

WORK ORDER HISTORY

Stock No:	B0395	Make:	AA	Model:	G3612	Serial No:	01YGC00181	Division:	P	FPC:	G
Eq Sts:	N	Inv Sts:	S	Last SMU:	56239 H	SMU Date:	15-Apr-10	Trans Make:			
Eng Make:		Eng Model:		Eng S/N:		Eng Arr No:					

Total Work Orders:	20	Total Parts:	255,256.91
Total Amount:	445,624.16	Total Labour:	163,447.28
Total Lbr Hours:	1171.34	Total Misc:	26,919.97
		Total Flat Rate Amount:	0.00

Cust: All

Job Code: All

Comp Code: All

Customer	Open Date	Hours	Work Order	All Job	Comp	Pt Cust	Lbr Cust	Misc Cust	Seg Total	Notes
2561203	12-May-10	35657	9437519 - 01	C	999	CRDT	WTYPPE94	WTYPPE94	(5,553.58)	CREDIT GOODWILL PARTS & LABOR RELATED TO GOODWILL CLAIM ON 9436528.
										1 1G-8878 FILTER = \$52.79
										2 1W-0098 BOLT X \$95.21 = \$190.42
										2 192-7870 BEARING X 420.37 = \$840.74
										33 205-0640 NUT X \$12.31 = \$406.23
										1 334-0519 GREASE = \$69.51
										1 3096931 OIL = \$66.64
										TOTAL PARTS CREDIT = \$1,626.33
										IN REGARDS TO LABOR:
										FIRST DAY ONSITE WAS CUT SHORT DUE TO CUSTOMER SPECIFIC NEEDS.
										TRAVEL TIME = 9.0 HOURS X 170.75/HR = \$1,536.75
										ONSITE TIME = 14.0 HOURS X 170.75 = \$2,390.50
										TOTAL LABOR CREDIT = \$3,927.25
										GOODWILL TOTAL CREDIT RELATED TO 9436528 = \$5,553.58
										5,553.58 OFFSET GOODWILL CREDIT IN SEGMENT 01
										0.00
										797.50 TRAVEL TO & FROM JOB SITE
										1,332.54 RUN ENGINE TO SEAT BEARINGS.
										PRESERVE ENGINE:
										INSPECT ENGINE BEFORE START UP. FOUND OIL LEVEL 6" HIGH. ADJUST LEVEL. COOLANT LEVELS. OK. AIR FILTER. OK. REPLUBE ENGINE & START. FOUND EXHAUST GASKET ON REAR OF BELLOW AT CYLINDER #12 MISSING. INSTALL NEW GASKET & BOLTS. FOUND #2 CRANKCASE DOOR LEAKING. SHUTDOWN ENGINE & REPAIR SEALS. ENGINE SHUTDOWN 2 TIMES ON COOLER VIBRATION. DID NOT FIND ANY SWITCHED TRIPPED. TRIP & RESET SWITCHED & FOUND TO RESET. RUN ENGINE FOR 4 HOURS UNDER LOAD. ADD VCI OIL TO CRANKCASE OIL WHEN ENGINE WAS HOT TO COAT INSIDE OF ENGINE. COVER OVER CRANKCASE BREATHERS & AIR INTAKE AT TURBO INLET WITH PLASTIC SEAL.

2239100 12-Apr-10 56239 7001942 - 01 C 056 9966
7001942 - 02 C 091 1000

9437519 - 02 C 025 CRDT WSMRV94 WSMRV94 WSMRV94
WO Total:

797.50 TRAVEL TO & FROM JOB SITE
1,332.54 RUN ENGINE TO SEAT BEARINGS.
PRESERVE ENGINE:
INSPECT ENGINE BEFORE START UP. FOUND OIL LEVEL 6" HIGH. ADJUST LEVEL. COOLANT LEVELS. OK. AIR FILTER. OK. REPLUBE ENGINE & START. FOUND EXHAUST GASKET ON REAR OF BELLOW AT CYLINDER #12 MISSING. INSTALL NEW GASKET & BOLTS. FOUND #2 CRANKCASE DOOR LEAKING. SHUTDOWN ENGINE & REPAIR SEALS. ENGINE SHUTDOWN 2 TIMES ON COOLER VIBRATION. DID NOT FIND ANY SWITCHED TRIPPED. TRIP & RESET SWITCHED & FOUND TO RESET. RUN ENGINE FOR 4 HOURS UNDER LOAD. ADD VCI OIL TO CRANKCASE OIL WHEN ENGINE WAS HOT TO COAT INSIDE OF ENGINE. COVER OVER CRANKCASE BREATHERS & AIR INTAKE AT TURBO INLET WITH PLASTIC SEAL.

-CLEANED CAPS AND RODS.

