Unit	
06VF200204 NEODESHA FIRE 638	
EQUIPMENT MAKE	SUTPHEN
EQUIPMENT MODEL	FIRE TRUCK
ENGINE MAKE	DETROIT DIESEL
EQUIPMENT S/N (VIN)	1S9A7LBD9P2003081
DELIVERY DATE	1993
EQUIPMENT UNIT #	638
LOCATION:	80677B45
EQUIPMENT MAKE	SUTPEN
EQUIPMENT MODEL	FIRE TRUCK
ENGINE MAKE	DETROIT
ENGINE MODEL	8067-7B45

Arrival Time: 11/06/12 11:40 Close Time: 1/31/13 11:14

**********SET UP**********

ENG HRS: VEH MILES: 90208 TRUCK#:638

INHIBITOR LEVEL(in) PPM KEY#:

INHIBITOR LEVEL(out) PPM FREEZE PROTECTION: (f)

NEW OR REPLACEMENT SERIAL # ENG SERIES

.

COMPLAINT:SMOKE BLOW BY. DO NOT SHIFT LIGHT. USED TO GO OUT WHEN ALTERNATOR VOLTAGE COME UP NOW STAYS ON QUOTE AN ADVISE.

CAUSE: EXCESSIVE BLOWBY

.

.

CORRECTION: PULLED IN SHOP AND INSPECTED. DRAINED FLUIDS AND REMOVED CYLINDER HEADS. REMOVED OIL PAN. REMOVED ALL 6 CYL KITS. REMOVED TURBO AND INSPECTED. OK. REMOVED BLOWER ASSY AND REBUILT BLOWER WITH NEW BEARINGS AND SEALS. CLEANED BLOCK AND SENT HEADS FOR INSPECTION AND REPAIRS. INSTALLED 6 NEW CYLINDER KITS. INSTALLED HEADS. INSTALLED INJECTORS AND RAN OVERHEAD. INSTALLED BLOWER AND NEW FUEL PUMP. INSTALLED TURBO AND ALL PIPING AND HOSES. FILLED WITH FLUIDS AND INSTALLED NEW FILTERS. PRIMED FUEL SYSTEM AND STARTED UP. CHECKED FOR LEAKS. OK. TEST DROVE THOROUGHLY. RUNS GOOD, NO LEAKS.

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INVOICE IS DUE IN FULL 10 DAYS FROM THE INVOICE DATE.
THANK YOU FOR VISITING CENTRAL POWER SYSTEMS AND SERVICES.
OUR ENTIRE TEAM WAS PLEASED TO BE OF SERVICE TO YOU!

Operation	Description	Seq	Price
27	DDC 2 CYCLE GENERAL REPAIRS	1	

Part Number	Description	Ret	Qty	Each	Core	Total
00 05149641	GASKET KIT		1			
00 05117269	M--GASKET		2			
AM PIC 4620	NON-CHLOR BRAKE		2			
00 08925981	INJ TUBE		6			
00 08928628	PIPE ASM		1			
AM MBL 98HY61	GREASE XHP 222		1			
00 08928676	SEAL RING		24			
00 05117242	GASKET		1			
00 23514202	KIT BLO O/H		1			
00 08924266	GASKET		2			
00 08928628	PIPE ASM		11			
AM PIC 4620	NON-CHLOR BRAKE		2			
XX CYLINDERHEADREPAIR	CYL HEAD REPAIR		1			
00 05199673	GASKET KIT,		1			
68 23512701	1GAL OIL SA		6			
00 23528203	COOLANT-GAL		11			
AM DN P537448	AIR DISP		1			
VV RY116	RELAY		1			
AM PHM 8 43147	CBL TIE 14.5 NY		15			
00 08923792	GASKET		3			
AM DN 23530706	ELEMENT FUEL FI		1			
AM DN 23530707	ELEMENT		1			
00 05149572	SHELL SET ST		6			
00 05117005	WASHER		4			
00 05104018	GASKET ROCKE		2			
00 08923791	GASKET		2			
00 23533308	PIPE ASSY, L		6			
00 23533307	PIPE ASSY, S		6			
00 05199673	GASKET KIT,		2			
00 05148373	BOLT		12			
00 23503826	THERMOSTAT		2			
00 05132155	C--SEAL		2			
00 23503588	GASKET		1			
00 23514203	BLWR REPAIR KIT		1			

Part Number	Description	Ret	Qty	Each	Core	Tota
70 R5199560	FUEL PUMP		1			
00 23524340	CYL KIT		6			
00 05149565	SHELL SET ST		4			
00 05126327	C--SPRING		2			
70 R5199560	EX PUMP	C	1-			

Operation	Description	Seq	Pric
00.00-00	CUSTOMER COMPLAINT DIAGNOSIS	2	

Miscellaneous Charge	Pric
SHOP SUPPLIES/EPA	

Labor Total 8500.00 Misc. Total 150.00

TAX

PAY THIS AMOUNT → 12522.

Unit		
P2003081	632 NEODESHA FIRE	
EQUIPMENT S/N (VIN)	1S9A7LBD9P2003081	
EQUIPMENT UNIT #	632	
TRANSMISSION P/N	29501663	
EQUIPMENT MAKE	SUTPHEN	
EQUIPMENT MODEL	LADDER TRUCK	
ENGINE MAKE	DETROIT	
ENGINE MODEL	6V92	
TRANSMISSION M/N	HT740	
TRANSMISSION S/N	2510171843	

Arrival Time: 1/14/13 6:28 Close Time: 1/24/13 11:12

**********SET UP**********

ENG HRS: VEH MILES: 90208 TRUCK#:632

INHIBITOR LEVEL(in) PPM KEY#:

INHIBITOR LEVEL(out) PPM FREEZE PROTECTION: (f)

NEW OR REPLACEMENT SERIAL # ENG SERIES

.

