



Invoice

4439 - 2nd Avenue
Edson, AB T7E 1C1
Tel: 780-723-7292
Fax: 780-723-3324

NUMBER	DATE	PAGE
SVR99218098	09-SEP-2013	1 of 3

BUS. PARTNER #	SALES PERSON
400369 3	ANGELA STEFANCHUK

ORDER	ORDER DATE
PFS136030	28-MAY-2013

CUSTOMER ORDER
2Z2021237

REFERENCE A
8400654919

REFERENCE B
US-56786-EX

INVOICE TO

Husky Oil Operations Limited
PO Box 4490 Station D
Calgary, AB T2P 3G7

SOLD TO

Husky Oil Operations Limited
Ansell
07-27-51-19-W5M

SHIP TO

Husky Oil Operations Limited
Ansell
07-27-51-19-W5M

CODE	DESCRIPTION	QTY	PRICE	DISCOUNT	COVERAGE	AMOUNT
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GAS DRIVE BRANCH #65

ORDERED BY: JASON WILLIAMS
PHONE: (780) 723-6945

TRAVEL TO HUSKY OIL LSD# 07-27-51-19-W5M ANSEL TO PERFORM A TOP END OVERHAUL ON A CATERPILLAR G3512TA, S/N# 7NJ01033. DRAIN FLUIDS AND REMOVE TURBOS, WASTEGATE, AIR BOXES. REMOVE BOTH AUX WATER PUMPS AND MAIN WATER PUMP. REMOVE VALVE TRAIN AND HEADS. DISCOVERED PISTONS/LINERS WORE OUT. REMOVE ALL PISTONS, RODS AND LINERS. BUFF ENGINE BLOCK AND CLEAN PARTS. CLEAN CRANKSHAFT AND POWER PACKS. CHECK CRANK END FLOAT. INSTALL LINER ORINGS AND POWER PACKS; TORQUE RODS. CLEAN, PREP AND INSTALL HEADS. CLEAN ALL WATER JUMPERS. INSTALL INTAKE AND EXHAUST MANIFOLDS. INSTALL TURBO CARTRIDGES AND MOUNT TURBOS. INSTALL THE MAIN AND AUX WATER PUMPS. INSTALL ALL PIPING. INSTALL VALVE TRAIN AND COMPLETE VALVE LASH. INSTALL PLUGS, COILS, VALVE COVERS, CRANK DOORS. INSTALL OIL PUMP, GUARDS AND BELTS. INSTALL AIR BOXES.

FILL SCREW COMPRESSOR WITH OIL. FILL MAIN AND AUX COOLANT. FILL ENGINE OIL AND PRELUBE. PAINT ENGINE. INSPECT UNITS FOR LEAKS. REPAIR LEAKING TURBO FEED LINES. START AND LOAD UNIT. LB TURBO FAILED. REPLACE LEFT BANK TURBO CATRIDGE. PRELUBE AND RESTART UNIT. LOAD AND MONITOR.

MONDAY, JUNE 17, 2013

CL126656

UNIT HOURS: 36,468

APPROVER: 2Z2021237
LOCATION: 07-27-51-19-W5M
PO: 8400654919
AFE: US-56786-EX
ACCOUNT CODE: 26799
DESCRIPTION: Z800 OVERHAUL
SIGNATURE: JASON WILLIAMS

CATERPILLAR GAS ENGINE
FRICK SCREW COMPRESSOR

COMG3512TA S/N: 7NJ01033
COMSGCH3515 S/N: SGCH351500832

CARRY FORWARD: 0.00



Invoice

NUMBER	DATE	PAGE
SVR99218098	09-SEP-2013	2 of 3

CODE	DESCRIPTION	QTY	PRICE	DISCOUNT	COVERAGE	AMOUNT
ACTIVITY 10 - TOP END OVERHAUL						
LABOR						
100	Field REG	83.5	96.80			8,082.80
101	Field OT	36.5	130.68			4,769.82
102	Field DT	14.5	152.17			2,206.50
130	Travel REG AB, Sask, Ont, US Discounted 8.5 hours.	20	96.80	822.80		1,113.20
MATERIAL						
PAM-CONS	Consumable Supplies	1	762.64			762.64
PAM-HDKM	Kilometer Chrg (full size Truc	870	1.40			1,218.00
PAM-HDKM	Kilometer Chrg (full size Truc	-510	1.40			-714.00
	Discounted 510 kms.					
PAM-SMPD	Southern Meal Per Diem	6	35.00			210.00
PAM-SOPD	Southern Overnight Per Diem Discounted 50%.	6	70.00	50.00%		210.00
ACTIVITY 10 SUBTOTAL						17,858.96
ACTIVITY 20 - PARTS						
MATERIAL						
AERNK1000064S200	GASKET, SILICONE	1	27.25			27.25
CAT0336031	O-Ring	2	21.48	1.00%		42.53
CATOR2854	Head Gp Cyl	12	825.00			9,900.00
CATOR4449	Cyl Pack	12	1,853.47	1.00%		22,019.22
CATOR5926	Reb Cart G	2	1,459.43	1.00%		2,889.67
CAT1077330	Bearing	12	168.67	1.00%		2,003.80
CAT1095381	Gasket Kit	1	136.26	1.00%		134.90
CAT10R1670	Pump Gp Wtr	1	1,209.71	1.00%		1,197.61
CAT10R1673	Pump Gp Wtr	1	1,462.67	1.00%		1,448.04
CAT1187859	Gasket Kit	1	563.83	1.00%		558.19
CAT1552270	Plug Kit	1	5.84	1.00%		5.78
CAT1960237	Gasket Kit	1	141.59	1.00%		140.17
CAT1R0726	Filter A	3	53.32	1.00%		158.36
CAT2135182	Gasket Kit	1	745.99	1.00%		738.53
CAT2153046	Kit - Gasket	1	779.09	1.00%		771.30
CAT2477133	Regulator-Te	4	61.90	1.00%		245.12
CAT2720759	Sel-Pip	12	29.60	1.00%		351.65
CAT2775833	SEAL	2	28.86	1.00%		57.14
CAT2986387	Seal-O-Ring	1	33.49	1.00%		33.16
CAT3016663	Spark Plug	12	131.31	1.00%		1,559.96
CAT3164262	Spring	12	0.64	1.00%		7.60
CAT3550763	Kit-Gasket(S	12	360.22	1.00%		4,279.41
CAT4W3027	Breather A	2	123.44	1.00%		244.41
CAT5F3106	Seal	1	6.04	1.00%		5.98
CAT7C9710	Gasket	1	23.31	1.00%		23.08
CAT7E9748	Rod End	1	60.76	1.00%		60.15
CAT8N2410	Gasket	1	48.24	1.00%		47.76
CAT8N5254	Hose	2	82.63	1.00%		163.61
CAT8N6309	Element A-A	2	160.70	1.00%		318.19
DRE30380011039	GASKET 2IN STYLE 90	4	34.80			139.20
DRE30380025001	3INLITE PATTERN GSKT	2	19.21			38.42
EXC25009	Wastegate	1	894.74			894.74
RLMV2183-838	PAINT AEROSOL LT MACHINE GREY	6	8.61			51.66
ACTIVITY 20 SUBTOTAL						50,556.59

