

Singer 146-1

Singer 146-30

Singer 146-13

Singer 146-71

RM 18849
ril, 1935
NTED IN U. S. A.

LIST OF PARTS



MACHINES

Nos. 146-1, 146-30, 146-31
and 146-71

THE SINGER MANUFACTURING COMPANY

INSTRUCTIONS FOR ORDERING

In ordering from this list, use **ONLY** the part **NUMBER** in the **FIRST** column.

The number stamped on a Sewing Machine Part is in every case the number of the single part only.

Every combination of parts sent out as such has its specific number, which, although not stamped on the parts, must be used when ordering the combination.

Each number always indicates the **SAME PART** in whatever list it appears, or for whatever machine.

The letters after some of the numbers indicate the style of finish only, as follows:

- A—Hardened, Polished, Nickel Plated and Buffed
- B—Polished, Nickel Plated and Buffed
- C—Hardened Only
- D—Polished Only
- E—Soft, Not Polished
- F—Hardened and Polished
- H—Blued
- J—Nickel Plated Only
- K—Hardened and Nickel Plated
- L—Brass Plated
- M—Oxidized
- N—Japanned, Dull
- P—Japanned, Bright
- R—Merlized
- T—Copper Plated
- T. A.—Hardened, Polished, Copper and Nickel Plated and Buffed
- T. B.—Copper and Nickel Plated and Polished
- T. J.—Copper and Nickel Plated Only
- T. K.—Hardened, Copper and Nickel Plated
- T. M.—Copper Plated and Oxidized
- T. L—Copper and Brass Plated
- U—Zinc Plated
- V.—Silver Plated
- W—Polished and Nickel Plated
- Y—Black Nickel Plated Only
- Z—Chromium Plated
- Z. B.—Polished, Nickel Plated, Buffed and Chromium Plated
- Z. J.—Nickel and Chromium Plated

These letters **MUST BE USED** when they appear in the list; and **AFTER** the number as in the list.

In this series:

1 to 1500, 50001 to 51500 and 140001 to 142000 are Screw Numbers
 1501 to 1800 and 51501 to 51800 are Nut Numbers
 1801 to 2000 and 51801 to 52000 are Roller Numbers
 2001 to 50000 and 52001 to 190000 are Sewing Machine Parts, 190001 and upward are numbers of Electrical Parts.

The figures in the second column refer only to the plates, illustrating the parts, and are **NOT TO BE USED** in ordering.

Parts marked with an asterisk (*) are furnished only when repairs are made at factory.

LIST OF PARTS COMPLETE

FOR

MACHINE No. 146-1

BALANCE WHEEL No. 124001

DIAMETER OF BELT GROOVE $2\frac{7}{8}$ INCHES
 MACHINE HEAD ONLY

NO.	PLATE	NAME
*124170	—	Arm, upper and lower (solid) with 15404 and two 15405.....
17669	9401	Arm Oil Tube, for intermediate bearing..
17670	9401	“ “ “ “ lower bearing.....
15783	9443	“ “ “ “
11119	9401	“ “ “ 15783 with 52045, for oiling 49101.....
58030	9401	Arm Oil Tube with 52045 and 54897, for oiling 58033.....
54897	9401	Arm Oil Tube Oil Cup.....
52045	9401	“ “ “ Packing (wick).....
49156	21504	“ Rock Shaft.....
49004	9401	“ “ “ Bushing (intermediate)
448c	9431	“ “ “ “ “ “
		Set Screw.....
49003	9401	Arm Rock Shaft Bushing (upper).....
446c	9431	“ “ “ “ “ Set Screw
17671	9401	“ “ “ “ “ Collar with two 443c.....
443c	9401	Arm Rock Shaft Bushing Collar Set Screw.....
49262	21501	Arm Rock Shaft Crank (lower) with 50282E and 50457c.....
50282E	9447	Arm Rock Shaft Crank (lower) Position Screw.....
50457c	9447	Arm Rock Shaft Crank (lower) Set Screw
49261	21501	“ “ “ “ (upper) with 50282E and 50457c.....
50282E	9447	Arm Rock Shaft Crank (upper) Position Screw.....
50457c	9447	Arm Rock Shaft Crank (upper) Set Screw
49005	21501	“ “ “ Flanged Bushing (lower)
430c	9431	“ “ “ “ “ “
		Set Screw.....
49084	21501	Arm Rock Shaft Oil Cover.....
193J	9430	“ “ “ “ “ Screw.....

NO.	PLATE	NAME
17672	21504	Arm Rotary Shaft.....
*58059	—	“ “ “ 17672 with 58033...
58031	21501	“ “ “ Bushing (lower)....
435c	9431	“ “ “ “ “ Set Screw.....
58032	21501	Arm Rotary Shaft Flanged Bushing (intermediate).....
17675	9447	Arm Rotary Shaft Flanged Bushing (intermediate) Oil Hole Plug.....
42366	9447	Arm Rotary Shaft Flanged Bushing (intermediate) Oil Pad (short) braided cotton.....
446c	9431	Arm Rotary Shaft Flanged Bushing (intermediate) Set Screw.....
49012	21504	Arm Rotary Shaft Flanged Bushing (upper) with 49013 and 49093.....
49093	9447	Arm Rotary Shaft Flanged Bushing (upper) Oil Pad (long) braided cotton
49013	9407	Arm Rotary Shaft Flanged Bushing (upper) Oil Pad (short) braided cotton
159F	9430	Arm Rotary Shaft Bushing (upper) Screw
449c	9447	“ “ “ (lower) Bearing Oil Hole Plug Screw.....
144d	9430	Arm Rotary Shaft Screw.....
17676	21508	“ Side Cover (left).....
2269	9407	“ “ “ “ Stop Pin.....
286d	9431	“ “ “ “ Thumb Screw...
17677	21508	“ “ “ (right).....
2269	9407	“ “ “ “ Stop Pin.....
286d	9431	“ “ “ “ Thumb Screw..
124001	21508	Balance Wheel and Pulley (tight) 2½ in. diam., with two 430c.....
430c	9431	Balance Wheel Set Screw.....
17679	9407	“ “ Washer.....
58023	21511	Cloth Plate.....
58024	21511	Cloth Plate complete, Nos. 49054, 58001, 58002, 58023 and two 226j.....
128d	9430	Cloth Plate Screw (lower).....
158F	9430	“ “ “ (upper).....
58033	21504	Crank Connecting Rod with 896E, 49109 and two 145E.....
896E	9430	Crank Connecting Rod Adjusting Screw
49109	9407	“ “ “ “ Washer
145E	9430	“ “ “ “ Cap Screw.....
50244c	9430	“ “ “ “ Hinge Screw....
1513j	9431	“ “ “ “ “ Nut

NO.	PLATE	NAME
49020	21508	Face Plate.....
193F	9430	“ “ Screw.....
17683	9407	Feed Bar with 220j and 457c.....
17684	9407	“ “ “ “ Hinge Pin.....
457c	9407	“ “ “ “ Set Screw.....
17685	21504	“ Connecting Rod with 2653, 4784 and two 896E.....
896E	9430	Feed Connecting Rod Cap Screw.....
4784	9407	“ “ “ Oil Pad (felt)....
2653	9407	“ “ “ “ Pin.....
17686	21502	Feed Dog, 14 teeth (10 teeth to the inch) for 58025 and 58028.....
172c	9430	Feed Dog Screw.....
220j	9407	“ “ Stop Screw.....
17687	9437	“ Eccentric with two 1259c.....
1259c	9447	“ “ Set Screw.....
17688	9437	“ Lifting Eccentric with two 1259c..
58054	9437	“ “ “ Connection with 457c, 2653, 4784 and two 1057E.....
1057E	9447	Feed Lifting Eccentric Connection Cap Screw.....
49030	21501	Feed Lifting Eccentric Connection Hinge Pin.....
457c	9407	Feed Lifting Eccentric Connection Hinge Pin Set Screw.....
4784	9407	Feed Lifting Eccentric Connection Oil Pad (felt).....
2653	9407	Feed Lifting Eccentric Connection Oil Pad Pin.....
1259c	9447	Feed Lifting Eccentric Set Screw.....
50245c	9431	“ Regulating Screw Stud.....
1731c	9431	“ “ “ “ Nut.....
17690	21501	“ “ “ “ Sleeve.....
12000	21501	“ “ “ “ Stop Pin...
49033	21504	“ Rock Shaft.....
124228	—	Feed Rock Shaft complete, Nos. 49033 and 124227.....
124227	21504	Feed Rock Shaft Crank with 12000 and two 1177E.....
1177E	9447	Feed Rock Shaft Crank Clamping Screw
17693	21504	“ “ “ Hinge Pin.....
1508j	9431	“ “ “ “ Nut.....
622c	9431	“ “ “ “ “ Screw Bear- ing.....
1508j	9431	Feed Rock Shaft Hinge Pin Screw Bear- ing Nut.....
27398	9447	Feed Rock Shaft Washer.....

NO.	PLATE	NAME
49036	9437	Looper (double thread) with 590J and 49080.....
17694	21508	Looper Bell Crank.....
49039	9437	" " " Hinge Stud.....
448c	9431	" " " " " Set Screw.....
17695	21508	" " " Pitman with two each 175E and 1057E.....
50070c	9414	Looper Bell Crank Pitman Ball Screw Stud (back).....
1636c	9431	Looper Bell Crank Pitman Ball Screw Stud (back) Nut.....
50246c	9431	Looper Bell Crank Pitman Ball Screw Stud (front).....
1619J	9431	Looper Bell Crank Pitman Ball Screw Stud (front) Nut.....
175E	9430	Looper Bell Crank Pitman Cap (back) Screw.....
1057E	9447	Looper Bell Crank Pitman Cap (front) Screw.....
49044	9437	Looper Carrier with 4784 and two each 175E, 1147c and 59019.....
175E	9430	Looper Carrier Clamping Screw.....
59019	9437	" " " Gib.....
38440	9437	" " " Hinge Pin.....
157D	9430	" " " " Clamping Screw.....
4784	9407	Looper Carrier Oil Pad (felt).....
124174	9414	Looper Carrier Pitman complete, Nos. 1708J, 1709J, 49046, 49088 and 124177.....
50070c	9414	Looper Carrier Pitman Ball Screw Stud (upper).....
1519J	9431	Looper Carrier Pitman Ball Screw Stud (upper) Nut.....
46237	9414	Looper Carrier Pitman Ball Stud (lower).....
1147c	9430	" " " " " " Set Screw.....
171E	9430	Looper Carrier Pitman Cap (lower) Screw.....
175E	9430	Looper Carrier Pitman Cap (upper) Screw.....
*49086	—	Looper Carrier Pitman End Bearing (lower).....
*124176	—	Looper Carrier Pitman End Bearing (upper).....
49088	9414	Looper Carrier Pitman Head (lower), Nos. 46237, 49086 and two 171E.....

