Chapter 1

RE-HEAT IGNITER NON-RETURN VALVES TYPE NRV 3/1C and 4/2D

Description

1. The non-return valves form part of the re-heat igniter system and are used to prevent leakage of fuel into the hot end of the engine and to ensure that the re-heat igniter pipes between the igniter unit and valve are fully primed so that an immediate and correct quantity of fuel is injected into the re-heat manifold when required.

2. Two valves are fitted in the system, type 3/1C, being the front and type 4/2D the rear; these being their respective positions in relation to the engine installation. Both units are identical except that the outlet orifice on the front valve is larger than that of the rear valve.

3. Situated downstream of the igniter control, the unit comprises a spring-loaded valve which opens to admit a supply of fuel to the re-heat manifold, the quantity of fuel being controlled by an orifice which forms the outlet end of the unit.

4. The spring loading is so set that the valves are seated during normal engine running conditions, thereby preventing any leakage to the burner manifold and at the same time ensuring that the delivery lines from the igniter unit to the valves are fully primed. When re-heat is selected, the igniter unit delivers a pre-determined quantity of fuel to the valves which open immediately thus allowing the orifice to control the distribution of flow for ignition purposes.

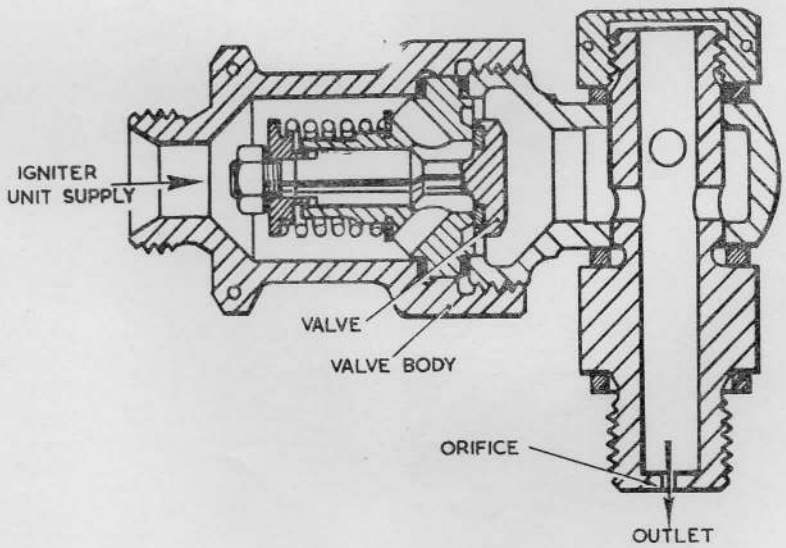

Fig. 1. Re-heat igniter non-return valve

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