

REPAIR PARTS
for
BROWN & SHARPE
Nos. **1, 2, 3** and **4**
UNIVERSAL
GRINDING MACHINES
(Motor and Overhead Driven)



The parts illustrated in this booklet are for the

Nos. 1, 2, 3 and 4
Universal Grinding Machines
(Motor and Overhead Driven)

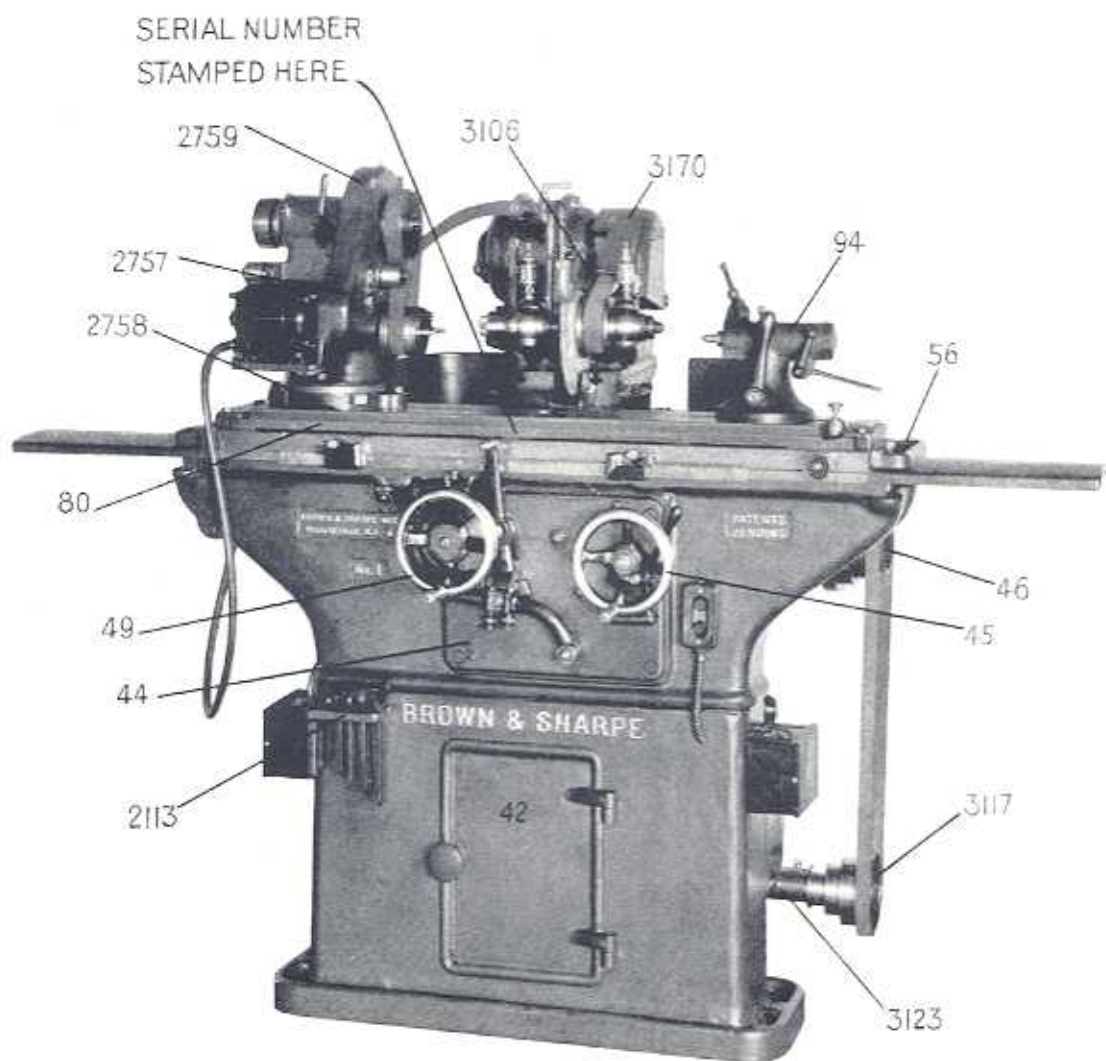
Please place this booklet in the hands of the one in your organization who is responsible for the *repair* of these machines.

The parts are arranged in the illustrations as far as possible in the same relative positions they have in the machine. This is to facilitate stripping and assembling as well as identifying the parts.

In ordering repair parts, it is essential that the style, size and serial number of the machine be given in addition to the part number and name given in this booklet.

Repair parts, in some cases, will require fitting in position and therefore may need holes to be drilled, keyways to be cut or shoulders to be squared in order to make them fit properly.

BROWN & SHARPE MFG. CO.
PROVIDENCE, R. I., U. S. A.



Front View

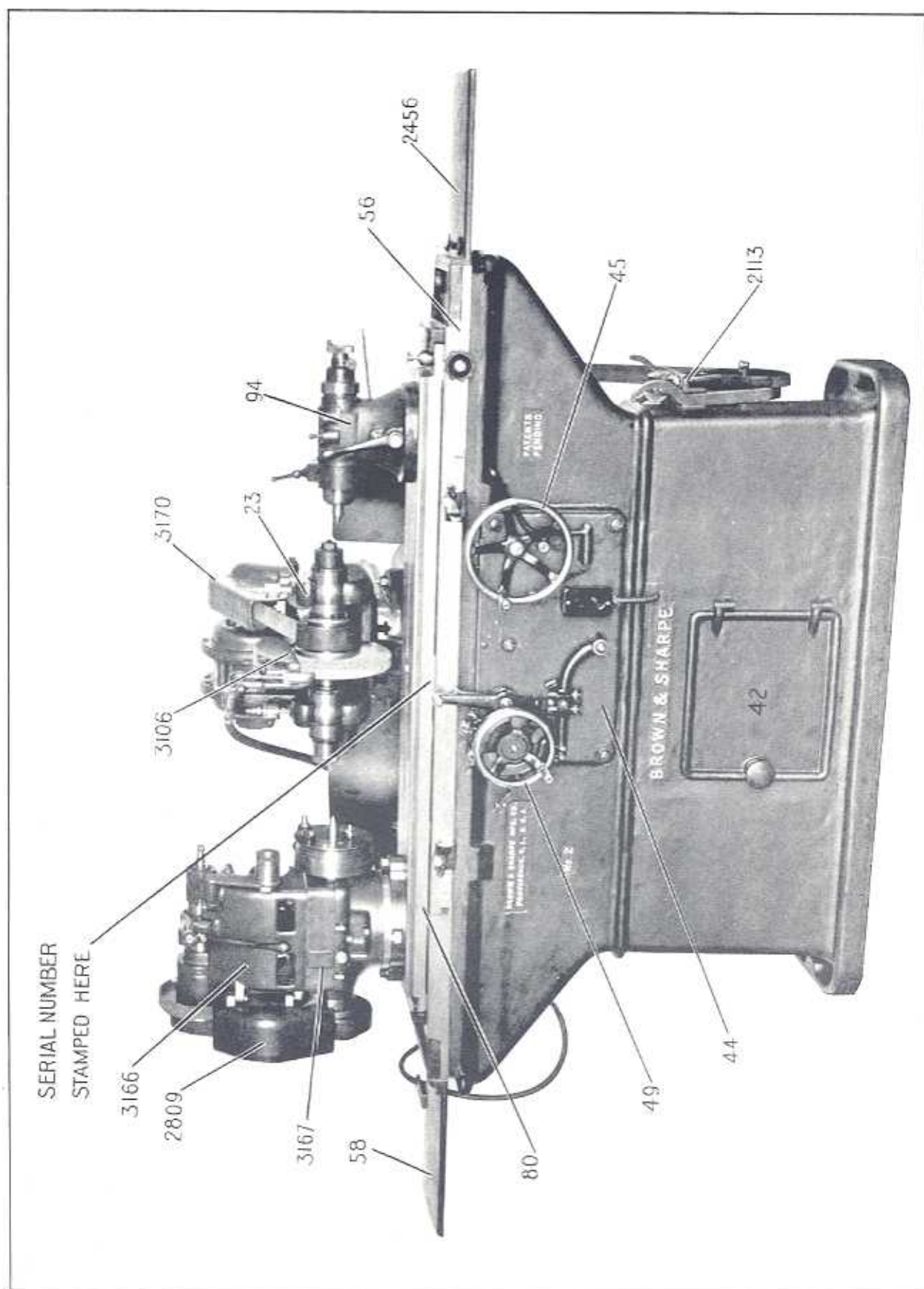
No. 1 Machine, Motor Driven

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Front View

No. 1 Machine, Motor Driven

42	Base Door
44	Bed Front Plate
45	Table Handwheel
46	Feed Driving Cone
49	Cross Feed Handwheel
56	Sliding Table
80	Swivel Table
94	Footstock, Complete
2113	Wrench Rack
2757	Headstock
2758	Headstock Base
2759	Headstock Cover
3106	Wheel Guard
3117	Intermediate Driven Cone Pulley
3123	Table Feed Motor Bracket
3170	Wheel Stand Belt Guard (State R. P. M.)



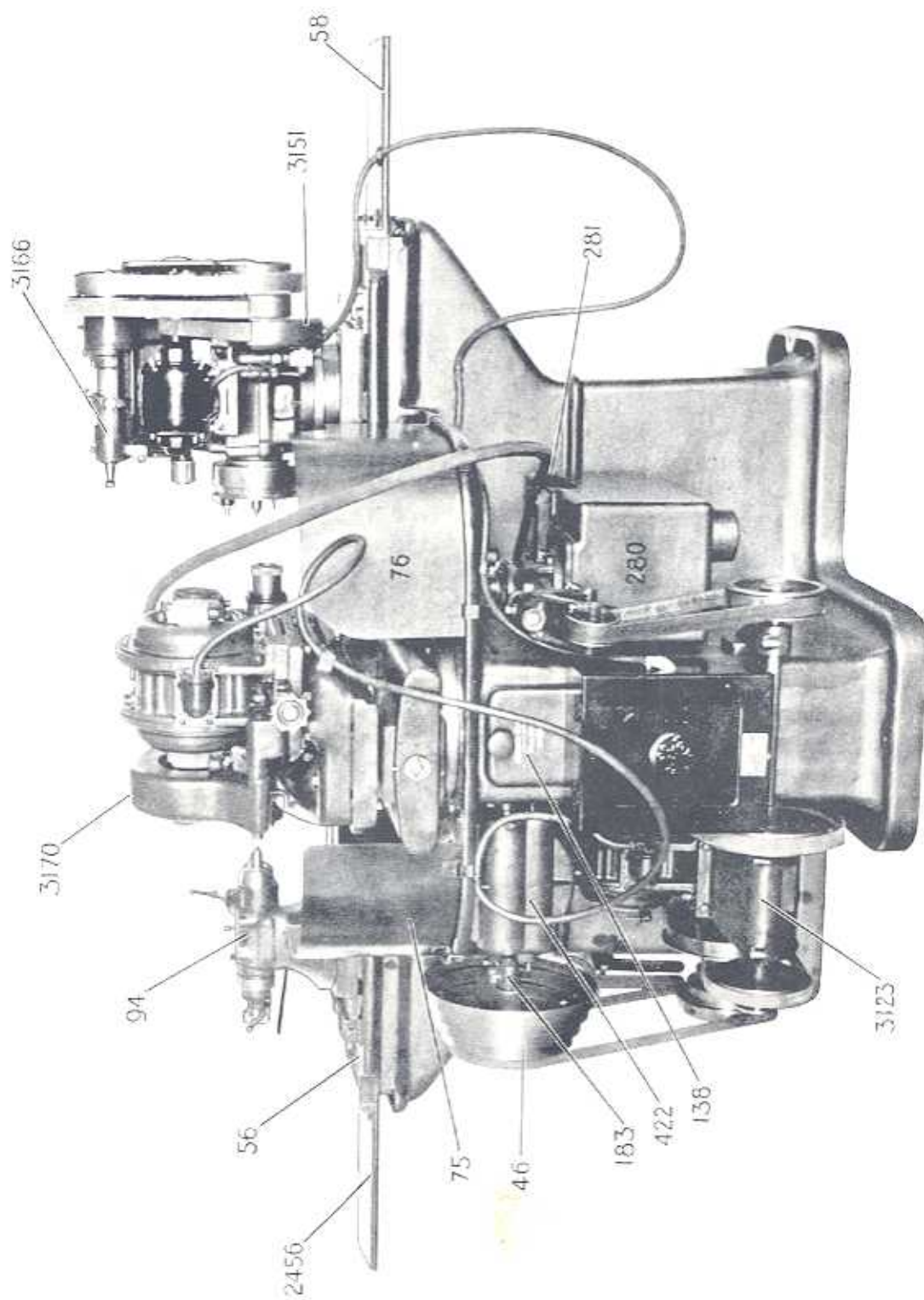
Front View
Nos. 2, 3 and 4 Machines, Motor Driven

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Front View

Nos. 2, 3 and 4 Machines, Motor Driven

23	Wheel Stand Cap
42	Base Door
44	Bed Front Plate
45	Table Handwheel
49	Cross Feed Handwheel
56	Sliding Table
58	Table Guard, Left
80	Swivel Table
94	Footstock, Complete
2113	Wrench Rack
2456	Table Guard, Right
2809	Headstock Belt Guard
3106	Wheel Guard
3166	Motor Bracket, Headstock
3167	Motor Bracket Base
3170	Wheel Stand Belt Guard (State R. P. M.)



