

PARTS LIST
and
**SERVICE
REPAIR
BOOK**

531

CINCINNATI

2 *and* **3** **HIGH
POWER**

Plain-Universal-Vertical
MILLERS

IMPORTANT

Place this booklet in
the hands of the man
who is responsible for
ordering repair parts.

THE CINCINNATI MILLING MACHINE CO.

CINCINNATI - OHIO - U. S. A.

DEPT
S 31

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HOW TO ORDER REPAIR PARTS

You will receive quicker and better service when ordering your repair parts if you follow the instructions listed below.

Do not use this booklet to order parts for machines not included herein

If the order is by letter, the following instructions must be given:

1. Specify the amount required.
2. Give the part name of the part required.
3. Give the part number of the part.
4. Give the size and type of the machine for which the part is required.
5. Give the serial number and letters of the machine.

Example:

Please ship to us one Large Drive Gear; Part No. 51988; for 3 Plain
High Power; Serial No.

Signed.

If the order is by telegram, the following information must be given:

1. Specify the amount wanted.
- *2. Give the part number of the part required.
3. Give the code word for the size and type of the machine for which the part is required.
4. Give the serial number and letters of the machine.

Example:

Ship One 51988; for EDCUR; Serial No.

Signed.

You may find a factory identification number on the part which you are ordering. If you have a parts list and service repair catalog for the particular machine from which the broken part was taken, ignore this number completely. If you **do not** have a parts list and service repair catalog for the machine, the number stamped on the part, along with the amount required, the serial number and letters of the machine, and the size and type of the machine will be necessary in filling your order.

A number of parts are designated **right** and **left**. Right refers to the right-hand side of the bed from the normal operating position.

Unless the method of shipment is stated in your order, we will ship by the quickest method and the shortest route.

*When telegraphing, give each digit separately of the part number and serial number.

e.g. 20507 Two-Naught-Five-Naught-Seven, rather than Twenty-Fifty-Seven, which may be written as 2057, causing us to ship the wrong part.

CODE WORDS FOR THE MACHINES INCLUDED IN THIS BOOKLET

Three-Way Power Quick Traverse Millers (Shown on page 5)

	Belt Drive	Chain Motor Drive
2 High Power—Plain.....	EDALF	EDTAF
3 Standard—Plain.....	EDBEL	EDSTA
3 High Power—Plain.....	EDREE	EDCUR
4 Standard—Plain.....	PLAPY	PYPLA
2 High Power—Universal.....	EDINC	EDJTO
3 Standard—Universal.....	EDPYK	EDWOS
3 High Power—Universal.....	EDLUF	EDNOR
4 Standard—Universal.....	USTAN	UNCHA
3 Vertical.....	EDVUB	EDZHY

Old Style Millers (Shown on page 4)

Power Feed to Table Only	Belt Drive	Belt Motor Drive	Chain Motor Drive
No. 2 High Power—Plain.....	ROSE	BULB	ASTER
No. 3 Standard—Plain.....	FOX	TOAD	GNU
No. 2 High Power—Universal.....	BERRY	STEM	RYE
All Power Feeds			
No. 2 High Power—Plain.....	ROSAL	BUBAL	ASTAL
No. 3 Standard—Plain.....	FOXAL	TOALL	GNUAL
No. 3 High Power—Plain.....	PINAL	BUDAL	OAKAL
No. 4 Standard—Plain.....	LAMB	MELON	MULE
No. 2 High Power—Universal.....	BERAL	SEMAL	RYAL
No. 3 Standard—Universal.....	SQUAB	STEER	LYNX
No. 3 High Power—Universal.....	WHEAT	KRAUT	CORN
No. 4 Standard—Universal.....	MARSH	TUFT	STRAW

LOCATION OF MACHINE SERIAL NUMBER

The serial number and letters of the 2 and 3 High Power and 4 Standard **Horizontal** Millers are stamped on the column face below the front spindle bearing.

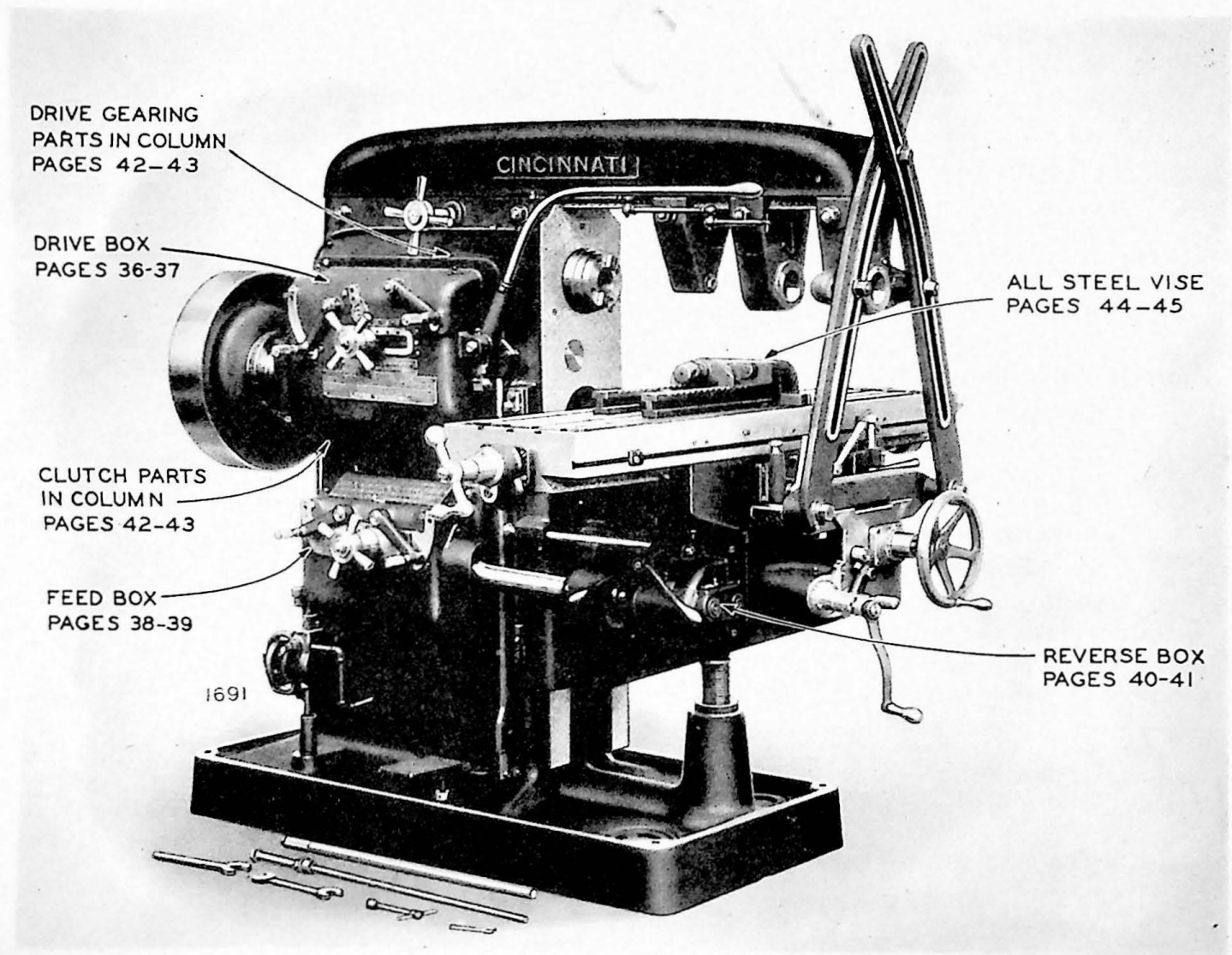
The serial number and letters of the 3 High Power **Vertical** Millers are stamped on the column face at the top of the left-hand knee bearing.

The names of the units, of the 2 and 3 High Power Cincinnati Millers are indicated on pages 4 and 5.

These charts are given as an aid to quickly find the correct part name and number of any part.

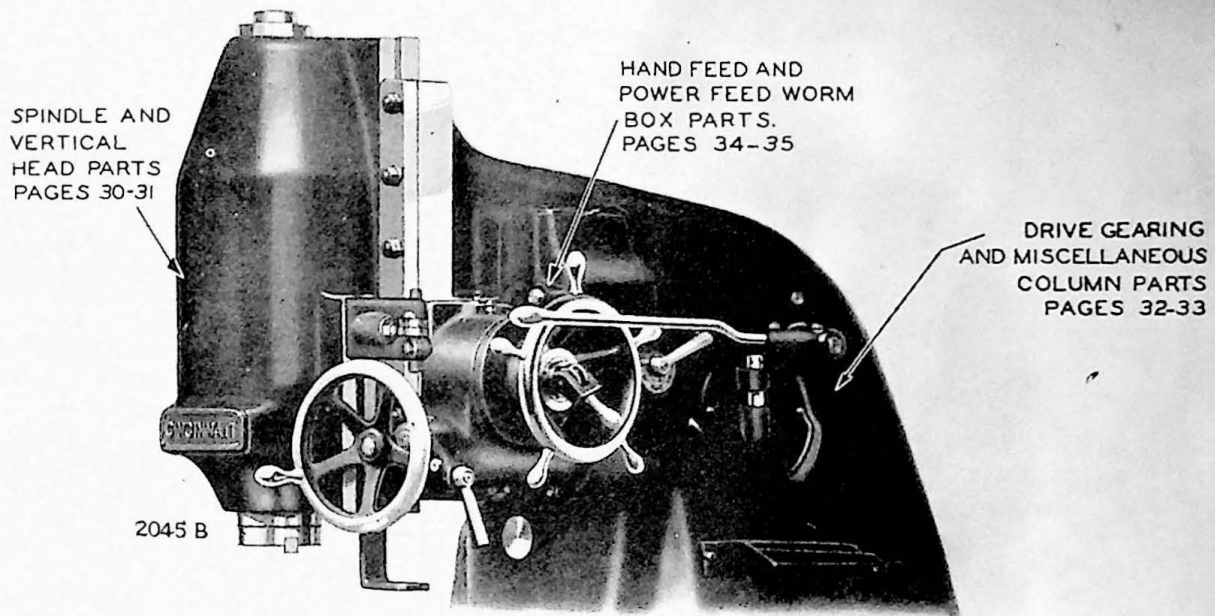
Parts for the old style machine (Fig. 1) are also included in this catalog.

NOMENCLATURE CHART



No. 3 HORIZONTAL (OLD STYLE)

Fig. 1



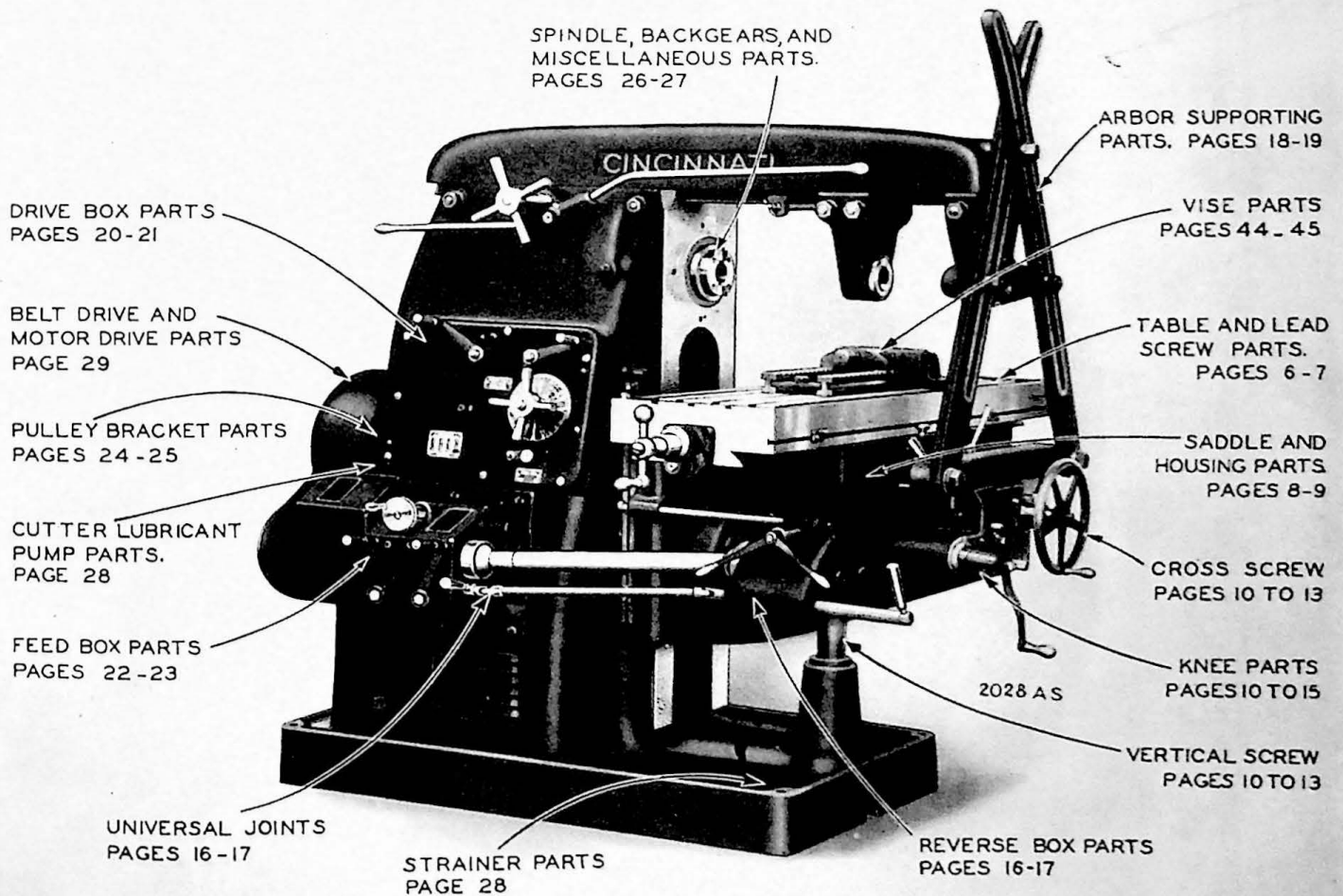
SPINDLE AND VERTICAL HEAD PARTS PAGES 30-31

HAND FEED AND POWER FEED WORM BOX PARTS. PAGES 34-35

DRIVE GEARING AND MISCELLANEOUS COLUMN PARTS PAGES 32-33

2045 B

VERTICAL HEAD AND POWER FEED WORM BOX OF No. 3 H. P. VERTICAL



SPINDLE, BACKGEARS, AND MISCELLANEOUS PARTS. PAGES 26-27

ARBOR SUPPORTING PARTS. PAGES 18-19

DRIVE BOX PARTS PAGES 20-21

VICE PARTS PAGES 44-45

BELT DRIVE AND MOTOR DRIVE PARTS PAGE 29

TABLE AND LEAD SCREW PARTS. PAGES 6-7

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CUTTER LUBRICANT PUMP PARTS. PAGE 28

CROSS SCREW PAGES 10 TO 13

FEED BOX PARTS PAGES 22-23

2028 AS

KNEE PARTS PAGES 10 TO 15

UNIVERSAL JOINTS PAGES 16-17

VERTICAL SCREW PAGES 10 TO 13

STRAINER PARTS PAGE 28

REVERSE BOX PARTS PAGES 16-17

No. 3 H. P. HORIZONTAL WITH 3-WAY POWER QUICK TRAVERSE

Fig. 2

TABLE AND LEAD SCREW PARTS

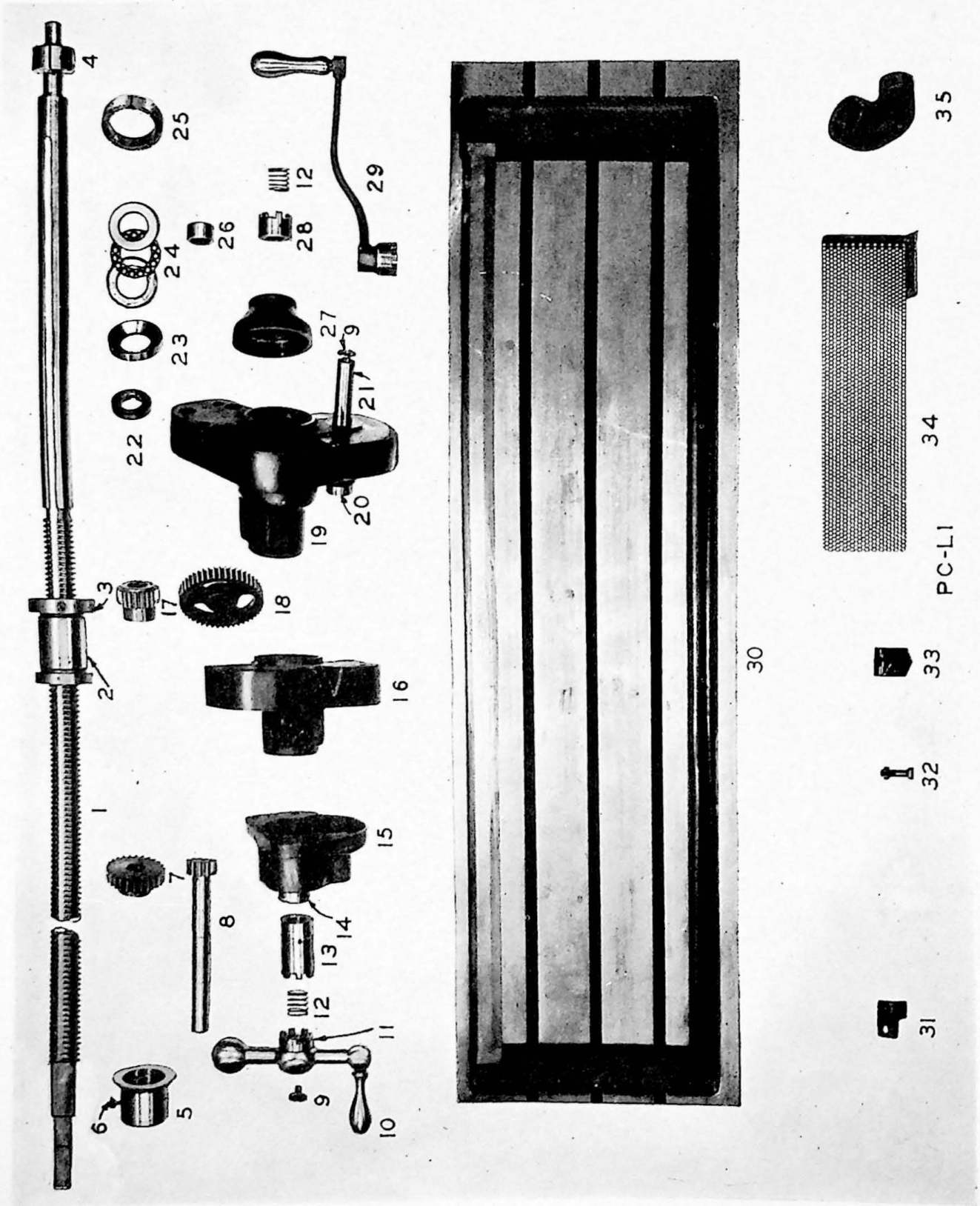
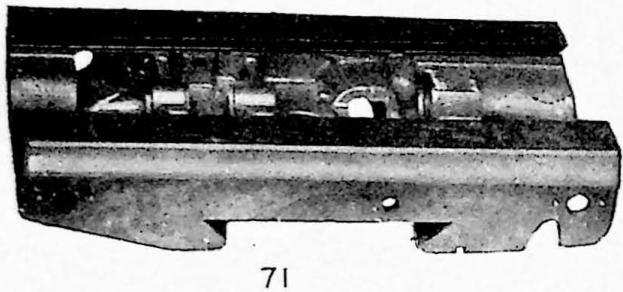


TABLE AND LEAD SCREW PARTS LIST

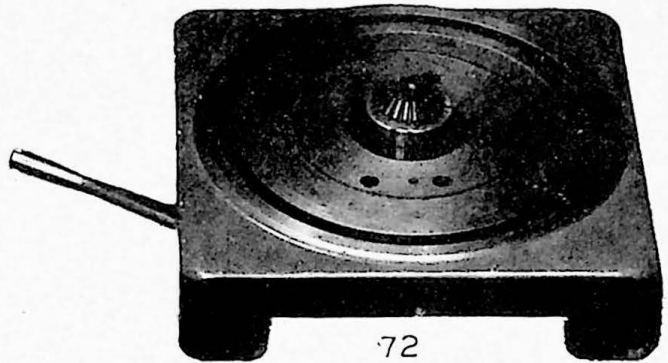
Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H.P. and 3 Std.	3 H.P. and 4 Std.				2 H.P. and 3 Std.	3 H.P. and 4 Std.
1	1	Lead Screw (English Pitch—2 Plain H. P. only. Fitted with nuts).....	51943		5	1	Dial on Lead Screw (for Metric Pitch Screw).....	13395	13395
1	1	Lead Screw (Metric Pitch—2 Plain H. P. only. Fitted with nuts).....	51950		6	1	Thumb Screw.....	100	100
1	1	Lead Screw (English Pitch—3 Plain Std. only. Fitted with nuts).....	25971		7	1	Front Gear on Lead Screw...	20379	20379
1	1	Lead Screw (Metric Pitch—3 Plain Std. only. Fitted with nuts).....	25970		8	1	Stem Gear in Front Apron...	20385	20385
1	1	Lead Screw (English Pitch—3 Plain H. P. only. Fitted with nuts).....		48616	9	1	Screw.....	99	99
1	1	Lead Screw (Metric Pitch—3 Plain H. P. only. Fitted with nuts).....		51999	10	1	Handle.....	3502	3502
1	1	Lead Screw (English Pitch—4 Plain Std. only. Fitted with nuts).....		25966	11	1	Clutch (Fitted with Ball Crank and Handle).....	54503-F	54503-F
1	1	Lead Screw (Metric Pitch—4 Plain Std. only. Fitted with nuts).....		25967	12	2	Spring.....	33744	33744
1	1	Lead Screw (English Pitch—2 Univ. H. P. only. Fitted with nuts).....	51944		13	1	Clutch on Front Apron Shaft.	54506	54506
1	1	Lead Screw (Metric Pitch—2 Univ. H. P. only. Fitted with nuts).....	51956		14	1	Bush in Front Apron.....	19065	19065
1	1	Lead Screw (English Pitch—3 Univ. Std. only. Fitted with nuts).....	25969		15	1	Front Apron (Fitted up with Bush, Clutch, and Stem Gear).....	16653-F	16653-F
1	1	Lead Screw (Metric Pitch—3 Univ. Std. only. Fitted with nuts).....	25968		15	1	Front Apron.....	16653	16653
1	1	Lead Screw (English Pitch—3 Univ. H. P. only. Fitted with nuts).....		52006	16	1	Back Apron (Plain only)....	31184	12458
1	1	Lead Screw (Metric Pitch—3 Univ. H. P. only. Fitted with nuts).....		52007	17	1	Gear on Lead Screw for Quick Return.....	25954	25954
1	1	Lead Screw (English Pitch—4 Univ. Std. only. Fitted with nuts).....		25965	18	1	Gear on Shaft for Quick Return.....	20378	20378
1	1	Lead Screw (Metric Pitch—4 Univ. Std. only. Fitted with nuts).....		25964	19	1	Back Apron (Fitted with Shaft, Gear, and Clutch—Univ. only).....	19096-F	22366-F
2	1	Nut on Lead Screw (English Pitch).....	12579	11642	19	1	Back Apron (Univ. only)....	19096	22366
2	1	Nut on Lead Screw (Metric Pitch).....	13311	13312	20	1	Collar on Quick Return Shaft.	11968	11968
3	1	Nut for Nut on Lead Screw...	30938	30940	21	1	Quick Return Shaft (Fitted with Collar).....	34815-F	34815-F
4	1	Lock Nut on Lead Screw.....	25955	25955	21	1	Quick Return Shaft.....	34815	34815
5	1	Dial on Lead Screw (for English Pitch Screw).....	11480	11480	22	1	Collar on Lead Screw.....	25953	25953
					23	1	Washer for Ball Bearing....	21336	21336
					24	1	Ball Thrust Bearing (S. K. F.—707J).....	12592	12592
					25	1	Thrust Ring for Ball Bearing	21338	21338
					26	1	Bush in Ball Bearing on Lead Screw.....	25952	25952
					27	1	Cover for Back Apron.....	12369	12369
					28	1	Clutch for Quick Return....	54509	54509
					29	1	Crank.....	56426	56426
					30	1	Table (2 H. P.—Plain).....	58596	
					30	1	Table (3 Std.—Plain).....	58597	
					30	1	Table (3 H. P.—Plain).....		58595
					30	1	Table (4 Std.—Plain).....		58642
					30	1	Table (2 H. P.—Universal)...	58593	
					30	1	Table (3 Std.—Universal)...	58594	
					30	1	Table (3 H. P.—Universal)...		58037
					30	1	Table (4 Std.—Universal)...		58600
					31	2	Dog on Table (Plain only)...	15473	15473
					32	2	Tee Bolt (3/8" x 1 3/4" Long)...	1892	1892
					32	2	Tee Bolt (3/8" x 1 1/2" Long)...	1860	1860
					33	2	Dog on Table (Univ. only)...	22460	22461
					34	1	Strainer for Table (Plain only)	56032	56034
					34	1	Strainer for Table (Univ. only).....		56031
					35	1	Off-Set Elbow (Univ. only)...	56227	56227
					35	1	Table Connection(Plain only)	56356	56356

