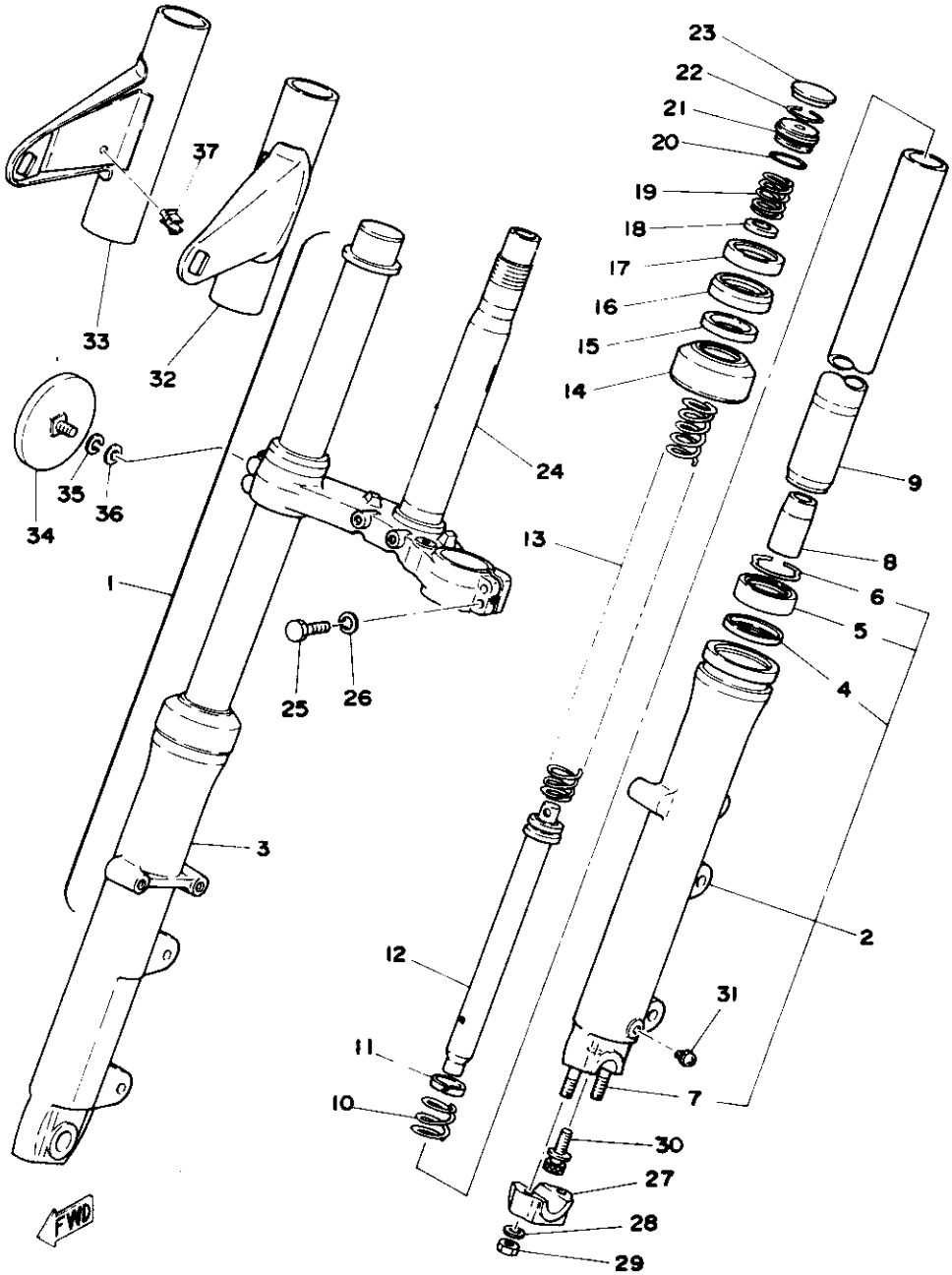


1	FRONT FORK ASS'Y	14	SEAL, dust	27	HOLDER, axle
2	FORK TUBE, outer left	15	GASKET	28	WASHER, plate
3	FORKTUBE, outer right	16	GUIDE, cover under	29	NUT, nylon
4	SEAL, spacer	17	GUIDE, cover upper	30	BOLT, hexagon socket head
5	OILSEAL	18	SEAT, spring upper	31	SCREW, drain
6	STOPPER RING, oil seal	19	SPRING	32	COVER, upper left
7	BOLT,stud	20	O-RING	33	COVER, upper right
8	PIECE, oil lock	21	SEAT, spring	34	REFLECTOR
9	INNER TUBE COMP.	22	RING, stopper	35	WASHER, spring
10	SPRING, rebound	23	CAP, front fork	36	WASHER, plain
11	RING, front fork piston	24	UNDER BRACKET COMP.	37	CLAMP
12	CYLINDER COMP., front fork	25	BOLT		
13	SPRING, front fork	26	WASHER, spring		

B. Inspection

1. Examine fork inner tube for scratches and straightness. If the tube is scratched severely or bent, it should be replaced.

