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|---|---------|------------|---------|------|
| Rev A: | 06.2015 | 06.2017 | 3 | 1(8) |
| This version replaces all previous releases. | | | | |
| June 25, 2015 Revised per demonstration comments. Added torque method. Figures updated. | | | | |

POWER STEERING HOSE REPLACEMENT

Prevost vehicles

DESCRIPTION

On the vehicles affected by this bulletin, replace the power steering supply hose.

MODEL YEAR(S) AND VEHICLES INVOLVED

| NOTICE TO SERVICE CENTERS | | |
|--|---|---|
| Verify vehicle eligibility by checking warranty bulletin status with SAP or via ONLINE WARRANTY SYSTEM available on Service / Warranty tab of Prevost website. | | |
| Model | VIN | Unit number |
| X3-45 Commuter Model Year : 2014 - 2015 | Single vehicles: 2PCG33495 <u>EC735590</u> , 2PCG33498 <u>EC735602</u> . And from 4RKG33497 <u>F9737001</u> up to 4RKG33496 <u>F9737085</u> incl. | Single units: 2490, 2491 And from 2492 up to 2576 |
| This bulletin does not necessarily apply to all the above-mentioned vehicles, some vehicles may have been modified before delivery. The owners of the vehicles affected by this bulletin will be advised by a letter indicating the Vehicle Identification Number (VIN) of each vehicle concerned. | | |

MATERIAL NEEDED

Order kit SP15-335 which includes the following parts.

| Part No. | Description | Qty |
|----------|---------------------|-----|
| 161335P | Power steering hose | 1 |

Order the following parts locally

| Vendor Part No. | Description | Qty |
|--|--|-----|
| 11012-5 Barnes Dist. / MSCdirect.com | UNION / SAE 45° FITTING / #8FL-Mx#8FL-M BRASS . | 1 |

Other parts required for the bulletin

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| Part No. | Description | Qty |
|----------|--|-----|
| Bulk | Power steering fluid Mobil DEXRON-VI ATF | A/R |

RECOMMENDED TOOLS



DANGER

Park vehicle safely, apply parking brake, stop engine. Prior to working on the vehicle, set the ignition switch to the OFF position and trip the main circuit breakers equipped with a trip button. On Commuter type vehicles, set the battery master switch (master cut-out) to the OFF position.

PROCEDURE

Make sure engine is stopped and power steering oil is cooled down before proceeding.

Lift vehicle with mobile column lifts.

1. Prepare a suitable container and absorbent medium for hydraulic oil.
2. Locate the power steering hose above drive axle, curb side,. It is connected to a steel tube. (Fig. 1)
Loosen the hose fitting while supporting the steel line fitting with a wrench. Collect any oil dripping.

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Figure 1

3. Join the old and new hose #161335P together with a #8 brass union fitting. (Fig. 2)

This will help guide the new hose into position while removing the old hose.

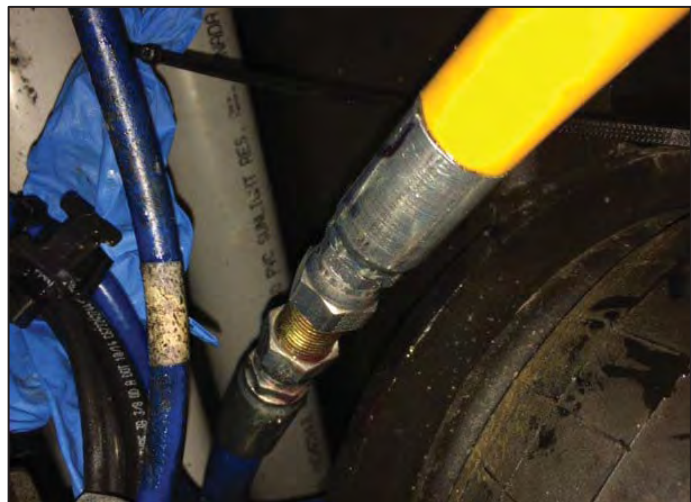


Figure 2

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4. In front service compartment, locate the straight fitting on the upper hose. (Fig. 3)

Loosen the hose fitting while supporting the steering gear fitting with a wrench. Collect any oil dripping.

