Finest Quality

Union Special®
INDUSTRIAL SEWING EQUIPMENT

STYLES

ADJUSTING INSTRUCTIONS AND ILLUSTRATED PARTS LIST

35800DK
35800DL
35800DM
35800DN

HIGH SPEED NEEDLE FEED OF THE ARM MACHINES WITH DIFFERENTIAL FEED

CATALOG
NO. 95DM

THIRD
EDITION

Catalog No. 95DM

INSTRUCTIONS

FOR

ADJUSTING AND OPERATING

LIST OF PARTS

CLASS 35800

Styles

35800 DK	35800 DM
35800 DL	35800 DN

Third Edition

UNION SPECIAL CORPORATION
INDUSTRIAL SEWING MACHINES
CHICAGO

Printed in U. S. A.

May, 1981

IDENTIFICATION OF MACHINES

Each UNION SPECIAL machine is identified by a Style number which is stamped into the name plate on the machine. Style numbers are classified as standard and special. Standard Style numbers have one or more letters suffixed; but never contain the letter "Z". Example: "Style 35800 DK". Special Style numbers contain the letter "Z". When only minor changes are made in a standard machine, a "Z" is suffixed to the Standard Style number. Example: "Style 35800 DKZ".

Styles of machines similar in construction are grouped under a class number which differs from the style number, in that it contains no letters. Example: "35800".

APPLICATION OF CATALOG

This catalog applies specifically to the Standard Styles of machines as listed herein. It can also be applied with discretion to some Special Styles of machines in this class. Reference to direction, such as right, left, front, back, etc., are given from the operator's position while seated at the machine. Operating direction of the handwheel is counterclockwise.

STYLES OF MACHINES

High Speed, Feed-Off-The-Arm High Throw Machines, Three Needle, Left Needle In Front, Operator Controlled Differential Feed. Light Weight Presser Bar Mechanism, Adjustable Looper Avoid, Periphery of Cylinder at Needle Bar 5 7/8 Inches, Space in Front of Needles 8 Inches, Single Disc Looper Thread Take-up, Automatic Enclosed Type Oiling System and Filter Type Oil Pump, Visual Sight Oil Action and Supply Gauges.

35800 DK Equipped with upper driven roller feed for felling non-sanforized overalls, trousers, jackets and coats. .094 inch (2.4 mm) step on right side. Seam specification 401 LSc-3. Type 128 GLS needle. Standard gauge No. 8 (3.2 mm). Maximum recommended speed 4500 R.P.M.

35800 DL Same as 35800 DK except for felling sanforized or non-sanforized jeans, denim jackets and western shirts. .040 inch (1 mm) step on right side. Standard gauge No. 9 (3.6 mm).

35800 DM Same as 35800 DK except equipped with tractor type presser foot for felling sanforized or non-sanforized jeans, denim jackets, dungarees and shop coats. Standard gauge Nos. 8 (3.2 mm) and 9 (3.6 mm). Maximum recommended speed 5000 R.P.M.

35800 DN Same as 35800 DK except Standard gauge Nos. 8 (3.2 mm) and 9 (3.6 mm).

NEEDLES

Each needle has both a type and size number. The type number denotes the kind of shank, point, length, groove, finish and other details. The size number, stamped on the needle shank, denotes largest diameter of blade, measured midway between shank and eye. Collectively, type and size number represent the complete symbol which is given on the label of all needles packaged and sold by Union Special.

NEEDLES (Continued)

The standard recommended needle for Styles 35800 DK, DL, DM and DN is Type 128 GLS. Description and sizes available of the recommended needle as follows.

Type No.	Description
128 GLS	Round shank, round point, short, double groove, struck groove, oversize ball eye, one step increase, spotted, short blade, 1/8 inch less than standard, width of eye and grooves undersize, one step reduction, ball point, chromium plated - sizes 090/036, 100/040, 110/044, 125/049.

To have needle orders promptly and accurately filled, an empty package, a sample needle, or the type and size number should be forwarded. Use description on label. A complete order would read: "1000 Needles, Type 128 GLS, Size 110/044".

Selection of proper needle size is determined by size of thread used. Thread should pass freely through the needle eye in order to produce a good stitch formation.

OILING AND THREADING

The oil has been drained from the machine before shipping, and the reservoirs must be filled before beginning to operate. Use a straight mineral oil with a Saybolt viscosity of 90 to 125 seconds at 100° Fahrenheit.

Oil is filled at the caps "A" and "B" in the accompanying diagrams (Figs. 1 & 2). The level is checked at the two sight gauges "C" and "D". Maintain the oil level between the red lines of the gauges.

The machine is equipped with a continuous running rotary driven oil pump. The action of the oil can be observed through the lucite windows "E" and "F" in the front and back top covers. When starting a new machine after filling the reservoirs, or when beginning to operate a machine that has been idle for some time, it may be necessary to prime the pump.

To do this, remove the two plug screws "G". Apply oil from an oil can to these holes and operate machine until bubbling can be observed at the windows. Replace screws. If oil does not bubble when machine is running, the circulating pump is inoperative.

Oil may be drained from the machine at two places, "H" and "J". One plug screw is located in the bottom of the cylinder and the other at the back of the main frame below the handwheel.

Fig. 1 shows the manner in which machine Style 35800 DM is threaded, while Fig.2 shows the manner in which machine Styles 35800 DK, DL and DN are threaded.

Keep the threads in the slots (K, Figs. 1 and 2) in the tension posts "L" and between the tension discs "M" and "N".

A convenient means for threading the looper has been provided. When loopers are at the left end of their travel, press the knob "P" and loopers will back out of position, leaving them easily accessible. After threading, push loopers back into position.

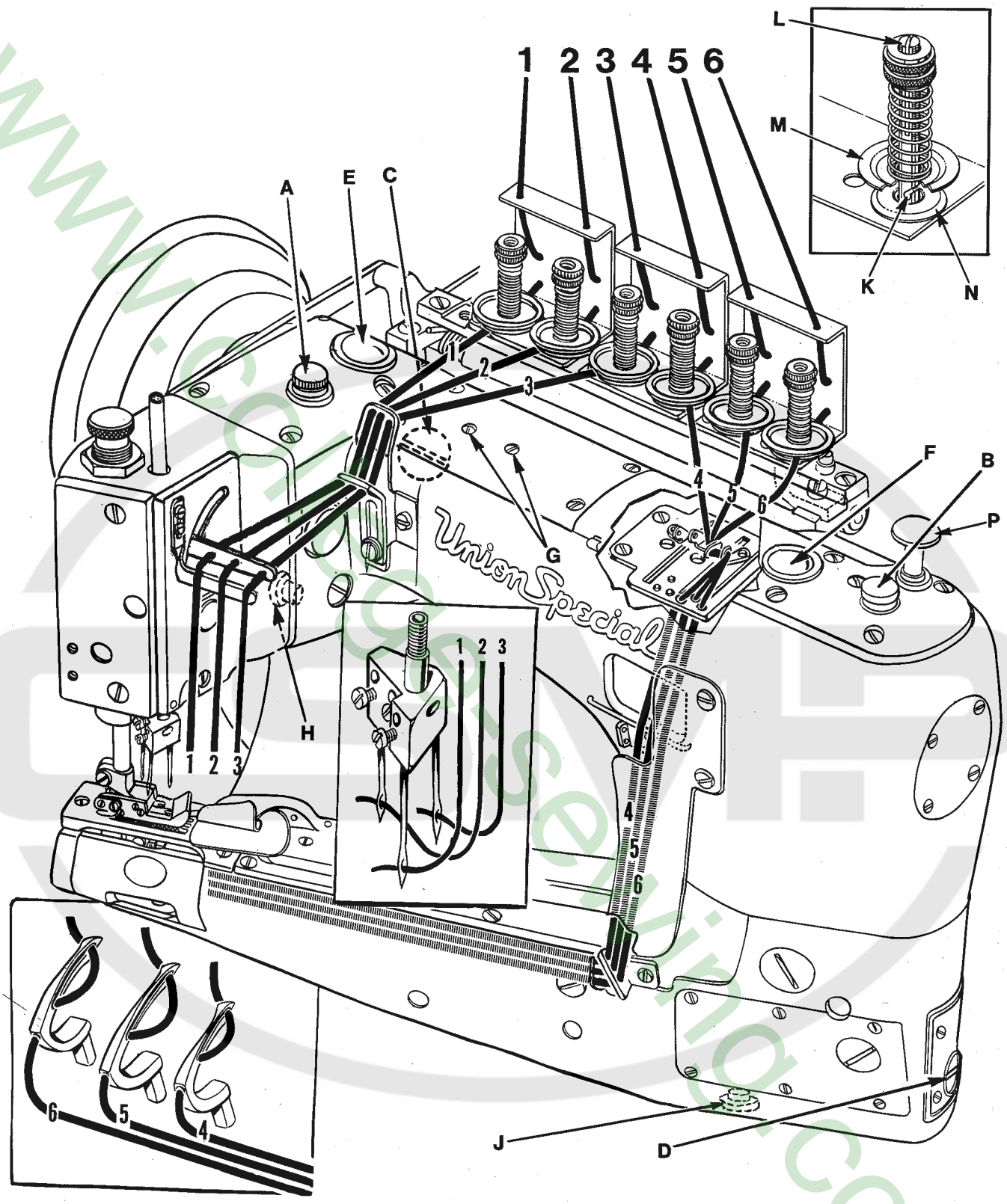


Fig. 1

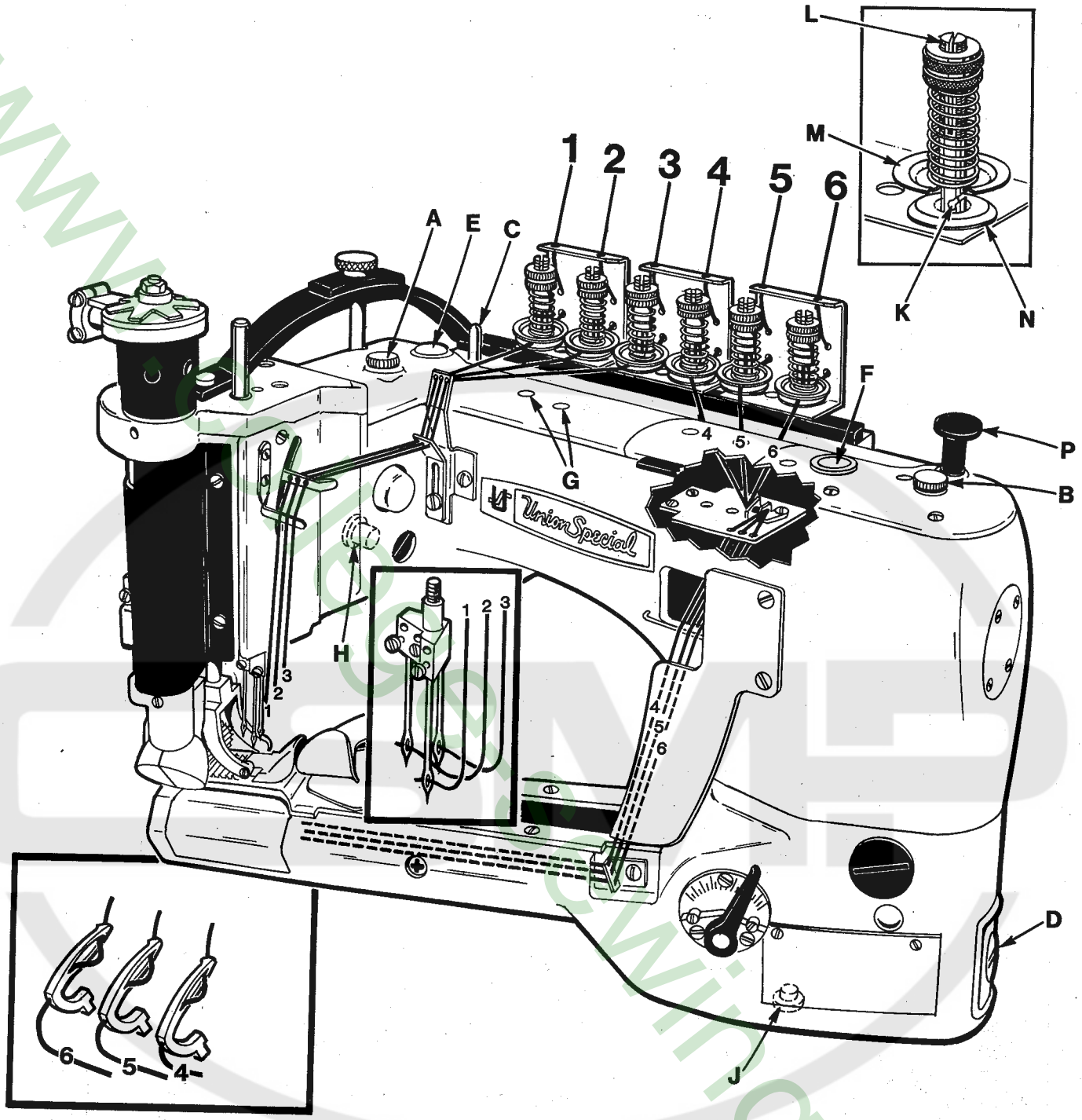


Fig. 2

SYNCHRONIZING NEEDLE AND LOOPER MOTIONS

Needle and looper mechanisms are carefully synchronized with precision gauges before leaving the factory to insure the best possible sewing conditions. Should it become necessary to disassemble the main shaft or replace components of the needle or looper drive mechanisms, re-synchronization of the machine will be required to facilitate proper sewing adjustments. This is accomplished by means of an adjustable split coupling located beneath the rear top cover, connecting the crankshaft to the main shaft, which in turn drives the looper mechanism.

