

OIL ANALYSIS REPORT

Sample Rating Trend



NORMAL



PD02 HP01-1100 (S/N 9141)

Component

Gearbox

GEAR OIL ISO 220 (--- GAL)

DIAGNOSIS

Recommendation

Resample at the next service interval to monitor. NOTE: Please provide information regarding reservoir capacity, filter type and micron rating with next sample. Please specify the brand, type, and viscosity of the oil on your next sample.

Wear

All component wear rates are normal.

Contamination

There is no indication of any contamination in the

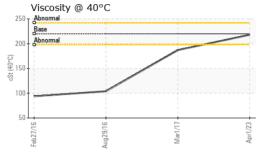
Fluid Condition

The condition of the oil is acceptable for the time in service.

SAMPLE INFORMATION method limit/base current history1 history2 Sample Number Client Info WC0775506 WCI1102224 WCI1100223 Sample Date Client Info O1 Apr 2023 01 Mar 2017 29 Aug 2016 Machine Age hrs Client Info 3409 0 0 0 O O O O O O O			Feb 201	6 Aug2016	Mar2017 A	ipr2023	
Sample Date	SAMPLE INFORM	MATION	method	limit/base	current	history1	history2
Machine Age hrs Client Info 3409 0 0 Oil Age hrs Client Info 3409 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status method Imit Dase current Instory1 NicA WEAR METALS method Imit Dase current Instory1 history2 Iron ppm ASTM D5185m 200 7 23 11 Chromium ppm ASTM D5185m >15 0 0 0 Nickel ppm ASTM D5185m >15 0 0 0 Silver ppm ASTM D5185m >15 0 0 0 Silver ppm ASTM D5185m >250 0 0 0 Caded ppm ASTM D5185m >200 1 <1	Sample Number		Client Info		WC0775506	WCI1102224	WCI1100223
Oil Age hrs Client Info 3409 0 0 Oil Changed Client Info N/A N/A N/A N/A Sample Status Imition Imition NORMAL NORMAL NORMAL WEAR METALS method limit/base current history1 history2 Iron ppm ASTM D5185m >200 7 23 11 Chromium ppm ASTM D5185m >200 0 0 Nickel ppm ASTM D5185m >15 0 0 0 Alluminum ppm ASTM D5185m >10 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 0 Lead ppm ASTM D5185m >200 1 <1	Sample Date		Client Info		01 Apr 2023	01 Mar 2017	29 Aug 2016
Oil Changed Client Info N/A N/A N/A N/A NORMAL NORMAL NORMAL NORMAL	Machine Age	hrs	Client Info		3409	0	0
NORMAL NORMAL NORMAL WEAR METALS method limit/base current history1 history2 history2 limit/base current history1 history2 limit/base current history2 limit/base current history2 limit/base limit/base current history3 limit/base limit/base	Oil Age	hrs	Client Info		3409	0	0
WEAR METALS	Oil Changed		Client Info		N/A	N/A	N/A
Iron	Sample Status				NORMAL	NORMAL	NORMAL
Chromium ppm ASTM D5185m >15 0 0 0 Nickel ppm ASTM D5185m >15 0 <1 0 Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m >20 0 0 0 Aluminum ppm ASTM D5185m >20 0 0 0 Lead ppm ASTM D5185m >20 1 <1 2 Tin ppm ASTM D5185m >20 1 <1 2 Antimony ppm ASTM D5185m >5 <1 0 Vanadium ppm ASTM D5185m 0 0 0 0 Vanadium ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 50 19 27 4 Barium ppm ASTM D5185m 15 0 0 0	WEAR METALS		method	limit/base	current	history1	history2
Nickel	Iron	ppm	ASTM D5185m	>200	7	23	11
Titanium ppm ASTM D5185m 0 0 0 0 Silver ppm ASTM D5185m 0 0 0 0 Aluminum ppm ASTM D5185m >225 0 0 0 Lead ppm ASTM D5185m >100 0 <1	Chromium	ppm	ASTM D5185m	>15	0	0	0
Silver ppm ASTM D5185m 0 0 0 Aluminum ppm ASTM D5185m >25 0 0 0 Lead ppm ASTM D5185m >100 0 <1	Nickel	ppm	ASTM D5185m	>15	0	<1	0
Aluminum ppm ASTM D5185m >25 0 0 0 Lead ppm ASTM D5185m >100 0 <1 0 Copper ppm ASTM D5185m >200 1 <1 2 Tin ppm ASTM D5185m >5 <1 0 Antimony ppm ASTM D5185m >5 <1 0 Antimony ppm ASTM D5185m 0 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 19 27 4 Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 0 0 0 Magnesium ppm ASTM D5185m 50 1	Titanium	ppm	ASTM D5185m		0	0	0
Lead ppm ASTM D5185m >100 0 <1	Silver	ppm	ASTM D5185m		0	0	0