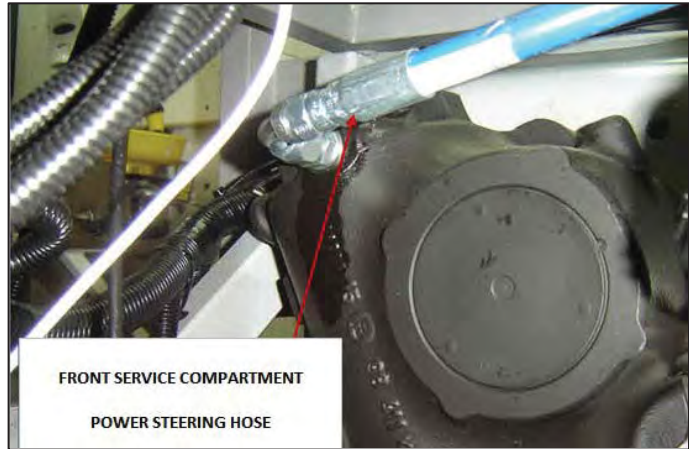


Figure 3

5. Free the hose supports and cable ties all along the hose routing to allow removal and replacement.

From the spare tire compartment, the following hose routing hardware is accessible: three (3) P-clamps (Fig 4), three (3) hose guides (Fig. 5) and one (1) block clamp (Fig. 6)

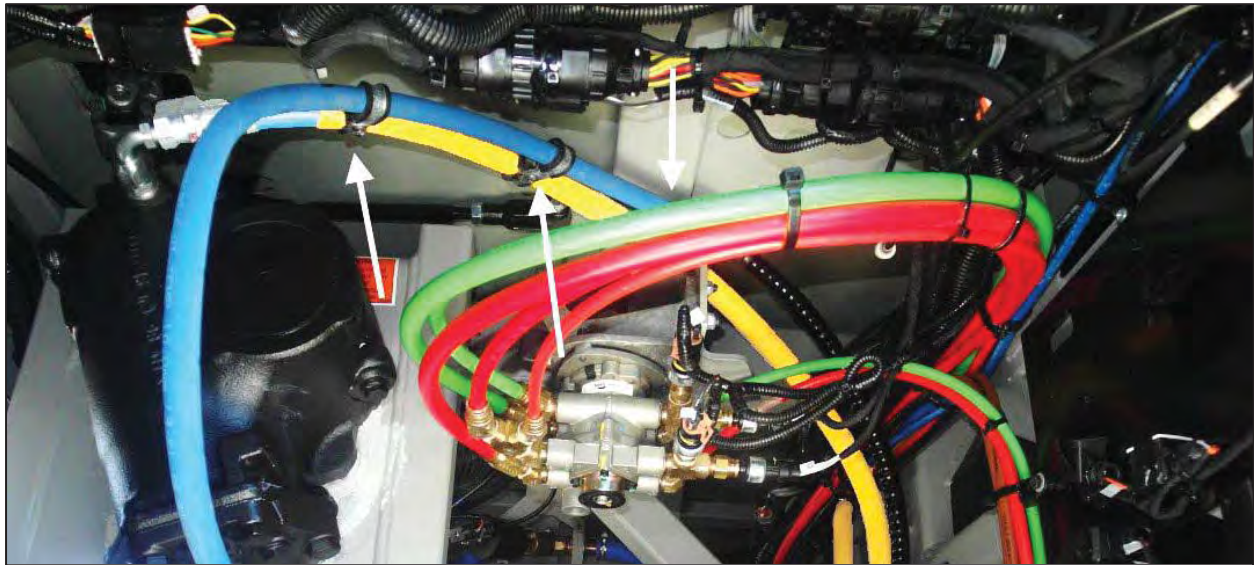


Figure 4: P-clamps in front service compartment.

