



WESTERN STAR TRUCKS (NORTH) LTD.

Address: 24210 - 114 Avenue | Acheson, AB T7X 6B9
 Phone: 780-453-3452 | Toll Free: 1-800-252-7500 | Fax: 780-701-2272

Visit us online at www.wsnorth.com

Remit To: 24210 - 114 Avenue | Acheson, AB T7X 6B9

GST: 892297052

**** Reprint ****

Invoice: **001031600**
 Date / Hour: 1/25/2019 12:00:45PM
 Repair Order: 1600
 Customer: 40522
 Branch: WSN
 Total Invoice: \$20,823.30
 Charge

Page 1 of 5

Bill To: 944925 ALBERTA LTD.
 BOX 176
 WILDWOOD, AB T0E 2M0

Ship To: 944925 ALBERTA LTD.
 BOX 176
 WILDWOOD, AB T0E 2M0

Work: 780-318-1971

Fax: 555-555-5555

Customer P/O: SMCMULLIN HOUSE Orig R/O: 0 Completion Date: 1/22/2019

Unit Number: 2594 **Model Year: 2013** **Make/Model: WESTERN STAR 4900SF**
Type: TRUCK **VIN: 5KJJAEDR2DPBZ8607** **Meter: 659070 Miles**

Task: 1 40-200001.01 ENGINE REPAIR **Department: SERVICE**

Complaint: CHECK AND ADVISE FOR CHECK ENGINE LIGHT

Correction: PERFORMED DOWNLOAD, ACTIVE CODE 5444/1 - ENGINE CRANKCASE SPINNER SPEED TO LOW. INSPECTED AND FOUND OIL LEAKING AT OIL SPINNER. RAN UNIT AT 1500RPM AND MONITORED SPEED - READING ZERO. MEASURED VOLTAGE AT CRANKCASE SPINNER, ZERO VOLTS. FOUND ENGINE HARNESS FAILED - MANY EXPOSED WIRES (LOOM BROKEN OFF) ON THE HARNESS. REMOVED ENGINE HARNESS, NOTICED COOLANT LINES AT COMPRESSOR LEAKING. DRAINED COOLANT AND REPLACED COOLANT LINES AND OIL SPINNER. REPLACED ENGINE HARNESS - FOUND OIL PRESSURE SENSOR BROKEN (TERMINALS SPINNING IN BODY OF SENSOR). REPLACED OIL PRESSURE SENSOR AND RE-FILLED COOLANT. RAN UNIT UP AND MONITORED CRANK CASE SPINNER SPEED - IN SPEC AND CEL DID NOT COME BACK ON.

Supp.	Part	Description / Ref Number	U/M	Quantity	Price	Extended Price
	320085238	STICKER, SAME DAY RUSH	EA	1.0	\$20.00	\$20.00
	320271103	ANALYSIS, Oil !! FOR RUSH SEE NOTES !!	EA	1.0	\$26.60	\$26.60
	DDE A0071530828	SENSOR, PRESSURE	EA	1.0	\$42.79	\$42.79
	DDE A4720106662	SEPARATOR, Oil EPA10	EA	1.0	\$484.27	\$484.27
	DDE A4720180780	SEAL Oil separator to crankcase	EA	1.0	\$10.05	\$10.05
	DDE A4721505333	HARNESS	EA	1.0	\$597.92	\$597.92
	DDE A4722000052	LINE, Coolant Air Comp. to Crankcase	EA	1.0	\$32.81	\$32.81
	DDE A4722000152	LINE, Coolant F/F mod. to Air Comp.	EA	1.0	\$21.99	\$21.99
	DDE A4722002452	LINE, Coolant T-STAT. to F/F Mod.	EA	1.0	\$31.75	\$31.75
	DDE N000000001070	RING, Seal	EA	1.0	\$0.87	\$0.87
	OWI 23539617	COOLANT, Detroit OAT ELC 50/50, Red, Nitrite Free	EA	2.0	\$12.01	\$24.02
	SS SVC	SHOP SUPPLIES		1.0	\$60.90	\$60.90

Task 1 Subtotals	Parts:	\$1,293.07
	Labor:	\$1,218.00
	Miscellaneous:	\$60.90
	Task 1 Subtotals	\$2,571.97

Task: 2 40-200001.01 ENGINE REPAIR **Department: SERVICE**

Complaint: CHECK AND ADVISE FOR ENGINE BLOWBY - ONLY WHEN LIFT FOOT OFF FUEL.



