

Catalog No. UHS-10

OPERATOR'S MANUAL

**Tables of Leads
and Indexing Divisions**

for



MILLING MACHINES

equipped with

**Model H Universal Spiral Dividing Head
and Conventional or Low Lead Attachments**

(U. S. Standard Lead Screw)

One copy of this manual is furnished with each new machine. Additional copies may be obtained by writing direct to Kearney & Trecker Corporation.

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**Kearney & Trecker
Corporation**

**Milwaukee 14, Wisconsin
U. S. A.**

F O R E W O R D

This manual contains operating instructions for the Model H Universal Spiral Dividing Head and the Conventional and Low Lead Attachments. It also includes tables of leads and indexing divisions for use with these attachments on milling machines equipped with U. S. Standard lead screws.

NOTE

THIS IS AN OPERATOR'S MANUAL ONLY. For replacement parts, refer to the Replacement Parts catalogs for the machines listed below:

- 3 hp No. 2 Model E Catalog ER-10
- 3 hp No. 1 Model H
- 3 hp No. 2 Model HL Catalog HR-21
- 5 hp No. 2 Model H Catalog HR-23
- 3 hp 18" and 24" Model AC
- 3 hp No. 1 Model CH
- 3 hp No. 2 Model CHL Catalog CHR-31
- 5 hp No. 2 Model CH Catalog CHR-33

IMPORTANT
*Read before
Studying Manual*



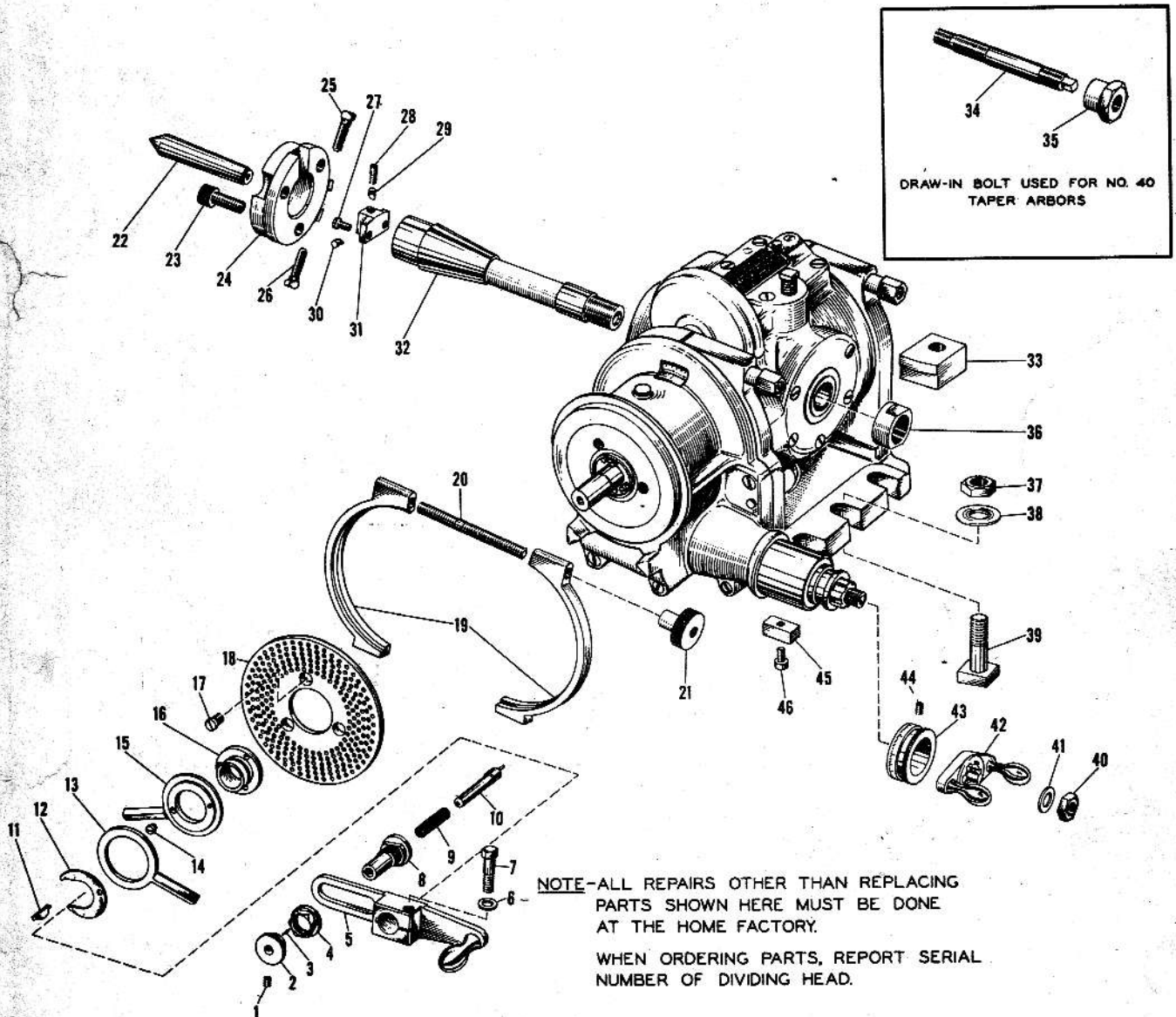
Figures 1 through 4 identify the units with which the operator should be familiar. Refer to these illustrations when studying the manual.

All references to the attachment, such as right and left, front and rear, etc., are made from the operator's normal position while facing the attachment.

In the purchase of these attachments you possess a guarantee of precision-built equipment—designed and manufactured so as to assure the greatest measure of long-life performance. The Kearney & Trecker policy of insisting on sound engineering principles and superior standards of workmanship—in practice now for more than fifty years—backs up each attachment and insures you of its high quality.

It is our intention to continually improve the service you receive from Kearney & Trecker—Milwaukee milling machine attachments and to make their operation as simple as possible. In accordance with this policy, we invite you to bring any questions and problems to the attention of the Service Department, Kearney & Trecker Corporation, Milwaukee 14, Wis. For service by telephone, call Greenfield 6-8300.

REPLACEMENT PARTS FOR MODEL H UNIVERSAL SPIRAL DIVIDING HEAD



PARTS LIST FOR

MODEL H UNIVERSAL SPIRAL DIVIDING HEAD

Item	Part Name and Description	Code No.	Qty.
1	Cup pt sock set screw.	2CH-X1	1
	1/4-28 x 1/4"	2CH-X1	1
2	Plunger knob	2CH-X2	1
3	Drill rod. # 43 x 7/8"	2CH-X3	1
4	Clamp nut. 3/4-16	2CH-X4	1
5	Index crank	2CH-X5	1
6	Washer, 3/8"	2CH-X6	1
7	Hex hd cap screw 3/8-16 x 1-5/16	2CH-X7	1
8	Plunger sleeve	2CH-X8	1
9	Spring	2CH-X9	1
10	Plunger for standard index plates	2CH-X10	1
	Plunger for high number index plates	2CH-X11	1
11	Hi-Pro key. # HP-706	2CH-X12	1
12	Spring	2CH-X13	1
13	Index finger	2CH-X14	1
14	Fil hd screw. 10-32 x 5/32"	2CH-X15	1
15	Index finger	2CH-X16	1
16	Index sleeve	2CH-X17	1
17	Fil hd screw. 5/16-18 x 9/16"	2CH-X18	1
18	Index plates		
	STANDARD INDEX PLATES		
	Index plate. 37-39-41-43-47-49	2CH-X19	1
	Index plate. 21-23-27-29-31-33	2CH-X20	1
	Index plate. 15-16-17-18-19-20	2CH-X21	1
	HIGH NUMBER INDEX PLATES		
	Index plate. 57-67-77-87-97	2CH-X22	1
	Index plate. 53-63-73-83-93	2CH-X23	1
	Index plate. 51-61-71-81-91-101	2CH-X24	1
	Index plate. 48-59-69-79-89-99	2CH-X25	1
	Index plate clamp ring	2CH-X26	1
19	Stud	2CH-X27	1
20	Knurled nut	2CH-X28	1
21	Center	2CH-X29	1
22	Sock hd cap screw. 1/2 x 1"	2CH-X30	3
23	Dog driver	2CH-X31	1
24	sq hd set screw. 3/8-16 x 1"	2CH-X32	2
25	Sq hd set screw. 3/8-16 x 1-1/8"	2CH-X33	1
26	Fil hd screw. 1/4-20 x 1/2"	2CH-X34	2
27	Spindle drive key screw	2CH-X35	1
28	Expansion key wedge	2CH-X36	1
29	Expansion key plug	2CH-X37	1
30	Spindle drive expansion key	2CH-X38	1
31	Centering plug	2CH-X39	1
32	Clamp block	2CH-X40	1
33	Draw-in bolt	2CH-X41	1
34	Draw-in bolt nut	2CH-X42	1
35	Nut	2CH-X43	1
36	Hex nut. 5/8-11	2CH-X44	4
37	Washer, 5/8"	2CH-X45	4
38	T-Bolt	2CH-X46	4
39	Hex nut. 1/2-13	2CH-X47	1
40	Washer, 1/2"	2CH-X48	1
41	Crank	2CH-X49	1
42	Graduated collar	2CH-X50	1
43	Sock set screw. 5/16 x 3/8"	2CH-X51	1
44	Vise tongue	2CH-X52	2
45	Fil hd screw. 5/16-18 x 9/16"	2CH-X53	2
46			

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 MILWAUKEE 14, WISCONSIN, U.S.A.
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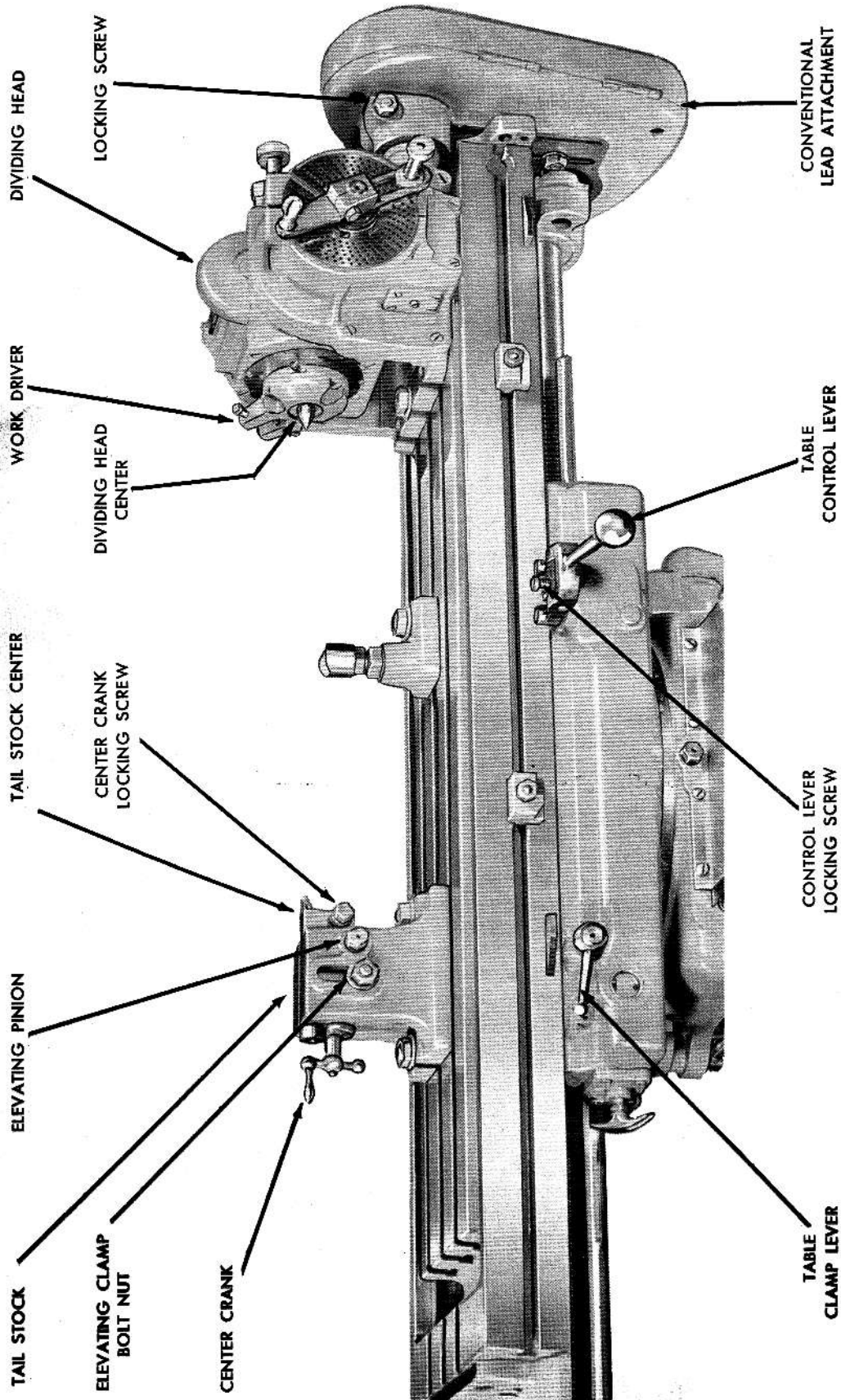


Fig. 1. Model H Universal Spiral Dividing Head and Conventional Lead Attachment.

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Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

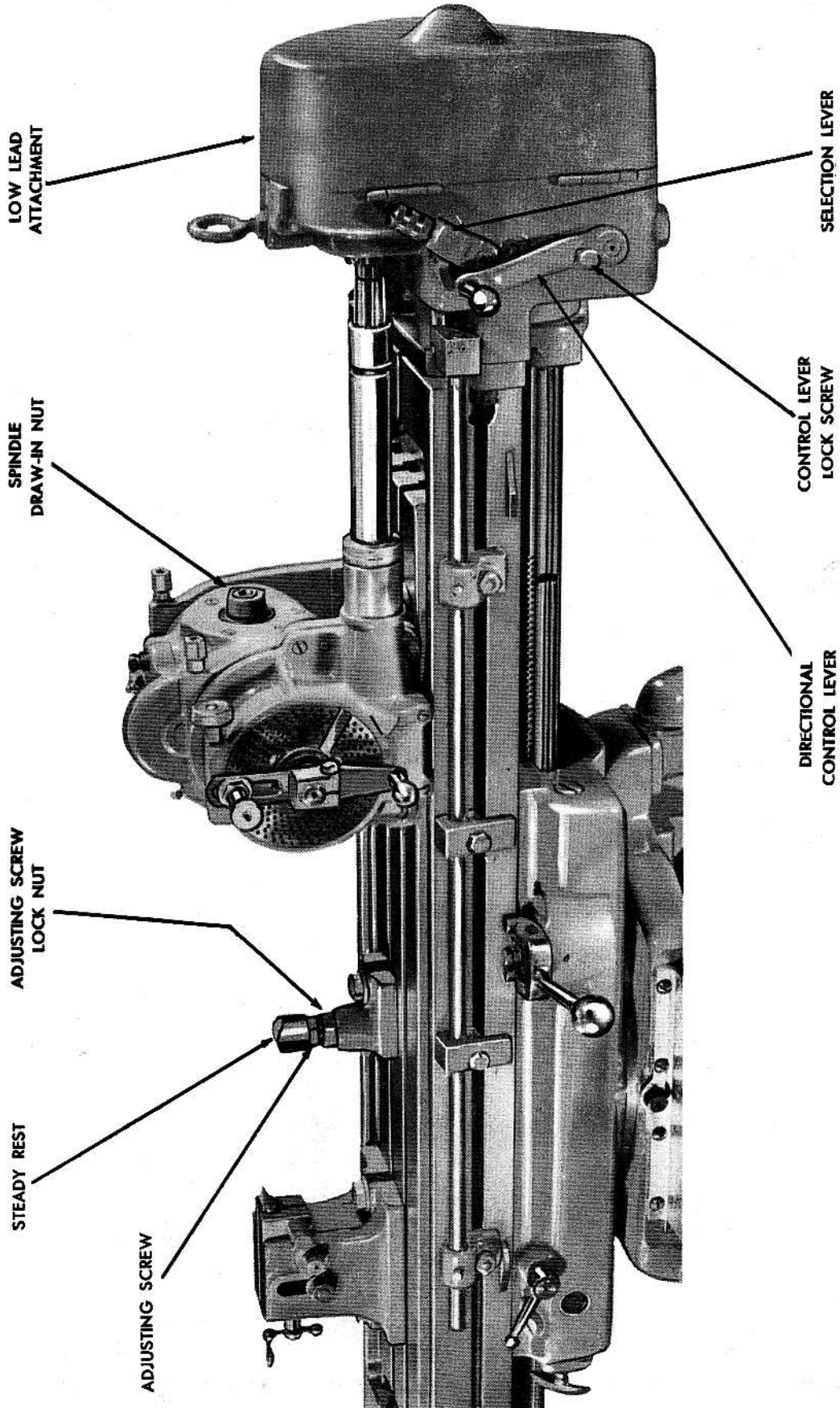


Fig. 2. Model H Universal Spiral Dividing Head and Low Lead Attachment.

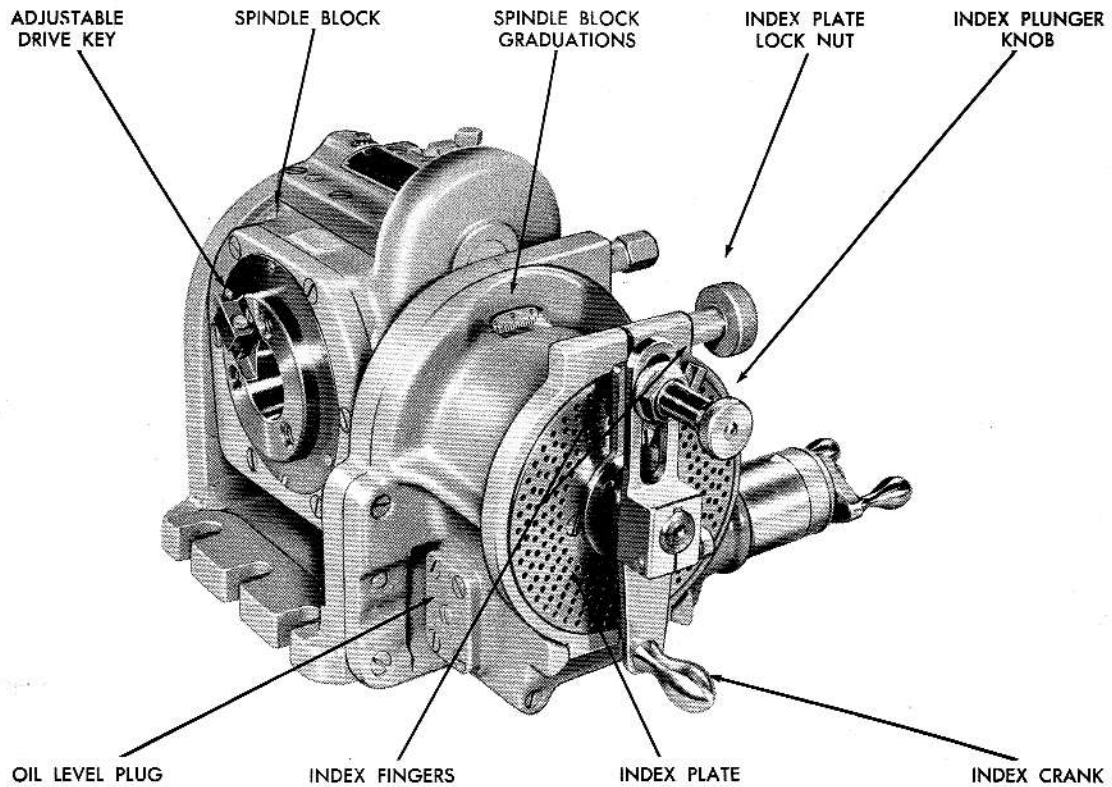


Fig. 3. Model H Universal Spiral Dividing Head—Left Front.

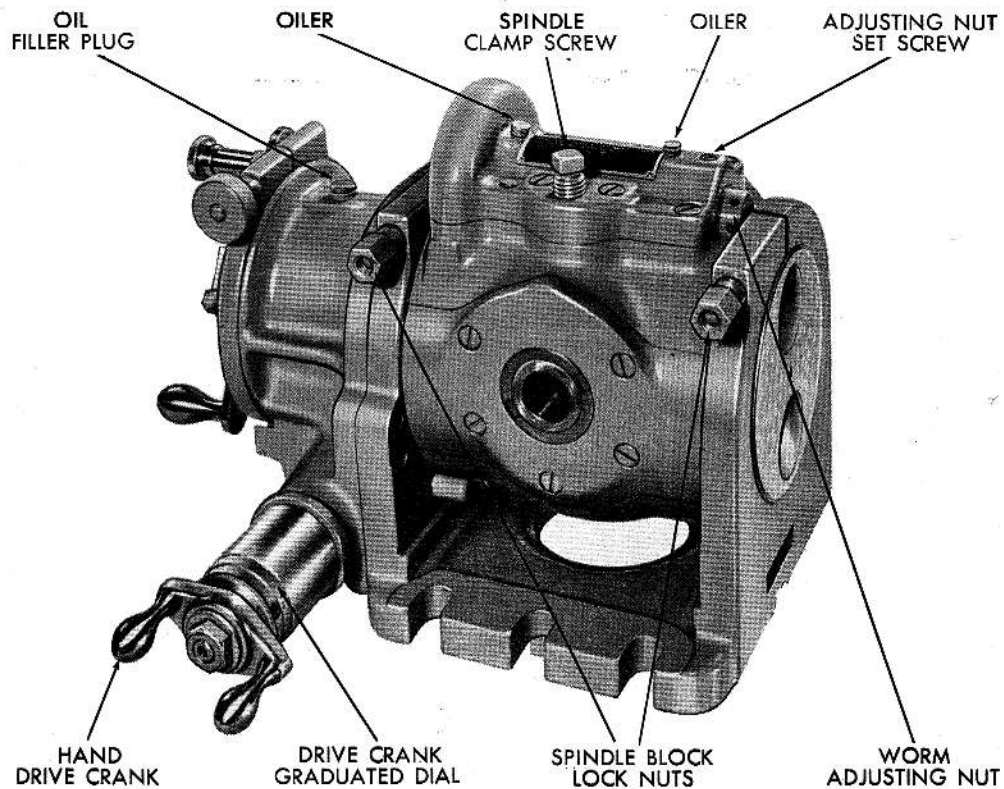


Fig. 4. Model H Universal Spiral Dividing Head—Right Rear.

SECTION I

INTRODUCTION

A dividing head is essentially a device for dividing a circle into any number of equal parts. This operation is commonly referred to as indexing. The dividing head is also used as an attachment to rotate the work piece at a certain rate in relation to the travel of the milling machine table. This operation is commonly called spiral milling. Indexing operations are performed by hand as explained in Section II. Spiral milling operations are accomplished by means of a lead attachment as explained in Sections III and IV.

The function of the lead attachment is to coordinate the rotation of the dividing head spindle with the travel of the milling machine table. The relationship between these two motions is termed "lead" and is defined as the distance traveled by the table while the dividing head spindle makes one revolution.

The gearing in a Model H Dividing Head consists of a pair of right angle spiral gears which drive the spindle through the index plate, index plunger, a pair of spur gears and a worm and wormwheel. The ratios of spiral gears and spur gears is 1:1 and the ratio of the worm to wormwheel is 40:1. Therefore, the ratio between the drive shaft and spindle is 40:1 which is the same ratio as the index crank to the spindle. Stated in other words, in order to rotate the dividing head spindle one revolution, the drive shaft must be rotated 40 revolutions.

The lead of the table drive screw is .250 inch; that is, when the screw makes one revolution, the table advances .250 inch. If the drive screw were connected to the drive worm of the dividing head spindle through a gear ratio of 1:1, the dividing head spindle would rotate once for each 40 rotations of the table drive screw. The milling machine table at the same time would advance $40 \times .250$ inch or 10 inches. This is the basis for the expression "the common lead of a milling machine is 10 inches". These relationships are shown in Figure 5.

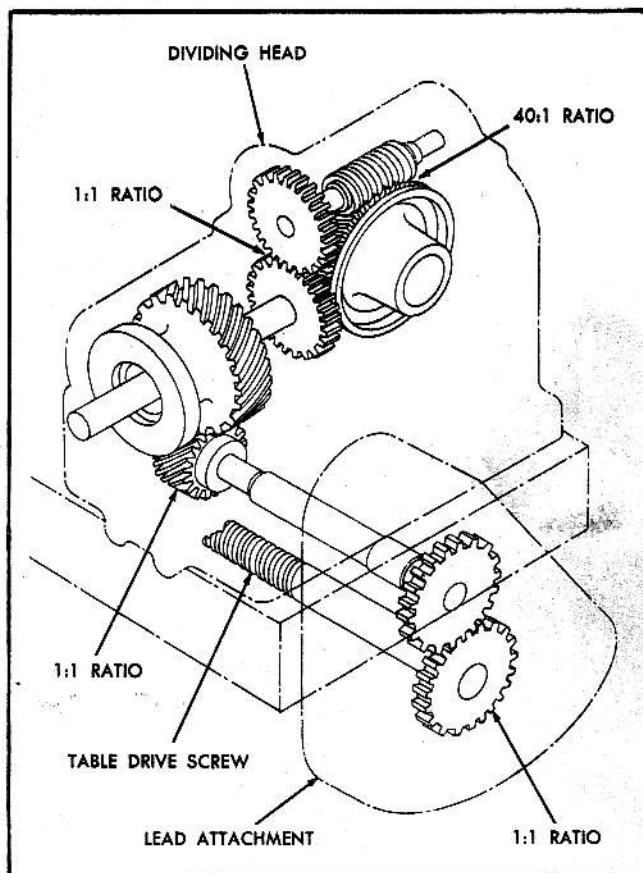


Fig. 5. Schematic Drawing of Dividing Head Gearing Arrangement.

It can be seen that a variety of leads are obtainable by changing the gear ratio in the lead attachment.

SECTION II

MODEL H UNIVERSAL SPIRAL DIVIDING HEAD

Used in conjunction with the Model H Dividing Head are the index plate, adjustable tail stock, steady

rest, head center, work driver and a conventional or low lead attachment.

