

STANDARDIZATION OF SPREADER SPECIFICATIONS: "THE ULTIMATE SPREADER"

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Over the years much information has been published concerning the writing of specifications. Technical specifications for any type of mechanical equipment can go into great detail. This type of equipment is generally called a turn-key package and may be classified as a front end loader, a backhoe, a motor grader, or countless other variations on these themes. Snow and ice control vehicles, on the other hand, can be bid as a turn-key package or as individual components that are assembled by the end user. I would like to caution each of you to be as detailed in writing the specification for the individual components (i.e. dump body, central hydraulic system, plow and spreader) as you are for the carrier vehicle.

Over the past 17 years with my company it has occurred to me that I have seen no two state specifications exactly the same. As a matter of fact I cannot get any states to agree whether they should be using tailgate spreaders, V-box spreaders (hopper type) or a combination of both. In that same period of time, it has occurred to me that I have fallen into the habit of beginning many of my speeches with the dictionary definition. This really is not a bad habit, since it brings the subject of this discussion into focus almost immediately.

A spreader, as defined in Webster's Dictionary is "an implement for scattering material." This really shouldn't be too complicated a problem -- or is it? This is a tailgate spreader and this is a hopper spreader and this is wide conveyer spreader. As you noticed, all these spreaders are pretty basic - there are no options on any of them and they will all perform the job they were intended to do. That is, they will all scatter material satisfactorily. However, the problem is far more complicated than this!

If you remember the cars that came out of Detroit in the late fifties, you also will remember some monstrosities that they created. This is because they took the car design out of the hands of the realistic designers and turned them over to the "artistic designers." This led to the very high three taillight fins on the back of the cars, eyebrows over the headlights, massive chrome grilles and automobiles that rusted out in less than a year. This corrosion was due to all the built-in pockets that held dirt that never dried. I'm sure that some of these "artistic designers" were later hired as specification engineers for governmental agencies. I'm not saying that special spreaders do not serve some very specific requirements but rather, that these special spreaders are

very difficult and time consuming to build and are very expensive. All spreader manufacturers face the same problems building specials. Let me give you some examples:

- This is a stainless steel airport spreader - it has dry material spreading capacity with automatic controls - there are two 125 gallon liquid storage tanks for ethylene glycol or clear liquid to be sprayed on the dry prilled urea or a urea sand mixture with automatic spray controls. There are bin level indicators and liquid level indicators in addition to a roll up tarp that covers the screens and the loaded material.
- This spreader is a large capacity (17 cubic yards) spreader used primarily for city work. As an ex-city of Chicago employee, I can assure you that once these trucks leave the salt stock pile, they must be kept on the street. Because of traffic conditions, it becomes almost impossible to get them back to reload. Therefore, it is imperative that they have enough material to finish their assigned routes. Some features on this spreader are clean out doors, a swing out back gate, reversing valve, special light package and belt over chain.
- This next spreader is intended for use in the mountains and has special built-in exhaust heaters for the sides of the V-box, an air deflector for clearing snow off the back of the truck, a special lighting package, a special bumper for protecting the spinner and mars lights on both ends of the spreader.

Earlier, I had mentioned that building an implement to scatter material "does not sound too complicated." Let's see how complicated it is! As a standard, we produce 10 lengths (8 through 17 ft.); 4 heights (48 through 66 inches); 4 different raw materials (carbon, corten, 304 ss, 409 ss); 4 material gauges (7 ga., 10 ga., 10 ga. ss, 12 ga. ss) and 4 different design styles (6 tooth, 9 tooth, replaceable chain shields, stainless steel) for a possible 1280 V-box weldments. Now, if you add other design changes, such as sloped fronts for a doghouse lift cylinder, spring loaded idlers, swing out rear gates or special widths you can, through geometric progression, come up with the possibility of 240,000 combinations of V-box weldments. Just when we think we have built every possible one of these combination, somebody will come up a new one.

