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PAXIT and PAXIT MAJOR Mark III c

**Automatic continuous loading
compression refuse
collection vehicles**

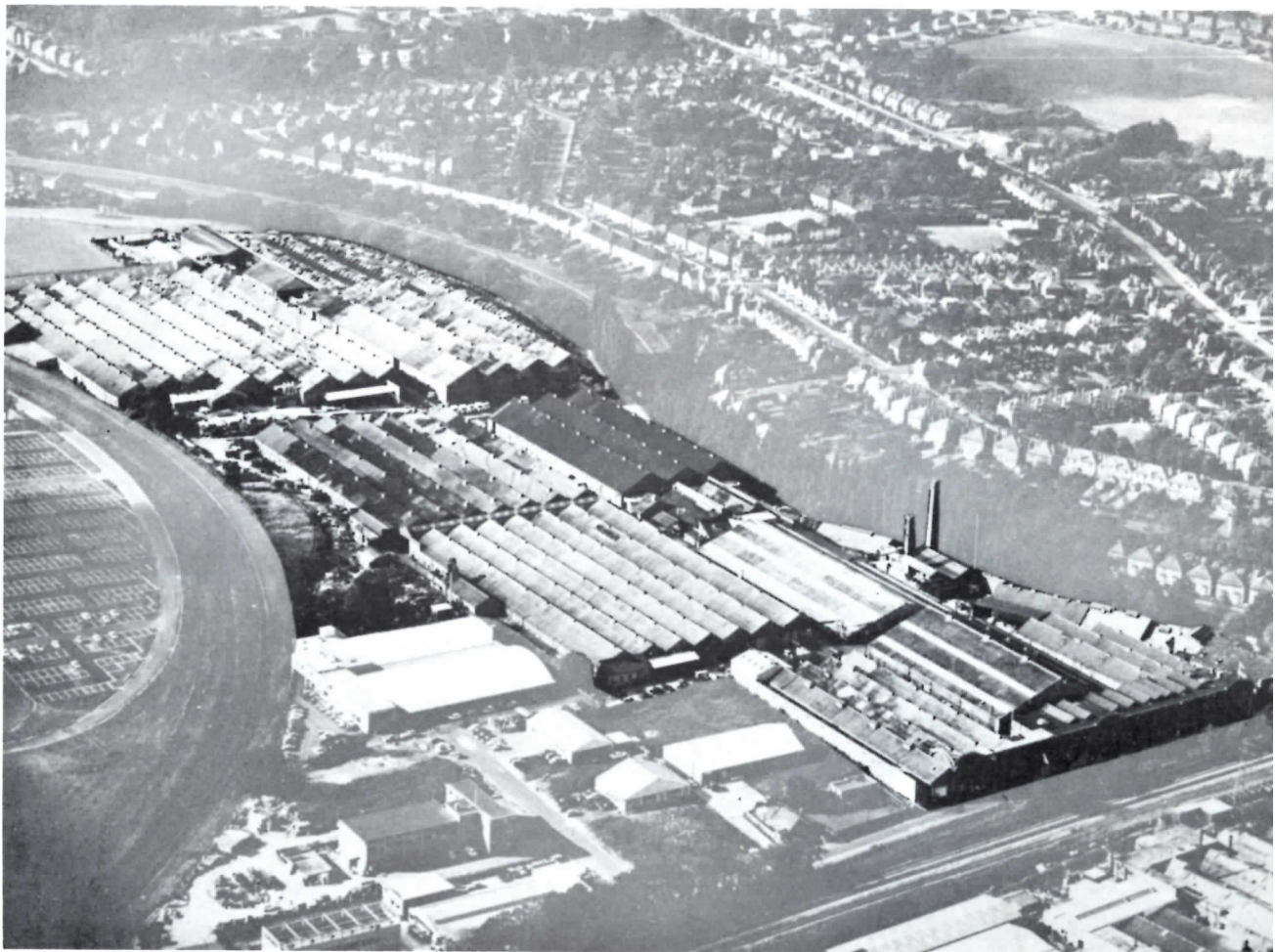


DENNIS

DENNIS DEPENDABILITY

How do you get dependability?

- Experience – Dennis is one of the oldest established specialist vehicle manufacturers in the world (established 1895).
- Resources – 34 acre plant with access to every kind of development and test facility.
- Skills – High proportion of skilled craftsmen and technicians.
- Quality Control – Exacting standards set with knowledge of the operators' problems.
- Testing – Every vehicle is tested before delivery.
- Design – Fitness for purpose – Dennis specialist vehicles are purpose-built from the ground up.



Will the decision which YOU are about to make be good in five years time?



BY APPOINTMENT
TO H.M. THE QUEEN
MOTOR MOWER
MANUFACTURERS

GUILDFORD

SURREY

ENGLAND

DENNIS BROTHERS LIMITED

TEL:

GUILDFORD

(OGU 3) 71271

DIRECTORS' ROOM.

Dear Sir,

We are constantly aware of the difficult decision which local officials are called upon to make when considering the purchase of new refuse collection vehicles. You will certainly expect your vehicles to last anywhere between 7 and 12 years.

