

RGV250M ('91-MODEL)

FOREWORD

This chapter describes service data, service specifications and servicing procedures which differ from those of the RGV250K ('89-model) and RGV250L ('90-model).

NOTE:

Any differences between "L" ('90-model) and "M" ('91-model) in specifications and service data are clearly indicated with the asterisk marks (*). Refer to the chapters 1 through 8 which are not given in this chapter.

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SPECIFICATIONS

DIMENSIONS AND DRY MASS

Overall length	*1980 mm (77.6 in)
Overall width	* 690 mm (27.2 in)
Overall height	*1070 mm (42.1 in)
Wheelbase	*1380 mm (54.3 in)
Ground clearance	* 125 mm (4.9 in)
Seat height	* 766 mm (30.2 in)
Dry mass	* 139 kg (306 lbs)

ENGINE

Type	Two-stroke, water-cooled, 90° V-twin
Number of cylinders	2
Bore	56.0 mm (2.205 in)
Stroke	50.6 mm (1.992 in)
Piston displacement	249 cm ³ (15.2 cu. in)
Corrected compression ratio	*7.3 : 1
Carburetor	*MIKUNI TM34SS
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	2.565 (59/23)
Final reduction	*3.071 (43/14)
Gear ratios, Low	2.454 (27/11)
2nd	1.625 (26/16)
3rd	1.235 (21/17)
4th	1.045 (23/22)
5th	0.916 (22/24)
Top	0.840 (21/25)
Drive chain	DID 520V ₂ or *RK520SMOZ ⁹ 114 links

These specifications are subject to change without notice.

Asterisk mark (*) indicates the New "M" model specifications.

CHASSIS

Front suspension	*Inverted telescopic, coil spring, oil damped, inner rod type, spring 5-way, adjustable.
Rear suspension	*Full-floating suspension system, gas/coil spring, oil damped, spring pre-load fully adjustable, extension damping force 4-way and compression damping force 19-way adjustable.
Steering angle	30° (right & left)
Caster	*65°
Trail	*94 mm (3.7 in)
Turning radius	3.1 m (10.2 ft)
Front brake	Disc brake, twin
Rear brake	Disc brake
Front tire size	110/70 R17 54H
Rear tire size	*150/60 R17 66H
Front fork stroke	120 mm (4.7 in)
Rear wheel travel	*130 mm (5.1 in)

ELECTRICAL

Ignition type	SUZUKI "PEI"
Ignition timing	*10° B.T.D.C. at 1300 r/min
Spark plug	*BR9ECM or W27 EMR-C
Battery	12V 10.8 kC (3Ah)/ 10 HR
Generator	Three-phase A.C. generator
Fuse	*20/10/10/5A

CAPACITIES

Fuel tank	
including reverse	*16 L (4.2/3.5 US/Imp gal)
reverse	*3.5 L (0.9/0.8 US/Imp gal)
Engine oil	1.1 L (1.2/1.0 US/Imp qt)
Transmission	700 ml (23.7/24.6 US/Imp oz)
Coolant	*1.9 L (2.0/1.7 US/Imp qt)
Front fork oil	429 ml (14.5/15.1 US/Imp oz)

SERVICE DATA

CYLINDER + PISTON + PISTON RING

Unit: mm (in)

ITEM	STANDARD		LIMIT
Piston to cylinder clearance	*0.055 – 0.071 (0.0022 – 0.0028)		0.120 (0.0047)
Cylinder bore	*56.000 – 56.023 (2.2047 – 2.2056)		Nicks or Scratches
Piston diam.	*55.936 – 55.961 (2.2022 – 2.2032) Measure at 19 (0.7) from the skirt end		55.880 (2.199)
Cylinder distortion	—		0.05 (0.002)
Cylinder head distortion	—		0.05 (0.002)
Piston ring free end gap	1st & 2nd	T Approx. 5.0 (0.19)	4.0 (0.15)
		T Approx. *6.0 (0.24)	*4.8 (0.19)
Piston ring end gap	1st & 2nd	0.15 – 0.30 (0.006 – 0.012)	0.70 (0.027)
Piston ring to groove clearance	1st & 2nd	0.02 – 0.06 (0.0008 – 0.0024)	—
Piston pin bore	16.002 – 16.010 (0.6300 – 0.6303)		16.036 (0.6313)
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)	20.047 (0.7893)
Conrod deflection	—	3.0 (0.12)
Crank web to web width	48.5 ^{+0.2} (1.909 ^{+0.008})	—
Crankshaft runout	—	0.05 (0.002)

OIL PUMP

ITEM	SPECIFICATION
Oil pump reduction ratio	4.897 (59/23 x 27/11 x 21/27)
CCI pump discharge rate (Full open)	*4.8 – 6.0 ml for 2 minutes at 2 000 r/min.

CLUTCH

Unit: mm (in)

ITEM	STANDARD	LIMIT
Clutch cable play	2 – 3 (0.08 – 0.12)	—
Drive plate thickness	*2.99 – 3.01 (0.118 – 0.119)	*2.69 (0.11)
Drive plate claw width	15.8 – 16.0 (0.62 – 0.63)	15.3 (0.60)

Asterisk mark (*) indicates the New "M" model specifications.

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ITEM	STANDARD	LIMIT
Driven plate distortion	—	0.1 (0.004)
Clutch spring free length	—	34.8 (1.37)

THERMOSTAT + RADIATOR

ITEM	STANDARD	LIMIT
Thermostat valve opening temperature	50 ± 2°C	—
Thermostat valve lift	Over 7 mm at 65°C	—
Radiator cap valve opening pressure	110 kPa (1.1 kg/cm ²)	—

TRANSMISSION

Unit: mm (in) Except ratio

ITEM	STANDARD	LIMIT
Primary reduction ratio	2.565 (59/23)	—
Final reduction ratio	*3.071 (43/14)	—
Gear ratios	Low	2.454 (27/11)
	2nd	1.625 (26/16)
	3rd	1.235 (21/17)
	4th	1.045 (23/22)
	5th	0.916 (22/24)
	Top	0.840 (21/25)
Shift fork to groove clearance	0.1 – 0.3 (0.004 – 0.011)	0.5 (0.0196)
Shift fork groove width	No. 1 & No. 2	4.0 – 4.1 (0.157 – 0.161)
	No. 3	5.5 – 5.6 (0.216 – 0.220)
Shift fork thickness	No. 1 & No. 2	3.8 – 3.9 (0.149 – 0.153)
	No. 3	5.3 – 5.4 (0.208 – 0.212)

DRIVE CHAIN

ITEM	STANDARD	LIMIT
Drive chain	Type	D.I.D.: 520 V ₂ *TAKASAGO: 520SMOZ ⁹
	Links	114 links
	20-pitch length	—
Drive chain slack	*25 – 35 (0.98 – 1.38)	319.4 (12.574)

CARBURETOR

ITEM	SPECIFICATION		
	E-02,04,21,24,34	E-01	E-22
Carburetor type	*MIKUNI TM34SS	←	←
Bore size	*34 mm (1.34 in)	←	←
I.D. No	*22D2	*22D4	*22D3

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ITEM	SPECIFICATION		
	E-02,04,21,24,34	E-01	E-22
Idle r/min.	1 300 ± 150 r/min	←	1 300 ± 100 r/min
Fuel level	7.1 ± 0.5 mm (0.28 ± 0.02 in)	←	←
Float height	8 ± 1.0 mm (0.31 ± 0.04 in)	←	←
Main jet (M.J.)	*L: # 270, *R: # 280	*# 270	*L: # 270, *R: # 280
Jet needle (J.N.)	6GH8-55-3	*L:6FL85-55-3, *R:6FLD86-56-2	*6GH8-55-3
Needle jet (N.J.)	*0-8	←	0-9
Cut-away (C.A.)	1.5 mm	←	←
Pilot jet (P.J.)	# 27.5	←	# 20
By-pass (B.P.)	0.6 mm	←	←
Pilot outlet (P.O.)	0.6 mm	←	←
Valve seat (V.S.)	2.5 mm	←	←
Starter jet (G.S.)	*# 45	←	←
Power jet No. 1	*L: # 55, *R: # 35	*L: # 55, *R: # 45	*L: # 55, *R: # 35
Power jet No. 2	*0.7 mm	←	←
Throttle cable play	0.5-1.0 mm (0.02-0.04 in)	←	←

ELECTRICAL

ITEM	SPECIFICATION		NOTE
	Unit: mm (in)		
Ignition timing	*10° B.T.D.C. at 1 300 r/min.		
Spark plug	Type	*NGK BR9ECM *ND W27EMR-C	
	Gap	0.7 - 0.8	
Spark performance	Over 8 (0.3) at 1 atm.		
Ignition coil resistance	Primary	B/Y - W/L 0.17 - 0.23 Ω	
	Secondary	Plug cap - Terminal 15 - 20 kΩ	
Generator coil resistance	Y - Y 0.4 - 0.6 Ω		
Magneto coil resistance	Pick up coil	Br - B 80 - 120 Ω	
		R - W 80 - 120 Ω	
Generator no-load voltage	More than 49 V (AC) at 5 000 r/min.		Y - Y
Regulated voltage	13.0 - 15.5 V at 5 000 r/min.		
Water temperature gauge resistance	*189 - 260 Ω at 50°C		
	* 24 - 28 Ω at 115°C		
Battery	Type designation	YT4L-BS	
	Capacity	12V 10.8 kC (3Ah)/10 HR	
	Standard electrolyte S.G.	1.32 at 20°C (68°F)	
Fuse size	Main	20 A	
	Ignition	5 A	
	*Head	10 A	
	*Tail	10 A	

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WATTAGE

Unit: W

ITEM		SPECIFICATION
Headlight	HI	60
	LO	55
Tail/Brake light		5/21
Turn signal light		21
Tachometer light		3
Speedometer light		3
Turn signal indicator light		*2
High beam indicator light		*2
Neutral indicator light		*2
Oil level warning light		*2
Parking or city light		4
Water temp. meter light		1.7

BRAKE + WHEEL

Unit: mm (in)

ITEM		STANDARD	LIMIT
Rear brake pedal height		*60 – 70 (2.36 – 2.76)	—
Brake disc thickness	Front	4.3 – 4.7 (0.17 – 0.18)	4.0 (0.16)
	Rear	4.8 – 5.1 (0.19 – 0.20)	4.5 (0.18)
Brake disc runout		—	0.3 (0.01)
Master cylinder bore	Front	15.870 – 15.913 (0.6248 – 0.6264)	—
	Rear	12.700 – 12.743 (0.4999 – 0.5016)	—
Master cylinder piston	Front	15.827 – 15.854 (0.6231 – 0.6241)	—
	Rear	12.657 – 12.684 (0.4983 – 0.4993)	—
Brake caliper cylinder bore	Front	30.230 – 30.300 (1.1901 – 1.1929) 33.960 – 34.030 (1.3370 – 1.3397)	—
	Rear	*24.000 – 24.076 (0.9449 – 0.9479)	—
Brake caliper piston diam.	Front	30.160 – 30.200 (1.1873 – 1.1889) 33.897 – 33.930 (1.3345 – 1.3358)	—
	Rear	*23.950 – 24.000 (0.9429 – 0.9449)	—
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)

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ITEM	STANDARD		LIMIT
	Tire size	Front	
Rear		*150/60 R17 66H	—
Tire tread depth	Front	—	1.6 (0.06)
	Rear	—	2.0 (0.08)

SUSPENSION

Unit: mm (in)

ITEM	STANDARD	LIMIT	NOTE
Front fork stroke	120 (4.7)	—	
Front fork spring free length	—	*330 (13.0)	
Front fork oil level	*109 (4.29)	—	
Rear wheel travel	*130 (5.1)	—	
Swingarm pivot shaft runout	—	0.3	

FUEL + OIL + COOLANT

ITEM	SPECIFICATION		NOTE
Fuel type	The gasoline used should be graded 85 to 95 octane in Research Method and should be unleaded type where they are available.		
Fuel tank including reverse reverse	*16 L (4.2/3.5 US/Imp gal)		
	*3.5 L (0.9/0.8 US/Imp gal)		
Engine oil type	SUZUKI CCI or CCI SUPER OIL		
Engine oil tank capacity	1.1 L (1.2/1.0 US/Imp qt)		
Transmission oil type	SAE 10W/40		
Transmission oil capacity	Change	700 ml (23.6/24.6 US/Imp oz)	
	Overhaul	800 ml (27.0/28.1 US/Imp oz)	
Front fork oil type	Fork oil # 10		
Front fork oil capacity (each leg)	429 ml (14.5/15.1 US/Imp oz)		
Brake fluid type	DOT4		
Coolant type	Use an anti-freeze & Summer coolant compatible with aluminum radiator, mixed with distilled water only, at the ratio of 50 : 50.		
Radiator including reserve	*1 900 ml (2.0/1.7 US/Imp qt)		

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TIRE PRESSURE

COLD INFLATION TIRE PRESSURE	NORMAL RIDING					
	SOLO RIDING			DUAL RIDING		
	kPa	kg/cm ²	psi	kPa	kg/cm ²	psi
FRONT	200	2.00	29	200	2.00	29
REAR	225	2.25	33	250	2.50	36

TIGHTENING TORQUE**ENGINE**

Item		N·m	kg·m	lb·ft
Transmission oil drain plug	14 mm	20 – 25	2.0 – 2.5	14.5 – 18.0
Coolant drain plug		8 – 12	0.8 – 1.2	6.0 – 8.5
Exhaust pipe clamp nut		18 – 28	1.8 – 2.8	13.0 – 20.0
Muffler mounting bolt		18 – 28	1.8 – 2.8	13.0 – 20.0
Engine mounting nut	10 mm	60 – 72	6.0 – 7.2	43.5 – 52.0
	8 mm	28 – 34	2.8 – 3.4	20.0 – 24.5
Engine mounting bracket bolt		18 – 28	1.8 – 2.8	13.0 – 20.0
Down tube		22 – 28	2.2 – 2.8	16.0 – 20.0
Kick starter lever bolt		18 – 28	1.8 – 2.8	13.0 – 20.0
Cylinder head nut		*26 – 27	2.6 – 2.7	19.0 – 19.5
Cylinder nut		*26 – 27	2.6 – 2.7	19.0 – 19.5
Crankcase bolt	6 mm	9 – 13	0.9 – 1.3	6.5 – 9.5
	8 mm	20 – 24	2.0 – 2.4	14.5 – 17.5
Gearshift arm stopper		15 – 23	1.5 – 2.3	11.0 – 16.5
Primary drive gear nut		60 – 80	6.0 – 8.0	43.5 – 58.0
Water pump cover bolt		6 – 10	0.6 – 1.0	4.5 – 7.0
Transmission cover nut		8 – 12	0.8 – 1.2	6.0 – 8.5
Clutch sleeve hub nut		60 – 80	6.0 – 8.0	43.5 – 58.0
Clutch spring bolt		8 – 12	0.8 – 1.2	6.0 – 8.5
Clutch cover bolt		6 – 10	0.6 – 1.0	4.5 – 7.0
Magneto rotor nut		*75 – 85	7.5 – 8.5	54.0 – 61.5
Water pump impeller bolt		7 – 9	0.7 – 0.9	5.0 – 6.5
Water temp gauge		6 – 10	0.6 – 1.0	4.5 – 7.0

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CHASSIS

Item	N-m	kg-m	lb-ft
Steering stem head nut	* 50 – 80	5.0 – 8.0	36.0 – 58.0
Front fork upper clamp bolt	* 20 – 31	2.0 – 3.1	14.5 – 22.5
Front fork lower clamp bolt	* 18 – 28	1.8 – 2.8	13.0 – 20.0
Front fork cap	* 30 – 40	3.0 – 4.0	21.5 – 29.0
Front axle shaft	50 – 80	5.0 – 8.0	36.0 – 58.0
Front axle clamp bolt	* 18 – 28	1.8 – 2.8	13.0 – 20.0
Handlebars mounting bolt	* 18 – 28	1.8 – 2.8	13.0 – 20.0
Front brake master cylinder mounting bolt	5 – 8	0.5 – 0.8	3.5 – 6.0
Front caliper mounting bolt	* 30 – 48	3.0 – 4.8	21.5 – 35.0
Front caliper housing bolt	* 15 – 20	1.5 – 2.0	11.0 – 14.5
Brake hose union bolt	15 – 20	1.5 – 2.0	11.0 – 14.5
Air bleeder valve (Front and rear)	6 – 9	0.6 – 0.9	4.5 – 6.5
Front and rear disc bolt	* 18 – 28	1.8 – 2.8	13.0 – 20.0
Swingarm pivot nut	* 85 – 115	8.5 – 11.5	61.5 – 83.0
Rear brake rod lock nut	15 – 25	1.5 – 2.5	11.0 – 18.0
Rear shock absorber mounting nut (Upper and lower)	* 48 – 72	4.8 – 7.2	35.0 – 52.0
Rear cushion lever nut	* 84 – 120	8.4 – 12.0	61.0 – 87.0
Rear cushion rod nut (Upper and lower)	* 84 – 120	8.4 – 12.0	61.0 – 87.0
Rear caliper mounting bolt	* 20 – 31	2.0 – 3.1	14.5 – 22.5
Rear master cylinder mounting bolt	8 – 12	0.8 – 1.2	6.0 – 8.5
Rear axle nut	85 – 115	8.5 – 11.5	61.5 – 83.0
Rear sprocket nut	20 – 30	2.0 – 3.0	14.5 – 21.5
Front footrest bolt	* 18 – 28	1.8 – 2.8	13.0 – 20.0
Rear brake master cylinder union bolt	15 – 20	1.5 – 2.0	11.0 – 18.0
Rear brake caliper hose union bolt	15 – 20	1.5 – 2.0	11.0 – 18.0
Seat rail mounting bolt	* 45 – 50	4.5 – 5.0	32.5 – 36.0

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Apply THREAD LOCK SUPER "1322" to the rear caliper mounting bolts and seat rail mounting bolts.

