

SAFETY ADVISORY # 15-230Lippert Axle Hub

Keystone RV Company is conducting a voluntary RECALL notification campaign in accordance with the National Traffic and Motor Vehicle Safety Act. It has been decided the vehicles identified in this recall population equipped with axles manufactured by Lippert Components Inc. (LCI) and Tru Ryde or Axle Tek 10" or 12" wheel hubs may have been manufactured with wheel studs which could break. The axles can be identified by the first three (3) digits of the axle tag serial number, manufacturing date and the Tru Ryde name or the Axle Tek name stamped on the wheel hub face. LCI Indiana Plant 45 – Serial # beginning with 045 with manufacturing dates from 03/11/15 thru 03/27/15 with 12" Tru Ryde wheel hubs or manufacturing dates from 04/10/15 thru 04/15/15 with 12" Axle Tek wheel hubs. LCI Idaho Plant 57 – Serial # beginning with 057 with manufacturing dates 03/20/15 thru 04/09/15 with 10" or 12" Tru Ryde wheel hubs.

Models and Serial Number Ranges:

Model	Serial number range	Hub	Hub Part #
2015 Aspen Trail – Oregon	FY922586 – FY922645	10"	477075
2016 Aspen Trail – Oregon	GY920000 – GY920015		
Models; 1900RBWE, 2390RKSWE, 2710BHWE			
2720RKSWE, 2780RLSWE, 2810BHSWE		12"	477076
2015 Aspen Trail – Indiana	FH922580 – FH922659	12"	477076
2016 Aspen Trail – Indiana	GH920040 – GH920173		
Models; 2730RBS, 2750BH, 2780RLS, 2810BHS, 3010BHDS, 3100BHS			
2015 Coleman – Oregon	FY933354 – FY933389	10"	477075
Models; 262BHSWE, 270RLSWE, 274BHSWE			
295QBSWE			
		12"	477076

2015 Coleman – Indiana 2016 Coleman – Indiana Models; 295QB, 295QBS	FH933464 – FH933488 GH930210 – GH930224	12”	477076
2015 Denali – Indiana 2016 Denali – Indiana Models; 287RE, 293RKS, 307RLS, 316RES, 325RL	FP940887 – FP940973 GP940000 – GP940084	12”	477076
2015 Razorback – Indiana 2016 Razorback – Indiana All Models	FH980073 – FH980081 GH980000 – GH980005	12”	477076
2015 Rubicon – Indiana 2016 Rubicon – Indiana All Models	FH985364 – FH985426 GH985000 – GH985054	12”	477076
2015 Voltage – Indiana 2016 Voltage – Indiana All Models	FZ991414 – FZ991497 GZ990000 – GZ990091	12”	477077
2015 Bullet – Oregon All Models	FX425882 – FH426009	10”	477075
2015 Cougar – Oregon 2016 Cougar – Oregon Models; 19RBEWE, 21RBSWE, 22RBIWE, 244RLSWE, 25RLSWE, 26DBHWE, 26RBIWE, 277RLSWE, 297RKSWE, 28RBKWE, 28RBSWE, 28RLSWE, 29RKSWE, 31SQBWE, 32RESWE	FC509590 – FC509856 GC500000 – GC500497	12”	477076

2015 Cougar – Indiana	F2509503 – F2509941		
2016 Cougar – Indiana	G2500152 – G2500699		
Models; 288RLS, 301SAB, 303RLS, 313RLI, 326SRX, 327RES, 330RBK, 333MKS,336BHS, 337FLS, 339BHS		12”	477076
2015 Hideout – Oregon	FN207727 – FN207828		
2016 Hideout – Oregon	GN200000 – GN200089		
21THWE, 27RKDSWE, 28BHSWE, 31BHDSWE		12”	477076
All Other Models		10”	477075
2015 Passport – Oregon	GX410088 – GX410176		
3320BHWE		12”	477076
All Other Models		10”	477075
2015 Sprinter – Indiana	F1533056 – F1533227		
2016 Sprinter – Indiana	G1530000 – G1530206		
All models		12”	477076
2015 Springdale – Oregon	FG105075 – FG105283		
2016 Springdale – Oregon	GG100000 – GG100106		
270BHWE, 282BHSEWE, 282BHWE, 293RKWE		12”	477076
All Other Models		10”	477075

Note – Check serial number on Key Express to verify the campaign is open. Some vehicles were repaired before they left Keystone.

Parts Required: Please refer to **INSPECTION INSTRUCTIONS Step 3** before ordering parts.
Refer to the previous section for part numbers by vehicle model.

