Rock Drill Lubes

Pneumatic Percussion Tool Lubricant

Product Data Sheet

Rock Drill Lubes are specially formulated for the lubrication of percussion type air tools. They have good EP properties, provide good rust protection, are non-corrosive to air tool parts and resist water washing. They are available in ISO viscosity grades 100, 320 and 460 to provide the correct choice for most operating or climatic conditions in Australia.

APPLICATIONS

Percussion-type air tools operating under wet or dry conditions, including:

- Rock drills
- Concrete and paving breakers (jack hammers)
- Tampers
- Rammers
- Riveting and chipping hammers etc.

Rock Drill Lubes may be suitable for use when ISO 100, 320 or 460 lubricants are recommended with equipment from Atlas Copco, Consolidated Pneumatic, Gardner Denver, Ingersoll Rand, Yamamoto and other manufacturers, except for Holman and Broomwade, where Rando HD 32 may be suitable.

Below are general ambient temperature guidelines for adequate atomization of air-line lubricators. OEM guidelines precede these, and should always be followed.

Rock Drill 100 : 5°C to 25°C

Rock Drill 320 and 460 : Above 30°C

BENEFITS

- **Protects against wear**
  Extreme pressure performance withstands heavy shock loads typical of rock drill service, protecting the equipment against rapid wear.

- **Protects surfaces in wet environments**
  Emulsification properties prevent water wash-off from critical areas when operating with wet air, or during hollow rod “wet drilling” operations. Effective rust and corrosion inhibitor system protects critical components in wet air or “wet drilling” operation.

- **Enhanced performance**
  Highly refined base oils with low carbon forming characteristics and special oxidation inhibitor prevent the formation of sludge and deposits which can produce sluggish valve action. Effective anti-foam inhibitor resists foaming in air-line lubricators to enable easy control of oil feed by ensuring regular supply of lubricant to the tool. Special anti-fogging additive minimizes oil fog formation in equipment exhausts.

TYPICAL CHARACTERISTICS

Product Code	1608	1609	2593
ISO Viscosity Grade	100	320	460
Density at 15°C kg/L	0.927	0.934	0.904
Flash Point, COC, °C	204	232	232
Pour Point, °C	-24	-15	-9
Viscosity, at 40°C, mm^2/s at 100°C, mm^2/s	 100 11.1	 301 23.2	 462 30.7
Viscosity Index	95	96	96

PACK SIZES

20L.

ISO 100 also available in 205L.

ISO 100 and 320 also available in 1000L.

SERVICE CONSIDERATIONS

Rock drills are precision built units with close tolerance parts that must operate under heavy loads in adverse conditions. During operation, rock drill temperatures may vary widely from low ambient to localized hot spots, particularly when a drill is run dry or “on cushion”, such as when withdrawing the rod from a hole. Boundary lubrication conditions often prevail due to the sliding action of the heavily loaded piston, which is further accentuated by its rapid reciprocating motion. Moisture, in the form of wet air operating systems or leakage of water past seals during hollow rod “wet drilling operations”, can cause rusting and wash the lubricant from critical areas.

In addition to supplying drilling energy, most rock drills use the compressed air to also carry fine droplets of misted oil to the moving parts of the drill. Oil is metered into the air stream through an air line oiler or venturi. This oil must be carefully metered to provide adequate lubrication, since insufficient or inadequate lubrication can cause rapid drill failure due to wear.

In the case of air-line lubrication, correct viscosity grade selection is necessary for acceptable lubrication. The amount of air picked up and carried by the air steam, in air-line lubricators, depends largely on the viscosity grade of the selected lubricant and the temperature of the lubricant in the lubricator. Lubricant temperature will be determined by the air temperature surrounding the lubricator and the temperature of the compressed air. Where tools are not operated continuously, or the air receiver is located far enough from the tools such that the compressed air cools before reaching the lubricators, the ambient air temperature is generally the controlling factor in viscosity grade selection.

OEM guidelines on viscosity selection should always be followed. In the absence of specific equipment manufacturers’ recommendations on grade selection, the guidelines shown in the “Applications” section will assist in ensuring that adequate atomization is obtained in the air-line lubricator.

In addition to correct viscosity grade selection, a uniform, dependable supply of lubricant is extremely important for extended life and reliable operation from percussion-type air tools.

Except for the smallest tools, air-line lubricators of the proper size should be installed at the correct distance from the tool (about 3 to 4 metres). Maintenance schedules should be arranged so that the lubricators are refilled at the correct

intervals to prevent the tools from being run dry. Periodic blowing of the air lines to remove collected water and dirt will also assist in obtaining good lubrication.

ENVIRONMENT, HEALTH AND SAFETY

Users should consult the MSDS, follow the precautions outlined and comply with all laws and regulations concerning its use and disposal. Used packaging material should not be incinerated or exposed to flame. After use, protect your environment. Do not pollute drains, soil or water with used product.

OTHER INFORMATION

For further information on Caltex products and services call the Lubelink Advisory Service on 1300 364 169 between 8.00am and 6.00pm (EST) Monday to Friday.

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