2. If the lips of the oil seal are worn, or the oil seal is leaking, replace it.

3. Check the outer tube for dents. If any dent causes the inner tube to "hang up" during operation, the outer tube should be replaced.

4. Check the free length of the springs.

Top spring free length: 55.8mm (2.19 in.)
Bottom spring free length: 448.3mm (17.6 in.)

5. Check the o-ring on the top spring seat. If damaged, replace o-ring.

C. Assembly

1. Make sure all components are clean before assembly.

2. Apply oil to the fork seal and install the seal spacer and seal by pressing in with a large socket. Install retaining clip.

3. Install inner tube into outer tube. Install dust cover. Install and tighten Allen bolt and washer. Assembly procedure is the reverse of the disassembly procedure.

NOTE: When installing fork springs, the greater pitch should be at the bottom. The main fork spring has a small coil diameter at the bottom.

5-6 STEERING HEAD

A. Adjustment

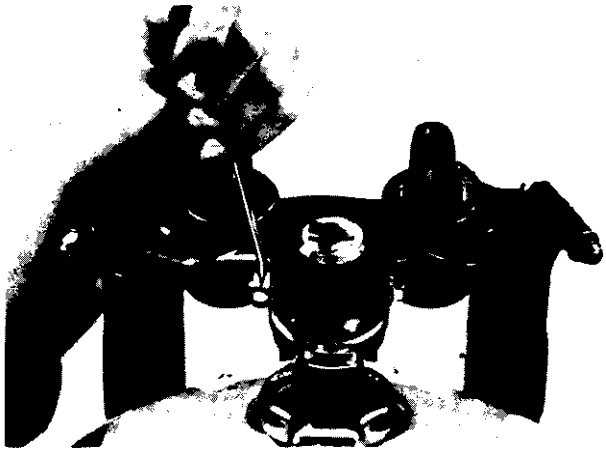
(See Chapter 2-4 for Steering Head Adjustment.J

B. Removal

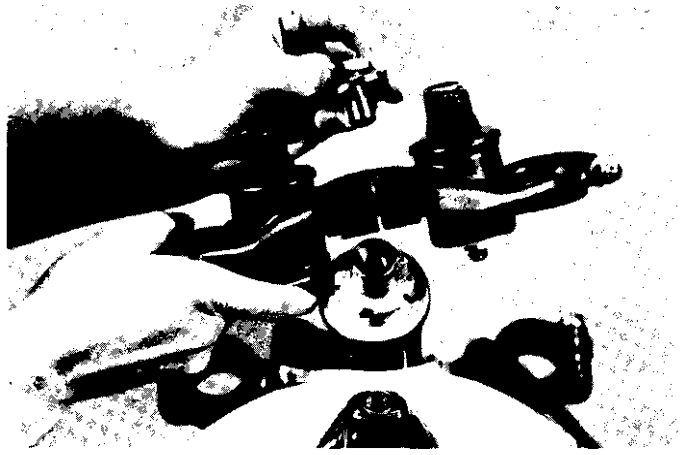
1. Remove front wheel, front forks and handle bars.

2. Remove front brake pipe junction.

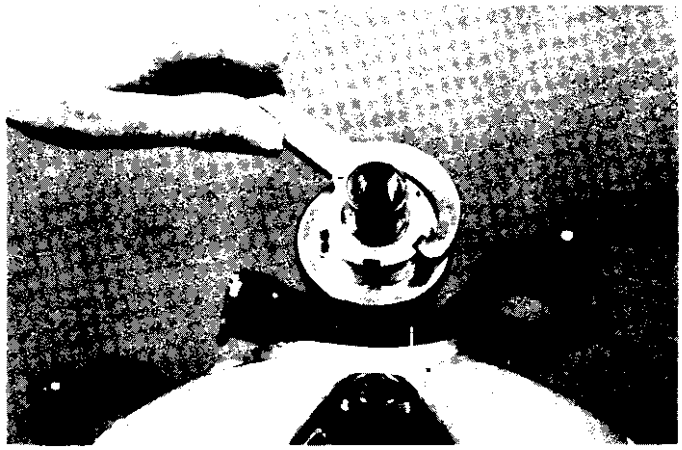
3. Loosen steering stem pinch bolt. Remove stem bolt and washer.

