



# MANUAL TRANSMISSION

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MARILUVVU S. ABDULKARIM

## GENERAL

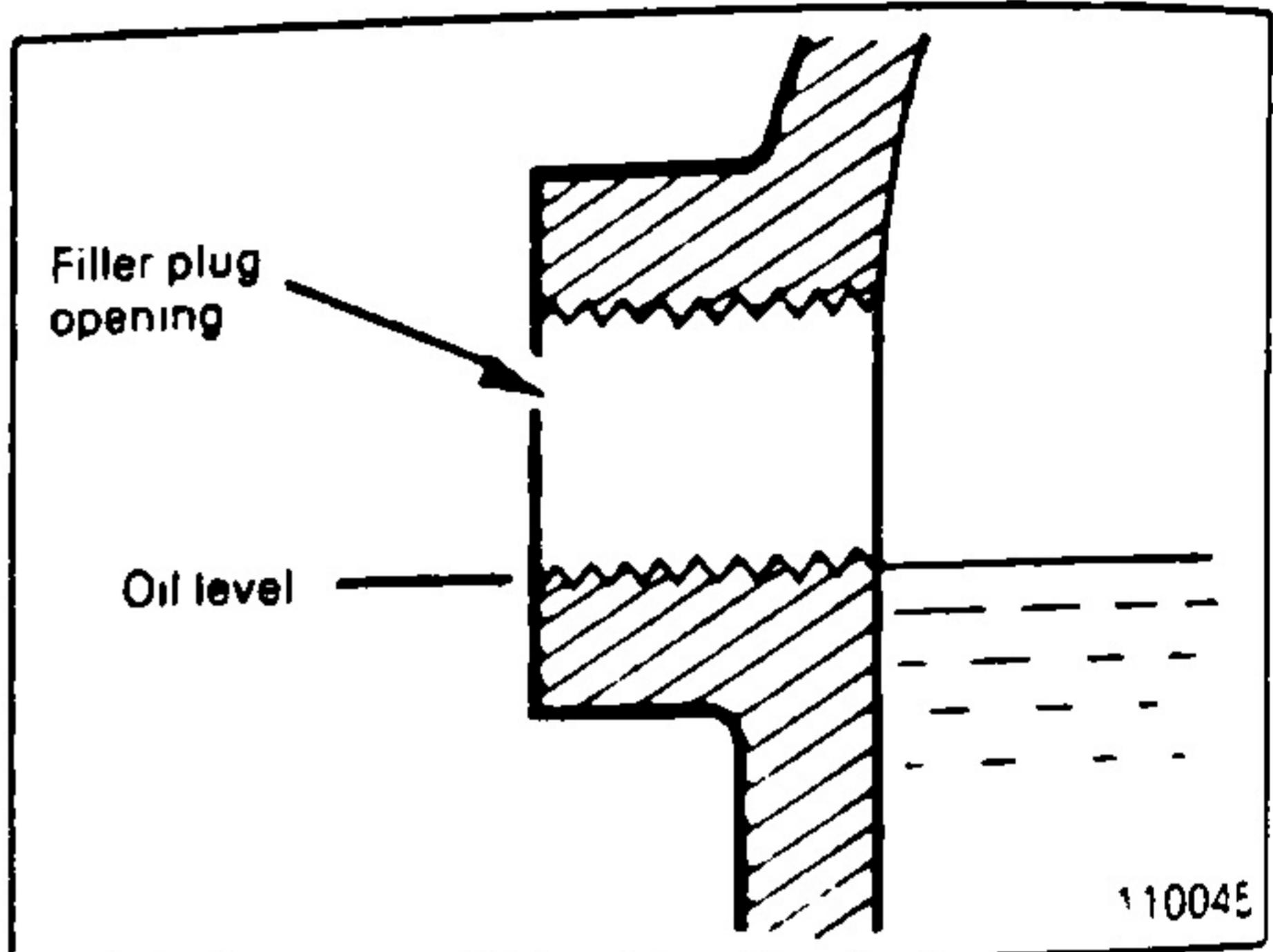
### TRANSMISSION OIL

#### Selection of Transmission Oil

The manual transmission is filled with a special oil at the factory. If it becomes necessary to add oil to transmission, lubricants conforming to the API (American Petroleum Institute's) GL-4 classification should be used.

#### Checking Transmission Oil Level

The oil in transmission should be checked and, if necessary, replenished to the bottom of the filler plug opening with oil as specified above.



#### Oil Change Procedure

Raise vehicle on hoist.

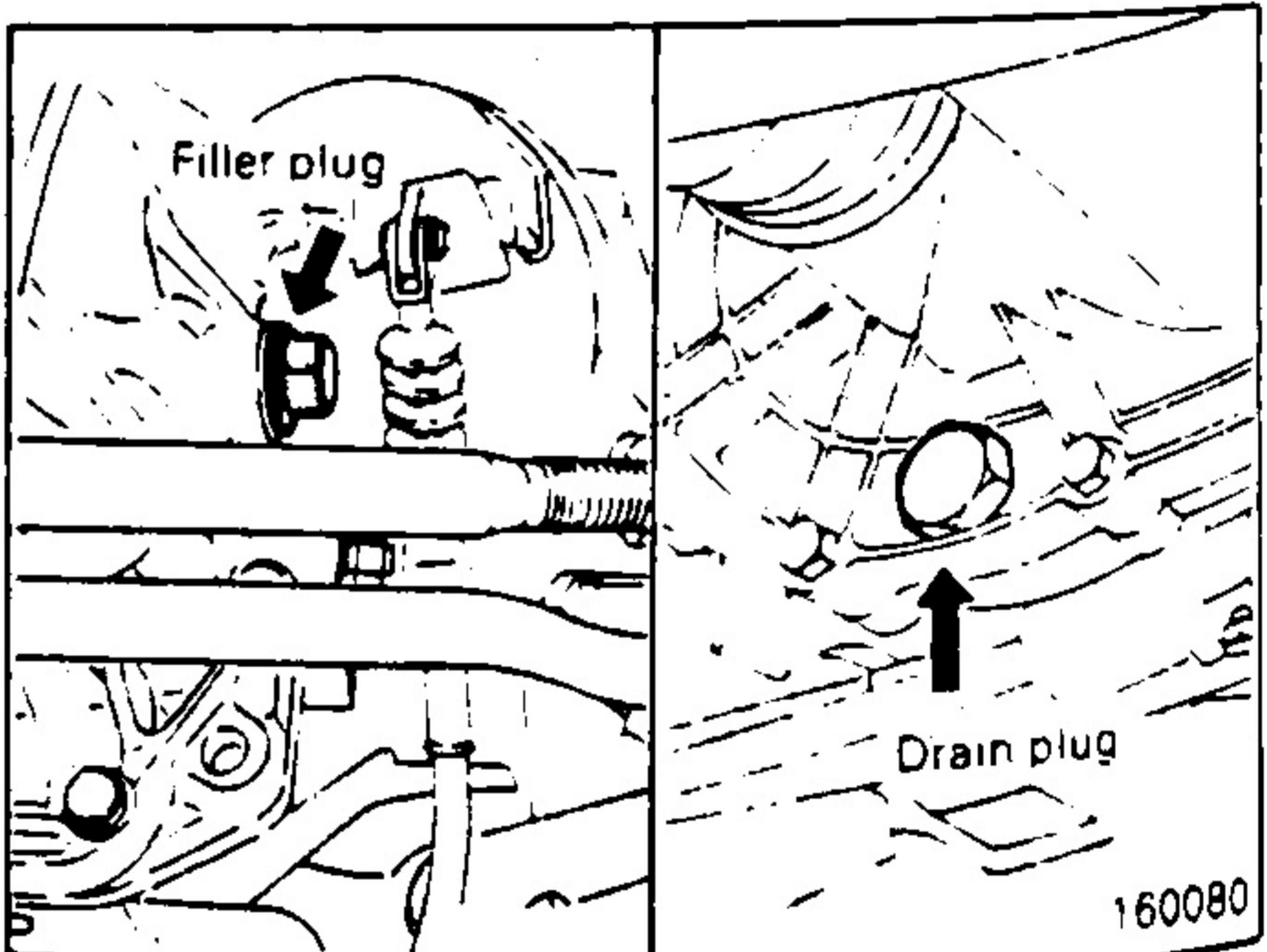
Place drain container with large opening under drain plug located in bottom of transmission under cover.

Remove filler plug.

Remove drain plug to let oil drain.