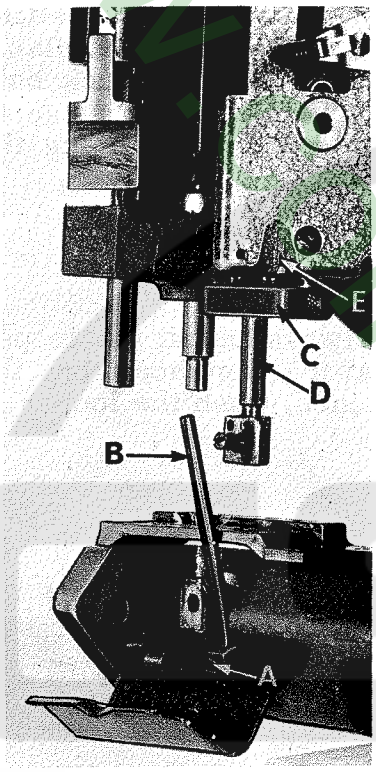


Fig. 3

To synchronize the machine, remove the needles, presser foot, throat plate and feed dogs. The upper feed roller mechanism MUST be removed on Styles 35800 DK, DL and DN machines. Rotate handwheel in the operating direction until the needle bar is at the bottom of its stroke and just begins its upward travel. Loosen screw (A, Fig. 3) and remove the looper for the left hand needle from the looper holder. Insert a straight steel rod (B) 5/32 or 11/64 inch diameter by 2 1/2 inches long into looper holder and retighten screw (A). It may be necessary to re-position the looper holder so that the rod (B) will be in a vertical position when at its farthest travel to the right. Rotate the handwheel until the rod is at extreme left, re-install the throat plate. Turn the handwheel in the operating direction, raising the needle bar until the rod (B) comes in contact with the edge of the throat plate. At this point, clamp Union Special timing gauge No. 21225 H (C) around the needle bar (D), flush against the underside of the machine casting (E). Rotate handwheel in the opposite direction until either the gauge contacts the machine casting on the upstroke of the needle bar or the rod contacts the edge of the throat plate. Maximum allowable clearance between gauge and casting or rod and throat plate is .005 inch.

Both ends of the adjustable split coupling are secured to the crankshaft and main shaft by spot screws and set screws. On the main shaft end of the coupling (A, Fig. 4) three screws (B) thread horizontally through the coupling. The holes in the main shaft end of the coupling are drilled several thousandths larger than the diameter of the screws, permitting several degrees of rotation in either direction to properly synchronize the needle and looper. Loosen the three horizontal clamp screws (B, Fig. 4) and with the rod (B, Fig. 3) at its farthest position to the left, barely tighten the uppermost horizontal clamp screw enough to hold the coupling (A, Fig. 4) in position. If the handwheel is turned in reverse of operating direction and the gauge (C, Fig. 3) on the needle bar (D) contacts the machine casting (E) before the rod (B) contacts the edge of the throat plate, loosen the horizontal clamp screw which was barely tightened, while holding the coupling in place by the set screw (C, Fig. 4) with an Allen wrench. Rotate the handwheel SLIGHTLY in reverse of operating direction, snug the uppermost horizontal clamp screw and use shim gauge to insure no more than .005 inch exists

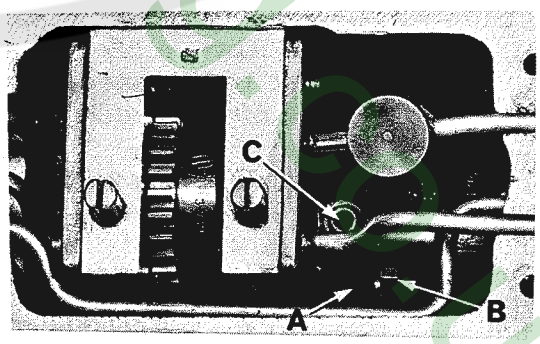


Fig. 4

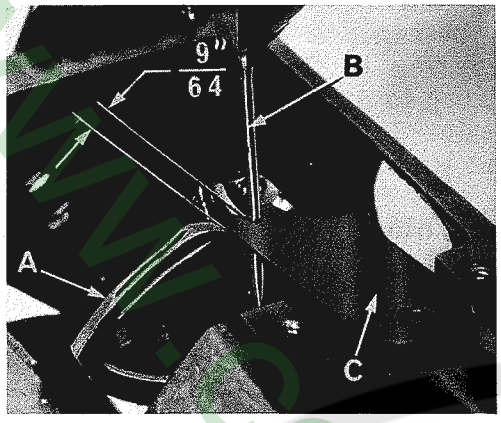


Fig. 5

between gauge and casting or between rod and throat plate, in both the operating and reverse directions of the handwheel. If the handwheel is turned in reverse of operating direction and the rod contacts the edge of the throat plate before the clamp gauge contacts the machine casting, adjust as before, except turn the handwheel SLIGHTLY in the operating direction while holding the main shaft end of the coupling by the set screw with the Allen wrench. When this setting has been made, tighten the three horizontal clamp screws (B, Fig. 4) securely, and recheck both clearance points with .005 inch shim gauge to assure no slippage occured while tightening the screws.

SETTING THE LOOPER

Insert a new set of needles, type and size specified. Always adjust the looper (A, Fig. 5) for the left needle first. Set the looper so that the distance from the center of the needle (B) to the point of the looper (A) is 9/64 inch, when the looper is at its farthest position to the left. Looper gauge (C) No. 21225-9/64 can be used advantageously in making this adjustment. If adjustment is required, loosen screw (A, Fig. 6) in looper holder, permitting movement in either direction to obtain the 9/64 inch dimension as shown in Fig. 5. Retighten screw (A). Rotate handwheel in operating direction to assure that the looper point passes to the rear of the needle as close as possible without contacting, and the descending needle barely brushes the back of the looper. This adjustment can be made by loosening screw (B, Fig. 6) very slightly, so the looper can be moved in the holder, but rigid enough to retain its position while rotating machine through its cycle to attain the required movement, retighten screw. Always check the 9/64 inch looper gauge setting after setting the looper to the back of the needle, and conversely, always check the setting of the looper to the back of the needle after setting the 9/64 inch looper gauge.

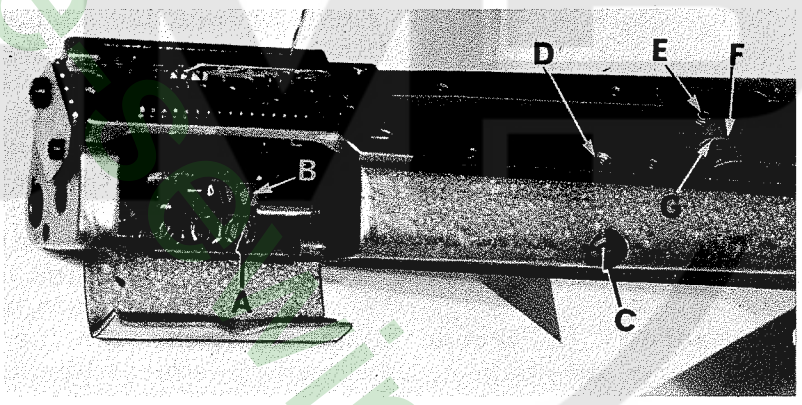


Fig. 6

If more or less looper avoid motion is required, remove the cylinder side cover located at the lower front left side, loosen looper avoid link ball joint (A, Fig. 11). Moving ball joint downwardly in the lever slot increases the amount of looper avoid motion, moving it upwardly acts the reverse. Retighten ball joint securely. RE-CHECK SETTINGS AS BEFORE.

SETTING THE FEED DOGS

Before assembling the main and differential feed dogs, set the feed bar eccentric pin (C, Fig. 6) located in the left side near center of cylinder, so that the slot in the head is in a horizontal position. This assures a neutral position of eccentricity for the purpose of raising or lowering the height of the main and differential feed bars simultaneously. The feed bar pin is retained in position by set screw (D). Assemble the differential feed dog (A, Fig. 7), main feed dog (B) and throat plate. Both the main and differential feed dogs can be individually adjusted to height due to having elongated slots for their attaching screws. The main feed dog at its highest position, should be set to project above the throat plate, slightly more than the depth of its teeth. The differential feed dog may then be leveled with the main feed dog. Tighten the attaching screws securely.

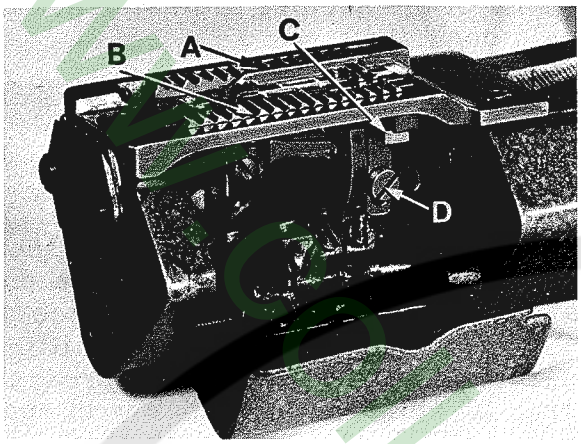


Fig. 7

Should the main feed dog require repositioning due to contact with the throat plate in its forward or rearward travel, loosen set screw (E, Fig. 6) in main feed bar driving link (F) rotate main feed bar eccentric driving stud (G) as required. Driving stud (G) has a thin hexagon head with cut-outs on two of the flats allowing movement by tapping with a sharp pointed tool when a thin open end wrench is not available. Whenever the main feed bar eccentric driving stud position has been changed, re-check rear needle guard setting, adjustment may be required. Retighten set screw (E). Position main feed dog support (C, Fig. 7) flush against bottom of main feed dog (B), tighten support screw (D) securely.

TIGHTENING NEEDLE BAR HEAD

When replacement of the needle bar head is necessary, torque to 17 in. lbs. (19.6 cm.kg) or use torque rod No. 21227 AR that has been supplied with the machine for the purpose of eliminating the possibility of distorting the needle bar due to overtightening. Insert the torque rod in the hole at the upper end of needle bar, while holding the needle bar head with a suitable tool, turn the needle bar with the torque rod onto the needle bar head. When the rod starts to bend, the needle bar head has been threaded into the needle bar the proper distance.

ALIGNING AND SETTING HEIGHT OF NEEDLE BAR

Align the needle bar (A, Fig. 8) with test plate (B) No. 698 BR-8 or -9 as applicable to the machine gauge, using test pins (C) No. 699 D. Loosen screw (D) in needle bar connection (E) permitting alignment of test pins into the test plate. With the needle bar connection (E) at the bottom of its travel and the shoulders of the test pins (C) seated on the test plate (B), the needle bar is automatically set at its proper height. Retighten screw (D).

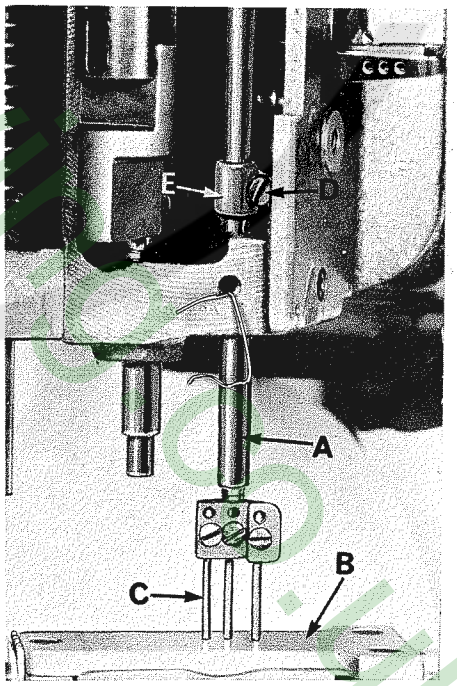


Fig. 8

If test plate and test pins are not available, insert a new set of needles, type and size specified, and with screw (D) slightly loosened, lower and turn needle bar as required until the oblique position of the needles corresponds with the vertical faces of the rear needle guard, retighten screw (D). The height of the needle bar is correct when the top of the needle eye is 1/64 inch below the underside of the looper, with the looper point even with the right side of the needle. Adjustment can be made at the needle bar connection as previously described.

Care must be taken not to disturb the alignment of the needle bar, when moving the needle bar either up or down.

UPPER FEED ROLLER ADJUSTMENT (Styles 35800 DK, DL and DN)

When upper feed roller mechanism has been removed or replaced, .005 inch clearance should be maintained between roller and throat plate to alleviate the possibility of the teeth of the roller, chipping at the throat plate during absence of sewing material. Loosen set screw (A, Fig. 9) in feed roller frame (B) permitting feed roller mechanism to be raised on the roller presser bar (C). With presser bar connection (D) properly positioned and secured on roller presser bar with spot screw (E), set screw (F) and resting on head casting (G), insert .005 inch shim between roller and throat plate. Depress feed roller mechanism firmly on shim, retighten set screw (A), remove shim.

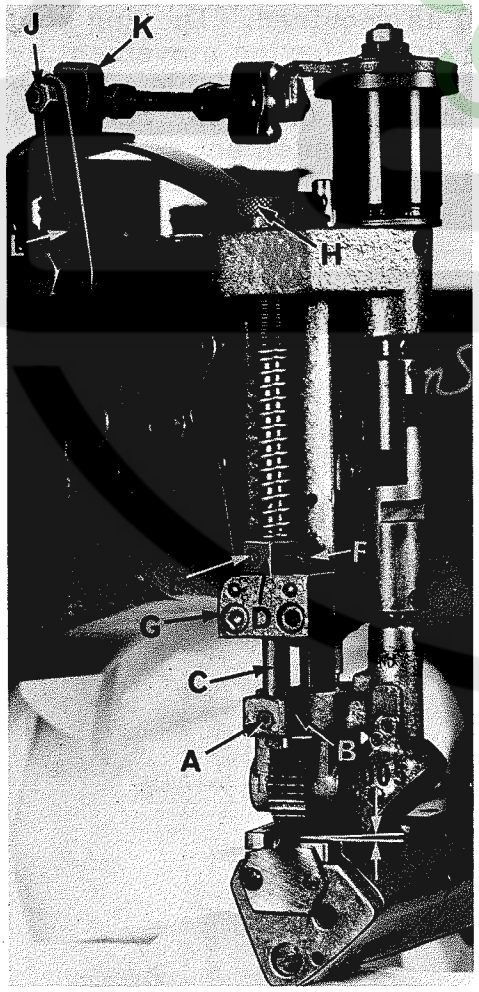


Fig. 9

Regulate the pressure on the feed roller so that it exerts only enough pressure on the fabric to feed the work uniformly by turning roller presser spring regulator (H) clockwise to increase or counterclockwise to decrease the pressure.

