

● These instructions should be followed carefully in order to insure the safe and proper running of this gearbox. Deviations from these instructions may cause damage to your engine or your gearbox.

Determine your crankshaft configuration. Due to variations in crankshaft designs, some installations will require a spacer. If your crankshaft differs from the one in Figure 1, contact *NORAM* for the appropriate spacer.

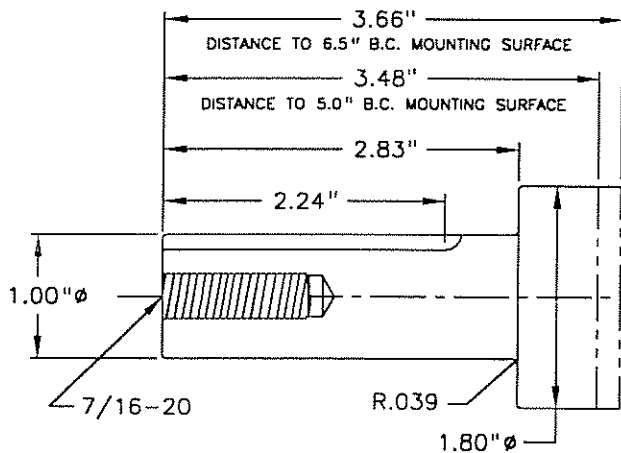


Figure 1.

● Packed with your gearbox you will find:

- 1 - pinion case seal
- 1 - primary pinion gear
- 2 - 4 oz. bottles of oil
- 1 - countersunk washer 1-1/4" O.D. X 7/16" I.D. X 13/64" thick.
- 1 - flat washer 1" O.D. X 5/16" I.D.
- 3 - spring washers 11/16" O.D. X 5/16"
- 1 - 7/16"-20 X 1" flat head cap screw
- 1 - 5/16"-24 X 4" hex head cap screw
- 3 - 5/16"-24 X 1-3/4" hex head cap screw
- 1 - vented pipe plug
- 1 - non-vented pipe plug

- Additional mounting hardware needed:
 - A) Non-hardening thread lock compound
 - B) Thread sealant

● Your new *NORAM* gearbox has been designed to fit large frame engines with a standard 5.00" diameter mounting circle and a 5.750" diameter pilot. Follow these instructions and refer to the illustrations when necessary.

If this application requires a spacer, install it at this time.

- 1). Place pinion case seal into recessed area on the back of the gearbox. (Figure 2).

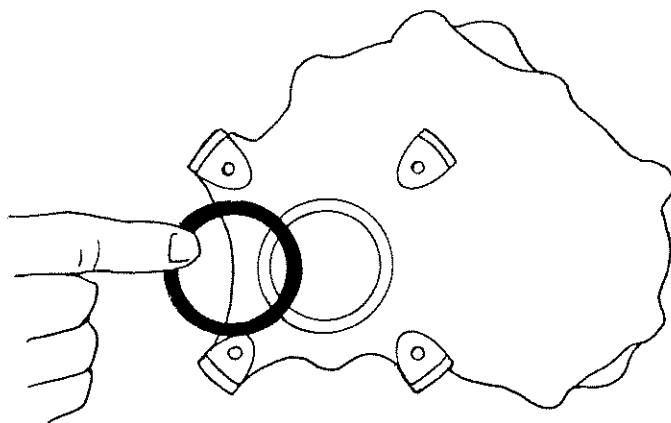


Figure 2.

2) Slide primary pinion up to the shoulder on the engine's crankshaft. (Figure 3).

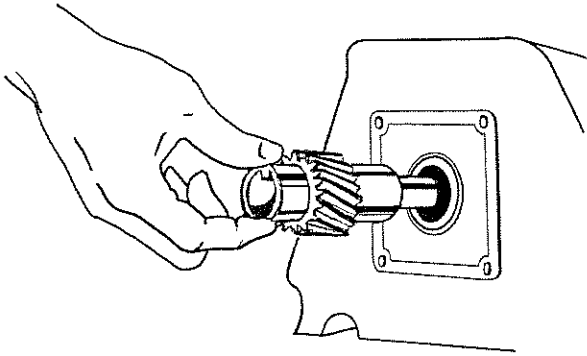


Figure 3.

