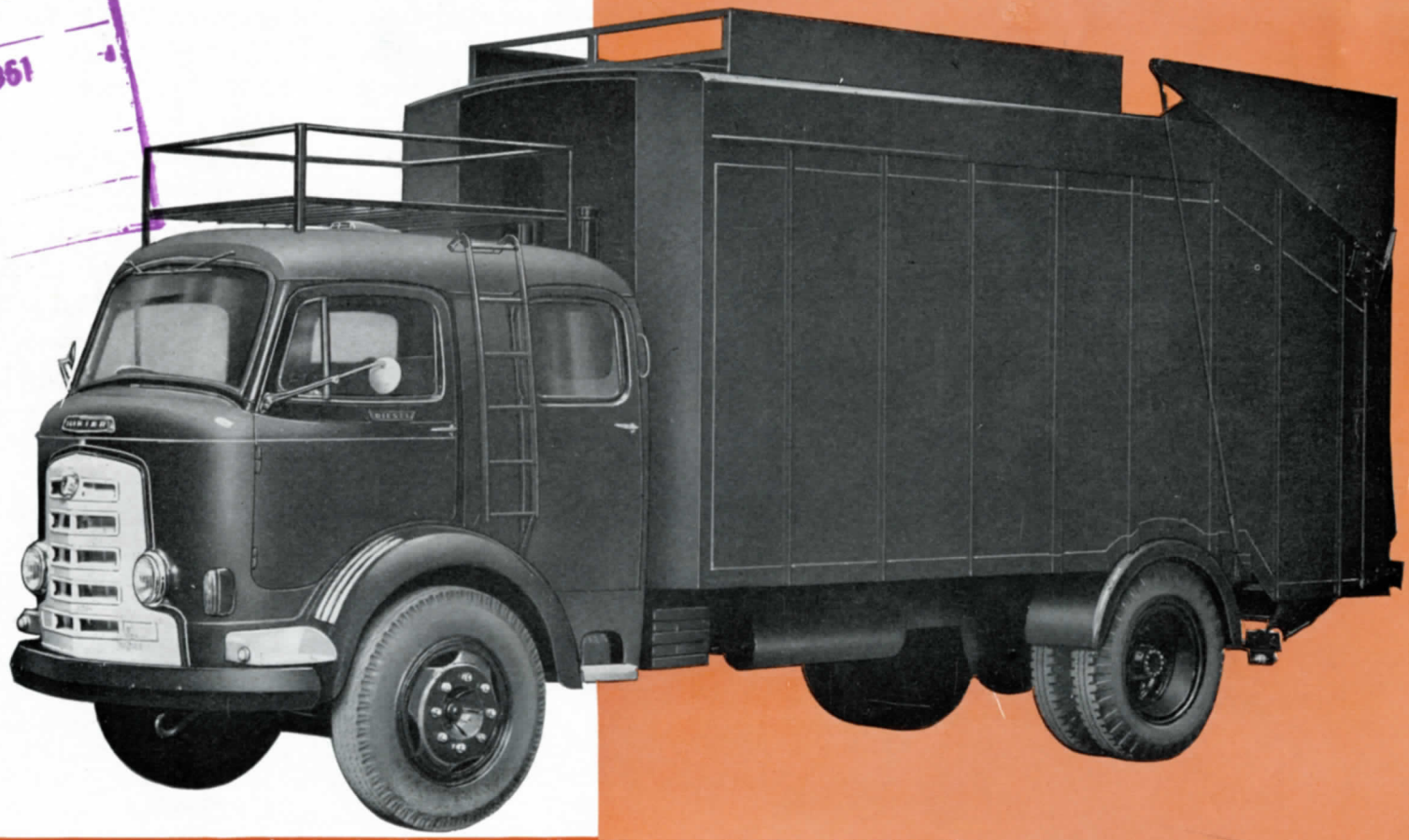
KARRIER

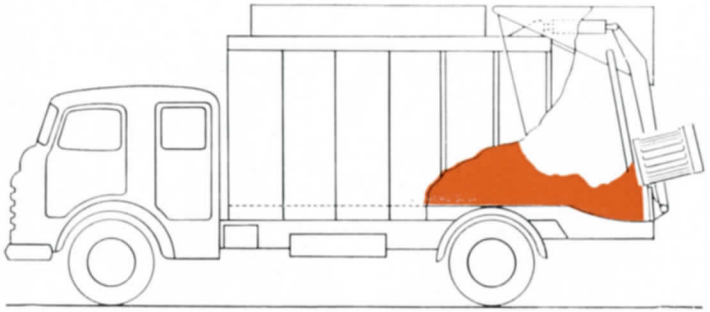
'BLENHEIM' REFUSE COLLECTOR

with a choice of
fully-proved
PETROL
or
DIESEL ENGINE

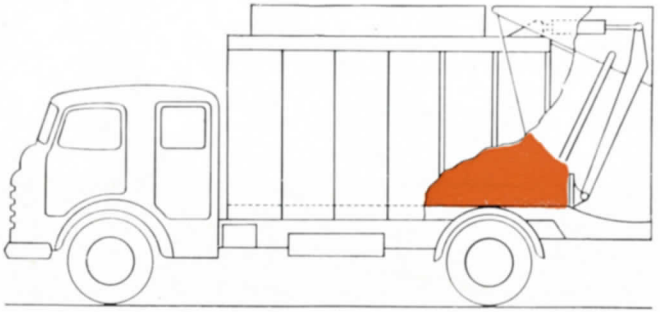


WITH BODY CAPACITIES OF 18-24 AND 22-30 CUBIC YARDS

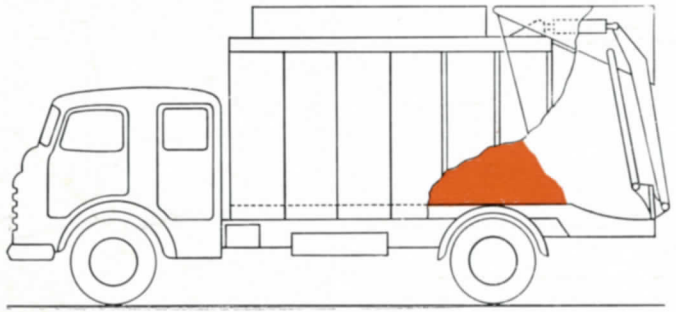
CLEAN, ECONOMICAL, EFFICIENT & OF EXTRA LARGE CAPACITY