STATE

WARNING

Apply THREAD LOCK SUPER "1322" to the signal generator bolts and water pump, and tighten them to the specified torque.

BRAKE OIL

Use specified

BRAKE TOW-0: THREAD LOCK "1322"

Tightening torque: 9 – 10 Nm (0.8 – 1.0 kg-m)

CHANGES

The following changes have been made, beginning with the RGV250M ('91-model).

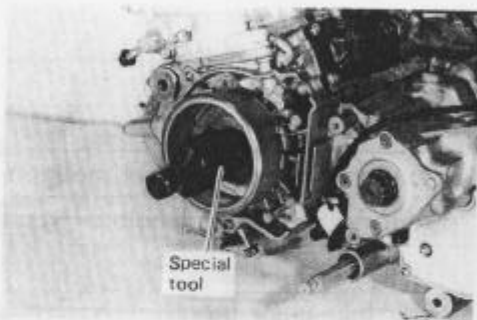
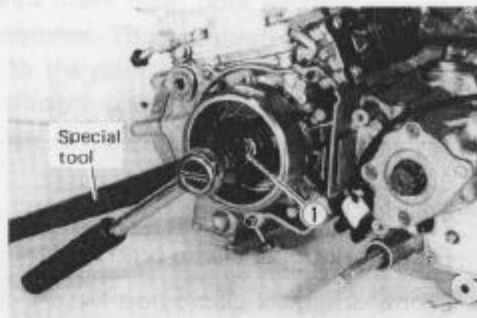
MAGNETO ROTOR DISASSEMBLY

- Remove the magneto rotor nut ① with holding the rotor with the special tool.

09930-44520: Rotor holder

- Remove the rotor with the special tool.

09930-34980: Rotor remover



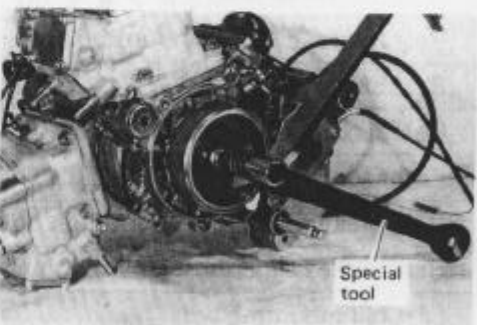
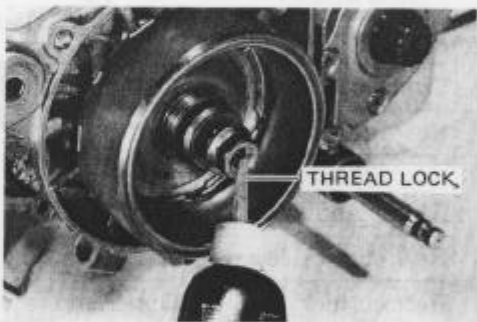
REASSEMBLY

- Wipe off the oily matter from the tapered portion of the rotor and also the crankshaft.
- Apply THREAD LOCK SUPER "1324" to the nut and tighten it to the specified torque.

99000-32120: THREAD LOCK SUPER "1324"

09930-44520: Rotor holder

Tightening torque: 75 – 85 N·m (7.5 – 8.5 kg·m)



STATOR

REASSEMBLY

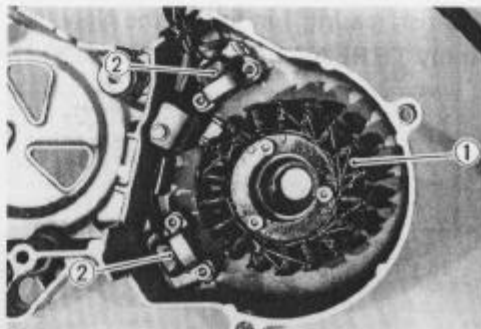
- Apply THREAD LOCK "1342" to the signal generator bolts and stator bolts, and tighten them to the specified torque.

①: Stator coil

②: Signal generator

99000-32050: THREAD LOCK "1342"

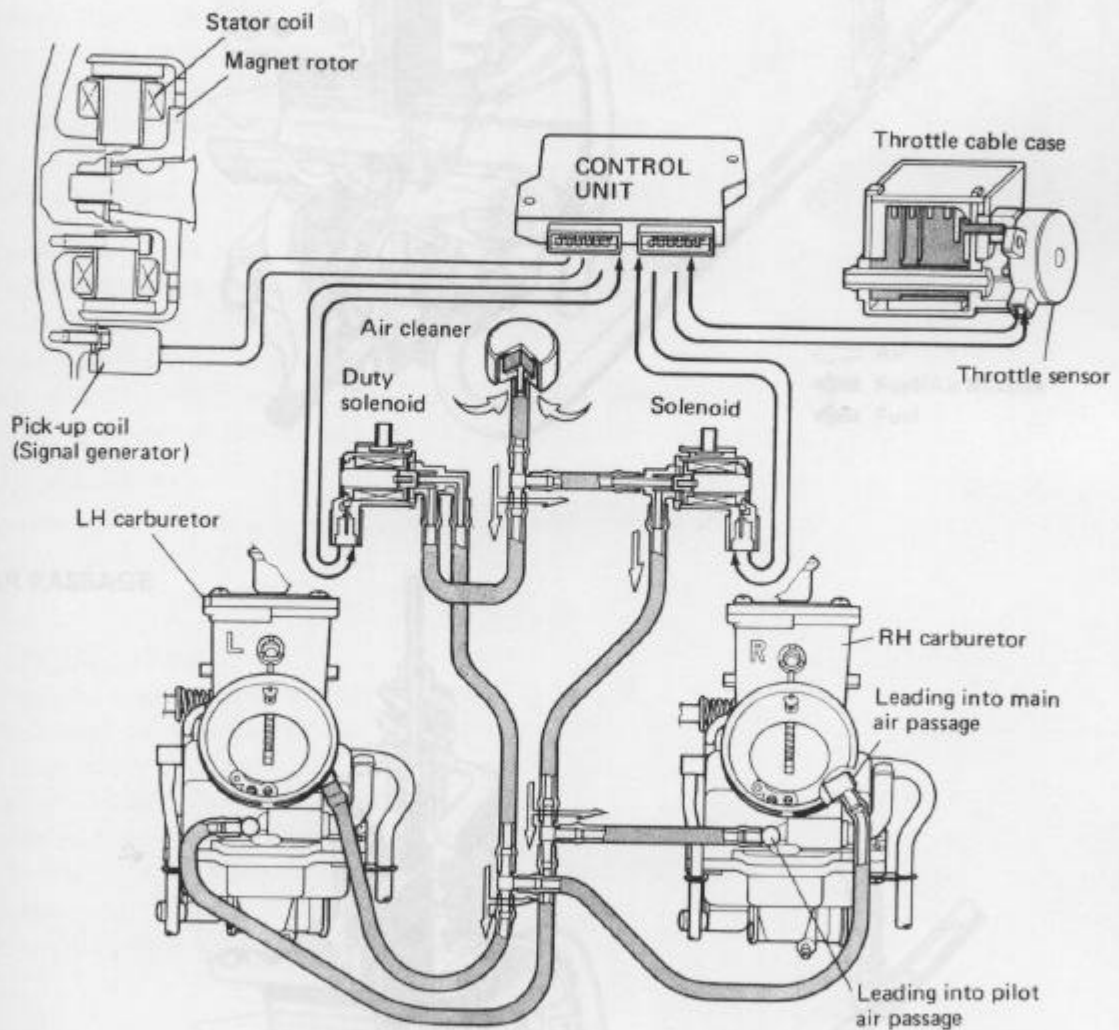
Tightening torque: 6 – 10 N·m (0.6 – 1.0 kg·m)



CARBURETOR AIR CONTROL SYSTEM

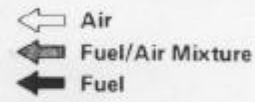
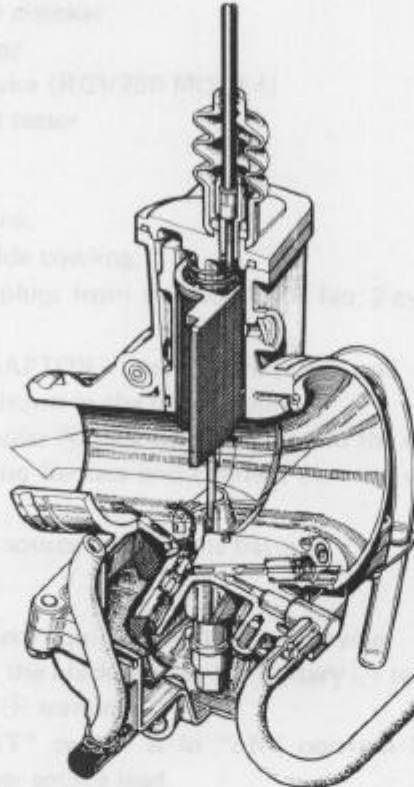
DESCRIPTION

The carburetor uses a flat slide type throttle valve which helps make main bore air flow smoother and provide better fuel atomization, resulting in quicker engine response. This carburetor is in its air control system which supplies electronically controlled auxiliary air to the pilot air and main air passages. This control is performed by the control unit which receives the throttle sensor and engine revolution input signals. And after processing these signals, the unit outputs an ON/OFF signal to allow the optimum amount of air to pass through the solenoid or duty solenoid.



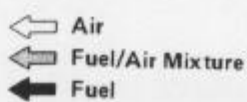
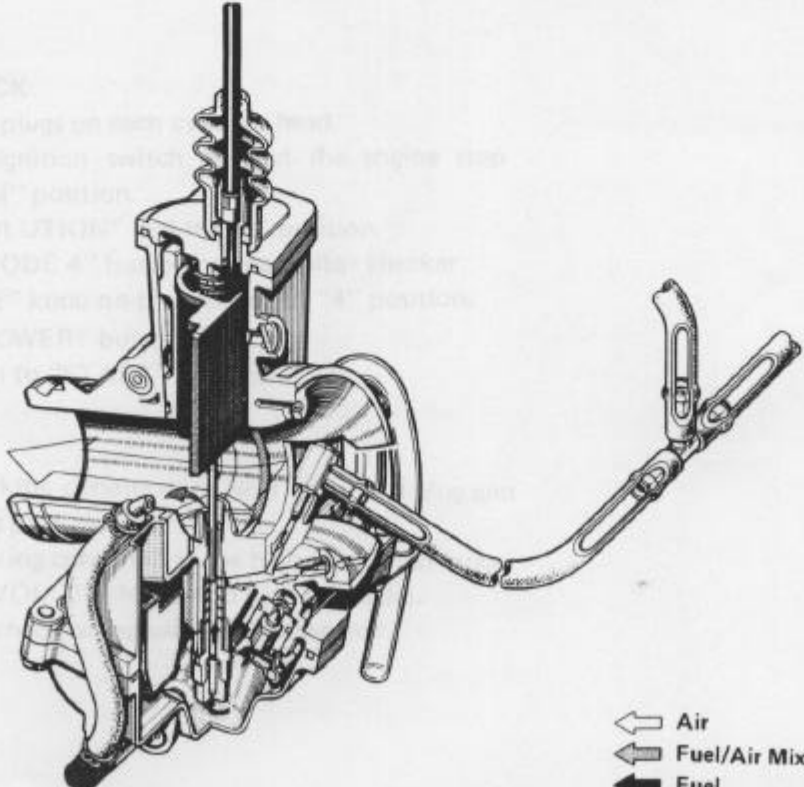
PILOT AIR PASSAGE

- Disconnect the spark plug wires from the spark plugs.
- Remove the fuel tank.
- Remove the right side cowling.
- Remove the spark plug from the No. 2 cylinder.
- Connect the "2 GAUGE" to the No. 2 cylinder.
- Disconnect the primer pump hose from the primer pump.
- Disconnect the primer pump hose from the primer pump.
- Turn the ignition switch to the "ON" position.
- Depress the "START" button.
- Observe the fuel gauge.
- Turn the ignition switch to the "OFF" position.
- Disconnect the primer pump hose from the primer pump.
- Reconnect the primer pump hose to the primer pump.
- Reconnect the spark plug wires to the spark plugs.
- Reinstall the fuel tank.
- Reinstall the right side cowling.



MAIN AIR PASSAGE

- Turn the ignition switch to the "ON" position.
- Depress the "START" button.
- Observe the fuel gauge.
- Turn the ignition switch to the "OFF" position.
- Disconnect the primer pump hose from the primer pump.
- Reconnect the primer pump hose to the primer pump.
- Reconnect the spark plug wires to the spark plugs.
- Reinstall the fuel tank.
- Reinstall the right side cowling.



CONTROL UNIT INSPECTION CONNECTION PROCEDURE

09931-94430: Ignitor checker
 09931-94460: Adaptor
 09931-64480: Lead wire (RGV250 MODE4)
 09900-25002: Pocket tester

- Remove the seat.
- Remove the fuel tank.
- Remove the right side cowling.
- Remove the spark plugs from the No. 1 and No. 2 cylinder heads.
- Connect the "ADAPTOR" and "MODE 4" lead to the ignitor checker as shown in the photograph.
- Disconnect the coupler (A) (pick-up coil) going to the control unit from the wiring harness and connect the lead wire to this coupler (A).
- Connect the power source leads to the battery.

CAUTION:

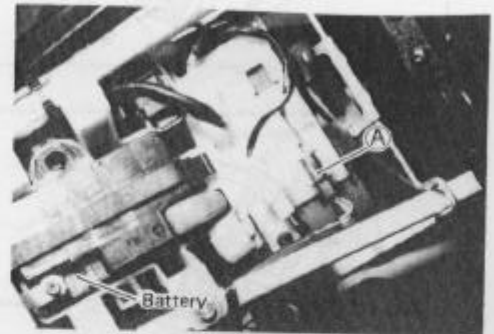
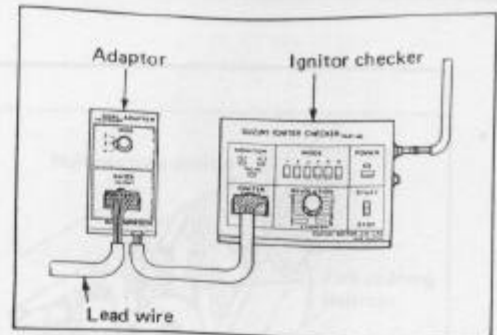
- * Do not use the battery equipped on the motorcycle.
- * Be sure to connect the black lead to the battery \ominus terminal and red lead to the \oplus terminal.
- * Make sure "START" switch is in "off" position before connecting the power source lead.

NOTE:

When making this test, be sure that the battery is fully charged condition.

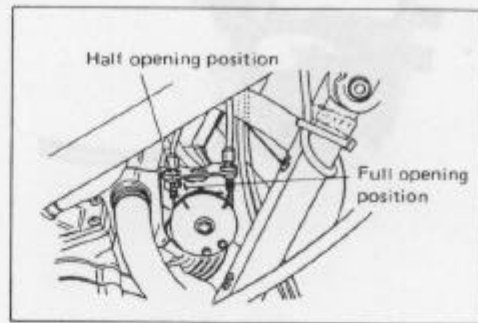
1. SPARKING CHECK

- Place the spark plugs on each cylinder head.
 - Turn on the ignition switch and set the engine stop switch to "RUN" position.
 - Set the "REVOLUTION" dial to "2" position.
 - Depress the "MODE 4" button on the ignitor checker.
 - Set the "MODE" knob on the adaptor to "4" position.
 - Depress the "POWER" button.
 - Turn the switch to "START" position.
-
- Check the sparking condition of No.1 cylinder's plug and No. 2 cylinder's plug.
 - Check the sparking condition at the high revolution range (Turn the "REVOLUTION" dial to high rpm side).
 - If no sparking, check or replace the ignition coil.



2. TACHOMETER CHECK

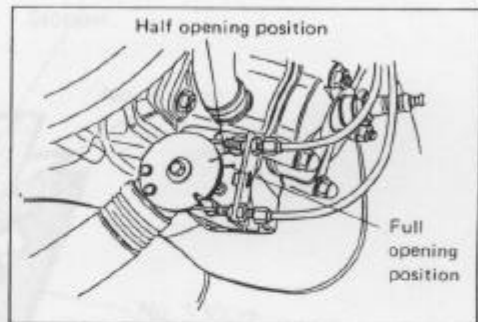
- Turning the "REVOLUTION" dial gradually to high rpm side, ensure that the tachometer reads same rpm coincidentally.