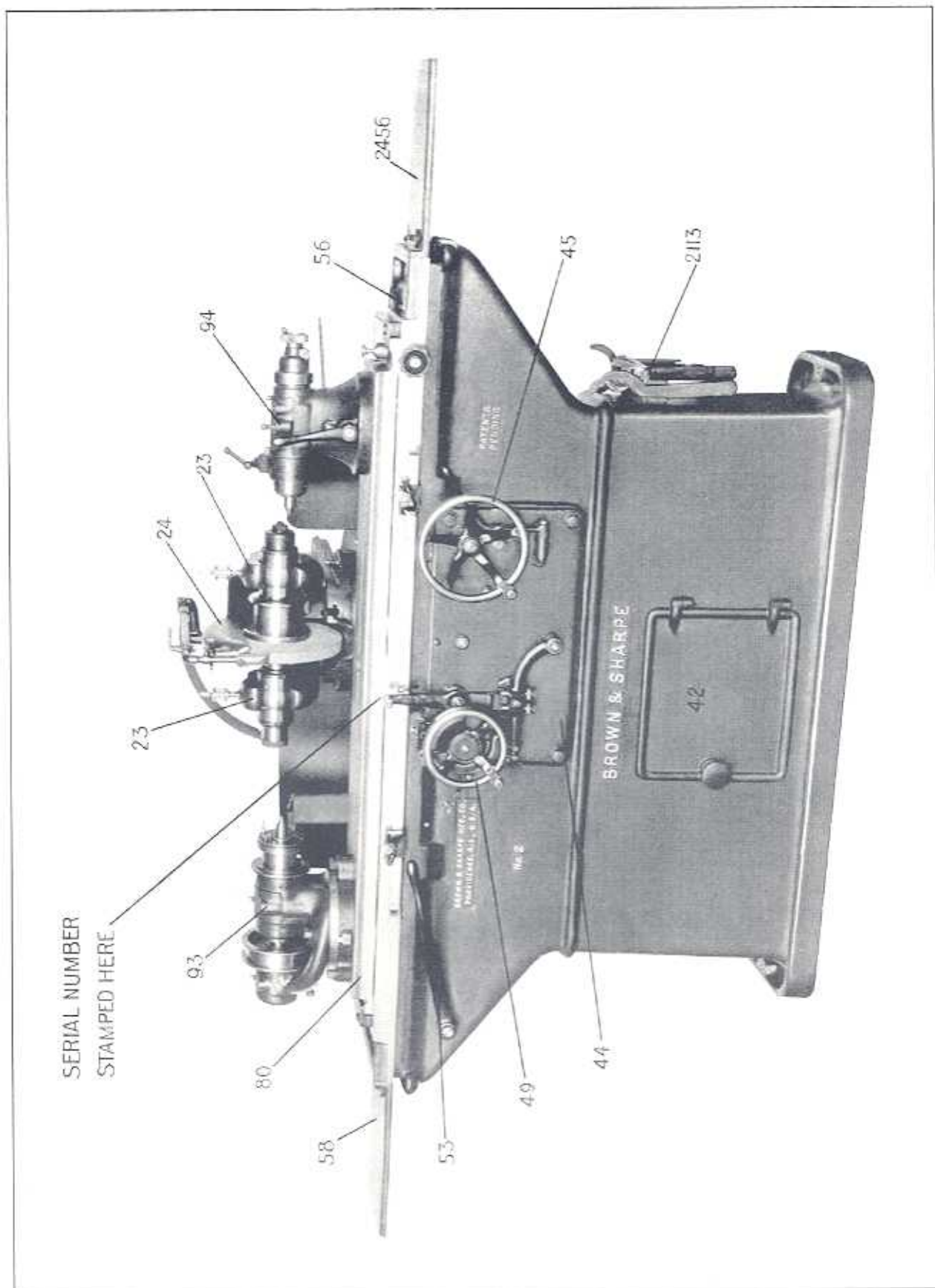
Rear View
Motor Driven Machines
(No. 2 Machine Shown)

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Rear View

Motor Driven Machines

46	Feed Driving Cone
56	Sliding Table
58	Table Guard, Left
	(Nos. 2, 3 and 4 Machines)
75	Pan Water Guard, Right
76	Pan Water Guard, Left
94	Footstock, Complete
138	Bed Door, Rear
183	Clutch Shaft Bracket
280	Water Tank
281	Settling Pan
422	Clutch Shaft Bracket Cover
2456	Table Guard, Right
	(Nos. 2, 3 and 4 Machines)
3123	Table Feed Motor Bracket
3151	Idler Pulley (Rear) Belt Guard
	(Nos. 2, 3 and 4 Machines)
3166	Motor Bracket, Headstock
	(Nos. 2, 3 and 4 Machines)
3170	Wheel Stand Belt Guard (State R. P. M.)



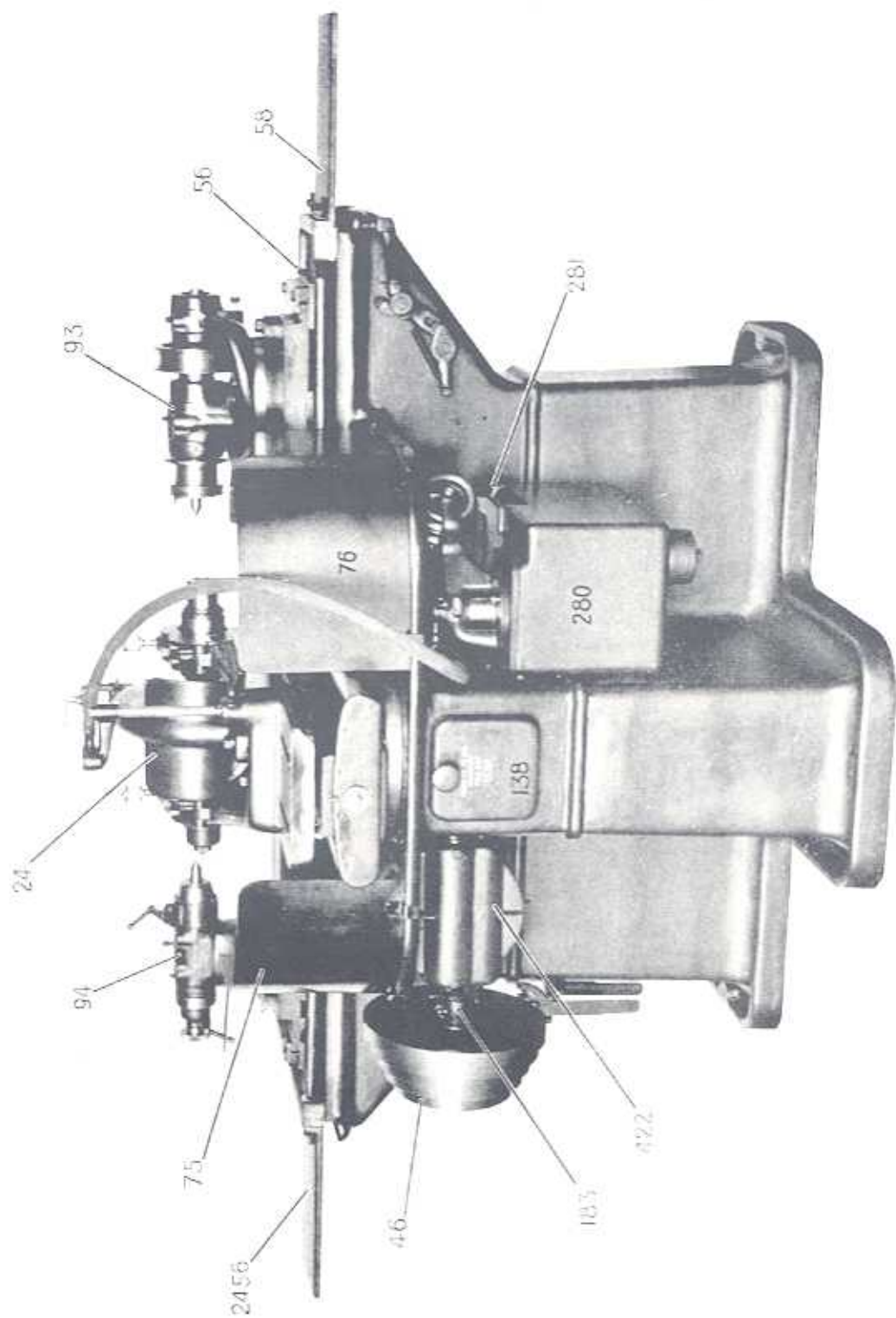
Front View
 Overhead Driven Machines
 (No. 2 Machine Shown)

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Front View

Overhead Driven Machines

23	Wheel Stand Cap
24	Wheel Guard
42	Base Door
44	Bed Front Plate
45	Table Handwheel
49	Cross Feed Handwheel
53	Stop Hand Lever
56	Sliding Table
58	Table Guard, Left (Nos. 2, 3 and 4 Machines)
80	Swivel Table
93	Headstock, Complete
94	Footstock, Complete
2113	Wrench Rack
2456	Table Guard, Right (Nos. 2, 3 and 4 Machines)



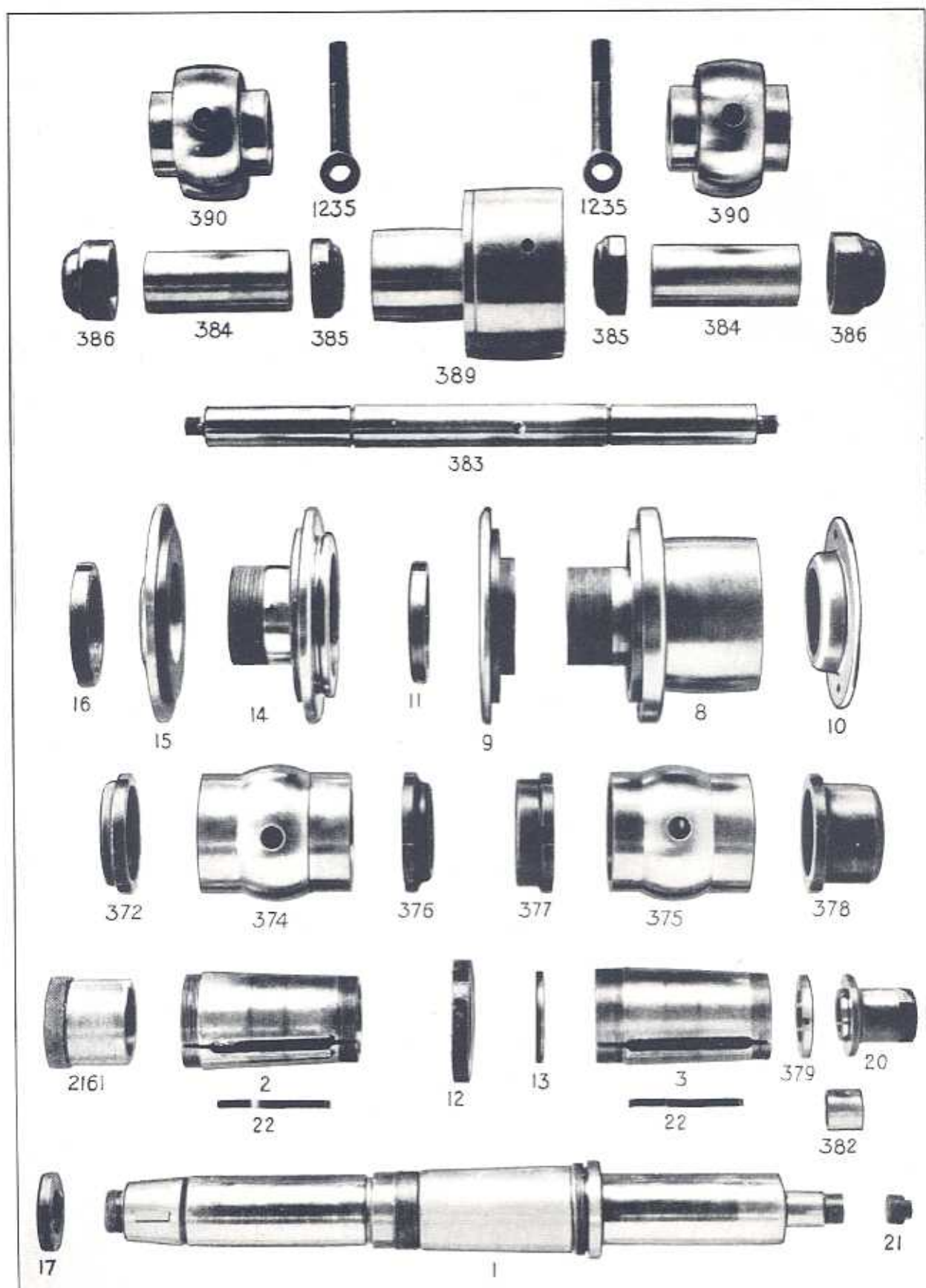
Rear View
Overhead Driven Machines
(No. 2 Machine Shown)

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Rear View

Overhead Driven Machines

24	Wheel Guard
46	Feed Driving Cone
56	Sliding Table
58	Table Guard, Left
	(Nos. 2, 3 and 4 Machines)
75	Pan Water Guard, Right
76	Pan Water Guard, Left
93	Headstock, Complete
94	Footstock, Complete
138	Bed Door, Rear
183	Clutch Shaft Bracket
280	Water Tank
281	Settling Pan
422	Clutch Shaft Bracket Cover
2456	Table Guard, Right
	(Nos. 2, 3 and 4 Machines)



