

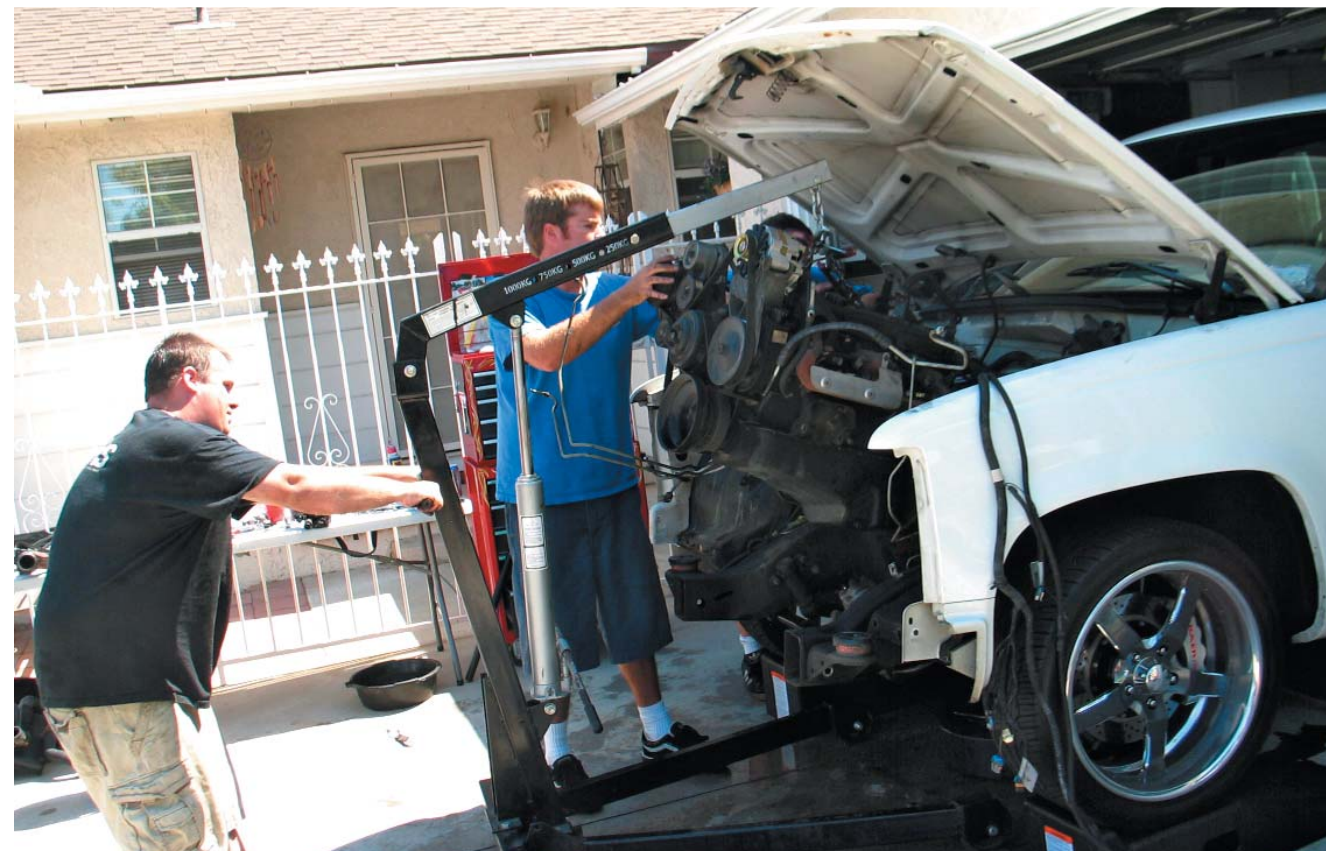
# Operation Muscle Truck Part 4

## PREPPING FOR POWER WITH A GM PERFORMANCE PARTS HT 383 CRATE ENGINE

FROM THE MOMENT WE TURNED THE FIRST WRENCH ON OPERATION MUSCLE TRUCK THE CONCEPT WAS TO CREATE A PICKUP WITH A PERFORMANCE SLANT. It had to hug the ground, go around corners like nobody's business, have a vintage muscle car era feel, and be stuffed with a power plant that would set pilot and passengers back in the seats. The 1988-98 Chevy seemed like the perfect platform because there are millions of them on the road, and they can change hands for just a few thousand dollars. This 1995 Chevy Cheyenne was perfect with 105,000 miles on the clock and an arrow-straight body. We started the project by adjusting the stance down with a Level 2 tuned air suspension system from Air Ride Technologies, and continued the performance journey with Baer brakes and bonspeed wheels wrapped with Toyo rubber. With an Air Ride Technologies sway bar navigated under the front, our project was slicing the corners and making child's play out of the hairpins, but it still lacked a major part of the performance equation: horsepower. While the factory TBI 305 ran like a champ, it certainly did not impress when we buried the skinny pedal. In order to com-

plete our performance pickup package a motor swap was necessary. Having shown off quite a few LS engine swaps in early trucks, we decided to stick with a throttle body-based platform and began browsing through the GM Performance Parts catalog.

