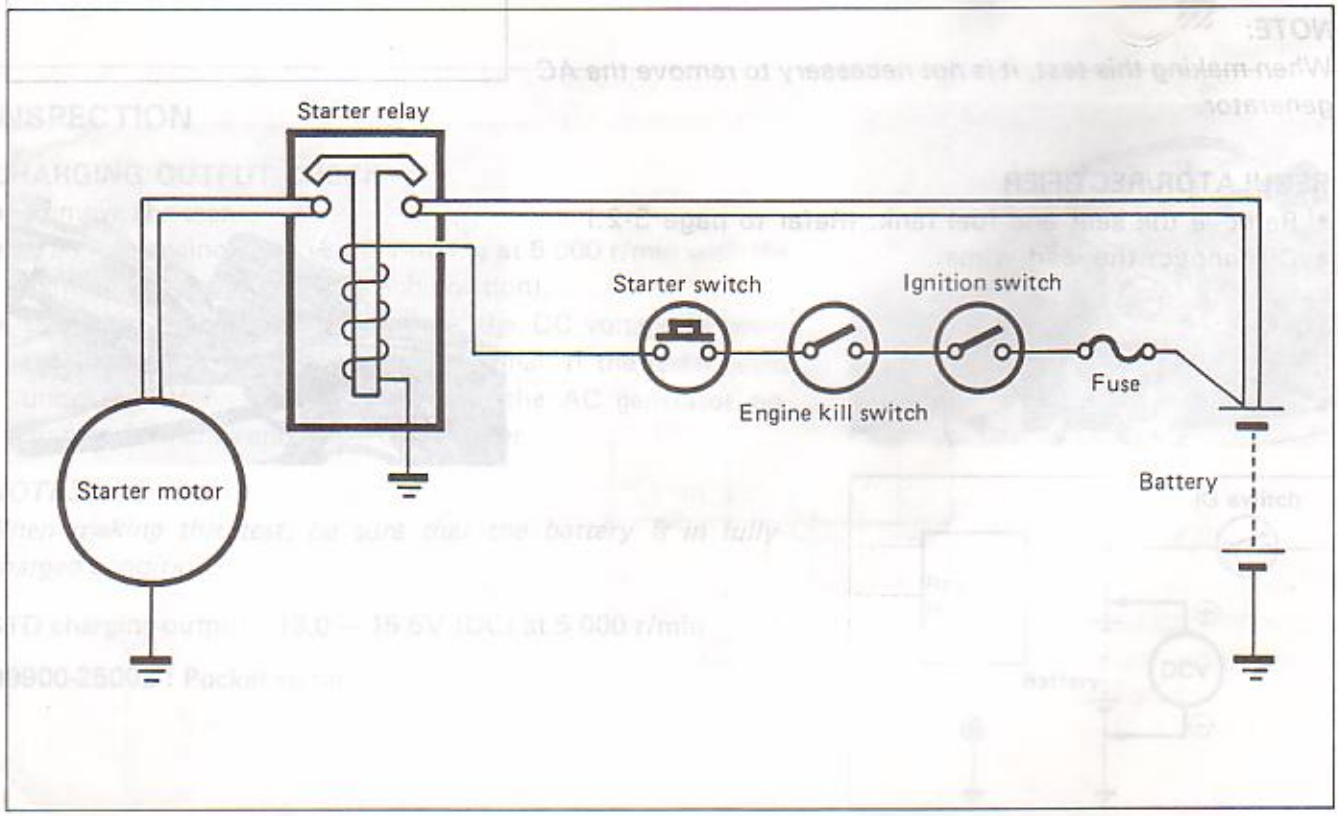
WIRE COLOR
Y : Yellow
R : Red
B/W : Black with White tracer

CAUTION:
As SCR and diodes are used inside this regulator/rectifier unit, the resistance values will differ when an ohmmeter other than SUZUKI pocket tester is used.

STARTER SYSTEM

DESCRIPTION

The starter system is shown in the diagram below: namely, the starter motor, starter relay, starter button, engine stop switch, ignition switch and battery. Depressing the starter button (on the left handlebar switch box) energizes the relay, causing the contact points to close which connects the starter motor to the battery. The motor draws about 80 amperes to start the engine.



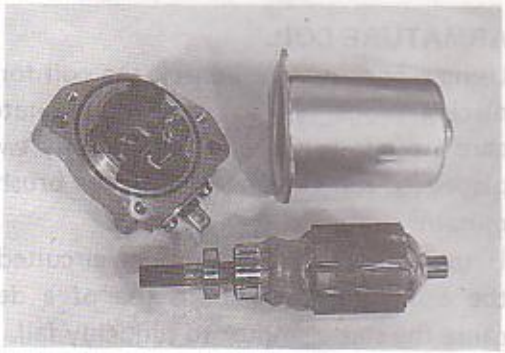
Produced with ScanToPDF
www.scantopdf.co.uk

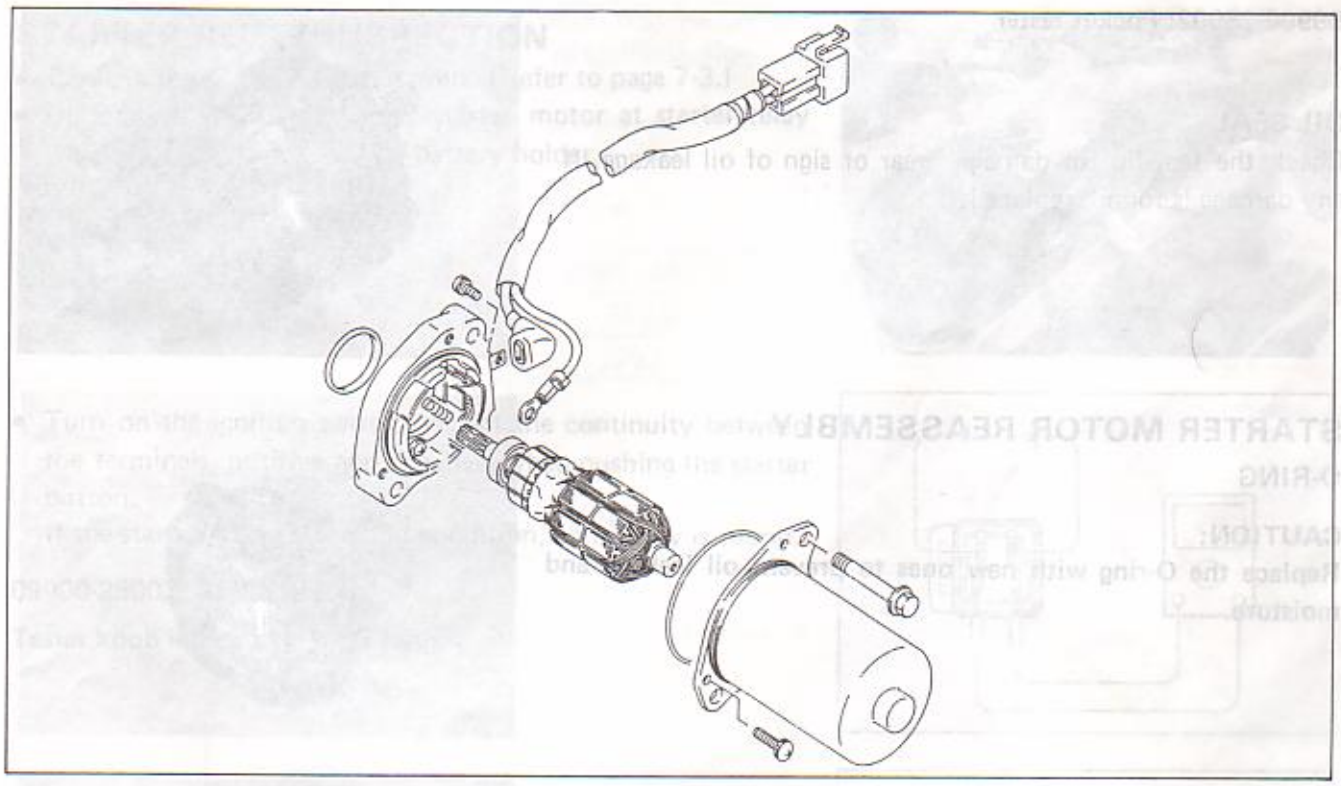
STARTER MOTOR REMOVAL AND DISASSEMBLY

- Remove the lower fairing. (Refer to page 7-1.)
- Disconnect the starter motor lead wires, then remove the starter motor by removing the mounting bolts.

Ⓐ Engine ground wire

- Disassemble the starter motor as shown in the following illustration.



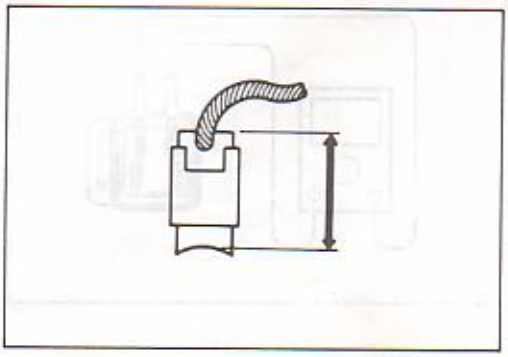


STARTER MOTOR INSPECTION

CARBON BRUSH

When the brushes are worn, the motor will be unable to produce sufficient torque, and the engine will be difficult to turn over. To prevent this, periodically, inspect the length of the brushes, replacing them when they are too short or chipping.

Service Limit: 3.5 mm (0.14 in)



Produced with ScanToPDF
www.scantopdf.co.uk

COMMUTATOR

If the commutator surface is dirty, starting performance decreases. Polish the commutator with # 400 or similar fine emery paper when it is dirty.
After polishing it, wipe the commutator with a clean dry cloth.
Measure the commutator under-cut ①.

Service Limit: 0.2 mm (0.008 in)

ARMATURE COIL

Using a pocket tester, check the coil for open and ground by placing probe pins on each commutator segment and rotor core (to test for ground) and on any two segments at various places (to test for open), with the brushes lifted off the commutator surface.
If the coil is found to be open-circuited or grounded, replace the armature. Continuous use of a defective armature will cause the starter motor to suddenly fail.

09900-25002: Pocket tester

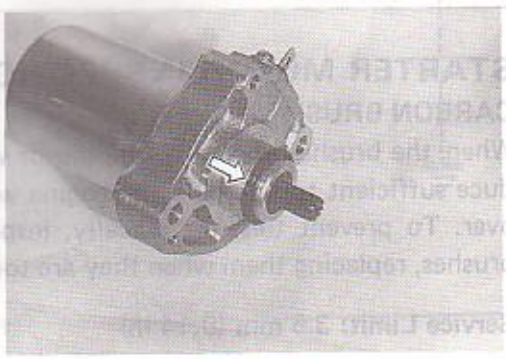
OIL SEAL

Check the seal lip for damage, wear or sign of oil leakage. If any damage is found, replace it.

STARTER MOTOR REASSEMBLY

O-RING

CAUTION:
Replace the O-ring with new ones to prevent oil leakage and moisture.



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

ARMATURE

- Apply a small quantity of moly paste to the armature end.

99000-25140: SUZUKI Moly Paste

- Apply grease to the lip of oil seal.

99500-25010: SUZUKI SUPER GREASE "A"

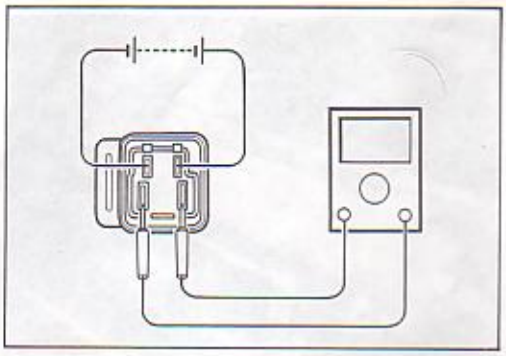
STARTER RELAY INSPECTION

- Remove the seat and frame covers. (Refer to page 7-3.)
- Disconnect the lead wire of starter motor at starter relay which is located ahead of the battery holder.

- Turn on the ignition switch, inspect the continuity between the terminals, positive and negative, when pushing the starter button.
  If the starter relay is in sound condition, continuity is found.

09900-25002: Pocket tester

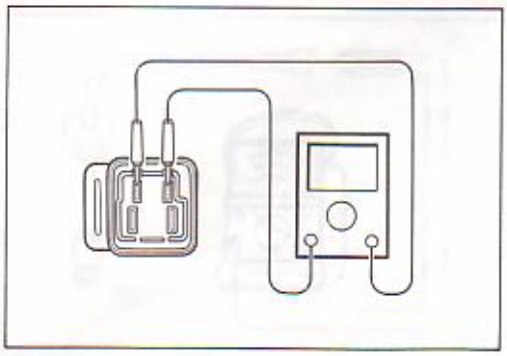
Tester knob indication: x 1Ω range



- Disconnect the lead wire coupler from the starter relay.
- Check the coil for "open", "ground" and ohmic resistance.
  The coil is in good condition if the resistance is as follows.

09900-25002: Pocket tester

Tester knob indication: x 10Ω range



Starter relay resistance	Standard
	40 – 80 Ω

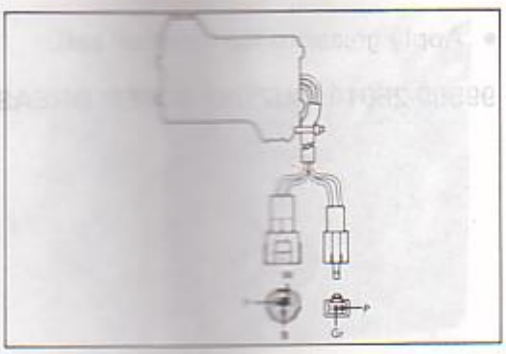
Produced with ScanToPDF
www.scantopdf.co.uk

EXHAUST VALVE ACTUATOR

- Remove the seat and fuel tank. (Refer to page 3-2.)

Using the pocket tester, measure the resistance between the lead wires in the following table.
If the reading is incorrect, replace the actuator.

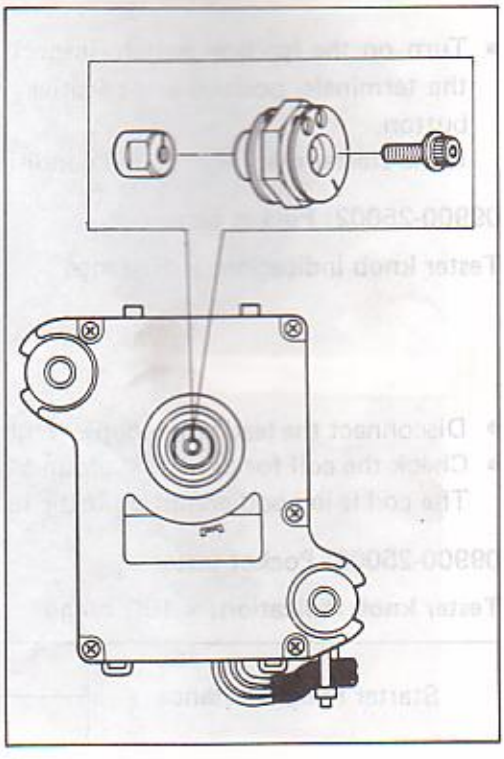
Actuator coil resistance
W – B : 3.2 – 7.2 kΩ (x kΩ range)
Y – B : 0 – 7.2 kΩ (x kΩ range)
P – Gr : 4.5 – 30 Ω (x 10 Ω range)



WIRE COLOR
B : Black
Gr: Gray
P : Pink
W : White
Y : Yellow

- When removing or tightening the actuator pulley bolt, hold the pulley with a pliers to prevent the gear damage inside of the actuator.

Pully bolt tightening torque
4 – 6 N·m (0.4 – 0.6 kg-m, 3.0 – 4.5 lb-ft)



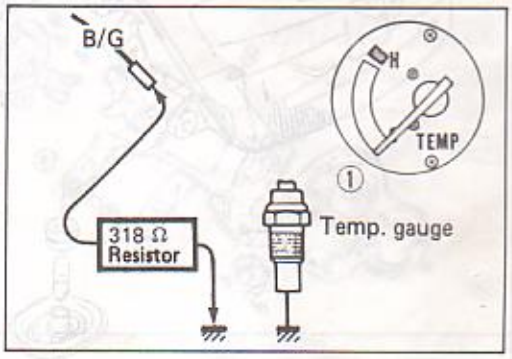
Produced with ScanToPDF
www.scantopdf.co.uk

WATER TEMPERATURE METER

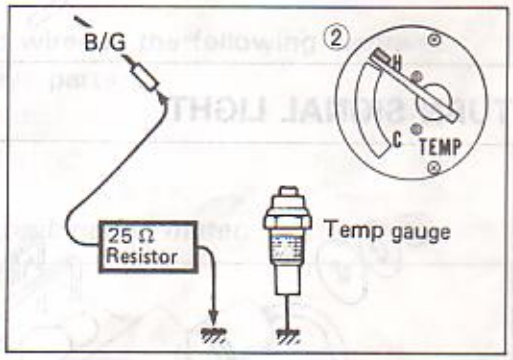
INSPECTION

As the coil spring is installed on the needle shaft of the water temperature meter, the needle is forced back to the original position when ignition switch is turned OFF.
To test the water temperature meter two different checks may be used. The first, and simplest test will tell if the meter is operating but will not indicate the meters accuracy throughout the range.

To perform this test, disconnect the B/G lead wire of the water temperature meter from the water thermo-gauge. Connect a jumper wire between B/G wires coming from the main wiring harness and engine ground. With the ignition switch turned on, the water temperature meter should indicate "H". The second test will check the accuracy of the meter in the "H" and "C" positions.



Connect a 318-ohm resistor between the B/G lead wire of the water thermo-gauge and the ground lead wire. The water thermo-gauge is normal if its pointer indicates the "C" position when the specified voltage is applied to the circuit and if its pointer indicates the "H" position when the resistor is changed to 25 ohms. If either one or both indications are abnormal, replace the water temperature meter with a new one.



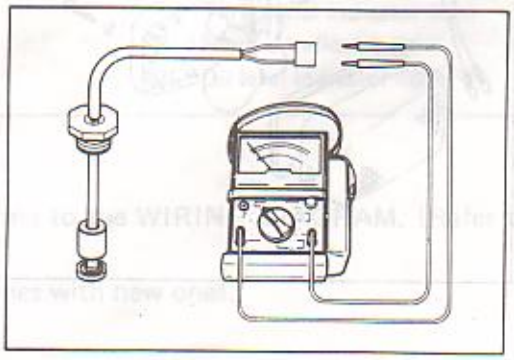
WATER TEMPERATURE METER

POSITION	TEMP	RESISTANCE
①	41.5°C (106.7°F)	318 Ω
②	117.5°C (243.5°F)	25 Ω

OIL LEVEL GAUGE

- Remove the frame cover. (Refer to page 7-3.)
- Disconnect the oil level gauge lead wire coupler.

Check the oil level switch for continuity between LW and BW lead wires. If the tester does not show the value of 0 – 1 ohm when the switch ring is in bottom, file the contact surface or replace the unit.

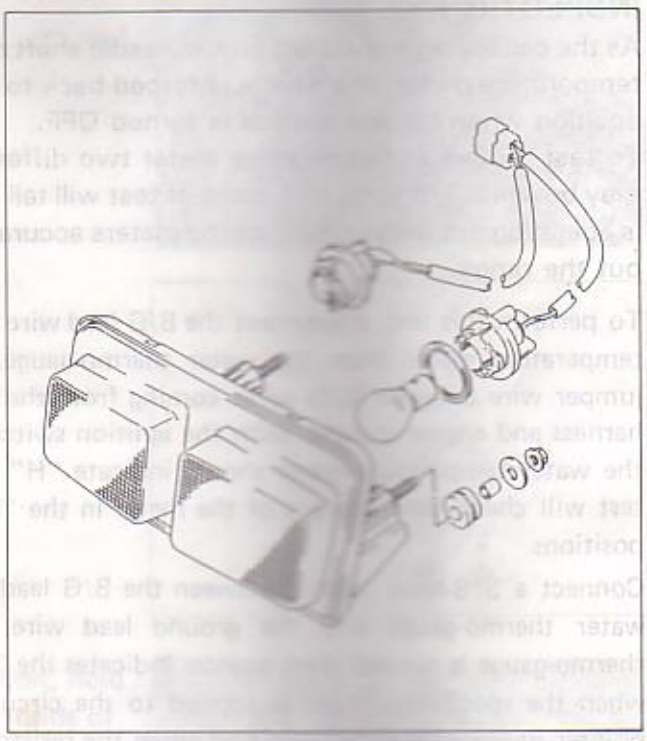


Produced with ScanToPDF
www.scantopdf.co.uk

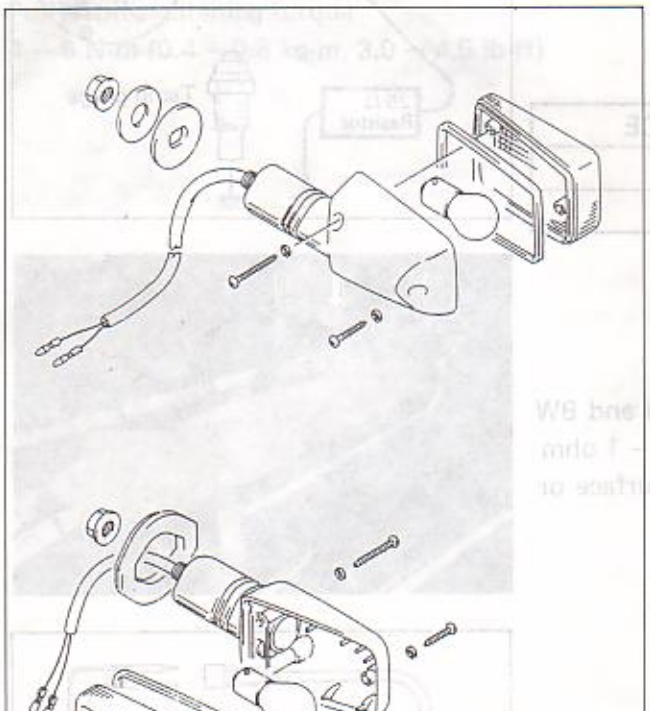
LAMPS

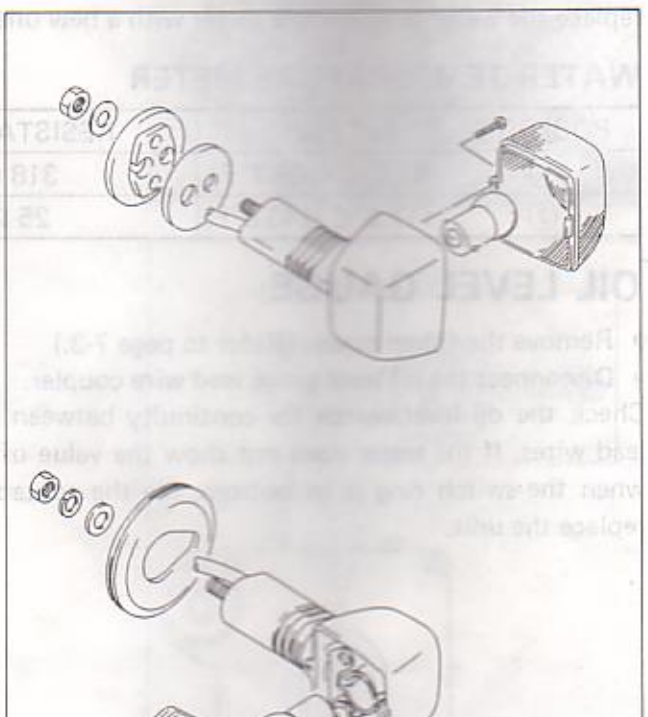
HEADLIGHT

TAIL/BRAKE LIGHT



TURN SIGNAL LIGHT

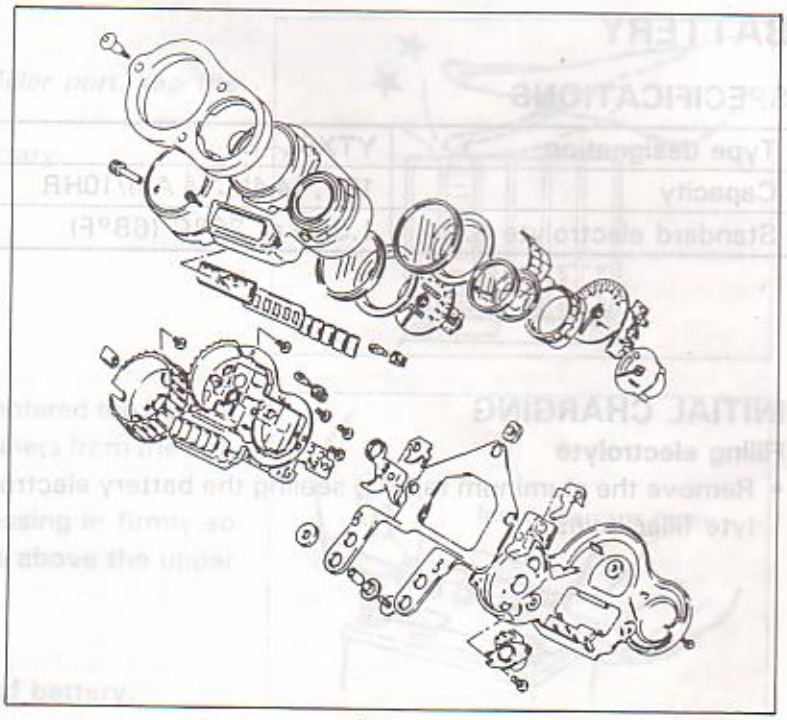




Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

COMBINATION METER

REMOVAL (Refer to page 7-27.)

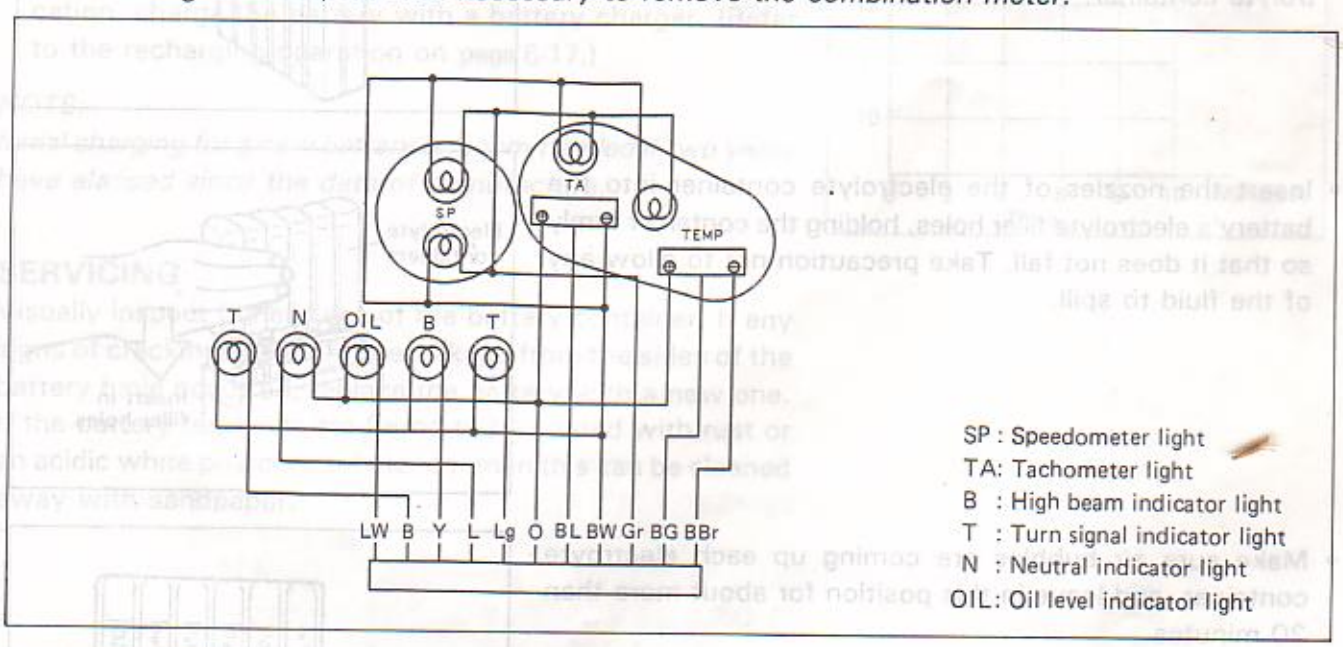


INSPECTION

Using the pocket tester, check the continuity between lead wires in the following diagram.
If the continuity measured is incorrect, replace the respective parts.

09900-25002 : Pocket tester

NOTE:
When making this test, it is not necessary to remove the combination meter.



SWITCHES

Inspect each switch for continuity with the pocket tester referring to the WIRING DIAGRAM. (Refer to page 8-7.)
If any abnormality is found, replace the respective switch assemblies with new ones.

09900-25002: Pocket tester

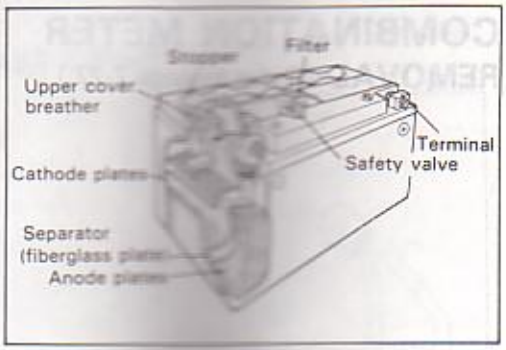
Tester knob indication: x 1Ω range

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

BATTERY

SPECIFICATIONS

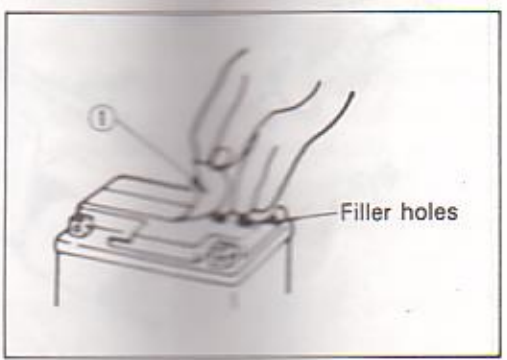
Type designation	YTX5L–BS
Capacity	12V, 14.4kC (4 Ah)/10HR
Standard electrolyte S.G.	1.320 at 20°C (68°F)



INITIAL CHARGING

Filling electrolyte

- Remove the aluminum tape ① sealing the battery electrolyte filler holes.

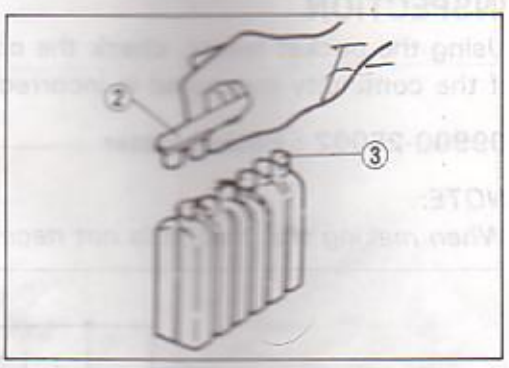


- Remove the caps ②.

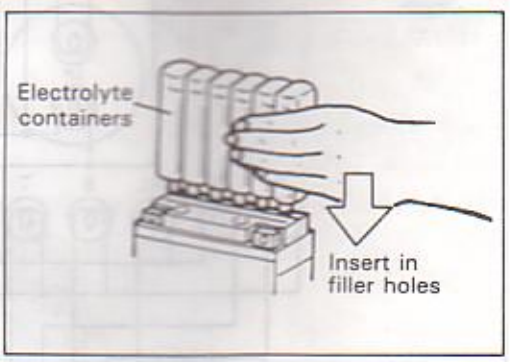
NOTE:

* *After filling the electrolyte completely, use the removed cap ② as the seald caps of battery-filler holes.*

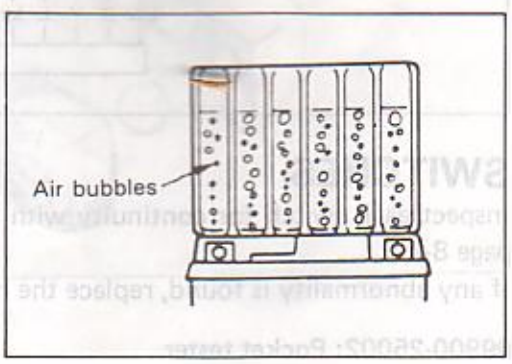
* *Do not remove or pierce the sealed areas ③ of the electrolyte container.*



- Insert the nozzles of the electrolyte container into the battery's electrolyte filler holes, holding the container firmly so that it does not fall. Take precaution not to allow any of the fluid to spill.

