

Brandeis Machinery and Supply Co
Falk Steudtner
1801 Watterson Trail -
Louisville, KY, 40299

P.O./Ref No.: **N/A**

Unit ID: **2ZN05181 / C0596**

Unit Worksite: **Chattanooga, TN**

Comp. Ref NO.: **4425634**

Component Type: **DIESEL ENGINE (TURBO CHARGED)**

Component: **ENGINE**

Unit Manufacturer and Model: **Caterpillar 953C**

Oil Type: **-**

Component Manufacturer and Model: **Caterpillar 953C**

Component Serial Number: **H2ZN05181**

Maintenance Recommendations for Lab No. 201706021217

Reported On: **Jun 05 2017**

From: **Power Equipment Company, Chattanooga, TN**

ANALYSIS INDICATES COMPONENT & LUBRICANT CONDITIONS ARE ACCEPTABLE. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Silicon	Boron	Sodium	Potassium	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony	Vanadium	Sample Drawn
1217	4	<1	<1	1	<1	<1	<1	<0.1	1	2	100	3	1	52	1038	1187	1168	<1	826	<1	<1	05/30/17
0761	20	1	<1	3	1	2	<1	<0.1	1	3	47	3	<1	2	1048	1378	2746	<1	23	<1	<1	04/14/16
0236	15	1	<1	3	<1	2	<1	<0.1	82	3	46	4	<10	<5	967	1191	1913	<10	246	<30	<1	10/18/12
3062	12	<1	1	3	1	1	<1	<0.1	30	3	63	5	<10	10	1083	1285	2630	<10	272	<30	<1	05/09/12
5239	20	1	1	4	2	2	<1	<0.1	<1	3	38	4	<10	18	1029	1302	2957	<10	45	<30	<1	06/14/11
1020	14	1	<1	3	1	1	<1	<0.1	<1	3	111	9	<10	26	1083	1283	2393	<10	229	<30	<1	04/09/10

SAMPLE INFORMATION

PHYSICAL TEST RESULTS

LAB NO.	MI/HR Unit	MI/HR Oil	Oil Add	FLTR CHG	Oil CHG	D7279 Vis 100 °C	Visc Grade	E2412 SOOT	E2412 OX	E2412 NTR	E2412 GLY	Water	Fuel
1217	8707	8707	0	Yes	C	14.2	40	0.1	14	8	NEG	<0.1	<0.50
0761	8119	0	0	-		15.8	40	0.1	27*	15*	NEG	<0.1	<0.50
0236	7205	0	0	Yes	Y	14.9		0.1	20	9	NEG	<0.1	<1.0
3062	6927			Yes	Y	15.0	40	<0.1	19	10	NEG	<0.1	<1.0
5239				Yes	Y	14.5	40	0.1	18	10	NEG	<0.1	<1.0
1020	6296	200		Yes	Y	15.0	40	<0.1	18	9	NEG	<0.1	<1.0

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P.O./Ref No.: **N/A**

Unit ID: **2ZN05181 / C0596**

Unit Worksite: **Chattanooga, TN**

Comp. Ref NO.: **4429959**

Component Type: **TRANSMISSION**

Component: **TRANSMISSION**

Unit Manufacturer and Model: **Caterpillar 953C**

Oil Type: -

Component Manufacturer and Model: **Caterpillar 953C**

Component Serial Number: **H2ZN05181**

Maintenance Recommendations for Lab No. 201706021218

Reported On: **Jun 05 2017**

From: **Power Equipment Company, Chattanooga, TN**

ANALYSIS INDICATES COMPONENT & LUBRICANT CONDITIONS ARE ACCEPTABLE. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Silicon	Boron	Sodium	Potassium	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony	Vanadium	Sample Drawn
1218	44	<1	<1	5	<1	1	<1	<0.1	<1	38	56	9	8	2	1087	1217	1816	2	314	<1	<1	05/30/17
0762	43	1	1	3	<1	1	<1	<0.1	<1	40	62	1	3	<1	1218	1427	2078	2	394	<1	<1	04/14/16
5233	28	<1	<1	3	<1	1	<1	<0.1	<1	31	60	6	<10	<5	1187	1378	2026	<10	351	<30	<1	06/14/11
5043	43	<1	<1	3	1	7	1	<0.1	<1	27	63	2	<10	<5	1402	1584	322	<10	977	<30	<1	04/10/08

