

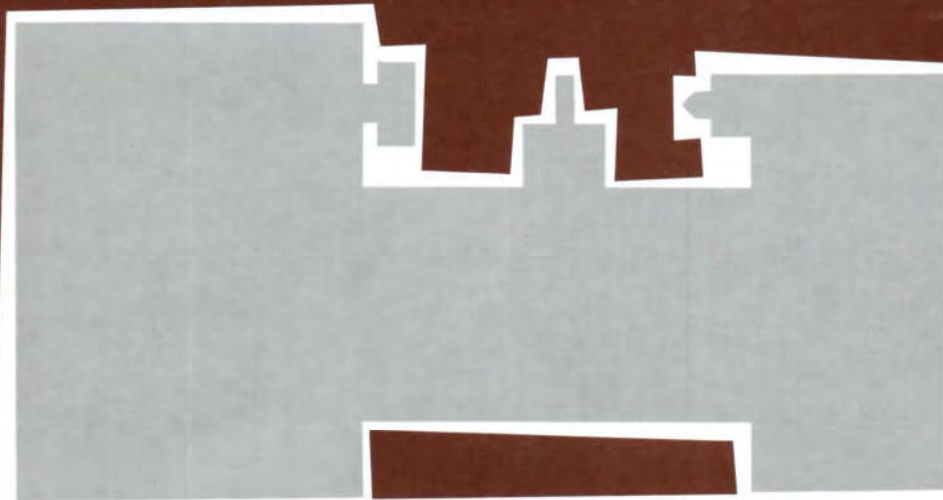
**BULLETIN**

**910-C**

16" Style C  
(2013)

