

> Constellation  
> Heritage  
> 4700 Models

> 4800 Models  
> 4900 Models  
> 5700 Models

> 5900 Models  
> 6900 Models

**Western Star  
Service Bulletin**

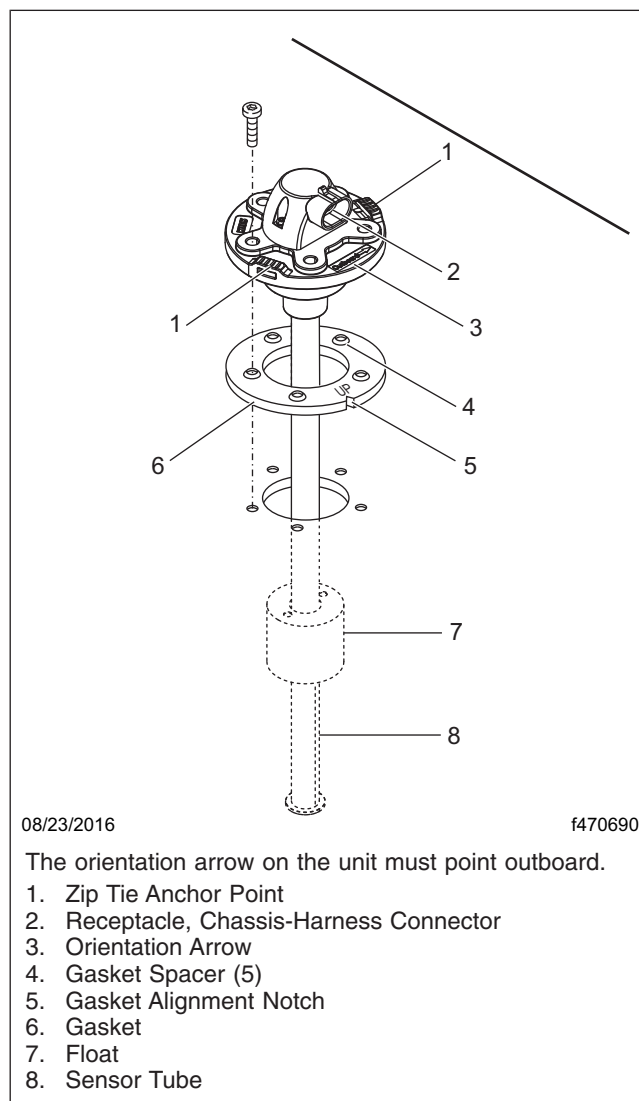
## General Information

A new improved fuel-level sending unit, manufactured by KUS, is available for retrofitting the fuel-level sending unit on all Western Star vehicles. No parameter changes are required. A new connector is required for the retrofit. See **Fig. 1**.

Refer to **Fig. 2** for this procedure.



**Fig. 1, New Connector Pigtail**

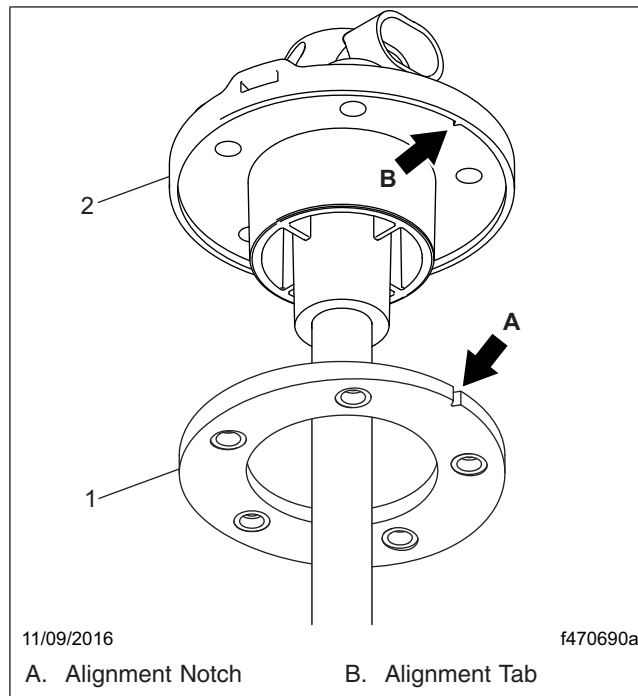


**Fig. 2, Fuel-Level Sending Unit**

## Replacement Procedure

1. Park the vehicle on a level surface, shut down the engine, and set the parking brakes. Chock the tires.
2. If needed, remove the side fairing.

3. Disconnect the fuel-level sending unit harness connector.
4. Remove the five fasteners from the flange of the fuel-level sending unit and discard them.
5. Remove and discard the P-clamp from the chassis harness.
6. Lift the fuel-level sending unit out of the hole in the tank.
7. Install the gasket on the new KUS fuel-level sending unit, making sure the "UP" side of the gasket is against the unit head, and the alignment notch on the sender aligns with notch on the gasket. See [Fig. 3](#).



**Fig. 3, Installing the Gasket**

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**NOTICE**

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There is only one correct way to install the fuel-level sending unit. The orientation arrow on the top of the sending unit must point outboard. See [Fig. 4](#) (item 3). Incorrect installation will damage the unit, and possibly the fuel tank, leading to inaccurate fuel-level readings and fuel leaks.

8. Position the fuel-level sending unit and gasket in the hole in the tank, making sure that the orientation arrow on the top of the sending unit is pointing outboard. See [Fig. 4](#).

