

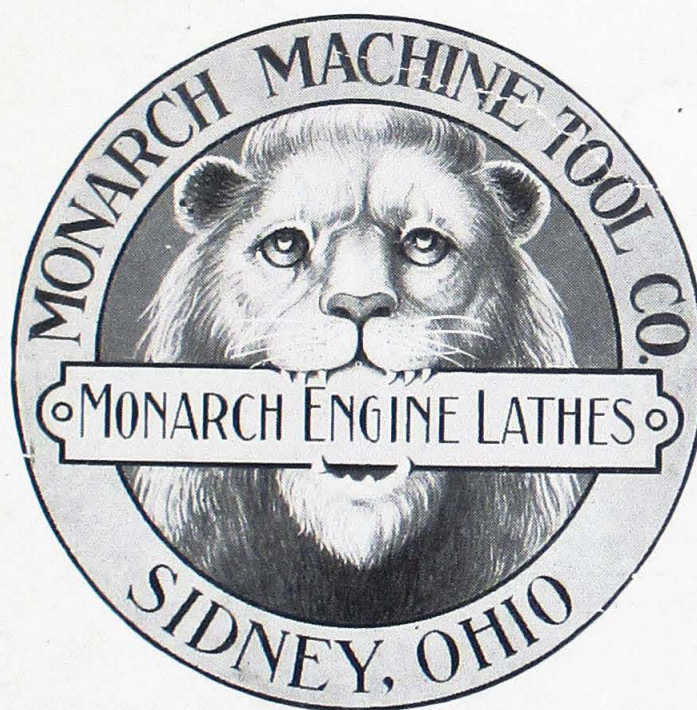
Monarch Lathes

Helical Gears - Timken Bearings
SMOOTHER...QUIETER...MORE POWERFUL

Details and Specifications

Type "B"
HEAVY DUTY

20" Helical-gear
Timkenized Lathe



This Mark

identifies the Product of
America's Largest Producers
of High Grade Engine Lathes

THE MONARCH MACHINE TOOL CO.
SIDNEY, OHIO, U. S. A.

