THE HYSTERESIS MOTOR.

Type No. 26200 (various suffixes).

Various suffixes are used to denote variations in turntable spindle, terminal panels, etc., but (with the exception of "D") the electrical data for all motors is as follows :—

ELECTRICAL DATA.

Voltage range ..	100–130, 200–260.*
Frequency range ..	50 cycles only.
Current, maximum ..	0·053 A at 230 v.
Wattage, maximum ..	12 W. at 230 v.
Resistance of coils A and C	1,030 ohms each, B and D 585 ohms each.*
Condensers	0·7 μF each.*

Resistance across mains input terminals (200–250 v. range), 1,170 ohms.*

Insulation not less than 50 megohms at 500 volts D.C.

* For particulars of Motor No. 26200D see Fig. 20.

PRINCIPLE OF OPERATION.

The hysteresis motor is an induction type operating by virtue of the rotating magnetic field produced by the four-pole stator in conjunction with condensers. The rotor consists of a plain ring of magnet steel, which during starting is magnetised by the eddy currents produced by the rotating field in such a way that torque is developed between the stator and the rotor fields. As the motor reaches synchronous speed the rotor becomes polarized in a simple two-pole manner and consequently follows the rotating field set up by the stator.

TO REMOVE STATOR.

1. Remove large bronze rotor bearing, and withdraw rotor carefully.
2. Unsolder leads from condenser block.
3. Remove stator assembly by unscrewing the four securing screws.

When re-assembling care must be exercised to ensure that the end of the rotor spindle is located in the spring loaded bearing (at the worm end) before pushing the large bronze bearing home. Before finally tightening the stator securing screws assemble the rotor in position and ensure that an equal gap is obtained all round the magnet steel ring. A diagram of the coil connections is given on this page.

TO REMOVE THE MAIN SPINDLE.

Remove three screws securing the bottom plate of the motor. The spindle can now be withdrawn.

ADJUSTMENTS.

End play is catered for by the spring loaded bearing. Ball thrust bearings should be present at both ends of the rotor and at the lower end of the turntable spindle.

LUBRICATION.

Motors should be oiled periodically with a fine machine oil.

There are three lubrication points—two holes at extreme ends of motor, accessible when the turntable is removed; and the turntable spindle bearing. The latter rarely needs oiling, but if thought necessary, access is obtainable by removing the rubber washer and collar supporting turntable.

In the auto-mechanism the oil holes are accessible through holes in the base plate. These are marked with red paint.

CONNECTIONS.

Motor No. 26200F is used on radiograms, and No. 26200E on auto radiograms. They are both connected to the 224–255 volt tapping of the receiver mains transformer. This ensures a consistent voltage across the motor, and no other voltage adjustment is necessary. The terminals 2 and 3 on the motor panel should be joined. Mains input leads to terminals 1 and 4.