To adjust the amount of travel of the roller, loosen nut (J) move ball joint assembly (K) upwardly in clutch driving segment lever (L) to acquire more feed action, downwardly acts the reverse. Retighten nut (J).

PRESSER FOOT ADJUSTMENT

The presser foot should be adjusted to clear the throat plate 1/8 inch before the upper feed roller mechanism begins to rise. Loosen set screw (A, Fig. 10) in presser bar lifter and guide (B), raise or lower guide as required to attain the specified point at which the feed roller begins to rise. Retighten set screw (A).

Regulate the pressure on the presser foot same as the upper feed roller by turning the presser spring regulating nut, located on top of leaf type spring at the rear of machine.

SETTING REAR NEEDLE GUARD

Set the rear needle guard horizontally so that it barely contacts the needles when at its extreme forward position. It should be set vertically as low as possible, yet have its guarding surface in contact with the needles until the points of the loopers, moving to the right, are even with the right side of the needles.

CHANGING STITCH LENGTH

Fig. 10

When change in stitch length is required, remove large plug screw located in the left forward side of cylinder just below the joining line of cylinder and main frame. Loosen feed rocker driving link screw (B, Fig. 11). Moving the feed rocker driving link upwardly in the lever slot lengthens the stitch, moving it downwardly, acts the reverse. Retighten link screw securely.

DIFFERENTIAL CONTROL

The amount of differential is controlled by a lever (C, Fig. 11) located on the lower left side of cylinder. When the lever is moved towards the operator, more differential or gathering occurs, when moved towards the needles, reverse differential or stretching occurs. If top ply of material is coming out long, move lever toward operator, if top ply is short, move lever away from operator, as required.

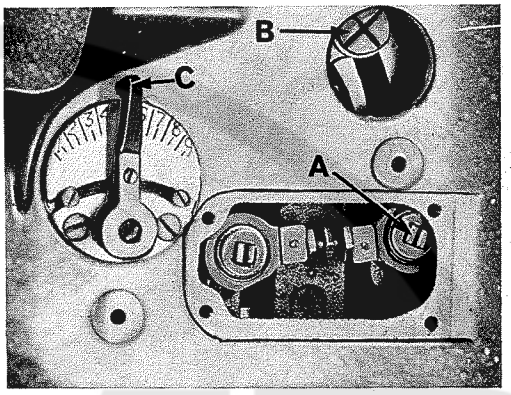


Fig. 11

THREAD TENSION AND RELEASE

The amount of tension on needle and looper threads is regulated by six knurled tension nuts (A, Figs. 1 & 2). Set the tension on the needle threads as tight as is consistent with their strength and avoid puckering the fabric. The tension on the looper threads should be barely sufficient to steady them in passing through the machine.

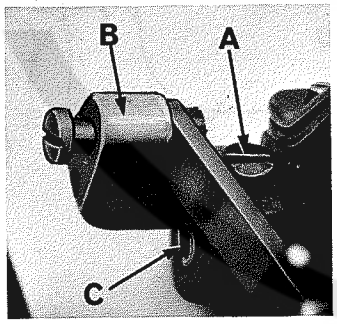


Fig. 12

The thread tension release is set correctly when it begins to function at the point when the upper feed roller begins to raise. When adjustment is necessary, loosen screw (A, Fig. 12) in lifter lever (B). Facing the tension release shaft (C) from the RIGHT end of the machine, insert screwdriver in slot in shaft and rotate counterclockwise to retard, or clockwise to advance the release action, as required. Retighten screw (A).

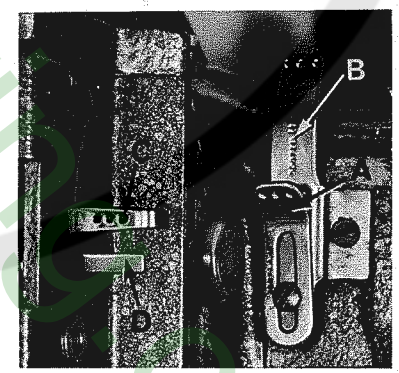
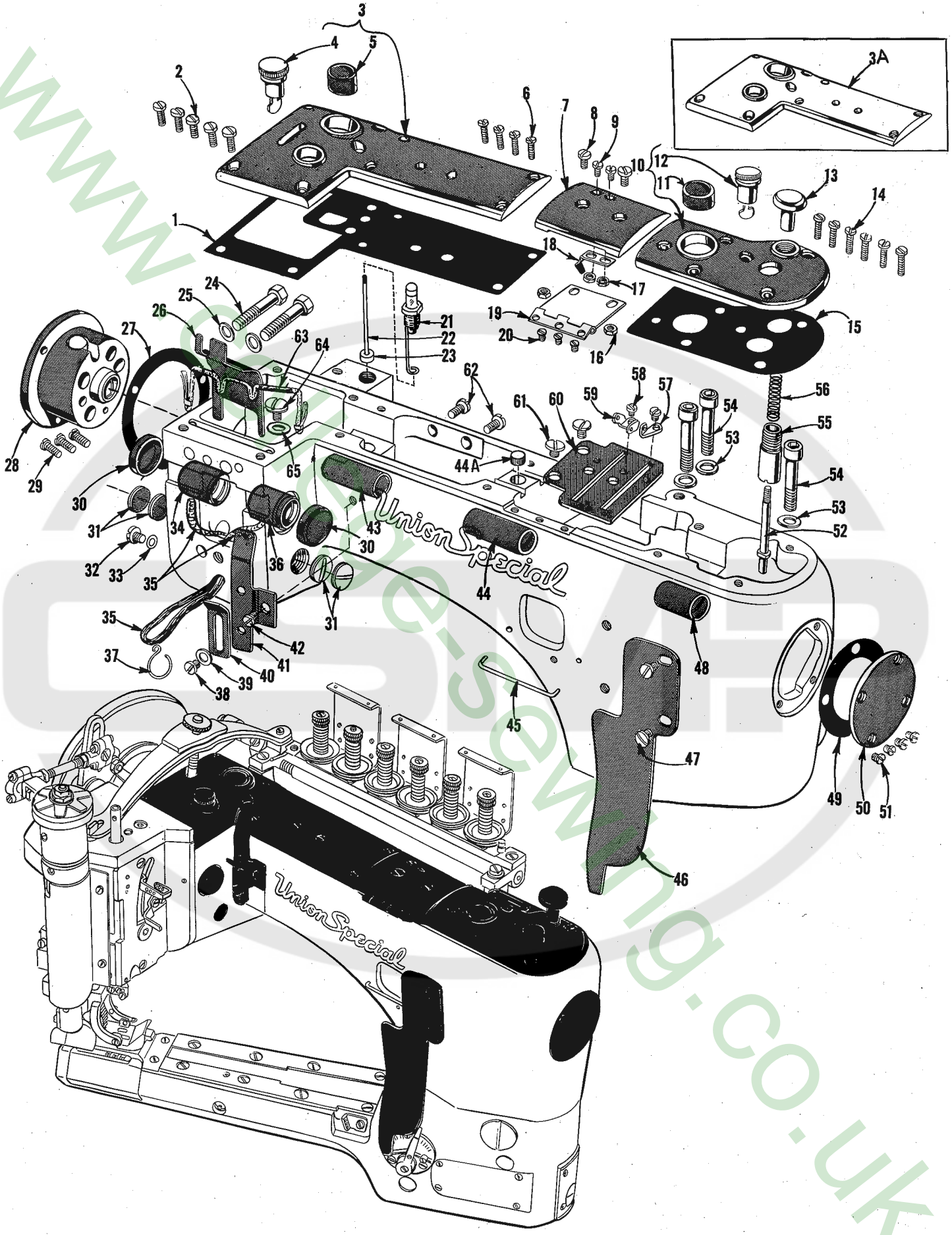


Fig. 13

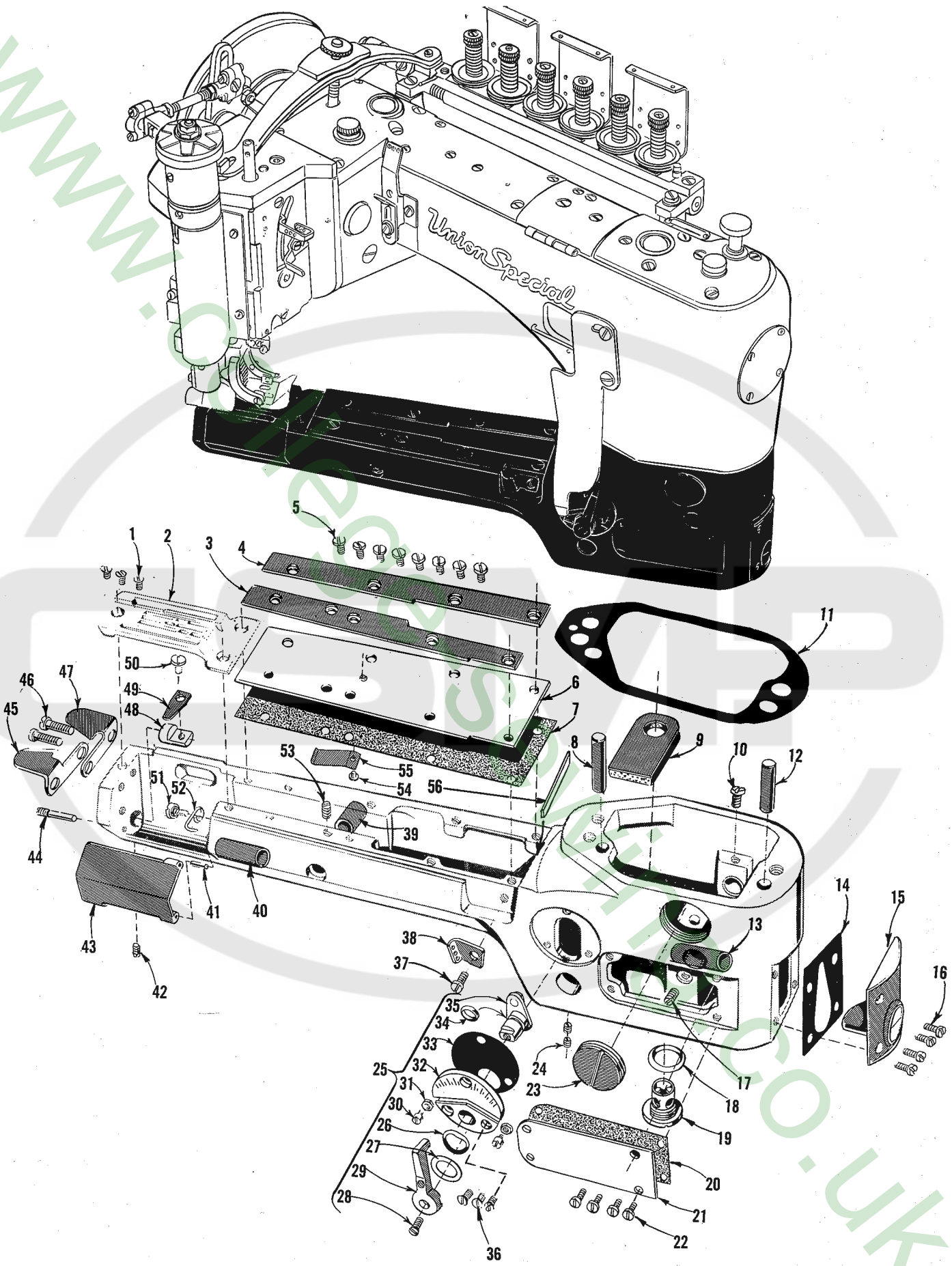
SETTING NEEDLE THREAD TAKE-UP AND FRAME EYELET

Set the adjustable frame needle thread eyelet (A, Fig. 13) in the upper mounting hole of the frame needle thread eyelet (B) adjust and tighten in position so the needle thread from the adjustable frame needle thread eyelet (A) to the needle lever thread eyelet (C) will be in a straight line, with the needle bar at the top of its stroke. With the needle bar at the bottom of its stroke, the needle thread take-up (D) should be set so that its is 1/16 inch above the edge of the needle lever thread eyelet (C).



