

**A PREVIEW OF MAJOR POINTS IN  
335 HP FLATHEAD FORD V-8 PERFORMANCE HANDBOOK**

- A well-built, normally aspirated street flathead will produce 150-220 hp. A mild supercharged flathead will produce 225-275 hp (or more). See pages 82, 88, 96, & 110.
- Blocks with cracks in the valve pocket area or center main cap web area are not recommended for performance applications. Page 21.
- For proper cooling, it is extremely important to start with a clean block. Page 117.
- Do not use the 1948 and earlier heads (or head gaskets) on 1949 and up engines. Cooling is compromised. Page 119.
- Thread sealer should be used for all head bolt and stud installations to prevent coolant “weeping” in service. Page 21.
- Properly torqued deck plates and main caps should be used during cylinder boring and honing operations to enhance cylinder roundness and ring seal. Page 21.
- Heavy-duty main caps, “straps,” etc. should be used to strengthen the flathead crankshaft support on high performance engines. Usually only the center main is reinforced. Mild street engines do not require any support. Page 21.
- Flat top pistons should not be used for any application without a matching flat combustion chamber head configuration. Page 22.
- No matter what heads are used, testing has clearly demonstrated that a traditional block “relief” substantially improves flow and power. Page 28.
- The optimum compression ratio for drivability and peak horsepower for a normally aspirated street flathead is about 8:1 to 9:1. Page 37.
- Peak power for most normally aspirated flatheads is obtained with total ignition advance numbers of 22-26 degrees. Page 55.
- Pre-ignition and detonation are serious threats to any engine, especially supercharged engines. Page 64.
- For supercharging, we must first determine our compression ratio. Page 35. Then we can pick a safe boost level for the fuel octane we choose. Page 65. Finally, we can determine a supercharger pulley ratio to provide the desired boost. Page 68.
- Roots-type blower capacities of about one-half to two-thirds the engine displacement per revolution work well for the street. Page 67.
- Supercharged boost levels of 5 to 6 psi combined with 7.2:1 to 8.2:1 compression ratios are practical combinations for everyday driving at

- sea level. Page 66.
- Peak power for most supercharged flatheads can be obtained with total ignition advance numbers of 16-20 degrees. Page 71.
  - Ignition boost retard modules can provide automatic electronic boost retard for any battery ignition, either points or electronic. These modules are recommended for all supercharged engines. Page 71.
  - A positive crankcase ventilation (PCV) system venting to the base of the carburetor on a supercharged engine can initiate detonation when boost and blow-by are maximum. Page 122.
  - After initial head installation, at least four warm up, cool down, and re-torque cycles are required for a good head-to-block seal. Page 124.
  - SAE 20W50 racing oil meets the requirements of most flathead Fords. Page 126.