

Method for

Volumetric rating of loader and front loading excavator buckets used for earth-moving

[ISO title: Earth-moving machinery — Loader and front loading
excavator buckets — Volumetric ratings]

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The preparation of this British Standard was entrusted by the Road Engineering Standards Committee (RDB/-) to Technical Committee RDB/21 upon which the following bodies were represented:

- Associated Offices Technical Committee
- Construction Industry Training Board
- Construction Plant-hire Association
- Department of Industry
- Federation of Civil Engineering Contractors
- Federation of Manufacturers of Construction Equipment and Cranes
- Health and Safety Executive
- Institution of Civil Engineers
- Institution of Highway Engineers
- Ministry of Defence
- National Coal Board
- Trades Union Congress

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Contents

	Page
Committees responsible	Inside front cover
National foreword	ii
1 Scope and field of application	1
2 References	1
3 Restrictions and limitations	1
4 Definitions and symbols	2
5 Volumetric ratings	3
6 Expression of volumetric ratings	7
Figure 1 — Bucket	1
Figure 2 — X and Y dimensions for irregular side sheet	2
Figure 3 — Basic bucket	3
Figure 4 — Extended straight cutting edge	4
Figure 5 — Extended back sheet	5
Figure 6 — Irregular cutting edge	6
Figure 7 — Extended cutting edge and extended back sheet	7
Table	7
Publications referred to	Inside back cover

National foreword

This British Standard has been prepared under the direction of the Road Engineering Standards Committee and is identical with ISO 7546:1983 “*Earth-moving machinery — Loader and front loading excavator buckets — Volumetric ratings*” published by the International Organization for Standardization (ISO).

ISO 7456 was produced as a result of international discussion in which the UK took an active part.

Terminology and conventions. The text of the International Standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and certain conventions are not identical with those used in British Standards; attention is drawn especially to the following.

The comma has been used as a decimal marker. In British Standards it is current practice to use a full point on the baseline as the decimal marker.

Wherever the words “International Standard” appear, referring to this standard, they should be read as “British Standard”.

Cross-references. There are no corresponding British Standards for ISO 7131 and ISO 7135, which are in course of preparation and to which reference is made in the text. As these standards are referred to for information only, the validity of this British Standard is not affected.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 8, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

1 Scope and field of application

1.1 This International Standard specifies a procedure for approximating the volume of typical materials contained in the bucket of front end loaders and excavators with front loading bucket. The volume ratings are based on the inside dimensions of the bucket and representative volumes on top of the bucket.

1.2 The method employs the technique of dividing the complex shape of the material in the bucket into simple geometric forms to allow volume calculations of different bucket configurations.

1.3 The rating method is intended to provide a consistent means of comparing bucket capacities. It is not intended to define actual capacities that might be observed in any specific application.

2 References

ISO 7131, *Earth-moving machinery — Loaders — Terminology*¹⁾.

ISO 7135, *Earth-moving machinery — Excavators — Terminology*¹⁾.

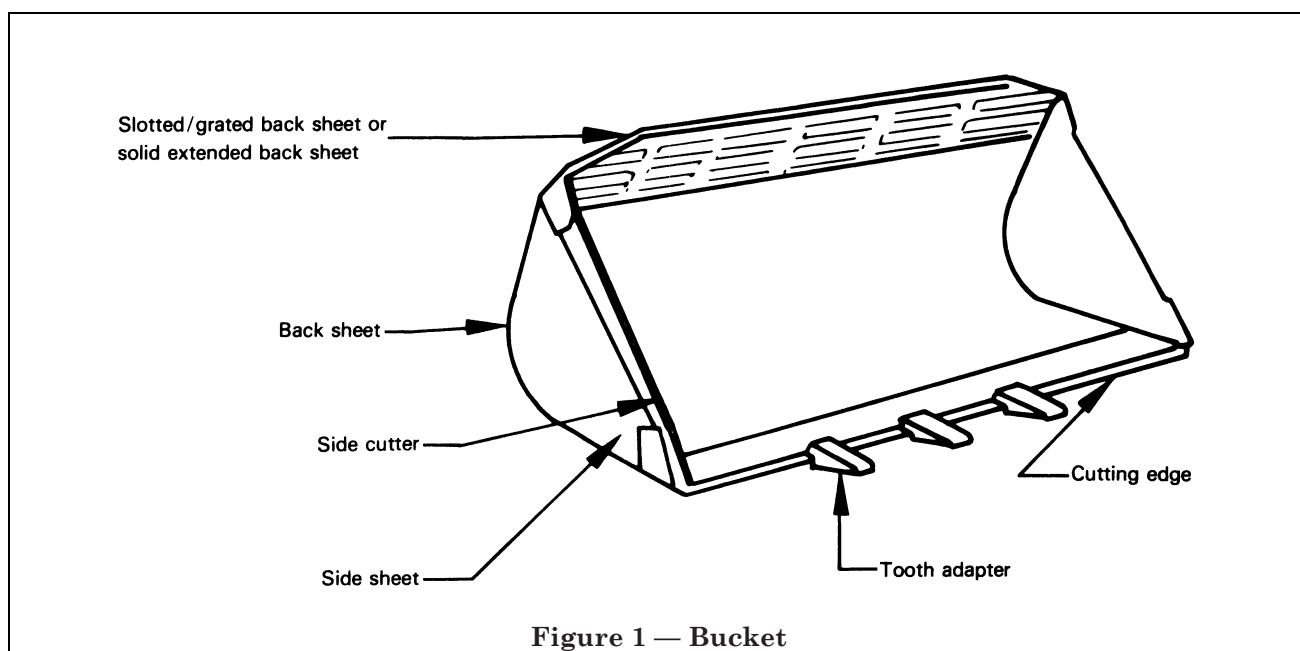


Figure 1 — Bucket

3 Restrictions and limitations

3.1 The effect on volumes of local discontinuities such as bucket teeth, tooth adapters, and gussets shall be ignored.

3.2 Grated or slotted back sheets attached to the bucket to protect the machine or operator from material that might spill over the back of the bucket shall not be included in the capacity calculations. Solid extended back sheets providing the same function may be included in the capacity calculations only if they are an integral part of the bucket.

¹⁾ At present at the stage of draft.