

CYLINDERS

Of close-grained iron, as hard as can be worked.
High pressure cylinders 17 inches diameter and 24 inches stroke.
Low pressure cylinders - inches diameter and - inches stroke.

**Cylinder Heads
Main Valves**

Of cast iron 9-1/2" diameter, Piston valves, neatly covered.
Type operating in suitable steam chests.
Cylinders to have bushings of Hunt Spiller Gun Iron

**Cylinder Covering
Lubricator**

Cylinders lagged with same material as boiler and neatly cased with painted steel.
Nathan Triple Bull's Eye automatic sight feed lubricator, placed in cab,
and connected by copper pipes to cylinders and air pump

Pistons

Heads of cast iron fitted with cast iron packing rings sprung in.
Piston rods of steel, ground and keyed to crossheads, and securely fastened to piston heads
For piston rods and valve stems, United States (King type) metallic.

**Packing
Guides**

Of steel, fitted to guide yoke of mild wrought steel, or cast steel. Needle oil cups on guides
Of brass

Crosshead

Of cast steel, with suitable bearings.

Valve Motion

Walschaerts graduated to cut off equally at all points of stroke.

**DRIVING
WHEELS
Tires**

Six in number, 46 inches in diameter. Centers of cast steel,
turned to 40 inches diameter. Tires held by shrinkage and shoulder
Of steel, 3 inches thick when finished; All
pairs flanged 5-1/2 inches wide, pair plain inches wide.

Driving Axles

Of hammered steel, journals { main 8 inches diameter and 9 inches long.
others 8 inches diameter and 9 inches long.
Bronze hub liners on all driving wheels

Driving Boxes

Of cast steel, with bronze bearings. and Elvin lubricator.

Rods

Equalizing beams of wrought steel or cast steel.
Connecting and Parallel rods of hammered steel. Connecting rods forged solid, and furnished with
all necessary straps, keys and brasses. Parallel rods with straps, keys and brasses or with solid ends
and heavy bronze bushings, put in by hydraulic pressure and well secured from turning in rod.
No oil cups, grease cups, forged on.

Wrist Pins

Of steel Jack wrist pin to have nuts and washers to fasten rods.
Bronze hub liners on front and back engine truck wheels.

**FRONT ENGINE
TRUCK**

Two wheeled truck
Truck frame of wrought steel or cast steel, well braced, fitted with swing bolster, with center bearing,
side bearing, or radiating mechanism.
Cast iron spore center, steel tire

**Wheels
Axles**

Of hammered steel, with journals 5 inches in diameter and 10 inches long.
Boxes of cast steel with bronze bearings, and oil lubrication.
Tires 2-1/2" x 5-1/2" held by shrinkage and shoulder.

**BACK ENGINE
TRUCK**

Two wheeled truck
Truck frame of wrought steel or cast steel, well braced, fitted with swing bolster, with side bearing,
with center bearing, or radiating mechanism.
Cast iron spore center, steel tire

**Wheels
Axles**

Of hammered steel, with journals 5 inches in diameter and 10 inches long.
Boxes of cast steel with bronze bearings, and oil lubrication.
Tires 2-1/2" x 5-1/2" held by shrinkage and shoulder.