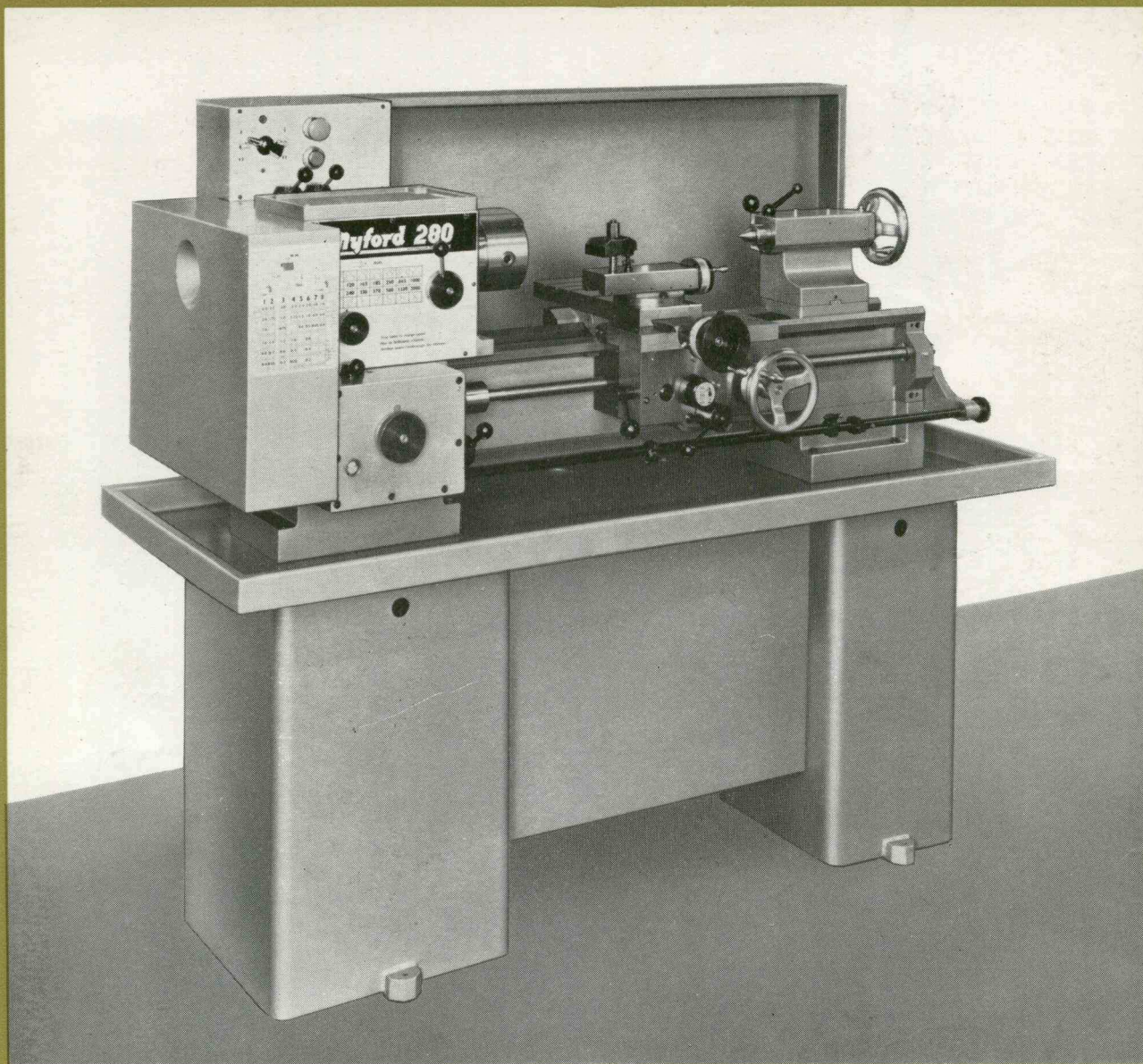


myford

280



280 mm (11 in) swing centre lathe

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280 mm (11 in) swing centre lathe

Built to Metric Standards throughout (Imperial feedscrews, dials, screwcutting gearbox and leadscrew are available alternatives) and engineered to meet the most stringent demands, the MYFORD 280 SCREWCUTTING LATHE has many features which commend it to Educational User and Industrialist alike.

Handwheels, control levers, etc., are exceptionally robust, and several overload-limiting and control-interlocking features provide that 'big machine' feel which imparts confidence to the student and ensure protection against accident and breakage in the most unskilled of hands.

