

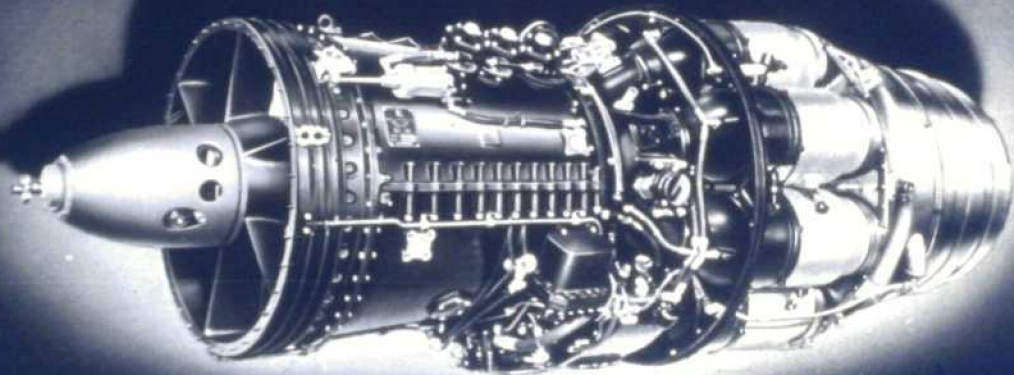


A  
ROLLS - ROYCE

*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.

*Engine Installation*

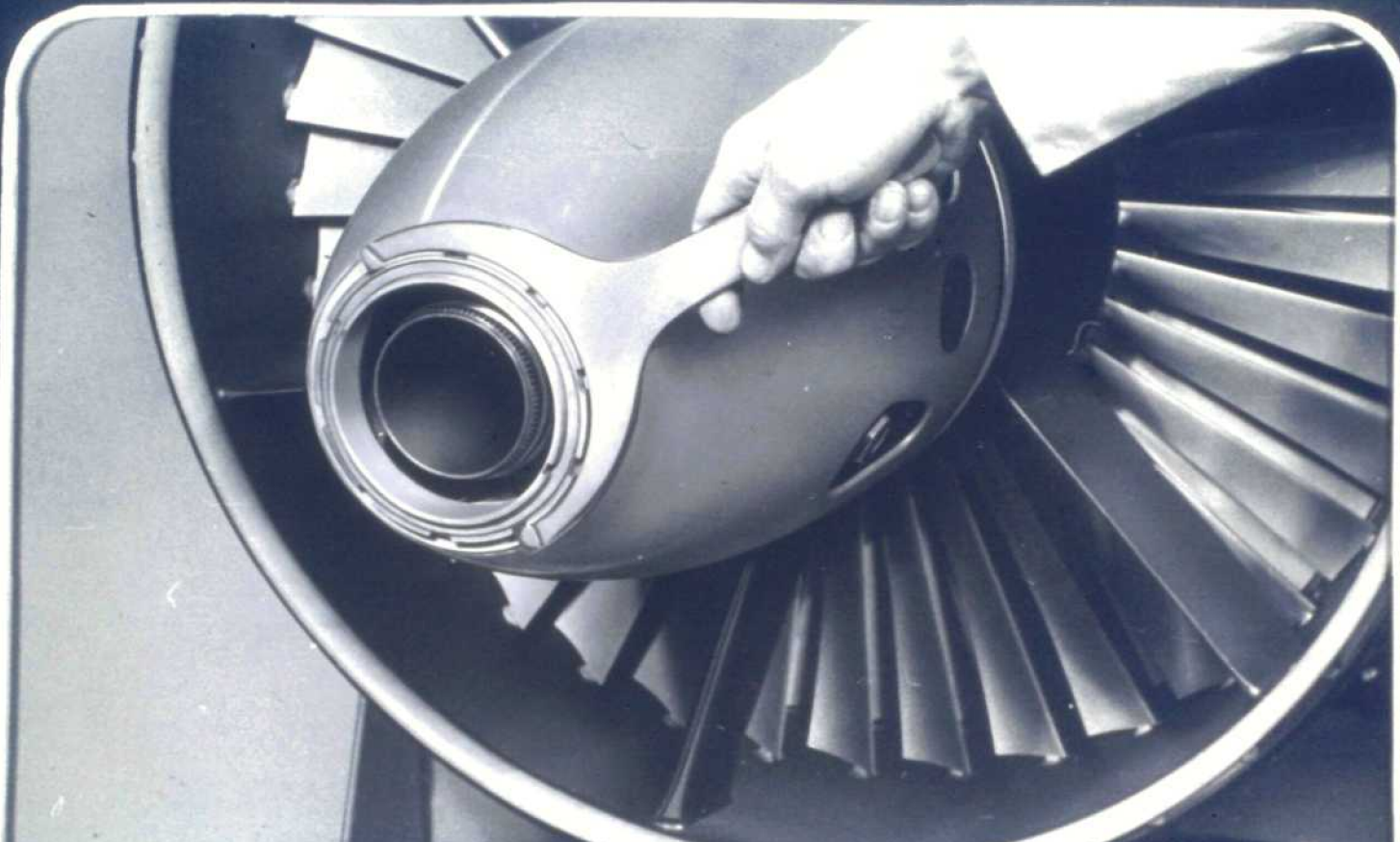
**Canberra Aircraft.**

**A1E**

**14-J-248**


**The engine bay in the aircraft must be  
thoroughly cleaned.**

**Ensure that all pipe lines and electrical leads are correctly positioned in the engine bay, to prevent fouling during installation.**

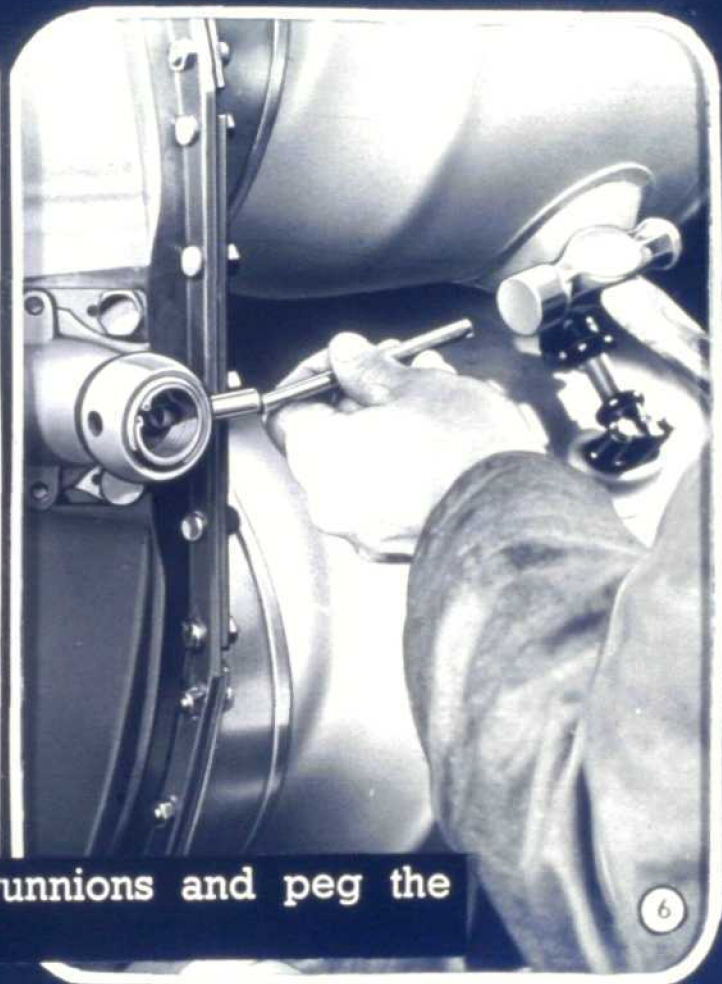
A black and white photograph showing a person's hand holding a cylindrical turbo-starter component. The component has a circular opening at one end and a handle-like shape on the other. It is being positioned to fit into a circular fairing that has a radial ribbed pattern. The entire scene is framed by a white border with rounded corners.

**Fit the turbo-starter and fairing.**

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Fit the sling and lift engine clear of stand.  
Lightly grease the spherical bearing collars  
with XG290.

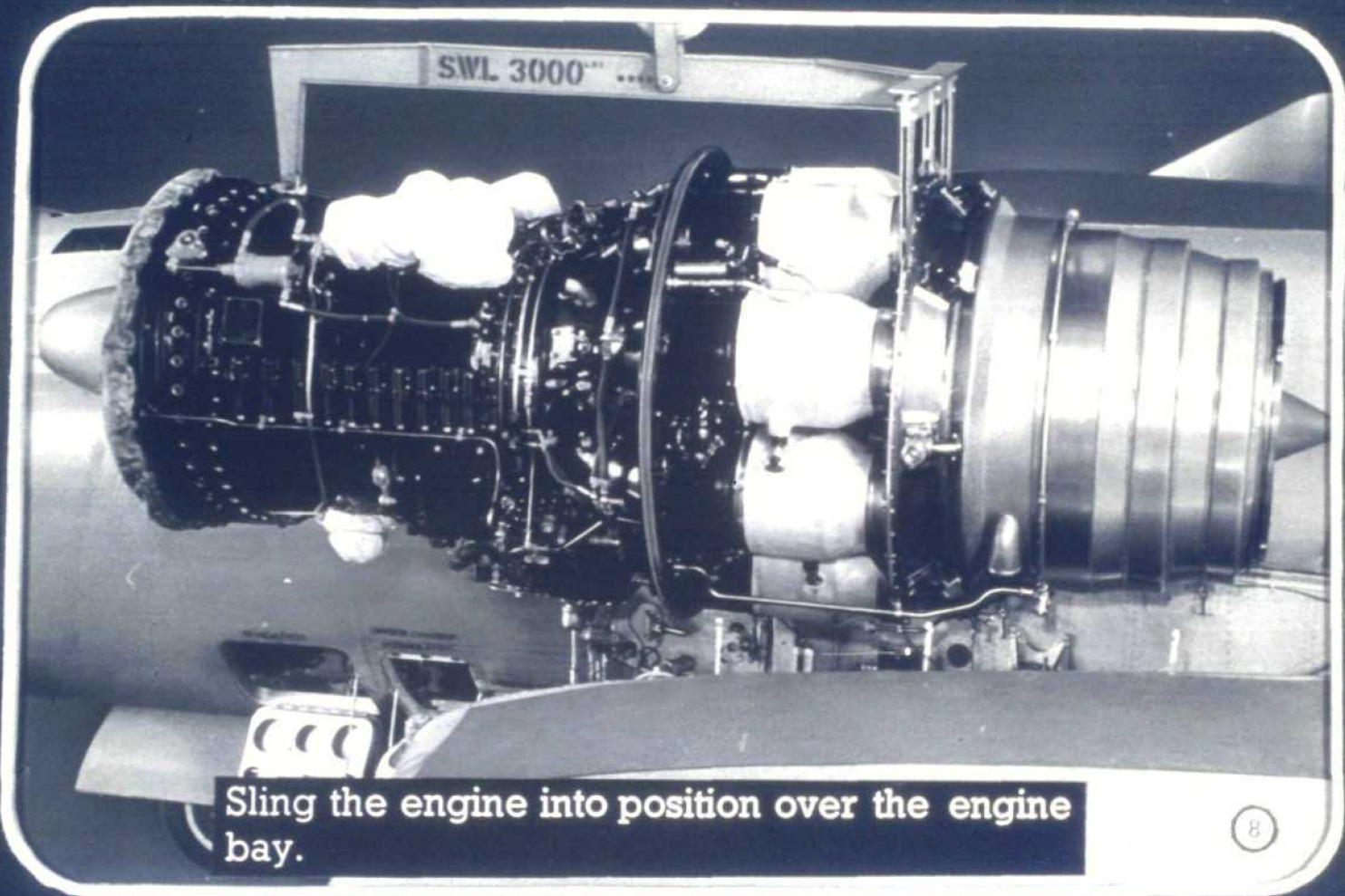


Fit the collars to the trunnions and peg the inboard one.