						-INSTALL NEW BEARINGS ON ALL CYLINDERS. TORQUED ALL UP TO 75 FTLBS. ***** MAR 4-09 STEVE S. -FINISHED FINAL TORQUE ON ROD BOLTS, CLEANED OUT OIL PAN AND INSTALLED SPRAY TUBES ON RIGHT BANK -INSTALLED LEFT SIDE CRANK CASE DOORS, HYDRAX TANK AND LINES -FILLED ENGINE WITH OIL AND HYRAX -CONNECTED TO ECM AND FLASHED NEWEST FILE FOR ADVISORY 3014690, CALLED FOR PASSWORDS AND CHANGED ENGINE HOURS TO 55118 -START ENGINE AND LET WARM UP, CHECKED FOR LEAKS MAR 4-09 DARIN R -TORQUED ALL CAPS TO 277FTLBS IN PROPER ORDER. -TURNED BOLTS 180 DEG. -SWABBED PAN. -INSTALL OIL SPRAY TUBES TORQUED TO 40FTLBS. -INSTALL CRANKCASE DOORS. -INSTALL FOOT BOLTS BACK IN UNIT. -TORQUED FRONT FOOT TO 400 FTLBS MIDDLE 500FTLBS, REAR TO 600FTLBS. *PROPER CODEING AS PER DARREN ACHESON APR 15-09 CHARGE CODE IS 17521500 FORMAN CODE F-795 12,595.33 ADDITIONALS NOT COVERED BY QUOTE. *CUSTOMER MUST BE INFORMED BEFORE ADDITIONALS ARE COMPLETED
2561203	08-May-08	0	9432902 - 01	C 999	1052	W/O Total: 40,095.74 19,678.38 SUPPLY LEFT AND RIGHT TURBOCHARGERS 3,632.56 REPAIR LEFT TURBO AT OEM ADD PARTS - THRUST BEARINGS 0.00 REPAIR RIGHT TURBO AT OEM NO ADD CHARGE PARTS - \$0
			9432902 - 80	C 023	1052	
2561203	19-Apr-06	31408	9425845 - 01	C 056	9966	W/O Total: 23,310.34 421.50 ** TRAVEL TIME. ** 13,653.97 ** REPLACE LEAKING CYLINDERS HEADS - #1 AND #6. ** 04/18/6 - SAM _____ -LOAD PARTS -TRAVEL TO SITE -GOT PART WAY TO SITE AND GOT CALL TO RETURN FOR TOOLING -GET PERMITS ETC -CHECK ON TOOLING SPECS - NEW STYLE PRESS HAS 17715 PSI +/- 713 PSI
			9425845 - 02	C 510	1100	

- BECAUSE OF THE EXTREME PRESSURE I CHECKED IN
SIS TO MAKE SURE AND IT SEEMED TO BE CORRECT
- OLD STYLE RAMS HAVE 8000 PSI TO RE AND RE
- REPLACE #1 AND #6 CYLINDER HEAD
- REPLACE ALL O-RINGS AND SEAL
- WE DID NOT HAVE NEW FIRE RINGS - BOTH SHOWED
SIGNS RUB AND WEAR, AND WOULD HAVE BEEN
REPLACED HAD WE HAD NEW ONES
- SET VALVES AND GAVS
- INSTALL COVERS
- TRAVEL BACK TO TOWN
04/19/06 - SAM
- UNLOAD CYLINDER HEADS IN WAREHOUSE

WORKORDER NOTES

- HEAD SWING 9421320 03.10.05 24021 HRS
- WATER PUMP LEAK 9422599 05.19.05 24024 HRS
- OVERSPEED 9423006 06.18.05 24378 HRS
- HEAD-CRACKED VALVE 9423762 10.24.05 29742 HRS
- REPLACE #1/6 HEADS 9425845 04.18.06 31408 HRS
- TOTAL HOURS TO HEAD CHANGE OUT 7387
- NO RECORD OF #1 OR #6 HEAD PROBLEMS
- WE NEVER DID RESEAL OF ANY PRECHAMBERS AND DID
NOT HAVE ANY WORKORDERS OPEN TO DO IT
- NO WORKORDERS WITH REFERENCE TO HIGH EXHAUST
TEMPERATURES, ETC
- CUSTOMER CHARGE. NOT FOR WARRANTY

9425845 - 99	C	025	9117
2561203	18-Jun-05	24378	9423006 - 01
		C	056 9966
		C	035 7499
9423006 - 02			

WO Total:

(246.00) ** ADJUST FOR CUSTOMER LOYALTY RATE REDUCTION. **
13,829.47

336.00 ** TRAVEL TIME. **
782.20 ** TROUBLESHOOT AND REPAIR FOR ENGINE GOING DOWN
ON OVER SPEED. **

06/18/05 - ROD
- TRAVEL TO LOCATION
- ENGINE GOING DOWN ON OVER SPEED
- FOUND LOOSE WIRES ON THE MAGNETIC PICK UP
CONNECTIONS IN MAIN PANEL - REPAIRED
- ENGINE RUNNING OK
- WENT OVER TO THE G3412 BOOSTER
- REMOVE COILS AND SPARK PLUGS
- DID COMPRESSION TEST
- FOUND #7 CYLINDER AT 15 PSI
- CHECK CYLINDER WITH BOROSCOPE
- FOUND BURNT VALVES
- CLEANED UP
- TRAVEL BACK TO FORT ST. JOHN

2561203	09-Feb-05	24021	9421320 - 02	C	025	9117
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(60.00) ** ADJUST FOR CUSTOMER LOYALTY RATE REDUCTION. **
 (6 HOURS X \$10/HOUR = \$60)
W/O Total: 1,058.20

