

**Leach  
2-R II  
Features**



The Leach 2R11 Packmaster from Leach Company is designed to be the best possible refuse collection unit available to the refuse industry. Built on the compaction concepts established by Leach engineers over two decades ago, the 2R11 utilizes state of the art technology and materials to offer the operator the finest machine available. Exceedingly high density is achieved as the load is built up with the packer and the carrier plate compacting refuse into the body. Efficiency of packing design and leverage exerted crunches refuse into "balelike" masses, producing maximum loads.

This booklet will help to explain the features of and construction techniques used to produce the rear loader that continues to be the standard of the industry.

25-yard 2R11 Packmaster



Three sizes are available to the 2R11 buyer: 20-yard... 25-yard... and for the large volume user... a 31-yard 2R11. Whichever size is specified, the 2R11 will perform with reliability and deliver the highest payload returns.

31-yard 2R11 Packmaster



Rugged... Extra Heavy-Duty Tailgate - The tailgate is assembled and thoroughly welded into one solid piece, making it virtually indestructible under the stresses of the punishing day-in, day-out rigors of the job.

The lower portion of the hopper sides are 1/4" 50,000 PSI steel providing additional strength in the area of maximum stress.



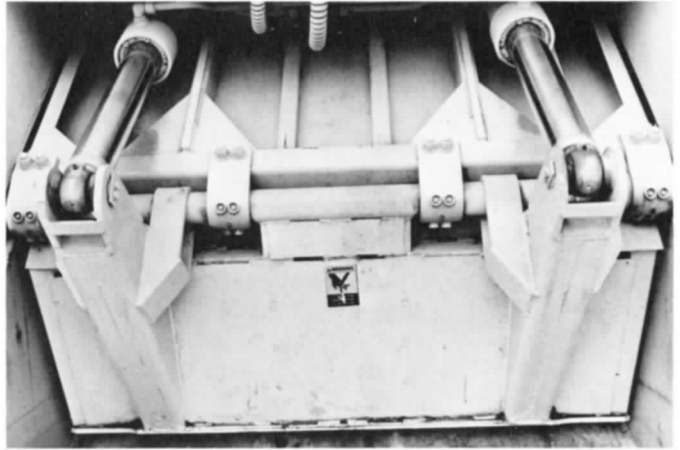
Rectangular tubing forms the sides of the hopper opening. The tubing provides strength, clean appearance, and a conduit for electrical wiring. The hopper opening width is 80". The capacity of the hopper is 2.7 cubic yards. The hopper bottom is 1/4" 100,000 PSI steel.

The reinforced steel Hopper Loading Edge is constructed of 50,000 PSI steel. The Loading Edge is 5" below the truck frame providing a low loading height.

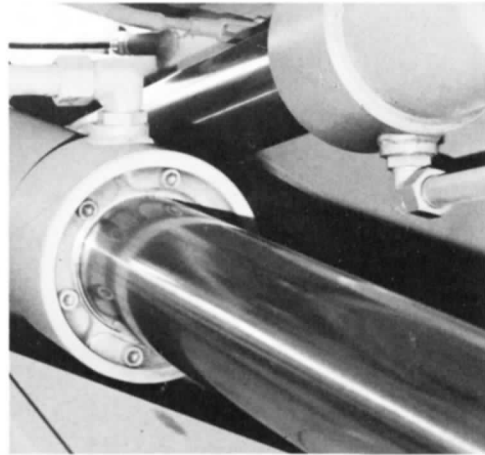


Packer Plate and Carrier Plate - Working together they crush hopper loads of every variety. Both carrier and packer plates are powered by 6", single stage, double-acting cylinders. The combination force and leverage developed by these two plates is an important contributing factor in building record-setting 2R11 payloads.

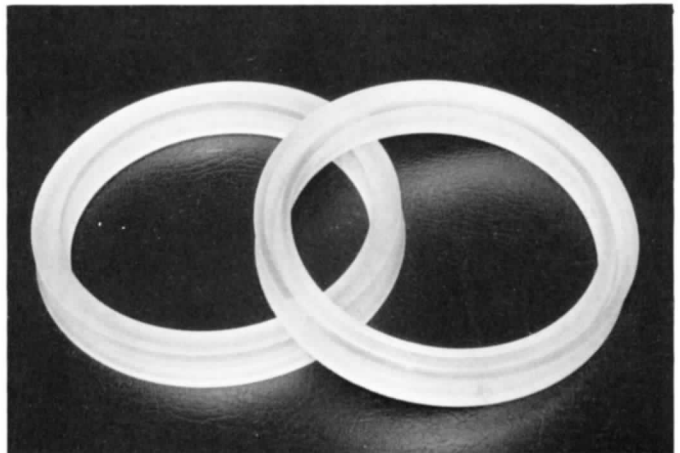
The Packer Plate is constructed of 1/4" 80,000 PSI steel over a rigid structural tubing frame. This boxed-in construction provides a strong, rigid and smooth unit.

