

Note: Unless specifically mentioned in this Chapter, the information given for the 1982 750 Sabre applies to the UK VF750S-C, and that for the 1987 and 1988 700/750 Magnas applies to the UK VF750C-H and C-J respectively.

Specifications

Air pressure	
1982 models.....	6 to 14 psi (0.41 to 0.97 Bars)
1983 through 1986 models.....	0 to 6 psi (0 to 0.41 Bars)
Spring free length	
1982 750 models.....	532 mm (20.94 in)
1983 through 1985 700/750 Sabre and 1983/84 700 and 750 Magna models.....	553 mm (21.75 in)
1985 through 1988 700/750 Magna models.....	472 mm (18.59 in)
1100 Sabre models.....	534 mm (21.02 in)
1100 Magna models.....	415 mm (16.33 in)
Spring service limit	
1982 750 models.....	521 mm (20.5 in)
1983 through 1985 700/750 Sabre and 1983/84 700	

and 750 Magna models.....	542 mm (21.3 in)
1985 through 1988 700/750 Magna models.....	464 mm (18.2 in)
1100 Sabre models.....	523 mm (20.6 in)
1100 Magna models.....	404 mm (15.9 in)
Fork tube runout.....	0.2 mm (0.008 in)

Oil capacity - per leg

1982 750 Sabre model	
Right fork	375 cc (12.7 US fl oz, 13.2 Imp fl oz)
Left fork.....	390 cc (13.2 US fl oz, 13.7 Imp fl oz)
1983 750 Sabre model	
Right fork	360 cc (12.2 US fl oz, 12.7 Imp fl oz)
Left fork.....	375 cc (12.7 US fl oz, 13.2 Imp fl oz)
1984 and 1985 700 Sabre models	
Right fork	340 cc (11.5 US fl oz, 12.0 Imp fl oz)
Left fork.....	360 cc (12.2 US fl oz, 12.7 Imp fl oz)
1982 750 Magna model	
Right fork	390 cc (13.2 US fl oz, 13.7 Imp fl oz)
Left fork.....	405 cc (13.7 US fl oz, 14.3 Imp fl oz)
1983 750 Magna model	
Right fork	420 cc (14.2 US fl oz, 14.8 Imp fl oz)
Left fork.....	447 cc (15.1 US fl oz, 15.7 Imp fl oz)
1984 700 Magna model	
Right fork	420 cc (14.2 US fl oz, 14.8 Imp fl oz)
Left fork.....	440 cc (14.9 US fl oz, 15.5 Imp fl oz)
1985 and 1986 700 Magna models	
Right fork	545 cc (18.4 US fl oz, 19.2 Imp fl oz)
Left fork.....	560 cc (18.9 US fl oz, 19.7 Imp fl oz)
1987 and 1988 700/750 Magna models	415 cc (14.0 US fl oz, 14.6 Imp fl oz)
1100 Sabre models	
Right fork	470 cc (15.9 US fl oz, 16.5 Imp fl oz)
Left fork.....	495 cc (16.7 US fl oz, 17.4 Imp fl oz)
1100 Magna models	
Right fork	565 cc (19.1 US fl oz, 19.9 Imp fl oz)
Left fork.....	580 cc (19.6 US fl oz, 20.4 Imp fl oz)
Oil type.....	ATF (Automatic Transmission Fluid)
Oil level (1100 Sabre models)	
Right fork.....	235 mm (9.25 in)
Left fork.....	226 mm (8.90 in)

Rear shock absorber

Air pressure range (Sabre models).....	0 to 57 psi (0 to 3.9 Bars)
Spring free length service limit (Magna models)	
1982 and 1983 models.....	223 mm (8.8 in)
1984 model.....	219 mm (8.6 in)
1985 and 1986 models.....	221 mm (8.7 in)
1987 and 1988 models.....	240 mm (9.5 in)
1100 models.....	244 mm (9.6 in)

Final drive

Final drive unit oil capacity.....	See Chapter 1
Driveshaft damper oil capacity	
1985-on 700/750 Magnas and all 1100 Sabre models.....	50 cc (1.69 US fl oz, 1.76 Imp fl oz)
All other 700/750 models and all 1100 Magna models.....	80 cc (2.7 US fl oz, 2.82 Imp fl oz)
Driveshaft damper oil type	
1985-on 700/750 Magnas, 1984-on 1100 models.....	SAE80 Hypoid gear oil
All other 700/750 models and 1983 1100 Magna models	
Above 5°C(41°F).....	SAE90 Hypoid gear oil, API GL-5
Below 5°C (41°F).....	SAE80 Hypoid gear oil, API GL-5

Torque settings**Nm****ft-lbs**

Handlebar clamp bolts

1982 through 1984 700/750 Magna models.....	20 to 30	14 to 22
1985 and 1986 700 Magna models.....	25 to 35	18 to 25
1987 and 1988 700/750 Magna models	24 to 30	17 to 22
1984 and 1985 700 Sabre models.....	Not available	
1100 Magna models.....	40 to 50	29 to 36
1100 Sabre models.....	30 to 40	22 to 29

Handlebar pinch bolts

1982 and 1983 750 Sabre models.....	40 to 50	29 to 36
1983 1100 Magna model.....	25 to 30	18 to 22

Clutch and front brake master cylinder clamp bolts (1100 models).....

10 to 14	7 to 10
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Triple clamp pinch bolts

Upper triple clamp.....	9 to 13	7 to 9
Lower triple clamp.....	45 to 55	33 to 40

Steering stem pinch bolt (1100 models).....	18 to 30	13 to 22
Front forks		
Fork top bolt.....	15 to 30	11 to 22
Damper piston socket head bolt.....	15 to 25	11 to 18
Brace bolts.....	18 to 28	13 to 20
Front turn signal clamp bolt (1987 and 1988 700/750 Magna models)...	9 to 13	7 to 9
Steering stem adjuster nut (see text)		
All 700/750 Sabre models, 1982 and 1983		
700/750 Magna models.....	14 to 16	10 to 12
1984 700 Magna model.....	19 to 21	14 to 15
1985-on 700/750 Magna models.....	19 to 23	14 to 17
1100 Sabre models.....	20 to 22	14 to 16
1100 Magna 1983 model		
Initial torque.....	14 to 16	10 to 12
Final torque.....	10 to 12	7 to 9
1100 Magna 1984-on models		
Initial torque.....	19 to 23	14 to 17
Final torque.....	19 to 21	14 to 15
Steering stem top nut		
All 700/750 Sabre models, 1982 and 1983 750 Magna models.....	80 to 120	58 to 87
1984 through 1988 700/750 Magna models.....	90 to 120	65 to 87
1983 through 1985 1100 Magna models.....	80 to 120	58 to 87
All 1100 Sabre models and 1986 1100 Magna model.....	90 to 120	65 to 87
Shock absorber mounting bolt nuts/bolts		
700/750 Sabre models.....	38 to 48	28 to 35
1982 through 1986 700/750 Magna models.....	30 to 40	22 to 29
1987 and 1988 700/750 Magna models		
Upper nuts on both sides and lower bolt on right side	20 to 30	14 to 22
Lower nut on left side	30 to 40	22 to 29
1100 Sabre models.....	40 to 50	29 to 36
1100 Magna models		
Upper.....	40 to 50	29 to 36
Lower.....	30 to 40	22 to 29
Shock absorber linkage (700/750 Sabres) All except shock		
absorber lower mounting.....	60 to 70	43 to 51
Shock absorber linkage (1100 Sabre).....	40 to 50	29 to 36
Swingarm left pivot shaft.....	90 to 120	65 to 87
Swingarm right pivot shaft.....	16 to 20	12 to
14		
Swingarm right pivot shaft locknut*.....	100 to 130	72 to 94
Final drive unit-to-swingarm nuts.....	45 to 70	33 to 51