158,824.00 ** PERFORM HEAD SWING. **

- 9421318 - REMOVE AND INSTALL
- 9421320 - PERFORM HEAD SWING
- 9421049 - INSTALL ADEM III UPGRADE
- 02/14/05 - BERNIE -----
- ORDER PARTS FOR HEAD SWING
- 02/19/05 - BERNIE & DAN -----
- REMOVE EXHAUST BLANKETS AND BOTH TURBOCHARGERS
- TAKE NEW TURBOS OUT OF THE BOX
- PUT OLD TURBOS IN THE BOXES AND PUT IN BARN FOR CORE RETURNS
- CLEAN UP FLOOR AND SET UP SCAFFOLD
- COMPLETE ALL PAPERWORK
- 02/20/05 - BERNIE, ROD & DAN -----
- REMOVE EXHAUST MANIFOLD, WATER MANIFOLD, LIFTING EYES, ROCKER COVERS AND BOXES, ROCKER GEAR, PUSH TUBES, PRECHAMBERS, BUFFER DOORS, JUMPER TUBES, FUEL LINE JUMPERS, NEEDLE VALVES, OIL LINES AND ADAPTERS, COMBUSTION FEEDBACK LEADS
- REMOVE WATER PUMPS
- PLUG ALL OPEN HOLES
- CLEAN UP
- COMPLETE PAPERWORK
- 02/21/05 - BERNIE, BILL, ROD & DAN -----
- CHANGE ALL O-RINGS AND SEALS ON WATER CONNECTION AND OIL THERMOSTATS
- REMOVE HEAD NUTS AND ALL 12 HEADS
- HELP DAN TAKE APART THE EXHAUST MANIFOLD
- LINE UP ALL NEW HEADS AT THE FRONT OF THE BAY
- BOX UP ALL OLD HEADS FOR CORES
- COMPLETE PAPERWORK
- 02/22/05 - BILL, ROD & DAN -----
- CLEAN HEAD STUDS
- CLEAN UP BLOCK, LINERS AND PISTONS
- INSTALL HEADS STUDS
- REMOVE, INSPECT, CLEAN AND INSTALL CAM FOLLOWERS
- WRAP PRECHAMBERS FOR TRANSPORT (TO MACHINE SHOP)
- GOUGE OFF BELLOWES AND REMOVE COLLAR FROM EXHAUST
- CLEAN AND INSPECT WATER MANIFOLDS - FOUND

- CORROSION INSIDE ALL PIPES
- LOAD AND UNLOAD TYPHOON WITH ROCKER BOXES AND COVERS
- CLEAN, INSPECT AND INSTALL VALVE LIFTER ASSEMBLIES
- 02/23/05 - BILL & DAN -----
- DELIVER EXHAUST MANIFOLD TO SANDBLASTER
- REMOVE FLYWHEEL AND REPLACE THE RING GEAR
- REMOVE, DISMANTLE AND INSPECT CHOKE
- CLEAN UP CYLINDERS
- CLEAN PARTS
- DRILL AND COUNTER-SINK PRECHAMBER HOLES IN HEADS TO 7/16" (3HRS)
- DRESS DECK
- SEPARATE NOZZLE FROM PRECHAMBER BODY TO DELIVER TO MACHINE SHOP (PEACOCKWEIR SVCS)
- PICK UP EXHAUST MANIFOLD AT SANDBLASTER
- 02/24/05 - BERNIE, ROD, BILL & DAN -----
- TAP ALL PRECHAMBER HOLES IN THE HEADS TO 1/2"
- CLEAN LINER FLANGES AND INSTALL FIRE RINGS
- SLING HEAD TO THE BACK OF THE SHOP FOR ROD TO WASH
- TAKE WASHED HEADS AND SET ON ENGINE
- TORQUE HEADS
- REMOVE AND REPLACE REAR SEAL
- INSTALL FLYWHEEL AND ADAPTER - TORQUE ALL BOLTS TO SPEC
- REBUILD CHOKE AND INSTALL ON ENGINE (REPLACED SEALS AND BEARINGS, SHAFT WAS REUSED)
- CLEAN UP
- MOVE EXHAUST MANIFOLDS INSIDE
- COMPLETE PAPERWORK
- 02/25/05 - BERNIE & ROD -----
- INSTALL ALL GAVS
- NOTICED THAT THERE WAS AN INTAKE O-RING CUT ON THE #2 CYLINDER HEAD WHILE INSTALLING THE GAVS
- GET OUT HEAD TOOLING FROM THE BARN
- REMOVE #2 CYLINDER HEAD: CHANGE O-RING, AND RE-INSTALL HEAD (BILLED TO SERVICE WTY 2.0 HRS)
- PUT HEAD TOOLING AWAY
- INSTALL COMBUSTION PROBES, EXTENSIONS AND CAPS
- CLEAN AND CHANGE O-RINGS ON OIL LINE ADAPTERS
- INSTALL ADAPTERS IN HEAD
- INSTALL OIL LINES