CARRY FORWARD: 68,415.55



Invoice

NUMBER	DATE	PAGE
SVR99218098	09-SEP-2013	3 of 3

CODE	DESCRIPTION	QTY	PRICE	DISCOUNT	COVERAGE	AMOUNT
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ACTIVITY 30 - OEM WARRANTY TO CUSTOMER

Items in this activity have been claimed to Caterpillar for warranty consideration on your behalf. Rejected items will be billed to the customer.af

LABOR						
100	Field REG	2	96.80		-193.60 W	0.00
MATERIAL						
CATOR5926	Reb Cart G	1	1,484.79		-1484.79 W	0.00
ACTIVITY 30 SUBTOTAL						0.00

Total Material	52,243.23
Total Labor	16,172.32
Total Other	0.00

TAX SUMMARY

TAX AUTHORITY	RATE	EXEMPTION #	TAX AMOUNT
-----	-----	-----	-----
GST #84729 1085 RT0001	5.00		\$3,420.78

TERMS & CONDITIONS ON REVERSE: Net 30 days
PAYMENT DUE DATE: 09-OCT-2013

Please Remit To:
Lockbox #C3184
Gas Drive Global LP
P.O. Box 9187, Station "M"
Calgary, AB T2P 5E1

SUBTOTAL	\$68,415.55
TAX	\$3,420.78
TOTAL	\$71,836.33 CAD



4439 - 2nd Avenue
Edson, AB T7E 1C1
Tel: 780-723-7292
Fax: 780-723-3324

DRAFT Invoice

NUMBER 75979	DATE 04-SEP-2013	PAGE 1 of 3
BUS. PARTNER# 400369 0	SALES PERSON ANGELA STEFANCHUK	
ORDER PFS136030	ORDER DATE 28-MAY-2013	
CUSTOMER ORDER		
REFERENCE A		
REFERENCE B		

INVOICE TO

Husky Oil Operations Limited
PO Box 4490 Station D
Calgary, AB T2P 3G7

SOLD TO

Husky Oil Operations Limited
Ansell
07-27-51-19-W5M

SHIP TO

Husky Oil Operations Limited
Ansell
07-27-51-19-W5M

CODE	DESCRIPTION	QTY	PRICE	DISCOUNT	COVERAGE	AMOUNT
GAS DRIVE BRANCH #65						
ORDERED BY: JASON WILLIAMS						
PHONE: (780) 723-6945						
TRAVEL TO HUSKY OIL LSD# 07-27-51-19-W5M ANSEL TO PERFORM A TOP END OVERHAUL ON A CATERPILLAR G3512TA, S/N# 7NJ01033. DRAIN FLUIDS AND REMOVE TURBOS, WASTEGATE, AIR BOXES. REMOVE BOTH AUX WATER PUMPS AND MAIN WATER PUMP. REMOVE VALVE TRAIN AND HEADS. DISCOVERED PISTONS/LINERS WORE OUT. REMOVE ALL PISTONS, RODS AND LINERS. BUFF ENGINE BLOCK AND CLEAN PARTS. CLEAN CRANKSHAFT AND POWER PACKS. CHECK CRANK END FLOAT. INSTALL LINER ORINGS AND POWER PACKS; TORQUE RODS. CLEAN, PREP AND INSTALL HEADS. CLEAN ALL WATER JUMPERS. INSTALL INTAKE AND EXHAUST MANIFOLDS. INSTALL TURBO CARTRIDGES AND MOUNT TURBOS. INSTALL THE MAIN AND AUX WATER PUMPS. INSTALL ALL PIPING. INSTALL VALVE TRAIN AND COMPLETE VALVE LASH. INSTALL PLUGS, COILS, VALVE COVERS, CRANK DOORS. INSTALL OIL PUMP, GUARDS AND BELTS. INSTALL AIR BOXES.						
FILL SCREW COMPRESSOR WITH OIL. FILL MAIN AND AUX COOLANT. FILL ENGINE OIL AND PRELUBE. PAINT ENGINE. INSPECT UNITS FOR LEAKS. REPAIR LEAKING TURBO FEED LINES. START AND LOAD UNIT. LB TURBO FAILED. REPLACE LEFT BANK TURBO CATRIDGE. PRELUBE AND RESTART UNIT. LOAD AND MONITOR.						
MONDAY, JUNE 17, 2013						
CL126656						
UNIT HOURS: 36,468						
CATERPILLAR GAS ENGINE		COMG3512TA	S/N: 7NJ01033			
FRICK SCREW COMPRESSOR		COMSGCH3515	S/N: SGCH351500832			
ACTIVITY 10 - TOP END OVERHAUL						
LABOR						
100	Field REQ	83.5	96.80			8,082.80
101	Field OT	36.5	130.68			4,769.82
102	Field DT	14.5	152.17			2,206.50
130	Travel REG AB, Sask, Ont, US	20	96.80	822.80		1,113.20

