

## Vehicle Maintenance Shop. FAC: 2141

CATCODE: 214425

OPR: AF/A4LE

OCR: N/A

Updated: 09 NOV 2022

1.1. **Description.** The shop provides space and facilities for lubrication, inspection, general repair, and replacement of major assemblies; painting, welding, upholstery, testing, cleaning, and minor parts fabrication. It also houses support functions such as vehicle management and analysis, tool rooms, parts rooms, hazardous material/waste rooms, locker rooms, and offices.

1.2. **Requirements Determination.** Vehicle maintenance shops maintain all government owned vehicles and vehicular equipment assigned to a base, including vehicles of tenant organizations. Vehicle maintenance has to procure tires from Supply and requires special levels in the shop due to lack of storage within Supply. Shop operations are usually supported by a government operated parts store or contractor operated parts store (COPARS) established under AFI 23-302, *Vehicle Management*. The parts store usually occupies space in the shop or in a nearby building. Any changes or modifications to contractor operated facilities should be coordinated with the local contracting office. COPARS are not typical for parts support, but still exist in some units. Obtain additional information through your applicable MAJCOM/A4RE and AF/A4LE.

1.3. **Scope Determination.** Table 1.1 through 1.6 show space requirements for six types of vehicle maintenance shops. See Tables 4-12 and 4-13 of UFC 4-730-10 for fire department vehicle maintenance bay and equipment storage requirements. Vehicle management's parking area requirement is 10% of the assigned vehicle fleet for each facility.

1.4. **Design Considerations.** Above-ground vehicle hoists are preferable to in- ground hoists. Fire protection requirements may require review of fire detection and suppression systems. Air and water pollution equipment is required (IAW AIR FORCE MANUAL 48-146 and AFOSH Std 91-20 *Vehicle Maintenance Shops*). Consider vehicle bay height and vehicle entry width to allow for current generation of aircraft loaders and other large vehicles. Also, give consideration to shop approach angles to allow for vehicle turning radius.

**Table 1.1. Space Requirements for Vehicle Maintenance Support Core.**

Total Assigned Vehicles	Gross Area	
	m <sup>2</sup>	ft <sup>2</sup>
0 to 250	465	5,000
251 to 500	557	6,000
501 to 700	650	7,000
701 to 900	743	8,000
901 to 1,100	790	8,500
1,101 to 1,200	836	9,000
1,201 to 1,300	883	9,500

**Table 1.2. Vehicle and Vehicular Equipment Maintenance.**

Total Assigned Vehicles	Gross Area	
	m <sup>2</sup>	ft <sup>2</sup>
0 to 75	390	4,200
76 to 150	585	6,300
151 to 225	780	8,400
226 to 300	975	10,500
301 to 375	1,170	12,600
376 to 450	1,370	14,700

**Table 1.3. Space Requirements for Customer Service Center.**

Total Assigned Vehicles	Gross Area	
	m <sup>2</sup>	ft <sup>2</sup>
0 to 250	111	1,200
251 to 500	149	1,600
501 to 700	186	2,000
701 to 900	223	2,400
901 to 1,100	260	2,800
1,101 to 1,200	297	3,200
1,201 to 1,300	334	3,600

**Table 1.4. Space Requirements for Allied Trades.**

Total Assigned Vehicles	Gross Area	
	m <sup>2</sup>	ft <sup>2</sup>
0 to 250	186	2,000
251 to 500	232	2,500
501 to 700	279	3,000
701 to 900	325	3,500
901 to 1,100	372	4,000
1,101 to 1,200	418	4,500
1,201 to 1,300	465	5,000

**Table 1.5. Material Handling Equipment Maintenance.**

Total Assigned Vehicles	Material Handling Equipment	
	Gross Area	
	m <sup>2</sup>	ft <sup>2</sup>
0 to 20	232	2,500
21 to 40	381	4,100
41 to 60	530	5,705
61 to 80	604	6,500
81 to 100	678	7,300
101 to 120	753	8,105
121 to 140	827	8,900

141 to 160	975	10,495
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**Table 1.6. Space Requirements for Refueling Vehicle Maintenance<sup>1</sup>.**

Total Assigned Vehicles	Gross Area	
	m <sup>2</sup>	ft <sup>2</sup>
0 to 10 (2 Bays)	325	3,500
11 to 20 (3 Bays)	395	4,250
21 plus (4 Bays)	465	5,000
31 to 40 (5 Bays)	534	5,750

**NOTES:**

1. Do not include hose carts when computing total number of refueling vehicles assigned.
2. Include assigned hydrant servicing vehicles when computing total number of refueling vehicles assigned.