SPX Bran+Luebbe

LONG TERM STORAGE & RUST PRESERVATION FOR INDOOR AND OUTDOOR

1.) Prior to long time storage:

1.1. Fill up the crank unit and reduction gearbox up to the top with the applicable gear oil. You need approximately the following quantity of oil each gear:
Gear type **H1**: 0,75 l = 0.2 gallon ISO VG 100
Gear type **H2**: 4 l = 1.1 gallon ISO VG 100
Gear type **H3**: 7 l = 1.9 gallon ISO VG 100
Gear type **H4**: 20 l = 5.3 gallon ISO VG 100
Gear type **H5**: 37 l = 9.8 gallon ISO VG 100
Gear type **H6**: 52 l = 13.8 gallon ISO VG 100
Gear type **B:** 90 l = 24 gallon ISO VG 320

1.2. Fill up the hydraulic reservoir of the pumphead up to the top with the applicable oil. You need approximately the double quantity of oil which is specified in the pump datasheet.

1.3. Remove the covers of the pumpyokes and spray a non hardening corrosion protection (similar to Branotect GF1) on the crosshead from the gear and pumphead plunger. Place a layer of VCI foam around gear crosshead and pump plunger. Afterwards mount the covers including all bolts and gasket.
Repeat this procedure every three months.

1.4. Check if all gaskets are tight, so that there is no visible leakage.

1.5. To prevent indentation of the bearings it is strongly recommended to rotate motor fan by hand (2 revolutions every month). To carry out this operation prior to electrical connection, the motor fan covers can be removed and the motors can be rotated by hand.

1.6. When the motors are not electrically connected, place a layer of VCI foam inside of the junction box.

1.7. Cable glands, holes, exposed threads should be blanked and covered in Denso tape or similar to prevent the ingress of dirt and moisture.

1.8. Glass faces should be protected against accidental damage with the use of bubble wrap or similar and held in place.

1.9. All open threads for example for lifting eye bolts shall be coated with wax and filled with grease and closed by a plastic cap.

1.10. Coated outside surfaces should be protected by means of conservation wax (similar to Winix 7100S). The wax film shall be checked every 3 months for any damage.

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2.) <u>Prior to putting into service procedure :</u>

2.1. Drain the oil from crank unit / gearbox up to sight glass level. If the pumps has been stored for more than one year, drain the gear oil completely.

2.2. Fill in new oil into crank unit / gearbox if the pump has been stored for more than one year. Oil quantity according to pump datasheet.

2.3. Drain the hydraulic oil before start-up. If contamination of the oil has occurred, i.e. water has emulsified the oil, or if the pumphead has not been used for one year or more. Before start up read the instruction manual intensely.

2.4. If applicable, fill in new hydraulic oil into the hydraulic reservoir. Oil quantity according to pump datasheet.

2.5. Remove the VCI foam from the pump yoke area.

2.6. Remove the VCI foam of the junction box of the motor.

2.7. Check the direction of rotation from motor and crank shaft. If the motor is spinning in the wrong direction, the crank unit /gearbox will not be lubricated and the gear will be destroyed.

2.8. The wax film in, points 9 and 10, do not need to be removed for start- up.

i. Pumphead gland parts and diaphragms of plastic construction (i.e. Teflon, PVC, PTFE, etc.) have a limited storage life of one year if the pump is not used, as such replacement of the gland seals and diaphragms may be necessary. If the pumphead has not been used for a period of twelve months or more.

ii. Before putting a motor which has been stored, into service, check that no foreign matter is present. That the desiccant is removed (we would estimate that it will give at least 12 months protection) and that all dust and dirt is blown out. Test the insulation resistance between phases and also to ground, at around three monthly intervals. To ensure that it is above one Megaohm, the practice of running a motor with a low insulation resistance on full voltage is not recommended, as a breakdown may occur before the windings dry out.