

FO3-2
MAY

SERVICE INVOICE: RA812007117:02



FTCI - Prince George - Freightliner
A Division of Velocity Vehicle Group
1015 GREAT STREET PRINCE
GEORGE, BC V2N 2K8
(250) 563 - 0696

Please Remit Payment to:
FTCI - Prince George -
Freightliner
11313 - 170 STREET
EDMONTON, AB T5M 3P5

Date Arrived: 08/14/2024
Date Invoiced: 09/12/2024
SalesType: SWD
PO No: 0B 1 - RENE GEN TIME
Terms: 30
Advisor: KIRSTEN PETERSEN
Email: kpetersen@vvgtruck.ca
Salesman: KIRSTEN PETERSEN
Reviewer: TRISTIN SUTTON

BILL TO
WARRANTY REC - DETROIT - &SWD

DELIVER TO
4 EVERGREEN RESOURCES LP
2244 ATOOSKEE WIN ROAD
, BOX 45
MOBERLY LAKE BC V0C 1X0

VIN: 5KKPALD13KPKV5816 Fleet Unit #: 178
Year/Make/Model: 2019 WESTERN STAR 4900SA
Engine Model / Serial#: DD16 / 473910S0636766
Trans Model / Serial#: FO-22E318B / K1311292
Front Axle Model / Serial#: MFS-20 / MON03710822
Rear FWD Axle Model / Serial#:
Rear Rear Axle Model / Serial#: RZ-69-166 /

Mileage: 558877
Body ID#:
License#:
Axle Ratio: 4.89
Tag#:
Selling Dealer:
Date In Svc: 02/11/2019

JOB #3 05 SWD

Menu Items

CLAIM NUMBER# **DJCD2024A957T**
COMPLAINT OIL IN COOLANT DIAG AND ADVISE.
CAUSE #5 AND #6 UPPER LINER SEALS LEAKING; HEAD GASKET FAILURE

Warranty Pending

BRING DISABLED UNIT IN TO SHOP

OPENED HOOD AND CHECKED OIL LEVEL - AT FULL MARK AND OIL OBSERVED IN THE SURGE TANK

PRINTED CODES

PERFORMED RELATIVE COMPRESSION TEST X3

ALL HOLD ABOVE 90% ON ALL 3 TESTS, OK

STEAM CLEANED ENGINE COMPARTMENT, OIL LEAKING OUT SURGE TANK CAP HUGE MESS ON HOT SIDE

DRAINED COOLANT

REMOVED OIL COOLANT MODULE, OIL COOLER ELEMENT

INSTALLED COOLER TEST PLATES, PRESSURE TESTED AND FOUND NO LEAKS

CYL HEAD NEEDS TO BE REMOVED TO INSPECT HEAD GASKET

REMOVED CYLINDER HEAD AND INSPECTED HEAD GASKET

CENTER OIL GALLERY SEAL IS SPLIT AND 3 LEFT SIDE COOLANT PASSAGE SEALS DAMAGED TOO

11 OF 24 VALVE STEM SEALS ARE PUSHED OFF OF THE VALVE GUIDES

CLEAN DECK FOR PROTRUSION AND UPPER LINER PRESSURE TEST

MEASURED PROTRUSION - ALL PASS

PERFORMED CYLINDER LINER UPPER O RING PRESSURE TEST - #5 AND #6 UPPER LINER SEALS ARE LEAKING

REMOVED SKID PLATE FOR ACCESS

REMOVED PISTONS, CON ROD ASSEMBLIES AND LINERS

INSPECTED LINERS 5 AND 6 AS NEEDED FOUND BOTH NEED REPLACEMENT FOR LEAKAGE AT THE UPPER

LINER O RING GROOVES

PISTONS, RINGS AND CON ROD BEARINGS MEET REUSE GUIDELINES PER SERVICE MANUAL

STRIPPED CYLINDER HEAD FOR CLEANING AND TO SERVICE THE 11 VALVE SEALS

CAN NOT FIND REASON TO REPLACE CYL HEAD AT THIS TIME. CLEAN FOR REUSE.

