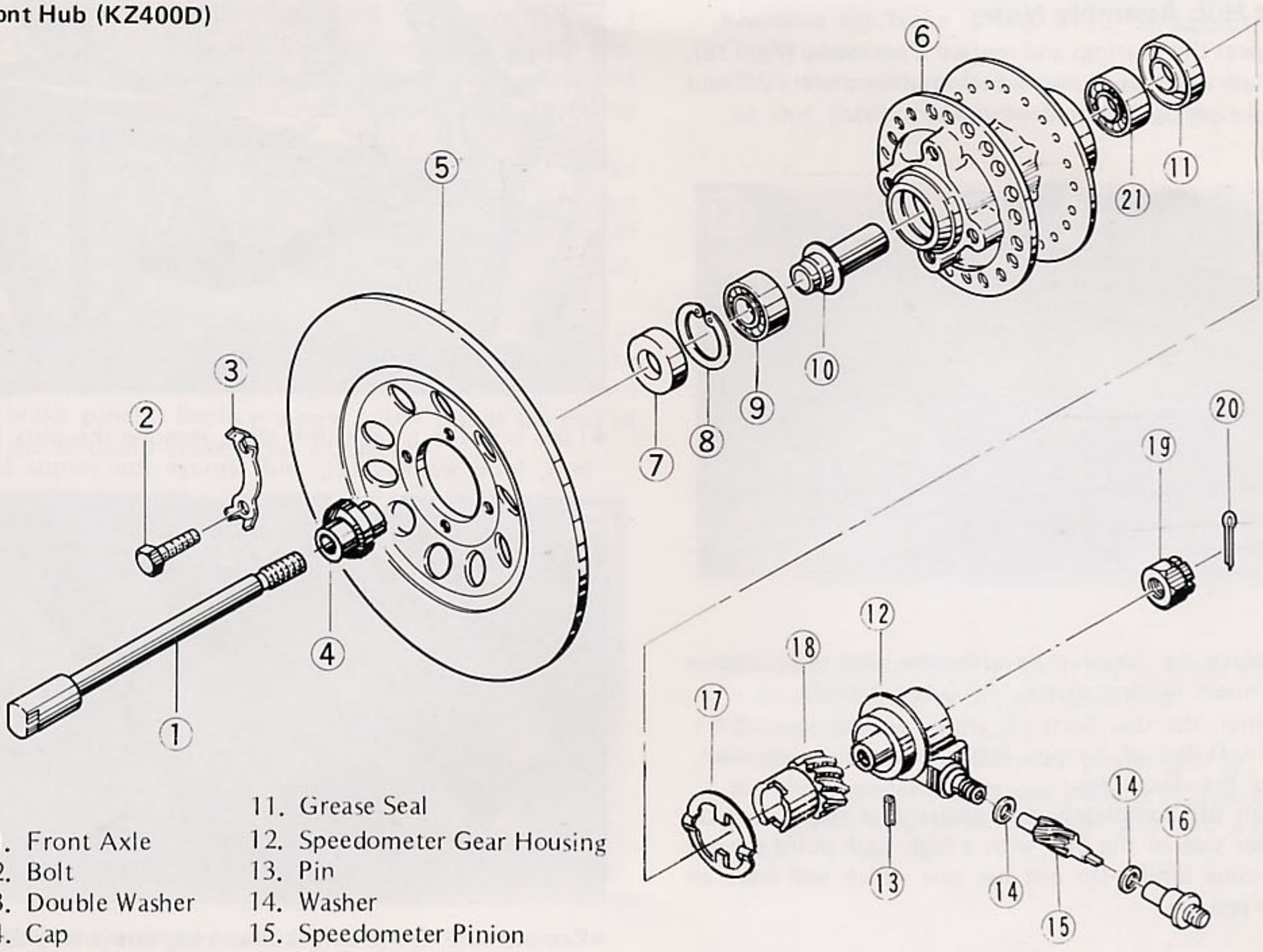
Front Hub (KZ400D)



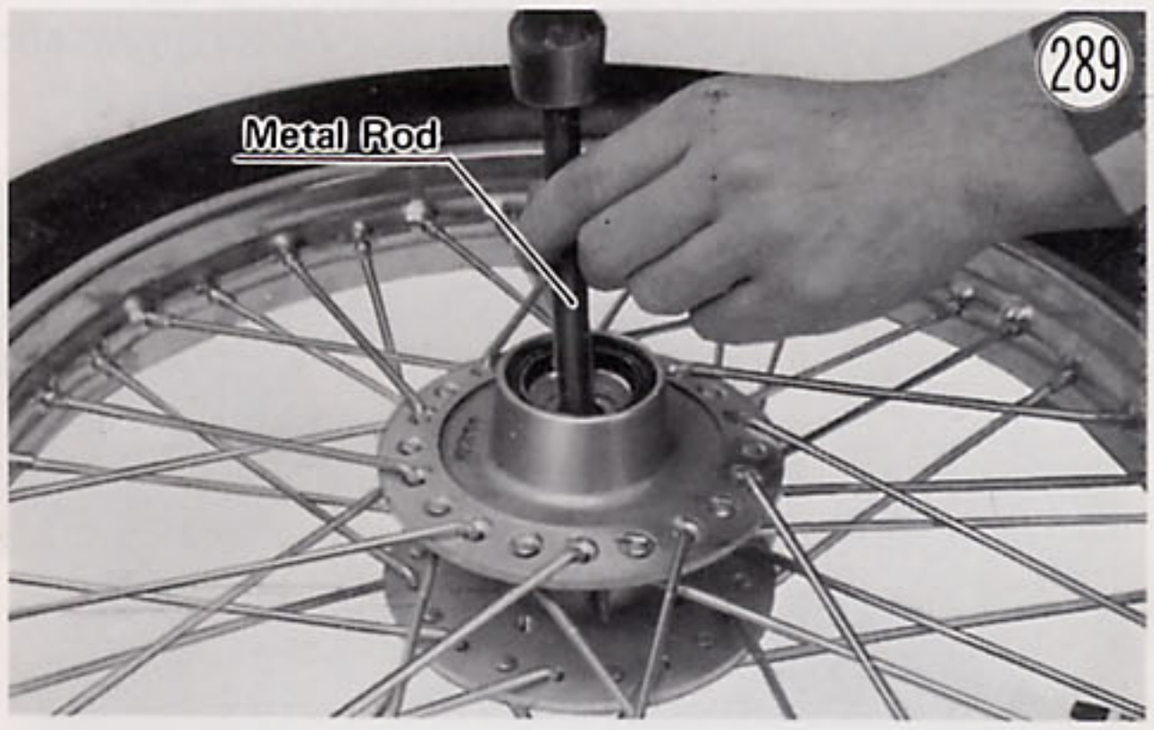
1. Front Axle
2. Bolt
3. Double Washer
4. Cap
5. Disc
6. Front Hub
7. Grease Seal
8. Circlip
9. Ball Bearing
10. Distance Collar
11. Grease Seal
12. Speedometer Gear Housing
13. Pin
14. Washer
15. Speedometer Pinion
16. Bush
17. Gear Drive
18. Speedometer Gear
19. Axle Nut
20. Cotter Pin
21. Ball Bearing

Speedometer Gear Housing Assembly Notes:

1. Regrease the speedometer gear (Pg. 138).
2. Insert the speedometer inner cable into the housing while turning the gear so that the slot in the end of the cable will seat in the tongue of the speedometer pinion.

Front Hub Disassembly:

- Straighten back the part of the disc double washers ③ that are bent over the disc bolts ②, remove the bolts (4) and double washers (2), and pull off the disc ⑤.
- Pull off the cap ④ on the disc side of the hub.
- Pull out the grease seal ⑦ on the disc side using a hook, and remove the circlip ⑧.
- Insert a metal rod into the hub from the speedometer gear side, and remove the bearing ⑨ on the disc side by tapping evenly around the bearing inner race.



- Remove the remaining grease seal ⑪ using a hook, and pull out the speedometer gear drive ⑰.
- Insert the metal rod into the hub from the disc side, and remove the other bearing ㉑ by tapping evenly around the bearing inner race. The distance collar ⑩ will come out with the bearing.

Front Hub Assembly Notes:

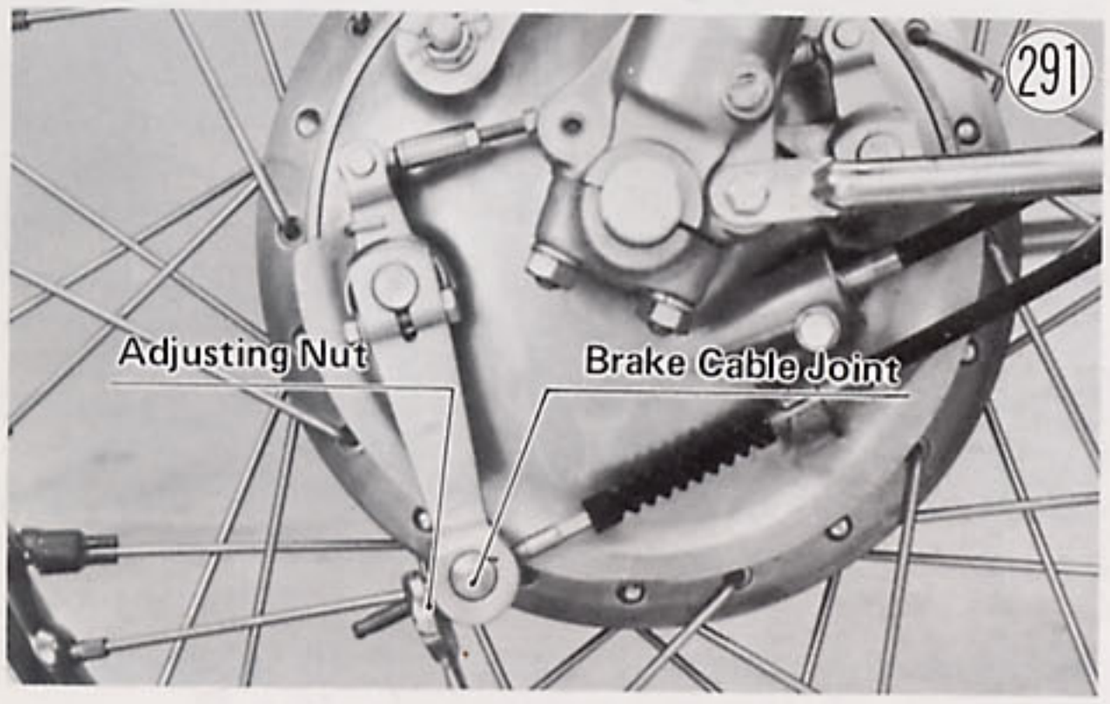
1. Inspect the bearings and replace if necessary (Pg. 138). Install them using the wheel bearing driver "A" and the bearing driver holder (special tools).

2. Replace the grease seals with new ones using a press or wheel bearing driver "A" (special tool).
3. Tighten the disc bolts (4) with 1.6 ~ 2.2 kg-m (11.5 ~ 16 ft-lbs) of torque, bend the washer tabs back over the disc bolts.
4. Clean off completely any grease that has gotten on either side of the disc with a high flash point solvent of some kind. Do not use one which will leave an oily residue.

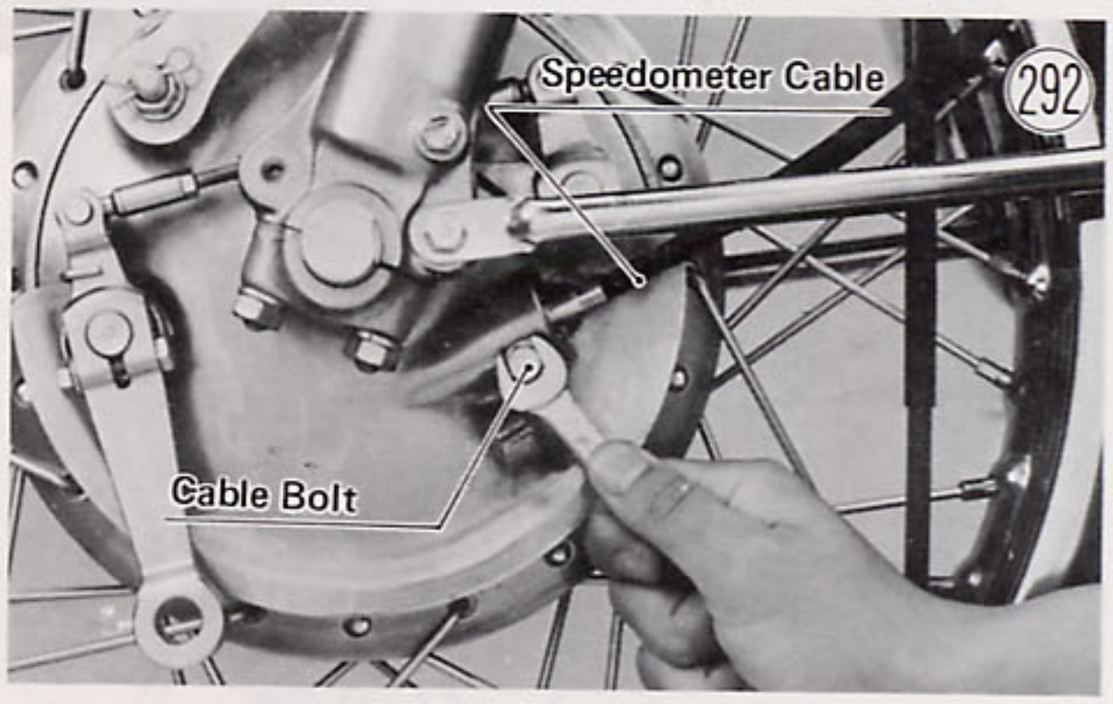
FRONT WHEEL (Only on KZ400S)

Removal:

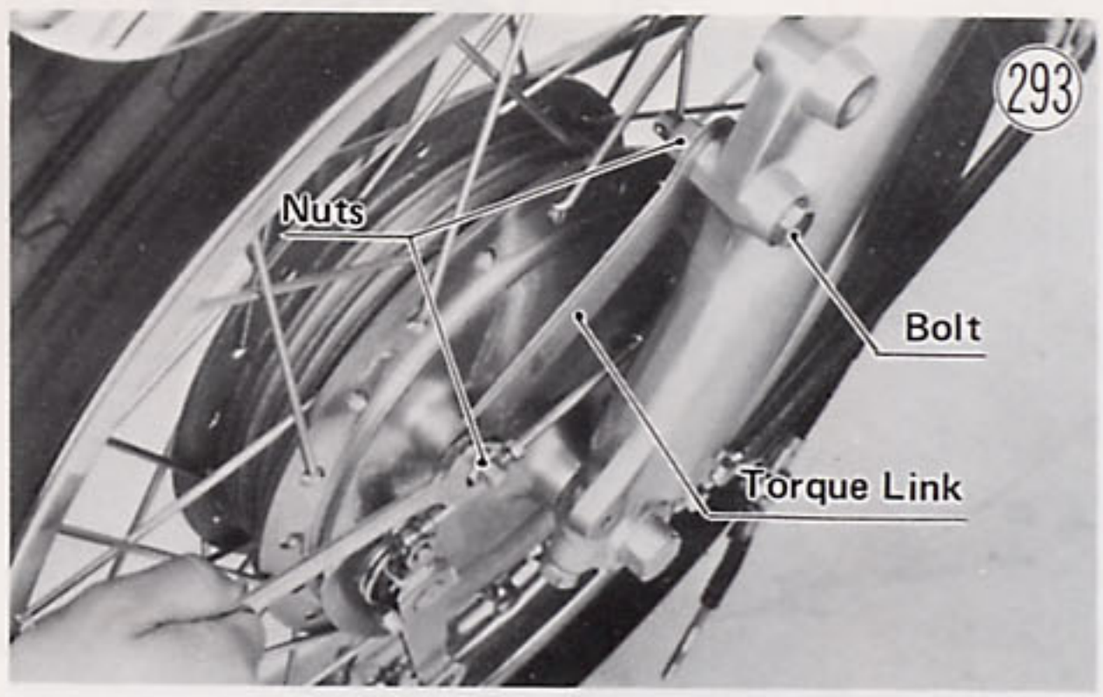
- Put the motorcycle up on the jack or block, and jack or prop up the engine so that the front wheel is off the ground.
- Remove the cotter pin from the threaded brake cable extension, screw off the adjusting nut, and free the brake cable from the brake panel. Also remove the brake cable joint.



- Remove the speedometer cable bolt and washer and pull the lower end of the speedometer cable off the brake panel.



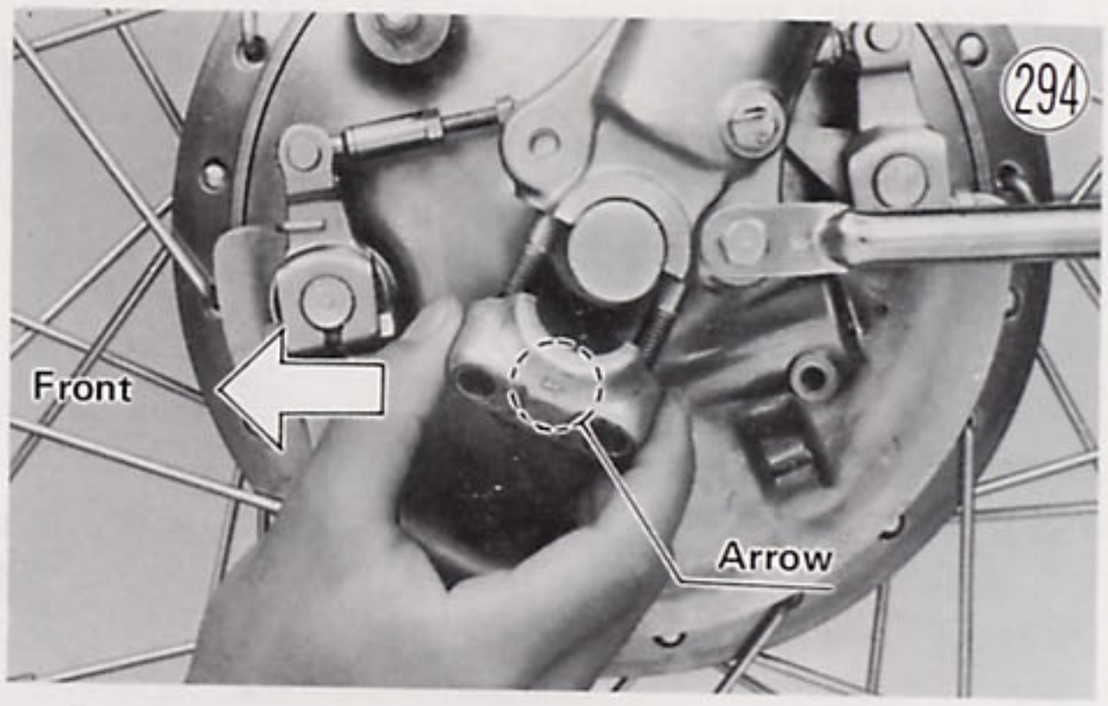
- Take out the torque link clips, remove the nuts (2), bolt, lock washers (2), and remove the torque link.



- Remove the front axle cotter pin, nut and washer.
- Remove the front axle clamp nuts (2), lock washers (2), and clamp.
- Holding the wheel to facilitate axle removal, pull out the axle, and then remove the wheel from the motorcycle.

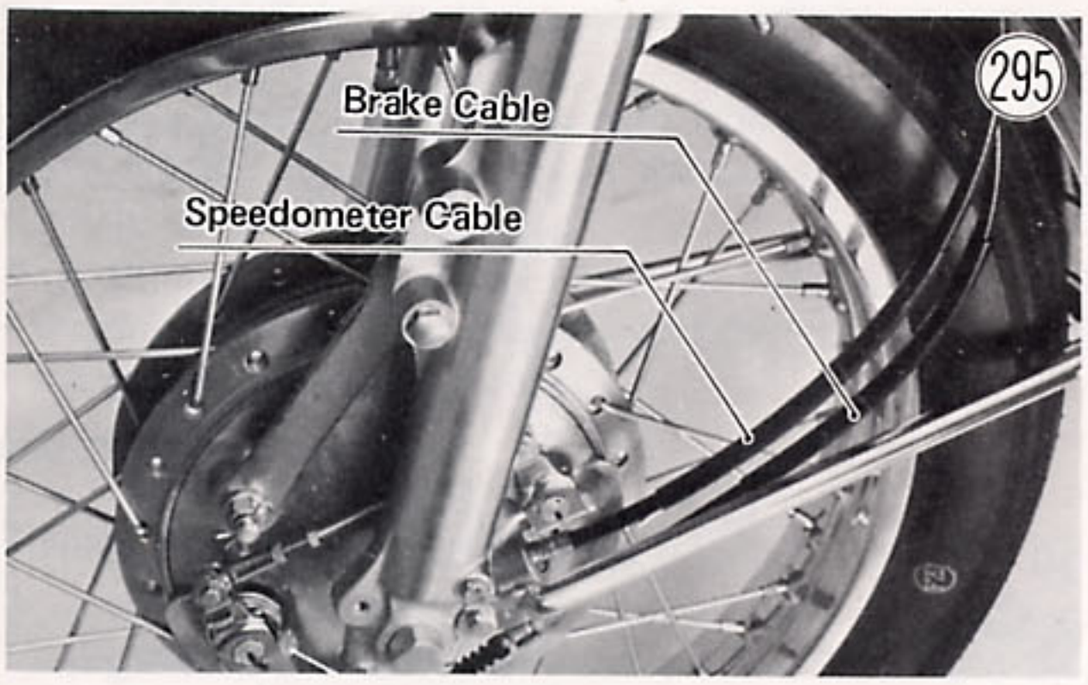
Installation:

- Hold the front wheel in place between the front shock absorbers, and insert the axle from the brake panel side.
- Replace the axle clamp, tightening it loosely. The clamp must be positioned so that the arrow on the bottom points to the front. Each nut has a lock washer.



- Replace the axle washer and nut, tightening it loosely.
- Replace the torque link, and replace its bolt, lock washers (2), and nuts (2).
- Tighten the torque link nuts with 2.6 ~ 3.5 kg-m (19 ~ 25 ft-lbs) of torque, and replace the torque link clips.

- Tighten the axle nut with 7 ~ 9 kg-m (51 ~ 65 ft-lbs) of torque, and install a new axle cotter pin.
- Tighten the axle clamp nuts, first the front one and then the rear with 1.6 ~ 2.2 kg-m (11.5 ~ 16 ft-lbs) of torque.
- With the speedometer cable running above the fender stay, insert the speedometer inner cable into the front brake panel while turning the wheel so that the inner cable end will seat in the speedometer pinion gear. Replace the speedometer cable bolt and washer.
- With the brake cable running in the same manner as the speedometer cable, attach the brake cable, brake cable joint, and adjusting nut back onto the front brake panel. Replace a new cotter pin at the end of the threaded brake cable extension.



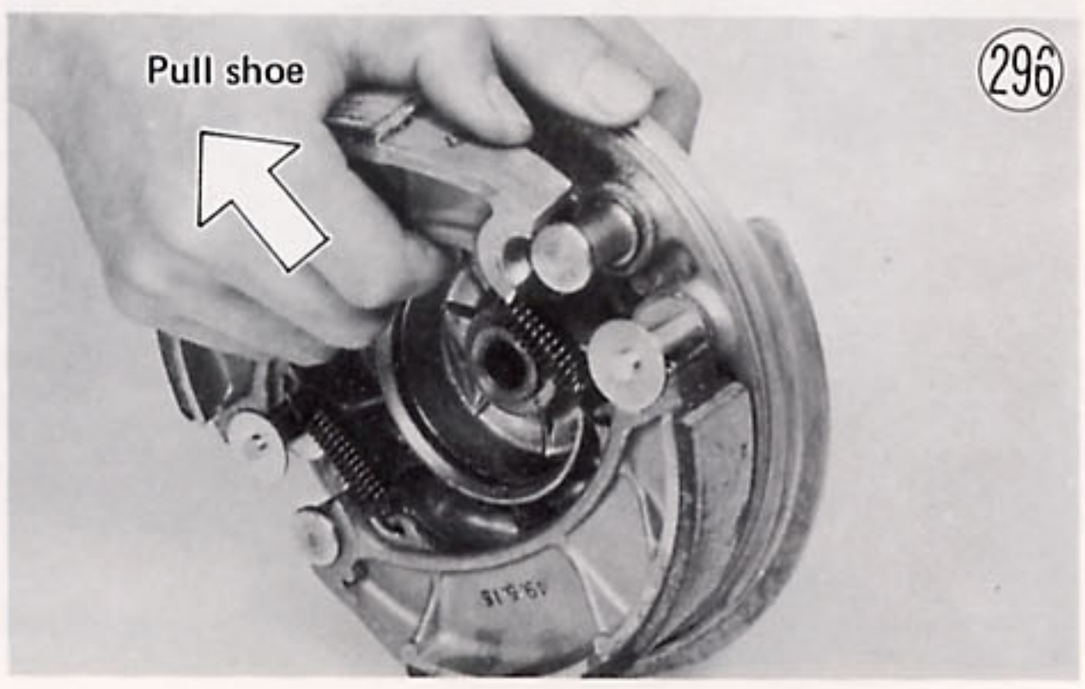
- Adjust the front brake (Pg. 17).

Front Brake Disassembly:

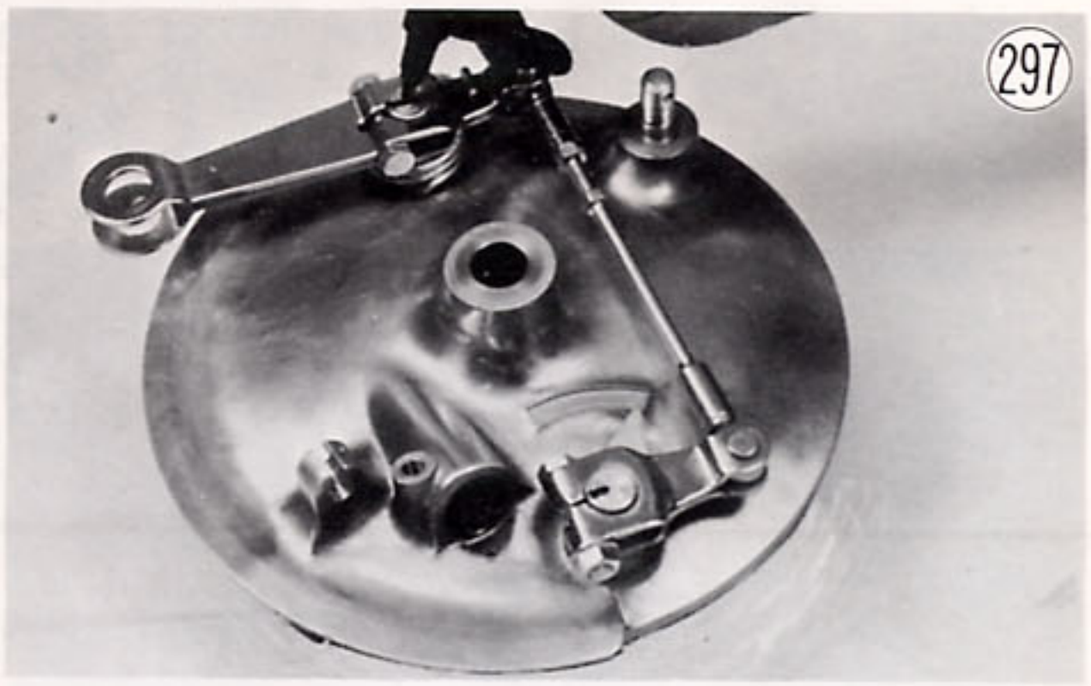
WARNING:Brake linings contain asbestos fiber. Inhalation of asbestos may cause serious scarring of the lungs and may promote other internal injury and illness, including cancer. Observe the following precautions when handling brake linings:

1. **Never blow brake lining dust with compressed air.**
2. **If any components are to be cleaned, wash with detergent, then immediately discard the cleaning solution and wash your hands.**
3. **Do not grind any brake lining material unless a ventilation hood is available and properly used.**

- Pull out the axle (T) and remove the brake panel (35).
- Using a clean cloth around the linings if necessary to prevent grease or oil from getting on them, remove the brake shoes (22) by pulling them off the brake cam shafts (18).



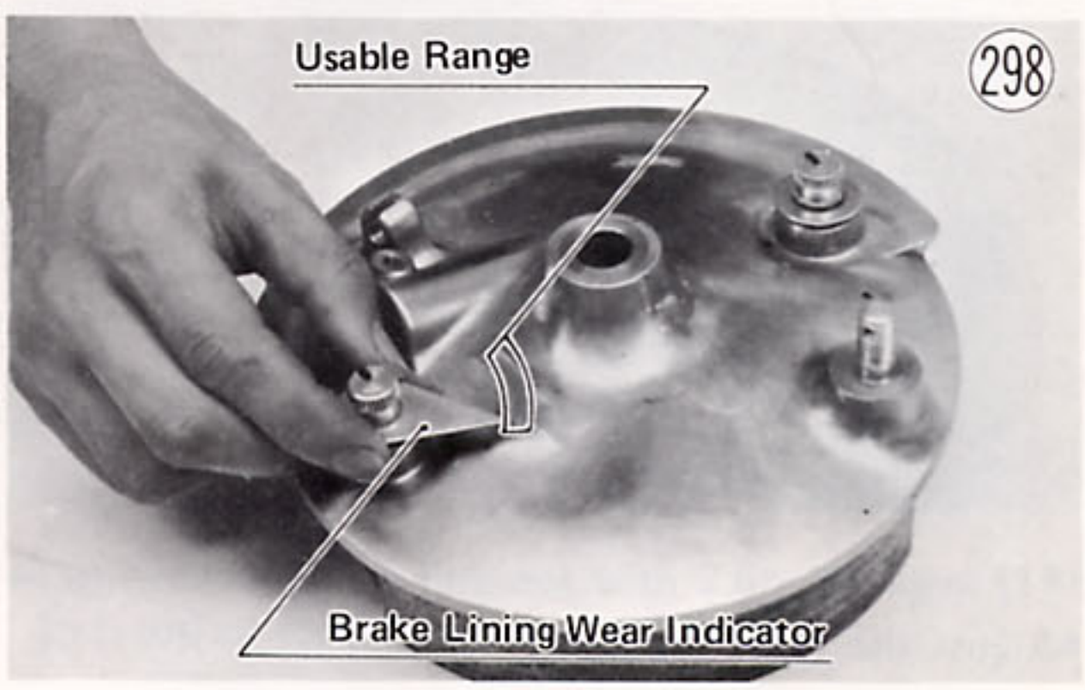
- Remove the brake spirngs (23) (2) to separate the two brake shoes.
- Mark the position of each cam lever (13) on the camshaft so that they can later be installed at the same angle.



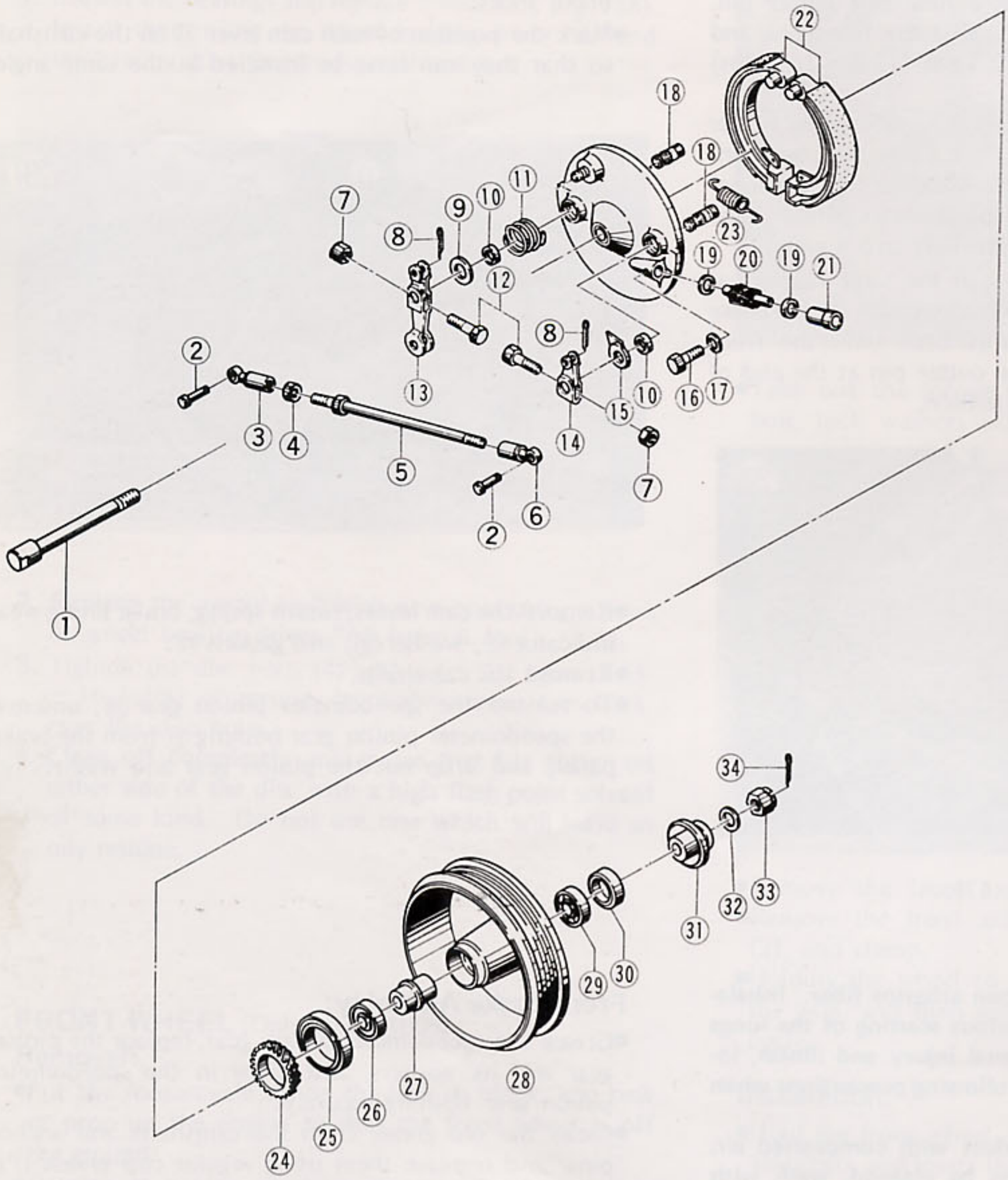
- Remove the cam levers, return spring, brake lining wear indicator (15), washer (9), and gaskets (10).
- Remove the camshafts.
- To remove the speedometer pinion gear (20), unscrew the speedometer pinion gear bushing (21) from the brake panel, and drop out the pinion gear and washers (19).