WESTERN STAR TRUCKS (NORTH) LTD.

Address: 24210 - 114 Avenue | Acheson, AB T7X 6B9
 Phone: 780-453-3452 | Toll Free: 1-800-252-7500 | Fax: 780-701-2272

Visit us online at www.wsnorth.com

Remit To: 24210 - 114 Avenue | Acheson, AB T7X 6B9

GST: 892297052

**** Reprint ****

Invoice: **001031600**
 Date / Hour: 1/25/2019 12:00:45PM
 Repair Order: 1600
 Customer: 40522
 Branch: WSN
 Total Invoice: \$20,823.30
 Charge

Page 2 of 5

Bill To: 944925 ALBERTA LTD.
 BOX 176
 WILDWOOD, AB T0E 2M0

Ship To: 944925 ALBERTA LTD.
 BOX 176
 WILDWOOD, AB T0E 2M0

Work: 780-318-1971

Fax: 555-555-5555

Customer P/O: SMCULLIN HOUSE Orig R/O: 0 Completion Date: 1/22/2019

Correction: RAN UNIT UP TO TEMP AND PERFORMED RELETIVE COMPRESSION TEST, FOUND #3 CYLINDER AT 53.5%. CHECKED VALVE SETTING, ALL VAVLES HAVE LASH. PERFORMED MANUAL COMPRESSION TEST - RAN UNIT UP TO OPERATING TEMP, REMOVED INTAKE TRACK, VALVE COVER AND FUEL LINES AND CAPPED FUEL RAIL. COMPRESSION RESULTS ARE ALL 500PSI EXCEPT CYLINDER #3 @ 400PSI. PERFORMED COMPRESSION TEST TWICE ON #3 TO VERIFY, SAME RESULTS AT 400PSI. TOOK OIL SAMPLE. SCOPPED #3 CYLINDER, FOUND MAJOR SCORING. REMOVED CYLINDER HEAD, FOUND #3 LINER VERY SCORED - ALL OTHER LINERS STARTING TO SHOW SIGNS OF FAILURE AND EXHAUST CENTER SECTION CRACKED.
 DRAINED OIL, RAW COOLANT CAME OUT. REMOVED OIL PAN, SUMP, PISTONS AND LINERS. INSTALLED NEW MAIN BEARINGS. MEASURED CRANK END PLAY - 0.008IN. CLEANED DECK AND LINER BORE, INSTALLED NEW LINERS AND MEASURED PROTRUSION - IN SPEC. CLEANED BOTTOM OF BLOCK, CLEANED OUT OIL PUMP, PICK UP AND TUBES. REPLACED O-RINGS/SEALS AND PUT OIL PAN IN PARTS WASHER. VERIFIED OIL PUMP WAS PUSHING FLUID. RE-INSTALLED OIL PUMP, PICK UP TUBE AND OIL PAN. HOOKED UP OIL DIPSTICK TUBE AND OIL HEATER. BOLTED ON FLYWHEEL COVER AND FRONT HARNESS OIL PAN P-CLAMP. INSTALLED NEW PISTONS, CLEANED AND RE-INSTALLED HEAD. RE-INSTALLED CAM BOX, ALL FROST PLUGS WHERE LEAKING. REPLACED FROST PLUGS, RE-INSTALLED ROCKERS AND INJECTORS WITH NEW O-RINGS. INSTALLED NEW INJECTOR IN #3. PERFORMED VALVE SET, RE-ASSEMBLED HOT AND COLD SIDE OF ENGINE AND REPLACED OIL FILTER. RE-FILLED OIL AND COOLANT, PRIMED OIL AND FUEL SYSTEM, RAN UNIT UP TO TEMP, NO LEAKS PRESENT. UNIT HAD NO OIL PRESSURE AND CEL CAME ON. INSTALLED MANUAL GAUGE, FOUND OIL PRESSURE SENSOR FAILED. INSTALLED NEW OIL PRESSURE SENSOR. ALSO FOUND BYPASS VALVE BROKEN. INSTALLED NEW STAND PIPE, RAN UNIT UP - NO LEAKS AND NO CODES RETURNED.