**AMERICAN**

# **ENGINE LATHE**

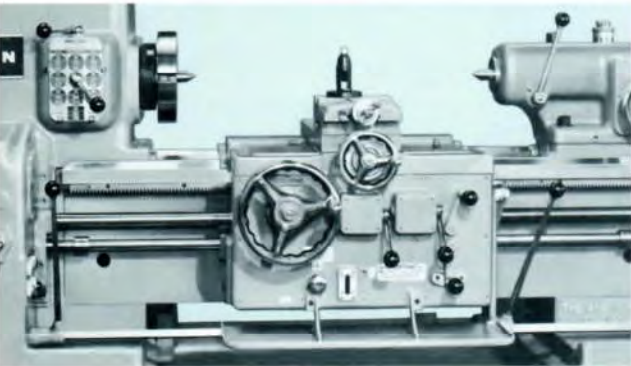


**The American Tool Works Company**  
Pearl Street at Eggleston Avenue • Cincinnati 2, Ohio





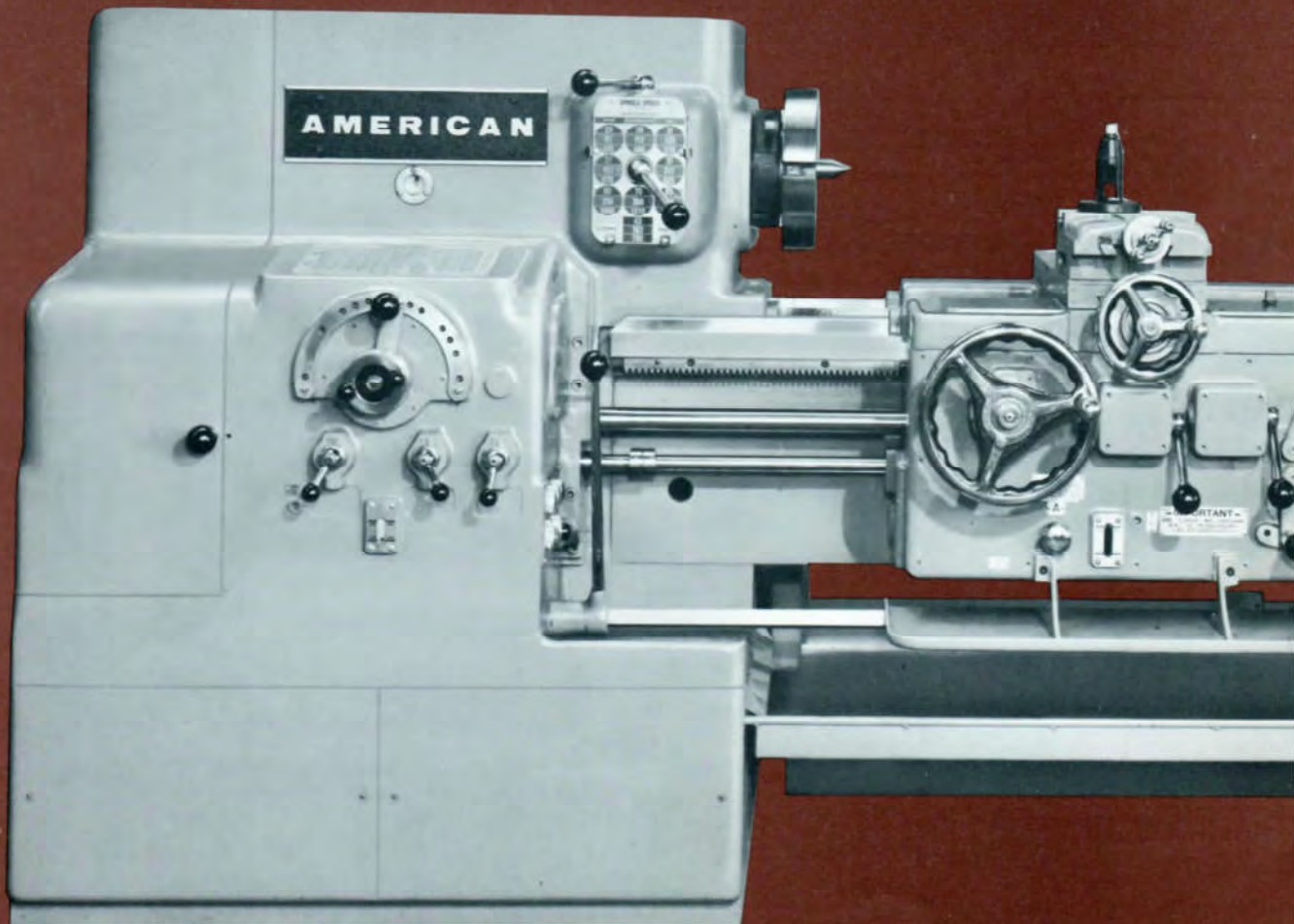
# The All New AMERICAN 16" Style C Lathe



Box type apron is human engineered for easy operation of lathe. Note convenience of levers, "Monday morning" manual oil plunger, oil sight gauge.



Optional combination stationary/live center in 4" diameter spindle is protected by thrust plate against binding caused by workpiece expansion. Spindle is provided with tang slot. Note graduated dial on top.







Inner vee-ways dropped below level of outer vee-ways, form inverted pyramid. . . resist lateral thrust of the heaviest cuts. Pyramid is strongest design known to engineering. Wipers keep vee-ways free from grime, dirt, chips.



New carriage design is deeper, stronger, prevents vibration. Sturdy rectangular tool rest gets in closer to workpiece, is extra rigid.



Compact design of head adds to precision. Note heavy ribbing, especially for center spindle bearing. Cam gear shift is another American exclusive.



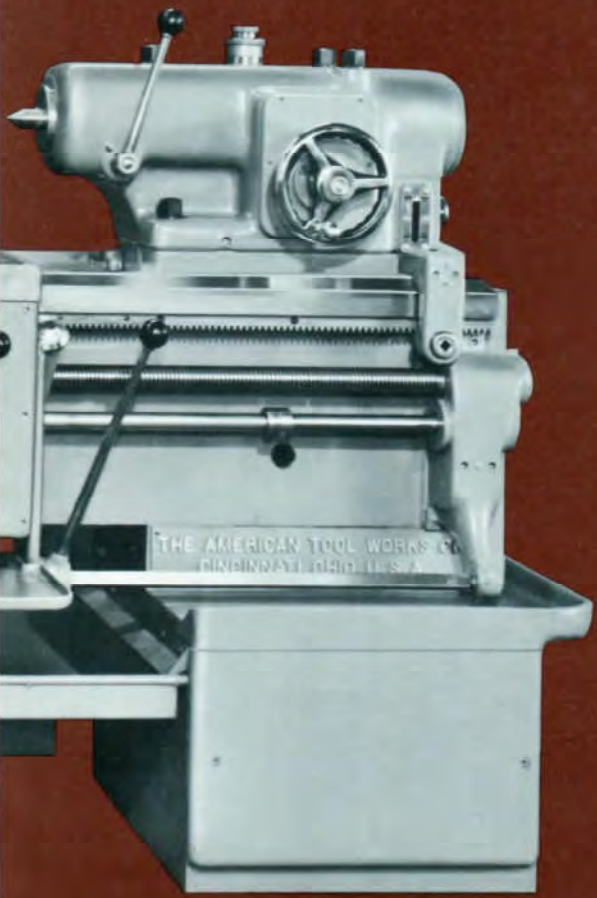
Triple geared spindle gives 27 speeds. All gears hardened and fully ground. Note Timken Zero Precision front and center bearings. Floating ball bearing is at rear.



