



Recall Service Bulletin



DATE: 10-6-15

APPLIES TO: This service bulletin applies to certain MM and K2 model incomplete motorhome chassis equipped with tag axle supplied by Hendrickson built between March 17, 2006 and June 25, 2007.

NHTSA/TC Id: 15V-548

CONDITION: Tag axle wheel bearings may have been installed too tight.

CORRECTION: Replace wheel bearings.

LABOR ALLOCATION: 3.0 hrs.

CLASSIFICATION: V3

TOOLS REQUIRED:

Service center must be equipped with:

- Stemco universal tool # 555-0001
- Stemco universal tool adaptor # 555-5039
- Calibrated dial indicator measurement device
- Calibrated torque tools with 10 – 500 lbs.-ft. capability
- Socket sizes 3 1/4” – 3 7/8” for inner and outer spindle nuts

PARTS NEEDED:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	S-1820-001D	Kit-Tag Axle Bearing N-Series, Timken 454
14 fl. oz.	Premium SAE 80W-90	API Service GL-5, API MT-1

Kit # S-1820-001D Contains:

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
1	R-008953	Vendor Kit-Tag Axle Bearing
1	RSB15-340-002	Instruction Document

Parts included in Vendor Kit: R-008953 (S-1820-001D)

<u>QTY</u>	<u>Part Number</u>	<u>Description</u>
2	008441-6	Inner Bearings
2	008441-3	Outer Bearings
2	A-11571	Wheel Seals
2	004797	Wheel Nut Assembly
2	003520	Hub Caps

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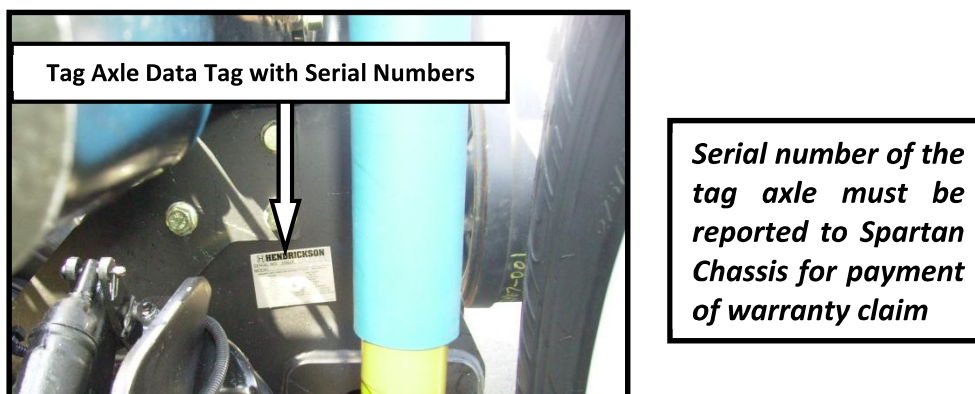


2	A-1973	Hub Cap Gaskets
12	SA-1100-4	Hub Cap Bolts
12	SA-1600-7	Lock Washers

GENERAL INSTRUCTIONS:

Thoroughly review entire service bulletin before starting work. If there are questions or concerns with steps defined in this service bulletin, contact Spartan Motors USA, Inc. Customer & Product Support Group.

All applicable industry safety standards must be followed when performing work identified in this procedure.



TAG AXLE DATA TAG LOCATION

FIG. 2-1

STEP-BY-STEP INSTRUCTIONS:

1. Secure vehicle to allow for replacement of tag axle bearings.
2. Raise tag axle and place jack stands under tag axle.
3. Remove wheel dressing retaining for reuse.
4. Remove wheel assembly retaining lug nuts for reuse.
5. Place drain pan under hub.
6. Remove brake drum and hub, retaining drum wheel hub for reuse, dispose of hub cap properly.

