

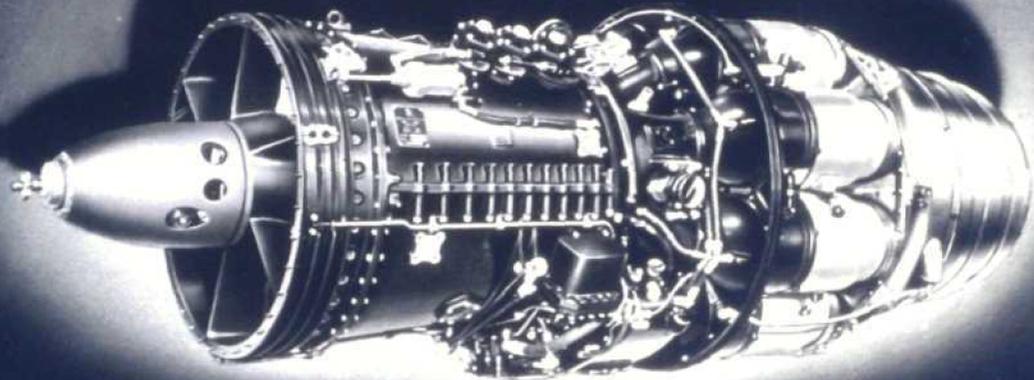


A
ROLLS - ROYCE

Instructional Strip-Film



MAINTENANCE OF THE
AVON 1
TURBO JET AERO-ENGINE



PREPARED UNDER THE TECHNICAL DIRECTION OF THE ROLLS-ROYCE AERO-ENGINE SCHOOL, DERBY, ENGLAND.

The four main adjustments are ;

Bleed valve and swirl change R.P.M.

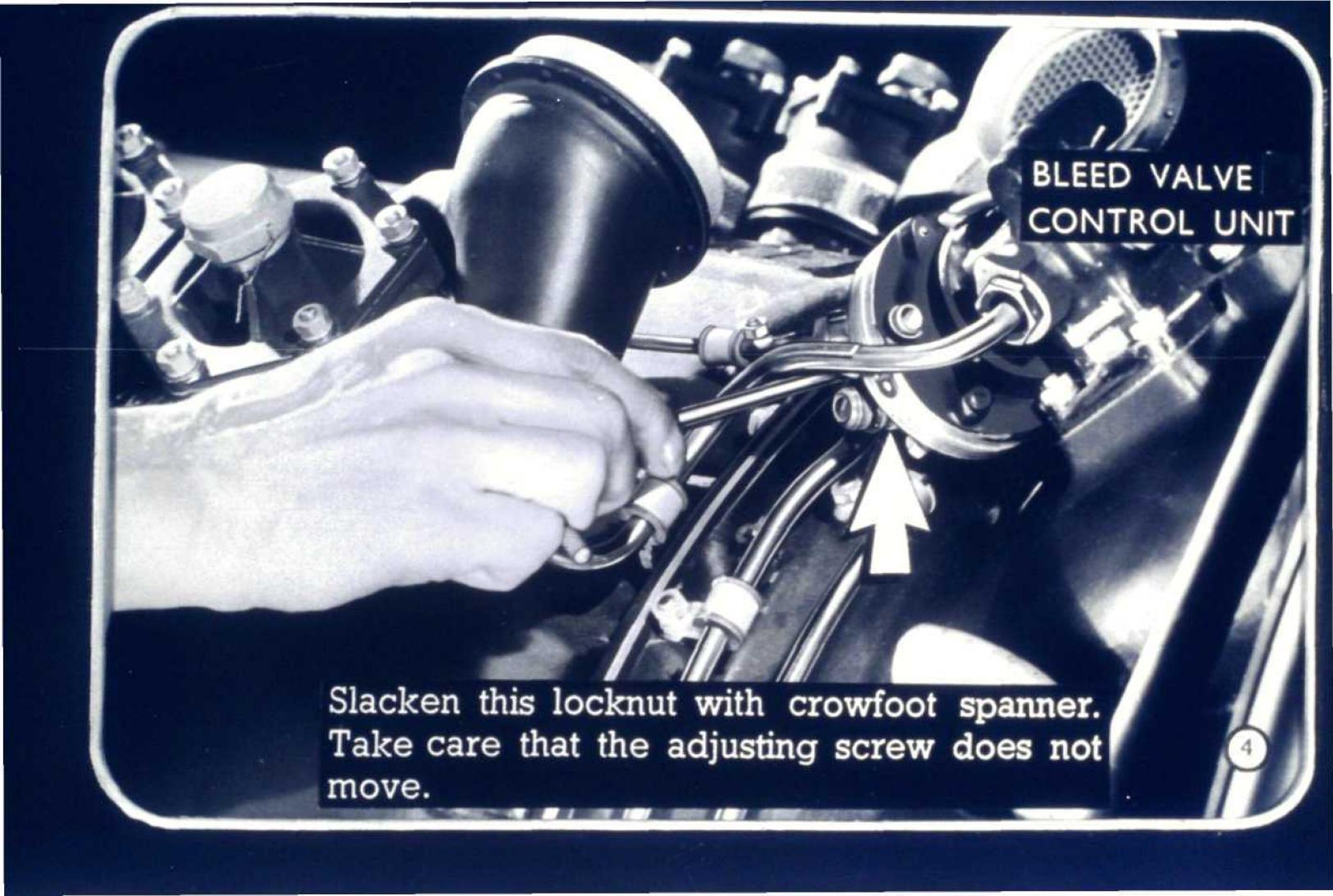
Max. R.P.M.

