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Earth-moving machinery — Tractor-scraper — Volumetric rating



AS ISO 6485:2021

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Construction and Mining Equipment Industry Group
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Engineers Australia
Institute of Instrumentation, Control & Automation Australia
Minerals Council of Australia
Mining Electrical and Mining Mechanical Engineering Society
University of Queensland

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Preface

This Standard was prepared by the Standards Australia Committee ME-063, Earthmoving Equipment.

The objective of this document is to specify a procedure for approximating the volume of typical materials contained in the bowl of open bowl scrapers. The volumes are based on the inside dimensions of the bowl and representative volumes on top of the bowl. This rating method is intended to provide a consistent means of comparing capacities; it is not intended to define actual capacities that might be observed in any specific application.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing Inter-national Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work.

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 6485 was developed by Technical Committee ISO/TC 127, *Earth moving machinery,* and was circulated to the member bodies in August 1979.

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

Australia	France	Spain
Austria	Italy	Sweden
Belgium	Japan	United Kingdom
Bulgaria	Libyan Arab Jamahiriya	USA
Czechoslovakia	Poland	USSR
Egypt, Arab Rep. of	Romania	
Finland	South Africa, Rep. of	

No member body expressed disapproval of the document.

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Earth-moving machinery — Tractor-scraper — Volumetric rating

1 Scope and field of application

This International Standard specifies a procedure for approximating the volume of typical materials contained in the bowl of open bowl scrapers. The volumes are based on the inside dimensions of the bowl and representative volumes on top of the bowl. This rating method is intended to provide a consistent means of comparing capacities; it is not intended to define actual capacities that might be observed in any specific application.

2 Reference

ISO 7133, *Earth-moving machinery — Tractor-scrapers Terminology.*[1)]

3 Definitions

3.1
open bowl scraper
Scrapers which require the application of tractive effort to load material into the bowl. This tractive effort may be developed by the tractor-scraper itself, by another tractor-scraper temporarily or permanently connected, or by a pushing tractor.

3.2
components of open bowl scrapers
See figures 1 and 2.

4 Volumetric ratings

4.1 Positioning of the bowl.

4.1.1 The bowl shall be positioned so that the lowest flat surface of the floor is horizontal or as close to horizontal as possible.

4.1.2 The ejector shall be fully retracted.

4.1.3 The apron shall be fully closed. Any adjustment of apron closure shall be such as to minimize any opening between the apron and cutting edge.

4.2 Boundaries of the struck volume.

4.2.1 The interior surface of the apron.

4.2.2 When the top of the apron in the closed position is below the plane of the bowl mean sides, a plane of 1 : 1 (45°) slope, up and rearward, from the top edge of the apron to the plane of the bowl mean sides is added. See figure figure 3.

4.2.3 If in the position of 4.1.3, the apron does not contact the cutting edge, the opening shall be closed by the plane defined by the line of intersection of the cutting edge and the bowl floor and the line defined by the outermost points of the apron lip.

1) At present at the stage of draft.

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