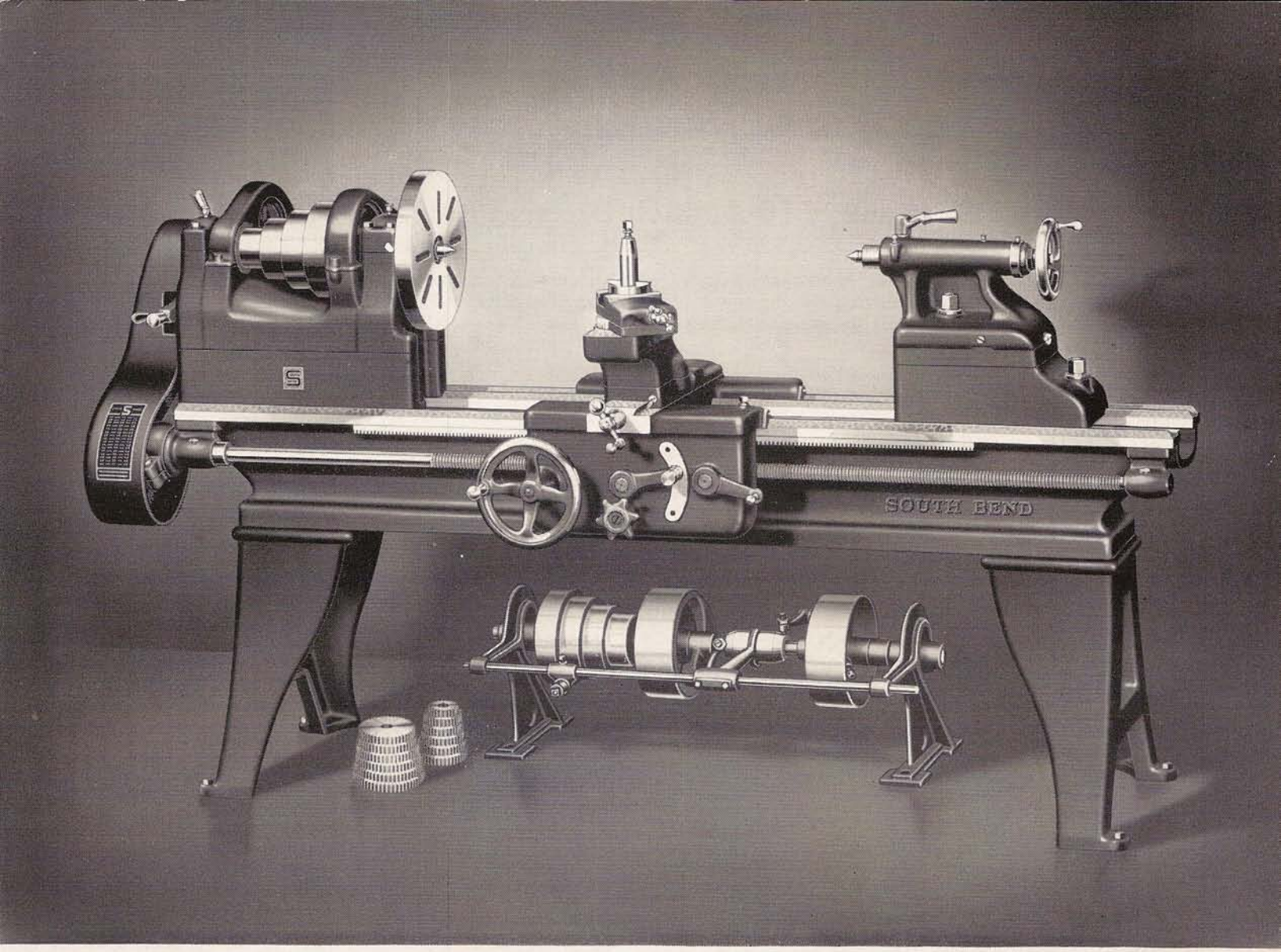

Circular No. 24-3

16-24-inch General Purpose Lathe—Series "T" Countershaft Driven Type

The 16-24-inch General Purpose Lathe is a practical tool for machining large diameter work that is not excessively heavy, and is popular for use in tool and die shops, manufacturing plants, machine shops and general repair shops. This lathe is the same as the 16-inch lathe shown on page 19, except that the height of the center is increased by the use of raising blocks. See specifications on page 80.

This Lathe is popular for the small general shop that must be equipped to take care of a wide variety of work. The increased swing over the lathe bed and carriage permits machining work that would otherwise require a much larger and heavier lathe. The raising blocks are substantially constructed and permit taking cuts as heavy as could be taken on the same lathe without raising blocks.

Regular Equipment included in price of this lathe consists of: reversing countershaft with two friction clutch pulleys; 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 or set of independent change gears; installation plan and Instruction book, "How to Run a Lathe."

Quick Change Gear
16-24-inch Countershaft Driven Lathes

Bed Length	6-ft.	7-ft.	8-ft.	10-ft.	12-ft.
Distance Between Centers	30-in.	42 in.	54-in.	78-in.	102-in.
Catalog Number	98-C	98-D	98-E	98-G	98-H
Shipping Weight of Lathe	2035 lbs.	2115 lbs.	2195 lbs.	2355 lbs.	2505 lbs.
Code Word	Totab	Totef	Toton	Totop	Totuv

Standard Change Gear
16-24-inch Countershaft Driven Lathes

Bed Length	6-ft.	7-ft.	8-ft.	10-ft.	12-ft.
Distance Between Centers	30-in.	42-in.	54-in.	78-in.	102-in.
Catalog Number	57-C	57-D	57-E	57-G	57-H
Shipping Weight of Lathe	2000 lbs.	2080 lbs.	2160 lbs.	2320 lbs.	2470 lbs.
Code Word	Tonay	Tonec	Tonig	Tonom	Tonus

All Page References Apply to Catalog 100

Specifications of 16-24-inch General Purpose Lathes

Applying to all 16-24-inch Lathes Shown on Pages 81 to 83

All types of 16-24-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	24¼″
Swing over saddle with chip guard removed	19¾″
Swing over saddle with chip guard	19″

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	1⅛″-6

Headstock

Hole through spindle	1⅜″
Maximum collet capacity	⅞″
Size of Center, Morse taper	No. 3
Spindle nose diameter and threads per inch	2⅜″-6
Width of cone pulley step for belt	2¼″
R.P.M. of spindle, back gears engaged	12, 21, 35, 60
R.P.M. of spindle, direct belt driven	112, 185, 294, 488
Large face plate diameter	13¼″
Small face plate diameter	8 1/16″

Compound Rest

Cross slide will travel	10½″
Angular hand feed of compound rest top slide	3¾″

Tool Post

Size of opening for tool holder shank	⅝″ x 1⅜″
Size of cutter bits tool holder takes	⅜″ sq.

Tailstock

Size of Morse taper centers	No. 3
Spindle travel	5¾″
Each graduation on tailstock spindle advances spindle	1/16″
Tailstock top will set over for taper turning	1″

Motor

Horsepower of standard motor used on 16-24-inch motor driven lathes	1
R.P.M. of standard motor for underneath motor driven lathe	1150
R.P.M. of standard motor for pedestal motor driven lathe	1725
Number of V-belts used	3

Countershaft

Speed in R.P.M. of shaft	180
Size of pulleys	10″ x 3⅝″

Taper Attachment (telescopic type)

Maximum length turned in one setting	11½″
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

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