



INSTRUCTION TO SERVICE

ITS: 6333	
SECTION:	580 Wheelchair Ramp
WRITTEN BY:	Dwayne Peters
SUBJECT:	Lift U Torque Value Revision

ITS6333

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PROCEDURE:

1. Turn the main battery disconnect switch to the “OFF” position.
2. Raise coach in accordance with the New Flyer Service Manual.
3. Locate the Lift U wheelchair ramp.
4. Remove and discard the street side 5/16” bolts and nuts (three per bus) used to retain the splash pan. Retain the washers that mount the splash pan they will be reused to reinstall the splash pan. Figure 1.
5. Remove and discard the curb side 1/4” bolts (three per bus) used to retain the splash pan. Retain the washers that mount the splash pan as they will be reused to reinstall the splash pan. Figure 1.
6. Using the assistance of another person carefully remove the splash pan.

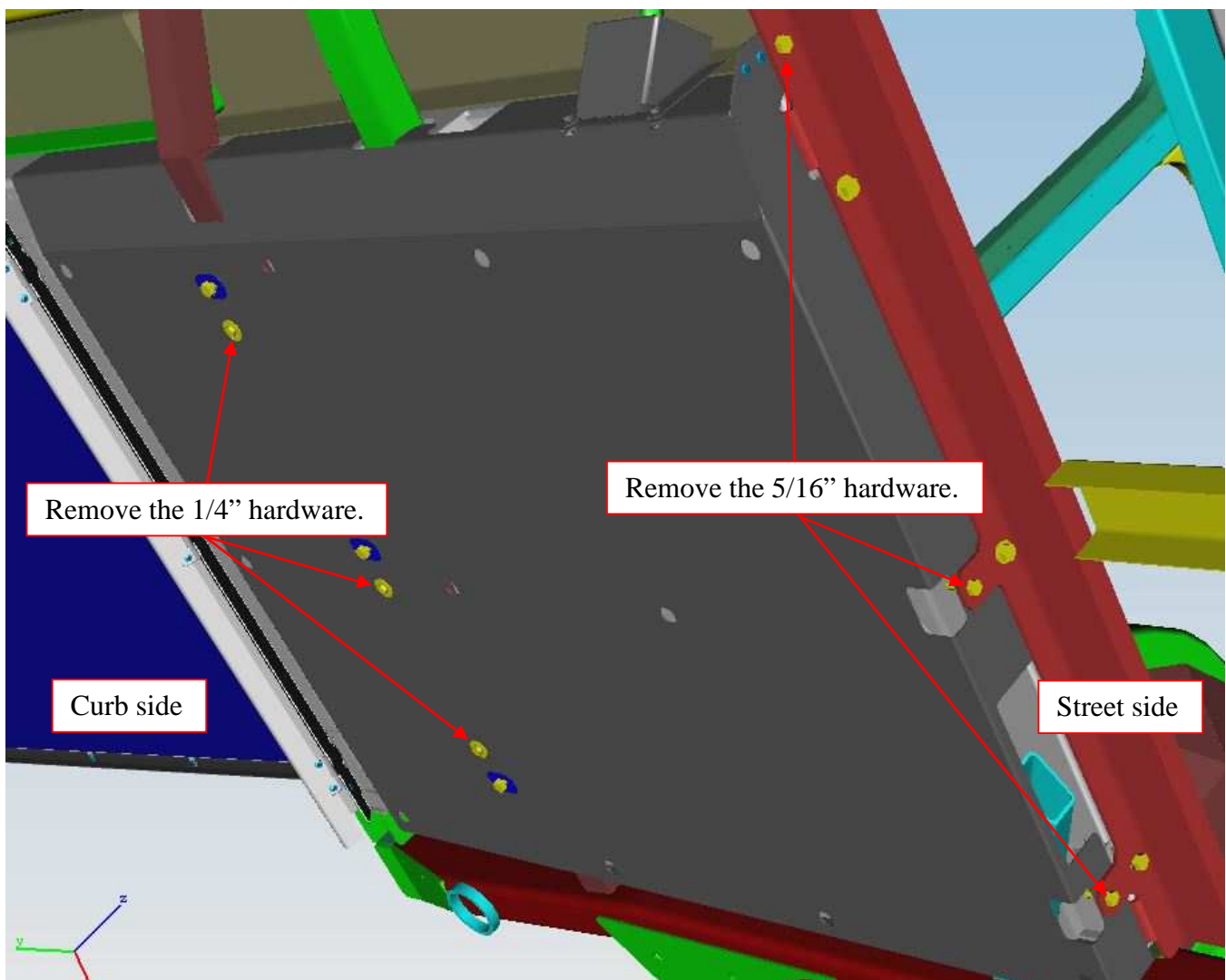
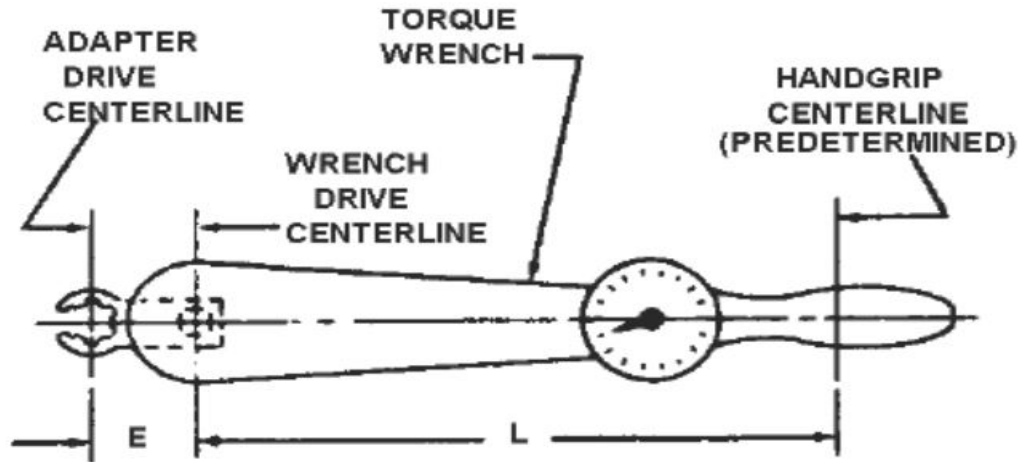


