



Ministry
of Defence

Policy Publication

TRUCK UTILITY MEDIUM (TUM)(HS) HT W/ VPK BODY AND ASSOCIATED EQUIPMENT (SNATCH ALL VARIANTS)

2320-D-132-601 MAINTENANCE SCHEDULES (JOINT SERVICE)

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MAINTENANCE SCHEDULE (JOINT SERVICE)

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PREFACE

Sponsor: Protected Mobility Vehicle Programme (PMVP)

Publications Agency: Defence Equipment and Support (DE&S)

INTRODUCTION

1 Service users should forward any comments on this Publication through the channels prescribed in Joint Service Publication (JSP)(D) 543 Defence Technical Documentation Policy and Requirements. An Army Equipment Support Publication (AESP)/ Electrical and Mechanical Engineering Regulations (EMER) Form 10 is provided at the end of this Publication; it should be photocopied and used for forwarding comments on this AESP to the address detailed on the Form 10. Where space on the Form 10 is insufficient additional sheets are to be used and attached. E-mail submission is also acceptable.

2 This procedure is only to be used for the purpose of commenting on the content of an individual AESP and must not be used as follows:

2.1 In the place of the equipment defect reporting procedure as outlined in Joint Service Publication (JSP) 886, The Defence Logistics Support Chain Manual.

2.2 For subjects which are the concern of the GEMS suggestions scheme. For advice on the GEMS procedure, contact the GEMS Central Team on MoD Head Office Mil (9621) 84952, Civ Tel 020 7218 4952.

3 AESPs are issued under UK MoD authority and when AESPs specify action to be taken, the AESP will be itself sufficient authority for such action and also for the demand of the necessary stores, subject to provisions of Para 4.

4 The subject matter of this Publication may be affected by Defence Instructions and Notices (DIN), Tactics Techniques and Procedures (TTP), Standard Operating Procedures (SOP), Standard Operating Instructions (SOI) or Local Regulations. When any such Instruction, Order or Regulation contradicts any portion of this Publication, it is to be taken as the overriding authority.

Instructions for use by units

5 Detailed instructions for use by Units are given in JSP 886, The Defence Logistics Support Chain Manual.

Amendments

6 Amendments to the Publication will be published as and when necessary. These will be numbered consecutively, and the Amendment Record sheet is to be completed for each amendment list embodied. New or amended material will be highlighted by side lining to show the extent of the amendment.

Publication information

7 Any communication regarding this Publication should be made to the controlling Publication Authority.

Publication authority

8 The Publication Authority for this AESP is as follows:

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MoD Abbey Wood
BRISTOL
BS34 8JH

RELATED AND ASSOCIATED PUBLICATIONS

Related publications

9 The Octad for the subject equipment consists of the Publications shown below. All references are prefixed with the first eight digits of this Publication. The availability of the Publications can be checked by reference to the relevant Group Index (see (JSP)(D) 543).

Category/ Sub-category			Information Level			
			1 User/ Operator	2 Unit Maintenance	3 Field Maintenance	4 Base Maintenance
1	0	Purpose and Planning Information	101	101	101	101
	1	Equipment Support Policy Directive	111	111	111	111
2	0	Operating Information	201	201	*	*
	1	Aide Memoire	211	211	*	*
	2	Training Aids	*	*	*	*
3		Technical Description	*	302	302	302
4	1	Installation Instructions	411	411	411	411
	2	Preparation for Special Environments	*	*	*	*
5	1	Failure Diagnosis	*	522	522	522
	2	Maintenance Instructions	201	522	522	522
	3	Inspection Standards	*	522	522	522
	4	Calibration Procedures	*	*	*	*
6		Maintenance Schedules	601	601	601	601
7	1	Illustrated Parts Catalogues	711	711	711	711
	2	Commercial Parts Lists	*	*	*	*
	3	Complete Equipment Schedules, Production Edition	*	*	*	*
	4	Complete Equipment Schedules, Service Edition (Simple Equipment)	741	741	741	*
	5	Complete Equipment Schedules, Service Edition (Complex Equipment)	*	*	*	*
8	1	Modification Instructions	811	811	811	811
	2	General Instructions, Special Technical Instructions and Servicing Instructions	821	821	821	821
	3	Service Engineered Modification Instructions (RAF Only)	*	*	*	*

NOTE

* Category/ sub-category not published.

Associated publications

10	Reference	Title
	AESP 0200-A-062-013	Management and Control of Equipment Support Casting Procedures for all Equipment
	AESP 0200-A-090-013	LAND Equipment Engineering Standards
	AESP 0200-A-092-013	CD CSS Equipment Support Safety, Health, Environment and Fire Guide
	AESP 0200-A-093-013	Land Equipment User Maintenance Standards
	AESP 0200-A-094-013	Land Systems Expedient Maintenance
	AESP 0200-A-308-013	REME Recovery Manual
	AESP 2300-A-310-201	'B' Vehicle Corrosion Prevention
	AESP 2300-A-401-Octad	Short Term Storage All Vehicles
	AESP 2540-A-100-201	Pintle, Towing, Rotating (All Capabilities)
	AESP 2610-A-409-Octad	Pneumatic Tyres, Tubes and Associated Wheels
	AESP 3900-G-100-Octad	Short Gap Crossing (SGX) Equipment

[REDACTED]

AGAls, Vol 4, Chap 142

[REDACTED]

[REDACTED]

Electrical and Mechanical Engineering, Equipment Care
Inspection (ECIs) and Mandatory Equipment
Inspection (MEIs)

[REDACTED]

NOTE

These documents can be found on the Defence Intranet,
DINF, Capability Branch HQ Infantry, Mobility, Project
Documents.

JSP 375 Vol 2
JSP(F) 395
JSP 454
JSP 515
JSP(D) 543
JSP 800
JSP 886
JSP 930

MoD Health and Safety Handbook
Material Regulations for the Army
Land Systems Safety and Environmental Protection
Catalogue of Hazardous Stores
Defence Technical Documentation Guidance
Defence Movement and Road Transport Regulations
Defence Logistics Support Chain Manual
Generic Maintenance Inspection Certification and Testing
(MICaT) for Vehicles

ACRONYMS AND ABBREVIATIONS

ABBREVIATIONS

11 The following abbreviations are listed and included at the discretion of the Publication Authority:

ac	alternating current
ACMT	Active Corrective Maintenance Time
ACU(s)	Air Conditioning Unit(s)
AESP	Army Equipment Support Publication
Amdt	Amendment
AP	Air Publications
A/R	As Required
atms	Atmospheres
AWD	All Wheel Drive
°C	Centigrade
CES	Complete Equipment Schedule
COSHH	Control Of Substances Hazardous to Health
D of Q	Denomination of Quantity
dc	direct current
DEC	Director Equipment Capability
DEF STAN	Defence Standard
DEF CON	Defence Condition
DE&S (Abbey Wood)	Defence Equipment and Support (Abbey Wood)
Deg	Degree
DIN	Defence Instructions and Notices
DMC	Domestic Management Code
EFR	Equipment Failure Report
EMC	Electromagnetic Compatibility
EMER	Electrical and Mechanical Engineering Regulation
EPA	Environmental Protection Act
ES	Equipment Support
ESPD	Equipment Support Policy Directive
GTW	Gross Train Weight
GVW	Gross Vehicle Weight
HP	High Pressure
Hr	Hour
ISD	In-service Date
ISP	Interim Support Publication
JAMES	Joint Asset Management and Engineering Solutions
JSP	Joint Service Publication
kg	kilogram
km	kilometre
kW	kilowatt(s)
LH	Left Hand
LP	Low Pressure
m	metre
m ³ /hr	Cubic metres per hour
mbar	millibar
mm	millimetres
MSDS	Material Safety Data Sheet
MT	Motor Transport
NATO	North Atlantic Treaty Organisation

(continued)

ABBREVIATIONS (continued)

Nm	Newton metres
No.	Number
NSN	NATO Stock Number
P/N	Part Number
Para	Paragraph
psi	pounds/ square inch
PMVP	Protected Mobility Vehicle Programme
PSU	Power Supply Unit
Qty	Quantity
RAF	Royal Air Force
REME	Royal Electrical and Mechanical Engineers
RH	Right Hand
rpm	revolutions per minute
SGX	Short Gap Crossing
S&TE	Support and Test Equipment
Tdi	Turbocharged direct injection
TUM	Truck Utility Medium
V	Volt(s)
VIK	Vehicle Installation Kit
VM	Vehicle Mechanic
VPK	Vehicle Protection Kit
VRN	Vehicle Registration Number
W	Watts
W/VPK	With Vehicle Protection Kit

CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH (COSHH)

- 12 Make sure you know the safety precautions and first aid instructions before you use a hazardous substance.
- 13 Read the Material Safety Data Sheet (MSDS) applicable to the substance to be used.
- 14 Obey the local orders and regulations.

WARNINGS AND CAUTIONS

15 **WARNINGS, CAUTIONS** and Notices, are used in this publication to highlight health, safety, equipment care and additional information, which must be observed by the equipment operator and maintainer.

