TRUCK, AIR DEFENCE, LAND ROVER 6X6, FFR, W/WINCH, TARGET SENSOR VEHICLE (TSV)

DATA SUMMARY

This instruction is authorised for use by command of the Chief of Army. It provides direction, mandatory controls and procedures for the operation, maintenance and support of equipment. Personnel are to carry out any action required by this instruction in accordance with EMEI General A 001.

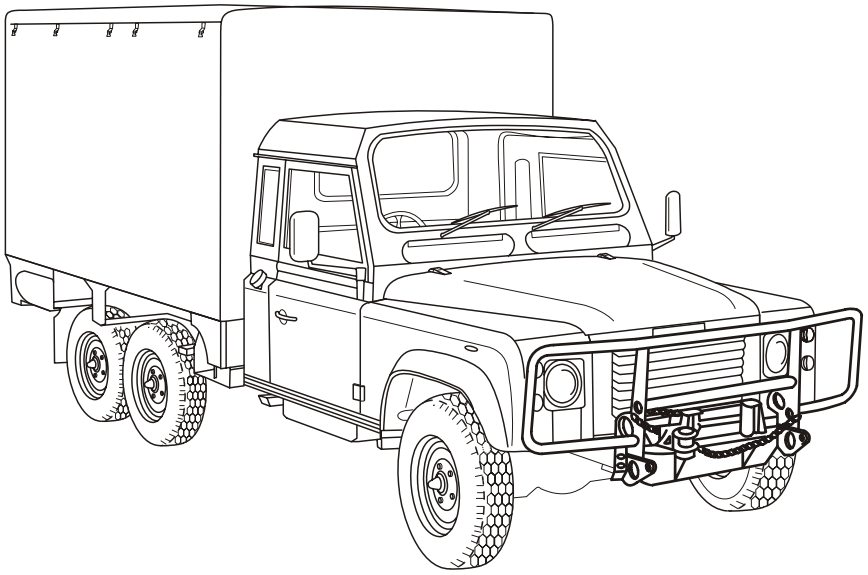

Figure 1 Truck, Air Defence, Land Rover 6X6, FFR, W/Winch, Target Sensor Vehicle (TSV)

General

1. This EMEI contains the relevant information pertaining to the Truck, Air Defence, Land Rover 6X6, FFR, W/Winch, Target Sensor Vehicle (TSV).

2. A racking module is provided for the carriage of radar support equipment required for the RBS 70 missile system.

Role

3. To transport up to two personnel (including the driver) and associated Portable Search and Target Acquisition Radar – Extended Range (PSTAR-ER) equipment required to support the RBS70 missile system up to a total of two tonnes.

Detail

4. Dimensions

a. Length ..... 6 001 mm

b. Overall Width:

(1) Over Mirrors ..... 2 430 mm

(2) Reduced ..... 2 072 mm

c. Overall Height:

(1) Laden ..... 2 480 mm

(2) Unladen ..... 2 550 mm

d. Reducible Height:

(1) Laden ..... 2 480 mm

(2) Unladen ..... 2 550 mm

e. Shipping Cubage ..... 25.5 m^3

f. Module Tray:

(1) Length ..... 3 192 mm

(2) Width ..... 2 128 mm

(3) Height of Cargo Tray From Ground:

(a) Laden ..... 960 mm

(b) Unladen ..... 1 030 mm

g. Wheelbase:

(1) Front Axle to Intermediate Axle ..... 3 040 mm

(2) Front Axle to Rear Axle ..... 3 940 mm

h. Track:

(1) Front ..... 1 698 mm

(2) Rear ..... 1 698 mm

i. Ground Clearance:

(1) Unladen ..... 215 mm

(2) Limiting Feature ..... rear differential housings

j. Pintle Hook Height:

(1) Unladen ..... 710 mm

(2) Laden ..... 640 mm

5. Mass

a. Unladen:

(1) Front Axle ..... 1 660 kg

(2) Intermediate Axle ..... 1 100 kg

(3) Rear Axle ..... 1 000 kg

(4) Total ..... 3 940 kg

b. Maximum Loading:

(1) Front Axle ..... 1 650 kg

(2) Intermediate Axle ..... 1 960 kg

(3) Rear Axle ..... 1 950 kg

(4) Total ..... 5 550 kg

c. Design Limit Loading:

(1) Front Axle ..... 1 900 kg

(2) Intermediate Axle ..... 2 050 kg

(3) Rear Axle ..... 2 050 kg

(4) Total ..... 5 600 kg

6. Wheels and Tyres

a. Wheels ..... 6F by 16, 1-piece 5-stud ventilated disc

b. Tyres and Tyre Pressures ..... in accordance with EMEI Vehicle A 291-5

7. Bridge Classification 6

8. Engine

a. Manufacturer/Type ..... Isuzu 4BD1 TRB-G series

b. No. of Cylinders ..... 4 (in-line)

c. Power (Nett) ..... 90 kW at 3 000 rpm

d. Torque (Nett) ..... 314 N.m at 2 200 rpm

e. Firing Order 1-3-4-2

f. Capacity ..... 3.856 litres

g. Compression Ratio 17:1

h. Turbocharger ..... water-cooled, Garret, model ATD-T25

9. Transmission

a. Manufacturer ..... Land Rover

b. Type ..... model LT95A

c. Ratios:

