



## NEW PRODUCT - MUGEN Euro launch 2.2 K20 engine upgrade kit

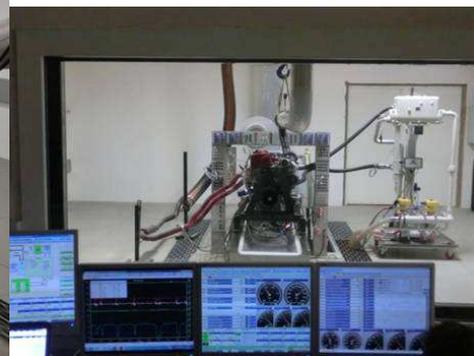


In 2011 MUGEN Euro produced a one-off engine using a bespoke prototype crankshaft, which was installed into one of the exclusive Civic Type R Mugen cars as a “MUGEN 2.2” and subsequently declared by EVO magazine as the fastest front-wheel drive car they had ever tested at that time.

The engine used was an over-bored Honda K20 cylinder block, 87mm forged pistons and the aforementioned long-stroke crankshaft to provide a cubic capacity of 2156cc.



Since that time MUGEN Euro has moved into new premises in Milton Keynes and installed a new state of the art 600BHP/920Nm 10000rpm AC dynamometer with full transient testing capability and CAHU (Combustion Air Handling Unit) control. Having access to AC dynos of the highest calibre allows MUGEN Euro engineers to assess factors that at times may be overlooked, or unable to be measured, on other dynos, such as friction losses, which can account for well over 10% of the available energy from fuel. To be able to plot performance data accurately and consistently when comparing components under tightly controlled conditions allows MUGEN Euro to focus in specific areas in order to extract (or retain) the optimum mix of power and driveability.





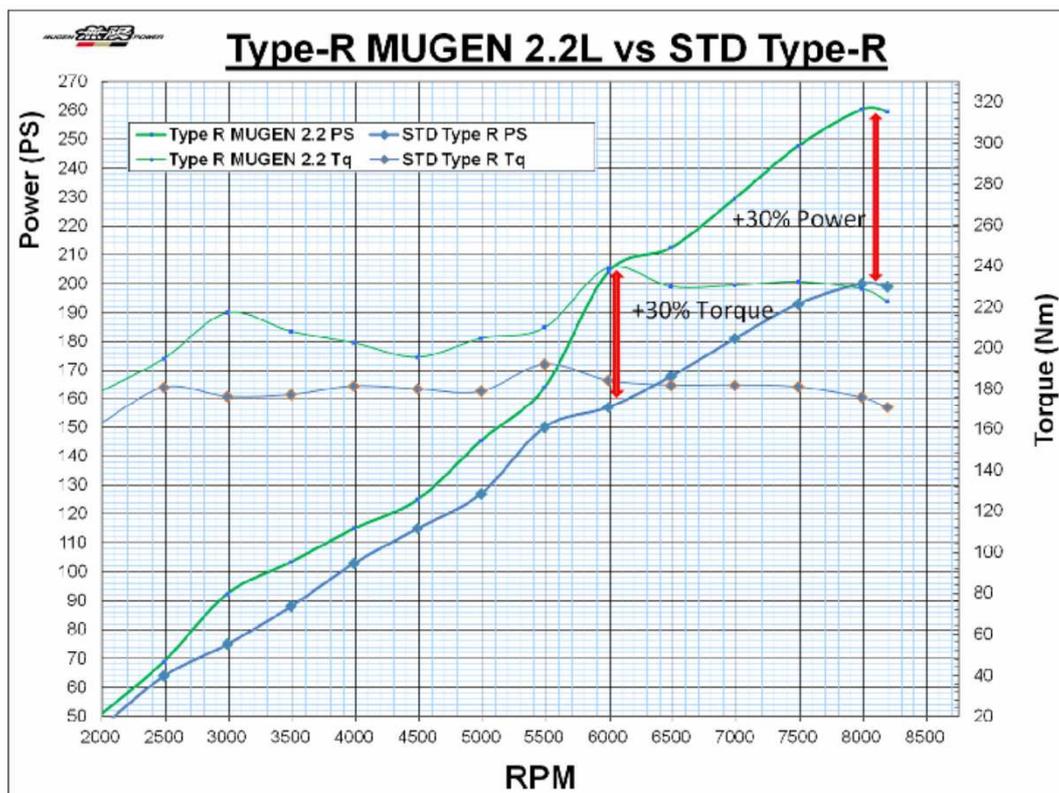
Following on from the first prototype kit MUGEN Euro has developed the latest versions of these components and are pleased to announce the introduction of the MUGEN Euro 2.2 K20 upgrade kit, available as a retro-fit performance upgrade for existing K20A race engines.



The kit consists of a billet-machined crankshaft, weighing in at over a kilogram lighter than the standard Honda crankshaft and needing no further modification, and, once the donor K20 block has been bored, low friction, tolerance controlled forged pistons with a new 87mm head gasket. The rest of the engine is built using K20 parts, either standard or uprated as dictated by the appropriate race regulations or customer preference, allowing for a straightforward cost-effective boost in power, while the increased torque will benefit any driver either on track or special stage.



Final power results will depend on individual build specification and the engine builders own processes, a study case below was taken in 2011 in comparison to standard FN2 Type R Euro specification K20 increases in excess of 30% for power and torque respectively should be readily attainable Engines equipped with the MUGEN Euro 2.2 kit have already proved themselves reliable under race conditions in 12 & 24 hour races.



The MUGEN Euro 2.2 kit is available to bona fide motorsport engine builders and for motorsport purposes only.



**MUGEN K20 2.2L CONVERSION KIT                      13310-XLRZ-K00U**

|                     |   |
|---------------------|---|
| Displacement        | 2156cc  |
| Bore x Stroke       | 87.0 x 90.7mm   |
| Compression Ratio   | 12:1  |
| Crankshaft Design   | Bespoke MUGEN Euro  |
| Crankshaft Material | Billet-machined EN40B Steel                               |
| Crankshaft Weight   | 16.3kg  |
| Main Bearing        | Honda K20 Original Equipment (or individual tuner choice) |
| Con-rod Bearing     | Honda K20 Original Equipment (or individual tuner choice) |
| Piston Design       | Bespoke MUGEN Euro  |
| Material            | 2618A Forged Alloy with low-friction skirt coating        |
| Diameter (nominal)  | 87mm  |

not included in kit:

|                 |   |
|-----------------|---|
| Connecting Rods | Honda K20 Original Equipment (or individual tuner choice) |
| Cylinder Block  | Rebore to 87.000 +0.010mm                                 |
| Honda OE parts. |   |

All other components are as per individual engine builders K20 build specifications.  
Full engines built to customer specification using brand new factory-direct parts on request.



For prices and availability email to [colin.whittamore@mugeneuro.com](mailto:colin.whittamore@mugeneuro.com) or call +44 (0) 1908 202000