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**NOTICE**

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Tapping the screw holes in a new tank requires more torque than the recommended final tightening torque. The self-tapping fasteners will completely tap the tank wall before they are seated. Failure to follow the proper procedure will damage the tank and cause leaks.

9. Install new fasteners.

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If installing the fuel-level sending unit in a new tank, start all five of the self tapping fasteners through the tank wall before applying the final tightening torque.

If installing the fuel-level sending unit in a used tank, start all five self tapping screws until contact is made with the top plate of the fuel-level sending unit. Do not tighten the screws at this time.

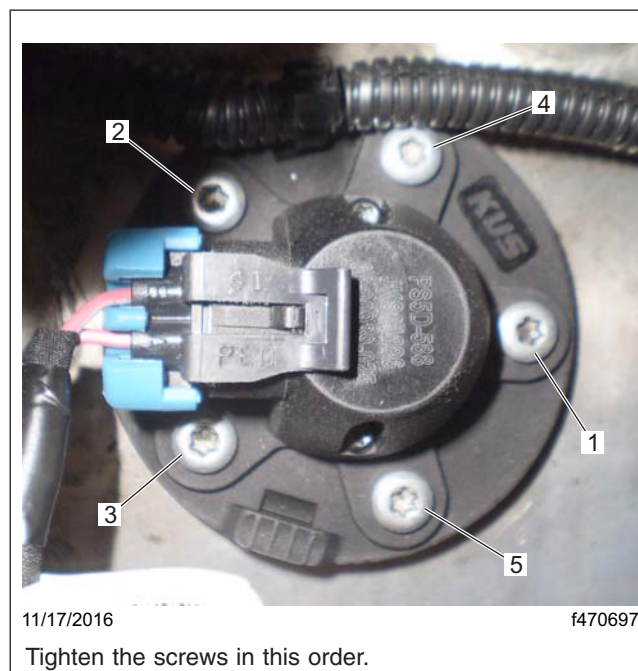
### NOTICE

**Do not over tighten the fasteners. Exceeding the recommended torque specification can strip out the holes in the tank, requiring tank repair or replacement.**

10. Using the tightening sequence shown in [Fig. 5](#), and even progression to distribute the torque evenly around the fuel-level sending unit, sequentially tighten the screws 15 to 25 lbf-in (160 to 212 N-cm).
11. Cut the old connector from the fuel-level sending unit harness, and splice the new pigtail to the chassis harness and the sender receptacle. See [Fig. 6](#).



**Fig. 4, Sending Unit Orientation**

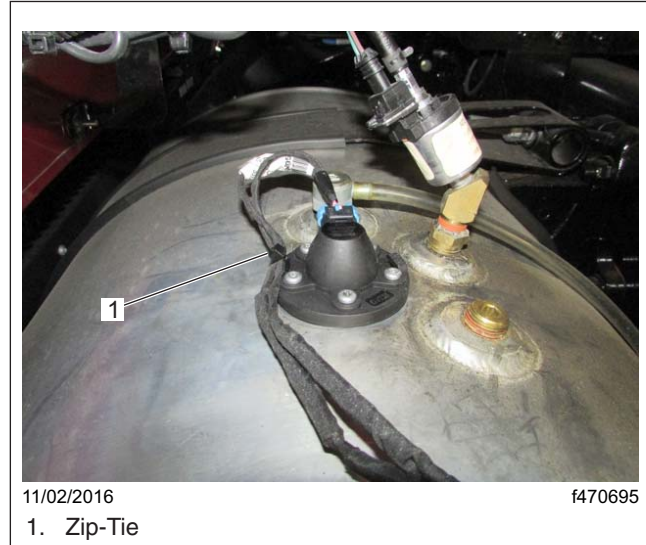


**Fig. 5, Tightening Sequence**

12. Connect the harness to the fuel-level sending unit.
13. Secure the harnesses to the sender with a zip-tie. See [Fig. 7](#). Do not use a P-Calmp.



**Fig. 6, New Pigtail Installation**



**Fig. 7, Harness Connected and Secured**

## Parts

Parts are available through the PDC.

Fuel Tanks with Associated Senders and Gaskets					
Tank	Medallion Angular Sender	SSI Sender (focus tube)	Old Gasket	KUS Gasket *	KUS Linear Sender
22-inch Cylindrical	A22-68359-003	N/A	22-27156-000	06-95042-000	66-00939-022
23-inch Cylindrical	A22-68359-000	A22-68419-023 (A22-68428-023)		06-94788-000	66-00939-023
25-inch Cylindrical	A22-68359-001	A22-68419-025 (A22-68428-025)		06-95042-000	66-00939-025
26-inch Cylindrical	A22-68359-002	N/A		06-95042-000	66-00939-026
312 mm Rectangular	A22-68359-010	N/A	C1TF 9276 C	06-95042-000	66-00939-312
378 mm Rectangular	A22-68359-011	N/A			66-00939-378
462 mm Rectangular	A22-68359-012	N/A			66-00939-462
407 mm Between-Rail Steel	A22-66426-002	N/A			66-00939-407
Adaptor Harness, Service Only. Converts Medallion to KUS on trucks in the field.					A66-06600-000

\* Reference only. KUS sensors include gaskets.

**Table 1, Fuel Tanks with Associated Senders and Gaskets**

## Warranty

This bulletin is informational only. Warranty does not apply.