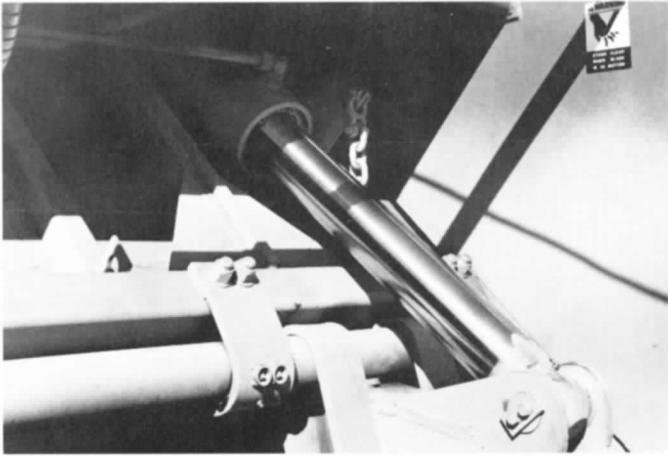


Four Leach-built, heavy-duty 6" double acting packer and carrier plate cylinders are interchangeable with same diameter and same stroke. The same cylinder fits all four positions, therefore, inventory of replacement cylinders and parts can be greatly reduced. Cylinder mounting pins are 1-3/4" diameter for maximum strength and operating life.

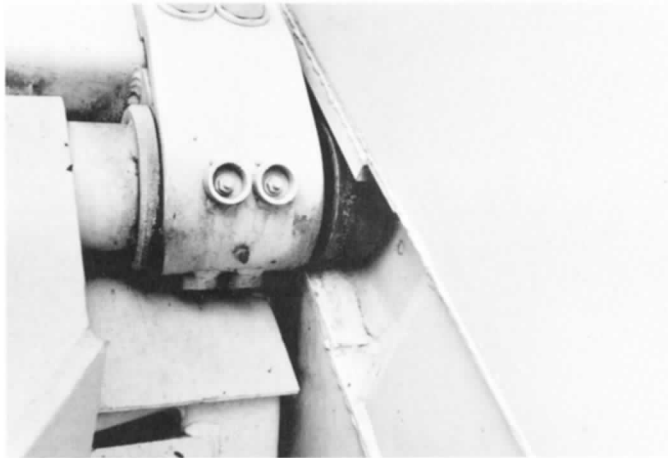


New, improved polyurethane seals used in all hydraulic cylinders provide excellent seal and long life.





The 2R11 incorporates chrome plated piston rods in all cylinders as standard equipment. This eliminates many problems associated with corrosion and rust, thereby greatly increasing seal life.

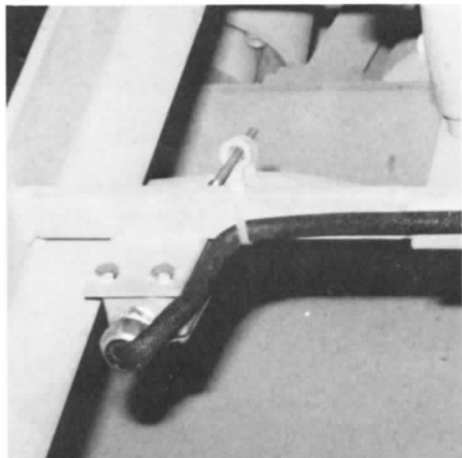


5" diameter induction hardened carrier plate rollers mean larger rolling radius, and provide easier rolling and fewer revolutions for longer roller life - larger rollers have better load carrying capacity.



Single lever control for packing - The packing cycle is activated by a single lever. New personnel can be easily trained in minutes.

Operating control rods are located outside the hopper. Damage to control rods from brush and large objects in the hopper is eliminated.



The 2R11 incorporates a new design for the speed-up switch. This is a whisker-type switch located in the upper tailgate. It is completely protected from the packing operation of the tailgate.

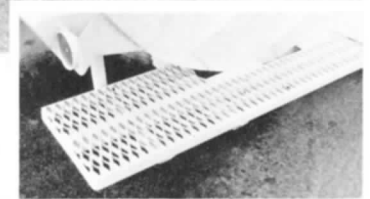
The hydraulics and piping for the tailgate are mounted high in the unit out of harms way. Access to this area is through the easily removed one piece top sheet. Six rubber snubbers make removal and replacement of the top sheet simple. Service is easier and quicker and reluctance of mechanics to replace the protective top sheet is virtually eliminated.



