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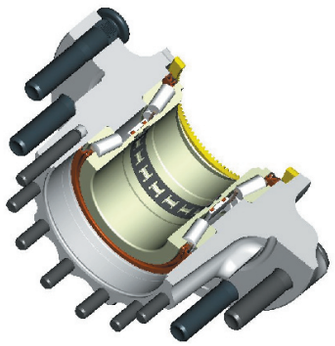
The ConMet
Connection

A Quarterly Publication of Consolidated Metco, Inc. Spring 2006 Volume 3

Part III of a Three Part Series on Types of Hub Assemblies

Overview of Unitized Wheel Hubs

Part I of the ConMet Connection's series on wheel hub assemblies profiled hubs with manually adjusted bearings and part II was devoted to hubs with field serviceable, pre-adjusted bearings. This edition provides a brief overview of unitized wheel hubs.

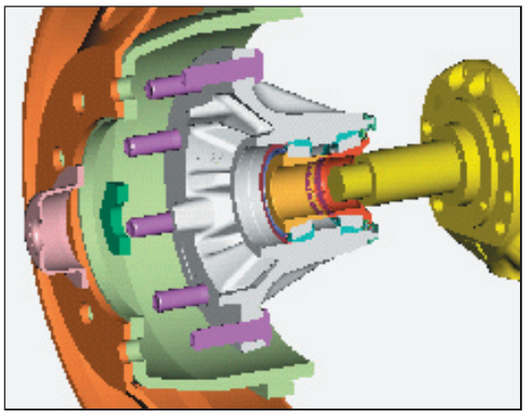


Unitized hub assembly with a pre-adjusted bearing "pack."

Unitized hubs, by definition, are complete wheel end assemblies. Bearing sets or "packs" are pre-loaded into the hub along with a high quality grade 2 grease. Seals are installed on both the inboard and outboard side. Some manufacturers have referred to this system as "sealed for life," which means that no additional lubricant can or *should be* added to the hub after it is installed. The bearings are "pre-loaded," meaning that once the spindle nut is set to a predetermined torque setting, the bearings operate in the optimum pre-load condition, unlike conventional wheel hubs which operate with some bearing end-play. By design, unitized hubs are typically not field-serviceable. When or if a problem is detected, the entire wheel hub assembly must be replaced.

Unitized hubs require periodic inspection that includes having the wheels off of the ground to check for noise, bearing "roughness" and bearing end-play. It is critical that the inspection procedures published by the manufacturer are followed to prevent premature bearing failure.

The unitized hubs on the market today are designed to fit on a uniquely sized straight spindle. You cannot retro-fit a unitized hub on to a traditional axle that does not have this unique spindle.



Unitized hub with brake drum and spindle.

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