3. ACTUATOR CHECK

- Turning the "REVOLUTION" dial gradually to check the following positions by moving the exhaust valve.

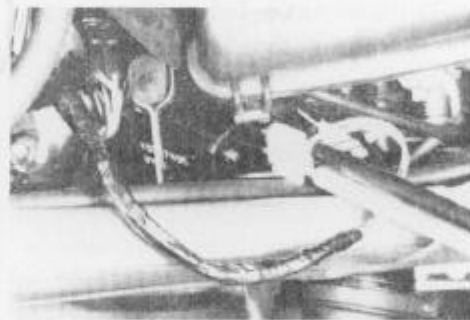
- At 2 000 rpm – Cleaning operation of exhaust valve. (Only one time)
- At 8 000 rpm – Exhaust valve is set on the half open position.
- At 10 000 rpm – Exhaust valve is set on the full open position.



4. SOLENOID VALVE CHECK

- Check the operation of SOLENOID VALVE with the pocket tester (range: DC 25V).
- Insert a ⊖ probe of pocket tester to the Y/G lead wire's coupler and a ⊕ probe of pocket tester to the O/B lead wire's coupler.
- Turning the "REVOLUTION" dial gradually to check the following operations at the specified rpm.

For E-22 model	For E-02,04,21,24 and 34 models	For E-01 model
At 2 000 rpm – "OFF"	At 500 rpm – "OFF"	At 500 rpm – "OFF"
At 4 000 rpm – "ON"	At 1 000 rpm – "ON"	At 1 000 rpm – "ON"
At 6 000 rpm – "OFF"	At 2 000 rpm – "OFF"	At 2 000 rpm – "OFF"
		At 4 000 rpm – "ON"
		At 6 000 rpm – "OFF"



5. DUTY SOLENOID VALVE CHECK

- Check the operation of DUTY SOLENOID by "click" sound.
- The operation of duty solenoid valve for open and close conditions is as follows.

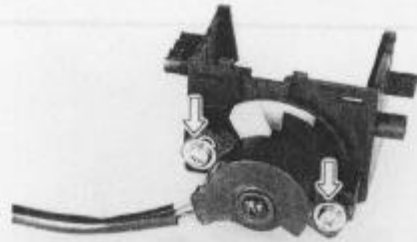
When high rpm operation, the valve condition in accordance with the throttle grip opening angle.

- At 4 000 rpm – "click" condition
- At 6 000 rpm – "click" condition
- At 8 000 rpm – Closing throttle is "click" condition
 Half opening throttle is off "click" condition
 Full opening throttle is "click" condition
- At 10 000 rpm – OFF "click" condition

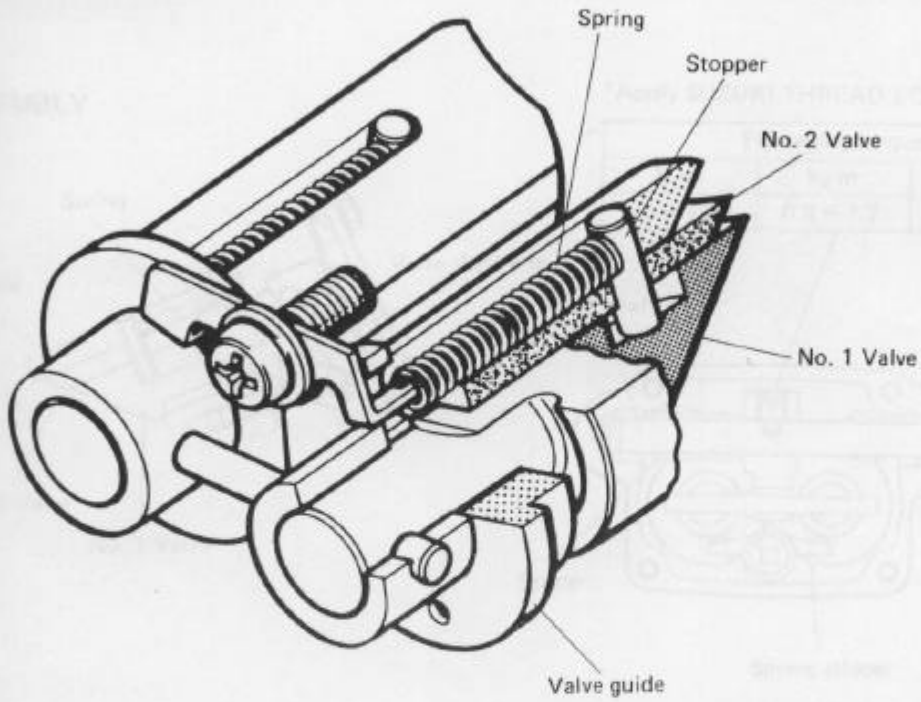
THROTTLE SENSOR

CAUTION:

Do not remove the throttle sensor mounting screws. This component is PRE-SET at the factory by the very specialized equipment.



EXHAUST VALVE

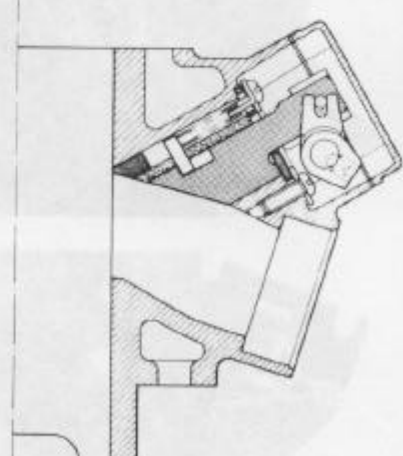
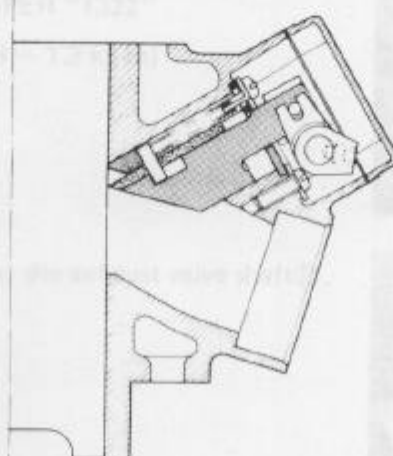
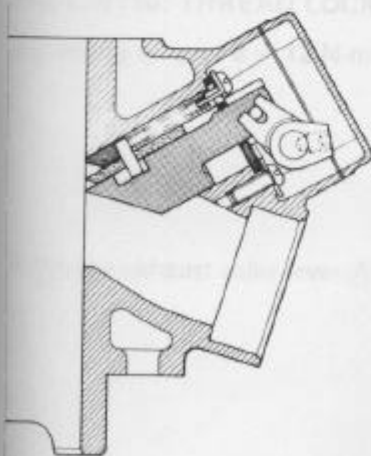


OPERATION

LOW SPEED RANGE

MIDDLE SPEED RANGE

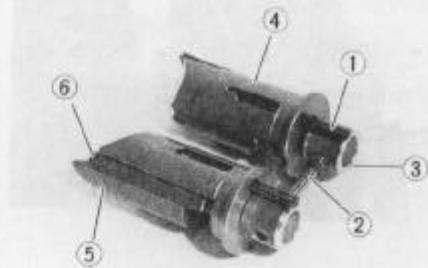
HIGH SPEED RANGE



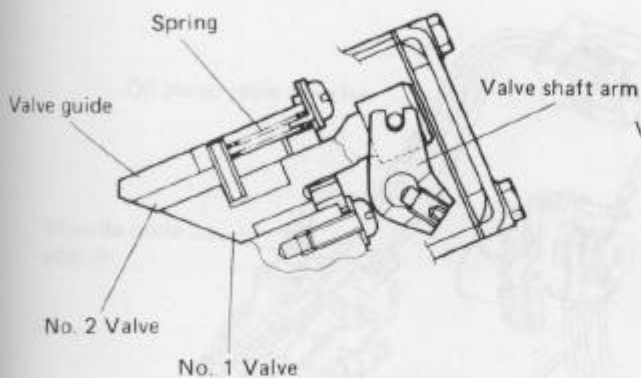
REMOVAL

- Remove the following parts.

- ① : Spring
- ② : Pin
- ③ : Spacer
- ④ : Valve guide
- ⑤ : No. 1 valve
- ⑥ : No. 2 valve

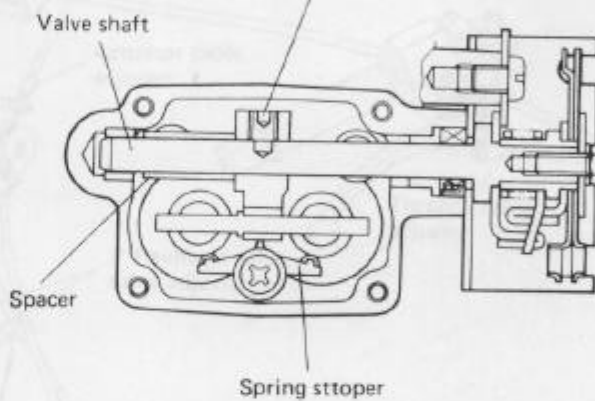


REASSEMBLY



*Apply SUZUKI THREAD LOCK SUPPER "1322"

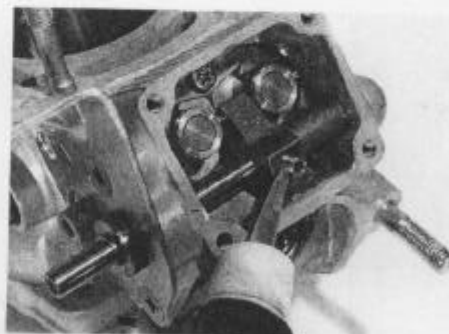
Tightening torque		
N·m	kg·m	lb·ft
8 - 12	0.8 - 1.2	6.0 - 9.0



- Apply THREAD LOCK SUPER "1322" to the lock bolt and tighten it.

99000-32110: THREAD LOCK SUPER "1322"

Tightening torque: 8 - 12 N·m (0.8 - 1.2 kg·m)



- Set the exhaust valve lever (A) onto the exhaust valve shaft (B).

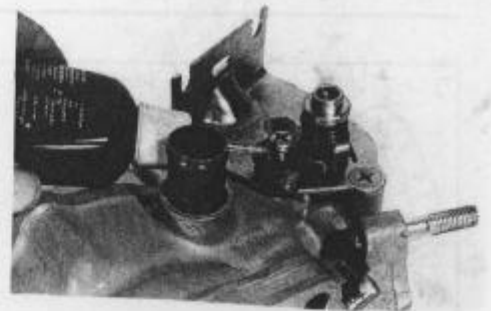


- Apply **THREAD LOCK SUPER "1322"** to the exhaust valve lever set screw.

99000-32110: THREAD LOCK SUPER "1322"

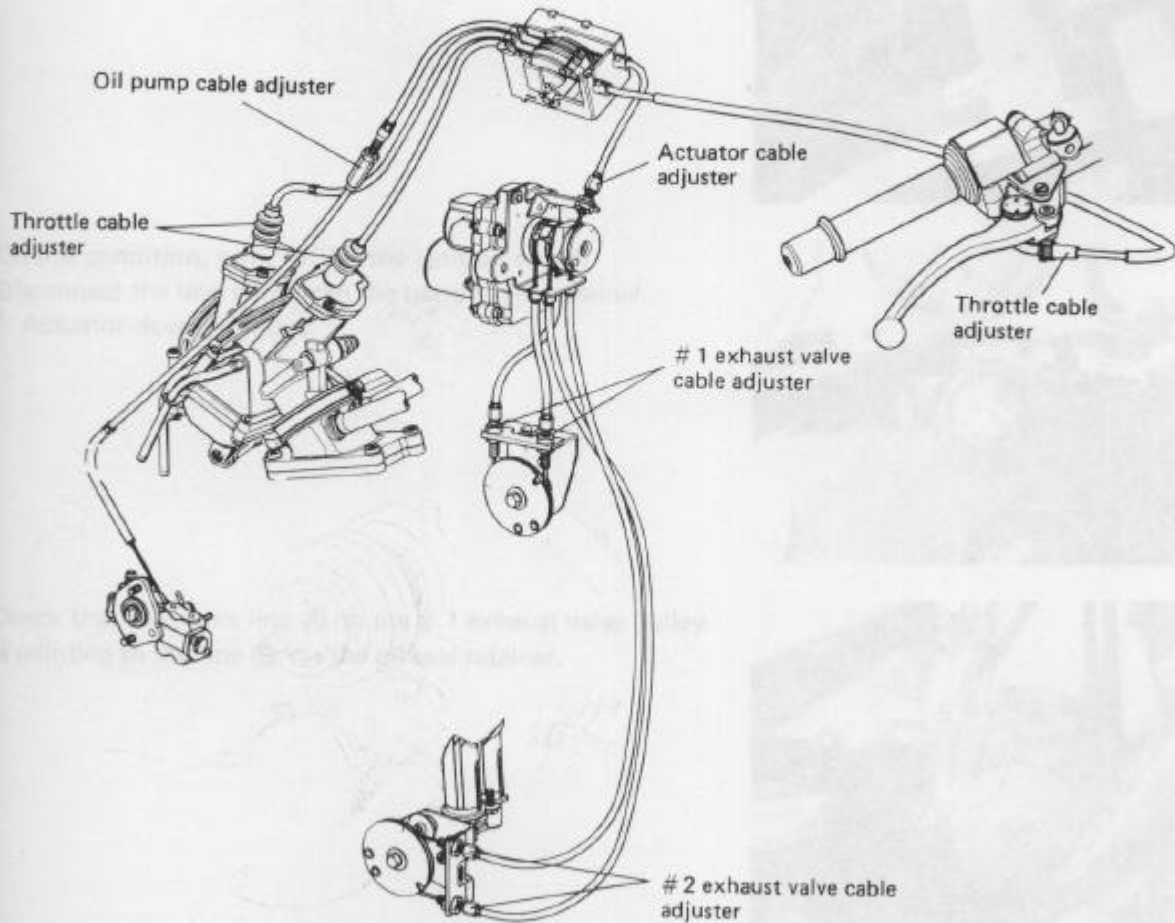
INSPECTION

- Turn "ON" the ignition switch.
- Engine kill switch is "RUN" position.



EXHAUST VALVE CABLE LOCATION OF ADJUSTERS

- Disconnect the free lead wire (Gray) under the fuel tank bracket to the battery (+) terminal.
- Actuator slightly moves.



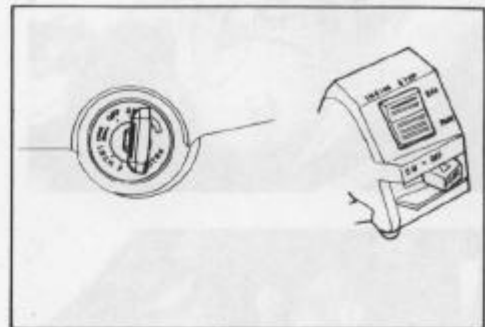
- Check the throttle cable pulley and exhaust valve pulley is adjusting to the Gray (+) terminal.

- Check that the index link (D) on the # 2 exhaust valve pulley is pointing to the line (D) on the oil seal retainer.

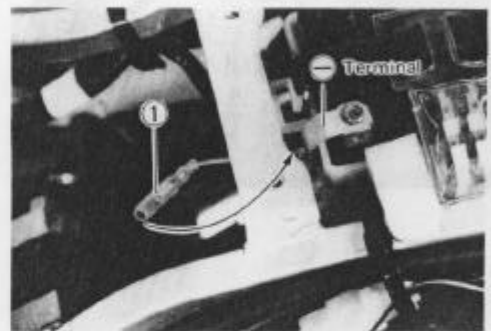
EXHAUST VALVE CABLE PULLEY

INSPECTION

- Turn "ON" the ignition switch.
- Engine kill switch is "RUN" position.



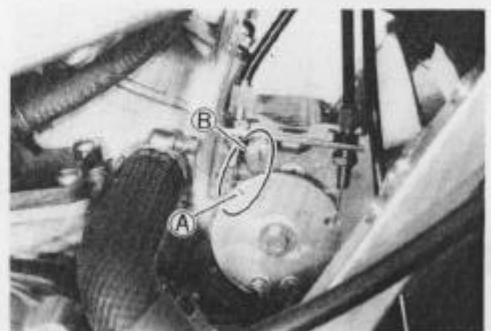
- Connect the free lead wire ① (Gray) under the fuel tank bracket to the battery ⊖ terminal.
 - * Actuator slightly moves.



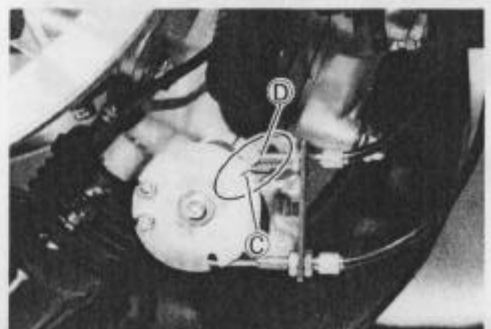
- On this condition, turn "OFF" the ignition switch.
- Disconnect the lead wire from the battery ⊖ terminal.
 - * Actuator does not move.