Copper ppm ASTM D5185m >200 1 <1	Aluminum	ppm	ASTM D5185m	>25	0	0	0
Copper ppm ASTM D5185m >200 1 <1	Lead	ppm	ASTM D5185m	>100	0	<1	0
Antimony ppm ASTM D5185m >5 <1	Copper	ppm	ASTM D5185m	>200	1	<1	2
Vanadium ppm ASTM D5185m 0 0 0 Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 19 27 4 Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 0 0 Manganese ppm ASTM D5185m 15 0 0 0 Magnesium ppm ASTM D5185m 50 1 0 0 Calcium ppm ASTM D5185m 50 2 0 0 Phosphorus ppm ASTM D5185m 50 2 0 0 Silfur ppm ASTM D5185m 100 6 4 83 Sulfur ppm ASTM D5185m 12500 11067 12744 3229	Tin	ppm	ASTM D5185m	>25	0	1	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 19 27 4 Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 0 0 Magnesium ppm ASTM D5185m 15 0 0 0 Magnesium ppm ASTM D5185m 50 1 0 0 Calcium ppm ASTM D5185m 50 2 0 0 Phosphorus ppm ASTM D5185m 100 6 4 83 Zinc ppm ASTM D5185m 12500 11067 12744 3229 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 1 1	Antimony	ppm	ASTM D5185m	>5		<1	0
Cadmium ppm ASTM D5185m 0 0 0 ADDITIVES method limit/base current history1 history2 Boron ppm ASTM D5185m 50 19 27 4 Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 0 0 Manganese ppm ASTM D5185m 15 0 0 0 Magnesium ppm ASTM D5185m 50 1 0 0 Calcium ppm ASTM D5185m 50 2 0 0 Phosphorus ppm ASTM D5185m 350 351 296 138 Zinc ppm ASTM D5185m 100 6 4 83 Sulfur ppm ASTM D5185m 12500 11067 12744 3229 CONTAMINANTS method limit/base current history1 <	Vanadium	ppm	ASTM D5185m		0	0	0
Boron	Cadmium	ppm	ASTM D5185m		0	0	0
Barium ppm ASTM D5185m 15 0 0 0 Molybdenum ppm ASTM D5185m 15 0 0 0 Manganese ppm ASTM D5185m 50 1 0 0 Magnesium ppm ASTM D5185m 50 2 0 0 Calcium ppm ASTM D5185m 50 2 0 0 Phosphorus ppm ASTM D5185m 350 351 296 138 Zinc ppm ASTM D5185m 100 6 4 83 Sulfur ppm ASTM D5185m 12500 11067 12744 3229 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >20 0	ADDITIVES		method	limit/base	current	history1	history2
Molybdenum ppm ASTM D5185m 15 0 0 0 Manganese ppm ASTM D5185m < 1 < 1 < 1 < 1 Magnesium ppm ASTM D5185m 50 1 0 0 Calcium ppm ASTM D5185m 50 2 0 0 Phosphorus ppm ASTM D5185m 350 351 296 138 Zinc ppm ASTM D5185m 100 6 4 83 Sulfur ppm ASTM D5185m 12500 11067 12744 3229 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >20 0 0 <1 VISUAL method limit/base current	Boron	ppm	ASTM D5185m	50	19	27	4
Manganese ppm ASTM D5185m <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <1 <th>Barium</th> <td>ppm</td> <td>ASTM D5185m</td> <td>15</td> <th>0</th> <td>0</td> <td>0</td>	Barium	ppm	ASTM D5185m	15	0	0	0
Magnesium ppm ASTM D5185m 50 1 0 0 Calcium ppm ASTM D5185m 50 2 0 0 Phosphorus ppm ASTM D5185m 350 351 296 138 Zinc ppm ASTM D5185m 100 6 4 83 Sulfur ppm ASTM D5185m 12500 11067 12744 3229 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >20 0 0 <1 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE NONE NONE Vellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual N	Molybdenum	ppm	ASTM D5185m	15	0	0	0
Calcium ppm ASTM D5185m 50 2 0 0 Phosphorus ppm ASTM D5185m 350 351 296 138 Zinc ppm ASTM D5185m 100 6 4 83 Sulfur ppm ASTM D5185m 12500 11067 12744 3229 CONTAMINANTS method limit/base current history1 history2 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >50 0 0 <1	Manganese	ppm	ASTM D5185m		<1	<1	<1
Phosphorus ppm ASTM D5185m 350 351 296 138 Zinc ppm ASTM D5185m 100 6 4 83 Sulfur ppm ASTM D5185m 12500 11067 12744 3229 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >50 0 0 <1	Magnesium	ppm	ASTM D5185m	50	1	0	0
Zinc ppm ASTM D5185m 100 6 4 83 Sulfur ppm ASTM D5185m 12500 11067 12744 3229 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >20 0 0 <1	Calcium	ppm	ASTM D5185m	50	2	0	0
