

SECTION 3 - DATA

DIMENSIONS, SEE Fig 6 and 7

WEIGHTS

Liaison vehicle (up armoured
heaviest versions)

Unladen	3 tons 9 cwt 0 qr	(7,728 lb (3,505 kg))
Laden (including crew, armament, fuel, oil, water and all equipment)*		
Front axle	1 ton 17 cwt 1 qr	(4,172 lb (1,892 kg))
Rear axle	2 tons 5 cwt 3 qr	(5,124 lb (2,324 kg))
Total	4 tons 3 cwt 0 qr	(9,296 lb (4,216 kg))

Reconnaissance vehicle (up armoured
heaviest version)

Unladen	3 tons 12 cwt 2 qr	(8,120 lb (3,683 kg))
Laden (as at *)	1 ton 19 cwt 2 qr	(4,424 lb (2,006 kg))
Rear axle	2 tons 7 cwt 0 qr	(5,264 lb (2,387 kg))
Total	4 tons 6 cwt 2 qr	(9,688 lb (4,394 kg))

Mk 3

Laden (as at *)

Front axle	2 tons 12 cwt 0 qr	(5,824 lb (2,643 kg))
Rear axle	2 tons 16 cwt 0 qr	(6,272 lb (2,845 kg))
Total	5 tons 8 cwt 0 qr	(12,096 lb (5,488 kg))

Mk 4

Unladen	4 tons 13 cwt 3 qr	(10,500 lb (4,763 kg))
Laden (as at *)		
Front axle	2 tons 12 cwt 0 qr	(5,824 lb (2,643 kg))
Rear axle	2 tons 16 cwt 0 qr	(6,272 lb (2,845 kg))
Total	5 tons 8 cwt 0 qr	(12,096 lb (5,488 kg))

Mk 5

Unladen	5 tons 0 cwt 0 qr	(11,200 lb (5,080 kg))
Laden (as at *)		
Front axle	2 tons 12 cwt 0 qr	(5,824 lb (2,643 kg))
Rear axle	3 tons 4 cwt 0 qr	(7,168 lb (3,251 kg))
Total	5 tons 16 cwt 0 qr	(12,992 lb (5,894 kg))

BRIDGE CLASSIFICATION

Mk 1 and 2	4
Mk 3, 4 and 5	To be issued later

FORDING DEPTH

Mk 1 and 2	
Unprepared	3 ft 0 inches
Prepared	5 ft 0 inches
Mk 3, 4 and 5	
Unprepared	3 ft 4 inches
Prepared	Full flotation

