

709-1

IvarTek Inc.
#7, 109 Broxburn Blvd.
Lethbridge, AB T1J 4P4, CA
service@ivartek.com
(403) 394-9672



Invoice: INV-9862
Date: 11/30/2021

[Redacted]

Service Order	Terms	Due Date	Authorizer	Customer PO	Service Writer	Unit #
SO-8086	COD	11/30/2021	Amos		Astell, Travis	A35

Item	Description	Quantity	Rate	Amount
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Complaint: disassemble engine and inspect all internal components for reuse, send cylinder head in for mag check, pressure test and cleaning. Measure counter bores in the block , if any components cannot be reused, they will be estimated at that time.

Cause: Customer request

Labor	Correction: Engine / Bottom End / disassemble engine and inspect all internal components for reuse, send cylinder head in for mag check, pressure test and cleaning. Measure counter bores in the block . If any components cannot be reused, they will be estimated at that time. 2 pistons are cracked, lots of metal transfer on cylinder 2&3 cylinder walls, engine will need a complete rebuild kit block had to be completely stripped down before being sent in for resurfacing and crank removed for polishing and sleeve on end of crank where seal sits. - 12/6/2021	25.30000	\$110.00	\$2,783.00
Parts	machining front crank adapter	1.00000	\$479.52	\$479.52
Parts	machining rear crank adapter	1.00000	\$479.52	\$479.52
			Subtotal	\$3,742.04

Complaint: Rebuild engine with Aftermarket rebuild kit consisting of pistons/rings,liners,gaskets and bearings,

Cause: Customer request

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Item	Description	Quantity	Rate	Amount
Labor	Correction: Engine / Bottom End / Rebuild engine with Aftermarket rebuild kit consisting of pistons/rings,liners,gaskets and bearings.	40.15000	\$110.00	\$4,416.50
	Installed crank, measured all main bearing clearances all right around 0.076mm with plasti gauge, lubricated all main bearings and torqued main caps to 250ft lbs (spec) lubricated cam bearings and installed cam, cleaned rear structure with varsol and brake clean. Painted block to prevent rust dry fit liners and verified proper protrusion.			
	Installed liner/ piston assemblies onto the rods, installed new liner o rings and new rod bearings, checked bearing clearance all approx 0.056mm, torqued to spec (torque& turn) installed all heads with new gaskets, and torqued to spec, installed front structure and torqued to spec, installed gear train, verified timing and torqued to spec, installed front cover and torqued to spec, there was one coolant line that had pin holes from corrosion following cleaning, it was brazed and pressure tested but should be monitored, new oil pump was fitted with new o rings and torqued to spec; oil pan has some cracks that Amos knew about, this will be monitored, installed cam and cam tappets (2 new ones) with oil additive that was recommended by the cam re-surfacer installed push rods and rocker assemblies, performed valve set, (.018 ex and 0.016 in) installed valve covers, installed filter housings and new cooler, installed new water pump installed rear structure with new seal, and torqued to spec, installed pipes, sensors and hoses and verified all work, painted yellow and built pallet up to support engine, helped load engine and sent it on the way - 12/6/2021			
Parts	rebuild kit	1.00000	\$6,674.09	\$6,674.09
Parts	Water pump-OEM +\$706.78 core	1.00000	\$1,721.93	\$1,721.93
Parts	Thermostat	2.00000	\$235.67	\$471.34
Parts	seal	1.00000	\$10.90	\$10.90
Parts	Seal	1.00000	\$14.12	\$14.12
Parts	Sealing ring	2.00000	\$20.38	\$40.76
Parts	Sealing ring	2.00000	\$47.83	\$95.66
Parts	Oil cooler	1.00000	\$3,533.72	\$3,533.72
Parts	Machining sublet- cylinder head revamping/ block resurfacing, cam/crank grinding/polishing	1.00000	\$4,821.30	\$4,821.30
Parts	Freight	1.00000	\$594.54	\$594.54
Parts	oil pump	1.00000	\$1,920.81	\$1,920.81
Parts	Intake valve seat	6.00000	\$189.875	\$1,139.25
Parts	Intake valve	6.00000	\$133.8425	\$803.06
Parts	exhaust	6.00000	\$201.283	\$1,207.70
Parts	Valve spring	12.00000	\$17.6055	\$211.27
Parts	Valve spring	12.00000	\$17.1015	\$205.22
Parts	Freight	1.00000	\$285.12	\$285.12
Parts	Dirty Core for Water pump-OEM +\$706.78 core	-1.00000	\$438.75	-\$438.75
Parts	Inherent Core for Water pump-OEM +\$706.78 core	1.00000	\$438.75	\$438.75

