

<b>Subject</b>	Momentum and Solitude Upper Deck Flex Inspection					<b>Number</b>	24-001
						<b>Date</b>	3/7/2024
						<b>Model</b>	Solitude & Momentum Model Years 2021, 2022 & 2023
						<b>Build Date</b>	
<b>Circulate To:</b>	Service Manager	x	Parts Manager		Technician	x	4 pages
	Warranty Admin	x	Sales Manager	x	Part Number (s)		
<b>Concern:</b>	Complaint of upper deck flex which results in cosmetic damages to the interior and excessive flex at the pin box.						
<b>Remedy:</b>	This TSB relates to customer concerns of upper deck failure. The procedure outlined below is to assess damages if any and direct customers to next steps.						
<b>Flat Rate:</b>	920006						

1. Locate the unit on a stable, level surface and lower the front landing gear until the unit is free from tow vehicle and fully supported by landing gear. **Do not lower the rear stabilizer jacks!**
2. Visually inspect the exterior of the unit for cracking near the corners of the upper deck slide(s), as well as deformities at the expansion joint in the sidewall below the slide(s). Identify any trim screws in the upper deck that are broken or loose. This includes the Schwintek column.
3. In the interior of the unit, identify any damaged cabinetry, or trim located in the upper deck. Where possible, verify any loose, bent, broken or missing lag bolts. **Note:** *Not all lag bolts can be examined from the interior. See example photos page of interior lag access on pages 2 & 3.*
4. Remove the compartment door(s), trim molding and TPO bulkhead around the pin box.
5. Remove the forward aluminum cage.
6. Inspect the frame structure for broken welds, cracked or torn steel. Contact Grand Design Customer Service if any structural damage is found for further instructions.
7. With a paint marker or painters tape and sharpie, mark a fixed point on the lower corner of each pin box side plate and on the bottom of the main I-beam. *See example photos page 2.*
8. With the weight of the unit on the front landing gear, measure the distance from the marked position on the pin box side plate to the marked position on the I-beam. Do this on both door side and off door side. Record the measurements on the attached form.
9. Raise the front of the unit with the landing gear and place an appropriate weight rated tripod on the kingpin of the pin box. Retract the landing gear only until the landing pads are no more than 1/4" to 1/2" off the ground for safety reasons, and the unit is fully supported by the tripod. **NOTE:** *A forklift may be used to perform this portion of the inspection.*
10. Repeat the measurement process outlined in step 7. Record the measurements on the attached form.
11. Subtract the "weight on" measurements from the "weight off" measurements. The difference between the two should be **no more than 3/8"** (weight on vs. weight off).

12. If the measurement is 3/8" or less, follow the procedure outlined in Step 14. Once completed, reinstall the compartment doors, bulkhead and attachments. Cap seal all attachments (baggage doors, trim, & corner molding) with clear silicone. Please submit the attached form (24-001) with your pre-authorization.

13. If the measurement is greater than 3/8", please contact Grand Design Customer Service for further directions.

14. Replace existing lags and fill all accessible lag holes in the main rail with 1/2" lag bolt. With a 3/16" bit, drill a pilot hole in the designated frame locations where a lag is NOT present. Be sure to measure the depth prior to drilling to prevent breaching the exterior wall. The pilot hole should only penetrate the first layer of aluminum. Before installing the lags, place a bead of epoxy or SikaFlex the length of the threads. **For units with double main rail tubes, use GDRV part # 961671. For all single tube main rails, use Grand Design part # 961661. See photo examples below for interior lag access.**

**Note: Flex measurements can be impacted by weight in the front storage compartments. Please complete the attached inspection form and note any specific contributing factors.**

#### Example photos

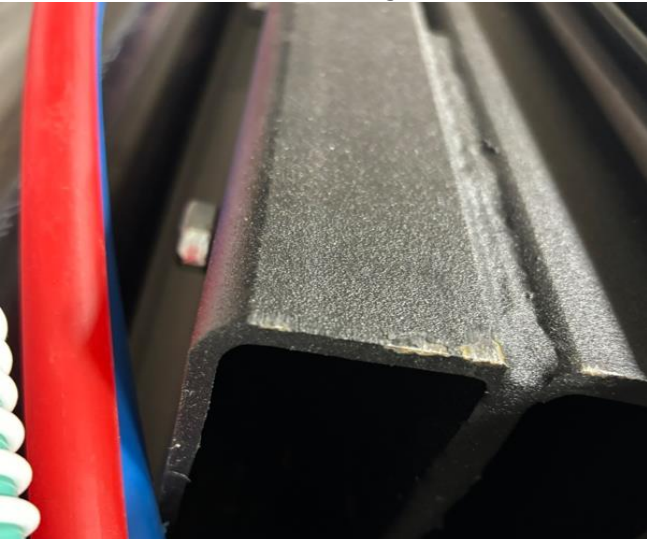
*Horizontal lag bolts located behind carpet block.*



*Roll carpet back to expose lags in upper deck.*



*Double tube main rail with 5" lag bolts*



*Single tube with lags with 3.5" lag bolt.*



*Main rail located behind wood cover - interior*



*GDRV Part # 961671 - 5" x 1/2" lag*



Double tube main rail lag bolt.

*Cover block for rear of upper deck tube by dresser*



*GDRV Part # 961661 - 3.5" x 1/2" lag*



Single tube main rail lag bolt.



Upper Deck Flex Measurement Example Photos

Photo of front bulkhead and cage removed



Example photo of index mark on pin box side plate



Example photo of index point on I-beam



Example of measurement from I-beam to pin box





**Solitude & Momentum Flex Measurement  
Frame Flex Inspection Form 24-001**

Please complete the attached form and submit with your pre-authorization. **Use flat rate code 920006.** The time allowed is **6 hours**. Insert the measurements for the inspection in the spaces provided below.

**Frame Flex Measurements** - Insert the measurements for the inspection in the spaces provided below.

*See photo examples of measurement on page 4.*

Door Side Weight **On** Landing Gear

Door Side Weight **Off** Landing Gear

Off Door Side Weight **On** Landing Gear

Off Door Side Weight **Off** Landing Gear

Special Conditions Notation - *Please mark the box with an "X" where the condition is present.*

Unit has after market pin box installed.

Unit has aftermarket suspension component installed.

Unit shows signs of damage from impact.

Please submit this form with your pre-authorization submission. Provide photos of any frame damage found. If you have any questions, please contact our Dealer Relations department at 888-825-2820.