Tighten drain plug to specified torque

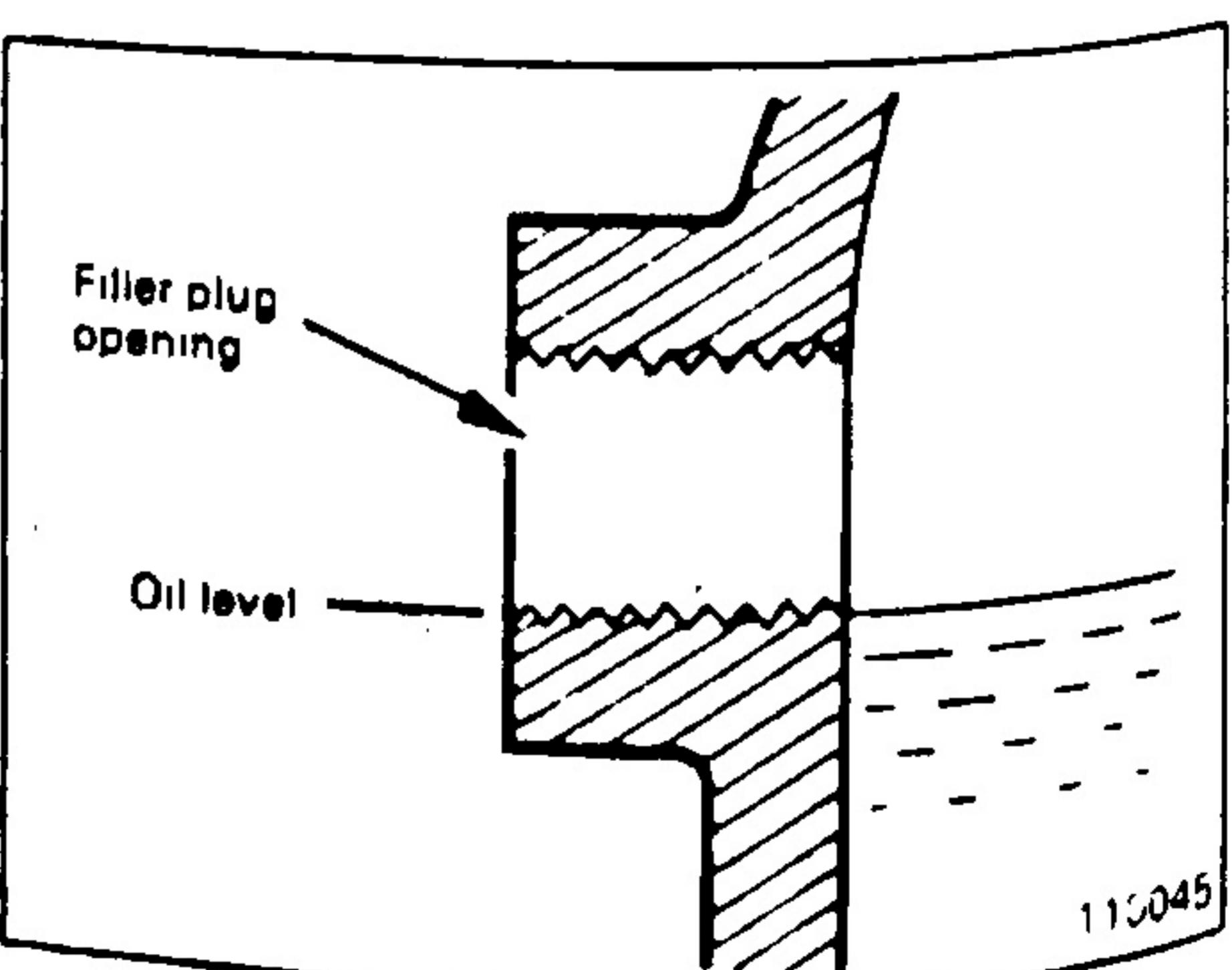
Drain plug ..... 3 - 3.5 kgm



Apply recommended oil into transmission through oil filler hole

Tighten oil filler plug.

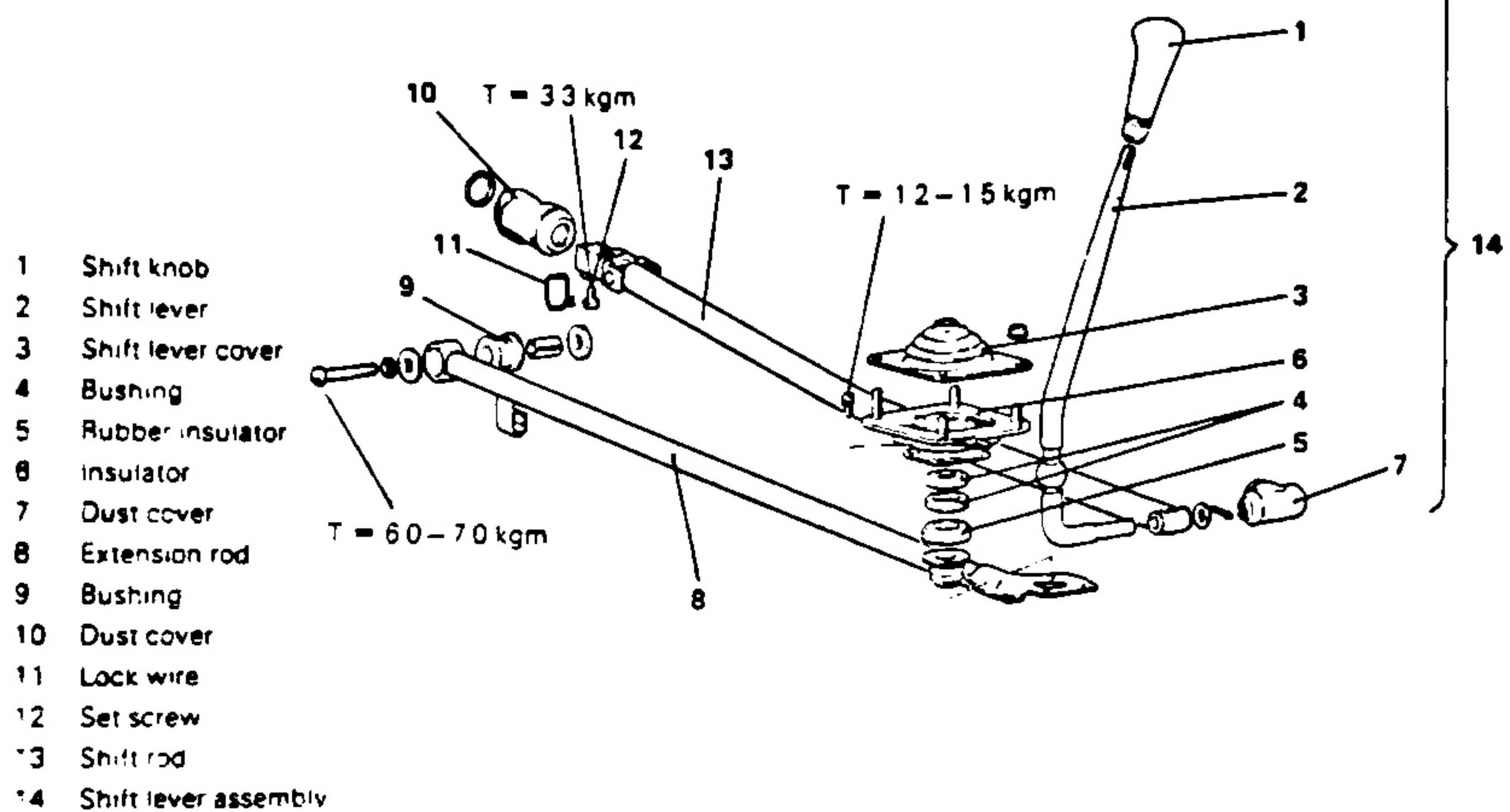
Oil filler plug ..... 3 - 3.5 kgm



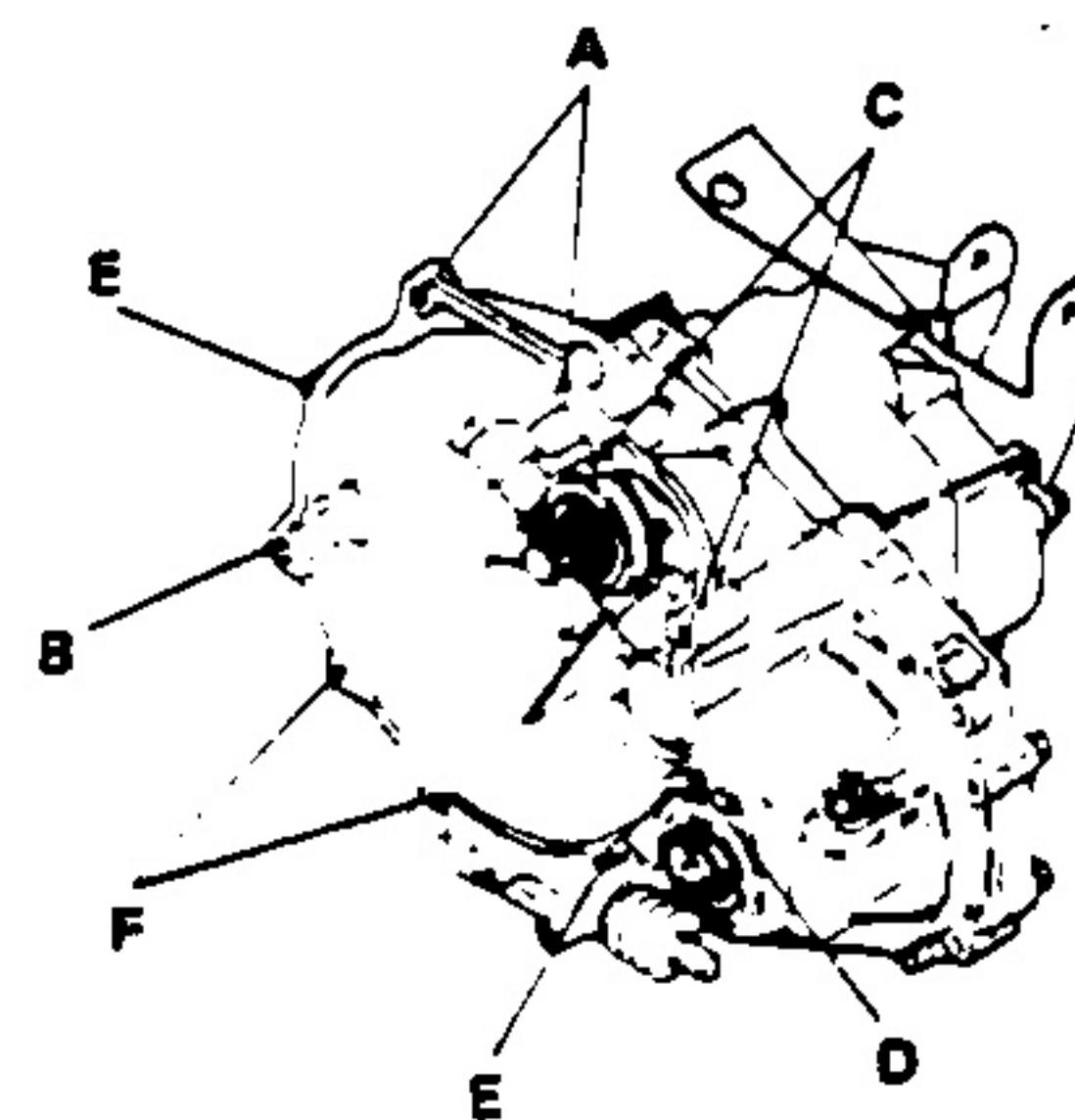
## TRANSMISSION CONTROL



### COMPONENTS



09U0015



	xgm	OD x Length mm	Bolt identification
A	43-55	7 10 x 40	7 A x B
B	43-55	7 10 x 65	
C	22-32	7 10 x 55	
D	30-35	10 10 x 60	
E	10-12	7 8 x 14	
F	15-22	7 8 x 20	



