

# LAB REPORT

Unit ID **Injection molding machine**  
 Component **Hydraulic**  
 Current sample number **1704441**



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OELCHECK GmbH · Kerschelweg 28 · 83098 Brannenburg

Example report  
 Analysis scope: Analysis-Kit 4

Machine type: **SGM EX 7050/650K**  
 Manufacturer: **Engel**  
 Sample from: **Hydraulics**  
 Oil brand name: **Mobil DTE 25**  
 Oil quantity in system: **1600 l**

## Diagnosis for the current laboratory values

There is no significant change of wear metals since the previous sample. The cleanliness class of the oil complies with the requirements. The water content is within the normal range. If no oil change has happened yet, it is possible to continue using the oil under similar operating conditions and under continuation of the usual maintenance schedule. I recommend that you send the next sample at the next service interval or at your regular inspection for trend analysis.

Dipl.-Ing. Andy Böhme (CLS)

## Sample Rating



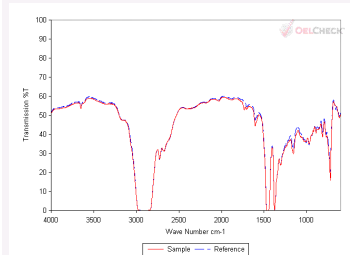
**normal**

ANALYSIS RESULTS			Current sample	3 previous samples not shown		
LAB NUMBER			1704441	1704442	1704443	1704444
SAMPLE RATING						
Date tested			04.05.2023	04.05.2022	23.04.2021	30.03.2020
Date of sample taken			25.04.2023	27.04.2022	16.04.2021	20.03.2020
Date of last oil change			-	-	-	-
Top-up since change	l		100	100	-	160
Operating time since change	h		83983	79283	74506	68812
Total operating time	h		83983	79283	74506	68812
Oil changed			-	no	-	no
WEAR						
Iron	Fe	mg/kg	9	8	7	7
Chrom	Cr	mg/kg	1	1	1	1
Tin	Sn	mg/kg	0	0	0	0
Aluminum	Al	mg/kg	0	0	0	0
Nickel	Ni	mg/kg	0	0	0	0
Copper	Cu	mg/kg	5	5	4	4
Lead	Pb	mg/kg	0	1	0	1
Molybdenum	Mo	mg/kg	0	1	0	0
Manganese	Mn	mg/kg	0	0	0	-
PQ index	-		< 25	< 25	< 25	< 25
CONTAMINATION						
Silicon	Si	mg/kg	1	1	1	1
Potassium	K	mg/kg	0	0	0	0
Sodium	Na	mg/kg	2	1	1	2
Tungsten	W	mg/kg	-	-	-	1
Water K. F.	ppm		134	121	111	95
OIL CONDITION						
Viscosity at 40°C	mm²/s		46.78	46.94	47.61	48.23
Viscosity at 100°C	mm²/s		6.92	6.97	7.00	7.02
Viscosity index	-		104	104	103	102
Oxidation	A/cm		1	1	1	1
IR index	-		99.46	99.19	99.71	-
ADDITIVES						
Calcium	Ca	mg/kg	139	138	139	145
Magnesium	Mg	mg/kg	0	1	0	2
Boron	B	mg/kg	0	0	0	0
Zinc	Zn	mg/kg	723	726	704	701
Phosphorus	P	mg/kg	475	473	455	462
Barium	Ba	mg/kg	0	0	0	0
Sulphur	S	mg/kg	4723	4694	4335	4775

Bottle and cap



Infrared Spectrum



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Total operating time	h	<b>83983</b>	79283	74506	68812
Oil changed		-	no	-	no
ADDITIONAL TESTS					
AN / NN	mgKOH/g	<b>1.14</b>	1.03	1.03	1.02
Cleanliness class	ISO 4406	<b>18/15/10</b>	18/17/13	19/18/14	17/16/12
A: >4µm = ISO >4µm	Particles/100ml	<b>138577</b>	205107	490212	110882
B: >6µm = ISO >6µm	Particles/100ml	<b>29937</b>	65964	134899	32495
C: >14µm = ISO >14µm	Particles/100ml	<b>856</b>	7785	8156	3298
D: >21µm	Particles/100ml	<b>266</b>	2099	1800	636
E: >38µm	Particles/100ml	<b>48</b>	80	105	15
F: >70µm	Particles/100ml	<b>24</b>	0	0	0
Cleanliness class	SAE AS 4059	<b>8A</b>	9A	10A	8A