COMPLAINT: DO NOT SHIFT LIGHT. USED TO GO OUT WHEN ALTINATOR VOLTAGE CAME UP.

.

CAUSE: TCM FAILURE

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CORRECTION: PULLED IN SHOP AND INSPECTED. COULD NOT GET DOC TO CONNECT. CHECKED WIRING. NO VOLTAGE TO BATTERY OR IGNITION POWER. REPAIRED WIRING. STILL NO CONNECTION. INSTALLED TEST TCM. CONNECTED AND GOES INTO GEAR. TEST DROVE AND SHIFTS PROPERLY. ORDERED AND PROGRAMMED NEW TCM. INSTALLED AND TEST DROVE TRUCK. SHIFTS GOOD, NO CODES.

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INVOICE IS DUE IN FULL 10 DAYS FROM THE INVOICE DATE.

THANK YOU FOR VISITING CENTRAL POWER SYSTEMS AND SERVICES. OUR ENTIRE TEAM WAS PLEASED TO BE OF SERVICE TO YOU!

Operation	Description	Seq	Price
00096901	TROUBLESHOOTING AND DIAGNOSTICS	1	

Operation	Description	Seq	Price

TAX

PAY THIS AMOUNT →

Operation	Description	Seq	Price
00094701	R&R ECU/TCM	2	

Part Number	Description	Ret	Qty	Each	Core	Total
XX 16172029R	ECU		1			
XX 16142029R	NON-STOCKD PARTC		1-			
C1 F1	INBOUND FREIGHT		1			

Operation	Description	Seq	Price
00096900	GENERAL OPERATION(NOT 4 ESTABLISHED OPS)	3	
	REPAIR WIRING TO TCM		

Part Number	Description	Ret	Qty	Each	Core	Total
IM 72184	10 AMP FUSE		1			
AM PHM 1 1962 100	CONNECTOR 16-14		1			

Miscellaneous Charge	Price
SHOP SUPPLIES/EPA	

Labor Total 1218.00 Misc. Total 182.70

3	1250.13					

TAX

PAY THIS AMOUNT → 2650.83

OIL ANALYSIS REPORTS

FROM: Distribution System
WearCheck USA
501 Madison Ave.
Cary, NC
27513 USA
(919)379-4102
FAX (919)379-4050
info@wearcheck.com

Report Summary

Sample N°	Unit	WEAR	CONTAM'N	FLUID
WC-M1386821	Tower 632 Hydraulic System	NORMAL	NORMAL	NORMAL

Total: 1 Sample Report(s)

LABORATORY ACCREDITATION BUREAU ACCREDITED

The appearance of the Laboratory Accreditation Bureau ISO/IEC 17025 accreditation logo is meant to certify that WearCheck USA has met requirements for those parameters related to its accreditation.

The following pages contain sample report data via the methods listed on WearCheck USA's Scope of Accreditation which is obtainable by searching for Certificate # L2367 at the following link: http://search.l-a-b.com/

webcheck

Would you like to manage your Oil Analysis program through the Internet? What if this service was free? With simply an Internet browser you can:

- Print sample reports
- Manage your equipment database
- Generate management summary reports
- Access your oil analysis data 7 X 24 X 365

This service is called WebCheck and it is free. See the back of this cover page for more details.

WEAR CHECK

MOBILE OIL ANALYSIS REPORT

CONTAMINATION	NORMAL
WEAR	NORMAL
OIL CONDITION	NORMAL

TOWER 632 - Hydraulic System

Unit Make : SUTPHEN
Unit Model : 70FT
Comp Make : {n/a}
Comp Model : {n/a}

Serial No : HS 3635
Cust. Ref No. : {n/a}
Stub No. : WC-M1386821

Date Rec'd : May 16, 2017
Sample Date : Mar 28, 2017
Diagnostician : Don Baldridge

RECOMMENDATION

Resample at the next service interval to monitor.

Sample Date				Current	UOM
Time on Unit				0	hrs
Time on Oil				0	hrs
Time on Fltr				0	hrs
Oil Maint.				not chg	---
Filter Maint.				not chg	---

CONTAMINATION

There is no indication of any contamination in the component.

Sample Date				Current	Abn
Silicon				5.9	20
Potassium				0.0	20
Water (%)				<0.1	0.1
Dirt				NONE	---
Debris				NONE	---
Silt				NONE	---
Precipitate				NONE	---

WEAR

component wear rates are normal.

Sample Date				Current	Abn
White Metal				NONE	---
Babbitt				NONE	---
Iron				5.3	20
Nickel				0.3	---
Chromium				0.1	10
Titanium				0.0	---
Copper				29	75
Aluminum				2.2	10
Tin				0.0	10
Lead				0.2	10
Silver				0.0	---

OIL CONDITION

The condition of the oil is acceptable for the time in service.

Sample Date				Current	Base
Boron				55	---
Barium				9.2	---
Calcium				120	---
Magnesium				2.7	---
Molybdenum				0.3	---
Sodium				2.7	---
Phosphorus				193	---
Sulfur				1265	---
Zinc				92	---
Visc 40°C (cSt)				26.5	---
Visc 100°C (cSt)				---	---
VI				---	---
Oxidation (%)				---	---

NOTE: all elemental values reported in parts per million (ppm).

