Form K4306 Printed in Gt. Britain

(536)

INSTRUCTIONS

FOR THE USE OF

SINGER

ELECTRIC MOTORS

K.A. and K.D. 2100 Series

THE SINGER MANUFACTURING CO.

TO START THE MACHINE

Turn on the electric current and press lightly the back edge of the treadle. As the pressure on the treadle is increased so the speed of the machine is increased, the speed being controlled entirely by the amount of pressure on the treadle. Immediately the pressure is released, the brake operates on the brake disc and the machine stops instantly.

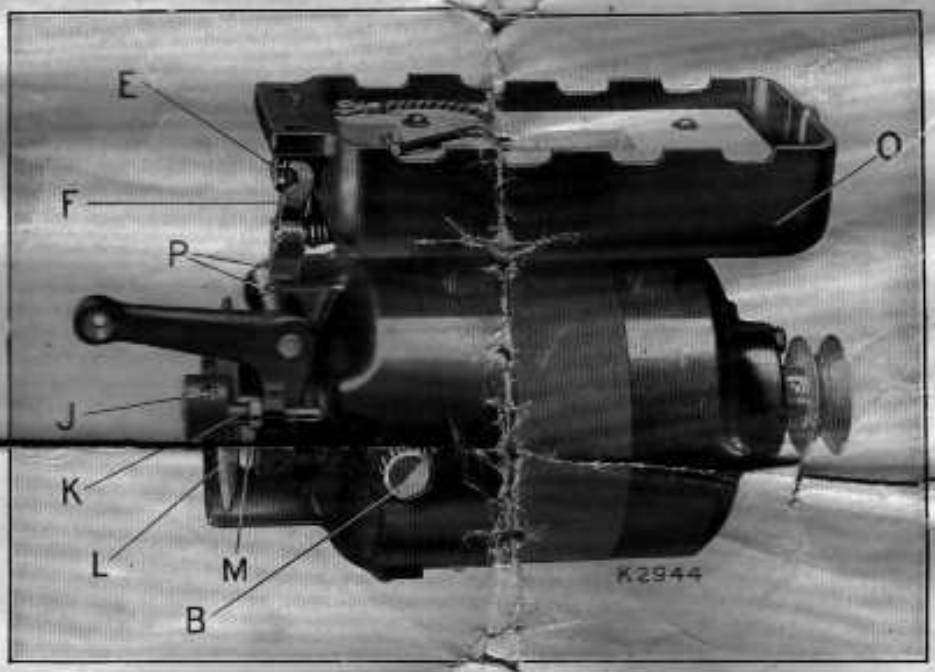

Fig. 1. Front View of Motor.

Front view of Motor, showing :—

E. Controller Resistance Unit Adjusting Nut.
F. " Lever.
P. Oiling points.
J. Brake Disc Set Screw.
K. " Lever Stop Screw.
L. " Disc.
M. " Leather.
B. Brush Holder Tube Cap.
O. Controller Box.

The motor and controller when sent out from the factory, are correctly adjusted for the efficient working of the motor.

Adjustments will, however, require to be made from time to time to compensate for the wear of the brake leather M, or if the latter should require to be replaced.

To adjust for wear on the brake leather M, loosen the two screws J and slip the brake disc along the shaft so that it presses hard against the brake leather, then securely re-tighten the two screws J. Care should be taken to ensure that, in pressing the brake disc against the brake leather, the back of the controller lever has not moved more than $\frac{1}{8}$ inch from the edge of the controller box O, otherwise it will be necessary to adjust the electrical setting of the controller.

When the brake lever is depressed to the full, the contact plate, which in its inoperative position is $\frac{5}{16}$ inch from the porcelain frame, should make full contact with the two metal points (that is, slightly beyond actual contact). The position of the flat contact plate is adjusted by drawing out the adjusting nut E and turning it either to or from you, as required. The brake lever stop screw K is adjusted so that when the brake lever is depressed to the full it will allow no more than full contact, as already explained. Any adjustment of this screw, which may be necessary, can be made by loosening its lock nut and turning the screw either to the left or right, as may be required, and then re-tightening the nut.

