SCALE 27 MECHANICAL TRANSPORT ACCOMMODATION

- 1 This scale is to be read in conjunction with Scales 1, 19, 20, 40, 45, 47 and 54.
- 2 It covers the provision of permanent facilities for covered and open parking, maintenance (service and repair), control, and administration of Service mechanical transport (MT), and an area of hardstanding for general training purposes.
- 3 Variations to the scale may be required to meet local conditions overseas and these will be specified in the project brief.
- 4 The scale does not cover the requirements of specialist installations such as bases and depots, Army 3rd line Workshops, or their Royal Navy and Royal Air Force equivalents. These will be specified in the brief in accordance with Service works procedures.
- 5 For the purposes of this scale, unless otherwise stated MT or VEHICLE includes towed weapons and trailers.
- 6 The scale is divided into 5 parts as follows:
 - 1 Parking and Driver Maintenance Facilities

- 2 Workshop Accommodation including Battery Charging
- 3 Stores
- 4 Refuelling Facilities
- 5 Personnel Accommodation
- 7 Drainage for all facilities should be via oil separators or interceptors, and are to be such that discharges do not cause pollution to ground waters, ditches, streams or other waters. Where a discharge is made to a sewer, the appropriate requirements of the Pollution Control Authority shall be met. Wastes from MT facilities are potentially hazardous and guidance on responsibility and negotiation of discharge consents shall be via the Water Engineering/Pollution Control Group, Defence Estates.
- 8 All designs, M&E installations and equipment must comply with The Health and Safety at Work etc Act 1974 (which makes reference to Building Regulations currently in force and to the Factories Act), The Control of Pollution Act 1974, the Control of Substances Hazardous to Health (COSHH) Regulations 2002, the Workplace (Health, Safety and Welfare) Regulations, BS 7671 (Requirements for Electrical Installations), and with the appropriate safety and fire regulations, or with equivalent legislation overseas.

- 9 The lighting levels given are the minima, and may be increased as specified in the project brief for particular working requirements.
- 10 Garage, servicing and repair bay floors, parking areas and access roads should be designed for an axle load of 10 tonnes.
- 11 Vehicle testing provision is to comply with VOSA MOT Test Scheme requirements for the class of equipment to be inspected and/or the VOSA Authorisation for a Designated Premises for HGV/PSV testing as appropriate."
- 12 20 Spare.

PART 1 - PARKING AND DRIVER MAINTENANCE FACILITIES

Accommodation	Area	M & E Services	Planning Notes, Special Fittings etc
(a)	(b)	(c)	(d)
21 a Covered Vehicle Accommodation	2.25 times the plan area (footprint) of Either : All vehicles listed at Annex A Or , if it is greater, 10% of all vehicles on establishment (minimum provision - one bay big enough to take largest vehicle on establishment.). The plan area for specialist repair and for stores vehicles to be used as such in workshops (Part 2) and in stores (Part 3) is reduced to 1.5. Vehicle Movement - Add 5% to parking area in open plan garages. Apron - Add area for access to accommodate turning circle of largest vehicle	Illumination - 350 lux Electric Power - Low and extra low voltage socket outlets as required. Electrical snatch plugs and earth leakage units with earth monitoring for emergency vehicles, as required. Power supplies for fixed equipment as required. Heating - 10° - 13°C dependent on type and duration of use by personnel. Ventilation - To be in accordance with CIBSE recommendations. Vehicle fume extraction - Area extraction system as required.	Garages are normally to be open plan design. If this is not possible then the bays must accommodate the largest vehicle on establishment. Allowance to be made for turrets, crane jibs etc. Space between vehicles and distance from other parking to comply with safety and fire regulations. Lockable insulated doors. In the single clear area concept, there should be sufficient doors to permit easy entry and exit. Vehicle door pillars are to be protected against collision. Personnel doors are to be provided.