Wheel Spindle Parts

Internal Grinding Fixture Countershaft Parts
Nos. 2, 3 and 4 Machines

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

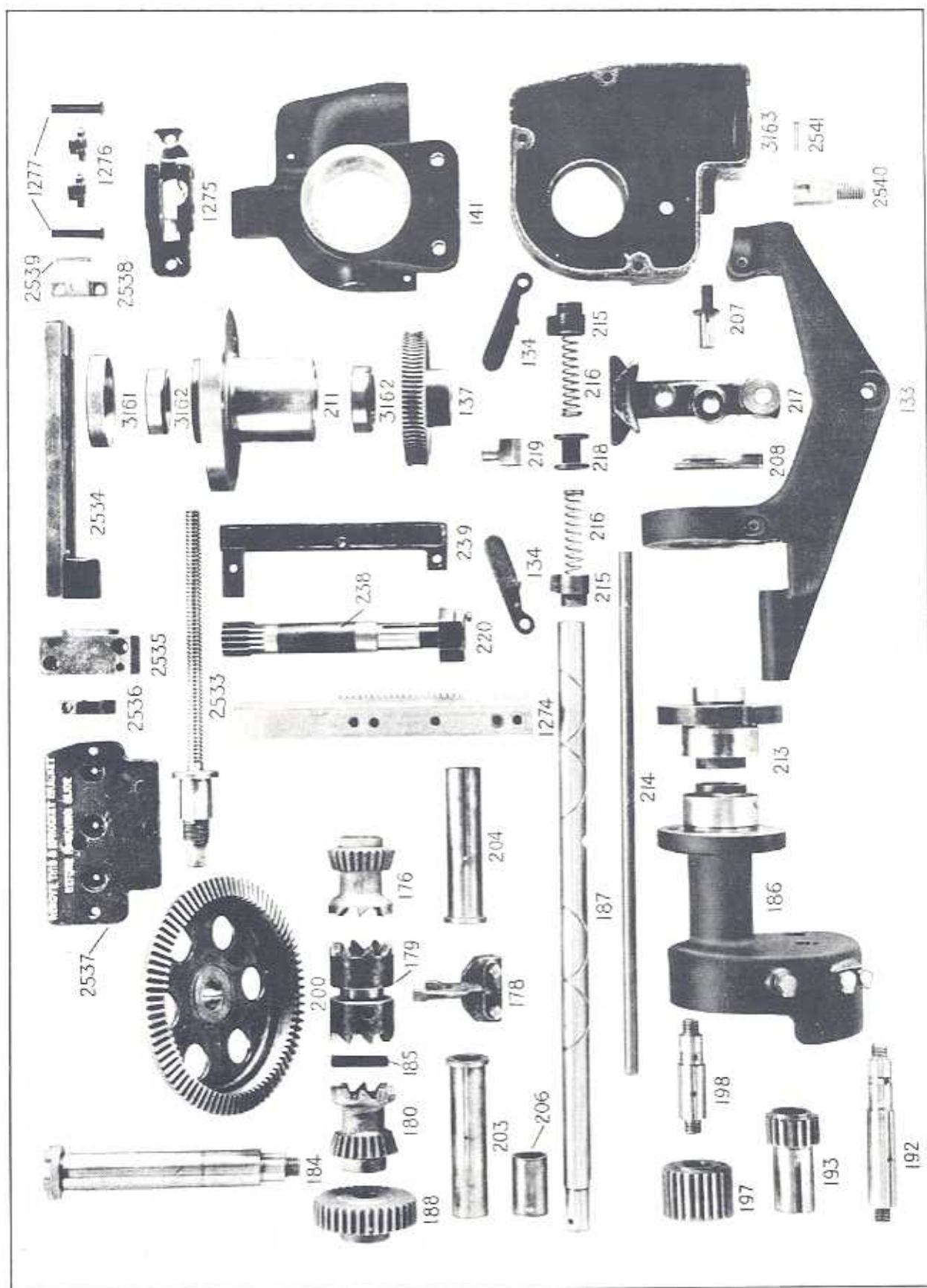
Wheel Spindle Parts

1	Wheel Spindle
2	Wheel Spindle Box, Left
3	Wheel Spindle Box, Right
8	Wheel Sleeve, Large
9	Wheel Sleeve Flange, Large
10	Wheel Sleeve Nut, Right
11	Wheel Sleeve Flange Nut
12	Wheel Spindle Nut
13	Wheel Spindle Thrust Washer, Left
14	Wheel Sleeve, Small
15	Wheel Sleeve Flange, Small
16	Wheel Sleeve Nut, Small
17	Wheel Sleeve Thrust Nut
20	Wheel Spindle Thrust Nut
21	Wheel Spindle Thrust Screw
22	Wheel Spindle Box Spring
372	Wheel Spindle Left Box Nut, Left
374	Wheel Spindle Bushing, Left
375	Wheel Spindle Bushing, Right
376	Wheel Spindle Left Box Nut, Right
377	Wheel Spindle Right Box Nut, Left
378	Wheel Spindle Right Box Nut, Right
379	Wheel Spindle Thrust Nut Washer
382	Wheel Spindle Thrust Nut Bushing
1235	Wheel Stand Cap Bolt
2161	Wheel Spindle Guard (State Left or Right)

Internal Grinding Fixture Countershaft Parts

Nos. 2, 3 and 4 Machines

383	Internal Wheel Driving Shaft
384	Internal Wheel Driving Shaft Bushing
385	Countershaft Dust Cap, Inner
386	Countershaft Dust Cap, Outer
389	Internal Wheel Driving Pulley (State Motor or Overhead Driven Machine)
390	Countershaft Shell



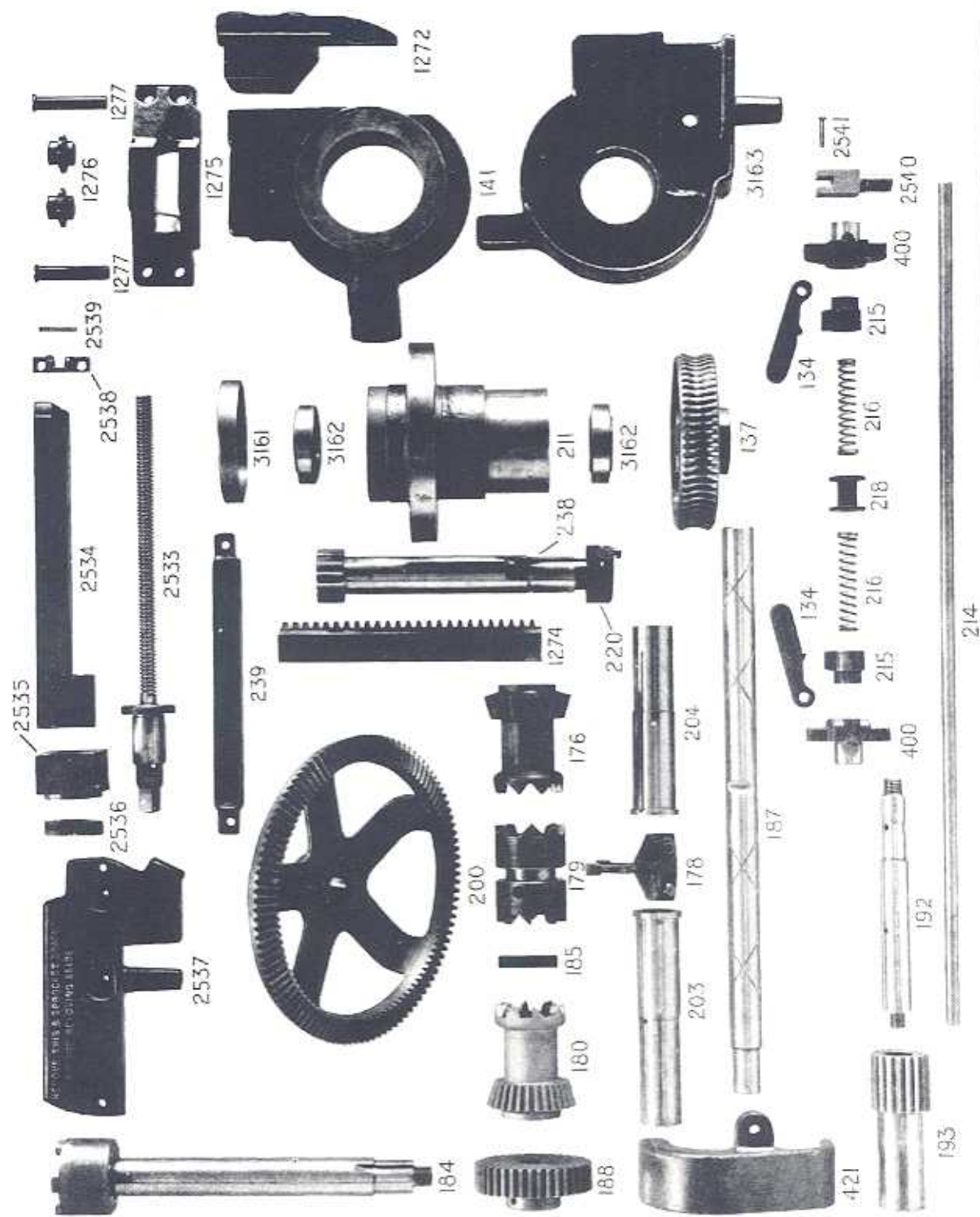
Cross Feed and Reverse Mechanisms Parts
No. 1 Machine

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Cross Feed and Reverse Mechanisms Parts

No. 1 Machine

133	Locking Pawl Bracket	214	Clutch Rod
134	Locking Pawl	215	Locking Pawl Dog
137	Cross Feed Worm Gear	216	Reversing Spring
141	Cross Feed Bracket	217	Clutch Cam Lever
176	Feed Clutch Face, Left	218	Clutch Rod Sleeve
178	Feed Clutch Fork	219	Clutch Cam Lever Swivel Fork
179	Table Feed Driving Clutch	220	Cross Feed Rack Pinion Nut
180	Feed Clutch Face, Right	238	Cross Feed Rack Pinion
184	Table Feed Bevel Gear Shaft	239	Cross Feed Rack Pinion Oil Trough
185	Table Feed Driving Clutch Pin	1274	Cross Feed Rack
186	Clutch Bracket Bushing, Right	1275	Counterweight Sprocket Bracket
187	Clutch Shaft	1276	Counterweight Sprocket
188	Clutch Shaft Gear	1277	Counterweight Sprocket Pin
192	Feed Driving Cone Stud	2533	Counterweight Adjusting Screw
193	Feed Cone Pinion	2534	Counterweight Adjusting Slide
197	Intermediate Gear	2535	Counterweight Adjusting Screw Bearing
198	Intermediate Gear Stud	2536	Counterweight Adjusting Screw Nut
200	Table Feed Bevel Gear	2537	Counterweight Oil Distributor
203	Clutch Face Bushing, Right	2538	Counterweight Chain Bracket
204	Clutch Face Bushing, Left	2539	Counterweight Pin, Upper
206	Clutch Shaft Bushing	2540	Counterweight Chain Stud
207	Cam Lever Stud	2541	Counterweight Pin, Lower
208	Locking Pawl Bracket Pin	3161	Cross Feed Rack Pinion Collar
211	Cross Feed Rack Pinion Shaft Bearing	3162	Cross Feed Rack Pinion Roller Bearing
213	Clutch Bracket Bushing, Left	3163	Cross Feed Bracket Oil Well



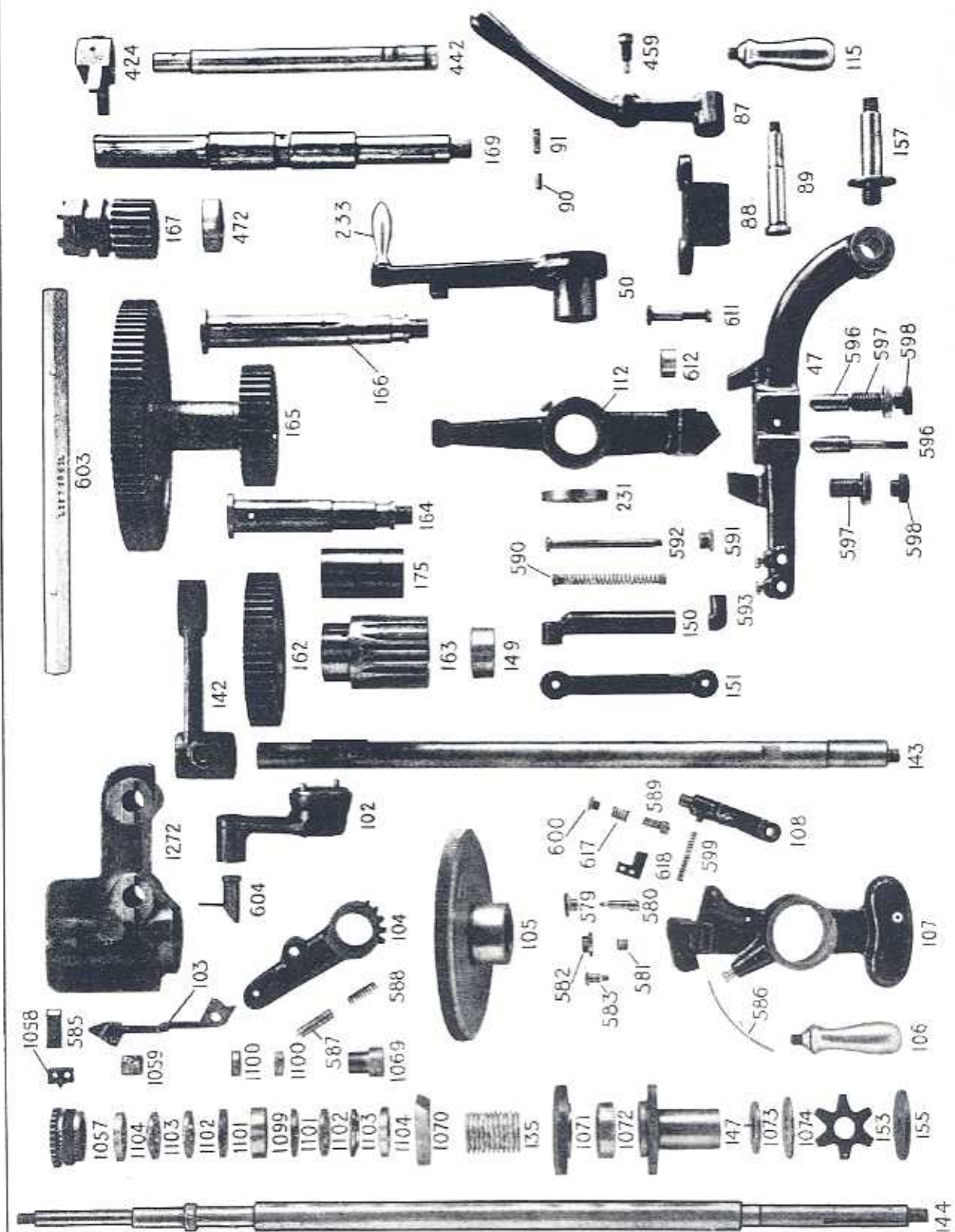
Cross Feed and Reverse Mechanisms Parts
Nos. 2, 3 and 4 Machines

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Cross Feed and Reverse Mechanisms Parts

Nos. 2, 3 and 4 Machines

134	Locking Pawl	238	Cross Feed Rack Pinion
137	Cross Feed Worm Gear	239	Cross Feed Rack Pinion Oil Trough
141	Cross Feed Bracket	400	Locking Pawl Bracket
176	Feed Clutch Face, Left	421	Clutch Shaft Gear Guard
178	Feed Clutch Fork	1272	Cross Feed Worm Shaft Bracket
179	Table Feed Driving Clutch	1274	Cross Feed Rack
180	Feed Clutch Face, Right	1275	Counterweight Sprocket Bracket
184	Feed Bevel Gear Shaft	1276	Counterweight Sprocket
185	Table Feed Driving Clutch Pin	1277	Counterweight Sprocket Pin
187	Clutch Shaft	2533	Counterweight Adjusting Screw
188	Clutch Shaft Gear	2534	Counterweight Adjusting Slide
192	Feed Driving Cone Stud	2535	Counterweight Adjusting Screw Bearing
193	Feed Cone Pinion	2536	Counterweight Adjusting Screw Nut
200	Table Feed Bevel Gear	2537	Counterweight Oil Distributor
203	Clutch Face Bushing, Right	2538	Counterweight Chain Bracket
204	Clutch Face Bushing, Left	2539	Counterweight Pin, Upper
211	Cross Feed Rack Pinion Shaft Bearing	2540	Counterweight Chain Stud
214	Clutch Rod	2541	Counterweight Pin, Lower
215	Locking Pawl Dog	3161	Cross Feed Rack Pinion Collar
216	Reversing Spring	3162	Cross Feed Rack Pinion Roller Bearing
218	Clutch Rod Sleeve	3163	Cross Feed Bracket Oil Well
220	Cross Feed Rack Pinion Nut		



