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Specification for

Lathe spindle noses and faceplates —

Part 1: Type “A” and “Camlock”

Co-operating organizations

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

Associated Offices' Technical Committee	Institution of Civil Engineers
Association of Consulting Engineers	Institution of Gas Engineers
Association of Mining Electrical and Mechanical Engineers	Institution of Heating and Ventilating Engineers
Board of Trade	Institution of Mechanical Engineers*
British Chemical Plant Manufacturers' Association	Institution of Mechanical Engineers (Automobile Division)
British Compressed Air Society	Institution of Production Engineers*
British Electrical and Allied Manufacturers' Association*	Locomotive and Allied Manufacturers' Association of Great Britain
British Gear Manufacturers' Association	London Transport Board
British Internal Combustion Engine Manufacturers' Association	Machine Tool Trades Association*
British Mechanical Engineering Federation	Ministry of Defence
British Pump Manufacturers' Association	Ministry of Defence, Army Department*
British Steel Industry	Ministry of Power
Crown Agents for Oversea Governments and Administrations	Ministry of Public Building and Works*
Department of Employment and Productivity (H.M. Factory Inspectorate)	Ministry of Technology
Electricity Council, the Central Electricity Generating Board and the Area Boards in England and Wales	Ministry of Technology — National Engineering Laboratory*
Engineering Equipment User's Association	Ministry of Transport
Gas Council	National Coal Board
Institute of Marine Engineers	National Physical Laboratory (Ministry of Technology)
	Radio Industry Council
	Royal Institute of British Architects

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 committee entrusted with the preparation of this British Standard:

Association of Supervisory Staffs Executives and Technicians	Production Engineering Research Association
Ministry of Defence, Air Force Department	Society of Motor Manufacturers and Traders Limited
Ministry of Defence, Navy Department	Trades Union Congress
National Federation of Engineers' Tool Manufacturers	

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Amendments issued since publication

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Foreword

This standard makes reference to the following British Standard:

BS 1916, *Limits and fits for engineering*.

BS 1916-1, *Limits and tolerances*.

In view of the measure of agreement that has been achieved internationally on the dimensional standardization of lathe spindle noses and faceplates, it has been considered opportune to prepare a British Standard implementing the recommendations of Technical Committee 39 — Machine Tools — of the International Organization for Standardization (ISO).

This British Standard has accordingly been based on ISO Recommendation R 702 which provides dimensions and tolerances for two types of lathe spindle noses and faceplates (Types “A” and “Camlock”). It is intended that a further part of this standard shall cover the dimensions of bayonet type spindle noses as soon as international agreement on this type has been achieved.

Interchangeability. Although internal parts such as cams, screws and studs made to this specification will not interchange with similar parts made to an inch specification, there is strict operational interchangeability for one same type (A or Camlock) between metric spindle noses and inch faceplates and vice versa.

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 13 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

1.1 This British Standard specifies dimensions for the following types of lathe spindle noses, their faceplates and component parts:

Spindle noses, Type A ₁ (two bolt circles)	} Table 1
Spindle noses, Type B ₂ (outer bolt circle only)	
Faceplates, Type A	Table 2
Spindle noses, Type Camlock	Table 3
Cams, Type Camlock	Table 4
Studs, Type Camlock	Table 5
Faceplates, Type Camlock	Table 6

Accessories for Type Camlock:

Hexagon socket head screws for studs	Table 7a.
Hexagon socket head screws for cams	Table 7b.
Stop bolt for cams	Table 7c.
Cheese head screw for cams	Table 7d.

