

Northern Trailer and Truck

2210 - 19 Avenue

Wainwright, AB T9W 1L2, CA

service1.northern@gmail.com

780-842-0080



Invoice:

16964

Date:

6/26/2026

LOT # 3225
UNIT # 807**Bill To**

Brothers HDD

P: (780) 214-7711

Ship To

Brothers HDD

2002 23 Avenue

Wainwright, AB T9W 0B8, CA

Service Order	Terms	Due Date	Authorizer	Customer PO	Service Writer	Unit #
10181	COD	6/26/2026	Ron Jerome	16942	Cornish, Shane	807

Item	Description	Quantity	Rate	Amount
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Complaint: Diagnose - Metal Particles in Fuel System Last Time in - Truck lacking power now and customer would like diagnosed further for casue

Cause: Customer request **Type:** Unscheduled repair

Labor	Correction:	1.50000	\$135.00	\$202.50
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Engine / Engine Electrical Sensors and Wiring / Diagnostic scan revealed diagnostic trouble codes for fuel filter restriction and low fuel rail pressure. Verified fuel rail pressure holding at 8000 PSI key-on-engine-off. Inlet restriction tested within specification. Charge pump pressure confirmed acceptable. High-pressure fuel pump return flow measured at approximately 600mL, exceeding maximum specification of 525mL, indicating pump wear. Engine derate condition likely caused by low rail pressure fault.
Recommend replacement of high-pressure fuel pump and fuel filters. - Completed: 6/26/2026

Parts	SCANNER FEE - Scanner Fee	1.00000	\$125.00	\$125.00
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Labor	Correction:	8.00000	\$135.00	\$1,080.00
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Engine / Engine Fuel System / High-Pressure Fuel Pump (HPFP) Replacement

****Pre-Service Preparation:****

Washed unit and disconnected all fuel lines and electrical connectors.

****Service Performed:******1. **Fuel Pump Removal and Camshaft Inspection:****

- Removed fuel pump and cylinder head to inspect camshaft rollers for wear and oil contamination indicators
- Inspection findings: No excessive wear or oil contamination detected on pump camshaft or rollers
- Identified worn rear plunger rod as root cause of pump leakage and failure

2. **Fuel System Contamination Assessment:**

- Removed and inspected fuel filters; found significant metal contamination
- Flushed fuel tanks in-situ to remove contaminants without tank removal
- Transferred clean fuel back into tanks for reuse

3. **Fuel Pump Installation:**

- Installed new fuel pump with all hardware torqued to specification:
 - * Pump mounting bolts: 60 ft-lbs
 - * Support bracket bolts: 44 ft-lbs

ENTERED

UNIT # 807

5140 - 1000

5215 - 1000

Item	Description	Quantity	Rate	Amount
4. **Fuel Line Installation:**				
	- Installed new fuel lines with all connections torqued to specification:			
	* Fuel lift pump support to fuel pump inlet: 40 N•m (30 ft-lbs)			
	* M14 banjo fittings: 34 N•m (25 ft-lbs)			
5. **System Testing:**				
	- Primed fuel system and ran engine			
	- Pressure tested system; no leaks detected			
	-Checked fuel rail held 6500psi over night good			
	-Ran unit up to temp and test drove good			
	Recommendation:			
	Replace fuel filters and inspect for metal contamination after 100 operating hours. -			
	Completed: 6/26/2026			
Parts	PUMP, FUEL - 5491784PXCUM	1.00000	\$12,808.05	\$12,808.05
Parts	Inherent Core for PUMP, FUEL - Inherent Core for 5491784PXCUM	1.00000	\$495.00	\$495.00
Parts	Dirty Core for PUMP, FUEL - Dirty Core for 5491784PXCUM	-1.00000	\$495.00	-\$495.00
Parts	SEALING WASHER (FUEL LINE) - 3963990	2.00000	\$7.49	\$14.98
Parts	TUBE, FUEL SUPPLY - 5575372CUM	1.00000	\$179.05	\$179.05
Parts	FUEL SUPPLY TUBE - 55753070CUM	1.00000	\$232.38	\$232.38
Parts	SEALING WASHER - 3963991CUM	4.00000	\$12.72	\$50.88
Parts	FUEL PUMP GASKET - 5414049CUM	1.00000	\$57.03	\$57.03
Parts	SEALING WASHER (FUEL LINE) - 3963988	6.00000	\$8.31	\$49.86
Parts	SEALING WASHER (FUEL LINE) - 3963990	2.00000	\$7.49	\$14.98
			Subtotal	\$14,814.71