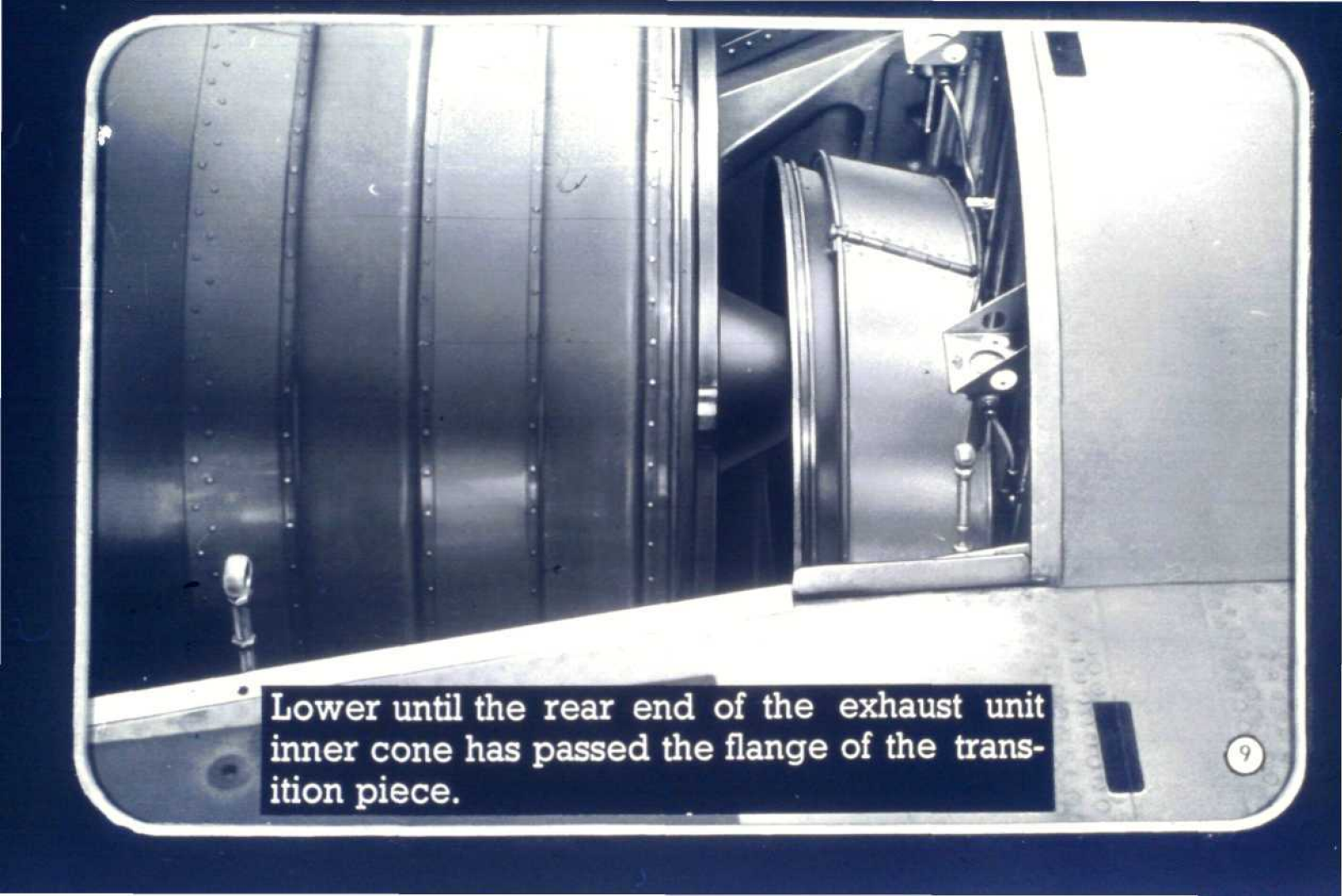
A black and white photograph showing a person wearing a white protective suit and gloves. The person is standing next to a large, cylindrical metal component, likely an exhaust unit, which is mounted on a metal frame. The person is holding a large, dark, circular blank that is being removed from the unit. The unit has several horizontal bands or ribs. The scene is set against a dark background.

Remove the exhaust unit blank.

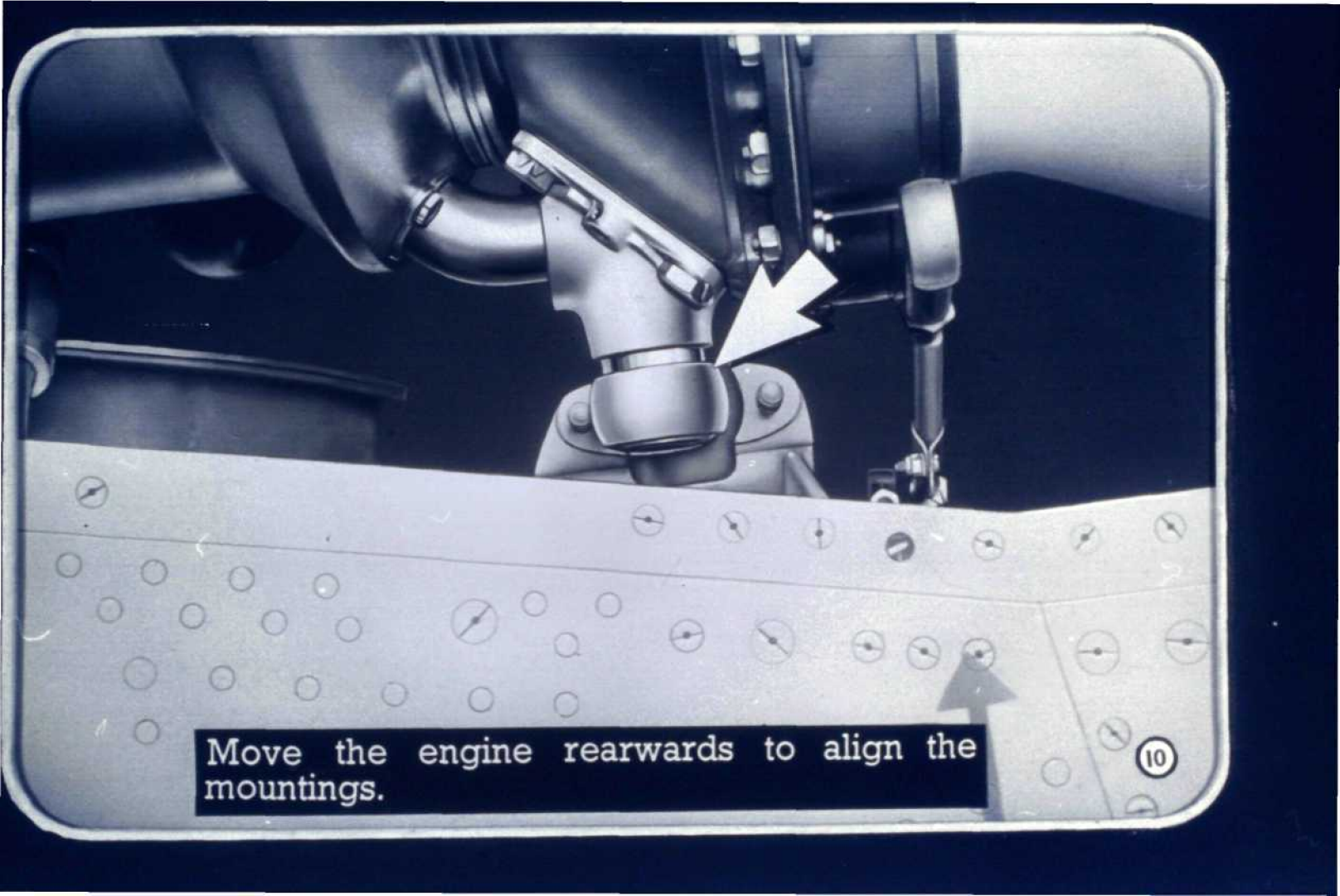
7



**Sling the engine into position over the engine bay.**

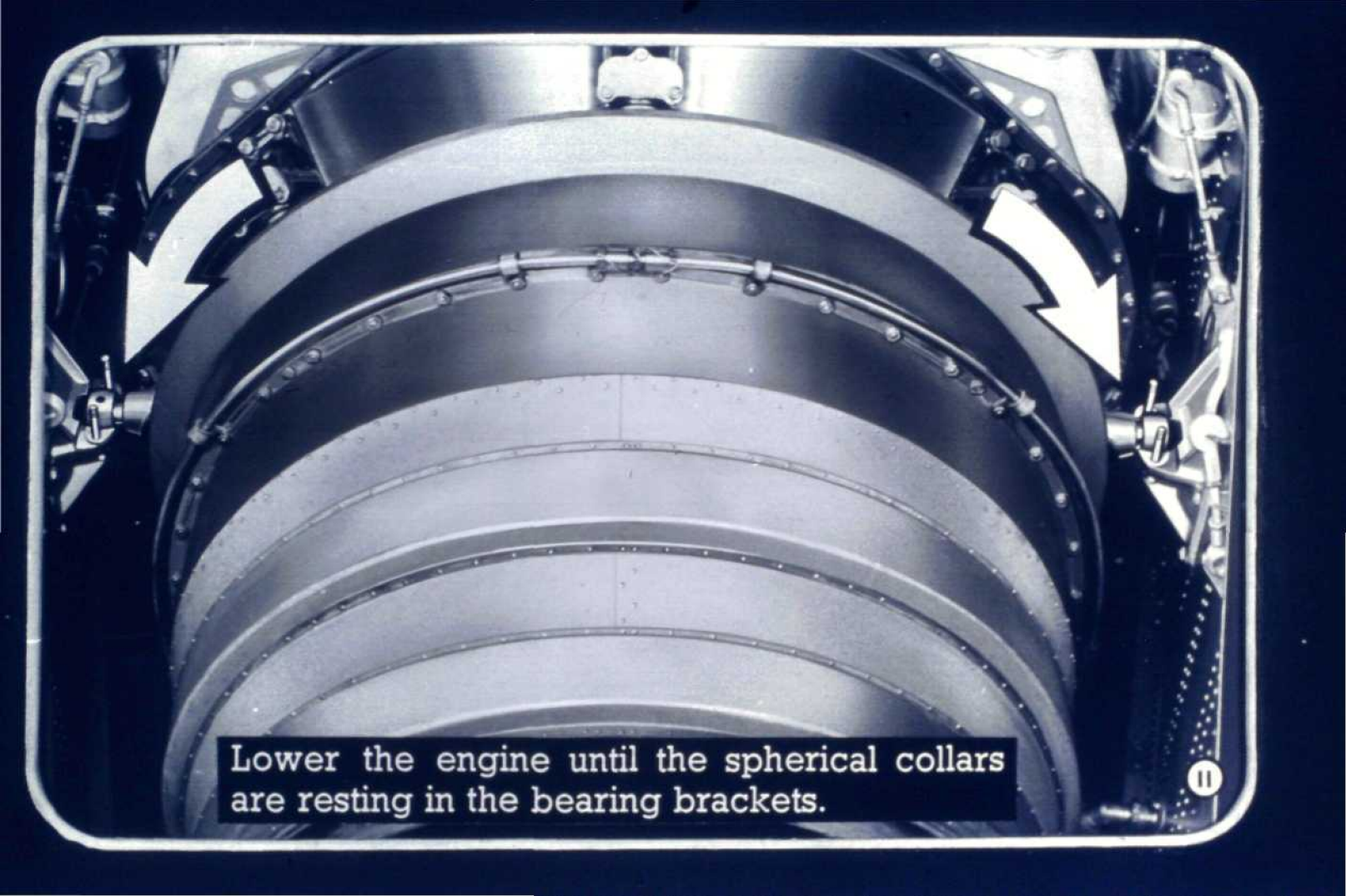


Lower until the rear end of the exhaust unit inner cone has passed the flange of the transition piece.

