



Part # HP67

Engine Specifications:

- **HP:** 205
- **TQ:** 280
- **Block:** OE block #327AB or 328AB
- **Bore/Stroke:** 3.915" or 3.935" x 3.895"
- **Displacement:** 4.6L / 4.7L
- **Crankshaft:** Scat nodular iron with .850" pilot hole
- **Rods:** OE
- **Pistons:** Hypereutectic 9.3:1 compression
- **Rings:** Moly
- **Camshaft:** Hyd. flat tappet
- **Cam Specs:** 206/212 @50 .462in/.478ex 113LSA
- **Timing Chain:** Single roller
- **Cylinder Heads:** OE cast iron #0331 1999-2006
- **Rocker Arms:** OE stamped steel
- **Oil Pump:** Melling standard volume

Applications:

1999-2004 Grand Cherokee

2000-2006 Wrangler

Recommended Components:

- **Balancer:** OE
- **Flexplate/Flywheel:** OE
- **Intake Manifold:** OE
- **Throttle Body:** OE
- **Fuel Pump:** OE
- **Ignition:** OE ignition system
- **Spark Plugs:** Autolite #AP985
- **Spark Plug Wires:** OE
- **Water Pump:** OE per application

Engine Info:

- **Oil:** Conventional / Non Synthetic 10W30 with Comp Cam zinc additive #159 for first 3000 miles
- **Oil Filter:** Wix or K&N
- **Timing:** Factory settings
- **Spark Plug Gap:** .035"
- **Firing Order:** 153624
- **Octane:** 91+
- **Stall Converter:** Stock
- **Exhaust:** Headers/Performance exhaust

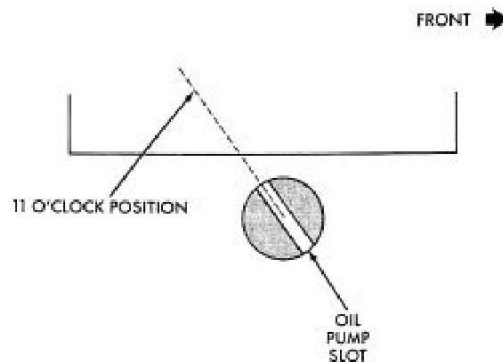
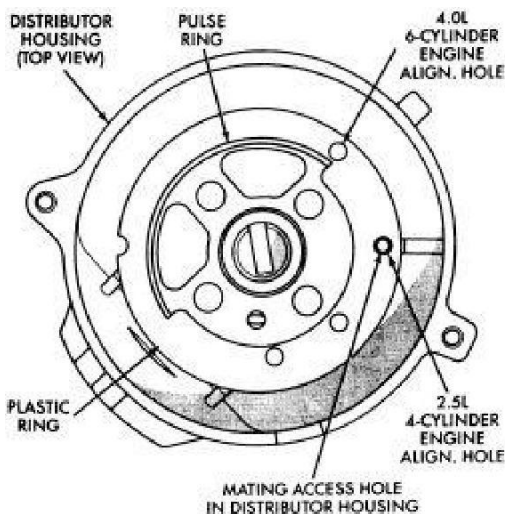
Notes: This engine will work with all stock components, but ATK recommends a cold air intake, headers, exhaust and chip for maximum power potential.

Disclaimer: The parts listed are ATK's recommendations of parts to be used to obtain our power figures listed. Power figures can vary based on parts used by the end user. It is the customer's responsibility to verify components will work in their application. Some
HP Tech Sheet 06-13-2025

modifications to the vehicle may be required using these and or other aftermarket parts. . ATK reserves the right to substitute parts used in engines if necessary.

Installing the Jeep Distributor/Cam Sensor

1. Ensure the #1 piston is at Top Dead Center on the compression stroke. To find TDC on the compression stroke you can remove the #1 spark plug and put your finger over the spark plug hole while you have someone turn the engine over slowly by hand, once you feel pressure building up on your finger bring the piston to TDC and you've got it.
2. Remove the distributor cap and rotor and look at the pulse ring on the distributor (see picture below), note that there are two holes one for the 2.5 (4) cylinder engine and one for the 4.0 (6) cylinder engine. (pulse ring is located under the rotor and may require you to remove the plastic dust cover to expose it)
3. Insert a 3/16" pin (an allen wrench will do) into the small hole under the bottom side of the distributor base. Then find the 4.0 (6) cylinder hole in the pulse ring which is located at the end of the half moon pulse ring and line the two up and lock out the pulse ring. Note: The hole that is "free" is to time the four cylinder engine, do not use for the six cylinder engine.
4. Pre-position the oil pump slot at 11 o'clock to accept the distributor drive as shown in the picture below.
5. Insert the distributor, engaging the oil pump. Note: The rotor will **not** be aligned to the # 1 plug wire on the cap. Once the distributor is fully engaged and flush with the block remove the alignment pin.
6. Install and tighten the securing bolt at the base of the distributor. Do not rotate the distributor base at all for this will not change the ignition timing since this is actually a cam sensor for the engine.



Fuel System/Injectors

Once you add the amount of air going in and out of your 4.7L, you can increase your fueling. Adding fuel to a '96-up OBDII returnless Jeep injection system can be a tricky, especially for those not familiar with it.

For the earlier Renix and HO OBDI systems, you can simply install an adjustable pressure regulator or swap injectors to higher-flowing units to get a little more squirt into your cylinders. However, OBDII ECUs revert back to pre-mapped fuel tables, so even if you bump up your injector size to 21-, 23-, or 24-lb/hr units, the computer will simply fire the injector for a shorter burst so it delivers the same amount of fuel your stock 19-lb/hr units would. In lieu of (or in addition to) an injector upgrade, you can try an adjustable MAP sensor so the ECU thinks the engine is under more load than it really is and will give correspondingly more fuel. Because of this ATK recommends a piggy back system that is fully tuneable such as UNI CHIP, Splitsecond FTC-1 or other aftermarket system. Failure to do so can lead to fuel washing the cylinders which is not a warrantable issue.