

# Land Rover

**1½ TON**

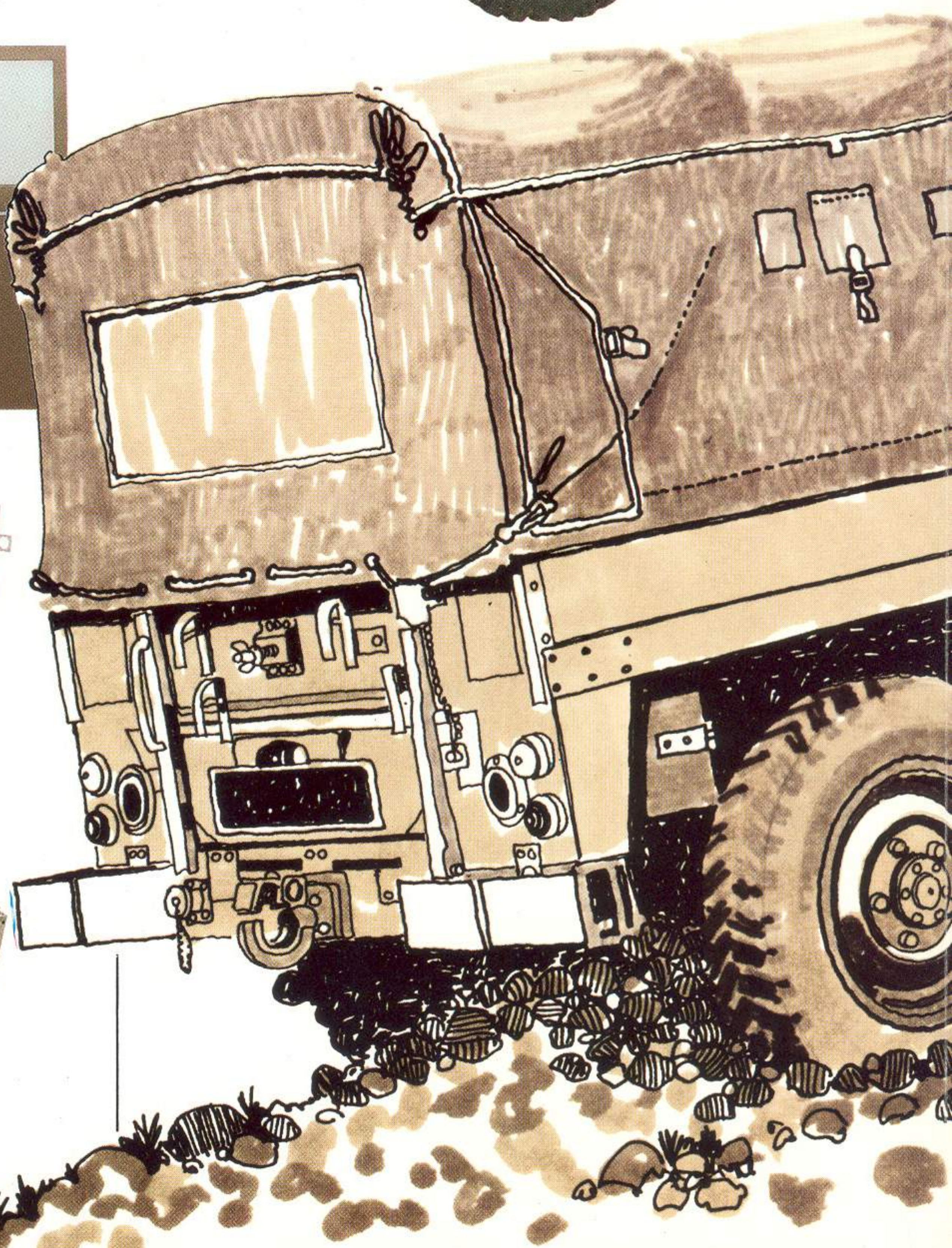
