

external components surrounding base engine. Also includes reassembly and charging the a/c compressors (2). - 8/4/2020

Sub Total

Complaint: Clean and inspect all piston bores for any imperfections

Cause: Cubustion gases in cooling system Type: Unscheduled repair (Inspection)

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Item	Description	Quantity	Rate	Amount
Labor	Correction: Engine / Bottom End / Clean and inspect all piston bores for any imperfections. Found rear most cylinder on right side of engine has a cracked piston liner. Call and informed customer on what was found. - 8/5/2020			
Sub Total				

Complaint: NEW COMPLETE REPLACEMENT ENGINE.

Cause: Engine failed Type: Unscheduled repair (Inspection)

Labor Correction:

Engine / Bottom End / Remove radiator as a component. Remove drive shafts and transmission. Remove engine. Reassemble old engine to get a good core. Remove engine wiring harness from old engine. Install engine wiring harness onto new engine. Install all removed components from old engine to new engine a/c compressors, mounting brackets, starter, alternator, etc, etc. Install new engine. Install radiator, transmission, drive shafts and rest of removed components. Fill unit with fluids as needed. Start unit. Engine fired up and ran. Have a check engine light on. Shut engine off immediately. Check codes and found to have a bad oil pressure sensor on new engine. Changed out oil pressure sensor. Code went inactive. Cleared codes and run engine. Engine runs good sounds good. Have 65 psi oil pressure. Check engine over for any possible leaks and found a oil leak at left front corner. Oil feed line for air compressor was leaking oil. Tighten fitting and stopped oil leak. Topped off all fluids as needed. Run engine for 45 minutes with no problems or leaks found. Reinstall hood, plugged in lights and installed hood torsion bars. Road test unit. Recheck for leaks. No leaks found. Recheck fluid levels. Fluid levels are all good. Park unit on lot and call customer for pick up of unit. Note: front main seal of transmission was replaced.. - 8/25/2020

Parts	COOLANT RED 50/50 W/SCA BULK GALLON - OWI23512139	1.00000	
Parts	15W40 BULK OIL QUART - MBL98JP33	22.00000	
Parts	R134A FREON BULK POUND - FRER134A	8.00000	
Parts	DELVAC SYNTHETIC ATF - MBL98KH08	1.00000	
Parts	COMPLETE ENGINE NOT A LONG BLOCK COMPLETE ENGINE - IHC 5010795R91	1.00000	
Parts	Dirty Core for COMPLETE ENGINE NOT A LONG BLOCK COMPLETE ENGINE - CORE IHC 5010795R91	-1.00000	
Parts	Inherent Core for COMPLETE ENGINE NOT A LONG BLOCK COMPLETE ENGINE - CORE IHC 5010795R91	1.00000	
Parts	SILICONE HOSE CLAMP - GAT32336	1.00000	
Parts	VALVE - IHC3611899C2	1.00000	
Parts	TRANSMISSION INPUT SEAL - al29546682	1.00000	
Parts	FLEETRANNER V-BELT - GAT9680HD	1.00000	
Parts	VICTOLEX Sheet 1/32 Felpro 3023 - MHLJV101	4.00000	
Parts	HOSE CLAMP #16 - IPS72333	1.00000	
Parts	BELT - 5081125	1.00000	



Parts	VALVE - INJECTOR	1.00000
Parts	TRANSMISSION INPUT SEAL - at29546682	1.00000
Parts	FLEETRUNNER V-BELT - GAT9680HD	1.00000
Parts	VICTOLEX Sheet 1/32 Felpo 3023 - M8-LJV101	4.00000
Parts	HOSE CLAMP #16 - IPS72333	1.00000
Parts	BELT - 5081125	1.00000
Parts	CLAMP SPRING SS - BRZCT300LSS	3.00000
Parts	CAC BOOT - 3899120C1	1.00000

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Item	Description	Quantity	Rate	Amount
Parts	CAC BOOT - 3872056C1	1.00000		
Parts	HOSE CLAMP #16 - IPS72333	1.00000		
Parts	CLAMP SPRING SS - BRZCT300LSS	2.00000		
Parts	CLAMP CT SPRING SS - BRZCT350LSS	1.00000		
Parts	CLAMP-HD SPRING T BOL - BRZB92240369FRUB	1.00000		
Parts	ATF DEXIII GALLON - MBL98HE54	1.00000		
Parts	Nylon Air Brake Push to Connect 90Deg 3/8Tube x 1/8Male Pipe IPS91249 - GATG311040602	1.00000		
Parts	Brass Hex Head Pipe Plug 3/8Male Pipe IPS90314 - GATG606010006	1.00000		
Sub Total				

**Complaint:** Replace engine oil pressure sensor on new engine for being bad. Sensor on new engine is setting active code for open circuit on engine oil pressure sensor.

**Cause:** Bad engine oil pressure sensor **Type:** Other (Inspection)

**Labor Correction:**

Engine / Electrical / Replace engine oil pressure sensor on new engine for being bad. Sensor on new engine is setting active code for open circuit on engine oil pressure sensor. Removed sensor from new engine and installed oil pressure sensor from old engine. Active code went inactive. Cleared code. Now all gauges are working. Oil pressure shows 65 psi at cold idle. - 8/21/2020

Parts	AIR PRESSURE SENSOR - 2505669C91	1.00000		
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Sub Total

**Complaint:** Oil leak somewhere on left front corner of engine.

**Cause:** Oil leak **Type:** Other (Inspection)

**Labor Correction:**

Engine / Lubrication / Oil leak somewhere on left front corner of engine. Oil feed line to air compressor was leaking oil at fitting. Tighten fitting. Run engine. No oil leak at this time. - 8/21/2020

Sub Total

Freight

Unit: 12 VIN: 4DRBUSKP1EB414673  
2013 INTERNATIONAL SCHOOL BUS  
Chassis: 97,906 Miles

Labor

Parts

Shop Supplies

Pre Tax Total

Exempt (0.0000% of \$0.00)

Total \$32,429.60

Payments & Credits

Balance Due

4:30



Service Order	Terms	Due Date	Authorizer	Customer PO	Unit #
SO-3912	Net 30	9/26/2020			12

Item	Description	Quantity	Rate	Amount
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**Inspection**

Labor Inspection & Diag remove and inspect EGR cooler

Sub Total

**Complaint:** Remove heads for possible blown head gasket or cracked head. Have cubustion gases in cooling system

**Cause:** Cubustion gases in cooling system **Type:** Unscheduled repair

**Labor Correction:**

Engine / Cooling / Disassemble engine to determine coolant loss location. Found the piston liners cracked causing failure. Engine replacement is needed. Reassemble core for return and crate up. - 8/4/2020

Parts	RUBBER EXPANSION PLUG 1" - MTM 02602	1.00000	
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Parts	RUBBER EXPANSION PLUG 1.5" - MTM 02600	1.00000	
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Parts	Steel Male Pipe to Male Pipe Hex Nipple 1/4Male Pipe x 1/8Male Pipe IPS97075 - GATG601100402	1.00000	
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Sub Total

**Complaint:** remove all components needed to get to heads on engine (additional items not typically equip on engine)

**Cause:** Customer request (Inspection)

**Labor Correction:**

Engine / Cooling / remove all components needed to get to heads on engine. All external components surrounding base engine. Also includes reassembly and charging the a/c compressors (2). - 8/4/2020

Sub Total

**Complaint:** Clean and inspect all piston bores for any imperfections

**Cause:** Cubustion gases in cooling system **Type:** Unscheduled repair (Inspection)