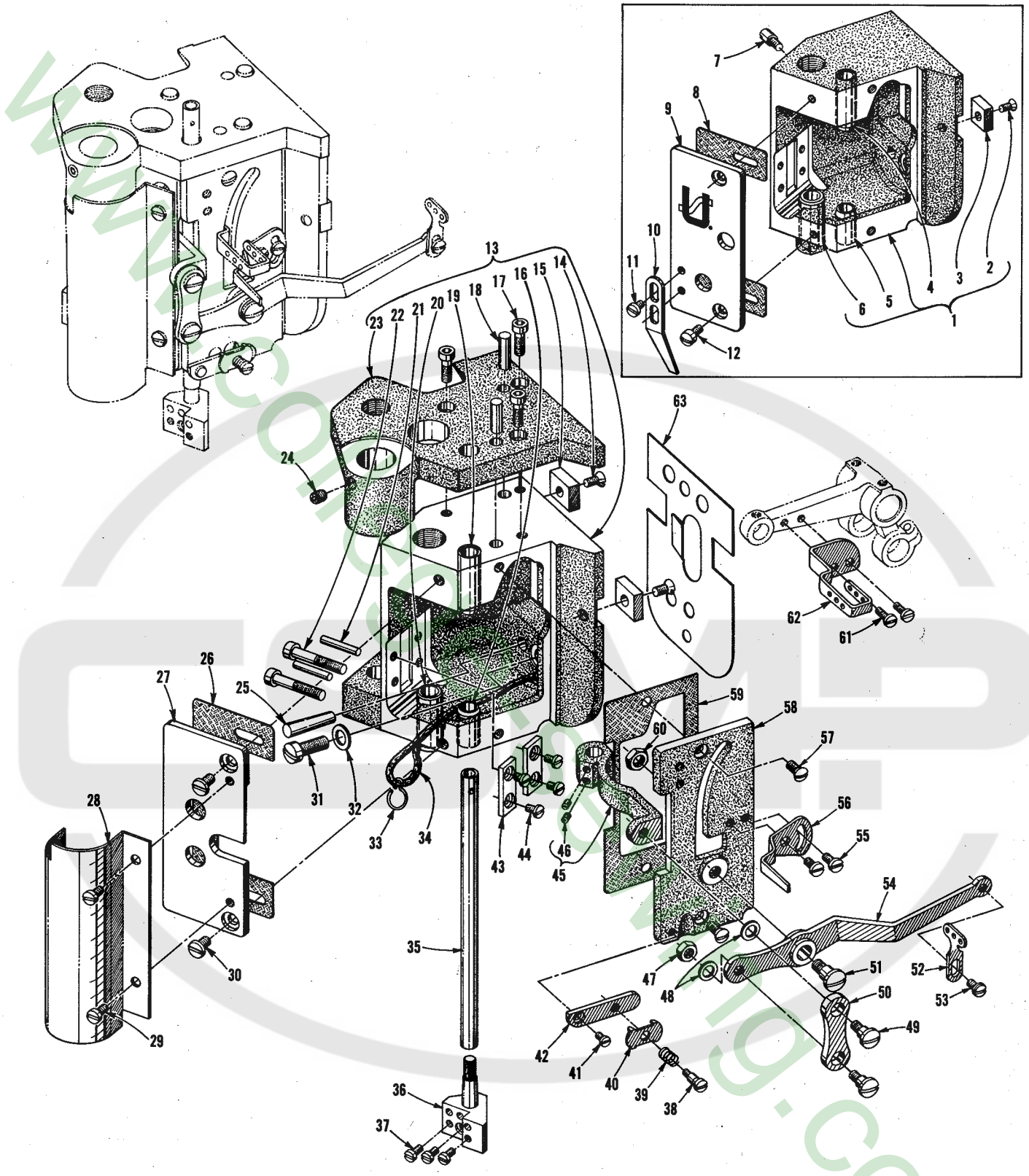
MAIN FRAME, CAST-OFF PLATE, EYELETS, MISCELLANEOUS COVERS AND BUSHINGS

Ref. No.	Part No.	Description	Amt. Req.
1	35888 P	Gasket	1
2	93	Screw	5
3	35888 NR	Crank Chamber Cover, for Styles 35800 DK, DL and DN	1
3A	35888 N	Crank Chamber Cover, for Style 35800 DM	1
4	666-96	Oil Cup	1
5	50-537 Blk.	Oil Sight Gauge	1
6	22516 A	Screw	4
7	35887 X	Top Cover, middle	1
8	93 A	Screw	2
9	90	Screw	2
10	35887 AE	Top Cover, front	1
11	50-537 Blk.	Oil Sight Gauge	1
12	666-96	Oil Cup	1
13	35853 Z	Looper Throw-out Plunger Knob	1
14	22516 A	Screw	6
15	35887 AD	Gasket	1
16	12934 A	Nut, for No. 93 A screw	2
17	41071 G	Nut, for No. 90 screw	2
18	35887 M	Spring	1
19	35887 R	Middle Top Cover Hinge	1
20	22564 B	Screw	3
21	36293 B	Oil Sight Gauge	1
22	36293 E	Oil Sight Indicator	1
23	39593 C	Oil Gauge Float	1
24	22759 A	Screw	2
25	6042 A	Washer	2
26	35889 H	Oil Shield	1
27	56390 E	Gasket	1
28	35890 F	Bushing Housing, including bushing	1
29	22569 B	Screw	3
30	35761 D	Bushing Cap, plastic	2
31	22539 E	Plug Screw	4
32	22733 B	Oil Drain Screw	1
33	41394 A	Gasket	1
34	35760 E	Needle Lever Shaft Bushing, rear	1
35	CL21	Oil Wick	2
36	35760 D	Needle Lever Shaft Bushing, front	1
37	35897 AW	Oil Wicking Hook, upper	1
38	22570	Screw	1
39	8372 A	Washer	1
40	35871 A	Needle Thread Eyelet, three holes	1
41	35871 B	Needle Thread Eyelet, three holes	1
42	22570 A	Screw	1
43	35890 E	Crankshaft Bushing, front	1
44	35890 D	Mainshaft Bushing, rear	1
44A	50-539 Blk.	Plug	1
45	35781 D	Looper Thread Guide Wire	1
46	35856 AA	Looper Thread Shield	1
47	22829	Screw	2
48	36290 B	Mainshaft Bushing, front	1
49	35887 V	Gasket	1
50	35887 Z	Main Frame End Cover	1
51	22564 B	Screw	4
52	35853 W	Looper Throw-out Plunger	1
53	35876 U	Washer	3
54	22653 E-20	Screw	3
55	35853 AA	Looper Throw-out Plunger Bushing	1
56	35853 Y	Looper Throw-out Plunger Spring	1
57	35772 T	Cast-off Plate Eyelet, front	1
58	28	Screw	2
59	35772 S	Cast-off Plate Eyelet, rear	1
60	35704 C	Cast-off Plate	1
61	22730	Screw	2
62	93	Screw, for rotary pump housing No. 35897 BN	2
63	CL21	Oil Wick	1
64	22711	Screw, for oil wick	1
65	69 H	Washer	1



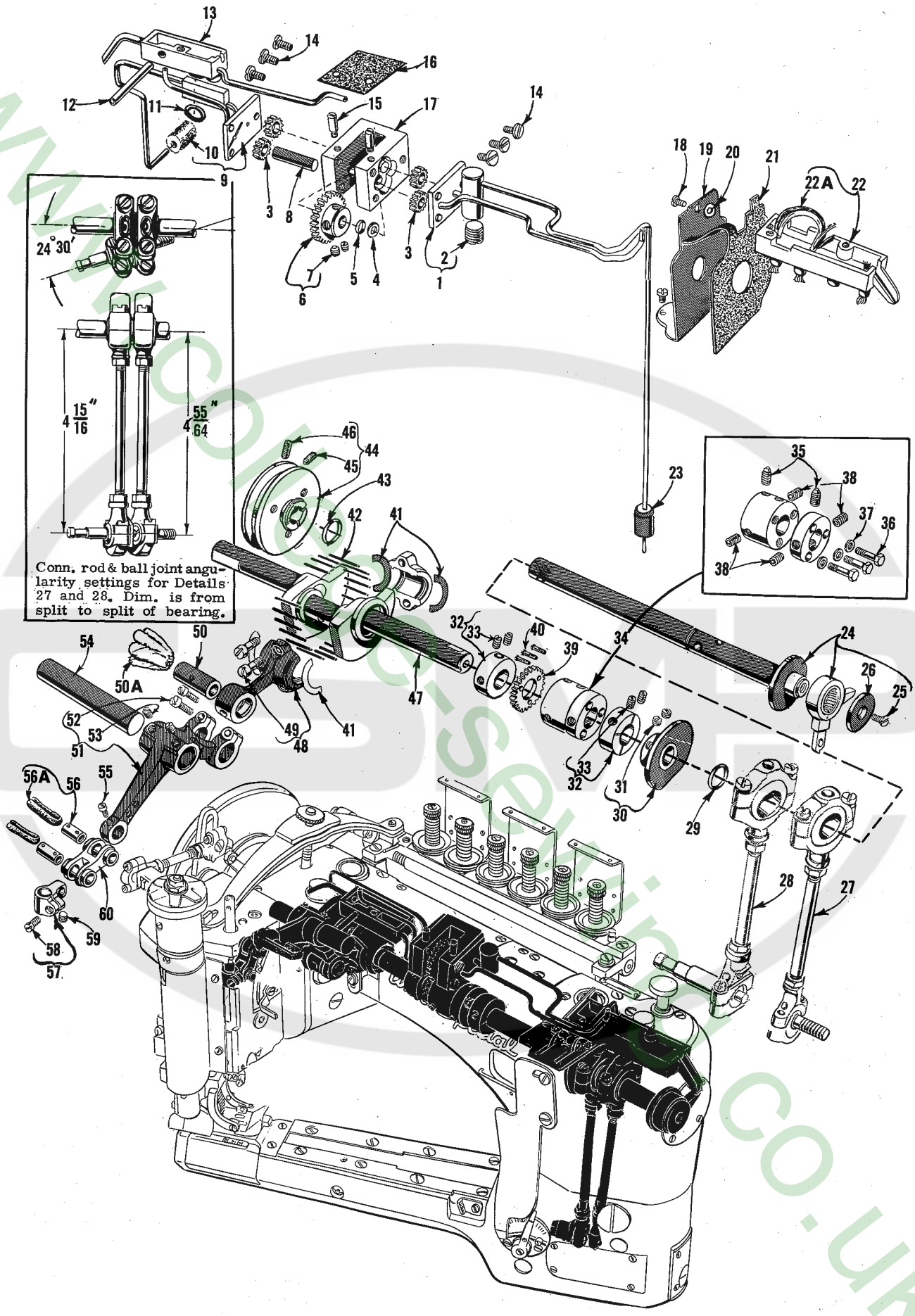
DIFFERENTIAL FEED CONTROL, CYLINDER COVERS AND BUSHINGS

Ref. No.	Part No.	Description	Amt. Req.
1	22524	Screw	3
2		Throat Plate, (Refer to Page No. 29)	1
3	35883 N	Folder Gib, left	1
4	35883 P	Folder Gib, right	1
5	22564 J	Screw	8
6	35883 T	Cylinder Cover	1
7	35883 S	Gasket	1
8	667 D-16	Dowel Pin, straight	1
9	36297 G	Oil Filter Assembly	1
10	22596	Screw	1
11	36284	Gasket	1
12	664 F-24	Pin, tapered	1
13	36249 A	Looper Shaft Bushing, front	1
14	35884 D	Gasket	1
15	36284 C	Cylinder Cover and Oil Gauge, front	1
16	J87 J	Screw	4
17	22560 A	Screw	1
18	660-202	Oil Seal Ring	1
19	36297 H	Oil Drainage Screw	1
20	36286 A	Gasket	1
21	36286	Cylinder Side Cover	1
22	22766	Screw	4
23	22539 S	Plug Screw	1
24	531	Screw	2
25	29478 CZ	Differential Feed Control Assembly	1
26	36237 J	Spring Washer	1
27	652 K-24	Washer, fiber	1
28	538	Screw	1
29	36237 G	Operating Lever	1
30	36237 H	Stop Screw Pin	2
31	60078 Z	Nut	2
32	36238	Adjusting Plate	1
33	36238 E	Gasket	1
34	660-220	Oil Seal Ring	1
35	36237 E	Adjusting Lever	1
36	87 A	Screw	3
37	22849 A	Screw	1
38	35856 Y	Looper Thread Eyelet	1
39	36237 F	Bushing, for feed bar eccentric stud	1
40	35850 D	Looper Shaft Bushing, rear	1
41	35883 G	Pin	1
42	22894 W	Screw, for No. 36283 C	1
43	35883 R	Cylinder Hinged Cover	1
44	22791 E	Screw Pin	1
45	35796 B	Chain Cutter Blade, upper	1
46	22747	Screw	2
47	35796 C	Chain Cutter Blade, lower	1
48	36283 C	Cylinder Hinged Cover Spring Support Stud	1
49	35883 U	Cylinder Cover Spring	1
50	22585 C	Screw	1
51	22849	Screw	1
52	36256 B	Cylinder Looper Thread Guide Wire	1
53	531	Screw	1
54	22798	Screw	1
55	36284 E	Upper Lint Shield	1
56	35883 V	Gasket	1



