CLAUSING

COLCHESTER

13" 15" 17"

GEARED-HEAD

PRECISION LATHE

SOLD BY:

McDONALD MACHINERY CO.
MACHINE SHOP-WOODWORKING-SHEET METAL
Phone CEntral 1-9360
1531-37 N. Broadway  St. Louis 6, Mo.

CLAUSING DIV. ATLAS PRESS
KALAMAZOO, MICHIGAN, U.S.A.

www.OzarkToolManuals.com
Clausing-Colchester lathes are the achievement of over 50 years’ experience in the manufacture of precision lathes.

Their outstanding value and record of performance are the result of this experience, and the modern production facilities used in their manufacture. Highly specialized precision equipment, coupled with a unique system of tooling and gauging, assure the highest standards of accuracy, and uniformity of every part.

Clausing-Colchester lathes, manufactured in England, are the product of Europe's largest and most modern factory devoted exclusively to the manufacture of precision lathes. They are backed by the nation-wide Clausing sales, service and dealer organization.
Built to American standards of toolroom lathe accuracy

Clausing-Colchester geared headstocks are designed and built to deliver the power required for heavy-duty operations, and for smooth performance throughout the spindle-speed range. Gears are shaved, heat-treated. Gear shafts are multi-splined high-tensile steel — turned in phosphor bronze bearings. Splined shafts — no loose or sliding keys — assure high standards of accuracy and surface finish. Headstock is completely enclosed — entire gear drive mechanism travels in bath of oil.

Gear change and reverse levers are conveniently located. Front lever operates both starting switch and mechanical brake in drive pulley, a feature that permits rapid and sensitive control of machine.

<table>
<thead>
<tr>
<th>SPINDLE CAPACITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lathe</td>
</tr>
<tr>
<td>Thru-Hole</td>
</tr>
<tr>
<td>Nose Taper</td>
</tr>
</tbody>
</table>

Headstock spindles are high-tensile steel hammered forgings. Nose is American Standard taper key-lock — spindle may be reversed without danger of the chuck's coming off. Nose is hardened. Note — in chart at left — the larger sizes and capacities — greater than those of lathes in the Clausing-Colchester class.

Spindle bearings are larger — see chart at right.

Front spindle bearing is double row tapered roller bearing — rear spindle bearing is single row tapered roller bearing, spring loaded for automatic adjustment. Both are Gamet Micron Precision Bearings with oil-flow lubrication — hole through bearing rollers assures maximum lubrication and cool running. Produced under strictly controlled conditions. these bearings are the most efficient and accurate known to industry. Evidence of the precision you can expect with Clausing-Colchester lathes is detailed on page 15.
Apron is one-piece, double-walled — all shafts turn in two bearings; — gear trains are protected against misalignment and dirt. Carriage has large bearing surfaces on bed, and is secured to bed by heavy plates bearing on front and rear ways. All surfaces of the saddle, cross slide, and compound are precision ground. Large diameter micrometer dials reading in .001" are fitted to both slides and can be set at zero and clamped for easy operation. Power feed and screw cutting controls are interlocked to prevent simultaneous engagement. Half nuts are Mehanite. Power feeds are engaged by a positive single lever control action. Thread dial is furnished.

Note, in second illustration at left, the carriage provided with gap-bed lathes. Cross slide position brings cutting tool to outer edge of gap. Has boring-type tee-slotted saddle. Controls on apron are located away from gap, for operator convenience and safety.

Quick-change mechanism provides instant selection of 45 threads and feeds. Quick-change gear box is cast integrally with the bed for maximum strength. Box is totally enclosed, and mechanism runs in a bath of oil. Gears are shaved, high-tensile steel, and are carried on multi-splined high-tensile steel shafts. Shafts turn in phosphor bronze bearings.

Power feeds are taken from a separate feed rod. The lead screw is used for threading only — another feature of design that gives you longer service and accuracy with a Clausing-Colchester. Feed rod has springball clutch that releases rod whenever the load becomes too great and automatically re-engages when strain is removed — carriage may be fed to positive stop. 13" and 15" lathe lead screws are protected by easy-to-replace shear pin in gear train.
Red ways are induction hardened to a Brinell hardness of 500, and are precision ground parallel to extremely close tolerance. Beds are massive, dense castings — 50% steel, 50% iron — with elliptical cross ribbing for maximum rigidity. 17" and 15" lathes have two V-ways at front, two flat ways at rear. 13" lathes have a V-way and flat way at both front and rear. Castings are rough machined and naturally aged before finish grinding. Gap bed lathes have removable block.

