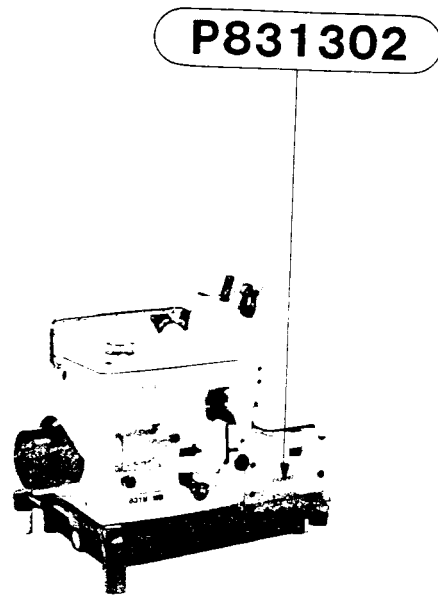
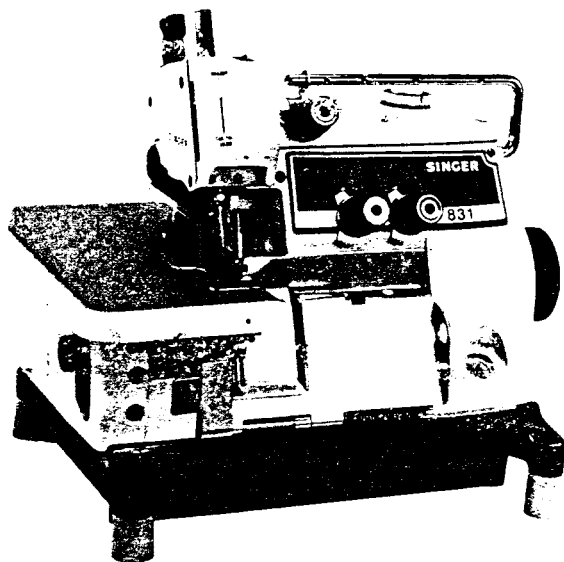


**SINGER**  
831U,832U

**PARTS BOOK**  
FOR  
**SINGER 831U·832U**



High Speed Single Needle Overedge Machine  
Two Needle

**THE SINGER COMPANY**

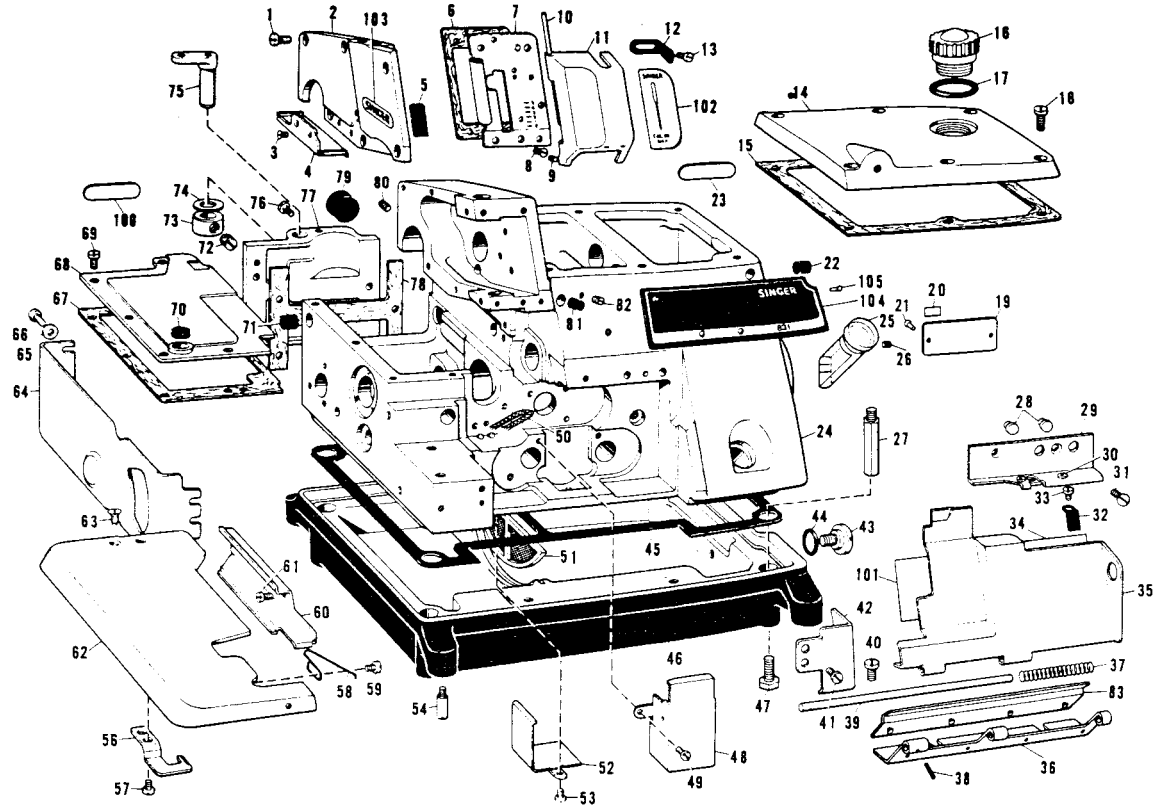
## How to use the parts book

1. This parts book can be used for ordering of the parts of the machine which plate number is same as shown on the upper cover of the book (or correction sheet).
2. These pages from A~H, Z, Y on this parts catalogue show all the parts for 831U-001-○.
3. When the column for the parts number or parts assembly number is , 000000-0-00 please refer to the different parts list on the page 37.
4. When the column for the parts number is , the parts cannot be supplied. But when the parts assembly number is shown in the column, please order the parts by the parts assembly number so that the parts can be arranged in the form of assembled parts.
5. The parts which number is marked with ※ is not lapped together with except the parts to be fitted. Therefore, please order the parts together with the fitting parts as a unit.
6. After page 9, please refer to the different parts list on the page 37.

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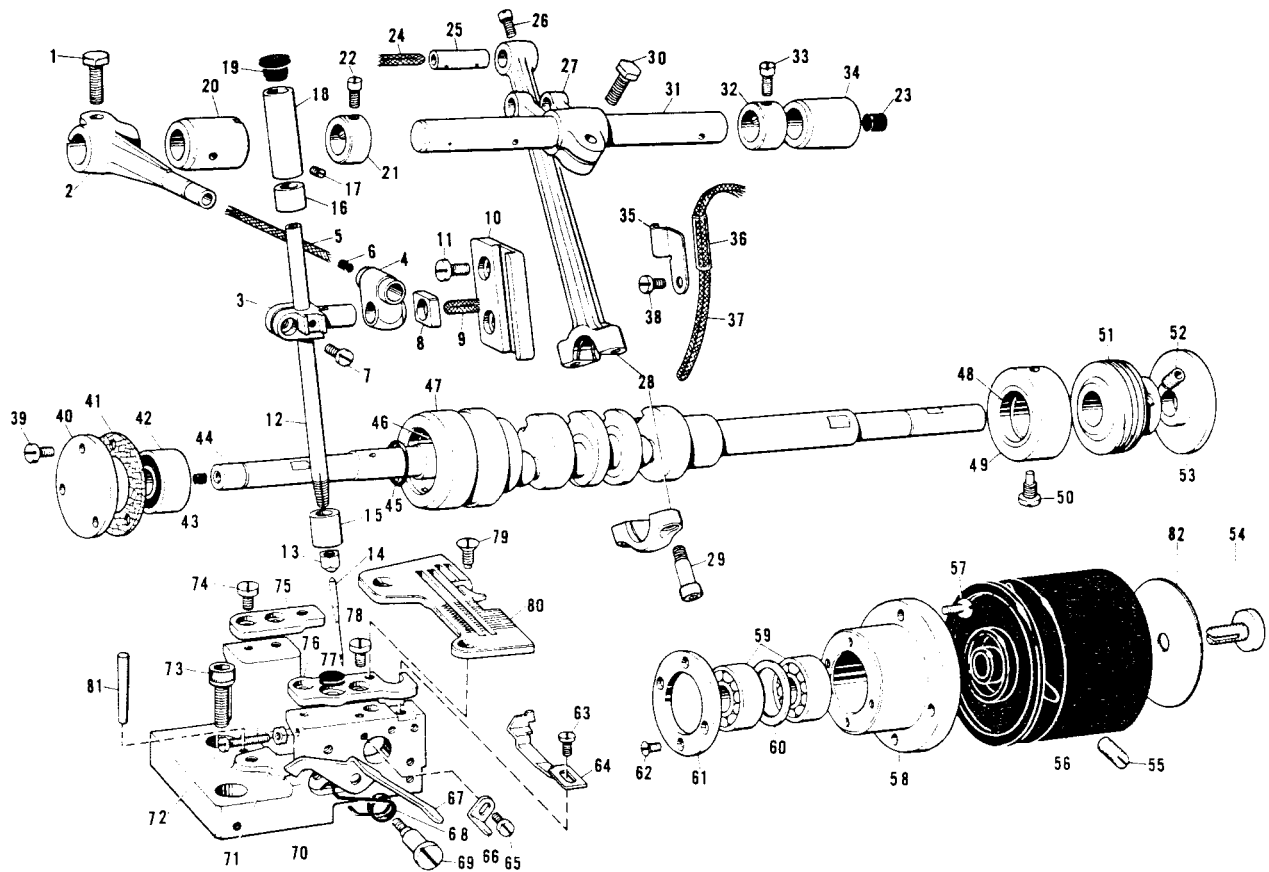
# A. 831U001 Machine Body



Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
A-1	Screw	6	009680-7-12		A-43	Screw	1	110641-0-01	
A-2	Cover for Needle Driving Mechanism	1	146422-0-01		A-44	"O" Ring	1	109203-0-01	
A-3	Screw	2	108960-0-02		A-45	Gasket	1	151060-0-00	
A-4	Cloth Guide (S)	1	146461-0-01		A-46	Oil Reservoir	1	146458-0-02	
A-5	Rubber Cap	1	143992-0-01		A-47	Screw	4	017771-6-12	
A-6	Face Plate Gasket	1	146433-0-00		A-48	Inside Cover	1	146436-0-01	
A-7	Face Plate	1	146428-0-01		A-49	Screw	2	009670-6-12	
A-8	Screw	3	102843-0-04		A-50	Wick	1	147361-0-00	
A-9	Screw	1	146427-0-01		A-51	Oil Filter	1	145664-0-00	
A-10	Pin for Face Plate	1	146426-0-00		A-52	Oil Stopper Plate	1	146457-0-01	
A-11	Face Plate Cover	1	146425-0-01		A-53	Screw	2	009670-6-12	
A-12	Stopper Spring	1	146432-0-01		A-54	Set Pin for Cushion	4	140077-0-01	
A-13	Screw	2	009670-6-12		A-56	Stopper for Cloth Plate	1	146449-0-01	
A-14	Top Cover	1	146419-0-01		A-57	Screw	2	001670-5-12	
A-15	Gasket	1	146420-0-00		A-58	Spring	1	146450-0-01	
A-16	Oil Filler Cap and Flow Indicator	1	146421-0-00		A-59	Screw	1	001670-5-12	
A-17	Gasket	1	113589-0-01		A-60	Cloth Guide (L)	1	146460-0-01	
A-18	Screw	6	009681-2-12		A-61	Screw	2	009670-6-12	
A-19	Model Plate 831U	1			A-62	Cloth Plate	1	146448-0-01	
A-20	Label	1			A-63	Screw	2	100032-0-03	
A-21	Model Plate Pin	2			A-64	Cloth Plate Lower	1	146717-1-01	
A-22	Oil Cap	1	146315-0-00		A-65	Washer	4	113431-0-02	
A-23	Name Plate	1			A-66	Screw	4	009680-7-12	
A-24	Machine Body	1			A-67	Gasket	1	146709-0-00	
A-25	Oil Gauge	1	148084-0-01		A-68	Cover for Feed Mechanism	1	146708-0-00	
A-26	Screw	1	014680-4-22		A-69	Screw	5	009680-7-12	
A-27	Machine Body Leg	4	151059-0-01		A-70	Cloth Plate Cushion (B)	1	111486-0-01	
A-28	Oil Cap	2	111865-0-01		A-71	Oil Cap	1	146315-0-00	
A-29	Supporter for Front Cover	1			A-72	Screw	2	101706-0-01	
A-30	Thread Bushing	2	146924-0-00	146713-0-01	A-73	Set Collar	1		181969-0-03
A-31	Screw	2	117160-0-01		A-74	Washer	1	141183-0-00	
A-32	Stopper Spring for Front Cover	1	146446-0-01		A-75	Cloth Plate Supporter	1	143374-0-01	
A-33	Screw	1	123185-0-01		A-76	Screw	4	009681-0-12	
A-34	Threading Diagram	1	146718-0-01		A-77	Cover for Feed Mechanism (B)	1	146704-0-01	
A-35	Front Cover	1			A-78	Gasket	1	146705-0-00	
A-36	Front Cover Hinge	1	146440-0-01		A-79	Oil Cap	1	140066-0-01	
A-37	Spring	1	146442-0-01		A-80	Screw	2	013760-6-12	
A-38	Pin	1	047140-8-42	148991-0-01	A-81	Oil Cap	1	140421-0-01	
A-39	Front Cover Hinge Pin	1	146441-0-00		A-82	Screw	1	013689-4-12	
A-83	Hinge Cover	1	148984-0-01		A-100	Label	1		
A-40	Screw	2	107407-0-03		A-101	Label	1	147943-0-01	
A-41	Screw	2	009670-6-12		A-102	Label	1		
A-42	Front Cover Guide	1	146712-0-01		A-103	Label	1		
					A-104	Name Plate F	1		
					A-105	Name Plate F Pin	2		

NOTE! PREFIX ALL NUMBERS BY 'BR'  
EXAMPLE BR146222-0-01

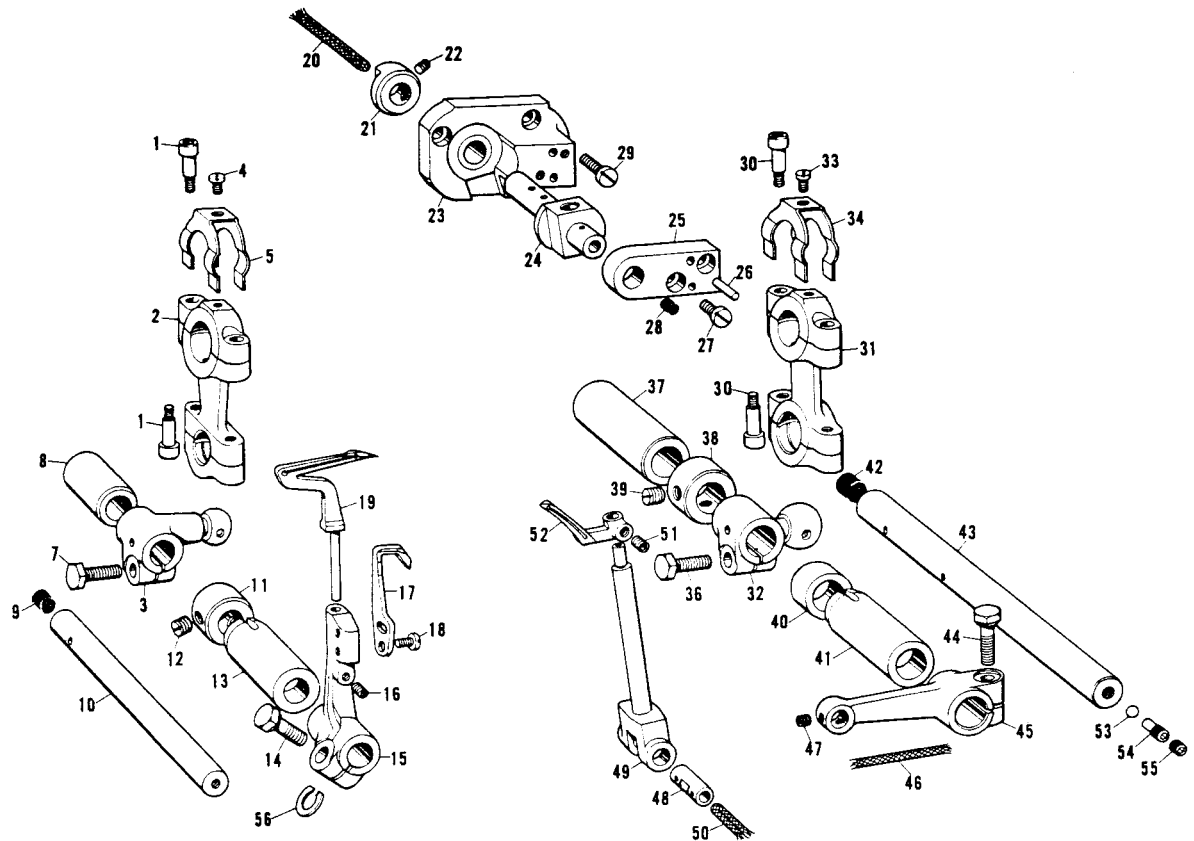
## B. 831U001-○ Crank Shaft and Needle Bar Mechanism



Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
B-1	Screw	1	017771-6-12	146480-0-01	B-42	Bearing 6000	1	072600-0-00	
B-2	Needle Arm	1	146481-0-01		B-43	Cap	1	142274-0-01	
B-3	Needle Bar Clamp	1	146482-0-01		B-44	Crank Shaft	1	*146724-0-01	
B-4	Needle Bar Connector	1	140096-0-01		B-45	"O" Ring	1	114294-0-01	
B-5	Wick	1	140418-0-00		B-46	Crank Shaft Inner Bushing (L)	1		
B-6	Oil Cap	1	140326-0-01	B-47	Crank Shaft Outer Bushing (L)	1		146473-0-01	
B-7	Screw	1	009670-8-12	B-48	Crank Shaft Inner Bushing (M)	1			
B-8	Needle Bar Guide Slide Block	1	105078-0-01	B-49	Crank Shaft Outer Bushing (M)	1		143179-0-00	
B-9	Wick	2	140415-0-00	B-50	Screw	1	110668-0-01		
B-10	Needle Bar Guide	1	105079-0-01	B-51	Worm	1	146647-0-01		
B-11	Screw	2	009680-7-12	B-52	Screw	2	014770-6-22		
B-12	Needle Bar	1		B-53	Oil Rejector	1	140084-0-00		
B-13	Needle Clamp Nut	1	147631-0-01	B-54	Cap Screw	1	140180-0-01		
B-14	Needle Cat. No. 6120 #11	1	151200-0-11	B-55	Screw	2	013761-4-10		
B-15	Needle Bar Bushing (D)	1	146486-0-00	B-56	Pulley	1	147848-0-02		
B-16	Needle Bar Bushing (U)	1	146485-0-00	B-57	Screw	4	009681-0-12		
B-17	Screw	1	013679-4-12	B-58	Bearing Case	1	110670-0-00		
B-18	Needle Bar Cap	1	146484-0-01	B-59	Bearing 6000	2	072600-1-00		
B-19	Cap	1	114255-0-02	B-60	Thrust Washer	1	110672-0-00		
B-20	Needle Shaft Bushing (Left)	1	140093-0-00	B-61	Bearing Cover	1	110673-0-00		
B-21	Set Collar	1	140092-0-01	B-62	Screw	4	107244-0-01		
B-22	Screw	2	100366-0-01	B-63	Screw	1	009670-6-12		
B-23	Oil Cap	1	140327-0-01	B-64	Needle Guard (F)	1	146726-0-01		
B-24	Wick	1	140320-0-00	B-65	Screw	1	009670-6-12		
B-25	Pin	1	140088-0-01	B-66	Cloth Plate Lever Stopper	1	146454-0-01		
B-26	Screw	1	100366-0-01	B-67	Cloth Plate Lever	1	146451-0-01		
B-27	Needle Arm Driving Lever	1	146478-0-01	B-68	Spring	1	146452-0-01		
B-28	Needle Arm Driving Crank Rod	1		B-69	Stud Screw	1	146453-0-01		
B-29	Screw	2	148425-0-01	B-70	Throat Plate Support Bracket	1	146725-0-01		
B-30	Screw	1	017771-6-12	B-71	Nut	1	021670-2-02		
B-31	Needle Bar Crank Shaft	1	146479-0-01	B-72	Screw	1	009671-4-12		
B-32	Set Collar	1	140092-0-01	B-73	Screw	2	018061-6-22		
B-33	Screw	2	100366-0-01	B-74	Screw	2	001680-5-12		
B-34	Needle Shaft Bushing (Right)	1	148120-0-00	B-75	Throat Plate Supporter (B)	1	146495-0-01		
B-35	Tube Holder	1	146645-0-01	B-76	Throat Plate Supporter (F)	1	146494-0-01		
B-36	Vinyl Tube	1	146644-0-00	B-77	Cloth Plate Cushion (B)	1	111486-0-01		
B-37	Wick	1	150307-0-00	B-78	Screw	2	001680-5-12		
B-38	Screw	1	009680-7-12	B-79	Screw	2	100032-0-03		
B-39	Screw	3	009670-8-12	B-80	Throat Plate	1			
B-40	Bearing Cap	1	143311-0-01	B-81	Pin	1	107351-0-01		
B-41	Gasket	1	143312-0-00	B-82	Pulley Cover	1	147415-0-02		