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## TRANSMISSION CONTROL

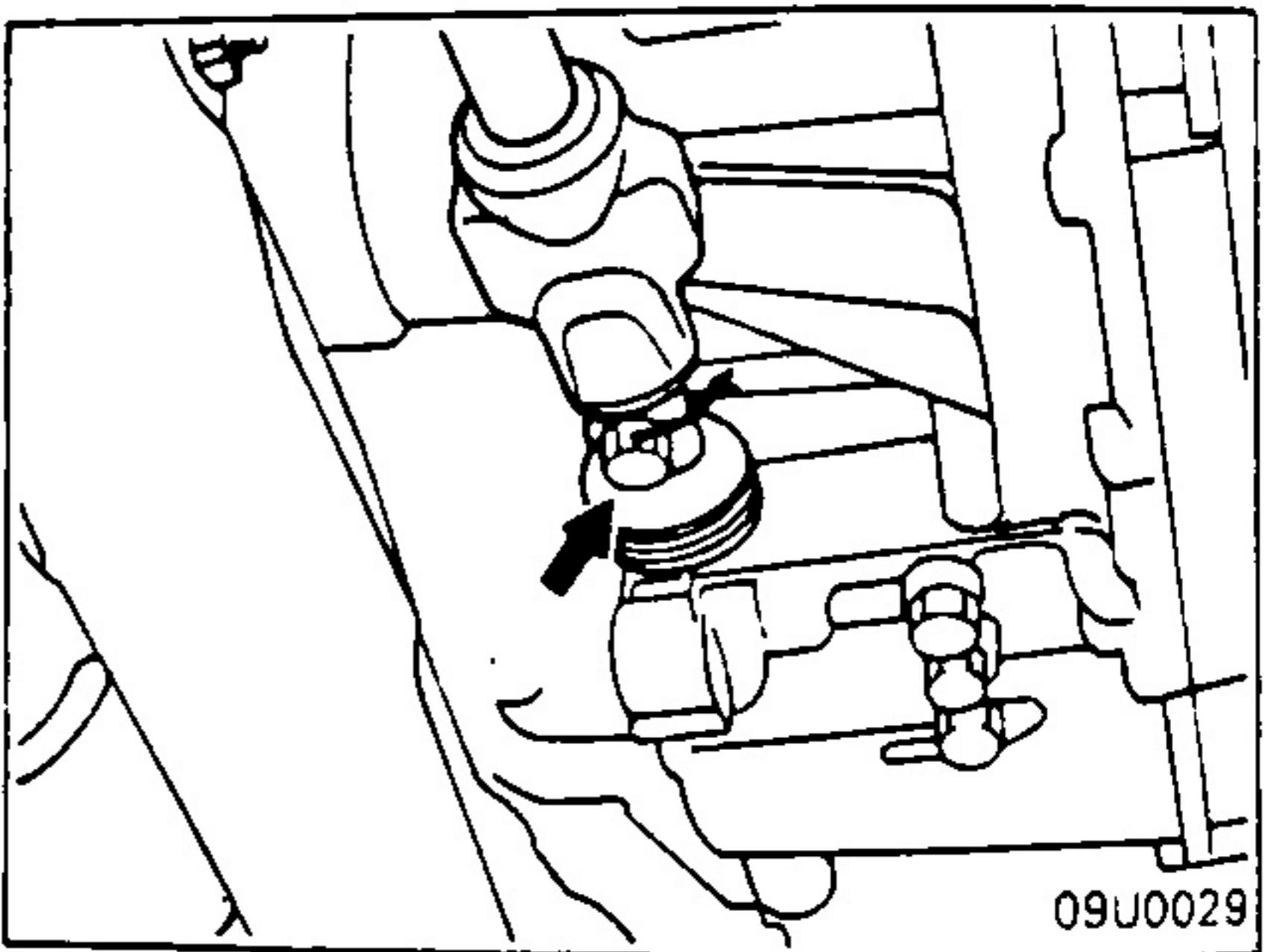
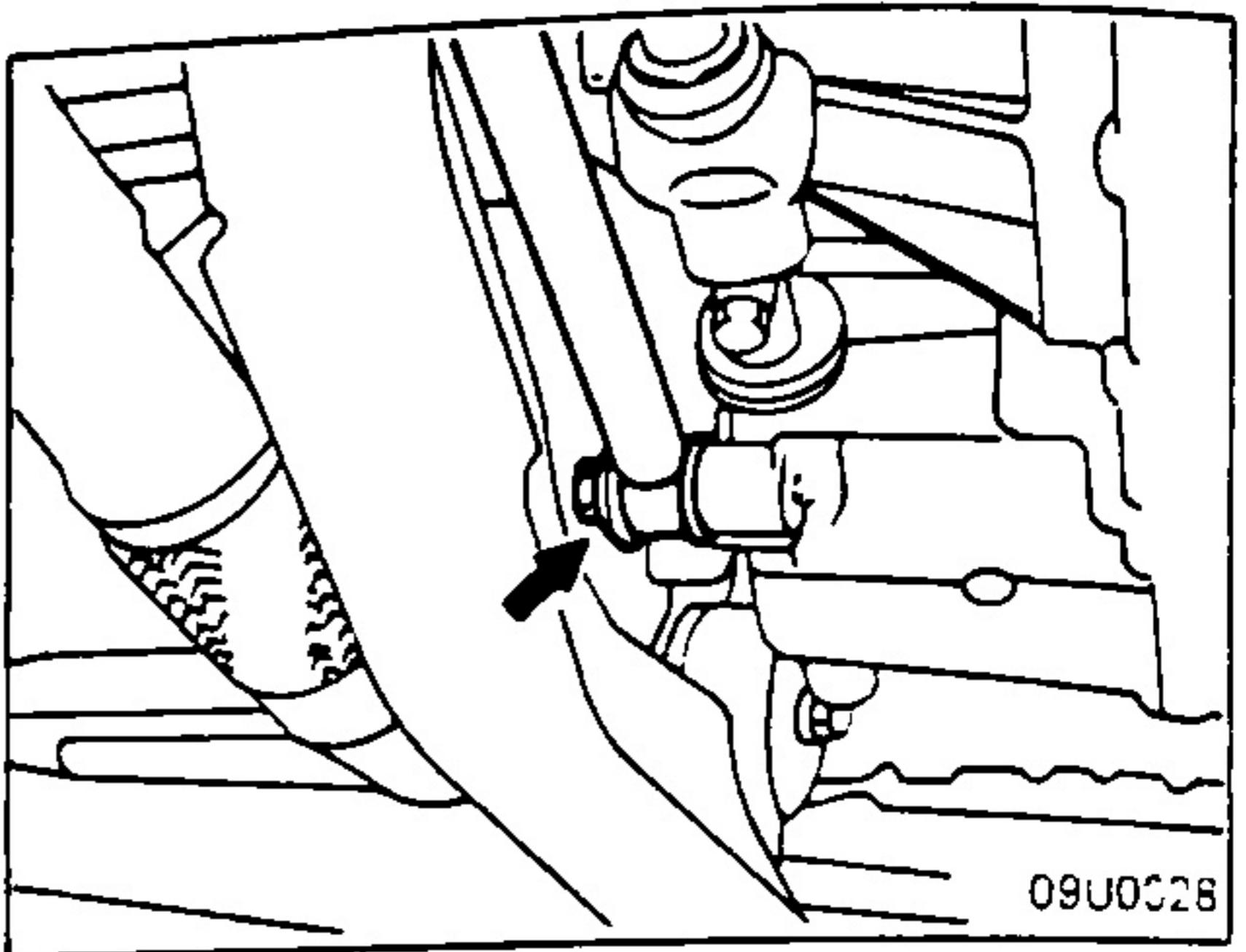
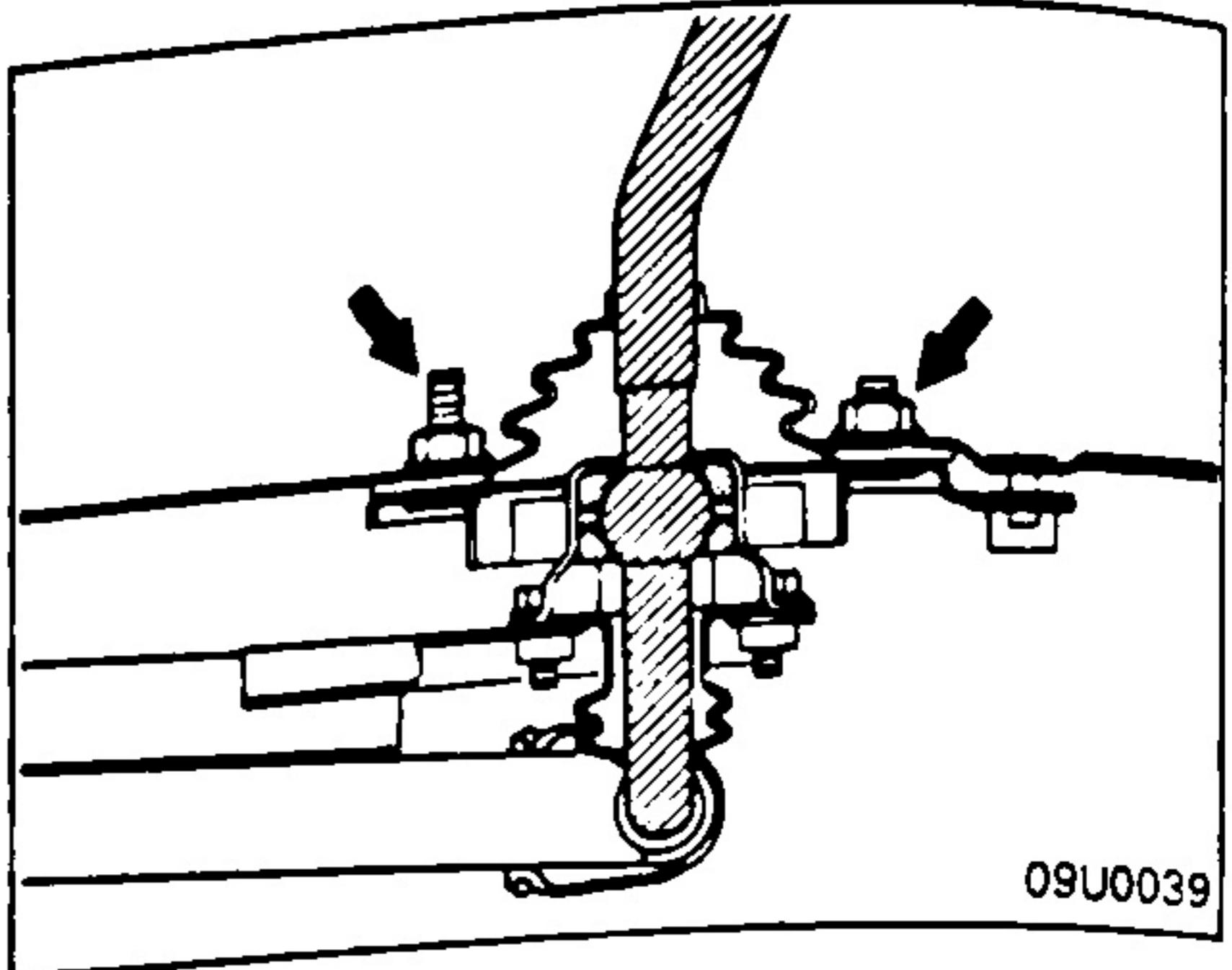
### GEARSHIFT LEVER

