

Terminology (including definitions of dimensions and symbols) for earth-moving machinery —

Part 6: Terminology for self-propelled crawler and wheel tractors and their equipment

Committees responsible for this British Standard

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

- Associated Offices Technical Committee
- British Coal Corporation
- Construction Industry Training Board
- Construction Plant-Hire Association
- Department of Trade and Industry [Mechanical Engineering and Manufacturing Technology Division (Mmt)]
- Federation of Civil Engineering Contractors
- Federation of Manufacturers of Construction Equipment and Cranes
- Health and Safety Executive
- Institution of Civil Engineers
- Institution of Highways and Transportation
- Ministry of Defence

This British Standard, having been prepared under the direction of the Road Engineering Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 31 August 1989

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National foreword

This Part of BS 6914 is a revision of BS 6296:1982 and has been prepared under the direction of the Road Engineering Standards Policy Committee. It includes three new definitions, and classification of tractors by type, with additional and more detailed figures. BS 6914-6 is identical with ISO 6747:1988 “*Earth-moving machinery — Tractors — Terminology and commercial specifications*”, published by the International Organization for Standardization (ISO). ISO 6747 was produced as a result of international discussion in which the UK took an active part. This Part of BS 6914 supersedes BS 6296:1982 which is withdrawn. Amendment 1, published in 1989, to ISO 6747 was implemented in this British Standard by Amendment No. 1.

Cross-references

International Standard	Corresponding British Standard
ISO 5010:1984	BS 6573:1985 <i>Specification for steering capability of rubber tyred earth-moving machines</i> (Identical)
ISO 6014:1986	BS 5982:1987 <i>Method for determination of ground speed of earth-moving machinery</i> (Identical)
ISO 6165:1987	BS 6914 <i>Terminology (including definitions of dimensions and symbols) for earth-moving machinery</i> Part 1:1988 <i>Glossary of terms for basic types of earth-moving machinery</i> (Identical)
ISO 6746-1:1987	Part 2:1988 <i>Glossary of terms for base machine</i> (Identical)
ISO 6746-2:1987	Part 3:1988 <i>Glossary of terms for equipment</i> (Identical)
ISO 7457:1983	BS 6486:1984 <i>Method for measurement of turning dimensions of wheeled earthmoving machinery</i> (Identical)
ISO 7464:1983	BS 6419:1983 <i>Method for measurement of drawbar pull of earthmoving machinery</i> (Identical)

The Technical Committee has reviewed the provisions of ISO 3450:1985 and ISO 9249:1988¹⁾, to which reference is made in the text, and has decided that they are acceptable for use in conjunction with this standard.

Clause 8 lists for information headings which manufacturers should including in their commercial literature specifications.

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 18, 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⁾ ISO 9249 will be published as Part of BS 6911 which is at present at the stage of a draft and has been circulated for public comment as document 88/10937 DC.

1 Scope

This International Standard establishes terminology and the content of commercial literature specifications for self-propelled crawler and wheeled tractors and their equipment.

2 Field of application

This International Standard applies to tractors for earth-moving machinery as defined in ISO 6165.

3 References

- ISO 3450, *Earth-moving machinery — Wheeled machines — Performance requirements and test procedures for braking systems*.
- ISO 5010, *Earth-moving machinery — Rubber-tyred machines — Steering capability*.
- ISO 6014, *Earth-moving machinery — Determination of ground speed*.
- ISO 6165, *Earth-moving machinery — Basic types — Vocabulary*.
- ISO 6746-1, *Earth-moving machinery — Definitions of dimensions and symbols — Part 1: Base machine*.
- ISO 6746-2, *Earth-moving machinery — Definitions of dimensions and symbols — Part 2: Equipment*.
- ISO 7457, *Earth-moving machinery — Measurement of turning dimensions of wheeled machines*.
- ISO 7464, *Earth-moving machinery — Method of test for the measurement of drawbar pull*.
- ISO 9249, *Earth-moving machinery — Engine test code — Net power²⁾*.

4 Definitions

4.1

tractor

self-propelled crawler or wheeled machine used to exert a push or pull force through mounted equipment

4.2

base machine

tractor without equipment, as described by the manufacturer specifications. The machine should be provided with the necessary mountings to secure equipment as shown in clause 6

4.3

equipment

set of components mounted on the base machine to fulfil the primary design function

4.4

attachment

optional assembly of components that can be mounted on the base machine for a specific use

4.5

component

part or an assembly of parts of a base machine, equipment or an attachment

5 Base machine

5.1 Types of tractors

5.1.1 Undercarriage

5.1.1.1 Crawler tractor (Figure 1)

5.1.1.2 Wheel tractor (Figure 2)

5.1.2 Engine location

5.1.2.1 Front engine (Figure 3)

5.1.2.2 Rear engine (Figure 4)

5.1.3 Steering system

5.1.3.1 Front-wheel steer (Figure 5)

5.1.3.2 Rear-wheel steer (Figure 6)

5.1.3.3 Articulated steering [Figure 7a)]

5.1.3.4 Wheel skid steer [Figure 7b)]

5.1.3.5 Crawler skid steer (Figure 8)

5.1.3.6 Crawler independent steer (Figure 9)

5.1.4 Drive system

5.1.4.1 Rear-wheel drive (Figure 10)

5.1.4.2 All-wheel drive (Figure 11)

5.1.5 Operator's position (concerns articulated machines)

5.1.5.1 Operator front (Figure 12)

5.1.5.2 Operator rear (Figure 13)

²⁾ At present at the stage of draft.

