

**Invoice Information**

WO Number:  
WO Date:

Store:  
Payment Terms:  
P/O Number:  
Ship Via:  
Invoice Type:

Make: CATERPILLAR  
Model: D6HLGP  
Serial: 08YC00408

PIN:  
Id No:  
Cust Unit:

Meter: 8313.0

**Invoice Summary**

Parts:  
Labor:  
Misc:  
Taxes:

Amount Due: \$22,685.70

Invoice Total: 22,685.70

**DUE BY 10TH OF THE NEXT MONTH**

Credit card payments are only accepted at Point of Sale.

A service charge of 1 1/2 % per month will be assessed on all past due accounts.

To ensure proper credit, please detach this portion, at the perforation, and return with remittance.

**INVOICE COPY**

Amount Due:

\$22,685.70



Invoice Number:

Quantity	Item	NR	Description	Unit Price	Extended
<p>PUT "T" UNDER MARKETING            PRECIOUS METAL PLATINUM WARRANTY HOUR METER            READING 8313            RECONDITION IN FRAME ENGINE            MINOR            CUSTOMER COMPLAINT:            MACHINE WAS LOCATED IN LYON COUNTY BY WALNUT GROVE            MN.            REMOVE ENGINE FROM CHASSIS.            REPAIR PROCESS COMMENTS:            FINISH DISCONNECTING EVERYTHING FROM ENGINE AND            REMOVE ENGINE FROM CHASSIS ,LOAD IN MY TRUCK AND            BRING ENGINE TO SHOP AND PUT ON STANDS.            CUSTOMER COMPLAINT:            RECONDITION ENGINE            CAUSE OF FAILURE:            HEAD GASKET WAS BLOWN AND #6 LINER WAS LOW            RESULTANT DAMAGE:            BLOWN HEAD GASKET            REPAIR PROCESS COMMENTS:            JIM HAD THE CLEAN UP OF THE ENGINE DONE AND THE            COUNTER BORES CUT I INSTALLED THE CYLINDER PACKS            AND ROD AND MAIN BEARINGS AND TORQUE THE BOLTS I            INSTALLED THE FRONT COVER AND ALL NEW GASKETS AND            FRONT CRANK SEAL AND TRUNNION I INSTALLED THE            HEAD AND TORQUE THE HEAD BOLTS AND I SET THE            VALVE SETTINGS AND INSTALLED THE VALVE COVER I            INSTALLED NEW INJECTORS AND THEN INSTALLED THE            EXHAUST MANIFOLD AND TURBO I INSTALLED THE FUEL            INJECTION PUMP AND INJECTION LINES I INSTALLED            THE STARTER AND INTAKE I HAD TO REMOVE THE IDLER            GEAR FOR THE REAR GEAR TRAIN BEFORE I RAN THE            ENGINE I HOOKED UP THE ENGINE SO I COULD RUN IT            AND I RAN THE ENGINE AND CHECKED TIMING IT IS SET            AT 22 DEG BTDC CHECKED FOR LEAKS I HAD TO            REPLACED HE THROTTLE SHAFT SEAL ON THE INJECTION            PUMP            CUSTOMER COMPLAINT:            THE ENGINE IS PUSHING COOLANT OUT THE OVER FLOW OF            THE RADIATOR.            CAUSE OF FAILURE:            THE NUMBER SIX LINER HAS WORN THE COUNTER BORE OF            THE BLOCK AWAY AND HAS LOWERED THE LINER            PROTRUSION.            RESULTANT DAMAGE:            THE HEAD GASKET HAS FAILED ON NUMBER SIX CYLINDER            LETTING COMPRESSION ENTER THE COOLING SYSTEM.            REPAIR PROCESS COMMENTS:            RUSS HAD THE TURBO AND AIR LINES OFF THE ENGINE.            I DISASSEMBLED THE ENGINE AND CLEANED ALL PARTS.            I PUT CLEAN PARTS ON SHELVES AND COVERED. THE            NUMBER SIX CYLINDER LINER FIRE RING ON THE HEAD            GASKET SHOWS IT HAS NOT BEEN SEALING LETTING            COMPRESSION INTO THE COOLING SYSTEM. I CUT THE            COUNTER BORES TO .028" DEPTH TO GET TWO MORE            THOUSANDTHS PROTRUSION. I ORDERED PARTS AND THEN            WAITED FOR OVERHAUL KIT TO ARRIVE.</p>					
2	100-3652		THRUST-PLATE	S	
1	20R-1482		KIT ENG OVER	N	
1			CORE CHARGE	N	
1-			CORE CREDIT	N	
7	232-3233		BEARING-MAIN	N	



SEGMENT 01 TOTAL

12325.58 T

REPLACE ENGINE OIL COOLER

CUSTOMER COMPLAINT:

REPLACE OIL COOLER

REPAIR PROCESS COMMENTS:

I REMOVED THE ENGINE OIL COOLER AND REPLACED WITH  
A RE MAN COOLER.