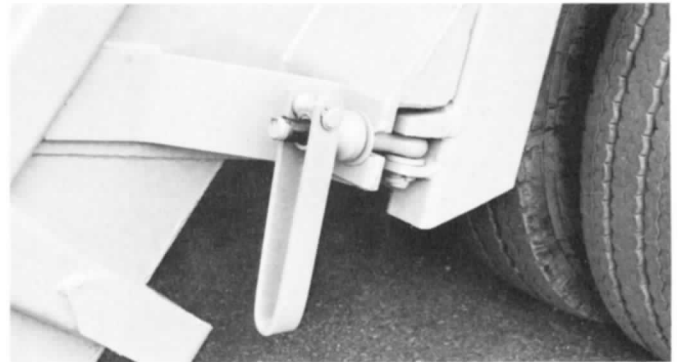
ANSI step is 8 inches in depth and 31.5 inches in length with 220.5 square inches of GRIP-STRUT. Steps are located above the hopper bottom and ahead of the loading lip to provide protection from bumps in landfills and against docks, etc.



Optional larger (484 sq. in.) rear steps are also available at additional cost.



Tailgate Clamping turnbuckles secure the tailgate to the body for normal operations. The tailgate clamp support is reinforced to reduce the chance of fatigue in this critical area.



Body sides and roof consist of three different strengths of steel used to match stress requirements.

The rear third of the body is 80,000# yield strength steel; the middle third is 50,000# yield strength steel. The front third is 40,000# yield strength steel. This is to withstand the packing forces and pressures that develop in the rear of the unit. This type of construction provides for additional strength at the rear, while at the same time reducing costs by using a lower yield strength steel toward the front of the body where the forces are not as great.



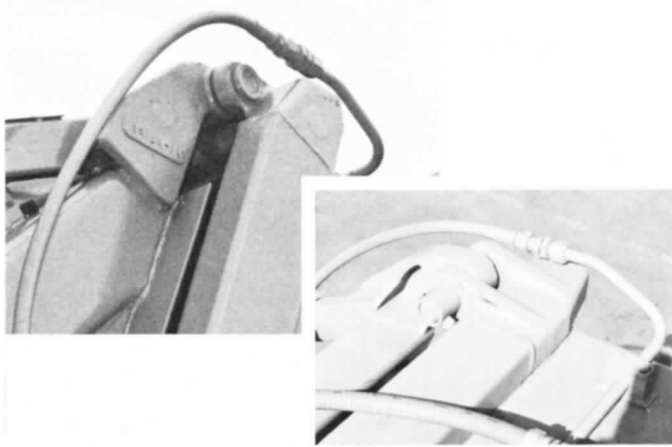


Channel-type roof and side reinforcements wrap around the body and are spaced to match stress requirements, therefore, greater strength is placed where needed while reducing weight.

The 2R11 has a flat roof with wrap around channel design. The side channels interconnect with the roof channels to produce a strong reinforcing member that will withstand the packing forces necessary to attain the loads that made the 2R famous.

The roof channel actually fits into the side channel. This point is then continuously welded to ensure long life.

The side channels of the 2R11 are not evenly spaced. There are more channels toward the rear of the body because this area absorbs most of the abuse and packing forces. There is more strength in the areas that require it while not adding extra weight or cost to the unit in areas that do not experience tremendous packing forces.



Each upper rear corner is made of a single steel casting providing optimum weld conditions for roof and side body sections. The tailgate hinge is an integral part of this casting. This construction gives strength and rigidity for both body corners and tailgate hinges.

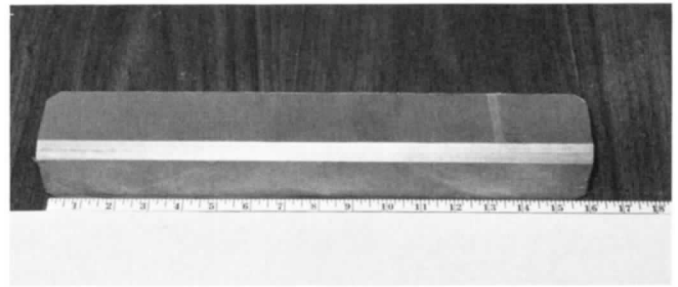
Open front end ... with easy access to the hydraulics and ejection mechanism ...