Monarch Lathes

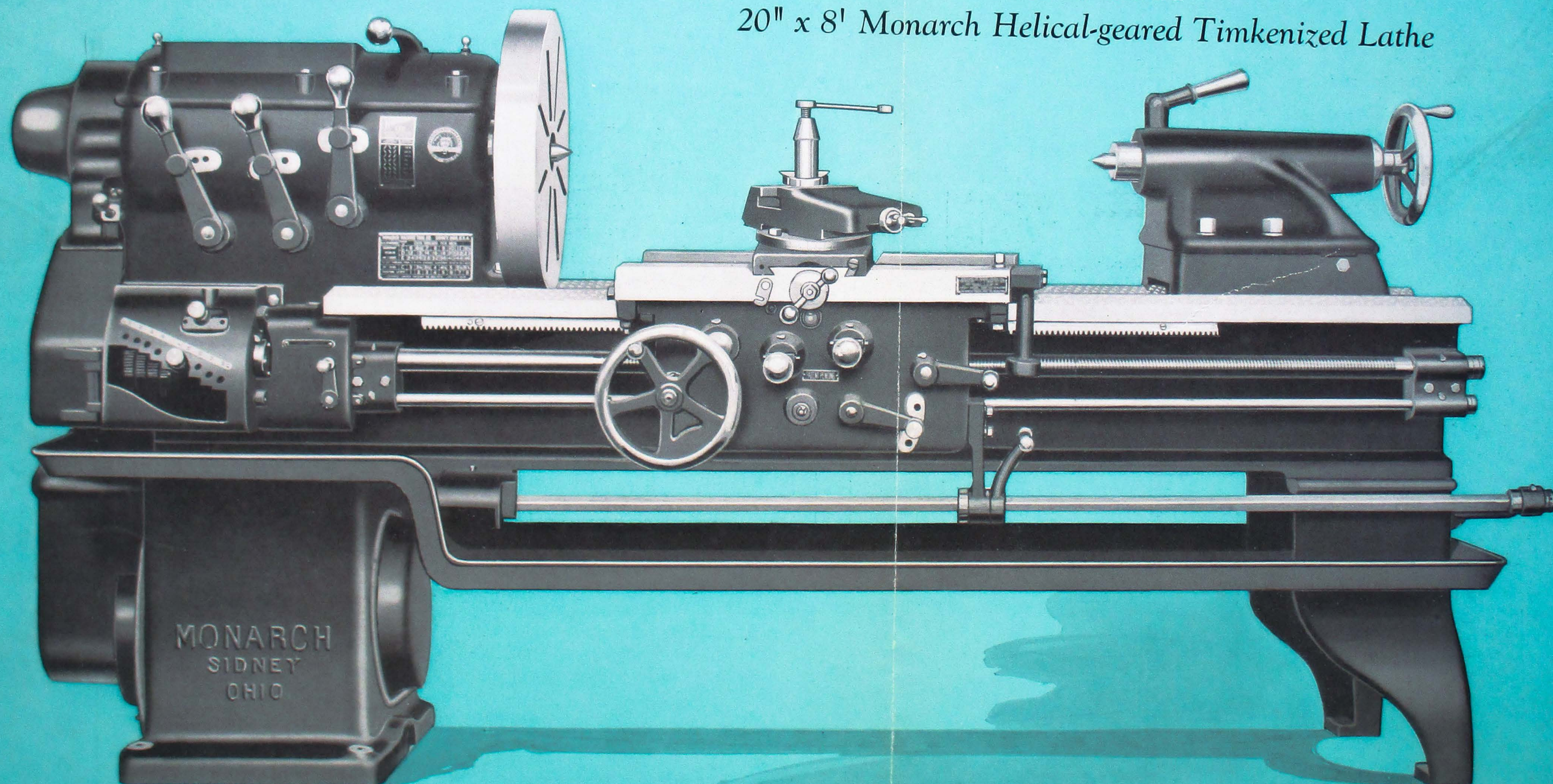


Helical Gears - Timken Bearings
SMOOTHER...QUIETER...MORE POWERFUL



Type "B"
HEAVY DUTY

20" x 8' Monarch Helical-geared Timkenized Lathe



Can be furnished with Lead Screw Reverse operated from Apron, and all other Tool Room Accessories

Dimensions and Specifications of 20" x 6' Monarch Type "B" Heavy Duty Helical-gearbed Timkenized Lathe

Swing over bed	20 1/2"
Swing over cross slide	12 3/4"
Takes between centers, tailstock flush	1' 10"
Takes between centers, tailstock overhung	2' 4"
Base length	6'
Base length, shipping weight, without motor	3900 lbs.
Weight extra two feet	300 lbs.
Hole through spindle	1 9/16"
Front spindle bearing	Precision Timken
Rear spindle bearing	Precision Timken
Center Morse taper	No. 4
Spindle nose, diameter and threads per inch	3 1/2"—4 thd.
Lead screw diameter and threads per inch	1 1/2"—4 thd.
Range of threads per inch, quick change	3 to 46
Range of feeds per inch, quick change005 to .085
Number of threads and feed changes, regular quick change	32
Headstock base length	27"
Tailstock base length	16 1/2"
Tailstock, spindle diameter	2 7/8"
Tailstock, spindle traverse and setover	10"—1 1/4"
Steady rest opening, regular	6"
Maximum capacity oversize steady rest we can furnish	12"
Carriage length	27 1/2"
Carriage bridge width	7 1/4"
Compound rest top slide travel	5"
Size of lathe tool	3/4" x 1 5/8"
Motor, size recommended, ordinary service	5 H. P.
Motor, constant speed, recommended	1150 R.P.M. or less
Distance, spindle center to floor	43 1/2"
Speed of geared head driving pulley	345 R.P.M.
Geared head driving pulley, diameter, face	10" x 5"
Width of bed	15 1/2"
Depth of bed	13"
Length of bed, 6', and in multiples of 2' up to	30'
Maximum collet capacity	1 1/8"
Maximum diameter of work which can be relieved	7"

Maximum amount of relief

Actual number of flutes that can be relieved: 3, 4, 5, 6, 7, 8, 10, 12 and 14.

Thread cutting range on lathe without lead screw reverse: 3, 3 1/4, 3 1/2, 4, 4 1/2, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44 and 46.

Range of feeds, .008" to .120". Feeds with 2 to 1 compound gears, .004" to .060".

Thread cutting range on lathe with lead screw reverse: 3, 3 1/4, 3 1/2, 4, 4 1/2, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 20, 22, 23, 24, 26, 28, 32, 36, 40, 44, 46, 48, 52, 56, 64, 72, 80, 88, 92, 96, 104, 112, 128, 144, 160, 176 and 184.

Range of feeds, .0019" to .120".

Spindle speeds obtained on geared head lathe with driving pulley operated at recommended speeds: 13, 22, 32, 55, 75, 127, 183 and 311 R. P. M.

REGULAR EQUIPMENT consists of face plate, dog plate, steady rest, compound rest, centers, chasing dial, chasing stop and wrenches.

MOTOR DRIVE is thru either silent chain or multiple "V" ropes as preferred. Motor is mounted inside headstock leg.

ACCESSORY EQUIPMENT which can be furnished includes: All styles of tool rests and turrets (see special bulletin showing all these accessories). Taper attachment. Oil pan. Chuck plates. Follow rest. Single or multiple automatic length or cross feed stops. Carriage spacing attachment. Ball turning rest. Micrometer carriage stop. Relieving attachment. Tool cabinet, pyramid for holding chucks, rests, etc. Sub-headstock for chasing coarse leads. Electrical apron control in addition to mechanical apron control. (See special bulletin illustrating all tool room accessories).

Exclusive Features

Helical headstock gears, only 10 gears in headstock, high carbon alloy steel, heat treated and hardened; silent, smooth transmission of power—no gear tooth marks on work.

Eight spindle speeds with only 10 gears; speed changes made by double jawed clutches sliding on splined shafts, by means of three levers on front of headstock. Impossible to engage conflicting gear ratios and no interference devices necessary. Extreme simplicity, rigid construction, nothing to get out of order.

Spindle and headstock shaft bearings are Timken, giving greater rigidity, greater precision,

greater production without chatter, longer life, and greater power economy.

Oiling by splash system. A cascade of oil floods every working part in headstock.

Monarch-Edgemont multiple disc driving clutch with brake, operated both from headstock and apron.

Headstock oil tight. No gears, oil tubes or other mechanism in top cover plate.

Apron is full double plate, all high carbon steel gears and shafts, and is equipped with the Monarch patented eccentric ball feed control levers.

*We guarantee every Monarch Lathe to
give complete satisfaction to the purchaser*

THE MONARCH MACHINE TOOL COMPANY
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