- NOTED THAT THE CASTING ON THE LOWER O-RING LAND OF #5 HEAD WAS NO GOOD
 - GET OUT HEAD TOOLING AGAIN
 - REMOVE NUTS
 - COULD NOT INSTALL THE NEW HEAD AS IT NEEDED TO BE CLEANED AND MODIFIED TO 1/2" PRECHAMBER HOLES (ALL BILLED TO PARTS WARRANTY)
 - INSTALL SPARK PLUG EXTENSION TUBES
 - COVER ENGINE
 - PICKED UP PRECHAMBERS AT PEACOCK/WEIR AND DRESSED WITH O-RINGS
 - CLEAN UP
 - COMPLETE PAPERWORK
- 02/28/05 - BERNIE, TED, BILL & DAN -----
- MOVE EXHAUST MANIFOLD PIECES OUTSIDE SHOP AND BLOW SAND OUT FROM THE SANDBLASTERS
 - REMOVE PYRO ADAPTERS AND USE A ONE-INCH TAP TO CLEAN ALL THE THREADS
 - INSTALL THE EXHAUST BELLOWS ON ONE SIDE TIGHTENING THE BOLTS ONLY FINGER TIGHT
 - CLEAN RIGHT BANK PRECHAMBER SEATS
 - PREP ALL PRECHAMBERS
 - INSTALL RIGHT BANK PRECHAMBERS AND TORQUE
 - GAP AND INSTALL ALL NEW SPARK PLUGS ON BOTH SIDES
 - CLEAN ALL PRECHAMBER CHECK VALVE SEATS AND INSTALL ALL CHECK VALVES AND TORQUE
 - CHANGE ALL O-RINGS ON CHECK VALVE CAPS AND INSTALL CAPS
 - INSTALL O-RINGS ON LIFTER COVERS AND INSTALL COVERS
 - MEASURE AND RECORD THE ROTATOR HEIGHTS
 - INSTALL AND SET BRIDGES
 - INSTALL PEDESTALS AND ROCKER GEAR
 - INSTALL ROCKER BOXES
 - TURN ENGINE OVER BY HAND AND PIN THE CRANK
 - MARK THE ROCKERS AND GAUYS IN PREPARATION TO SET THE VALVES
 - RE-ORIENTATE INTAKE END OF THE RIGHT-HAND TURBO AND CHANGE THE BOTTOM COOLING PLATE AROUND
 - INSTALL BOTH TURBOCHARGERS
 - HOOK UP OIL LINES
 - INSTALL ALL BLOCKER PLATES AND ADAPTERS ON BOTH TURBOS
 - INSTALL EXHAUST BELLOWS TO THE STOCKS AND ORDER INTAKE SEALS

- CLEAN UP
 - COVER THE ENGINE
 - COMPLETE PAPERWORK
 03/03/05 - BERNIE & ROD -----
 - ASSEMBLE AND INSTALL LEFT BANK EXHAUST
 MANIFOLD AND TORQUE
 - ASSEMBLE AND SET RIGHT BANK EXHAUST
 MANIFOLD IN PLACE
 03/04/05 - BERNIE & TED -----
 - INSTALL REMAINING BOLTS ON THE RIGHT BANK
 EXHAUST MANIFOLD AND TORQUE ALL BOLTS
 - INSTALL ALL BYPASS PIPING AND WASTEGATE
 - WHILE AFTER TIGHTENING THE BOLTS ON BOTH
 BYPASS EXPANSION JOINTS I NOTICED THAT YOU
 COULD SEE LIGHT BETWEEN THE BELLOWS FLANGE
 AND THE GASKET
 - REMOVED BOTH BELLOWS
 - FOUND THAT BOTH FLANGES ON BOTH BELLOWS
 WERE WARPED
 - HAD 2 BELLOWS IN STOCK
 - ORDERED THROUGH THE CALL CENTER (TO SEG 03
 CUSTOMER CHARGE) AND INSTALLED
 - ASSEMBLE AND INSTALL RIGHT BANK WATER
 MANIFOLD
 - CLEAN UP BAY
 - COMPLETE PAPER WORK
 03/05/05 - BERNIE, BILL & DAN -----
 - MAKE GASKETS FOR THE FLANGES THAT GO FROM
 THE WATER MANIFOLDS ON THE HEADS TO THE
 COLLECTOR
 - INSTALL LAST TWO FLANGES AND CONNECTING
 PIPES
 - INSTALL FUEL TUBES ON RIGHT-HAND SIDE
 - CLEAN AND INSTALL NEEDLE VALVES AND TURBOS
 - INSTALL EXHAUST BLANKETS
 - CLEAN UP BAY
 03/06/05 - BILL -----
 - CLEAN, RESEAL AND INSTALL CRANKCASE
 BREATHERS AND CRANKCASE EVACUATION VALVES
 - INSTALL COOLANT TUBES FOR TURBOCHARGERS
 - MAKE UP A REMOVABLE BRACKET TO HOLD THE
 OUTLET TUBE FOR THE COOLANT AS THE OLD
 BRACKET WAS CUT OFF TO REMOVE THE CYLINDER
 HEAD
 03/10/05 - DAN -----
 - REBUILD WASTEGATE -----

9421320 - 03 C ADD 9150

40,100.36 ** ADDITIONALS NOT COVERED BY QUOTED REPAIRS. **

9421320 - 80 C 901 1052

0.00 -
XDOC: 94X002493

ADDITIONAL CHARGES FOR REPAIR OF 1 - 4P6747 TURBO

MD: 8344125

FEB 22.05 JV

ADD CHARGES DO NOT APPLY - CLOSED 03.07.05 TLO

9421320 - 81 C 901 1052

0.00 -
XDOC: 94X002493

ADDITIONAL CHARGES FOR REPAIR OF 1 - 4P6747 TURBO

MD: 8344126

FEB 22.05 JV

ADD CHARGES DO NOT APPLY - CLOSED 03.07.05 TLO

WO Total: 198,924.36

2561203 08-Feb-05 24021 9421318 - 01 C 056 9966

10,883.00 ** TRAVEL TIME. **

SAFETY ASPECTS -----

- REPORT ALL SAFETY CONCERNS/INCIDENTS TO ON-CALL SUPERVISOR IMMEDIATELY
- ENSURE PARTS ARE SECURE IN SERVICE TRUCK
- ENSURE ALL CABINET DOORS ARE SECURE FOR TRAVEL
- PERFORM WALK AROUND INSPECTION (LUG NUT INDICATORS, ETC)
- ENSURE ALL ROAD SIGNS ARE OBEYED
- ENSURE MAN-CHECK IS USED
- PLEASE DRIVE DEFENSIVELY