NO.	PLATE	NAME
124177	9414	Looper Carrier Pitman Head (upper), Nos. 50070c, 124176 and two 175E...
49046	9414	Looper Carrier Pitman Rod.....
1708J	9431	" " " " Nut (lower).....
1709J	9447	" " " " " (upper).....
49043	9447	" " " " Washer (fibre).....
124172	9437	" " " Rock Shaft.....
11411	9414	" " " " Collar with 453c.....
453c	9414	Looper Carrier Rock Shaft Collar Set Screw.....
124173	9414	Looper Carrier Rock Shaft Crank (lower) with 156c, 157D and 443c.....
156c	9414	Looper Carrier Rock Shaft Crank (lower) Position Screw.....
443c	9401	Looper Carrier Rock Shaft Crank (lower) Set Screw.....
49048	9414	Looper Carrier Rock Shaft Crank (upper) forked, with 50083c.....
50083c	9414	Looper Carrier Rock Shaft Crank (upper) forked, Set Screw.....
49019	9414	Looper Carrier Rock Shaft Crank (upper) Slide Block.....
49051	9449	Looper Eccentric with two 1259c.....
1259c	9447	" " " Set Screw.....
58001	21511	" Gate with 735c.....
58002	9449	" " " Hinge Pin.....
735c	9431	" " " " Set Screw.....
49054	9449	" " " Lock Spring.....
226J	9430	" " " " Screw.....
1147c	9430	" " " " Set Screw.....
49080	9437	" Thread Guard.....
590J	9437	" " " " Screw.....
58052	9449	Needle Bar.....
49056	9449	" " " Bushing (back).....
435c	9431	" " " " " Set Screw...
58035	9449	" " " " (front).....
1133E	9431	" " " " " Set Screw...
*49101	9449	" " " Connecting Link.....
49167	—	" " " " " 49101 with 49057 and 49268.....
49057	9449	Needle Bar Connecting Link Hinge Stud.....
1517J	9431	" " " " " " Nut.....
49268	9449	Needle Bar Connecting Stud with 1454E.....
1454E	9447	" " " " " Clamping Screw.....

NO.	PLATE	NAME
1629c	9447	Needle Clamping Nut.....
58036	21508	Oil Pipe.....
58037	—	“ “ 58036 with 54897, 58038 and 58039, for Arm Rotary Shaft Lower Bearing.....
58038	9449	Oil Pipe Holder.....
54897	9401	“ “ “ Oil Cup.....
58039	9447	“ “ Packing (braided cotton).....
449c	9447	“ “ Set Screw.....
58040	9449	“ Tube for 58041.....
58041	—	“ “ 58040 with 58044 and 58045, for oiling 49049 and 49051.....
58042	9449	Oil Tube for 58043.....
58043	—	“ “ 58042 with 58044 and 58045, for Arm Rotary Shaft Intermediate Bearing.....
58044	9449	Oil Tube Connection with two 198j....
198j	9447	“ “ “ Cap Screw.....
58045	9447	“ “ Packing (braided cotton).....
49059	21508	Presser Bar.....
49060	21501	“ “ “ Bushing (back).....
435c	9431	“ “ “ “ Set Screw...
49061	21501	“ “ “ (front).....
1133E	9431	“ “ “ “ Set Screw...
58046	9446	“ “ “ Lifter.....
212D	9430	“ “ “ Cap Screw.....
58047	9446	“ “ “ Hinge Stud.....
453c	9414	“ “ “ “ Set Screw
49065	9446	“ “ “ Lifting Bracket with 453c and 892F.....
892F	9447	Presser Bar Lifting Bracket Adjusting Screw.....
453c	9414	Presser Bar Lifting Bracket Set Screw...
58048	9446	“ “ “ Link.....
212D	9430	“ “ “ Cap Screw.....
1253c	9447	“ “ “ HingeScrewStud
58049	9446	“ “ “ Spring.....
1241E	9447	“ “ “ “ Screw Stud
49067	21508	“ “ Spring (flat).....
38468	9446	“ “ Stud.....
137088	9446	Foot Finger Guard.....
227J	9446	“ “ “ Screw.....
58004	—	“ “ Plate.....
50087J	9446	“ “ “ Hinge Screw.....
58005	—	“ “ Shank.....
137089	—	“ “ Toe with 227j, 906E and 137088.....

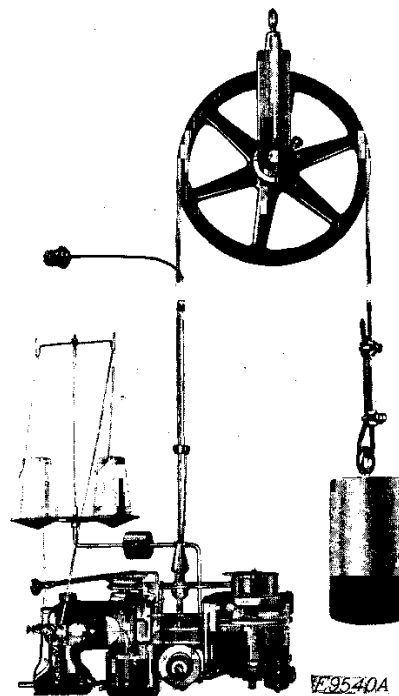
NO.	PLATE	NAME
58007	9446	Presser Foot Toe Hinge Stud.....
906E	9446	“ “ “ “ Set Screw
58008	9446	“ “ “ Spring.....
137090	9446	Presser Foot (hinged) complete, Nos. 50087j, 58004, 58005, 58007, 58008 and 137089.....
190j	9430	Presser Foot Screw.....
574w	9431	Pressure Regulating Thumb Screw.....
1539w	9431	“ “ “ “ Lock Nut.....
124002	21505	Pulley (loose) 2 7/8 in. diam.....
2102	9450	Tension (looper thread) Disc.....
1560c	9450	“ “ “ Regulating Thumb Nut.....
916c	9450	Tension (looper thread) Screw Stud....
44209	—	“ “ “ “ “ 916c with 1560c.....
10148	9450	Tension (looper thread) Spring.....
17547	9450	“ “ “ Thread Guide (single).....
2102	9450	Tension (needle thread) Disc.....
1560c	9450	“ “ “ Regulating Thumb Nut.....
916c	9450	Tension (needle thread) Screw Stud....
44209	—	“ “ “ “ “ 916c with 1560c.....
13710	9450	Tension (needle thread) Spring.....
17547	9450	“ “ “ Thread Guide (single).....
58010	9450	Thread Cutting Blade (inside) with 1933
58011	9450	“ “ “ (outside) with 1933
50247c	9431	“ “ “ HingeScrew....
1732H	9447	“ “ “ “ Nut
1933	9450	“ “ “ Roller and Stud..
17622	9450	“ “ “ Spring.....
58012	—	“ “ “ Lever 124256 with 58013 and two 161j.....
124256	21514	Thread Cutting Lever for 58012 and 146-30 Machine.....
58013	—	Thread Cutting Lever Extension....
124257	21511	“ “ “ “ “ for 124258.....
124258	21511	Thread Cutting Lever Extension 124257 with 13375, for 146-30 Machine.....
161j	9430	Thread Cutting Lever Extension Screw
13375	21511	“ “ “ “ “ Handle (wood) for 124258.....

NO.	PLATE	NAME
124171	9450	Thread Cutting Lever Hinge Stud.....
448c	9431	" " " " " Set
		Screw.....
58014	9450	Thread Cutting Lever Plate.....
172c	9430	" " " " Screw.....
19510	9450	" " " Spring.....
170J	9450	" " " Screw Stud
49071	9446	" (looper) Eyelet.....
172c	9430	" " " Screw.....
49072	9450	" " Take-up.....
190J	9430	" " " Screw.....
49073	9446	" (needle) Controller.....
974F	9446	" " Hinge Screw
914F	9430	" " " Screw.....
39541	9446	" " " Washer
49075	9446	" " Take-up with 457c....
457c	9407	" " " Set Screw....
58025	21502	Throat Plate (large needle hole) for
		17686.....
58028	21502	Throat Plate (small needle hole) for
		17686.....
691r	9431	Throat Plate Screw (large).....
402r	9431	" " " (small).....
*15404	—	Trade Mark.....
15405	—	" " Rivet.....

Genuine Singer Needles should be used
in Singer Machines.
These Needles and their Containers
are marked with the
Company's Trade Mark "SIMANCO." 1

Needles in Containers marked
"For Singer Machines"
are not Singer made needles. 2

LIST OF PARTS COMPLETE FOR



MACHINE No. 146-30

FOR CLOSING BAGS AFTER THEY ARE FILLED. THIS IS A SWING-
ING OUTFIT AND INCLUDES MACHINE HEAD, MACHINE
AND MOTOR BRACKET, CABLE WITH EYELETS, CLAMPS,
SHEAVE, COUNTERWEIGHT AND ELECTRIC TRANSMITTER
MOTOR. THE SEWING MACHINE AND MOTOR ARE BOLTED
TO A BRACKET THAT IS ATTACHED TO ONE END OF A
STEEL CABLE WHICH PASSES OVER A SHEAVE SUSPEND-
ED FROM THE CEILING. A COUNTERWEIGHT IS ATTACHED
TO THE OPPOSITE END SO THAT THE OPERATOR MAY
EASILY RAISE AND LOWER THE MACHINE FOR BAGS OF
DIFFERENT HEIGHTS.