[NOTE! PREFIX ALL NUMBERS BY 'BR']  
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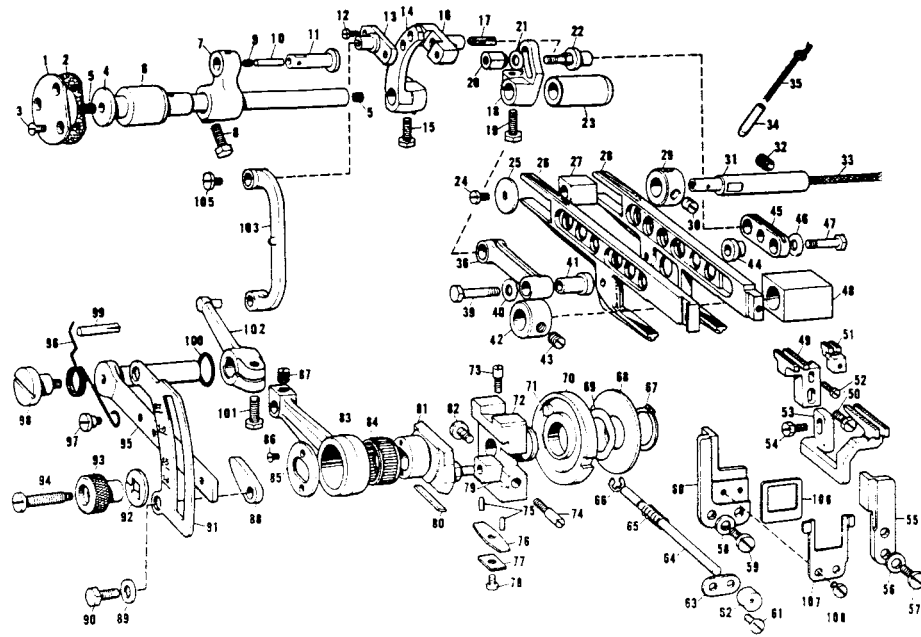
# C. 831U001-○ Looper Mechanism



Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
C-1	Screw	4	148425-0-01	*	C-44	Screw	1	149170-0-01	146603-1-01
C-2	Looper Connecting Rod	1		144044-0-01	C-45	Looper (Right Hand) Driving Lever	1	140416-0-00	
C-3	Looper (Left Hand) Connecting Lever	1			C-46	Wick	1	148294-0-01	
C-4	Screw	1	105034-0-03		C-47	Screw	1	148294-0-01	
C-5	Looper Connecting Rod Stopper	1	110704-0-01		C-48	Looper (Right Hand) Holding Shaft	1		
C-7	Screw	1	017771-6-12		C-49	Looper (Right Hand) Holder	1		
C-8	Looper (Left Hand) Shaft Bushing (B)	1	146615-0-00		C-28	Oil Cap	1	140326-0-01	
C-9	Oil Cap	1	140327-0-01		C-29	Screw	3	009680-7-12	
C-10	Looper (Left Hand) Shaft	1	146614-0-01		C-30	Screw	4	148425-0-01	
C-11	Set Collar	1		180323-0-01	C-31	Looper (Right Hand) Connecting Rod	1		
C-12	Screw	2	013760-6-12		C-32	Looper (Right Hand) Connecting Lever	1		
C-13	Looper (Left Hand) Shaft Bushing (F)	1	146616-0-00		C-33	Screw	1	105034-0-03	
C-14	Screw	1	149171-0-01		C-34	Looper Connecting Rod Stopper	1	110704-0-01	
C-15	Looper (Left Hand) Holder	1	146617-0-01		C-36	Screw	1	017771-4-12	
C-56	Spacer	1	148782-0-01		C-37	Bushing	1	144029-0-00	
C-16	Screw	1	014680-4-22		C-38	Set Collar	1	146581-0-01	
C-17	Movable Needle Guard	1	144127-0-01		C-39	Screw	2	100260-0-01	
C-18	Screw	2	009670-8-12		C-40	Thrust Collar	1	146602-0-01	
C-19	Looper (Left Hand)	1	144049-0-01		C-41	Bushing	1	144031-0-00	
C-20	Wick	1	140317-0-00		C-42	Oil Cap	1	140327-0-01	
C-21	Set Collar	1			C-43	Looper (Right Hand) Shaft	1	148033-0-01	
C-22	Screw	2	014680-4-22		C-50	Wick	1	140417-0-00	
C-23	Looper (Right Hand) Holder Guide Base	1		146603-1-01	C-51	Screw	1	014680-4-22	147934-0-01
C-24	Looper (Right Hand) Holder Guide Block	1			C-52	Looper (Right Hand)	1		
C-25	Looper (Right Hand) Holder Supporting Plate	1			C-53	Steel Ball	1	071023-8-50	
C-26	Taper Pin	2			C-54	Screw	1	148034-0-01	
C-27	Screw	2	009681-0-12		C-55	Screw	1	148294-0-01	

NOTE: PREFIX ALL NUMBERS BY 'BR'.  
EXAMPLE BR146222-0-01

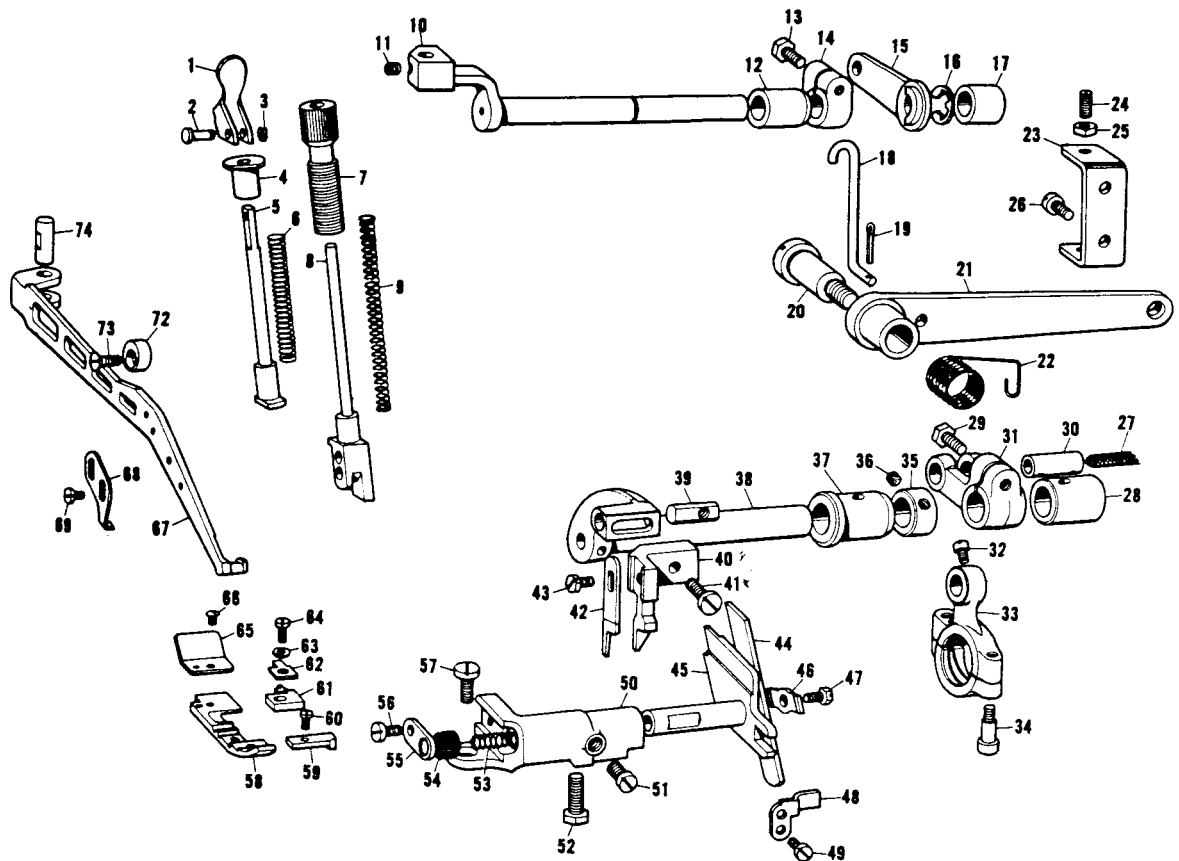
# D. 831U001- Feed Mechanism



Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
D-1	Cover for Feed Shaft Bushing (L)	1	140188-0-04		D-56	Washer	2	113431-0-02	
D-2	Gasket	1	140187-0-00		D-57	Screw	2	107407-0-03	
D-3	Screw	3	102538-0-02		D-58	Washer	2	113431-0-02	
D-4	Feed Shaft	1	146538-0-01		D-59	Screw	2	107407-0-03	
D-5	Oil Cap	2	140327-0-01		D-60	Feed Bar Guide (L)	1	149888-0-00	
D-6	Feed Shaft Bushing (L)	1	146539-0-00		D-61	Screw	1	009670-6-12	
D-7	Feed Arm	1	146533-0-01		D-62	Cap	1	146537-0-00	
D-8	Screw	1	017771-6-12		D-63	Supporter for Feed Adjusting Shaft	1	146536-0-01	
D-9	Oil Cap	1	140326-0-01		D-64	Feed Adjusting Shaft	1	146534-0-01	
D-10	Pin	1	147318-0-00		D-65	Spring	1	146535-0-01	
D-11	Feed Arm Pin	1	146532-0-01		D-66	Stop Ring	1	048040-3-42	
D-12	Screw	2	009660-7-12		D-67	Stop Ring	1	048150-1-43	
D-13	Differential Feed Adjuster Cap	1			D-68	Washer	1	146529-0-01	
D-14	Differential Feed Arm	1		146550-0-01	D-69	Spring	1	144055-0-01	
D-15	Screw	1	017771-4-12		D-70	Eccentric Wheel Adjusting Cam	1		
D-16	Differential Feed Adjuster	1			D-71	Eccentric Wheel Adjusting Cam Stopper	1		144053-0-01
D-17	Felt	1	147363-0-00		D-72	Eccentric Wheel Holder	1	146405-0-01	
D-18	Main Feed Arm	1	140205-0-01		D-73	Screw	2	100025-0-02	
D-19	Screw	1	017771-4-12		D-74	Screw	1	145663-0-01	
D-20	Nut	1	143565-0-01		D-75	Gib Holder Pin	2	146402-0-01	
D-21	Washer	1	113431-0-02		D-76	Gib Holder Plate (L)	1	146404-0-01	
D-22	Main Feed Link Shaft	1	143564-0-01		D-77	Gib Holder Plate (S)	1	146403-0-01	
D-23	Feed Shaft Bushing (R)	1	146540-0-00		D-78	Screw	1	009660-5-02	
D-24	Screw	1	009680-7-12		D-79	Slide Block	1	140165-0-01	146528-0-01
D-25	Slide Plate	1	146549-0-01		D-80	Gib	1	146401-0-01	
D-26	Differential Feed (Front) Bar	1	146543-0-01		D-81	Eccentric Wheel	1		
D-28	Main Feed (Back) Bar	1	146542-0-01	147773-0-01	D-82	Screw	1	107093-0-02	
D-48	Feed Lifting Slide Block	1	146544-0-00	146541-0-01	D-83	Feed Rod	1	146530-0-01	
D-27	Feed Bar Guide Block	1	146547-0-00		D-84	Needle Roller Bearing 20	1	146531-0-01	
D-29	Set Collar	1		181969-0-03	D-85	Feed Rod Presser Plate	1	140176-0-01	
D-30	Screw	2	101706-0-01		D-86	Screw	2	117517-0-03	
D-31	Feed Bar Guide Block Shaft	1	146548-0-01		D-87	Screw	1	013770-7-10	
D-32	Screw	1	014770-6-22		D-88	Stopper for Differential Stitch Control	2	146563-0-01	
D-33	Wick	1	147362-0-00		D-89	Washer	2	025770-2-32	
D-34	Oil Pipe	1	147217-0-00		D-90	Screw	2	017771-4-12	
D-35	Wick	1	112735-0-00		D-91	Differential Feed Indicator	1	146561-0-01	
D-36	Differential Feed Link	1	146554-0-01		D-92	Washer	1	146566-0-01	
D-39	Feed Link Shaft (Large)	1	140217-0-01		D-93	Knob	1	146564-0-01	
D-40	Washer	1	140208-0-01		D-94	Screw	1	146565-0-01	
D-41	Differential Feed Link Bushing	1	146555-0-01		D-95	Differential Feed Adjusting Lever	1	146558-0-01	
D-42	Set Collar	1	146741-0-00		D-96	Spring	1	146560-0-01	
D-43	Screw	1	101706-0-01		D-97	Stud Screw	1	100294-0-02	
D-44	Main Feed Link Bushing	1	140207-0-01		D-98	Stud Screw	1	146559-0-01	
D-45	Main Feed Link	1	140209-0-01		D-99	Dowel Pin	1	140063-0-01	
D-46	Washer	1	140208-0-01		D-100	Gasket	1	109203-0-01	
D-47	Main Feed Link Shaft (Small)	1	140210-0-01		D-101	Screw	1	017771-4-12	
D-49	Main Feed (Back) Dog	1	146744-0-01		D-102	Differential Feed Link Lever	1		146914-0-01
D-50	Screw	1	117516-0-01		D-103	Differential Feed Adjusting Link	1	146556-0-01	
D-51	Chain Feed Dog	1	146577-0-01		D-105	Screw	1	148834-0-01	
D-52	Screw	1	009630-8-12		D-106	Fragment Protector	1	149886-0-00	
D-53	Differential Feed (Front) Dog	1	146748-0-01		D-107	Fragment Protector Supporter	1	149887-0-01	
D-54	Screw	1	117516-0-01		D-108	Screw	2	106568-0-03	
D-55	Feed Bar Guide (R)	1	148174-0-00						

NOTE! PREFIX ALL NUMBERS BY 'BR'.  
EXAMPLE BR146222-0-01

# E. 831U001 Knives and Presser Foot Mechanism

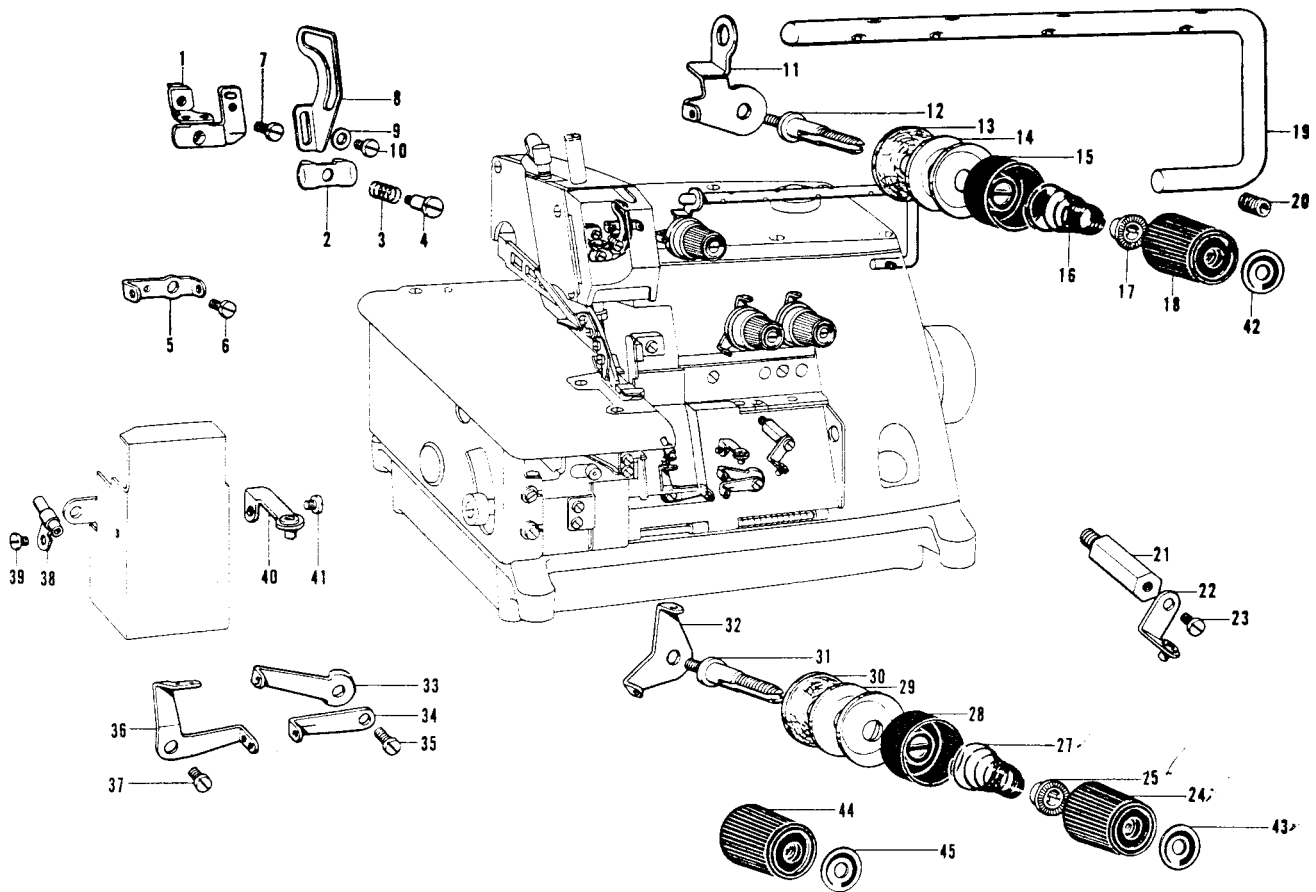


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
E-1	Presser Bar Lifter	1	147759-0-01		E-38	Upper Knife Driving Arm	1	146580-0-01	
E-2	Presser Bar Lifter Pin	1	144084-0-01		E-39	Nut	1	148281-0-01	
E-3	Stop Ring	1	048020-3-42		E-40	Upper Knife Holder	1	144073-0-01	
E-4	Washer	1	144083-0-01		E-41	Screw	1	107407-0-01	
E-5	Presser Bar Lifter Shaft	1	144085-0-01		E-42	Upper Knife (Movable)	1	144074-0-00	
E-6	Spring	1	144086-0-01		E-43	Screw	1	144075-0-01	
E-7	Screw	1	144079-0-01		E-44	Lower Knife (Stationary)	1	112436-0-01	
E-8	Presser Bar	1	146521-0-01		E-45	Lower Knife Holder	1	146754-0-01	
E-9	Spring	1	144081-0-01		E-46	Lower Knife Holding Plate	1	117515-0-01	
E-10	Presser Arm Shaft	1	146525-0-01		E-47	Screw	1	117516-0-01	
E-11	Screw	1	014680-4-22		E-48	Lower Knife Holder Guide	1	146585-0-01	
E-12	Bushing	1	140263-0-00		E-49	Screw	2	009670-6-12	
E-13	Screw	1	017771-6-12		E-50	Lower Knife Holder Supporter	1	146582-0-01	
E-14	Collar	1	140261-0-01		E-51	Screw	1	102627-0-01	
E-15	Presser Foot Lifter Inside Lever	1	146524-0-01		E-52	Screw	1	017771-4-12	
E-16	Stop Ring	1	048080-3-42		E-53	Spring	1	146584-0-01	
E-17	Bushing (Right)	1	140262-0-00		E-54	Cap	1	146586-0-00	
E-18	Presser Foot Lifter Link	1	146523-0-01		E-55	Lower Knife Holder Spring Stopper	1	140248-0-01	
E-19	Cutter Pin	1	110793-0-01		E-56	Screw	1	009680-7-12	
E-20	Screw	1	148372-0-01		E-57	Screw	1	107407-0-03	
E-21	Presser Foot Lifter Lever	1	143323-1-03		E-58	Presser Foot	1		
E-22	Spring	1	143325-0-01		E-59	Presser Foot (Front)	1	146888-0-01	
E-23	Adjuster Plate	1	146522-0-01		E-60	Screw	1	009639-3-12	
E-24	Screw	2	011711-4-12		E-61	Chaining-off Finger	1	146886-0-01	
E-25	Nut	2	110161-0-06		E-62	Presser Foot Hinge Spring	1	146887-0-01	
E-26	Screw	2	009680-7-12		E-63	Washer	1	025030-1-32	
E-27	Wick	1	140317-0-00		E-64	Screw	1	100080-0-04	
E-28	Bushing Right	1	144117-0-00		E-65	Presser Foot (Rear)	1	146889-0-01	
E-29	Screw	1	017771-6-12		E-66	Screw	1	100105-0-05	
E-30	Pin	1	140232-0-01		E-67	Main Presser Arm	1	146789-0-01	
E-31	Upper Knife Driving Lever	1	140233-0-01		E-68	Presser Foot Stopper	1	140504-0-01	
E-32	Screw	1	100366-0-01		E-69	Screw	2	001660-5-12	
E-33	Upper Knife Driving Rod	1	148428-0-00	* 148427-0-01	E-72	Presser Arm Stopper	1	144088-0-01	
E-34	Screw	2	148425-0-01		E-73	Screw	1	107231-0-02	
E-35	Set Collar	1	146581-0-01		E-74	Pin for Presser Arm Shaft	1	146527-0-01	
E-36	Screw	2	100260-0-01						
E-37	Bushing	1	140235-0-00						

[NOTE! PREFIX ALL NUMBERS BY 'BR'.  
EXAMPLE BR146222-0-01]