Complaint: Fuel Filter Replacement

Cause: Customer request **Type:** Unscheduled repair

Labor	Correction: Engine / Engine Fuel System / Remove and replace Fuel Filter(s) Clean Housing, Install New Filters, Prime Fuel System and run and check for leaks. - Completed: 6/25/2026	0.50000	\$135.00	\$67.50
Parts	FUEL/ WATER SEPERATOR FILTER - PF46081	1.00000	\$58.71	\$58.71
Parts	FUEL FILTER - BF9885	1.00000	\$70.90	\$70.90
			Subtotal	\$197.11

Complaint: When Fuel Pump Is Removed Need To Inspect And Confirm No Contamination In Engine Oil System May
Need To Remove Pan and Clean

Cause: Wear **Type:** Preventive maintenance

(Inspection)

Labor	Correction: Engine / Engine Oil Lubrication System / Due to the possibility of metal contamination into Oil Pan from Fuel Pump, once pump is removed if there is signs of contamination it is advisable to drain engine oil and remove oil pan and clean thoroughly and then complete Oil and Filter change Checked fuel Pump Internally and damage is isolated to fuel side of Pump - Engine Oil Ok - Completed: 6/25/2026	0.00000	\$135.00	\$0.00
			Subtotal	\$0.00

Complaint: Unit Not Charging - Alternator quit charging requires replacement

Item	Description	Quantity	Rate	Amount
Cause: Customer request Type: Preventive maintenance				
(Inspection)				
Labor	Correction: Engine / Engine Starting & Charging Systems / Unit Not Charging -pulled unit out to run up and check after fuel pump repairs -noticed gauge was reading under 12v -checked alternator had almost no output -R/R alternator, ran unit 14.3 good - Completed: 6/26/2026	1.50000	\$135.00	\$202.50
Parts	ALTERNATOR PAD MOUNT - 8600889	1.00000	\$362.25	\$362.25
			Subtotal	\$564.75
Freight		1.00	\$250.00	\$250.00

Unit: 807 **VIN:** 1XPTP4TX4GD288888 ✓

License Plate: CTV-6642

2016 Peterbilt 367

Chassis: 775,314 Kilometers

Engine: 15,585 Hours

Labor	\$1,552.50
Parts	\$14,024.07
Shop Supplies	\$108.68
Pre-Charge Subtotal	\$15,685.25
Freight	\$250.00
GST (5% of \$15,935.25)	\$796.76
Total	\$16,732.01
Payments & Credits	\$0.00
Balance Due	\$16,732.01

WE ACCEPT DEBIT AND CREDIT CARD PAYMENT

I hereby authorize the above repair work to be done along with the necessary material and hereby grant you and/or your employees permission to operate the vehicle described for testing and/or inspection.

Express mechanic's lien is hereby acknowledged on above vehicle to secure the amount of the repairs there to.

All parts removed will be discarded unless instructed otherwise: save all parts ____.

NORTHERN TRAILER AND TRUCK SALES LTD. IS NOT RESPONSIBLE FOR LOSS OF OR DAMAGE TO VEHICLES OR ARTICLES LEFT IN VEHICLES IN THE CASE OF FIRE, THEFT, OR ANY OTHER CAUSE.

NORTHERN TRAILER AND TRUCK SALES ASSUMES THE RIGHT TO CHARGE 2% ON ANY INVOICE OUTSTANDING OVER 30 DAYS.