Furthermore, you will also expect these vehicles to be capable of working efficiently with refuse at considerably reduced densities at higher volume, towards the end of their working life.

Having studied this problem very intensively, we are convinced that a refuse collection vehicle must have a physically large hopper and two-stage compressing mechanism. The efficiency of a piece of equipment of this type is extremely difficult to judge but certainly one could point to speed of loading, a good payload to laden weight ratio and the ability to do the job operationally throughout its working life, and it is the last of these considerations which is so vitally important with the changing nature of refuse.

We are also most conscious of the fact that nothing in this life is perfect and, generally speaking, regardless of what product one analyses, increased efficiency and added complication usually go hand in hand. Well-trained service personnel in this modern age are a must, even though every consideration is given to simplicity in operation.

You may take it that myself, and all of my colleagues at Dennis Bros. are dedicated to providing you with not only the best equipment available, but also the support services which are so vitally important. I believe we are in a position to prove our case and our Sales Engineers and Distributors will combine to give you a worki demonstration in support of my contention at your request.

(Signed) I.H.G. WJ
MANAGING DIRECTOR



THE DENNIS TWO STAGE AUTOMATIC CONTINUOUS LOADING AND COMPRESSION

This is the loading system which handles bulky refuse at ***SPEED!***

EFFICIENCY GOES UP AS REFUSE DENSITY GOES DOWN.

ASK YOUR LOADERS — PARTICULARLY THOSE ON BONUS!

BULK LOADING OF 1¼ CU. YD. CONTAINERS MADE EASY — NO PRODDING OR FEEDING.

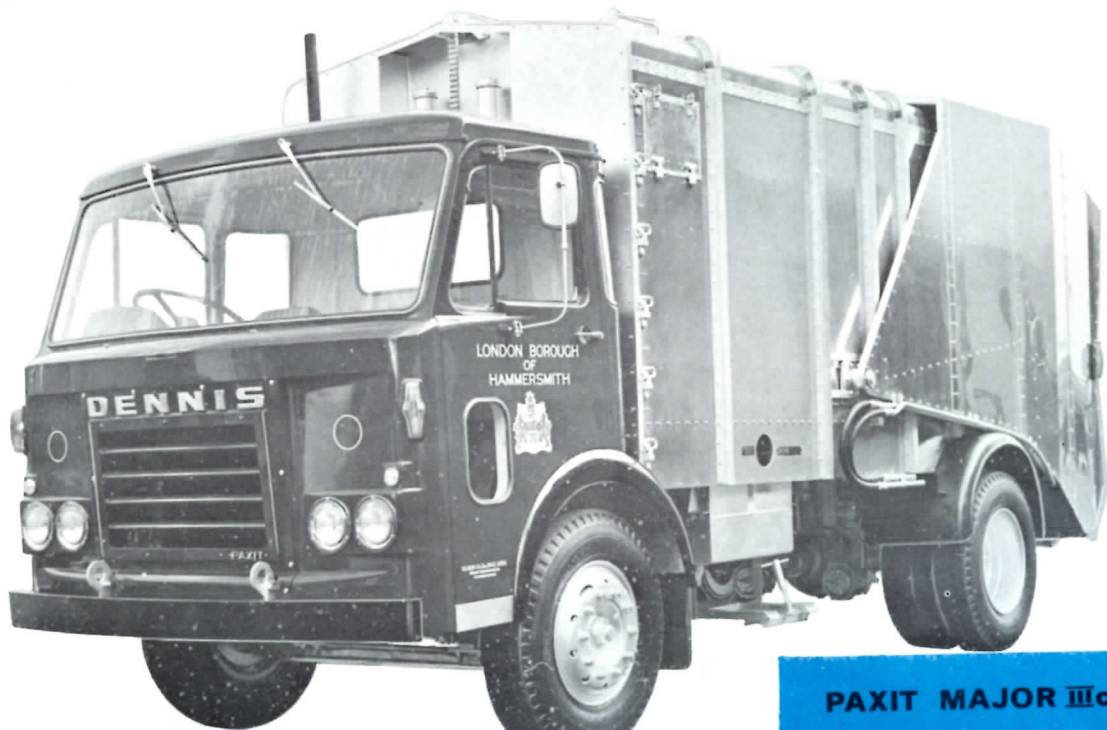
DUSTLESS, ENCLOSED LOADING ATTACHMENTS — A SIMPLE INSTALLATION.

TRY IT ON PAPER SACKS.

