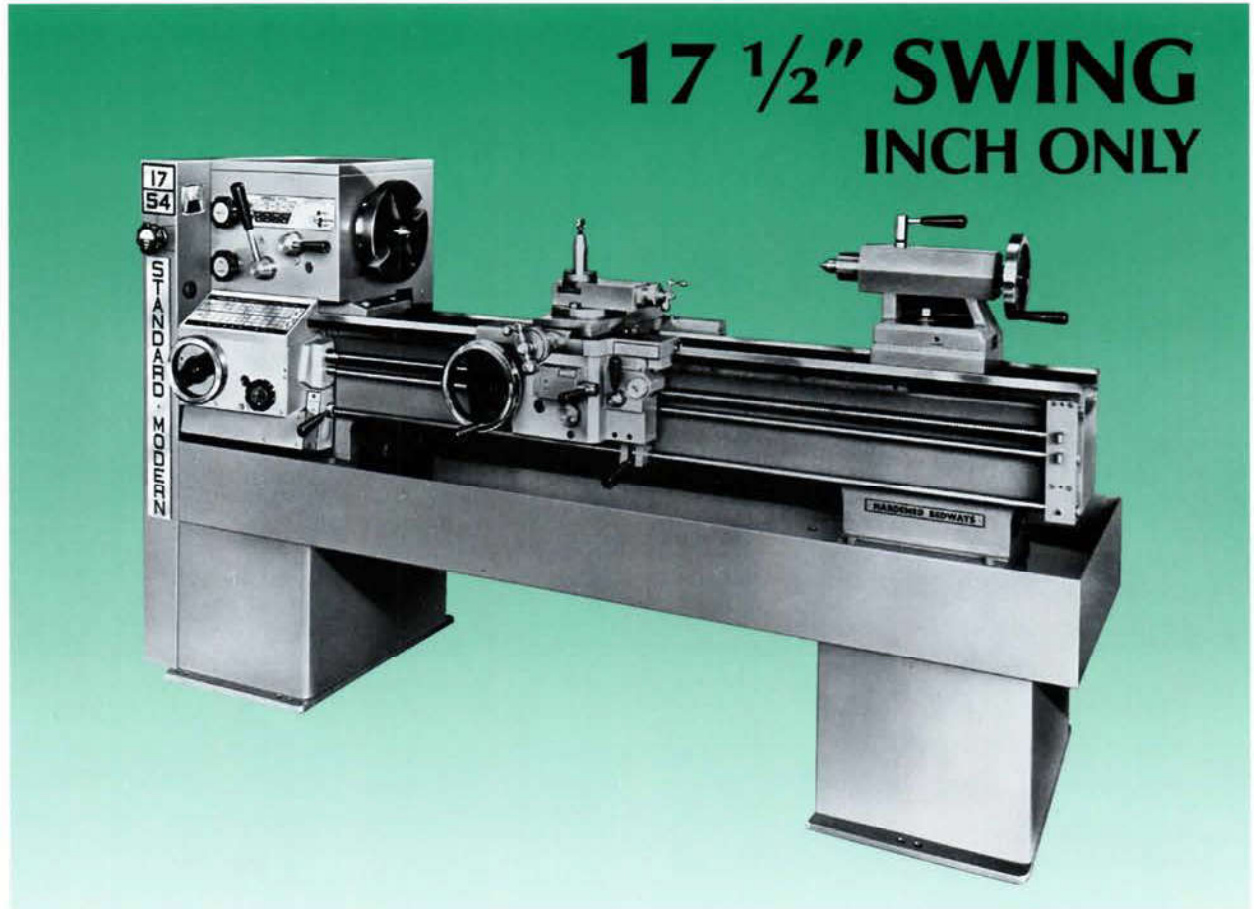




# STANDARD-MODERN LATHES

PRODUCED BY KESTREL MACHINE TOOLS INC.



MADE IN NORTH AMERICA

## 1754 THE VERSATILE LATHE

The Model 1754 is one of a modern generation of standard engine and tool-room lathes, ideally suited for toolroom, maintenance and production. The lathe is designed and built in North America, and has the important plus features for all turning jobs in your shop.

Standard-Modern lathes have gained a wide reputation for Quality and Reliability and now with more Versatility are **THE COMPLETE LATHES.**

- ★ 7-1/2 H.P. Main Drive Motor
- ★ 16 Speeds
- ★ Reversible Leadscrew
- ★ Electric Brake
- ★ D1-6 Camlock Spindle Nose
- ★ 2-1/16" (52mm) Hole Through Spindle
- ★ Hardened & Ground Bedways
- ★ Exclusive "Dial In" Feedbox
- ★ Optional 30" Between Centers



# FEATURES AND SPECIFICATIONS

## RATED CAPACITY

|                                 |             |
|---------------------------------|-------------|
| Swing over bed and saddle wings | .17 1/2"    |
| Swing over cross slide          | .11 1/2"    |
| Distance between centers        | .30", .54"  |
| Main drive motor                | .7 1/2 H.P. |