Bed Front Plate Parts
No. 1 Machine

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Bed Front Plate Parts

No. 1 Machine

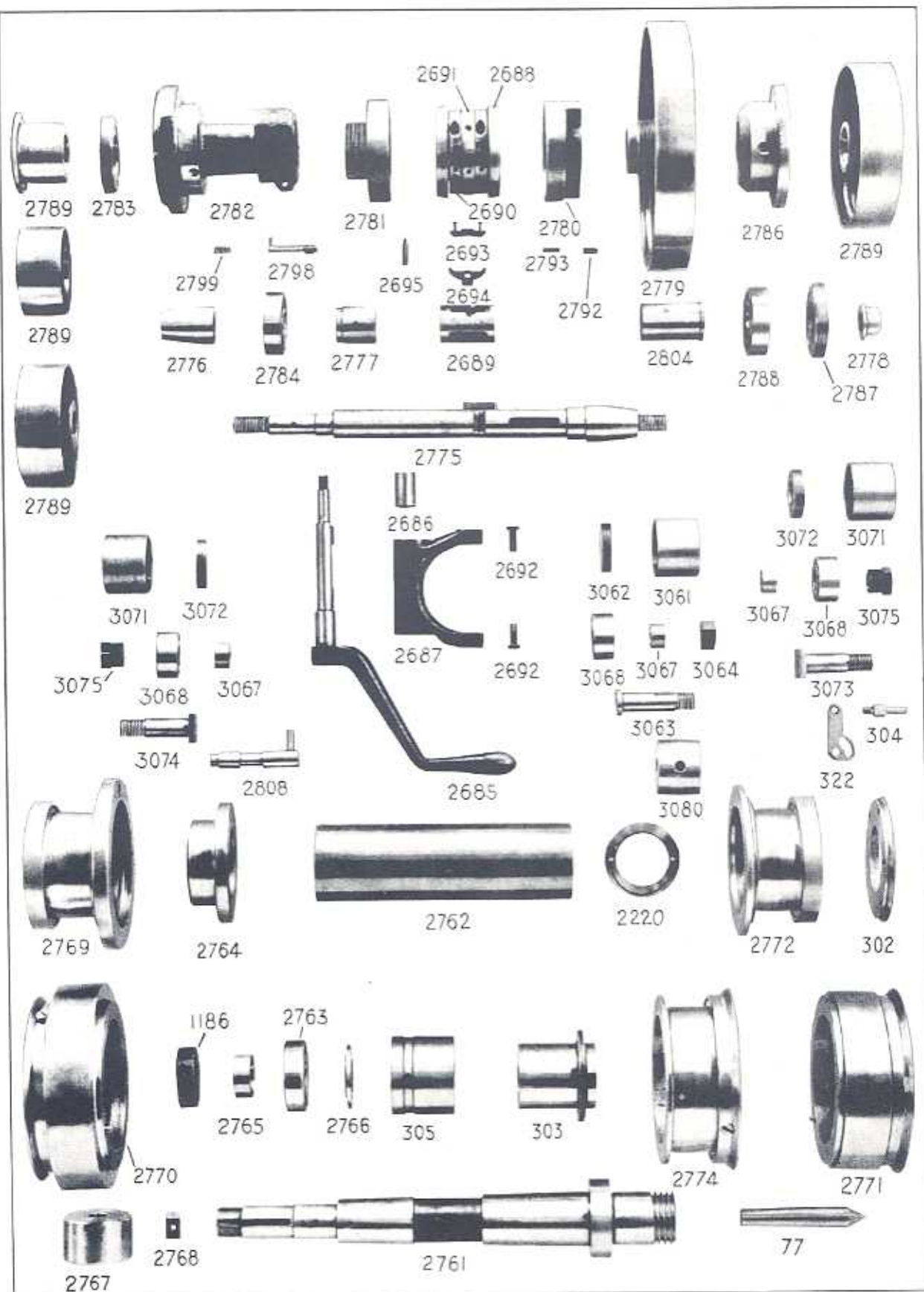
47	Feed Roll Lever	579	Stop Lever Pawl Knob
50	Reverse Lever	580	Stop Lever Pawl
87	Table Handwheel Throwout Lever	581	Stop Lever Pawl Spring
88	Table Handwheel Lever Pivot Bracket	582	Stop Lever Pawl Locking Sleeve
89	Table Handwheel Lever Pivot	583	Pawl Locking Sleeve Screw
90	Table Feed Throwout Rod Plunger	585	Pawl Tooth
91	Table Feed Throwout Rod Plunger Spring	586	Pawl Feed Stop
102	Locking Pin Bracket	587	Pawl Spring Pin
103	Pawl	588	Pawl Lever Spring
104	Pawl Lever	589	Adjusting Lever Pawl
105	Cross Feed Dial	590	Spring Case Spring
106	Cross Feed Handwheel Handle	591	Spring Pin Bushing
107	Stop Lever	592	Spring Pin
108	Adjusting Lever	593	Spring Pin Nut
112	Cross Feed Lever	596	Stop Pin
115	Table Handwheel Handle	597	Stop Adjusting Bushing
135	Cross Feed Worm	598	Stop Pin Adjusting Nut
142	Reverse Operating Shaft Lever	599	Stop Lever Spring
143	Reverse Operating Shaft	600	Adjusting Lever Pawl Oil Stop
144	Cross Feed Worm Shaft	603	Bed Front Plate Oil Cover
147	Worm Shaft Sleeve	604	Locking Pin
149	Reversing Lever Shaft Collar	611	Roll Stud
150	Spring Case	612	Roll
151	Connecting Rod	617	Adjusting Lever Spring
153	Handwheel Spring	618	Plate
155	Cross Feed Worm Shaft Washer	1057	Worm Shaft Bearing Nut
157	Feed Roll Lever Stud	1058	Locking Plate
162	Rack Pinion Sleeve Gear	1059	Worm Shaft Bushing
163	Table Rack Pinion	1069	Worm Shaft Spacer
164	Rack Pinion Stud	1070	Ball Bearing Retainer
165	Feed Quill Gear	1071	Worm Shaft Ball Bearing Cap
166	Feed Quill Gear Stud	1072	Worm Shaft Ball Bearing, Front
167	Table Feed Throwout Clutch	1073	Worm Shaft Washer
169	Table Handwheel Shaft	1074	Dial Body Washer
175	Table Rack Pinion Bushing	1099	Worm Shaft Ball Bearing, Rear
231	Reverse Lever Shaft Washer	1100	Worm Shaft Spacing Collar
233	Reverse Lever Handle	1101	Worm Shaft Ball Thrust Washer
424	Table Feed Throwout Clutch Fork	1102	Worm Shaft Ball Retainer
442	Table Feed Throwout Rod	1103	Worm Shaft Radial Thrust Washer, Inner
459	Table Feed Throwout Lever Screw	1104	Worm Shaft Radial Thrust Washer, Outer
472	Handwheel Shaft Spacing Collar	1272	Cross Feed Worm Shaft Bracket

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Bed Front Plate Parts

Nos. 2, 3 and 4 Machines

47	Feed Roll Lever	579	Stop Lever Pawl Knob
50	Reverse Lever	580	Stop Lever Pawl
87	Table Handwheel Throwout Lever	581	Stop Lever Pawl Spring
88	Table Handwheel Lever Pivot Bracket	582	Stop Lever Pawl Locking Sleeve
89	Table Handwheel Lever Pivot	583	Pawl Locking Sleeve Screw
90	Table Feed Throwout Rod Plunger	585	Pawl Tooth
91	Table Feed Throwout Rod Plunger Spring	586	Pawl Feed Stop
99	Table Handwheel Dust Guard	587	Pawl Spring Pin
102	Locking Pin Bracket	588	Pawl Lever Spring
103	Pawl	589	Adjusting Lever Pawl
104	Pawl Lever	590	Spring Case Spring
105	Cross Feed Dial	591	Spring Pin Bushing
106	Cross Feed Handwheel Handle	592	Spring Pin
107	Stop Lever	593	Spring Pin Nut
108	Adjusting Lever	596	Stop Pin
112	Cross Feed Lever	597	Stop Adjusting Bushing
115	Table Handwheel Handle	598	Stop Pin Adjusting Nut
142	Reverse Operating Shaft Lever	599	Stop Lever Spring
143	Reverse Operating Shaft	600	Adjusting Lever Pawl Oil Stop
144	Cross Feed Worm Shaft	603	Bed Front Plate Oil Cover
147	Worm Shaft Sleeve	604	Locking Pin
150	Spring Case	611	Roll Stud
151	Connecting Rod	612	Roll
153	Handwheel Spring	617	Adjusting Lever Spring
155	Cross Feed Handwheel Shaft Washer	618	Plate
157	Feed Roll Lever Stud	1056	Worm Shaft Bearing Cover
162	Rack Pinion Sleeve Gear	1057	Worm Shaft Bearing Nut
163	Table Rack Pinion	1058	Locking Plate
164	Rack Pinion Stud	1059	Worm Shaft Bushing
165	Feed Quill Gear	1099	Worm Shaft Ball Bearing
166	Feed Quill Gear Stud	1100	Worm Shaft Spacing Collar
167	Table Feed Throwout Clutch	1101	Worm Shaft Ball Thrust Washer
169	Table Handwheel Shaft	1102	Worm Shaft Ball Retainer
175	Table Rack Pinion Bushing	1103	Worm Shaft Radial Thrust Washer, Inner
231	Reverse Lever Shaft Washer	1104	Worm Shaft Radial Thrust Washer, Outer
233	Reverse Lever Handle	4815	Cross Feed Change Gear Plunger
405	Small Reversing Sector	4816	Cross Feed Change Gear Plunger Knob
406	Reverse Lever Shaft	4817	Change Gear Lever Stud
407	Large Reversing Sector	4818	Change Gear Lever Stud Pin
408	Cross Feed Handwheel Shaft	4819	Cross Feed Change Gear Lever
410	Cross Feed Driving Gear	4820	Change Gear Lever Bushing
411	Cross Feed Change Gear	4821	Change Gear Lever Fulcrum Stud
424	Table Feed Throwout Clutch Fork	4822	Change Gear Lever Fulcrum
442	Table Feed Throwout Rod	4823	Worm Shaft Collar
443	Feed Throwout Clutch Stud	4824	Worm Shaft Collar Spring
459	Table Feed Throwout Lever Screw	4825	Cross Feed Change Gear Screw



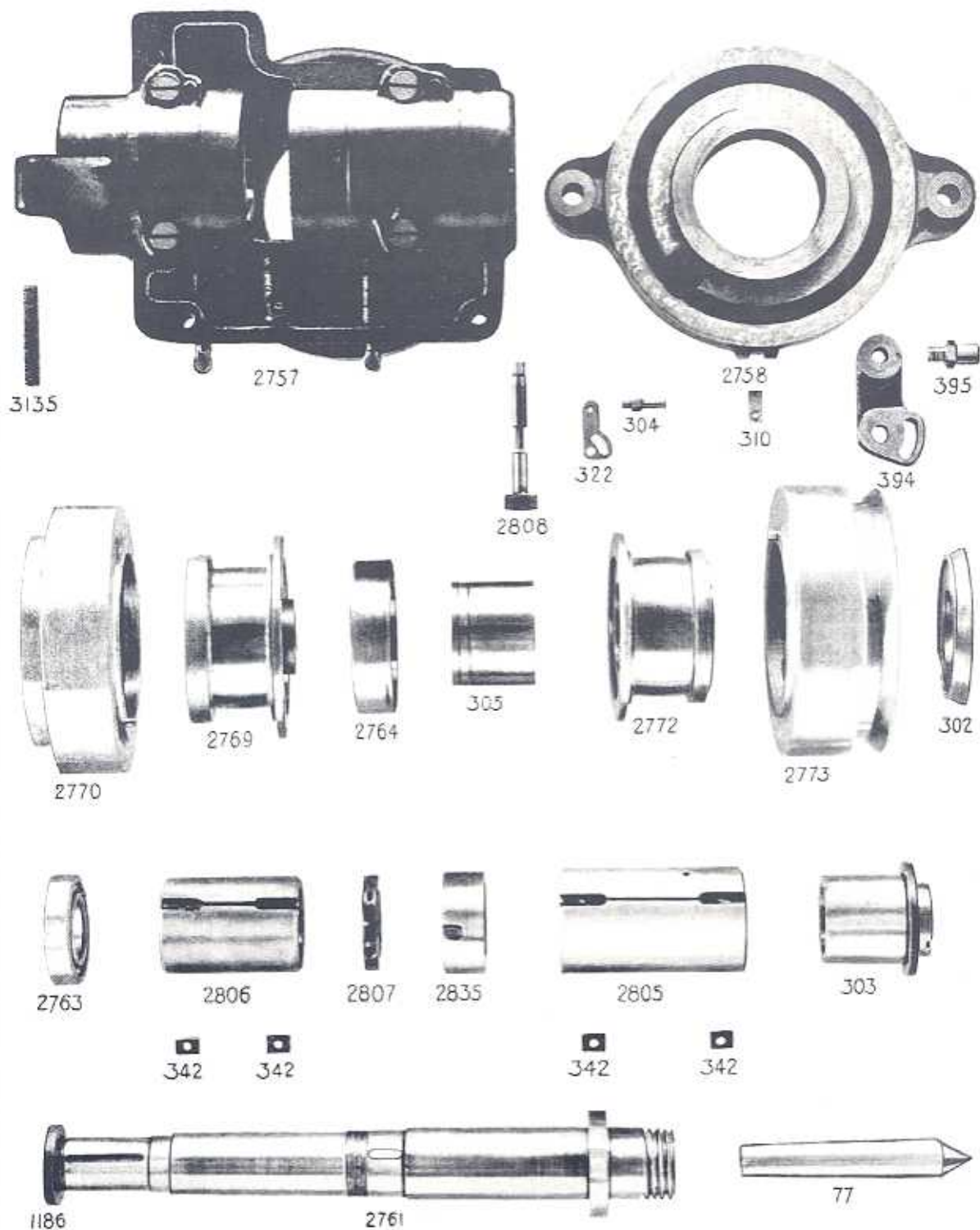
Headstock Parts
No. 1 Machine, Motor Driven