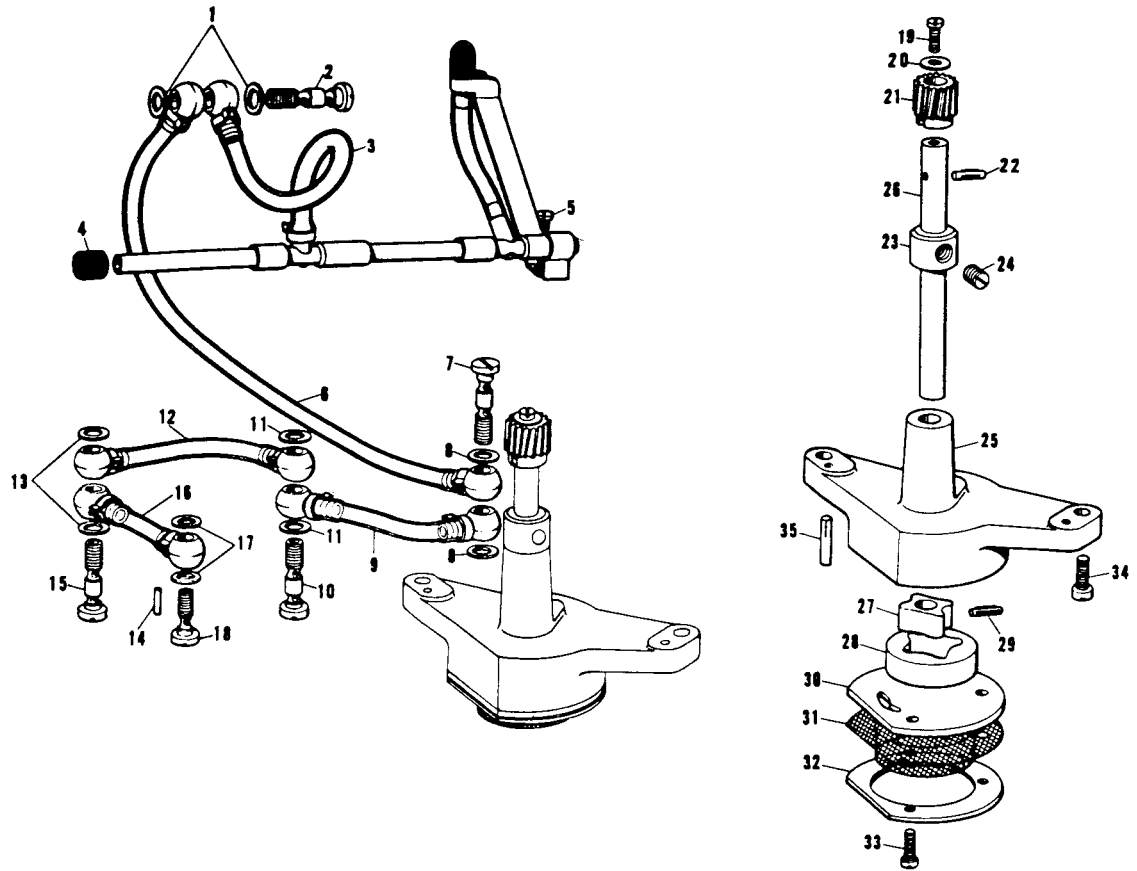
# F. 831U001—○ Threading



Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
F-1	Needle Thread Guide	1	147344-0-01		F-21	Thread Guide Holder	1	144111-0-01	
F-2	Needle Thread Guard	1	112300-0-01		F-22	Looper (Left Hand) Thread Guide	1	146926-0-01	
F-3	Needle Thread Guard Spring	1	112299-0-01		F-23	Screw	1	009670-6-12	
F-4	Screw	1	112301-0-01		F-25	Washer	2	144105-0-00	
F-5	Needle Thread Guide (A)	1	143757-0-01		F-27	Spring	2	144110-0-01	
F-6	Screw	1	009660-4-12		F-28	Tension Disc Washer	2	144103-0-02	
F-7	Screw	1	009670-6-12		F-29	Tension Disc	4	145446-0-01	
F-8	Needle Thread Take-up	1	144108-0-01		F-30	Felt	2	110832-0-01	
F-9	Washer	1	105248-0-01		F-31	Looper Thread Tension Control Stud	2	110820-0-01	
F-10	Screw	1	009669-3-12		F-32	Needle Thread Guide Plate	2	110813-0-01	
F-11	Thread Guide Supporter	1	146649-0-01		F-33	Looper (Right Hand) Thread Take-up (R)	1	146652-0-01	
F-12	Looper Thread Tension Control Stud	1	110820-0-01		F-34	Looper (Left Hand) Thread Take-up (L)	1	146653-0-01	
F-13	Felt	1	110832-0-01		F-35	Screw	1	009670-8-12	
F-14	Tension Disc	2	145446-0-01		F-36	Looper Thread Take-up (L)	1	146654-0-01	
F-15	Tension Disc Washer	1	144103-0-02		F-37	Screw	1	009670-6-12	
F-16	Spring	1	144104-0-01		F-38	Looper (Right Hand) Thread Guide	1	142669-0-01	
F-17	Washer	1	144105-0-00		F-39	Screw	1	122771-0-02	
F-19	Main Thread Guide	1	146648-0-01		F-40	Looper (Right Hand) Thread Guide	1	146929-0-01	
F-20	Screw	1	014770-6-22		F-41	Screw	1	009670-6-12	
F-18	Thread Tension Adjusting Nut	1		151201-0-03	F-44	Thread Tension Adjusting Nut	1		151201-0-04
F-42	Color Plate	1	147049-0-03	151201-0-03	F-45	Color Plate	1	147049-0-04	151201-0-04
F-24	Thread Tension Adjusting Nut	1		151201-0-02					
F-43	Color Plate	1	147049-0-02	151201-0-02					

NOTE! PREFIX ALL NUMBERS BY 'BR.'  
EXAMPLE BR146222-0-01

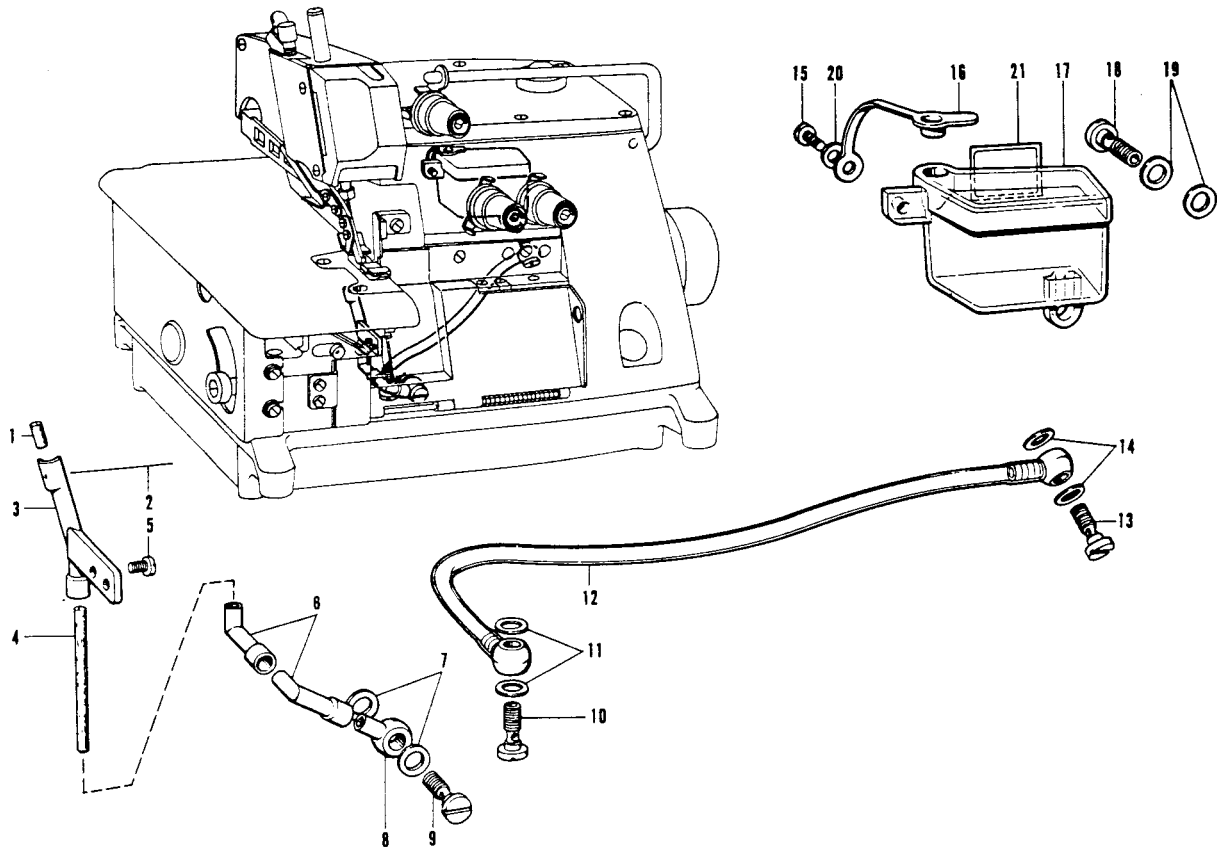
# G. 831U001- Lubrication



Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
G-1	Gasket	2	112348-0-01		G-19	Screw	1	009670-8-12	
G-2	Oil Feeding Pipe (B)	1	112364-0-01		G-20	Washer	1	025350-3-32	147521-0-01
G-3	Main Oil Pipe	1	146636-0-01		G-21	Worm Wheel	1		
G-4	Oil Cap	1	140325-0-01		G-22	Pin	1	144622-0-01	
G-5	Screw	1	009670-6-12		G-23	Set Collar	1		
G-6	Vinyl Tube	1	140780-0-01		G-24	Screw	2	101706-0-01	181995-0-01
G-7	Oil Feeding Pipe (B)	1	112364-0-01		G-25	Pump Case	1	147522-0-00	
G-8	Gasket	2	112348-0-01		G-26	Main Pump Gear Shaft	1		
G-9	Vinyl Tube	1	140779-0-01		G-27	Pump Inner Roter	1		147523-0-01
G-10	Oil Feeding Pipe (B)	1	112364-0-01		G-28	Pump Outer Roter	1		
G-11	Gasket	2	112348-0-01		G-29	Pin	1		
G-12	Vinyl Tube	1	140778-0-01		G-30	Pump Cover	1	147527-0-01	
G-13	Gasket	2	112348-0-01		G-31	Oil Pump Screen	1	147528-0-00	
G-14	Pin	1	147318-0-00		G-32	Oil Pump Screen Frame	1	147529-0-00	
G-15	Oil Feeding Pipe (B)	1	112364-0-01		G-33	Screw	3	009671-0-12	
G-16	Vinyl Tube	1	147211-0-01		G-34	Screw	2	009711-2-12	
G-17	Gasket	2	112348-0-01		G-35	Pin	2	508693-0-01	
G-18	Screw	1	112359-0-01						

NOTE! PREFIX ALL NUMBERS BY 'BR'.  
EXAMPLE BR146222-0-01

# H. 831U001- Needle Cooler

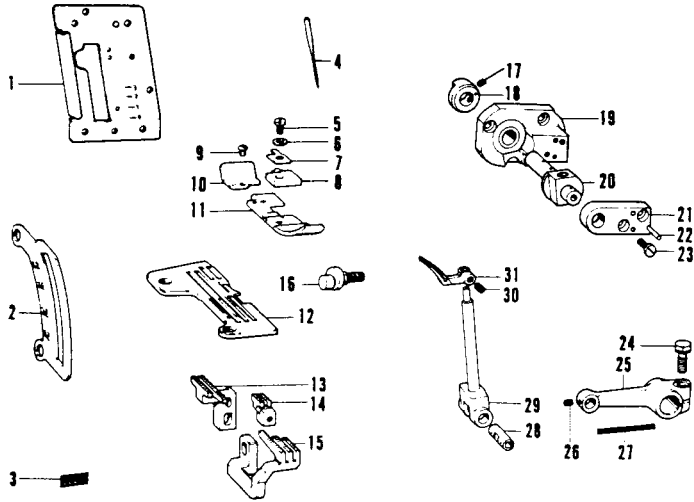


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
H-1	Felt (S)	1	146740-0-00	146738-0-00	H-12	Vinyl Tube	1	146512-0-00	
H-2	Steel Wire	1	147738-0-00		H-13	Screw	1	112359-0-01	
H-3	Felt Holder	1	146739-0-00		H-14	Gasket	2	112348-0-01	
H-4	Felt	1	144116-0-00		H-15	Screw	1	009681-0-12	
H-5	Screw	2	100257-0-10		H-16	Cap	1		146511-0-00
H-6	Pipe Joint	2	146516-0-00		H-17	Oil Tank	1		
H-7	Gasket	2	112348-0-01		H-18	Screw	1	112359-0-01	
H-8	Oil Feeding Connector	1	146515-0-00		H-19	Gasket	2	112348-0-01	
H-9	Screw	1	112359-0-01		H-20	Washer	1	113431-0-02	
H-10	Screw	1	112359-0-01		H-21	Label	1		
H-11	Gasket	2	112348-0-01						

[NOTE! PREFIX ALL NUMBERS BY 'BR']  
 [EXAMPLE BR146222-0-01]

## I. 831U002-○ (Bulky Knit Work)

This machine is the same as the 831U001-○ machine, with the following exceptions:

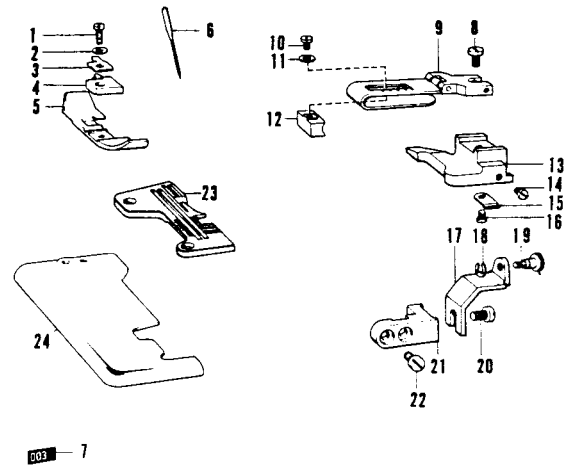


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
I-1	Face Plate	1	146706-0-01	
I-2	Differential Feed Indicator	1	146742-0-01	
I-3	Label	1		
I-4	Needle Cat. No. 6120 #14	1	151200-0-14	
I-5	Screw	1	100080-0-04	
I-6	Washer	1	025030-1-32	
I-7	Presser Foot Hinge Spring	1	146887-0-01	
I-8	Chaining-off Finger	1	146900-0-01	146898-0-01
I-9	Screw	1	100105-0-05	
I-10	Presser Foot (Rear)	1	145774-0-01	
I-11	Presser Foot	1		
I-12	Throat Plate	1		
I-13	Main Feed (Back) Dog	1	146745-0-01	
I-14	Chain Feed Dog	1	146578-0-01	
I-15	Differential Feed (Front) Dog	1	146750-0-01	
I-16	Main Feed Shaft	1	144068-0-01	
I-17	Screw	2	014680-4-22	
I-18	Set Collar	1		
I-19	Looper (Right Hand) Holder Guide Base	1		
I-20	Looper (Right Hand) Holder Guide Block	1		
I-21	Looper (Right Hand) Holder Supporting Plate	1		146611-1-01
I-22	Taper Pin	2		
I-23	Screw	2	009681-0-12	
I-24	Screw	1	149170-0-01	
I-25	Looper (Right Hand) Driving Lever	1		
I-26	Screw	1	148294-0-01	
I-27	Wick	1	140416-0-00	
I-28	Looper (Right Hand) Holding Shaft	1		
I-29	Looper (Right Hand) Holder	1		
I-30	Screw	1	014680-4-22	147937-0-01
I-31	Looper (Right Hand)	1		

(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
(EXAMPLE BR146222-0-01)

## J. 831U003-○ (Blind Stitch Hemming)

This machine is the same as the 831U001-○ machine, with the following exceptions:

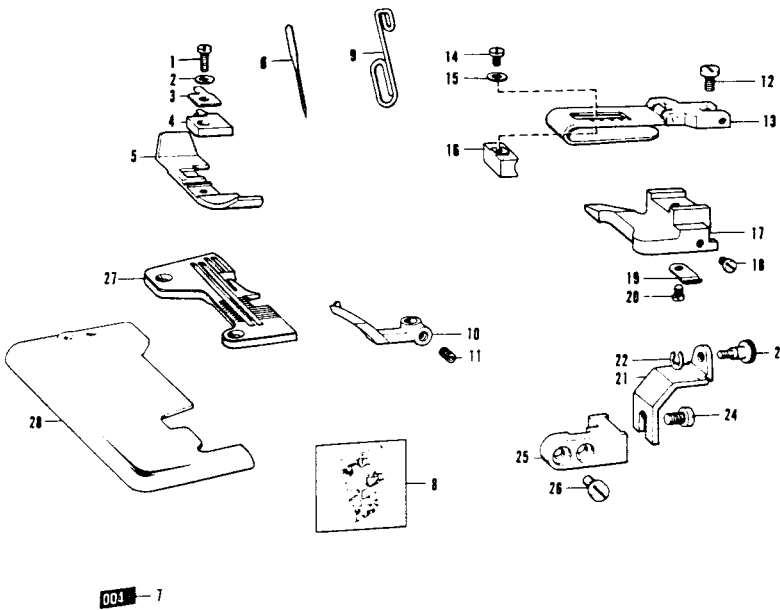


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
J-1	Screw	1	100080-0-04	
J-2	Washer	1	025030-1-32	
J-3	Presser Foot Hinge Spring	1	146887-0-01	146890-0-01
J-4	Chaining-off Finger	1	146892-0-01	
J-5	Presser Foot	1		
J-6	Needle Cat. No. 6120 #9	1	151200-0-09	
J-7	Label	1		
J-8	Screw	1	001670-6-14	
J-9	Blind Stitch Hemming Guide A Assembly	1		
J-10	Screw	1	009660-4-12	151173-0-01
J-11	Washer	1	025030-2-32	
J-12	Blind Stitch Hemming Guide Adjuster	1	150339-0-01	
J-13	Blind Stitch Hemming Guide	1		
J-14	Screw	1	111443-0-01	
J-15	Flat Spring	1	147713-0-01	
J-16	Screw	1	009679-3-12	147710-0-01
J-17	Blind Stitch Hemming Guide Fitting Holder	1	147712-0-01	
J-18	Stop Ring	1	048030-3-42	
J-19	Adjusting Screw	1	146759-0-01	
J-20	Screw	1	009680-7-12	
J-21	Supporter for Blind Stitch Hemming Guide Fitting	1	146760-0-01	
J-22	Screw	2	009670-6-12	
J-23	Throat Plate	1		
J-24	Cloth Plate	1	146716-0-01	

(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
(EXAMPLE BR146222-0-01)

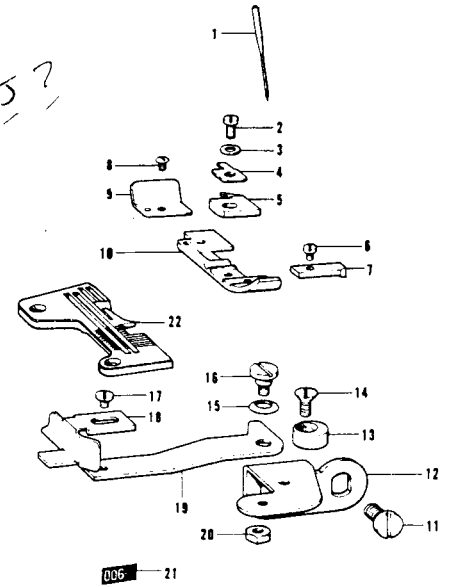
# I'. 831U004-0 (Blind Stitch Hemming)

This machine is the same as the 831U001-0 machine, with the following exceptions:



# J'. 831U006-0 (Serging)

This machine is the same as the 831U001-0 machine, with the following exceptions:



Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
I'-1	Screw	1	100080-0-04	146890-0-01
I'-2	Washer	1	025030-1-32	
I'-3	Presser Foot Hinge Spring	1	146887-0-01	
I'-4	Chaining-off Finger	1	146892-0-01	
I'-5	Presser Foot	1		
I'-6	Needle Cat. No. 6120 #9	1	151200-0-09	
I'-7	Label	1		
I'-8	Threading Diagram	1	146719-0-01	
I'-9	Needle Thread Take-up	1	142201-0-01	
I'-10	Spreader	1		147935-0-01
I'-11	Screw	1	014680-4-22	
I'-12	Screw	1	001670-6-14	
I'-13	Blind Stitch Hemming Guide A Assembly	1		151178-0-01
I'-14	Screw	1	009660-4-12	
I'-15	Washer	1	025030-2-32	
I'-16	Blind Stitch Hemming Guide Adjuster	1	150339-0-01	
I'-17	Blind Stitch Hemming Guide	1		147710-0-01
I'-18	Screw	1	009679-3-12	
I'-19	Flat Spring	1	147713-0-01	
I'-20	Screw	1	111443-0-01	
I'-21	Blind Stitch Hemming Guide Fitting Holder	1	147712-0-01	
I'-22	Stop Ring	1	048030-3-42	
I'-23	Adjusting Screw	1	146759-0-01	
I'-24	Screw	1	009680-7-12	
I'-25	Supporter for Blind Stitch Hemming Guide Fitting	1	146760-0-01	
I'-26	Screw	2	009670-6-12	
I'-27	Throat Plate	1		
I'-28	Cloth Plate	1	146716-0-01	