Undercarriage (see 5.1.1)

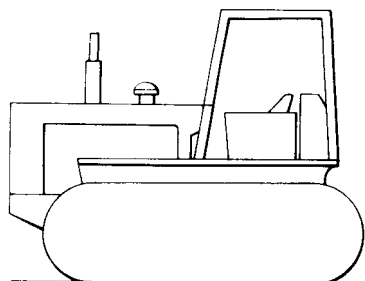


Figure 1 — Crawler tractor

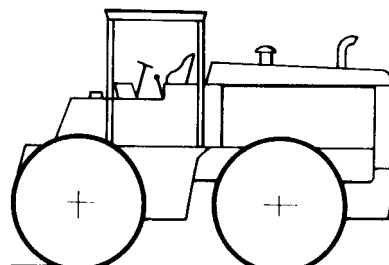


Figure 2 — Wheel tractor

Engine location (see 5.1.2)

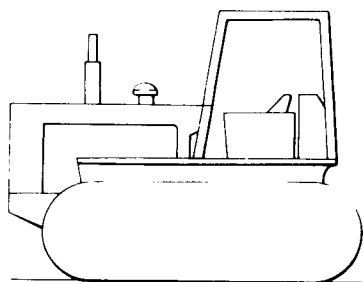


Figure 3 — Front engine

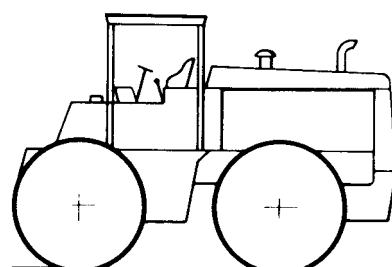
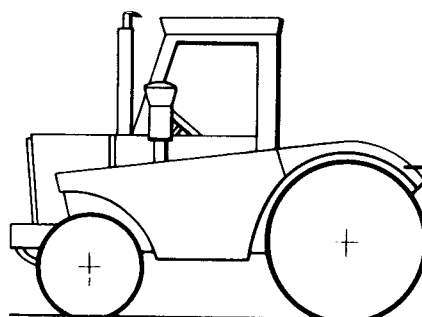


Figure 4 — Rear engine

Steering system (see 5.1.3)

