W. Spicer B-2688 — J. S. Leeds — May. 08 — 238

Memorandum Spec. No. 7804

Specifications for Engines, Class 10 28 ½ C Nos. 23

26th For Rahway Valley R. R. Co. — 3/7 1908 — Gen. as Neg. 1855 — Drawing No. 4

Gauge of Road,	4 Ft. 8½ In., Play ⅜"	**Pump,**	None Pos. --- Top Cham. --- Bot. Cham. ---
Fuel	Soft coal.	Feed Cock	--- Feed Pipes --- Check --- Check Pipes ---
		Heater	---
Boiler,	Steel Thick 11/16" Bill 5460	**Consolidated System Steam Heat.**	
Diam.	64" Plan Straight Fire Door 16"		
Longitud. Seams	Butt jointed with double covering strips		
Dome Dia.	31½" Position Central		
" Casing	Iron painted		
Jacket ~~Iron~~	Soft steel painted Bands Iron Style 9	**Injectors,**	2 Hancock (Spec) No. 8 Position R. & L. O.S. or C.A.B. (L.S.L. 6-16-08)
Lagging	Magnesia sectional. Staybolts ⅞"	Pipes, Steam	Copper Check Iron Feed Iron Overflow Iron
Fire Box, Length,	78 11/16" Width 33⅜" Depth F. 85" B. 83⅛"	Check	B.L.W. Position R. & L.
" Material	Steel Crown ⅜" Tube ½" Sides 5/16" Back 5/16"		
Water Space, Front	4" Sides 3" Back 3"	**Sand Box, Dia.,**	28" Pipes Iron
Crown Bars	None Placed ---above Crown, Sling Stays, Front one 1 bar	Body	Iron painted
" Bolts	Radial Stays 1" dia. 8 Central rows with button heads below crown.	Hand Sander front and back.	
Combustion Cham.	---		
Tubes,	#12 W.G. Spellerized Steel Ends Swaged for copper rings fire box ends.	**Cab,**	Poplar painted. Ventilator in cab roof.
" No.	223 Dia. 2" Length 11' 7"		
Heating Surface, Tubes	1343' Fire Box 152' Total 1495' Grate Area 18.2' Ratio to Heat'g Surf. 1 to		
Smoke Box Extension	With Cleaning Hole and Cap Left side	**Pilot, Front & back,**	Wood. Bumper Wood
Spark ~~Deck or~~ Hopp'r	With	Drawhead (Cen. above Rail)	24½" M.C.B. Auto Couplers front and back.
Netting & Deflec. Plts.	With	Pushing Shoes	--- Steps On pilot Bumper Plate With
Boiler Working St. Pres.	180 Lbs., to be tested to { 200 Lbs. Steam Pressure, 240 Lbs. Water Pressure		
	T.P. = 18990#		
Lowest guage cock 3½" above highest point of crown sheet.			
Safety Valves	2 Consolidated (Spec) 2½" ~~With Relief Lev.~~ Set to 180 Lbs.		
Gauge Cocks	3 back Surface Valve ---		
Water Gauge	With, with lamp Blow-off Cock Left side	**Truck,**	F. 2 Swing bolster, side bearing 3½"
Dry Pipe	Wrot iron Fire Bricks On studs.		B. 4 Wheeled {Swing bolster / Side Bearing} To swing 4⅞" each side of cen.
Clean'g Plugs, Fire Box	Corners, diag., side Front & back.	Journals, Diam.	F. 5½" B. 5½" Length 8" 10"
" " Waist	Under front.	Wheels, "	30" Tread 4½" Kind Solid forged rolled steel 2" rim
" " Crown	2 each side 4 back Front Tube Sheet Plug TWO	Tires,	--- Cen. Dia. --- Size --- Held by ---
		Eng. truck frames of mild steel	
Grate,	Rocking bars and drop plate.	Drawbar, Height (b. of Buf. / c. of Buf.)	---
Ash Pan Dampers	Right & left Depth 12"	**Tender,**	NONE Wheeled, Frame --- Drawing No. ---
		Tank	U shape, Water Bottom. 2500 Gallons, Bill 2803
