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V-Floor

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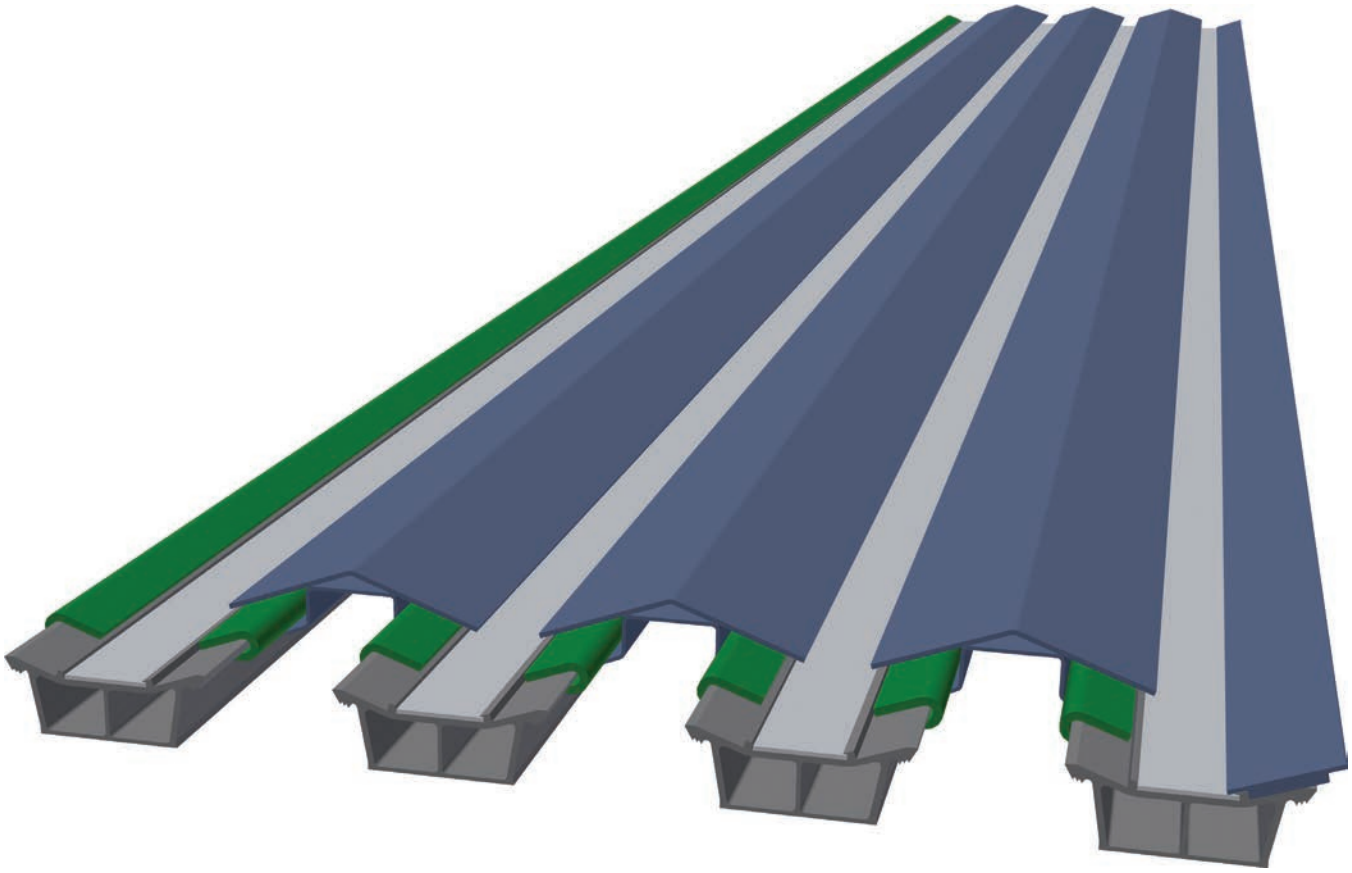


09490501

V-7-8-9 Slat

MAINTENANCE MANUAL

Original Instructions

Released: 2024-05-28 DOC07176 Rev. A

General V-Floor Information

V-Style floors are generally robust and require very little to no maintenance. However, they are susceptible to fine material building up under the slats, as well as between the J-bearings and sub-decking. This acts as an abrasive powder/dust like substance that wears the slats from the underside. This will be noticed by the sides of the slats wearing and exposing the J-bearing. Over time, this build-up can also compress the bearing tighter and tighter against the slat and cause excessive restriction to the floor movement. In severe cases, the floor will start to seize up. This can result in excess hydraulic heat which can melt hydraulic seals. The recommended maintenance procedure is to power wash the floor in-between and underneath the slats and on the inside of the trailer as often as required, as depicted in the accompanied illustration. The washing interval will depend on factors such as, number of loads per day and type of material being hauled.

