

Water-cooled Engine

Which exact Subaru water-cooled engine is in the new Beck 550?

The water-cooled Beck 550 Spyder uses the [Subaru EJ253](#) from the 2007 Subaru Impreza. Beck modifies the engine new engine somewhat before installation. "We disassemble and polish the oil pump which eliminates some inherent oil pump issues. We also use the [MLS \(multi-level stainless\) head gaskets](#) from the turbo, which eliminates any head gasket issues. As for other maintenance, oil change and cleaning the air filter is about all. We do recommend checking oil level more often than most are accustomed to.

We already use a brand new US OEM complete short block. It was part of our deal with Subaru/FUJI and they ship them to us directly from Japan still wrapped in the factory paper and crate... this also gives us a factory direct Subaru warranty on the engine!

Where is the radiator for the water-cooled Subaru engine?

Radiator is in the front trunk and utilizes the oil-cooler grill.

Carey Hines comments about engines on [SpeedsterOwners.com](#):

Regarding the BRZ and other newer Suby motors, there is a workaround by using an emulator to trick the ECU, however, as far as I know there is only one source for them, out of Australia, and when I was first looking into them, they were still pretty new. The idea of having your entire driveline reliant on a single part with a single supplier that is over 5000 miles away was just a bit too much for me.

Regarding the EJ25, we take a lot of extra steps to ensure they are as trouble free as possible. I don't advertise everything that we have done to a motor, but I'll say that we address head gaskets, heads, valves, oil pump, oil pan, pick up tube, baffles, and some others. The EJ25s have not been 100% without issue, but we've been able to resolve the things we've encountered over the years and to date have not had any head gasket issues.

As for OutFront, I've used a few of their motors in the past and I was very happy with them overall, however I wanted more usability and found that in the stock ECU, which led us to the packages we recommend now. In addition, there are some states that actually check the engine number, and a JDM motor has to be EPA certified and approved for use in the US. Fortunately for most Suby users, 90% of the states don't bother checking the engine number, and this is how so many get away with using them. Hell, my daughter may even have a JDM in her bug-eye... ;-)

And also this:

For what you desire I think you'd be happiest with a stock 2006/2007 EJ25, or at least a built motor that was controlled via all stock sensors and a stock EJ25 ECU with a stock Subaru wiring harness modified to fit the speedster (they get modified same as a Vanagon swap). I also like to keep the stock intake plenum, airbox, etc... as it seems to play a strong part in idle stabilization and recovery. It's been my experience that you just can't get close to how reliable and easy the stock ECU is to live with. It does things like cold start and idle stabilization, and AC kick-up, and self-tuning, just like it was still in the donor Impreza.

And that's not to say you wouldn't be happy with a Stinger ECU and a JDM motor, I know lots of people who are, I just found that my particular client base did not want or need the features of the aftermarket ECUs and they were more of a detriment than a benefit. Plus, we found that with the stock ECU and retaining the OBD-II diagnostics port, you can scan the ECU yourself with a simple scanner from Amazon (if you don't have one) and the shops can do the same... to me it just makes life easier.

Someone else explained:

A "short block" is a complete engine minus cylinder heads, intake/exhaust manifolds and electronics. A "long block" is an a engine complete with cylinder heads. So Carey adds the cylinder heads and VIN from a used Subaru.