9421318 - 02 C 010 1000

36,767.26 ** REMOVE AND INSTALL ENGINE. **

02/10/05 - TED / DAN -----

- LOAD TOOLING
- TRAVEL FROM TOWN TO SITE
- OBTAIN A SAFE WORK PERMITS AND HAVE A WALK AROUND THE JOB
- OPEN ENGINE OIL DRAIN AND LEFT OPEN TO DRAIN
- DRAIN BOTH ENGINE JACKET/WATER COOLANT AND THE AUXILIARY COOLANT
- REMOVE FRONT BELT
- REMOVE REAR FLYWHEEL GUARDING AND ENGINE TO COMPRESSOR COUPLER

- START DISCONNECTING THE EXHAUST TURBO BELLOWS FROM THE EXHAUST PIPING FROM BOTH THE RIGHT AND LEFT EXHAUST MANIFOLDS
- PICK UP TOOLS
- TRAVEL BACK TO BRANCH
- 02/11/05 - BERNIE / DAN / BILL / TED -----
- HAVE SAFETY AND RISK ASSESSMENT MEETING AT BRANCH BEFORE LEAVING FOR SITE
- TRAVEL FROM BRANCH TO SITE
- OBTAIN SAFE WORK PERMITS
- REMOVE ALL WIRES FROM EJB
- REMOVE EJB
- REMOVE ALL INTERCONNECT AND PYRO WIRES FROM THE ESS PANEL
- PULL INTERCONNECT HARNESS AND PYRO HARNESS OUT OF THE CONDUIT
- REMOVE FRONT OUTSIDE BELT GUARDING
- REMOVE FRONT END WATER PIPING
- DISCONNECT JACKSHAFT AND REMOVE THE BELTS
- CLOSE SHUTTERS ON LEFT SIDE AND CENTER OF COOLER
- DRAIN REMAINDER OF COOLANT BEHIND THE THERMOSTATS
- DISCONNECT COOLANT LINES
- REMOVE ALL COOLANT VENT LINES FROM THE WATER TOWER
- REMOVE FUEL GAS SHUT OFF VALVE
- DISCONNECT FUEL PIPING
- REMOVE COOLANT TUBES FROM THE LEFTHAND CYLINDERS OF THE COMPRESSOR
- DISCONNECT COMPRESSOR CYLINDER BRACKETS
- ENGRAVE FOOT STANDS OF THE COMPRESSOR FOR INSTALL
- DISCONNECT BOTH STARTERS AND REMOVE PIPING
- REMOVE BOTH TURBO'S INTAKE PIPING AND SEAL OFF TUBES
- BAG UP AND SEAL UP OPEN LINES AND CONNECTIONS
- CLEAN UP
- COMPLETE PAPERWORK
- TRAVEL FROM SITE BACK TO TOWN
- PICK UP CAP PLUGS AND BAGS AT THE SHOP
- PRINT OFF AND HAND IN TIME AND COST SHEETS
- 02/12/05 - BERNIE / DAN / BILL / TED -----
- TRAVEL FROM FORT ST. JOHN TO SITE
- CHECK IN AT OPERATORS OFFICE
- OBTAIN SAFE WORK PERMITS
- INSTALL LIFTING EYES

- REMOVE ESS PANEL
- TAKE OIL DRAIN LINES OFF THE ENGINE
- DISCONNECT LINES FROM BUILDING TO COOLER
- DISCONNECT COMPRESSOR FROM SKID
- DISCONNECT OIL AND COOLANT LINES FROM THE COMPRESSOR
- DISCONNECT ALL COMPRESSOR PACKING DRAIN TUBES AND BAG UP THE TUBES
- CAP COMPRESSOR ENDS
- LOAD PART ON PALLETS AND BOX UP ALL BOLTS
- COVER ALL OPEN LINES / FLANGES
- REMOVE COOLANT EXPANSION TANK AND LOWER TO THE GRATING
- DISCONNECT HAWK 1 PANEL AND WRAP IN PLASTIC
- CLEAN UP BUILDING AND LOAD TOOLS
- TRAVEL FROM SITE TO FORT ST. JOHN
- 02/17/05 - BERNIE / DAN -----
- TRAVEL FROM FORT ST. JOHN TO SITE
- SIGN IN
- REMOVE EXHAUST PIPING
- REMOVE REAR SECTION OF WATER TOWER THAT HOLDS THE INTAKE AND EXHAUST PIPE
- REMOVE OVERHEAD CRANE
- REMOVE DAY TANKS
- REMOVE FRONT HALF OF WATER TOWER WITH AIR FILTER BOXES AND THERMOSTATS
- CLEAN UP
- COMPLETE PAPERWORK
- TRAVEL FROM SITE BACK TO FORT ST. JOHN
- 02/18/05 - BERNIE / DAN -----
- TRAVEL FROM FORT ST. JOHN TO SITE
- CHECK IN
- WAIT TO LIFT ENGINE WHILE THEY LOADED THE COOLER
- LIFT ENGINE ONTO TRAILER AND BOOM DOWN
- TARP IN ENGINE
- LIFT COMPRESSOR ONTO A DIFFERENT TRAILER
- COVER SUCTION HOLES WITH RAGES AND PLYWOOD
- TARP IN COMPRESSOR
- ORGANIZE AND LOAD SHIMS
- CLEAN UP
- COMPLETE ALL PAPERWORK, PRINT, AND GET IT SIGNED
- TRAVEL FROM SITE BACK TO FORT ST. JOHN
- MEET TRUCK AT SHOP
- CLEAR SNOW ON STEAM PAD
- PARK TRAILER ON STEAM PAD
- UNTARP THE ENGINE AND STEAM IT OFF