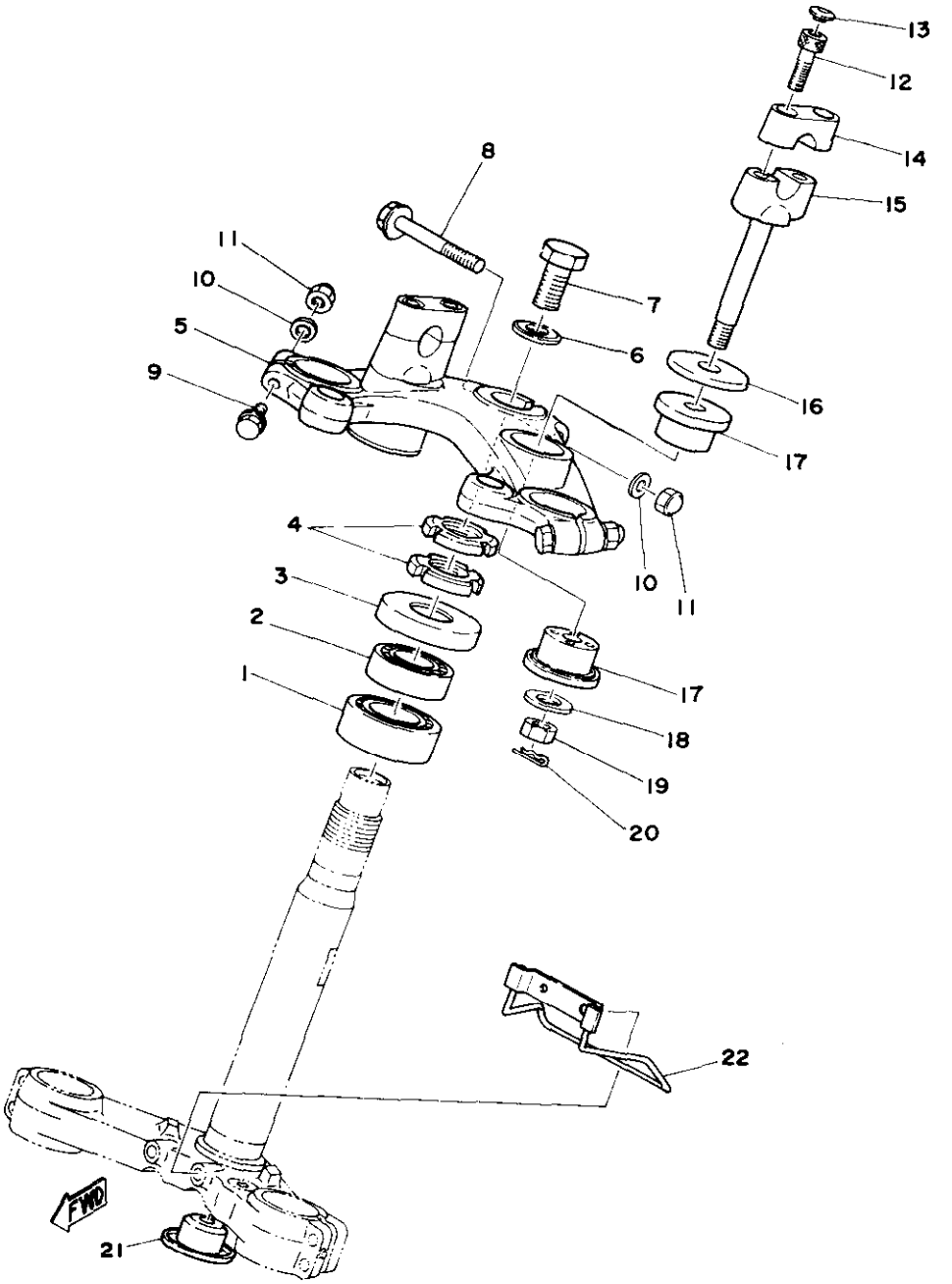


4. Remove steering crown.



5. Remove top fitting nut.





1 BEARING
2 BEARING
3 COVER, ball race 1
4 NUT, fitting
5 CROWN, handle
6 WASHER, plate
7 BOLT, stem
8 BOLT, pinch
9 BOLT, pinch
10 WASHER, plain
11 NUT, crown
12 BOLT, hexagon socket head cap
13 CAP, bolt
14 HOLDER, handle upper
15 HOLDER, handle under
16 WASHER
17 BUSHING, rubber
18 WASHER, plate
19 NUT, hexagon
20 CLIP
21 PLUG
22 GUIDE, wire

6. Support steering stem (underbracket) and remove bottom fitting nut.

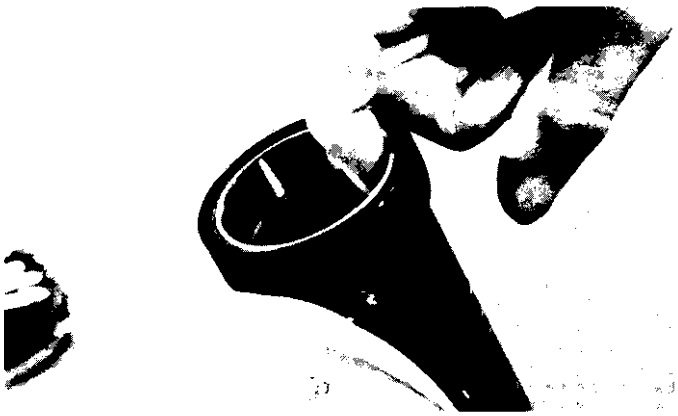
7. Remove bearings.