CARRY FORWARD: 16,172.32



DRAFT Invoice

NUMBER	DATE	PAGE
75979	04-SEP-2013	2 of 3

CODE	DESCRIPTION	QTY	PRICE	DISCOUNT	COVERAGE	AMOUNT
Discounted 8.5 hours.						
MATERIAL						
PAM-CONS	Consumable Supplies	1	762.64			762.64
PAM-HDKM	Kilometer Chrg (full size Truc	870	1.40			1,218.00
PAM-HDKM	Kilometer Chrg (full size Truc	-510	1.40			-714.00
Discounted 510 kms.						
PAM-SMPD	Southern Meal Per Diem	6	35.00			210.00
PAM-SOPD	Southern Overnight Per Diem	6	70.00	50.00%		210.00
Discounted 50%.						
ACTIVITY 10 SUBTOTAL						17,858.96
ACTIVITY 20 - PARTS						
MATERIAL						
AERNK1000064S200	GASKET, SILICONE	1	27.26			27.26
CAT0336031	O-Ring	2	21.48	1.00%		42.53
CAT0R2854	Head Gp Cyl	12	825.00			9,900.00
CAT0R4449	Cyl Pack	12	1,853.47	1.00%		22,019.22
CAT0R5926	Reb Cart G	2	1,459.43	1.00%		2,889.67
CAT1077330	Bearing	12	168.67	1.00%		2,003.80
CAT1095381	Gasket Kit	1	136.26	1.00%		134.90
CAT10R1670	Pump Gp Wtr	1	1,209.71	1.00%		1,197.61
CAT10R1673	Pump Gp Wtr	1	1,462.67	1.00%		1,448.04
CAT1187869	Gasket Kit	1	563.83	1.00%		558.19
CAT1552270	Plug Kit	1	5.84	1.00%		5.78
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CAT2153046	Kit - Gasket	1	779.09	1.00%		771.30
CAT2477133	Regulator-Ye	4	61.90	1.00%		245.12
CAT2720769	Seal-Pip	12	29.60	1.00%		351.65
CAT2775833	SEAL	2	28.86	1.00%		67.14
CAT2986387	Seal-O-Ring	1	33.49	1.00%		33.16
CAT3016663	Spark Plug	12	131.31	1.00%		1,569.96
CAT3164262	Spring	12	0.64	1.00%		7.60
CAT3550763	Kit-Gasket(S	12	360.22	1.00%		4,279.41
CAT4W3027	Breather A	2	123.44	1.00%		244.41
CAT6F3106	Seal	1	6.04	1.00%		5.98
CAT7C9710	Gasket	1	23.31	1.00%		23.08
CAT7E9748	Rod End	1	60.76	1.00%		60.15
CAT8N2410	Gasket	1	48.24	1.00%		47.76
CAT8N5254	Hose	2	82.63	1.00%		163.61
CAT8N6309	Element A-A	2	160.70	1.00%		318.19
DRE30380011039	GASKET 2IN STYLE 90	4	34.80			139.20
DRE30380025001	3INLITE PATTERN GSKT	2	19.21			38.42
EXC25009	Wastegate	1	894.74			894.74
RLMV2183-838	PAINT AEROSOL LT MACHINE GREY	6	8.61			51.66
ACTIVITY 20 SUBTOTAL						50,556.59
ACTIVITY 30 - OEM WARRANTY TO CUSTOMER						
Items in this activity have been claimed to Caterpillar for warranty consideration on your behalf. Rejected items will be billed to the customer.af						
LABOR						
100	Field REG	2	96.80	-193.60 W		0.00
MATERIAL						

CARRY FORWARD: 68,415.55

**DRAFT Invoice**

NUMBER	DATE	PAGE
75979	04-SEP-2013	3 of 3

CODE	DESCRIPTION	QTY	PRICE	DISCOUNT	COVERAGE	AMOUNT
CATOR5926	Reb Cart G	1	1,484.79		-1484.79 W	0.00

ACTIVITY 30 SUBTOTAL 0.00

Total Material	52,243.23
Total Labor	16,172.82
Total Other	0.00

TAX SUMMARY

TAX AUTHORITY	RATE	EXEMPTION #	TAX AMOUNT
GST #84729 1085 RT0001	5.00		\$3,420.78

Approver: 2Z 2021237

Location: 7-27-51-19 W5

PO: 9400654919

AFE: US-56786-EX

Account Code: 26799

Description: Z-BDD overhaul

Signature:

Jason Williams

TERMS & CONDITIONS ON REVERSE: Net 30 days
PAYMENT DUE DATE: 04-OCT-2013

Please Remit To:
Lockbox #C3184
Gas Drive Global LP
P.O. Box 9187, Station "M"
Calgary, AB T2P 5E1

SUBTOTAL	\$68,415.55
TAX	\$3,420.78
TOTAL	\$71,836.33 CAD

SERVICEMAN <i>Chris Degen</i>		ASSISTANT TECHNICIAN <i>CP, CC</i>	
JOB DESCRIPTION <i>Head Swing</i>			
CUSTOMER <i>Husky</i>	W/O # <i>PFS 136030</i>	LOCATION <i>Danwell</i>	DATE <i>JUN 05</i> <i>June 16, 2013</i>
L.S.D. # <i>7-27-51-19wsm</i>	CUSTOMER UNIT # <i>Z-800</i>	MFGR.	UNIT #
ENG. MODEL <i>3516</i>	SERIAL # <i>7N101033</i>	SPEC. <i>4P-8328</i>	RUN HRS.
COMP/GEN. MODEL <i>Frick SGCH351500832</i>	SERIAL #	INT. MFLD VAC/PRESS	

WORK PERFORMED

Travel From Whitecourt to Edson

TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR			TRUCK UNIT # <i>31051</i>		
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM
							<i>1930</i>	<i>2100</i>	<i>1.5</i>			<i>100</i>
TOTAL							<i>OPD</i>	TOTAL	<i>1.5</i>			<i>100</i>

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010

LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE


JASON WILLIAMS
02021237

CUSTOMER _____

PLEASE PRINT

SIGNATURE

DATE

SERVICE TECH. *Chris Degen*

PLEASE PRINT

SIGNATURE

EMPL. #

7378Distributor
Gos Engines

WHITE - ENGINE FILE

YELLOW - INVOICE

GREEN - BILLING

PINK - CASH

BLUE - CUSTOMER

WHITE - BRANCH

REV. 10, 09/11

SERVICEMAN Clinton Paradis		ASSISTANT TECHNICIAN Chris D, Mark	
JOB DESCRIPTION Heads & Holes.			
CUSTOMER Husky.	W/O # PFS130030	LOCATION Ange1	DATE SUN 25 June 16 th /13
L.S.D. # 7-27-51-12wsm	CUSTOMER UNIT # 2-800	MFGR.	UNIT #
ENG. MODEL 3512	SERIAL # 7N501033	SPEC. 4P-8328	RUN HRS. 36466 hrs.
COMP/GEN. MODEL SGCH 351	SERIAL # 500832	INT. MFLD VAC/PRESS	

WORK PERFORMED

Travel to edson and stay the night at the best western.

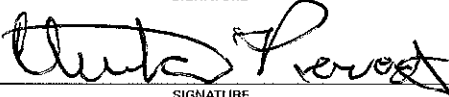
TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR						TRUCK UNIT #
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM	
						\$1700.	20:30	22:00	1.5				
TOTAL						(OPD)	TOTAL		1.5				

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

CUSTOMER	 JASON WILLIAMS 02021237 PLEASE PRINT	 SIGNATURE	DATE
SERVICE TECH.	Clinton Paradis PLEASE PRINT	 SIGNATURE	EMPL. # 7593



SERVICEMAN <i>Chris Pegen</i>		ASSISTANT TECHNICIAN <i>CP, CC</i>	
JOB DESCRIPTION <i>head swing</i>			
CUSTOMER <i>Husky</i>	W/O # <i>PFS 136030</i>	LOCATION <i>Ansell</i>	DATE <i>MON (25) June 17, 2013</i>
L.S.D. # <i>7-27-51-19wsm</i>	CUSTOMER UNIT # <i>2-800</i>	MFGR.	UNIT #
ENG. MODEL <i>3512</i>	SERIAL # <i>7N) 01033</i>	SPEC. <i>4P-8328</i>	RUN HRS.
COMP/GEN. MODEL <i>Frick SCCH351500832</i>		SERIAL #	INT. MFLD VAC/PRESS