PART 1 - PARKING AND DRIVER MAINTENANCE FACILITIES (contd)

(a)	(b)	(c)	(d)
21b Uncovered Hardstandings	2.25 times the plan area of all vehicles on establishment not garaged by Serial 21a, plus manoeuvring area sufficient for largest vehicle trains on establishment.	Illumination - 20 lux unless specified otherwise for security reasons.	Space between vehicles and distance from other vehicle parking to comply with safety and fire regulations.
c Covered Secure Storage	Excluding trailers and recovery vehicles: 5.6m ² for:- each A vehicle 50% of AT 105 25% of B and C vehicles.	Illumination - 100 lux Electric Power - As required. Heating - 13.0°C.	Refer also to Scale 54. Usually provided as XPM cages at rear of covered parking. To hold equipment removed from parked vehicles.
d Hardstandings (Tracked RAC & RA units)	7500m ² (length 100m, width 75m).	Illumination - 30 lux	For other units when specified at project brief stage.

PART 1 - PARKING AND DRIVER MAINTENANCE FACILITIES (contd)

(a)	(b)	(c)	(d)
22a Vehicle Washdown	All washdown platform and hardstanding areas are additional to Serial 21. Excluding motor cycles and trailers: 1 automatic washer if more than 30 vehicles. PLUS One hose type washing platform for every 30 vehicles or part thereof (Army); for every 50 vehicles or part thereof (RN/RAF); Additional capacity for units on, or providing facilities for units using, field training areas when specified.	Illumination -175 lux with supplementary lighting if required. Luminaires to BS 5490. Electric Power - Power supplies for vehicle washing and cleaning equipment. Heating - Frost protection as necessary Water Supply - Hot and cold, with recycling facility.	Separation barrier 2.4m high min. between adjacent platforms. One turbo pump, "two gun" operation, to each pair of hose washing platforms. One high pressure washing plant, (pressure between 300 psi and 1000 psi) jet size 2.4mm diameter maximum, for all units with tracked/towed equipments, with use of detergents/ chemical additives. Hot water pressure point. For automatic wash plant, RN and RAF require rotary brush type capable of use with soap or detergents to MOD Spec TS 10302 (Service supply). For Army, either rotary brushes as for RAF or HP jet. Drainage - see Serial 7.

PART 1 - PARKING AND DRIVER MAINTENANCE FACILITIES (contd)

(a)	(b)	(c)	(d)
22b Cleaning Ramps	1 ramp per 100 vehicles (less motor cycles, towed equipment and trailers) or part thereof on establishment.	Illumination - as required under and above ramp.	Only when authorised as supplementary to washdown facilities. To be incorporated as an addition to the washdown. To Standard Drawing (DE No 060/010)
c(i) Daily Inspection Bay	Drive through bay to take largest vehicle on establishment	Illumination - 350 lux Heating - 13 ^o C Compressed Air - as required	Storage for consumables (oil, lubricants) in accordance with JSP 317, and tools. Racking as required.
c(ii) Supervisor's Office			Refer to Scale 45

23-30 spare

PART 2 - WORKSHOP ACCOMMODATION

(a)	(b)	(c)	(d)
31a Servicing/Lubricating Area	50-200 vehicles - 1 bay. To take the largest vehicle held on establishment. Bay for less than 50 vehicles or extra bays for more than 200 vehicles (e.g. central servicing stations) where specified.	Illumination - 350 lux with supplementary lighting to required safety standards in inspection pits. Electric Power - Low and extra low voltage socket outlet as required. Power supplies for fixed equipment as required. Compressed Air - Service as required. Compressor and receiver to be in separate compartments. Heating - 16.0°C. Exhaust Extract System - piped extract to each bay.	Area is additional to parking areas (Serials 21a and b). Lubrication Bays (Tecalemit or equivalent) are to be provided with full automatic services and waste fluids/substances disposal facilities, to meet clearance contractor's requirements. Fixed or mobile vehicle hoist, or pit with jack or beam. Where pits are provided they are to be in accordance with Standard Drawing (DWS No 0060/1). The pit length must allow for the Unit's largest vehicle, plus 1.0m access at both ends.
b Ready-use Store for oils and lubricants	18.0m ²	Illumination - 100 lux Electric Power - Power supplies for equipment as required. Heating - 10.0°C	To hold drums in use for lubrication equipment and compressor for Serials 31a and 33. External access via louvred doors. Construction to comply with JSP 317.

