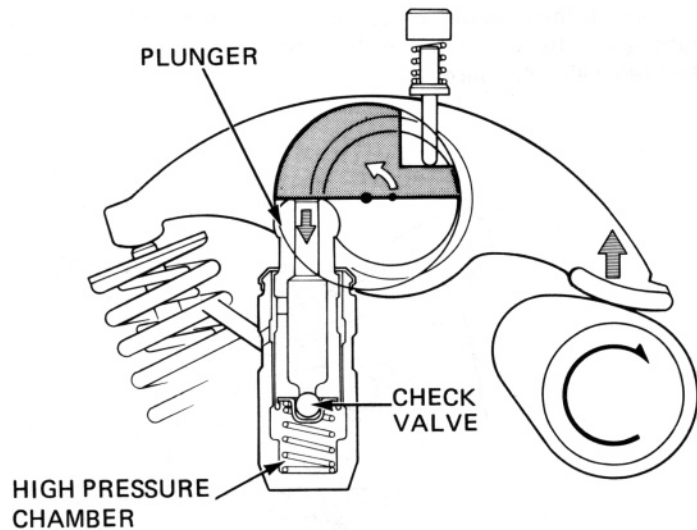


TECHNICAL FEATURES

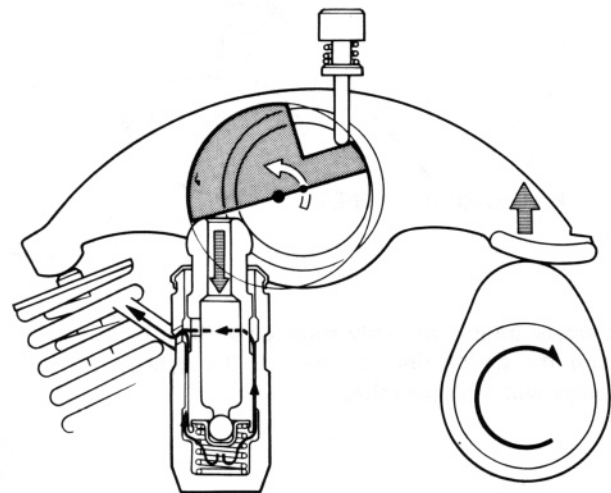
● Operation

When the camshaft lobe is not lifting the rocker arm, the tappet plunger is at rest. In this position its oil inlet hole aligns with the tappet body oil inlet hole. Oil enters the tappet reservoir through these holes.

As the camshaft turns and lifts the rocker arm to open the valve, the eccentric rocker arm shaft revolves. The shaft pushes the tappet plunger down and oil pressure in the tappet high pressure chamber increases causing the check valve to close.



As the cam lobe nears maximum lift, oil pressure in the high pressure chamber increases rapidly (because the check valve is closed). The high oil pressure keeps the check valve against the plunger. At the same time the rocker arm is pushing against the tappet plunger. This causes a very small amount of oil to leak out of the high pressure chamber between the plunger and body. This allows the plunger to absorb the shock from the effects of the cam lobe reaching maximum lift.



After the cam lobe passes maximum lift, the engine valve springs force the engine valve to close and to push against the rocker arm which follows the cam profile. This also causes the eccentric rocker arm shaft to change direction allowing the tappet plunger to be pushed up by the spring in the high pressure chamber. Oil pressure decreases as a result, the check valve leaves its seat and the plunger and body oil inlet holes realign allowing oil to re-enter the reservoir and high pressure chamber.

All of the above actions keep valve clearance at zero under all normal operating conditions.