WORK PERFORMED

~~Travel to location~~ Load parts at shop Travel to location
 Perform PSHA Review safe work permit. Drain Coolant. Remove Turbo's
 and wastegate. remove both Aux H₂O pumps and main H₂O pump
 Remove Valve train. Remove heads. Engine Extremely wore out
 remove 12 piston, rods and liners. Buff Engine block off
 spray down engine block with Varsol. Clean up work
 area travel to Base

TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR			TRUCK UNIT # <i>31051</i>		
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM
0530	0600		0.5			OPD	0600	1200				
							0600	0630	0.5			40
0630	1200	4.0	1.5									
1230	2000	4.0	2.0	1.5			2000	2030	0.5			40
TOTAL		8.0	4.0	1.5		(OPD)	TOTAL		1.0			80

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

 JASON WILLIAMS 02021237		DATE
CUSTOMER	PLEASE PRINT	SIGNATURE
SERVICE TECH.	<i>Chris Pegen</i> PLEASE PRINT	SIGNATURE
		EMPL. # <i>7378</i>



SERVICEMAN <i>Chuck Castro</i>		ASSISTANT TECHNICIAN <i>C.O., Clinton</i>	
JOB DESCRIPTION <i>head swing</i>			
CUSTOMER <i>Husky</i>	W/O # <i>136030</i>	LOCATION <i>Angell</i>	DATE <i>MON 55 June 17/13</i>
L.S.D. # <i>7-27-51-19-ws</i>	CUSTOMER UNIT # <i>2-800</i>	MFGR. <i>termont</i>	UNIT #
ENG. MODEL <i>cat 3512</i>	SERIAL # <i>7NJ01033</i>	SPEC. <i>4P-8328</i>	RUN HRS.
COMP/GEN. MODEL <i>Frick</i>	SERIAL # <i>50CH35-1500832</i>	INT. MFLD VAC/PRESS	

WORK PERFORMED

Load parts, travel to site, have safety meeting, get safe work permit, take heads off, inspect liners, found needed to be changed, remove pistons, ~~rods~~ rods, and bearings, start cleaning parts, travel back to shop.

TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR						TRUCK UNIT #	
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM		
5:30	6:00		0.5			SPD								
6:30	12:00	4.0	1.5				6:00	6:30	0.5					
12:30	20:00	4.0	2.0	1.5										
							20:00	20:30	0.5					
TOTAL		8.0	4.0	1.5		SPD	TOTAL		1.0					

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
275 / AT HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEOB D)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE



JASON WILLIAMS
02021237

CUSTOMER *PLEASE PRINT*SERVICETECH. *PLEASE PRINT**Chuck Castro*

SIGNATURE

DATE *June 17/13*EMPL. # *8091*

SERVICEMAN Clinton Paradis		ASSISTANT TECHNICIAN Chris D, Chuck	
JOB DESCRIPTION Heads, 3' Holes			
CUSTOMER Husky	W/O # PFS136030	LOCATION Ansel	DATE MON (25) June 17th/13
L.S.D. # 7-27-51-12574	CUSTOMER UNIT # 2-800	MFGR.	UNIT #
ENG. MODEL 3512	SERIAL # 7N501033	SPEC. 4P-8328	RUN HRS. 36 466 hrs.
COMP/GEN. MODEL 56 CH 351	SERIAL # 500832	INT. MFLD VAC/PRESS	

WORK PERFORMED

Travel to site. No orientation and Permitt. Unit down already. Drain fluids. Remove heads, pistons and liners, main water pump, both aux water pumps, air boxes and turbos. Clean engine and parts. Assist Chris, Clean up travel back to rd.

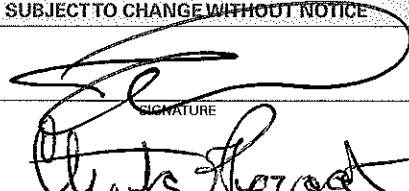
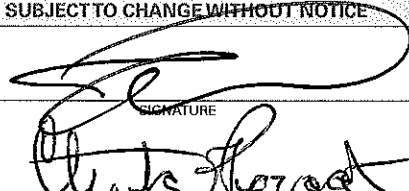
TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR						TRUCK UNIT #	
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM		
5:30	6:00		0.5			\$70 ⁰⁰	6:00	6:30	0.5					
6:30	12:00	4.0	1.5											
12:30	20:00	4.0	2.0	1.5										
							20:00	20:30	0.5					
TOTAL		8.0	4.0	1.5		(OPD)	TOTAL		1.0					

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

CUSTOMER	 JASON WILLIAMS 02021237 PLEASE PRINT	 SIGNATURE	DATE
			EMPL. # 7593
SERVICE TECH.	Clinton Paradis PLEASE PRINT	 SIGNATURE	



SERVICEMAN <i>Chris Degen</i>		ASSISTANT TECHNICIAN	
JOB DESCRIPTION <i>head swing 10A</i>			
CUSTOMER <i>Husky</i>	W/O # <i>RFS 136030</i>	LOCATION <i>Ansell</i>	DATE <i>TUES 25</i> <i>June 18, 2013</i>
L.S.D. # <i>7-27-51-19 WSM</i>	CUSTOMER UNIT # <i>2-800</i>	MFGR.	UNIT #
ENG. MODEL <i>3512</i>	SERIAL # <i>7N2 01033</i>	SPEC. <i>4P-8328</i>	RUN HRS.
COMP/GEN. MODEL <i>Frick SGCH351 500832</i>		SERIAL #	INT. MFLD VAC/PRESS

WORK PERFORMED

Wait for parts @ shop Travel to location Perform PSHA. Receive safe work permit. Clean Crank shaft. Clean power packs and install liner o-rings. Install 12 power packs. Torque rods to 65 ft/lbs + 90°. Clean and prep heads for installation. Install heads and torque in 2 steps 200 ft/lbs and then to final spec 330 ft/lbs. Torque. Clean all H₂O Jumper's. Clean up work area. Travel to Edison

TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR			TRUCK UNIT # <i>310S1</i>		
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM
0600	0700				*	<i>OPD</i>	0700					
<i>0600</i>	<i>0700</i>		<i>1.0</i>				<i>0700</i>	<i>0730</i>	<i>0.5</i>			<i>40</i>
<i>730</i>	<i>1200</i>	<i>4.0</i>	<i>0.5</i>									
<i>1230</i>	<i>2000</i>	<i>4.0</i>	<i>2.5</i>	<i>1.0</i>			<i>2000</i>	<i>2030</i>	<i>0.5</i>			<i>40</i>
TOTAL		<i>8.0</i>	<i>4.0</i>	<i>1.0</i>		<i>(OPD)</i>	TOTAL		<i>1.0</i>			<i>80</i>