Acceleration time.

Slow running.

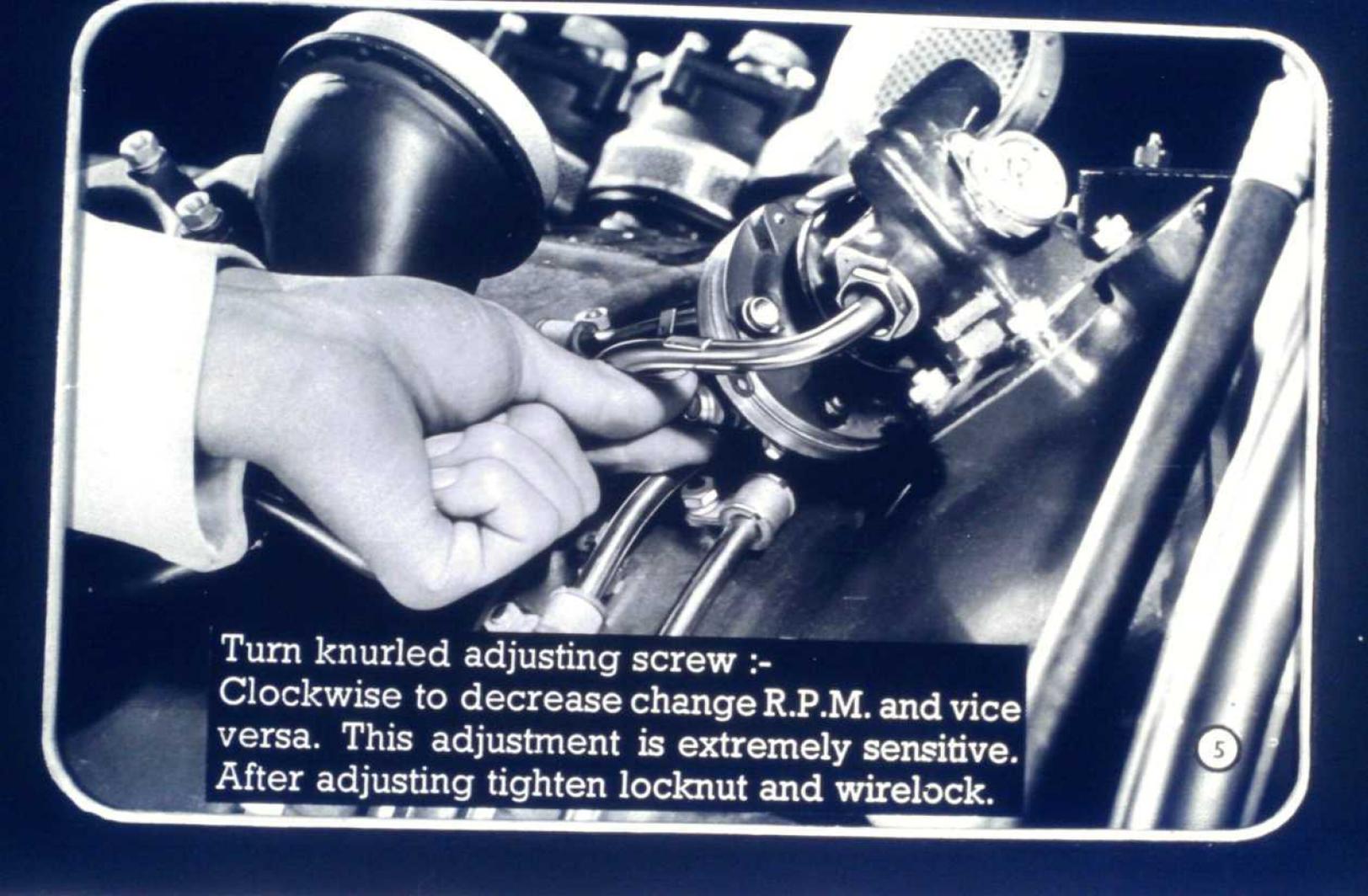
BLEED VALVE AND SWIRL CHANGE R.P.M. ADJUSTMENT.

The bleed valves should close at 6400—6650 on accelerating and open at 6000—6200 on deceleration, if incorrect proceed as follows :-