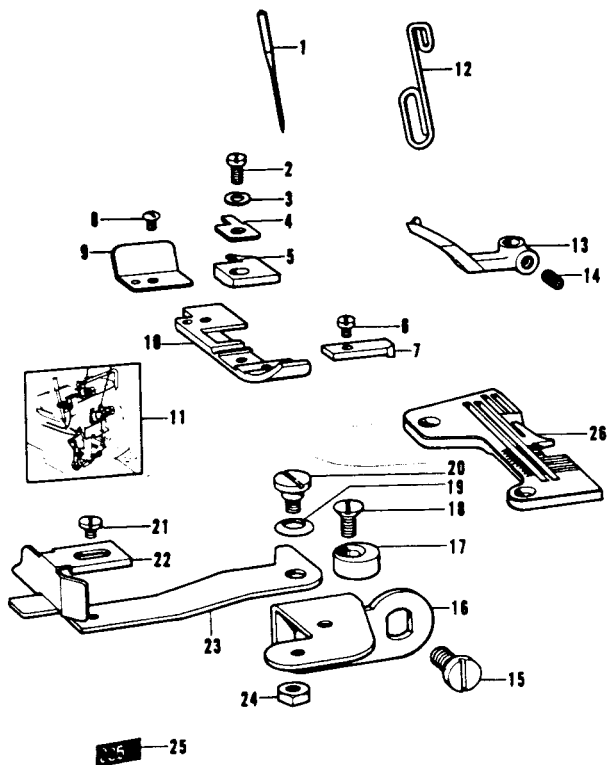
(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
EXAMPLE BR146222-0-01

Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
J'-1	Needle Cat. No. 6120 #14	1	151200-0-14	146893-0-01
J'-2	Screw	1	100080-0-04	
J'-3	Washer	1	025030-1-32	
J'-4	Presser Foot Hinge Spring	1	146887-0-01	
J'-5	Chaining-off Finger	1	146894-0-01	
J'-6	Screw	1	009639-3-12	
J'-7	Presser Foot (Front)	1	146888-0-01	
J'-8	Screw	1	100105-0-05	
J'-9	Presser Foot (Rear)	1		
J'-10	Presser Foot	1		
J'-11	Screw	2	110201-0-01	146761-0-01
J'-12	Guide Supporter	1	146599-0-01	
J'-13	Presser Arm Stopper	1	144088-0-01	
J'-14	Screw	1	005710-8-12	
J'-15	Spring Washer	1	146598-0-01	
J'-16	Stud Screw	1	146597-0-01	
J'-17	Screw	1	009679-3-12	
J'-18	Guide	1	146762-0-01	
J'-19	Guide Set Plate	1	146596-0-01	
J'-20	Nut	1	021680-2-02	
J'-21	Label	1		
J'-22	Throat Plate	1		

(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
EXAMPLE BR146222-0-01

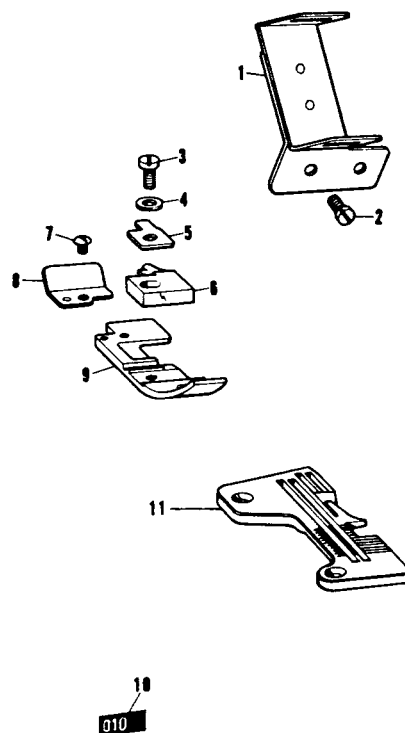
### M. 831U005- (Serging)

This machine is the same as the 831U001- machine, with the following exceptions:



### M'. 831U010- (Taping on Light, Medium Work)

This machine is the same as the 831U001- machine, with the following exceptions:



Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
M- 1	Needle Cat. No. 6120 #14	1	151200-0-14	
M- 2	Screw	1	100080-0-04	
M- 3	Washer	1	025030-1-32	
M- 4	Presser Foot Hinge Spring	1	146887-0-01	
M- 5	Chaining-off Finger	1	146894-0-01	
M- 6	Screw	1	009639-3-12	146893-0-01
M- 7	Presser Foot (Front)	1	146888-0-01	
M- 8	Screw	1	100105-0-05	
M- 9	Presser Foot (Rear)	1	146889-0-01	
M-10	Presser Foot	1		
M-11	Threading Diagram	1	146719-0-01	
M-12	Needle Thread Take-up	1	142201-0-01	
M-13	Spreader	1		147935-0-01
M-14	Screw	1	014680-4-22	
M-15	Screw	2	110201-0-01	
M-16	Guide Supporter	1	146599-0-01	
M-17	Presser Arm Stopper	1	144088-0-01	
M-18	Screw	1	005710-8-12	
M-19	Spring Washer	1	146598-0-01	
M-20	Stud Screw	1	146597-0-01	146761-0-01
M-21	Screw	1	009679-3-12	
M-22	Guide	1	146762-0-01	
M-23	Guide Set Plate	1	146596-0-01	
M-24	Nut	1	021680-2-02	
M-25	Label	1		
M-26	Throat Plate	1		

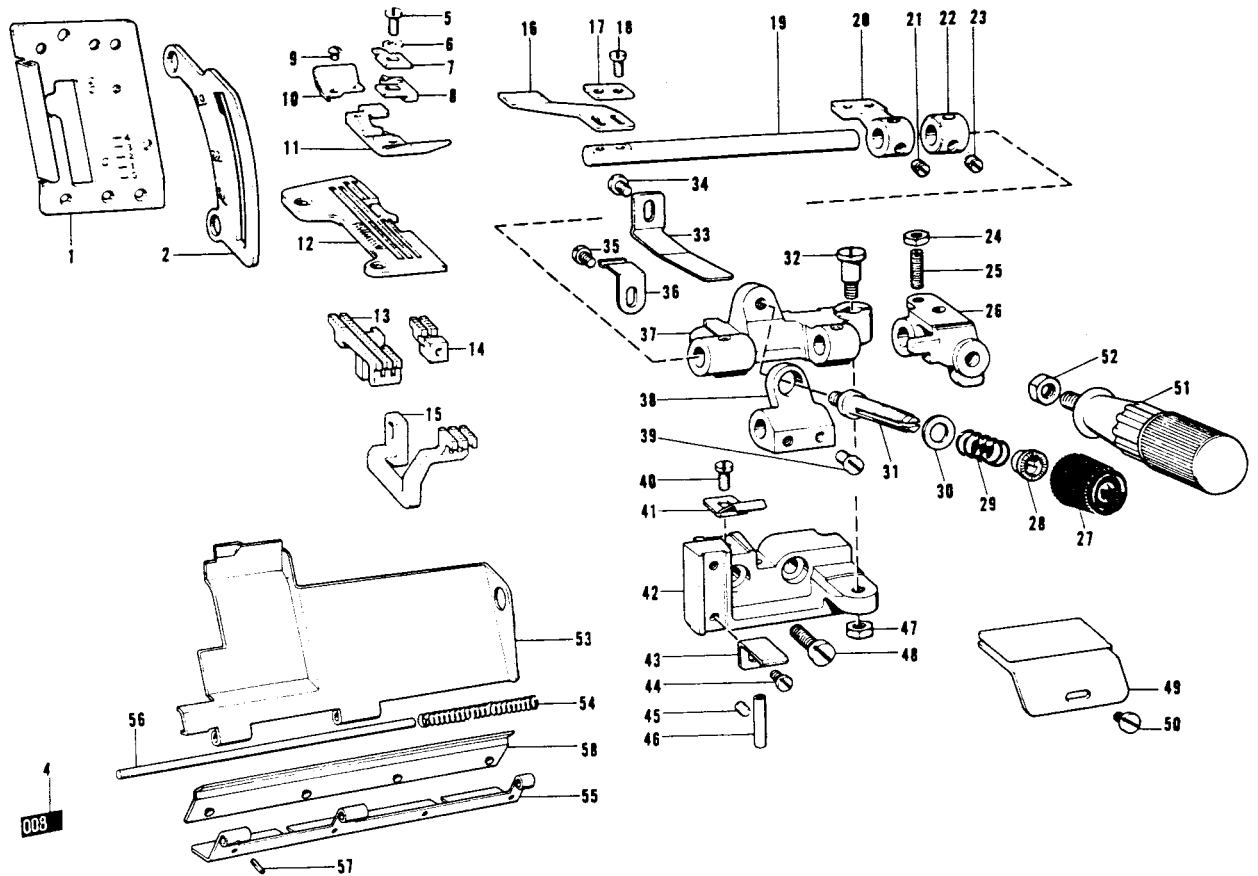
(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
EXAMPLE BR146222-0-01

Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
M'- 1	Tape Guide	1	146883-0-01	
M'- 2	Screw	2	009669-4-12	
M'- 3	Screw	1	100080-0-04	
M'- 4	Washer	1	025030-1-32	
M'- 5	Presser Foot Hinge Spring	1	146887-0-01	
M'- 6	Chaining-off Finger	1	146897-0-01	146895-0-01
M'- 7	Screw	1	100105-0-05	
M'- 8	Presser Foot (Rear)	1	145774-0-01	
M'- 9	Presser Foot	1		
M'-10	Label	1		
M'-11	Throat Plate	1		

(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
EXAMPLE BR146222-0-01

# K. 831U008-○ (Ruffing)

This machine is the same as the 831U001-○ machine, with the following exceptions :

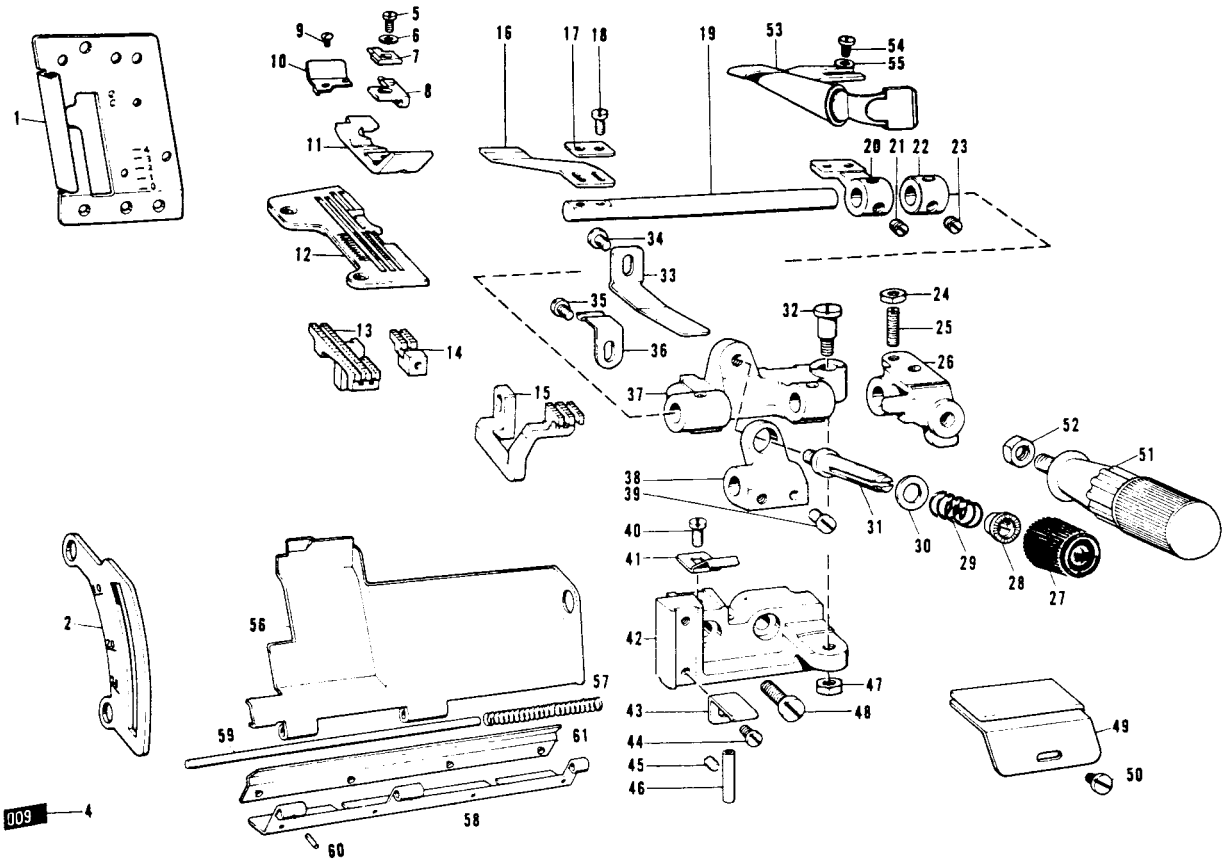


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
K-1	Face Plate	1	146430-0-01	144811-0-01	K-28	Washer	1	144105-0-00	146587-0-02
K-2	Differential Feed Indicator	1	146562-0-01		K-29	Spring	1	144788-0-01	
K-4		1			K-30	Washer	1	025770-2-32	
K-5	Screw	1	100080-0-04		K-31	Looper Thread Tension Control Stud	1	110820-0-01	
K-6	Washer	1	025030-1-32		K-32	Screw	1	147933-0-01	
K-7	Presser Foot Plate	1	144091-0-01		K-33	Spring	1	145811-0-01	
K-8	Chaining-off Finger	1	144813-0-01		K-34	Screw	1	009680-6-12	
K-9	Screw	1	100105-0-05		K-35	Screw	1	001670-5-12	
K-10	Presser Foot Chain Shield	1	144100-0-01		K-36	Spring	1	144764-0-01	
K-11	Presser Foot (U)	1			K-37	Bracket for Ruffing Blade	1		
K-12	Throat Plate	1			K-38	Spring Base	1		
K-13	Main Feed (Back) Dog	1	146746-0-01		K-39	Screw	2	105163-0-01	
K-14	Chain Feed Dog	1	146578-0-01		K-40	Screw	1	009680-6-12	
K-15	Differential Feed (Front) Dog	1	146751-0-01	K-41	Spring	1	145808-0-01		
K-16	Ruffing Blade	1	144783-0-01	K-42	Ruffler Base	1			
K-17	Washer	1	144784-0-01	K-43	Ruffing Blade Guide	2	145807-0-01		
K-18	Screw	2	009660-7-12	K-44	Screw	2	009680-8-12		
K-19	Ruffing Blade Base Shaft	1	145803-0-01	K-45	Screw	1	013679-4-12		
K-20	Binder Base	1		K-46	Thread Guide Pipe	1	146592-0-01		
K-21	Screw	2	101706-0-01	K-47	Nut	1	150553-0-02		
K-22	Set Collar	1		K-48	Screw	2	009781-8-12		
K-23	Screw	2	101706-0-01	K-49	Ruffler Guide	1	144793-0-00		
K-24	Nut	1	105234-0-03	K-50	Screw	1	112751-0-02		
K-25	Screw	1	110230-0-01	K-51	Handle	1	145809-0-01		
K-26	Handle Fixing Plate	1		K-52	Nut	1	150556-0-02		
K-27	Thread Tension Adjusting Nut	1	149566-0-02	K-53	Front Cover	1			
				K-54	Spring	1	146442-0-01	146710-0-01	
				K-55	Front Cover Hinge	1	146440-0-01		
				K-56	Front Cover Hinge Pin	1	146441-0-00		
				K-57	Pin	1	047140-8-42		
				K-58	Hinge Cover	1	148984-0-01		

(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
EXAMPLE BR146222-0-01

# L. 831U009- (Ruffling (W/Piping))

This machine is the same as the 831U001 machine, with the following exceptions:



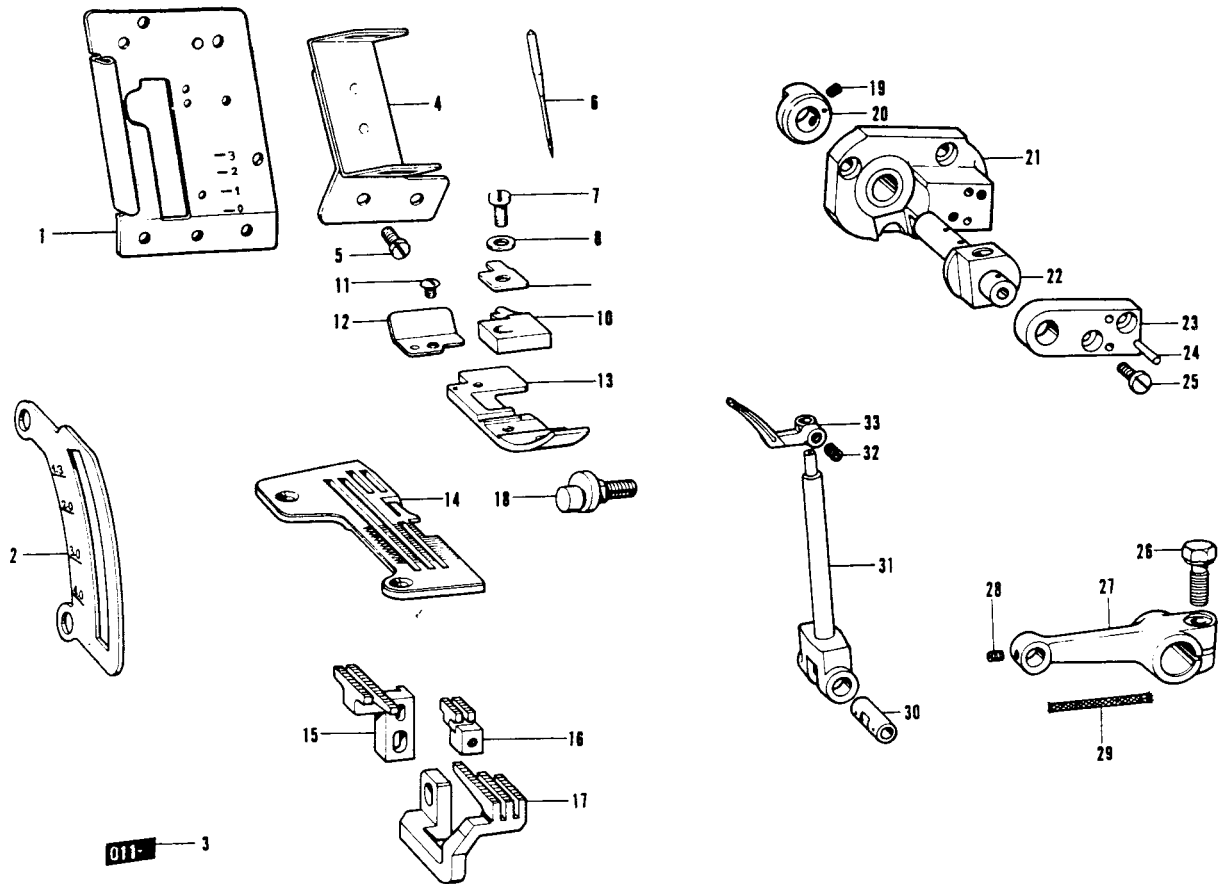
Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
L-1	Face Plate	1	146430-0-01		L-29	Spring	1	144788-0-01	
L-2	Differential Feed Indicator	1	146562-0-01		L-30	Washer	1	025770-2-32	
L-4	Label	1			L-31	Looper Thread Tension Control Stud	1	110820-0-01	
L-5	Screw	1	100080-0-04		L-32	Screw	1	147933-0-01	
L-6	Washer	1	025030-1-32		L-33	Spring	1	145811-0-01	
L-7	Presser Foot Plate	1	144091-0-01		L-34	Screw	1	009680-6-12	
L-8	Chaining-off Finger	1	144813-0-01	147433-0-01	L-35	Screw	1	001670-5-12	
L-9	Screw	1	100105-0-05		L-36	Spring	1	144764-0-01	
L-10	Presser Foot Chain Shield	1	144100-0-01		L-37	Bracket for Ruffling Blade	1		146587-0-02
L-11	Presser Foot	1			L-38	Spring Base	1		
L-12	Throat Plate	1			L-39	Screw	2	105163-0-01	
L-13	Main Feed (Back) Dog	1	147828-0-01		L-40	Screw	1	009680-6-12	
L-14	Chain Feed Dog	1	147832-0-01		L-41	Spring	1	145808-0-01	
L-15	Differential Feed (Front) Dog	1	146751-0-01		L-42	Ruffler Base	1		
L-16	Ruffling Blade	1	144783-0-01		L-43	Ruffling Blade Guide	2	145807-0-01	
L-17	Washer	1	144784-0-01		L-44	Screw	2	009680-8-12	
L-18	Screw	2	009660-7-12		L-45	Screw	1	013679-4-12	
L-19	Ruffling Blade Base Shaft	1	145803-0-01		L-46	Thread Guide Pipe	1	146592-0-01	
L-20	Binder Base	1		146587-0-02	L-47	Nut	1	150553-0-02	
L-21	Screw	2	101706-0-01		L-48	Screw	2	009781-8-12	
L-22	Set Collar	1		181995-0-02	L-49	Ruffler Guide	1	144793-0-00	
L-23	Screw	2	101706-0-01		L-50	Screw	1	112751-0-02	
L-24	Nut	1	105234-0-03		L-51	Handle	1	145809-0-01	
L-25	Screw	1	110230-0-01		L-52	Nut	1	150556-0-02	
L-26	Handle Fixing Plate	1			L-53	Binder	1	147440-0-00	
L-27	Thread Tension Adjusting Nut	1	149566-0-02		L-54	Screw	2	009680-6-12	
L-28	Washer	1	144105-0-00		L-55	Washer	2	110735-0-02	
					L-56	Front Cover	1		
					L-57	Spring	1	146442-0-01	
					L-58	Front Cover Hinge	1	146440-0-01	146710-0-01
					L-59	Front Cover Hinge Pin	1	146441-0-00	
					L-60	Pin	1	047140-8-42	
					L-61	Hinge Cover	1	148984-0-01	

