

**DJ Mechanical**  
 Box 2586  
 Whitecourt, AB T7S 2A1, CA  
 darcy@djmechanical.net  
 (780) 779-7088



**Invoice:** INV-8469  
**Date:** 22/8/2024

**Bill To**

**Remit Payment To**  
 DJ Mechanical  
 Box 2586  
 Whitecourt, AB T7S 2A1, CA

Service Order	Terms	Due Date	Authorizer	Customer PO	Unit #
SO-9417	COD	22/8/2024	Buck Lavalee		

Item	Description	Quantity	Rate	Amount
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**Complaint:** Troubleshoot oil leak from engine  
**Cause:** Customer request

Labor	<b>Correction:</b> Engine / Gaskets / Clean and run engine seeing for oil leaks around front structure and head gasket. take off valve cover and inspect gasket, clean and reinstall valve cover. clean and run engine again. finding leak to be coming from cam tensioner plate. Start the disassembly process to change cam tensioner O-rings. complete disassembling front structure. replace cam tensioner O-rings. time engine and reassemble front structure. - Created: 15/7/2024 Completed: 7/8/2024 - Assigned tech(s): Les Droesse, Skyler Hofstra	4.00000	\$160.00	\$640.00
<b>Subtotal</b>				\$640.00

**Complaint:** R&R fan hub  
**Cause:** Customer request  
 (Inspection)

Labor	<b>Correction:</b> A/C Cooling System / Fan / Replace fan hub, put truck back together and add coolant, Clear engine codes. - Created: 15/7/2024 Completed: 22/8/2024 - Assigned tech(s): Les Droesse	2.00000	\$160.00	\$320.00
<b>Subtotal</b>				\$320.00

**Complaint:** Reseal front cover  
**Cause:** Customer request  
 (Inspection)

Item	Description	Quantity	Rate	Amount
Labor	<b>Correction:</b> Engine / Gaskets / drain coolant and recover AC refrigerant. Tear apart front pulley assembly and front structure cover. time engine with pin and wedge and mark gear train. disassemble gear train marked and removed each gear and laid out in order  pull off front structure. And clean gasket surfaces on block and wash the entire front structure.  replace structure, air compressor, and high pressure fuel pump gaskets. start reassembling front structure housing and begin putting gear train back together. - Assigned tech(s): Les Droesse, Skyler Hofstra Reinstalling gears in the order they were removed and cleaning lubricating and torquing them in place as Cummins specified.  set and torque cam and cam idler gear to Cummins specifications. drill and tap broken bolt on rear mount for air compressor and reinstall with a new gasket. put new gasket on the front of the gear housing and install front structure cover. install harmonic balancer and crank pulley to Cummins specifications. unpin and wedge engine. install capa cover and pin hole plug. reinstall AC bracket with AC compressor and alternator. install both AC and fan belt. - Created: 17/7/2024 Completed: 7/8/2024	14.00000	\$160.00	\$2,240.00
Parts	Seal O-Ring	1.00000	\$34.89	\$34.89
Parts	Gasket	1.00000	\$22.785	\$22.79
Parts	Seal	1.00000	\$93.467	\$93.47
Parts	seal, rectangular	1.00000	\$25.80	\$25.80
Parts	gasket, adapter	1.00000	\$28.665	\$28.67
Parts	OIL SEAL	1.00000	\$150.22	\$150.22
Parts	gasket	1.00000	\$168.6495	\$168.65
Parts	Seal	2.00000	\$93.467	\$186.93
Parts	gasket, air comp.	1.00000	\$41.9775	\$41.98
Parts	gasket, fuel pump	1.00000	\$41.8035	\$41.80
Parts	o-ring seal	1.00000	\$25.785	\$25.79
Parts	T-BOLT CLAMP 3-1/8"	1.00000	\$12.425	\$12.43
Parts	HOSE CLAMP	1.00000	\$2.79	\$2.79
			<b>Subtotal</b>	<b>\$3,076.21</b>

**Complaint:** R&I CYLINDER HEAD

**Cause:** Customer request

(Inspection)

Item	Description	Quantity	Rate	Amount
Labor	<b>Correction:</b> Engine / Overhaul / 11213.6hrs  Drain coolant Disassemble intake piping Support hood Remove coolant piping Remove rad assembly. Remove fan and front cover Remove top two gears Remove the valve cover Remove rocker arms - Assigned tech(s): Korbyn Droesse, Skyler Hofstra Remove camshaft. Remove head bolts 7 of the head bolts were seized in place needed to be removed with a 58:1 torque multiplier One head bolt needed to be welded to be removed. In order to get bolt removed I needed to heat the head of the bolt up and weld a nut onto it while still hot then hammer socket on and use the torque multiplier to get bolt removed Removed head and stripped it down Cleaned block deck Cleaned components that were removed.  Reassemble head with covers and intake manifold Paint cylinder head. Install head gasket and cylinder head  Torque procedure Reinstall exhaust manifold Install cam.  Remove connecting rod cap and inspect. Clean gears and bearings and mounting surfaces Install front gear train and set base timing. Install cam position sensor Clean the valve bridges very thoroughly to prevent abrasive damage install valve bridges Clean and install rocker arms and torque to procedure. Clean injectors and injector tubes Remove and install new copper combustion seals on all injectors and install new o rings Install injectors and tubes and torque in sequence. Clean and reinstall injector harness and secure into cylinder head. Install common rail and fuel lines. Install pump too common rain fuel line.  Reseal and clean front cover and reinstall. Re route harness over truck and reinstall shroud bracket  Reinstall fan hub	12.00000	\$160.00	\$1,920.00