MOBILE FIRE PUMP TESTING & TRAINING
Draft Commander

Pump Performance Test by Weis Fire & Safety as Per NFPA 1911-2012 and ISO Standards Recommended On Rated and Non-Rated Fire Apparatus Service Performed With A Draft Commander 3600® Using Clean Clear Water

1911-86 INSPECTION, MAINTENANCE, TESTING, AND RETIREMENT OF IN-SERVICE AUTOMOTIVE FIRE APPARATUS

PUMP PERFORMANCE TEST

Date of Last Pump Test: 7-10-14 Current Date of Pump Test: 4-5-16

Name of Fire Department: Neodesha Fire Dept. Truck #: Quint 632

Year Apparatus Mfg: 6/93 Manufacturer of Apparatus: Sutphen Corp Truck Mileage: 91,837

Gas Engine: Yes ___ No X Diesel Engine: Yes X No ___

Pump Make: Hale Pump Model #: QG150-23L Pump Serial #: 63288

Pump Rated Capacity: 1500 (GPM) (L/min) at 150 (PSI) (kPa) Single Stage: ___ Two Stage: X

Test Site Location: Neodesha, KS City Hall Parking Lot

Suction Hose Size: 6" (in.) (mm) Length: 17' (ft) (m)

Tests Performed from Draft

	At Start of Tests	At End of Tests
Atmospheric Pressure	28.8	29
Air Temperature	71	73
Water Temperature	71	80
Elevation of test site	845	845
Lift	3'	3'

Apparatus Pump Engine No Load Pump Gov Test with pump not in gear 2100 Actual maximum engine speed when tested 2100

NFPA Recommended Vacuum Attained is 22" up to 2000ft. (Altitude)

Actual Vacuum Attained: 20 @ To a Drafting Lift of 10 (See Vacuum Notes on page 6 for detailed explanation)

Vacuum drop in 5 minutes: 20 Time to prime pump: 20 sec

Pressure Control Devise Test:

Rise while pumping capacity at 150 PSI: 10

Rise while pumping capacity at 90 PSI: 10

Rise while pumping 50 percent capacity at 250 PSI: 10

Tank to pump water flow test ___ (GPM) (L/min)

Pump Test Results

	Capacity Test	Overload Test	200 PSI Test	250 PSI Test
Test Duration In Minutes	20	5	10	10
Average Nozzle Pressure	150	165	200	250
Corrected Pressure	N/A	N/A	N/A	N/A
Gallons Per Minute	1500	1300	1050	738
Average Pump Pressure	150	165	200	250
RPM-Engine	1600	1600	1700	1600
RPM-Pump	1600	1600	1600	1600

Comments: See Preventive Maintenance Checklist

Draft Commander 3000®

Pump Test per NFPA 1911 Apparatus Guidelines of latest edition 2012

20-MINUTE CAPACITY TEST 150 PSI GPM PUMP RATED AT: ____

Hose Layout 2 (3) 2-3"x50' Nozzle Size 2 1/2 Position of transfer valve open

Time	Rpm Tach Cab	Rpm Tach Pump Panel	Engine Temp	Oil Pressure	Voltage /Amps	Auto Trans Temp.	Apparatus Gauge Vac	Test Gauge Vac	Apparatus Gauge Pressure	Test Gauge Pressure	Pitot/ Flow	Actual GPM Flowed
11:45	1600	1500	150	62	12.9	110	13	13.5	150	~~150~~ 150	76	1620
11:50	1600	1500	170	60	12.9	130	13	10	159	~~150~~ 155	66	1510
11:55	1600	1500	170	60	12.9	130	13	10	159	155	66	1510
12:00	1600	1500	170	58	12.9	170	13	10	160	155	66	1510
12:05	1600	1500	172	58	12.9	175	13	10	160	155	66	1510

5-MINUTE OVERLOAD TEST 165 PSI GPM PUMP RATED AT: ____

Hose Layout 2-3"x50' Nozzle Size 2 1/2 Position of transfer valve open

Time	Rpm Tach Cab	Rpm Tach Pump Panel	Engine Temp	Oil Pressure	Voltage /Amps	Auto Trans Temp.	Apparatus Gauge Vac	Test Gauge Vac	Apparatus Gauge Pressure	Test Gauge Pressure	Pitot/ Flow	Actual GPM Flowed
12:05	1600	1500	172	59	12.9	180	13	9.5	170	165	66	1510
12:10	1600	1500	178	59	12.9	185	13	9.5	170	165	66	1510

10-MINUTE 200 PSI 70% Test GPM PUMP RATED AT: ____

Hose Layout 2-3"x50' Nozzle Size 2" Position of transfer valve open

Time	Rpm Tach Cab	Rpm Tach Pump Panel	Engine Temp	Oil Pressure	Voltage /Amps	Auto Trans Temp.	Apparatus Gauge Vac	Test Gauge Vac	Apparatus Gauge Pressure	Test Gauge Pressure	Pitot/ Flow	Actual GPM Flowed
~~12:45~~ 12:55	1700	1600	175	61	12.5	188	~~6.5~~ 6.5	6.5	~~200~~ 200	193	78	1050
~~12:50~~ 13:00	1700	1600	180	60	12.5	190	6.5	6.5	200	190	76	1036
~~12:55~~ 13:05	1700	1600	182	59	12.5	188	6.5	6	200	193	~~72~~	1008

10-MINUTE 250 PSI 50% TEST GPM PUMP RATED AT: ____

Hose Layout 2-3"x50' Nozzle Size 1 3/4" Position of transfer valve closed

Time	Rpm Tach Cab	Rpm Tach Pump Panel	Engine Temp	Oil Pressure	Voltage	Auto Trans Temp.	Apparatus Gauge Vac	Test Gauge Vac	Apparatus Gauge Pressure	Test Gauge Pressure	Pitot/ Flow	Actual GPM Flowed
12:30	1600	1500	175	58	12.5	185	4	4	260	255	66	738
12:35	1600	1500	180	52	12.5	190	4	4	260	255	66	738
12:40	1600	1500	182	52	12.5	190	4	4	260	255	66	738

See above final recommended Fire Apparatus Pump Performance Test results and refer to pages 3-5 for the recommended repairs needed on the 64 Point Preventative Maintenance Checklist.