1. *Low body height and a full-width opening enables refuse to be loaded easily; a simple dust trap obviating spillage.*

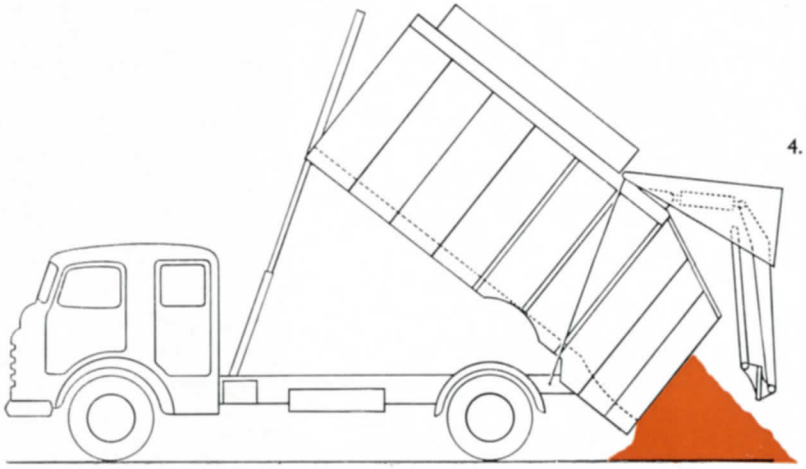


2. *The loaded refuse is packed by the forward and upward sweeping action of a robust, hydraulically-operated compression plate.*



3. *Following compression of refuse, the compression plate returns to its normal position preparatory to the next loading operation.*

