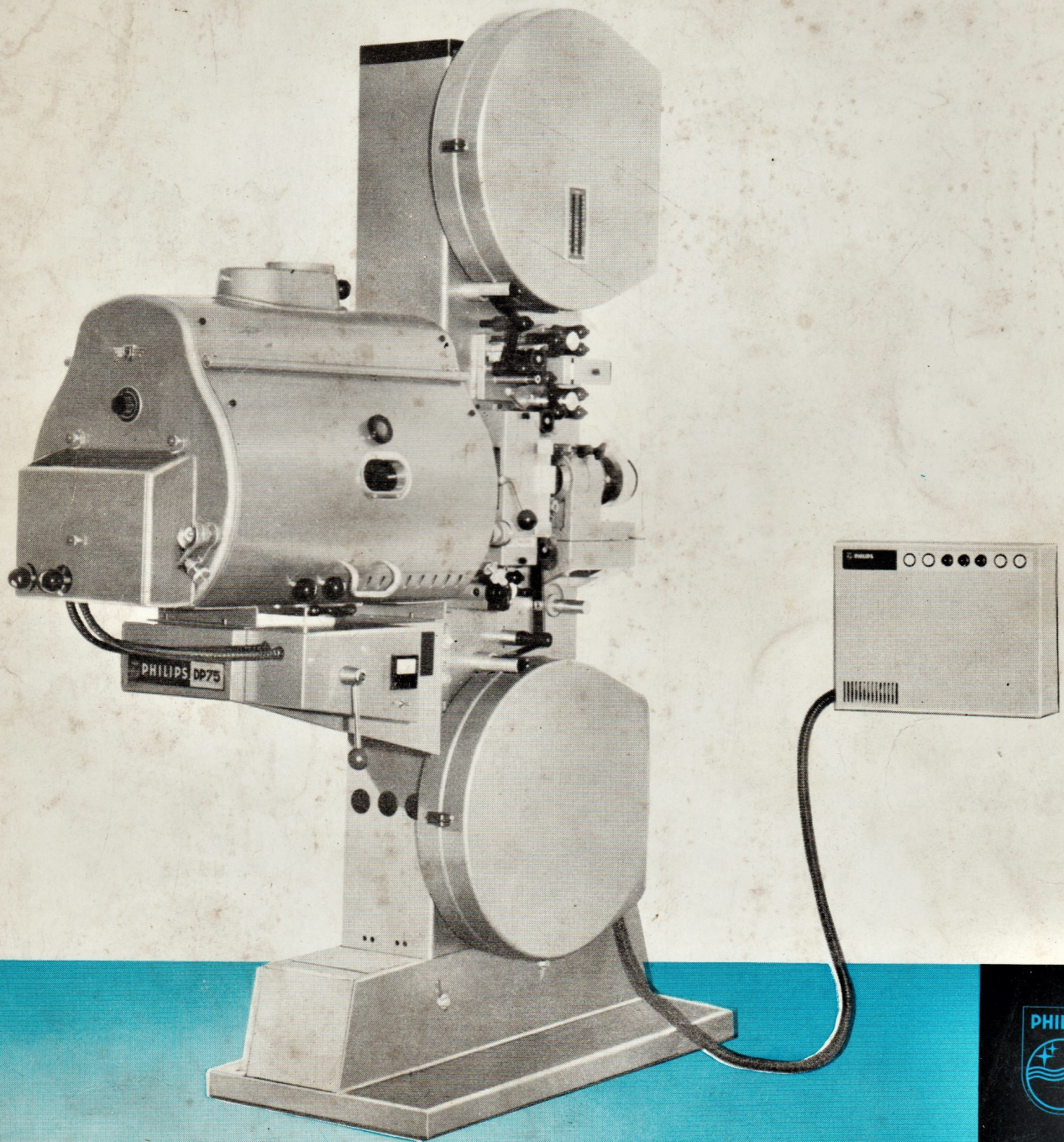


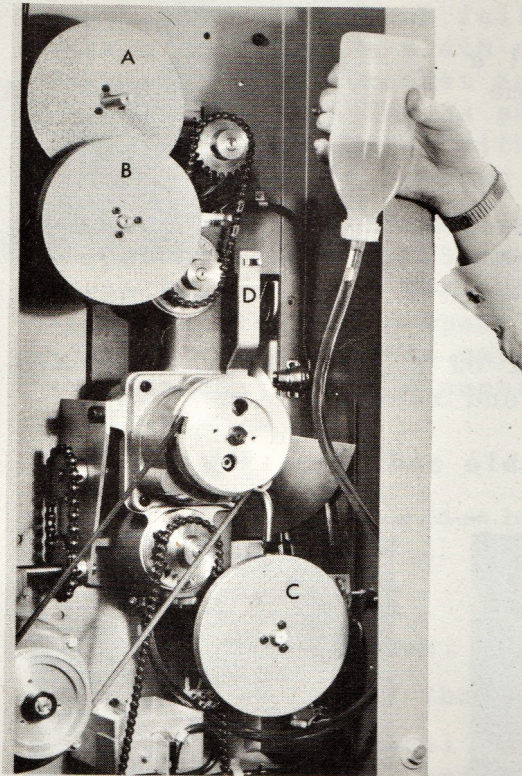
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# PHILIPS DP 75 PROJECTOR



**DIRECTIONS FOR USE**



DIRECTIONS FOR USE

After completion of the installation, check

- . whether the flywheels are fixed correctly;
- magnetic soundhead:
  - upper shaft ..... three discs "A"
  - lower shaft ..... six discs "B"
  - optical soundhead.. four discs "C"
- . whether the oil level in the plastic tube reaches up to marking line D when the projector is running; if not, inject projector oil (type 3672) into the tube by means of the injection bottle, after having removed its curved tube; beware of bubbles!
- . whether the correct exciter lamp for the amplifier used is inserted in the optical soundhead;
  - for the Philips amplifiers EL 5375, EL 5377, EL 5378/EL 5374 the correct exciter lamp is type 7251C, 5 V - 4 A.

Fig. 1  
Projector mechanism

Before each performance check whether the projector is equipped with:  