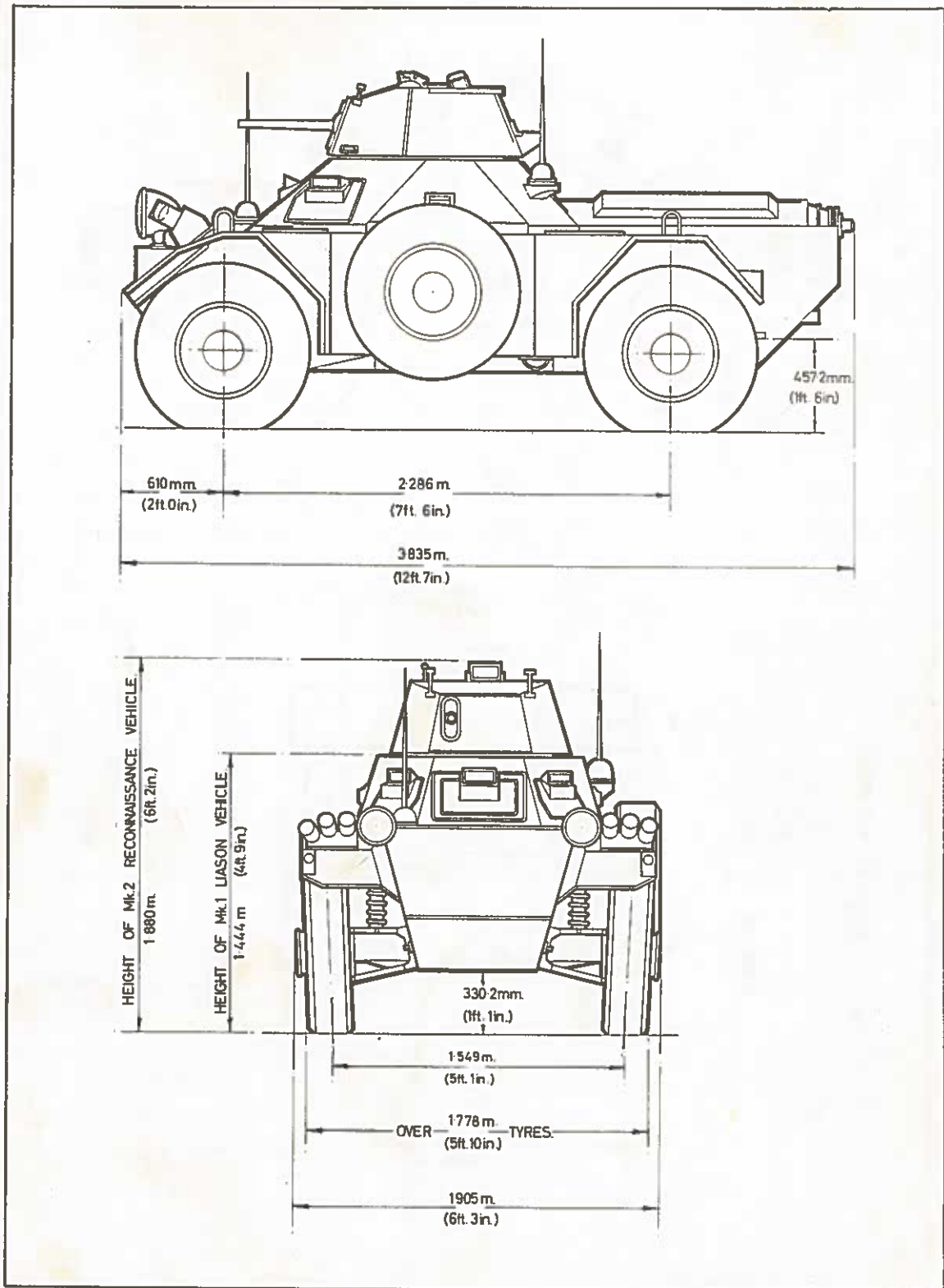
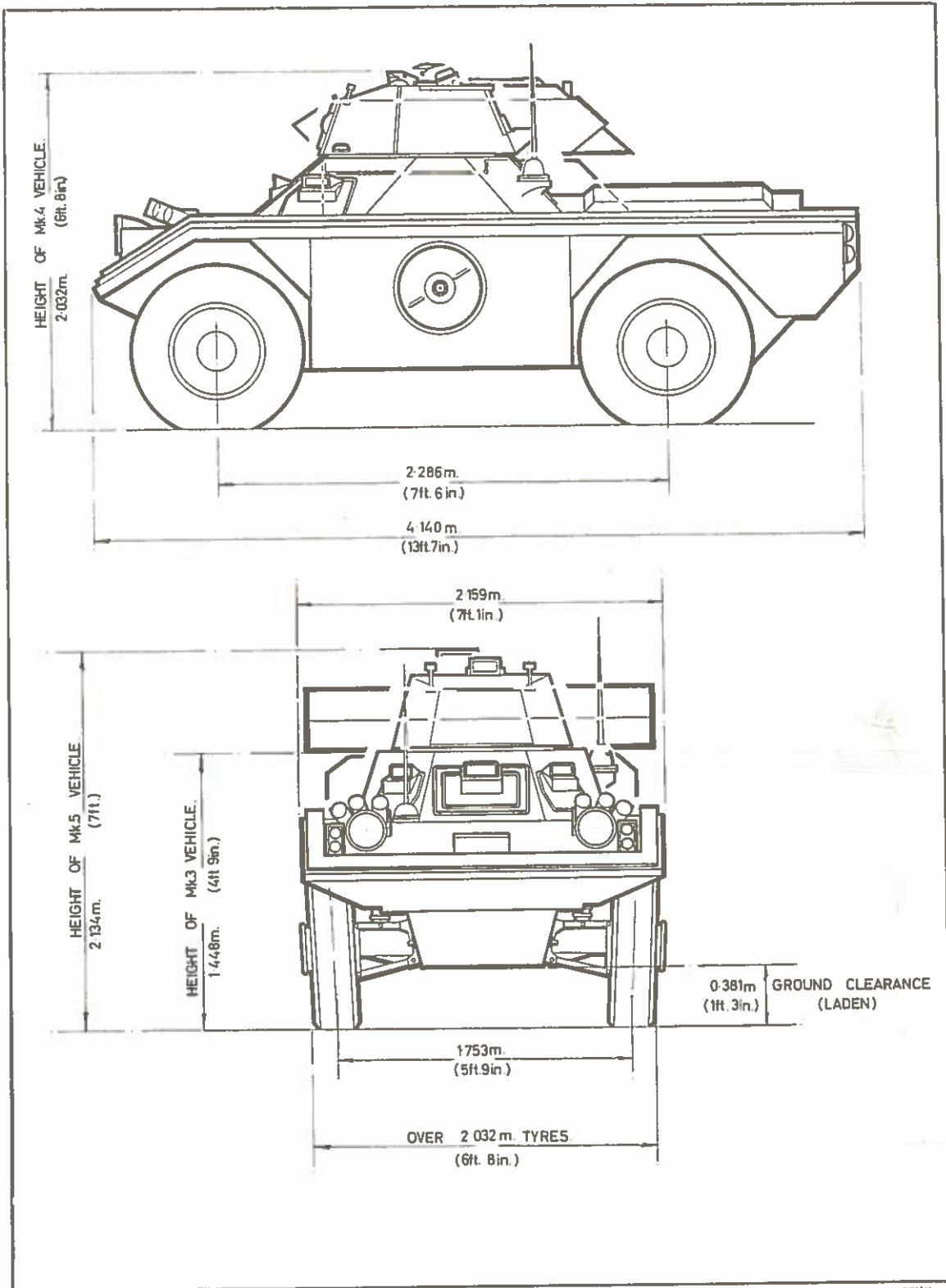