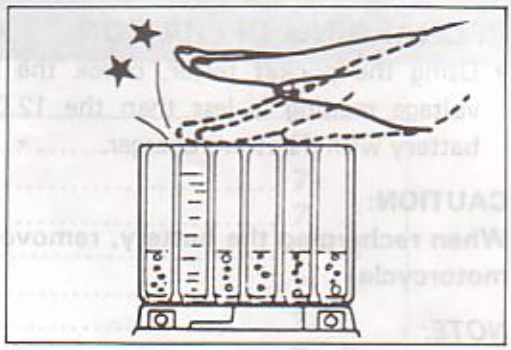


- Make sure air bubbles are coming up each electroyte container, and leave in this position for about more than 20 minutes.

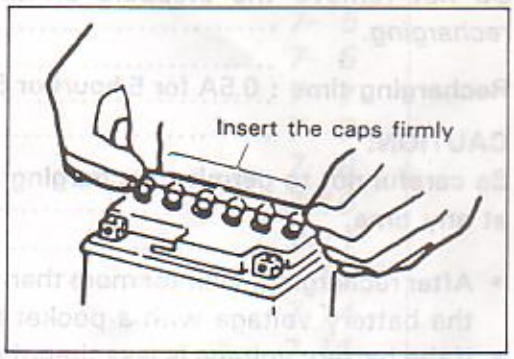


Produced with ScanToPDF
www.scantopdf.co.uk

NOTE:
If no air bubbles are coming up from a filler port, tap the bottom of the two or three times.
Never remove the container from the battery.

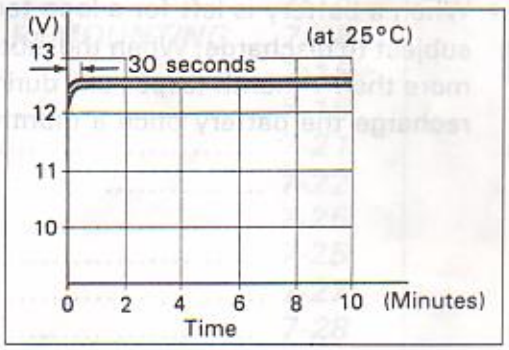


- After confirming that the electrolyte has entered the battery completely, remove the electrolyte containers from the battery. Wait for around 20 minutes.
- Insert the caps into the filler holes, pressing in firmly so that the top of the caps do not protrude above the upper surface of the battery's top cover.



CAUTION:
*** Never use anything except the specified battery.**
*** Once install the caps to the battery; do not remove the caps.**

- Using SUZUKI pocket tester, measure the battery voltage. The tester should indicate more than 12.5V (DC) as shown in the Fig. If the battery voltage is lower than the specification, charge the battery with a battery charger. (Refer to the recharging operation on page 6-17.)



NOTE:
Initial charging for a new battery is recommended if two years have elapsed since the date of manufacture.

SERVICING

Visually inspect the surface of the battery container. If any signs of cracking or electrolyte leakage from the sides of the battery have occurred, replace the battery with a new one. If the battery terminals are found to be coated with rust or an acidic white powdery substance, then this can be cleaned away with sandpaper.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

RECHARGING OPERATION

- Using the pocket tester, check the battery voltage. If the voltage reading is less than the 12.0V (DC), recharge the battery with a battery charger.

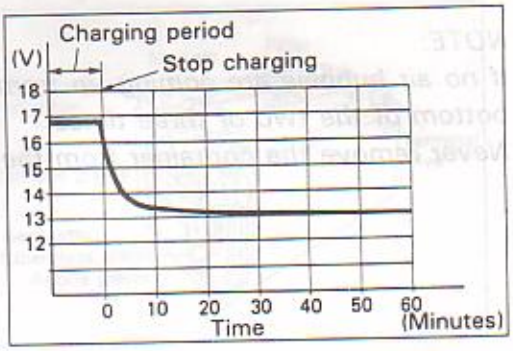
CAUTION:
When recharging the battery, remove the battery from the motorcycle.

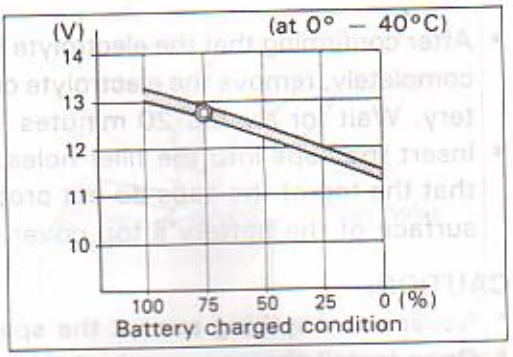
NOTE:
Do not remove the stoppers on the battery top while recharging.

Recharging time : 0.5A for 5 hours or 5A for half an hour

CAUTION:
Be careful not to permit the charging current to exceed 5A at any time.

- After recharging, wait for more than 30 minutes and check the battery voltage with a pocket tester.
- If the battery voltage is less than the 12.5V, recharge the battery again.
- If battery voltage is still less than 12.5V after recharging, replace the battery with a new one.
- When a battery is left for a long term without using, it is subject to discharge. When the motorcycle is not used for more than 1 month (especially during the winter season), recharge the battery once a month at least.





Produced with ScanToPDF
www.scantopdf.co.uk

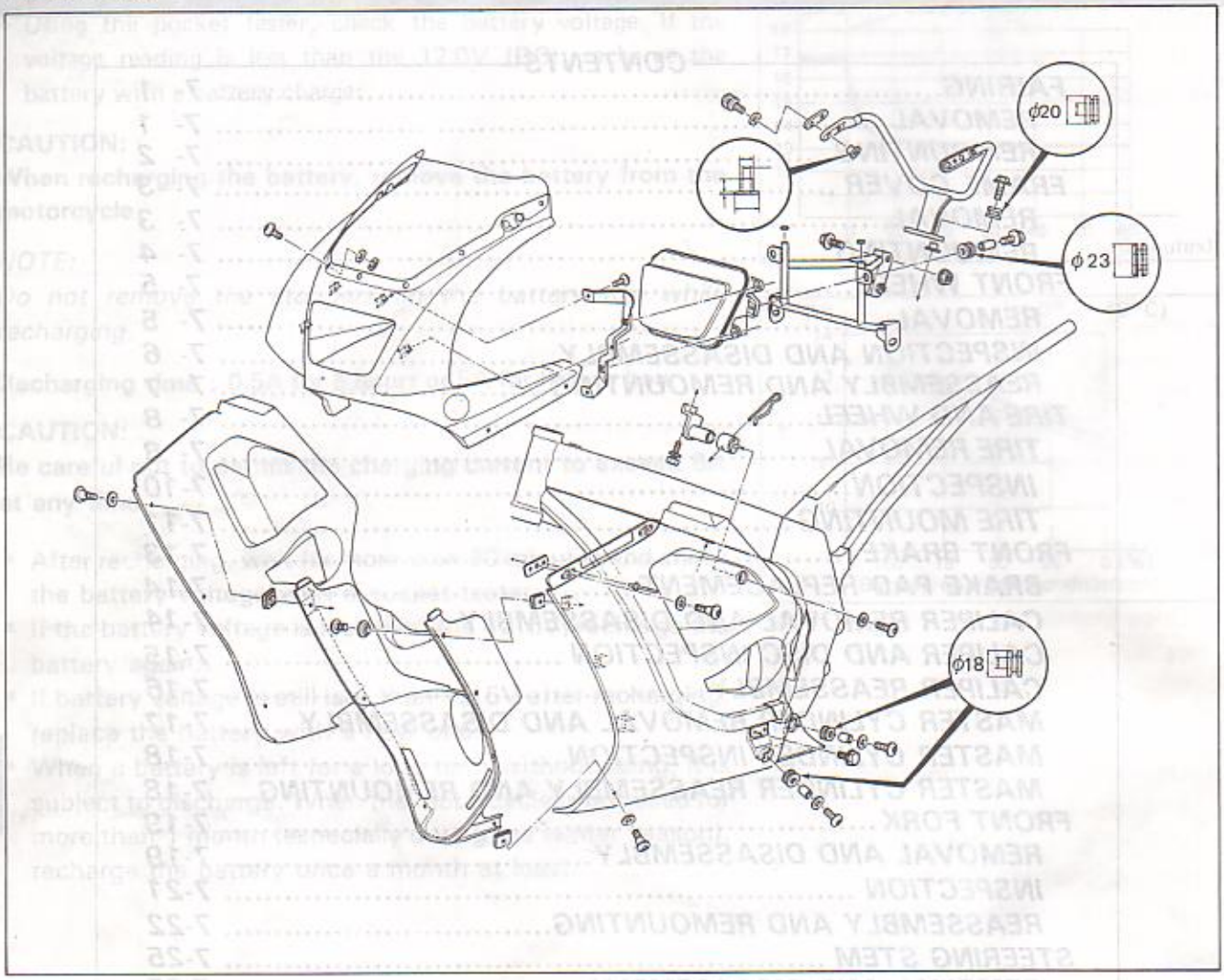
CHASSIS

CONTENTS

FAIRING 7- 1
REMOVAL 7- 1
REMOUNTING 7- 2
FRAME COVER 7- 3
REMOVAL 7- 3
REMOUNTING 7- 4
FRONT WHEEL 7- 5
REMOVAL 7- 5
INSPECTION AND DISASSEMBLY 7- 6
REASSEMBLY AND REMOUNTING 7- 7
TIRE AND WHEEL 7- 8
TIRE REMOVAL 7- 8
INSPECTION 7-10
TIRE MOUNTING 7-11
FRONT BRAKE 7-13
BRAKE PAD REPLACEMENT 7-14
CALIPER REMOVAL AND DISASSEMBLY 7-14
CALIPER AND DISC INSPECTION 7-15
CALIPER REASSEMBLY 7-16
MASTER CYLINDER REMOVAL AND DISASSEMBLY 7-17
MASTER CYLINDER INSPECTION 7-18
MASTER CYLINDER REASSEMBLY AND REMOUNTING ... 7-18
FRONT FORK 7-19
REMOVAL AND DISASSEMBLY 7-19
INSPECTION 7-21
REASSEMBLY AND REMOUNTING 7-22
STEERING STEM 7-25
REMOVAL AND DISASSEMBLY 7-25
INSPECTION 7-27
REASSEMBLY AND REMOUNTING 7-28
IGNITION SWITCH 7-29
REAR WHEEL 7-30
REMOVAL 7-30
INSPECTION AND DISASSEMBLY 7-31
REASSEMBLY AND REMOUNTING 7-32
REAR BRAKE 7-33
BRAKE PAD REPLACEMENT 7-34
CALIPER REMOVAL AND DISASSEMBLY 7-34
CALIPER AND DISC INSPECTION 7-35
CALIPER REASSEMBLY AND REMOUNTING 7-36
MASTER CYLINDER REMOVAL AND DISASSEMBLY 7-36
MASTER CYLINDER INSPECTION 7-37
MASTER CYLINDER REASSEMBLY AND REMOUNTING ... 7-37
REAR SUSPENSION AND SWINGARM 7-38
REMOVAL 7-39
INSPECTION AND DISASSEMBLY 7-41
REASSEMBLY AND REMOUNTING 7-42
REASSEMBLING INFORMATION 7-43

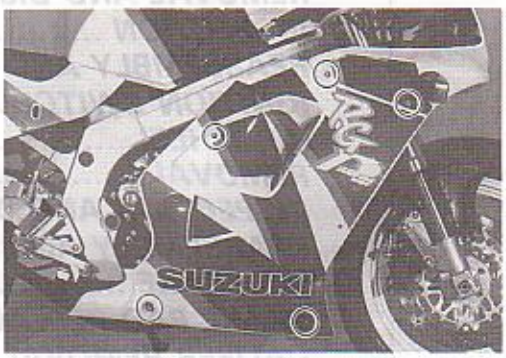
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

FAIRING



REMOVAL

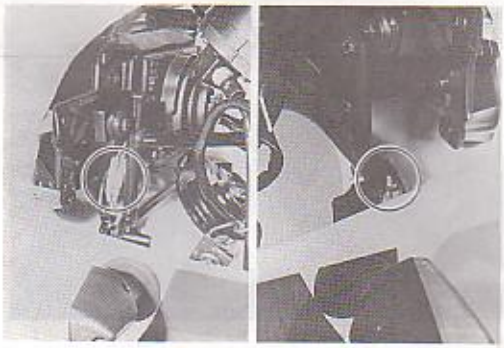
- Remove the right side lower fairing.



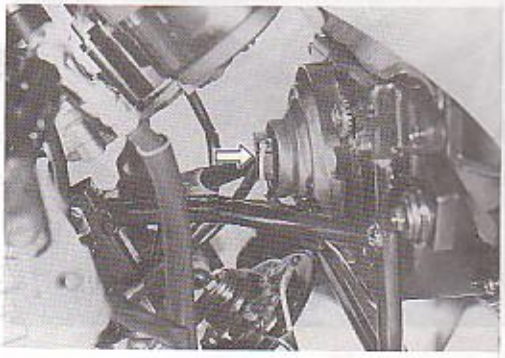
- Remove the left side lower fairing with the center lower fairing.

Produced with ScanToPDF
www.scantopdf.co.uk

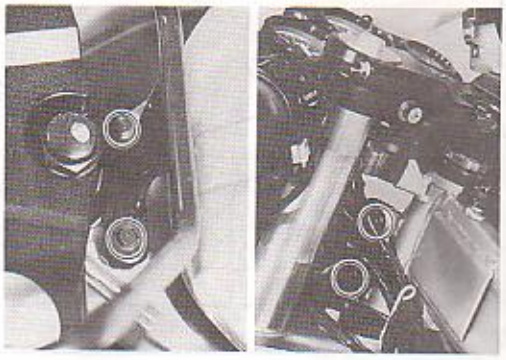
- Disconnect the right and left front turn signal light lead wires.



- Disconnect the headlight lead wires and parking or position light lead wires.

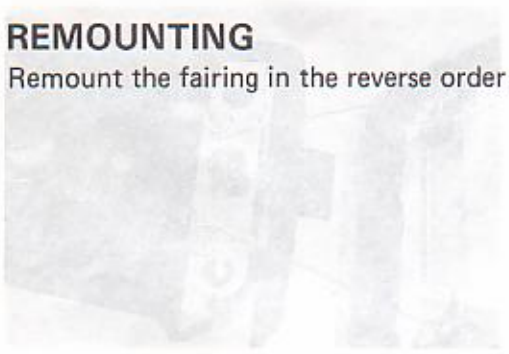


- Remove the fairing with the headlight and rear view mirrors by removing the fairing brace mounting bolts.



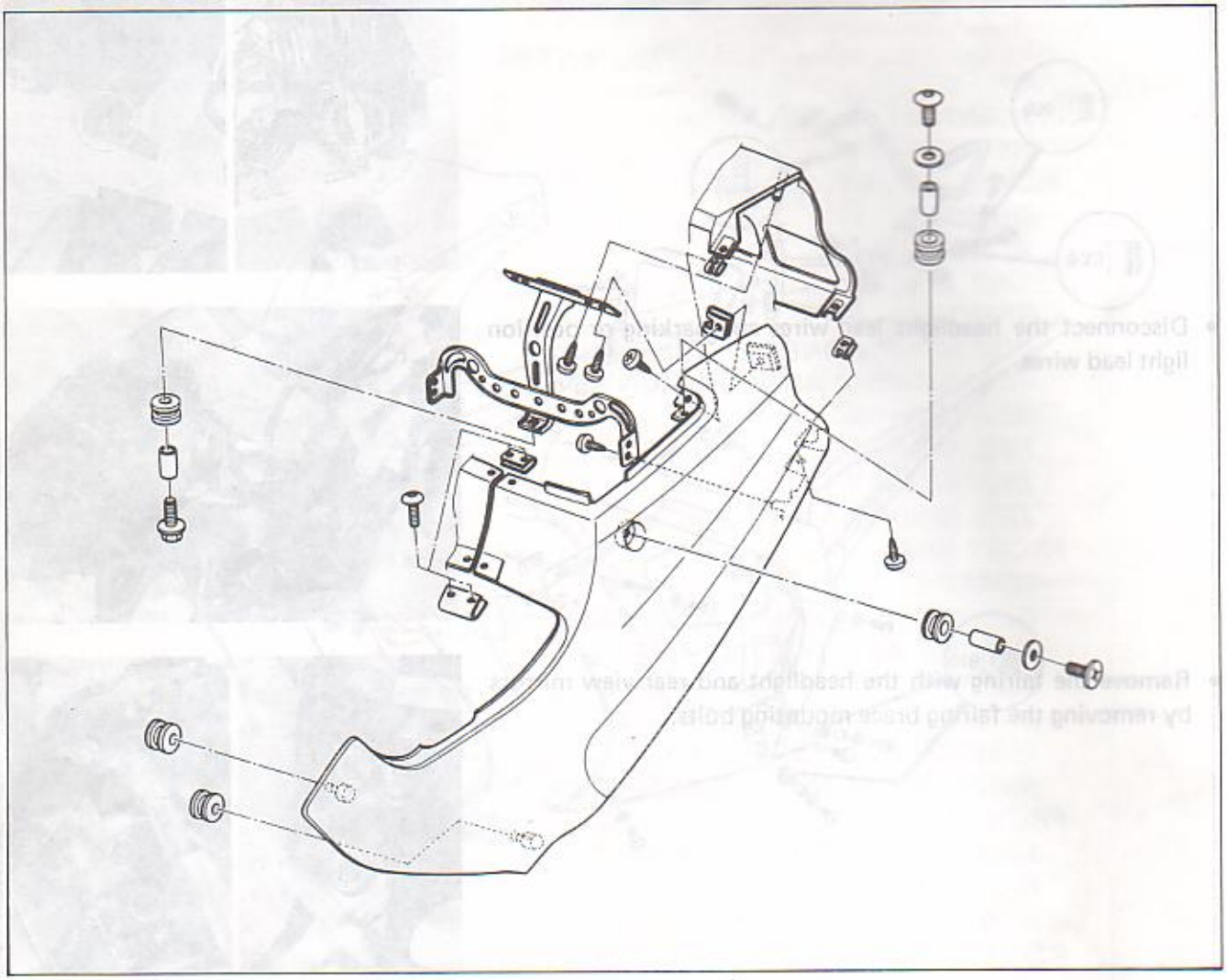
REMOUNTING

Remount the fairing in the reverse order of removal.



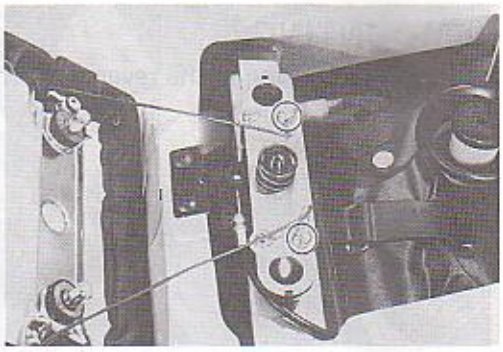
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

FRAME COVER

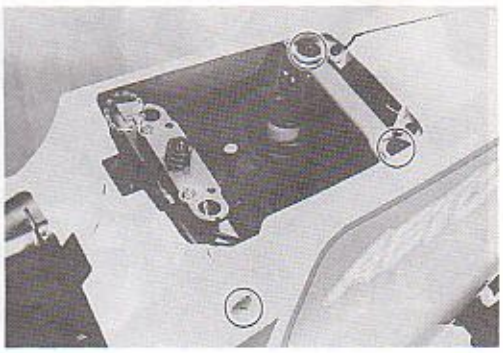


REMOVAL

- Remove the seat.
- Remove the pillion seat by removing the cable mounting bolts.



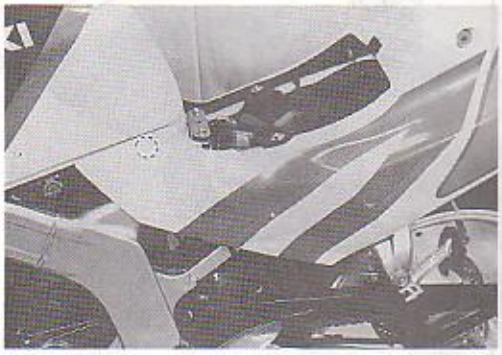
- Remove the frame cover mounting bolts.



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the tail/brake light mounting bolt.

- Disconnect the tail/brake light lead wires.
- Remove the frame covers with the tail/brake light by disconnecting the frame cover bosses from the fuel tank.

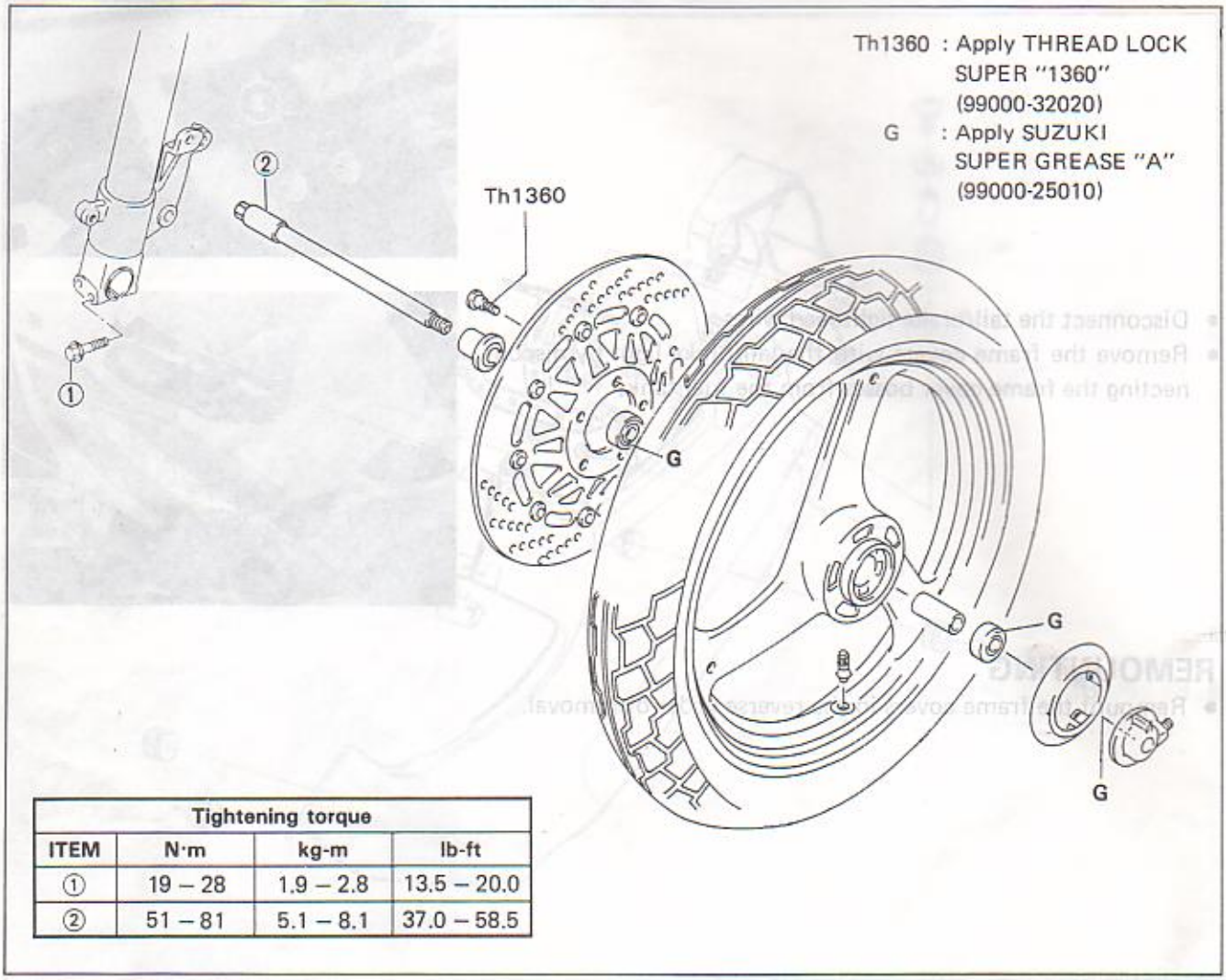


REMOUNTING

- Remount the frame covers in the reverse order of removal.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

FRONT WHEEL

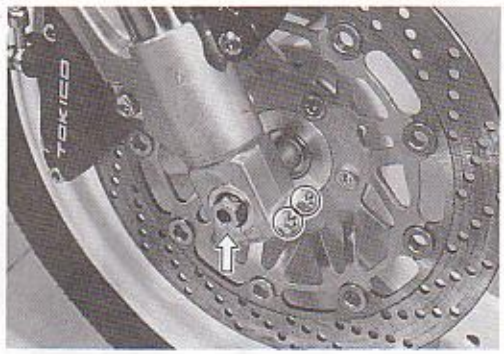


Tightening torque			
ITEM	N·m	kg-m	lb-ft
①	19 – 28	1.9 – 2.8	13.5 – 20.0
②	51 – 81	5.1 – 8.1	37.0 – 58.5

REMOVAL

- Remove the lower fairing. (Refer to page 7-1.)
- Support the motorcycle with the jack or wooden block.
- Loosen the front axle holder bolts and axle shaft.
- Draw out the axle shaft and remove the front wheel.

NOTE:
Do not operate the brake lever while dismounting the front wheel.

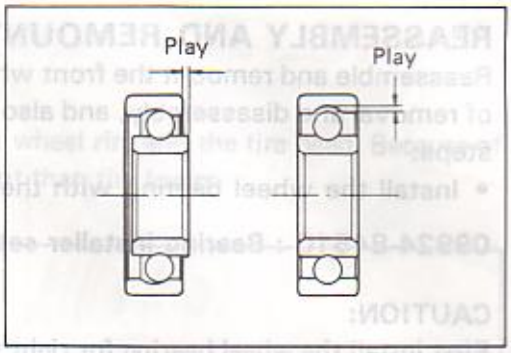


Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

INSPECTION AND DISASSEMBLY

WHEEL BEARING

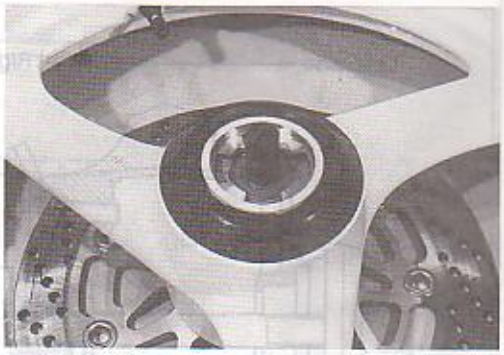
Inspect the play of bearing inner ring by hand while mounted in the wheel.
Rotate the inner ring by hand to inspect if any abnormal noise occurs or rotating smoothly.
Replace the bearing if there is anything unusual.



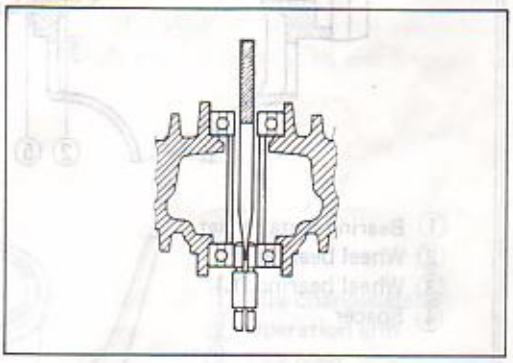
- Remove the dust seal.
- Drive out the both bearing with the special tool in the following procedures.

09941-50110 : Bearing remover

- Insert the adapter into the bearing.
- After inserting the wedge bar from the opposit side, lock the wedge bar in the slit of the adapter.
- Drive out the bearing by knocking the wedge bar.



CAUTION:
The removed dust seal and bearing should be replaced with new ones.

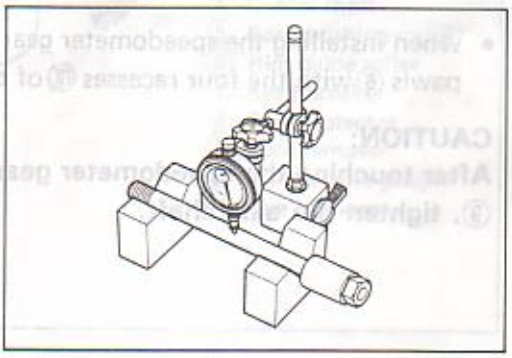


AXLE SHAFT

Check the axle shaft runout with a dial gauge and replace it if the runout exceeds the limit.

Service Limit : 0.25 mm (0.010 in)

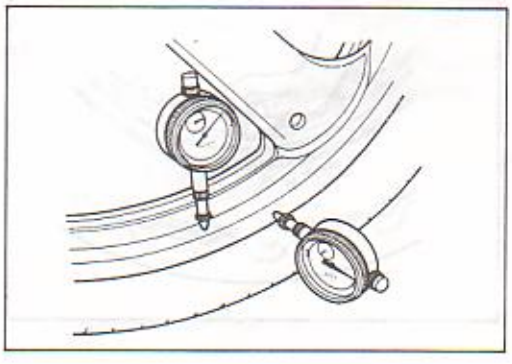
09900-20606 : Dial gauge (1/100 mm)
09900-20701 : Magnetic stand
09900-21303 : 'V' block set



WHEEL RIM

Make sure that the wheel rim runout does not exceed the service limit when checked as shown.
An excessive runout is usually due to worn or loose wheel bearings and can be reduced by replacing the bearings. If bearing replacement fails to reduce the runout, replace the wheel.

