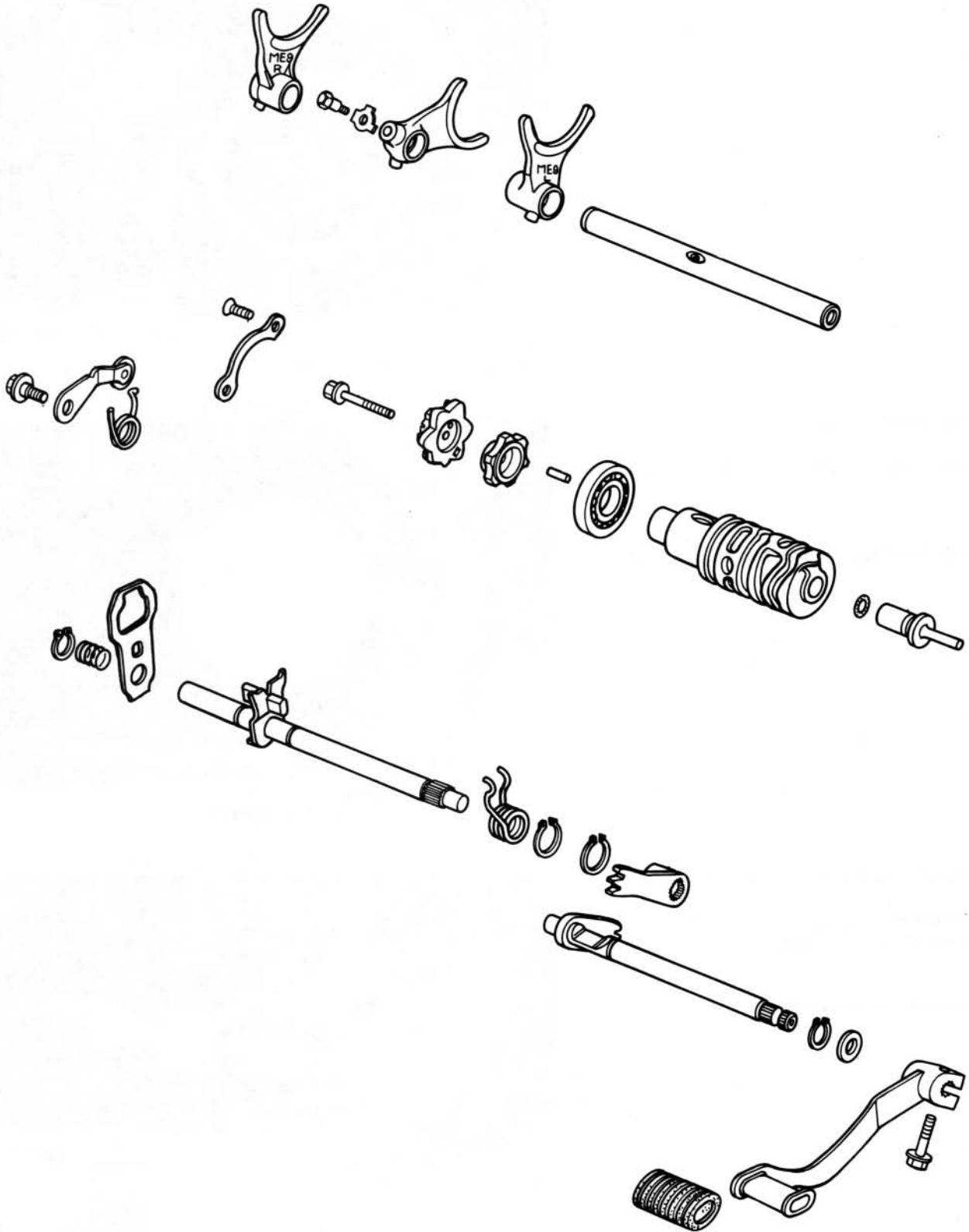


GEARSHIFT LINKAGE

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# 9. GEARSHIFT LINKAGE

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## SERVICE INFORMATION

### GENERAL

- The gearshift spindle and stopper arms can be serviced with the engine in the frame.
- If the shift forks, drum and transmission require servicing, remove the engine and separate the crankcase (section 13).

## TROUBLESHOOTING

### Hard to shift

1. Improper clutch hydraulic system; air in system.
2. Shift forks bent.
3. Shift claw bent.
4. Shift drum cam grooves damaged.

