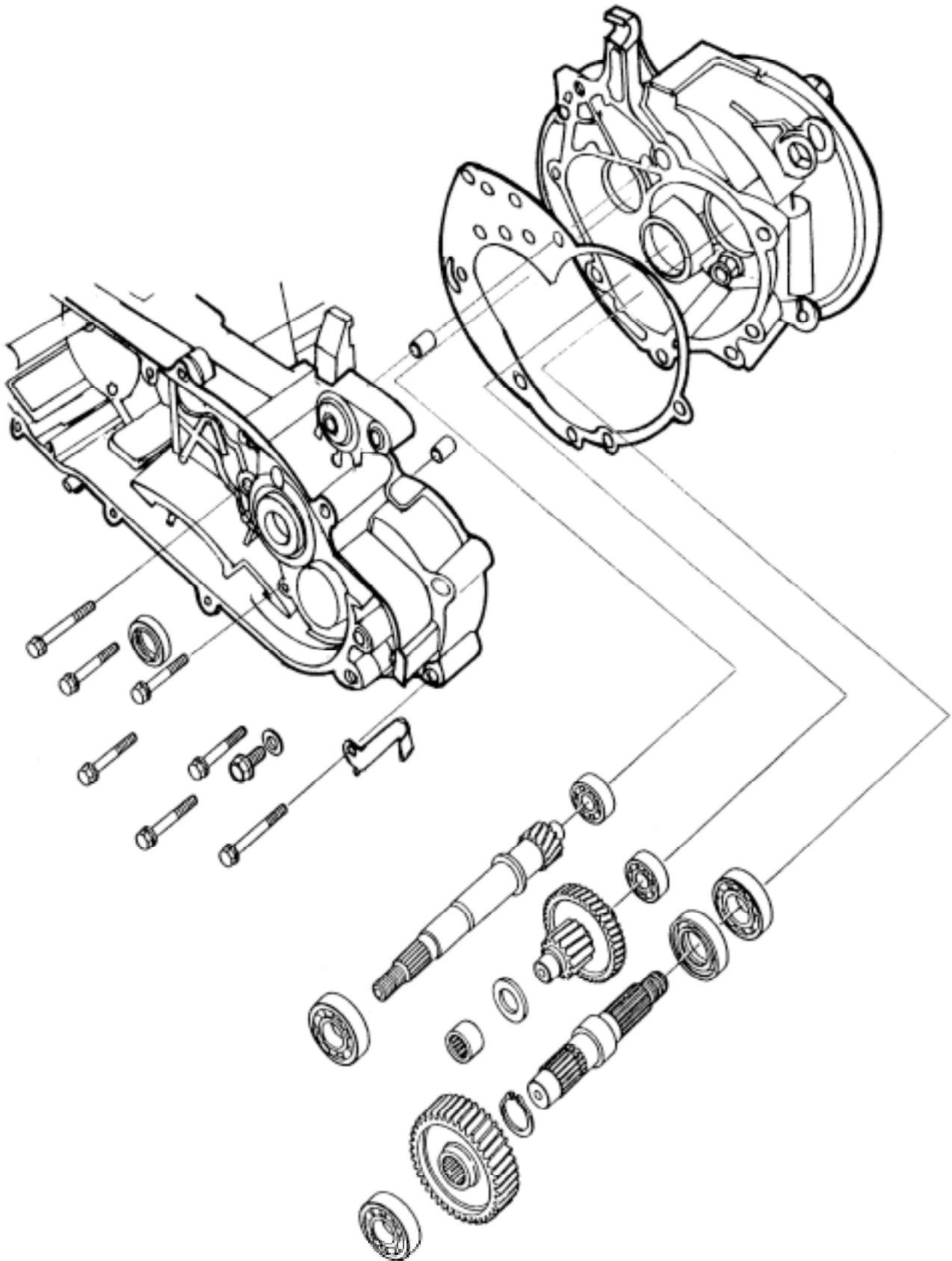


10. FINAL REDUCTION



10. FINAL REDUCTION

SERVICE INFORMATION	10-1	FINAL REDUCTION INSPECTION.....	10-2
TROUBLESHOOTING	10-1	BEARING REPLACEMENT	10-3
FINAL REDUCTION DISASSEMBLY....	10-2	FINAL REDUCTION ASSEMBLY	10-4

SERVICE INFORMATION

GENERAL INSTRUCTIONS

- When replacing the drive shaft, use a special tool to hold the bearing inner race for this operation.

