

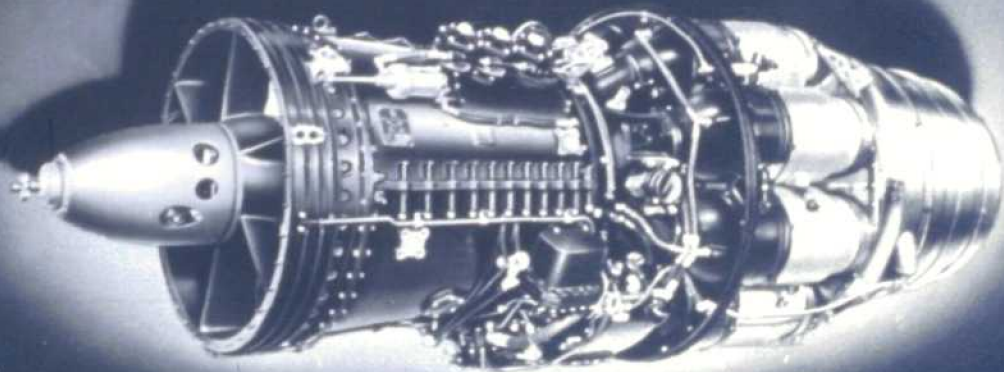


A
ROLLS - ROYCE

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.

Starting and Ground Running

ACI

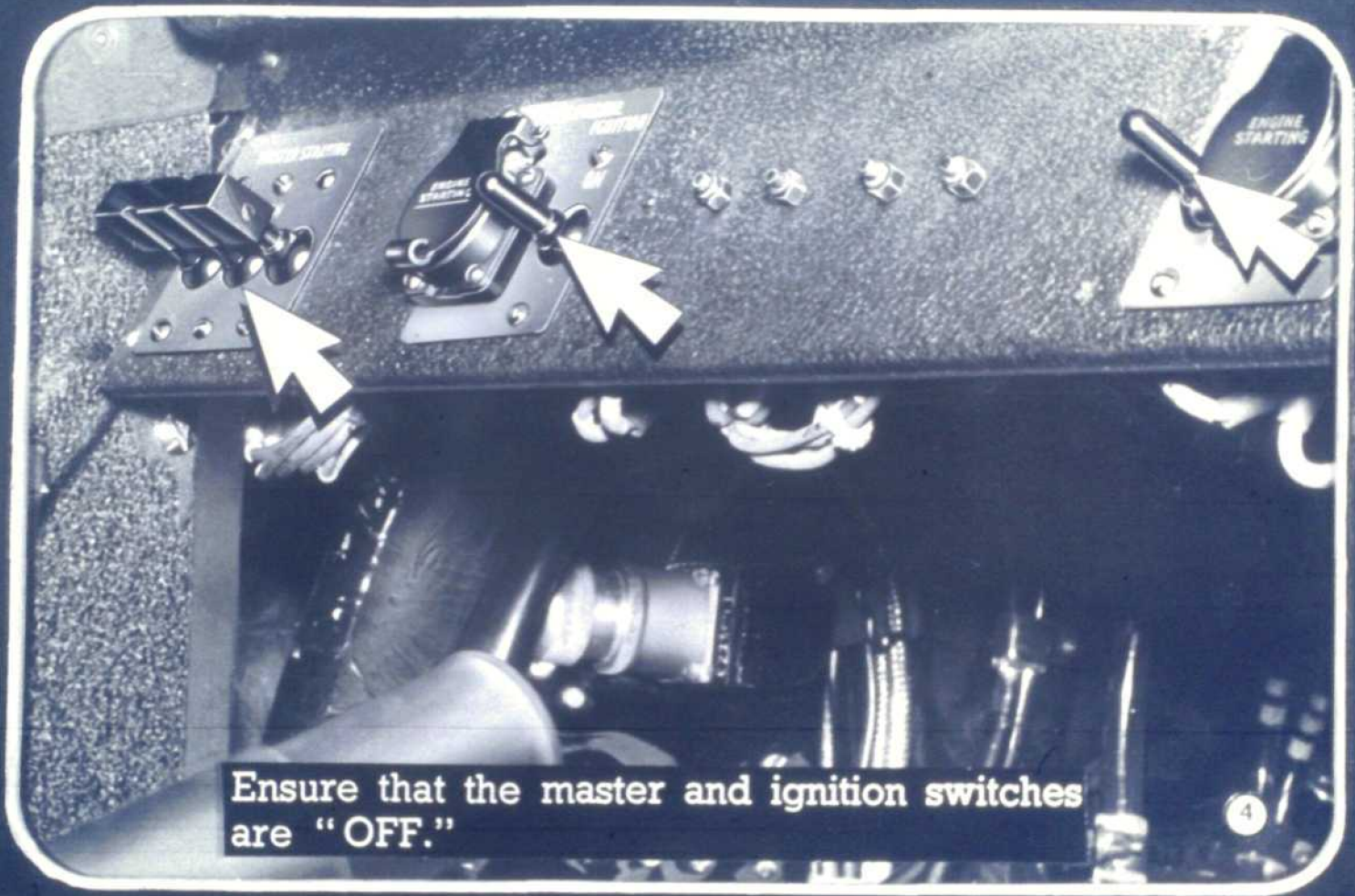
14-J-246

The life of a turbo-jet engine is adversely affected by high jet pipe temperature. Unnecessary starts and prolonged running at maximum conditions should be avoided.



Head the aircraft into wind. The ground in the vicinity must be free from loose material. Ensure all personnel are clear of intakes and jet pipes. Ground flight switch to ground.

3



Ensure that the master and ignition switches are "OFF."

