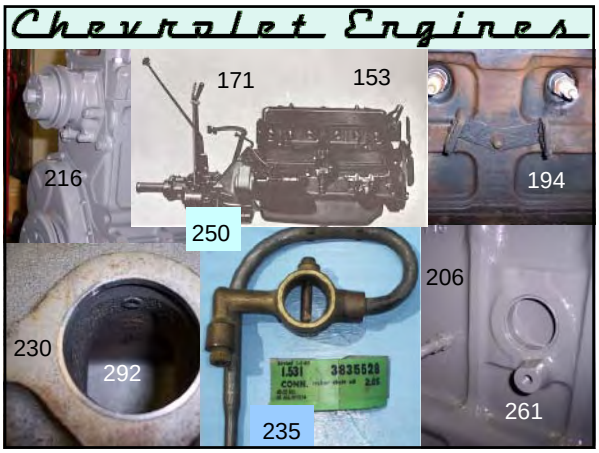


CHEVROLET 6 CYLINDER ENGINES

Splash and spray lubricated 3 main bearing 194 - 206 engines
Used from 1929 through 1936 - 8 years

Spray lubricated 4 main bearing 216 – 235 engines
Used from 1937 through 1953 - 17 years

Full pressure lubricated 4 main bearing 235 – 261 engines
Used from 1953 through 1963 - 11 years

Full pressure lubricated 7 main bearing 194 – 230 – 250 – 292 engines
Used from 1962 through 1979 (much later on trucks) - 18 + years

Spray lubricated 216 engine
Used in 1953 light trucks and sedan deliveries

3

1953 spray lubricated 235 engine
Used in heavy duty trucks and passenger cars with manual transmission

4

1953 full pressure lubricated 235 engine
Used in passenger cars with Powerglide transmission

5

1953 CHEVROLET ENGINES

Spray lubricated 216

Light trucks, Sedan Deliveries

Spray lubricated 235

Heavy Duty trucks
Manual transmission passenger cars

Pressure lubricated 235

Passenger cars with
Powerglide transmission

6

The valve cover was held in place by 2 acorn nuts on the top of the valve cover on:

1929 – 1953 spray lubricated engines
1953 full pressure 235 Powerglide engines

7

The valve cover was held in place by 4 small screws at the base of the cover on:

No spray lubricated engines
1954 – 1963 all full pressure lubricated engines

8

A full engine side cover was used on:

1929 – 1953 spray lubricated 216 engines
1941 – 1949 spray lubricated 235 engines

No full pressure engines

9

A short engine side cover was used on:

1950 – 1953 spray lubricated 235 engines
1953 – 1963 full pressure engines

10

An oil distributor cover held in place by 3 screws is found on the driver's side of:

1940 – 1953 spray lubricated engines
No full pressure engines

11

The cylinder head has 3 ribs between the first and second spark plugs on:

1953 spray lubricated engines
1953 – 1963 full pressure engines

12

The cylinder head has a smooth contour between the first and second spark plug on:

1950 – 1952 spray lubricated engines
No full pressure engines

13

A short water pump was used on:

1941 – 1953 spray lubricated engines
1953 – 1954 full pressure engines

14

A long water pump was used on :

No spray lubricated engines
1955 – 1963 full pressure engines

15

When a full pressure engine is mounted in a 1937 – 1953 Chevrolet truck, the standard 1932 – 1954 truck front mount can be used.

16

When a full pressure engine is mounted in a 1937 – 1951 passenger car, the standard 1935 – 1951 passenger front mounts can be used.

17

A full pressure engine can be mounted in a 1931 – 1936 car or truck by using a 1937 – 1947 truck bellhousing. This matches the engine to the 1931 – 1936 passenger and truck transmission.

18

The 1955 - 1962 pump is shown at the right

The 1941 - 1954 pump is shown at the left

19

The 1955 - 1962 block is shown at the left

The 1941 - 1954 block is shown at the right

20

The 1955 - 1962 pump is shown at the left

The 1941 - 1954 pump is shown at the right

21

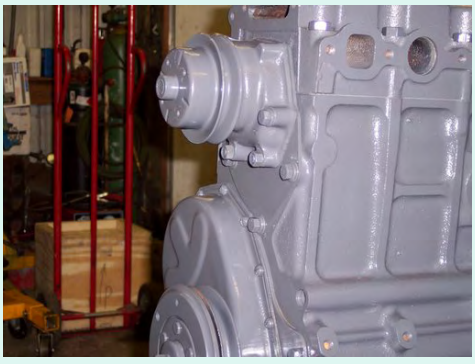
When this plate is attached to a 1955 or later block, it is ready to accept a 1941 – 1954 water pump

22

Adapter in place

23

The final product



24

1953 valve cover held by 2 acorn nuts
1954 held by 4 screws - 4 vent slots - filler at the front
1955 - 1958 No vents - filler at front
1959 - 1962 No vents - filler at center

25

235 engines have a larger throat diameter in the intake manifold ports than 216 engines

26

This manifold adapter can be used when it is desirable to use a 216 manifold on a 235 engine

27

235 carburetors have a larger throat diameter than 216 carburetors. In many cases, a 216 base can be used on a 235 carburetor.

28

The flywheel must be matched to the STARTER to be used. For 6 volt systems, a 1942 - 1954 flywheel must be used.

29

1937 – early 1954 engines used a FORGED camshaft with a narrow distributor drive gear.

Late 1954 – 1962 engines used a CAST camshaft with a wide distributor drive gear. The bearing journals are also larger.

30

If a 216 distributor is used in a late 1954 – 1962 engine, the drive gear on the distributor should be matched to the camshaft because of the different material of which the camshaft is made. The gear on the distributor used with forged camshafts is very hard and can barely be scratched with a file. The gear used with cast camshafts can easily be scratched.

31

If a 1960 – 1962 235 engine is used to replace a 216, the position of the throttle pivot must be changed

32

1953 – 1954 235 engines have oil pans with straight sides

1956 – 1962 oil pans have bulged sides

33

All full pressure engines have insert rod bearings and aluminum pistons

All spray lubricated engines have integral rod bearings and cast iron pistons

34

Except for the method of attaching the valve cover, all 1953 – 1962 235 heads are interchangeable. However the rocker arms must be matched to the BLOCK

In 1953 – 1958 engines, the flow of oil to the rocker arms is controlled in the block.

In 1959 – 1962 engines, the flow is controlled right at the rockers. These rockers are different from the ones used on 1953 – 1958 engines.

35

Probably the two most common problems with 235 engines were inadequate or excessive lubrication of the rocker arms and noisy valve lifters.

These problems were eliminated in the 194 – 230 – 250 engines by eliminating the rocker arm shaft and by oiling the rockers through hollow pushrods. The oil entered the pushrods through holes in the lifter seat. This arrangement allowed air to escape from the valve lifters along with the oil, and noisy lifters were rarely encountered

36