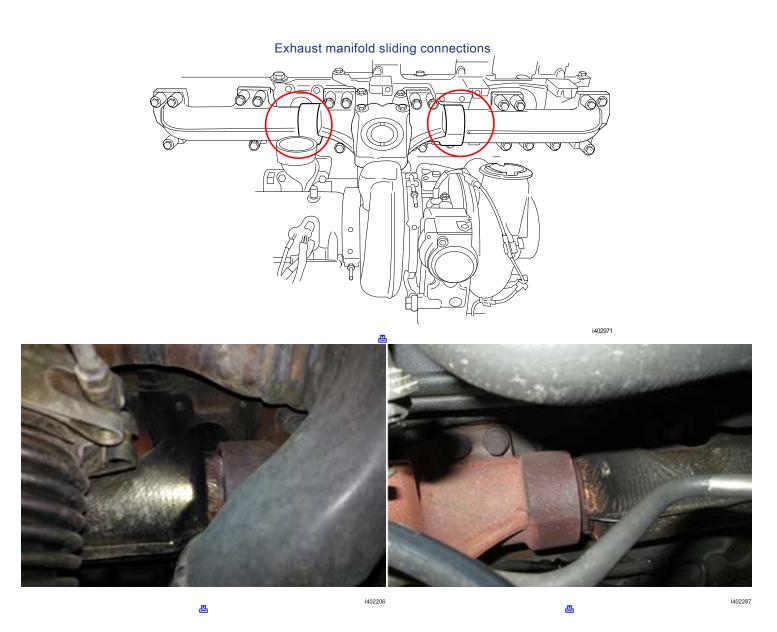
12/19/2015 Rapido

## Exhaust manifold leakage

## Troubleshooting information for leakage or soot buildup around MX-13 exhaust manifold

Soot accumulation observed at the exhaust manifold sliding connections can be misinterpreted as an indication of exhaust system leakage.

This is mainly observed during the initial engine run-in period, but it can also be observed after an exhaust manifold is dismounted or renewed.



## Background information

The exhaust manifolds rely on the effects of thermal expansion as well as a small amount of particulate (soot) accumulation to seal minor leak pathways between the manifold sliding connections. A small amount of exhaust leakage and corresponding soot buildup around the exhaust manifold sliding connections is expected during the engine run-in period. This is not necessarily an indication of exhaust system failure or a problem with the related parts. These conditions improve throughout the run-in period when the system self-seals.

12/19/2015 Rapido

However, a small amount of leakage may occur under cold engine conditions, even after the run-in period, because the manifold sliding connections must have relative movement under thermal expansion.

## Service recommendations



The engine, exhaust pipes, turbocharger, and surrounding components can reach high temperatures; this can cause serious personal injury.

- Allow adequate cooling time before approaching or working on or near any part of the exhaust system or surrounding components.
- Clean any small amounts of soot accumulation from the manifold insulation.
- Warm up the engine to operating temperature, and check this area for further signs of excessive or continued leakages.

M038764 - 04/23/2014 13:36:14

This information applies exclusively to the entered chassis number or the selected engine type. Please take into account that this information may change daily. Therefore the provided information is only valid on 12-19-2015. You cannot derive any rights from the information provided with respect to vehicles and/or components of another series, with another chassis number, and/or of another date. (/)