



*The Ultimate Lubricant*

# 77



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## **DESCRIPTION:**

Omega 77 is a sophisticated, impact-resistant, chassis and bearing lubricant incorporated with the unique Omega "Megalite" to ensure longer service life. It provides an exceptional standard of lubrication to the endless variety of mechanical equipment in use today. This results in dramatically reduced inventories, downtime and maintenance cost.

## **COMFORMITY:**

Omega 77 has constant conformity. This aspect provides the essential texture for precision applications and the necessary allowance for possible surface deformity in the bearing. This ensures that alignment remains constant.

## **FUNCTIONS:**

Omega 77 resists squeeze-out and thinning. Bearings must provide the support and constraint to a moving link of kinematic chains or mechanisms. The prime objective is to retain complete lubricant coverage and yet still provide maximum mechanical freedom. Ordinary greases are unable to withstand the everyday pressures of bearings and, subsequently, disintegrate rapidly leaving prime support areas in direct, metal-to-metal contact!

## **LOW COEFFICIENT OF FRICTION:**

Omega 77 provides excellent reduction of friction between journal and bearing. This results in considerably lower energy consumption and wear - especially during the critical start-up period.

## **LOW THERMAL EXPANSION:**

Omega 77 does NOT expand or contract as a result of temperature or climatic changes. Ordinary greases not only expand, but often form small hard congealants that rapidly transform into diamond hard abrasives. This causes heavy bearing drag which overloads equipment and increases the frictional energy requirements.

## **HIGH THERMAL CONDUCTIVITY AND ABSORPTION:**

Omega 77 rapidly absorbs and dissipates heat. Frictional heat can have a marked effect on the running efficiency of the equipment. Ordinary greases tend to burn-up and this enables 'hot-spots' to form. These develop into irreparable wear areas.

## **COMPRESSIVE STRENGTH:**

Omega 77 possesses almost infinite strength to support maximum loads without rupturing, disintegrating, crumbling or crushing. When subjected to compression, the unique Omega "Megalite" fortified in the lubricating film of Omega 77 serves as molecular bearings to keep frictional surfaces apart.

## **CAPILLARY TENDENCIES:**

Omega 77 has active supplements that ensure total surface coverage.

## **CORROSION RESISTANCE:**

Omega 77 is resistant to the acids formed by "mixed-greases" previously used in the equipment. Omega 77 is also resistant to acids formed by contaminants.

## ELASTICITY:

Ordinary greases tend to lubricate only those areas where they can be applied. This results in large areas, without lubrication, being subjected to damaging contact and eventual seizure! Omega 77 has a spreading ability that ensures ALL potential wear areas are covered.

## METAL TYPES:

Omega 77 is ideal for application to the following metals and combinations of metals:

|           |           |        |
|-----------|-----------|--------|
| Aluminium | Cast Iron | Nickel |
| Antimony  | Indium    | Silver |
| Bismuth   | Iron      | Steel  |
| Cadmium   | Lead      | Tin    |
| Zinc      |           |        |

## TYPICAL DATA:

| TEST                                     | ASTM<br>TEST<br>METHOD | TEST RESULT               |                          |                          |
|------------------------------------------|------------------------|---------------------------|--------------------------|--------------------------|
|                                          |                        | NLGI#2.5                  | NLGI#2                   | NLGI#00                  |
| Color                                    | -                      | Red Sparkle               | Red Sparkle              | Red                      |
| Worked Penetration, at 25°C              | D.217                  | 250-280                   | 265-295                  | 400-430                  |
| Mineral Oil Specification -              |                        |                           |                          |                          |
| Viscosity, cSt at 100°C                  | D.455                  | 30                        | 30                       | 19.2                     |
| Viscosity, cSt at 40°C                   | D.455                  | 455                       | 455                      | 314                      |
| Viscosity Index                          | D.2270                 | 110                       | 10                       | 60                       |
| Flash point, °C (°F)                     | D.92                   | 254(489)                  | 232(450)                 | 242(468)                 |
| Pour point, °C (°F)                      | D.97                   | -10(14)                   | -12(10)                  | -12(10)                  |
| Dropping Point, °C (°F)                  | D.2265                 | 190(374)                  | 188(370)                 | N.A.                     |
| Water Washout Characteristics            | D.1264                 |                           |                          |                          |
| Grease Washout, % Loss                   |                        | 4.5                       | 3                        | N.A.                     |
| Wheel Bearing Leakage, % Loss            | D.1263                 | 0.4                       | 1.2                      | 2.1                      |
| Oil Separation, % Loss                   | D.1742                 | 2.0                       | 3.0                      | N.A.                     |
| Oxidation Stability, lbs loss in 100 hrs | D.942                  | 5 max.                    | 5 max.                   | 5 max.                   |
| Rust Prevention                          | D.1743                 | Pass                      | Pass                     | Pass                     |
| Roll Stability, Point Change             | D.1831                 | N.A.                      | 2.19                     | N.A.                     |
| Timken, OK Load, kg                      | D.2509                 | 23                        | 23                       | 23                       |
| Temperature Range, °C(°F)                | -                      | - 7 to 150<br>(20 to 302) | -7 to 149<br>(20 to 300) | -7 to 149<br>(20 to 300) |