

G – S PRODUCTS MODEL CL 8133

SPECIFICATIONS FOR 33 CUBIC YARD SIDE LOADER EMCO, PAK MOR OR TRUXMOR STYLE CONTAINER LIFT, FULL EJECT

SCOPE

This specification describes a truck mounted, hydraulic refuse packer. This machine must be equipped with a lifting mechanism for TRUXMORE type side load commercial containers on the street-side. Body must be designed so that optimum load distribution can be achieved when installed on a 56,000-66,000 G.V.W. truck cab and chassis. Body installation shall not require modification to a standard truck chassis forward of the rear suspension. (NO DROP FRAME)

I. BODY

A. CAPACITY

1. The body shall have a usable capacity of thirty five (35) cubic yards including the tailgate (EXCLUDING LOADING HOPPER).

B. DIMENSIONS

1. Body length – 311” – (including bustle tailgate).
2. Overall height above chassis – 102” (container lift in “down” position).
3. Overall height above chassis MUST NOT EXCEED – 134” – (curb-side bin in full “up” position). NO EXCEPTIONS!
4. Overall body width with container lift in down position – 102”

C. CONSTRUCTION

1. The body floor shall be constructed of 1/4” Hardox 450
2. The body floor shall have 8” x 11.5 lbs./ft. structural channel long – members.
3. Body sides shall be curved shell style, ten (10) gauge Hardox 450 steel sheet.
4. Body roof shall be curved shell style, ten (10) gauge Hardox 450 steel sheet.
5. All external welds shall be continuous.

II. TAILGATE

A. CAPACITY

1. The tailgate shall have a usable capacity of 6.30 cubic yards minimum.

B. CONSTRUCTION

1. Body tailgate shall be bustle type, top hinged, with heavy-duty hinges and tapered-pin plunger style locks. Lock pins must have remote grease fittings located on side of body.

2. Tailgate shall be equipped with a flow control device to assure smooth, even operation.
3. Tailgate to be constructed from 10 gauge Hardox 450 steel sheet and framed with formed steel channel.
4. Gate shall have a seal across the bottom and at least 16" up each side to control liquid leakage.

C. OPERATION

1. For greater operational stability and safety the tailgate shall be raised and lowered with two 2 ½" bore x 28" stroke double acting hydraulic cylinders.
2. All tailgate controls shall be located inside the truck cab within easy reach of the operator's position. I.E. tailgate operation shall not require exit of the cab by the driver. Controls shall be electric/air/hydraulic and spring returned to the "neutral" position.
3. Tailgate to lock and release hydraulically through the use of positive acting, tapered rod, plunger style locks.
4. Tailgate ajar and lock status warning light and alarm to be installed in the truck cab.
5. Safety prop for tailgate to be included.
6. All exterior welds to be continuous.

III. PACKER HOPPER

A. FUNCTION

1. The receiving hopper shall have 6.0 cubic yards capacity minimum.
2. Hopper shall act as receiving chamber for materials dumped by the loading bin and container lift.

B. CONSTRUCTION

1. Hopper floor to be constructed of ¼" Hardox 450 steel plate.
2. Hopper side walls to be ¼" Hardox 450 steel plate.
3. Hopper liner ¼" Hardox 450 extending 18" past packer travel.

IV. COMPACTOR

A. FUNCTION

1. Compactor is to move the material dumped by the container loader from the receiving hopper into the body chamber. Also, compactor is to compress the loaded material to such an extent that the vehicle is loaded to its recommended capacity.

B. OPERATION

1. Compactor to be powered by one (1), 6" bore x 84" stroke, single section, dual acting hydraulic cylinder.
2. Packer cycle shall be 45 seconds @ 700 R.P.M.
3. When fully extended, compactor must penetrate the body by 18" minimum. This aids compaction of the material and reduces fallback into the loading hopper.
4. Compactor shall displace 2.6 cubic yards/cycle minimum.

5. Compactor shall have "on-demand" style controls with both "AUTOMATIC PACK" and "MANUAL PACK" selector console mounted in the truck cab and convenient from both sides of cab..
6. Compactor stroke shall be automatically reversible through the use of high quality automotive grade switches sensitive to both position and pressure.
7. Unit to be equipped with a "near-loaded" warning alarm to alert operator that body is approaching its maximum capacity.

C. CONSTRUCTION

1. Compactor to be guided by a floor mounted "T" track beam.
2. Both the "T" track beam and compactor guide shoes must be made of Hardox 450 steel plate.
3. The compactor shall be constructed of engineered steel sections and fully tested using state-of-the-art Finite Stress Analysis technology.