### Transmission jumps out of gear

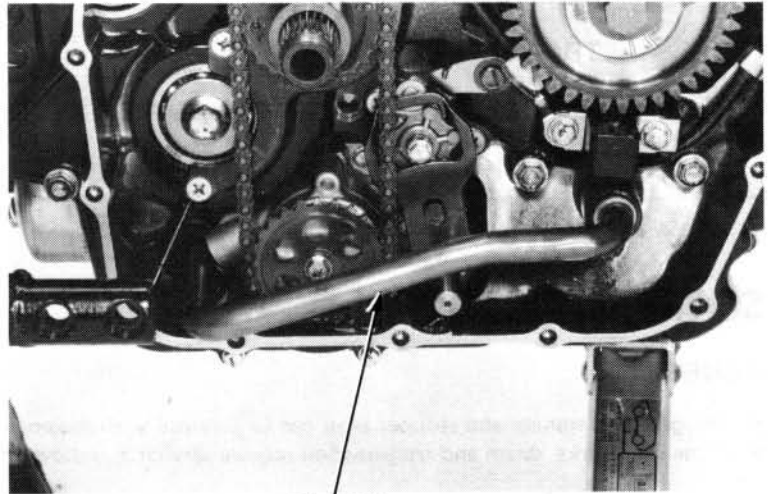
1. Gear dogs worn.
2. Shift shaft bent.
3. Shift drum stopper broken.
4. Shift forks bent.

## GEARSHIFT LINKAGE

### GEARSHIFT LINKAGE REMOVAL

Remove the right crankcase cover and clutch assembly (section 7).

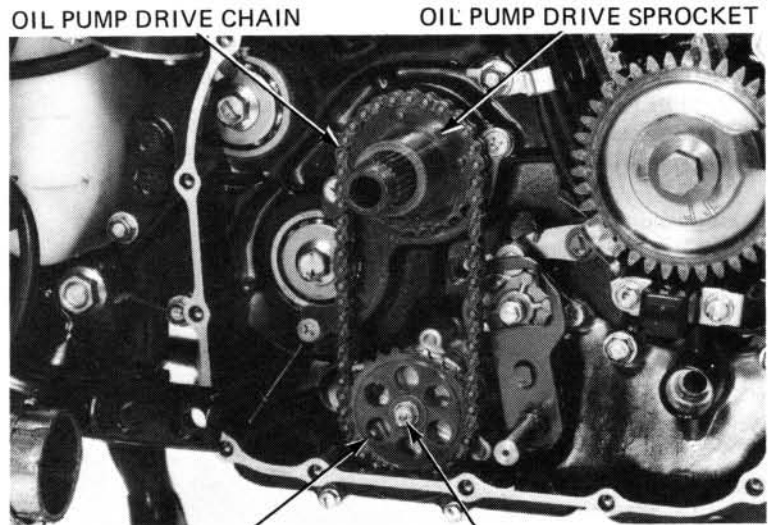
Remove the oil pipe.



OIL PIPE

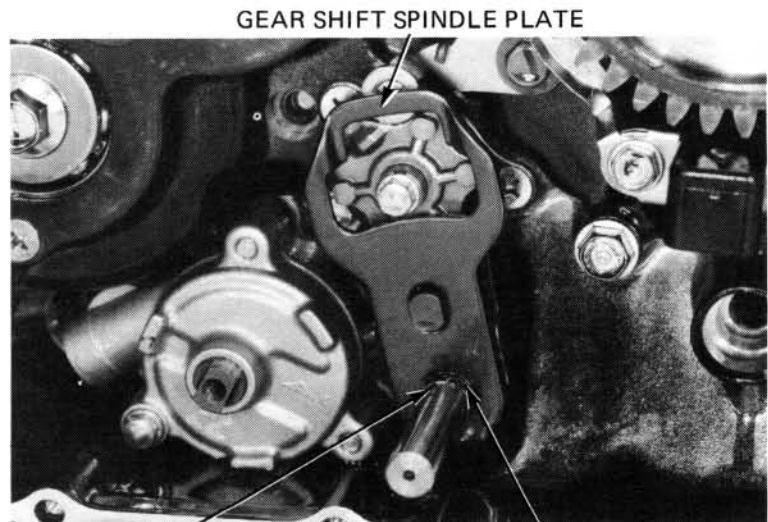
Remove the oil pump driven sprocket bolt.