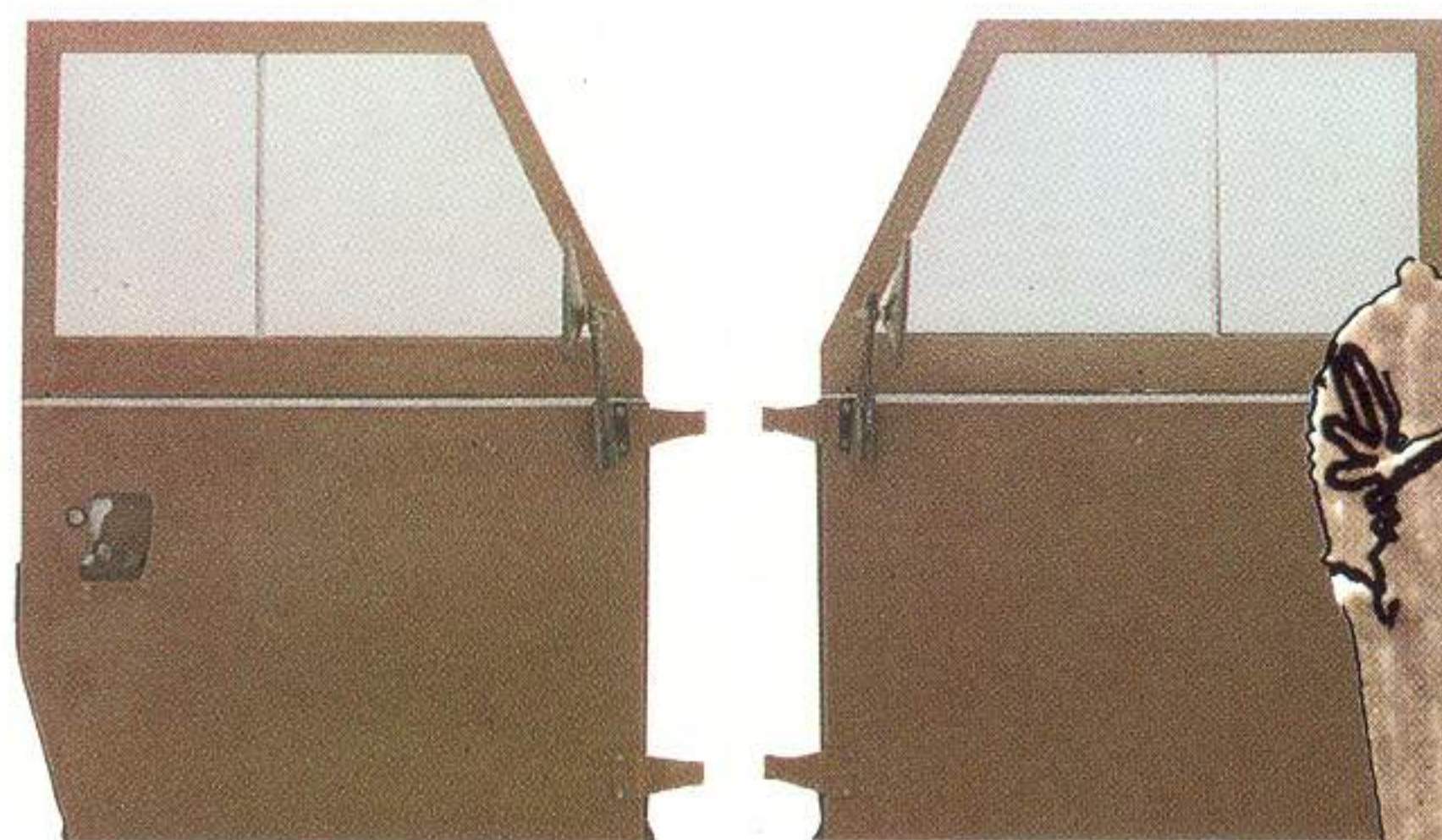
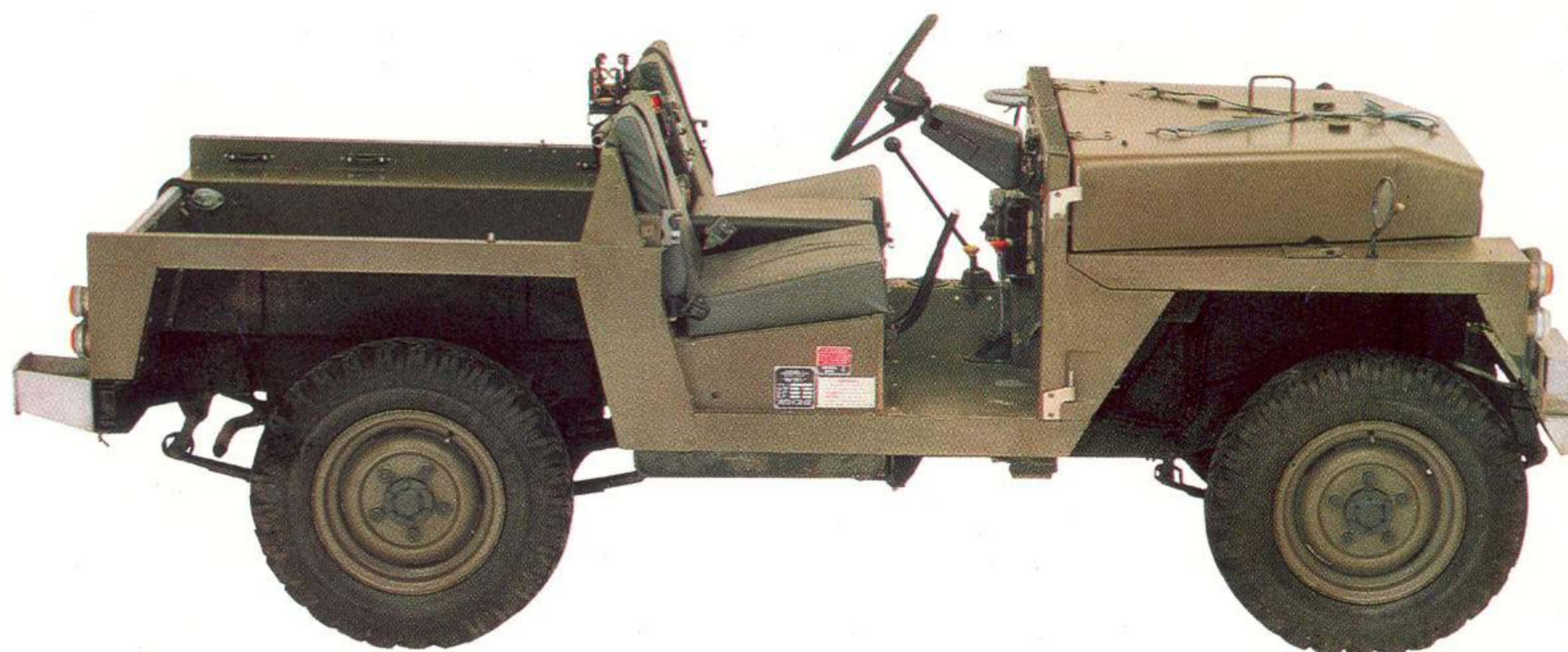