#### Removal

Remove the floor console box (Refer to GROUP 19.)

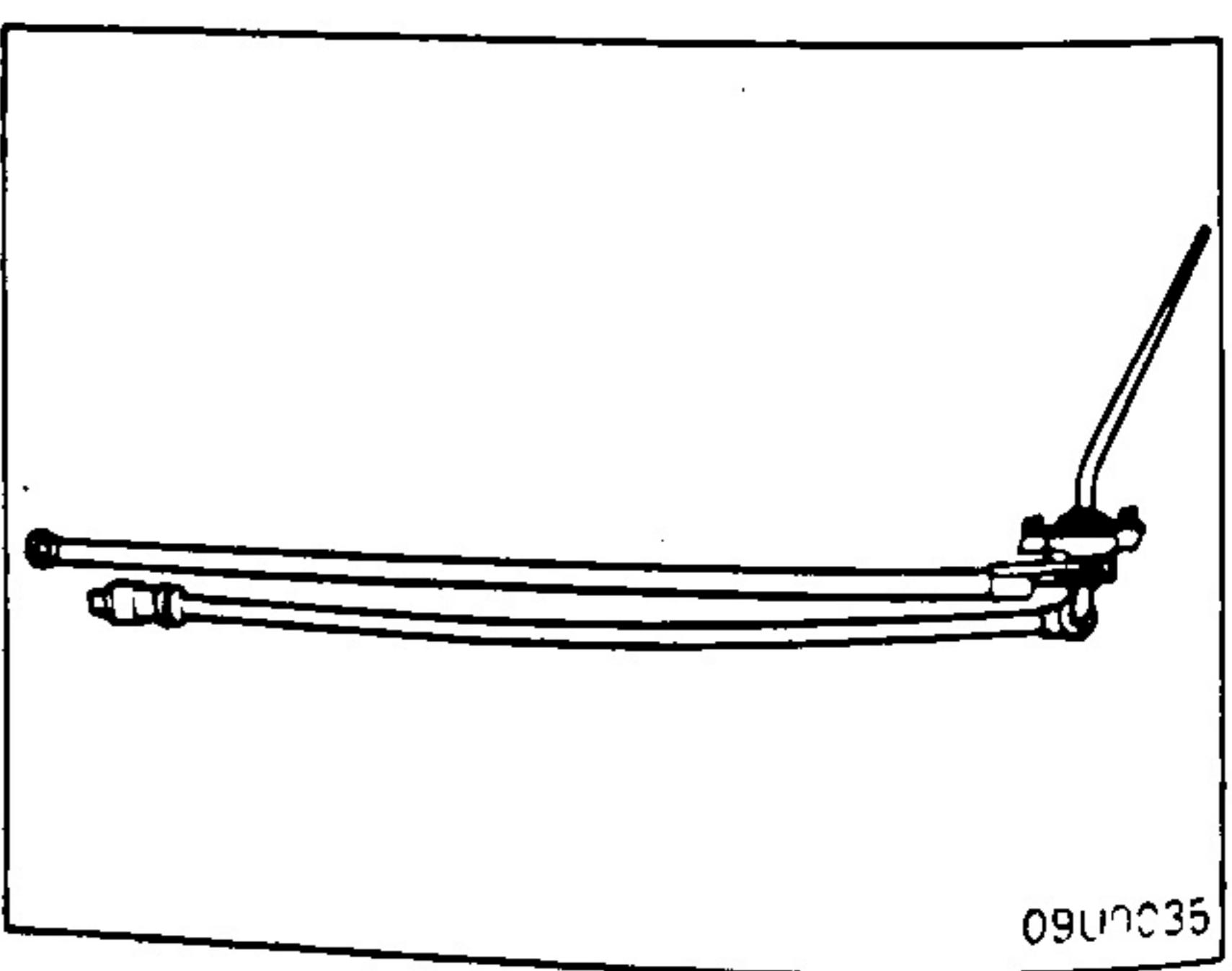
Remove the shift lever assembly attaching nuts from the floor

Pull the shift lever assembly downward from the vehicle



After removing the lock wire remove the shift rod set screw, and then remove the shift rod from the transmission

Remove the shift rod and extension rod as an assembly



## TRANSMISSION CONTROL

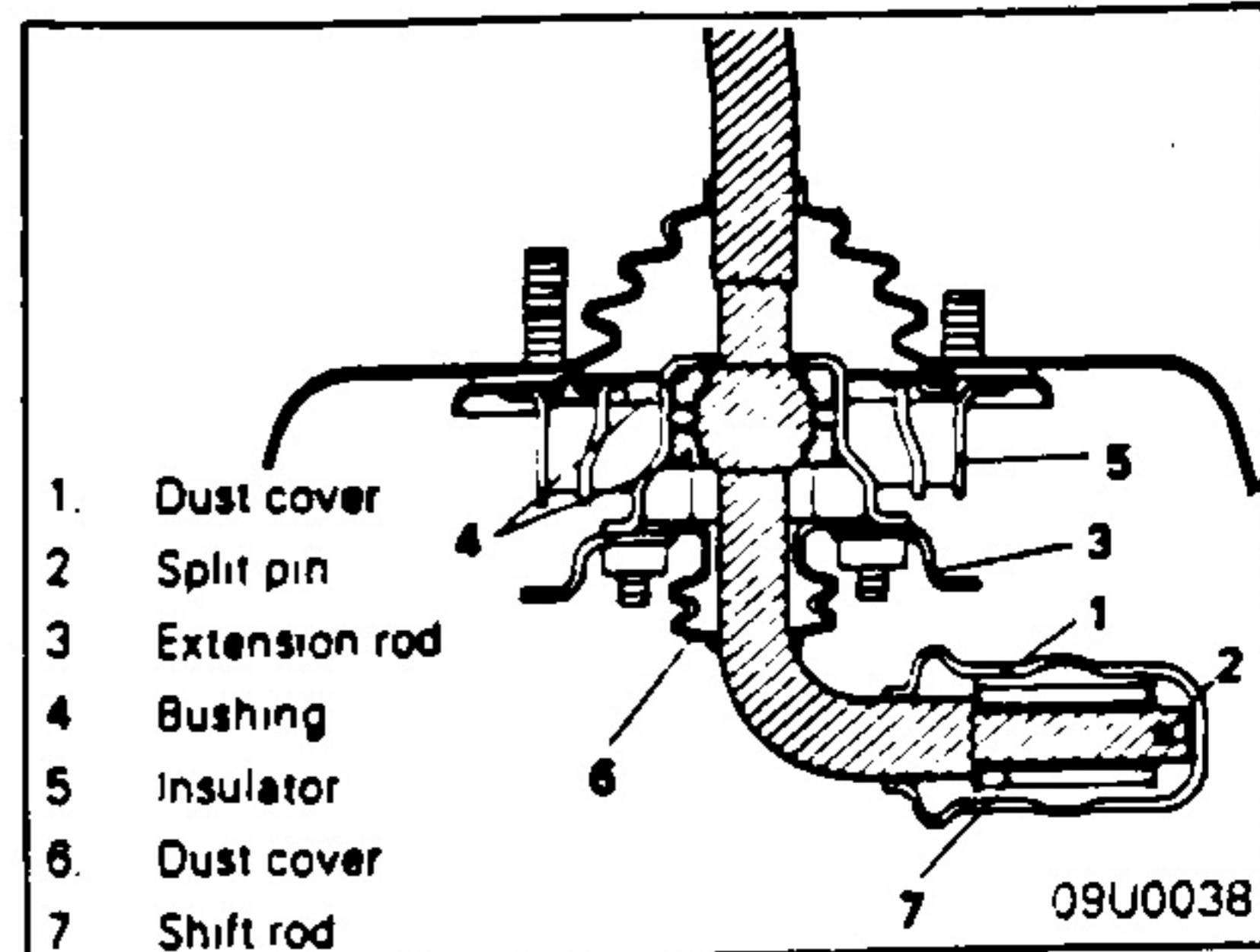


Remove the dust cover at the end of the shift lever.

After the split pin has been removed, remove the shift rod.

