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Cinematography —

Part 2: 16 mm film —

Section 2.9 Projector spools —

Subsection 2.9.2 Specification for spools for 16 mm motion picture projectors (from 244 m to 610 m capacity: 24 cm to 38 cm size)

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Co-operating organizations

The Cinematograph Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

- Association of Specialised Film Producers
- Board of Trade
- British Broadcasting Corporation*
- British Film Institute*
- British Film Producers' Association
- British Kinematograph Society*
- Cinematograph Exhibitors' Association of Great Britain and Ireland*
- Federation of British Film Makers
- Home Office
- Illuminating Engineering Society
- Incorporated Association of Kinematograph Manufacturers
- Independent Television Companies Association
- Kinematograph Renters' Society*
- Ministry of Education*
- Royal Photographic Society*
- War Office*

The Government departments and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the Committees entrusted with the preparation of this British Standard:

- Admiralty
- Army Kinema Corporation
- Educational Foundation for Visual Aids in Education
- Electric Lamp Industry Council
- Film Laboratory Association
- Institute of Amateur Cinematographers
- Manufacturers of sub-standard cinematograph projectors and film spools

This British Standard, having been approved by the Cinematograph Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council on 29 August 1960 as BS 2014

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Foreword

This standard makes reference to the following British Standards:

BS 350, *Conversion factors and tables*.

BS 5550-2.9.1, *Dimensions of spools for 16 mm motion-picture projectors (up to and including 120 m capacity: 18 cm size)*.

This British Standard has been prepared under the authority of the Cinematograph Standards Committee.

A brief specification for 16 mm projector spools was first issued in 1942 in BS 677, "*Motion picture film*". A more comprehensive standard was published as BS 2014 in 1953. The 1953 edition provided for seven sizes of spools for normal use, from 50 ft to 2 000 ft capacity, although it was not intended that the smaller sizes should be used as take-up spools, and one of its principal objects was to provide for future interchangeability and to encourage the general adoption of a limited number of spools, thus facilitating economic production. This present revision maintains the majority of the requirements and dimensions established in the 1953 edition.

In 1958 strong representations were made to the Institution that the recognition of a spool of 1 200 ft capacity was justified, having regard to the particular suitability of this size for many scientific and documentary films, and films for television. The replies received to a widely circulated questionnaire showed a diversity of opinion but a majority in favour of the recognition of this size and it is accordingly included in the standard series, now comprising eight sizes.

The dimensions adopted for this 1 200 ft spool represent a compromise between British and American practice. The outside diameter accords with the American, in order that British and American containers may be of the same size, but the core diameter is the same as that established for the 1 600 ft spool, to enable the manufacturers to use the same tools.

In order to provide a more logical relationship between the tolerances on the outside diameter of the spool and the inside diameter of the container, unilateral tolerances are now specified on the outside diameter of the spool in place of the former bilateral tolerances. Purchasers are, however, asked not to insist on a strict adherence to this feature of the standard until such time as the manufacturers have re-equipped themselves with new tools.

In the brief specification for 16 mm spools in BS 677:1942, "*Motion picture film*" it was permissible for the spools to have either a round bearing hole in one flange and a square hole in the other, or square holes in both. In the 1953 standard this alternative was retained in respect of spools up to and including 400 ft capacity. For larger spools it was required that there should be square holes in both flanges, thus permitting reversibility of the spool: this requirement remains unaltered in the present edition. The specification for spools up to and including 400 ft capacity has been deleted from this revision and is now the subject of BS 5550-2.9.1.

All British Standards on cinematography are eventually to become Sections or Subsections of BS 5550. Accordingly this British Standard has been renumbered as BS 5550-2.9.2. BSI Sectional List 1, obtainable free from BSI Sales Department, catalogues the British Standards on cinematography. The latest edition of SL 1 should be referred to in view of these developments.

NOTE Where metric equivalents are stated the figures in British units are to be regarded as the standard. The metric conversions are approximate. More accurate conversions should be based on the tables in BS 350, "*Conversion factors and tables*".