

# 100,000 Mile GMC Bearings

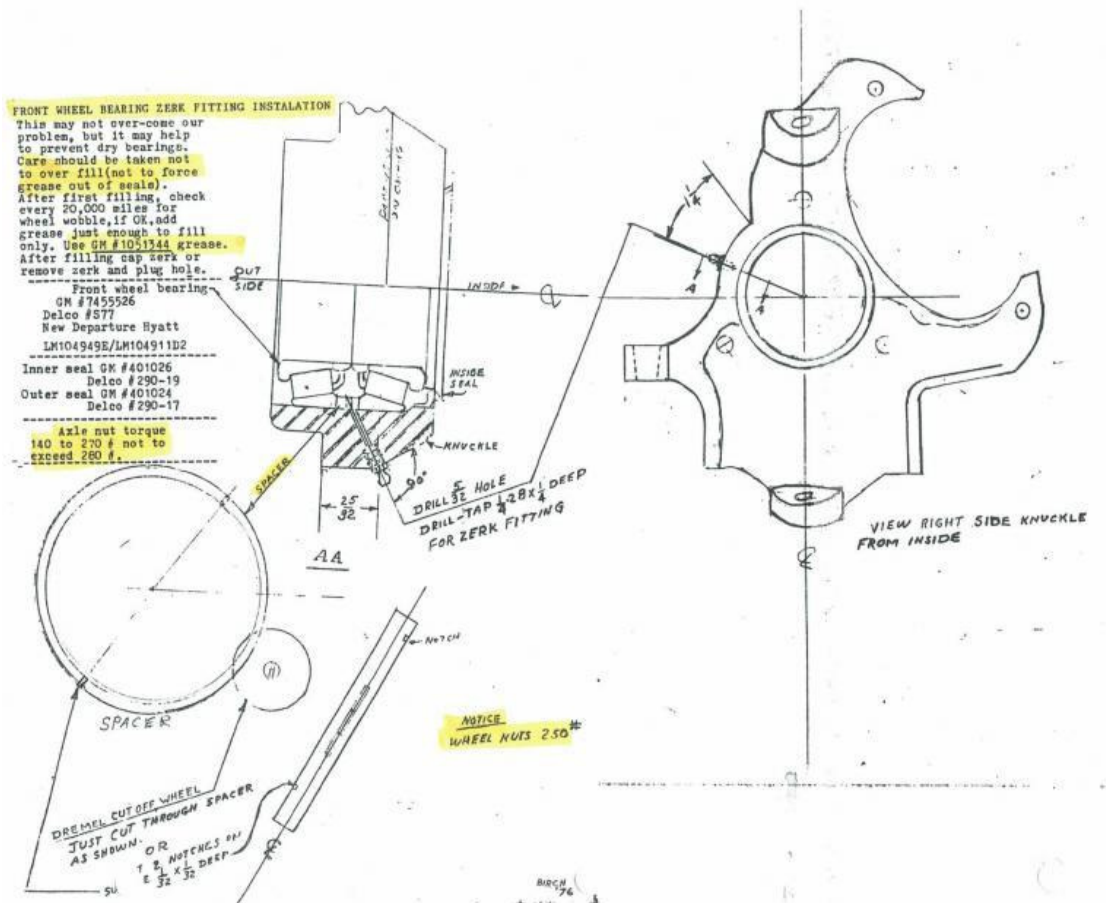
There is a poorly kept secret that the bearings on a GMC can go well over 100,000 miles without any problems.

The most traumatic thing you can do to the front end of your GMC is to grease the bearings by removing the hub and Knuckle to check and remove the bearings, and we are supposed to do this every 25,000 miles.

Every front end, boot, taper, knuckle, socket, drive line bolt and bearing are stressed to the max and the front end alignment is almost always compromised. Yet, this is the traditional GMC / Thoma method for bearing maintenance.

**ENTER THE ZERK**

Our forefathers new this was a problem and in 1974 published and used a technique to grease the bearings in-place.



Enter Lenzi, Dave has come up with a unified approach to using the Zerk to grease the bearings in-place, and WiperMan, (KenH) has published a description on how to use the Zerk.

<http://www.gmcmhphotos.com/photos/showgallery.php?cat=4641>



# When you get your bearings done --- insist on the zerk

About a year ago I broached the question " could we drill our knuckles, in-place, to add THE ZERK without removing the knuckle. Mr. Druber answered back that he had done his own knuckles and figured it would be possible to do this modification ,in-place



