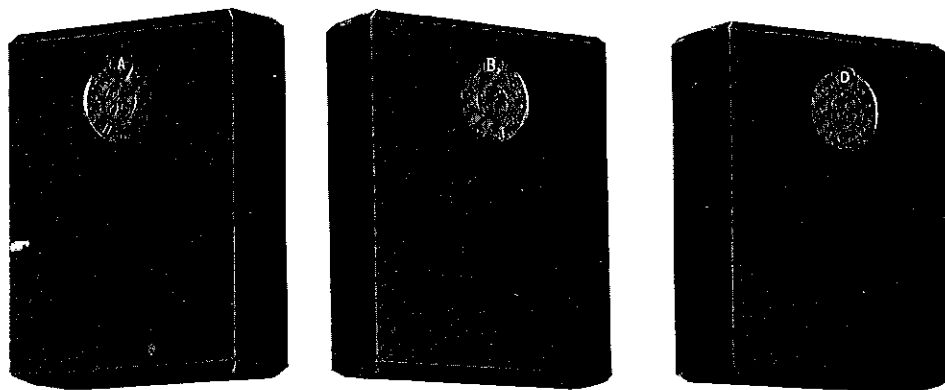




CARBON BRUSHES

for
Railway Motors



Brush Selection

The selection of the brush to use is governed by the type of motor and local service conditions. It is impossible to make a specific recommendation which will apply to every operating condition, but the following suggestions will be helpful in the majority of cases.

Abrasive, High Resistance Brush

For use on commutators not grooved

Motors having commutator side mica flush with the commutator surface require a brush with an abrasive content sufficient to cut the mica. Non-commutating pole motors generally require a comparatively high resistance brush to reduce the current in the coil short circuited by the brush. The brush must also have ample current carrying capacity.

The G-E Grade A brush meets these requirements.

Semi Self-Lubricating, High Resistance Brush

For use on grooved commutators

Motors subject at times to heavy overloads, which may cause burning or pitting of the commutator, generally require a semi self-lubricating brush containing just enough abrasive to keep the commutator smooth. Where commutation is affected by excessive vibration and possible flashing, a medium abrasive brush is also required. Such a brush usually has sufficient resistance to properly commute the current in non-commutating pole motors.

The G-E Grade B-2 brush meets these requirements.

Ask our nearest office for complete information

General Electric Company, Schenectady, N. Y.

SALES OFFICES IN ALL LARGE CITIES



Carbon Brushes for Railway Motors

Self-Lubricating, Low Resistance Brush

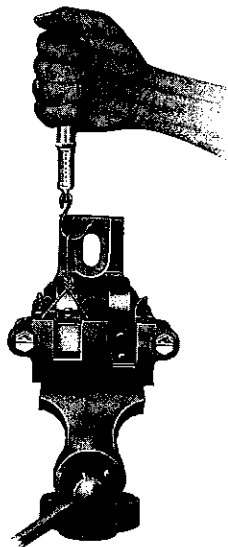
For use on grooved commutators

Under favorable conditions, such as absence of excess overloads, destructive vibration, and flashing, the use of a non-abrasive, low resistance brush is recommended for commutating pole motors. A brush of this character causes minimum brush friction and minimum wear on the commutator.

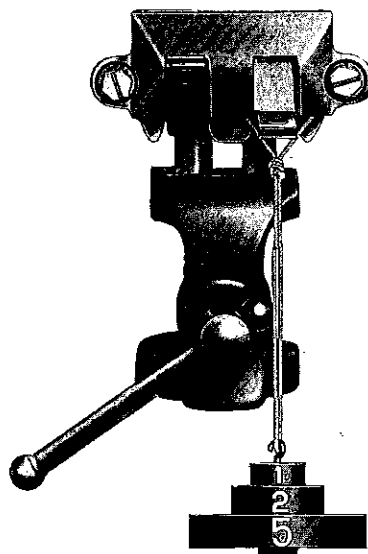
The G-E Grade D brush meets these requirements.

Brush Pressure Adjustment

Brush troubles are frequently caused by using pressures entirely unsuited to the brush. Too little pressure allows the brush to jump, often causing a flashover. It is necessary to use a high brush pressure on lines having rough tracks. The pressure should be sufficient to keep the brush on the commutator at all times.



Spring Balance Method



Weight Method

Methods of Measuring Brush Pressure

When measuring brush pressure by either of the methods illustrated above, it is recommended that a wooden block of the same size as the brush be used. This should be grooved lengthwise to hold the cord. If the wooden block is omitted, care must be taken to place the cord around the finger at the center of the carbonway, otherwise an incorrect reading will be taken.

There are few motors which allow sufficient space within the motor to measure pressure on both brush-holders with the spring balance. However, it is always desirable and generally necessary to remove the brush-holder from the motor in taking measurements of brush pressure.

In the weight method, a weight equal to the proper pressure is applied as shown in the above illustration. If the weight does not just balance the pressure of the finger, the ratchet adjustment on the brush-holder should be changed. This operation should be repeated until proper adjustment is made.