Front Brake Assembly:

- Grease the speedometer pinion gear, replace the pinion gear and its washers, and screw in the speedometer pinion gear bushing securely.
- Clean the old grease from the camshafts and anchor pins, and regrease them using regular cup grease (Pg. 147).
- Install the brake springs connecting the brake shoes.
- Wrapping a clean cloth around the linings if necessary to prevent grease or oil from getting on them, put the shoes back onto the brake panel.
- Fit the gaskets on the camshafts.
- Replace the washer and the brake lining wear indicator. The indicator should point just to the right of the "E" in RANGE.



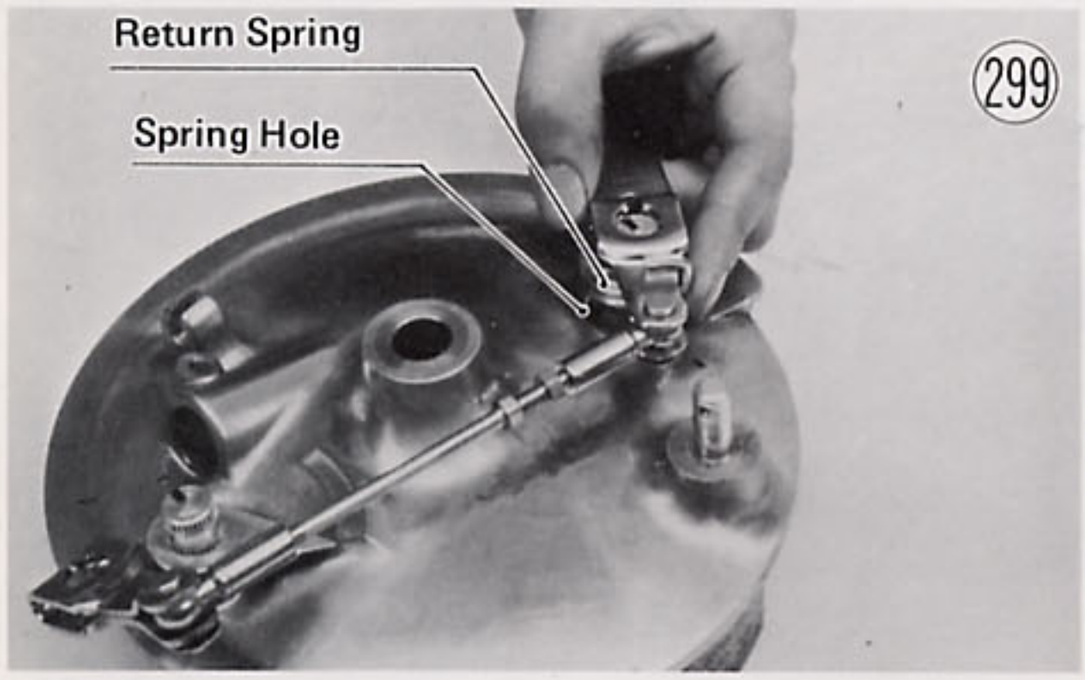
Front Hub (KZ400S)



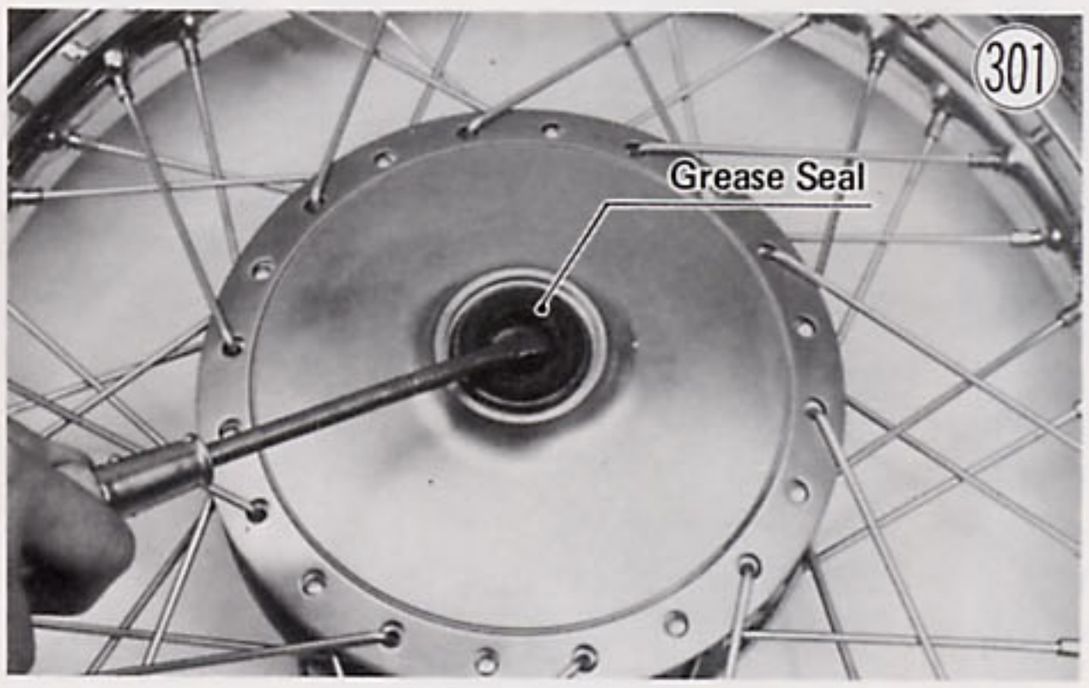
●Replace the cam levers with the return spring part of the way onto the camshafts, fit the return spring end into its hole in the panel, and put the cam levers the rest of the way into position on the camshafts. Tighten the bolts.

Front Hub Disassembly

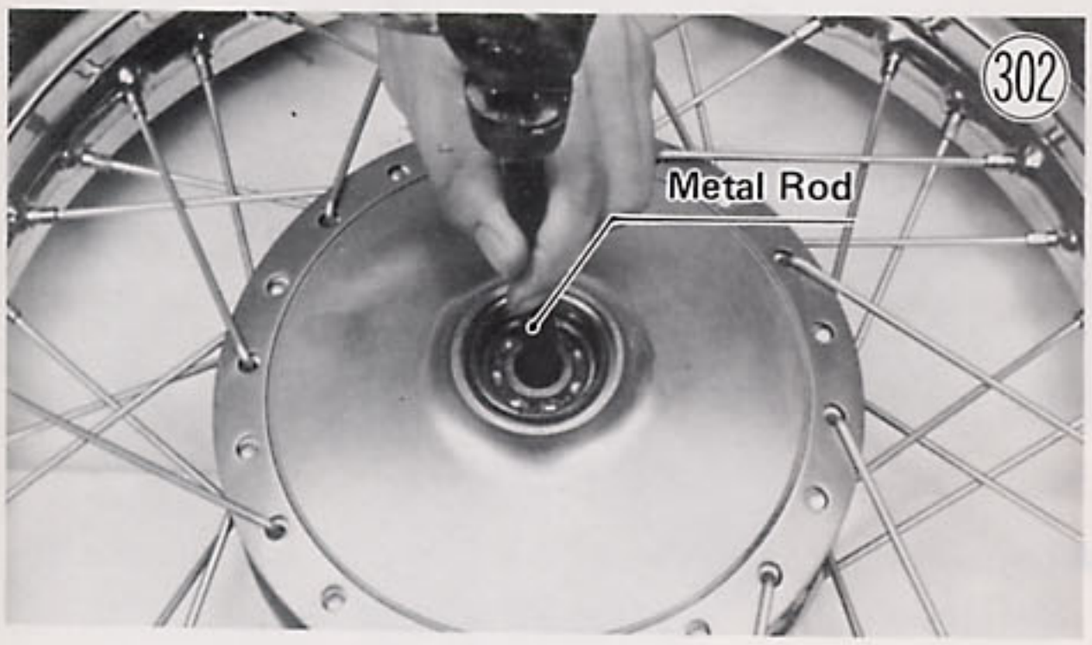
●Pull off the brake panel (35) and axle (1).
●Pull off the cap (31).
●Pull off the grease seal (30) on the cap side using a hook.



●Adjust the front brake (Pg. 17).



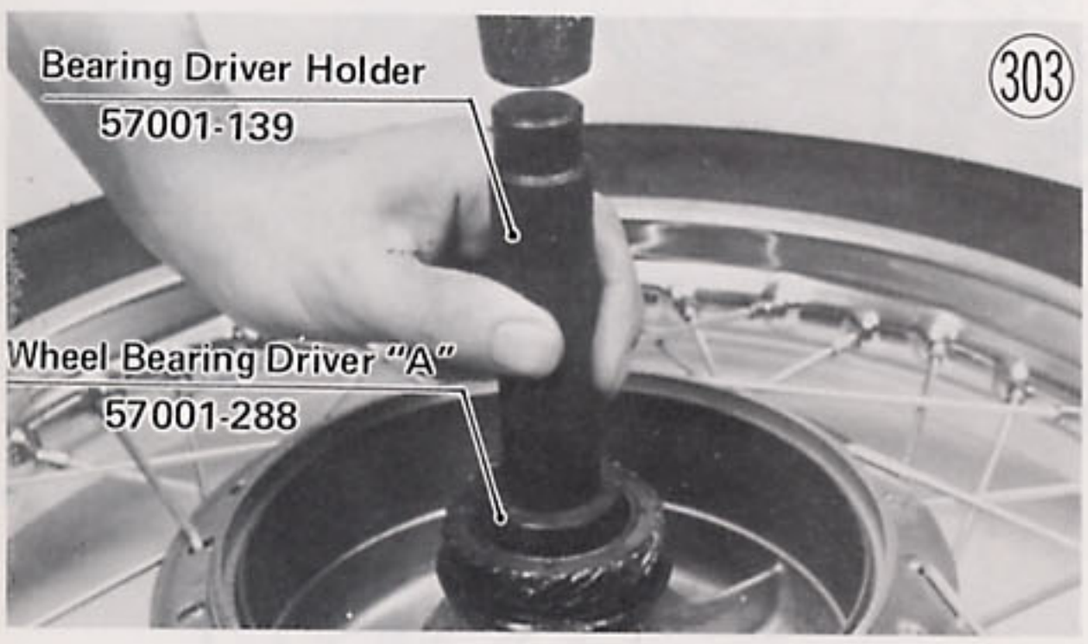
•Insert a metal rod into the hub from the cap side, and remove the bearing ㉖ by tapping evenly around its inner race. The distance collar ㉗ will come out with the bearing.



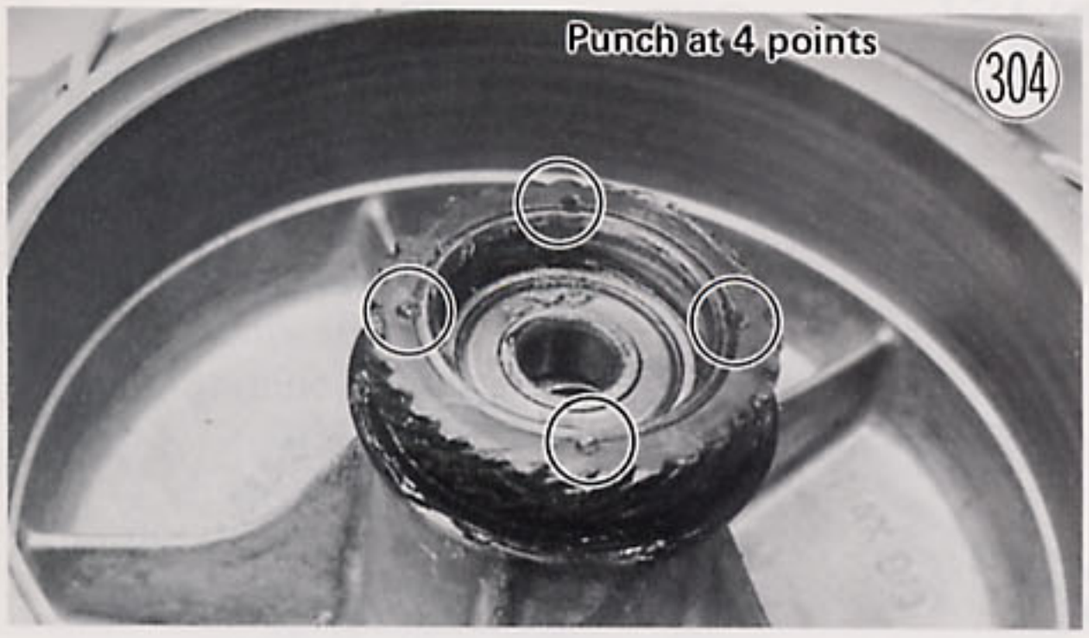
•Insert a metal rod into the hub from the panel side, and remove the bearing ㉙ on the cap side by tapping evenly around its inner race.
•To remove the grease seal ㉕ on the panel side, pull off the speedometer gear using a gear puller, and pull off the grease seal using a hook.

Front Hub Assembly Notes:

1. Insepct the bearings and replace them if necessary (Pg. 138). Install them using wheel bearing driver "A" and the bearing driver holder (special tools).



2. Put in new grease seals using a press or wheel bearing driver "A" (special tool).
3. After installing the speedometer gear, punch four points on the drum to lock the gear in place.

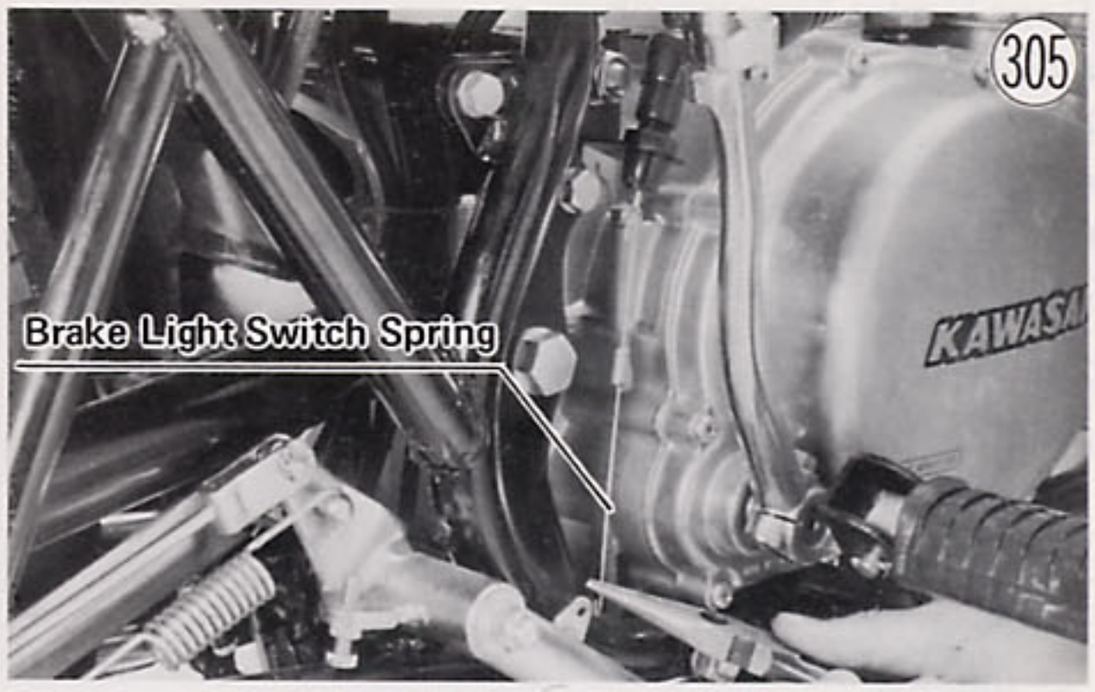


4. Regrease the speedometer gear (Pg. 138).

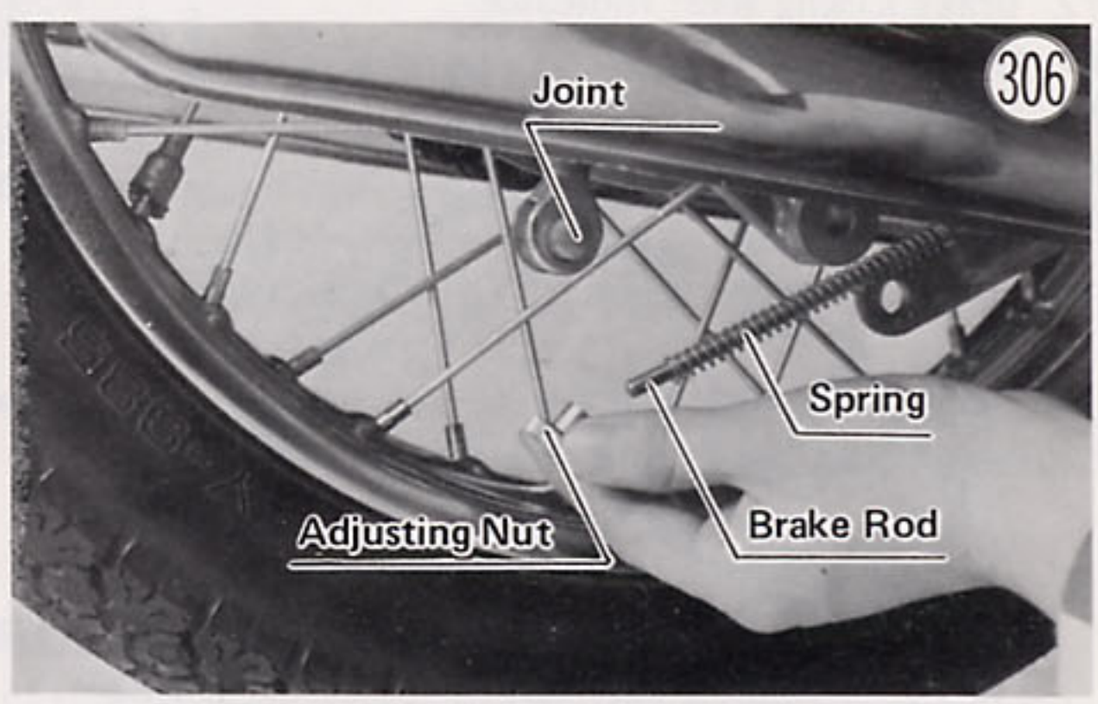
REAR WHEEL

Removal:

•Put the motorcycle up on its center stand.
•Take out the clip from the rear torque link bolt, remove the nut and lock washer, and free the torque link from its bolt.
•Being careful not to bend or otherwise damage it, free the rear brake light switch spring from the tab on the brake pedal.



•Remove the adjusting nut from the end of the brake rod, and then free the rod from the cam lever by depressing the brake pedal. Remove the brake rod spring and joint.



•Take out the cotter pin, remove the axle nut and washer, and pull out the axle.
•Remove the axle sleeve from the right side of the wheel.
•Slide the wheel out of the wheel coupling and then free from the motorcycle.

Installation:

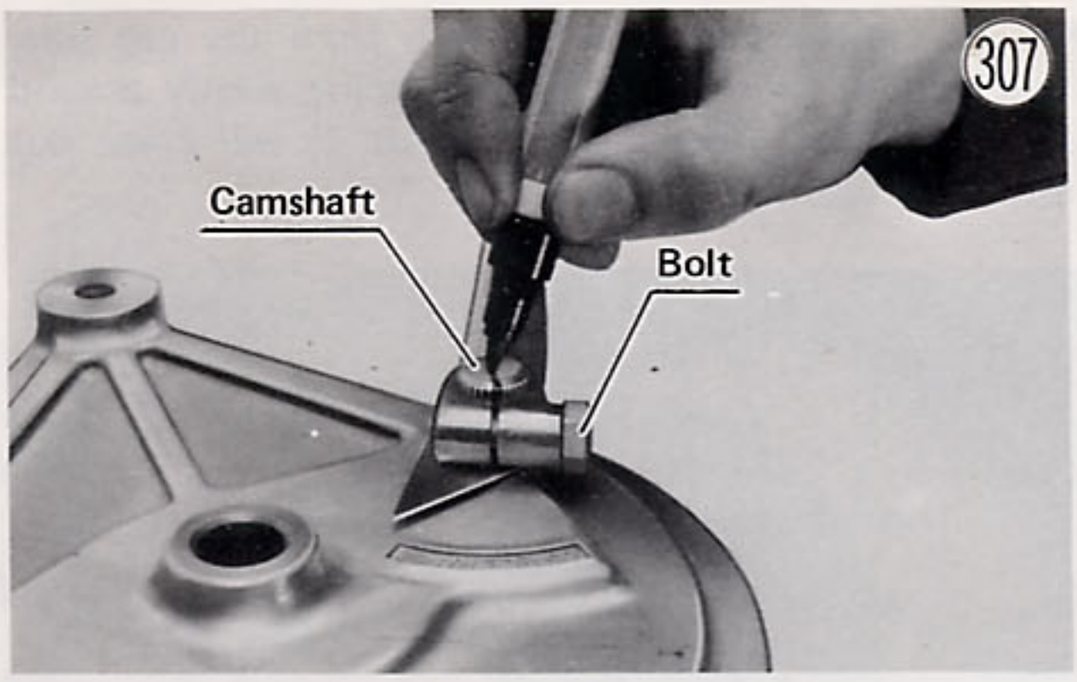
•Check to see that the torque link bolt is in place in the brake panel, and slip the wheel back into the coupling.
•Replace the axle sleeve.
•Slide the axle through the hub from the left to the right.
•Fit the torque link onto its bolt, and replace its lock washer and nut.
•Tighten the torque link nut with 2.6 ~ 3.5 kg-m (19 ~ 25 ft-lbs) of torque, and replace its clip.

- Replace the axle washer and nut, tightening the nut to 10~14 kg-m (72~101 ft-lbs) of torque.
- Install a new axle cotter pin.
- Replace the joint into the end of the cam lever and the spring on the end of the brake rod.
- Fit the rod through the joint, and screw on the adjuster.
- Carefully fit the rear brake light switch spring back into the tab on the brake pedal.
- Adjust the rear brake (Pg. 19), and check the rear brake light switch adjustment (Pg. 20).

Rear Brake Disassembly:

NOTE: Refer to the warning (Pg. 75) for general brake information.

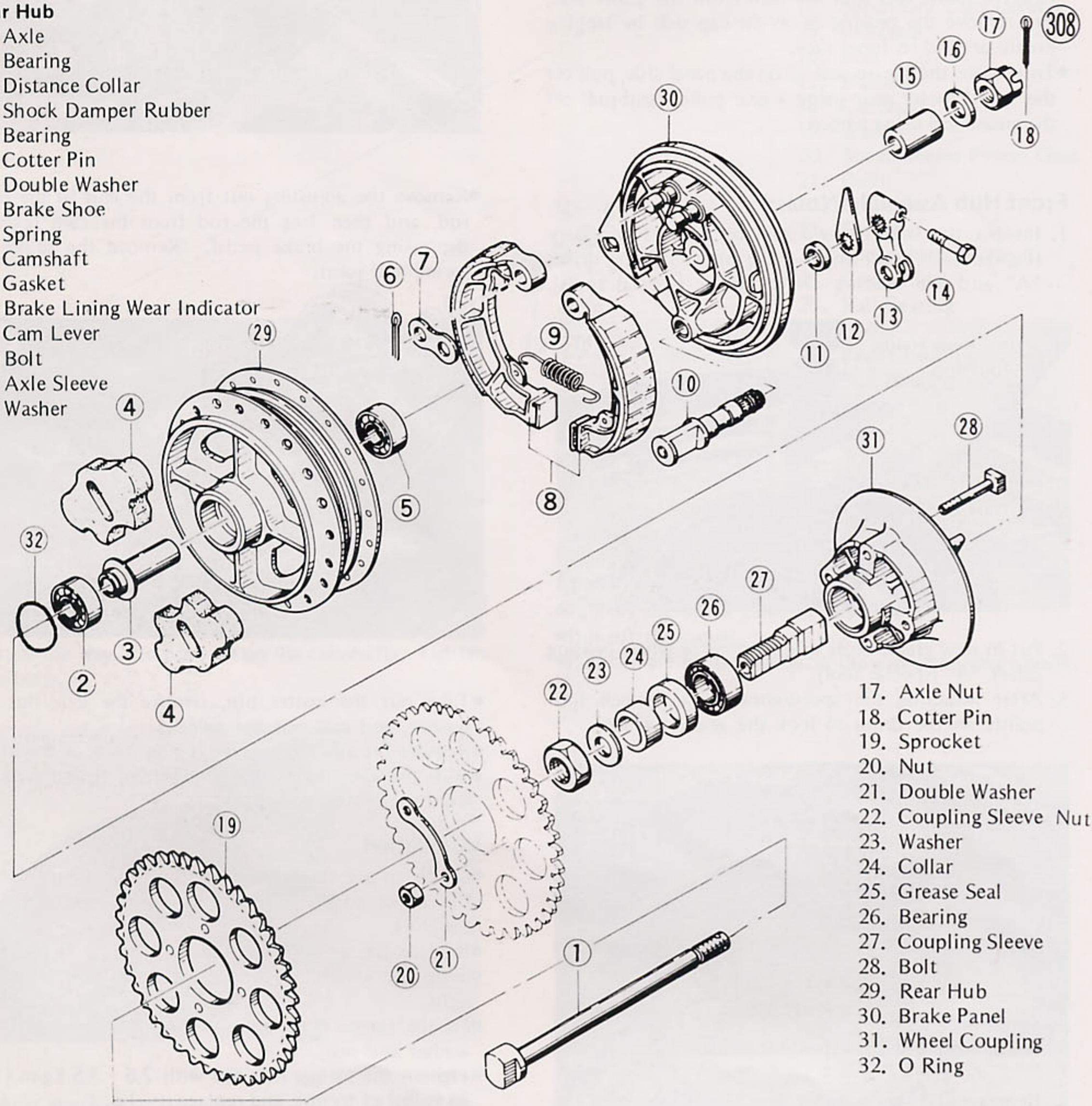
- Remove the brake panel ㉚ from the wheel.
- Mark the position of the cam lever ⑬ on the camshaft ⑩ so that it can later be installed at the same angle.



- Remove the cam lever, brake lining wear indicator ⑫, and gasket ⑪.

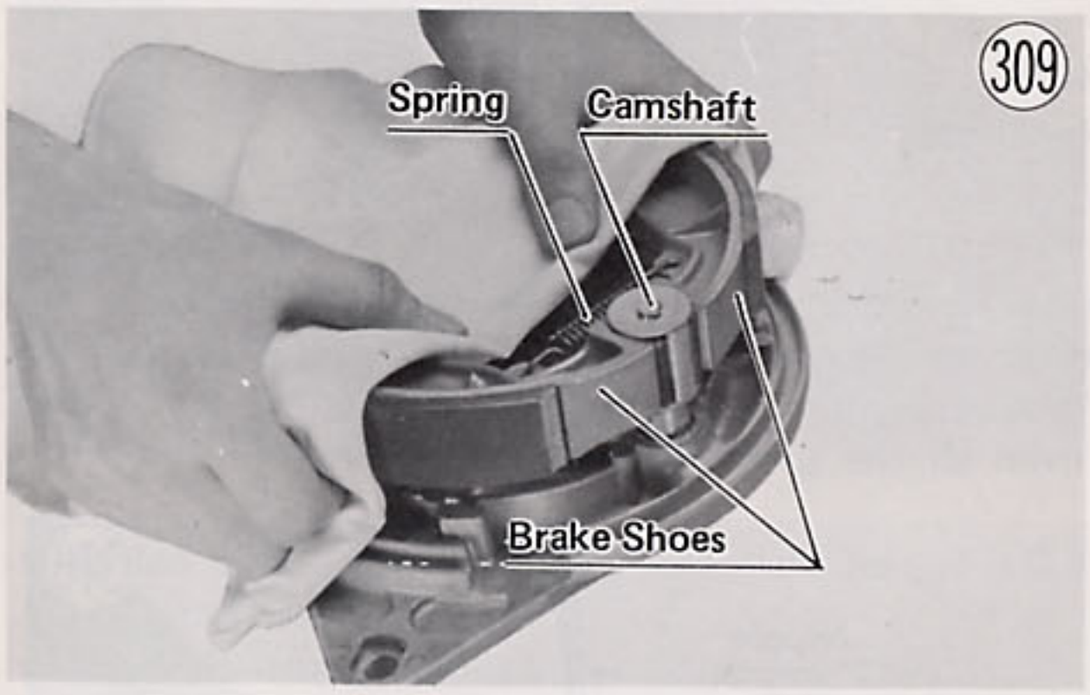
Rear Hub

1. Axle
2. Bearing
3. Distance Collar
4. Shock Damper Rubber
5. Bearing
6. Cotter Pin
7. Double Washer
8. Brake Shoe
9. Spring
10. Camshaft
11. Gasket
12. Brake Lining Wear Indicator
13. Cam Lever
14. Bolt
15. Axle Sleeve
16. Washer

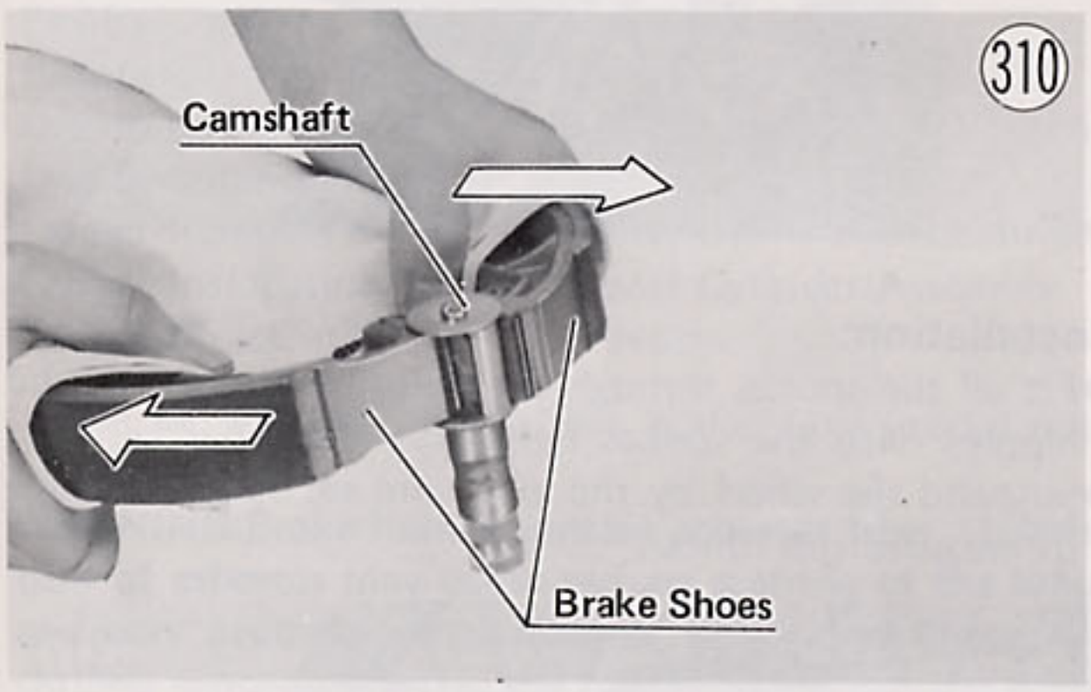


17. Axle Nut
18. Cotter Pin
19. Sprocket
20. Nut
21. Double Washer
22. Coupling Sleeve Nut
23. Washer
24. Collar
25. Grease Seal
26. Bearing
27. Coupling Sleeve
28. Bolt
29. Rear Hub
30. Brake Panel
31. Wheel Coupling
32. O Ring

- Pull out the cotter pins ⑥ (2), and take off the double washer ⑦.
- Using a clean cloth around the linings if necessary to prevent grease or oil from getting on the linings, pull the brake shoes ⑧, spring ⑨, and camshaft as an assembly off the brake panel.



