

gauge, giving a very high resistance and practically eliminating all possibility of burning out.

7. Cover for governor, of sheet iron.
8. Another insulating coupling.
9. Non-arcing inclosed fuse to protect the compressor motor.
10. Brake cylinder. When the brakes need to be operated, air from the reservoir is admitted, through the engineer's valve, to the brake cylinder, which applies pressure to the shoes and thence to the wheels by means of a suitable lever mechanism.

The cylinder is provided with a loose piston rod (Plate 7), so arranged that when the hand brakes, and not the air

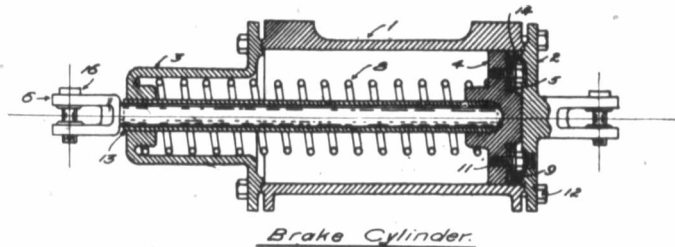


Plate 7. *

brakes, are used the loose piston rod only is moved. The pipe in which it slides is fixed to the piston of the brake cylinder, which is held in release position by a spring.

The size of cylinder depends on the weight of the car on which it is to be used. These figures allow for the load which may be on the car.

Weight of Car.

Size of Cylinder.

50,000 to 70,000 pounds..	10-in. dia. by 12-in. stroke.
30,000 to 50,000 pounds..	8-in. dia. by 12-in. stroke
20,000 to 30,000 pounds..	7-in. dia. by 12-in. stroke
15,000 to 20,000 pounds..	6-in. dia. by 12-in. stroke