(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
EXAMPLE BR146222-0-01



## N. 831U011-○ (Taping on Bulky Knit Work)

This machine is the same as the 831U001-○ machine, with the following exceptions:

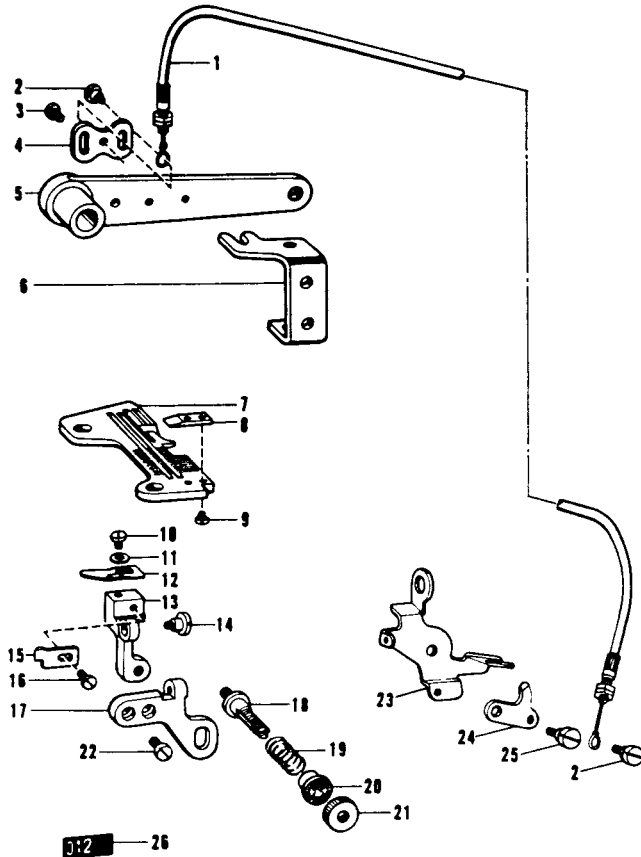


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
N-1	Face Plate	1	146706-0-01		N-18	Main Feed Shaft	1	144068-0-01	
N-2	Differential Feed Indicator	1	146742-0-01		N-19	Screw	2	014680-4-22	
N-3	Label	1			N-20	Set Collar	1		
N-4	Tape Guide	1	146883-0-01		N-21	Looper (Right Hand) Holder Guide Base	1		
N-5	Screw	2	009669-4-12		N-22	Looper (Right Hand) Holder Guide Block	1		
N-6	Needle Cat. No. 6120 #14	1	151200-0-14		N-23	Looper (Right Hand) Holder Supporting Plate	1		
N-7	Screw	1	100080-0-04		N-24	Taper Pin	2		
N-8	Washer	1	025030-1-32		N-25	Screw	2	009681-0-12	146611-1-01
N-9	Presser Foot Hinge Spring	1	146887-0-01		N-26	Screw	1	149170-0-01	
N-10	Chaining-off Finger	1	146897-0-01	146895-0-01	N-27	Looper (Right Hand) Driving Lever	1		
N-11	Screw	1	100105-0-05		N-28	Screw	1	148294-0-01	
N-12	Presser Foot (Rear)	1	145774-0-01		N-29	Wick	1	140416-0-00	
N-13	Presser Foot	1			N-30	Looper (Right Hand) Holding Shaft	1		
N-14	Throat Plate	1			N-31	Looper (Right Hand) Holder	1		
N-15	Main Feed (Back) Dog	1	146745-0-01		N-32	Screw	1	014680-4-22	147937-0-01
N-16	Chain Feed Dog	1	146578-0-01		N-33	Looper (Right Hand)	1		
N-17	Differential Feed (Front) Dog	1	146750-0-01						

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01]

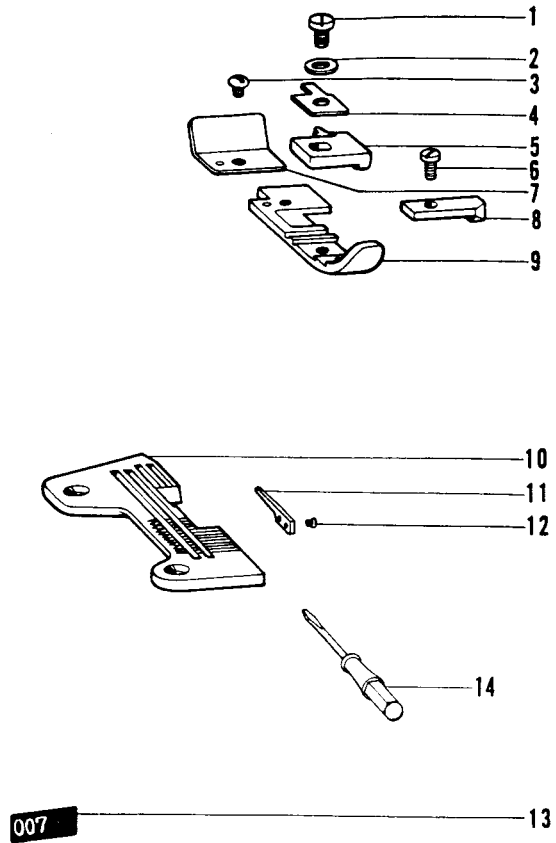
## N'. 831U012- (Chain-back)

This machine is the same as the 831U001- machine, with the following exceptions:



## K'. 831U007- (Turn-down Hemming)

This machine is the same as the 831U001- machine, with the following exceptions:



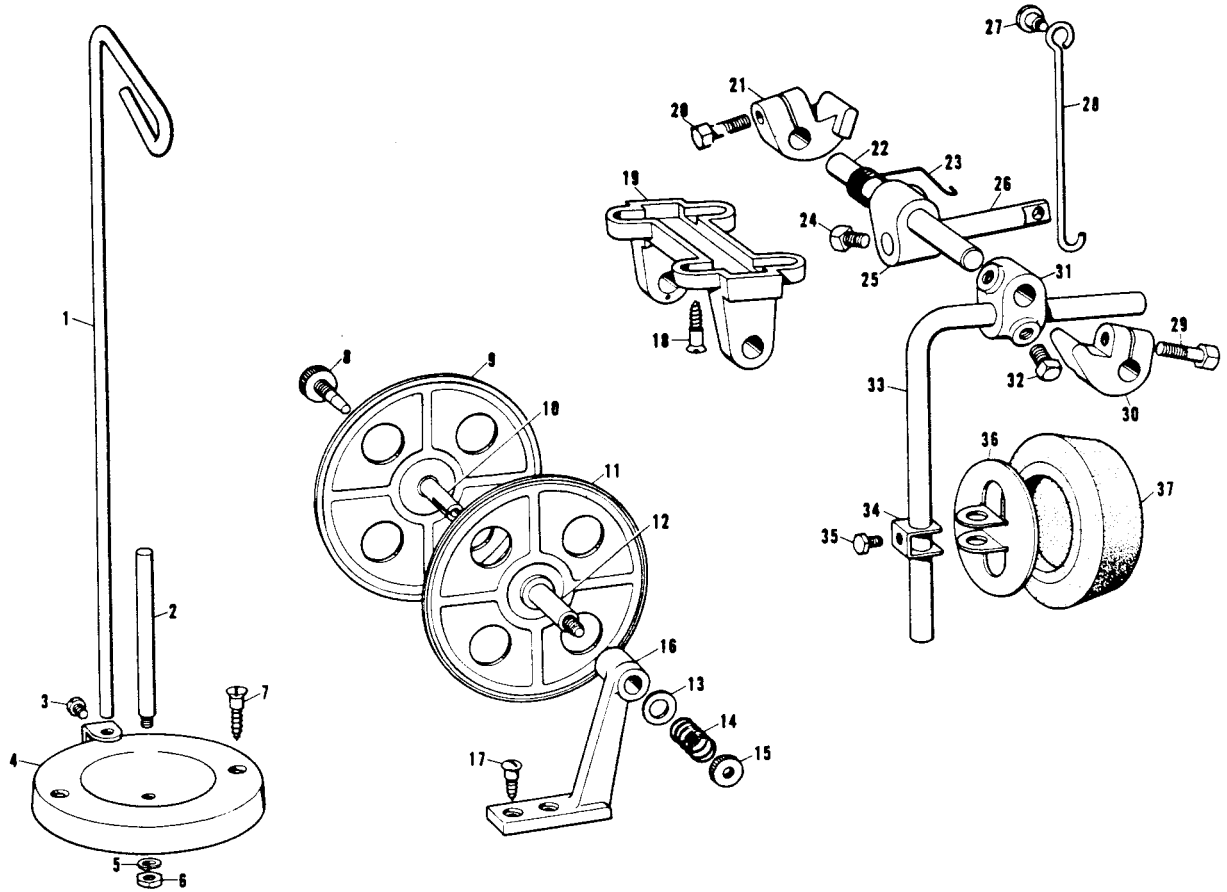
Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
N-1	Flexible Wire Assembly	1	147480-0-01	
N-2	Screw	2	141514-0-01	
N-3	Screw	2	009670-6-12	
N-4	Wire Plate	1	147672-0-01	
N-5	Presser Foot Lifter Lever	1	148369-0-01	
N-6	Lever Adjuster Plate	1	147454-0-01	
N-7	Throat Plate	1		
N-8	Chain-Back Guide	1	147484-0-01	
N-9	Screw	2	141544-0-01	
N-10	Screw	1	009660-4-12	
N-11	Washer	1	025030-1-32	
N-12	Chain-Back Blade Presser Plate	1	147477-0-01	
N-13	Chain-Back Blade Holder	1		
N-14	Screw	1	147476-0-01	
N-15	Chain-Back Knife	1	147478-0-01	
N-16	Screw	1	009660-4-12	147473-0-01
N-17	Chain-Back Blade Holder Supporter	1		
N-18	Thread Tension Control Stud	1	147148-0-01	
N-19	Spring	1	147479-0-01	
N-20	Washer	1	144105-0-00	
N-21	Upper Thread Tension Adjusting Screw	1	105230-0-01	
N-22	Screw	2	009670-6-12	
N-23	Thread Guide Support	1	147485-0-01	
N-24	Tension Release Lever	1	147483-0-01	
N-25	Screw	1	141514-0-01	
N-26	Label	1		

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01

Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
K-1	Screw	1	100080-0-04	
K-2	Washer	1	025030-1-32	
K-3	Screw	1	100105-0-05	
K-4	Presser Foot Hinge Spring	1	146887-0-01	BR
K-5	Chaining-off Finger	1	148313-0-01	148311-1-01
K-6	Screw	1	009639-3-12	
K-7	Presser Foot (Rear)	1	146889-0-01	154476-0-01
K-8	Presser Foot (Front)	1	146888-0-01	
K-9	Presser Foot	1		
K-10	Throat Plate	1		
K-11	Finger Plate	1	148354-0-01	
K-12	Screw	1	148355-0-01	
K-13	Label	1		
K-14	Screw Driver	1	148925-0-01	

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01

# P. Cord Guide



Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
P. 1	Thread Guide	1	109853-0-01	181031-0-01	P. 20	Screw	1	017762-2-03	151224-0-01
P. 2	Spool Pin	1	10044-0-02		P. 21	Collar	1	104890-0-02	
P. 3	Screw	1	100080-0-02		P. 22	Knee Lifter Shaft	1	144804-0-01	
P. 4	Disc for Spool	1	109852-0-01		P. 23	Spring	1	144806-0-01	
P. 5	Washer	1	028050-2-42		P. 24	Screw	2	100463-0-01	
P. 6	Nut	1	110161-0-03		P. 25	Knee Lifter Bracket	1	143989-0-01	
P. 7	Screw	2	100447-0-01		P. 26	Knee Lifter Lever	1	144805-0-01	
P. 8	Screw	1	143980-0-01		P. 29	Screw	1	017762-2-03	
P. 9	Tape Winder Wheel (L)	1			P. 30	Collar	1	104890-0-02	
P. 10	Tape Winder Shaft (L)	1		P. 31	Knee Lifter Bracket	1	143989-0-01	180814-0-01	
P. 11	Tape Winder Wheel (R)	1		P. 32	Screw	2	100463-0-01		
P. 12	Tape Winder Shaft (R)	1		P. 33	Knee Lifter Bar	1	104619-0-02		
P. 13	Washer	1	108494-0-01	P. 34	Knee Lifter Plate Stopper	1	114967-0-01		
P. 14	Spring	1	108495-0-01	P. 35	Screw	1	110087-0-01		
P. 15	Nut	1	100136-0-01	P. 36	Knee Lifter Plate	1	114966-0-01		
P. 16	Tape Winder Bracket	1	143750-0-02	P. 37	Knee Lifter Cover	1	140503-0-01		
P. 17	Screw	2	101118-0-01	P. 27	Stud Screw	1	146594-0-01		
P. 18	Screw	4	033452-5-02	P. 28	Connecting Bar	1	146593-0-01		
P. 19	Knee Lifter Shaft Bracket	1	144803-0-01						

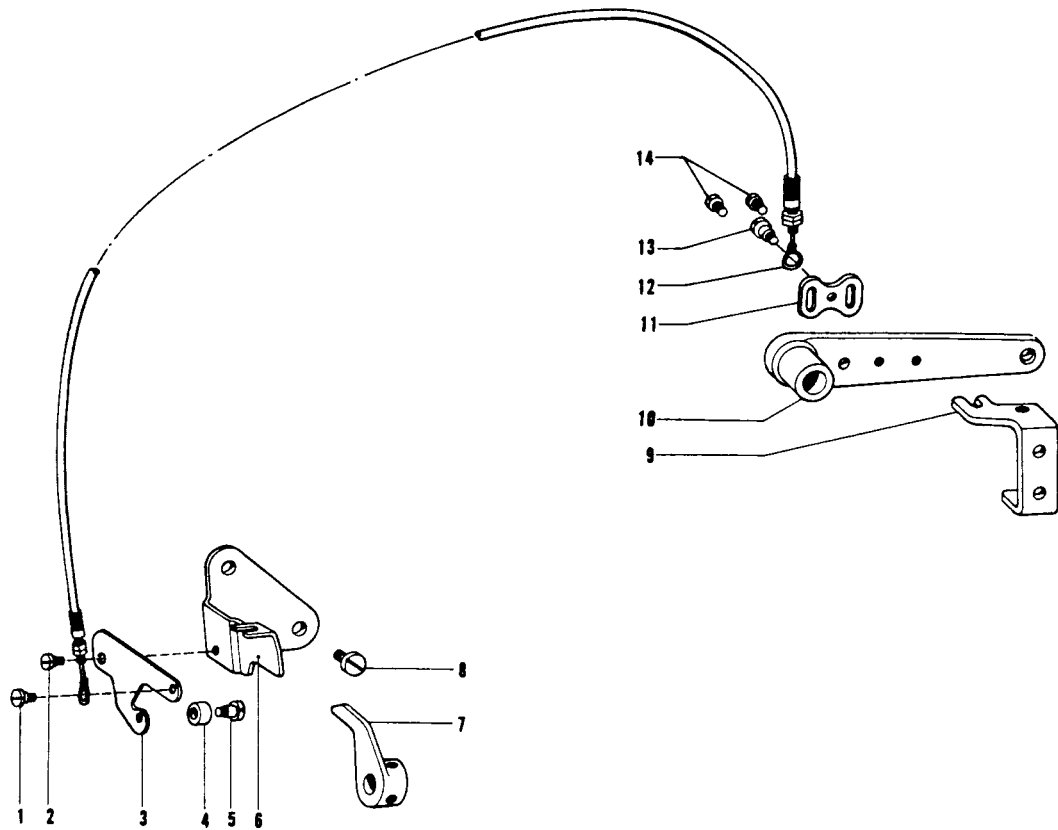
★ Above-mentioned parts are accessories for 831U-009—832U-037—038— Piping Ruffler.

★ The parts of P-18~37 are for Ruffler 831U-008—832U-033—034—

★ Then the parts of P-1~17 are for Piping 832U-050—

[NOTE! PREFIX ALL NUMBERS BY 'BR']  
 [EXAMPLE BR146222-0-01]

## Q. Ruffler Interlocking Parts Assembly

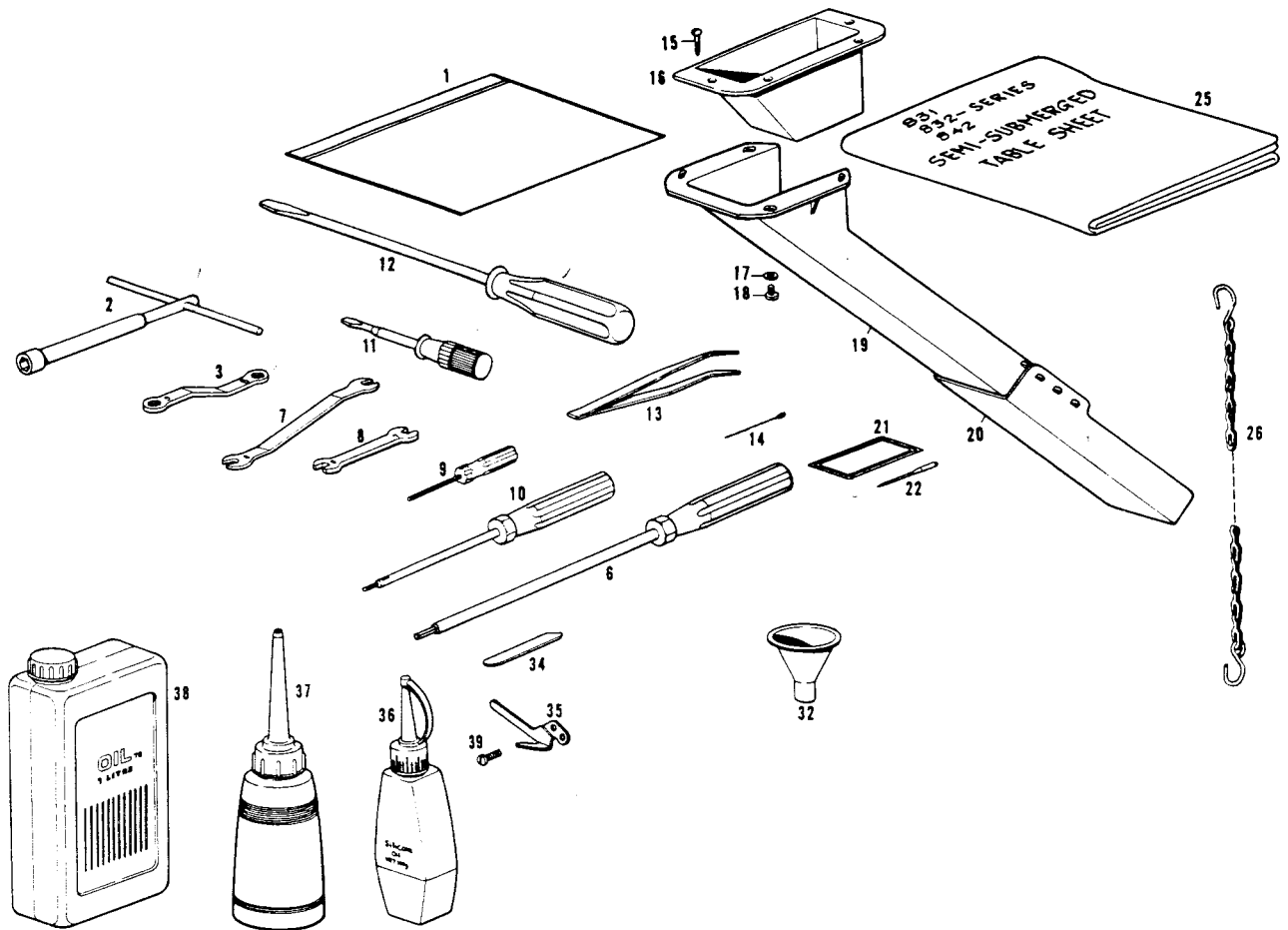


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
Q-1	Screw	1	141514-0-01		Q-8	Screw	1	009680-8-12	
Q-2	Screw	1	141514-0-01		Q-9	Lever Adjuster Plate	1	147454-0-01	
Q-3	Ruffling Plate Lifter Lever	1	148388-0-01		Q-10	Presser Foot Lifter Lever	1	148369-0-01	
Q-4	Roller	1	148390-0-01	148395-0-01	Q-11	Wire Plate	1	147672-0-01	151227-0-02
Q-5	Screw	1	112301-0-01		Q-12	Flexible Wire Assembly	1	148391-0-01	
Q-6	Presser Foot Lifter Lever Support	1	148389-0-01		Q-13	Screw	1	141514-0-01	
Q-7	Presser Foot Lifter	1	148387-0-01		Q-14	Screw	2	009670-6-12	

★ Above-mentioned parts are accessories for 831U-008-○ Ruffler, 831U-009-○ Piping Ruffler, 832U-033-○ .034-○ Ruffler and 832U-037-○ .038-○ Piping Ruffler.