Drive is through multiple V-belts powered by heavy-duty motor furnished with lathe. Note choice of single and two speed motors. Drive is self-contained — motor is mounted at rear of headstock base below chip pan to keep out dirt, chips and coolant. Adjustment for belt tension is provided. V-belts are completely guarded. Electric panel in base has master control switch for magnetic starter. On-off switch furnished is air-break type controlled by lever on front of headstock. Reversing switch, available extra, see page 13, is furnished with linkage that mounts inside switch control-lever shaft.

Husky tailstocks have large spindle and screw. Hole for spindle is honed with MicroMatic hones to superfinish standards for accuracy, rigidity, smooth operation. Spindles are graduated, have self-ejecting centers. Tailstock may be set over for taper turning — zero setting line simplifies resetting.

13" and 15" lathes are furnished with cabinet bases of welded steel columns, heavily cross ribbed to provide a firm foundation for the lathe and to keep vibration at a minimum. Built-in chip pan, splash guards and coolant tank. Tailstock pedestal has two shelves, and a drawer with lock.
15-inch heavy duty
geared head precision lathe

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Swing Over Bed</th>
<th>Between Centers</th>
<th>Bed Length</th>
<th>Net Weight</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6574</td>
<td>15&quot;</td>
<td>90&quot;</td>
<td>65&quot;</td>
<td>2100 lb.</td>
<td>2700 lb.</td>
</tr>
<tr>
<td>6575</td>
<td>15&quot;</td>
<td>48&quot;</td>
<td>85&quot;</td>
<td>2250 lb.</td>
<td>2970 lb.</td>
</tr>
</tbody>
</table>

**STRAIGHT BED LATHES**

**ONE SPEED MOTOR**

- 6574: 15" swing, 90" between centers, 65" bed length, 2100 lb. net weight, 2700 lb. shipping weight.
- 6575: 15" swing, 48" between centers, 85" bed length, 2250 lb. net weight, 2970 lb. shipping weight.

**TWO SPEED MOTOR**

- 6534: 15" swing, 30" between centers, 65" bed length, 2100 lb. net weight, 2700 lb. shipping weight.
- 6533: 15" swing, 48" between centers, 85" bed length, 2250 lb. net weight, 2970 lb. shipping weight.

**GAP BED LATHES**

**ONE SPEED MOTOR**

- 6576: 15" swing, 40" between centers, 65" bed length, 2100 lb. net weight, 2700 lb. shipping weight.
- 6577: 15" swing, 48" between centers, 83" bed length, 2250 lb. net weight, 2970 lb. shipping weight.

**TWO SPEED MOTOR**

- 6536: 15" swing, 30" between centers, 65" bed length, 2100 lb. net weight, 2700 lb. shipping weight.
- 6537: 15" swing, 48" between centers, 83" bed length, 2250 lb. net weight, 2970 lb. shipping weight.

**EQUIPMENT FURNISHED**

- Cabinet base with built-in chip pan, splash guards and coolant tank.
- One-speed or two-speed motor.
- Electric panel with master control switch for magnetic starter—all electrical controls are of American manufacture.
- Air-break type on-off switch.
- 14" face plate, 8" driving plate.
- Two No. 3 MT centers, reducing sleeve.
- Thread dial indicator.
- Follower rest, tool post, Change gear.
- Wrenches.
- Instruction and Parts List manual.

Design and specifications are subject to change without notice. Weights shown are approximate.
SPECIFICATIONS

CAPACITIES AND CLEARANCES

Swing over bed ........................................ 15”
Swing over cross slide ................................... 89/4”
Swing over carriage wings ................................ 14”
Distance between centers, flush ......................... 30” or 48”
Face plate, dia. ........................................ 14”
Driving plate, dia. ....................................... 8”
Follower rest, capacity ................................... 2 1/2”
Steady rest, capacity ..................................... 5”

HEADSTOCK

Hole through spindle .................................... 2-1/16”
Spindle nose, A.S. taper key drive ....................... L-1
Taper in spindle nose bushing .......................... No. 3 MT
Spindle center ............................................ No. 3 MT
Spindle bearings, Gannet Micro Precision tapered roller bearings
  Front .............................................. double row
  Rear ............................................... single row, spring loaded
Spindle bearing outside diameters
  Front ............................................. 5 1/2”
  Rear .............................................. 4 9/32”

BED

Ways .................................................. 2 V, 2 Flat
Length ................................................ 65” or 83”
Width .................................................. 10”
Depth at ends ....................................... 14 7/8”
Depth at center ...................................... 10”

TAILSTOCK

Spindle, dia .......................................... 1 1/2”
Center ............................................... No. 3 MT
Spindle travel ....................................... 6”
Spindle graduated ................................... 0” to 6” by 1/8”