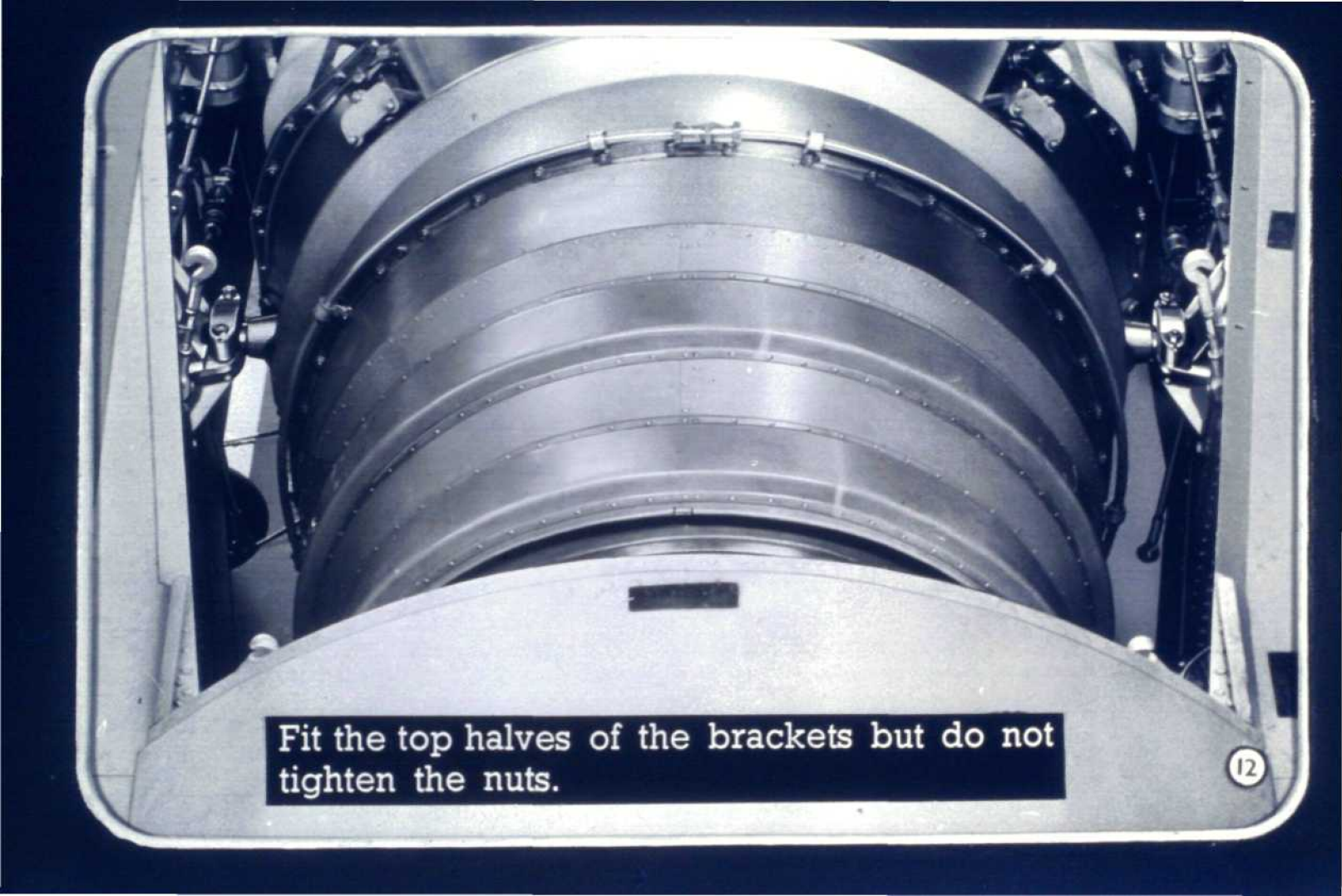


Move the engine rearwards to align the mountings.

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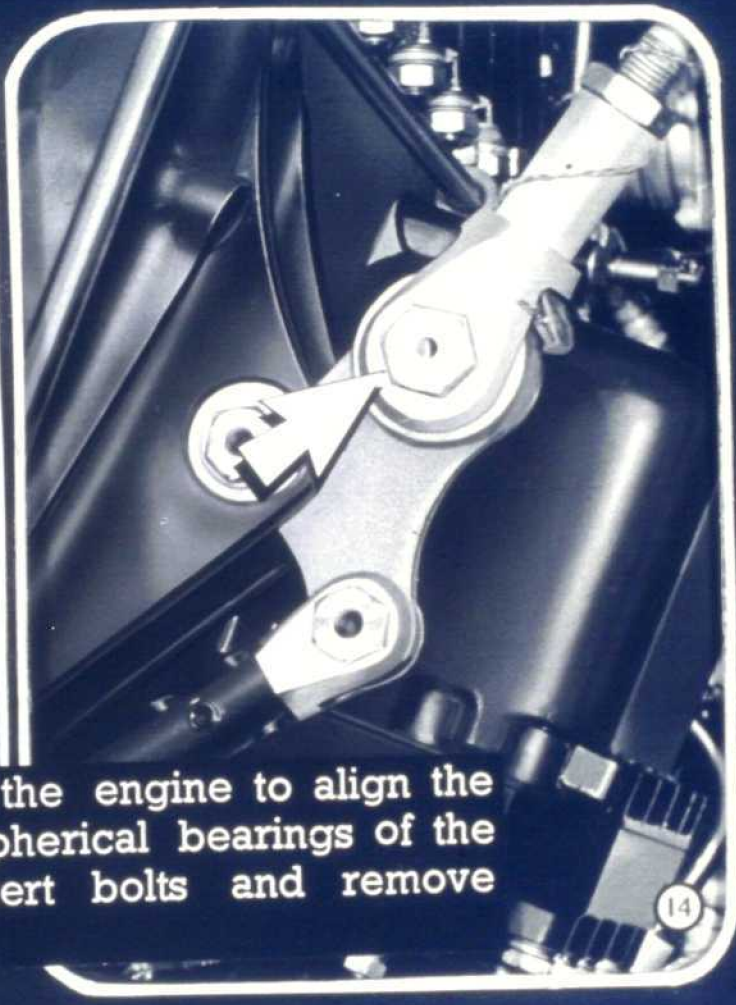
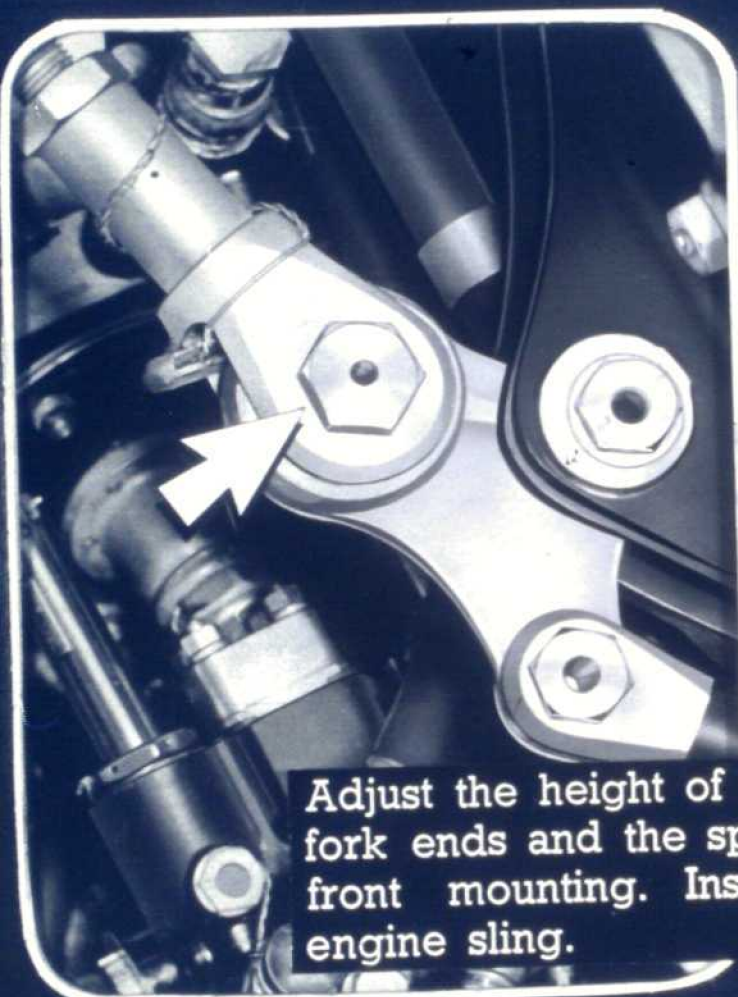


Lower the engine until the spherical collars are resting in the bearing brackets.



Fit the top halves of the brackets but do not tighten the nuts.

**Grease the front spherical trunnions  
and bolts with XG 290.**

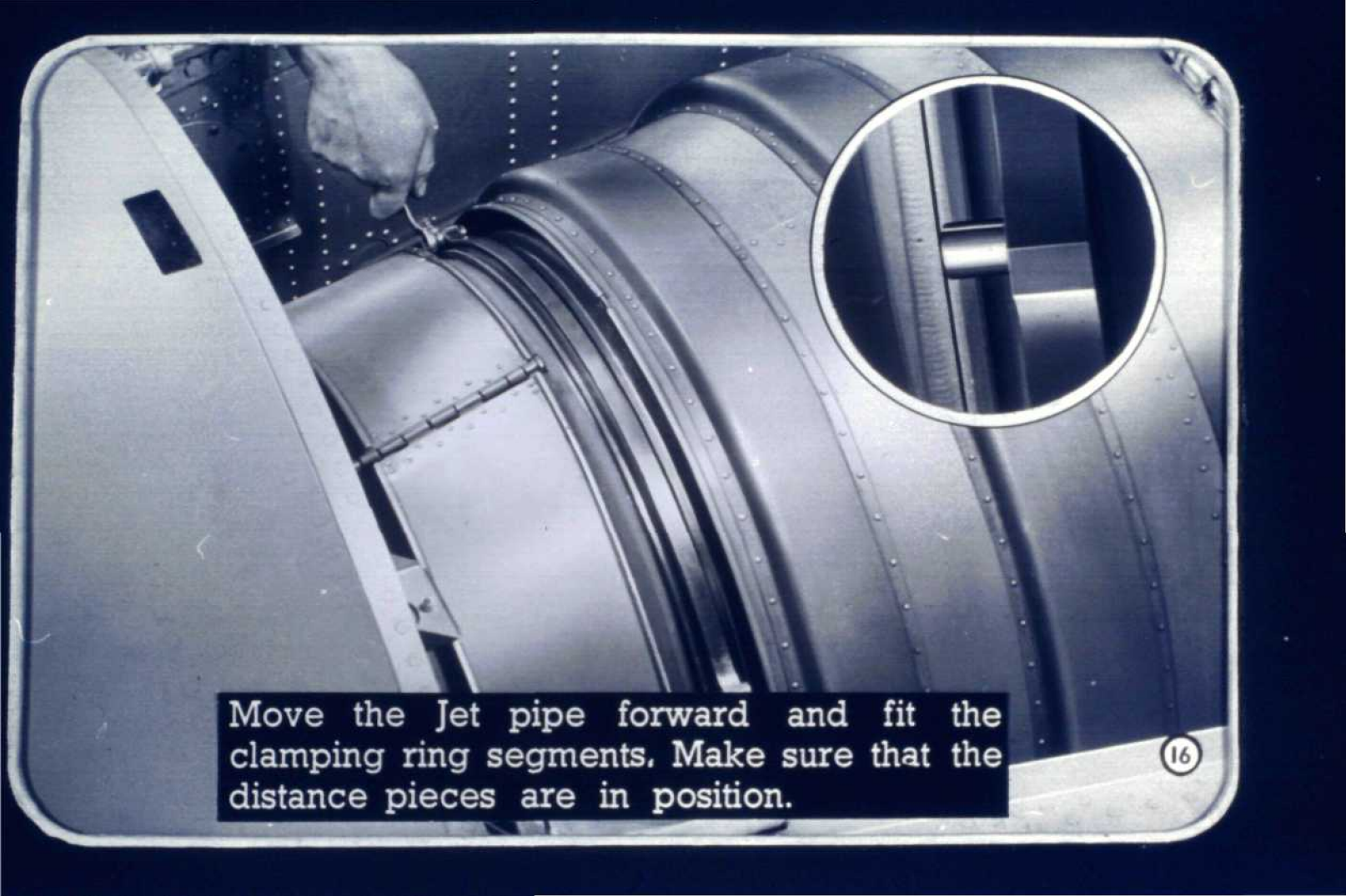


Adjust the height of the engine to align the fork ends and the spherical bearings of the front mounting. Insert bolts and remove engine sling.



**OUTBOARD TRUNNION**

**Ensure that a clearance of at least .200" exists  
at this point.**

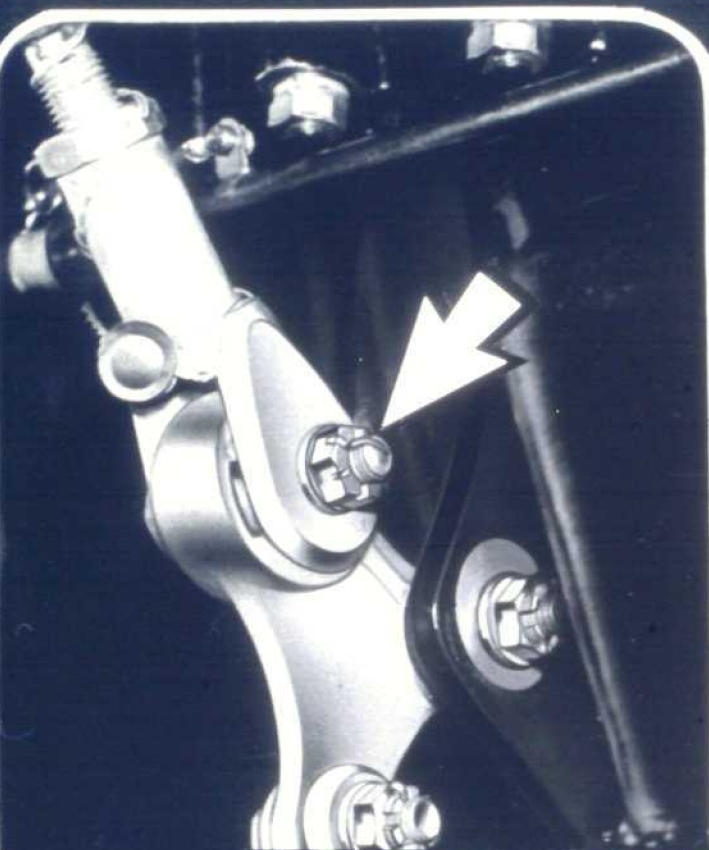


Move the Jet pipe forward and fit the clamping ring segments. Make sure that the distance pieces are in position.

