

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

Details and Specifications

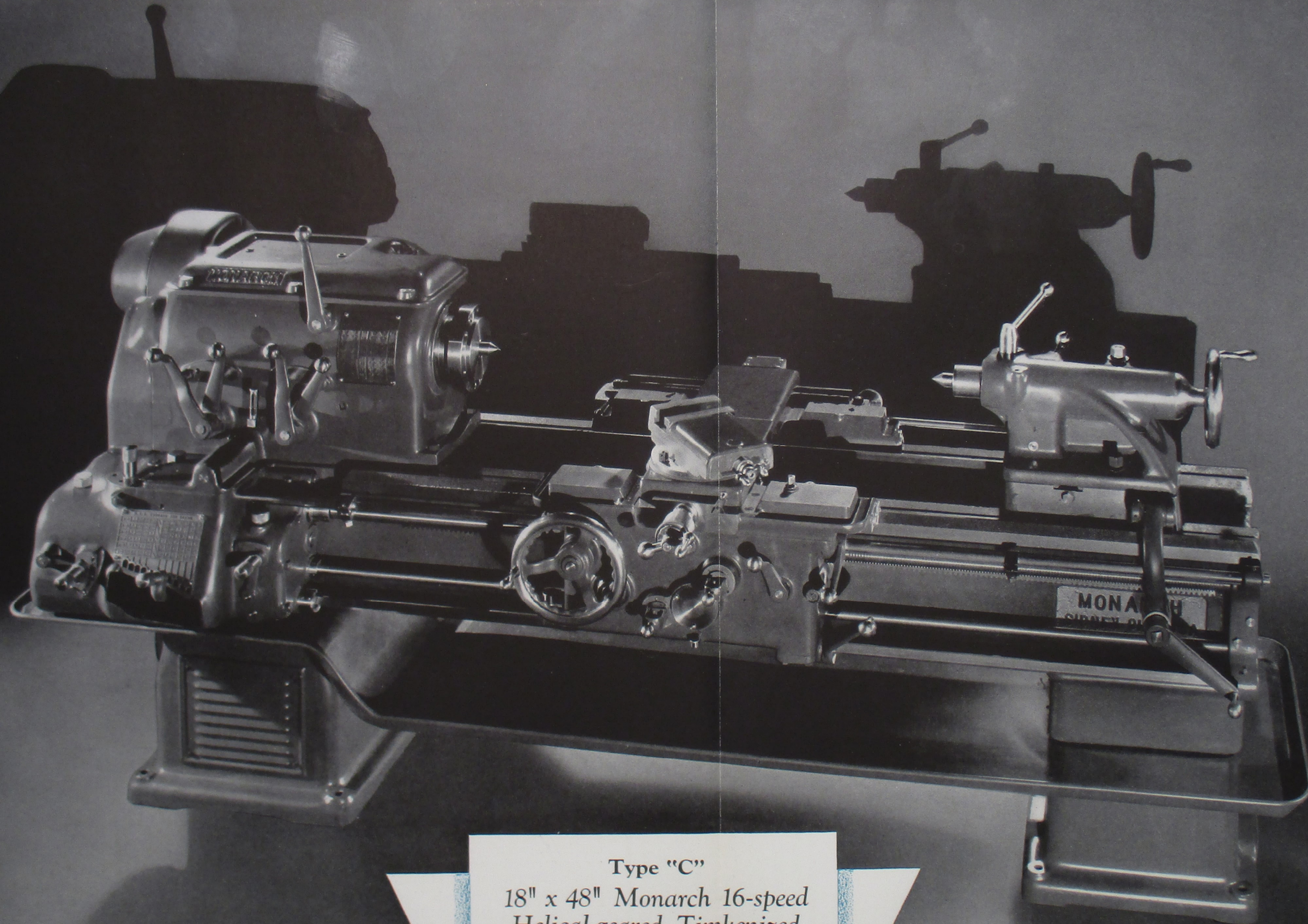
Type "C"

*18" Helical-gearred
16-speed Timkenized
Tool Room Lathe*

CODE WORD "DELVE"

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

New York Sales Office: 413 Graybar Bldg.
Chicago Sales Office: 622 W. Washington Blvd.



