

REMOVAL

1. Support the motorcycle so the front end is off floor and the forks are fully extended. Remove both front brake calipers and front wheel. See 2.4 FRONT WHEEL.
2. Remove front fender. See 2.28 FRONT FENDER.
3. Remove front fairing. See 2.35 WINDSHIELD: FXDXT
4. Remove headlamp bracket. Attach headlamp to frame using rubber bungee strap. See 8.17 HEADLAMP.
5. Loosen the upper and lower triple clamp pinch bolts and pull the fork sides from the brackets.

DISASSEMBLY

PART NO.	SPECIALTY TOOL
HD-41177	Fork tube holder
HD-41549-A	Fork spring compression tool
HD-41551	Spring plate tool

1. See Figure 2-87. Remove the stopper ring (1).
2. Remove the spring preload adjuster (3).

NOTE

DO NOT unthread rebound adjuster from damper rod. Incorrect assembly could result in reduced adjustment range.

3. Unthread the fork cap (5) from the fork tube and allow the fork leg to drop, exposing the spring.
4. See Figure 2-88. Set the FORK SPRING COMPRESSION TOOL (Part No. HD-41549-A) on the spring collar. Turn screws in to engage holes in collar. Compress the spring until the SPRING PLATE TOOL (Part No. HD-41551) can be positioned between the spacer and the spring collar.
5. See Figure 2-89. Hold the fork bolt and compression adjuster. Remove the fork bolt from the compression adjuster. Remove the spring adjuster plate from the fork bolt.
6. Remove spacer, spring collar and spring.
7. Pour out the fork oil by pumping the fork leg and rod 8-10 times or until rod moves freely.
8. See Figure 2-90. Position fork slider in vise using FORK TUBE HOLDER (Part No. HD-41177) to avoid damage.