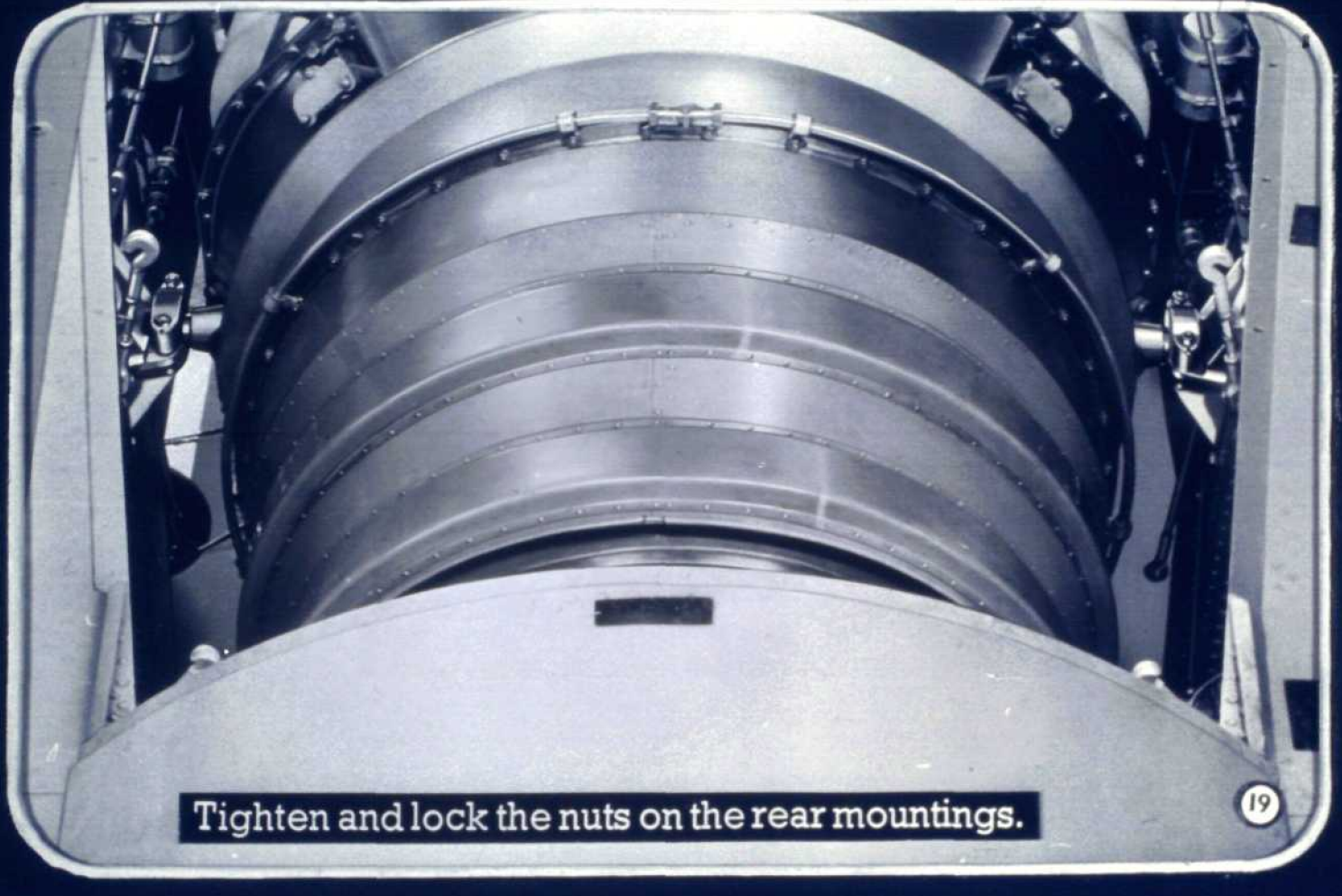


Fit the heat shield.

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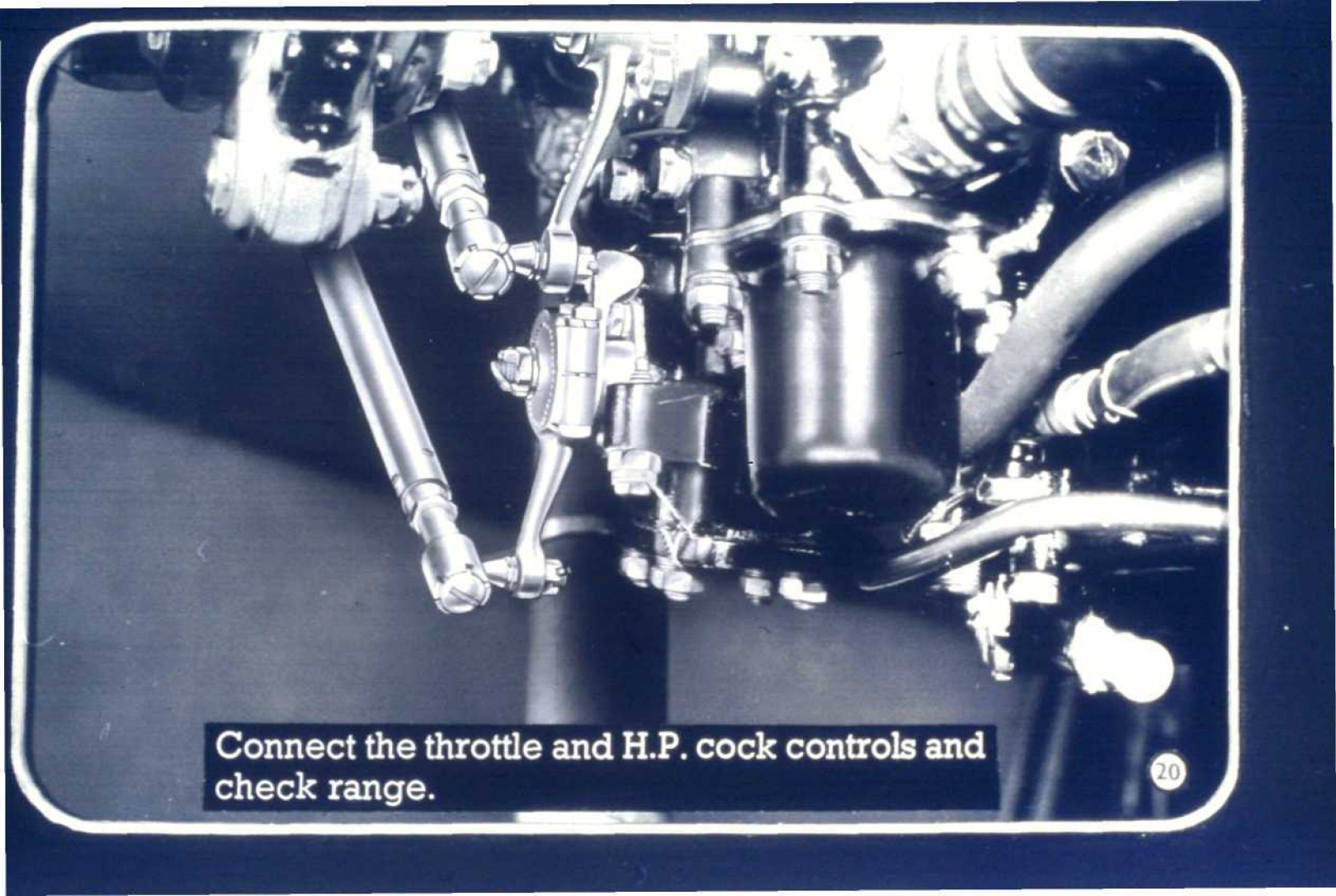


Finally tighten and split pin the front mounting bolts.

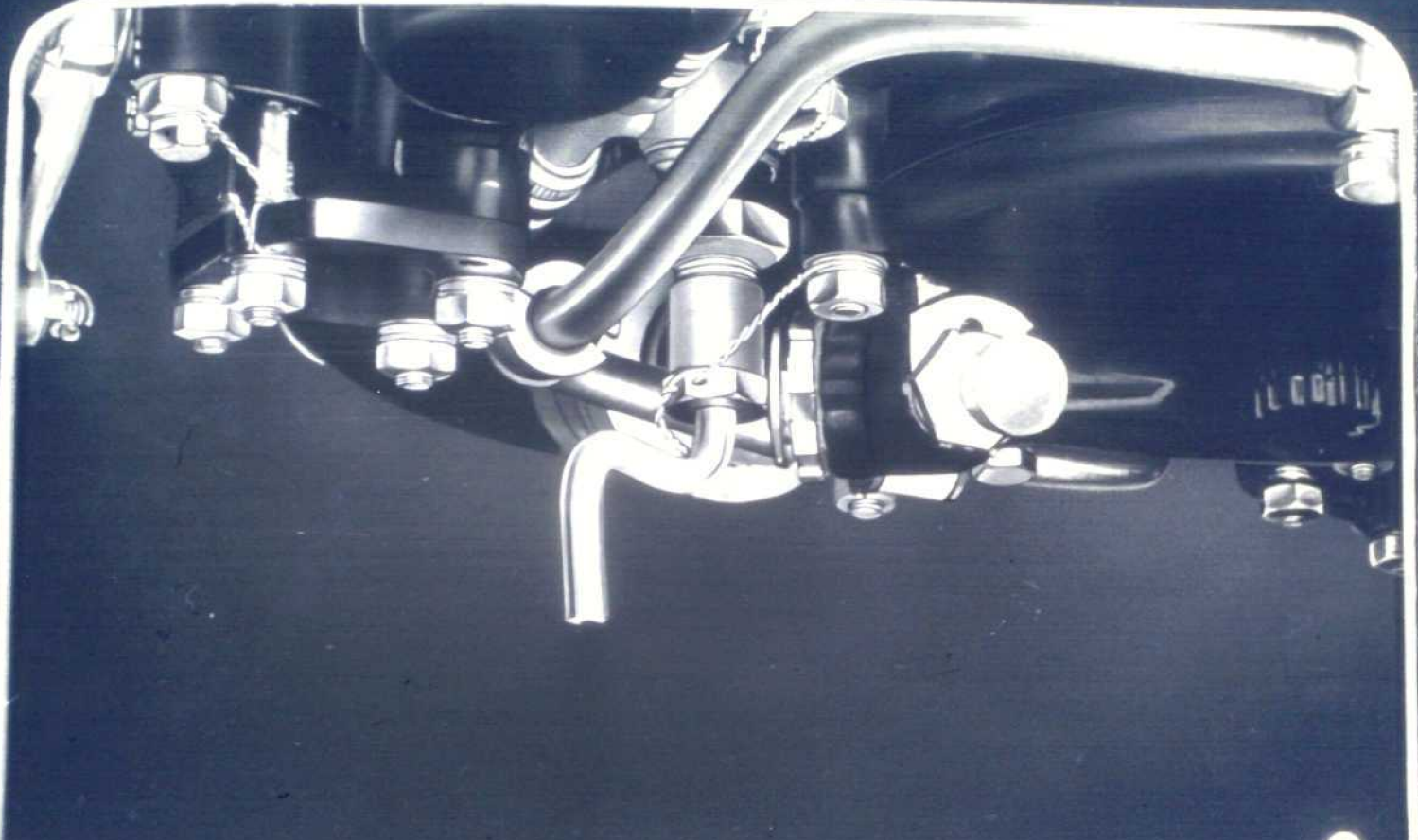


Tighten and lock the nuts on the rear mountings.

19



Connect the throttle and H.P. cock controls and check range.