Total Wheel Base of Eng. and Tend. not to exceed	--- Limit Height --- Limit Width ---	Trucks	--- Springs ---
Wheel Base.	Rigid 7' 0" Driving 7' 0" Total 31' 4"	Journals, Diam.	--- Length ---
Weight (Working / Order)	On Drivers abt. 70000 Lbs., Total abt. 136000 Lbs.	Wheels, "	--- Tread --- Kind ---
Weigh, Photo Sch. 2.	Curves 17 degrees. Grades 2% for distance of 3 miles.	Tires,	--- Cen. Dia. --- Size --- Held by ---
		Tool Boxes	--- Safety Chains. ---
Cylinders, Dia.,	17" Stroke 24" S. F. Lub. Detroit Triple #21. (Spec)	Drawhead (Cen. above Rail)	---
Steam Ports, Length	16" Width 1¼" Bridges 1" Copper pipes	Brakes on	--- Trucks ---
Exhaust Ports, Length	16" " 2⅜"	Weight (With Fuel and Water)	---
Valves, Travel	5⅛" O. S. Lap ⅛" I. S. Lap --- Lead 1/16"		Tank on rear extension of engine frame.
Eccentric, Throw	5" Exhaust Nozzles Double high		Coal space formed by legs of tank.
Cylr. Casings	Iron painted Head Covers Steel painted		Coal capacity as large as possible, Co. would like 3 tons.
St. Chest Casings	" " Covers " "		
" " Valves	Richardson Balanced with vacuum valves.	**Running Boards,**	Wood Nosing Angle iron
Met. Pkg. (Piston Rods / Valve Stems)	U.S. (Not Spec)	Lamp Shelf	--- " --- Headlight Step On Bump. & Smk. Box
		Headlight	Two Round Case 16" Reflector, to burn Kerosene Side Nos. With
Frame,	Cast steel Braces Solid	Handrail	Iron Colms, placed Radial Clock ---
Guides	Steel, Guide yoke, mild steel Oil Cups Needle	Bell	85 lbs.
Crossheads	Cast steel. Alligator Rod Oil Cups Plunger forged on.	Steam Gauge Stand	Iron Gauge Iron 7" Maker
Wrist Pins	Steel	Flag Fixtures	Iron on bumper
Pistons	Cast iron rings sprung into solid head. Rods keyed to crosshead	Finish	D 106 Shipment By rail, Under Steam. 4/3/08
Throttle	Balance Position Dome	Junior Laws to	5-5-08
Solid end side rods.		Painting, Style	215 Engine Olive green & aluminum
		" "	--- Tender -----
Lateral play between driving boxes and wheel hubs 1/16" total.		Mark on Tank	RAHWAY VALLEY RAILROAD } In two lines
Drivers, Dia.,	56" Cen. Dia. 50"		
Tires,	Steel Held by Shrinkage & Shoulder Passenger	No. Pos., Road No.	Name None
" Flanged	Position Both pairs Size 3" X 5½"	F. No. Plate	7
" Plain	" --- " ---	Sand box	
Driving boxes steeled cast iron		Cab and	
Journal, Dia.,	8" Length 9½" Equal beams, Mild Steel. Spring Staples Wrot iron	Back of tank.	
Brake	Operating Parts (Engine, Sch. A-1. Westg. Auto Air. Engine trk. None. Foundation Parts (Drivers, Sch. ~~None~~ WY ~~[illegible]~~ American Equalized Eng. trk. None		
Air Pump	9½" Pos. L.S. Position L.S. Conns. front & back On all drivers Train Signal Sch. J.		
Stack,	Straight Dia. 16" Hole in S. B. 16¼"		
Advise F.W. two days before this engine is ready to ship so that arrangements for payment may be made.			
Charge as	--- Certificate of Boiler Test ---		

ADVISE J.W.C. BEFORE ENGINE IS SHIPPED. (5.28.08)