The powerful Push-Out Plate, with its smooth, concave surface, pushes out fully compacted loads quickly, cleanly and completely. The shape of the face of the plate not only assures easy unloading, but is one of the major factors in the high compaction ability of the 2R11.



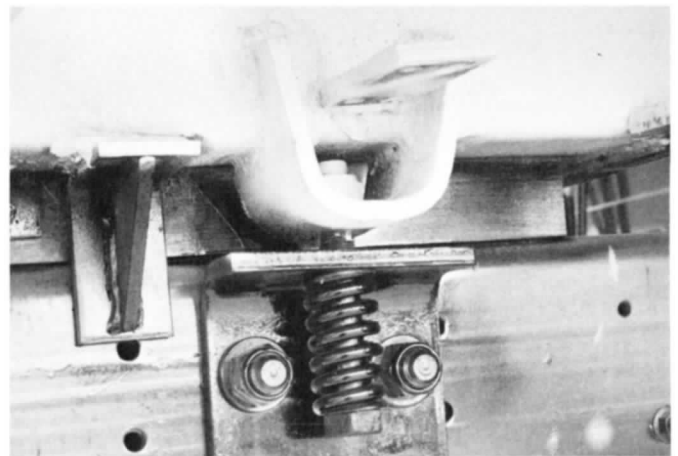
12 large wear shoes for push-out panel . . . ranging in length from 5" to 16" provide a larger wear area and longer life and greater blade stability . . . shoes can be changed without removing the ejection panel.



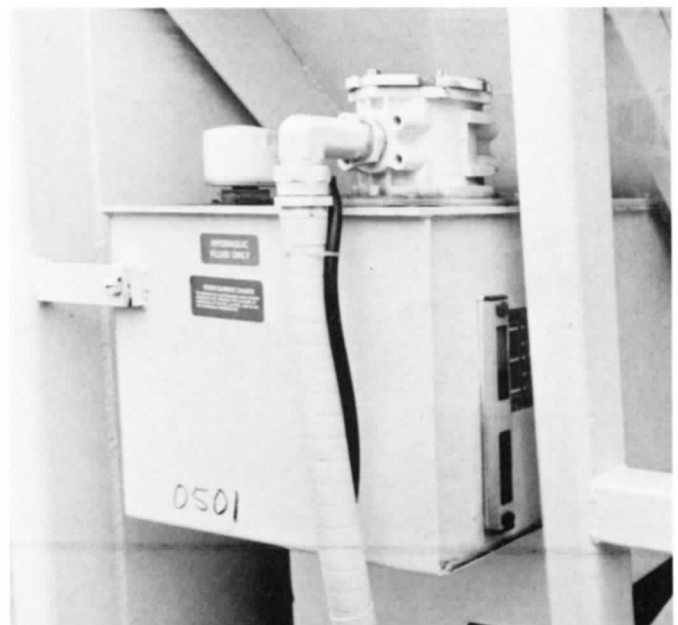
Controls for ejecting the load. Easy to reach, easy to operate. The outside lever raises the tailgate, the inside lever controls the massive ejection blade for discharging the load, quickly and cleanly.



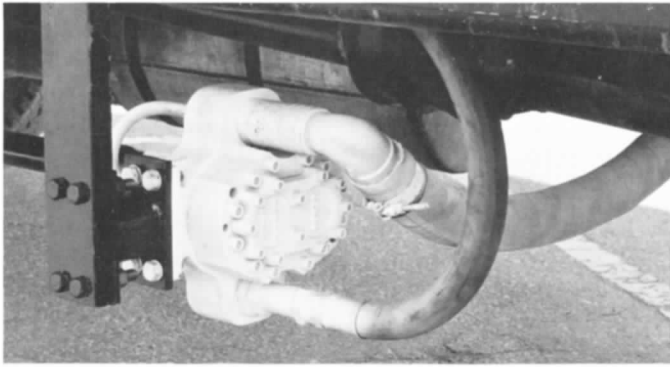
The Leach 2R11 body is mounted to the chassis using spring-loaded body bound bolts and lateral restraint brackets at the front. This method of mounting allows the chassis frame to torque without breaking under adverse terrain conditions, while also preventing the body from shifting on the frame rails.