Fig 6 Overall dimensions, Mk 1 and 2 vehicles



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Fig 7 Overall dimensions, Mk 3, 4 and 5 vehicles

DATA (Contd)

SHIPPING TONNAGE

Mk 1	9 tons 13½ cu ft
Mk 2	12 tons 5 cu ft
Mk 3	11 tons 12 cu ft
Mk 4	16 tons 2 cu ft
Mk 5	16 tons 13 cu ft

ENGINE

Type	B60, Mk 3A or 6A
Number of cylinders	6 (No.1 nearest fan)
Maximum bhp (gross)	
Mk 3A engine	120 at 3,750 rev/min
Mk 6A engine	129 at 3,750 rev/min
Maximum bhp at flywheel (nett)	
Mk 3A engine	96 at 3,300 rev/min
Mk 6A engine	109 at 3,750 rev/min
Efficiency at altitudes	Altitude control fitted
Maximum torque at flywheel (nett)	195 lb ft at 2,000 rev/min
Bore	3.50 inch (88.9 mm)
Stroke	4.50 inch (114.29 mm)
Capacity	259.78 cu inch (4½ litres)
Compression ratio	6.4 : 1
Idling speed	300-400 rev/min
Valve tappet clearance - cold	
Inlet	0.010 inch (0.254 mm)
Exhaust	0.015 inch (0.381 mm)
Distributor	6 cyl, No.1, Mk 2
Contact breaker gap	0.010-0.012 inch (0.254-0.305 mm)
Automatic advance	Approximately 20 deg at maximum engine speed on all distributors
Speed limiter	3,650-3,850 rev/min engine speed
Distributor	6 cyl, No.1, Mk 2/1
Contact breaker gap	0.019-0.021 inch (0.483-0.533 mm)
Speed limiter	3,650-3,850 rev/min engine speed
Ignition timing	2 deg ATDC
Ignition coil	No.1, Mk 2 or No.1, Mk 2/1
Firing order	1 - 4 - 2 - 6 - 3 - 5
Sparking plugs	No.1, Mk 1
Gap	0.015-0.018 inch (0.381-0.457 mm)
Cylinder head nuts, torque setting	35 lb ft

ENGINE LUBRICATION SYSTEM

Type of system	Dry sump
Oil pump	Gear type
Oil pressure (normal)	35 lbf/in ² (2.50 kgf/cm ²) at 3,500 rev/min with coolant temperature 80 deg C (176 deg F)
Low oil pressure warning light operates	3.12 lbf/in ²
Oil filter	Full flow (Element type)
Oil cooler	Still tube

DATA (Contd)

COOLING SYSTEM

Radiator Gilled tube
 Fan 12 blade (aerofoil section)
 Circulation Thermo syphon, pump assisted
 Cooling control Thermostat

FUEL SYSTEM

Fuel pump Mechanical diaphragm type
 Carburetter 40 NNIP
 Choke 26 mm
 Main jet 130
 Fuel filter Element type

GEARBOX

Type..... Pre-selective - 5 speed
 Gear change pedal free travel $\frac{1}{2}$ inch (with lowest gear engaged)

