FIELD KIT

Vermeer MV Solutions, Inc.

Trenchless
Piedmont, South Carolina 29673 USA

FIELD CAMPAIGN KIT #: **VMV000095** **DATE:** **26 November 2024**

For Dealer Reference: **Service Bulletin #: SMV2025-001**

Capture Bar Weld Update

CAMPAIGN TYPE:	**Mandatory – Product Safety** **DEALER INSTALLATION ONLY** **CERTIFIED WELDER REQUIRED**
CAMPAIGN CATEGORY:	**Kit and Bulletin**

MACHINE/ ATTACHMENT MODEL(S):	SERIAL NUMBERS:		
	Included	Excluded	Kit version
VXT600G2	See attached listing on page 13 of this kit for specific truck VIN and MV Solutions model and VIN	None	VMV01

PRODUCT SAFETY RECALL

Purpose: UNDERSIZED WELDS OF THE SPOIL TANK DOOR LIFT SUPPORTS. During manufacturing, undersized welds were applied to the spoil tank door lift supports. If the undersized welds fail during transport on a public roadway, material being transported in the spoil tank may release onto the roadway. DEATH OR SERIOUS INJURY POSSIBLE. If material being transported in the spoil tank is released on a public roadway, the material could strike another vehicle or pedestrian on the roadway resulting in death or serious injury.

VMV000095 has been created to provide the necessary instructions to repair the undersized welds to design specifications. **The kit must be installed as soon as possible.**

Special tools and conditions:

- Grinder
- Welder
- See common weld information

WARNING: Use the following shutdown procedure before attempting to do any of the work described in this kit.

Disengage Transfer Case

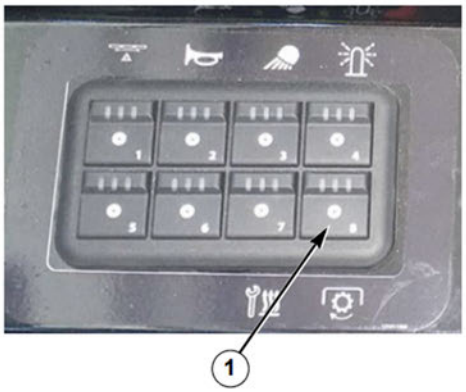
Step 1: Ensure boom is stowed in transport position, and all other components such as tank and tank door are in home position. Refer to Section 30: *Boom – Store for Transport*, page 30-6.

Step 2: Reduce engine speed to idle (700 rpm).

Step 3: Press (N) on Allison transmission control panel. Wait until display reads (NN), and the engine speed is reduced.

Step 4: Hold *transfer case button* **(1)** to disengage transfer case.

NOTICE: The transfer case will only disengage after transmission is shifted to (NN) and driveline slows to a stop. **Do not** shut down engine before disengaging transfer case.



Shutting Down the Machine

Step 1: Verify transfer case is fully disengaged.

Step 2: Ensure transmission is in neutral (N). Verify parking brake is on.

Step 3: Run engine at low idle for at least five minutes, before turning it off after full-load operation. Follow the Truck Operator's Manual procedure for truck and engine shutdown.

NOTICE: Allow engine to idle for recommended time or engine damage may result.

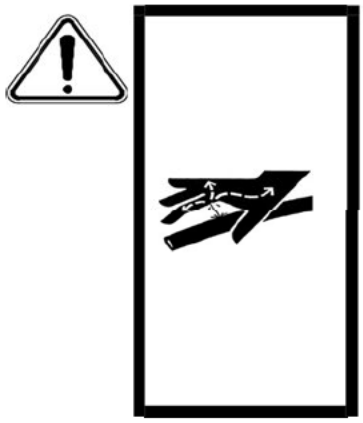
WARNING: High-pressure water can penetrate skin. Serious injury possible.

Keep nozzles away from body.

Step 4: Relieve water pressure from water tools by squeezing trigger. Disconnect tool(s) from hose.

Step 5: Follow all shutdown procedures according to truck operation manual. Chock wheels.

- Unless indicated, new parts from kit have callouts with numbers. Callouts with letters indicate existing parts or general items.



