



TRIBOL® 100 LS AIR TOOL OIL

Product Data Sheet

Tribol ATO 100 LS Air Tool Oil was designed for severe service in pneumatically operated tools producing rotary and/or reciprocating (percussive response) motion. ATO 100 LS' excellent friction-reducing and antiwear characteristics provide high performance lubrication with reduced lubricant consumption.

DESCRIPTION

High temperatures are a natural consequence of compressed air/impact operations. As a result, oil films naturally get thinner. In air tool service there is also the need to minimize oil feed rates in order to control the release of oil into the shop atmosphere, and to control the formation of carbonaceous deposits as lubricants age, oxidize, and decay.

ATO 100 LS offers excellent protection with a very thin film because of a proprietary blend of antiwear, extreme pressure (EP), and friction modifying agents which perform synergistically in combination. These agents are fully dissolved in the oil. But when subjected to the forces of impact and the extreme pressure of contacting asperities (microscopic high spots), these additives convert to low-shear compounds on working surfaces and persist and lubricate much like solid film lubricants.

Because the additives in ATO 100 LS are fully dissolved but act like solid lubricants in service, the product is designated "LS" for "Liquid Solids." Tribol has been a leader in solids lubrication for more than 40 years.

ATO 100 LS is formulated to sustain a lubricant film even in the presence of excessive condensed moisture from a humid environment. Special compounding causes the water to be encapsulated and removed in the exhaust air. This allows the lubricating oil to preferentially wet cylinders, vanes, valves, and other contact surfaces for maximum protection.

APPLICATIONS

Tribol ATO 100 LS meets the ISO 22 Viscosity Grade specification.

Typical applications for ATO 100 LS are in nutrunners, torque wrenches, screw drivers, drills, sanders, chippers, hammers, and in any other air-operated machine requiring an ISO 22 VG lubricant.

ATO 100 LS can be applied by airline oiler, spray mist, oil cup, splash, or automatic dispensing equipment and central oiling or circulation systems.

ADVANTAGES

Primary objectives in the development of ATO 100 LS were to reduce the amount of lubricant required while improving the antiwear and friction reducing characteristics of the lubricant.

Reduced safe application - less oil consumption means:

- Less oil in exhaust - cleaner breathing air
- Less chance of soiling production
- Reduced build-up of varnish or deposits

Improved antiwear and low friction characteristics offer:

- Less downtime - longer service life of vanes, cylinders, and valves
- Fewer repairs and lower inventory of replacement air tools and parts
- Increased torque - reduced standard deviation of torque repeatability

NOTES

For specific terms, conditions, warranty, and availability, refer to the Castrol Performance Lubricants' Price List in effect at time of purchase.

Please See Reverse Side For Typical Properties.

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Formerly PDS 2579-4 8/99

Molub-Alloy® Optimol® Tribol®

TYPICAL PROPERTIES**Tribol ATO 100 LS**

ISO Viscosity Grade, ASTM D 2422	22
Specific Gravity, ASTM D 1298 @ 15.6°C/60°F	0.8816
API Gravity, ASTM D 1298, @ 15.6°C/60°F	24.9
Viscosity, ASTM D 445, D 2161:	
@ 20°C, cSt	57
@ 40°C, cSt	20.8
@ 50°C, cSt	14
@100°C, cSt	3.6
@100°F, cSt/SUS	22.85/110
@210°F, cSt/SUS	3.7/38.5
Flash Point, ASTM D 92, COC, °C/°F	163/325
Fire Point, ASTM D 92, COC, °C/°F	188/370
Pour Point, ASTM D 97, °C/°F	-43/-45
Rust Test, ASTM D 665:	
Procedure A (Distilled Water)	Pass
Procedure B (Synthetic Sea Water)	Pass
Conradson Carbon Residue, ASTM D 189,	
Base Oil, wt %	0.03
Four Ball Wear Test, (40 kg, 75°C/167°F, 1800 rpm, 1 hr)	
Scar Diameter, mm	0.40

Subject to Usual Manufacturing Tolerances