

INITIAL GREASING AND RELUBRICATION OF BALL AND ROLLER BEARINGS

Ball and roller bearings require very little lubricant, the principle of their design and the design of spaces around them (grease cavities), is to provide lubrication with a very thin film on the tracks and rolling elements. This is provided by the oil that slowly bleeds from the grease in the cavities.

From this, it can be seen that it is not necessary to have the bearing and cavities completely full, in fact, this can be disadvantageous on high speed bearings, since the grease will be continuously churned, which can lead to overheating and excessive oil leakage from the bearing housing, even premature failure.

The **only time** that bearings and housing can be completely filled and kept full are where:

- bearings are at slow speed
- sealing is poor
- conditions are very dusty

INITIAL GREASING

The corrosion protective normally found in bearings after unpacking, should be washed off with a suitable solvent and dried.

The tracks, cage and rolling elements should then be lightly coated with grease and the bearing spun to distribute the grease.

The remainder of the measured quantity of grease should be distributed in the housing or grease cavities, so that it is adjacent to the bearing.

Care should be taken to ensure all parts are completely clean and grit free.

An approximate guide on initial fill quantities are given below (these can vary dependent upon bearing and housing design):

<u>Shaft diameter</u>	<u>Initial fill</u>
25mm	6 grams
50mm	12 grams
75mm	25 grams
100mm	40 grams
125mm	130 grams

Relubrication

Wipe the grease nipple or fitting to clean off any accumulated dirt or grit.

Pump in the required quantity of grease as detailed below (a standard cartridge gun applies 1gm of grease per shot), making allowance for any leakage at the nipple.

Wipe the nipple clean.

<u>Shaft diameter</u>	<u>Relubrication</u>
25mm	2 - 3 grams
50mm	4 - 5 grams
75mm	8 - 12 grams
100mm	12 - 20 grams
125mm	40 - 60 grams

The content of this document is given in good faith but without warranty.