International Standard ISO 4252

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Agricultural tractors — Access, exit and the operator's workplace — Dimensions

Tracteurs agricoles — Accès, sortie et poste de travail du conducteur — Dimensions

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Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4252 was developed by Technical Committee ISO/TC 23, *Tractors and machinery for agriculture and forestry*, and was circulated to the member bodies in October 1982.

It has been approved by the member bodies of the following countries:

Australia	Egypt, Arab Rep. of	Portugal
Austria	France	Romania
Belgium	Germany, F.R.	South Africa, Rep. of
Bulgaria	India	Spain
Canada	Iran	Sweden
China	Italy	Switzerland
Czechoslovakia	New Zealand	USSR
Denmark	Poland	

The member bodies of the following countries expressed disapproval of the document on technical grounds:

Finland
United Kingdom
USA

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Agricultural tractors — Access, exit and the operator's workplace — Dimensions

1 Scope

This International Standard gives guidelines for the design of an agricultural tractor concerning

a) minimum dimensions of access doorways;

b) limiting dimensions of steps;

c) number, location and minimum dimensions of emergency exits;

d) minimum internal clearance dimensions.

2 Field of application

This International Standard applies to agricultural tractors having a minimum track width exceeding 1 150 mm.

3 References

ISO 3462, *Tractors and machinery for agriculture and forestry — Seat reference point — Method of determination.*

ISO 4253, *Agricultural tractors — Operator's seating accommodation — Dimensions.*

ISO 4254/1, *Agricultural and forestry tractors and machinery — Technical means for providing safety — Part 1: General.*[1)]

4 Definitions

emergency exit: A means of exit which is capable of being opened from the inside of the cab and which may be a normal access door.

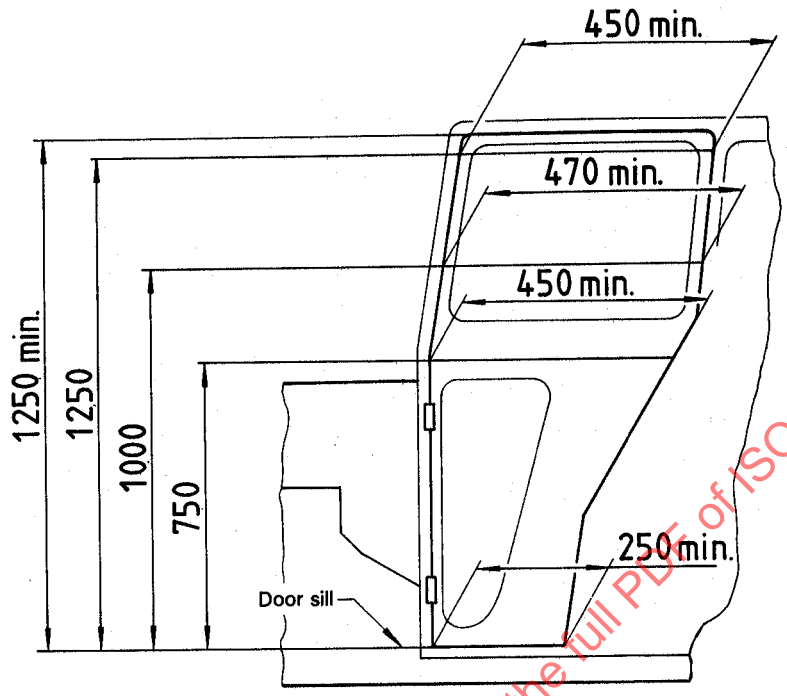
access door or doorway: A means of entry to and exit from the workplace or cab.

5 Access doorway(s)

The minimum dimensions of the aperture of an access doorway for the door framework and for the open door shall be as shown in figures 1 and 2.

1) At present at the stage of draft.

Dimensions in millimetres



NOTE — For tractors where the seat can be reached straight from the footstep, the height at which the widths shall be measured may be decreased.