WARNING: Pressurized fluid can penetrate body tissue and result in death or serious injury. Leaks can be invisible. Keep away from any suspected leak. Relieve pressure in the hydraulic system before searching for leaks, disconnecting hoses, or performing any other work on the system. If you must pressurize the system to find a suspected leak, use an object such as a piece of wood or cardboard rather than your hands. When loosening a fitting where some residual pressure may exist, slowly loosen the fitting until oil begins to leak. Wait for leaking to stop before disconnecting the fitting. Fluid injected under the skin must be removed immediately by a surgeon familiar with this type of injury.

Weld information for identification and repair:

Vermeer Corporation Field Welding Instruction

Appendix B

Welding Parameters and Inspection Criteria

Base Metal Preparation:

Before tacking or welding, the base metal within 3 inches [76mm] of the weld joint in all directions must be at or above the preheat temperatures listed below. During welding, the base metal temperature must be maintained above the preheat temperature and below the maximum interpass temperatures listed below:

Minimum preheat: 50°F [10°C]

Maximum interpass temperature: 500°F [260°C]

Work Lead Connection (Grounding):

Welding or cutting work leads (commonly referred to as a grounds or ground clamps) should be attached directly to the weldment being repaired/modified and as close to the point of welding or cutting as practicable. Additionally, it must be firmly connected to bare metal (paint removal is usually necessary). In no case shall the ground path be allowed to pass through bearings, electronics, bolted connections, or other sensitive components or connections.

Gas Metal Arc Welding [GMAW/MIG/MAG]:

Environment: This process shall only be used when welding can be performed in a shop environment and the weld joints can be positioned in the flat or horizontal positions. If vertical or overhead welding is required, FCAW or SMAW are recommended.

Electrode: AWS classification ER70S-3 or ER70S-6 [ER48-S6] (e.g. Lincoln L50 or L56)

Size: 0.045" [1.2 mm]

Wire Feed Speed: Minimum 350 IPM [9 MPM] - Maximum 520 IPM [13 MPM] (optimum 450 IPM [11.5 MPM])

Voltage: Minimum 26 volts - Maximum 30 volts (optimum 27.5 volts)

Amperage: Amperage is a function of wire feed speed, but should read in the range of 250-370

Electrode Stickout: ½ " – ¾ " [12 mm – 20 mm]

Shielding Gas: 95% Argon - 5% Oxygen or 90% Argon - 10% CO_2 at 40 cfh [1.1 cmh]

Position: All welding should be in the flat or horizontal position. Vertical welding shall be uphill. **No downhill welding is permissible.**

Bead Width: Weld beads shall not be more than the inside diameter of the nozzle (cup) end.

Weld information for identification and repair (continued):

Vermeer Corporation Field Welding Instruction

Flux Core Arc Welding [FCAW]:

Environment: This process should only be used when welding can be performed in shop environment for all welding positions. If field welding is required, SMAW is recommended.

Electrode: AWS classification E71T-1M [E491T-1M] (e.g. Lincoln Ultracore 71A85)

Size: 0.052" [1.3 mm] or 1/16" [1.6mm]

Wire Feed Speed: Minimum 200 IPM [5 MPM] - Maximum 500 IPM [13 MPM]

Voltage: Minimum 23 volts - Maximum 30 volts

Amperage: Amperage is a function of wire feed speed, but should read in the range of 220-370

Electrode Stickout: ¾ " – 1 " [20 mm – 25 mm]

Shielding Gas: See electrode manufacturer recommendation (usually 75Ar/25CO_2 or 100 CO_2@ 40 cfh [1.1 cmh])

Position: Flat, horizontal, vertical and overhead positions are permissible. Vertical welding shall be uphill. **No downhill welding is permissible.**

Bead Width: Weld beads shall not be more than the inside diameter of the nozzle (cup) end.

Shielded Metal Arc Welding [SMAW/MMA] Other than Hardfacing:

Environment: This process may be used in either a shop environment or field environment for welding positions

Electrode: AWS classification E7018 [E4918] or equivalent

Size: 1/8" [3.2 mm] or 5/32" [4.0 mm]

Polarity: Direct Current Electrode Positive

Amperage: 110-135 amps for 1/8" [3.2mm] and 125-200 amps for 5/32" [4.0mm]

Position: Flat, horizontal, vertical and overhead positions are permissible. Vertical welding shall be uphill. **No downhill welding is permissible.**

Electrode Condition:

- All electrodes shall conform to AWS specification A5.1 and should be purchased in hermetically sealed containers or should be baked by the user in an oven one hour between 500°F [260°C] and 800°F [430°C] prior to use.
- Immediately after opening the hermetically sealed container, electrodes should be stored in ovens held at a temperature of at least 250°F [120°C].