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Headstock Parts

No. 1 Machine, Motor Driven

77	Headstock Center	2776	Headstock Countershaft Taper Sleeve
302	Dead Center Pulley Flange	2777	Headstock Countershaft Collar
303	Dead Center Pulley Bearing	2778	Headstock Countershaft Nut, Right
304	Work Driving Pin, Small	2779	Countershaft Driving Pulley
305	Dead Center Pulley Bushing	2780	Countershaft Driving Pulley Clutch
322	Work Driving Arm, Small	2781	Countershaft Brake
1186	Headstock Spindle Nut	2782	Countershaft Brake Bracket
2220	Headstock Spindle Thrust Washer	2783	Countershaft Bearing Nut, Left
2685	Clutch Fork Lever	2784	Countershaft Ball Bearing, Left
2686	Clutch Fork Lever Sleeve	2786	Countershaft Ball Bearing Seat, Front
2687	Clutch Fork	2787	Countershaft Bearing Nut, Right
2688	Clutch Body	2788	Countershaft Ball Bearing, Right
2689	Clutch Body Bushing	2789	Countershaft Change Pulley (State Diameter)
2690	Clutch Sleeve	2792	Countershaft Driving Pulley Plunger
2691	Clutch Sleeve Ring	2793	Countershaft Driving Pulley Plunger Spring
2692	Clutch Sleeve Ring Pin	2798	Countershaft Brake Locking Pin
2693	Clutch Shoe	2799	Countershaft Brake Locking Pin Spring
2694	Clutch Lever	2804	Countershaft Driving Pulley Bushing
2695	Clutch Lever Fulcrum	2808	Spindle Pulley Locking Pin
2761	Headstock Spindle	3061	Motor Idler Pulley
2762	Headstock Spindle Bushing	3062	Motor Idler Nut
2763	Headstock Spindle Ball Bearing	3063	Motor Idler Stud
2764	Headstock Spindle Ball Bearing Container	3064	Motor Idler Stud Nut
2765	Headstock Spindle Ball Bearing Spacing Collar	3067	Idler Sleeve
2766	Headstock Spindle Thrust Washer, Rear	3068	Idler Pulley Ball Bearing
2767	Headstock Body Pivot	3071	Change Pulley Idler Pulley
2768	Headstock Index Finger	3072	Change Pulley Idler Nut
2769	Headstock Spindle Pulley	3073	Change Pulley Idler Stud, Front
2770	Spindle Change Pulley, 5 3/4" diam.	3074	Change Pulley Idler Stud, Rear
2771	Spindle Change Pulley, 5" diam.	3075	Change Pulley Idler Stud Nut
2772	Dead Center Pulley, Small	3080	Headstock Motor Pulley
2774	Spindle Change Pulley, 4 1/8" diam.		
2775	Headstock Countershaft		



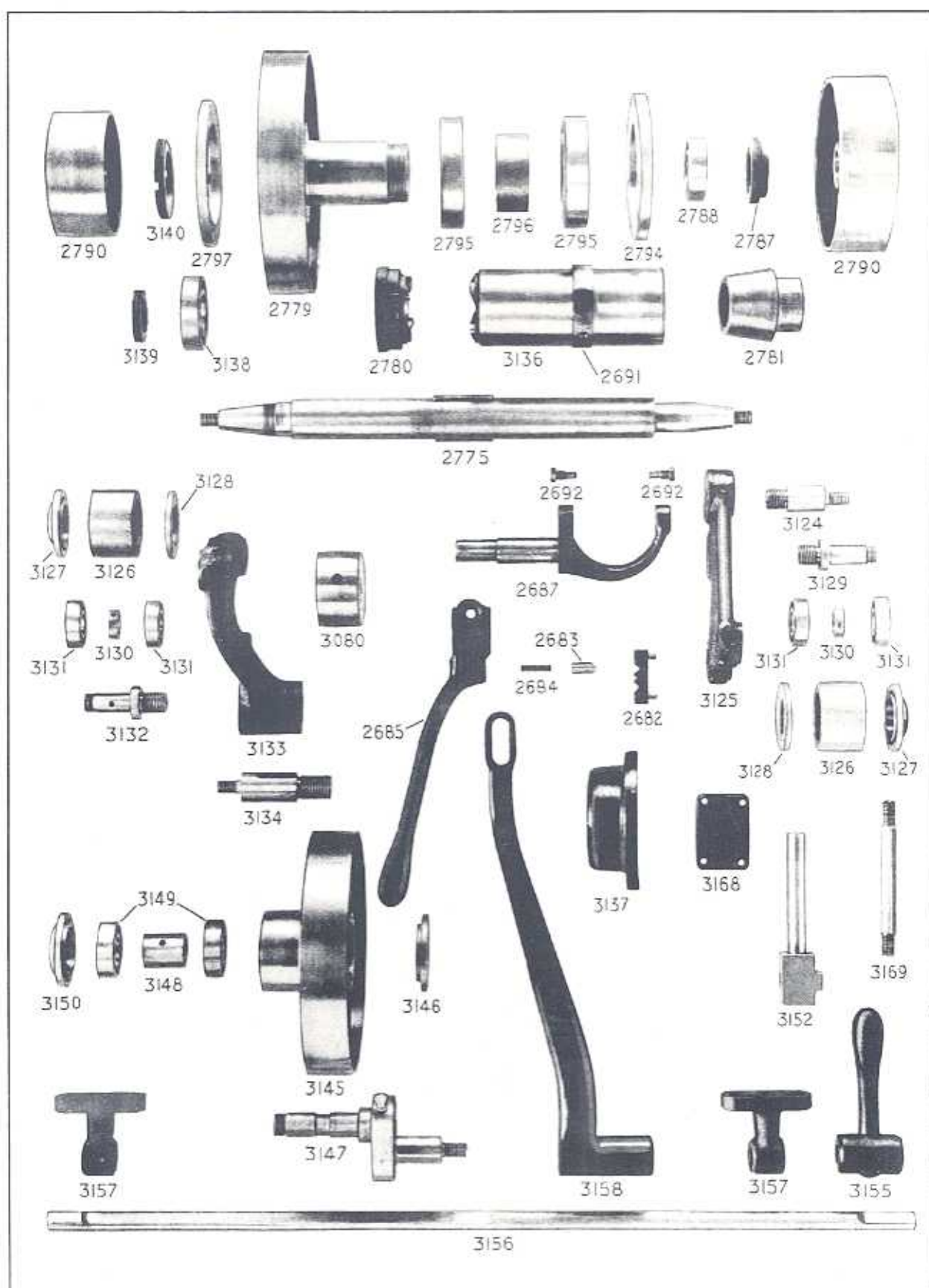
Headstock Parts
Nos. 2, 3 and 4 Machines, Motor Driven

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Headstock Parts

Nos. 2, 3 and 4 Machines, Motor Driven

77	Headstock Center
302	Dead Center Pulley Flange
303	Dead Center Pulley Bearing
304	Work Driving Pin, Small
305	Dead Center Pulley Bushing
310	Headstock Index Finger
322	Work Driving Arm, Small
342	Headstock Spindle Box Wedge
394	Work Driving Arm, Large
395	Work Driving Pin, Large
1186	Headstock Spindle Nut
2757	Headstock
2758	Headstock Base
2761	Headstock Spindle
2763	Headstock Spindle Ball Bearing
2764	Headstock Spindle Ball Bearing Container
2769	Headstock Driving Pulley, Small
2770	Headstock Driving Pulley, Large
2772	Dead Center Pulley, Small
2773	Dead Center Pulley, Large
2805	Headstock Spindle Box, Front
2806	Headstock Spindle Box, Rear
2807	Headstock Spindle Thrust Nut
2808	Spindle Pulley Locking Pin
2835	Headstock Spindle Collar
3135	Idler Arm Adjusting Screw, Long



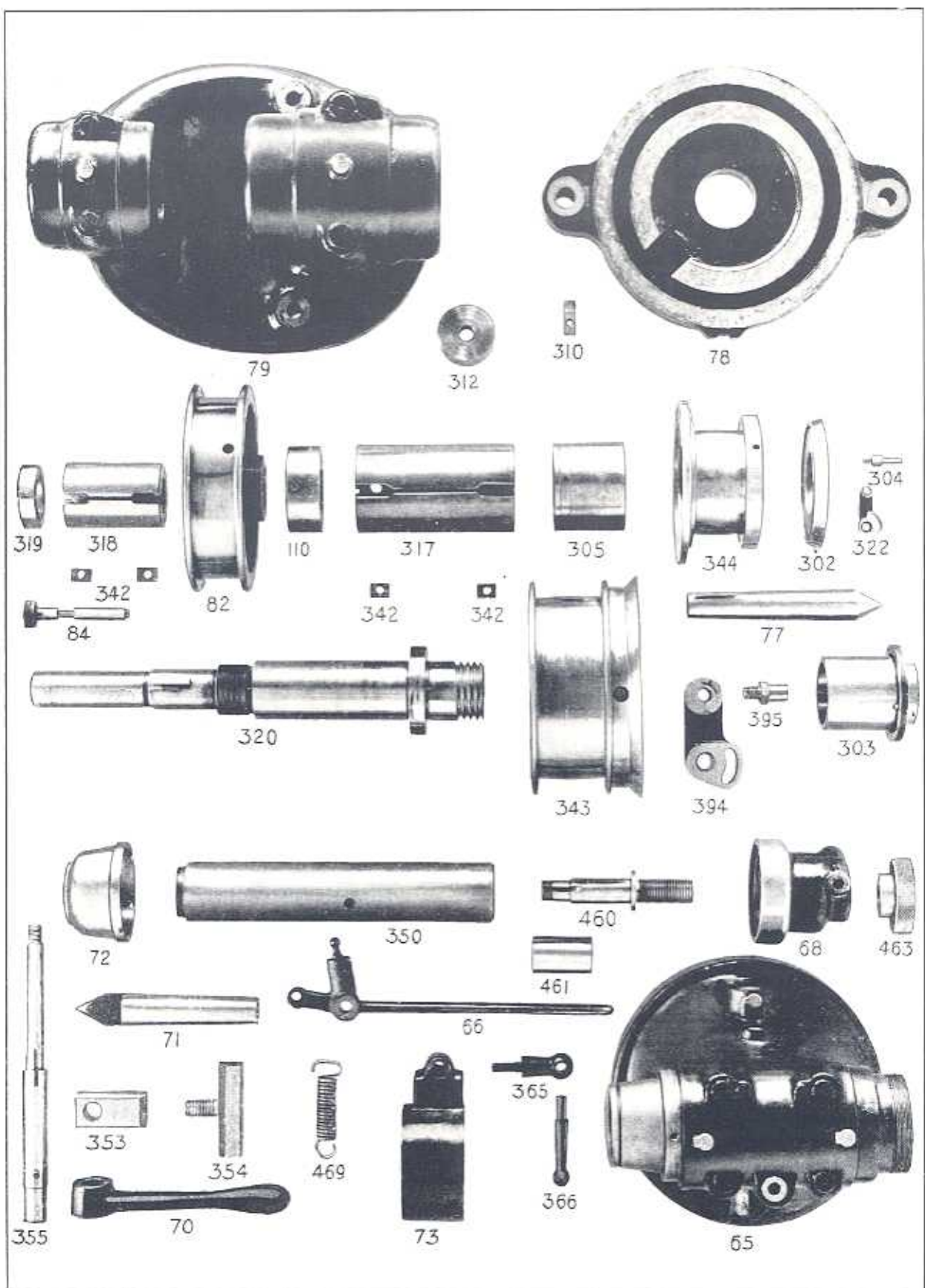
Headstock Countershaft Parts
Nos. 2, 3 and 4 Machines, Motor Driven

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Headstock Countershaft Parts

Nos. 2, 3 and 4 Machines, Motor Driven

2682	Clutch Fork Lever Plunger Plate	3132	Idler Pulley Stud, Long
2683	Clutch Fork Lever Plunger	3133	Idler Arm, Left
2684	Clutch Fork Lever Spring	3134	Idler Arm Stud, Left
2685	Clutch Fork Lever	3136	Spindle Driving Clutch
2687	Clutch Fork	3137	Spindle Driving Clutch Guard, Left
2691	Clutch Shoe	3138	Driving Pulley Ball Bearing
2692	Clutch Sleeve Ring Screw	3139	Driving Pulley Ball Bearing Nut, Small
2775	Headstock Countershaft	3140	Driving Pulley Ball Bearing Nut, Large
2779	Countershaft Driving Pulley	3145	Idler Pulley, Rear
2780	Countershaft Driving Pulley Clutch	3146	Idler Pulley Cap, Inner
2781	Countershaft Brake	3147	Idler Pulley Eccentric Stud
2787	Countershaft Bearing Nut, Right	3148	Idler Pulley Eccentric Stud Collar
2788	Countershaft Ball Bearing, Right	3149	Idler Pulley Ball Bearing
2790	Countershaft Pulley (State Diameter)	3150	Idler Pulley Cap, Outer
2794	Countershaft Bearing Plate, Right	3152	Idler Pulley (Rear) Belt Guard Support
2795	Countershaft Ball Bearing, Inner	3155	Headstock Operating Handle (No. 4 Machine)
2796	Countershaft Bearing Spacing Collar	3156	Headstock Operating Rod (No. 4 Machine)
2797	Countershaft Bearing Plate, Left	3157	Headstock Operating Rod Bracket (No. 4 Machine)
3080	Headstock Motor Pulley	3158	Headstock Operating Link (No. 4 Machine)
3124	Idler Arm Stud, Right	3168	Motor Bracket Base Plate
3125	Idler Arm, Right	3169	Motor Bracket Stud
3126	Idler Pulley, Small		
3127	Idler Pulley Bearing Cap, Right		
3128	Idler Pulley Bearing Cap, Left		
3129	Idler Pulley Stud, Short		
3130	Idler Pulley Stud Collar		
3131	Idler Pulley Ball Bearing		