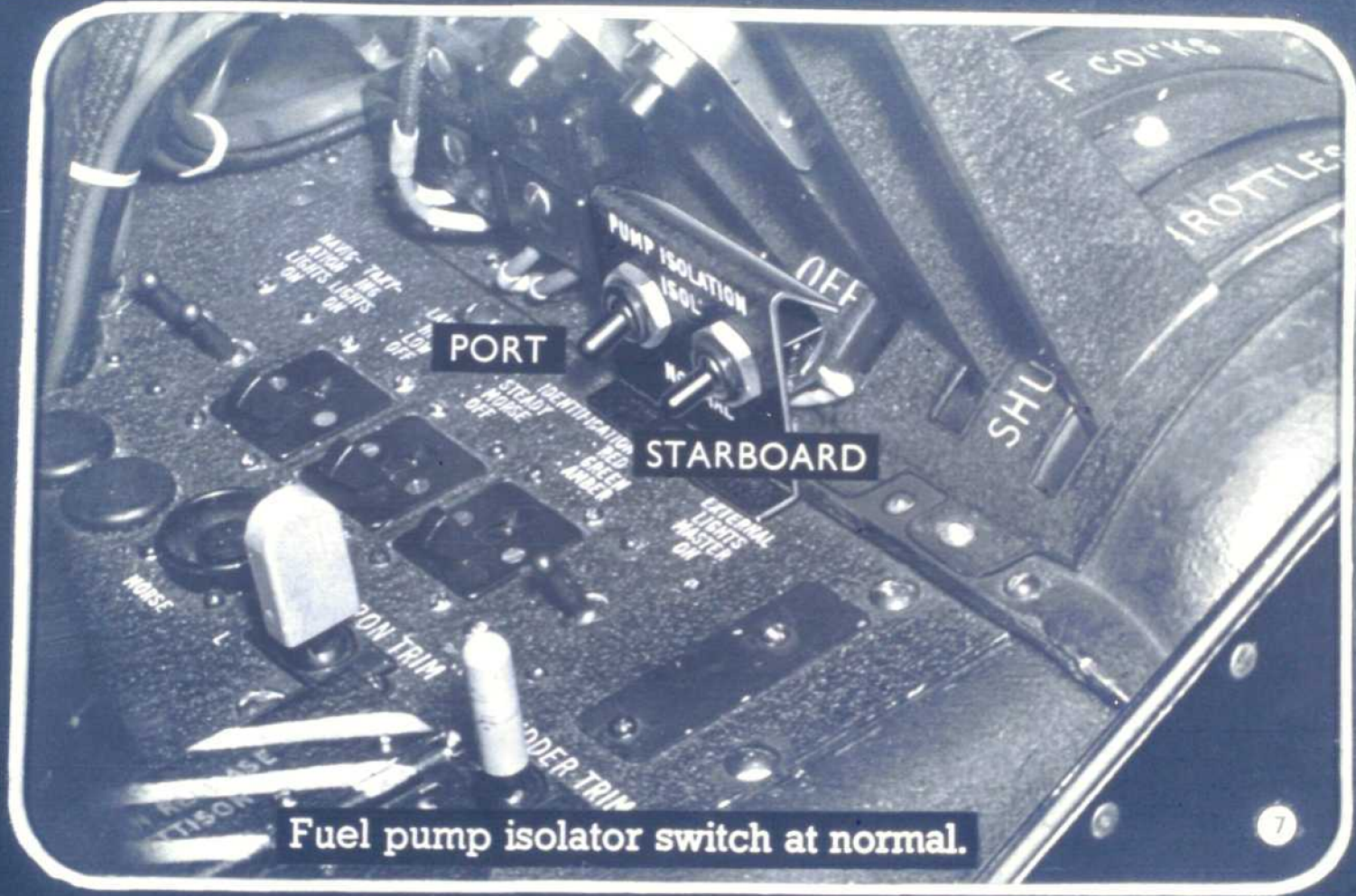


Load the turbo-starter.

5

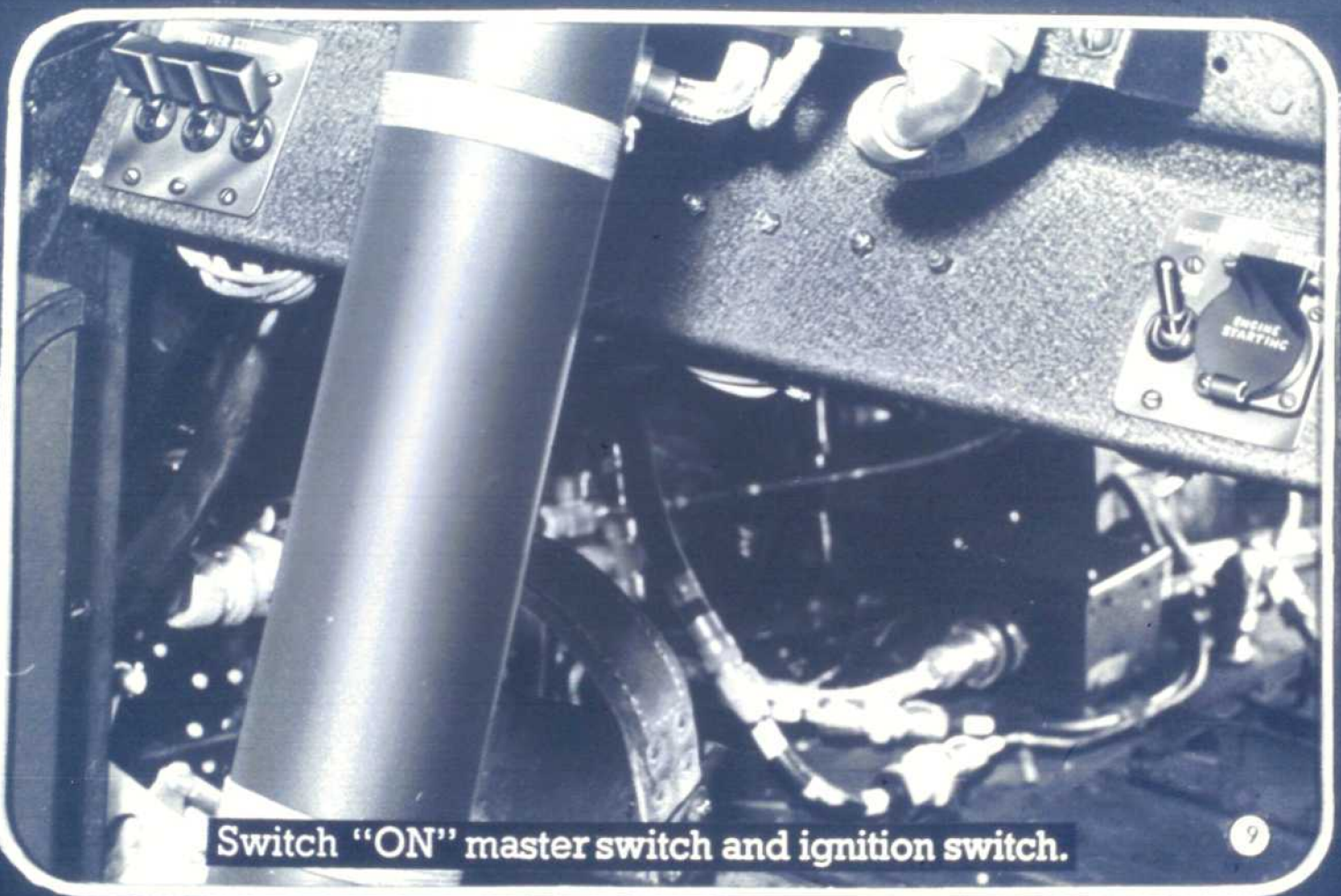


Ensure that the throttle and H.P. cock are closed.