Find out for yourself — ask for a demonstration

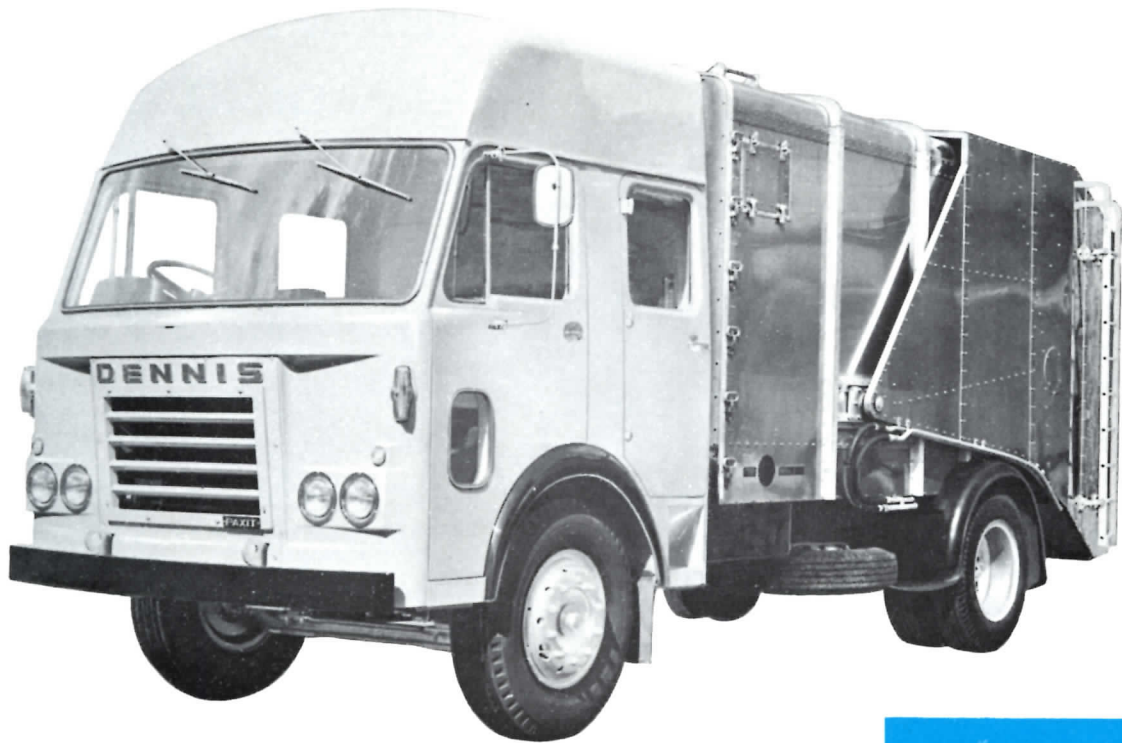
THE DENNIS MARK IIIc

Model	Paxit IIIc	Paxit Major IIIc	Paxit Major IIIc
Cab	Crew	Crew	Single
Wheelbase	12' 4" (3759 mm.)	14' 5" (4394 mm.)	12' 4" (3759 mm.)
Overall length not including Bin Hoist.	24' 3¼" (7398 mm.)	26' 4¼" (8033 mm.)	24' 3¼ in. (7398 mm.)
Overall width	7' 10" (2388 mm.)	7' 10" (2388 mm.)	7' 10" (2388 mm.)
Overall height (unladen)	10' 8" (3251 mm.)	10' 9" (3276 mm.)	10' 9" (3276 mm.)
Height of loading rail (unladen)	4' 6½" (1384 mm.)	4' 8" (1422 mm.)	4' 8" (1422 mm.)
Ground clearance under hopper (laden)	1' 2½" (368 mm.)	1' 4" (406 mm.)	1' 4" (406 mm.)
Clearance under hopper when tipped	5' 3" (1600 mm.)	5' 5" (1650 mm.)	5' 5" (1650 mm.)
Minimum turning circle diameter	48' (14.6 metres)	58' (17.6 metres)	58' (17.6 metres)
Minimum swept circle diameter	54' (16.4 metres)	62' (18.8 metres)	62' (18.8 metres)
Minimum ground clearance	9½" (241 mm.)	9½" (241 mm.)	9½" (241 mm.)
Approach angle	22°	22°	22°
Departure angle	10°	10°	10°
Effective capacity	25/40 cu. yds. 19/30 cu. metres	35/50 cu. yds. 27/38 cu. metres	35/50 cu. yds. 27/38 cu. metres
Loader ram thrust	28 tons. (28000 k.)	31 tons. (31000 k.)	31 tons (31000 k.)
Angle of tip	49°	49°	49°
Unladen weight for registration			
Air space - BODY	14.6 cu.yd. (11.2 cu.m.)	17.5 cu.yd. (13.4 cu.m.)	17.5 cu.yd. (13.4 cu.m.)
Tyre size	900 x 20 - 14 ply.	900 x 20 - 14 ply.	900 x 20 - 14 ply.
Plated Weights	Front Axle	5½ ton. (5500 kilos)	5½ ton (5500 kilos)
	Rear Axle	10 ton (10000 kilos)	10 ton (10000 kilos)
	Gross Vehicle Weight	15½ ton (15500 kilos)	15½ ton (15500 kilos)



PAXIT MAJOR IIIc (single cab)