The GMPP HT 383, which is a stroked 350, seemed like the perfect fit to pin our necks to the headrest. Fit with a heavy-duty 383 stroker forged steel crankshaft, heavy-duty rods, and hypereutectic pistons all rotating inside a cast-iron block fit with four-bolt main caps, this wicked little mouse was sure to deliver solid and reliable flat-footed fun. GM Performance Parts claims 435 lb.-ft. of torque at 4,000 RPM, which when moving heavier metal like a pickup, is key. The power pulls by delivering 400 lb.-ft. of torque at 2,500 RPMs all the way up to 4,000, making for big-block power and acceleration in a small-block package. If your 5.0L 305 or 5.7L 350 in your CK Chevy is getting a bit wheezy, GM Performance Parts HT 383 could be your performance wake up call. In this installment we will yank the original 305, show you a few teaser shots of the 383, and organize all the parts for reinstallation. ■



*Before we got started pulling the motor we picked up these instructional manuals from Whaba, which walk you through, step by step, on what to do when removing and replacing one of the engines in these trucks. They are very detailed manuals and a great thing to have on the workbench when you are doing an engine swap on a 1988-98.*

**1a**

**1b**

**2**

*The disassembly began right in our very own front yard. A few buddies, some hand tools and a few hours, and the motor and transmission were out.*

**3**

*We took our time and marked with duct tape where all of the wiring connects and where sensors will hook back up. It can be a pretty complicated puzzle to solve if you do not take the time to mark everything.*

**4**

*Some of the sensor clips require a very fine, flat-blade screwdriver. Be gentle with them, as years of heat on the plastic make them brittle, and too much force can break them.*

**5**

*The wiring is pulled free from the TBI.*

**6**

*The transmission cooler lines are loosened at the radiator. Prepare a bucket and some catch rags here because there is no way to avoid the mess.*

**7**











*Mike cranks on a few stubborn bolts using the top of a jack handle. This was our cheater bar all the way through the disassembly. This 1-ton jack handle and WD40 saved us from cussing a lot.*

**8**

*With quite a few electronics disconnected and hardware backed off, we were getting closer. The key is to take your time and mark everything. We bagged up all of the hardware and marked it so it will be easy to reinstall.*

**9**

*The driveway view was cool. No need to pay a mechanic. Just roll your toolbox onto the driveway, crack the hood and go to work.*

<p>We pulled the radiator free. This is a great time to check out the inside of it. Ours was full of corrosion, so it will need to be boiled out at a radiator shop.</p>	 <p>10</p>	 <p>15</p>	<p>We took this shot so we would have a visual diagram of where to re-hang all of the pulleys. In addition to marking wires and sensors, taking lots of pictures helps identify how everything goes back together.</p>
<p>The core support is unbolted and lifted from the front of the truck.</p>	 <p>11</p>	 <p>16</p>	<p>Magazine editors lay under their trucks, too. While Mike, Jason and I traded off taking pictures, I jumped in and turned wrenches underneath, breaking loose the transmission mount bolts.</p>
<p>With a clear shot to come out, we just need to unbolt a few more accessories, and this tired old small-block will be relieved of duty.</p>	 <p>12</p>	 <p>17</p>	<p>The power steering lines were loosened up at the steering box.</p>
<p>The fan assembly was loosened up and pulled free.</p>	 <p>13</p>	 <p>18</p>	<p>The chain was hooked up at the lifting hooks and we were almost ready to pull this old mill out.</p>
<p>To get a clear and unobstructed shot at the rear lifting hook, the distributor cap and plug wires were removed.</p>	 <p>14</p>	 <p>19</p>	<p>Back underneath, Mike jacks the tail shaft of the transmission up to allow the driveshaft to slide out once we start pulling on the hoist.</p>

