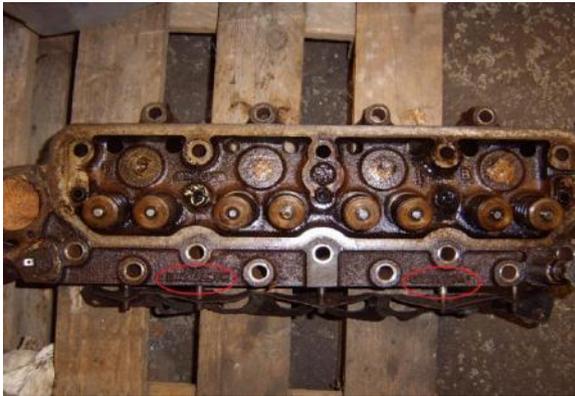


## Land Rover 2.25 and 2.5 Petrol cylinder head identification

Land Rovers 2.25 Petrol first appeared in the series II models in 1958. The engine appeared in the Rover 80 saloon car too. Production of the engine continued until the 1990's as a 2.5 litre unit.

Over the production period a number of changes were made to the cylinder head, and this document is intended to identify the main variations. It does not include productions made by Santana or castings produced by the aftermarket.



Land Rovers foundries cast in several strings of data including Land Rovers own part numbers, and the foundries own pattern and process info.

The info is usually cast in to the cylinder head in the locations identified in the picture opposite.

We are interested in the Land Rover casting part number. Note the Land Rover casting number not appear in their parts catalogue.

- 279562. This is the series II and Rover 80 cylinder head. 7:1 CR and has an extra deep thermostat housing.
- 525183. This is series IIA through to late 1960's. 7:1 CR.
- 568750. This was introduced in the late 1960's and used until late 1970's. Series 11A and 111. 7:1 or 8:1 CR and with or without Otter switch for choke warning lamp control.
- ERC 5899. This is last of 3 Main Bearing engine and UNF thread versions of 5MB engines. Series 111. 7:1 or 8:1 CR.
- HRC 1303. Last of production series III and all 90 and 110 including 2.5 version. 8:1 CR and generally metric threads, but there are UNF thread versions which seem to have been supplied as later spare parts for early models.

## Compression ratio

568750 and ERC 5899 were made in 7:1 and 8:1 compression. As engines get rebuilt, parts changed etc, we cannot rely on the engine number to confirm compression ratio. Luckily, Land Rover stamped these cylinder heads to identify.

Pictured right is the location for the compression ratio. A very faint 8 for 8:1 or a 7 for the lower compression ratio version.

Also it's possible to measure the overall thickness. New 7:1 heads were 3.685" overall and 8:1 3.585" thick.



## Temperature and Otter switches

Early Land Rovers did not have a temperature gauge; this came in as standard in the late 1960's. All Land Rovers up to around 1972 had a device called the Otter switch. This is located on the top of the cylinder head and secured by 3 2BA screws. Its function is a bi metallic strip, and it's combined with the choke cable switch and an orange Lamp on the dashboard to alert the driver the engine is up to temperature and push in the choke! Very few of these actually work, and often simpler to have the function wired like later series III and on, that is choke on - Lamp on. The actual deletion of the Otter switch was on the change to suffix B engine numbers.

All Land Rover UNF thread cylinder heads were tapped with a 3/8" BSP thread for the temperature gauge and the heater outlet. These were plugged when not used. Metric thread cylinder heads had an M16 X 1 thread for these functions. As Land Rovers temperature sensors were threaded 5/8" UNF, an adapter is used to mount the sensor.

## Interchangeability

279562 is an oddity. It's got a deep thermostat which will not clear the water pump on all later engines. Rocker shaft locations and water drillings are different from the main run of the 2.25. Keep this head on a series II or Rover 80. Otherwise it's possible to swap early heads on to later engines and so on. There are Metric or English threads to contend with, and 7:1 engines may well have longer pushrods. When compression ratio became a choice, early engines had different thickness cylinder heads. Later 2.25 engines with the low compression ratio option used dished pistons.