Bead Width: Weld beads shall not be more than 4x the nominal rod diameter.

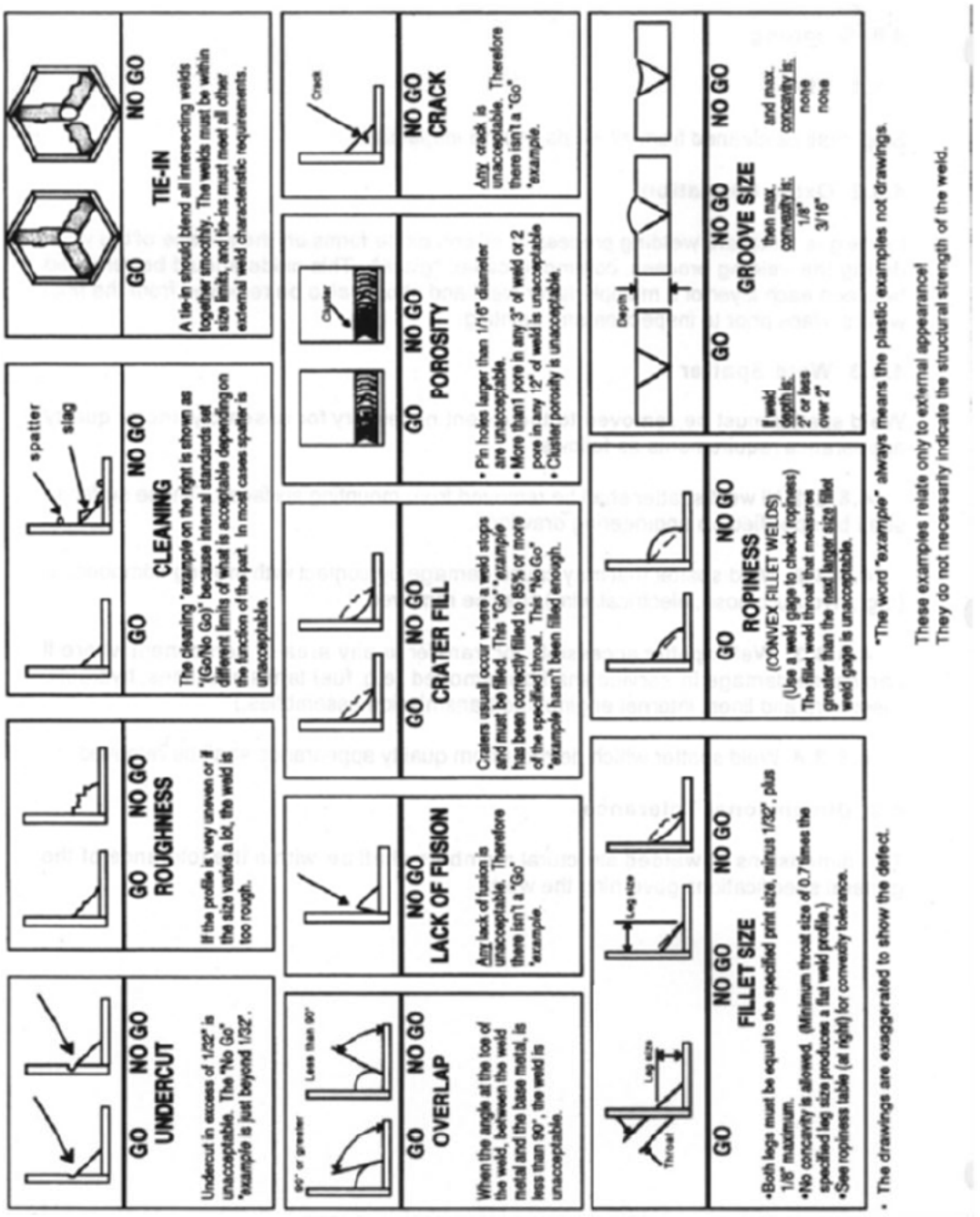
Weld information for identification and repair (continued):

Vermeer Corporation Field Welding Instruction

Weld Quality Acceptance Criteria:

All welding shall be in accordance with the figure below. Any welds that do not conform (no go) must be repaired to bring them back into compliance (go). It is the responsibility of the company performing the repair to inspect the welds and ensure that they meet these quality requirements.