Service Limit : 2.0 mm (0.08 in)
(Axial and Radial)



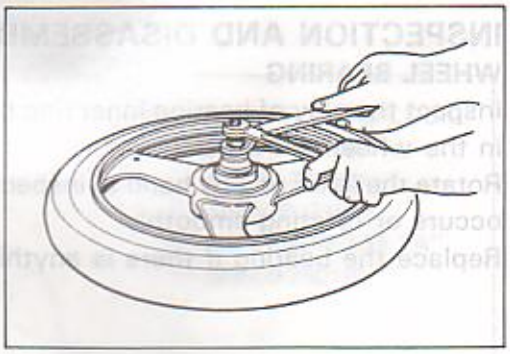
Produced with ScanToPDF
www.scantopdf.co.uk

REASSEMBLY AND REMOUNTING

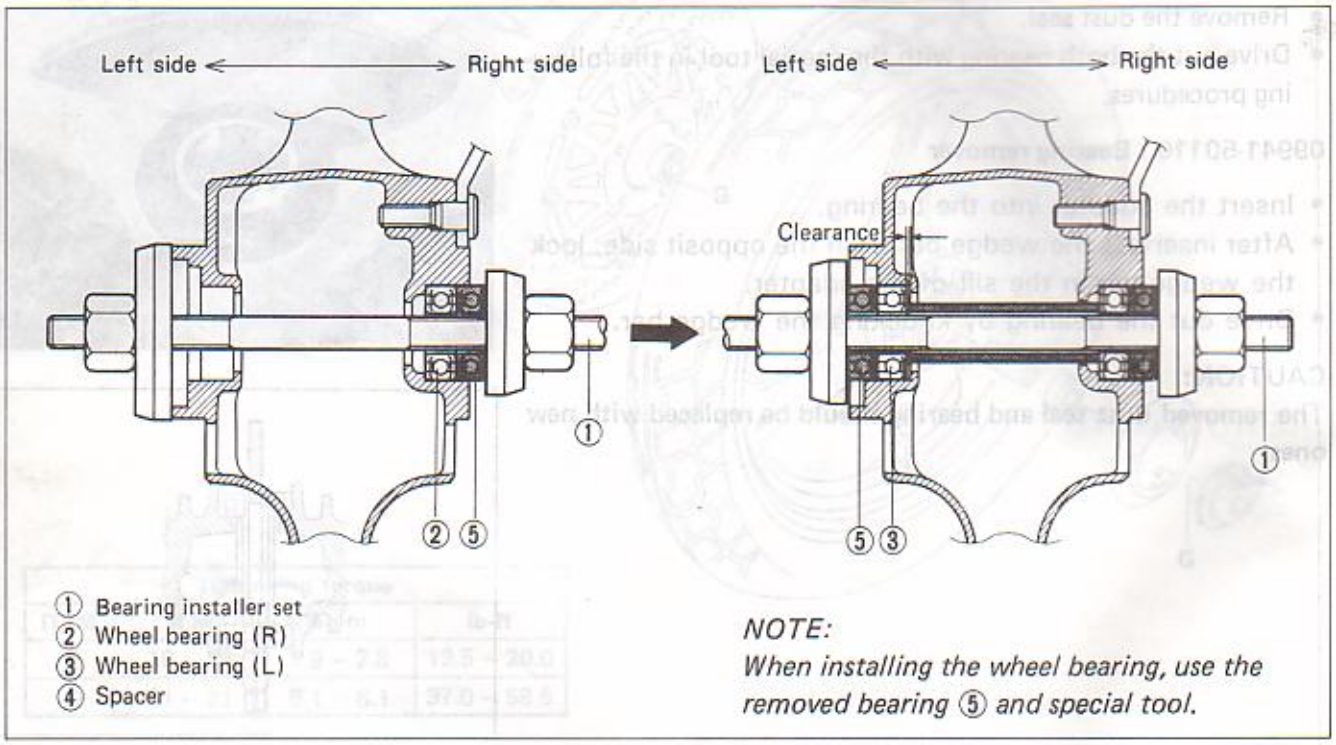
Reassemble and remount the front wheel in the reverse order of removal and disassembly, and also carry out the following steps:

- Install the wheel bearing with the special tools.

09924-84510 : Bearing installer set



CAUTION:
First install the wheel bearing for right side.

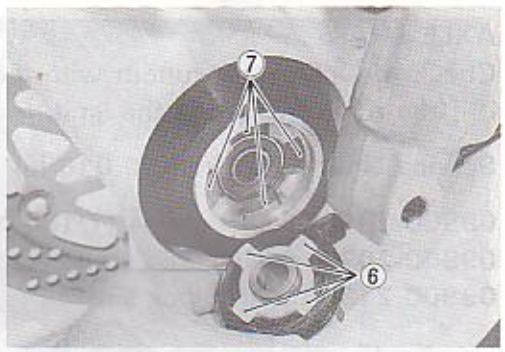


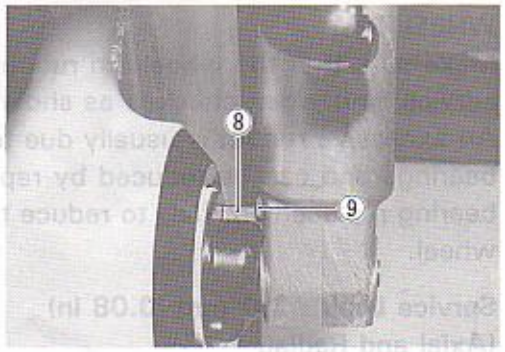
① Bearing installer set
② Wheel bearing (R)
③ Wheel bearing (L)
④ Spacer

NOTE:
When installing the wheel bearing, use the removed bearing ⑤ and special tool.

- When installing the speedometer gear box, align the four drive pawls ⑥ with the four recesses ⑦ of the wheel hub.

CAUTION:
After touching the speedometer gear box ⑧ to the stopper ⑨, tighten the axle shaft.



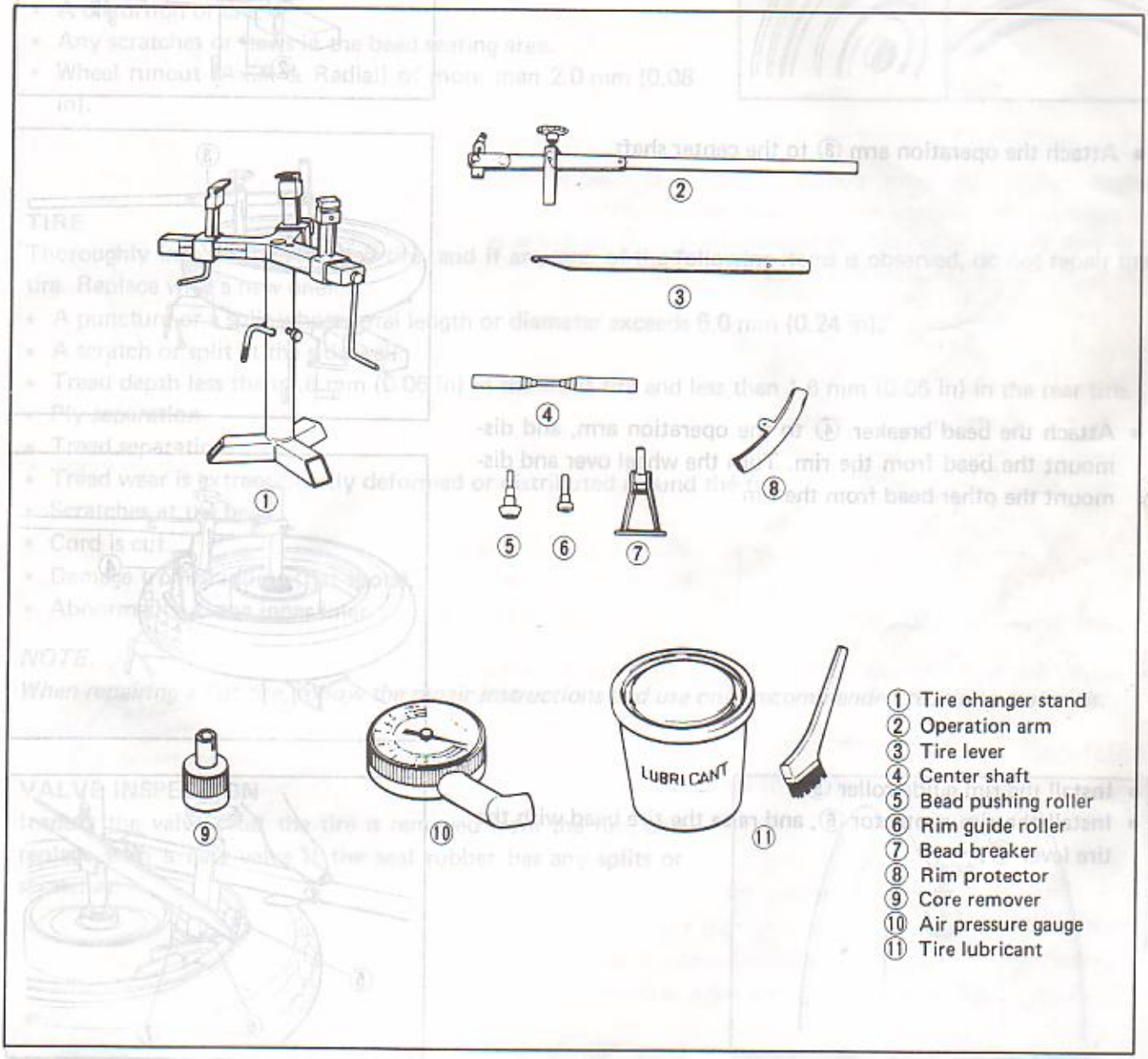


Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

TIRE AND WHEEL

TIRE REMOVAL

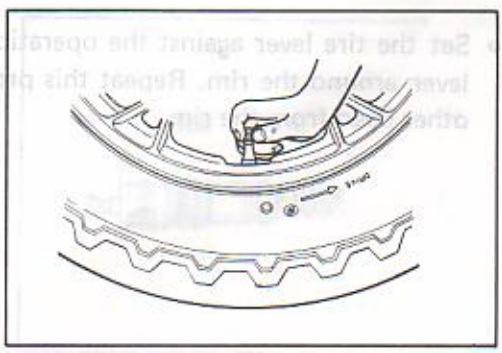
The most critical factor of a tubeless tire is the seal between the wheel rim and the tire bead. Because of this, we recommend using a tire changer which is also more efficient than tire levers.
For tire removal the following tools are required.



① Tire changer stand
② Operation arm
③ Tire lever
④ Center shaft
⑤ Bead pushing roller
⑥ Rim guide roller
⑦ Bead breaker
⑧ Rim protector
⑨ Core remover
⑩ Air pressure gauge
⑪ Tire lubricant

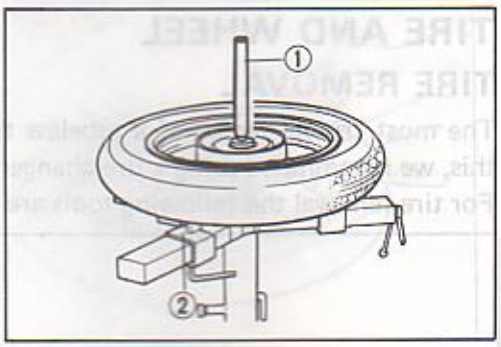
- Remove the valve core from the valve stem, and deflate the tire completely.

NOTE:
Mark the tire with chalk to note the position ① of the tire on the rim and rotational direction ② of the tire.

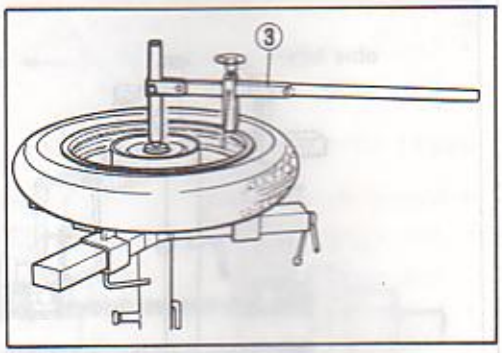


Produced with ScanToPDF
www.scantopdf.co.uk

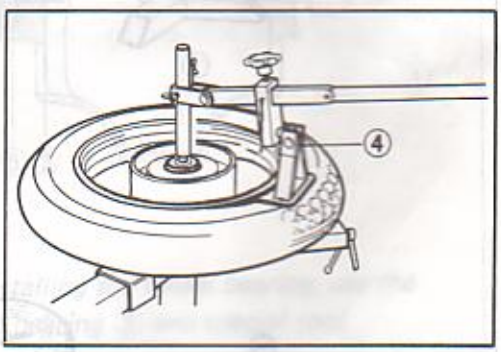
- Place the center shaft ① to the wheel, and fix the wheel with the rim holder ②.



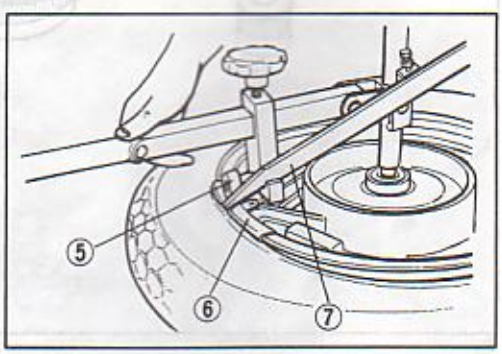
- Attach the operation arm ③ to the center shaft.



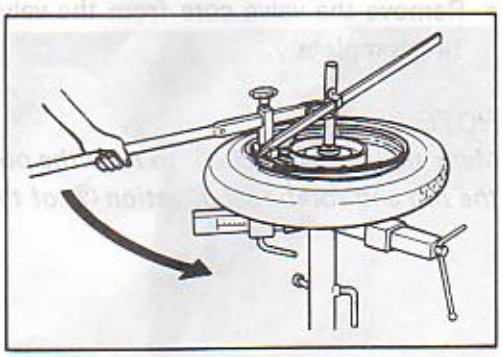
- Attach the bead breaker ④ to the operation arm, and dismount the bead from the rim. Turn the wheel over and dismount the other bead from the rim.



- Install the rim guide roller ⑤.
- Install the rim protector ⑥, and raise the tire bead with the tire lever ⑦.

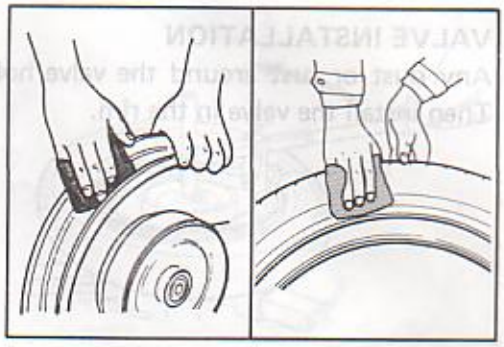


- Set the tire lever against the operation arm, and rotate the lever around the rim. Repeat this procedure to remove the other bead from the rim.



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

INSPECTION



WHEEL

Wipe off any rubber substance or rust from the wheel, and inspect the wheel rim. If any one of the following items is observed, replace it with a new wheel.

* A distortion or crack.
* Any scratches or flaws in the bead seating area.
* Wheel runout (Axial & Radial) of more than 2.0 mm (0.08 in).

TIRE

Thoroughly inspect the removed tire, and if any one of the following items is observed, do not repair the tire. Replace with a new one.

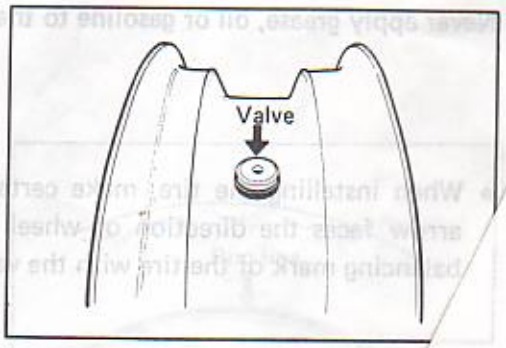
* A puncture or a split whose total length or diameter exceeds 6.0 mm (0.24 in).
* A scratch or split at the side wall.
* Tread depth less than 1.6 mm (0.06 in) in the front tire and less than 1.6 mm (0.06 in) in the rear tire.
* Ply separation.
* Tread separation.
* Tread wear is extraordinarily deformed or distributed around the tire.
* Scratches at the bead.
* Cord is cut.
* Damage from skidding (flat spots).
* Abnormality in the inner liner.

NOTE:

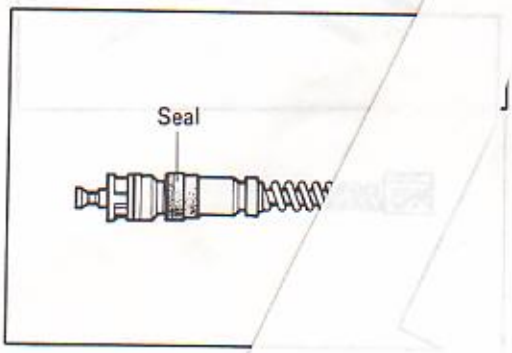
When repairing a flat tire, follow the repair instructions and use only recommended repairing materials.

VALVE INSPECTION

Inspect the valve after the tire is removed from the rim, and replace with a new valve if the seal rubber has any splits or scratches.



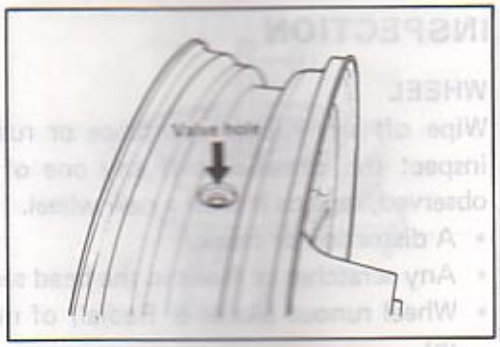
Inspect the removed valve core and replace with the new one if the seal rubber is abnormally deformed or worn.



Produced with ScanToPDF
www.scantopdf.co.uk

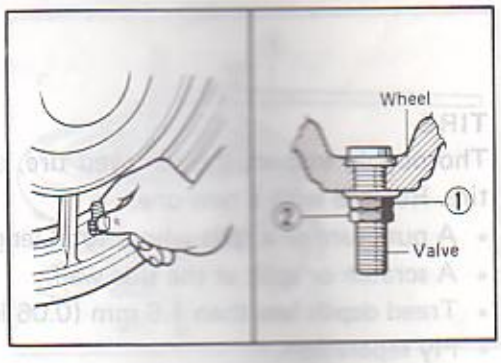
VALVE INSTALLATION

Any dust or rust around the valve hole must be cleaned off. Then install the valve in the rim.



CAUTION:

When installing the valve, tighten the nut ① by hand as much as possible. Holding the nut ① under this condition, tighten the lock nut ②. Do not overtighten the nut ① as this may distort the rubber packing and cause an air leak.



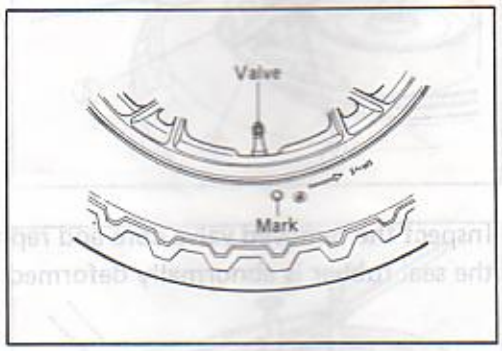
TIRE MOUNTING

- Apply a special tire lubricant or neutral soapy liquid to the tire bead.

CAUTION:

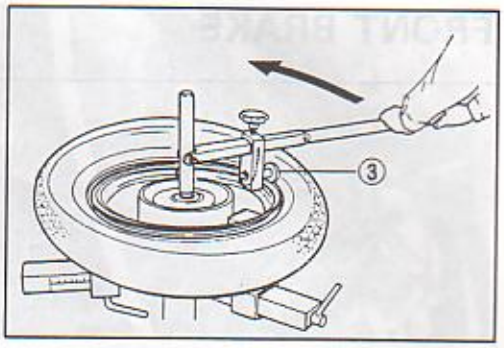
Never apply grease, oil or gasoline to the tire bead.

- When installing the tire, make certain that the directional arrow faces the direction of wheel rotation and align the balancing mark of the tire with the valve as shown.



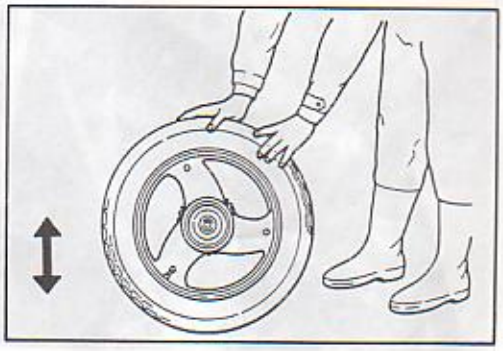
Produced with ScanToPDF
www.scantopdf.co.uk

- Set the bead pushing roller ③.
- Rotate the operation arm around the rim to mount the bead completely. Do the bottom bead first, then the upper bead.
- Remove the wheel from the tire changer, and install the valve core in the valve stem.



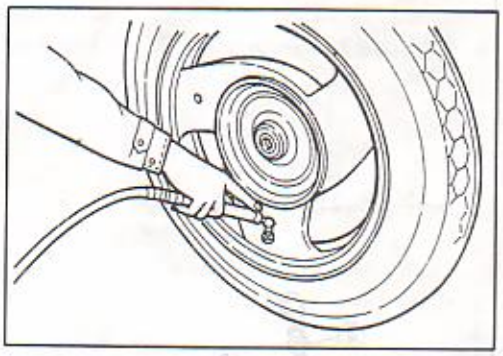
NOTE:
Before installing the valve core, inspect the core.

- Bounce the tire several times while rotating. This makes the tire bead expand outwards, and thus makes inflation easier.



NOTE:
Before inflating, confirm that the balance mark lines up with the valve.

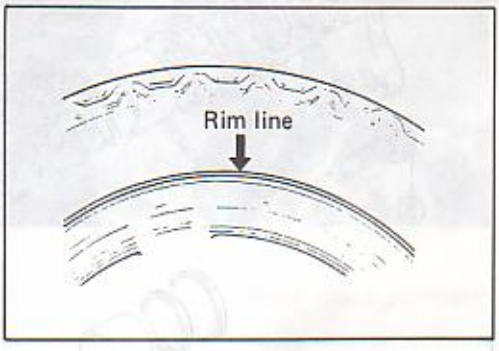
- Pump up the tire with air.



WARNING:
Do not inflate the tire to more than 400 kPa (4.0 kg/cm², 56 psi). The tire could burst with sufficient force to cause severe injury. Never stand directly over the tire while inflating it.

NOTE:
Check the "rim line" cast on the tire side walls. It must be equidistant from the wheel rim all the way around. If the distance between the rim line and wheel rim varies, this indicates that the bead is not properly seated. If this is so, deflate the tire completely, and unseat the bead for both sides. Coat the bead with lubricant, and try again.

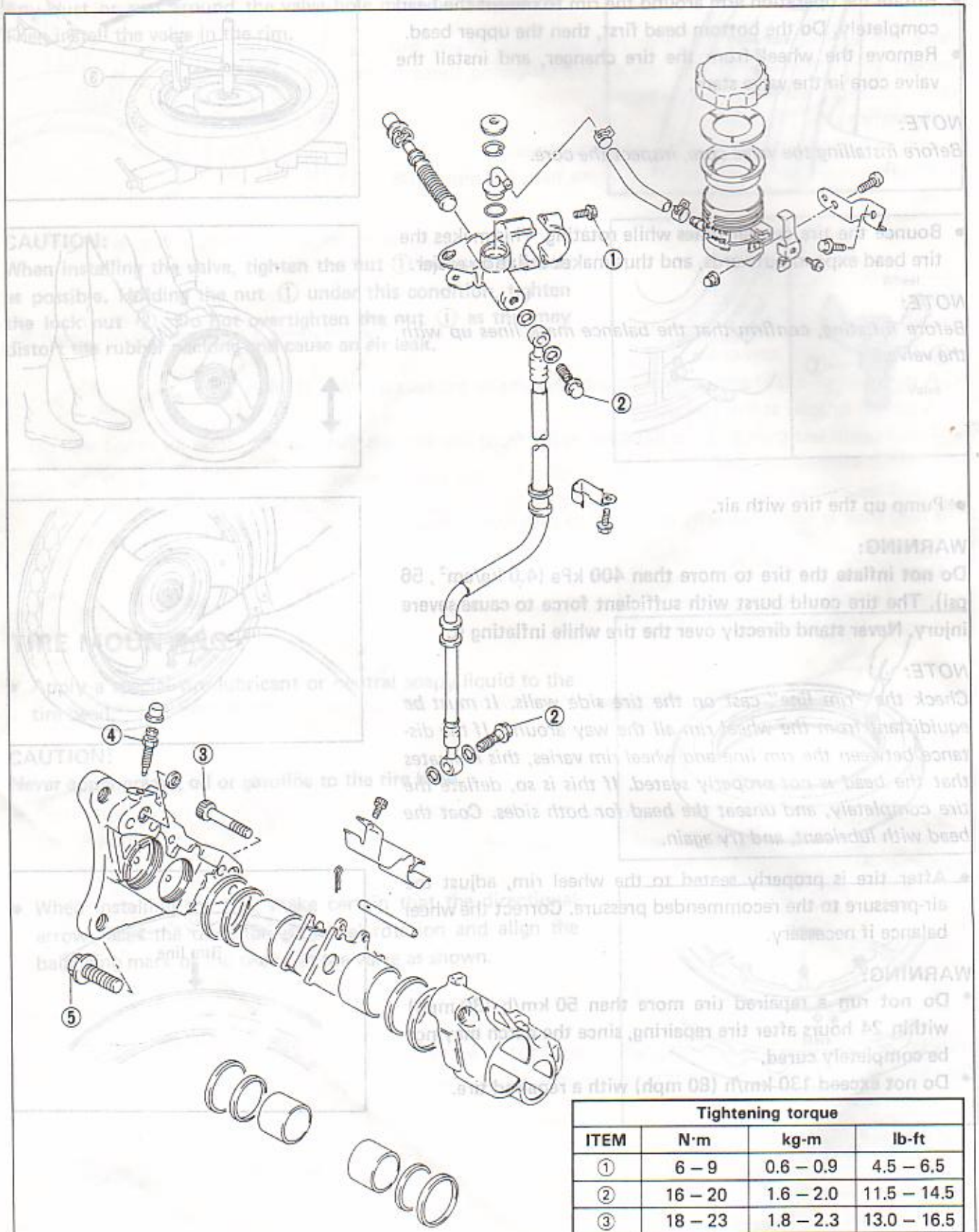
- After tire is properly seated to the wheel rim, adjust the air-pressure to the recommended pressure. Correct the wheel balance if necessary.



WARNING:
* **Do not run a repaired tire more than 50 km/h (30 mph) within 24 hours after tire repairing, since the patch may not be completely cured.**
* **Do not exceed 130 km/h (80 mph) with a repaired tire.**

Produced with ScanToPDF
www.scantopdf.co.uk

FRONT BRAKE



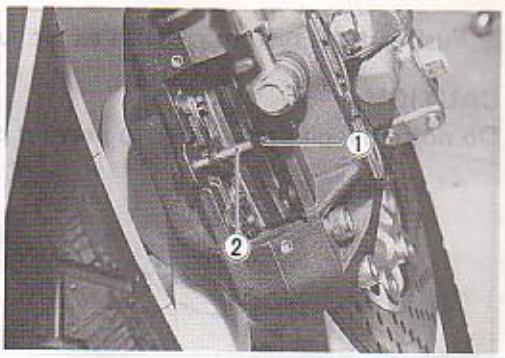
Tightening torque			
ITEM	N·m	kg-m	lb-ft
①	6 – 9	0.6 – 0.9	4.5 – 6.5
②	16 – 20	1.6 – 2.0	11.5 – 14.5
③	18 – 23	1.8 – 2.3	13.0 – 16.5
④	6 – 9	0.6 – 0.9	4.5 – 6.5
⑤	31 – 48	3.1 – 4.8	22.5 – 34.5

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

BRAKE PAD REPLACEMENT

- Remove the pad cover.

- Remove the clip ①.
- Remove the pads by removing the pad mounting shaft ②.



NOTE:
Do not operate the brake lever while dismounting the pads.

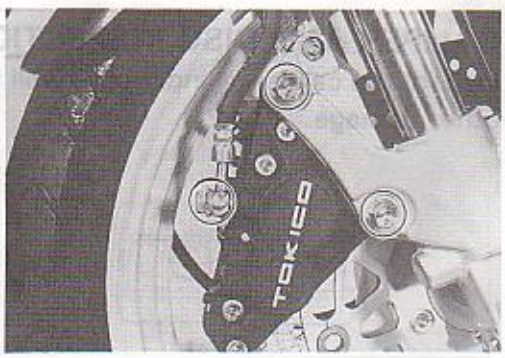
CAUTION:
Replace the brake pad as a set, otherwise braking performance will be adversely affected.

- Remount the pads. (Refer to page 7-4.)

CALIPER REMOVAL AND DISASSEMBLY

- Remove the brake hose and catch the brake fluid in a suitable receptacle.

CAUTION:
Never re-use the brake fluid left over from the last servicing and stored for long periods.



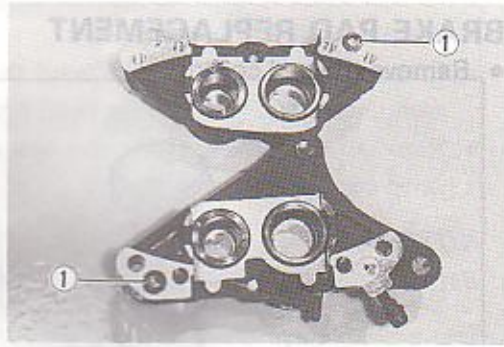
- Remove the caliper.

NOTE:
Slightly loosen the caliper housing bolts to facilitate later disassembly before removing the caliper mounting bolts.

Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the pads. (Refer to page 7-14.)
- Separate the caliper by removing the caliper housing bolts.
- Remove the seals ①.

NOTE:
Once the caliper halves have been separated, replace the seals.



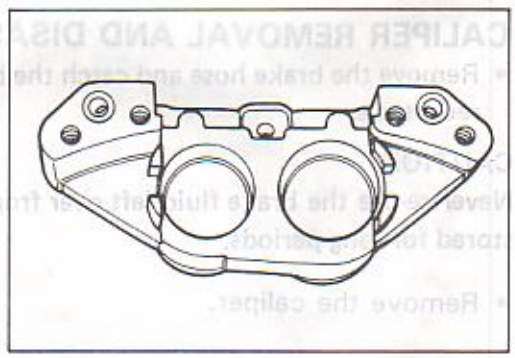
- Push out the pistons ② with an air gun.

CAUTION:
Do not use high pressure air to prevent piston damage.

- Remove the dust seals ③ and piston seals ④.

CALIPER AND DISC INSPECTION

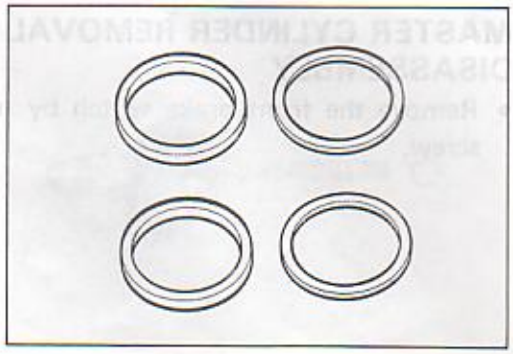
Inspect the caliper cylinder bore wall for nicks, scratches or other damage.



Inspect each piston for damage and wear.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

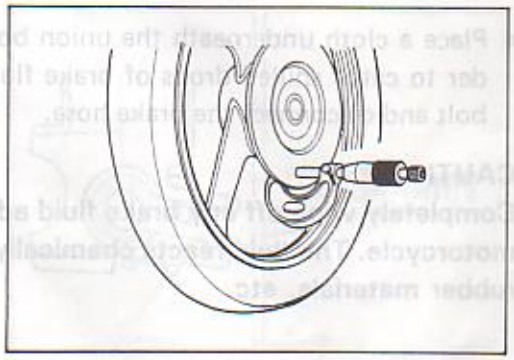
Inspect each rubber part for damage and wear.



Check the disc for wear with a micrometer. Its thickness can be checked with disc and wheel in place. Replace the disc if the thickness exceeds the service limit.

Service Limit : 4.0 mm (0.16 in)

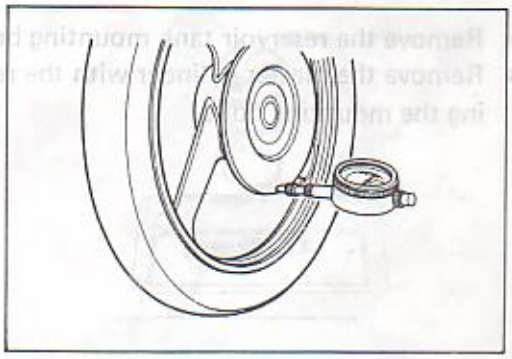
09900-20205 : Micrometer (0—25 mm)



With the disc mounted on the wheel, check the disc for face runout with a dial gauge, as shown.
Replace the disc if the runout exceeds the service limit.

Service Limit : 0.3 mm (0.012 in)

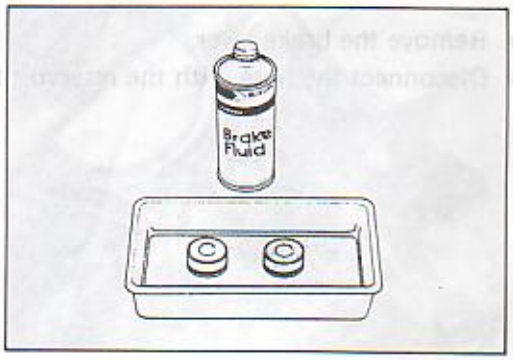
09900-20606 : Dial gauge (1/100 mm)
09900-20701 : Magnetic stand



CALIPER REASSEMBLY

Reassemble and remount the caliper in the reverse order of removal, and also carry out the following steps:

CAUTION:
Wash the caliper components with fresh brake fluid before reassembly.
Never use cleaning solvent or gasoline to wash them.
Apply brake fluid to the caliper bore and piston to be inserted into the bore.