Headstock Parts
Overhead Driven Machines

Footstock Parts
Nos. 2, 3 and 4 Machines

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Headstock Parts

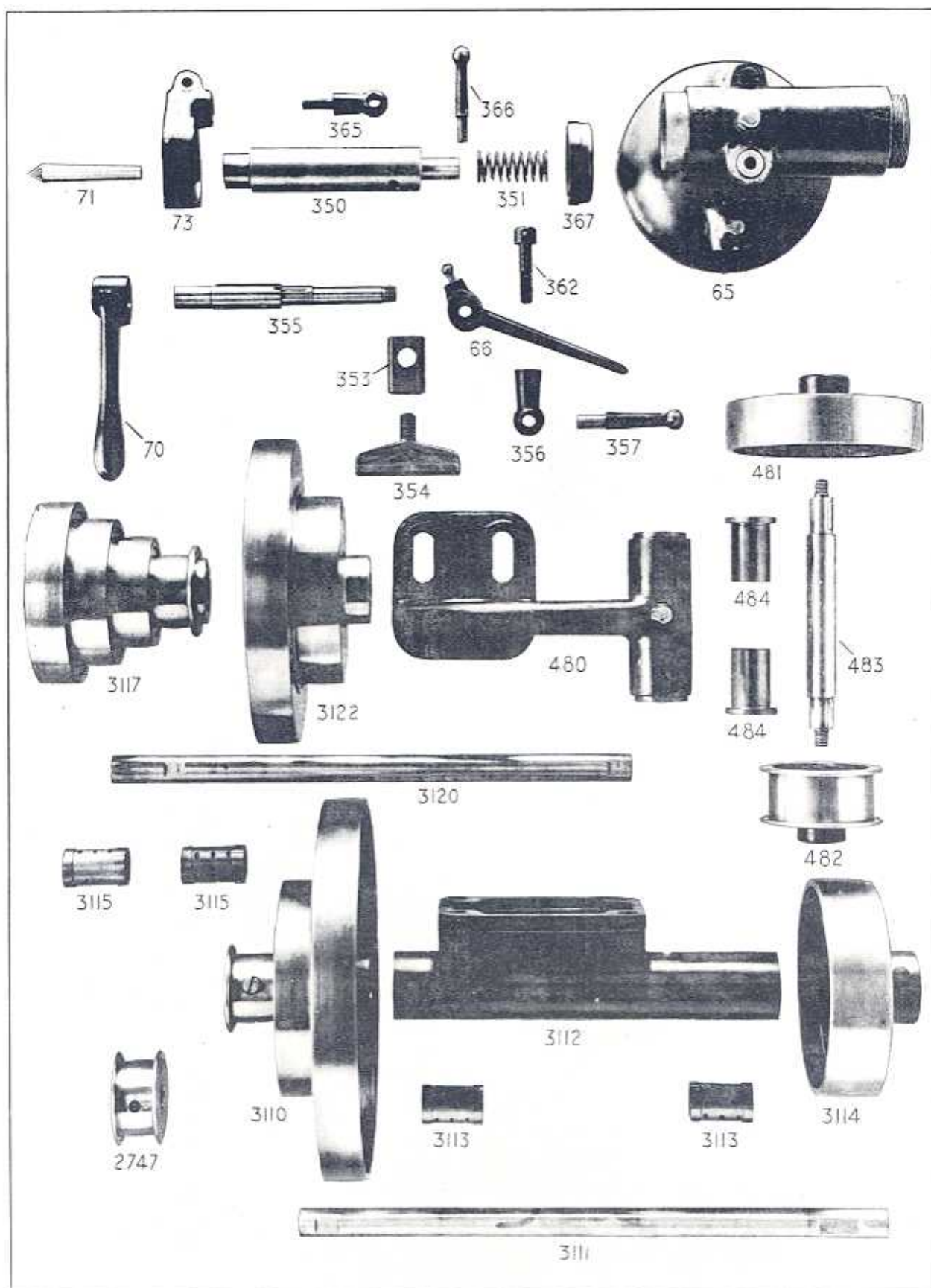
Overhead Driven Machines

77	Headstock Center
78	Headstock Base
79	Headstock
82	Headstock Driving Pulley
84	Headstock Spindle Stop Pin
110	Headstock Spindle Nut
302	Dead Center Pulley Flange
303	Dead Center Pulley Bearing
304	Work Driving Pin, Small
305	Dead Center Pulley Bushing
310	Headstock Index Finger
312	Headstock Pivot
317	Headstock Spindle Box, Front
318	Headstock Spindle Box, Rear
319	Headstock Spindle Collar
320	Headstock Spindle
322	Work Driving Arm, Small
342	Headstock Spindle Box Wedge
343	Dead Center Pulley, Large
344	Dead Center Pulley, Small
394	Work Driving Arm, Large
395	Work Driving Pin, Large

Footstock Parts

Nos. 2, 3 and 4 Machines

65	Footstock
66	Footstock Lever
68	Footstock Spring Guard
70	Footstock Clamp Lever
71	Footstock Center
72	Footstock Dust Guard
73	Diamond Tool Holder Support
350	Footstock Spindle
353	Footstock Clamp Bolt Nut
354	Footstock Clamp Bolt
355	Footstock Clamp
365	Diamond Tool Holder Clamp Screw
366	Diamond Tool Holder Clamp Screw Handle
460	Footstock Spindle Adjusting Screw
461	Footstock Spindle Adjusting Screw Bushing
463	Footstock Spindle Adjusting Screw Knob
469	Footstock Lever Spring



Footstock Parts
No. 1 Machine

Internal Grinding Fixture Countershaft Parts
No. 1 Machine, Overhead Driven

Motor Drive Countershaft Parts
No. 1 Machine, Motor Driven

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Footstock Parts

No. 1 Machine

65	Footstock
66	Footstock Lever
70	Footstock Clamp Lever
71	Footstock Center
73	Diamond Tool Holder Support
350	Footstock Spindle
351	Footstock Spindle Spring
353	Footstock Clamp Bolt Nut
354	Footstock Clamp Bolt
355	Footstock Clamp
356	Footstock Lever Stud Clamp
357	Footstock Lever Stud Clamp Handle
362	Footstock Lever Clamp Bolt
365	Diamond Tool Holder Clamp Screw
366	Diamond Tool Holder Clamp Screw Handle
367	Footstock Nut

Internal Grinding Fixture Countershaft Parts

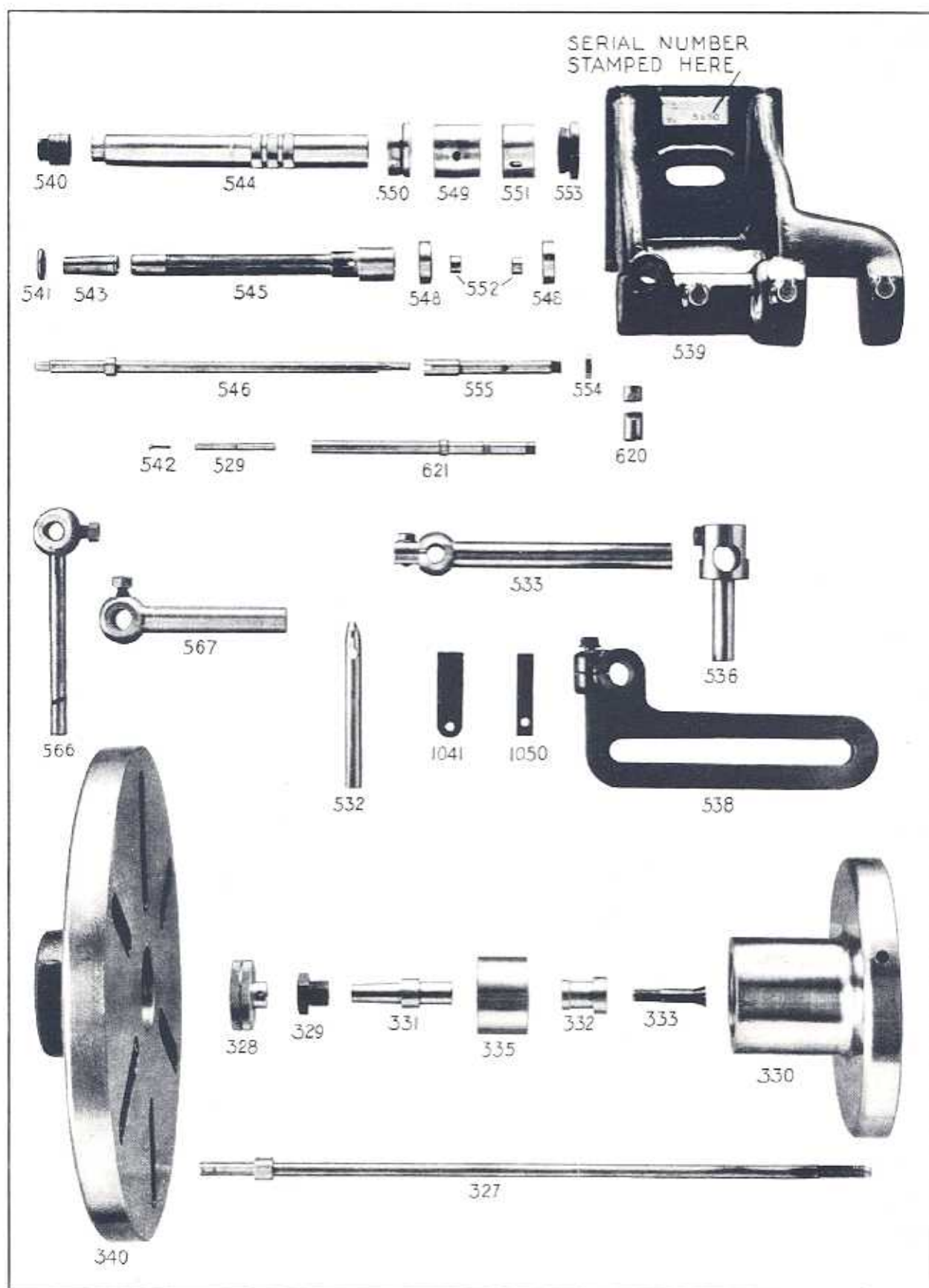
No. 1 Machine, Overhead Driven

480	Internal Grinding Fixture Countershaft Stand
481	Internal Grinding Fixture Countershaft Pulley, Large
482	Internal Grinding Fixture Countershaft Pulley, Small
483	Internal Grinding Fixture Countershaft
484	Internal Grinding Fixture Countershaft Stand Bushing

Motor Drive Countershaft Parts

No. 1 Machine, Motor Driven

2747	Table Feed and Pump Motor Pulley (State R. P. M.)
3110	Feed and Pump Driving Shaft Cone Pulley
3111	Feed and Pump Driving Shaft
3112	Feed and Pump Driving Shaft Bracket
3113	Feed and Pump Driving Shaft Bracket Bushing
3114	Pump Driving Pulley
3115	Motor Bracket Bushing
3117	Intermediate Driven Cone Pulley, Outer
3120	Intermediate Driven Cone Pulley Shaft
3122	Intermediate Driven Cone Pulley, Inner

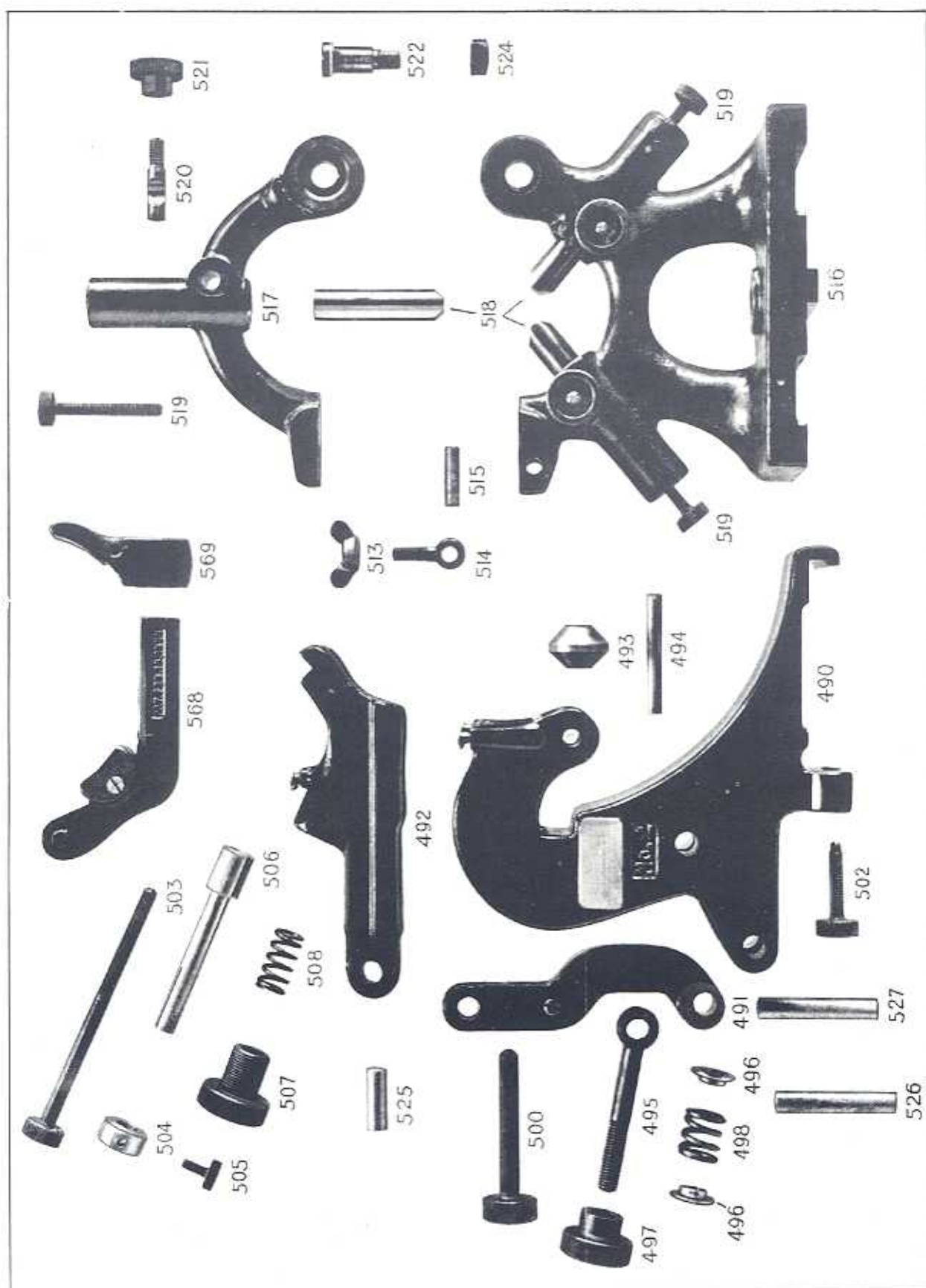


Internal Grinding Fixture, Face Chuck Parts, etc.

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Internal Grinding Fixture, Face Chuck Parts, etc.