**BLEED VALVE
CONTROL UNIT**

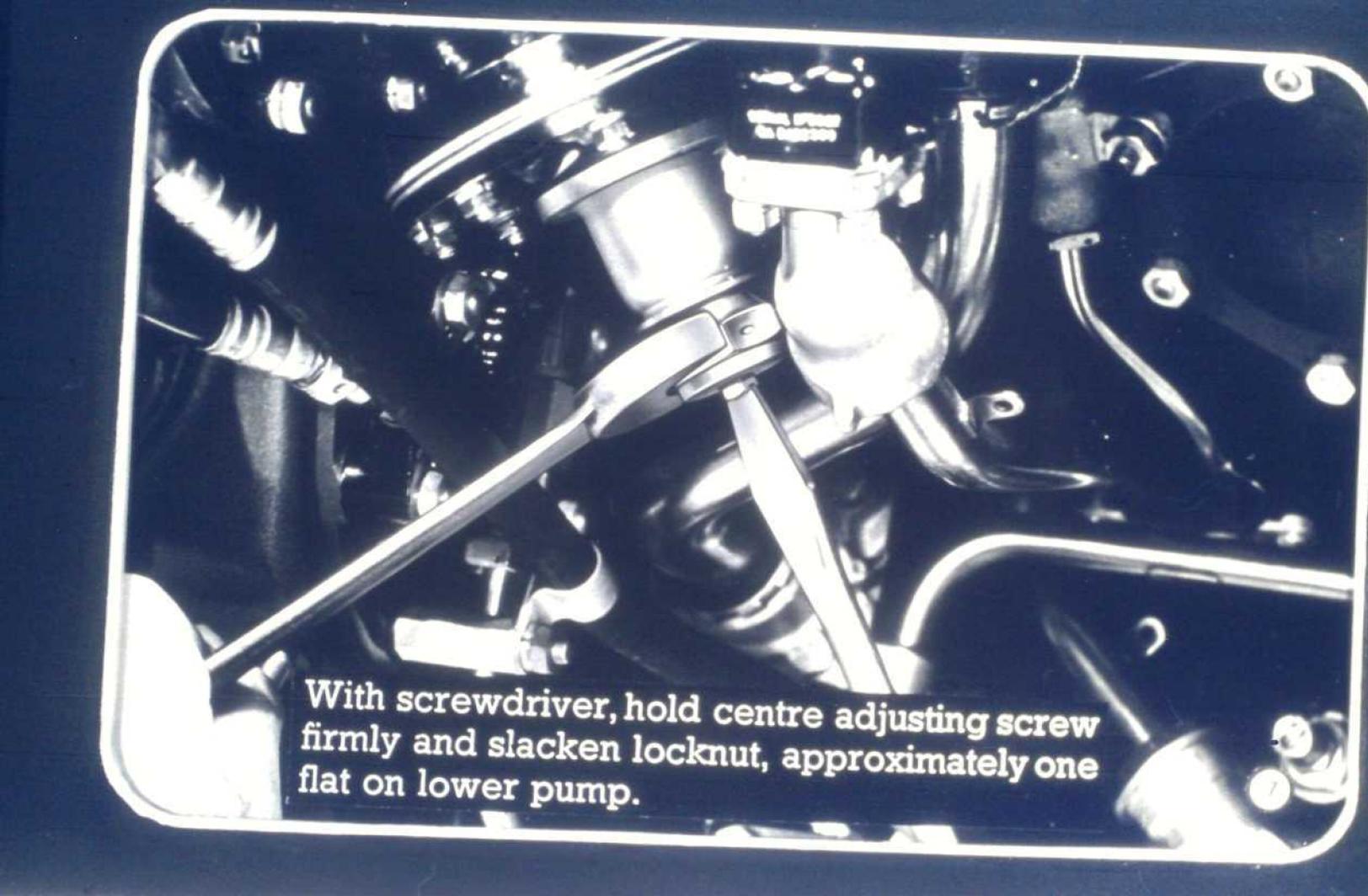
**Slacken this locknut with crowfoot spanner.
Take care that the adjusting screw does not
move.**



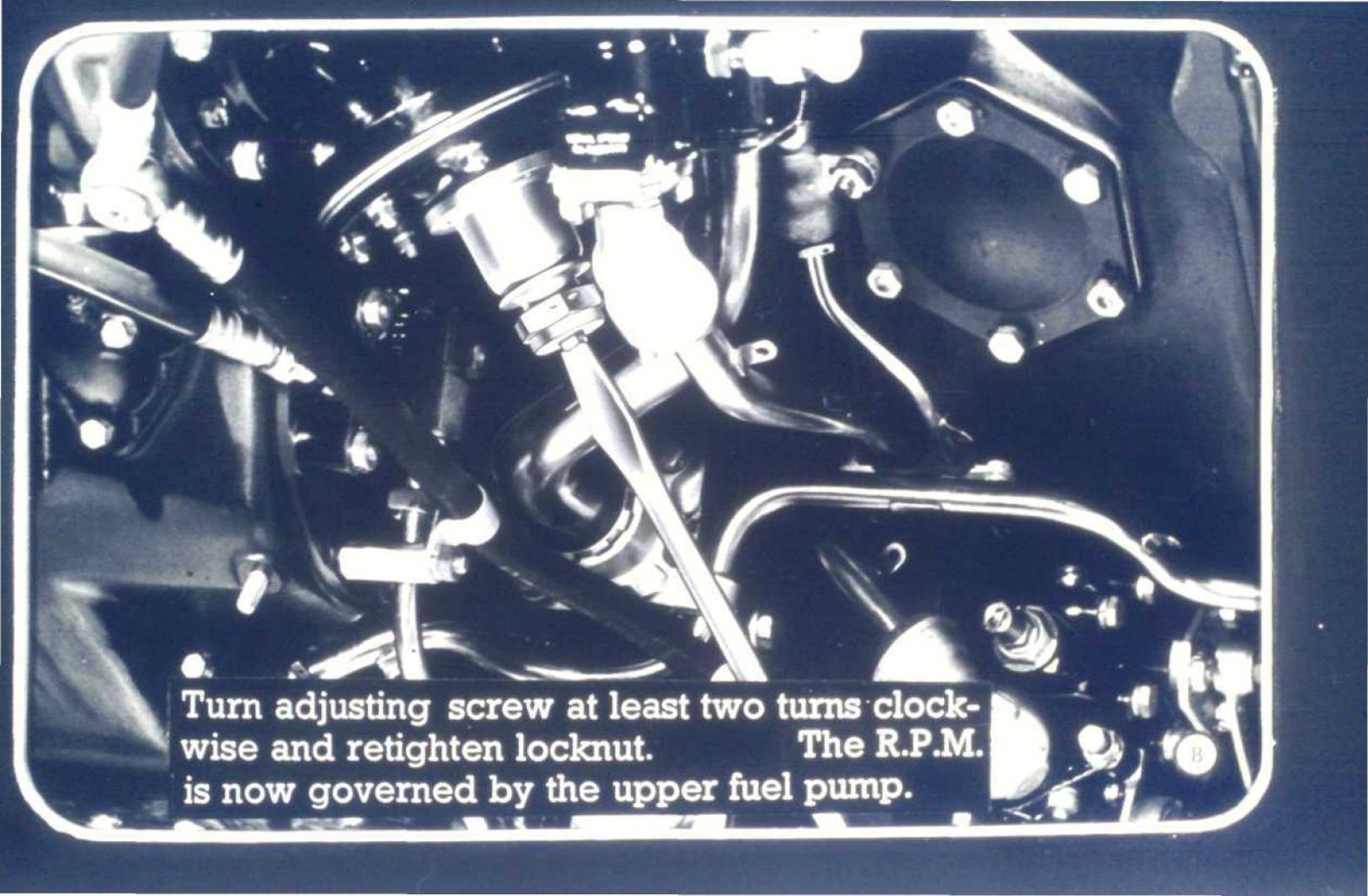
Turn knurled adjusting screw :-
Clockwise to decrease change R.P.M. and vice
versa. This adjustment is extremely sensitive.
After adjusting tighten locknut and wirelock.