- Reassemble and remount the caliper. (Refer to page 7-13.)

WARNING:
Bleed air after reassembling the caliper. (Refer to page 2-12.)

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

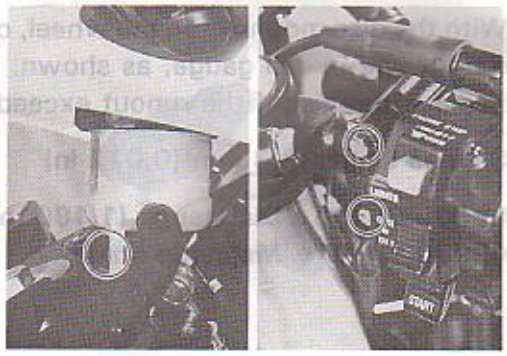
MASTER CYLINDER REMOVAL AND DISASSEMBLY

- Remove the front brake switch by removing the mounting screw.

- Place a cloth underneath the union bolt on the master cylinder to catch spilled drops of brake fluid. Unscrew the union bolt and disconnect the brake hose.

CAUTION:
Completely wipe off any brake fluid adhering to any part of motorcycle. The fluid reacts chemically with paint, plastics, rubber materials, etc.

- Remove the reservoir tank mounting bolt.
- Remove the master cylinder with the reservoir tank by removing the mounting bolts.



- Remove the brake lever.
- Disconnect the hose with the reservoir tank.

- Remove the connector and O-ring by removing the circlip with the special tool.

09900-06108: Snap ring pliers

Produced with ScanToPDF
www.scantopdf.co.uk

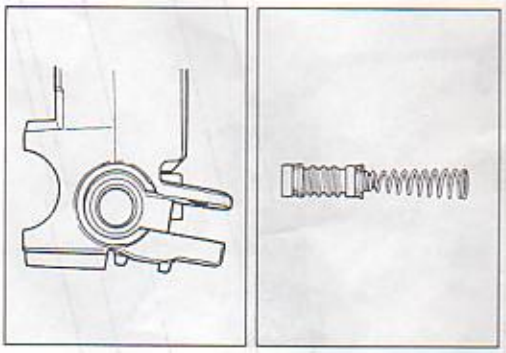
- Remove the dust boot.
- Remove the circlip with the special tool.

09900-06108 : Snap ring pliers

- Remove the piston primary cup and return spring.

MASTER CYLINDER INSPECTION

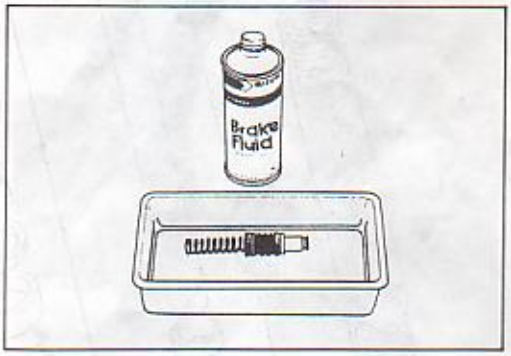
Inspect the master cylinder bore for any scratches or other damage.
Inspect the piston surface for scratches or other damage.
Inspect the primary cup and dust boot for wear or damage.



MASTER CYLINDER REASSEMBLY AND REMOUNTING

Reassemble and remount the master cylinder in the reverse order of removal and disassembly, and also carry out the following steps.

CAUTION:
Wash the master cylinder components with fresh brake fluid before reassembly. Never use cleaning solvent or gasoline to wash them.
Apply brake fluid to the cylinder bore and all the internals to be inserted into the bore.

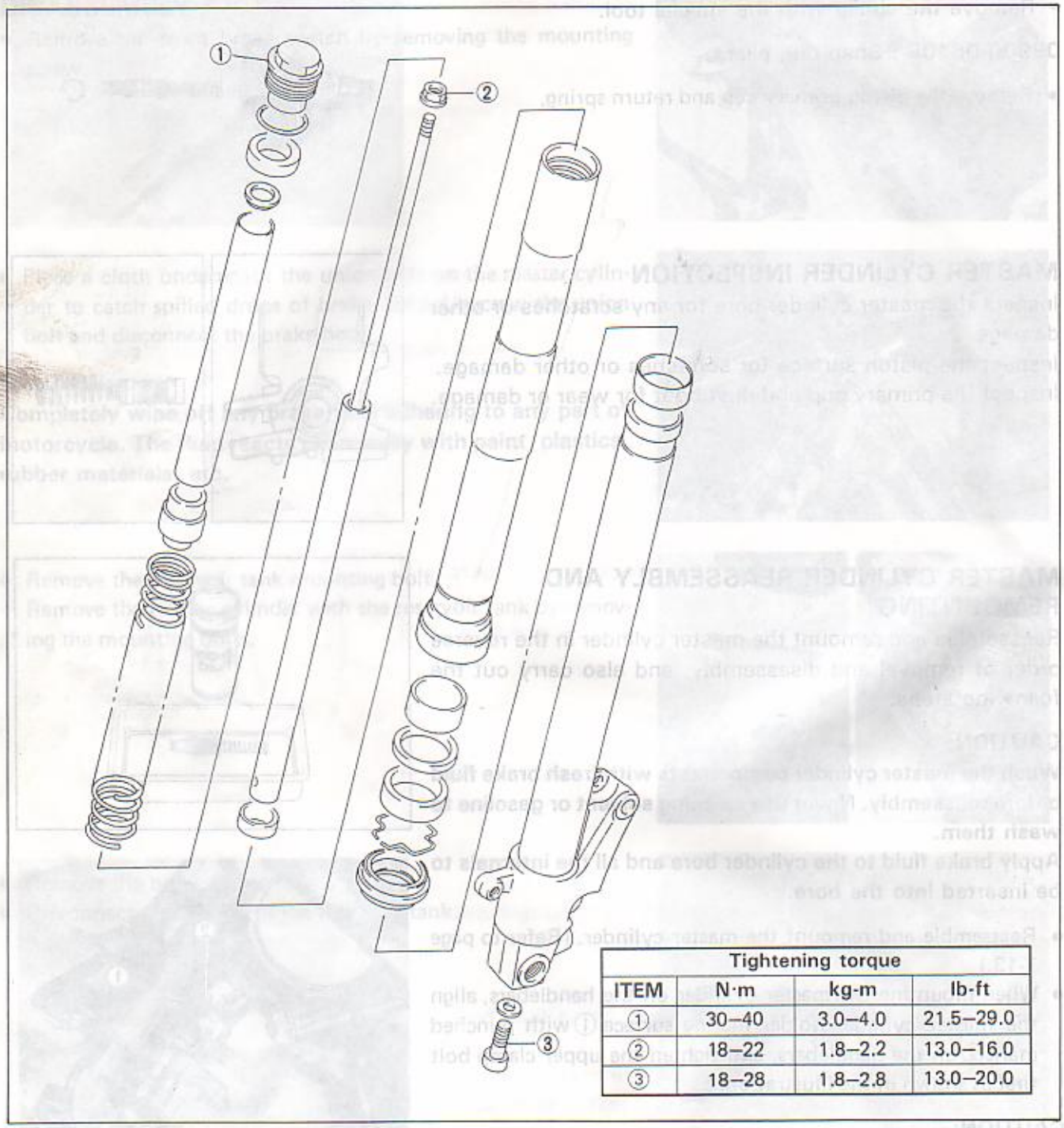


- Reassemble and remount the master cylinder. (Refer to page 7-13.)
- When mounting the master cylinder on the handlebars, align the master cylinder holder mating surface ① with punched mark ② on the handlebars, and tighten the upper clamp bolt first as shown in the illustration.

CAUTION:
Bleed air after reassembling the master cylinder. (Refer to page 2-12).

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

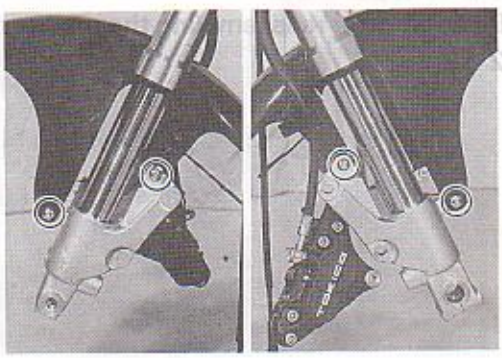
FRONT FORK



ITEM	Tightening torque		
	N·m	kg-m	lb-ft
①	30–40	3.0–4.0	21.5–29.0
②	18–22	1.8–2.2	13.0–16.0
③	18–28	1.8–2.8	13.0–20.0

REMOVAL AND DISASSEMBLY

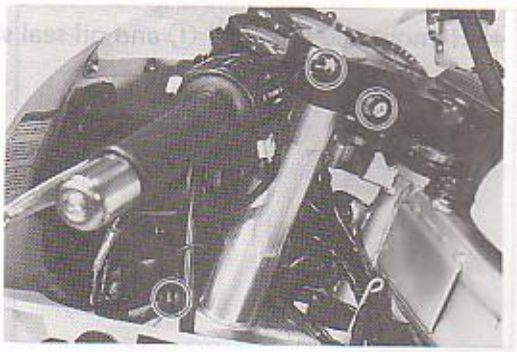
- Remove the front wheel. (Refer to page 7-5.)
- Remove the front fender.



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the front fork by loosening the upper and lower mounting bolts and handlebars holder bolt.

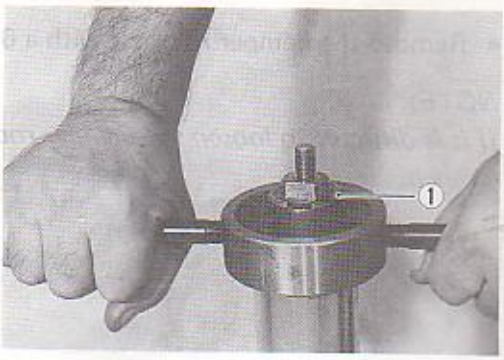
NOTE:
Slightly loosen the front fork cap bolt to facilitate later disassembly.



- Remove the front fork cap.

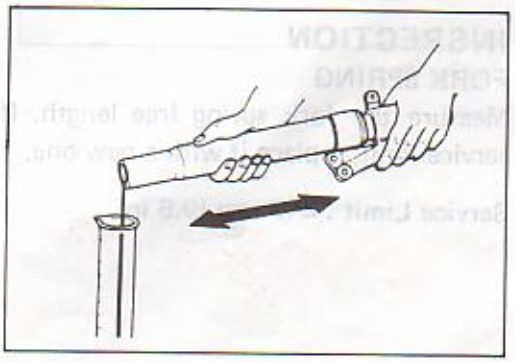
- Remove the spacer guide ① by compressing the spacer with the special tool.

09940-94930: Front fork spacer holder



- Remove the spacer and spring.

- Invert the fork and stroke the inner tube and inner rod several times to drain oil.
- Hold the fork inverted for a few minutes to drain oil.



Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the dust seal ① and oil seal stopper ring ②.

- Remove the oil seal by slowly pulling out the inner tube.

NOTE:
Be careful not to damage the inside of the tube.

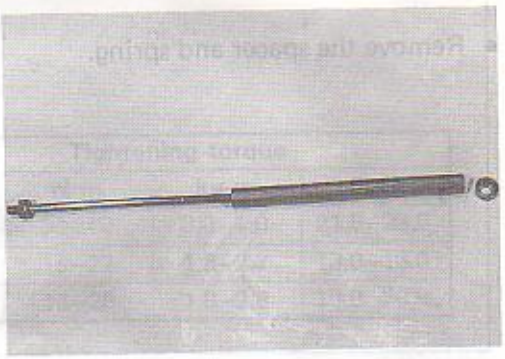
CAUTION:
The outer tube and inner tube metals must be replaced along with oil seal and dust seal, when assembling the front fork.

- Remove the damper rod bolt with a 6mm hexagon wrench.

NOTE:
If it is difficult to loosen the damper rod bolt, use the air impact wrench.

- Remove the inner rod with the damper.

CAUTION:
Do not attempt to disassemble the damper rod. It is not serviceable.

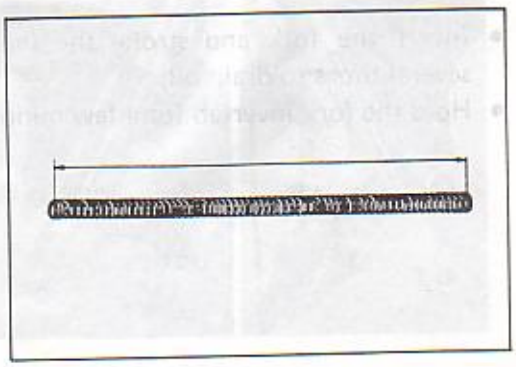


INSPECTION

FORK SPRING

Measure the fork spring free length. If it is shorter than the service limit, replace it with a new one.

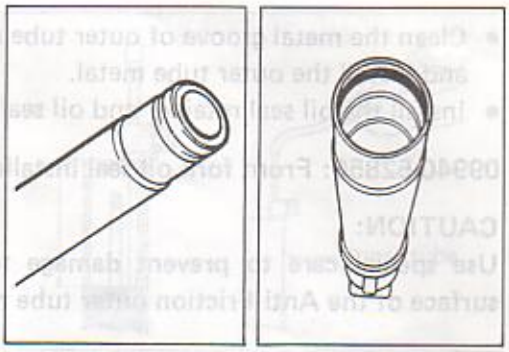
Service Limit : 243 mm (9.6 in)



Produced with ScanToPDF
www.scantopdf.co.uk

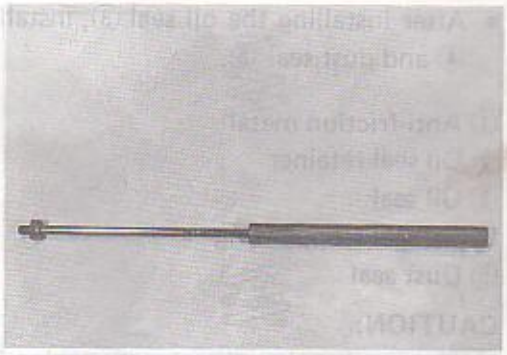
INNER AND OUTER TUBE

Inspect the inner tube sliding surface and outer tube sliding surface for any scuffing.



DAMPER ROD

Move the inner rod by hand to inspect if operating smoothly.

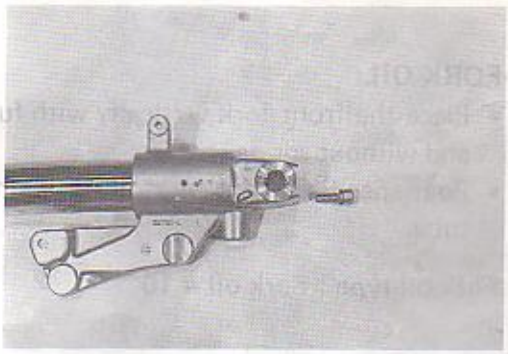


REASSEMBLY AND REMOUNTING

Reassemble and remount the front fork in the reverse order of removal and disassembly. Also observe the following instructions:

DAMPER ROD BOLT

- Tighten the damper rod bolt to the specified torque. (Refer to page 7-19.)



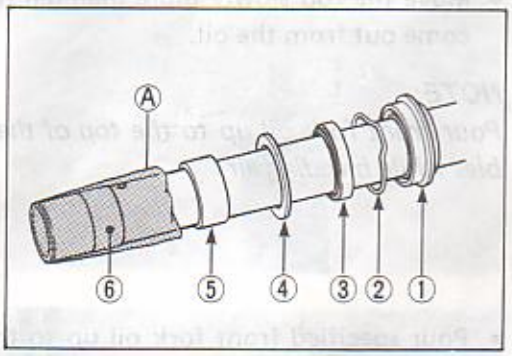
CAUTION:
Use the new gasket.

TUBE METALS AND SEALS

- Apply grease to the lip of oil seal.

99000-25010 : SUZUKI SUPER GREASE "A"

- Install the dust seal ①, oil seal stopper ring ②, oil seal ③, oil seal retainer ④, outer tube metal ⑤ and inner tube metal ⑥ onto the inner tube in that order.



CAUTION:

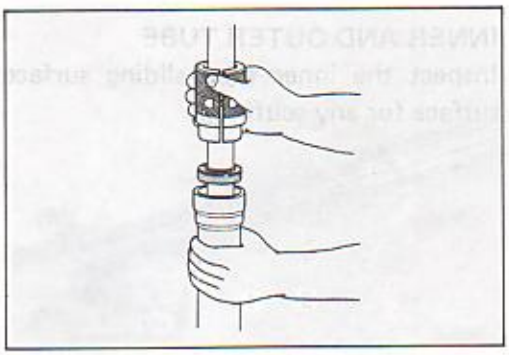
* **When installing the dust seal ① and oil seal ③ onto the inner tube, protect their seal lips with the vinyl film Ⓐ to prevent seals damage.**
* **When installing the oil seal onto the inner tube, ID mark on the oil seal comes to outside.**
* **Do not use solvents for washing to prevent oil seal damage.**

Produced with ScanToPDF
www.scantopdf.co.uk

- Clean the metal groove of outer tube and metal outer surface, and install the outer tube metal.
- Install the oil seal retainer and oil seal with the special tools.

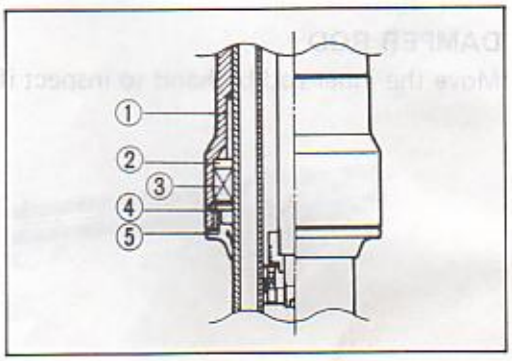
09940-52850: Front fork oil seal installer

CAUTION:
Use special care to prevent damage to the "Teflon" coated surface of the Anti-Friction outer tube metal when installing it.



- After installing the oil seal ③, install the oil seal stopper ring ④ and dust seal ⑤.

① Anti-friction metal
② Oil seal retainer
③ Oil seal
④ Oil seal stopper ring
⑤ Dust seal



CAUTION:
Make sure that the oil seal stopper ring fitted securely.

FORK OIL

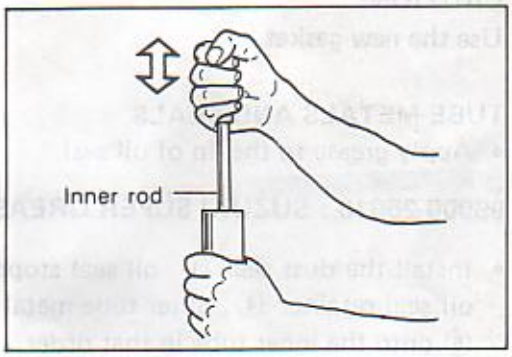
- Place the front fork vertically with fully compressed position and without spring.
- Pour specified front fork oil up to the top level of the outer tube.

Fork oil type : Fork oil # 10

Fork oil air bleeding

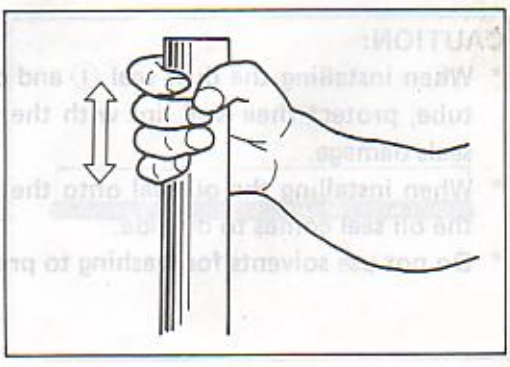
- Move the rod slowly more than ten times until bubles do not come out from the oil.

NOTE:
Pour front fork oil up to the top of the inner tube to find bubbles while bleeding air.



- Pour specified front fork oil up to the top level of the inner tube again. Move the outer tube up and down fully stroke until bubbles do not come out from the oil.

CAUTION:
Move the outer tube slowly to prevent the inner tube metal damage.



- Keep the front fork vertically and wait 5 – 6 minutes.

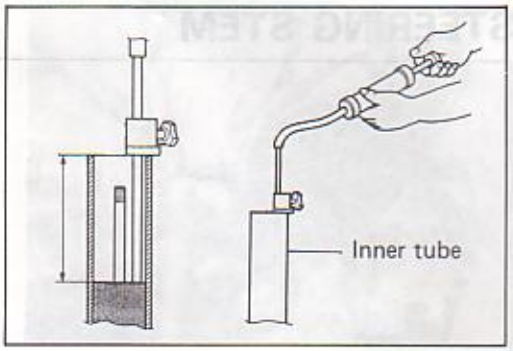
Produced with ScanToPDF
www.scantopdf.co.uk

Fork oil level adjusting

- Set the oil level gauge to the front fork inner tube and adjust the oil level to the specification.

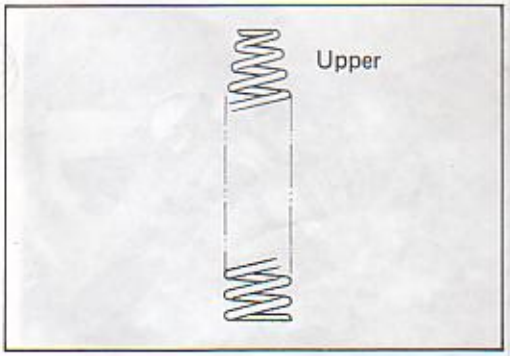
09943-74111 : Fork oil level gauge

Fork oil level : 86.2 mm (3.4 in)
Fork oil capacity : 372 ml (13.1 Imp oz)
(each leg)



FORK SPRING

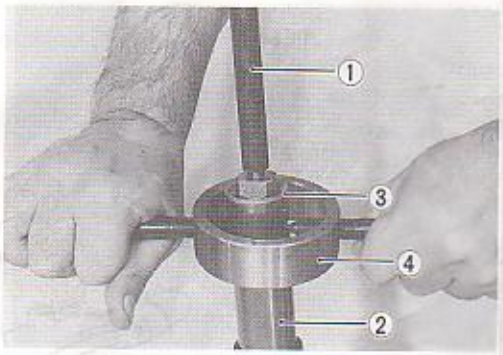
- Install the fork spring small diameter end to upper side as shown in the illustration.



SPACER AND INNER ROD LOCK NUT

- Install the special tool ① and then install the spacer ②.
- Install the spacer guide ③ by compressing the spacer with the special tool ④.

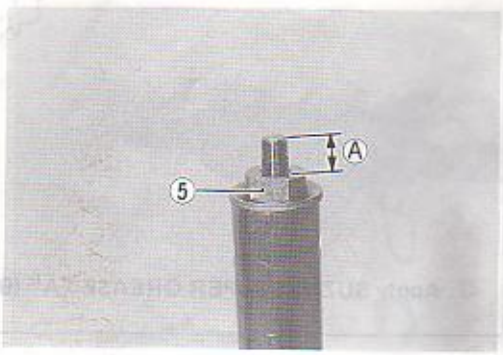
09940-52840: Front fork inner rod holder
09940-94930: Front fork spacer holder



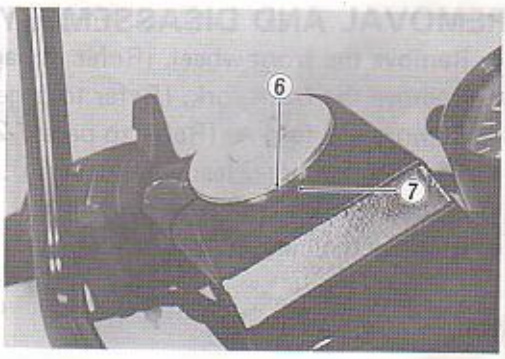
- Adjust the height Ⓐ of the inner rod by adjusting the lock nut ⑤.

Height Ⓐ : 14 mm (1.57 in)

- Tighten the front fork cap by hand, and then tighten the lock nut to the specified torque. (Refer to page 7-19.)

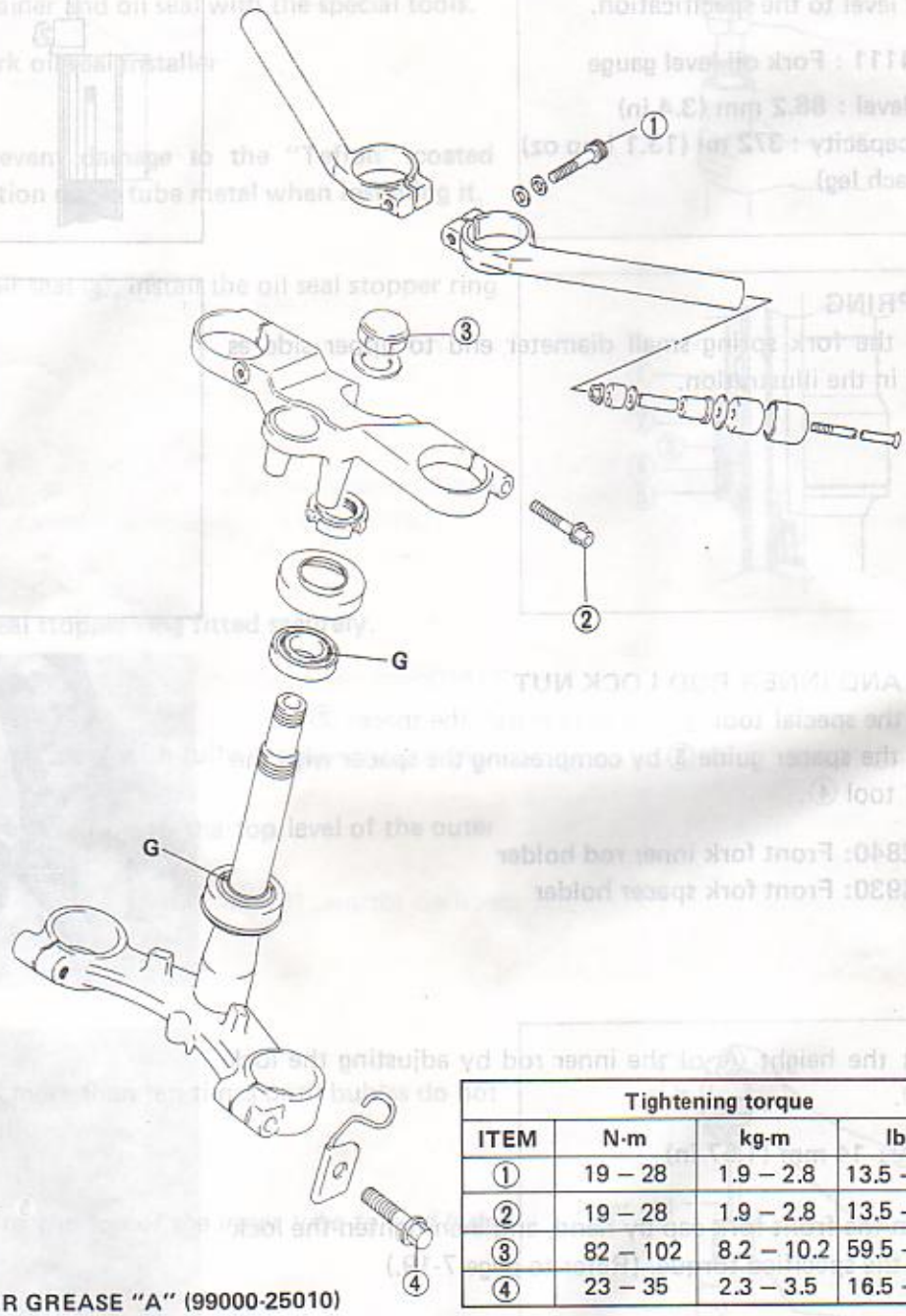


- When installing the front fork assembly, align the upper surface ⑥ of the outer tube with the upper surface ⑦ of the steering stem upper bracket.



Produced with ScanToPDF
www.scantopdf.co.uk

STEERING STEM

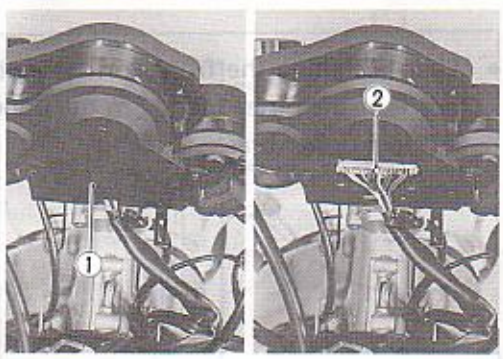


Tightening torque			
ITEM	N·m	kg-m	lb-ft
①	19 – 28	1.9 – 2.8	13.5 – 20.0
②	19 – 28	1.9 – 2.8	13.5 – 20.0
③	82 – 102	8.2 – 10.2	59.5 – 74.0
④	23 – 35	2.3 – 3.5	16.5 – 25.5

G: Apply SUZUKI SUPER GREASE "A" (99000-25010)

REMOVAL AND DISASSEMBLY

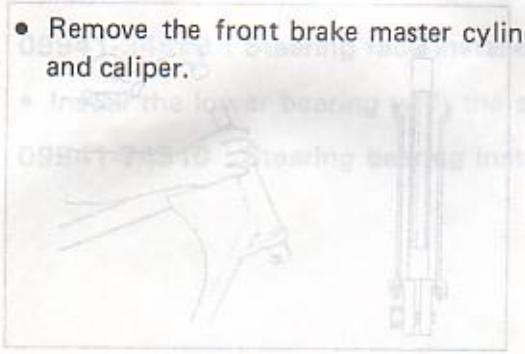
- Remove the front wheel. (Refer to page 7-5.)
- Remove the front fork. (Refer to page 7-19.)
- Remove the fairing. (Refer to page 7-2.)
- Remove the meter lead wire cover ①.
- Disconnect the lead wire coupler ②.
- Remove the combination meter.



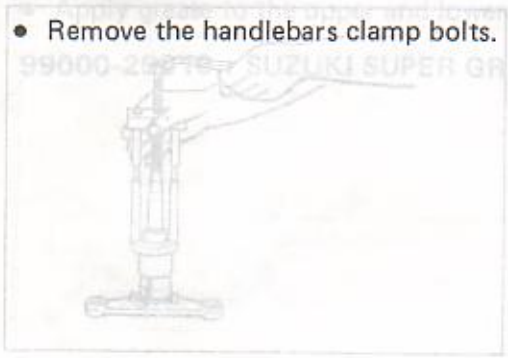
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

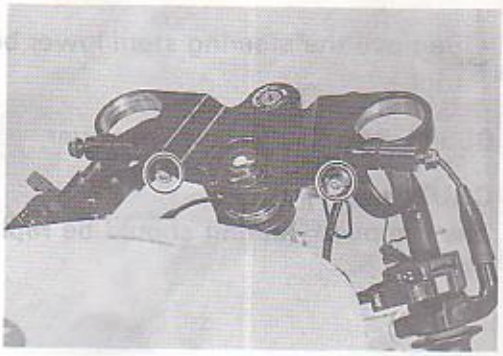
- Remove the horn.

- Remove the front brake master cylinder with reservoir tank and caliper.



- Remove the handlebars clamp bolts.





- Remove the steering stem upper bracket by removing the nut.

- Remove the steering stem nut with the special tool.

09940-14911: Steering nut socket wrench

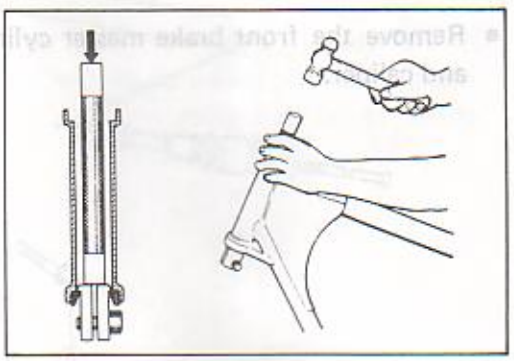
NOTE:
Hold the steering stem lower bracket by hand to prevent it from falling.

Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the upper bearing.

- Remove the steering stem upper and lower bearing race with the special tools.

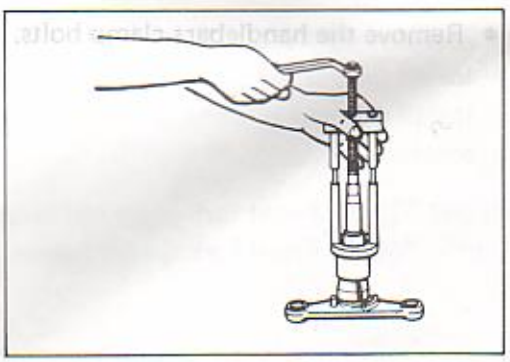
09941-54911 : Bearing outer race remover
09941-74910 : Steering bearing installer and remover



- Remove the steering stem lower bearing with the special tool.

09941-84510 : Bearing remover

CAUTION:
The removed bearing should be replaced with a new one.



INSPECTION

Inspect and check the removed parts for the following abnormalities.

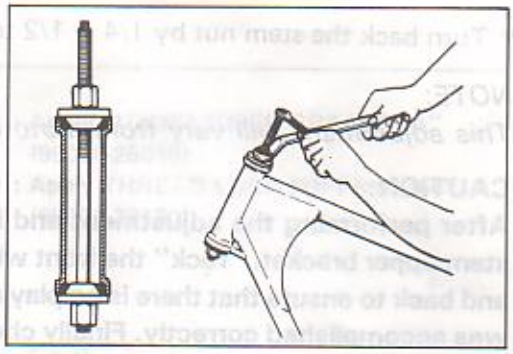
* Bearing race wear and brinelling.
* Distortion of steering stem upper and lower brackets.

Produced with ScanToPDF
www.scantopdf.co.uk

REASSEMBLY AND REMOUNTING

Reassemble and remount the steering stem in the reverse order of removal and disassembly, and also carry out the following steps:

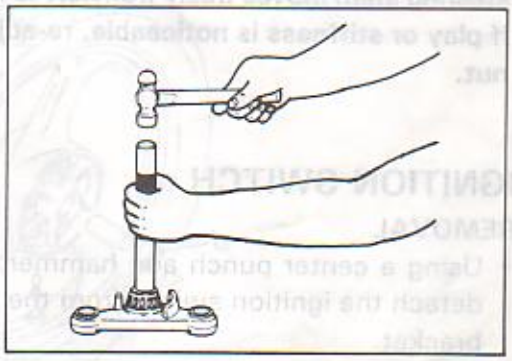
- Reassemble and remount the steering stem. (Refer to page 7-25.)



BEARING RACE AND BEARING

- Press in the upper and lower bearing races with the special tool.

09941-34513 : Steering race installer

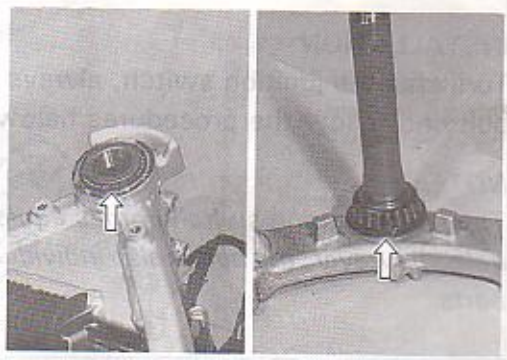


- Install the lower bearing with the special tool.

09941-74910 : Steering bearing installer

- Apply grease to the upper and lower bearings.

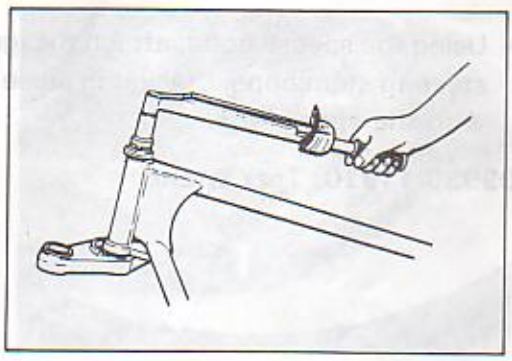
99000-25010 : SUZUKI SUPER GREASE "A"



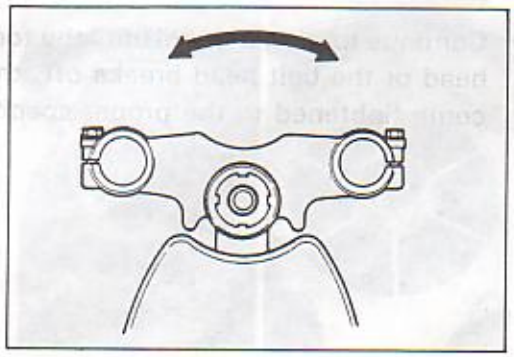
STEM NUT

- Tighten the steering stem nut to 40 — 50 N·m (4.0 — 5.0 kg-m, 29.0 — 36.0 lb-ft)

09940-14911 : Steering stem nut wrench

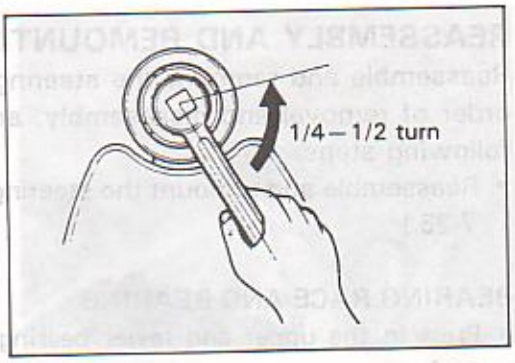


- Turn the steering stem bracket about five or six times to the left and right until it locks in position so that the taper roller bearing will be seated properly.



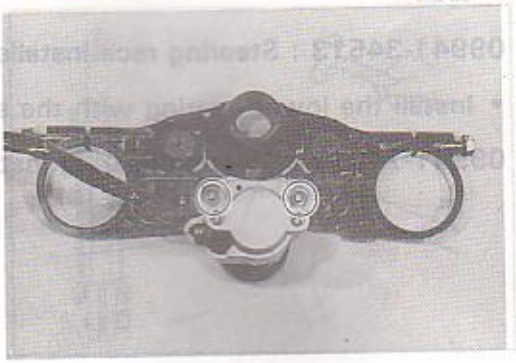
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

- Turn back the stem nut by 1/4 – 1/2 turn.



NOTE:
This adjustment will vary from motorcycle to motorcycle.

CAUTION:
After performing the adjustment and installing the steering stem upper bracket, "rock" the front wheel assembly forward and back to ensure that there is no play and that the procedure was accomplished correctly. Finally check to be sure that the steering stem moves freely from left to right with own weight. If play or stiffness is noticeable, re-adjust the steering stem nut.



IGNITION SWITCH

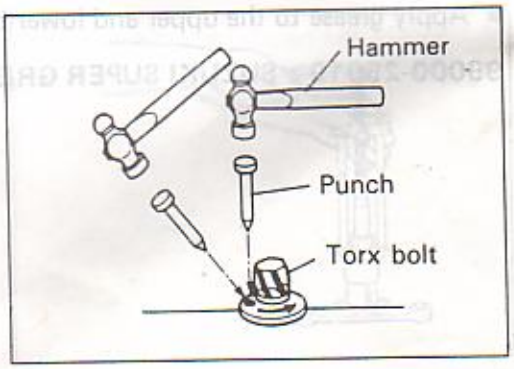
REMOVAL

- Using a center punch and hammer, remove the bolt to detach the ignition switch from the steering stem upper bracket.

INSTALLATION

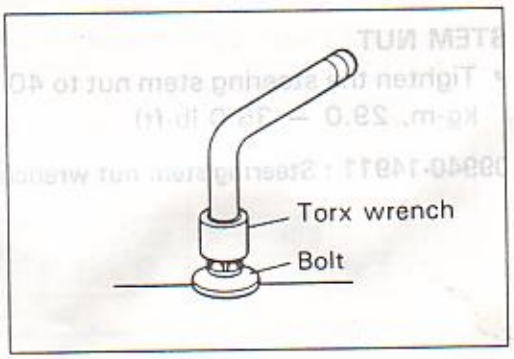
To install the ignition switch, always use the new special bolt and follow the procedures below.

NOTE:
The spare ignition switch comes equipped with the special bolts, however, the bolt is also individually available as spare parts.

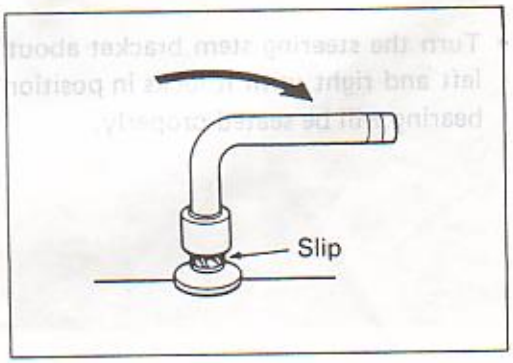


- Using the special bolts, attach the ignition switch on the steering stem upper bracket in place and run in the bolts with the special tool.

09930-11910: Torx wrench

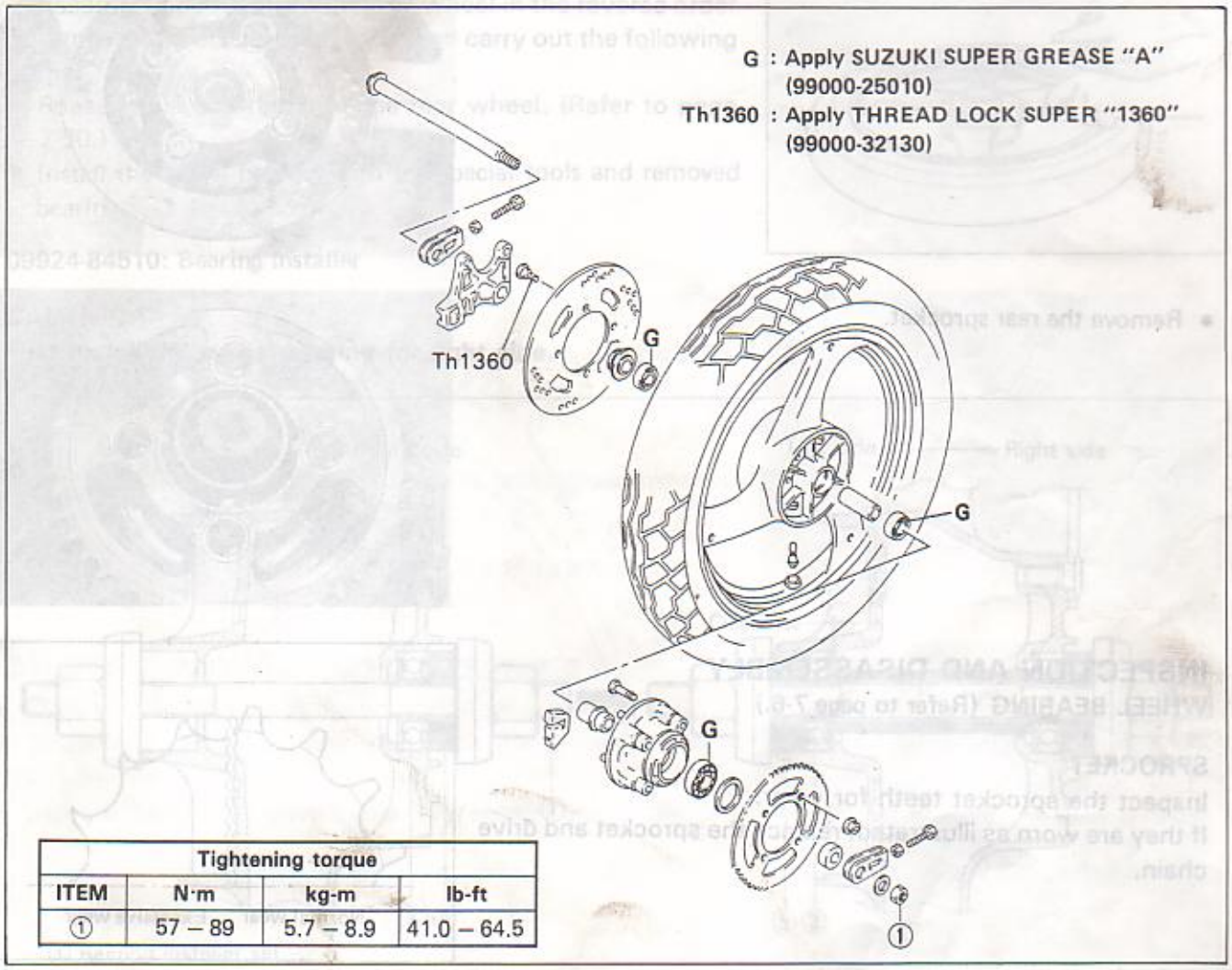


- Continue turning the tool until the tool slips from the bolt head or the bolt head breaks off, then the bolt has become tightened to the proper specification.



Produced with ScanToPDF
www.scantopdf.co.uk

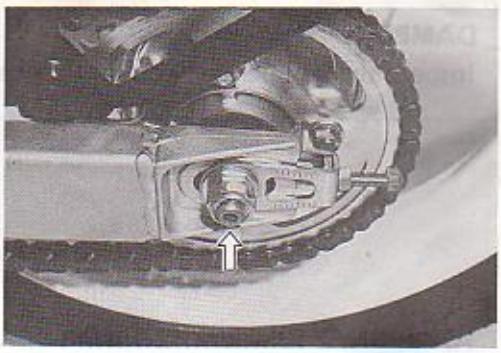
REAR WHEEL



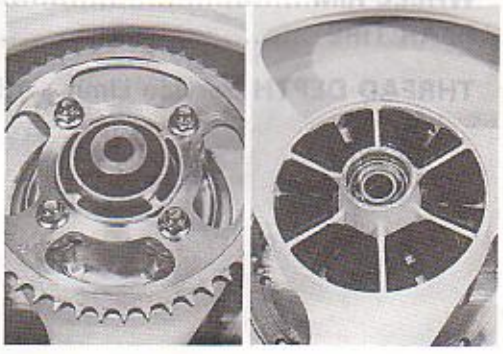
Tightening torque			
ITEM	N·m	kg-m	lb-ft
①	57 – 89	5.7 – 8.9	41.0 – 64.5

REMOVAL

- Support the motorcycle with the jack or wooden block.
- Loosen the rear axle nut, and adjust the drive chain adjusters to loosenest position after loosen the lock nut.
- Remove the rear axle shaft.
- Disengage the drive chain from the rear sprocket and remove the rear wheel.

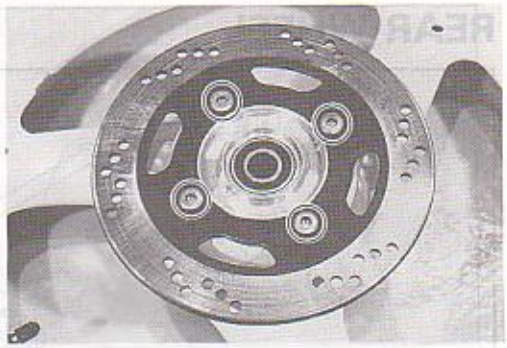


- Remove the rear sprocket with drum.
- Remove the dampers.

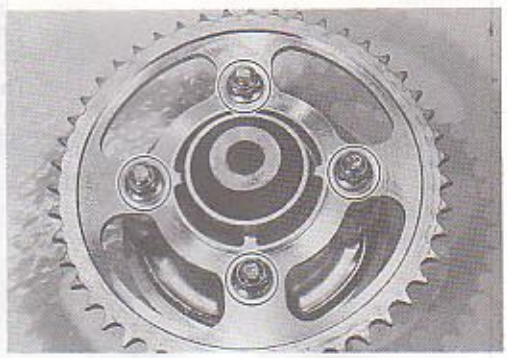


Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the rear disc.



- Remove the rear sprocket.

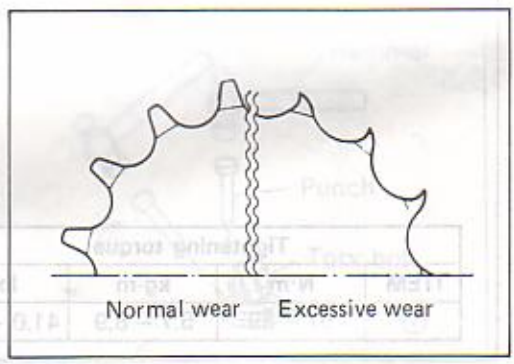


INSPECTION AND DISASSEMBLY

WHEEL BEARING (Refer to page 7-6.)

SPROCKET

Inspect the sprocket teeth for wear.
If they are worn as illustrated, replace the sprocket and drive chain.



DAMPER

Inspect the damper for wear.

AXLE SHAFT	Refer to page 7- 6
WHEEL RIM	Refer to page 7- 6
REAR TIRE	Refer to page 2-13

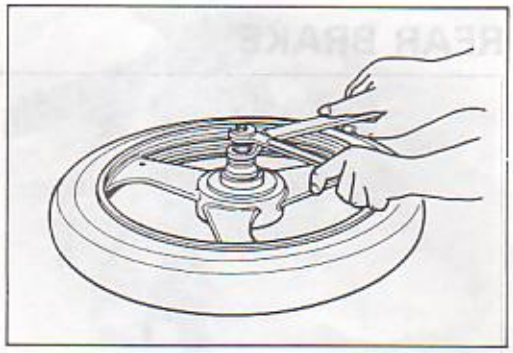
THREAD DEPTH Service Limit : 1.6 mm (0.06 in)

Produced with ScanToPDF
www.scantopdf.co.uk

REASSEMBLY AND REMOUNTING

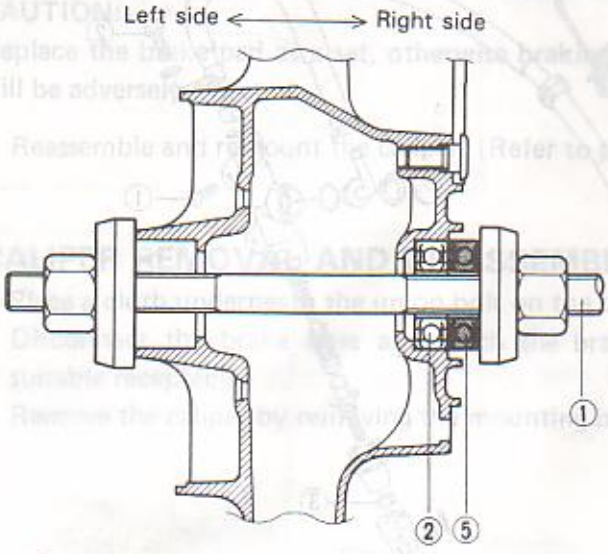
Reassemble and remount the rear wheel in the reverse order of removal and disassembly, and also carry out the following steps:

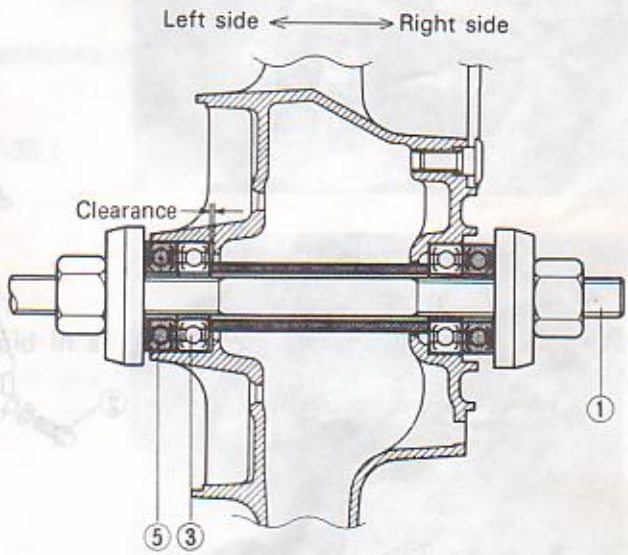
- Reassemble and remount the rear wheel. (Refer to page 7-30.)
- Install the wheel bearing with the special tools and removed bearing.



09924-84510: Bearing installer

CAUTION:
First install the wheel bearing for right side.



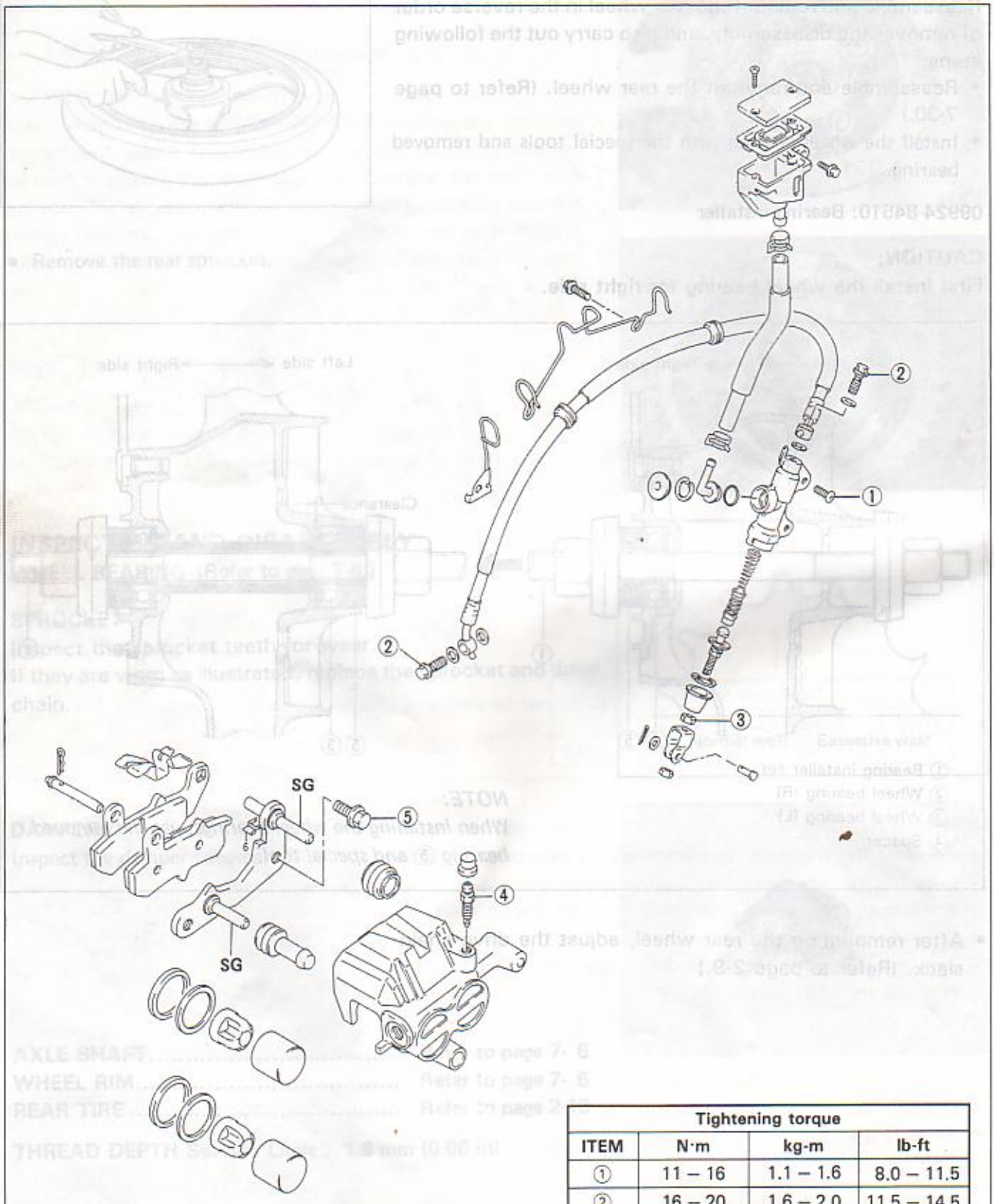


NOTE:
When installing the wheel bearings, use the removed bearing ⑤ and special tool.

- After remounting the rear wheel, adjust the drive chain slack. (Refer to page 2-9.)

Produced with ScanToPDF
www.scantopdf.co.uk

REAR BRAKE



Tightening torque			
ITEM	N·m	kg-m	lb-ft
①	11 – 16	1.1 – 1.6	8.0 – 11.5
②	16 – 20	1.6 – 2.0	11.5 – 14.5
③	16 – 20	1.6 – 2.0	11.5 – 14.5
④	6 – 9	0.6 – 0.9	4.5 – 6.5
⑤	21 – 31	2.1 – 3.1	15.0 – 22.5

SG : Apply SUZUKI SILICONE GREASE (99000-25100)

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

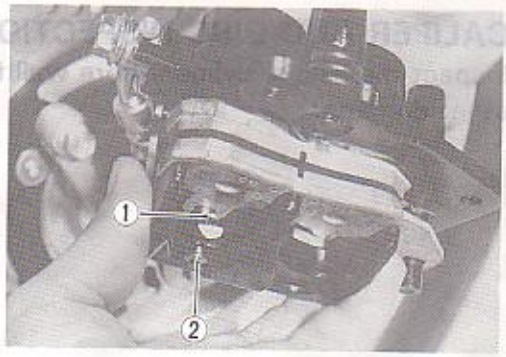
BRAKE PAD REPLACEMENT

- Remove the caliper mounting bolts.

- Remove the clip ①.
- Remove the brake pads by removing the pads mounting shaft ②.

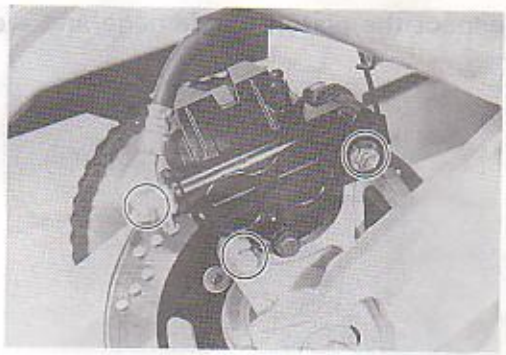
CAUTION:
Replace the brake pad as a set, otherwise braking performance will be adversely affected.

- Reassemble and remount the caliper. (Refer to page 7-33.)

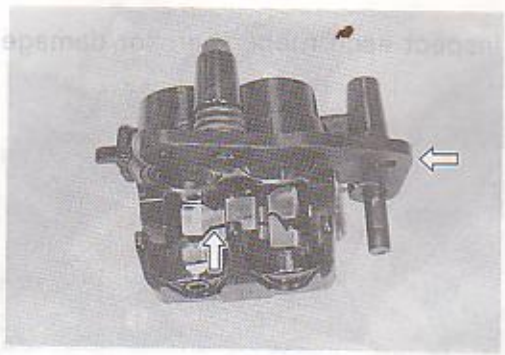


CALIPER REMOVAL AND DISASSEMBLY

- Place a cloth underneath the union bolt on the caliper.
- Disconnect the brake hose and catch the brake fluid in a suitable receptacle.
- Remove the caliper by removing the mounting bolts.



- Remove the pads.
- Remove the pad spring and caliper holder.



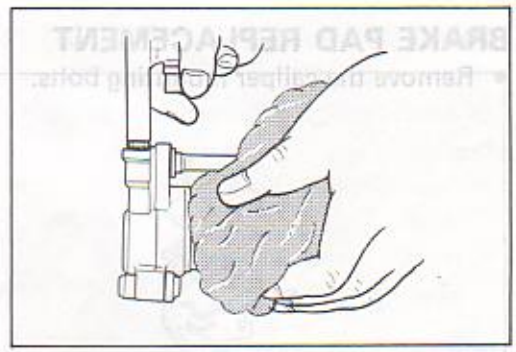
- Remove the piston insulator.

Produced with ScanToPDF
www.scantopdf.co.uk

- Place a rag over the pistons to prevent popping up. Force out the pistons with an air gun.

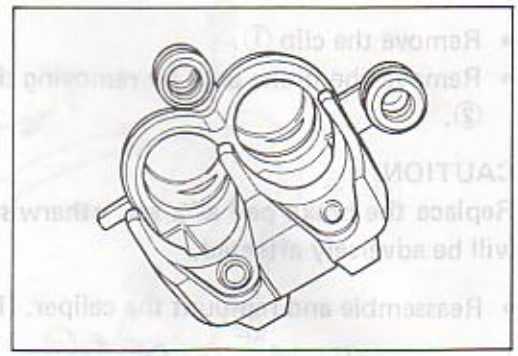
CAUTION:
Do not use high pressure air to prevent piston damage.

- Remove the dust seal and piston seal.

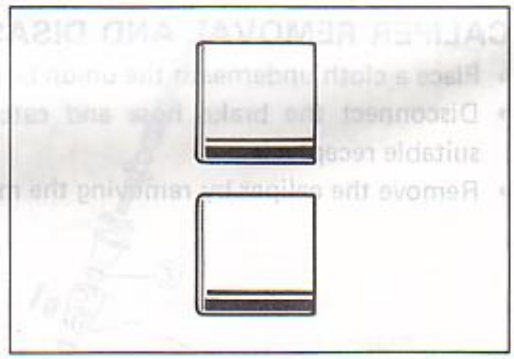


CALIPER AND DISC INSPECTION

Inspect the caliper cylinder bore wall for nicks, scraches or other damage.



Inspect the piston for damage and wear.



Inspect each rubber part for damage and wear.

DISC THICKNESS (Refer to page 7-16.)

Service Limit : 3.5 mm (0.14 in)

DISC RUNOUT (Refer to page 7-16.)

Service Limit : 0.3 mm (0.012 in)

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

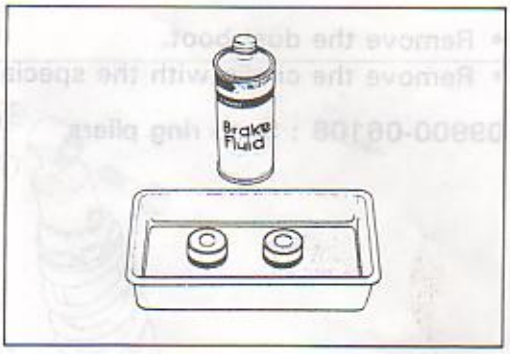
CALIPER REASSEMBLY AND REMOUNTING

Reassemble and remount the caliper in the reverse order of removal and disassembly, and also carry out the following steps:

- Reassemble and remount the caliper. (Refer to page 7-33.)

CAUTION:
Wash the caliper components with fresh brake fluid before reassembly.
Never use cleaning solvent or gasoline to wash them.
Apply brake fluid to the caliper bore and piston to be inserted into the bore.

WARNING:
Bleed air after reassembling the caliper (Refer to page 2-12.)

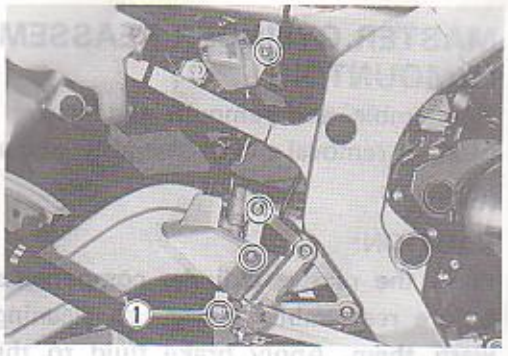


MASTER CYLINDER REMOVAL AND DISASSEMBLY

- Place a cloth underneath the union bolt on the master cylinder to catch spilled drops of brake fluid. Unscrew the union bolt and disconnect the brake hose/master cylinder joint.

CAUTION:
Completely wipe off any brake fluid adhering to any part of motorcycle. The fluid reacts chemically with paint, plastics, rubber materials, etc.