Simple and convenient adjustment of spindle bearings from outside the head. One motion simultaneously adjusts front and center bearings, encourages operator to keep them properly adjusted.



Totally enclosed quick change gear box has hardened steel gears, heat treated shafts. Safety clutch protects transmission. Note convenience of control levers, oil sight gauge.



THE AMERICAN TOOL WORKS CO.  
MIDDLETOWN, OHIO U.S.A.





**This All New  
Lathe with the  
“Square Look”  
Styling  
OUTCLASSES  
THEM ALL  
in Power, Speed  
and Accuracy!**

This American 16" Style C Lathe delivers up to 20 hp to its 3-gear spindle . . . speeds through your heaviest cuts without chatter . . . prances through 27 easily selected spindle speeds in 3 ranges. Power rapid traverse, if you want it . . . 4 ways at the touch of two separate levers, independently or simultaneously. Direct reading spindle speed change, reliable and easy to read micrometer dials give you easy accuracy. Rugged 4-vee-way bed, deeper, stronger carriage, superior spindle mounting give it the strength for hogging . . . hold the light touch for extreme accuracy.



# ONLY AMERICAN HAS THESE EXCLUSIVE FEATURES

## EXCLUSIVE BED DESIGN IS RUGGED!

American's 4-vee-way bed design is based on one of the strongest design principles known to engineering . . . the pyramid. 4 vee-shaped ways eliminate carriage or tailstock twist under thrust of the heaviest cuts. The inner vees are dropped below the level of the outer vees, forming an inverted pyramid . . . give added swing and extra carriage rigidity. Replaceable outer vee-ways are of hardened tool steel (61-63 Rockwell C), ground to gauge tolerances. Built-in improved Duprene compression wipers keep all 4 vee-ways clean. Safety-designed chutes carry chips to the rear away from the workpiece and the operator.

## DEEPER CARRIAGE . . . EXTRA RIGIDITY

Taking advantage of the dropped vee bed, American's engineers have deepened the carriage bridge and added an all-new heavy, rigid rectangular tool rest, giving the whole unit extra rigidity and stamina. The 3 piece cross feed nut is adjustable to eliminate backlash on the hardened cross feed screw . . . gives long, accurate life.

## THE APRON . . . HUMAN ENGINEERED FOR EASY OPERATION

All controls are located in their most natural positions on the extra rigid, box type apron, within easy reach of the operator. Automatic lubrication supplies the vee-ways, cross slide, bottom slide and gibs and the bronze compensating cross feed nut with filtered oil. "Monday morning" oiling is by a spring loaded manual pump.

## THE TAILSTOCK

The 4" diameter spindle extends its entire length of travel without exposing the key way . . . cannot carry score-causing grime back into the solid-cast barrel. Plunger pump oiling and way wipers give further protection. A convenient dial, graduated in 16ths, gives the correct spindle advance for drilling. An optional anti-friction center is backed up by a safety thrust plate which absorbs workpiece heat expansion . . . prevents overloading of the bearings.

## THE QUICK CHANGE GEAR BOX

Providing 2 to 120 threads per inch, this totally enclosed mechanism has all hardened steel gears and heat treated shafts, and is automatically pump filter lubricated. An automa-

tically re-engaging feed safety clutch protects the transmission from shock or overload. Threads and feeds are selected with outstanding simplicity.

## THE HEAD . . . AND THE HEART

This stout hearted American 16" Style C Lathe boasts a heavy duty headstock. Hardened and fully ground gears transmit up to the full overload of a 20 horsepower motor. Hardened and ground integral splined shafts take the load on all sliding gears . . . no keys to wear or shear off. An all steel multiple disc plate clutch engages the drive shaft . . . is impervious to wear . . . stands up under the most grueling punishment. Releasing the clutch automatically engages the self-adjusting multiple disc brake.