Camlock chuck mounting, hardened and precision ground headstock gears also hardened and precision ground bed ways are features not normally found in 'budget priced' machines, yet are such essential prerequisites for a durable, safe and facile machine for modern use!

280 SM with metric gearbox, leadscrew, etc.

280 SI with Imperial gearbox, leadscrew, etc.

Standard machine includes: Camlock spindle, hardened bed, shear pin coupling to leadscrew, and splash guard.

280 EM with metric gearbox, leadscrew, etc.

280 EI with Imperial gearbox, leadscrew, etc.

As 280 SM and 280 SI but with the following equipment for further protection of operator:—

1. Low voltage control circuit.
2. Safety switch to gear guard.
3. Gear guard lock.
4. Saddle safety switch.

Standard equipment for each of the above includes:—
Faceplate, Catchplate, No. 4 Morse taper centre,
No. 3 Morse taper centre, hexagon keys, spanners,
lubrication gun, etc.

STANDARD FEATURES

Machine built completely to metric standards.

Sixteen spindle speeds.

Enclosed screwcutting/feed gearbox with oil bath.

Enclosed apron with oil bath.

Apron protected by torque limiter and mechanical interlocks.

Hardened and precision ground vee bed ways.

Gamet precision machine tool spindle bearings.

Hardened feed box gears.

Hardened and Reishauer-ground headstock spindle drive gears.

OPTIONAL FEATURES

Imperial screw cutting box, leadscrew, feedscrews.

Longitudinal feed trip-out bar and adjustable stops.

Built-in tool cupboard.

Metric/Imperial dual reading dials for machines with metric feedscrews/dials.



GENERAL DESCRIPTION

BED & PEDESTAL. The rigid bed has VEE and FLAT WAYS which are INDUCTION HARDENED and PRECISION FORM GROUND. The unit is securely attached to a HEAVY steel PEDESTAL BASE which incorporates a DEEP CHIP TRAY of broad dimensions and with edges double turned for extra stiffness and pleasing appearance. The central valance piece, which also adds stiffness, can be replaced by an ALTERNATIVE (optional) TOOL CUPBOARD unit, and an effective REAR SPLASH GUARD complements the generous tray.

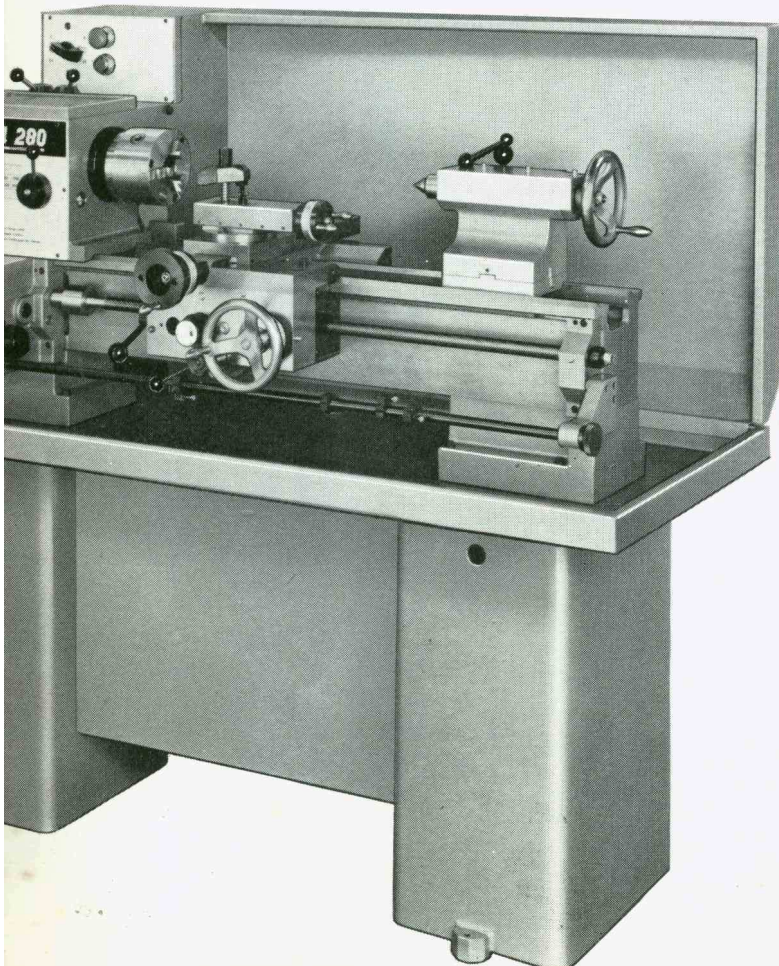
HEADSTOCK. The Headstock is of the all-gear type driven by twin vee belts from a 1.5/1.9 h.p. (1.1/1.4 kw) TOTALLY ENCLOSED MOTOR. SIXTEEN SPEEDS are provided in the ALTERNATIVE RANGES of 30-2,000 R.P.M. and 36-2,400 R.P.M. Main drive GEARS are of HARDENED alloy steel, PRECISION GROUND by the 'REISHAUER' process. The spindle, with 3" D1 CAMLOCK NOSE, is bored to 26 mm dia. (1" clear), and is mounted in GAMET PRECISION taper roller BEARINGS. Lubrication is by 'splash' effect and