THE 'BLENHEIM' Standard and Senior Refuse Collectors, of 18-24 and 22-30 cu. yd. capacities respectively, incorporate the latest techniques of hydraulic refuse compression. They have been produced to meet the ever-growing demand for large capacity vehicles which as a result of the introduction of smokeless fuels and modern packaging media, are now required. With bodies mounted on an extremely robust and amply powered forward control chassis evolved by Karrier designers and engineers, these models are available with either a long life o.h.v. petrol engine developing 91 b.h.p. gross and embodying porous-chrome cylinder bores, or the horizontal 'Six-354' diesel engine developing 108 b.h.p. gross. Both models are fitted with double cabs and outstanding body features include low-loading height, completely unobstructed loading aperture, large loading hopper which clears at each packing action, no spillage, and foolproof controls for packing and tipping operations. Action of the compression mechanism is a combination of efficiency and simplicity resulting in a high degree of compression. Thus, full utilisation of working time without loss due to repeated emptying of body is achieved. With hydraulic operating rams and components well clear of ultimate refuse level, interior of body is free from connecting bars, sliding pads, or rollers in tracks; consequently, damage and wear normally associated with such working parts are obviated. Tipping of body to discharge load is effected by sturdy telescopic arms at front of body. The double cab of all-steel construction, essentially modern yet completely practical with rear bench-type seat and additional offside and nearside doors, affords comfortable accommodation for a crew of seven.



4. *Loading completed, the body is hydraulically tipped; the rear being lifted clear to provide a clean and rapid discharge.*

BRIEF CHASSIS SPECIFICATION

PETROL ENGINE Six-cylinder overhead valve unit, $3\frac{3}{4}$ in. (95.25 mm.) bore, $4\frac{3}{8}$ in. (111.13 mm.) stroke and a capacity of 290 cu. in. (4,750 c.c.). Rated at 33.8 h.p. it develops a gross b.h.p. of 110 at 3,000 r.p.m. and a torque of 215 lb. ft. at 1,600 r.p.m., which is equal to B.M.E.P. of 114 lb. per sq. in. The cylinder block and crankcase form an integral casting which is set in the frame at an angle of 66°; porous chrome bores give increased engine life. 'T' slot pistons of "Lo-Ex" aluminium alloy each have two compression rings and one oil control ring above the fully-floating gudgeon pin. Inlet valves of silicon chromium steel shrouded and sealed against oil loss, and exhaust valves of austenitic steel operate in renewable guides. Seven-bearing crankshaft revolves in white-metal-lined shell type bearings. Automatically adjusted double roller chain drives the camshaft. "Solex" downdraught type carburettor has its air intake protected by an oil bath type air cleaner. A gauze strainer over the pump intake, and a full flow filter are included in the force feed lubrication system. Coil ignition, incorporating a distributor with built-in suppression equipment and long reach 14 mm. sparking plugs. A centrifugal pump, cowled six-bladed fan, by-pass thermostat and pressurized radiator, contribute towards efficient cooling.

DIESEL ENGINE ("Perkins" 'Six-354' specification). Direct injection, four-stroke, six-cylinder overhead valve unit having a bore of 3.875 in. (98.4 mm.) and a stroke of 5.0 in. (127 mm.) with a capacity of 354 cu. in. (5,800 c.c.). Developing a gross b.h.p. of 108 at 2,600 r.p.m., it has a torque of 254 lb. ft. (35.12 kg.m.) at 1,450 r.p.m. Unit cast iron alloy cylinder block and crankcase carries cast iron dry type liners with full length water jackets. The engine is set in the frame at 66°.. Pressure fuel system includes "C.A.V." DPA distributor type injection pump. The rigid seven bearing crankshaft has detachable shell bearings with full high-pressure lubrication. A centrifugal pump in conjunction with a by-pass thermostat and six-bladed fan ensures efficient cooling. An exhauster mounted on the engine provides a source of vacuum.

