

ISO-9001 Registered Quality System. ISO-21469 Compliant.

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LUBRIPLATE UTF Biobased Green

"Biobased Lubricants that Perform Like Synthetics"

LUBRIPLATE UTF Biobased Green is a universal tractor fluid that incorporates Stabilized* additive technology with biodegradable vegetable based stocks. This formulation contains special frictional modifiers for the Wet Brake's equipment design and is compounded with detergent, dispersant, anti-wear, anti-rust and anti-foam inhibitors. LUBRIPLATE UTF Biobased Green is an ultimately biodegradable¹, multi-grade lubricant that can be used in agricultural, industrial and construction equipment and has proven field performance.

Meets or exceeds all of the requirements of John Deere's Hygard (Specification J20-C); Allison C-3, Cat TO-2 and API GL-4, Low-Speed/High Torque.

Meets and exceeds universal tractor specifications for OEMS.

John Deere

 $\begin{array}{c} J20C,\,J14A\\ Quantrol \end{array}$

J20D

Ford

M2C134-D M2C86-C, M2C86-B M2C41-B, M2C48-B M2C53-A, M2C134-A M2C134-B, M2C134-C

Massey-Ferguson

M1135, M1141 M1110, M1127, M1129-A

Kubota Steiger Versatile **Case International**

JIC-145/MS-1210 JIC-185/MS-1204

MS-1205, MS-1127, M1129-A

White Farm

O-1826

Q-1705, Q-1766, Q-1802

Duetz-Allis Landini Fiat-Hesston

Transmission OEM's ATD Allison C-4

LUBRIPLATE UTF Biobased Green is an <u>ENVIRONMENTALLY RESPONSIBLE</u> hydraulic fluid that is formulated from renewable, agricultural plant resources. We believe Earth's environmental future rests in the use of renewable materials.

High Oleic Base Stocks (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.

LUBRIPLATE UTF Biobased Green is available in the following packaging:

 Container Size
 Part No.

 5-Gallon Pail
 L1072-060

 55-Gallon Drum
 L1072-062

(Over for Test Data)

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

LUBRIPLATE UTF Biobased Green

<u>Test</u>	Typical Results	Specification Limits				
Viscosity @ 100°C (ASTM D-445)	10.26	9.10 min.				
Viscosity @ 40°C (ASTM D-445)	47.8	None				
Viscosity Index (ASTM D-2270)	210	140				
Shear Stability Orbahn (ASTM D-6278)						
Vis. @ 100°C (after shear)	9.38	9.10 min.				
Brookfield Viscosity (ASTM D-2983)						
@ -20°C	1,650	4,500 max.				
5,500 per J. Deere						
@ -35°C	11,150 70,000 max.					
Flash Point, °C	251	200 min.				
Stable Pour Point, °C	-39	-37 max.				
Oxidation Stability JDQ 16						
Evaporation Loss	0.65%	5.0% max.				
Viscosity Increase @ 100°C	5.02%	10.0% max.				
Viscosity Increase @ 40°C	4.0					
Sludge Formation	None	None				
Additive Separation	None	None				
Rust Protection JDQ 22	>100	100 hrs. min.				
Copper Corrosion JDQ 32	1A	1B max.				
Foaming Characteristics JDQ 33						
Sequence I	40/0	25/0 ml. max.				
Foam Breaktime	82	30 sec. max.				
Sequence II	0/0	50/0 ml. max.				
Foam Breaktime	0	30 sec. max.				
Sequence III	30/0	25/0 max.				
Foam Breaktime	0	30 sec. max				
Water Sensitivity JDQ 19		0.45				
Solids	0.0	0.1% v max.				
Additive Loss	0.0	15.0% wt. max.				
Extreme Pressure Properties JDQ 34	0.5	. ~				
Timken Abrasion Mass Loss	0.5 mg.	1.5 mg. max.				
Timken OK Load	73 N	45 N min.				
Rubber Compatibility JDQ 9	. 1	0.4				
Volume Change	+1 -0.5	0 to +5%				
Hardness Change		0 to -5 pts.				
Precipitation Public Compatibility	None	Trace				
Rubber Compatibility Reference 69X311111						
Volume Change	+2.5	0 to +5				
Hardness Change	+2.3 -1.5	0 to -5				
Precipitation	None	None				
Oil Compatibility JDQ 23	None	None				
Additive Separation	None	None				
Foaming Characteristics	None	None				
Sequence I	0/0	25/0 ml. max.				
Foam Breaktime	0	30 sec. max.				
Sequence II	0/0	50/0 ml. max.				
Foam Breaktime	0	30 sec. max.				
Sequence III	0/0	25/0 ml. max.				
Foam Breaktime	0	30 sec. max.				
1 out Dicurcumo	V	50 boo. max.				
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LUBRIPLATE UTF Biobased Green

