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Dump Chutes

Where on a Tanker Should Dump Chutes Be Installed?

Dump Chutes

One important decision facing an apparatus specifications committee is where to locate the side dump chutes on a tanker. Current choices for side dump chute locations include:

- to the rear of the rear wheels,
- in front of the rear wheels, and
- in the teardrop section of the tandem wheels.

What the members of an apparatus spec committee need to understand is that where they want the dump chutes to be located could be different from where a manufacturer is willing to locate them.

Dump Chutes

We at www.GotBigWater.com recommend that the side dumps be located in front of the rear wheels for the following reasons. First and foremost is the driver's ability to successfully spot and align the dump chute with the dump tank. This spotting of the chute and tank is done easiest by having the dump chute located in front of the rear wheels.

Assuming that you are an engine or tanker driver already, think about when you were first learning to drive the rig. You learned how to spot the rear wheels in your mirrors – in fact many of you probably still adjust your mirrors so that you can see your rear wheels. Trying to see a side dump chute in a mirror - especially the officer side dump chute – is difficult at best.

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However, if you can see your rear wheels next to the dump tank, then you know that the chute is in the correct position to dump. Think about how hard it was to spot the tailboard of your pumper when backing up for your driver's test. Well the same is true for a side dump that is located behind the rear wheels – the driver's perception can be distorted, especially on long rigs.

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So why not put the side dump over the rear wheels? Well, this generally only works with tandem axles rigs where the chute is put in the “teardrop” of the fender well. The problem is that it is not easy for manufacturers to put a big dump in the teardrop. We have seen a number of tankers that have only an 8-inch round dump in the teardrop when they could have put a 10-inch square dump just ahead of the wheels. Granted, the 8-inch dump is effective, but it is nowhere near as fast in dumping as the 10-inch square dump.

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Another issue that we have noticed on some of the tandem axle tankers that have a dump in the teardrop area is that water gets dumped onto the wheels during operations. While this generally may not be a big problem, two concerns come to mind; 1) very cold weather where ice can form on the wheels and brake assemblies and, 2) water being spilled onto hot brakes during a shuttle operation.

Again – most teardrop dump chutes seem to be installed correctly, but we have certainly seen some that leak water onto the rear wheels - and that just doesn't seem to be good practice.

Dump Chutes

What about the chute being located behind the rear wheels? Worst place for it in terms of the driver's ability to align the dump chute for offloading into a dump tank. Remember how hard it is to see the rear of your rig behind the rear wheels? Enough said. We have to set up our tankers for our drivers to dump easily without having to leave the cab and having to depend on someone else to spot them.

Dump Chutes

One final note on side dump location. The location is often dictated by the tank manufacturer – especially when you want a rear dump as well. The problem lies in designing and building the tank with two dump boxes (where the water goes before it goes out the chute). We strongly urge that you discuss side dump options with your tank manufacturer BEFORE you commit to a brand or style of tank.