for 70-mm film:

- . black pad shoes, viz.:
  - 3 x "70-6" on the feed and hold-back sprockets;
  - 1 x "70-4" on the intermittent sprocket;
- . 70-mm runner plate;
- . projection lens for 70-mm film;
- . wedge A (Fig. 2) in lens holder pushed in;
- . 70-mm spool shafts;
- . correct aperture lens (if used);

for 35-mm film:

- . red pad shoes. viz.:
  - 3 x "35-6" on the feed and hold-back sprockets;
  - 1 x "35-4" on the intermittent sprocket;
- . 35-mm runner plate;
- . correct aperture plate (selected by means of a lever);
- . correct projection lens (either for CinemaScope, Wide Screen or normal);
- . wedge A (Fig. 2) in lens holder pulled out;
- . thin spool shafts if 35-mm film spools are used, thick spool shafts if DP 75 spools are used;
- . correct aperture lens (if used).

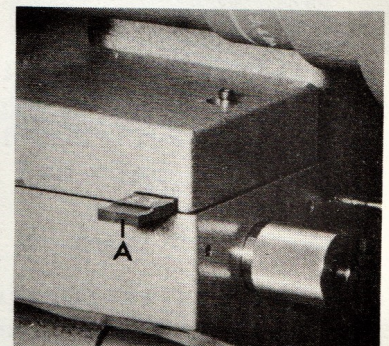


Fig. 2  
Wedge in lens holder

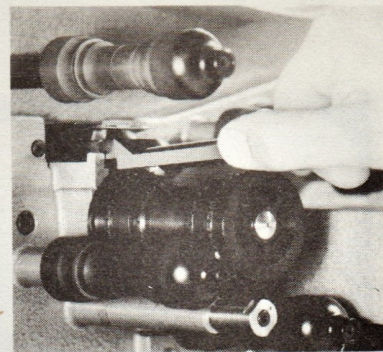
## CONVERSION FROM 70 mm TO 35 mm AND VICE VERSA