02/19/05 - BERNIE / DAN -----
- UNLOAD ENGINE AND MOVE IT INTO THE SHOP
- BEGIN OVERHAUL - SEPARATE WORKORDER/JOB
03/02/05 - TED -----
- INSTALL LIFTING BRACKETS
03/07/05 - BERNIE / BILL -----
- TOW ENGINE OUTSIDE IN PREPARATION TO LOAD
OUT
- WAIT FOR TRUCK TO ARRIVE
- LOAD ENGINE ONTO TRUCK
- BOLT ENGINE DOWN ONTO SKID
- CHAIN ENGINE DOWN AND TARP UP
03/08/05 - ROD / DAN -----
- PICKED UP PARTS
- TRAVELED FROM FORT ST. JOHN TO LOCATION
- CHECK IN AND OBTAIN PERMITS
- WAIT FOR CRANE OPERATOR TO SHOW UP
- CLEAN MOUNTING FEET
- LOAD COMPRESSOR ON FLAT DECK AND INSTALLED
- LIFT ENGINE AND INSTALL
- WRAP UP ENGINE AND COMPRESSOR WITH TARPS
- CLEAN UP
- RETURNED TO FORT ST. JOHN
03/09/05 - ROD / DAN -----
- TRAVEL FROM FORT ST. JOHN TO SITE
- SIGN IN AND GET WORK PERMITS
- WAIT FOR PICKER TRUCK
- PREP ALL SURFACES
- INSTALL INTAKE AND STAND
- INSTALL EXHAUST AND STAND
- INSTALL EXHAUST PIPING
- WRAPPED UP ENGINE
- CLEAN UP
- TRAVEL FROM SITE TO FORT ST. JOHN
05/09/05 - ROD / DAN -----
- PICK UP PARTS
- TRAVEL FROM FORT ST. JOHN TO LOCATION
- CHECK IN WITH OPERATIONS AND GET PERMITS
- REMOVE EXPANSION JOINTS
- INSTALL START UP SCREENS IN COOLANT LINES
- LOOK OVER UNIT AND MAKE A LIST OF ITEMS
REQUIRED
- REPAIRED LEAK ON HYDRAX LINE
- CLEAN UP
- RETURN TO FORT ST. JOHN
05/10/05 - ROD / DAN -----
- PICK UP PARTS
- TRAVEL FROM FORT ST. JOHN TO LOCATION

- SIGN IN AND GET PERMITS
- INSTALL ADVISOR PANEL
- CLEAN OUT AND INSPECT INTAKE PIPING
- INSTALL NEW AIR FILTERS
- INSTALL EXHAUST BLANKETS
- INSTALL COOLANT TEST PORTS
- CLEAN UP
- TRAVEL FROM SITE TO FORT ST. JOHN
- 05/12/05 - ROD -----
- PICK UP PARTS
- TRAVEL TO LOCATION
- INSTALL INTAKE ELBOWS ON TURBOCHARGERS
- SET UP ACTUATOR LINKAGE ARM AND RODS
- RETURN TO FORT ST. JOHN
- 05/18/05 - ROD -----
- PICK UP PARTS
- TRAVEL TO LOCATION
- START BUILDING CRANKCASE VENTILATION SYSTEM
- INSTALL FLASH FILES ON ICSM, ECM, AND ADVISOR
- DID ALIGNMENT
- CHECK WEB DEFLECTION
- REPAIR LEAK ON MAIN COOLANT LINE
- CLEAN UP
- TRAVEL FROM SITE BACK TO FORT ST. JOHN
- 05/19/05 - ROD -----
- PICK UP PARTS
- TRAVEL TO LOCATION
- FINISHED INSTALLING CRANKCASE VENTILATION SYSTEM
- PURGED FUEL LINE AND STARTER LINE
- PRE-LUBE ENGINE AND COMPRESSOR
- STARTED UP ENGINE
- SET ALL PARAMETERS
- IDLED ENGINE AT 700 RPM AND MONITORED - OK
- IDLED UP TO 850 RPM AND MONITORED
- PROBLEM WITH PYRO
- WILL CHANGE NEXT TIME OUT
- MAIN WATER PUMP LEAKING OIL
- ORDERED NEW ONE AND WILL CHANGE NEXT TIME OUT
- WILL HAVE TO CHANGE OUT FUEL AND WASTE GATE ACTUATOR
- CLEAN UP
- TRAVEL FROM SITE BACK TO FORT ST. JOHN
- 05/24/05 - ROD -----
- PICK UP PARTS
- TRAVEL TO LOCATION