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

SADDLE AND HOUSING PARTS



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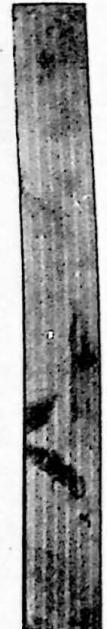
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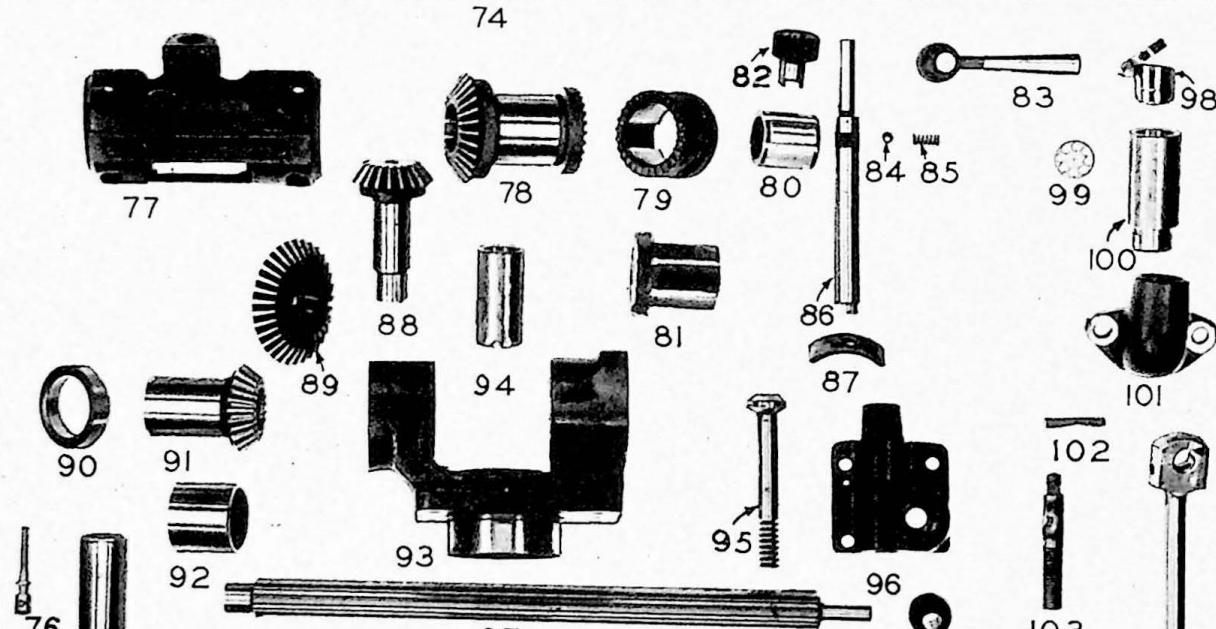
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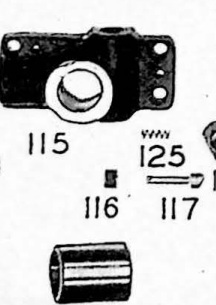
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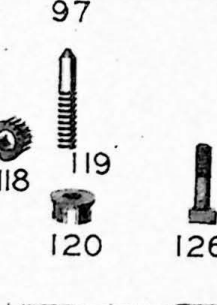
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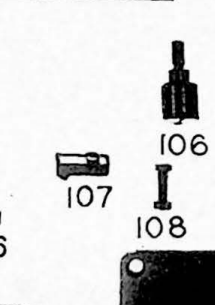
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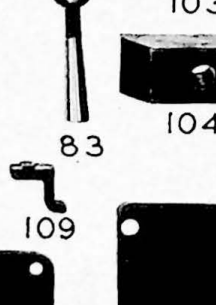
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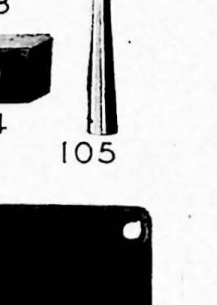
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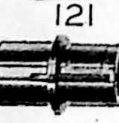
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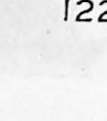
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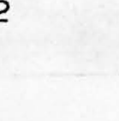
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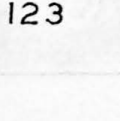
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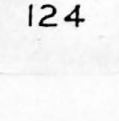
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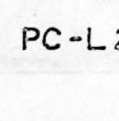
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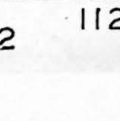
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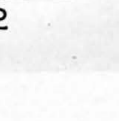
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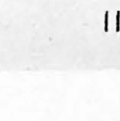
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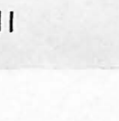
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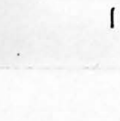
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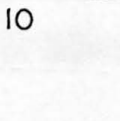
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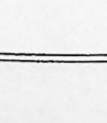
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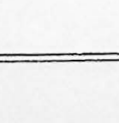
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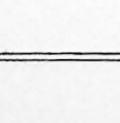
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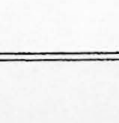
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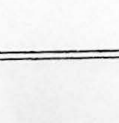
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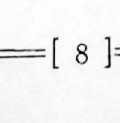
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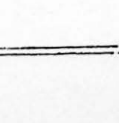
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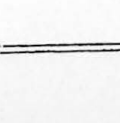
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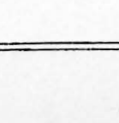
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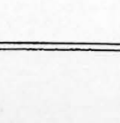
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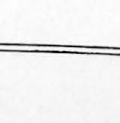
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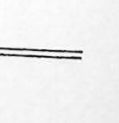
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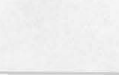
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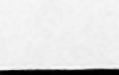
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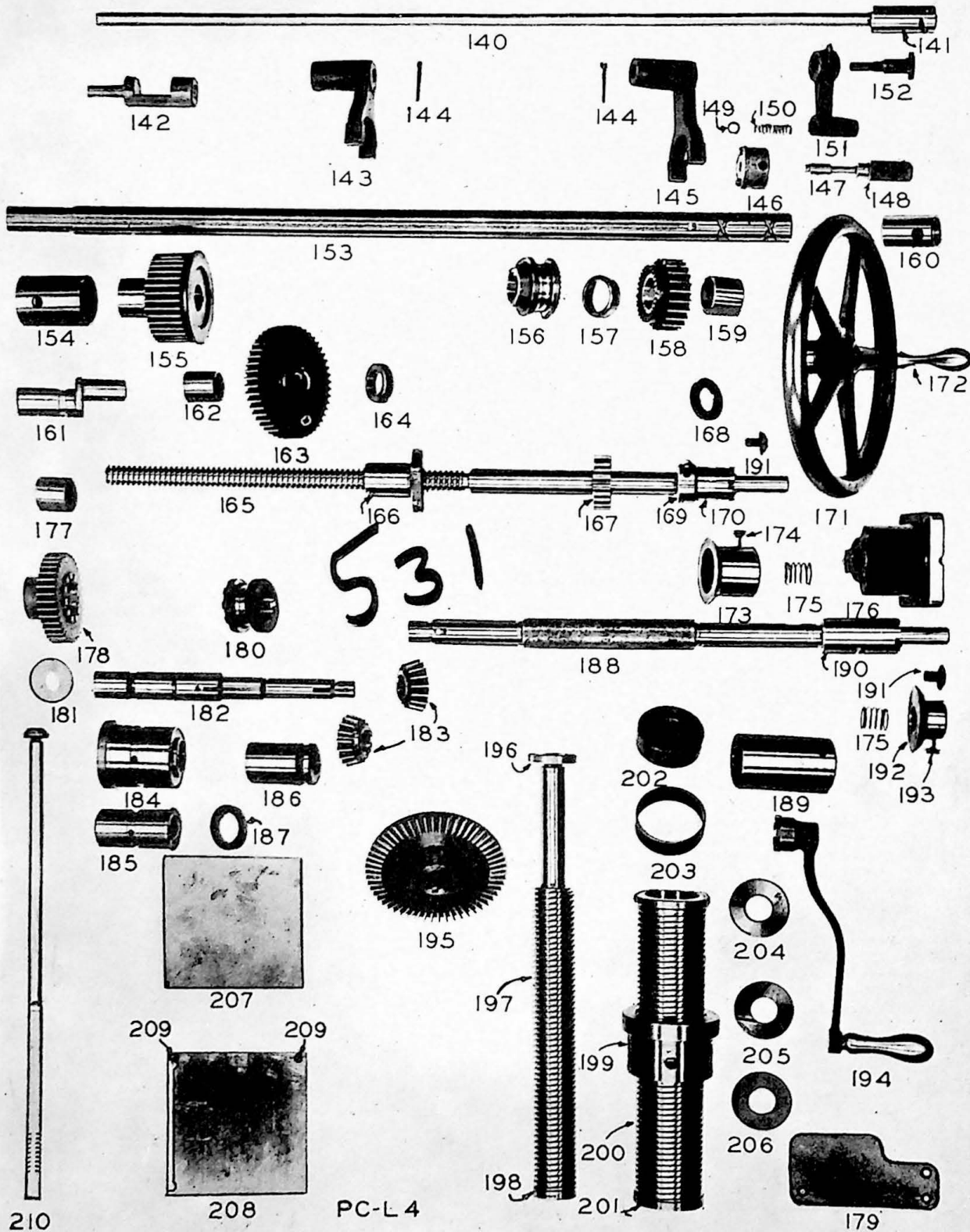
PC-L 2

SADDLE AND HOUSING PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H.P. and 3 Std.	2 H.P. and 3 Std.				2 H.P. and 3 Std.	2 H.P. and 3 Std.
71	1	Saddle (Fitted up complete for 2 Plain H. P.)	60035-RFA		93	1	Bracket on Saddle (Plain—Fitted with Bush)	28245	21490
71	1	Saddle (Fitted up complete for 3 Plain Std.)	60035-RFB		94	1	Long Bush in Bracket on Saddle	16368	16336
71	1	Saddle (Fitted up complete for 3 Plain H. P.)		60034-RFA	95	1	Plunger for Table Feed (Plain only)	16686	12515
71	1	Saddle (Fitted up complete for 4 Plain Std.)		60034-RFB	96	1	Bearing for Table Feed Plunger	26064	12486
71	1	Saddle (Plain only)	60035	60034	97	1	Pinion for Table Feed	58212	58216
71	1	Housing (Fitted up complete for 2 Univ. H. P.)	51949-RFA		98	2	Oil Cup (1 1/4" Diameter)	51735	51735
71	1	Housing (Fitted up complete for 3 Univ. Std.)	51949-RFB		99	2	Oil Tube Holder (Plain)	48799	48799
71	1	Housing (Fitted up complete for 3 Univ. H. P.)		52042-RFB	100	2	Oil Tube Holder (Universal)	30664	40960
71	1	Housing (Fitted up complete for 4 Univ. Std.)		52042-RFE	100	2	Oil Pocket Extension	49540	48801
71	1	Housing (Fitted up complete for 4 Univ. Std.)		52042-RFE	101	2	Oil Pocket Extension (3 Univ. H. P. and 4 Universal Std. only)		48823
71	1	Housing (Univ. only)	51949	52042	102	1	Oil Pocket Bracket	38283	38283
72	1	Saddle (Fitted up complete Univ. only)	56126-RF	56128-RF	102	1	Lock Pin (3/8" x 2" Long)	33942	33942
72	1	Saddle (Univ. only)	56126	56128	103	1	Saddle Clamp Stud (Plain)	34043	34043
73	1	Gib Adjusting Screw (5/8" Diameter Head)	35942	35942	103	1	Saddle Clamp Stud (Univ.)	56133	56133
74	1	Gib for Table (Plain)	16246	16210	104	1	Saddle Clamp (Plain)	60028	60028
74	1	Gib for Table (Universal)	46208	27725	104	1	Saddle Clamp (Universal)	56134	56134
75	1	Gib for Saddle (Plain)	58193	58192	105	1	Clamping Lever (Plain)	60493	60493
75	1	Gib for Saddle (Universal)	58175	58174	105	1	Clamping Lever (Universal)	56135	56135
76	1	Gib Adjusting Screw (1" Diameter Head)	35943	35943	106	1	Stop Screw	61928	61928
77	1	Cap on Saddle (Plain only)		27918	107	1	L. H. Dog on Saddle	12914	11807
78	1	Bevel Gear on Lead Screw	13898	27917	108	2	Tee Bolt (3/8" x 1" Long)	1025	
79	1	Clutch on Lead Screw (Plain)	62021	62024	108	2	Tee Bolt (3/8" x 1 1/8" Long)		493
79	1	Clutch on Lead Screw (Universal)	12729		109	1	R. H. Dog on Saddle	12840	11806
80	1	Sleeve on Lead Screw	27851	27568	110	1	Plate Under Saddle	27873	27873
81	1	Spacer on Lead Screw (Plain only)	62022	62023	111	1	Cover on End of Saddle (Plain only)	58246	58246
82	1	Bearing for Eccentric (Plain only)	58249	58249	112	1	Cap on Saddle and Housing	13878	
83	2	Control Lever	3516	3516	112	1	Cap on Housing (Universal only)		11940
84	1	Ball (3/16" Diameter—Plain only)	29019	29019	113	1	Long Bush in Bracket (Universal)	16431	16432
85	1	Spring (Plain only)	1876	1876	114	1	Bracket on Saddle (Universal Fitted with Long Bush)	23277	27937
86	1	Eccentric in Saddle (Plain)	56211	56212	Universal Parts Only				
86	1	Eccentric Shaft in Housing (Universal)	58289	58290	115	1	Bearing for Table Feed Plunger	22449	22449
87	1	Shoe for Table Feed (Plain and Univ.)	11736		116	1	Screw in Bearing and Housing	11999	11999
87	1	Shoe for Table Feed (Plain)		60022	117	1	Plunger in Bearing for Table Feed	22452	22452
87	1	Shoe for Table Feed (Univ.)		11736	118	1	Pinion on Eccentric Shaft in Housing	22450	22450
88	1	Stem Bevel Gear (Plain)	12754	20589	119	1	Plunger for Table Feed	22451	22451
88	1	Stem Bevel Gear (Universal)	14747	14717	120	1	Bush in Bearing for Table Feed Plunger	58287	58287
89	1	Bevel Gear on Stem Bevel Gear	59467	59479	121	1	Sleeve on Lead Screw		20633
90	1	Collar on Bevel Gear	9207	16120	122	1	Clutch Sleeve on Lead Screw		20635
91	1	Bevel Gear on Splined Shaft	59468	59480	123	1	Clutch on Lead Screw		11652
92	1	Short Bush in Bracket on Saddle (1 3/4" Bore—Plain)	16369		124	1	Sleeve on Lead Screw	13933	
92	1	Short Bush in Bracket on Saddle (2" Bore—Plain and Universal)	16337	16337	125	1	Spring	1740	1740
					126	1	Tee Bolt (5/8" x 1 1/8" Long)	1731	
					126	1	Tee Bolt (5/8" x 2" Long)		683

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

KNEE PARTS, CROSS AND VERTICAL SCREW PARTS
(2 H. P. AND 3 STD.)

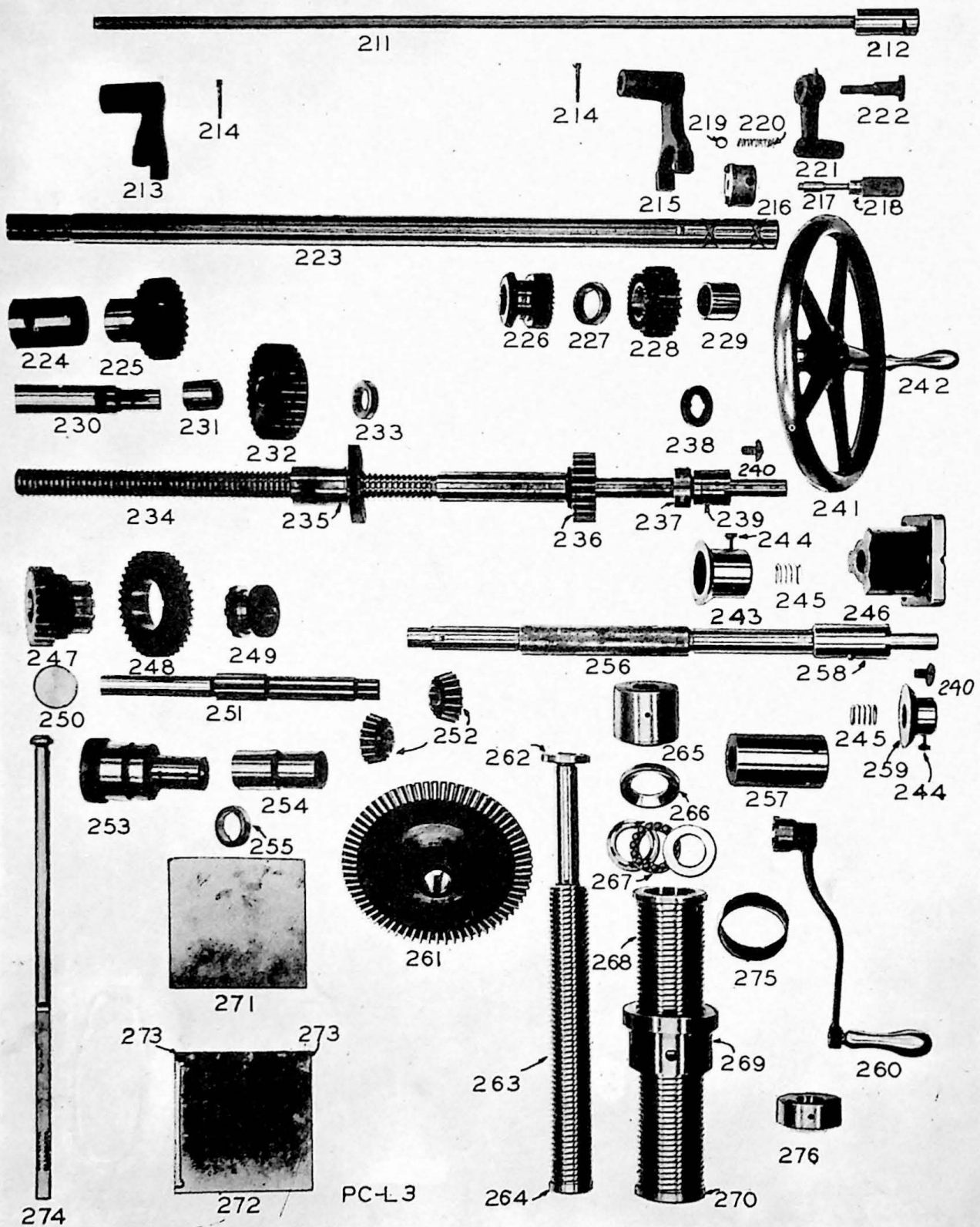


KNEE PARTS, CROSS AND VERTICAL SCREW PARTS LIST (2 H. P. AND 3 STD.)

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
140	1	Clutch Rod for Cross and Vertical Feed (Fitted with Cam)	58627-F	187	1	Collar on Vertical Feed Shaft	58821
140	1	Clutch Rod for Cross and Vertical Feed	58627	188	1	Elevating Shaft (Fitted with Clutch)	14732-F
141	1	Cam for Cross and Vertical Feed	12843	188	1	Elevating Shaft	14732
142	1	Clutch Rod Yoke	58625	189	2	Bush for Elevating Shaft	61570
143	1	Clutch Fork for Cross Feed (2 $\frac{5}{8}$ " Width of Fork)	12835	190	1	Clutch	54508
144	2	Pin in Clutch Fork	14556	191	2	Fillister Head Screw	99
145	1	Clutch Fork for Vertical Feed (1 $\frac{3}{8}$ " Width of Fork)	12842	192	1	Dial on Elevating Shaft (English)	14729
146	1	Stop Pin Bearing (Assembled with Pin and Pinion)	19589-F	192	1	Dial on Elevating Shaft (Metric)	14730
147	1	Index Pin (Fitted with Handle)	14223-F	193	1	Thumb Screw	101
148	1	Handle on Index Pin	3525	194	1	Crank on Elevating Shaft (Assembled)	56426
149	1	Bush in Lever	3523	195	1	Large Bevel Gear for Vertical Feed	59794
150	1	Spring	1733	196	1	Nut on Vertical Screw	21203
151	1	Lever for Cross and Vertical Feed	14232	197	1	Vertical Screw (Fitted with Nuts and Sleeve—English Pitch—2 Plain H. P.)	52241-FB
152	1	Screw for Cross and Vertical Feed Lever	23129	197	1	Vertical Screw (Fitted with Nuts and Sleeve—Metric Pitch—2 Plain H. P.)	52242-FB
153	1	Splined Shaft	58173	197	1	Vertical Screw (Fitted with Nuts and Sleeve—English Pitch—2 Univ. H. P.)	52243-FB
154	1	Large Bush for Splined Shaft (1 $\frac{7}{8}$ " Bore)	52551	197	1	Vertical Screw (Fitted with Nuts and Sleeve—Metric Pitch—2 Univ. H. P.)	52243-FB
155	1	Gear on Splined Shaft	59806	197	1	Vertical Screw (Fitted with Nuts and Sleeve—English Pitch—3 Plain Std.)	52241-FA
156	1	Clutch on Splined Shaft	59791	197	1	Vertical Screw (Fitted with Nuts and Sleeve—Metric Pitch—3 Plain Std.)	52242-FA
157	1	Collar on Splined Shaft	12632	197	1	Vertical Screw (Fitted with Nuts and Sleeve—English Pitch—3 Univ. Std.)	52243-FA
158	1	Clutch Gear on Splined Shaft (Fitted with Bush)	59786	197	1	Vertical Screw (Fitted with Nuts and Sleeve—Metric Pitch—3 Univ. Std.)	52244-FA
159	1	Bush in Clutch Gear (1 $\frac{7}{8}$ " O. D.)	12629	198	1	Lock Nut on Vertical Screw	52245
160	1	Small Bush for Splined Shaft (1 $\frac{9}{16}$ " O. D.)	49618	199	1	Nut on Base (English Pitch—2 H. P.)	52308
161	1	Intermediate Eccentric Shaft	58429	199	1	Nut on Base (Metric Pitch—2 H. P.)	52309
162	1	Bush in Intermediate Gear	23080	199	1	Nut on Base (English Pitch—3 Std.)	20264
163	1	Intermediate Gear (Fitted with Bush)	59792	199	1	Nut on Base (Metric Pitch—3 Std.)	20265
164	1	Collar on Intermediate Shaft	12742	200	1	Sleeve on Vertical Screw (English Pitch)	16556
165	1	Cross Screw (English Pitch—Fitted with Nuts, Gear, and Clutch)	13663-F	200	1	Sleeve on Vertical Screw (Metric Pitch)	16557
165	1	Cross Screw (Metric Pitch—Fitted with Nuts, Gear, and Clutch)	13664-F	201	1	Lock Nut on Sleeve	11524
166	1	Nut on Cross Screw (English Pitch)	21471	202	1	Collar on Vertical Screw (Plain)	16591
166	1	Nut on Cross Screw (Metric Pitch)	21472	202	1	Collar on Vertical Screw (Universal)	16549
167	1	Gear on Cross Screw	59469	203	1	Casing for Vertical Screw	16638
168	2	Washer on Cross Screw	14218	204	2	Outer Washer for Vertical Screw Thrust Bearing	16639
169	1	Lock Nut on Cross Screw	8993	205	2	Bronze Washer for Vertical Screw Thrust Bearing	16640
170	1	Clutch on Cross Screw	54505	206	1	Inner Washer for Vertical Screw Thrust Bearing	16637
171	1	Hand Wheel (Fitted with Clutch and Handle)	19134-FA	207	2	Lower Sliding Cover on Knee (Plain)	27318
172	1	Handle	6231	207	2	Lower Sliding Cover on Knee (Universal)	13196
173	1	Dial on Cross Screw (English)	11480	208	2	Upper Sliding Cover on Knee (Plain)	27319
173	1	Dial on Cross Screw (Metric)	13395	208	2	Upper Sliding Cover on Knee (Universal)	13197
174	1	Thumb Screw	100	209	4	Cap Screw	1450
175	2	Spring	33744	210	1	Vertical Feed Plunger (Fitted with Head)	52583
176	1	Apron on Knee	56994				
177	1	Bush in Clutch Gear (1 $\frac{3}{8}$ " Bore)	3869				
178	1	Clutch Gear on Vertical Feed Shaft	59803				
179	1	Plate on Knee (Plain only)	25634				
180	1	Clutch on Vertical Feed Shaft	59787				
181	1	Steel Plug (1 $\frac{7}{8}$ " Diam.)	21507				
182	1	Vertical Feed Shaft	59807				
183	2	Small Bevel Gear for Vertical Feed Shaft	59466				
184	1	Sleeve for Vertical Feed Shaft (Fitted with Bush)	58820				
185	1	Bush in Sleeve	58818				
186	1	Small Bush for Vertical Feed Shaft	55543				

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

KNEE PARTS, CROSS AND VERTICAL SCREW PARTS
(3 H. P. AND 4 STD.)