### Pad shoes (Fig. 3)

**Removal:** Lift and pull.

**Mounting:** Insert obliquely from above until a click is heard, then let them come down slowly.

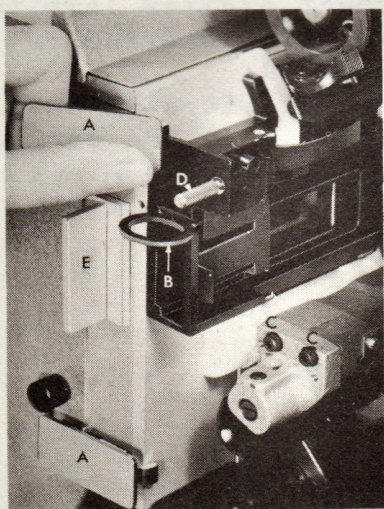
Fig. 3  
Removal of pad shoes



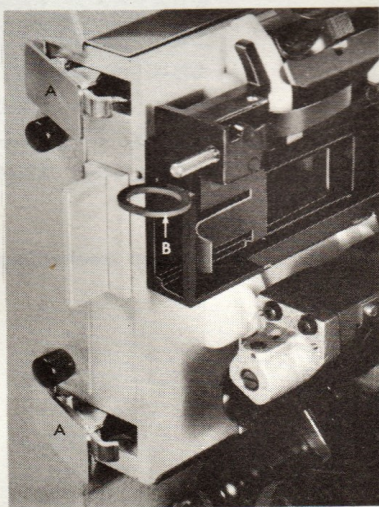
### Runner plate + door

**Removal:** Push at the left against the rear of clips A (Fig. 4a), turn the clips to the left (Fig. 4b) and remove the unit by pulling at ring B (Fig. 4c).

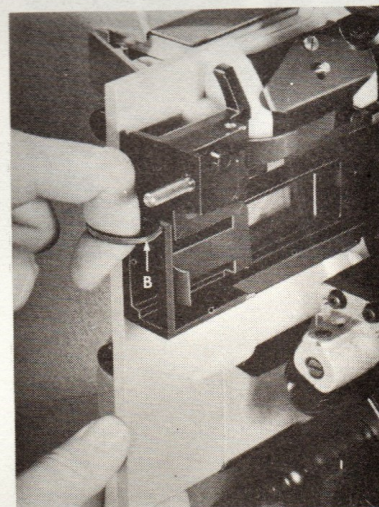
**Mounting:** Push in the unit as far as possible and close the clips.



a



b



c

Fig. 4

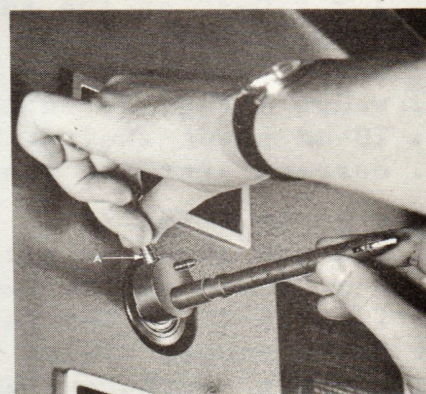
Removal of runner plate + door

### Spool shafts

**Removal:** Pull out locking pin A and then the shaft (Fig. 5).

**Mounting:** Pull out locking pin A, insert the shaft and release pin A.

Fig. 5  
Removal of spool shafts



### Intermittent sprocket

To avoid unnecessary wear of the 70 mm/35 mm intermittent sprocket if for a long period only 35-mm films will be shown, this sprocket can conveniently be replaced by a 35-mm one. For this purpose proceed as follows:

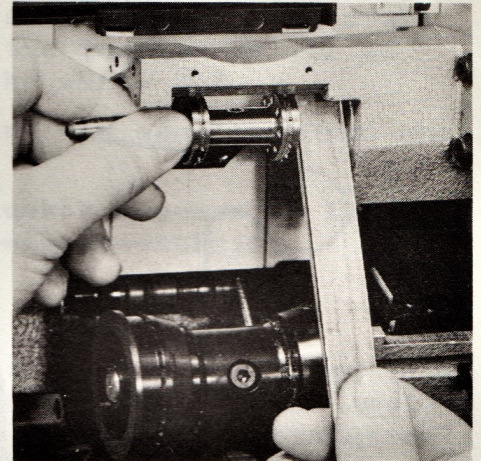
- . Remove screws C (Fig. 4a) and then the front bearing.
- . Remove the fixing screw of the 70 mm/35 mm sprocket, remove the film stripper and pull the sprocket from its shaft.
- . Turn the framing knob fully to the right.
- . Make a lath with a width of 17.5 mm ( $\frac{11}{16}$ " ).
- . Push the 35-mm sprocket on the shaft using the lath for spacing as shown in Fig. 6; then fix the sprocket with its screw and remount the front bearing.