GST# 738080118 RT0001

Northern Trailer and Truck

2210 - 19 Avenue
Wainwright, AB T9W 1L2, CA
service1.northern@gmail.com
780-842-0080



Invoice: 13048

Date: 1/28/2025

Bill To
Brothers HDD
2002 23 Avenue
Wainwright, AB T9W 0B8, CA
P: (780) 214-7711

LOT # 3285.
UNIT # 807

Service Order	Terms	Due Date	Authorizer	Customer PO	Service Writer	Unit #
7735	COD	1/28/2025	Ryan		Oake, Tony	807

Item	Description	Quantity	Rate	Amount
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Complaint: Diagnose Engine Cooling System Pressuring Up and Overheating - Possible Head Gasket?

Cause: Leaking. **Type:** Preventive maintenance

Labor	Correction:	2.00000	\$135.00	\$270.00
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- Engine / Engine Block Mechanical/Overhaul / Pressure up cooling system and found reservoir cap isn't popping at 15psi (holding over 20psi).
 - Swapped with known good cap made no difference.
 - Talked to customer, to see what was exactly going on.
 - Did put the combustion leak tester on it and it did turn green (indicating combustion gases).
 - Drain coolant, swapped reservoir and pressure up system relief popped at 15psi good.

PT 807

Unit does have combustion gas entering cooling system, cylinder head requires removal to inspect further.
 - Old coolant reservoirs bad and is likely what was causing the radiator hoses to burst. -
 Completed: 1/24/2025

Parts	COOLANT RESERVOIR (PETERBILT/ KENWORTH) - 575.1023	1.00000	\$249.98	\$249.98
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Labor	Correction:	68.00000	\$135.00	\$9,180.00
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- Engine / Engine Block Mechanical/Overhaul / Cylinder Head Removal For Inspection.
 - Drain coolant, recover AC, Disconnect wiring to grill and hood.
 - Hook up scanner and pulled all inactive codes.
 - Remove all lines, front grill, and all components, remove bumper, hood, and radiator assembly.
 - Pressure test Air to Air Found multiple leaks at 5psi requires replacement.
 - Disconnect wiring harnesses, remove all exterior components to remove cylinder head, ie. exhaust, intake, fuel and cooling system.
 - Remove Accessory mounting bracket, bottom two bolts were seized and threads were damaged.
 - Remove front cover, time engine, remove all rocker arms, injectors, remove cam/ idler gears, camshaft.
 - Found Camshaft #5/#6 Intake lobes galling at the point of the lobes require replacement.
 - Remove cylinder head, clean block and measure liner protrusion attached picture has liner measurements all out of spec requires removing and machining.
 - Talk to customer and get go ahead for rebuild.

DOT# 11738

APPROVED

cha 3318

Item	Description	Quantity	Rate	Amount
	- Drain oil, remove oil pan, suction tube, and oil pump. - Remove piston cooling nozzles, pistons and liners. - Finish cleaning deck and cylinder bores for machining. - Go thru parts and clean/inspect. - Install Cylinder Liners, remove and replace main bearings, disassemble and clean connecting rod assemblies. - Install new pistons, install connecting rods with new bearings torqued to OEM spec, install piston cooling nozzles. - Swap components to new cylinder head. - Install cylinder head and torque to OEM spec, install camshaft, set engine base timing and install idler/camshaft gears following OEM procedure. - Clean and install front timing cover, install vibration dampener assembly. -Clean, oil and install rocker arm shafts, torque to spec, perform overhead set -Install all intake, fuel, exhaust, cooling system, all torqued to oem spec -install radiator assembly, tested coolant found it was below spec failed all three sections of test strip (likely from combustion gases) -Vacuum fill cooling system and let sit held 15psi for over a hour -swap air, oil and secondary fuel filters, prime oil system while barring engine over -run unit up to operating temp, confirm temp sensors in range, no leaks found -install hood, grill, hook up wiring and test -test drive unit			
	Extra Repairs.			
	1. Clean/Repair threads for accessory mounting bracket.			
	- clean threads with tap and die			
	2. Rocker arms had surface rusting took more time to clean.			
	- There is minor frosting wear on rocker arms but still well within reuse condition for Cummins.			
	3. Replace Air Filters.			
	4. Intake Air Restriction gauge broken.			
	-replaced			
	5. Camshaft plates both were worn into by rocks requires replacing idler as wear is inside sealing area but camshaft plate should be reusable.			
	6. Turbo speed sensor leaking thru harness and externally requires replacement.			
	-replaced			
	7 Fix fins on powersteering cooler were all folded over in the front			
	8 Front Grill had to modified due to being bent and obsolete air to air cooler had to change brackets to install			
	Notes.			
	Main Bearing Measurements. .002".			
	Connecting rod measurements. .002".			
	Final Protrusion .013".			
	Crankshaft Endplay .008".			
	Oil Pump .011".			
	- Fuel lines did have minor wear but believe they are fine for reuse if they leak will need to replace lines in future. - Completed: 1/24/2025			
Parts	OVERHAUL KIT - CUM5693737	1.00000	\$13,495.00	\$13,495.00
Parts	INJECTOR - 337-43-5579419PX	6.00000	\$1,485.00	\$8,910.00
Parts	Inherent Core for INJECTOR - INJECTOR CORE	6.00000	\$369.00	\$2,214.00