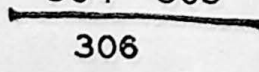
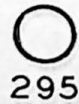
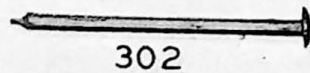
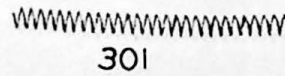
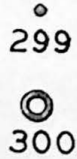
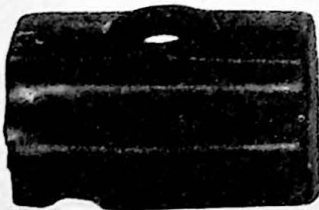
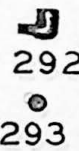
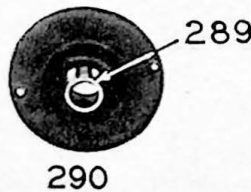
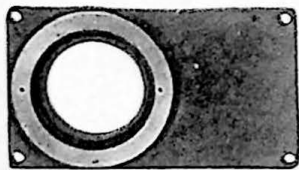
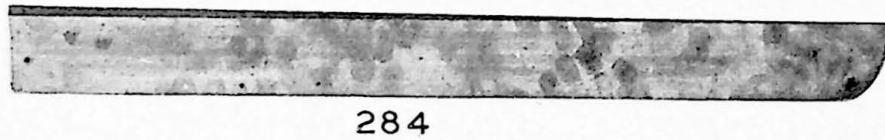
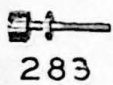
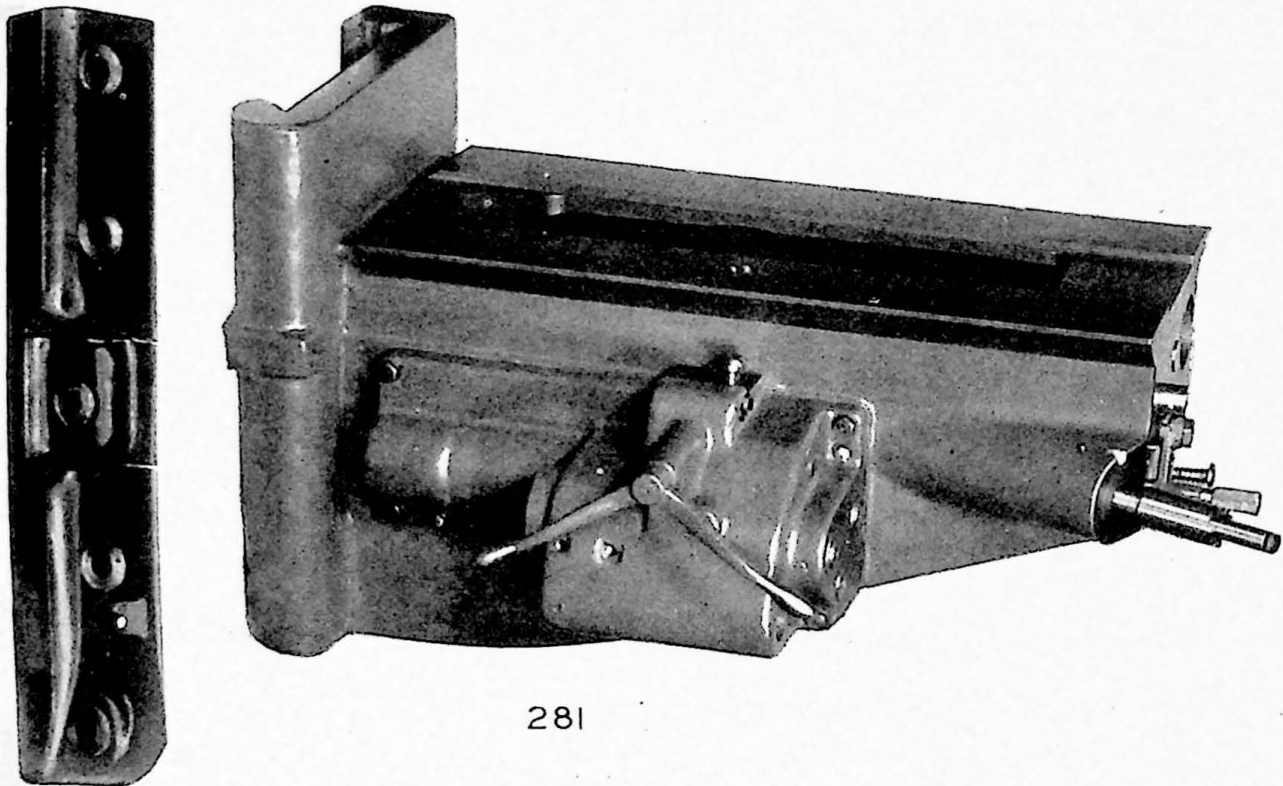


KNEE PARTS, CROSS AND VERTICAL SCREW PARTS LIST (3 H. P. AND 4 STD.)

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
211	1	Clutch Rod for Cross and Vertical Feed (Fitted with Cam)	25030-F	257	2	Bush for Elevating Shaft	61569
211	1	Clutch Rod for Cross and Vertical Feed	25030	258	1	Clutch on Elevating Shaft	54507
212	1	Cam for Cross and Vertical Feed	12843	259	1	Dial on Elevating Shaft (English)	11479
213	1	Clutch Fork for Cross Feed (3 1/8" from hole to C. L. Fork)	12504	259	1	Dial on Elevating Shaft (Metric)	13413
214	2	Pin in Clutch Fork	14556	260	1	Crank on Elevating Shaft (Assembled)	56426
215	1	Clutch Fork for Vertical Feed (4" from hole to C. L. Fork)	12463	261	1	Large Bevel Gear for Vertical Feed	59790
216	1	Stop Pin Bearing (Assembled with Pins and Pinion)	19589-F	262	1	Nut on Vertical Screw	21203
217	1	Index Pin (Fitted with Handle)	14223-F	263	1	Vertical Screw (Fitted with Nuts and Sleeve—English Pitch—3 Plain H. P. and 4 Plain Std.)	52237-F
218	1	Handle on Index Pin	3525	263	1	Vertical Screw (Fitted with Nuts and Sleeve—Metric Pitch—3 Plain H. P. and 4 Plain Std.)	52238-F
219	1	Bush in Lever	3523	263	1	Vertical Screw (Fitted with Nuts and Sleeve—English Pitch—3 Univ. H. P.)	52239-FA
220	1	Spring	1733	263	1	Vertical Screw (Fitted with Nuts and Sleeve—Metric Pitch—3 Univ. H. P.)	52240-FA
221	1	Lever for Cross and Vertical Feed	14233	263	1	Vertical Screw (Fitted with Nuts and Sleeve—English Pitch—4 Univ. Std.)	52239-FB
222	1	Screw for Cross and Vertical Feed Lever	23129	263	1	Vertical Screw (Fitted with Nuts and Sleeve—Metric Pitch—4 Univ. Std.)	52240-FB
223	1	Splined Shaft	12955	263	1	Vertical Screw (Fitted with Nuts and Sleeve—English Pitch—3 Vert. H. P.)	53069-F
224	1	Bush for Splined Shaft	30203	263	1	Vertical Screw (Fitted with Nuts and Sleeve—Metric Pitch—3 Vert. H. P.)	53071-F
225	1	Gear on Splined Shaft	59477	264	1	Lock Nut on Vertical Screw	52236
226	1	Clutch on Splined Shaft	59784	265	1	Collar on Vertical Screw (Plain)	16570
227	1	Collar on Splined Shaft	11523	265	1	Collar on Vertical Screw (Universal)	16533
228	1	Clutch Gear on Splined Shaft (Fitted with Bush)	59476	266	1	Thrust Collar on Vertical Screw	12289
229	1	Bush in Clutch Gear	11509	267	1	Ball Thrust Bearing (No. 8 Hess-Bright)	12593
230	1	Intermediate Shaft	59801	268	1	Sleeve on Vertical Screw (English Pitch)	48888
231	1	Bush in Intermediate Gear	3818	268	1	Sleeve on Vertical Screw (Metric Pitch)	48889
232	1	Intermediate Gear (Fitted with Bush)	59474	268	1	Sleeve on Vertical Screw (English Pitch—No. 3 Vert. only)	53108
233	1	Collar on Intermediate Shaft	11655	268	1	Sleeve on Vertical Screw (Metric Pitch—No. 3 Vert. only)	53109
234	1	Cross Screw (English Pitch—Fitted with Nuts, Gears, and Clutch—Plain)	12957-F	269	1	Nut on Base (English Pitch—3 Plain and Vert. H. P. and 4 Plain and Univ. Std.)	19685
234	1	Cross Screw (Metric Pitch—Fitted with Nuts, Gears, and Clutch—Plain)	13392-F	269	1	Nut on Base (Metric Pitch—3 Plain H. P. and 4 Plain Std.)	19682
234	1	Cross Screw (English Pitch—Fitted with Nuts, Gears, and Clutch—Universal)	23455-F	269	1	Nut on Base (English Pitch—3 Univ. H. P.)	52311
234	1	Cross Screw (Metric Pitch—Fitted with Nuts, Gears, and Clutch—Universal)	23456-F	269	1	Nut on Base (Metric Pitch—3 Univ. H. P.)	52312
235	1	Nut on Cross Screw (English Pitch)	32285	270	1	Lock Nut on Sleeve	48890
235	1	Nut on Cross Screw (Metric Pitch)	32286	271	2	Lower Sliding Cover on Knee (Plain)	12981
236	1	Gear on Cross Screw	59481	271	2	Lower Sliding Cover on Knee (Universal)	27270
237	1	Lock Nut on Cross Screw	8993	272	2	Upper Sliding Cover on Knee (Plain)	12980
238	2	Washer on Cross Screw	14218	272	2	Upper Sliding Cover on Knee (Universal)	27269
239	1	Clutch on Cross Screw	54505	273	4	Cap Screw	1450
240	2	Fillister Head Screw	99	274	1	Vertical Feed Plunger (Fitted with Head)	52584
241	1	Hand Wheel (Fitted with Clutch and Handle)	19135-FA	275	1	Casing for Ball Bearing on Vertical Screw	16376
242	1	Handle	6231	276	1	Collar on Vertical Screw (No. 3 Vert. only)	50531
243	1	Dial on Cross Screw (English)	11480				
243	1	Dial on Cross Screw (Metric)	13395				
244	1	Thumb Screw	100				
245	2	Spring	33744				
246	1	Apron on Knee	56993				
247	1	Clutch Gear on Vertical Feed Shaft	59478				
248	1	Vertical Feed Gear	59475				
249	1	Clutch on Vertical Feed Shaft	59788				
250	1	Plug in Knee (2" Diam.)	12310				
251	1	Vertical Feed Shaft	59802				
252	2	Small Bevel Gear for Vertical Feed	59473				
253	1	Large Bush for Vertical Feed Shaft	52550				
254	1	Small Bush for Vertical Feed Shaft	52876				
255	1	Collar on Vertical Feed Shaft	12264				
256	1	Elevating Shaft (Assembled with Clutch)	12424-F				
256	1	Elevating Shaft	12424				

Specify Part Name, Part Number, and Serial Number and Letters of machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

KNEE PARTS (Continued) AND PRESSURE LUBRICATION PARTS



PC-L5

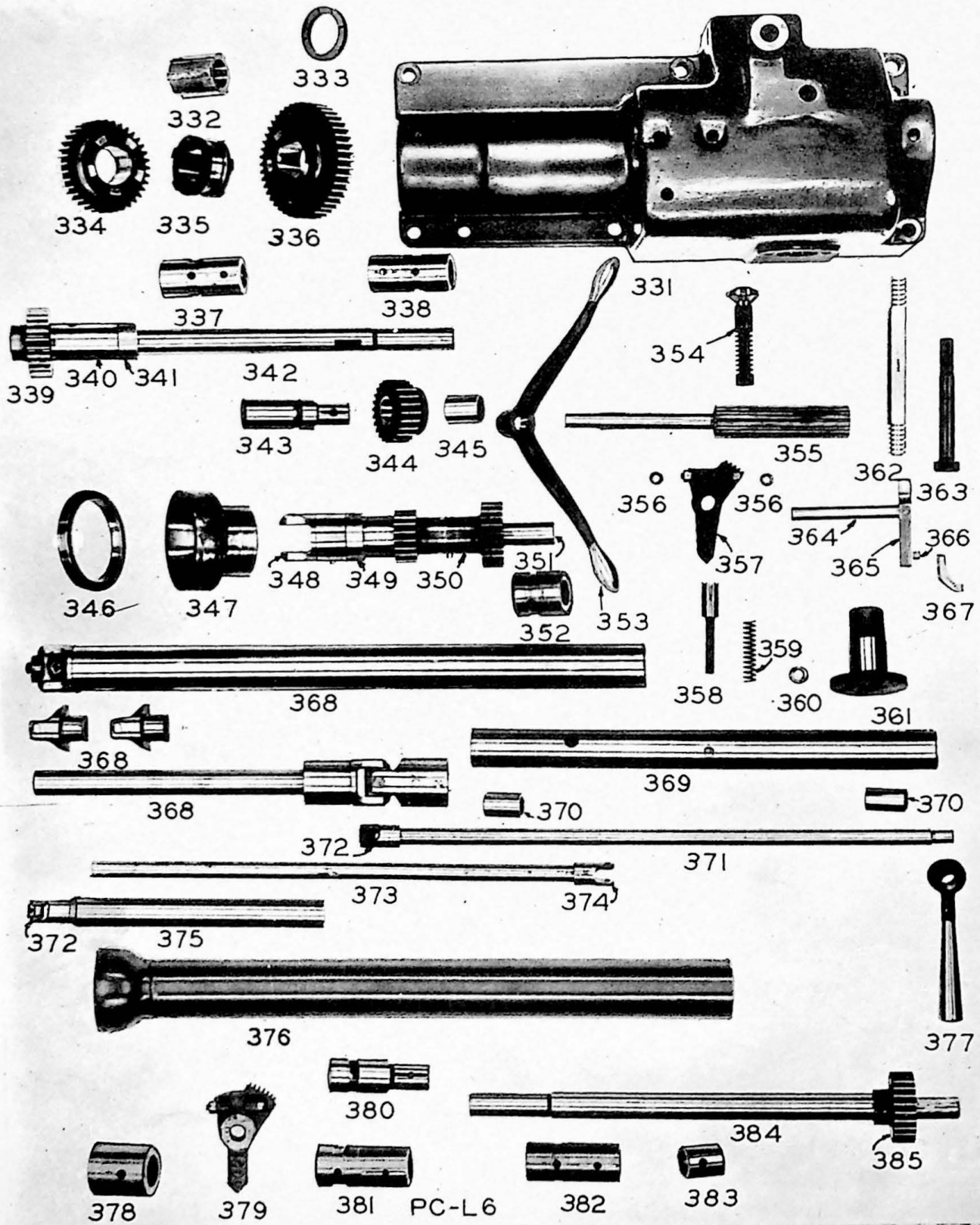
KNEE PARTS (Continued) AND PRESSURE LUBRICATION PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H.P. and 3 Std.	3 H.P. and 4 Std.				2 H.P. and 3 Std.	3 H.P. and 4 Std.
281	1	Knee	61571	61572	294	1	Filter Bag	60738	60738
281	1	Knee (Assembled Complete)	61571-RF	61572-RF	295	2	Oil Gage Gasket	3850	3850
282	1	Guide for Knee	55481	55482	296	1	Oil Gage Dial	60742	60742
283	1	Gib Adjusting Screw	35954	35954	297	1	Oil Gage Cover	3848	3848
284	1	Gib for Knee	53211	53213	298	1	Oil Gage Disc	3849	3849
285	1	Oil Container Cover	60746	60746	299	1	Ball ($\frac{3}{16}$ " Diameter)	29019	29019
286	1	Oil Container	60747	60747	300	1	Ball Seat Washer (One Side Recessed)	60739	60739
286	1	Oil Container (Assembled Complete)	60747-F	60747-F	300	1	Washer on Plunger (Both Sides Plain)	60741	60741
287	1	Oil Filler Cap	61822	61822	301	1	Plunger Spring	60736	60736
288	2	Fillister Head Cap Screw	60743	60743	302	1	Plunger and Button	60820	60820
289	1	Oil Filler Nipple	3912	3912	303	1	Gasket for Gland	60819	60819
290	1	Lid on Cover	61591	61591	304	1	Gland for Oil Container Plunger	60821	60821
291	2	Header (Six Openings)	See Note	See Note	305	1	Gland Nut	60744	60744
292	1	Adapter ($\frac{1}{8}$ " Pipe for $\frac{5}{16}$ " Tubing)	See Note	See Note	306	1	Packing ($\frac{3}{16}$ " Diam. x 8" Long)	57788	57788
293	24	Sleeve for $\frac{3}{16}$ " Tubing	See Note	See Note					
293	4	Sleeve for $\frac{5}{16}$ " Tubing	See Note	See Note					

Note.—Write to Bowen Products Corp., Auburn, N. Y. for all pressure lubrication parts and tubing not listed.

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

UNIVERSAL JOINTS AND REVERSE BOX PARTS



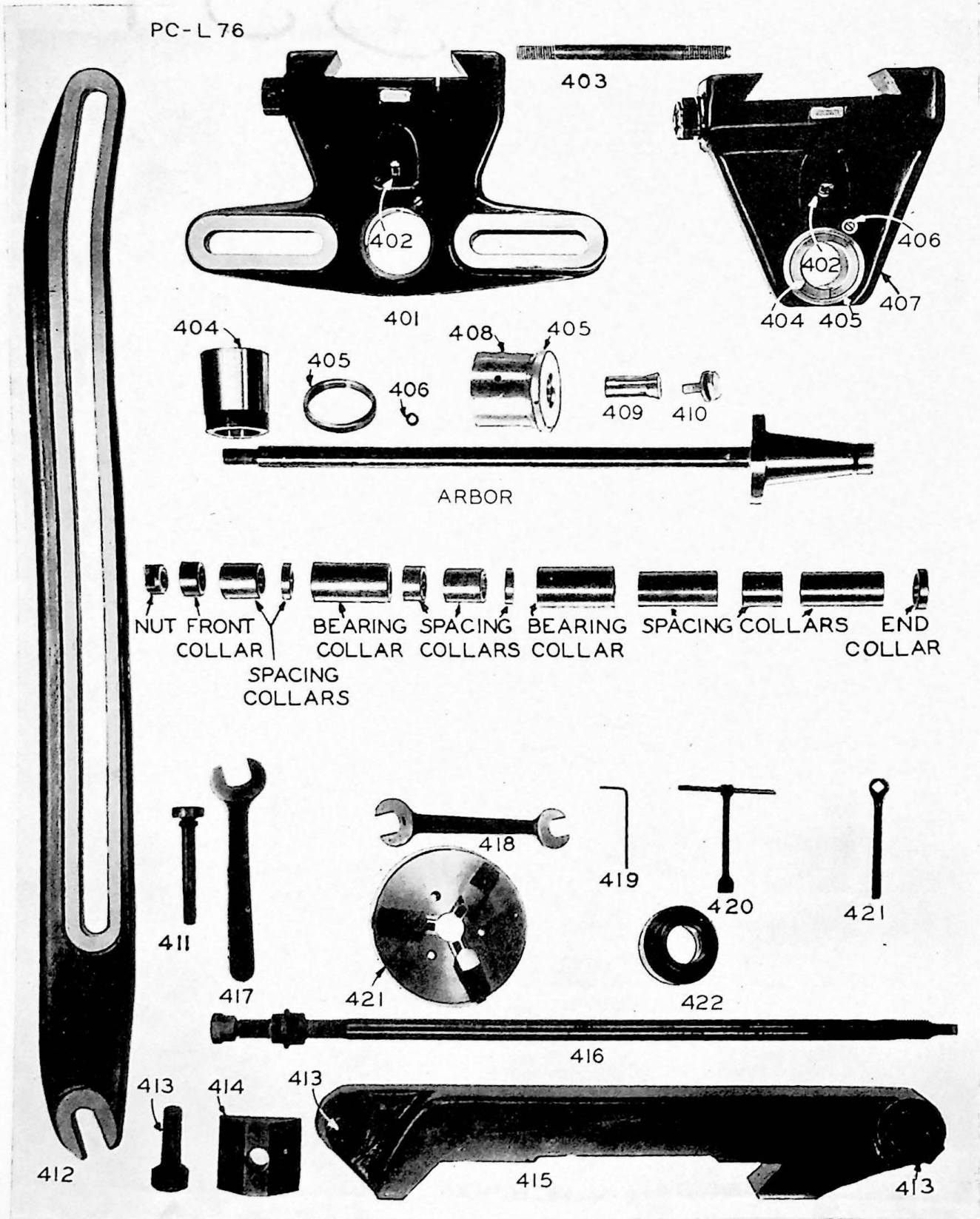
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UNIVERSAL JOINTS AND REVERSE BOX PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H.P. and 3 Std.	3 H.P. and 4 Std.				2 H.P. and 3 Std.	3 H.P. and 4 Std.
331	1	Reverse Box	60864	60907	363	1	Hex. Head Cap Screw		60883
331	1	Reverse Box (Assembled Complete)	60864-RF	60907-RF	364	1	Clutch Lever Stud (Fitted with Lever and Pin)	60856-F	60895-F
332	1	Sleeve for Clutch	60842	60890	364	1	Clutch Lever Stud	60855	60894
333	1	Thrust Washer on Clutch Shaft	60851	60889	365	1	Clutch Lever	60855	60894
334	1	Small Clutch Gear	60843	60901	366	1	Double Diameter Pin	1966	1426
335	1	Clutch on Clutch Shaft	60839	60884	367	1	Shoe	60854	60887
336	1	Large Clutch Gear	60844	60902	368	1	Universal Joint (Complete)	60662	60662
337	1	Bush for Large Clutch Gear (1" Bore)	60840		369	1	Sleeve for Hand Control Rod	60860	60903
338	1	Bush for Small Clutch Gear (1 1/8" Bore)	60857		370	2	Bushing in Sleeve	3832	3832
339	1	Gear on Clutch Shaft	60852		371	1	Hand Control Rod (Fitted with Joint)	60858-F	60896-F
340	1	Bush on Clutch Shaft (1 1/8" Bore x 2 5/8" Long)	60850		371	1	Hand Control Rod	60858	60896
341	1	Collar on Clutch Shaft	60848		372	2	Joint with Block	61885	61885
342	1	Clutch Shaft (Fitted with Gear, Bush and Collar)	60859-F		373	1	Extension Shaft for Hand Control (Fitted with Joint)	58190-F	58190-F
343	1	Intermediate Stud	63342		373	1	Extension Shaft for Hand Control	58190	58190
344	1	Intermediate Gear (Fitted with Bush)	60838	60892	374	1	Joint	61884	61884
345	1	Bush in Intermediate Gear	60841	60891	375	1	Extension Sleeve (Fitted with Joint and Pin)	58053	58053
346	2	Socket Plate	60664	60664	376	1	Inner Ball Socket (2 1/4" Dia. Sleeve)	60667	60667
347	1	Socket for Shaft Cover	60663	60663	376	1	Outer Ball Socket (2 3/8" Dia. Sleeve)	60665	60665
348	1	Fork for Universal Joint	61886	61886	377	1	Control Lever	3515	3515
349	1	Long Bush for Fork	60853	60886			3 H. P. and 4 STD. ONLY		
350	1	Gear on Fork Shaft	60837	60906					
351	1	Fork Shaft (Assembled with Fork, Bush and Gear)	60862-F	60904-F	378	1	Fork Shaft Bush		60898
351	1	Fork Shaft	60862	60904	379	1	Segment		60908
352	1	Bush for Fork Shaft	60861		380	1	Intermediate Stud		59805
353	1	Lever for Pinion	14781	14781	381	1	Bush for Small Clutch Gear (1 1/8" Bore)		60897
354	1	Plunger for Cross Feed	12798	12517					
355	1	Pinion in Box	61431	61432	382	1	Bush for Large Clutch Gear (1 1/4" Bore)		60899
356	2	Adjusting Nut	15026	15026					
357	1	Segment	60846		383	1	Bush for Clutch Shaft (1" Bore)		60900
358	1	Trip Plunger	60849	60888					
359	1	Spring	1740	1740	384	1	Clutch Shaft (Fitted with Gear)		60905-F
360	1	Bush in Bearing for Plunger	19497	19497					60905
361	1	Bearing for Plunger	60847	60847	384	1	Clutch Shaft		60885
362	1	Circular Rack (Plain only)	15383	11818	385	1	Gear on Clutch Shaft		

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

ARBORS, WRENCHES, AND ARBOR SUPPORTING PARTS



ARBORS, WRENCHES, AND ARBOR SUPPORTING PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H.P. and 3 Std.	3 H.P. and 4 Std.				2 H.P. and 3 Std.	3 H.P. and 4 Std.
401	1	Large Outer Support (Fitted with Stud)	56543	56540	416	1	Arbor Draw-in-Bolt (Assembled—Horiz.)	56311-FA	56311-FB
402	2	Oil Cup	51737	51737	416	1	Arbor Draw-in-Bolt (Assembled—Vert.)		57676
403	2	Stud in Bracket	43245	33641					
404	2	Adjustable Bush for Arbor Support (Fitted with Nut)	3697	3697	417	1	Single Head Wrench (1" Opening)		3608
405	2	Adjusting Nut	3701	3701	417	1	Single Head Wrench (9/16" Opening)		13658
406	2	Roller	934	934					
407	1	Large Inner Support	56544	56542	418	1	Double Head Wrench (7/8" and 9/16" Opening)	19476	19476
408	1	Adapter for Arbor Support Bushing (Fitted with Nut)	3704	3704	418	1	Double Head Wrench (1 1/8" and 1 1/4" Opening)	18980	18980
409	1	Arbor Support Bushing	3695	3695	419	1	Wrench for 3/8" Hollow Headless Set Screw	35678	35678
410	1	Screw for Adjusting Arbor Bushing	3692	3692	420	1	Socket Wrench (9/16" Hex Opening)	9281	9281
411	1	Short Bolt for Support and Brace	43247	30037	420	1	Socket Wrench (1 1/8" Hex Opening)	39270	39270
411	1	Long Bolt for Support and Brace	43246	30036					
412	2	Brace	43130	38034	421	1	6" Chuck and Wrench (Fitted with Flange)	16456-F	
413	3	Hex Head Screw (3/4" x 2 1/2" Long)	837		421	1	9" Chuck and Wrench (Fitted with Flange)		16458-F
413	3	Hex Head Screw (1" x 3" Long)		2003	422	1	Flange for 6" Chuck	22053	
414	1	Gib for Bridle	43271	48785	422	1	Flange for 9" Chuck		20631
415	1	Bridle	43148	48634		1	Overarm	43124	51966

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

COMPLETE LIST OF PARTS FOR ARBORS

(Amount of Collars used is not listed, because it depends upon the length of the Arbor)