REMOVED INJ CUPS, STEAM CLEAN HEAD AND DRIED

CLEANED OIL COOLANT MODULES, INSTALLED OIL COOLER ELEMENT AND ASSEMBLED

MASKED OFF FRONT 4 HOLES, PLUGGED LINER BORES AND CLEANED UPPER LINE SEAL SURFACE ON BLOCK.

COVERED BLOCK

CLEANED INTAKE MANIFOLD, EGR VENTURI, EXH MANIFOLD, COOLANT COLLECTOR, CAM BOX, FUEL RAIL

INSTALLED NEW LINERS, VERIFIED PROTRUSION

CLEANED PARTS FOR PISTON AND CON ROD REUSE, ASSEMBLED WITH NEW CON ROD BEARINGS

REPLACED VALVE STEM SEALS X11 PLUS 1 ADDITIONAL THAT ALSO REQUIRED REPLACED (LIFTED 2MM

FROM SEAT)

INSTALLED 6 NEW INJ CUP O RINGS AND INJ CUPS, CONTINUED REASSEMBLY FOR CYL HEAD INSTALL

INSTALLED CYL HEAD AND CONTINUED REASSEMBLY OF REMOVED COMPONENTS

REPLACED CONTAMINATED COOLANT LINES, FINISHED ENGINE REASSEMBLED

CLEANED AND INSTALLED OIL PAN

PRIMED OIL AND FUEL SYSTEM

FLUSHED COOLING SYSTEM AND DRAINED 3 TIMES UNTIL CONTAMINATION REMOVED

REPLACED BROKEN COOLANT LINES TO COMPRESSOR

INSTALLED NEW COOLANT

COMPLETE

REMOVE OIL COOLANT MODULE - 1.5

PROTRUSION CHECK INCLUDING CLEANING THAT NEEDED TO BE DONE TO INSTALL REQUIRED

TOOLING/AVOID CONTAMINATION - 2 HOURS

REMOVE SKID PAN INCLUDING REINSTALL AFTER REPAIR COMPLETION - 1.0

INSPECT LINERS AFTER REMOVAL - 1.0

STRIP CYLINDER HEAD AND PREPARE FOR CLEANING, CLEAN AND DRY - 3

WASH OIL PAN - 0.5

REMOVE INJECTOR CUPS TO REPLACE O RINGS - 1.0

CLEAN OIL COOLANT MODULE FOR REINSTALL - 0.5

COOLANT FLUSHED 4 TIMES

QTY	ITEM	DESCRIPTION
1	812D/DE A0000701432	FUEL LINE KT
1	812D/DE A0005460483	CLIP
2	812D/DE A0019950502	CLAMP - EGR PIPE
1	812D/DE A0071530228	PRESS SENSOR
4	812D/DE A0219901101	MOUNTING BOLT, TURBOCHARGER

