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Bio-E.P. Press™ Oils

STABILIZED™ by Renewable Lubricants

"Biobased Lubricants that Perform Like Synthetics"

Bio-E.P. Press™ Oils are designed to meet and exceeds the demanding gear and bearing requirements in printing press systems. These biobased lubricants are formulated with a unique additive system that provides a tackifier for anti-leak and/or non-drip performance. In addition, the lubricants contain no chlorine, active sulfur, or heavy metals such as zinc which is important in press applications. Bio-E.P. Press™ Oils are recommended for lubricating spur, helical, bevel, and worm gear configurations which are subject to heavy loading or shock loading and are designed for heavy-duty applications. The formulas have combined energy conserving Stabilized HOBS technology with synthetic base stocks and mild E.P./antiwear additives. The result is an ultimately biodegradable[1] product which has the long life heat stability but which additionally offers the protection advantages of increased gear life through extremely high film strength during operating temperatures.

Typical Specifications

ISO grade Replacement	46	68	100	150	220
AGMA Replacement	E.P. 1	E.P. 2	E.P. 3	E.P. 4	E.P. 5
VISCOSITIES:					
@100^{O}C., cSt. (D-445)	8.26	11.84	14.5	20	24.1
@40^{O}C., cSt. (D-445)	41.73	65.37	86.3	131	166
Viscosity Index (D-2270)	178	179	175	175	177
Flash Point, COC, ^{O}C (D-92)	260	272	288	288	280
Pour Point, ^{O}C (D-97)	-34	-30	-25	-22	-20
Copper Corrosion 3hr @ 100^{O}C (D-130)	1A	1A	1A	1A	1A
4-Ball Wear (D-4172)	.30	.30	.30	.30	.30
4-Ball EP Weld Point (kg)	250	250	250	250	250
4-Ball EP Load Wear Index	47.86	47.86	47.86	47.86	47.86
FZG Test (DIN 51517)	12	12	12	12	12
Demulsibility (D-2711)	Pass	Pass	Pass	Pass	Pass
Foam Sequence I, II, III (D-892)	Pass	Pass	Pass	Pass	Pass
Rust Prevention (D-665 A&B)	Pass	Pass	Pass	Pass	Pass
Timken Load, OK Load (lbs) (D-2782)	70	70	70	70	70
Biodegradation classification	Ultimate	Ultimate	Ultimate	Ultimate	Ultimate
RLI Product Item #	**82300**	**82310**	**82320**	**82330**	**82340**

Features

(1) Energy Conserving Formulas (Because of the super high viscosity index (VI) of the Stabilized HOBS these products are lighter therefore more energy efficient at room temperatures up to 40^{O}C but provide a more protective heavier viscosity than mineral based formulas at operating temperatures of 60^{O}C and above)
(2) Super high viscosity index provides wider temperature performance
(3) Fortified with additives to resist wear, oxidation, rust and foam
(4) More fire resistant and improved heat dissipation

Bio-E.P. Press™ Oils meet the Environmental Protection Agency (EPA) 2013 Vessel General Permit (VGP) guidelines for Environmentally Acceptable Lubricants (EALs), and should be used where **LOW TOXICITY**, **BIODEGRADABILITY** and **NON-BIOACCUMULATION** properties are required. They exceed the acute toxicity (LC-50 / EC-50 >1000 ppm) criteria adopted by the US Fish and Wildlife Service and the US EPA. Bio-E.P. Press™ Oils are ENVIRONMENTALLY RESPONSIBLE lubricants that are formulated from renewable agricultural plant resources. We believe Earth's environmental future rests in the use of renewable material.

[1]Ultimate Biodegradation (Pw1) within 28 days in ASTM D-5864 Aerobic Aquatic Biodegradation of Lubricants

STABILIZED by Renewable Lubricants* is RLI's trademark on their proprietary and patented anti-oxidant, anti-wear, and cold flow technology. High Oleic Base Stock (HOBS) are agricultural vegetable oils. This Stabilized technology allows the HOBS to perform as a high performance formula in high and low temperature applications, reducing oil thickening and deposits.
Patented Product: US Patent 6,383,992, US Patent 6,534,454 with additional Pending and Foreign Patents

Availability F.O.B. :Hartville, Ohio, USA 1 Gallon 5 Gallon Pail Drum Totes Bulk