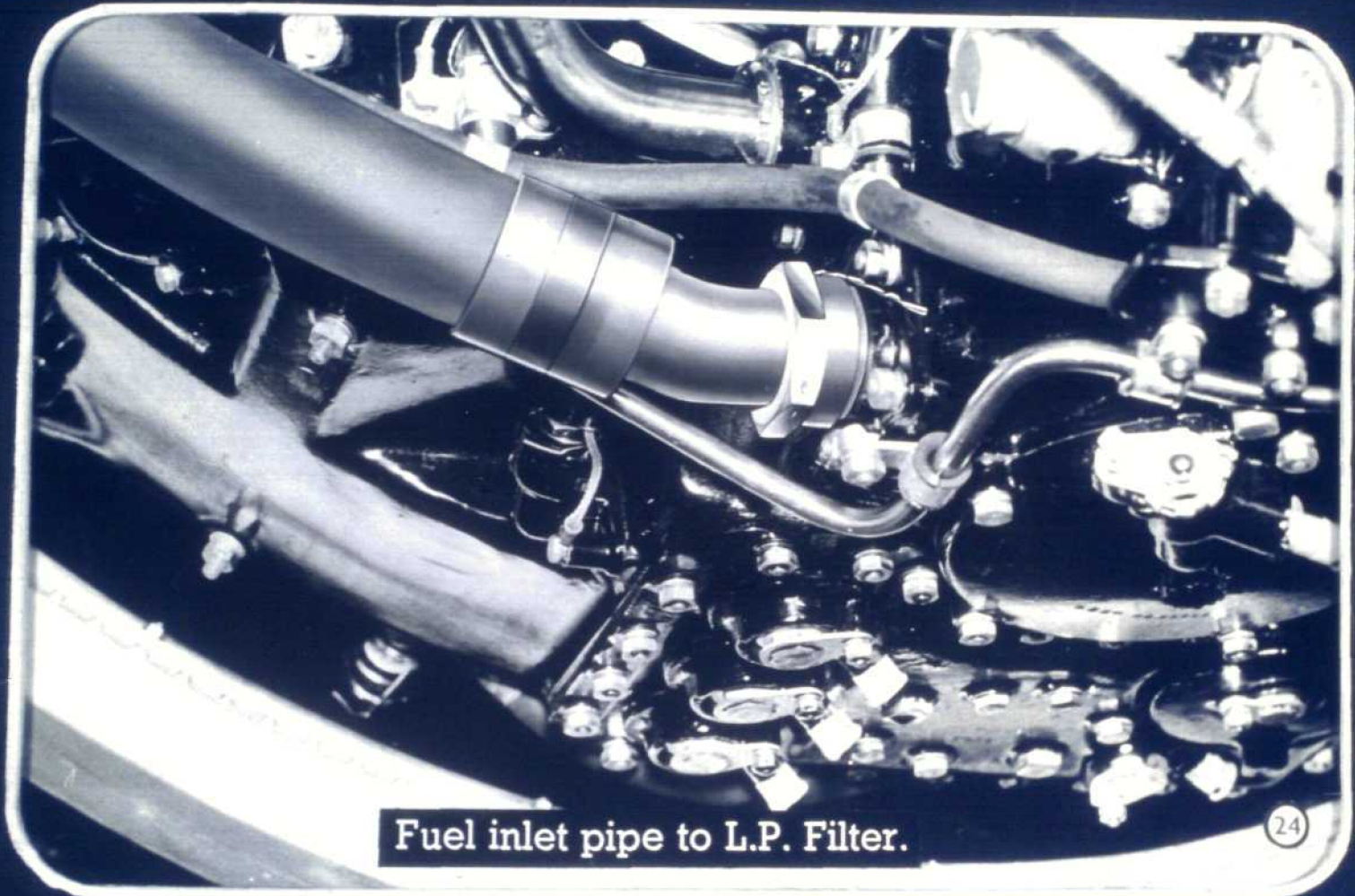


Fit and wirelock the H.P. cock drain pipe.



**Connect the accessory gearbox drive shaft.**

**Remove the transportation blanks, fit  
and lock the following parts :—**



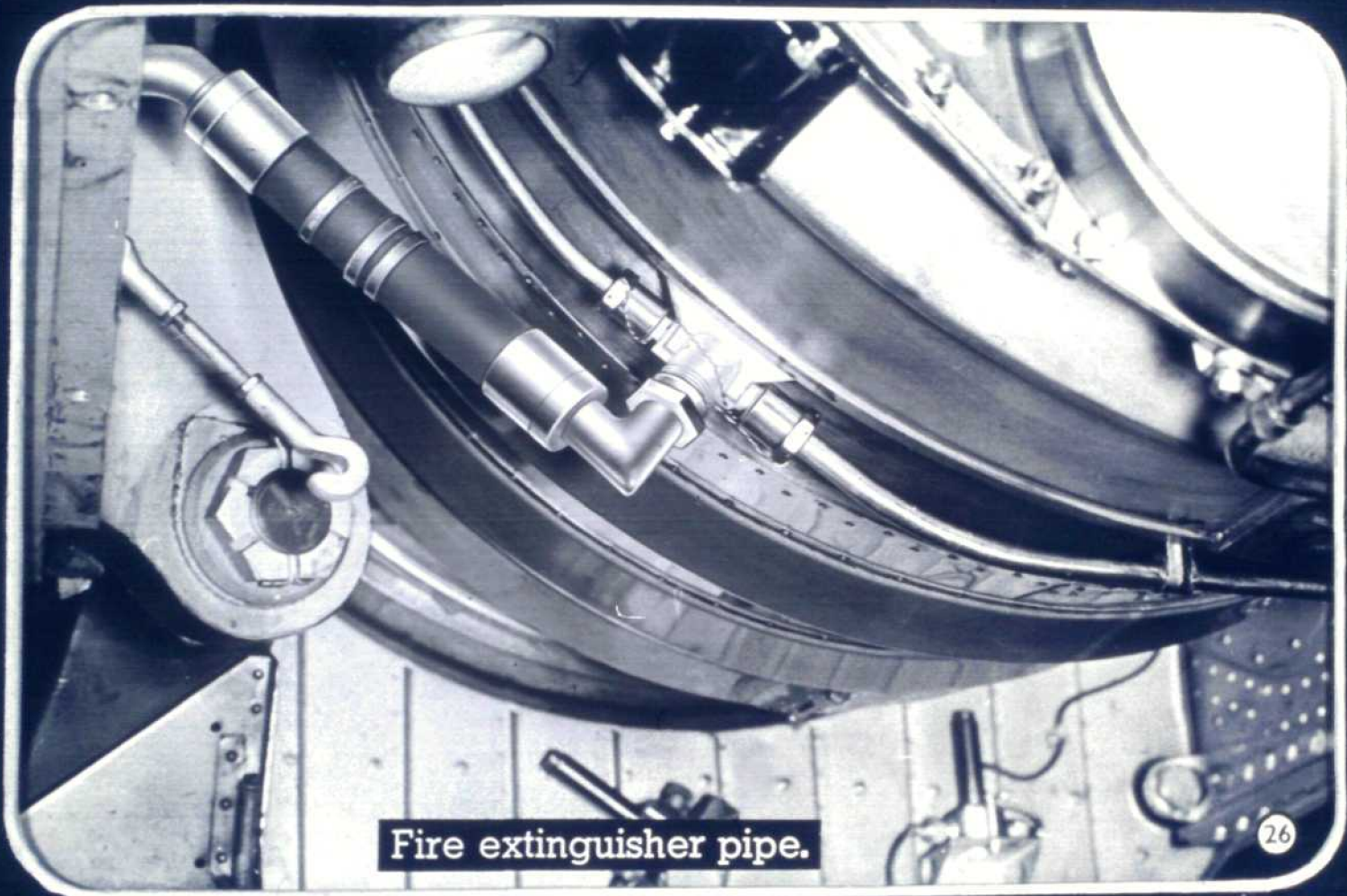
Fuel inlet pipe to L.P. Filter.



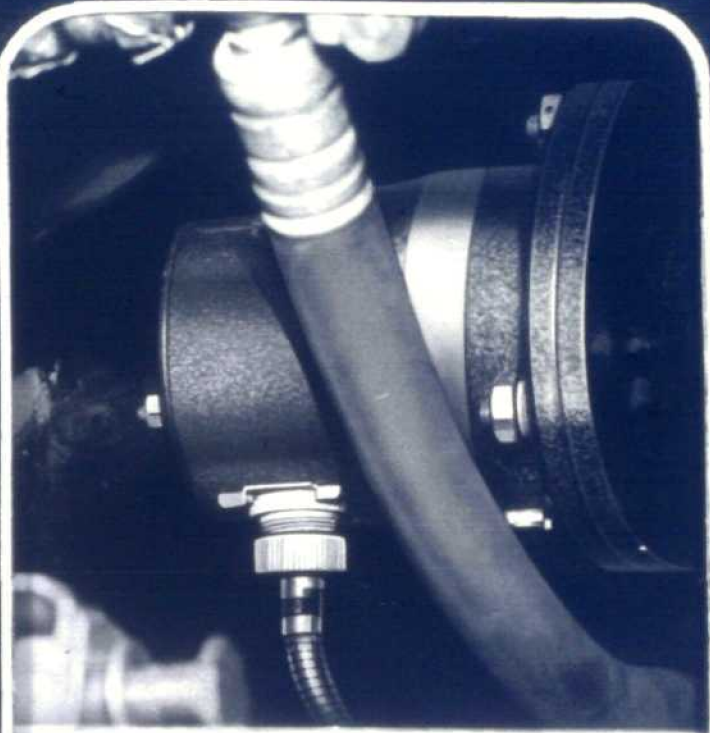
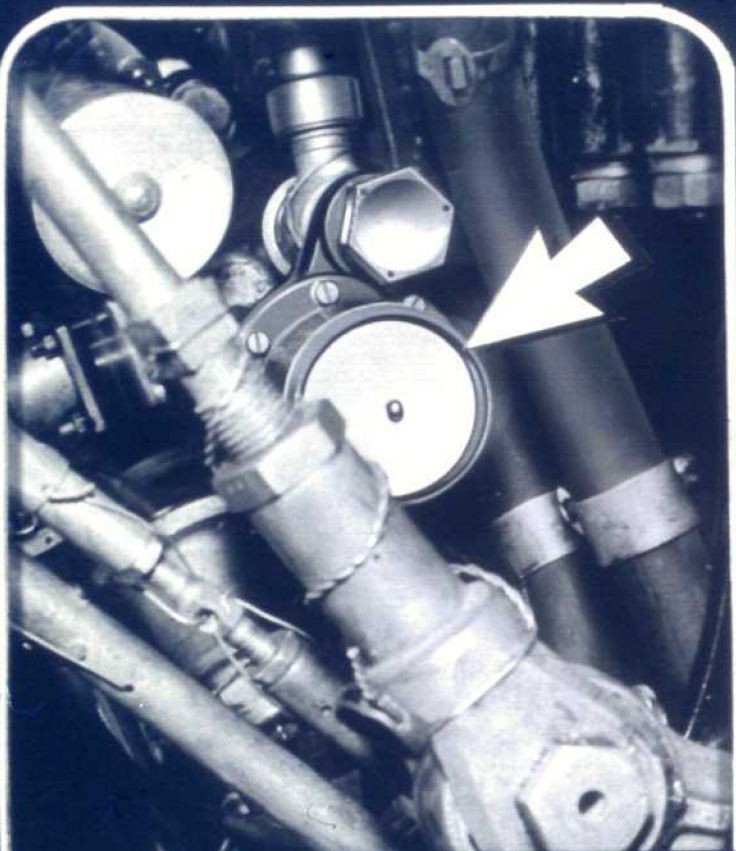
Fuel tank pressurising pipe.