No Repairs Needed: ___ Repairs Needed: X Repairs Made on Site: ___

Service Company Name: Central Power Systems and Services

Service Technician Name: D. Farnsworth

Service Technician Signature: D. Farnsworth Date: 4-5-16

Witnessed By Printed Name: ____

Witnessed By Signature: ____ Date: ____

Fire Department Name: City of Neodesha Authorized By: ____

Draft Commander 1911-3000 Fire Pump Test Performance Checklist Before and During ISO Pump Test

64 POINT PREVENTATIVE MAINTENANCE CHECKLIST

Please mark appropriate box. Please mark appropriate box.

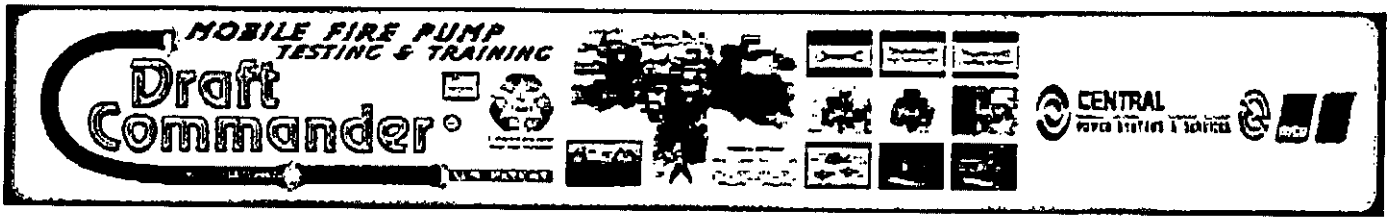
	Yes	No			Full	3/4	1/2	1/4
1. Emergency Brake set during Pump Test No Load Test of Apparatus Engine with Pump out of gear before starting Pump Test	X			2. Fuel gauge of Apparatus before Pump Test Fuel gauge of Apparatus after Pump Test		X	X	

	Repairs Needed	OK	Repaired on Site		Repairs Needed	OK	Repaired on Site
3. Electric Primer X Check Oil in Reservoir X Oilless Primer ____ Vacuum Primer ____ Explain:		X		4. Primer Not Equipped: ____ Wet Primed: ____ Primer Equipped but Not Functioning: ____ Wet Primed: ____ Primer Needs Repaired: ____ Explain:		X	
5. Drain Fire Pump before checking Primer for Vacuum Test Explain:		X		6. Primer Max Vacuum Attained Pass ____ Fail ✓ Explain: 80"		X	
7. Apparatus engine radiator liquid level Explain:		X		8. Separate Engine Radiator liquid level Explain:		N/A	
9. Separate engine that powers Fire Pump Engine oil level Explain:		N/A		10. Fire Apparatus engine oil level Explain:		X	
11. Separate Engine Fire Pump Gear Box oil level Oil/Lub. Color Normal ____ Color of Oil/Lub. Milky ____ Oil Level Ok ____ Explain:		N/A		12. Fire Apparatus Fire Pump Gear Box oil level Oil/Lub. Color Normal X Color of Oil/Lub. Milky ____ Oil Level Ok ____ Explain:		X	
13. Separate Engine Fire Pump Air Cleaner Explain:		N/A		14. Air Cleaner Apparatus Engine Explain:		X	
15. Checked all Suction and Discharge Plugs and Caps. Gaskets in good shape. Explain:		X		16. All Emergency Lights turned on during Pump Test Explain:		X	
17. All Discharge 2½", 1½",1" checked for leaks when Pump Testing unit from Draft Commander by removing caps Explain:		X		18. Check all Pump Panels 2½" x 1½" Individual Discharge gauges. While performing Pump Test, did any of the 2½" & 1½" Individual Gauges with Discharge Valves Closed & not using for the Pump Test Show pressure on any of the Individual Discharge Pressure Gauges. Explain:		X	
19. Tank Suction Valve from tank to pump not leaking when Dry Vacuum Pump Test performed. When suction valve cap was removed & water was in pump indicates tank to pump valves or tank fill line leaking Explain:		X		20. Tank Fill Line and Circulating Line not leaking when performing Pump Test, and when Dry Vacuum Test performed Explain:		X	
21. Pump packing not leaking excessive when running Pump Test and when Dry Vacuum Test performed Explain:		X		22. If Apparatus pump is equipped with Mechanical Pump Seal check it for leaks Explain:		X	
23. Inspect while Pump Test is being performed - Check Pump Inspection Door for external plumbing leaks Explain:		X		24. Fire Pump in gear out of Gear Performance Explain:		X	
25. Inlet Screen on all left and right suctions in place and in good condition Explain:		X		26. Check for oil leaks under engine while performing test Explain: oil leaks from top of engine down bellhousing		X	
27. Check for oil leaks under Pump Transmission while performing test		X					