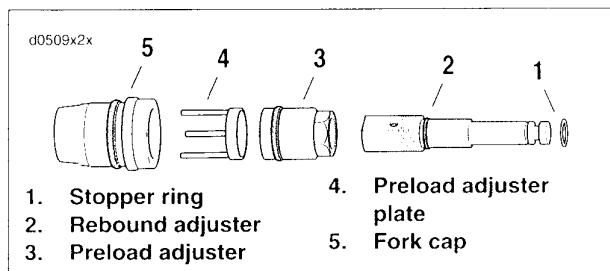


Figure 2-87. Fork Cap

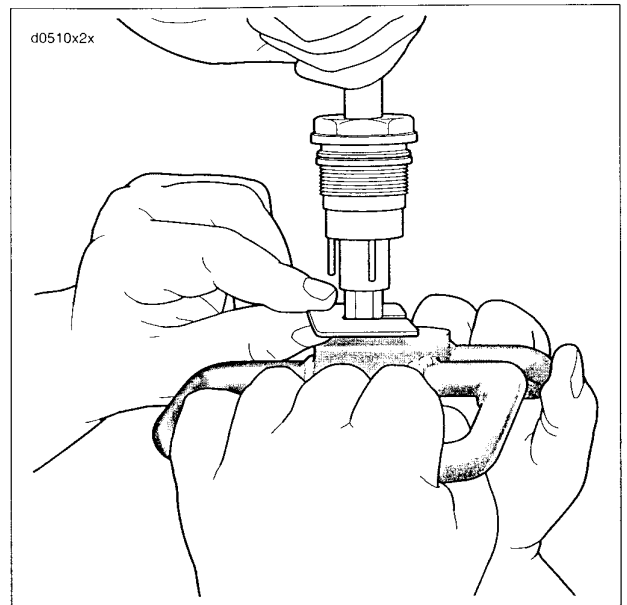


Figure 2-88. Compressing Fork Spring

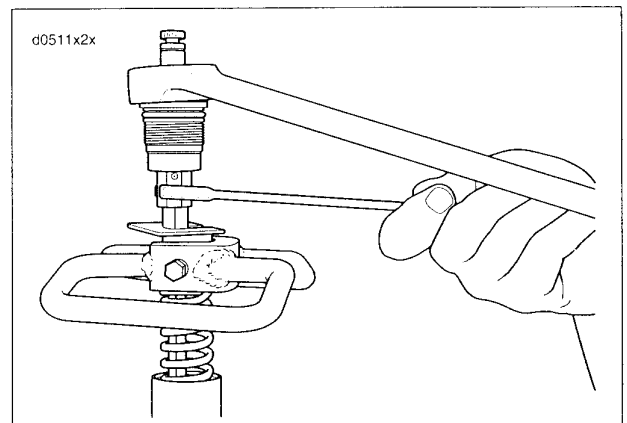


Figure 2-89. Removing Fork Bolt

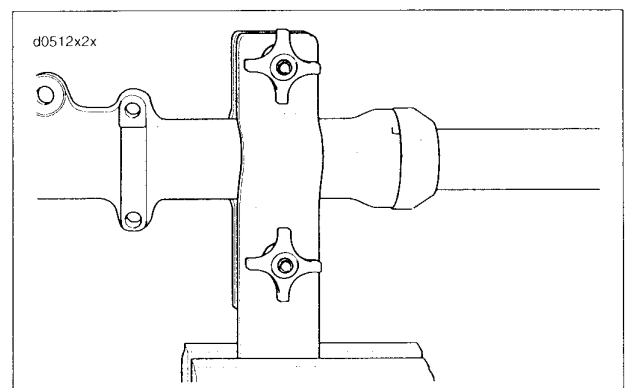


Figure 2-90. Fork Tube Holder

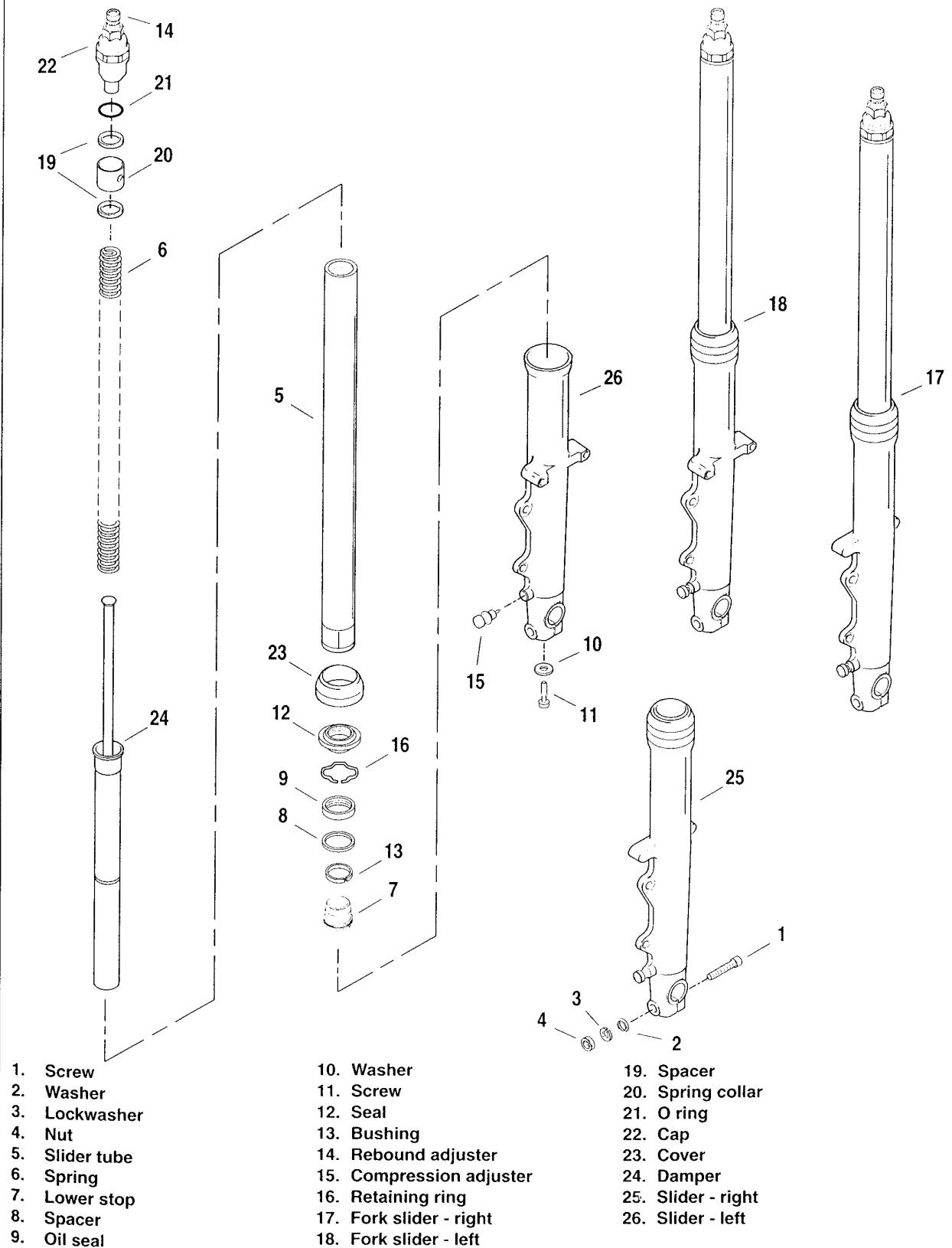


Figure 2-91. Front Fork: FXDX & FXDXT

- See Figure 2-92. Remove the socket head bolt.