Remove the oil pump drive chain, drive and driven sprockets.



OIL PUMP DRIVEN SPROCKET BOLT

Remove the snap ring, spring and gearshift spindle plate.

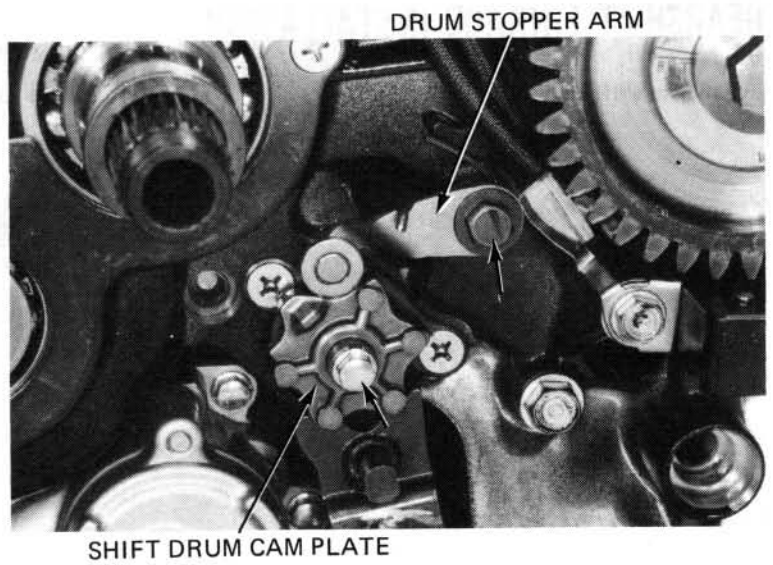


SNAP RING

SPRING

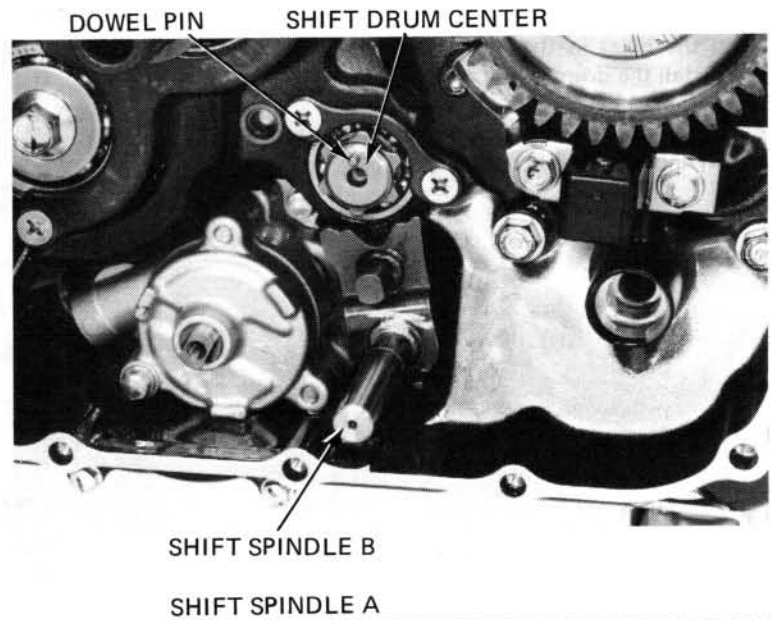
Remove the drum stopper arm bolt, arm and spring.

Remove the shift drum cam plate bolt and cam plate.



Remove the dowel pin and the shift drum center.

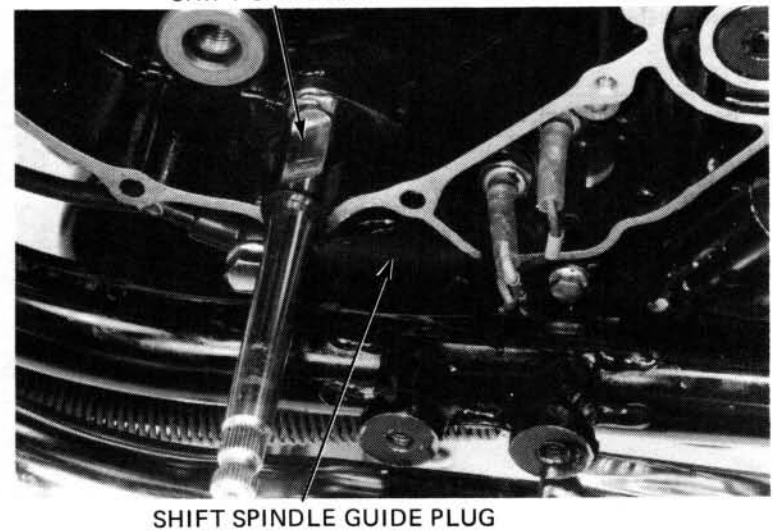
Remove gear shift spindle B.



