

IV. MOTOR PULLEY

1. Hold Cooling Fan (4429) stationary by inserting finger tip between the blades.
2. Grip the Motor Pulley with thumb and finger of the other hand, and turn it in an anti-clockwise direction, at the same time pulling it gently upwards. The coupling spring, usually comes away with the Pulley, but in any case should be removed from the Fan Boss for purposes of re-assembly.

1. Press Motor Pulley into the Coupling Spring (3104) with a left hand twisting movement until the end coil of the Spring sits firmly against the shoulder of the Pulley.

NOTE—The end of the Spring without the projecting tail should be next to the Pulley.

2. Hold Cooling Fan (4429) stationary by inserting finger tip between the blades.
3. Slide Pulley (with Spring attached) on to the Motor Spindle so that the open end of the Spring engages with the neck of the Fan Boss. Grip Pulley with thumb and finger, turn it in an anti-clockwise direction, at the same time pressing it gently downwards. When properly located the bottom of the Pulley should butt firmly against the top of the Fan Boss.
4. Check that Motor spins freely and that Motor Pulley runs true within limits specified in the tabulated information given in SECTION XI. (8), (9) and (10).

Important Notes

1. Take care not to distort Fan Blades (see Section V).
2. Cooling Fan is a drive fit on Motor Spindle, and is set so that the Motor Pulley will be at correct level when butting against it. Do not push Motor Pulley forcibly downwards when replacing, as this may disturb location of the Fan on the Spindle. (Refer to Section V for instructions on checking and setting level of Cooling Fan).
3. As a ready means of checking correct working level of the Motor Pulley the Service Engineer should equip himself with a straight strip of 18 S.W.G. (.048") metal 5" long, $\frac{3}{8}$ " wide. This should be used by laying flat on top of the Unit Plate, so as to bridge the aperture through which the Motor Pulley protrudes. The upper surface should just pass under the largest flange of the Motor Pulley.

V. COOLING FAN

First remove Idler Wheel (3199) and Motor Pulley as described in Sections II and IV respectively. The Cooling Fan (4429) may then be prised off the Motor Spindle, taking great care to avoid bending the Motor Spindle. For this purpose a pair of suitable bent levers should be used simultaneously on opposite sides, taking care to prise directly on the underside of the Fan Boss to avoid distorting the blades.

If necessary, pinch the split neck of the Fan Boss to make it a tight drive fit on the Motor Spindle. Do not close in too much as undue force may then be necessary to push it on to the Motor Spindle. If over-tight, a length of $\frac{3}{16}$ " diameter rod with a tapered end, should be driven through the Boss before attempting to push it on to the Motor Spindle.

To push the Fan into position on the Motor Spindle, it is convenient to use a short length of tube $\frac{3}{16}$ " diameter bore. This should be gently tapped down until the top of the split neck of the Fan Boss is $\frac{1}{32}$ " above the flat face of the motor frame. If set too low, prise upwards as described opposite.

Finally, check that all six fan blades have adequate clearance, setting any blades that are out of line. The lower edge of each blade should be parallel to the face of the motor frame with a gap of about $\frac{1}{16}$ ".

VI. IDLER SWIVEL ARM

1. Remove Idler Wheel (3199) as described in Section II.
2. Loosen Set Screw (1298) two or three turns.
3. Withdraw Spindle (3010) upwards, thus enabling the Idler Swivel Arm (4927) to be withdrawn sideways from between the forks of the Idler Slide Arm (4403).

Reverse procedure given opposite. The Spindle (3010) should be set so that each of its ends is slightly proud of the outside faces of the forks of the Idler Slide Arm (4403). Tighten Set Screw (1298) securely and check that the Swivel Arm (4927) swings quite freely on the Slide Arm (4403).

VII. IDLER SLIDE ARM

NOTE—Idler Swivel Arm (4927) may be left attached to the Slide Arm (4403) during this operation, or alternatively it may be separately removed, as described in Section VI.

1. Remove Idler Wheel (3199). (See Section II).
2. Detach Circlip from Post in Idler Slide Arm (4403), lift Idler Withdrawal Link (4542) from post and swing clear.
3. Loosen Set Screw (800) two or three turns.
4. Withdraw Spindle (4401) upwards, thus enabling the Slide Arm (4403) to be detached.

NOTE—Withdrawal of the Spindle (4401) also releases the Thrust Collar (4400). Any burrs caused by the Set-Screw (800) on the Spindle (4401) should be removed with a small smooth file before withdrawal to enable the Spindle to slide freely through the hole in the top fork of the Idler Slide Arm (4403).

Reverse procedure given opposite. Thread the Thrust Collar (4400) on to the lower end of the Spindle (4401), with its bevelled end downwards in contact with the upper face of the 4-speed Control Cam (4387). The Spindle (4401) should then be set so that its lower end is flush with the flat face of the motor frame, and the Set-Screw (800) tightened securely.

VIII. 4-SPEED CONTROL CAM IDLER WITHDRAWAL LEVER ETC.

1. Remove Circlip and swing Control Link clear.
2. Detach Spring (4674).
3. Remove Self Locking Nut (1276). Items numbered 4400, 3020, 3392, 4387, 2813, 4234, 2870, 4798, 4404 can then be detached.

1. Assemble items 2870, 4798, 4404 together, and assemble to Motor Frame, taking care to locate the limb "A" of the Idler Withdrawal Lever (4404) behind the peg "A" projecting from the bottom member of the Idler Slide Arm (4403).
2. Slide Thrust Collar (4400) on to lower end of Spindle (4401) with its bevelled end downwards.
3. Slide Spring (3020) on to the plain portion of the Spindle with the threaded end projecting downwards from the motor frame.
4. Assemble items 3392, 4387, 4234 together and slide on to the spindle with the threaded end, followed by the Washer (2813), Self Locking Nut (1276) and Spring (4674). Make sure that the Flange of the Roller (4798) over-rides the top face of the 4-speed Control Cam (4387).
5. Adjust working level of 4-speed Control Cam by means of the Self Locking Nut in accordance with instructions given under ADJUSTMENTS SECTION.