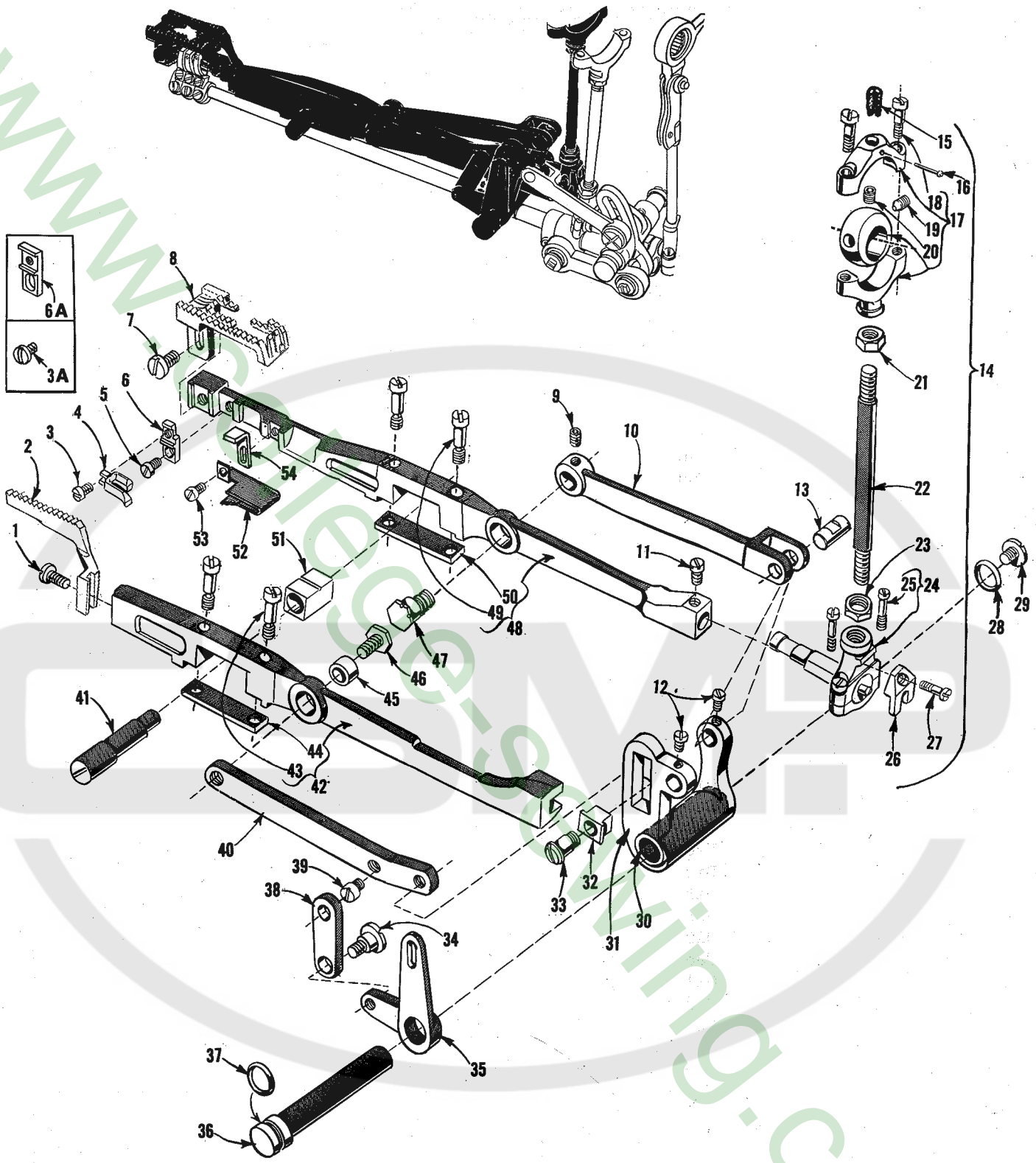
NEEDLE BAR, NEEDLE HEAD, DETACHABLE HEAD AND MISCELLANEOUS COVERS

Ref. No.	Part No.	Description	Amt. Req.
1	35829 AA	Detachable Head, for Style 35800 DM	1
2	22524	Screw	2
3	35767	Sewing Head Key	2
4	35859 D	Needle Bar Bushing, upper	1
5	35859 C	Needle Bar Bushing, lower	1
6	35731 F	Presser Bar Bushing, lower	1
7	42 A	Lifter Lever Link Stop Screw, for Style 35800 DM	1
8	35889 AA	Gasket, for Style 35800 DM	1
9	35889 AC	Detachable Head Cover, left, for Style 35800 DM	1
10	35831 F	Presser Foot Stop, for Style 35800 DM	1
11	22584	Screw, for Style 35800 DM	2
12	22528	Screw, for Style 35800 DM	2
13	35829 AC	Detachable Head, for Styles 35800 DK, DL and DN	1
14	22524	Screw	2
15	35767	Sewing Head Key	2
16	35859 L	Needle Bar Bushing, lower	1
17	22653 B-8	Screw	3
18	667 C-12	Dowel Pin	2
19	35859 K	Needle Bar Bushing, upper	1
20	35831 G	Presser Bar Bushing, lower	1
21	667 B-16	Dowel Pin	2
22	22653 B-16	Screw	2
23	35876 AK	Puller Clutch Bracket	1
24	22894 C	Screw, for Styles 35800 DK, DL and DN	1
25	664 F-16	Dowel Pin, tapered	1
26	35889 AA	Gasket, for Styles 35800 DK, DL and DN	1
27	35889 Y	Detachable Head Cover, left, for Styles 35800 DK, DL and DN	1
28	35889 Z	Detachable Head Cover, left, for Styles 35800 DK, DL and DN	1
29	22564 B	Screw, for Styles 35800 DK, DL and DN	2
30	22829	Screw, for Styles 35800 DK, DL and DN	2
31	318	Screw	1
32	6042 A	Washer	1
33	35897 AW	Oil Wicking Hook	1
34	CL21	Oil Wick	as required
35	35817 E	Needle Bar, marked "DY"	1
36	35818 BY-8	Needle Bar Head, marked "V-8", for No. 8 gauge machines	1
-	35818 BY-9	Needle Bar Head, marked "V-9", for No. 9 gauge machines	1
37	605	Screw	3
38	57 WD	Screw	1
39	15438 C	Needle Thread Nipper Spring	1
40	57 WB	Needle Thread Nipper Spring Plate	1
41	605	Screw	1
42	43296	Needle Thread Nipper Base	1
43	35731 A	Presser Bar Guide Plate	2
44	22513	Screw	4
45	35869 L	Thread Controller Arm	1
46	89	Screw	2
47	12934 A	Nut	1
48	69 H	Washer	2
49	22758 E	Screw	2
50	35869 D	Control Lever Connection Link	1
51	22557 A	Screw	1
52	35869 K	Needle Thread Lever Control Eyelet	1
53	25 B	Screw	1
54	35869 C	Needle Thread Control Lever	1
55	22768	Screw	2
56	35870	Needle Thread Take-up	1
57	22524	Screw	2
58	35889 X	Detachable Head Cover, front	1
59	35889 B	Gasket	1
60	12982	Nut	1
61	77	Screw	2
62	35864 F	Needle Lever Thread Eyelet	1
63	35889 G	Baffle Plate	1



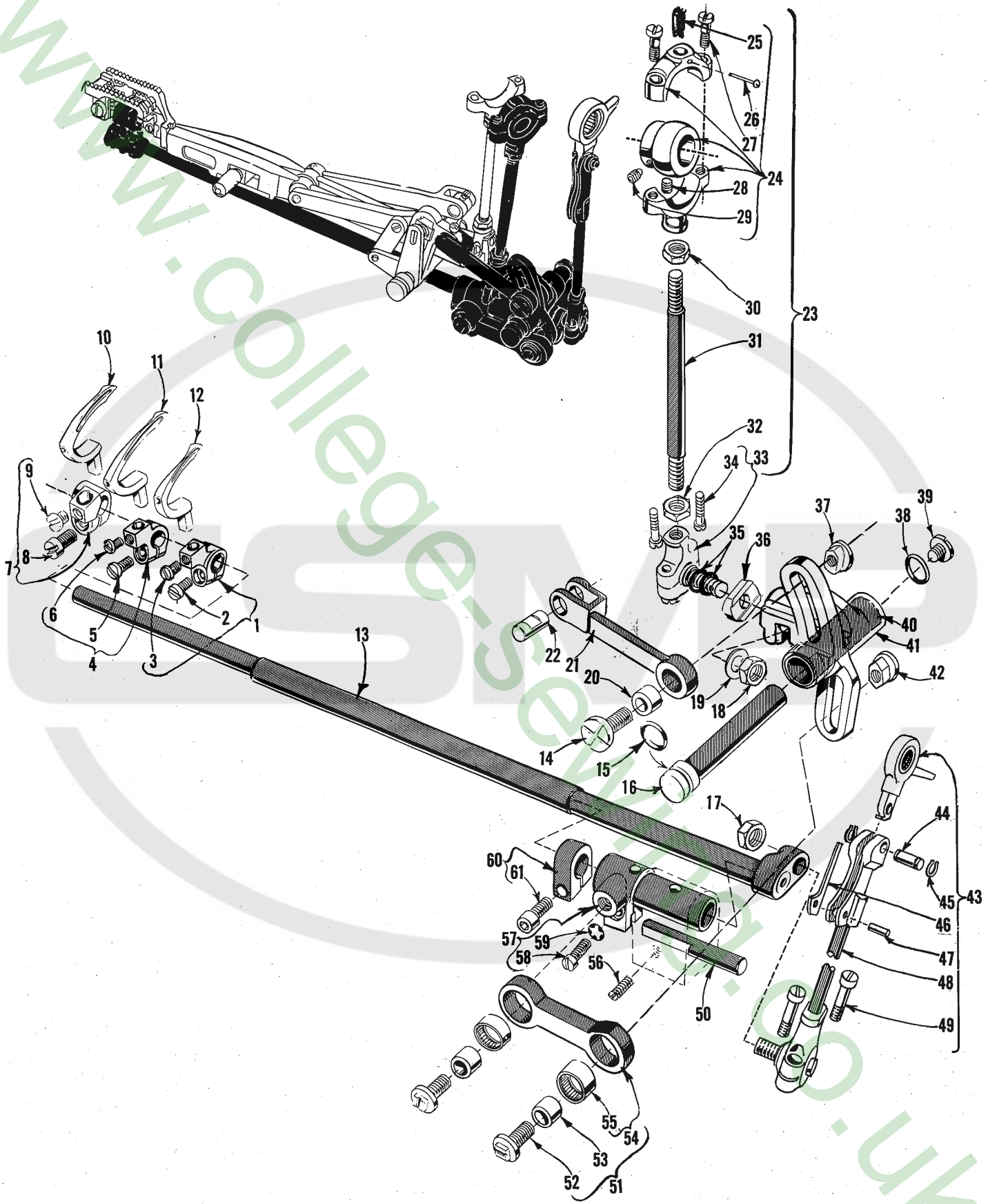
MISCELLANEOUS OILING, NEEDLE LEVER, CRANKSHAFT AND MAINSHAFT PARTS

Ref. No.	Part No.	Description	Amt. Req.
1	35897 CB	Oil Pump Housing Cover, front	1
2	22571 B	Plug Screw	1
3	51493 E	Rotary Pump Gear	4
4	6042 A	Washer	1
5	660-220	Oil Seal Ring	1
6	35897 BR	Oil Pump Driven Gear	1
7	89	Screw	2
8	35897 BP	Driven Gear Shaft	1
9	35897 CC	Oil Pump Housing Cover, rear	1
10	35897 BV	Intake Filter	1
11	660-207	Oil Seal Ring	1
12	35897 BU	Oil Reservoir Outlet Tube	1
13	35894 J	Oil Reservoir, back	1
14	22585 A	Screw	6
15	21756 G	Vent Screw, for oil pump	2
16	35897 BW	Gasket	1
17	35897 BN	Oil Pump Housing	1
18	90	Screw	2
19	36261 B	Take-up Shield	1
20	80265	Spacer Washer	1
21	35861 D	Gasket	1
22	35894 K	Oil Reservoir, front	1
22A	WO-3	Columbia Wool Yarn	as required
23	36297 E	Oil Intake Filter Screen	1
24	35722 AF	Mainshaft Assembly	1
25	22526	Screw	1
26	35895 V	Washer	1
27	29478 DU	Feed Drive Eccentric Assembly (See Page 23 for components)	1
28	29478 DV	Feed Lift Eccentric Assembly (See Page 21 for components)	1
29	660-202	Oil Seal Ring	1
30	35723 C	Looper Thread Take-up	1
31	22580 D	Screw	2
32	35895 Y	Crankshaft Thrust Collar	2
33	22560 B	Screw	2
34	35895 W	Mainshaft and Crankshaft Coupling	1
35	22894 K	Spot Screw	2
36	22519 F	Screw	3
37	80265	Washer	3
38	22894 J	Set Screw	4
39	35897 BY	Oil Pump Driving Gear	1
40	22797	Screw	3
41	35763 G	Needle Bearing Retainer	4
42	35763 F-625	Needle Bearing .0625 inch (1.588 mm) diameter	28
-	35763 F-626	Needle Bearing .0626 inch (1.590 mm) diameter	28
-	35763 F-627	Needle Bearing .0627 inch (1.593 mm) diameter	28
-	35763 F-628	Needle Bearing .0628 inch (1.595 mm) diameter	28
43	660-202	Oil Seal Ring	1
44	35721 J	Pulley, for Style 35800 DM	1
45	22894 H	Spot Screw	1
46	22894 E	Set Screw	1
47	35822 T	Crankshaft, for Style 35800 DM	1
48	35862	Needle Lever Connecting Rod	1
49	22587 B	Screw	2
50	35763	Needle Lever Connecting Rod Pin	1
50A	WO-3	Columbia Wool Yarn	as required
51	35815 A	Needle Lever	1
52	22729	Screw	2
53	22596 B	Screw	2
54	35761	Needle Lever Shaft	1
55	77	Screw	1
56	51054	Link Pin	2
56A	666-149	Oil Wick	2
57	51254 J	Needle Bar Connection	1
58	22562 A	Screw	1
59	22564	Screw	1
60	56354 A	Needle Lever Link	1