C. Inspection

1. Wash bearings in solvent.

2. Inspect bearings for pitting or other damage. Replace bearings if pitted or damaged. Replace races when bearings are replaced.

3. Clean and inspect bearing races. If races are damaged, replace races and bearings.



4. Install bearings in races. Spin bearings. If the bearings hang up or are not smooth in their operation in the races, replace bearings and races.

D. Reassembly

1. Grease bearings and races with wheel bearing grease.

2. Install steering stem (underbracket) and bearings.

3. Install bottom fitting nut. Tighten to approximately 1.0~1.2 m-kg (7~9 ft-lbs). Do not over-tighten. Tighten top fitting nut.

4. Continue reassembly in reverse assembly order.

5. When assembly is complete, check steering stem by turning it from lock to lock. If there is any binding or looseness, readjust steering stem tightness.

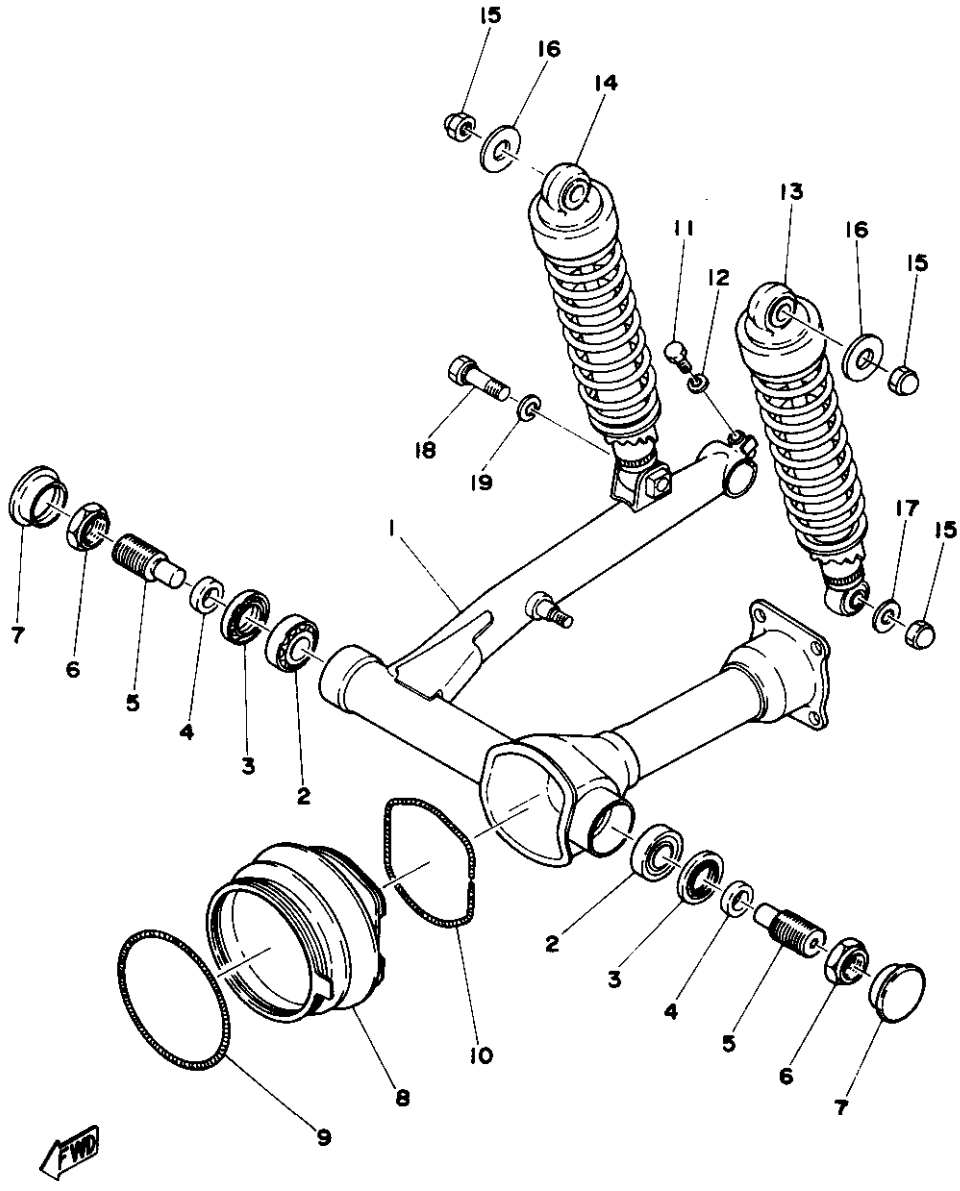
Pinch bolt torque: 1.3—2.3 m-kg (9~ 17 ft-lbs) Steering stem bolt torque: 6.6— 10.5 m-kg (48—76 ft-lbs)