PAXIT RANGE

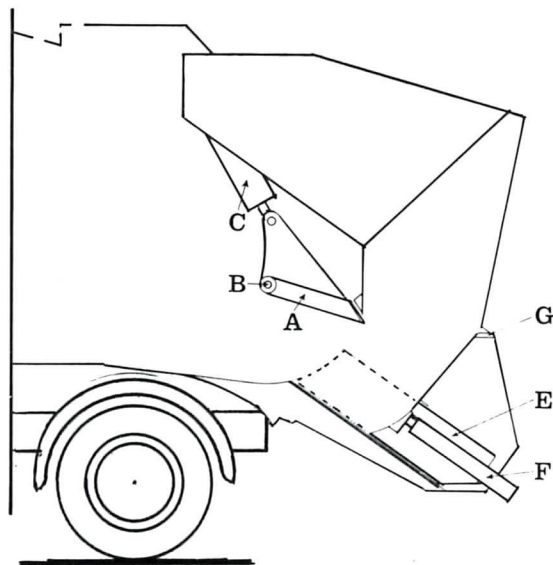


PAXIT IIIc



PAXIT MAJOR IIIc

METHOD OF CONTINUOUS COMPRESSION LOADING



There are two moving parts:- Swivel compression plate A, secured at pivot B and actuated by double acting hydraulic ram C. Reciprocating inverted drawer E actuated by double acting hydraulic ram F.

1. Refuse emptied from bins over rail G, falls to hopper floor.

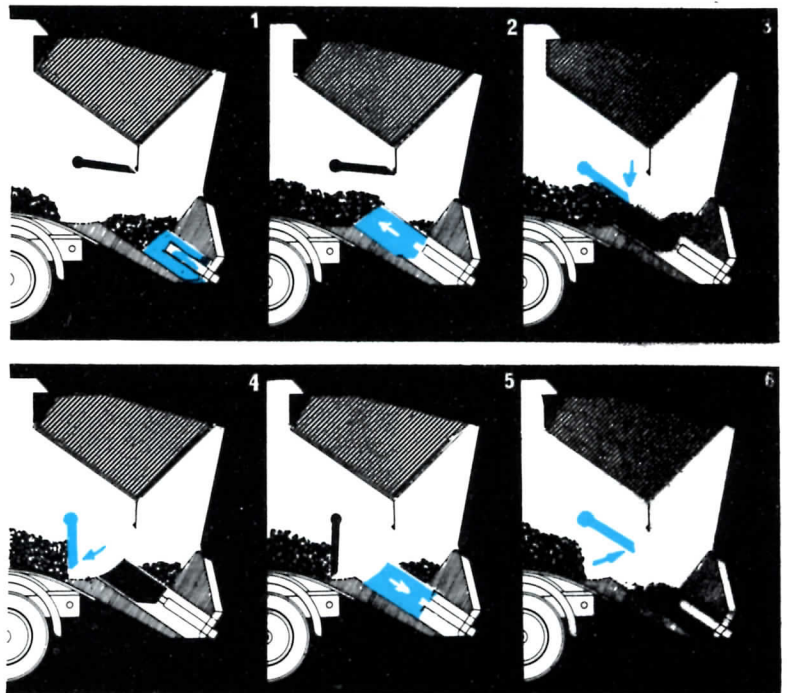
2. Reciprocating inverted drawer E, pushes refuse forward in hopper.

3. Swivel compression plate A, removes refuse from curved face of drawer.

4. Continuing forward movement compresses refuse into body.

5. Drawer E then retracts and refuse, which, in the meantime was emptied on to the top of the drawer, falls in front of the curved face.

6. The swivel compression plate also then retracts and another cycle is started as in diagram 1.



This sequence is maintained continuously throughout the loading period at four strokes per minute with the engine at idling speed. The slow movement of parts and steady engine speed ensures minimum noise during the loading operations, and minimum wear and tear. Refuse may be put into the rear hopper at any stage during the sequence. Should some incompressible object be so large or so positioned that the compression plate cannot complete its movement, a trip operates, the reciprocating drawer retracts and the pivot plate swings back to begin another cycle of operations. This has the effect of repositioning the object in the hopper and of "chewing up" the bulky items. No matter how quickly refuse is put into the hopper - whether by power operated dustless loading equipment or by hand, whether in scattered districts or in densely populated areas, whether kerbside collection or otherwise - the speed at which refuse is fed forward into the body is always adequate and there is no interruption in the work.



LOADING

Attention is drawn to the low loading height, generous ground clearance, insert stop and tail lights, folding loaders' steps and the hand rail. The hinged fibreglass flap can be used as a cover for the loading aperture or as a dust screen which is moved by the action of emptying a bin. Access to the large salvage well is by the folding ladder on the nearside.



The illustration shows Paxit Major Mk. III C fully tipped at a 49° angle, with the twin rams in operation giving maximum stability whilst discharging. The hopper is automatically opened as the body is tipped and closed as the body is lowered and is controlled from the cab, making it unnecessary for the driver to leave his seat during the whole operation, representing a considerable time saving factor.

There is a full width rear opening with no internal obstructions and the bottom of the hopper has a ground clearance of over 5 ft. (1525 mm.) when fully tipped giving complete clearance for disposal.

When lowered the body is totally enclosed and remains so during the whole of the collection period.

Ample provision is made for the automatic protection of the hydraulic system to ensure that the loading mechanism can be operated and collection continued whilst the vehicle is moving along the road.

New Minimum Maintenance Cab



SINGLE CAB



CREW CAB

MAXIMUM SAFETY

MAXIMUM DURABILITY

MAXIMUM COMFORT

MAXIMUM FITNESS FOR PURPOSE

Glassfibre reinforced plastic construction - strong and durable, CANNOT rust or corrode.