SPINDLE

The dividing head is mounted on the milling machine table and secured with T-bolts. The dividing head center is mounted in a centering plug which fits into the spindle. The centering plug is secured in the spindle by means of the nut. The spindle is mounted in preloaded precision ball bearings and is provided with a clamp which is controlled by the setscrew. The spindle should be clamped for all operations except when spiral milling and indexing.

An adjustable expanding key provides for elimination of all free play between the driving key and the flanges of the arbors, chucks or work driver. The adjustment is made by means of a square head screw which controls the position of a hardened button in the key.

The entire spindle block can be swiveled in a vertical plane through 110 degrees, from 10 degrees below horizontal to 10 degrees past vertical. Graduations in the spindle block, observed through the opening in the housing just behind the index plate, indicate the position of the spindle. However, a bar and indicator should be used to check the angle when accurate positioning of the spindle is required. The spindle block is clamped in position by means of the two locknuts.

INDEX CRANK AND PLUNGER

The index crank is keyed to the shaft of the spur gear and is secured with a clamp bolt and nut in the hub of the index crank. The plunger on the knob is hardened and ground to fit the holes of the index plate accurately and is spring loaded to insure that it remains in an index plate hole. The plunger will remain withdrawn if it is rotated slightly after being withdrawn. A slot in the index crank permits the plunger to be located for any desired circle of holes in the index plate. If the workpiece has been accurately positioned and the plunger cannot be inserted in a hole, loosen the index plate lock nut and turn the drive shaft until the plunger can be inserted in the nearest hole. Tighten index plate lock nuts.

The index crank drives the spindle through the 1:1 ratio spur gears and the 40:1 ratio worm and worm-wheel. Each turn of the crank rotates the spindle $1/40 \times 360$ degrees or 9 degrees. Therefore, 40 turns of the crank will rotate the spindle 360 degrees or one complete revolution. The two index fingers can be rotated on the face of the index plate and adjusted to the number of holes required for each division.

HAND DRIVE

When it is necessary to circular-mill only a short distance a manually operated double-handle crank can be installed on the end of the worm shaft. Since the ratio between this shaft and the spindle is 40:1, one turn of the crank will rotate the spindle 9 degrees. Forty turns of the crank will rotate the spindle one

complete revolution. A dial, graduated in degrees and five minute increments, is used to measure the movement of the spindle.

TAIL STOCK

The tail stock is used to support the workpiece and align it parallel with the dividing head spindle. The tail stock center is dovetailed to the tail stock block and can be moved horizontally by loosening the center locking screw and turning the center crank. The center can be swiveled 20 degrees downward from the horizontal by loosening the elevating clamp bolt nut and swiveling the working end of the center to the desired angle as indicated on the graduated dial in the rear vertical surface of the tail stock. The center can be adjusted vertically by loosening the elevating clamp bolt nut and turning the elevating pinion to raise or lower the center.

CAUTION: Never attempt to raise or lower the center with the elevating pinion without first loosening the elevating clamp bolt nut.

NOTE: Be sure to tighten the locking nut and screw before milling to maintain the setting.

STEADY REST

It is recommended that the steady rest be used to give additional support when milling long and slender workpieces. The steady rest is adjusted vertically by loosening the locking nut and turning the adjusting screw in or out of the base.

RIGHT ANGLE DRIVE BRACKET

The right angle drive bracket is used in such operations as milling face circles, scrolls, cams, etc., when the dividing head must be mounted so that its spindle is at right angles to the long dimension of the milling machine table. This bracket has a 1:1 gear ratio and is mounted on the drive shaft end of the spiral gear housing.

INDEX PLATES

The index plates provide for plain indexing which reduces the possibility of error and eliminates the former methods of old style differential indexing. The holes in each index plate are drilled and finish bored to a tolerance of plus or minus .0001 inch between adjacent holes. The number of holes in each circle is indicated on the circle. When mounting a plate on the dividing head, draw the screws up evenly before tightening them. The index plate is clamped by means of the index plate clamp nut. The plate must be clamped when indexing and released when spiral milling.

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

There are three standard and four high number (optional) index plates. The number of holes in each circle of holes in each of the seven index plates is listed in the following table.

Plate No.	No. of Index Holes Per Circle (Largest Number at Outside Diameter of Circle)					
1	49	47	43	41	39	37
2	33	31	29	27	23	21
3	20	19	18	17	16	15
4	97	87	77	67	57	
5	93	83	73	63	53	
6	101	91	81	71	61	51
7	99	89	79	69	59	48

To determine the number of holes to be taken for a given indexing, use the formula $n = \frac{40H}{N}$

Where n = the number of holes to be taken

H = number of holes in index plate circle

N = number of divisions required

The set of seven plates can be used for all divisions of a circle from 2 to 100, all even numbers to 200, and all numbers divisible by 5 up to 520 except 125, 175, 225, 250, 275, 325, 350, 375, 425, 450, 475, 500 and 515. The index plate, the particular circle of holes and the number of holes to index for each of these divisions is listed in Table 1 at the rear of this manual.

LUBRICATION

Two oil reservoirs supply oil to the spindle, worm and worm wheel and spur gears, and to the spiral gears and drive shaft bearings. The reservoir in the front or spiral gear housing is filled through the oil filler plug opening at the top of the housing, behind the index

plate. The oil level is maintained even with the screw plug opening in the center of the spiral drive shaft cover at the left end of the drive shaft. Keep filled with a good grade of rust-inhibiting oil (Standard Oil Company Stan-O-Rust No. 95 or equivalent). The spindle block reservoir is filled at the factory with the same type of oil used in the spiral gear housing. Proper oil level is maintained by applying a few drops of oil to the worm shaft bearings each day dividing head is in use. Two oilers are provided at the top of the spindle block worm bearing cap.

MAINTENANCE AND ADJUSTMENTS

The only maintenance required of the Model H Dividing Head is that of keeping it clean, and lubricated in accordance with information set forth in paragraph "Lubrication."

Elimination of excessive backlash between the worm and wormwheel is the only adjustment required. Excessive backlash is eliminated as follows:

1. Tighten spindle lock screw.
2. Loosen worm adjusting nut setscrew.
3. Turn worm adjusting nut clockwise until only a very small amount of backlash or free play exists at index crank. CAUTION: Do not eliminate backlash entirely as worm and wormwheel will bind causing difficulty in turning index crank.
4. Loosen spindle lock screw.
5. Rotate index crank clockwise, at same time tightening or loosening worm adjusting nut to create a slight drag when index crank is rotated.
6. Tighten spindle lock screw and recheck free play at index crank. If any excessive backlash still exists, repeat operations 3 through 5, creating more drag on index crank but not so much that rotation of crank is difficult.
7. Tighten worm adjusting nut setscrew when correct adjustment has been obtained.

SECTION III

CONVENTIONAL LEAD ATTACHMENT

The Conventional Lead Attachment is supplied with 13 change gears for cutting more than 1,300 leads ranging from .670 inches to 149 inches. The gears are driven directly by the table drive screw. To mount the attachment, proceed as follows:

1. Remove the bracket cover at the right end of the table and the nut and washer on the table screw.

2. Remove the hex head plug screw near the center and top of the table bracket.

3. Screw the bracket stud (see Figure 6) supplied with the lead attachment into the hole in the table bracket.

4. Mount the lead attachment so that the worm housing of the dividing head fits into the boss on the

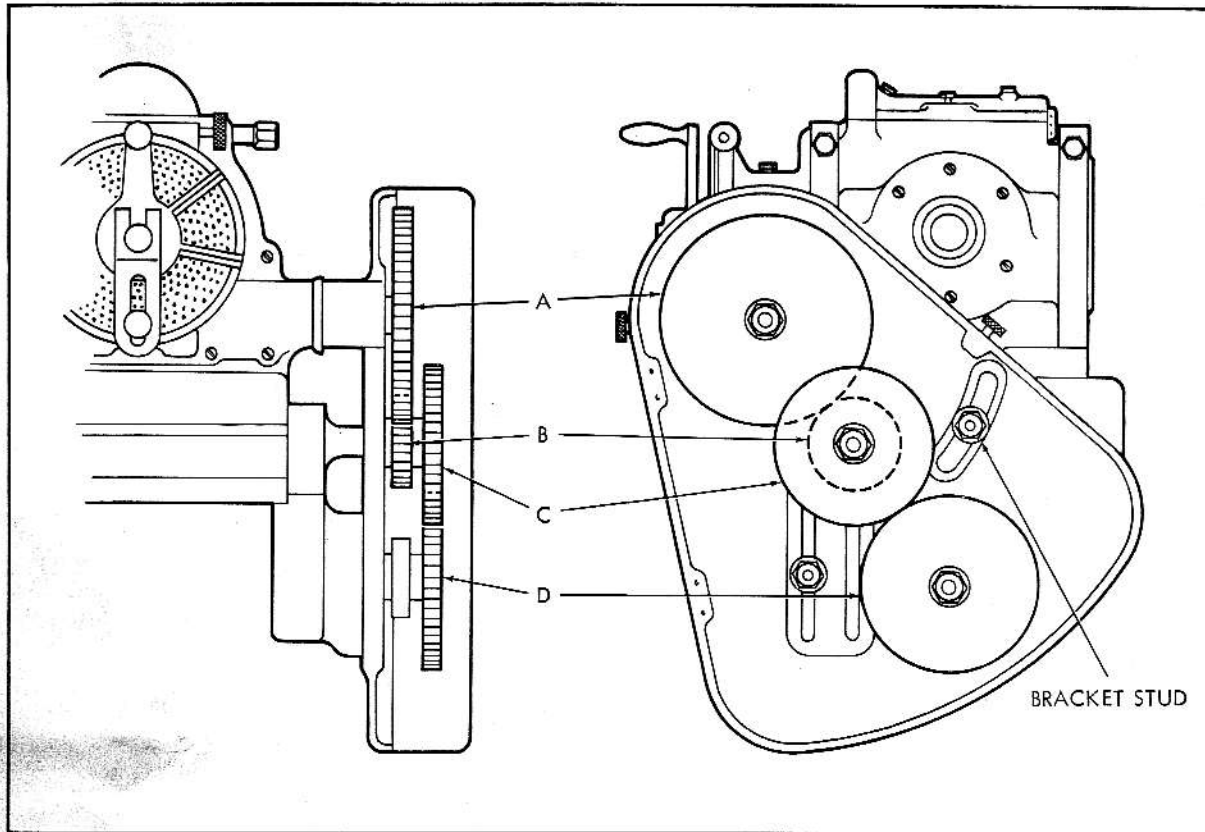


Fig. 6. Gearing in Conventional Lead Attachment.

change gear bracket. Secure the bracket by tightening locking screw and the nut on the bracket stud.

The gears supplied with Conventional Lead Attachment consist of two 48-tooth and two 24-tooth gears and nine gears with the following number of teeth: 100, 86, 72, 64, 56, 44, 40, 32, and 28.

The various leads are obtained by mounting the gears as explained in the following paragraphs.

Figure 6 illustrates the position of the gears in the lead attachment and identifies each by a letter. B and D are driver gears and A and C are driven gears. The particular gears to use in each of the positions for a desired lead are listed in Table 2 at the rear of this book. If the gears do not mesh when placed in the positions shown, the two driver gears (B and D) or the two driven gears (A and C) may be inter-changed to give a total of four combinations for the desired lead.

Caution: Do not interchange gears A and B, or gears C and D. Use power feed only for leads of 3 inches or higher. Use hand feed for all other leads. Do not use rapid traverse on leads lower than 10 inches.

When milling spirals, it may be necessary to use idler gears as shown in Figure 7. One idler is required for left hand spirals and two or none, depending on the space available, for right hand spirals.

Periodically fill the hand oilers on the lead attachment and oil the gears and studs in the change gear bracket with a good grade machine oil.

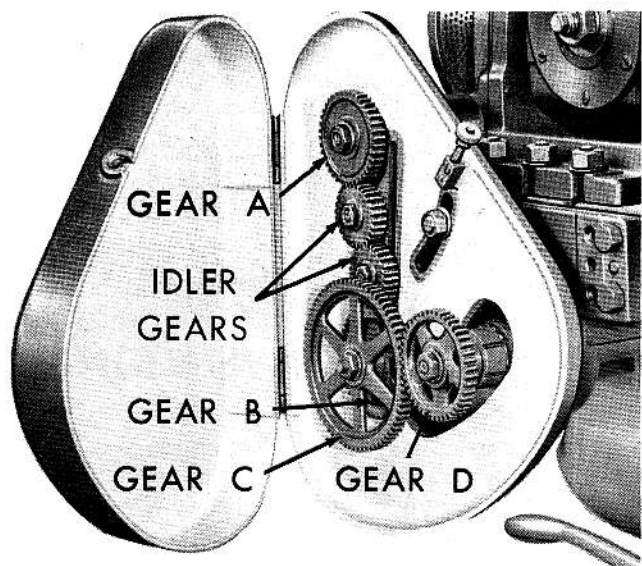


Fig. 7. Idler Gears in Conventional Lead Attachment

SECTION IV

LOW LEAD ATTACHMENT

The Low Lead Attachment can be used with the Model H Dividing Head to provide 42,362 different leads ranging from .0219 inches to 2918.4 inches. To mount the Low Lead Attachment, proceed as follows:

1. Remove the bracket cover at the right end of the table and remove the nut and washer on the table screw.
2. Insert the auxiliary drive shaft supplied with the lead attachment through the hole indicated in Figure 8 and into the spindle hub of the drive gear in the saddle. Push the shaft in as far as it will go.

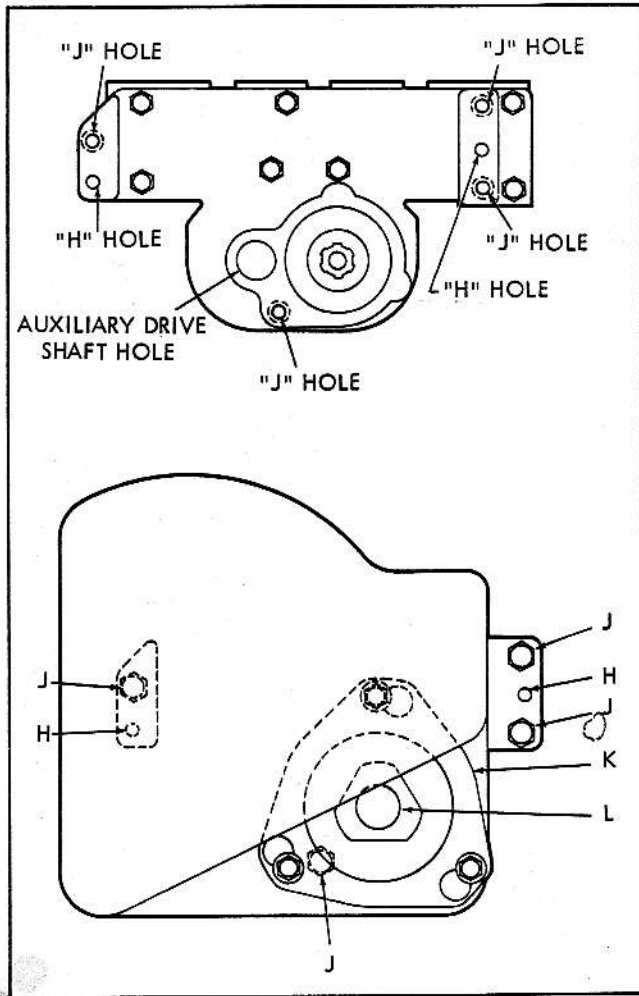


Fig. 8. Mounting Low Lead Attachment.

3. Remove the cover (K) and the table screw extension (L) from the lead attachment.

4. Lift the lead attachment into position on the table screw and auxiliary drive shaft so that the two dowels (H) enter the two "H" dowel holes.

5. Insert the four screws (J) to secure the attachment in position.

6. Position the worm and worm wheel (F and G, Figure 9) according to the lead selected, then replace the table screw extension and the cover.

The positions of the worm and wheel (F and G) will depend on the lead selected. For leads up to 8.000 inches a worm is used in position (F) and a worm wheel in position (G). For leads from 8.000 inches and up a worm wheel is used in position (F) and a worm in position (G). For leads up to 8.000 inches table feed is controlled by the directional control lever; for leads from 8.000 inches and up table feed is controlled by the lever table control. Both power feed and rapid traverse can be used for all leads.

Caution: Be sure the table control lever is locked in the neutral position by means of its locking screw when table feed is controlled with the Low Lead Attachment directional control lever. Be sure the Low Lead Attachment directional control lever is locked in the neutral position by means of its locking screw when table feed is controlled with the table control lever.

The gears supplied with the Low Lead Attachment consist of two 20-tooth gears and fifteen with the following number of teeth: 21, 22, 23, 24, 25, 26, 27, 28,

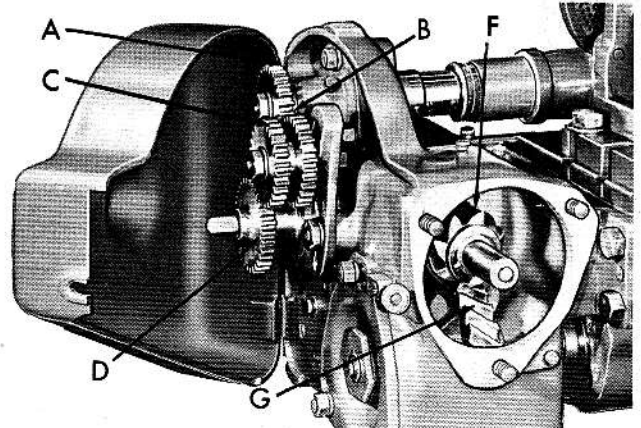


Fig. 9. Gearing in Low Lead Attachment.

29, 30, 32, 34, 36, 38 and 40. Three worm gear sets in the ratios of 1:96, 1:24 and 1:3 are also supplied.

Figure 9 illustrates the position of the worm and gears in the lead attachment and identifies each by means of a letter. The particular worm, worm wheel and gear to use in each position for a desired lead are listed in Table 3 at the rear of this book.

The lead for a particular combination of gears can be computed by means of the following formulas.

For leads up to 8.000 inches when a worm is used in position F and a worm wheel in position G:

- a) If F = 1 and G = 96, the lead = $\frac{1}{12} \times \frac{A}{B} \times \frac{C}{D}$
- b) If F = 1 and G = 24, the lead = $\frac{1}{3} \times \frac{A}{B} \times \frac{C}{D}$
- c) If F = 8 and G = 24, the lead = $\frac{8}{3} \times \frac{A}{B} \times \frac{C}{D}$

For leads from 8.000 inches up when a worm wheel is used in position F and a worm in position G:

- a) If F = 24 and G = 8, the lead = $\frac{24}{1} \times \frac{A}{B} \times \frac{C}{D}$

b) If F = 24 and G = 1, the lead = $\frac{192}{1} \times \frac{A}{B} \times \frac{C}{D}$

c) If F = 96 and G = 1, the lead = $\frac{768}{1} \times \frac{A}{B} \times \frac{C}{D}$

The values of A, B, C and D are the number of teeth in the gears A, B, C and D in Figure 9.

Of the 42,362 leads available, 2,258 have been selected for inclusion in Table 3. A master table listing the gears to use for all leads is on file in the Engineering Department of Kearney & Trecker Corporation. If the desired lead can not be obtained closely enough from Table 3, write or wire Kearney & Trecker Corporation giving the exact lead desired. The arrangement of change gears for the closest lead to that desired will be forwarded.

Table 4 lists the gears for milling single, double, triple, quadruple and metric threads. The thread milling attachment must be used with standard thread cutters or hobs when milling threads. Left and right hand threads are milled by setting the selection lever to the appropriate position.

Periodically fill the hand oilers on the lead attachment and oil the gears and studs in the change gear bracket with a good grade machine oil.

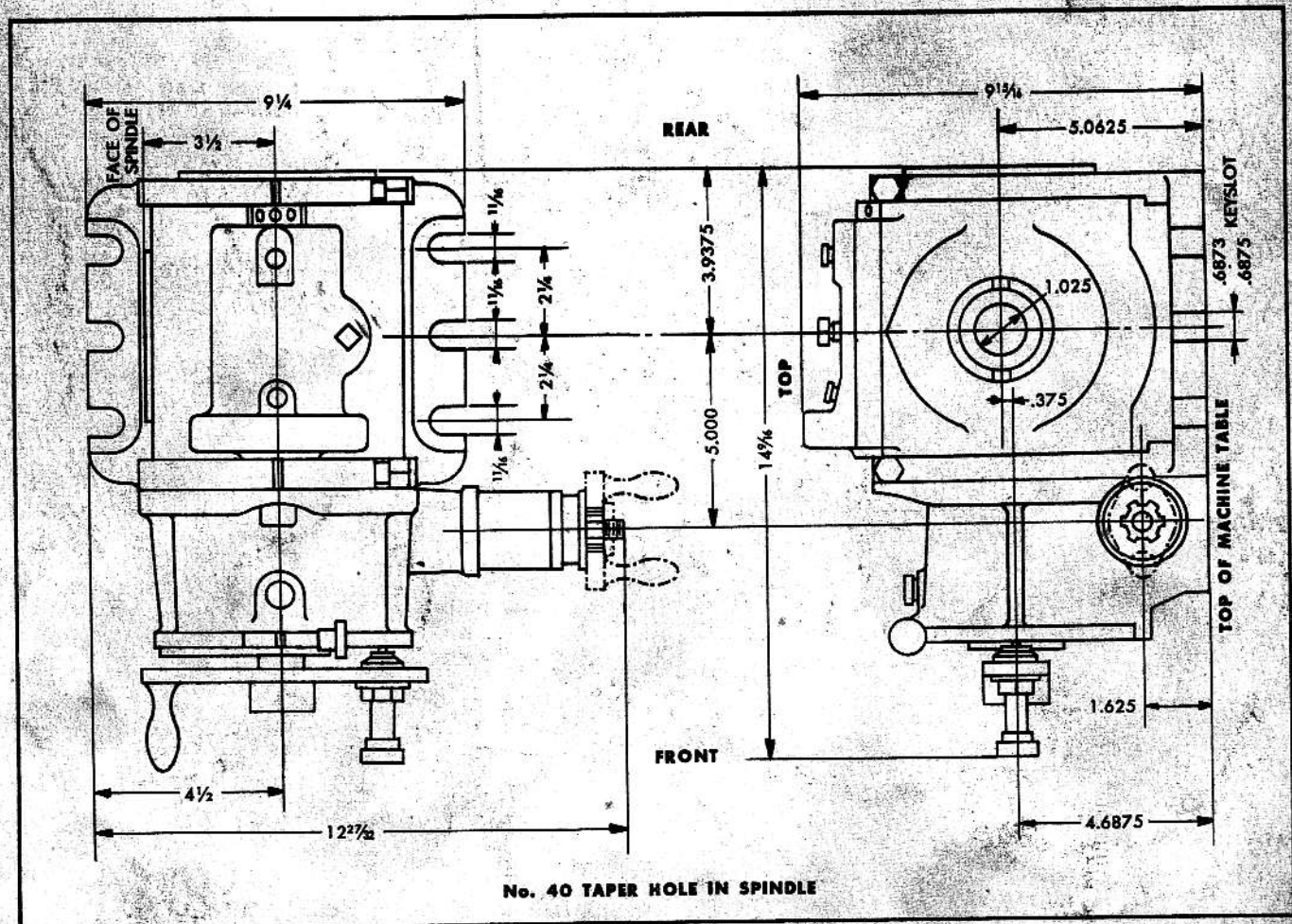


Fig. 10. Plan Dimensions.

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 1 — PLAIN INDEXING

Model H Universal Spiral Dividing Head Using Standard or High Number Index Plates.