Replacement of the 35-mm intermittent sprocket by the 70 mm/35 mm sprocket:

- . As indicated above for the reverse case, but leaving a space the thickness of two cigarette papers between the sprocket and the casting (instead of 17.5 mm).

Fig. 6

Mounting of the 35-mm intermittent sprocket



### THREADING OF THE FILM

- . Open both spool boxes.
- . Open the latches of the spool shafts.
- . Place the loaded spool in the upper spool box and an empty spool in the lower spool box and close the latches.
- . See that the striping on magnetic prints faces the rear of the projection lens and that the sound track of optical prints does not face the projector.
- Note: The upper spool may turn either clockwise or anti-clockwise.
- . Open all the pad shoes by lifting them about  $\frac{1}{4}$ " (1 cm).
- . Open the door of the film gate by pushing ring A in the direction of the lens (Fig. 7).
- . Put the framing knob in its middle position.
- . Inch the projector until the intermittent sprocket has just stopped turning.
- . Pull about 6 ft (2 m) of film from the upper spool, and thread the film as indicated in Fig. 8 of 9 (depending on the film used).
- . Close every pad shoe separately as soon as the film has been laid around the relevant sprocket.
- . Stretch magnetic prints between the upper two sprockets so that the arrow on the tension roller of the magnetic soundhead points exactly at the white dot on the housing.
- . Inch the projector until a full frame is in front of the aperture.
- . Do not make the upper film loop too large; with a smaller loop the film runs more smoothly.
- . Close the door of the film gate.
- . Make the lower, S-shaped loop of magnetic prints quite large but not so large that it touches the lens holder;