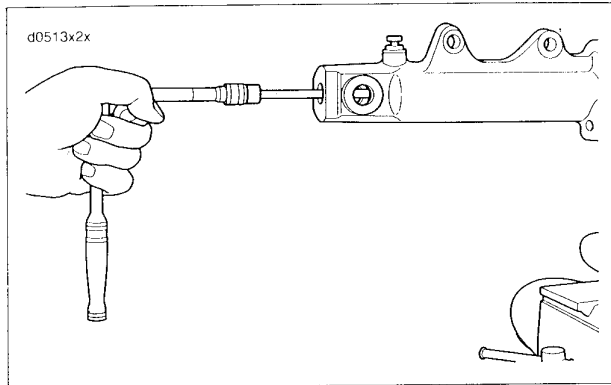


Figure 2-92. Socket Head Bolt

- Remove damper from fork tube.
- See Figure 2-93. Remove the cover from the slider. Remove seal and stopper ring.
- Pull the fork tube out of the slider.
- Remove the oil seal, spacer and guide bushing from the fork tube.

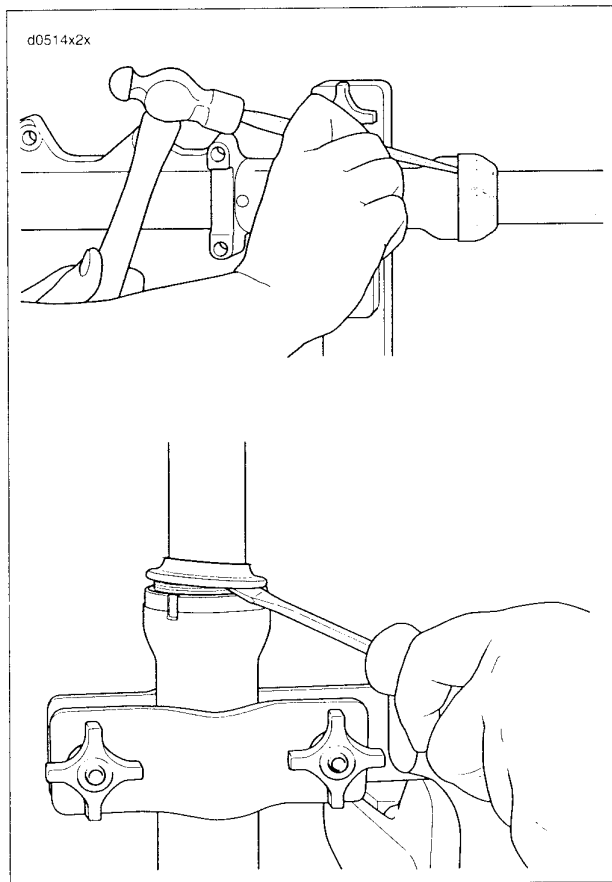


Figure 2-93. Fork Cover and Seal

CLEANING AND INSPECTION

- Measure fork spring free length. Replace spring if it is shorter than 17.00 in. (431.8 mm).
- Check the fork tube and slider for score marks, scratches or abnormal wear.
- Check the slide and guide bushings for excessive wear or scratches.
- Set the fork tube on V-blocks and measure runout. Runout should not exceed 0.008 in. (0.2 mm).

ASSEMBLY

PART NO.	SPECIALTY TOOL
HD-36583	Fork seal installer
HD-41177	Fork tube holder
HD-41549-A	Fork spring compression tool
HD-41551	Spring plate tool
HD-59000-A	Pro-level oil gauge

- Coat oil seal with TYPE E FORK OIL.
- Before installing slide bushing and guide bushing, lubricate with fork oil.
- Install guide bushing and spacer seal.

NOTE

Guide bushing opening must be oriented to the side. DO NOT position to front or rear.

