Invoice Date:	08-08-25		
Due	\$7,000.16		
Make	AA		
Model	299D2 XHP		
Serial #	*CAT0299DEDX200579		
Equip No			
Machine ID	C71795		
Meter Reading	3199.0		
PSOWO	WF4923		

		SWILL SAY TO		Doc Date	Salesman	Division	Store	Terms
				07-28-25	856	G	08	2
Quantity	Item		Description Unit Price			Extension		

## TROUBLESHOOT ENGINE COOLING SYSTEM

CUSTOMER COMPLAINT: ENGINE OVERHEATING. CAUSE OF FAILURE: UNKNOWN RESULTANT DAMAGE: UNKNOWN REPAIR PROCESS COMMENTS: INSPECT COOLING SYSTEM FOR LEAKS. FOUND NO LEAKS AND SYSTEM WAS FULL OF COOLANT. RUN MACHINE 30 MIN. IN SHOP WITH A/C ON DID NOT OVERHEAT. HOOK UP ET AND CHECK FOR CODES. NO ACTIVE CODES PRESENT DID HAVE LOGGED EVENT 361-3 FOR OVERHEATING. DROVE MACHINE OUT SIDE IN RABBIT MODE FOR 30 MIN. DID NOT OVERHEAT. LATTER THAT DAY RAN MACHINE OUT SIDE WHEN AMBIENT TEMP. WAS 99 F. ENGINE OVERHEATED AND SET CODE 361-3. VERIFIED ENGINE TEMP WITH TEMP. GUN AT SENSOR LOCATION. PERFORM FAN SPEED CALIBRATION PROCEDURE. TESTED MACHINE AGAIN STILL OVERHEATED. REMOVED THERMOSTAT AND PERFORMED TEST (104793510)
RESULTS THERMOSTAT DID NOT MEET FACTORY SPECIFICATION. REPLACED THERMOSTAT AND TESTED MACHINE AGAIN. RESULTS STILL OVERHEATED. DURING TEST DRIVE ENGINE SHUT DOWN AND SET CODE 523612-5 FOR PRE STROKE CONTROL VALVE CURRENT BELOW NORMAL. T/S THAT CODE AND FOUND OPEN IN ENGINE HARNESS BETWEEN ECM AND VALVE. T/S HARNESS FOUND A FUEL LEAK AT #4 INJECTOR LINE AT FUEL RAIL CONNECTION. MADE REPAIRS IN THE FOLLOWING SEGMENTS. \*\*\*DAVID WAMBLE \*\*\*

TOTAL LABOR SEG. 01

SEGMENT 01 TOTAL

REPLACE THERMOSTAT/WATER TEMP REG

INVOICE NUMBER:

Invoice Date:

08-08-25

Due

\$7,000,16

299D2 XHP

AA

Model

Serial #

Make

\*CAT0299DEDX200579

Equip No

Machine ID

C71795

Meter Reading

3199.0

PSO/WO

WF49234

Doc Date	Salesman	Division	Store	Terms
07-28-25	856	G	08	2

Quantity

Item

Description

Unit Price

Extension

CUSTOMER COMPLAINT: ENGINE OVERHEATING. CAUSE OF FAILURE: UNKNOWN RESULTANT DAMAGE: UNKNOWN REPAIR PROCESS COMMENTS: DRAIN COOLING SYSTEM IN CLEAN PAN. CHECK FREEZE POINT & BOILING POINT. RESULTS COOLANT WAS IN GOOD CONDITION.
DISCONNECT RADIATOR FROM THERMOSTAT HOUSING.
REMOVE THERMOSTAT, CLEAN GASKET SURFACES. INSTALL NEW THERMOSTAT & GASKET. VACUUM FILL COOLING SYSTEM WITH SAVED COOLANT. \*\*\*DAVID WAMBLE \*\*\*