Figure 1 — Dimensions of access doorways

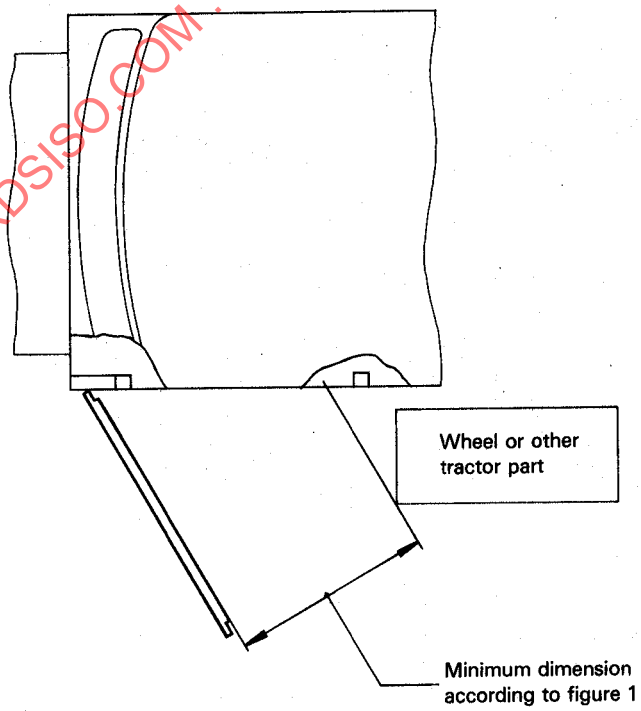


Figure 2 — Examples of the limitation of the dimensions with door open

6 Steps

The limiting dimensions for steps are shown in figure 3 and table 1.