5-7 SWING ARM

A. Inspection

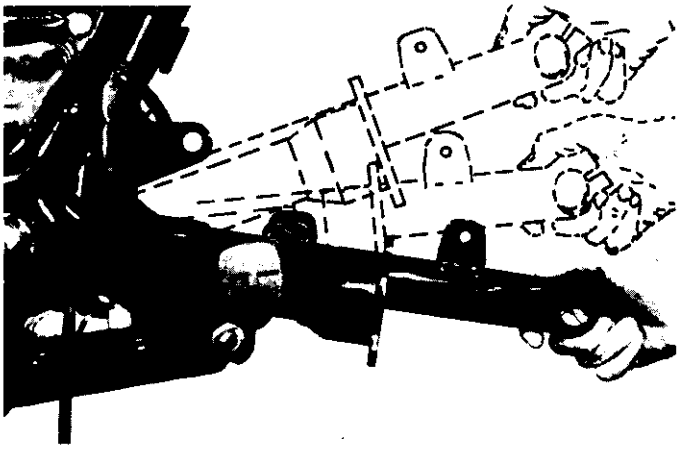
1. Free Play Inspection

Remove rear wheel and shock absorbers. Grasp the swing arm and move it from side to side as shown. There should be no noticeable side play.



1 REAR ARM COMP.
2 BEARING, tapered roller
3 OIL SEAL (SD-25-40-5)
4 COLLAR (17-25-7)
5 SHAFT, pivot
6 NUT, pivot shaft
7 PLUG
a BOOT, rubber
9 SPRING, tension
10 SPRING, tension
11 BOLT, hexagon
12 WASHER, spring
13 REAR CUSHION ASS'Y, left
14 REAR CUSHION ASS'Y, right
15 NUT, cap
16 WASHER
17 WASHER, plate (10-25-2.0)
18 BOLT
19 WASHER, spring

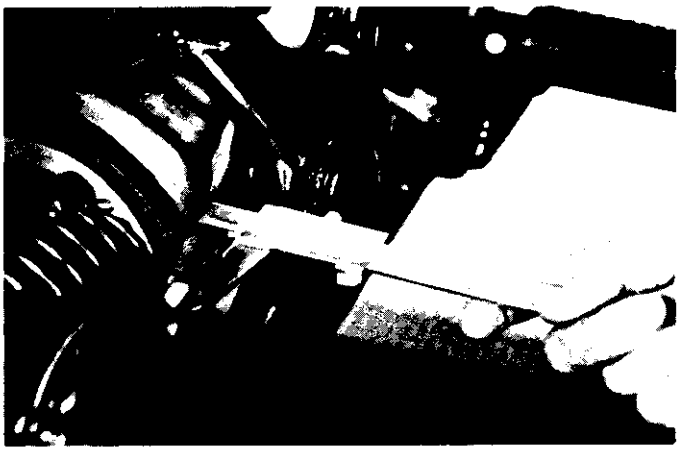
2. The swing arm is mounted on tapered bearings. Move the swing arm up and down as shown. The swing arm should move smoothly, without tightness, binding or rough spots that could indicate damaged bearings.

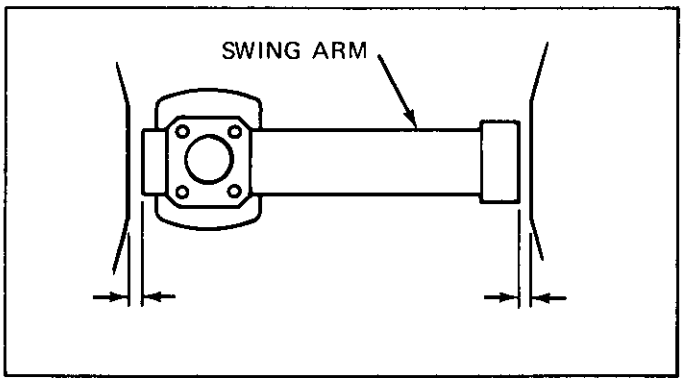


B. Adjustment

1. Remove pivot shaft plugs from left and right sides of the swing arm.

2. Measure gap between frame and swing arm on left and right sides. There should be no more than 1.6mm (0.062 in.) difference between the left and right gaps.