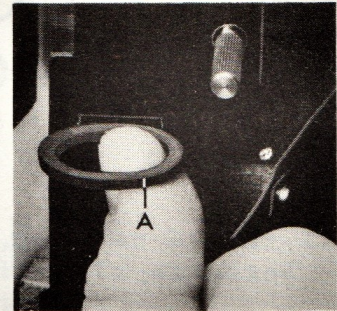
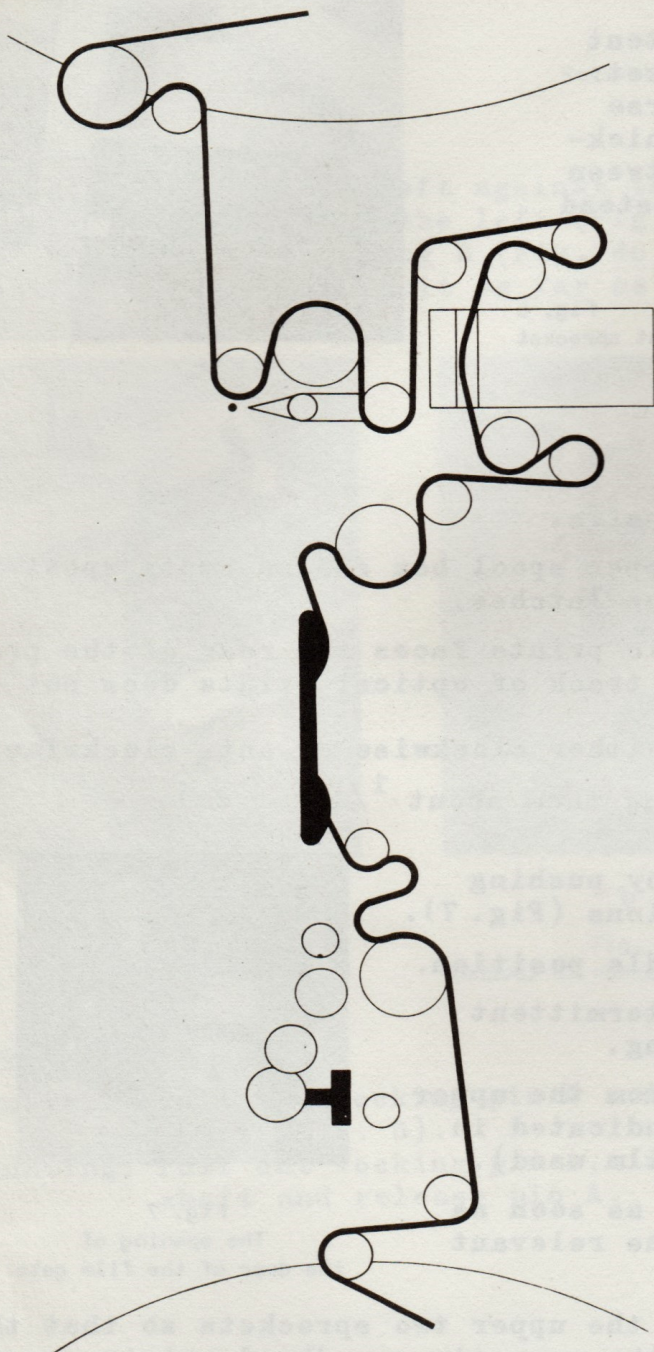
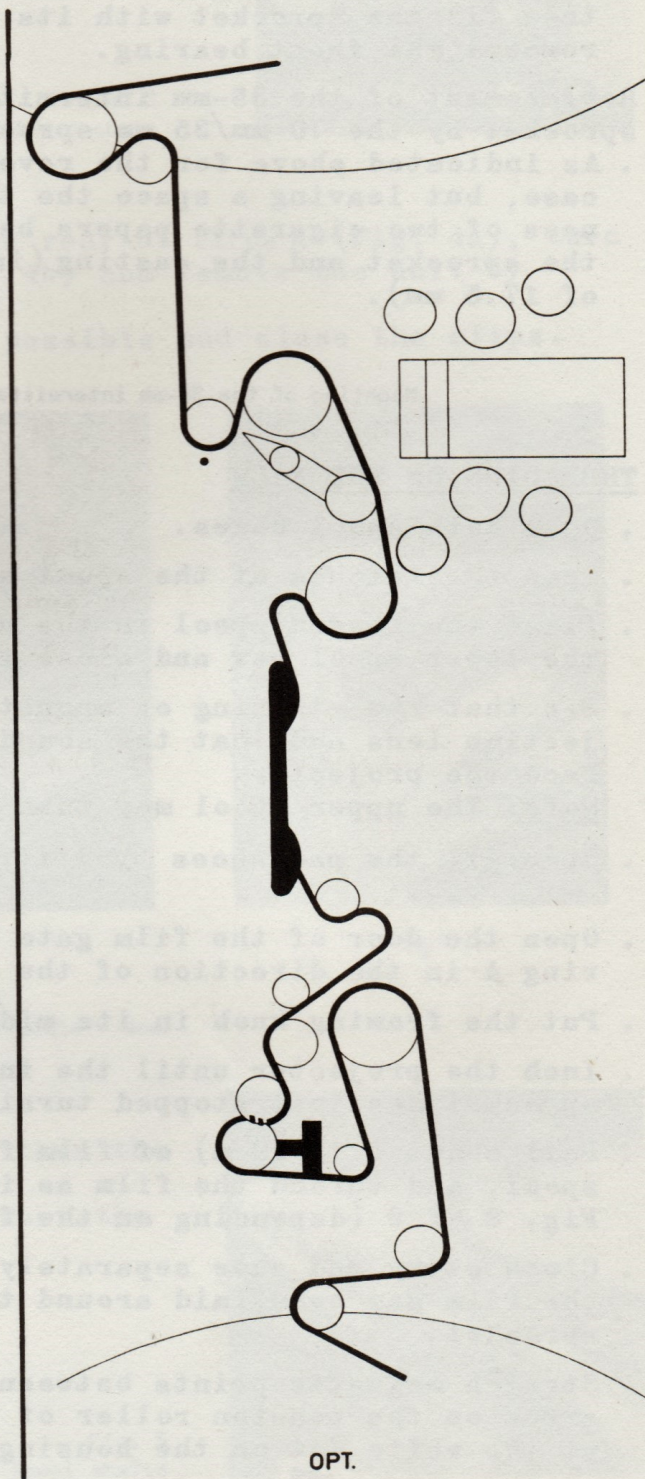


Fig. 7

The opening of the door of the film gate



MAGN.  
Fig. 8



OPT.  
Fig. 9

form the lower film loop of optical prints by stretching the film over a finger held to the right against the intermittent sprocket; then lead it through the optical soundhead to the hold-back sprocket.

- . Check the film loops by inching the projector by hand; if the loops have to be corrected - by shifting the film some perforations over the sprockets - take care that the arrow on the tension roller of the magnetic soundhead remains pointing at the white dot.
- . Fix the film to the lower film spool, and turn the spool by hand until the film is tight.
- . Inch the projector until the desired start number appears in the aperture and the intermittent sprocket has just stopped turning.