CLUTCH AND GEARBOX *Petrol Engine:* A single dry-plate clutch, 12 in. dia. with ball-type release bearing transmits power to a gearbox with four forward speeds and one reverse. Constant mesh helical gears with dog engagement are provided on top and third speeds, while gear selection is by remote control mechanism. Two S.M.M.T. type six-bolt facings are provided for power driven attachments. *Diesel Engine:* A single dry plate clutch 13 in. dia., transmits power to a gearbox with four forward speeds and one reverse. Synchromesh engagement is provided on top, third and second speeds, while gear selection is by remote control. Two S.M.M.T./S.A.E. type six-bolt facings are provided for power driven attachments.

TRANSMISSION Through balanced tubular propeller shafts fitted with universal joints which ensure a constant angular velocity and so promote smooth running.

REAR AXLE Spiral bevel unit in an exceptionally robust pressed-steel casing. A bronze thrust pad behind crown wheel checks movement due to shock loads. Fully floating flanged axle shafts take the drive to road wheel hubs. Standard ratio: 5.857 : 1 diesel, 7.20 : 1 petrol.

FRONT AXLE AND STEERING Axle bed is an 'I' section high-tensile steel forging, robust stub axles being carried on large diameter inclined king pins. High efficiency steering unit with 18 in. steering wheel.

FRAME AND SPRINGS Sidemembers with a maximum channel section of $8\frac{9}{16}$ in. by $\frac{7}{32}$ in. and flange widths of $2\frac{9}{16}$ in. top, 3 in. bottom, carry reverse cambered semi-elliptic springs of silicon-manganese steel to give increased strength under load. Front springs are 48 in. long by $2\frac{3}{4}$ in. wide; rear springs are 54 in. long by 3 in. wide.

BRAKES Powerful, vacuum assisted, hydraulic two-leading shoe brakes—rear of the 'both-direction' type—operate in cast drums. Brake dimensions are: Front—16 in. dia. × 3 in. wide; rear—$15\frac{1}{4}$ in. dia. × 5 in. wide.

CHASSIS LUBRICATION Hydraulic oil gun nipples, suitable for hand gun or high pressure systems, are fitted to all working parts.

WHEELS AND TYRES Steel disc three-piece wheels, with B6.0–20 rims, 5.10 in. offset, are fitted with 8.25–20 12-ply tyres.

ELECTRICAL EQUIPMENT Positive earth system includes a 12-volt fan-ventilated, compensated voltage control dynamo and inboard "Lucas" starter with spring-type drive. A battery of 64 amp. hour capacity on petrol model; two 6 volt batteries of 115 amp. hour on diesel model; 50/40-watt headlamps; side lamps in front step plates; twin stop/tail lights, separate number plate lamp, and twin 3 in. rubber framed reflectors are incorporated.

INSTRUMENT PANEL Indirectly illuminated, embodies speedometer with mileage recorder, oil pressure warning light, thermometer, electric fuel gauge, lighting switches. Wiring connections are through multi-pin plug.

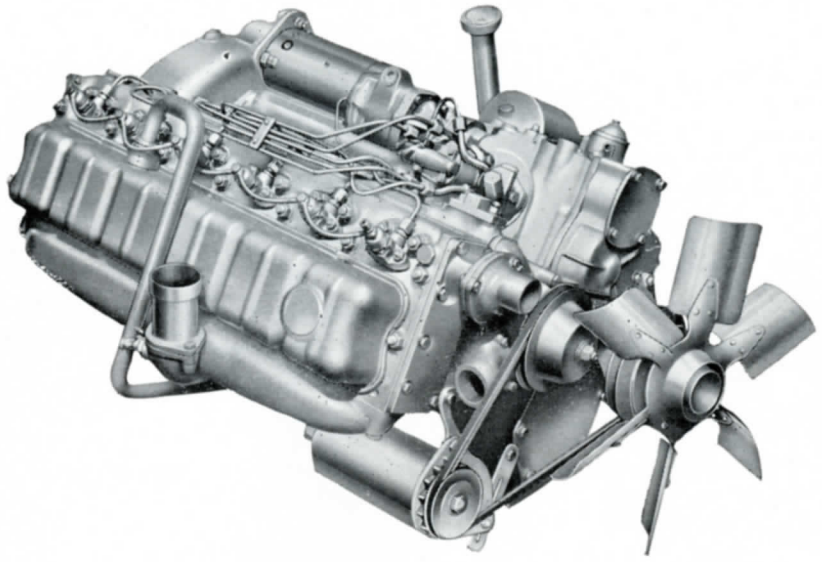
GENERAL EQUIPMENT Bumper bar, chromium plated front wheel hub covers, hydraulic jack and handle, wheelbrace, tyre lever, oil gun, kit of tools, front and rear number plates, and front towing loop at nearside.