SCALE 27

Edition 3/July 1999 Amendment No 20/August 2009

TAITI E WOTHLOTTON ACCOUNT				
(a)	(b)		(c)	(d)
32 Aircraft Refueller/Trucks Tanker Fuel (TTFs) Servicing Bay	Refuellers No of ERAF FLYING STATIONS AND RN AIR STATIONS Up to 8 1 9 - 17 2 over 17 3 ARMY AAC Regt 1 CS/GS/Tpt Regt RLC 1 Other Units per 25 tankers 1 Bay length to allow for tilt cabs	223	Electric Power - Power supplies for equipment as required. All electrical equipment to meet requirements for Zone 1 areas in accordance with British Standard 5345, British Standard Code of Practice 1003 and JSP 317. Heating - 16.0°C. Water supply - Hot and cold. Exhaust Extract System - piped extract to each bay.	General design and construction to comply with JSP 317. The size of the bay should be based on 2½ times the largest refueller or TTF on establishment. Equipment, hoist or pit, waste disposal and drainage as for Serial 19a. Washbasin and, if more than 50m from another shower, emergency shower to remove possible POL contamination.

(a)	(b)	(c)	(d)
33 Vehicle Repair Bays	Each Bay 98m ² (7m x 14m) Infantry Bn 6 bays Light Mech Bn 8-12 bays Mech Bn 14 bays Armd Regt 14 bays	WORKSHOP AREA GENERALLY- Illumination - 350 lux or as specified in the project brief for work areas, with supplementary lighting as required. Electric Power - 13A, low and extra low voltage socket outlets. Power supplies as required for mobile and fixed equipment and tools. Heating - 16.0°C. Compressed Air - Service as required. Water Supply - Hot and cold. Exhaust Extract System - piped extract to each standing.	For open plan workshops, access area is in addition to the basic area. Lockable insulated doors with heat conservation measures (e.g. plastic strip or hot air curtain). Clear door height to be agreed at project brief stage. Personnel access doors are to be provided. Shelves, racks, and fitted benches with lockable drawers as required. Bays, if required, within Workshop area. Gantry crane - capacity and area swept to be specified at project brief stage. Water supply with floor drainage to meet the requirements of Serial 7. Vehicle pits as required. For pit details see Serial 31a.

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(a)	(b)	(c)	(d)
34 Wheel and Tyre Servicing	18.6m ²		Tyre inflation guard for split rim wheels. Airline. Tyre splitter. See also Serial 41e.
35 Roller Brake Tester	Where authorised, included in either inspection area or on hardstanding with control unit under cover.		
36 Specialist Facilities	Specialist facilities and area to be determined at project brief stage.		To have direct vehicular access from outside the workshop. Screening for arc welding. Work benches to be provided for the average number working in the area. Refer to Scale 57 for Surface Finishing facilities.
37 Receipt and Issue Hardstanding	Minimum of 1 receipt and 1 issue hardstanding. Additional requirements to be justified at project brief stage.	Illumination - 30 lux Supplementary lighting as required.	Proximity of other parking areas to be taken into account.

(a)	(b)	(c)	(d)
38 A Veh Power Pack Wash Down Facility (PPWDF)	To accommodate largest power pack in unit. 1m clearance around and above.	Illumination - 350 lux Electric Power - to equipment as required. Heating - Frost precautions. Water supply - Cold and HP hot.	On outside wall of A veh repair bay. Door to admit pp on trolley. Walls and ceiling fully tiled. Steam and HP hot water plant, spear type hand held hoses centre ceiling anchored. Drainage - see Serial 7.

(a)	(b)	(c)	(d)
39a Rectifier Room b Acid Room	23.2m ² to be divided as required between a and b. Units with both acid and alkaline batteries need an additional and separate rectifier room for the alkaline batteries (area to be justified at project brief stage).	Illumination - 125 lux Electric Power - Power supplies for battery charging equipment as required. Electrical equipment installed within the space is to be corrosion resistant. Luminaires to conform to at least IP54. Heating - Frost precautions only, except where rooms are regularly occupied, when 16.0°C will be provided. Ventilation - Natural and mechanical ventilation to remove fumes. Water Supply - Cold.	Only to be provided if other unit charging facilities are not available or unsuitable. Design details are in AP 120C-001-1. See Serial 7 for details of drainage requirements. Lead lined sink. Plastic sheet screening to charging shelves. Emergency shower and eyewash facility (actuated by pressure pad or similar device).