Sulfur ppm ASTM D5185m 12500 11067 12744 3229 CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >50 1 1 2 0 Potassium ppm ASTM D5185m >20 0 0 <1 2 0 Potassium ppm ASTM D5185m >20 0 0 <1 2 0 Potassium ppm ASTM D5185m >20 0 0 <1 2 0 0 <1 0 <1 2 0 0 <1 0 <1 0 0 <1 1 3 3 0 0 <1 0 0 <1 0 0 <1 1 1 3 0 0 <1 0 0 <1 0 0 <th>Phosphorus</th> <th>ppm</th> <th>ASTM D5185m</th> <th>350</th> <th>351</th> <th>296</th> <th>138</th>	Phosphorus	ppm	ASTM D5185m	350	351	296	138
CONTAMINANTS method limit/base current history1 history2 Silicon ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m <1	Zinc	ppm	ASTM D5185m	100	6	4	83
Silicon ppm ASTM D5185m >50 1 1 3 Sodium ppm ASTM D5185m >20 0 0 <1	Sulfur	ppm	ASTM D5185m	12500	11067	12744	3229
Sodium ppm ASTM D5185m <1	CONTAMINANTS	;	method	limit/base	current	history1	history2
Potassium ppm ASTM D5185m >20 0 0 <1 VISUAL method limit/base current history1 history2 White Metal scalar *Visual NONE NONE LIGHT LIGHT Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Silicon	ppm	ASTM D5185m	>50	1	1	3
White Metal scalar *Visual NONE NONE LIGHT LIGHT Yellow Metal scalar *Visual NONE NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Sodium	ppm	ASTM D5185m		<1	2	0
White Metal scalar *Visual NONE NONE LIGHT Yellow Metal scalar *Visual NONE NONE NONE NONE Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Potassium	ppm	ASTM D5185m	>20	0	0	<1
Yellow Metalscalar*VisualNONENONENONENONEPrecipitatescalar*VisualNONENONENONENONESiltscalar*VisualNONENONENONENONEDebrisscalar*VisualNONENONENONENONESand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	VISUAL		method	limit/base	current	history1	history2
Precipitate scalar *Visual NONE NONE NONE NONE Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG							
Silt scalar *Visual NONE NONE NONE NONE Debris scalar *Visual NONE NONE NONE NONE Sand/Dirt scalar *Visual NONE NONE NONE NONE Appearance scalar *Visual NORML NORML NORML NORML Odor scalar *Visual NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG							
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Sand/Dirtscalar*VisualNONENONENONENONEAppearancescalar*VisualNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEG			*Visual	NONE	NONE	NONE	NONE
Appearancescalar*VisualNORMLNORMLNORMLNORMLNORMLOdorscalar*VisualNORMLNORMLNORMLNORMLNORMLEmulsified Waterscalar*Visual>0.2NEGNEGNEG	Debris	scalar	*Visual	NONE		NONE	NONE
Odor scalar *Visual NORML NORML NORML NORML NORML Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Sand/Dirt	scalar	*Visual	NONE	NONE	NONE	NONE
Emulsified Water scalar *Visual >0.2 NEG NEG NEG	Appearance	scalar	*Visual	NORML	NORML	NORML	NORML
	Odor	scalar	*Visual	NORML	NORML	NORML	NORML
Free Water scalar *Visual NEG NEG NEG	Emulsified Water	scalar	*Visual	>0.2	NEG	NEG	NEG
	Free Water	scalar	*Visual		NEG	NEG	NEG



OIL ANALYSIS REPORT





GRAPHS Ferrous Alloys Non-ferrous Metals Viscosity @ 40°C 240 220 200 CSt (40°C) 180 140 120 100 80





Certificate L2367

Laboratory Sample No. Lab Number Unique Number : 10443291 Test Package : IND 1

: 05829798

To discuss this sample report, contact Customer Service at 1-800-237-1369.

: WC0775506

: WearCheck USA - 501 Madison Ave., Cary, NC 27513 : 25 Apr 2023 Received Diagnosed : 26 Apr 2023 Diagnostician : Wes Davis

1302 1ST AVE GREELEY, CO US 80631-5909

Contact: ERIC KLINE EKLINE@LEPRINOFOODS.COM

LEPRINO FOODS-GREELEY

* - Denotes test methods that are outside of the ISO 17025 scope of accreditation. Statements of conformity to specifications are based on the simple acceptance decision rule (JCGM 106:2012)

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