SPECIFICATIONS

Specified Oil: GEAR OIL SAE 90#

Oil Capacity: At change : 0.09 liter
 At disassembly : 0.11 liter

TORQUE VALUES

Transmission case cover bolt 1.2kg-m

SPECIAL TOOLS

Driver handle A

Outer driver, 32x35mm

Outer driver, 37x40mm

Outer driver, 42x47mm

Pilot, 15mm

Pilot, 17mm

Pilot, 20mm

Crankcase assembly tool

Assembly shaft

Assembly collar

TROUBLESHOOTING

Engine starts but motorcycle won't move

- Damaged transmission
- Seized or burnt transmission

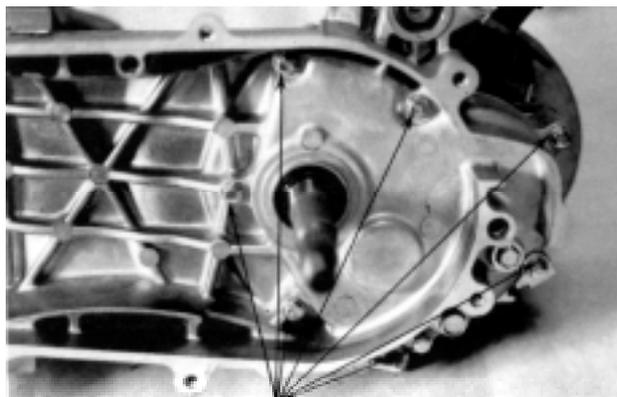
Oil leaks

- Oil level too high
- Worn or damaged oil seal

10. FINAL REDUCTION

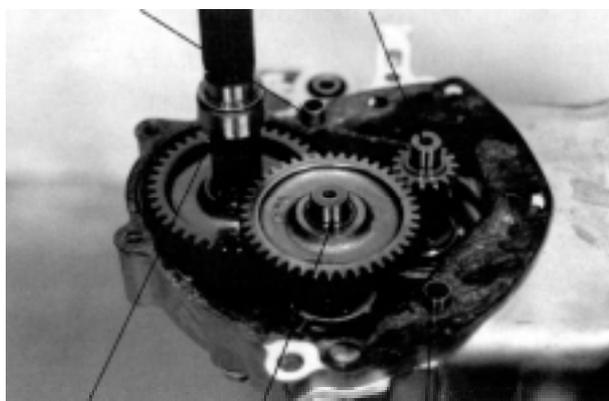
FINAL REDUCTION DISASSEMBLY

- Remove the exhaust muffler.
- Remove the rear wheel. (⇒13-2)
- Remove the rear brake cable. (⇒13-3)
- Remove the left crankcase cover. (⇒9-2)
- Remove the clutch/driven pulley. (⇒9-8)
- Drain the transmission gear oil into a clean container.
- Remove the transmission case cover attaching bolts.
- Remove the transmission case cover.
- Remove the gasket and dowel pins.



Bolts
Dowel Pin Drive Shaft

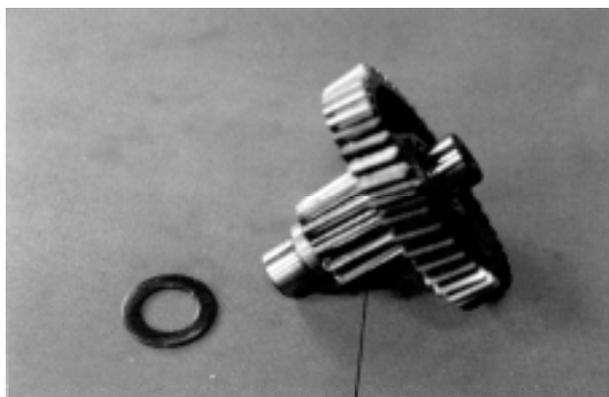
- Remove the final gear and countershaft.