- Check that the index line (A) on the # 1 exhaust valve pulley is pointing to the line (B) on the oil seal retainer.



- Check that the index line (C) on the # 2 exhaust valve pulley is pointing to the line (D) on the oil seal retainer.



EXHAUST VALVE CABLE ADJUSTMENT

- Loosen the lock nuts and turn the exhaust valve cable adjusters, ① and ②, until the index line ① on the exhaust valve pulley aligns with the index line ② on the oil seal retainer.

(For Left cylinder exhaust valve cable)

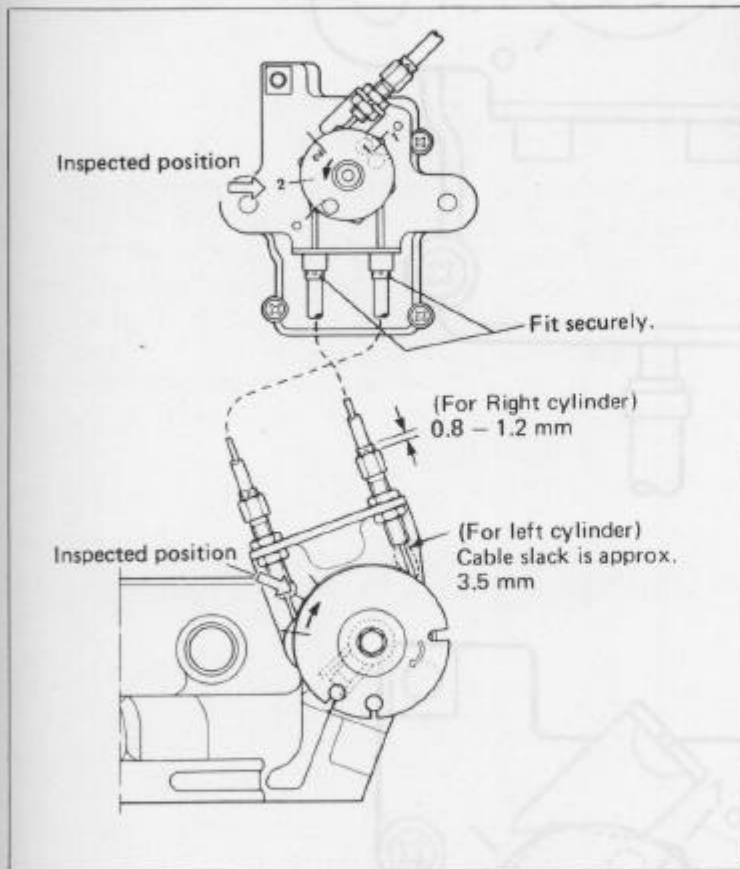
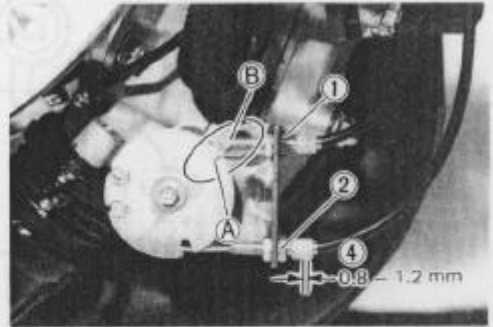
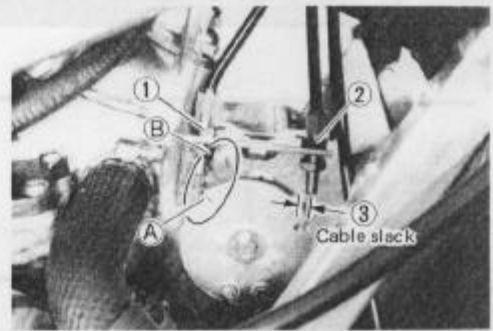
- Give the cable slack ③ as measured by deflection when the inner cable is lightly pushed sideways by finger.

(For Right cylinder exhaust valve cable)

- Give the cable play ④ when the outer cable is lightly pulled by finger.
- Tighten the lock nuts.

Cable slack ③ : Approx. 3.5 mm

Cable play ④ : 0.8 – 1.2 mm



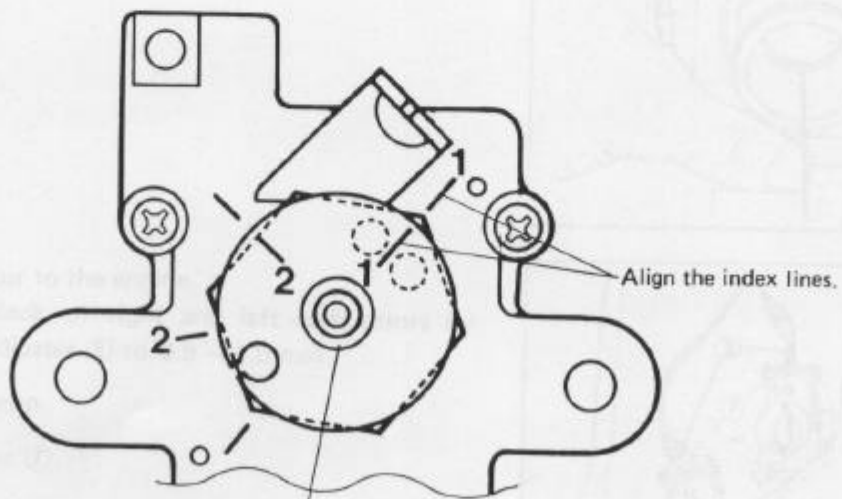
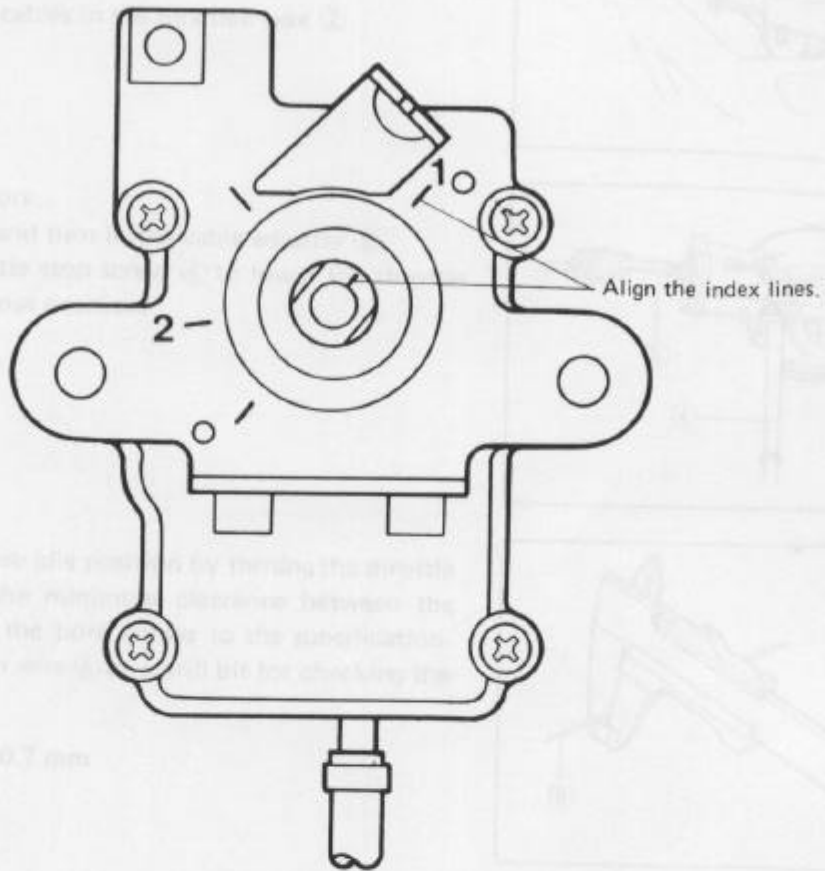
- Check that the index line-2 ① on the actuator pulley is pointing to the index line-2 ② on its holder.
* If incorrect, inspect the actuator individually.



Tightening torque		
Item	Unit	Value
1-5	N·m	10-15

* Apply SUZUKI THREAD LOCK SUPER-102 *

**ACTUATOR
REASSEMBLY**



Tightening torque		
N·m	kg·m	lb·ft
4 - 6	0.4 - 0.6	3.0 - 4.5

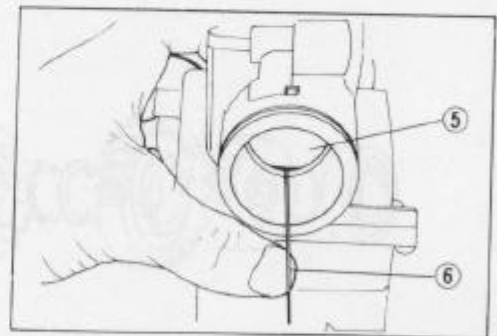
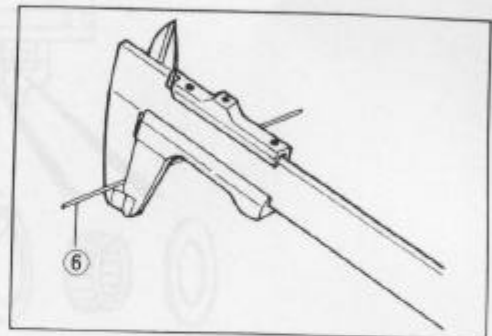
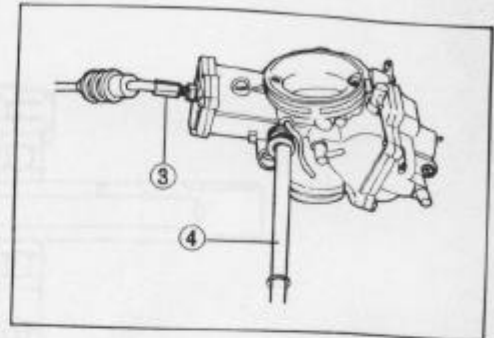
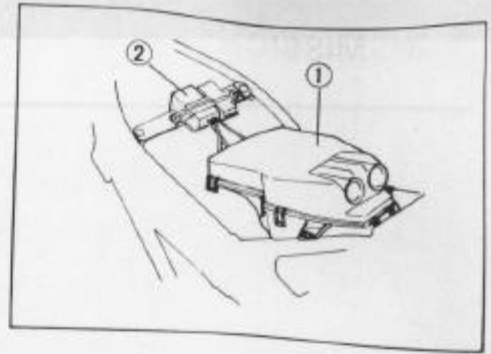
*Apply SUZUKI THREAD LOCK SUPPER"1322"

ADJUSTMENT OF CARBURETOR IDLE ANGLE

(Carburetor synchronization)

- Remove the seat and the fuel tank.
 - Remove the air cleaner box ①.
 - Remove the throttle cables in the junction box ②.
-
- Remove the carburetors.
 - Loosen the lock nut and turn in the cable adjuster ③.
 - Turn back the throttle stop screw ④ to lower the throttle valve ⑤ to the full close position.
-
- Adjust the throttle valve idle position by turning the throttle stop screw so that the minimum clearance between the throttle valve ⑤ and the bore comes to the specification. Use a piece of 0.7 mm wire ⑥ or a drill bit for checking the clearance.

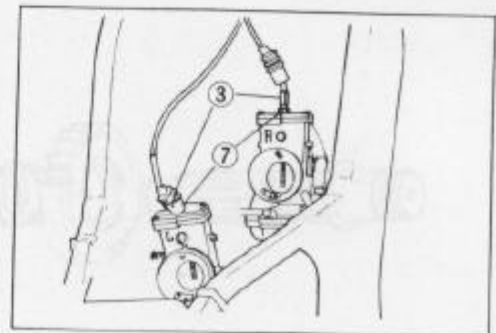
Throttle valve clearance: 0.7 mm



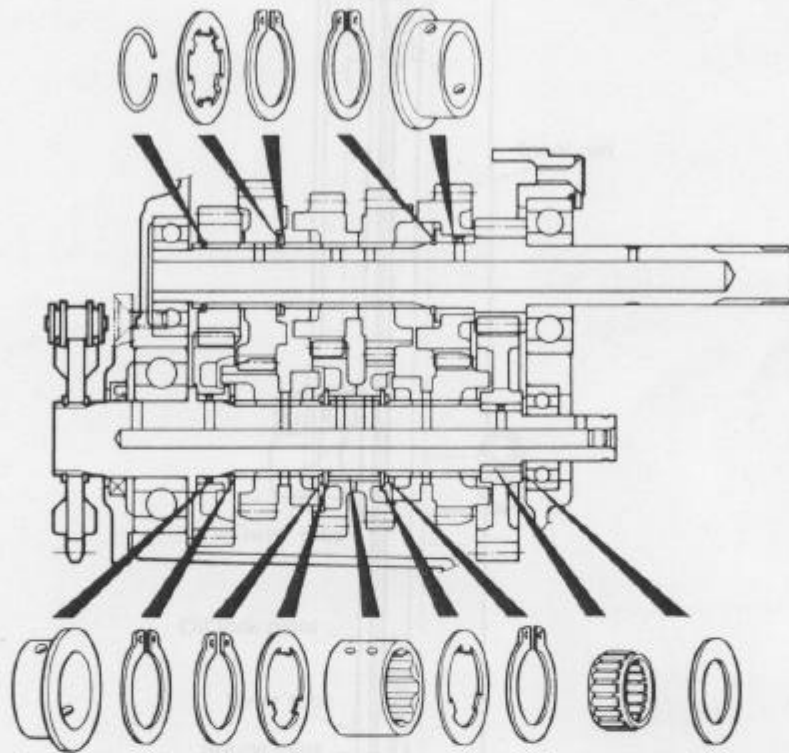
- Install each carburetor to the engine.
- Adjust the cable slack of right and left carburetors by turning each cable adjuster ③ to 0.5 – 1.0 mm.

Cable slack: 0.5 – 1.0 mm

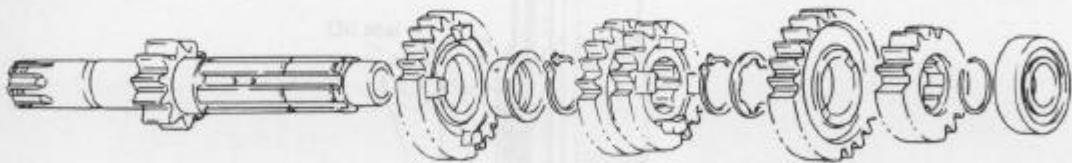
- Tighten each lock nut ⑦.



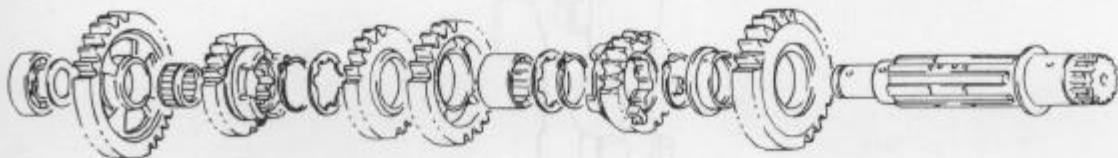
TRANSMISSION



DRIVESHAFT



COUNTERSHAFT



FRONT FORK

ASSEMBLY

1. Lightly loosen the front fork cap (1) by turning it clockwise while loosening the front fork clamp bolts.

2. Remove the stopper ring (2) and spring adjuster (3).

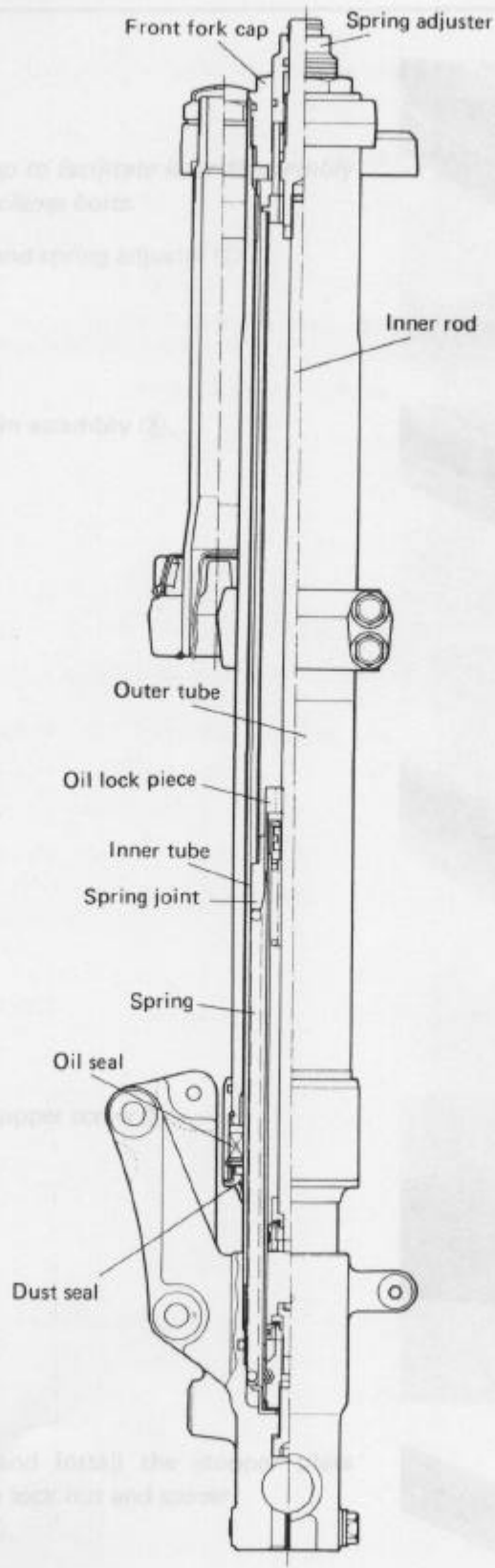
3. Remove the spring adjuster pin assembly (4).