Remove the extension rod to insulator attaching bolt and remove the extension rod.

Remove the dust cover and remove the bushing.



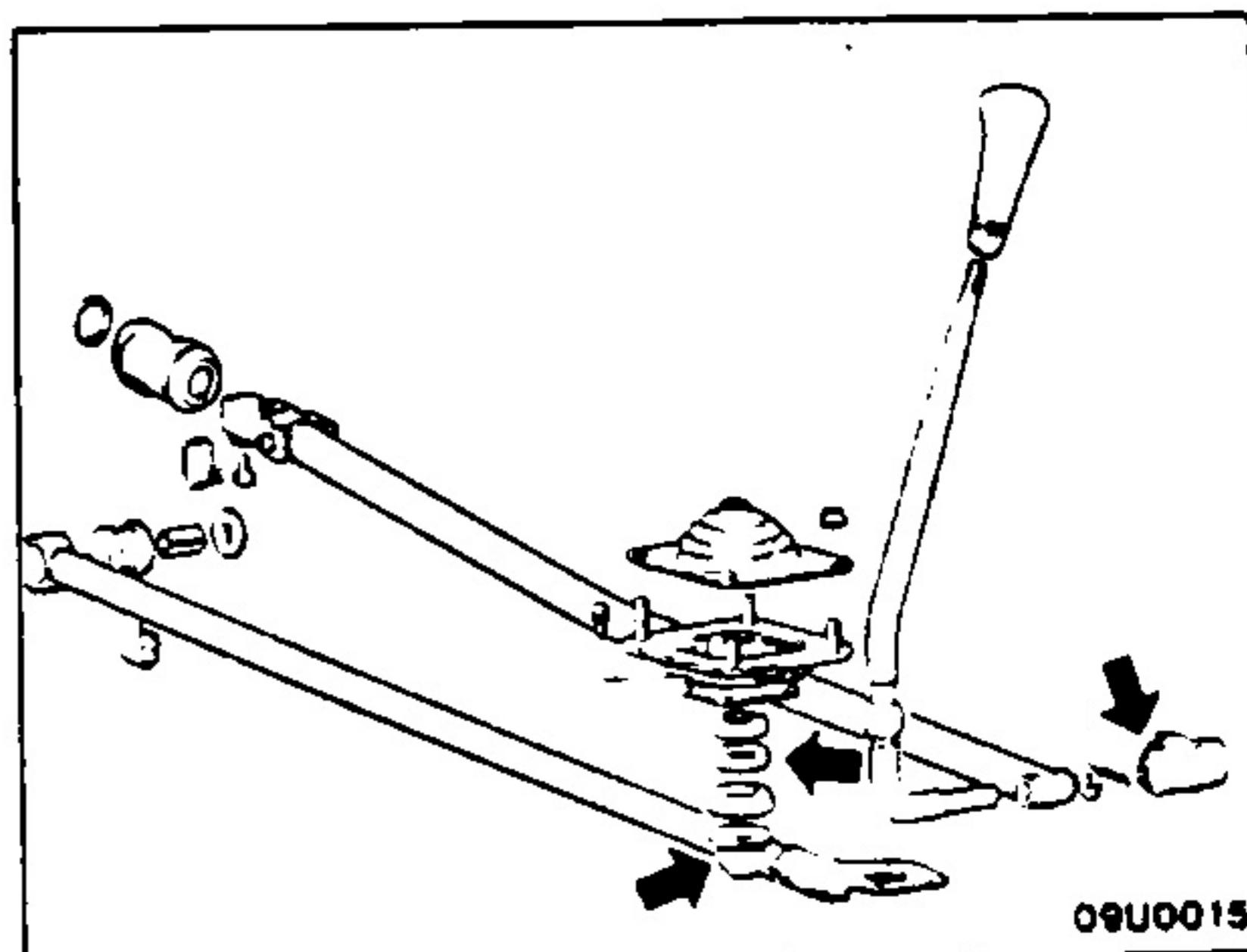
### Inspection

- (1) Check the shift rod joint for wear, sticking or rough movement.
- (2) Check the rubber parts for damage or deterioration
- (3) Check all bushings for wear and damage
- (4) Check the return spring for deterioration

### Installation

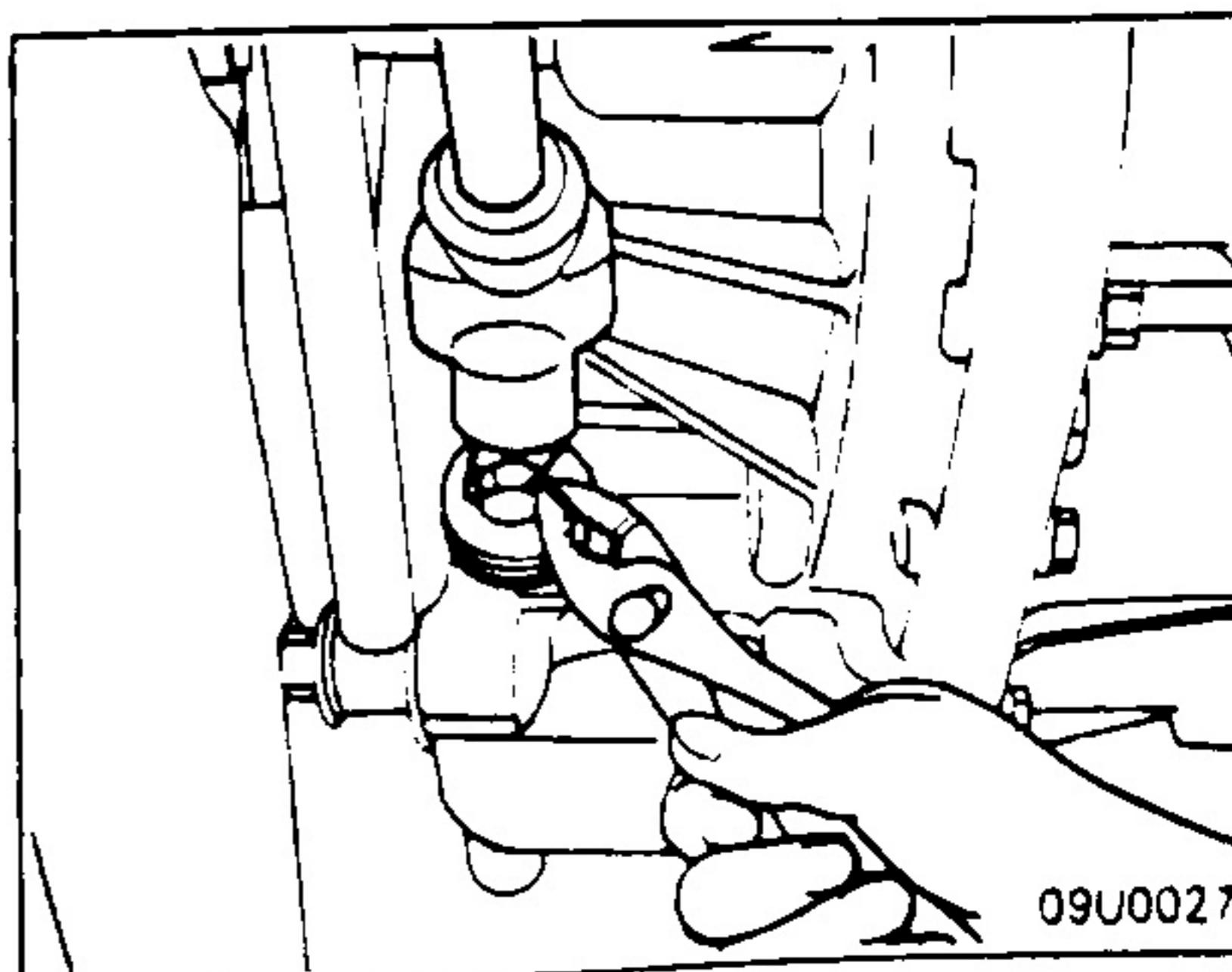
Apply the specified wheel bearing grease to the following areas

- (1) Dust cover inside surface
- (2) Shift lever and bushing contacting surface
- (3) Shift lever sliding portion



Install a new lock wire to the set screw of the shift rod to prevent looseness.