DRIVER'S CAB With a distinguished modern appearance, the full forward cab of all-steel construction, supported in frame by four large rubber mountings, seats seven persons in comfort. The seats are well upholstered in 'P.V.C.' leathercloth, those at the front being readily removable for access to the engine, whilst that at the rear can be folded back to provide room for equipment; all interior metalwork is painted to match the general colour scheme. Easy entry to the front seat is afforded through 35 in. self-closing front-hinged doors, set well forward and provided with convenient steps; a further two doors give access to the rear of the cab. The forward doors have swivelling quarter lights with handle controlled full-opening drop windows and the rear doors have fixed lights; all doors can be locked. Controls are carefully positioned to ensure maximum driving comfort with minimum fatigue. Ideal driving conditions are further assisted by easily visible instruments, wide vision one-piece screen of laminated safety glass (all other cab windows being of toughened safety glass), with dual electric screen wipers and controlled interior temperature. Two ventilators deliver air from the radiator grille to driver's and passenger's feet. Two large pockets are built into the facia and a 6-watt roof light gives adequate illumination for servicing the engine. Two driving mirrors, two rubber floor mats with felt underlay, and a licence holder are supplied.

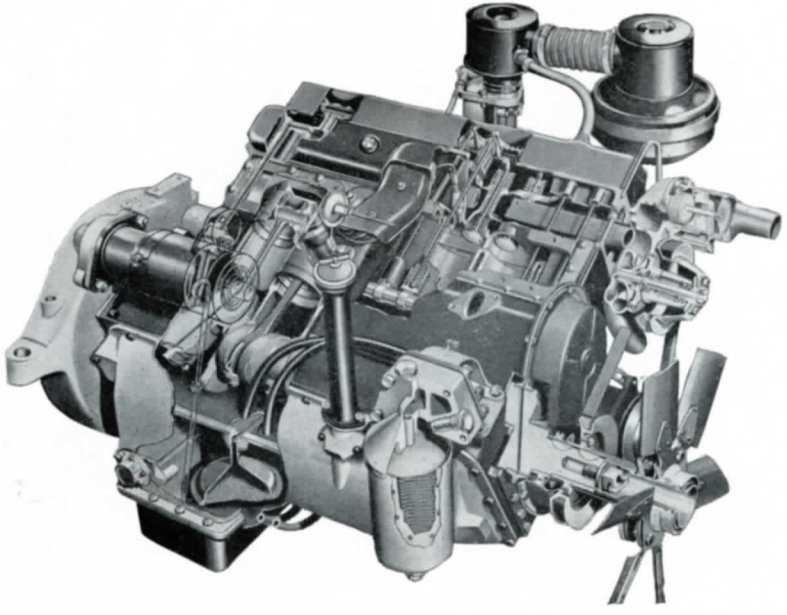
CHOICE OF WELL-PROVED AND ECONOMICAL POWER UNITS

Karrier Horizontal 'Six-354' Diesel Engine

WITH AN OUTSTANDING POWER-WEIGHT RATIO



DESIGNED for long periods of trouble-free service at minimum cost, this horizontal diesel engine is manufactured to exacting requirements for high performance, reliability and economy. Of the latest "Perkins" 'Six-354' design, it is a six-cylinder, direct-injection unit embodying overhead valves and develops 108 gross b.h.p. at 2,600 r.p.m. with a torque of 254 lb. ft. (35.12 kg.m.) at 1,450 r.p.m., thus yielding more power than any other diesel engine of comparable weight. Allied to this power are smoothness, reliability and outstanding economy, while a "C.A.V." thermostart ensures easy starting in the coldest conditions. Tested and developed over long periods under the most arduous conditions, this horizontal diesel is a worthy addition to the already renowned range of Karrier engines. Servicing is simplicity itself, facilitated as it is by easily-accessible components and further aided by the world-wide availability of any necessary spares.