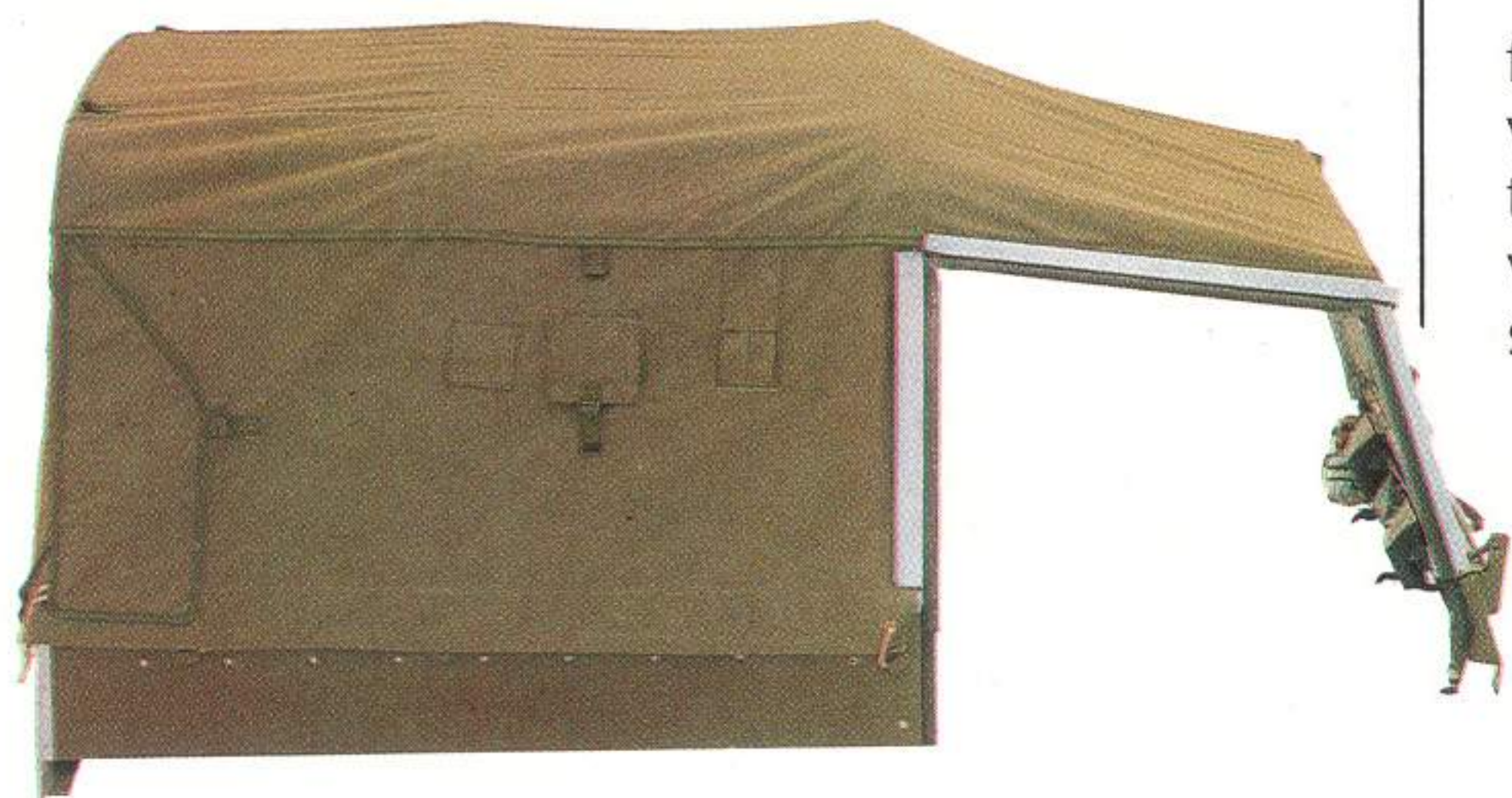




