

MINIMUM SERVICE ACCESS DIMENSIONS FOR OFF-ROAD MACHINES

This document is equivalent to ISO 2860 DEC92.

Foreword—This reaffirmed document has been changed only to reflect the new SAE Technical Standards Board format.

- 1. Scope and Purpose**—This SAE Standard pertains to off-road, self-propelled work machines as defined in categories one through five of SAE J1116. It is intended to provide engineers and designers with information in order that access openings provided in equipment and machinery for purposes of inspection, adjustment, and maintenance are made large enough for the intended function by the person in the field or shop.

1.1 Field of Application

1.1.1 This document specifies the minimum service access openings on off-road machinery for:

- a. The hand
- b. The head
- c. The body
- d. Arm reach
- e. Two-handed reach

NOTE—Refer to SAE J185 for whole body access.

1.1.2 The larger openings for access with arctic clothing are for off-road equipment intended for use in cold environment.

1.1.3 Based on available anthropometric data, the recommended openings are the smallest that will accommodate 95% of the worldwide operator population. In most cases, openings larger than the recommended minimum will be useful and allow greater efficiency.

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2. References

2.1 Applicable Publications—The following publications form a part of the specification to the extent specified herein. Unless otherwise indicated the latest revision of SAE publications shall apply

2.1.1 SAE PUBLICATIONS—Available from SAE, 400 Commonwealth Drive, Warrendale, PA 15096-0001.

SAE J185 JUN88—Access Systems for Off-Road Machines

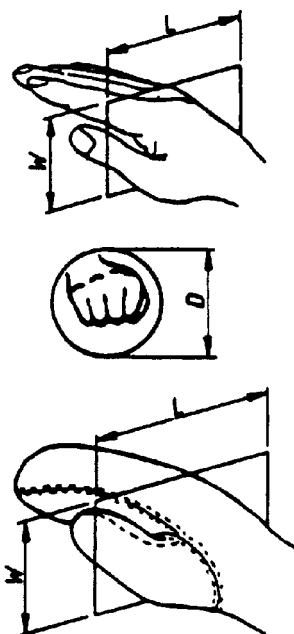
SAE J1116 JUN86—Categories of Off-Road Self-Propelled Work Machines

2.1.2 ISO PUBLICATION—Available from ANSI, 11 West 42nd Street, New York, NY 10036-8002.

ISO 2860—Earth-moving machinery—Minimum access dimension

3. Minimum Access Openings—The dimensions shown in 3.1 to 3.4 are recommended minimum for limited activity through the opening. Larger openings will be needed in specific instances, depending upon the nature of the task, size, and mass of the parts, etc.

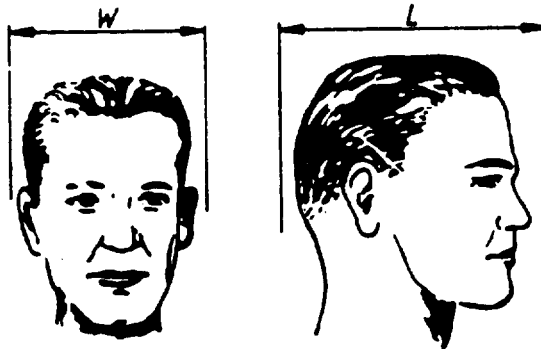
3.1 Hand Access—(See Figure 1.)



Minimum Dimensions	Dimensions in millimeters			
	Square W = L	Round D	Rectangular W	Rectangular L
Hand Bare	110	110	65	110
With Arctic Mitten	150	150	100	150
NOTE—Optional on all corners, maximum 25 mm radius.				

FIGURE 1—RECOMMENDED MINIMUM DIMENSIONS FOR HAND ACCESS, 95TH PERCENTILE

3.2 Head Access—(See Figure 2.)



Minimum Dimensions	Dimensions in millimeters			
	Square W = L	Round D	Rectangular W	Rectangular L
Head Bare	230	230	210	230
With Arctic Clothing	280	300	280	300
With Hat, Helmet	310	330	290	330
Notes				
¹ Optional on all corners, maximum 25 mm radius.				
² Arctic clothing includes helmet and parka hood.				

FIGURE 2—RECOMMENDED MINIMUM DIMENSIONS FOR HEAD ACCESS, 95TH PERCENTILE