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Long-Term Storage of Motors

The following instructions are issued as a general guide for hydraulic motors. The governing procedure calls for a sufficient quantity of appropriate preservative be brought into contact with product metals. The preservative should displace traces of dirt, water, or oil, and leave a continuous protective film on motor inner surfaces. Excess preservative should be drained off to prevent the sedimentation or formation of stagnant pools that, with age, may set or solidify.

Hereafter, the term “preservative” is referred to formulations like MIL-L-21260, PE grade 30, PE grade 10, or Mobilarma 524 or equivalent, for all internal surfaces. Formulations like MIL-C-16173, Mobilarma 247, or equivalent should be used for the external surfaces.

Procedure

1. Thoroughly drain motor of remnant hydraulic fluid or preservative.
2. Fill motor to normal capacity with a proper preservative.
3. Engage shaft sufficient time to circulate the preservative thoroughly across all lubricated surfaces. Several turns of 360° are recommended to ensure that the compound is reaching all sites and points.
4. Drain the preservative until all the liquid flows out of the main ports and case return line. Save drained compound for future use.
5. Seal all ports to prevent entrance of dirt or water. If possible, reinsert all plugs and covers that came with the product. If those are no longer intact, a blank, non-porous material plate should be installed to prevent moisture from seeping back into the product.
6. Using grade 2 formulation like MIL-C-16173 or Mobilarma 247, spray or brush over all external areas. If the product is exposed to altering weather conditions, grade 1 compound shall be used for this purpose, instead.
7. Attach a waterproof tag to product top indicating that the unit has been treated with preservative. The tag shall include the date of treatment and a statement that the product is not to be turned over until ready to be put into operation or if 3 month elapsed.
8. Attach a waterproof warning tag stating “**remove blank plates prior to starting equipment as damage may occur**”.
9. Store motor in a clean and dry environment with stable temperature and low humidity conditions. If this cannot be ascertained, additional care should be taken to prevent rust formation.

Putting product into service

1. Before operating a product that has been out of service and treated with preservative, circulate clean hydraulic fluid through the unit. Turn the driveshaft at least 10 times to ensure that the preservative is flushed away from all surfaces.
2. Inspect shaft seals for cracks and dryness.
3. Remove covers and plugs and visually check external intactness of the unit.

Note:

1. If the unit is replacing a failed product, ensure the system has been thoroughly cleaned, including the tank.