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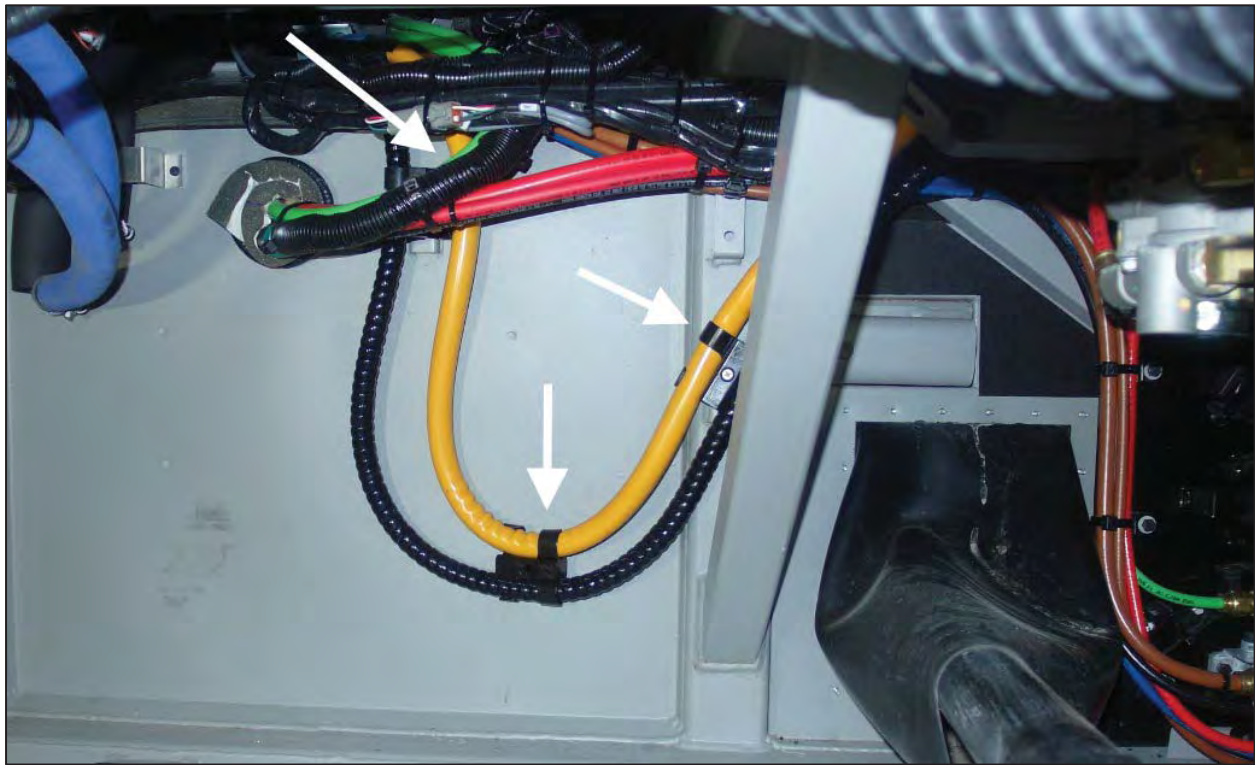