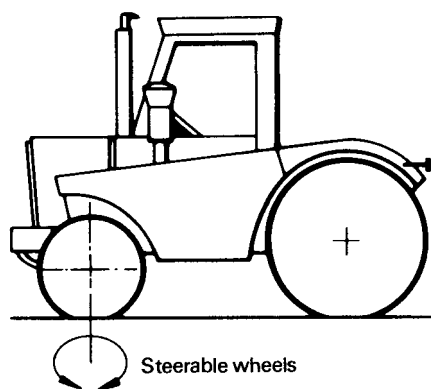


Figure 5 — Front-wheel steer

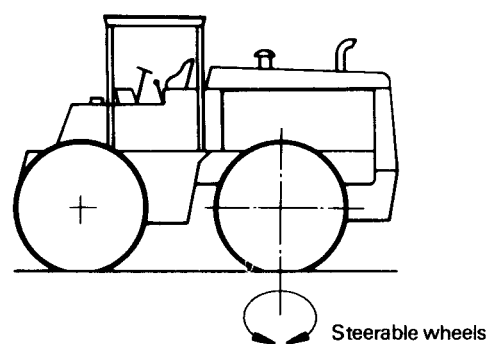


Figure 6 — Rear-wheel steer

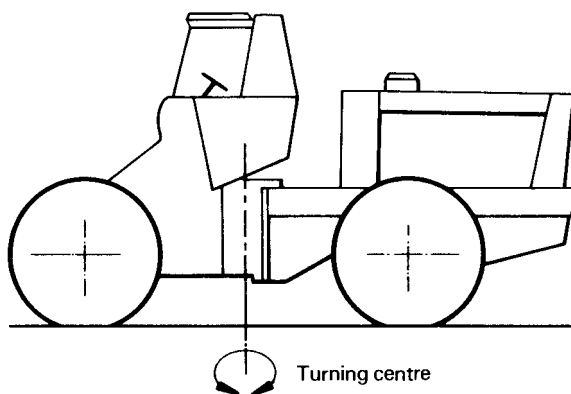
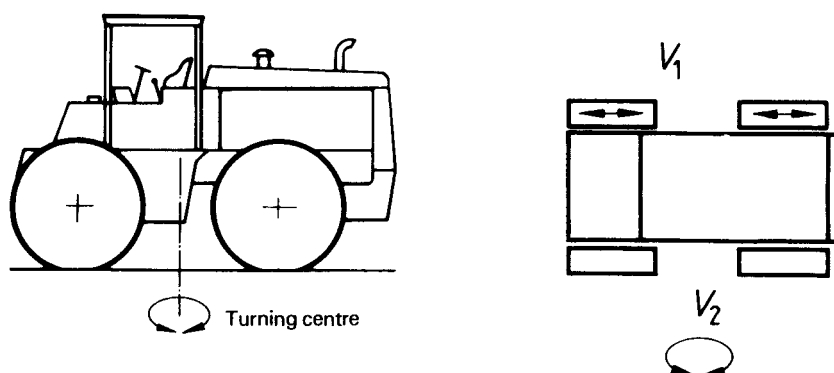


Figure 7a) — Articulated steer

Figure 7b) — Wheel-skid steer ($V_2 = 0$)

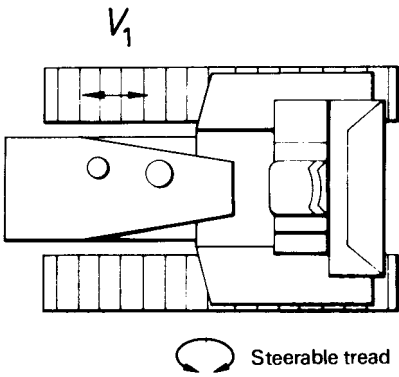


Figure 8 — Crawler skid steer

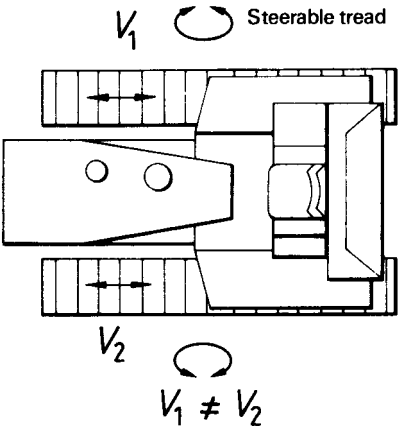


Figure 9 — Crawler independent steer ($V_1 \neq V_2$)

Drive system (see 5.1.4)

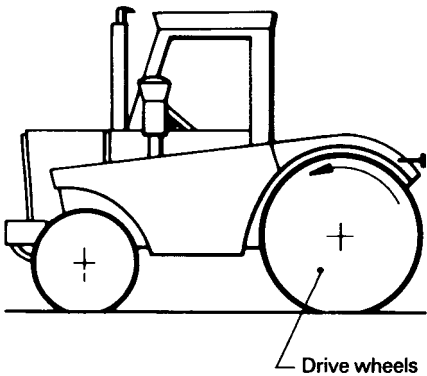


Figure 10 — Rear-wheel drive

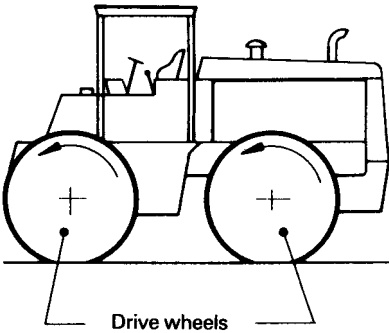


Figure 11 — All-wheel drive

Operator position (see 5.1.5)

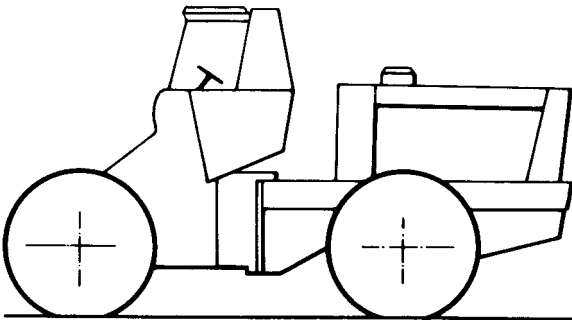


Figure 12 — Operator front

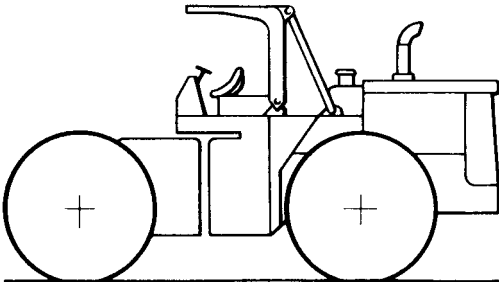


Figure 13 — Operator rear