

Issue 9

WATSON DIESEL INC.

CHOOSING A BOX STYLE

In our last newsletter we discussed the different options in types of materials used in dump box construction, and some of the other considerations involved in box construction. In this issue we will discuss the **different styles of dump boxes** that are available and the pros & cons of each.

We have found that the style of box that is used in municipal applications is very territorial in nature. You will find that once a box style has been used by a township all of the other townships do the same. If you ask them what the reason is for using a certain style they will reply "because that's what we have always used." Change is difficult for sure. But there are other factors involved, and what works in one area may not work in another. So now we will talk about the advantages and disadvantages of each box, in an effort to help you make your decision.

The type of dump box that we are used to seeing is what we will call a **conventional style box**. This is the style that everyone is familiar with, and uses a rear tailgate that is hinged at the top or one that is hinged at both the top and on the side (barn door tailgate). With this style box you have the option of using either a removable under tailgate spreader or remove the rear tailgate and lifting in a slide-in hopper spreader to spread anti-ice material onto the roadway.

The other options use the combination or **multipurpose boxes**. One style of the multipurpose box is what we call a side tip. This style has a hydraulic floor that tips up to dump material into a side mounted conveyor chain that transports the material to left front of the box and onto a spinner mounted on the underside of the box at the left front corner. The other style of multipurpose box is what we call a flow and dump or center conveyor box. This style box uses steeply sloped interior walls that feed the material into a center conveyor belt that can discharge to either the front of the box or the rear with a reversible conveyor chain, putting the material either onto a front or rear mounted spinner. Both of these style boxes can then be operated in a conventional dump box style as they have a front mounted hydraulic hoist. Hinged plates located in the floor of the dump box alongside of the conveyor are flipped down to cover the conveyor when operating the box in the conventional mode. So to convert from regular dump box operation to winter anti-ice duty is just a matter of flipping up the floor panels. Now let's take a look at some of the Pros & Cons of each style of dump box.

THE PROS & CONS

We will start with the **conventional style dump box**. This box serves its purpose well and is used in combination with an under tailgate spreader or a slide-in spreader. The downside of the box would have to be installing & uninstalling the under tailgate unit or lifting out the slide-in spreader when they are not in use.

PROS:

- Lower initial cost
- Low maintenance, the least amount of moving parts
- Lighter weight

CONS:

- the need for a spreader in or under the box
- installing and uninstalling the spreader
- risk of having the dump box up in the air while traveling down the road (under tailgate style)
- risk of tip over due to frozen material in box
- risk of hitting overhead wires & tree branches
- lack of carrying capacity compared to a multipurpose box if using a slide-in spreader

You will notice that I used the word risk in ½ of the “cons” that are listed. Besides the added utility of the next style of boxes that we will assess, you will notice a definite reduction in the word “risk”.

The next box to consider is the **center conveyor system**, or **Flo and Dump**. This style box uses tapered sides to funnel the material into a center conveyor that transports the material to the front or rear of the truck – no under-tailgate spreader needed. With this set up you can be using the truck for hauling aggregate in the morning and within minutes be spreading anti-skid material in the afternoon. No raising the dump box to spread material as it simply funnels the material onto the center conveyor that distributes the material either to the front or rear of the box and onto a spinner that can direct the material to either the right side, left side or center of the lane. And then within minutes you can be hauling material in the conventional dump box mode.

The **multi- purpose box** has the same features as the **Flo and Dump** or center conveyor with the difference being that the floor of the box is hinged from the passenger side to the driver’s side and lifts to dump material into a left side conveyor. The side mounted conveyor has the advantage of allowing you to do shoulder work or berm work by placing material out of a side shoot mounted in the place of an anti-ice spinner.

The pros & cons for either of these models are the same:

- PROS:**
- Safe operation – no raised dump box while going down the road
 - low center of gravity
 - Ability to place the anti-ice material in front of or behind the drive wheels of the truck for traction
 - Larger capacity of anti-ice material
 - No slide in or under tailgate spreader to install & uninstall
 - No worries with frozen material stuck in the front of a raised dump box

- CONS:**
- Higher initial cost.
 - Heavier empty weight

So with all of this said you can see that the use of a multi-purpose dump body has more pros than it does cons. Safety being the biggest pro. If you take into consideration the cost of a slide-in or under-tailgate spreader added to the base price of a conventional style box and the labor involved in installing and removing each year, is it really that much more money for a multi-purpose box? But maybe you have a newer slide-in or under-tailgate spreader that you are happy with? If this is the case maybe a conventional dump box is right for you. Or maybe your budget just can’t stand for the added initial cost of a multi-purpose box? Every situation is unique.

So stop by our municipal up-fit shop on Troy St in Canton or call one of our sales people and they will help you navigate your way through the decision process of choosing your next box. Like we said, change is difficult but sometimes going down the road of different can pay off in the long run!