Final Gear Countershaft Dowel Pin

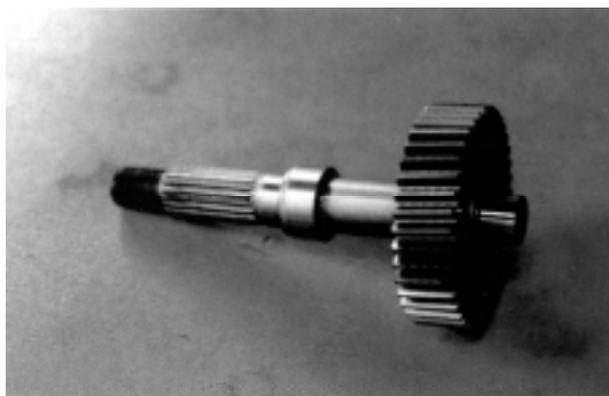
FINAL REDUCTION INSPECTION

- Inspect the countershaft and gear for wear or damage.



Countershaft

- Inspect the final gear and final shaft for wear, damage or seizure.



10. FINAL REDUCTION

Check the left crankcase bearings for excessive play and inspect the oil seal for wear or damage.

Inspect the drive shaft and gear for wear or damage.
Check the transmission case cover bearings for excessive play and inspect the final shaft bearing oil seal for wear or damage.

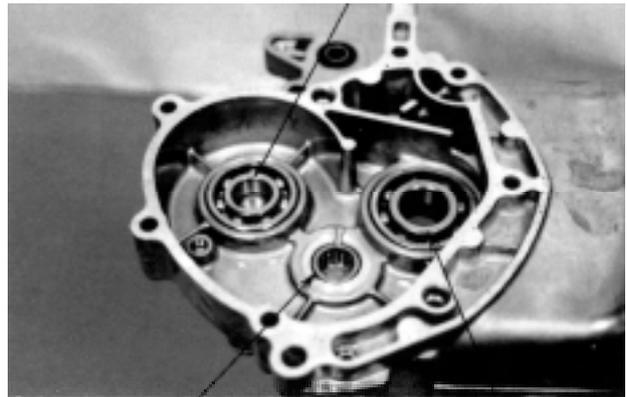
* Do not remove the transmission case cover except for necessary part replacement. When replacing the drive shaft, also replace the bearing and oil seal.

BEARING REPLACEMENT (TRANSMISSION CASE COVER)

Remove the transmission case cover bearings using a bearing remover.
Remove the final shaft oil seal.

Drive new bearings into the transmission case cover.

