

Invoice  
A34075

Pg  
2

2/22/10

Br	Trk	Make	Model	Serial	Equipment	Meter	Sls	Customer	P.O.
003		BO	BC772RB	101570531041	11025	7,885	999		

Ord	Ship	B/O	Description	List	Each	Amount
	2		12M X 40M BOLT			
	4		6/15 FLAT WASHER			
	20		MED TIE WRAP			
	20		LARGE TIE WRAP			
	1		SHIPPING & HANDLING			
	1		SHIPPING & HANDLING			
	1		SHIPPING & HANDLING			
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	60.20		SHOP LABOR			

NON-TAX GOVERNMENTAL

THE CUSTOMER COMPLAINED OF THE LOW COOLANT LIGHT COMING ON. DROVE TO THE LANDFILL TO CHECK FOR COOLANT LEAKS. WE FOUND SEVERAL CLAMPS LOOSE THAT WERE LEAKING BAD ENOUGH TO CAUSE THE COOLANT LIGHT TO COME ON. WE TIGHTENED UP THE CLAMPS AND REFILLED THE SYSTEM (1 1/2 GAL) BACK UP WITH COOLANT. A COUPLE WEEKS LATER THE CUSTOMER CALLED AGAIN AND SAID THE LOW COOLANT LIGHT CAME ON AGAIN AND IT SHUT DOWN THE MACHINE. WE DROVE BACK TO THE LANDFILL TO TROUBLE SHOOT THE PROBLEM. UPON ARRIVAL WE CHECKED FOR LEAKS. WE FOUND ONE HEATER HOSE LEAKING IN CAB AREA BUT DIDN'T THINK THAT WAS THE TOTAL CAUSE OF THE PROBLEM. WE CHECKED THE ENGINE OIL BUT NOT LOOK LIKE COOLANT WAS TRANSFERING TO THE OIL PAN. PULLED A SAMPLE OF THE ENGINE OIL AND SENT IN TO TO BE CHECKED. IT CAME BACK POSITIVE FOR

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Ordr	Ship	B/O	Description	List	Each	Amount
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ANTI-FREEZE IN THE OIL.  
TALKED WITH MIKE SCOTT AND RECOMMENDED THAT WE SHUT DOWN THE MACHINE TO DETERMINE WHERE THE ANTI-FREEZE WAS COMING FROM.  
DROVE BACK TO THE LANDFILL AND DRAINED THE ENGINE OIL AND FOUND ABOUT A CUP FULL OF ANTI-FREEZE IN THE OIL.  
AT THAT POINT WE REMOVED THE OIL PAN TO FIND ORIGIN OF THE ANTI-FREEZE LEAK. WE FOUND ANTI-FREEZE COMING OUT OF THE A2 CYLINDER LINER. AT THAT POINT WE KNEW THE ENGINE NEEDED TO BE OVERHAULED.  
TALKED WITH MIKE ABOUT THE PROBLEM AND DECIDED TO PROCEED. WE THEN REMOVED THE ENGINE FROM THE BOMAG AND LOADED IT ON THE TRUCK AND RETURNED TO OUR SHOP. STARTED TO REMOVE THE PARTS FROM THE ENGINE AND FOUND COOLING PUMP FOR THE TRANSFER CASE WAS BAD AND THE GEARS WERE WORN OUT.  
WE WILL NEED TO REPLACE THE PUMP AND ALL GEARS THAT RUN THIS PUMP BECAUSE THEY ARE ALL DAMAGED DUE TO THE PUMP BEARING GOING OUT. THESE ARE THE TIMING GEARS FOR THE ENGINE INJECTION PUMP.  
TALKED WITH MIKE SCOTT AT THE LANDFILL AND GAVE HIM THE OPTIONS OF OVERHAULING THIS ENGINE OR REPLACING THE ENGINE WITH A REMAN ENGINE.  
MIKE TALKED IT OVER WITH OTHER OFFICIALS AND DECIDED ON INSTALLING A REMAN ENGINE BECAUSE OF THE WARRANTY AND TURN AROUND TIME ON THE MACHINE UP & RUNNING SOONER.  
MIKE ALSO WANTED OIL LEAKS AND OTHER ISSUES REPAIRED WHILE THE ENGINE WAS OUT. ORDERED IN ALL PARTS NEEDED TO DO THIS REPAIR.  
UPON ARRIVAL ON THE REMAN ENGINE WE SWAPPED OUT THE PARTS AS NEEDED FROM ONE ENGINE TO ANOTHER. WE REPLACED THE FAN

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IDLER BEARING BECAUSE THE BEARING WAS ROUGH. INSTALLED ALL NEW BELTS AND NUMEROUS PARTS. ONCE THE ENGINE WAS READY WE LOADED IT ON THE TRUCK AND TOOK IT OUT TO THE LANDFILL. THE TRANSFER LUBE PUMP GEAR WAS NOT HERE YET. BEFORE THE ENGINE INSTALLATION WE CLEARED ALL PARTS AS NEEDED. REPLACED THE HYDRAULIC OIL COOLER HOSE FROM THE COOLER TO THE FILTER HOUSING. REMOVED AND REPLACED THE FUEL SUCTION AND RETURN HOSES FROM THE ENGINE TO THE FUEL TANK. CLEANED UP THE AREA. INSTALLED THE ENGINE AND REINSTALLED ALL HOSES, TUBES, PIPES, ETC. FILLED WITH NEW 15W40 OIL AND NEW EXTENDED LIFE ANTI-FREEZE. UPON ARRIVAL OF THE TRANSFER CASE PUMP DRIVE GEAR WE INSTALLED THE GEAR ON THE PUMP. INSTALLED THE PUMP ON THE ENGINE. BEFORE HOOKING UP THE HOSES WE FLUSHED THE ENTIRE COOLING SYSTEM FOR TRANSFER CASE AND CHANGED THE FILTER. WE REPLACED THE ENGINE ECU WITH ONE PROGRAMMED FOR THE REMAN ENGINE. WE THEN STARTED THE ENGINE AND TEST RAN. THE ENGINE WAS RUNNING GOOD BUT THE EMR LIGHT WAS STAYING ON. CHECKED ALL WIRING AND COULD NOT FIND THE PROBLEM. THEN DECIDED TO REINSTALL THE OLD E-ECU FROM THE OLD ENGINE. THE EMR LIGHT THEN WENT OFF BUT THE LOW IDLE WAS ERRATIC. CALLED INTERSTATE DIESEL AND THEY SAID THEY WOULD NEED TO REPROGRAM THE NEW ECU TO THIS MACHINE. REINSTALLED THE NEW ECU AND WILL GET INTERSTATE TO PROGRAM AS SOON AS POSSIBLE. RECHECKED THE FLUID LEVELS AND TESTED THE LUBE PRESSURE ON THE TRANSFER CASE PUMP. EVERYTHING CHECKED OUT OKAY AT THIS TIME. WE WILL RETURN TO PROGRAM AT A LATER DATE. BS

Total 42,023.08