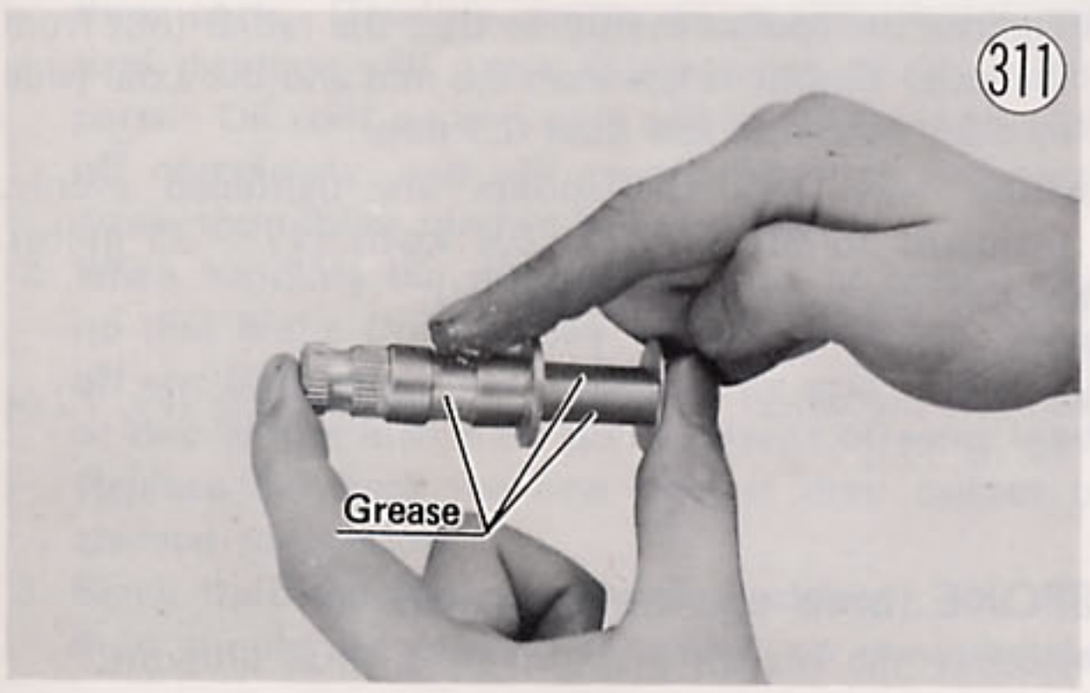
- Twist the brake shoes as shown in Fig. 310 to separate the camshaft from the shoes.



- Remove the spring to separate the brake shoes.

Rear Brake Assembly:

- Clean the old grease from the camshaft, and regrease using regular cup grease. Apply grease to the center of the shaft and on the cam surfaces. Do not over-grease.



- Install the spring connecting the brake shoes.
- Wrapping a clean cloth around the linings if necessary to prevent grease or oil from getting on the linings, fit the camshaft between the brake shoes, and then fit the assembly back onto the brake panel.
- Replace the double washer ⑦ on the anchor pins, and install new cotter pins ⑥ (2).
- Fit the gasket on the camshaft.
- Replace the brake lining wear indicator so that it points just to the right of the "E" in RANGE.

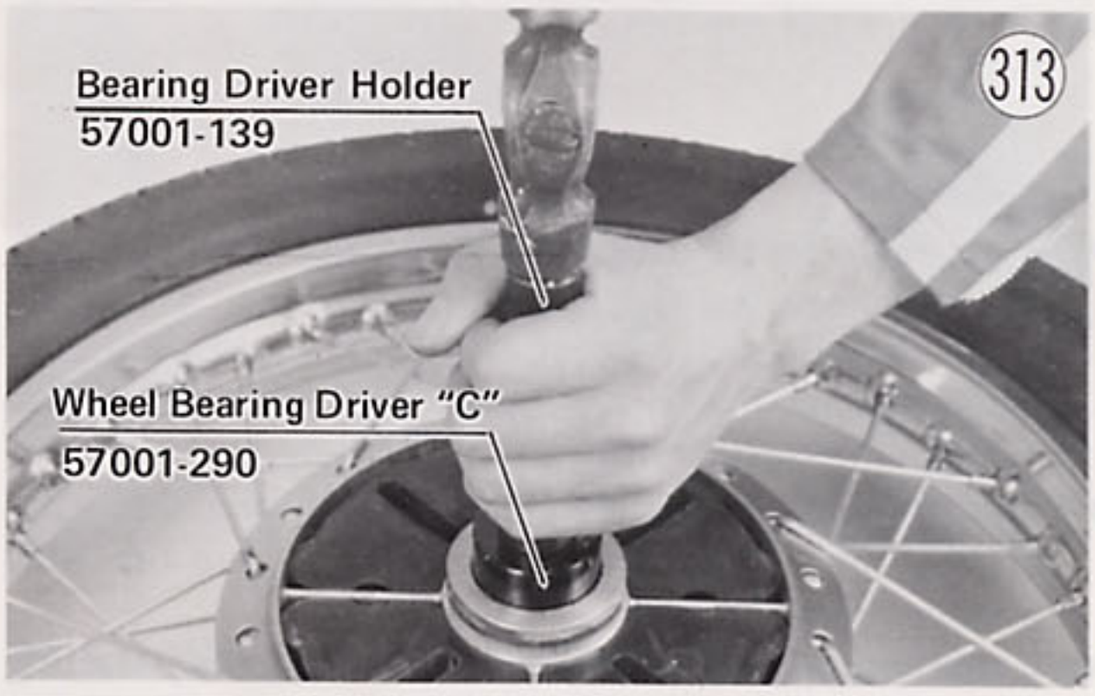
- Replace the cam lever into its original position on the camshaft, and tighten its bolt.
- Check to see that the torque link bolt is in place in the panel, and fit the panel back into the wheel.

Rear Hub Disassembly:

- Pull off the brake panel ㉚.
- Insert a metal rod into the hub, and remove the bearing ② on the other side by tapping evenly around the bearing inner race. The distance collar ③ will come out with the bearing.
- Insert the metal rod into the hub from the other side, and remove the remaining bearing ⑤ by tapping evenly around the bearing inner race.

Rear Hub Assembly Notes:

1. Inspect the bearings and replace if necessary (Pg. 138). Install them using the wheel bearing driver "C" and the bearing driver holder (special tools).

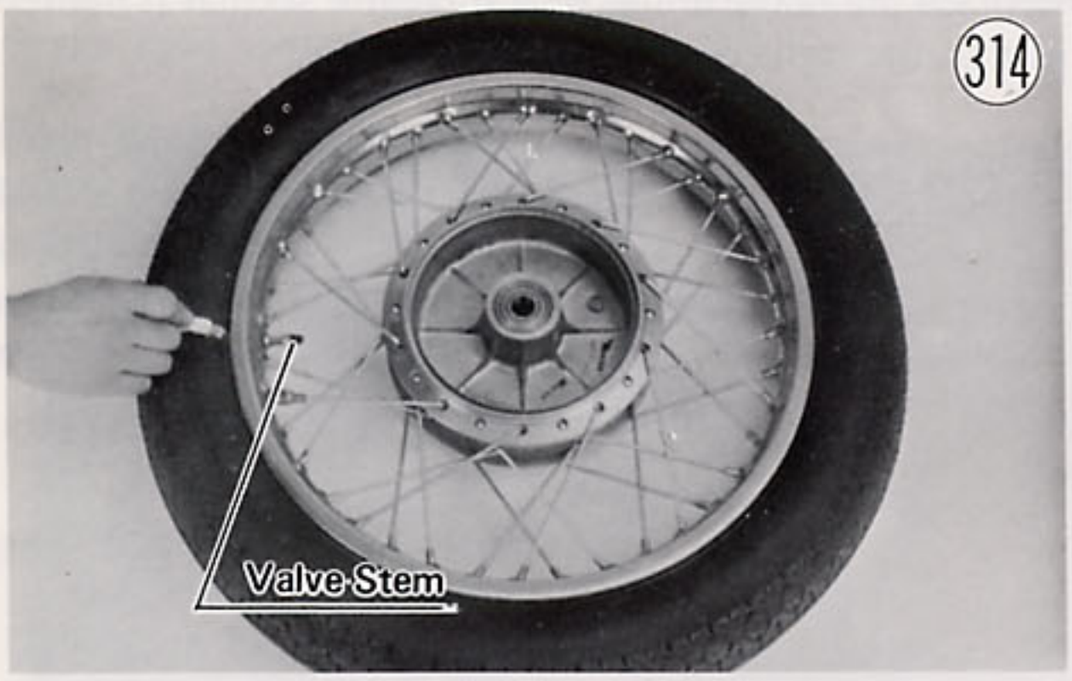


2. Inspect the O ring and replace if necessary.

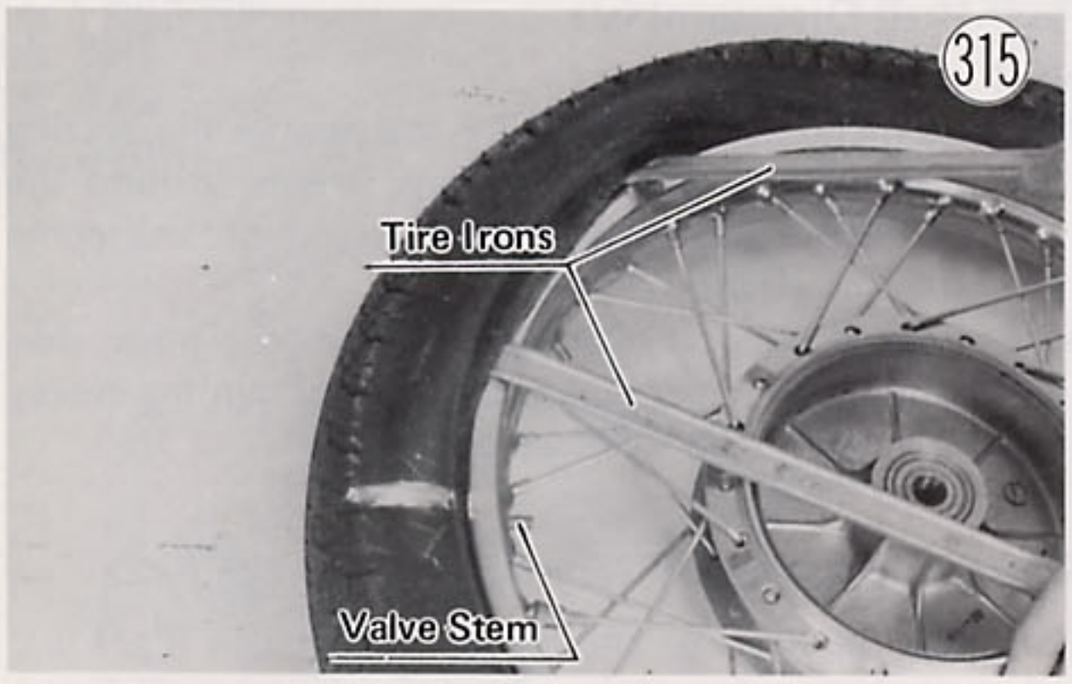
TIRE, TUBE

Removal:

- Remove the wheel from the motorcycle (Pg. 72 or 74 or 77).
- Mark the valve stem position on the tire with chalk so that the tire will not get turned and upset wheel balance.



- Take out the valve core to let out the air.
- Remove the valve stem nut.
- Use a rubber mallet to break the tire beads away from both sides of the rim.
- Step on the side of the tire opposite the valve stem, and start prying the tire off the rim near the valve stem with tire irons. Take care not to insert the tire irons so deeply that the tube gets damaged.



- Remove the tube when one side of the tire is pried off.
- Pry the tire off the rim.

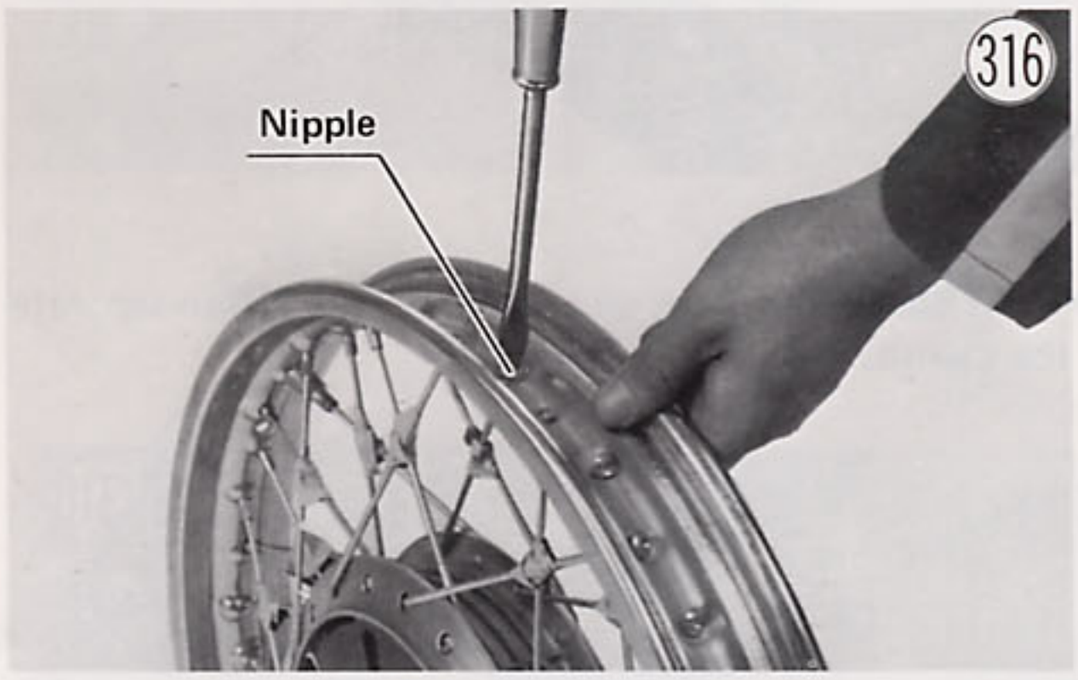
Installation:

- Put just enough air in the tube to keep it from getting caught between the tire and rim, and insert it into the tire at this point, even if the tire was completely removed from the rim. Insert the valve stem into the rim, and screw the nut on loosely.
- If the tire was completely removed, pry one side back onto the rim. Align the chalk mark on the tire with the valve stem.
- Pry the other side of the tire onto the rim, starting at the side opposite the valve. Take care not to insert to the tire irons so deeply that the tube gets damaged.
- Check that the tube is not pinched between the tire and rim, and then inflate to the standard pressure (Pg. 133).
- Tighten the valve stem nut, and put on the valve cap.
- Balance the wheel (Pg. 17).
- Mount the wheel back onto the motorcycle (Pg. 72 or 74 or 77).

RIM

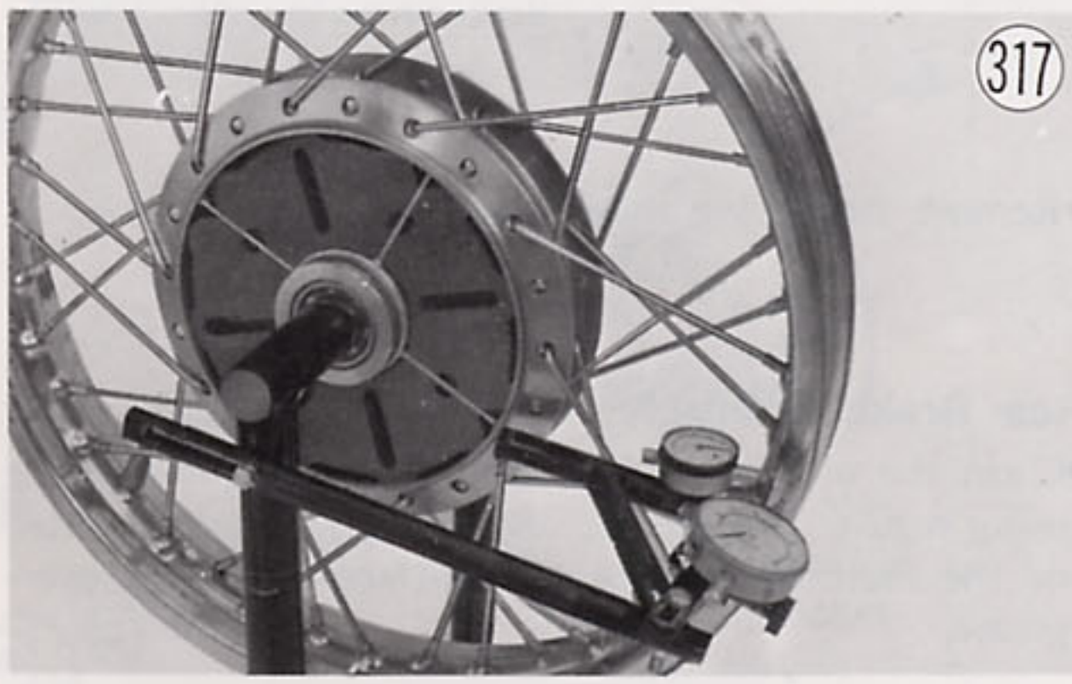
Removal:

- Remove the wheel from the motorcycle (Pg. 72 or 74 or 77).
- Take the tire and tube off the rim (Pg. 80).
- Tape or wire all the spoke intersections so that the spokes don't get mixed up, and unscrew the nipples from all the spokes with a screwdriver.



Installation:

- Fit all the spokes through the holes, and screw all the nipples onto the spokes tightening them partially.
- Suspend the wheel by the axle, and set up a dial gauge to measure rim runout.

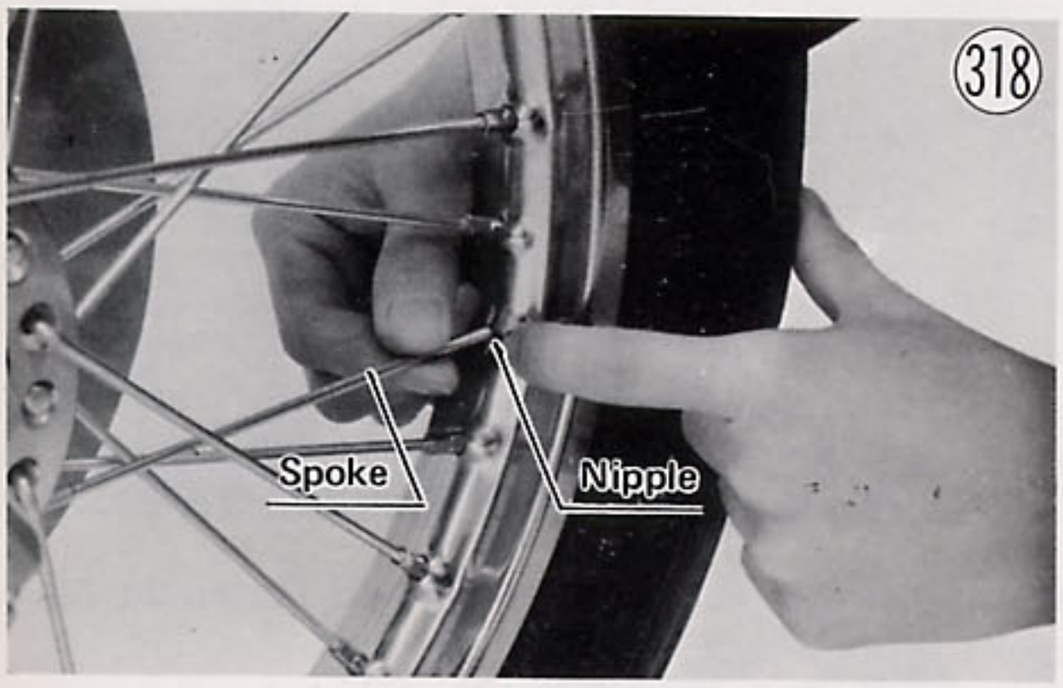


- Tighten the spokes evenly so that the radial (out from the axle) runout is less than 0.8 mm and the axial (side to side) runout is less than 0.5 mm.
- Make sure that the spokes are tightened evenly. Standard torque is 0.2 ~ 0.4 kg-m (17 ~ 35 in-lbs).
- Mount the tube and tire (Pg. 80).
- Balance the wheel (Pg. 17).
- Mount the wheel back onto the motorcycle (Pg. 72 or 74 or 77).

SPOKE (breakage replacement)

- Reduce the tire air pressure by a small amount.

●Insert the new spoke through the hub, and bend it to meet the nipple.



●Tighten with a spoke wrench. Standard torque is 0.2~0.4 kg-m (17~35 in-lbs).
●Inflate the tire to standard pressure (Pg. 133).

DISC BRAKE (Only on KZ400D)

Removal, installation, disassembly, and assembly of the disc brake is divided up as follows:

Pad Removal	Caliper Assembly
Pad Installation	Master Cylinder Removal
Disc Removal	Master Cylinder Installation Notes
Disc Installation Note	Master Cylinder Disassembly
Caliper Removal	Master Cylinder Assembly
Caliper Installation Note	Master Cylinder Assembly Notes
Caliper Disassembly	

Before working on the disc brake, take special note of the following:

WARNING:Brake linings contain asbestos fiber. Inhalation of asbestos may cause serious scarring of the lungs and may promote other internal injury and illness, including cancer. Observe the following precautions when handling brake linings:

1. **Never blow brake lining dust with compressed air.**
2. **If any components are to be cleaned, wash with detergent, then immediately discard the cleaning solution and wash your hands.**
3. **Do not grind any brake lining material unless a ventilation hood is available and properly used.**

CAUTION

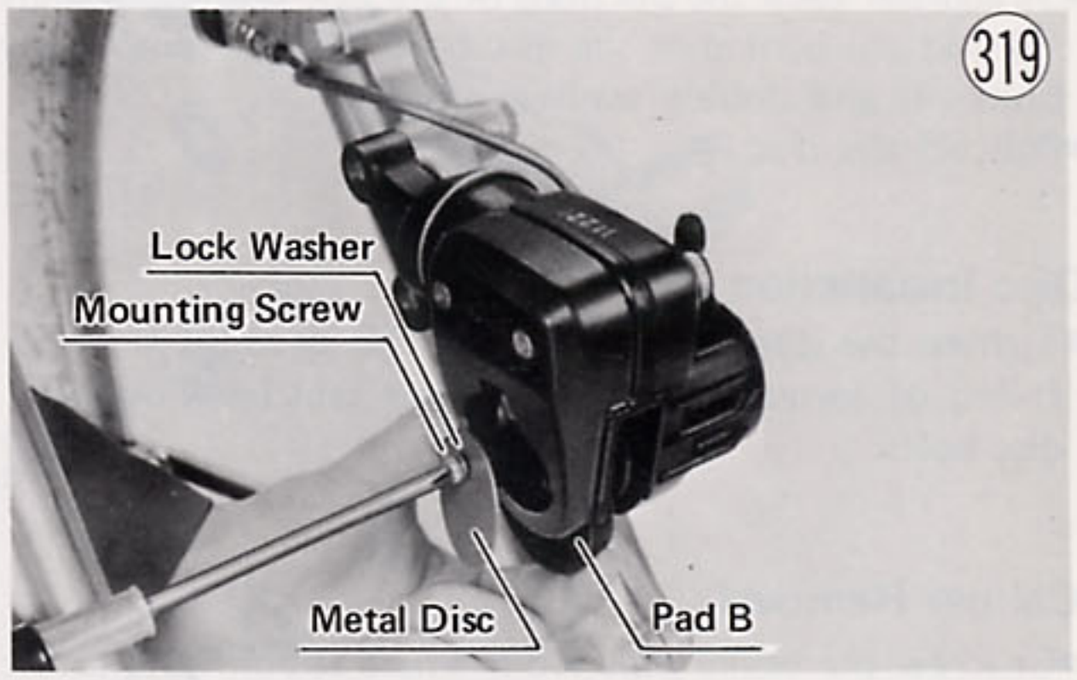
1. Except for the disc pads and disc, use only disc brake fluid, isopropyl alcohol, or ethyl alcohol for cleaning brake parts. Do not use any other fluid for cleaning these parts. Gasoline, motor oil, or any other petroleum distillate will cause deterioration of the rubber parts. Oil spilt on any part will be difficult to wash off completely, and will eventually reach and break down the rubber used in the disc brake.
2. When handling the disc pads or disc, be careful that no disc brake fluid or any oil gets on them. Clean off any fluid or oil that inadvertently gets on the pads or disc with a high flash point solvent of some kind. Replace the pads for new ones if they cannot be cleaned satisfactorily.
3. Brake fluid quickly ruins painted surfaces; any spilt fluid should be completely wiped up immediately.
4. If any of the brake line fittings or the bleed valve is opened at any time, AIR MUST BE BLED FROM THE BRAKE (Pg. 143).
5. When installing or assembling the disc brake, tighten the disc brake fittings to the values given in Table 2. Improper torque may cause the brake to malfunction.

Table 2 Disc Brake Torque

Brake lever pivot bolt	0.5~0.7 kg-m	43~61	in-lbs
Brake lever adjusting bolt lock nut	1.8~2.3 kg-m	13.0~16.5	ft-lbs
Master cylinder clamp	0.6~0.9 kg-m	52~78	in-lbs
Fitting (banjo) bolts	2.9~3.1 kg-m	21~22	ft-lbs
Brake pipe nipple	1.7~1.9 kg-m	12.0~13.5	ft-lbs
3-way joint	0.5~0.6 kg-m	43~52	in-lbs
Front brake light switch	2.6~3.0 kg-m	19~22	ft-lbs
Caliper shafts	3.0~3.6 kg-m	22~26	ft-lbs
Caliper mounting bolts	3.4~4.6 kg-m	25~33	ft-lbs
Bleed valve	0.7~1.0 kg-m	61~85	in-lbs
Disc mounting bolts	1.8~2.0 kg-m	13.0~14.5	ft-lbs

Pad Removal:

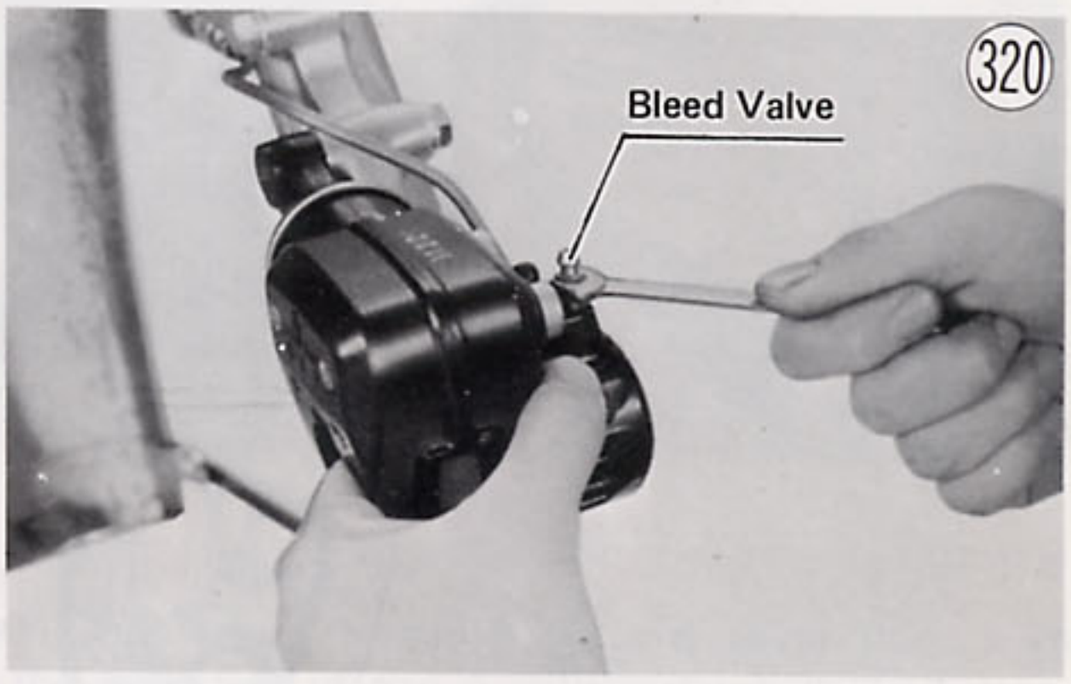
●Remove the front wheel (Pg. 72).
●Take out the mounting screw for pad B, and remove the pad. A lock washer and metal disc also come off.



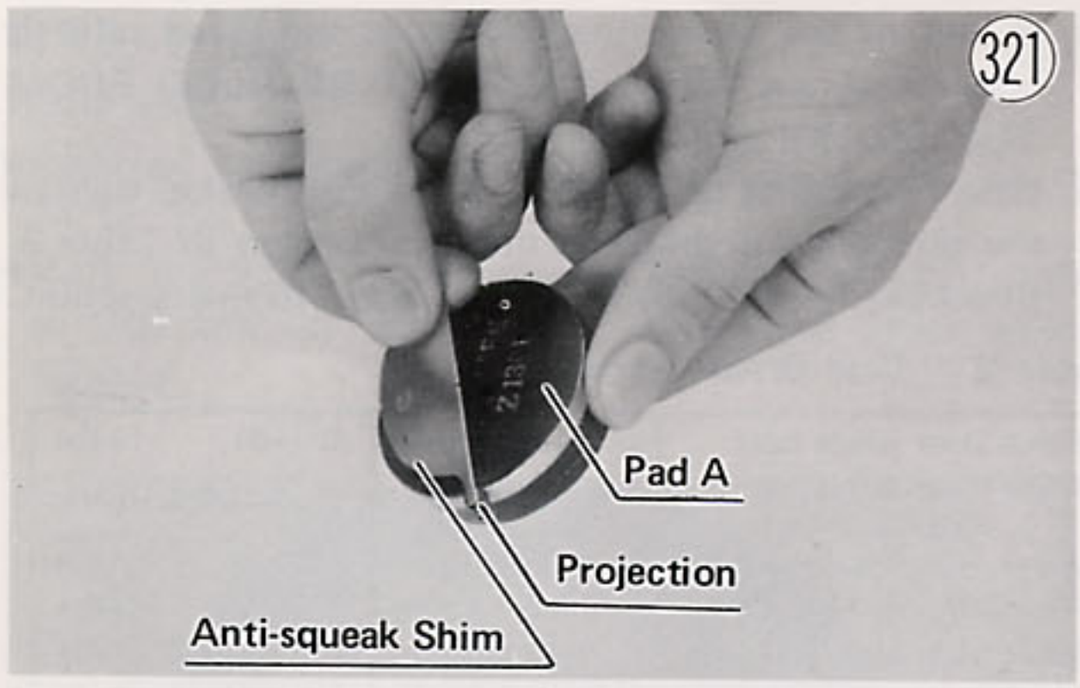
●After pad B is removed, squeeze the brake lever several times until the piston pushes out pad A.

Pad Installation:

●Remove the bleed valve cap, open (loosen) the valve slightly, push the piston in by hand as far as it will go, and then close (tighten) the valve. Wipe up any spilt fluid, and recap the bleed valve.



●Fit to the rear of pad A the anti-squeak shim, align the projection of pad A with the slot in the bottom of the caliper, and insert the pad.



- Install pad B, its metal disc, mounting screw, and lock washer. Use a non-permanent locking agent on the mounting screw.
- Since fluid was spilt when the bleed valve was opened, check the fluid level in the master cylinder.

Disc Removal:

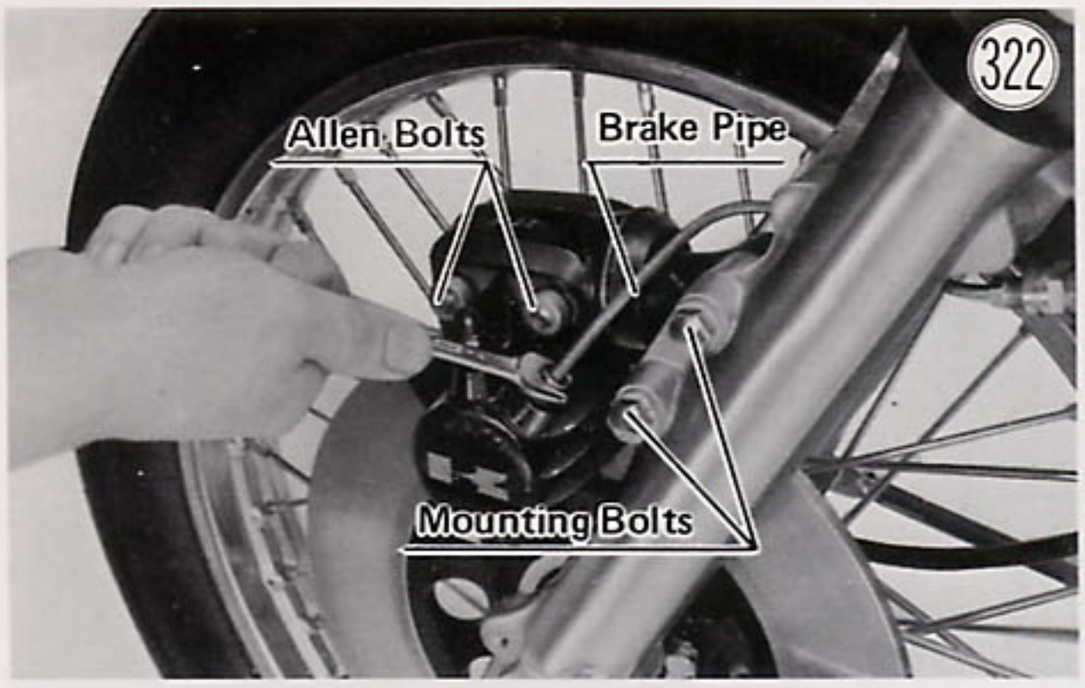
- Remove the front wheel (Pg. 72).
- Straighten back the portions of the disc double washers ② that are bent over the disc bolts ①, and remove the bolts (4) and double washers (2).
- Pull off the disc ③.