Now that you've seen a sample of our more exotic spreaders, I'd like to take this opportunity to introduce you to "the ultimate spreader." I don't want you to think this spreader is too far out of the realm of possibility. You have seen many similar spreaders. My chief engineer cautioned me to be careful with this subject,

since somebody may try to order one. Let's start with the chain oiler. Of course, there is no such animal as a rust sensing chain oiler but there are manual chain oilers and we also have provided chain oilers with an electric on-off solenoid switch. We also provide extended grease zerks for bearings. Next, we've come up with retractable top screens. We haven't perfected this idea yet but nobody has specified them as yet. I know a 2 million candlepower strobe seems a little overdone, however, you would not believe some of the lighting specifications that we receive. We have had lighting packages with 26 lights on the back of the spreader alone.

I would now like to discuss a few more options that have been developed over the years. We currently list more than 30 V-box options. It is not up to the manufacturer to know what your needs are or to be the judge of the best type of equipment to fill your requirements. You know your terrain, you know your material (sand, sand and salt or straight salt), you know your personnel and above all, you know the prevailing type of weather in your area better than any outside expert. In other words, you have all the information that is needed to specify the type of equipment you want and need.

Now for the real heresy--most of the main line spreader manufacturers build reliable, solid, well engineered products. Contrary to the opinion of many public works officials, we are not out to get away with anything we can. Most of us have variations in the components we use and there are differences in manufacturing techniques, but in the end, they all perform just about the same. That is, we all create a unit that is designed to scatter some type of granular material. If there are differences in spreading patterns, they are more than likely due to differences in the truck's central hydraulic system rather than the way the spreader is built. We have had contracts where we have supplied a large number of spreaders for brand new trucks. All the hydraulic components are the same and they have been installed by the same hydraulic installer. The spreaders have all been built at the same time and yet, many of the spread patterns and calibration rates can vary, even when the control valves on the two different vehicles are set on the same settings. I would now like to ask you this question--What do you want?

This brings us back to the beginning, and the beginning is specifications. Specifications are a set of requirements issued by the user that all bidders are expected to conform to. Specifications explain, sometime in great detail and sometime in very limited detail, "what you want." I believe specification engineers should have a "hands on" feeling for the equipment they want. I also feel that specification engineers should sit down and listen to the using department's wants and needs and I'm not talking about just department heads. They also should talk to the operators who have to use the

equipment and the mechanics who have to service it. Too often, I've heard of an agency getting a brand new piece of equipment and the first thing the mechanics do is take a part off and throw it away. Why was that part specified? It's costing you extra dollars. Another problem I have with governmental agencies, is the lack of trust you have in your supplies. We have not survived in this business for over 50 years by delivering junk. If you have a problem, or there is a questionable clause in the specifications, we generally will call the agency. It is to our advantage and yours, to solve that problem before we build the equipment rather than to have you reject it when it's delivered. We would rather "do it right the first time." You will only get what you specify--no more, no less.

We, the manufacturers, cannot survive in a low bid business by providing extras you only thought you were going to get. If you require a specific part, use proprietary (trade) names. Courts have upheld this practice when used by an agency for the purpose of standardization. Be very careful of or equal clauses. Your definition of or equal and my definition of or equal can differ dramatically. Also, be very careful of some of these exotic paint finishes. As soon as these special finishes are damaged and moisture can get through it, rust will begin to undercut the finish. If you have problems with corrosion, I would suggest that you consider stainless steel. Although this product is initially more expensive, maintenance of stainless steel spreaders is almost nonexistent. When one considers sandblasting and repainting at current labor costs, stainless steel is certainly a viable alternative.

Now, a few words about enforcement. If it's what you want, insist that you get it. Don't go through all the headaches of writing a specification and then decide after the contract is awarded that you can do without what you specified. That is unfair to all the other bidders on that contract. I don't mind responding to any bid request as long as I know all the bidders are playing by the same set of rules.

In summary, review your specifications and ask yourself if this is really "what you want." If you have any specific questions about options, call and ask a manufacturer about that option. If you talk to their service manager, I'm sure he can tell you about the cost and reliability of that particular option. Most main line manufacturers have been in the business long enough to have seen most of these special features. There is no standardization in the spreader business, however, we are dealing with "an implement to scatter materials" and the basic design has remained unchanged for many years. Any of us will build "what you want" but it's up to you to make sure you want it.