Preventative Maintenance Options

1.0 Monitor System Pressure & Clean When Pressure Increases

A floor's performance can be monitored by simply installing a pressure gauge into the pressure line going to the trailer. A new V9 Floor with new bearings usually requires approximately 900 – 1100 PSI to operate unloaded. After a short wear in period, this number may drop to 800 PSI or lower. When you start seeing 1400 to 1500 psi being required to move any empty floor, a good power washing will most likely resolve the issue. If you are seeing consistently higher pressures, then it may be time to pull the slats and bearings for a thorough cleaning.

2.0 Every 3-5 Years Completely Remove Flooring Components, Clean & Inspect

It may be more viable to do a complete cleaning every 3 – 5 years by removing the floor and bearings, cleaning the sub deck, inspecting the bearing and slat condition, then re-installing the floor.

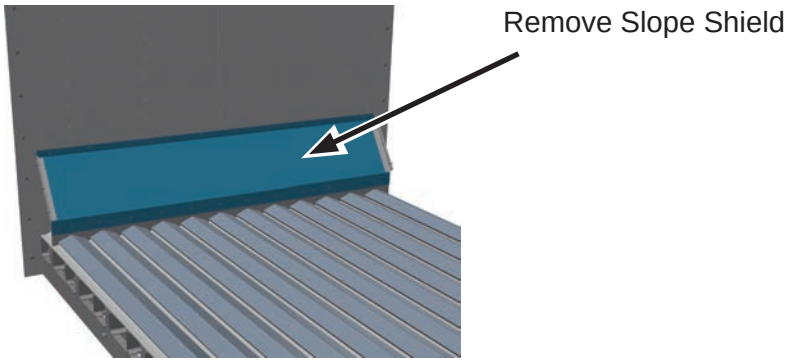
Due to product variety and quantities of loads being hauled in the industry, the cleaning frequency must be determined and adjusted accordingly on an individual basis. Not all units will require the same amount of consideration.