Item	Description	Quantity	Rate	Amount
Parts	Dirty Core for INJECTOR - INJECTOR CORE	-6.00000	\$369.00	-\$2,214.00
Parts	CYLINDER HEAD - 286-4298237/4356434-476	1.00000	\$7,385.00	\$7,385.00
Parts	Inherent Core for CYLINDER HEAD - Core	1.00000	\$307.50	\$307.50
Parts	Dirty Core for CYLINDER HEAD - Core	-1.00000	\$307.50	-\$307.50
Parts	LUBRICATION OIL PUMP - 462-4309500NX	1.00000	\$1,250.00	\$1,250.00
Parts	HEX FLANGE HEAD SCREW (CAM GEAR BOLT) - CUM3678882	1.00000	\$18.63	\$18.63
Parts	CAMSHAFT, ISX 15 - 462-4298629	1.00000	\$1,895.75	\$1,895.75
Parts	SPACER, MOUNTING, IDLER GEAR - CUM5719796	1.00000	\$236.68	\$236.68
Parts	AIR RESTRICTION INDICATOR - X002252	1.00000	\$44.92	\$44.92
Parts	AIR FILTER - RS5288	2.00000	\$99.26	\$198.52
Parts	CAC HOSE HOT SIDE CHARGE AIR 4" ID X 6" L - 7715-0002	1.00000	\$47.95	\$47.95
Parts	POLYESTER REINFORCED 45 DEG - 561.17250	1.00000	\$81.65	\$81.65
Parts	PETERBILT COOLANT HOSE - 561.75638	1.00000	\$33.57	\$33.57
Parts	KIT, TURBO SPEED SENSOR - CUM4034201	1.00000	\$667.43	\$667.43
Parts	CHEVRON DELO 400 15W40 CK-4 BULK OIL - 22229055B	50.00000	\$6.40	\$320.00
Parts	APEX RED SPRAY PAINT - 3163075	2.00000	\$54.59	\$109.18
Parts	HEAD BOLT, SHORT, ISX/QSX - CUM3678506	3.00000	\$51.04	\$153.12
Parts	52/64" - 1-48/64" HOSE CLAMP - HS-20	2.00000	\$1.23	\$2.46
Parts	FLAT FACE O-RING -06 - ORFF06	3.00000	\$0.97	\$2.91
Parts	1" HOSE BARB X 3/4" MPT COUPLER - 125-16E	1.00000	\$5.23	\$5.23
Parts	3/4" FPT X 1/2" MPT REDUCING ADAPTER - 120-ED	1.00000	\$3.85	\$3.85
Parts	1/2" X 2" FENDER WASHER - FENDR122	1.00000	\$0.36	\$0.36
Parts	1/2" RUBBER P-CLAMP - 84-8002	1.00000	\$1.02	\$1.02
Parts	H.D. EXT LIFE RED PREMIXED 50/50 COOLANT - 16-834	14.00000	\$11.49	\$160.86
Parts	2-1/2" SILICONE HEATER HOSE - 5515-250	12.00000	\$3.04	\$36.48
Parts	4.06"-4.37" TORQUE SEAL CLAMP - HC19-425	2.00000	\$14.06	\$28.12
Parts	R134A REFRIGERANT FREON - R134A	2.00000	\$21.50	\$43.00
Parts	1/2" X 2-1/2" NC GR8. BOLT - GR8NC12212	2.00000	\$1.50	\$3.00
Parts	1/2" GR8. FLAT WASHER - GR8FW12	4.00000	\$0.21	\$0.84
Parts	1/2" NC GR8. NYLOC NUT - NYLOCKNC12	2.00000	\$0.26	\$0.52
Parts	EXHAUST BELLOW KENWORTH PETERBILT - 820B42320P	1.00000	\$519.75	\$519.75
Parts	12" BLACK CABLE TIES - 83-6021	30.00000	\$0.08	\$2.40
Parts	14.5" BLACK CABLE TIE - CTB14120-100	35.00000	\$0.18	\$6.30
			Subtotal	\$45,364.48

