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OLYMPUS 201/301 SERIES

SECTION 11

AIR STARTING

General

Engine starting is achieved by using compressed air, either from a ground source or the rapid start system. The latter will be dealt with in section 14.

The starting medium is low pressure air at 35psi, the supply of which is controlled by an electrical circuit.

The starting circuit is designed so that the following requirements are fulfilled:

a. All engines may be started independently and in any order from an outside source.

b. One engine started as in (a) above and from this engine the others may be started either independently or simultaneously.

c. Wet and dry motoring cycles may be carried out.

System Installation

The ground starting connection is in the starboard mainplane, just outboard of No 4 engine. Air from this source passes through a non return valve and enters the aircraft main supply duct between No 3 and 4 engines.

Operation

N.B. Ensure type of start selector switch is at NORMAL. When the starter master switch is put ON the bypass valve in the bomb bay opens. Air from the ground source is now available at the engine isolation cock on each engine. To start an engine, open the appropriate engine isolation cock and press the engine starter button. The starter air valve opens and allows air pressure to pass to the turbine of the starter motor thus rotating the engine. A pressure switch in the starter air valve closes and a light comes on in the starter button. When the engine reaches self sustaining speed, the starter motor overspeed cut-out switch operates and closes the starter air valve. The pressure switch opens and the light in starter button goes out.

The remaining engines can be started independently either from the ground source or by using air supplied from the running engine selected to 70%.

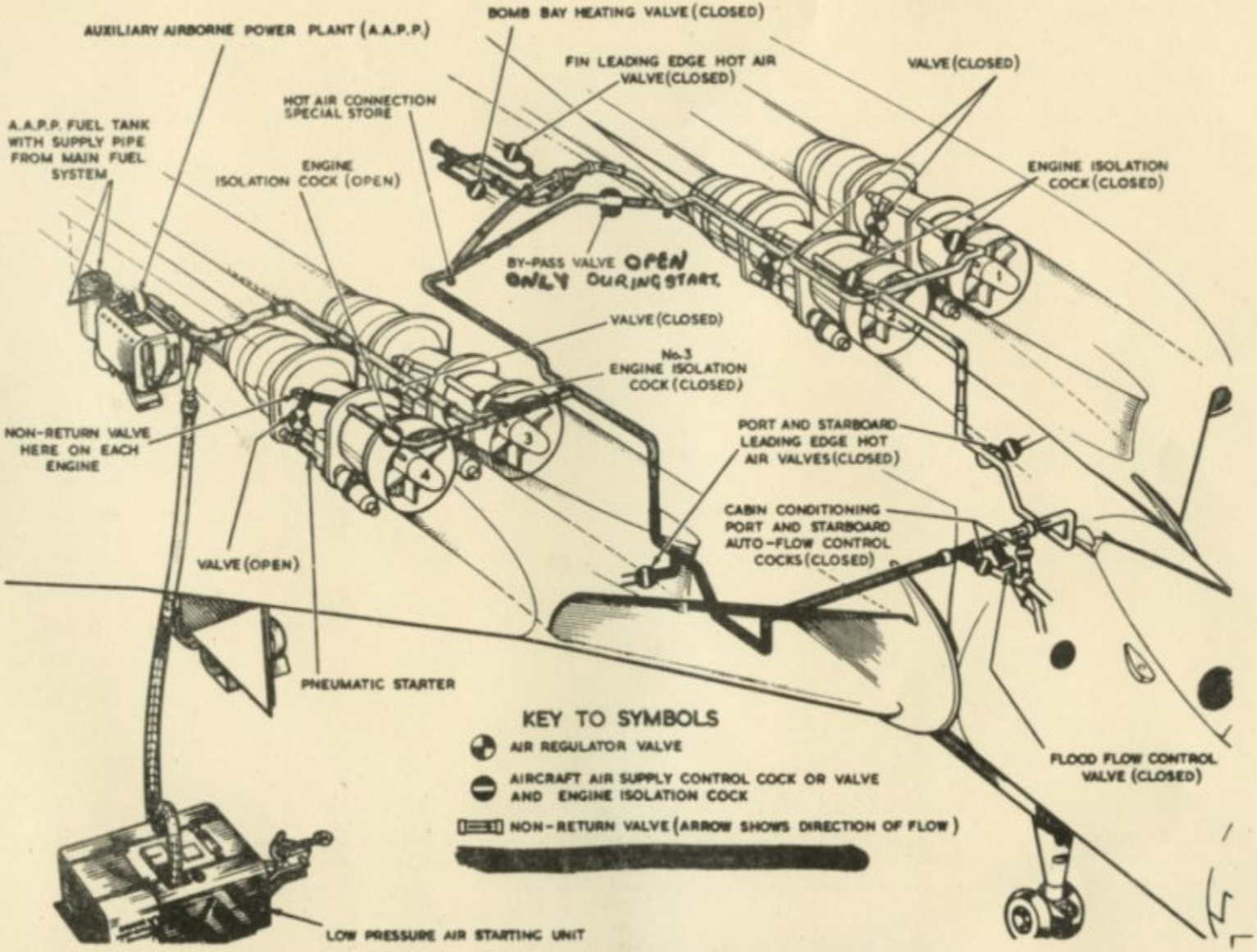
A simultaneous start of the remaining engines can be achieved by opening the running engine to 90% and with all engine isolation cocks open pressing the remaining starter buttons.

During a wet or dry cycle the engine not reach self sustaining speed and the engine will motor over until the start is cancelled by switching OFF the Start Master Switch.

Servicing

Prior to installation and at specified servicing periods, the starter motor lubricating oil should be drained and 150cc of new oil injected into the starter.

The life of a starter motor is based on the number of starts carried out and so each start must be recorded in the F700.



ENGINE STARTING SYSTEM.

Nº4 ENG. START IN PROGRESS