MAX. R.P.M. ADJUSTMENT.

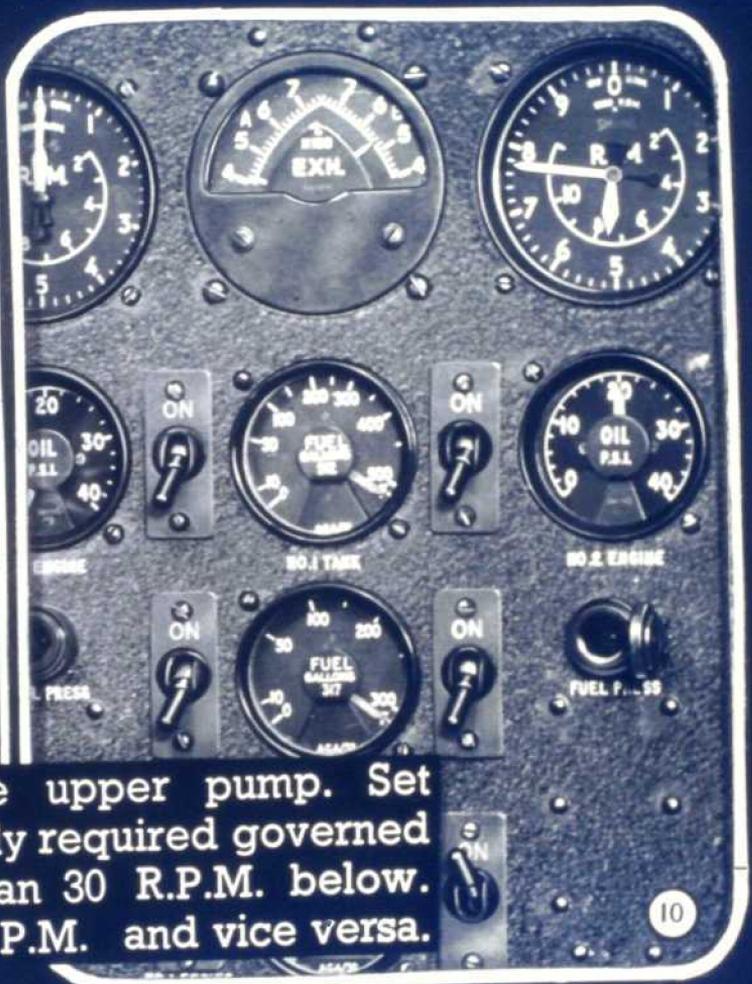
Small adjustments are carried out on lower pump. If fuel pumps are replaced proceed as follows :-