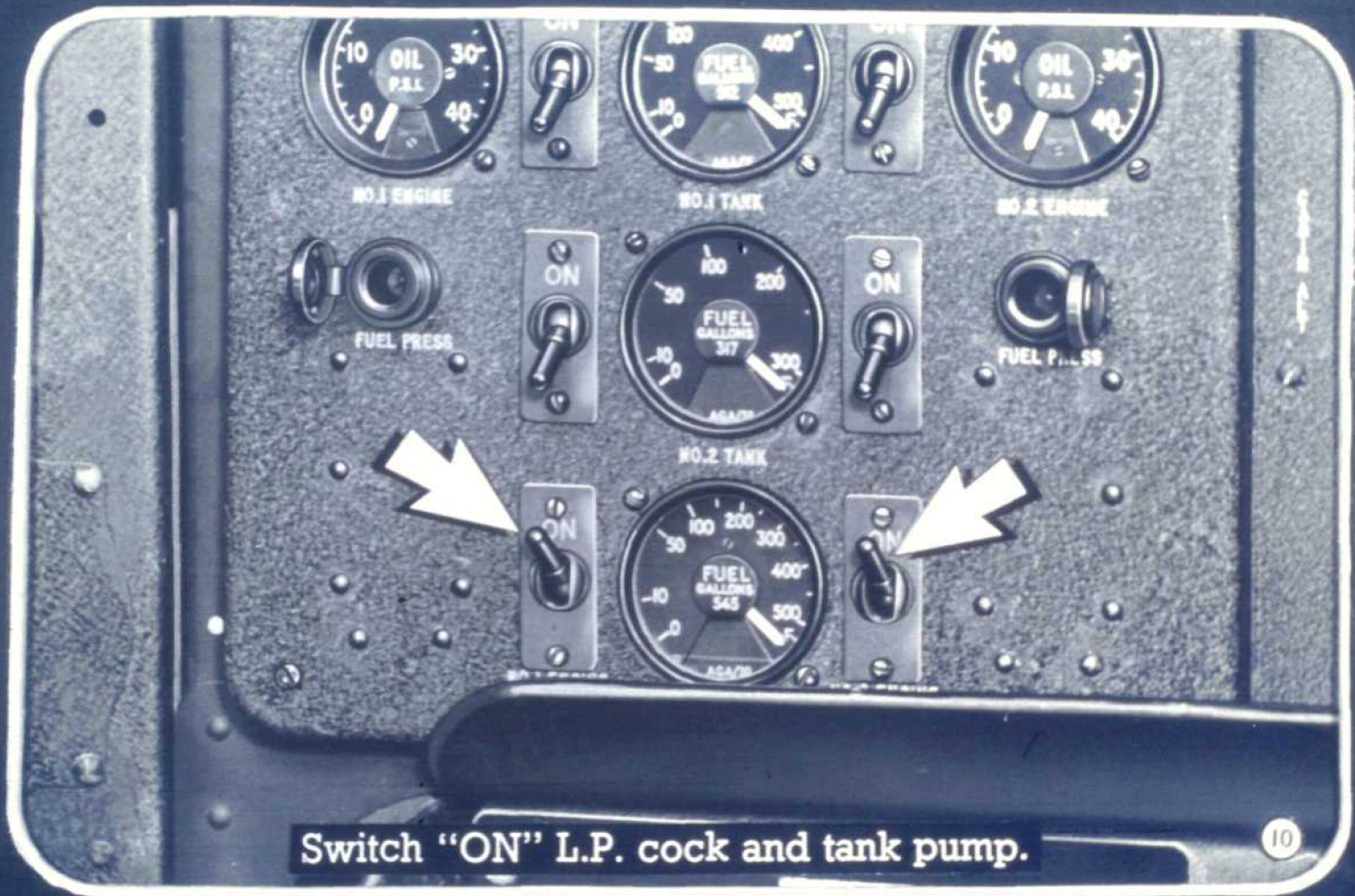


Fuel pump isolator switch at normal.