CARRIAGE AND COMPOUND

Carriage length ...................................... 17 1/2”
Width of carriage bridge ............................ 8”
Width of cross slide .................................. 3 1/8”
Width of compound rest ............................. 41/2”
Cross slide travel ................................... 7”

Compound rest travel ................................ 4 3/8”
Tool post, slot ...................................... for 3/8” square tools

SPINDLE SPEEDS

Spindle speeds, with 1 speed motor .................... 8
Speed range, with 1 speed motor, RPM ............. 40, 77, 109,
  161, 205, 305, 425, 800
Spindle speeds, with 2 speed motor .................. 16
Speed range, with 2 speed motor, RPM ............ 30, 58, 60,
  82, 115, 120, 153, 163, 229, 241, 307, 319,
  457, 600, 637, 1200

MOTORS

One speed ........................................... 3 HP, 1720 RPM, 3 ph., 220-440 V, 60 C
Two-speed ............................................ 2 1/2 - 5 HP, 900-1800 RPM, 3 ph.
  220 or 440 V, 60 C
  Specify voltage when ordering.
Number of V-belts .................................. 3

THREADS AND FEEDS

Lead screw, dia ...................................... 1 1/4”
  threads per inch, Acme ................................ 4
Feed rod, dia ........................................ 1”
Number of threads ................................... 45
Range
  4, 4 1/2, 4 3/4, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9,
  9 1/2, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 19,
  20, 22, 25, 26, 28, 32, 36, 38, 40,
  44, 46, 48, 52, 56, 64, 72, 76, 80, 88,
  92, 96, 104, 112
Number of feeds ...................................... 45
Feed range ........................................... 0.048” to 0.0017”

NOTE: Threads 4 thru 7 are obtained by using change gear furnished.

GAP BED MODELS

Swing in gap ......................................... 24”
Length of gap in front of face plate .................. 6”

NOTE: Other specifications similar to straight bed model

Finish, all models, light machine tool grey.
17-inch heavy duty geared head precision lathes

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Swing Over Bed</th>
<th>Between Centers</th>
<th>Bed Length</th>
<th>Net Weight</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6582</td>
<td>17&quot;</td>
<td>75&quot;</td>
<td>120&quot;</td>
<td>4020 lb.</td>
<td>5160 lb.</td>
</tr>
<tr>
<td>6542</td>
<td>17&quot;</td>
<td>75&quot;</td>
<td>120&quot;</td>
<td>4020 lb.</td>
<td>5160 lb.</td>
</tr>
<tr>
<td>6594</td>
<td>17&quot;</td>
<td>54&quot;</td>
<td>96&quot;</td>
<td>3720 lb.</td>
<td>4620 lb.</td>
</tr>
<tr>
<td>6583</td>
<td>17&quot;</td>
<td>75&quot;</td>
<td>120&quot;</td>
<td>4020 lb.</td>
<td>5160 lb.</td>
</tr>
<tr>
<td>6554</td>
<td>17&quot;</td>
<td>54&quot;</td>
<td>96&quot;</td>
<td>3720 lb.</td>
<td>4620 lb.</td>
</tr>
<tr>
<td>6543</td>
<td>17&quot;</td>
<td>75&quot;</td>
<td>120&quot;</td>
<td>4020 lb.</td>
<td>5160 lb.</td>
</tr>
</tbody>
</table>

**STRAIGHT BED LATHES**

**ONE SPEED MOTOR**

**TWO SPEED MOTOR**

**GAP BED LATHES**

**ONE SPEED MOTOR**

**TWO SPEED MOTOR**

**EQUIPMENT FURNISHED**

Cast-iron mounting bases with chip and coolant tray.

One-speed or two-speed motor.

Electric panel with master control switch for magnetic starter—all electrical controls are of American manufacture.

Air-break type on-off switch.

16" face plate, 10" driving plate.

Two No. 4 MT centers, reducing sleeve.

Thread dial indicator.

Follower rest, tool post. Change gear.

Wrenches.

Instruction and Parts List manual.

Design and specifications are subject to change without notice. Weights shown are approximate.
Spindle bearing outside diameters
  Front .................................. 7 1/2"
  Rear ................................... 6"

BED
Ways ..................................... 2 V, 2 Flat
Length .................................... 96" or 120"
Width ..................................... 12 7/8"
Depth at ends ............................. 18"
Depth at center ........................... 11 3/4"

TAILSTOCK
Spindle, dia. ............................... 2"
Center ..................................... No. 4 MT
Spindle travel ............................. 6 3/4"
Spindle graduated ...................... .0" to 6" by 1/8"

CARRIAGE AND COMPOUND
Carriage length ........................... 20"
Width of carriage bridge .............. 8 3/8"
Width of cross slide ..................... 6 3/4"
Width of compound rest ............... 5 1/2"
Cross slide travel ....................... 10 1/2"
Compound rest travel ................... 6"
Tool post, slot ........................... for 3/4" square tools