Disc Installation Note:

- Tighten the disc bolts with 1.8~2.0 kg-m (13.0~14.5 ft-lbs) of torque, bend the washer tabs back over the disc bolts.

Caliper Removal:

- Unscrew the brake pipe from where it connects to the caliper. Cap the end of the pipe to prevent fluid from flowing out.



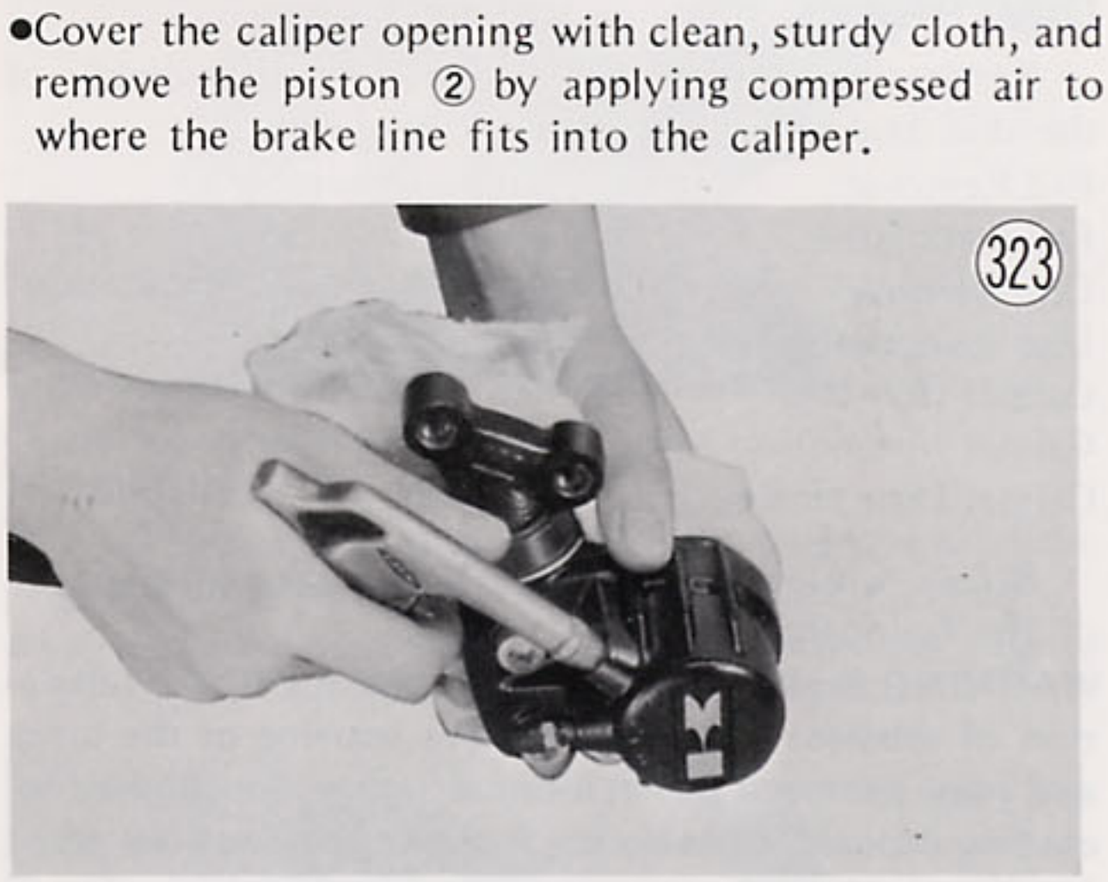
- If the caliper holder is to be removed, loosen the Allen bolts (2) now.
- Remove the mounting bolts (2), each with a flat washer and lock washer, and then take off the caliper.

Installation Note:

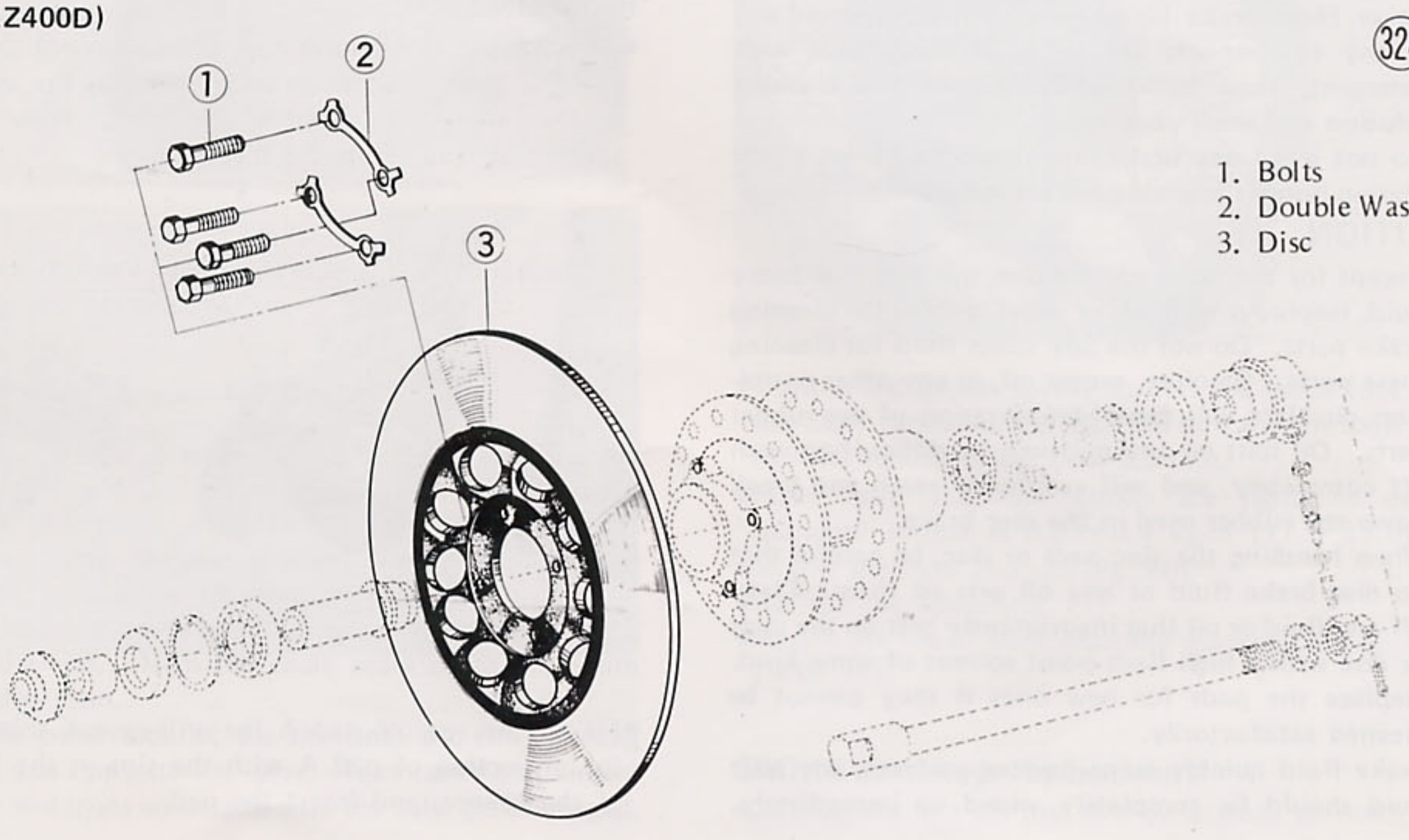
- Bleed the brake line after installation (Pg. 143).

Caliper Disassembly:

- Cover the caliper opening with clean, sturdy cloth, and remove the piston ② by applying compressed air to where the brake line fits into the caliper.

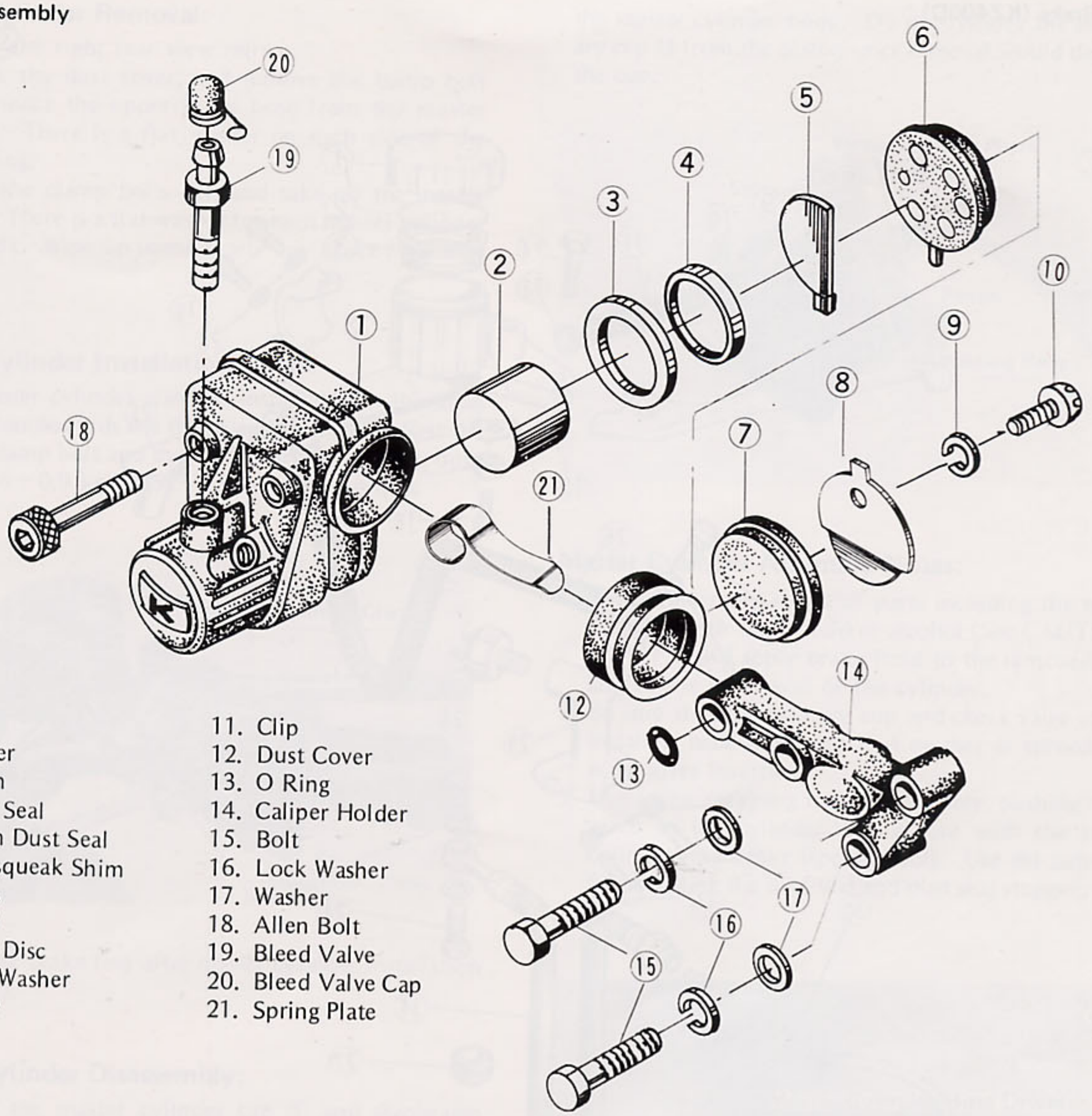


Disc (KZ400D)



1. Bolts
2. Double Washers
3. Disc

Caliper Assembly

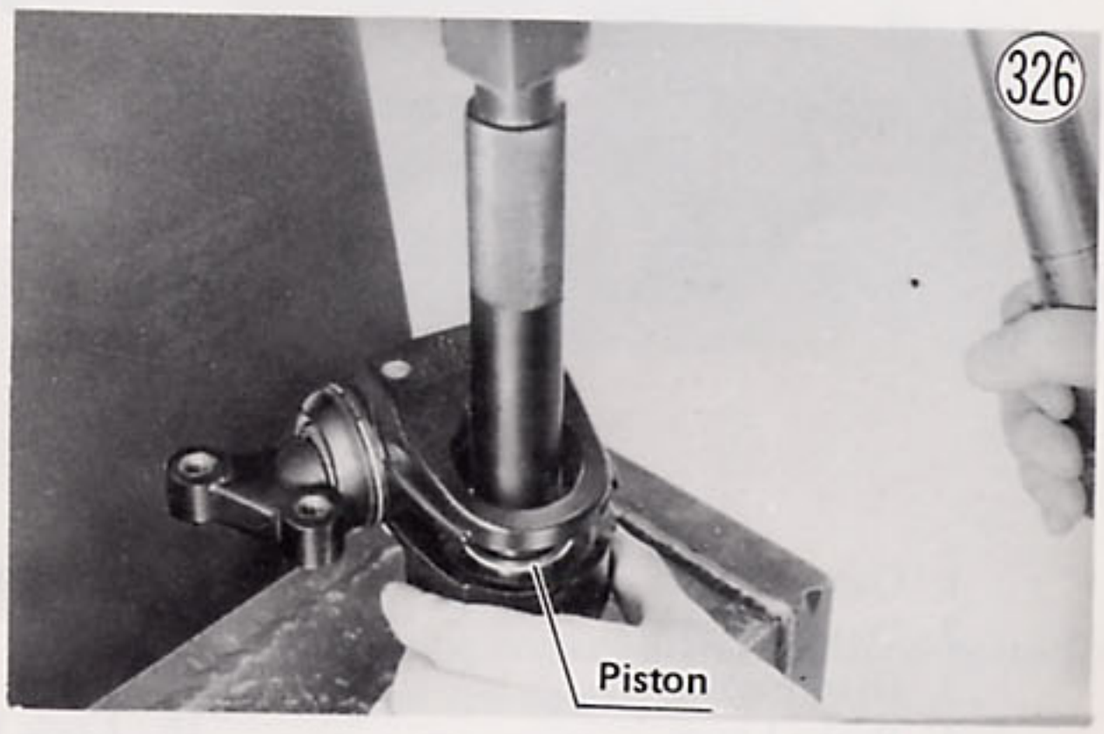


1. Caliper
2. Piston
3. Fluid Seal
4. Piston Dust Seal
5. Anti-squeak Shim
6. Pad A
7. Pad B
8. Metal Disc
9. Lock Washer
10. Screw
11. Clip
12. Dust Cover
13. O Ring
14. Caliper Holder
15. Bolt
16. Lock Washer
17. Washer
18. Allen Bolt
19. Bleed Valve
20. Bleed Valve Cap
21. Spring Plate

- Taking ample care not to damage the cylinder surface, remove the piston dust seal ④ and fluid seal ③ carefully with a hook.
- Remove the caliper holder Allen bolts ⑱ (2).
- Pull out the caliper holder ⑭, and pry off the clip ⑪ and dust cover ⑫.

Caliper Assembly:

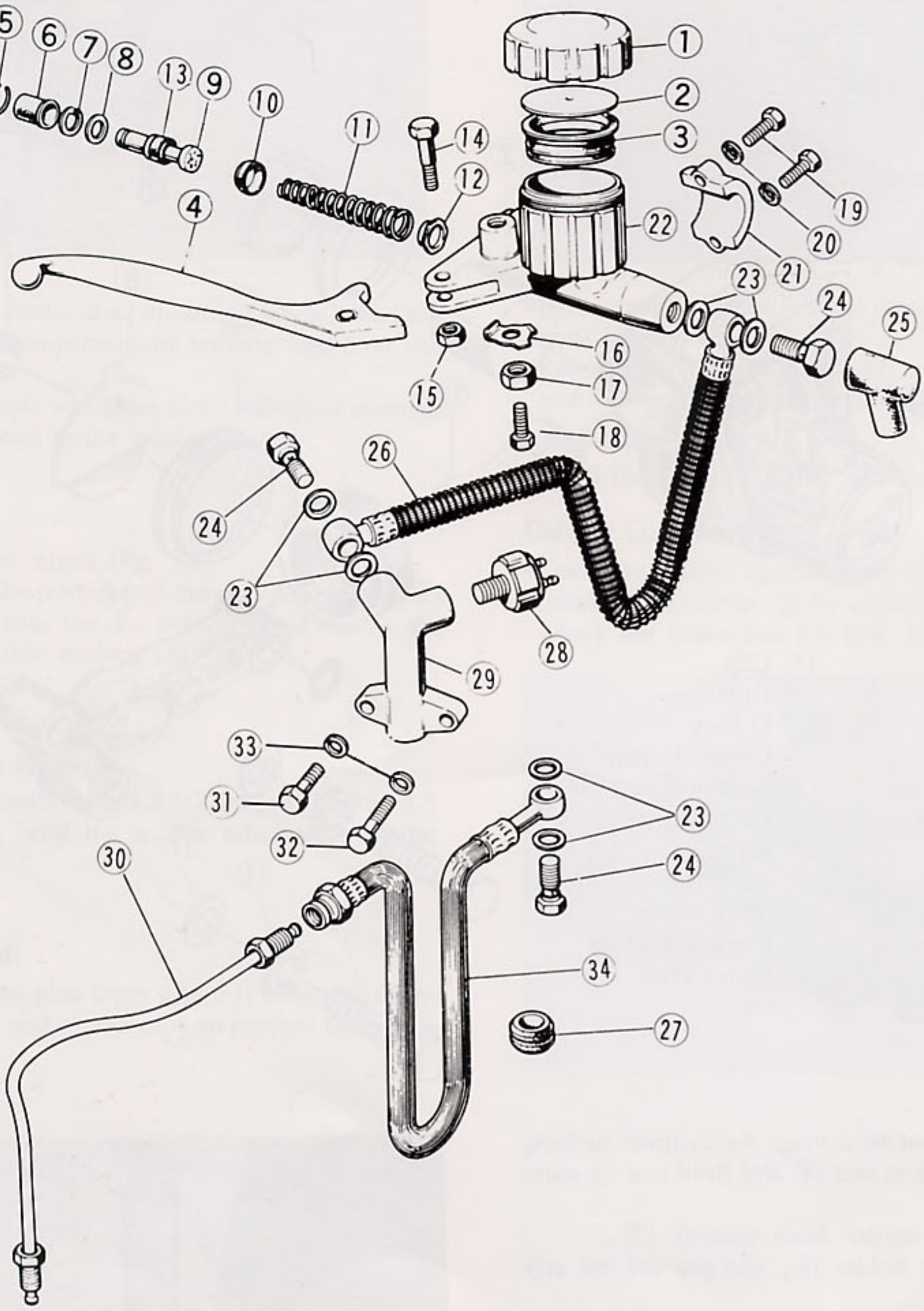
- Clean the caliper parts with brake fluid or alcohol (See CAUTION—Pg. 81).
- Fit the dust cover onto the caliper holder with the outside of its inner lip in the groove on the holder, and then fit the inside of the outer lip into the groove on the caliper. Be sure that the lips fit in place evenly.
- Install the clip.
- With the caliper holder properly positioned, replace and tighten its Allen bolts.
- Fit the fluid seal and dust seal in place inside the cylinder.
- Apply brake fluid to the outside of the piston, and press into place with a press, the inside of the piston facing out. Take care that neither the cylinder nor the piston skirt get scratched.



- Fit to the rear of pad A the anti-squeak shim, align the projection of pad A with the slot in the bottom of the caliper, and insert the pad.
- Install pad B, its metal disc, mounting screw, and lock washer. Use a non-permanent locking agent on the mounting screw.

Disc Brake (KZ400D)

(327)



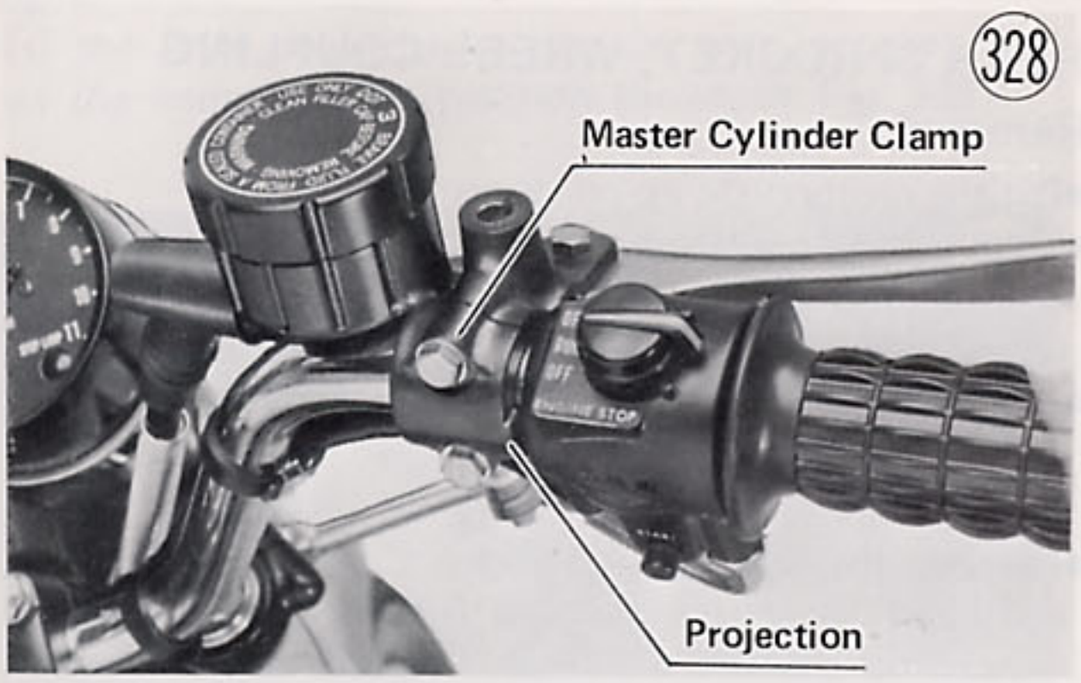
1. Cap
2. Plate
3. Diaphragm
4. Brake Lever
5. Dust Seal Stopper
6. Dust Seal
7. Retaining Ring
8. Piston Stopper
9. Piston Assembly
10. Primary Cup
11. Spring Assembly
12. Check Valve Assembly
13. Secondary Cup
14. Bolt
15. Nut
16. Lock Washer
17. Nut
18. Bolt
19. Bolt
20. Washer
21. Master Cylinder Clamp
22. Master Cylinder Body
23. Washer
24. Banjo Bolt
25. Dust Cover
26. Hose
27. Grommet
28. Pressure Switch
29. 3-Way Fitting
30. Pipe
31. Bolt
32. Bolt
33. Washer
34. Hose

Master Cylinder Removal:

- Take off the right rear view mirror.
- Pull back the dust cover, and remove the banjo bolt to disconnect the upper brake hose from the master cylinder. There is a flat washer on each side of the hose fitting.
- Remove the clamp bolts (2), and take off the master cylinder. There is a flat washer for each master cylinder clamp bolt. Wipe up immediately any brake fluid that spills.

Master Cylinder Installation Notes:

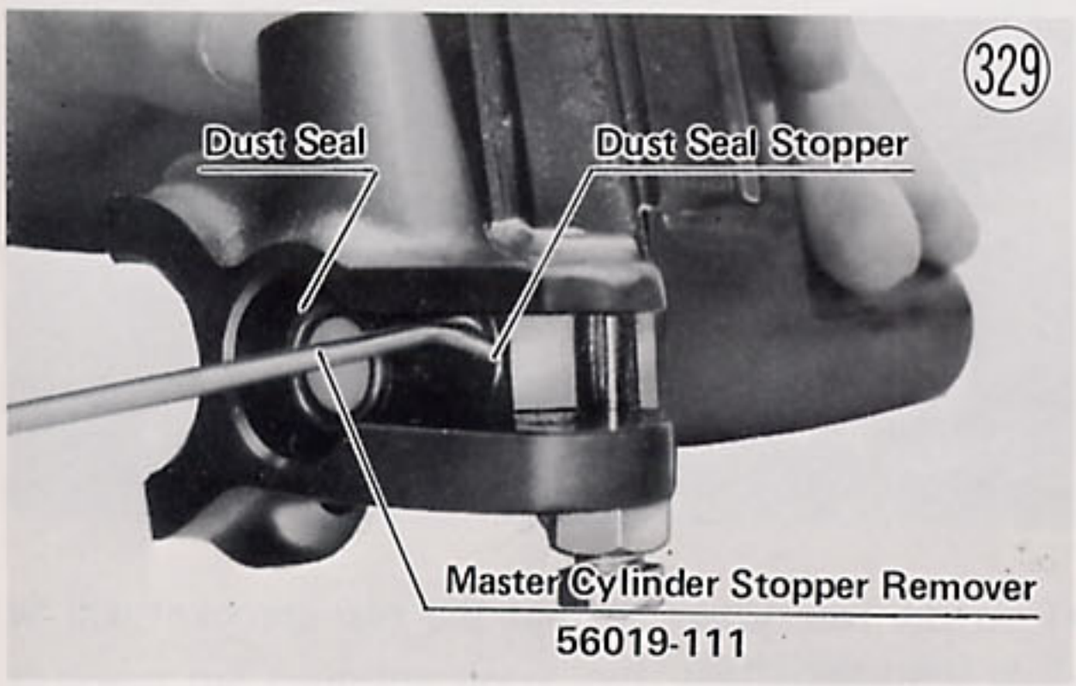
1. The master cylinder clamp is installed with the small projection towards the throttle grip. Tighten first the upper clamp bolt and then the lower clamp bolt, both with 0.6~0.9 kg-m (52~78 in-lbs) of torque.



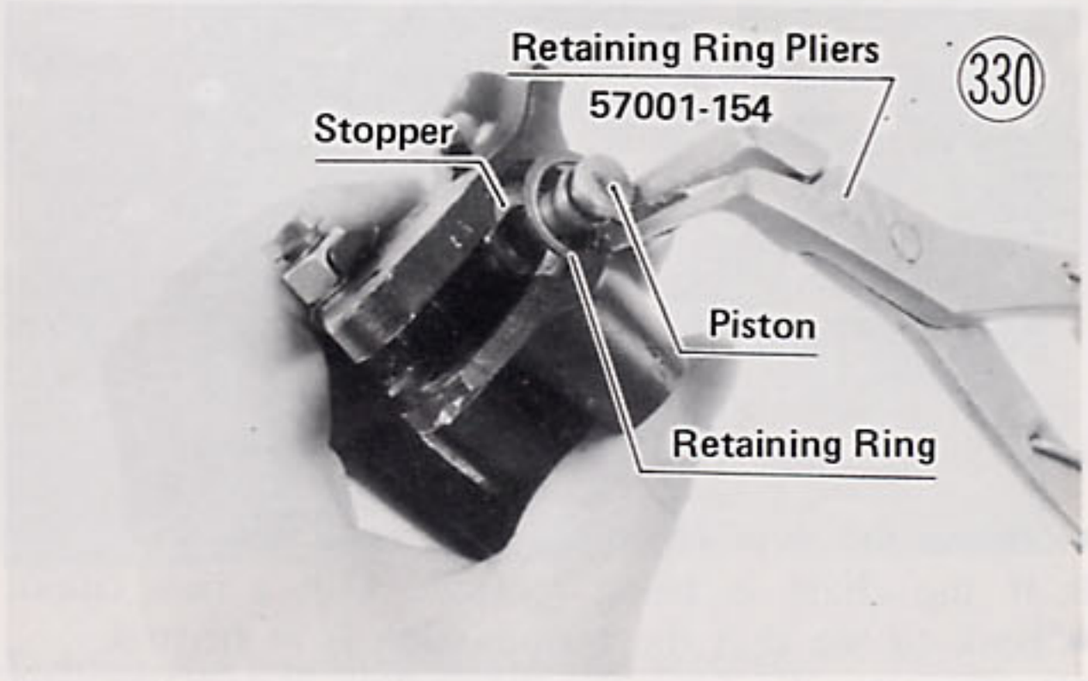
2. Bleed the brake line after master cylinder installation (Pg. 143).

Master Cylinder Disassembly:

- Take off the master cylinder cap ① and diaphragm ③, and empty out the brake fluid.
- Take off the brake lever ④. Use the master cylinder stopper remover (special tool) to remove the dust seal stopper ⑤, and then remove the dust seal ⑥

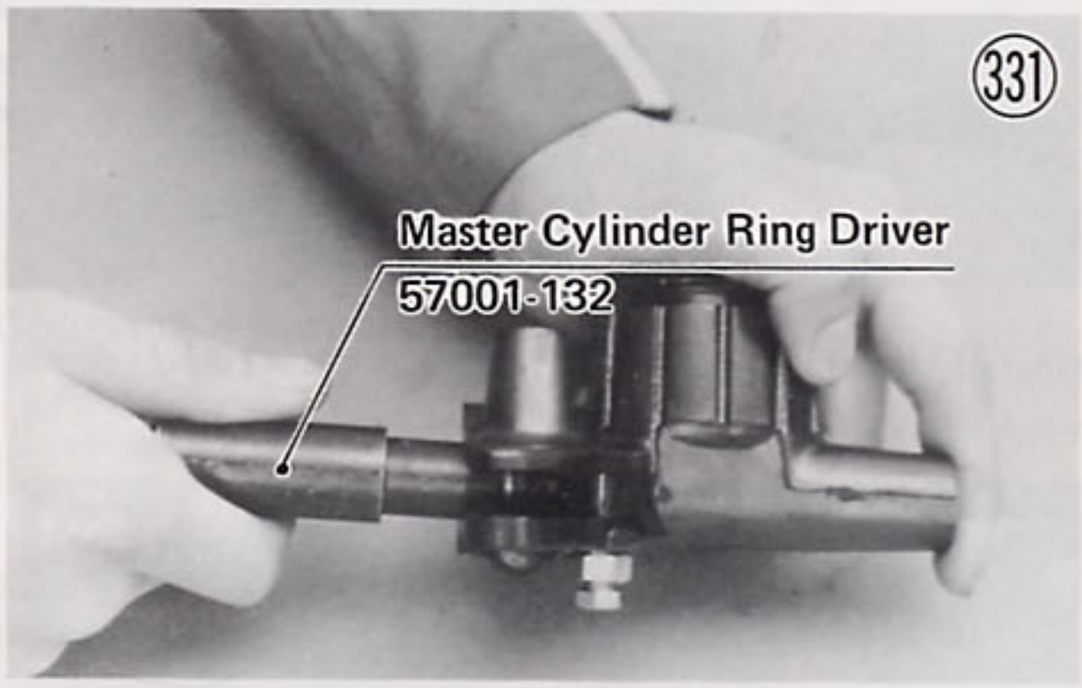


- Remove the retaining ring ⑦ with retaining ring pliers (special tool), and take the stopper ⑧, piston ⑨, primary cup ⑩, spring ⑪, and check valve ⑫ out of the master cylinder body. Do not remove the secondary cup ⑬ from the piston since removal would damage the cup.



Master Cylinder Assembly Notes:

1. Before assembly, clean all parts including the master cylinder with brake fluid or alcohol (See CAUTION—Pg. 81), and apply brake fluid to the removed parts and to the inner wall of the cylinder.
2. Be sure that the primary cup and check valve are not installed backwards and that neither is turned sideways after insertion.
3. Use a new retaining ring for assembly, pushing it into place in the cylinder wall groove with the master cylinder ring driver (special tool). Use the same tool for installing the dust seal and dust seal stopper.