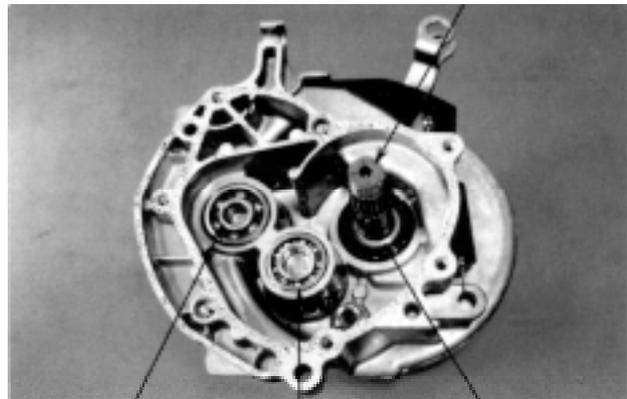
Drive Shaft Bearing



Countershaft Bearing

Final Shaft Bearing

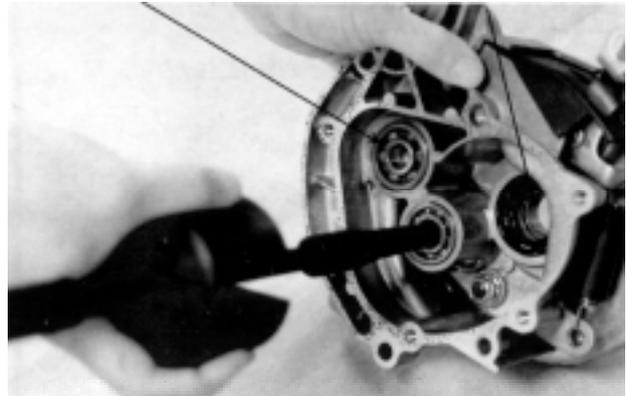
Final Shaft



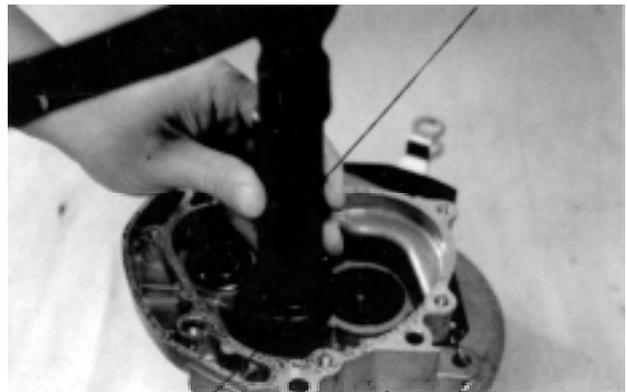
Drive Shaft Bearing Countershaft Bearing Oil Seal

Drive Shaft Bearing

Final Shaft Bearing



Driver Handle A



Outer Driver,

10. FINAL REDUCTION

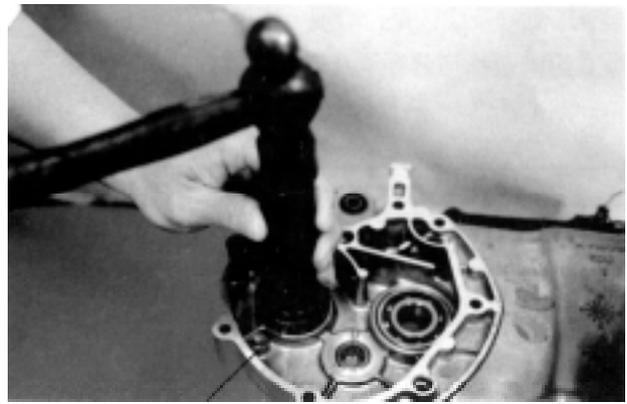
BEARING REPLACEMENT (LEFT CRANKCASE)

Remove the drive shaft.
Remove the drive shaft oil seal.
Remove the left crankcase bearings using a bearing remover.



Bearing Remover, 12mm

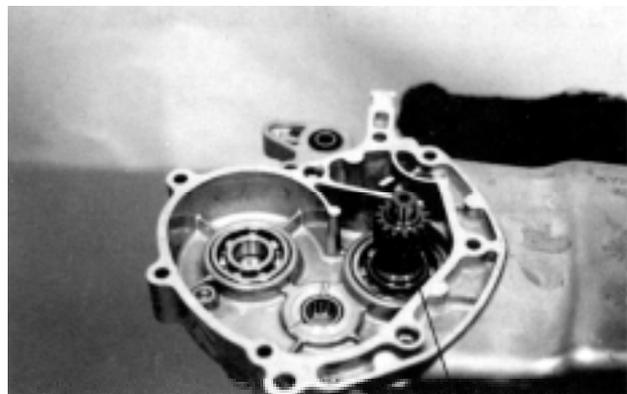
Drive new bearings into the left crankcase.
Install a new drive shaft oil seal.



Pilot

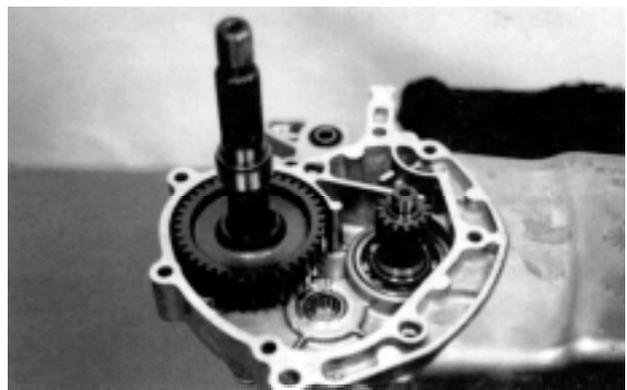
FINAL REDUCTION ASSEMBLY

Install the drive shaft into the left crankcase.