SPINDLE SPEEDS
Spindle speeds, with 1 speed motor ...... 8
Speed range, with 1 speed motor, RPM 37, 56, 87, 125,
                                  180, 270, 415, 600
Spindle speeds, with 2 speed motor ...... 16
Speed range, with 2 speed motor, RPM 28, 42, 55, 65,
                                  84, 94, 130, 135, 187, 202, 270, 311, 405, 450, 622, 900

MOTORS
One speed .............................. 5 HP, 1720 RPM, 3 ph, 220-440 V, 60 C
Two speed .............................. 4-5 HP, 900-1800 RPM, 3 ph,
                                  220 or 440 V, 60 C
Specify voltage when ordering.

Number of V-belts ......................... 5

THREADS AND FEEDS
Lead screw, dia. .......................... 1 1/4"
  threads per inch, Acme .................. 4
Feed rod, dia. ............................ 1 1/4"
Number of threads ....................... 45
Range ....................................
  4, 4 1/2, 4 3/4, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9,
  9 1/2, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 19,
  20, 22, 25, 26, 28, 32, 36, 58, 40,
  44, 46, 48, 52, 56, 64, 72, 76, 80, 88,
  92, 96, 104, 112

Number of feeds ......................... 45
Feed range .............................. 0.050" to 0.0018"

NOTE: Threads 4 thru 1 are obtained by using
  change gear furnished.

GAP BED MODELS
Swing in gap ................................ 28"
Length of gap in front of face plate .. 0 1/4"

NOTE: Other specifications similar to straight bed models.

Finish, all models, light machine tool grey.
13" heavy duty
geared head precision lathes

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Swing Over Bed</th>
<th>Between Centers</th>
<th>Bed Length</th>
<th>Net Weight</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6564</td>
<td>13&quot;</td>
<td>24&quot;</td>
<td>52½&quot;</td>
<td>1350 lb.</td>
<td>1860 lb.</td>
</tr>
<tr>
<td>6565</td>
<td>15&quot;</td>
<td>36&quot;</td>
<td>64&quot;</td>
<td>1410 lb.</td>
<td>1920 lb.</td>
</tr>
<tr>
<td>6524</td>
<td>13&quot;</td>
<td>24&quot;</td>
<td>52½&quot;</td>
<td>1350 lb.</td>
<td>1860 lb.</td>
</tr>
<tr>
<td>6525</td>
<td>13&quot;</td>
<td>36&quot;</td>
<td>64&quot;</td>
<td>1410 lb.</td>
<td>1920 lb.</td>
</tr>
</tbody>
</table>

**STRAIGHT BED LATHES**

**ONE SPEED MOTOR**

<table>
<thead>
<tr>
<th>Catalog Number</th>
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<tr>
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<td>13&quot;</td>
<td>24&quot;</td>
<td>52½&quot;</td>
<td>1350 lb.</td>
<td>1860 lb.</td>
</tr>
<tr>
<td>6565</td>
<td>15&quot;</td>
<td>36&quot;</td>
<td>64&quot;</td>
<td>1410 lb.</td>
<td>1920 lb.</td>
</tr>
</tbody>
</table>

**TWO SPEED MOTOR**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Swing Over Bed</th>
<th>Between Centers</th>
<th>Bed Length</th>
<th>Net Weight</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6524</td>
<td>13&quot;</td>
<td>24&quot;</td>
<td>52½&quot;</td>
<td>1350 lb.</td>
<td>1860 lb.</td>
</tr>
<tr>
<td>6525</td>
<td>13&quot;</td>
<td>36&quot;</td>
<td>64&quot;</td>
<td>1410 lb.</td>
<td>1920 lb.</td>
</tr>
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</table>

**GAP BED LATHES**

**ONE SPEED MOTOR**

<table>
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<tr>
<th>Catalog Number</th>
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<th>Between Centers</th>
<th>Bed Length</th>
<th>Net Weight</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6566</td>
<td>13&quot;</td>
<td>24&quot;</td>
<td>52½&quot;</td>
<td>1350 lb.</td>
<td>1860 lb.</td>
</tr>
<tr>
<td>6567</td>
<td>13&quot;</td>
<td>36&quot;</td>
<td>64&quot;</td>
<td>1410 lb.</td>
<td>1920 lb.</td>
</tr>
</tbody>
</table>

**TWO SPEED MOTOR**

<table>
<thead>
<tr>
<th>Catalog Number</th>
<th>Swing Over Bed</th>
<th>Between Centers</th>
<th>Bed Length</th>
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<tbody>
<tr>
<td>6536</td>
<td>13&quot;</td>
<td>24&quot;</td>
<td>52½&quot;</td>
<td>1350 lb.</td>
<td>1860 lb.</td>
</tr>
<tr>
<td>6537</td>
<td>13&quot;</td>
<td>36&quot;</td>
<td>64&quot;</td>
<td>1410 lb.</td>
<td>1920 lb.</td>
</tr>
</tbody>
</table>

**EQUIPMENT FURNISHED**

Cabinet base with built-in chip pan, splash guards and coolant tank.