DIFFERENTIAL FEED BAR, MAIN FEED BAR, FEED LIFT ECCENTRIC ASSEMBLY

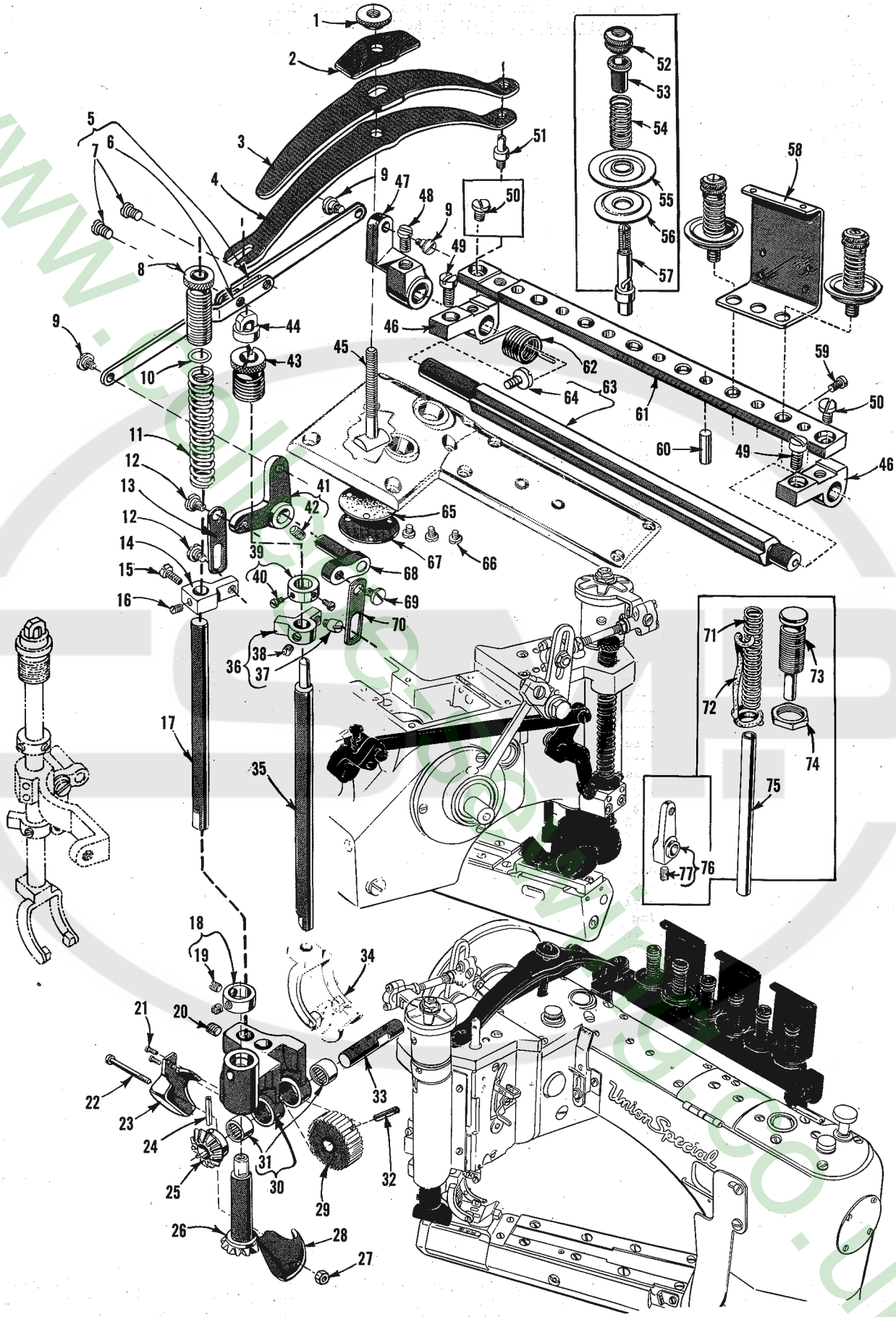
Ref. No.	Part No.	Description	Amt. Req.
1	22528	Screw	1
2		Differential Feed Dog (Refer to Page 29)	1
3	87 U	Screw, for Styles 35800 DK, DL and DN	1
3A	22 KH	Screw, for Style 35800 DM	1
4	35825 Z	Needle Guard, marked "LD"	1
5	22768	Screw	1
6	35835 C	Needle Guard Holder, marked "D", for Style 35800 DM	1
6A	35835 B	Needle Guard Holder, for Styles 35800 DK, DL and DN	1
7	22528	Screw	1
8		Main Feed Dog (Refer to Page 29)	1
9	22894 P	Screw	1
10	35834 W	Main Feed Bar Driving Link	1
11	33174 B	Screw	1
12	77	Screw	2
13	62238 A	Link Pin	1
14	29478 DV	Feed Lift Eccentric Assembly	1
15	WO-3	Columbia Wool Yarn	as required
16	PI-18	Pin	1
17	29103 T	Feed Lift Eccentric Assembly Ball Joint	1
18	22587 E	Screw	2
19	22894 U	Spot Screw	1
20	22894 W	Set Screw	2
21	269	Nut, left thread	1
22	36244	Connecting Rod	1
23	18	Nut, right thread	1
24	36244 A	Ball Joint, complete	1
25	22729 C	Screw	2
26	41255 B	Ball Fork	1
27	22747	Screw	1
28	660-206	Oil Seal Ring	1
29	22711	Screw	1
30	36236 B	Bushing, for feed rocker shaft	1
31	35836 A	Feed Rocker	1
32	36236 K	Differential Feed Driving Link Slide Block	1
33	36236 J	Differential Feed Bar Driving Link Stud	1
34	22504 C	Screw	1
35	36237	Differential Feed Adjusting Lever	1
36	36236 A	Feed Rocker Shaft	1
37	660-207	Oil Seal Ring	1
38	36237 A	Differential Feed Adjusting Lever Link	1
39	22845 M	Screw	1
40	35836 B	Differential Feed Bar Driving Link	1
41	36234 D	Feed Bar Eccentric Stud	1
42	36234 F	Differential Feed Bar	1
43	22587 H	Screw	2
44	36234 G	Feed Bar Plate	1
45	36236 H	Bushing	1
46	36236 G	Differential Feed Bar Driving Link Stud	1
47	35834 X	Main Feed Bar Eccentric Driving Stud	1
48	35834 AB	Main Feed Bar	1
49	22587 H	Screw	2
50	36234 G	Feed Bar Plate	1
51	36234 C	Feed Bar Slide Block	1
52	35884 K	Lower Lint Shield	1
53	22804	Screw	1
54	35834 AA	Main Feed Dog Support	1



LOOPERS, LOOPER HOLDERS, FEED DRIVE ASSEMBLY AND LOOPER AVOID ASSEMBLY

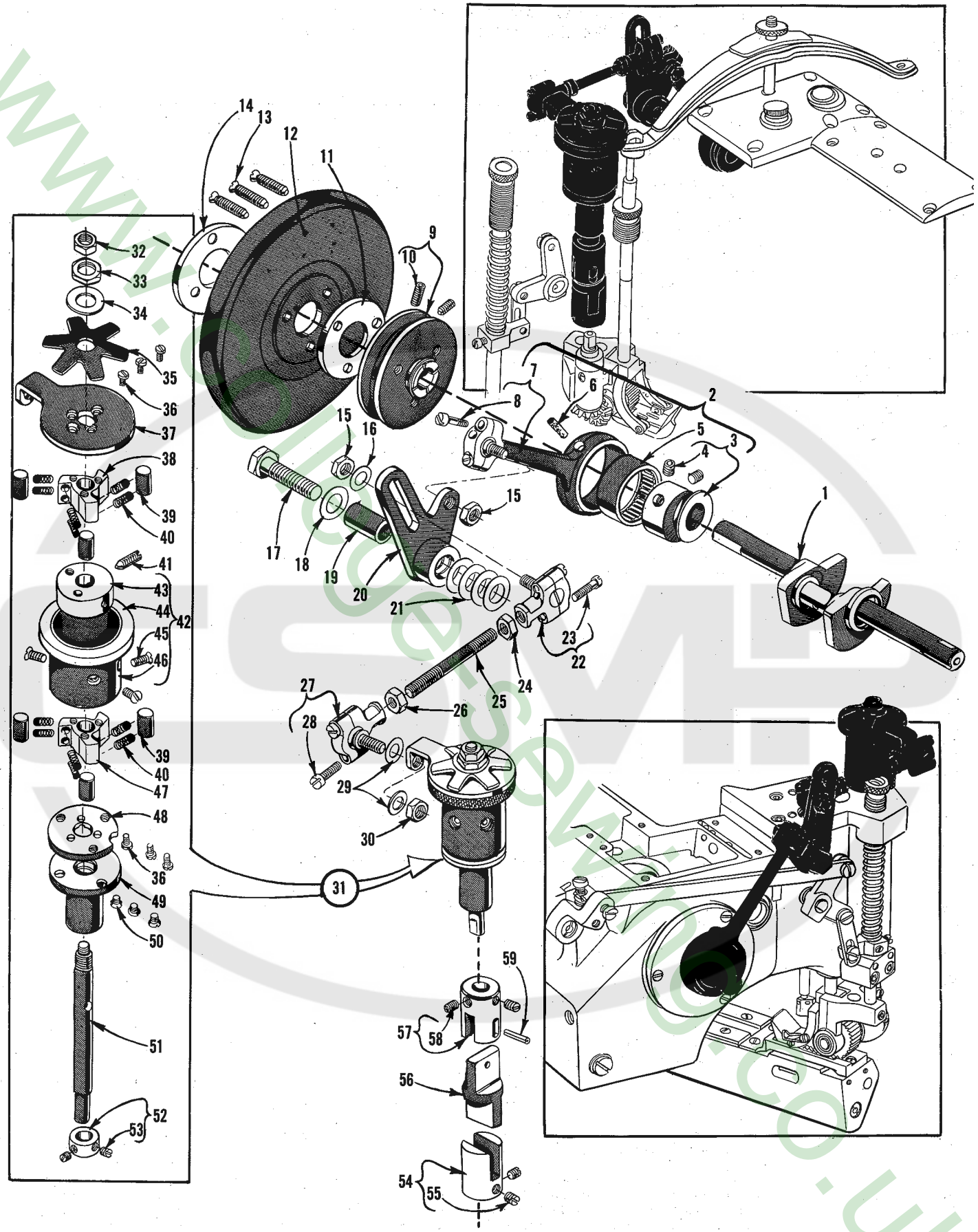
Ref. No.	Part No.	Description	Amt. Req.
1	35848 B	Looper Holder, for left needle looper, marked "A"	1
2	22562 A	Screw	1
3	22564 D	Screw	1
4	35848 E	Looper Holder, for right needle looper, marked "D"	1
5	22562 A	Screw	1
6	22564	Screw	1
7	35848 D	Looper Holder, for middle needle looper, marked "C"	1
8	22562 A	Screw	1
9	22564	Screw	1
10	35809 BY	Looper, for middle needle, marked "AY"	1
11	35809 AY	Looper, for right needle, marked "AV"	1
12	35808 AY	Looper, for left needle, marked "AU"	1
13	35849 C	Looper Rocker Shaft	1
14	35836 C	Feed Rocker Driving Link Screw	1
15	660-207	Oil Seal Ring	1
16	36236 A	Feed Drive Shaft	1
17	258 A	Nut	1
18	258	Nut	1
19	6042 A	Washer	1
20	36236 H	Bushing, for feed rocker driving link	1
21	36236 C	Feed Rocker Driving Link	1
22	62238 A	Link Pin	1
23	29478 DU	Feed Drive Assembly	1
24	29101 K	Feed Drive Eccentric Assembly	1
25	WO-3	Columbia Wool Yarn	as required
26	PI-18	Pin	1
27	22587 E	Screw	2
28	22894 W	Set Screw	1
29	22894 U	Spot Screw	1
30	269	Nut, left thread	1
31	43246	Connecting Rod	1
32	18	Nut, right thread	1
33	35846	Ball Joint Assembly	1
34	22729 C	Screw	2
35	41355 U-4	Shim, .004 inch (.102 mm) thick	as required
-	41355 U-5	Shim, .005 inch (.127 mm) thick	as required
-	41355 U-6	Shim, .006 inch (.152 mm) thick	as required
-	41355 U-7	Shim, .007 inch (.178 mm) thick	as required
-	41355 U-8	Shim, .008 inch (.203 mm) thick	as required
-	41355 U-9	Shim, .009 inch (.229 mm) thick	as required
36	35846 B	Ball Stud Washer	1
37	35866	Nut	1
38	660-206	Oil Seal Ring	1
39	22711	Screw	1
40	36236 B	Bushing, for feed drive shaft	1
41	35842 J	Feed Rocker, Looper Lever and Drive Lever	1
42	35766 B	Nut, for No. 29478 DM	1
*43	35853 AL	Looper Drive Connecting Rod Assembly	1
44	35853 V-156	Hinge Pin	1
45	660-310	Truarc Ring	2
46	56341 G	Locking Spring	1
47	50-458 Blk.	Pin	1
48	35853 AK	Looper Drive Connecting Rod	1
49	97 A	Screw	2
50	36278 C	Stud, for looper shaft sleeve	1
51	29478 DM	Looper Avoid Link Assembly	1
52	35851 K	Screw	2
53	56341 F	Ferrule	2
54	35851 M	Connecting Rod Bearing Shell	1
55	660-311	Needle Bearing	2
56	22560 A	Screw	1
57	36249 B	Looper Shaft Sleeve	1
58	22729 D	Screw	1
59	652 C-9	Washer	1
60	35751 G	Looper Shaft Collar	1
61	22572 B	Screw	1

* Needle bearings in looper drive connection are fitted to mainshaft at assembly, for proper oil clearance. Flange of mainshaft No. 35722 AF, Page No. 19, is marked with 1 to 6 lines, denoting proper group size of corresponding needle bearing to be assembled. When ordering repair part, order should read 35853 AL (Group #___), specify number of lines ground into flange of mainshaft.