[NOTE! PREFIX ALL NUMBERS BY 'BR']  
EXAMPLE BR146222-0-01

# Y. Accessories



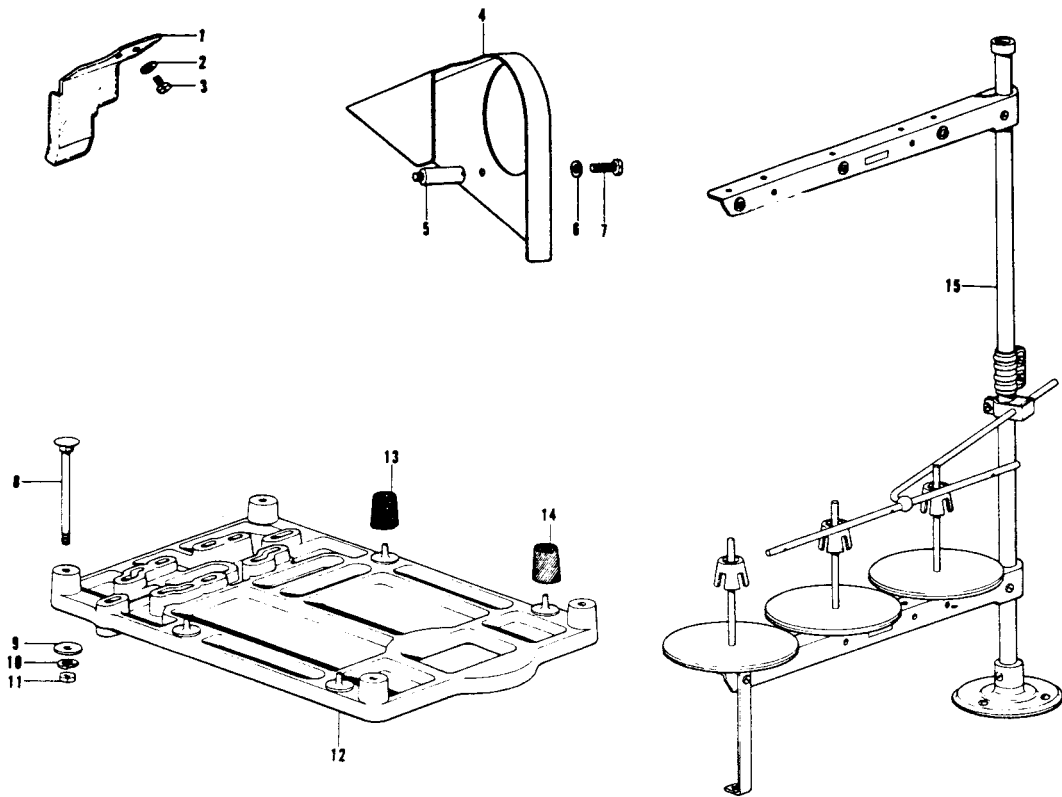
Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
Y-1	Vinyl Bag	1	122991-0-02		Y-20	Chip Chute (S)	1	148432-0-01	
Y-2	Wrench	1	140342-0-01		Y-21	Needle Envelope			
Y-3	Wrench	1	105343-0-01		Y-22	Needle (Cat. No. 6120 or 6122)		151200-	
Y-6	Screw Driver for Socket Hand	1	149173-0-01		Y-25	Table Sheet	1	147698-0-02	
Y-7	Wrench 8	1	143566-0-01		Y-26	Chain Assembly	1	142262-0-01	
Y-8	Wrench 6x7	1	107779-0-01		Y-32	Funnel	1	140759-0-00	
Y-9	Screw Driver for Socket Hand	1	144124-0-01		Y-34	Stationary Knife	1	112436-0-01	
Y-10	Screw Driver for Socket Hand	1	146700-0-01		Y-35	Chain Cutter	1	140888-0-01	
Y-11	Screw Driver	1	118837-0-01		Y-36	Silicone Oil	1	142343-0-01	
Y-12	Screw Driver	1	101572-1-01		Y-37	Oilier	1	114483-0-02	
Y-13	Tweezers	1	117466-0-00		Y-38	Oil Vessel	1	145277-1-04	
Y-14	Threader	3	142125-0-00		Y-39	Screw	2	009669-4-12	
Y-15	Screw	4	031311-3-02						
Y-16	Chip Chute Bracket	1	148430-0-01						
Y-17	Washer	4	025680-2-32						
Y-18	Screw	4	009681-0-12						
Y-19	Chip Chute (L)	1	148431-0-01						

Ref. No.	Name of Parts	831U	832U
Y-21	Needle Envelope	1	2
Y-22	Needle (Cat. No. 6120 or 6122)	5	10

(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
 EXAMPLE BR146222-0-01

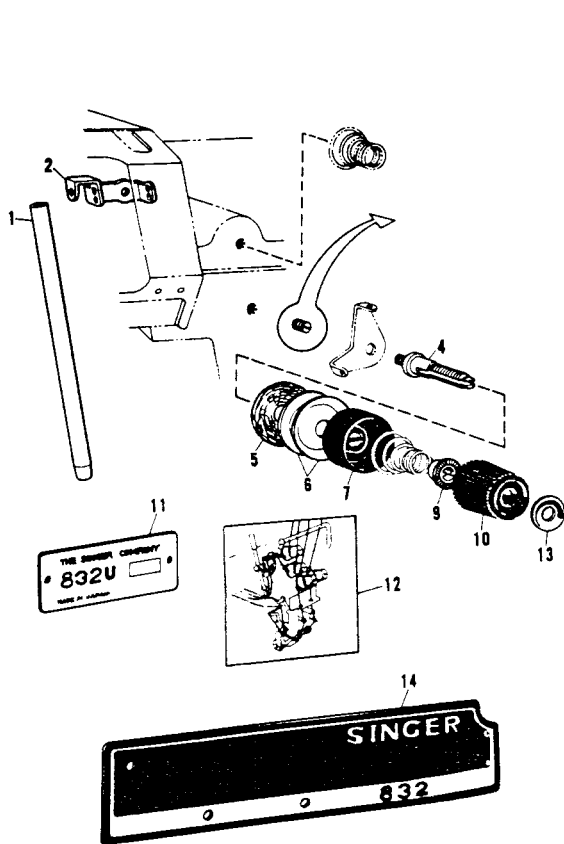
## Z. Machine Base Plate and Thread Unwinder 3 THF



Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
Z- 1	Eye Guard	1		151017-0-01	Z- 9	Washer	4	025080-2-36	
Z- 2	Washer	2	025030-2-32		Z-10	Washer	4	028080-2-42	
Z- 3	Screw	3	009660-5-12		Z-11	Nut	4	021080-1-06	
Z- 4	Belt Cover	1		148348-0-01	Z-12	Machine Base Plate	1	148447-0-00	
Z- 5	Belt Cover Stud	2	148042-0-01		Z-13	Rubber Cushion	1	147919-0-01	
Z- 6	Washer	2	113431-0-02		Z-14	Rubber Cushion	3	147919-0-02	
Z- 7	Screw	2	009681-0-12		Z-15	Thread Unwinder 3 THF	1	150160-0-02	
Z- 8	Screw	4	210973-0-01						

[NOTE! PREFIX ALL NUMBERS BY 'BR']  
 [EXAMPLE BR146222-0-01]

**a. Common Parts for All 832U Varieties**

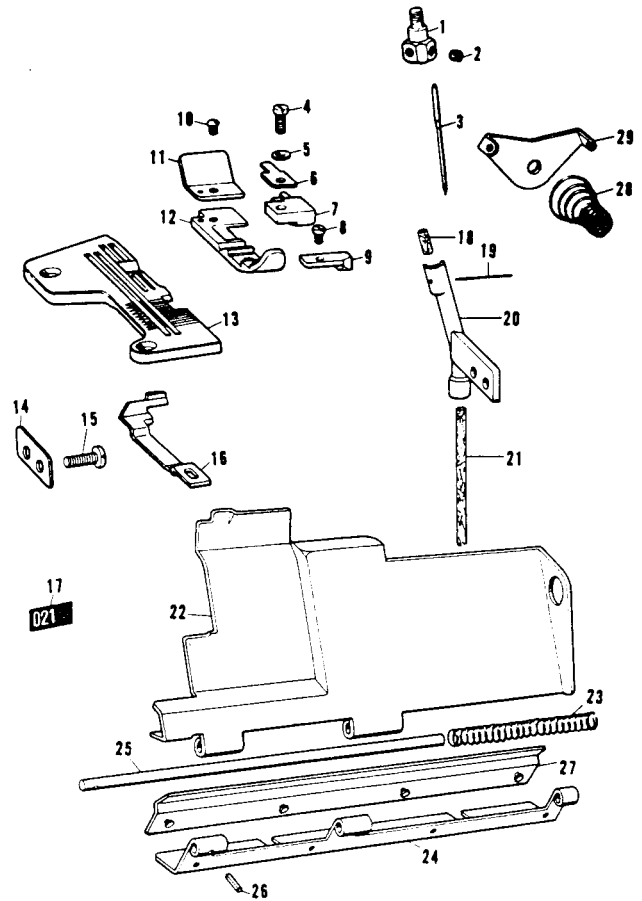


Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
a-1	Needle Bar	1	146483-0-01	
a-2	Needle Thread Guide	1	146793-0-01	
a-4	Looper Thread Tension Control Stud	1	110820-0-01	
a-5	Felt	1	110832-0-01	
a-6	Tension Disc	2	145446-0-01	
a-7	Tension Disc Washer	1	144103-0-02	
a-9	Washer	1	144105-0-00	
a-11	Model Plate 832U	1		
a-12	Threading Diagram	1	146765-0-01	
a-10	Thread Tension Adjusting Nut	1		151201-0-01
a-13	Color Plate	1	147049-0-01	
a-14	Name Plate F	1		

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01]


**b. 832U021- Needle Gauge 1.8 mm (Light Work)**


This machine is the same as the 831U001- (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

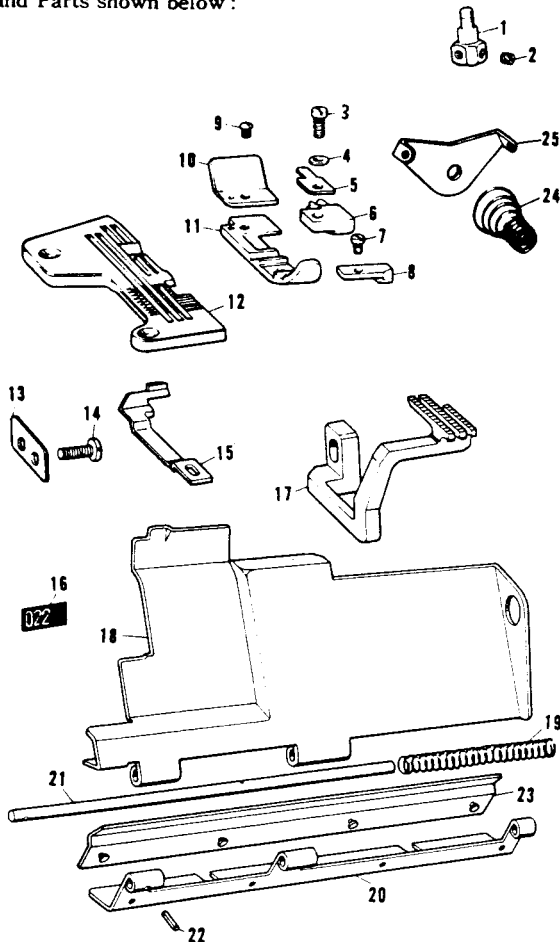


Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
b-1	Needle Clamp 1.8	1		146771-0-01
b-2	Screw	2	146427-0-01	
b-3	Needle Cat. No. 8538 #11	2	151206-0-11	
b-4	Screw	1	100080-0-04	
b-5	Washer	1	025030-1-32	
b-6	Presser Foot Hinge Spring	1	146887-0-01	
b-7	Chaining-off Finger	1	146964-0-01	
b-8	Screw	1	009639-3-12	146963-0-01
b-9	Presser Foot (Front)	1	146888-0-01	
b-10	Screw	1	100105-0-05	
b-11	Presser Foot (Rear)	1	146889-0-01	
b-12	Presser Foot	1		
b-13	Throat Plate	1		
b-14	Spacer	1	146787-0-01	
b-15	Screw	2	105216-0-01	
b-16	Needle Guard F	1	146777-0-01	
b-17	Label	1		
b-18	Felt (S)	1	146740-0-00	
b-19	Steel Wire	1	147738-0-00	148008-0-00
b-20	Felt Holder	1	148009-0-00	
b-21	Felt	1	144116-0-00	
b-22	Front Cover	1		
b-23	Spring	1	146442-0-01	
b-24	Front Cover Hinge	1	146440-0-01	148993-0-01
b-25	Front Cover Hinge Pin	1	146441-0-00	
b-26	Pin	1	047140-8-42	
b-27	Hinge Cover	1	148984-0-01	
b-28	Spring	2	144104-0-01	
b-29	Needle Thread Guide Plate	1	110813-0-01	

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01]


**c. 832U022**  Needle Gauge 2.2 mm  
(Light and Medium Work)


This machine is the same as the 831U001  (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

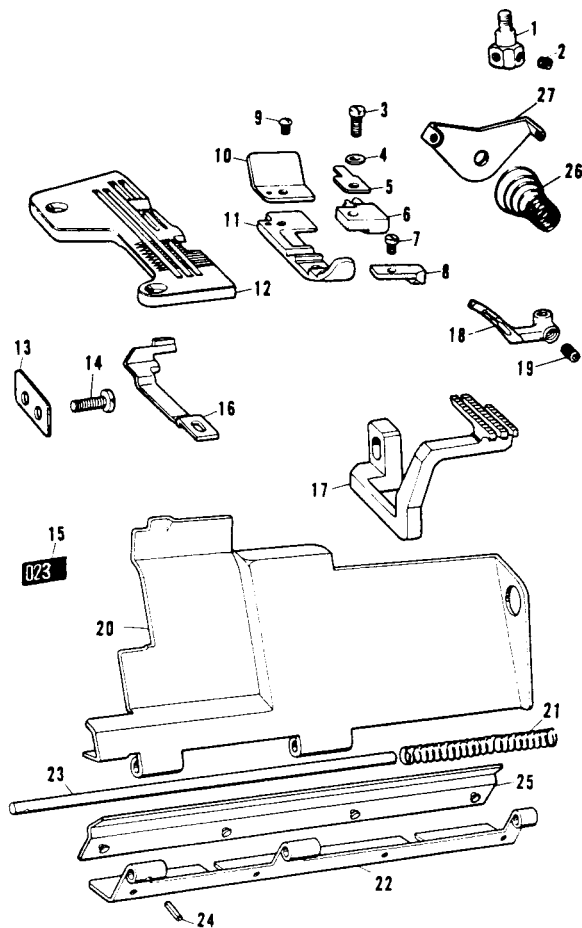


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
c-1	Needle Clamp 2.2	1		146773-0-01
c-2	Screw	2	146427-0-01	
c-3	Screw	1	100080-0-04	146902-0-01
c-4	Washer	1	025030-1-32	
c-5	Presser Foot Hinge Spring	1	146887-0-01	
c-6	Chaining-off Finger	1	146903-0-01	
c-7	Screw	1	009639-3-12	
c-8	Presser Foot (Front)	1	146888-0-01	
c-9	Screw	1	100105-0-05	
c-10	Presser Foot (Rear)	1	146889-0-01	
c-11	Presser Foot	1		
c-12	Throat Plate	1		
c-13	Spacer	1	146787-0-01	148993-0-01
c-14	Screw	2	105216-0-01	
c-15	Needle Guard F	1	146777-0-01	
c-16	Label	1		
c-17	Differential Feed (Front) Dog	1	146749-0-01	
c-18	Front Cover	1		
c-19	Spring	1	146442-0-01	
c-20	Front Cover Hinge	1	146440-0-01	
c-21	Front Cover Hinge Pin	1	146441-0-00	
c-22	Pin	1	047140-8-42	
c-23	Hinge Cover	1	148984-0-01	
c-24	Spring	2	144104-0-01	
c-25	Needle Thread Guide Plate	1	110813-0-01	

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01]

**d. 832U023**  Needle Gauge 2.2 mm  
(Light and Medium Work)

This machine is the same as the 831U001  (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :



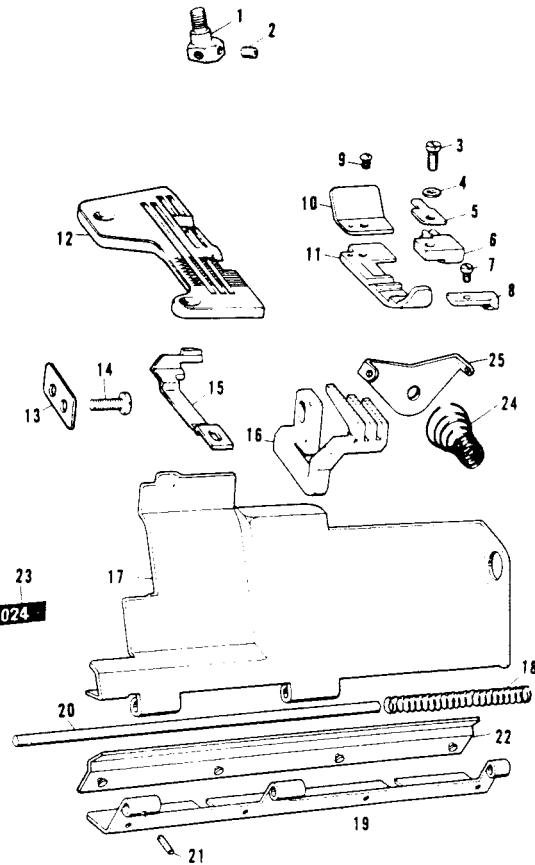
Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
d-1	Needle Clamp 2.2	1		146773-0-01
d-2	Screw	2	146427-0-01	
d-3	Screw	1	100080-0-04	146902-0-01
d-4	Washer	1	025030-1-32	
d-5	Presser Foot Hinge Spring	1	146887-0-01	
d-6	Chaining-off Finger	1	146903-0-01	
d-7	Screw	1	009639-3-12	
d-8	Presser Foot (Front)	1	146888-0-01	
d-9	Screw	1	100105-0-05	
d-10	Presser Foot (Rear)	1	146889-0-01	
d-11	Presser Foot	1		
d-12	Throat Plate	1		
d-13	Spacer	1	146787-0-01	147936-0-01
d-14	Screw	2	105216-0-01	
d-15	Label	1		
d-16	Needle Guard F	1	146777-0-01	
d-17	Differential Feed (Front) Dog	1	146749-0-01	
d-18	Looper (Right Hand)	1		
d-19	Screw	1	014680-4-22	
d-20	Front Cover	1		
d-21	Spring	1	146442-0-01	
d-22	Front Cover Hinge	1	146440-0-01	
d-23	Front Cover Hinge Pin	1	146441-0-00	
d-24	Pin	1	047140-8-42	
d-25	Hinge Cover	1	148984-0-01	
d-26	Spring	2	144104-0-01	
d-27	Needle Thread Guide Plate	1	110813-0-01	

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01]



**b'.** 832U024- Needle Gauge 3 mm  
(Light and Medium Work)

This machine is the same as the 831U001. (A-H)  
with exceptions of 832U Common Parts (Page 20, a)  
and Parts shown below :

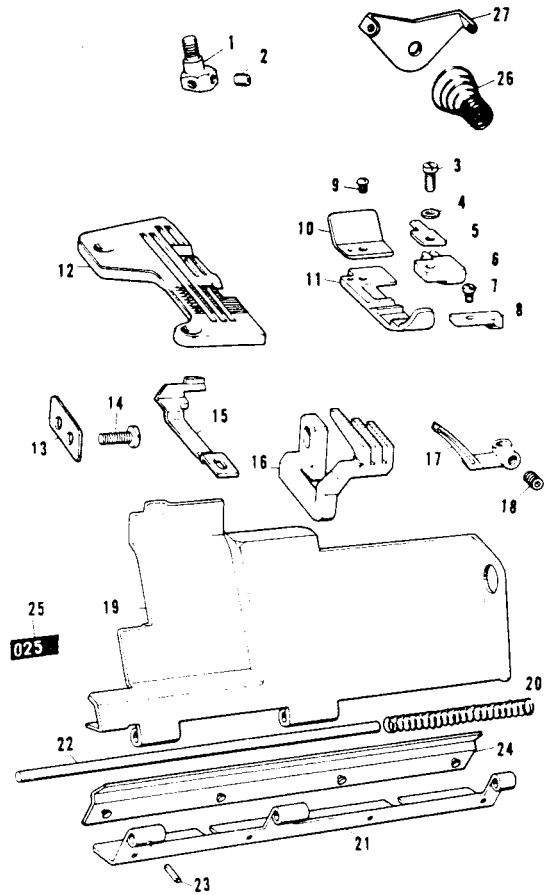


Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
b-1	Needle Clamp 3	1		146775-0-01
b-2	Screw	2	146427-0-01	
b-3	Screw	1	100080-0-04	
b-4	Washer	1	025030-1-32	
b-5	Presser Foot Hinge Spring	1	146887-0-01	
b-6	Chaining-off Finger	1	146966-0-01	
b-7	Screw	1	009639-3-12	146965-0-01
b-8	Presser Foot (Front)	1	146888-0-01	
b-9	Screw	1	100105-0-05	
b-10	Presser Foot (Rear)	1	146889-0-01	
b-11	Presser Foot	1		
b-12	Throat Plate	1		
b-13	Spacer	1	146788-0-01	
b-14	Screw	2	105216-0-01	
b-15	Needle Guard F	1	146778-0-01	
b-16	Differential feed (Front) Dog	1	146749-0-01	
b-17	Front Cover	1		
b-18	Spring	1	146442-0-01	
b-19	Front Cover Hinge	1	146440-0-01	
b-20	Front Cover Hinge Pin	1	146441-0-00	148995-0-01
b-21	Pin	1	047140-8-42	
b-22	Hinge Cover	1	148884-0-01	
b-23	Label	1		
b-24	Spring	2	144104-0-01	
b-25	Needle Thread Guide Plate	1	110813-0-01	