Colour impregnation - no painting, EVER.
Customers' special painted liveries, if required.

Your name and crest on detachable plaques.

Three full-length doors giving quick and easy entrance and exit.

Doors close quietly.

Good draught exclusion and temperature control - heater/demisters standard equipment.

Modern frontal treatment, paired inset sealed beam lamps, deep curved screen, powerful twin windscreen wipers, twin large mirrors, tool locker, clothes hooks. Absence of crew door on offside prevents men stepping out into traffic stream.

Windscreen and all windows made from toughened safety glass.

Fully adjustable driving seat, upholstered in hard wearing expanded vinyl.

Seating for 5 or 6 men in addition to driver, with cushions upholstered in expanded vinyl.

Front bumper bar and towing eyes.

Salvage well in cab roof.

Wind up windows.

SPECIFICATION

CHASSIS

ENGINE

Perkins 6.354, 6-cylinder diesel, 120 b.h.p. at 2,800 r.p.m. with distributor type fuel injection pump and hydraulic governor, backed by the maker's guarantee and comprehensive service facilities.

CLUTCH

14 in. diameter single dry plate, heavy duty unit for stop start work, spring centre plate and ball bearing release mechanism. Total lining area 182.5 sq. ins.

GEARBOX

A heavy duty constant mesh 5-speed ratio unit of Dennis design and manufacture. Sliding dog engagement for all gears except 1st and reverse, selector mechanism built into main casing giving light and short motion at gear change knob. Ratios 1:1, 1.502:1, 2.321:1, 4.083:1, 8.056:1, Reverse 7.961:1.

PROPELLER SHAFT

Fully balanced and in two sections with needle roller bearing universal joints and flexibly mounted centre bearing. Fitted with friction vibration damper.

FRONT AXLE

'I' section alloy steel beam. Wheel loads taken through heavy duty swivel pin thrust embodying anti-friction P.T.F.E. faced pads.

REAR AXLE - 10ton capacity

A robust fully floating spiral bevel unit of Dennis design and manufacture. Axle shafts can be withdrawn and the differential unit removed without disturbance of the road wheels. Ratio 6.14:1.

FUEL TANK

18 in. diameter fuel tank is fabricated from lead coated sheet steel has capacity of 30 gallons. An electric fuel gauge is fitted.

BRAKING SYSTEM

Full air operation using diaphragm type brake chambers coupled to cam operated brakes. Front brakes 15½ in. x 5 in. (38.1 cm. x 12.7 cm.). Rear brakes 15½ in. x 7 in. (38.1 cm. x 17.8 cm.). Total brake lining area 725 sq. in. (4,677.5 sq. cm.).

SERVICE BRAKE

Footbrake system with diaphragm actuators operating simultaneously on all axles.

SECONDARY

Lever operated, providing air assisted braking on rear axle.

PARKING BRAKE

By lock actuators through cam levers on rear axle.

FRAME

The frame is splayed at front end to give maximum accessibility to engine and is constructed on the "free flange" principle from channel section pressed steel sidemembers (¼ in. x 2½ in. x 9 in.). Crossmembers are of top hat section for strength, assembled to sidemembers by means of fitted high tensile bolts. Reinforcing strips fitted to top and bottom flanges. Front tow loops are fitted.

SUSPENSION

Semi-elliptical leaf springs front and rear; front shock absorbers fitted as standard.

STEERING

Recirculatory ball type steering box giving very good steering characteristics. A 20 inch (508 mm.) diameter 3-spoke steering wheel is fitted. Ratio (in centre position) 26.8:1; lock to lock 6½ turns.

WHEELS & TYRES

Pressed steel disc wheels for 10 stud fixing are fitted with Highway tyres to suit application. Single front, twin rear and spare.

COOLING SYSTEM

Pressurised system with 5 row flat tube radiator, water pump circulation controlled by thermostat and by-pass. Radiator mounted on cab foundation through the side columns. External filler cap. Heater demister fitted as standard.

ELECTRICAL & ACCESSORIES

12 volt A.C. negative earth return system. Panel on fascia fitted with the following as standard:- 4¾ in. (12.06 cm.) diameter, 80 m.p.h. (128.74 km.) speedometer with total and trip mileage recorders, two air gauges, fuel gauge, 'no charge' warning light, oil pressure warning light, key operated starter switch which covers heat start as well. Heater demister and screen washers. Alternator standard for low m.p.h. charging. On steering column:- switches for head, side and tail lamps, head lamp dip switch, horn switch button and direction indicators switch. Four head lamps mounted in two pairs on front dash, flashing direction indicators. Battery capacity 110 ampere/hour at 10 hour rate.

AVAILABLE EXTRAS

Spare wheel carrier, power assisted steering, automatic chassis lubrication, rear shock absorbers, sun visors fog lamp, fire extinguisher and first aid kit, hand washing unit, towing attachment for salvage trailer.