	Please mark appropriate box.				Please mark appropriate box.		
28. Apparatus RPM Tach in cab performing Explain:	Repairs Needed	OK X	Repaired on Site	29. Pump Panel Apparatus RPM Tach performing Explain:	Repairs Needed	OK X	Repaired on Site
30. Apparatus Temp Gauge performing Explain:	Repairs Needed	OK	Repaired on Site	31. Engine of Apparatus Temp running normal Explain:	Repairs Needed	OK X	Repaired on Site
32. Amp or Volt Gauge Performing in cab Explain:	Repairs Needed	OK X	Repaired on Site	33. Amp or Volt Gauge performing on Pump Panel Explain:	Repairs Needed	OK X	Repaired on Site
34. Oil Pressure Gauge Performing in cab Explain:	Repairs Needed	OK X	Repaired on Site	35. Oil Pressure Gauge performing on Pump Panel Explain: Gauge Man	Repairs Needed X	OK	Repaired on Site
36. If Two Stage Pump is Transfer Valve working? Explain: gears broken	Repairs Needed X	OK	Repaired on Site	37. Pressure setting devices working (Relief Valve-Water Pressure Governor, Etc.) If equipped with lights, are lights working? Explain:	Repairs Needed	OK X	Repaired on Site
38. All Suction and Discharge valves opening and closing properly Explain:	Repairs Needed	OK X	Repaired on Site	39. Water Level Gauge for Booster tank working? If equipped with lights, are they working? Explain:	Repairs Needed	OK X	Repaired on Site
40. Gear Box on Fire Pump while performing test sounds normal. Was there excessive gear noise? Explain:	Repairs Needed	OK X	Repaired on Site	41. If Apparatus is equipped with Automatic Transmission and equipped with Temp Gauge is it performing and working Explain:	Repairs Needed	OK X	Repaired on Site
42. Fire Apparatus Engine Fire Pump Cooling Valve checked for leaks Explain:	Repairs Needed	OK X	Repaired on Site	43. Fire Pump Tank Fill Valve checked for leaks and working properly Explain:	Repairs Needed	OK X	Repaired on Site
44. Water tank of Apparatus full at start of Pump Test Explain:	Repairs Needed	OK X	Repaired on Site	45. If water tank was full at start of Pump Test, did tank loose water during the Pump Test? Explain:	Repairs Needed	OK X	Repaired on Site
46. Did Water Tank overflow during the Pump Test? Was Pump Cooling Valve & Tank Fill Valve in closed position ? Explain:	Repairs Needed	OK X	Repaired on Site	47. Were Instrumental Pump Panel lights all working? Explain:	Repairs Needed	OK X	Repaired on Site
48. Pump Panel Throttle performing correctly Manual Throttle X Electronic Throttle ____ Explain:	Repairs Needed	OK X	Repair	49. 100% Fire Pump Capacity Test Performed from Draft at Rated Capacity at 150 PSI for 20 minutes Explain:	Repairs Needed	OK X	Repaired on Site
50. Five minute 100% Capacity of Fire Pump Performed at 165 PSI Explain:	Repairs Needed	OK X	Repaired on Site	51. 70% of Fire Pump Capacity performed at 200 PSI for 10 minutes Explain:	Repairs Needed	OK X	Repaired on Site
52. 50% of Fire Pump Capacity performed at 250 PSI for 10 minutes Explain:	Repairs Needed	OK X	Repaired on Site	53. Check Relief Valve Screen if equipped Explain:	Repairs Needed	OK X	Repaired on Site
54. Check Heat Exchange Governor Screen (American Fire Apparatus) Explain:	Repairs Needed	OK N/A	Repaired on Site	55. Customer Opted for Oil Analysis on: (Cost $45.00 Each) Explain:	Automatic Transmission	Gear Box Oil	Engine Oil / Other

56. If fire truck is equipped with a heated shield pan lid was it removed (to remove excess heat) before performing the pump test and remain off during the pump test?	Yes X	No
57. If fire truck hose reel is above pump area was the door open before performing the pump test and remain open during the pump test to remove excess heat?	Yes X	No
58. Were left and right side of Suction Appliances removed and suctioned capped before Dry Vacuum Test performed? (If equipped)	Yes X	No
59. Were left and right side of Suction Appliance left off while performing the Service Pump Performance Test? (If equipped)	Yes X	No
60. After Service Pump Performance Test completed, were the left and right Suction Appliances installed back on Apparatus? (If equipped)	Yes X	No
61. If Apparatus has a power take off generator, was it operating during the Pump Performance Test? (As recommended by NFPA 1911 Standards)	Yes X	No
62. If any discharge/suction valves were leaking and needing replaced or repaired, please check the following boxes for size and type. ____ Elkhart Size ____ Suction ____ Discharge ____ ____ Akron Size ____ Suction ____ Discharge ____ ____ Other Size ____ Suction ____ Discharge ____ Explain: ____		
63. Was an exterior adhesive plastic data placard with type of service performed (NFPA 1911-2012 Pump Service Test) attached to pump panel area after Pump Performance Test completed?	Yes X	No
64. Were the UL Suction (vacuum) and Master Pressure Plugs on operators pump panel reinstalled?	Yes X	No

FIRE DEPT: _____ APPARATUS: _____



64 Point Preventative Maintenance Recommended Repairs Needed

(Refer back to pages 3 and 4)

1.	2.	3.	4.	5.	6.	7.
8.	9.	10.	11.	12.	13.	14.
15.	16.	17.	18.	19.	20.	21.
22.	23.	24.	25.	engine oil leak 26.	27.	28.
29.	30.	31.	32.	33.	34.	fuel oil press. gage 35. engine
transfer valve 36. gears broke	37.	38.	39.	40.	41.	42.
43.	44.	45.	46.	47.	48.	49.
50.	51.	52.	53.	54.	55.	56.
57.	58.	59.	60.	61.	62.	63.
64.						