(1) First Gear 4.069:1

(2) Second Gear 2.448:1

(3) Third Gear 1.505:1

(4) Fourth Gear 1.000:1

(5) Reverse Gear 3.664:1

10. Transfer Case

a. Manufacturer ..... Land Rover

b. Type ..... two-speed

c. Ratios – High Range 0.996:1

d. Low Range 3.3211:1

11. Front Axle

a. Manufacturer ..... Land Rover

b. Type ..... heavy-duty, spiral bevel

c. Ratio 4.70:1

12. Intermediate Axle

a. Manufacturer ..... GKN/Salisbury

b. Type ..... heavy-duty, Salisbury 8HA

c. Ratio 4.70:1

13. Rear Axle

a. Manufacturer ..... GKN/Salisbury

b. Type ..... heavy-duty, Salisbury 8HA

c. Ratio 4.70:1

14. Steering

a. Manufacturer ..... Adwest

b. Type ..... integral power-assisted worm and roller

c. Ratio 17.50:1

d. Lock to Lock ..... 3.5 turns

e. Power Steering Pump ..... Isuzu gear-driven

15. Winch

a. Manufacturer ..... Winch Industries

b. Type ..... Thomas T9000M

c. Reduction Ratio 45:1

d. Winch Rope:

(1) Length ..... 45 m

(2) Diameter ..... 11 mm

e. Maximum Load:

(1) Top Layer ..... 2 434 kg

(2) Bottom Layer ..... 4 077 kg

f. Torque Limiter Setting ..... 155 N.m

16. Electrical System

a. Type of System (vehicle) ..... 12 V

b. Type of System (FFR) ..... 24 V

c. No. of Batteries (vehicle) ..... one 12 V

d. No. of Batteries (FFR) ..... two 12 V

e. Capacity (nominal - vehicle) ..... 98 Ah

f. Capacity (nominal - FFR) ..... 93 Ah

g. Terminal Grounded ..... negative

h. Radio Suppression ..... DEF(AUST)172, MIL-STD-461A, RE05, CE07

i. Distribution Box Location ..... behind front passenger seat

j. FFR Connecting Plug Type ..... Cannon 3-pin

17. Fuels and Lubricants

a. Fuel:

(1) Type ..... Diesel

(2) Capacity ..... two 62 L tanks

b. Cooling System:

(1) Type ..... water (8% Nalcool Maximum Inhibitor)

(2) Capacity ..... 12.8 L

c. Engine (Including Filters):

(1) Type ..... SAE Grade 40 (OMD-115)

(2) Capacity ..... 8.5 L

d. Axles:

(1) Front Swivel Pin Housing:

(a) Type EP-00

(b) Capacity ..... 375 mL

(2) Front Axle:

(a) Type OEP-220

(b) Capacity ..... 1.7 L

(3) Intermediate Axle:

(a) Type OEP-220

(b) Capacity ..... 2.3 L

(4) Rear Axle:

(a) Type OEP-220

(b) Capacity ..... 2.6 L

e. Transmission:

(1) Type ..... SAE Grade 40 (OMD-115)

(2) Capacity ..... 2.7 L

f. Transfer Case (With Power Take-off):

(1) Type ..... SAE Grade 40 (OMD-115)

(2) Capacity ..... 5.8 L

g. Brake and Clutch Fluid:

(1) Type ..... OX(Aust)-8

(2) Capacity ..... fill to level

h. Steering Box (including reservoir):

(1) Type OX46

(2) Capacity ..... 1.25 L

i. Chassis Lubrication:

(1) Type XG-291

(2) Capacity ..... as required

j. Wheel Bearings:

(1) Type XG-291

(2) Capacity ..... as required

k. Winch:

(1) Type OEP-220

(2) Capacity ..... 2.1 L

18. Brakes

a. Parking Brake ..... cable-operated, transmission drum brake

b. Foot Brake ..... servo-assisted hydraulic dual system and front and rear disc brakes

19. Performances

a. Fording Depth (unprepared) ..... 500 mm

b. Turning Circle ..... 17.2 metres

c. Ramp Breakover Angle:

(1) Unladen ..... 148°

(2) Laden ..... 152°

d. Angle of Approach ..... 45°

e. Angle of Departure ..... 30°

f. Maximum Gradient 60%

g. Fuel Consumption Target:

(1) Highway Laden ..... 22 litres per 100 km

(2) Second Class Laden ..... 27 litres per 100 km

h. Maximum Towed Load ..... 1 500 kg

20. Trailer Facilities

a. Socket Type ..... NATO 12-pin

b. Pintle Hook ..... fully-rotating

c. Brakes ..... no facility

21. Manufacturer's Details (Module)

a. Manufacturer:

G.H. Varley Pty Ltd
21 School Drive
TOMAGO NSW 2322

22. Point of Contact

National Fleet Manager (NFM)
Lt B Vehicles, CGSVSPO
DPM 7, Defence Plaza Melbourne
661 Bourke Street
MELBOURNE VIC 3000

Tel: (03) 9282 7391

23. Associated Information

a. SIGC 2320-0110

b. NSN 2320-66-156-2528

c. RPS 02263

d. SCES 10863

e. ILSI ..... ALI MM 10-29

f. User Handbook 7610-66-156-5448

g. EMEI Vehicle A 291-5 ..... General Service B Vehicle Tyre Guide

h. EMEI Vehicle G 402 ..... Technical Description

i. EMEI Vehicle G 203 ..... Light Grade Repair

j. EMEI Vehicle G 204-1 ..... Medium Grade Repair

k. EMEI Vehicle G 204-2 .....Heavy Grade Repair

l. EMEI Vehicle G 403 ..... Light Grade Repair

m. EMEI Vehicle G 404-1 ..... Medium Grade Repair

n. EMEI Vehicle G 209 .....Servicing Instruction

END

Distribution List: **VEH G 21.3 – Code 1** (Maint Code)
(Sponsor: CGSVSPO, Light B Vehicle Section)
(Authority: ECO CGSVSPO 120/10)