Nominal Diameter of Arbor	3/8"	1"	1 1/4"	1 1/2"	2"	2 1/2"	22mm	27mm	32mm	38mm	50mm
Spacing Collar—1/2" long	3644	3647	3651	3655	3659	3663	3880	3763	3758	3769	3891
Spacing Collar—1" long	3645	3648	3652	3656	3660	3664	3881	3764	3759	3770	3892
Spacing Collar—2" long	3646	3649	3653	3657	3661	3665	3882	3765	3760	3771	3893
Bearing Collar—4" long		3658 (2 1/8" O.D.)	3670 (2 1/8" O.D.)	3672 (2 1/8" O.D.)	3674 (2 1/4" O.D.)	3676 (3 3/8" O.D.)			3778	3773	3895
Bearing Collar—4" long		3788 (2 3/4" O.D.)	3571 (2 3/4" O.D.)	3673 (2 3/4" O.D.)							
Back Collar—1/2" long	3681	3682	3683	3684	3685	3686	3883	3767	3761	3774	3896
Front Collar			3577	3678	3679	3680			3779	3775	3897
Nut on Arbor	1341	3693	3693	3694	3694	3694	1341	3693	3693	3694	3694

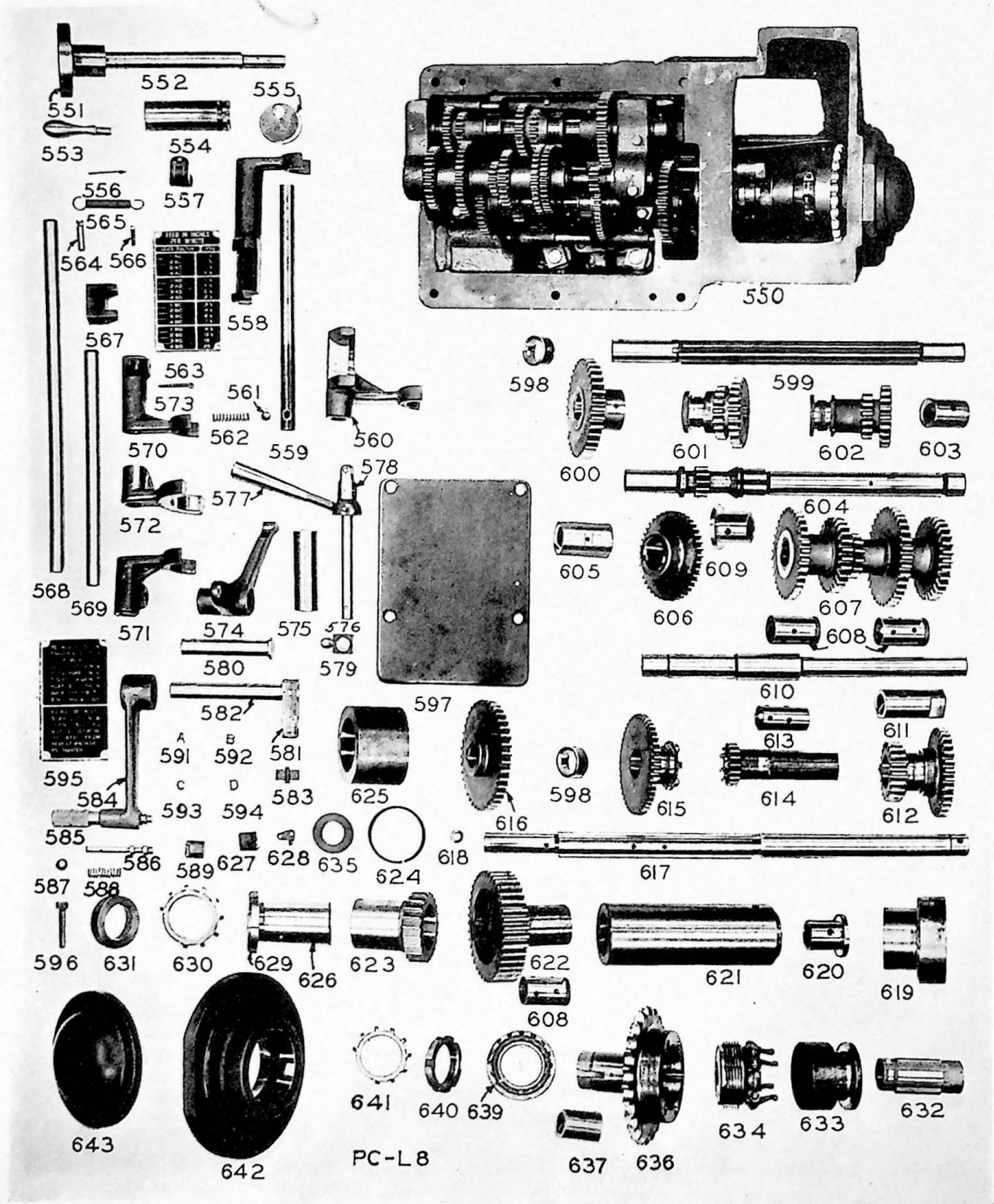
DRIVE BOX PARTS LIST

531

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
461	1	Drive Box Assembly	51316-RF	500	1	Small Gear on Third Drive Shaft (3 H. P. and 4 Std.)	52036
461	1	Drive Box	51316				
462	2	Gear Shifter Fork	51326	501	1	Pin in Driving Gear (3 $\frac{1}{8}$ " Long)	52027
463	2	Pin in Shifter Fork	41221	501	1	Pin in Driving Gear (4 $\frac{1}{8}$ " Long)	52099
464	1	Small Cam Center (2" Diam.)	51322	502	1	Adjusting Nut for Roller Bearing (4 $\frac{5}{8}$ " Diam.)	3593
464	1	Large Cam Center (2 $\frac{1}{8}$ " Diam.)	51321				
465	1	Cam Shaft	51317	503	6	Cone (Timken No. 3490)	3569
466	1	Spiral Gear for Changing Speed	44537	504	6	Cup (Timken No. 3420)	3570
467	1	Shaft for Changing Speed	51328	505	1	Second Drive Shaft	52613
468	1	Hub on Speed Changing Shaft (Assembled with Spokes)	33293-F	506	3	Adjusting Nut for Roller Bearing (3-3/16" Diam.)	3592
469	4	Pilot Wheel Spoke	12680	507	1	Large Gear on Second Drive Shaft	52021
470	1	Index Letter "A"	3334	508	1	Small Gear on Second Drive Shaft	51981
471	1	Index Letter "B"	3335	509	1	Long Gear on Second Drive Shaft	51982
472	1	Index Letter "C"	3336	510	1	Reverse Gear on Second Drive Shaft (Fitted with Bush)	52611
473	1	Index Letter "D"	3337				
474	1	Pointer	33463	511	1	Bush on Second Drive Shaft	52612
475	1	Speed Plate (2 Horiz. and Vert. and 3 H. P. and 4 Std. Horiz.)	52688	512	1	First Drive Shaft	52034
475	1	Speed Plate (3 H. P. Vertical only)	53183	513	3	Roller Bearing Spacer (3" Diam.)	3595
476	1	Spring for Detent Lever	52219	514	1	Long Sliding Gear on First Drive Shaft	51984
477	1	Pin for Spring (1 $\frac{1}{16}$ " long)	51535	515	1	Short Sliding Gear on First Drive Shaft	51985
478	1	Pin for Spring (1 $\frac{3}{16}$ " long)	52798				
479	1	Roller for Detent Lever	34676	516	1	Reverse Gear on First Drive Shaft	48708
480	1	Pin for Detent Lever Roller	34677	517	1	Reverse Gear Shaft	58905
481	1	Cam Lever	51325	518	1	Clutch on Reverse Shaft	52025
482	1	Spring Lever Shaft	51318	519	1	Small Gear on Reverse Shaft	51987
483	1	Small Rack Fork	51324	520	1	Large Gear on Reverse Shaft	58904
484	1	Large Rack Fork	51323	521	1	Pin for Large Gear (3 $\frac{1}{8}$ " Long)	58903
485	1	Shaft for Rack Forks	51327	522	1	Feed Drive Idler Gear (Fitted with Bush)	52878
486	2	Small Pinion for Drive Gear Shifter Fork	55415	523	1	Bush in Gear	39656
487	2	Upper Stud	58248	524	1	Idler Gear Stud	52024
488	3	Washer on Speed Change Lever Shaft	33283	525	1	Drive Gear Stud	52023
489	2	Speed Change Lever (Fitted up Complete)	33302-F	526	1	Drive Gear	51989
489	2	Speed Change Lever	33302	527	2	Bush	23080
490	2	Handle on Index Pin	3525	528	1	Large Drive Gear	51988
491	2	Index Pin (Fitted with Handle and Spring)	33296-F	529	1	Shoe for Speed Change Shifter	38321
491	2	Index Pin	33296	530	1	Reversing Eccentric	51320
492	2	Bush in Lever	3523	531	1	Reverse Lever	53280
493	2	Spring	1733	532	1	Instruction Plate on Drive Box (English)	3887
494	4	Stop Pin for Speed Change Lever	38180				
495	1	Roller Bearing Spacer (4 $\frac{1}{8}$ " Diam.)	3596	532	1	Instruction Plate on Drive Box (German)	52715
496	1	Third Drive Shaft	51972				
497	2	Cone (Timken No. 455)	3579	533	1	Instruction Plate on Drive Box (French)	35356
498	2	Cup (Timken No. 452)	59878	533	1	Spindle Reverse Plate (English)	3886
499	1	Large Gear on Third Drive Shaft	51980	533	1	Spindle Reverse Plate (German)	54259
500	1	Small Gear on Third Drive Shaft (2 H. P. and 3 Std.)	51979	534	2	Spindle Reverse Plate (French)	54258
						Taper Pin	11643

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

FEED BOX PARTS

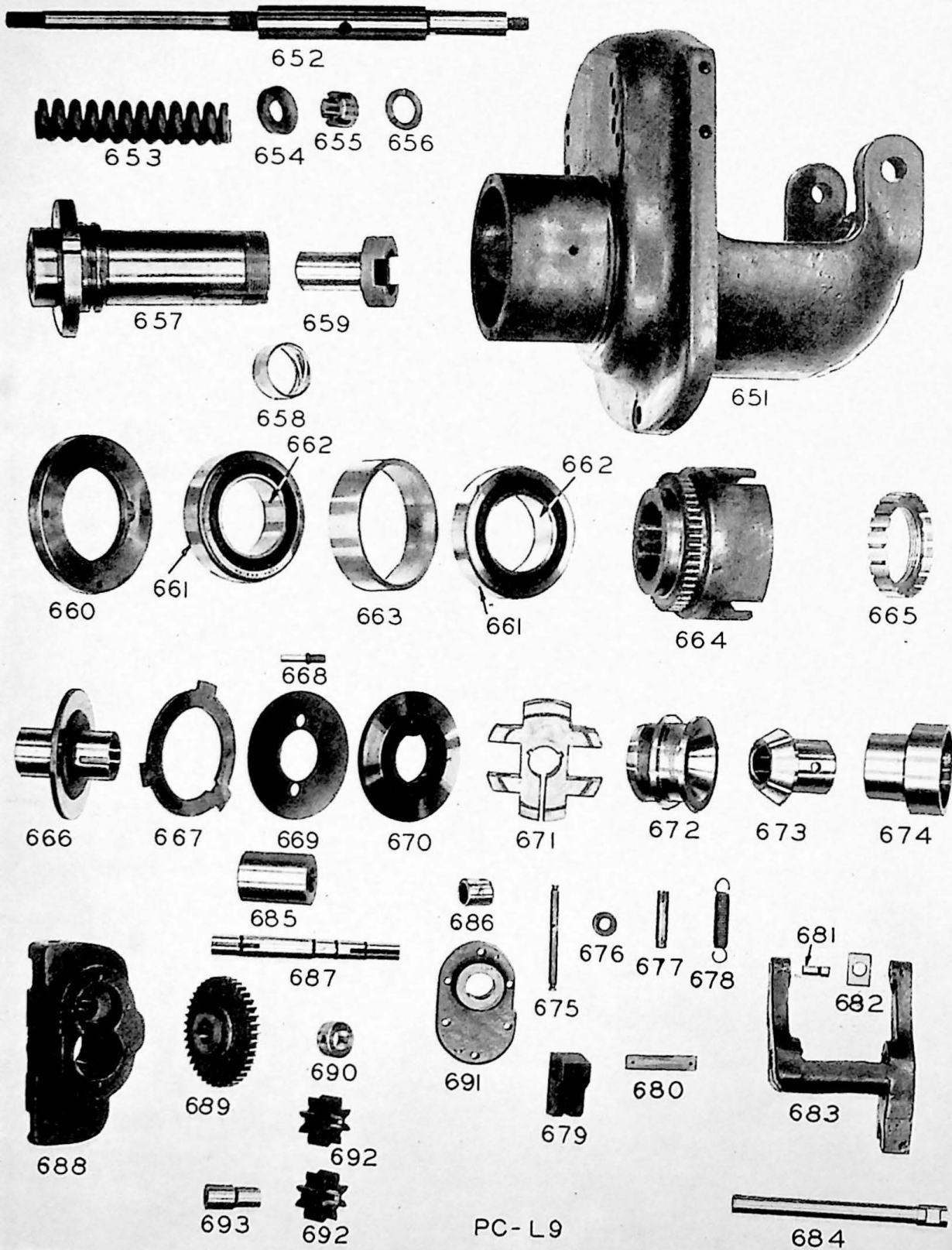


FEED BOX PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
550	1	Feed Box Assembly	60562-RF	595	1	Instruction Plate (French)	61914
550	1	Feed Box	60562	595	1	Instruction Plate (English)	61011
551	1	Hand Wheel	61125	595	1	Instruction Plate (German)	61990
552	1	Shifter Shaft for Eccentric Roller (Fitted with Roller and Hand Wheel)	61129-F	596	2	Taper Pin	83432
552	1	Shifter Shaft	61129	597	1	Feed Box Cover	60634
553	1	Handle	3501	598	2	Collar on First and Third Feed Shaft	60571
554	1	Shifter Bushing	61124	599	1	First Feed Shaft	60507
555	1	Eccentric Roller	60587	600	1	Gear on First Feed Shaft	60572
556	1	Pointer	3518	601	1	Sliding Gear on First Feed Shaft	60573
557	1	Shifter Plate on Hand Wheel	61191	602	1	Sliding Gear on First Feed Shaft	60506
558	1	Shifter Fork for First Feed Shaft	60639	603	1	Small Bush for First Feed Shaft (1" Bore)	61128
559	2	Shifter Shaft	60615	604	1	Second Feed Shaft	60590
560	1	Shifter Fork for First Feed Shaft	60622	605	3	Large Bush for First Feed Shaft (1 3/8" Bore)	60595
561	2	Ball (1/2" Diam.)	36147	606	1	Back Gear on Second Feed Shaft	36110
562	1	Spring	61864	607	1	Intermediate Gear on Second Feed Shaft (Fitted with Bushings)	36112
563	1	Feed Plate (French)	61915	608	2	Bush in Intermediate Gear	36109
563	1	Feed Plate (English)	61003	609	1	Small Bush for Second Feed Shaft	61126
563	1	Feed Plate (German)	61989	610	1	Third Feed Shaft	60574
564	1	Spring Pin	3382	611	1	Bush for Third Feed Shaft	60596
565	1	Block Shifter Spring	61817	612	1	Sliding Gear on Sleeve on Third Feed Shaft	34471
566	1	Spring Pin	3861	613	2	Bush in Sleeve on Third Feed Shaft	34469
567	1	Shifter Block	60586	614	1	Sleeve on Third Feed Shaft	34477
568	1	Long Shifter Shaft (17" long)	60614	615	1	Sliding Gear on Third Feed Shaft	34356
569	1	Shifter Shaft (11 3/8" long)	60616	616	1	Gear on Third Feed Shaft	60570
570	1	Shifter Fork for Third Feed Shaft (3 3/4" length of Boss)	60640	617	1	Fork Shaft	60673
571	1	Shifter Fork for Third Feed Shaft (2 3/4" length of Boss)	60641	618	1	Plug in Fork Shaft	58116
572	1	Shifter Spool Fork	61131	619	1	Shaft Cover Socket	60663
573	2	Pin in Clutch Fork	14556	620	1	Bushing in Sleeve	61127
574	1	Shifter Block Lever	60618	621	1	Clutch Gear Sleeve	61133
575	1	Bushing	60617	622	1	Clutch Gear	60645
576	1	Quick Traverse Shaft (Fitted up complete)	60638-F	623	1	Ratchet (23 Teeth)	63124
576	1	Quick Traverse Shaft	60638	624	1	Spring	64030
577	1	Control Lever	3515	625	1	Ratchet Sleeve	61246
578	1	Universal Joint	61884	626	1	Ratchet Bushing (Fitted with Lock Nut)	60647
579	1	Ball Lever	60619	627	1	Clutch Gear Pawl	59770
580	1	Shifter Block Shaft	60513	628	1	Pawl Lifter	63056
581	2	Fork Shifter	60584	629	1	Lock Nut (2" tapped hole)	3813
582	2	Fork Shifter Shaft (Fitted with Shifter)	60585-F	630	1	Lock Washer (2 1/8" Bore)	3643
582	2	Fork Shifter Shaft	60585	631	1	Collar on Sleeve	60633
583	2	Pin in Fork	60988	632	1	Clutch Spool Sleeve	60644
584	2	Speed Change Lever (Fitted with Handle, Pin, and Spring)	3520-F	633	1	Clutch Spool	61130
584	2	Speed Change Lever	3520	634	1	Multiple Disc Clutch	60660
585	2	Index Pin Handle	3525	635	1	Clutch Washer	60681
586	2	Index Pin	3524	636	1	Clutch Sprocket (Fitted with Bush)	60672
587	2	Bush for Speed Change Lever	3523	637	1	Bush in Clutch Sprocket (1 3/4" long)	60671
588	2	Spring	1733	637	1	Bush in Clutch Sprocket (1 1/4" long)	3603
589	4	Stop for Speed Change Lever	3521	639	1	Cone (Timken No. 366)	58040
591	2	Index Letter "A"	3334	640	1	Lock Nut (1 1/8" tapped hole)	3796
592	2	Index Letter "B"	3335	641	1	Lock Washer (1 1/8" Bore)	3795
593	2	Index Letter "C"	3336	642	1	Roller Bearing Retainer (Fitted with cups)	60600
594	2	Index Letter "D"	3337	643	1	Bearing Retainer Cap	60601

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

PULLEY BRACKET AND GEARED OIL PUMP PARTS

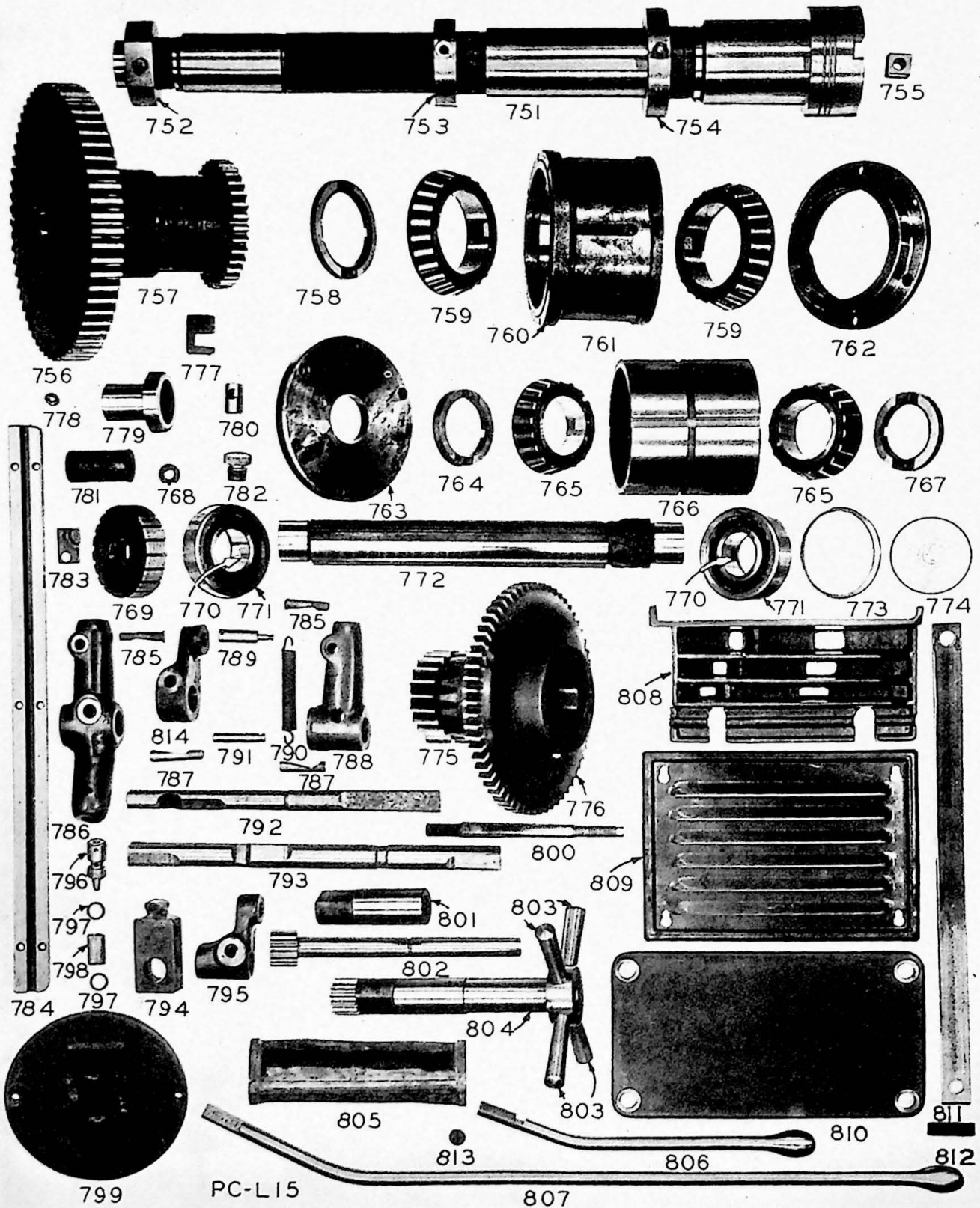


PULLEY BRACKET AND GEARED OIL PUMP PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
651	1	Pulley Bracket Assembly.....	51607-RF	672	1	Clutch Shifter Spool (Assembled as Shown).....	48724-F
651	1	Pulley Bracket.....	51607				
652	1	Driving Shaft.....	52784	673	1	Brake Bush.....	52122
653	1	Spring on Pulley Shaft.....	52502	674	1	Pulley Bracket Trunion.....	52121
654	1	Washer on Pulley Shaft.....	52116	675	2	Pin in Clutch Finger.....	48590
655	1	Adjusting Nut.....	51636	676	2	Roller for Detent Lever.....	33273
656	1	Collar on Pulley Shaft.....	52118	677	1	Lock Pin in Clutch Finger Carrier.....	36861
657	1	Pulley Sleeve (Fitted with Bush)...	52418	678	2	Clutch Spring.....	50392
658	1	Bush in Sleeve.....	48717	679	2	Clutch Finger.....	37983
659	1	Clutch.....	52135	680	2	Pin in Clutch Finger Carrier.....	36877
660	1	Oil Retainer.....	52417	681	2	Pin for Shifter Shoe.....	46855
661	2	Cup (Timken No. 563).....	3590	682	2	Clutch Shoe.....	42983
662	2	Cone (Timken No. 567).....	3589	683	1	Clutch Shifter.....	52127
663	1	Roller Bearing Spacer.....	52115	684	1	Clutch Shifter Stud.....	52119
664	1	Driving Disc Flange.....	52123	685	1	Bush in Pump Body.....	52114
665	1	Pulley Sleeve Nut.....	51694	686	1	Bush in Pump Cover.....	52078
666	1	Driven Disc.....	52126	687	1	Pump Shaft (Fitted with Keys).....	52076
667	4	Driving Disc.....	50465	688	1	Pump Body.....	52074
668	2	Pin in Driven Disc.....	52117	689	1	Driven Gear on Pump Shaft.....	52077
669	3	Center Driven Disc.....	50464	690	1	Collar on Pump Shaft.....	7565
670	1	Friction Ring.....	52120	691	1	Cover for Pump Body.....	52125
671	1	Clutch Finger Carrier.....	50277	692	2	Pump Gear.....	39714
				693	1	Pump Gear Stud.....	33311

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

SPINDLE, BACK GEAR, AND MISCELLANEOUS COLUMN PARTS (HORIZONTAL ONLY)