No. of Div.	Standard Plates									High Number Plates													
	Plate No. 1			Plate No. 2			Plate No. 3			Plate No. 4			Plate No. 5			Plate No. 6			Plate No. 7				
	Circle	Turns	Holes	Circle	Turns	Holes	Circle	Turns	Holes	Circle	Turns	Holes	Circle	Turns	Holes	Circle	Turns	Holes	Circle	Turns	Holes		
1	Any	40	—	Any	40	—	Any	40	—	Any	40	—	Any	40	—	Any	40	—	Any	40	—		
2	Any	20	—	Any	20	—	Any	20	—	Any	20	—	Any	20	—	Any	20	—	Any	20	—		
3	39	13	13	33	13	11	18	13	6	87	13	29	63	13	21	81	13	27	69	13	23		
4	Any	10	—	Any	10	—	Any	10	—	Any	10	—	Any	10	—	Any	10	—	Any	10	—		
5	Any	8	—	Any	8	—	Any	8	—	Any	8	—	Any	8	—	Any	8	—	Any	8	—		
6	39	6	26	33	6	22	18	6	12	87	6	58	63	6	42	81	6	54	69	6	46		
7	49	5	35	21	5	15	—	—	—	77	5	55	63	5	45	91	5	65	—	—	—		
8	Any	5	—	Any	5	—	Any	5	—	Any	5	—	Any	5	—	Any	5	—	Any	5	—		
9	—	—	—	27	4	12	18	4	8	—	—	—	63	4	28	81	4	36	99	4	44		
10	Any	4	—	Any	4	—	Any	4	—	Any	4	—	Any	4	—	Any	4	—	Any	4	—		
11	—	—	—	33	3	21	—	—	—	77	3	49	—	—	—	—	—	—	99	3	63		
12	39	3	13	33	3	11	18	3	6	87	3	29	63	3	21	81	3	27	69	3	23		
13	39	3	3	—	—	—	—	—	—	—	—	—	—	—	91	3	7	—	—	—	—		
14	49	2	42	21	2	18	—	—	—	77	2	66	63	2	54	91	2	78	—	—	—		
15	39	2	26	33	2	22	18	2	12	87	2	58	63	2	42	81	2	54	69	2	46		
16	—	—	—	—	—	—	20	2	10	—	—	—	—	—	—	—	—	—	48	2	24		
17	—	—	—	—	—	—	17	2	6	—	—	—	—	—	—	51	2	18	—	—	—		
18	—	—	—	27	2	6	18	2	4	—	—	—	63	2	14	81	2	18	99	2	22		
19	—	—	—	—	—	—	19	2	2	57	2	6	—	—	—	—	—	—	—	—	—		
20	Any	2	—	Any	2	—	Any	2	—	Any	2	—	Any	2	—	Any	2	—	Any	2	—		
21	—	—	—	21	1	19	—	—	—	—	—	—	63	1	57	—	—	—	—	—	—		
22	—	—	—	33	1	27	—	—	—	77	1	63	—	—	—	—	—	—	99	1	81		
23	—	—	—	23	1	17	—	—	—	—	—	—	—	—	—	—	—	—	69	1	51		
24	39	1	26	33	1	22	18	1	12	87	1	58	63	1	42	81	1	54	69	1	46		
25	—	—	—	—	—	—	20	1	12	—	—	—	—	—	—	—	—	—	—	—	—		
26	39	1	21	—	—	—	—	—	—	—	—	—	—	—	—	91	1	49	—	—	—		
27	—	—	—	27	1	13	—	—	—	—	—	—	—	—	81	1	39	—	—	—	—		
28	49	1	21	21	1	9	—	—	—	77	1	33	63	1	27	91	1	39	—	—	—		
29	—	—	—	29	1	11	—	—	—	87	1	33	—	—	—	—	—	—	—	—	—		
30	39	1	13	33	1	11	18	1	6	87	1	29	63	1	21	81	1	27	69	1	23		
31	—	—	—	31	1	9	—	—	—	—	—	—	93	1	27	—	—	—	—	—	—		
32	—	—	—	—	—	—	20	1	5	—	—	—	—	—	—	—	—	—	48	1	12		
33	—	—	—	33	1	7	—	—	—	—	—	—	—	—	—	—	—	—	99	1	21		
34	—	—	—	—	—	—	17	1	3	—	—	—	—	—	51	1	9	—	—	—	—		
35	49	1	7	21	1	3	—	—	—	77	1	11	63	1	9	91	1	13	—	—	—		
36	—	—	—	27	1	3	18	1	2	—	—	—	63	1	7	81	1	9	99	1	11		
37	37	1	3	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
38	—	—	—	—	—	—	19	1	1	57	1	3	—	—	—	—	—	—	—	—	—		
39	39	1	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
40	Any	1	—	Any	1	—	Any	1	—	Any	1	—	Any	1	—	Any	1	—	Any	1	—		
41	41	—	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
42	—	—	—	21	—	20	—	—	—	—	—	—	63	—	40	—	—	—	—	—	—		
43	43	—	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
44	—	—	—	33	—	30	—	—	—	77	—	70	—	—	—	—	—	—	99	—	90		
45	—	—	—	27	—	24	18	—	16	—	—	—	63	—	56	81	—	72	99	—	88		
46	—	—	—	23	—	20	—	—	—	—	—	—	—	—	—	—	—	—	69	—	60		
47	47	—	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
48	—	—	—	—	—	—	18	—	15	—	—	—	—	—	—	—	—	—	48	—	40		
49	49	—	40	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—		
50	—	—	—	—	—	—	20	—	16	—	—	—	—	—	—	—	—	—	—	—	—		

#18 hole is 13 turns + 6 holes
 or 3 spaces.

TABLE 1 (continued) — PLAIN INDEXING

Model H Universal Spiral Dividing Head Using Standard or High Number Index Plates.

No. of Div.	Standard Plates						High Number Plates							
	Plate No. 1		Plate No. 2		Plate No. 3		Plate No. 4		Plate No. 5		Plate No. 6		Plate No. 7	
	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes
51	—	—	—	—	—	—	—	—	—	—	51	40	—	—
52	39	30	—	—	—	—	—	—	—	—	91	70	—	—
53	—	—	—	—	—	—	—	—	53	40	—	—	—	—
54	—	—	27	20	—	—	—	—	—	—	81	60	—	—
55	—	—	33	24	—	—	77	56	—	—	—	—	99	72
56	49	35	21	15	—	—	77	55	63	45	91	65	—	—
57	—	—	—	—	—	—	57	40	—	—	—	—	—	—
58	—	—	29	20	—	—	87	60	—	—	—	—	—	—
59	—	—	—	—	—	—	—	—	—	—	—	—	59	40
60	39	26	33	22	18	12	87	58	63	42	81	54	69	46
61	—	—	—	—	—	—	—	—	—	—	61	40	—	—
62	—	—	31	20	—	—	—	—	93	60	—	—	—	—
63	—	—	—	—	—	—	—	—	63	40	—	—	—	—
64	—	—	—	—	16	10	—	—	—	—	—	—	48	30
65	39	24	—	—	—	—	—	—	—	—	91	56	—	—
66	—	—	33	20	—	—	—	—	—	—	—	—	99	60
67	—	—	—	—	—	—	67	40	—	—	—	—	—	—
68	—	—	—	—	17	10	—	—	—	—	51	30	—	—
69	—	—	—	—	—	—	—	—	—	—	—	—	69	40
70	49	28	21	12	—	—	77	44	63	36	91	52	—	—
71	—	—	—	—	—	—	—	—	—	—	71	40	—	—
72	—	—	27	15	18	10	—	—	63	35	81	45	99	55
73	—	—	—	—	—	—	—	—	73	40	—	—	—	—
74	37	20	—	—	—	—	—	—	—	—	—	—	—	—
75	—	—	—	—	15	8	—	—	—	—	—	—	—	—
76	—	—	—	—	19	10	57	30	—	—	—	—	—	—
77	—	—	—	—	—	—	77	40	—	—	—	—	—	—
78	39	20	—	—	—	—	—	—	—	—	—	—	—	—
79	—	—	—	—	—	—	—	—	—	—	—	—	79	40
80	—	—	—	—	20	10	—	—	—	—	—	—	48	24
81	—	—	—	—	—	—	—	—	—	—	81	40	—	—
82	41	20	—	—	—	—	—	—	—	—	—	—	—	—
83	—	—	—	—	—	—	—	—	83	40	—	—	—	—
84	—	—	21	10	—	—	—	—	63	30	—	—	—	—
85	—	—	—	—	17	8	—	—	—	—	51	24	—	—
86	43	20	—	—	—	—	—	—	—	—	—	—	—	—
87	—	—	—	—	—	—	87	40	—	—	—	—	—	—
88	—	—	33	15	—	—	77	35	—	—	—	—	99	45
89	—	—	—	—	—	—	—	—	—	—	—	—	89	40
90	—	—	27	12	18	8	—	—	63	28	81	36	99	44
91	—	—	—	—	—	—	—	—	—	—	91	40	—	—
92	—	—	23	10	—	—	—	—	—	—	—	—	69	30
93	—	—	—	—	—	—	—	—	93	40	—	—	—	—
94	47	20	—	—	—	—	—	—	—	—	—	—	—	—
95	—	—	—	—	19	8	57	24	—	—	—	—	—	—
96	—	—	—	—	—	—	—	—	—	—	—	—	48	20
97	—	—	—	—	—	—	97	40	—	—	—	—	—	—
98	49	20	—	—	—	—	—	—	—	—	—	—	—	—
99	—	—	—	—	—	—	—	—	—	—	—	—	99	40
100	—	—	—	—	20	8	—	—	—	—	—	—	—	—

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 1 (continued)—PLAIN INDEXING

Model H Universal Spiral Dividing Head Using Standard or High Number Index Plates.

No. of Div.	Standard Plates						High Number Plates							
	Plate No. 1		Plate No. 2		Plate No. 3		Plate No. 4		Plate No. 5		Plate No. 6		Plate No. 7	
	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes
101	—	—	—	—	—	—	—	—	—	—	101	40	—	—
102	—	—	—	—	—	—	—	—	—	—	51	20	—	—
104	39	15	—	—	—	—	—	—	—	—	91	35	—	—
105	—	—	21	8	—	—	—	—	63	24	—	—	—	—
106	—	—	—	—	—	—	—	—	53	20	—	—	—	—
108	—	—	27	10	—	—	—	—	—	—	81	30	—	—
110	—	—	33	12	—	—	77	28	—	—	—	—	99	36
114	—	—	—	—	—	—	57	20	—	—	—	—	—	—
115	—	—	23	8	—	—	—	—	—	—	—	—	69	24
116	—	—	29	10	—	—	87	30	—	—	—	—	—	—
118	—	—	—	—	—	—	—	—	—	—	—	—	59	20
120	39	13	33	11	18	6	87	29	63	21	81	27	69	23
122	—	—	—	—	—	—	—	—	—	—	61	20	—	—
124	—	—	31	10	—	—	—	—	93	30	—	—	—	—
126	—	—	—	—	—	—	—	—	63	20	—	—	—	—
128	—	—	—	—	16	5	—	—	—	—	—	—	48	15
130	39	12	—	—	—	—	—	—	—	—	91	28	—	—
132	—	—	33	10	—	—	—	—	—	—	—	—	99	30
134	—	—	—	—	—	—	67	20	—	—	—	—	—	—
135	—	—	27	8	—	—	—	—	—	—	81	24	—	—
136	—	—	—	—	17	5	—	—	—	—	51	15	—	—
138	—	—	—	—	—	—	—	—	—	—	—	—	69	20
140	49	14	21	6	—	—	77	22	63	18	91	26	—	—
142	—	—	—	—	—	—	—	—	—	—	71	20	—	—
144	—	—	—	—	18	5	—	—	—	—	—	—	—	—
145	—	—	29	8	—	—	87	24	—	—	—	—	—	—
146	—	—	—	—	—	—	—	—	73	20	—	—	—	—
148	37	10	—	—	—	—	—	—	—	—	—	—	—	—
150	—	—	—	—	15	4	—	—	—	—	—	—	—	—
152	—	—	—	—	19	5	57	15	—	—	—	—	—	—
154	—	—	—	—	—	—	77	20	—	—	—	—	—	—
155	—	—	31	8	—	—	—	—	93	24	—	—	—	—
156	39	10	—	—	—	—	—	—	—	—	—	—	—	—
158	—	—	—	—	—	—	—	—	—	—	—	—	79	20
160	—	—	—	—	20	5	—	—	—	—	—	—	48	12
162	—	—	—	—	—	—	—	—	—	—	81	20	—	—
164	41	10	—	—	—	—	—	—	—	—	—	—	—	—
165	—	—	33	8	—	—	—	—	—	—	—	—	99	24
166	—	—	—	—	—	—	—	—	83	20	—	—	—	—
168	—	—	21	5	—	—	—	—	63	15	—	—	—	—
170	—	—	—	—	17	4	—	—	—	—	51	12	—	—
172	43	10	—	—	—	—	—	—	—	—	—	—	—	—
174	—	—	—	—	—	—	87	20	—	—	—	—	—	—
178	—	—	—	—	—	—	—	—	—	—	—	—	89	20
180	—	—	27	6	18	4	—	—	63	14	81	18	99	22
182	—	—	—	—	—	—	—	—	—	—	91	20	—	—
184	—	—	23	5	—	—	—	—	—	—	—	—	69	15
185	37	8	—	—	—	—	—	—	—	—	—	—	—	—
186	—	—	—	—	—	—	—	—	93	20	—	—	—	—
188	47	10	—	—	—	—	—	—	—	—	—	—	—	—

TABLE 1 (continued) — PLAIN INDEXING

Model H Universal Spiral Dividing Head Using Standard or High Number Index Plates.

No. of Div.	Standard Plates						High Number Plates							
	Plate No. 1		Plate No. 2		Plate No. 3		Plate No. 4		Plate No. 5		Plate No. 6		Plate No. 7	
	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes
190	—	—	—	—	19	4	57	12	—	—	—	—	—	—
192	—	—	—	—	—	—	—	—	—	—	—	—	48	10
194	—	—	—	—	—	—	97	20	—	—	—	—	—	—
195	39	8	—	—	—	—	—	—	—	—	—	—	—	—
196	49	10	—	—	—	—	—	—	—	—	—	—	—	—
198	—	—	—	—	—	—	—	—	—	—	—	—	99	20
200	—	—	—	—	20	4	—	—	—	—	—	—	—	—
202	—	—	—	—	—	—	—	—	—	—	101	20	—	—
204	—	—	—	—	—	—	—	—	—	—	51	10	—	—
205	41	8	—	—	—	—	—	—	—	—	—	—	—	—
210	—	—	21	4	—	—	—	—	63	12	—	—	—	—
212	—	—	—	—	—	—	—	—	53	10	—	—	—	—
215	43	8	—	—	—	—	—	—	—	—	—	—	—	—
216	—	—	27	5	—	—	—	—	—	—	81	15	—	—
220	—	—	33	6	—	—	77	14	—	—	—	—	99	18
228	—	—	—	—	—	—	57	10	—	—	—	—	—	—
230	—	—	23	4	—	—	—	—	—	—	—	—	69	12
232	—	—	29	5	—	—	87	15	—	—	—	—	—	—
235	47	8	—	—	—	—	—	—	—	—	—	—	—	—
236	—	—	—	—	—	—	—	—	—	—	—	—	59	10
240	—	—	—	—	18	3	—	—	—	—	—	—	48	8
244	—	—	—	—	—	—	—	—	—	—	61	10	—	—
245	—	—	—	—	49	8	—	—	—	—	—	—	—	—
248	—	—	31	5	—	—	—	—	93	15	—	—	—	—
252	—	—	—	—	—	—	—	—	63	10	—	—	—	—
255	—	—	—	—	—	—	—	—	—	—	51	8	—	—
260	39	6	—	—	—	—	—	—	—	—	91	14	—	—
264	—	—	33	5	—	—	—	—	—	—	—	—	99	15
265	—	—	—	—	—	—	—	—	53	8	—	—	—	—
268	—	—	—	—	—	—	67	10	—	—	—	—	—	—
270	—	—	27	4	—	—	—	—	—	—	81	12	—	—
276	—	—	—	—	—	—	—	—	—	—	—	—	69	10
280	49	7	21	3	—	—	77	11	63	9	91	13	—	—
284	—	—	—	—	—	—	—	—	—	—	71	10	—	—
285	—	—	—	—	—	—	57	8	—	—	—	—	—	—
290	—	—	29	4	—	—	87	12	—	—	—	—	—	—
292	—	—	—	—	—	—	—	—	73	10	—	—	—	—
295	—	—	—	—	—	—	—	—	—	—	—	—	59	8
296	37	5	—	—	—	—	—	—	—	—	—	—	—	—
300	—	—	—	—	15	2	—	—	—	—	—	—	—	—
305	—	—	—	—	—	—	—	—	—	—	61	8	—	—
308	—	—	—	—	—	—	77	10	—	—	—	—	—	—
310	—	—	31	4	—	—	—	—	93	12	—	—	—	—
312	39	5	—	—	—	—	—	—	—	—	—	—	—	—
315	—	—	—	—	—	—	—	—	63	8	—	—	—	—
316	—	—	—	—	—	—	—	—	—	—	—	—	79	10
320	—	—	—	—	16	2	—	—	—	—	—	—	48	6
324	—	—	—	—	—	—	—	—	—	—	81	10	—	—
328	41	5	—	—	—	—	—	—	—	—	—	—	99	12
330	—	—	33	4	—	—	—	—	—	—	—	—	—	—

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 1 (continued) —PLAIN INDEXING

Model H Universal Spiral Dividing Head Using Standard or High Number Index Plates.

No. of Div.	Standard Plates						High Number Plates							
	Plate No. 1		Plate No. 2		Plate No. 3		Plate No. 4		Plate No. 5		Plate No. 6		Plate No. 7	
	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes	Circle	Holes
332	—	—	—	—	—	—	—	—	83	10	—	—	—	—
335	—	—	—	—	—	—	67	8	—	—	—	—	—	—
340	—	—	—	—	17	2	—	—	—	—	51	6	—	—
344	43	5	—	—	—	—	—	—	—	—	—	—	—	—
345	—	—	—	—	—	—	—	—	—	—	—	—	69	8
348	—	—	—	—	—	—	87	10	—	—	—	—	—	—
355	—	—	—	—	—	—	—	—	—	—	71	8	—	—
356	—	—	—	—	—	—	—	—	—	—	—	—	89	10
360	—	—	27	3	18	2	—	—	63	7	81	9	99	11
364	—	—	—	—	—	—	—	—	—	—	91	10	—	—
365	—	—	—	—	—	—	—	—	73	8	—	—	—	—
370	37	4	—	—	—	—	—	—	—	—	—	—	—	—
372	—	—	—	—	—	—	—	—	93	10	—	—	—	—
376	47	5	—	—	—	—	—	—	—	—	—	—	—	—
380	—	—	—	—	19	2	57	6	—	—	—	—	—	—
384	—	—	—	—	—	—	—	—	—	—	—	—	48	5
385	—	—	—	—	—	—	77	8	—	—	—	—	—	—
388	—	—	—	—	—	—	97	10	—	—	—	—	—	—
390	39	4	—	—	—	—	—	—	—	—	—	—	—	—
392	49	5	—	—	—	—	—	—	—	—	—	—	—	—
395	—	—	—	—	—	—	—	—	—	—	—	—	79	8
396	—	—	—	—	—	—	—	—	—	—	—	—	99	10
400	—	—	—	—	20	2	—	—	—	—	—	—	—	—
404	—	—	—	—	—	—	—	—	—	—	101	10	—	—
405	—	—	—	—	—	—	—	—	—	—	81	8	—	—
408	—	—	—	—	—	—	—	—	—	—	51	6	—	—
410	41	4	—	—	—	—	—	—	—	—	—	—	—	—
415	—	—	—	—	—	—	—	—	83	8	—	—	—	—
420	—	—	21	2	—	—	—	—	63	6	—	—	—	—
424	—	—	—	—	—	—	—	—	53	5	—	—	—	—
430	43	4	—	—	—	—	—	—	—	—	—	—	—	—
435	—	—	—	—	—	—	87	8	—	—	—	—	—	—
440	—	—	33	3	—	—	77	7	—	—	—	—	99	9
445	—	—	—	—	—	—	—	—	—	—	—	—	89	8
455	—	—	—	—	—	—	—	—	—	—	91	8	—	—
456	—	—	—	—	—	—	57	5	—	—	—	—	—	—
460	—	—	23	2	—	—	—	—	—	—	—	—	69	6
465	—	—	—	—	—	—	—	—	93	8	—	—	—	—
470	47	4	—	—	—	—	—	—	—	—	—	—	59	5
472	—	—	—	—	—	—	—	—	—	—	—	—	—	—
480	—	—	—	—	—	—	—	—	—	—	—	—	48	4
485	—	—	—	—	—	—	97	8	—	—	—	—	—	—
488	—	—	—	—	—	—	—	—	—	—	61	5	—	—
490	49	4	—	—	—	—	—	—	—	—	—	—	99	8
495	—	—	—	—	—	—	—	—	—	—	—	—	—	—
504	—	—	—	—	—	—	—	—	63	5	—	—	—	—
505	—	—	—	—	—	—	—	—	—	—	101	8	—	—
510	—	—	—	—	—	—	—	—	—	—	51	4	—	—
520	39	3	—	—	—	—	—	—	—	—	91	7	—	—

TABLE 2 — LEADS — CONVENTIONAL LEAD ATTACHMENT

CAUTION Hand Feed Only. Do Not use Power Feed or Rapid Traverse with Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
.670	24	86	24	100	1.637	32	100	44	86	2.121	24	44	28	72
.781	24	86	28	100	1.650	24	64	44	100	2.133	24	100	64	72
.800	24	72	24	100	1.667	24	64	32	72	2.143	24	56	32	64
.893	24	86	32	100	1.674	24	40	24	86	2.171	24	72	56	86
.900	24	64	24	100	1.680	24	40	28	100	2.178	28	100	56	72
.930	24	72	24	86	1.706	24	72	44	86	2.182	24	44	40	100
.933	24	72	28	100	1.711	28	72	44	100	2.188	24	48	28	64
1.029	24	56	24	100	1.714	24	56	40	100	2.193	24	56	44	86
1.042	28	86	32	100	1.744	24	64	40	86	2.200	32	64	44	100
1.047	24	64	24	86	1.745	24	44	32	100	2.222	28	56	32	72
1.050	24	64	28	100	1.750	28	64	40	100	2.233	24	40	32	86
1.067	24	72	32	100	1.776	24	44	28	86	2.238	28	64	44	86
1.085	24	72	28	86	1.778	32	72	40	100	2.240	28	40	32	100
1.116	24	100	40	86	1.786	24	100	64	86	2.250	24	40	24	64
1.196	24	56	24	86	1.800	24	64	48	100	2.274	32	72	44	86
1.200	24	64	32	100	1.809	28	72	40	86	2.286	32	56	40	100
1.221	24	64	28	86	1.818	24	44	24	72	2.292	24	64	44	72
1.228	24	100	44	86	1.823	28	100	56	86	2.326	32	64	40	86
1.240	24	72	32	86	1.860	28	56	32	86	2.333	24	40	28	72
1.244	28	72	32	100	1.861	24	72	48	86	2.338	24	44	24	56
1.250	24	64	24	72	1.867	24	72	56	100	2.344	28	100	72	86
1.302	28	100	40	86	1.875	24	56	28	64	2.368	28	44	32	86
1.309	24	44	24	100	1.886	24	56	44	100	2.381	32	100	64	86
1.333	24	72	40	100	1.905	24	56	32	72	2.386	24	44	28	64
1.340	24	100	48	86	1.919	24	64	44	86	2.392	24	56	48	86
1.371	24	56	32	100	1.920	24	40	32	100	2.400	32	64	48	100
1.395	24	64	32	86	1.925	28	64	44	100	2.424	24	44	32	72
1.400	28	64	32	100	1.944	28	64	32	72	2.431	28	64	40	72
1.429	24	56	24	72	1.954	24	40	28	86	2.442	24	64	56	86
1.433	28	100	44	86	1.956	32	72	44	100	2.445	40	72	44	100
1.440	24	40	24	100	1.990	28	72	44	86	2.450	28	64	56	100
1.447	28	72	32	86	1.993	24	56	40	86	2.456	44	100	48	86
1.458	24	64	28	72	2.000	24	40	24	72	2.481	24	72	64	86
1.467	24	72	44	100	2.009	24	100	72	86	2.489	28	100	64	72
1.488	32	100	40	86	2.030	24	44	32	86	2.500	24	64	48	72
1.500	24	64	40	100	2.035	28	64	40	86	2.514	32	56	44	100
1.522	24	44	24	86	2.036	28	44	32	100	2.532	28	72	56	86
1.527	24	44	28	100	2.045	24	44	24	64	2.537	24	44	40	86
1.550	24	72	40	86	2.047	40	100	44	86	2.546	28	44	40	100
1.556	28	72	40	100	2.057	24	56	48	100	2.558	32	64	44	86
1.563	24	100	56	86	2.067	32	72	40	86	2.567	28	48	44	100
1.595	24	56	32	86	2.083	24	64	40	72	2.571	24	40	24	56
1.600	24	72	48	100	2.084	28	100	64	86	2.593	28	48	32	72
1.607	24	56	24	64	2.093	24	86	48	64	2.605	40	100	56	86
1.628	28	64	32	86	2.100	24	64	56	100	2.618	24	44	48	100

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 2 (continued) — LEADS — CONVENTIONAL LEAD ATTACHMENT

CAUTION Do Not Use Power Feed for any Lead below 2.500 inches.
Do Not Use Rapid Traverse with Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
2.619	24	56	44	72	3.117	24	44	32	56	3.582	44	40	28	86
2.625	24	40	28	64	3.125	28	56	40	64	3.588	24	86	72	56
2.640	24	40	44	100	3.126	48	100	56	86	3.600	32	100	72	64
2.658	32	56	40	86	3.140	24	86	72	64	3.618	56	72	40	86
2.667	24	40	32	72	3.143	40	56	44	100	3.636	24	44	32	48
2.674	28	64	44	72	3.150	28	100	72	64	3.637	48	44	24	72
2.678	24	56	40	64	3.175	32	56	40	72	3.646	40	48	28	64
2.679	32	100	72	86	3.182	28	44	32	64	3.655	40	56	44	86
2.700	24	100	72	64	3.189	32	56	48	86	3.657	32	56	64	100
2.713	28	48	40	86	3.198	40	64	44	86	3.663	72	64	28	86
2.727	24	44	32	64	3.200	28	100	64	56	3.667	44	40	24	72
2.743	24	56	64	100	3.214	24	56	48	64	3.673	24	28	24	56
2.750	40	64	44	100	3.225	24	100	86	64	3.684	44	100	72	86
2.778	32	64	40	72	3.241	28	48	40	72	3.686	24	100	86	56
2.791	32	64	48	86	3.256	24	86	56	48	3.704	32	48	40	72
2.800	32	64	56	100	3.267	28	48	56	100	3.721	28	86	64	56
2.812	24	32	24	64	3.273	24	40	24	44	3.733	48	100	56	72
2.828	28	44	32	72	3.275	44	100	64	86	3.750	28	56	48	64
2.843	40	72	44	86	3.281	24	32	28	64	3.763	28	100	86	64
2.845	32	100	64	72	3.300	44	64	48	100	3.771	44	56	48	100
2.849	28	64	56	86	3.308	32	72	64	86	3.799	28	86	56	48
2.857	24	48	32	56	3.333	28	48	32	56	3.809	24	56	64	72
2.865	44	100	56	86	3.345	28	100	86	72	3.810	32	72	48	56
2.867	24	100	86	72	3.349	40	100	72	86	3.818	24	40	28	44
2.880	24	40	48	100	3.360	48	40	28	100	3.819	40	72	44	64
2.894	28	72	64	86	3.383	32	44	40	86	3.822	32	100	86	72
2.909	32	44	40	100	3.403	28	64	56	72	3.837	44	86	48	64
2.917	28	48	32	64	3.409	24	44	40	64	3.840	64	40	24	100
2.924	32	56	44	86	3.411	44	72	48	86	3.850	44	64	56	100
2.933	44	72	48	100	3.422	44	100	56	72	3.876	100	72	24	86
2.934	32	48	44	100	3.428	24	40	32	56	3.889	32	72	56	64
2.946	24	56	44	64	3.429	40	56	48	100	3.896	24	44	40	56
2.950	28	44	40	86	3.438	28	56	44	64	3.907	28	40	48	86
2.977	40	100	64	86	3.488	40	64	48	86	3.911	44	100	64	72
2.984	28	48	44	86	3.491	64	44	24	100	3.920	28	40	56	100
3.000	24	40	28	56	3.492	32	56	44	72	3.927	72	44	24	100
3.030	24	44	40	72	3.500	28	40	32	64	3.929	32	56	44	64
3.044	24	44	48	86	3.520	32	40	44	100	3.977	28	44	40	64
3.055	24	44	56	100	3.535	28	44	40	72	3.979	44	86	56	72
3.056	32	64	44	72	3.552	48	44	28	86	3.987	40	56	48	86
3.070	24	40	44	86	3.556	40	100	64	72	4.000	24	40	32	48
3.080	28	40	44	100	3.564	56	44	28	100	4.011	28	48	44	64
3.086	24	100	72	56	3.565	28	48	44	72	4.019	72	100	48	86
3.101	40	72	48	86	3.571	32	56	40	64	4.040	32	44	40	72
3.111	40	100	56	72	3.572	48	100	64	86	4.059	32	44	48	86

