- 1. Remove the seal plate mounting bolts and remove the seal plate.
- Loosen the set screws that secure
  the metal bellows seal to the
  crankshaft. These set screws
  typically use an 1/8 inch allen
  wrench which is provided with
  the new seal. Trailer compressors
  (and seals p/n 22-900) built during
  summer and fall 1995 (prior to
  compressor serial no. 960014) may
  require use of a 3mm allen wrench.
- Remove the old seal from the crankshaft. Use a small prybar or screwdriver on each side of the seal but do not scratch the shaft when removing the seal. Remove the old seal mating ring and the old lip seal from the seal plate.
- Remove the gasket from the seal plate and compressor body. Clean surfaces so they are free of all gasket material.
- Clean compressor shaft of any rust or foreign material (use crocus cloth or equivalent). Wipe the area clean and lubricate with clean compressor oil.
- Install oil seal )p/n 33-2120) in the seal plate, install with the seal lip facing away from the compressor (see figure 1).



Figure 1

7. Apply clean compressor oil to the new mating ring (Hard Ring) O-ring. Ensure that the seal installation tool is throughly cleaned. Using the seal mating ring insertion tool (p/n 204-953), push the mating ring fully into the seal plate. Do not pinch the O-ring Install the mating ring with the polished side out (facing the compressor body). If the insertion tool is not available, use the foam pad in the seal packaging to protect the polished surface of the mating ring during assembly (see figure 1).

## CAUTION: Do NOT touch or damage the polished seal face surfaces.

 Back out the set screws from the new seal and apply a small amount of removable thread locking compound to the set screws threads (Loctite 242-31-blue, p/n 203-400).

## CAUTION: Do not touch mating ring. Use protective gloves to install.

 Apply clean compressor oil to the O-ring inside the seal rotating bellows. Install the seal bellows with the locking collar placed against the crankshaft shoulder (see figure 2). Push seal drive collar firmly against the crankshaft shoulder and hold during tightening of the first set screw.



Figure 2

10. Tighten the set screws to appoximately 45 In-lb (5.0 N-m) with the allen wrench provided and then remove the orange protective cap. Clean the mating ring (hard ring) and the primary ring (bronze ring) with the alcohol wipes (package number 1). Then clean the mating ring and the primary ring with the dry wipes (package number 2). The polished seal faces must be clean. Apply clean compressor oil (package number 3) to the mailing ring, primary ring, lip seal and gasket prior to assembly. (See figure 3).

CAUTION: Oil applied to the seal faces must be absolutely clean.



Figure 3
CAUTION: Do not touch mating ring. Use protective gloves to install.

- 11. Install the seal plate and gasket (p/n 33-2513) to the compressor body, do not bump the seal mating ring into the end of the crankshaft during assembly.
- 12. Install the nine mounting bolts and washers and pre-tighten to approximately 15 ft-lb (20 N-m) using a criss-cross pattern. Retighten to 23 ft-lb (31 N-m) using a criss-cross pattern.
- 13. Install the compressor in the unit and test for leaks.