Figure 4.4 Weld Quality Acceptance Criteria

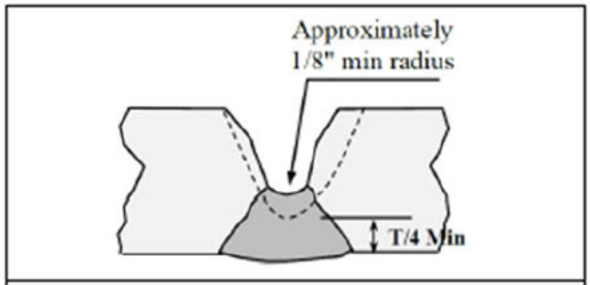


Weld information for identification and repair (continued):

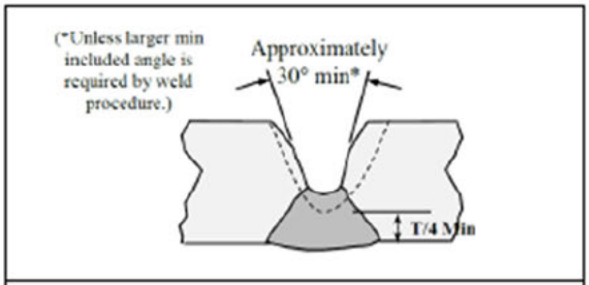
Vermeer Corporation Field Welding Instruction

Appendix C

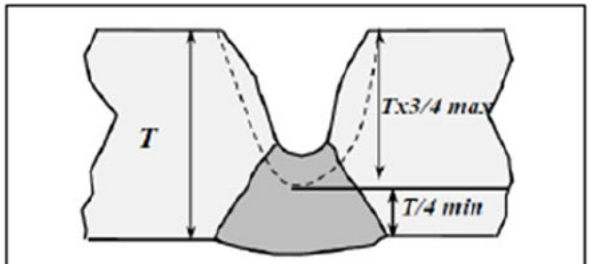
Defect Excavation Criteria



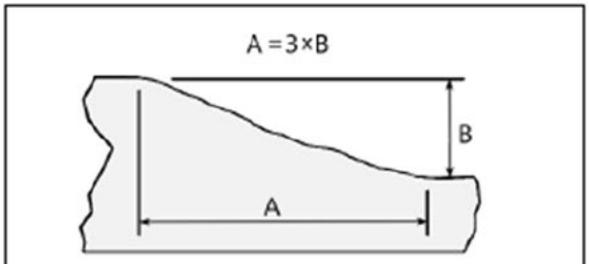
1/8" (3mm) Bottom Radius



Included Angle Measurement



Excavation Depth (3/4 T)



3:1 Taper on Ends

Procedure 1: (Inspection of weld areas of interest & repair all necessary weld areas) [VMV010095]:

1. Locate areas for inspection and identify repair needs (see figure 1) & information about welds above.

2. Disassemble arm linkage from door and pin doors linkage in stowed position (see figure 2).

3. Ensure door area is clear due to free swinging door. Raise tank and safety brace in the upright position.

(see figure 3)

4. Door should be gravity held open to allow inspection and repair.

5. Remove paint from area of repair and properly ground according to the information provided above. Ensure to repair welds to design specifications. (see Figure 1).

6. After repairing welds, touch up paint as needed.

7. Unsafety brace tank and lower to stowed position.

8. Unpin arms and reassemble to door.

9. Test functions.

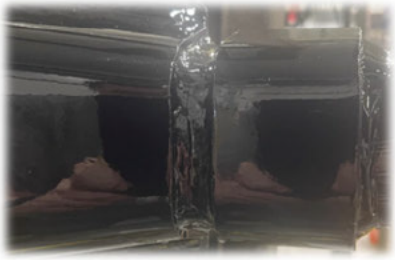
UNIT OWNER COPY:
Insert in parts manual
for future reference.