NOTE: The 146-1 Machine Head is used on this outfit.
The motor required to operate this machine is of
the continuously running electrical transmitter type.
When placing orders, the voltage must be given for
S. D. Motors and the voltage, cycles and phase for
S. A. Motors.

16 PARTS FOR MACHINE No. 146-30

NO.	PLATE	NAME
124285	—	Machine Belt, 1/4 in. diam., 35 1/2 in. long, with 25128.....
124292	21514	Machine Belt Guard.....
333R	9444	" " " Screw.....
25128	9445	" " " Hook.....
41441	9445	" " " Shifter Belt Guide Pin...
882c	9444	" " " " " " " Set Screw.....
124259	21514	Machine Belt Shifter Bracket with 858c and two 882c.....
54640	9444	Machine Belt Shifter Bracket Hinge Stud.....
443c	9401	" " " " " " " " Set Screw.....
124260	9445	Machine Belt Shifter Bracket Spring.....
124261	9445	" " " " " " " " Position Pin.....
554c	9445	Machine Belt Shifter Bracket Spring Screw Eyelet.....
124282	9445	Machine Belt Shifter Handle.....
858c	9444	" " " " " Set Screw.....
124299	21512	" Bracket with 435c, 443c and 50422c.....
*124284	—	Machine Bracket 124299 with 115E, 554E, 1178E, 1672R, 1795R, 9082, 20437, 50706R, 51617R, 54640, 124259 to 124261, 124263, 124282, 124283, 124292 to 124294, two each 333R, 41441 and four 731R, for Series 2800 Motors....
124263	21509	Machine Bracket Handle.....
435c	9431	" " " " " Set Screw....
731R	9444	" " " " " Motor Screw.....
126573	9445	" Brake (thermoid).....
124264	21509	" " Bracket.....
*124283	—	" " " " 124264 with 126573 and two 27878.....
1178E	9444	Machine Brake Bracket Screw.....
20437	9445	" " " " " Washer.....
27878	9444	" " " " " Rivet.....
124300	21512	" Counterbalance (114 lbs.) with 124276.....
124266	—	Machine Counterbalance Cable, length 20 ft. (3/4 in.).....
124267	21512	Machine Counterbalance Cable, 124266 with 124269.....
124268	21509	Machine Counterbalance Cable Clamp, size 3/8 in.....
*124269	—	Machine Counterbalance Cable Hook.....
124293	21510	" " " " " " " " Eyebolt.....

PARTS FOR MACHINE No. 146-30

17

NO.	PLATE	NAME
124294	21514	Machine Counterbalance Cable Hook Eyebolt Bracket.....
50706R	9444	Machine Counterbalance Cable Hook Eyebolt Bracket Bolt.....
1795R	9444	Machine Counterbalance Cable Hook Eyebolt Bracket Bolt Nut.....
1672R	9445	Machine Counterbalance Cable Hook Eyebolt Lock Nut.....
51617R	9445	Machine Counterbalance Cable Hook Eyebolt Nut.....
9082	9445	Machine Counterbalance Cable Hook Eyebolt Nut Cotter Pin.....
137127	21515	Machine Counterbalance Cable Retaining Arm (left and right) with 350c...
350c	—	Machine Counterbalance Cable Retaining Arm Set Screw.....
124270	21512	Machine Counterbalance Cable Sheave.....
898622	21509	" " " " " Grease Cup.....
124271	21512	Machine Counterbalance Cable Sheave Hanger with 344c and 51287c.....
124272	—	Machine Counterbalance Cable Sheave Hanger 124271 with 1672R, 124289 and 124290.....
124287	—	Machine Counterbalance Cable Sheave Hanger 124272 with 124270, 124275, 137128, 898622 and two 137127.....
124289	21510	Machine Counterbalance Cable Sheave Hanger Eyebolt.....
1672R	9445	Machine Counterbalance Cable Sheave Hanger Eyebolt Nut.....
124290	9445	Machine Counterbalance Cable Sheave Hanger Eyebolt Nut Lock Washer...
344c	9444	Machine Counterbalance Cable Sheave Hanger Eyebolt Set Screw.....
137128	21515	Machine Counterbalance Cable Sheave Hinge Pin.....
51287c	9444	Machine Counterbalance Cable Sheave Hinge Pin Set Screw.....
124275	21509	Machine Counterbalance Cable Sheave Roller Bearing.....
124276	21510	Machine Counterbalance Eyebolt.....
		" " " " " Weight Equalizer (10 lbs.).....
NOTE: When ordering Weight Equalizer, amount required must be stated in lbs. or ozs.		
50340R	9444	Machine Screw (long) to fasten machine to bracket.....
9281R	9445	Machine Screw (long) Washer.....
115E	9444	" " " (short) to fasten machine to bracket.....

LIST OF PARTS COMPLETE **FOR** **MACHINE No. 146-71**

**MAKES THREE TO SIX STITCHES TO THE INCH. FITTED WITH
CHAIN CUTTING SHEARS. BALANCE WHEEL No. 137031.
DIAMETER OF BELT GROOVE 2 $\frac{7}{8}$ INCHES.**

MACHINE HEAD ONLY

NO.	PLATE	NAME
*137003	—	Arm, upper and lower (solid) with 15404 and two 15405.....
137004	9441	Arm Back Cover.....
1095F	9442	" " " Screw.....
51333J	9442	" Oil Plug Screw.....
137005	9443	" " Tube, for oiling Arm Rock Shaft Intermediate Bearing.....
137006	9443	Arm Oil Tube, for oiling Arm Rock Shaft Front Bearing.....
*137007	—	Arm Oil Tube (tube only) for 137008....
137008	9443	" " " 137007 with 137009, for oiling Arm Rotary Shaft Back Bearing
*137009	—	Arm Oil Tube Oil Cup for 137008.....
137010	9443	" " " for oiling Arm Rotary Shaft Intermediate Bearing.....
137011	9443	Arm Oil Tube Extension for 137010.....
52150	9448	" " " Oil Wick (braided cotton) for 137010.....
137012	21505	Arm Rock Shaft with 624c.....
137013	—	" " " 137012 with 130875....
*137078	—	" " " Bushing (back).....
137079	—	" " " " " 137078 with 130911.....
130911	9448	Arm Rock Shaft Bushing (back) Oil Wick (braided cotton).....
443c	9401	Arm Rock Shaft Bushing (back) Set Screw.....
130907	9434	Arm Rock Shaft Bushing (intermediate)
130908	—	" " " " " "
		130907 with 130912.....
130912	9448	Arm Rock Shaft Bushing (intermediate) Oil Wick (braided cotton).....
430c	9431	Arm Rock Shaft Bushing (intermediate) Set Screw.....
*137014	9434	Arm Rock Shaft Crank (back) Ball Bearing (solid) with 1177E.....

PARTS FOR MACHINE No. 146-71

NO.	PLATE	NAME
137015	—	Arm Rock Shaft Crank (back) 137014 with 131089 and 137016.....
1177E	9447	Arm Rock Shaft Crank (back) Clamping Screw.....
137016	9439	Arm Rock Shaft Crank (back) Oil Plug (brass).....
131089	9448	Arm Rock Shaft Crank (back) Oil Pad (wick).....
40025	9439	Arm Rock Shaft Crank (back) Pin.....
130909	9434	" " " Flanged Bushing (front)
130910	—	" " " " " "
		130909 with 130912.....
130912	9448	Arm Rock Shaft Flanged Bushing (front) Oil Wick (braided cotton).....
443c	9401	Arm Rock Shaft Flanged Bushing (front) Set Screw.....
137017	9448	Arm Rock Shaft Oil Wick (braided cotton).....
137018	21505	Arm Rotary Shaft.....
137019	—	" " " 137018 with 137028
*137020	9434	" " " Bushing (front).....
137021	—	" " " " " 137020 with 130713.....
137022	9439	Arm Rotary Shaft Bushing (front) Oil Plug.....
130713	9448	Arm Rotary Shaft Bushing (front) Oil Wick (braided cotton).....
430c	9431	Arm Rotary Shaft Bushing (front) Set Screw.....
*137023	9434	Arm Rotary Shaft Bushing (intermediate)
137024	—	" " " " " "
		137023 with 130713.....
130713	9448	Arm Rotary Shaft Bushing (intermediate) Oil Wick (braided cotton).....
448c	9431	Arm Rotary Shaft Bushing (intermediate) Set Screw.....
*137025	21505	Arm Rotary Shaft Flanged Bushing (back)
137026	—	" " " " " "
		137025 with 137027.....
137027	9448	Arm Rotary Shaft Flanged Bushing (back) Oil Wick (braided cotton).....
159F	9430	Arm Rotary Shaft Flanged Bushing (back) Set Screw.....
137028	9434	Arm Rotary Shaft Oil Sling with 137029.
137029	9434	" " " " " Oil Tube....
144D	9430	" " " Screw.....
137030	21506	" Side Cover.....