Karrier 'Underfloor' o.h.v. Petrol Engine

WITH PHENOMENAL LIFE CHROME CYLINDER BORES

IN EVOLVING this six-cylinder engine, Karrier designers and engineers planned to produce a unit combining well-tried features with the very latest proved developments known to the industry. As a result of their endeavours the Karrier o.h.v. engine was produced, developing a gross b.h.p. of 91 at 2,600 r.p.m. and a torque of 216 lb. ft. (29.68 kg.m.) at 1,200 r.p.m. It incorporates a host of features never before embodied in one design; among them porous chrome cylinder bores which, four times harder than cast iron, extend engine life to a phenomenal degree. Here is an engine, precision built, three-point rubber mounted, and possessing all the features essential to successful municipal operation, which develops power, and to spare, for the most arduous tasks; one which requires infrequent 'off-the-road' overhauls and with a running cost curve which remains relatively flat throughout a long and trouble-free life.

BODY SPECIFICATION

GENERAL DESCRIPTION This refuse collector is of the rear-loading type and operates without manual trimming. Refuse is packed by a compression plate hydraulically-activated by twin rams, and finally discharged by rearward tipping. Other design features include low-loading line, automatic foolproof arrangement interlocking release of rear hopper opening with operation of tipping gear, power take-off and tipping controls in driver's cab, and pilot-operated valve gear providing simplified operation of packing mechanism entirely controlled by the loaders.

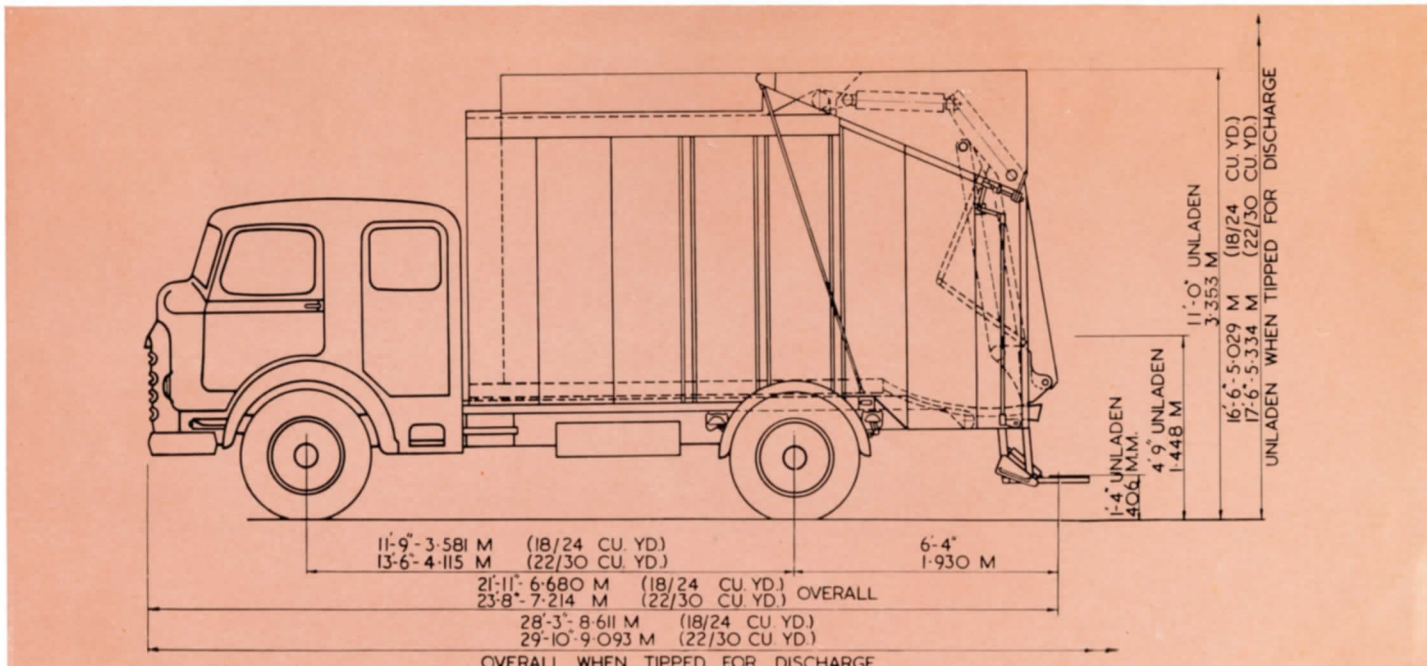
CONSTRUCTION OF BODY A welded sub-frame reinforces the chassis for full body length and incorporates tipping gear and body hinge. Body underframe is of all-welded steel channel construction providing the base for both floor and loading hopper. Body sides, constructed of galvanised steel panels riveted to channel pillars form a strong yet light structure, diagonal stress bars being included to counteract load compression forces. Interior of body is lined to waist with $\frac{1}{8}$ in. zinc-coated steel plate. Body floor is an all-welded structure of $\frac{1}{8}$ in. zinc-coated steel plate, whilst the hopper floor and side-wearing cheeks are of $\frac{3}{16}$ in. plate, similarly treated, but removable. Rear of body consists of a balanced aluminium-alloy combined shutter and pressure door, which effects a semi-dustless enclosure coupled with an increased loading and packing efficiency. The roof, fabricated from galvanised steel plate and embodying a flush internal finish, incorporates a three-quarter body-length salvage rack.