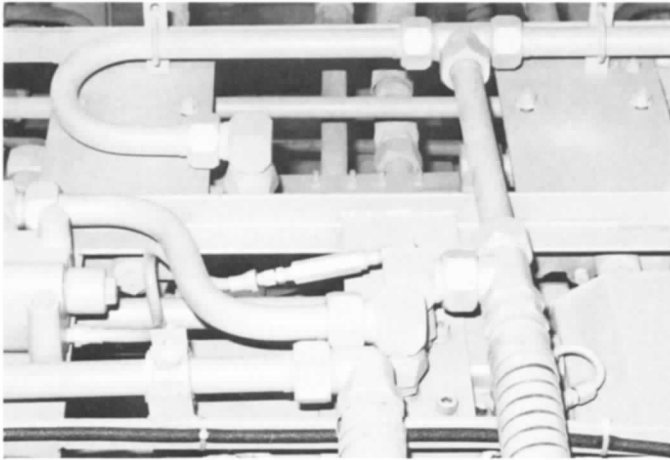
The 70 gallon hydraulic tank is mounted inside, at the right hand front of the body, at floor level. The tank is filled from the top and has a sight gauge located at eye level for easy inspection. The hydraulic system is protected by a 141 micron in-tank suction strainer and a 20 micron return line filter with a by-pass valve.







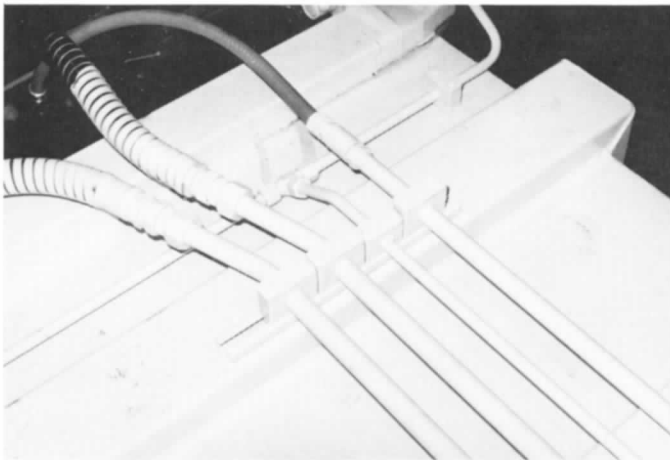
The hydraulic pump is the heart of the 2R11 and is built by Leach Co. in Oshkosh, Wisconsin. This spur gear pump delivers 42 g.p.m. at 1400 rpm, with a maximum pressure of 1650 PSI. The high g.p.m. at low r.p.m. is the secret to the efficiency and dependability of the 2R11.



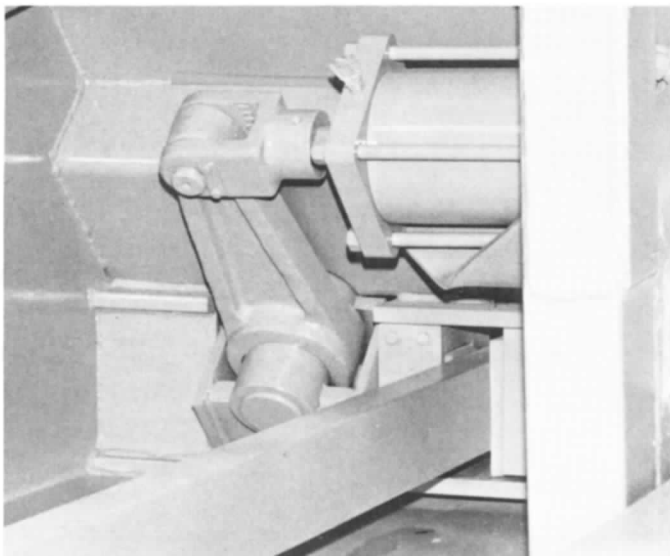
The 2R11 incorporates straight thread O-ring fittings in all critical hydraulic areas of the body and tailgate. Straight threads greatly reduce leaks in the hydraulic system.

The hose is screwed into the component until the threads are tight, then the lock nut is tightened. The lock nut sets a tight, leak-resistant seal with the rubber O-ring, thus eliminating the need for a sealing compound.

The straight thread O-ring has increased capability to adapt to matching tolerances. It can withstand the vibration and expansion or contraction that would cause a pipe thread to leak.