NO.	PLATE	NAME
176D	9442	Arm Side Cover Screw (lower).....
190J	9430	" " " " (upper).....
137031	21505	Balance Wheel and Pulley (tight) 2 1/2 in. diam., with two 430c.....
130870	21506	Balance Wheel and Pulley (tight) Cover
430c	9431	" " " " "Set Screw
17679	9407	" " " " "Washer
137032	21511	Cloth Plate.....
137033	21511	Cloth Plate complete, Nos. 49054, 58002, 137032, 137064 and two 226J.....
50085F	9442	Cloth Plate Screw (back).....
966E	9442	" " " (front).....
137034	21506	Crank Connecting Rod with two each 145E and 896E.....
145E	9430	Crank Connecting Rod Cap (lower) Screw.....
896E	9430	Crank Connecting Rod Cap (upper) Screw.....
130737	21506	Face Plate.....
193F	9430	" " Screw.....
137037	21506	Feed Bar with 457c.....
130738	9439	" " Hinge Pin.....
457c	9407	" " " "Set Screw.....
137038	21506	" Connecting Rod with 137091 and two 896E.....
896E	9430	Feed Connecting Rod Cap Screw.....
137040	9443	" " " Oil Tube.....
52150	9448	" " " " Oil Wick (braided cotton).....
137091	9448	Feed Connecting Rod Oil Wick (braided cotton).....
137078	21502	Feed Dog, 10 teeth (10 teeth to the inch) for 137085.....
172c	9430	Feed Dog Screw.....
137042	9436	" Eccentric with two 1036c.....
1036c	9442	" "Set Screw.....
137043	9436	" Lifting Cam with two 1036c.....
130834	9436	" " Connection with 457c and two 175E.....
175E	9430	Feed Lifting Cam Connection Cap Screw
130836	9439	" " " "Hinge Pin
457c	9407	" " " "Set Screw.....
1036c	9442	Feed Lifting Cam Set Screw.....
50086c	9430	" Regulating Screw Stud.....
1714c	9431	" " " "Nut.....
49031	9434	" " " "Sleeve.....
49032	9434	" " " "Washer....

NO.	PLATE	NAME
137044	21506	Feed Regulator with two 1177E.....
1177E	9447	" " Clamping Screw.....
137045	21506	" Rocking Frame.....
137046	—	" " " 137045 with 137044
137047	21506	" " " Hinge Pin.....
137048	—	" " " " 137047 with 1508J.....
1508J	9431	Feed Rocking Frame Hinge Pin Nut..
51416c	9442	" " " "Screw Bushing.....
1508J	9431	Feed Rocking Frame Hinge Pin Screw Bushing Nut.....
27398	9447	Feed Rocking Frame Washer.....
130839	9436	Looper, for double thread (heavy thread)
137050	9436	" " " (light thread).. NOTE: No. 137050 is sent with this Machine unless otherwise stated on order.
137051	21507	Looper Bell Crank with 1147c.....
137052	9439	" " " Ball Stud.....
1147c	9430	" " " "Set Screw..
137053	9438	" " " Connection with two each 127E and 171E.....
137054	—	Looper Bell Crank Connection 137053 with 175E, 137052 and 137057.....
127E	9442	Looper Bell Crank Connection Cap (large) Screw.....
171E	9430	Looper Bell Crank Connection Cap (small) Screw.....
137057	9436	Looper Bell Crank Connection Guide...
175E	9430	" " " "Screw
137058	9436	" " " Eccentric with two 1036c.....
137059	9436	Looper Bell Crank Eccentric Oil Sling
137060	9443	" " " " " "
		Oil Tube.....
137011	9443	Looper Bell Crank Eccentric Oil Sling Oil Tube Extension.....
52150	9448	Looper Bell Crank Eccentric Oil Sling Oil Tube Oil Wick (braided cotton).. 1036c
1036c	9442	Looper Bell Crank Eccentric Set Screw..
137061	21507	" " " Hinge Stud.....
137062	9443	" " " " Oil Tube.
448c	9431	" " " "Set Screw
130756	9435	" Carrier with 130760 and three 1147c.....

22 PARTS FOR MACHINE No. 146-71

NO.	PLATE	NAME
130757	9435	Looper Carrier Connection with four 175E.....
130873	—	Looper Carrier Connection 130757 with 130956 and 130970.....
130970	9439	Looper Carrier Connection Ball Screw Stud (right) Eccentric.....
1518J	9439	Looper Carrier Connection Ball Screw Stud (right) Nut.....
49043	9447	Looper Carrier Connection Ball Screw Stud (right) Washer (fibre).....
130956	9439	Looper Carrier Connection Ball Stud (left).....
1147C	9430	Looper Carrier Connection Ball Stud (left) Set Screw.....
49043	9447	Looper Carrier Connection Ball Stud (left) Washer (fibre).....
175E	9430	Looper Carrier Connection Cap (left) Screw.....
175E	9430	Looper Carrier Connection Cap (right) Screw.....
130759	9439	Looper Carrier Hinge Stud.....
49166	9434	" " " " Collar with two 202F.....
202F	9442	Looper Carrier Hinge Stud Collar Set Screw.....
896E	9430	Looper Carrier Hinge Stud Set Screw....
130760	9448	" " Oil Wick (braided cotton)
137063	21507	" " Rock Shaft.....
130762	9435	" " " " Crank (back) forked, with 51313C.....
51313C	9442	Looper Carrier Rock Shaft Crank (back) Position Screw.....
49049	9414	Looper Carrier Rock Shaft Crank (back) Slide Block.....
130763	9435	Looper Carrier Rock Shaft Crank (front) with 896E and two 157E.....
157E	9430	Looper Carrier Rock Shaft Crank (front) Clamping Screw.....
137064	21511	Looper Gate with 735C.....
58002	9449	" " Hinge Pin.....
735C	9431	" " " " Set Screw.....
49054	9449	" " Lock Spring.....
226J	9430	" " " " Screw.....
1147C	9430	" Set Screw.....
137065	9435	" and Thread (under) Take-up Eccentric.....

PARTS FOR MACHINE No. 146-71 23

NO.	PLATE	NAME
137066	9439	Looper and Thread (under) Take-up Eccentric Locating Pin.....
130841	21507	Needle Bar (hollow).....
130842	9438	" " Bushing (lower).....
435E	9431	" " " " Set Screw..
137067	9438	" " " " (upper).....
1133E	9431	" " " " Set Screw..
130769	9435	" " Connecting Link.....
130875	—	" " " " 130769 with 130770 and 130844.....
*130770	9437	Needle Bar Connecting Link Hinge Pin
624C	9442	" " " " " " " " Set Screw.....
130844	9441	Needle Bar Connecting Stud with 1454E
1454E	9447	" " " " Clamping Screw.....
1753C	9439	Needle Clamping Nut.....
137068	9441	" Guard.....
389F	9442	" " Screw.....
130799	21507	Presser Bar.....
130800	9438	" " Bushing (lower).....
435E	9431	" " " " Set Screw..
49061	21501	" " " " (upper).....
1133E	9431	" " " " Set Screw..
58046	9446	" " Lifter.....
212D	9430	" " " Cap Screw.....
49064	9439	" " " Hinge Stud.....
448C	9431	" " " " Set Screw
130801	9440	" " Lifting Bracket with 453C and 892F.....
892F	9447	Presser Bar Lifting Bracket Adjusting Screw.....
453C	9414	Presser Bar Lifting Bracket Set Screw..
58048	9446	" " " Link.....
212D	9430	" " " " Cap Screw....
1253C	9447	" " " " Hinge Screw...
58049	9446	" " " " Spring.....
1241E	9447	" " " " " Screw Stud
49067	21508	" " Spring (flat).....
38468	9446	" " " Stud.....
137079	—	" Foot Compensating Plate.....
226J	9430	" " " " Screw
18200	9440	" " " " Spring
137080	9438	" " Finger Guard.....
207J	9442	" " " " Screw.....
137081	9438	" " Hinge Pin.....
137082	—	" " Plate.....

NO.	PLATE	NAME
137083	—	Presser Foot Shank.....
137084	9438	Presser Foot (compensating, hinged) complete, Nos. 207j, 226j, 18200 and 137079 to 137083.....
190j	9430	Presser Foot Screw.....
574w	9431	Pressure Regulating Thumb Screw.....
1539w	9431	" " " " Lock Nut.....
124002	21505	Pulley (loose) 2 7/8 in. diam.....
130959	9440	Slack Thread Controller.....
1095f	9442	" " " " Screw.....
2102	9450	Tension (under thread) Disc.....
51570c	9439	" " " " Regulating Thumb Nut.....
50326c	9439	Tension (under thread) Screw Stud
59539	—	" " " " " 50326c with 51570c.....
59534	9440	Tension (under thread) Spring.....
59537	9442	" " " " Bushing (large).....
59538	9440	Tension (under thread) Spring Bushing (small).....
32572	9440	Tension (under thread) Spring Washer..
130807	9440	" " " " Thread Guide....
50530k	9440	" (upper thread, automatic) Body
15770	9440	" " " " Cap.
130808	9438	" " " " R e - leasing Cam with 1036c.....
1036c	9442	Tension (upper thread, automatic) Re - leasing Cam Set Screw.....
130809	9438	Tension (upper thread, automatic) Re - leasing Pin.....
9540	21503	Tension (upper thread, automatic) Spring
848f	9438	" " " " Stud
9541	9438	" " " " " Plug (micarda).....
34527	—	Tension (upper thread, automatic) complete, Nos. 848f, 9540, 9541, 15770 and 50530k.....
130849	9440	Tension (upper thread, automatic) Thread Guide.....
190j	9430	Tension (upper thread, automatic) Thread Guide Screw.....
2102	9450	Tension (upper thread) Disc.....
51570c	9439	Tension (upper thread) R e g u l a t i n g Thumb Nut.....

NO.	PLATE	NAME
50326c	9439	Tension (upper thread) Screw Stud.
59539	—	" " " " " 50326c with 51570c.....
59534	9440	Tension (upper thread) Spring.....
59537	9442	" " " " Bushing (large).....
59538	9440	Tension (upper thread) Spring Bushing (small).....
32572	9440	Tension (upper thread) Spring Washer..
130850	9441	" " " " Thread Guide....
137072	9441	Thread (under) Take-up.....
130862	9441	" " " " Connection (forked) with two 1057E.....
1057E	9447	Thread (under) Take-up Connection Cap Screw.....
130864	9440	Thread (under) Take-up Connection Slide Block.....
190j	9430	Thread (under) Take-up Screw.....
130811	9440	" " " " Thread Guide
175j	9430	" " " " " Screw.....
130812	9441	Thread (under) Thread Guide (back of arm).....
1423j	9442	Thread (under) Thread Guide Screw....
137073	9441	" (upper) Controller.....
690b	9430	" " " " Screw.....
130854	9442	" " " " Thread Screw
1708j	9431	Eyelet.....
130855	9441	Thread (upper) Controller Thread Screw
457c	9407	Eyelet Lock Nut.....
58010	9450	Thread (upper) Take-up with 457c....
58011	9450	" " " " Set Screw....
58014	9450	" Chain Cutting Blade (inside) with 1933.....
58014	9450	Thread Chain Cutting Blade (outside) with 1933.....
172c	9430	Thread Chain Cutting Blade Actuating Plate.....
50247c	9431	Thread Chain Cutting Blade Actuating Plate Screw.....
1732j	9447	Thread Chain Cutting Blade Hinge Screw
1933	9450	" " " " " " " Nut.....
17622	9450	Thread Chain Cutting Blade Roller and Stud.....
137074	21507	Thread Chain Cutting Blade Spring....
		" " " " Lever.....

