

SPECIFICATION
Truck-mounted, 20 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 MUST BE MANUFACTURED IN AN ISO 9001:2000 CERTIFIED FACILITY.

The body shall conform to the latest ANSI Z245 specification as well as the Federal Motor Vehicle Safety Standard FMVSS-108 at the time of manufacture. All bidders must fill in **all** information. If meeting or exceeding specifications put **YES** and if exceptions are taken put **NO**. Any exceptions must be explained in writing. All proposals include delivery, training of operators and service personnel.

Yes/No	Offered	<u>CAPACITY</u>
_____	_____	1. The minimum capacity of the body shall be 20 cubic yards exclusive of the hopper.
_____	_____	
_____	_____	
_____	_____	2. The minimum capacity of the hopper shall be 3.61 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.
_____	_____	
_____	_____	

Yes/No	Offered	<u>BODY DIMENSIONS</u>
_____	_____	1. The maximum overall width shall be 96 inches.
_____	_____	
_____	_____	2. The maximum overall length shall be 250 inches.
_____	_____	
_____	_____	3. The maximum height above the chassis frame shall be 98" inches.
_____	_____	
_____	_____	4. The inside width of the body shall be 85 inches at the widest point.
_____	_____	
_____	_____	5. The inside height of the body shall be 84 inches at the highest
_____	_____	

Yes/No Offered

Yes/No Offered

9. The floor cross members shall be fabricated from 7 gauge hi-tensile steel.

TAILGATE DIMENSIONS

1. The minimum hopper opening shall be 80" wide and 56" high to permit unobstructed loading of the tailgate hopper.
2. The top of the loading sill shall be equal height to the top of chassis frame to facilitate easy loading.
3. The overall height above the chassis frame with tailgate raised shall be 167 inches.
4. The length of the tailgate shall be 75"

TAILGATE CONSTRUCTION

1. The lower tailgate sides shall be fabricated from ASTM A-514 steel w/ minimum hardness of 321 BHN.
2. The hopper floor and chute shall be fabricated from 1/4" ASTM A-514 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 ASTM A-514 steel. The tailgate locks shall operate automatically when the tailgate is raised or lowered.
6. The tailgate seal shall extend a minimum 24 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.

Yes/No	Offered
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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.
 - A. The packing mechanism shall be mounted on four wear shoe assemblies utilizing UHMW poly wear shoes. The shoes shall be replaceable without removing the slide assembly from the tailgate.

The packer and slide shall be hinged by two 3" diameter alloy steel pins. These pins shall also support the (2) lower wear shoe assemblies.
 - B. The slide face shall be constructed from 3/16" ASTM A-514 steel w/ minimum hardness of 321 BHN.
 - C. 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"

D. The packer shall have replaceable heat treated bushings in the pivots.

The face sheet shall be 3/16" ASTM A-514 steel w/ minimum hardness of 321 BHN.

- 4. The packing mechanism shall be powered by two 4 1/2" bore cushioned hydraulic cylinders
- 5. The slide mechanism shall be powered by two 5" Bore cushioned hydraulic cylinders
- 6. The slide and packer cylinders shall have hardened, chrome plated rods. Each cylinder shall have replaceable heat treated bushings.
- 7. The packing blades shall operate in a minimum 20 second cycle time with a minimum 3 second reload time.
- 8. The compaction cycle shall interrupt above the hopper sill.
- 9. 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.
- 10. The packer blade (sweep) assembly shall be protected by a secondary relief valve that is integral to the tailgate-mounted control valve.

Yes/No Offered

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
20 cu. yd. 5.5" 91" 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 8 high-density polyethylene wear shoes that shall be replaceable without removing the ejector panel from the body. Metallic shoes are not acceptable.

5. The ejector panel shall be guided in the body by two guide tracks located on the body sides 4" above the body floor. The tracks shall be 5 3/4" 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.

Yes/No Offered

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.

Yes/No Offered

HYDRAULIC SYSTEM

1. The hydraulic pump shall be a fixed displacement rated at no less than 2500 psi working pressure and have sufficient capacity to equal 35-38 GPM flow at a reasonable engine RPM

2. The hydraulic pump shall be a direct mount to a transmission-driven clutch-activated hot shift PTO or driven by the engine crankshaft.

3. For extended life of all hydraulic components the maximum operating pressure shall not exceed 2500 PSI.

4. The hydraulic system shall incorporate an adjustable relief in the body valve.

5. 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.

6. Hydraulic hoses shall comply with the applicable S.A.E. standards for the designed specifications.

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2. The packer and slide cylinders shall have hard chrome plated rods.
3. The packer and slide cylinders shall carry a minimum one year warranty.
4. 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.
5. Telescopic cylinders shall have chrome plated cylinder sleeves and plungers.
6. All cylinders are to operate without direct contact with the compacted load.

Yes/No Offered

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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.

Yes/No Offered

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.

Yes/No Offered

ADDITIONAL REQUIREMENTS

1. A rear vision camera system shall be provided and include LCD flat screen monitor in cab.

2. An Emergency PTO Stop will be located on the rear of the body.

3. Operators and Parts manuals shall be

provided on CD and paper copy.

Yes/No Offered

Yes/No Offered

Warranty

- 1. One year warranty on the entire unit.
Two year cylinder warranty.
- 2. Manufacturer must provide "On-Site"
warranty service.

DELIVERY

Indicate number of day's product shall be delivered after issue of the P.O.

