



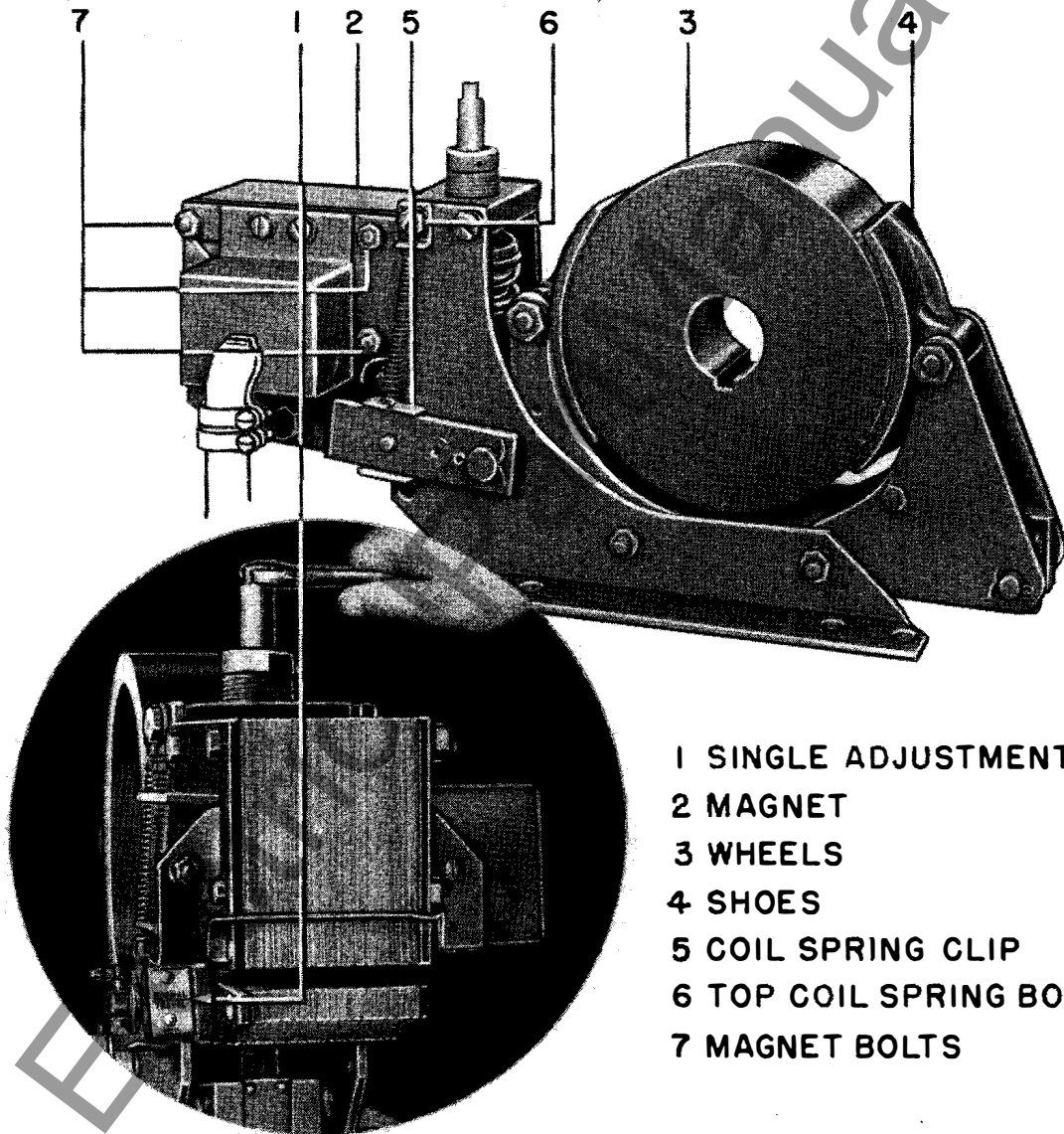
ADJUSTMENT

DESCRIPTION

INSTRUCTIONS

AC MAGNETIC BRAKES

TYPE AK



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2 MAGNET

3 WHEELS

4 SHOES

5 COIL SPRING CLIP

6 TOP COIL SPRING BOLTS

7 MAGNET BOLTS

GENERAL

THE AC MAGNETIC BRAKES, TYPE AK SINGLE ADJUSTMENT WITH CLAPPER TYPE MAGNET, are designed for general brak-

ing service on A-C motors which are mounted on machines requiring positive braking service.