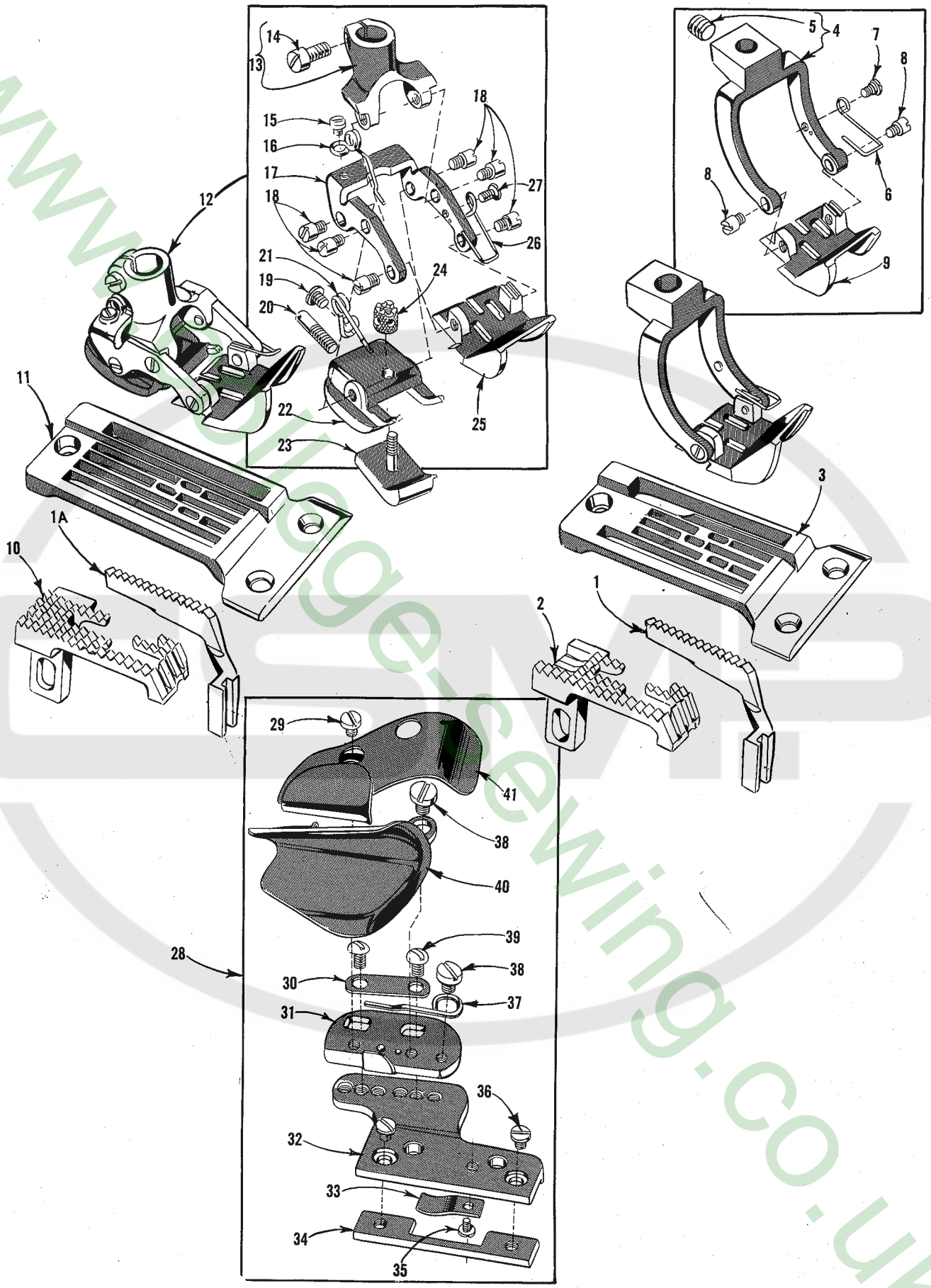
UPPER ROLLER FEED, FOOT LIFTER AND TENSION PARTS
(FOR STYLES 35800 DK, DL AND DN EXCEPT WHEN SPECIFIED)

Ref. No.	Part No.	Description	Amt. Req.
1	35733 B	Presser Spring Regulating Nut	1
2	35833 C	Presser Spring Plate	1
3	35833 E	Presser Spring, upper	1
4	35833 D	Presser Spring, lower	1
5	36280 L	Lifter Lever Link Assembly, for all Styles	1
6	36280 K	Lifter Lever Link	1
7	22585 C	Screw	2
8	61257 G	Roller Presser Spring Regulator	1
9	86	Screw, for all Styles	3
10	61256 G	Roller Presser Spring Washer	1
11	35873 Z	Roller Presser Spring	1
12	22758 C	Screw	2
13	35880 K	Lifter Lever Bell Crank Link	1
14	35873 X	Presser Bar Connection	1
15	33174 B	Screw	1
16	22764	Screw	1
17	35873 W	Roller Presser Bar	1
18	14649	Drive Gear Collar	1
19	88	Screw	2
20	22894 C	Screw	1
21	22738	Screw	2
22	22851 C	Screw	1
23	35875 N	Gear Guard, front	1
24	660-219 M	Roll Pin	1
25	35875 B	Driven Miter Gear	1
26	35875 D	Drive Miter Gear	1
27	35875 V	Nut, rear guard	1
28	35875 P	Gear Guard, rear	1
29	35826 U	Feed Roller, .468 inch (12mm) wide, 36 teeth	1
30	35873 AC	Feed Roller Frame, for .468 inch (12mm) wide roller	1
31	660-303	Needle Bearing	2
32	660-219 X	Roll Pin, for No. 35826 U	1
33	35873 AD	Feed Roller Shaft	1
34		Presser Foot, (Refer to Page No. 29)	1
35	35878 S	Presser Bar	1
36	35831 C	Presser Bar Lifter and Guide, for all Styles	1
37	402	Screw	1
38	22560 B	Screw	1
39	52888 B	Collar	1
40	22562	Screw	2
41	35880 P	Lifter Lever Bell Crank	1
42	22894 J	Screw	1
43	35878 H	Presser Bar Bushing and Spring Regulator	1
44	55287 L	Presser Spring Rest	1
45	35878 F	Presser Spring Regulating Screw	1
46	36292 M	Tension Plate Bracket, for all Styles	2
47	35880 E	Lifter Lever, for all Styles	1
48	22839	Screw, for all Styles	1
49	136	Screw, for all Styles	2
50	94	Screw, for Styles 35800 DK, DL and DN	1
-	94	Screw, for Style 35800 DM	2
51	35833 F	Presser Spring Rest	1
52	108	Tension Nut, for all Styles	6
53	107	Tension Post Ferrule, for all Styles	6
54	51292 F-4	Looper Thread Tension Spring, for all Styles	3
-	110-3	Needle Thread Tension Spring, for all Styles	3
55	35792	Tension Disc, large, for all Styles	6
56	109	Tenson Disc, small, for all Styles	6
57	35792 H	Tension Post, for all Styles	6
58	35792 S	Tension Thread Eyelet, for all Styles	3
59	22652 A	Screw, for all Styles	6
60	35792 T	Tension Disc Release Pin, for all Styles	6
61	35892-6	Tension Support, for all Styles	1
62	36292 K	Tension Release Shaft Spring, for all Styles	1
63	36292 N	Tension Release Shaft, for all Styles	1
64	22784 F	Screw	1
65	35888 M	Gasket	1
66	98 A	Screw	3
67	35888 L	Cover Plate	1
68	35880 N	Presser Bar Lifter Lever, for all Styles	1
69	22758 C	Screw, for all Styles	1
70	35880 L	Lifter Lever Connecting Link, for all Styles	1
71	35833 K	Presser Spring, for Style 35800 DM	1
72	WO-3	Columbia Wool Yarn, for Style 35800 DM	as required
73	35733 E	Presser Spring Regulator, for Style 35800 DM	1
74	35733 G	Locknut, for Style 35800 DM	1
75	35878 G	Presser Bar, for Style 35800 DM	1
76	35880 M	Lifter Lever Bell Crank, for Style 35800 DM	1
77	22894 J	Screw	1

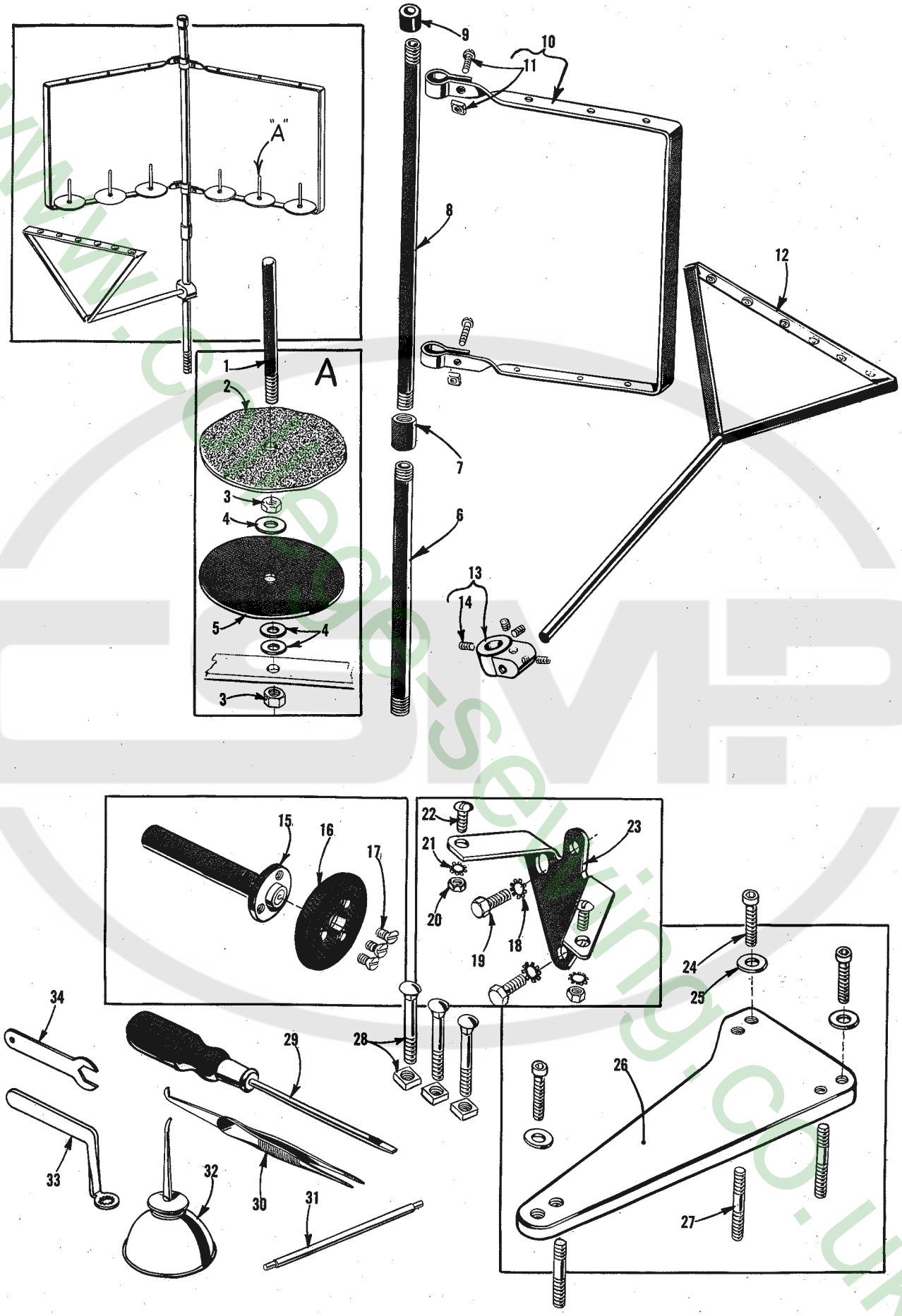


PULLEY, CRANKSHAFT, CLUTCH AND CLUTCH DRIVING MECHANISM
(FOR STYLES 35800 DK, DL and DN)

Ref. No.	Part No.	Description	Amt. Req.
1	35822 W	Crankshaft	1
2	29727 B	Connecting Rod and Clutch Driving Eccentric Assembly	1
3	35877 X	Eccentric, .300 inch throw	1
4	22894 C	Screw	2
5	660-244	Needle Bearing	1
6	666-186	Oil Wick	1
7	35877 B	Connecting Rod	1
8	97 B	Screw	2
9	35821 F	Pulley	1
10	22894 E	Set Screw	2
11	35721 G	Spacing Plate	1
12	35721 F	Handwheel	1
13	22574 A	Screw	3
14	35721 H	Clamp Plate	1
15	18	Nut	2
16	20	Washer	1
17	22644 K-80	Screw	1
18	61351 C	Washer	1
19	35877 N	Segment Lever Bushing	1
20	35877 A	Clutch Driving Segment Lever	1
21	61351 C	Washer	4
22	35876 V	Ball Joint Assembly, right	1
23	22729 C	Screw	2
24	269	Nut, left thread	1
25	4761	Roller Clutch Connecting Rod	1
26	18	Nut	1
27	35876 W	Roller Clutch Ball Joint Assembly, left	1
28	22729 C	Screw	2
29	20	Washer	2
30	18	Nut	1
31	29478 BY	Constant Wedge Angle Clutch Assembly	1
32	18	Nut	1
33	11638 M	Nut	1
34	61351 C	Washer	1
35	54274 N	Brake Spring	1
36	605 A	Screw	6
37	35876 AC	Clutch Drive Lever	1
38	54274 H	Clutch Disc, upper	1
39	54274 L	Clutch Roller	6
40	29480 KP	Clutch Roller Spring and Wear Cap Assembly	12
41	22894 H	Spot Screw	1
42	35876 AB	Barrel Assembly	1
43	50-835 Blk.	Barrel Core	1
44	35876 AD	Drive Lever Brake	1
45	538	Screw	3
46	50-834 Blk.	Barrel	1
47	54274 H	Clutch Disc, lower	1
48	35876 AG	Locking Spacer Plate	1
49	35876 AF	Lower Bearing	1
50	222 D	Screw	3
51	35876 AE	Feed Drive Shaft	1
52	41363 U	Collar	1
53	22743	Screw	2
54	54274 C	Feed Roller Connection, lower	1
55	22560 B	Screw	2
56	54279	Feed Roller Drive Floating Connection	1
57	35876 AH	Feed Roller Connection, upper	1
58	22560 B	Screw	2
59	660-219	Roll Pin	1



