

SERVICE ADVISORY # 07- 083**16" Steel Wheel Valve Stem Replacement**

It has been determined that rubber Valve Stems on 16" steel wheels may leak when checking air pressure or during inflation. Movement of stem may cause air to leak out between rims and stem due to improper stem seating.

Models Included: Big Sky, Challenger, Everest, Montana, Mountaineer (FW) & Sprinter (Hi-Profile FW)

Model and Serial Number Range:

2007 Big Sky Fifth Wheel	4YDF3502X7A710105 - 4YDF360257A710163
2007 Montana Fifth Wheel	4YDF3402X74704099 - 4YDF3072774704494
2007 Mountaineer Fifth Wheel	4YDF329297M732855 - 4YDF345207M733099
2007 Sprinter Fifth Wheel	4YDF3502671533830 - 4YDF3392781530329
2007 Everest Fifth Wheel	4YDF344257E771679 - 4YDF344207E771783
2007 Challenger Fifth Wheel	4YDF32S2X7E751516 - 4YDF34B277E751615

Note: The only wheels requiring repair are 16" steel wheels. Models with aluminum wheels only need to have the steel spare wheel repaired. Aluminum wheels are not included in this recall.

Parts Required per Unit: Steel bolt in valve stem KRV# 242543 quantity of 1 to 5 depending on model and options.

Tools Required:

- Impact Wrench - 1/2" drive (removal of wheels only)
- Torque Wrench – 1/2" drive
- Deep Socket (13/16" or 7/8"), 1/2" drive
- Minimum 2" long socket extension, 1/2" drill
- Floor Jack – adequate to trailer weight
- Jack Stands
- Wheel chocks

Visual check:

Units with rubber stems as shown in figure 1 are to be replaced with steel bolt in style stem as shown in figure 2. Aluminum wheels are not included in this recall.



Figure 1

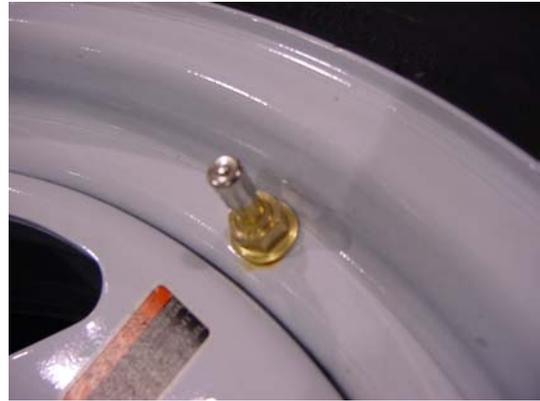


Figure 2

INSTRUCTIONS – FOR NON-SPARE WHEEL REPAIR**ONE: PREPARING THE TRAILER**

- Step 1 Locate the trailer on a level, flat, hard surface. Chock the wheels.
- Step 2 Using a grease pencil or tape; mark the locations of the wheel to the hub & studs for each wheel. To assure the best seat, the wheel will need to be reinstalled in the exact position it was removed from.
- Step 3 Use a floor jack of sufficient capacity to raise one side of the trailer. Place the floor jack under the main frame rail behind the rear spring hanger, leaving enough room to install a jack stand immediately behind the spring hanger. Elevate the frame just enough to take some of the weight off the wheel.
- Step 4 Loosen the lug nuts on the rear wheel about a half turn. DO NOT remove lug nuts at this time.
- Step 5 Continue elevating the frame until the rear tire just clears the shop floor.
- Step 6 Install a jack stand of sufficient capacity directly behind the rear spring hanger.
- Step 7 Relocate floor jack to an area just forward of the front spring hanger, leaving enough room to install a jack stand immediately in front of the spring hanger.
- Step 8 Use a floor jack of sufficient capacity to raise one side of the trailer. Place the floor jack under the main frame rail forward of the rear spring hanger, leaving enough room to install a jack stand immediately forward of the spring hanger. Elevate the frame just enough to take some of the weight off the wheel.
- Step 9 Loosen the lug nuts on the forward wheel about a half turn. DO NOT remove lug nuts at this time.
- Step 10 Raise the frame until the forward tire just clears the shop floor.
- Step 11 Install a jack stand of sufficient capacity just forward of the front spring hanger.