(1) Alternate end-train gears are of non-metallic material to reduce noise and alleviate the lubrication problem.

(2) The hinged end-train guard is arranged with MOTOR CUT-OUT SWITCH and key-operated lock as safety features on 280 EM and 280 EI (Educational) Machines.

The main access cover is formed as a convenient TOOL TRAY.

SCREWCUTTING GEARBOX. The TOTALLY ENCLOSED quick change gearbox provides a wide range of threads including I.S.O. coarse and fine METRIC from 0.2 mm to 4 mm, together with a suitable selection of longitudinal feeds.



An ALTERNATIVE gearbox/leadscrew combination is offered which gives IMPERIAL pitches from $\frac{1}{8}$ " to $\frac{1}{4}$ ". Selection of main ratios is achieved through a NUMBERED DIAL. A three-position lever provides a useful 'half or double' feature and a further 'push-pull' control on the end-train gives two additional ratios. All gears within the box are of HARDENED STEEL and lubrication is by 'splash'.

The gearbox/leadscrew coupling is fitted with a SHEAR PIN arrangement which PROTECTS the whole TRANSMISSION against abuse or accident when screw-cutting. Replacement of 'failed pins' is quick and easy.

APRON. The ENCLOSED, DOUBLE-WALLED apron is arranged with conventional 'half-nut' for screwcutting. Longitudinal or cross-feed selection is by means of a 'push-pull' knob, and feeds are engaged by a lever-operated clutch incorporating a TORQUE LIMITER which protects both feed mechanisms against overload or accidental damage. The three screwcutting, feed-selection and feed clutch engagement controls are INTERLOCKED to prevent simultaneous or incorrect operation.

The longitudinal feed handwheel is equipped with a large, easily read, resettable POSITION INDICATOR DIAL, and there is also available (optional) a rotating STOP-BAR with four adjustable stops which provides an accurate longitudinal feed TRIP-OUT.

SADDLE & SLIDES. The saddle carries a FULL LENGTH CROSS-SLIDE which is provided with FOUR TEE SLOTS, parallel to the spindle axis, to facilitate the mounting of a rear toolpost and other attachments. With the topslide unit removed, the cross-slide provides a BORING TABLE having a surface area of 430 sq. cm.

A saddle position locking clamp is provided and provision is also made for the mounting of a CROSS-SLIDE STOP, coolant equipment and a SADDLE operated MOTOR CUT-OUT SWITCH which can be set to prevent encroachment on the chuck (Educational).

Both the FULLY SWIVELLING TOPSLIDE and the cross-slide carry large, easily read resettable dial assemblies and the cross-slide has a large diameter DETACHABLE HAND-WHEEL RIM which can be removed to facilitate topslide handwheel operation at angles near to 90° from the spindle axis.

In the case of 280 SM and 280 EM (Metric) machines, the standard dial assemblies can be optionally replaced by alternative METRIC/IMPERIAL DUAL READING DIALS.

TAILSTOCK. The heavy tailstock supports a large diameter graduated barrel and is equipped with a robust, lever-operated positioning clamp. The barrel feed handwheel thrust mechanism incorporates BALL THRUST BEARING as standard equipment.

ELECTRICS. The main electrical control equipment, including motor speed-selector switch, is mounted in a single enclosure located over the headstock. This arrangement provides in conjunction with the headstock speed selection levers, a CENTRALISED CONTROLS layout.

Starting of the machine is by direct online control, and a 'NO-VOLTAGE' PROTECTIVE RELAY prevents accidental restarting of the machine following an interruption of the main supply.