Figure 1: Splash pan viewed from under the bus



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NOTE: If a "crows foot" is used with a torque wrench, the final torque value must be adjusted due to the mechanical advantage. This is dependent on the crows foot and torque wrench length and must be calculated. See figure 2 for example calculation.



$$\text{FORMULA } \frac{T \times L}{L + E} = Y$$

EXAMPLE: (WITH "E" AS PLUS DIMENSION)

$$T = 135 \text{ LB. IN.} \qquad Y = \frac{135 \times 10}{10 + 1.5} = \frac{1350}{11.5} = 117.39$$

Y = UNKNOWN

$$L = 10.0 \text{ IN.}$$
$$E = 1.5 \text{ IN.} \qquad Y = 117 \text{ LB. IN.}$$

Figure 2: Crows foot formula



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7. Check to ensure the ramp fore/aft in floor opening is perpendicular to the doorway before replacing hardware. You may need to loosen all hardware just enough to center the ramp.

☞ **NOTE: Do not use impact wrench as it can damage isolator blocks.**

8. On the street side, one at a time, remove and discard the 3/8" bolts and nuts (three per bus) that mount the wheelchair to the bus structure. Reuse the blocks and washers. Use a new bolt NF # 10B06036 and a new nut NF # 10N06000 and torque to 58 FT-LB. **Do not use Loctite in this location.** Figure 3.