16 **WARNINGS**, are used to alert the reader to possible hazards, which may cause loss of life, physical injury or ill health in any form.

17 **CAUTIONS**, are used to draw attention to possible hazards, which may cause damage to the equipment but no danger to personnel.

18 Notes, are used to provide information that is not the immediate subject of the text but provides additional information of use to the reader.

19 The Generic **WARNINGS** and **CAUTIONS** must be adhered to in conjunction with any Specific **WARNINGS** and **CAUTIONS** detailed in this Publication.

GENERIC WARNINGS

(1) **HAZARDOUS SUBSTANCES. BEFORE USING ANY HAZARDOUS SUBSTANCES OR MATERIALS, THE USER MUST BE CONVERSANT WITH THE SAFETY REGULATIONS AND FIRST AID INSTRUCTIONS.**

(1.1) **ON THE LABEL OF THE CONTAINER IT WAS SUPPLIED IN.**

(1.2) **ON THE MATERIAL SAFETY DATA SHEET.**

(1.3) **IN LOCAL STANDING ORDERS AND SAFETY REGULATIONS.**

(2) **HAZARDOUS VOLTAGES. DO NOT CONNECT OR DISCONNECT CABLES OR WIRING WHEN THE SUPPLY IS CONNECTED. ENSURE THAT ALL SUPPLIES HAVE BEEN DISCONNECTED BEFORE PROCEEDING WITH CONTINUITY AND INSULATION TESTS.**

(3) **HEAT HAZARD. HOT EXHAUSTS, AFTER REMOVING POWER, THE HEATING SYSTEM EXHAUSTS MAY STILL BE HOT ENOUGH TO BURN THE SKIN. EXTREME CARE MUST BE TAKEN WHEN REMOVING OR WORKING NEAR THE HEATERS.**

(4) **HEALTH HAZARD. THE HANDLING OF FUELS, LUBRICANTS AND ASSOCIATED PRODUCTS CAN BE HAZARDOUS. REFER TO UNIT STANDARD OPERATING PROCEDURES, SAFETY PROCEDURES, INSTRUCTIONS ON CONTAINERS AND ALL OTHER RELEVANT REGULATIONS FOR FULL OPERATIONAL SAFETY PROCEDURES.**

(5) **HEALTH HAZARD. EXHAUST FUMES ARE HAZARDOUS. DO NOT RUN VEHICLE ENGINES MORE THAN NECESSARY WITHIN AN ENCLOSED SPACE WITHOUT SUITABLE EXTRACTION EQUIPMENT OPERATING.**

(6) **FIRE HAZARD. FUEL SPILLAGES ARE HIGHLY FLAMMABLE AND MUST NOT BE EXPOSED TO A NAKED FLAME, SPARK OR INTENSE HEAT SOURCES. WIPE UP ALL SPILT FUEL IMMEDIATELY AND DISPOSE OF CONTAMINATED CLEANING MATERIAL ACCORDING TO LOCAL STANDING ORDERS.**

(7) **HEALTH HAZARD. AVOID UNNECESSARY CONTACT WITH USED ENGINE OIL. PROLONGED AND REPEATED CONTACT WITH USED ENGINE OIL MAY CAUSE SERIOUS SKIN DISORDERS.**

(8) **INJURY TO PERSONNEL. EXTREME CARE MUST BE TAKEN WHEN DRAINING HOT ENGINE OIL. HOT ENGINE OIL CAN CAUSE SEVERE PERSONAL INJURY.**

(9) **PERSONAL HYGIENE. WHERE NECESSARY WEAR PROTECTIVE CLOTHING, APPARATUS, APPLY BARRIER CREAM AND OBSERVE NORMAL PERSONAL HYGIENE.**

(continued)

GENERIC WARNINGS (continued)

- (10) HEALTH HAZARD. DO NOT USE AN AIRLINE TO CLEAR BRAKE OR CLUTCH DUST WHICH CONTAINS MATERIALS HAZARDOUS TO HEALTH.
- (11) COMPRESSED AIR. DO NOT DIRECT AIR STREAM AT PERSONNEL AS THIS CAN CAUSE PERSONAL INJURY.
- (12) HEALTH HAZARD. USED ENGINE OIL IS HAZARDOUS TO HEALTH. PROLONGED SKIN CONTACT SHOULD BE AVOIDED.
- (13) HEALTH HAZARD. THE HANDLING OF FUELS, LUBRICANTS AND ASSOCIATED PRODUCTS CAN BE HAZARDOUS. REFER TO UNIT STANDARD OPERATING PROCEDURES, SAFETY PROCEDURES, INSTRUCTIONS ON CONTAINERS AND ALL OTHER RELEVANT REGULATIONS FOR FULL OPERATIONAL SAFETY PROCEDURES.
- (14) ASPHYXIATION HAZARD. NEVER LEAVE THE ENGINE RUNNING IN AN UNVENTILATED AREA - EXHAUST GASES ARE POISONOUS AND EXTREMELY DANGEROUS.
- (15) PERSONAL INJURY. EXTREME CARE MUST BE TAKEN WHEN DRAINING HOT FLUIDS. HOT ENGINE OIL AND COOLANT CAN CAUSE SEVERE PERSONAL INJURY.
- (16) PERSONAL HYGIENE. WHERE NECESSARY, WEAR PROTECTIVE CLOTHING/ APPARATUS AND APPLY BARRIER CREAM TO HANDS.
- (17) HEALTH HAZARD. ANTIFREEZE FLUID AL 39 CONTAINS TOXIC CHEMICALS, WHICH MUST NOT BE CONSUMED OR ALLOWED TO COME INTO CONTACT WITH SKIN OR THE EYES. USE IMPERVIOUS PROTECTIVE EQUIPMENT, CLOTHING AND GLOVES WHEN HANDLING ANTIFREEZE MIXTURE. IN THE EVENT OF SLIGHT SKIN OR EYE CONTACT, THOROUGHLY RINSE THE AFFECTED AREA WITH CLEAN WATER AND SEEK MEDICAL ATTENTION AS SOON AS POSSIBLE. IF THERE IS EXCESSIVE SKIN, EYE CONTACT, INGESTION, OR INHALATION SEEK MEDICAL ATTENTION IMMEDIATELY.
- (18) HEALTH HAZARD. FLUID AL 11 IS HIGHLY FLAMMABLE. THE PREPARATION OF THE FLUID FOR WINDSCREEN WASHERS IS TO BE CARRIED OUT IN THE OPEN AND AWAY FROM NAKED FLAME. MINIMUM PRECAUTION AFTER USE IS TO WASH ANY AFFECTED SKIN AREAS WITH SOAP AND WATER.
- (19) HEALTH HAZARD. CHASSIS WAX OIL TREATMENT. MATERIALS USED IN CHASSIS TREATMENT ARE REQUIRED TO MEET OBLIGATIONS INTRODUCED UNDER THE CONTROL OF SUBSTANCES HAZARDOUS TO HEALTH REGULATIONS 2002 (COSHH). SAFETY INFORMATION RELATING TO MATERIALS USED IS CONTAINED IN JSP (F) 395 CATALOGUE OF HAZARDOUS STORES.
- (20) PERSONNEL INJURY/ ELECTRIC SHOCK HAZARD. BEFORE CARRYING OUT ANY WORK ON THE ELECTRICAL SYSTEM, ENSURE BOTH BATTERY ISOLATOR SWITCHES ARE TURNED TO THE OFF POSITION.
- (21) PERSONAL INJURY. CHOCKING. THE HANDBRAKE ACTS ON THE TRANSMISSION, NOT THE REAR WHEELS, AND MAY NOT HOLD THE VEHICLE WHEN JACKING UNLESS THE FOLLOWING PROCEDURE IS USED. IF ONE FRONT WHEEL AND ONE REAR WHEEL ARE RAISED NO VEHICLE HOLDING OR BRAKING EFFECT IS POSSIBLE. WHEELS SHOULD BE CHOCKED UNDER ALL CIRCUMSTANCES.