# Latching Boost Switches Have these Problems

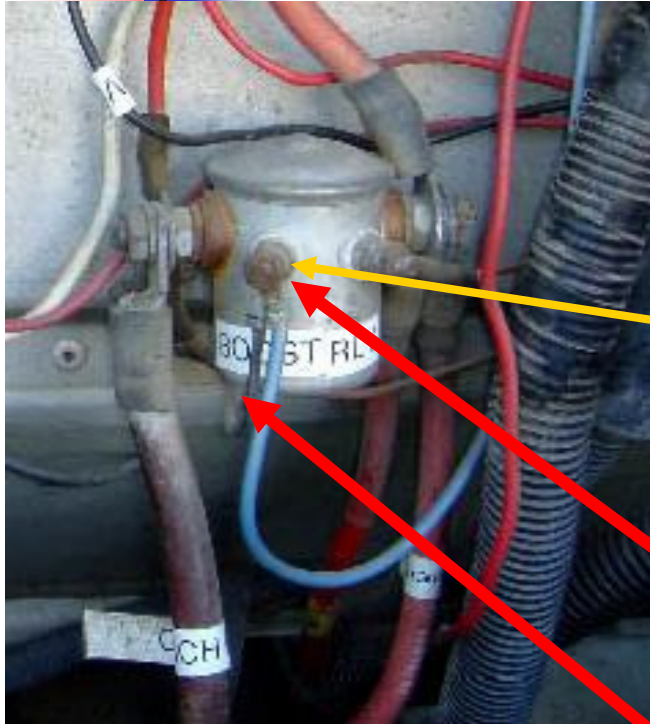
Boost Switch locked down

This form of Boost switch came on 73-74 , and all Transmode GMC coaches



- 1 It is not momentary so it will lock on, and parallel both battery banks all the time
- 2 (not key-switched) so if accidentally left on, it will draw power and run down both battery banks
- 3 will not operate with the engine battery dead
- 4 The Boost Solenoid is not 100% duty cycle so will sometimes burn up

# Add a Momentary Start-Boost Switch

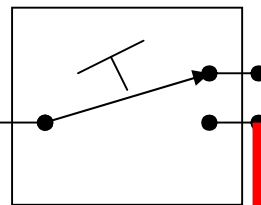


The Boost Relay is located under the Passenger hatch

\* All of the Boost Relays look like this

\* Remove the ground wire from this terminal

\* Connect a momentary switch to the boost relay ground terminal



\* Connect to the ground wire



\* Locate this switch on left side of Driver area

# Power the Boost solenoid from the coach battery



Remove this wire that comes from the boost switch

Connect a wire to the House Battery

The Boost solenoid is now powered by the House Battery

# Use the Old Boost switch to lock-on the Combiner



Move the boost wire from the solenoid to the green wire of the combiner

\* Now the Momentary **Start-Boost** Switch will operate from either battery.

\* Combiner draws no power but batteries are parallel



# The Case for adding a Combiner to a Stock Diode Isolator

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## **RETAINED, STOCK, DIODE ISOLATOR FEATURES**

- \* **NO** – electrical modifications required by the electrically challenged
- \* Retained features of the diode isolator
  - Electric choke - alternator pick-off
  - Electric fuel pump – alternator pick-off
  - High current, high speed fan connection – alternator pick-off
- \* Engine stops, alternator voltage stops

## **ENHANCED FEATURES**

- \* The **SAFE** way to combine battery banks
  - Charge all banks from any source
  - Automatic drop-out from shorts, over voltage, heavy loads
- \* Drive home on Onan power after alternator failure

## **ISSUES**

- \* Masks diode isolator failures
- \* APC still required to protect from alternator failure

# The Case for adding a Combiner to a Stock Diode Isolator



Blue Sea



Yandina

No changes in stock wiring

Three connections from a combiner

Much better and safer than a jumper wire

Automatic operation

Charge all banks from all sources

Protection from failures

Battery banks isolated

Combiners will disconnect from hazards



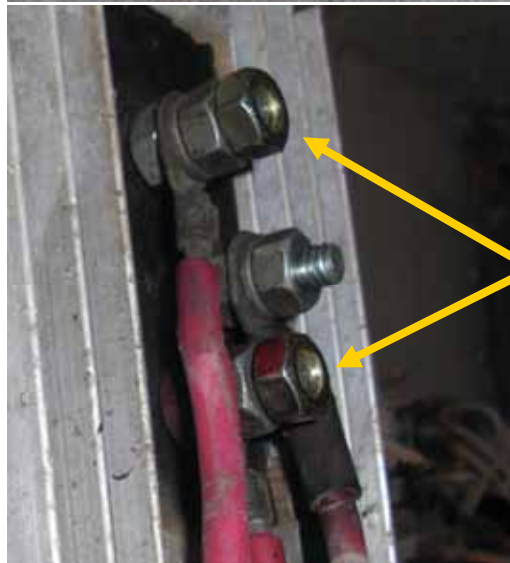
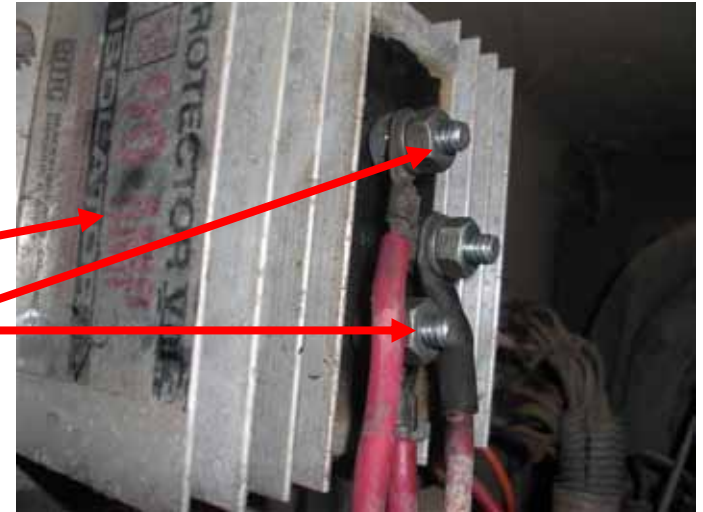
Thanks to Denny for picture