TABLE 2 (continued) — LEADS — CONVENTIONAL LEAD ATTACHMENT

CAUTION Do Not Use Rapid Traverse With Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
4.070	40	86	56	64	4.584	32	48	44	64	5.142	40	100	72	56
4.073	64	44	28	100	4.651	40	48	48	86	5.143	24	40	48	56
4.074	32	48	44	72	4.655	64	44	32	100	5.156	44	32	24	64
4.091	48	64	24	44	4.667	28	40	32	48	5.160	86	40	24	100
4.093	32	40	44	86	4.675	48	44	24	56	5.168	100	72	32	86
4.114	32	100	72	56	4.687	40	32	24	64	5.185	56	48	32	72
4.125	24	40	44	64	4.688	56	100	72	86	5.195	32	44	40	56
4.135	40	86	64	72	4.691	24	100	86	44	5.209	100	64	24	72
4.144	56	44	28	86	4.714	44	40	24	56	5.210	64	40	28	86
4.167	64	100	56	86	4.736	56	44	32	86	5.226	86	64	28	72
4.186	72	64	32	86	4.762	40	48	32	56	5.233	72	64	40	86
4.200	48	64	56	100	4.773	56	44	24	64	5.236	72	44	32	100
4.242	28	44	32	48	4.778	40	100	86	72	5.238	32	48	44	56
4.253	32	86	64	56	4.784	32	86	72	56	5.250	24	64	56	40
4.264	40	48	44	86	4.785	48	28	24	86	5.256	44	100	86	72
4.267	48	100	64	72	4.800	72	48	32	100	5.280	48	40	44	100
4.278	28	40	44	72	4.813	44	40	28	64	5.303	28	44	40	48
4.286	32	56	48	64	4.821	72	56	24	64	5.316	40	86	64	56
4.300	28	100	86	56	4.849	64	44	24	72	5.328	28	86	72	44
4.320	72	40	24	100	4.861	40	72	56	64	5.333	32	40	48	72
4.341	56	86	48	72	4.884	28	86	72	48	5.347	44	72	56	64
4.342	28	86	64	48	4.889	32	40	44	72	5.357	40	64	48	56
4.361	100	64	24	86	4.898	24	28	32	56	5.358	64	100	72	86
4.363	24	40	32	44	4.900	28	32	56	100	5.375	40	100	86	64
4.364	40	44	48	100	4.911	40	56	44	64	5.400	48	100	72	64
4.365	40	56	44	72	4.914	32	100	86	56	5.413	64	44	32	86
4.375	56	48	24	64	4.950	44	100	72	64	5.426	40	48	56	86
4.386	44	56	48	86	4.961	48	86	64	72	5.444	56	40	28	72
4.400	48	48	44	100	4.978	56	100	64	72	5.455	48	44	28	56
4.444	28	72	64	56	4.984	100	56	24	86	5.469	40	32	28	64
4.465	64	40	24	86	5.000	48	64	48	72	5.473	28	100	86	44
4.477	44	86	56	64	5.017	28	100	86	48	5.486	64	56	48	100
4.479	86	64	24	72	5.023	24	86	72	40	5.500	44	40	24	48
4.480	64	40	28	100	5.029	64	56	44	100	5.556	40	48	48	72
4.500	40	100	72	64	5.040	72	40	28	100	5.568	56	44	28	64
4.522	100	72	28	86	5.074	40	44	48	86	5.581	32	86	72	48
4.537	56	48	28	72	5.080	32	72	64	56	5.582	48	24	24	86
4.545	24	44	40	48	5.088	100	64	28	86	5.600	56	48	48	100
4.546	28	44	40	56	5.091	28	40	32	44	5.625	72	56	28	64
4.548	44	72	64	86	5.093	40	48	44	72	5.657	64	44	28	72
4.558	56	40	28	86	5.105	28	64	56	48	5.698	56	32	28	86
4.567	72	44	24	86	5.116	44	48	48	86	5.714	64	48	24	56
4.572	40	56	64	100	5.119	86	56	24	72	5.730	40	64	44	48
4.582	72	44	28	100	5.120	64	40	32	100	5.733	48	100	86	72
4.583	44	72	48	64	5.133	56	48	44	100	5.756	44	86	72	64

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 2 (continued) — LEADS — CONVENTIONAL LEAD ATTACHMENT

CAUTION Do Not Use Rapid Traverse With Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
5.759	86	56	24	64	6.396	44	32	40	86	7.104	56	44	48	86
5.760	72	40	32	100	6.400	64	48	48	100	7.106	100	72	44	86
5.788	56	86	64	72	6.417	44	40	28	48	7.111	64	40	32	72
5.814	100	64	32	86	6.429	48	56	48	64	7.130	56	48	44	72
5.818	64	44	40	100	6.450	48	100	86	64	7.143	40	48	48	56
5.833	56	72	48	64	6.460	100	72	40	86	7.159	72	44	28	64
5.847	64	56	44	86	6.465	64	44	32	72	7.163	56	40	44	86
5.861	72	40	28	86	6.482	40	72	56	48	7.167	86	40	24	72
5.867	64	48	44	100	6.512	56	48	48	86	7.176	72	56	48	86
5.893	48	56	44	64	6.515	86	44	24	72	7.200	72	48	48	100
5.912	44	100	86	64	6.533	56	24	28	100	7.268	100	64	40	86
5.920	56	44	40	86	6.545	48	40	24	44	7.272	64	44	28	56
5.926	64	48	32	72	6.548	40	56	44	48	7.273	32	48	48	44
5.952	100	56	24	72	6.563	72	48	28	64	7.292	56	48	40	64
5.954	64	40	32	86	6.578	72	56	44	86	7.310	44	28	40	86
5.969	56	48	44	86	6.600	72	48	44	100	7.314	64	28	32	100
5.972	86	64	32	72	6.645	100	56	32	86	7.326	72	64	56	86
5.980	72	56	40	86	6.667	64	48	28	56	7.330	86	44	24	64
6.000	48	40	28	56	6.689	56	100	86	72	7.333	48	40	44	72
6.016	44	32	28	64	6.697	100	56	24	64	7.334	44	40	32	48
6.020	28	100	86	40	6.698	72	40	32	86	7.347	48	28	24	56
6.061	40	44	32	48	6.719	28	64	86	56	7.371	48	100	86	56
6.077	100	64	28	72	6.720	56	40	48	100	7.400	100	44	28	86
6.089	32	86	72	44	6.735	44	28	24	56	7.408	64	48	40	72
6.109	56	44	48	100	6.750	24	64	72	40	7.424	56	44	28	48
6.112	48	48	44	72	6.757	44	100	86	56	7.442	64	48	48	86
6.122	40	28	24	56	6.766	64	44	40	86	7.465	86	64	40	72
6.125	56	40	28	64	6.784	100	48	28	86	7.467	64	48	56	100
6.137	72	44	24	64	6.806	56	32	28	72	7.500	72	48	32	64
6.140	48	40	44	86	6.818	40	64	48	44	7.525	56	100	86	64
6.143	40	100	86	56	6.822	44	86	64	48	7.543	48	28	44	100
6.160	56	40	44	100	6.825	86	56	32	72	7.576	100	44	24	72
6.171	48	100	72	56	6.857	64	40	24	56	7.597	56	24	28	86
6.202	40	86	64	48	6.875	44	48	48	64	7.601	86	44	28	72
6.222	28	72	64	40	6.880	32	100	86	40	7.611	72	44	40	86
6.234	48	44	32	56	6.944	100	64	32	72	7.619	64	48	32	56
6.250	40	48	48	64	6.945	100	56	28	72	7.620	64	56	48	72
6.255	32	100	86	44	6.968	86	48	28	72	7.636	56	40	24	44
6.279	48	86	72	64	6.977	72	48	40	86	7.639	44	32	40	72
6.286	44	40	32	56	6.982	64	44	48	100	7.644	64	100	86	72
6.300	56	100	72	64	6.984	44	72	64	56	7.657	56	32	28	64
6.343	100	44	24	86	7.000	32	64	56	40	7.674	72	48	44	86
6.350	40	72	64	56	7.013	72	44	24	56	7.675	48	32	44	86
6.364	56	44	24	48	7.040	64	40	44	100	7.679	86	48	24	56
6.379	48	86	64	56	7.071	56	44	40	72	7.680	64	40	48	100

TABLE 2 (continued) — LEADS — CONVENTIONAL LEAD ATTACHMENT

CAUTION Do Not Use Rapid Traverse With Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
7.700	56	32	44	100	8.457	100	44	32	86	9.302	48	24	40	86
7.714	72	40	24	56	8.485	56	44	32	48	9.303	100	40	32	86
7.752	100	72	48	86	8.506	64	28	32	86	9.333	64	40	28	48
7.778	56	48	48	72	8.523	100	44	24	64	9.351	72	44	32	56
7.792	48	44	40	56	8.527	44	24	40	86	9.375	72	48	40	64
7.813	100	56	28	64	8.532	86	56	40	72	9.382	48	100	86	44
7.815	56	40	48	86	8.534	64	24	32	100	9.385	86	56	44	72
7.818	40	100	86	44	8.552	86	44	28	64	9.406	86	40	28	64
7.838	86	48	28	64	8.556	56	40	44	72	9.428	44	28	24	40
7.855	72	44	48	100	8.572	72	48	32	56	9.429	48	40	44	56
7.857	44	48	48	56	8.594	44	32	40	64	9.460	44	100	86	40
7.872	44	28	32	64	8.600	86	48	48	100	9.472	56	44	64	86
7.875	72	40	28	64	8.640	72	40	48	100	9.524	64	48	40	56
7.883	44	100	86	48	8.681	100	64	40	72	9.545	56	44	48	64
7.920	72	40	44	100	8.682	64	48	56	86	9.549	100	64	44	72
7.936	100	56	32	72	8.687	86	44	32	72	9.556	86	40	32	72
7.954	40	64	56	44	8.721	100	64	48	86	9.569	72	56	64	86
7.963	86	48	32	72	8.727	48	40	32	44	9.598	86	56	40	64
7.974	48	28	40	86	8.730	44	28	40	72	9.600	72	48	64	100
7.994	100	64	44	86	8.750	56	48	48	64	9.625	56	40	44	64
8.000	32	48	48	40	8.772	48	28	44	86	9.643	72	56	48	64
8.021	56	48	44	64	8.800	64	32	44	100	9.675	72	100	86	64
8.035	72	56	40	64	8.838	100	44	28	72	9.690	100	48	40	86
8.063	86	40	24	64	8.839	72	56	44	64	9.697	64	48	32	44
8.081	64	44	40	72	8.889	64	48	48	72	9.723	56	32	40	72
8.102	100	48	28	72	8.909	56	40	28	44	9.741	100	44	24	56
8.119	48	86	64	44	8.929	100	56	32	64	9.768	72	48	56	86
8.140	100	40	28	86	8.930	48	86	64	40	9.773	86	44	32	64
8.145	64	44	56	100	8.953	56	32	44	86	9.778	64	40	44	72
8.148	64	48	44	72	8.959	86	64	48	72	9.796	64	28	24	56
8.163	40	28	32	56	8.960	64	40	56	100	9.818	72	40	24	44
8.167	56	40	28	48	8.980	44	28	32	56	9.822	44	32	40	56
8.182	72	44	32	64	9.000	72	40	28	56	9.828	64	100	86	56
8.186	64	40	44	86	9.044	100	72	56	86	9.844	72	32	28	64
8.212	86	64	44	72	9.074	56	24	28	72	9.900	72	32	44	100
8.229	64	100	72	56	9.091	40	48	48	44	9.921	100	56	40	72
8.250	48	40	44	64	9.115	100	48	28	64	9.923	64	24	32	86
8.306	100	56	40	86	9.134	72	44	48	86	9.943	100	44	28	64
8.312	64	44	32	56	9.137	100	56	44	86	9.954	86	48	40	72
8.333	40	24	32	64	9.143	64	40	32	56	9.967	100	56	48	86
8.361	86	40	28	72	9.164	72	44	56	100					
8.372	72	48	48	86	9.167	44	24	24	48					
8.377	86	44	24	56	9.210	72	40	44	86					
8.400	72	48	56	100	9.214	86	40	24	56					
8.437	72	32	24	64	9.260	100	48	32	72					

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 2 (continued) — LEADS — CONVENTIONAL LEAD ATTACHMENT

NOTE Power Feed and Rapid Traverse May Be Used with All Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
10.000	64	32	28	56	10.913	100	56	44	72	11.944	86	48	48	72
10.033	56	100	86	48	10.937	100	40	28	64	11.960	72	28	40	86
10.046	72	40	48	86	10.945	56	100	86	44	12.000	72	40	32	48
10.057	64	28	44	100	10.949	86	48	44	72	12.031	56	32	44	64
10.078	86	32	24	64	10.972	64	28	48	100	12.040	56	100	86	40
10.080	72	40	56	100	11.000	44	48	48	40	12.121	64	44	40	48
10.101	100	44	32	72	11.021	72	28	24	56	12.153	100	64	56	72
10.159	64	28	32	72	11.057	72	100	86	56	12.178	72	44	64	86
10.175	100	64	56	86	11.111	64	32	40	72	12.216	86	44	40	64
10.182	64	40	28	44	11.137	56	32	28	44	12.222	64	32	44	72
10.186	44	24	40	72	11.160	100	56	40	64	12.245	48	28	40	56
10.209	56	32	28	48	11.163	72	48	64	86	12.250	56	32	28	40
10.228	72	44	40	64	11.169	86	44	32	56	12.272	72	64	48	44
10.233	64	32	44	86	11.198	86	48	40	64	12.277	100	56	44	64
10.238	48	72	86	56	11.200	64	32	56	100	12.286	86	40	32	56
10.267	56	24	44	100	11.225	44	28	40	56	12.318	86	48	44	64
10.286	72	40	32	56	11.250	72	48	48	64	12.343	72	28	48	100
10.312	48	32	44	64	11.313	64	44	56	72	12.375	72	40	44	64
10.313	72	48	44	64	11.314	72	28	44	100	12.403	64	24	40	86
10.320	48	100	86	40	11.363	100	44	32	64	12.444	64	40	56	72
10.336	100	72	64	86	11.401	86	44	28	48	12.468	64	44	48	56
10.370	64	48	56	72	11.429	64	48	48	56	12.500	100	40	32	64
10.390	64	44	40	56	11.454	72	40	28	44	12.509	64	100	86	44
10.417	100	64	48	72	11.459	44	32	40	48	12.542	86	40	28	48
10.419	64	40	56	86	11.467	64	100	86	48	12.558	72	32	48	86
10.451	86	64	56	72	11.512	72	32	44	86	12.571	64	40	44	56
10.467	72	32	40	86	11.518	86	56	48	64	12.572	44	56	64	40
10.473	72	44	64	100	11.520	72	40	64	100	12.600	72	32	56	100
10.476	64	48	44	56	11.574	100	48	40	72	12.627	100	44	40	72
10.500	56	40	48	64	11.629	100	48	48	86	12.686	100	44	48	86
10.558	86	56	44	64	11.638	64	40	32	44	12.698	64	28	40	72
10.571	100	44	40	86	11.667	56	24	32	64	12.727	64	32	28	44
10.606	56	44	40	48	11.688	72	44	40	56	12.728	56	48	48	44
10.631	64	28	40	86	11.695	64	28	44	86	12.732	100	48	44	72
10.655	72	44	56	86	11.719	100	32	24	64	12.758	64	28	48	86
10.659	100	48	44	86	11.721	72	40	56	86	12.791	100	40	44	86
10.667	64	40	48	72	11.728	86	40	24	44	12.798	86	48	40	56
10.694	44	48	56	48	11.733	64	24	44	100	12.800	64	28	56	100
10.713	40	28	48	64	11.757	86	32	28	64	12.834	44	48	56	40
10.714	72	48	40	56	11.785	72	48	44	56	12.857	72	28	32	64
10.750	86	40	32	64	11.786	48	32	44	56	12.858	48	56	48	32
10.800	72	32	48	100	11.825	86	32	44	100	12.900	72	100	86	48
10.853	56	24	40	86	11.852	64	24	32	72	12.963	56	24	40	72
10.859	86	44	40	72	11.905	100	56	48	72	12.987	100	44	32	56
10.909	64	32	24	44	11.938	56	24	44	86	13.020	100	48	40	64

TABLE 2 (continued) — LEADS — CONVENTIONAL LEAD ATTACHMENT

NOTE Power Feed and Rapid Traverse May Be Used with All Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
13.024	64	32	56	86	14.286	100	40	32	56	15.677	86	48	56	64
13.030	86	44	48	72	14.318	72	64	56	44	15.714	64	32	44	56
13.062	64	28	32	56	14.319	72	44	56	64	15.750	72	40	56	64
13.082	100	64	72	86	14.322	100	48	44	64	15.767	86	24	44	100
13.090	72	40	32	44	14.333	86	40	48	72	15.873	100	56	64	72
13.096	44	24	40	56	14.352	72	28	48	86	15.874	100	56	64	72
13.125	72	48	56	64	14.400	72	32	64	100	15.909	56	32	40	44
13.139	86	40	44	72	14.536	100	32	40	86	15.926	86	48	64	72
13.157	72	28	44	86	14.545	64	48	48	44	15.989	100	32	44	86
13.163	86	28	24	56	14.583	56	24	40	64	16.000	64	48	48	40
13.200	72	24	44	100	14.651	72	32	56	86	16.042	56	32	44	48
13.258	100	44	28	48	14.659	86	44	48	64	16.071	72	28	40	64
13.289	100	56	64	86	14.667	64	40	44	48	16.125	86	40	48	64
13.333	64	32	48	72	14.694	72	28	32	56	16.204	100	48	56	72
13.393	100	56	48	64	14.743	86	28	48	100	16.233	100	44	40	56
13.396	72	40	64	86	14.780	86	40	44	64	16.280	100	40	56	86
13.437	86	32	28	56	14.800	100	44	56	86	16.288	86	44	40	48
13.438	86	48	48	64	14.815	64	24	40	72	16.296	64	24	44	72
13.469	48	28	44	56	14.849	56	24	28	44	16.327	64	28	40	56
13.500	72	40	48	64	14.880	100	48	40	56	16.333	56	24	28	40
13.514	86	28	44	100	14.884	64	28	56	86	16.364	72	48	48	44
13.566	100	48	56	86	14.931	86	32	40	72	16.370	100	48	44	56
13.611	56	24	28	48	14.933	64	24	56	100	16.423	86	32	44	72
13.636	72	44	40	48	14.950	100	56	72	86	16.456	72	28	64	100
13.643	64	24	44	86	15.000	72	24	28	56	16.500	72	40	44	48
13.650	86	56	64	72	15.050	86	32	56	100	16.612	100	28	40	86
13.672	100	32	28	64	15.150	100	44	32	48	16.623	64	28	32	44
13.682	86	40	28	44	15.151	100	44	48	72	16.667	100	40	48	72
13.713	64	40	48	56	15.202	86	44	56	72	16.722	86	40	56	72
13.715	64	56	48	40	15.238	64	28	48	72	16.744	72	32	64	86
13.750	44	48	48	32	15.239	64	24	32	56	16.753	86	44	48	56
13.760	86	40	64	100	15.272	56	40	48	44	16.797	86	32	40	64
13.889	100	48	48	72	15.278	44	24	40	48	16.800	72	24	56	100
13.935	86	48	56	72	15.279	100	40	44	72	16.875	72	32	48	64
13.953	100	40	48	86	15.306	100	28	24	56	16.892	86	40	44	56
13.960	86	44	40	56	15.349	72	24	44	86	16.914	100	44	64	86
13.968	64	28	44	72	15.357	86	48	48	56	16.970	64	48	56	44
14.000	56	48	48	40	15.429	72	40	48	56	17.045	100	44	48	64
14.026	72	44	48	56	15.469	72	32	44	64	17.062	86	28	40	72
14.063	72	32	40	64	15.480	72	100	86	40	17.102	86	44	56	64
14.071	72	100	86	44	15.504	100	48	64	86	17.143	64	56	48	32
14.078	86	48	44	56	15.556	64	48	56	48	17.188	100	40	44	64
14.142	72	40	44	56	15.584	48	28	40	44	17.200	86	32	64	100
14.204	100	44	40	64	15.625	100	48	48	64	17.275	86	56	72	64
14.260	56	24	44	72	15.636	86	40	32	44	17.361	100	32	40	72

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 2 (continued) — LEADS — CONVENTIONAL LEAD ATTACHMENT

NOTE Power Feed and Rapid Traverse May Be Used with All Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
17.364	64	24	56	86	19.394	64	24	32	44	21.82	100	28	44	72
17.373	86	44	64	72	19.444	100	40	56	72	21.88	100	40	56	64
17.442	100	48	72	86	19.480	100	44	48	56	21.90	86	24	44	72
17.454	64	40	48	44	19.531	100	32	40	64	21.94	86	28	40	56
17.500	56	48	48	32	19.535	72	24	56	86	21.99	86	44	72	64
17.550	86	28	32	56	19.545	86	48	48	44	22.00	64	32	44	40
17.677	100	44	56	72	19.590	64	28	48	56	22.04	72	28	48	56
17.679	72	28	44	64	19.635	72	40	48	44	22.11	86	28	72	100
17.778	64	28	56	72	19.642	100	40	44	56	22.22	100	40	64	72
17.858	100	28	32	64	19.643	44	28	40	32	22.32	100	28	40	64
17.917	86	24	28	56	19.656	86	28	64	100	22.34	86	44	64	56
17.918	86	32	48	72	19.687	72	32	56	64	22.40	86	24	40	64
17.959	64	28	44	56	19.710	86	40	44	48	22.50	72	28	56	64
18.000	72	48	48	40	19.840	100	28	40	72	22.73	100	48	48	44
18.181	100	40	32	44	19.886	100	44	56	64	22.80	86	48	56	44
18.182	48	24	40	44	19.908	86	24	40	72	22.86	64	48	48	28
18.229	100	48	56	64	19.934	100	28	48	86	22.91	72	44	56	40
18.273	100	28	44	86	20.00	64	48	48	32	22.92	100	40	44	48
18.285	64	28	32	40	20.07	86	24	56	100	22.93	86	24	64	100
18.333	64	32	44	48	20.09	100	56	72	64	23.04	86	32	48	56
18.367	72	28	40	56	20.16	86	48	72	64	23.14	100	24	40	72
18.428	86	40	48	56	20.20	100	44	64	72	23.26	100	32	64	86
18.476	86	32	44	64	20.35	100	32	56	86	23.33	64	32	56	48
18.519	100	48	64	72	20.36	64	40	56	44	23.38	72	28	40	44
18.605	100	40	64	86	20.41	100	28	32	56	23.44	100	48	72	64
18.663	100	64	86	72	20.42	56	24	28	32	23.45	86	40	48	44
18.667	64	40	56	48	20.45	72	32	40	44	23.52	86	32	56	64
18.700	72	44	64	56	20.48	86	48	64	56	23.57	72	24	44	56
18.750	100	40	48	64	20.57	72	40	64	56	23.81	100	28	48	72
18.770	86	28	44	72	20.63	72	24	44	64	23.89	86	32	64	72
18.812	86	40	56	64	20.74	64	24	56	72	24.00	100	56	86	64
18.858	48	28	44	40	20.78	64	28	40	44	24.13	86	28	44	56
18.939	100	44	40	28	20.83	100	32	48	72	24.19	86	40	72	64
19.029	100	44	72	86	20.90	86	32	56	72	24.24	64	24	40	44
19.048	64	24	40	56	20.93	100	40	72	86	24.31	100	32	56	72
19.091	72	44	56	48	20.95	64	28	44	48	24.43	86	32	40	44
19.096	100	32	44	72	21.00	72	40	56	48	24.44	64	24	44	48
19.111	86	40	64	72	21.12	86	32	44	56	24.54	72	32	48	44
19.136	72	28	64	86	21.21	56	24	40	44	24.55	100	32	44	56
19.197	86	28	40	64	21.32	100	24	44	86	24.57	86	40	64	56
19.200	72	24	64	100	21.33	100	56	86	72	24.64	86	24	44	64
19.250	56	32	44	40	21.39	56	24	44	48	24.75	72	32	44	40
19.286	72	56	48	32	21.43	100	40	48	56	24.88	100	72	86	48
19.350	86	32	72	100	21.48	100	32	44	64	24.93	64	28	48	44
19.380	100	24	40	86	21.50	86	48	48	40	25.00	100	48	48	40

TABLE 2 (continued) — LEADS — CONVENTIONAL LEAD ATTACHMENT

NOTE Power Feed and Rapid Traverse May Be Used with All Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
25.08	86	40	56	48	28.57	100	56	64	40	33.33	100	48	64	40
25.13	86	44	72	56	28.64	72	44	56	32	33.51	86	28	48	44
25.14	64	28	44	40	28.65	100	24	44	64	33.59	100	64	86	40
25.45	56	24	48	44	28.67	86	40	64	48	33.79	86	28	44	40
25.46	100	24	44	72	29.09	64	28	56	44	33.94	64	24	56	44
25.51	100	28	40	56	29.17	100	48	56	40	34.09	100	48	72	44
25.57	100	64	72	44	29.22	100	56	72	44	34.20	86	44	56	32
25.60	86	24	40	56	29.32	86	48	72	44	34.29	72	48	64	28
25.67	56	24	44	40	29.34	64	24	44	40	34.38	100	32	44	40
25.71	72	24	48	56	29.39	72	28	64	56	34.55	86	28	72	64
25.80	86	24	72	100	29.56	86	32	44	40	34.72	100	24	40	48
25.97	100	44	64	56	29.76	100	28	40	48	34.88	100	24	72	86
26.04	100	24	40	64	29.86	86	24	40	48	34.90	100	56	86	44
26.06	86	44	64	48	29.90	100	28	72	86	35.00	72	24	56	48
26.16	100	32	72	86	30.00	72	32	64	48	35.10	86	28	64	56
26.18	72	40	64	44	30.23	86	32	72	64	35.16	100	32	72	64
26.19	44	24	40	28	30.30	100	48	64	44	35.18	86	44	72	40
26.25	72	32	56	48	30.48	64	24	32	28	35.36	72	32	44	28
26.33	86	28	48	56	30.54	100	44	86	64	35.56	64	24	32	24
26.52	100	44	56	48	30.56	44	24	40	24	35.71	100	32	64	56
26.58	100	28	64	86	30.61	100	28	48	56	35.83	86	32	64	48
26.67	64	28	56	48	30.71	86	24	48	56	36.00	72	32	64	40
26.79	100	48	72	56	30.86	72	28	48	40	36.36	100	44	64	40
26.88	86	28	56	64	31.01	100	24	64	86	36.46	100	48	56	32
27.00	72	32	48	40	31.11	64	24	56	48	36.67	48	24	44	24
27.13	100	24	56	86	31.25	100	28	56	64	36.86	86	28	48	40
27.15	100	44	86	72	31.27	86	40	64	44	37.04	100	24	64	72
27.22	56	24	28	24	31.35	86	24	56	64	37.33	64	24	56	40
27.27	72	24	40	44	31.43	64	28	44	32	37.40	72	28	64	44
27.30	86	28	64	72	31.50	72	32	56	40	37.50	72	24	40	32
27.34	100	32	56	64	31.75	100	72	64	28	37.63	86	32	56	40
27.36	86	40	56	44	31.82	100	44	56	40	37.88	100	24	40	44
27.43	64	28	48	40	31.85	86	24	64	72	38.10	64	24	40	28
27.50	56	32	44	28	31.99	100	56	86	48	38.18	72	24	56	44
27.64	86	40	72	56	32.00	64	28	56	40	38.20	100	24	44	48
27.78	100	32	64	72	32.09	56	24	44	32	38.39	86	28	40	32
27.87	86	24	56	72	32.14	100	56	72	40	38.57	72	28	48	32
27.92	86	28	40	44	32.25	86	48	72	40	38.89	56	24	40	24
28.00	100	64	86	48	32.41	100	24	56	72	38.96	100	28	48	44
28.05	72	28	48	44	32.47	100	28	40	44	39.09	86	32	64	44
28.06	100	28	44	56	32.58	86	24	40	44	39.29	100	28	44	40
28.13	100	40	72	64	32.73	72	32	64	44	39.42	86	24	44	40
28.15	86	28	44	48	32.74	100	28	44	48	39.49	86	28	72	56
28.29	72	28	44	40	32.85	86	24	44	48	39.77	100	32	56	44
28.41	100	32	40	44	33.00	72	24	44	40	40.00	72	24	64	48

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 2 (continued) — LEADS — CONVENTIONAL LEAD ATTACHMENT

NOTE Power Feed and Rapid Traverse May Be Used with All Leads Shown on This Page.