Item	Description	Quantity	Rate	Amount
	Reinstall radiator core. Put away crane.			
	Reconnect all piping to air to air. Positive air shut off			
	While replacing the head we also removed oil pan and inspected bearings, oil pump. And flushed the oil system.			
	Charged air conditioning wasn't holding vacuum removed and replaced all air conditioning orings and so pressure tested and got it to take a charge. 3.8lbs of refrigerant			
	Filled oil Started truck and idled Truck check engine light came on checked codes. Crankcase pressure code active			
	Check over sensor had no voltage traced wire too a break in harness repaired break rescued wires and cleared code.			
	Idle Oil pressure it was at 38-40 when I started truck pulled outside and parked in yard and idled up had it set at high idle and went about checking for leaks			
	Idled till thermostat opened coolant temp it was at 180 but oil pressure was at 23 while idled up took it off of high idle and oil pressure dropped down to ten psi and tripped warning lamp			
	shut truck down Check oil level. level is still good. - Created: 22/7/2024 Completed: 7/8/2024			
Parts	cylinder head	1.00000	\$5,688.00	\$5,688.00
Parts	gasket kit	1.00000	\$1,176.625	\$1,176.63
Parts	head bolt kit	1.00000	\$670.00	\$670.00
Parts	paint, cummins red	1.00000	\$70.325	\$70.33
Parts	IDLER PULLEY	1.00000	\$48.053	\$48.05
Parts	COOLANT HOSE, ELBOW	1.00000	\$64.8295	\$64.83
Parts	R-134A Freon	3.80000	\$35.85	\$136.23
Parts	Pag oil	2.00000	\$5.0225	\$10.05
			<b>Subtotal</b>	<b>\$9,784.12</b>

**Complaint:** Replace main & rod Bearings

**Cause:** Customer request

(Inspection)

Item	Description	Quantity	Rate	Amount
Labor	<b>Correction:</b> Engine / Crankshaft / Drain oil, remove oil pan, oil pick up tub and oil pump. Remove block stiffener plate. Start the dismantling process of the connecting rod and main caps. Roll old bearings out and new ones in. Seal caps with loctite 518 to Cummins specifications. Reinstall caps, oil and torque cap bolts to Cummins specifications (mains 110ftlb and 180°) (rods 52ftlb 60°). Reinstall stiffener plate, oil pump and pick up tube to torque spec. Install oil pan and fill with 44L of oil.  Redo all the steps and install correct size bearings. - Created: 26/7/2024 Completed: 7/8/2024 - Assigned tech(s): Daniel Bisson, Korbyn Droesse, Skyler Hofstra	12.00000	\$160.00	\$1,920.00
Parts	DELO 15W40 400XLE PAIL	2.00000	\$139.95	\$279.90
Parts	DELO 15W40 400XLE JUG	1.00000	\$34.95	\$34.95
Parts	OIL FILTER	1.00000	\$75.2115	\$75.21
Parts	oversize rod bearing	6.00000	\$266.168	\$1,597.01
Parts	bearing, main set oversize	1.00000	\$575.12	\$575.12
<b>Subtotal</b>				\$4,482.19
	freight	3.00	\$39.00	\$117.00
	freight b	1.00	\$110.00	\$110.00
<b>Unit: VIN: 1XKWD49X3EJ967097</b>				<b>Labor</b> \$7,040.00
<b>License Plate: (AB) u30796</b>				<b>Parts</b> \$11,262.52
2014 Kenworth W9 Series				<b>Shop Supplies</b> \$400.00
<b>Chassis: 1,288,429 Kilometres</b>				<b>Pre-Charge Subtotal</b> \$18,702.52
				<b>freight</b> \$117.00
				<b>freight b</b> \$110.00
				<b>GST</b> \$946.48
				<b>(5% of \$18,929.52)</b>
				<b>Total</b> \$19,876.00
				<b>Payments &amp; Credits</b> \$0.00
				<b>Balance Due</b> \$19,876.00

Any warranties on the parts and accessories sold hereby are made by the manufacturer. You understand and agree that we make no warranties of any kind unless expressed in writing. You hereby authorize us to perform the repair work herein set forth and to purchase the necessary material and parts to perform such repair work. You agree that we are not responsible for loss or damage to your vehicle or articles left in your vehicle in case of fire, theft, or any other cause beyond our control or for any delays caused by unavailability of parts or delays in part shipments by the supplier or transporter. In addition, you agree that we are not responsible for damages to your vehicle from freezing due to lack of antifreeze. You hereby grant our employees permission to operate your vehicle on streets, highways, or elsewhere for the purpose of testing and/or inspection. You acknowledge and agree that an express mechanic's lien on your vehicle is granted to secure payment of this invoice for the repair work detailed in this invoice.

Customer Signature:\_\_\_\_\_

Printed Name:\_\_\_\_\_Date:\_\_\_\_\_