- Step 12 With both tires now slightly off the ground finish removing the lug nuts and the two wheels from the trailer.
- Step 13 Repeat Steps 2 – 11 for the other side of the trailer.

TWO: VALVE STEM REPLACEMENT

- Step 1 Remove stem pin valve to deflate tire.
- Step 2 Break tire bead on valve stem side and remove rubber valve stem.
- Step 3 Install steel valve stem, torque to 25 to 40 in/lbs and re-inflate tire.

THREE: WHEEL ASSEMBLY INSTALLATION

- Step 1 Using a clean rag, wipe down all lug nuts and tapered nut seats on wheel to remove any remaining residues.
- Step 2 Mount each wheel to the axle it was removed from. Position the wheel using the marks made earlier so that the wheel is installed with the same orientation to the studs as before (this helps in reseating the wheel to the hub).
- Step 3 Start the lug nuts on each stud by hand
- Step 4 You must use the star pattern and torque wrench when tightening the lug nuts to the wheel. This sequencing pattern shows how to progressively tighten the lug nuts to best achieve the proper torques and clamp load. See figure 7.

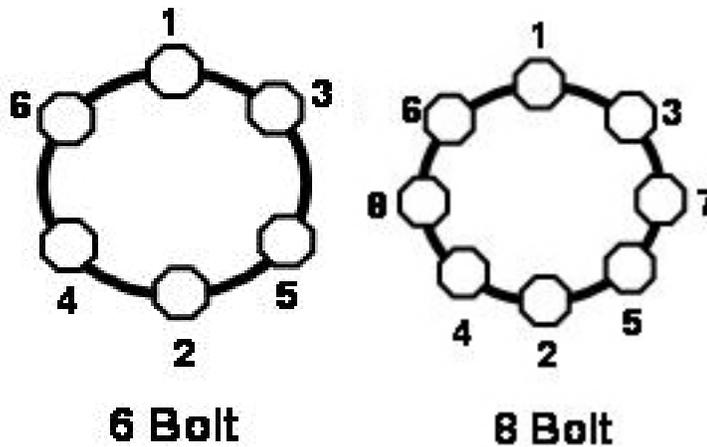


Figure 7

- Step 5 Using the star pattern outlined in Figure 7, tighten the lug nuts to until the 1st stage torque (20-25 ft/lbs) outlined in Figure 8 is achieved. Verify the lug nuts are properly positioned in the tapered seats of the wheel.

Wheel Torque Requirements			
Wheel Size	1st Stage	2nd Stage	3rd Stage
16"	20-25 ft/lbs	50-60 ft/lbs	110-120 ft/lbs

Figure 8

- Step 6 Using the star pattern outlined in Figure 7, tighten the lug nuts until the 2nd stage torque (50-60 ft/lbs) outlined in Figure 8 is achieved.

- Step 7 Lower the trailer to the ground.
- Step 8 Using the star pattern outlined in Figure 7, tighten the lug nuts until the 3rd and final stage (110-120 ft/lbs) is achieved. See Figure 8.
- Step 9 Use a dial or digital torque wrench to verify that the proper amount of torque has been applied.
- Step 10 Repeat Steps **ONE:** through **SEVEN:** for the other side of the trailer.

INSTRUCTIONS – FOR SPARE WHEEL REPAIR

- Step 1 Remove the spare wheel from the mounting location.
- Step 2 Remove stem pin valve to deflate tire.
- Step 3 Break tire bead on valve stem side and remove rubber valve stem.
- Step 4 Install steel valve stem, torque to 25 to 40 in/lbs and re-inflate tire.
- Step 5 Reinstall the spare tire in the mounting location.

CLAIM FILING INSTRUCTIONS

Submit labor expense on Key Express or a Keystone Warranty claim form with the **Service Advisory # 07-083** and **Flat Rate Code as noted below** noted in the customer complaint section of the form. The amount of time authorized for this repair is:

All 5 tires – Flat Rate Code 7108342A – 1.5 hours

Spare only – Flat Rate Code 7108342B – 0.5 hours

PART RETURN DISPOSITION

The old valve stems may be discarded. Do not return them to Keystone RV.

If you have any questions please call Keystone RV Customer Service at

Montana, Mountaineer & Big Sky **(866) 273-1450**

Sprinter **(866) 273-1452**

Challenger, Everest **(866) 273-1456**