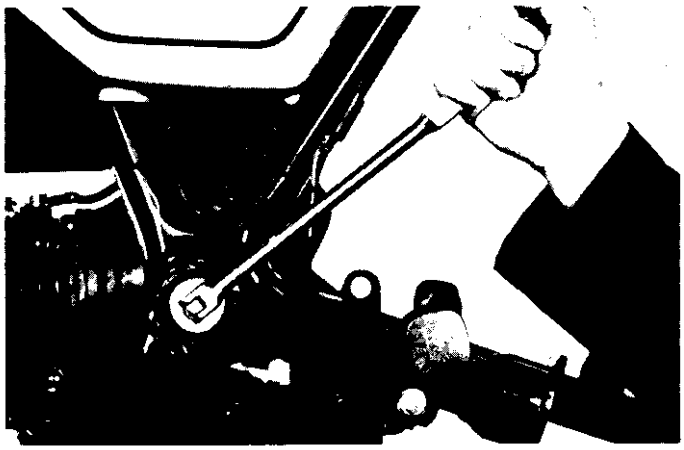




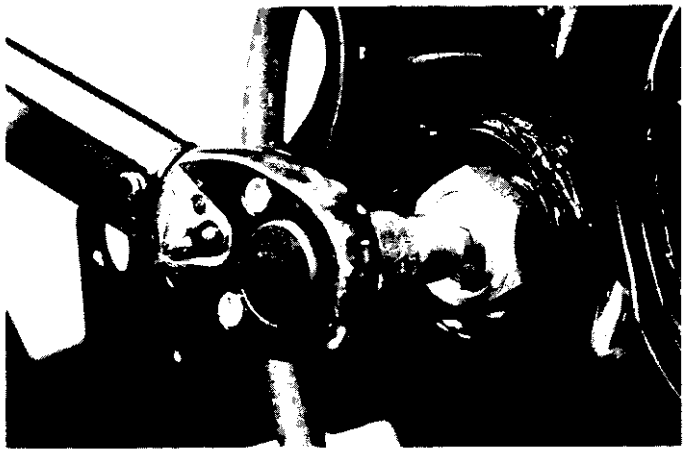
NOTE: It may be easier to inspect the gaps with the rear wheel removed; however, such removal is not necessary.

3. If the left and right gaps differ by more than the limit (1.6mm), adjust as follows:

a. Loosen both the left and right pivot shaft nuts.



b. Loosen pivot shaft on the side of the greater swing arm/frame gap. Loosen only slightly (counterclockwise, approximately one-half turn). After loosening, tighten the opposite pivot shaft (clockwise) to 0.5~0.6 m-kg (43~52 in-lbs).



c. Measure gap again between frame and swing arm. If the left and right gaps are not within 1.6mm (0.062 in.) of each other, repeat step (b).

d. When the left and right gaps are adjusted properly, tighten pivot shaft lock nut.

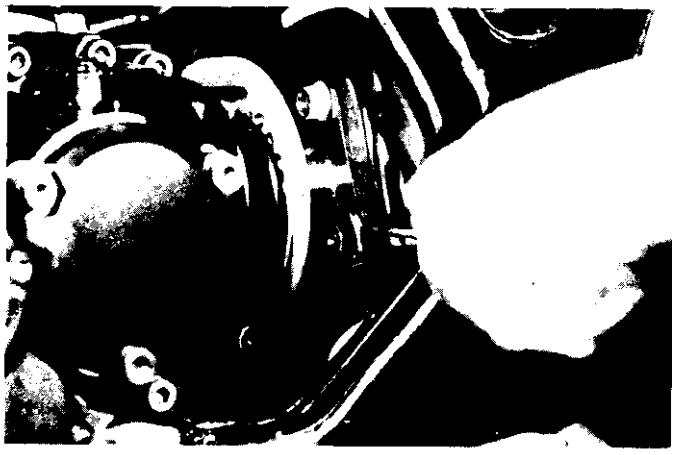
NOTE: Do not allow pivot shaft to turn while tightening lock nut.

Pivot shaft lock nut torque:
8.0~10.0 m-kg (58~72 ft-lbs)