1 389-5305 1 389-5308

GASKET

S

REGULATOR AS

SEG. 0

TOTAL PARTS TOTAL LABOR

SEG. 0

SEGMENT 02 TOTAL

#### REPLACE OUICK COUPLER

2 5B-0651

CUSTOMER COMPLAINT: DIFFICULT TO OPERATE. CAUSE OF FAILURE: SPRINGS DID NOT RETRACT PINS ALL THE WAY. PIN BORE VOID OF GREASE. RESULTANT DAMAGE: PIN BORES ROUGH & RUSTED REPAIR PROCESS COMMENTS: REMOVE LEFT AND RIGHT COUPLER LOCK ASSEMBLES. FOUND LOCK PINS WORN, SPRINGS COLLAPSED, WASHERS HAD FLAT SPOTS WORN ON TOP. GREASE FITTINGS FOR PINS DID NOT TAKE GREASE. REPLACED WORN ASSEMBLIES AND GREASE FITTINGS. HAD TO RETAP ONE THREADED HOLE FOR GREASE FITTING. HOOK UP TWO DIFFERENT ATTACHMENTS COUPLER OPERATION WAS NORMAL. \*\*\*DAVID WAMBLE \*\*\*

FITTING

INVOICE NUMBER: 08-08-25 Invoice Date: \$7,000.16 Due AA Make 299D2 XHP Model \*CAT0299DEDX200579 Serial # Equip No C71795 Machine ID 3199.0 Meter Reading WF49234 **PSO/WO** 

Terms

Customer# PO#		Doc Date	Salesman	Division	- Indiana de la company	ALCOHOLD STREET
9065000 6525692		07-28-25	856	G	08	2
Quantity Item	Desc	ription		Unit Price	)	Extension
2 6V-7744 2 8T-4172 2 192-2645 4 310-6660	LOCKNUT BOLT SPRING PIN-SPRING	S S N				

PIN-SPRING S
WASHER N
HANDLE N
HANDLE N
PLATE N
PIN N

TOTAL PARTS SEG. (

TOTAL LABOR

SEGMENT 03 TOTAL

#### REPLACE FUEL INJECTION LINES

315-5493

345-5132

345-5135

388-7978

424-5546

6

1

1

2

CUSTOMER COMPLAINT: FUEL LEAK
CAUSE OF FAILURE: LINE WAS LOOSE WORE SEAT.
RESULTANT DAMAGE: LOSE OF FUEL
REPAIR PROCESS COMMENTS: REMOVE NECESSARY PARTS TO
GAIN ACCESS TO #4 FUEL LINE. REPLACE FUEL LINE AND
TORQUE CONNECTIONS TO 22 FT. LB.
START ENGINE AND CHECK FOR LEAK. RESULTS NO LEAK
PRESENT. \*\*\*DAVID WAMBLE \*\*\*

1 482-8438 PIPE-INJECTI N

TOTAL PARTS

SEG. (

SEG. (

TOTAL LABOR

SEG. (

SEGMENT 04 TOTAL

08-08-25

INVOICE NUMBER:

Invoice Date:

Due	\$7,000.16		
Make	AA		
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Meter Reading	3199.0		
PSOWO	WF49234		

Customer#	PO#	Doc Date	Salesman	Division	Store	Terms
9065000	6525692	07-28-25	856	G	08	2
Quantity	Item	Description		Unit Price		Extension

## REPAIR ENGINE WIRING HARNESS

CUSTOMER COMPLAINT: ENGINE SHUT DOWN.
CAUSE OF FAILURE: OPEN CIRCUIT TO PRE-STROKE
CONTROL VALVE.
RESULTANT DAMAGE: NONE.
REPAIR PROCESS COMMENTS: SOLDER & HEAT SHRINK WIRE
TO REPAIR OPEN CIRCUIT IN HARNESS. \*
WAMBLE\*\*\*

TOTAL LABOR

SEG. 05

SEGMENT 05 TOTAL

INVOICE NUMBER: Invoice Date:

Due \$7,000.16

08-08-25

AA Make 299D2 XHP Model \*CAT0299DEDX200579 Serial #

Equip No

Machine ID C71795 Meter Reading 3199.0

PSO/WO

WF49234

V,	Salesman	Division	Store	Terms
	856	G	08	2

07-28-25 856 G 08 2					- Control of Control	- Contraction - Contraction	The second second
Itality Item Description Unit Price Extension				07-28-25	856	G 08	2
	Quantity	Item	A STATE OF THE STA	Description		Unit Price	Extension

Parts	\$745.02
Labor	\$6,102.58
Misc.	\$152.56
Tax	\$0.00
TOTAL	\$7,000.16