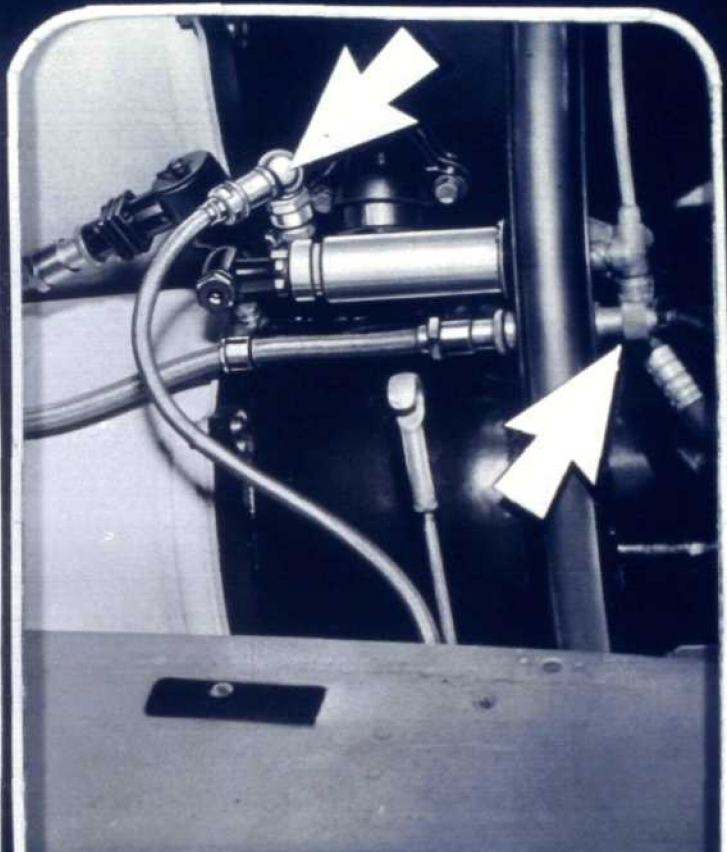
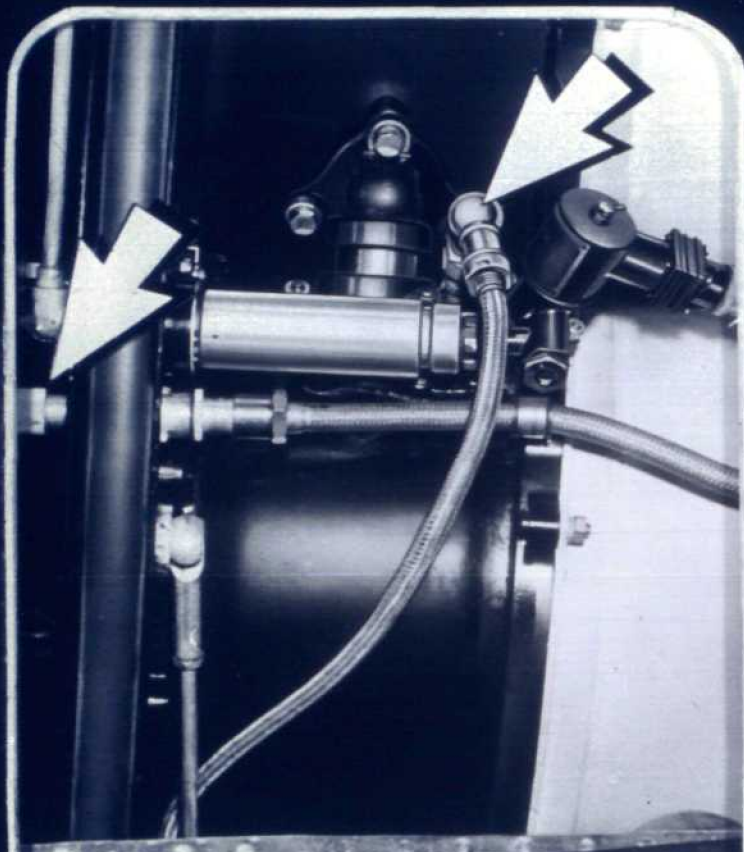
Cabin pressurising pipe.



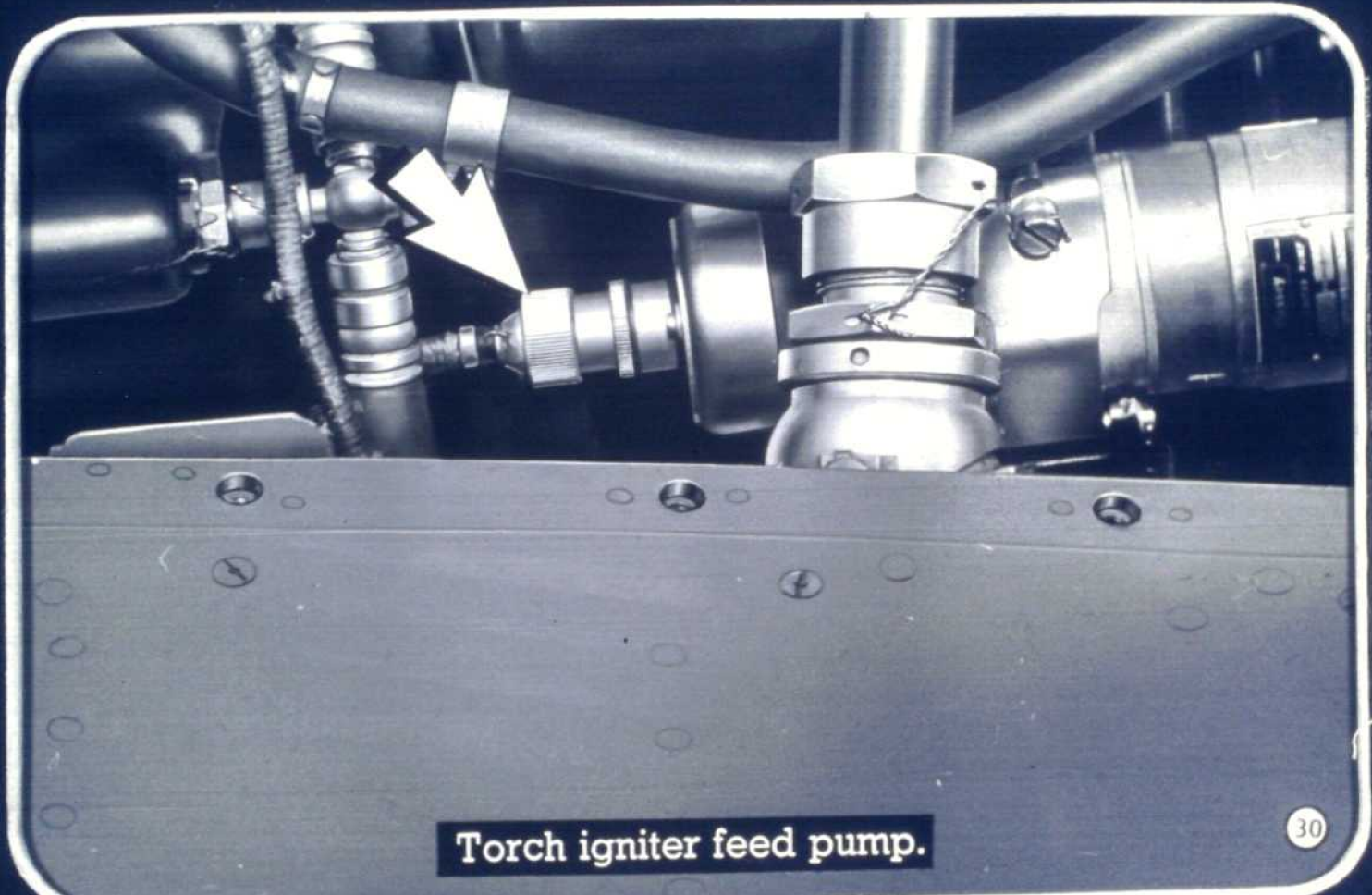
Fire extinguisher pipe.



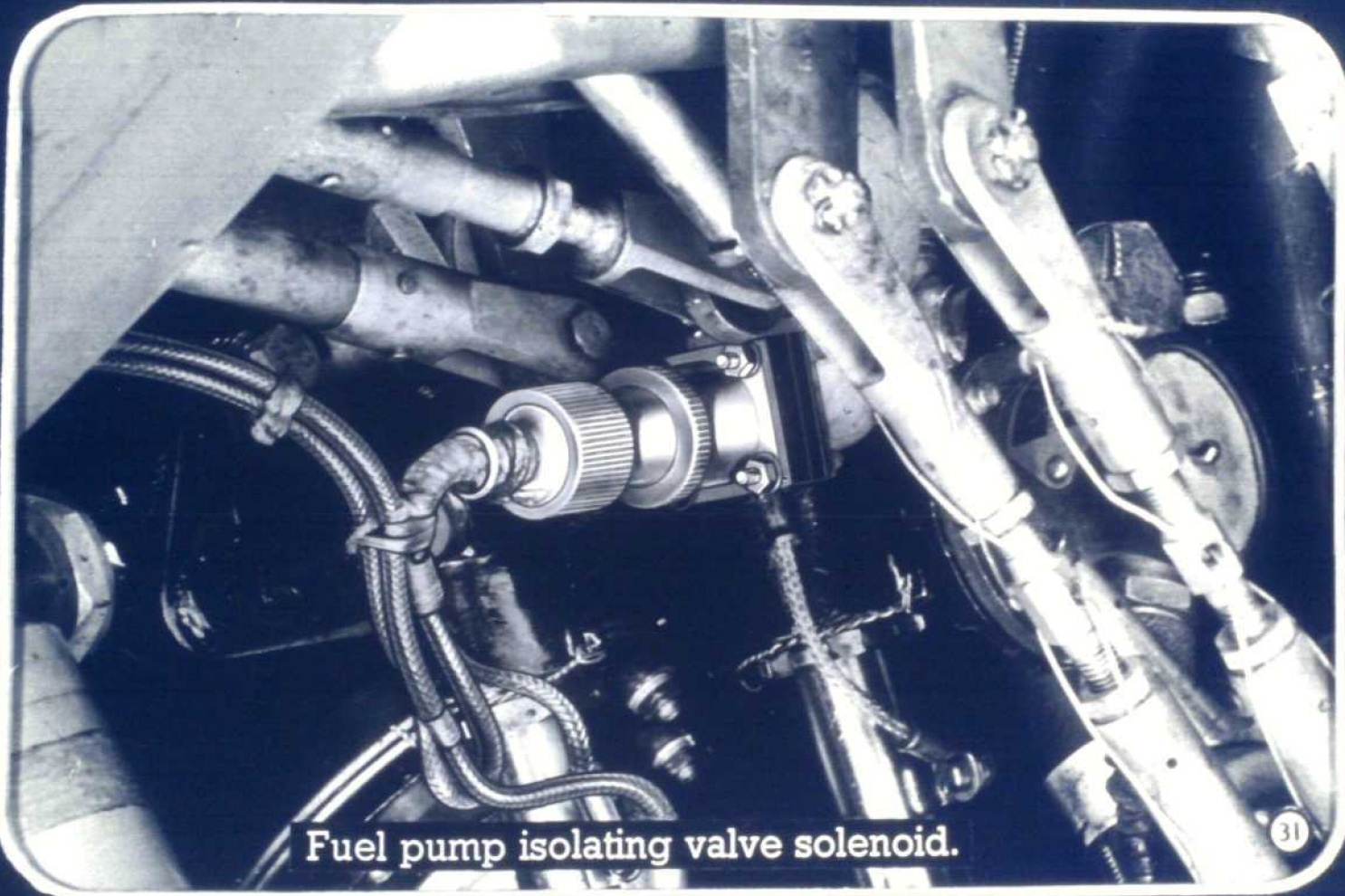
L.P. Fuel pressure warning switch and tachometer generator.



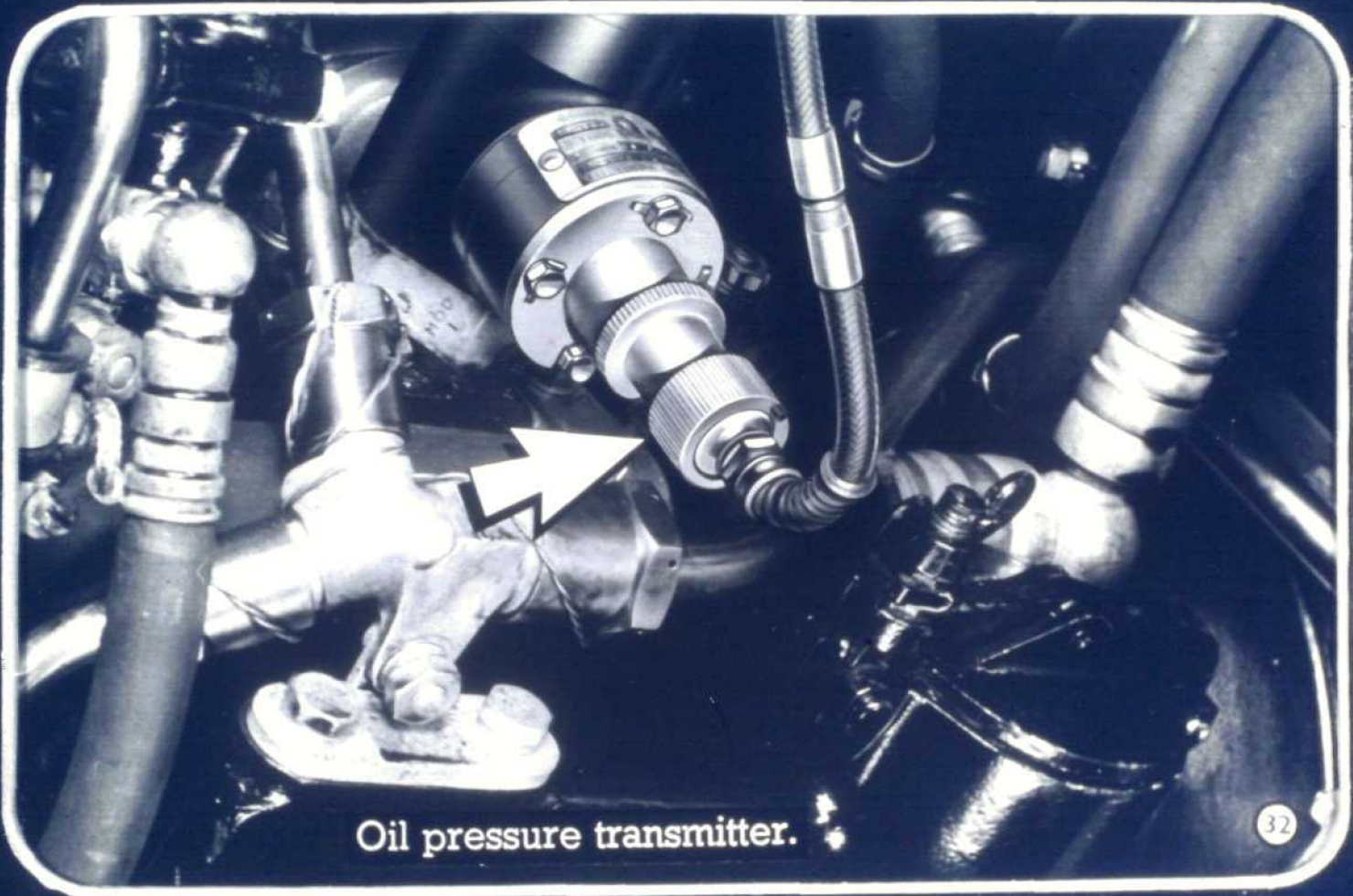
Torch igniter plugs. Torch igniter solenoid valves.