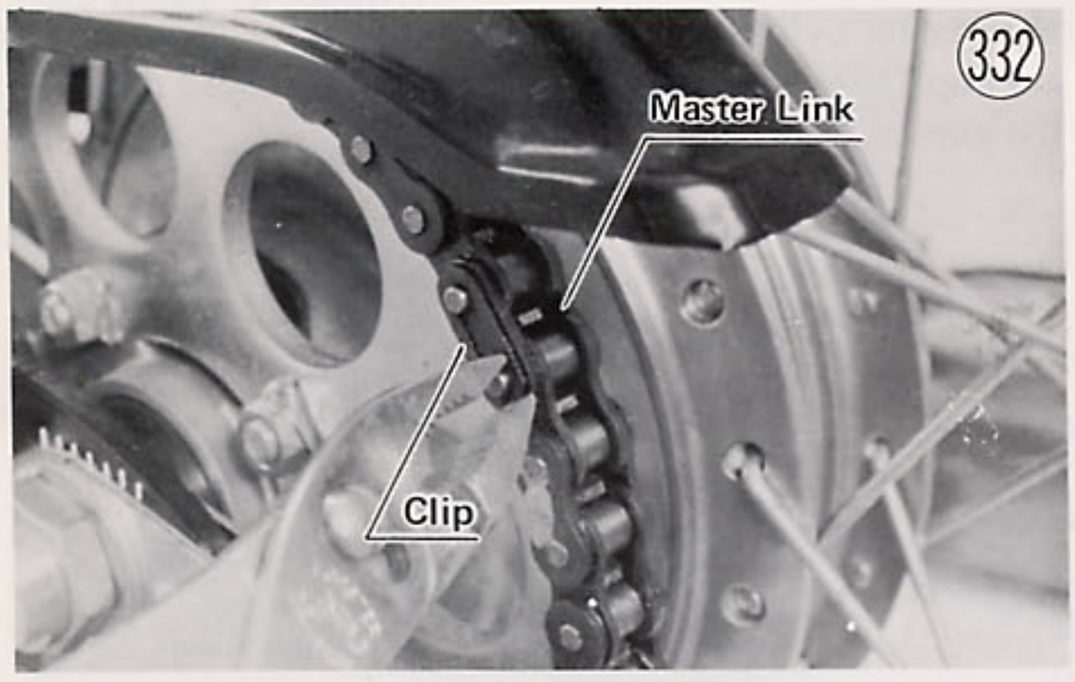


DRIVE CHAIN

Removal:

A. If the chain is being removed and replaced again for cleaning or engine removal:

- Check to see that the transmission is in neutral.
- Take out the shift pedal bolt and remove the shift pedal.
- Remove the left foot peg bolt, left foot peg, and side stand spring.
- Remove the engine sprocket cover screws (4), and pull the cover out of place.
- Remove the clip carefully from the drive chain master link with pliers, and remove the master link.



●Remove the drive chain from the sprockets.

B. If the chain is being replaced with a new chain:

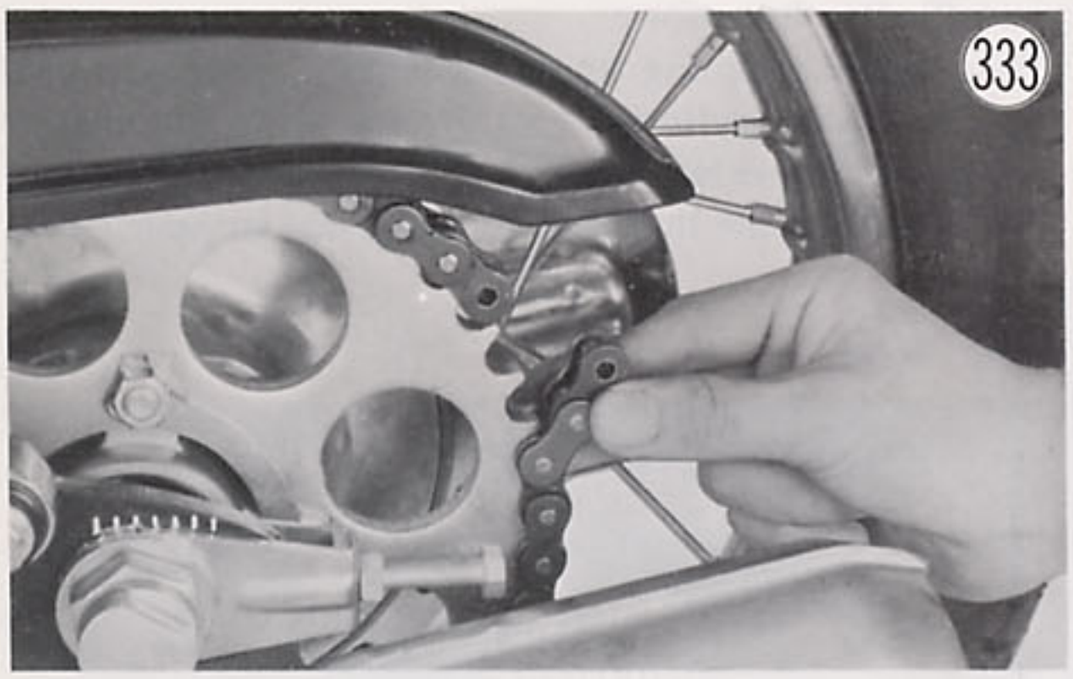
●Check to see that the transmission is in neutral.

●Remove the clip from the drive chain master link with pliers, and remove the master link.

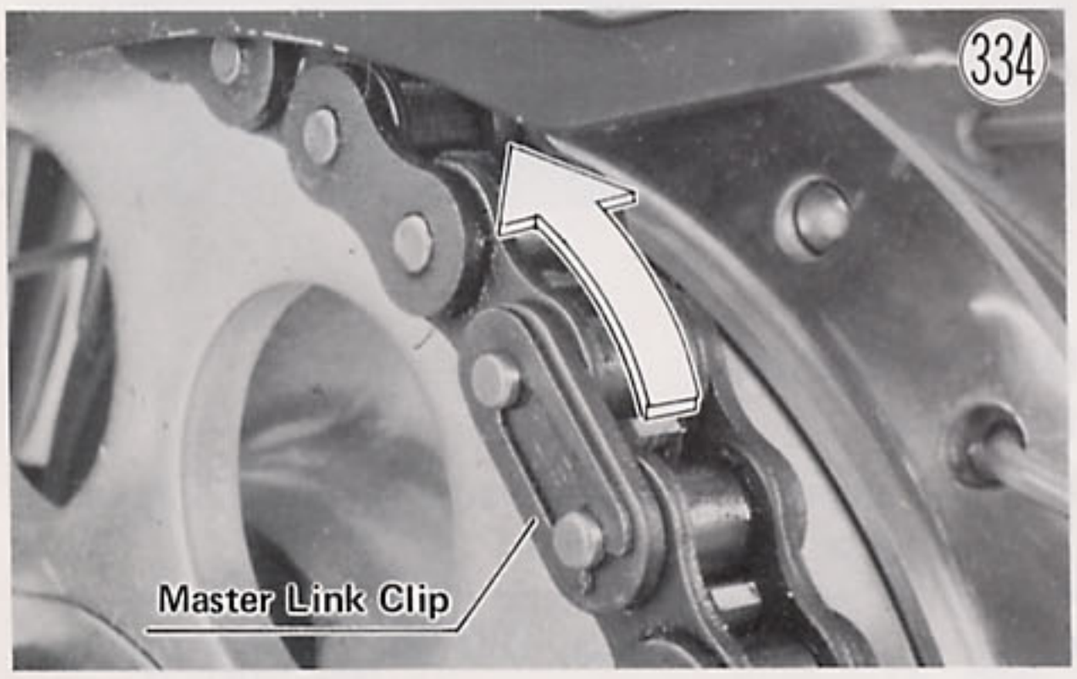
●Fit the new chain on the end of the old chain with the master link.

Installation:

●Fit the original chain back on the engine sprocket or pull the new chain onto the engine sprocket by pulling the old one off. Set the ends of the chain on the rear sprocket as shown in Fig. 333.



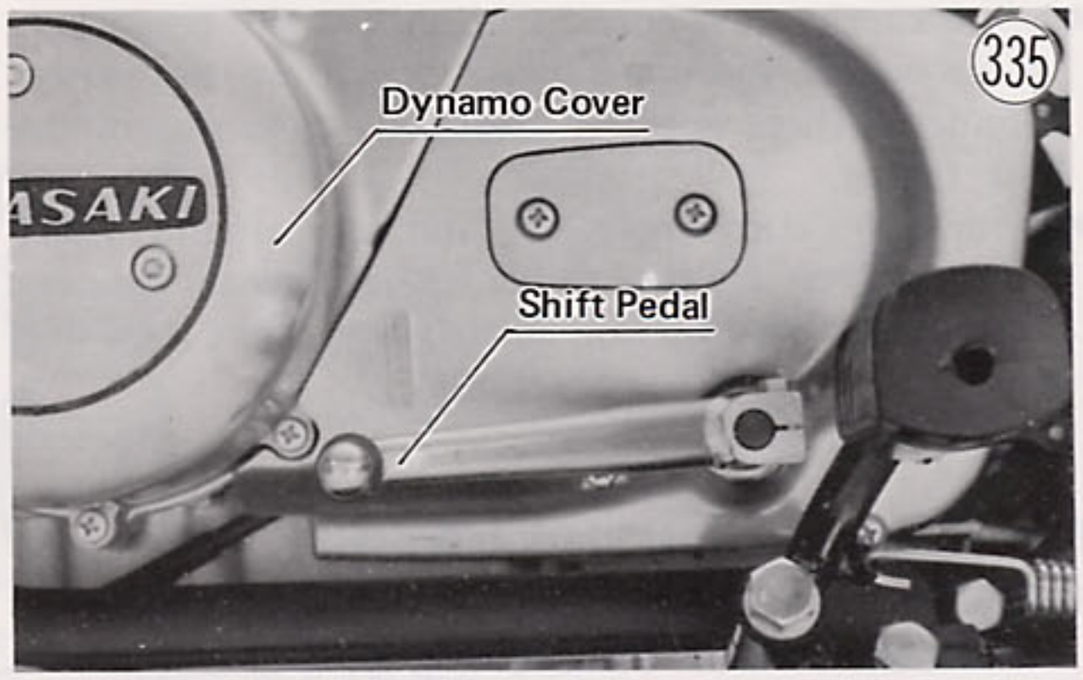
●Install the chain master link with pliers. The direction of the master link clip should be as shown in Fig. 334.



●Replace the engine sprocket cover (if removed) using the shift shaft oil seal guide (special tool) to protect the oil seal in the cover, and tighten its screws.

●Fit the side stand spring (if removed) into place, and then secure the left foot peg with its bolt.

●Replace the shift pedal (if removed) so that its end matches the level of the dynamo cover lower right screw.



●Adjust the chain if necessary (Pg. 20).

REAR SPROCKET, WHEEL COUPLING

Removal:

●Put the motorcycle up on its center stand.

●Take out the clip from the rear torque link bolt, remove the nut and lock washer, and free the torque link from its bolt.

●Being careful not to bend or otherwise damage it, free the rear brake light switch spring from the tab on the brake pedal.

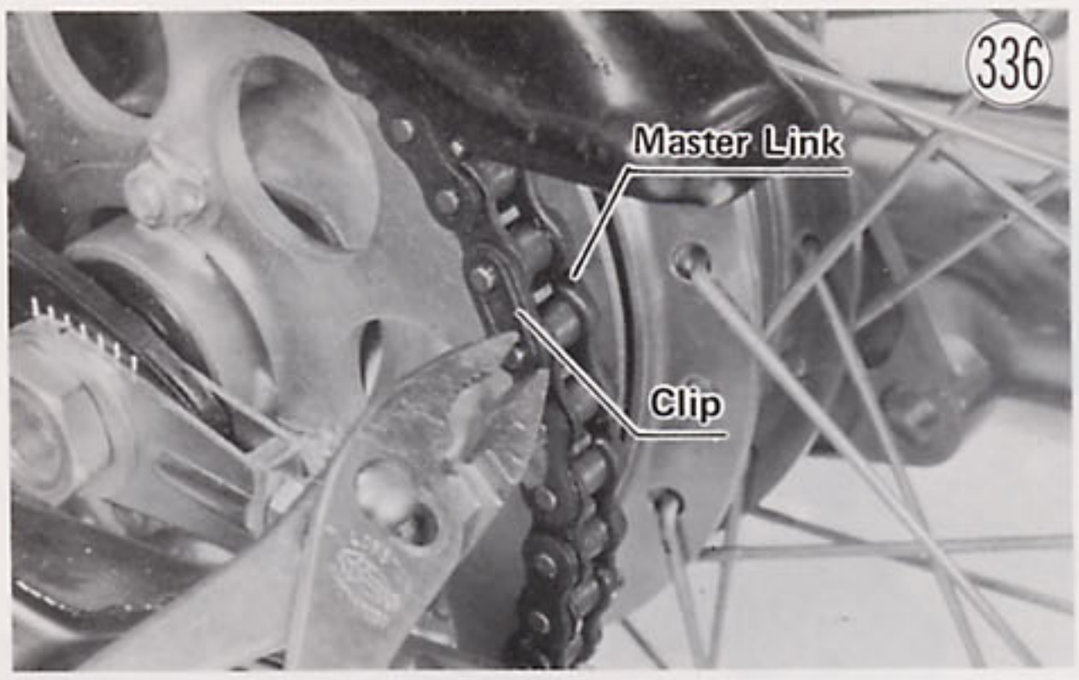
●Remove the adjusting nut from the end of the brake rod, and then free the rod from the cam lever by depressing the brake pedal. Remove the brake rod spring and joint.

●Take out the cotter pin, remove the axle nut and washer, and pull out the axle.

●Remove the axle sleeve from the right side of the wheel.

●Position the chain on the rear sprocket so that the drive chain master link is at the rear.

●Remove the clip carefully from the drive chain master link using pliers, and then remove the master link.



●Turn the rear wheel so that the rear sprocket will be free from the chain.

●Remove the coupling sleeve nut and washer.

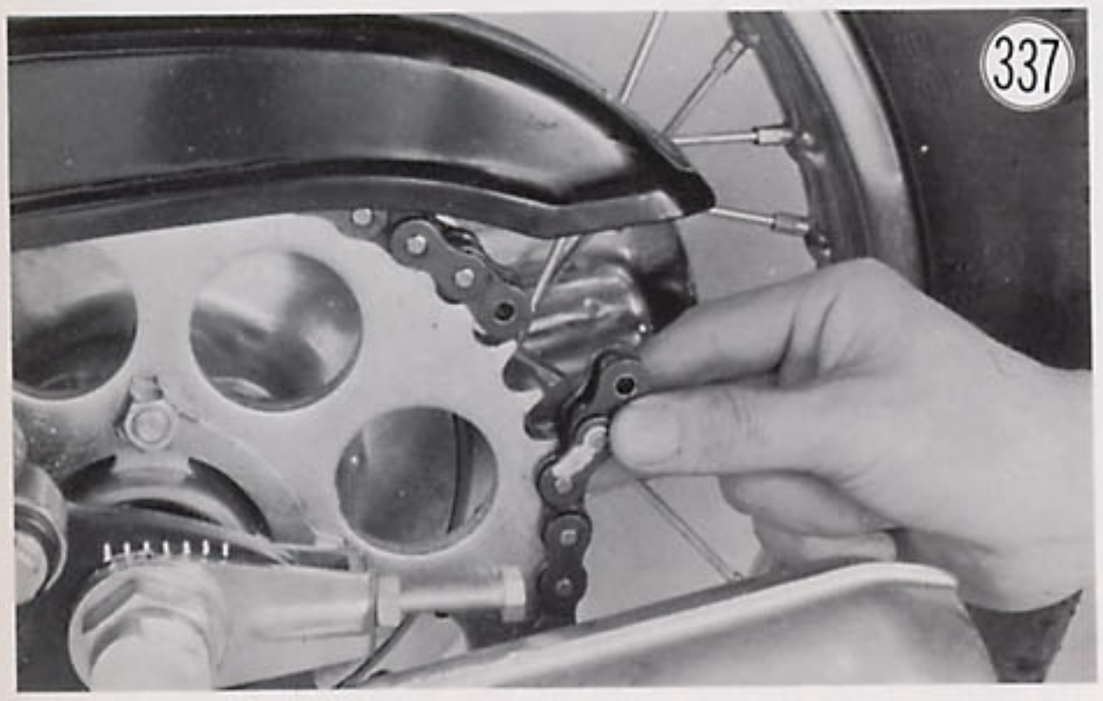
●Slide the rear wheel together with the sprocket and coupling free from the motorcycle.

●Straighten back the portions of the rear sprocket washers that are bent over the sprocket nuts.

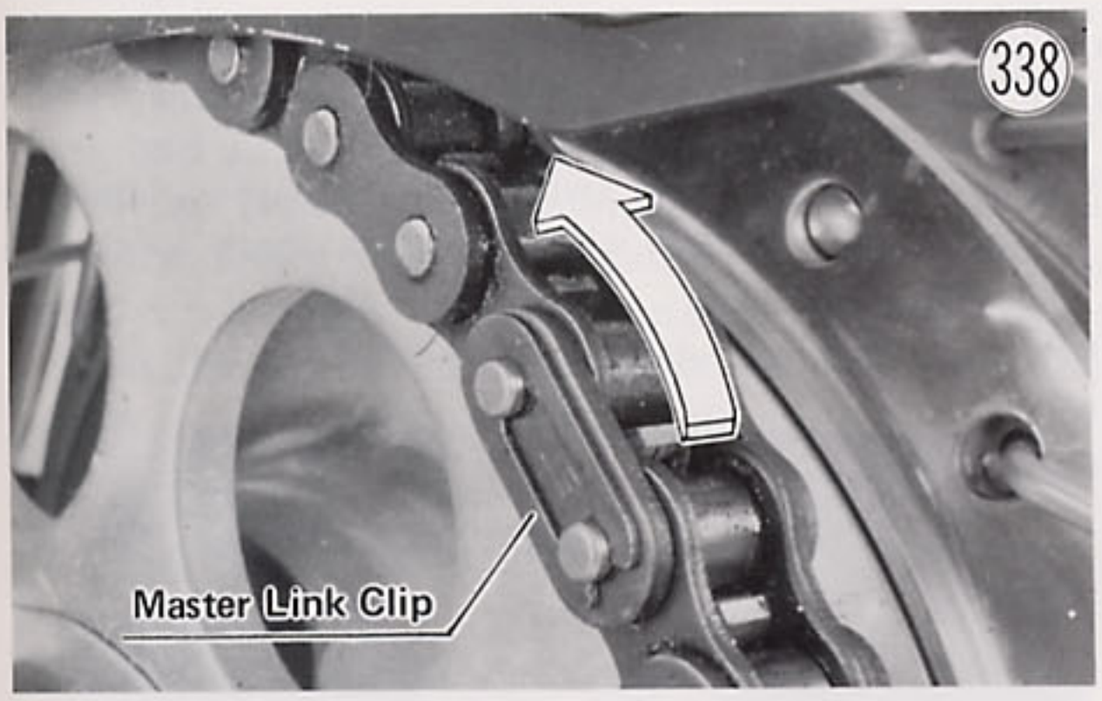
●Remove the rear sprocket nuts (4), the sprocket double washers (2), and the sprocket bolts to separate the rear sprocket and wheel coupling.

Installation:

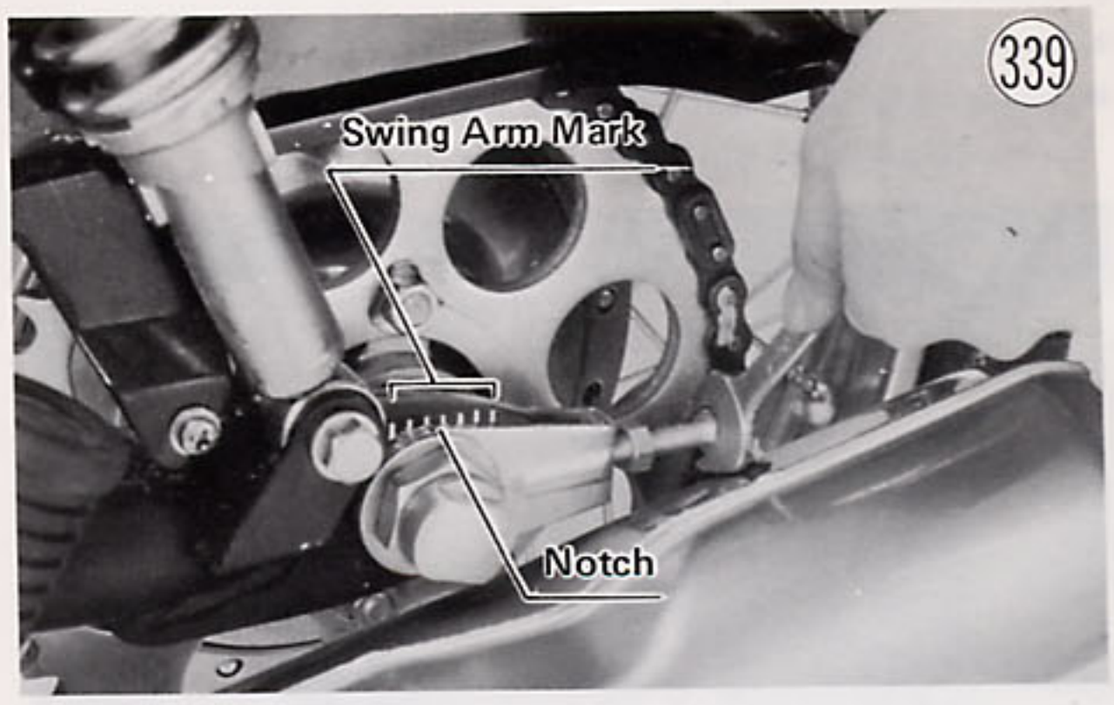
●Insert the sprocket bolts, and replace the rear sprocket, double washers, and nuts. Tighten the nuts with 3.5 ~ 4.3 kg-m (25 ~ 31 ft-lbs) of torque and bend the washers back over the nuts.
●Check to see that the torque link bolt is in place in the brake panel, and slip the wheel into place inserting the coupling sleeve through the left chain adjuster and left side of the swing arm.
●Position the wheel far enough forward to facilitate chain installation, and replace the coupling sleeve flat washer and nut.
●Replace the axle sleeve.
●Slide the axle through the hub from the left to the right.
●Fit the drive chain back onto the rear sprocket, and set the ends into the position shown in Fig. 337.



●Replace the chain master link using pliers. The direction of the master link clip should be as shown in Fig. 338.



●Loosen the coupling sleeve nut, and adjust the chain with the left and right chain adjusters so that the chain will have a maximum of about 20~25 mm of vertical movement at its greatest point. To keep the chain and wheel aligned, the notch in the left chain adjuster must come to the same swing arm mark that the right chain adjuster notch comes to.



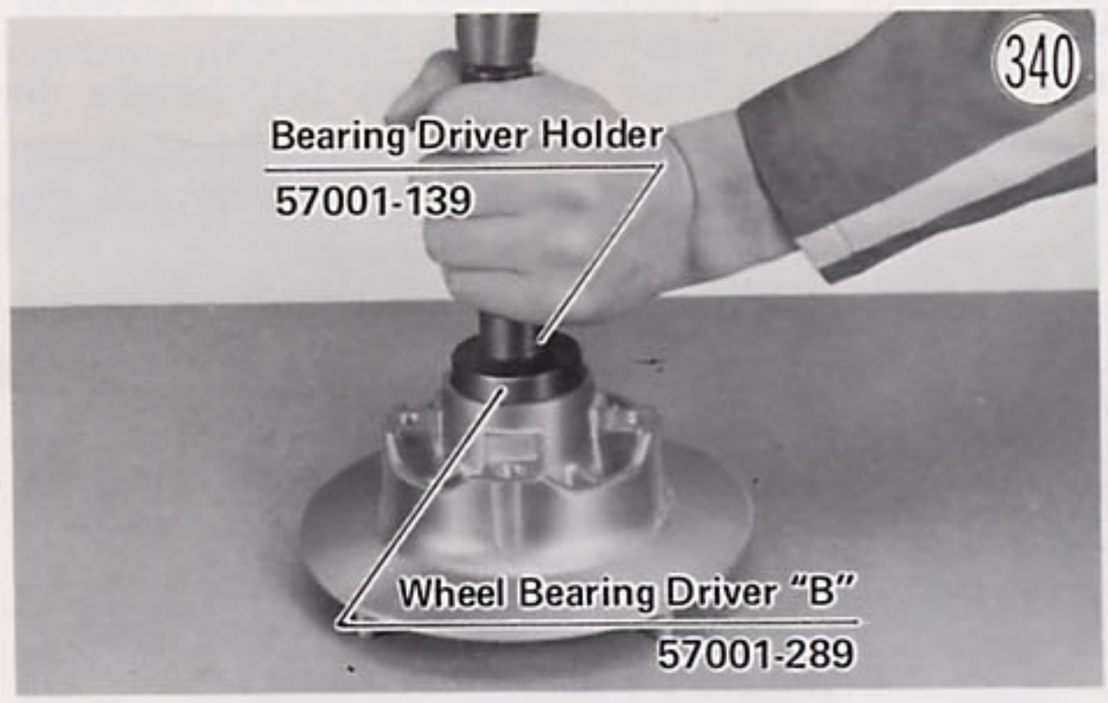
●Tighten the coupling sleeve nut securely.
●Recheck the chain tension, and readjust if necessary.
●Fit the torque link onto its bolt, and replace its lock washer and nut.
●Tighten the torque link nut with 2.6~3.5 kg-m (19~25 ft-lbs) of torque, and replace its clip.
●Replace the axle washer and nut, tightening the nut to 10~14 kg-m (72~101 ft-lbs) of torque.
●Install a new axle cotter pin.
●Replace the joint into the end of the cam lever and the spring on the end of the brake rod.
●Fit the rod through the joint, and screw on the adjuster.
●Carefully fit the rear brake light switch spring back into the tab on the brake pedal.
●Adjust the rear brake (Pg. 19), and check the rear brake light switch adjustment (Pg. 20).

Coupling Disassembly:

●Pull out the sleeve, and pull off the collar.
●Pull out the grease seal using a hook.
●Insert a metal rod into the wheel side of the coupling, and remove the bearing by tapping evenly around the bearing inner race.

Coupling Assembly Notes:

1. Replace the grease seal with a new one using the wheel bearing driver "B" and the bearing driver holder (special tools).

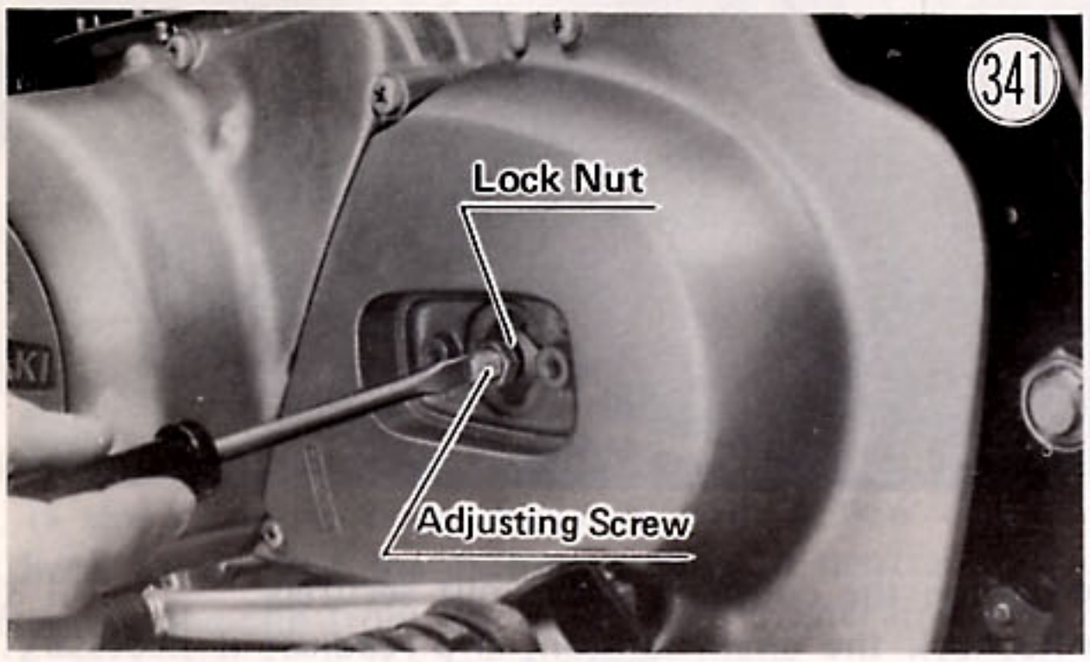


2. Inspect the bearing, and replace if necessary (Pg. 138). Lubricate it (Pg. 138), and install it using the wheel bearing driver "B" and the bearing driver holder (special tools).

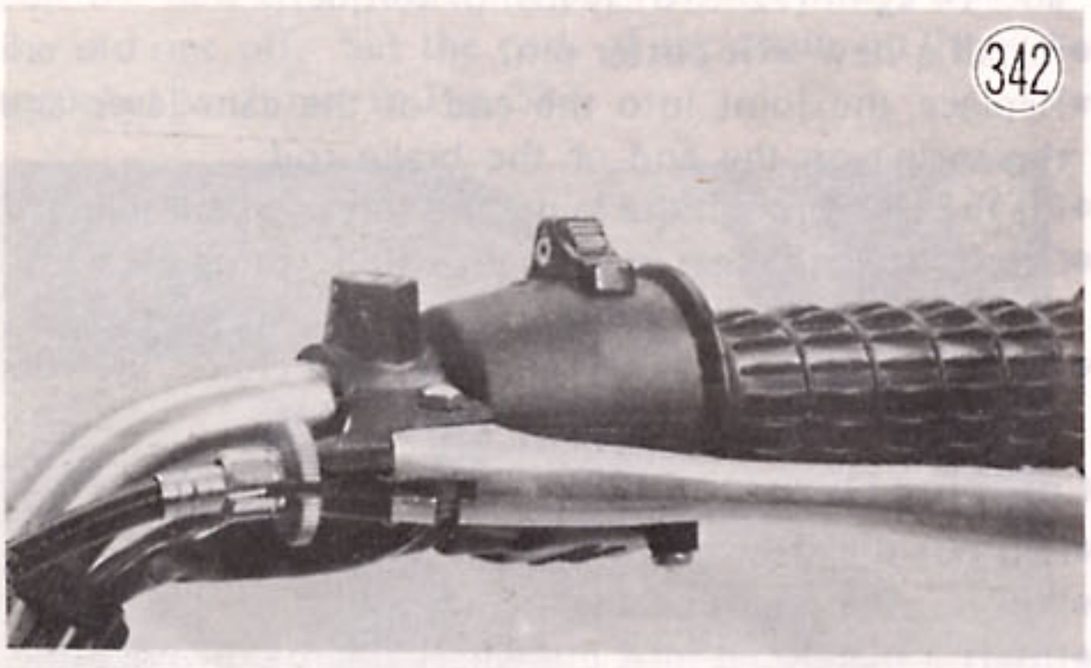
HANDLEBAR

Removal:

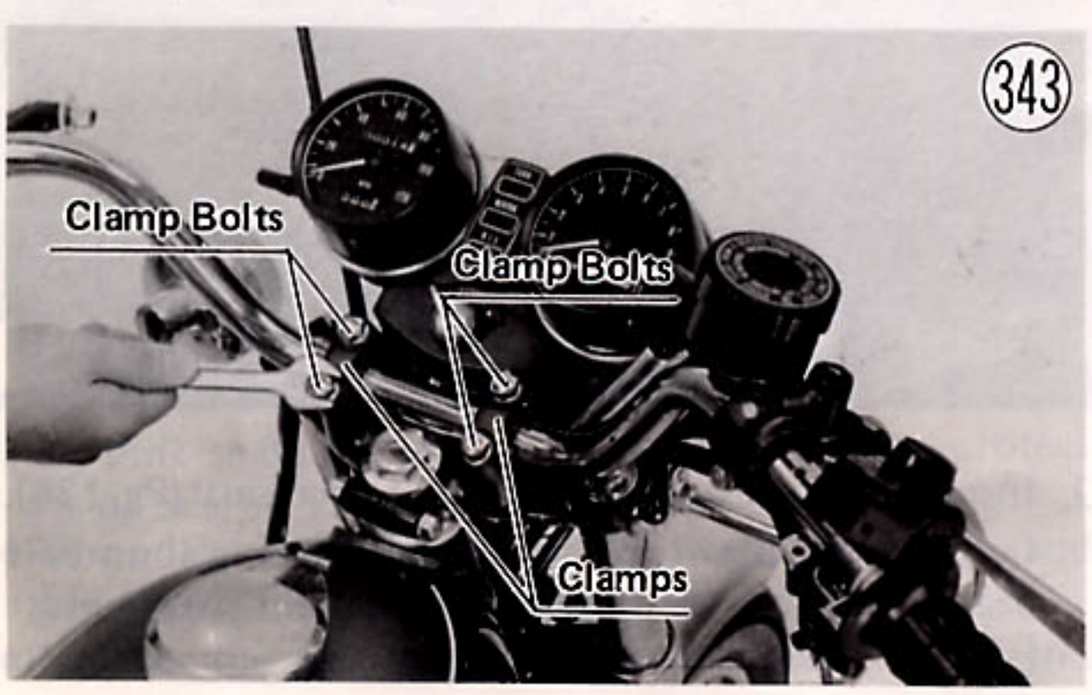
- Remove the clutch adjusting cover.
- Loosen the lock nut, and back out the clutch adjusting screw to give the clutch cable plenty of play.



- Take off the rear view mirrors.
- Loosen the lock nut on the clutch lever, and screw in the adjuster.
- Line up the slots in the clutch lever, lock nut, and adjuster, and free the inner cable from the lever.