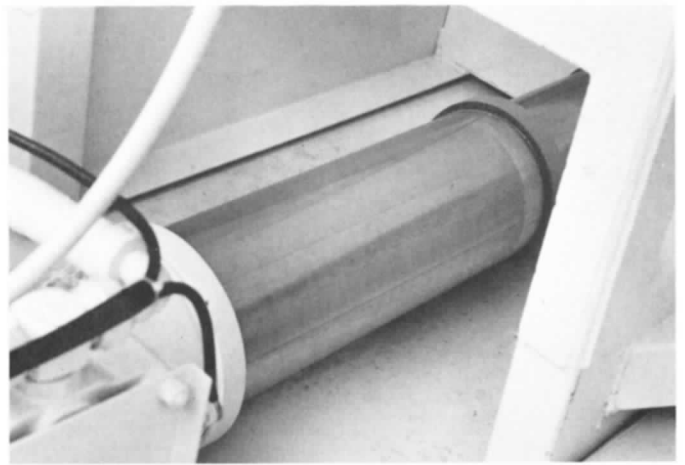
Heavy duty resilient clamps are used for mounting hydraulic lines to the body, thereby reducing noise and vibration with less chance of hydraulic line fatigue.



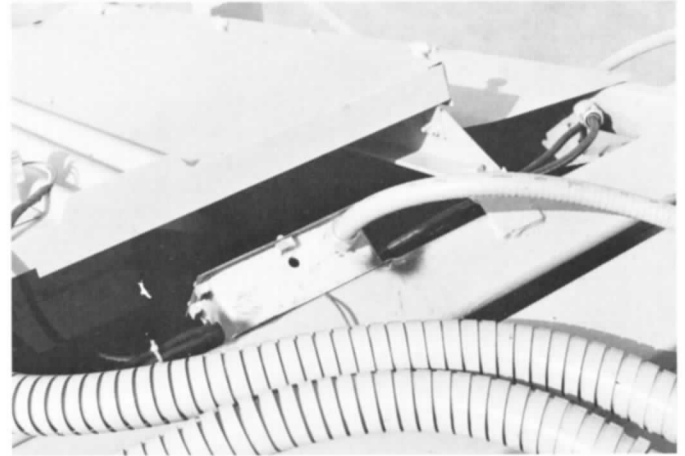
All Leach 2R11 bodies are offered with the patented Leach Push-out system as standard equipment. The system consists of a 6", single acting cylinder which causes a clamp to hold the push-out bar. This bar (and the blade) are moved to the rear of the body by a 6", double acting ejection cylinder. When the push-out cylinder reaches its maximum extension, the clamp cylinder releases. The ejection cylinder retracts bringing the bar . . . but not the plate . . . with it. The clamp again grabs the bar and the cycle is repeated until the load is completely ejected.



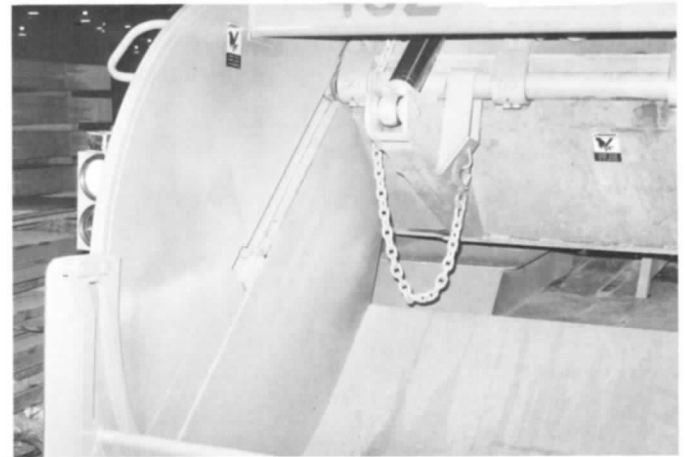
The Leach 2R11 is available with an optional Telescopic Ejection System. The 9 3/4" multi-stage cylinder ejects the load in one continuous action and maintains constant pressure on the load while packing.



The electrical distribution system incorporates a multi-conductor wiring harness and terminal strip connections in large, accessible waterproof junction boxes. Lights are shock-mounted in recessed receptacles for ease of trouble shooting and reduced maintenance.



A variety of container handling systems are available for the 2R11. The chain-type container attachment with locking trunion latches and chains from the packer/carrier plate mechanism raise, empty and lower the container concurrent with the packing cycle.



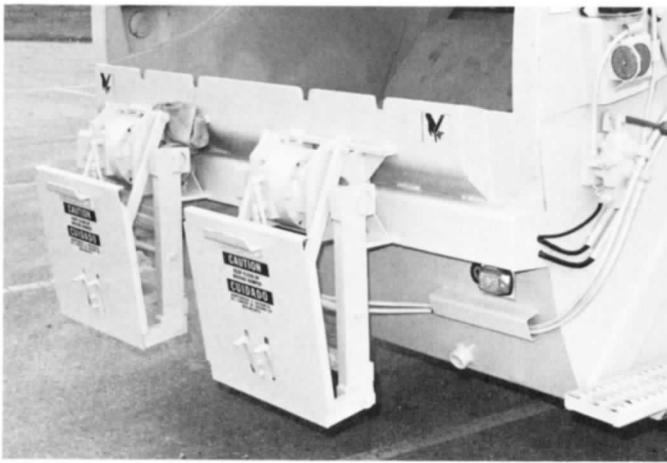
This arrangement is recommended for 1, 1 1/2 and 2 cubic yard containers.