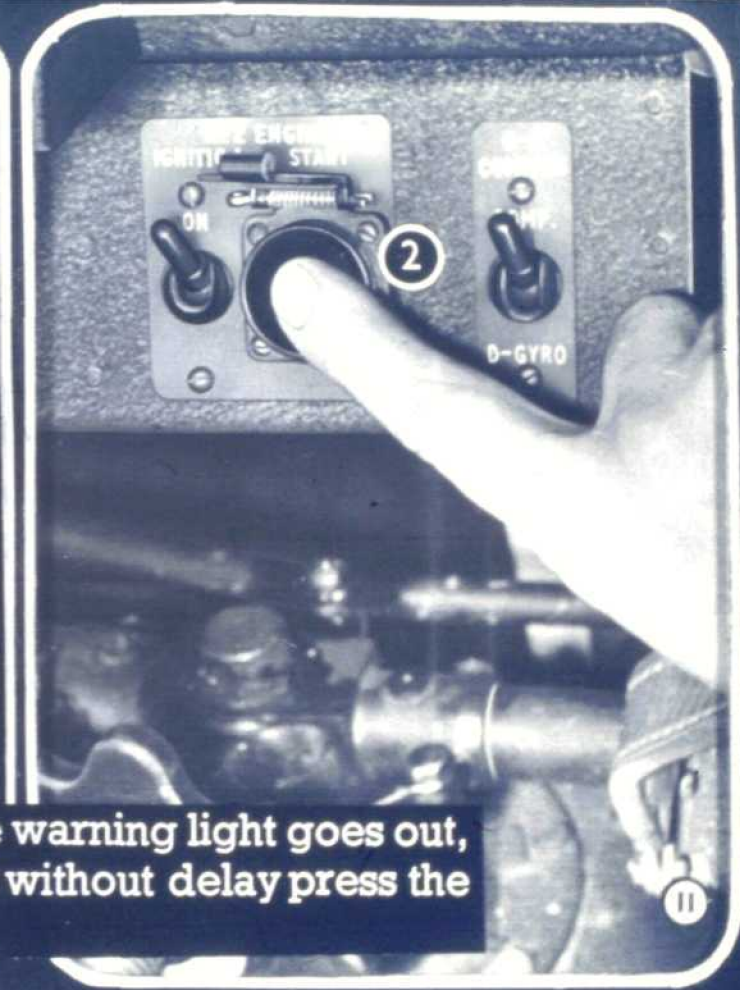
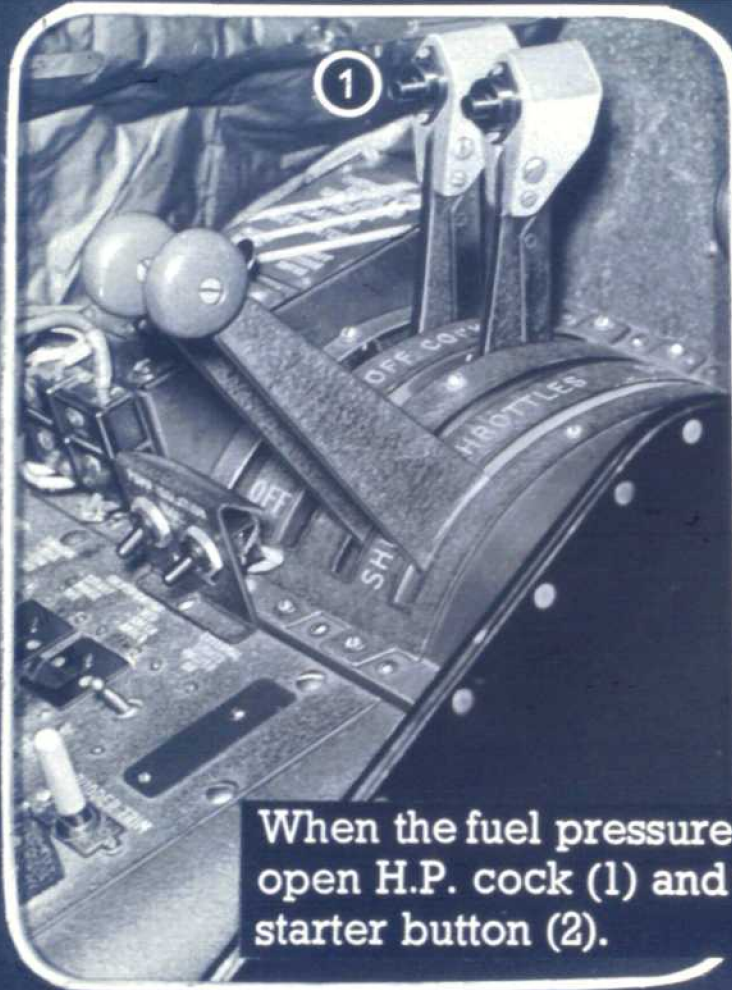
**Check that all tank and pump tripper
switches are "IN" and accumulator