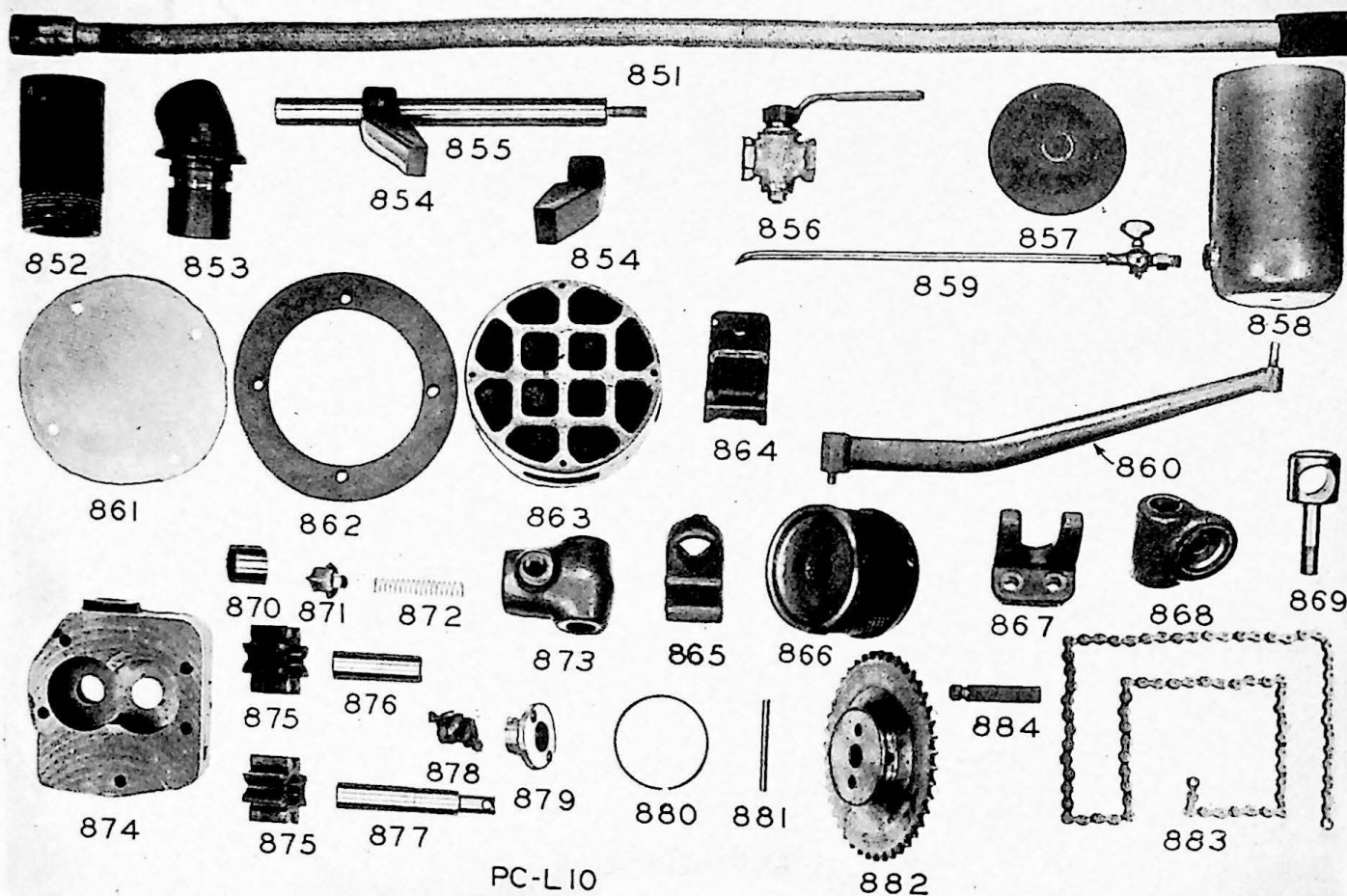
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SPINDLE, BACK GEAR, AND MISCELLANEOUS COLUMN PARTS LIST
(HORIZONTAL ONLY)

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H.P. and 3 Std.	3 H.P. and 4 Std.				2 H.P. and 3 Std.	3 H.P. and 4 Std.
751	1	Spindle (Fitted with Three Nuts)	56911	56911	787	2	Lock Pin (5/8" Dia. x 2 1/4" Long)	34645	34645
752	1	Lock Nut (2 1/2"—10 Thd.)	3857	3857	787	3	Lock Pin (3/8" Dia. x 2 1/2" Long)	33944	33944
753	1	Lock Nut for Spindle Sleeve (3"—10 Thd.)	42647	42647	788	1	Right Hand Starting Lever	56649	56649
754	1	Lock Nut (3 7/16"—10 Thd.)	3854	3854	789	1	Lower Pin in Starting Lever Link	48773	48773
755	2	Arbor Driving Key	3687	3687	790	1	Starting Lever Spring	61353	61353
756	1	Face Gear	51050	52038	791	1	Pin for Spring	48822	48822
757	1	Face Back Gear (Fitted with Face Gear)	51051-F	52040-F	792	1	Clutch Shifter Shaft	52094	52094
757	1	Face Back Gear	51051	52040	793	1	Starting Lever Shaft	56643	56643
758	1	Lock Washer for Bearing (3 7/16" Bore)	56910	56910	794	1	Lever for Clutch Shifter Fork	63913	63913
759	2	Cone (Timken No. 52387)	56867	56867	795	1	Lower Shifter for Starting Lever	52091	52091
760	1	Nut on Front Retainer	56913	56913	796	1	Screw in Cover on Column	52097	52097
761	1	Retainer for Front Roller Bearing (Fitted with Two Cups and Nut)	56914	56914	797	2	Leather Washer	44387	44387
762	1	Front Spindle Cap	56912	56912	798	1	Glass Tube in Cover on Column	33782	33782
763	1	Rear Cover	60085	60085	799	1	Cover on Column	54662	54661
764	1	Lock Washer for Bearing (2 1/2" Bore)	55806	55806	800	8	Stud (7/8" Dia. x 9" Long)	52086	52086
765	2	Cone (Timken No. 566-W)	55739	55739	800	1	Long Stud (1" Dia. x 13 3/4" Long)	49495	
766	1	Retainer for Rear Roller Bearing (Fitted with Two Cups)	55821	55821	800	1	Short Stud (3/4" Dia. x 9 7/16" Long)	49494	34798
767	1	Lock Washer for Bearing (2 3/4" Bore)	55807	55807	800	1	Short Stud (1" Dia. x 11 1/16" Long)		33641
768	1	Lock Washer	3445	3445	801	1	Bush in Column	30305	30305
769	1	Roller Bearing Retainer	52133	52133	802	1	Stem Pinion for Pilot Wheel	50605	50605
770	2	Cone (Timken No. 537)	3580	3580	803	4	Pilot Wheel Spoke	43392	43392
771	2	Cup (Timken No. 532-A)	3581	3581	804	1	Pilot Wheel Hub (Assembled as Shown)	50604-F	50604-F
772	1	Back Gear Shaft	54071	54071	804	1	Pilot Wheel Hub	50604	50604
773	1	Roller Bearing Spacer	52132	52132	805	1	Strainer in Column	55894	55894
774	2	Plug (3 1/2" Diam.)	3560	3560	806	1	Starting Lever Handle (Short)	52089	52089
775	1	Back Gear (Assembled with Large Back Gear)	52050-F	52039-F	807	1	Starting Lever Handle (R. H. —Long)	52095	52095
775	1	Back Gear	52050	52039	807	1	Starting Lever Handle (L. H. —Long)	37780	37780
776	1	Large Back Gear	52085	52037	808	1	Wrench Pan	52399	52399
777	1	Sprayer Body	30222	30222	809	1	Louver Cover (12 Louvers)	3786	3786
778	1	Sprayer	30223	30223	809	1	Louver Cover (6 Louvers)	57668	57668
779	1	Large Oil Retainer (1 1/4" Bore)	54898	54898	810	1	Quick Return Cover	52048	52048
779	1	Small Oil Retainer (1 3/16" Bore)	54899	54899	811	1	Clutch Shifter Link	52088	52087
780	1	Oiler for Pump	61292	61292	812	1	Starting Lever Pin	48772	48772
781	1	Sleeve on Long Stud	49538	38204	813	1	Plug (7/8" Diam.)		25258
782	1	Plug in Street Ell	86827	86827	813	1	Plug (1" Diam.)	30715	30715
783	2	Dog on Column	15474	15474	814	1	Upper Shifter for Starting Lever	52090	52090
784	1	Guide for Dog on Column	14677	32946		1	Column	60581	60580
785	2	Lock Pin for Starting Lever	35568	35568		1	Base	56351	56352
786	1	Starting Lever	56648	56648		1			

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
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CUTTER LUBRICANT PUMP, STRAINER PARTS, ETC.

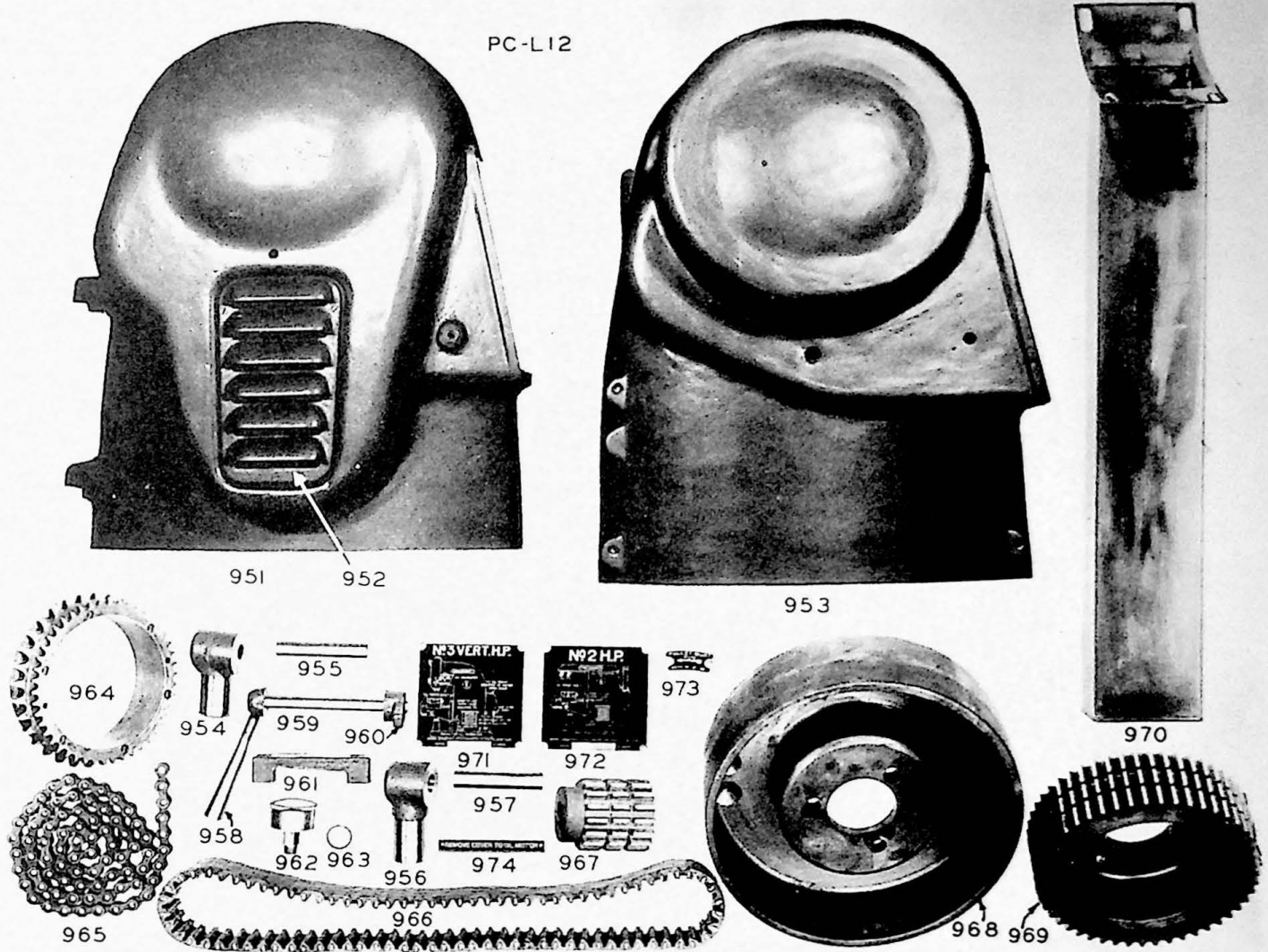


CUTTER LUBRICANT PUMP, STRAINER PARTS LIST, ETC.

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
851	1	Supply Hose (Fitted with Sleeves) . . .	39842-F	864	1	Drip Pan on Pump	58645
852	1	Swivel Housing	56026	865	1	Supply Pipe Bracket	37950
853	1	Swivel	56029	866	1	Strainer in Base	57311
854	2	Clamp on Overarm	39574	867	1	Supply Hose Bracket	61306
855	1	Shaft for Overarm Clamp (Fitted with One Clamp for 2 H. P. and 3 Std. only)	54518-F	868	1	Clamp for Supply Pipe Holder	38590
855	1	Shaft for Overarm Clamp (Fitted with One Clamp for 3 H. P. and 4 Std. only)	54517-F	869	1	Supply Pipe Holder	38592
856	1	Valve and Handle (3/4" Pipe Thread)	42985	870	1	Pump Shaft Bush	54862
857	1	Lid for Round Oil Pot	5810	871	1	Relief Valve	30712
858	1	Round Oil Pot	5809	872	1	Relief Valve Spring	30731
858	1	Square Oil Pot (Special)	6662	873	1	Relief Valve Body	54493
859	1	Spout with Cock	51714	874	1	Pump Body	54501
860	1	Bracket for Oil Pot (Fitted with Two Pins)	52845	874	1	Pump (Assembled Complete)	54501-RFC
861	2	Strainer	36571	875	2	Pump Gear	52378
862	2	Strainer Frame	56350	876	1	Stud for Driven Gear in Pump	30718
862	2	Strainer Frame (Assembled with Strainer and Body)	56350-F	877	1	Pump Shaft	58025
863	2	Strainer Body	36572	878	1	Packing	30559
				879	1	Stuffing Box	54485
				880	1	Lock Spring	54831
				881	1	Pin in Driven Chain Gear	54619
				882	1	Driven Chain Gear	54487
				883	1	Pump Chain	54521
				884	1	Holder Stud (Vert. only)	55397

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

BELT DRIVE AND MOTOR DRIVE PARTS



BELT DRIVE AND MOTOR DRIVE PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
951	1	Motor Drive Cover (Horiz.)	60788	970	1	Belt Guard (Left)	52041
951	1	Motor Drive Cover (Vert.)	60789	970	1	Belt Guard (Right)	54495
952	1	Louver on Motor Drive Cover	3787	971	1	Oiling Plate (No. 3 Vert. Motor Drive)	61537
953	1	Belt Drive Cover (Horiz.)	60797	971	1	Oiling Plate (No. 3 Vert. Belt Drive)	61536
953	1	Belt Drive Cover (Vert.)	60796	972	1	Oiling Plate (No. 2 H. P. Horizontal Motor Drive)	61760
954	1	Bottom Cover Hinge (3/4" Bore)	54492	972	1	Oiling Plate (No. 3 Std. Horizontal Motor Drive)	61762
955	1	Lower Cover Stud (3/4" Diam.)	54486	972	1	Oiling Plate (No. 3 H. P. Horizontal Motor Drive)	61764
956	1	Top Cover Hinge (7/8" Bore)	54491	972	1	Oiling Plate (No. 4 Std. Horizontal Motor Drive)	61766
957	1	Upper Cover Stud (7/8" Diam.)	54796	972	1	Oiling Plate (No. 2 H. P. Horizontal Belt Drive)	61759
958	1	Large Control Lever	3515	972	1	Oiling Plate (No. 3 Std. Horizontal Belt Drive)	61761
959	1	Latch Stud (Assembled as Shown)	60784-F	972	1	Oiling Plate (No. 3 H. P. Horizontal Belt Drive)	61763
959	1	Latch Stud	60784	972	1	Oiling Plate (No. 4 Std. Horizontal Belt Drive)	61765
960	1	Door Latch	3919	973	1	Direction Plate (English)	3888
961	1	Lock for Latch	3921	973	1	Direction Plate (French)	50668
962	1	Grease Cup	44395	974	1	Plate on Small Louver	53199
963	1	Plug in Pulley Shaft	88082	974	1	Motor Plate	54534
964	1	Driving Sprocket	60785				
965	1	Chain	61820				
966	1	Motor Chain	*51427				
967	1	Chain Pinion—17 Teeth	**55700				
967	1	Chain Pinion—21 Teeth	**55699				
967	1	Chain Pinion—27 Teeth	**55698				
968	1	Driving Pulley	60786				
969	1	Chain Driven Gear	60787				

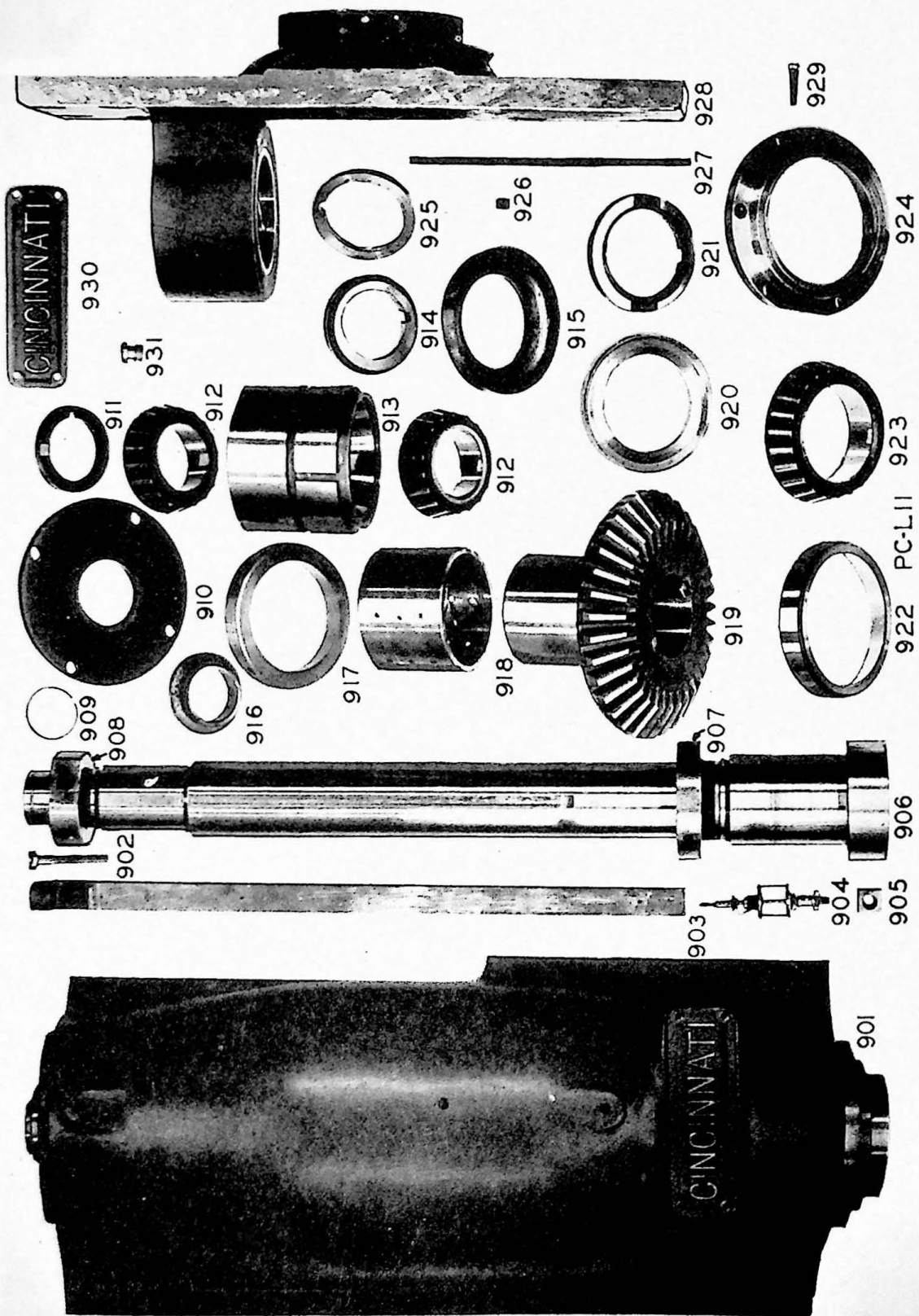
*Specify number of links in chain.

**Specify diameter of bore and size of keyway.

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts.

Also see Page 2 for Instructions "How to Order Repair Parts"

SPINDLE AND VERTICAL HEAD PARTS

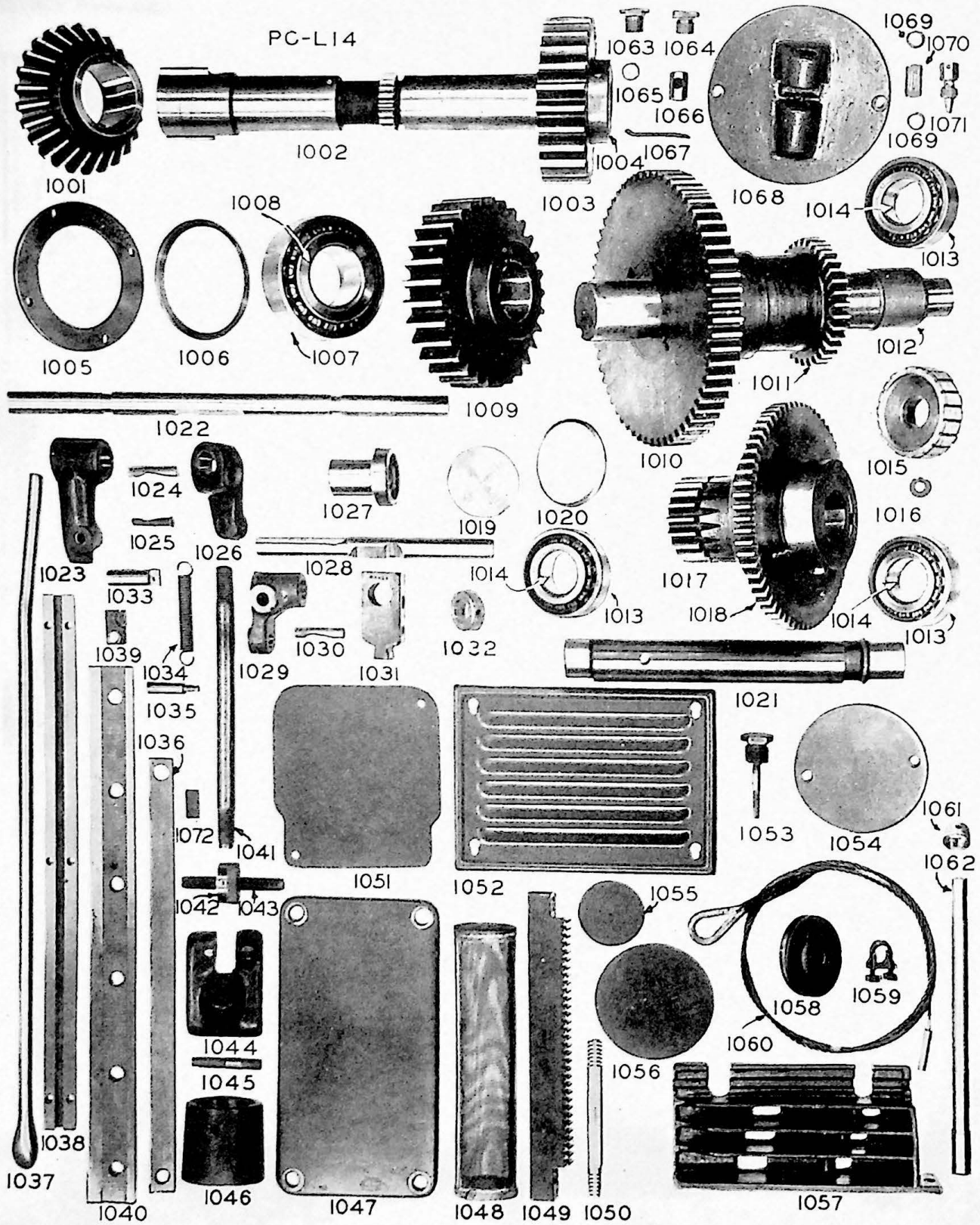


SPINDLE AND VERTICAL HEAD PARTS LIST
(No. 3 H. P. VERTICAL ONLY)

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
901	1	Vertical Head (Assembled Complete)	58633-RF	916	1	Upper Dust Cap on Spindle	56254
901	1	Vertical Head	58633	917	1	Collar on Bevel Gear on Spindle	52266
902	1	Gib Adjusting Screw	38865	918	1	Bush for Bevel Gear on Spindle	52257
903	1	Gib for Head	52260	919	1	Driven Bevel Gear	52248
904	3	Sight Feed Oiler	3909	920	1	Dust Guard on Front of Spindle	56862
905	2	Arbor Driving Key	3687	921	1	Lock Washer (37/8" Bore)	55808
906	1	Spindle (Fitted with Two Nuts)	56868	922	2	Cup (Timken No. 52637)	57889
907	1	Lock Nut	3854	923	2	Cone (Timken No. 52387)	56867
908	1	Lock Nut	3857	924	1	Spindle Cap	56866
909	1	Locking Spring	56252	925	1	Oil Retainer	52271
910	1	Upper Cover for Spindle	56258	926	1	Felt in Bearing for Bevel Gear	52262
911	1	Lock Washer (2 1/2" Bore)	55806	927	1	Oil Retainer Felt	52270
912	2	Cone (Timken No. 566)	55739	928	1	Bearing for Bevel Gear on Spindle	52224
913	1	Roller Bearing Retainer (Fitted with Two Cups)	56865	929	1	Pin in Mitre Gear Bearing	13014
914	1	Lock Washer	61115	930	1	Cover on Vertical Head	52258
915	1	Oil Retainer	61116	931	1	Screw in Vertical Head	55737

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

DRIVE GEARING AND MISCELLANEOUS COLUMN PARTS
(No. 3 VERTICAL ONLY)