*Tighten using special tool

General information

The double cradle-type frame incorporates a subframe which acts as the left front downtube and front crosstube or brace. This subframe is detachable to allow for engine removal, and also forms part of the cooling system, carrying coolant from the radiator to the water pump.

All models use telescopic, oil-damped, coil-sprung forks for front suspension. Those on 1982 through 1986 models are air-assisted and have anti-dive on the left fork. All 1100 Sabre models have a rebound damping adjuster on the right fork.

Rear suspension on Sabre models is by Honda's 'Pro-Link' system in which the swingarm acts on a gas/oil shock via a two piece linkage. Magna models have two conventional hydraulically-damped shock absorbers; those fitted to 1982 and 1983 750 models have aluminum reservoirs to aid cooling.

The swingarm pivots on tapered-roller bearings and carries the final driveshaft in its left side.

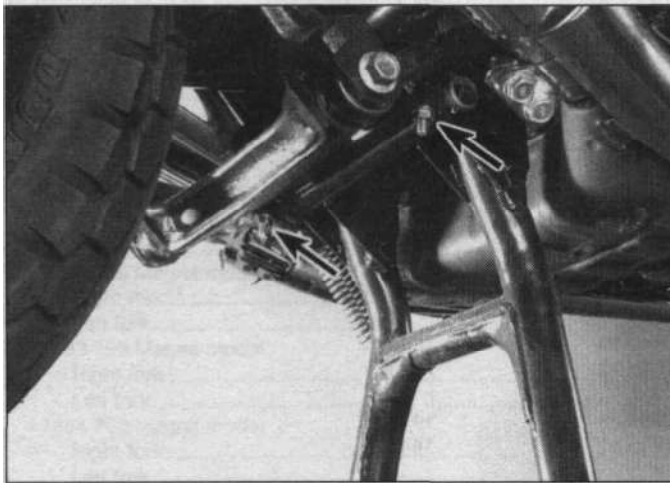
Final drive is by shaft. Drive is transmitted through the output gearcase, via the driveshaft, to the final drive unit in the rear wheel hub.

2 Frame - inspection and repair

1 The frame should not require attention unless accident damage has occurred. In most cases, frame replacement is the only satisfactory remedy for such damage. A few frame specialists have the jigs and other equipment necessary for straightening the frame to the required standard of accuracy, but even then there is no simple way of assessing to what extent the frame may have been over stressed.

2 After the machine has accumulated a lot of miles, the frame should be examined closely for signs of cracking or splitting at the welded joints. Corrosion can also cause weakness at these joints. Loose engine mount bolts can cause ovaling or fracturing of the mounting tabs. Minor damage can often be repaired by welding, depending on the extent and nature of the damage.

3 Remember that a frame which is out of alignment will cause handling problems. If misalignment is suspected as the result of an accident, it will be necessary to strip the machine completely so the frame can be thoroughly checked.



4.1 Main stand pivot pinch bolt locations (arrows)

3 Footpegs and brackets - removal and installation

Sabre models

Rider's footpegs

1 Remove the cotter pin (split pin) and washer, then slide out the pivot pin and remove the footpeg from its bracket along with its return spring.
2 To release the rubber from the footpeg, remove the bolt and collar and separate the ground plate from the bottom of the footpeg. Slide the rubber off the footpeg.

3 On 700/750 models, remove the single mounting bolt to release the bracket from the frame. The bolt also secures the gearshift lever on the left side.

4 On 1100 models, both footpeg brackets are held to the frame by the engine's lower rear mounting bolt. Remove the nut from the left bracket side and pull the bolt out from the right side; tap it free with a drift if stuck in place. Be careful to note the position of all mounting rubbers and ensure that they are returned to their original locations on installation. Tighten the bolt to the specified torque (see Chapter 2).

Passenger's footpegs

5 Remove the cotter pin (split pin) and washer, then slide out the pivot pin and remove the footpeg from its bracket. Slide the rubber off the footpeg.

6 If removing the right side footpeg bracket on 700/750 models, mark the relationship with the rear brake pedal to its shaft end, then remove its pinch bolt and pull the pedal off the shaft.

7 Each bracket is retained to the frame by two socket-head bolts. Support the mufflers from below and remove the bolt which retains them to the footpeg bracket. Pry out their trim caps and unscrew the socket-head bolts to release the brackets. Note that the bolts are of different length on the 1100's left bracket - the longer bolt is at the front.

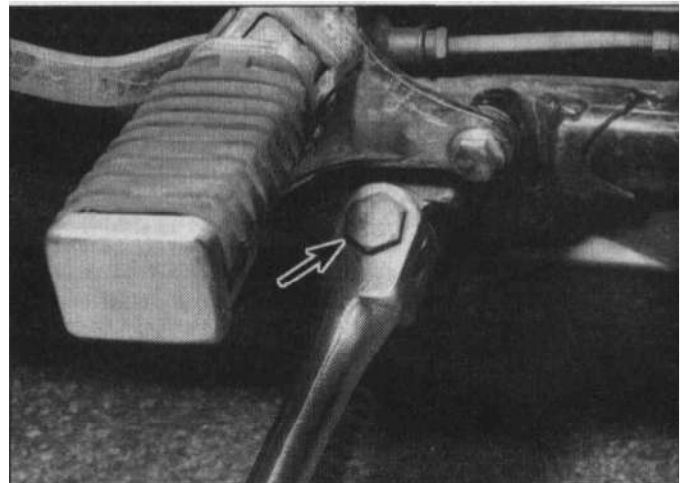
Magna models

Rider's footpegs

8 Remove the cotter pin (split pin) and washer, then slide out the pivot pin and remove the footpeg from its bracket along with its return spring.

9 To release the rubber from the footpeg, remove the bolt and collar and separate the ground plate from the bottom of the footpeg. Slide the rubber off the footpeg.

10 Remove the two mounting bolts to release the bracket from the frame. On the left side remove the mounting bolt and sleeve to separate the left footpeg bracket and gearshift lever.