Figure 5: Hose guides on fore wall of front axle well

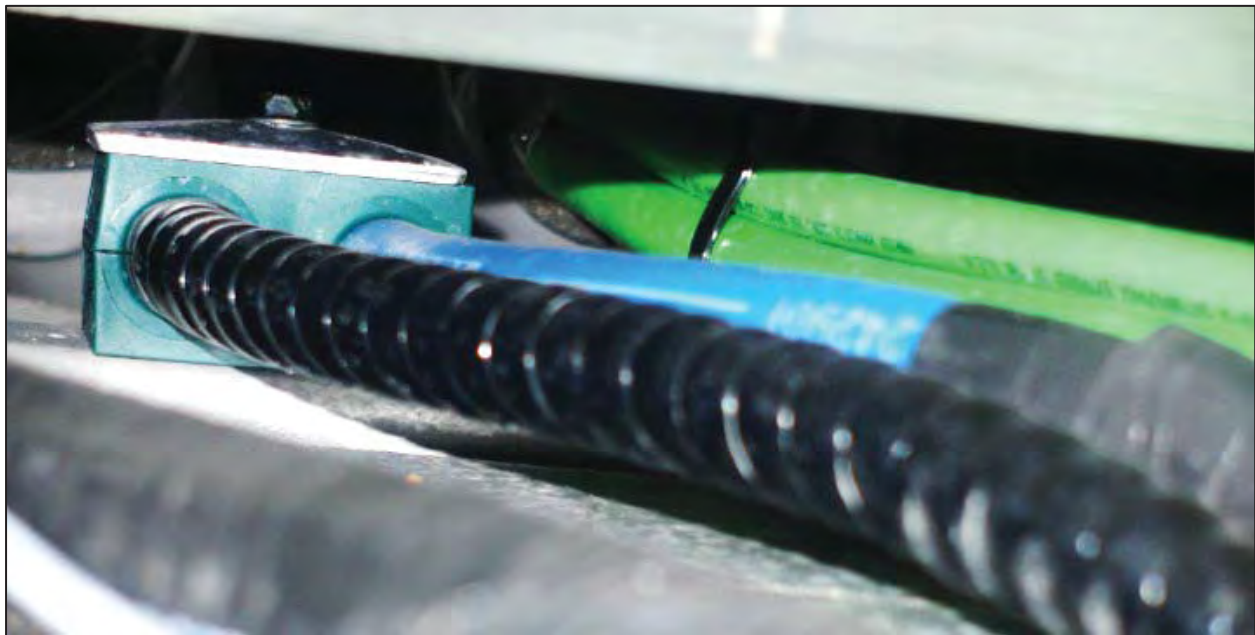


Figure 6: Block clamp in the tunnel leading to the first luggage bay.

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6. Remove the nine (9) block clamps on the luggage bay ceiling. (Fig. 7)



Figure 7: Inside Luggage bays

7. Remove three (3) block clamps accessed from above drive axle. (Fig. 8)



Figure 8: Above Primary Tank Looking Towards the Rear.

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8. Begin removing the existing hose from the first luggage bay while a colleague helps by feeding the new hose in the rear axle area.

Be careful to avoid chafing, pinching or pulling the new hose with excessive force.

9. Still from the first luggage bay, assist a colleague by guiding the new hose into the spare tire compartment while he continues removing the existing hose. (Fig. 9, 10)

10. Disconnect old hose. Do not discard.

11. Steering gear connection.

- a. Inspect sealing surfaces. Clean and dry fitting threads.

- b. Hand-tighten.

- c. Tighten fitting with 7/8" open wrench to **1 1/2 Flats From Wrench Resistance FFWR¹ or 42 lbf-ft (dry)** while holding the mating fitting with a wrench.

- d. Apply a torque seal mark across mating fittings.

12. Connection above rear axles (Fig. 1).

- a. Inspect sealing surfaces. Clean and dry fitting threads.

- b. Hand-tighten.

- c. Tighten fitting with 7/8" open wrench to **1 1/2 FFWR or 42 lbf-ft (dry)** while holding the mating fitting with a wrench.

- d. Apply a torque seal mark across mating fittings.