{NOTE! PREFIX ALL NUMBERS BY 'BR'}  
EXAMPLE BR146222-0-01

**c'.** 832U025- Needle Gauge 3 mm  
(Light and Medium Work)

This machine is the same as the 831U001. (A-H)  
with exceptions of 832U Common Parts (Page 20, a)  
and Parts shown below :

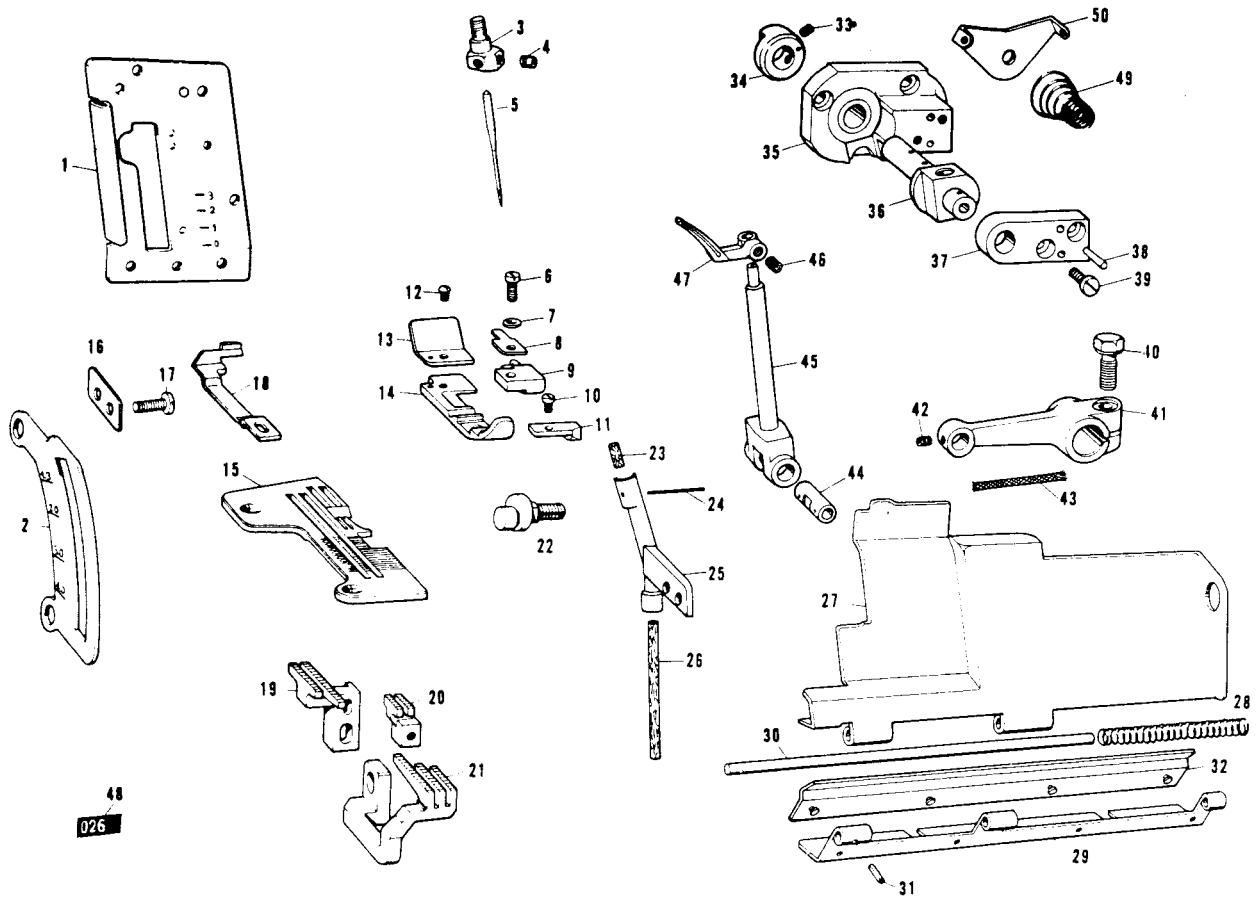


Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
c-1	Needle Clamp 3	1		146775-0-01
c-2	Screw	2	146427-0-01	
c-3	Screw	1	100080-0-04	
c-4	Washer	1	025030-1-32	
c-5	Presser Foot Hinge Spring	1	146887-0-01	
c-6	Chaining-off Finger	1	146966-0-01	
c-7	Screw	1	009639-3-12	146965-0-01
c-8	Presser Foot (Front)	1	146888-0-01	
c-9	Screw	1	100105-0-05	
c-10	Presser Foot (Rear)	1	146889-0-01	
c-11	Presser Foot	1		
c-12	Throat Plate	1		
c-13	Spacer	1	146788-0-01	
c-14	Screw	2	105216-0-01	
c-15	Needle Guard F	1	146778-0-01	
c-16	Differential Feed (Front) Dog	1	146749-0-01	
c-17	Looper (Right Hand)	1		
c-18	Screw	1	014680-4-22	147936-0-01
c-19	Front Cover	1		
c-20	Spring	1	146442-0-01	
c-21	Front Cover Hinge	1	146440-0-01	
c-22	Front Cover Hinge Pin	1	146441-0-00	148995-0-01
c-23	Pin	1	047140-8-42	
c-24	Hinge Cover	1	148884-0-01	
c-25	Label	1		
c-26	Spring	2	144104-0-01	
c-27	Needle Thread Guide Plate	1	110813-0-01	

{NOTE! PREFIX ALL NUMBERS BY 'BR'}  
EXAMPLE BR146222-0-01

**d'.** 832U026- Needle Gauge 1.8 mm  
(Bulky Knit Work)

This machine is the same as the 831U001- (A~H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

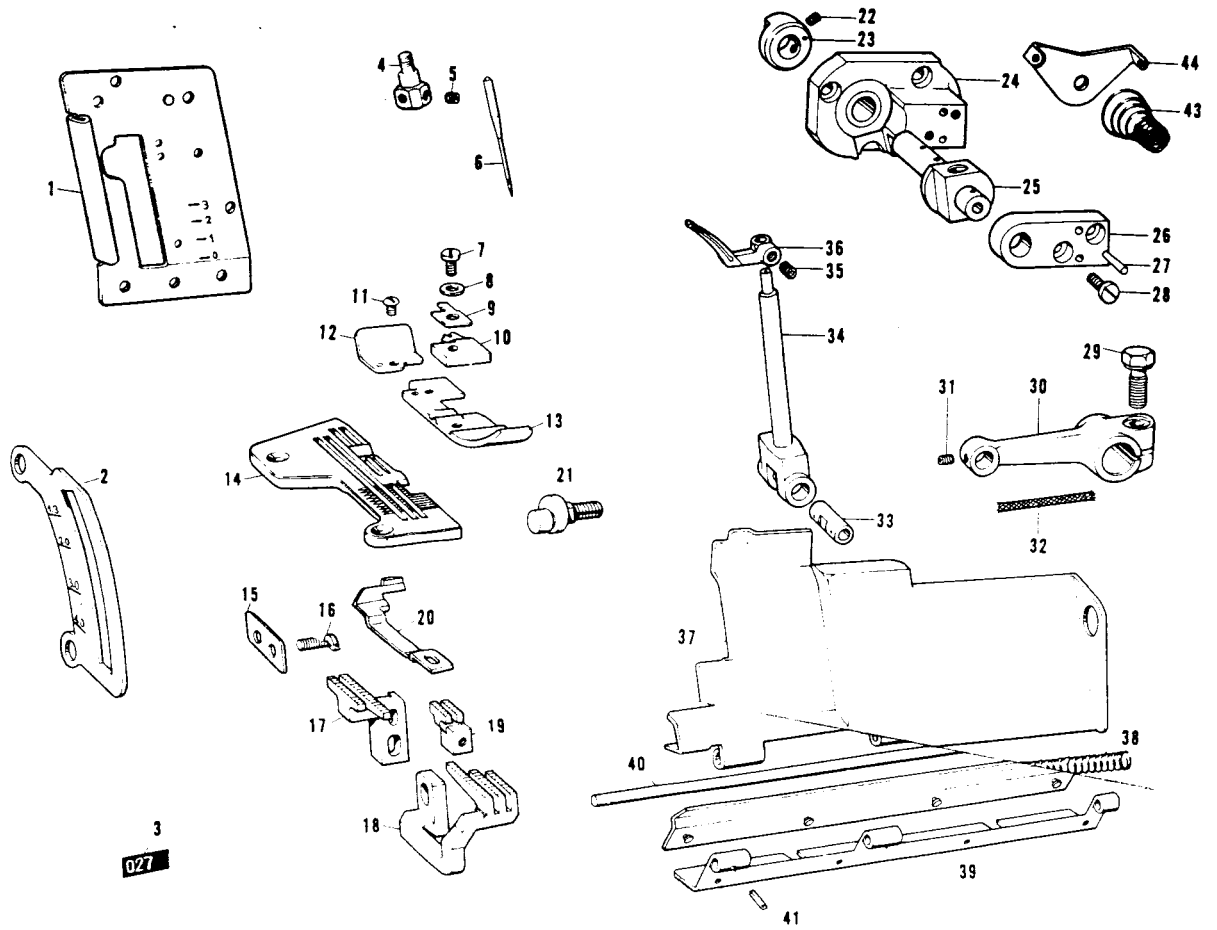


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
d-1	Face Plate	1	146706-0-01		d-26	Felt	1	144116-0-00	148008-0-00
d-2	Differential Feed Indicator	1	146742-0-01		d-27	Front Cover	1		
d-3	Needle Clamp 1.8	1		146771-0-01	d-28	Spring	1	146442-0-01	
d-4	Screw	2	146427-0-01		d-29	Front Cover Hinge	1	146440-0-01	
d-5	Needle Cat. No. 8538 #11	2	151206-0-11		d-30	Front Cover Hinge Pin	1	146441-0-00	148993-0-01
d-6	Screw	1	100080-0-04		d-31	Pin	1	047140-8-42	
d-7	Washer	1	025030-1-32		d-32	Hinge Cover	1	148984-0-01	
d-8	Presser Foot Hinge Spring	1	146887-0-01		d-33	Screw	2	014680-4-22	
d-9	Chaining-off Finger	1	146964-0-01		d-34	Set Collar	1		
d-10	Screw	1	009639-3-12	146963-0-01	d-35	Looper (Right Hand) Holder Guide Base	1		
d-11	Presser Foot (Front)	1	146888-0-01		d-36	Looper (Right Hand) Holder Guide Block	1		
d-12	Screw	1	100105-0-05		d-37	Looper (Right Hand) Holder Supporting Plate	1		
d-13	Presser Foot (Rear)	1	146889-0-01		d-38	Taper Pin	2		
d-14	Presser Foot	1			d-39	Screw	2	009681-0-12	146611-1-01
d-15	Throat Plate	1			d-40	Screw	1	149170-0-01	
d-16	Spacer	1	146787-0-01		d-41	Looper (Right Hand) Driving Lever	1		
d-17	Screw	2	105216-0-01		d-42	Screw	1	148294-0-01	
d-18	Needle Guard F	1	146777-0-01		d-43	Wick	1	140418-0-00	
d-19	Main Feed (Back) Dog	1	148401-0-01		d-44	Looper (Right Hand) Holding Shaft	1		
d-20	Chain Feed Dog	1	146578-0-01		d-45	Looper (Right Hand) Holder	1		
d-21	Differential Feed (Front) Dog	1	148402-0-01		d-46	Screw	1	014680-4-22	147937-0-01
d-22	Main Feed Shaft	1	144068-0-01		d-47	Looper (Right Hand)	1		
d-23	Felt (S)	1	146740-0-00		d-48	Label	1		
d-24	Steel Wire	1	147738-0-00	148008-0-00	d-49	Spring	2	144104-0-01	
d-25	Felt Holder	1	148009-0-00		d-50	Needle Thread Guide Plate	1	110813-0-01	

NOTE! PREFIX ALL NUMBERS BY 'BR'.  
EXAMPLE BR146222-0-01

**e. 832U027- Needle Gauge 2.2 mm  
(Bulky Knit Work)**

This machine is the same as the 831U001 (A~H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

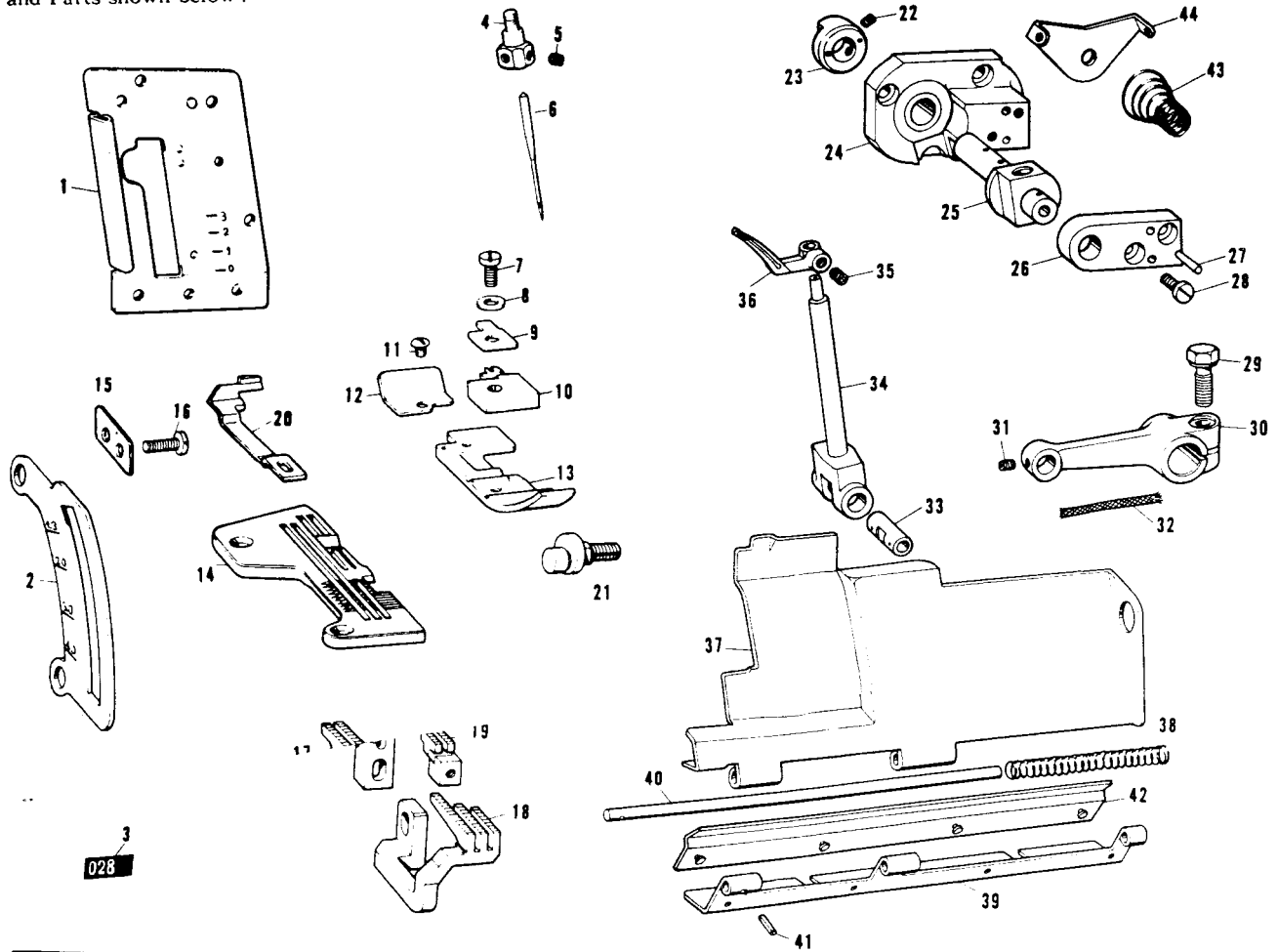


Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
e-1	Face Plate	1	146706-0-01		e-23	Set Collar	1		
e-2	Differential Feed Indicator	1	146742-0-01		e-24	Looper (Right Hand) Holder Guide Base	1		
e-3	Label	1			e-25	Looper (Right Hand) Holder Guide Block	1		
e-4	Needle Clamp 2.2	1		146773-0-01	e-26	Looper (Right Hand) Holder Supporting Plate	1		
e-5	Screw	2	146427-0-01		e-27	Taper Pin	2		
e-6	Needle Cat. No. 6120 #14	2	151200-0-14		e-28	Screw	2	009681-0-12	146611-1-01
e-7	Screw	1	000080-0-04		e-29	Screw	1	149170-0-01	
e-8	Washer	1	025030-1-32		e-30	Looper (Right Hand) Driving Lever	1		
e-9	Presser Foot Hinge Spring	1	146887-0-01		e-31	Screw	1	148291-0-01	
e-10	Chaining-off Finger	1			e-32	Wick	1	140416-0-00	
e-11	Screw	1	100195-0-05		e-33	Looper (Right Hand) Holding Shaft	1		
e-12	Presser Foot (Rear)	1	145774-0-01		e-34	Looper (Right Hand) Holder	1		
e-13	Presser Foot	1			e-35	Screw	1	014680-1-22	147937-0-01
e-14	Throat Plate	1			e-36	Looper (Right Hand)	1		
e-15	Spacer	1	146787-0-01		e-37	Front Cover	1		
e-16	Screw	2	005216-0-01		e-38	Spring	1	146442-0-01	
e-17	Main Feed (Back) Dog	1	146745-0-01		e-39	Front Cover Hinge	1	146440-0-01	148993-0-01
e-18	Differential Feed (Front) Dog	1	146750-0-01		e-40	Front Cover Hinge Pin	1	146441-0-00	
e-19	Chain Feed Dog	1	146578-0-01		e-41	Pin	1	047140-8-42	
e-20	Needle Guard F	1	146777-0-01		e-42	Hinge Cover	1	148984-0-01	
e-21	Main Feed Shaft	1	144068-0-01		e-43	Spring	2	144104-0-01	
e-22	Screw	2	014680-4-22	146611-1-01	e-44	Needle Thread Guide Plate	1	110813-0-01	

NOTE! PREFIX ALL NUMBERS BY 'BR'.  
EXAMPLE BR146222-0-01

**e' . 832U028— Needle Gauge 2.2 mm  
(Bulky Knit Work)**

This machine is the same as the 831U001 (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

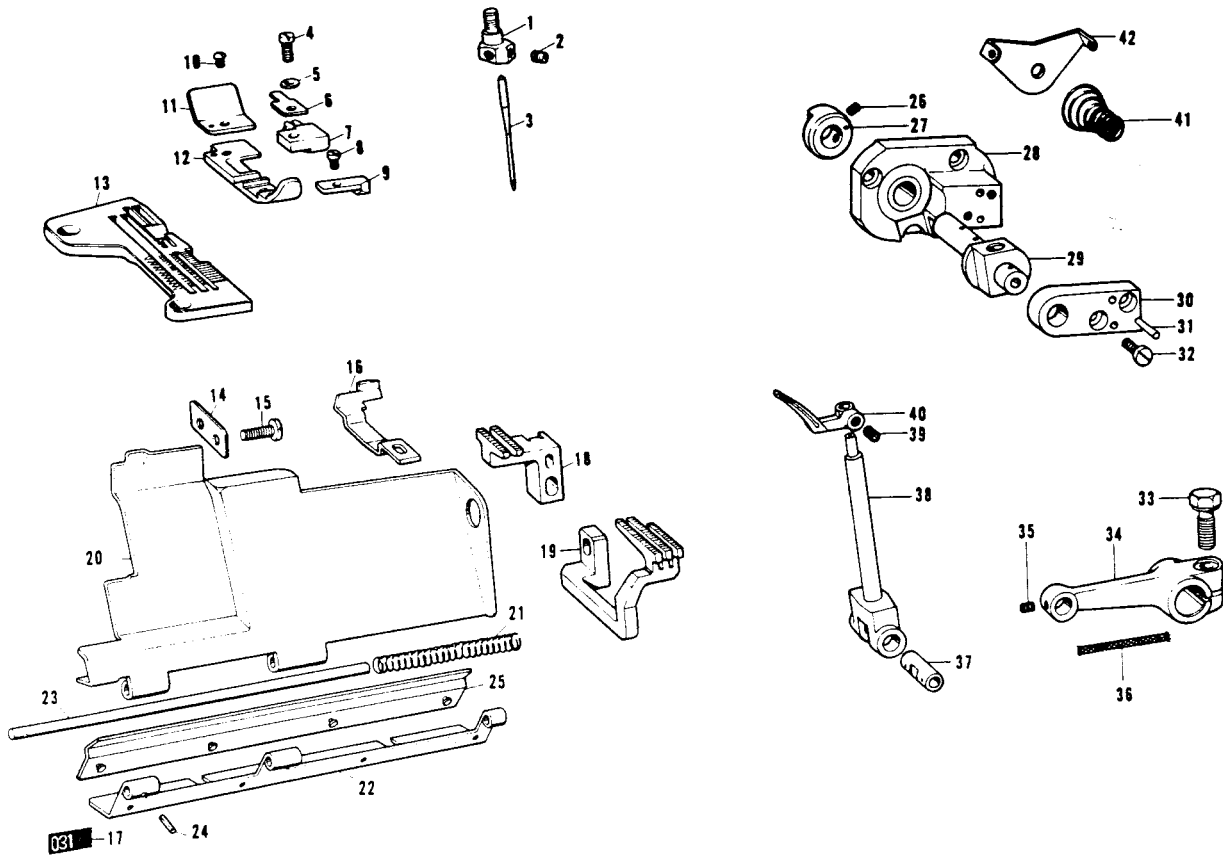


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
e-1	Face Plate	1	146706-0-01		e-23	Set Collar	1		
e-2	Differential Feed Indicator	1	146742-0-01		e-24	Looper (Right Hand) Holder Guide Base	1		
e-3	Label	1			e-25	Looper (Right Hand) Holder Guide Block	1		
e-4	Needle Clamp 2.2	1		146773-0-01	e-26	Looper (Right Hand) Holder Supporting Plate	1		
e-5	Screw	2	146427-0-01		e-27	Taper Pin	2		
e-6	Needle Cat. No. 6120 #14	2	151200-0-14		e-28	Screw	2	009681-0-12	146611-1-01
e-7	Screw	1	100080-0-04		e-29	Screw	1	149170-0-01	
e-8	Washer	1	025030-1-32		e-30	Looper (Right Hand) Driving Lever	1		
e-9	Presser Foot Hinge Spring	1	146887-0-01		e-31	Screw	1	148294-0-01	
e-10	Chaining-off Finger	1			e-32	Wick	1	140416-0-00	
e-11	Screw	1	100105-0-05		e-33	Looper (Right Hand) Holding Shaft	1		
e-12	Presser Foot (Rear)	1	145774-0-01		e-34	Looper (Right Hand) Holder	1		
e-13	Presser Foot	1			e-35	Screw	1	014680-4-22	147936-0-01
e-14	Throat Plate	1			e-36	Looper (Right Hand)	1		
e-15	Spacer	1	146787-0-01		e-37	Front Cover	1		
e-16	Screw	2	105216-0-01		e-38	Spring	1	146442-0-01	
e-17	Main Feed (Back) Dog	1	146745-0-01		e-39	Front Cover Hinge	1	146440-0-01	148993-0-01
e-18	Differential Feed (Front) Dog	1	146750-0-01		e-40	Front Cover Hinge Pin	1	146441-0-00	
e-19	Chain Feed Dog	1	146578-0-01		e-41	Pin	1	047140-8-42	
e-20	Needle Guard F	1	146777-0-01		e-42	Hinge Cover	1	148984-0-01	
e-21	Main Feed Shaft	1	144068-0-01		e-43	Spring	2	144104-0-01	
e-22	Screw	2	014680-4-22	146611-1-01	e-44	Needle Thread Guide Plate	1	110813-0-01	