SPECIFIC WARNINGS

- (1) INJURY TO PERSONNEL. SOME AIR CONDITIONING COMPONENTS WEIGH IN EXCESS OF 15 KG CARE SHOULD BE TAKEN WHEN LIFTING. SUITABLE LIFTING GEAR MUST BE USED.
- (2) HEALTH HAZARD. REFRIGERANTS CAN FREEZE SKIN OR EYE TISSUE ON DIRECT CONTACT, CAUSING SEVERE BURNS. ALWAYS WEAR GOGGLES, GLOVES AND OVERALLS WHEN WORKING WITH REFRIGERANTS.
- (3) HEALTH HAZARD. LETHAL GAS HAZARD (H20). NEVER SMOKE NEAR REFRIGERANT. WHEN EXPOSED TO FLAME OR HIGH HEAT THE REFRIGERANT MAY DECOMPOSE INTO LETHAL GAS.
- (4) INJURY TO PERSONNEL. HIGH PRESSURE HAZARD (H21). NEVER WELD OR STEAM CLEAN NEAR THE ACU AS THIS MAY RESULT IN DANGEROUS PRESSURE BUILDING UP, POSSIBLY CAUSING A RUPTURE.
- (5) INJURY TO PERSONNEL. MOVING PARTS HAZARD. THE ACU CONTAINS MOVING PARTS, WHICH CAN INFLICT SERIOUS INJURIES.
- (6) INJURY TO PERSONNEL. DANGEROUS COMPONENTS. THE EVAPORATOR AND CONDENSER FINS CAN INFLICT CUTS. ALWAYS EXERCISE EXTREME CAUTION WHEN WORKING WITHIN THE ACU HOUSING.
- (7) HEALTH HAZARD. WHEN CARRYING OUT MAINTENANCE ON THE ACU SYSTEM, ALWAYS ENSURE GOOD FRESH AIR CIRCULATION IN THE WORK AREA.
- (8) INJURY TO PERSONNEL. ELECTRICAL HAZARD. ALWAYS REMOVE POWER FROM THE ACU BEFORE COMMENCING ANY WORK.
- (9) HEALTH HAZARD. SKIN INJURIES. ALWAYS WASH HANDS AFTER DEALING WITH REFRIGERANTS. PROLONGED CONTACT MAY CAUSE SKIN COMPLAINTS.
- (10) ENVIRONMENTAL HAZARD. DISPOSAL OF REFRIGERANT. DISPOSAL OF REFRIGERANT DIRECTLY TO ATMOSPHERE IS ILLEGAL WITHIN THE UK UNDER THE ENVIRONMENTAL PROTECTION ACT (EPA) 1990 AND SUBSEQUENT LEGISLATION. OTHER COUNTRIES HAVE SIMILAR LAWS WHICH CARRY TERMS OF IMPRISONMENT AND HEAVY FINES. NATIONAL REGULATIONS MAY CHANGE RAPIDLY, SO CHECK CURRENT LOCAL REGULATIONS BEFORE DISPOSAL.
- (11) HEALTH HAZARD. REFRIGERANT DISCHARGE (H22). ANY LEAK OF REFRIGERANT CAN RESULT IN HOT OR COLD BURNS. REFRIGERANT CAN FREEZE SKIN AND EYE TISSUE. DO NOT LOOSENING THE PRESSURE SWITCH ADAPTER SECURING NUT WILL RESULT IN A RELEASE OF REFRIGERANT. ALWAYS WEAR GOGGLES, GLOVES AND OVERALLS WHEN WORKING WITH REFRIGERANT.
- (12) INJURY TO PERSONNEL. JACKING OF VEHICLE. THE HANDBRAKE ACTS ON THE TRANSMISSION, NOT ON THE REAR WHEELS. WHEN JACKING THE VEHICLE, APPLY HANDBRAKE, ENGAGE FIRST GEAR AND ENSURE WHEELS ARE CHOCKED.
- (13) PERSONAL INJURY. EXTREME CARE MUST BE TAKEN WHEN ACCESSING THE ANTENNA MOUNTS ON THE DRIVER'S AND REAR COMPARTMENT ROOFS.
- (14) INJURY TO PERSONNEL. MOBILITY HAZARD. TYRE PRESSURES VARY ACROSS THE SNATCH (VPK) VEHICLE FLEET. ENSURE CORRECT TYRE PRESSURES ARE USED.
- (15) INJURY TO PERSONNEL. SECURITY OF INSULATION FOAM. CARE SHOULD BE TAKEN TO CHECK THE SECURITY OF INSULATION FOAM, ESPECIALLY ABOVE THE DRIVER'S HEAD.

(continued)

SPECIFIC WARNINGS (continued)

(16)

(17) INJURY TO PERSONNEL. THE TOWING PINTLE PROTRUDES OVER THE REAR STEP. CARE MUST BE TAKEN WHEN ENTERING AND EXITING THE REAR COMPARTMENT OF THE VEHICLE VIA THE REAR STEP.

(18)

(19) INJURY TO PERSONNEL. CONTROLS. ALWAYS START THE VEHICLE AND OPERATE THE CONTROLS FROM THE DRIVING POSITION.

(20) PERSONAL INJURY. VEHICLE INSTABILITY. IT IS UNSAFE TO WORK UNDER THE VEHICLE USING ONLY THE JACK TO SUPPORT IT. ALWAYS USE STANDS OR OTHER SUITABLE SUPPORTS TO PROVIDE ADEQUATE SAFETY.

(21) PERSONAL INJURY. VEHICLE INSTABILITY. ENSURE THE SPARE WHEEL IS REMOVED FROM ITS STOWED POSITION PRIOR TO JACKING THE VEHICLE.

(22) PERSONAL INJURY. VEHICLE INSTABILITY. IF THE VEHICLE IS COUPLED TO A TRAILER, DISCONNECT THE TRAILER FROM THE VEHICLE BEFORE COMMENCING JACKING. THIS IS TO PREVENT THE TRAILER PULLING THE VEHICLE OFF THE JACK.

(23) CRUSH HAZARD. THE HANDBRAKE ACTS ON THE TRANSMISSION, NOT ON THE REAR WHEELS. WHEN JACKING THE VEHICLE, APPLY HANDBRAKE, ENGAGE FIRST GEAR AND ENSURE WHEELS ARE CHOCKED.

(24) STABILITY. IT IS UNSAFE TO WORK UNDER THE VEHICLE WITH ONLY THE JACK TO SUPPORT IT. ALWAYS USE STANDS OR OTHER SUITABLE SUPPORTS TO PROVIDE ADEQUATE SAFETY.

(25) DANGER TO LIFE. IN THE EVENT OF AN ENGINE COMPARTMENT FIRE DO NOT OPERATE AN EXTINGUISHER UNTIL THE ENGINE HAS BEEN STOPPED AND THE COOLING FAN IS STATIONARY.

(26)

CAUTIONS

(1)

(2) FUELS. When changing to low temperature fuels, ensure that the fuel pump and fuel lines are filled with low temperature fuel.

(3) EQUIPMENT DAMAGE. Do not disconnect the battery cables while the engine is running, or damage to semi-conductor devices may occur.

(4) EQUIPMENT DAMAGE. When using the wheel brace from the vehicle tool kit apply hand pressure only. Do not use foot pressure or extension tubes as this could overstress the wheel studs.

(5) EQUIPMENT DAMAGE. CORROSION. As a precaution against corrosion, the cooling system should be drained and flushed out as specified.

(continued)

CAUTIONS (continued)

- (6) EQUIPMENT DAMAGE. Do not overfill the transmission.
- (7) EQUIPMENT DAMAGE. EXPANSION CAP. Failure to tighten the expansion cap may result in coolant loss with possible damage to the engine through overheating.
- (8) EQUIPMENT DAMAGE. When topping-up a reservoir, care must be taken to ensure that fluid does not come in contact with any paintwork on the vehicle.
- (9) EQUIPMENT DAMAGE. Before carrying out any maintenance, ensure that the vehicle is positioned on a hard flat standing and the parking brake is applied. Chock wheels as necessary.

(10) [REDACTED]

(11) [REDACTED]

(12) [REDACTED]

(13) [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

(continued)

CAUTIONS (continued)

(14) [REDACTED]

(15) **CHASSIS STRENGTHENING PLATES.** Ensure chassis strengthening plates around redundant steering box mounting are always replaced to avoid creasing of chassis during suspended tow.

(16) [REDACTED]

(17) [REDACTED]

(18) **SEATS AND SAFETY HARNESES.** All crew/ passengers must occupy the designated seats and wear the safety harness provided, even for the shortest journey.

TABLE 1 EQUIPMENT APPLICABILITY

Ser	Equipment Asset Code	NATO Stock Number (NSN)	Designation	Contract Numbers
(1)	(2)	(3)	(4)	(5)
1	5005 3101	2320-99-908-6772	Truck Utility Medium (HS) HT W/VPK Body 24 V (with ACU) Refurbished 2005 (SNATCH-2A)	SUVC1/0007 and SUVC1/0011
2	5005 3100	2320-99-908-6771	Truck Utility Medium (HS) HT W/VPK 24 V Body Refurbished 2005 (SNATCH-2B)	
3	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

MAINTENANCE SCHEDULE (JOINT SERVICE)

INTRODUCTION

- 1 This Maintenance Schedule is the authority for carrying out all scheduled maintenance tasks on the subject equipment and takes precedence over any other conflicting Publication. All engineering definition in this schedule is for presentation purpose only and not definitive nor especially accurate for any particular equipment.
- 2 The person in a unit or formation with delegated responsibility for the specified equipment, who is also competent and experienced in that role, is responsible for ensuring that the operations detailed in this Maintenance Schedule are properly carried out. The operations are only to be carried out by personnel who, through either professional trade training or an equipment specific formal training course, are appropriately qualified. The aforementioned responsible person may also order any operation to be carried out more frequently than specified, if conditions under which the equipment operated render it necessary.
- 3 Scheduled Maintenance is to be recorded in the appropriate equipment document in accordance with single service regulations.
- 4 Serial numbers left blank in the Tables may be taken up by amendment action at a later date.