SAMPLE INFORMATION

PHYSICAL TEST RESULTS

LAB NO.	MI/HR Unit	MI/HR Oil	Oil Add	FLTR CHG	Oil CHG	Water	D7279 Vis 100 °C
1218	8707		0	No	S	<0.1	8.9
0762	8119	0	0	-		<0.1	9.0
5233				Yes	N	<0.1	9.5 *
5043	5786			No	S	<0.1	6.4

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P.O./Ref No.: **N/A**

Unit ID: **2ZN05181 / C0596**

Unit Worksite: **Chattanooga, TN**

Comp. Ref NO.: **4426282**

Component Type: **HYDRAULIC SYSTEM**

Component: **HYDRAULIC**

Unit Manufacturer and Model: **Caterpillar 953C**

Oil Type: **-**

Component Manufacturer and Model: **Caterpillar 953C**

Component Serial Number: **H2ZN05181**

Maintenance Recommendations for Lab No. 201706021219

Reported On: **Jun 05 2017**

From: **Power Equipment Company, Chattanooga, TN**

ANALYSIS INDICATES COMPONENT & LUBRICANT CONDITIONS ARE ACCEPTABLE. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Silicon	Boron	Sodium	Potassium	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony	Vanadium	Sample Drawn
1219	11	<1	<1	4	1	22	<1	0.6	<1	8	9	2	2	3	704	833	737	<1	275	<1	<1	05/30/17
0765	10	<1	1	3	1	24	<1	0.7	<1	8	14	<1	<1	4	849	1056	752	<1	417	<1	<1	04/14/16
0237	12	1	<1	8	1	53	<1	1.1	<1	10	34	7	<10	9	1045	1232	1176	<10	441	<30	<1	10/18/12
3064	12	<1	1	7	2	52	<1	<0.1	<1	10	39	4	<10	10	1112	1310	1305	<10	487	<30	<1	05/09/12
5234	10	<1	<1	6	2	50	<1	<0.1	<1	9	40	4	<10	10	1107	1324	1297	<10	486	<30	<1	06/14/11
1021	9	<1	<1	5	2	54	<1	0.7	<1	7	34	7	<10	<5	1097	1294	921	<10	606	<30	<1	04/09/10

SAMPLE INFORMATION

PHYSICAL TEST RESULTS

LAB NO.	MI/HR Unit	MI/HR Oil	Oil Add	FLTR CHG	Oil CHG	Water	D7279 Vis 100 °C
1219	8707		0	No	S	<0.1	6.8
0765	8119	0	0	-		<0.1	6.3
0237	7205	0	0	Yes	Y	<0.1	7.1
3064	6927			No	N	<0.1	6.9
5234				Yes	N	<0.1	7.0
1021	6296			-		<0.1	6.4