4. Loosen the front fork cap (5).

5. Remove the front fork cap stopper (6).

6. Compress the fork spring and install the nut (7) and lock washer (8) between the lock nut and inner tube (9) through the front fork cap (10).

7. Part No. 41320- Stopper plate

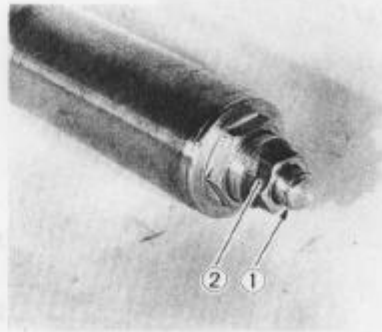


DISASSEMBLY

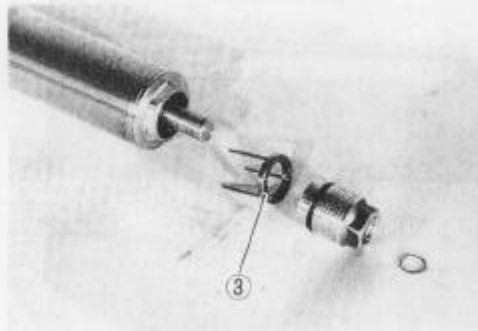
NOTE:

Slightly loosen the front fork cap to facilitate later disassembly before loosening the front fork clamp bolts.

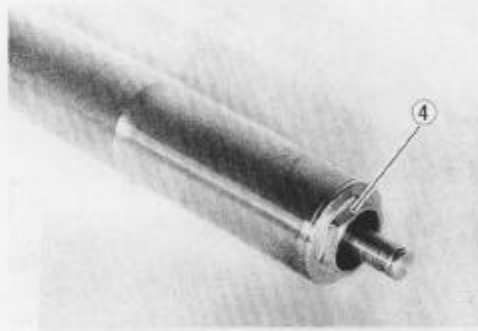
- Remove the stopper ring ① and spring adjuster ②.



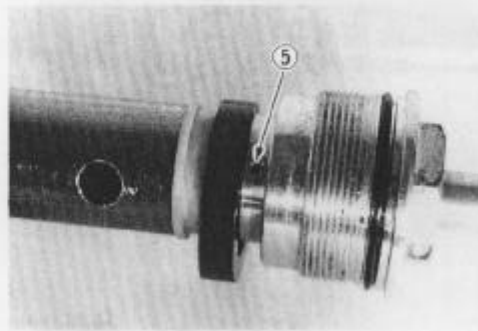
- Remove the spring adjuster pin assembly ③.



- Loosen the front fork cap ④.

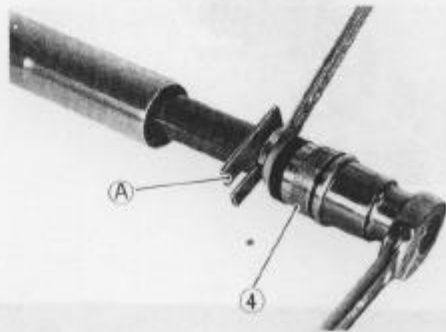


- Remove the front fork cap stopper screw ⑤.

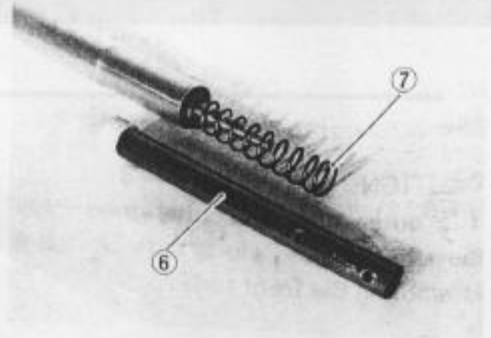


- Compress the fork spring and install the stopper plate (special tool ①) between the lock nut and spacer.
- Remove the front fork cap ④.

09940-94920: Stopper plate



- Remove the spacer (6) and spring (7).

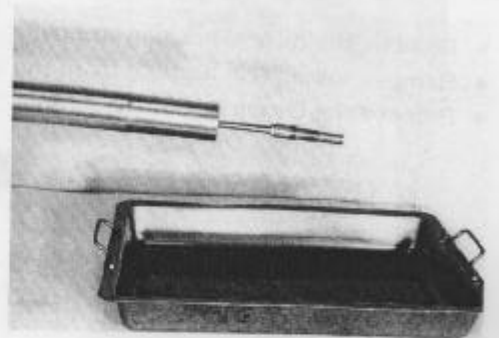


Remove the outer tube from the inner tube.

Be careful not to damage the inner tube.

NOTE:

- Invert the fork and stroke the inner rod several times to let out fork oil.
- Under the inverted condition of front fork, drain oil to hold it for minutes.



Remove the oil seal holder stopper ring (5).

Remove the oil seal holder from the outer tube.

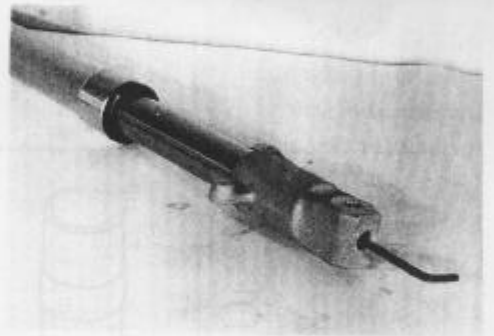
Remove the O-ring out of the oil seal holder.

- Remove the damper rod bolt with the hexagon wrench.
09900-00401: "L" type hexagon wrench set

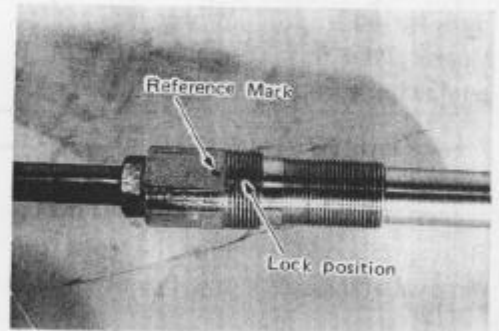
- Remove the inner rod/damper rod (cartridge) out of the inner tube.

CAUTION:

Do not attempt to disassemble the inner rod/damper rod.



- Mark a lock position on the spring adjuster guide rod for reference used when reassembly.



Check spring

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

Free length: 230 mm (9.09 in.)

ASSEMBLY AND REMOUNTING

- Remove the dust seal (8) and oil seal stopper ring (9).

Remove and disassemble. Pay attention to the following points:

Remove rod bolt

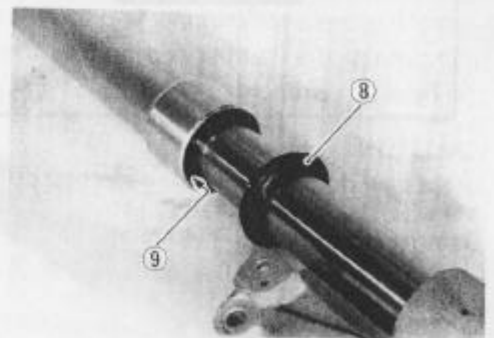
Insert the inner rod/damper rod (cartridge) into the inner tube and tighten the damper rod bolt to the specified torque with the hexagon wrench.

CAUTION:

Use a new damper rod bolt gasket to prevent oil leakage.

Damper rod bolt: 30 - 40 N·m

(2.0 - 3.0 kg-m, 21.5 - 29.0 ft-lb)



10-25 RGV250M ('91-MODEL)

- Separate the outer tube from the inner tube.

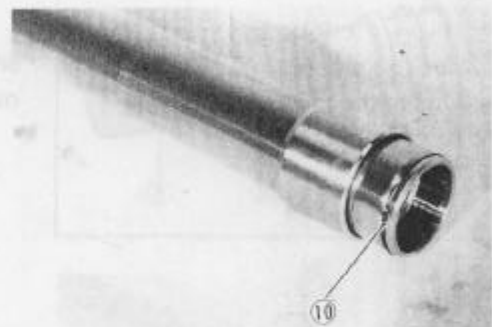
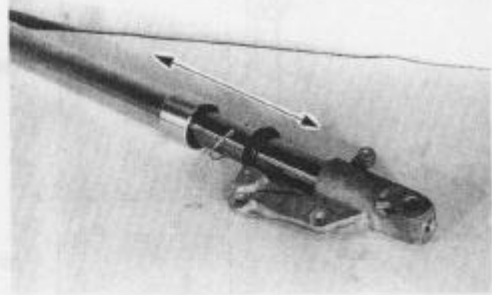
NOTE:

Be careful not to damage the inner tube.

CAUTION:

The outer tube and inner tube "ANTI-FRICTION" metals must be replaced along with the oil seal and dust seal, when assembling the front fork.

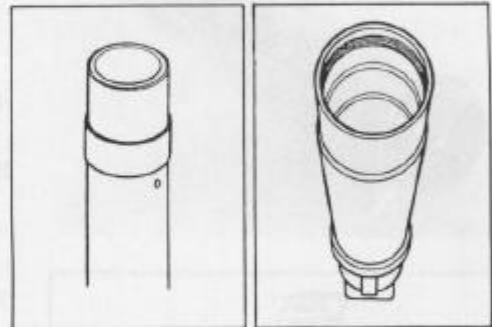
- Remove the oil seal housing stopper ring (10).
- Remove the oil seal housing from the outer tube.
- Remove the O-ring out of the oil seal housing.



INSPECTION

Inner and outer tube

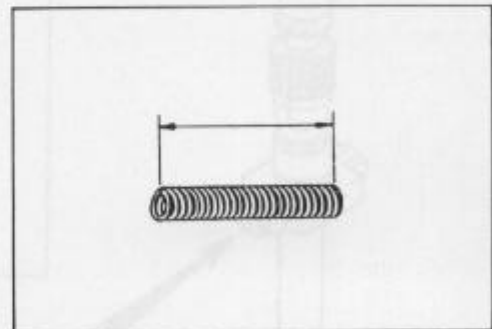
Inspect the inner tube sliding surface and outer tube sliding surface for any scuffing.



Fork spring

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

Service limit: 330 mm (13.0 in)



REASSEMBLY AND REMOUNTING

Reassemble and remount the front fork in the reverse order of removal and disassembly. Pay attention to the following points:

Damper rod bolt

Insert the inner rod/damper rod (cartridge) into the inner tube and tighten the damper rod bolt to the specified torque with the hexagon wrench.

CAUTION:

Use a new damper rod bolt gasket to prevent oil leakage.

Damper rod bolt: 30 – 40 N·m
(3.0 – 4.0 kg·m, 21.5 – 29.0 lb-ft)

09900-00401: "L" type hexagon wrench set

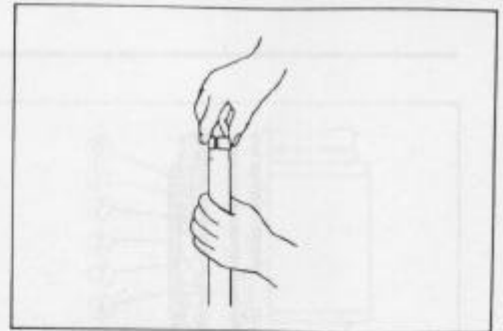


Tube metals and seals

- Hold the inner tube vertically and clean the metal groove and install the ANTI-FRICTION metal by hand as shown.

CAUTION:

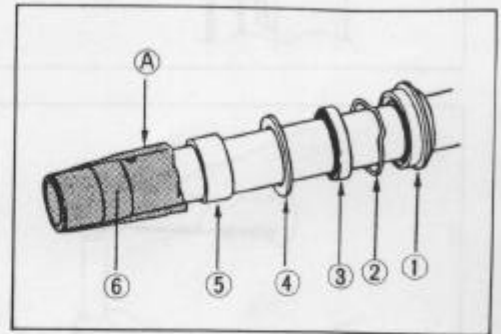
Use special care to prevent damage to the "TEFLON" coated surface of the ANTI-FRICTION metal when mounting it.



- Install the dust seal, oil seal stopper ring, oil seal, oil seal retainer and anti-friction metal onto the inner tube.

CAUTION:

- * When installing the dust seal ① and oil seal ③ onto the inner tube, protect their seal lips with a vinyl film A to prevent oil seal damage.
- * Do not use solvents for washing to prevent oil seal damage.



- ① Dust seal
- ② Oil seal stopper ring
- ③ Oil seal
- ④ Oil seal retainer
- ⑤ Anti-friction metal (outer tube)
- ⑥ Anti-friction metal (inner tube)

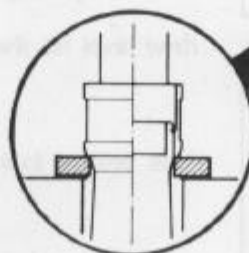
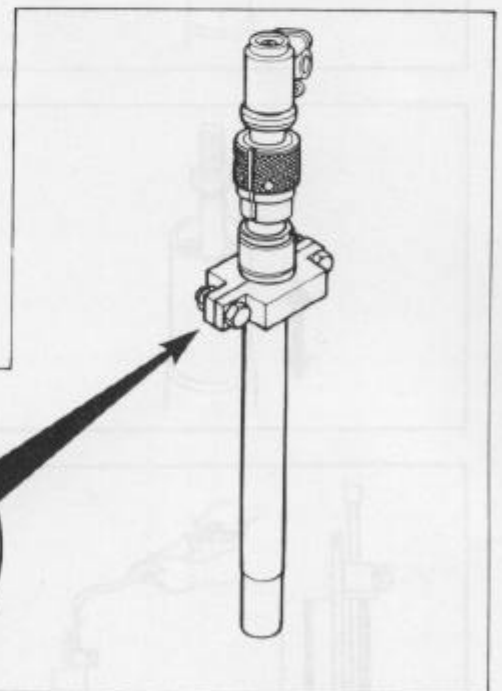
- Install the O-ring into the O-ring groove of the oil seal housing and apply grease to the O-ring.
- Install the oil seal housing onto the outer tube and install the oil seal housing stopper ring onto the outer tube.



- Insert the inner tube into the outer tube and install the oil seal and dust seal with the special tools, ① and ②.

09940-52820: Front fork oil seal installer

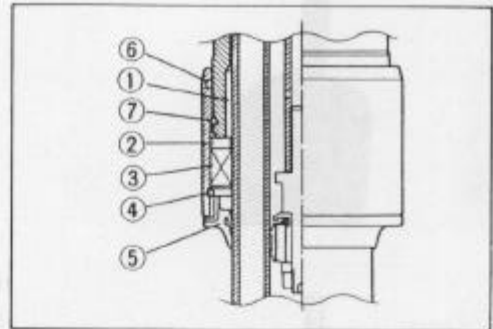
09940-52830: Oil seal housing stopper



- ① Anti-friction metal
- ② Oil seal retainer
- ③ Oil seal
- ④ Oil seal stopper ring
- ⑤ Dust seal
- ⑥ O-ring
- ⑦ Oil seal housing stopper ring

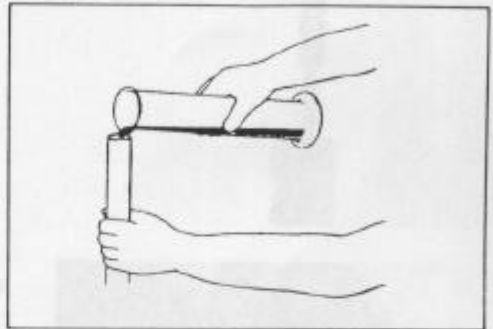
CAUTION:

Make sure that oil seal housing is surely stopped by its stopper ring.



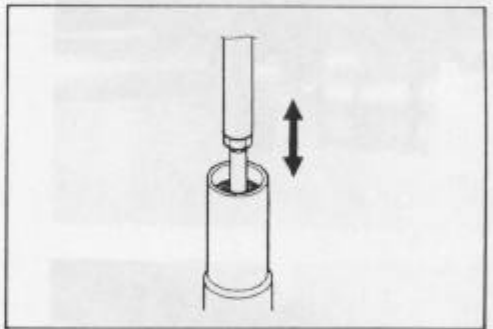
Fork oil

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



99000-99044-10G: Fork oil # 10

- Move the inner rod slowly with the special tool more than ten times until bubbles do not come out from oil.