BODY

The body floor is fabricated from steel sections and is of all welded construction; the body floor panels are heavy gauge corrosion and abrasion resistant steel plate. Body superstructure is constructed of fully heat treated non-corrosive aluminium alloy sheet and extruded sections riveted together. All joints between dissimilar metals are protected by zinc chromate paint to prevent electrolytic erosion.

Body prop standard fitting for safe maintenance.

LOADING HOPPER

This is fabricated from steel sections and is of all welded construction, jig built to ensure complete interchangeability. All external and non-wearing panels are of heat treated aluminium alloy riveted into position. Panels which come into contact with refuse and subject to wear are replaceable and made of heavy gauge corrosion and abrasion resistant steel plate. The hopper is attached to the body structure by means of pivot pins and is raised automatically when the body is tipped by means of a high tension multi-link chain which has an ample safety factor.

The 2-stage continuous loading mechanism comprises two double acting hydraulic rams, one of these operates the swivel loader plate and is anchored by means of pivot pins to the hopper structure well above the line of refuse. The second double acting ram operates the inverted drawer, situated on the floor of the hopper. The purpose of this is the continual removal of refuse deposited over the rake rail into the hopper to a position from which the swivel loader plate can feed the refuse into the body. The automatic synchronisation of these two double acting rams is by means of a piston valve. The compression system is protected from damage by a trip relief valve which automatically retracts the compression rams should an incompressible object become jammed in the compression mechanism. Electric & mechanical stop/start controls are fitted on tailboard as safety measure. The whole hydraulic system is further protected by an over-riding relief valve.

SALVAGE SPACE

There is a 60 cu. ft. salvage well in the roof of the hopper as standard which is reached from the folding ladder up the near side. It should be noted that this space is not available when bulk bin hoist equipment or dustless shutters are fitted.

TIPPING GEAR

Power operated unit with twin telescopic front rams to give stability during tipping.

HYDRAULICS

Power for the loading and tipping rams is provided by means of a gear type pump, driven by a universally jointed shaft from the gearbox power take-off and engaged by control situated adjacent to the driver's seat. Oil supply to the pump is made from a 26 gallon (118 litres) reservoir rubber mounted on the chassis frame; an aperture is provided in the nearside skirt of the body to enable the reservoir to be filled with the body in the running position. A filler filter is also fitted in the filler neck and a sight level indicator is fitted in the side of the reservoir. A control lever adjacent to the driver's seat ensures the easy selection of either the compression or tipping circuit. Large bore scaleless bright drawn steel tubing and heavy duty flexible hoses where necessary are used throughout the hydraulic system.

Protection of hydraulic components covered by standard fitment of a high pressure filter with warning light in cab. Renewable element.

FINISH

Body and hopper panelled with 12 gauge, heat treated toughened light aluminium alloy. Body frames of extruded hat section aluminium, this type of construction ensures a clean and durable finished that does not need painting and shows considerable saving over the life of the vehicle as repainting is not necessary.

