

Perih Heavy Duty Inc
RR1
Gilbert Plains, MB R0L 0X0, CA
perihhd@gmail.com
204-648-3122



Invoice: 246
Date: 6/28/2021

Remit Payment To
Perih Heavy Duty Inc
RR1
Gilbert Plains, MB R0L 0X0, CA

Service Order	Terms	Due Date	Authorizer	Customer PO	Service Writer	Unit #
1261	COD	6/28/2021	Lowell Penner		Perih, Steven	

Item	Description	Quantity	Rate	Amount
Complaint: Repair Engine Oil Leak				
Cause: Customer request				
Labor	Correction:	4.00000	\$100.00	\$400.00
	Engine / Lubrication / Diagnose oil leak to be coming from the oil cooler assembly. Ran engine to verify. Also seen the exhaust manifold had 2 broken bolts as well. Ordered parts. Cam to machine another day and drained coolant. Cleaned area and replaced oil cooler gaskets. Installed and torqued to spec. Filled back up with coolant and bled Espar heater. Ran engine to verify repair. Leak is gone. Will repair broken manifold bolts later. - 6/28/2021			
Parts	Exhaust Manifold Gasket	6.00000	\$10.00	\$60.00
Parts	Turbo Drain Gasket	1.00000	\$2.18	\$2.18
Parts	Turbo Mounting Gasket	1.00000	\$5.14	\$5.14
Parts	Oil Cooler Cover Gasket	1.00000	\$18.525	\$18.53
Parts	Oil Cooler Core Gasket	1.00000	\$12.7925	\$12.79
Parts	Turbocharger Gasket	1.00000	\$10.7625	\$10.76
Parts	Oil Drain Gasket	1.00000	\$5.20	\$5.20
			Subtotal	\$514.60

Complaint: Remove and Install Engine for Overhaul
Cause: Customer request (Inspection)

Labor	Correction:	8.00000	\$100.00	\$800.00
	Engine / Overhaul / Drain fluids and remove panels. Remove lines, hoses and electrical. Unbolt engine from pumps and support. Remove engine mounts and hoist engine from slasher. Load in truck for rebuild. Bring engine back and install back in slasher. Fill with customer supplied fluids and bled Espar. - 6/28/2021			
			Subtotal	\$800.00

Complaint: Engine Overhaul
Cause: Customer request (Inspection)

Item	Description	Quantity	Rate	Amount
Labor	Correction: Engine / Overhaul / Brought engine to shop and washed. Brought into shop and set onto blocks began removing external components to remove head to inspect for damage. Removed head and found that number 3 piston had failed catastrophically. Also found that number six piston had spun a connecting rod bearing and damaged the crank shaft. Set head onto pallet and began bottom end tear down. Removed oil pan. Removed pistons and set inline found that all but two pistons had broken rings. Removed all external block pieces and began removing front timing cover and housing as well as bell housing and flywheel. Flipped engine over and removed all main bearing caps, Removed crank shaft and set onto pallet with head to be sent away. Removed connecting rods from pistons and put in box to be sent with head and crank. Removed cam shaft from engine and removed all lifters. Pulled cylinder liners. Checked over camshaft bearings found that they were worn and scored. Sent block away to have new bearings installed. Set engine onto blocks and cleaned thoroughly. Installed crank shaft into block and plasti-gauged main bearings to .0015" Torqued down all main bearing caps and flipped engine onto end to install front timing gear housing. Cleaned and installed all lifters into engine and installed new gasket and front timing gear housing. Installed camshaft in time with crank shaft. Greased new engine oil pump and installed into block and torqued bolts to spec. Installed new cylinder liners into engine block. Installed rings onto new pistons and installed connecting rods onto pistons with new wrist pins and under sized bearings and torqued to spec. Plastiguaged to .0015". Flipped engine and set onto blocks. Checked liner protrusion found that the protrusion was about 0 to .001" but still within spec. Installed new head gasket onto block and set cylinder head onto block installed new head bolts and torqued to spec with new engine oil on threads. Installed push rods and rocker arm assemblies and performed top end set installed valve cover with new gasket and installed intake heater onto valve cover with ultra gray sealant. Installed rebuilt injection pump and timed with new seal. Installed rebuilt injectors and fuel lines and installed all fittings into block and fuel filter housing. Installed exhaust manifold onto head with new gaskets and hardware. Installed new gasket onto turbo. Installed oil lines onto turbo and installed new engine oil cooler with gaskets onto block. Installed one front mount and lower rad hose onto bottom of water pump. Installed flywheel and coupler. Installed starter onto flywheel housing and installed all pump mount bolts back into flywheel housing. Installed and pre-lubed fuel and oil filters. - 6/28/2021	44.00000	\$100.00	\$4,400.00
Parts	Fuel Filter	1.00000	\$16.695	\$16.70
Parts	Fuel Filter	1.00000	\$15.345	\$15.35
Parts	Oil Filter	1.00000	\$60.581	\$60.58
Parts	Coolant Filter	1.00000	\$35.895	\$35.90
Parts	Belt Tensioner	1.00000	\$161.733	\$161.73
Parts	Engine Overhaul Kit	1.00000	\$1,661.016	\$1,661.02
Parts	Oil Pump	1.00000	\$249.83	\$249.83
Parts	Oil Cooler	1.00000	\$239.456	\$239.46
Parts	Water Pump	1.00000	\$130.8625	\$130.86
Parts	Capscrew	14.00000	\$15.555	\$217.77
Parts	Cylinder Head Capscrew	12.00000	\$10.815	\$129.78
Parts	Thermostat	2.00000	\$31.455	\$62.91
Parts	Crank Damper	1.00000	\$268.45	\$268.45