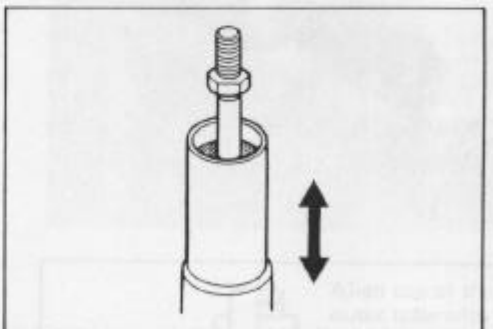


09940-52840: Front fork inner rod holder

NOTE:

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

- Pour specified front fork oil up to the top level of the outer tube again.
- Fully stroke the outer tube to pump out air from outer tube.
- Keep the front fork vertically and wait 5 – 6 minutes.



NOTE:

- * Always keep oil level over cartridge top surface, or air may enter cartridge when stroking.
- * Take extreme attention to pump out air completely.

- Hold the front fork vertical and adjust fork oil level with the special tool.

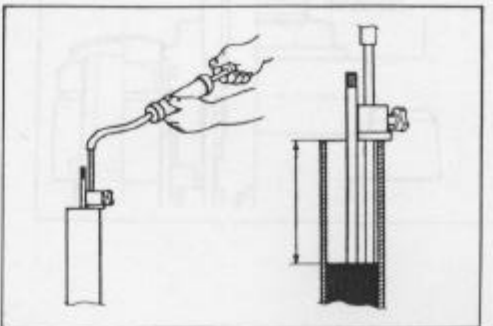
NOTE:

When adjusting fork oil level, remove the fork spring and compress the outer tube fully.

09943-74111: Fork oil level gauge

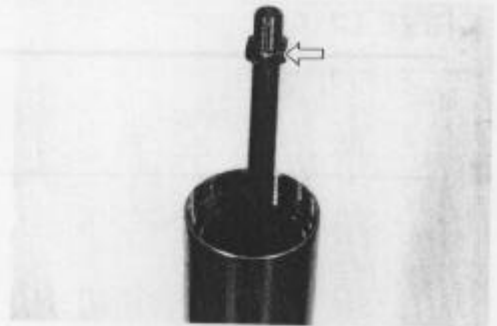
Fork oil level: 109 mm (4.29 in)

Fork oil capacity: 429 ml (14.5/15.1 US/Imp oz)
(each leg)



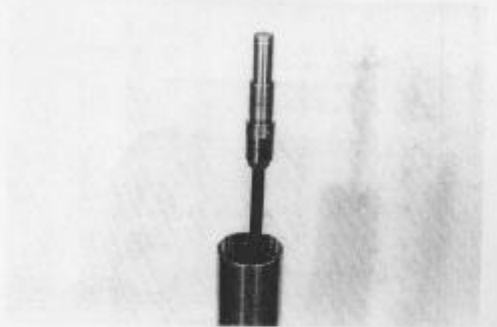
Front fork cap

- Screw the lock nut by hand until it stops by finger tight.

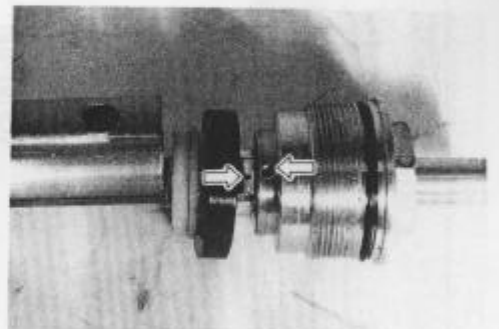


- Slowly turn in the spring adjuster guide rod by hand until it stops by finger tight and tighten the lock nut to the specified torque.

Tightening torque: 13.5 – 16.5 N·m
(1.35 – 1.65 kg·m, 10.0 – 12.0 lb-ft)



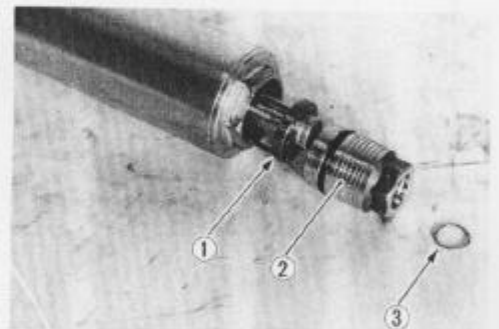
- Align the mark on the spring adjuster guide rod with the hole on the front fork cap. (Refer to page 24.)
- Tighten the front fork cap stopper screw.



- Install the spring adjuster pin assembly ①, spring adjuster ② and stopper ring ③.

NOTE:

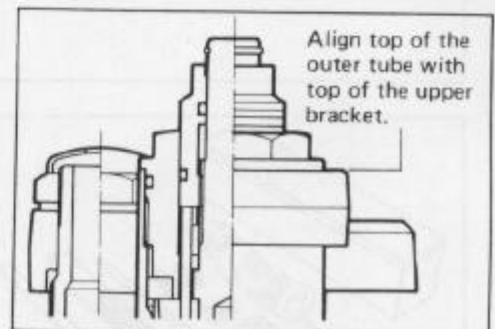
When installing the spring adjuster pin assembly ①, align the three pins with the holes of the front fork cap.



FRONT FORK REMOUNTING

- When remounting the front fork assembly, set the upper surface of the outer tube to the steering stem upper bracket.
- Tighten the front fork cap to the specified torque.

Tightening torque: 30 – 40 N·m
(3.0 – 4.0 kg·m, 21.5 – 29.0 lb-ft)



DRIVE CHAIN

- 1 Pressure bolt B
- 2 Pin
- 3 Adjuster bolt (with through hole)
- 4 Pin remover

NOTE:

The tip of pin remover (3) should be positioned exactly approximately 2 mm (0.2 in) from the end face of pressure bolt A (4) as shown in the illustration.

- 1 Press the end of the chain (1) of the tool (2) against the end of the chain.
- 2 Turn the tool (2) clockwise to cut the chain.

- 1 Turn the pressure bolt A (4) with the pin (2) and force out the drive chain joint pin (3).

- 1 Turn the pressure bolt B (1) with the pin (2) and force out the drive chain joint pin (3).

CAUTION:

Excessive twisting in the pressure bolt B (1) will drive the joint pin (3) out completely from the chain.

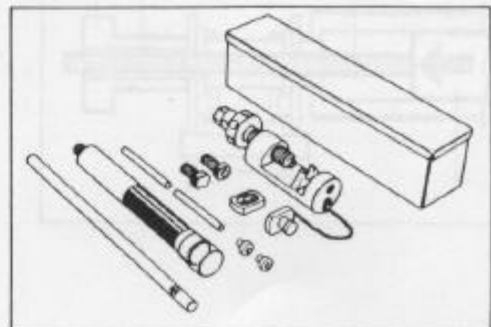
NOTE:

After the joint pin (3) is removed, turn the pressure bolt B (1) and then pressure bolt A (4).

- 1 Reverse the joint pin of the other side of joint plate.

To cut and rejoin the drive chain, use the special tool in the following procedures.

09922-22710: Drive chain cutting and joining tool set



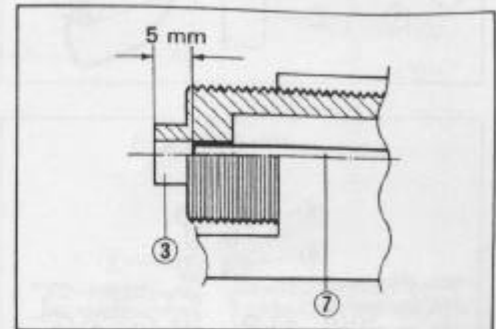
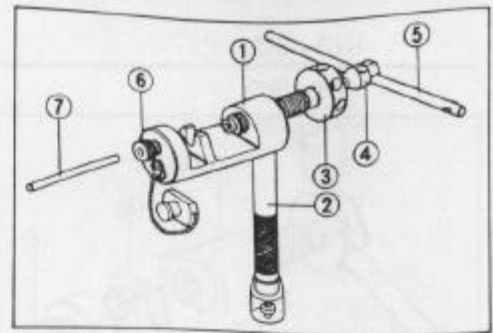
REMOVING JOINT PIN

- Set up the special tool as shown in the illustration.

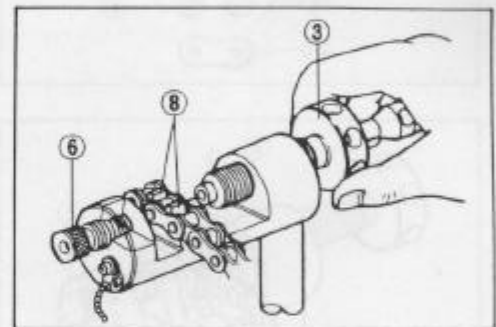
- ① Tool body
- ② Grip handle
- ③ Pressure bolt A
- ④ Pressure bolt B
- ⑤ Bar
- ⑥ Adjuster bolt (with through hole)
- ⑦ Pin remover

NOTE:

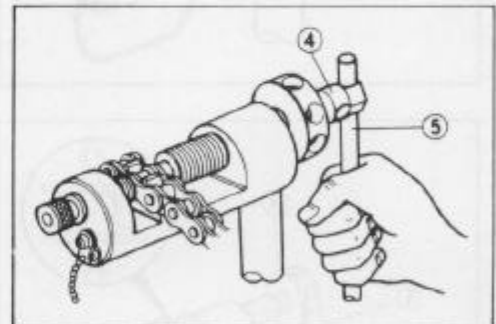
The tip of pin remover ⑦ should be positioned inside approximately 5 mm (0.2 in) from the end face of pressure bolt A ③ as shown in the illustration.



- Place the drive chain link being disjoined on the holder part ⑧ of the tool.
- Turn in both the adjuster bolt ⑥ and pressure bolt A ③ so that each of their end hole fits over the chain joint pin properly.
- Tighten the pressure bolt A ③ with the bar.



- Turn in the pressure bolt B ④ with the bar ⑤ and force out the drive chain joint pin ⑨.


CAUTION:

Continue turning in the pressure bolt B ④ until the joint pin has been completely pushed out of the chain.

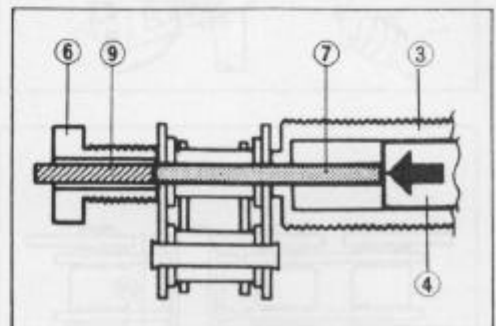
NOTE:

After the joint pin ⑨ is removed, loosen the pressure bolt B ④ and then pressure bolt A ③.

- Remove the joint pin of the other side of joint plate.

CAUTION:

Never reuse joint pins, O-rings and plates. After joint pins, O-rings and plates have been removed from the drive chain, the removed joint pins, O-rings and plates should be discarded and new joint plate, O-rings and plate must be installed.

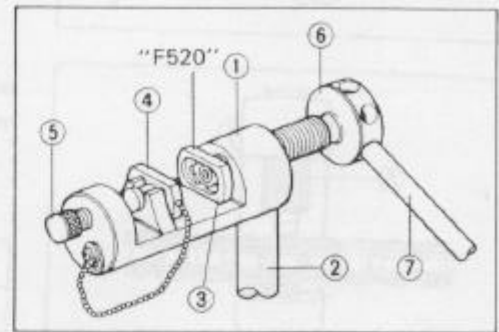


INSTALLING JOINT PLATE AND STAKING JOINT PIN

Installing joint plate

- Set up the special tool as shown in the illustration.

- ① Tool body
- ② Grip handle
- ③ Joint plate holder (engraved mark "F520")
- ④ Wedge holder & wedge pin
- ⑤ Adjuster bolt (without hole)
- ⑥ Pressure bolt A
- ⑦ Bar



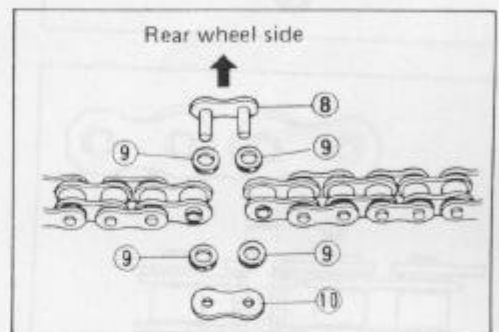
- Connect both ends of the drive chain with the joint pin (8) inserted from the wheel side as installed on the motorcycle.

- ⑨ O-ring 4 pcs
- ⑩ Joint plate

Joint set part number

DID: 27620-22D10

RK: 27620-06C20

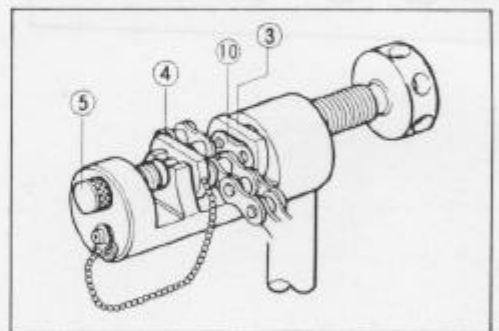


- Apply grease on the recessed portion of the joint plate holder (3) and set the joint plate (10).

NOTE:

When positioning the joint plate (10) on the tool, bring its stamp mark on the joint plate holder (3) side.

- Set the drive chain on the tool as illustrated and turn in the adjuster bolt (5) to secure the wedge holder & wedge pin (4).
- Turn in the pressure bolt A (6) and align two joint pins (11) properly with the respective holes in joint plate (10).
- Turn in the pressure bolt A (6) further using the bar (7) to press the joint plate over the joint pins.



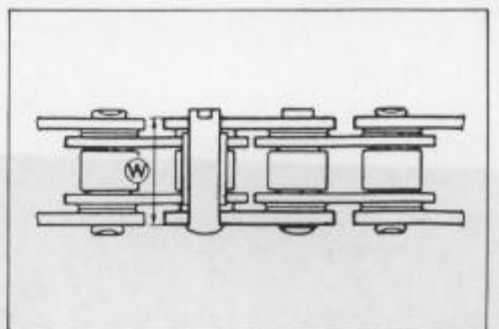
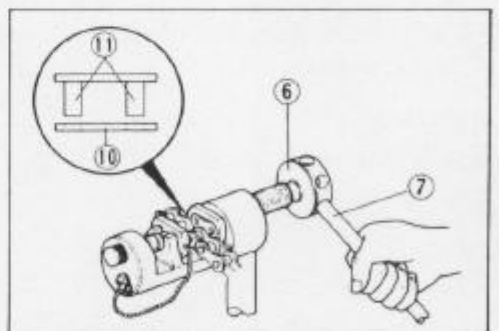
- Continue pressing the joint plate until the distance between the two joint plates comes to the specification.

Joint plates distance specification W

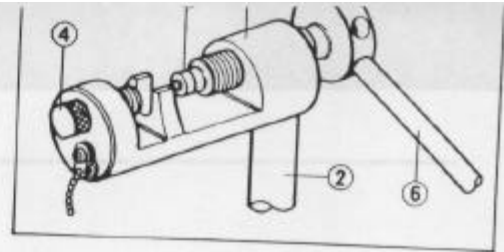
DID	17.1 – 17.3 mm (0.67 – 0.68 in)
RK	17.25 – 17.55 mm (0.679 – 0.691 in)

CAUTION:

Should pressing of the joint plate be made excessively beyond the specified dimension, the work should be redone using the new joint parts.



- ② Grip handle
- ③ Pressure bolt A
- ④ Adjuster bolt (without hole)
- ⑤ Staking pin (stowed inside grip handle behind rubber cap)
- ⑥ Bar

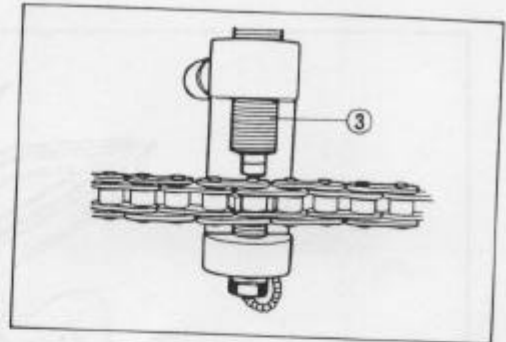


SUSPENSION

- Stake the joint pin by turning (approximately 7/8 turn) the pressure bolt A ③ with the bar until the pin end diameter becomes the specified dimension.

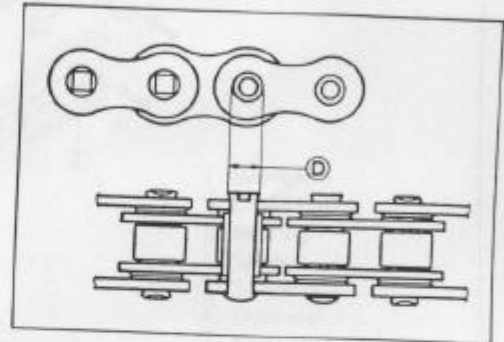
Pin end diameter specification ①

DID	5.3 – 5.6 mm (0.20 – 0.22 in)
RK	5.4 – 5.8 mm (0.21 – 0.23 in)



CAUTION:

- * After joining of the chain has been completed, check to make sure that the link is smooth and no abnormal condition is found.
- * Should any abnormal condition be found, reassemble the chain link using the new joint parts.