<u>Test</u>		Typical Results	Specification Limits		
Oxidation Stabi	lity				
	ration Loss	1.6	5.0% max.		
	ity Increase @ 100°C	6.0	10.0% max.		
Viscos	ity Increase @ 40°C	9.8			
Sludge	Formation	None	None		
	ve Separation	None	None		
	re Fluidity JDQ 73/74				
Cold S	oak @ -35°C	27 secs.	30.0 sec. max.*		
Slow Cool					
@ -30°		30 mm in 3 secs.	30.0 sec. max.*		
@ - 35	°C flow in 30 secs.	30 mm in 11 secs.	10.0 mm min.**		
	in a maximum of 30 seconds to pass. t 10 mm in 30 seconds to pass.				
JDQ 94 PST Cli	utch Friction				
Total Cycles		2,000	2,000		
Initial Friction (Coefficient	0.077	0.15 max.		
Final Friction C		0.105	0.08 min.		
Stall Time (sec.		1.77	5.0 max.		
Disk #1 Wear (r		0.178	0.38 max.		
Disk #2 Wear (r		0.174	0.38 max.		
Disk #3 Wear (r	*	0.254	0.38 max.		
Disk #4 Wear (r		0.178	0.38 max.		
JDQ 102 Shear		10.51			
	ity @ 100°C	10.51			
	ity @ 100°C (sheared)	9.38			
	cosity Loss	10.8%			
	Bevel/Final Drive Gear Wear				
Gear Surface Co	ondition	N	N. C.		
Pinion		None	No Scoring		
Ring		None	No Scoring		
Spiral Bevel Rating		9	Scale of 1-10,		
Com Dinion Was			10 = the best		
Sun Pinion Wear		< 0.025	< 0.025		
Left Side Average Right Side Average					
_	<u> </u>	< 0.025	< 0.025		
	and Hydraulic Pump	3.9%	Equal to or botton		
Flow Degradation	OII	3.9%	Equal to or better than reference which		
IDO 06 P1 . 7	Samuel Manietien on A Printing		is -2.0%		
JDQ 96 Brake I	Corque Variation and Friction	_			
Cycles	Computer Results Relative Capacity	Torque Variation	SwRI Variation		
1,000	293,131	44,470	559,780		
10,000	308,090	36,730	424,130		
20,000	310,651	36,220	421,620		
30,000	312,768	42,380	506,220		
Total	1,224,640	159,800	1,911,750		
- O.M.	1,221,010	107,000	1,711,100		

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<u>Test</u>	Typical Results			Specification Limits			
Allison C-4 Oxidation Test							
Tan Increase	10.12			7.0 max.			
Carbonyl Absorbance	10.0			0.9 max.			
Front Pump Seal	Moderate to			Moderate to Heavy Hardening			
•	Heavy 1						
Light Sludge				Light to Medium Sludge			
Allison C-4 Wear Test	C	υ		Č		υ	
Total Weight Loss	1.4 mg			15.0 max.			
Allison C-4 Paper Clutch Friction Test							
	<=5,00	<=5,000 >5,000			<=5,000 >5,000		
	Cycles	Cycles			Cycles		
Slip Time, max.	0.70	0.55		0.72	0.61		
Mid-Point Friction Coeff. min.		0.076	0.095		0.068	0.088	
Allison C-4 Graphite Clutch Friction Test							
•	1,500			5,500			
	Cycles						
Slip Time, max.	0.70		0.74	0.71 ma	0.71 max.		
Mid-Point Friction Coeff. min.		0.101 0.097 0.104 min			nin.		

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