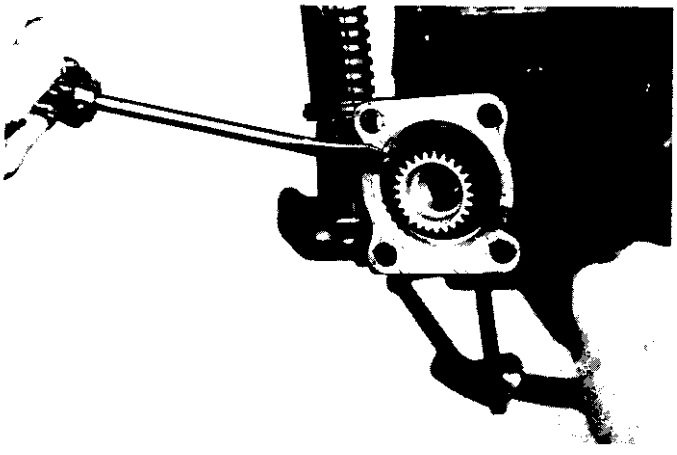
C. Removal

1. Remove middle gear flange holding bolt.

2. Remove rear wheel and shock absorbers. Remove rear brake ass'y.



3. Remove final gear assembly and drive shaft.



4. Remove swing arm pivot plugs, pivot shafts and swing arm.

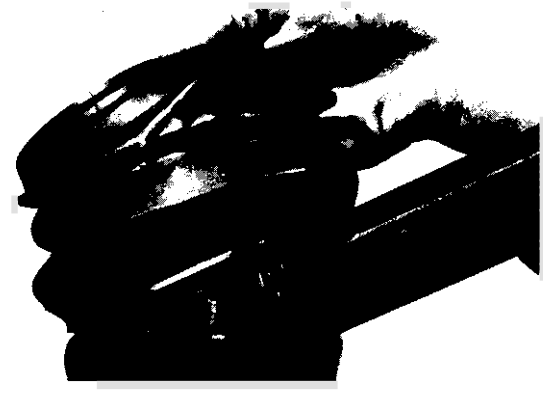
D. Inspection and Lubrication

1. Remove oil seals and bearings. Inspect bearings for pitting or other damage. Make sure that bearings roll freely. If a bearing is damaged, both bearings and both sets of inner and outer bearing races should be replaced.

NOTE: When installing new bearings, grease liberally with lithium base, waterproof wheel bearing grease.

2. Always replace grease seals when bearings are removed.

3. Examine rubber boot for damage. Replace if damaged.



E. Installation

Installation of the swing arm can be accomplished by reversing the removal procedure. Observe adjustment procedures for obtaining equal frame/swing arm spacing.

5-8 REAR SHOCK ABSORBER

A. Removal

1. Remove one (1) rear shock absorber at a time, inspect and reinstall before removing the other.

B. Inspection

1. Check the rod. If it isbentordamaged, replace the shock absorber.

2. Check for oil leakage. If oil leakage is evident, replace the shock absorber.

3. Operate shock absorber rod to checkdamping. There should be no noticeable damping as shock extends.

4. Install the shock absorber on the machine.

Rear shock absorber tightening torque:
2.3~3.7 m-kg (19.6~26.8 ft-lbs)

5-9 CABLES AND FITTINGS

A. Cable Maintenance

NOTE: See Maintenance and Lubrication intervals charts. Cable maintenance is primarily concerned with preventing deterioration through rust and weathering and providing proper lubrication to allow the cable to move freely within its housing. Cable removal is straightforward and uncomplicated. Removal will not be discussed within this section.

WARNING: Cable routing is very important. For details of cable routing, see the table routing diagrams at the end of the manual. Improperly routed, assembled or adjusted cables may make the vehicle unsafe for operation.

1. Remove the cable.

2. Check for free movement of cable within its housing. If movement is obstructed, check for fraying or kinking of cable strands. If damage is evident, replace the cable assembly.

3. To lubricate cable, hold in vertical position. Apply lubricant to uppermost end of cable. Leave in vertical position until lubricant appears at bottom. Allow excess to drain and reinstall.

NOTE: Choice of lubricant depends upon conditions and preferences. However, a semi-drying chain and cable lubricant will probably perform adequately under most conditions.

B. Throttle Maintenance

1. Remove Phillips head screws from throttle housing assembly and separate two halves of housing.

2. Disconnect cable end from throttle grip assembly and remove grip assembly.

3. Wash all parts in mild solvent and check contact surfaces for burrs or other damage. (Also clean and inspect right hand end of handlebar.)

4. Lubricate contact surfaces with light coat of lithium soap base grease and reassemble.

NOTE: Tighten housing screws evenly to maintain an even gap between the two halves.

5. Check for smooth throttle operation and quick spring return when released and make certain that housing does not rotate on handlebar.

5-10 FINAL DRIVE GEAR

NOTE: This section describes external inspection only. See shaft drive section page 102 for overhaul and adjustment.