MANUAL TRANSMISSION

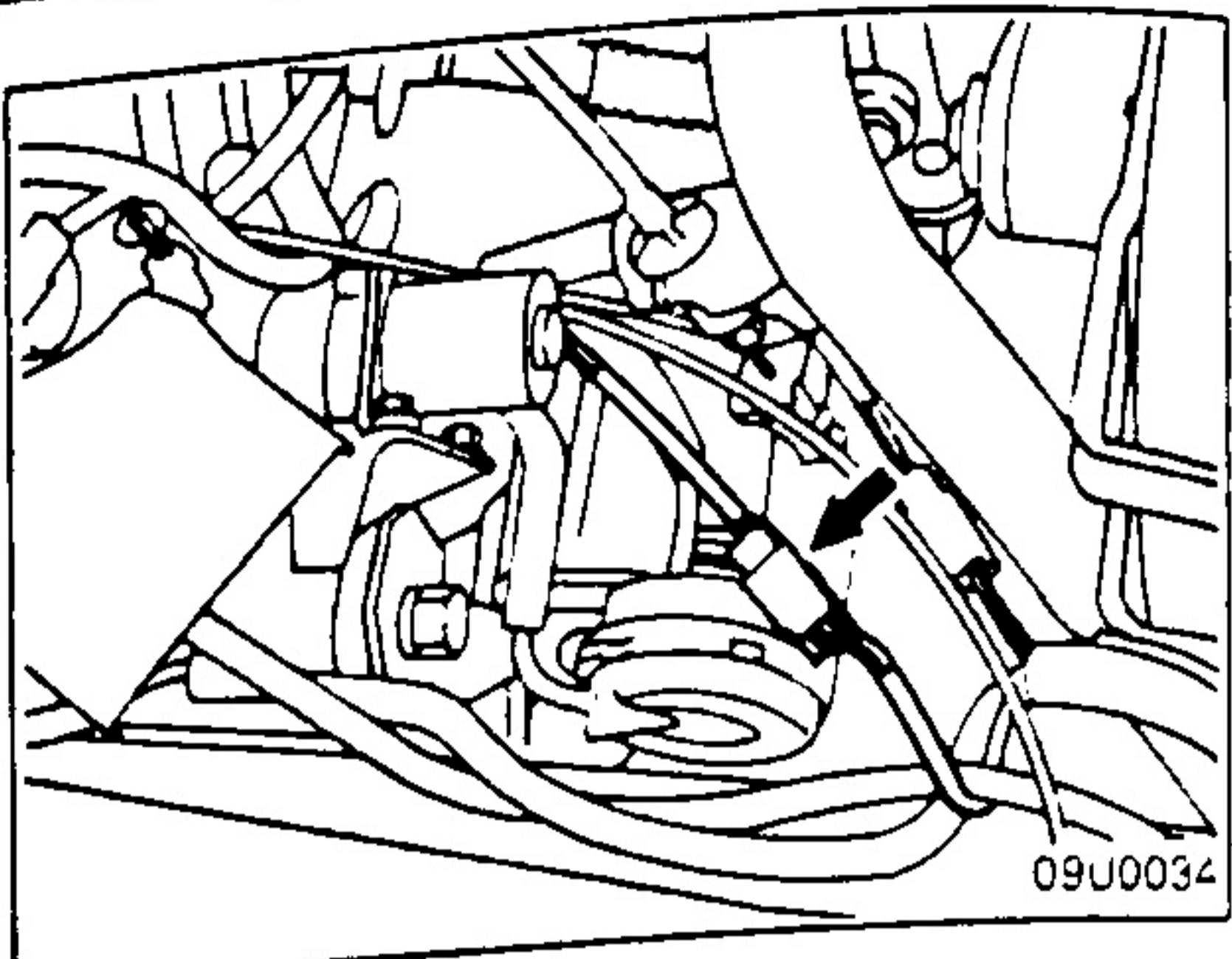




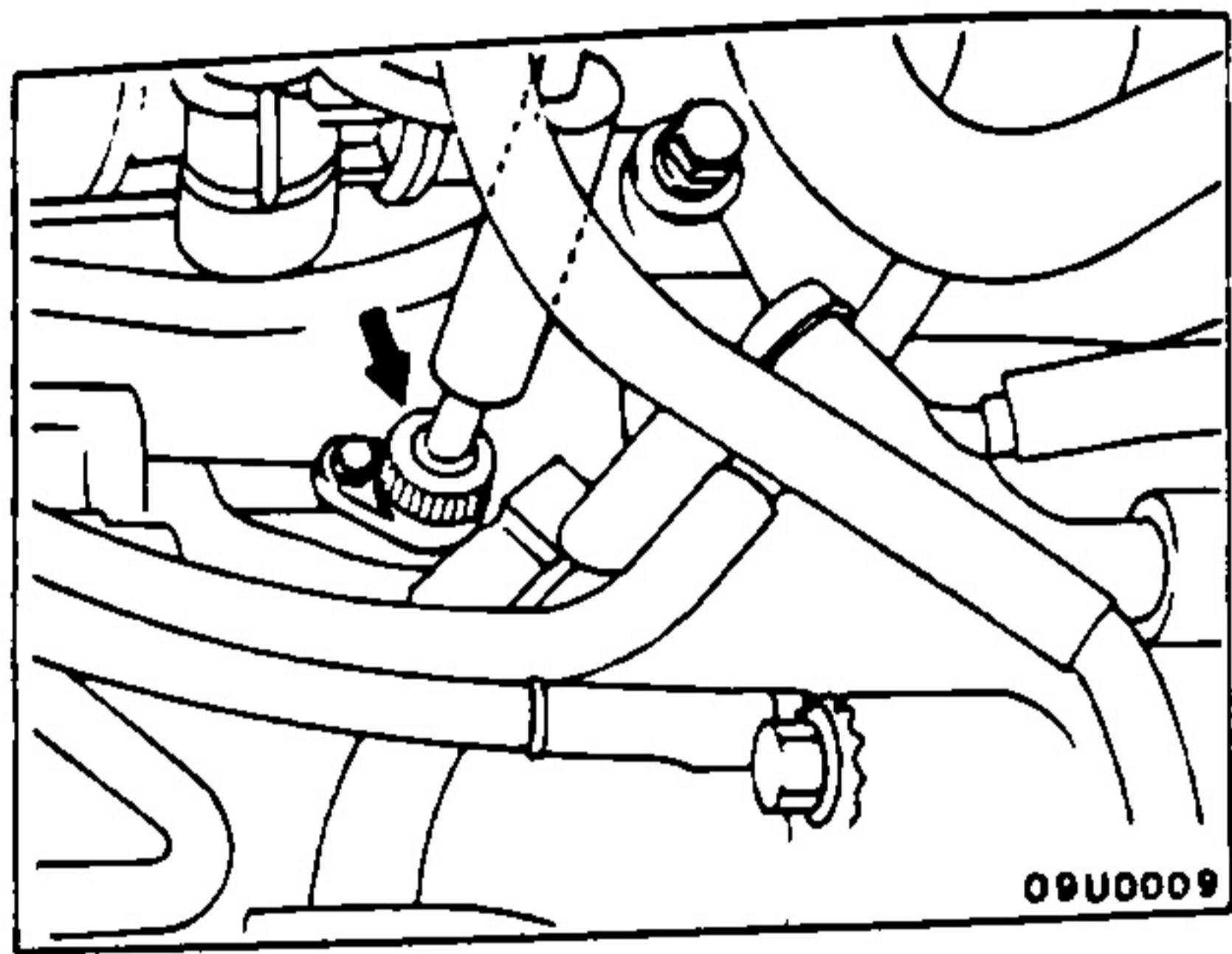
## TRANSMISSION

### REMOVAL

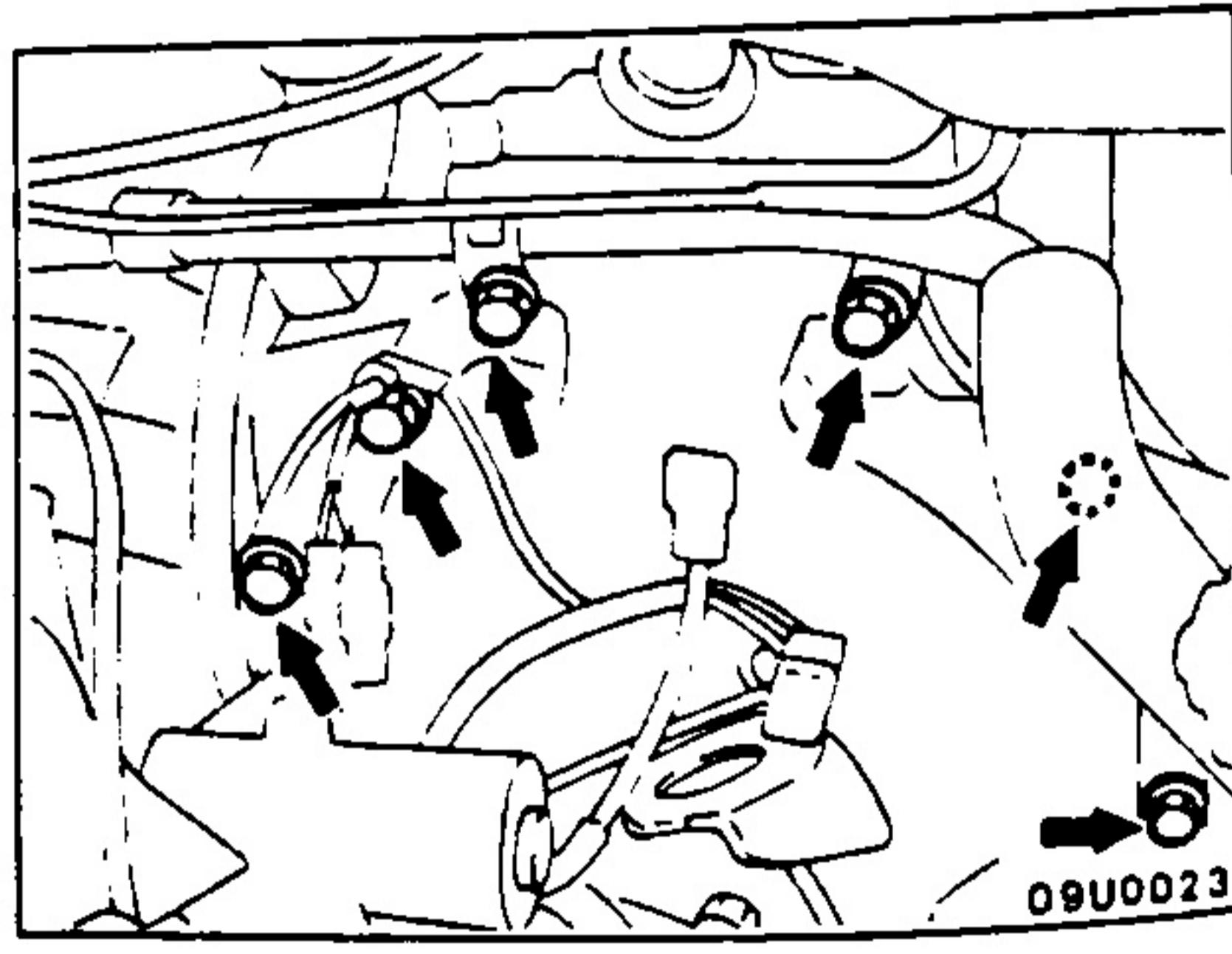
Remove the battery and the battery tray  
Disconnect the connector of the select control valve