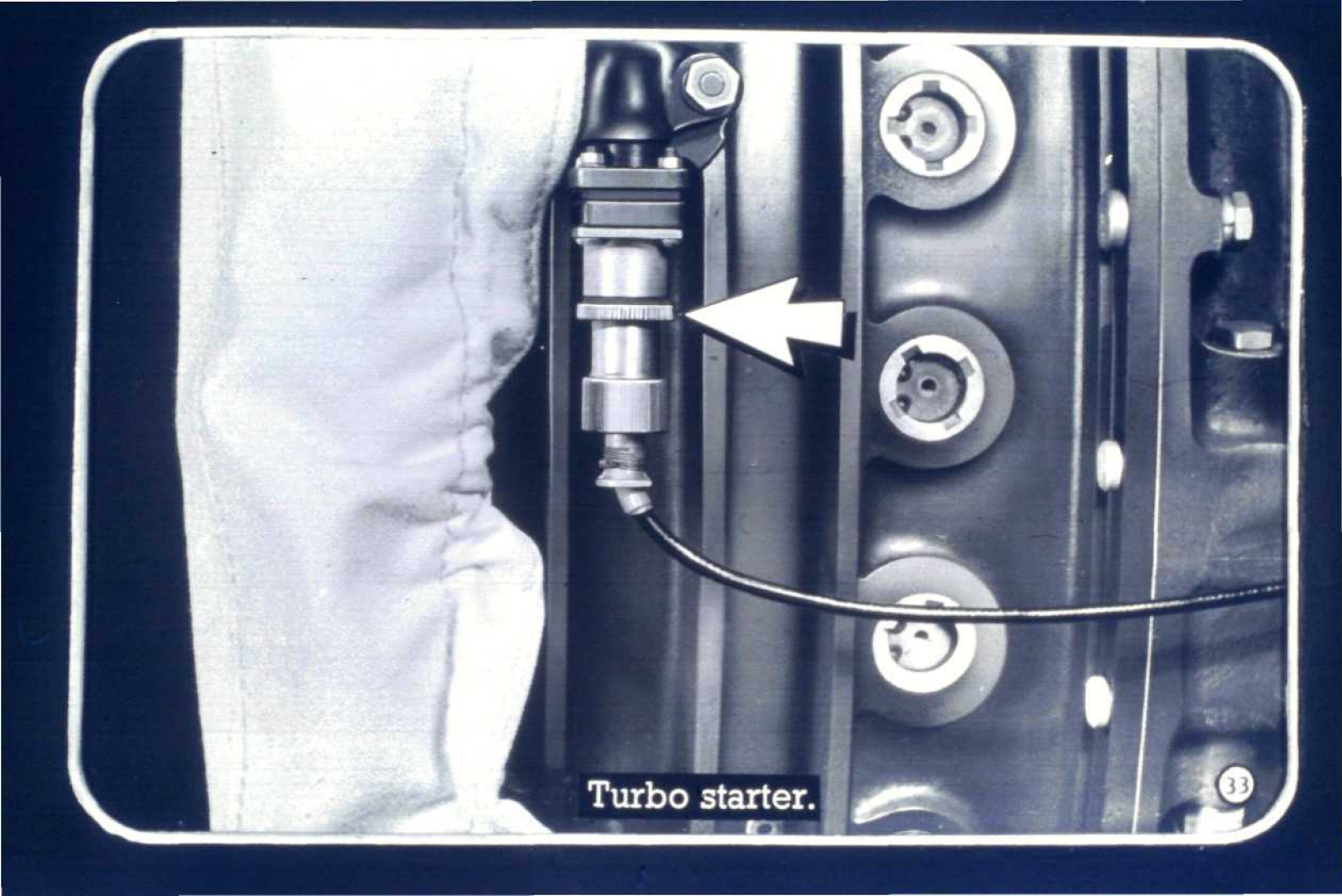
Torch igniter feed pump.



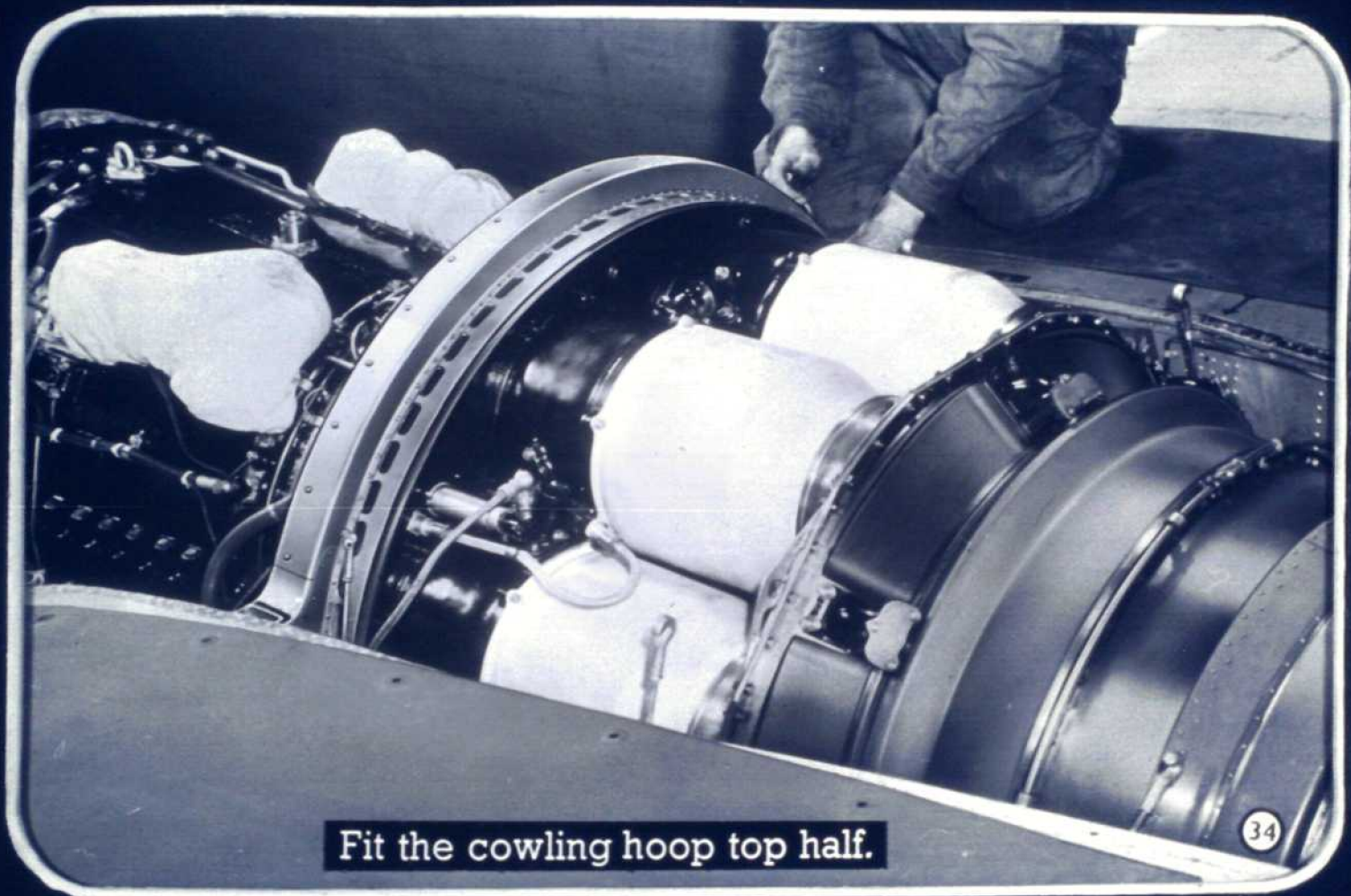
Fuel pump isolating valve solenoid.



Oil pressure transmitter.



Turbo starter.