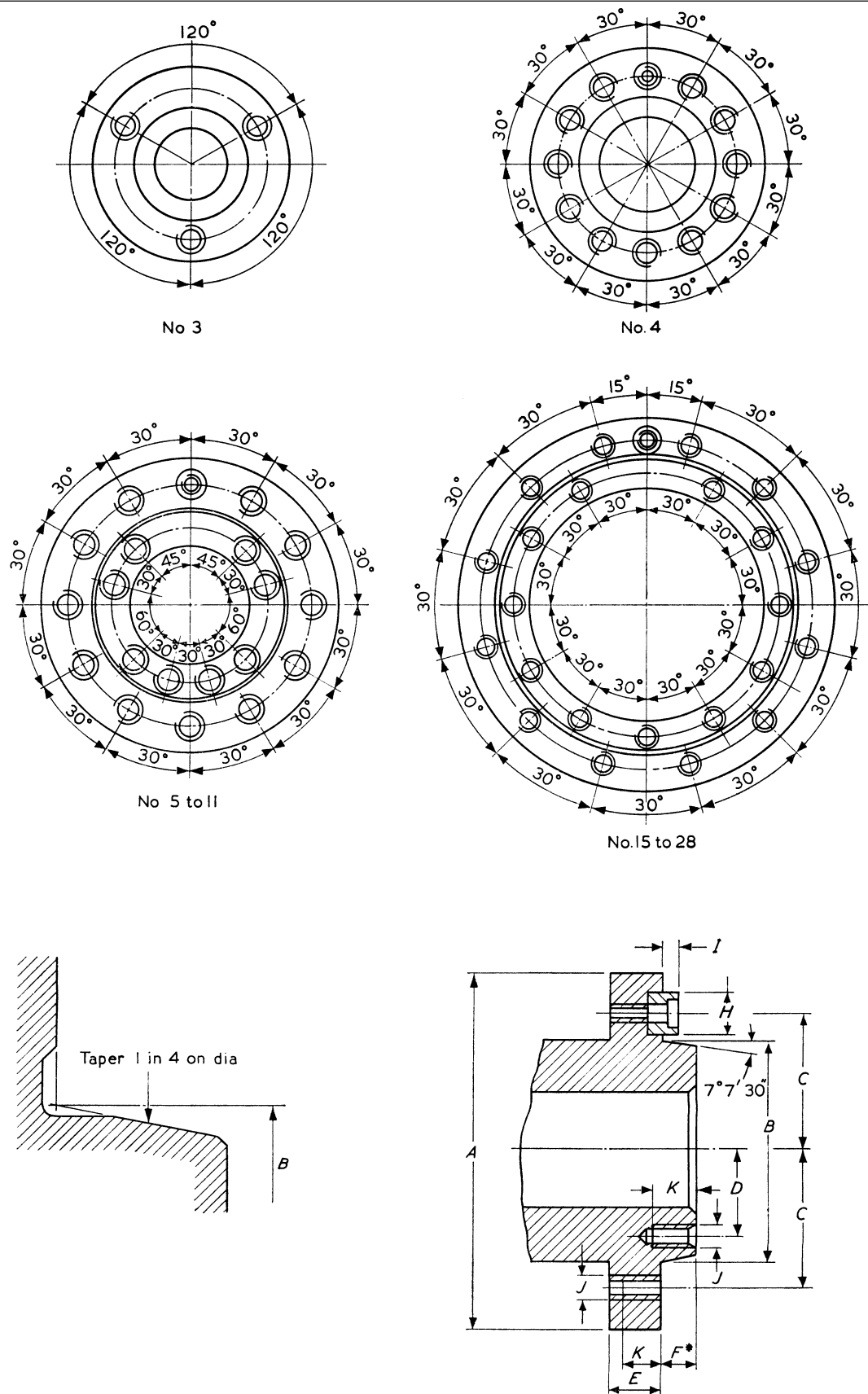
1.2 The sizes are denoted by numbers which appear at the head of the tables.

1.3 The range of sizes for Type A spindle noses and faceplates is from No. 3 to No. 28.

1.4 The range of sizes for Camlock spindle noses, cams, studs, faceplates and accessories is from No. 3 to No. 20.

2 Dimensions and tolerances

Dimensions and tolerances for spindle noses, faceplates, details and accessories shall be as given in Table 1 to Table 7. The dimensions are in millimetres.



The B size is taken at the theoretical point of intersection between the generating line of the cone and the face of the flange.
* F_1 for type A_1 with inner bolt circle F_2 for type A_2 without inner bolt circle.

Figure 1 — Spindle noses, Types A_1 and A_2 (see Table 1)