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SPECIFICATION
For "RL-10" Rear Loader
Truck-mounted, 10 cubic yard rear loader body.

The unit will be used in collection and loading of residential or commercial refuse. This specification describes a hydraulically actuated packer body of the rear loading type with the following minimum specifications necessary to perform the work assigned. **UNIT is MANUFACTURED IN AN ISO 9001:2000 CERTIFIED FACILITY.** The body conforms to the latest ANSI Z245 specification as well as the Federal Motor Vehicle Safety Standard FMVSS-108 at the time of manufacture.

CAPACITY

1. The minimum capacity of the body shall be 10 cubic yards exclusive of the hopper.
2. The minimum capacity of the hopper shall be 1.0 cubic yards without the use of a hopper loading sill extension.
3. The body shall be designed to allow high density compaction of up to 1000 lbs. per cubic yard of household refuse.

BODY DIMENSION

1. The maximum overall width shall be 88 ¾ inches.
2. The maximum overall length shall be 210 inches.
3. The maximum height above the chassis frame shall be 70" inches.
4. The inside width of the body shall be 74 inches at the widest point.
5. The inside height of the body shall be 56 inches at the highest point.
6. The minimum weight of the body and the tailgate (less special options) shall be 8,200 lbs.

BODY CONSTRUCTION

1. The body shall have a smooth floor without a trough. No cylinders, valves or other hydraulic components shall be exposed to refuse packed into the body.
2. The body floor, sides and roof shall be designed and constructed to withstand maximum imposed force of residential refuse without structural damage or excessive wear.
3. The body sides shall be fabricated from 10 gauge hi-tensile steel and be of a curved one piece design.

4. The body roof shall be fabricated from 10 gauge hi-tensile steel and shall be of a curved design.
5. A 20" x 26" body side door shall be located on the drivers side. The door shall be held shut by a spring-loaded latch.
6. The body floor shall be fabricated from a single sheet of 7 gauge hi-tensile steel, with no depression or trough.
7. The body longitudinal shall be 8" tall fabricated from 3/16" hi-tensile steel.
8. The floor cross members shall be tapered from the long sill outboard to the body side sheet.
9. The floor cross members shall be fabricated from 7 gauge hi-tensile steel.

TAILGATE DIMENSIONS

1. The lower tailgate sides shall be fabricated from 3/16" thick abrasion and impact resistant steel w/ minimum hardness of 321 BHN.
2. The hopper floor and chute shall be fabricated from 1/4" abrasion and impact resistant steel w/ minimum hardness of 321 BHN.
3. The tailgate sides shall be reinforced with hi-tensile steel channels interlaced and fully welded to the side sheets.
4. The hopper and chute floor shall be reinforced with hi-tensile steel channels.
5. The tailgate shall be secured to the body with tailgate lock bars made of 3/4" hi-tensile steel. The tailgate locks shall operate automatically when the tailgate is moved.
6. The tailgate seal shall extend a minimum 14 inches up the body side.
7. Two grab handles shall be located on each side of the tailgate.
8. The rear steps shall be fabricated from open grip material with a minimum standing surface of 330 square inches per step. The steps shall comply with A.N.S.I. standards. Steps shall be of a bolt-on design.

PACKING MECHANISM

1. The packing cycle shall be controlled by a two-lever control that allows the operator to start, stop and reverse the direction of any function at any point during the packing cycle.
2. The tailgate control valve shall be located within the tailgate. It shall be a sectional valve.
3. The packing mechanism shall consist of two primary components: the slide and the packer (sweep) blade. The packing mechanism shall be mounted on four wear shoe assemblies utilizing UHMW poly wear shoes. The shoe assemblies shall be replaceable without removing the slide assembly from the tailgate. The packer and slide shall be attached by two 2 1/4" diameter AISI 4140 alloy steel pins. These pins shall also support the (2) lower wear block assemblies. The slide face shall be constructed from 3/16" hi-tensile steel plate. The packer blade shall be mounted to, and pivot on, the slide. The packer blade shall be fabricated from hi-tensile steel plate, of varying thickness from 10 ga. to 1/2". The packer shall have replaceable heat treated bushings in the pivots. The face sheet shall be 3/16" high strength steel w/ minimum hardness of 235 BHN.

4. The packing mechanism shall be powered by two (2) 3 ½" Bore x 2" rod x 19" stroke packer cylinders and two same-size slide cylinders.
5. The slide and packer cylinders shall have hardened, chrome plated, 2" diameter rods. Each cylinder shall have replaceable heat treated bushings.
6. The packing blades shall operate in a 16 second cycle time with a 7 second reload time.
7. The compaction cycle shall interrupt above the hopper sill.
8. Material in the hopper shall be compacted between the packing mechanism and the ejector panel. The ejector panel shall hold pressure against the compacted material and will automatically drift forward by a hydraulic load control valve without operator assistance.
9. The packer blade (sweep) assembly shall be protected by a secondary relief valve that is integral to the tailgate mounted control valve.