An EMERGENCY push-button STOP CONTROL is provided, and LOW-VOLTAGE control circuitry is available on 280 EM and 280 EI (Educational) machines.

myford 280

Specification

Swing Over Bed	280 mm		11"
Capacity Between Centres	600 mm		23 ³ / ₈ "
Swing over Saddle (between ears)	280 mm		11"
Swing over Cross Slide	174 mm		6 ¹ / ₈ "
Cross Slide Feed (Max.)	155 mm		6"
Top Slide Feed (Max.)	67 mm		2 ⁵ / ₈ "
Tailstock Barrel Travel	75 mm		3"
Morse Taper in Tailstock Barrel		No. 3	
Set over of Tailstock	10 mm		² / ₆₄ "
Max. Tool Section (in 4 Tool Turret)	19 × 12 mm		³ / ₈ " × ¹ / ₂ "
16 Spindle Speeds		30 – 2,000 or 36 – 2,400 (optional for 3 phase supply only).	
Motor Power (Max. Frame 90L) 3 phase	1·4/1·1 kw		1·9/1·5 hp.
1 phase	1·1/0·74 kw		1·5/1·0 hp.
Spindle Bore	26 mm		1·023"
Morse Taper in Spindle		No. 4	
Spindle Nose		3" Camlock type D1	
Leadscrew	3 mm pitch		
Screwcutting – Metric – 26 pitches	0·2 mm to 4 mm		
Feeds – Metric – 32 feeds. Sliding	0·05 mm to 1·33 mm		
Surfacing	0·017 mm to 0·44 mm		
Nett weight	388 kg		855 lb.

OPTIONAL ALTERNATIVE

Leadscrew		¹ / ₈ " pitch
Screwcutting – Imperial – 25 pitches	8 T.P.I. to 64 T.P.I.	
Feeds – Imperial – 50 feeds. Sliding		0·002 to 0·042"
Surfacing		0·0007 to 0·014"

NOTE.—Additional pitches are available from both gearboxes, but only recognised pitches have been quoted.

ADDITIONAL EQUIPMENT

125 mm (5") diameter 3 jaw geared scroll self centring chuck.
 205 mm (8") diameter 4 jaw independent chuck.
 Fixed steady.
 Travelling steady.
 Four tool turret
 Dickson tool post and holders.
 Taper turning attachment.
 Hydraulic copy turning equipment.
 Coolant equipment.
 Low voltage lighting.
 Cross slide stops.
 Rear tool post.
 etc., etc.



Illustrations not binding in detail. Designs and specifications subject to change without notice.

MYFORD LIMITED · BEESTON · NOTTINGHAM NG9 1ER

Telephone: (0602) 25422/3/4/5

Telegrams: Myford, Beeston, Nottingham

£

40/062	205 mm (8") four-jaw Independent Burnerd chuck Model 1542/22101 with one set of reversible jaws and key to suit Camlock D.1 spindle	57.65
40/064	Spring loaded safety chuck key for use with 125 mm (5") three jaw Burnerd chuck	6.60
40/065	Spring loaded safety chuck key for use with 205 mm (8") four-jaw Burnerd chuck	6.60
	Burnerd LC10. lever operated collet chuck for "multi-size" dead length collets, with adaptor plate	149.15
	Burnerd "multi-size" collets for above EA.2 to EA.9 (1/16" to 1") each having 1/8" capacity (8 in full set) ...EACH	10.95
60/023	Low voltage lighting equipment with 346/440 volt input and 25 volt, 40 watt B.C. lamp. Including transformer and fittings	42.00
20/150	Coolant equipment, including pump, tank, delivery and return pipes, delivery fitting for saddle with bracket, cock and telescopic pipe. (Coolant switch provided as standard on control panel of lathe)	81.30
41/006	0 - 1/2" capacity drill chuck with no. 3MT shank	8.75
33/029	Heavy duty Gamet revolving centre with no. 3MT shank ...	22.17

MYFORD DICKSON INTERCHANGEABLE TOOLING

S.1	Complete set, comprising 3 - position toolpost, 3 standard toolholders, 1 boring bar holder, 1 parting-off holder, 1 parting-off blade and 2 wrenches	57.18
TH10	Additional tool blocks	20.88

ADDITIONAL TOOLHOLDERS

TH11	Standard toolholder	7.14
TH12	Boring bar holder	7.31
TH14	Parting-off holder	8.77
TH144	Parting-off holder	3.43
TH15	Square wrench for above	1.10
TH107	Hexagon wrench for above	1.20

WE RESERVE THE RIGHT TO CHARGE PRICES RULING AT DATE OF DESPATCH AND MAKE CHANGES IN DESIGN AND SPECIFICATION WITHOUT NOTICE.

- All orders are accepted subject to our standard conditions of sale.

MYFORD LIMITED : BEESTON : NOTTINGHAM : ENGLAND
Telephone: (0602) 254222/3/4 Telegrams: MYFORD BEESTON NOTTINGHAM Telex: 37100