Your Load Tap Changer is equipped with a Type AK brake and with proper maintenance it will be a reliable part of your tap changer.

AC MAGNETIC BRAKES

ADJUSTMENT

The brake has been properly adjusted at the factory. Only a single adjustment is required for magnet travel. This adjustment can be made by any maintenance man quickly, easily and accurately, with no guess work involved. Torque adjustment is made at the factory.

An indicating pointer on the housing shows when proper adjustment has been made*. It also shows when a routine adjustment is necessary and how much. With magnet de-energized, the adjustment is made by turning the adjusting spindle on the top of the brake until the indicator reaches the marked, "NORMAL TRAVEL" position.

Accurate adjustment can also be made when the indicator is not visible, either with the motor stopped or running. **MOTOR STOPPED**—With magnet de-energized, spindle is turned clockwise as far as possible, then backed-off one turn. **MOTOR RUNNING**—Spindle is turned clockwise until shoes drag on wheel, then backed-off until wheel turns free. This method is used in cramped locations and where brake is enclosed with spindle head projecting through the cover.

DESCRIPTION

Magnet. A clapper type magnet unit with a short stroke operates the brake and permits positive operation in any position. The single-phase full voltage coil is form-wound and well insulated.

A stop limits the maximum travel of magnet armature so that it will always pull in and protect the coil from high open gap current when normal voltage is applied.

The brake is normally assembled for mounting with the clapper to the right and the terminal box on the motor side. This arrangement can be easily reversed as disassembly is quick and simple.

Linkage. Rolled steel brake arms and levers are arranged in a compact, out-of-the-way assembly. Bearing pins and bushings are of high grade steel designed for maximum service life. Loading of bearing points during operation is eliminated through the pivoting system employed . . . minimizes wear on pins and bearings. The brake spring is set for normal torque rating at the factory . . . no further adjustment necessary. If desired, spring pressure can be easily adjusted by means of a threaded sleeve through which the magnet travel adjustment spindle projects.

*This indicator is at the rear of brake as mounted in the operating mechanism cabinet. On the UT and UTR, it is necessary to use a mirror and light to see this indicator as it faces the mechanism base plate.

Wheels. Brake wheels are machined from high strength annealed iron castings for longer wear, and higher resistance to scoring than other materials. The wheel is easily removed by opening brake shoes with adjusting spindle . . . no overhead linkage to be disconnected or removed.

Shoes. Interchangeable cast iron brake shoes are lined with molded asbestos material held by brass rivets. Heat or moisture has little effect on the linings. Replacing of linings is a quick simple operation.

Shoes are mounted between the arms on a single pivot bolt which permits self-alignment with the wheel. Once aligned, pivot bolts are tightened, holding shoes in position and preventing the tips from dragging.

When the magnet is energized, brake shoes are automatically moved equidistant from the wheel by a floating pivot system, permitting the brake to adapt itself to considerable misalignment with the motor . . . uniform pressure always applied when braking. Automatic shoe adjustment assures positive action and quick brake release.

INSTRUCTIONS FOR REMOVING COIL

Type AK-41

1. Remove conduit bracket and/or disconnect leads.
2. Remove nut and hold-down plate from adjusting spindle and two bolts from the top of brake near the end above the coil and lift out magnetic assembly with coil.

Type AK-43

1. Remove conduit bracket and/or disconnect leads.
2. Pry coil supporting springs out from underneath coil and remove magnet spring mounting brackets by removing retaining screw.
3. Remove "Coil Spring" clip and pull out stop pin towards the front.
4. Drop clapper down as far as possible by turning spindle counter-clockwise.
5. Remove three bolts holding magnet and loosen top "Coil Spring" bolts. Move magnet about 1 inch holding coil against magnet. Then lift up until coil can be removed towards the front.

When ordering parts or writing for additional information, refer to nearest Westinghouse Sales Office and give complete nameplate reading.



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(Rep. 10-61) Printed in U.S.A.