						- DRAIN COOLANT TO REPLACE WATER PUMP
						- REPLACE FUEL AND WASTEGATE ACTUATORS
						- REPAIR HYDRAX OIL LEAK
						- REFILL WITH COOLANT
						- CLEAN UP
						- TRAVEL BACK TO FORT ST. JOHN
						- DID PARTS CORE/CREDIT RETURNS
						06/03/05 - ROD / DAN-----
						- PICK UP PARTS
						- TRAVEL TO LOCATION
						- SIGN IN AND GET WORK PERMITS
						- DATA LOG ENGINE
						- SHUT DOWN
						- SET VALVE LASH ON GAVS THAT WERE OUT
						- CHECK AND SET VALVES ON CYLINDER #3 DUE TO
						NOISY VALVE LASH AND CYLINDER #6 DUE TO HIGH
						PYRO TEMPERATURE
						- CHANGE PYRO LEAD ON CYLINDER #6
						- RESTART UNIT
						- SET UP UNIT AT 50% LOAD - MONITORED
						- PAINT ENGINE
						- CLEAN UP
						- TRAVEL BACK TO FORT ST. JOHN

						8,482.77 ** REPLACE FUEL AND WASTEGATE ACTUATOR FOR
						LEAKING. **
						111.00 LOAD & UNLOAD 3612 ENGINE SKID
						(2,395.00) ** ADJUST FOR CUSTOMER LOYALTY RATE REDUCTION. **
						(239.5 HOURS X \$10/HOUR = \$2395.00)
						WO Total: 53,848.03
						496.00 ** CHECK AND ADJUST ENGINE IF REQUIRED. **
						10/05/04 - ROD -----
						- SET ENGINE BURN TIMES

						WO Total: 496.00
						4,793.31 ** CUSTOMER PORTION OF CYLINDER HEAD REPLACEMENT
						(NOT COVERED BY WARRANTY). **
						WO Total: 4,793.31
						3,160.10 ** REMOVE AND INSTALL CYLINDER HEADS. **
						AUTHORIZATION NUMBER "CSC" AS PER RAYMOND SIMPKINS
						WO Total: 3,160.10
						1,238.00 ** TRAVEL TIME AND MILEAGE. **
						SAFETY ASPECTS -----
						- ENSURE PARTS ARE SECURE IN SERVICE TRUCK
						- ENSURE ALL CABINET DOORS ARE SECURE FOR TRAVEL
						- PERFORM WALK AROUND INSPECTION (LUG NUT
						INDICATORS, ETC.)

9413983 - 02 C 010 1052

19,464.35 ** REMOVE AND REPLACE RIGHTHAND TURBOCHARGER. **

01/04/03 - BERNIE & TIM

- ENSURE ALL ROAD SIGNS ARE OBEYED
- ENSURE MAN-CHECK IS USED
- TRAVEL FROM FORT ST. JOHN TO JOBSITE
- QUESTIONED MARTY IF HE HAD MEASURED THE TURBO SHAFT END AND SIDE PLAY ON THE RIGHTHAND TURBO
- HE HAD TAKEN THE MEASUREMENTS
- 0.006" END PLAY
- 0.022" VERTICAL
- 0.020" SIDE PLAY
- THESE MEASUREMENTS ARE WITHIN SPEC
- REMOVED INSPECTION DOOR ON EXHAUST SIDE AND BORESCOPED THE TURBINE
- FOUND NO SIGNS OF DAMAGE
- REMOVED WASTEGATE FOR INSPECTION
- NO PROBLEMS FOUND
- REMOVED EXHAUST BLANKETS
- FOUND A VERY LARGE HOLE IN THE BELLOW
- DECIDED THIS WAS MOST LIKELY THE CAUSE OF THE HIGH RIGHT STACK TEMP
- INSTALLED WASTEGATE, LINKAGE, AND BLANKETS
- STARTED UNIT
- STACK TEMPERATURE AS 530F AND RISING
- REMOVED BELLOW BLANKET
- TEMPERATURE DROPPED BELOW 500F
- NOTICED THAT #4 PYRO TEMPERATURE WAS 603F
- SHUT DOWN UNIT
- PERFORMED COMPRESSION TEST ON CYLINDER #4
- ONLY HAD 140 PSI COMPRESSION PRESSURE
- SHOULD BE IN THE 190-210 PSI RANGE
- DOUBLE-CHECKED COMPRESSION TESTER OPERATION BY TESTING CYLINDER #6
- TESTER WORKED FINE
- BORESCOPED CYLINDER #4 THROUGH THE COMBUSTION PROBE
- NOTED A SMALL TORCH MARK ON THE EXHAUST MANIFOLD SIDE EXHAUST VALVE
- CONSULTED WITH MARTY
- HE WISHED TO CHANGE THE HEAD
- TALKED TO PARTS DEPARTMENT
- DID NOT HAVE A HEAD IN FORT ST. JOHN, BUT DID HAVE ONE IN EDMONTON
- MARTY WISHED TO BRING IN THE ONE FROM EDMONTON
- A HOTSHOT WAS ARRANGED AND THE HEAD WAS SENT
- CHANGED EXHAUST BELLOW
- INSTALL EXHAUST BELLOW BLANKET