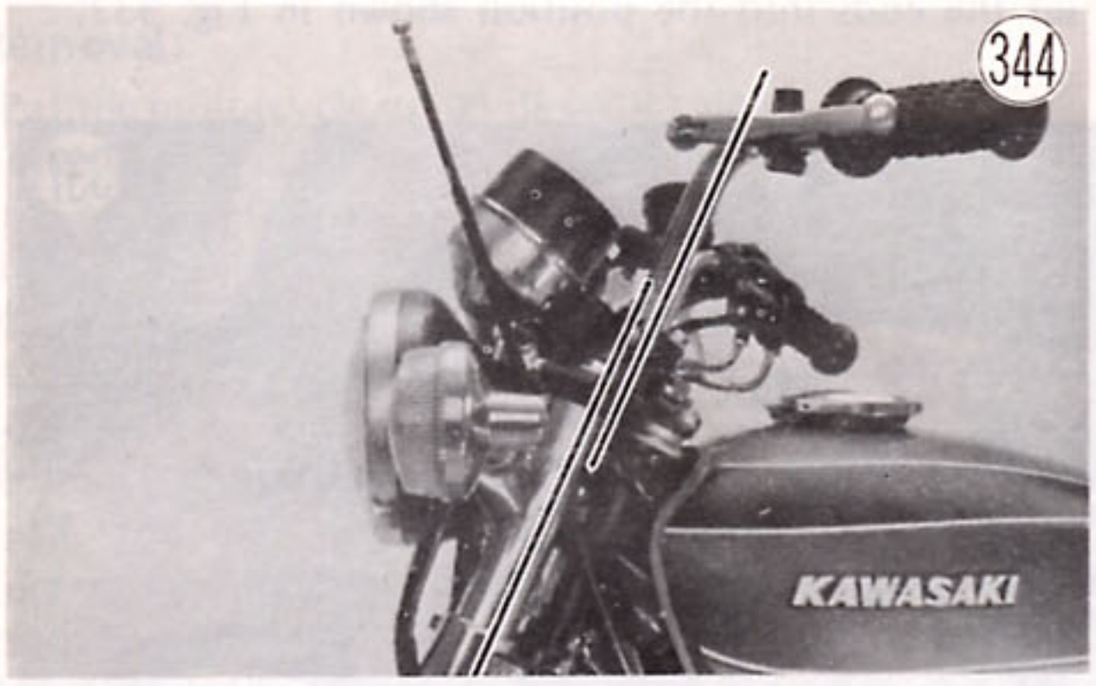
- Remove the strap which holds the light switch wiring harness to the handlebar and the strap which holds the engine stop switch wiring harness to the handlebar.
- Take out the light switch screws (2), and remove the light switch from the handlebar.
- Remove the engine stop switch housing screws (2), and open up the housing.
- Loosen the master cylinder clamp bolts (2) (KZ400D).
- Loosen the front brake lever bolt (KZ400S).
- Remove the handlebar clamp bolts (4), remove the clamps (2), and slide the handlebar from the master cylinder and the engine stop switch and throttle grip assembly.



- To remove the clutch lever, loosen the clutch lever bolt, cut off the left handlegrip, which is bonded to the handlebar, and slide off the clutch lever.

Installation:

- If the clutch lever and left handlegrip were removed, slide the clutch lever back on, tighten its bolt with the lever at the proper angle, and bond a new left handlegrip onto the handlebar.
- Slide the right side of the handlebar through the master cylinder holder into the engine stop switch housing and throttle grip assembly (KZ400D).
- Slide the right side of the handlebar through the front brake lever into the engine stop switch housing and throttle grip assembly (KZ400S).
- Mount the handlebar in its clamps so that the angle of the handlebar matches the angle of the front fork as shown in Fig. 344. Torque for the handlebar clamp bolt is 1.6 ~ 2.2 kg-m (11.5 ~ 16 ft-lbs). Each bolt has a lock washer.



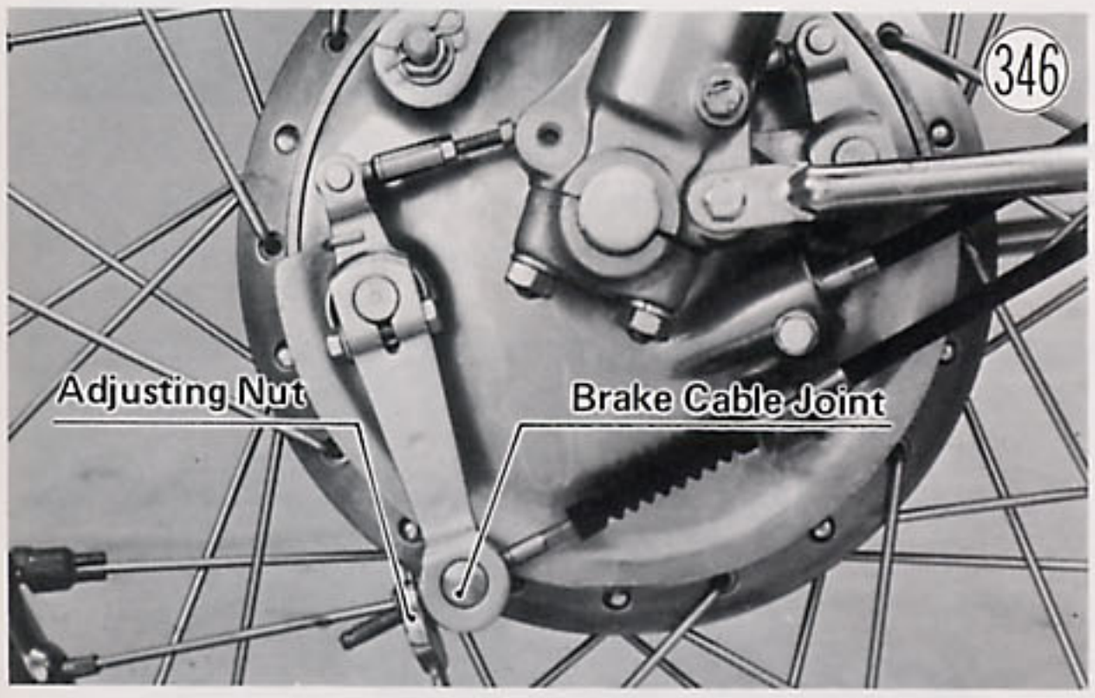
- Position the engine stop switch housing in place with its projection in the hole in the handlebar, and tighten its screws.
- With the brake lever mounted at the proper angle, tighten first the upper and then the lower master cylinder clamp bolt to 0.6 ~ 0.9 kg-m (52 ~ 78 in-lbs) of torque (KZ400D).
- With the brake lever mounted at the proper angle, tighten the brake lever bolt (KZ400S).
- Replace the light switch.
- Strap both the light switch wiring harness and the engine stop switch wiring harness back onto the handlebar.
- Replace the rear view mirrors.
- Fit the tip of the clutch cable back into the clutch lever.
- Adjust the clutch (Pg. 11).

BRAKE CABLE (Only on KZ400S)

Removal:

●Loosen the lock nut on the front brake lever, and line up the slots on the brake lever, lock nut, and adjuster.

●Remove the cotter pin from the threaded brake cable extension, screw off the adjusting nut, and free the brake cable from the brake panel. Also remove the brake cable joint.



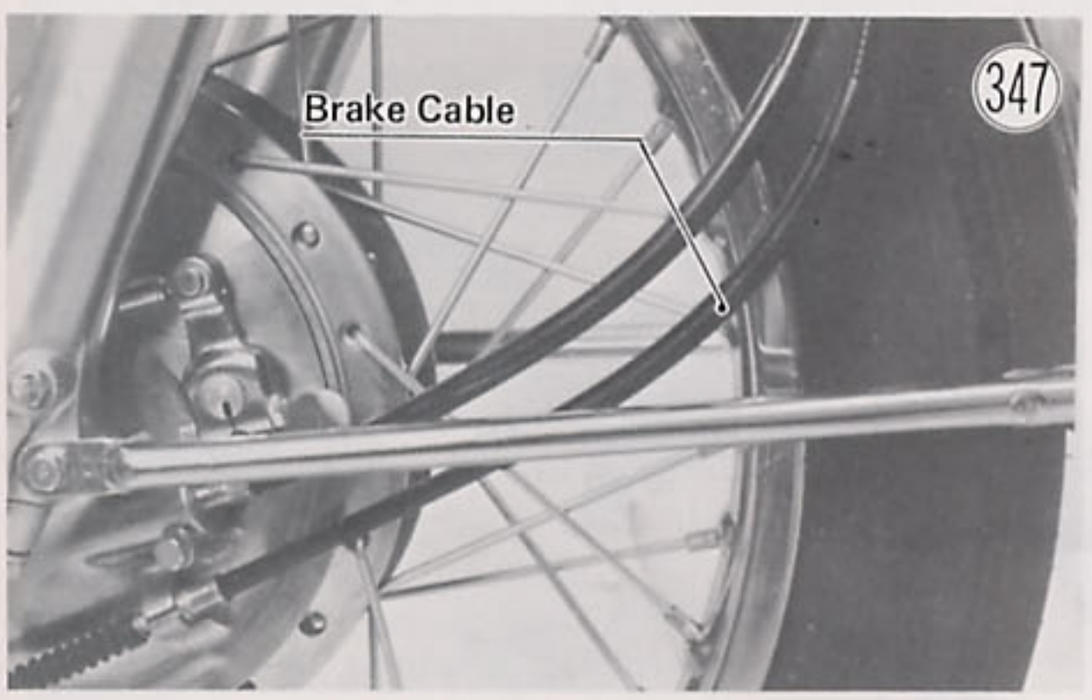
●Free the brake cable from the brake lever and the motorcycle.

Installtion:

●Run the brake cable between the headlight housing and the right shock absorber. Route the cable with a minimum of bending so that the inner cable will slide smoothly.

●Connect the upper end of the cable back into the brake lever and through the slots on the brake lever, lock nut, and adjuster.

●With the brake cable running above the fender stay, put the brake cable, brake cable joint, and adjusting nut back onto the front brake panel. Use a new cotter pin at the end of the threaded brake cable extension.



●Adjust the front brake (Pg. 17).

CLUTCH CABLE

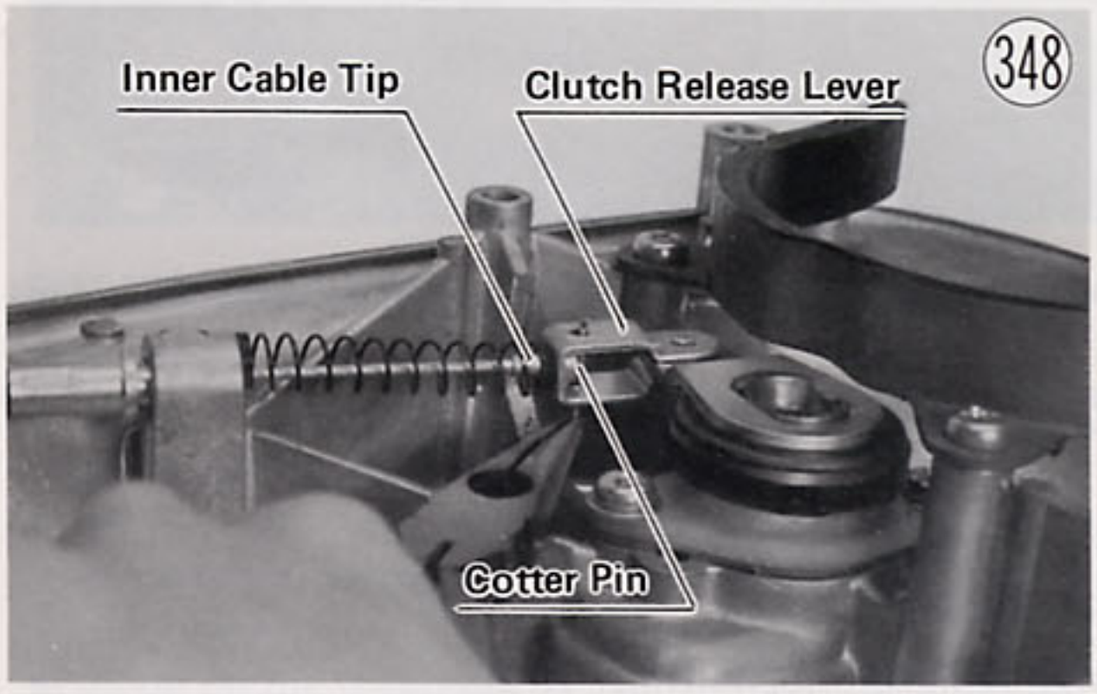
Removal:

●Take out the shift pedal bolt, and remove the shift pedal.

●Remove the left foot peg bolt, left foot peg, and side stand spring.

●Remove the engine sprocket cover screws (4), and pull the cover out of place.

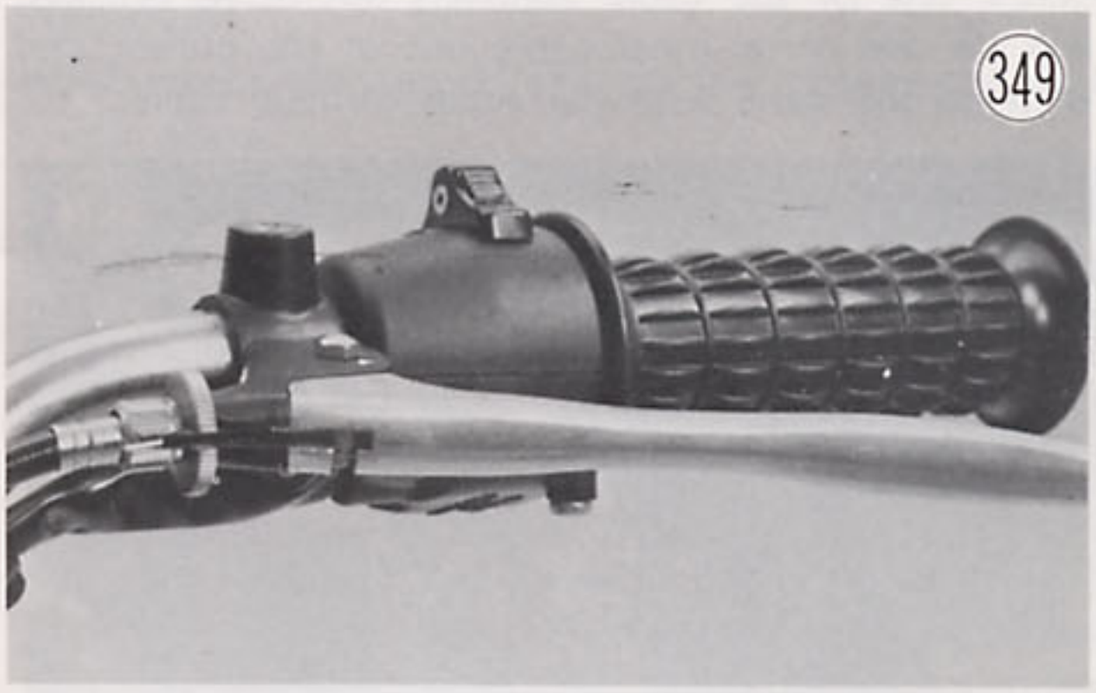
●Remove the cotter pin from the clutch release lever, and free the clutch inner cable tip from the lever and the engine sprocket cover.



●Unfasten the straps (2) that hold the clutch cable to the down tube, slip out the cable, and refasten the straps.

●Loosen the lock nut on the clutch lever, and screw in the adjuster.

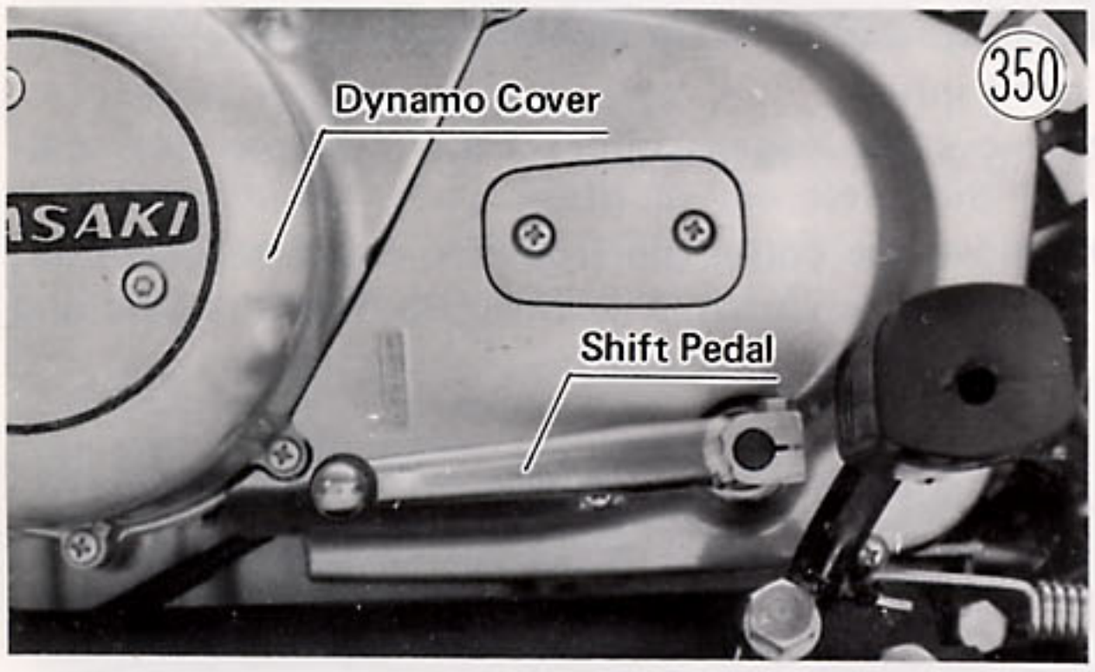
●Line up the slots in the clutch lever, lock nut, and adjuster, and free the inner cable from the lever.



●Pull the cable free from the motorcycle.

Installation:

- Run the upper end of the cable between the left front shock absorber and the head pipe to the clutch lever.
- Fit the tip of the cable back into the clutch lever.
- Run the lower end of the clutch cable between the left down tube and the lower part of the engine into the engine sprocket cover and spring, and fit the tip of the inner cable into the clutch release lever.
- Using a new cotter pin, secure the cable tip to the release lever.
- Replace the engine sprocket cover using the shift shaft oil seal guide (special tool) to protect the oil seal in the cover, and tighten its screws.
- Fit the side stand spring into place, and then secure the left foot peg with its bolt.
- Replace the shift pedal so that its end matches the level of the dynamo cover lower right screw.

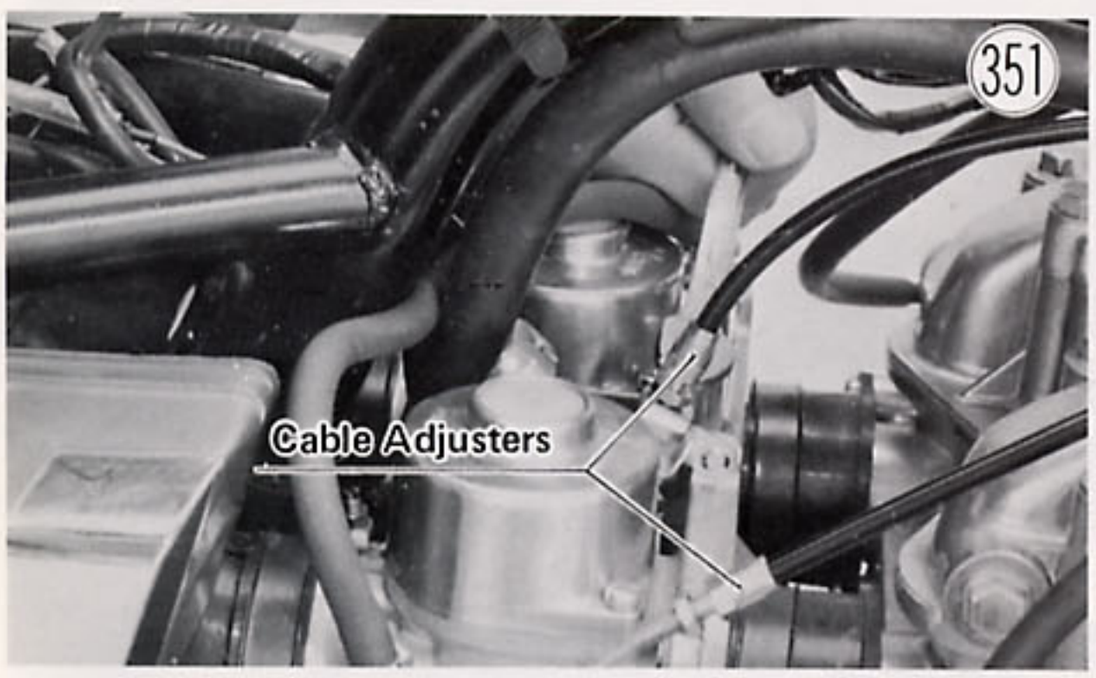


- Secure the cable to the left down tube with the straps (2).
- Adjust the clutch (Pg. 11).

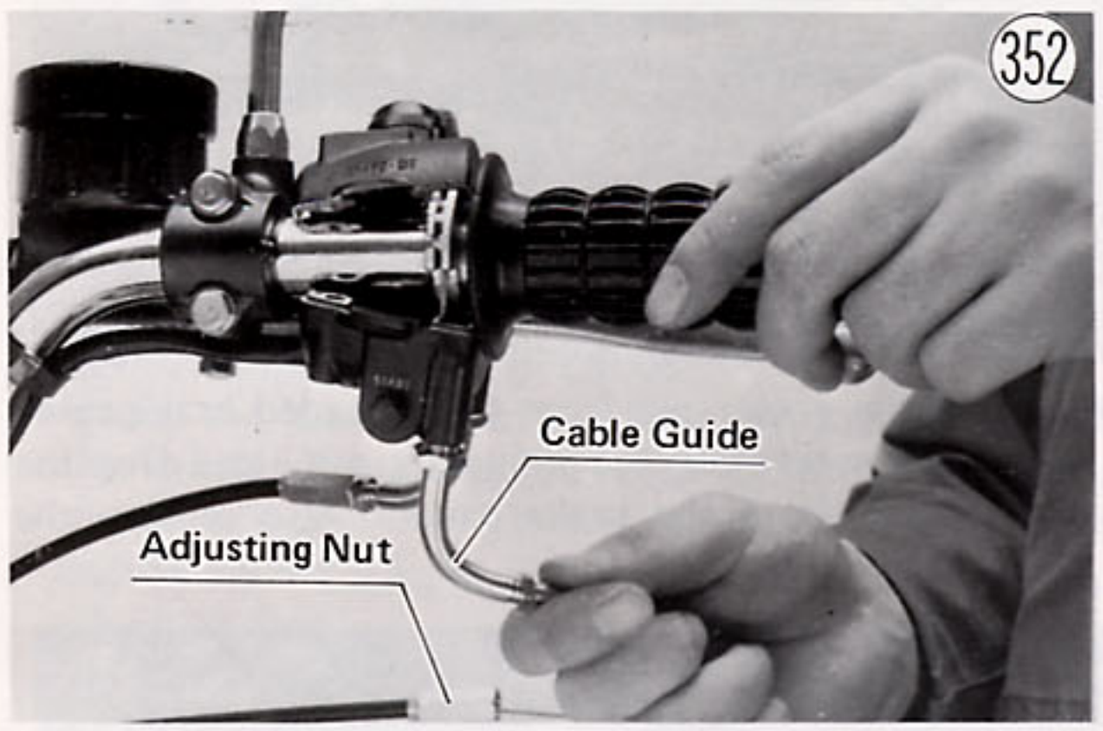
THROTTLE CABLES

Removal:

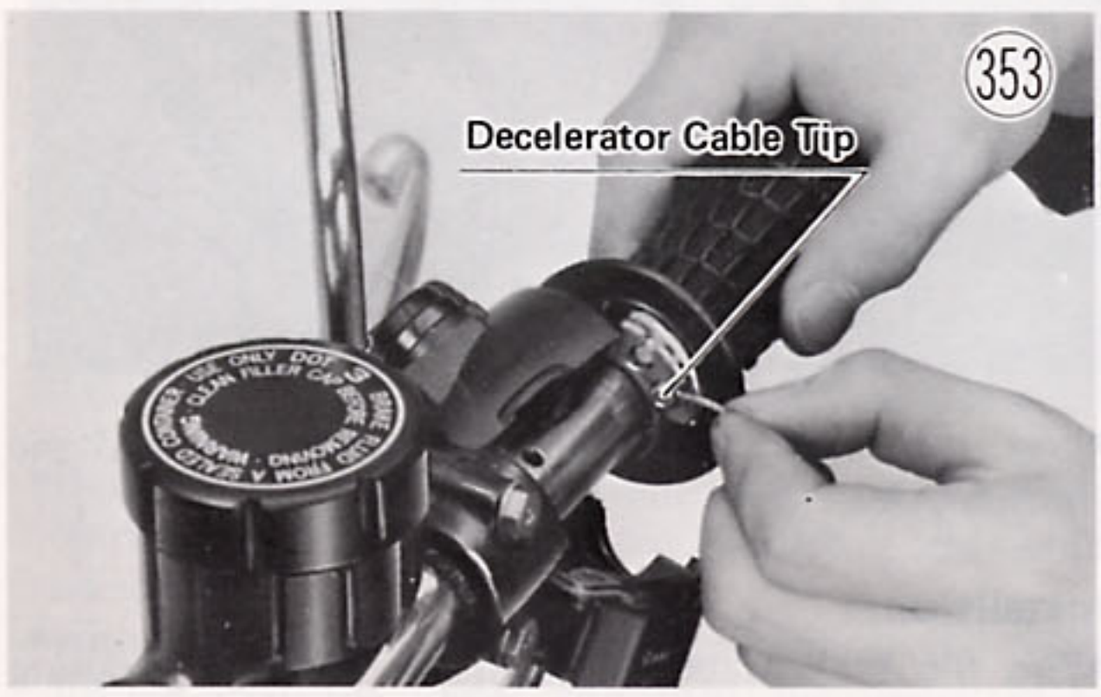
- Unlock the seat, and lift it up.
- Turn the fuel tap lever to the STOP position, slide back the hose clamps, and pull the fuel hoses (2) off the tap.
- Unhook the retaining band, and pull the tank off towards the rear.
- Screw in fully the lock nuts and adjusting nuts at the upper end of the throttle cables so as to give the throttle grip plenty of play.
- Screw one of the cable adjusters out of its bracket, slip the tip of its inner cable out of the pulley, and then do the same with the other throttle cable.



- Slide the cables out of the straps which secures them to the top tube.
- Remove the engine stop switch housing screws (2), and open up the housing.
- Unscrew the adjusting nut for the decelerator throttle cable (the cable next to the starter button), slide it out of the way, and unscrew the decelerator throttle cable guide from the engine stop switch housing.



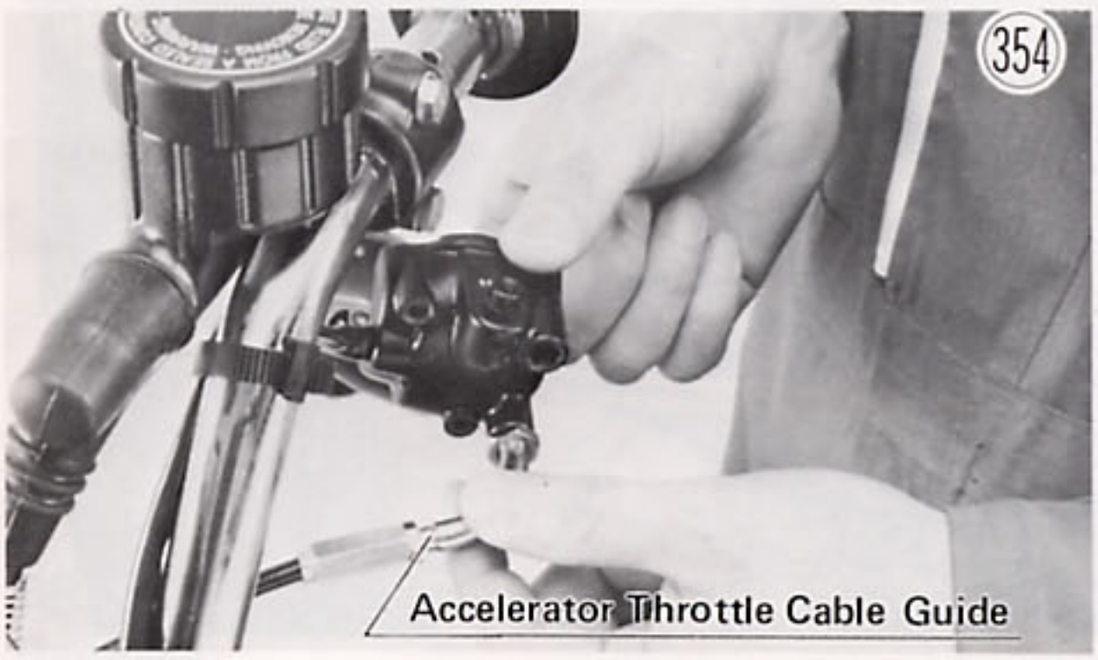
- Slip the decelerator throttle cable tip from its catch in the throttle grip, and pull the cable out of the engine stop switch housing and free from the motorcycle.



- Unscrew the accelerator throttle cable guide from the engine stop switch housing, slip the cable tip out of its catch in the throttle grip, and pull the cable from the engine stop switch and free from the motorcycle.

Installation:

- Screw the accelerator throttle cable guide (shorter than the decelerator throttle cable guide) into the front engine stop switch hole. Screw it in most of the way, and then lightly tighten the guide nut.



- Screw in the decelerator cable guide most of the way, and then lightly tighten the guide nut.
- Turn the throttle grip so that the cable catches are facing up, and fit the accelerator throttle cable tip into the front hole and the decelerator cable tip into the rear hole.

- Put the engine stop switch housing together and tighten its screws. The upper half of the housing has a small projection which fits into a hole in the handlebar.
- Screw the adjusting nut back onto the decelerator throttle cable guide.
- Run both cables between the right front shock absorber and the head pipe, through its straps on the top tube with the accelerator throttle cable above the other cable to the carburetors. The cables should be naturely routed, neither one twisted about the other.
- Turn each guide in the direction of its cable, and tighten its guide nut to secure its guide in the proper position.
- Fit the tip of the accelerator throttle cable into the rear catch in the pulley, and screw its adjuster down into the bracket all the way.

- Fit the tip of the decelerator throttle cable into the other catch, lift the adjuster into its bracket turning the throttle grip at the same time if necessary, and screw its adjuster in.
- Center the adjusters in their brackets, and tighten the lock nuts.
- Replace the fuel tank, and hook its retaining band.
- Fit the fuel hoses back onto the fuel tap, and slide the clamps back into place.
- Push the seat into place.
- Adjust the throttle cables (Pg. 9).

SPEEDOMETER CABLE

Removal:

- Disconnect the upper and lower ends of the speedometer cable.
- Pull the cable free.

Installation:

- Run the cable through its guide, and secure the upper end of the cable to the speedometer with pliers.
- Insert the speedometer inner cable into the speedometer gear housing while turning the wheel so that the slot in the end of the cable will seat in the tongue of the speedometer pinion. Tighten the cable nut or the cable bolt.

TACHOMETER CABLE (Only on KZ400D)

Removal:

- Disconnect the upper and lower ends of the tachometer cable with pliers.
- Free the cable from the motorcycle.

Installation:

- Run the tachometer cable through its guide, fit the inner cable into the tachometer, and tighten the cable nut with pliers.
- Fit the bottom end of the cable into its place in the cylinder head cover. Turn it if necessary so that it fits all the way back into place, and tighten its nut with pliers.

SPEEDOMETER

Removal:

- Disconnect the upper end of the speedometer cable with pliers.
- Remove the cap nuts (2) from the bottom of the speedometer holder. Each cap has a lock washer and flat washer.
- Pull up on the speedometer, and pull out the illuminator lights (2) from its base to complete speedometer removal.

Installation Note:

- Be sure the cable runs through its guide at the 3-way joint.

TACHOMETER (Only on KZ400D)

Removal:

- Disconnect the upper end of the tachometer cable with pliers.
- Remove the cap nuts (2) from the bottom of the tachometer holder. Each cap nut has a lock washer and flat washer.
- Pull up on the tachometer, and pull out the illuminator lights (2) and indicator lights (2).