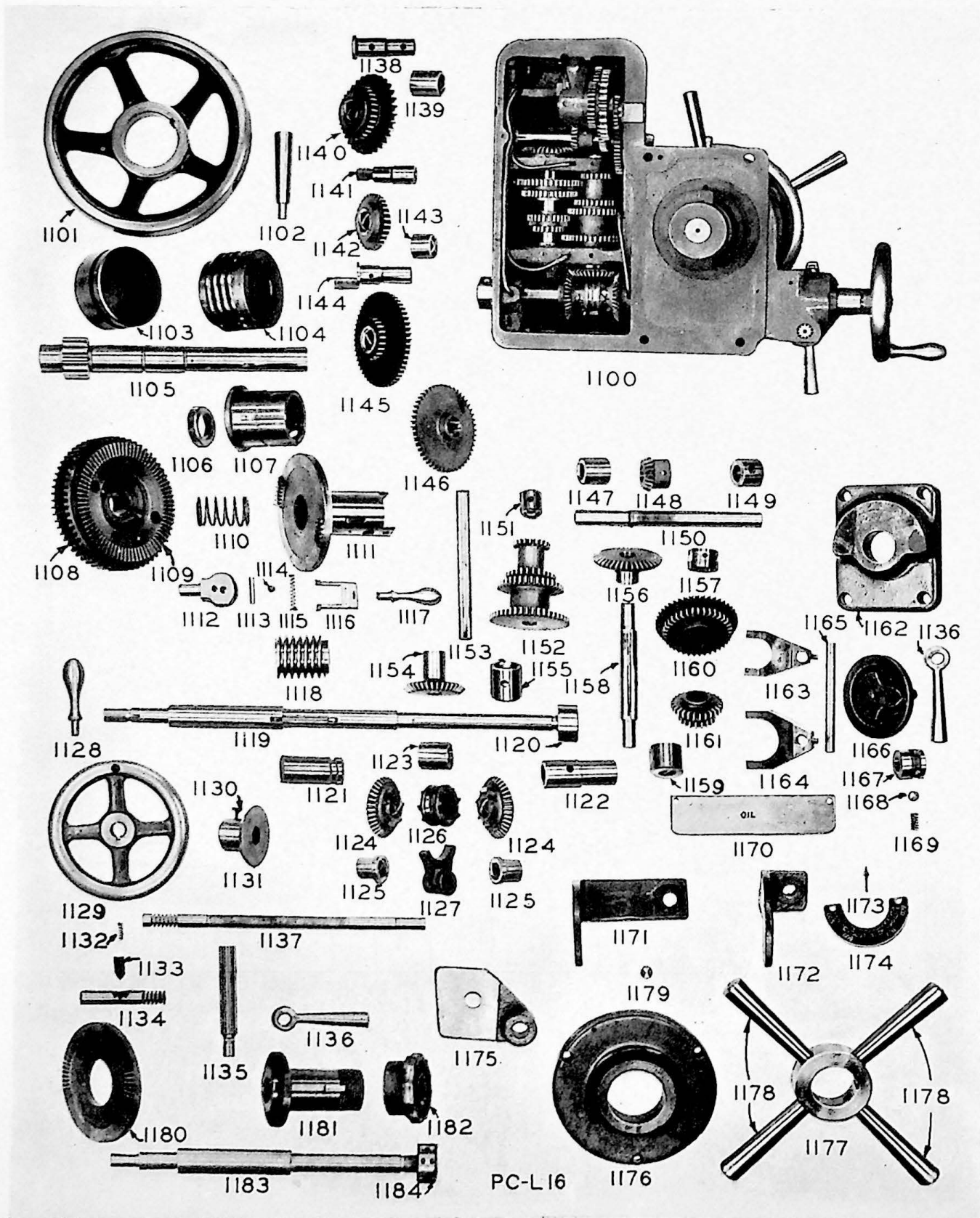


DRIVE GEARING AND MISCELLANEOUS COLUMN PARTS LIST (No. 3 VERTICAL ONLY)

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
1001	1	Bevel Drive Gear	52247	1040	2	Guide for Head	52261
1002	1	Upper Drive Shaft (Fitted with Nut)	52285	1041	8	Stud ($\frac{7}{8}$ " Diam. x 9" Long)	52086
1003	1	Gear on Upper Drive Shaft	52282	1042	1	Adjusting Dial for Head (English)	37430
1004	1	Nut on Upper Drive Shaft	31330	1042	1	Adjusting Dial for Head (Metric)	37429
1005	1	Bearing Retainer Plate	52256	1043	1	Adjusting Screw for Head	37427
1006	2	Roller Bearing Spacer ($4\frac{7}{8}$ " Bore)	52334	1044	1	Adjusting Stop Bracket	52326
1007	2	Cup (Timken No. 6420)	3588	1044	1	Adjusting Stop Bracket (Fitted with English Dial)	52326-FA
1008	2	Cone (Timken No. 6454)	3587	1044	1	Adjusting Stop Bracket (Fitted with Metric Dial)	52326-FB
1009	1	Gear on Lower Drive Shaft	52281	1045	1	Stud for Head Guide ($3\frac{1}{2}$ " Long)	52947
1010	1	Face Gear	52038	1045	1	Stud for Head Guide ($3\frac{5}{8}$ " Long)	52319
1011	1	Face Back Gear (Fitted with Face Gear)	52284-F	1046	1	Oil Reservoir Body	55461
1011	1	Face Back Gear	52284	1047	1	Quick Return Cover	52048
1012	1	Lower Driving Shaft	52283	1048	1	Strainer in Column	55894
1013	3	Cup (Timken No. 532-A)	3581	1049	1	Head Raising Rack	52272
1014	3	Cone (Timken No. 537)	3580	1050	1	Circular Rack	11818
1015	2	Roller Bearing Retainer	52133	1051	1	Cover for Worm Box Opening	47408
1016	2	Lock Washer	3445	1052	1	Louver Cover (12 Louvers)	3786
1017	1	Back Gear (Assembled with Large Back Gear)	52039-F	1052	1	Louver Cover (6 Louvers)	57668
1017	1	Back Gear	52039	1053	1	Screw in Oil Reservoir	55457
1018	1	Large Back Gear	52037	1054	1	Upper Cover on Column	48757
1019	3	Plug ($3\frac{1}{2}$ " Diam.)	3560	1055	1	Cover for Oil Pocket ($3\frac{1}{4}$ " Diam.)	48759
1019	1	Plug for Oil Reservoir (3" Diam.)	55459	1056	1	Cover on Column ($5\frac{3}{4}$ " Diam.)	49342
1020	1	Roller Bearing Spacer	52132	1057	1	Wrench Pan	52399
1021	1	Third Drive Shaft	51972	1058	2	Counterweight Sheave	22559
1022	1	Starting Lever Shaft	58869	1059	1	Rope Clip	30410
1023	2	Right Hand Starting Lever	56649	1060	1	Counterweight Rope (Fitted with Ferrule)	52461-F
1024	3	Lock Pin ($\frac{5}{8}$ " Diam. x $2\frac{1}{2}$ " Long)	33944	1061	1	Collar on Intermediate Shaft	10961
1025	3	Lock Pin for Starting Lever	35568	1062	1	Lower Sheave Stud ($9\frac{5}{8}$ " Long)	52279
1026	1	Upper Shifter for Starting Lever	52090	1062	1	Upper Sheave Stud ($10\frac{5}{8}$ " Long)	52280
1027	1	Small Oil Retainer ($1\frac{3}{8}$ " Bore)	54899	1063	1	Pipe Bush in Column	58944
1027	1	Large Oil Retainer ($1\frac{1}{4}$ " Bore)	54898	1064	1	Plug in Street Ell	86827
1028	1	Clutch Shifter Shaft	52305	1065	1	Plug ($\frac{3}{4}$ " Diam.)	14799
1029	1	Lower Shifter for Starting Lever	52091	1065	1	Plug ($\frac{7}{8}$ " Diam.)	25258
1030	2	Lock Pin ($\frac{5}{8}$ " Diam. x $2\frac{1}{4}$ " Long)	34645	1066	1	Oiler for Pump	61292
1031	1	Lever for Clutch Shifter Fork	63913	1067	1	Wick in Column	60661
1032	1	Collar	12561	1068	1	Cover on Column	54660
1033	1	Pin for Spring	53101	1069	2	Leather Washer	44387
1034	1	Clutch Shifter Spring	36057	1070	1	Glass Tube in Cover on Column	33782
1035	1	Lower Pin in Starting Lever Link	48773	1071	1	Screw in Cover on Column	52097
1036	1	Clutch Shifter Link	52269	1072	1	Pin in Starting Lever Link	48772
1037	1	Starting Lever Handle (L. H.)	58868	.....	1	Column	60582
1037	1	Starting Lever Handle (R. H.)	52265	.....	1	Base	56352
1038	1	Guide for Dog on Column	32946	.....	1	Counterweight	60014
1039	2	Dog on Column	15474	.....	1		

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

POWER FEED AND HAND FEED WORM BOX PARTS
(No. 3 VERTICAL ONLY)



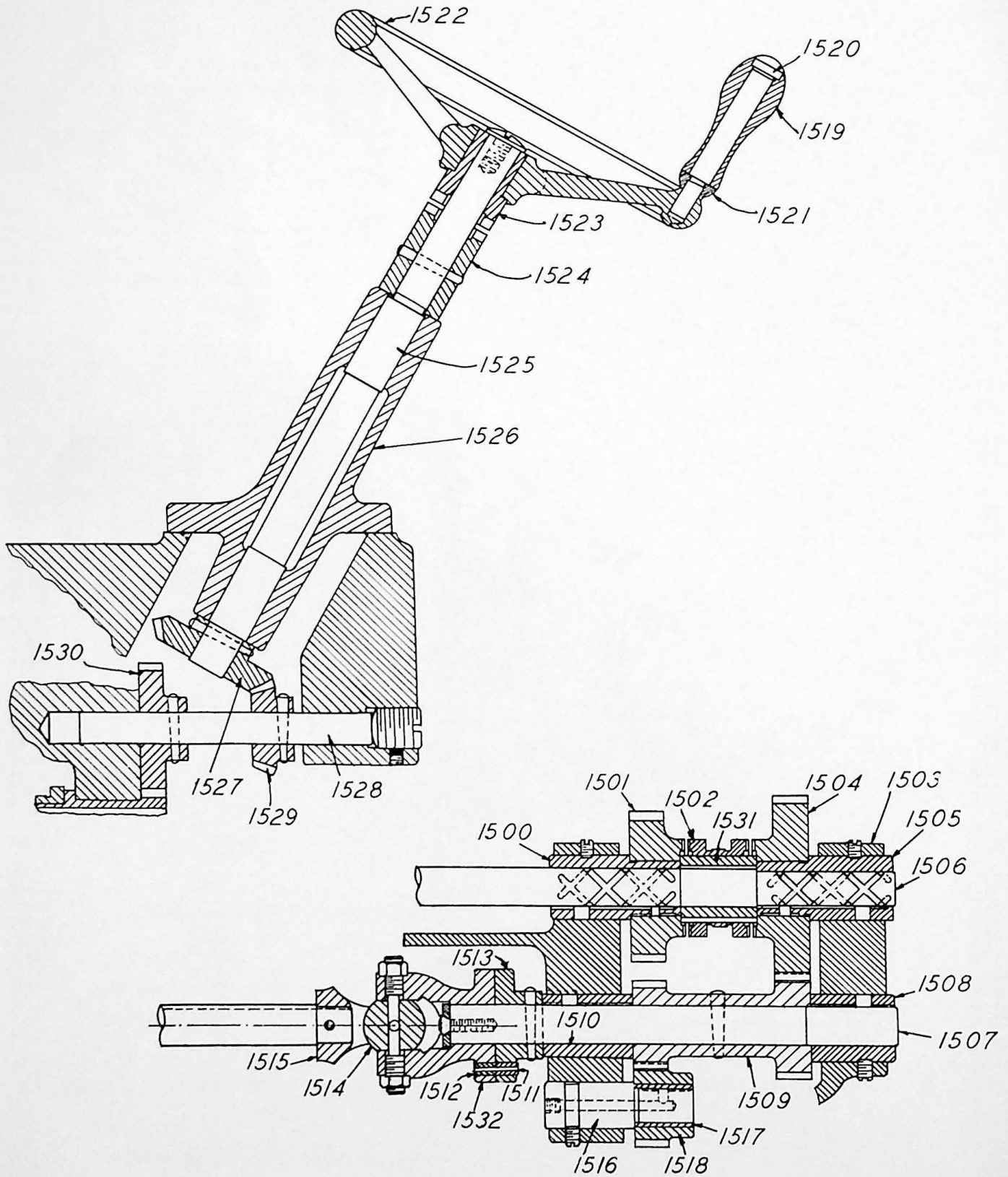
POWER FEED AND HAND FEED WORM BOX PARTS LIST (No. 3 VERTICAL ONLY)

(Parts listed are for Power Feed Box (P. F.) unless otherwise specified)

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
1100	1	Worm Box (Assembled Complete—Power Feed)	52286-RF	1143	2	Idler Gear Bush (1" Long)	45826
1100	1	Worm Box (Assembled Complete—Hand Feed)	52232-RF	1144	2	Idler Gear Stud	50496
1100	1	Worm Box (Power Feed)	52286	1145	1	Intermediate Gear	46565
1100	1	Worm Box (Hand Feed)	52232	1146	1	Gear on First Drive Shaft	46564
1101	1	Dished Hand Wheel	50565	1147	1	Small Bush for First Drive Shaft	51472
1102	5	Pilot Wheel Spoke	43392	1148	1	Bevel Pinion	45810
1103	1	Drum Retainer (P. F. and H. F.)	52318	1149	1	Large Bush for First Drive Shaft	45830
1104	1	Counterweight Drum (P. F. and H. F.)	52324	1150	1	First Drive Shaft (Fitted with Sleeve)	51473-F
1105	1	Rack Pinion Shaft	52402	1151	1	Bush for Third Drive Shaft	45819
1105	1	Rack Pinion Shaft (H. F. only)	52331	1152	1	Feed Change Gear on Third Drive Shaft	45759
1106	1	Collar on Rack Pinion Shaft (P. F. and H. F.)	12139	1153	1	Third Drive Shaft	46215
1107	1	Bush in Plate	48879	1154	1	Mitre Gear in Worm Box (1 $\frac{5}{8}$ " Length of Hub)	45760
1108	1	Worm Wheel (P. F. and H. F.)	53146	1155	1	Lower Bush on Third Drive Shaft	45761
1109	1	Clutch on Worm Shaft (P. F. and H. F.)	33492	1156	1	Bevel Gear (1" Length of Hub)	45816
1110	1	Clutch Release Spring	48880	1157	1	Upper Bush for Second Drive Shaft	45806
1111	1	Sliding Clutch	48882	1158	1	Second Drive Shaft	45805
1112	1	Stud for Eccentric	48878	1159	1	Lower Bush on Second Drive Shaft	45817
1113	1	Pin in Eccentric	48907	1160	1	Feed Change Gear	45755
1114	1	Ball ($\frac{3}{8}$ " Diameter)	30154	1161	1	Feed Change Gear	45757
1115	1	Spring (2 $\frac{5}{8}$ " Long)	2108	1162	1	Front Cover on Worm Box	50564
1116	1	Sliding Clutch Eccentric	48877	1163	1	Small Fork Shifter	45693
1117	1	Handle (3 $\frac{5}{16}$ " Long)	6149	1164	1	Large Fork Shifter	45694
1118	1	Worm (P. F. and H. F.)	12145	1165	1	Shifter Fork Shaft	45754
1119	1	Worm Shaft	45832	1166	1	Shifter Cam	53163
1120	1	Nut on Spiral Gear Shaft	38726	1167	1	Detent Bush	53162
1121	1	Worm Shaft Bush	45815	1168	1	Ball ($\frac{1}{2}$ " Diam.)	36147
1122	1	Long Bush on Worm Shaft	45823	1169	1	Spring	39371
1123	1	Spacer for Mitre Gear	45766	1170	1	Oil Cover on Worm Box	55741
1124	2	Clutch Mitre Gear (Fitted with Bush)	45764	1171	1	Long Dog	52328
1125	2	Bush in Mitre Gear	45765	1172	1	Short Dog	52325
1126	1	Reversing Clutch	45775	1173	1	Pointer	33463
1127	1	Clutch Shifter Fork	45682	1174	1	Feed Plate (English)	50561
1128	1	Handle (3 $\frac{3}{16}$ " Long)	3502	1174	1	Feed Plate (French)	56439
1129	1	Hand Wheel on Worm Shaft (P. F. and H. F.)	11894	1174	1	Feed Plate (German)	56527
1130	1	Thumb Screw (P. F. and H. F.)	100	1175	1	Adjusting Bracket for Worm Box	52327
1131	1	Dial on Worm Shaft (English—P. F. and H. F.)	12143	1176	1	Plate on Worm Box (H. F. only)	13221
1132	1	Spring (1 $\frac{5}{8}$ " Long)	1975	1176	1	Plate on Worm Box	48884
1133	1	Trip Plunger	53144	1177	1	Pilot Wheel Hub (H. F. only—Fitted with Four Spokes)	13008-F
1134	1	Circular Rack	53147	1177	1	Pilot Wheel Hub (H. F. only)	13008
1135	1	Rack Pinion	46549	1178	4	Pilot Wheel Spoke (H. F. only)	13007
1136	2	Table Feed Lever	20449	1179	2	Plug ($\frac{5}{16}$ " Diameter)	25453
1137	1	Clutch Shifter Rod	45820	1179	2	Plug (1 $\frac{3}{4}$ " Diameter)	37227
1138	2	Stud for Large Idler Gear	52323	1180	1	Clutch (H. F. only)	33491
1139	2	Idler Gear Bush (1 $\frac{1}{16}$ " Long)	52320	1181	1	Clutch Sleeve (H. F. only)	12184
1140	1	Large Idler Gear	52321	1182	1	Knob on Clutch Sleeve (H. F. only)	12123
1141	2	Stud for Small Idler Gear	52322	1183	1	Worm Shaft (H. F. only)	12142
1142	1	Idler Gear	46562	1184	1	Lock Nut on Worm Shaft (H. F. only)	20286

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

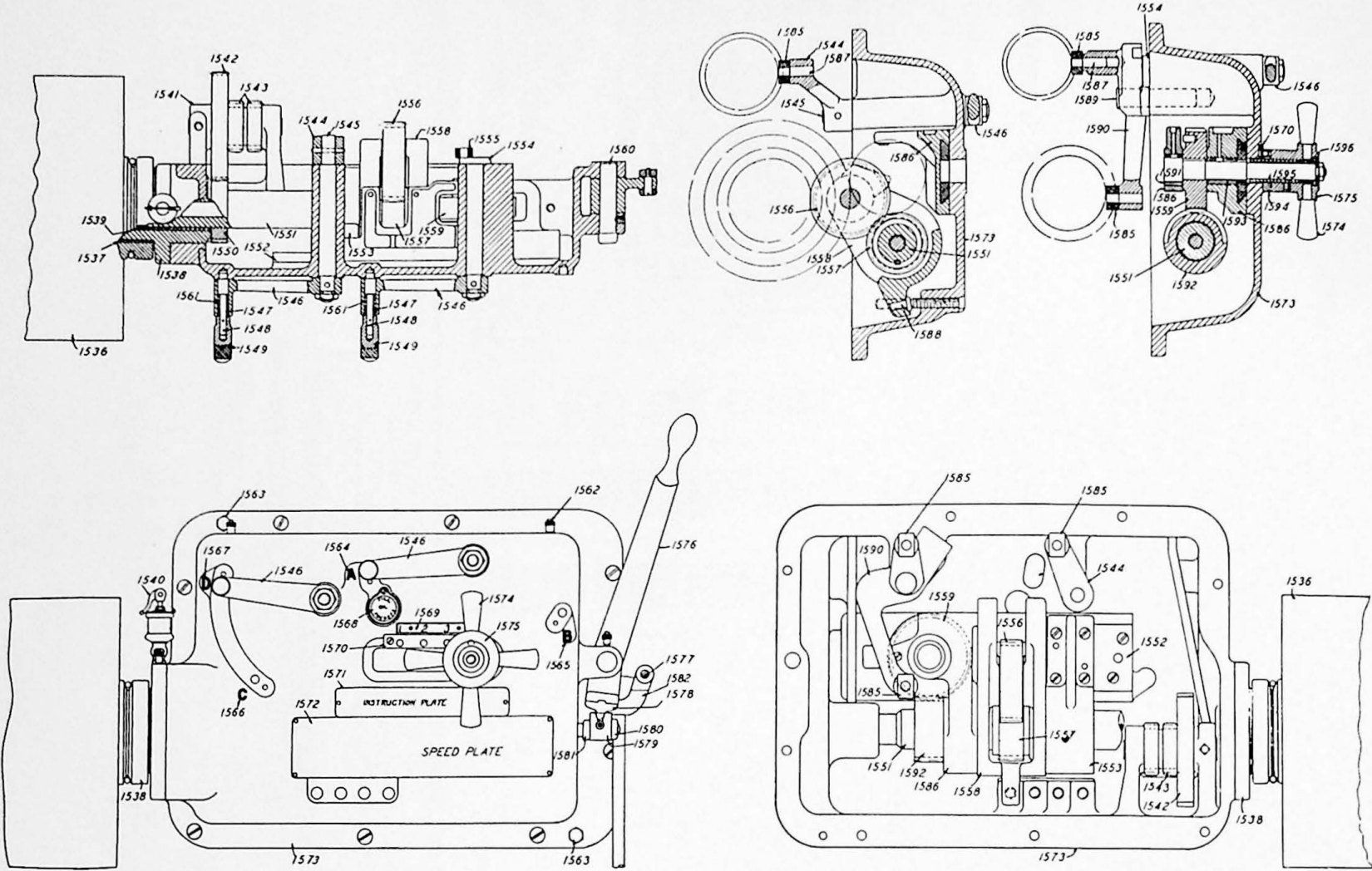
OLD STYLE REVERSE BOX AND HAND QUICK TRAVERSE ASSEMBLY



OLD STYLE REVERSE BOX AND HAND QUICK TRAVERSE PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H. P. and 3 Std.	3 H. P. and 4 Std.				2 H. P. and 3 Std.	3 H. P. and 4 Std.
1500	1	Bush for Back Clutch Gear..	12646	12646	1519	1	Spool Handle.....	16921	16921
1501	1	Small Clutch Gear.....	37110	37110	1520	1	Spool Handle Stud.....	16922	16922
1502	1	Clutch for Clutch Shaft.....	22360	22360	1521	1	Spool Handle Collar.....	16920	16920
1503	1	Box.....	29404	29404	1522	1	10" Hand Wheel.....	19133	19134
1504	1	Large Clutch Gear.....	37109	37109	1523	1	Hand Wheel Clutch.....	19132	19132
1505	1	Bush for Front Clutch Gear..	14211	14211	1524	1	Clutch for Quick Return Clutch Shaft.....	12723	12723
1506	1	Clutch Shaft.....	12715	12715	1525	1	Long Shaft for Quick Return..	20551	20550
1507	1	Fork Shaft.....	19544	19544	1526	1	Quick Return Bracket.....	16711	12758
1508	1	Short Bush for Fork Shaft...	12644	12644	1527	1	Large Bevel Gear for Quick Return.....	20380	20380
1509	1	Fork Shaft Gear.....	37107	37107	1528	1	Short Shaft for Quick Return..	16712	12733
1510	1	Long Bush for Fork Shaft...	12645	12645	1529	1	Small Bevel Gear for Quick Return—22 Teeth.....	20377	20377
1511	1	Safety Pin.....	5521	5521	1530	1	Gear on Short Shaft for Quick Return—32 Teeth.....	20381	20381
1512	2	Bush for Safety Fork Flange..	5520	5520	1531	1	Sleeve on Clutch Shaft.....	10852	10852
1513	1	Fork Shaft Flange.....	5522	5522	1532	1	Safety Fork.....	19545	19545
1514	2	Fork Ball.....	5755	5755					
1515	1	Short Fork.....	22769	22769					
1516	1	Intermediate Stud.....	12625	12625					
1517	1	Intermediate Gear Bush.....	23514	23514					
1518	1	Intermediate Gear Stud.....	37108	37108					

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"