## ½ Ton Military Vehicle

The ½ ton military vehicle was developed by Rover in conjunction with the British Fighting

Vehicles Research and Development Establishment to meet a specific requirement for an airportable vehicle with a ½ ton payload. The body is unique being largely manufactured from flat panels and is designed so that the windscreen assembly, doors, upper body and tailgate panels can be easily detached reducing weight for the airportable role. This provides a serviceable vehicle weighing 4480 lbs (2018.5 kg) for use in air or heliborne operations. The chassis is derived from the 88 inch commercial vehicle, as are the engine, gearbox, and axles.



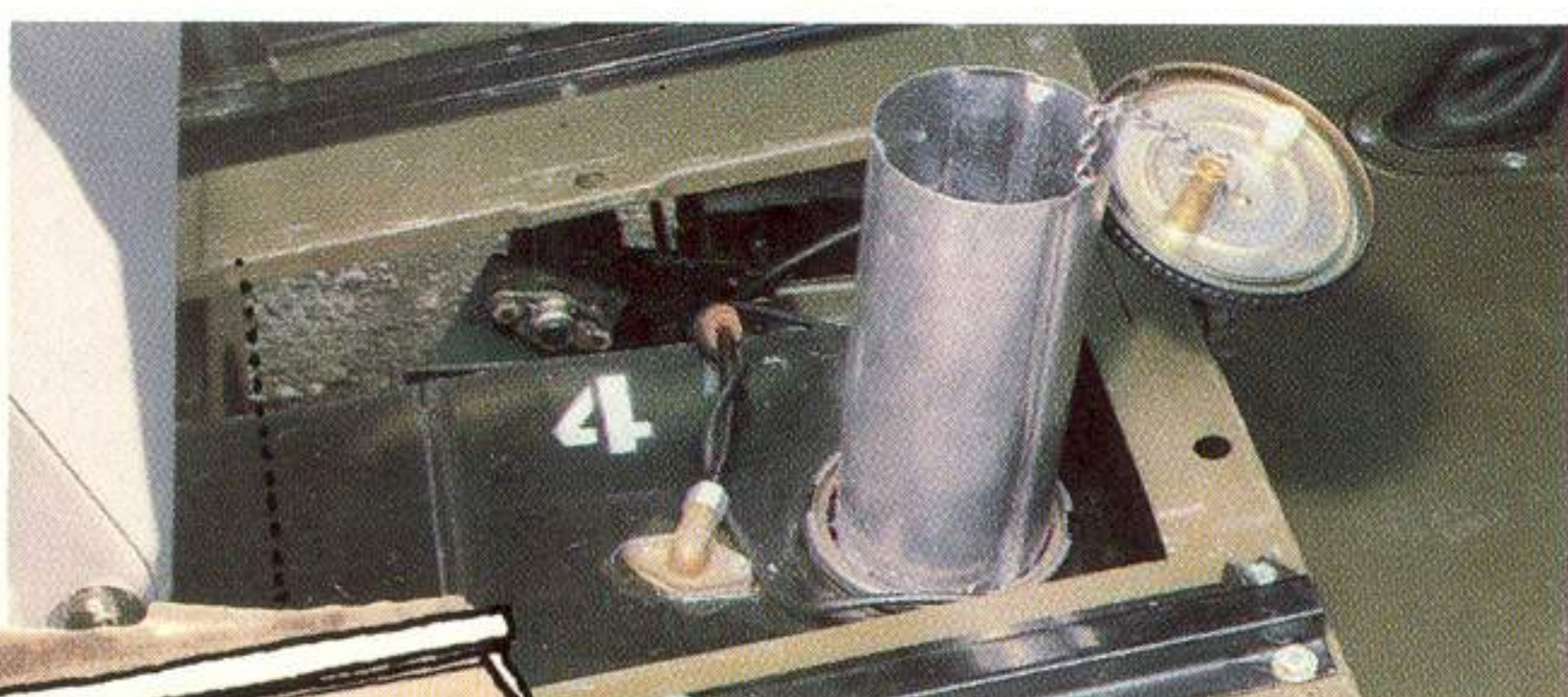


The vehicle is available with 12 volt or 24 volt electrical systems, the latter available with up to 90 amp alternators. All 24 volt vehicles are fully suppressed to meet military operational standards. The latest solid state control boxes are used in the radio battery charging circuit. The vehicle is fitted with a full length soft hood constructed of rot proof, flame retardant canvas, supported by galvanised hood sticks. Reinforcements and flaps are provided for aerial outlet.