327	Face Chuck Socket Rod
328	Chuck Socket Rod Knob
329	Chuck Thrust Screw
330	Face Chuck
331	Face Chuck Socket
332	Face Chuck Bushing
333	Face Chuck Bushing Screw
335	Face Chuck Shell
340	Face Plate
529	Arbor (State Length) (No. 1 Fixture)
532	Tooth Rest Holder
533	Tooth Rest Holder Support
536	Tooth Rest Swivel
538	Tooth Rest Bracket
539	Internal Grinding Fixture Stand
540	Wheel Bushing (Nos. 2, 3 and 4 Fixtures)
541	Wheel Spindle Washer (Nos. 2, 3 and 4 Fixtures)
542	Arbor Screw (No. 1 Fixture)
543	Wheel Spindle Box
544	Outer Shell
545	Inner Shell
546	Wheel Spindle (Nos. 2, 3 and 4 Fixtures)
548	Ball Bearing
549	Pulley
550	Bearing Case, Left
551	Bearing Case, Right
552	Pulley Spindle Sleeve
553	Bearing Case (Right) Cap
554	Pulley Spindle Nut
555	Pulley Spindle (Nos. 2, 3 and 4 Fixtures)
566	Diamond Tool Holder, Long
567	Diamond Tool Holder, Short
620	Outer Shell and Box Clamp Bushing
621	Wheel Spindle (No. 1 Fixture)
1041	Tooth Rest, Angular
1050	Tooth Rest, Short

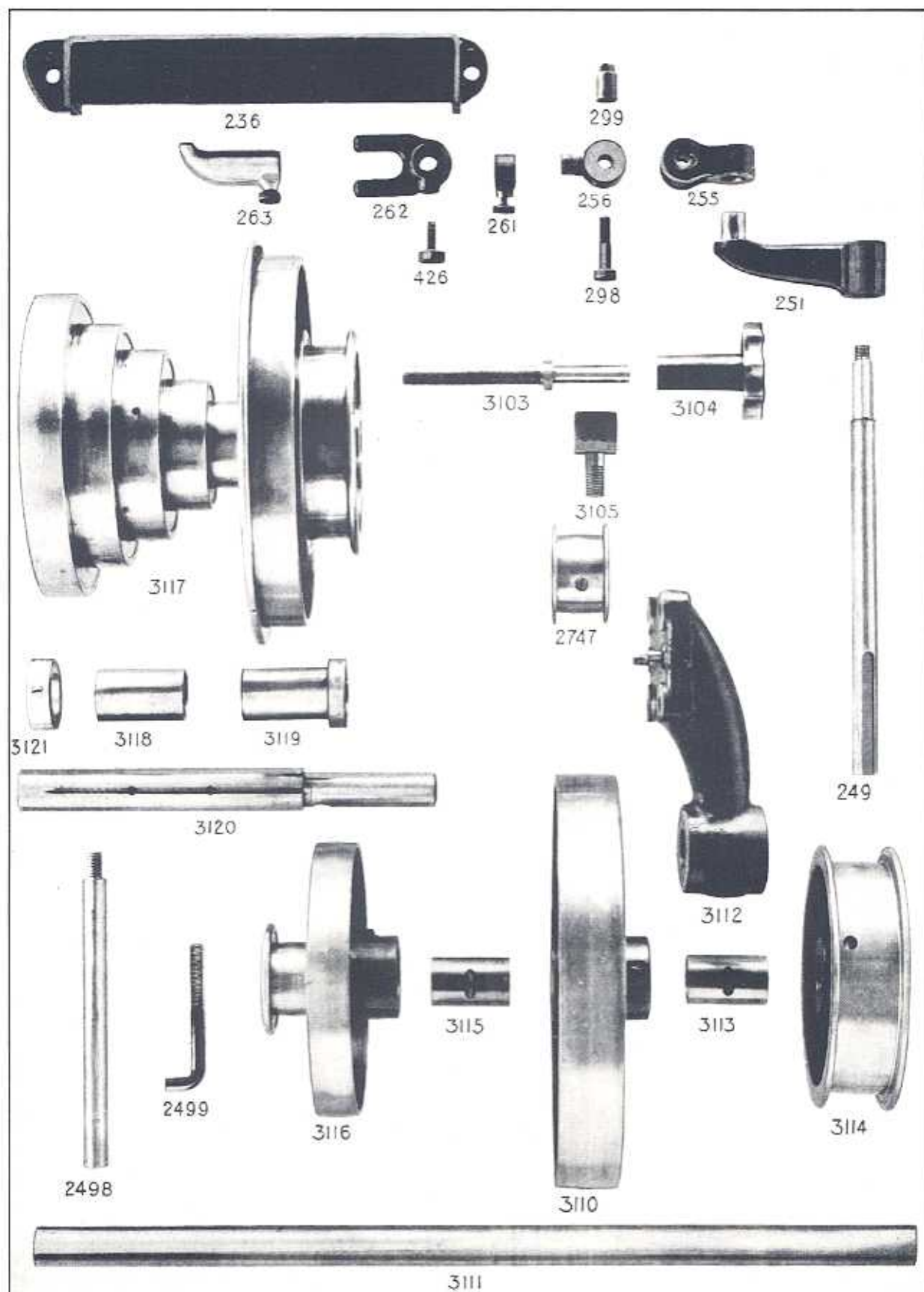


Universal Back Rest and Center Rest Parts

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Universal Back Rest and Center Rest Parts

490	Universal Back Rest Stand
491	Lever
492	Shoe Support
493	Shoe Support Roll
494	Shoe Support Roll Pin
495	Lever Spring Bolt
496	Lever Spring Washer
497	Lever Spring Adjusting Nut
498	Lever Spring
500	Lever Adjusting Screw
502	Stand Clamp Screw
503	Shoe Adjusting Screw
504	Sliding Nut Clamp Collar
505	Sliding Nut Clamp Collar Screw
506	Sliding Nut
507	Small Spring Adjusting Screw
508	Sliding Nut Spring
513	Center Rest Clamp Bolt Nut (Nos. 2, 3 and 4 Machines)
514	Center Rest Clamp Bolt (Nos. 2, 3 and 4 Machines)
515	Center Rest Clamp Bolt Fulcrum (Nos. 2, 3 and 4 Machines)
516	Center Rest Base
517	Center Rest Top
518	Center Rest Shoe
519	Center Rest Shoe Adjusting Screw
520	Center Rest Shoe Clamp Bolt
521	Center Rest Shoe Clamp Bolt Nut
522	Center Rest Hinge Bolt
524	Center Rest Hinge Bolt Nut
525	Shoe Support Fulcrum
526	Lever Spring Bolt Fulcrum
527	Lever Fulcrum
568	Shoe Arm (State Size)
569	Shoe, Lower (State Size)



Miscellaneous Parts

Motor Drive Countershaft Parts
Nos. 2, 3 and 4 Machines, Motor Driven

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

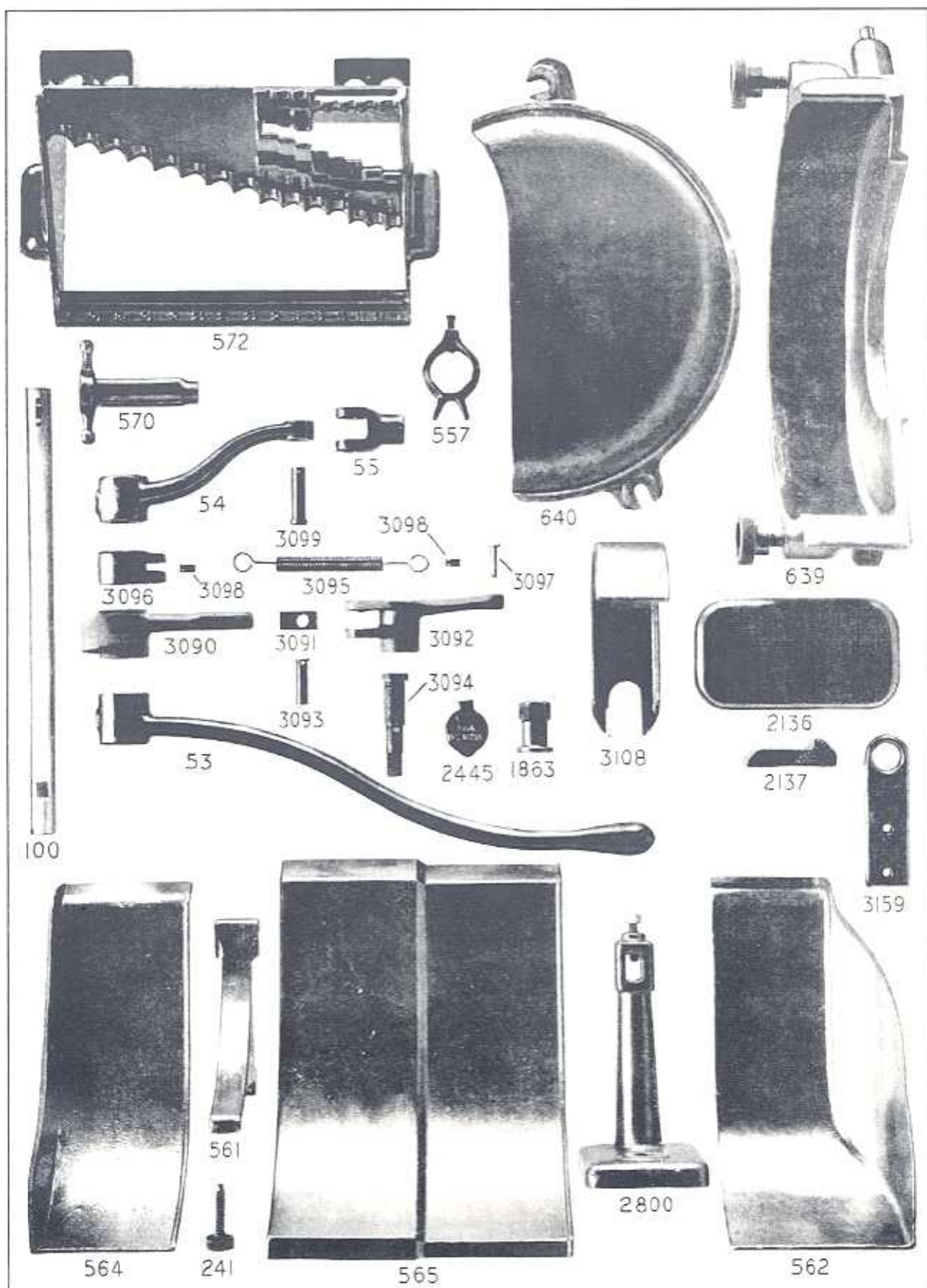
Miscellaneous Parts

236	Wheel Stand Slide Guard
249	Water Pipe Support
251	Water Pipe Bracket
255	Water Pipe Swivel
256	Water Pipe Hinge
261	Nozzle Collar
262	Water Pipe Guide
263	Water Nozzle
298	Water Pipe Swivel Clamp Bolt
299	Water Pipe Swivel Clamp Nut
426	Water Pipe Guide Set Screw
2498	Belt Guard Fulcrum
2499	Belt Guard Support
3103	Motor Support Adjusting Screw (Motor Driven Machines)
3104	Motor Adjusting Screw Knob (Motor Driven Machines)
3105	Motor Adjusting Screw Bearing (Motor Driven Machines)

Motor Drive Countershaft Parts

Nos. 2, 3 and 4 Machines, Motor Driven

2747	Table Feed and Pump Motor Pulley (State R. P. M.)
3110	Feed and Pump Driving Shaft Pulley
3111	Feed and Pump Driving Shaft
3112	Pump Driving Shaft Bracket
3113	Pump Driving Shaft Bracket Bushing
3114	Pump Driving Pulley
3115	Motor Bracket Bushing
3116	Intermediate Driving Cone Pulley
3117	Intermediate Driven Cone Pulley
3118	Intermediate Driven Cone Bushing
3119	Intermediate Driven Cone Flange Bushing
3120	Intermediate Driven Cone Pulley Shaft
3121	Intermediate Driven Cone Pulley Shaft Collar



Stop Lever Parts
Overhead Driven Machines

Wheel and Water Guards, etc.

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

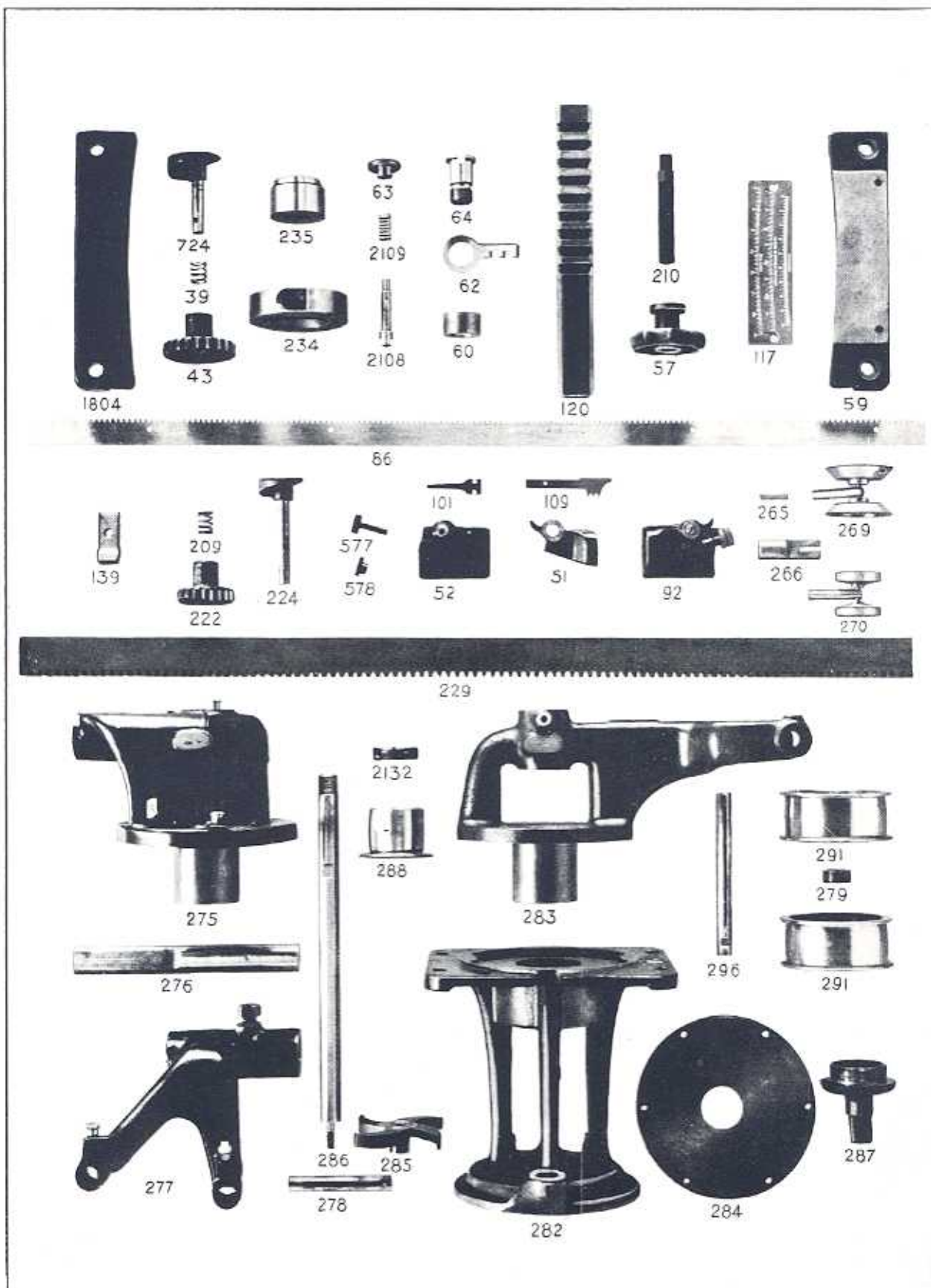
Stop Lever Parts

Overhead Driven Machines

53	Stop Hand Lever
54	Stop Lever, Lower
55	Stop Lever Link
100	Stop Hand Lever Shaft
3090	Work Stop Lever, Left
3091	Work Stop Lever Block
3092	Work Stop Lever, Right
3093	Work Stop Lever Pin
3094	Work Stop Lever Stud
3095	Work Stop Spring
3096	Work Stop Spring Lever
3097	Work Stop Spring Pin
3098	Work Stop Spring Roll
3099	Stop Lever Link Pin

Wheel and Water Guards, etc.