The above marked items are recommended repairs that were discovered while performing the Fire Pump Performance Test and the 64 Point Preventative Maintenance Checklist. These items were found to not be functioning and not properly working as intended. They are in need of repair for the safety of Firefighters and to save lives and property. The negative results could possibly affect the communities ISO Rating, cause further damage to the fire apparatus, hinder function and performance, and could cause injury and loss of life and property.

Recommended Apparatus Repairs Needed

Repairs Needed	X	No Repairs Needed	

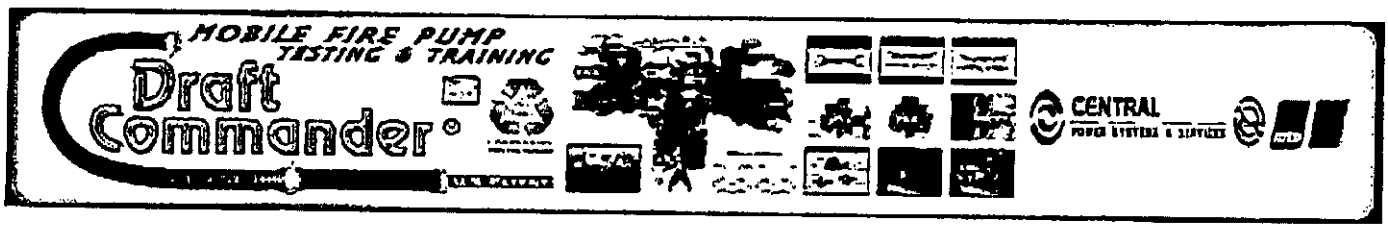
The following repairs are recommended to bring your fire apparatus up to standards to meet the fire pump service test as per NFPA 1911-2012 and ISO recommended standards.

Recommended Repairs:

oil pressure gage, for oil leak, transfer valve gears broken

Recommended Parts:

Fixed on Site:	Y/(N)	If no, why not:	major repairs needed.
Authorizing Contact:			
Verbal Authorization:	Y/N	Person Communicated With:	



PUMP PERFORMANCE TEST RESULTS
64 POINT PREVENTATIVE MAINTENANCE CHECKLIST RESULTS

Date Tests Were Performed: 4/5/16

X Results from the Pump Performance Test and the 64 Point Preventative Maintenance Checklist has indicated that this fire apparatus is in need of repairs as indicated by the repairs checked on the 64 Point Preventative Maintenance Checklist.

___ Results from the Pump Performance Test and the 64 Point Preventative Maintenance Checklist has indicated that this fire apparatus has successfully performed the Pump Performance Test and the 64 Point Preventative Maintenance Checklist.

PUMP PERFORMANCE TEST AND
64 POINT PREVENTATIVE MAINTENANCE CHECKLIST NOTES

Vacuum Notes:

The vacuum, or negative pressure, on the intake side of a pump is measured in inches of mercury, usually written as "in. Hg" or "Hg" (Hg is the chemical symbol for mercury). A vacuum of 1 in. of mercury is equal to a negative pressure of 0.49 psi, or 1 in. Hg = 0.49 psi. A positive pressure of 0.49 psi at the bottom of a 1 in.^{2} (645 mm^2) container will support a column of water that is 1.13 ft (0.344 m) high; therefore, a negative pressure of 0.49 psi at the top of the container will support the same column of water. This means 1 in. Hg = 0.49 psi = 1.13 ft (0.344m) of water head.

NFPA 1911-2012 18.7.6 Vacuum Test:
The maximum vacuum attained shall be at least 22 in Hg (75 kPa), unless the altitude is above 2000 ft (610m), in which case the vacuum attained shall be permitted to be less than 22 in. Hg (75 kPa) by 1 in. Hg (3.4 kPa) for each 1000 ft (305 m) of altitude above 2000 ft (610 m).

Note: Every 1" of truck vacuum attained equals ½ ft. of draft lift. Example: 20" of truck vacuum attained equals 10 ft. of draft lift.

Department Name: Neodesha FD	Contact Phone Number: 620-325-2642
Month of Inspection: Month 4 Day 5 Year 2016	Personal Contact Dave Title: Chief
Checklist Completed by: Jason Ulch	Contact Email
Service Technician:	
Fire Apparatus Manufacturer: Spartan	
Pump Rated Capacity: 1500	Manufacturer's Serial #: 63288

Signature: _____ **Title:** serv. tech **Date:** 4-5-16

Maintenance Log

10/21/16	Grease Hub caps on front wheels replaced.
6/2/2016	Dot inspection
6/2/2016	Hydraulic filter change
6/2/2016	Motor oil and filter change
6/2/2016	Fuel Filter replacement
7/13/2015	Outrigger Cylinders replaced
4/27/2015	Dot Inspection
4/27/2015	Hydraulic filter change
4/27/2015	Motor Oil and filter changed
7/8/2014	Replaced Hale Transfer Valve Sleeve
5/22/2014	Replaced 4 interstate 31- MHD Batteries
4/9/2014	Dot Inspection
2/10/2014	Motor oil and filter changed
2/10/2014	Fuel filter replacement
7/29/2013	Two pump panel gages replaced- 2.5” Class 1 gauges -30 – 600 psi
7/9/2013	rebuild Hale transfer valve
5/7/2013	Replaced High speed switch on the pump panel.
5/3/2013	Replaced both hydraulic pressure gages.
5/2/2013	Repair transfer valve stuck in volume replaced O-ring 221-240 and O-ring 110-140
4/3/2014	Hydraulic Oil change
3/25/2014	Battery Charger replaced
3/11/2013	Aerial ladder rung replaced
3/1/2013	Gage replacement
1/31/2013	motor oil & filter change at 90208 miles
10/13/2012	Engine Overhaul at 90208 miles
10/13/2012	Repaired wiring to TCM and installed a new TCM.
6/22/2012	Fuel system repair
5/11/2012	Air Horn repair