- START UNIT SO IT COULD RUN UNTIL THE HEAD
ARRIVED
- DON ADVISED NOT CONTINUING TO WORK AND OTHER
ARRANGEMENTS WERE MADE TO COMPLETE THE JOB
- TRAVEL FROM JOBSITE BACK TO FORT ST. JOHN
01/05/03 - SAM -----
- CALLED OUT TO GO TO LADYERN
- TRAVEL TO SHOP
- LOAD TOOLING AND PARTS
- START TRAVELING TO JOBSITE, BUT HALF WAY TO THE
SITE, GOT CALL TO HOLD OFF UNTIL MONDAY
- TRAVEL BACK
01/06/02 - SAM & TIM -----
- TRAVEL FROM FORT ST. JOHN TO JOBSITE
- CHECK UNIT K-400 FOR OPEN IGNITION ON #3
ACCORDING TO MARTY
- UNLOAD TOOLING AND PARTS
- DRAIN COOLANT
- REMOVE CYLINDER HEAD
- CLEAN SURFACES
- CLEAN NEW HEAD
- INSTALL NEW FIRE RING
- CLEAN TOOL MARK FROM WHERE SURFACING TOOL FOR
FIRE RING AREA
- INSTALLED ALL NEW O-RINGS
- INSTALL HEAD WITH 5800 PSI
- TORQUE HEAD STUDS TO 85 FT/LBS
- CLEAN PRE-CHAMBER AND INSTALL
- TORQUE BOLTS TO 56 FT/LBS
- DISMANTLE AND CLEAN CHECK VALVE
- INSTALL NEW O-RING AND SEAL WASHER
- SET VALVES AND GAUGES
- INSTALL COOLANT PIPES
- HAD TO RE-USE TWO O-RINGS ON PIPES AS WE NEED
FOUR AND ONLY TWO ARE SHIPPED WITH GASKET SET
- INSTALLED NEW PYROMETER ADAPTER FROM TRUCK STOCK
- INSTALLED PYRO LEAD AND COMBUSTION PROBE FROM
CUSTOMER STOCK
- RE-FILLED COOLANT
- START AND WARM ENGINE
- LOAD ENGINE
- NOTICED CUSTOMER'S PANEL DROPS RPM BACK TO
600 RPM WHEN GOVERNOR CONTROL IS PUT INTO AUTO
LOAD
- MARTY IS GOING TO SEE IF HE CAN RE-PROGRAM TO
KEEP RPM AT 850
- ENGINE WILL PERFORM BETTER AND LOAD IN A MORE

DATE	TIME	LOCATION	DESCRIPTION	STATUS	REMARKS
0865800	21-Jan-02	2611	3716281 - 01	C 023	1289
WO Total: 20,702.35					
-TRAVEL AND MILEAGE					
-REPAIR HYDRAX SYSTEM PROBLEM					
0865800	24-Dec-01	1989	3715963 - 01	C 056	1000
WO Total: 3,194.85					
-TRAVEL AND MILEAGE TO HAMBURG SITE					
-REPAIR/REPLACE EXHAUST BELLOWS (PACKAGER SUPPLIED PART-NON CAT)					
-REPLACE DAMAGED EXHAUST BLANKET					
-CUSTOMER CHARGES FOR WARRANTY NOT COVERED BY CAT					
0865800	05-Nov-01	1114	3715379 - 50	C 001	1716
WO Total: 17,695.50					
-TRAVEL AND MILEAGE					
-REPAIR HYDRAX LEAK AT WASTEGATE ACTUATOR					
-SUPPLY HYDRAX PRESSURE SWITCH (CUSTOMER INSTALLED)					
-MEALS					
0865800	21-Sep-01	206	3714910 - 50	C 023	1900
WO Total: 2,048.27					
-TRAVEL AND MILEAGE					
-REPAIR ENGINE SURGING					
-REPORT OF ENGINE SURGE AT 850 RPM.					
-FOUND FUEL PRESSURE TO MAIN SCRUBBER AT 150 PSI.					
THIS IS THE MAXIMUM THAT THE FISHER REGULATOR					
WILL HANDLE AND ANY SPIKES WOULD BYPASS THE					
REGULATOR.					
-ADJUSTED FUEL PRESSURE AT BIG JOE REGULATOR TO					
120 PSI. UNIT SURGE GONE.					
*** THIS IS NOT CAT WARRANTY ***					
2545000	23-Aug-01	0	3612001 - 01	C 023	1052
WO Total: 597.76					
-REPAIR TURBOCHARGER					
-BRANCH 83 TO REPAIR TURBOCHARGER					
PLEASE SUPPLY QUOTE TO ROLAND DIEHL					

RFR: 83-95165 OPENED AS PER CASEY

REPAIR 2 TURBOS
-
PLEASE QUOTE

08.23.01 CT

CLOSED AUG 30.01 CT

0865800	21-Aug-01	31	3714577 - 02	C 023	1000	SRBVP46	SRBVL46	SRBYM46	WO Total:	15,666.00	4,800.59 -CUSTOMER RELATED CHARGES/DELAYS.
			3714577 - 46	C 051	1000						6,150.95 -TRAVEL TIME AND LABOUR FOR BRANCH 46 ENGINE COMMISSIONING.
			3714577 - 47	C 540	7590	EPONCAW	EPONCAW	EPONCAW	WO Total:	18,958.54	8,007.00 PERFORM ENGINE COMMISSIONING AND TRAVEL
5777500	17-Nov-00	0	7312319 - 01	C 756	1000	WTYPE12	WTYPE12	WTYPE12		238.13 TRAVEL TIME AND MILEAGE	
			7312319 - 02	C 595	1307	WTYPE12	WTYPE12	WTYPE12	WO Total:	222.63 INSTALL HYDRAX LINE UP DATE	
										460.76	