

Alpine (or other Rootes 4 Cylinder) Camshaft Interchangeability

George Matthis, Jr.

A cheap alternative to buying a "warmer" camshaft for the 1592 cc engine is to use the cam from a 1725 cc engine, but be forewarned. You might do quite a bit of hair pulling trying to understand why your engine doesn't run. It seems that in designing the 1725 cc engine, not only was the oil pump capacity increased (among other things), but also an extra tooth was added to the pump drive gear that also drives the distributor. This upsets the timing in a bad way.

So you say, "Why not just change the oil pump, too, and enjoy that extra capacity?" Unfortunately, the answer is that the oil pump will not interchange without considerable effort such as reduction fittings on the internal plumbing, sleeved mounting holes, etc. However, the drive gear (1725) can be pressed off an old pump (preferably with clearances out of tolerance) and used on the 1592 pump. Don't all Alpine owners have several parts cars and broken engines? In the event you don't, some of our parts suppliers might still have some new drive gears collecting dust.

The following chart indicates valve-timing changes using several different camshafts. Figures are in crankshaft degrees.

CAMSHAFT	INTAKE		EXHAUST	
	CLOSES(ATDC)	OPENS(BTDC)	CLOSES(ABDC)	OPENS(BBDC)
1592		19	57	61 15
1725		29	63	69 23
Isky SB-2		22	62	62 22

The 1592 cam used here is one from engine number B94100001 (Series IV) used until the introduction of the 1725 engine. The Isky SB-2 is a street and slalom grind.

One note on using the 1725 cam in a 1592 cc engine: valve rocker clearance remains the same (for those who do not adjust their valves very often, .012 inlet, and .014 exhaust, engine hot).



From the Mailbox

Just for the heck of it, I sent in a picture of my car (1967 Mark II Tiger) and it was selected to be "car of the week" on the American Collectors Insurance website during the week of February 9, 2004. Also, several of us go to the Shelby "Spring Fling" in Nashville, Indiana. It's a great event, May 16-18.
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