Complaint: Charge Air Cooler Leaking requires replacement.

Cause: Customer request. **Type:** Preventive maintenance

(Inspection)

Labor	Correction:	1.00000	\$135.00	\$135.00
	Engine / Air Intake/ Exhaust/ Aftertreatment Systems / Charge Air Cooler Leaking requires replacement.			
	- Once radiator is in place, remove condenser, swap CAC and reinstall AC condenser. -			
	Completed: 1/24/2025			

Item	Description	Quantity	Rate	Amount
Parts	CHARGE AIR COOLER - DUR-US-PEDAC-20K	1.00000	\$1,834.95	\$1,834.95
Parts	RADIATOR/ CHARGE AIR COOLER MOUNTING KIT - N4751001	1.00000	\$249.98	\$249.98
			Subtotal	\$2,219.93

Complaint: Found Exhaust Bellow Split after test drive

Cause: Customer request. **Type:** Preventive maintenance

(Inspection)

Labor	Correction: Engine / Engine Fuel System / remove and replace cracked bellows - Completed: 1/24/2025	0.50000	\$135.00	\$67.50
			Subtotal	\$67.50

Complaint: Cylinder Bore Machining Sublet.

Cause: Customer request **Type:** Unscheduled repair

(Inspection)

Labor	Correction: Engine / Engine Block Mechanical/Overhaul / - Completed: 1/22/2025	0.00000		\$0.00
Labor	COUNTERBORE MACHINING	1.00000	\$4,495.00	\$4,495.00
			Subtotal	\$4,495.00

Complaint: Dyno

Cause: Test **Type:** Other

(Inspection)

Labor	Correction: Engine / Engine Block Mechanical/Overhaul / - Completed: 1/28/2025	0.00000		\$0.00
Labor	Engine Dyno for Break In	1.00000	\$1,795.00	\$1,795.00
			Subtotal	\$1,795.00

Freight (DDR)	1.00	\$500.00	\$500.00
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Unit: 807 **VIN:** 1XPTP4TX4GD288888

License Plate: CTV-6642

2016 Peterbilt 367

Chassis: 628,032 Kilometers

Engine: 12,346 Hours

Labor \$15,942.50

Parts \$37,999.41

Shop Supplies \$675.68

Freight (DDR) \$500.00

Pre-Charge Subtotal \$54,617.59

GST
(5% of \$55,117.59) \$2,755.88

Total \$57,873.47

Payments & Credits \$0.00

Balance Due \$57,873.47

WE ACCEPT DEBIT AND CREDIT CARD PAYMENT

I hereby authorize the above repair work to be done along with the necessary material and hereby grant you and/or your employees permission to operate the vehicle described for testing and/or inspection.

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