Tools Required: -Paint Remover

- Torque Wrench – ½” drive
- Deep Socket (13/16” & 7/8”), ½” drive
- Minimum 2” long socket extension, ½” drive
- Floor Jack – adequate to trailer weight
- Scouring Pads (very fine light duty)
- Impact Wrench - ½” drive (removal of wheels only)
- 1 ½” Socket - ½” drive

- Drill

- Jack Stands
- Cleaning rags
- Water hose with spray nozzle
- Wheel chocks
- Wire Wheel
- Scotch Brite Pads
- Pliers

INSPECTION INSTRUCTIONS

Step 1 Locate the trailer on a level, flat and hard surface.

Step 2 Axle Tag Inspection

The affected drums **do not need to be returned**, but the repair facility will need to submit a clear photo of **each** axle tag with the axle serial number and manufactured date (also on the axle tag) (see Fig 1) and a clear photo of the affected drum(s) (see Figs. 2 & 3) to attach to the claim. All original drums **MUST** be destroyed and cannot be reused or sold.

The first (3) digits of the axle tag serial number identify where the axles were produced, 045 = Indiana, 057= Idaho. The hub must be inspected if the axles were produced within the following manufacturing dates;

- Indiana (045) - 03/11/15 thru 03/27/15 or from 04/10/15 thru 04/15/15
- Idaho (057) - 03/20/15 thru 04/09/2015
- If the dates are **not** within this range, no further repair is required, proceed to Warranty Reimbursement.

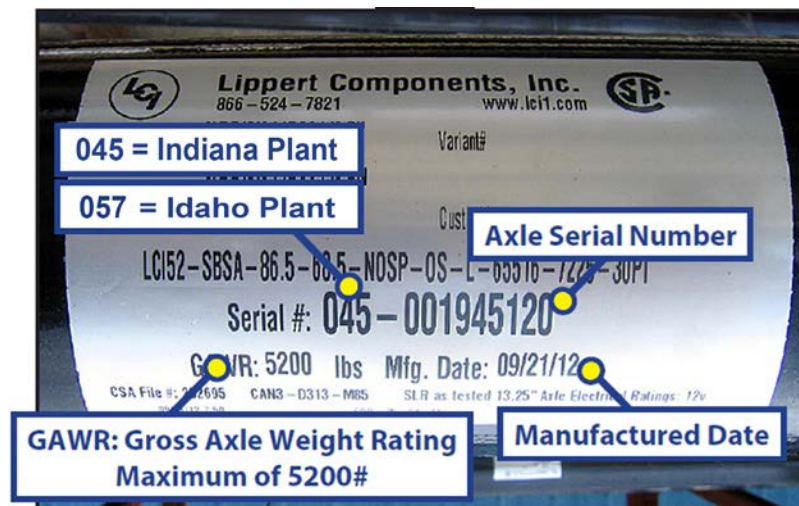


Fig. 1

Step 3

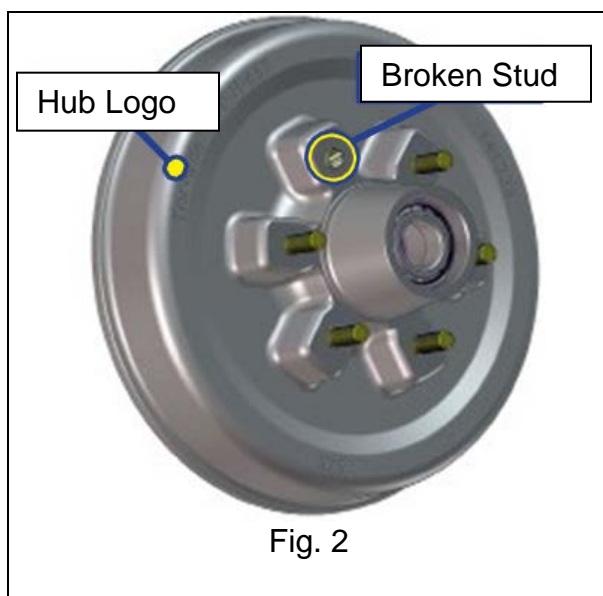
Hub Inspection - is required if the axle manufacture dates are within the specified range. Using a floor or bottle jack, raise one side of the unit to allow the wheels to turn freely.

⚠ WARNING

Lift unit by frame and never by the axle or suspension. Do not go under unit unless it is properly supported by jack stands. Unsupported units can fall causing death or serious injury.

DO NOT use the front landing gear or rear stabilizer jacks to lift the unit. This is dangerous and may result in death or serious bodily injury.