4.3 Side stand is retained to subframe by pivot bolt (arrow)

Passenger's footpegs

11 Remove the cotter pin (split pin) and washer, then slide out the pivot pin and remove the footpeg from its bracket. Slide the rubber off the footpeg.

12 On 1982 through 1986 models, each bracket is retained to the frame by two socket-head bolts. Support the mufflers from below and remove the bolt which retains them to the footpeg bracket. Pry out their trim caps and unscrew the socket-head bolts to release the brackets.

4 Side and center stands - removal and

installation **Center stand**

Refer to illustration 4.1

1 The center stand (fitted to models through 1986) is attached to the frame by a pivot shaft. Periodically, remove the cotter pin (split pin), loosen both pinch bolts and slide out the pivot shaft. Inspect the shaft for signs of wear and replace if necessary (**see illustration**). Apply a smear of grease to the shaft and fit it the motorcycle. Secure it with a new cotter pin (split pin). Tighten the pinch bolt nuts securely to clamp the shaft in position.

2 Make sure the return spring is in good condition. A broken or weak spring is an obvious safety hazard.

Sidestand

Refer to illustration 4.3

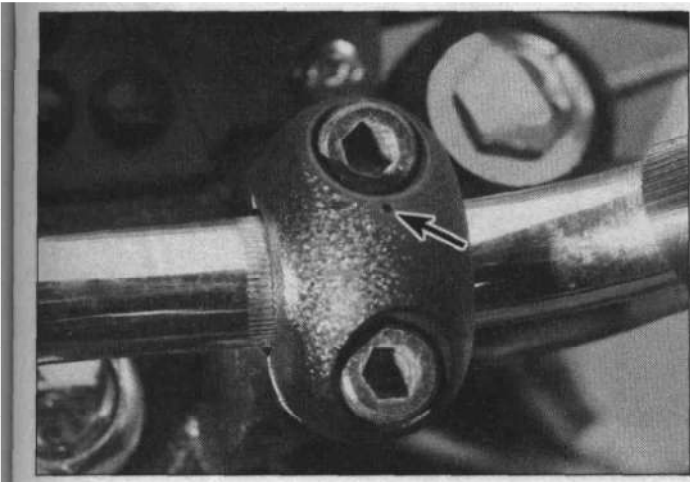
3 The sidestand is mounted on the subframe (**see illustration**). An extension spring anchored to the subframe ensures that the stand is held in the retracted position.

4 Make sure the pivot bolt is tight and the extension spring is in good condition and not over-stretched. An accident is almost certain to occur if the stand extends while the machine is in motion. Periodically check for wear of the stand rubber (see Chapter 1).

5 Handlebars - removal and installation

1 Look closely at how the cables and wiring harnesses are routed before removing the bars. It may be helpful to draw a simple diagram or take an instant photo to use as reference when reinstalling the controls.

2 Remove both rear view mirrors, then disconnect or cut any plastic ties that secure the wiring harnesses or cables to the bars.



5.34 Position handlebar clamps so that punch mark (arrow) is next to upper bolt on later Magnas

1982 and 1983 750 Sabre models

Right handlebar removal

- 3 Disconnect the wire from the front brake light switch.
- 4 Remove the screws from the right handlebar switch assembly and separate the upper and lower sections. Disconnect the throttle cables from the throttle grip; back off the adjuster or free them at the carburetors first to create enough cable slack.
- 5 Remove the two brake master cylinder mounting bolts and lift it off. Tie the assembly out of the way so that the master cylinder is not tipped or hanging upside down.
- 6 The right handlebar can now be removed by first loosening the handlebar pinch bolt and removing the snap-ring from the fork tube. Once it is disconnected from the fork leg, the throttle grip and right switch assembly can be slid off its end.

Right handlebar installation

- 7 Spread a light coat of grease over the handlebar end for the throttle to slide on. Slide the throttle grip and switch assembly onto the bars.
- 8 Install the right handlebar over the fork tube and position it correctly. Install the snap-ring and then tighten the pinch bolt to the specified torque.
- 9 Install the front brake master cylinder, noting the UP marking on its clamp. Fully tighten the upper bolt first, then the lower.
- 10 Connect the throttle cables to the throttle grip, then join the switch halves and tighten the screws securely; tighten those at the front first.
- 11 Reconnect the front brake switch wires and secure all wiring and hoses with new ties. Install the rear view mirror.
- 12 Check the throttle cable freeplay if the cables were disturbed (see Chapter 1).

Left handlebar removal

- 13 Disconnect the wires from the clutch switch.
- 14 Remove its screws and separate the two halves of the left handlebar switch. On later models, leave the choke cable outer connected to the switch lower half, but disconnect the inner cable from the choke lever.
- 15 Remove the two clutch master cylinder mounting bolts and lift off the master cylinder, noting that the master cylinder clamp will remain attached to the choke cable on early models. Tie the assembly out of the way so that the master cylinder is not tipped or hanging upside down.
- 16 On early models, there is no need to disconnect the choke cable outer from the clutch master cylinder clamp, just disconnect the inner cable from choke lever.

17 The left handlebar can now be removed by first loosening the handlebar pinch bolt and removing the snap-ring from the fork tube.

18 If replacing the left handlebar, the grip can be removed, if desired, by squirting some contact cleaner underneath it and then twisting it off. If stuck in place, cut it off with a sharp knife.

Left handlebar installation

- 19 If the left handlebar grip was removed, degrease the bar end with solvent and apply an adhesive to the bar end and inside of the new grip. Install the new grip and rotate it on the bar to distribute the adhesive. Allow time for the adhesive to set.
- 20 Install the left handlebar over the fork tube and position it correctly. Install the snap-ring and then tighten the pinch bolt to the specified torque.
- 21 Install the choke lever and reconnect the choke cable.
- 22 Install the clutch master cylinder, noting the UP marking on its clamp. Fully tighten the upper bolt first, then the lower.
- 23 Install the switch halves and tighten the screws securely; tighten those at the front first.
- 24 Reconnect the clutch switch wires and secure all wiring and hoses with new ties. Install the rear view mirror.
- 25 Check the choke cable freeplay if the cable setting was disturbed (see Chapter 4).