NO.	PLATE	NAME
137075	21507	Thread Chain Cutting Lever Extension
137086	—	“ “ “ “ “
		for 137087.....
137087	—	Thread Chain Cutting Lever Extension
		137086 with 13375, for hand operation
		for 146-71 Machine.....
13375	21511	Thread Chain Cutting Lever Extension
		Handle (wood) for 137087.....
172D	9430	Thread Chain Cutting Lever Extension
		Screw.....
1483D	9442	Thread Chain Cutting Lever Extension
		Thumb Screw.....
137076	9439	Thread Chain Cutting Lever Hinge Stud
443C	9401	“ “ “ “ “
		Set Screw.....
19510	9450	Thread Chain Cutting Lever Spring...
137085	21502	Throat Plate, for double thread, for
		137078.....
691F	9431	Throat Plate Screw (large).....
51023F	9442	“ “ “ (small).....
*15404	—	Trade Mark.....
15405	—	“ “ Rivet.....

Genuine Singer Needles should be used
in Singer Machines.
These Needles and their Containers
are marked with the
Company's Trade Mark "SIMANCO." 1

Needles in Containers marked
"For Singer Machines"
are not Singer made needles. 2

LIST OF PARTS COMPLETE FOR MACHINE No. 146-31

FOR CLOSING BAGS AFTER THEY ARE FILLED. THIS IS A SWING-
ING OUTFIT AND INCLUDES MACHINE HEAD, MACHINE
AND MOTOR BRACKET, CABLE WITH EYELETS, CLAMPS,
SHEAVE, COUNTERWEIGHT AND ELECTRIC TRANSMITTER
MOTOR. THE SEWING MACHINE AND MOTOR ARE BOLTED
TO A BRACKET THAT IS ATTACHED TO ONE END OF A
STEEL CABLE WHICH PASSES OVER A SHEAVE SUSPENDED
FROM THE CEILING. A COUNTERWEIGHT IS ATTACHED TO
THE OPPOSITE END SO THAT THE OPERATOR MAY EASILY
RAISE AND LOWER THE MACHINE FOR BAGS OF DIFFERENT
HEIGHTS.

NOTE: The 146-71 Machine Head is used on this outfit.
The motor required to operate this machine is of the
continuously running electrical transmitter type.
When placing orders, the voltage must be given for
S. D. Motors and the voltage, cycles and phase for
S. A. Motors.

NO.	PLATE	NAME
124285	—	Machine Belt, 1/4 in. diam., 35 1/2 in. long, with 25128.....
137123	21510	Machine Belt Guard.....
333R	9444	“ “ “ Screw.....
25128	9445	“ “ Hook.....
41441	9445	“ “ Shifter Belt Guide Pin...
882C	9444	“ “ “ “ “ Set Screw.....
124259	21514	Machine Belt Shifter Bracket with 858C and two 882C.....
54640	9444	Machine Belt Shifter Bracket Hinge Stud
443C	9401	“ “ “ “ “ “
		Set Screw.....
124260	9445	Machine Belt Shifter Bracket Spring
124261	9445	“ “ “ “ “
		Position Pin.....
551C	9445	Machine Belt Shifter Bracket Spring
		Screw Eyelet.....
124282	9445	Machine Belt Shifter Handle.....
858C	9444	“ “ “ “ Set Screw
137105	21512	“ Bracket with 435C, 443C and 50422C.....

PARTS FOR MACHINE No. 146-31

28

PARTS FOR MACHINE No. 146-31

NOTE: When ordering Weight Equalizer, amount required must be stated in lbs. or ozs.

50518R	9444	Machine Screw (long).....
1588R	9444	“ “ “ Nut.....
9281R	9445	“ “ “ Washer.....
50916R	9444	“ “ (lower).....
50192R	9444	“ “ (short).....

ACCESSORIES

NO.	PLATE	NAME
120908	21511	Bag Guide Hook.....
120344	9432	Oiler (copper plated) with 120345.....
120345	9432	" Spout, 5 in. long.....
11831	9432	Screw Driver (large).....
26026	9432	" " (medium).....
26485	9432	" " (small).....
120341	9432	Tweezers (curved).....
8908	21503	Wrench for 1753.....
68547	21503	" " 1629.....
124161	9433	" " 350, 731, 1513.....
124162	9433	" " 1518, 1519, 1619, 1636, 1731, and 50340.....
124163	9433	Wrench for 1508.....

THREAD UNWINDER

FOR TWO SPOOLS

NO.	PLATE	NAME
124278	21513	Counterbalance with 51288R.....
51288R	21503	" Thumb Screw.....
225257	21513	Spool Rest with 201018c.....
150203	21513	" " Cushion.....
124295	21513	" " Rod with 123183.....
123183	21503	" " " Cotter Pin.....
124296	21513	" " " Extension.....
124297	21513	" " " Coupling with two 456c.....
456c	21503	Spool Rest Rod Extension Coupling Set Screw.....
50422c	21503	Spool Rest Rod Extension Set Screw...
201018c	21503	" " Set Screw.....
225391	21513	Thread Guide.....
201696J	21503	" " Lock Nut.....
225326	21513	" " Position Cup.....
225324	21513	" " Rod with 208E and 225322
208E	21503	" " " Screw.....
225322	21503	" " " Washer.....
124298	21513	Thread Unwinder complete, Nos. 124278, 124295 to 124297, 201696J, 225257, 225324, 225326 and two 225391.....

PLATE 9401—FULL SIZE

58030



17670



17669



124179



11119



54897



52045



29599



443



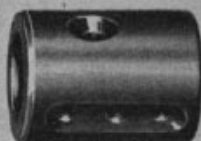
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49003



49004



49006



17671

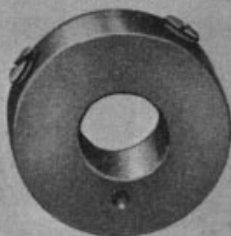


PLATE 9407—FULL SIZE

17683



58085



49013



122075



17684



2269



4784



2653



220



457



17679

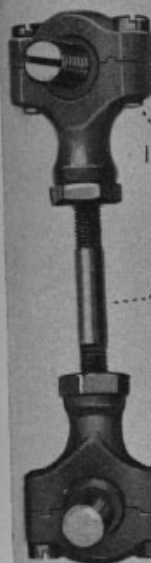


49109



PLATE 9414—FULL SIZE

124174

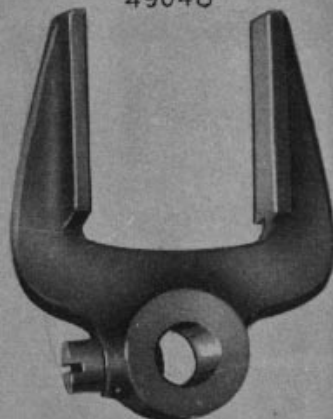


124177

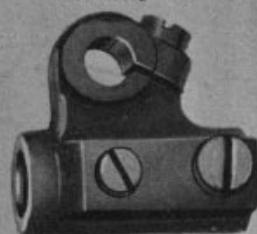
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49088

49048



124173



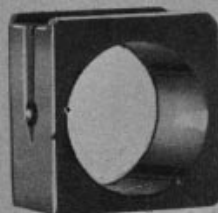
46237



50070



49049



50083



156



11411



453



443



PLATE 9430—FULL SIZE

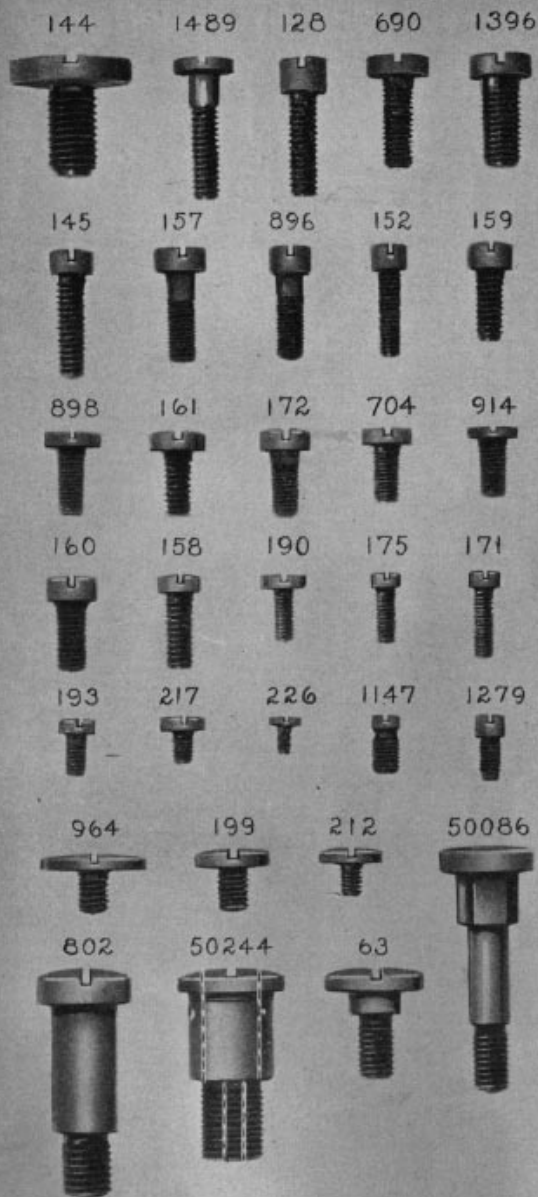
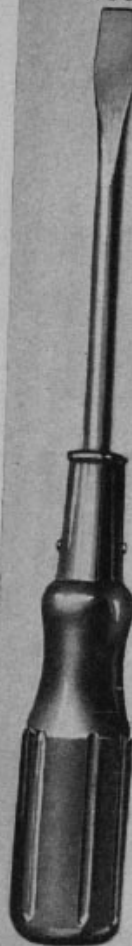