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

CUSTOMER <i>JASON WILLIAMS</i> <i>02021237</i>	SIGNATURE <i>[Signature]</i>	DATE <i>June 18, 2013</i>
SERVICETECH. <i>Chris Degen</i>	SIGNATURE <i>[Signature]</i>	EMPL. # <i>7378</i>



SERVICEMAN <i>Chuck Castro</i>		ASSISTANT TECHNICIAN <i>Chris D, Clinton</i>	
JOB DESCRIPTION <i>Head gwing</i>			
CUSTOMER <i>Husky</i>	W/O # <i>136030</i>	LOCATION <i>Annsell</i>	DATE <i>TUES (25) June 18/13</i>
L.S.D. # <i>7-27-51-19-WS</i>	CUSTOMER UNIT #	MFGR. <i>torment</i>	UNIT #
ENG. MODEL <i>cat 3512</i>	SERIAL # <i>7NJC1033</i>	SPEC. <i>4P-8328</i>	RUN HRS.
COMP/GEN. MODEL <i>Frick 56C/H357500832</i>		SERIAL #	INT. MFLD VAC/PRESS

WORK PERFORMED

load parts, travel to site get safe work permit, clean parts, install power packs, and heads, travel back to shop

TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR						TRUCK UNIT #
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM	
6:00	7:00		1.0			SPD							
7:30	12:00	4.0	0.5				7:00	7:30	0.5				
12:30	19:30	4.0	2.5	0.5									
							19:30	20:00	0.5				
TOTAL		8.0	4.0	0.5		SPD	TOTAL		1.0				

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
275 / AT HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE



JASON WILLIAMS
02021237

CUSTOMER _____

PLEASE PRINT

SIGNATURE

DATE *June 18/13*SERVICE TECH. *Chuck Castro*

PLEASE PRINT

SIGNATURE

EMPL. # *8091*

SERVICEMAN Clinton Peradis		ASSISTANT TECHNICIAN Chris D, chuck.	
JOB DESCRIPTION Heavy Holes			
CUSTOMER Husky	W/O # PFS136030	LOCATION Ansel	DATE TUES 65 June 18 th /13
L.S.D. # 7-27-51-12wskv.	CUSTOMER UNIT # 2-800	MFGR.	UNIT #
ENG. MODEL 3512	SERIAL # 71N501033	SPEC 4P-8328	RUN HRS. 36 466 hrs
COMP/GEN. MODEL SGH 351	SERIAL # 500832	INT. MFLD VAC/PRESS	

WORK PERFORMED

Travel to site. Do Permitt. Prep power packs for install. Install power packs. Torque rods. Check crank end float. Install heads and torque. Start exhaust and intake bolts. Cartridge torques. Assist chris. Clean up. Travel back to edson.

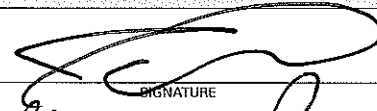
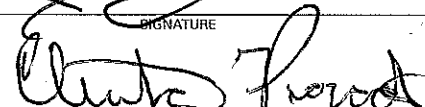
TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR			TRUCK UNIT #		
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM
6:00	7:00		1.0			70 ⁰⁰						
							7:00	7:30	0.5			
7:30	12:00	4.0	0.5									
12:30	20:00	4.0	0.5	1.0								
							20:00	20:30	0.5			
TOTAL		8.0	4.0	1.0		(OPD)	TOTAL		1.0			

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

CUSTOMER Clinton Peradis PLEASE PRINT	 SIGNATURE	DATE
		EMPL. # 7593
SERVICE TECH. Clinton Peradis PLEASE PRINT	 SIGNATURE	



SERVICEMAN <i>Chris Degen</i>		ASSISTANT TECHNICIAN	
JOB DESCRIPTION <i>head swing / OH</i>			
CUSTOMER <i>Husky</i>	W/O # <i>PFS 136030</i>	LOCATION <i>Ansell</i>	DATE <i>WED (25) June 19, 2013</i>
L.S.D. # <i>7-27-51-19 wsm</i>	CUSTOMER UNIT # <i>2-800</i>	MFGR.	UNIT #
ENG. MODEL <i>3S16</i>	SERIAL # <i>7N101033</i>	SPEC. <i>4P-8328</i>	RUN HRS.
COMP/GEN. MODEL <i>Frick 7N1 SGCH351500832</i>		SERIAL #	INT. MFLD VAC/PRESS

WORK PERFORMED

Wait for parts @ shop **AGAIN!!!!** ~~Back to back~~
~~Pick up~~ Pick up Hose's @ Reliance, Travel to location, Perform BSHA
 Recieve Safe work permit. Install Intake and Exhaust manifolds ~~and~~ ~~gaskets~~
 gaskets and tighten manifolds up. Install Turbo's, Turbo oil lines
 and inter cooler piping. Install main H₂O pump and piping. Install Valve
 train and perform Valve lash. Install plugs, coil's, leads, Valve cover's
 remove Thermostat housing, clean housing install new Thermostats, and re-install
 housing. Install front Belts and guard's. Install Aux H₂O pumps. Clean up
 work area travel to Whitewater

TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR			TRUCK UNIT #		
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM
0600	0700		1.0			OPD	0700	0730	0.5			40
0730	1200	4.0	0.5									
1230	1930	4.0	2.5	0.5			1930	2000	0.5			40
							2000	2100	1.0			100
TOTAL		8.0	4.0	0.5		SPD	TOTAL		2.0			180

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEOOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE OTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00
PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE			

CUSTOMER	 JASON WILLIAMS 02021237 PLEASE PRINT	SIGNATURE <i>[Signature]</i>	DATE
SERVICE TECH.	<i>Chris Degen</i> PLEASE PRINT	SIGNATURE <i>[Signature]</i>	EMPL. # <i>7378</i>



SERVICEMAN <i>Chuck Castro</i>		ASSISTANT TECHNICIAN <i>Chris D. Clinton</i>	
JOB DESCRIPTION <i>head swing</i>			
CUSTOMER <i>Husky</i>	W/O # <i>136030</i>	LOCATION <i>Ansell</i>	DATE <i>WED 05 June 19/13</i>
I.S.D. # <i>7-27-51-19-45</i>	CUSTOMER UNIT # <i>2-800</i>	MFGR. <i>formant</i>	UNIT #
ENG. MODEL <i>Cat 3512</i>	SERIAL # <i>7NJO1033</i>	SPEC. <i>4P-8328</i>	RUN HRS.
COMP/GEN. MODEL <i>Frick 56CH351500832</i>		SERIAL #	INT. MFLD VAC/PRESS

WORK PERFORMED

load parts, travel to site get safe work permit, clean parts, put engine doors on, put on rockers, do valve set, install spark plugs, and coils, put on rocker covers, put on oil pump, install gas pipes, clean up garbage. travel back to shop.