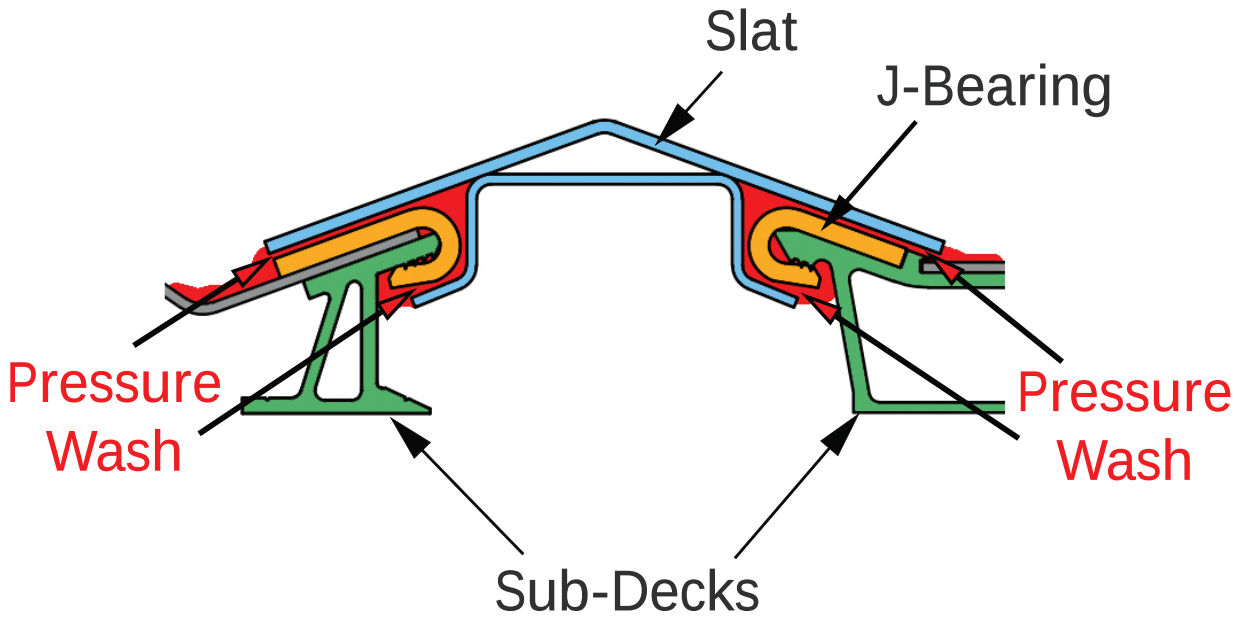
Service / Recommended Maintenance Table

Situation	* Time Interval	** Pressure	Task / Action
Storage:		N/A	Coat rods and spools with Vaseline to prevent corrosion
New Floor:		~ 900 - 1000 psi	No action required
After short wear in period:		~ 800 psi	No action required, Ideal operation
Normal Use:	3-6 months OR > 1400 psi		Power wash cleaning required
Consistently higher pressure:		> 1400 psi	Completely remove flooring components, clean & inspect
Required scheduled maintenance:	3-5 years	N/A	Completely remove flooring components, clean & inspect

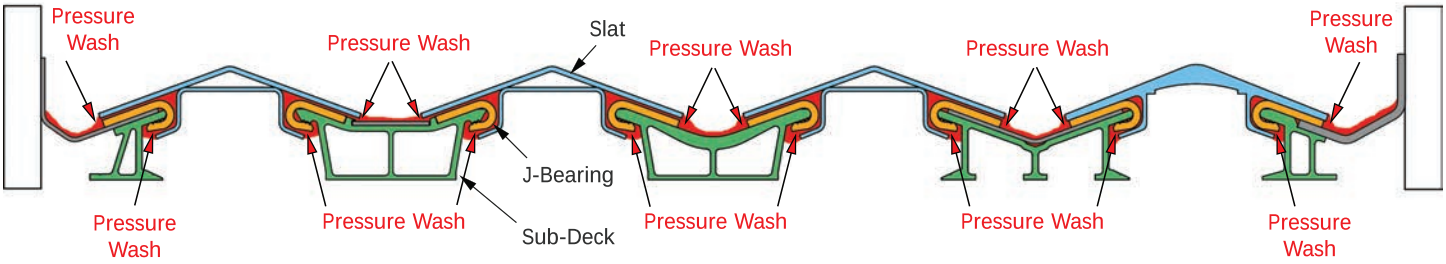
* Due to product variety and quantities of loads being hauled in the industry, the cleaning frequency must be determined and adjusted accordingly on an individual basis. Not all units will require the same amount of consideration.

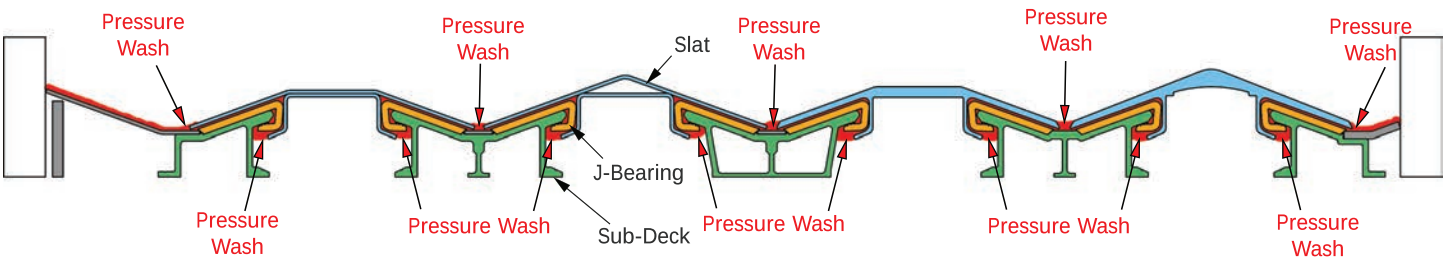
** Pressures are taken when unloaded i.e., Empty Floor.





Standard V-Floor Assemblies with Different Sub-Deck Options





V-Floor Inspection & Washout Procedure

It is recommended to perform a power wash cleaning once every 3-6 months, **but not less than yearly!**

1.0 Inspecting & Cleaning an Operational Floor

Check all floor slats for impact damage and excessive build-up of materials under the front slope shield plate and between the slats and sub-deck. Slats that show evidence of deformation from heavy impact may cause the flooring system to operate erratically. This will be evidenced by high operating pressures, slow operation and system stalling. Remove the front slope shield at the front of the trailer and the inspection plates on each side of the fifth wheel plate, if equipped. This will enable the inspection of the electrical, airlines, floor slats and hydraulic fittings and allow for easier cleaning. Pressure wash the top of the floor slats concentrating on areas in-between the slats and on the edges of each slat. Below the trailer, wash the area between the orange or tan sub deck bearings and the slat retaining wing (this area will accumulate most of the buildup of material). After several passes with the pressure washer, seal the trailer door as best as possible so trailer will not leak water. Place the trailer on an upward incline and add as much water as possible into the trailer (the water will flow downhill towards the rear doors). The V-Floor system is very leak resistant and will hold some water in the area between the slats. Do this operation with the system operating for 5 to 10 minutes, this will help wash out as much material as possible from the trailer.