isolating switch is "OUT."**



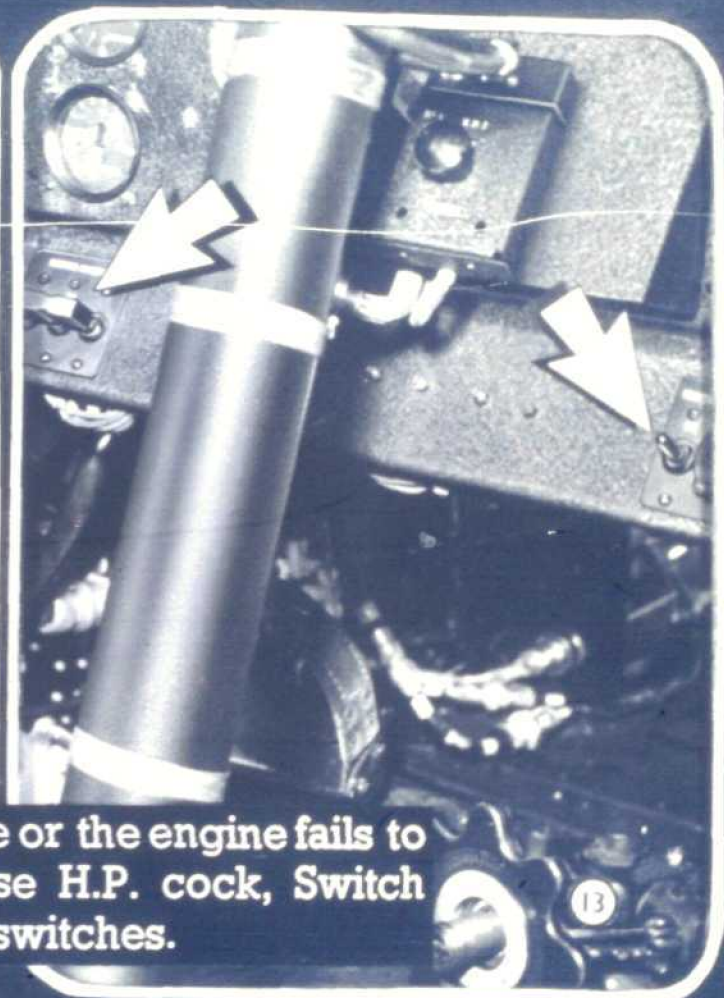
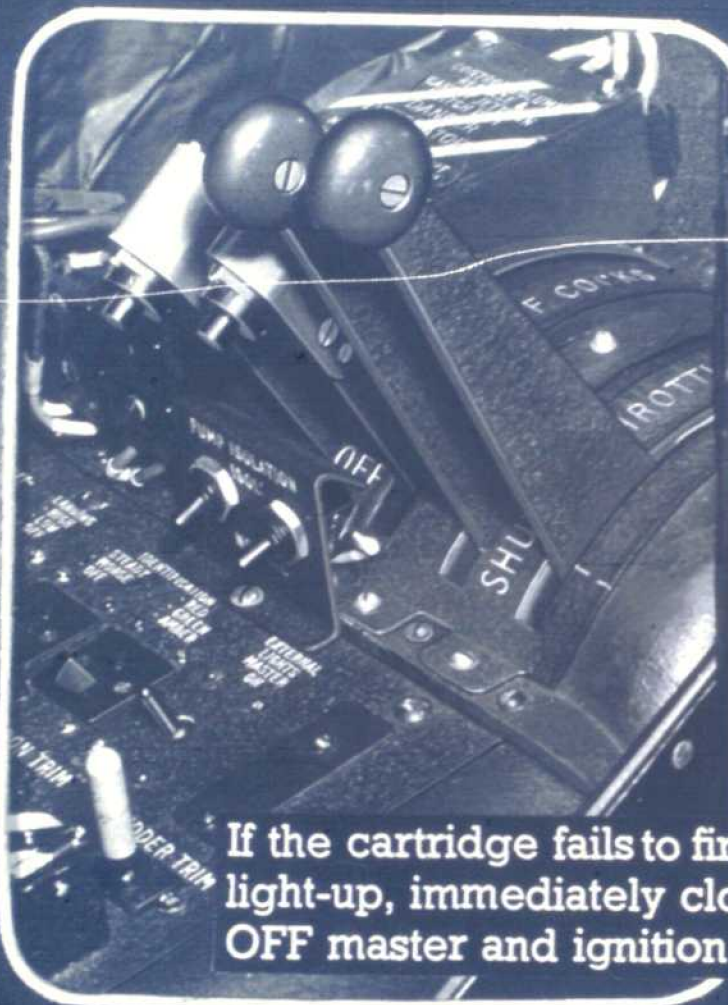
Switch "ON" master switch and ignition switch.