One-speed or two-speed motor.

Electric panel with master control switch for magnetic starter—all electrical controls are of American manufacture.

Air-break type on-off switch.

12" face plate, 6" driving plate.

Two No. 3 MT centers, reducing sleeve.

Thread dial indicator.

Follower rest, tool post. Change gear.

Wrenches.

Instruction and Parts List Manual.

Design and specifications are subject to change without notice. Weights shown are approximate.
Specifications

Capacities and Clearances

Swing over bed ........................................ 13"  
Swing over cross slide ............................... 8"  
Swing over carriage wings ......................... 12"  
Distance between centers, flush ................. 24" or 36"  
Face plate, dia .................................... 12"  
Driving plate, dia ................................ 6"  
Follower rest, capacity ......................... 2"  
Steady rest, capacity ........................... 4"  

Compound rest travel .............................. 3 3/4"  
Tool post, slot .................................. for 9/16" square tools

Spindle Speeds

Spindle speeds, with 1 speed motor ........ 8  
Speed range, with 1 speed motor, RPM ........ 52, 86, 118,  
192, 272, 445, 610, 1000  
Spindle speeds, with 2 speed motor ........ 16  
Speed range, with 2 speed motor, RPM ........ 39, 65, 78, 88,  
129, 144, 177, 204, 288, 334, 408, 457, 667,  
750, 915, 1500

Headstock

Hole through spindle ....................... 1 9/16"  
Spindle nose, A.S. taper key drive .......... L-0  
Taper in spindle nose bushing ................. No. 3 MT  
Spindle center .................................. No. 3 MT  
Spindle bearings, Gamet Micron Precision tapered roller  
bearing ........................................  
Front .............................................. double row  
Rear ............................................. single row, spring loaded

Spindle bearing outside diameters  
Front .............................................. 4"  
Rear ................................................ 3 9/16"

Motors

One speed .................................. 1 1/2 HP, 1720 RPM, 3 ph, 220-440 V, 60 C  
Two speed .................................. 1 1/2 - 3 HP, 900 - 1800 RPM, 3 ph,  
220 or 440 V, 60 C  
Specify voltage when ordering. ............ 2

Threads and Feeds

Lead screw, dia .................................. 1 1/4"  
threads per inch, Acme ......................... 6  
Feed rod, dia .................................. 3/4"  
Number of threads ........................... 45  
Range .............................................. 4, 4 1/2, 4 3/4, 5, 5 1/2, 5 3/4, 6, 6 1/2, 7, 8, 9,  
9 1/2, 10, 11, 11 1/2, 12, 13, 14, 16, 18, 19,  
20, 22, 23, 24, 26, 28, 32, 36, 38, 40,  
44, 46, 48, 52, 56, 64, 72, 76, 80, 88,  
92, 96, 104, 112

Number of feeds ............................... 45  
Feed range ...................................... 0.006" to 0.0025"

NOTE: Threads 4 thru 7 are obtained by using  
change gears furnished.

Gap Bed Models

Swing in gap ...................................... 18"  
Length of gap in front of face plate .......... 41/2"

NOTE: Other specifications similar to straight bed model.  
Finish, all models, light machine tool grey.
**BURNERD CHUCKS**

Chuck bodies are Meehanite castings for greater strength and long accurate service. Scrolls of universal chucks are heat treated nickel chrome steel, pinsions are case hardened nickel steel. 4-jaw independent chucks have heat treated alloy steel jaw-operating screws. Jaws are case hardened steel - bearing and gripping surfaces are ground. Mount directly on lathe spindle nose - no back plates required. Wrench furnished.

