

Guide to

Procedure for operator training for earth-moving machinery

[ISO title: Earth-moving machinery — Guide to procedure for operator training]

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This British Standard, having been prepared under the direction of the Road Engineering Standards Committee, was published under the authority of the Board of BSI and comes into effect on 30 April 1982

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National foreword

This British Standard has been prepared under the direction of the Road Engineering Standards Committee and is identical with ISO 7130 “*Earth-moving machinery — Guide to procedure for operator training*” published in 1981 by the International Organization for Standardization (ISO).

ISO 7130 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 especially drawn to the following.

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

Cross-references

International Standard	Corresponding British Standard
ISO 4510:1976	BS 5485:1977 <i>Specification for maintenance and adjustment tools for earth-moving machinery</i> (Identical)
ISO 6165:1978	BS 5718:1979 <i>Glossary of terms for basic types of earth-moving machinery</i> (Identical)
ISO 6750:1981	BS 6228:1982 <i>Guide to format and content of manuals on operation and maintenance for earth-moving machinery</i> (Identical)

There is no corresponding British Standard to ISO 6405, but when ISO 6405 is published, it is expected that a corresponding British Standard will also be published.

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.

0 Introduction

In preparing this guide it has been assumed that the candidates for basic operator training will be without any significant operational experience with the types of machine specified, and that candidates for more advanced training will previously have received training to the standard included in the basic training syllabus.

Proper selection of potential operators is essential if training is not to be wasted on unsuitable candidates. Earth-moving machinery operation is arduous, skilful work, often carried out in poor site conditions and a high degree of aptitude and enthusiasm is required. Candidates must be medically fit, sufficiently robust physically, and well-coordinated with good reflexes.

1 Scope and field of application

This International Standard specifies the nature of operator training appropriate for earth-moving machinery. It does not specify any procedure for proficiency or assessment of competence of an operator's ability, since these factors are usually covered by local and national procedures and regulations. It does not specify who is responsible for the training. It applies to machines as defined in ISO 6165.

2 References

ISO 4510, *Earth-moving machinery — Maintenance and adjustment tools*.

ISO 6165, *Earth-moving machinery — Basic types — vocabulary*.

ISO 6405, *Earth-moving machinery — Symbols — Operator controls and others*.

ISO 6750, *Earth-moving machinery — Operation and maintenance — Guide to the format and content of manuals*.

3 Structure of training programmes

3.1 General

The content of each individual training programme should be integrated within the scope of all the programmes to provide a sequence of operational development from elementary principles to competent operation of the most sophisticated machines. Whilst the actual content of a programme may be adjusted to suit individual conditions, the sequence of development should be observed.

For practical machine operator training it is desirable that no more than two trainees per machine are under instruction at any one time, with a maximum of three machines under supervision by each instructor. Wherever practicable, and particularly during the first few hours of training, it is desirable that one instructor should be allocated to each machine. During the first four hours of practical machine operation, however, one instructor should not be expected to supervise more than four trainees using two machines.

3.2 Safety

Throughout the training it must continually be emphasized that one of the **MOST IMPORTANT** aspects of machine operation and servicing is **SAFETY** (see 6, 4.1 and 6.2.15).

3.3 Stages of training

3.3.1 General basic training

The objective is to impart to the trainee operator the essential knowledge and skills fundamental to correct machine operation. It should include: the principles of starting and stopping; the maintenance of basic mechanisms such as engine, transmission, etc.; basic dimensional data such as length, width, mass, ground bearing pressure, speed, etc.; an appreciation of the factors affecting machine productivity; the interpretation of diagrams and load charts; significance and use of operator instruction manuals; operation of basic machines, for example small dumpers, wheeled and crawler machines in basic applications (see 4.1 to 4.3).

3.3.2 Operator's training record book

This book may be issued to all operators on completion of the general basic training course. Details of further training courses and site operational experience should subsequently be entered (see clause 5).

3.3.3 Advanced training for specialized groups of machines

This training is only to be given after successful completion of general basic training. It covers the operation of specific machines within a group (see 6.1 to 6.3).

3.3.4 Specialized "in field" conversion or "retraining" courses

This training is to give experienced operators, who have completed advanced training for a machine group, further training to enable them to transfer from one type of machine to another within that group. Normally this training will be carried out on construction sites (see clause 7).