40 spare

PART 3 - STORES

(a)	(b)	(c)	(d)
41a CES Store b Cam Net Store c Workshop Eqpt Store d G1098/URS Store	 2.5m² per vehicle for RM Cdos, Army Units and RAF Regt. 2.0m² per vehicle for other units. To be divided into separate stores as agreed at project brief stage. 	Illumination - 100 lux with supplementary lighting where required. Electric Power - One 13A double socket outlet to every 46.5m² of floor space, minimum one per store room. For office accommodation see Scale 45. Heating - subject to any temperature requirements associated with the contents; stores not normally occupied - 10.0°C; regularly occupied - 16.0°C; office areas - 18.5°C. Where a limited number of stored items require higher temperatures, heated cupboards should be used.	Adjustable steel racking and shelving as required.
42 Recovery Vehicle Store	9.3m ² per recovery vehicle		Adjustable steel racking and shelving.

43 - 50 Spare

PART 4 - REFUELLING FACILITIES

(a)	(b)	(c)	(d)
51 Fuelling Points	The number of pumps and storage capacity of the tanks is to be specified at project brief stage.	Illumination -100 lux with supplementary lighting if required. Electrical Power - Power supplies for equipment as required. All M&E installations and equipment to be in accordance with JSP 317. Water Supply - cold. Compressed Air - As required.	Design and construction to JSP 317. Canopy over issue and receipt point to be high enough to accommodate the tallest vehicle. Water and tyre inflation facilities as specified in the project brief. Technical installation requirements and type of fuel dispensing and management systems as detailed in the project brief after consultation with Defence Estates. NOTE: For drainage requirements see Serial 7.
52 Refuelling Pool (Provided for Air Stations only) a Standby Crew and Night Standby Room b Drivers Locker Room			a Refer to Scale 47 b Refer to Scale 40

53-60 Spare

PART 5- STAFF/PERSONNEL ACCOMMODATION

(a)	(b)	(c)	(d)
61a Offices			Refer to Scale 45
b Control and Detail Office			Refer to Scale 45. To be located at ground floor level where possible. Counter with flap for callers at detail window, with weather shield over hatch and counter. Communicating door with Serial 63. Bay window or equivalent to cover Entry and Exit gates of MT/ Workshop complex if practicable.
62 MT Driver/Workshop Staff Changing/Locker Room			Refer to Scale 40
63 MT Driver/Workshop staff Rest Room			Refer to Scale 47

PART 5 - STAFF/PERSONNEL ACCOMMODATION (contd)

(a)	(b)	(c)	(d)
64 Accident Prevention/ Driver Training Room			Refer to Scale 15
65 Staff Toilet Facilities			Refer to Scale 1 Annex B. Provision based on the number of staff employed at any one time. In workshop toilet areas dispensers for: Barrier cream: 1 per 20 persons. Powder soap and "Gel Hand Cleaning": 1 of each type for every 3 washbasins.

VEHICLES AND EQUIPMENTS ENTITLED TO COVERED ACCOMMODATION

ANNEX A

Motor Cycles

Staff Cars - Limited to vehicles whose appearance and cleanliness must be preserved for prestige (e.g. VIPs and COs)

Ambulances and specialist medical vehicles

Armoured (A) vehicles - tracked, wheeled and CET (Combat Engineer Tractors) but AT 105 (SAXON) limited to command, permanently fitted radio and maintenance variants

Guns - SP and Towed

Guided Weapon (GW) - vehicles and equipments

Vehicles and trailers with installed electronic, radar, radio, radio relay, cipher equipment or generators, compressors

Vehicles with Transportable Container Bodies (TCB) used as stores in buildings

Nuclear equipments and vehicles

Emergency and Fire Fighting vehicles and trailers

Trenching Machines Wheeled (Light Mobile Diggers)

Tractors Wheeled Fork Lift, including rough terrain

Rail transfer and simplified rail transfer equipments (RTE & SRTE)

M2/M3 amphibious bridges and BR90 automatic bridge laving equipment

BV 202/206

Trailers cook 3/4 ton

Vehicles and equipment classified as, or with installed equipment of, CONFIDENTIAL or above

Vehicles and equipment for which covered accommodation is authorised by Equipment Support Manager