Item	Description	Quantity	Rate	Amount
Parts	repair sub	1.00000	\$151.90	\$151.90
Parts	oring	4.00000	\$22.0935	\$88.37
Parts	gasket	2.00000	\$4.2315	\$8.46
Parts	gasket	1.00000	\$5.694	\$5.69
Parts	gasket	1.00000	\$16.2825	\$16.28
Parts	oring	1.00000	\$7.4685	\$7.47
Parts	sealing ring	1.00000	\$12.948	\$12.95
Parts	Sealing ring	2.00000	\$17.5305	\$35.06
Parts	Tappet	2.00000	\$205.3595	\$410.72
Parts	Sealing ring	4.00000	\$49.60	\$198.40
Parts	Sealing ring	1.00000	\$9.672	\$9.67
Parts	Customs/brokerage charge	1.00000	\$377.66	\$377.66
Parts	Cam bearing kit	1.00000	\$212.8925	\$212.89
Parts	Freight	1.00000	\$35.314	\$35.31
Parts	Freight	1.00000	\$80.0215	\$80.02
Parts	Seal-credit	1.00000	\$140.8795	\$140.88
Parts	oil stabilizer	3.00000	\$27.1095	\$81.33
Parts	Lube filter	2.00000	\$18.7605	\$37.52
Parts	lube filter	1.00000	\$34.8975	\$34.90
Parts	Fuel Spin on	2.00000	\$17.0157	\$34.03
Parts	Yellow spray paint	4.00000	\$29.7825	\$119.13
Parts	chevron Delo 400	2.00000	\$144.3945	\$288.79
Labor	Correction: Engine / Lubrication / Rebuild engine with Aftermarket rebuild kit consisting of pistons/rings,liners,gaskets and bearings.	0.00000		\$0.00

Installed crank, measured all main bearing clearances all right around 0.076mm with plasti gauge, lubricated all main bearings and torqued main caps to 250ft lbs (spec) lubricated cam bearings and installed cam, cleaned rear structure with varsol and brake clean. Painted block to prevent rust dry fit liners and verified proper protrusion.

Installed liner/ piston assemblies onto the rods, installed new liner o rings and new rod bearings, checked bearing clearance, all approx 0.056mm, torqued to spec (torque & turn).

Installed all heads with new gaskets, and torqued to spec, installed front structure and torqued to spec, installed gear train, verified timing and torqued to spec, installed front cover and torqued to spec. There was one coolant line that had pin holes from corrosion following cleaning. It was braised and pressure tested, but should be monitored. New oil pump was fitted with new o rings and torqued to spec, oil pan has some cracks that Amos knew about, this will be monitored.

Item	Description	Quantity	Rate	Amount
	Installed cam and cam tappets (2 new ones) with oil additive that was recommended by the cam resurfacar. Install pushrods and rocker assemblies, performed valve set, (.018 in and 0.016 in) installed valve covers, installed filter housings and new cooler. Installed new water pump, rear structure with new seal, and torqued to spec. Installed pipes, sensors and hoses and verified all work. Painted yellow and built pallet up to support engine, helped load engine and sent it on the way. - 12/6/2021			
			Subtotal	\$30,554.72

Complaint: Block engine up on pallet for pickup.

Cause: block up for pickup

(Inspection)

Labor	Correction: Engine / Bottom End / block up for pickup - 12/6/2021	4.00000	\$110.00	\$440.00
			Subtotal	\$440.00

Complaint: travel to site for initial starting, monitor pressures and check for leaks

Cause: Customer request

Labor	Correction: Engine / Bottom End / -check all fluid levels -check engine mounts -check mounting hardware is tight from customer installation -hook mechanical gauge up for oil pressure, crank with fuel off to build oil pressure -Fire engine and run at low idle -check for leaks -once warm retorque exhaust manifold bolts and bent tabs on locks -shut engine down and recheck fluid levels. -Run engine at high RPM and check for proper operation, -run truck to check drive functions and engine power.	7.25000	\$147.00	\$1,065.75
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Engine oil pressure idle-54 PSI

Engine oil pressure high idle- 60 PSI

coolant temp- 180 celsius

PLEASE NOTE: OILPAN IS CRACKED AND DAMAGED, CUSTOMER IS AWARE AND WILL MONITOR, COOLANT TUBE HAS BEEN REPAIRED AND CUSTOMER WILL MONITOR THAT AS WELL.

NO WARRANTY IF EITHER PART CAUSES ENGINE DAMAGE
FRONT ENGINE MOUNTS ISOLATORS WILL NEED TO BE REPLACED-
QUOTE TO FOLLOW

CUSTOMER INSTALLED ENGINE, WE CHECKED EVERYTHING TO THE BEST OF OUR ABILITY - 12/6/2021

Subtotal **\$1,065.75**

Item	Description	Quantity	Rate	Amount
Return from unit				
Labor	Return from unit	0.75000	\$147.00	\$110.25
			Subtotal	\$110.25
Drive to unit				
Labor	Drive to unit (Service Call)	0.75000	\$147.00	\$110.25
			Subtotal	\$110.25

Unit: A35 VIN: A35V1281
 Volvo A35
 Chassis: 13,297 Kilometers

Labor \$8,925.75
Parts \$27,097.26
Shop Supplies \$100.00
Pre Tax Total \$36,123.01
GST (5.0000% of \$36,123.01) \$1,806.15
Total \$37,929.16
Payments & Credits \$27,300.00
Balance Due \$10,629.16

Payment Information

Date	Payment #	Method	Reference #	Amount
10/18/2021	2178785	Cheque	15088	\$27,300.00

Please be advised there is a 3% Service Charge

on all payments made with a credit card for invoices over \$5000.

GST #81694 3377

Service charges on overdue accounts are 24% per annum (2% per month).

IMPORTANT DISCLAIMER: IvarTek does not provide warranty labour for any faults due to requested After Market Parts or parts supplied by the customer.

PLEASE BE ADVISED: All special order parts must be paid for at time of order.



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Brennan LeBlanc
Divisional Operations Manager
Western Canada Agriculture