Item	Description	Quantity	Rate	Amount
Parts	Connector Rod Bearing	4.00000	\$13.405	\$53.62
Parts	Bearing	12.00000	\$19.50	\$234.00
Parts	Welch Plug	1.00000	\$10.50	\$10.50
Parts	O-Ring	1.00000	\$4.00	\$4.00
Parts	Main Set	1.00000	\$102.95	\$102.95
Parts	Valve	1.00000	\$37.50	\$37.50
Parts	Valve	1.00000	\$31.50	\$31.50
Parts	Valve Stem Seal	12.00000	\$8.00	\$96.00
Parts	Valve Spring	12.00000	\$10.50	\$126.00
Parts	Valve Guide	6.00000	\$8.00	\$48.00
Parts	Cam Bearing	7.00000	\$12.25	\$85.75
Parts	Helicoil	1.00000	\$6.00	\$6.00
Parts	Pin Bushing	6.00000	\$14.00	\$84.00
Parts	Crank and Head Work	1.00000	\$2,382.468	\$2,382.47
Parts	Exhaust Manifold Screw	12.00000	\$8.00	\$96.00
Parts	Injection Pump Parts	1.00000	\$995.3875	\$995.39
Parts	Overhaul & Calibrate Injection Pump	1.00000	\$950.75	\$950.75
Parts	Fuel Injector Parts	1.00000	\$125.6685	\$125.67
Parts	Clean & Set Injectors	1.00000	\$345.20	\$345.20
			Subtotal	\$13,465.64

Drive to unit

Labor	Drive to unit (Service Call) RR#2, Grandview, MB	4.50000	\$110.00	\$495.00
			Subtotal	\$495.00

Freight**\$150.00**

Unit: VIN: 1J16820044
 2008 Tanguay TS150
 Engine: 7,852 Hours

Labor \$6,095.00**Parts \$9,180.24****Shop Supplies \$180.00****Pre Tax Total \$15,605.24****GST (5.0000% of \$15,605.24) \$780.26****PST (7.0000% of \$15,605.24) \$1,092.37****Total \$17,477.87****Payments & Credits \$0.00****Balance Due \$17,477.87**

GST# 753299528

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Invoice: 82
Date: 9/20/2020

Remit Payment To
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Service Order	Terms	Due Date	Authorizer	Customer PO	Unit #
1026	COD	9/20/2020	Lowell Penner		

Item	Description	Quantity	Rate	Amount
Complaint: Install Espar Heater				
Cause: Customer request				
Labor	Correction: A/C Cooling System / Hoses / Install 24V Espar Heater Ser No 160227HA in Slasher. Made mounting bracket and routed hoses and wiring. Used new silicone heater hose. Install Easy Start Timer in cab and set time and date. Show customer how to use timer. Had trouble getting a good fuel source and the air bled out of the coolant. Ran heater and and it works well. Top up coolant. - 9/20/2020	10.00000	\$100.00	\$1,000.00
Parts	Spring Clamp 27mm 3/4	8.00000	\$4.98	\$39.84
Parts	Wye 3/4	1.00000	\$28.50	\$28.50
Parts	3/4 Silicone Heater Hose	9.00000	\$6.50	\$58.50
Parts	Easy Start Timer	1.00000	\$165.34	\$165.34
Parts	24V Espar Heater Kit D5SWC	1.00000	\$1,335.22	\$1,335.22
Parts	Tee Fitting	1.00000	\$35.50	\$35.50
Parts	Celcius Premix 50/50 Coolant 3.78L	1.00000	\$16.99	\$16.99
Sub Total				\$2,679.89

Complaint: Travel Time				
Cause: Customer request (Inspection)				
Labor	Correction: A/C Cooling System / Hoses / Load up parts and travel to machine and back with two men - 9/20/2020	3.00000	\$110.00	\$330.00
Sub Total				\$330.00

Unit: VIN: 1J16820044
2008 Tanguay TS150
Engine: 7,182 Hours

Labor	\$1,330.00
Parts	\$1,679.89
Shop Supplies	\$45.00
Pre Tax Total	\$3,054.89
GST (5.0000% of \$3,054.89)	\$152.74
PST (7.0000% of \$3,054.89)	\$213.84
Total	\$3,421.47
Payments & Credits	\$0.00
Balance Due	\$3,421.47

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