

Opel 1.9 Engine: Valve Adjustment Procedure

The first step in a valve adjustment on a 1.9L Opel engine, is knowing what type of camshaft and valve lifters you have.

For most original Opel's, the main question is if you have:

An "early" 3-bearing camshaft with solid valve lifters (factory original valve setting is .012" gap "Hot"), or

A "later" 4-bearing camshaft with hydraulic valve lifters (correct valve setting is 0 lash @ TDC + 3/4 turn on rocker nut)

NEVER mix camshaft & lifter types — Damage may result!

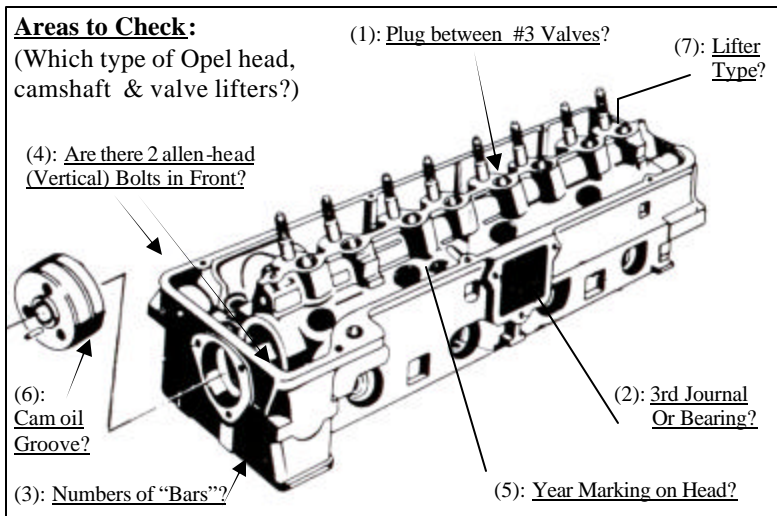


Opel Lifter Types

Identifying the 3-Bearing "Early" 1968-1970 Solid Lifter Head, Cam or Lifters

- (1) Head has NO plug, on the cylinder head casting "spine," between the #3 intake and exhaust valves
 - (2) Head has NO 3rd journal or bearing visible (behind the square plate on the side)
 - (3) Head lower front typically (not always) has 3 protruding "Bars"
 - (4) Head does NOT have 2 vertical bolts (or bolt holes) in the front of the head
 - (5) Head date marks typically say "68" "69" or "70"
 - (6) Cam front "oil groove" extends about 3/4's (270 degrees) around front journal
 - (7) Lifter has NO separate cap, and NO small hole on its side
- * On some performance cams, an inscription reads "MECH"
- ** Solid lifters are generally (but not always) found in 1968-1970 Opel cylinder heads

NOTE: It is NOT OK to install a 3-bearing solid lifter type camshaft in a 4-bearing Opel cylinder head, as this causes significant oil pressure loss when the engine is running (because of the "open" 3rd journal)



Identifying the 4-Bearing "Late" 1971-1975 Hydraulic Lifter Head, Cam or Lifters

- (1) Head has A plug, on the cylinder head casting "spine," between #3 intake and exhaust valves
 - (2) Head has a 3rd journal/bearing that is visible (behind square plate)
 - (3) Head lower front typically has 4, 2 or 1 "Bars"
 - (4) Head DOES have 2 vertical 6mm allen-head bolts in front (the "12-bolt" style of 1972-later)
 - (5) Head date marks typically say "71" through "75" or later
 - (6) Cam front 'groove' extends 360 degrees all the way around (or it is not grooved at all)
 - (7) Lifter has a "cap" visible on top, AND small hole on side (as seen on above photo)
- * On some performance camshafts, an inscription reads "HYD"
- ** Hydraulic lifters are generally (but not always) found on 1971 and later Opel cylinder heads

NOTE: It is OK to install a 4-bearing hydraulic lifter cam in 3-bearing solid lifter head, so long as you also measure for bearing wear, or replace the cam bearings first, and install a set of re-surfaced or new hydraulic lifters.