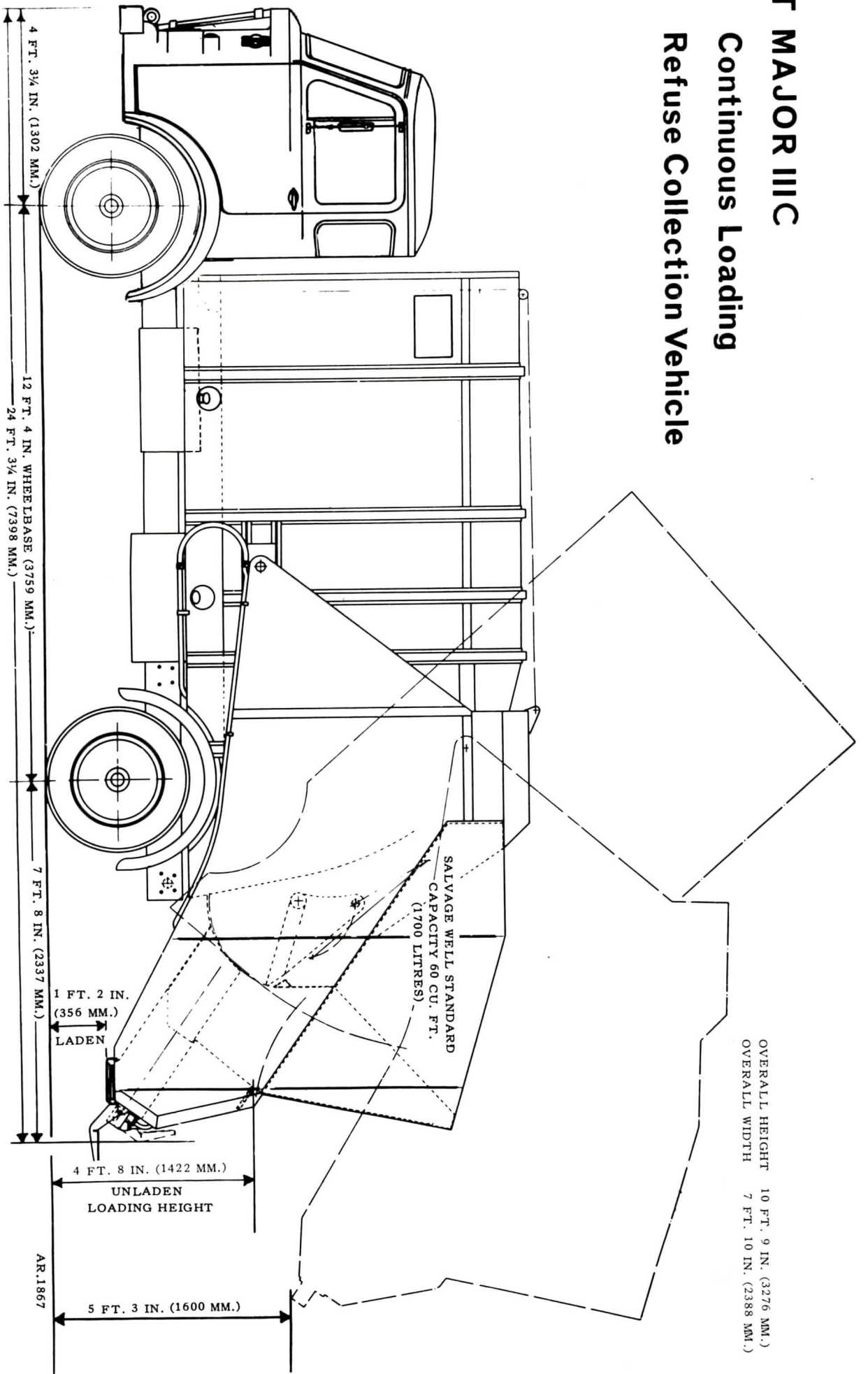
AVAILABLE EXTRAS

The following can be fitted either initially or as a conversion at a later date:-

Bulk bin hoist equipment. Dustless shutters for use with hinged lid dust bins (see separate leaflets). A major problem in the introduction of powered loading with only one machine is what happens if the vehicle is involved in an accident. Dennis Bros. solution is to pipe up and fit the necessary brackets to a second vehicle so that it can accept the power loading equipment from the first machine.

PAXIT MAJOR IIC

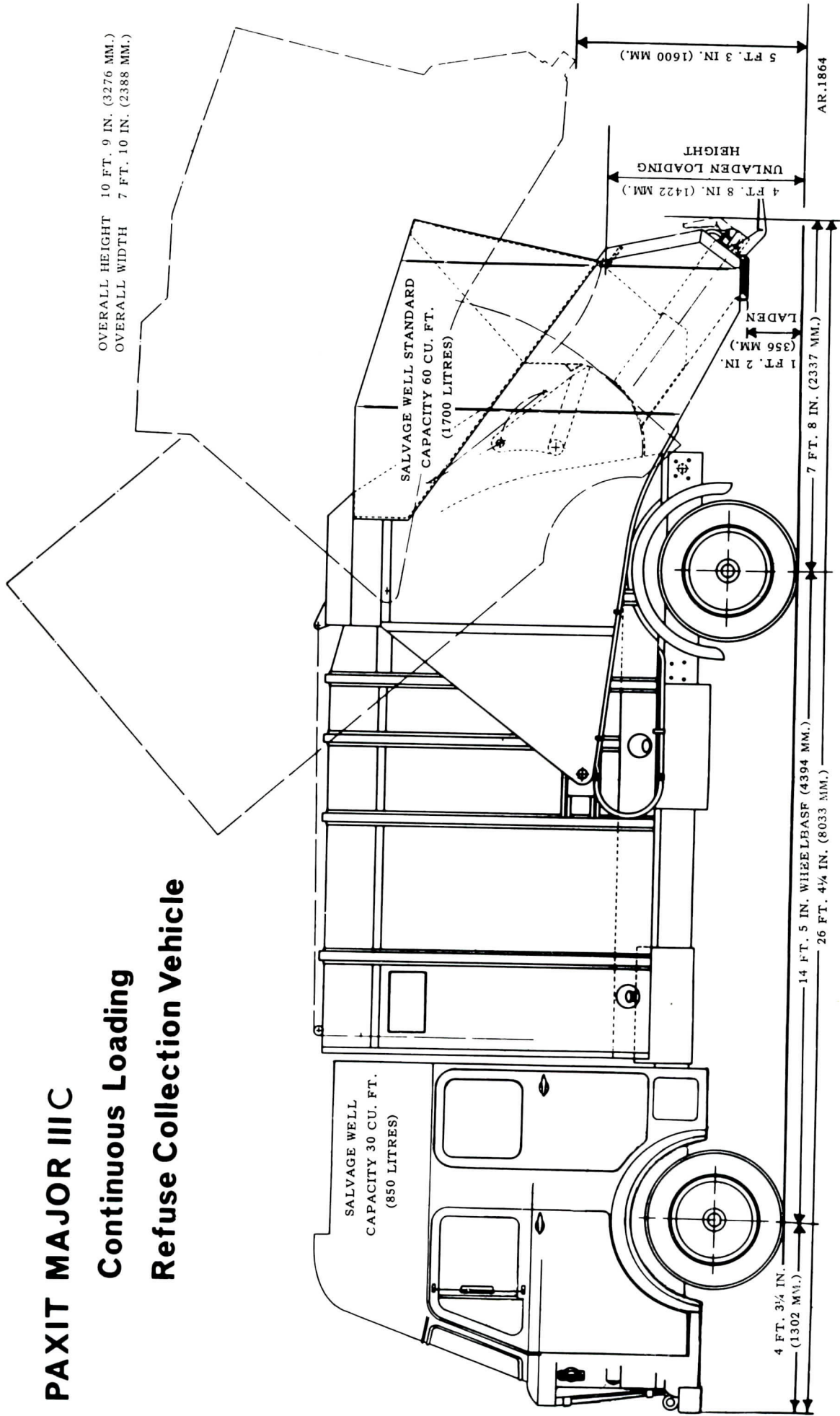
Continuous Loading Refuse Collection Vehicle