13. Re-attach the hose and clamps all along hose routing in same location as they were removed.

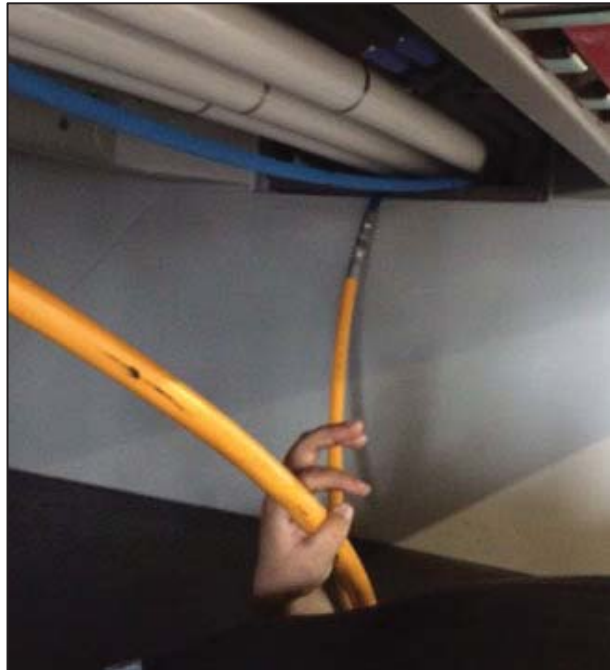


Figure 9

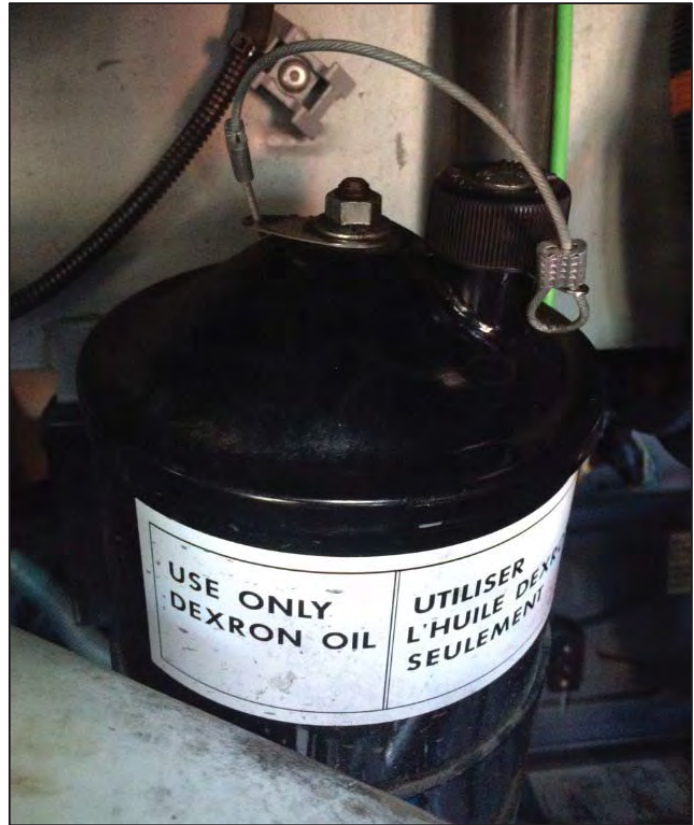


Figure 10

¹ Torque value $\pm 10\%$ for reference only. FFWR is a method that counts the number of hex flats equivalent to increments of 60° past the finger tightened position. Source: [Parker Hannifin, Tech. Catalog 4400 US, Issued 8/2008](#).

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14. Check power steering reservoir fluid level. Fill as required to appropriate level.
15. To bleed the power steering hydraulic system, refer to the "ZF-SERVOCOM Repair Manual", under heading "Setting and Functional Test".
16. Check connections at both ends of the hose for leaks
17. Double check fluid level at reservoir.
18. Ensure proper operation of system by road testing.



PARTS / WASTE DISPOSAL

Return replaced parts to Prevost with A.F.A. for full reimbursement.

ESTIMATED TIME

The time required to perform this special bulletin is approximately four (4) hour.

OTHER

| | |
|------------------|--------|
| VBC Bulletin | N/A |
| Fail Code | 14.02 |
| Defect Code | 09 |
| System Condition | B |
| Causal Part | 161335 |

Prevost engages in a continuous program of testing and evaluating to provide the best possible product. Prevost, however, is not committed to, or liable for updating existing products.