Switch "ON" L.P. cock and tank pump.



When the fuel pressure warning light goes out, open H.P. cock (1) and without delay press the starter button (2).



If the cartridge fails to fire or the engine fails to light-up, immediately close H.P. cock, Switch OFF master and ignition switches.

A period of one minute must elapse before unloading a faulty cartridge. A second cartridge may then be inserted and fired without delay. For all subsequent cartridges wait ten minutes.



NO. 1 ENGINE

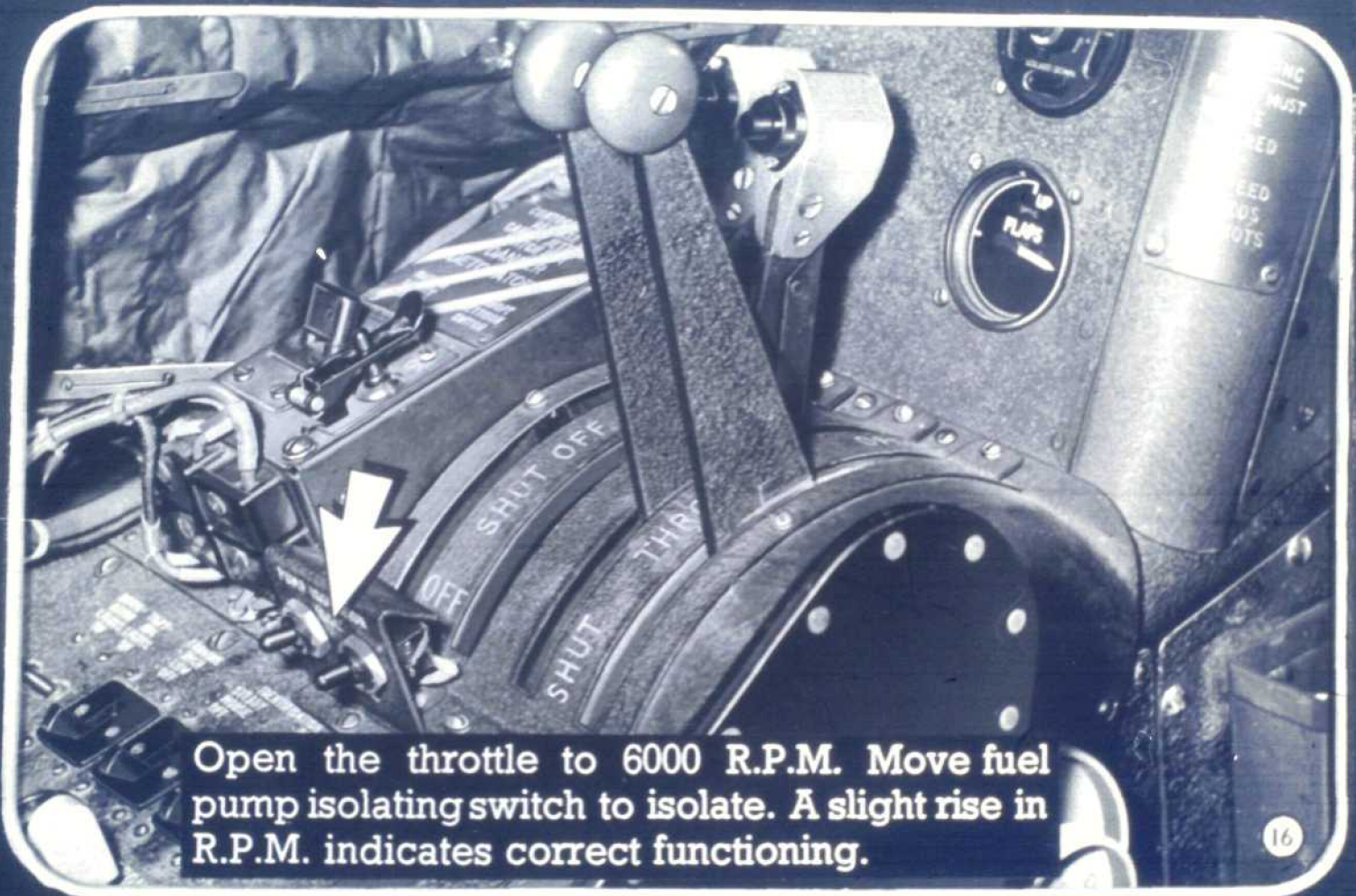


NO. 1 TANK

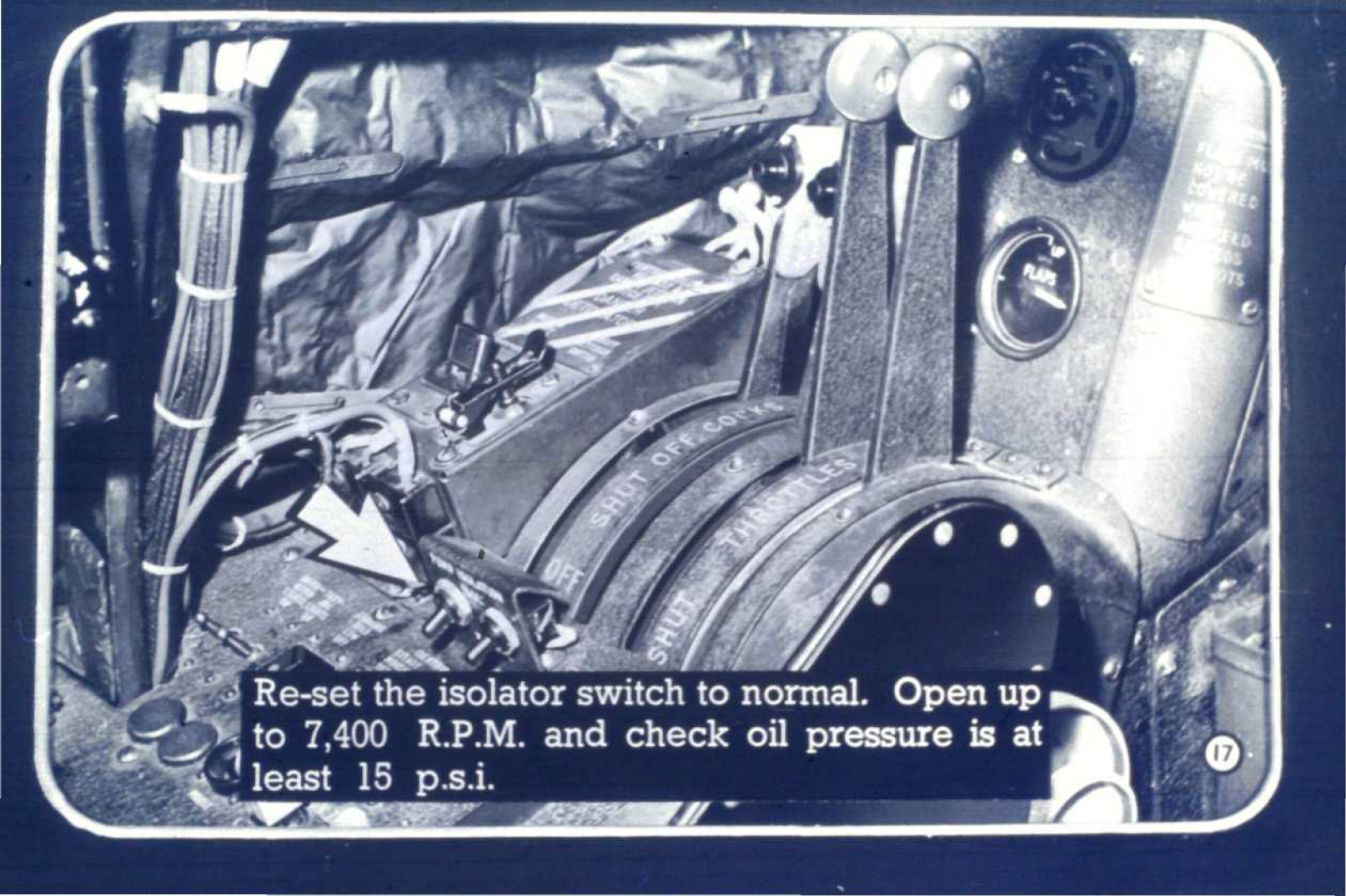


NO. 2 ENGINE

After starting check that idling speed, oil pressure and J.P.T. are within limitations.



Open the throttle to 6000 R.P.M. Move fuel pump isolating switch to isolate. A slight rise in R.P.M. indicates correct functioning.



Re-set the isolator switch to normal. Open up to 7,400 R.P.M. and check oil pressure is at least 15 p.s.i.

A pause in engine response will
take place when bleed valves and
swirl vanes change-over.