Lead	A	B	C	D	Lead	A	B	C	D	Lead	A	B	C	D
40.18	100	32	72	56	49.27	86	24	44	32	68.18	100	24	72	44
40.31	86	32	72	48	49.77	100	24	86	72	68.57	72	24	64	28
40.72	100	44	86	48	50.00	72	24	40	24	69.11	86	28	72	32
40.82	100	28	64	56	50.17	86	24	56	40	69.44	100	24	40	24
40.91	100	40	72	44	50.26	86	28	72	44	69.80	100	28	86	44
40.95	86	28	64	48	51.14	100	32	72	44	70.00	72	24	56	24
41.14	72	28	64	40	51.19	86	24	40	28	71.43	100	28	64	32
41.25	72	24	44	32	51.43	72	24	48	28	71.67	86	24	48	24
41.67	100	32	64	48	51.95	100	28	64	44	72.92	100	24	56	32
41.81	86	24	56	48	52.08	100	24	40	32	74.65	100	24	86	48
41.91	64	24	44	28	52.12	86	24	64	44	75.00	100	24	72	40
41.99	100	32	86	64	52.50	72	24	56	32	76.39	100	24	44	24
42.00	72	24	56	40	53.03	100	24	56	44	76.79	100	28	86	40
42.23	86	28	44	32	53.33	64	24	56	28	80.00	72	24	64	24
42.66	100	28	86	72	53.57	100	24	72	56	80.36	100	28	72	32
42.78	56	24	44	24	53.75	86	24	48	32	80.63	86	24	72	32
42.86	100	28	48	40	54.85	100	28	86	56	81.44	100	24	86	44
43.00	86	24	48	40	55.00	72	24	44	24	81.90	86	24	64	28
43.64	72	24	64	44	55.28	86	28	72	40	83.33	100	24	48	24
43.75	100	32	56	40	55.56	100	24	64	48	83.61	86	24	56	24
43.98	86	32	72	44	55.99	100	24	86	64	89.59	100	24	86	40
44.44	64	24	40	24	56.25	100	32	72	40	92.14	86	24	72	28
44.64	100	28	40	32	56.31	86	24	44	28	93.75	100	24	72	32
44.68	86	28	64	44	57.14	100	28	64	40	95.24	100	24	64	28
44.79	86	24	40	32	57.30	100	24	44	32	95.56	86	24	64	24
45.00	72	24	48	32	57.33	86	24	64	40	95.98	100	28	86	32
45.45	100	24	48	44	58.33	100	24	56	40	97.22	100	24	56	24
45.61	86	24	56	44	58.44	100	28	72	44	107.14	100	24	72	28
45.72	64	24	48	28	58.64	86	24	72	44	107.50	86	24	72	24
45.84	100	24	44	40	59.53	100	24	40	28	111.11	100	24	64	24
45.92	100	28	72	56	59.72	86	24	40	24	111.98	100	24	86	32
46.07	86	28	48	32	60.00	72	24	64	32	125.00	100	24	72	24
46.67	64	24	56	32	60.61	100	24	64	44	127.98	100	24	86	28
46.88	100	24	72	64	61.08	100	32	86	44	149.31	100	24	86	24
47.15	72	24	44	28	61.43	86	24	48	28					
47.62	100	24	64	56	62.22	64	24	56	24					
47.78	86	24	64	48	62.50	100	23	56	32					
47.99	100	28	86	64	62.71	86	24	56	32					
48.00	72	24	64	40	63.99	100	24	86	56					
48.38	86	32	72	40	64.29	100	28	72	40					
48.61	100	24	56	48	64.50	86	24	72	40					
48.86	100	40	86	44	65.48	100	24	44	28					
48.89	64	24	44	24	65.70	86	24	44	24					
49.11	100	28	44	32	66.67	100	24	64	40					
49.14	86	28	64	40	67.19	100	32	86	40					

TABLE 3 — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Table Trip Lever is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
.0219	20	38	20	40	1	96	.0301	20	36	26	40	1	96	.0382	20	30	22	32	1	96
.0230	20	38	21	40	1	96	.0302	20	29	21	40	1	96	.0384	25	38	28	40	1	96
.0232	20	36	20	40	1	96	.0303	23	38	24	40	1	96	.0386	20	25	22	38	1	96
.0241	20	38	22	40	1	96	.0304	20	32	21	36	1	96	.0388	20	26	23	38	1	96
.0243	20	36	21	40	1	96	.0305	20	36	25	38	1	96	.0390	20	27	24	38	1	96
.0244	20	36	20	38	1	96	.0306	22	36	24	40	1	96	.0392	22	32	26	38	1	96
.0245	20	34	20	40	1	96	.0307	20	30	21	38	1	96	.0394	23	32	25	38	1	96
.0252	20	38	23	40	1	96	.0308	22	36	23	38	1	96	.0396	25	36	26	38	1	96
.0253	21	38	22	40	1	96	.0309	21	34	24	40	1	96	.0398	22	32	25	36	1	96
.0255	20	36	22	40	1	96	.0310	22	34	23	40	1	96	.0400	20	25	24	40	1	96
.0256	20	36	21	38	1	96	.0311	21	38	27	40	1	96	.0402	20	24	22	38	1	96
.0257	20	34	21	40	1	96	.0312	21	34	23	38	1	96	.0404	22	29	23	36	1	96
.0258	20	34	20	38	1	96	.0314	22	38	26	40	1	96	.0406	20	27	25	38	1	96
.0260	20	32	20	40	1	96	.0316	21	36	26	40	1	96	.0408	21	29	23	34	1	96
.0263	20	38	24	40	1	96	.0318	20	38	29	40	1	96	.0410	22	38	34	40	1	96
.0265	21	38	23	40	1	96	.0320	21	36	25	38	1	96	.0412	24	34	28	40	1	96
.0266	20	36	23	40	1	96	.0322	21	34	25	40	1	96	.0414	21	27	23	36	1	96
.0267	21	36	22	40	1	96	.0324	20	30	21	36	1	96	.0416	23	32	25	36	1	96
.0268	20	36	22	38	1	96	.0326	22	38	27	40	1	96	.0418	24	34	27	38	1	96
.0270	20	34	22	40	1	96	.0328	21	32	24	40	1	96	.0420	21	25	24	40	1	96
.0271	20	34	21	38	1	96	.0330	20	29	23	40	1	96	.0422	21	24	22	38	1	96
.0272	20	34	20	36	1	96	.0332	21	29	22	40	1	96	.0424	20	30	29	38	1	96
.0273	20	32	21	40	1	96	.0334	21	38	29	40	1	96	.0426	21	29	24	34	1	96
.0274	20	32	20	38	1	96	.0336	20	30	23	38	1	96	.0428	23	28	25	40	1	96
.0276	21	38	24	40	1	96	.0338	20	29	20	34	1	96	.0430	21	26	23	36	1	96
.0277	22	38	23	40	1	96	.0340	21	36	28	40	1	96	.0432	20	27	21	30	1	96
.0278	20	30	20	40	1	96	.0342	24	38	26	40	1	96	.0434	25	36	30	40	1	96
.0280	20	36	23	38	1	96	.0344	22	32	24	40	1	96	.0436	21	29	26	36	1	96
.0281	21	36	22	38	1	96	.0346	23	36	26	40	1	96	.0438	22	32	26	34	1	96
.0282	20	34	23	40	1	96	.0348	20	29	23	38	1	96	.0440	22	25	24	40	1	96
.0283	21	34	22	40	1	96	.0350	21	30	24	40	1	96	.0442	22	28	27	40	1	96
.0284	20	34	22	38	1	96	.0352	21	34	26	38	1	96	.0444	21	28	27	38	1	96
.0285	20	38	26	40	1	96	.0354	20	34	26	36	1	96	.0446	21	30	26	34	1	96
.0286	20	34	21	36	1	96	.0356	23	34	24	38	1	96	.0448	22	28	26	38	1	96
.0287	20	29	20	40	1	96	.0358	22	32	25	40	1	96	.0450	20	25	27	40	1	96
.0288	20	32	21	38	1	96	.0360	20	27	21	36	1	96	.0452	23	29	26	38	1	96
.0289	20	32	20	36	1	96	.0362	21	29	24	40	1	96	.0454	22	34	32	38	1	96
.0290	22	38	24	40	1	96	.0364	22	34	27	40	1	96	.0456	26	25	20	38	1	96
.0292	20	30	21	40	1	96	.0366	22	32	23	36	1	96	.0458	23	32	26	34	1	96
.0293	22	36	23	40	1	96	.0368	24	34	25	40	1	96	.0460	23	24	24	40	1	96
.0294	20	34	24	40	1	96	.0370	20	32	27	38	1	96	.0462	26	34	29	40	1	96
.0296	21	34	23	40	1	96	.0372	20	28	20	32	1	96	.0464	22	26	25	38	1	96
.0297	20	34	23	38	1	96	.0374	20	34	29	38	1	96	.0466	20	38	34	32	1	96
.0298	21	34	22	38	1	96	.0376	20	28	24	38	1	96	.0468	21	27	26	36	1	96
.0299	21	38	26	40	1	96	.0378	20	29	25	38	1	96	.0470	20	26	22	30	1	96
.0300	20	34	22	36	1	96	.0380	20	30	26	38	1	96	.0472	25	32	29	40	1	96

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Table Trip Lever is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
.0474	26	24	21	40	1	96	.0566	20	23	25	32	1	96	.0705	23	29	32	30	1	96
.0476	22	26	27	40	1	96	.0568	21	29	32	34	1	96	.0710	34	21	20	38	1	96
.0478	26	34	30	40	1	96	.0570	34	29	21	36	1	96	.0715	30	23	25	38	1	96
.0480	20	27	28	36	1	96	.0572	24	23	25	38	1	96	.0720	36	25	24	40	1	96
.0482	24	28	27	40	1	96	.0574	29	26	21	34	1	96	.0725	29	25	21	28	1	96
.0484	20	29	32	38	1	96	.0576	28	27	20	30	1	96	.0730	24	21	23	30	1	96
.0486	23	29	25	34	1	96	.0578	28	34	32	38	1	96	.0735	36	29	27	38	1	96
.0488	29	26	21	40	1	96	.0580	24	25	29	40	1	96	.0740	30	24	27	38	1	96
.0490	21	25	28	40	1	96	.0582	30	26	23	38	1	96	.0745	25	27	28	29	1	96
.0492	25	36	34	40	1	96	.0584	23	28	29	34	1	96	.0750	32	24	27	40	1	96
.0494	22	29	25	32	1	96	.0586	22	23	25	34	1	96	.0755	26	22	23	30	1	96
.0496	28	26	21	38	1	96	.0588	27	22	23	40	1	96	.0760	38	25	24	40	1	96
.0498	20	29	26	30	1	96	.0590	22	29	28	30	1	96	.0765	34	25	27	40	1	96
.0500	20	25	21	28	1	96	.0592	27	20	20	38	1	96	.0770	22	20	21	25	1	96
.0502	22	21	23	40	1	96	.0594	21	24	22	27	1	96	.0775	28	27	26	29	1	96
.0504	28	27	21	36	1	96	.0596	28	27	20	29	1	96	.0780	38	28	20	29	1	96
.0506	20	40	34	28	1	96	.0598	25	22	24	38	1	96	.0785	25	23	26	30	1	96
.0508	24	29	28	38	1	96	.0600	20	40	36	25	1	96	.0790	34	26	29	40	1	96
.0510	26	34	32	40	1	96	.0602	20	21	22	29	1	96	.0795	30	24	29	38	1	96
.0512	23	26	25	36	1	96	.0604	23	28	30	34	1	96	.0800	32	20	24	40	1	96
.0514	25	32	30	38	1	96	.0606	20	22	20	25	1	96	.0805	23	20	21	25	1	96
.0516	40	34	20	38	1	96	.0608	22	26	25	29	1	96	.0810	36	25	27	40	1	96
.0518	21	24	27	38	1	96	.0610	29	26	21	32	1	96	.0815	38	24	21	34	1	96
.0520	24	25	26	40	1	96	.0612	23	27	25	29	1	96	.0820	32	22	23	34	1	96
.0522	23	27	25	34	1	96	.0614	28	20	20	38	1	96	.0825	27	20	22	30	1	96
.0524	21	24	23	32	1	96	.0616	26	30	29	34	1	96	.0830	24	22	21	23	1	96
.0526	25	22	20	36	1	96	.0618	29	23	20	34	1	96	.0835	38	29	26	34	1	96
.0528	21	29	28	32	1	96	.0620	28	23	22	36	1	96	.0840	38	26	20	29	1	96
.0530	25	30	29	38	1	96	.0622	26	22	24	38	1	96	.0845	29	22	20	26	1	96
.0532	22	28	26	32	1	96	.0624	26	27	28	36	1	96	.0850	34	25	24	32	1	96
.0534	23	34	36	38	1	96	.0625	21	20	20	28	1	96	.0855	38	25	27	40	1	96
.0536	22	27	30	38	1	96	.0630	36	25	21	40	1	96	.0860	28	24	23	26	1	96
.0538	23	30	32	38	1	96	.0635	34	29	26	40	1	96	.0865	29	25	34	38	1	96
.0540	24	25	27	40	1	96	.0640	32	25	24	40	1	96	.0870	38	26	20	28	1	96
.0542	23	26	25	34	1	96	.0645	40	34	25	38	1	96	.0875	30	20	28	40	1	96
.0544	26	22	21	38	1	96	.0650	26	25	27	36	1	96	.0880	24	20	22	25	1	96
.0546	38	29	20	40	1	96	.0655	28	30	32	38	1	96	.0885	28	20	22	29	1	96
.0548	22	29	26	30	1	96	.0660	22	25	27	30	1	96	.0890	26	20	23	28	1	96
.0550	21	25	22	28	1	96	.0665	24	23	26	34	1	96	.0895	29	21	28	36	1	96
.0552	23	27	28	36	1	96	.0670	38	26	22	40	1	96	.0900	36	20	24	40	1	96
.0554	21	26	23	28	1	96	.0675	24	25	27	32	1	96	.0905	40	26	24	34	1	96
.0556	27	25	21	34	1	96	.0680	34	25	24	40	1	96	.0910	38	24	20	29	1	96
.0558	21	23	22	30	1	96	.0685	28	26	29	38	1	96	.0915	36	27	28	34	1	96
.0560	22	26	27	34	1	96	.0690	23	25	27	30	1	96	.0920	24	20	23	25	1	96
.0562	32	29	22	36	1	96	.0695	27	20	21	34	1	96	.0925	32	22	29	38	1	96
.0564	36	28	20	38	1	96	.0700	24	20	21	30	1	96	.0930	28	23	22	24	1	96

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Table Trip Lever is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
.0935	26	24	29	28	1	96	.1165	38	23	22	26	1	96	.1540	34	23	30	24	1	96
.0940	34	23	29	38	1	96	.1170	30	28	38	29	1	96	.1550	38	22	28	26	1	96
.0945	27	20	21	25	1	96	.1175	40	24	22	26	1	96	.1560	36	20	26	25	1	96
.0950	38	25	24	32	1	96	.1180	30	22	27	26	1	96	.1570	40	24	26	23	1	96
.0955	36	26	24	29	1	96	.1185	40	25	24	27	1	96	.1580	34	26	29	20	1	96
.0960	27	25	32	30	1	96	.1190	34	20	21	25	1	96	.1590	40	20	21	22	1	96
.0965	40	20	22	38	1	96	.1195	29	21	27	26	1	96	.1600	36	21	28	25	1	96
.0970	40	27	22	28	1	96	.1200	27	21	28	25	1	96	.1610	34	20	25	22	1	96
.0975	26	24	27	25	1	96	.1205	38	23	21	24	1	96	.1620	36	25	27	20	1	96
.0980	21	20	28	25	1	96	.1210	34	21	26	29	1	96	.1630	34	24	29	21	1	96
.0985	29	23	30	32	1	96	.1215	38	23	30	34	1	96	.1640	38	28	29	20	1	96
.0990	27	20	22	25	1	96	.1220	36	22	34	38	1	96	.1650	36	20	22	20	1	96
.0995	34	23	21	26	1	96	.1225	28	20	21	20	1	96	.1660	36	22	28	23	1	96
.1000	36	24	20	25	1	96	.1230	28	22	29	25	1	96	.1670	38	25	29	22	1	96
.1005	30	22	23	26	1	96	.1235	30	22	25	23	1	96	.1680	36	20	28	25	1	96
.1010	32	22	25	30	1	96	.1240	40	21	25	32	1	96	.1690	40	26	29	22	1	96
.1015	38	26	25	30	1	96	.1245	36	22	21	23	1	96	.1700	34	25	30	20	1	96
.1020	29	22	26	28	1	96	.1250	36	20	25	30	1	96	.1710	38	25	27	20	1	96
.1025	40	22	23	34	1	96	.1260	36	20	21	25	1	96	.1720	40	24	26	21	1	96
.1030	28	25	32	29	1	96	.1270	38	22	30	34	1	96	.1730	40	26	27	20	1	96
.1035	27	20	23	25	1	96	.1280	32	20	24	25	1	96	.1740	36	25	29	20	1	96
.1040	26	20	24	25	1	96	.1290	38	20	22	27	1	96	.1750	21	30	27	36	1	24
.1045	40	22	20	29	1	96	.1300	30	20	26	25	1	96	.1760	22	25	24	40	1	24
.1050	36	20	21	30	1	96	.1310	38	25	30	29	1	96	.1770	21	29	22	30	1	24
.1055	26	23	28	25	1	96	.1320	36	20	22	25	1	96	.1780	23	34	30	38	1	24
.1060	34	21	22	28	1	96	.1330	38	20	21	25	1	96	.1790	20	30	29	36	1	24
.1065	34	28	40	38	1	96	.1340	38	22	27	29	1	96	.1800	20	25	27	40	1	24
.1070	32	24	26	27	1	96	.1350	30	20	27	25	1	96	.1810	20	26	24	34	1	24
.1075	38	24	22	27	1	96	.1360	34	20	24	25	1	96	.1820	21	25	26	40	1	24
.1080	27	20	24	25	1	96	.1370	38	24	27	26	1	96	.1830	21	27	24	34	1	24
.1085	40	24	25	32	1	96	.1380	36	20	23	25	1	96	.1840	23	25	24	40	1	24
.1090	36	21	29	38	1	96	.1390	38	22	28	29	1	96	.1850	25	32	27	38	1	24
.1095	32	23	34	36	1	96	.1400	40	20	21	25	1	96	.1860	20	28	25	32	1	24
.1100	30	20	22	25	1	96	.1410	40	20	22	26	1	96	.1870	21	26	25	36	1	24
.1105	40	26	25	29	1	96	.1420	40	21	34	38	1	96	.1880	20	38	30	28	1	24
.1110	34	22	25	29	1	96	.1430	38	23	27	26	1	96	.1890	27	25	21	40	1	24
.1115	40	23	20	26	1	96	.1440	36	20	24	25	1	96	.1901	24	26	21	34	1	24
.1120	28	20	24	25	1	96	.1450	36	20	29	30	1	96	.1910	21	27	28	38	1	24
.1125	27	24	30	25	1	96	.1460	34	23	32	27	1	96	.1920	28	27	20	36	1	24
.1130	28	26	34	27	1	96	.1470	38	20	26	28	1	96	.1930	23	32	29	36	1	24
.1135	34	24	25	26	1	96	.1480	36	28	29	21	1	96	.1940	22	21	20	36	1	24
.1140	36	25	38	40	1	96	.1490	32	34	38	20	1	96	.1950	26	30	27	40	1	24
.1145	34	22	24	27	1	96	.1500	32	20	27	24	1	96	.1960	28	25	21	40	1	24
.1150	36	20	23	30	1	96	.1510	40	23	25	24	1	96	.1970	26	22	20	40	1	24
.1155	34	23	30	32	1	96	.1520	38	20	24	25	1	96	.1980	27	25	22	40	1	24
.1160	29	20	24	25	1	96	.1530	34	20	27	25	1	96	.1990	21	30	29	34	1	24

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Table Trip Lever is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
.2000	20	25	21	28	1	24	.2460	23	22	24	34	1	24	.3340	26	34	38	29	1	24
.2010	22	24	25	38	1	24	.2470	32	25	22	38	1	24	.3360	24	20	21	25	1	24
.2020	27	34	29	38	1	24	.2480	28	23	22	36	1	24	.3380	29	22	20	26	1	24
.2030	29	25	21	40	1	24	.2490	26	24	20	29	1	24	.3400	24	32	34	25	1	24
.2039	26	34	32	40	1	24	.2500	21	20	20	28	1	24	.3420	27	40	38	25	1	24
.2050	23	22	20	34	1	24	.2520	36	25	21	40	1	24	.3440	23	26	28	24	1	24
.2060	27	23	20	38	1	24	.2540	34	29	26	40	1	24	.3460	29	38	34	25	1	24
.2070	23	25	27	40	1	24	.2560	32	25	24	40	1	24	.3480	29	40	36	25	1	24
.2080	24	25	26	40	1	24	.2580	40	34	25	38	1	24	.3500	30	20	28	40	1	24
.2090	20	22	20	29	1	24	.2600	24	25	26	32	1	24	.3520	24	20	22	25	1	24
.2100	30	25	21	40	1	24	.2620	28	30	32	38	1	24	.3540	28	20	22	29	1	24
.2110	22	28	29	36	1	24	.2640	22	25	27	30	1	24	.3560	26	20	23	28	1	24
.2120	29	36	30	38	1	24	.2660	38	25	21	40	1	24	.3580	29	20	20	27	1	24
.2130	21	29	30	34	1	24	.2680	38	26	22	40	1	24	.3600	36	20	24	40	1	24
.2140	24	27	26	36	1	24	.2700	24	25	27	32	1	24	.3620	40	26	24	34	1	24
.2150	25	28	26	36	1	24	.2720	34	25	24	40	1	24	.3640	26	20	21	25	1	24
.2160	24	25	27	40	1	24	.2740	28	26	29	38	1	24	.3660	36	27	28	34	1	24
.2170	25	32	30	36	1	24	.2760	23	25	27	30	1	24	.3680	24	20	23	25	1	24
.2180	23	30	29	34	1	24	.2779	27	20	21	34	1	24	.3700	32	22	29	38	1	24
.2191	20	25	23	28	1	24	.2800	24	20	21	30	1	24	.3720	28	23	22	24	1	24
.2200	21	25	22	28	1	24	.2820	23	29	32	30	1	24	.3740	29	24	26	28	1	24
.2210	22	28	27	32	1	24	.2840	28	29	30	34	1	24	.3761	34	23	29	38	1	24
.2220	27	32	30	38	1	24	.2860	30	23	25	38	1	24	.3780	27	20	21	25	1	24
.2230	20	23	20	26	1	24	.2880	36	25	24	40	1	24	.3800	27	36	38	25	1	24
.2240	21	25	24	30	1	24	.2900	29	25	21	28	1	24	.3820	36	26	24	29	1	24
.2250	27	20	20	40	1	24	.2921	32	21	23	40	1	24	.3840	36	25	24	30	1	24
.2260	23	25	23	38	1	24	.2940	27	29	36	38	1	24	.3860	40	20	22	38	1	24
.2270	22	28	26	30	1	24	.2961	27	24	30	38	1	24	.3880	30	21	22	27	1	24
.2280	34	29	21	36	1	24	.2980	25	27	28	29	1	24	.3900	27	20	26	30	1	24
.2290	29	38	36	40	1	24	.3000	32	24	27	40	1	24	.3920	28	20	21	25	1	24
.2300	21	25	23	28	1	24	.3020	26	22	23	30	1	24	.3940	29	32	30	23	1	24
.2310	26	32	29	34	1	24	.3040	38	25	24	40	1	24	.3960	27	20	22	25	1	24
.2320	24	25	29	40	1	24	.3060	34	25	27	40	1	24	.3980	34	23	21	26	1	24
.2330	25	32	34	38	1	24	.3080	21	20	22	25	1	24	.4000	30	20	20	25	1	24
.2340	26	25	27	40	1	24	.3099	26	27	28	29	1	24	.4019	26	30	32	23	1	24
.2350	23	29	32	36	1	24	.3120	36	25	26	40	1	24	.4040	28	21	20	22	1	24
.2360	25	27	26	34	1	24	.3140	25	23	26	30	1	24	.4060	29	20	21	25	1	24
.2370	26	24	21	32	1	24	.3160	29	26	34	40	1	24	.4080	27	30	34	25	1	24
.2380	32	29	22	34	1	24	.3180	23	25	28	27	1	24	.4100	40	22	23	34	1	24
.2390	26	32	30	34	1	24	.3200	32	20	24	40	1	24	.4120	28	29	32	25	1	24
.2400	36	25	20	40	1	24	.3220	23	20	21	25	1	24	.4140	23	25	27	20	1	24
.2410	22	25	23	28	1	24	.3240	36	25	27	40	1	24	.4160	24	25	26	20	1	24
.2420	23	22	25	36	1	24	.3260	28	32	38	34	1	24	.4180	40	22	20	29	1	24
.2430	34	27	22	38	1	24	.3280	23	34	32	22	1	24	.4200	24	20	21	20	1	24
.2440	32	27	21	34	1	24	.3300	27	20	22	30	1	24	.4220	26	25	28	23	1	24
.2450	28	20	21	40	1	24	.3320	24	22	21	23	1	24	.4240	29	38	40	24	1	24

