FLEXPLATE AND BOLTS

DSM Automatic Transmission

Flexplate - the stock flexplate can be used up to somewhere in the 400-500whp range before the converter bolts start being near-impossible to keep tight. Our 7-Bolt Flexplate - SFI 29.1 is considerably stiffer and thicker, making it load the bolts more purely in shear rather than trying to rock the bolt heads loose. This helps with keeping the bolts tight. Above about 600-700whp, it is really difficult to keep the bolts tight with only 4 bolts and it is a good idea to step up to an 8-bolt system like Precision Industries offers to go with our flexplate. I do not have any issues with the 8-bolt joint even on the drag car, which is well over 800whp. We are planning to release a 7-bolt flexplate in early 2012, before the racing season begins.

Bolts - in all applications, converter bolts should be tightened to 50ft-lbs or greater with red loctite. Re-torque the bolts after the first heat cycle. First gen applications with the coarse thread (91-92 used M10x1.5) can use 12.9 allen bolts or any variety of 10.9 bolts in an M10x16mm long. We expect to have our first run of 2g custom bolts in early 2012 as there are no available options for a low-head bolt that fits. Until then, either use OEM bolts which are a little short, or grind the bolt heads shorter on an M10x16mm. Crankshaft bolts should be OEM. The 17mm long option from the 1g 5-spd is about the right length. You can also use OEM ring gear bolts cut to length. Up to about 500whp, 100ft-lbs with red loctite works fine. Up to about 700-800whp, 130ft-lbs with red loctite works fine. Beyond this level, I'm running 150ft-lbs on the drag car with loctite on the threads and grease under the bolt heads. I cringe every time I torque the bolts to this as it is way beyond where an M12 should be taken. All applications should clean the flexplate and crankshaft surfaces with brake clean during assembly and then coat them with red loctite to glue them together. The better fix to this issue at high power will be a 7-bolt crankshaft pattern with its bigger bolt circle and one more bolt to hold the joint.

SFI Flexplate Installation Instructions - includes a cross-section showing the crankshaft, flexplate, pilot bushing, and the optional bolt washer plate.