NO. 1 ENGINE



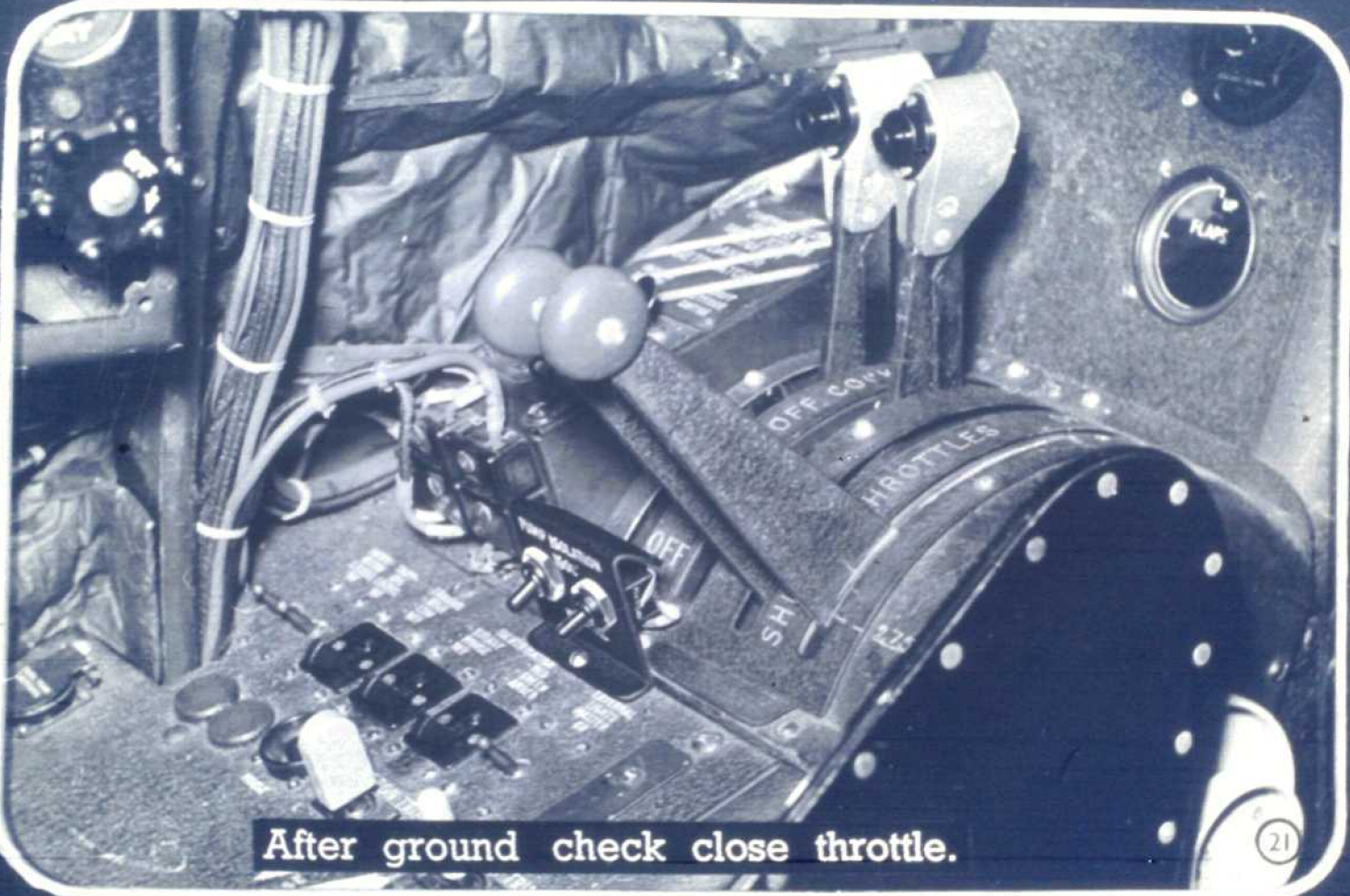
NO. 1 TANK



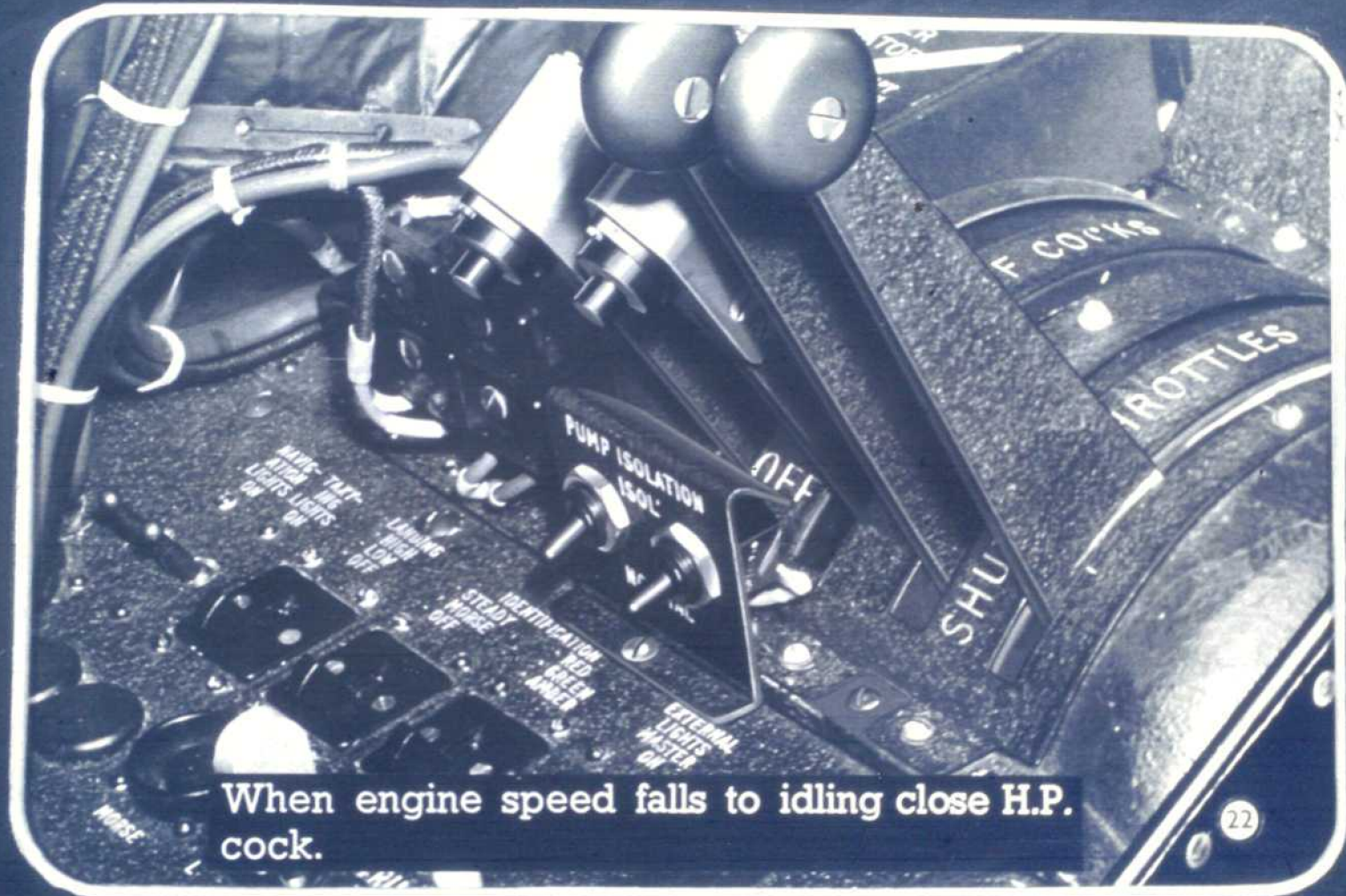
NO. 2 ENGINE

Fully open throttle. Check max. R.P.M. Check that max. J.P.T. is not exceeded.

An acceleration time check is only required if a defect is suspected, or if adjustments are being made.