## SPECIFICATIONS

### HEADSTOCK

|  |   |
|--|---|
| Eight speed gear train with dual speed drive |   |
| Number of spindle speeds                     | .16                                       |
| R.P.M. slow range                            | .30, 48, 80, 127<br>210, 340, 570, 900    |
| R.P.M. high range                            | .60, 96, 160, 254<br>420, 680, 1140, 1800 |
| Spindle nose                                 | .D1-6 Camlock                             |
| Through hole in spindle                      | .2 1/16"                                  |
| Taper in spindle nose                        | .750"/ft                                  |
| Spindle center taper                         | .No. 4 Morse                              |

### TAILSTOCK

|                                 |                                       |
|---------------------------------|---------------------------------------|
| Spindle dia. and length         | .2 7/16" x 10 1/2"                    |
| Taper hole in tailstock spindle | .No. 4 Morse taper<br>with Tang drive |
| Spindle travel                  | .5"                                   |
| Set over right or left          | .1"                                   |
| Length on bed                   | .9 3/4"                               |

### SADDLE

|  |                |
|--|----------------|
| Length on bed  | .19"           |
| Width on bridge and cross slide                                  | .7"            |
| Length of cross slide  | .22"           |
| Cross slide travel   | .9 1/2"        |
| Compound rest travel   | .3 3/4"        |
| Distance from top of compound slide to center<br>line of spindle | .2 1/8"        |
| Round tool post for #2 tool holder                               |                |
| Size of shank  | .5/8" x 1 3/8" |

### BED

|   |          |
|---|----------|
| Width at top                            | .11 3/4" |
| Depth                                   | .10"     |
| Width of front Vee                      | .1 1/2"  |
| Ways, induction hardened vees and flats |          |

### THREADS AND FEEDS

|  |                               |
|--|-------------------------------|
| Number of changes                          | .60                           |
| Range of U.S. standard threads             | .2 to 120 T.P.I.              |
| Range of feed rates per rev. of spindle    | .0018" to .112"               |
| Longitudinal and cross feeds are identical |                               |
| Leadscrew                                  | .1 3/16" dia. x 4 T.P.I. acme |

### OPTIONAL ACCESSORIES

|                                 |             |
|---------------------------------|-------------|
| Steady Rest                     | .6"         |
| Follow Rest                     | .2 1/2"     |
| Taper Attachment                | .12" stroke |
| Change gears for metric threads |             |

Approx. shipping weight .3200 lbs.

## HEADSTOCK

The headstock is styled to provide centralization of all shift levers on the front face. The main spindle, over 3" in diameter, is mounted on Timken Precision tapered roller bearings and provides for a through hole in the spindle of 2 1/16". This spindle diameter contributes substantially to increased rigidity at the spindle nose.

Sixteen spindle speeds are readily available from the geared head and dual drive mechanism through the belt speed selector mounted on the front of the headstock. A conventional direct reading 4 position shifter in conjunction with a high-low selector assures convenience and simplicity.

A selective neutral position provides free spindle rotation for set-up operations. All power train gears are hardened.

## APRON AND SADDLE ASSEMBLY

A single ball lever operating in the vertical plane engages longitudinal feed in the "UP" position and crossfeeds in "DOWN" position. Through shifting is prevented by a side movement of the lever in the neutral position.

The threading control lever is conveniently located in relation to the built-in threading dial and is provided with a safety interlock which prevents feed operation when half nuts are engaged for threading or vice-versa. A further refinement which contributes greatly to ease of control is the use of anti-friction bearings on both the rack-pinion shaft and handwheel shaft. This results in a very free and sensitive movement of the saddle, which effectively eliminates wear at these two vital points. This free movement of the saddle together with a counterbalanced handwheel combines with the precision lead screw to produce extreme accuracy.

Lubrication of the apron mechanism is provided from a large oil sump in the lower half of the double walled apron casting. All dials are satin finished for easy reading and the divisions are machine graduated.

## DIAL IN FEED GEAR BOX

A totally enclosed feed gear box with flood lubrication. This unit provides 60 rates of power feed or 60 threading leads, all instantly available through dial selectors. Threading range is 2 to 120 threads per inch, including 27 T.P.I. The feed range is .0018" to .112" per revolution of spindle. The ten feed selections may be changed through the handwheel while the machine is running. Longitudinal and cross feeds are identical and exactly as indicated. The lead-screw is 1-3/16" dia. x 4 per inch Acme. The two directional thrust is taken by double row angular contact ball bearings. A brass shear pin prevents accidental twisting of the lead screw.

## SPINDLE NOSE

The large D1-6 camlock spindle nose allows a 2-1/16" dia. hole through the spindle and provides maximum rigidity for chuck, face-plate or collet mounting.

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