

Invoice

Date	Invoice #
2/17/2020	

Bill To
P.O. No.

PAID
02/17/2020

Truck #	Truck Model/Serial#	Mileage
	Mack, ISL330 #46477341	

Item	Quantity	Description	Rate	Amount
Shop Labor Rate		Trucked was hauled in for low oil pressure and burning oil out of the exhaust. Washed the engine off and pulled the truck into the shop to further evaluate. Drained the coolant from the system and unhooked the top of the engine. Removed the cylinder head. Found that the liners were badly worn. Drained the engine oil and removed the oil pan. Pushed the pistons out and found that the #1 piston ring is broken. and all rings were worn. Sent the head out to be checked and rebuilt. Ordered a rebuild kit and a new oil pump. Pulled the old liners out and checked the counter bores. All checked out good. Had to remove the radiator and fan drive to remove the engine's front cover in order to get to the oil pump. The old oil pump was worn badly. Cleaned up all good parts and cleaned engine out as well as the rest of the parts. Installed the new oil pump and put the front cover on with new seal. Installed the new pistons on the rods. Installed the piston rings on to the pistons. Went through and installed al new main bearings and torqued main cap bolts to specifications. Installed all 6 new liners. Put all 6 pistons in with new rod bearings and rod bolts and torqued. Once head was back from the machine shop, put the intake on and all fittings. Installed the exhaust manifold with new gaskets and bolts. Installed the old injectors with new o-rings and washers. Torqued injector hold downs. Installed a new cummins head gasket and set the head. Torqued all the head bolts to specifications. Installed the push tubes and all rockers. Went through and adjusted all the valves. Put rocker spacer and valve cover on with new gaskets. Hooked up the head and installed the turbo with all new gaskets. Installed the common rail fuel system. Gad to prime the fuel up. Found the fuel control actuator was weak. Installed a new actuator. Bled the air out of the fuel system. Changed the oil filter and filled the engine with DelVac 15w40 motor oil. Changed both fuel filters and truck was started. Trucks sounds and run good with good oil pressure.	4,080.00	
			Total	
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Item	Quantity	Description	Rate	Amount
Parts		Installed the radiator and hooked it up. Put the coolant back in the and added 2 additional gallons of red antifreeze. Started the truck and let it run. Truck is in good working order. 1 Cylinder head rebuild 1 ISL overhaul kit 1 oil pump 12 exhaust manifold bolts 1 Cummins head gasket 12 rod bolts 1 oil filter 1 primary fuel filter 1 secondary fuel filter 7 gallons 15w40 Delvac oil 6 new hose clamps 1 fuel actuator control solenoid 2 gallons red antifreeze		
			Total	\$9,205.09
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