The Leach hydraulic container attachment utilizes locking trunion latches and a hydraulically operated lifting mechanism, which allows containers to be raised, emptied and lowered independently of the packing cycle.

Controls for this option are conveniently located under the packer control lever on the tailgate.

This system is recommended for 1, 1 1/2, 2 and 3 cubic yard containers.





The Leach 2R11 can be fitted with a wide variety of hydraulic cart dumpers. The strength of the hopper and the standard dumping height make the 2R11 a natural when it comes to mounting cart dumpers for high volume municipal routes.



The 2R11 is available with an 8,000 lb line pull winch, locking trunion latches and guide ears for medium weight containers.



The 12,000 lb line pull winch, when used with the Leach locking trunion latches and guide ears, extends the container dumping capacities to larger and heavier containers. The controls are located next to the packer lever and allow the container to be dumped at a rate consistent with the packing cycle.

A 15,000 lb line pull winch is also available for extra heavy duty routes.



Leach also offers a roof-mounted 12,000 lb line pull container lifting cylinder. This reeving type hydraulic cylinder and cable arrangement allows for smooth, tangle-free container lifting. Controls are conveniently located by the packer control lever.

THE 7-STEP BAKED-ON ENAMEL FINISH IS A LEACH  
EXCLUSIVE ...

No other unit in the industry receives a more durable finish  
than the Leach 2RII Packmaster.

1. Each 2RII is thoroughly shot-blasted, providing a solid grip for the paint finishes to follow.
2. All "burrs" and rough spots are ground off.
3. Surface is then cleaned and treated with a phosphate solution.
4. For added protection, the body is coated with a high quality primer.
5. A high gloss enamel is sprayed on.
6. A second coat of high gloss enamel is applied.
7. Enamel finish is baked in an oven at a temperature of 200° Fahrenheit for a hard, long lasting, durable finish.



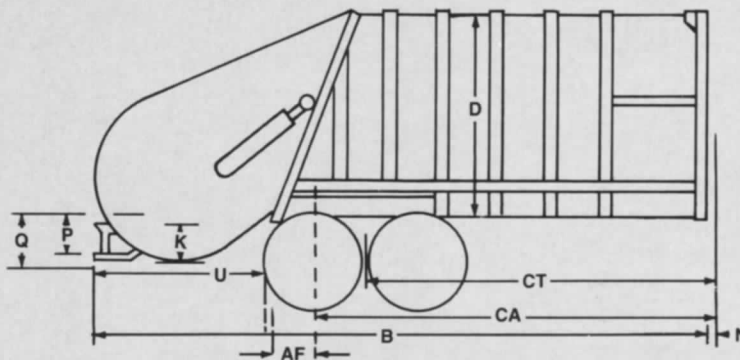
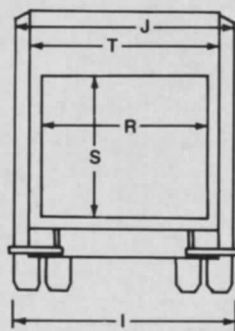
BUILT STRONGER TO LAST LONGER ... over 90% of Leach  
components are Leach-designed and manufactured in our  
plant in Oshkosh, Wisconsin.

We invite you to visit our plant and see how all Leach products  
are constructed.

We are proud of our people ... our plant and our products ...  
and we would like the opportunity to show you more about  
Leach.



**NOTE:** This booklet was prepared to show the features and some of the options available for the Leach 2RII. Photographs included in this brochure may show special or optional equipment which is available for extra charge. Contact your Leach distributor for details.