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Table Trip Lever is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
.4261	34	38	40	28	1	24	.5361	38	22	27	29	1	24	.7200	36	20	24	20	1	24
.4280	28	21	26	27	1	24	.5400	27	20	24	20	1	24	.7238	38	20	24	21	1	24
.4300	38	24	22	27	1	24	.5440	34	20	24	25	1	24	.7280	38	24	40	29	1	24
.4320	27	20	24	25	1	24	.5481	38	24	27	26	1	24	.7323	40	22	29	24	1	24
.4340	40	24	25	32	1	24	.5520	36	20	23	25	1	24	.7359	34	21	30	22	1	24
.4381	36	21	29	38	1	24	.5559	38	22	28	29	1	24	.7403	38	21	27	22	1	24
.4380	32	23	34	36	1	24	.5600	32	20	21	20	1	24	.7444	40	21	34	29	1	24
.4400	24	20	22	20	1	24	.5641	40	20	22	26	1	24	.7485	38	20	26	22	1	24
.4419	28	22	25	24	1	24	.5681	40	21	34	38	1	24	.7523	40	22	36	29	1	24
.4439	29	21	27	28	1	24	.5719	38	23	27	26	1	24	.7556	34	21	28	20	1	24
.4461	32	22	23	25	1	24	.5760	36	20	24	25	1	24	.7600	38	20	24	20	1	24
.4480	28	20	24	25	1	24	.5800	29	20	24	20	1	24	.7642	40	22	29	23	1	24
.4500	36	20	21	28	1	24	.5840	32	23	34	27	1	24	.7680	36	20	32	25	1	24
.4520	28	26	34	27	1	24	.5881	38	20	26	28	1	24	.7721	38	21	32	25	1	24
.4540	26	20	22	21	1	24	.5918	36	21	29	28	1	24	.7758	40	22	32	25	1	24
.4560	36	25	38	40	1	24	.5961	38	20	32	34	1	24	.7800	36	20	26	20	1	24
.4579	34	22	24	27	1	24	.6000	30	20	24	20	1	24	.7841	38	20	26	21	1	24
.4600	30	20	23	25	1	24	.6042	40	20	29	32	1	24	.7879	40	20	26	22	1	24
.4620	34	23	30	32	1	24	.6080	36	25	38	30	1	24	.7917	38	20	25	20	1	24
.4640	29	20	24	25	1	24	.6120	34	20	27	25	1	24	.7951	38	21	29	22	1	24
.4660	38	23	22	26	1	24	.6159	34	23	30	24	1	24	.8000	40	20	24	20	1	24
.4680	27	20	26	25	1	24	.6201	38	22	28	26	1	24	.8042	40	21	38	30	1	24
.4701	40	24	22	26	1	24	.6240	36	20	26	25	1	24	.8081	40	21	28	22	1	24
.4720	30	22	27	26	1	24	.6280	40	23	26	24	1	24	.8127	40	21	32	25	1	24
.4739	34	22	23	25	1	24	.6321	34	20	29	26	1	24	.8160	36	20	34	25	1	24
.4760	34	20	21	25	1	24	.6364	40	20	21	22	1	24	.8203	38	21	34	25	1	24
.4780	29	21	27	26	1	24	.6400	32	20	24	20	1	24	.8242	34	20	32	22	1	24
.4800	36	20	20	25	1	24	.6439	34	20	25	22	1	24	.8282	40	21	30	23	1	24
.4819	38	23	21	24	1	24	.6480	36	20	27	25	1	24	.8320	40	21	38	29	1	24
.4839	34	21	26	29	1	24	.6521	34	21	29	24	1	24	.8352	38	21	36	26	1	24
.4859	38	23	30	34	1	24	.6560	38	20	29	28	1	24	.8400	36	20	28	20	1	24
.4880	34	22	36	38	1	24	.6600	36	20	22	20	1	24	.8444	38	20	28	21	1	24
.4900	28	20	21	20	1	24	.6640	36	22	28	23	1	24	.8485	40	20	28	22	1	24
.4921	28	22	29	25	1	24	.6679	38	22	29	25	1	24	.8511	38	22	34	23	1	24
.4941	30	22	25	23	1	24	.6720	36	20	28	25	1	24	.8550	38	20	27	20	1	24
.4960	30	21	25	24	1	24	.6760	40	22	29	26	1	24	.8613	38	20	34	25	1	24
.4980	36	22	21	23	1	24	.6800	34	20	24	20	1	24	.8636	38	22	36	24	1	24
.5000	25	20	24	20	1	24	.6840	38	20	27	25	1	24	.8686	38	21	36	25	1	24
.5040	36	20	21	25	1	24	.6878	40	21	26	24	1	24	.8718	40	20	34	26	1	24
.5080	38	22	30	34	1	24	.6923	40	20	27	26	1	24	.8769	38	20	36	26	1	24
.5120	32	20	24	25	1	24	.6960	36	20	29	25	1	24	.8791	40	21	36	26	1	24
.5160	38	20	22	27	1	24	.7000	30	20	28	20	1	24	.8834	40	21	32	23	1	24
.5200	26	20	24	20	1	24	.7039	34	21	30	23	1	24	.8889	40	20	28	21	1	24
.5241	38	20	24	29	1	24	.7081	38	21	27	23	1	24	.8917	38	21	34	23	1	24
.5280	36	20	22	25	1	24	.7125	38	20	27	24	1	24	.8959	40	22	34	23	1	24
.5320	38	20	21	25	1	24	.7161	40	20	29	27	1	24	.9000	40	20	27	20	1	24

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Table Trip Lever is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
.9048	40	20	38	28	1	24	1.1765	20	32	24	34	8	24	1.5440	23	32	29	36	8	24
.9031	40	22	36	24	1	24	1.1842	20	32	27	38	8	24	1.5520	22	21	20	36	8	24
.9120	38	20	36	25	1	24	1.1917	22	32	26	40	8	24	1.5600	26	30	27	40	8	24
.9143	36	20	32	21	1	24	1.2000	21	28	24	40	8	24	1.5680	28	25	21	40	8	24
.9206	40	20	29	21	1	24	1.2078	22	34	28	40	8	24	1.5758	26	22	20	40	8	24
.9235	40	21	32	22	1	24	1.2164	20	30	26	38	8	24	1.5840	22	25	27	40	8	24
.9280	40	21	38	26	1	24	1.2244	22	29	23	38	8	24	1.5922	21	30	29	34	8	24
.9322	38	21	34	22	1	24	1.2320	21	25	22	40	8	24	1.6000	20	25	21	28	8	24
.9362	38	20	34	23	1	24	1.2402	22	32	23	34	8	24	1.6082	22	24	25	38	8	24
.9386	40	21	34	23	1	24	1.2476	20	36	32	38	8	24	1.6161	27	34	29	38	8	24
.9441	38	21	36	23	1	24	1.2554	23	36	28	38	8	24	1.6240	29	25	21	40	8	24
.9486	40	22	36	23	1	24	1.2639	21	32	26	36	8	24	1.6314	26	34	32	40	8	24
.9524	40	20	30	21	1	24	1.2719	25	38	29	40	8	24	1.6399	23	22	20	34	8	24
.9596	40	22	38	24	1	24	1.2800	20	25	24	40	8	24	1.6476	27	23	20	38	8	24
.9600	36	20	32	20	1	24	1.2880	21	25	23	40	8	24	1.6560	23	25	27	40	8	24
.9651	38	20	32	21	1	24	1.2963	20	24	21	36	8	24	1.6640	24	25	26	40	8	24
.9667	29	20	40	20	1	24	1.3037	22	36	32	40	8	24	1.6719	20	22	20	29	8	24
.9714	36	20	34	21	1	24	1.3123	22	38	34	40	8	24	1.6800	30	25	21	40	8	24
.9744	40	20	38	26	1	24	1.3200	22	30	27	40	8	24	1.6878	22	28	29	36	8	24
.9812	40	21	34	22	1	24	1.3282	20	29	26	36	8	24	1.6959	29	36	30	38	8	24
.9825	20	38	28	40	8	24	1.3362	20	27	23	34	8	24	1.7039	21	29	30	34	8	24
.9882	21	34	24	40	8	24	1.3440	21	25	24	40	8	24	1.7119	24	27	26	36	8	24
.9922	22	34	23	40	8	24	1.3523	20	29	25	34	8	24	1.7196	25	28	26	36	8	24
.9969	21	34	23	38	8	24	1.3603	21	26	24	38	8	24	1.7280	24	25	27	40	8	24
1.0000	20	28	21	40	8	24	1.3684	21	28	26	38	8	24	1.7361	25	32	30	36	8	24
1.0088	20	32	23	38	8	24	1.3761	21	26	23	36	8	24	1.7438	23	30	29	34	8	24
1.0163	20	29	21	38	8	24	1.3841	22	29	26	38	8	24	1.7524	20	25	23	28	8	24
1.0234	21	36	25	38	8	24	1.3918	21	36	34	38	8	24	1.7600	21	25	22	28	8	24
1.0320	20	34	25	38	8	24	1.4000	20	25	21	32	8	24	1.7679	22	28	27	32	8	24
1.0402	21	34	24	38	8	24	1.4080	22	25	24	40	8	24	1.7763	27	32	30	38	8	24
1.0476	20	28	22	40	8	24	1.4161	21	29	22	30	8	24	1.7837	20	23	20	26	8	24
1.0575	20	29	23	40	8	24	1.4241	23	34	30	38	8	24	1.7920	21	25	24	30	8	24
1.0643	21	36	26	38	8	24	1.4321	20	30	29	36	8	24	1.8000	20	20	27	40	8	24
1.0721	22	36	25	38	8	24	1.4400	20	25	27	40	8	24	1.8077	28	25	23	38	8	24
1.0796	20	26	20	38	8	24	1.4481	23	36	34	40	8	24	1.8159	22	28	26	30	8	24
1.0889	21	36	28	40	8	24	1.4560	21	25	26	40	8	24	1.8238	34	29	21	36	8	24
1.0965	20	32	25	38	8	24	1.4641	21	27	24	34	8	24	1.8316	29	38	36	40	8	24
1.1034	20	29	24	40	8	24	1.4720	23	25	24	40	8	24	1.8400	21	25	23	28	8	24
1.1118	21	34	27	40	8	24	1.4803	25	32	27	38	8	24	1.8480	26	32	29	34	8	24
1.1200	21	30	24	40	8	24	1.4881	20	28	25	32	8	24	1.8560	24	25	29	40	8	24
1.1282	20	26	22	40	8	24	1.4957	21	26	25	36	8	24	1.8640	25	32	34	38	8	24
1.1359	20	29	21	34	8	24	1.5038	30	28	20	38	8	24	1.8720	26	25	27	40	8	24
1.1438	21	34	25	36	8	24	1.5120	27	25	21	40	8	24	1.8799	23	29	32	36	8	24
1.1523	20	27	21	36	8	24	1.5204	24	26	21	34	8	24	1.8882	25	27	26	34	8	24
1.1594	20	23	20	40	8	24	1.5278	22	32	30	36	8	24	1.8958	26	24	21	32	8	24
1.1688	21	29	23	38	8	24	1.5364	28	27	20	36	8	24	1.9040	32	29	22	34	8	24

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Table Trip Lever is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
1.9118	26	32	30	34	8	24	2.5464	36	26	20	29	8	24	3.2653	36	21	20	28	8	24
1.9200	21	25	24	28	8	24	2.5625	38	29	22	30	8	24	3.2808	28	30	29	22	8	24
1.9276	22	25	23	28	8	24	2.5780	36	23	21	34	8	24	3.2970	34	22	20	25	8	24
1.9360	23	22	25	36	8	24	2.5941	26	21	22	28	8	24	3.3126	24	21	25	23	8	24
1.9441	22	38	34	27	8	24	2.6087	27	23	20	24	8	24	3.3280	26	20	24	25	8	24
1.9521	21	34	32	27	8	24	2.6250	30	20	21	32	8	24	3.3438	40	22	20	29	8	24
1.9600	28	20	21	40	8	24	2.6411	36	22	23	38	8	24	3.3599	38	26	25	29	8	24
1.9679	23	22	24	34	8	24	2.6564	40	29	26	36	8	24	3.3750	30	20	27	32	8	24
1.9761	32	25	22	38	8	24	2.6721	38	29	26	34	8	24	3.3913	36	23	26	32	8	24
1.9839	28	23	22	36	8	24	2.6879	38	26	20	29	8	24	3.4062	32	28	38	34	8	24
1.9923	20	29	26	24	8	24	2.7031	40	27	26	38	8	24	3.4222	28	20	22	24	8	24
2.0000	21	20	20	28	8	24	2.7187	29	24	27	32	8	24	3.4373	36	23	28	34	8	24
2.0160	21	30	27	25	8	24	2.7340	28	22	29	36	8	24	3.4528	38	25	23	27	8	24
2.0317	20	21	20	25	8	24	2.7500	30	20	22	32	8	24	3.4690	34	23	22	25	8	24
2.0468	25	24	28	38	8	24	2.7657	34	26	23	29	8	24	3.4846	36	29	40	38	8	24
2.0625	27	24	22	32	8	24	2.7812	32	25	22	27	8	24	3.5000	25	20	21	20	8	24
2.0779	24	22	20	28	8	24	2.7972	24	22	25	26	8	24	3.5152	29	20	20	22	8	24
2.0934	25	23	26	36	8	24	2.8125	26	21	23	27	8	24	3.5313	38	22	23	30	8	24
2.1093	23	27	26	28	8	24	2.8283	30	22	28	36	8	24	3.5468	30	21	27	29	8	24
2.1250	34	28	21	32	8	24	2.8444	28	21	20	25	8	24	3.5625	38	24	27	32	8	24
2.1405	24	23	20	26	8	24	2.8608	40	27	21	29	8	24	3.5778	28	20	23	24	8	24
2.1562	23	24	27	32	8	24	2.8750	30	20	23	32	8	24	3.5936	36	22	28	34	8	24
2.1719	36	26	20	34	8	24	2.8908	34	23	22	30	8	24	3.6090	40	21	27	38	8	24
2.1875	30	24	21	32	8	24	2.9060	34	24	20	26	8	24	3.6250	30	20	29	32	8	24
2.2031	23	24	25	29	8	24	2.9217	24	20	21	23	8	24	3.6400	26	20	21	20	8	24
2.2187	24	25	26	30	8	24	2.9372	38	23	24	36	8	24	3.6558	29	22	26	25	8	24
2.2341	26	25	29	36	8	24	2.9531	26	20	23	27	8	24	3.6715	38	23	25	30	8	24
2.2500	27	24	21	28	8	24	2.9683	34	21	22	32	8	24	3.6872	32	24	28	27	8	24
2.2657	28	25	22	29	8	24	2.9843	34	22	21	29	8	24	3.7029	36	25	27	28	8	24
2.2815	22	20	21	27	8	24	3.0000	27	20	20	24	8	24	3.7182	40	27	32	34	8	24
2.2967	36	22	20	38	8	24	3.0159	38	24	20	28	8	24	3.7346	36	23	34	38	8	24
2.3126	29	22	25	38	8	24	3.0313	38	26	21	27	8	24	3.7500	25	24	27	20	8	24
2.3280	22	21	20	24	8	24	3.0465	26	30	29	22	8	24	3.7658	28	23	29	25	8	24
2.3437	25	24	27	32	8	24	3.0623	38	26	22	28	8	24	3.7818	30	22	26	25	8	24
2.3590	23	20	20	26	8	24	3.0782	34	24	22	27	8	24	3.7968	26	20	23	21	8	24
2.3750	38	28	21	32	8	24	3.0933	29	20	20	25	8	24	3.8119	38	22	24	29	8	24
2.3908	26	20	20	29	8	24	3.1093	32	38	36	26	8	24	3.8281	38	25	34	36	8	24
2.4064	25	22	27	34	8	24	3.1250	30	20	25	32	8	24	3.8437	38	20	22	29	8	24
2.4217	34	26	25	36	8	24	3.1401	25	23	26	24	8	24	3.8601	36	22	23	26	8	24
2.4375	26	24	27	32	8	24	3.1565	24	28	29	21	8	24	3.8746	30	26	34	27	8	24
2.4533	23	20	20	25	8	24	3.1724	23	29	30	20	8	24	3.8889	28	20	25	24	8	24
2.4686	24	25	27	28	8	24	3.1875	27	32	34	24	8	24	3.9057	29	22	30	27	8	24
2.4845	24	23	25	28	8	24	3.2031	38	24	22	29	8	24	3.9216	40	20	25	34	8	24
2.5000	25	20	21	28	8	24	3.2188	27	34	38	25	8	24	3.9370	28	22	29	25	8	24
2.5151	28	25	32	38	8	24	3.2339	29	22	23	25	8	24	3.9529	36	20	28	34	8	24
2.5312	26	21	23	30	8	24	3.2500	30	20	26	32	8	24	3.9686	34	22	26	27	8	24

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Table Trip Lever is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
3.9842	36	22	21	23	8	24	5.4071	38	22	27	23	8	24	6.8400	38	20	27	20	8	24
4.0000	25	20	24	20	8	24	5.4373	40	23	34	29	8	24	6.8687	40	24	34	22	8	24
4.0318	38	26	30	29	8	24	5.4688	38	21	34	30	8	24	6.9079	34	21	32	20	8	24
4.0627	36	22	27	29	8	24	5.5020	36	22	29	23	8	24	6.9333	40	20	26	20	8	24
4.0936	34	23	27	26	8	24	5.5309	40	20	28	27	8	24	6.9744	40	20	34	26	8	24
4.1244	28	21	29	25	8	24	5.5636	34	20	27	22	8	24	6.9968	38	20	29	21	8	24
4.1558	36	21	20	22	8	24	5.5944	40	22	30	26	8	24	7.0154	38	26	36	20	8	24
4.1889	29	20	26	24	8	24	5.6242	32	20	29	22	8	24	7.0303	40	22	29	20	8	24
4.2182	29	20	24	22	8	24	5.6566	40	22	28	24	8	24	7.0649	36	22	34	21	8	24
4.2500	36	24	34	32	8	24	5.6889	32	20	28	21	8	24	7.0933	38	20	28	20	8	24
4.2809	40	23	24	26	8	24	5.7190	38	21	32	27	8	24	7.1332	38	23	34	21	8	24
4.3098	40	22	24	27	8	24	5.7464	40	22	32	27	8	24	7.1487	40	27	38	21	8	24
4.3439	40	26	36	34	8	24	5.7778	40	20	26	24	8	24	7.1958	40	24	34	21	8	24
4.3761	32	21	28	26	8	24	5.8120	40	24	34	26	8	24	7.2095	38	23	36	22	8	24
4.4065	40	26	29	27	8	24	5.8435	36	20	28	23	8	24	7.2533	34	20	32	20	8	24
4.4373	32	20	26	25	8	24	5.8744	38	21	28	23	8	24	7.2727	40	24	36	22	8	24
4.4690	36	20	27	29	8	24	5.9077	36	25	40	26	8	24	7.3143	36	21	32	20	8	24
4.5000	27	20	25	20	8	24	5.9362	40	23	32	25	8	24	7.3430	40	24	38	23	8	24
4.5315	36	22	27	26	8	24	5.9674	40	22	32	26	8	24	7.3697	40	25	38	22	8	24
4.5630	38	23	29	28	8	24	6.0000	36	20	25	20	8	24	7.4182	36	22	34	20	8	24
4.5938	38	25	34	30	8	24	6.0317	38	20	25	21	8	24	7.4237	40	26	38	21	8	24
4.6243	38	21	23	24	8	24	6.0606	40	20	25	22	8	24	7.4667	40	20	28	20	8	24
4.6561	40	21	22	24	8	24	6.0952	40	20	24	21	8	24	7.5062	40	27	38	20	8	24
4.6869	40	22	29	30	8	24	6.1222	38	20	29	24	8	24	7.5528	38	23	36	21	8	24
4.7179	40	20	23	26	8	24	6.1538	40	20	30	26	8	24	7.5556	40	24	34	20	8	24
4.7500	38	20	30	32	8	24	6.1867	32	20	29	20	8	24	7.5889	40	23	36	22	8	24
4.7816	40	20	26	29	8	24	6.2182	38	20	27	22	8	24	7.6190	40	21	30	20	8	24
4.8120	40	21	36	38	8	24	6.2515	40	21	32	26	8	24	7.6768	40	24	38	22	8	24
4.8417	36	23	29	25	8	24	6.2799	34	21	32	22	8	24	7.6800	36	20	32	20	8	24
4.8762	32	20	24	21	8	24	6.3101	38	21	34	26	8	24	7.7206	38	21	32	20	8	24
4.9067	32	20	23	20	8	24	6.3443	36	23	38	25	8	24	7.7576	40	22	32	20	8	24
4.9371	36	21	27	25	8	24	6.3776	36	22	38	26	8	24	7.7714	36	21	34	20	8	24
4.9689	36	21	25	23	8	24	6.4044	40	21	29	23	8	24	7.7949	40	20	38	26	8	24
5.0000	30	20	25	20	8	24	6.4339	40	21	38	30	8	24	7.8499	40	21	34	22	8	24
5.0317	38	25	36	29	8	24	6.4646	40	21	28	22	8	24	7.8841	40	20	34	23	8	24
5.0618	36	22	29	25	8	24	6.5016	40	21	32	25	8	24	7.8961	38	21	36	22	8	24
5.0928	36	26	40	29	8	24	6.5306	40	21	36	28	8	24	7.9304	38	20	36	23	8	24
5.1246	34	20	26	23	8	24	6.5625	38	21	34	25	8	24	7.9503	40	21	36	23	8	24
5.1556	28	20	29	21	8	24	6.5939	34	20	32	22	8	24							
5.1840	36	20	27	25	8	24	6.6253	40	21	30	23	8	24							
5.2200	29	20	27	20	8	24	6.6557	40	29	38	21	8	24							
5.2513	40	25	32	26	8	24	6.6813	38	26	36	21	8	24							
5.2825	32	20	26	21	8	24	6.7200	36	20	28	20	8	24							
5.3123	36	22	28	23	8	24	6.7457	40	22	32	23	8	24							
5.3430	38	22	29	25	8	24	6.7781	40	26	38	23	8	24							
5.3755	34	22	30	23	8	24	6.8090	38	22	34	23	8	24							

