



Circular No. 14-4

14 1/2-inch Quick Change Gear Precision Lathe—Series "T" Pedestal Motor Driven Type

The 14 1/2-inch Quick Change Gear Lathe with pedestal motor drive is recommended to those who desire an excellent motor driven lathe at a reasonable price. The full quick change gear box provides an unusually wide range of screw threads and power feeds. See page 7 for description of gear box.

The Pedestal Motor Drive is convenient, efficient and practical. It permits easy shifting of the cone pulley belt, providing an unusually wide range of spindle speeds. A precision belt tension adjustment is provided. The belt drive to the spindle is silent in operation and develops a smooth, steady pull entirely free from gear vibration. See page 5.

Improved Features of lathe include: alloy steel headstock spindle, carburized, hardened and ground; double wall apron with all gears of steel and multiple disc friction clutch for operating automatic cross feeds and automatic longitudinal feeds; easy reading micrometer graduated collars; and semi-steel lathe bed. See

pages 7 to 11 for additional features, and page 20 for specifications of this lathe.

Attachments, Chucks and Tools for this lathe are listed on pages 90 to 111. This complete line of attachments and accessories greatly increases the usefulness of the lathe. Most of the attachments may be purchased either with the lathe or later.

Regular Equipment included in price of this lathe consists of: 1 H.P. instant reversing motor, reversing switch, wiring, 3 V-belts, flat leather belt, large and small face plates, forged steel heat-treated tool post, adjustable thread cutting stop, tool steel centers for headstock and tailstock spindles, headstock spindle sleeve, wrenches, quick change gear box, installation plan, and book "How to Run a Lathe."

14 1/2-inch Quick Change Gear Pedestal Motor Driven Lathes

Bed Length	5-ft.	6-ft.	7-ft.	8-ft.	10-ft.
Distance Between Centers	24 1/2-in.	36 1/2-in.	48 1/2-in.	60 1/2-in.	84 1/2-in.
Catalog Number	983-B	983-C	983-D	983-E	983-G
Shipping Weight	1735 lbs.	1810 lbs.	1885 lbs.	1965 lbs.	2130 lbs.
Code Word	Golis	Goloy	Goxuk	Gozar	Gozev

All Page References Apply to Catalog 100

SOUTH BEND LATHE WORKS

Lathe Builders Since 1906
425 E. MADISON ST., SOUTH BEND, IND., U.S.A.



Specifications of Series "T" 14½-inch Precision Lathes

Applying to all 14½-inch Lathes Shown on Pages 21 to 27

All types of 14½-inch swing lathes shown in this catalog are identical in workmanship, material and quality, having similar headstock, tailstock, carriage and bed. The only difference between the various models of lathes is in the type of drive and the equipment supplied.

Capacity of Lathe

Swing over bed and saddle wings.....	14 ⁵ / ₈ "
Swing over saddle with chip guard removed.....	10 ¹ / ₄ "
Swing over saddle with chip guard.....	8 ³ / ₄ "

Threads and Feeds

Thread cutting range	
Quick change gear lathe—48 threads R.H. or L.H.....	2 to 112 per inch
Standard change gear lathe—47 threads R.H. or L.H.....	2 to 112 per inch
Longitudinal feeds through friction clutch	
Quick change gear lathe—24 feeds R.H. or L.H.....	.003" to .0208"
Standard change gear lathe—29 feeds R.H. or L.H.....	.0021" to .021"
Cross feeds through friction clutch	
Quick change gear lathe—24 feeds.....	.0011" to .0078"
Standard change gear lathe—29 feeds.....	.0008" to .0078"
Size of lead screw, diameter and threads per inch.....	1 ¹ / ₈ "-6

Headstock

Hole through spindle.....	1 ¹ / ₈ "
Maximum collet capacity.....	³ / ₄ "
Size of Center, Morse taper.....	No. 3
Spindle nose diameter and threads per inch.....	2 ¹ / ₄ "-6
Width of cone pulley step for belt.....	2"
R.P.M. of spindle, back gears engaged.....	22, 37, 59, 99
R.P.M. of spindle, direct belt driven.....	149, 247, 396, 657
Large face plate diameter.....	12"
Small face plate diameter.....	7 ³ / ₈ "

Compound Rest

Cross slide will travel.....	10"
Angular hand feed of compound rest top slide.....	3 ¹ / ₈ "

Tool Post

Size of opening for tool holder shank.....	¹ / ₂ " x 1 ¹ / ₈ "
Size of cutter bits tool holder takes.....	⁵ / ₁₆ " sq.

Tailstock

Size of Morse taper centers.....	No. 3
Spindle travel.....	5 ¹ / ₄ "
Each graduation on tailstock spindle advances spindle.....	¹ / ₁₆ "
Tailstock top will set over for taper turning.....	1 ⁵ / ₁₆ "

Motor

Horsepower of standard motor used on 14½-inch motor driven lathes.....	1
R.P.M. of standard motor.....	1725
Number of V-belts used.....	3

Countershaft

Speed in R.P.M. of shaft.....	274
Size of pulleys.....	10" x 3 ³ / ₈ "

Taper Attachment (telescopic type)

Maximum length turned in one setting.....	9 ¹ / ₄ "
Maximum taper per foot.....	3"

Metric Lathe Specifications

Applying only to lathes with metric lead screw and metric graduations. See pages 108 to 110.	
Quick change gear lathe cuts 46 threads R.H. or L.H.....	7.5 mm to 0.2 mm
Standard change gear lathe cuts 35 threads R.H. or L.H.....	7.0 mm to 0.2 mm
Lead screw pitch.....	4.0 mm
Cross feed screw pitch.....	3.0 mm
Compound rest feed screw pitch.....	3.0 mm
Each graduation on cross feed micrometer collar advances tool.....	0.02 mm
Each graduation on compound rest micrometer collar advances tool.....	0.02 mm
Each graduation on tailstock spindle advances spindle.....	1.0 mm

For description of lathe features see pages 6 to 11