LABORATORY ANALYSIS

ENGINEERED LUBRICANTS

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EGS MEXICO S DE RL DE CV VIA MONTERREY MATAMOROS NO 598

MEXICO, ZZ

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T: F:

Mexico

Department MAQUINADOS 1

Equipment No. MA111 HYD HAAS ST-30 (00100)

System Hydraulic System

Oil Type ENGINEERED LUBRICANTS ENLUBE 15-AW (--- GAL)

DIAGNOSIS

Resample at the next service interval to monitor. All component wear rates are normal. The system cleanliness is acceptable for your target ISO 4406 cleanliness code. There is no indication of any contamination in the oil. The system and fluid cleanliness is acceptable. The condition of the oil is acceptable for the time in service.

SAMPLE INFOR	MATIC	N			
Lab Number		New	2310-00486	2306-00805	
Date of Sample		(Typical)	20 Sep 2023	16 Jun 2023	
Oil Added		(1) (1)	UNK	UNK	
Last Drain Date					
Last Filter Service					
Sample Point					
Sample Status			NORMAL	NORMAL	
VISCOSITY @ 1	00F OF	R 40C (ASTI	M D-445)		
SSU Vis. @ 100F	SSU	(-	158.5	159.4	
cSt Vis. @ 40C	cSt	32.0	■30.61	30.78	
			_	00.70	
COLOR (BASED	ON A	S IM D 1500 8	STANDARDS)		
Color	Scale 0-8		1.5	1.0	
PARTICLE COU	NT (PE	R 1ML)			
ISO CODE	ISO 4406(c)	>19/18/14	17/15/12	17/15/11	
4 Micron & Larger	particles/1ml	>5000	1,150	1,257	
6 Micron & Larger	particles/1ml	>2500	252	180	
14 Micron & Larger	particles/1ml	>160	27	1 3	
21 Micron & Larger	particles/1ml	>40	10	5	
38 Micron & Larger	particles/1ml	>10	1	0	
70 Micron & Larger	particles/1ml	>3	0	0	
ICP - OILS (REP	ORTE	D IN PARTS	PER MILLION)		
ICP - OILS (REP Aluminum (Al)	ORTEI ppm	D IN PARTS	PER MILLION)	<5	
•		D IN PARTS	•	<5 <5	
Aluminum (Al)	ppm	D IN PARTS	<5		
Aluminum (Al) Antimony (Sb)	ppm ppm	D IN PARTS	<5 <5	<5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd)	ppm ppm ppm	D IN PARTS	<5 <5 <5	<5 <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr)	ppm ppm ppm	D IN PARTS	<5 <5 <5 <5	<5 <5 <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co)	ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <5	<5 <5 <5 <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu)	ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <5 <5	<5 <5 <5 <5 <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe)	ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <5 <10 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<5 <5 <5 <5 <5 = 8 = <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb)	ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <5 <10 10 <5 7	<5 <5 <5 <5 <5 =8 =<5 <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni)	ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <10 10 <5 <7 <5 <5 <5 <7 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<5 <5 <5 <5 <8 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <5 10 =<5 7 <5 <5 <5	<5 <5 <5 <5 <8 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <10 10 <5 <7 <5 <5 <5 <7 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<5 <5 <5 <5 <8 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn) Titanium (Ti)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <10 10 <5 <7 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<5 <5 <5 <5 <8 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn) Titanium (Ti) Vanadium (V)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <10 <10 <10 <10 <10 <10 <10 <10 <10 <10	<5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn) Titanium (Ti) Vanadium (V) Barium (Ba)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <10 10 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<pre><5 <5 <5 <5 <8 <5 <5</pre>	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn) Titanium (Ti) Vanadium (V) Barium (Ba) Boron (B)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <10 10 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<pre><5 <5 <5 <5 <8 <5 <5</pre>	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn) Titanium (Ti) Vanadium (V) Barium (Ba) Boron (B) Calcium (Ca)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <5 10 ■<5 7 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <7 2 5 <7 2	<pre><5 <5 <</pre>	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn) Titanium (Ti) Vanadium (V) Barium (Ba) Boron (B) Calcium (Ca) Magnesium (Mg)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <5 <10 10 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<pre><5 <5 <</pre>	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn) Titanium (Ti) Vanadium (V) Barium (Ba) Boron (B) Calcium (Ca) Magnesium (Mg) Phosphorus(P)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <5 <10 10 <5 <7 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<pre> <5 <5</pre>	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn) Titanium (Ti) Vanadium (V) Barium (Ba) Boron (B) Calcium (Ca) Magnesium (Mg) Phosphorus(P) Silicon (Si)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm		<5 <5 <5 <5 <5 <10 10 <5 <7 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<pre> <5 <5</pre>	
Aluminum (Al) Antimony (Sb) Cadmium (Cd) Chromium (Cr) Cobalt (Co) Copper (Cu) Iron (Fe) Lead (Pb) Manganese (Mn) Molybdenum(Mo) Nickel (Ni) Silver (Ag) Tin (Sn) Titanium (Ti) Vanadium (V) Barium (Ba) Boron (B) Calcium (Ca) Magnesium (Mg) Phosphorus(P)	ppm ppm ppm ppm ppm ppm ppm ppm ppm ppm	D IN PARTS	<5 <5 <5 <5 <5 <10 10 <5 <7 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5 <5	<pre> <5 <5</pre>	

Customer Id: ENC0005J03 Sample No.: EN23100486 Lab Number: 23100486 Test Package: TEST

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OIL ANALYSIS REPORT