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Feed Direction Lever on Change Gear Box is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
8.0000	20	30	20	40	24	8	10.875	20	32	29	40	24	8	13.750	20	24	22	32	24	8
8.0702	20	36	23	38	24	8	10.937	21	32	25	36	24	8	13.810	20	28	29	36	24	8
8.1176	20	34	23	40	24	8	11.000	20	30	22	32	24	8	13.867	26	36	32	40	24	8
8.1734	20	34	22	38	24	8	11.053	25	38	28	40	24	8	13.938	20	29	32	38	24	8
8.2500	20	32	22	40	24	8	11.118	21	34	30	40	24	8	14.000	20	24	21	30	24	8
8.3333	20	32	20	36	24	8	11.191	21	32	27	38	24	8	14.063	25	32	30	40	24	8
8.4000	20	30	21	40	24	8	11.250	20	28	21	32	24	8	14.123	22	27	26	36	24	8
8.4333	22	36	23	40	24	8	11.313	21	34	29	38	24	8	14.187	20	28	24	29	24	8
8.5235	21	34	23	40	24	8	11.375	21	32	26	36	24	8	14.250	20	40	38	32	24	8
8.5714	20	28	20	40	24	8	11.435	24	34	27	40	24	8	14.311	21	27	23	30	24	8
8.6250	20	32	23	40	24	8	11.500	20	24	23	40	24	8	14.375	20	24	23	32	24	8
8.6897	20	29	21	40	24	8	11.556	20	27	26	40	24	8	14.437	21	24	22	32	24	8
8.7500	20	32	21	36	24	8	11.621	23	38	32	40	24	8	14.500	29	24	20	40	24	8
8.8235	20	32	20	34	24	8	11.684	20	29	24	34	24	8	14.560	21	25	26	36	24	8
8.8772	22	36	23	38	24	8	11.757	21	29	23	34	24	8	14.625	21	28	26	32	24	8
8.9294	22	34	23	40	24	8	11.813	21	32	27	36	24	8	14.682	26	34	32	40	24	8
9.0000	20	28	21	40	24	8	11.880	22	30	27	40	24	8	14.753	22	40	38	34	24	8
9.0588	21	34	22	36	24	8	11.937	21	30	27	38	24	8	14.815	20	24	20	27	24	8
9.1228	20	36	26	38	24	8	12.000	20	25	20	32	24	8	14.875	21	36	34	32	24	8
9.1954	20	29	20	36	24	8	12.057	20	22	21	38	24	8	14.933	20	25	21	27	24	8
9.2400	21	30	22	40	24	8	12.126	20	25	24	38	24	8	15.000	20	24	21	28	24	8
9.3176	22	34	24	40	24	8	12.170	20	29	25	34	24	8	15.062	21	29	26	30	24	8
9.3750	20	32	25	40	24	8	12.250	21	32	28	36	24	8	15.126	24	28	25	34	24	8
9.4421	23	38	26	40	24	8	12.316	21	28	26	38	24	8	15.188	21	28	27	32	24	8
9.4875	22	32	23	40	24	8	12.375	21	28	22	32	24	8	15.247	27	34	32	40	24	8
9.5586	21	29	22	40	24	8	12.434	21	32	30	38	24	8	15.312	29	25	22	40	24	8
9.6250	21	32	22	36	24	8	12.500	25	36	30	40	24	8	15.374	21	26	23	29	24	8
9.6842	20	30	23	38	24	8	12.567	26	36	29	40	24	8	15.439	30	27	22	38	24	8
9.7500	20	32	26	40	24	8	12.627	21	27	23	34	24	8	15.502	27	22	20	38	24	8
9.8080	22	34	24	38	24	8	12.687	21	32	29	36	24	8	15.562	28	25	22	38	24	8
9.8765	20	27	20	36	24	8	12.750	20	32	34	40	24	8	15.625	25	32	30	36	24	8
9.9310	20	29	24	40	24	8	12.814	23	28	26	40	24	8	15.688	23	25	27	38	24	8
10.000	20	30	25	40	24	8	12.874	20	27	21	29	24	8	15.750	21	20	20	32	24	8
10.063	21	32	23	36	24	8	12.938	21	28	23	32	24	8	15.812	28	25	20	34	24	8
10.125	20	32	27	40	24	8	13.000	20	24	26	40	24	8	15.874	26	30	29	38	24	8
10.191	21	32	22	34	24	8	13.067	21	27	28	40	24	8	15.937	25	32	34	40	24	8
10.254	23	34	24	38	24	8	13.125	20	24	21	32	24	8	16.000	24	20	20	36	24	8
10.313	22	32	25	40	24	8	13.187	20	26	20	28	24	8	16.127	22	26	27	34	24	8
10.376	20	28	23	38	24	8	13.248	23	25	24	40	24	8	16.250	26	24	20	32	24	8
10.435	20	23	20	40	24	8	13.311	22	28	24	34	24	8	16.376	29	25	20	34	24	8
10.500	21	32	24	36	24	8	13.375	24	34	30	38	24	8	16.500	22	20	20	32	24	8
10.560	20	25	22	40	24	8	13.436	23	29	24	34	24	8	16.625	38	32	21	36	24	8
10.625	22	34	26	38	24	8	13.500	21	28	24	32	24	8	16.750	22	25	23	29	24	8
10.688	20	26	22	38	24	8	13.565	20	23	26	40	24	8	16.875	25	32	36	40	24	8
10.747	21	34	29	40	24	8	13.630	20	27	23	30	24	8	17.000	30	36	34	40	24	8
10.807	22	36	28	38	24	8	13.689	21	27	22	30	24	8	17.129	26	30	28	34	24	8

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Feed Direction Lever on Change Gear Box is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	F	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
17.250	23	20	20	32	24	8	23.000	23	20	20	24	24	8	28.750	25	20	23	24	24	8
17.376	20	34	32	26	24	8	23.124	38	29	25	34	24	8	28.874	34	25	23	26	24	8
17.500	25	20	21	36	24	8	23.248	34	26	20	27	24	8	29.000	29	20	20	24	24	8
17.625	23	27	25	29	24	8	23.375	34	24	22	32	24	8	29.120	28	24	26	25	24	8
17.748	32	28	22	34	24	8	23.497	28	22	20	26	24	8	29.250	30	20	26	32	24	8
17.875	26	24	22	32	24	8	23.625	30	20	21	32	24	8	29.376	34	25	27	30	24	8
18.000	21	20	20	28	24	8	23.750	38	24	20	32	24	8	29.506	38	20	22	34	24	8
18.125	29	24	20	32	24	8	23.875	26	23	22	25	24	8	29.623	27	21	24	25	24	8
18.252	22	27	28	30	24	8	24.000	30	24	20	25	24	8	29.750	34	24	28	32	24	8
18.375	28	24	21	32	24	8	24.126	25	22	23	26	24	8	29.876	34	23	32	38	24	8
18.499	38	29	20	34	24	8	24.253	40	25	24	38	24	8	30.000	36	27	30	32	24	8
18.626	34	23	21	40	24	8	24.375	26	20	25	32	24	8	30.124	28	20	26	29	24	8
18.750	25	20	20	32	24	8	24.504	36	28	27	34	24	8	30.252	40	28	30	34	24	8
18.872	32	26	23	36	24	8	24.624	38	25	27	40	24	8	30.375	30	20	27	32	24	8
19.000	38	24	20	40	24	8	24.750	30	20	22	32	24	8	30.502	38	23	20	26	24	8
19.125	34	28	21	32	24	8	24.873	38	22	24	40	24	8	30.624	29	20	22	25	24	8
19.250	28	24	22	32	24	8	25.000	25	20	20	24	24	8	30.748	34	23	26	30	24	8
19.373	38	34	26	36	24	8	25.123	34	28	25	29	24	8	30.875	38	24	26	32	24	8
19.500	26	20	20	32	24	8	25.247	24	28	27	22	24	8	31.005	40	22	27	38	24	8
19.624	30	28	29	38	24	8	25.375	28	24	29	32	24	8	31.115	38	25	29	34	24	8
19.749	25	22	21	29	24	8	25.500	34	20	20	32	24	8	31.250	40	24	25	32	24	8
19.876	20	21	20	23	24	8	25.625	38	27	22	29	24	8	31.373	40	27	30	34	24	8
20.000	25	20	20	30	24	8	25.751	38	25	24	34	24	8	31.500	25	20	21	20	24	8
20.125	28	24	23	32	24	8	25.875	30	20	23	32	24	8	31.624	32	20	28	34	24	8
20.250	27	24	21	28	24	8	26.000	26	20	20	24	24	8	31.746	30	21	25	27	24	8
20.371	32	26	20	29	24	8	26.125	38	24	22	32	24	8	31.875	34	20	25	32	24	8
20.499	23	26	28	29	24	8	26.250	25	20	21	24	24	8	32.000	28	20	20	21	24	8
20.625	25	20	22	32	24	8	26.375	36	25	29	38	24	8	32.253	34	22	20	23	24	8
20.749	26	28	27	29	24	8	26.496	36	25	23	30	24	8	32.500	26	20	25	24	24	8
20.874	36	28	23	34	24	8	26.624	32	25	26	30	24	8	32.749	34	23	24	26	24	8
21.000	21	20	20	24	24	8	26.749	36	34	40	38	24	8	33.000	25	20	22	20	24	8
21.129	34	28	29	40	24	8	26.871	36	22	26	38	24	8	33.250	38	24	28	32	24	8
21.250	34	24	20	32	24	8	27.000	27	20	20	24	24	8	33.498	34	21	25	29	24	8
21.375	38	28	21	32	24	8	27.130	26	20	20	23	24	8	33.750	27	20	25	24	24	8
21.501	27	23	29	38	24	8	27.255	38	29	26	30	24	8	34.000	34	20	20	24	24	8
21.621	38	29	22	32	24	8	27.378	28	20	22	27	24	8	34.255	34	23	28	29	24	8
21.750	29	20	20	32	24	8	27.500	25	20	22	24	24	8	34.500	25	20	23	20	24	8
21.875	25	24	28	32	24	8	27.625	34	24	26	32	24	8	34.751	40	26	32	34	24	8
22.000	25	20	22	30	24	8	27.748	38	29	30	34	24	8	35.000	28	20	25	24	24	8
22.123	28	27	32	36	24	8	27.876	34	23	22	28	24	8	35.246	38	23	24	27	24	8
22.251	29	23	25	34	24	8	28.000	28	20	20	24	24	8	35.510	30	21	29	28	24	8
22.371	29	21	27	40	24	8	28.125	30	20	25	32	24	8	35.749	34	21	23	25	24	8
22.500	25	20	21	28	24	8	28.247	29	22	25	28	24	8	36.000	25	20	24	20	24	8
22.626	28	22	20	27	24	8	28.374	36	21	20	29	24	8	36.252	36	22	24	26	24	8
22.750	26	24	28	32	24	8	28.500	38	20	20	32	24	8	36.503	30	22	29	26	24	8
22.871	27	20	24	34	24	8	28.622	28	20	23	27	24	8	36.747	38	21	22	26	24	8

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Feed Direction Lever on Change Gear Box is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
36.998	38	29	40	34	24	8	48.485	40	22	30	27	24	8	60.000	40	20	25	20	24	8
37.249	40	21	22	27	24	8	48.762	36	21	32	27	24	8	60.260	40	21	29	22	24	8
37.500	30	20	25	24	24	8	48.994	34	21	29	23	24	8	60.480	36	20	28	20	24	8
37.762	38	22	25	26	24	8	49.248	38	20	27	25	24	8	60.711	40	22	32	23	24	8
38.000	36	20	20	24	24	8	49.518	36	22	29	23	24	8	61.003	40	23	38	26	24	8
38.250	36	24	34	32	24	8	49.745	38	20	24	22	24	8	61.281	38	22	34	23	24	8
38.503	40	22	30	34	24	8	50.000	40	20	25	24	24	8	61.524	38	21	34	24	24	8
38.758	30	21	26	23	24	8	50.269	36	22	32	25	24	8	61.714	40	20	27	21	24	8
39.000	26	20	25	20	24	8	50.494	36	21	27	22	24	8	62.016	38	20	34	25	24	8
39.234	40	27	32	29	24	8	50.755	38	23	32	25	24	8	62.182	38	22	36	24	24	8
39.497	36	21	24	25	24	8	51.000	34	20	25	20	24	8	62.537	38	21	36	25	24	8
39.752	40	21	20	23	24	8	51.225	40	22	27	23	24	8	62.769	40	20	34	26	24	8
40.000	40	27	36	32	24	8	51.471	38	21	32	27	24	8	62.971	38	20	29	21	24	8
40.248	30	21	27	23	24	8	51.717	40	22	32	27	24	8	63.273	40	20	29	22	24	8
40.500	36	20	30	32	24	8	52.000	40	20	26	24	24	8	63.443	40	23	38	25	24	8
40.743	40	26	32	29	24	8	52.245	40	21	32	28	24	8	63.776	38	22	40	26	24	8
40.985	40	21	26	29	24	8	52.476	38	21	29	24	24	8	64.000	40	20	28	21	24	8
41.244	32	20	29	27	24	8	52.747	40	21	30	26	24	8	64.506	40	22	34	23	24	8
41.481	40	24	28	27	24	8	52.987	34	21	30	22	24	8	64.885	38	22	36	23	24	8
41.758	38	21	25	26	24	8	53.217	34	20	30	23	24	8	65.455	40	22	36	24	24	8
42.000	28	20	25	20	24	8	53.486	36	20	26	21	24	8	66.087	38	23	40	24	24	8
42.257	34	20	29	28	24	8	53.760	32	20	28	20	24	8	66.493	40	21	32	22	24	8
42.500	34	20	25	24	24	8	54.000	36	20	25	20	24	8	67.117	38	21	34	22	24	8
42.750	38	20	30	32	24	8	54.261	40	20	26	23	24	8	67.556	40	20	38	27	24	8
43.008	32	20	28	25	24	8	54.470	36	20	29	23	24	8	68.000	40	20	34	24	24	8
43.257	38	22	24	23	24	8	54.758	38	21	29	23	24	8	68.571	20	28	20	40	24	1
43.500	40	20	29	32	24	8	54.982	36	20	28	22	24	8	69.000	20	32	23	40	24	1
43.754	38	23	32	29	24	8	55.238	40	21	29	24	24	8	69.517	20	29	21	40	24	1
44.000	40	20	22	24	24	8	55.510	40	21	34	28	24	8	70.000	20	32	21	36	24	1
44.227	38	23	29	26	24	8	55.680	32	20	29	20	24	8	70.588	20	32	20	34	24	1
44.509	34	22	36	30	24	8	56.000	40	20	28	24	24	8	71.018	22	36	23	38	24	1
44.743	29	20	27	21	24	8	56.264	40	21	32	26	24	8	71.435	22	34	23	40	24	1
45.000	30	20	25	20	24	8	56.492	36	20	34	26	24	8	72.000	20	28	21	40	24	1
45.253	40	22	28	27	24	8	56.749	40	21	36	29	24	8	72.471	21	34	22	36	24	1
45.508	34	20	29	26	24	8	57.000	38	20	25	20	24	8	72.982	20	36	26	38	24	1
45.753	38	23	30	26	24	8	57.247	38	21	29	22	24	8	73.563	20	29	20	36	24	1
46.000	40	20	23	24	24	8	57.496	38	20	29	23	24	8	73.920	21	30	22	40	24	1
46.261	38	23	28	24	24	8	57.793	40	23	36	26	24	8	74.541	22	34	24	40	24	1
46.496	40	26	34	27	24	8	58.000	40	20	29	24	24	8	75.000	20	32	25	40	24	1
46.748	32	20	28	23	24	8	58.286	34	20	30	21	24	8	75.537	23	38	26	40	24	1
46.995	38	23	32	27	24	8	58.514	40	21	32	25	24	8	75.900	22	32	23	40	24	1
47.262	40	25	32	26	24	8	58.752	36	20	34	25	24	8	76.469	21	29	22	40	24	1
47.500	38	20	25	24	24	8	59.063	38	21	34	25	24	8	77.000	21	32	22	36	24	1
47.771	38	20	22	21	24	8	59.280	38	20	26	20	24	8	77.474	23	36	24	38	24	1
48.000	32	20	25	20	24	8	59.478	38	23	36	24	24	8	78.000	20	32	26	40	24	1
48.254	40	27	38	28	24	8	59.780	40	21	34	26	24	8	78.464	22	34	24	38	24	1

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Feed Direction Lever on Change Gear Box is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
79.012	20	27	20	36	24	1	102.00	20	40	34	32	24	1	125.00	30	32	25	36	24	1
79.448	20	29	24	40	24	1	102.51	23	28	26	40	24	1	125.51	27	25	23	38	24	1
80.000	20	30	25	40	24	1	102.99	20	29	28	36	24	1	126.00	21	20	20	32	24	1
80.500	21	32	23	36	24	1	103.50	21	28	23	32	24	1	126.50	22	24	23	32	24	1
81.000	20	32	27	40	24	1	104.00	26	24	20	40	24	1	126.99	26	30	29	38	24	1
81.529	21	32	22	34	24	1	104.53	21	27	28	40	24	1	127.50	25	32	34	40	24	1
81.900	21	32	26	40	24	1	105.00	20	24	21	32	24	1	128.00	20	24	20	25	24	1
82.500	22	32	25	40	24	1	105.49	20	26	20	28	24	1	129.01	22	26	27	34	24	1
83.008	20	28	23	38	24	1	105.98	23	25	24	40	24	1	130.00	26	24	20	32	24	1
83.478	20	23	20	40	24	1	106.49	22	28	24	34	24	1	130.99	25	27	28	38	24	1
84.000	21	32	24	36	24	1	107.00	20	38	36	34	24	1	132.00	22	20	20	32	24	1
84.480	22	30	24	40	24	1	107.49	23	29	24	34	24	1	133.00	38	32	21	36	24	1
85.003	22	34	26	38	24	1	108.00	21	28	24	32	24	1	134.00	22	25	23	29	24	1
85.506	20	26	22	38	24	1	108.46	23	30	28	38	24	1	135.00	25	32	36	40	24	1
85.976	21	34	29	40	24	1	109.04	20	27	23	30	24	1	136.00	30	36	34	40	24	1
86.456	22	36	28	38	24	1	109.51	21	27	22	30	24	1	137.04	26	30	28	34	24	1
87.000	20	32	29	40	24	1	110.00	20	24	22	32	24	1	138.00	23	20	20	32	24	1
87.500	21	32	25	36	24	1	110.48	20	36	29	28	24	1	139.01	32	26	20	34	24	1
88.000	20	30	22	32	24	1	110.93	26	36	32	40	24	1	140.00	28	32	30	36	24	1
88.421	25	38	28	40	24	1	111.51	20	38	32	29	24	1	141.00	23	27	25	29	24	1
88.941	21	34	30	40	24	1	112.00	20	24	21	30	24	1	141.98	32	28	22	34	24	1
89.526	21	32	27	38	24	1	112.50	25	32	27	36	24	1	143.00	22	24	26	32	24	1
90.000	20	28	21	32	24	1	112.99	22	27	26	36	24	1	144.00	21	20	20	28	24	1
90.502	21	34	29	38	24	1	113.50	20	28	24	29	24	1	145.00	29	24	20	32	24	1
91.000	21	32	26	36	24	1	114.00	20	40	38	32	24	1	146.02	22	27	28	30	24	1
91.482	24	34	27	40	24	1	114.50	21	29	28	34	24	1	147.00	28	24	21	32	24	1
92.000	20	24	23	40	24	1	115.00	20	24	23	32	24	1	147.99	38	29	20	34	24	1
92.444	20	27	26	40	24	1	115.50	21	24	22	32	24	1	149.01	34	23	21	40	24	1
92.968	23	38	32	40	24	1	116.00	29	24	20	40	24	1	150.00	25	20	20	32	24	1
93.469	20	29	24	34	24	1	116.48	26	30	28	40	24	1	150.97	32	26	23	36	24	1
94.053	21	29	23	34	24	1	117.00	26	32	27	36	24	1	152.00	38	24	20	40	24	1
94.500	21	32	27	36	24	1	117.46	26	34	32	40	24	1	153.00	34	28	21	32	24	1
95.040	22	30	27	40	24	1	118.02	22	40	38	34	24	1	154.00	28	24	22	32	24	1
95.495	27	38	28	40	24	1	118.52	20	24	20	27	24	1	154.98	38	34	26	36	24	1
96.000	20	25	20	32	24	1	119.00	21	36	34	32	24	1	156.00	26	20	20	32	24	1
96.459	20	22	21	38	24	1	119.47	24	30	28	36	24	1	156.99	29	28	30	38	24	1
97.011	20	25	24	38	24	1	120.00	27	24	20	36	24	1	157.99	25	22	21	29	24	1
97.500	25	32	26	40	24	1	120.50	21	29	26	30	24	1	159.01	20	21	20	23	24	1
98.000	21	32	28	36	24	1	121.01	24	28	25	34	24	1	160.00	25	20	20	30	24	1
98.526	21	28	26	38	24	1	121.50	21	28	27	32	24	1	161.00	28	24	23	32	24	1
99.000	21	28	22	32	24	1	122.02	23	20	21	38	24	1	162.00	27	24	21	28	24	1
99.474	21	32	30	38	24	1	122.50	29	25	22	40	24	1	162.97	32	26	20	29	24	1
100.00	25	36	30	40	24	1	122.99	21	26	23	29	24	1	163.99	23	26	28	29	24	1
100.53	26	36	29	40	24	1	123.51	30	27	22	38	24	1	165.00	25	20	22	32	24	1
101.02	21	27	23	34	24	1	123.98	29	26	22	38	24	1	165.99	26	28	27	29	24	1
101.50	21	32	29	36	24	1	124.50	28	25	22	38	24	1	166.99	27	21	23	34	24	1

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Feed Direction Lever on Change Gear Box is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
168.00	21	20	20	24	24	1	213.99	40	34	36	38	24	1	264.00	25	20	22	20	24	1
169.03	34	28	29	40	24	1	214.97	36	22	26	38	24	1	266.00	38	24	28	32	24	1
170.00	34	24	20	32	24	1	216.00	27	20	20	24	24	1	267.98	34	21	25	29	24	1
171.00	38	28	21	32	24	1	217.04	26	20	20	23	24	1	270.00	27	20	25	24	24	1
172.01	29	23	27	38	24	1	218.04	38	29	26	30	24	1	272.00	34	20	20	24	24	1
172.97	38	29	22	32	24	1	219.02	28	20	22	27	24	1	274.04	34	23	28	29	24	1
174.00	29	20	20	32	24	1	220.00	25	20	22	24	24	1	276.00	25	20	23	20	24	1
175.00	25	24	28	32	24	1	221.00	34	24	26	32	24	1	278.01	40	26	32	34	24	1
176.00	25	20	22	30	24	1	221.99	30	29	38	34	24	1	280.00	28	20	25	24	24	1
176.99	28	27	32	36	24	1	223.01	34	23	22	28	24	1	281.97	38	23	24	27	24	1
178.01	29	23	25	34	24	1	224.00	28	20	20	24	24	1	284.08	29	21	30	28	24	1
178.97	29	21	27	40	24	1	225.00	30	20	25	32	24	1	285.99	34	21	23	25	24	1
180.00	27	36	40	32	24	1	225.97	29	22	25	28	24	1	288.00	25	20	24	20	24	1
181.01	28	22	20	27	24	1	227.00	36	21	20	29	24	1	290.01	36	22	24	26	24	1
182.00	26	24	28	32	24	1	228.00	38	20	20	32	24	1	292.03	30	22	29	26	24	1
182.96	27	20	24	34	24	1	228.98	28	20	23	27	24	1	293.98	38	21	22	26	24	1
184.00	23	20	20	24	24	1	230.00	25	20	23	24	24	1	295.98	40	29	38	34	24	1
185.00	28	26	34	38	24	1	230.99	34	25	23	26	24	1	297.99	40	21	22	27	24	1
185.98	34	26	20	27	24	1	232.00	29	20	20	24	24	1	300.00	30	20	25	24	24	1
187.00	22	32	34	24	24	1	232.96	28	24	26	25	24	1	302.10	36	22	25	26	24	1
187.97	28	22	20	26	24	1	234.00	30	20	26	32	24	1	304.00	38	20	20	24	24	1
189.00	30	20	21	32	24	1	235.01	34	25	27	30	24	1	306.00	36	24	34	32	24	1
190.00	38	24	20	32	24	1	236.05	38	20	22	34	24	1	308.02	40	22	30	34	24	1
191.00	26	23	22	25	24	1	236.98	27	21	24	25	24	1	310.06	30	21	26	23	24	1
192.00	30	24	20	25	24	1	238.00	34	24	28	32	24	1	312.00	26	20	25	20	24	1
193.01	23	22	25	26	24	1	239.01	34	23	32	38	24	1	313.87	40	27	32	29	24	1
194.02	40	25	24	38	24	1	240.00	36	27	30	32	24	1	315.98	36	21	24	25	24	1
195.00	26	20	25	32	24	1	240.99	28	20	26	29	24	1	318.01	40	21	20	23	24	1
196.03	36	28	27	34	24	1	242.02	40	28	30	34	24	1	320.00	40	27	36	32	24	1
196.99	38	25	27	40	24	1	243.00	30	20	27	32	24	1	321.99	30	21	27	23	24	1
198.00	36	24	22	32	24	1	244.01	38	23	20	26	24	1	324.00	27	20	26	20	24	1
198.98	38	22	24	40	24	1	244.99	29	20	22	25	24	1	325.94	40	26	32	29	24	1
200.00	25	20	20	24	24	1	245.98	34	23	26	30	24	1	327.88	40	21	26	29	24	1
200.99	34	28	25	29	24	1	247.00	38	24	26	32	24	1	329.96	32	20	29	27	24	1
201.97	27	22	24	28	24	1	248.04	40	22	27	38	24	1	331.85	40	24	28	27	24	1
203.00	28	24	29	32	24	1	248.92	38	25	29	34	24	1	334.07	38	21	25	26	24	1
204.00	34	20	20	32	24	1	250.00	40	24	25	32	24	1	336.00	28	20	25	20	24	1
205.00	38	27	22	29	24	1	250.98	40	27	30	34	24	1	338.06	34	20	29	28	24	1
206.00	38	25	24	34	24	1	252.00	25	20	21	20	24	1	340.00	34	20	25	24	24	1
207.00	30	20	23	32	24	1	252.99	32	20	28	34	24	1	342.00	38	20	30	32	24	1
208.00	26	20	20	24	24	1	253.97	30	21	25	27	24	1	344.06	32	20	28	25	24	1
209.00	38	24	22	32	24	1	255.00	34	20	25	32	24	1	346.06	38	22	24	23	24	1
210.00	25	20	21	24	24	1	256.00	28	20	20	21	24	1	348.00	40	20	29	32	24	1
211.00	36	25	29	38	24	1	258.02	34	22	20	23	24	1	350.03	38	23	32	29	24	1
211.97	36	25	23	30	24	1	260.00	26	20	25	24	24	1	352.00	40	20	22	24	24	1
212.99	32	25	26	30	24	1	261.99	34	23	24	26	24	1	353.82	38	23	29	26	24	1