TUNE-UP ENGINE

LABOUR								TRAVEL LABOUR					TRUCK UNIT #	
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE		START	FINISH	REGULAR	OT 1.5	OT 2.0	KM	
6:00	7:00		1.0			9PD		7:00	7:30	0.5				
7:30	12:00	4.0	0.5											
12:30	20:00	4.0	2.5	1.0										
								20:00	20:30	0.5				
TOTAL		8.0	4.0	1.0				TOTAL		1.0				

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOQA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
275 / AT HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

JASON WILLIAMS
02021237CUSTOMER *Chuck Castro*

PLEASE PRINT

SIGNATURE

DATE *June 19/13*SERVICE TECH. *Chuck Castro*

PLEASE PRINT

SIGNATURE

EMPL. # *8091*

SERVICEMAN Clinton Peredis		ASSISTANT TECHNICIAN Chris D, Chuck	
JOB DESCRIPTION Heads & Holes.			
CUSTOMER Musky.	W/O # PFS136030	LOCATION Angel	DATE WED 25 June 19 th /13
L.S.D. # 7-27-51-12ws	CUSTOMER UNIT # 2-800	MFGR.	UNIT #
ENG. MODEL 3512	SERIAL # 7N501033	SPEC.	RUN HRS. 36466hrs
COMP/GEN. MODEL 56CH 351	SERIAL # 500832	INT. MFLD VAC/PRESS	

WORK PERFORMED

Travel to site. Do Permit. Install valve train and torque. Perform valve lash. Install plugs, coils and valve covers. Install crank doors, Main and aux water pumps and piping. Install oil pump. Install damper guard, Jackshaft belts and guards. Install air boxes, Assist chris, Clean up and travel back to whitecourt

TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR			TRUCK UNIT #		
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM
6:00	7:00		1.0			70.00	7:00	7:30	0.5			
7:30	12:00	4.0	0.5									
12:30	19:30	4.0	2.5	0.5			19:30	21:00	1.5			
TOTAL		8.0	4.0	0.5			TOTAL		2.0			

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

CUSTOMER PLEASE PRINT Clinton Peredis	JASON WILLIAMS 02021237 PLEASE PRINT	SIGNATURE 	DATE
			EMPL # 7598
SERVICE TECH. PLEASE PRINT Clinton Peredis	SIGNATURE 		



SERVICEMAN <u>Chris Degen</u>		ASSISTANT TECHNICIAN <u>CC</u>	
JOB DESCRIPTION <u>O/H</u>			
CUSTOMER <u>Husky</u>	W/O # <u>PFS 136030</u>	LOCATION <u>Anse 11</u>	DATE <u>THURS 20</u> <u>June 20/13</u>
L.S.D. # <u>7-27-51-19 rsm</u>	CUSTOMER UNIT # <u>Z-800</u>	MFGR.	UNIT #
ENG. MODEL <u>3S12</u>	SERIAL # <u>7NJ01033</u>	SPEC.	RUN HRS.
COMP/GEN. MODEL <u>Frick SCCH35150 0832</u>	SERIAL #	INT. MFLD VAC/PRESS	

WORK PERFORMED

Travel to location from Whitecourt. Perform PJHA, ~~Deep~~ Fill
Screw Comp. with oil. Fill main and box coolant.
Fill Engine oil and pre lube engine. Perform Major
Building Clean up & Paint Engine. Inspect Unit for
leaks, Unit is ready for Start up. Perform Repwork
Travel to Whitecourt

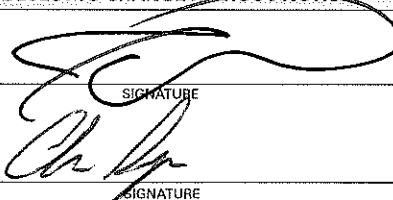
TUNE-UP ENGINE

LABOUR							TRAVEL LABOUR			TRUCK UNIT #		
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM
							0600	0800				140
							0630	0800	1.5			140
0800	1200	4.0										
1230	1530	3.0					1530	1700	1.5			140
TOTAL		7.0					TOTAL		3.0			280

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE OTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEOTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

CUSTOMER	 JASON WILLIAMS 02021237 PLEASE PRINT	 SIGNATURE	DATE
			EMPL. # <u>7378</u>
SERVICE TECH.	 PLEASE PRINT	 SIGNATURE	



SERVICEMAN <i>Chuck Castro</i>		ASSISTANT TECHNICIAN <i>Chris D.</i>	
JOB DESCRIPTION <i>Head swing</i>			
CUSTOMER <i>Husky</i>	W/O # <i>136030</i>	LOCATION <i>Annsell</i>	DATE <i>THURS 20 June 20/13</i>
L.S.D. # <i>7-27-51-19-W5</i>	CUSTOMER UNIT # <i>2-800</i>	MFGR. <i>termont</i>	UNIT #
ENG. MODEL <i>Cat 3512</i>	SERIAL # <i>7NJ01033</i>	SPEC. <i>4P-8328</i>	RUN HRS.
COMP/GEN. MODEL <i>rick 56CH 351500832</i>		SERIAL #	INT. MFLD VAC/PRESS

WORK PERFORMED

load parts at stop, travel to site, get safe work permit, fill engine with oil and coolant, fill compressor with oil, clean up, dump garbage past engine, travel back to stop

TUNE-UP ENGINE

LABOUR								TRAVEL LABOUR					TRUCK UNIT #	
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE		START	FINISH	REGULAR	OT 1.5	OT 2.0	KM	
7:30	8:00		0.5											
8:30	12:00	3.5						8:00	8:30	0.5				
12:30	15:30	3.0												
								15:30	16:00	0.5				
TOTAL		6.5	0.5					TOTAL		1.0				

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQOA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SE QTE)	\$ 250.00
275 / AT HYDRAULIC TORQUING EQUIPMENT (SEOTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00

PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE



JASON WILLIAMS
02021237

CUSTOMER *Chuck Castro*

PLEASE PRINT

[Signature]
SIGNATURE

DATE *June 20/13*

SERVICETECH. *Chuck Castro*

PLEASE PRINT

[Signature]
SIGNATURE

EMPL. # *8091*

Distributor
Gas Engines

WHITE - ENGINE FILE

YELLOW - INVOICE

GREEN - BILLING

PINK - CASH

BLUE - CUSTOMER

WHITE - BRANCH

REV. 11, 01/13

SERVICEMAN <i>Chris Soroka</i>		ASSISTANT TECHNICIAN <i>_____</i>	
JOB DESCRIPTION <i>Startup</i>			
CUSTOMER <i>Husky</i>		W/O # <i>136030</i>	LOCATION <i>Ansell</i>
		DATE <i>SAT 05</i>	
L.S.D. # <i>7-27-51-12WS</i>	CUSTOMER UNIT # <i>Z-800</i>	MFGR. <i>Toromont</i>	UNIT #
ENG. MODEL <i>Cat 3512</i>	SERIAL # <i>7N501033</i>	SPEC. <i>4P-8328</i>	RUN HRS. <i>36468</i>
COMP/GEN. MODEL <i>Frick SGCH.351</i>		SERIAL # <i>50832</i>	INT. MFLD VAC/PRESS <i>12.3</i>