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P.O./Ref No.: **N/A**

Unit ID: **2ZN05181 / C0596**

Unit Worksite: **Chattanooga, TN**

Comp. Ref NO.: **4615170**

Component Type: **FINAL DRIVE**

Component: **RIGHT FINAL DRIVE RIGHT**

Unit Manufacturer and Model: **Caterpillar 953C**

Oil Type: **-**

Component Manufacturer and Model: **Caterpillar 953C**

Component Serial Number: **H2ZN05181**

Maintenance Recommendations for Lab No. 201706021220

Reported On: **Jun 05 2017**

From: **Power Equipment Company, Chattanooga, TN**

ANALYSIS INDICATES AN ABNORMAL LEVEL OF CONTAMINATION IS PRESENT! ABRASIVES (dirt) present. CHECK seals, vents, and case for location of contaminant entry. CHANGE OIL if not already performed. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Silicon	Boron	Sodium	Potassium	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony	Vanadium	Sample Drawn
1220	210	1	<1	41	<1	<1	<1	<0.1	7	188 *	13	7	14	3	923	1118	2743	<1	22	<1	<1	05/30/17
0763	321	2	1	25	<1	1	<1	<0.1	2	121	7	4	7	<1	948	1195	3320	<1	33	<1	<1	04/14/16
0238	325	3	<1	22	1	2	<1	<0.1	2	122 *	3	8	<10	<5	994	1228	2885	<10	35	<30	<1	10/18/12
3063	300	3	1	20	<1	1	<1	<0.1	2	118 *	3	8	<10	<5	953	1155	2754	<10	25	<30	<1	05/09/12
5240	256	2	1	20	1	1	<1	<0.1	2	114	2	7	<10	<5	927	1176	2740	<10	22	<30	<1	06/14/11
1022	144	1	<1	15	<1	1	<1	<0.1	1	85	2	9	<10	<5	840	1050	2413	<10	28	<30	<1	04/09/10

SAMPLE INFORMATION

PHYSICAL TEST RESULTS

LAB NO.	MI/HR Unit	MI/HR Oil	Oil Add	FLTR CHG	Oil CHG	Water	D7279 Vis 100 °C
1220	8707		0	No	S	<0.1	11.1
0763	8119	0	0	-		<0.1	12.3
0238	7205	0	0	-	N	<0.1	16.2 *
3063	6927			No	N	<0.1	16.9
5240				Yes	N	<0.1	17.2
1022	6296			-		<0.1	16.8

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P.O./Ref No.: **N/A**

Unit ID: **2ZN05181 / C0596**

Unit Worksite: **Chattanooga, TN**

Comp. Ref NO.: **2740661**

Component Type: **FINAL DRIVE**

Component: **LEFT FINAL DRIVE LEFT**

Unit Manufacturer and Model: **Caterpillar 953C**

Oil Type: **-**

Component Manufacturer and Model: **Caterpillar 953C**

Component Serial Number: **H2ZN05181**

Maintenance Recommendations for Lab No. 201706021221

Reported On: **Jun 05 2017**

From: **Power Equipment Company, Chattanooga, TN**

ANALYSIS INDICATES AN ABNORMAL LEVEL OF CONTAMINATION IS PRESENT! ABRASIVES (dirt) present. CHECK seals, vents, and case for location of contaminant entry. CHANGE OIL if not already performed. RESAMPLE at the next scheduled interval.

SPECTROCHEMICAL ANALYSIS IN PARTS PER MILLION

LAB NO.	Iron	Chromium	Nickel	Aluminum	Lead	Copper	Tin	Silver	Titanium	Silicon	Boron	Sodium	Potassium	Molybdenum	Phosphorus	Zinc	Calcium	Barium	Magnesium	Antimony	Vanadium	Sample Drawn
1221	181	1	<1	18	<1	3	<1	<0.1	5	82 *	13	5	7	4	923	1099	2513	<1	48	<1	<1	05/30/17
0764	262	2	1	18	<1	7	<1	0.1	2	95	12	2	3	2	969	1221	2840	<1	116	<1	<1	04/14/16
0239	268	3	<1	20	1	18	<1	0.1	2	106 *	13	9	<10	<5	1174	1406	2390	<10	239	<30	<1	10/18/12
3060	194	1	1	17	1	15	<1	<0.1	1	87	12	7	<10	<5	1089	1291	2261	<10	224	<30	<1	05/09/12
5235	174	2	1	18	1	16	<1	<0.1	1	89	12	7	<10	<5	1108	1326	2330	<10	223	<30	<1	06/14/11
1023	114	1	<1	14	1	13	<1	0.1	1	72	10	10	<10	<5	982	1188	2130	<10	193	<30	<1	04/09/10

SAMPLE INFORMATION

PHYSICAL TEST RESULTS

LAB NO.	MI/HR Unit	MI/HR Oil	Oil Add	FLTR CHG	Oil CHG	Water	D7279 Vis 100 °C
1221	8707		0	No	S	<0.1	10.7
0764	8119	0	0	-		<0.1	10.9
0239	7205	0	0	-	N	<0.1	12.1 *
3060	6927			No	N	<0.1	12.1 *
5235				Yes	N	<0.1	12.6 *
1023	6296			-		<0.1	12.7 *