Remove all (4 or 6) wheels to inspect the hub to determine the manufacturer of the hub. Lippert axles are produced with one of three hubs; Axle Teknology, LCI, or Tru Ryde. All hubs can be identified by a mark on the face of the hub. Hubs requiring replacement will be identified by a "Tru Ryde" or "Axle Teknology" mark. See Figure 2 & 3.



FOR INDIANA ONLY		
Axle Mfg. Date	Drum Type	Replace?
3/11/15	Tru Ryde	Yes
Thru 3/27/15	Axle Tek	No
	LCI	No
4/10/15	Tru Ryde	No
Thru 4/15/15	Axle Tek	Yes
	LCI	No
FOR IDAHO ONLY		
Axle Mfg. Date	Drum Type	Replace?
3/20/15	Tru Ryde	Yes
Thru 4/9/15	Axle Tek	No
	LCI	No

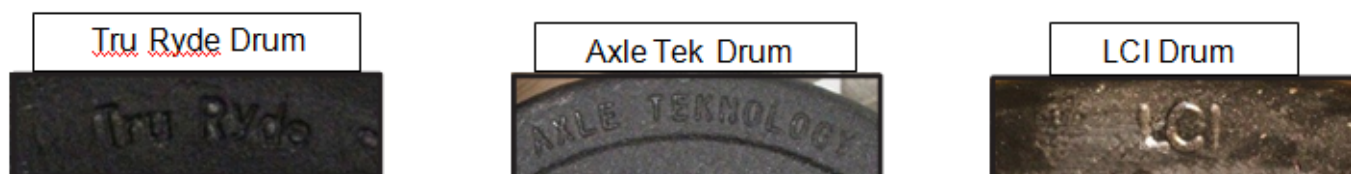


Fig. 3

Step 4

If the Axle Mfg Date and Drum Type combination match those listed in the tables above, the drum(s) **MUST** be replaced. Continue to the Repair instructions. If no hubs are identified as Tru Ryde or Axle Tek, proceed to Warranty Reimbursement.

REPAIR INSTRUCTIONS

PREPARING THE TRAILER

Step 1 Using a floor or bottle jack, raise one side of the unit to allow the wheels to turn freely.



Lift unit by frame and never by the axle or suspension. Do not go under unit unless it is properly supported by jack stands. Unsupported units can fall causing death or serious injury.

DO NOT use the front landing gear or rear stabilizer jacks to lift the unit. This is dangerous and may result in death or serious bodily injury.

REPLACE WHEEL HUBS

- Step 1** Remove lug nuts and wheels from the axle(s) receiving the new hubs.
- Step 2** Remove the spindle nuts and other hardware on the spindle holding the hub on the spindle.
- Step 3** Remove hub from spindle. Clean any residual grease off of the spindle.
- Step 4** Install new hub onto the spindle. Install new hub assembly.
- Step 5** Install hardware and spindle nut in the proper sequence on the spindle.
- Step 6** Torque the spindle nut to 50 ft/lbs, rotate the hub during this process.
- Step 7** Loosen castle nut to back off the torque.
- Step 8** Tighten castle nut finger-tight until snug.
- Step 9** Insert cotter pin. If cotter pin does not line up with hole, back castle nut up slightly until pin can be inserted.
- Step 10** Bend the cotter pin over to lock nut in place. Nut should be free to move with only the cotter pin keeping it in place.
- Step 11** Proceed to Wheel Installation section

WHEEL INSTALLATION

WHEEL & HUB PAINT MUST BE REMOVED PRIOR TO WHEEL REINSTALLATION

- Step 1** The black paint that has transferred from the hub face to the mounting surface of the wheel must be fully removed.
- Step 2** For the wheel, apply lacquer thinner to the back side (hub-mating surface) side of the wheel with a shop rag to soften the black paint. Rub the area with a type "A" very fine Scotch-Brite® pad until clean. Dry the surface completely. See Figures 4 & 5.

Warning: Do not allow solvent or equivalent to make contact with the tire. Do not use liquid paint remover as this will pit and damage the aluminum wheel. Do not use a wire wheel (brush) or grinder to remove the paint from the wheel as this will also damage the wheel.



Fig. 4 Before Cleaning



Fig. 5 After Cleaning

Step 3 For the hub face, apply liquid paint remover or equivalent to the wheel-mating surface of the hub. Use a wire wheel (brush) to clean all black paint from the wheel-mating surface, that is, all areas of the hub face that come in direct contact with the wheel. Avoid damaging the hub face with this process! After the paint is removed, wash off the area with water to remove any remaining residue. Dry the surface completely. See Figures 6 & 7.