CAUTION

Do not cut ring with chisel or sharp object

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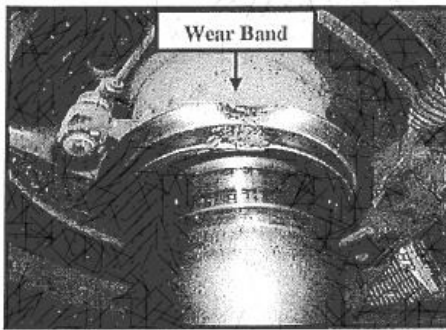
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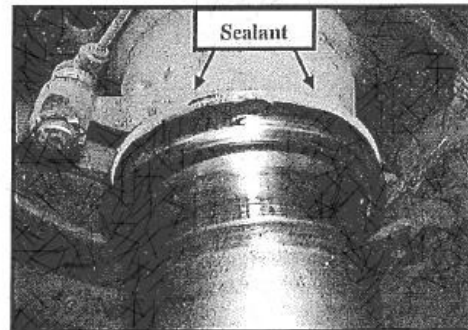
7. Refer to FIG. 3-1. Using a ball peen hammer bend deflector ring back and strike wear band with ball peen hammer to expand ring and remove by hand.
8. Remove bearings and wheel seal. Dispose of bearings and wheel seal properly.
9. Clean spindle and hub bore. Remove all burrs from spindle and hub bore using emery cloth. Wipe all parts clean with brake cleaner or equivalent. Lubricate wheel bearing with clean lubricant of the same type to be used in hub assembly.
10. Refer to FIG. 3-2. Apply a thin layer of Permatex No. 2 non hardening sealant to the O.D. (Outside Diameter) of axle shoulder.



Do not install seal in hub bore.



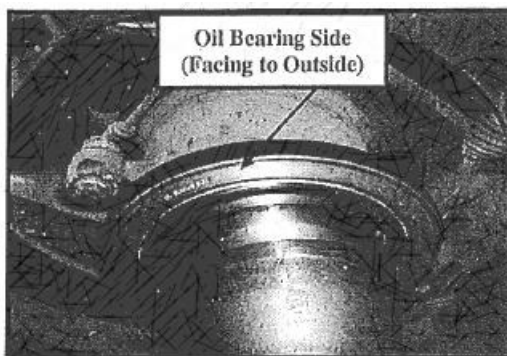
WEAR BAND
FIG. 3-1



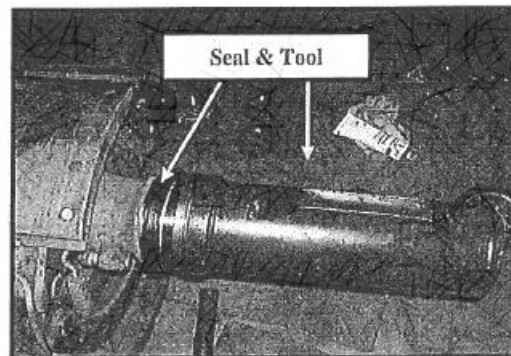
SPENDLE WITH SEALANT APPLIED
FIG. 3-2

11. Refer to FIG. 3-3 & 3-4. Install new wheel seal on spindle shoulder with the words “oil bearing side” facing to the outside. Using the proper installation tools (# 555-0001 & #555-5039) drive seal and ring assembly until tool bottoms out.

NOTE: Ensure ring is flush to shoulder and wipe away any excess sealant.



SEAL POSITION
FIG. 3-3

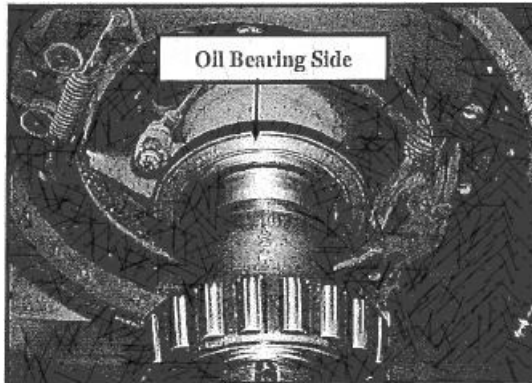


SEAL INSTALLATION TOOLS
FIG. 3-4

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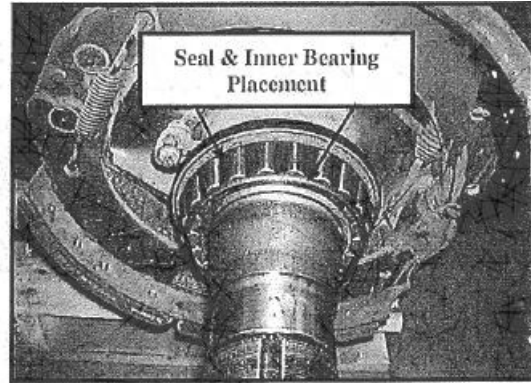


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PROPER SEAL POSITION

FIG. 4-1



PROPER BEARING POSITION

FIG. 4-2

12. Before installing inner bearing, lube bearing using Premium SAE 80W90 hub oil.



Seal, ring, and inner bearing must be installed on spindle.