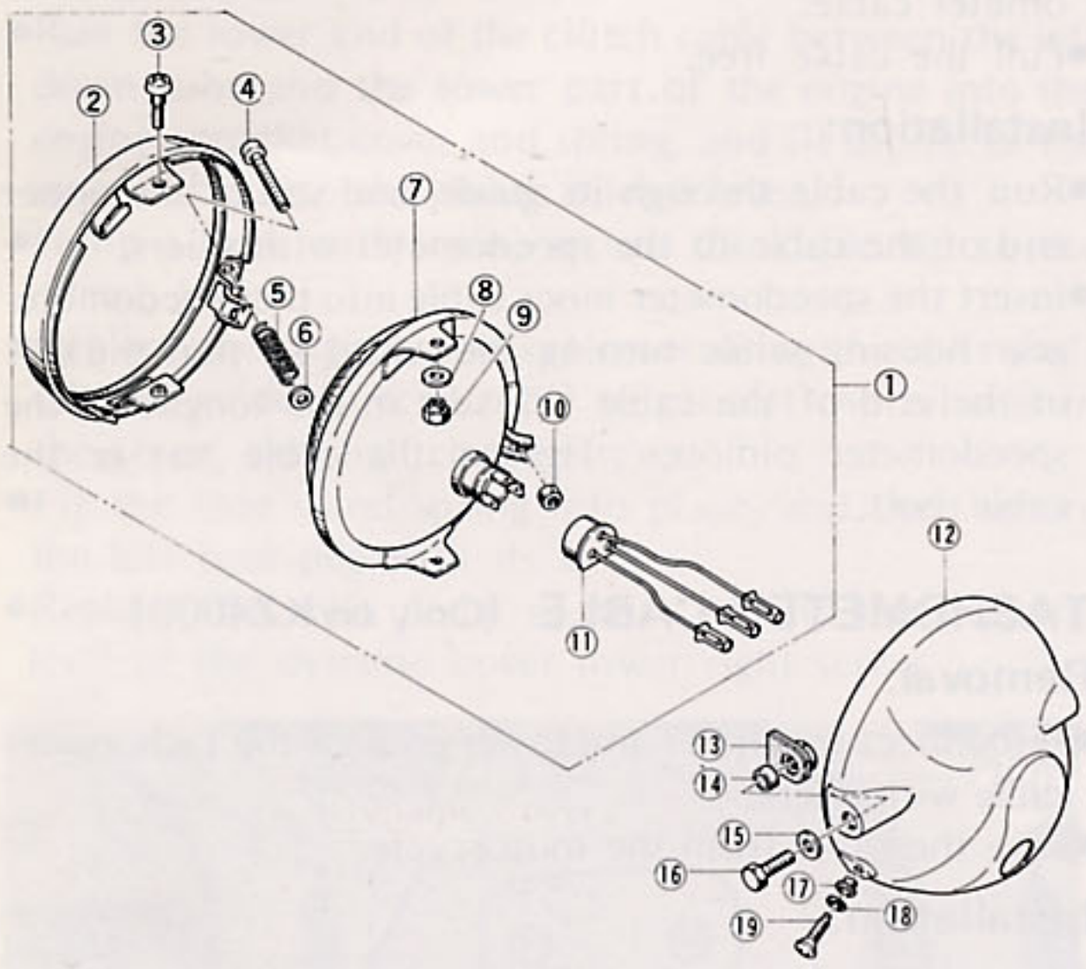
Installation Note:

- The proper connections in the base of the tachometer are as follows: black/yellow and blue to tachometer illuminator light sockets (2), black/red and black/yellow to high beam indicator light socket, and brown and green/white to brake light failure indicator light socket.

HEADLIGHT UNIT

Headlight Unit (US model)

(357)



1. Headlight Unit
2. Rim
3. Mounting Screws
4. Adjust Screw
5. Spring
6. Washer
7. Sealed Beam Unit
8. Washers
9. Nuts
10. Nut
11. Socket
12. Headlight Housing
13. Nuts
14. Collar
15. Washer
16. Housing Mounting Bolts
17. Collar
18. Lock Washer
19. Retaining Screws
20. Spring
21. Reflector
22. Headlight Bulb
23. City Light Bulb
24. Socket

Removal:

- Take out the retaining screws ⑲ (2), pull the bottom of the headlight unit ① out of its housing ⑫, and then push down on the top of the headlight rim ② to free the unit from the housing.
- Disconnect the headlight socket ⑪ from the rear of the unit (US model).
- Disconnect the headlight socket ⑪ and the city light ㉔ from the rear of the unit (European model).
- Remove the mounting screws ③, nuts ⑨, washers ⑧ (2 ea), and the beam horizontal adjust screw ④. A nut ⑩, washer ⑥, and spring ⑤ come off with the adjust screw.

Installation Notes:

1. The washer on the adjust screw goes between the spring and the bracket.
2. The top of the sealed beam unit is marked TOP.
3. Carry out the horizontal beam adjustment after installation (Pg. 22).

INDICATOR LIGHTS (turn, neutral and oil)

Removal:

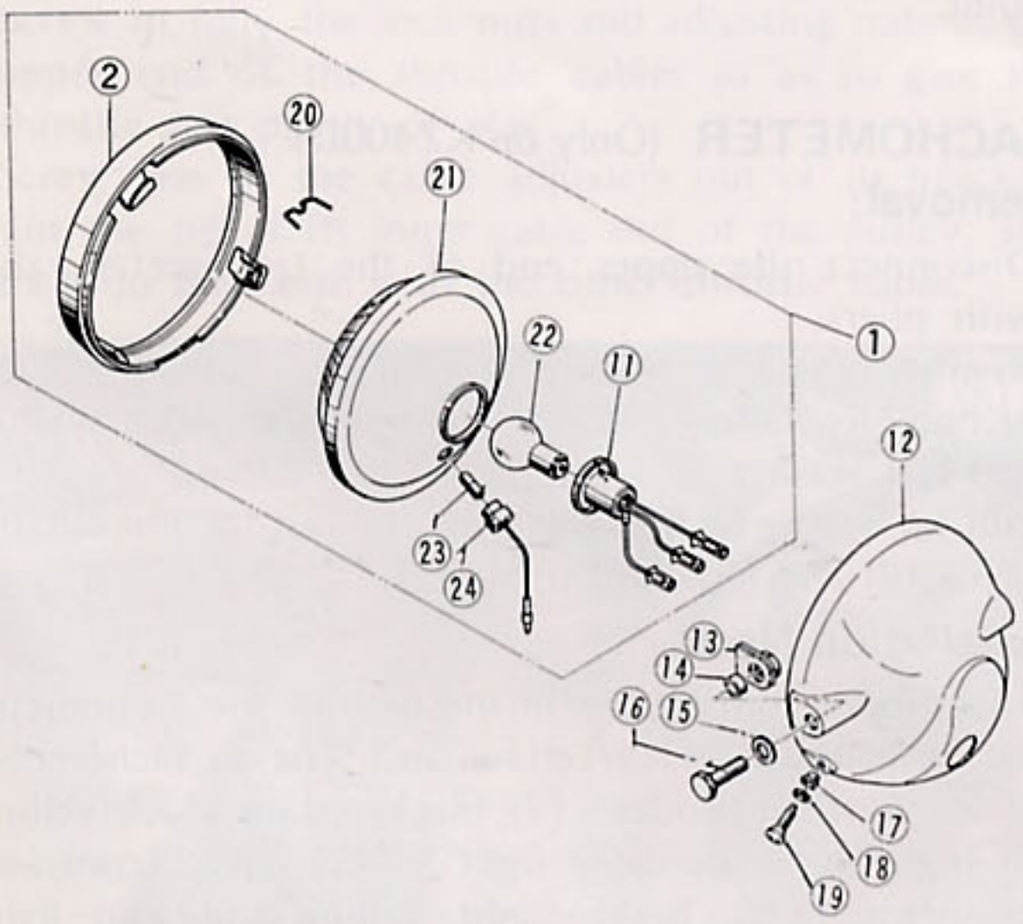
- Remove the nut from the ignition switch, and take off the ignition switch upper cover.
- Remove the indicator lights (3).

Installation Note:

- Use 12V 3.4W bulbs for indicator light replacement.

(358)

(European model)



IGNITION SWITCH

Removal:

- Take out the retaining screws (2), pull the bottom of the headlight unit out of its housing, and then push down on the top of the headlight rim to free the unit from the housing.
- Disconnect the headlight socket from the rear of the unit (US model).
- Disconnect the headlight socket and the city light from the rear of the unit (European model).
- Remove the headlight housing mounting bolts (2). Each bolt has a nut and washer.
- Remove the headlight housing.
- Remove the nut from the ignition switch, and take off the ignition switch upper cover.
- Disconnect the ignition switch wiring harness socket from the plug it connects to in the headlight housing, and push the socket out of the housing.
- Remove the ignition switch lower cover screws (2), and remove the ignition switch lower cover, ignition switch fitting, and ignition switch.

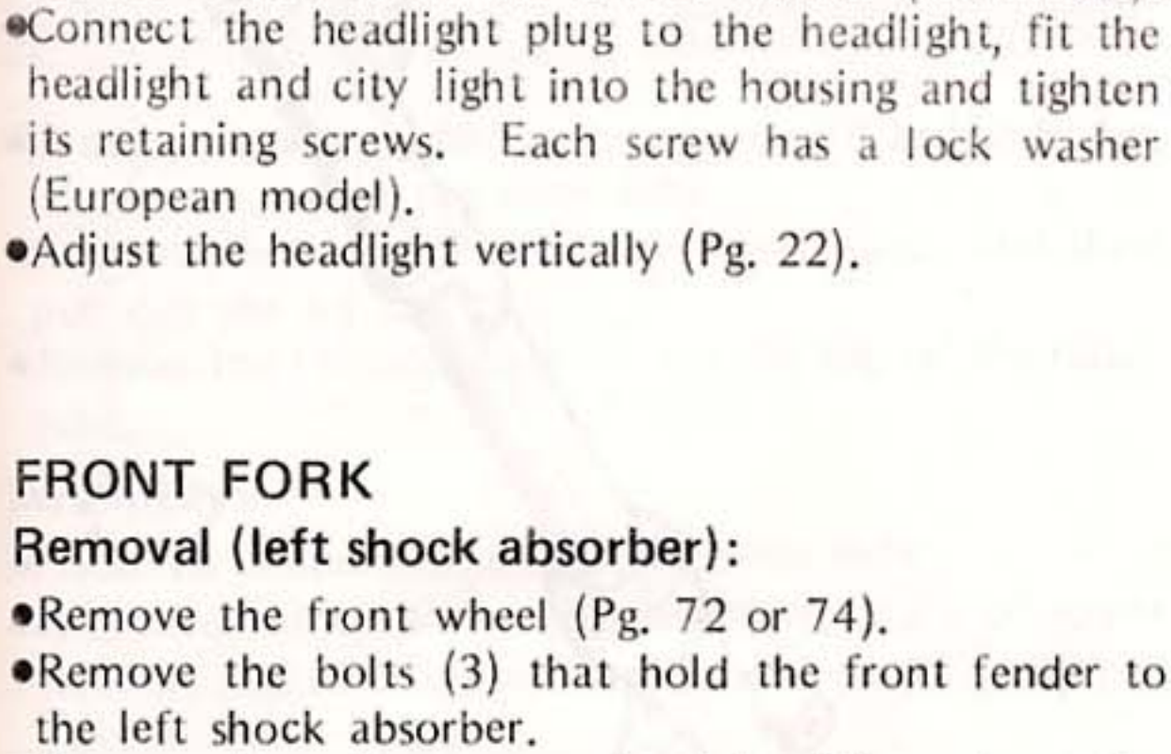
Installation:

- Fit the ignition switch, switch fitting, and lower cover in place, and screw in both lower cover screws. Each screw has a lock washer.
- Reconnect the ignition switch wiring harness socket to its plug in the headlight housing.
- Fit the ignition switch upper cover in place, and tighten its nut.
- Mount the headlight housing in place tightening its mounting bolts. The sequence is mounting bolt, flat washer, fork cover, housing insert, and nut.
- Connect the headlight plug to the headlight, fit the headlight into the housing, and tighten its retaining screws. Each screw has a lock washer (US model).
- Connect the headlight plug to the headlight, fit the headlight and city light into the housing and tighten its retaining screws. Each screw has a lock washer (European model).
- Adjust the headlight vertically (Pg. 22).

FRONT FORK

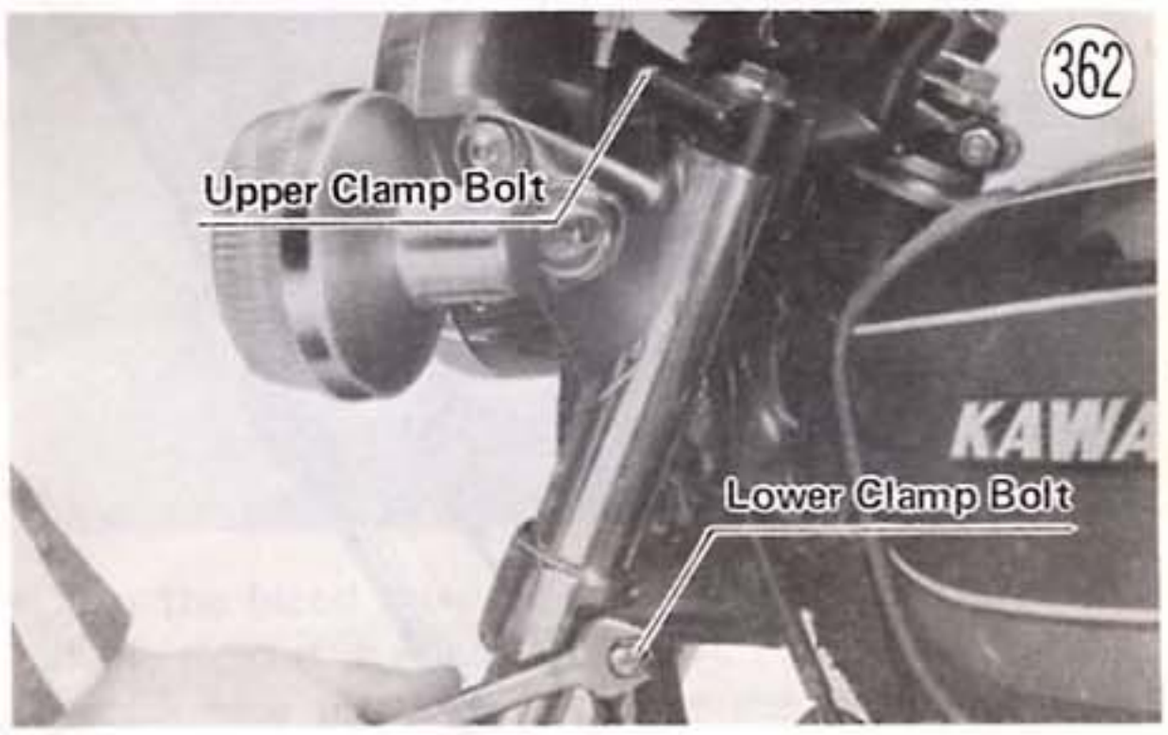
Removal (left shock absorber):

- Remove the front wheel (Pg. 72 or 74).
- Remove the bolts (3) that hold the front fender to the left shock absorber.
- Remove the caliper mounting bolts (2), and rest the caliper on some kind of stand so that the pipe does not get bent (KZ400D).



- If the shock absorber is to be disassembled after removal, loosen the shock absorber top bolt.

- Loosen the upper and lower clamp bolts.



- With a twisting motion, work the shock absorber down and out.

Installation (left shock absorber):

- Slide the shock absorber up through the lower and upper clamps until the upper surface of the tube is even with the upper surface of the stem head. Tighten the upper clamp bolts with 1.6 ~ 2.2 kg-m (11.5 ~ 16 ft-lbs) of torque and the lower clamp bolts with 2.0 ~ 3.0 kg-m (14.5 ~ 22 ft-lbs).
- If the top bolt was loosened during removal, tighten it with 2.5 ~ 3.0 kg-m (18 ~ 22 ft-lbs) of torque.
- Mount the caliper to the shock absorber tightening the bolts with 2.5 ~ 3.3 kg-m (19 ~ 23 ft-lbs) of torque. Each mounting bolt has a flat washer and lock washer (KZ400D).
- Install the fender bolts. There is a lock washer for each bolt.
- Mount the front wheel (Pg. 72 or 74).

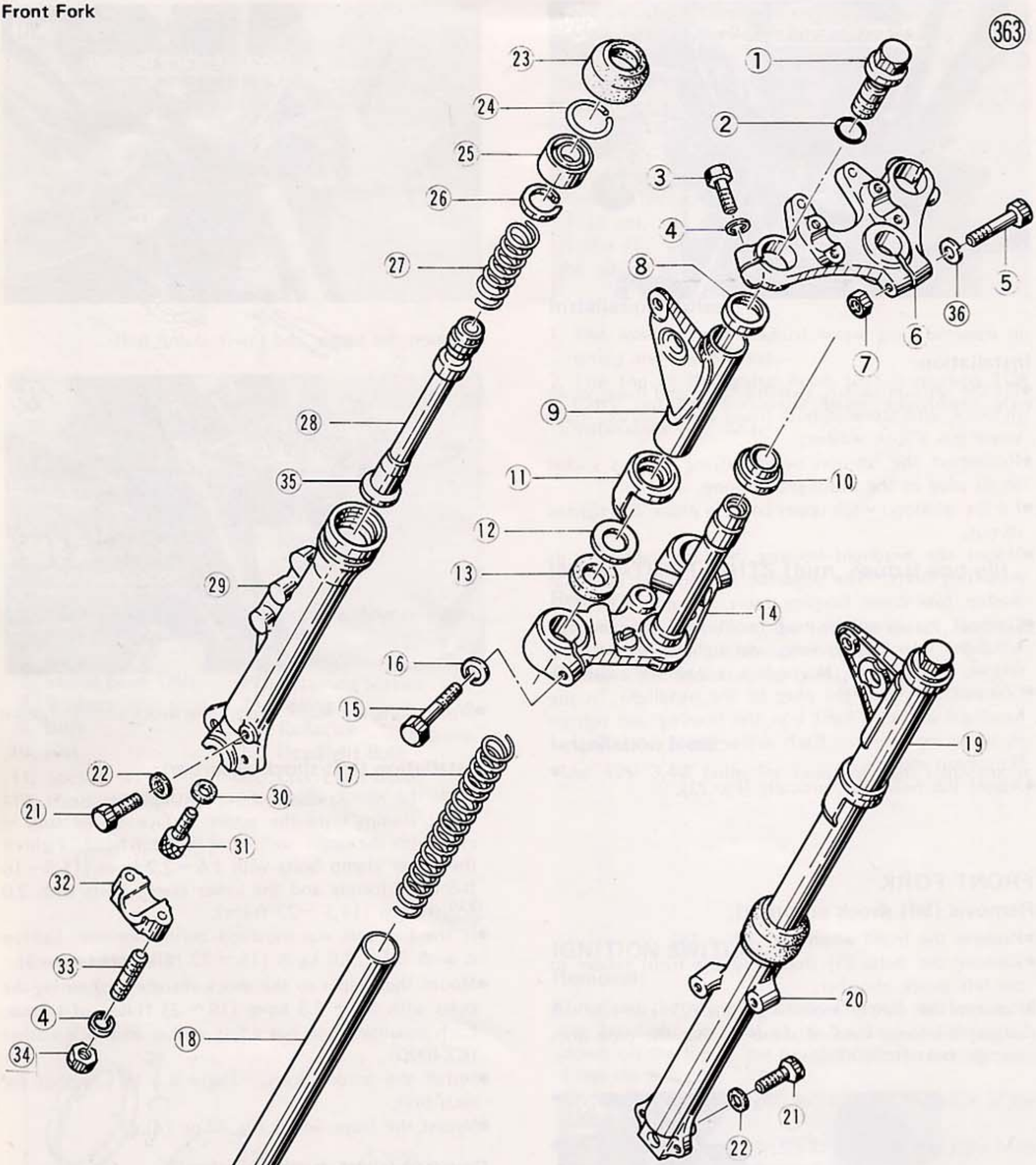
Removal (right shock absorber):

- Remove the front wheel (Pg. 72 or 74).
- Remove the bolts (3) that hold the front fender to the right shock absorber.
- If the shock absorber is to be disassembled after removal, loosen the shock absorber top bolt.
- Loosen the upper and lower clamp bolts.
- With a twisting motion, work the shock absorber down and out.

Installation (right shock absorber):

- Slide the shock absorber up through the lower and upper clamps until the upper surface of the tube is even with the upper surface of the stem head. Tighten

Front Fork



1. Top Bolt
2. O Ring
3. Upper Clamp Bolt
4. Lock Washer
5. Stem Head Clamp Bolt
6. Stem Head
7. Nut
8. Ring Cap
9. Left Fork Cover
10. Inner Race
11. Stem Base Cover
12. Damper Ring
13. Damper
14. Steering Stem
15. Lower Clamp Bolt
16. Lock Washer
17. Spring
18. Inner Tube
19. Right Fork Cover
20. Right Outer Tube
21. Bolt
22. Gasket
23. Dust Seal
24. Clip
25. Oil Seal
26. Piston Ring
27. Spring
28. Cylinder
29. Left Outer Tube
30. Gasket
31. Allen Bolt
32. Axle Clamp
33. Stud Bolt
34. Nut
35. Cylinder Base
36. Lock Washer

the upper clamp bolts with 1.6~2.2 kg-m (11.5~16 ft-lbs) of torque and the lower clamp bolts with 2.0 ~3.0 kg-m (14.5~22 ft-lbs).
- If the top bolt was loosened during removal, tighten it with 2.5 ~ 3.0 kg-m (18 ~ 22 ft-lbs) of torque.
- Install the fender bolts. There is a lock washer for each bolt.
- Mount the front wheel (Pg. 72 or 74).

Disassembly:

- Remove the top bolt ①, and pull out the spring ⑰.
- Pour the oil into a suitable container, pumping as necessary to empty out all the oil.
- Slide the dust seal ㉓ off the inner tube ⑱.
- Keeping the cylinder and piston unit ㉘ from turning by use of the front fork cylinder holder and holder adapter (special tools), unscrew the Allen bolt ㉛ from the bottom of the outer tube ㉙, and then separate the inner tube from the outer tube by pulling it out.

- Slide or push the cylinder and piston unit and its spring ㉗ out the top of the inner tube.
- Remove the clip ㉔ from the outer tube, and then pull out the oil seal ㉕.
- Remove the cylinder base ㉟ out the top of the outer tube.

Assembly:

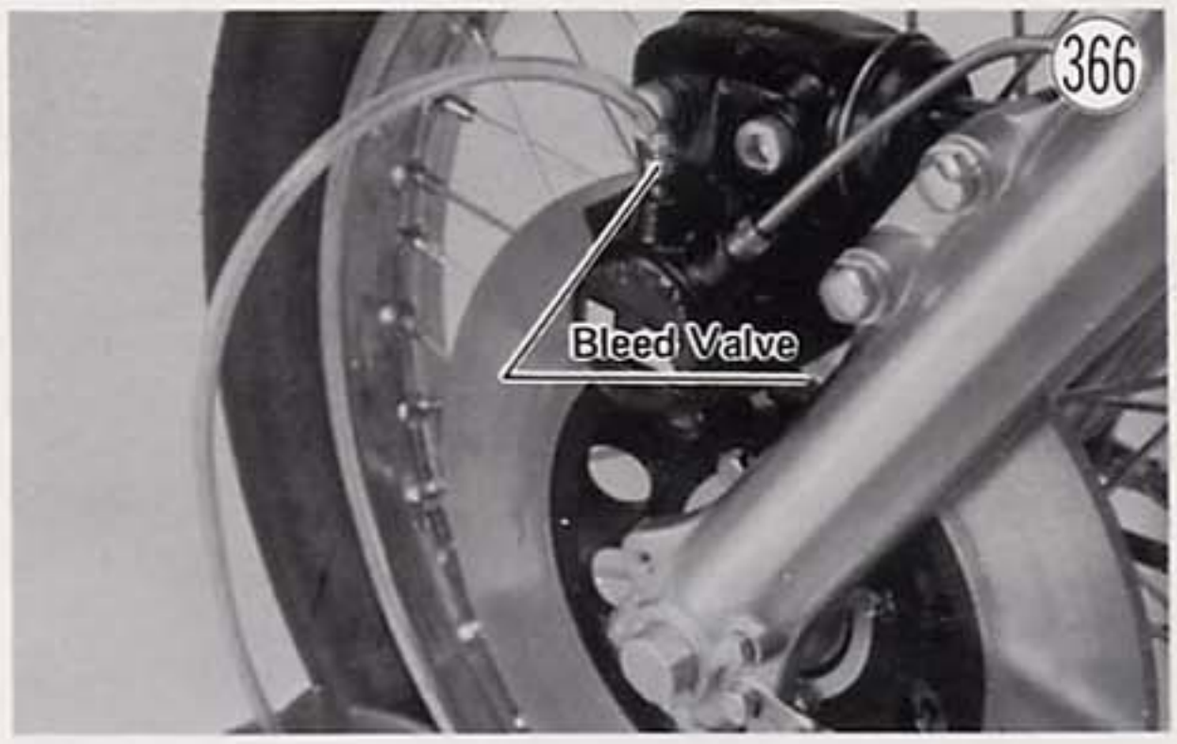
- Place the cylinder base into the outer tube.
- Replacing the oil seal with a new one, apply oil to the outside, and fit it in with the front fork oil seal driver (special tool).

- Replace the clip.
- Replace the cylinder and piston unit together with its spring into the inner tube, pushing it all the way down so that the cylinder projects out the bottom.
- Fit the bottom of the cylinder into the cylinder base, and then push the inner tube fully into the outer tube.
- Apply a non-permanent locking agent to the Allen bolt, and tighten it in place.
- Slide the dust seal into place.
- Refill with 160 cc of fresh SAE 5W20 oil.
- Insert the spring with the concentrated portion up.
- Replace the top bolt.

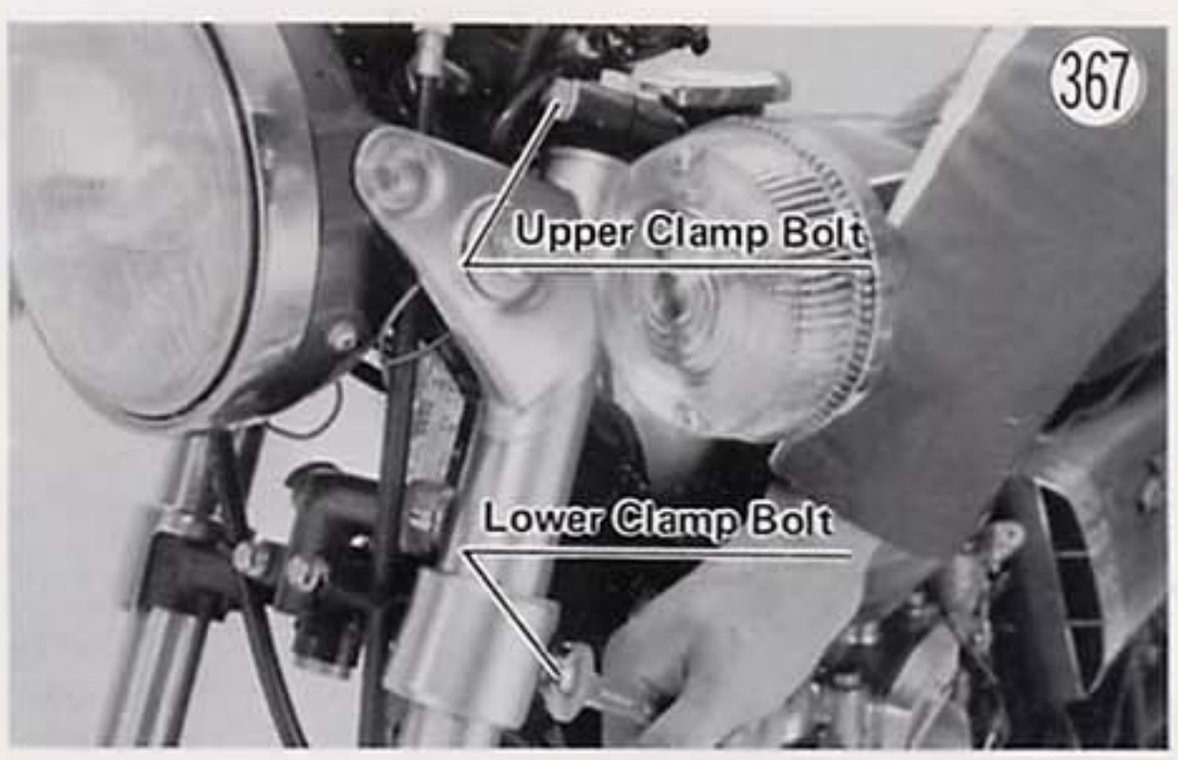
STEERING STEM

Removal:

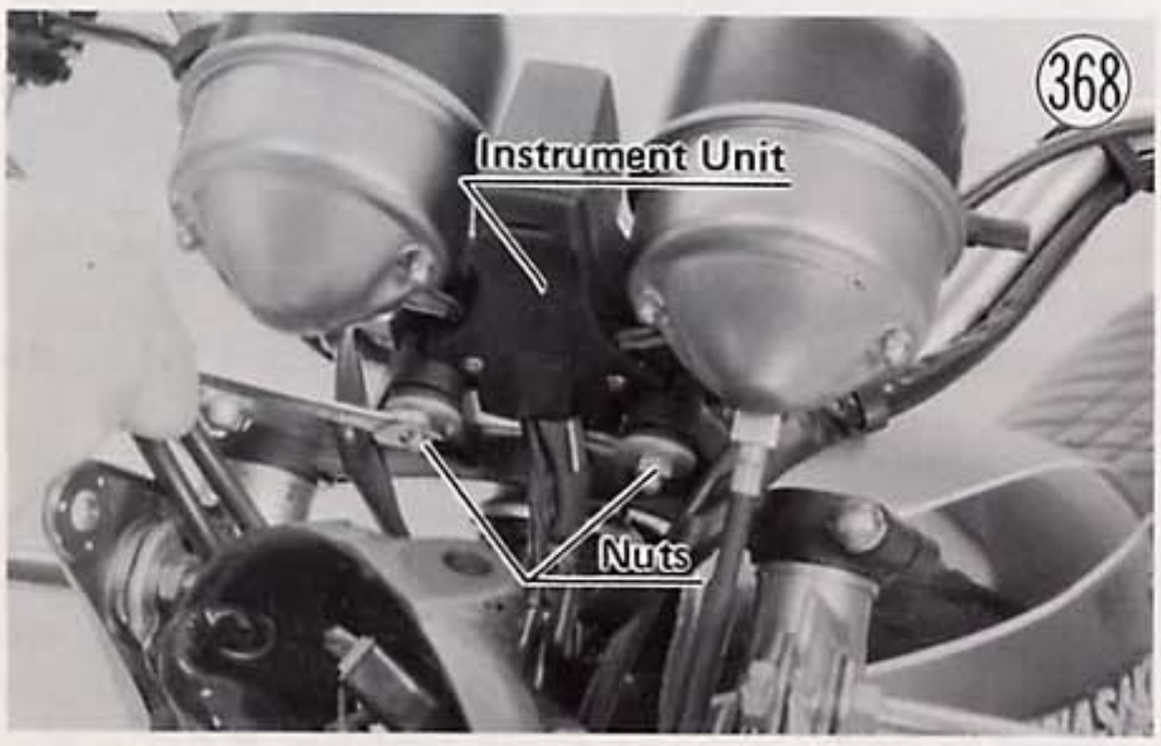
- Uncap the bleed valve on the caliper, connect one end of a clear plastic hose to the valve, and run the other end of the hose into a container (KZ400D).



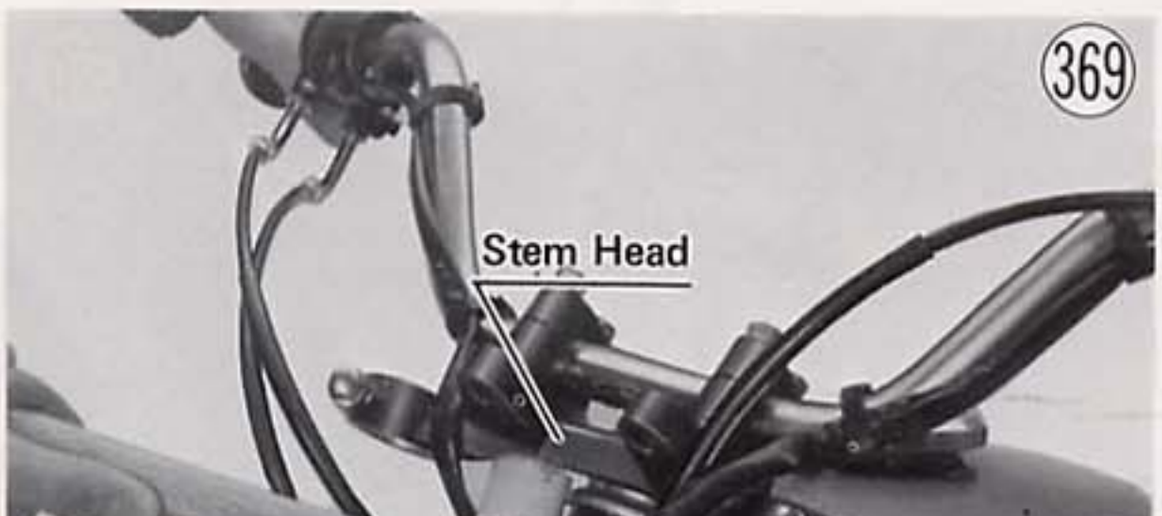
- Open the bleed valve, and pump the brake lever until all the fluid is drained (KZ400D).
- Remove the plastic hose, close the bleed valve, and replace the cap (KZ400D).
- Remove the front wheel (Pg. 72 or 74).
- Remove the clamp bolts (2) which secure the master cylinder to the handlebar, remove the banjo bolt that connects the upper brake hose to the 3-way joint, and then remove the master cylinder together with the upper brake hose. The banjo bolt has a flat washer on each side of the upper brake hose fitting. Wipe up immediately any brake fluid that spills (KZ400D).
- Remove the caliper mounting bolts (2) and the lower brake hose banjo bolt, and remove the caliper together with the lower brake hose by pulling the lower brake hose fitting through the fender rubber mount. The banjo bolt has a flat washer on each side of the lower brake hose fitting. Wipe up immediately any brake fluid that spills (KZ400D).
- Remove the fender bolts (6), and take off the fender.
- Loosen the upper and lower clamp bolts on both sides, and remove each shock absorber by working it down and out.



