

# Castrol Tribol ATO 100 LS ZF

Zinc-Free Air Tool Oil

## Description

Tribol ATO 100 LS ZF is oil designed for severe service in pneumatically operated tools producing rotary and/or reciprocating motion. Formulated to address environmental concerns, Tribol ATO 100 LS ZF is free of lead, zinc, chlorinated solvents, and barium.

## Application

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

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

## Advantages

Tribol ATO 100 LS ZF 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.

It is formulated to sustain a lubricant film 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.

## Typical Characteristics

Test	Method	ATO 100 LS ZF
ISO Viscosity Grade	ASTM D-2422	22
Viscosity		
@40°C, cSt		21
@100°C, cSt	ASTM D-445, D-2161	3.1
@100°F, SUS		112
@210°F, SUS		37
Specific Gravity @ 60°F	ASTM D-1298	0.9053
Flash Point, °C/°F	ASTM D-92, COC	171/340
Pour Point, °C/°F	ASTM D-97	-40/-40
Rust		
Distilled Water	ASTM D-665(A)	Pass
Synthetic Sea Water	ASTM D-665(B)	Pass
Conradson Carbon Residue, wt%	ASTM D-189	0.03
Four Ball Wear Test, mm	ASTM D-4172 40 kg, 75°C 1800 rpm, 1 hr	0.35
Falex Wear, Pin & Vee Block Method (Modified)	ASTM D-2670, 500 lbs.	5

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