T-SERIES CAMSHAFT IDENTIFICATION

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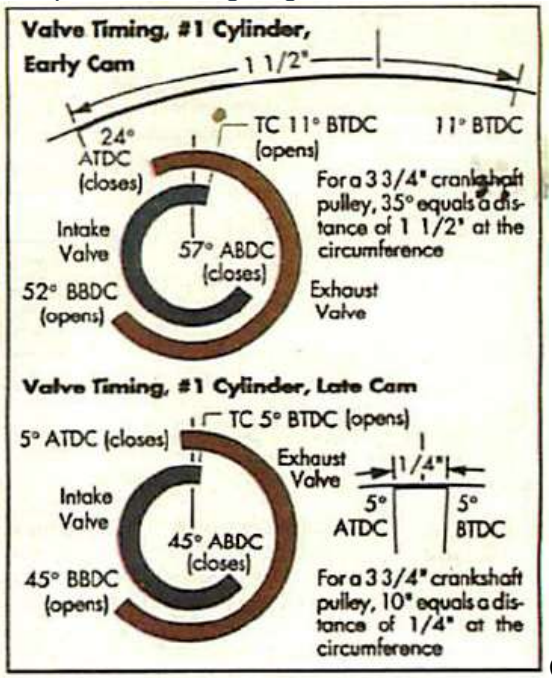
Two different yet interchangeable stock specification camshafts were fitted to the MGTC-TD and TF engines when new. In addition, the factory offered ¾ and full race cams, not to mention a variety of special aftermarket racing cams. All of these cams called for different valve clearance settings, which can cause no end of confusion when trying to adjust tappets with a camshaft of unknown origin. T-series valve covers were originally fitted with a brass ID plate indicating the correct valve clearances. In some cases, the plates have been changed or altered, and they may or may not correctly relate to the cam currently fitted.

TCs and TDs to XPAG 24115 were fitted with .019" cams, while later TDs and all TFs were fitted with .012" cams. The early cams were superseded by the .012" cams in the early 1960s, so the original .019" cams have frequently been replaced, and have rarely ever been seen in late TD or TF engines. Matters do get a bit more confusing when other grinds are taken into consideration. The factory ¾ race cams should be set to .015", while the full race cams should be set to .012" on the intake side, but .019" on the exhaust side. Needless to say, this has been the subject of frequent calls to our technical staff!

We have received some interesting insight into this problem from William Bremer of Cape Elizabeth, Maine. William has come up with a fairly easy means of identifying cams which should work 90% of the time. Since the timing on the early stock cam is considerably different from the later .012" cam, it's possible to plot the actual distance along the circumference of the crank pulley between when the number one exhaust valve closes and the intake valve opens. This distance works out to 1½" on the .019" cam versus only a ¼" on the .012" cam. The only serious flaw in this easy method of checking is that the somewhat rare factory ¾ race cam has the exact same number of degrees between when the exhaust valve opens and the intake valve closes. Mike Goodman's method, based on over 30 years of experience, is to attach a vacuum gauge to the engine, set the valves to .019" and record the vacuum reading and idling rpm. Now reset the valves to .012" and compare the figures. If the vacuum and rpm drop, you don't have a .019" cam. This test can be repeated to see if you have a ¾ or full race cam. Incidentally, a vacuum gauge adaptor can be made by drilling out a spare carb to intake manifold bolt, and soldering a tube of suitable diameter for attachment to the vacuum gauge. Then fit the modified bolt in place of one of the upper carb to manifold bolts. The upper tapped holes extend directly into the intake port of the manifold!

If the engine is dismantled, the ever-popular .012" cam can be quite easily identified by its very sharply peaked lobes, whereas virtually all other cam grinds have a significantly more gently rounded cam lobe. For the serious engineering types, the only certain method is to fit a degree wheel to the front of your crank pulley and plot out your valve timing. Reference to the chart below should produce a conclusive valve adjustment setting. Inexpensive timing degree wheels are available from Moss under our part #384-910.



	Intake		Exhaust		
	Opens	Closes	Opens	Closes	Setting
Camshaft	BTDC	ABDC	BBDC	ATDC	Hot
TC-TD to (e) 24115	11°	57°	52°	24	.019"
TD-TF from (e) 24116	5°	45°	45°	5°	.012"
3/4 Race	13°	59°	50°	22°	.015"
Full Race	32°	58°	60°	30°	.012" I .019" E

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