241	Water Guard Clamp Screw
557	Work Driving Dog (State Size)
561	Water Guard Bracket
562	Water Guard, Foot End
564	Water Guard, Head End
565	Water Guard
570	Socket Wrench (State Size)
572	Dog Tray
639	Wheel Guard (State Left or Right) (Nos. 2, 3 and 4 Machines)
640	Wheel Guard Cover
1863	Wheel Stand Clamp Nut (Motor Driven Machines)
2136	Pump Belt Opening Cover (Motor Driven Machines)
2137	Pump Belt Opening Cover Clamp (Motor Driven Machines)
2445	Table Guard Oil Hole Cover
2800	Diamond Tool Holder Support
3108	Drive Pulley Belt Guard (Motor Driven Machines)
3159	Headstock Cable Guide (Motor Driven Machines)

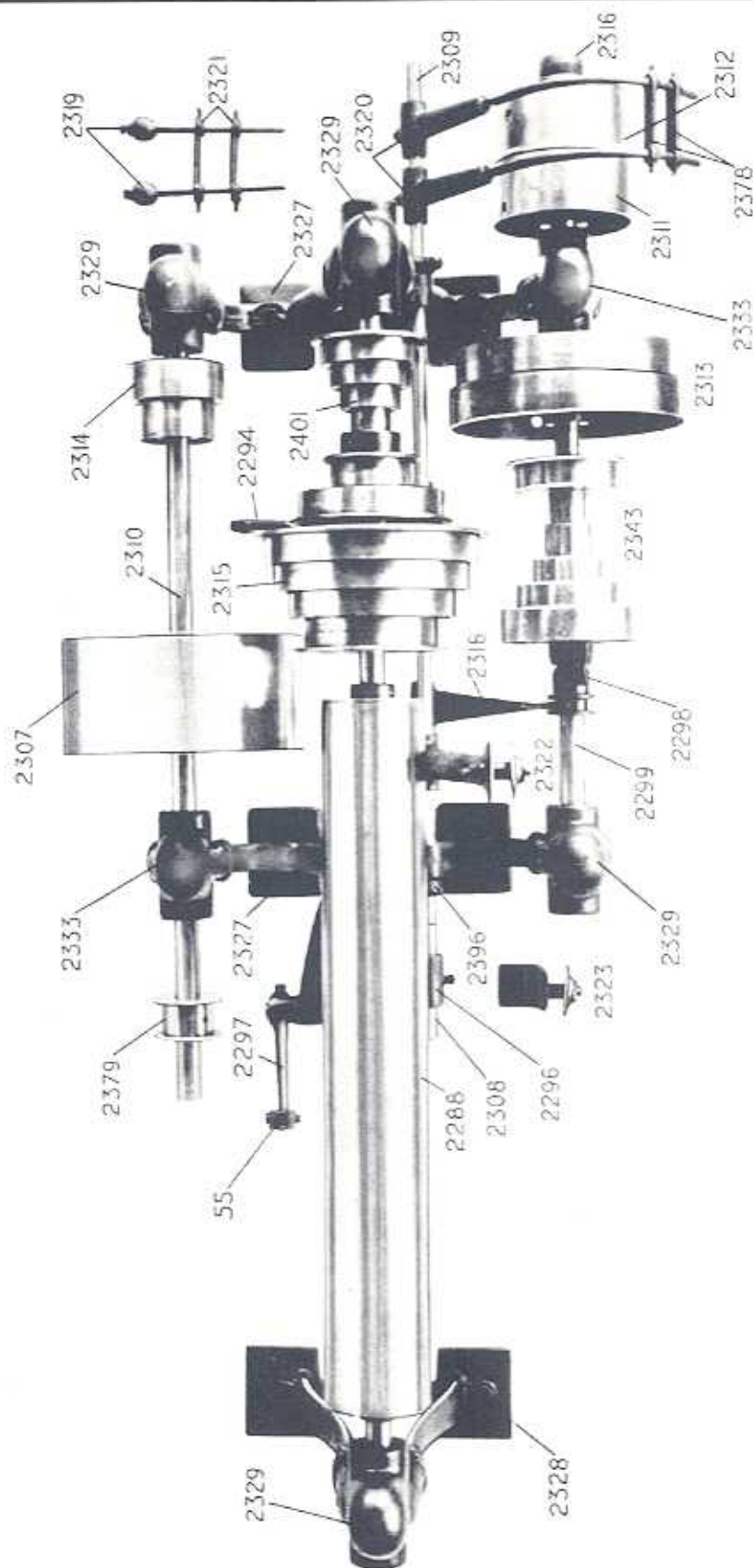


Pump and Miscellaneous Parts

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Pump and Miscellaneous Parts

39	Base Door Latch Spring	270	Oil Roll, Front
43	Base Door Knob	275	Pulley Bracket
51	Table Dog (State Left or Right)		(Motor Driven Machines)
52	Table Dog Bracket (State Left or Right)	276	Idler Pulley Yoke Support
			(Motor Driven Machines)
57	Swivel Table Adjusting Knob	277	Idler Pulley Yoke
59	Swivel Table Clamp, Right		(Motor Driven Machines)
60	Swivel Table Index Finger Bushing	278	Idler Pulley Shaft
62	Swivel Table Index Finger		(Motor Driven Machines)
63	Swivel Table Locking Pin Knob	279	Idler Pulley Shaft Washer
64	Swivel Table Locking Pin Bushing		(Overhead Driven Machines)
86	Table Dog Rack	282	Pump Frame
92	Table Dog, Complete (State Left or Right)	283	Pulley Bracket
			(Overhead Driven Machines)
101	Table Dog Pawl Spring	284	Pump Frame Cap
109	Table Dog Pawl	285	Pump Centrifugal Wheel
117	Table Scale	286	Pump Shaft
120	Table Adjusting Plate	287	Water Tank Plug
139	Bed Door Anchor	288	Pump Driving Pulley
209	Bed Door Latch Spring	291	Idler Pulley
210	Swivel Table Adjusting Screw	296	Idler Pulley Shaft
222	Bed Door Knob		(Overhead Driven Machines)
224	Bed Door Latch	577	Table Dog Adjusting Screw
229	Table Rack	578	Table Dog Adjusting Nut
234	Swivel Table Pivot Ring	724	Base Door Latch
235	Swivel Table Pivot	1804	Swivel Table Clamp, Left
265	Oil Roll Spring	2108	Swivel Table Locking Pin
266	Oil Roll Bushing	2109	Swivel Table Locking Pin Spring
269	Oil Roll, Back	2132	Pump Shaft Nut



Countershaft
No. 1 Machine, Overhead Driven

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Countershaft

No. 1 Machine, Overhead Driven

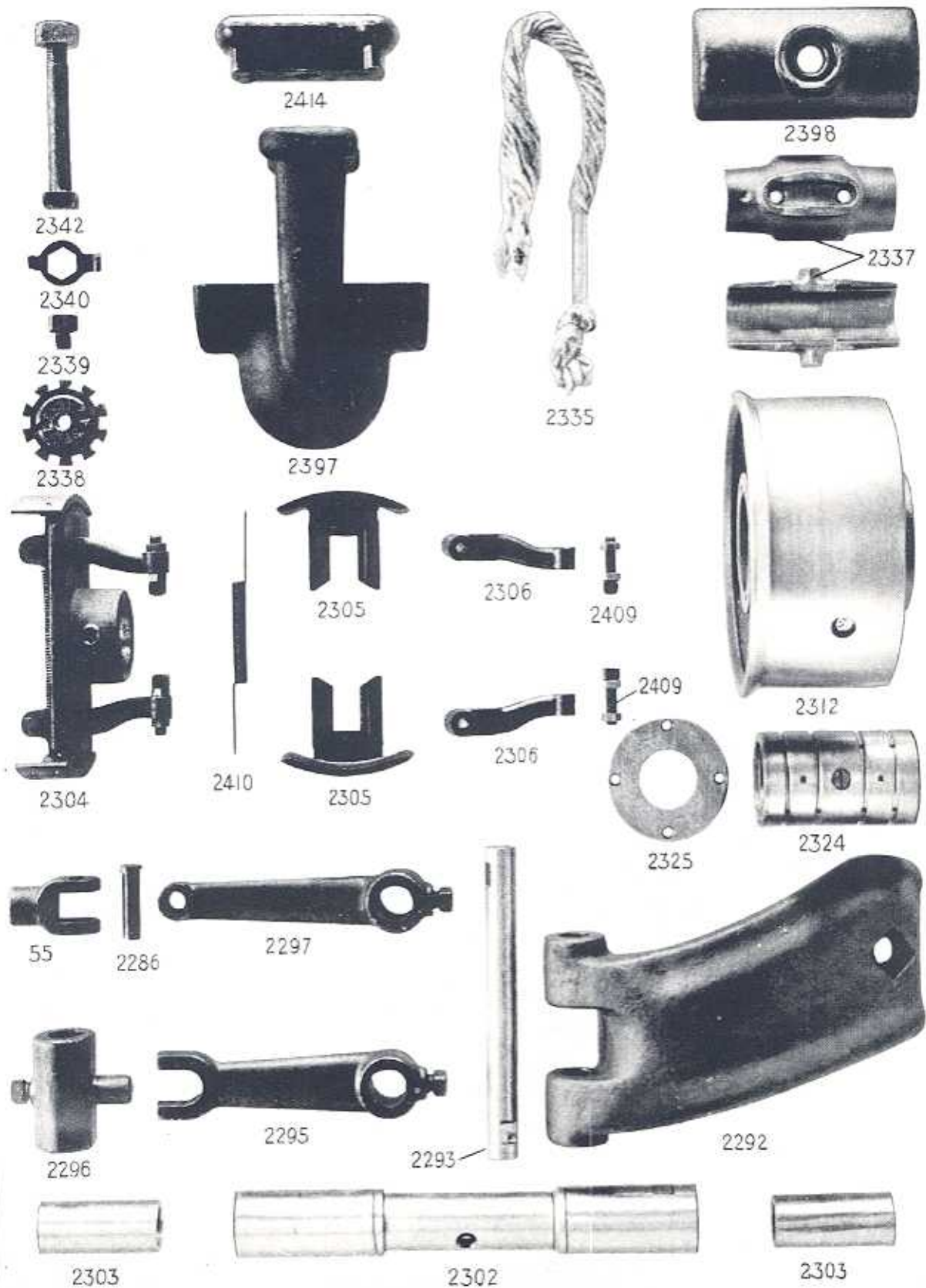
55	Stop Lever Link
2288	Work Drum
2294	Brake
2296	Shipper Rod Block
2297	Stop Lever, Upper
2298	Thimble
2299	Main Driving Shaft
2307	Wheel Driving Pulley
2308	Clutch Shipper Rod
2309	Tight and Loose Pulley Shipper Rod
2310	Wheel Driving Pulley Shaft
2311	Standard Tight Pulley
2312	Standard Loose Pulley
2313	Wheel Driving Cone Pulley, Large
2314	Wheel Driving Cone Pulley, Small
2315	Drum Shaft Cone Pulley
2316	Collar
2318	Shipper Fork
2319	Belt Guide
2320	Wire Belt Guide
2321	Belt Guide Yoke
2322	Shipper Arm
2323	Shipper Bracket
2327	Hanger, 3 Box
2328	Hanger, 1 Box
2329	1 $\frac{1}{4}$ " Drip, Complete, Open One End
2333	1 $\frac{1}{4}$ " Drip, Complete, Open Both Ends
2343	Feed and Work Driving Cone
2378	Wire Belt Guide Yoke
2379	Pump Pulley
2396	Shipper Stop
2401	Overhead Feed Cone Pulley

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Countershaft

Nos. 2, 3 and 4 Machines, Overhead Driven

55	Stop Lever Link
2287	Hanger
2288	Work Drum
2292	Lever Shaft Bracket
2294	Brake
2297	Stop Lever, Upper
2298	Thimble
2299	Main Driving Shaft
2300	Feed Cone Pulley, Third
2301	Feed Cone Pulley, Second
2307	Wheel Driving Pulley
2308	Clutch Shipper Rod
2309	Tight and Loose Pulley Shipper Rod
2310	Wheel Driving Pulley Shaft
2311	Standard Tight Pulley
2312	Standard Loose Pulley
2313	Wheel Driving Cone Pulley, Large
2314	Wheel Driving Cone Pulley, Small
2315	Drum Shaft Cone Pulley
2318	Shipper Fork
2319	Belt Guide
2320	Wire Belt Guide
2321	Belt Guide Yoke
2322	Shipper Arm
2323	Shipper Bracket
2327	Hanger, 3 Box
2328	Hanger, 1 Box
2329	1 1/4" Drip, Complete, Open One End
2331	1 1/2" Drip, Complete, Open Both Ends
2343	Feed and Work Driving Cone
2378	Wire Belt Guide Yoke
2379	Pump Pulley
2396	Shipper Stop
2431	1 1/2" Drip, Complete, Open One End
2433	1 11/16" Drip, Complete, Open Both Ends



Countershaft Parts
Overhead Driven Machines

When ordering parts, specify the style, size and serial number of the machine in addition to the part number and name.

Countershaft Parts

Overhead Driven Machines

55	Stop Lever Link
2286	Stop Lever Link Pin
2292	Lever Shaft Bracket
2293	Shipper Rod Lever Shaft
2295	Shipper Rod Lever
2296	Shipper Rod Block
2297	Stop Lever, Upper
2302	Feed Cone Bushing, Large (Nos. 2, 3 and 4 Machines)
2303	Feed Cone Bushing, Small (Nos. 2, 3 and 4 Machines)
2304	Friction Pulley Back, Complete
2305	Friction Pulley Slide
2306	Friction Pulley Lever
2312	Standard Loose Pulley
2324	Standard Loose Pulley Bushing
2325	Loose Pulley Cap
2335	Wick
2337	Box, Complete (State Bore of Box)
2338	Drip Cover Washer
2339	Drip Cover Washer Screw
2340	Drip Cover Screw Lock
2342	Hanger Bolt
2397	Drip (State Size and Whether Open One or Both Ends)
2398	Drip Cover (State Size and Whether Open One or Both Ends)
2409	Friction Pulley Lever Screw
2410	Friction Pulley Spring
2414	Hanger Drop Extension