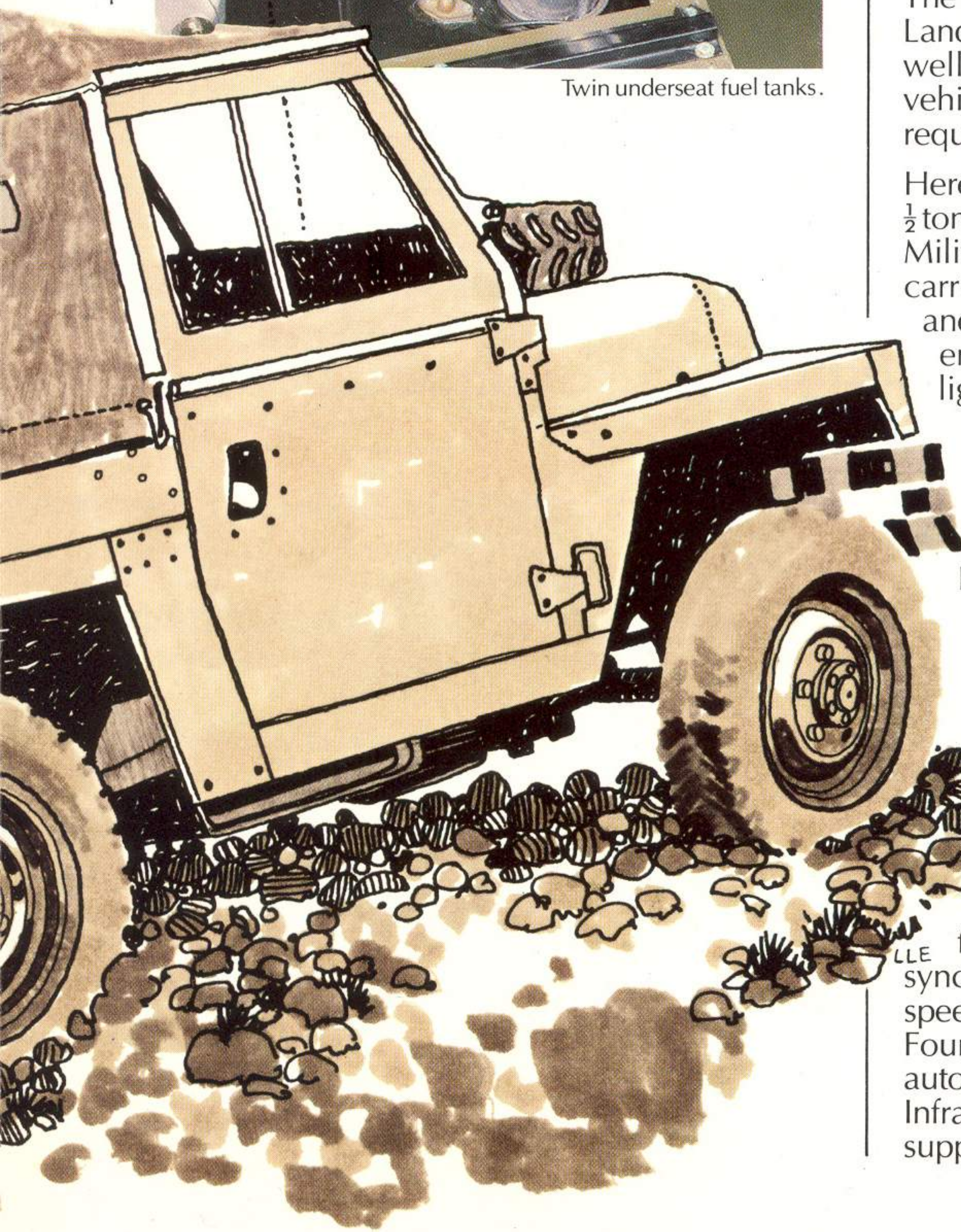


Fascia

Twin underseat filling fuel tanks are provided, with telescopic filler necks to facilitate filling from Jerrycans.



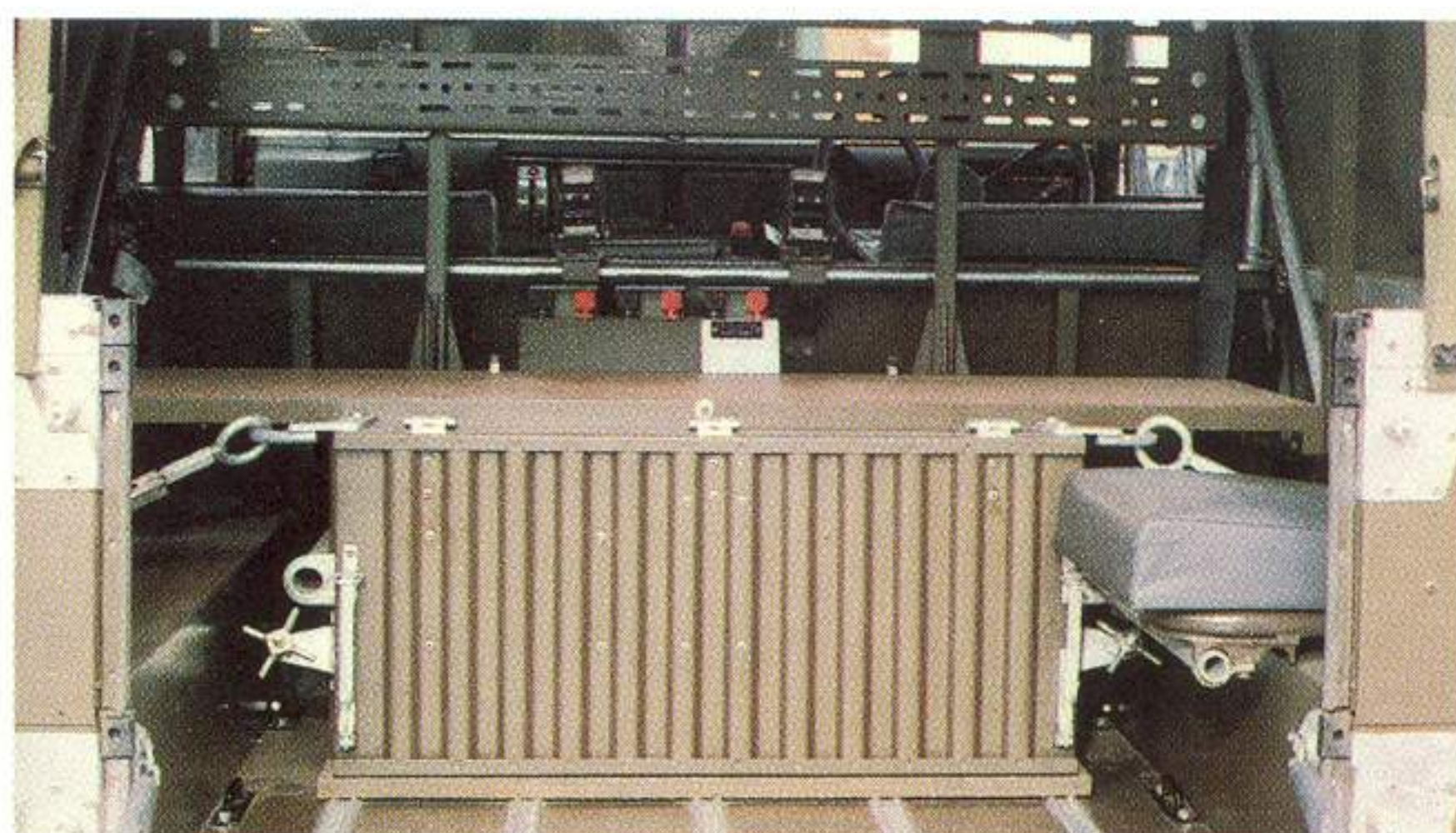
Twin underseat fuel tanks.