5/7/2012	Pump service
5/5/2012	Rebuild 3” discharge valve. Rebuild front jump line valve and adjust packing.
5/1/2012	compartment door support shocks replaced Passenger side middle & drivers side front.
4/5/2012	Replaced swing out 2 ½” Akron valve for discharge #6 with new
3/31/2012	Replaced discharge valve # 2,4,5,7 with stainless steel field service ball valve kits.
1/10/2012	Air governor replacement
9/28/2011	Dot inspection
5/13/2011	Replaced Alternator with new factory alternator. Mileage 89451
5/12/2011	Rebuild transfer valve. Rebuild discharge #1 & 3. Replaced Waterway valve.
4/12/2011	Replaced ladder cradle pads.
6/17/2010	Air Conditioning Freon added.
5/12/2010	Replaced ladder battery for nozzle Interstate battery # SLA1075
5/5/2010	Pump service
5/3/2010	Replaced Transfer Valve. Replaced Tank to pump Valve
4/8/2010	Changed Motor oil and filter mileage 88675
4/8/2010	Drain Valve Repair
4/8/2010	Door hinge repair
4/8/2010	Hydraulic Heat exchanger Replaced
4/8/2010	Hydraulic system flush and oil and filter change
4/8/2010	Air compressor filter replaced
4/8/2010	Air filter replaced
4/8/2010	Fuel filter replacement
4/8/2010	Brake Repair
4/8/2010	Tire repair
4/8/2010	Replaced 4 interstate 31- MHD Batteries Mileage 88675
4/8/2010	Dot Inspection
3/25/2010	Take delivery of 1993 Sutphen 75 foot quint from Wichita F.D.

CFS Inspections
P. O. Box 8238 Searcy, AR 72145
866.811.5237 / 501.279.1166 Fax: 501.279.1225

As required by NFPA 1911 19.3: CFS Inspections is accredited to the requirements of ISO/IEC 17020.

A2LA ACCREDITED
CERTIFICATE #3593.01

Report of Inspection

SAFETY INSPECTION
FOR

Aerial Ladder

In accordance with

NFPA 1911 Chapter 19

Performance Testing of Aerial Devices

Customer Neodesha Fire Department

Location Neodesha, KS

Manufacturer Sutphen

Date of Manufacture 1993 **Date of Inspection** 12/01/16

Category #	5

Unit Number Quint 632

Serial Number HS2789

Type of Unit Aerial Ladder

Model Number 75 FT

Heat Sensors Replaced N/A

Inspected By Tyler Williams **Job #** 2016TW0080

Inspector Qualification Summary

Inspector: Tyler Williams **Date:** 12/31/15

Certifications:

METHOD	LEVEL	CERT.DATE	GENERAL	SPECIFIC	PRACTICAL	AVERAGE	EXAMINER
MT	II	3/17/2014	97.35%	92.00%	100.00%	96.50%	PM
UT-WT	II	3/17/2014	95.00%	95.00%	98.00%	96.00%	PM
PT	II	9/25/2014	98.00%	95.00%	100.00%	97.70%	PM

NDT Training:

METHOD	LEVEL	Conducted by	Date	Hours
MT	II	NDT Training & Test Center	February-14	16
UT	II	NDT Training & Test Center	February-14	24
PT	II	NDT Training & Test Center	March-14	16

NDT Experience: CFS Inspections

METHOD	MAGNETIC	VISUAL	ULTRASONIC-WT	PENETRANT
HOURS	354	708	354	244

Larry Case - Certifying Agent, CFS Inspections

Equipment Calibration List

Unit #: N/A **Date: N/A**

	Serial #	Model #	Date Calibrated
250 LB Torque Wrench	N/A	N/A	N/A
600 LB Torque Wrench	N/A	N/A	N/A
Ultrasonic Machine	N/A	N/A	N/A
Contour Probe (Mag Gun)	N/A	N/A	N/A
Dynamometer	N/A	N/A	N/A

Calibrations are preformed by calibration equipment that is maintained within accuracy specifications using test bars and weights traceable to National Institute of Standards and Technology.

All calibrations are good for a period of 12 months from date calibrated unless damaged or broken or otherwise stated. Damaged or broken equipment shall be sent in for repair and calibration before returning to service. All calibration certificates are on file at the CFS office.

Gary Elliott - Operations Manager, CFS Inspections

DISCLAIMER

CFS Inspections ("CFS") represents that CFS conducted its assessment of the equipment and prepared the report in accordance with the professional and industry standards prevailing at the time such services were rendered.

The information provided in this report is the result of the specific testing and inspection procedures conducted by CFS on the equipment and identified herein, as limited by the scope of work authorized by the customer (the "test results"). The test results reflect only the conditions of the components tested or inspected within the scope of work authorized. We have reviewed neither the maintenance records nor the actual use of the equipment before or after the date of the testing or inspection. No attempt has been made and no information is rendered with respect to any conditions of equipment or any component other than as expressly stated in the written test results. Specifically, but without limitations, no information, testing or inspection services are rendered concerning equipment design, suitability of the equipment for any particular purpose or the future serviceablity of the equipment. The test results should not be construed as statement that equipment is safe or serviceable.