### PROJECTION

- . Set the amplifier according to the sound system of the threaded film.  
Note: When a type EL 5375, EL 5377 or EL 5378/EL 5374 Philips amplifier is used, the correct sound system is selected automatically by certain elements in the projector when the film is threaded (the pad shoe of the upper feed sprocket selects 35 mm or 70 mm; the tension roller of the magnetic soundhead selects optical or magnetic sound).
- . Check whether the tap for the water cooling is open.
- . Ignite the arc-lamp or the Xenon lamp.
- . Start projector X (or Y) by pressing button I-M on the control box.  
Note: The projector does not start if button I-x/y on the control box is illuminated; in that case depress first button 0-x/y.
- . Open the light cut-off of the arc (Xenon) lamp.
- . Depress button I-x/y; the dower of projector X (or Y) then opens, and projector X (or Y) is connected to the amplifier.  
 If projector Y (or X) was operating, its dower closes.
- . Focus and frame if necessary.
- . Reduce the skate pressure with knob D (Fig. 4a) as much as possible without rattling of the film.

### SAFETY DEVICE

In the event of film rupture a centrifugal switch, driven by the film, stops the projector automatically. The driving roller is situated above the lower spool box, just beside the fire trap.

Note: The centrifugal switch does not operate as long as the dower of the projector is closed.

## MAINTENANCE

### CLEANING

#### After each reel

Clean with a soft tooth brush:

- . the film gate,
- . the pad shoes,
- . the gate aperture,
- . the sprockets,
- . the magnetic cluster (if it has been used).

#### Every day

- . Remove dust with a soft cloth.
- . Remove the pad shoes of the sprockets (lift and pull) and clean them with the tooth brush.
- . Clean the projection lens with a camel or marden-hair brush (carefully because of its surface coating). Remove grease and finger prints with the lens cloth slightly humified with alcohol.
- . If the projector is equipped with an aperture lens, pull out holder E with lens (Fig. 4a) and clean the lens with the lens cloth.
- . Take out the runner plate and clean it with the tooth brush and a cloth; never use sharp objects.

#### Every week

- . Clean the optical system of the optical soundhead with the lens cloth.
- . Check if all the guide rollers are rotating smoothly. If not, remove the roller and clean the bore and shaft with a dry cloth. Put a drop of Esso Handy oil on the shaft and spread it with a finger. Never use thick oil!  
Note: The guide rollers are not interchangeable.
- . Check the tension of the motor belt. If necessary, increase it by lowering the motor (loosen slightly the four bolts under the framing knob).
- . Check the exciter lamp for blackness and check its filament. If necessary, replace the lamp.
- . Inspect the Delrin runner plate and the pressure skates for embedded hard particles; remove these with a penknife.

### LUBRICATION

#### Every week

- . Check the oil level in the plastic tube and if necessary replenish with fresh oil (see top of page 1).
- . Lubricate with Esso Handy oil (C1 602 17):
  - . all the guide rollers, fire-trap rollers included; dismount the rollers, clean the bores and shafts, pour one drop of oil on the shaft and spread it with a finger; do not interchange the rollers;
  - . all the hinge points of the dowser mechanism;
  - . all the hinge points of the centrifugal switch;
  - . the front bearing of the intermittent sprocket shaft (with some drops of oil).

Every month

- . Lubricate with Esso Handy oil (C1 602 17):
  - . the spool shafts. with some drops of oil spread with a finger;
  - . the driving chains (sparingly).
- . Lubricate with bearing grease (EL 4855):
  - . the felt discs of the frictions - grease uniformly but sparingly;
  - . the latches and springs of the spool boxes.
- . Lubricate sparingly with guide grease (EL 4854):
  - . the sliding surfaces of the aperture plate as well as the bottom of the black spring of the 35-mm runner plate;
  - . the springs of the spool-box doors;
  - . the hinges of the runner-plate door.
- . Replenish the projector with fresh oil after the first month of running, then every six months.

Once a year

- . Lubricate with cardan oil (type 8657):
  - . the hinge joints of the pressure roller of the optical soundhead and of the tension roller of the magnetic soundhead;  
for this purpose, loosen the alanhead fixing screw, remove the lever with roller, clean the bore and the shaft, lubricate the shaft with a little oil and mount again;  
adjust the tension of the springs so that, measured on the shaft, it is 600 - 800 g (approx. 1 lb 5 oz - 1 lb 12 oz).