BODY DIMENSIONS	20 Cu. Yd.	25 Cu. Yd.	31 Cu. Yd.	15m <sup>3</sup>	19m <sup>3</sup>	24m <sup>3</sup>
AF After Frame	24"	24"	24"	610mm	610mm	610mm
B Overall Length	249"	270"	316"	6325mm	6858mm	8026mm
CA To Centerline of Rear Axle	150"	171"	217"	3810mm	4343mm	5512mm
CT To Centerline of Trunion (50" Beam)	125"	146"	192"	3175mm	3708mm	4877mm
D Height Above Chassis Frame (with 3" sill)	100"	100"	100"	2540mm	2540mm	2540mm
I Body—Outside Width	96"	96"	96"	2439mm	2439mm	2439mm
J Body Inside Width	90"	90"	90"	2286mm	2286mm	2286mm
K Hopper Depth	17"	17"	17"	432mm	432mm	432mm
N Interference Point Above Chassis Frame	4"	4"	4"	102mm	102mm	102mm
P Top of Step Below Chassis Frame	19"	19"	19"	483mm	483mm	483mm
Q Hopper Bottom Below Chassis Frame	23"	23"	23"	585mm	585mm	585mm
R Hopper Opening Width	80"	80"	80"	2032mm	2032mm	2032mm
S Hopper Opening Height	56"	56"	56"	1423mm	1423mm	1423mm
T Hopper Inside Width	80"	80"	80"	2032mm	2032mm	2032mm
U Rear of Body to Rear of Tailgate Closed	74"	74"	74"	1880mm	1880mm	1880mm
■ Height Above Chassis Frame (Tailgate Raised)	194"	194"	194"	4928mm	4928mm	4928mm
■ Loading Lip Below Chassis Frame	5"	5"	5"	127mm	127mm	127mm
■ Center of Gravity Measured From Front of Body						
—Body Only	117"	131"	151"	2972mm	3328mm	3836mm
—Pay Load	94"	103"	120"	2388mm	2617mm	3048mm
■ Hopper Capacity	2.7 Cu. Yd.	2.7 Cu. Yd.	2.7 Cu. Yd.	2.0 m <sup>3</sup>	2.0 m <sup>3</sup>	2.0 m <sup>3</sup>
■ Approx. Body Weight	14,495 lbs	15,020 lbs	16,125 lbs	6575kg	6813kg	7314kg
■ Min Truck GVWR Requirement	46,000 lbs	52,000 lbs	60,000 lbs	21000 kg	24000 kg	28000 kg

NOTES: \*Truck selected must be capable of carrying net weight of body plus weight of refuse to be collected.

\*CA Must be usable with no obstructions protruding above frame.

\*Specifications subject to change without notice.

## Features

- Sides, front and rear reinforced with electrically welded box sections and channels.
- Contents of body sealed off from outside during compaction period.
- Steps and grab handles both sides of tailgate.
- Buzzer system provided both sides at rear to enable loaders to signal driver.
- Load is pushed out by simple, easily maintained, double-acting cylinder.
- Single lever packer control at rear of hopper ... curbside.
- Single lever ejection control at front of body ... street side.
- Single lever tailgate lift control at front of body ... street side.
- Leach exclusive baked-on enamel finish. White standard. Other colors optional. (Other colors may affect visibility)
- Meets all ANSI Safety Standards.

## Hydraulic System

- **Cylinders**
  - (2) 6" double-acting packer plate cylinders\*
  - (2) 6" double-acting carrier plate cylinders\*
  - (1) 6" double-acting ejection cylinder
  - (1) 6" single-acting clamping cylinder
  - (2) 4" single-acting tailgate lift cylinders
- \*Packer and carrier plate cylinders are fully interchangeable ... an exclusive with the LEACH 2-R II.
- **Pump**
  - Leach—spur gear type
  - Capacity—42 GPM @ 1400 RPM
  - Maximum operating pressure—1650 PSI
- **Hydraulic Tank**
  - Capacity—70 gallons
  - Location—Right hand front on floor inside body
  - Filters—141 micron in-tank suction strainer
    - 20 micron return line filter
    - By-pass valve
- **Sight gauge**—located on tank at eye level

## Body Construction

- **Sides**—11 gauge, Hi-Tensile, 50,000 PSI, 80,000 PSI
- **Top**—11 gauge Hi-Tensile
- **Floor**—11 gauge 80,000 PSI
- **Floor trough**— $\frac{3}{16}$ " 50,000 PSI
- **Tailgate Construction**
  - **Hopper sides**— $\frac{1}{4}$ " 50,000 PSI
  - **Hopper bottom**— $\frac{1}{4}$ " 100,000 PSI
  - **Packer and carrier plates**— $\frac{3}{16}$ " 50,000 PSI, Packer Face  $\frac{1}{4}$ " 80,000 PSI
  - **Top Sheet**—Secured with quick release fasteners ... easily removed for maintenance

## Optional Equipment

- Chain container attachment
- Hydraulic container attachment
- 8,000 lb. overhead winch
- 12,000 overhead winch
- 12,000 lb. container lifting cylinder

# LEACH

## Pacesetter in Sanitation



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