- Slip the slider into the fork tube.
- Place the slide bushing over the fork tube until it rests on the slider.
- See Figure 2-94. Drive the guide bushing with the spacer seal into the slider.
- Lubricate **new** oil seal with TYPE E FORK OIL.
- Drive the oil seal into the slider using FORK SEAL INSTALLER (Part No. HD-36583).

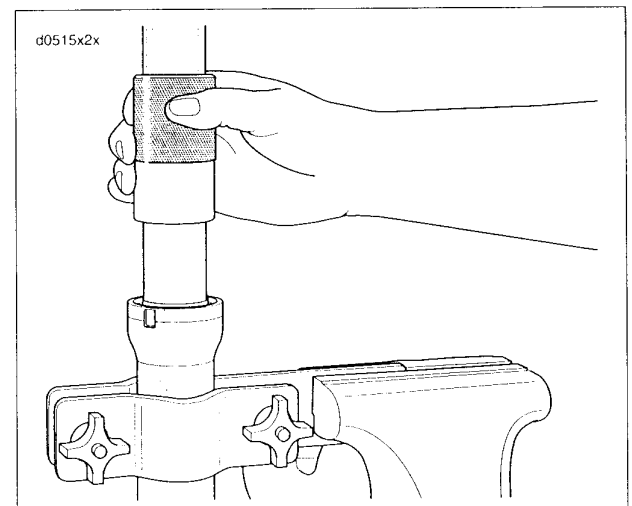


Figure 2-94. Fork Seal Installer

9. Install the stopper ring and dust seal.
10. If the rebound adjuster was removed from the damper rod follow the steps below, otherwise proceed to step 11.
 - a. Bottom lock nut on threaded portion of damper rod.
 - b. See Figure 2-95. Holding thumb on detent spring and ball, back out (turn counterclockwise) rebound adjuster to last "click." Turn down (clockwise) 17 "clicks".
 - c. Thread rebound adjuster onto damper rod until adjuster stops at maximum thread engagement (Do not force).
 - d. See Figure 2-96. Thread locknut on damper rod up to contact base of rebound adjuster and tighten in place.

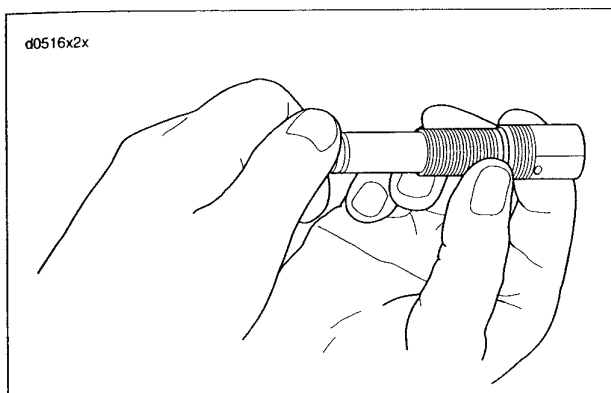


Figure 2-95.

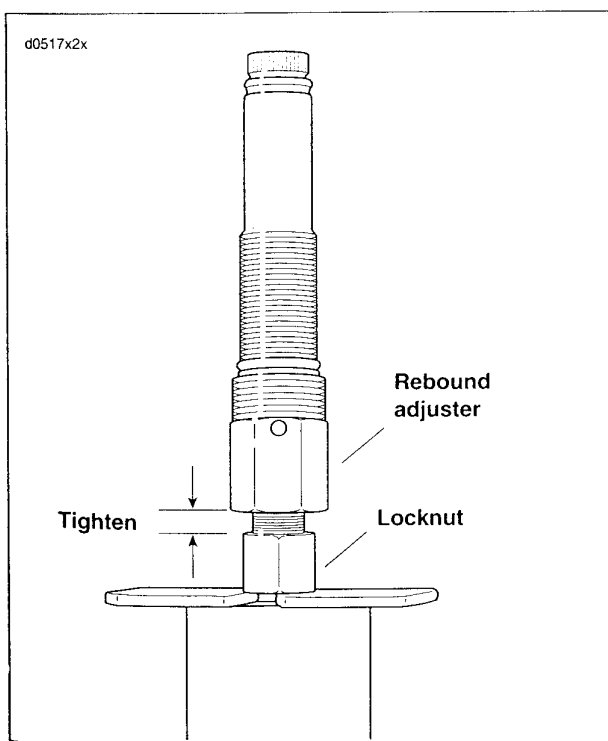


Figure 2-96.