**Fit the cowling hoop top half.**

**After installing the engine check the following points :—**

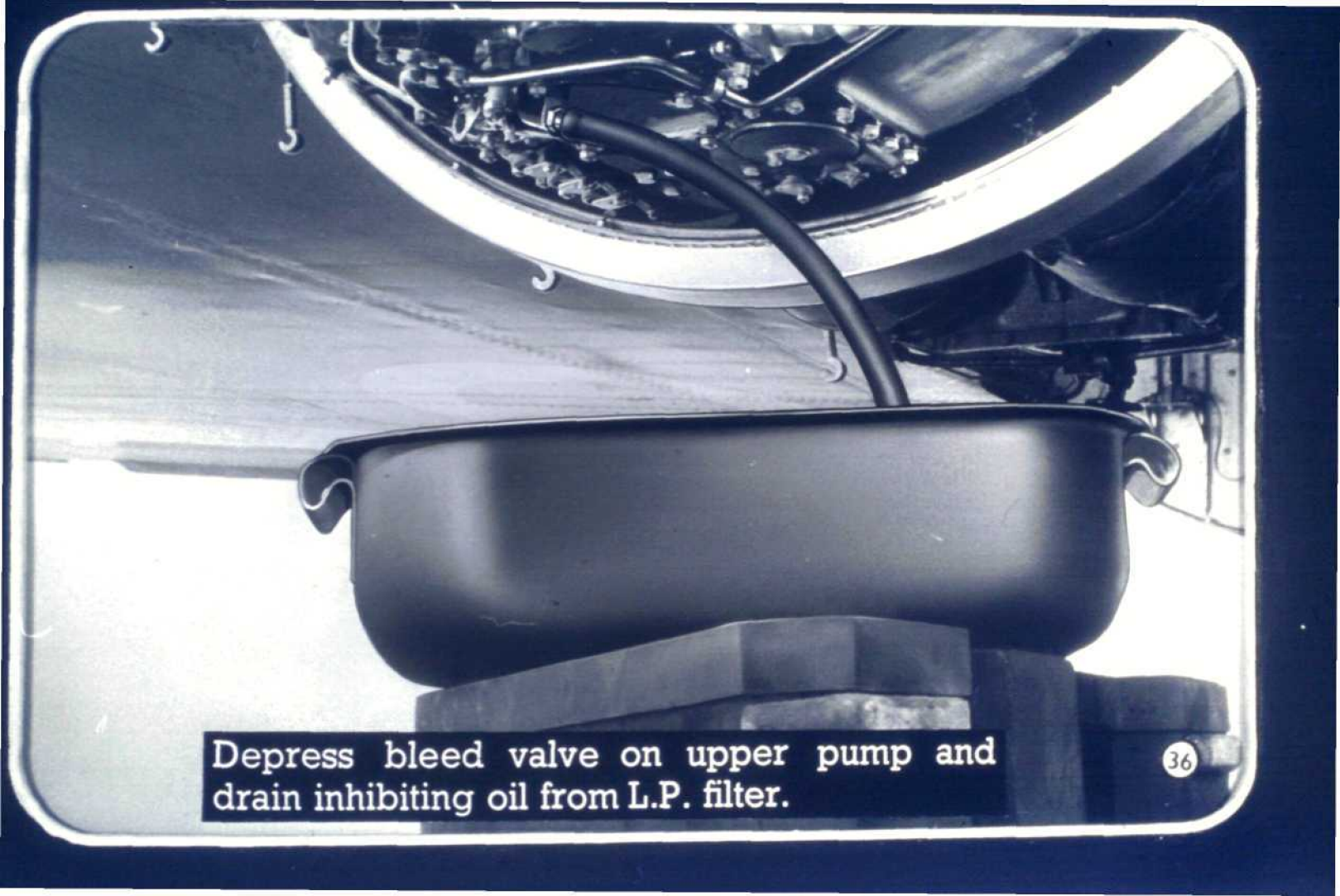
**Engine mounting bolts.**

**Accessory gearbox coupling bolts.**

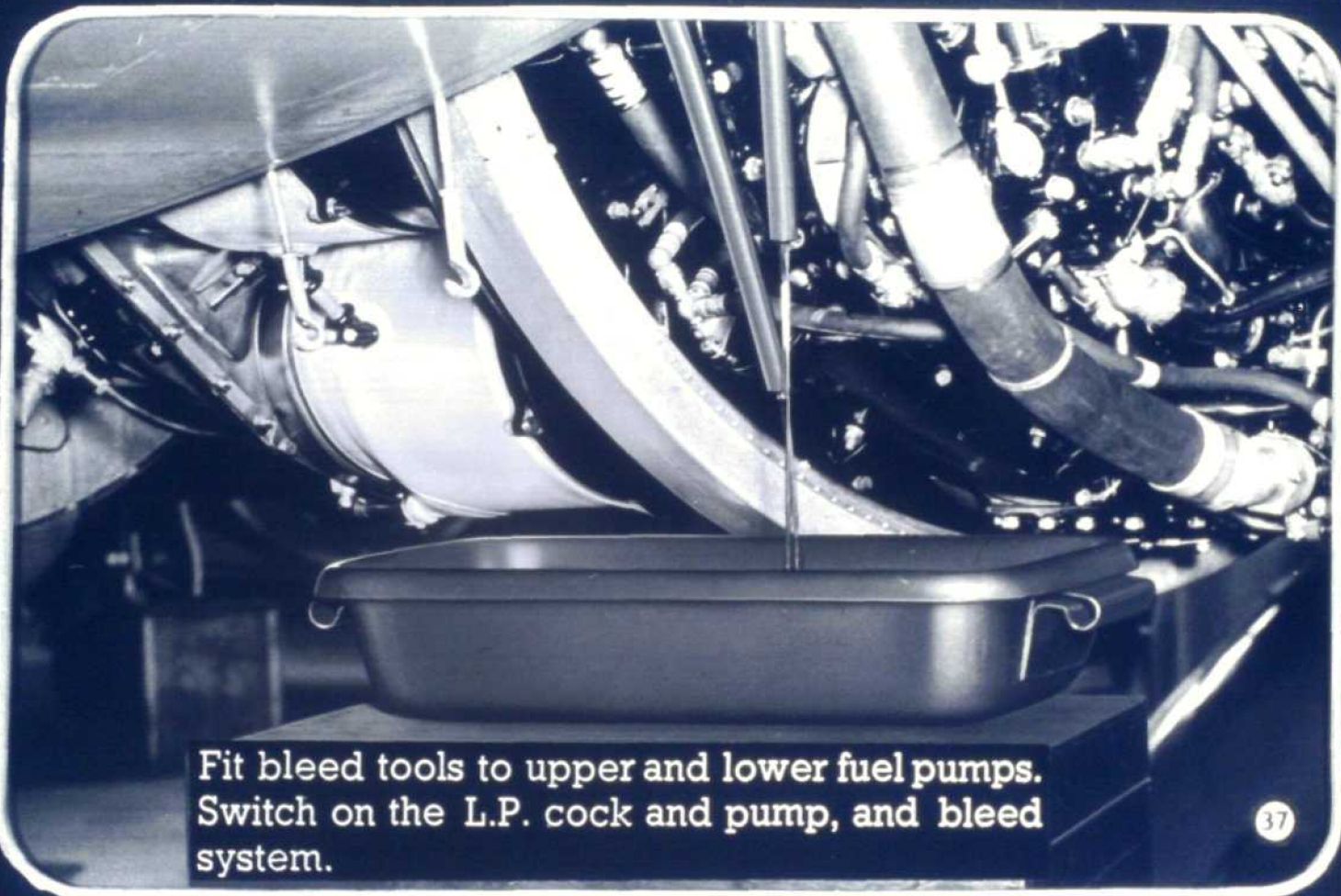
**All pipe connections.**

**All bonding leads.**

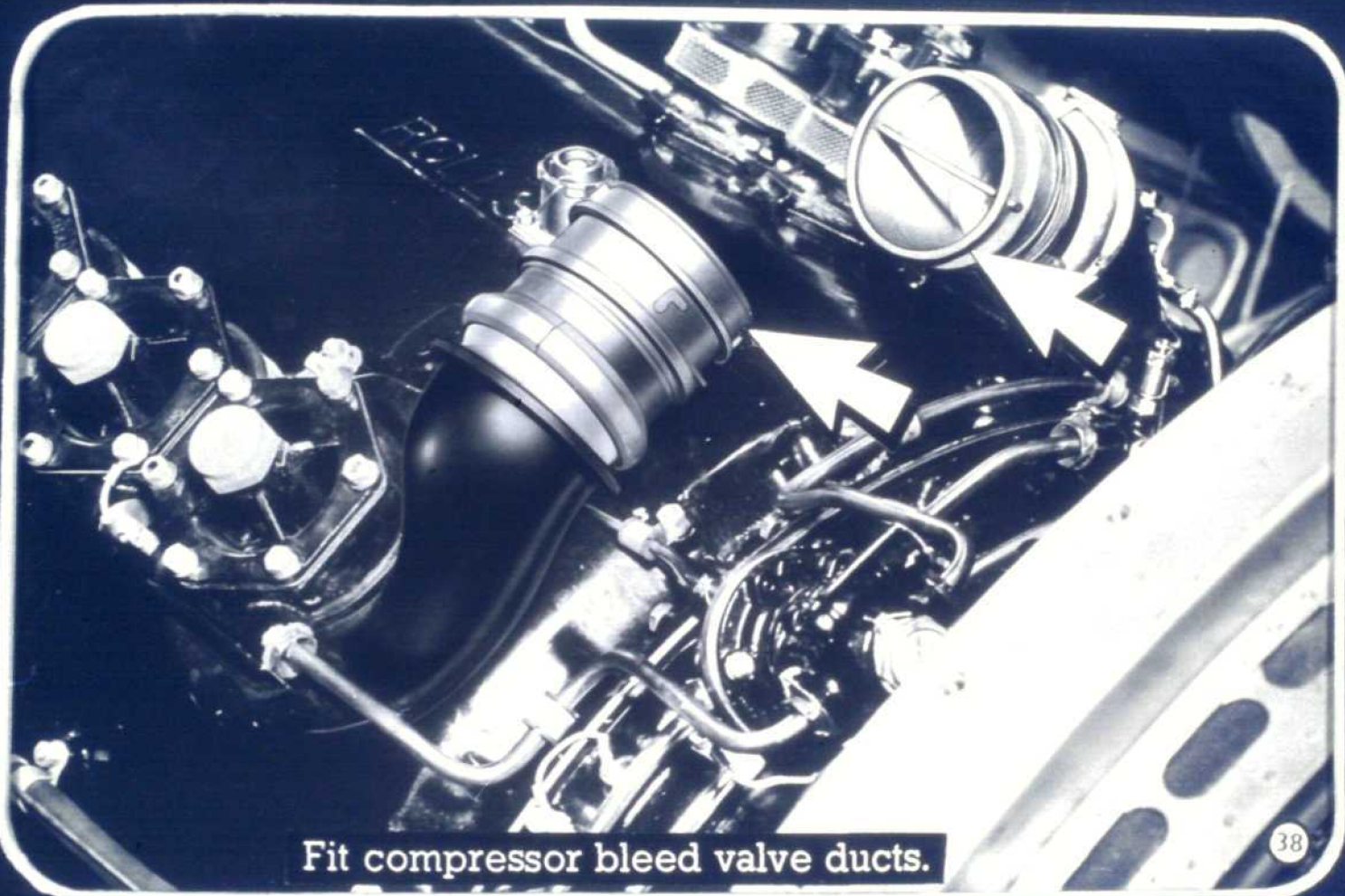
**Ensure that the transition section and jet pipe are secure.**



Depress bleed valve on upper pump and drain inhibiting oil from L.P. filter.



Fit bleed tools to upper and lower fuel pumps. Switch on the L.P. cock and pump, and bleed system.



Fit compressor bleed valve ducts.

**Remove blanks from :—**

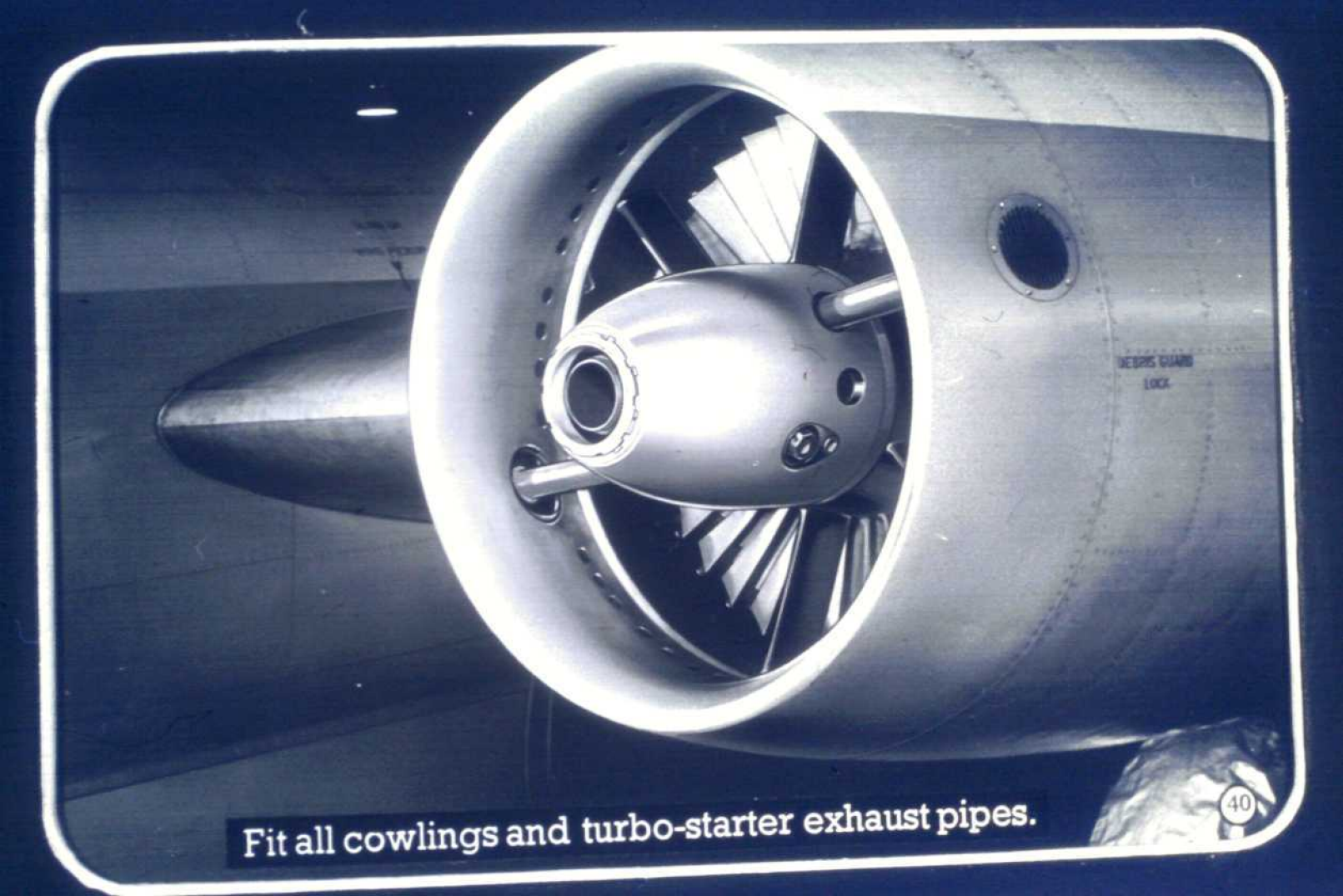
**Balance piston vents.**

**Bleed valve control unit.**

**Oil filter drains.**

**Drain between 4 & 5 combustion chambers.**

**Breather.**



Fit all cowlings and turbo-starter exhaust pipes.

**Remove all tools from aircraft, ensure  
no foreign bodies in the intake or  
engine bay. Fit cover over intake.**

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