| Technical Service Bulletin Number | Revision Level | Date | Group Number |
|---|---|---|---|
| TSB100967 | - | 07-JUL-2010 | Air Intake System - Group 10 |

# Technical Service Bulletin

## Subject

Troubleshooting Turbocharger Surge at Peak Torque

## Issue

When under a heavy load, such as pulling a steady hill, and the engine is operating at peak torque, between 1600 and 1900 rpm, there is a noticeable turbocharger surge or stumble. This surge is caused by the turbocharger being on the edge of the surge margin when operating in these conditions.

## Verification

Engines affected are ISB engines rated at 750 ft-lb of torque while operating between 1600 and 1900 rpm.

When under a heavy load, such as pulling a steady hill, and the engine is operating at peak torque, between 1600 and 1900 rpm, there is a noticeable turbocharger surge or stumble.

## Resolution

When troubleshooting an engine that displays these symptoms, remove the noise ring from the compressor inlet of the turbocharger. This improves the surge margin of the turbocharger, reducing the potential that this issue will occur again.

In order to remove the noise ring, the compressor inlet pipe **must** be removed. Then remove the noise ring clip that is shown below.


Once this clip is removed, the noise ring, shown below, can be removed.


Shown below is a picture of the compressor inlet with the noise ring removed.


## Warranty Statement

The information in this document has no effect on current warranty coverage or repair practices, nor does it authorize TRP or Campaign actions.

## Document History

| Date | Details | Writer | OE |
|---|---|---|---|
| 2010-7-7 | Module Created | bl238 | hj029 |

**Last Modified: 24-AUG-2010**