Diesel injector part number for OM612

2:00 PM
The primary Mercedes-Benz OEM part numbers for the OM612 engine diesel injector are **A6120700387** and **A6120700487**. The direct Bosch manufacturer part numbers are **0445110181** (new) and **0986435053** (remanufactured). For Dodge or Freightliner models, the corresponding Mopar part number is **5135154AB**. [1, 2, 3, 4, 5]

You said: What are the two (new and reman) part numbers for the OM647?

2:04 PM
The new Bosch manufacturer part number for the OM647 diesel injector is 0445110162. The official Bosch remanufactured part number for this injector is **0986435109**. Both cross-reference directly to the Mercedes-Benz OEM part number **A6470700187**. [1, 2, 3]

You said: Appearing as a certified Bosch Injection Training Instructor familiar with OM647 injection systems; what would you advise regarding the use of a CRI 1-1400 injector body to remanufacture AS as a CRI 2-1600 injector under part number 0445110162 or 0986435109? Is this advisable or even feasible? Will that result in performance issues such as over fueling or even potential engine damages?

2:30 PM
Greetings. As a certified Bosch Injection Training Instructor, I must advise you that **using a CRI 1-1400 injector body to build a CRI 2-1600 injector (part numbers 0445110162 or 0986435109) is strictly unfeasible, unadvisable, and dangerous to the engine.**
From a technical and engineering standpoint, here is the breakdown of why this cross-generation cross-breeding will fail:

1. Structural and Mechanical Incompatibility

- **Generation Gap:** The CRI 1 (Common Rail Injector Gen 1) body is physically and hydraulically rated for a maximum system pressure of **1400 bar**. The OM647 engine relies on a Gen 2 system (CRI 2) designed to sustain operational pressures up to **1600 bar**.

- **Internal Volume and Flow Rates:** The internal high-pressure channels, control chamber volume, and matching valve assemblies differ significantly between generations.

- **Internal Component Stacking:** The internal shims, command piston lengths, and return springs dictate entirely different clearances. You cannot precisely calibrate a Gen 2 command structure inside a Gen 1 casting.

2. Severe Performance Issues & Engine Damage

Attempting to mismatch these components will produce catastrophic failures:

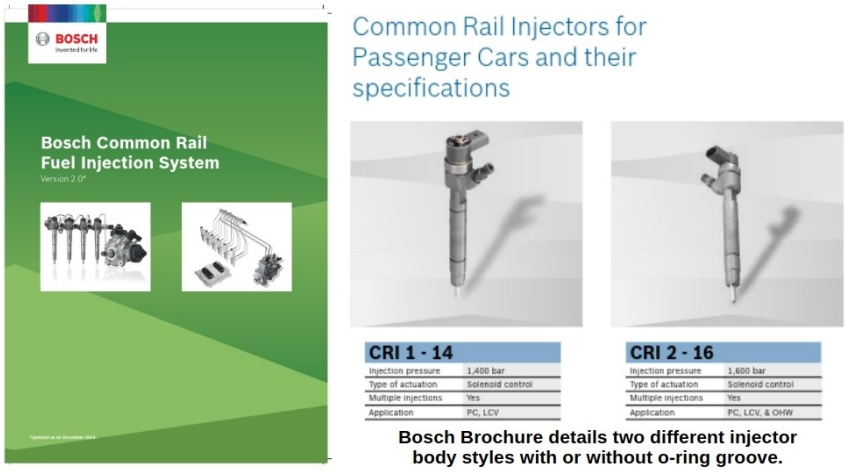
- **Severe Over-fueling or Under-fueling:** The pilot valve dynamics will not match the ECU command signals, destroying the injection quantity correction map.

- **Nozzle and Spray Alteration:** The fuel will not atomize properly. This causes localized hot spots and white/black smoke.

- **Piston Melting / Hydro-locking:** Incorrect flow profiles or a stuck/leaking command valve will cause continuous fuel delivery. This can melt a hole through an OM647 piston or cause immediate hydro-lock.

- **High-Pressure Body Rupture:** Exposing a 1400-bar cast body to a 1600-bar fuel rail risks structural fatigue and high-pressure fuel leaks under the hood.
  Official Factory Verdict: Any remanufacturer attempting to use CRI 1 bodies to fulfill an 0445110162 specification is producing a hazardous, non-compliant component. Authentic Bosch remanufacturing (0986435109) guarantees matching OE specification castings.

End AI references. Source: https://share.google/aimode/MlVtQLK4TuFWvK5IJ
Bosch document details significant pressure difference between the CRI 1-14 and CRI 2-16 types-



Bosch Brochure details two different injector body styles with or without o-ring groove.