DEFINITIONS

- 5 As far as this document is concerned, the following definitions apply:

5.1 Examine. Carry out a survey of the condition of an item without dismantling, **unless** specifically instructed to do so in the relevant task requirement. The condition of an item may be impaired by the following:

- 5.1.1 Insecurity of attachment.
- 5.1.2 Cracks or fractures.
- 5.1.3 Corrosion, contamination or deterioration.
- 5.1.4 Distortion.
- 5.1.5 Loose or missing fasteners.
- 5.1.6 Chafing, fraying, scoring or wear.
- 5.1.7 Faulty or broken locking devices.
- 5.1.8 Loose clips or packing, obstruction of, or leakage from pipelines.
- 5.1.9 Discoloration due to overheating or leakage of fluids.
- 5.1.10 Damage due to external sources.

5.2 Check. Make a comparison of measurement in time, pressure, temperature, resistance, dimension or other quantity, with a known figure.

5.3 Operate. As far as possible, ascertain that a component or system functions correctly without the use of test equipment or reference to measurement.

5.4 Replenish. Refill a container to a pre-determined level, pressure or quantity. This includes any necessary cleaning of orifices, examination of caps, covers, gaskets and washers, renewal of locking devices and clearing of vents.

5.5 Replace. Remove an item and then fit a new or reconditioned item.

MAINTENANCE INTERVALS AND AREAS OF RESPONSIBILITY**NOTE**

The information contained in the Tables is equipment specific and should reflect the manufacture's recommendations and equipment usage.

6 Table 4 – Action on Receipt. The maintenance detailed in Table 4 covers the action taken when the equipment arrives on a unit. These operations will normally be of a once only nature, e.g. the recording of lifting equipment with the appropriate test authority, actions that are necessary to be undertaken before the equipment is put into service or actions that are only required during the running in period. The maintenance detailed in Table 4 maintenance must be carried out by appropriately trained personnel, as described in Para 2.

7 Table 5 – Out of Phase Maintenance. The maintenance detailed in Table 5 covers tasks that do not fall into line with the time/ usage interval requirements of Table 6 or 7. The maintenance detailed in Table 5 maintenance must be carried out by appropriately trained personnel, as described in Para 2.

8 Table 6 – Driver/ Operator Maintenance. The maintenance detailed in Table 6, Maintenance Intervals A, B, C and D must be carried out by appropriately trained personnel, as described in Para 2, as follows:

- 8.1 A – Daily before use (only on days used).
- 8.2 B – Daily after use (after the equipment has been operated).
- 8.3 C – Weekly, when equipment in use.
- 8.4 D – (RAF only).

9 Table 7 – Time/ Usage Maintenance. The maintenance detailed in Table 7 (Maintenance Interval 1st, A, B, C and D) must be carried out by appropriately trained personnel, as described in Para 2, at the following intervals:

- 9.1 1st - After the first 1,600 km.
- 9.2 A – Every 5,000 km or 3 months, which ever occurs first.
- 9.3 B – Every 10,000 km or 6 months, which ever occurs first.
- 9.4 C – Every 20,000 km or 12 months, which ever occurs first.
- 9.5 D – Every 40,000 km or 24 months, which ever occurs first.
- 9.6 E – Contains the Area Maintenance Indicator which may be used, at the discretion of the Motor Transport (MT) Officer, to carry out Area Maintenance at the appropriate time/ usage intervals (RAF only).

NOTES

- (1) Vehicles that do less than 10,000 km annually and are on Area Maintenance, are to have a Lubrication Maintenance at 6 monthly intervals in accordance with AP 3260, Chapter 2.
- (2) The number in Maintenance Interval E indicates which Area Maintenance is to be carried out.
- (3) The Area Maintenance detailed is to be carried out in conjunction with its associated prime mover/specialist equipment scheduled maintenance if applicable.

MAINTENANCE SCHEDULE (JOINT SERVICE)

INTRODUCTION

- 1 This Maintenance Schedule is the authority for carrying out all scheduled maintenance tasks on the subject equipment and takes precedence over any other conflicting Publication. All engineering definition in this schedule is for presentation purpose only and not definitive nor especially accurate for any particular equipment.
- 2 The person in a unit or formation with delegated responsibility for the specified equipment, who is also competent and experienced in that role, is responsible for ensuring that the operations detailed in this Maintenance Schedule are properly carried out. The operations are only to be carried out by personnel who, through either professional trade training or an equipment specific formal training course, are appropriately qualified. The aforementioned responsible person may also order any operation to be carried out more frequently than specified, if conditions under which the equipment operated render it necessary.
- 3 Scheduled Maintenance is to be recorded in the appropriate equipment document in accordance with single service regulations.
- 4 Serial numbers left blank in the Tables may be taken up by amendment action at a later date.

DEFINITIONS

- 5 As far as this document is concerned, the following definitions apply:

5.1 Examine. Carry out a survey of the condition of an item without dismantling, **unless** specifically instructed to do so in the relevant task requirement. The condition of an item may be impaired by the following:

- 5.1.1 Insecurity of attachment.
- 5.1.2 Cracks or fractures.
- 5.1.3 Corrosion, contamination or deterioration.
- 5.1.4 Distortion.
- 5.1.5 Loose or missing fasteners.
- 5.1.6 Chafing, fraying, scoring or wear.
- 5.1.7 Faulty or broken locking devices.
- 5.1.8 Loose clips or packing, obstruction of, or leakage from pipelines.
- 5.1.9 Discoloration due to overheating or leakage of fluids.
- 5.1.10 Damage due to external sources.

5.2 Check. Make a comparison of measurement in time, pressure, temperature, resistance, dimension or other quantity, with a known figure.

5.3 Operate. As far as possible, ascertain that a component or system functions correctly without the use of test equipment or reference to measurement.

5.4 Replenish. Refill a container to a pre-determined level, pressure or quantity. This includes any necessary cleaning of orifices, examination of caps, covers, gaskets and washers, renewal of locking devices and clearing of vents.

5.5 Replace. Remove an item and then fit a new or reconditioned item.

MAINTENANCE INTERVALS AND AREAS OF RESPONSIBILITY**NOTE**

The information contained in the Tables is equipment specific and should reflect the manufacture's recommendations and equipment usage.

6 Table 4 – Action on Receipt. The maintenance detailed in Table 4 covers the action taken when the equipment arrives on a unit. These operations will normally be of a once only nature, e.g. the recording of lifting equipment with the appropriate test authority, actions that are necessary to be undertaken before the equipment is put into service or actions that are only required during the running in period. The maintenance detailed in Table 4 maintenance must be carried out by appropriately trained personnel, as described in Para 2.

7 Table 5 – Out of Phase Maintenance. The maintenance detailed in Table 5 covers tasks that do not fall into line with the time/ usage interval requirements of Table 6 or 7. The maintenance detailed in Table 5 maintenance must be carried out by appropriately trained personnel, as described in Para 2.

8 Table 6 – Driver/ Operator Maintenance. The maintenance detailed in Table 6, Maintenance Intervals A, B, C and D must be carried out by appropriately trained personnel, as described in Para 2, as follows:

- 8.1 A – Daily before use (only on days used).
- 8.2 B – Daily after use (after the equipment has been operated).
- 8.3 C – Weekly, when equipment in use.
- 8.4 D – (RAF only).

9 Table 7 – Time/ Usage Maintenance. The maintenance detailed in Table 7 (Maintenance Interval 1st, A, B, C and D) must be carried out by appropriately trained personnel, as described in Para 2, at the following intervals:

- 9.1 1st - After the first 1,600 km.
- 9.2 A – Every 5,000 km or 3 months, which ever occurs first.
- 9.3 B – Every 10,000 km or 6 months, which ever occurs first.
- 9.4 C – Every 20,000 km or 12 months, which ever occurs first.
- 9.5 D – Every 40,000 km or 24 months, which ever occurs first.
- 9.6 E – Contains the Area Maintenance Indicator which may be used, at the discretion of the Motor Transport (MT) Officer, to carry out Area Maintenance at the appropriate time/ usage intervals (RAF only).

NOTES

- (1) Vehicles that do less than 10,000 km annually and are on Area Maintenance, are to have a Lubrication Maintenance at 6 monthly intervals in accordance with AP 3260, Chapter 2.
- (2) The number in Maintenance Interval E indicates which Area Maintenance is to be carried out.
- (3) The Area Maintenance detailed is to be carried out in conjunction with its associated prime mover/specialist equipment scheduled maintenance if applicable.

10 Table 8 – Out of Use Maintenance.

10.1 For Army equipment, this maintenance is to be carried out as follows:

10.1.1 When the equipment is taken out of use for periods exceeding one month on the advice of the local Maintenance Advisor.

10.1.2 Any equipment taken out of use for periods exceeding 4 months is to be put into preservation in accordance with AESP 2300-A-401, Short Term Storage, All Vehicles.