# 10 Minute Combiner Install



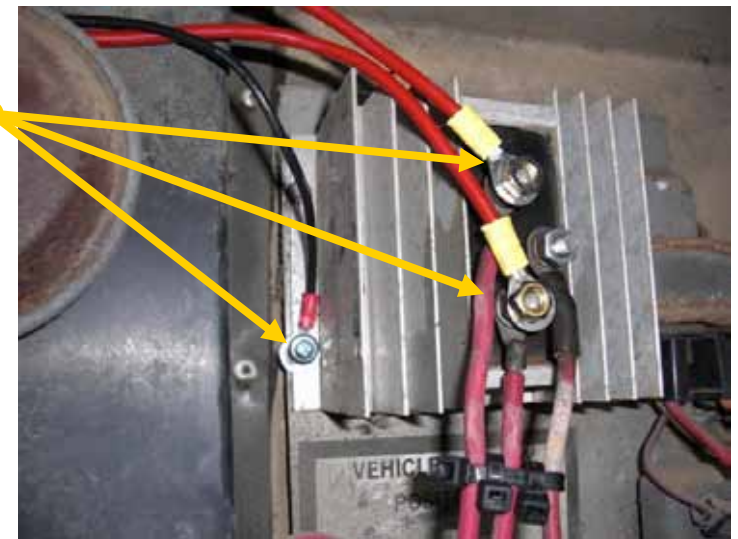
Combiner

Isolator  
Extra room on bolts



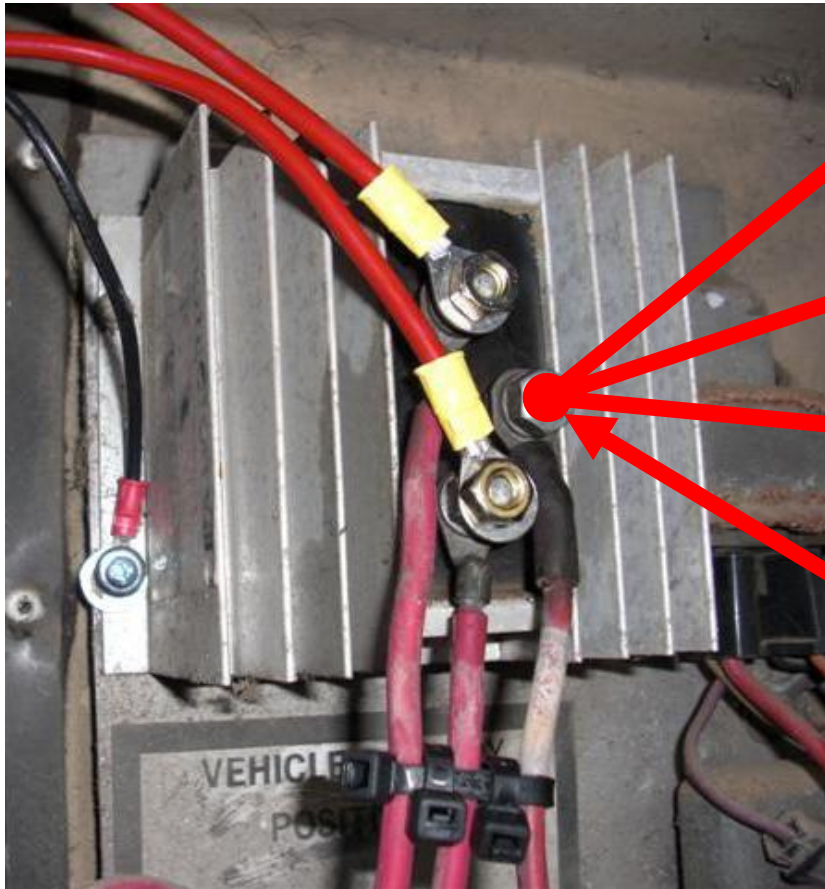
Add extra nuts

**DONE !**



# These Functions still work with this Combiner Install

**These "Engine-running" functions possible because of the isolator diodes**



Electric Fuel Pump

Electric Choke

Heater (High Speed)

Alternator output

The isolator absorbs high alternator current  
Until the batteries reach 13.3 volts



# ISSUES

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## **The combiner will mask Diode isolator failures**

- \* Difficult to determine the isolator has failed as the combiner will still work

## **Still need the Alternator Protection cable**

- \* The high voltage alternator failure will still destroy the dash wiring
- \* The APC also, does not modify stock electrical wiring
- \* The alternator light should never glow dim.

## **Banks of batteries can be connected with multiple combiners**

- \* Bad batteries and discharges will automatically be disconnected

## **Smart chargers will automatically charge the engine battery**