

it has been thoroughly tested out, every detail recorded and the shoes kept in active service for several months and the following specification is suggested, having in mind the consolidation of the best features of those shoes which have been successfully tried out during the past few years. Such a specification would result in the construction of a shoe which would give the desired frictional effect or retarding power, maximum life, keeping the tires and flange dressed in proper proportion to the tread of the wheel and in addition increase the earning capacity of the locomotive as indicated in the foregoing.

SPECIFICATION.

The shoe should preferably be made of soft cast iron into which should be molded hard metal inserts in the face of the shoe with their bases adjacent to the outer surface of the shoe, their points or apexes being turned inward and approaching the flanged groove. Inserts must present inclined shearing edges on the face of the shoe and the operative sides set back at an acute angle to the wearing surface. The back should be made of soft steel. It is not necessary to employ a plate covering the entire back of the shoe, the same result being obtained at a much less cost by using one or more strips of soft steel 3-16 inch thick made in zig-zag form and extending from end to end of the shoe and provided with beveled edges over which, in pouring, the molten metal will flow flush with the back; the strips should be united at the point of the bolt hole, where such is desired, and afterwards bored through. This construction will prevent the breaking away of the cast metal through the straining of the bolt when in use.

The following table of tests of different makes of Driver Brake Shoes for different classes of service, will, no doubt, be of interest:—

Class	Make of Shoe	Loco.	No. of Shoes	Mileage	Average miles per shoe	Total tire rail wear	Average tire rail wear per shoe
Passenger	A	4	15	431,172	28,745	37-64	2-64
"	B	2	6	144,545	24,091	24-64	4-64
"	C	1	3	21,402	7,134	15-64	5-64
Suburban	A	6	30	301,884	10,063	27-64	1-64
"	B	4	14	90,200	6,443	84-64	6-64
Freight	A	3	17	275,313	16,194	30-64	2-64
"	B	1	4	46,662	11,665.5	20-64	5-64
Switch....	A	6	18	172,693	9,590	50-64	3-64
"	B	5	15	125,528	8,368	92-64	6-64