Supp.	Part	Description / Ref Number	U/M	Quantity	Price	Extended Price
	DDE CA4600701087	CORE, Injector	EA	-1.0	\$406.25	(\$406.25)
Original Invoice: 001031600						
	DDE A0000701532	HPF LINE KIT, DD15/16 EPA07/10 Three Filter	EA	1.0	\$77.53	\$77.53
	DDE A0019950502	CLAMP, Pipe EPA2010	EA	1.0	\$29.75	\$29.75
	DDE A0029903950	NUT, Hex	EA	4.0	\$5.07	\$20.28
	DDE A0029906514	STUD	EA	4.0	\$6.95	\$27.80
	DDE A0219901101	HEX HD BOLT	EA	4.0	\$13.43	\$53.72
	DDE A4600700887	KIT, Injector Seal/Bolt	EA	5.0	\$47.37	\$236.85
	DDE A4720111810	KIT, Liner DD15 2010	EA	6.0	\$333.19	\$1,999.14
	DDE A4720140022	GASKET, Oil Pan DD15/16	EA	1.0	\$152.64	\$152.64
	DDE A4720160680	SEAL, Rocker Box	EA	1.0	\$69.79	\$69.79
	DDE A4720161420	GASKET, Head	EA	1.0	\$459.14	\$459.14
	DDE A4720300445	BEARING, Std Thrust	EA	1.0	\$52.63	\$52.63
	DDE A4720300740	MAIN BEARING KIT	EA	7.0	\$48.15	\$337.05
	DDE A4720300960	BEARING, Connecting Rod	EA	6.0	\$47.00	\$282.00
	DDE A4720302317	PISTON KIT	EA	6.0	\$524.51	\$3,147.06
	DDE A4720380071	BOLT, CONN ROD	EA	12.0	\$6.62	\$79.44
	DDE A4720780335	BOLT/CLAMP KIT	EA	1.0	\$28.09	\$28.09
	DDE A4721400648	PIPE, Connector DD15 EGR Cooler (large)	EA	1.0	\$96.45	\$96.45
	DDE A4721420901	MANIFOLD, Exhaust	EA	1.0	\$507.92	\$507.92
	DDE A4721421880	GASKET, Exh. Manifold	EA	1.0	\$123.49	\$123.49
	DDE A4721421980	GASKET, Exh. Manifold	EA	1.0	\$123.49	\$123.49

** See Last Page for Invoice Total **



WESTERN STAR TRUCKS (NORTH) LTD.

Address: 24210 - 114 Avenue | Acheson, AB T7X 6B9
 Phone: 780-453-3452 | Toll Free: 1-800-252-7500 | Fax: 780-701-2272

Visit us online at www.wsnorth.com

Remit To: 24210 - 114 Avenue | Acheson, AB T7X 6B9

GST: B92297052

**** Reprint ****

Invoice: **001031600**
 Date / Hour: 1/25/2019 12:00:45PM
 Repair Order: 1600
 Customer: 40522
 Branch: WSN
 Total Invoice: \$20,823.30
 Charge