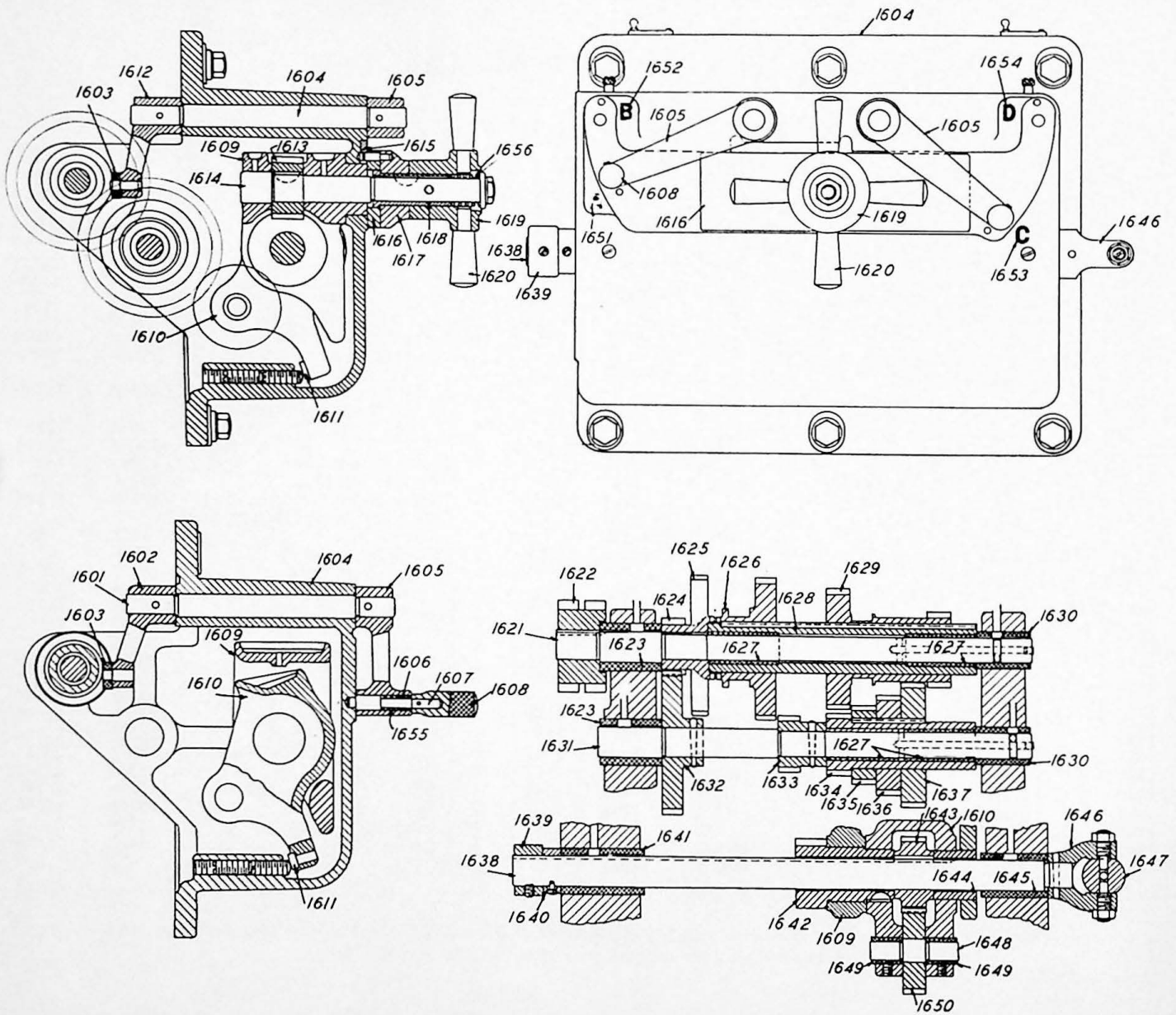
OLD STYLE DRIVE BOX ASSEMBLY

OLD STYLE DRIVE BOX PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H.P. and 3 Std.	3 H.P. and 4 Std.				2 H.P. and 3 Std.	3 H.P. and 4 Std.
1536	1	Driving Pulley	50961	50787	1565	1	Index Letter "B"	14273	14273
1537	1	Driving Pulley Bush	50851	50777	1566	1	Index Letter "C"	14275	14275
1538	1	Bracket on Box	50962	50785	1567	1	Index Letter "D"	14276	14276
1539	1	Long Bush in Bracket on Box	50859	50943	1568	1	Lid on Box (English)	12058	12058
1540	1	Oil Cup	9882	9882	1569	1	Index Plate on Box	14045	14044
1541	1	Chain Gear Stud (Omit when feeds in thousandths)	12661	12661	1570	1	Plate on Box	20085	20086
1542	1	Gear for Chain Gear (Omit when feeds in thousandths)	12665	12665	1571	1	Large Instruction Plate on Box (English)	16509	16509
1543	1	Chain Gear (Omit when feeds in thousandths)	21822	21822	1572	1	Speed Plate (Constant Speed only)	14041	12918
1544	1	Sliding Gear Lever	13809	12871	1573	1	Box	20093	20094
1545	1	Shaft for Sliding Gear Lever	13801	10573	1574	4	Pilot Wheel Spoke	13013	13013
1546	2	Small Lever	14220	14220	1575	1	Pilot Wheel Hub	13117	13117
1547	2	Lever Bush	14234	14234	1576	1	Large Lever (for Horz. Mach.)	47449	47449
1548	2	Index Pin	14223	14223	1577	1	Stud for Upper Treadle End Fork	1852	1852
1549	2	Index Pin Handle	14222	14222	1578	1	Large Lever Tooth	16177	16177
1550	1	Driving Shaft Gear (Omit when feeds in thousandths)	12660	12660	1579	1	Clutch Rod Rack	15819	15819
1551	1	Driving Shaft	16936	16938	1580	1	Clutch Rod Collar	21688	21688
1552	1	Tumbler Slide Gib	18863	18863	1581	1	Clutch Rod Washer	15330	15330
1553	1	Tumbler Slide Bracket	19583	19583	1582	1	Fork for Upper Treadle End	16755	16756
1554	1	Eccentric in Box	13944	10583	1585	3	Shoe	26225	26225
1555	1	Sliding Block for Back Gear Lever	26223	26223	1586	1	Tumbler Slide	19586	19586
1556	1	Tumbler Gear	22089	22090	1587	2	Shoe Pin	1629	1629
1557	1	Sliding Gear on Driving Shaft	31941	31940	1588	1	Tumbler Shoulder Pin	12397	12397
1558	1	Tumbler	35078	35079	1589	1	Back Gear Lever Stud	12899	12899
1559	1	Upper Spiral Gear	16701	16701	1590	1	Back Gear Lever	13776	23092
1560	1	Large Lever Stud	13818	12905	1591	1	Large Tumbler Slide Bush	23037	23037
1561	2	Index Pin Spring	1733	1733	1592	1	Lower Spiral Gear	22233	22233
1562	3	Oil Cup	98	98	1593	1	Small Tumbler Slide Bush	17586	17586
1563	2	Taper Pin (Hex. Head)	11643	11643	1594	1	Index Slide	13598	13598
1564	1	Index Letter "A"	14272	14272	1595	1	Index Slide Bush	12419	12419
					1596	1	Spring	1876	1876

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

OLD STYLE FEED BOX ASSEMBLY

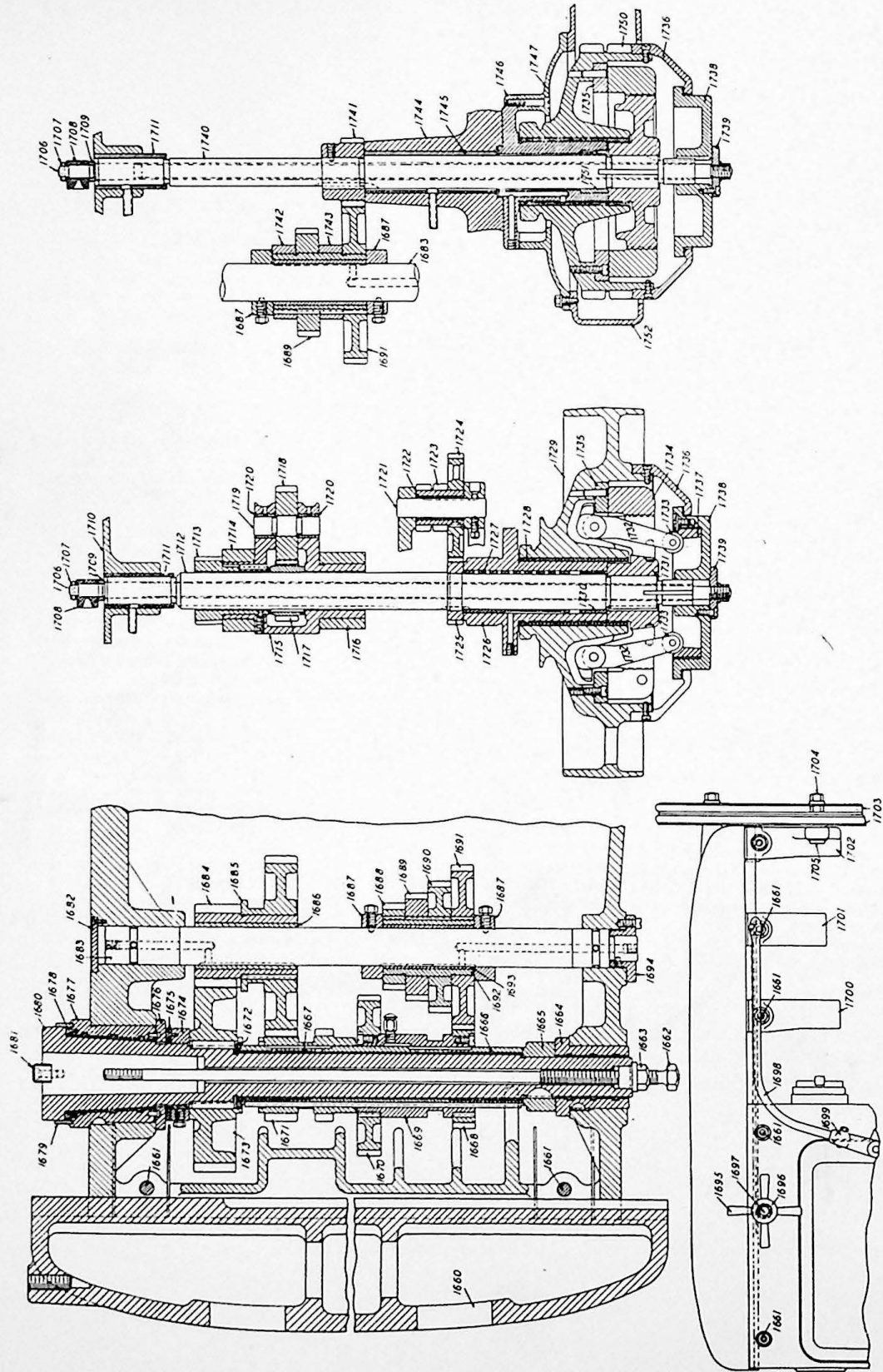


OLD STYLE FEED BOX PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
1601	2	Hand Lever Shaft	14163	1630	2	Small Bush for Driving and Cone Shaft	14159
1602	1	Sliding Gear Lever	12796				
1603	2	Shoc.	26227	1631	1	Cone Shaft	12705
1604	1	Box	29404	1632	1	Large Back Gear	12687
1605	2	Hand Lever	14224	1633	1	Small Back Gear	12688
1606	2	Lever Bush	3523	1634	1	Large Cone Gear	12711
1607	2	Index Pin	14223	1635	1	27-T Cone Gear	12707
1608	2	Handle for Speed Change Index Pin	3525	1636	1	35-T Cone Gear	12710
1609	1	Tumbler Slide	14597	1637	1	44-T Cone Gear	12706
1610	1	Tumbler	43034	1638	1	Tumbler Shaft	22786
1611	1	Shoulder Pin in Tumbler	12895	1639	1	Long Collar on Tumbler Shaft	14312
1612	1	Back Gear Lever	12795	1640	1	Short Collar on Tumbler Shaft	15378
1613	1	Upper Spiral Gear	16702	1641	1	Left Bush for Tumbler Shaft	14164
1614	1	Spiral Gear Shaft	14596	1642	1	Lower Spiral Gear	22204
1615	1	Plate on Box	23567	1643	1	Sliding Gear on Tumbler Shaft	12692
1616	1	Index Slide	24948	1644	1	Sliding Bush on Tumbler Shaft	12697
1617	1	Index Pin Holder	12562	1645	1	Right Bush for Tumbler Shaft	14160
1618	1	Index Slide Bush	12564	1646	1	Short Fork	22769
1619	1	Pilot Wheel Hub	13117	1647	2	Fork Ball	5755
1620	4	Pilot Wheel Spoke	13013	1648	1	Tumbler Gear Shaft	12693
1621	1	Driving Shaft	12704	1649	2	Small Bush in Tumbler	22940
1622	1	Driving Shaft Chain Gear	21771	1650	1	Tumbler Gear	12702
1623	1	Large Bush for Cone Shaft	14158	1651	1	Index Letter "A"	14272
1624	1	Small Clutch Gear on Driving Shaft	12683	1652	1	Index Letter "B"	14273
1625	1	Small Clutch Gear on Driving Shaft	52158	1653	1	Index Letter "C"	14275
1626	1	Large Clutch Gear on Driving Shaft	12695	1654	1	Index Letter "D"	14276
1627	4	Sleeve Bush	12690	1655	1	Spring for Speed Change Index Pin	1733
1628	1	Sliding Gear Sleeve	16752	1656	1	Spring	1876
1629	1	Sliding Gear	12694				

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

OLD STYLE DRIVE GEARING AND CLUTCH ASSEMBLY

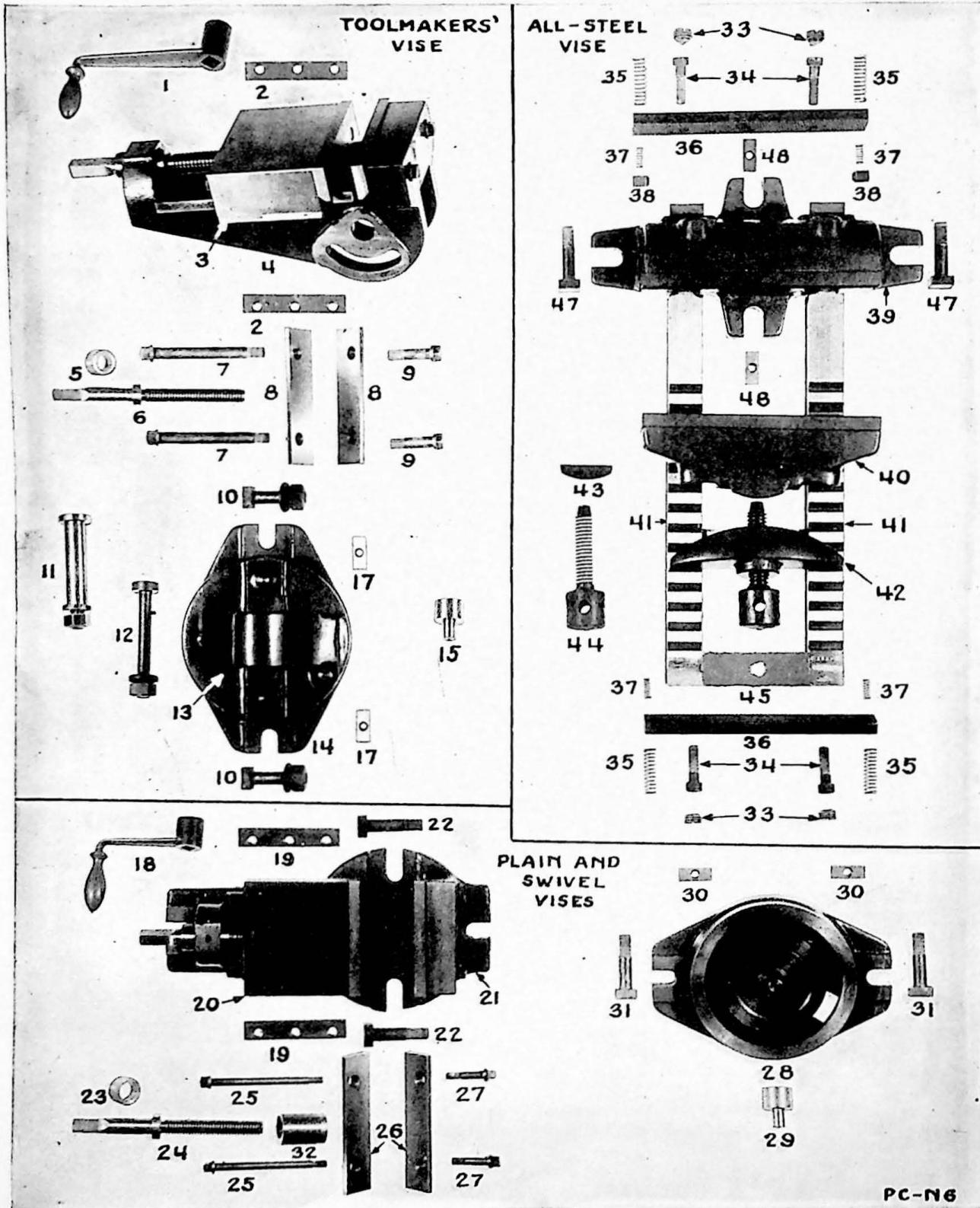


OLD STYLE DRIVE GEARING AND CLUTCH PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H.P.	3 H.P.				2 H.P.	3 H.P.
1660	1	Overarm.....	43124	43124	1708	1	Clutch Rod Rack.....	15819	15819
1661	2	Stud in Column.....	43245	43245	1709	1	Clutch Rod Washer.....	15330	15330
1662	1	Draw-in Bolt.....	43266	43264	1710	1	Box.....	20093	20094
1663	1	Draw-in Bolt Nut.....	43258	43258	1711	1	Bush in Box.....	11905	11905
1664	1	Back Box.....	24061	24304	1712	1	Driving Shaft.....	16936	16938
1665	1	Spindle Spacer (Omit for Feeds in Thousandths).....	22168	22143	1713	1	Lower Spiral Gear.....	22233	22233
1666	1	Spindle Sleeve.....	43251	43253	1714	1	Tumbler Slide.....	19586	19586
1667	2	Bush in Sleeve on Spindle.....	13617	11032	1715	1	Tumbler.....	35078	35079
1668	1	Small Gear on Sliding Sleeve.....	22098	22099	1716	1	Tumbler Slide Bracket.....	19583	19583
1669	1	Sliding Sleeve on Spindle.....	13603	12635	1717	1	Sliding Gear on Drive Shaft.....	31941	31940
1670	1	Large Gear on Sliding Sleeve.....	22095	22096	1718	1	Tumbler Gear.....	22089	22090
1671	1	Clutch Gear on Spindle.....	43248	43249	1719	1	Tumbler Shaft.....	13807	12900
1672	1	Washer on Spindle Sleeve.....	43240	43240	1720	1	Tumbler Bush.....	22991	22992
1673	1	Face Gear.....	43252	43254	1721	1	Chain Gear Stud (Omit when Feeds in Thousandths).....	12661	12661
1674	1	Nut on Spindle.....	39117	39117	1722	1	Chain Gear Bush (Omit when Feeds in Thousandths).....	12870	12870
1675	1	Babbitt Ring on Spindle Nut.....	39119	39119	1723	1	Chain Gear (Omit when Feeds in Thousandths).....	21822	21822
1676	1	Thrust Collar for Spindle.....	43241	43241	1724	1	Gear on Chain Gear (Omit when Feeds in Thousandths).....	12665	12665
1677	1	Front Box.....	43131	43131	1725	1	Driving Shaft Gear (Omit when Feeds in Thousandths).....	12660	12660
1678	1	Babbitt Ring on Spindle.....	24860	24860	1726	1	Bracket for Box.....	50962	50785
1679	1	Dust Cover on Spindle.....	25035	25035	1727	1	Long Bush in Bracket on Box.....	50859	50943
1680	1	Spindle (Fitted with Nut).....	43256	43255	1728	1	Driving Pulley Bush.....	50851	50777
1681	2	Key.....	26725	26725	1729	1	Driving Pulley.....	50961	59787
1682	1	Front Plate on Column.....	15787	15787	1730	1	Short Bush for Bracket or Box.....	23033	23035
1683	1	Back Gear Shaft.....	13632	12909	1731	1	Disc.....	50853	50788
1684	1	Small Back Gear.....	32133	31633	1732	2	Finger.....	50960	31985
1685	1	Large Back Gear.....	28754	43250	1733	2	Roller.....	10198	10198
1686	1	Small Back Gear Bush.....	13619	12647	1734	1	Adjusting Ring.....	17522	17523
1687	2	Back Gear Shaft Collar.....	18852	18852	1735	1	Ring for Chain Gear Driven and Driving Pulleys.....	13856	12864
1688	1	Cone Gear (Constant Speed) —31 Teeth.....	22073	22077	1736	1	Clutch Cap.....	13847	13515
1689	1	Cone Gear—39 Teeth.....	22074	22078	1737	1	Sliding Cap Ring.....	18966	18967
1690	1	Cone Gear (Constant Speed) —48 Teeth.....	22075	22079	1738	1	Sliding Cap.....	30708	30709
1691	1	Cone Gear—60 Teeth.....	22076	22080	1739	1	Sliding Cap Plate.....	16926	16926
1692	1	Cone Gear Sleeve.....	13605	12670	1740	1	Driving Shaft.....	16935	16937
1693	1	Bush in Cone Gear Sleeve.....	13618	12648	1741	1	Driving Shaft Gear (24 Teeth).....	19027	19028
1694	1	Flange for Back Gear Shaft.....	12669	12669	1742	1	Small Collar on Cone Gear Sleeve (Variable Speed only).....	13647	13635
1695	4	Pilot Wheel Spoke.....	12680	12680	1743	1	Large Collar on Cone Gear Sleeve (Variable Speed only).....	13646	13634
1696	1	Pilot Wheel Hub.....	43243	43243	1744	1	Box.....	14146	13870
1697	1	Stem Pinion for Pilot Wheel.....	43242	43242	1745	1	Long Bush in Box.....	14168	14150
1698	1	Starting Lever Handle.....	47359	47359	1746	1	Sliding Block in Back Gear Lever.....	26223	26223
1699	1	Large Lever (Horizontal Mach.).....	47449	47449	1747	1	Chain Guard Flange.....	28313	28314
1700	1	Inner Support.....	43139	43139	1750	1	Chain Driven Gear.....	50852	28296
1701	1	Small Outer Support.....	43132	43132	1751	1	Bracket Bush for Box.....	23032	23034
1702	1	Large Outer Support.....	43128	43128	1752	1	Chain Guard.....	35159	35176
1703	1	Overarm Brace.....	43130	43130					
1704	1	Long Bolt for Support and Brace.....	43246	43246					
1705	1	Short Bolt for Support and Brace.....	43247	43247					
1706	1	Clutch Rod.....	21690	21690					
1707	1	Clutch Rod Collar.....	21688	21688					

Specify Part Name, Part Number, and Serial Number and Letters of the machine when ordering parts
Also see Page 2 for Instructions "How to Order Repair Parts"

VICE PARTS
FOR ALL-STEEL, PLAIN, SWIVEL, AND TOOL MAKERS VISES



PC-N6

VICE PARTS LIST FOR ALL-STEEL, PLAIN, SWIVEL, AND TOOL MAKERS VISES

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
TOOLMAKER'S VISE PARTS			
1	1	Hand Crank	3565
2	2	Gib on Housing	8773
3	1	Housing	14032
4	1	Body	41926
5	1	Collar on Screw	22331
6	1	Screw	32971
7	2	Collar Screw in Housing (4 $\frac{3}{8}$ " Long)	15421
8	2	Jaw	14031
9	2	Collar Screw in Body (1 $\frac{3}{4}$ " Long)	41927
10	2	Tee Bolt (Specify Size and Type of Machine)	
11	1	Bolt	6050
12	1	Clamp Bolt	893
13	1	Swivel Block	43460
14	1	Plate (Fitted with Stud)	14892
15	1	Stud in Swivel Plate	10624
17	2	Tongue Strip (Specify Size and Type of Machine)	

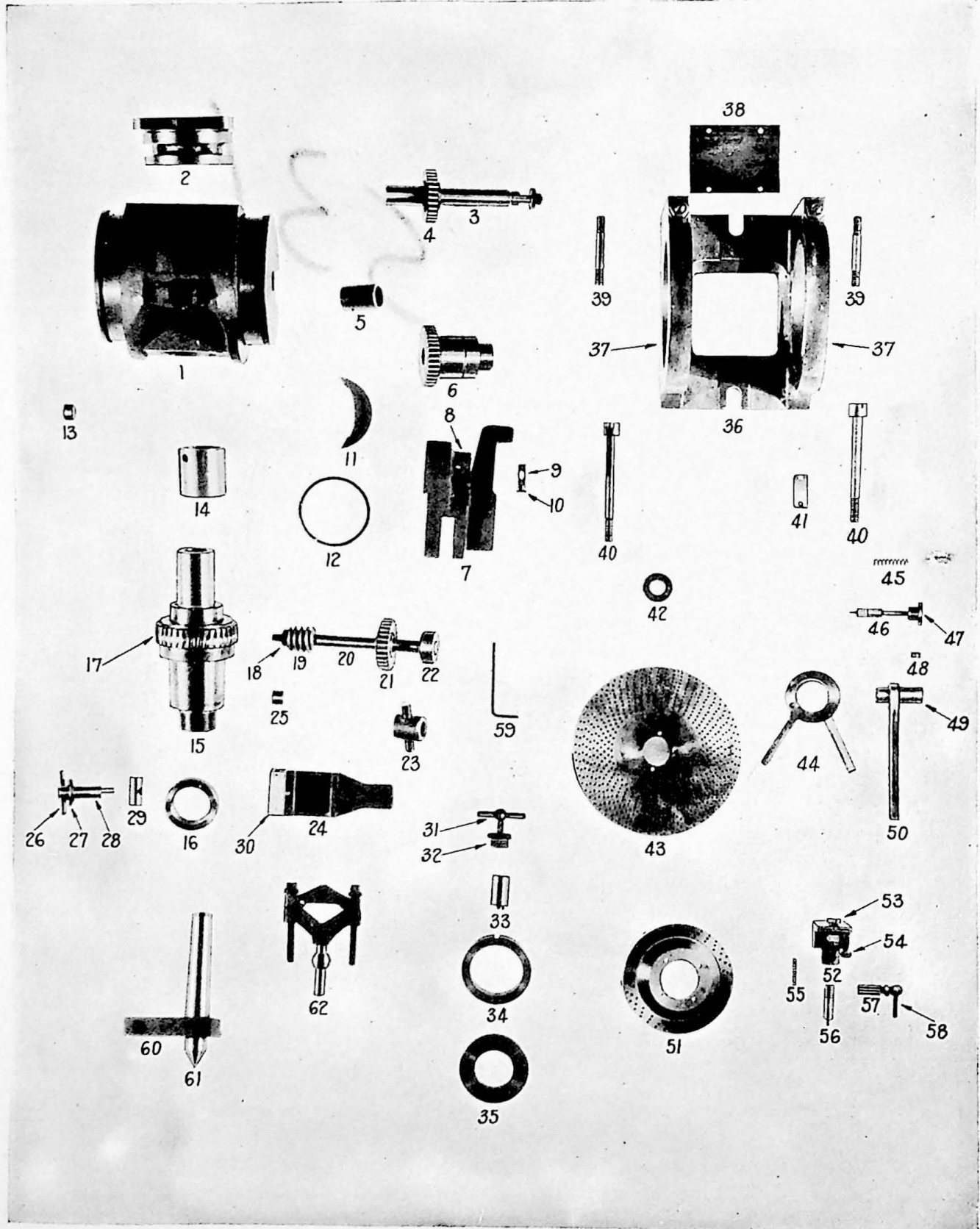
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Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering			
			2C	3C	4C	5C
PLAIN AND SWIVEL VISE PARTS						
18	1	Hand Crank	19124	3565	3566	3566
19	2	Gib on Housing	8773	8773	8777	8781
20	1	Housing	14893	14032	22281	22282
21	1	Body	25776	25777	25778	25779
22	2	Tee Bolt (Swivel Vise only—for Clamping Swivel Plate to Body)	1096	1048	1105	1104
23	1	Collar on Screw	14890	22331	22332	22332
24	1	Screw	32970	58698	58700	58699
25	2	Collar Screw in Housing	14894	15421		
26	2	Jaw (Regular)	55624	55625	55623	55622
26	2	Jaw (Hard—Special)	55633	55634	55635	55636
27	2	Collar Screw in Body	22594	22595		
28	1	Plate (Fitted with Stud) (Swivel Vise only)	14892	8770	22126	8778
29	1	Stud (Swivel Vise only)	10624	10624	10539	10539
30	2	Tongue Strips (Specify Size and Type of Machine)				
31	2	Tee Bolt for Clamping Vise to Table (Specify Size and Type of Machine)				
32	1	Bush in Housing			23438	23438
		Width of Jaw	5 $\frac{1}{8}$ "	6 $\frac{1}{8}$ "	7 $\frac{1}{8}$ "	8 $\frac{5}{8}$ "