Adjusting Torque

① ② ③ 45 – 72 N·m

(4.5 – 7.2 kg-m, 33.0 – 52.0 lb-ft)

④ Apply SAE/SAE GREASE "A".

⑤ Press down adjuster

⑥ Press the adjuster

lock nut.

SHOCK ABSORBER AND CUSHION LEVER

Adjusting Torque

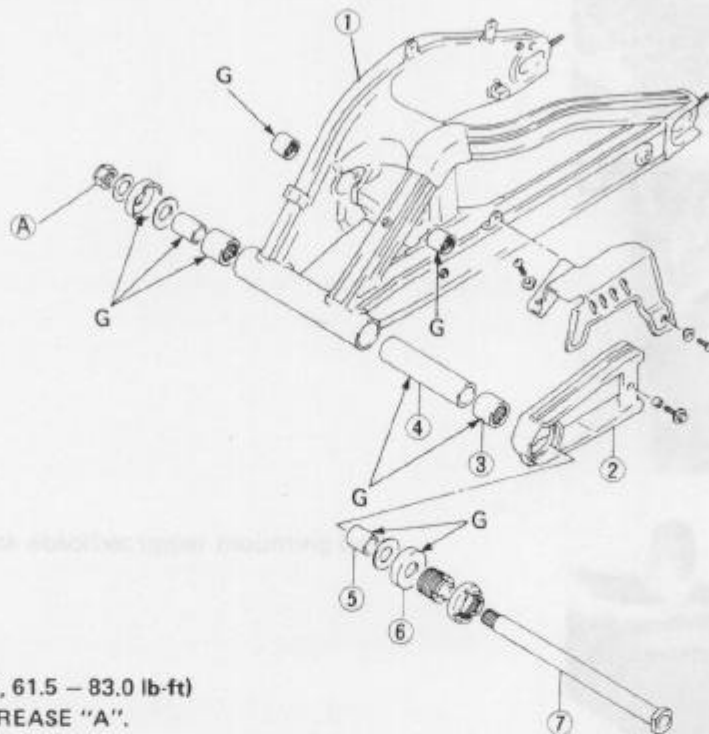
① ② ③ 45 – 72 N·m

(4.5 – 7.2 kg-m, 33.0 – 52.0 lb-ft)

④ ⑤ ⑥ 24 – 32 N·m

(2.4 – 3.2 kg-m, 17.0 – 23.0 lb-ft)

REAR SUSPENSION SWINGARM



- ① Swingarm
- ② Chain buffer
- ③ Bearing
- ④ Spacer
- ⑤ Spacer
- ⑥ Dust seal
- ⑦ Pivot shaft
- ⑧ Pivot thrust adjuster
- ⑨ Pivot thrust adjuster lock nut

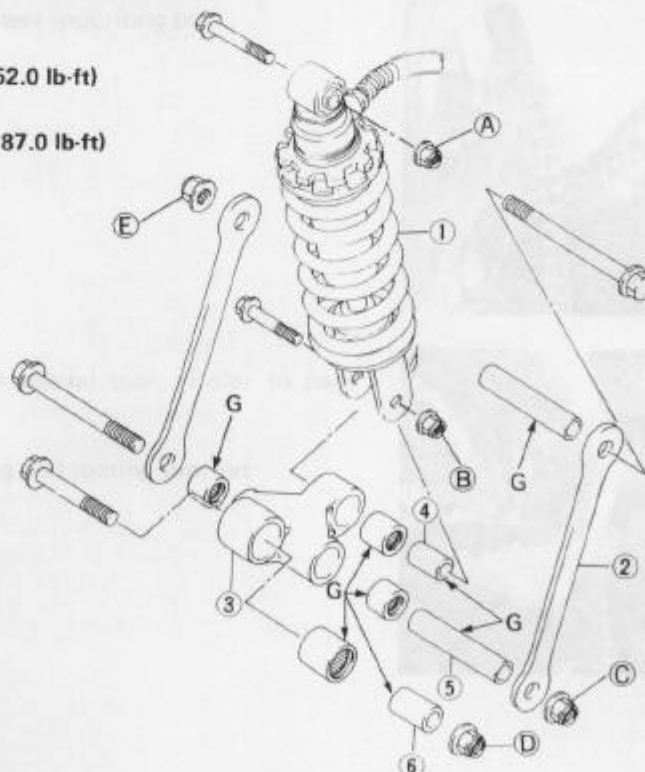
Tightening torque

- A** : 85 – 115 N·m
(8.5 – 11.5 kg·m, 61.5 – 83.0 lb-ft)
- G** : Apply SUPER GREASE "A".

SHOCK ABSORBER AND CUSHION LEVER

Tightening torque

- A**, **B** : 48 – 72 N·m
(4.8 – 7.2 kg·m, 35.0 – 52.0 lb-ft)
- C**, **D**, **E** : 84 – 120 N·m
(8.4 – 12.0 kg·m, 61.0 – 87.0 lb-ft)

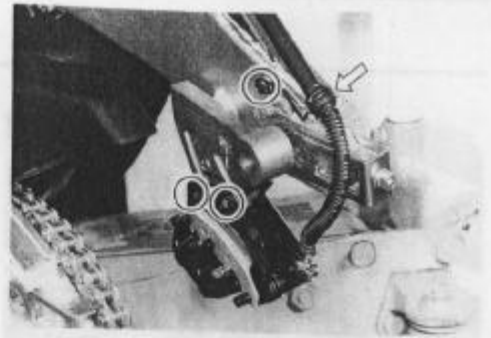


- ① Shock absorber
- ② Cushion lever rod
- ③ Cushion lever
- ④ Spacer
- ⑤ Spacer
- ⑥ Spacer

G : Apply SUPER GREASE "A".

REMOVAL

- Remove the rear wheel.
- Remove the brake caliper mounting bolts.
- Remove the rear fender ①.



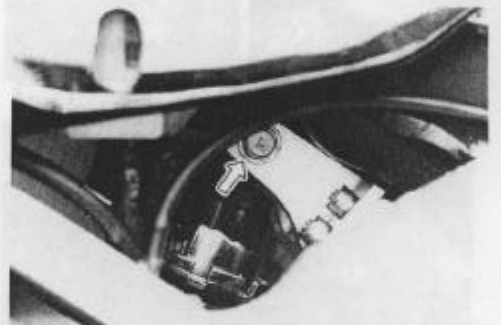
1. Hold the swingarm pivot shaft with a 14 mm hexagon wrench and remove the swingarm pivot nut.



- Remove the shock absorber upper mounting bolt.

1. Remove the shock absorber upper lock nut.

2. Turn the shock absorber lock nut clockwise. Pivot thrust adjuster lock nut wrench



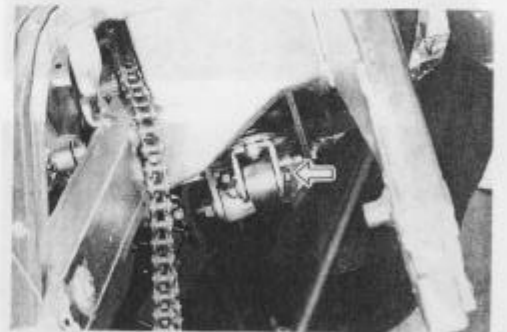
- Remove the shock absorber lower mounting bolt.
- Remove the shock absorber.

1. Loosen the pivot thrust adjuster ②.

2. Turn the shock absorber lock nut clockwise. Pivot thrust adjuster wrench

3. Remove the swingarm pivot shaft.

4. Remove the rear suspension.

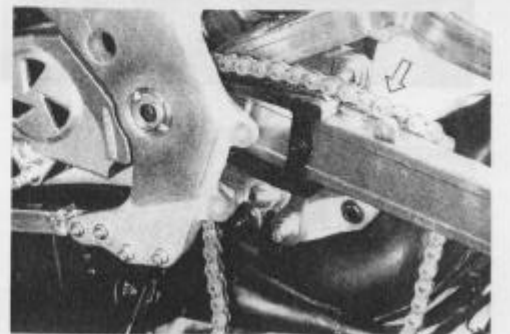


- Cut the drive chain with the special tool. (Refer to page 30.)

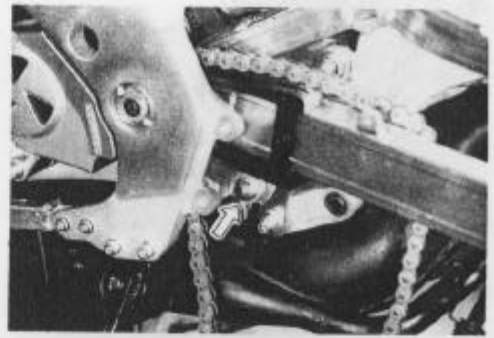
09922-22710: Drive chain cutting and joining tool set

1. Remove the dust caps and washers.

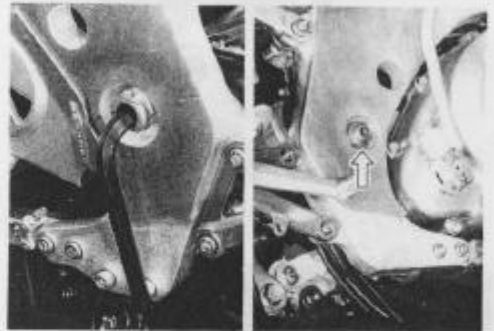
2. Remove the dustier level/foot lights.



- Remove the cushion lever mounting bolt. *Check the play by moving the spacer up and down. If an excessive play is noted, replace the bearing with a new one.*

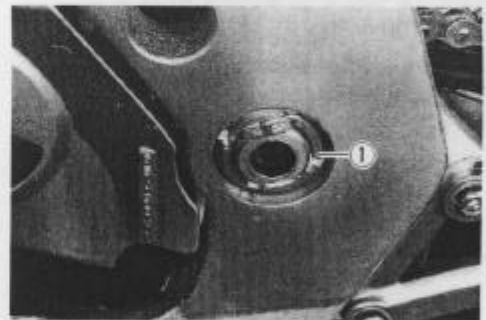


- Hold the swingarm pivot shaft with a 14-mm hexagon wrench and remove the swingarm pivot nut. *Check the bearing with a new one.*



- Remove the pivot thrust adjuster lock nut (1). *Play is noted.*

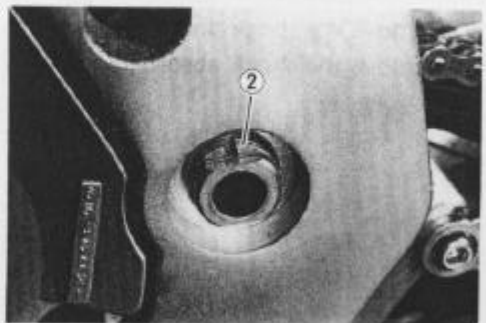
09940-14940: Pivot thrust adjuster lock nut wrench



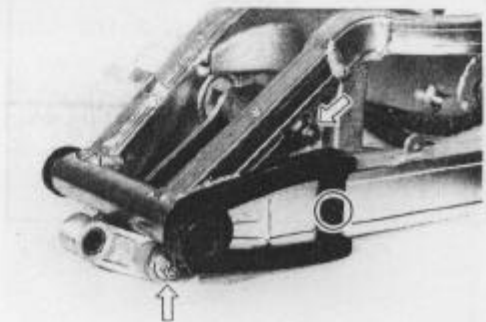
- Loosen the pivot thrust adjuster (2).

09940-14950: Pivot thrust adjuster wrench

- Remove the swingarm pivot shaft.
- Remove the rear suspension.



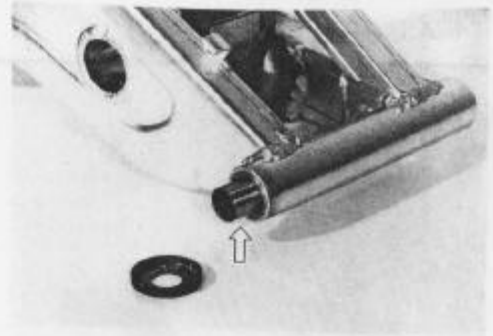
- Remove the chain buffer.
- Remove the dust seals and washers.
- Remove the cushion lever/rod bolts.



INSPECTION

Swingarm

Inspect the spacer for any flaws or other damage.
 Insert the spacer into the bearing and check the play by moving the spacer up and down. If an excessive play is noted, replace the bearing with a new one.
 Inspect each rubber part for wear and damage.



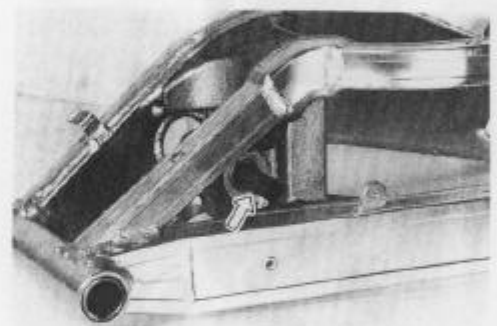
Cushion lever

Inspect the spacer for any flaws or other damage.
 Insert the spacer into the bearing and check the play by moving the spacer up and down.
 If an excessive play is noted, replace the bearing with a new one.



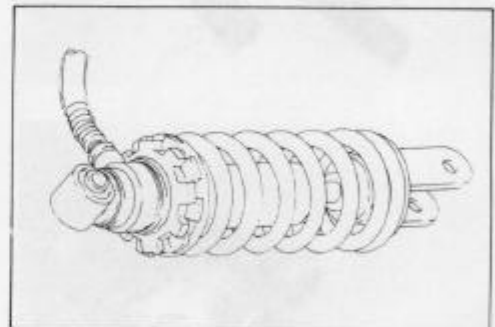
Cushion lever rod

Inspect the spacer for any flaws or other damage.
 Insert the spacer into the bearing and check the play by moving the spacer up and down. If an excessive play is noted, replace the bearing with a new one.



Shock absorber

Inspect the shock absorber body, bushing and bearing for damage and oil leakage. If any defects are found, replace the shock absorber with a new one.



09900-73210: Sealing remover
 09900-79102: Sliding Jack

CAUTION:

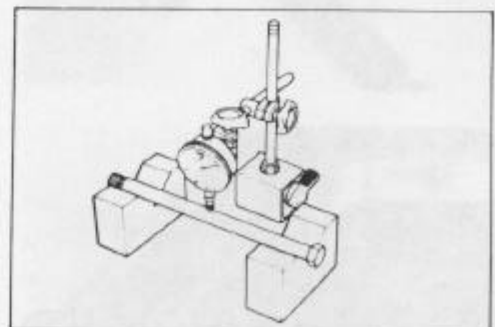
The removed bearings should be replaced with new ones.

Swingarm pivot shaft

Using a dial gauge, check the pivot shaft runout and replace it if the runout exceeds the limit.

- 09900-20606: Dial gauge (1/100)
- 09900-20701: Magnetic stand
- 09900-21304: V-block set (100 mm)

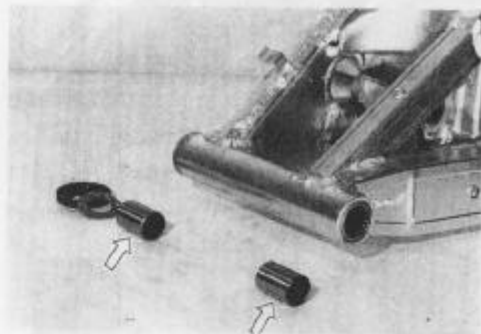
Service limit: 0.3 mm (0.01 in)



DISASSEMBLY

Swingarm

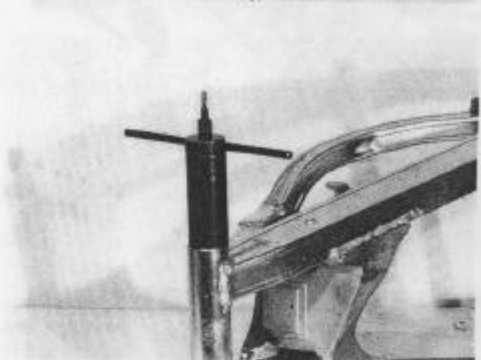
- Remove the spacers from the swingarm pivot.



- Remove the swingarm bearings by using the special tool.

09941-44910: Swingarm bearing remover

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



Cushion lever

- Remove the spacers.



- Remove the bearings by using the special tool.

09923-73210: Bearing remover

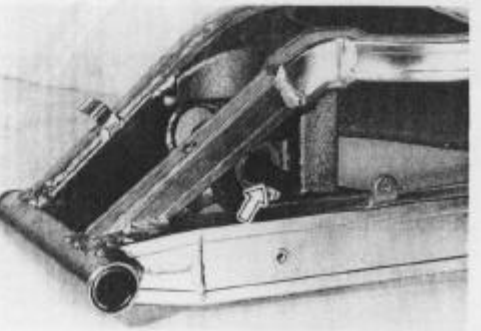
09930-30102: Sliding shaft

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



Cushion lever rod

- Remove the spacer from the swingarm.