3 spindle gears divide the 3 operating ranges into 27 speeds. *Three* bearings support the husky spindle. Timken Zero Precision bearings at the front and at the center are *adjusted simultaneously from outside the headstock*. A floating ball bearing at the rear provides for expansion. The head is 100% anti-friction mounted and is automatically filter lubricated.

### Cascade Oiling Gives Cool, Cool Operation

Old fashioned "splash" oiling systems are obsolete, compared with this exclusive American innovation. Cascade oiling really floods the gears and bearings . . . protects them from over heating . . . expansion . . . excessive whine and clash. Yes, this American Engine Lathe runs cool and quiet.

## A "SQUARE LOOK" BEAUTY

Overlooking no single detail in designing the finest lathe that money can buy, American's engineers styled this all-new lathe to look good in the shop it works in. But beauty is as beauty does . . . and the American 16" Style C Lathe does better by far, than any other comparable lathe.

## LOOK AT THESE OTHER EXCLUSIVE FEATURES

- Automatically oiled quadrant gearing.
- Automatically oiled cross feed nut.
- Automatically oiled and outside adjustable half nuts.
- 2 fixed safety stops on feed rod halt carriage in both directions at extreme travel. 2 adjustable stops halt the carriage at any two pre-determined intermediate points.



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Cincinnati 2, Ohio



# SPECIFICATIONS

Swing Over Bed and Carriage Wings .....	20"
Swing Over Cross Slide .....	13"
Swing Over Taper Attachment .....	13"
Base Length—Domestic Shipping Weight, including Motor and Average Accessories, approximately .....	8,800 lbs.
Extra 2 Feet of Bed .....	700 lbs.
Base Length—Boxed Weight, including Motor and Average Accessories, approximately .....	10,200 lbs.
Extra 2 Feet of Bed, Boxed .....	800 lbs.
Maximum size motor recommended .....	20 H.P.

## HEADSTOCK

Length on Bed .....	26 $\frac{1}{4}$ "
Radial Load Capacity—Front Bearing at 100 R.P.M. ....	20,300 lbs.
Thrust Load Capacity at 100 R.P.M. ....	15,300 lbs.
Radial Load Capacity—Center Bearing at 100 R.P.M. ....	12,600 lbs.
Diameter of hole in Spindle to clear bar .....	2"
Taper of Center .....	No. 4
Large Face Plate Diameter .....	19"
Small Face Plate Diameter .....	10"

## BED

Width—Depth .....	16"—15"
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## CARRIAGE

Length of Carriage on Bed .....	26 $\frac{1}{4}$ "
Square inches of Carriage Bearing on Bed .....	134"
Width of Carriage Bridge .....	8"

## QUICK CHANGE BOX

Number of Threads Can be Cut .....	66
Range of Threads Can be Cut Per Inch .....	2 to 120
Number of Feeds Can be Cut .....	66
Range of Feeds in Thousandths Per Revolution .....	.0015 to .091
Diameter of Leadscrew .....	1 $\frac{1}{2}$ "
Pitch of Leadscrew .....	$\frac{1}{4}$ Pitch

## COMPOUND REST

Travel of Top Slide .....	4"
Round Tool Holder (Size of Tool) .....	$\frac{3}{8}$ " x 1 $\frac{1}{4}$ "
Tool Holder Size .....	No. 2
High Duty Tool Holder (Size of Tool) .....	$\frac{3}{8}$ " x 1 $\frac{1}{4}$ "
4-Way Tool Block (Size of Tool) .....	1" x 1"

## TAILSTOCK

Length on Bed .....	14 $\frac{7}{8}$ "
Diameter of Tailstock Spindle .....	4"
Length of Tailstock Spindle .....	24 $\frac{1}{8}$ "
Set Over of Tailstock, on Side .....	$\frac{1}{8}$ "
Spindle Travel .....	10"
Taper of Center—Morse .....	No. 4

## TAPER ATTACHMENT

Maximum Taper Per Foot .....	5"
Maximum Length at one setting .....	18"

## STEADY RESTS

Standard Capacity (3 Jaws) .....	$\frac{1}{2}$ " to 6"
Large Capacity (3 Jaws) .....	6" to 13"

## FOLLOW RESTS

Capacity (Plain Jaws) .....	$\frac{1}{2}$ " to 4"
Capacity (Roller Jaws) .....	$\frac{7}{8}$ " to 4"



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