GEARBOX RATIOS

1st 6.046 : 1
 2nd 4.381 : 1
 3rd 2.437 : 1
 4th 1.569 : 1
 5th 1.0 : 1

TRANSFER BOX RATIO 1.347 : 1 Forward and reverse

BEVEL BOX RATIO 1.923 : 1

HUB REDUCTION GEAR RATIO

Mk 1 and 2 vehicles 2.400 : 1
 Mk 3, 4 and 5 vehicles 3.50 : 1

OVERALL RATIOS

	<i>Mk 1 and Mk 2 veh</i>	<i>Mk 3, 4 and 5 veh</i>
1st	37.580 : 1	54.80 : 1
2nd	27.640 : 1	39.78 : 1
3rd	15.150 : 1	22.13 : 1
4th	9.754 : 1	14.24 : 1
5th	6.217 : 1	9.08 : 1

PERFORMANCE

Maximum Speeds

<i>Mk 1 and 2 vehicles</i>			<i>Mk 3, 4 and 5 vehicles</i>		
1st	9.6 mile/h	(15.4 km/h)	1st	8.24 mile/h	(13.3 km/h)
2nd	13.23 mile/h	(21.3 km/h)	2nd	11.36 mile/h	(18.3 km/h)
3rd	23.8 mile/h	(38.3 km/h)	3rd	20.4 mile/h	(32.8 km/h)
4th	36.34 mile/h	(58.5 km/h)	4th	31.6 mile/h	(50.8 km/h)
5th	58 mile/h	(93.3 km/h)	5th	49.7 mile/h	(80.07 km/h)

DATA (Contd)

PERFORMANCE (Contd)

	<i>Mk 1 and 2 vehicles</i>	<i>Mk 3, 4 and 5 vehicles</i>
Average safe speed (road)	45 mile/h (72.4 km/h)	40 mile/h (64 km/h)
Average safe speed (cross country)..	25 mile/h (40 km/h)	25 mile/h (40 km/h)
Maximum gradient climbable	1 in 2.2 (24 deg)	1 in 2.2 (24 deg)
Maximum gradient for stop and re-start	1 in 3.2 (17 deg)	1 in 3.2 (17 deg)
Range of operation (road)	190 miles (306 km)	140 miles (225 km)
Range of operation (cross country)..	100 miles (161 km)	75 miles (121 km)
Fuel consumption (road)	9 mile/gal (3.2 km/litre)	7 mile/gal (2.5 km/litre)
Fuel consumption (cross country)..	5 mile/gal (1.7 km/litre)	4 mile/gal (1.4 km/litre)
Approach angle (front).....	60 deg	55 deg
Departure angle (rear)	50 deg	47 deg
Ditch crossing (with channels)..	4 ft 0 inch(1.22 inch)	4 ft 0 inch (1.22 inch)
Flotation		
Entry and departure angle (without shipping water over the top of screen).	-	25 deg
Freeboard	-	30 inches
Speed(still water).	-	2.4 mile/h (2.1 knots)
Bilge pump	-	45 gal/min (204 litres/min)

NETT POWER/GROSS WEIGHT RATIO

Liaison vehicle, heaviest version	31.1 bhp/ton
Recce vehicle, heaviest version	29.8 bhp/ton
Mk 3, 4 and 5 vehicles	24.1 bhp/ton

MAXIMUM TRACTIVE EFFORT (at 100 per cent
efficiency nett)

	<i>Recce vehicle, heaviest version</i>	<i>Mk 3, 4 and 5 vehicles</i>
1st gear	1,260 lbf/ton	1,240 lbf/ton
5th gear	208 lbf/ton	-

DATA (Contd)

WHEELS

	Mk 1 and 2 veh	Mk 3, 4 and 5 veh
Type	Divided disc	Divided disc (Alloy)
Size	16.00 inch x 6.50 inch	20.00 inch x 8.00 inch

TYRES

	Mk 1 and 2 veh	Mk 3, 4 and 5 veh
Size	16.00 inch x 9.00 inch	20.00 inch x 11.00 inch

	Mk 1 and 2 veh	Mk 3 and 4	Mk 5
Pressures			
Normal road use			
Front	30 lbf/in ²	18 lbf/in ²	18 lbf/in ²
Rear	36 lbf/in ²	20 lbf/in ²	22 lbf/in ²
Cross country use			
Front	18 lbf/in ²	18 lbf/in ²	18 lbf/in ²
Rear	25 lbf/in ²	20 lbf/in ²	22 lbf/in ²