QTY	ITEM	DESCRIPTION
1	812D/DDE A0309979045	O-RING, CYLINDER HEAD CLOSING
2	812D/DDE A4720111910	LINER KIT
1	812D/DDE A4720140322	SEAL
1	812D/DDE A4720162120	C/HD GSKT KT
2	812D/DDE A4720300624	RING SET
2	812D/DDE A4720300960	CONN ROD BRG
4	812D/DDE A4720380071	BOLT, CONNECTING ROD
6	812D/DDE A4720980080	MOUNTING SEAL, INTAKE MANIFOLD
1	812D/DDE A4720980480	SEAL - ADAPTER, INTAKE MANIFOL
1	812D/DDE A4720980880	MOUNTING SEAL, COLD BOOST PIPE
1	812D/DDE A4721420645	RETAIN STRAP
1	812D/DDE A4721421880	GASKET, EXHAUST MANIFOLD, CYL
1	812D/DDE A4721421980	GASKET, EXHAUST MANIFOLD, CYL
1	812D/DDE A4721841980	SEAL
2	812D/DDE A4721870880	O-RING, OIL SUCTION LINE
2	812D/DDE A4721870980	O-RING, OIL PRESSURE LINE
2	812D/DDE A4721881080	SEAL - OIL COOLER
1	812D/DDE A4721881480	GASKET - OIL MANIFOLD
1	812D/DDE A4722004251	A/C COOLANT RETURN LINE
1	812D/DDE A4722005052	LINE, COOLANT SUPPLY, ONE CYL
1	812D/DDE A4722030080	SEAL, COOLANT THERMOSTAT
1	812D/DDE A4722030880	GASKET - WATER MANIFOLD
1	812D/DDE A4722030980	GASKET - WATER MANIFOLD
1	812D/DDE A4730960480	METAL SEAL
1	812D/DDE A4731800909	TS OIL FILTER
6	812D/DDE N000000001069	SEALING RING, M14
2	812D/DDE N000000001071	SEALING RING - GENERAL USE
1	812D/DDE N000000001085	SEALING RING, M22
3	812D/DDE N910105008005	BOLT
3	812D/DDE N910105008011	SCREW, M8 X 20
1	812F/04-29920-000	FITTING-SV246 NG12 - 3/4IN. MP
1	812F/04-29923-003	FITTING-SV246 NG12 - M16X1.5
1	812F/05-16836-204	HOSE-ECR,2.50 INCH ID, 4 INCHE
1	812F/05-16836-205	HOSE-ECR,2.50 INCH ID, 5 INCHE
1	812F/05-22451-003	HOSE-ELBOW,ECR
12	812F/23-09796-609	TIE STRAP (LARGE) TY27MX
1	812F/23-12240-058	SPACER-AL,.375 ID.75 O
1	812F/A04-32185-462	TUBE ASSY-COOLANT,SPLY,DD15
1	812F/A04-32186-461	TUBE ASSY-COOLANT,RTN,DD15
4	812V/BRZ CT 300 L SS	CLAMP-CT,HOSE,2 1/4-3 1/8,5/8
6	812V/FLF FRE5515 250C TEMP	SLEEVE HOSE SLV SDR BLU 2.50IN
2	812V/SLL 550045128	OIL, Rot T4 Trip Prot 15W-40,
2	812V/SLL 550045135	OIL, Rot T4 Trip 15W-40, CK4 5
2	812X/LOCMR CLEAN	ENG FLUSH MR.CLEAN
4	812X/NL TS16R-10	RUB CUSH T STRP;5/8 T OD(16MM)
2	812X/NL TS16R-14	RUBBER CUSH T STRP;7/8 (22MM)
1	812X/NL TS16R-18	RUBBER CUSH T STRP1-1/8 (28MM)
1	812X/PEX 59903	ULTRA GREY GASKET MAKER 599BR-
2	812X/REC 16-734	COOLANT HDX PREM XL CONC
8	812X/REC 16-834	EXT LIFE CLT 50/50 PREMIX - R
1	BCE001	ENVIRO CHARGE 1 LT CONTAINER
10	BCE004	ENVIRO CHARGE 4LT CONTAINER
2	BCE005	ENVIRO CHARGE 5L CONTAINER
2	BCE020	ENVIRO CHARGE 20 LT PAIL
1	BCEF2	ENVIRO CHARGE FILTER OVER 200MM
1	BCEF3	ENVIRO CHARGE FILTER KIT

QTY	ITEM	DESCRIPTION
	C	*** PRICED PER INCH ***
1	IBFRT	INBOUND FREIGHT
1	IBFRT	INBOUND FREIGHT (DDE A4720111910,DDE A4720162120)
	VMRS	045-002-016-18-03-00-00
	VMRS	045-007-007-41-03-00-00
-1	WPTCOS	ENVIRO

JOB #5 05 SWD Menu Items

COMPLAINT HELICOIL 3 INJ PASS THROUGH BOLTS
 CAUSE done
 CORRECTION COMPLETED ON JOB 3

QTY	ITEM	DESCRIPTION
-----	------	-------------

JOB #32 00A SWD Additional Repairs (Add On Op)