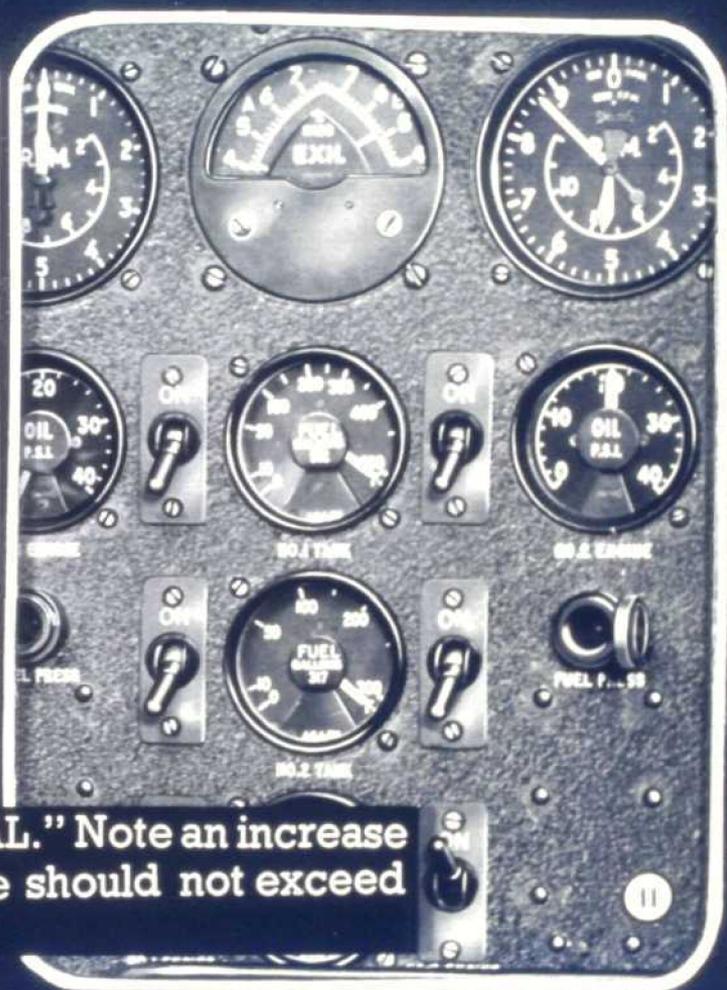
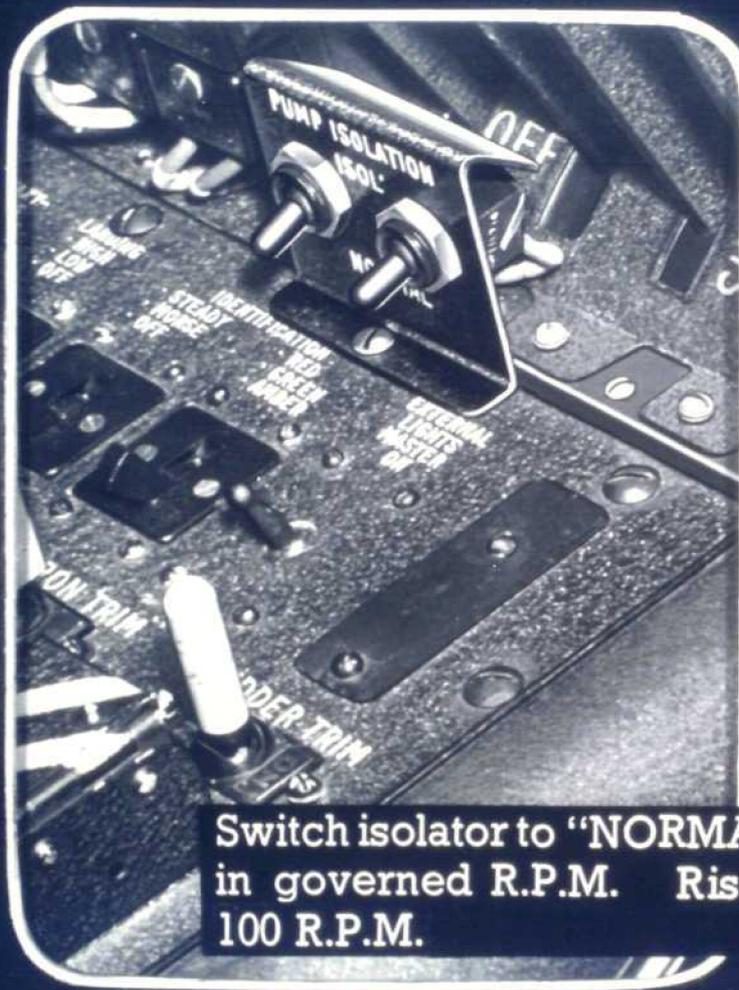
With screwdriver, hold centre adjusting screw firmly and slacken locknut, approximately one flat on lower pump.