Page 3 of 5

Bill To: 944925 ALBERTA LTD.
 BOX 176
 WILDWOOD, AB T0E 2M0

Ship To: 944925 ALBERTA LTD.
 BOX 176
 WILDWOOD, AB T0E 2M0

Work: 780-318-1971

Fax: 555-555-5555

Customer P/O:	SMCMULLIN	HOUSE	Orig R/O:	0	Completion Date:	1/22/2019
DDE A4721422080	GASKET EGR Valve		EA	1.0	\$47.27	\$47.27
DDE A4721860095	SUPPORT		EA	1.0	\$95.36	\$95.36
DDE A4721870880	SEAL, DD15 Oil pump intake		EA	2.0	\$9.77	\$19.54
DDE A4721870980	SEAL, DD15 Oil pressure pipe at pump		EA	4.0	\$7.34	\$29.36
DDE A4721880180	GASKET		EA	1.0	\$20.83	\$20.83
DDE A4722000154	PIPE, Connector DD15 EGR cooler (small)		EA	2.0	\$15.74	\$31.48
DDE A4729980290	SEALING COVER		EA	5.0	\$11.88	\$59.40
DDE A4730960280	SEAL, Metal GHG14 Turbocharger mounting		EA	1.0	\$50.64	\$50.64
DDE A4731800409	KIT, Oil Filter D13/15/16		EA	1.0	\$35.55	\$35.55
OVER8	OVER 8"			1.0	\$1.00	\$1.00
DDE CA4600701087	CORE, Injector		EA	1.0	\$406.25	\$406.25
DDE N000000001067	RING, Seal		EA	4.0	\$0.45	\$1.80
DDE N000000001069	RING, Seal		EA	4.0	\$0.73	\$2.92
DDE N000000001070	RING, Seal		EA	1.0	\$0.87	\$0.87
DDE RA4600701087	INJECTOR, Reliabilt DD15/16		EA	1.0	\$921.28	\$921.28
SLL 500010048	OIL, Rotella T4 15W40 CK4 BULK		L	1.0	\$4.77	\$4.77
SLL 500010048	OIL, Rotella T4 15W40 CK4 BULK		L	2.0	\$4.77	\$9.54
SLL 500010048	OIL, Rotella T4 15W40 CK4 BULK		L	42.0	\$4.77	\$200.34
OIL-BULK	BULK OIL			1.0	\$0.05	\$0.05
OIL-BULK	BULK OIL			1.0	\$0.10	\$0.10
OIL-BULK	BULK OIL			1.0	\$2.10	\$2.10
SLL 550045135	OIL, Rotella T4 15W40 CK4 JUG 5L/1.32GAL		JUG	2.0	\$21.62	\$43.24
OIL-4L	4L OIL & CONTAINER			1.0	\$0.80	\$0.80
SS SVC	SHOP SUPPLIES			1.0	\$219.24	\$219.24

Task 2 Subtotals	Parts:	\$9,478.45
	Core Chg:	\$406.25
	Core Ret:	(\$406.25)
	EHC:	\$4.05
	Labor:	\$7,308.00
	Miscellaneous:	\$219.24
Task 2 Subtotals		\$17,009.74

Task: 3 47-100033.01 BREAK-IN DYNO

Department: SERVICE

Complaint: PERFORM BREAK IN DYNO.

Correction: PREFORMED PRE DYNO CHECKS. RAN BREAK IN DYNO - NO ISSUES

Supp.	Part	Description / Ref Number	U/M	Quantity	Price	Extended Price
-------	------	--------------------------	-----	----------	-------	----------------

Labor Quote: 250.00

Task 3 Subtotals	Parts:	\$0.00
-------------------------	--------	--------

**** See Last Page for Invoice Total ****



WESTERN STAR TRUCKS (NORTH) LTD.