10.1.3 The equipment is to be cleaned, dried and stored under cover where possible.

10.1.4 Any overdue maintenance is to be carried out when the equipment is brought back into use.

10.1.5 The maintenance detailed in Table 8 is to be carried out by appropriately trained personnel, as described in Para 2.

10.2 For RAF equipment, out of use vehicles or vehicles in second echelon are to be maintained in accordance with AP 3260, Book 1, Chapter 1, Para 0109 and Chapter 2, Para 0227. Any specific operation appertaining to this equipment will be listed in Table 8 of this AESP.

NOTES

(1) The products listed below are to be used on this equipment. Alternative products must not be used without the approval of the responsible person identified at Para 2.

(2) Oil changes at the -15 deg C point shall only be made on the advice of the responsible person identified at Para 2.

(3) The capacities listed are to be used as a guide only. A physical check is to be carried out to ensure that all fluid levels are correct. This check should be carried out with the vehicle unladen and standing on level ground whenever possible.

TABLE 1 EQUIPMENT APPLICABILITY

Ser	Equipment Asset Code	NATO Stock Number (NSN)	Designation	Contract Numbers
(1)	(2)	(3)	(4)	(5)
1	5005 3101	2320-99-908-6772	Truck Utility Medium (HS) HT W/VPK Body 24 V (with ACU) Refurbished 2005 (SNATCH-2A)	SUVC1/0007 and SUVC1/0011
2	5005 3100	2320-99-908-6771	Truck Utility Medium (HS) HT W/VPK 24 V Body Refurbished 2005 (SNATCH-2B)	
3				

TABLE 2 FUELS, LUBRICANTS AND ASSOCIATED PRODUCTS

NOTES

- (1) The products listed below are to be used on this equipment. Alternative products must not be used without the approval of the responsible person identified at Para 2.
- (2) Oil changes at the -15 deg C point shall only be made on the advice of the responsible person identified at Para 2.
- (3) The capacities listed are to be used as a guide only. A physical check is to be carried out to ensure that all fluid levels are correct. This check should be carried out with the vehicle unladen and standing on level ground whenever possible.

Ser (1)	Assembly/ System (2)	Product		Capacity	
		Above -15 deg C (3)	Below -15 deg C (4)	Litres (5)	Pints (6)
1	Engine and filter	OX 90	OMD 55	6.85	12.06
2	Cooling system (50/ 50 mix)	AL 39/ Water		11.10	20.00
3	Gearbox (5-speed R380) (SNATCH-2A and SNATCH-2B)	MTF 94		2.20	3.90
4	Gearbox (4-speed Auto ZF 4HP22) (SNATCH-VIXEN PLUS only)				
	4.1 Full capacity	OX 75	OX 75	11	23.20
	4.2 Service/ maintenance oil change	OX 75	OX 75	6	12.70
5	Transfer box	OEP 220	OEP 38	2.3	4.00
6	Front axle differential	OEP 220	OEP 38	1.7	3.00
7	Rear axle differential (SNATCH-2A and SNATCH-2B)	OEP 220	OEP 38	2.3	4.00
8	Rear axle differential (SNATCH-VIXEN PLUS only)	OEP 220	OEP 38	3.5	7.40
9	Wheel hub bearing (front and rear)	XG279		A/ R	
10	Propshaft	XG279		A/ R	
11	Swivel pin housing (each) grease	Texaco Molytech EB00		A/ R	
12	Brake/ clutch reservoirs	OX 8		A/ R	
13	Fuel system	Diesel		80.0	17.0 galls
14	Windscreen washers	Windscreen fluid/ AL 11 water mix		2.90	5.10
15	Batteries – advanced glass mat	PX 7		A/ R	
16	General greasing	XG 279		A/ R	
17	Oilcan lubrication	OX 90		A/ R	
18	General sealant	Sikaflex, 255FC		A/ R	
19	Chassis anti-corrosion treatment	Dinitrol 3125 & 4941		A/ R	
20	ACU refrigerant	R134a		A/ R	
21	Power steering fluid	OX 75		A/ R	

TABLE 3 EQUIPMENT DATA

Ser (1)	Item (2)	Detail	
		Metric (3)	Imperial (4)
	ADJUSTMENTS		
1	Tappet clearance (hot and cold)		
	1.1 Inlet	0.20 mm	0.008 in.
	1.2 Exhaust	0.20 mm	0.008 in.
2	Front wheel alignment (toe-out)	0.00 to 2.00 mm	0.00 to 0.19 in.
3	Engine idle speed	700 to 800 rpm	
4	Axle hub end float		
	4.1 Front	00.8 to 0.25 mm	0.003 to 0.01 in.
	4.2 Rear	NIL	NIL
5	Injector break-off pressure	135 bar	135 atms
6	Steering lock stops		
	6.1 SNATCH-2A and SNATCH-2B fitted with 235/85 R16 BFGOODRICH Radial Mud Terrain Tyres	45 mm	1.8 in.
	6.2 SNATCH-VIXEN PLUS fitted with 265/75 R16 Radial Cooper Discoverer STT Tyres	Initially: 50 to 60 mm	2 to 2.4 in.
	NOTE After initial adjustment, ensure steering lock stops are adjusted to provide 10 mm (0.4 in.) of clearance between tyre and radius arm when steering is in a full lock position		
	TORQUE WRENCH SETTINGS		
7	Cylinder head nuts and bolts	Refer to AESP 2320-D-132-522	
8	Timing belt tensioner	Refer to AESP 2320-D-132-522	
9	Wheel nuts(front and rear)		
	9.1 SNATCH-2A and SNATCH-2B	170 Nm	125 lbf ft
	9.2 SNATCH-VIXEN PLUS	255 Nm	188 lbf ft
10	Oil drain plug, gearbox (Auto)	25 Nm	18 lbf ft
	(SNATCH-VIXEN PLUS only)		
11	Axle tie rod fixing point (SNATCH-VIXEN PLUS only)	260 Nm	192 lbf ft

(continued)


Ser (1)	Item (2)	Detail	
		Metric (3)	Imperial (4)
	TYRES		
12	Size		
	12.1 SNATCH-2A and SNATCH-2B	235/85 R16 BFGOODRICH Radial Mud Terrain Tyres	
	12.2 SNATCH-VIXEN PLUS only	265/75 R16 Radial Cooper Discoverer STT Tyres	
	Pressures for Normal use applicable for all conditions of load		
13	SNATCH-2A		
	13.1 Front	3.0 bar	44 psi
	13.2 Rear	5.3 bar	76 psi
14	SNATCH-2B		
	14.1 Front	3.0 bar	44 psi
	14.2 Rear	5.3 bar	76 psi
15	SNATCH-VIXEN PLUS		
	15.1 Front	3.5 bar	50 psi
	15.2 Rear	5.5 bar	80 psi

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TABLE 3 EQUIPMENT DATA (continued)

Ser (1)	Item (2)	Detail	
		Metric (3)	Imperial (4)
	WEIGHTS (Refer to ESPD (AESP 2320-D-132-111))		
16	SNATCH-2A		
	Gross Vehicle Weight (GVW)	██████	██████
	Unladen Weight – (estimated kerb weight)	██████	██████
	Gross Front Axle Weight	██████	██████
	Gross Rear Axle Weight	██████	██████
	Gross Train Weight (GTW)	██████	██████
	Max Trailer Weight (On Road)	██████	██████
	Max Trailer Weight (Off Road)	██████	██████
	Tow Bar Preponderance	████	████
17	SNATCH-2B		
	Gross Vehicle Weight (GVW)	██████	██████
	Unladen Weight – (estimated kerb weight)	██████	██████
	Gross Front Axle Weight	██████	██████
	Gross Rear Axle Weight	██████	██████
	Gross Train Weight (GTW)	██████	██████
	Max Trailer Weight (On Road)	██████	██████
	Max Trailer Weight (Off Road)	██████	██████
	Tow Bar Preponderance	████	████
18	SNATCH-VIXEN PLUS		
	WARNING		
	PHYSICAL INJURY. DUE TO WEIGHT RESTRICTIONS THE SNATCH-VIXEN PLUS IS NOT PERMITTED TO TOW TRAILERS. FAILURE TO COMPLY MAY RESULT IN LOSS OF CONTROL WHILST DRIVING.		
	Gross Vehicle Weight (GVW)	██████	██████
	Unladen Weight – (estimated kerb weight)	██████	██████
	Gross Front Axle Weight	██████	██████
	Gross Rear Axle Weight	██████	██████

TABLE 4 ACTION ON RECEIPT

Ser	Action
(1)	(2)
1	Carry out an in-inspection in accordance with current regulations. Carry out the maintenance tasks from the Driver/ Operator Table in column A.
2	
3	Check the torque loading of all wheel nuts.

NOTES

(1) Maintenance tasks bearing the trade task indicator (Vehicle Mechanic (VM)), must only be completed by an appropriately qualified person, as defined in Para 2. These tasks are not appropriate for completion by a driver/ operator.