Step 4 Make a final inspection of these surfaces before mounting the wheels. If any grease is present use a brake cleaner or degreaser. Rinse any cleaned areas with water to remove residue. Dry the surface completely. See Figure 7.

Warning: When using chemicals (paint remover, brake cleaner/degreaser) be sure to utilize the “Personal Protective Equipment” (PPE) recommended by the manufacturer through the Material Safety Data Sheet (MSDS) and dispose in accordance with all Federal, State and Local Laws.

Warning: When cleaning the hub face with the wire wheel brush avoid excessive pressure on the studs. Applying too much force here could damage the threads on the studs.



Fig. 6 Before Cleaning



Fig. 7 After Cleaning

WHEEL ASSEMBLY INSTALLATION

- Step 1** Using a clean rag, wipe down all lug nuts and tapered nut seats on wheel to remove any remaining residue.
- Step 2** Start the lug nuts on each stud by hand.
- Step 3** 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 8.

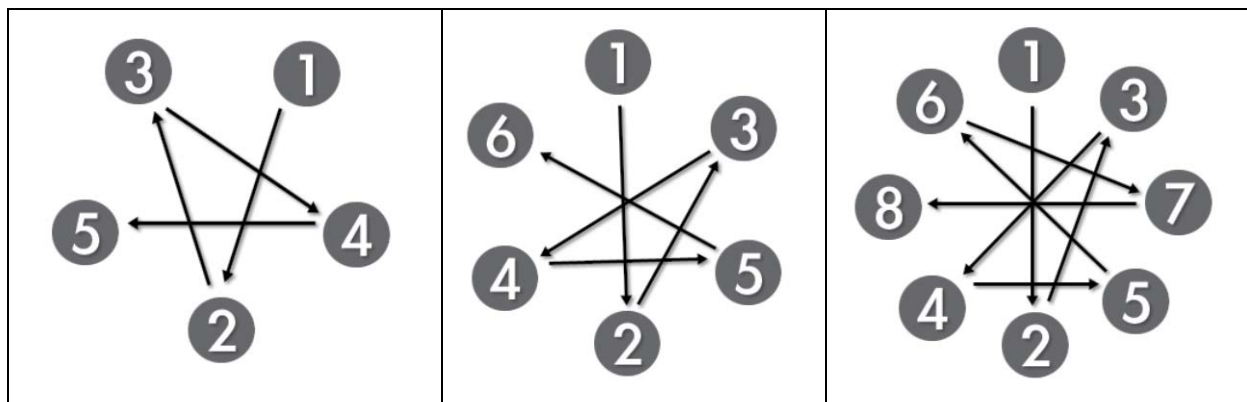


Fig. 8

- Step 4** Using the star pattern outlined in Figure 8, tighten the lug nuts to until the 1st stage torque (20-25 ft/lbs) outlined in Figure 9 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
14", 15" & 16"	20-25 ft/lbs	50-60 ft/lbs	110-120 ft/lbs

Figure 9

- Step 5** Using the star pattern outlined in Figure 8, tighten the lug nuts until the 2nd stage torque (50-60 ft/lbs) outlined in Figure 9 is achieved.
- Step 6** Lower the trailer to the ground.
- Step 7** Using the star pattern outlined in Figure 8, tighten the lug nuts until the 3rd and final stage (110-120 ft/lbs) is achieved. See Figure 9.
- Step 8** Use a dial or digital torque wrench to verify that the proper amount of torque has been applied.
- Step 9** Original hubs must be destroyed after removal.

WARRANTY REIMBURSEMENT

INSPECTION ONLY

Submit the claim, along with the axle hub and axle tag pictures, on Key Express using **Flat Rate Code # 7123042F** and **Safety Advisory # 15-230** noted in the customer complaint section. The amount of time authorized for inspection only is 0.2 hours per hub plus 0.5 hours per unit.

INSPECT AND REPLACE

Submit the claim, along with the axle hub and axle tag pictures, on Key Express using **Flat Rate Code # 7123042B** and **Safety Advisory # 15-230** noted in the customer complaint section. The amount of time authorized for hub replacement is 0.5 hours per hub plus 0.5 hours per vehicle. Original hubs must be destroyed after removal.

Please call Keystone RV Customer Service if you have any questions.

Cougar, Hideout	(866) 273-1454
Denali, Razorback, Rubicon, Voltage	(855) 382-4100
Aspen Trail, Coleman, Kodiak	(855) 895-4422
Sprinter, Springdale	(866) 273-1452
Bullet	(866) 273-1456
Passport	(866) 273-1450