BRAKES

	Mk 1 and 2 veh	Mk 3 and 4
Foot	Hydraulic-two leading shoe	Hydraulic-disc
Parking	Mechanical-two leading shoe	Mechanical-external contracting
Diameter of shoes.....	13 inch (330 mm)	-
Width of shoes	2½ inch (63.5 mm)	-
Braking area	230 in ² (1484 cm ²)	-

CAPACITIES

	Imperial	USA	Litres
Mk 1 and 2 vehicles			
Engine lubrication system	3 gal	3½ gal	13.64
Engine cooling system	4½ gal	5½ gal	20.46
Air cleaner	2 pints	2½ pints	1.14
Fuel tank (total including 3 gal reserve)	21 gal	25½ gal	95.5
Fluid coupling	9¾ pints	11¾ pints	5.54
Gearbox	1½ gal	1½ gal	5.7
Transfer box	6 pints	7¼ pints	3.41
Inner tracta joint housings including bevel boxes	3 pints	3½ pints	1.7
Outer tracta joint housings including road wheel hubs ...	1½ pints	1¾ pints	0.85
Hydraulic supply tank	1¼ pints	1½ pints	0.71
Steering cross shaft bevel box.	1½ pints	1¾ pints	0.85
Steering bevel box	1½ pints	1¾ pints	0.85

DATA (Contd)

CAPACITIES (Contd)

	Imperial	USA	Litres
Mk 3, 4 and 5 vehicles			
Engine lubrication system	3 gal	3½ gal	13.64
Engine cooling system	4½ gal	5½ gal	20.46
Air cleaner	2 pints	2½ pints	1.14
Fuel tank (total including 3 gal reserve)	20 gal	24 gal	90.5
Fluid coupling	9¾ pints	11¾ pints	5.54
Gearbox	1¼ gal	1½ gal	5.7
Transfer box	6 pints	7¼ pints	3.41
Inner tracta joint housings including bevel boxes	2 pints	2½ pints	1.14
Outer tracta joint housings including road wheel hubs	3 pints	3½ pints	1.7
Hydraulic supply tank	2 pints	2½ pints	1.14
Steering cross shaft bevel box...	1½ pints	1¾ pints	0.85
Steering bevel box	1½ pints	1¾ pints	0.85

STEERING

Type	Manual-recirculating ball
Number of turns of steering wheel lock to lock	3½ approximately
Front wheel toe in	1/8 inch (3.175 mm)
Turning circle	40 ft (12.192 m)

SUSPENSION

Type	Fully independent
Springs	Single coil spiral
Shock absorbers	Double acting hydraulic (telescopic)

BATTERIES

Number off	Two
Voltage	12v
Capacity	60 AH

LAMPS

Cat Number	Light	Volts	Watts	Type
X5/6240-99-995-4508	Head	26	50/50	British Pre-focus
X5/6240-99-995-2236	Side	26	6	SCC
X5/6240-99-995-3296	Tail-stop	26	7/30	SBC Index pins
X5/6240-99-995-3244	Turn	24	24	SCC
X5/6240-99-995-2236	Registration	26	6	SCC
X5/6240-99-995-2236	Convoy	26	6	SCC
X5/6240-99-995-2236	Roof	26	6	SCC
X5/6240-99-995-2236	Switch Panel	26	6	SCC
X5/6240-99-995-2236	Instrument Panel	26	6	SCC
X5/6240-99-995-9118	Turret Sw/box	28	1.1	Midget flange
X5/6240-99-995-9118	Machine gun JB	28	1.1	Midget flange

(0.04A)

DATA (Contd)

FUSES

<i>Location</i>	<i>Controlling</i>	<i>Rating</i>	<i>Material and SWG</i>
Generator Panel, No.2, Mk 1	Generator Main Circuit	25A	No.23 tinned copper wire
	Ignition warning light	5A	No.30 tinned copper wire
Generator Panel, No.2, Mk 2/1	Generator Main Circuit	50A fusing	Special strip type
	Ignition warning light	5A	No.30 tinned copper wire

CIRCUIT BREAKERS (Thermal magnetic type)

<i>Location</i>	<i>Controlling</i>	<i>Rating</i>
Distribution Box	Inspection light sockets, smoke dischargers, lights, horn, windscreen wiper, radio feed, turret JB and Bilge pump	30A
	Engine instruments, ie, fuel gauge, thermometer, oil pressure warning light, ignition warning light, instrument panel light and starter switch	10A