| Maintenance Performed | NATURAL GAS COMPRESSION SYSTEMS | WO |
|---|---|---|
| frame inspection | FIELD MAINTENANCE REPORT | 18304 |

| Customer | Unit # | Location | Date |
|---|---|---|---|
| Veolia water Milwaukee | 1 | Jones Island pwr station | 7/13/2010 |

| Equipment | eng hours | Day Of Week | Time In | Time Out | Total Billable Reg | Total Billable OT | NonBillable |
|---|---|---|---|---|---|---|---|
| recipricating | | Tuesday | 7 | 18 | 11 | | 0 |

| Eng. Model & Serial # | Compressor Model & serial # | Cylinder Sizes | |
|---|---|---|---|
| Siemans 400hp elec. Motor | JGE-2 F-17024 | 13-1/2 | 13-1/2 |

| Water Temp In | Water Temp Out | RPM | Oil Press. | Oil Temp | Fuel Press | Aux Water In | Aux Water Out | Manifold Pres. | Catalyst diff pres |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | |

| Valve Adjust In./Exh. | Avg. Clear. Before Set | Type Of Oil | Timing ACT / DES. | Amb. Temp | Sep. Press | Pre Cat | Post Cat |
|---|---|---|---|---|---|---|---|
| | | | | | | | |

| Compression Readings | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Suc Press / 1st temp | 1st Int Press / 2nd Temp | 2nd Int Press / 3rd Temp | 3rd Int Press / 4th Temp | Disc Press / Oil Press | Oil Temp |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | LB | | | | | | | | | | | | | | |
| | RB | | | | | | | | | | | | | | |

| HRS. | HOURS DETAIL TECHNICIAN |
|---|---|
| 10 | Peter |

## SERVICE CHECKLIST

| | | | | | |
|---|---|---|---|---|---|
| | Service Unit | | Check Cooler | | Check Lube/Cycle time |
| | Oil Sample Eng./Frame | | Test shutdowns | | Oil & A/F Levels -25 |
| | Change Oil & Filters | | Regap/Replace Spark plugs | | Grease Bearings |
| | Adjust Valves/Bridges | | Air Filter | | Check packing |
| | Check Compression | | Carb Linkage | | Check Salt Filter Diff |
| | Check Hold Downs | | Compressor Valves | | Check Battery Level |
| | Check Fuel Press | | Check O2 % | | Check Dumps |
| | Check Belts/Bearings | | Check CO | | Converter Maintenance |
| | Check Panel Wiring | | Check NOX | | Coalescer Differential |
| | Replace Pro Flo Batt | | | | |

## MAINTENANCE PERFORMED

call out to unit to evaluate compressor (frame)integrity after coupling failure and make repair recommendations -- Customer PO # 7131--
remove all covers and ck oil clearances(cl) noticed while rolling crankshaft there is a spot in rotation where there is resistance to roll
#1 throw has .0055 rod oil cl .013 rod side cl and .011 crosshead cl drive end main brg oil cl is .0035 all within spec
#2 throw has .0055 rod oil cl .014 rod side cl and .010 crosshead cl aux end main brg oil cl is .0045 all within spec
crankshaft end thrust cked at .004-out of spec-should be .0085 to .020 remove crossties to remove and inspect main brgs. Found drive end main distorted
bolts came out hard. Found small locating dowel pin broken and large locating dowel worn out oblong and dowel pin holes in frame distorted-also brg tang
does not fit snug into brg cap-Recommend frame center section be replaced and crankshaft sent to Ariel for inspection and replaced if necessary
also noticed frame base grout has no air space between mounting pads- bottom of frame completely grouted -this is not Ariel recommendation
can cause soft foot and distortion issues- also removed all valves and piston and rod assemblies. Found damaged valves in both cylinders-Piston and rods
are ok at this time as is cylinder bores- reinstall main brgs ,cross ties and side covers. Will order proper valve set as per Dave Mersman

## PARTS LIST

| | | | QTY | PART#/DESCRIPTION | INV. LOC. |
|---|---|---|---|---|---|
| | also recommend installing new coupling hub when repair is | | | | |
| | made | | | | |
| | will also get quote together to make necessary repairs | | | | |

Customer Signature _____ Mechanic **Peter J Latuszek**