



ICS LUBRICATION INFORMATION

BEARING LUBRICATION

It is recommended that high quality grease comprising the following characteristics is used:
Lithium soap base grease with EP additives and oxidation inhibitors.

N.L.G.I. Consistency No: 2

Drop Point: > 170° C

Work penetration 25°C A.S.T.M.: 265 – 295

RECOMMENDED GREASES:

SHELL ALVANIA EP GREASE 2 (operating temperature range -10°C to 110°C)

CASTROL EPL2 (operating temperature range 0°C to 110°C) or equivalent

Use only the recommended grease at all times and ensure it is clean.

ICS bearing assemblies that are correctly assembled and greased will have an extended trouble free life, provided that they are adequately maintained.

Maintenance personnel should determine the appropriate intervals (not to exceed 12 months) to dismantle bearing assemblies for inspection of bearings, re-greasing, and determining the time for the next scheduled inspection.

The frequency and amount of grease to be applied to bearings depends on a number of Factors, including bearing size, pump speed, duration and extent of pump operation, ambient and operating bearing temperatures. ICS bearing housings do NOT require greasing of the extent required by competitors AH series housings (i.e. competition suggests up to 16 shots of grease per day). The ICS bearing housings only require greasing as detailed in Table 1.

Periodic Grease Application - The following tabulation of lubrication intervals, as a function of pump speed, may be used as a guide for average pump conditions.

LUBRICATION INTERVALS – HOURS
PUMP OPERATING SPEED

| Pump Frame | Bearing Part # | Grease Addition Per Bearing (g) | 400 rpm | 500 rpm | 750 rpm | 1000 rpm | 1250 rpm | 1500 rpm | 2000 rpm |
|------------|----------------|---------------------------------|---------|---------|---------|----------|----------|----------|----------|
| A | BRG-A | 5 | | | | | 2500 | 2200 | 1700 |
| B | BRG-B | 10 | | | | 2600 | 2300 | 2000 | 1500 |
| C | BRG-C | 15 | | | | 2500 | 2300 | 1500 | 1000 |
| D | BRG-D | 20 | | 3600 | 2500 | 1900 | 1300 | 1000 | 800 |
| E | BRG-E | 40 | 4000 | 3000 | 2200 | 1700 | 1100 | 900 | |
| F | BRG-F | 60 | 3000 | 2400 | 2000 | 1100 | 900 | | |



Global Wear Component Specia

CONTINUED:

| Pump Frame | Bearing Part # | Grease Addition Per Bearing (g) | 2500 rpm | 3000 rpm |
|------------|----------------|---------------------------------|----------|----------|
| A | BRG-A | 5 | 1400 | 900 |
| B | BRG-B | 10 | 1000 | 700 |
| C | BRG-C | 15 | 800 | 700 |

Table 1

It is important that grease nipples are cleaned prior to greasing to prevent entry of contaminants to the bearing cavity. Grease caps should be reinserted over the grease nipple after greasing is completed. Grease should be applied often and sparingly, rather than in large quantities at long intervals. DO NOT OVER-GREASE BEARINGS.

The above lubrication intervals are based on average pump operating conditions as below.

- Ambient temperature in range 5 - 50° C
- Clean environment
- Operating conditions within rating for the pump
- Lubrication intervals assume bearing temperatures measured at the outer bearing ring do not exceed 80° C. Where this temperature is exceeded, intervals should be halved for each 10° C increment above 80°C.

Maximum recommended grease operating temperature should not be exceeded under any circumstances. If any of these conditions are exceeded, lubrication intervals should be reduced accordingly.

Excess greasing of bearings will result in overheating due to churning of the grease. If Bearings temperatures increase after grease addition, it is likely the unit has been over greased, or that contaminants were entrained in the grease. Under no circumstances should additional grease be applied to rectify the condition.

Most pumps operate well below maximum recommended bearing speeds if correctly greased.

Experience and judgement should be applied in determining the most appropriate lubrication procedures for a particular pump. **New pump installations should be monitored closely in the initial stages of operation, with particular attention being paid to bearing temperatures and cleanliness. – All new pumps should be greased prior to installation.**

New or re-conditioned Bearing Housings which are supplied by ICS or their agents are supplied with grease applied in accordance with these specifications.