All Magna models and 1984-on Sabre models

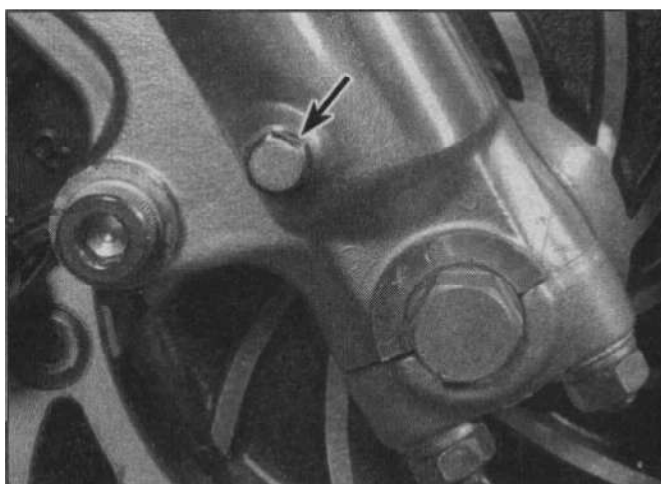
Removal

- 26 Disconnect the wires from the front brake light and clutch switches.
- 27 Remove the screws from the right and left handlebar switches and separate their halves. Disconnect the throttle cables from the throttle grip; back off the cable adjuster or disconnect them from the carburetors first to create enough cable slack. On later models, leave the choke cable outer connected to the switch lower half, but disconnect the inner cable from the choke lever.
- 28 Remove the two brake master cylinder mounting bolts and lift it off. Tie the assembly out of the way so that the master cylinder is not tipped or hanging upside down. Remove the clutch master cylinder in the same way.
- 29 On early models, there is no need to disconnect the choke cable outer from the clutch master cylinder clamp, just disconnect the inner cable from choke lever.
- 30 On 1983 1100 Magna models it is possible to detach each handlebar from the center section. To do so, remove the set screw from the rear of the handlebar and loosen the pinch bolt on the clamp. Pull the handlebar out of the center section clamp.
- 31 Unclip the plastic cover over the handlebar center section (where fitted). Remove the bolts securing the handlebar holders and lift them off. The handlebars can now be lifted off and the throttle grip slid off of the right end.
- 32 If the bars are to be replaced with new ones, the left grip can be removed, if desired, by squirting some contact cleaner underneath it and then twisting it off. If firmly stuck in place, cut it off using a sharp knife.

Installation

Refer to illustration 5.34

- 33 If the left handlebar grip was removed, degrease the bar end with solvent and apply an adhesive to the bar end and inside of the new grip. Install the new grip and rotate it on the bar to distribute the adhesive. Allow time for the adhesive to set.
- 34 Place the bars in position in the lower holders so that the punch mark on the bars is aligned with the upper surface of the lower holder. Install the upper holders, noting that later models will have punch marks near one of the bolt holes; position the clamps so that the punch marks are in the top/forward bolt hole locations (**see illustration**).
- 35 Install the bolts and tighten them to the specified torque. The top/forward bolts should be tightened first, followed by the lower/rear bolts. Clip the plastic cover over the handlebar center section (where fitted) and insert the caps over the bolts (where fitted).



6.2 Remove fork bolt caps to reveal air valves on 700/750 models

6.3a Fork oil drain plug is on side of slider ...

36 If the handlebars were detached from the center section on 1983 1100 Magna models, install them fully into the clamps and align the punch mark on each handlebar with the joint of the clamp. Install the set screw and tighten it securely. Apply a smear of grease to the clamp bolt and tighten it to the specified torque.

37 Install the choke lever and reconnect the choke cable.

38 Install the clutch and brake master cylinders, noting the UP marking on their clamps. The joint of the clamps should align with the punch mark on the handlebar to ensure that the reservoirs are positioned upright. Fully tighten the upper bolt first, then the lower, both to the specified torque.

39 Reconnect the throttle cables to the throttle grip, then join both switch halves, inserting the switch peg into the hole in the handlebar. Tighten the screws securely; tighten those at the front first.

40 Reconnect the clutch switch wires and front brake switch wires and secure all wiring and hoses with new ties. Install the rear view mirrors.

41 Check the choke cable freeplay (see Chapter 4) and throttle cable freeplay (see Chapter 1) if their settings were disturbed.

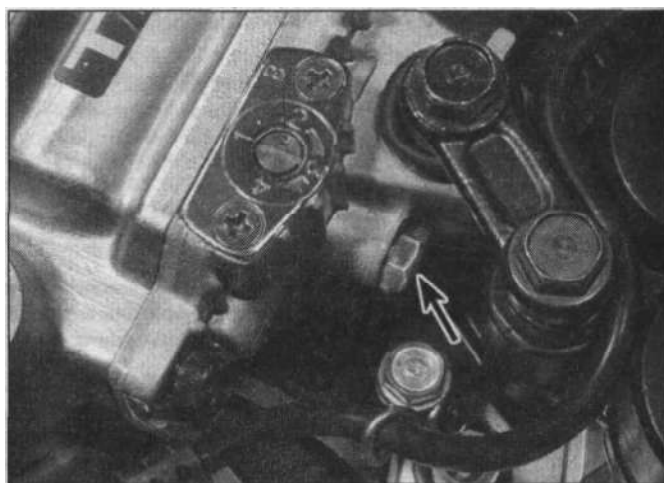
6 Forks - oil change

Refer to illustrations 6.2, 6.3a and 6.3b

1 Fork oil will degrade in time and although not specified as a maintenance item, it should be changed periodically to preserve its qualities.

2 On 1982 through 1986 models, with air-assisted forks, remove the valve cap(s) and depress the valve stem to release all air pressure (**see illustration**).

3 Have a jug ready to catch the fork oil as it escapes and place a piece of thick card against both sides of the tire for protection against oil spills. Dealing with one fork at a time, remove the drain plug and its sealing washer and catch the oil as it drains from the fork. The drain



plugs are situated in the outer face of each slider; the left fork plug on models with anti-dive is actually on the anti-dive housing (**see illustrations**). **Note:** Remove the fork top bolts to assist oil flow and pump the fork gently up and down to expel as much oil as possible.

4 Check the drain plug sealing washer and replace it if damaged.

5 Pour the specified amount of ATF into the fork tube (see Specifications), noting that the amount differs for right and left forks on models with anti-dive. Pump the forks up and down gently to distribute the oil.

6 On 1100 Sabre models a figure is given for fork oil level from the top of the fork tube. To check, remove the fork spring and pass a length of welding rod or straight rule down through the inner tube to measure the oil level. Add or remove oil until the level is correct.

6.3b ... except for anti-dive on left fork, where it is on anti-dive housing (arrow)

the spring with its closely-wound coils at the bottom.

7 On all models install the fork top bolts and tighten them to the specified torque. Refer to Section 8 when installing the 1100 Sabre's right side fork top bolt.

