

# FE BLOCK FEATURES

## **352 HP “High Performance”**

Like all pre-1965 352's, the 352 HP was cast for two bolt engine saddle mount holes and is cast without a provision for an alternator (like all pre-1963's FE blocks). The feature that made the 352 HP unique was that the oil galleries were not drilled; therefore, hydraulic lifters are not possible.

## **390 HP “High Performance” & 390 PI “Police”**

These blocks were cast with extra main bearing webbing and used thicker main bearing caps than standard engines. They were cast without provisions for hydraulic lifters; therefore, no oil lifter galleries are present. These blocks did feature a larger main oil gallery and the pressure relief valve is located at the rear of the main oil gallery and the camshaft plug. Pre 1965 engines are cast for two bolt engine saddle mounting holes and pre 1963 engines are cast without a provision for an alternator.

## **427 Center & Side Oilers**

All 427's received extra main bearing webbing, cross bolted main bearing caps and were cast with a high nickel to iron content. All 427's also received 20 minutes of factory run time to insure rigidity. The 1963 and 1964 versions were called center oilers and used the same oiling system as the 390 HP, PI and 406. From 1 March 1965 through 1967, all 427's were modified and called side oilers. This sought after design continued through 1968, except it was modified with machined oil galleries for the hydraulic lifters. Pre 1965 engines are cast for two bolt engine saddle mounting holes and pre 1963 engines are cast without a provision for an alternator.

### ***427 Center Oiler - Oil Gallery Routing***

Oil pump feeds:

- 1) Front main bearing only and then the camshaft and rocker arms
- 2) Finally, the rest of the main bearings

\* A loss of pressure anywhere can starve oil from reaching the main bearings. Grooves in the 2nd and 4th cam journals carry oil to galleries for the rocker arm shafts. The oil pressure relief valve is above the rear cam bearing bore

### ***427 Side Oiler - Oil Gallery Routing***

An oil gallery runs down the left side of the block directly feeding each main and cam bearing.

The camshaft is grooved to carry oil to the rocker arm shafts. The oil pressure relief valve is on the lower left side.

## **406, 428-4V, 428 CJ, 428 SCJ and 428 PI**

The 1966 through 1970 428-4V, CJ, SCJ and Police (except 1966) have the same oiling system as the standard 390. The 406 and the 1966 428 Police engines were the only ones that did not have provisions for hydraulic lifters and were only available with mechanical camshafts. These engines also received a pressure relief valve and a larger main oil gallery. All 406/428's are unique from the 390 because they were cast with larger cylinder bores (4.05" .VS. 4.13") but only the 406, CJ and SCJ were cast with extra main bearing webbing and received thicker main bearing caps. Pre 1965 engines were cast for two bolt engine saddle mounting holes and all pre-1963 FE engines were cast without a provision for an alternator.