

# Basic Municipal Specifications For Moving Floor Trailers Hauling Waste

**A. Drive Mechanism:** The hydraulic cylinder shafts must be attached to the frame with (4) 5/8" bolts and will remain stationary. The 2" x 6" cross drives are clamped directly to the hydraulic cylinder barrels. The cylinders on each cross drive must be independently removable and interchangeable.

**B. Cross Drives:** Are supported by UHMW strips on a support rail attached directly to the frame.

**C. Hydraulic System:** (6) Cylinders with 3" diameter bore, 1.771" OD x 1.125" ID 1045 induction hardened (50 Rc minimum and 10 RMS finish) piston rods with 10" stroke. Each unit of (2) cylinders is connected at the base of each cylinder. All hydraulic lines on the drive unit must be steel hydraulic tubing (no hoses). Each piston shall have 2 piston seals with heavy duty back up rings and a high strength Orkot wear ring. Each cylinder head shall have 2 loaded rod wipers, 1 high strength Orkot wear ring and one energized rod seal with heavy-duty backup ring.

**D. Mounting:** Hydraulic drive mechanisms must be mounted in a center frame that is attached to the trailer suspension sub-frame, or is a continuation of the suspension sub-frame.

**E. Flooring Extrusions:** Shall be extruded from 6061-T6 aluminum on 3.65" centers with a side slot to accommodate a poly seal. Floor thickness shall be one of the following options;

1. Impact medium duty; Top of each floor slat to be .188" minimum thickness with two .375" wide x .500" overall thick outside ridges.
2. Impact medium duty CWS; Top of each floor slat to be .188" minimum thickness with two .375" wide x .500" overall thick outside ridges, one .907" wide x .500" ridge in the center.
3. Impact heavy duty; Top of each floor slat to be .250" minimum thickness with two .500" wide x .750" overall thick outside ridges.
4. Impact heavy duty CWS; Top of each floor slat to be .250" minimum thickness with two .500" wide x .750" overall thick outside ridges, one .750" wide x .750" ridge in the center.

**F. Floor Bolts:** Each floor extrusion shall be secured to the drive mechanism with (6) minimum 5/16" x 1" Allen type counter sunk bolts, grade 8 with self-locking nuts.

**G. Sub-deck:** The floor sub-deck tubing shall be 1" x 1" square steel tubing or aluminum channel with a minimum of 12" 1" x 1" solid bar at the rear of the trailer.

**H. Bearings:** Each cross sill shall have high-density polyethylene bearings attached to it. Minimum bearings surface 15.45 square inches each (9.07 square inches on the top of the bearing, 3.19 square inches on each side of the lower portion on the cross sill). The two tabs on each side of the cross sill that hold the bearings in place are at least 1.5 inches in length. The area over the tires should be filled with a splash bearing fitting over the 1" x 1" sub-deck and extending under each floor extrusion leg for full support.

**I. Wet Kit:** a hydraulic pump, driven off a PTO mounted on the truck tractor transmission, shall power the hydraulic system. Minimum pump rating to be 30 GPM @ 3000 PSI. (Can be up to 60 GPM @ 3000 PSI depending on unloading speed desired.) Truck mounted hydraulic unit shall be provided and installed by hauling contractor.

**NOTE: TRI-AXLE TRAILERS SHOULD SPECIFY 2" X 8" CROSS DRIVES IN ITEM "A", AND 3.5" CYLINDERS IN ITEM "C".**