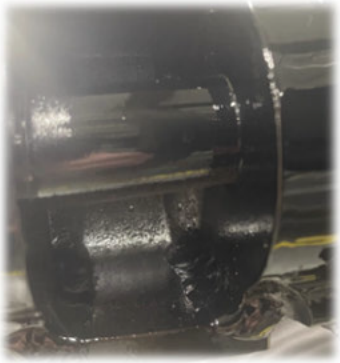
Figure 1

Door linkage pin areas:

Outside and Inside:

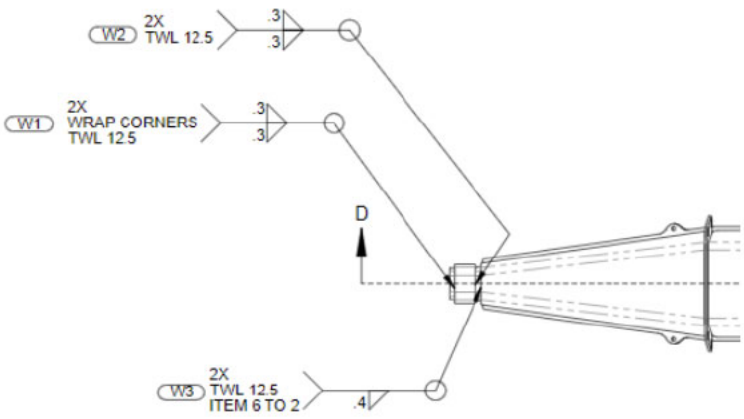
GO





NO-GO

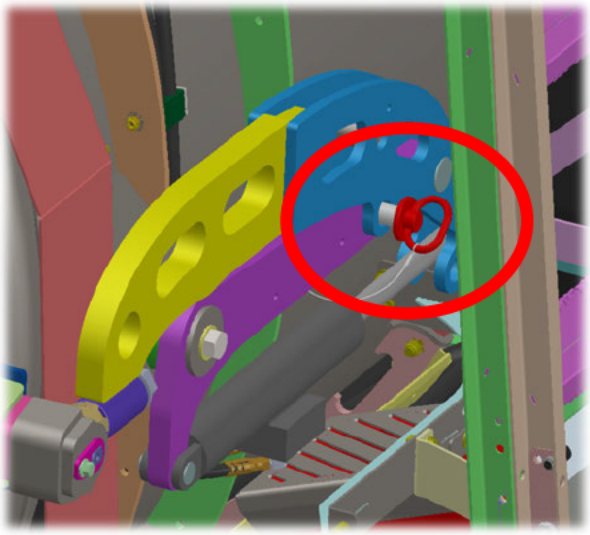
What welds should be:



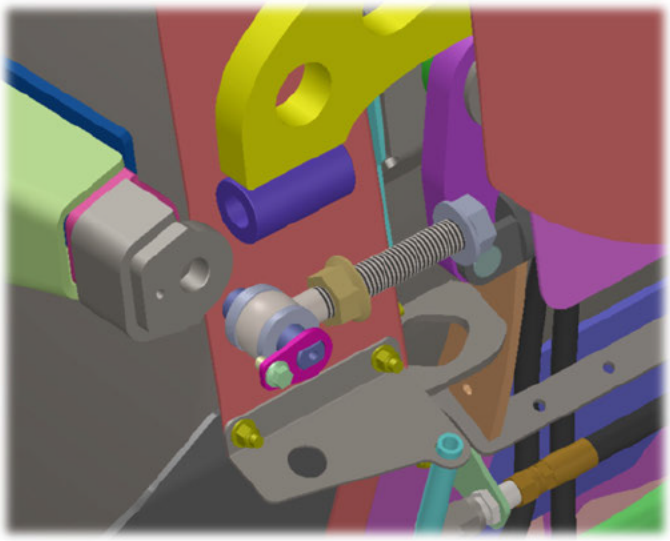
UNIT OWNER COPY:
Insert in parts manual
for future reference.

Figure 2

Pin doors closed (both sides):



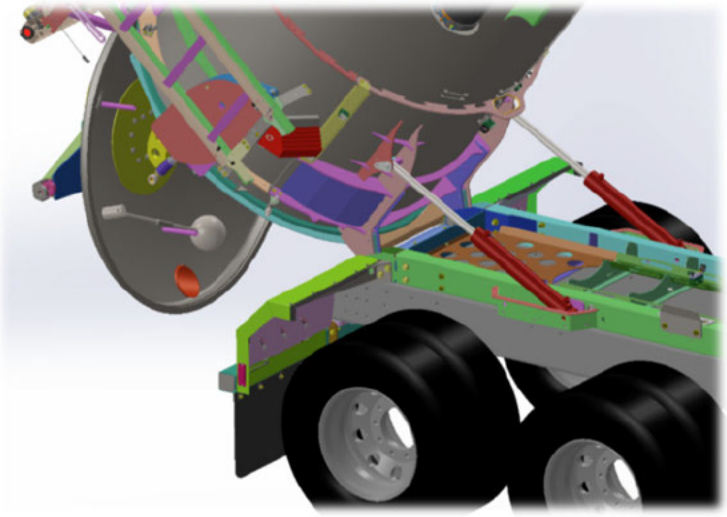
Disassemble door from linkage (both sides):