**A 3-JAW UNIVERSAL SCROLL CHUCKS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Dia.</th>
<th>For Spindle</th>
<th>Jaws Furnished</th>
<th>Ship. Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-201</td>
<td>3 1/2&quot;</td>
<td>ASA-L-0</td>
<td>2 sets, solid</td>
<td>43 lb.</td>
</tr>
<tr>
<td>13-311</td>
<td>3 1/2&quot;</td>
<td>ASA-L-0</td>
<td>Master with reversible hard top</td>
<td>43 lb.</td>
</tr>
<tr>
<td>15-401</td>
<td>4&quot;</td>
<td>ASA-L-1</td>
<td>2 sets, solid</td>
<td>68 lb.</td>
</tr>
<tr>
<td>15-411</td>
<td>4&quot;</td>
<td>ASA-L-1</td>
<td>Master with reversible hard top</td>
<td>68 lb.</td>
</tr>
<tr>
<td>17-501</td>
<td>12&quot;</td>
<td>ASA-L-2</td>
<td>2 sets, solid</td>
<td>155 lb.</td>
</tr>
<tr>
<td>17-517</td>
<td>12&quot;</td>
<td>ASA-L-2</td>
<td>Master with reversible hard top</td>
<td>155 lb.</td>
</tr>
</tbody>
</table>

Chucks furnished with two sets of jaws have one inside set, one outside set. Those furnished with master jaws have one set of reversible hard tops. Soft blank jaws, and master jaws with soft tops are also available — data on request.

**B 4-JAW INDEPENDENT CHUCKS**

<table>
<thead>
<tr>
<th>No.</th>
<th>Dia.</th>
<th>For Spindle</th>
<th>For Lathe</th>
<th>Ship. Wt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-202</td>
<td>10&quot;</td>
<td>ASA-L-0</td>
<td>14&quot;</td>
<td>77 1/2 lb.</td>
</tr>
<tr>
<td>13-402</td>
<td>10&quot;</td>
<td>ASA-L-1</td>
<td>12&quot;</td>
<td>111 1/2 lb.</td>
</tr>
<tr>
<td>17-502</td>
<td>16&quot;</td>
<td>ASA-L-2</td>
<td>17&quot;</td>
<td>187 lb.</td>
</tr>
</tbody>
</table>

**CHUCK BACK PLATES**

Meehanite castings with hole finish-bored for tapped spindle nose.

**C SPINDLE NOSE COLLET CHUCK**

Trugrip precision spindle nose collet chucks save time and improve work accuracy. Collet is operated by simply turning a key — no need to hold or lock lathe spindle, no draw tube handwheel to tighten. Provides a rigid uniform grip on work that eliminates risk of distortion. Accuracy is guaranteed to .001" one inch from collet face. Collets are listed below.

**No. 13-206** COLLET CHUCK for ASA-L-0 spindle nose. Less collet. Capacity, 1/16" to 1" dia. No. 13-207 Round Collets for above — specify diameter. 10 lb.


**D JACOBS COLLET CHUCK**

Equips Clausing-Colchester 13" and 14" lathes for fast, accurate chucking of round work fed through the spindle. Mounts directly on spindle — compact design permits chucking work close to spindle nose.

9" dia. handwheel is solid aluminum — turns with a flick of the wrist. Impact tightening assures firm, even grip. Forged alloy steel body is hardened and ground. All other parts of body are hardened and ground alloy steel. Collets, extra, are positive gripping "rubber-flex".

**No. 01-T0 JACOBS COLLET CHUCK for ASA-L-0 spindle of 13" lathe. 16 lb.**

**No. 91-T1 JACOBS COLLET CHUCK for ASA-L-1 spindle of 15" lathe. 16 lb.**

**JACOBS ROUND COLLETS**

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7550</td>
<td>1/8&quot; - 1/2&quot;</td>
<td>1</td>
<td>7560</td>
<td>5/8&quot; - 1&quot;</td>
<td>1</td>
</tr>
<tr>
<td>7554</td>
<td>1/4&quot; - 1/2&quot;</td>
<td>1</td>
<td>7564</td>
<td>1/2&quot; - 1/2&quot;</td>
<td>1</td>
</tr>
<tr>
<td>7555</td>
<td>3/8&quot; - 3/8&quot;</td>
<td>1</td>
<td>7565</td>
<td>1/4&quot; - 5/8&quot;</td>
<td>1</td>
</tr>
<tr>
<td>7556</td>
<td>1/2&quot; - 1/2&quot;</td>
<td>1</td>
<td>7566</td>
<td>1/2&quot; - 1/2&quot;</td>
<td>1</td>
</tr>
<tr>
<td>7557</td>
<td>3/8&quot; - 5/8&quot;</td>
<td>1</td>
<td>7567</td>
<td>1/4&quot; - 1/2&quot;</td>
<td>1</td>
</tr>
</tbody>
</table>

**No. 7593 JACOBS HEXAGON COLLETS for Nos. 91-T0 and 91-T1 chucks available in 16ths between 1/4" and 1". Specify diameter.**

**No. 7594 JACOBS SQUARE COLLETS for Nos. 91-T0 and 91-T1 chucks available in 16ths between 1/4" and 1". Specify diameter.**

**FACE PLATES for GAP BED LATHES**

Finish machined, ready to mount on lathe spindle nose.

