

The XK8 supercharger installation, part 2

The next step was fitting the XKR harmonic balancer. I was forced make an extension to the standard crankshaft locking tool in order to keep the crank from rotating:



Removing the old crank pulley was not easy, but fitting the new one was really difficult. The pulley bolt was very tight to put in. The only way to keep the crank from rotating at this stage was to get under the car and hold the lever into the torque converter access hole while another person was rotating the crank bolt. Finally after several hours the task was complete.

It's necessary to install the idler pulley for the supercharger drivebelt. To make it we need to carefully drill the 3 holes in the timing cover to be able to bolt on the idler pulley bracket. The holes with thread for the bolts are already in the engine block under the timing cover.



The bolts to be used are M6. It's also necessary to use some sealant around the bolts to prevent oil leaks.

In order to install the supercharger belt tensioner we need to fit the XKR alternator bracket. In my case the most difficult part was the removal of the alternator from the old bracket, it was sat very tight. I used the trolley jack under the alternator to force it go up while moving it up and down from above. The picture below shows the new bracket fitted:



As soon as all the pulleys are in place we can install the drivebelts.

The next step is the intercooler hoses/radiator/pump installation. I decided to keep the intercooler circuit separate from the main cooling circuit. For this task I used the following hoses:

- standard XKR X100 hose that goes from the intercoolers to the pump (RH side of the engine)
- the XKR X150 hose that goes from the intercoolers to the intercooler radiator (I used this particular hose because unlike the hose from the X100 this one is not made as a part of main radiator hose)(LH side of the engine)
- standard XKR X100 hose that connects the intercooler pump to the intercooler radiator

The intercooler pump is to be fitted under the air filter box using the simple clamp. The electrical connection for the pump is made using the 10 ampere fuse and relay that switches with the ignition. I've located these electrical parts in the RH fuse compartment under the hood.

It took me some time to remove air from my intercooler circuit, the process included squeezing the hoses multiple times with the pump running and filling port opened, I guess the process would be easier if I would have made the intercooler circuit the same way as it's made in stock XKR, but otherwise I am satisfied with the result. Some pictures of the intercooler hoses and radiator:





And the final result:



Time for the test drive! Massive low end torque is quite impressive, I've achieved right what I wanted. I've measured the AFR and despite my "high tech" MAF solution the AFR looks about right, 14.6 at idle/cruising and 10.5 at heavy acceleration. My next steps will be:

Boost-a-Pump installation or higher flow fuel pump installation

Abaco programmable MAF unit installation

Transmission upgrade to hold the extra power

Thicker head gasket to lower the compression ratio (my stock one may fail sooner or later anyway)

AVOS twin screw installation. I guess that if my setup works well with the Eaton, it will work just great with the twin screw with the same boost (I am not planning to run any extreme pressures)

Thank you very much for viewing!