The braking system is of the dual line type with a warning light, activated by a pressure differential sensor. A brake servo is fitted as standard.

A Fitted for Radio (FFR) vehicle is available with the addition of a Unitary Radio Kit which features a radio battery carrier for four batteries, a radio table, equipment rack and a protective canopy.

Aerial support brackets are also included. Either one or two radio operators' seats can be supplied with the kit. The whole unit is demountable from the vehicle so that it may be used as a ground station. The vehicle can therefore be used as a radio or cargo vehicle, a useful feature in the forward role envisaged in the design requirements.



Radio battery carrier.

The adaptability of the  $\frac{1}{2}$  ton vehicle has gained Land Rover Ltd orders from NATO countries as well as those overseas. The specification of the vehicle can be adjusted to suit specific customer requirements.

Here are but a few of the many roles which the  $\frac{1}{2}$  ton unit performs:

Military, police, civil defence, personnel and load carriers; command vehicles for artillery, infantry and other arms and services; recovery vehicles; emergency two-stretcher carriers; towing of light support weapons; specialist trailer towing and operation, signals communications, radio transmission and receiving centres; and reconnaissance, etc.

Petrol and Diesel engines are available. Both are 2.25 litre units, the petrol engine producing up to 69 bhp (51.5 kW) @ 4000 rpm and 117.2 lb/ft (159 Nm) @ 2000 rpm torque and the Diesel variant 56.2 bhp (42.9 kW) @ 4000 rpm and 101.3 lb/ft (137.3 Nm) torque @ 1800 rpm.

