

NOTE: Most Performance Cams Are Not Computer Compatible

NOTE: Listed below is a group classification for the custom Melling Select Performance camshafts we offer. The descriptions within each group show the characteristics of the cams in that group as well as any recommended modifications to the car or engine that will help get the desired performance.

- Class I (200° - 215°)
Good idle quality. Low RPM torque and mid-range performance. Will work with stock or slightly modified engine. Manual or automatic transmission.
- Class II (215° - 230°)
Fair idle quality. Good low to mid-range torque and horsepower. Will work with stock or modified engine. For use with manual or automatic transmission. Possibly lower vacuum than stock.
- Class III (230° - 245°)
Rough idle quality. Good mid to high RPM torque and horsepower. For use with manual transmission or high stall automatic. May need improved carb, exhaust system, and ignition system. Combination street and drag. Will have lower vacuum than stock.
- Class IV (245° - UP)
Rough idle quality. Mid to high RPM torque and horsepower. For serious racing. Need proper selection of rear axle ratio and improvements in carburetion and exhaust systems. For use with manual transmission or automatic with very high stall converter. Will not have enough vacuum for power accessories.

Durations shown are based on **.050** cam lift

Duration @ .050 cam lift	(Use Intake Spec's) Approx. RPM Power Range	Approx. Peak Torque
200°	1000-4500	2500
210°	1500-5000	2800
220°	2000-5500	3000
230°	2500-6000	3500
240°	3000-6500	4000
250°	3500-7000	4500
260°	4000-7500	5000
270°	4500-8000	5500

The following information should be considered for any engine that uses a flat tappet design and should be referenced before initial start-up.

The current engine oils used by engine manufacturers in new car production are not applicable for initial flat tappet break-in. Those oils are less desirable than older formulations which have better wear additives than the current SM category oils. With the advent of roller lifters, and cams, as well as roller rockers, the need for those expensive elements has diminished.

There have been numerous reports of premature flat tappet camshaft failure. This has been an issue of late and not just with one brand or type of camshaft. In almost every case, the hardness or the taper of the cam lobe is suspected, yet most of the time that is not the problem. This

growing trend is due to factors that are unrelated to camshaft manufacture or quality. Changes in today's oil products and "advanced" internal engine design have contributed to a harsher environment for the camshaft and a potential for failure during break-in. However, there are several things you can do to turn the tide on this discouraging trend.

Below is a list of oils with higher levels of wear preventive additives that may be more desirable during flat tappet break-in. all of the oils listed below also have flashpoints above 400° F.

Delo 400
Magnesium 23
Calcium 3343
Zinc 1376
Viscosity @ 100° C 15.95
TBN * 10.63

Delvac
Moly 35
Boron 61
Calcium 2195
Magnesium 419
Phosphorus 1120
Zinc 1231
Viscosity @ 100° C 15.5
No TBN *

Rotella T
Magnesium 20
Calcium 3322
Phosphorus 1326
Zinc 1499
Viscosity @ 100° C 15.12
TBN * 10.36

* TBN stands for Total Base Number, which is the measurement of a lubricant's reserve alkalinity. The higher a motor oil's TBN, the more effective it is in handling contaminants and reducing the corrosive effects of acids for an extended period of time.

- Melling and Melling Select Performance offer Mell Lube, camshaft lube, (Melling part # M-10012). Use liberal amounts when assembling camshaft and lifters.

NOTE:

Some of this information has been provided by AREA. Ref., AERA Technical Bulletin, TB233