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			8" x 10"	10" x 10"
ALL STEEL VISE PARTS				
33	4	Headless Set Screw	1744	1744
34	4	Fillister Head Screw	1278	1278
35	4	Spring	846	846
36	2	Jaw	24820	24827
37	4	Spring	727	727
38	2	Hollow Hex Head Set Screw	2145	1919
39	1	Body	27817	27815
40	1	Movable Jaw Support	27818	27816
41	2	Bar	27722	27722
42	1	Screw Holder	35263	35262
43	1	Abutment	27791	27791
44	1	Screw	49844	49844
45	1	Clamp	25641	25642
47	2	Tee Bolt for Vise Body (Specify Size and Type of Machine)		
48	2	Tongue Strip (Specify Size and Type of Machine)		

Specify Part Name, Part Number, and Serial Number and Letters of the machine and attachment when ordering attachment parts
Also see Page 2 for Instructions "How to Order Repair Parts"

DIVIDING HEAD PARTS—HEAD STOCK

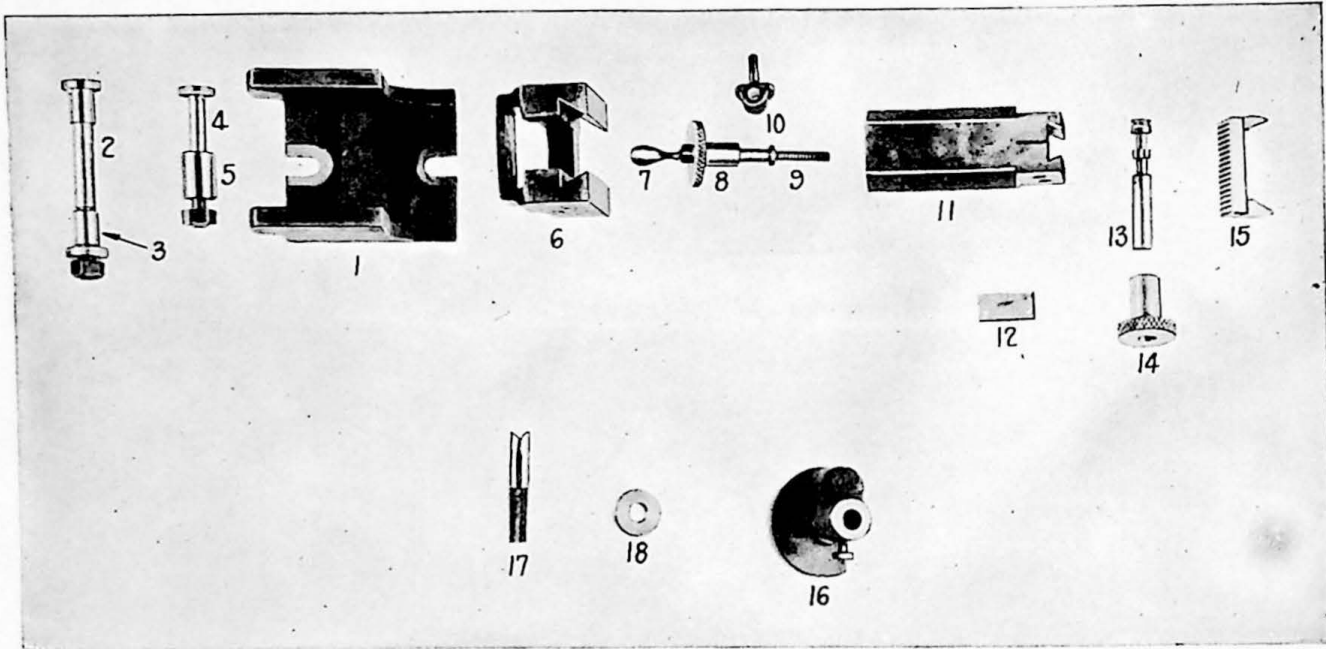


DIVIDING HEAD PARTS LIST—HEAD STOCK

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		
			10" Head	12" Head	14" Head
1	1	Swivel Block	5556	8213	8213
2	1	Back Cap on Spindle	34834	34835	34835
3	1	Index Shaft	8372	8427	8427
4	1	Gear on Index Shaft	8357	8416	8416
5	1	Bush in Swivel Block	23596	23596	23596
6	1	Gear in Cover on Swivel Block	5574	5575	5575
7	1	Cover on Swivel Block	8356	8414	8414
8	2	Cap on Cover on Swivel Block	8353	8353	8353
9	1	Stop for Side Plate	8106	8106	8106
10	1	Screw	731	731	731
11	1	Lid on Cover on Swivel Block	8360	8418	8418
12	1	Ring in Cover on Swivel Block	35998	35999	35999
13	1	Plug in Swivel Block	8367	8367	8367
14	1	Bush in Back Cap on Spindle	34767	34768	34768
15	1	Spindle	8374	7439	7439
16	1	Cover for Spindle Thread	33592	33593	33593
17	1	Worm Wheel	35155	35156	35156
18	1	Nut on Worm	8361	8419	8419
19	1	Worm	34391	34393	34393
20	1	Shaft for Worm	35130	35131	35131
21	1	Gear on Shaft for Worm	8358	8417	8417
22	1	Lock Nut on Worm Shaft	35125	35126	35126
23	1	Bearing for Worm Shaft	5588	5589	5589
24	1	Yoke	5774	5775	5775
25	1	Bush in Yoke	8352	8410	8410
26	1	Pin	1263	1263	1263
27	1	Plate for Eccentric Stop	8295	8294	8294
28	1	Eccentric	8296	8297	8297
29	1	Slide	8373	8428	8428
30	1	Slide Holder	8223	8222	8222
31	1	Hand Clamp Screw	617	3536	3536
32	1	Cap for Split Ring	8225	8225	8225
33	1	Plug for Split Ring	8366	8422	8422
34	1	Split Ring	8369	8424	8424
35	1	Collar on Spindle	23887	20652	20652
36	1	Housing	45796	45797	45798
37	2	Clamp	8354	8412	8412
38	1	Cover for Yoke	57150	57151	57151
39	2	Bolt	862	863	863
40	2	Screw in Clamp	45793	45794	45795
41	1	Vernier	8231	8233	8233
42	1	Collar in Front of Sector	8072	8072	8072
43	1	Standard Index Plate	6855	6855	6855
43	1	Index Plate No. 1-AB (Special—for high numbers)	10525	10525	10525
43	1	Index Plate No. 2-CD (Special—for high numbers)	10526	10526	10526
43	1	Index Plate No. 3-EF (Special—for high numbers)	10527	10527	10527
44	1	Sector	8100-1	8100-1	8100-1
45	1	Spring	253	253	253
46	1	Index Pin	8083	8083	8083
47	1	Knob	1007	1007	1007
48	1	Bush	295	295	295
49	1	Index Pin Holder	37750	37750	37750
50	1	Carrier for Index Pin Holder	37751	37751	37751
51	1	Front Plate	8365	8421	8421
52	1	Holder for Index Pin (Front Plate)	8234	8234	8234
53	1	Tee Bolt ($\frac{3}{8}$ " Diameter x $1\frac{1}{4}$ " Long)	494	494	494
54	1	Thumb Screw	100	100	100
55	1	Spring	266	266	266
56	1	Index Pin for Front Plate	8363	8363	8363
57	1	Pinion for Index Pin for Front Plate	19084	19084	19084
58	1	Pin	1374	1374	1374
59	1	Wrench for $\frac{3}{8}$ " Hollow Headless Screw	35678	35678	35678
60	1	Holder for Dog	24102	24102	24102
61	1	Head Center	24578	24576	24576
62	1	Milling Machine Dog (sent on demand only)	24184	24184	24184

Specify Part Name, Part Number, and Serial Number and Letters of the machine and attachment when ordering attachment parts
Also see Page 2 for Instructions "How to Order Repair Parts"

DIVIDING HEAD PARTS LIST—TAIL STOCK AND STEADY REST

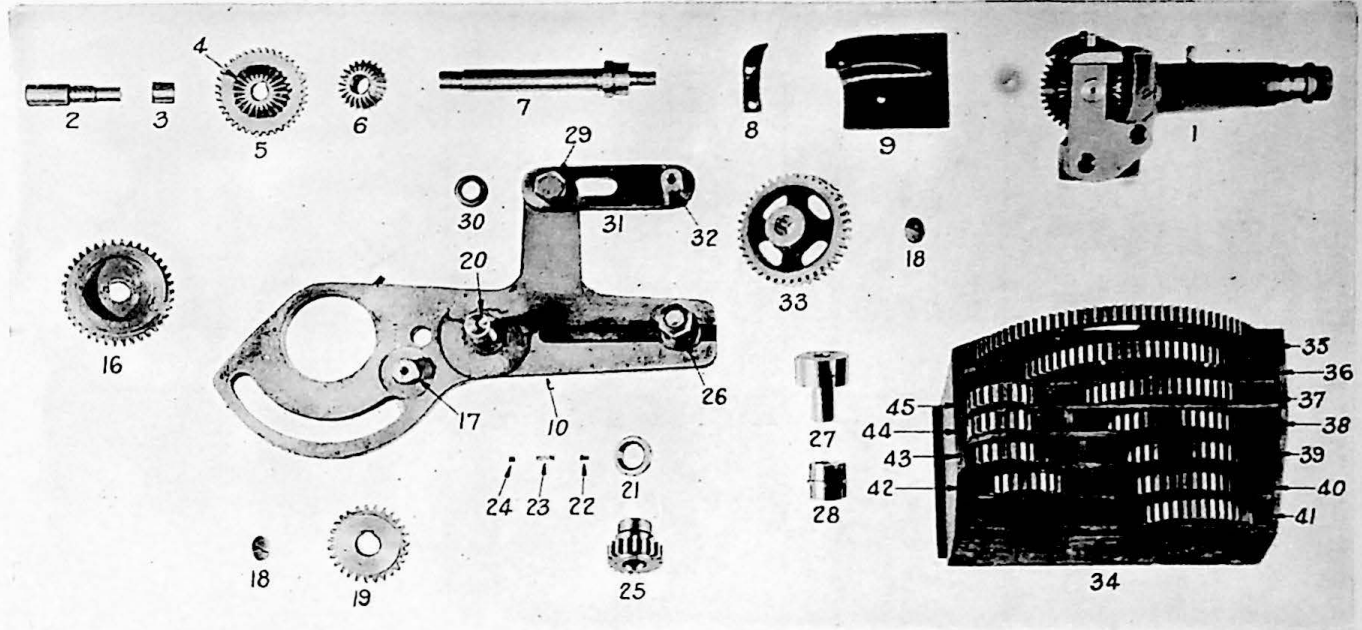


DIVIDING HEAD PARTS LIST—TAIL STOCK AND STEADY REST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		
			10" Head	12" Head	14" Head
TAILSTOCK PARTS					
1	1	Housing.....	7768	7767	12115
2	1	Long Bolt for Tailstock.....	8375	8402	8402
3	1	Bush in Housing.....	8377	8377	8377
4	1	Short Bolt for Tailstock.....	8376	8403	8403
5	1	Collar on Short Bolt.....	8379	8406	8406
6	1	Swivel Block for Tailstock.....	44183	44181	44181
7	1	Handle.....	1014	1014	1014
8	1	Knob on Screw.....	23620	23621	23621
9	1	Screw.....	8380	8380	8380
10	1	Bearing for Screw.....	44184	44184	44184
11	1	Slide for Tailstock.....	44180	44182	44182
12	1	Plate Over Slot.....	6106	6106	6106
13	1	Pinion.....	8238	8239	8239
14	1	Knob on Pinion.....	8227	8229	8229
15	1	Elevating Center.....	8378	8405	8405
STEADY REST PARTS					
16	1	Body.....	8382	8400	8400
17	1	Stem.....	8384	8399	8398
18	1	Nut.....	18977	18977	18977

Specify Part Name, Part Number, and Serial Numbers and Letters of the machine and attachment when ordering attachment parts
 Also see Page 2 for Instructions "How to Order Repair Parts"

DIVIDING HEAD PARTS—DRIVING MECHANISM FOR CUTTING SPIRALS

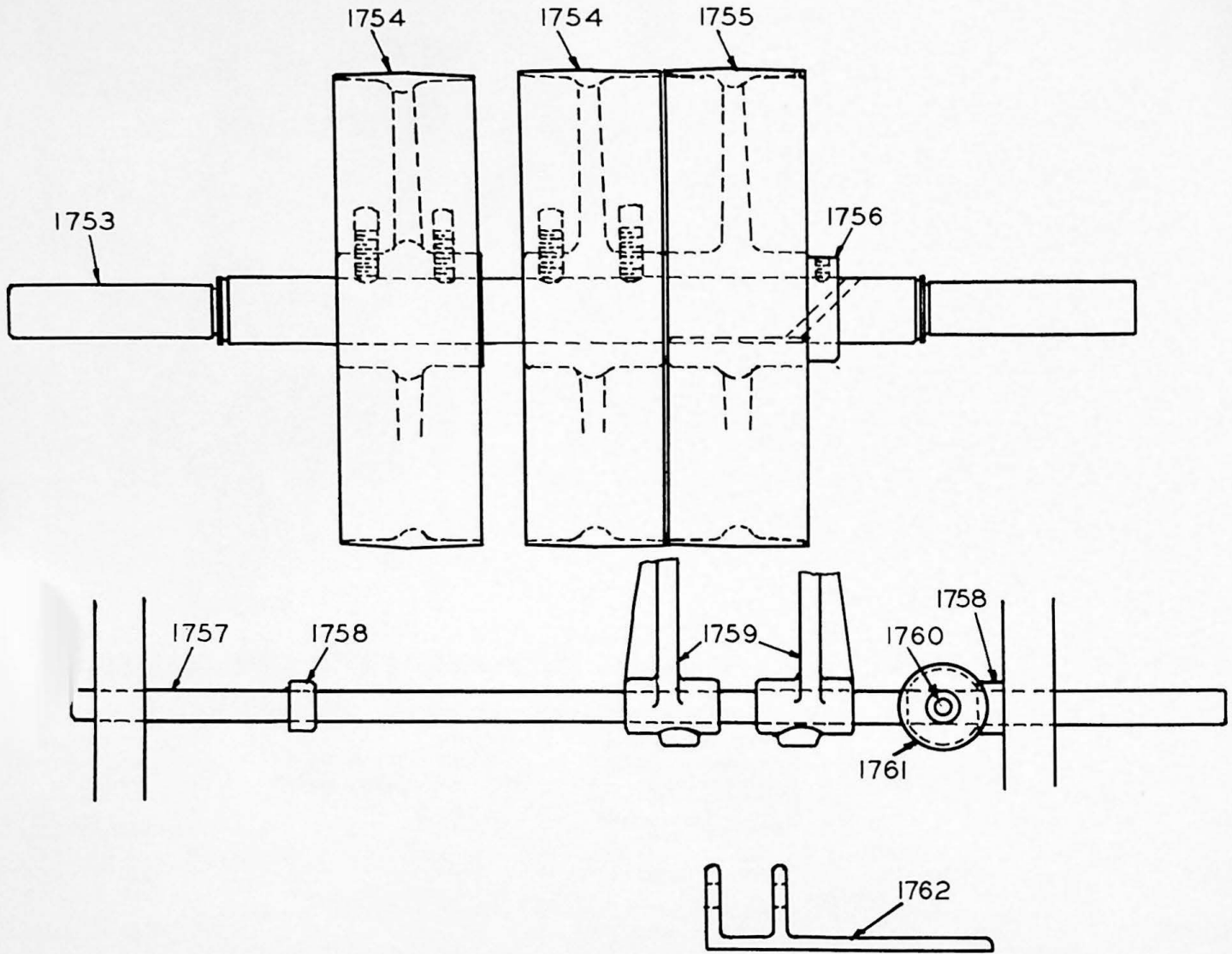


DIVIDING HEAD PARTS LIST—DRIVING MECHANISM FOR CUTTING SPIRALS

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			10' Head	12' and 14' Head				10' Head	12' and 14' Head
1	1	Bearing for Mitre Gear (Assembled as shown)	13956	12087	23	1	Spring	1349	1349
			13956-F	12087-F	24	1	Headless Set Screw	1213	1213
2	1	Short Shaft	8286	8264	25	1	Small Gear on Segment—19 Teeth	12100	12100
3	1	Bush in Bearing for Mitre Gear	22829	8259	26	1	Tee Bolt (5/8" diameter x 3 7/8" Long)	1712	1712
4	1	Mitre Gear on Short Shaft	8279	8261	27	1	Sleeve for Bush in Change Gear	8065	8065
5	1	Gear on Mitre Gear on Short Shaft	8221	8262	28	1	Bush in Change Gear	8059	8059
6	1	Mitre Gear on Shaft for Change Gear	8278	8076	29	1	Hexagon Head Screw	682	682
7	1	Shaft for Change Gears	13957	12097	30	1	Shoulder Washer	1496	1496
8	1	Front Cover on Mitre Gear Bearing	8276	8260	31	1	Holder for Intermediate Gear	12084	12084
9	1	Top Cover on Mitre Gear Bearing	57816	57815	32	1	Stud in Holder for Intermediate Gear	12096	12096
10	1	Segment	18847	18847	33	1	Intermediate Gear	9352	9352
16	1	Gear on Lead Screw—38 Teeth	12085	12085	34	1	Box for Change Gears	51359	51359
17	1	Stud for Large or Small Gear on Segment	12099	12099	35	1	Change Gear—100 Teeth	5987	5987
18	2	Fillister Head Cap Screw	286	286	36	1	Change Gear—86 Teeth	5988	5988
19	1	Large Gear on Segment—27 Teeth	12083	12083	37	1	Change Gear—72 Teeth	5364	5364
20	1	Stud in Segment	12098	12098	38	1	Change Gear—64 Teeth	5365	5365
21	1	Washer on Stud in Segment	1455	1455	39	1	Change Gear—56 Teeth	5366	5366
22	1	Pin	1350	1350	40	1	Change Gear—48 Teeth	5989	5989
					41	1	Change Gear—44 Teeth	5990	5990
					42	1	Change Gear—40 Teeth	5986	5986
					43	1	Change Gear—32 Teeth	48045	48045
					44	1	Change Gear—28 Teeth	48043	48043
					45	2	Change Gear—24 Teeth	48044	48044

Specify Part Name, Part Number, and Serial Number and Letters of the machine and attachment when ordering attachment parts
 Also see Page 2 for Instructions "How to Order Repair Parts"

OLD STYLE COUNTERSHAFT ASSEMBLY

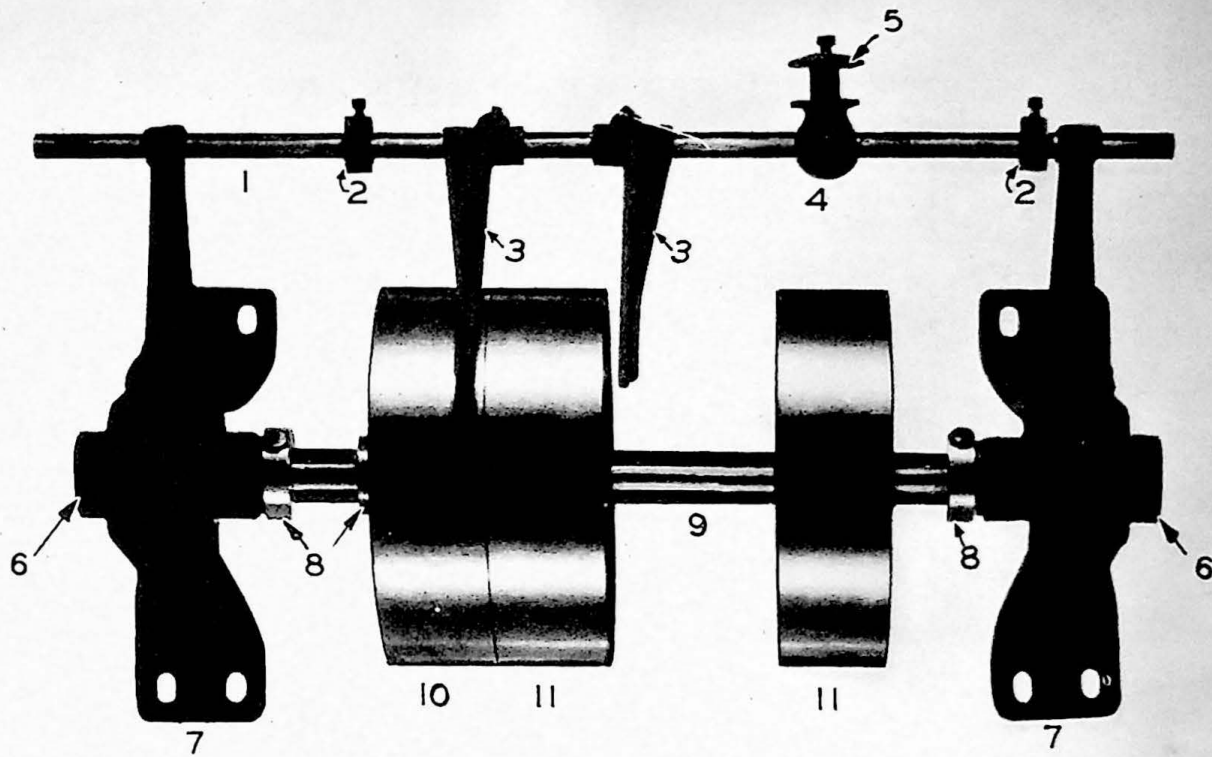


OLD STYLE COUNTERSHAFT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering		Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	
			2 H.P. and 3 Std.	3 H.P. and 4 Std.				2 H.P. and 3 Std.	3 H.P. and 4 Std.
1753	1	Pulley Shaft.....	14122	12931	1759	2	Finger.....	7335	7335
1754	2	Tight Pulley.....	16161	12930	1760	1	Carrier for Shifter (Fitted with Washer).....	7332	7332
1755	1	Loose Pulley.....	16162	12928	1761	1	Washer for Carrier.....	7345	31433
1756	1	Collar on Shaft.....	12887	12887	1762	1	Angle for Shifter.....	7329	7329
1757	1	Shifter Rod.....	14121	12893					
1758	2	Collar on Shifter Rod.....	7333	7782					

Specify Part Name, Part Number, and Serial Number and Letters of the machine and attachment when ordering attachment parts
 Also see Page 2 for Instructions "How to Order Repair Parts"

COUNTERSHAFT ASSEMBLY

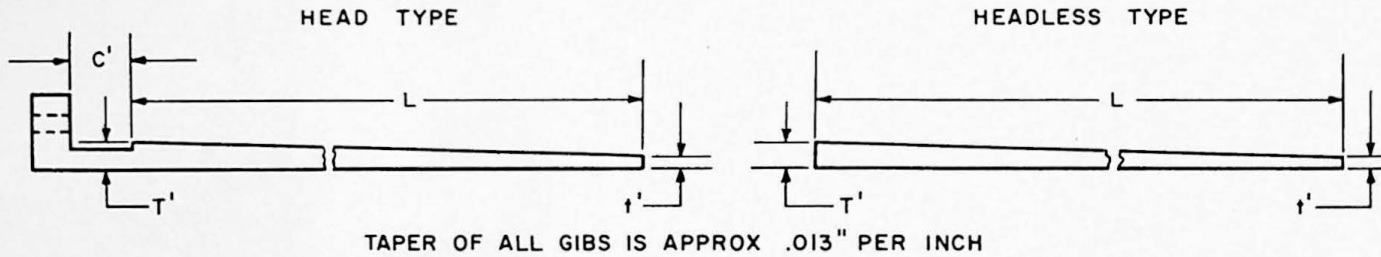


COUNTERSHAFT PARTS LIST

Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering	Key No.	Amt. Used	PART NAME	PART NUMBER to use when ordering
1	1	Rod for Shifter.....	56830	8	3	Shaft Collar (1 3/4" Bore).....	3783
2	2	Shaft Collar (7/8" Bore).....	3781	9	1	Countershaft.....	56832
3	2	Finger.....	7335	10	1	Loose Pulley.....	56828
4	1	Carrier for Shifter (Fitted with Washer).....	7332	11	2	Tight Pulley.....	56829
5	1	Washer for Carrier.....	7345	12	2	Plug in Loose Pulley.....	41728
6	2	Bearing Box.....	41878	13	1	Roller Bearing (Hyatt No. 18350-Med Type).....	56831
7	2	Hanger.....	34093	14	1	Angle for Shifter.....	7329

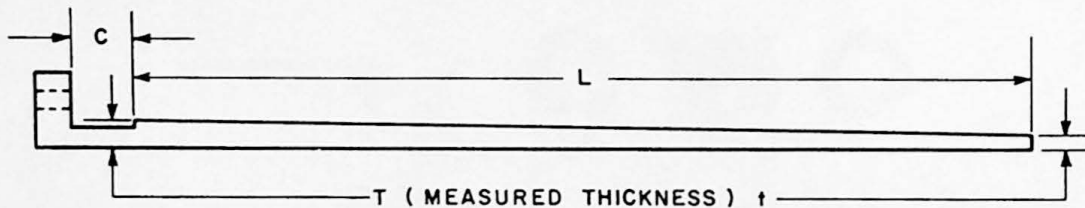
Specify Part Name, Part Number, and Serial Number and Letters of the machine and attachment when ordering attachment parts
 Also see Page 2 for Instructions "How to Order Repair Parts"

ORDERING REPLACEMENT GIBS



Measurements of Old Gib

When ordering replacement gibs, be certain to give length and thickness at both ends of old gib. Also specify the amount of stock you wish left on gib for fitting. (Normally a replacement gib has 0.020" extra stock for planing and scraping to fit.)



Measurements of New Gib

Example:

Assume that the old gib had been readjusted so there was no clearance under head and the ways had been scored so 0.010" had to be removed to clean them. If a clearance under head (C) of 1" is desired, specify a gib of length L having $T = T' + 0.023"$ and $t = t' + 0.023"$. (0.010" is amount of stock removed; 0.013" increased gib thickness that will move gib out approximately 1".)