TRUCK CHASSIS REQUIREMENTS

1.0 ENGINE:

1.1 330 H.P. INLINE 6 CYLINDER TURBO DIESEL W/ 1000LB/FT TORQUE. MINIMUM ENGINE WARRANTY – 24 MONTHS/150,000 MILES

1.2 160 AMP ALTERNATOR

1.3 (2) 12VOLT 2000 CCA BATTERIES

1.4 18.7 CFM COMPRESSOR

1.5 115 VOLT BLOCK HEATER

1.6 ENGINE BRAKE W VARIABLE GEOMETRY TURBO

1.7 GATES BLUE STRIPE COOLANT HOSES

1.8 RH OUTBOARD FRAME MOUNTED HORIZONTAL AFTER-TREATMENT DEVICE W/ RH CAB MOUNTED VERTICAL TAILPIPE.

1.9 23 GALLON DEF TANK

1.10 900 SQUARE INCH RADIATOR

1.11 SIDE OF HOOD AIR INTAKE AND DONALDSON AIR CLEANER, WITH PRE-CLEANER

2.0 TRANSMISSION

2.1 ALLISON 3000 RDS W/ PTO PROVISION AND PUSH BUTTON SHIFT CONTROL ON DASH. WITH 6-SPEED OVERDRIVE OPTION AND AGGRESSIVE DECELERATION.

2.2 INTERFACE WIRING AND BODY BUILDER CONNECTOR BACK OF CAB.

2.3 ELECTRONIC TRANSMISSION CUSTOMER ACCESS CONNECTOR BACK OF CAB

2.4 WATER TO OIL TRANSMISSION COOLER

2.5 SYNTHETIC TRANSMISSION FLUID

3.0 FRONT AXLE

3.1 14,700LB FRONT AXLE

3.2 14,600LB TAPER LEAF SUSPENSION W/ SHOCK ABSORBERS

3.3 16.5" x 5" Q+ BRAKE SHOES W/ AUTO SLACK ADJUSTERS AND DUST SHIELDS

4.0 REAR AXLE

4.1 30,000LB REAR AXLE, W/ SYNTHETIC LUBE

4.2 30,000LB VARIABLE RATE MULTI-LEAF SUSPENSION W/ HELPER AND RADIUS ROD

4.3 17T MAIN DRIVELINE OR EQUIVALENT

4.4 AXLE RATIO TO BE 5.86 AND ACHIEVE ROAD SPEED OF 68 MPH.

4.4 16.5" X 7" P CAM BRAKES W/CAST SHOES W/ AUTO SLACK ADJUSTERS AND DUST SHIELDS

5.0 BRAKE SYSTEM

5.1 ANTI-LOCK AIR BRAKES

5.2 BENDIX AD-9 AIR DRYER WITH HEATER AND PULL CABLES ON ALL RESERVOIRS.

6.0 FRAME AND WHEELBASE

6.1 210" WHEELBASE OR EQUIVALENT FOR BODY SPECIFIED

6.2 FRONT TOW HOOKS

6.3 11/32" X 3-1/2" X 10-15/16" STEEL FRAME OR EQUIVALENT WITH 80KSI

7.0 FUEL TANKS & EQUIPMENT

7.1 80 GALLON LH ALUMINUM FUEL TANK

7.2 FUEL WATER SEPARATOR WITH INDICATOR LIGHT

8.0 CAB

8.1 HEAVY DUTY NON-AUTOMOTIVE CAB AND HOOD WITH 60 MONTH / 150,000 MILE WARRANTY.

8.2 AIR CAB MOUNTS

8.3 2-1/2 " FENDER EXTENSION

8.4 BUG SCREEN, LH/RH GRAB HANDLES,

8.3 DUAL STAINLESS STEEL WEST COAST MIRRORS W/ 8" SPOT MIRRORS

8.4 DUAL ROUND AIR HORNS

8.5 HEATER, DEFROSTER, AIR CONDITIONER

8.6 HIGH BACK AIR RIDE DRIVER SEAT W/ 2-MAN PASSENGER SEAT W/ TOOLBOX UNDERNEATH

8.7 VINYL SEAT COVERS FOR DRIVER AND PASSENGER

8.8 CRUISE CONTROL, TACHOMETER, BACKUP ALARM, OIL PRESSURE GAUGE

8.9 AM/FM/WB RADIO

8.10 SOLID STATE CIRCUIT PROTECTION & FUSES

8.11 2 ½LB FIRE EXTINGUISHER AND TRIANGULAR REFLECTORS

8.12 TWO CUP HOLDERS IN DASH

8.13 ELECTRIC WINDSHIELD WIPERS WITH DELAY

9.0 TIRES AND WHEELS

9.1 FRONT TIRES: 315R/80R22.5 G291 18 PLY WITH HIGHWAY TREAD – 10 HUB
8 ¼ INCH WIDTH PILOT DISC WHEELS

9.2 REAR TIRES: 315R/80R22.5 G291 18 PLY WITH HIGHWAY TREAD –8 ¼ INCH
WIDTH 10 HUB PILOT DISC WHEELS

GENERAL CHASSIS REQUIREMENTS

- * MUST PROVIDE PARTS/WARRANTY/SERVICE WITHIN 60 MILE RADIUS.
- * MUST PROVIDE PARTS AND SERVICE MANUALS WITH UNIT.
- * MUST PROVIDE STATE AND DOT INSPECTION.
- * MUST PROVIDE ON-SITE DRIVER TRAINING AT TIME OF DELIVERY.
- * MUST PROVIDE TOWING/ROADSIDE SERVICE WARRANTY FOR 1 YEAR.
- * SELLING DEALER MUST PROVIDE DIESEL EPA10 SUPPORT FOR BOTH ENGINE AND EXHAUST SYSTEMS.
- * INDICATE NUMBER OF DAY'S PRODUCT SHALL BE DELIVERED AFTER ISSUE DATE OF P.O.

TOTAL PRICE (PER UNIT) _____