11. See Figure 2-92. Hold slider in vise taking precautions to avoid damage. Install damper tube into the fork tube. Tighten socket screw and washer. Torque to 22-29 ft-lbs (29.8-39.3 Nm).
12. Pour half the TYPE E FORK OIL into fork tube.

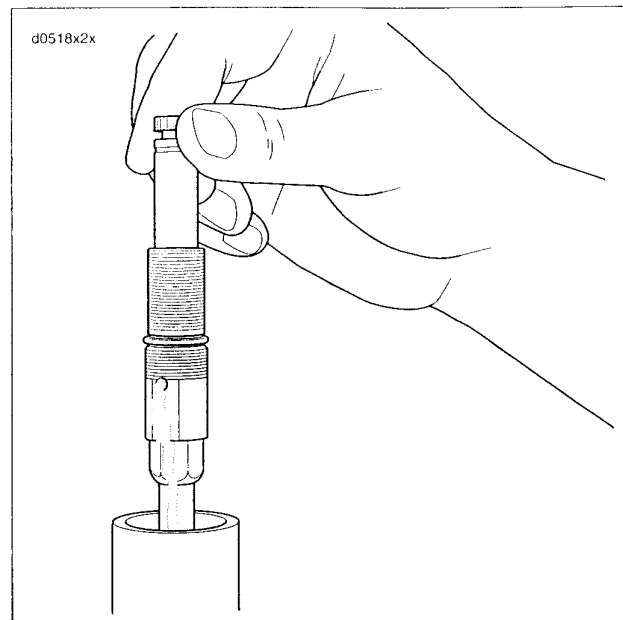


Figure 2-97. Pumping Damper Rod

13. See Figure 2-97. Slowly pump the damper rod 10 or more times.
14. Position the damper rod in the fully bottomed position.
15. Pour the remaining amount of TYPE E FORK OIL into the fork tube.
16. See Figure 2-98. Using the PRO-LEVEL OIL GAUGE (Part No. HD-59000-A) adjust the oil level to 5.04 in. (128 mm).
17. See Figure 2-91. Carefully clean and install spring (6), spring collar (20), and spacers (19).

NOTE

Spacers are stamped parts. Sharp edge created by stamping process must face collar.

18. See Figure 2-99. Using FORK SPRING COMPRESSION TOOL (Part No. HD-41549-A) push spring collar down and place SPRING PLATE (Part No. HD-41551) between spacer and spring collar.
19. Install fork cap and tighten against rebound adjuster. Tighten to 22-29 ft-lbs (29.8-39.3 Nm).
20. Tighten fork cap on fork tube. Torque to 11-22 ft-lbs (14.9-29.8 Nm).
21. Install the spring adjuster plate.
22. Replace O-rings on spring preload adjuster and lubricate with fork oil.
23. Install the spring preload adjuster.
24. Install the stopper ring.
25. Carefully drive slider cover into slider.