Dimensions in millimetres

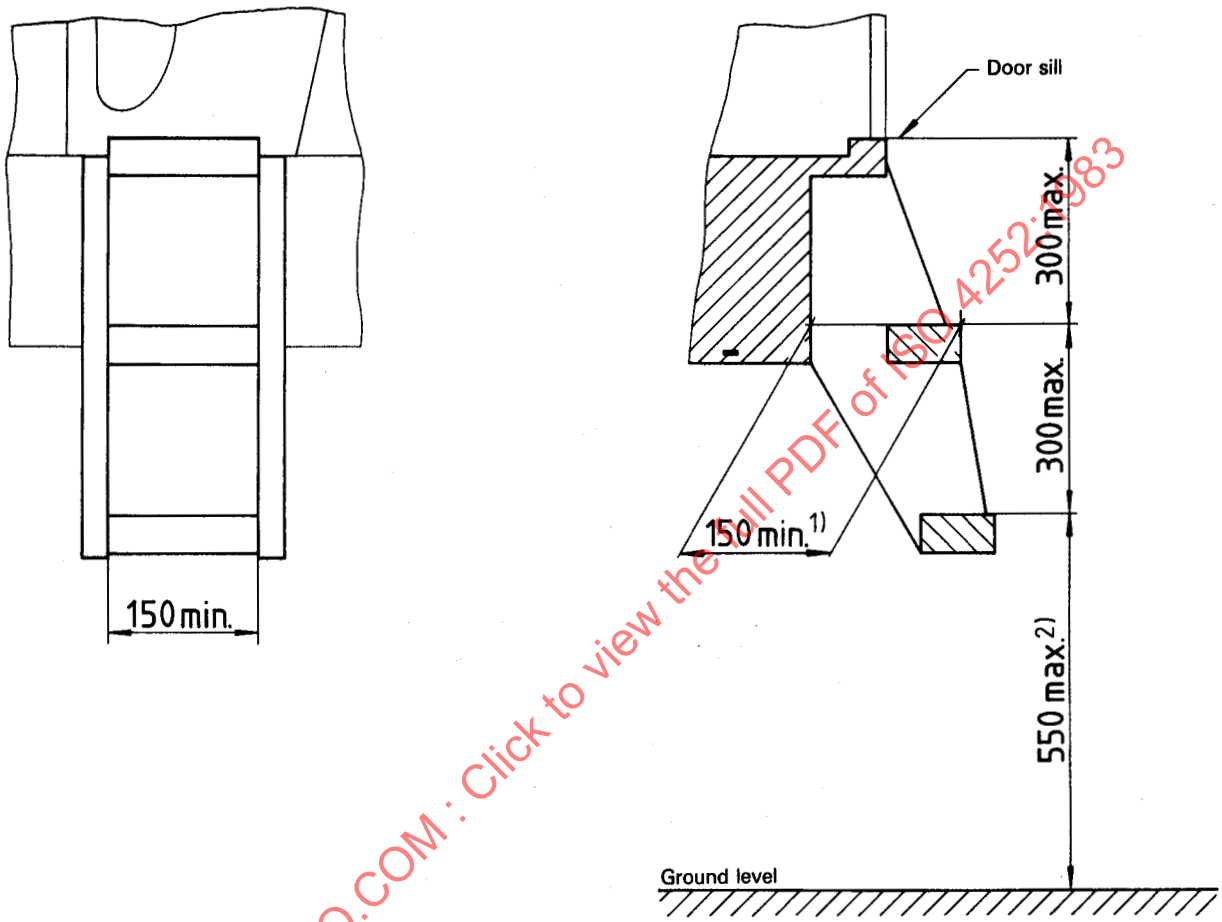


Figure 3 — Limiting dimensions for steps

Table 1 — Limiting dimensions for steps

Dimensions in millimetres

Dimension	Minimum	Maximum
Height of the (first) step from the ground, when the tractor is standing on a level surface	—	550
Vertical distance between the (last) step and door sill	—	300
Vertical distance between steps [3]	—	300
Width of step(s) [4]	150	—
Clearance from outside edge of step (valid for all steps)	150	—

1) Minimum clearance and not size of tread surface.

2) The dimension shall also include the widest tyres (normally inflated) for the tractor.

3) The vertical distance between adjacent steps shall be equal (within a tolerance of ± 20 mm).

4) For practical reasons, this dimension shall be not less than 250 mm.

7 Emergency exits

7.1 Number and location

There shall be a minimum of three emergency exits, each of which shall be on a different side of the cab (the front, rear and roof of the cab may be considered as sides for this purpose).

7.2 Dimensions

The cross-sectional dimensions of emergency exits shall be sufficiently large to enclose an ellipse with principal axes of 640 mm and 440 mm.

8 Internal clearance dimensions

8.1 The minimum clearance dimensions inside the cab shall be as shown in figure 4 and table 2.

These dimensions are defined in relation to the vertical reference plane, generally longitudinal to the tractor and passing through the seat reference point and the centre of the steering wheel.

NOTE — The dimensions are basically valid for cabs with only one driving seat.

8.2 The seat reference point shall be determined according to ISO 3462. The seat shall be adjusted to its furthest back position, with the vertical adjustment in its mid-position and the suspension set to its mid-position.

8.3 The distances from the seat reference point to the pedals and the steering wheel are given in ISO 4253.

Table 2 — Minimum internal clearance dimensions

Dimensions in millimetres

Dimensions	Minimum
Distance from the seat reference point to any part of the cab ceiling surface, above, forward of and to either side of the operator's head [1]	1 050
Distance from the seat reference point to the cab back wall at a height between 300 and 900 mm above the seat reference point	150
Lateral clearance at any distance between 400 and 900 mm above the seat reference point perpendicular to the vertical reference plane for a distance of 450 mm forward of the seat reference point	450
Distance from the outer side of the steering wheel periphery to the cab surface or other hand controls [2]	80

Table 3 — Clearance dimensions around the controls [3]

Dimensions in millimetres

Type of controls	Dimensions
For engine controls and controls which require an operating force of more than 150 N	50
For controls, other than engine controls, which require an operating force of 80 to 150 N	25

1) Soft material such as padding may penetrate into the free space up to a maximum of 50 mm.

2) Excluding hand controls mounted on the steering wheel column.

3) These minimum distances shall be valid for all positions of the control.