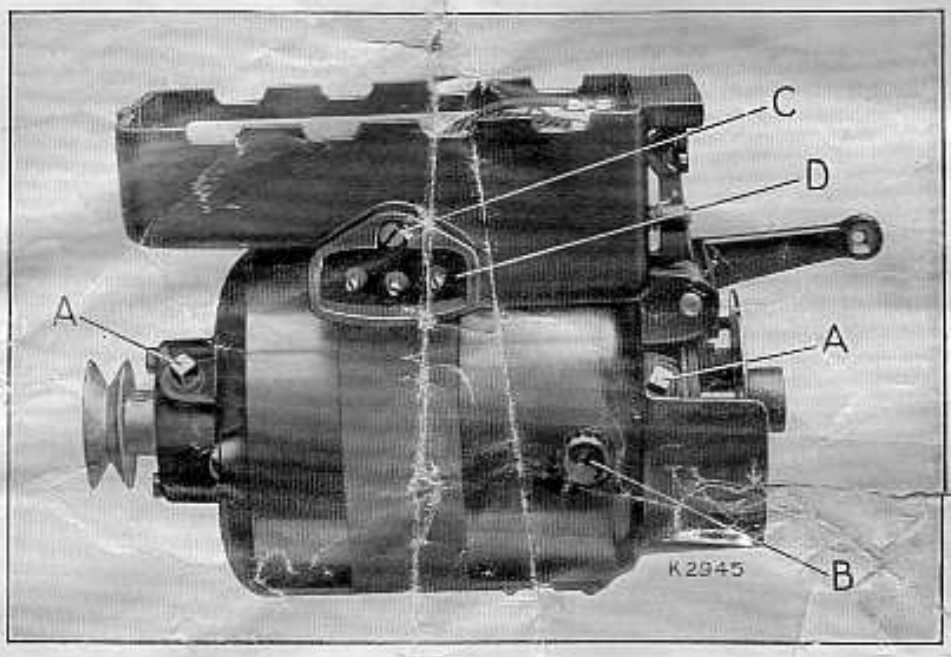

Fig. 2. Back View of Motor.

MOTOR BRUSHES

The grade of brush which has been selected for this motor secures good commutation, and has very good wearing qualities without grooving the commutator.

When ordering brushes, it is necessary to quote the catalogue number of the motor.

A set of these brushes should last for only one year unless the sewing machine duty is especially severe.

The brushes should be examined every three months to make sure that they are not wearing excessively and that they move freely in the brush holder, but care should be used to return the brushes to the brush holders in the same position that they occupied before removal.

To remove brushes for inspection, first disconnect the current from the motor by removing the three-pin plug from the three-pin terminal (D, Fig. 2). Then unscrew the two caps (B, Figs. 1 and 2) and, by pulling gently on the springs to which they are attached, withdraw the brushes. When replacing the caps, be careful to tighten them sufficiently so that they will not loosen when the motor is in operation.

LUBRICATION

There are two oiling holes in the starting mechanism (see P, Fig. 1) to which a single drop of oil should be given occasionally.

Oil, however, should never be applied to any other part of the Motor. When a motor is sent out from the factory, the bearings are filled with lubricant sufficient for three months' use under average working conditions. It is recommended that, after three months, the bearings of the motor be lubricated using the small tube of Singer Motor Lubricant, No. 190613, provided with the motor. To lubricate the motor bearings, remove the square-headed screws (A, Fig. 2) and apply lubricant from the tube until the space in the grease cup is filled level with the top of the cup, no force being used to pass the grease into the bearing housings. The grease should then be smoothed off by passing the finger over the cup, and the square-headed screws replaced.

It is necessary to follow the above directions carefully, as to over-lubricate a motor may result in as serious consequences as under-lubricating the same.