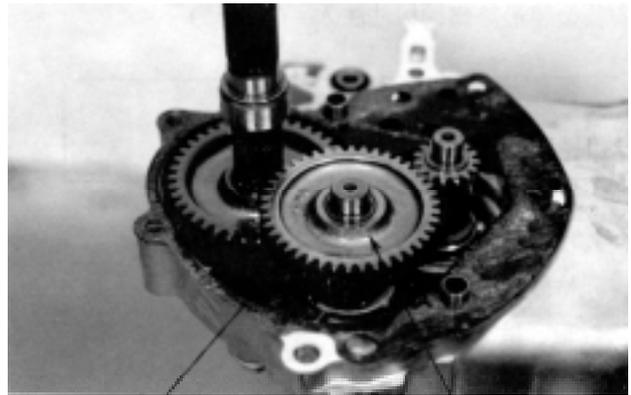
Drive Shaft

Install the final gear and final shaft into the left crankcase.



10. FINAL REDUCTION

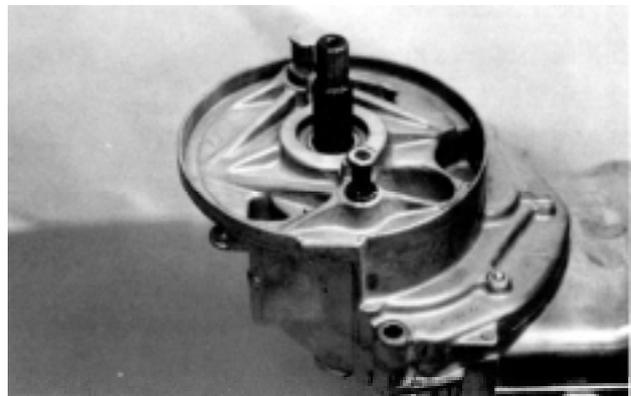
Install the countershaft and gear into the left crankcase.
Install the washer onto the countershaft.
Install the dowel pins and a new gasket.



Countershaft

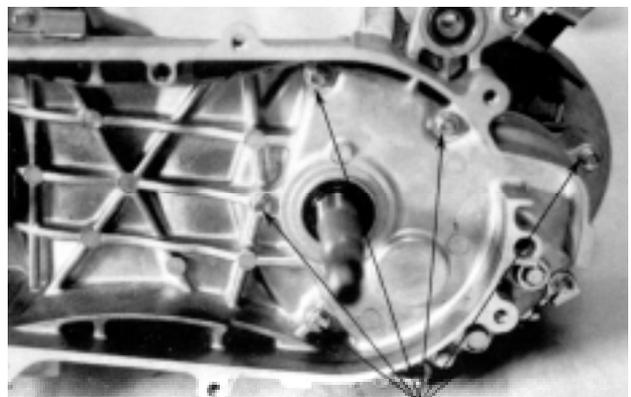
Washer

Install the transmission case cover.



Transmission Case Cover

Install and tighten the transmission case cover bolts.
Install the clutch/driven pulley. (⇒9-14)
Install the rear wheel. (⇒13-2)
Install the rear brake cable. (⇒13-4)



Bolts

10. FINAL REDUCTION

After installation, fill the transmission case with the specified oil. (⇒3-7)

*

- Place the motorcycle on its main stand on level ground.
- Check the oil sealing washer for wear or damage.

Specified Gear Oil:

KYMCO SIGMA GEAR OIL 90#

Oil Capacity:

At disassembly : 0.11 liter

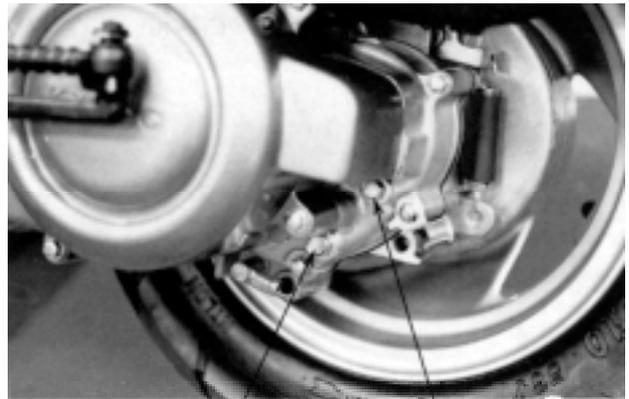
At change : 0.09 liter

Install and tighten the oil check bolt.

Torque: 1.0_ 1.5kg-m

Start the engine and check for oil leaks.

Check the oil level from the oil check bolt hole and add the specified oil to the proper level if the oil level is low.



Drain Bolt Oil Check Bolt Hole/Oil Filler