<p>The motor mount bolts are loosened up and the hardware is pulled free. There is a nut on the backside of the cross member that requires an open-end wrench on the backside.</p>	 <p>20</p>	 <p>26</p>	<p>Marcel and Mike removed the passenger side exhaust manifold to allow access to the starter bolts. You need to remove the starter and pull the wiring free to yank the motor. No sense in cutting the wires and having to redo them.</p>
<p>The hoist is slid in position as we prepare to separate this 305 from its home for the past 14 years.</p>	 <p>21</p>	 <p>27</p>	<p>This shot shows a clear view of the disconnected starter cables. We are ready to pull this old combination out and make way for the 383.</p>
<p>The throttle body was pulled off of the intake to provide ample clearance for the lifting chain.</p>	 <p>22</p>	 <p>28</p>	<p>We started pulling on the hoist and moved the engine and transmission a few inches.</p>
<p>The chain was negotiated into the hook and we began slowly lifting the engine.</p>	 <p>23</p>	 <p>29</p>	<p>We grabbed a wrench and our cheater bar and broke the starter bolts loose. We will need it on the other motor so we might as well pull it off now.</p>
<p>With Mike underneath, we dropped the transmission pan and drained the fluid. This will save us from making a huge mess when the engine comes all the way out, preventing transmission fluid from puking out of the tail shaft.</p>	 <p>24</p>	 <p>30</p>	<p>The motor was about halfway out when we realized there were a few fuel lines that still needed to be disconnected. Mike hopped in the engine compartment and broke them loose.</p>
<p>With Mike underneath, we dropped the transmission pan and drained the fluid. This will save us from making a huge mess when the engine comes all the way out, preventing transmission fluid from puking out of the tail shaft.</p>	 <p>25</p>	 <p>31</p>	<p>The motor was about halfway out when we realized there were a few fuel lines that still needed to be disconnected. Mike hopped in the engine compartment and broke them loose.</p>

**32** 

**33** 

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**41** 

*With everything loose and out of the way, we walked the old engine and transmission right out.*

*After the engine and transmission were out we set the combination in the back of Marcel's truck to separate the transmission and rob any parts we may need for the new 383. Stuff like accessory drives, temp sensors, etc. should be saved for use with the 383. Mike and Marcel do the victory pose.*

*The new GMPP HT 383 crate engine arrived packaged in a durable wood crate and ready for action under the hood of our muscle truck.*

*Jason loosened up the wire ties holding the crate sides together so we could get to the performance jewelry inside the box.*

*The 383 is unwrapped and we are ready to hook up the chain and lift it into the garage.*

*Jason hooked up the chains while Tito manned the engine hoist. This is definitely a two-man job.*

*Tito pulls the hoist and our burly GMPP 383 towards our garage hangout. Over the next few weeks we will be mounting up all of the accessories.*

*Back in the garage our small-block torque monster awaits battle underneath the '95's hood. Next month we will hang all of the accessories, detail the engine compartment and drop this beast into its position of power.*

*While the engine sits and we prepare to dress it with all of the accessories, taping off the exhaust ports is a must. It is important to tape off any inlet holes to prevent dust and dirt from getting in. Stay tuned to the January issue where we will paint and detail everything, hang accessories, and stab this motor back in the hole. Gratuitous burnout shots to follow.*

## Sources

- |   |  |
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| <p><b>AIM INDUSTRIES</b><br/>Dept. STTR<br/>260 S. Hibbert<br/>Mesa, AZ 85210<br/>877.480.3793<br/>www.airbagit.com</p>         | <p><b>BONSPEED WHEELS</b><br/>714.666.1966<br/>www.bonspeedwheels.com</p>  |
| <p><b>GM PERFORMANCE PARTS</b><br/>www.gmperformanceparts.com</p>   | <p><b>THE CHOPPIN' BLOCK</b><br/>Dept. STTR<br/>5553 W. Barstow Ave.<br/>Fresno, CA 93722<br/>559.275.2901<br/>www.choppin-block.com</p> |
| <p><b>RIDETECH</b><br/>Dept. STTR<br/>350 S. St. Charles<br/>Jasper, IN 47546<br/>812.481.4786<br/>www.ridetech.com</p>         | <p><b>KINETIK</b><br/>888.522.8346<br/>www.kinetikpower.com</p>  |
| <p><b>BAER BRAKE SYSTEMS</b><br/>Dept. STTR<br/>2222 W. Peoria Ave.<br/>Phoenix, AZ 85029<br/>602.233.1411<br/>www.baer.com</p> | <p><b>TOYO TIRES</b><br/>800.678.3250<br/>www.toyotires.com</p>  |