3) Insert 7/16" -20 X 1" flat head cap screw through the countersunk washer so that screw head is flush with washer surface. Apply non-hardening thread locking compound to bolt threads. Insert bolt/washer assembly into the engine crankshaft. (Figure 4). Tighten to a torque of 50-55 ft./lbs.

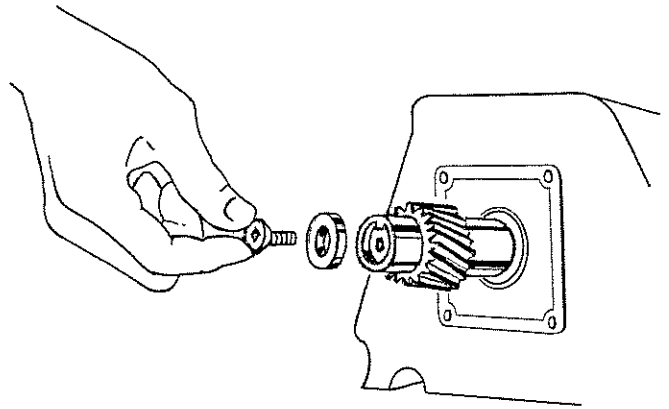


Figure 4.

4) Slip the gearbox on over the pinion. Be careful not to damage the seal. Rotate the gearbox to the desired position; 3 o'clock or 9 o'clock according to the illustration. (Figure 5 and Figure 6).

5) Place the flat washer over the 5/16" -24 X 4" hex head cap screw. Apply non-hardening thread locking compound to bolt threads and insert into hole indicated in Figure 7, and finger tighten.

Place one each spring washer over the 5/16" -24 X 1-3/4" hex head cap screws with the *convex side towards head of bolt*. Apply non-hardening thread locking compound to bolt threads and insert into holes shown in Figure 7, and finger tighten. Using a criss-cross pattern, evenly tighten bolts to a torque of 15 to 17 ft./lbs.

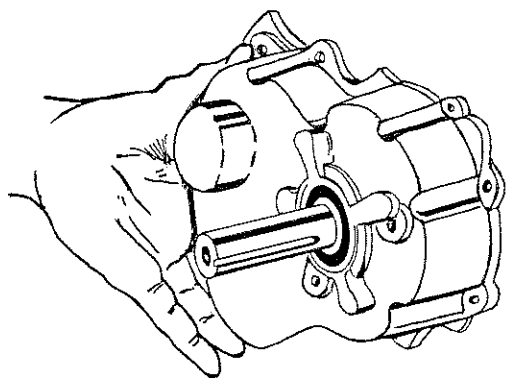


Figure 5.

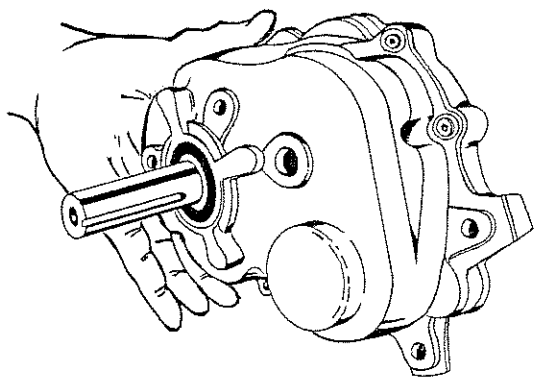


Figure 6.

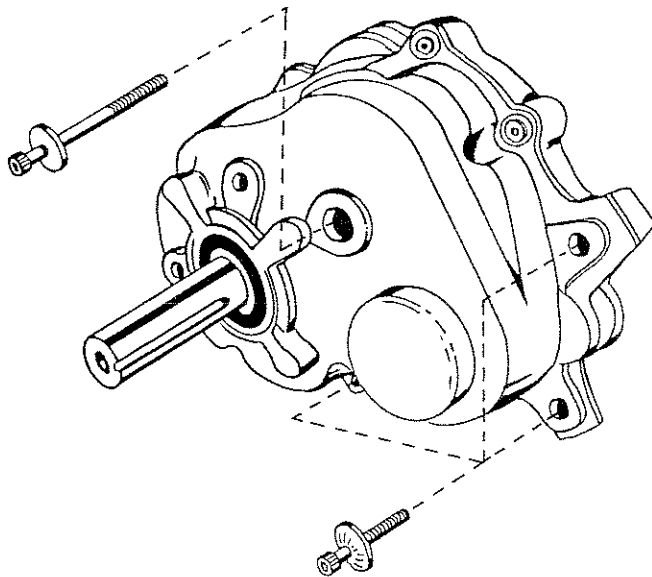
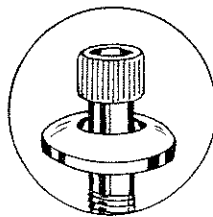


Figure 7.