V. LOADING DEVICE (CURB-SIDE OR STREET-SIDE)

A. FUNCTION

1. The Container lifting device must be capable of attaching, lifting, and dumping TRUXMORE style containers currently in use by the purchasing authority. Lift shall also have grabber device for roll carts.
2. Container lift must be capable of lifting and dumping containers weighting up to 3600 pounds.
3. Lift shall transit the container from the ground position essentially in a vertical plane and rotate to dump at approximately forty-five degrees from vertical into the compaction hopper.
4. Lift cycle shall be approximately 15 seconds at engine idle.
5. Lift carriage shall be track guided by roller bearing type steel cam-followers and stabilized by two lift arms, one at each end.
6. Lift shall extend 48" out from the stowed position if needed to attach to containers .
7. Extend and retract function will be accomplished with a 2.5" bore x 48" stroke hydraulic cylinder.
8. Lift up and down motion shall be powered by two (2) 4 1/2" bore x 16" stroke hydraulic cylinders with 1.5" fluid cushions in both the rod and base ends.

B. CONSTRUCTION

1. Lifting arms must be constructed of solid, high tensile steel plate. Tubular load lifting components are not acceptable.
2. All loading mechanism connecting pins shall be 1.25" diameter, 4140 steel alloy, and surface hardened to 60,000 Rockwell or GRADE 8 S.A.E. bolts.

C. CONTROLS

1. Controls for lift shall be conveniently located for operation from the driver's in-cab seated position. **Joy stick or rocker switches as required by user.**

VI BODY UNLOADING

A. FUNCTION

1. Body payload to be offloaded by hydraulically powered horizontal ejection.
2. Ejector panel to be operated by two (2), 4" bore x 128" stroke, single section, double acting hydraulic cylinders.
3. Ejector operation shall be sequenced so that panel will "extend" only when packer panel is in full "extend" position and tailgate is fully "up".
4. Controls to be mounted convenient to operator's in-cab driving location.

B. CONSTRUCTION

1. Ejector panel to have a structural steel tubular frame.
2. Panel guide tracks to be formed 3/16" steel plate.
3. Panel guide/cylinder enclosure tube shall be 5" x 7" x 3/16" structural steel tube equipped with Hardox 450 steel wear strips.
4. Floor level wear pads must be Hardox 450 abrasion resistant steel plate.

VIII HYDRAULICS

A. PUMP

All body and lift functions shall be powered by a tandem-section gear type pump (34 G.P.M. @ 700 R.P.M.). This pump shall be powered by a transmission mounted "hot shift" power take-off.

B. CONTROL VALVE

The body and lift functions shall be controlled by a single stack type air activated directional hydraulic valve. All controls for the body and lift shall be air/hydraulic. This directional control valve shall be equipped with a reliable system pressure protection device. The maximum system operating pressure shall be 2500 P.S.I.

C. HYDRAULIC RESERVOIR

The body shall be equipped with a hydraulic reservoir with a minimum capacity of sixty (60) gallons. This reservoir shall be equipped with a fill cap, breather, fluid level indicator and temperature gauge.

D. FILTRATION AND SERVICE

System cleanliness and protection against contamination shall be accomplished through the use of the following devices.

1. RETURN LINE FILTER.

All oil shall be routed through a 10 micron return line filter. This filter shall be installed in the top of the hydraulic reservoir and properly sized so that 100% of the flow is filtered under normal operating conditions without bypass. Filter must be located so that all periodic service can be performed from ground level without the need for ladders or work-stands.

2. **IN-LINE SHUTOFF.**

For ease of service the suction line shall be equipped with a shutoff valve plumbed adjacent to the reservoir.

3. **SUCTION STRAINER.**

A 100-mesh oil strainer must be installed in the hydraulic system suction line. This strainer must be serviceable without draining the system reservoir.

E. PLUMBING

All body and lift plumbing not requiring flexibility to complete its function must be constructed of seamless steel hydraulic tubing correctly sized for each operation. Plumbing requiring hoses shall be routed in such a way as to prevent rubbing, chafing and undue bending.

IX IN-CAB CONTROLS

The following controls must be mounted inside the truck cab for safe and convenient operation.

1. Hydraulic system on/off switch.
2. Body tailgate control.
3. Body ejector control.
4. Work light and strobe light switches.

X LIGHTS

1. Standard lights shall be supplied in accordance with FMVSS#108.
2. All body lights must be TRUCKLITE Model "SUPER 44" L.E.D. with SERIES 50 wiring harness.
3. Both street side and curbside loading locations must have work lights.

XI ACCESSORIES

1. Federal under-ride bumper shall be installed.
2. Tailgate safety prop shall be provided.
3. Body "up" and tailgate "unlock" alarm shall be provided.
4. Back up alarm shall be provided.
5. Both body and hopper shall have access doors on each side for cleaning behind the packer and ejector panels. Doors must be sealed when closed

XII PAINT

1. The body and lift shall be free of all weld slag, dirt and grease and be prepared prior to painting in accordance with the paint manufacturers specifications.
2. Body and loading mechanism shall receive at least one coat of primer and one finish coat of polyurethane enamel. Primer shall be approved for use with the finish coat material.

XIII WARRANTY

1. A minimum One-year warranty against manufacturing defects shall be provided by the manufacturer.