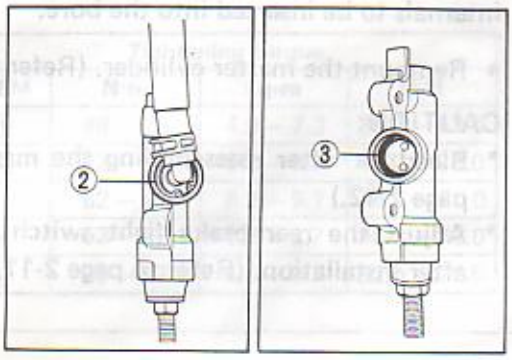
- Remove the reservoir tank mounting bolt.
- Remove the master cylinder mounting bolts.
- Remove the cotter pin and pin ①.



- Remove the connector by removing the circlip ② with the special tool.

09900-06108 : Snap ring pliers

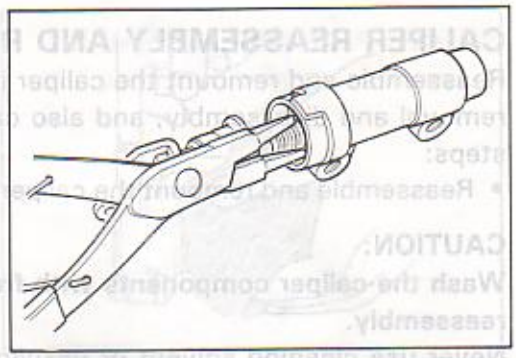
- Remove the O-ring ③.



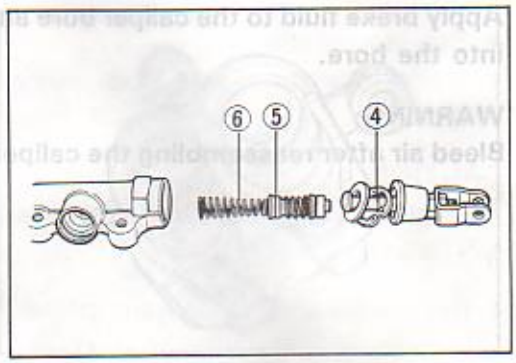
Produced with ScanToPDF
www.scantopdf.co.uk

- Remove the dust boot.
- Remove the circlip with the special tool.

09900-06108 : Snap ring pliers

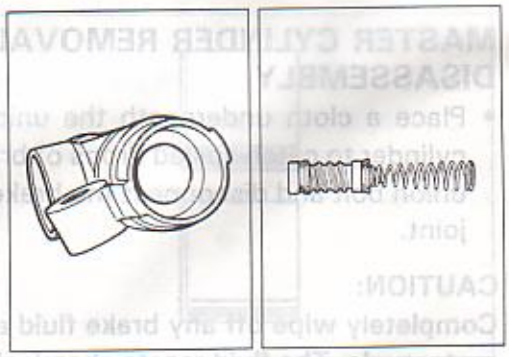


- Remove the rod ④, piston/primary cup ⑤ and spring ⑥.



MASTER CYLINDER INSPECTION

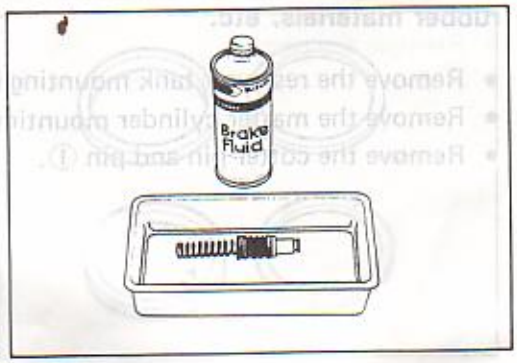
Inspect the cylinder bore wall for any scratches or other damage.
Inspect the piston surface for scratches or other damage.
Inspect the primary cup for damage.



MASTER CYLINDER REASSEMBLY AND REMOUNTING

Reassemble and remount the master cylinder in the reverse order of removal and disassembly, and also carry out the following steps:

CAUTION:
Wash the master cylinder components with fresh brake fluid before reassembly. Never use cleaning solvent or gasoline to wash them. Apply brake fluid to the cylinder bore and all internals to be inserted into the bore.

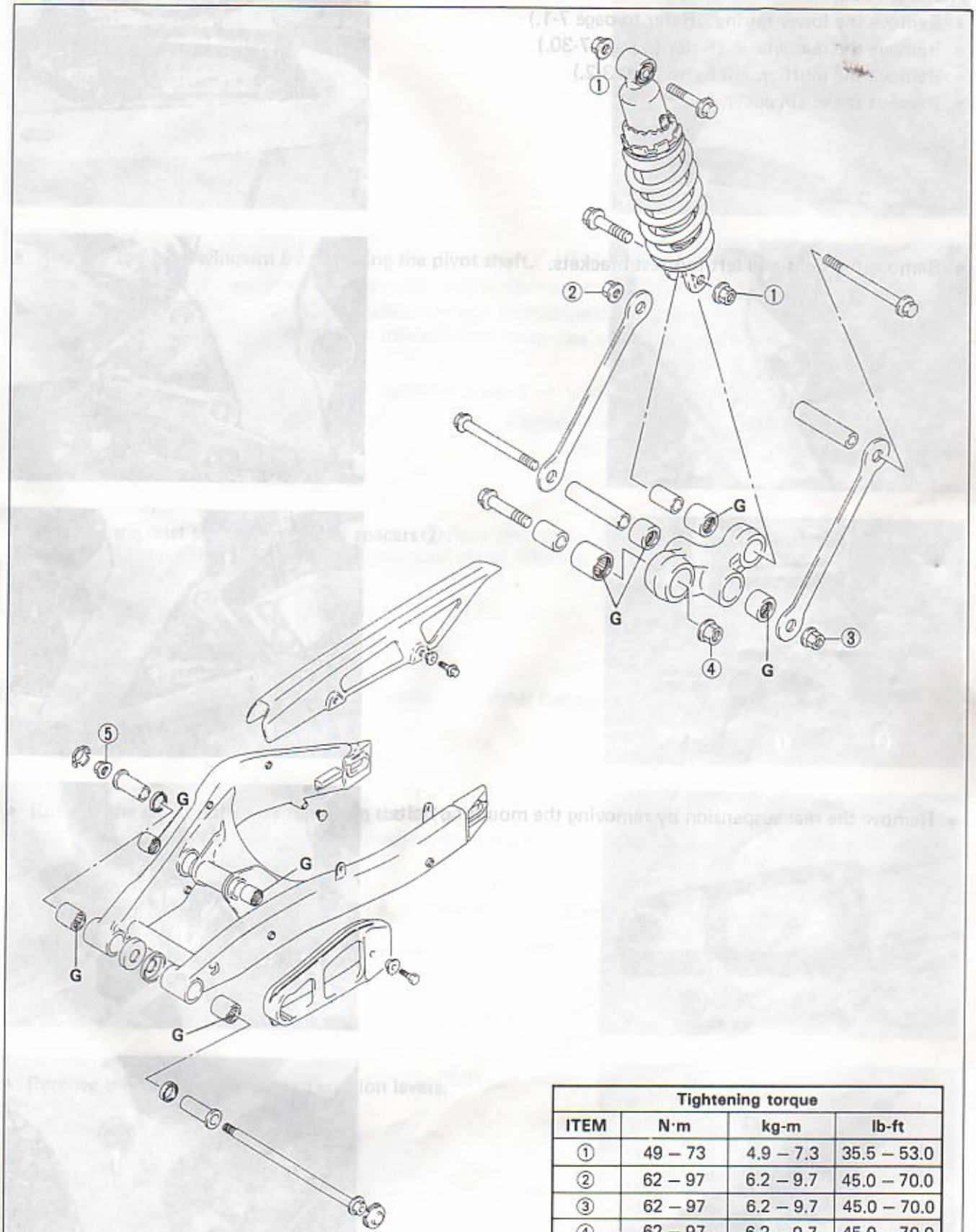


- Remount the master cylinder. (Refer to page 7-33.)

CAUTION:
* **Bleed air after reassembling the master cylinder. (Refer to page 2-12.)**
* **Adjust the rear brake light switch and brake pedal height after installation. (Refer to page 2-11.)**

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

REAR SUSPENSION AND SWINGARM



Tightening torque			
ITEM	N·m	kg-m	lb-ft
①	49 – 73	4.9 – 7.3	35.5 – 53.0
②	62 – 97	6.2 – 9.7	45.0 – 70.0
③	62 – 97	6.2 – 9.7	45.0 – 70.0
④	62 – 97	6.2 – 9.7	45.0 – 70.0
⑤	86 – 97	8.6 – 9.7	62.0 – 70.0

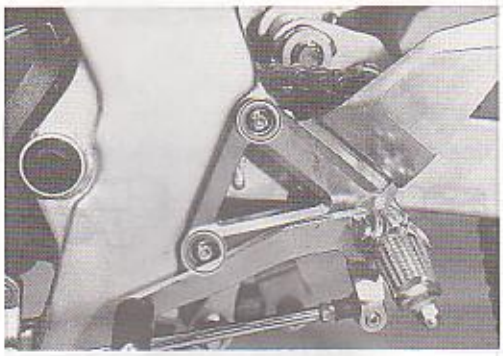
G: Apply SUZUKI SUPER GREASE "A" (99000-25010)

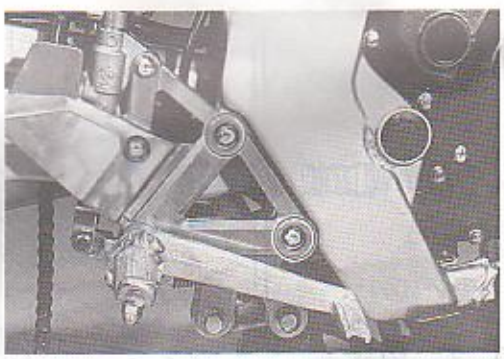
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

REMOVAL

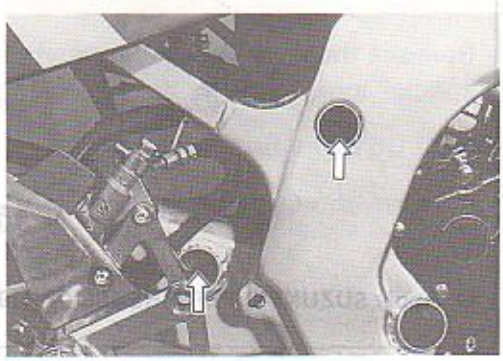
- Remove the lower fairing. (Refer to page 7-1.)
- Remove the rear wheel. (Refer to page 7-30.)
- Remove the muffler. (Refer to page 3-2.)
- Remove the chain cover.

- Remove the right and left footrest brackets.





- Remove the rear suspension by removing the mounting bolts.

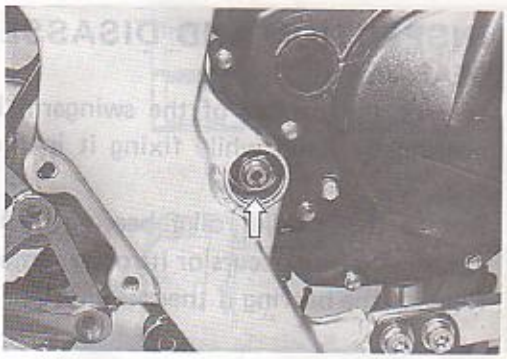


Produced with ScanToPDF
www.scantopdf.co.uk

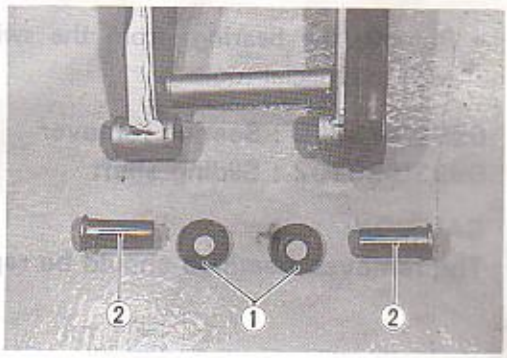
- Remove the rear brake hose guide with hose and brake caliper.

NOTE:
Hang the brake caliper with a string.

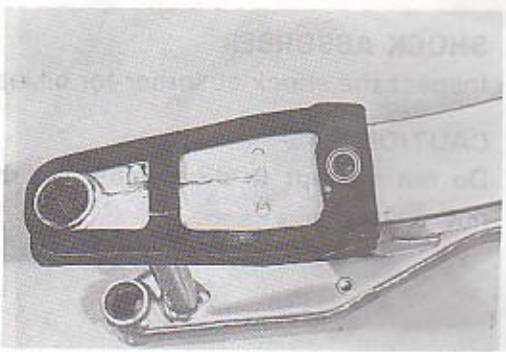
- Remove the rear swingarm by removing the pivot shaft.



- Remove the dust seal covers ① and spacers ②.



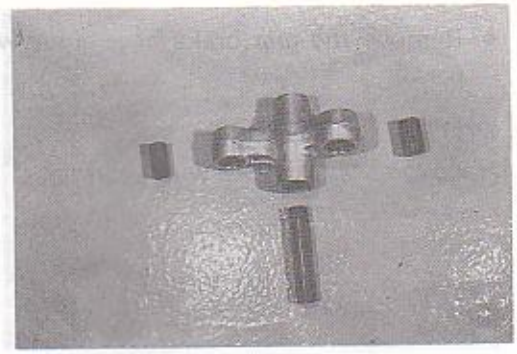
- Remove the chain buffer by removing the bolts.



- Remove the shock absorber and cushion levers.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

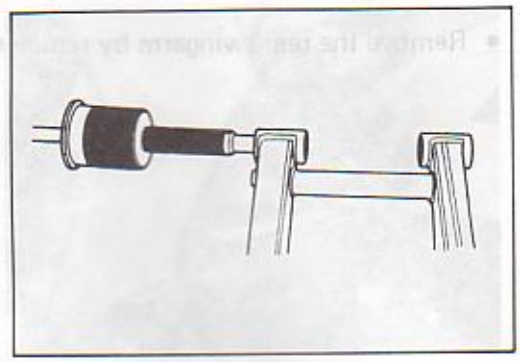
- Remove the spacers.



INSPECTION AND DISASSEMBLY

BEARING

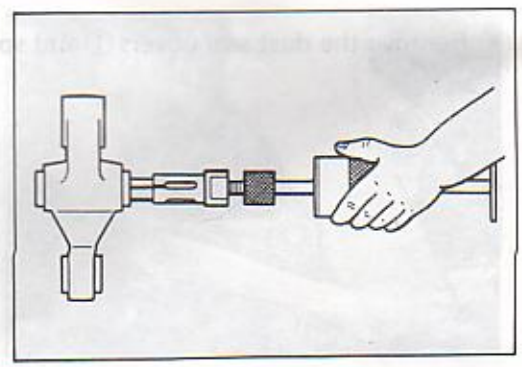
Inspect the rotates of the swingarm bearing and cushion rod bearing by hand while fixing it in the swingarm and cushion rod.
Rotate the needle roller bearing by hand to inspect whether abnormal noise occurs or it rotates smoothly.
Replace the bearing if there is anything unusual.



- Remove the bearings from the swingarm and cushion rod with the special tools.

09923-73210 : Bearing remover
09930-30102 : Sliding shaft

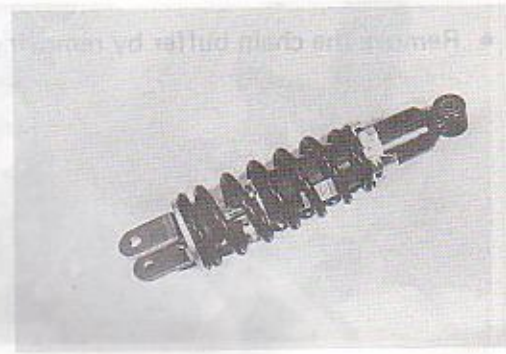
CAUTION:
The removed bearings should be replaced with new ones.



SHOCK ABSORBER

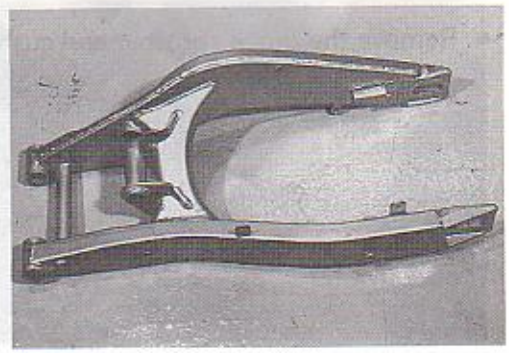
Inspect the shock absorber for oil leakage or other damage.

CAUTION:
Do not attempt to disassemble the shock absorber unit. It is not serviceable.



SWINGARM

Inspect the swingarm for wear or damage.



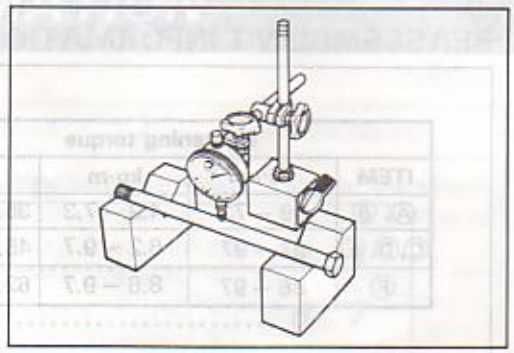
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

SWINGARM PIVOT SHAFT

Check the pivot shaft for runout with the special tools.

Service Limit : 0.3 mm (0.01 in)

09900-20606 : Dial gauge
09900-20701 : Magnetic stand
09900-21303 : V-block



REASSEMBLY AND REMOUNTING

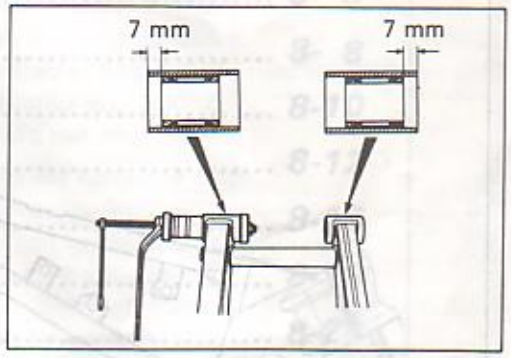
Reassemble and remount the rear swingarm and suspension in the reverse order of removal and disassembly, and also carry out the following steps:

SWINGARM BEARING

- Install the new bearing with the suitable socket and special tool.

09924-84510 : Bearing installer

NOTE:
* *When installing the bearing, punch-marked sid of bearing faces outside.*
* *The bearing fixed position is as shown in the illustration.*

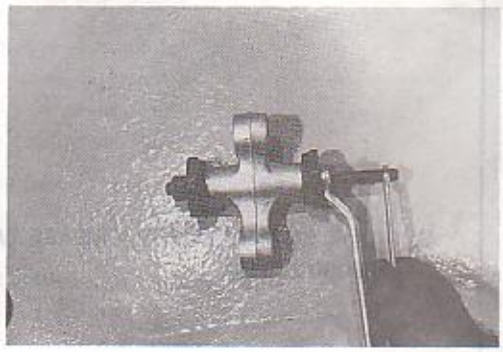


CUSHION ROD BEARING

- Install the new bearing with the special tool.

09924-84510 : Bearing installer

NOTE:
When installing the bearing, punch-mark side of bearing faces outside.



- Remount the rear swingarm and suspension. (Refer to pages 7-38 and 7-43.)

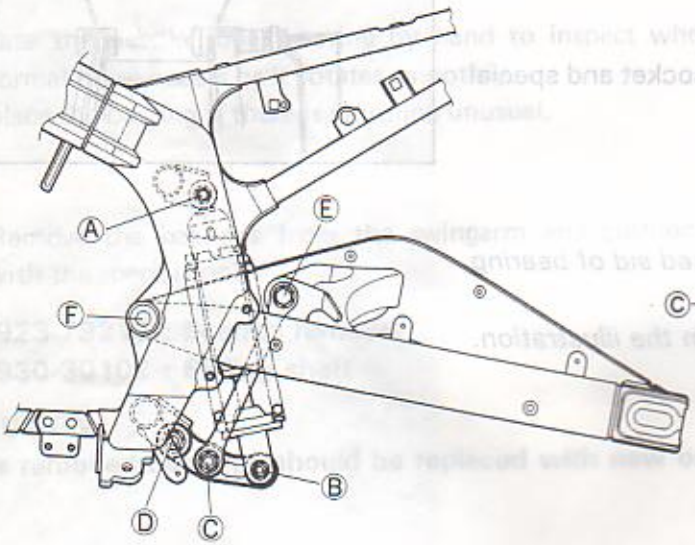
SHOCK ABSORBER SPRING SETTING

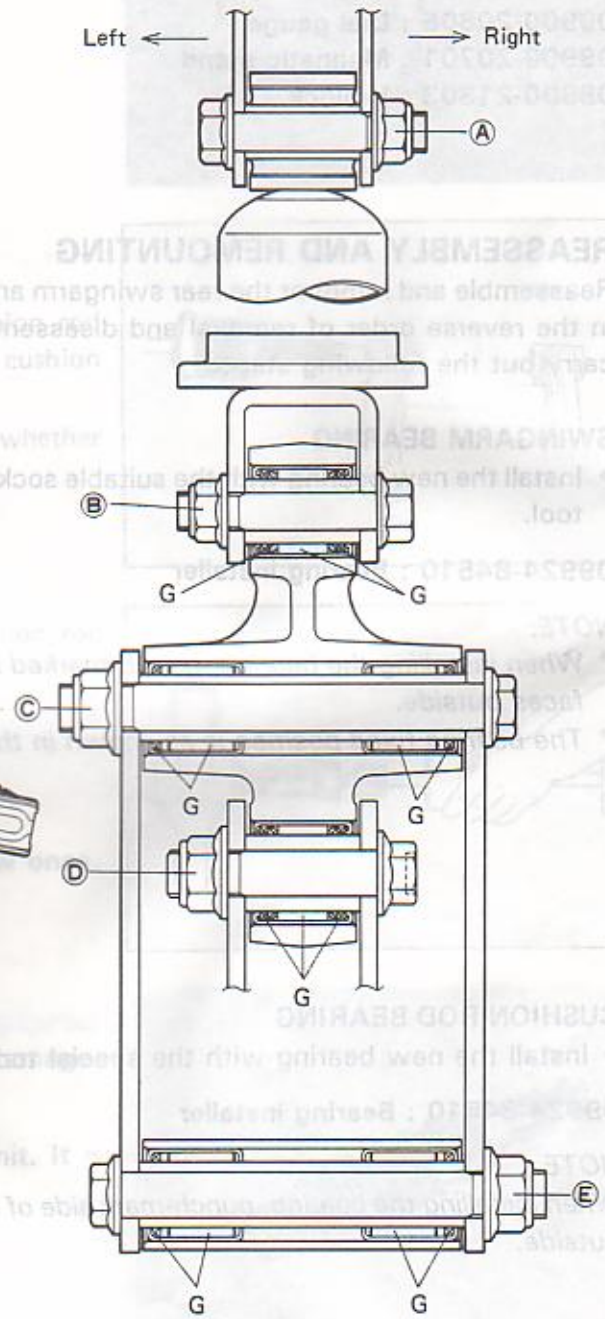
STD: 4th position

Produced with ScanToPDF
www.scantopdf.co.uk

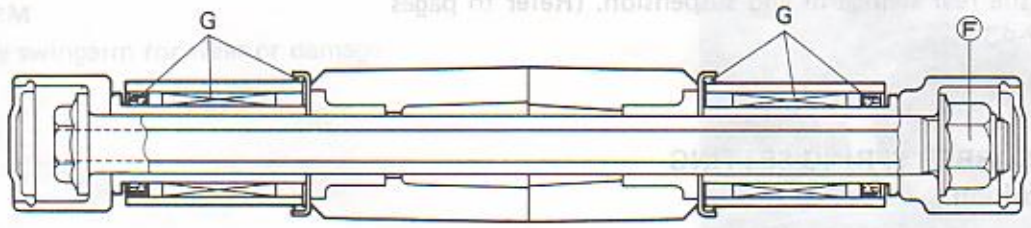
REASSEMBLING INFORMATION

Tightening torque			
ITEM	N·m	kg-m	lb-ft
Ⓐ, Ⓑ	49 – 73	4.9 – 7.3	35.5 – 53.0
Ⓒ, Ⓓ, Ⓔ	62 – 97	6.2 – 9.7	45.0 – 70.0
Ⓕ	86 – 97	8.6 – 9.7	62.0 – 70.0





G : Apply SUZUKI SUPER GREASE "A" (99000-25010)



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

SERVICING INFORMATION

CONTENTS

TROUBLESHOOTING 8- 1
WIRING DIAGRAM 8- 7
WIRE, CABLE AND HOSE ROUTING 8- 8
WIRE ROUTING 8- 8
CABLE ROUTING 8-10
HOSE ROUTING 8-12
SPECIAL TOOLS 8-17
TIGHTENING TORQUE 8-18
SERVICE DATA 8-20

8

Produced with ScanToPDF
www.scantopdf.co.uk

TROUBLESHOOTING

ENGINE

Complaint	Symptom and possible causes	Remedy
Engine will not start, or is hard to start.	**Plug not sparking**	
	1. Fouled spark plug.	Clean.
	2. Wet spark plug.	Clean and dry.
	3. Defective ignition coil.	Replace.
	4. Open or short in high-tension cord.	Replace.
	5. Defective pick-up coil, primary coil or CDI unit.	Replace.
	No fuel reaching the carburetor	
	1. Clogged hole in the fuel tank cap.	Clean.
	2. Clogged or defective fuel cock.	Clean or replace.
	3. Defective carburetor needle valve.	Replace.
	4. Clogged fuel pipe.	Clean.
	Compression too low	
	1. Excessively worn cylinder or piston rings.	Replace
	2. Stiff piston ring in place.	Repair or replace
	3. Gas leaks from the joint in crankcase, cylinder or cylinder head.	Repair or replace
	4. Damaged reed valve.	Replace
	5. Spark plug too loose.	Retighten.
	6. Worn crankshaft oil seal.	Replace.
Engine stalls easily.	1. Fouled spark plug.	Clean.
	2. Defective pick-up coil, primary coil or CDI unit.	Replace.
	3. Clogged fuel pipe.	Replace.
	4. Clogged jets in carburetor.	Clean.
Noisy engine.	**Noise appears to come from piston**	
	1. Piston or cylinder worn down.	Replace.
	2. Combustion chamber fouled with carbon.	Clean.
	3. Piston pin or piston pin bore worn.	Replace.
	4. Piston ring groove worn.	Replace.
	5. Piston pin bearing worn.	Replace.
	Noise seems to come from clutch	
	1. Worn splines of countershaft or hub.	Replace.
	2. Worn teeth of clutch plates.	Replace.
	3. Distorted clutch plates, driven and drive.	Replace.
	Noise seems to come from crankshaft	
	1. Rattling bearings due to wear.	Replace.
	2. Big-end bearings worn and burnt.	Replace.
	3. Journal bearing worn and burnt.	Replace.
	Noise seems to come from transmission	
	1. Gears worn or rubbing.	Replace.
	2. Badly worn splines.	Replace.
	3. Primary gears worn or rubbing.	Replace.
Slipping clutch	1. Clutch control out of adjustment or loss of play.	Adjust.
	2. Weakened clutch springs.	Replace.
	3. Worn or distorted pressure plate.	Replace.
	4. Distorted clutch plates, driven and drive.	Replace.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

Complaint	Symptom and possible causes	Remedy
Dragging clutch	1. Clutch control out of adjustment or too much play. 2. Some clutch springs weakened while others are not. 3. Distorted pressure plate or clutch plates.	Adjust. Replace. Replaces.
Transmission will not shift.	1. Broken gearshift cam. 2. Distorted gearshift forks. 3. Worn gearshift shaft.	Replace. Replace. Replace.
Transmission will not shift back.	1. Broken return spring on gearshift shaft. 2. Fork shafts are rubbing or sticky.	Replace. Repair or replace.
Transmission jumps out of gear.	1. Worn shifting gears on driveshaft or countershaft. 2. Distorted or worn gearshift forks. 3. Weakened stopper spring on gearshift stopper.	Replace. Replace. Replace.
Engine idles poorly.	1. Spark plug gaps too wide. 2. Defective ignition coil. 3. Defective pick-up coil, primary coil or CDI unit. 4. Float-chamber fuel level out of adjustment in carburetor. 5. Clogged jets.	Adjust. Replace. Replace. Adjust. Clean or adjust.
Engine runs poorly in highspeed range.	1. Spark plug gaps too narrow. 2. Clogged jets. 3. Defective ignition coil. 4. Defective pick-up coil, primary coil or CDI unit. 5. Float-chamber fuel level too low. 6. Clogged air cleaner element. 7. Clogged fuel pipe, resulting in inadequate fuel supply to carburetor. 8. Exhaust valve control out of adjustment. 9. Defective exhaust valve control unit (CDI unit), actuator or exhaust valve.	Adjust. Clean. Replace. Replace. Adjust. Clean. Clean and prime. Adjust. Replace.
Dirty or heavy exhaust smoke.	1. Oil pump out of adjustment. 2. Damage or worn crankshaft oil seal.	Adjust. Replace.
Engine lacks power.	1. Worn piston rings or cylinder. 2. Spark plug gaps incorrect. 3. Clogged jets in carburetor. 4. Float-chamber fuel level out of adjustment. 5. Clogged air cleaner element. 6. Sucking air from intake pipe. 7. Supplying too much engine oil.	Replace. Adjust or replace. Clean. Adjust. Clean. Retighten or replace. Adjust oil pump.
Engine overheats.	1. Heavy carbon deposit on piston crown. 2. Not enough oil supply. 3. Defective oil pump or clogged oil circuit. 4. Fuel level too low in float chamber. 5. Sucking air from intake pipe. 6. Using incorrect engine oil. 7. Defective cooling system.	Clean. Adjust oil pump. Replace or clean. Adjust. Retighten or replace. Change. See cooling section.

Produced with ScanToPDF
www.scantopdf.co.uk

CARBURETOR

Complaint	Symptom and possible causes	Remedy
Trouble with starting.	1. Starter jet is clogged. 2. Starter pipe is cloged. 3. Starter plunger is not operating properly.	Clean. Clean. Repair.
Idling or low-speed trouble.	1. Pilot jet is clogged or loose. 2. Pilot outlet is clogged. 3. Starter plunger is not fully closed.	Check and clean. Check and clean. Check and adjust.
Medium- or highspeed trouble.	1. Main jet is clogged. 2. Needle jet is clogged. 3. Throttle valve is not operating properly. 4. Filter is clogged.	Check and clean. Check and clean. Check throttle valve for operation. Check and clean.
Overflow and fuel level fluctuations.	1. Needle valve is worn or damaged. 2. Float is not working properly. 3. Foreign matter has adhered to needle valve. 4. Fuel level is too high or low. 5. Clogged carburetor air vent pipe.	Replace. Check and adjust. Clean. Adjust float height. Clean.