CLAIM NUMBER# **DJCD2024A941T**

COMPLAINT VALVE STEM SEALS X12 COMING OFF GUIDES - DISCOVERED DURING ENGINE REPAIR
 SEPERATE FAILURE SEE OP3 FOR ORIGINAL CUSTOMER APPROVALS
 CAUSE VALVE STEM SEALS PUSHED OFF VALVE GUIDES X12
 CORRECTION FOUND 11 OF THE 24 VALVE STEM SEALS ARE PUSHED OFF THE VALVE GUIDES.
 REPLACED THE 11 VALVE STEM SEALS AS PER THE WORKSHOP MANUAL, TOOK A REAL CLOSE LOOK AT THE
 OTHER SEALS AND FOUND ONE WAS LIFTED UP ABOUT 2 MM FROM THE SEAT, REMOVED AND REPLACED
 THIS ONE TOO. I REPLACED 12 IN TOTAL ACROSS ALL CYLINDERS

QTY	ITEM	DESCRIPTION
12	812D/DDE A4700530158	OIL SEAL, VALVE STEM
1	HAZMAT	HAZMAT - DISPOSAL
	VMRS	045-008-042-46-03-00-00
1	wptcos	[[Warranty Only]]

JOB #33 00A SWD Additional Repairs (Add On Op)

CLAIM NUMBER# **DJCD2024A956T**

COMPLAINT DIAGNOSE AND ADVISE FOR FUEL LEAKING OUT EXHAUST PIPE DURING REGEN AFTER 1 BOX REPLACED
 - SEPERATE FAILURE, SEE OP1 FOR ORIGINAL CUSTOMER AUTHORIZATION
 CAUSE FUEL DOSER INJECTOR LEAKING
 CORRECTION WHILE COMPLETING REGEN AFTER 1 BOX REPLACEMENT THE DPF INLET TEMP WAS TOO HIGH AND THERE
 WAS FUEL LEAKING OUT THE EXHAUST
 REMOVED HOT PIPE, NO FUEL FOUND
 CHECKED FUEL DOSER INJECTOR, DRIPPING
 REPLACED FUEL DOSER INJECTOR AND TESTED
 GOOD

QTY	ITEM	DESCRIPTION
1	812D/DDE A4720700746	INJ VALVE
	VMRS	043-006-026-18-03-00-00

Warranty Pending

ANY WARRANTIES ON THE PRODUCTS SOLD HEREBY ARE THOSE MADE BY MANUFACTURER, IF ANY. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THE SELLER HEREBY EXPRESSLY DISCLAIMS ALL WARRANTIES EITHER EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND THE COMPANY NEITHER ASSUMES NOR AUTHORIZES ANY OTHER PERSON TO ASSUME FOR IT ANY LIABILITY IN CONNECTION WITH THE SALE OF SAID PRODUCTS WHICH ARE SOLD AS IS AND WITH ALL FAULTS.

WE HEREBY CERTIFY THAT THESE GOODS WERE PRODUCED IN COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS OF SECTIONS 6, 7 AND 12 OF THE FAIR LABOR STANDARDS ACT OF 1938, AS AMENDED AND OF REGULATIONS AND ORDERS OF THE ADMINISTRATOR OR WAGE AND HOUR DIVISION ISSUED UNDER SECTION 14 THEREOF.

CLIENT AGREES THAT JURISDICTION AND VENUE OF ANY DISPUTE, CLAIMS OR LAWSUITS BETWEEN CLIENT AND THE COMPANY REGARDING ANY MATTER, INCLUDING, BUT NOT LIMITED TO SERVICES PROVIDED OR GOODS SOLD BY THE COMPANY TO CLIENT OR ON CLIENT'S BEHALF, SHALL BE EXCLUSIVELY IN THE STATE AND COUNTY THE REPAIR WAS PERFORMED. AGREES TO BE SUBJECT TO THE JURISDICTION OF STATE AND COUNTY IN ANY SUCH DISPUTE.