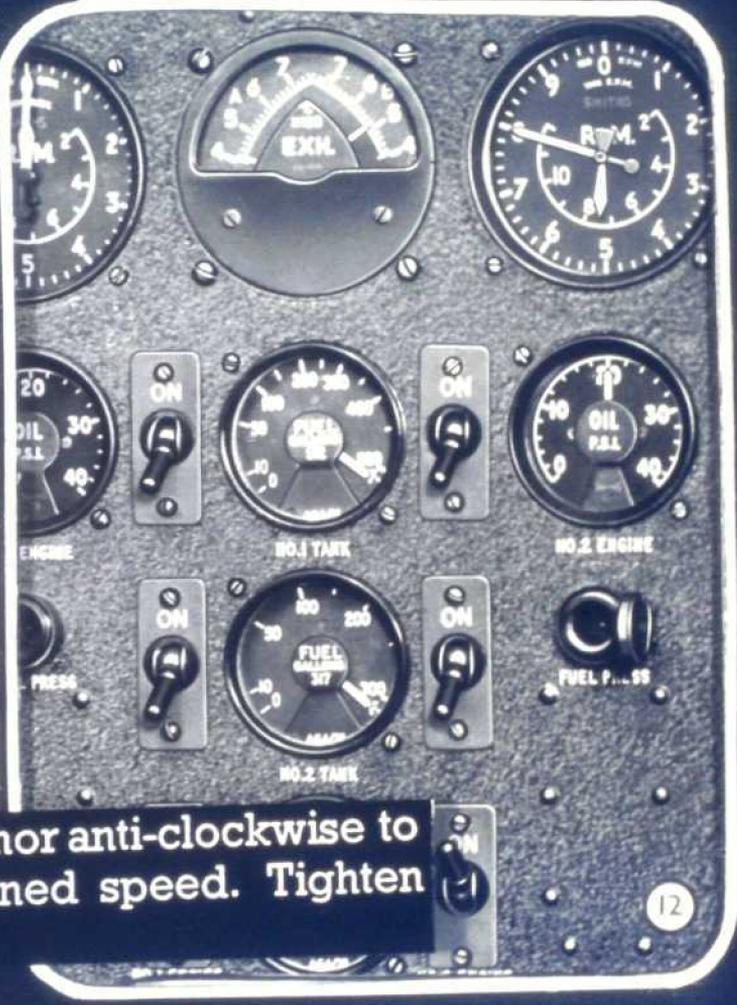
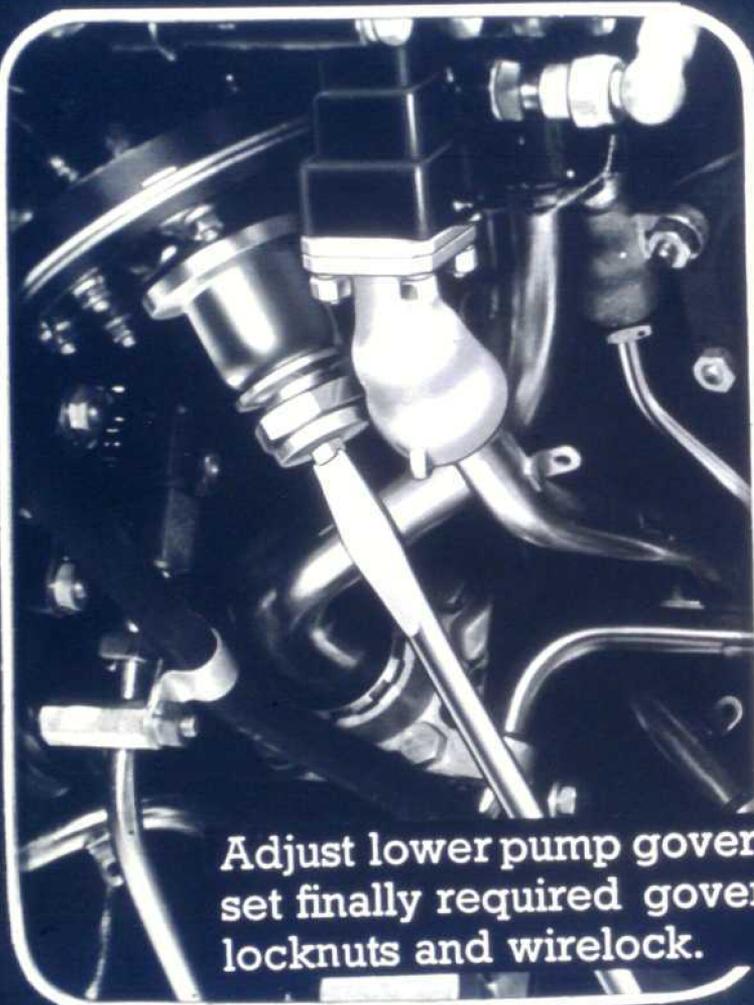
Turn adjusting screw at least two turns clockwise and retighten locknut. The R.P.M. is now governed by the upper fuel pump.



Slacken locknut on the upper pump. Set governor below the finally required governed speed, but not more than 30 R.P.M. below. Clockwise to increase R.P.M. and vice versa.



Switch isolator to "NORMAL." Note an increase in governed R.P.M. Rise should not exceed 100 R.P.M.



Adjust lower pump governor anti-clockwise to set finally required governed speed. Tighten locknuts and wirelock.