COMPRESSING MECHANISM The compression plate of zinc-coated pressed steel in box form, is pivoted to double swinging arms which impart a parallel motion to it. This plate, operated by two hydraulic rams of special design, moves in an arc, sweeping the refuse forward and upward into the body. The whole of the compression mechanism is housed in a hinged unit forming the upper rear portion of body which is arranged to lift when body is tipped. This arrangement provides total clearance for discharge of refuse and, at the same time, ensures rigidity and alignment of the compressing linkage.

HYDRAULIC OPERATION Power is provided by an 'Edbro' hydraulic pump, activated from the driver's cab. This pump operates (1) two sturdy telescopic arms at front of body for load discharging, and (2) twin, automatic, two-way action compressing rams within body which activate the compressing plate and are operated by a lever at rear of body. These rams embodying chromium-plated bores to prolong working life, are positioned clear of maximum refuse level and are consequently free from damage.

ATTACHMENTS A rear step of simple design, extremely strong and fitted with a non-slip tread, is hinged to swing under body.

GENERAL DATA	STANDARD	SENIOR
Capacity	18-24 cu. yd.	22-30 cu. yd.
Wheelbase	11 ft. 9 in.	13 ft. 6 in.
Overall length ...	21 ft. 11 in.	23 ft. 8 in.
Overall width ...	7 ft. 9½ in.	7 ft. 9½ in.
Overall height of vehicle (unladen) ...	11 ft. 0 in.	11 ft. 0 in.
Height of loading rail from ground (unladen) approx. ...	4 ft. 9 in.	4 ft. 9 in.
Overall height when tipped for discharge	16 ft. 6 in.	17 ft. 6 in.
Tyre equipment ...	8.25 x 20–12-ply	8.25 x 20–12-ply
Turning circle approx.	51 ft. 0 in.	57 ft. 0 in.
Unladen weight, approx.	Petrol: 120 cwt. Diesel: 124 cwt.	Petrol: 122¾ cwt. Diesel: 126¾ cwt.
Annual Tax (Petrol) ...	£114	£114
(Diesel) ...	£114	£120



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