**No. 13-203 18" FACE PLATE for ASA-L-0 spindle nose. 65 lb.**

**No. 15-403 21" FACE PLATE for ASA-L-1 spindle nose. 105 lb.**

**No. 17-503 27" FACE PLATE for ASA-L-2 spindle nose. 180 lb.**

**E PLAIN TAPER ATTACHMENTS**

Taper attachments for 13" and 17" lathes cut external or internal tapers up to 12" long at one setting — 13" lathe, 10" at one setting. Simply reset along bed for longer work. Two sets of graduations show degrees of taper and inches per foot. Range, 9° both sides of center line.

**No. 13-209 TAPER ATTACHMENT for Clausing-Colchester 13" lathes. 45 lb.**

**No. 15-409 TAPER ATTACHMENT for Clausing-Colchester 17" lathes. 65 lb.**

**No. 17-519 TAPER ATTACHMENT for Clausing-Colchester 17" lathes. 96 lb.**
F STEADY REST
No. 13-210 STEADY REST for 13" lathes. 4" dia. maximum bar capacity. 24 lb.
No. 15-410 STEADY REST for 15" lathes. 5" dia. maximum bar capacity. 40 lb.
No. 17-511 STEADY REST for 17" lathes. 6" dia. maximum bar capacity. 60 lb.

G GAMET ROTATING CENTERS
Gamet rotating centers are ideal for high speeds and heavy roughing cuts. Point rotates on tapered roller bearings. Bearings are grease packed, pre-loaded, and sealed. 60° replaceable points.
No. 13-215 GAMET ROTATING CENTER with No. 3 MT shank for 13" lathes. 2 lb.
No. 15-421 GAMET ROTATING CENTER with No. 3 MT shank for 15" lathes. 2 lb.
No. 17-516 GAMET ROTATING CENTER with No. 4 MT shank for 17" lathes. 3 lb.

H ENCO Self-Indexing HEX BED TURRETS

<table>
<thead>
<tr>
<th>Model No.</th>
<th>For Lathe</th>
<th>Hex. Head Dims.</th>
<th>Finish Bore</th>
<th>Slide Length</th>
<th>Slide Total Travel</th>
<th>Slide Working Travel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Across Flats</td>
<td>Face Dims.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13-651</td>
<td>13&quot;</td>
<td>5/8&quot;</td>
<td>2 1/8 x 4 1/8&quot;</td>
<td>1 1/4&quot;</td>
<td>16 1/4&quot;</td>
<td>2 1/4&quot;</td>
</tr>
<tr>
<td>15-429</td>
<td>15&quot;</td>
<td>5/8&quot;</td>
<td>2 1/8 x 4 1/8&quot;</td>
<td>1 1/4&quot;</td>
<td>16 1/4&quot;</td>
<td>2 1/4&quot;</td>
</tr>
<tr>
<td>17-450</td>
<td>17&quot;</td>
<td>7/8&quot;</td>
<td>3 1/8 x 4 1/8&quot;</td>
<td>1 1/4&quot;</td>
<td>16 1/2&quot;</td>
<td>2 1/2&quot;</td>
</tr>
</tbody>
</table>

Turret must be fitted to lathe bed, and holes for tool holders must be bored and reamed on lathe with which turret is to be used.

I ENCO TURRET TOOL POST
Mounts in tool post slot. Each tool has 3 working positions.

<table>
<thead>
<tr>
<th>Order No.</th>
<th>For Lathe</th>
<th>Tool Size Range</th>
<th>Tool Block Specifications</th>
<th>Shipping Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>13-412-5</td>
<td>13&quot;</td>
<td>3/4&quot;</td>
<td>4 TOOL—12 POSITION 4 1/4 sq x 2 1/4&quot; thick</td>
<td>15 lb.</td>
</tr>
<tr>
<td>15-441-8</td>
<td>15&quot;</td>
<td>1&quot; or 3/8&quot; HSS tool holder</td>
<td>4 TOOL—12 POSITION 4 1/4 sq x 2 1/4&quot; thick</td>
<td>17 lb.</td>
</tr>
<tr>
<td>17-6-5</td>
<td>17&quot;</td>
<td>11/16&quot; or 3/8&quot; HSS tool holder</td>
<td>4 TOOL—12 POSITION 6 1/2 sq x 3 1/4&quot; thick</td>
<td>35 lb.</td>
</tr>
</tbody>
</table>

J MICRO CARRIAGE STOPS
Clamps on front bed way. Micrometer control graduated in .001 inch hardened stop locks securely in any position. Will not automatically stop carriage.
No. 13-2000 MICRO CARRIAGE STOP for Clausing 13" lathes. 3 lb.
No. 15-4000 MICRO CARRIAGE STOP for Clausing 15" lathes. 3 lb.
No. 17-5000 MICRO CARRIAGE STOP for Clausing 17" lathes. 3 1/2 lb.