RADIATOR

Complaint	Symptom and possible causes	Remedy
Engine overheats.	1. Not enough cooling water. 2. Radiator core is clogged with dirt or trashes. 3. Erratic thermostat, stuck in closed position. 4. Clogged water passage. 5. Defective water pump. 6. Use incorrect cooling water.	Add. Clean. Replace. Clean. Replace. Change.
Engine overcools.	1. Erratic thermostat, stuck in full-open position. 2. Extremely cold weather.	Replace. Put on the radiator cover.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

ELECTRICAL

Complaint	Symptom and possible causes	Remedy
No sparking or poor sparking.	1. Defective ignition coil. 2. Defective spark plug. 3. Defective pick-up coil, primary coil or CDI unit.	Replace. Replace. Replace.
Spark plug soon become fouled with carbon.	1. Mixture too rich. 2. Idling speed set too high. 3. Incorrect gasoline. 4. Dirty element in air cleaner. 5. Spark plug too cold.	Adjust carburetor. Adjust carburetor. Change. Clean. Replace by hot type plug.
Spark plug become fouled too soon.	1. Worn piston rings. 2. Piston or cylinder worn.	Replace. Replace.
Spark plug electrodes overheat or burn.	1. Spark plug too hot. 2. The engine overheats. 3. Spark plug loose. 4. Mixture too lean.	Replace by cold type plug. Tune up. Retighten. Adjust carburetor.
Generator does not charge.	1. Open or short in lead wires, or loose lead connections. 2. Shorted, grounded or open generator coils. 3. Shorted or punctured regulator/rectifier.	Repair, replace or retighten. Replace. Replace.
Generator charges, but charging rate is below the specification.	1. Lead wires tend to get shorted or open-circuited or loosely connected at terminals. 2. Grounded or open-circuited stator coils of generator. 3. Defective regulator/rectifier. 4. Defective battery.	Repair or retighten. Replace. Replace. Replace.
Generator overcharges.	1. Internal short-circuit in the battery. 2. Resistor element in the regulator/rectifier damaged or defective. 3. Regulator/rectifier poorly grounded.	Replace the battery. Replace. Clean and tighten ground connection.
Unstable charging.	1. Lead wire insulation frayed due to vibration, resulting in intermittent shorting. 2. Generator internally shorted. 3. Defective regulator/rectifier.	Repair or replace. Replace. Replace.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

BATTERY

Complaint	Symptom and possible causes	Remedy
Battery runs down quickly.	1. The charging method is not correct.	Check the generator, regulator/rectifier and circuit connections, and make necessary adjustments to obtain specified charging operation.
	2. Cell plates have lost much of their active material as a result of over-charging.	Replace the battery, and correct the charging system.
	3. A short-circuit condition exists within the battery due to excessive accumulation of sediments caused by the incorrect electrolyte.	Replace the battery.
	4. Battery is too old.	Replace the battery.
Reversed battery polarity.	The battery has been connected the wrong way round in the system, so that it is being charged in the reverse direction.	Replace the battery and be sure to connect the battery properly.
Battery discharges too rapidly.	1. Dirty container top and sides.	Clean.
	2. Battery is too old.	Replace.

BRAKES

Complaint	Symptom and possible causes	Remedy
Insufficient brake power.	1. Leakage of brake fluid from hydraulic system.	Repair or replace.
	2. Worn pads.	Replace.
	3. Oil adhesion on engaging surface of pads.	Clean disc and pads.
	4. Worn disc.	Replace.
	5. Air in hydraulic system.	Bleed air.
Brake squeaking.	1. Carbon adhesion on pad surface.	Repair surface with sandpaper.
	2. Tilted pad.	Modify pad fitting.
	3. Damaged wheel bearing.	Replace.
	4. Loosen front-wheel axle or rear-wheel axle.	Tighten to specified torque.
	5. Worn pads.	Replace.
	6. Foreign material in brake fluid.	Change brake fluid.
	7. Clogged return port of master cylinder.	Disassemble and clean master cylinder.
Excessive brake lever stroke.	1. Air in hydraulic system.	Bleed air.
	2. Insufficient brake fluid.	Replenish fluid to specified level; bleed air.
	3. Improper quality of brake fluid.	Replace with correct fluid.
Leakage of brake fluid.	1. Insufficient tightening of connection joints.	Tighten to specified torque.
	2. Cracked hose.	Replace.
	3. Worn piston and/or cup.	Replace piston and/or cup.

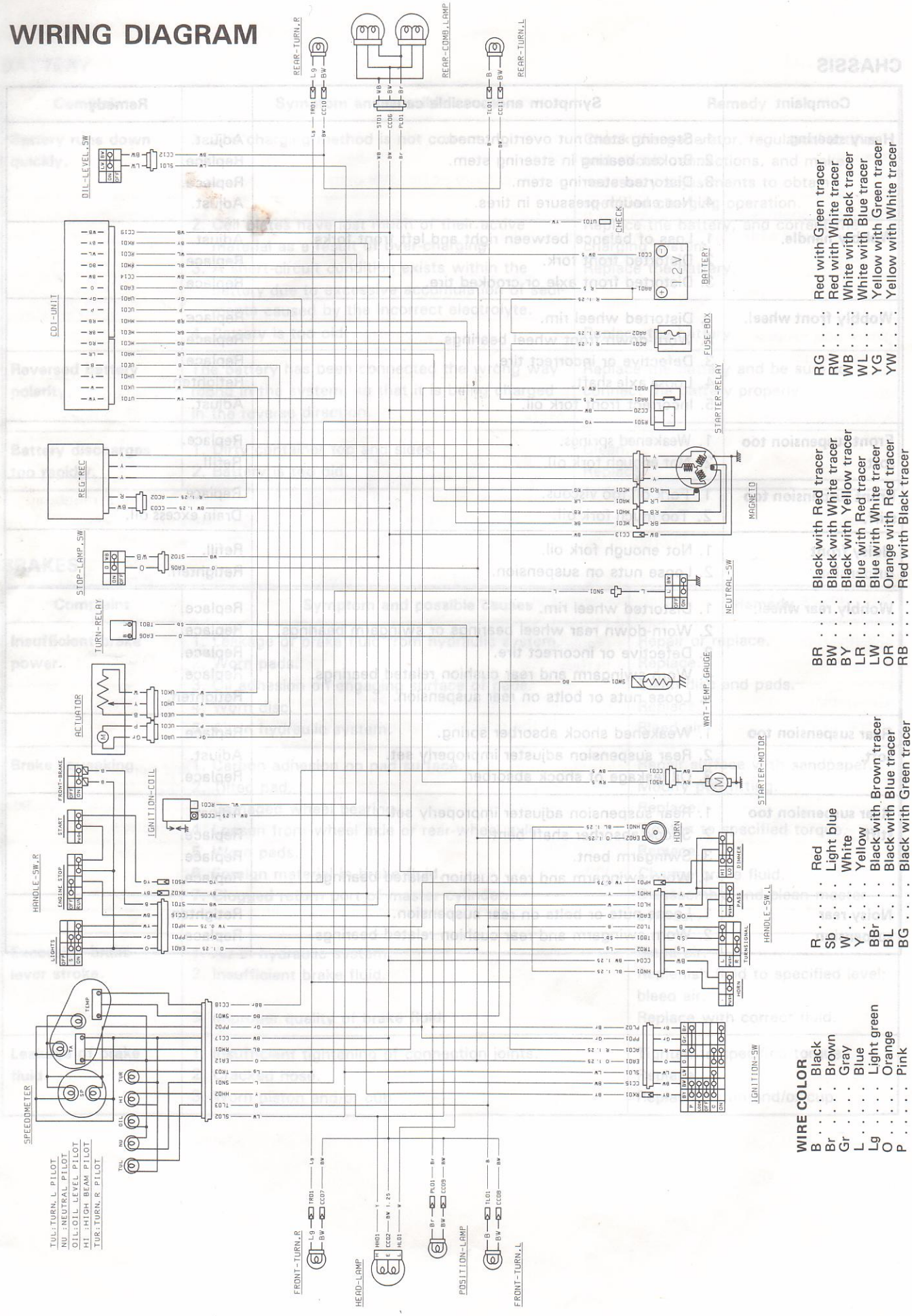
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

CHASSIS

Complaint	Symptom and possible causes	Remedy
Heavy steering.	1. Steering stem nut overtightened. 2. Broken bearing in steering stem. 3. Distorted steering stem. 4. Not enough pressure in tires.	Adjust. Replace. Replace. Adjust.
Wobbly handle.	1. Loss of balance between right and left front forks. 2. Distorted front fork. 3. Distorted front axle or crooked tire.	Adjust. Replace. Replace.
Wobbly front wheel.	1. Distorted wheel rim. 2. Worn-down front wheel bearings. 3. Defective or incorrect tire. 4. Loose axle shaft. 5. Incorrect front fork oil.	Replace. Replace. Replace. Retighten. Adjust.
Front suspension too soft.	1. Weakened springs. 2. Not enough fork oil.	Replace. Refill.
Front suspension too stiff.	1. Fork oil too viscous. 2. Too much fork oil.	Replace. Drain excess oil.
Noisy front suspension.	1. Not enough fork oil. 2. Loose nuts on suspension.	Refill. Retighten.
Wobbly rear wheel.	1. Distorted wheel rim. 2. Worn-down rear wheel bearings or swingarm bearings. 3. Defective or incorrect tire. 4. Worn swingarm and rear cushion related bearings. 5. Loose nuts or bolts on rear suspension.	Replace. Replace. Replace. Replace. Retighten.
Rear suspension too soft.	1. Weakened shock absorber spring. 2. Rear suspension adjuster improperly set. 3. Oil leakage of shock absorber.	Replace. Adjust. Replace.
Rear suspension too stiff.	1. Rear suspension adjuster improperly set. 2. Shock absorber shaft bent. 3. Swingarm bent. 4. Worn swingarm and rear cushion related bearings.	Adjust. Replace. Replace. Replace.
Noisy rear suspension.	1. Loose nuts or bolts on rear suspension. 2. Worn swingarm and rear cushion related bearings.	Retighten. Replace.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

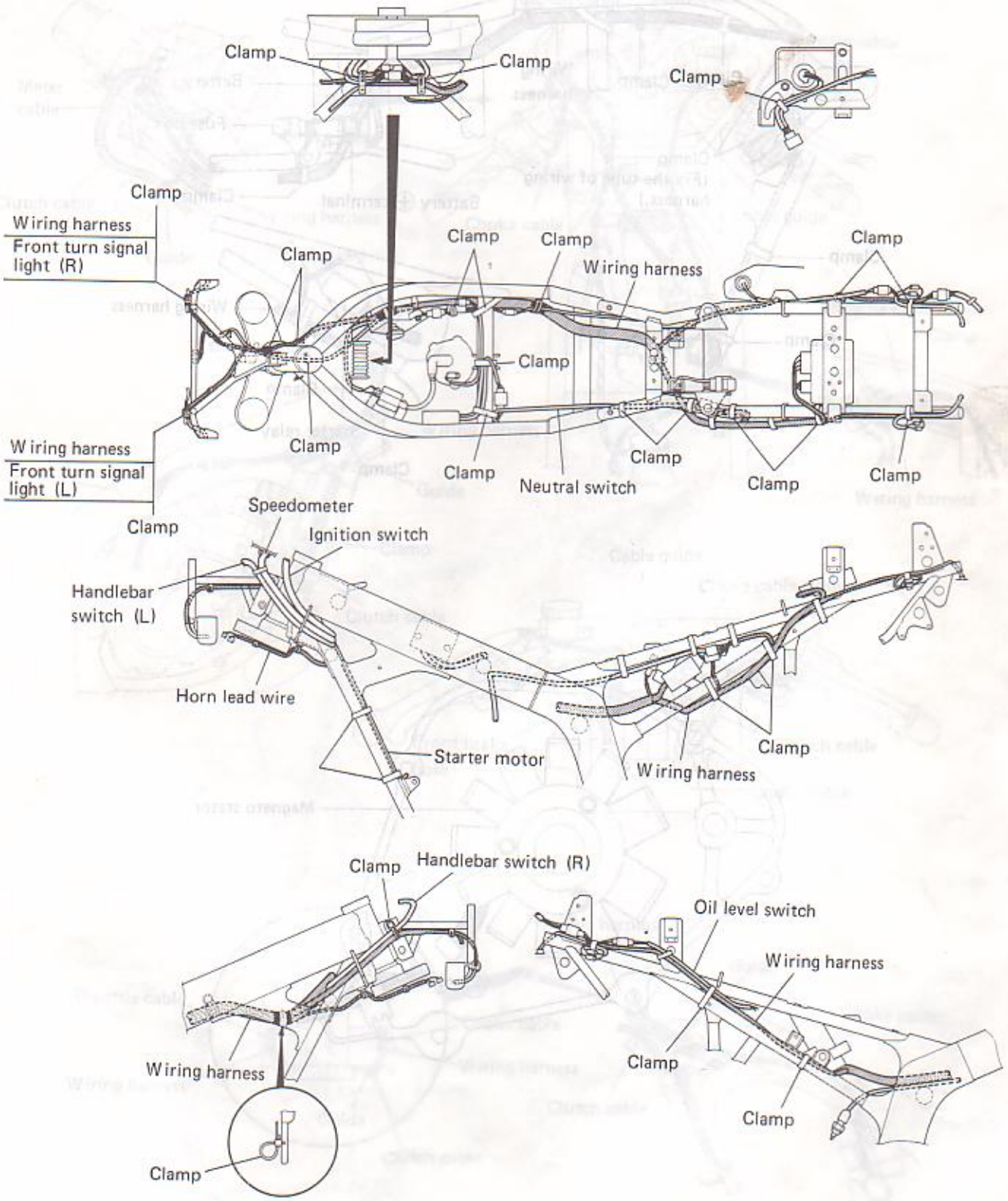
WIRING DIAGRAM



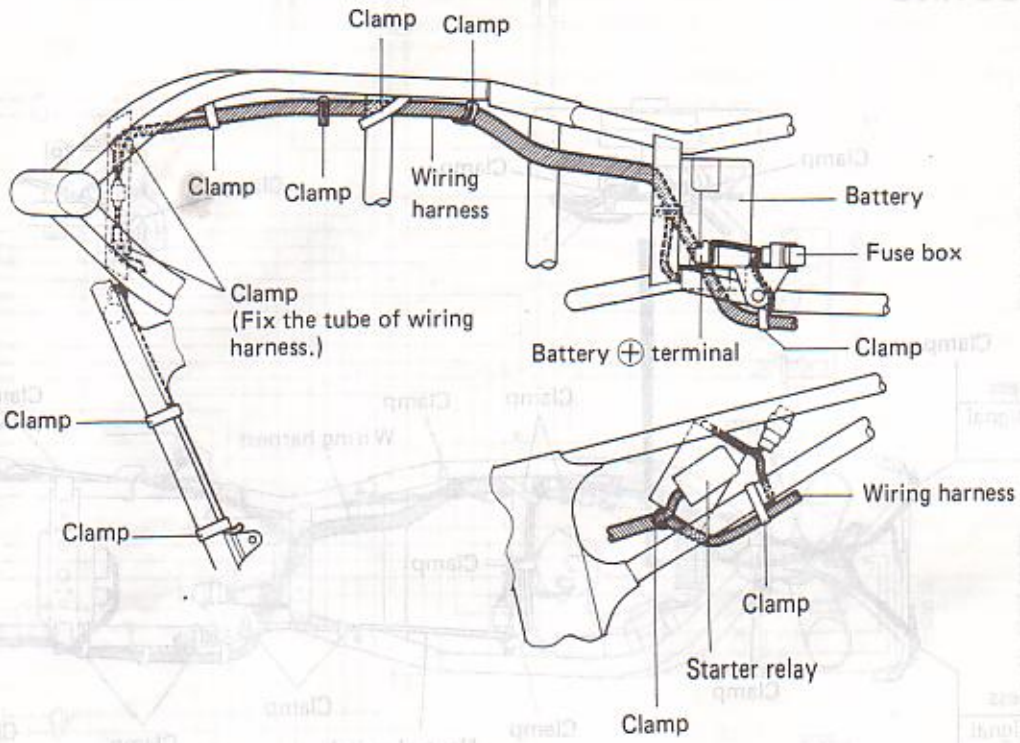
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

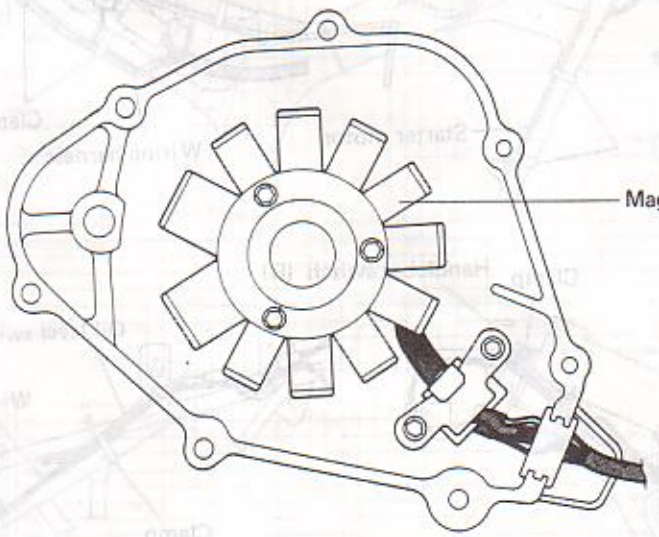
WIRE, CABLE AND HOSE ROUTING

WIRE ROUTING



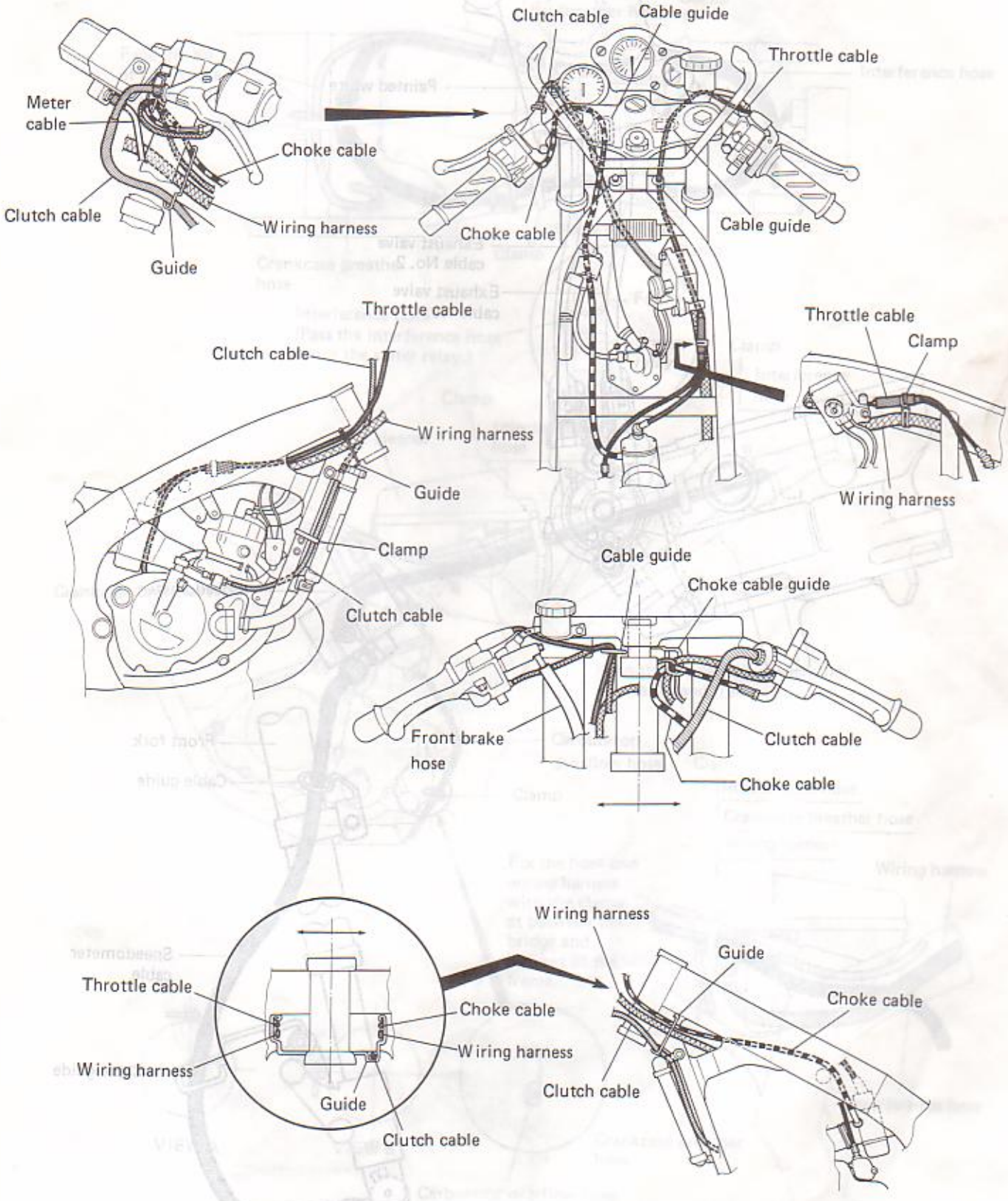
Produced with ScanToPDF
www.scantopdf.co.uk



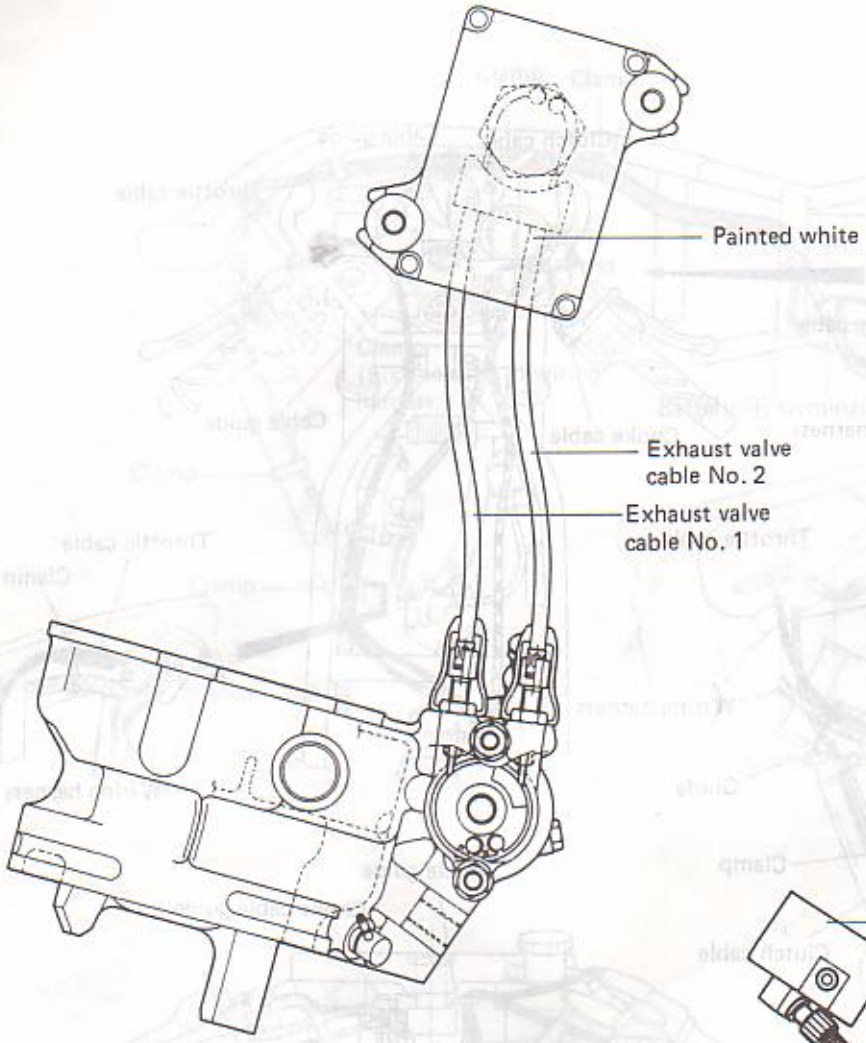


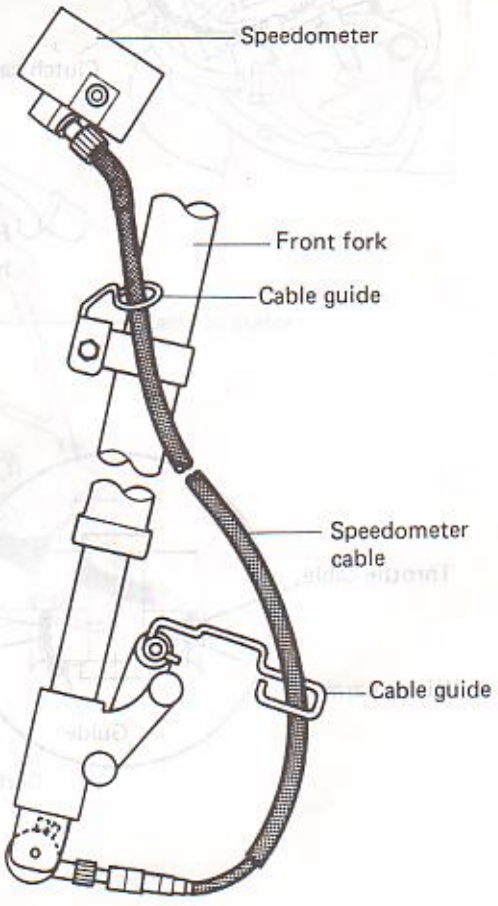
Produced with ScanToPDF
www.scantopdf.co.uk

CABLE ROUTING



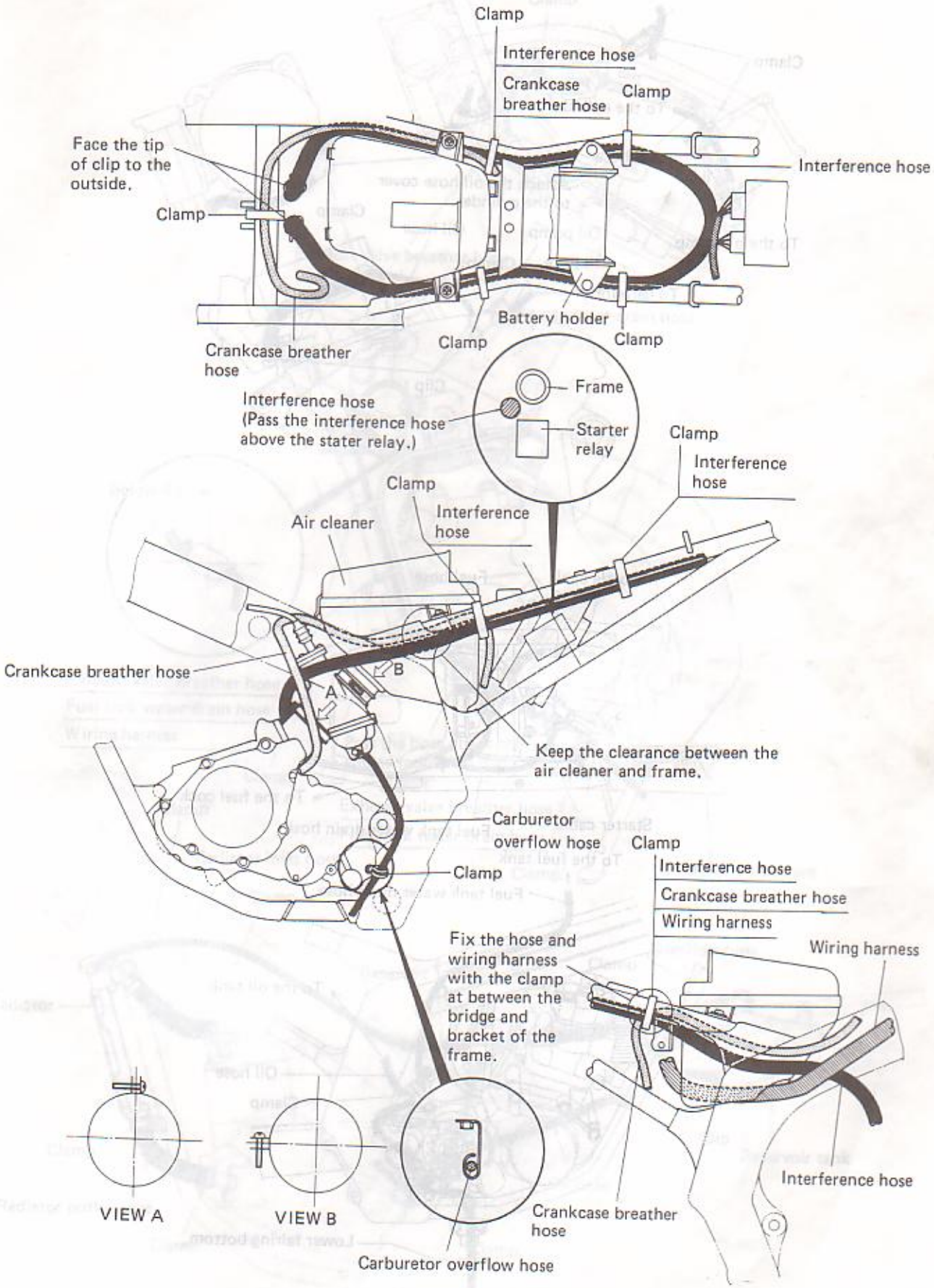
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk



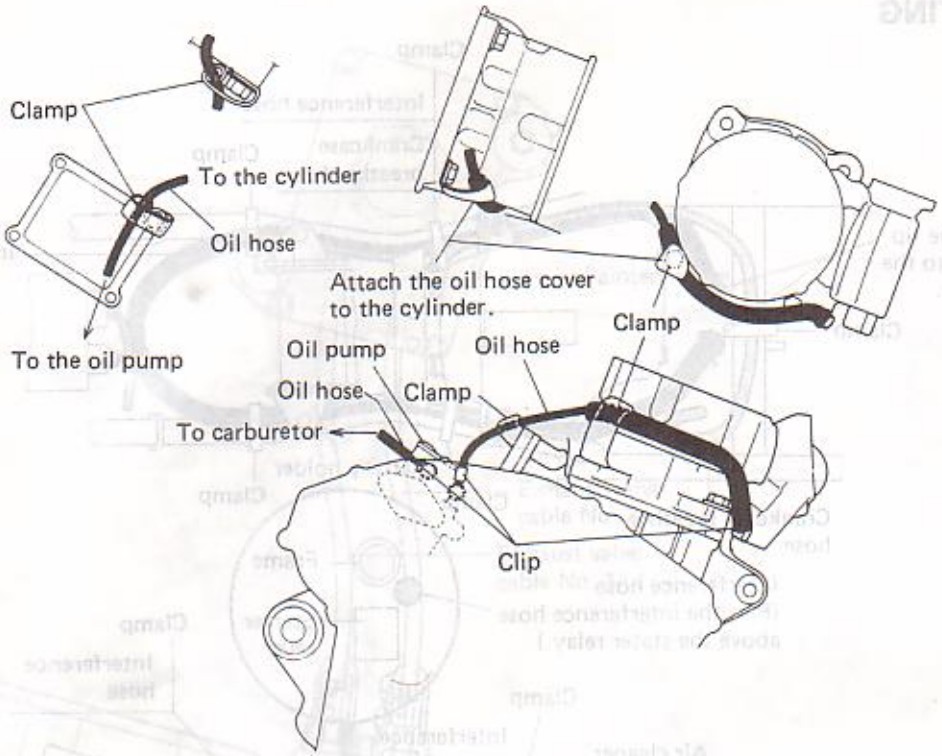


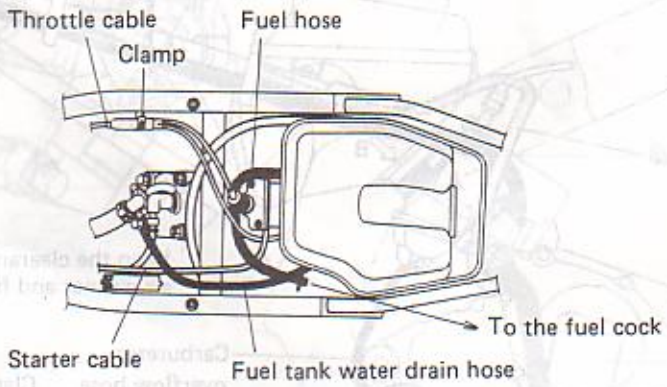
Produced with ScanToPDF
www.scantopdf.co.uk