8 Set the air pressure on models with air-assisted forks (see Section 14).

7 Forks - removal and installation

Removal

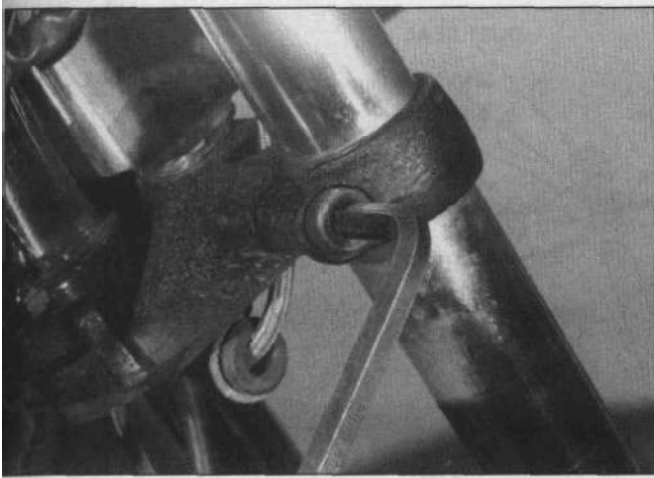
Refer to illustrations 7.8, 7.10a and 7. 10b

1 Remove the front wheel (see Chapter 7)

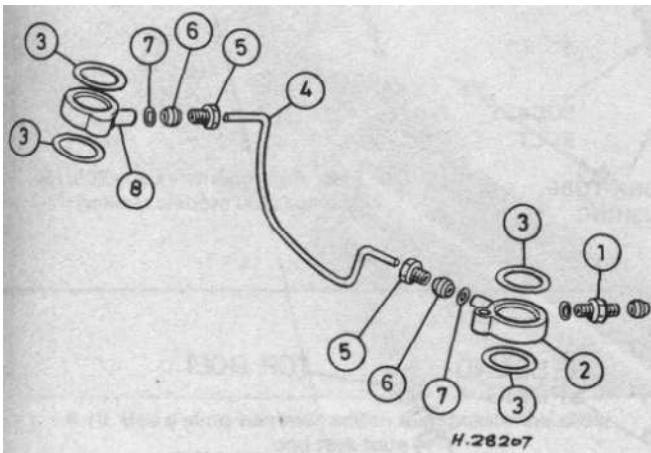
2 Detach both brake calipers and their mounting brackets from the forks and tie them out of the way so that there is no strain on their hydraulic hoses (see Chapter 7). **Note:** *Do not operate the brake lever while the calipers are removed. It is a good idea to slip a block of wood between the brake pads in each caliper to prevent movement in the event that the lever is operated.*

3 On 1100 models, remove the air valve cap at the top of the left fork (Sabres) or left fork air joint (Magnas) and depress the valve stem to expel air pressure from the forks.

4 Remove the front fender/mudguard (see Section 19).



7.8 Loosen fork pinch bolts on upper and lower triple clamps to release forks



7.1 Ob Air link pipe and joints (1100 Magna models)

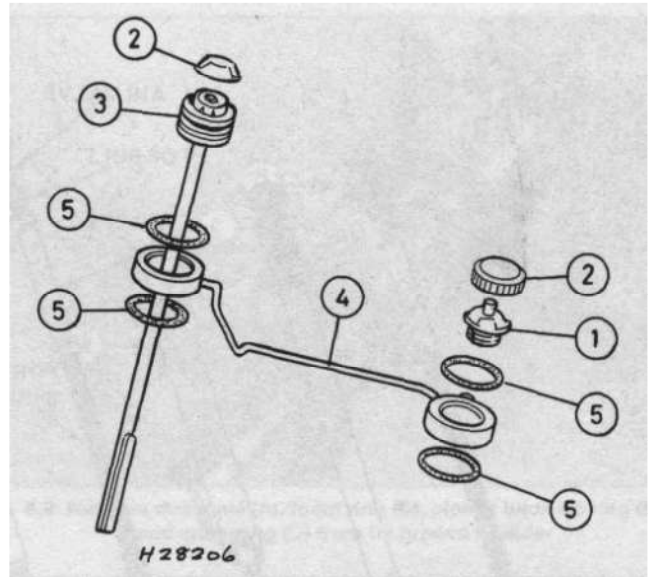
1	Air valve	5	Pipe unions
2	Left air joint	6	Seals
3	O-rings	7	O-rings
4	Air link pipe	8	Right air joint

5 On 1982 through 1986 models, pry out their trim caps and remove the four bolts from the fork brace, then lift the brace free.

6 Remove the bolts that attach the brake hose joint to the lower triple clamp on 700/750 Sabre models and secure it out of the way.

7 On 750 Sabre models, remove the pinch bolts from the handlebar clamps and the snap-rings from the fork tubes, then slide each handlebar off its fork tube. Place a pad over the fuel tank and tie or tape the handlebars together over the tank so that the brake and clutch master cylinders are kept as horizontal as possible to avoid leakage.

8 Loosen the upper and lower triple clamp pinch bolts and withdraw the fork tubes by pulling them down (**see illustration**). On 1987 and 1988 700/750 Magna models the front turn signal clamp pinch bolts should be loosened to allow the forks to slide through them. On 1100 models, the air joint stop ring will have to be carefully pried out of its groove in the fork tube and slid off the fork tube end before it can pass through the lower triple clamp. 9 If the forks are seized in the triple clamps, spray the area with penetrating oil and allow time for it to soak in before trying again. **Note:** If the forks are to be disassembled, loosen their top bolts while they are



7.10a Air link pipe and joints (1100 Sabre models)

- 1 Fork top bolt with air valve
- 2 Cap
- 3 Fork top bolt with damping adjuster
- 4 Air link pipe
- 5 O-rings

firmly held in the triple clamps.

10 On 1100 models, the air joints and link pipe can be removed from the motorcycle after removal of the handlebars on Sabre models, or after removal of the headlight unit and instruments on Magna models. It is retained to the upper triple clamp by two screws. If dismantled, always renew all O-rings on installation (**see illustrations**).

Installation

11 Remove all traces of corrosion from the triple clamps and slide the fork legs back into place.

12 On 700/750 models install the forks in the triple clamps so that the top of the inner tube is level with the triple clamp top surface, or handlebar top surface on 1982/83 750 Sabre models. On 1985 through 1988 700/750 Magna models the groove around the top of the inner tube should be level with the triple clamp top surface. Tighten the upper and lower triple clamp pinch bolts to the specified torque. On 1987 and 1988 700/750 Magna models, ensure that the front turn signal clamp bolts are tightened to the specified torque.

13 On 1982/83 750 Sabre models secure the handlebars in the correct position with their pinch bolts and snap-rings.

14 On 1100 models, after installing the fork tubes through the lower triple clamp, install the air joint ring over the fork tube end and into its groove. Push the fork tubes up through the air joints and triple clamp until the ring touches the underside of the joint. If the air joint was detached from the upper triple clamp, tighten its two mounting screws. Tighten the upper and lower triple clamp bolts to the specified torque.

