Tech Guide

PX Ranger Charge Air Cooler & Pipe Kit – A14328



17/06/2020

Suits

- Ford Ranger PX1, 3.2Lt diesel engine
- Ranger PX2, 3.2Lt diesel engine
- Ranger PX3, 3.2Lt diesel engine
- Mazda BT50 models UR and UP

Intercooler design

- Dimensions 718mm x 262mm x 65mm
- Charge air cooler is manufactured with cast aluminium tanks
- The charge air core is assembled with internal fin inside the tubes.
- The core frontal area is 28% larger and 75% thicker than the standard OEM core
- The pipe kit utilises aluminium pipes and silicone hoses in combination with stainless steel T-bolt hose clamps.
- Colour of both the charge air cooler and pipe kit is satin black

Specifications/information

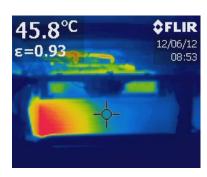
- OEM plastic tanks crimped onto aluminium cores are known to fail when vehicles are being retuned which
 tends to increase the boost pressure which in turn also increases the charge air temperature into the
 charge air cooler. The Harrop designed charge air cooler with cast aluminium tanks welded to the core is a
 more robust design that can handle the higher boost loads and increased temperatures of the charge air
 without fear of cracking or lifting off the plastic tanks from the core.
- The T-bolt clamps are designed for use where high boost applications are employed and have a greater clamping force than worm drive clamps.
- The silicone hoses are a multi reinforced layer construction designed for high temperature and high boost applications.
- The pipe kit design eliminates the factory plastic U bend on the exit of the turbo and has a boost take off port for a boost sensor or gauge installation.
- The charge air core itself comes complete for a direct swap where the OEM unit was fitted, no additional brackets required
- Whilst the charge air core is slightly thicker than the OEM unit it will still permit fitment of typical winches
- Installation time will vary depending on the accessories and grill styles that have been fitted to the vehicle, it takes less than 1 hour on our Harrop Ranger.
- Whilst the graph shows a much cooler inlet temp for the engine, we only saw a minor increase in power
 on the dyno. The benefits of the coolers denser air entering the engine will only be felt under extreme
 load conditions, towing a trailer or lugging up long hills and may result in a slight reduction in engine
 operating temperatures.
- The stuffed inner fin tube and tank profile has been balanced so that flow through the charge air core is uniform and doesn't just flow straight through from the inlet to the outlet which can be seen by the thermal images below.

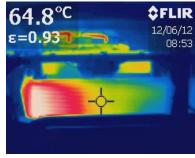
ENGINEERING PERFORMANCE SINCE 1955

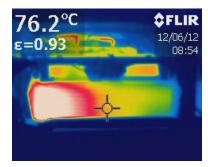
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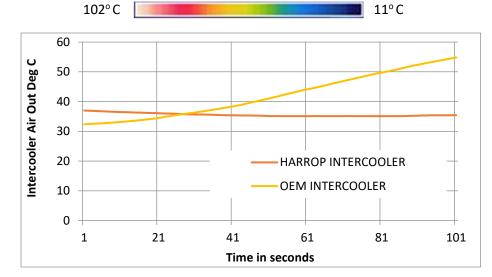








INFRARED TEMEPERATURE SCALE





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