Address: 24210 - 114 Avenue | Acheson, AB T7X 6B9
 Phone: 780-453-3452 | Toll Free: 1-800-252-7500 | Fax: 780-701-2272

Visit us online at www.wsnorth.com

Remit To: 24210 - 114 Avenue | Acheson, AB T7X 6B9
 GST: 892297052

**** Reprint ****

Invoice: **001031600**
 Date / Hour: 1/25/2019 12:00:45PM
 Repair Order: 1600
 Customer: 40522
 Branch: WSN
 Total Invoice: \$20,823.30
 Charge

Page 4 of 5

Bill To: 944925 ALBERTA LTD.
 BOX 176
 WILDWOOD, AB T0E 2M0

Ship To: 944925 ALBERTA LTD.
 BOX 176
 WILDWOOD, AB T0E 2M0

Work: 780-318-1971

Fax: 555-555-5555

Customer P/O: SMCULLIN HOUSE Orig R/O: 0 Completion Date: 1/22/2019

Labor: \$250.00

Task 3 Subtotals \$250.00

Task: 4 60-100010.01 PARTS WARRANTY

Department: SERVICE

600008

Complaint: PRESSURE SENSOR REPLACED ON TASK #1 AND FAILED. REPLACED SECOND TIME ON TASK #2

Supp.	Part	Description / Ref Number	U/M	Quantity	Price	Extended Price
	DDE A0071530828	SENSOR, PRESSURE	EA	1.0	\$42.79	\$42.79
Task 4 Subtotals				Parts:		\$0.00
				Labor:		\$0.00
				Task 4 Subtotals		\$0.00

Detail Tax Info:

GST \$991.59
 Total: \$991.59

Total Parts:	\$10,771.52
Total Core Charge:	\$406.25
Total Core Ret:	(\$406.25)
Total EHC:	\$4.05
Total Labor:	\$8,776.00
Total Miscellaneous:	\$280.14
Invoice Subtotal:	\$19,831.71
Total Tax:	\$991.59
Total Invoice:	\$20,823.30

Payment Method Terms Due Date
 Charge NET 30 2/24/2019

Remit To:
 WESTERN STAR TRUCKS ACHESON
 24210 - 114 AVENUE
 ACHESON, AB T7X 6B9



WESTERN STAR TRUCKS (NORTH) LTD.

Address: 24210 - 114 Avenue | Acheson, AB T7X 6B9
Phone: 780-453-3452 | Toll Free: 1-800-252-7500 | Fax: 780-701-2272

Visit us online at www.wsnorth.com

Remit To: 24210 - 114 Avenue | Acheson, AB T7X 6B9

GST: 892297052

**** Reprint ****

Invoice: **001031600**

Date / Hour: 1/25/2019 12:00:45PM

Repair Order: 1600

Customer: 40522

Branch: WSN

Total Invoice: \$20,823.30

Charge

Page 5 of 5

Bill To: 944925 ALBERTA LTD.
BOX 176
WILDWOOD, AB T0E 2M0

Ship To: 944925 ALBERTA LTD.
BOX 176
WILDWOOD, AB T0E 2M0

Work: 780-318-1971

Fax: 555-555-5555

Customer P/O: SMC MULLIN HOUSE Orig R/O: 0 Completion Date: 1/22/2019

REPRINT

HAVING AUTHORIZED REPAIRS TO MY (OUR) MOTOR VEHICLE, AND/OR AUTHORIZED PART(S) PURCHASES, I (WE) HERBY ACKNOWLEDGE MY (OUR) INDEBTEDNESS TO: WESTERN STAR TRUCKS (NORTH) LTD.

IN THE SUM OF \$ _____ BEING ALL OR THE BALANCE OF THE ACCOUNT FOR SAID WORK.

DATE: _____ X _____ ERRORS AND OMISSIONS EXCEPTED

***** EMAIL IN NOW AVAILABLE * NO RETURNS ON ELECTRICAL * CORES MUST BE RETURNED IN 90 DAYS FOR CREDIT *****

***** EACH REPAIR TASK HAS BEEN INSPECTED FOR QUALITY AND FUNCTION VERIFIED - IF YOU ARE NOT COMPLETELY SATISFIED, PLEASE CONTACT DEPARTMENT MANAGER *****