K COOLANT SYSTEMS
Unit consists of motor, circulating pump, switch, connections. Piping supplied is universal, with telescopic piping for feeding coolant in any position. Paired ball type shut-off valve permits easy control of coolant flow. Pump capacity is 5 1/2 gallons per minute. Tank capacity, 5 gallons.
Pump for 13" and 15" lathes mounts in built-in tank in lathe base both are readily accessible through door in front of lathe. Pump and tank for 17" lathe mount on floor beneath chip pan. Switch mounts in electric control panel. System is installed and wired at factory when ordered with 13" and 15" lathes.
No. 13-208 COOLANT SYSTEM for 13" lathes.
No. 15-408 COOLANT SYSTEM for 15" lathes.
No. 17-508 COOLANT SYSTEM for 17" lathes.

REVERSING SWITCH
Switch is furnished with linkage that mounts inside switch control lever shaft. Installed and wired when ordered with lathe. Brake must be used to stop spindle before motor is reversed.
No. 13-212 REVERSING SWITCH for 13" lathe.
No. 15-412 REVERSING SWITCH for 15" lathe.
No. 17-510 REVERSING SWITCH for 17" lathe.
13" LATHES

15" LATHES

17" LATHES

Holes for 3/4" bolts
Bolt hole centers are approximate only

www.OzarkToolManuals.com
Built to American standards of toolroom lathe accuracy

Each Clausing-Colchester lathe must pass tolerance tests such as those shown below. Inspection after inspection, and test after test — at every stage of manufacture and assembly — assure that every lathe measures up to rigid specifications of construction and performance.

The Clausing-Colchester name plate is a symbol of quality, precision and value.

<table>
<thead>
<tr>
<th>TEST</th>
<th>PERMISSIBLE ERROR</th>
<th>ACTUAL ERROR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Bed Level — Transverse Direction</td>
<td>When using Precision Level all Readings to be within 0.0006 in 12 in. of Bed Length</td>
</tr>
<tr>
<td>2</td>
<td>Bed Level — Longitudinal Direction</td>
<td>When using Precision Level along Bed Maximum Reading to be within 0.0005 in 11 in. of Bed Length</td>
</tr>
<tr>
<td>3</td>
<td>Tailstock Way Alignment</td>
<td>Maximum Reading along length of Bed 0.0005 in 48 in.</td>
</tr>
<tr>
<td>4</td>
<td>Spindle Center Runout</td>
<td>Total Indicator Reading 0 to 0.0004</td>
</tr>
<tr>
<td>5</td>
<td>Spindle Nose Runout</td>
<td>Total Indicator Reading 0 to 0.0003</td>
</tr>
<tr>
<td>6</td>
<td>Cam Action of Spindle</td>
<td>Total Indicator Reading with Indicator on rear side of Test Plate 0 to 0.0003</td>
</tr>
<tr>
<td>7</td>
<td>Spindle Taper Runout</td>
<td>Total Indicator Reading at end of 12 in. Test Bar 0 to 0.0005 at end of Spindle Nose 0 to 0.0003</td>
</tr>
<tr>
<td>8</td>
<td>Headstock Alignment — Vertical</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Headstock Alignment — Horizontal</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Tailstock Spindle Alignment — Horizontal</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Tailstock Spindle Alignment — Vertical</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Tailstock Taper Alignment — Horizontal</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Tailstock Taper Alignment — Vertical</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Vertical Alignment of Head and Tail Centers</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Lead Screw Cam Action</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Lead Screw Lead per Ft</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Lead Screw Lead Per Ft</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Lead Screw Lead Per Ft</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Lead Screw Lead Per Ft</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Lead Screw Lead Per Ft</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Back Lash on Cross Feeds Screw</td>
<td></td>
</tr>
</tbody>
</table>

On Compound Rest Screw 0.004
Clausing-Colchester lathes are produced in England by Europe's largest manufacturer of precision lathes — recognized as the leader in its field for more than fifty years.

They are built to American standards of tool room lathe accuracy. All parts are completely interchangeable and replacement parts are readily available. Screws and bolts used in assembly have threads and heads that are standard in the United States.

Clausing-Colchester lathes are backed by the coast-to-coast sales, service and dealer organization of one of America's leading machine tool manufacturers — Clausing.

Clausing-Colchester lathes are guaranteed to equal or exceed the standards of accuracy as represented.

They are guaranteed against defects in material and workmanship for a period of one year, subject to standard warranty procedure. Design and construction are subject to modification and improvement without notice.