Remove the flywheel and starter clutch assembly (section 8).

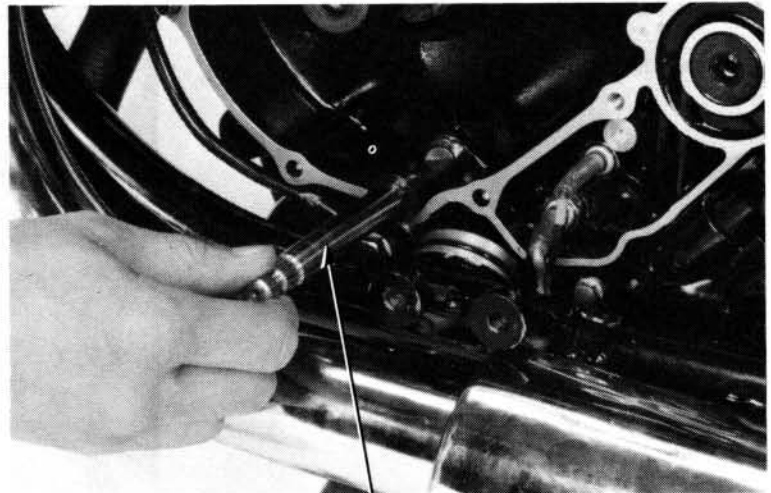
Remove the shift spindle guide plug from the left crankcase.

Remove gear shift spindle A.



## GEARSHIFT LINKAGE INSTALLATION

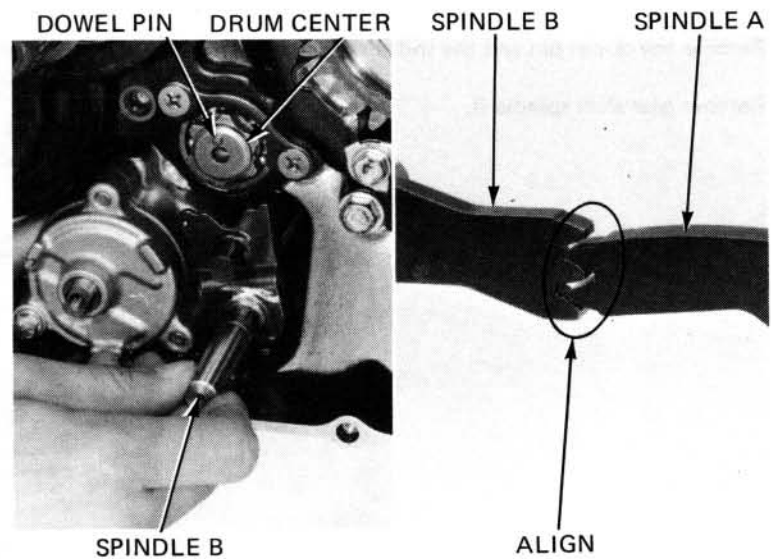
Install gear shift spindle A.



GEAR SHIFT SPINDLE A

Align the holes in the shift drum and drum center and install the drum center and dowel pin.

Align the teeth of gear shift spindle A and B as shown and install shift spindle B.



SPINDLE B

ALIGN

Install the shift spindle guide plug.