Type "C"
18" x 48" Monarch 16-speed
Helical-gear Timkenized
Tool Room Lathe

Monarch Lathes



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



18" x 48" Monarch Type "C" 16-speed Helical-gear Timkenized Tool Room Lathe

Swing over bed.....	20½"
Swing over cross slide.....	12"
Takes between centers, tailstock flush.....	48"
Takes between centers, tailstock overhung.....	54"
Base length, shipping weight, without motor.....	5700 lbs.
Weight extra two feet.....	350 lbs.
Hole through spindle.....	1⅞"
Front spindle bearing.....	Precision Timken
Rear spindle bearing.....	Precision Timken
Canter Morse taper.....	No. 4
Spindle nose, standard flange type.....	8½"
Lead screw diameter and threads per inch.....	1½"—4 thd
Range of threads per inch, quick change.....	{ 1 to 60 or 2 to 120
Range of feeds per inch, quick change.....	{ .0025 to .150 or .00125 to .075
Number of thread and feed changes, regular quick change.....	60
Headstock base length.....	27½"
Tailstock base length.....	15½"
Tailstock, spindle diameter.....	2⅞"
Tailstock, spindle traverse and setover.....	10"—1¼"
Steady rest opening, regular.....	6"
Maximum capacity oversize steady rest we can furnish.....	12"
Carriage length.....	31½"
Carriage bridge width.....	9"
Compound rest top slide travel.....	5"
Size of lathe tool.....	¾" x 1⅝"
Motor, size recommended.....	7½ to 10 HP
Motor, constant speed, recommended.....	1150 R.P.M.
Distance, spindle center to floor.....	44"
Speed of geared head driving pulley.....	500 R.P.M.
Geared head driving pulley, diameter, face.....	12" x 4¾"
Width of bed.....	18½"
Depth of bed.....	13½"
Length between centers.....	72", 96", 120" and 144"

Maximum collet capacity, bar type.....	1⅝"
Maximum collet capacity, spindle nose type.....	1¾"
Maximum diameter of work which can be relieved.....	5"
Maximum amount of relief.....	¼"

Actual number of flutes that can be relieved: 2, 3, 4, 5,
6, 7, 8, 10; 12, 14 and 16.

Thread cutting range: 1, 1⅞, 1⅝, 1¼, 1⅜, 1⅞, 1½,
1⅝, 1¾, 1⅞, 2, 2¼, 2⅜, 2½, 2¾, 2⅞, 3, 3¼, 3½,
3¾, 4, 4½, 4¾, 5, 5½, 5¾, 6, 6½, 7, 7½, 8, 9, 9½,
10, 11, 11½, 12, 13, 14, 15, 16, 18, 19, 20, 22, 23, 24,
26, 28, 30, 32, 36, 38, 40, 44, 46, 48, 52, 56 and 60.

Metric thread range: ⅜ MM pitch to 13MM pitch.

Spindle speeds obtained with driving pulley operated at
500 R.P.M.: 12, 15, 19, 25, 31, 41, 52, 68, 84, 110,
140, 180, 225, 292, 375 and 487.

REGULAR EQUIPMENT consists of face plate, dog
plate, steady rest, compound rest, centers, chasing dial,
chasing stop, lead screw reverse, oil pan and wrenches.
Equipped with automatic force feed lubrication to
carriage, bed ways, compound rest and apron.

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 (see special bulletin
showing all these accessories). Taper attachment.
Chuck plates. Follow rest. Carriage spacing attach-
ment. Ball turning rest. 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 14 gears in
headstock . . . high carbon alloy steel, heat
treated, hardened and lapped; silent, smooth
transmission of power . . . no gear tooth marks
on work.

Sixteen spindle speeds with only 14 gears;
speed changes made by double jawed clutches
sliding on splined shafts, by means of four levers
on front of headstock. Impossible to engage
conflicting gear ratios and no interference devices
necessary. Extreme simplicity, rigid construc-
tion, 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.

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.

Equipped with automatic force feed lubrica-
tion to carriage, bed ways, compound rest
and apron.

Apron is box type casting, all high carbon
steel stub tooth gears and shafts, and is equipped
with the Monarch patented eccentric ball feed
control levers. All bearings are anti-friction,
automatically oiled.

All quick change gear box bearings are
Timken. Bearings in end gear train are Hyatts.

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

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