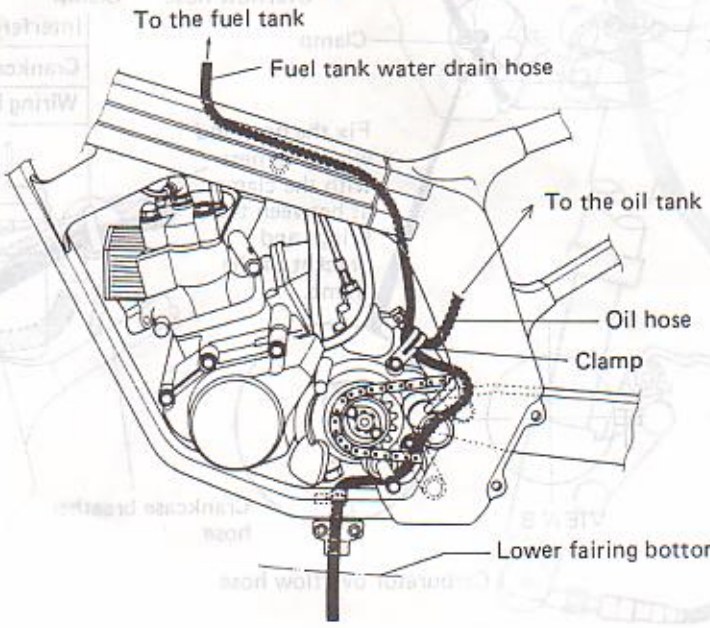
HOSE ROUTING



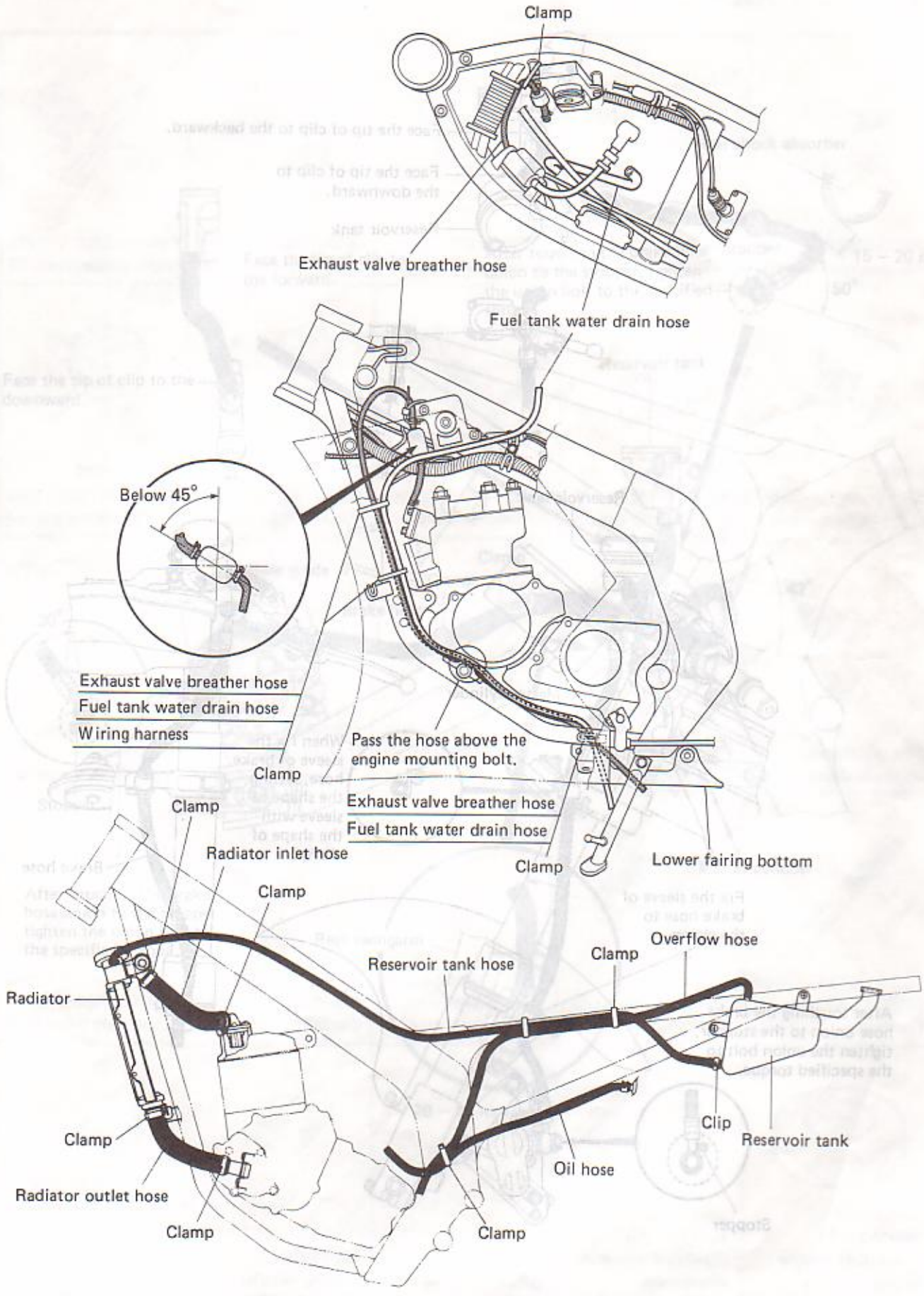
Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk



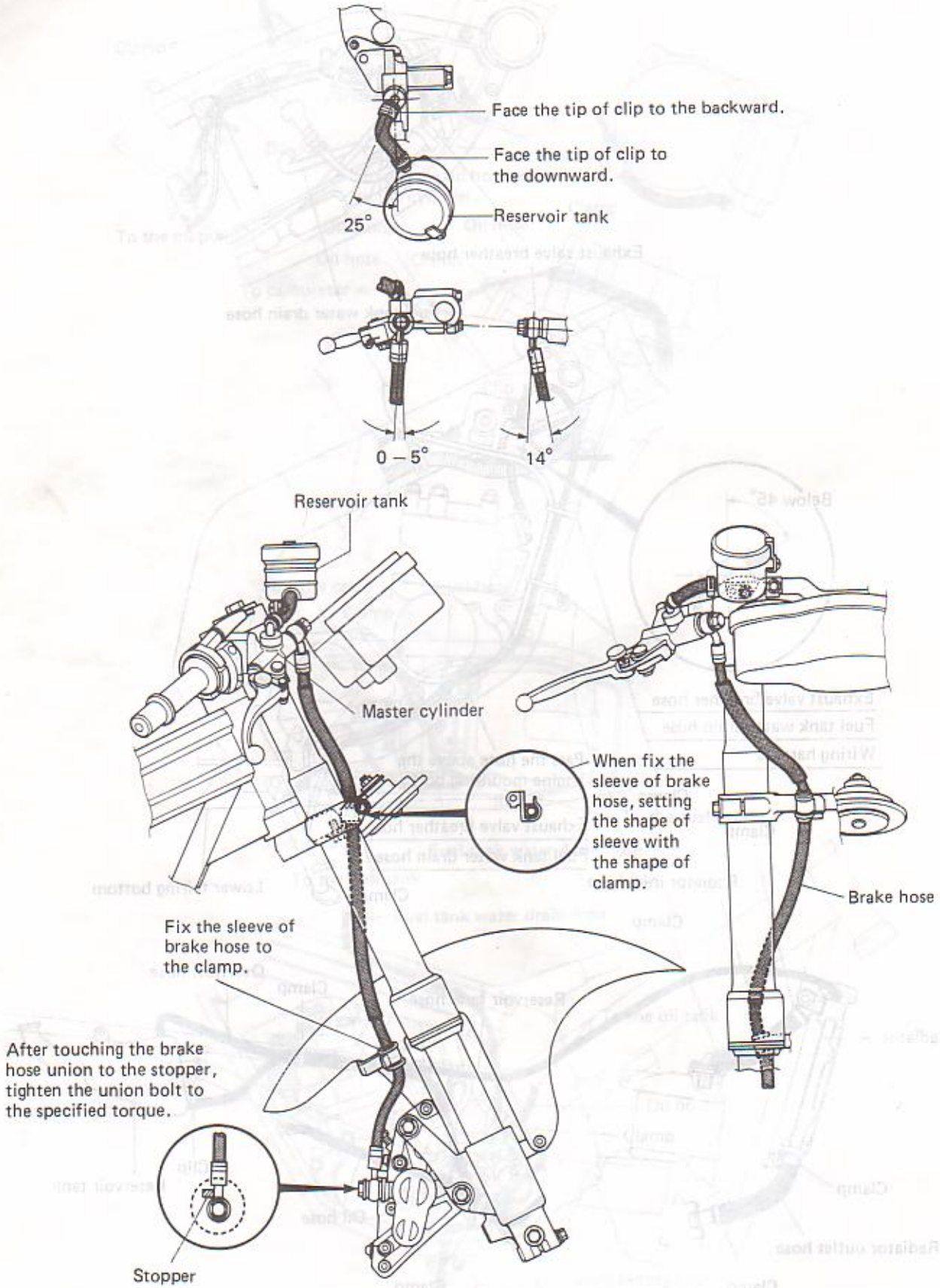




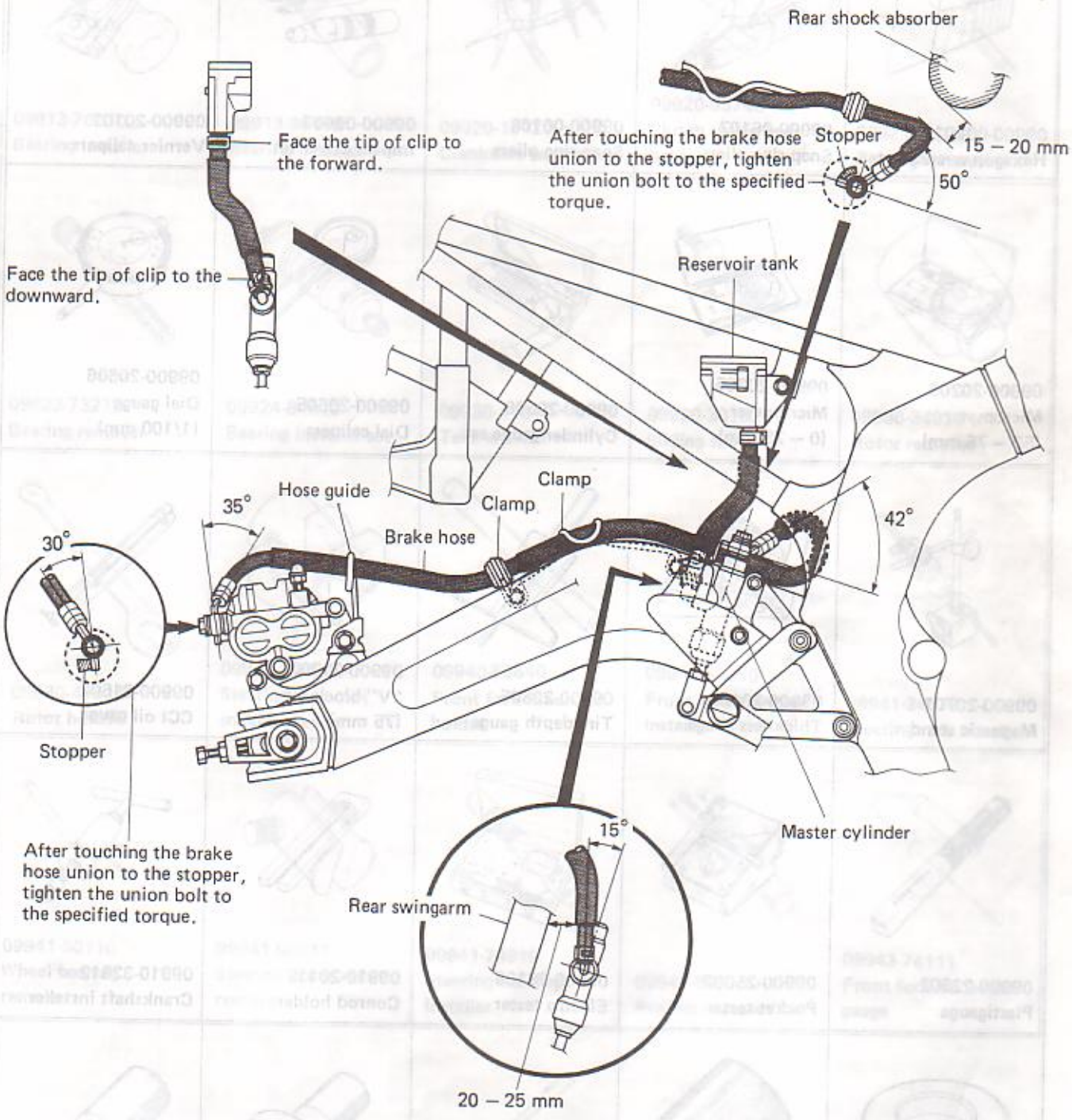
Produced with ScanToPDF
www.scantopdf.co.uk



Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

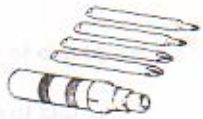
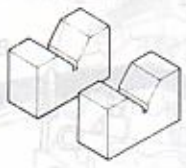


Produced with ScanToPDF
www.scantopdf.co.uk

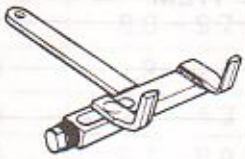
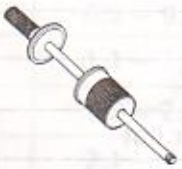
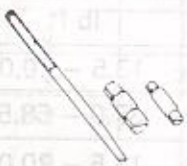


Produced with ScanToPDF
www.scantopdf.co.uk

SPECIAL TOOLS

09900-00401 Hexagon wrench set	09900-06107 Snap ring pliers	09900-06108 Snap ring pliers	 09900-09003 Impact driver set	09900-20101 Vernier calipers
09900-20203 Micrometer (50 – 75 mm)	09900-20205 Micrometer (0 – 25 mm)	09900-20508 Cylinder gauge set	09900-20605 Dial calipers	09900-20606 Dial gauge (1/100 mm)
09900-20701 Magnetic stand	09900-20803 Thickness gauge	09900-20805 Tire depth gauge	 09900-21303 "V" block set (75 mm)	09900-21602 CCI oil gauge
09900-22302 Plastigauge	09900-25002 Pocket tester	09900-28106 Electro tester	09910-20115 Conrod holder	09910-32812 Crankshaft installer
09910-32820 Crankshaft installer spacer	09911-11310 Crankshaft installer attachment	09913-50121 Oil seal remover	09913-75520 Bearing installer	09913-75810 Bearing installer

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

09913-76010 Bearing installer	09913-80112 Bearing installer	09920-13120 Crankcase separater	 09920-53740 Clutch sleeve hub holder	09921-20200 Bearing remover
09923-73210 Bearing remover	09924-84510 Bearing installer set	09930-11910 Torx wrench	 09930-30102 Sliding shaft	09930-34932 Rotor remover
09930-44511 Rotor holder	09940-14911 Steering stem nut socket wrench	09940-52840 Front fork inner rod holder	09940-52850 Front fork oil seal installer	09941-34513 Steering race installer
 09941-50110 Wheel bearing remover	09941-54911 Steering outer race remover	09941-74910 Steering bearing installer	09941-84510 Bearing remover	09943-74111 Front fork oil level gauge

Produced with ScanToPDF
www.scantopdf.co.uk

TIGHTENING TORQUE

ENGINE

ITEM	N·m	kg-m	lb-ft
Cylinder head nut	29 – 33	2.9 – 3.3	21.0 – 24.0
Cylinder nut	23 – 27	2.3 – 2.7	16.5 – 19.5
Exhaust pipe nut	10 – 16	1.0 – 1.6	7.0 – 11.5
Crankcase bolt	9 – 13	0.9 – 1.3	6.5 – 9.5
Crankcase screw	6 – 10	0.6 – 1.0	4.5 – 7.0
Transmission oil drain plug	20 – 25	2.0 – 2.5	14.5 – 18.0
Magneto rotor nut	75 – 85	7.5 – 8.5	54.0 – 61.5
Starter clutch bolt	15 – 20	1.5 – 2.0	11.0 – 14.5
Clutch sleeve hub nut	40 – 60	4.0 – 6.0	29.0 – 43.5
Water pump drive gear nut	60 – 80	6.0 – 8.0	43.5 – 58.0
Crank balancer nut	45 – 55	4.5 – 5.5	32.5 – 40.0
Engine sprocket bolt	10 – 12	1.0 – 1.2	7.0 – 8.5
Transmission oil check bolt	4 – 7	0.4 – 0.7	3.0 – 5.0
Water drain plug	11 – 14	1.1 – 1.4	8.0 – 10.0
Impeller bolt	7 – 9	0.7 – 0.9	5.0 – 6.5
Water thermo-gauge	6 – 10	0.6 – 1.0	4.5 – 7.0
Water hose clamp screw	2 – 2.5	0.2 – 0.25	1.5 – 1.8
Actuator pulley bolt	4 – 6	0.4 – 0.6	3.0 – 4.5
Exhaust valve arm bolt	8 – 12	0.8 – 1.2	6.0 – 8.5

CHASSIS

ITEM	N·m	kg-m	lb-ft
Handlebar clamp bolt	19 – 28	1.9 – 2.8	13.5 – 20.0
Front axle shaft	51 – 81	5.1 – 8.1	37.0 – 58.5
Front fork upper clamp bolt	19 – 28	1.9 – 2.8	13.5 – 20.0
Steering stem head nut	82 – 102	8.2 – 10.2	59.5 – 74.0
Front fork lower clamp bolt	23 – 35	2.3 – 3.5	16.5 – 25.5
Front fork cap	30 – 40	3.0 – 4.0	21.5 – 29.0
Front fork damper rod bolt	18 – 28	1.8 – 2.8	13.0 – 20.0
Front axle clamp bolt	19 – 28	1.9 – 2.8	13.5 – 20.0
Front fork inner rod lock nut	18 – 22	1.8 – 2.2	13.0 – 16.0
Front brake master cylinder mounting bolt	6 – 9	0.6 – 0.9	4.5 – 6.5
Front brake caliper mounting bolt	31 – 48	3.1 – 4.8	22.5 – 34.5
Front brake caliper housing bolt	18 – 23	1.8 – 2.3	13.0 – 16.5

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

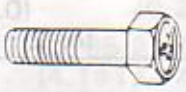
ITEM	N·m	kg-m	lb-ft
Brake hose union bolt (Front & Rear)	16 – 20	1.6 – 2.0	11.5 – 14.5
Air bleeder valve (Front & Rear)	6 – 9	0.6 – 0.9	4.5 – 6.5
Swingarm pivot nut	86 – 97	8.6 – 9.7	62.0 – 70.0
Front footrest bracket bolt	19 – 28	1.9 – 2.8	13.5 – 20.0
Front footrest bolt	28 – 43	2.8 – 4.3	20.0 – 31.0
Rear axle nut	57 – 89	5.7 – 8.9	41.0 – 64.5
Rear shock absorber nut (Upper & Lower)	49 – 73	4.9 – 7.3	35.5 – 53.0
Rear cushion lever nut (Front)	62 – 97	6.2 – 9.7	45.0 – 70.0
Rear cushion lever nut (Center)	62 – 97	6.2 – 9.7	45.0 – 70.0
Rear cushion rod nut	62 – 97	6.2 – 9.7	45.0 – 70.0
Rear brake master cylinder bolt	11 – 16	1.1 – 1.6	8.0 – 11.5
Rear brake rod lock nut	16 – 20	1.6 – 2.0	11.5 – 14.5
Rear brake caliper mounting bolt	21 – 31	2.1 – 3.1	15.0 – 22.5

TIGHTENING TORQUE CHART

For other bolts and nuts not listed in the preceding page, refer to this chart.

Bolt Diameter Ⓐ (mm)	Conventional or "4" marked bolt			"7" marked bolt		
	N·m	kg-m	lb-ft	N·m	kg-m	lb-ft
4	1–2	0.1–0.2	0.7–1.5	1.5–3	0.15–0.3	1.0–2.0
5	2–4	0.2–0.4	1.5–3.0	3–6	0.3–0.8	2.0–4.5
6	4–7	0.4–0.7	3.0–5.0	8–12	0.8–1.2	6.0–8.5
8	10–16	1.0–1.6	7.0–11.5	18–28	1.8–2.8	13.0–20.0
10	22–35	2.2–3.5	16.0–25.5	40–60	4.0–6.0	29.0–43.5
12	35–55	3.5–5.5	25.5–40.0	70–100	7.0–10.0	50.5–72.5
14	50–80	5.0–8.0	36.0–58.0	110–160	11.0–16.0	79.5–115.5
16	80–130	8.0–13.0	58.0–94.0	170–250	17.0–25.0	123.0–181.0
18	130–190	13.0–19.0	94.0–137.5	200–280	20.0–28.0	144.5–202.5

Conventional bolt



"4" marked bolt

"7" marked bolt

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

SERVICE DATA

CYLINDER + PISTON + PISTON RING

Unit: mm (in)

ITEM	STANDARD	LIMIT
Piston to cylinder clearance	0.041—0.057 (0.0016—0.0022)	0.120 (0.0047)
Cylinder bore	56.000—56.023 (2.2047—2.2056) Measure at 15 mm from the top surface	Nicks or Scratches
Piston diam.	55.950—55.975 (2.2028—2.2037) Measure at 19 (0.7) from the skirt end	55.880 (2.2000)
Cylinder distortion	—	0.05 (0.002)
Cylinder head distortion	—	0.05 (0.002)
Piston ring free end gap	1st T Approx. 5.0 (0.20)	4.0 (0.16)
	2nd T Approx. 6.0 (0.24)	4.8 (0.19)
Piston ring end gap	1st & 2nd 0.15—0.30 (0.006—0.012)	0.80 (0.031)
Piston ring to groove clearance	1st 0.017—0.057 (0.0007—0.0022)	—
	2nd 0.025—0.060 (0.0010—0.0024)	—
Piston pin bore	16.002—16.010 (0.6300—0.6303)	16.030 (0.6311)
Piston pin O.D.	15.995—16.000 (0.6297—0.6299)	15.980 (0.6291)

CONROD + CRANKSHAFT

Unit: mm (in)

ITEM	STANDARD	LIMIT
Conrod small end I.D.	20.003—20.011 (0.7875—0.7878)	20.040 (0.7890)
Crank web to web width	53.0±0.1 (2.087±0.004)	—
Crankshaft runout	—	0.05 (0.002)

OIL PUMP

ITEM	SPECIFICATION
Oil pump reduction ratio	3.547 (67/20 x 29/17 x 29/29 x 18/29)
Oil pump discharge rate (Full open)	3.0—3.6 ml (0.11—0.13 Imp oz) for 2 minutes at 2 000 r/min.

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

CLUTCH

Unit: mm (in)

ITEM	STANDARD	LIMIT
Clutch cable play	2–3 (0.08–0.12)	—
Drive plate thickness	2.9–3.1 (0.11–0.12)	2.6 (0.10)
Drive plate claw width	11.8–12.0 (0.46–0.47)	11.0 (0.43)
Driven plate distortion	—	0.10 (0.004)
Clutch spring free length	—	29.9 (1.18)

THERMOSTAT + RADIATOR

ITEM	STANDARD	LIMIT
Thermostat valve opening temperature	50 ± 1.5°C (122 ± 2.7°F)	—
Thermostat valve lift	Over 3.0 mm (0.12 in) at 65°C (149°F)	—
Radiator cap valve opening pressure	110 ± 15 kPa (1.1 ± 0.15 kg/cm², 15.6 ± 2.1 psi)	—

TRANSMISSION

Unit: mm (in) Except ratio

ITEM			STANDARD	LIMIT
Primary reduction ratio			3.350 (67/20)	—
Final reduction ratio	E-15,18		3.133 (47/15)	—
	The others		2.937 (47/16)	—
Gear ratios	Low		2.636 (29/11)	—
	2nd		1.857 (26/14)	—
	3rd		1.333 (20/15)	—
	4th		1.095 (23/21)	—
	5th		0.916 (22/24)	—
	Top		0.833 (20/24)	—
Shift fork to groove clearance		No.1 & No.3	0.05–0.25 (0.002–0.010)	0.45 (0.018)
		No.2	0.05–0.25 (0.002–0.010)	0.45 (0.018)
Shift fork groove width		No.1 & No.3	4.45–4.55 (0.175–0.179)	—
		No.2	5.45–5.55 (0.215–0.219)	—
Shift fork thickness		No.1 & No.3	4.3–4.4 (0.169–0.173)	—
		No.2	5.3–5.4 (0.209–0.212)	—
Countershaft length (low to 2nd)			105.2–105.3 (4.1417–4.1457)	—

Produced with ScanToPDF
www.scantopdf.co.uk

DRIVE CHAIN

Unit: mm (in)

ITEM		STANDARD		LIMIT
Drive chain	Type	D.I.D.: DID428VCA TAKASAGO: RK428HO		———
	Links	130		———
		20-pitch length	———	255.5 (10.06)
Drive chain slack		25—35 (1.0—1.4)		———
Gearshift lever height		50 (2.0)		———

CARBURETOR

ITEM		SPECIFICATION			
		E-01,34	E-02,04,17	E-15	E-18
Carburetor type		MIKUNI TM30SS	←	MIKUNI TM32SS	←
Bore size		30 mm	←	32 mm	←
I.D. No.		19D1	19D2	19D4	19D3
Idle r/min.		1 400±100 r/min.	←	←	1 400±50 r/min.
Float height		8±1.0 mm (0.31±0.04 in)	←	←	←
Main jet	(M.J.)	#195	←	#210	#200
Main air jet	(M.A.J.)	0.6 mm	←	←	←
Jet needle	(J.N.)	6FL81-55-2nd	←	6FL92-3rd	←
Needle jet	(N.J.)	E-3	←	O-3	O-4
Cut-away	(C.A.)	1.5	←	←	←
Pilot jet	(P.J.)	#27.5	←	#25	#17.5
By-pass	(B.P.)	0.6 mm	←	←	←
Pilot outlet	(P.O.)	0.6 mm	←	←	←
Air screw	(A.S.)	2.0 turns back	←	2½ turns back	2¼ turns back
Starter jet	(G.S.)	#45	←	#50	←
Power jet No.1		#60	←	←	←
Power jet No.2		0.7 mm	←	←	←
Valve seat	(V.S.)	2.5 mm	←	←	←
Throttle cable play		0.5—1.0 mm (0.02—0.04 in)	←	←	←

ELECTRICAL

Unit: mm (in)

ITEM	SPECIFICATION		NOTE
Ignition timing	14° B.T.D.C. at 1 400 r/min.		E-01,02,04,17
	18° B.T.D.C. at 1 400 r/min.		E-15,18
Exhaust valve	Close→Half open	8 000±150 r/min.	Except for E-02,04,17,18
	Half open→Full open	10 100±150 r/min.	Except for E-02,04,17,18
	Full open→Half open	9 900±150 r/min.	Except for E-02,04,17,18
	Half open→Close	7 200±150 r/min.	Except for E-02,04,17,18

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

Unit: mm (in)

ITEM	SPECIFICATION		NOTE
Spark plug	Type	ND: W27EMR-C N.G.K: BR9ECM	
	Gap	0.7—0.8 (0.028—0.031)	
Spark performance	Over 8 (0.3) at 1 atm.		
Ignition coil resistance	Primary	0.1—1.0 Ω	Terminal—Ground
	Secondary	13—20 kΩ	Plug cap—Ground
Magneto coil resistance	Pick-up coil	180—280 Ω	R/G—Bl/R
	Power source coil	50—100 Ω	B/R—R/B
	Charging	0.1—1.0 Ω	Y—Y
Generator no-load voltage (When engine is cold)	More than 33 V (AC) at 5 000 r/min.		
Generator Max. output	Approx. 150 W at 5 000 r/min.		
Regulated voltage	13.0—15.5 V at 5 000 r/min.		
Temperature gauge	190—260 Ω at 50°C		
	23—30 Ω at 115°C		
Exhaust valve actuator	3.2—7.2 kΩ		W—B
	0—7.2 kΩ		Y—B
	4.5—30 Ω		P—Gr
Starter motor brush length	MITSUBA	Limit : 3.5 (0.14)	
Commutator under-cut	Limit : 0.2 (0.008)		
Starter relay resistance	40—80 Ω		
Battery Type designation	YTX5L-BS		
Capacity	12 V 14.4 kC (4 Ah)/10 HR		
Standard electrolyte S.G.	1.320 at 20° C (68°F)		
Fuse size	15 A		

WATTAGE

Unit: W

ITEM		SPECIFICATION
Headlight	HI	60
	LO	55
Position light		4
Tail/Brake light		5/21 x 2
Turn signal light		21
Tachometer light		3
Speedometer light		1.7 x 2
Water temp. meter light		3.4
Turn signal indicator light		3.4
Oil level indicator light		3.4
High beam indicator light		1.7
Neutral indicator light		3.4
License light		5

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

BRAKE + WHEEL

Unit: mm (in)

ITEM		STANDARD		LIMIT
Rear brake pedal height			55 (2.2)	—
Brake disc thickness		Front	4.5 ± 0.2 (0.177 ± 0.008)	4.0 (0.16)
		Rear	4.5 ± 0.2 (0.177 ± 0.008)	4.0 (0.16)
Brake disc runout			—	0.30 (0.012)
Master cylinder bore		Front	12.700 – 12.743 (0.5000 – 0.5017)	—
		Rear	12.700 – 12.743 (0.5000 – 0.5017)	—
Master cylinder piston diam.		Front	12.657 – 12.684 (0.4983 – 0.4994)	—
		Rear	12.657 – 12.684 (0.4983 – 0.4994)	—
Brake caliper cylinder bore	Leading	Front	30.230 – 30.306 (1.1902 – 1.1931)	—
	Trailing		33.960 – 34.036 (1.3370 – 1.3400)	—
		Rear	27.000 – 27.076 (1.0630 – 1.0660)	—
Brake caliper piston diam.	Leading	Front	30.150 – 30.200 (1.1870 – 1.1890)	—
	Trailing		33.884 – 33.934 (1.3340 – 1.3360)	—
		Rear	26.920 – 26.970 (1.0598 – 1.0618)	—
Wheel rim runout		Axial	—	2.0 (0.08)
		Radial	—	2.0 (0.08)
Wheel axle runout		Front	—	0.25 (0.010)
		Rear	—	0.25 (0.010)
Tire size		Front	100/80-17 52S	—
		Rear	120/80-17 61S	—
Tire tread depth		Front	—	1.6 (0.06)
		Rear	—	1.6 (0.06)

SUSPENSION

Unit: mm (in)

ITEM	STANDARD	LIMIT	NOTE
Front fork stroke	116 (4.5)	—	
Front fork spring free length	—	243 (9.6)	

Produced with ScanToPDF
www.scantopdf.co.uk
Produced with ScanToPDF
www.scantopdf.co.uk

ITEM	STANDARD	LIMIT	NOTE
Front fork oil level	86.2 (3.4)	—	
Rear shock absorber spring adjuster	4/7 position	—	
Rear wheel travel	118 (4.6)	—	
Swingarm pivot shaft runout	—	0.3 (0.11)	

TIRE PRESSURE

COLD INFLATION TIRE PRESSURE	SOLO RIDING			DUAL RIDING		
	kPa	kg/cm²	psi	kPa	kg/cm²	psi
FRONT	175	1.75	25	175	1.75	25
REAR	200	2.00	29	225	2.25	33

FUEL + OIL + COOLANT

ITEM		SPECIFICATION		NOTE
Fuel type		Use only unleaded gasoline of graded 85-95 octane or higher.		E-15,18
		Gasoline used should be graded 85-95 octane or higher. An unleaded gasoline is recommended.		The others
Fuel tank including	reserve	14.5 L (3.2 Imp gal)		
	reserve	3.0 L (0.7 Imp gal)		
Engine oil type		SUZUKI CCI or CCI SUPER OIL		
Engine oil capacity		1.2 L (1.1 Imp qt)		
Transmission oil type		SAE 10W/40		
Transmission oil capacity		Change	1 050 ml (0.9 Imp qt)	
		Overhaul	1 100 ml (1.0 Imp qt)	
Front fork oil type		Fork oil #10		
Front fork oil capacity (each leg)		372 ml (13.1 Imp oz)		
Coolant type		Use an anti-freeze/coolant compatible with aluminum radiator, mixed with distilled water only, at the ratio of 50 : 50		
Coolant including reserve		1 050 ml (0.9 Imp qt)		
Brake fluid type		DOT 4		

NOTE:

E-01... General market
E-02... U.K.
E-04... France
E-15... Finland
E-17... Sweden
E-18... Switzerland
E-34... Italy

Produced with ScanToPDF
www.scantopdf.co.uk