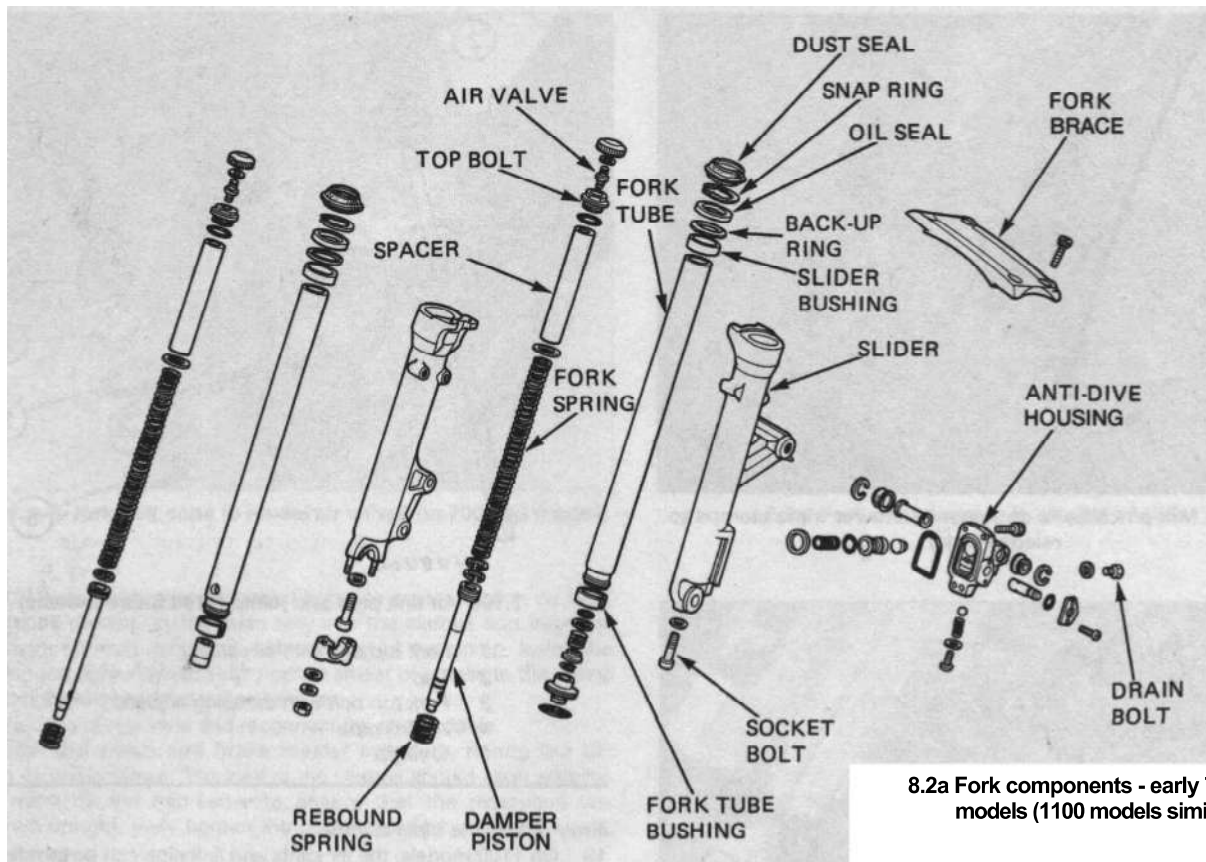
15 If the forks have been disassembled, tighten the fork top bolts to the specified torque.

16 Install the front fender (mudguard) and tighten its bolts securely.

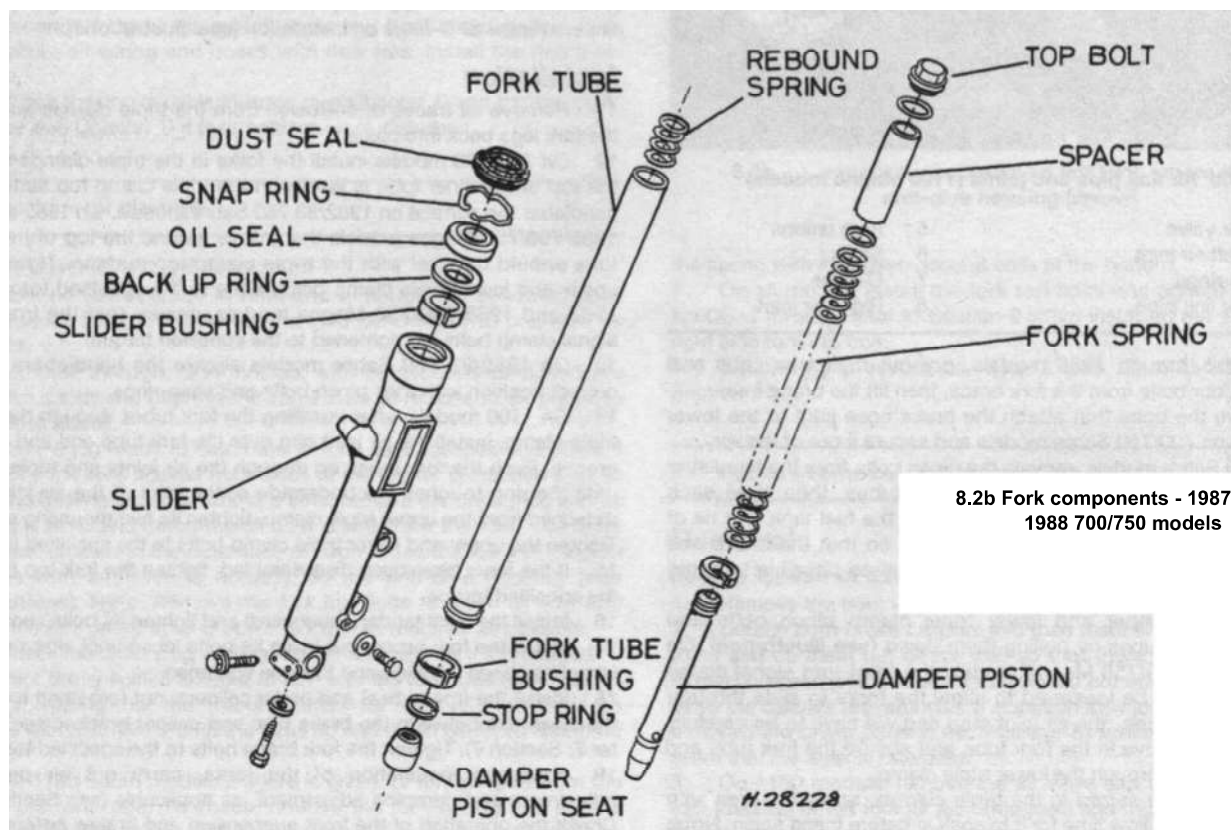
17 Install the fork brace, but leave its bolts loose until after the front wheel has been installed and the axle tightened.

18 Install the front wheel and brake calipers, not forgetting to check the clearance between the brake disc and caliper bracket (**see Chapter 7, Section 7**). Tighten the fork brace bolts to the specified torque.