(2) Due to weight restrictions the SNATCH-VIXEN PLUS is not permitted to tow a trailer. The towing hook should be used for recovery purposes only.

TABLE 5 OUT OF PHASE MAINTENANCE

MAINTENANCE NOTE

Maintenance tasks bearing the trade task indicator (Vehicle Mechanic (VM)), must only be completed by an appropriately qualified person, as defined in Para 2. These tasks are not appropriate for completion by a driver/ operator.

Ser (1)	Action (2)	Interval (3)
All Variants		
1	Cooling System: Drain, flush and replenish	Every five years
2	Air Cleaner, Adverse Conditions: Replace primary (outer) element	20,000 km
3	Change front windscreen glass	Refer to AESP 2320-D-132-522
4	Update FMT 1004 Vehicle Documentation	On completion of vehicle specific tasks
5	Replace laminate window coverings (VM)	Refer to AESP 2320-D-132-522
6	Engine: Replace camshaft timing belt (VM)	72,000 miles (120,000 km) or six years, whichever occurs first. In adverse conditions, 36,000 miles (60,000 km) or three years, whichever occurs first
SNATCH-2A and SNATCH-2B only		
7	Gearbox (5-speed R380) oil: Drain and replenish	96,000 miles (155,000 km) or five years, whichever occurs first
8	Examine engine mountings (VM)	60,000 miles (96,000 km) or five years, whichever occurs first
SNATCH-VIXEN PLUS only		
9	Gearbox (4-speed Auto ZF 4HP22) oil: Drain, flush and replenish	First 1000 km
10	Gearbox (4-speed Auto ZF 4HP22) oil: Drain/ replenish	10,000 km or annually, whichever occurs first
11	Air Cleaner: Replace safety (inner) element	Every 3 rd primary filter change

TABLE 6 DRIVER/ OPERATOR MAINTENANCE

MAINTENANCE NOTES

(1) The generic and specific **WARNINGS** and **CAUTIONS** listed under the heading **WARNINGS** and **CAUTIONS** held in the preliminary pages of this document, must be read prior to carrying out any maintenance tasks and adhered to when carrying out any maintenance tasks.

(2) Maintenance tasks bearing the trade task indicator (VM), must only be completed by an appropriately qualified person, as defined in Para 2. These tasks are not appropriate for completion by a driver/operator.

(3) When operating in sandy/ dusty conditions air filters should be maintained in accordance with AESP 2320-D-132-522.

(4) Maintainers must ensure that grease exudes from the joint caps. Grease nipple wear/damage can prevent this, replace nipple with NSN 4930-99-208-9923 and check for correct greasing. The relative position of the front propeller slip joint is indicated by arrows. The arrows must be in line to position the trunnions correctly.

(5) The wheel nut torque load must be checked when a wheel/ tyre assembly is reinstalled/ replaced on the vehicle.

11 The procedures in Table 6 Maintenance are to be carried out by the driver/operator at the intervals shown at Para 8.

Ser	Task	Product	Maintenance Interval		
			A	B	C
(1)	(2)	(3)	(4)	(56)	(5)
All Variants					
1	Examine vehicle for obvious signs of damage		X	X	
2	Ensure that the vehicle has sufficient fuel, oil and coolant for the journey or task		X		
3	All doors, locks, safety catches, bonnet catches and top cover hatch, examine and operate		X	X	
4	Rear door hold-open catches/ clips, examine and check operation		X		
5	Rear door lock plunger holes, examine to ensure the holes are free from debris		X	X	
6	Windscreen, windows, Bilsen screens and the windscreen tear off, examine for clarity and damage (See WARNINGS)		X	X	
7	Windscreen, check the internal screen for debris or substances that could cause damage (especially in environment where sand and dirt is present)		X	X	
8	Rear view mirrors, examine for cracks and deterioration of reflective surfaces		X		
9	Seat belts and attachments, examine and operate		X		
10	Fire extinguisher(s), ensure vehicle is fitted with serviceable extinguisher(s)		X		
11	Lamps, horn, windscreen wipers and washers, directional indicators, hazard warning lamps, heaters, demisters, instruments and gauges, ensure correct operation		X	X	

(continued)

TABLE 6 DRIVER/ OPERATOR MAINTENANCE (continued)

Ser	Task	Product	Maintenance Interval		
			A	B	C
(1)	(2)	(3)	(4)	(5)	(6)
12	Obligatory front and rear lights and headlamps, examine for damage and operate	AL 11	X		
13	Wire cutter, examine for security of attachment		X		
14	Windscreen washer reservoir, check level and replenish as necessary (See WARNINGS)		X		
15	Windscreen wiper blades and washer jets, check for dirt and debris that may cause damage, check correct functionality of the jets		X	X	
16	Spare wheel carrier/ stowage, examine for security of attachment		X		
17	Tyres (including spare wheel), examine for cuts and other damage, check tread depth. Check tyre pressures (See Table 3)		X		
18	Wheels and tyres (including spare wheel), see NOTE above: Examine for cuts and other damage, check tread depth and tyre pressures. Perform visual check of wheel nut security		X X		
19	Torque tighten wheel nuts	XG279			X
20	Registration, marker and legal plates, examine		X		
21	Reflectors, examine for damage and security of attachment		X		
22	Towing pintle, examine and ensure that the locking latch is free, locking pins are in place and attached by securing chains		X		
23	Special to role type fittings, examine		X		
24	Brakes and steering, ensure correct operation		X		
25	Alternator drive belts, examine for fraying and correct tension		X		
26	Power steering reservoir, check level and replenish as necessary	OX 75	X		
27	Power steering drive belt, examine for fraying and correct tension		X		
28	Brake and clutch reservoir, check levels and replenish as necessary	OX 8	X		
29	Batteries, examine connections and security of attachments (See WARNINGS)	PX7	X		
30	COMD equipment carried on vehicle, examine	OX 90	X		
31	Engine oil, check level and replenish as necessary		X		
32	Carry out a static function test of the vehicle in order to confirm the serviceability of all functions such as door locks, window winders, seat adjusters, seat belts, lights and accessories		X		
33	Carry out a short mobile function test in order to confirm the serviceability of all functions of starting, driving through the gears and stopping		X		

(continued)

TABLE 6 DRIVER/ OPERATOR MAINTENANCE (continued)

Ser	Task	Product	Maintenance Interval		
			A	B	C
(1)	(2)	(3)	(4)	(5)	(6)
34	Coolant, check for leaks. Top up (See WARNINGS)	AL 39/ Water, 50/ 50 mix	X		
35	Air cleaner, clean, examine and empty the dust cap		X		
36	Radio bulkhead frame opening, examine hinges and check security of locking bolts		X		
37	Isolate the vehicle and auxiliary batteries via the VEHICLE BATTERY ISOLATOR switch and the Auxiliary (AUX) BATTERY ISOLATOR switch (See WARNINGS)(All variants)			X	
Variant Specific					
38	Air conditioning unit, ensure correct operation (SNATCH-2A and SNATCH-VIXEN PLUS only)	OX 75	X		
39	<div></div>		X		
40	<div></div>		X		
41	<div></div>		X		
42	Automatic gearbox oil: Check level and replenish as necessary (SNATCH-VIXEN PLUS only)		X		
All Variants					
43	ADP 658A/ FMT658A/ FMT1001/ FMT1001A (Duty Movement Authorisation/ Driver Tasking Sheet) as appropriate, sign		X		

TABLE 7 TIME/ USAGE MAINTENANCE

MAINTENANCE NOTES

- (1) The generic and specific **WARNINGS** and **CAUTIONS** listed under the heading **WARNINGS** and **CAUTIONS** held in the preliminary pages of this document, must be read prior to carrying out any maintenance tasks and adhered to when carrying out any maintenance tasks.
 - (2) Maintenance tasks bearing the trade task indicator (VM), must only be completed by an appropriately qualified person, as defined in Para 2. These tasks are not appropriate for completion by a driver/ operator.
 - (3) When operating in sandy/ dusty conditions air filters should be maintained in accordance with AESP 2320-D-132-522.
 - (4) Maintainers must ensure that grease exudes from the joint caps. Grease nipple wear/ damage can prevent this, replace nipple with NSN 4930-99-208-9923 and check for correct greasing. The relative position of the front propeller slip joint is indicated by arrows. The arrows must be in line to position the trunnions correctly.
 - (5) The wheel nut torque load must be checked when a wheel/ tyre assembly is reinstalled/ replaced on the vehicle.
 - (6) All tasks are for all variants unless specified in the text of the task.
- 12 The procedures in Table 6 Maintenance are to be carried out by the driver/ operator at the intervals shown at Para 9.

