



## LSX 454 R

**720+ HP @ 6000 rpm**  
**720+ LB-FT @ 4500 rpm**

### **Quite Simply the Most Powerful LS Crate Engine Ever from GMPP!**

Drag racers take note! GM Performance Parts' new LSX454R crate engine delivers more than 720 horsepower that will help you stay in front of the competition. More than the most powerful LS engine in our portfolio, it is the most powerful crate engine we've ever offered!

Our engineers designed LSX454R for the unique, high-rpm demands of drag racing. It is a high-compression, solid-roller combination that uses our new LSX DR cylinder heads. These 11-degree, six-bolt aluminum heads feature raised ports that provide tremendous airflow. We complement them with an exclusive, high-rise open-plenum intake manifold. Add your Dominator-type carburetor to complete the assembly.

The LSX454R's bottom end includes our new tall-deck cylinder block and an all-forged rotating assembly. And while we rate the engine at 720 horsepower in its naturally aspirated form, it is capable of supporting nitrous and other power adders for even greater power.

Use the LSX454R as the centerpiece of a new race car built with our 2011 Camaro body-in-white for the ultimate modern drag strip star. With more than 700 horses under the hood, it will perform as good as it looks!

**Bore:** 4.185"  
**Stroke:** 4.125"  
**Cubic inches:** 454  
**Compression ratio:** 13.1:1

### **Heads:**

Drag race cylinder heads (6 bolt LSX aluminum) (bare head part number 19166979)

#### **Flow:**

Intake: 435 CFM at 0.800" lift at 28" water pressure  
Exhaust: 252 CFM at 0.800" lift at 28" water pressure

#### **Valves:**

One piece stainless steel  
Intake: 2.25" X 6.350" with 50 degree seat  
Exhaust: 1.625" X 6.350" with 50 degree seat

#### **Combustion chamber:**

50 cc fully CNC'ed

#### **Runners:**

Fully CNC intake 313 cc and CNC 116 cc exhaust runners

**Rocker arms:**

Shaft mounted rocker arms with needle bearing fulcrum and tip  
1.9:1 rocker ratio (part number 19201808)

**Lifters:**

Tie bar style mechanical roller lifters

**Cam shaft:**

Hard ground steel mechanical roller camshaft  
Intake/exhaust lift: 0.738"  
Duration at 0.050" lift: 250 degrees intake, 270 degrees exhaust  
Lobe separation angle: 108

**Pistons:**

Forged 4032 aluminum with skirt coating 4.180" diameter with 0.866" steel wrist  
Pin. (part number 19166958, includes rings and wrist pin)

**Ring pack:**

Top ring: steel with plasma face, 1.2mm  
Second ring: cast iron, 1.2mm  
Oil ring: 11 lb, 2.0 mm

**Crankshaft:**

Forged 4340 steel 2.560" main journals, 2.100" connecting rod journal, uses 8 bolt  
flexplate/flywheel attachment (part number 19244018)

**Rods:**

Forged 4340 steel I-beam, 6.000" center to center, 2.100" big end, 0.866" wrist pin (part  
number 19166964)

**Bearings:**

Mains -Clevite MS-2199H, Rods- Clevite CB-663H

**Harmonic Balancer:** ATI –SFI approved

**Block:**

LSX cast iron with 6 bolt cylinder head attachment (part number 19244057)

**Intake manifold:**

Large plenum aluminum with 4500 series carburetor flange, cast in bosses for dual stage  
nitrous oxide (part number 19257851)

**Carburetor:**

4500 series Holley 1150 CFM

**Fuel:**

Race fuel (110 octane minimum)