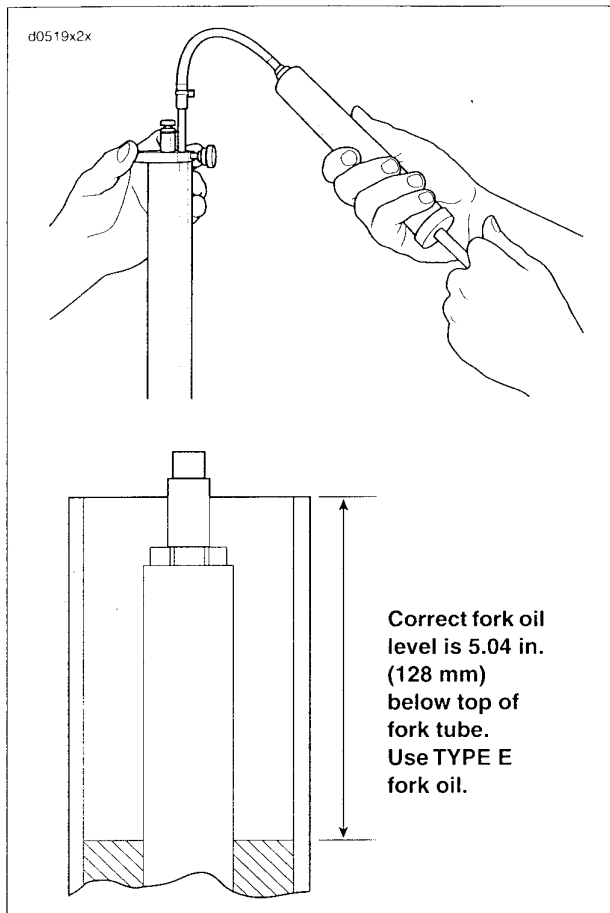


Figure 2-98. Checking Oil Height

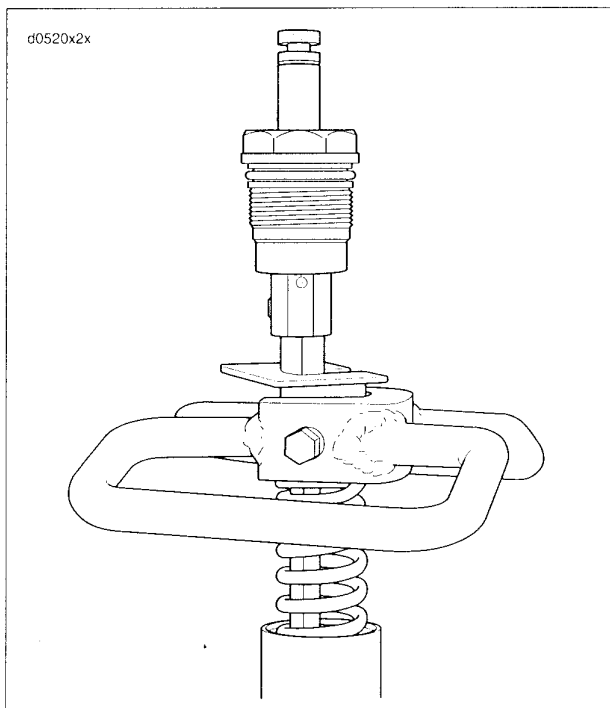


Figure 2-99. Spring Plate

INSTALLATION

1. See Figure 2-91. Insert both fork side assemblies up through the fork stem and bracket and upper bracket.
2. See Figure 2-100. Tighten fork stem bracket pinch bolt(s) to 30-35 ft-lbs (40.7-47.5 Nm).
3. Install the headlamp bracket and adjust headlamp. See 8.17 HEADLAMP.
4. Install front fender. See 2.28 FRONT FENDER.
5. Install front wheel and brake caliper. See 2.4 FRONT WHEEL.

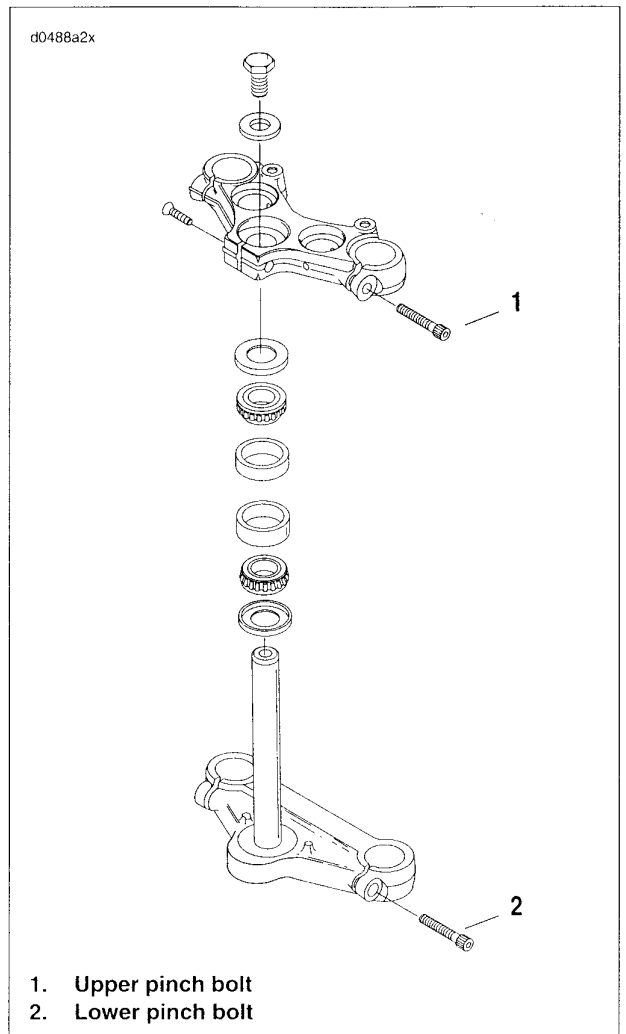


Figure 2-100. Fork Pinch Bolts