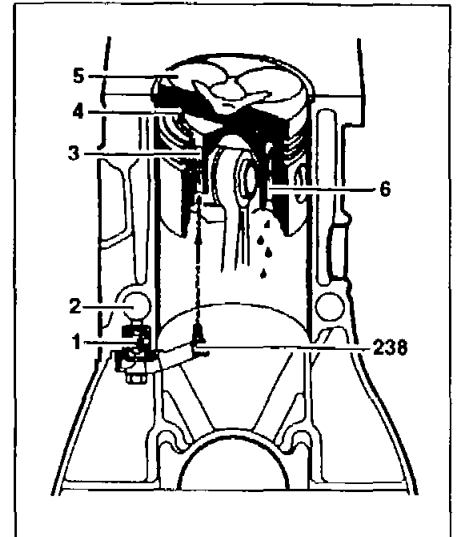


ENGINE 601, 602, 603 (except, 602.982)

- 1 Oil spray nozzle valve unit
- 2 Main oil gallery
- 3 Feed drilling for cooling piston crown
- 4 Anular drilling for cooling piston crown
- 5 Piston crown
- 6 Return flow drilling for cooling piston crown
- 238 Oil spray nozzle

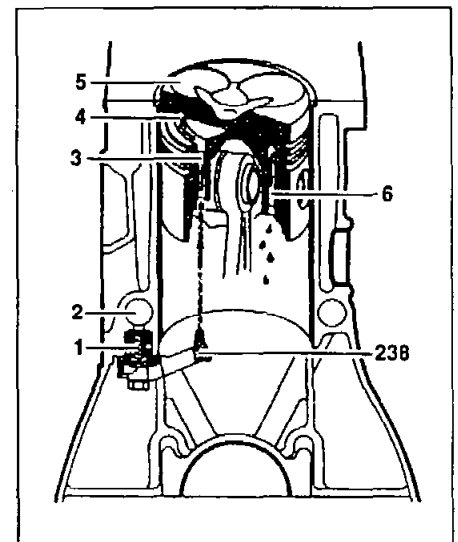


P18.00-0398-02

| | | | |
|----|----------|--|---|
| GF | Position | | GF18.00-P-1105-01A GF18.00-P-1105A/1 |
| GF | Function | | GF18.00-P-1105-04A GF18.00-P-1105A/2 |

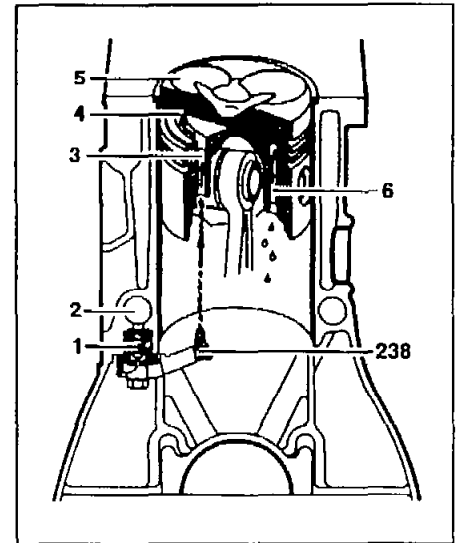
| | | | |
|--------------------|----------------------------|--|--|
| GF18.00-P-1105-01A | Oil spray nozzles position | | |
|--------------------|----------------------------|--|--|

The oil spray nozzles (1) are installed in the connecting galleries to the main oil gallery (2) in the crankcase.



P18.00-0398-02

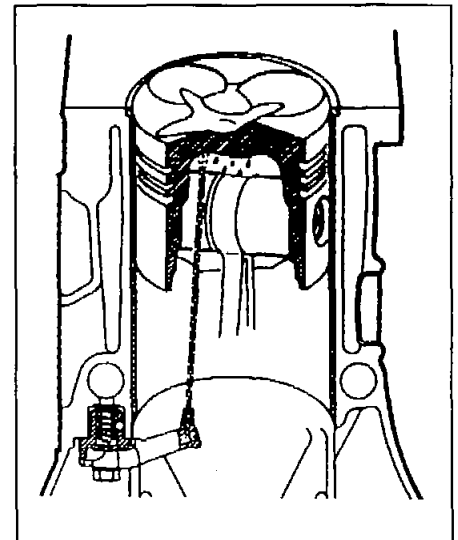
From an engine oil pressure of 1.5 bar the valve (1) opens and allows the engine oil to flow along the passage from the main oil gallery (2) through the oil spray nozzle (238) to the nozzle drilling (3) in the piston crown. The engine oil spray out of the nozzle bore strikes the feed drilling (4) in the piston crown. The engine oil is distributed in the piston crown by an annular drilling (4) and flows back to the oil pan through the return flow drilling (6). As it flows through the piston crown, the engine oil absorbs heat and thus cools the piston (5). The valve (1) seals off the passage to the oil spray nozzle if the oil pressure drops, no later that at an engine oil pressure of 1 bar.



P18.00-0398-02

Naturally aspirated engine and engine 603.970 (turbo) up to 08/95

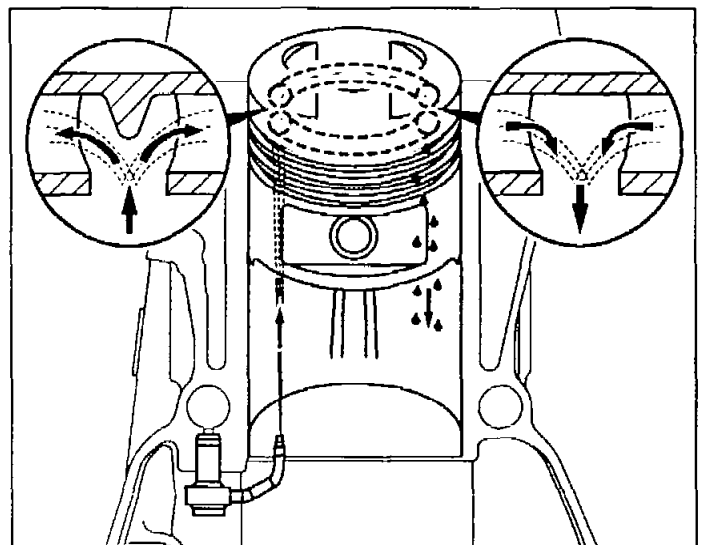
On naturally aspirated engines the oil spray from the nozzle drilling strikes the piston crown and thus cools the piston.



P18.00-0399-02

Engine 603.970/971 as of 09/95

The engine oil is injected through the oil spray nozzle into a semi-cooling gallery, the oil is distributed to both sides and then flows off on the opposite side.



P03.00-0284-11