6) Place teflon tape on the threads of the vent and pipe plugs. Install the pipe plug into the lower hole of the gearbox and tighten. Pour the two 4 oz. bottles of oil into the upper hole. Install the vented plug into the upper hole and tighten. (Figure 8).

Your gearbox is now ready to be put into service.

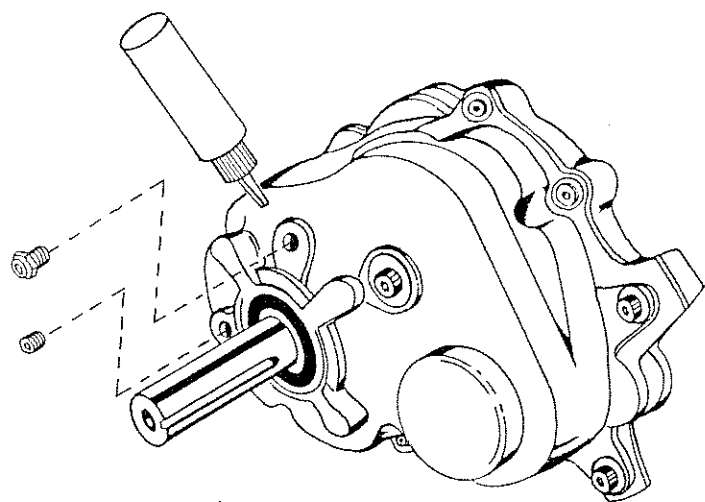


Figure 8.

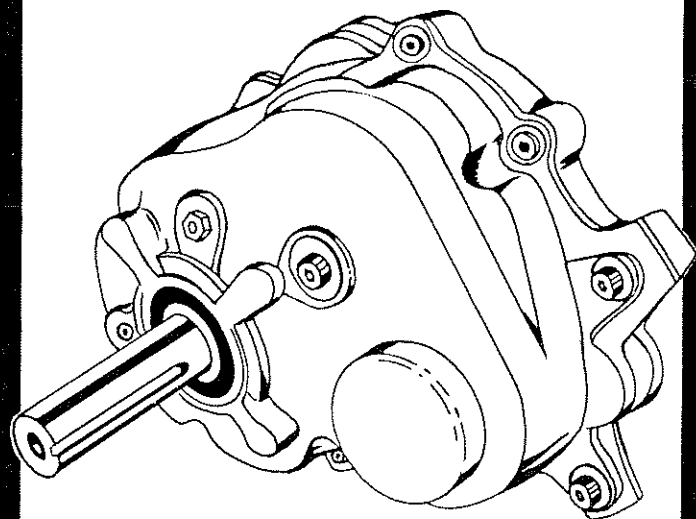
Vented plug



Pipe plug

NORAM™

61100 Gearbox



Mounting Instructions

North American Clutch Corp. - P.O. Box 090228, 3131 West Mill Road, Milwaukee, WI 53209 U.S.A. - (414) 352-9727
Fax: (414) 352-5328

Model # 61100

12/97

Important Notice

Your **NORAM** gearbox comes supplied with 4 ounces of a specially blended synthetic oil. This oil was chosen for its durability and long life.

We realize that under varying circumstances you may feel the need to service your gearbox. When changing the oil, we always recommend using the **NORAM** gearbox oil. If however, **NORAM** oil is not available, the following list contains oils which are adequate substitutes. We do recommend that any substitute oil be drained and replaced at 1000 hour intervals.

Type of Oil

Gearbox Part Number

Any standard "ATF" or Hydraulic oil
with ISO Series rating of 46

NORAM PN 6175N and 28175
Reduction Gearboxes

Any non-detergent motor oil
not exceeding 50W

NORAM PN 6175N series Reduction
Gearboxes only

Any non-detergent motor oil
not exceeding 20W

NORAM PN 28175 series Reduction
Gearboxes only