WORK PERFORMED

Check Levels. Prekba and Start Unit. Repair faulty
turbo feed lines. (oil) Monitor presseres and temps.
Load Unit Check Reserve and O₂. All Good. Left Bank.
Turbo Failure. Replace Turbo Cartage (LB) with Husky Stock.
Prekba and Restart Unit. Load and Monitor. Check
O₂ fuel presseres, oil presseres and Monitor for any
Leaks. Bicara Docar Leaking. Needs kits for the 500hr.
Clean up and Return Travel to Edson. Unload and
Return to Whitecourt.

TUNE-UP ENGINE

TUNE-UP ENGINE							TRUCK UNIT # 31064					
LABOUR							TRAVEL LABOUR					
START	FINISH	REGULAR	OT 1.5	OT 2.0	ACCOMMODATIONS	SUBSISTENCE	START	FINISH	REGULAR	OT 1.5	OT 2.0	KM
13:30	19:00			5.5	SPD	\$35	19:00	21:00	2.0			150
5.5 TOTAL				5.5	(SPD)	\$35	2 TOTAL		2.0			150

SPECIALTY TOOLING RATES

SPECIALTY TOOLING RATES PER USAGE EFFECTIVE MAY 1, 2010			
LASER OPTIC ALIGNMENT (SEQQA)	\$ 250.00	CAT 3600 HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00
AT SULZER HYDRAULIC TORQUING EQUIPMENT (SEQTE)	\$ 250.00	AIR OPERATED ENGINE BARRING DEVICE (SEQBD)	\$ 100.00
PST & GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE			

PST.& GST ARE EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE

 JASON WILLIAMS 02021237		ADDITIONAL FEES EXTRA - PRICES ARE SUBJECT TO CHANGE WITHOUT NOTICE	
CUSTOMER _____	PLEASE PRINT	 SIGNATURE	DATE _____
SERVICE TECH. <u>Chris Soroka</u>	PLEASE PRINT	 SIGNATURE	EMPL. # <u>6046</u>



CUSTOMER NAME <i>Husky</i>		CUSTOMER CONTACT <i>Jason</i>		
SITE <i>Ansell</i>	L.S.D. # <i>7-27-51-19w5</i>	W/O # <i>PFS136030</i>	UNIT <i>Z-800</i>	DATE <i>June 22/13</i>

COMPRESSOR

Manufacturer <i>Frick</i>
Model <i>SGCH351</i>
Serial # <i>500832</i>
Spec.
Hours <i>36468</i>

COMPRESSOR

Oil Change ☐ YES ☒ NO	
Oil Sample #	Oil Pressure

ENGINE

Manufacturer <i>Cat</i>
Model <i>3512</i>
Serial # <i>7NJO1033</i>
Spec. <i>4P-8328</i>
Hours <i>36468</i>

ENGINE

Oil Change ☒ YES ☐ NO	
Oil Sample #	Oil Pressure <i>471kpa</i>

GEAR BOX

Oil Change ☐ YES ☐ NO	
Oil Sample #	Oil Pressure

FINAL SETTINGS

RPM	<i>1200</i>	
Primary Fuel Pressure	<i>50</i> PSI	
Gas over Air @ Idle	RB <i>5.6"</i> " H ₂ O	LB " H ₂ O
Gas over Air @ Load	RB " H ₂ O	LB " H ₂ O
Lean Burn Prechamber Fuel @ Idle	▲ P " Hg	
Manifold Pressure	RB <i>12.3"</i> " Hg	LB " Hg
Turbo Reserve Pressure	RB <i>17.2"</i> " Hg	LB " Hg
Crankcase Pressure	" H ₂ O	
Jacket Water Temperature	In <i>50°</i> ° F / C	Out <i>82.5°</i> ° F / C
Oil Temperature	<i>77°</i> ° F / C	
Ignition Timing	RB °	LB °
Exhaust O ₂ (Lean Burn)	RB <i>7.02</i> O ₂	RB O ₂
Exhaust CO (Rich Burn)	RB CO	LB CO
Exhaust Back Pressure	" H ₂ O	
Valve Setting	In <i>020</i> "	Ex <i>050</i> "
Spark Plug Gap	"	
Lube Rates	RB	LB
Packing Vents	YES	NO
Valve Temps	YES	NO
Bearings Greased	YES	NO

MAINTENANCE ITEMS	REPLACED		INSPECT
	YES	NO	
Spark Plugs			
Extensions			
Fuel Filters			
Air Filters			
Coils			
Secondary Leads			
Primary Leads			
Hydraulic Lifters			
Valve Cover Gaskets			
Fuel Admission Valves GL			
Carb Diaphragm LB			
Carb Diaphragm RB			
Carb Butterflies			
Governor			
Governor Linkage			
Main Water Pump Belts			
Auxiliary Water Pump Belts			
Engine to Jackshaft Belts			
Jackshaft to Cooler Dr. Belts			
Cooler Belts			
Jackshaft Bearings			
Fanshaft Belts			
Idler Bearings			
EXH Temperature	LB	RB	
1			
2			
3			
4			
5			
6			
7			
8			

ENGINE COMPRESSION CHECK PERFORMED ☐ YES ☒ NO

	#1	#2	#3	#4	#5	#6	#7	#8
Right Bank Cylinders								
Left Bank Cylinders								

COMMENTS

② Bicara Size 4AC
LB Turbo Failed

SERVICE TECH. _____

PLEASE PRINT

SIGNATURE _____

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ENGINE REPAIR SUMMARY

CUSTOMER <u>Husky</u>	W/O # <u>PFS 136 030</u>	DATE <u>June 19/2013</u>
LOCATION <u>Appalachia</u>	L.S.D. <u>7-27-51-19 WSM</u>	
UNIT # <u>2-800</u>	DESIGNATION	
ENGINE MFG. <u>GM</u>	MODEL # <u>351R</u>	
TYPE OF GAS: SWEET ☒ SOUR ☐	S/N <u>7N101033</u>	
CUSTOMER CONTACT <u>Jason</u>		
PHONE	FAX	UNIT HRS.

