

SMOKE-BOX.

To be 4 ft. 6 $\frac{1}{2}$ in. diameter outside.

CROWN STAYS.

Crown sheet to be supported by direct vertical screwed stays, 4 in. from centre to centre. Stays to be 1 $\frac{1}{2}$ in. diameter, having eleven threads to one inch. Saddle sheet and crown sheet to be tapped through with same tap to receive stay. Stays are to be made a steam-tight fit, and a projection of $\frac{1}{8}$ in. inside the crown sheet and outside the saddle sheet is to be left for rivetting over.

POP VALVES.

To be placed on dome cover. To be Crossby pattern. (See drawing.)

GUSSET STAYS.

The head sheets are to be stayed to cylinder part of the boiler by gusset stays. Two gusset stays required for front tube sheet, and four for back head sheet.

TUBES.

Of wrought iron, 1 $\frac{1}{2}$ in. diameter outside, with copper ferrules on fire-box end, 184 in number, 11 ft. 9 $\frac{3}{8}$ in. long, lap welded, charcoal iron, special No. 12 tubes.

Boiler to be tested under steam to the satisfaction of the Mechanical Superintendent of the Company, or whoever he may appoint to inspect it.

GRATES.

Of cast iron. Rocking finger for burning coal connected so as to be opened from deck of engine in end sufficiently wide to drop or clean fire. (See drawing.) Ash-pan with forward and back dampers arranged to be operated from the deck of engine, and fitted to close tight.

SMOKE STACK.

To be made diamond-pattern, with cast iron top. (See drawing.) Cone of chilled cast iron corrugated. Barrel of stack No. 10 steel. Top of stack from top of rail 14 ft. 6 in. Base of cast iron in two parts. (See drawing.)

THROTTLE VALVE.

Balance valve made of cast iron.

CYLINDERS.

Kington pattern. Centre of Cylinder to centre of Boiler, 3 ft. 6 $\frac{1}{2}$ ins.

PISTONS AND RODS.

Piston head, follower, and rings to be made of cast iron, steam packing. Rods to be made of steel, 2 $\frac{3}{4}$ in. diameter, screwed into piston head and secured by screwed plug in threads. (See drawing.) To be keyed to crosshead with steel key.

Glands to be fitted with metallic packing from United States Metallic Packing Co.

GUIDES AND CROSSHEADS.

Made of steel. (See drawing.)

VALVE MOTION.

Shifting link graduated to cut off equally at all points of stroke. Links to be made of best hammered iron, double thimble and case-hardened. Reverse shaft of wrought iron, forged solid. Lifters and other parts of valve motion having bearings to be double thimble, and all wearing parts, including pins, to be case-hardened.

ROCKER ARM.

Made of wrought iron.

DRIVING WHEELS.

Driving wheel centres to be made of cast iron with hollow spokes, turned outside on face, 56 inches diameter, edges faced and properly counterbalanced.