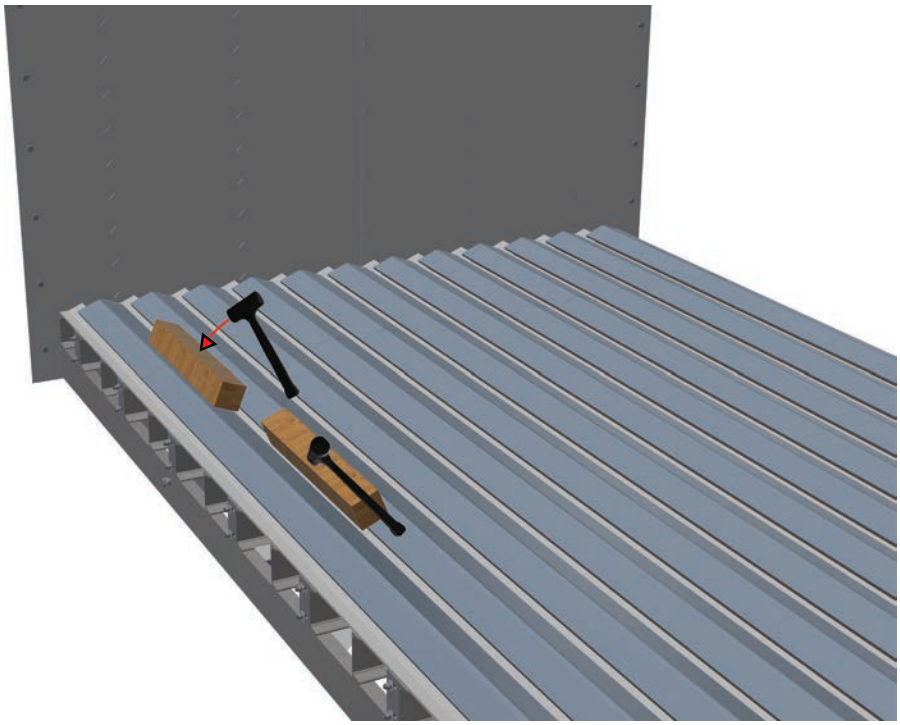
2.0 Freeing a Stalled/Seized Floor

The best ways to prevent binding are to haul compatible materials, keep the flooring clean, and avoid storing material in the trailer for a prolonged period. However there are some techniques that can free a bound floor.

If encountering a partial or completely seized floor, wash as described above. Use a heavy dead blow hammer or a heavy steel hammer with a wooden 4”X4” block 24”-36” long to impact each side of the slats. This must be done on each slat the full length of the trailer. If available you may use a portable vibrating soil tamper (plate compactor) to perform the same operation, this has proven to be very effective and efficient. This operation of washing and tamping may need to be done several times. At least two to three times to start. After washing has been completed, connect the unit to an available truck. Operate the hydraulic system at truck idle and attempt to operate the system by slowly engaging the ball valve (on/off) with the system in the unload mode. If the floor system does not respond, disengage the ball valve and bring the hydraulic system to a stop to prevent any temperature increase to the hydraulic oil as the relief valve dumps excess pressure back to tank. **Do not make multiple attempts to start the system by rapidly engaging and disengaging the ball valve!!** This will cause excessive high-pressure spikes to the drive system and may damage drive components as well as the hydraulic pumping system. If the system does not start, repeat the washing procedures. When the system responds and begins to move and cycle, then proceed to flush the system as described above. For stalled/seized floors, it is recommended that once the slats are freed and have movement, remove the slats and thoroughly clean the underside of the slats as well as the J-bearings installed on the sub-deck. Stop the drive when all three cross-drives are together so all floor bolts can be removed. Reinstall the slats and cycle the system to check for operating pressures. The cycling pressures should be lower than 1000 psi for each restaging cycle.

If the units are not used for an extended period, the cleaning procedure and operating the system will still need to be done. The chrome rods on the cylinders, directional control valve spool and switching valve spool need to be coated with Vaseline to prevent corrosion if not operated over an extended period.

4x4 Block & Dead Blow Hammer



Vibrating Plate Compactor

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