EJECTION SYSTEM

1. The load shall be ejected by a double acting, telescopic hydraulic cylinder that shall extend and retract the ejector panel the full length of the body without the use of clamp bars or related hardware.
2. The ejector cylinder shall have replaceable heat treated bushings. The cylinder shall have the following dimensions:

Body size Bore Stroke Stages

10 cu. yd. 4.5 91.75 2

3. The ejector panel shall have a 10 gauge hi-tensile steel face sheet that is reinforced by structural steel tubing and formed channels of high tensile steel.
4. The ejector panel shall be mounted on 2 high-density polyethylene wear shoes that shall be replaceable without removing the ejector panel from the body. Metallic type shoes are not acceptable.
5. The ejector panel shall be guided in the body by two guide tracks located on the body side 5" above the body floor. The tracks shall be 4" deep, fabricated from hi-tensile steel and fully welded to the body sides.
6. The ejector cylinder shall be mounted angularly to the body floor and not require a trough or depression in the floor.

CONTROLS

1. The ejector and tailgate lift controls shall be mounted at the left front of the body.
2. Ejector and tailgate controls shall be mounted directly to the valve spool.
3. A throttle advance switch shall be located convenient to the ejector and tailgate lift controls.
4. The tailgate controls shall be located at the right rear of the tailgate. The two-lever design shall have positive control of movement of the packing mechanism at all times. The tailgate controls shall comply with the applicable A.N.S.I. regulations.
5. An automatic throttle advance device shall be incorporated with the tailgate controls.

HYDRAULIC SYSTEM

1. A heavy duty cast iron gear pump with a rated capacity of 12 G.P.M. at 1200 R.P.M. shall be driven by a hot shift or air shift power take-off or by the engine crankshaft.
2. For extended life of all hydraulic components the maximum operating pressure shall not exceed 2600 PSI.
3. The hydraulic system shall incorporate an adjustable relief in the body valve.
4. Hydraulic hoses and tubes shall be secured by clamps as required to prevent damage from abrasion and vibration. Hydraulic hoses and tubes shall use S.A.E. O-ring boss and JIC 37 degree flare ends for zero leaks.
5. Hydraulic hoses shall comply with the applicable S.A.E. standards for the designed specifications.
6. Hydraulic hoses are to have a 4:1 burst to working pressure safety factor.
7. The hydraulic oil reservoir shall have a minimum capacity of 30 gallons. The reservoir shall be equipped with filler, breather cap, sight glass, clean out cover, 100 mesh suction filter, magnetic tank drain plug and gate valve at the suction outlet. The hydraulic reservoir shall not be a structural member of the body or the mount for the ejector cylinder.
8. A 10 micron Inline Return line filter shall be located on the hydraulic tank and be equipped with a condition indicator.
9. A suction screen filter of 100 mesh (141 micron) shall strain all the oil leaving the tank. Suction filter shall be equipped with a 5 P.S.I. bypass valve.
10. All hydraulic valves shall be sectional that would allow replacement of defective sections without replacement of the entire valve.
11. All cylinders and valves shall have SAE O-ring boss ports.
12. Hydraulic system shall meet an ISO cleanliness standard of 20/18/13
13. Manufacturer shall provide printed ISO hydraulic cleanliness record.

HYDRAULIC CYLINDERS

1. All cylinders shall have a working pressure rating of 3000 psi.
2. The packer and slide cylinders shall have hard chrome plated rods.
3. The packer and slide cylinders shall be identical and interchangeable.
4. The packer, slide and tailgate cylinders shall be serviceable with the same seal kit.
5. The packer and slide cylinders shall carry a minimum full three year warranty.
6. Tailgate cylinders shall have hardened chrome plated cylinder rods, and be equipped with restrictors to limit the speed of raising and lowering of the tailgate.
7. Telescopic cylinders shall have chrome plated cylinder sleeves and plungers.
8. All cylinders operate without direct contact with the compacted load.

ELECTRICAL

1. All electrical wiring shall be color coded and be protected by loom.
2. Electrical harnesses shall be connected with weatherproof automotive-grade electrical connectors.
3. Electrical wires shall be stranded copper type with a SXL covering to remain flexible and resist to deterioration.
4. Electrical wires shall be color coded and numbered for easy identification.
5. Body electrical system shall be protected with its own fuse block.
6. All fuses shall be ATO type.
7. All limit switches shall be water proof to prevent damage from the elements and pressure washing.
8. All lighting shall comply with F.M.V.S.S. #108, with an additional set of two stop, tail and turn lights mounted above the hopper on a light bar.
9. Clearance, backup, stop and directional lights shall be rubber grommet mounted with sealed light housings, lexan lenses, vibration resistant filaments, and unitize sealed quick change connections.
10. A 112 Db backup alarm conforming to current standards must be provided. The alarm must also sound when the tailgate is open.
11. Conspicuity tape shall be applied per ANSI Z245 requirements.

PAINTING

1. All burrs and rough areas are to be ground smooth and all welds cleaned to remove slag.
2. Prior to application of any coating, all surfaces shall be thoroughly cleaned and conditioned with a phosphate solution.
3. The body shall then be coated with two (2) coats of a self-etching epoxy primer.
4. Two finish coats of polyurethane enamel shall be applied to produce a high gloss finish.