**NOTE ; The R.P.M. drop at governed
speed when isolated should not be
more than 75 R.P.M.**

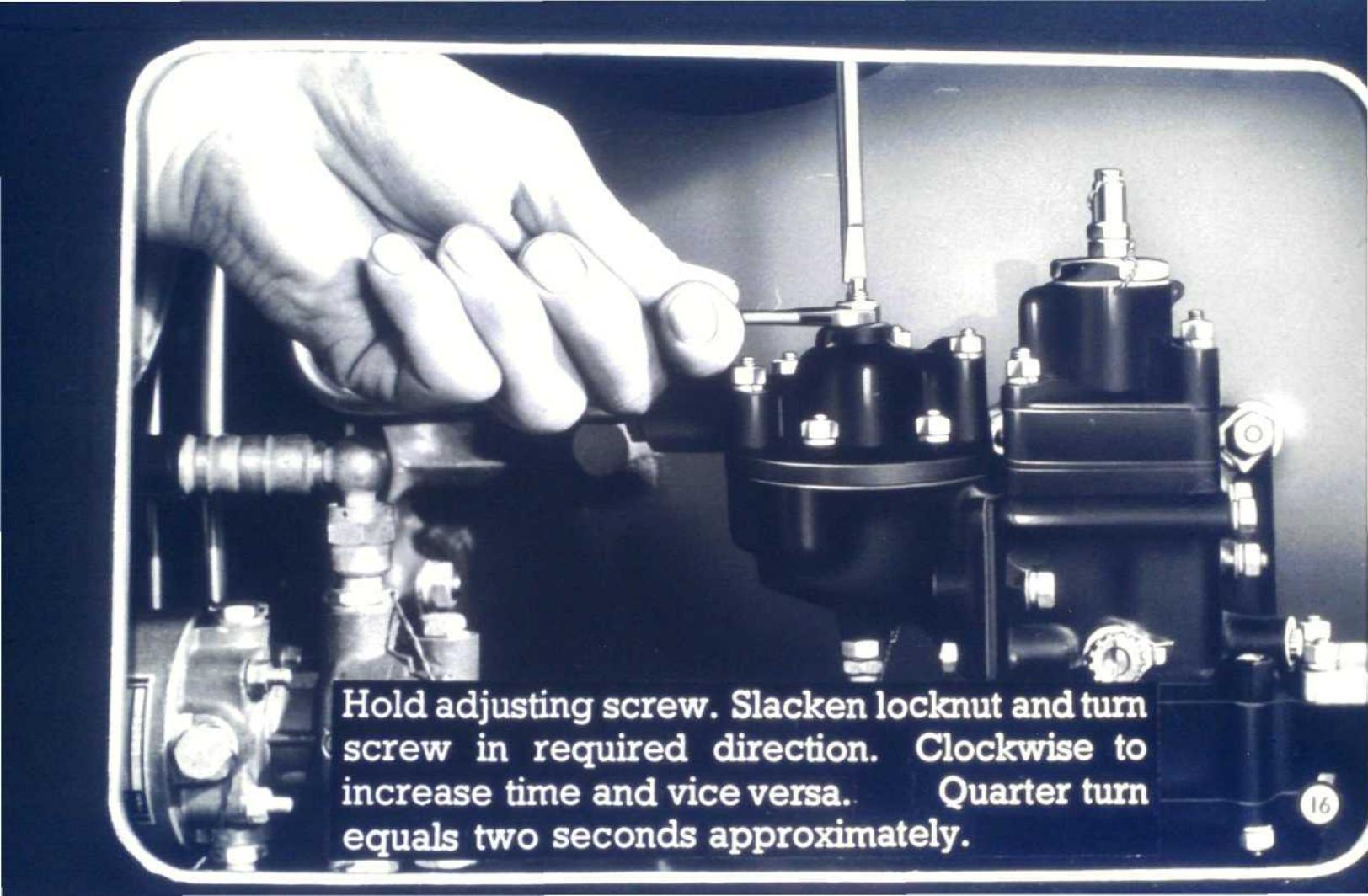
ACCELERATION TIME ADJUSTMENT

**The average acceleration time from
2750 R.P.M. to 7800 R.P.M. is 12-14 secs,
but consult log book for verification,
and then proceed as follows :-**

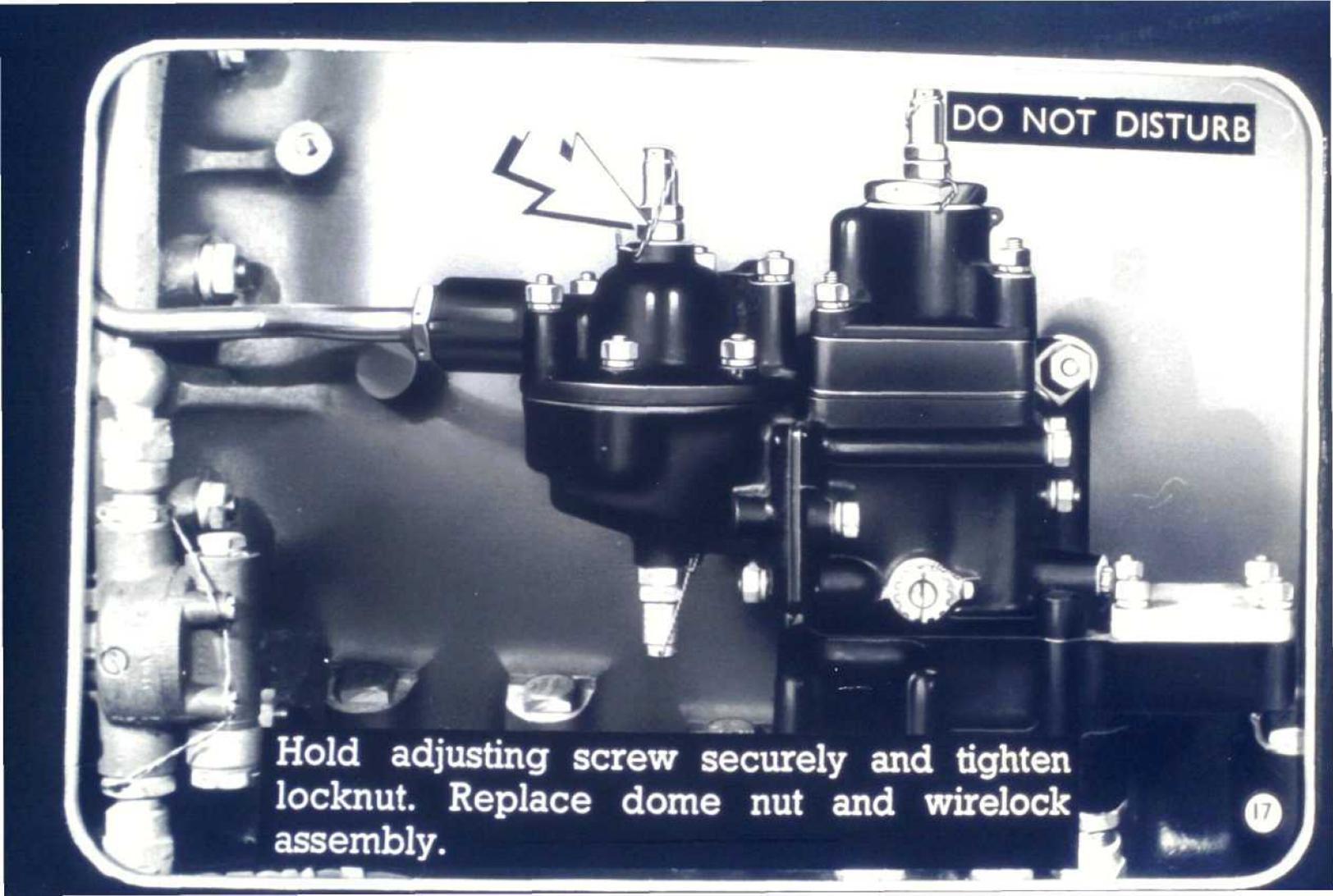
A black and white photograph showing a hand in a white glove removing a dome nut from a mechanical assembly. The assembly is labeled "ACCELERATION CONTROL UNIT". A lightning bolt symbol is drawn next to the dome nut being removed. The unit is mounted on a metal plate with various bolts and a circular dial. The background is dark and shows other parts of the machinery.