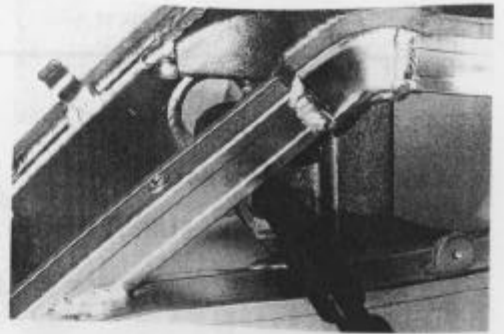
- Remove the bearing from the swingarm.

09923-73210: Bearing remover

09930-30102: Sliding shaft

CAUTION:

The removed bearings should be replaced with new ones.



REASSEMBLY AND REMOUNTING

Reassemble and remount the swingarm, rear shock absorber, rear cushion lever rods and cushion lever. Pay attention to the following points:

Swingarm

- Press-fit the bearings into the swingarm pivot.

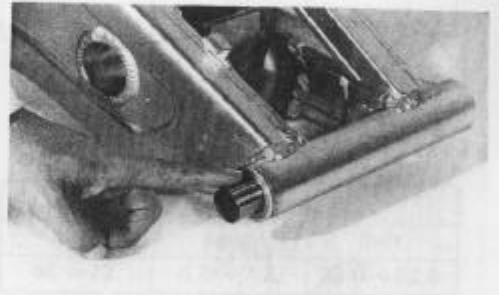
09941-34513: Steering outer race installer

NOTE:

When installing the bearings, punch-marked side of bearing faces outside.

- Apply grease to the bearings, spacers and dust seals.

99000-25010: SUZUKI SUPER GREASE "A"



Cushion lever rod

- Press-fit the cushion lever rod bearings into the cushion lever rod pivot.

09941-34513: Steering outer race installer

- Apply grease to the bearings and spacer.

99000-25010: SUZUKI SUPER GREASE "A"



Tightening torque		
Item	Unit	Value
1	N·m	10.0
2	kgf·m	1.0



Apply SUZUKI SUPER GREASE "A"

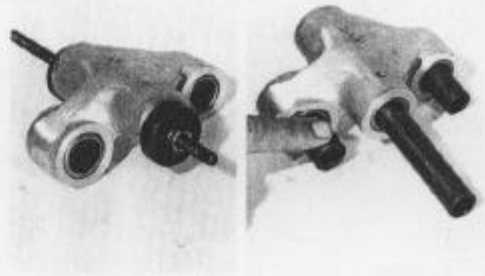
Cushion lever

- Press-fit the cushion lever bearing into the cushion lever.

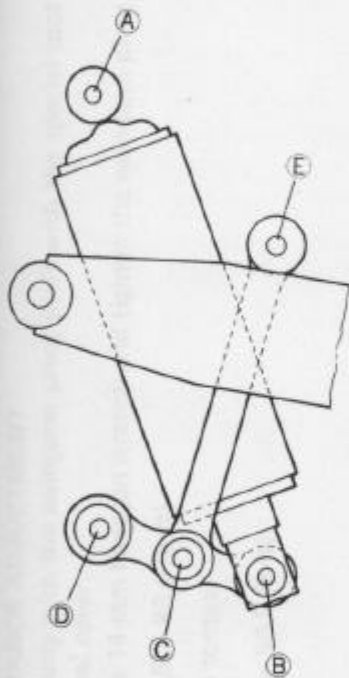
09941-34513: Steering outer race installer

- Apply grease to the bearings and spacers.

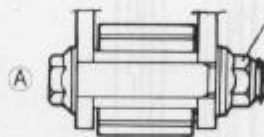
99000-25010: SUZUKI SUPER GREASE "A"



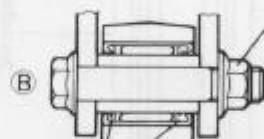
REASSEMBLY INFORMATION



LEFT SIDE | RIGHT SIDE

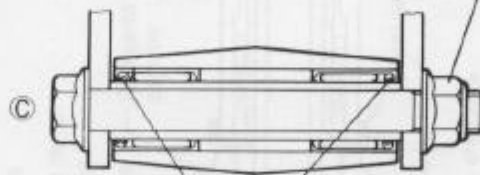


Tightening torque		
N-m	kg-m	lb-ft
48 - 72	4.8 - 7.2	35.0 - 52.0



Tightening torque		
N-m	kg-m	lb-ft
48 - 72	4.8 - 7.2	35.0 - 52.0

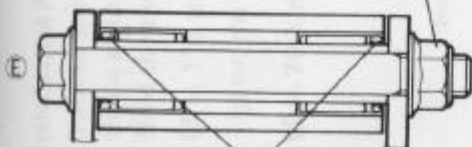
Apply SUZUKI SUPER GREASE "A".



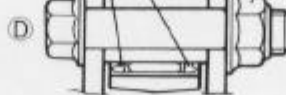
Tightening torque		
N-m	kg-m	lb-ft
84 - 120	8.4 - 12.0	61.0 - 87.0

Apply SUZUKI SUPER GREASE "A".

Tightening torque		
N-m	kg-m	lb-ft
84 - 120	8.4 - 12.0	61.0 - 87.0



Apply SUZUKI SUPER GREASE "A".



Tightening torque		
N-m	kg-m	lb-ft
84 - 120	8.4 - 12.0	61.0 - 87.0

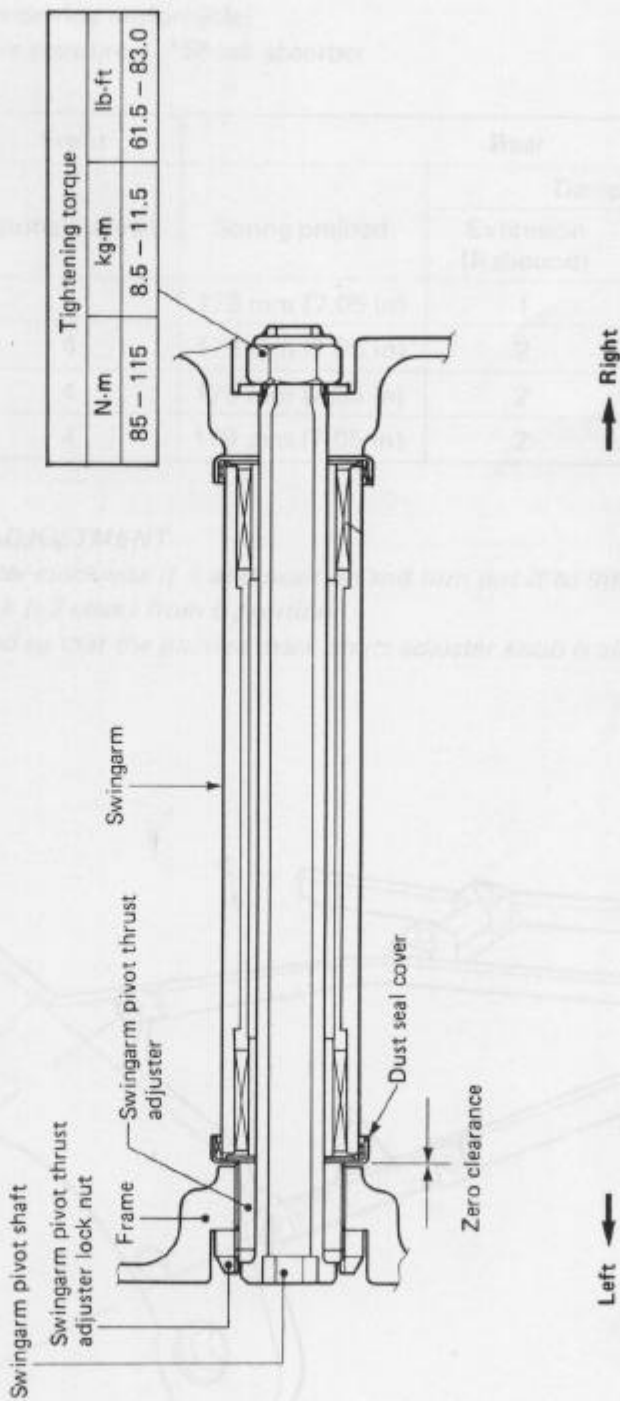
SWINGARM PIVOT THRUST CLEARANCE ADJUSTMENT

1. Turn in swingarm thrust adjuster along with the swingarm pivot shaft with the special tool (Thrust adjuster wrench) until the swingarm pivot thrust adjuster seats onto the dust seal cover.
2. Hold the swingarm pivot shaft with a 14-mm hexagon wrench and tighten the swingarm pivot nut to the specified torque.

85 – 115 N·m (8.5 – 11.5 kg·m, 61.5 – 83.0 lb·ft)

3. Tighten the lock nut to the specified torque.

60 – 70 N·m (6.0 – 7.0 kg·m, 43.5 – 50.5 lb·ft)



- 09900-18720: 14-mm hexagon wrench
- 09940-14940: Pivot thrust adjuster lock nut wrench
- 09940-14950: Pivot thrust adjuster wrench

FINAL INSPECTION AND ADJUSTEMENT

After installing the rear suspension and rear wheel, the following adjustments are required before driving motorcycle.

*Drive chain *Rear brake *Tire pressure *Shock absorber

SUSPENSION SETTING

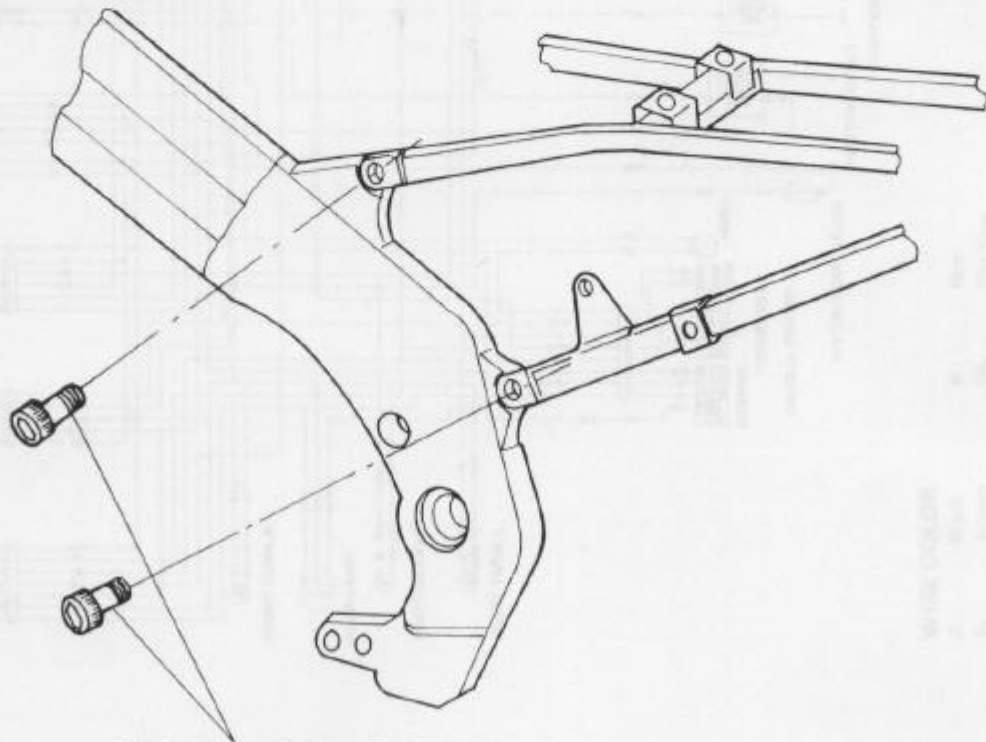
SUSPENSION SETTING		Front		Rear	
		Spring preload	Spring preload	Damping force	
				Extension (Rebound)	Compression
Solo riding	Softer	5	179 mm (7.05 in)	1	Standard + 1
	Standard	4	179 mm (7.05 in)	2	9 ± 2
	Stiffer	4	179 mm (7.05 in)	2	9 ± 2
Dual riding		4	179 mm (7.05 in)	2	9 ± 2

NOTE:**REAR SUSPENSION DAMPING ADJUSTMENT**

Fully turn the damping force adjuster clockwise it is at 0 position and turn out it to 9th click (± 2 click).

The STD setting position is 9th click (± 2 click) from 0 position.

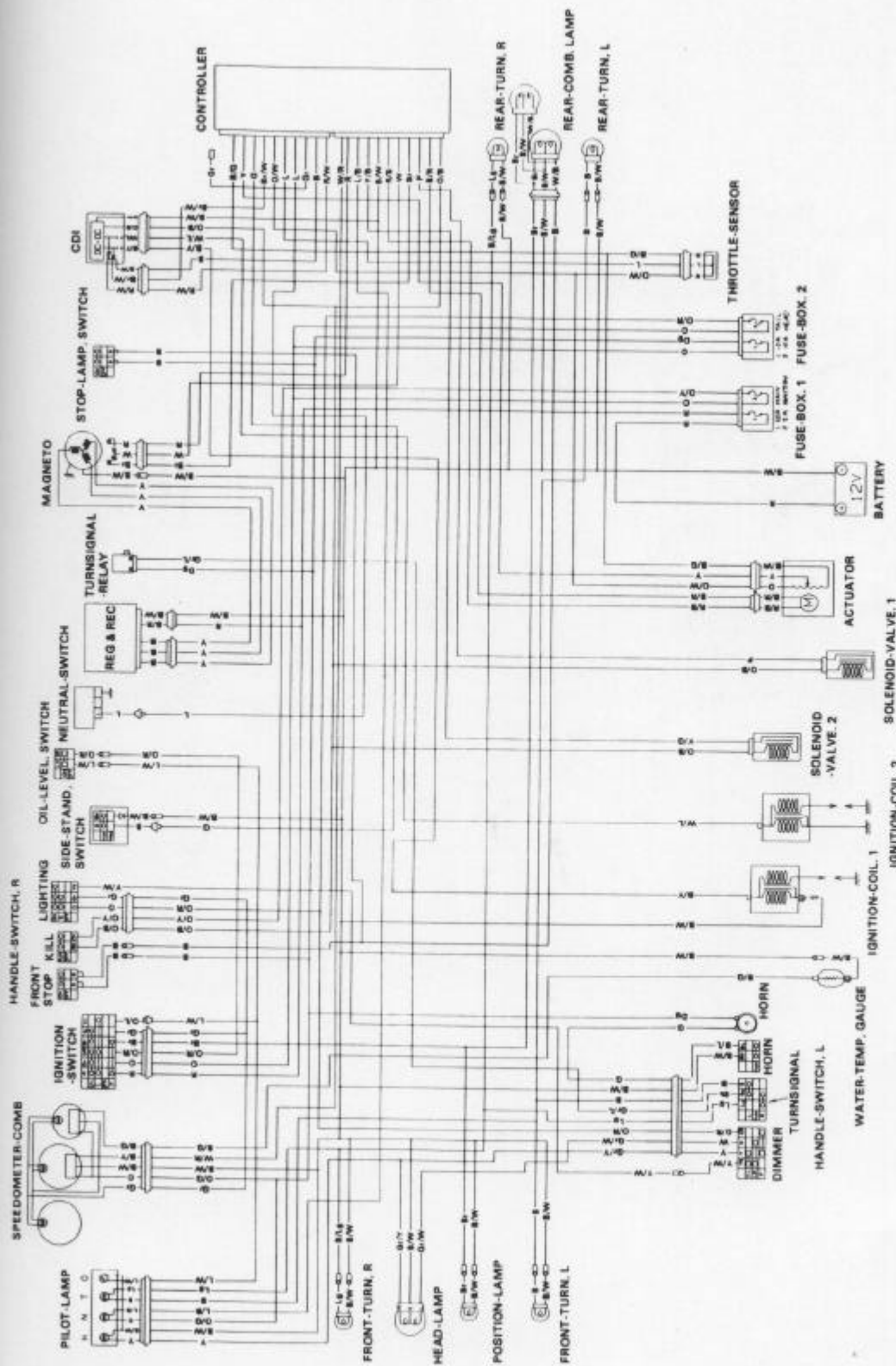
The STD setting position is obtained so that the painted mark on its adjuster knob is aligned with the indication mark on adjuster body.

FRAME**SEAT RAIL MOUNTING BOLT**

Tightening torque		
N·m	kg·m	lb·ft
45 - 50	4.5 - 5.0	32.5 - 36.0

*Apply SUZUKI THREAD LOCK SUPPER "1322".

WIRING DIAGRAM



WIRE COLOR

- B Black
- Br Brown
- Dg Dark green
- G Green
- Gr Gray
- L Blue
- Lg Light green
- O Orange
- P Pink

- R Red
- Sb Sky blue
- W White
- Y Yellow
- B/G Black with Green tracer
- B/Lg Black with light green tracer
- B/R Black with Red tracer
- B/W Black with White tracer
- B/Y Black with Yellow tracer

- Br/W Brown with White tracer
- Gr/L Gray with Blue tracer
- Gr/W Gray with White tracer
- L/B Blue with Black tracer
- L/W Blue with White tracer
- O/B Orange with Black tracer
- O/G Orange with Green tracer
- O/R Orange with Red tracer

- O/W Orange with White tracer
- O/Y Orange with Yellow tracer
- O/B Orange with Black tracer
- R/B Red with Black tracer
- W/R White with Red tracer
- Y/B Yellow with Black tracer
- Y/G Yellow with Green tracer
- Y/W Yellow with White tracer

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