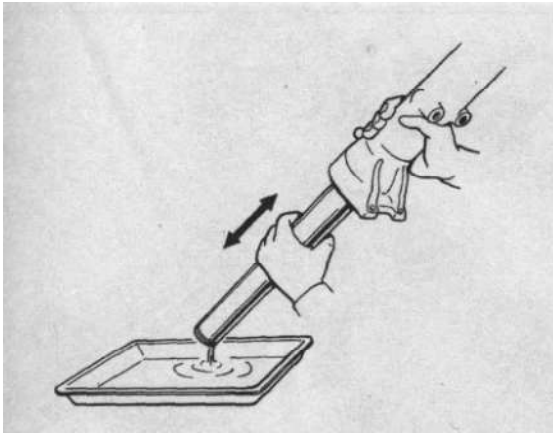
19 Following installation of the forks, carry out air pressure adjustment and damping adjustment, as applicable (**see Section 14**). Check the operation of the front suspension and brakes before riding the motorcycle.



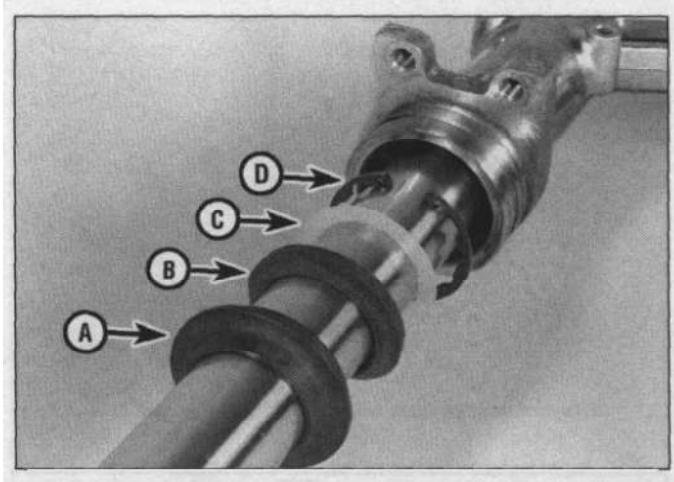
8.2a Fork components - early 700/750 models (1100 models similar)



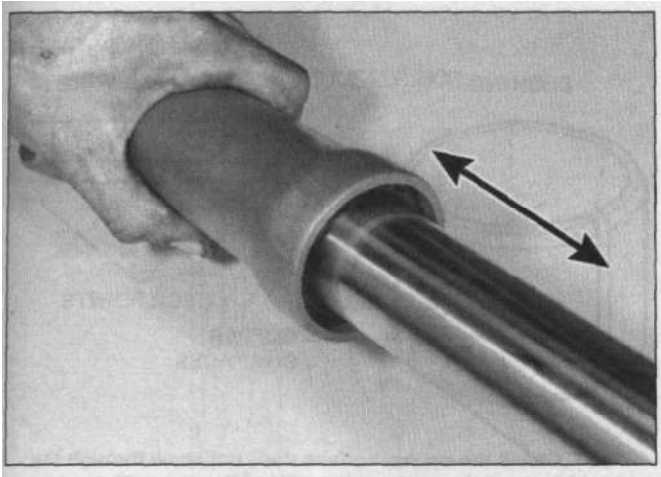
8.2b Fork components - 1987 and 1988 700/750 models



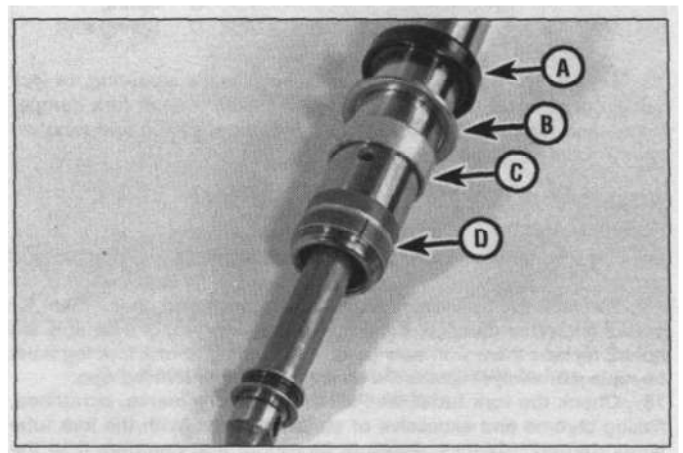
8.6 Use a pumping action to expel as much fork oil as possible



8.9 Remove dust seal (A), foam ring (B), plastic back-up ring (C) and snap-ring (D) from its groove in slider



8.10 Use a slide-hammer action to separate the slider and fork tube



8.12 Oil seal (A), back-up ring (B) and slider bushing (C) can be slid off the fork tube; don't remove fork tube bushing (D) unless worn

8 Forks - disassembly, inspection and reassembly

Disassembly

Refer to illustrations 8.2a, 8.2b, 8.6, 8.9, 8.10, 8.12 and 8.13

1 Remove the forks from the triple clamps (see Section 7).
2 Always dismantle the fork legs separately to avoid interchanging parts and thus causing an accelerated rate of wear. Store all components in separate, clearly marked containers (see illustrations).

3 Pry the plastic cap off the fork top bolt (if equipped). On 1982 through 1986 700/750 models, relieve the air pressure in the fork (if equipped) by depressing the valve stem. The air pressure will have been released when the forks were removed from the triple clamps on 1100 models.

4 Remove the fork top bolt; if it's tight, install the fork back into the triple clamps and tighten the triple clamp bolts to hold the inner tube while the top bolt is loosened. **Warning:** Note that there is considerable spring pressure on the cap. While it is being unscrewed, sufficient pressure should be applied to keep it from popping out. The top bolt O-ring should be replaced with a new one whenever the top bolt is removed. **Caution:** Do not separate the damper adjustment rod from the fork top bolt on 1100 Sabre models.

5 Pull out the spacer and spring seat, then withdraw the spring and make a note of which way up its closer-wound coils are installed.

6 Once the spring has been removed, the fork oil can be drained. Invert the tube to drain most of the oil, then grasp the fork slider and

use a pumping action to force out the remainder of the oil (see illustration).

7 Support the slider in a vise using a thick towel or piece of wood to protect it, then remove the socket head bolt from the bottom of the slider. If you find that the damper piston rotates inside the inner tube and consequently the socket bolt cannot be loosened, temporarily reinstall the spring, spacer and fork cap. Have an assistant compress the fork while the socket bolt is loosened; this should hold the damper piston in position.

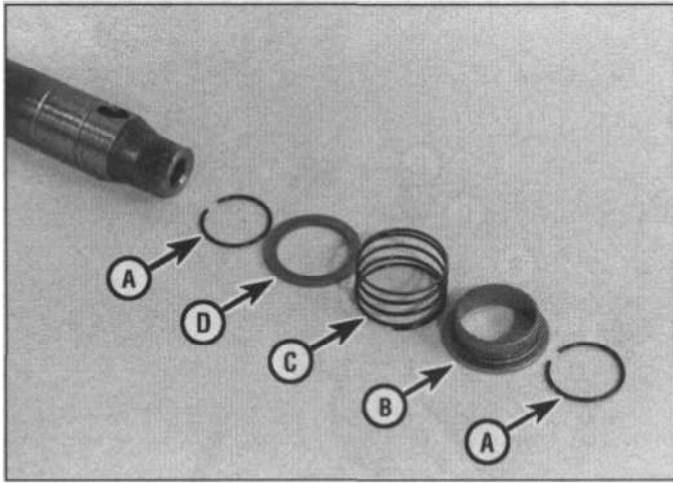
8 Invert the fork and let the damper piston and rebound spring slide out of the fork tube. On all 1982 through 1986 models, the left fork damper piston cannot be removed until the inner tube and slider have been separated.