13. Refer to FIG. 4-2. Install inner bearing on spindle.

14. Install hub on spindle.

15. Install outer bearing on spindle.

16. Install inner spindle nut on spindle.

17. Using a torque wrench. Tighten adjusting nut to a torque of 200 lbs. ft. hub should be rotated while tightening.

18. Back inner nut off one full turn.

19. Tighten inner nut to a torque of 50 lbs. ft. while rotating hub.

20. Back nut off 1/4 turn.

21. Refer to FIG. 6-1. Install lock rings, star, and torque jam nut to 200-400 lbs. ft. Confirm end play is between 0.002" and 0.005" as measured with a dial indicator.

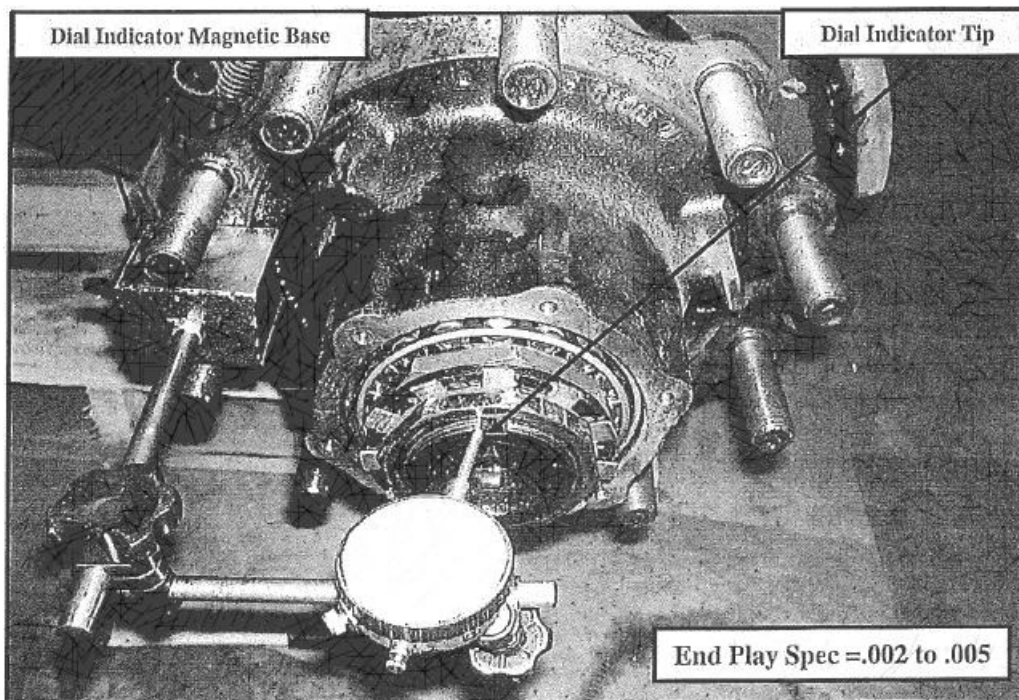


Failure to set end play between 0.002"-0.005" could result in premature bearing failure.

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DIAL INDICATOR SET UP

FIG. 5-1

HOW TO MEASURE END PLAY

22. Refer to FIG. 5-1. Using a magnetic base, mount dial indicator on spindle end, making sure hub face is clean and free of gasket material.
23. Refer to FIG. 5-1. Adjust the arm of the dial indicator, setting plunger tip of indicator on machined face of hub at 12 o' clock position. The plunger should be set-up so that it is parallel to the axis of the spindle. When positioning the indicator tip, ensure that the indicator has adequate range of travel for proper measurement. Set indicator to zero.
24. Grasp wheel/hub assembly at 3 o' clock and 9 o' clock positions. Pull wheel end assembly outward while oscillating wheel approximately 45°. While continuing to pull, stop oscillating and read indicator.
25. Push wheel assembly inward while oscillating. While continuing to push stop oscillating and read indicator.
26. Read bearing end play as total indicator movement.
27. Bend 2 (two) retaining star washers tabs.

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28. Install new hub cover gasket and hub cover. Torque to 12-16 lbs. ft.
29. Fill hub to appropriate level (approximately 14 fl. oz.) using Premium SAE 80W90 hub oil.
30. Let hub oil settle, perform 2 (two) additional fills letting each settle to ensure proper fill.
31. Reinstall brake drum and wheel/tire assembly.
32. Adjust brakes and check for proper free play and applied stroke.
33. Torque lug nuts to 450-500 lbs. ft.
34. Reinstall wheel dressings.
35. Repeat steps 3 through 34 for opposite side.

NOTE: Refer to FIG. 2-1. To be paid for claim you must report tag axle number to Spartan Motors USA, Inc. Customer and Product Support.

NOTE: If end play is not within specifications, readjustment is required.

CAUTION

Failure to set end play between 0.002"-0.005" could result in premature bearing failure.

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