PLATE 9431—FULL SIZE



PLATE 9432—ONE-HALF SIZE

11831



26026



26485 120341



120344



120345

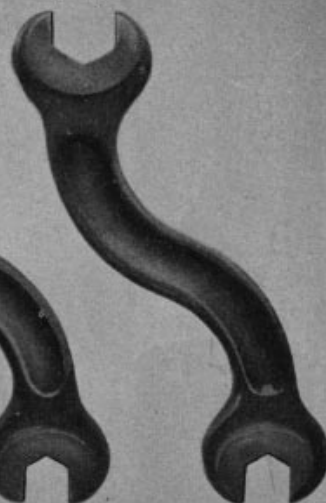


PLATE 9433—ONE-HALF SIZE

124162



124163



124161



42089



124165



PLATE 9434—FULL SIZE

130909



137020



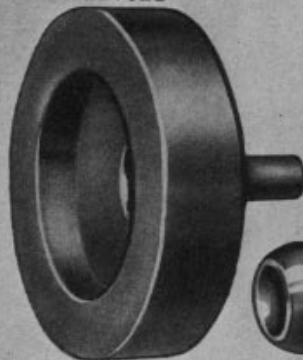
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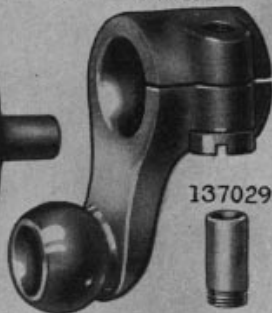
130907



137028



137014



137029



49031



49032

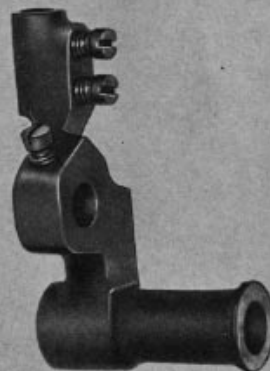


49166



PLATE 9435—FULL SIZE

130756



130757



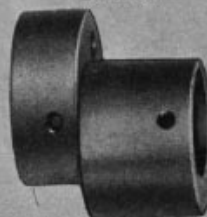
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130762



130765

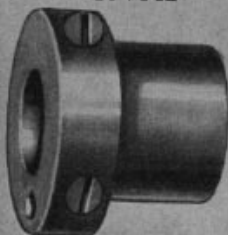


130763



PLATE 9436—FULL SIZE

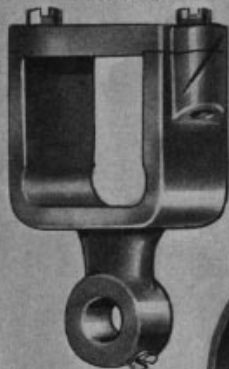
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137043



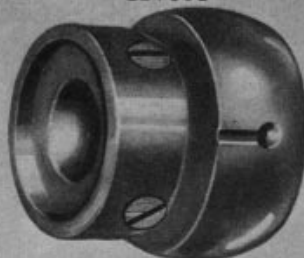
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137057



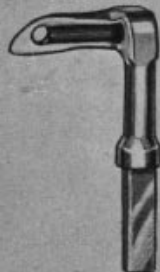
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137050



130839



137059

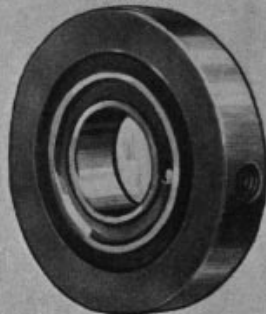


PLATE 9437—FULL SIZE

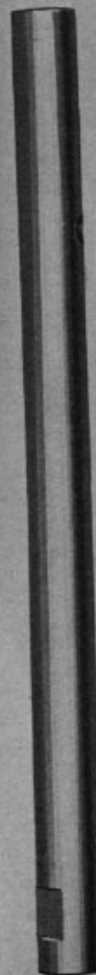
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17688



124172



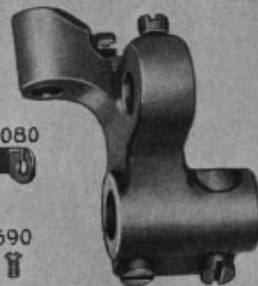
49039



58054



49044



38440



49080



590



130770



49036



59019



PLATE 9438—FULL SIZE

130800



130842



137084



848



137080

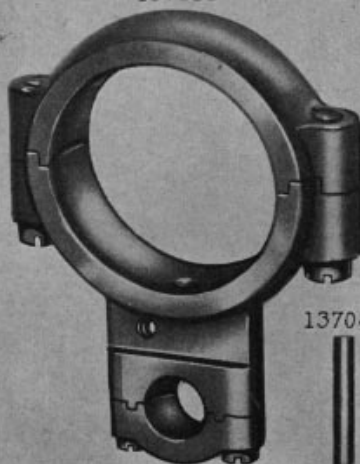
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130809



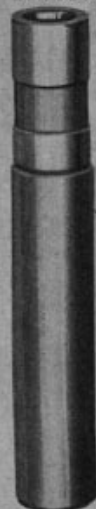
137053



137081



137067



9541



PLATE 9439—FULL SIZE

130759



130738



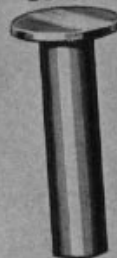
49064



137052



137076



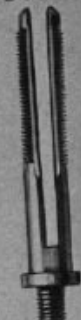
130836



137066



50326



40025



130970



130956



51570



1753



1518



137016



137022



PLATE 9440—FULL SIZE

15770



32572



130849



130959



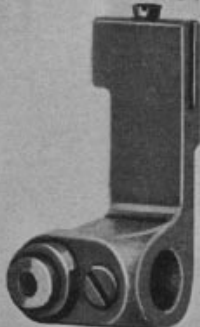
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59534