9 Remove the dust seal from the area where the fork tube enters the slider, then remove the foam ring and plastic back-up ring (where fitted). Use a small flat-bladed screwdriver to ease the snap-ring out of its groove and remove it (see illustration).

10 Holding the slider with one hand and the fork tube with the other, withdraw the tube to full extension and move it in and out in a slide-hammer action (see illustration). This action will tap the slider bushing from the slider and allow the inner tube and slider to be separated.

11 The damper piston seat can be removed from the slider at this stage.

12 Slide the oil seal, back-up ring and slider bushing off of the fork tube (see illustration).



8.13 Oil lock valve components

- | | | | |
|---|------------|---|-------------|
| A | Snap-rings | C | Spring |
| B | Valve | D | Spring seat |

13 On all 1982 through 1986 models, remove the snap-ring, oil lock valve, spring, seat and second snap-ring from the left fork damper piston end (**see illustration**). Slide the damper piston and rebound spring out of the top of the inner tube.

Inspection

Refer to illustration 8.16 and 8.17

14 Clean all components with solvent and dry them with compressed air.

15 Measure the free length of the fork springs and check them for cracks and other damage. If the springs are sagged, or if defects are noted, replace them with new ones. If the spring in one fork leg must be replaced, always replace the spring in the other fork leg also.

16 Check the fork tubes and sliders for score marks, scratches, flaking chrome and excessive or abnormal wear. With the fork tube supported on V-blocks, measure its runout and compare it to the Specifications (**see illustration**). When using a dial indicator and V-blocks to measure runout, divide the indicator reading by half. If the tube is bent, do not try to straighten it. It must be replaced.

17 Visually inspect the slider and fork tube bushings for score marks and scratches. If the Teflon coating is worn so that the copper is visible over more than 3/4 of the bushing surface area, replace them with new ones (**see illustration**). If it's necessary to replace the fork tube lower bushing, pry it apart at the slit and slide it off. Make sure the new one seats properly.

18 Check the back-up ring for cracks and distortion (**see illustration 8.17**).

19 Inspect the damper piston rings; if they show signs of wear replace them. Pry them apart gently at the split in the ring to free them from their groove.

20 Refer to Section 9 for information on the anti-dive unit fitted to 1982 through 1986 models.

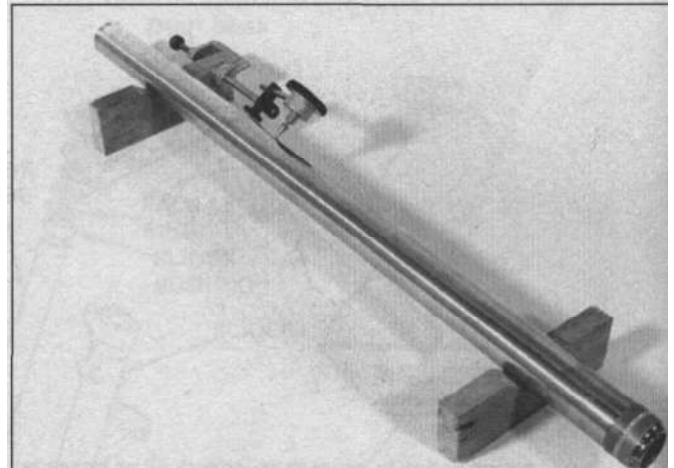
Reassembly

Refer to illustrations 8.25, 8.26 and 8.31

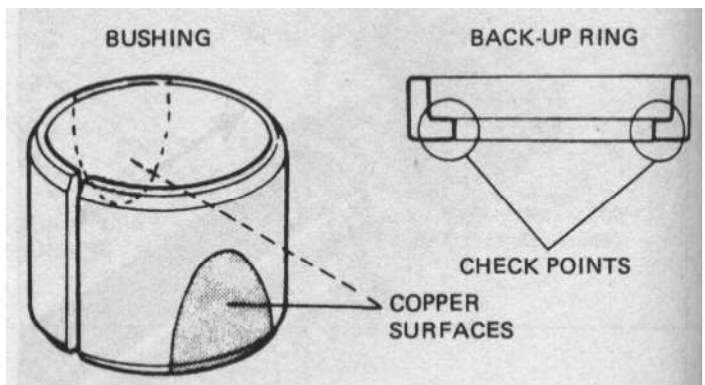
21 With the rebound spring in place on the damper piston, slide it down the fork tube so that its lower part protrudes from the bottom of the tube.

22 On the left fork of 1982 through 1986 models, install the snap-ring, spring seat, valve spring, oil lock valve and snap-ring on the lower part of the damper piston (**see illustration 8.13**); the snap-rings must engage the damper piston grooves.

23 Place the damper piston seat on the end of the damper piston and then slide the entire fork tube assembly into the slider. On 1987 and 1988 700/750 Magna models make sure the stop ring is in place in the



8.16 Fork tube runout check



8.17 Check the copper surface does not show through the bushing coating over more than 3/4 of its area (left); back-up ring check points (right)

damper piston groove before installing the seat. On 1100 Sabre models, the damper piston seat has a flat on its inside which must correspond with the flat on the end of the damper piston, and the cutout on its outer edge must align with the oil drain bolt in the side of the slider.

24 Mount the slider in the vise. Apply thread locking compound to the threads of the socket head bolt, install the bolt using a new sealing washer and tighten it to the specified torque. Again, if there is difficulty in tightening the bolt, temporarily insert the fork spring, spacer and fork cap to place pressure on the damper piston head and stop it rotating.

25 Place the slider bushing over the fork tube and rest it on the slider. To fit the bushing into its recess it will be necessary to use the Honda service tool or devise an alternative tubular drift. The best method is to use a length of tubing slightly larger in diameter than the fork tube. Place a large plain washer against the bushing and then tap it home using the tube as a form of slide hammer (**see illustration**). Take care not to scratch the tube during this operation; it is best to make sure that the fork tube is pushed fully into the slider so that any accidental scoring is confined to the area above the seal.

26 Install the back-up ring. Dip the new seal in automatic transmission fluid (ATF), then slip it over the fork tube (with the marks up) and drive it into position using the same method as for the slider bushing until the snap-ring groove is visible above the seal (**see illustration**).

27 Install the snap-ring with its radiused edge facing down. Be sure it is properly seated in its groove. **Note:** Where plastic and foam rings were found under the dust seal on disassembly, these need not be reinstalled on 1100 models. Press the dust seal into position in the top of the slider.

28 Mount the fork in the vise with the open end up and pour the