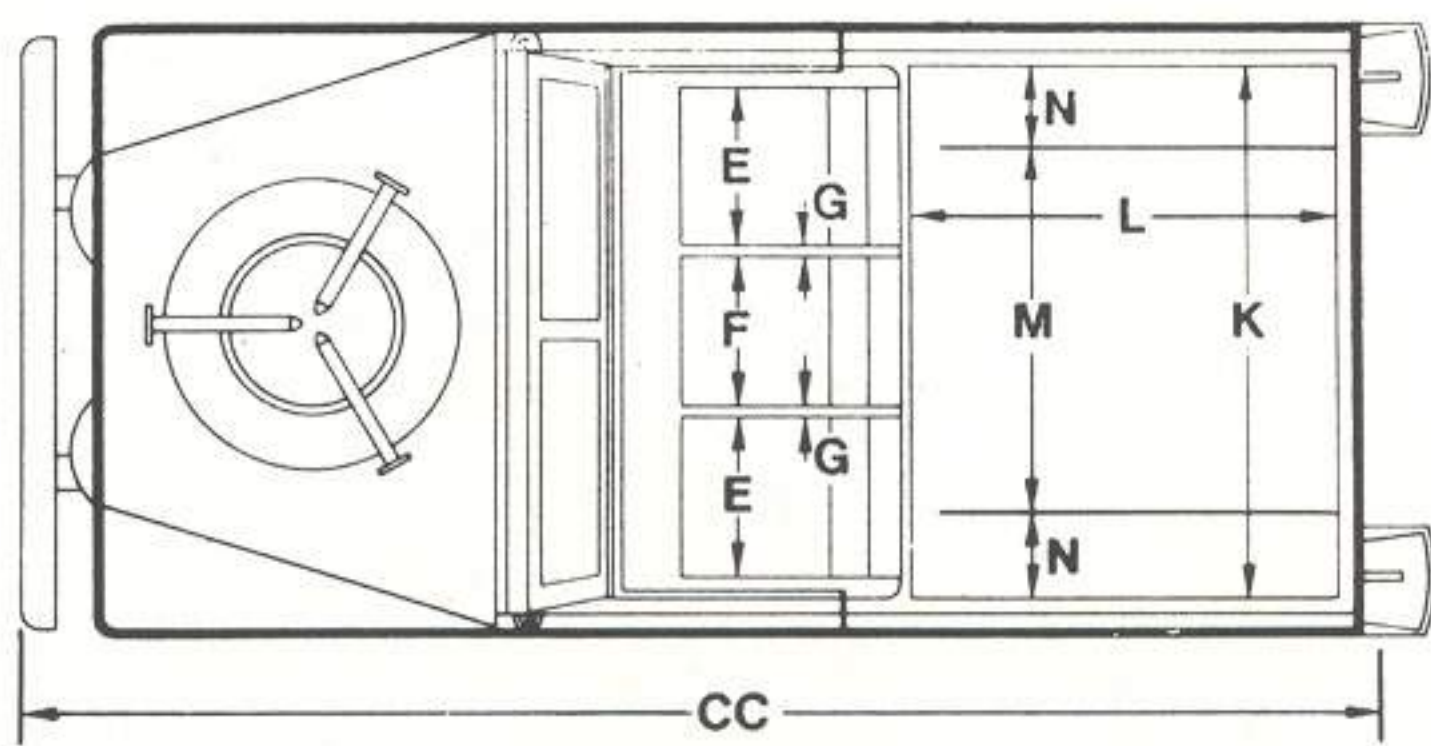
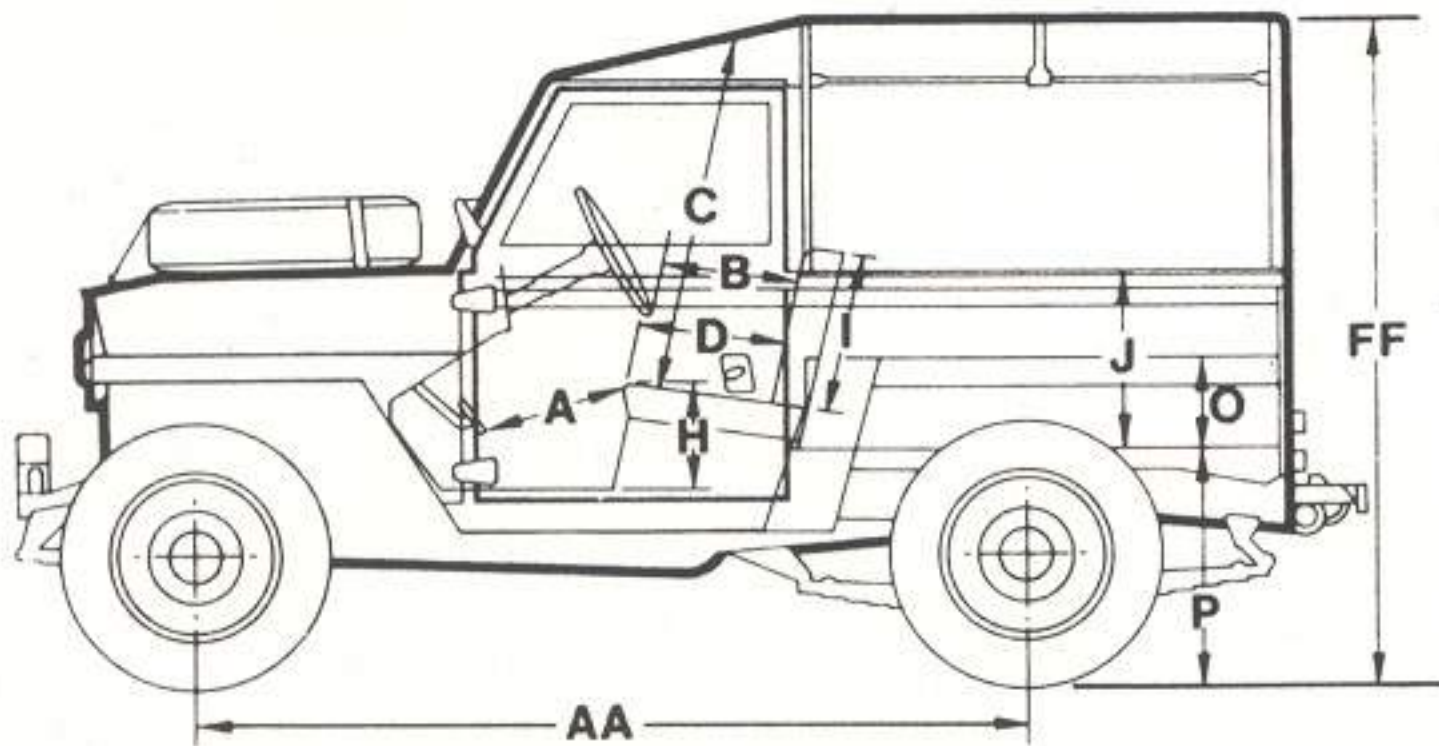
Transmission is through a 9.5 in (241 mm) single dry plate clutch, a

four forward speed and reverse gearbox with synchromesh on all forward gears and a two speed transfer gearbox.