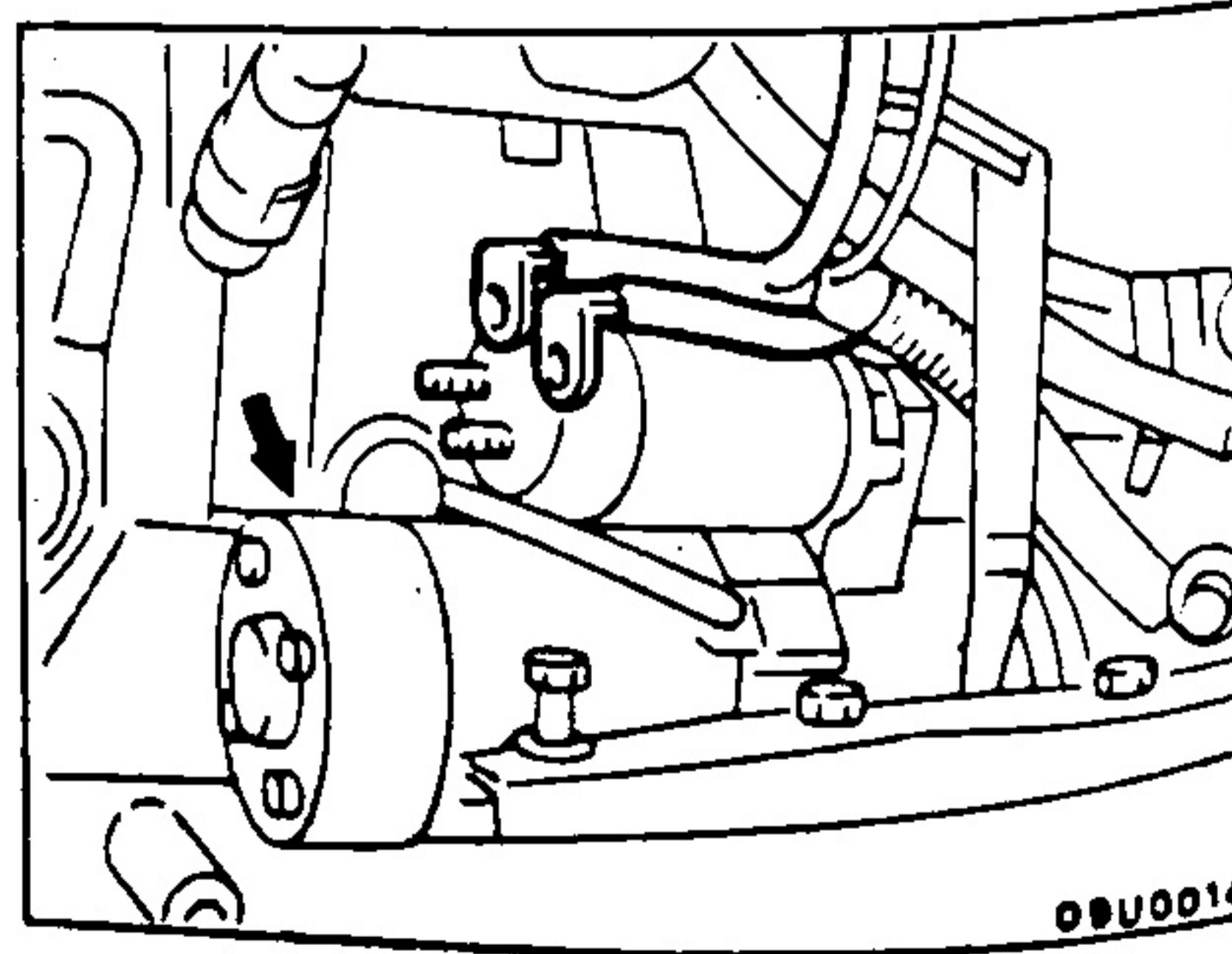
Remove the speedometer cable  
Remove the clutch control cable  
Disconnect the connector of the backup lamp.



Remove the harness from the starter motor  
Remove the transmission to engine coupling bolts from the top side of the transmission



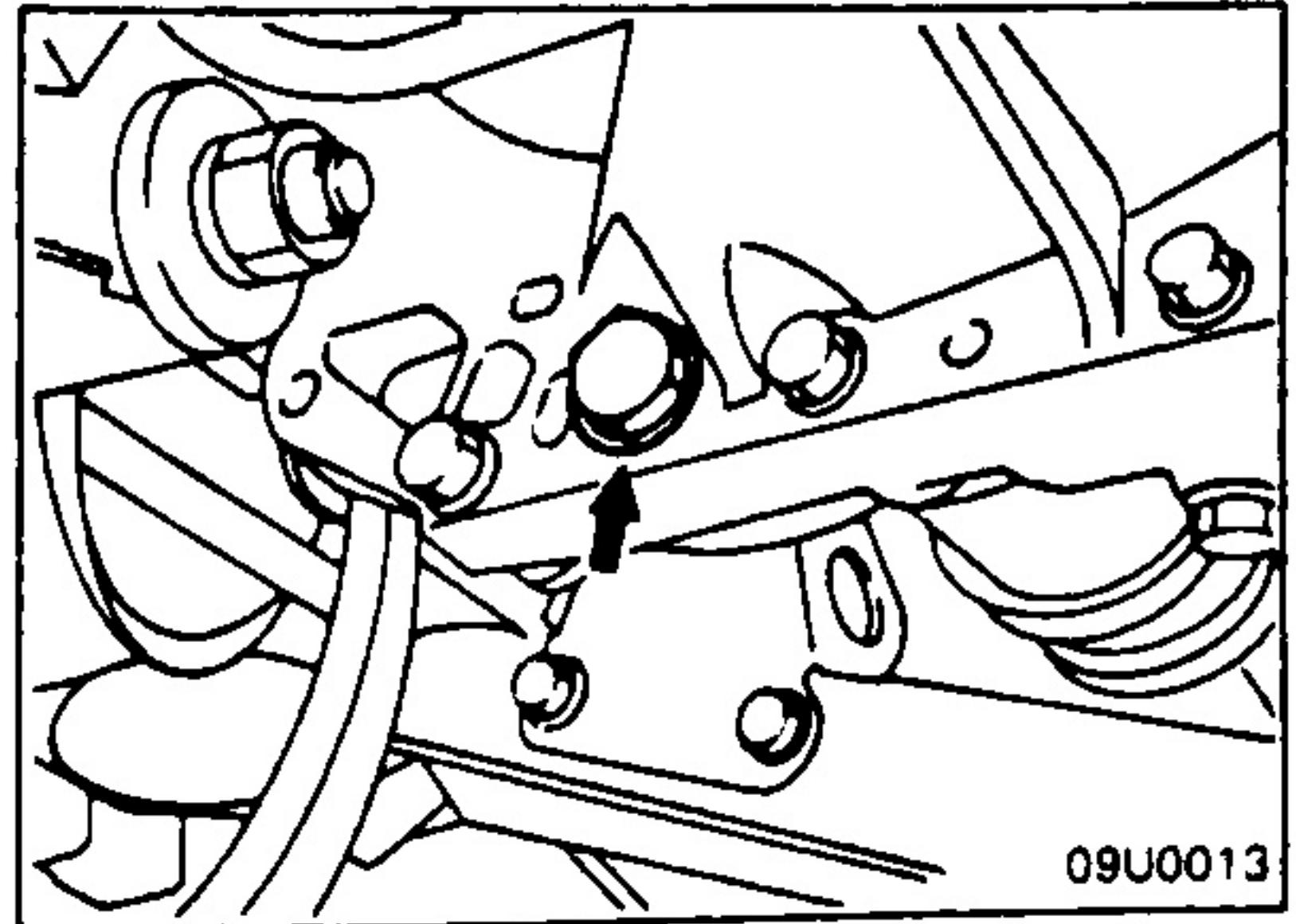
Remove the starter motor



## TRANSMISSION

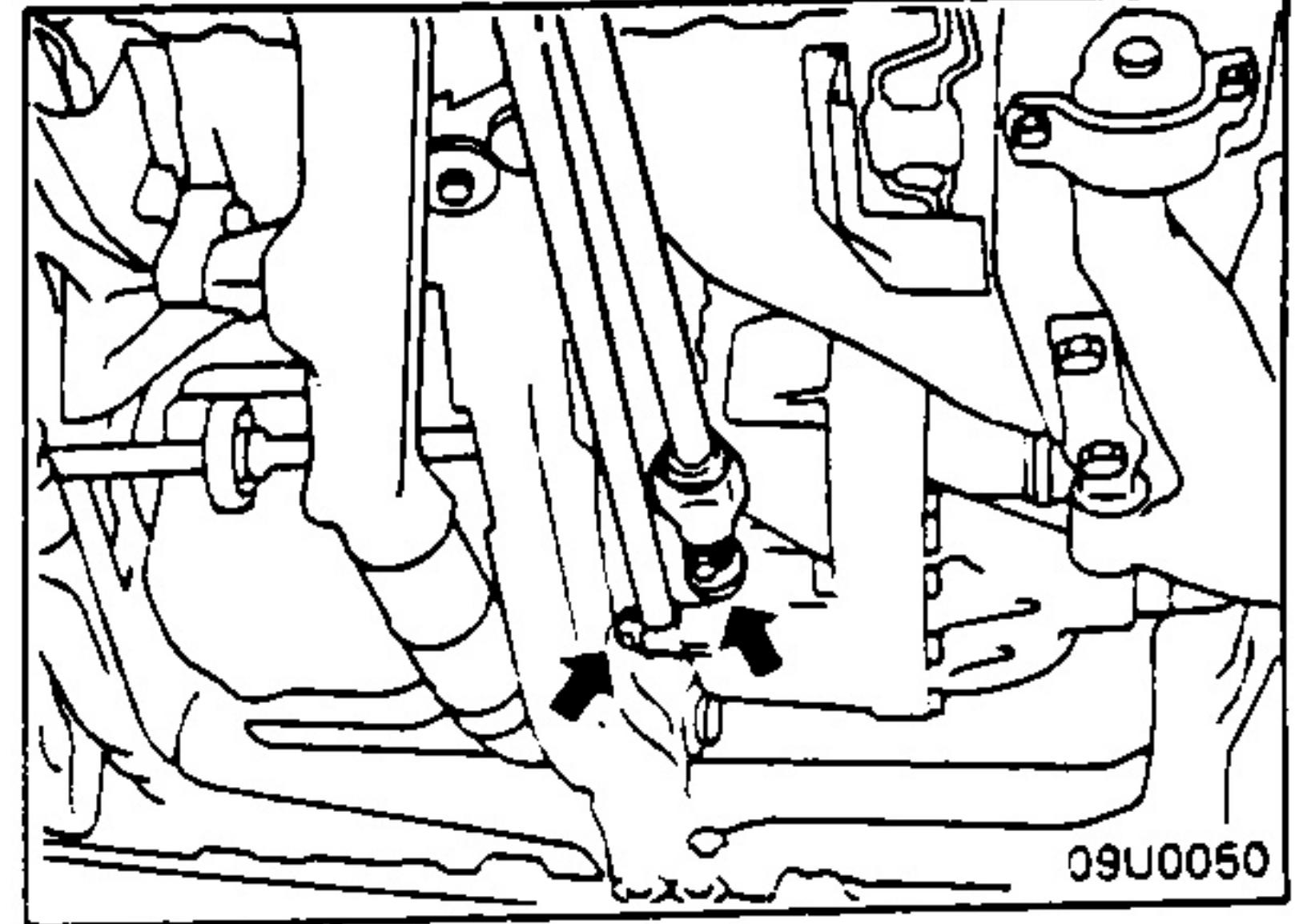


Lift up the vehicle and remove the under cover.  
Drain the transmission oil.