REASON FOR ATTENDING SITE:

1. EQUIPMENT FAILURE ☐
2. SCHEDULED OVERHAUL ☒
3. COMPLETE REPLACEMENT ☐
4. ROUTINE INSPECTION ☐

REPORTS ATTACHED:

1. ITEMIZED ENGINE REPAIR SUMMARY COMPLETED YES ☒ NO ☐
2. ENGINE SETTINGS REPORT YES ☐ NO ☐
3. ENGINE ALIGNMENT REPORT *-Customer said it was good* YES ☐ NO ☐
4. MACHINE SHOP RECORDS *-None* YES ☐ NO ☒

FLUIDS:

1. ENGINE COOLANT INSTALLED YES ☒ NO ☐
2. ENGINE OIL INSTALLED YES ☒ NO ☐
3. DAY TANK FILLED YES ☐ NO ☐
4. ENGINE OIL FILTER REPLACED YES ☒ NO ☐
5. ENGINE OIL STRAINER CLEANED YES ☒ NO ☐

UNIT RESTARTED BY: GAS DRIVE ☐ CUSTOMER ☐ OTHER ☐

PROBLEMS EXPERIENCED? YES ☐ NO ☐

IF YES, BRIEFLY DESCRIBE:

ENGINE COMPRESSION CHECK PERFORMED: YES ☐ NO ☒

	#1	#2	#3	#4	#5	#6	#7	#8
Right Bank Cylinders								
Left Bank Cylinders								



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DATE WORK COMMENCED _____ DATE COMPLETED _____

SERVICEMAN _____ DATE _____

CYLINDER BLOCK BORES SLEAVED

UPPER:

Y ☐N ☒

LOWER:

Y ☐N ☒

ITEM	INSPECTED YES NO	REUSE ORIG.	RECON. ORIG.	REPLACE NEW	REPLACE EXCHANGE	TORQUE VALUE	SETTING	CLEARANCE BKLASH/END PLAY
CRANKSHAFT .	✓		✓					
CRANKSHAFT COUNTERWEIGHTS	✓		✓					
MAIN BEARINGS		✓	✓					
VIBRATION DAMPENER		✓	✓					
CYLINDER HEADS	✓			✓		330 Ft/lbs		
LIST LOCATION OF NEW HEADS	All 12							
ROCKER ARMS\SHAFTS	✓		✓					
HYD/STD PUSH RODS	✓		✓					
PISTONS	✓			✓				
LIST LOCATION OF NEW PISTONS	All 12							
PISTON RINGS				✓				
PISTON PINS				✓				
CYLINDER LINERS				✓				
LIST LOCATION OF NEW CYLINDER LINERS	All 12							
CON ROD BUSHINGS				✓				
CONNECTING RODS				✓		New Bearings 0.150" Old Bearings 0.150"		
LIST LOCATION OF NEW RODS	All 12							
CON ROD BEARINGS	✓			✓		65 Ft/lbs + 90°		
CAMSHAFT	✓		✓					
CAMSHAFT BEARINGS	✓		✓					
CAMSHAFT FOLLOWERS	✓		✓					
CAMSHAFT GEAR(S)		✓						
CRANKSHAFT GEAR		✓						
IDLER GEAR		✓						
MAGNETO DRIVE		✓						
ACCESSORY DRIVE		✓						
ACCESSORY DRIVE GEAR		✓						
GOVERNOR		✓						
GOVERNOR LINKAGE								
CARBURATOR(S)	✓			✓				
THROTTLE BODY(S)	✓			✓				
CRANKSHAFT SEAL(S)	✓		✓					
OIL PUMP			✓					
OIL FILTERS	✓							
OIL COOLER			✓					
OIL THERMOSTAT			✓					
GLYCOL COOLANT THERMOSTAT			✓					
TURBOCHARGER(S)					✓			
WASTEGATES					✓			
INTERCOOLER	✓		✓					
MAIN WATER PUMP				✓				
AUX. WATER PUMP				✓				
MAIN WATER PUMP BELTS								
AUX. WATER PUMP BELTS								
JACKSHAFT BELTS	✓		✓					
COOLER BELTS	✓		✓					
COUPLING	✓		✓					
COUPLING SHIM PACKS	✓		✓					



ENGINE REPAIR SUMMARY

ITEM	INSPECTED YES NO	REUSE ORIG.	RECON. ORIG.	REPLACE NEW	REPLACE EXCHANGE	TORQUE VALUE	SETTING	CLEARANCE
PRE-LUBE PUMP	✓	✓						
POST-COOLING PUMP								
BREATHER/CRANKCASE								
MAGNETO								
AIR FILTER/OIL BATH								
SPARK PLUGS				✓		32 Ft/lbs	0.012"	
COIL EXTENSIONS/LEADS								
IGNITION COILS	✓	✓						
HARNESS MAIN	✓	✓						
DRIVE DISC								
MODULE CEC								
PICKUP - HALL EFFECT								
GL ENGINE ADMISSION VALVES								

ITEM	CHECKED YES NO	SETTING	COMMENT
FUEL PRESSURE		RB _____ LB _____	
GAS OVER AIR PRESSURE		RB _____ LB _____	
OIL PRESSURE		_____ PSI	
CRANKCASE PRESSURE		_____ " H ₂ O	
BOOST/VACUUM		RB _____ LB _____	
EXHAUST TEMPERATURE		RB _____ LB _____	
EXHAUST BACK PRESSURE		_____ " H ₂ O	
IGNITION TIMING		_____ ° BTDC	
VALVE CLEARANCE		INT _____ EXH _____	
GL ENGINE O ₂ LEVEL		RB _____ LB _____	
OVERSPEED		_____ RPM	
JACKET WATER TEMPERATURE		_____ °	
OIL TEMPERATURE		_____ °	
MANIFOLD TEMPERATURE		_____ °	



ENGINE CLEARANCES ON ASSEMBLY

MAIN BEARINGS _____ TO _____ SPECIFICATION

READINGS:

- | | |
|----------|-----------|
| 1. _____ | 6. _____ |
| 2. _____ | 7. _____ |
| 3. _____ | 8. _____ |
| 4. _____ | 9. _____ |
| 5. _____ | 10. _____ |

CRANKSHAFT END PLAY _____ TO _____ SPECIFICATION

READING 0.018"

CONNECTING ROD BEARINGS _____ TO _____

READINGS LEFT BANK OR IN LINE	PISTON - PART # OR WEIGHT	READINGS RIGHT BANK	PISTON - PART # OR WEIGHT
1.		1.	
2.		2.	
3.		3.	
4.		4.	
5.		5.	
6.		6.	
7.		7.	
8.		8.	

CAMSHAFT END PLAY _____ TO _____

READING _____

OIL PUMP GEAR BACKLASH CLEARANCE _____ TO _____ SPECIFICATION

READING _____



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