

Klarr Locomotive Industries

GP20E #2003 Inspection



Performed By Maxfield & Carlson Enterprises, LLC

At 8:00 in the morning of May 26th, I met with Robert Longhoffer and Steve Rohr at the Pine Bluff Railroad Museum to inspect Klarr Locomotive Industries GP20E #2003. A visual inspection was performed while Robert and Steve filled the unit with coolant and applied a battery charger. Once the visual inspection was completed, the unit was started. It started very easily and idled smoothly. While the unit warmed, a check was made for low voltage grounds, of which none were found. Charging voltage was 70.5 volts. An air test was performed with no issues found. All brake cylinder travel is good. Wipers, horn, and bell are all functional.

To determine if the unit smoked excessively in higher RPM's, the throttle was wiped to Run 4. No excessive smoke was observed at this point nor during subsequent tests in higher throttle notches. While attempting to perform a stall test it was noted that the reverser is somewhat sticky in the forward position. This may clean up with use. A stall test was done in both directions, then to ensure the good condition of motors and main generator, the independent was left applied and the throttle taken to Run 5 to attempt to overcome the brakes. The unit easily did so and pegged the ammeter several times in both directions.

A quick run of a hundred yards or so was made and the ride found to be very good. Upon returning, the sanders were tested and the front sanders found to be inoperative. Fans were then tested. Fan #3 has been unplugged for an unknown reason. Fans #1 and #2 work, but the front shutters are inoperative. Working the shutter cylinder test valve did nothing, with no air seeming to be present. The digital speedometer also seems to have a loose connection, with intermittent operation being noted. This is driven by a Qtron 120 PPR axle gen through a power supply. To this end, the "bedsheet" electrical schematic was found in the cab subbase. While it doesn't show the modifications made over the years, (such as the addition of the digital speedometer) it is far better than nothing.

To test the batteries, the unit was shut down and a re-start attempted. Even after running for approximately 90 minutes the engine wasn't able to crank. The charger was reapplied and the engine was then able to easily start.

The main areas of concern or needing more attention are:

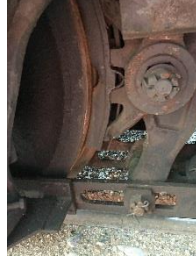
1. Dead batteries.
2. Disconnected cooling fan.
3. Inoperative front shutters.
4. Intermittent speedometer operation.
5. The #1 traction motor blower runs slightly rough.

Overall, the locomotive is in very decent shape and ran well. The majority of the low voltage wiring is excellent as is the high voltage cabling. The wheels are thick and in great shape. Some work will need done to troubleshoot the cooling fans and the batteries need to be replaced as soon as possible. With a little bit of effort, I believe the unit would be a good, reliable runner.

Casey S. Carlson
VP, Director of Locomotive Leasing
Maxfield & Carlson Enterprises, LLC



Ditch lights are present and functional.
MU air hoses are missing.
Scraper plate 5.5" above top of rail.
Alignment control couplers confirmed.



All wheels were found to be in excellent condition and very thick.



Front subbase door has broken hinge.



Control valve has an air date of 8/16, J84 has a date of 10/13.



Traction motor cabling/insulation is in excellent condition.

The #1 traction motor had a tag visible/accessible, showing it as a D77B. The #3 traction motor was replaced within the last couple years, and all are assumed to be D77's.



A Pulse speed recorder is installed in the subbase.



Prime mover very oily and heavily caulked. 16-645D1 on tag.



Exhaust manifold very oily.



While some hoses are nearly new, a few of the coolant hoses and others are showing wear.



The equipment rack electrical panel may require attention.



Generator commutator looks good and has new brushes.



The majority of the HVC wiring is in excellent shape and of a fairly new vintage.



The voltage regulator appears to have been recently replaced.



The engine control panel has a few automotive wires in it that will require replacement.



The reverser contacts are dirty in the forward position and controller overall needs worked and cleaned.
Cooling fan works well.
Radio missing.



Different battery sizes between engineer and helper's side.



Both seats are in rough shape.



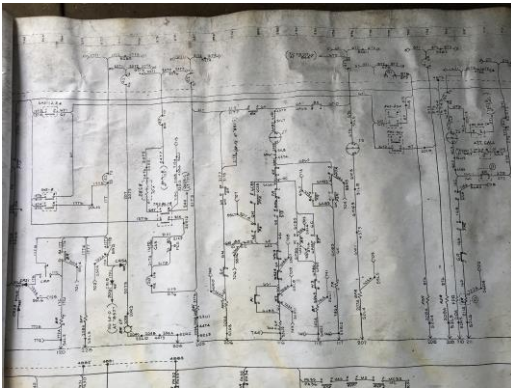
The digital speedometer works intermittently and requires troubleshooting.



Both exhaust stacks are equipped with spark arrestors.



Some rust-thru has occurred, but not enough anywhere to effect structure or personnel safety.



Many photos were taken of the bedsheet (10+ feet long) electrical schematic to aid in future troubleshooting.

U.S. Department of Transportation
Federal Railroad Administration
Locomotive Inspection and Repair Record
OMB No. 2130-

Year: 2017
Operated by: WATCO Switching
RR Code: WAMEX
Owned by: Wally Asset Management
RR Code: WAMEX

Model No: SP25
Loc No: WAMEX 2503
If renumbered, Prev. No.:
Year Built: 1, 1982
Check if new stock

Proposed by: D-1
D-1: 3000
Type of Service: Freight Passenger
Steam Gen. No.: N/A
Working Pressure: N/A
10. Max. Platen travel in: N/A

Type of Air Brake: Air Brake
Yes No Out of use code: N/A
12. Last Periodic Inspection: 11/1/2016
13. Place: El Dorado, AR

ARM CAL: 50 day max. 225,230
1. In use
Previous date: N/A
Serial & Cert: N/A
Date & Cert: N/A
Date & Cert: N/A

PERIODIC INSPECTIONS
Check interval: 90 days per 229,230
 194 days per 229,230/1, 235

13. Date (Month/Day): 10/31/16
14. Place: El Dorado, AR
15. Name: R. Riggs
16. Person Conducting: S & S
17. Certified by: R. Riggs

Out of Service El Dorado, AR From 12/1/17 to _____ Days

18. Next Order: 1. Brake 2. Running Gear 3. Oil Filter 4. Water Filter 5. Check Valve 6. Steam Gen 7. Safety Valve 8. Steam Valve
19. High Test Pressure: Output: 15. Pressure PSI: 200
20. Water - Color: N/A

21. Inspected by: R. Riggs
22. Date: 10/31/16
23. Conducted by: R. Riggs
24. Date: 10/31/16
25. Place: El Dorado, AR
26. Name: "S" Station
27. Inspected by: R. Riggs
28. Date: 10/31/16
29. Place: El Dorado, AR
30. Name: "S" Station
31. Inspected by: R. Riggs
32. Date: 10/31/16
33. Place: El Dorado, AR
34. Name: "S" Station

LOCOMOTIVE INSPECTION AND REPAIR RECORD

Blue card shows out of service since 1/31/17 and last air dates 11/1/16.