PLEASE READ TERMS AND CONDITIONS ON THE NEXT PAGE SIDE BEFORE SIGNING.

AUTHORIZED BY _____ DATE _____

- (1) OUR TERMS ARE PAYMENT ON DELIVERY@SERVICE CHARGE OF 1 1/2% PER MONTH (18% PER ANNUM) RECEIVED WITH 30 DAYS OF INVOICE DATE. IF VVG HAS EXTENDED CREDIT TERMS, PAYMENT IS DUE PER THE CREDIT ARRANGEMENT. IN THE EVENT LEGAL ACTION IS REQUIRED TO ENFORCE PAYMENT, CUSTOMER AGREES TO PAY VVG ALL COURT COSTS AND ATTORNEY FEES
- (2) A 20% RESTOCKING CHARGE WILL BE CHARGED ON ALL ITEMS RETURNED.
- (3) ALL REQUESTS FOR RETURN MUST BE:
 - A. IN ORIGINAL CLEAN CARTON
 - B. UNUSED
 - C. WITHIN 30 DAYS OF INVOICE DATE, AND ACCOMPANIED BY A COPY OF THE INVOICE.
- (4) NO ELECTRICAL ITEMS MAY BE RETURNED.
- (5) NO SPECIAL ORDER ITEMS MAY BE RETURNED.
- (6) ALL PARTS SOLD AND/OR INSTALLED BY VVG ARE WARRANTEED BY THE MANUFACTURER. VVG ACCEPTS NO RESPONSIBILITY FOR FIT, TYPE, OR QUALITY OF ANY VENDOR ITEM.
- (7) KITS AND SETS ARE NOT RETURNABLE IF CARTON IS OPENED
- (8) CORES MUST BE RETURNED WITH 5 WORKING DAYS OF INVOICE DATE AND ACCOMPANIED BY A COPY OF THE INVOICE. CORES MUST BE DRAINED, ASSEMBLED AND IN ORIGINAL CARTON
- (9) ALL SPECIAL ORDERED PARTS THAT YOU HAVE MADE A DEPOSIT ON MUST BE PICKED-UP WITH 10 DAYS YOUR DEPOSIT IS FORFEITED.
- (10) VVG IS NOT RESPONSIBLE FOR LOST INCOME OF ANY TYPE WHICH RESULTS FROM A UNITS NON-OPERATION WHILE BEING REPAIRED. THE DEALER IS NOT RESPONSIBLE FOR UNAVAILABILITY OF PARTS OR DELAYS IN PARTS SHIPMENT BEYOND DEALER'S CONTROL.
- (11) ALL RETURNED CHECKS ARE SUBJECT TO A \$35.00 HANDLING FEE
- (12) LABOR WARRANTY IS 45 DAYS
- (13) VVG IS NOT RESPONSIBLE FOR LOSS OR DAMAGE TO THE VEHICLE OR ITS CONTENTS DUE TO COLLISION NOT DUE TO ITS NEGLIGENCE; OR DUE TO THEFT OR OTHER CASUALTY REGARDLESS OF WHETHER OR NOT SUCH FIRE, THEFT OR OTHER CASUALTY IS DUE TO ITS NEGLIGENCE
- (14) CUSTOMER STATES NO ARTICLES OF PERSONAL PROPERTY HAVE BEEN LEFT IN THE VEHICLE AND DEALER IS NOT RESPONSIBLE FOR INSPECTION THEREOF
- (15) DUE TO THE TYPE OF SERVICE REQUESTED SOME REPAIRS MUST BE SUBLET
- (16) IF THE VEHICLE DESCRIBED HEREIN IS NOT CALLED FOR WITHIN THREE (3) DAYS AFTER SUCH NOTICE IS GIVEN, A STORAGE CHARGE OF \$25.00 PER DAY WILL BE MADE FOR EACH DAY THEREAFTER
- (17) SAID DEALER IS AUTHORIZED TO DELIVER THE VEHICLE DESCRIBED HEREIN OR ANY OF ITS CONTENTS TO ANY PERSON PRESENTING THIS RECEIPT