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Feed Direction Lever on Change Gear Box is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
356.07	34	22	36	30	24	1	448.00	40	20	28	24	24	1	567.93	32	28	22	34	96	1
357.94	29	20	27	21	24	1	450.11	40	21	32	26	24	1	572.00	26	24	22	32	96	1
360.00	30	20	25	20	24	1	451.94	36	20	34	26	24	1	576.00	21	20	20	28	96	1
362.02	40	22	28	27	24	1	453.99	40	21	36	29	24	1	580.00	29	24	20	32	96	1
364.06	34	20	29	26	24	1	456.00	38	20	25	20	24	1	584.06	28	27	22	30	96	1
366.02	38	23	30	26	24	1	457.97	38	21	29	22	24	1	588.00	28	24	21	32	96	1
368.00	40	20	23	24	24	1	459.97	38	20	29	23	24	1	591.97	38	29	20	34	96	1
370.09	38	23	28	24	24	1	462.34	40	23	36	26	24	1	596.03	34	23	21	40	96	1
371.97	40	26	34	27	24	1	464.00	40	20	29	24	24	1	600.00	25	20	20	32	96	1
373.98	32	20	28	23	24	1	466.29	34	20	30	21	24	1	603.90	32	26	23	36	96	1
375.96	38	23	32	27	24	1	468.11	40	21	32	25	24	1	608.00	38	24	20	40	96	1
378.09	40	25	32	26	24	1	470.02	36	20	34	25	24	1	612.00	34	28	21	32	96	1
380.00	38	20	25	24	24	1	472.50	38	21	34	25	24	1	616.00	28	24	22	32	96	1
382.17	38	20	22	21	24	1	474.24	38	20	26	20	24	1	619.92	38	34	26	36	96	1
384.00	32	20	25	20	24	1	475.83	38	23	36	24	24	1	624.00	26	20	20	32	96	1
386.03	40	27	38	28	24	1	478.24	40	21	34	26	24	1	627.97	30	28	29	38	96	1
387.88	40	22	30	27	24	1	480.00	40	20	25	20	24	1	631.97	25	22	21	29	96	1
390.10	36	21	32	27	24	1	482.08	40	21	29	22	24	1	636.02	20	21	20	23	96	1
391.95	34	21	29	23	24	1	483.84	36	20	28	20	24	1	640.00	25	20	20	30	96	1
393.98	38	20	27	25	24	1	485.69	40	22	32	23	24	1	644.00	28	24	23	32	96	1
396.14	36	22	29	23	24	1	488.03	40	23	38	26	24	1	648.00	21	28	27	24	96	1
397.96	38	20	24	22	24	1	490.25	38	22	34	23	24	1	651.88	32	26	20	29	96	1
400.00	40	20	25	24	24	1	492.19	38	21	34	24	24	1	655.96	28	26	23	29	96	1
402.15	36	22	32	25	24	1	493.71	40	20	27	21	24	1	660.00	25	20	22	32	96	1
403.95	36	21	27	22	24	1	496.13	38	20	34	25	24	1	663.96	27	28	26	29	96	1
406.04	38	23	32	25	24	1	497.46	38	22	36	24	24	1	667.97	27	21	23	34	96	1
408.00	34	20	25	20	24	1	500.30	38	21	36	25	24	1	672.00	21	20	20	24	96	1
409.80	40	22	27	23	24	1	502.15	40	20	34	26	24	1	676.11	29	28	34	40	96	1
411.77	38	21	32	27	24	1	503.77	38	20	29	21	24	1	680.00	34	24	20	32	96	1
413.74	40	22	32	27	24	1	505.18	40	20	29	22	24	1	684.00	38	28	21	32	96	1
416.00	40	20	26	24	24	1	507.55	40	23	38	25	24	1	688.04	27	23	29	38	96	1
417.96	40	21	32	28	24	1	510.21	40	22	38	26	24	1	691.86	38	29	22	32	96	1
419.81	38	21	29	24	24	1	512.00	40	20	28	21	24	1	696.00	29	20	20	32	96	1
421.98	40	21	30	26	24	1	516.05	40	22	34	23	24	1	700.00	25	24	28	32	96	1
423.90	34	21	30	22	24	1	419.08	38	22	36	23	24	1	704.00	25	20	22	30	96	1
425.74	34	20	30	23	24	1	523.64	40	22	36	24	24	1	707.95	28	27	32	36	96	1
427.89	36	20	26	21	24	1	528.00	22	20	20	32	96	1	712.02	29	23	25	34	96	1
430.08	32	20	28	20	24	1	532.00	38	32	21	36	96	1	715.89	29	21	27	40	96	1
432.00	36	20	25	20	24	1	536.01	23	25	22	29	96	1	720.00	25	20	21	28	96	1
434.09	40	20	26	23	24	1	540.00	36	32	25	40	96	1	724.04	28	22	20	27	96	1
435.76	36	20	29	23	24	1	544.00	34	36	30	40	96	1	728.00	25	24	28	32	96	1
438.06	38	21	29	23	24	1	548.14	28	30	26	34	96	1	731.86	27	20	24	34	96	1
439.86	36	20	28	22	24	1	552.00	23	20	20	32	96	1	736.00	23	20	20	24	96	1
441.91	40	21	29	24	24	1	556.02	32	26	20	34	96	1	740.02	34	26	28	38	96	1
444.08	40	21	34	28	24	1	560.00	30	32	28	36	96	1	743.93	34	26	20	27	96	1
445.44	32	20	29	20	24	1	563.99	25	27	23	29	96	1	748.00	34	24	22	32	96	1

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Feed Direction Lever on Change Gear Box is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
751.89	28	22	20	26	96	1	936.00	30	20	26	32	96	1	1216.0	38	20	20	24	96	1
756.00	30	20	21	32	96	1	940.03	34	25	27	30	96	1	1224.0	36	24	34	32	96	1
760.00	38	24	20	32	96	1	944.19	38	20	22	34	96	1	1232.1	40	22	30	34	96	1
763.99	26	23	22	25	96	1	947.93	27	21	24	25	96	1	1240.3	30	21	26	23	96	1
768.00	30	24	20	25	96	1	952.00	34	24	28	32	96	1	1248.0	26	20	25	20	96	1
772.03	25	22	23	26	96	1	956.05	34	23	32	38	96	1	1255.5	40	27	32	29	96	1
776.08	40	25	24	38	96	1	960.00	36	27	30	32	96	1	1263.9	36	21	24	25	96	1
780.00	30	24	26	32	96	1	963.97	28	20	26	29	96	1	1272.1	40	21	20	23	96	1
784.13	36	28	27	34	96	1	968.07	40	28	30	34	96	1	1280.0	40	27	36	32	96	1
787.97	38	25	27	40	96	1	972.00	30	20	27	32	96	1	1288.0	30	21	27	23	96	1
792.00	36	24	22	32	96	1	976.05	38	23	20	26	96	1	1296.0	36	20	30	32	96	1
795.93	38	22	24	40	96	1	979.97	29	20	22	25	96	1	1303.8	40	26	32	29	96	1
800.00	25	20	20	24	96	1	983.93	34	23	26	30	96	1	1311.5	40	21	26	29	96	1
803.94	34	28	25	29	96	1	988.00	38	24	26	32	96	1	1319.9	32	20	29	27	96	1
807.90	27	22	24	28	96	1	992.15	40	22	27	38	96	1	1327.4	40	24	28	27	96	1
812.00	28	24	29	32	96	1	995.69	38	25	29	34	96	1	1336.3	38	21	25	26	96	1
816.00	34	20	20	32	96	1	1000.0	40	24	25	32	96	1	1344.0	28	20	25	20	96	1
819.98	38	27	22	29	96	1	1003.9	40	27	30	34	96	1	1352.2	34	20	29	28	96	1
824.02	38	25	24	34	96	1	1008.0	25	20	21	20	96	1	1360.0	34	20	25	24	96	1
828.00	30	20	23	32	96	1	1012.0	32	20	28	34	96	1	1368.0	38	20	30	32	96	1
832.00	26	20	20	24	96	1	1015.9	30	21	25	27	96	1	1376.3	32	20	28	25	96	1
836.00	38	24	22	32	96	1	1020.0	34	20	25	32	96	1	1384.2	38	22	24	23	96	1
840.00	25	20	21	24	96	1	1024.0	28	20	20	21	96	1	1392.0	40	20	29	32	96	1
843.99	36	25	29	38	96	1	1032.1	34	22	20	23	96	1	1400.1	38	23	32	29	96	1
847.87	36	25	23	30	96	1	1040.0	26	20	25	24	96	1	1408.0	40	20	22	24	96	1
851.97	32	25	26	30	96	1	1048.0	34	23	24	26	96	1	1415.3	38	23	29	26	96	1
855.98	40	34	36	38	96	1	1056.0	25	20	22	20	96	1	1424.3	34	22	36	30	96	1
859.87	36	22	26	38	96	1	1064.0	38	24	28	32	96	1	1431.8	29	20	27	21	96	1
864.00	27	20	20	24	96	1	1071.9	34	21	25	29	96	1	1440.0	30	20	25	20	96	1
868.17	26	20	20	23	96	1	1080.0	27	20	25	24	96	1	1448.1	40	22	28	27	96	1
872.17	38	29	26	30	96	1	1088.0	34	20	20	24	96	1	1456.2	34	20	29	26	96	1
876.09	28	20	22	27	96	1	1096.2	34	23	28	29	96	1	1464.1	38	23	30	26	96	1
880.00	25	20	22	24	96	1	1104.0	25	20	23	20	96	1	1472.0	40	20	23	24	96	1
884.00	34	24	26	32	96	1	1112.0	40	26	32	34	96	1	1480.3	38	23	28	24	96	1
887.95	38	29	30	34	96	1	1120.0	28	20	25	24	96	1	1487.9	40	26	34	27	96	1
892.02	34	23	22	28	96	1	1127.9	38	23	24	27	96	1	1495.9	32	20	28	23	96	1
896.00	28	20	20	24	96	1	1136.3	30	21	29	28	96	1	1503.8	38	23	32	27	96	1
900.00	30	20	25	32	96	1	1144.0	34	21	23	25	96	1	1512.4	40	25	32	26	96	1
903.90	29	22	25	28	96	1	1152.0	25	20	24	20	96	1	1520.0	38	20	25	24	96	1
907.98	36	21	20	29	96	1	1160.1	36	22	24	26	96	1	1528.7	38	20	22	21	96	1
912.00	38	20	20	32	96	1	1168.1	30	22	29	26	96	1	1536.0	32	20	25	20	96	1
915.91	28	20	23	27	96	1	1175.9	38	21	22	26	96	1	1544.1	40	27	38	28	96	1
920.00	25	20	23	24	96	1	1183.9	40	29	38	34	96	1	1551.5	40	22	30	27	96	1
923.96	34	25	23	26	96	1	1192.0	40	21	22	27	96	1	1560.4	36	21	32	27	96	1
928.00	29	20	20	24	96	1	1200.0	30	20	25	24	96	1	1567.8	34	21	29	23	96	1
931.84	28	24	26	25	96	1	1208.4	36	22	25	26	96	1	1575.9	38	20	27	25	96	1

Operator's Manual

Table of Leads and Indexing Divisions for Milling Machines
Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 3 (continued) — LEADS — LOW LEAD ATTACHMENT

CAUTION Be Sure Feed Direction Lever on Change Gear Box is Locked for All Leads Shown on This Page.

Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G	Lead	A	B	C	D	F	G
1584.6	36	22	29	23	96	1	1952.1	40	23	38	26	96	1	2633.1	40	20	36	21	96	1
1591.9	38	20	24	22	96	1	1961.0	38	22	34	23	96	1	2653.1	40	20	38	22	96	1
1600.0	40	20	25	24	96	1	1968.8	38	21	34	24	96	1	2779.4	40	20	38	21	96	1
1608.6	36	22	32	25	96	1	1974.9	40	20	27	21	96	1	2918.4	40	20	38	20	96	1
1615.8	36	21	27	22	96	1	1984.5	38	20	34	25	96	1							
1624.2	38	23	32	25	96	1	1989.8	38	22	36	24	96	1							
1632.0	34	20	25	20	96	1	2001.2	38	21	36	25	96	1							
1639.2	40	22	27	23	96	1	2008.6	40	20	34	26	96	1							
1647.1	38	21	32	27	96	1	2015.1	38	20	29	21	96	1							
1654.9	40	22	32	27	96	1	2024.7	40	20	29	22	96	1							
1664.0	40	20	26	24	96	1	2030.2	40	23	38	25	96	1							
1671.8	40	21	32	28	96	1	2040.8	40	22	38	26	96	1							
1679.2	38	21	29	24	96	1	2048.0	40	20	28	21	96	1							
1687.9	40	21	30	26	96	1	2064.2	40	22	34	23	96	1							
1695.6	34	21	30	22	96	1	2076.3	38	22	36	23	96	1							
1703.0	34	20	30	23	96	1	2094.5	40	22	36	24	96	1							
1711.5	36	20	26	21	96	1	2114.8	40	23	38	24	96	1							
1720.3	32	20	28	20	96	1	2127.8	40	21	32	22	96	1							
1728.0	36	20	25	20	96	1	2147.7	38	21	34	22	96	1							
1736.3	40	20	26	23	96	1	2161.8	40	20	38	27	96	1							
1743.0	36	20	29	23	96	1	2176.0	40	20	34	24	96	1							
1752.2	38	21	29	23	96	1	2194.3	40	20	30	21	96	1							
1759.4	36	20	28	22	96	1	2210.9	40	22	38	24	96	1							
1767.6	40	21	29	24	96	1	2223.5	38	20	32	21	96	1							
1776.3	40	21	34	28	96	1	2238.2	36	20	34	21	96	1							
1786.8	38	21	36	28	96	1	2255.1	38	20	34	22	96	1							
1792.0	40	20	28	24	96	1	2270.6	40	20	34	23	96	1							
1800.4	40	21	32	26	96	1	2289.7	40	21	36	23	96	1							
1807.8	36	20	34	26	96	1	2304.0	40	20	30	20	96	1							
1816.0	40	21	36	29	96	1	2316.2	40	21	38	24	96	1							
1824.0	38	20	25	20	96	1	2334.7	38	20	32	20	96	1							
1831.9	38	21	29	22	96	1	2362.5	38	20	34	21	96	1							
1839.9	38	20	29	23	96	1	2362.5	38	20	34	21	96	1							
1849.4	40	23	36	26	96	1	2387.8	38	20	36	22	96	1							
1856.0	40	20	29	24	96	1	2393.8	40	21	36	22	96	1							
1865.1	34	20	30	21	96	1	2416.9	40	21	38	23	96	1							
1872.5	40	21	32	25	96	1	2432.0	40	20	38	24	96	1							
1880.1	36	20	34	25	96	1	2457.6	40	20	32	20	96	1							
1890.0	33	21	34	25	96	1	2480.6	38	20	34	20	96	1							
1897.0	38	20	26	20	96	1	2486.9	40	20	34	21	96	1							
1903.3	38	23	36	24	96	1	2501.5	38	20	36	21	96	1							
1913.0	40	21	34	26	96	1	2513.5	40	20	36	22	96	1							
1920.0	40	20	25	20	96	1	2526.8	40	21	38	22	96	1							
1928.3	40	21	29	22	96	1	2537.7	40	20	38	23	96	1							
1935.4	36	20	28	20	96	1	2611.2	40	20	34	20	96	1							
1942.8	40	22	32	23	96	1	2626.6	38	20	36	20	96	1							

TABLE 4 — THREAD MILLING — SINGLE THREAD

CAUTION Be Sure That Table Trip Lever is Locked.

Threads Per Inch	A	B	C	D	F	G	Threads Per Inch	A	B	C	D	F	G
40							10	36	20	20	30	1	96
39							9	40	20	20	30	1	96
38	20	38	24	40	1	96	8	36	20	20	24	1	96
36	20	36	24	40	1	96	7	30	21	24	20	1	96
35							6	40	24	36	30	1	96
34	20	34	24	40	1	96	5-1/2	40	20	24	22	1	96
32	20	32	24	40	1	96	5	40	20	24	20	1	96
30	20	30	24	40	1	96	4-1/2	24	20	20	36	1	24
29	20	29	24	40	1	96	4	24	20	20	32	1	24
28	20	28	24	40	1	96	3-1/2	24	20	20	28	1	24
27	20	27	24	40	1	96	3-1/4	24	20	20	26	1	24
26	20	26	24	40	1	96	3	36	24	20	30	1	24
25	20	25	24	40	1	96	2-7/8	24	20	20	23	1	24
24	30	36	24	40	1	96	2-3/4	36	22	20	30	1	24
23	24	23	20	40	1	96	2-5/8	32	20	20	28	1	24
22	24	22	20	40	1	96	2-1/2	30	20	20	25	1	24
21	24	21	20	40	1	96	2-3/8	24	38	40	20	1	24
20	24	20	20	40	1	96	2-1/4	40	20	20	30	1	24
19	24	20	20	38	1	96	2-1/8	40	20	24	34	1	24
18	24	20	20	36	1	96	2	40	20	24	32	1	24
17	24	20	20	34	1	96	1-7/8	40	20	24	30	1	24
16	24	20	20	32	1	96	1-3/4	30	21	24	20	1	24
15	24	20	20	30	1	96	1-5/8	40	20	24	26	1	24
14	24	20	20	28	1	96	1-1/2	40	24	36	30	1	24
13	24	20	20	26	1	96	1-3/8	40	20	24	22	1	24
12	36	24	20	30	1	96	1-1/4	40	20	24	20	1	24
11-1/2	24	20	20	23	1	96	1-1/8	40	20	28	21	1	24
11	30	20	20	40	1	96	1	21	28	20	40	8	24

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Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 4 (continued) — THREAD MILLING — DOUBLE THREAD

CAUTION Be Sure That Table Trip Lever is Locked.

Threads per Inch	A	B	C	D	F	G	Threads per Inch	A	B	C	D	F	G
40	24	20	20	40	1	96	10	24	20	20	40	1	24
39	32	26	20	40	1	96	9	24	20	20	36	1	24
38	24	20	20	38	1	96	8	30	20	20	40	1	24
36	24	20	20	36	1	96	7	24	20	20	28	1	24
35	20	25	24	28	1	96	6	36	24	20	30	1	24
34	24	20	20	34	1	96	5-1/2	36	22	20	30	1	24
32	24	20	20	32	1	96	5	30	20	20	25	1	24
30	24	20	20	30	1	96	4-1/2	40	20	20	30	1	24
29	24	20	20	29	1	96	4	40	20	24	32	1	24
28	24	20	20	28	1	96	3-1/2	30	21	24	20	1	24
27	24	20	20	27	1	96	3-1/4	40	20	24	26	1	24
26	24	20	20	26	1	96	3	40	24	36	30	1	24
25	24	20	20	25	1	96	2-7/8	40	20	24	23	1	24
24	36	24	20	30	1	96	2-3/4	40	20	24	22	1	24
23	24	20	20	23	1	96	2-5/8	40	20	24	21	1	24
22	36	22	20	30	1	96	2-1/2	40	20	30	25	1	24
21	32	20	20	28	1	96	2-3/8	20	40	24	38	8	24
20	36	20	20	30	1	96	2-1/4	20	30	20	40	8	24
19	20	38	24	40	1	24	2-1/8	20	34	24	40	8	24
18	20	36	24	40	1	24	2	20	28	21	40	8	24
17	20	34	24	40	1	24	1-7/8	20	30	24	40	8	24
16	20	32	24	40	1	24	1-3/4	20	28	24	40	8	24
15	20	30	24	40	1	24	1-5/8	20	26	24	40	8	24
14	20	28	24	40	1	24	1-1/2	21	28	24	36	8	24
13	20	26	24	40	1	24	1-3/8	20	22	24	40	8	24
12	20	28	21	30	1	24	1-1/4	20	25	21	28	8	24
11-1/2	24	23	20	40	1	24	1-1/8	20	36	24	20	8	24
11	24	22	20	40	1	24	1	30	20	20	40	8	24

TABLE 4 (continued) — THREAD MILLING — TRIPLE THREAD

CAUTION Be Sure That Table Trip Lever is Locked.

Threads per Inch	A	B	C	D	F	G	Threads Per Inch	A	B	C	D	F	G
40	36	20	20	40	1	96	10	27	20	20	30	1	24
39	24	20	20	26	1	96	9	25	20	24	30	1	24
38	36	20	20	38	1	96	8	27	20	20	24	1	24
36	36	24	20	30	1	96	7	36	20	20	28	1	24
35	36	25	20	28	1	96	6	36	20	20	24	1	24
34	36	20	20	34	1	96	5-1/2	36	20	20	22	1	24
33	36	22	20	30	1	96	5	40	20	27	30	1	24
32	30	20	24	32	1	96	4-1/2	32	20	25	20	1	24
30	36	20	20	30	1	96	4	36	32	40	20	1	24
29	36	20	20	29	1	96	3-1/2	40	20	27	21	1	24
28	36	20	20	28	1	96	3-1/4	40	20	36	26	1	24
27	36	20	20	27	1	96	3	40	20	36	24	1	24
26	36	20	20	26	1	96	2-7/8	40	20	36	23	1	24
25	36	20	20	25	1	96	2-3/4	40	20	36	22	1	24
24	36	20	20	24	1	96	2-5/8	24	28	20	40	8	24
23	36	20	20	23	1	96	2-1/2	24	28	21	40	8	24
22	36	20	20	22	1	96	2-3/8	24	38	30	40	8	24
21	36	20	20	21	1	96	2-1/4	24	30	25	40	8	24
20	30	20	24	20	1	96	2-1/8	21	28	24	34	8	24
19	36	38	40	20	1	96	2	21	40	30	28	8	24
18	30	20	28	21	1	96	1-7/8	24	20	20	40	8	24
17	40	20	36	34	1	96	1-3/4	30	28	24	40	8	24
16	36	20	30	24	1	96	1-5/8	21	26	24	28	8	24
15	24	20	20	40	1	24	1-1/2	30	20	20	40	8	24
14	20	40	36	28	1	24	1-3/8	21	22	24	28	8	24
13	20	30	27	26	1	24	1-1/4	30	20	24	40	8	24
12	30	20	20	40	1	24	1-1/8	30	24	20	25	8	24
11-1/2	20	40	36	23	1	24	1	36	24	30	40	8	24
11	27	22	20	30	1	24							

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Table of Leads and Indexing Divisions for Milling Machines

Equipped with Model H Universal Spiral Dividing Head and Conventional or Low Lead Attachment (U. S. Standard Lead Screw)

TABLE 4 (continued) — THREAD MILLING — QUADRUPLE THREAD

CAUTION Be Sure That Table Trip Lever is Locked.

Threads Per Inch	A	B	C	D	F	G	Threads Per Inch	A	B	C	D	F	G
40	36	20	20	30	1	96	10	36	20	20	30	1	24
39	40	30	24	26	1	96	9	36	20	20	27	1	24
38	40	20	24	38	1	96	8	36	20	20	24	1	24
36	40	20	20	30	1	96	7	36	20	20	21	1	24
35	36	21	20	25	1	96	6	36	30	40	24	1	24
34	40	20	24	34	1	96	5-1/2	40	22	24	20	1	24
33	40	22	24	30	1	96	5	36	30	40	20	1	24
32	40	20	24	32	1	96	4-1/2	24	36	20	40	8	24
30	24	30	20	40	1	24	4	24	32	20	40	8	24
29	24	29	20	40	1	24	3-1/2	24	28	20	40	8	24
28	24	28	20	40	1	24	3-1/4	24	26	20	40	8	24
27	24	27	20	40	1	24	3	30	36	24	40	8	24
26	24	26	20	40	1	24	2-7/8	24	23	20	40	8	24
25	24	25	20	40	1	24	2-3/4	24	22	20	40	8	24
24	24	40	30	36	1	24	2-5/8	24	21	20	40	8	24
23	24	23	20	40	1	24	2-1/2	24	20	20	40	8	24
22	24	22	20	40	1	24	2-3/8	24	20	20	38	8	24
21	20	25	20	28	1	24	2-1/4	24	20	20	36	8	24
20	24	20	20	40	1	24	2-1/8	24	20	20	34	8	24
19	24	20	20	38	1	24	2	24	20	20	32	8	24
18	24	20	20	36	1	24	1-7/8	24	20	20	30	8	24
17	24	20	20	34	1	24	1-3/4	24	20	20	28	8	24
16	24	20	20	32	1	24	1-5/8	24	20	20	26	8	24
15	24	20	20	30	1	24	1-1/2	30	24	20	25	8	24
14	24	20	20	28	1	24	1-3/8	36	22	20	30	8	24
13	24	20	20	26	1	24	1-1/4	36	20	20	30	8	24
12	20	25	30	24	1	24	1-1/8	36	20	20	27	8	24
11-1/2	24	20	20	23	1	24	1	36	20	20	24	8	24
11	24	20	20	22	1	24							

TABLE 4 (continued) — THREAD MILLING — METRIC THREAD

On Machines Having 1/4 Inch Pitch (Four threads per inch) Lead Screws.

CAUTION Be Sure That Table Trip Lever is Locked.

Lead in M/M	Required Lead in Inches	Nearest Lead in Inches	Error per Turn in Inches	A	B	C	D	F	G
.70	.02755956	.02763	+.000072	21	38	24	40	1	96
.75	.02952810	.02960	+.000067	21	34	23	40	1	96
.80	.03149664	.03152	+.000027	20	32	23	38	1	96
.90	.03543372	.03543	-.000008	20	26	21	38	1	96
1.00	.03937080	.03938	+.000004	21	30	27	40	1	96
1.25	.04921350	.04922	+.000005	21	24	27	40	1	96
1.50	.05905620	.05905	-.000002	26	28	29	38	1	96
1.75	.06889890	.06890	-.000003	26	24	29	38	1	96
2.00	.07874160	.07874	-.000003	26	21	29	38	1	96
2.50	.09842700	.09842	-.000001	29	26	36	34	1	96
3.00	.11811240	.11813	+.000001	21	20	27	20	1	96
3.50	.1377978	.13780	+.000001	22	34	23	36	1	24
4.00	.1574832	.15750	+.000016	21	30	27	40	1	24
4.50	.1771686	.17717	+.000002	22	28	23	34	1	24
5.00	.1968540	.19688	+.000002	21	24	27	40	1	24
5.50	.2165394	.21647	-.000069	23	25	24	34	1	24
6.00	.2362248	.23622	-.000009	26	28	29	38	1	24
6.50	.2559102	.25588	-.000028	29	34	36	40	1	24
7.00	.2755956	.27558	-.000001	26	24	29	38	1	24