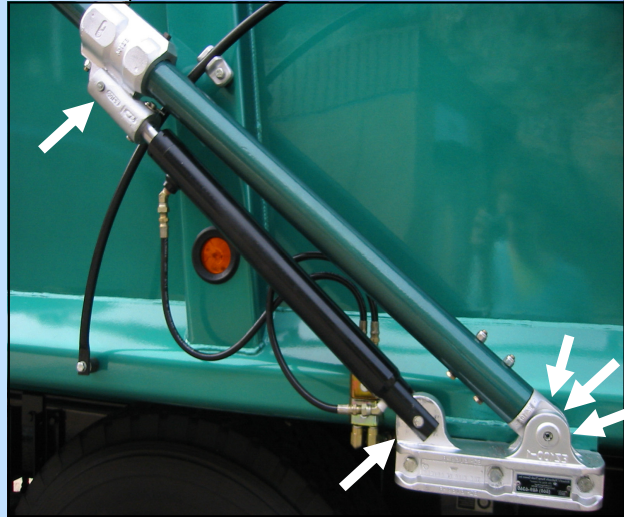


## Improvement #1—Bushings

- PREVENTS WEARING OF ALUMINUM CASTINGS
- ELIMINATES DISSIMILAR METAL CORROSION
- FASTER AND EASIER REPAIRS WHEN ACCIDENTS OCCUR



Spring bushings produced from highly wear resistant chrome-vanadium spring steel AISI 6150 are now being inserted in aluminum castings in ten critical wear points. When noticeable wear does occur, these bushings can be replaced in the field. These bushings, in combination with solid steel pins produced from AISI 1018 steel case hardened to a depth of .011-.020 and with a RC 62 surface, will significantly improve the life of our already long lasting system.



## Improvement #2—New Aluminum Alloy

We have switched over to a new aluminum alloy for several of our castings. In combination with the steel bushings, the new alloy will provide greater wear resistance to rotational forces at the pivot points further increasing the life of the castings.

As you can see by the chart below, the new alloy is far superior to the alloy we have been using. The 100% increase in ductility means the castings will be able to withstand two times the bending force before fracturing.

Municipalities and truckers who haul salt will further appreciate the new alloy because of its higher corrosion resistance. This alloy is formulated specifically for maritime application with near constant exposure to salt water.

Alloy	Minimum Properties		
	Tensile Strength		% Elongation (Ductility) in 2 inches or 4 times diameter
	Ultimate ksi*	Yield (0.2% Offset) ksi*	
Current	23.0	13.0	1.5
New	32.0	22.0	3.0
% Improvement	40%	70%	100%

\*ksi (kilopounds per square inch) is an engineering unit of stress or pressure and is used to express the strength of materials, i.e. the maximum pressure the material can resist.