Four wheel drive is selectable in high range, and automatically selected in low range. Infra-red reflective paint finish (I.R.R.) can be supplied subject to negotiation.



		METRES INCHES				METRES INCHES	
AA	Wheelbase	2.23	88.00	F	Width of front centre cushion	0.45	18.00
BB	Track	1.31	51.50	G	Width between front seats	0.02	1.00
CC	Overall length	3.65	144.00	H	Top of front cushion to floor	0.35	14.00
DD	Overall width	1.52	60.00	I	Front squab height	0.45	18.00
EE	Overall height of windscreen	1.70	67.00	J	Height of body sides	0.50	20.00
FF	Overall height with hood	1.95	77.00	K	Width of body interior	1.46	55.75
A	Front cushion to accelerator pedal	0.44	17.50	L	Length of body interior	1.14	45.25
B	Front squab to steering wheel	0.36	14.25	M	Interior body width between wheel boxes	0.91	36.00
C	Headroom, front seat (uncompressed)	1.05	41.50	N	Width of wheel boxes	0.28	11.60
D	Front to rear of front cushion	0.43	17.12	O	Height of wheel boxes	0.20	8.12
E	Width of front cushion	0.45	18.00	P	Platform height (unladen)	0.71	28.00



		Unladen Weight Kg 12v	Unladen Weight Kg 24v	Gross Vehicle Weight Kg
PETROL	Hood in position	1455	1510	} 2162
	stripped	1206	1274	
DIESEL	Hood in position	1496	1551	
	stripped	1247	1315	

#### ENGINE (2¼ PETROL)

Type	4 cylinder petrol
Bore	3.56ins (90.47 mm)
Stroke	3.5ins (88.9 mm)
Capacity	2286 cc
Compression ratio	7:1
Max power (4000 rpm)	64 bhp (47.8 Kw)
Max torque (2000 rpm)	113.5 lbf.ft (154 Nm)
Compression ratio	8:1
Max power (4000 rpm)	69 bhp (51.5 Kw)
Max torque (2000 rpm)	117.2 lbf.ft (159 Nm)

#### ENGINE (2¼ DIESEL)

Type	4 cylinder diesel
Bore	90.47 mm (3.56 ins)
Stroke	88.9 mm (3.5 ins)
Capacity	2286 cc
Compression ratio	23:1
Max power	56.2 bhp (41.9 Kw) at 4000 rpm
Max torque	101.3 lbf.ft (137.3 Nm) at 1800 rpm

#### FUEL SYSTEM (PETROL)

Carburettor	Single Zenith 36IV
Petrol pump	Mechanical with priming lever and sediment bowl
Tank capacity	20 galls (90.00 litres)

#### FUEL SYSTEM (DIESEL)

Injectors	C.A.V. Pintaux
Fuel pump	Mechanical with priming lever
Injector pump	Self-governing D.P.A. distributor type
Tank capacity	20 galls (90.00 litres)

#### COOLING SYSTEM

Type	Pressurised with pump, fan, thermostat and expansion tank
Working pressure	9 lbf/in <sup>2</sup> (0.63 Kg/cm <sup>2</sup> )

#### TRANSMISSION

Clutch	Diaphragm spring, single dry plate
Diameter	24.1 cm (9.5 ins)
Main gearbox	Four speed and reverse — Synchromesh on forward gears
Transfer box	Two speed reduction on main gearbox output Two/four wheel drive control on transfer box output

#### OVERALL RATIOS: Final drive

High range	top	5.40:1
	third	8.05:1
	second	12.00:1
	first	20.14:1
	reverse	21.01:1
Low range	top	11.10:1
	third	16.50:1
	second	24.60:1
	first	41.24:1
	reverse	42.93:1
Differential ratios (both axles)		4.7:1
Front axle	Spiral bevel — floating shafts with enclosed universal joints	
Rear axle	Hypoid — floating shafts	
Propeller shafts	Open type 2.0 ins (50.8 mm)	

#### STEERING

Type	Recirculating ball, worm and nut
Lock to lock	3.5 turns
Steering damper	Optional — fitted to drag link

#### WHEELS

Type	Steel-ventilated disc
Fixing	5 stud
Size	5.00F × 16 ins
Tyre size	6.00 × 16 ins

#### BRAKES

Type	Hydraulic drum
Drum diameter	254 mm (10 ins)
Brake shoe width:	38 mm (1.50 ins) front and rear
Handbrake	Mechanical — on transfer box output
Drum diameter	228.6 mm (9.00 ins)
Brake shoe width	44.5 mm (1.75 ins)

#### ELECTRICAL

Type	12v	24v FFR
Generator	Lucas	CAV
Batteries	1 x 12v 51 a.h. 58 a.h. (Diesel engine)	2 x 12v Vehicle 44 a.h. 2 x 12v Radio 100 a.h. Fitted in Radio Kit

#### PERFORMANCE

Approach angle	49° (58° in stripped down form)
Departure angle	36° (38° in stripped down form)



Land Rover Ltd

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The information contained in this leaflet is correct at date of publication but is subject to alteration without notice.