AIR LINE OIL 100

Pneumatic Tool Lubricant

DESCRIPTION

Air line Oil 100 was developed specifically to meet the needs of rotary air tool lubrication. Whether hand-held or mounted, air or pneumatic tools operate at high speed and contain a variety of precision parts. Air tools derive motion from the energy produced by expanding air.

There are two basic types of pneumatic tools--reciprocating (jackhammers, rock drills) and rotary (wrenches, grinders, drills). They differ in the type of drive used and in the tool action produced.

Rotary pneumatic tools are driven by either a vane, turbine or piston-type air motor which imparts a rotary motion to the tool. In rotary tools, the air expands against vanes set lengthwise in slots along a rotor or against the blades of an impeller attached to the main shaft.

In the impeller type, ball bearings carry the shaft and are the only parts which require lubrication. In a rotary vane tool the vane slots on the rotor, as well as the supporting ball bearings, must be lubricated. Lubrication must be continuous to prevent wear and destruction of the vanes. In this type of tool, the speed depends upon the pressure of the air. If further speed control is necessary, the tool may have gears working off the rotor shaft.

In operation, air tools develop a large temperature difference between the head and exhaust section. **Air Line Oil 100** will flow smoothly and mist freely at the low temperatures caused by the expansion of compressed air.

The temperature decrease that occurs with expanded air increases the relative humidity beyond the saturation point causing moisture to condense onto the working surfaces of the air motor or tool.

Air Line Oil 100 is formulated using special emulsifiers, adhesive agents and rust and corrosion inhibitors that will emulsify water with oil, preferentially wet metal surfaces in the presence of moisture and provide a tacky film that clings to metal surfaces resisting the washing effects of water. **Air Line Oil 100** does not form the gumming, rusting and sticky emulsions that cause valves and vanes to stick and tools to wear.

* Blended of highly-refined, hydrotreated, high VI paraffin base oil with high oxidation stability and low temperature fluidity

* High film strength withstands the pressures in sliding vane air motors providing a tenacious protective oil film between all moving parts

* Substantially reduces wear on frictional surfaces using a unique ashless anti-wear agent

APPLICATIONS

In air tools, the lubricant is continuously carried away by the exhaust air. All moving parts must be lubricated constantly by oil in a mist form carried by the inlet air stream. The air line oiler, which stores the oil and meters it into the air stream, may be built into the tool or a separate reservoir inserted in the air line. Care should be taken to maintain proper oil levels, proper oil feed rates and cleanliness of the oiler to prevent entry of dust or dirt.

A good indication of proper oil feed rate is when a fine mist of oil is observed in the tool exhaust or when a thin film of oil appears on a clean surface.

Efficient operation of all pneumatic tool depends on a supply of clean air at the rated pressure of the compressor or the in-line regulator setting and a continuous supply of oil.

TYPICAL PROPERTIES

Color	Amber
ISO Grade	32 (other grades available)
Viscosity, ASTM D-445	
cSt @ 40° C	30.5
cSt @ 100° C	5.2
Flash Point, °F	420
Pour Point, °F	-10
Foam Characteristics, ASTM D-892	
Seq. 1,2 and 3, ml	0/0
Neutralization No., ASTM D-974	0.02
Rust Test, ASTM D-665 A & B	Pass
Copper Corrosion, ASTM D-130	
3 hrs @ 100° C	1a
4-Ball Wear Test, ASTM D-4172	
1200 rpm, 40 kg, 167° F, 1 hr	
scar diameter, mm	0.40