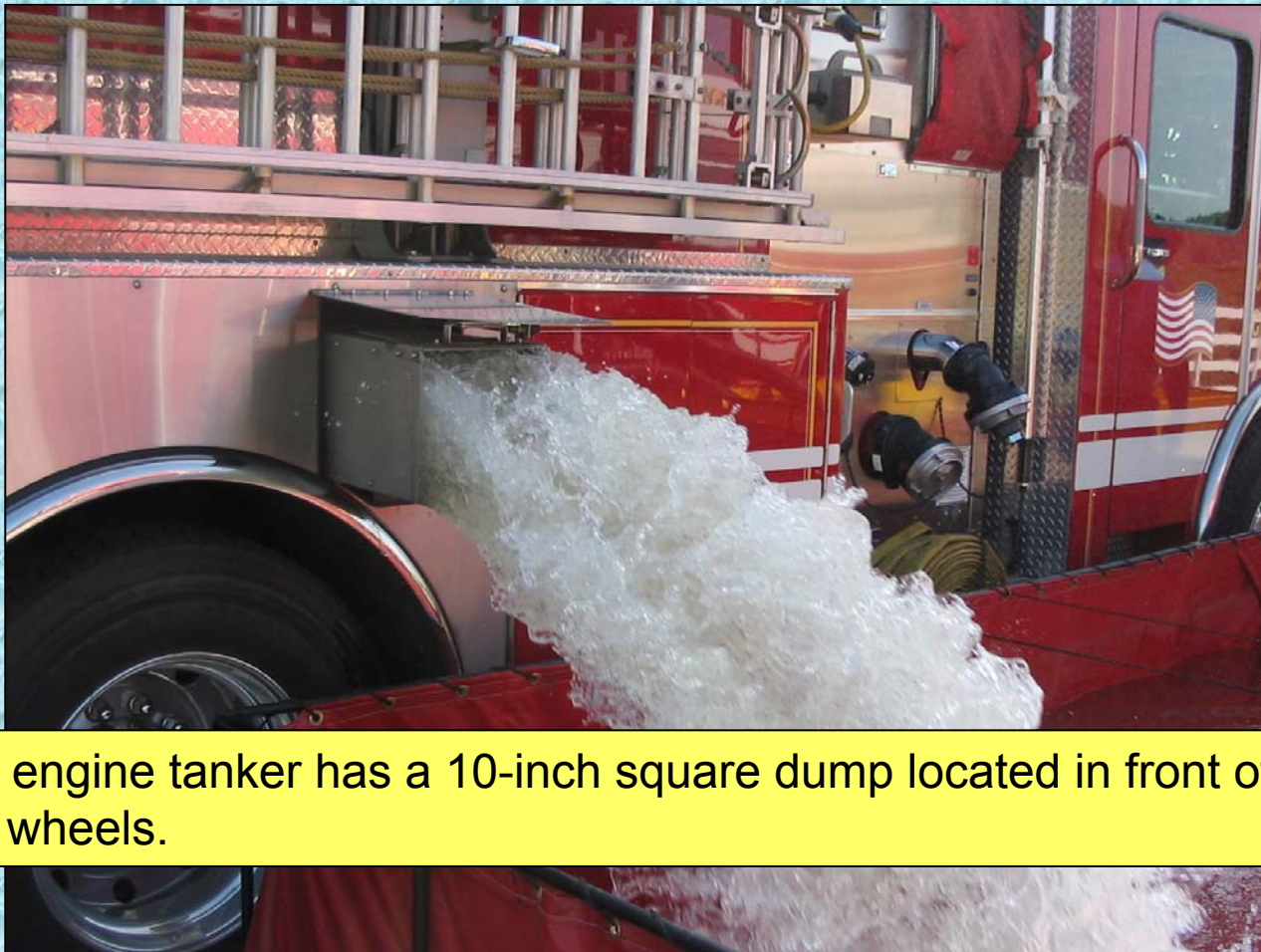
Dump Chutes

Finally – be sure to install nighttime dump chute lights that illuminate the chute when the dump valve is activated in the cab. Almost all ladder trucks have these lights on their outriggers to help the operator guide the outriggers at nighttime – do the same with the side dumps on your tanker.

And another “finally” – make sure that you can operate your side dumps while the truck is moving. Some safety guy will probably argue this as unsafe, but you need to be able to move and dump water across multiple dump tanks if needed. Since it is the DRIVER operating the dump controls, this should not be an issue.

Hope this helps – feel free to contact us with any tanker design questions – we will give you the straight scoop with no manufacturer spin.

Side Dump in Front



This engine tanker has a 10-inch square dump located in front of the rear wheels.

Side Dump in Front



This 3000-gallon elliptical tanker has a 10-inch round dump located in front of the rear wheels allowing for easy alignment with dump tanks.

Side Dump in Front



This 3,500 gallon, 4-Guys tanker has a 10-inch square dump located in front of the rear wheels. It is also equipped with remote dump valve controls in the cab of the vehicle..

Side Dump in Rear



This side arrangement proves to be the most difficult for a driver to spot and is made even worse by darkness and bad weather.

Side Dump in Rear



This engine tanker has a 10-inch square dump located to the rear of the rear wheels. On this rather lengthy rig, it can be a bit tricky to align the chute with the dump tank.

Dump Chute in the Teardrop



This 3500 gallon elliptical tanker has an 8-inch round dump located in the teardrop section of each rear wheel well. It also does not have any kind of extending tube which results in the driver having to maneuver the rig very close to the dump tank.



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