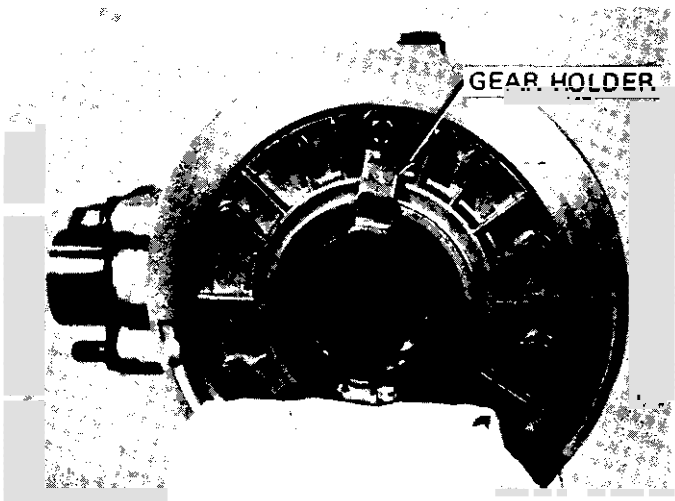
1. inspect exterior for leakage. Refer to Shaft Drive Service Section for correction of leakage.

2. Check final drive gear lash as follows:

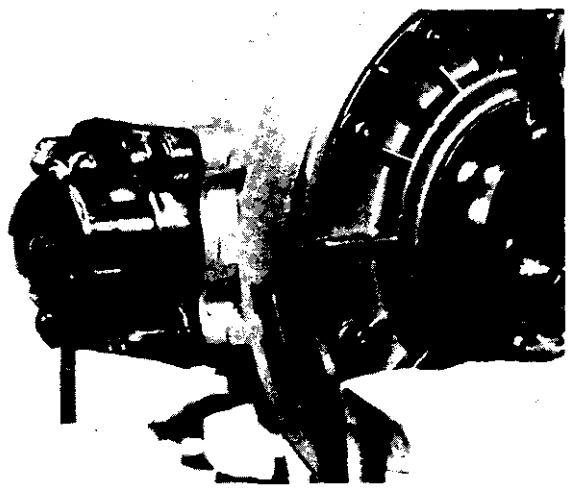
   a. Remove final drive gear case.

   b. Place gear case in a vise or other support.

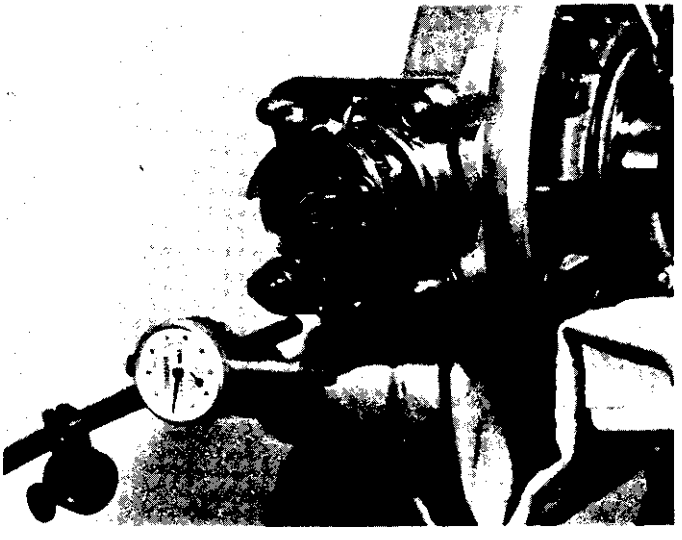
   c. Remove one nut from a final drive case stud bolt. Place gear holder (special tool) over ring gear surface and stud bolt. Tighten holder on gear. Tighten holder to stud bolt with nut.



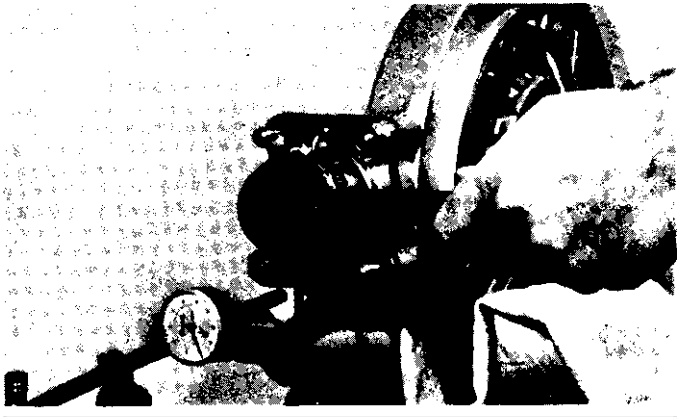
   d. Install final gear lash measurement tool on gear coupling (input side).



e. Place dial gauge and stand to measuregear lash (movement) asshown. Gear lashis the measurement from gear engagement to gear engagement as the gear coupling is rotated. The measurement point on the tool is 36mm from the surface of the gear coupling.



f. Use special wrench to gently rotate gear coupling from engagement to engagement. Note the lash measurement on the dial gauge.



Final gear lash:
0.25~0.50mm (.010~.020 in.)

If lash is not within tolerance, refer to Shaft Drive Section for adjustment and repairpage.