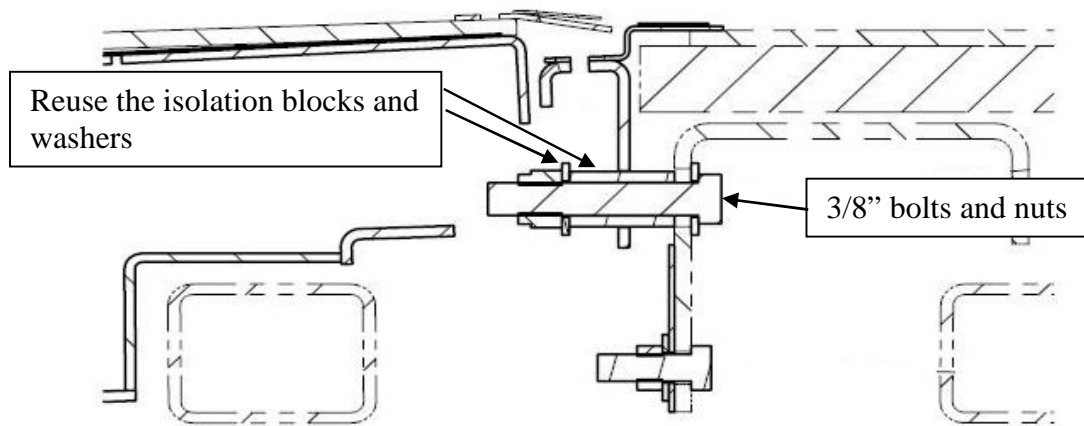


Figure 3: 3/8" bolts, nuts, isolation blocks, and washers. Street side shown

☞ **NOTE: The spacers and isolation block used between the bus structure and wheelchair ramp must remain in place. Figure 4.**

9. On the curb side, one at a time, remove and discard the 3/8" bolts and nuts that mount the wheelchair to the bus structure. Reuse the washers. Use a new bolt NF # 10B06028 and a new nut NF # 10N06000. Add a few drops of Loctite 243 to the threads and torque to 17 FT-LB. Figure 4.

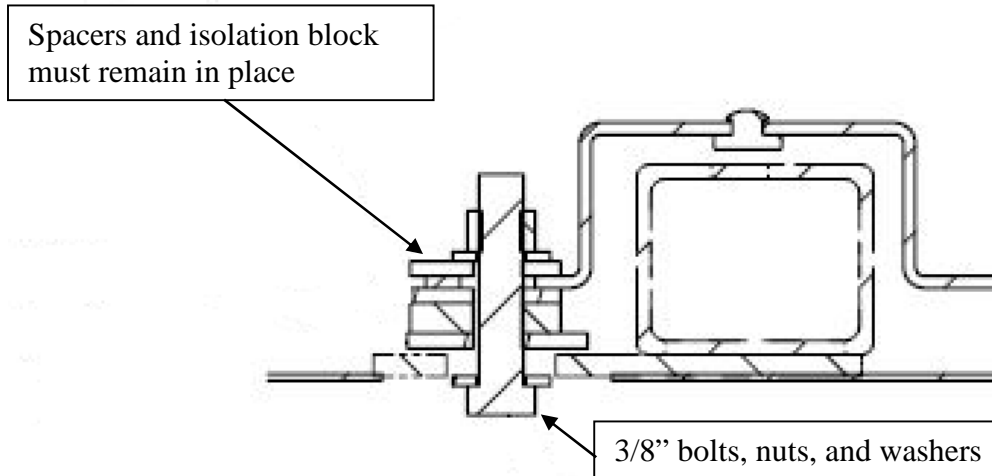


Figure 4: 3/8" bolts, nuts, washers, spacers and isolation blocks. Curb side shown

10. Remove and replace the clip nuts that are attached to the wheelchair frame that secure the splash pan. (Three per bus).
11. Using the assistance of another person carefully reinstall the splash pan. On the street side use a new bolt NF # 20B05016 and new nut NF # 50N05000. Add a few drops of Loctite 243 to the threads and snug only at this time.
12. On the curb side use a new bolt NF # 20B04024 and previously retained washers. Add a few drops of Loctite 243 to the threads and snug only at this time
13. Torque the 5/16" splash pan hardware to 108 IN-LB.
14. Torque the 1/4" splash pan hardware to 60 IN-LB.
15. Lower coach in accordance with the New Flyer Service Manual.
16. Turn the main battery disconnect switch to the "ON" position.



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LABOUR ESTIMATE

	Operation	Men	Hours	Labour Time M X HR
1	Remove, replace, and torque wheelchair mounting hardware.	2	1.0	2.0

PARTS REQUIRED

Item	Part Number	Description	Qty. per Coach	Units	Notes
1	10B06036	BOLT HEX 3/8" 16 UNC X 2.25" LG	3	EA	
2	10N06000	NUT HEX 3/8" 16 UNC	6	EA	
3	10B06028	BOLT HEX 3/8" 16 UNC X 1 3/4" LG	3	EA	
4	20B05016	BOLT HEX SS 5/16" 18 UNC X 1" LG	3	EA	
5	50N05000	NUT SS 5/16 COARSE	3	EA	
6	20B04024	BOLT HEX SS 1/4" 20 UNC X 1 1/2" LG	3	EA	
7	081034	LOCTITE-243 MEDIUM 10ML	0.010	EA	
8	6465037	CLIP NUT	3	EA	