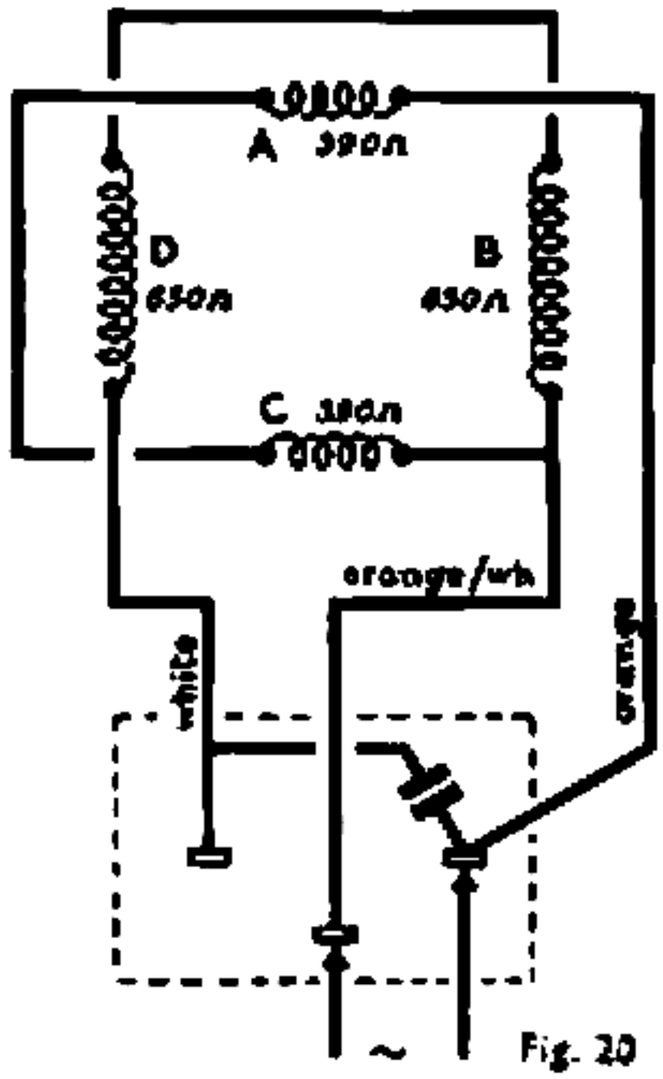

Fig. 20

No. 26200 D

This Motor is for connexion to 224-250 volt tapping on a mains transformer only. The condenser is 0·45 mfd.

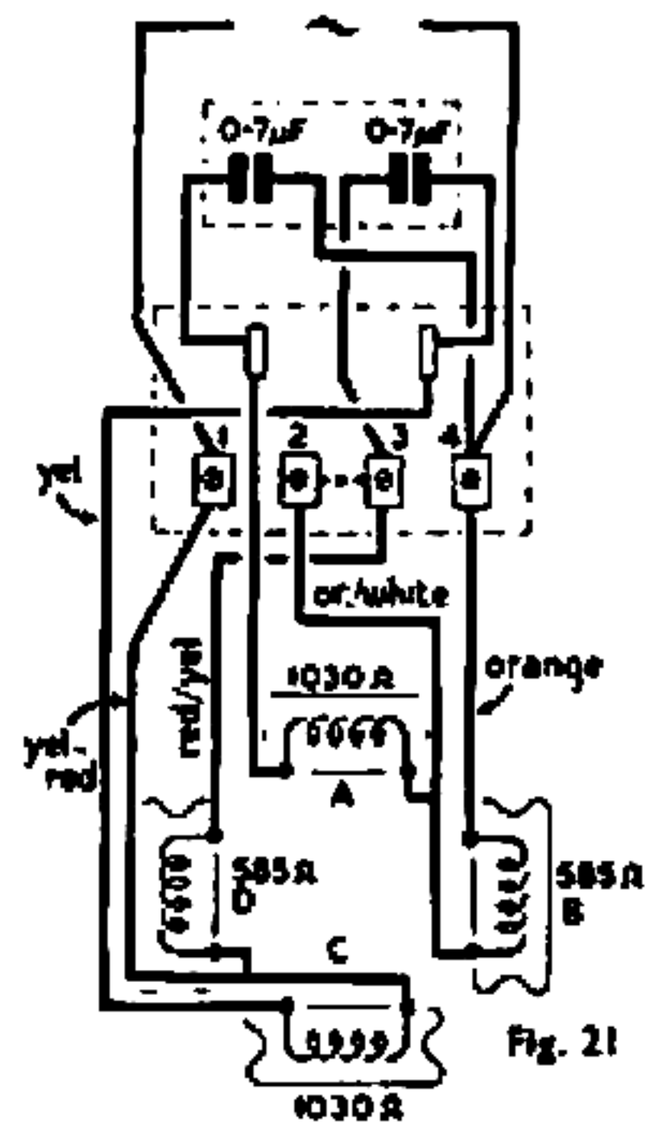

Fig. 21

Type 26200 E and F.