1	OR-3499	CORE A OIL	S	F/R PTS
1		CORE CHARGE	S	
1-		CORE CREDIT	S	
2	SS-6051	GASKET	S	

F/R LBR

SEGMENT 02 TOTAL

625.00 T

REPLACE CAMSHAFT

CUSTOMER COMPLAINT:

REPLACE CAM SHAFT AND BUSHINGS

REPAIR PROCESS COMMENTS:

I REPLACED CAM SHAFT BUSHINGS AND CAMSHAFT AND THE  
LIFTERS

CUSTOMER COMPLAINT:

I REMOVED THE CAM SHAFT LIFTERS AND CAN SEE THE  
LOBE'S ON NUMBER ONE CYLINDER ARE FLAKING ON THE  
EDGE. THE LIFTERS ARE WORN FLAT AND ARE RIDING  
ON THE EDGE OF THE LOBE. IT WAS DECIDED TO

REPLACE THE CAMSHAFT.

REPAIR PROCESS COMMENTS:

I REMOVED THE FRONT COVER AND GEAR TRAIN. I HAD  
THE CAMSHAFT READY TO BE REMOVED. I CLEANED ALL  
PARTS.

1	OR-3023	CAMSHAFT KT	N	F/R PTS
1		CORE CHARGE	N	
1-		CORE CREDIT	N	

F/R LBR

SEGMENT 03 TOTAL

1350.00 T

REPLACE CRANKSHAFT REAR SEAL

CUSTOMER COMPLAINT:

A REAR CRANK SEAL WAS TO BE INSTALLED.

REPAIR PROCESS COMMENTS:

I REMOVED THE FLYWHEEL AND CAN SEE THE DRIVE GEAR  
FOR THE PUMP DRIVE HAS BEEN DAMAGED FROM A PRIOR  
REPAIR. THERE WAS FORCING BOLT IMPRINTS IN THE  
GEAR TEETH. THE GEAR WAS REPLACED WITH NEW. I  
CLEANED THE FLYWHEEL HOUSING AND FLYWHEEL. I  
INSTALLED A REAR CRANKSHAFT SEAL AND REASSEMBLED.

1	7C-4297	SEAL G-CRANK	S	120.31
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TOTAL PARTS

SEG. 04

F/R LBR

SEGMENT 04 TOTAL

220.31 T



Quantity	Item	N/R	Description	Unit Price	Extended
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# REPLACE FUEL INJECTION PUMP

## CUSTOMER COMPLAINT:

THE ENGINE WAS LOW POWER.

## REPAIR PROCESS COMMENTS:

I INSTALLED SIX NEW PLUNGERS AND BARRELS IN THE FUEL INJECTION PUMP. I CHECKED FUEL SETTINGS AND THE TORQUE AND FUEL WERE RIGHT ON SPEC FOR THIS MACHINE. NO FUEL SETTINGS WERE CHANGED. I DID FIND THE INSULATED TERMINAL WAS LOOSE ON THE REAR OF THE GOVERNOR HOUSING. I REPLACED IT WITH A NEW ONE AND SEALED IT WITH PIPE THREAD SEALANT.

6	1W-6539	PUMP GP	N
1	2J-3506	NUT	S
1	3J-7354	SEAL O RING	S
1	3P-0009	INSULATOR	S
1	6I-2004	GASKET	S
6	7E-4846	SEAL	S
6	8H-9204	WASHER	S
2	8T-0328	WASHER	S
1	150-3724	GASKET	S

F/R PTS

F/R LBR

SEGMENT 05 TOTAL

1589.00 T

# REPLACE ENG OIL FILTER HSG/BASE

## CUSTOMER COMPLAINT:

THE OIL FILTER BASE IS LEAKING OIL AT THE INLET AND OUT LET TUBES.

## RESULTANT DAMAGE:

THERE ARE GROOVES CUT INTO THE FILTER A BASE HOUSING. SO RESEALING IT WILL NOT WORK.

## REPAIR PROCESS COMMENTS:

I REMOVED THE FILTER BASE AND INSTALLED A NEW HOUSING WITH SEALS AND GASKET.

2	0S-1618	CAP SCREW	S
2	1B-2790	CAP SCREW	S
1	2M-5407	GASKET	S
1	3J-7354	SEAL O RING	S
1	7F-7590	GASKET	S
2	8M-4432	SEAL O RING	S
2	8N-6985	GASKET	N
2	9M-4849	SEAL O RING	S
1	9S-4182	PLUG	S
1	9Y-6859	COVER	N
1	9Y-6860	GASKET	S
1	9Y-7149	BASE A	N

F/R PTS

F/R LBR

SEGMENT 06 TOTAL

442.00 T

## PARTS ONLY

## REPAIR PROCESS COMMENTS:

PARTS NOT INCLUDED IN OVERHAUL.

