

SECTION R

Engines for Refrigeration Units

4.108 engines supplied for the driving of refrigeration units are similar to those engines described in this 4.108 workshop manual and in the main, can be serviced in accordance with the instructions given in this publication. The following differences should however, be noted:—

Cold Starting Procedure (Refer Figs. R.1, R.2)

Glow plugs are fitted in the cylinder head to assist starting under cold conditions and the following cold starting procedure should be adopted:—

1. Press "Heat" button for 20 to 30 seconds.
2. With heat button still engaged, press starter button until engine starts.

If engine does not start after 15 seconds, release starter button, but keep heater button engaged for a further 10 to 15 seconds. Then with heater button still engaged, re-press starter button. Keep glow plugs energised for some seconds after the engine has started until even running is assured.

It should be noted that under no circumstances should ether or any other unauthorised starting aids be used at the same time as the glow plugs.

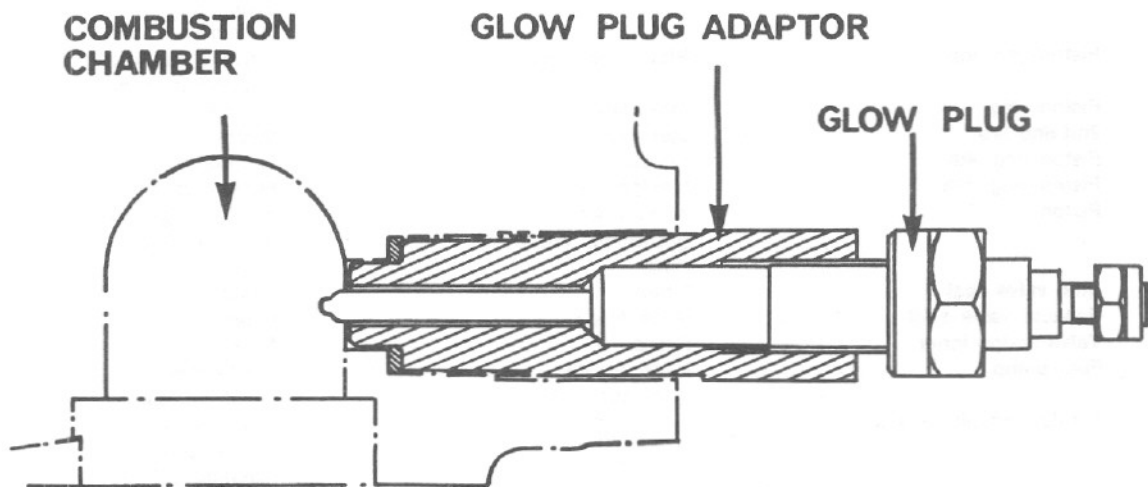
Lubricating System

Due to the fact that the lubricating oil sump capacity has been increased to 28 pints and a much larger full flow lubricating oil filter is used, also the addition of a by-pass lubricating oil filter, the lubricating oil and filter element change period is extended to 1,200 hours.

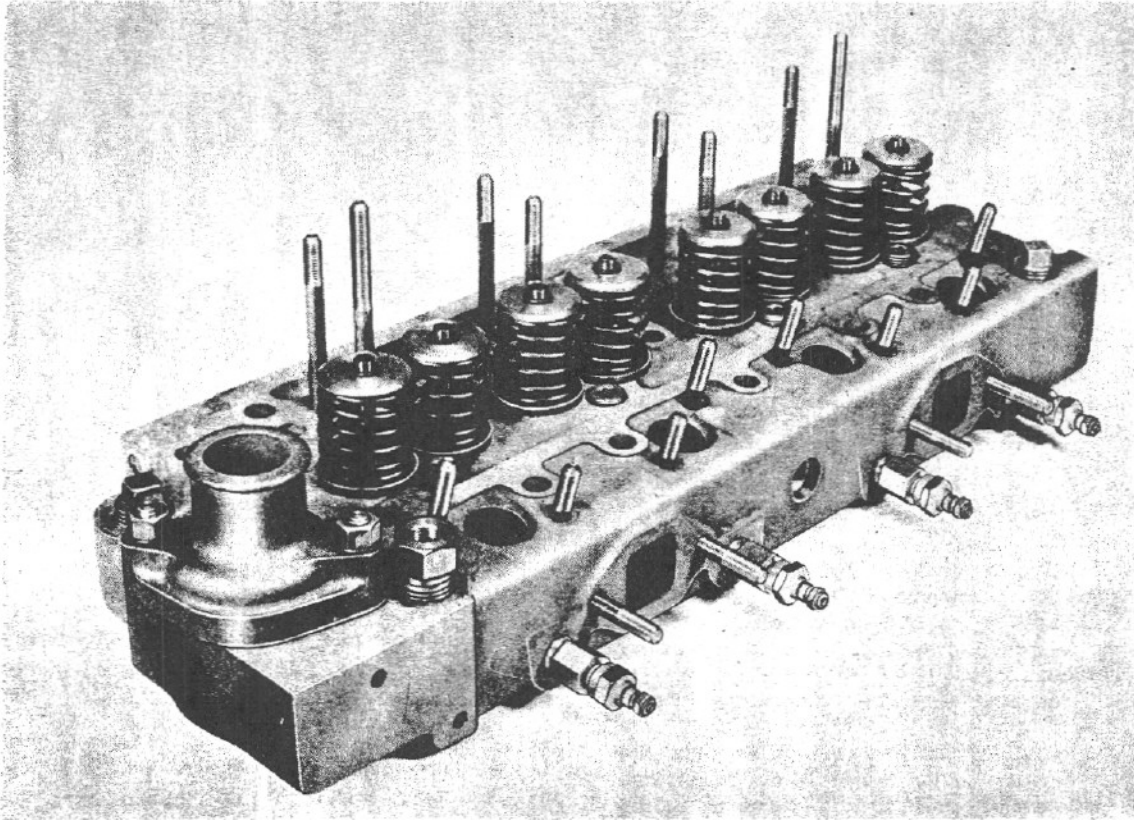
Fuel System

A mechanically governed fuel injection pump is fitted. The fuel pump rotor timing letter is "C", No. 1 outlet is W and static timing is 18° B.T.D.C. or 0.109 in piston displacement B.T.D.C.

Two timing holes are provided in the rear of the crankshaft pulley, which when engaged with the timing pin, denote T.D.C. and 18° B.T.D.C. (static timing point). As a different final fuel oil filter is employed with 4.108 refrigeration unit engines, also the addition of a primary fuel oil filter, the fuel oil filter element change period is extended to 1,200 hours.



ENGINES FOR REFRIGERATION UNITS—R.2



R2

General

The following major differences between the standard 4.108 vehicle engine and the 4.108 refrigeration unit engine may be of interest :—

	4.108(V)	4.108 for Refrigeration Units
Crankshaft	Tufftrided	Non-tufftrided
Cylinder head	No glow plug bosses	Glow plugs in combustion chambers
Piston ring, top	Plain cast iron	Chrome plated or Chrome Inserted
Piston ring, 2nd and 3rd	Internally stepped	Internally stepped
Piston ring, 4th	Cords	Microland
Piston ring, 5th	Maxigroove	Microland
Piston	Narrow 4th groove for cords rings	Wide 4th groove for Microland ring
Inlet valve seal	Fitted	Fitted
Exhaust valve seal	None fitted	Fitted
Valve spring inner	Fitted	None fitted
Fuel pump	Hydraulically governed D.P.A.	Mechanically governed D.P.A.
Lubricating oil system	—	Much increased oil and filter capacity as detailed on previous page