TABLE 7 TIME/ USAGE MAINTENANCE

Ser	Task	Product	Maintenance Interval					
			1 st	A	B	C	D	E
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ENGINE							
1	Engine, drain engine oil, replace filter and replenish	OX 90					X	1
2	Air Cleaner: Replace primary (outer) element. Refer to Table 5 for replacement of safety (inner) element and use in adverse conditions						X	1
3	Engine air intake system, examine raised air intake, air cleaner and intercooler connecting hoses for condition and security of attachment		X	X	X	X	X	1
4	Fuel system, examine fuel tank, fuel lines and connections for leaks, corrosion and chaffing		X		X	X	X	1
5	Coolant system, examine radiator, mountings and hoses for leaks, corrosion and chafing		X		X	X	X	1
6	Coolant system, drain flush and refill	AL39/ Water 50/ 50 Mix					X	1
7	Viscous fan drive, examine		X		X	X	X	1

(continued)

(continued)

TABLE 7 TIME/ USAGE MAINTENANCE (continued)

Ser	Task	Product	Maintenance Interval					
			1 st	A	B	C	D	E
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ENGINE (continued)							
8	Alternator and power steering drive belts, examine for fraying	OX 90	X	X	X	X	X	1
9	Exhaust system, examine			X	X	X	X	1
10	Engine idle speed, check and adjust as necessary (VM)			X	X	X	X	1
11	Engine controls, examine, operate and lubricate		X		X	X	X	1
12	Flywheel housing, drain (only if wading plug fitted)				X	X	X	1
13	Exhaust emission, check exhaust emissions (VM)		X		X	X	X	1
14	Valve clearances: check and adjust as necessary (VM)						X	1
15	Timing belt housing cover, ensure vent hole is clear (VM)		X	X	X	X	X	1
16	Fuel filter(s), replace						X	1
17	Fuel sediment bowl, drain, clean and refit			X	X	X	X	1
18	Fuel lift pump, examine		X		X	X	X	1
19	Fuel injection pump, examine		X			X	X	1
20	Turbo charger, examine, check for operation (VM)		X			X	X	1
	STEERING AND SUSPENSION							
21	Steering wheel column, linkage, ball joints and universal joints, examine (VM)		X		X	X	X	2
22	Coil springs, pins and rebound pads and brackets, examine (VM)		X		X	X	X	2
23	Panhard rod, radius arms, link rods, bushes and pins, examine and check tightness to recommended torque settings (VM)		X		X	X	X	2
24	Anti-roll bar, bushes, ball joints and link assembly, examine (VM)		X	X	X	X	X	2
25	Shock absorbers, mountings and bushes, examine (VM)		X	X	X	X	X	2
26	A frame bracket and ball joint, examine and lubricate		X	X	X	X	X	2
27	Wheel nuts, check tightness to recommended torque settings (See Table 3)		X	X	X	X	X	2
28	Front wheel hub bearings, check and adjust as necessary (See Table 3)(VM)		X		X	X	X	2
29	Front wheel alignment, check and adjust as necessary (VM)		X		X	X	X	2

(continued)

TABLE 7 TIME/ USAGE MAINTENANCE (continued)

Ser	Task	Product	Maintenance Interval					
			1 st	A	B	C	D	E
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	POWER STEERING SYSTEM							
30	Power steering pump, examine (VM)		X		X	X	X	2
31	Power steering box, examine (VM)		X		X	X	X	2
32	Power steering reservoir, check oil level and replenish as necessary	OX 75	X	X	X	X	X	2
33	Steering damper, examine (VM)		X		X	X	X	2
	TRANSMISSION							
34	Gearbox (5-speed R380), examine, drain and replenish (SNATCH-2A and SNATCH-2B only)	MTF 94					X	3
35	Gearbox (5-speed R380), examine, check oil level and replenish as necessary (SNATCH-2A and SNATCH-2B only)	MTF 94		X	X	X	X	3
36	Gearbox (4-speed Auto ZF 4HP22) oil: drain/ replenish			SEE TABLE 5				3
37	Gearbox (4-speed Auto ZF 4HP22), examine, drain and replenish (SNATCH-VIXEN PLUS only)	OX 75			X	X	X	3
38	Transfer box, examine. Check oil level and replenish as necessary	OEP 220		X	X	X	X	3
39	Transfer box, examine, drain and replenish	OEP 220					X	3
40	Gear/ transfer box, control levers and linkage, examine and lubricate	OX 90	X	X	X	X	X	3
41	Clutch pedal and operating mechanism, examine, operate and check free play		X		X	X	X	3
42	Clutch master cylinder, examine		X		X	X	X	3
43	Clutch hydraulic reservoir, check fluid level and replenish as necessary	OX 8			X	X	X	3
44	Propeller shafts examine and lubricate universal joints and splines. Check security of flange bolts (See Maintenance NOTE 4)	XG 279	X	X	X	X	X	3
45	Front and rear axles, examine, check breather pipes for damage. Check oil level and replenish as necessary	OEP 220			X	X	X	3
46	Front and rear axles, examine, drain and replenish	OEP 220					X	3
47	Rear wheel hub bearings, check and adjust as necessary (VM)				X	X	X	3
48	Front and rear wheel hub bearing, repack hub (NOT SNATCH-VIXEN PLUS)(VM)	XG291					X	3

(continued)

(continued)

TABLE 7 TIME/ USAGE MAINTENANCE (continued)

Ser	Task	Product	Maintenance Interval					
			1 st	A	B	C	D	E
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	TRANSMISSION(continued)							
49			X	X	X	X	X	3
50			X	X	X	X	X	3
51	BRAKES							
52	Brake pipes and hoses, examine (VM)		X	X	X	X	X	4
53	Brake pedal and operating mechanism, examine, operate and check free play (VM)		X	X	X	X	X	4
54	Brake master cylinder, examine (VM)		X	X	X	X	X	4
55	Brake vacuum pump, examine (VM)		X	X	X	X	X	4
56	Brake servo, examine (VM)		X	X	X	X	X	4
57	Brake hydraulic reservoir, check level and replenish as necessary (VM)	OX 8	X	X	X	X	X	4
58	Handbrake and linkage, examine and lubricate	OX 90			X	X	X	4
59	Front brake callipers, friction pads and discs, examine (VM)			X	X	X	X	4
60	Transmission brake, remove drum and inspect (VM)					X	X	4
61	Rear brake callipers, friction pads and discs, examine (VM)			X	X	X	X	4
62	Brake system, operate (VM)		X	X	X	X	X	4
63	Brake system, carry out roller brake test or decelerometer test (RAF in accordance with AP 3260 Book 3, Lft A64)(See CAUTIONS)(VM)				X	X	X	4
64	Brake hydraulic system, drain and replenish (VM)	OX 8					X	4
	ELECTRICS							
65	Vehicle and FFR batteries: Examine, check charge state. Clean terminals and smear with protective grease (batteries maintenance-free gel filled)				X	X	X	5
66	Battery area, examine, restore surface finish as required				X	X	X	5
67	Starter motor, examine for security				X	X	X	5
68	Alternators, examine, check outputs including the split charge system (VM)				X	X	X	5
69	Electrical wiring, junction boxes and conduit, examine for signs of burning, chafing or other damage and for security of attachments				X	X	X	5

(continued)

TABLE 7 TIME/ USAGE MAINTENANCE (continued)

Ser	Task	Product	Maintenance Interval					
			1 st	A	B	C	D	E
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	ELECTRICS (continued)							
70	Lamps, horn, windscreen wipers/ washers, direction indicators and hazard flashers, examine and ensure correct operation		X		X	X	X	5
71	Heaters and demisters, examine, operate and lubricate the control cables				X	X	X	5
72	Air conditioning unit, examine and operate (SNATCH-2A and SNATCH-VIXEN PLUS only)		X	X	X	X	X	5
73	Reflectors, examine				X	X	X	5
74	Switches and warning devices, examine		X		X	X	X	5
75	Instruments, gauges and transmitters, examine and operate		X		X	X	X	5
76	Relays and electrical accessories, examine and operate				X	X	X	5
77	Fuses, check for correct rating				X	X	X	5
78	Fuse holders, examine			X	X	X	X	5
79	Inter-vehicle connectors, examine and operate				X	X	X	5
80	Inter-vehicle start socket, examine cap for damage			X	X	X	X	
81	Headlamp alignment, check adjustment				X	X	X	5
82	Radio antennas, examine and check for damage		X	X	X	X	X	5
83	Rear door solenoid, examine and operate		X	X	X	X	X	5
84	Earth bonding system: Engine, gearbox, and chassis earth leads to be removed, cleaned and refitted, ensuring all connections are secure. Apply protective grease	PX 7				X	X	5
85	<div></div>		X	X	X	X	X	5
86	<div></div>		X	X	X	X	X	5
87	VEHICLE BATTERY ISOLATOR switch and AUX BATTERY ISOLATOR switch: Examine, operate and check for damage		X	X	X	X	X	5
88	Radio battery charging system: Examine and ensure correct operation					X	X	5

(continued)

(continued)

TABLE 7 TIME/ USAGE MAINTENANCE (continued)