Remove the extension rod and shift rod from under the engine compartment.

After the stabilizer bar has been removed from the lower arm, remove the lower arm at the body side, remove the right and left drive shafts, and hold them in appropriate positions (Refer to GROUP 11A and 12A)



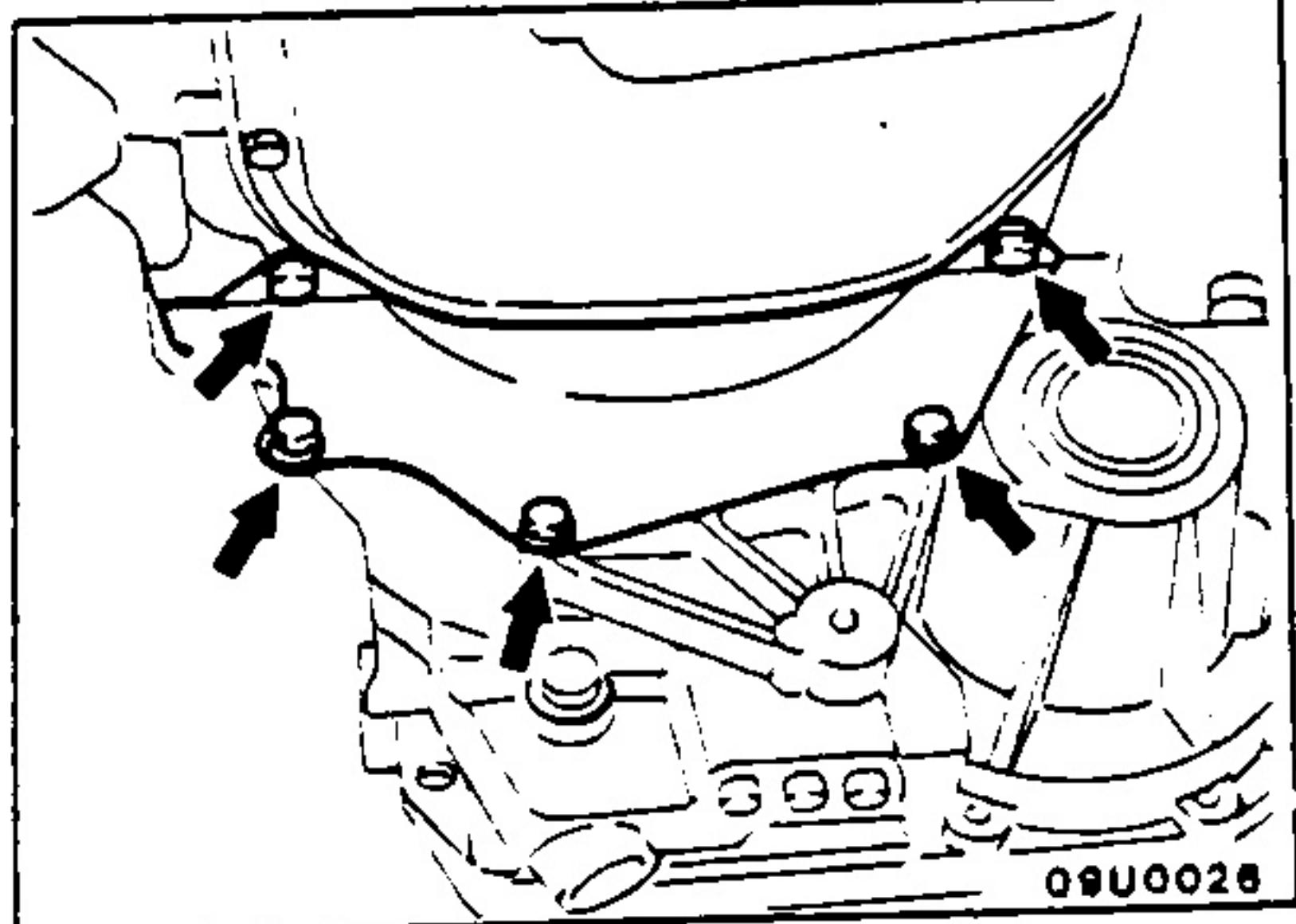
Support the lower part of the transmission by using a transmission jack.

**Caution**

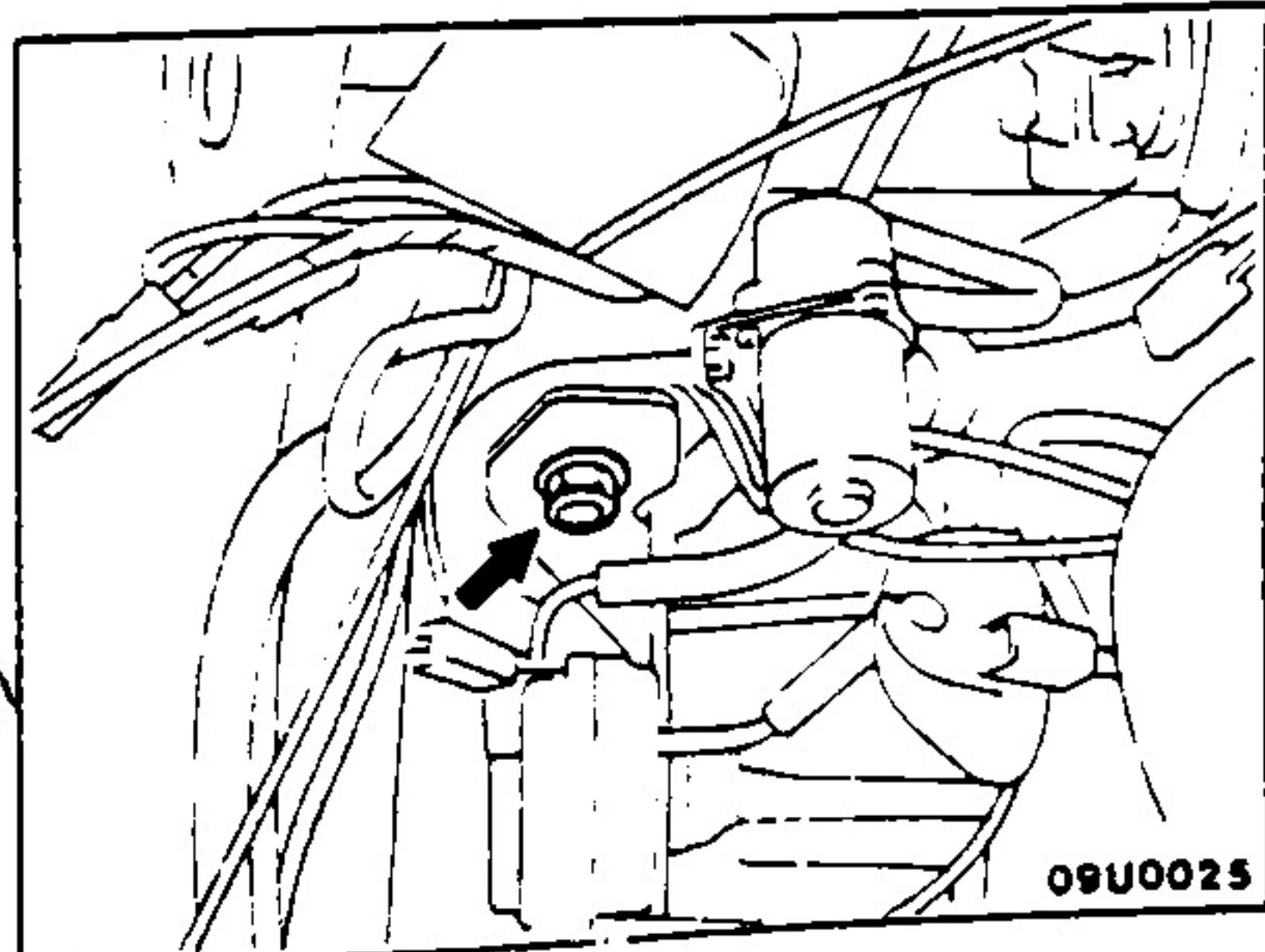
Support a wide area of the transmission so that the oil pan is not partially pressed when supported.

Remove the bell housing cover

Remove the bolts connecting the transmission with the engine from under the engine compartment



Remove the transmission mount insulator bolt.  
Remove the blind cover from inside the right fender shield and remove the transmission bracket assembly.  
Remove the transmission mount bracket.  
Slide the transmission assembly rightward from the vehicle and then take it out downward.





## TRANSMISSION

### INSTALLATION

Replenish the specified transmission oil to the specified level.

Adjust the play of the clutch control cable.

Operate the shift lever to confirm that the gears of the transmission are positively changed over