Ref. No.	Part No.	Description	Amt. Req.
1	35826 DP	Differential Feed Dog, for Styles 35800 DK and DN, all gauges	1
1A	35826 DM	Differential Feed Dog, for Style 35800 DM, all gauges	1
-	35826 DL	Differential Feed Dog, for Style 35800 DL	1
2	35805 DP-8	Main Feed Dog, for Styles 35800 DK, DL and DN, all gauges	1
3	35824 DN-8	Throat Plate, for No. 8 gauge Styles 35800 DK and DN	1
-	35824 DN-9	Throat Plate, for No. 9 gauge Style 35800 DN	1
-	35824 BQ-9	Throat Plate, marked "AG-9", for Style 35800 DL	1
4	35874 B	Presser Foot Fork, for Styles 35800 DK, DL and DN, all gauges	1
5	22894 C	Screw	1
6	35830 K	Spring, for Styles 35800 DK, DL and DN, all gauges	1
7	22599	Screw, for Styles 35800 DK, DL and DN, all gauges	1
8	22845 A	Screw, for Styles 35800 DK, DL and DN, all gauges	2
9	35830 DM-8	Presser Foot, for No. 8 gauge Styles 35800 DK and DN	1
-	35830 DM-9	Presser Foot, for No. 9 gauge Style 35800 DN	1
-	35830 DL-9	Presser Foot, for Style 35800 DL	1
10	35805 DM	Main Feed Dog, for Style 35800 DM, all gauges	1
11	35828 DM-8	Throat Plate, for No. 8 gauge Style 35800 DM	1
-	35828 DM-9	Throat Plate, for No. 9 gauge Style 35800 DM	1
12	35820 DM-8	Presser Foot, for No. 8 gauge Style 35800 DM	1
-	35820 DM-9	Presser Foot, for No. 9 gauge Style 35800 DM	1
13	35830 CB	Presser Foot Shank	1
14	91 D	Clamp Screw	1
15	73 A	Screw	1
16	35830 H	Equalizing Spring, rear	1
17	35830 CD	Presser Foot Yoke	1
18	22845 A	Screw	6
19	22561	Screw	1
20	22799 L	Set Screw	1
21	35830 D	Yielding Section Spring	1
22	35830 Z	Bottom, rear	1
23	35830 AE	Yielding Section	1
24	35830 F	Adjusting Nut, for yielding section	1
25	35830 DM-8	Bottom, front, for No. 35820 DM-8 presser foot	1
-	35830 DM-9	Bottom, front, for No. 35820 DM-9 presser foot	1
26	35830 CA	Spring, for bottom, front	1
27	22599	Screw	1
28	23420 AY-18-3/32	Double Lap Seam Feller, 3/32 inch capacity, for No. 8 gauge Styles 35800 DM and DN	1
-	23420 AY-18-1/8	Double Lap Seam Feller, 1/8 inch capacity, for No. 8 gauge Style 35800 DK and No. 9 gauge Styles 35800 DL, DM and DN	1
29	28	Screw	1
30	23425 T	Clamp Plate	1
31	23424 T	Lower Scroll Support	1
32	23424 D	Folder Support Slide, right	1
33	23424 F	Folder Support Spring	1
34	23424 E	Folder Support Slide, left	1
35	73 A	Screw	1
36	22561	Screw	2
37	23424 S	Lower Scroll Spring	1
38	22760 A	Screw	2
39	22849 A	Screw	2
40	23422 AY-18-3/32	Lower Scroll, 3/32 inch capacity, for No. 23420 AY-18-3/32	1
-	23422 AY-18-1/8	Lower Scroll, 1/8 inch capacity, for No. 23420 AY-18-1/8	1
41	23421 Y-9-3/32	Upper Scroll, 3/32 inch capacity, for No. 23420 AY-18-3/32	1
-	23421 Y-9-1/8	Upper Scroll, 1/8 inch capacity, for No. 23420 AY-18-1/8	1



THREAD STAND AND ACCESSORIES

Ref. No.	Part No.	Description	Amt. Req.
1	21114 W	Spool Pin	6
2	21104 V	Pad	6
3	258 A	Nut	12
4	652-16	Washer	18
5	21114	Spool Seat Disc	6
6	21104 Y-18	Rod, lower	1
7	660-194	Coupling	1
8	21104 Y-26	Rod, upper	1
9	660-181	Insulating Cap	1
10	21114 AA	Cone Support Frame	2
11	650 C-6	Stove Bolt and Nut	2
12	21114 AG-6	Lead-in Eyelet	1
13	21233 AJ	Lead-in Eyelet Connection	1
14	22651 CD-5	Screw	4
15	1421 A	Handwheel Stud	1
16	1421	Handwheel	1
17	22807	Screw	3
18	652 B-24	Lockwasher	2
19	22640 M-32	Cap Screw	2
20	651-16	Nut	2
21	652 B-16	Lockwasher	2
22	22635	Screw, for switch	2
23	21233 K	Switch Box Bracket	1
24	22652 E-20	Screw, for Styles 35800 DK, DL and DN	3
25	652-20	Washer, for Styles 35800 DK, DL and DN	3
+26	1460 J	Electro-Drive Adaptor Plate, for Styles 35800 DL and DN	1
+27	1460 K	Adaptor Plate Stud, for Styles 35800 DK, DL and DN	3
28	650 X-20	Carriage Bolt, for mounting electro-drive	3
29	21201	Screwdriver, 9/64 inch (3.6 mm) round blade, length over-all 7 3/8 inch (187.3 mm)	1
30	660-240	Thread Tweezers	1
31	21227 AR	Torque Rod	1
32	413 D	Oil Can	1
33	21388 AY	Wrench, for 3/16 inch (4.8 mm) square nut	1
34	21388 AZ	Wrench, for 7/16 inch (11.1 mm) hexagonal nut	1
*	660-457	Dust Cover	1
*	28604 R	Can of Oil, Union Special Spec. 175, 16 oz. (455 ml.)	1

\+ Not furnished with machine, available as an extra send and charge item.
* Furnished with machine, but not shown on picture plate.

NUMERICAL INDEX OF PARTS

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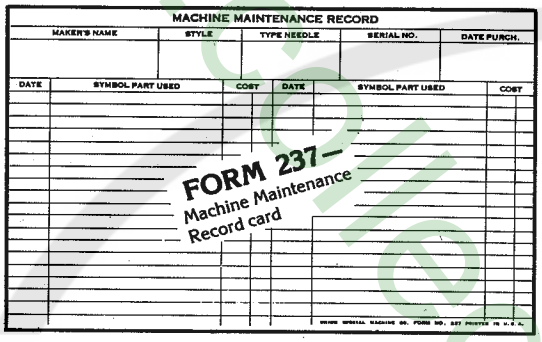
Union Special Wants to Help You Cut Sewing Machine Maintenance Costs

Union Special is offering two practical systems to help pinpoint and reduce your sewing machine maintenance costs: a record keeping system to help spot machines requiring abnormally high maintenance, and a parts inventory system to speed routine repairs.

Machine Maintenance Records

Repair-prone machines or inexperienced competent operators can eat up your maintenance dollars in short order. To help spot these problems, Union Special suggests two variations of a simple maintenance record keeping system using cards provided by Union Special.

The first system utilizes a "Machine Maintenance Record" card (Form 237) for each sewing machine in a plant. When a repair is required, the card is pulled from the file and the repair date, parts used, and their cost are entered in the spaces provided and the card is refiled.



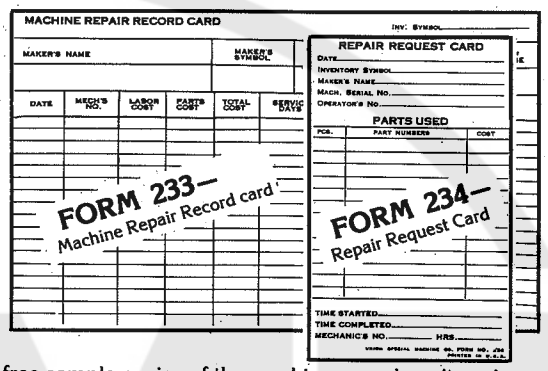
The second system is normally used when more detailed information on repair costs is desired. Two record cards are used: a "Repair Request Card" (Form 234), and a "Machine Repair Record" (Form 233). When a machine requires service, the forelady or foreman fills out the top of a "Repair Request Card" and gives it to a mechanic. He fills in the time the repair work is started, the parts used and their cost, and the completion time. This data is then transferred to the permanent "Machine Repair Record" kept in the office.

Whichever system is used, management now has an invaluable tool to reduce needless maintenance costs.

Repair Part Inventories

While record keeping tells management which machines require abnormally high maintenance, it does little to help reduce the downtime caused by routine repairs. To alleviate this situation, Union Special recommends that manufacturers establish a formal parts inventory system for each type of sewing machine they operate.

Excessive machine downtime and wasted hours by mechanics can be eliminated with an orderly in-plant inventory of the most commonly needed parts. There is no longer a need to cannibalize other machines for spare parts. Long waits for deliveries are avoided and machine downtime is kept to a minimum. The cost of a parts inventory is small when the overall savings are considered.



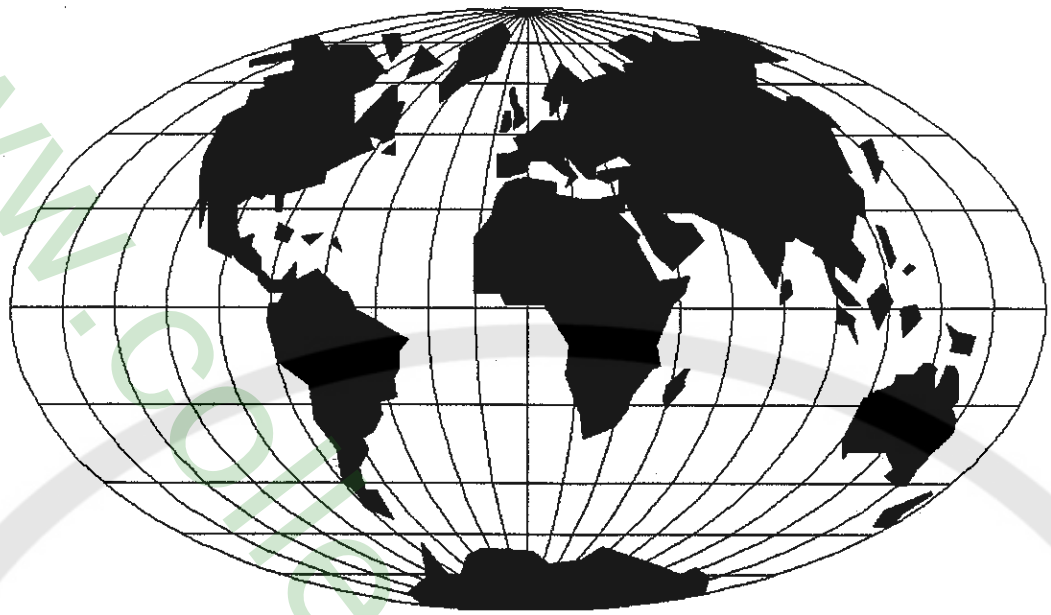
For free sample copies of the machine record cards and spare part inventory lists for a variety of the most popular machines, contact your local Union Special Representative or write direct to Union Special.

Union Special® FINEST QUALITY — Style 35800 DM-8, 9

Suggested Minimum Spare Parts List*

Part Number	Description	Minimum Quantity Per 5 Machines
35820 DM-8	Presser foot (8 gauge)	1
35820 DM-9	Presser foot (9 gauge)	1
91 D	Screw for presser foot	2
35805 DM	Main feed dog	1
35826 DM	Differential feed dog	1
22528	Screw for feed dogs	4
35828 DM-8	Throat plate (8 gauge)	1
35828 DM-9	Throat plate (9 gauge)	1
22524	Screw for throat plate	6
128 GLS	Needles (specify size)	300
35808 AY	Looper, left	1
35809 BY	Looper, middle	1
35809 AY	Looper, right	1
22564	Looper set screws	6
22562 A	Screw for looper holder	3
22845 A	Presser foot hinge screw	12
35830 CA	Presser foot spring	2
35830 H	Presser foot equalizing spring	2
22599	Screw for spring #35830 CA	4
22561	Screw for spring #35830 H	4
605	Screw for needle	6
22564	Needle bar clamp screw	2
21225-9/32	Looper gauge	1
29484	Screw assortment	1

*The parts and quantities listed above are intended to assist you in setting up the initial inventory of spare parts. An efficient inventory can only be established according to actual usage. The nature of the sewing operation will determine actual usage.



WORLDWIDE SALES AND SERVICE

Union Special Corporation maintains sales and service facilities throughout the world. These offices will aid you in the selection of the right sewing equipment for your particular operation. Union Special Corporation representatives and service technicians are factory trained and are able to serve your needs promptly and efficiently. Whatever your location, there is a qualified representative to serve you.

Brussels, Belgium
Charlotte, N.C.
El Paso, TX
Hong Kong, China
Huntley, IL
Leicester, England
Lille, France
Miami, FL
Milan, Italy
Möglingen, Germany
Montreal, Quebec
Osaka, Japan
Santa Fe Springs, CA

Other Representatives throughout all parts of the world.

Finest Quality

Union Special®
INDUSTRIAL SEWING EQUIPMENT