130801



50530



130811



130864



18200

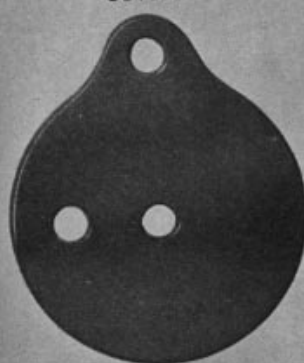


59538



PLATE 9441—FULL SIZE

137004



130855



137073



130812



130862



130850



137072



137068



130844



PLATE 9442—FULL SIZE

127



966



50085



176



185



207



51023



202



389



1095



1423



1483



51333



1036



624



59537



130854



51313



51416

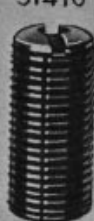


PLATE 9443—FULL SIZE

137010



137062



15783



137060



137040



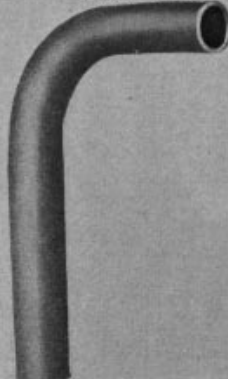
137011



137008



137006



137005

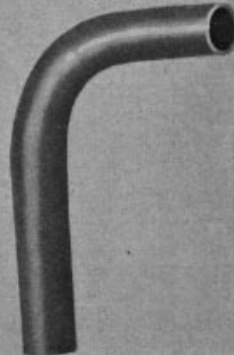


PLATE 9444—FULL SIZE

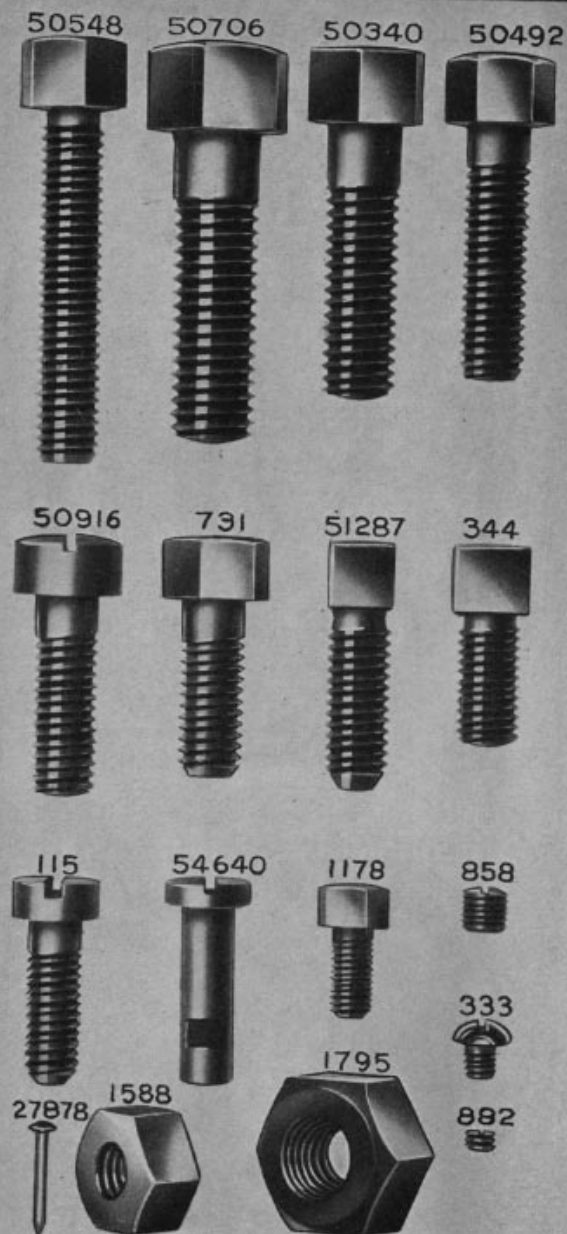


PLATE 9445—FULL SIZE

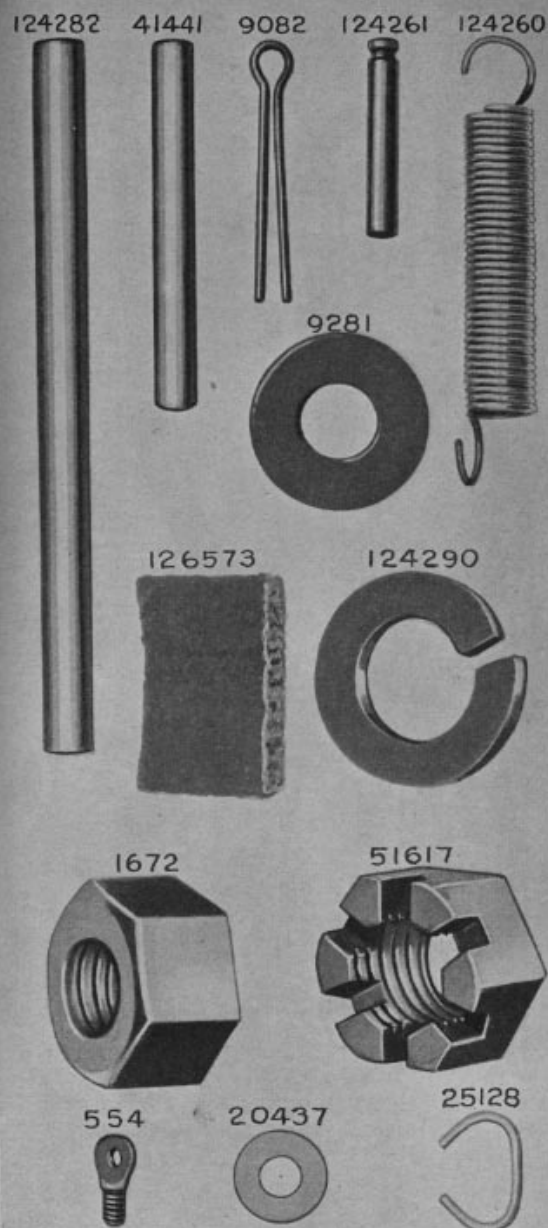


PLATE 9446—FULL SIZE

58048



49073



58046



58047



49075



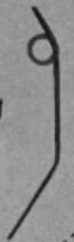
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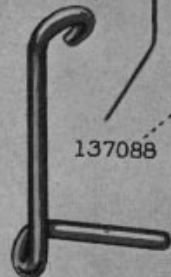
137090



58008



49071



137088

49065



58049



906



227



50087



58007



38468



974



PLATE 9447—FULL SIZE

49093



58039



42366



50457



1177



50282



1057



198



892



1253



1241



1454



449



1259



1709



1732



1629



58045



49043



27398



17675



PLATE 9448—FULL SIZE

137027 137091 137017 131089

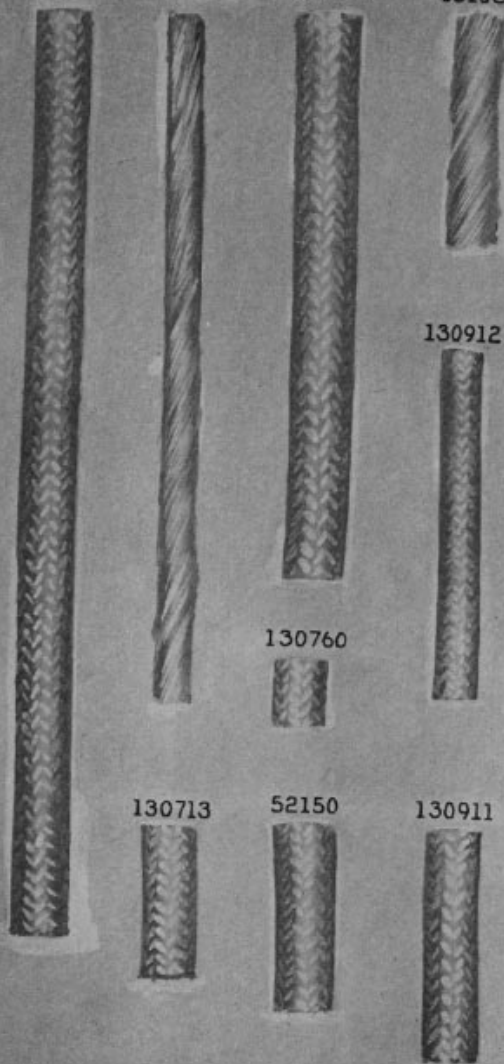


PLATE 9449—FULL SIZE

58052 49056 49101 49268



PLATE 9450—FULL SIZE

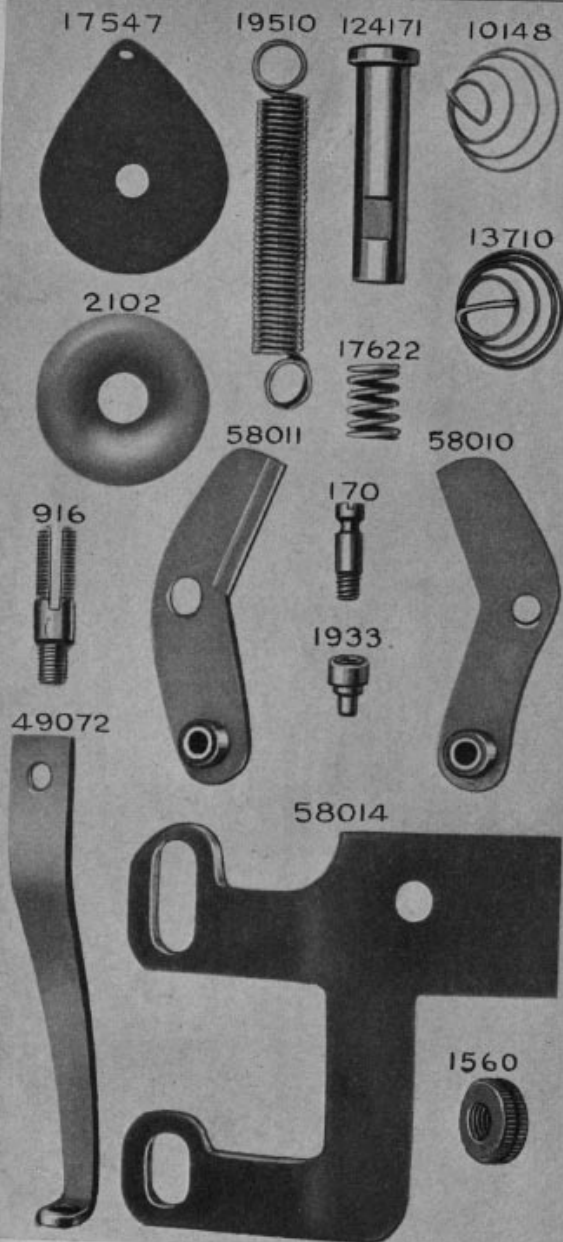


PLATE 21501—FULL SIZE

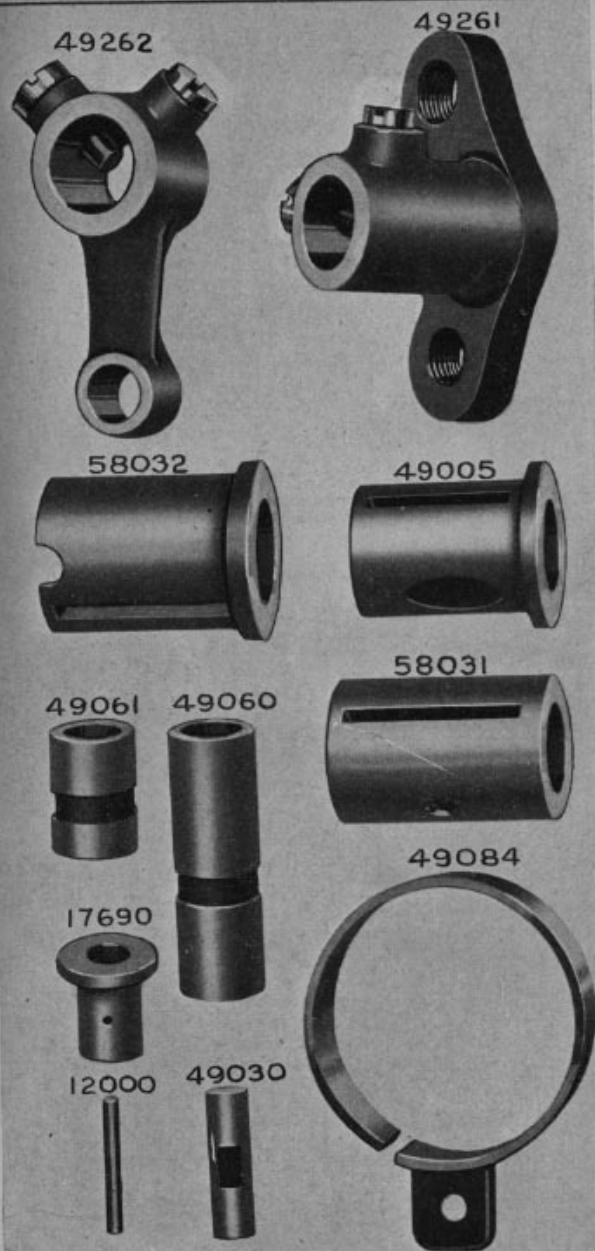
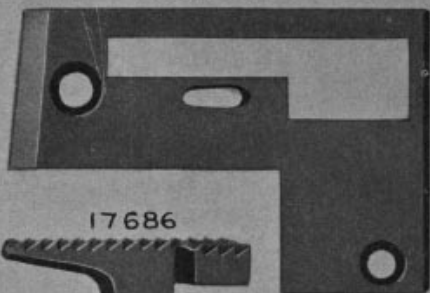


