

INVOICE  
2030

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Printed Date: 11/12/2023

Work Completed: 11/12/2023

2014 Mack - Granite Series - GU-713 - Mack MP7 V-MAC IV (GU Series)  
Lic #: SW-302.016  
Odometer In: 377861  
VIN #: 1M2AX04C4 EM020218

Part Description	Qty	Sale	Ext	Labor Description	Ext
HD Battery	3.00			Check Excessive Blowby	7,000.00
Camshaft Bearing Set	1.00			Checked, found blowby out of spec. Troubleshoot, determined cylinders dusted causing excessive crankcase pressure. Truck sat outside until we got a chance to get it in and make repairs. Once ready to pull in, batteries were dead. Tried to jumpstart for over an hour, truck would not start. Removed and replaced batteries. Got fired up, pulled hood, pulled in shop, drained coolant, unhooked and removed cooling package. Removed dog house. Drained oil.	
Flange Screw	2.00			Removed piping, valve cover and oil pan. Pulled rockers, injectors, upper timing cover, camshaft. Unhooked intake and exhaust sides of cylinder head. Removed fan hub mounting assembly. Removed cylinder head. Removed oil pump. Unbolted rod caps, pulled piston assemblies. Removed liners. Cleaned block and cylinder holes.	
Injector O-Ring Kit	6.00			Inspected counter bores, found bores in good shape. Replaced main bearings. While replacing, inspected journals, all journals in good condition. Installed new liners, installed new piston and rod assemblies. Pul new rod bearings in and torqued. Swapped manifolds over to new cylinder head. Installed cylinder head and torqued. Installed cam shaft with new cam bearings and torqued. Timed camshaft. Installed injectors. Replaced upper timing gasket and installed. Installed rockers, torqued, ran overhead. Put valve cover back on. Reassembled front and both sides of engine.	
M16x65 2.0 Capscrew	4.00			Installed new oil pump. Replaced pick up tube o-rings and installed pick-up tubes. Installed oil pan. Replaced Crankcase ventilation filter assembly. Installed new fan ring. Installed cooling package and hooked up. Hooked up all piping, lines, and hoses. Changed air, oil, and fuel filters. Filled with new oil and coolant. Recharged A/C.	
Oil Filter	2.00			Cranked engine until oil pressure came up. Primed fuel system, fired truck up. Truck running like it should. Let truck idle, verified no leaks and truck running well.	
Bypass Oil Filter	1.00			Customer provided OEM inframe kit, cylinder head, oil pump, and gasket sets.	
Fuel/Water Separator	1.00				
Fuel Filter	1.00				
Air Filter	1.00				
Coolant Size: GALLON	12.00				
SHELL T2 HD 15W40 CK4 Size: BULK	9.00				
Shop Supplies					

Labor:	
Parts:	
Sub:	
Tax:	
Total:	
Bal Due:	\$9,313.24

Customer Number: 24

Vehicle Received: 11/12/2023

Date