PAXIT MAJOR III C

Continuous Loading Refuse Collection Vehicle

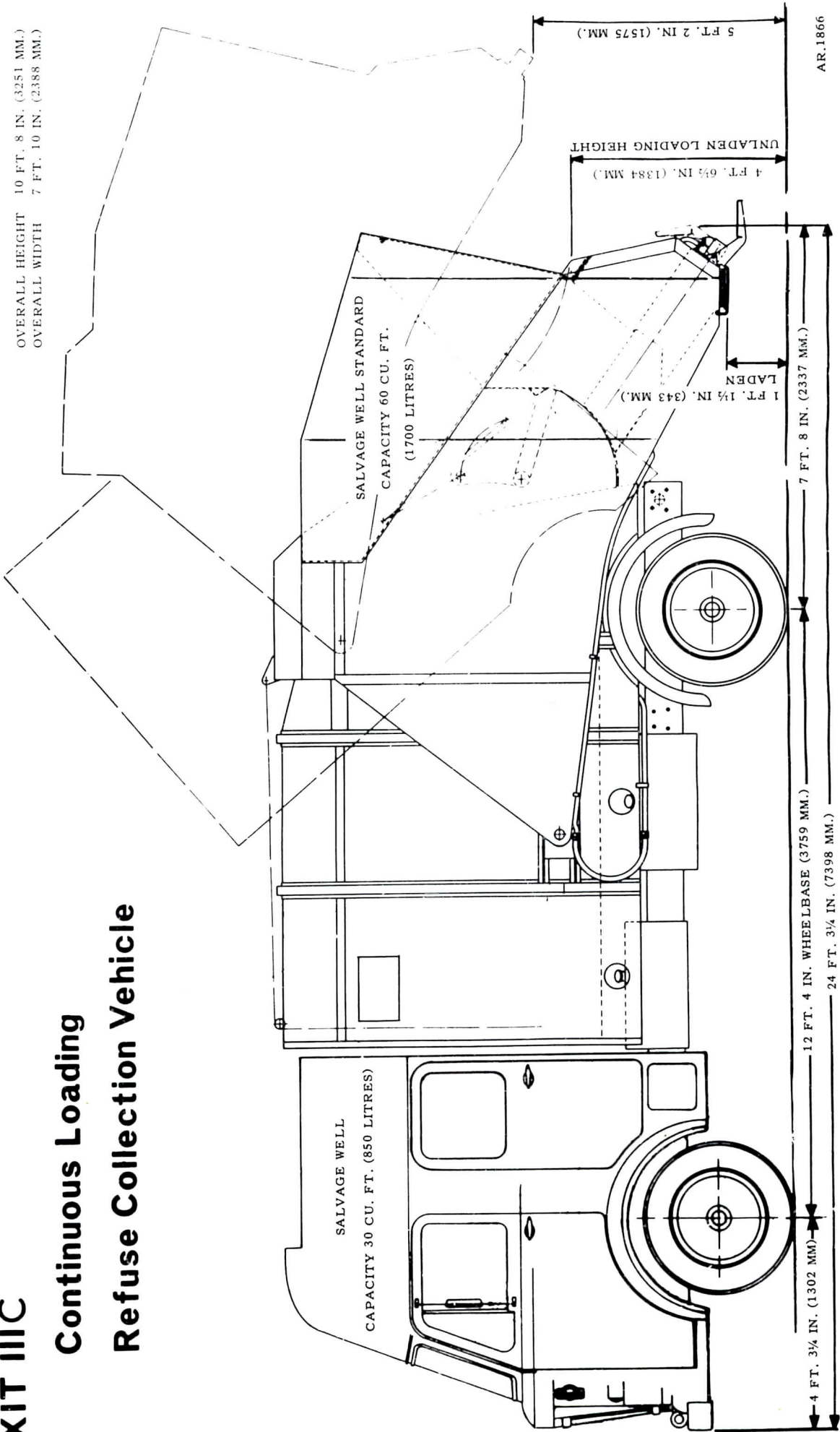
OVERALL HEIGHT 10 FT. 9 IN. (3276 MM.)
OVERALL WIDTH 7 FT. 10 IN. (2388 MM.)



PAXIT IIIIC

Continuous Loading Refuse Collection Vehicle

OVERALL HEIGHT 10 FT. 8 IN. (3251 MM.)
OVERALL WIDTH 7 FT. 10 IN. (2388 MM.)



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