ACCELERATION
CONTROL UNIT

Unlock and remove this dome nut.

A black and white photograph showing a hand adjusting a screw on a mechanical device. The hand is positioned on the left, with fingers gripping a horizontal screw. The device is complex, with various components, including a large cylindrical part on the right. The background is dark, and the lighting highlights the hand and the mechanical parts. The text is overlaid at the bottom of the image.

Hold adjusting screw. Slacken locknut and turn screw in required direction. Clockwise to increase time and vice versa. Quarter turn equals two seconds approximately.



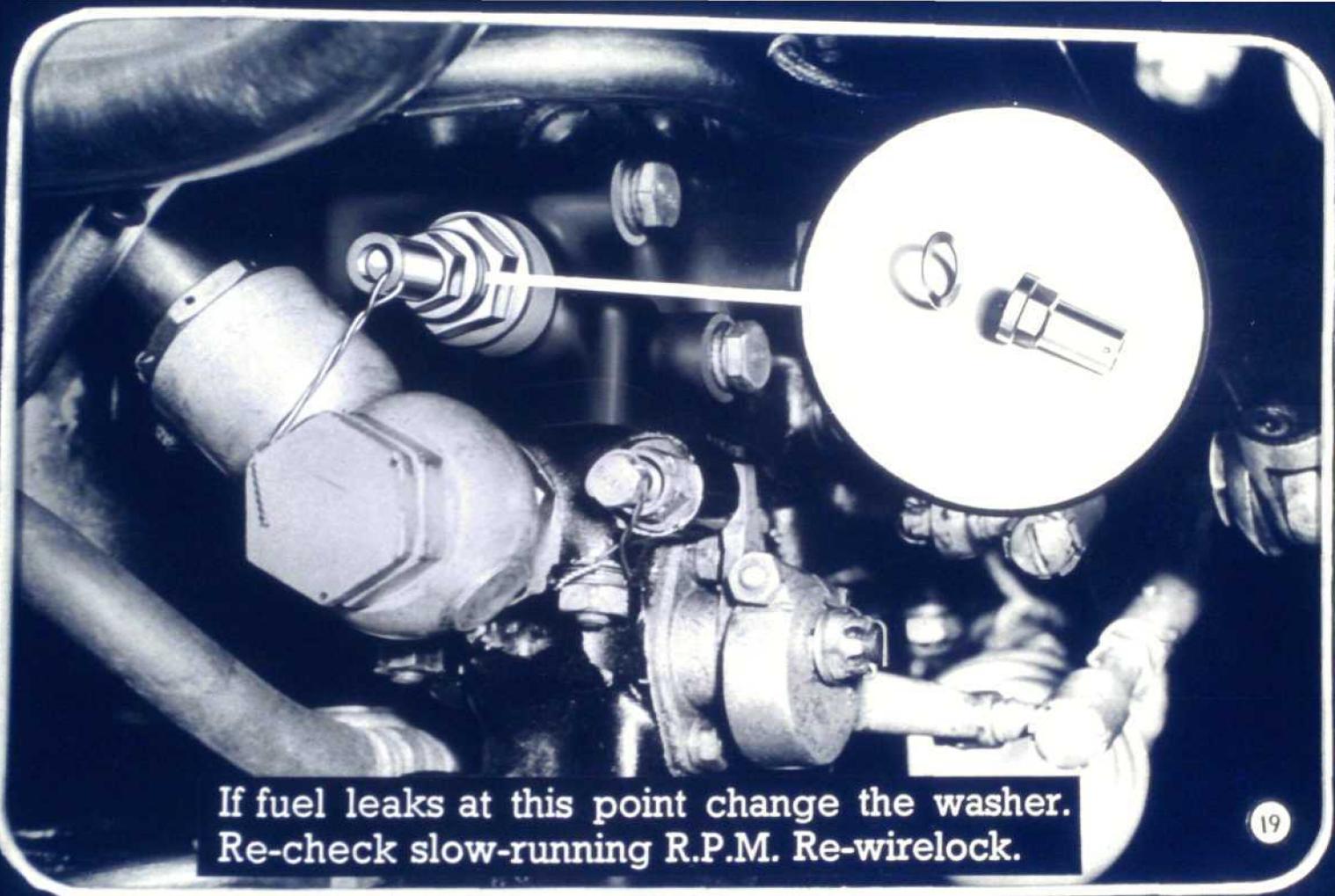
DO NOT DISTURB

Hold adjusting screw securely and tighten locknut. Replace dome nut and wirelock assembly.

SLOW RUNNING ADJUSTMENTS.

FUEL CONTROL UNIT

With special spanner unlock and turn adjusting nut. Clockwise to decrease and anti-clockwise to increase R.P.M. One turn equals 300 R.P.M. Hold adjustment nut steady, tighten dome nut.



If fuel leaks at this point change the washer.
Re-check slow-running R.P.M. Re-wirelock.

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LIGHTNING MK. 1
COVER PITOT HEAD
EB2-88-5111