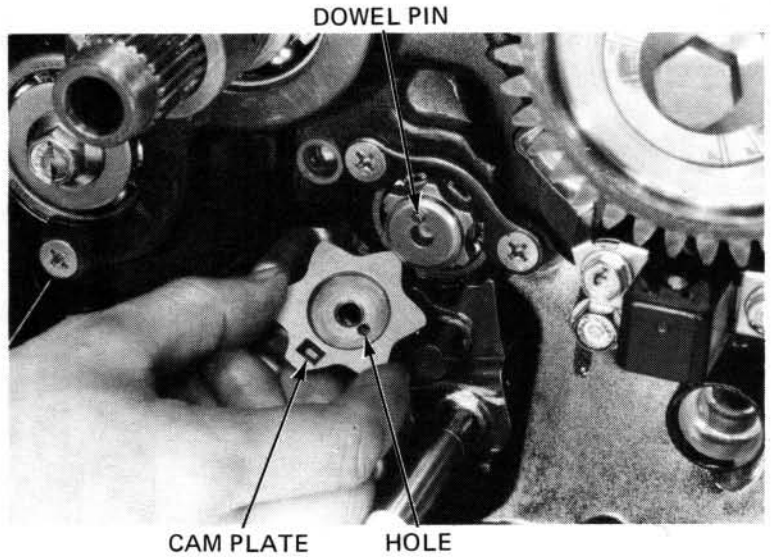
NOTE:

Be careful not to damage the O-ring.



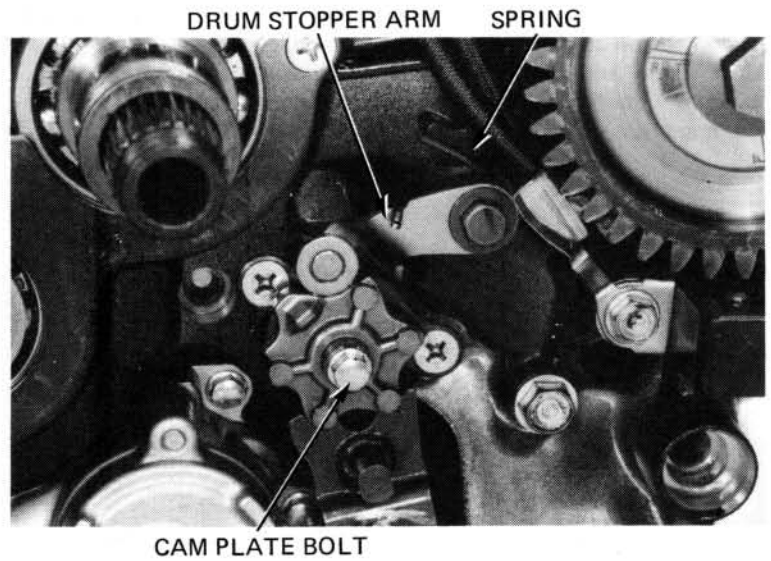
SHIFT SPINDLE GUIDE PLUG

Align the cam plate hole with the dowel pin on the drum center and install the cam plate.



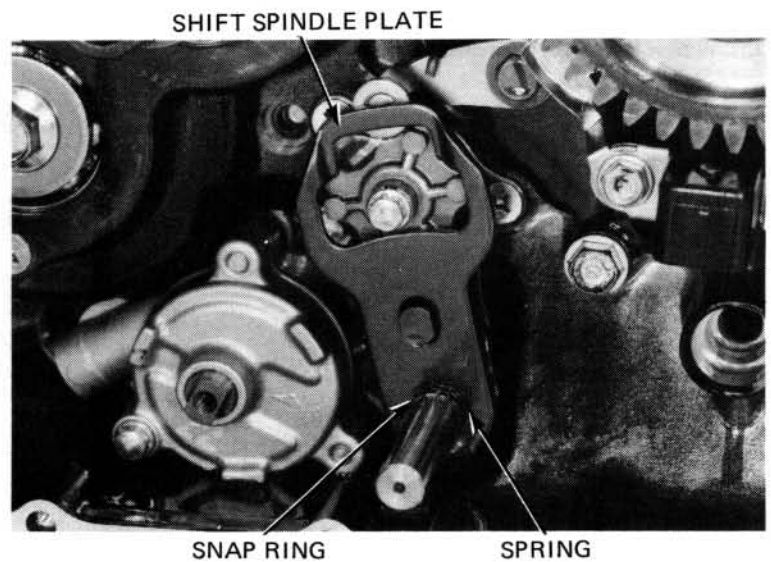
Tighten the cam plate bolt securely.

Install the drum stopper arm, spring and bolt. Tighten the bolt securely.