Ser	Task	Product	Maintenance Interval					
			1 st	A	B	C	D	E
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	BODY AND CHASSIS							
89	Body, interior and exterior, examine		X		X	X	X	6
90	Chassis and cross-member bolts, examine				X	X	X	6
91	Chassis, examine, retreat wax oil where necessary				X	X	X	6
92	Doors locks, hinges and stay, examine and lubricate	OX 90	X	X	X	X	X	6
93	Top hatch locking mechanism: Examine rollers, seals, and function of lock. Lubricate as necessary	OX 90	X	X	X	X	X	6
94	Bonnet, lock, hinges and stay, examine and lubricate	OX 90	X	X	X	X	X	6
95	Rear doors, locks, mechanism, hinges, stays and remote emergency opening mechanism, examine and lubricate and adjust as necessary	OX 90	X	X	X	X	X	6
96	Rear door lock plunger holes, examine to ensure the holes are free from debris				X	X	X	6
97	Rear door hold-open catches/ clips, examine and check operation				X	X	X	6
98	Mudguards and bumper bars, examine				X	X	X	6
99	Stone guards, examine for damage and security of attachment				X	X	X	6
100	Seat belt mountings, seat belts and buckles, examine				X	X	X	6
101	Seats and seat adjusters, examine				X	X	X	6
102	Wiper arms and blades, examine				X	X	X	6
103	Rear view mirror(s), examine				X	X	X	6
104	Windscreen, windows and protective screens, examine, and especially for correct function of remote raising/ lowering mechanism		X	X	X	X	X	6
105	Gaiters and protective covers, examine		X		X	X	X	6
106	Fire extinguishers, ensure fire extinguishers are serviceable		X	X	X	X	X	6
107	Special-to-role type fittings, examine		X		X	X	X	6
108	Equipment lockers, examine				X	X	X	6
109	Rear towing attachment, examine. Ensure locking catch is free, locking pins in place and attached by securing cables/ chains. Lubricate	OX 90 XG 279	X	X	X	X	X	6
110	Legal/ warning plates, examine, check security of attachment				X	X	X	6

(continued)

TABLE 7 TIME/ USAGE MAINTENANCE (continued)



Ser (1)	Task (2)	Product (3)	Maintenance Interval					
			1 st (4)	A (5)	B (6)	C (7)	D (8)	E (9)
	BODY AND CHASSIS (continued)							
111	Oil can lubrication, general lubrication of all catches, controls, pivot pins, locks, linkages and pins	OX 90		X	X	X	X	6
112	Vehicle body interior, examine for condition of insulating panels, matting and security of attachments				X	X	X	6
113	Radio bulkhead frame opening, examine and lubricate hinges and check security of locking bolts	OX 90			X	X	X	6
114	Top hatch emergency exit, ensure emergency release hole is sealed	Sikaflex			X	X	X	6
115				X	X	X	X	6
116			X			X	X	6
117	Road test, check steering, brakes and performance (NCO, MT Technician only)		X	X	X	X	X	All
118	Sign the STAMA Worksheet (RAF only)		X	X	X	X	X	All
119	Complete AF G932 (W2)				X	X	X	All
120	Sign AF G1084A and update JAMES		X	X	X	X	X	

TABLE 8 OUT OF USE MAINTENANCE

13 **WARNINGS, CAUTIONS** in the preliminary pages of this document and all Maintenance Notes preceding Tables 5, 6 and 7 must be read and understood before commencing with these maintenance tasks.

Ser	Operation	Fig/ Item No.	Product
(1)	(2)	(3)	(4)
	Prior to vehicle entering storage:		
1	Carry out Table 6, Columns A and C maintenance, check coolant specific gravity and patch paint		
2	Carry out next maintenance due if it falls during out of use period		
3	Rectify all faults affecting road/task worthiness		
4	Fill fuel tank		
5	Isolate batteries by disconnecting the batteries' earth leads or, where vehicles have been upgraded with both vehicle and mission battery isolation switches, switch both isolation switches OFF		
6	Fit vehicle environmental protective cover		
	Monthly whilst in storage:		
7	Remove vehicle environmental protective cover		
8	Reconnect batteries by connecting the batteries' earth leads or, where vehicles have been upgraded with both vehicle and mission battery isolation switches, switch both isolation switches ON		
9	Carry out walk-round and start vehicle. Bring systems up to operating temperatures and pressures and check for leaks		
10	Operate equipment and all systems		
11	Isolate batteries by disconnecting the batteries' earth leads or, where vehicles have been upgraded with both vehicle and mission battery isolation switches, switch both isolation switches OFF		
12	Refit vehicle environmental protective cover		
13	Record action in FMT 1004 (Army only)		
14	Sign AF G1084A and update JAMES		
	Prior to vehicle entering service after storage:		
15	Remove vehicle environmental protective cover		
16	Reconnect batteries by connecting the batteries' earth leads or, where vehicles have been upgraded with both vehicle and mission battery isolation switches, switch both isolation switches ON		
17	Carry out Table 6, Column A, maintenance. Check coolant specific gravity and patch paint		
18	Carry out Table 7, Columns A, B, C, D and E if due		
19	Carry out road test and examine for leaks		
20	Record action in FMT 1004 (Army only)		
21	Carry out AF G932 (W2) or safety inspection if due. Sign AF G1084A and update JAMES		

**ARMY EQUIPMENT AND SUPPORT PUBLICATION (AESP) AND
ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS (EMER) – FORM 10**

*AESP/EMER NUMBER:		*IS THIS SAFETY RELATED?	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>
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Send Form 10 via the Email or Post address. However email is <u>preferred</u> .		Tel	030 679 71141 or 9679 71141
Email: <u>DESLE-Form10@mod.uk</u>	Post to	Form 10 Cell Land Equipment Elm 3b #4330 MOD Abbey Wood Bristol BS34 8JH	
(To email this form send as a copy to the email address above)			

ORIGINATORS DETAILS							
*Address				*Name			
				Rank / Grade			
				*Phone			
				*Senders Reference			
				*Date Raised			
* E-Mail				Eqpt Asset Code (if applicable)			
AESP/EMER DETAILS							
*Full Title of AESP/EMER (Not the AESP/EMER Number)							
*Edition	*Amendment	*Chapter	*Page	*Paragraph	Figure	Instruction	Other
*Comments: If additional information is to be supplied, please e-mail with the Form 10 as separate attachments.							

FORM 10 CELL USE			
*Date Received		*Form 10 Reference	
*Date Sent to PT / SME		Problem Report	

PROJECT TEAM / SME RESPONSE TO COMMENTS:			
Project Team (PT) / SME		*Sponsors Name	
*Phone		Rank / Grade	
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*The following action is to be carried out:	Mark:		Mark:
Issue a revised/amended AESP/EMER:		Under investigation:	
Incorporate comment(s) in future amendments:		No action required:	
Remarks:			
SPONSOR/PT FINAL CLOSURE STEPS	Mark:	Form 10 Cell notified of Date action taken	Date:
Form 10 Originator notified of the action taken:			

* Mandatory Fields for Originator.

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**ARMY EQUIPMENT AND SUPPORT PUBLICATION (AESP) AND
ELECTRICAL AND MECHANICAL ENGINEERING REGULATIONS (EMER) – FORM 10**

Form 10 Guidance

Form 10 can be found within the AESP or, as a template, from the JAMES Portal (Hot Topic – Forms) & TDOL (FORM 10).

Originator responsibility is to enter the following details as marked *:

- In the **AESP/EMER Number:** cell enter the full document number e.g. AESP 1256-I-400-711.
- Is this **Safety Related?** – select Yes or No as appropriate.
- Originator Details:
 - Full address Inc Post Code or BFPO No.
 - Originator email address.
 - Senders Reference – that must be unique.
- AESP Details shall enter the following details:
 - The Full Title of AESP/EMER should not include the AESP/EMER Number.
 - Enter details in all other mandatory fields marked *.
 - Additional information relating to Comments (AESP copies, additional text details or photographs) should be attached to the email at the same time.
- Originator makes up the Form 10 & Sends to Form 10 cell via:
 - Post to **Form 10 Cell, #4330 Elm 3b, MoD Abbey Wood, BS34 8JH** address.
 - Email to **DESLE-Form10@mod.uk**.
 - **Any AESPs that holds a Security marking higher than 'RESTRICTED' should be securely circulated.**

FORM 10 CELL responsibilities:

The Form 10 Cell enters:

- Date Received.
- Form 10 Reference.
- Date sent to Sponsor.
- Register all Form 10 details in the MOSS Form 10 Tracker.

Sponsor responsibility:

The Sponsor will:

- Enter their name, email address & phone contact details.
- Enter Date Received.
- Enter Details in the non-mandatory field as & when required.
- Acknowledge receipt of Form 10, within 5 working days, by email to Form 10 Cell.
- Assess the contents of comments and details received.
- Mark the relevant Action box and fill out the Remarks field.
- Enter date when the Form 10 is returned to Form 10 Cell.
- Email copy of completed Form 10, within 6 weeks, to the Form 10 Cell and Originator.

Form 10 Cell on receipt will:

- Record final stage of the Form 10 into the MOSS Form 10 Tracker.
- Close off the Form 10 and archive.

AESP Form 10 (Issue 6.2 dated July 2013)

* Mandatory Fields for Originator.

* Mandatory Fields for Sponsor.