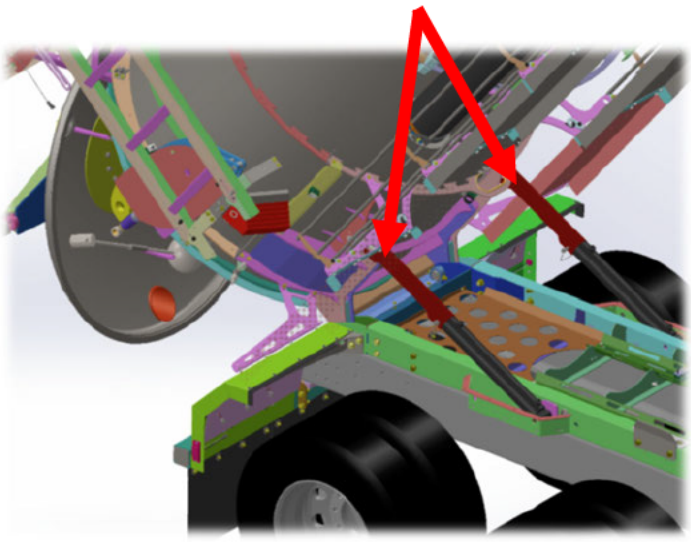
UNIT OWNER COPY:
Insert in parts manual
for future reference.

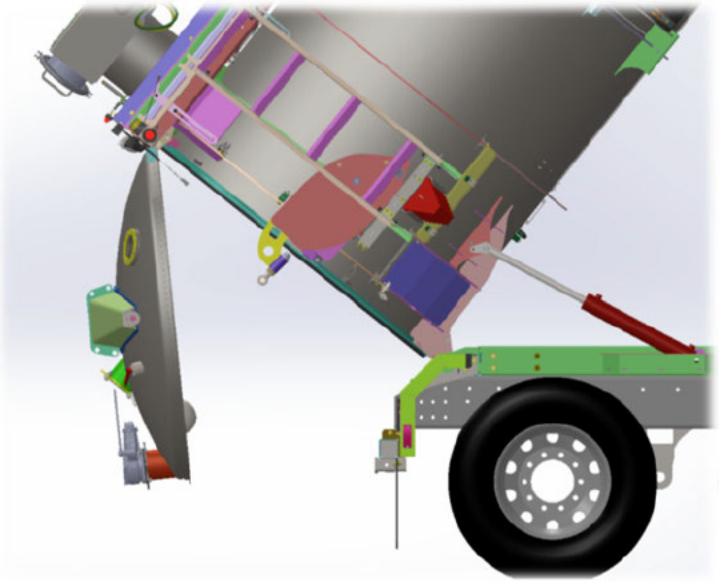
Figure 3

Tank raised and door suspended:



Tank safety brace:





AFFECTED MACHINES - VMV010095			
TRUCK MAKE	**TRUCK VIN**	**MV SOLUTIONS MODELS**	**MV SOLUTIONS VIN**
KENWORTH T880	[redacted]	VXT600G2	[redacted]
KENWORTH T880		VXT600G2	
KENTWORTH T880		VXT600G2	
KENWORTH T880		VXT600G2	
KENWORTH T880		VXT600G2	
KENWORTH T880		VXT600G2	
KENWORTH T880		VXT600G2	
KENWORTH T880		VXT600G2	
KENWORTH T880		VXT600G2	
MACK GR64F		VXT600G2	
KENWORTH T880		VXT600G2	
KENWORTH T880		VXT600G2	
KENWORTH T880		VXT600G2	
KENTWORTH T880		VXT600G2	
MACK GR64F		VXT600G2	
KENWORTH T880		VXT600G2	
KENWORTH T880		VXT600G2	
MACK GR64F		VXT600G2	
KENWORTH T880		VXT600G2	
MACK GR64F		VXT600G2	
KENWORTH T880		VXT600G2	