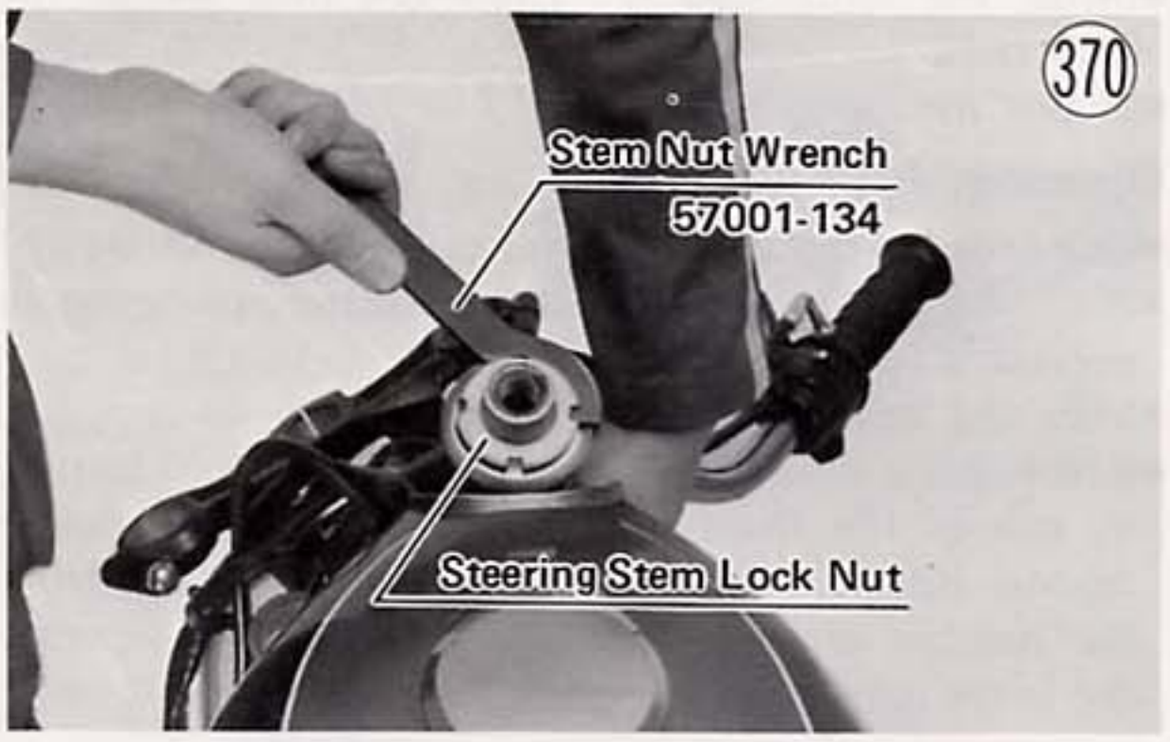
- Remove the tachometer cable guide bolt, and disconnect the tachometer cable at the tachometer.
- Disconnect the front brake light switch leads from the switch (KZ400D).
- Remove the 3-way joint (KZ400D).
- Take out the retaining screws (2), pull the bottom of the headlight unit out of its housing, and then push down on the headlight rim to free the unit from the housing.
- Disconnect the headlight socket from the rear of the unit (US model).
- Disconnect the headlight socket and city light from the rear of the unit (European model).
- Disconnect the turn signal leads (gray and black/yellow) and the main wiring harness plugs.
- Remove the headlight housing mounting bolts (2). Each bolt has a flat washer and nut.
- Remove the headlight housing.
- Holding the instrument unit so that it doesn't fall, remove the nuts (2) that secure the instrument unit to the stem head, and then remove the instrument unit.



- Loosen the stem head clamp bolt, stem head bolt, and stem head flat washers (2).
- Tap lightly on the bottom of the stem head with a plastic hammer, and remove the fork covers together with the turn signals. Each fork cover has the ring cap at the top and the damper, damper ring, and stem base cover at the bottom.
- Continue tapping up the stem head until it is free of the steering stem. Let the stem head and handlebar assembly all hang down out of the way.



- Pushing up on the stem base, remove the steering stem lock nut with the stem nut wrench (special tool); then remove the steering stem and stem base (single unit). As the stem is removed, some of the steel balls will drop out of the lower outer race. Remove the rest.



- Remove the steering stem cap and upper inner race, and remove the upper steel balls (19).

Installation:

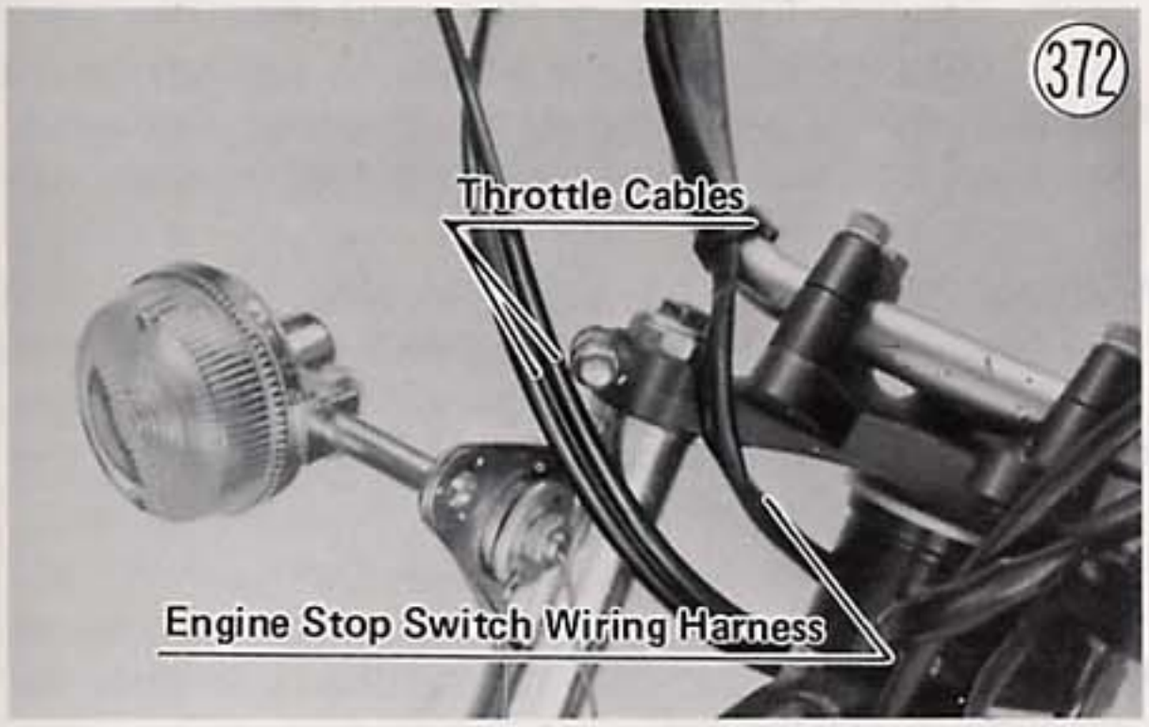
- Apply grease to the upper and lower outer races in the head pipe so that the steel balls will stick in place during stem insertion, and then replace the upper steel balls (19) and the lower steel balls (19).
- Insert the steering stem into the head pipe, replace the upper inner race and steering stem cap, and then tighten the steering stem lock nut, with 2.7~3.3 kg-m (19.5~24 ft-lbs) of torque.

Note: The steering stem lock nut torque is only provisional. The tightness changes with steering stem adjustment.

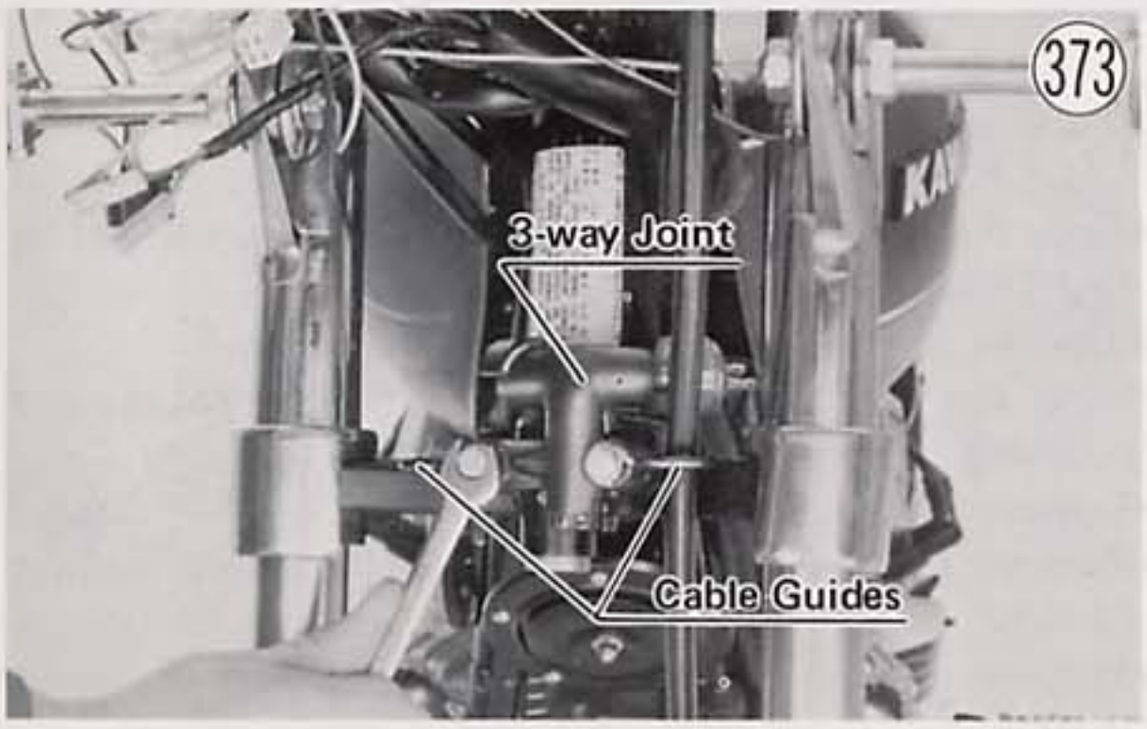
- Tap the stem head part of the way into place on the steering stem.
- Route the main wiring harness directly in front of the steering stem, and route the light switch wiring harness and clutch cable in back next to the head pipe.

- Slide the left shock absorber (the one that holds the caliper) through the left stem base, fork cover, and stem head so that the upper surface of the tube is even with the upper surface of the stem head; tighten the upper clamp bolt with 1.6~2.2 kg-m (11.5~16.0 ft-lbs) of torque. The sequence is stem base, damper, damper ring, base cover, fork cover, ring cap, and stem head.

•Replace the right shock absorber in the same manner as the left. The throttle cables run between the shock absorber and head pipe. The engine stop switch wiring harness runs in front of both the shock absorber and head pipe.



•Tap the stem head lightly with a plastic hammer the rest of the way, and replace the stem head flat washers (2) (thick washer on top) and bolt. Tighten with 5.5 kg-m (40 ft-lbs) of torque.
•Tighten the stem head clamp bolt with 1.6~2.2 kg-m (11.5~16.0 ft-lbs) of torque.
•Tighten the stem base clamp bolts with 2.0~3.0 kg-m (19.5~22 ft-lbs) of torque.
•Secure the instrument unit to the stem head, and tighten the nuts with washers.
•Replace the 3-way joint. Be sure to include the cable guide with each bolt (KZ400D).



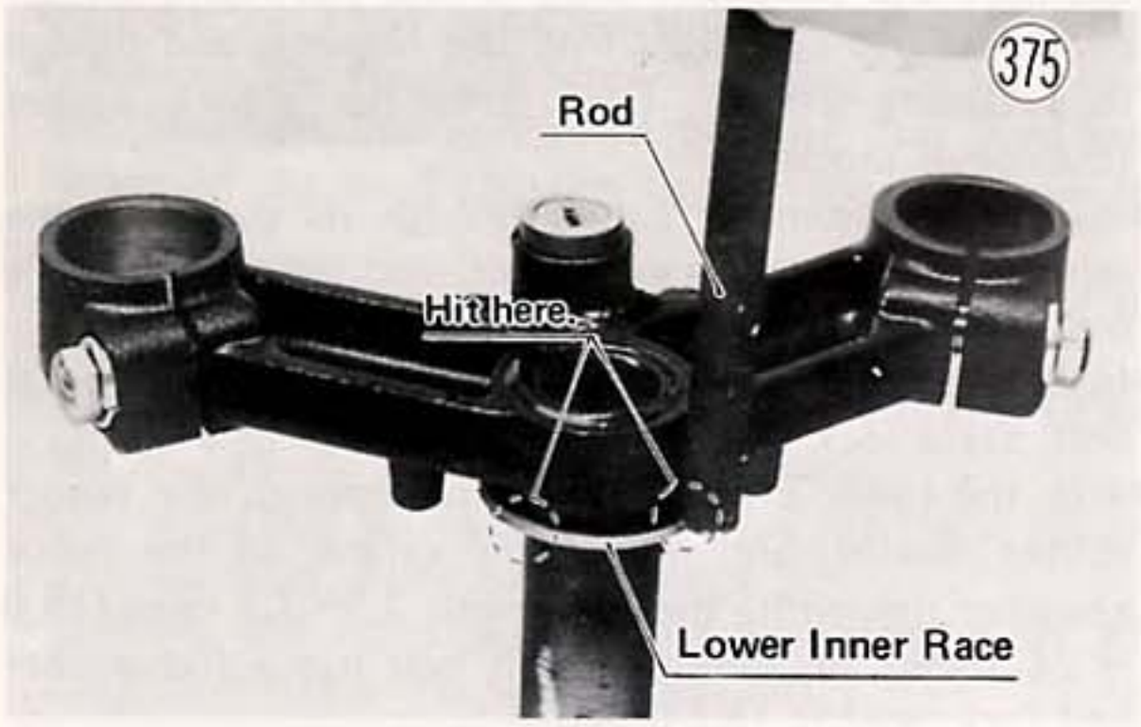
•Connect the front brake light switch leads onto the switch. The leads may connect either way (KZ400D).
•Run the plugs, sockets, and wiring into the headlight housing, and connect the plugs and sockets.
•Mount the headlight housing in place tightening its mounting bolts. The sequence is mounting bolt, flat washer, fork cover, housing insert, and nut.
•Check that the brake cable is between the headlight housing and the right shock absorber (KZ400S).
•Connect the turn signal leads. The left turn signal lead goes to the green lead, and the right is plugged into the gray lead. Both turn signal black/yellow leads go to the same black/yellow plug.
•Connect the headlight plug to the headlight, fit the headlight into the housing, and tighten its retaining screws. Each screw has a lock washer (US model).
•Connect the headlight plug to the headlight, fit the headlight and city light into the housing, and tighten its retaining screws. Each screw has a lock washer (European model).
•Run the tachometer cable through its guide, fit the inner cable into the tachometer, and tighten the cable nut with pliers.
•Install the front fender tightening its bolts (6). Each bolt has a lock washer.
•Run the lower brake hose fitting through the fender rubber mount, and mount the caliper to the shock absorber tightening the bolts with 2.5~3.3 kg-m (18.0 ~ 24 ft-lbs) of torque. Each bolt has a flat washer and lock washer (KZ400D).
•Connect the lower brake hose fitting to the 3-way joint tightening its banjo bolt with 2.5~3.3 kg-m (18~24 ft-lbs) of torque. There is a flat washer for each side of the fitting (KZ400D).
•Install the master cylinder to the handlebar with the small projection on the clamp facing the throttle grip. Tighten first the upper clamp bolt and then the lower bolt, both with 0.6~0.9 kg-m (52~78 in-lbs) of torque. Each clamp bolt has a flat washer (KZ400D).
•Run the upper brake hose fitting to the 3-way joint, and tighten its banjo bolt with 2.5~3.3 kg-m (18~24 ft-lbs) of torque. There is a flat washer for each side of the fitting (KZ400D).
•Install the front wheel (Pg. 72 or 74).
•Adjust the steering (Pg. 16).
•Adjust the headlight vertically (Pg. 22).
•Refill the brake lines (Pg. 143) (KZ400D).

STEERING STEM BEARING

Removal:

•Remove the steering stem (Pg. 95).
•To remove the outer races pressed into the head pipe, insert a bar into the head pipe, and hammer evenly around the circumference of each race to drive it out.

●To remove the lower inner race, which is pressed onto the steering stem, grip the stem in a vice, and use a metal rod and hammer as shown in Fig. 375.



Installation:

●Apply oil to the outer races, and drive them into the head pipe using the stem cup driver and the bearing driver holder (special tools).

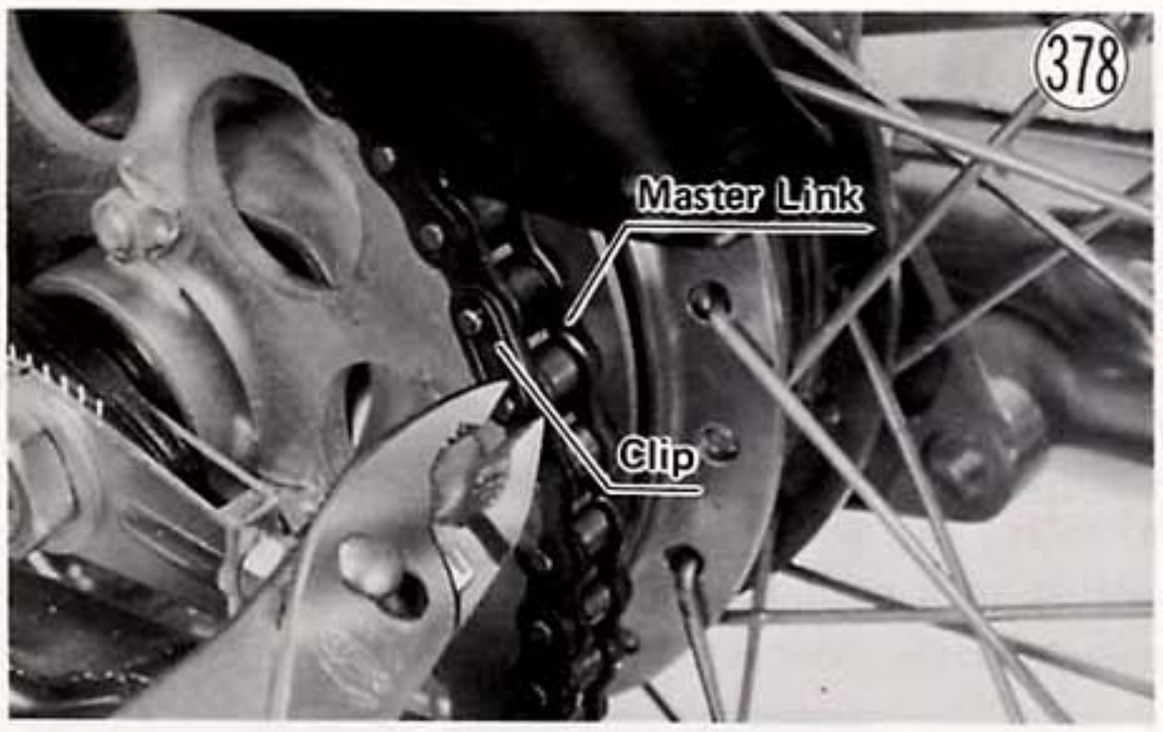
●Apply oil to the lower inner race, and drive it onto the steering stem using the stem bearing driver and adapter (special tools).

●Install the steering stem (Pg. 96).

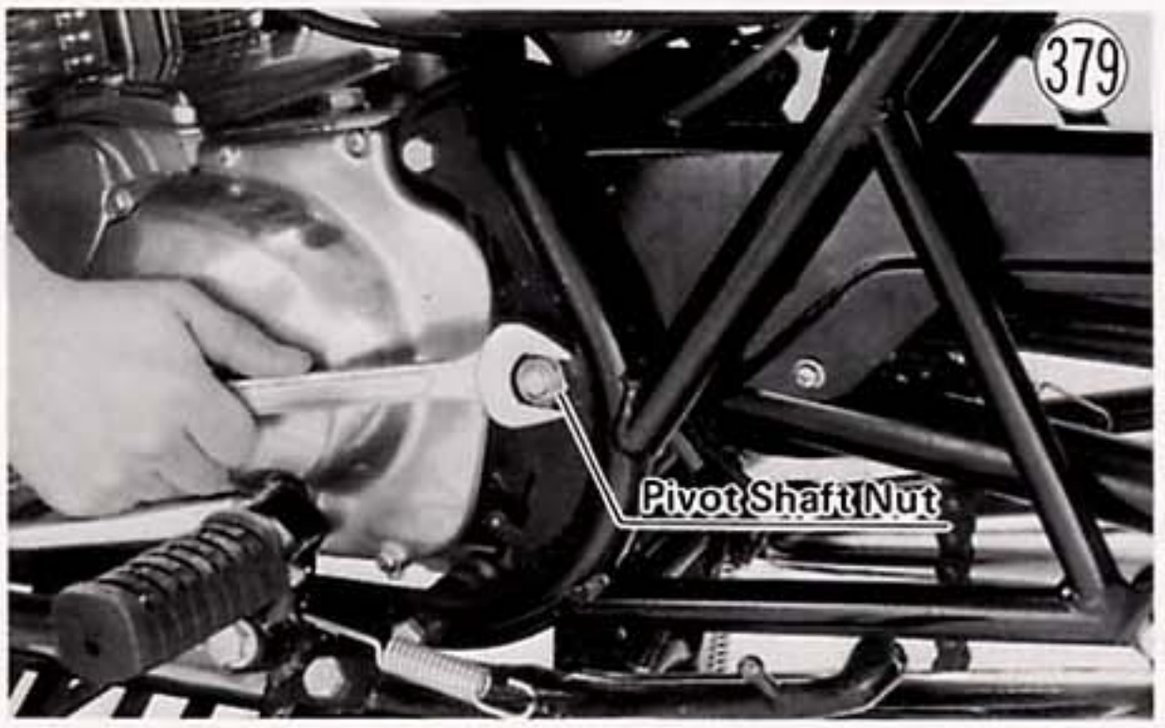
SWING ARM

Removal:

●Put the motorcycle up on its center stand, the jack or block.
●Take out the clip from the rear torque link bolt, remove the nut and lock washer, and free the torque link from its bolt.
●Being careful not to bend or otherwise damage it, free the rear brake light switch spring from the tab on the brake pedal.
●Remove the adjusting nut from the end of the brake rod, and then free the rod from the cam lever by depressing the brake pedal. Remove the brake rod spring and joint.
●Take out the cotter pin, remove the axle nut and washer, and pull out the axle.
●Remove the axle sleeve from the right side of the wheel.
●Position the chain on the rear sprocket so that the drive chain master link is at the rear.
●Remove the clip carefully from the drive chain master link using pliers, and then remove the master link.



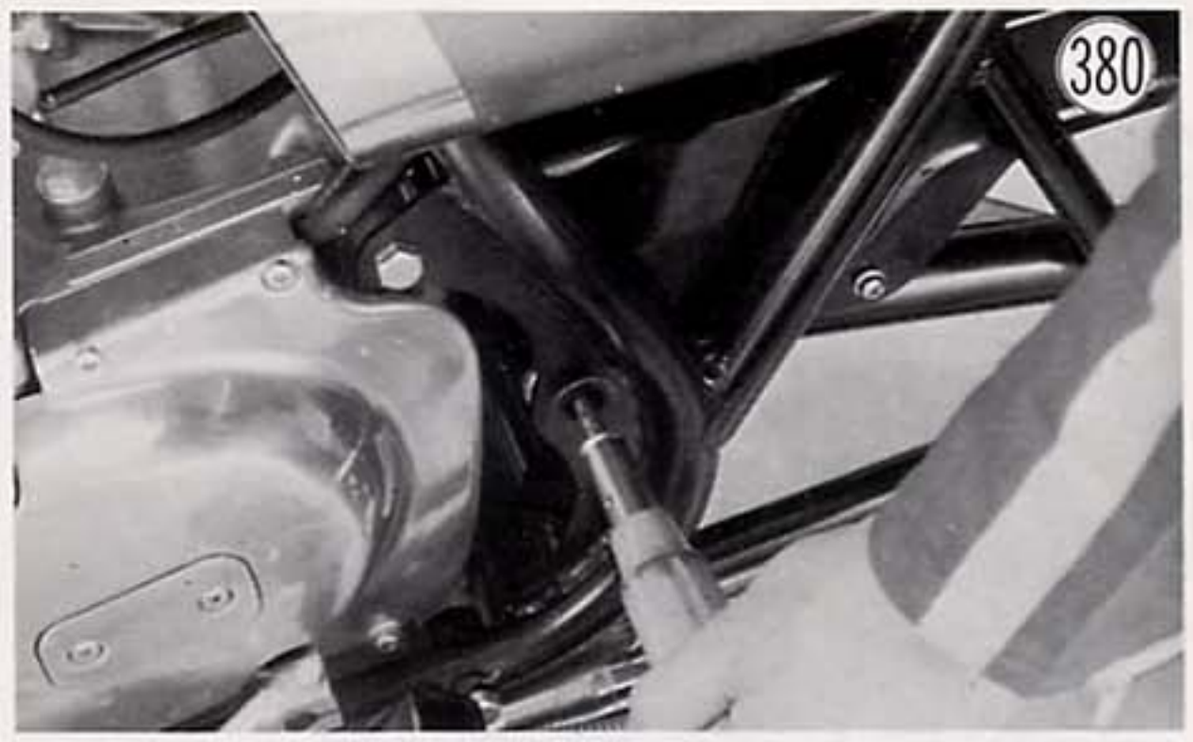
●Turn the rear wheel so that the rear sprocket will be free from the chain.
●Remove the coupling sleeve nut and washer.
●Slide the rear wheel together with the sprocket and coupling free from the motorcycle.
●Remove both chain adjusters.
●Remove the rear shock absorber bolts and lock washers (2 ea).
●Remove the pivot shaft nut, and pull out the pivot shaft.



- Pull the swing arm free from the motorcycle. A cap on each side of the pivot will drop off.
- Take out the screws (2) to remove the chain guard.
- Remove the clip, nut, lock washer, and bolt to remove the torque link.

Installation:

- Insert the end of the torque link into its place in the swing arm, and replace its bolt, lock washer, nut and clip. The torque for the nut is 2.6~3.5 kg-m (19~25 ft-lbs).
- Replace the chain guard. Each screw has a lock washer.
- Replace the caps, one on each end of the pivot, position the pivot of the swing arm into its place in the frame, and slide in the pivot shaft from right to left. A screwdriver inserted into the left side of the pivot will keep the left cap in place and can be used to alter the position of the distance collar, if necessary, so that the pivot shaft will run through the pivot easily.



- Replace the pivot shaft and nut; tighten the nut with 6~10 kg-m (43~72 ft-lbs) of torque.
- Replace the rear shock absorber bolts and lock washer, tightening each bolt with 2.6 ~ 3.5 kg-m (19 ~ 25 ft-lbs) of torque.

Swing Arm

1. Pivot Shaft
2. Cap
3. O Ring
4. Sleeve
5. Distance Collar
6. Bush
7. Grease Nipple
8. Swing Arm
9. Nut
10. Adjusting Bolt
11. Nut
12. Chain Adjuster

●Replace both chain adjusters. The right side of the right chain adjuster is thicker than the other sides.
●Check to see that the torque link bolt is in place in the brake panel, and slip the wheel into place inserting the coupling sleeve through the left chain adjuster and left side of the swing arm.

The rest of the steps are the same as those in the rear sprocket and wheel coupling installation (Pg. 87).

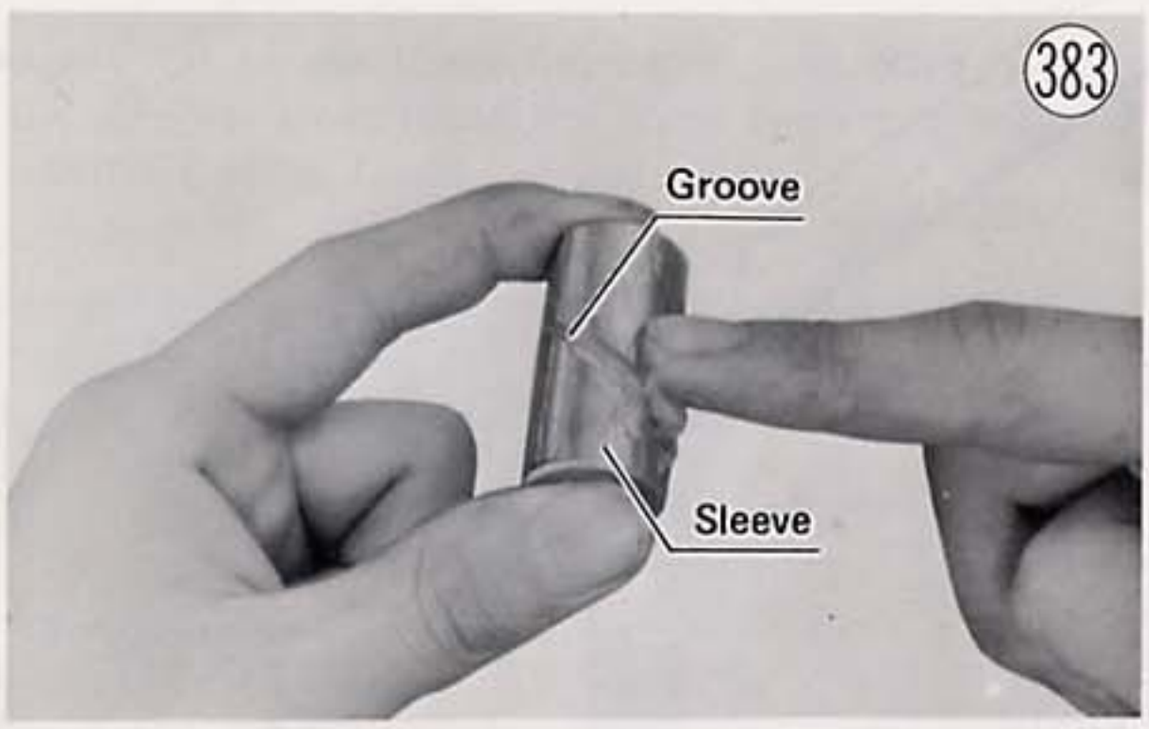
Disassembly:

●Using a suitable tool pull out the sleeve ④ from each side of the pivot, and then slide out the distance collar ⑤.

●Use a metal rod and hammer to tap out the bush ⑥ from each side of the pivot.

Assembly Notes:

1. Replace the bushes with new ones if either one has worn past the service limit (Pg. 153) or has been removed. Apply oil to the bushes before installing them with a press.
2. Wipe the old grease off the sleeves, and apply fresh grease, especially in each sleeve groove.



REAR SHOCK ABSORBERS

Removal (one side only):

●Remove the chrome bar mounting bolts (2), loosen the shock absorber cap nuts (2), and take off the chrome bar.
●Lifting up on the rear wheel as necessary to avoid damaging the shock absorber bolt threads, remove the shock absorber bolt.
●Remove the cap nut, lock washer, and flat washers, and pull off the shock absorber.

Installation (one side only):

●Fit the shock absorber on its stud.
●Lifting up on the rear wheel, insert the shock absorber bolt with its lock washer, and tighten with 2.6～3.5 kg-m (19～25 ft-lbs) of torque.
●Replace the large flat washer, small flat washer, and cap nut, and then fit the chrome bar into place between the flat washers on each side.
●Replace and tighten the chrome bar mounting bolts (2). Each bolt has a lock nut washer and flat washer.
●Tighten each cap nut with 2.6～3.5 kg-m (19～25 ft-lbs) of torque.

Removal (both sides):

●Remove the chrome bar mounting bolts (2).
●Remove the rear shock absorber cap nuts (2), and take off the chrome bar. Also remove the lock washers (2) and flat washers (4).
●Lifting up on the rear wheel as necessary to avoid damaging the bolt threads, remove the rear shock absorber bolts (2).
●Pull each shock absorber off its stud.

Installation (both sides):

●Fit each shock absorber on its stud.
●Lifting up on the rear wheel, insert each shock absorber bolt with its lock washer, and tighten with 2.6～3.5 kg-m (19～25 ft-lbs) of torque.
●Replace the large flat washer on each stud.
●Fit the chrome bar in place, and tighten its mounting bolts (2). Each bolt has a lock washer and flat washer.
●Replace the flat washer, lock washer, and then cap nut on each side. Tighten the cap nuts with 2.6～3.5 kg-m (19～25 ft-lbs) of torque.