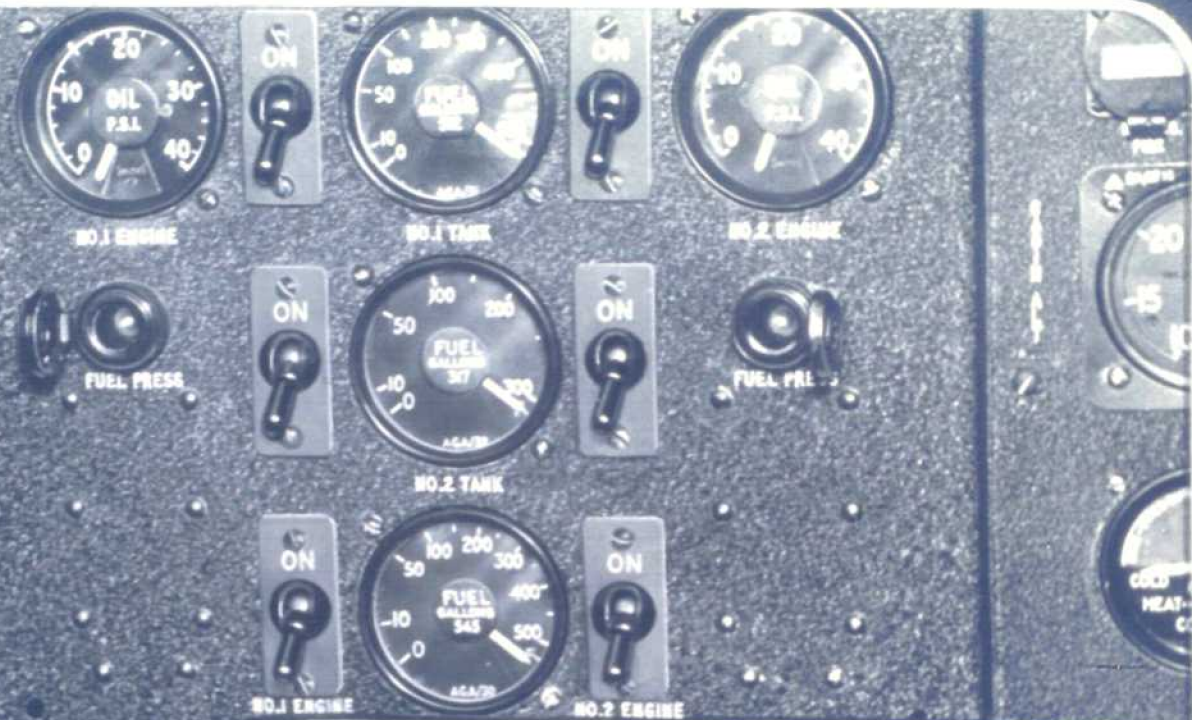
After ground check close throttle.



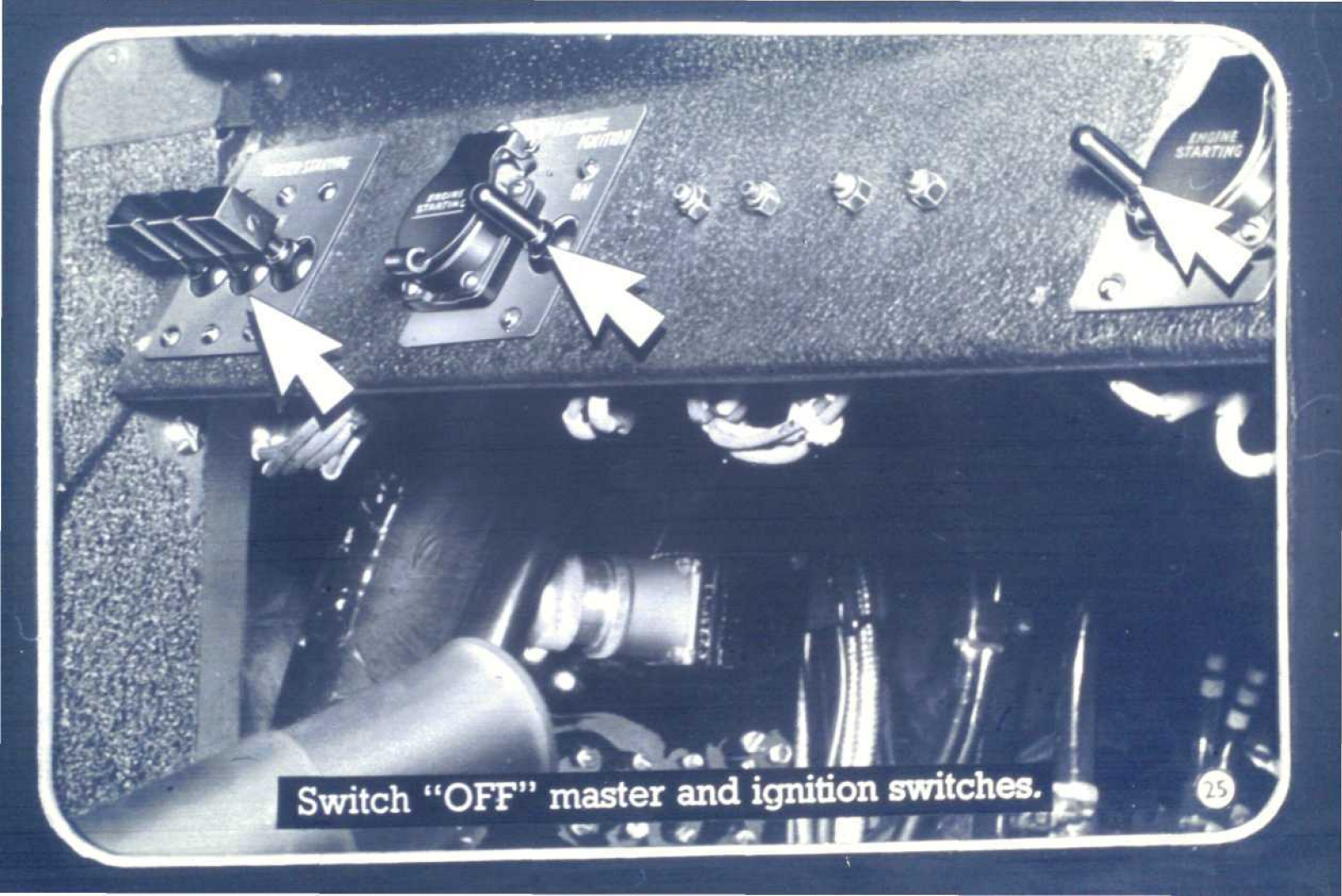
When engine speed falls to idling close H.P. cock.

When the engine speed falls to below

300 R.P.M.—



Switch "OFF" L.P. fuel cock and tank pump switch.



Switch "OFF" master and ignition switches.

**After closing H.P. cock the engine
should not take less than 77 seconds
to become stationary.**



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