

Specialists in Engine Power Systems

530 Santa Rosa Dr.  
Des Plaines, IL 60018  
Toll Free: (800) 842-4279  
Tel: (630) 834-6000  
Fax: (630) 543-4174

Customer Central States Diesel Generators

Address 2001 S. Prairie Ave. Phone \_\_\_\_\_

Town Waukesha State WI Zip 53189

Person Ordering Repairs Patrick Paden Title \_\_\_\_\_

Location of Work \_\_\_\_\_

CUSTOMER ORDER NO.	WORK SCHEDULED	MANUFACTURER	MODEL NO.	SERIAL NO.	SPEC. NO.
	<u>2017 / 11 / 02</u>	<u>Caterpillar</u>	<u>3412C</u>	<u>1EZ06907</u>	
PO# ISSUED BY	DATE COMPLETED	SERVICE SUPERVISOR	HOURMETER	DISPATCHED FROM	TERMS
	<u>2017 11 / 02</u>	<u>Pool</u>	<u>393.6</u>		

**WORK ORDERED**

Inspect Unit  
Perform 1-Hour Load-Bank Test

**SERVICE WORK PERFORMED**

Inspect outside of unit - no issues at this time; inspect unit (see attached) - hoses, belts, etc look good at this time; check fluid levels - ok; run unit - no leaks at this time; connect load bank and perform a one-hour load-bank test (see attached) - unit functions within manufacturer's specifications and no leaks noted at this time; unit appears to have been maintained above and beyond manufacturer's required intervals; records show unit was removed from a hospital; disconnect load bank and recheck all fluids - ok at this time; unit appears to be in excellent working condition.

COOLANT USED	LUBE OIL USED	FUEL USED	PARKING / TOLLS	MILEAGE ROUND TRIP
TIME IN		TIME OUT		

**FOLLOW UP REPAIRS NEEDED**


I hereby authorize the above repair work to be done along with necessary materials. You and your employees may operate above equipment for purposes of testing, inspection or delivery at my risk. An express mechanic's lien is acknowledged on above equipment to secure the amount of repairs thereto. You are not responsible for loss of or damage to the motor equipment or its contents due to collision not due to your negligence, or due to fire, theft or other casualty regardless of whether or not such fire, theft or other casualty is due to your negligence, and you and your agents are hereby released from any and all claims for such loss and damage.

Customer \_\_\_\_\_

Serviceman Randy Pool Branch \_\_\_\_\_

Authorized By \_\_\_\_\_ Date \_\_\_\_\_

Date Work Completed 2017.11.02

# Charles EQUIPMENT ENERGY SYSTEMS

530 Santa Rosa Dr, Des Plaines, IL 60018 Tel: (630) 834-6000 Fax: (630) 543-4174

RO# 4428	Customer Central States Diesel Generators
PO#	Address 2001 S. Prairie Ave. Waukesha, WI 53189
Date 2007.11.02	Attn:
Location of Work:	Cust# 2164 Phone:
Engine Make: Caterpillar	Model: 3412C S.N: 1EZ06907 Hours: 393.6
Type of Service Inspection/ Load-Bank Test	Total Miles R/T to site:

## PLANNED MAINTENANCE REPORT

<b>AIR INTAKE SYSTEM</b> Pre-cleaner element Clean/Replace <u>N/A</u> Air cleaner filter element Clean/Replace <u>OK</u> Air cleaner, oil bath Change <u>N/A</u>			<b>LUBE SYSTEM</b> Engine oil Change <u>N/A</u> Oil filter(s) Change <u>N/A</u> Oil filter seal Replace <u>N/A</u> Lube oil strainer element Clean <u>N/A</u> Oil cooler (oil side) Drain <u>N/A</u> Lube oil hoses Inspect <u>OK</u> Prelube pump Inspect <u>N/A</u> Crankcase breather Clean <u>OK</u> Oil separator Clean <u>OK</u> Engine lube oil level, make-up tank Fill <u>N/A</u> Crankcase oil level Check <u>OK</u> Engine oil analysis Sample <u>N/A</u>		
<b>COOLING SYSTEM</b> J.W. cooling system level Check <u>OK</u> J.W. cooling system protection (F°) Check <u>-38</u> J.W. water pump Lubricate <u>OK</u> J.W. water pump idler pulley Lubricate <u>N/A</u> J.W hoses(s) Inspect <u>OK</u> J.W. belt(s) Inspect <u>OK</u> Aux cooling system level Check <u>N/A</u> Aux cooling system protection (F°) Check <u>N/A</u> Aux water pump Lubricate <u>N/A</u> Aux hose (s) Inspect <u>N/A</u> Aux belt(s) Inspect <u>N/A</u> Radiator core Inspect <u>OK</u> Radiator bearing Inspect <u>N/A</u> Radiator cap Inspect <u>OK</u> Coolant analysis Sample <u>N/A</u>			<b>ADDITIONAL ITEMS</b> Control linkage Clean/Lubricate <u>OK</u> Governor rod ends Lubricate <u>OK</u> Governor synchronizer or speed control Adjust <u>OK</u> Exhaust piping/silencer/rain cap Check <u>OK</u> Block heater Check <u>NO LEAKS</u> Belt tension Check <u>OK</u> Battery terminals Clean <u>OK</u> Battery electrolyte Check/Fill <u>OK</u> Battery cranking voltage Check <u>OK</u> Battery charger voltage Check <u>OK</u> Battery cranking amperage Check <u>OK</u> Valves clearance Adjust <u>N/A</u> Valve cover gaskets Replace <u>N/A</u> Safety controls Test <u>OK</u> Turbocharger Inspect <u>OK</u> Engine mounting Check <u>OK</u> Generator bearings Lubricate <u>OK</u> (Follow manufacture maintenance guide)		
<b>FUEL SYSTEM (DIESEL)</b> Injectors Inspect <u>OK</u> Injection pump Inspect <u>OK</u> Fuel solenoid Check <u>OK</u> Fuel filters Clean/Replace <u>OK</u> Fuel lines Inspect <u>OK</u> Fuel transfer pump Inspect <u>OK</u> Fuel level Inspect <u>N/A</u> Fuel analysis Sample <u>N/A</u>			Test run unit, apply load if possible (Customer to supply operator) Inspect unit for any unusual noises or leaks Misc: _____ Misc: _____ Misc: _____ Misc: _____		
<b>FUEL SYSTEM (GAS)</b> Hand throttle open Check <u>N/A</u> Proper carb adjustment Check <u>N/A</u> Positive fuel pressure Check <u>N/A</u> Regulator operation Check <u>N/A</u> Electric shut off valve Check <u>N/A</u>					
<b>IGNITION SYSTEM</b> Spark plugs Replace/Regap <u>N/A</u> Ignition module harness Tighten <u>N/A</u> Ignition timing Check <u>N/A</u> Ignition cables, primary and secondary connections Inspect <u>N/A</u>					
Technician initials = Service complete    NFR = Needs follow up repair    NA = Not applicable					

Person Ordering Repairs: \_\_\_\_\_ Title: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

FIELD SERVICE NOTES: \_\_\_\_\_

RECOMMENDED FOLLOW-UP REPAIR: \_\_\_\_\_

COMPRESSION RESULTS:

1 L/B	2 L/B	3 L/B	4 L/B	5 L/B	6 L/B	7 L/B	8 L/B
1 R/B	2 R/B	3 R/B	4 R/B	5 R/B	6 R/B	7 R/B	8 R/B

Technician Signature: Randy Pool Date: 2017.11.02

TIME IN: \_\_\_\_\_ TIME OUT: \_\_\_\_\_

**CHARLES EQUIPMENT ENERGY SYSTEMS**

**LOAD BANK TESTING**

Customer: Central States Diesel Generators CSDG STK#2164  
 Address: 2001 S Prairie Ave (Door 26)  
 City/ State/ Zip Waukesha/ WI/ 53189  
 Contact: Patrick Paden  
 Phone: 262-955-7655

R#: 4428  
 Test Date 11/2/2017

Engine Make/ Model: Caterpillar 3412  
 Engine Spec/ Serial: 1EZ06907  
 Unit Make/ Model: Caterpillar 3412  
 Unit Spec/ Serial: AFR00604

Voltage: 277/480  
 Amperage: 1129  
 Kilowatts: 750  
 Power Factor 0.8

	5 Min.	15 Min.	30 Min.	45 Min.	1 Hour	Cool Down
Eng Hours	393.6	393.8	394.1	394.3	394.6	394.7
Hertz/Cycles	60	60	60	60	60	60
Voltage PH1	479	479	479	479	479	479
PH2	481	481	481	481	481	481
PH3	478	479	478	479	478	478
Amperage PH1	0	902	903	903	903	0
PH2	0	903	902	902	903	0
PH3	0	903	902	903	902	0
Kilowatts	0	750	750	750	750	0
Oil Pressure	65	63	63	63	63	64
Oil Temperature						
Coolant Temperature	175°F	177°F	177°F	177°F	177°F	175°F
Man Vac./Press. L/B						
Man Vac./Press. R/B						
L/B Exhaust Temp						
R/B Exhaust Temp						
Exhaust Temperature	289°F	548°F	635°F	632°F	633°F	228°F
DC Voltage	27.1	27.1	27.1	27.1	27.1	27.1
Natural Gas Pressure	N/A	N/A	N/A	N/A	N/A	N/A
Diesel Fuel Level	REMOTE FUEL TANK					
Room Temperature	N/A	N/A	N/A	N/A	N/A	N/A
Ambient Temperature	41°F	41°F	42°F	42°F	42°F	43°F

Cable Length: \_\_\_\_\_

Cable/ Leg: \_\_\_\_\_

Connection Point: \_\_\_\_\_

Technician Signature: Randy P.

Customer Signature: \_\_\_\_\_