4	0L-2070	CAP SCREW	S
2	0S-1590	CAP SCREW	S
1	0S-1619	CAP SCREW	S

Quantity	Item	N/R	Description	Unit Price	Extended
3	1B-7709		CAPSCREW	S	
1	1R-1807		LUBE FILTER	S	
1	1S-9540		DOWEL	S	
1	1S-9799		SEAL-O-RING	S	
6	1T-0416		BOLT	S	
1	1U-5718		PUMP	S	
1	1W-0613		INDICATOR	S	
1	1W-4737		GEAR	N	
1	1W-9168		CLAMP	S	
1	1W-9169		CLAMP	S	
1	2H-3932		SEAL	S	
1	2H-3934		SEAL	S	
1	2P-1692		SEAL-O-RING	S	
1	2P-2720		GASKET	S	
1	2P-8746		GASKET	S	
1	4H-7869		GASKET	S	
1	4N-1230		SEAL-O-RING	N	
1	4W-0485		INDICATOR	S	
1	4W-2181		HOSE	N	
2	5F-3106		SEAL	S	
1	5F-7054		SEAL	S	
14	5M-2894		WASHER	S	
1	5M-6213		PLUG	S	
8	5P-4868		CLAMP	S	
1	5P-4939		SCREW A	S	
1	6N-1558		RING-SEAL	S	
1	6N-5926		SENDER-TEMP	S	
1	6V-6921		SEAL O RING	S	
4	6V-8801		NUT	S	
1	7W-5317		ELEMENT A	S	
2	8M-4433		SEAL O RING	S	
1	8M-5010		SEAL O RIN	S	
1	8N-3844		SENDER	S	
1	8N-6854		GASKET	S	
1	8T-2230		SEAL	N	
1	8T-2604		SEAL	S	
1	9H-0846		SEAL O RING	S	
3	9M-7002		SEAL O RING	S	
1	9S-1274		GASKET	N	
1	9S-9972		ELEMENT-AIR	S	
6	104-5511		INSERT SEAT	S	
1	150-3728		GASKET	S	
2	238-8647		CAT ELC	S	
10	238-8648		COOLANT-ELC	S	
2	295-5451		MOUNT AS-CLA	N	
1	295-5678		TRUNNION-CLA	N	
52	371-8946		CM HOSE BULK	S	
1	SOS012		SOS 12 PACK	S	
TOTAL PARTS			SEG. 07		2349.91 *
SEGMENT 07 TOTAL					2349.91 T

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 INSTALL ENGINE  
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Quantity	Item	N/R	Description	Unit Price	Extended
ALL LINES AND ADDED COOLANT TO THE ENGINE AND THEN STARTED THE ENGINE AND WARMED UP AND CHECKED FOR LEAKS AND IT IS OK AND THEN CHECK THE LOW IDLE AND HIGH IDLE AND ADJUSTED THE THROTTLE AND CHECKED OUT THE ENGINE COOLANT TEMP AND TORQUE CONVERTER TEMP SENSORS AND HAD THE CUSTOMER GET THE PART AND HE IS GOING TO INSTALL HIM SELF					
			TOTAL LABOR	SEG. 08	
			SEGMENT 08 TOTAL		1395.00 T
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REMOVE & INSTALL FLYWHEEL RING GEAR CUSTOMER COMPLAINT: WHEN THE FLYWHEEL WAS REMOVED THE RING GEAR TEETH WERE CHIPPED OUT WHERE THE STARTER RING GEAR ENGAGES. REPAIR PROCESS COMMENTS: I REMOVED THE FLYWHEEL RING GEAR AND INSTALLED A NEW GEAR.					
1	7N-9146		GEAR	N	319.73
			TOTAL PARTS	SEG. 09	
			TOTAL LABOR	SEG. 09	
			SEGMENT 09 TOTAL		417.73 T
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1.00-			PROMOTION 10% PARTS CREDIT		
			TOTAL MISC CHGS	SEG. 96	
			SEGMENT 96 TOTAL		524.99-T
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TRAVEL TO/FROM MACHINE					
140.00			TOTAL LABOR TRAVEL MILEAGE	SEG. 99	
			TOTAL MISC CHGS	SEG. 99	
			SEGMENT 99 TOTAL		438.00 T
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			SERVICE SUPPLIES AND ENVIRONMENTAL CHARGES		
			MN SALES TAX-6.875%		
			MARSHALL MN CITY TAX		
			* * * INVOICE COPY * * *		
			DUE BY 10TH OF THE NEXT MONTH		
			INVOICE TOTAL		22,685.70