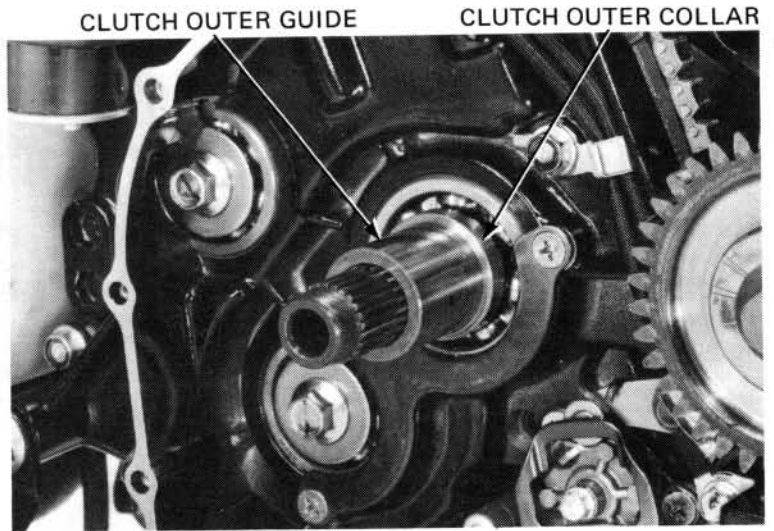
Install the shift spindle plate, spring and snap ring over shift spindle B.

Rotate the gearshift spindle and check the shift mechanism for smooth operation.



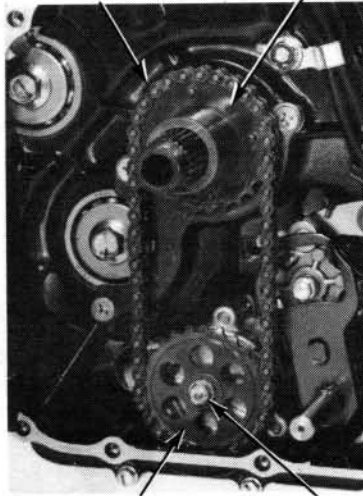
## GEARSHIFT LINKAGE

Install the clutch outer collar and guide over the mainshaft.

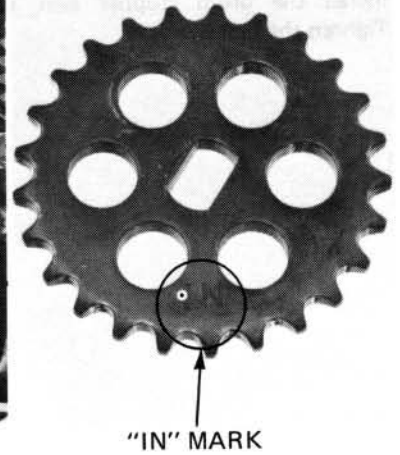


Install the oil pump drive and driven sprockets with drive chain and tighten the driven sprocket bolt securely. The driven sprocket "IN" mark must face the crankcase.

OIL PUMP  
DRIVE CHAIN    DRIVE SPROCKET



DRIVEN SPROCKET    BOLT

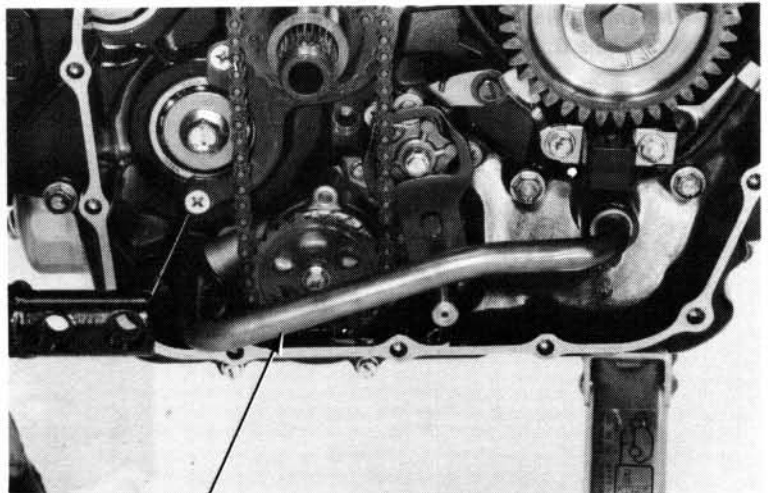


Install new O-rings on the ends of the oil pipe.

Install the oil pipe.

Install the clutch assembly and right crankcase cover (section 7).

Install the starter clutch, flywheel and alternator cover (section 8).



OIL PIPE