PLATE 21502—FULL SIZE

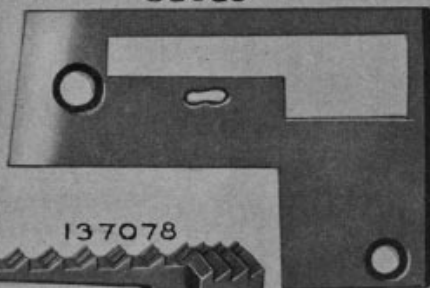
58025



17686



58028



137078



137085

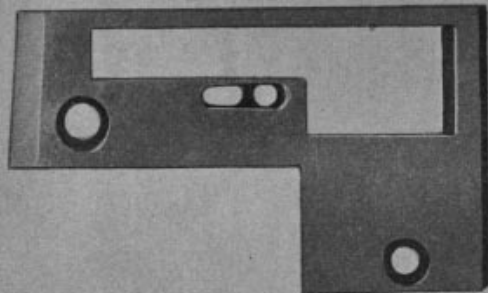


PLATE 21503—FULL SIZE

50422



201018



208



123183



51288



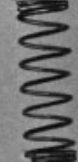
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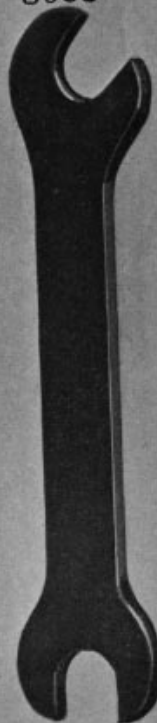
456



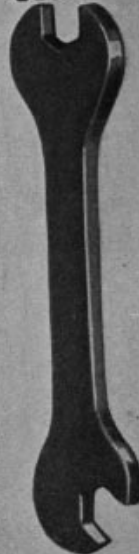
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8908



68547



201696



PLATE 21504—ONE-HALF SIZE

17672



49156



17693



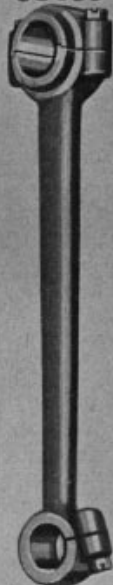
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124227



58033



49033



49012



PLATE 21505—ONE-HALF SIZE

137018



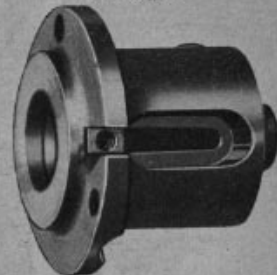
137012



124002



137025



137031



PLATE 21506—ONE-HALF SIZE

130737



137038



137034



137037



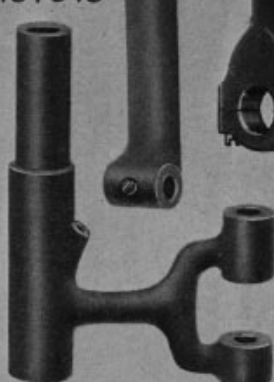
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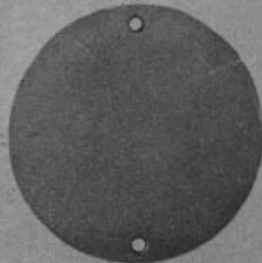
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137045



137030



130870

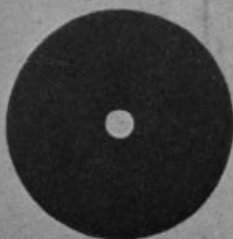


PLATE 21507—ONE-HALF SIZE

130841



130799



137061



137063



137074



137075



137051

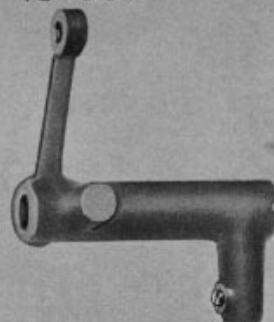
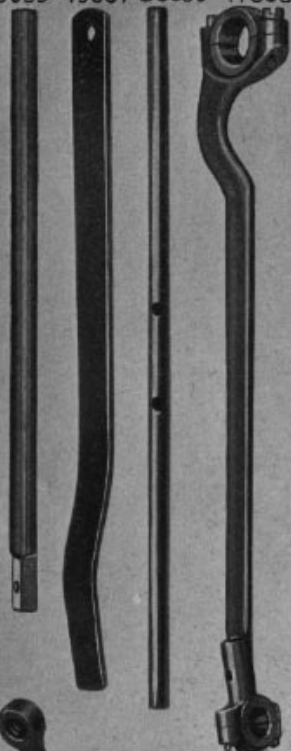


PLATE 21508—ONE-HALF SIZE

49059 49067 58036 17695

49020

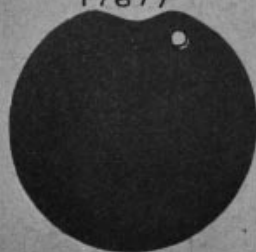


17676



17694

124001



17677



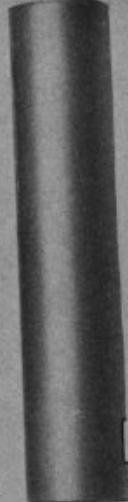
PLATE 21509—ONE-HALF SIZE

137107

124263

124274

124268



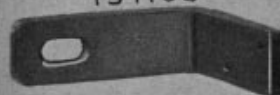
898622



124275



137108



124264



PLATE 21510—ONE-HALF SIZE

124289



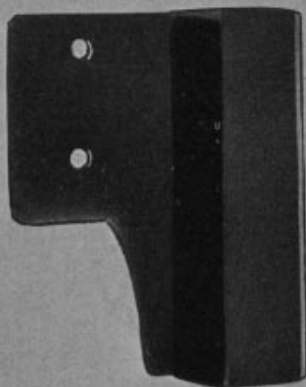
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124276



137123



137125

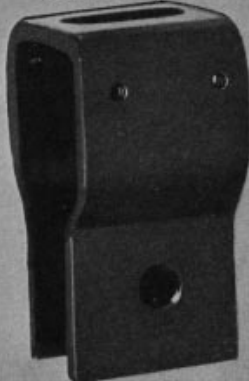
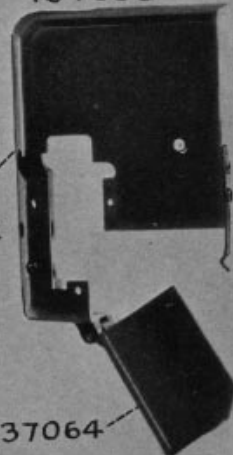


PLATE 21511—ONE-FOURTH SIZE

120908



137033



137032

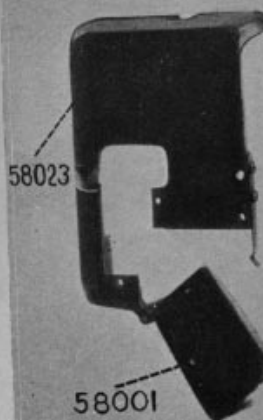
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124258



13375

58024



58023

58001

124257

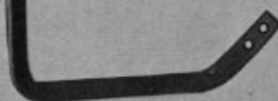


PLATE 21512—ONE-EIGHTH SIZE

124270



124271



124267



137105



124300



124299



PLATE 21513—ONE-EIGHTH SIZE

124298

225391

225326

225324

150203

225257

124295

124278

124297

51288

124296

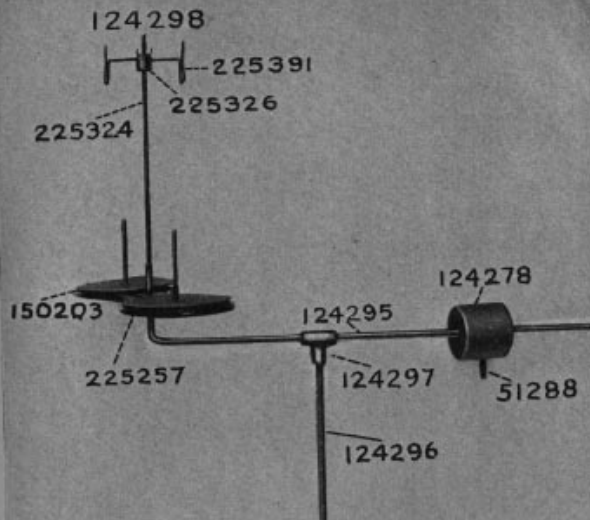
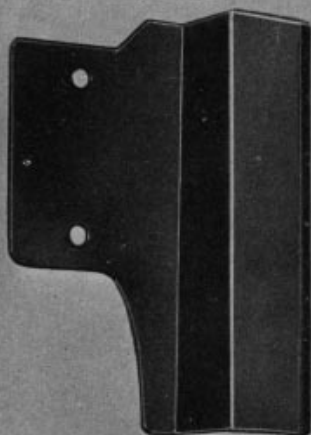


PLATE 21514—ONE-HALF SIZE

124292



124256



124294



124259

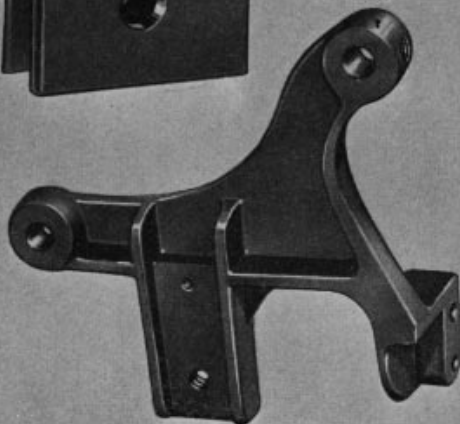


PLATE 21515—ONE-HALF SIZE

137128



137127