Additionally, you should be advised that the above report contains information that is time sensitive and that the report was prepared by CFS subject to the particular scope limitations, budgetary and time constraints and business objectives detailed in the report. If at any time this report is to be used by a third party other than the customer, CFS has the right to verify, at third party expense, the accuracy of the information contained in the report, as deemed necessary by CFS, based upon the passage of time or other material change in conditions since its assessment of the Site.

The information provided in this report is not a substitute for proper use, maintenance, modification, inspection and repair of the equipment, assurance of safe operation of the equipment within its intended limitation. Furthermore, nothing in the test results should be construed as a recommendation for corrective action and CFS has not and will not supervise corrective action of any condition found to exist, as such is the sole responsibility of the owner/operator and it is hereby expressly excluded from the scope of the work performed by CFS. The test results are intended solely for informational purposes of the customer and should not be utilized or relied upon by any other person.

To the full extent permitted by law, the Customer agrees to indemnify and hold CFS harmless from and against any liabilities, claims, damages and costs (including reasonable attorney's fees) that arise out of any use of this survey.

In the event that any questions arise with respect to the scope or meaning of CFS's statements or conclusions, you are directed to immediately contact us for clarification, explanation or to update the Report. These services will be provided in accordance with CFS's standard commercial rates and terms in effect at the time of the request.

CFS Inspections
P.O. Box 8238, Searcy, AR 72145

Summary of Test

Customer	Neodesha Fire Department	Location	Neodesha, KS	Date	12/01/16
Unit #	Quint 632	Serial #	HS2789		
Manufacturer	Sutphen	Model #	75 FT	Manu Date	1993
Aerial Hours	N/A	Engine Hours	6947	Odometer	92676

Weather Conditions: Sunny Temperature: 48 Humidity: 40 Wind Velocity: 5

Reason For Inspection: **Annual** ☐ **Repair** ☐ **Collision** ☑ **(Near Explosion)**

NDT Methods and Inspections

	Performed (Y/N)	N/A
Ultrasonic Test of Pins (5 Year)		X
Thickness Test of Ladder Rails (5 Year)		X
Magnetic Particle Test of Welds (5 Year)		X
Dye Penetrant (5 Year)		X
Hardness Test of Aluminum Ladders	Y	
Visual Inspection		X
Operational Test of Unit		X
Bolt Torque Check of Accessible Bolts		X
Drift Test of Hydraulic Cylinders		X
Load Test of Aerial Ladders		X
Waterway Pressure Test		X
Waterway Flow Test		X
Spectrochemical Analysis of Hydraulic Oil		X

Required Measurements

Operating Hydraulic Pressure: N/A psi
Relief Hydraulic Pressure: N/A psi

Bearing Clearance: N/A
Maximum Height: 75 FT
Maximum Reach: 67 FT

Hydraulic Cylinder Leak down:
Outriggers LF: N/A RF: N/A LR: N/A RR: N/A
Street-side Lift cylinder: N/A Officer-side Lift cylinder: N/A Extension Cylinder: N/A

Ladder Section Twist:	Base	N/A	1st	N/A	2nd	N/A	3rd	N/A	4th	N/A
Base Rail Thickness:	Base	N/A	1st	N/A	2nd	N/A	3rd	N/A	4th	N/A

Hydraulic Oil Sample Information

Stub Number: N/A

Wear Check USA
501 Madison Avenue
Cary, NC 27513
1-800-237-1369

CFS Inspections

P. O. Box 8238 Searcy, AR 72145
866.811.5237 / 501.279.1166 Fax: 501.279.1225

Summary Of Findings

Customer Neodesha Fire Department Unit # Quint 632 Date 12/01/16

Category	Description
	Hardness Test Only
V.	All hardness readings were shown between .0080 and .0090 which is well above the
	minimum tolerance level of .0076.

Category Classifications

1.	Items - Unit Shall Be Taken From Service.	- Does NOT Certify
2.	Items - That Will Affect Certification of Aerial Unit.	- Does NOT Certify
3.	Items - That Can be Repaired at Regular Maintenance.	- Does Certify
4.	Items - For Information Purposes Only.	- Does Certify
5.	No Defects Noted at Time of Inspection.	- Does Certify

All Category 1 and 2 items have been repaired to the manufacturers recommendations and unit is ready for certification.

Print Name: _____ Title: _____

Signature: _____ Date: _____

INSPECTION REPORT

CUSTOMER: Neodesha Fire Department

DATE: 11/30/2016

ADDRESS: 112 South 4th Street Neodesha, Kansas 66757

PHONE #: (620) 325-2642

UNIT #: Quint 632

MANUFACTURER: Sutphen

MODEL #: 75'

SERIAL #: HS2789

TYPE: Aerial Ladder

YR. OF MFG. 1993

National Fleet Testing Services, Inc.
912 Coyote Drive
Junction City, Kansas 66441
(913) 634-7329

A certification of inspection can only be issued when any defects listed as a category I or II have been noted and repaired according to manufacture's specifications. Once the repairs have been completed, please send a copy of the repair invoice with the following information on it: work order or invoice number of the company that performed the work; the unit, manufacture, model, and serial number of the unit; and a signed copy of the attached document by the fire department representative responsible for the unit to the following address:

National Fleet Testing Services, Inc.
912 Coyote Drive
Junction City, KS 66441

Thank you for allowing us to serve you.

Should you have any questions or comments, please contact us at:
utestwithme@gmail.com