**[NOTE! PREFIX ALL NUMBERS BY 'BR']**  
**[EXAMPLE BR146222-0-01]**

**f.** 832U031-○ Needle Gauge 3 mm  
(Extra Heavy Work)

This machine is the same as the 831U001-○ (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

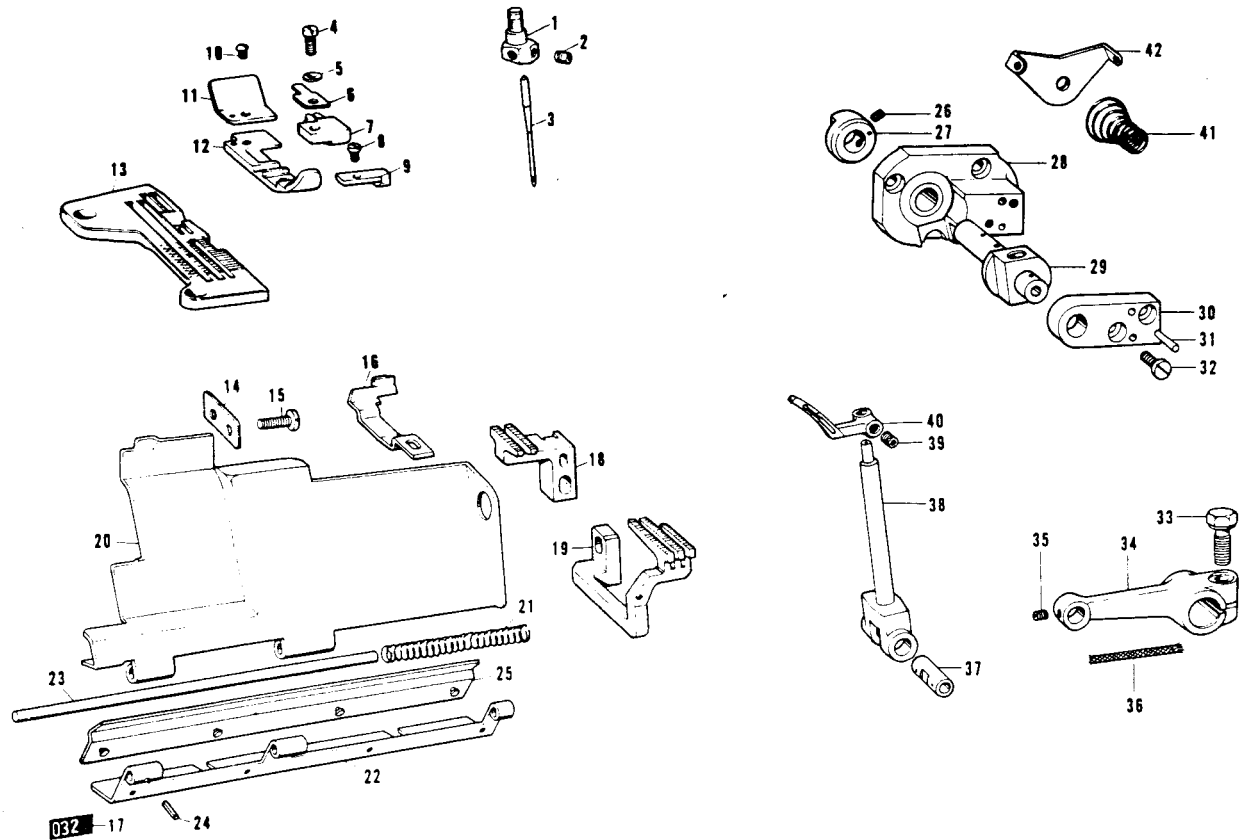


Ref No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref No.	Name of Parts	Q'ty	Parts No.	Assembly No.
f-1	Needle Clamp 3	1		146775-0-01	f-22	Front Cover Hinge	1	146440-0-01	148995-0-01
f-2	Screw	2	146427-0-01		f-23	Front Cover Hinge Pin	1	146441-0-00	
f-3	Needle Cat. No. 6122 #21	2	152186-0-21		f-24	Pin	1	047140-8-42	146611-1-01
f-4	Screw	1	100080-0-04		f-25	Hinge Cover	1	148984-0-01	
f-5	Washer	1	025030-1-32		f-26	Screw	2	014680-4-22	147937-0-01
f-6	Presser Foot Hinge Spring	1	146887-0-01		f-27	Set Collar	1		
f-7	Chaining-off Finger	1	146966-0-01	146965-0-01	f-28	Looper (Right Hand) Holder Guide Base	1		
f-8	Screw	1	009639-3-12		f-29	Looper (Right Hand) Holder Guide Block	1		
f-9	Presser Foot (Front)	1	146888-0-01		f-30	Looper (Right Hand) Holder Supporting Plate	1		
f-10	Screw	1	100105-0-05		f-31	Taper Pin	2		
f-11	Presser Foot (Rear)	1	146889-0-01		f-32	Screw	2	009681-0-12	
f-12	Presser Foot	1			f-33	Screw	1	149170-0-01	
f-13	Throat Plate	1			f-34	Looper (Right Hand) Driving Lever	1		
f-14	Spacer	1	146788-0-01		f-35	Screw	1	148294-0-01	
f-15	Screw	2	105216-0-01		f-36	Wick	1	140416-0-00	
f-16	Needle Guard F	1	146778-0-01		f-37	Looper (Right Hand) Holding Shaft	1		
f-17	Label	1			f-38	Looper (Right Hand) Holder	1		
f-18	Main Feed (Back) Dog	1	146790-0-01		f-39	Screw	1	014680-4-22	
f-19	Differential Feed (Front) Dog	1	146791-0-01		f-40	Looper (Right Hand)	1		
f-20	Front Cover	1		148995-0-01	f-41	Spring	2	144104-0-01	
f-21	Spring	1	146442-0-01		f-42	Needle Thread Guide Plate	1	110813-0-01	

[NOTE! PREFIX ALL NUMBERS BY 'BR']  
EXAMPLE BR146222-0-01

f'. 832U032- Needle Gauge 3 mm  
(Extra Heavy Work)

This machine is the same as the 831U001- (A~H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

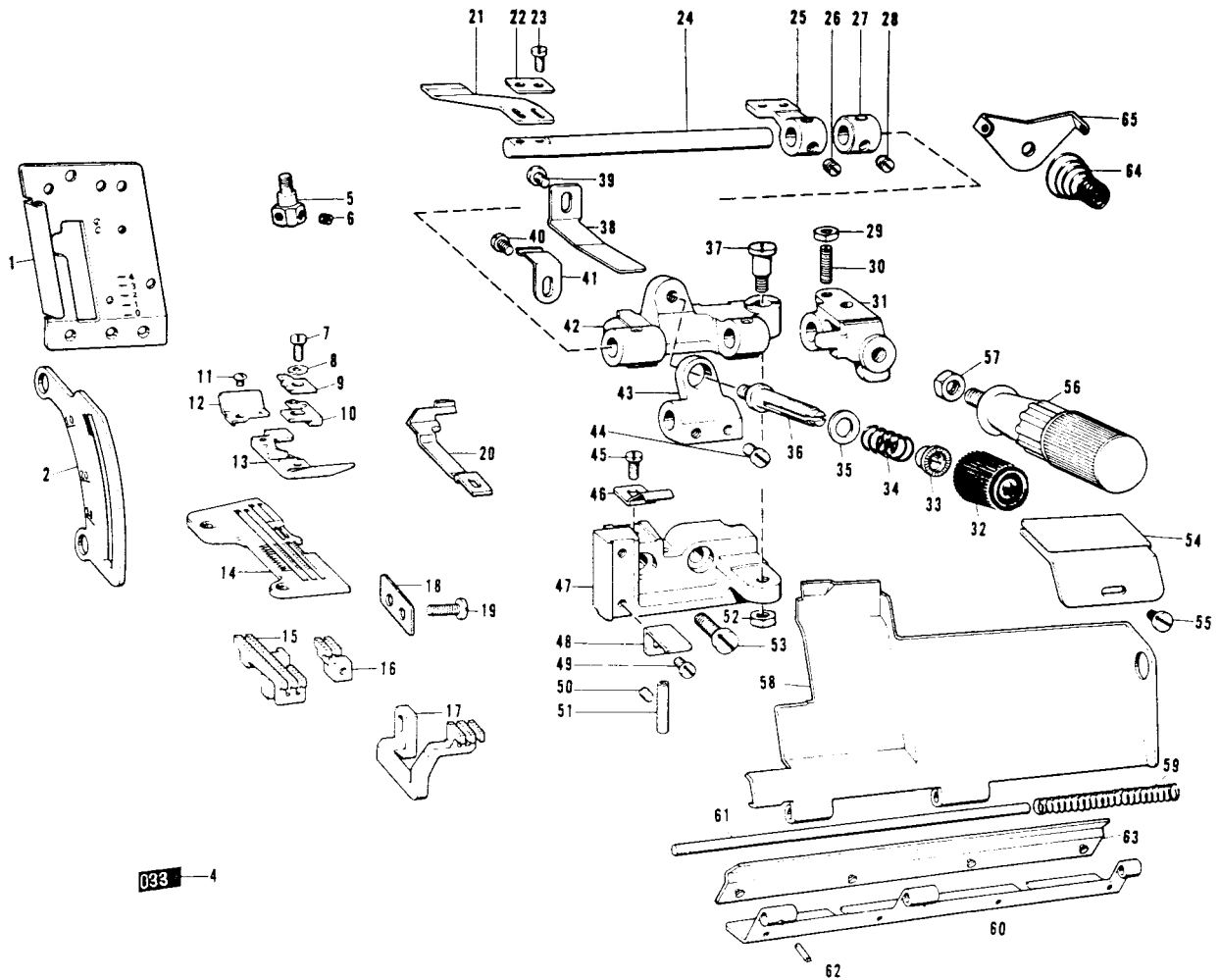


Ref No.	Name of Parts	Qty	Parts No.	Assembly No.	Ref No.	Name of Parts	Qty	Parts No.	Assembly No.
f-1	Needle Clamp 3	1		146775-0-01	f-22	Front Cover Hinge	1	146440-0-01	
f-2	Screw	2	146427-0-01		f-23	Front Cover Hinge Pin	1	146441-0-00	148995-0-01
f-3	Needle Cat. No. 6122 #21	2	152186-0-21		f-24	Pin	1	047140-8-42	
f-4	Screw	1	100080-0-04		f-25	Hinge Cover	1	148984-0-01	
f-5	Washer	1	025030-1-32		f-26	Screw	2	014680-4-22	
f-6	Presser Foot Hinge Spring	1	146887-0-01		f-27	Set Collar	1		
f-7	Chaining-off Finger	1	146966-0-01	146965-0-01	f-28	Looper (Right Hand) Holder Guide Base	1		
f-8	Screw	1	009639-3-12		f-29	Looper (Right Hand) Holder Guide Block	1		
f-9	Presser Foot (Front)	1	146888-0-01		f-30	Looper (Right Hand) Holder Supporting Plate	1		
f-10	Screw	1	100105-0-05		f-31	Taper Pin	2		
f-11	Presser Foot (Rear)	1	146889-0-01		f-32	Screw	2	009681-0-12	146611-1-01
f-12	Presser Foot	1			f-33	Screw	1	149170-0-01	
f-13	Throat Plate	1			f-34	Looper (Right Hand) Driving Lever	1		
f-14	Spacer	1	146788-0-01		f-35	Screw	1	148294-0-01	
f-15	Screw	2	105216-0-01		f-36	Wick	1	140416-0-00	
f-16	Needle Guard F	1	146778-0-01		f-37	Looper (Right Hand) Holding Shaft	1		
f-17	Label	1			f-38	Looper (Right Hand) Holder	1		
f-18	Main Feed (Back) Dog	1	146790-0-01		f-39	Screw	1	014680-4-22	147936-0-01
f-19	Differential Feed (Front) Dog	1	146791-0-01		f-40	Looper (Right Hand)	1		
f-20	Front Cover	1		148995-0-01	f-41	Spring	2	144104-0-01	
f-21	Spring	1	146442-0-01		f-42	Needle Thread Guide Plate	1	110813-0-01	

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01

**g.** 832U033- Needle Gauge 2.2 mm  
(Ruffling)

This machine is the same as the 831U001- (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

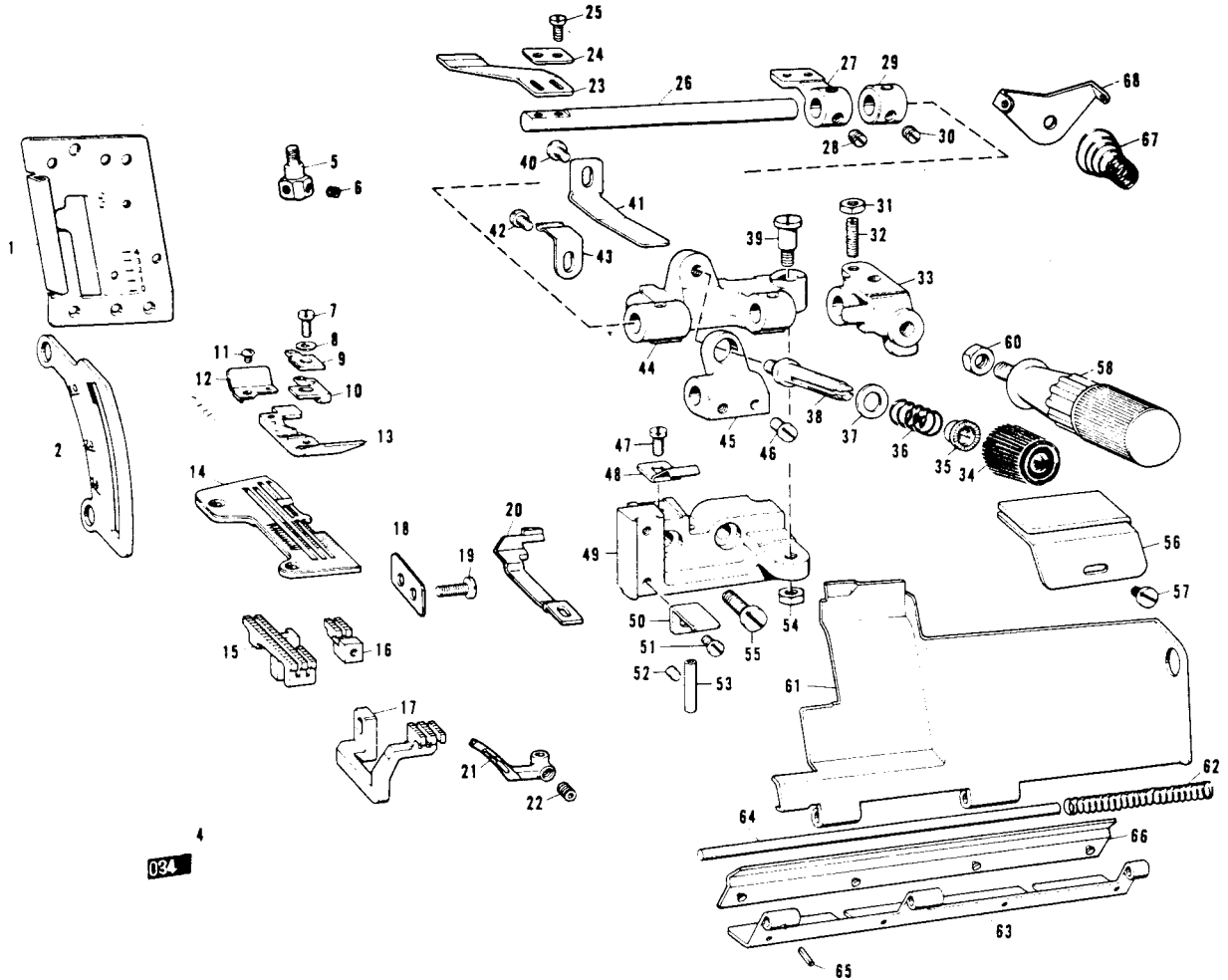


Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
g-1	Face Plate	1	146430-0-01		g-34	Spring	1	144788-0-01	
g-2	Differential Feed Indicator	1	146562-0-01		g-35	Washer	1	25770-2-32	
g-3	Label	1			g-36	Looper Thread Tension Control Stud	1	110820-0-01	
g-5	Needle Clamp 2.2	1		146773-0-01	g-37	Screw	1	147933-0-01	
g-6	Screw	1	146427-0-01		g-38	Spring	1	145811-0-01	
g-7	Screw	1	106080-0-04		g-39	Screw	1	009680-6-12	
g-8	Washer	1	025030-1-32		g-40	Screw	1	001670-5-12	
g-9	Presser Foot Plate	1	144091-0-01		g-41	Spring	1	144764-0-01	
g-10	Chaining-off Finger	1	144836-0-01	144815-0-01	g-42	Bracket for Ruffling Blade	1		146587-0-02
g-11	Screw	1	007035-0-05		g-43	Spring Base	1		
g-12	Presser Foot Chain Shield	1	144100-0-01		g-44	Screw	2	105163-0-01	
g-13	Presser Foot U	1			g-45	Screw	1	009680-6-12	
g-14	Throat Plate	1			g-46	Spring	1	145808-0-01	
g-15	Main Feed (Back) Dog	1	146748-0-01		g-47	Rafter Base	1		
g-16	Chain Feed Dog	1	146578-0-01		g-48	Ruffling Blade Guide	2	145807-0-01	
g-17	Differential Feed (Front) Dog	1	146751-0-01		g-49	Screw	2	009680-8-12	
g-18	Spacer	1	146787-0-01		g-50	Screw	1	013679-4-12	
g-19	Screw	2	105216-0-01		g-51	Thread Guide Pipe	1	146592-0-01	
g-20	Needle Guard F	1	146777-0-01		g-52	Nut	1	150553-0-02	
g-21	Ruffling Blade	1	144783-0-01		g-53	Screw	2	009781-8-12	
g-22	Washer	1	144784-0-01		g-54	Rafter Guide	1	144703-0-00	
g-43	Screw	2	009660-1-12		g-55	Screw	1	112751-0-02	
g-24	Ruffling Blade Base Shaft	1	145803-0-01	146587-0-02	g-56	Handle	1	145809-0-01	
g-25	Binder Base	1			g-57	Nut	1	150556-0-02	
g-26	Screw	2	101706-0-01		g-58	Front Cover	1		181995-0-02
g-27	Set Collar	1			g-59	Spring	1	146442-0-01	
g-28	Screw	2	101706-0-01		g-60	Front Cover Hinge	1	146440-0-01	
g-29	Nut	1	105234-0-03		g-61	Front Cover Hinge Pin	1	146441-0-00	146763-0-01
g-30	Screw	1	110230-0-01		g-62	Pin	1	047140-8-42	
g-31	Handle Fixing Plate	1			g-63	Hinge Cover	1	148984-0-01	
g-32	Thread Tension Adjusting Nut	1	149566-0-02		g-64	Spring	2	144104-0-01	
g-33	Washer	1	144105-0-00		g-65	Needle Thread Guide Plate	1	110813-0-01	

(NOTE! PREFIX ALL NUMBERS BY 'BR')  
(EXAMPLE BR146222-0-01)

**g.** 832U034- Needle Gauge 2.2 mm  
(Ruffling)

This machine is the same as the 831U001- (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below:



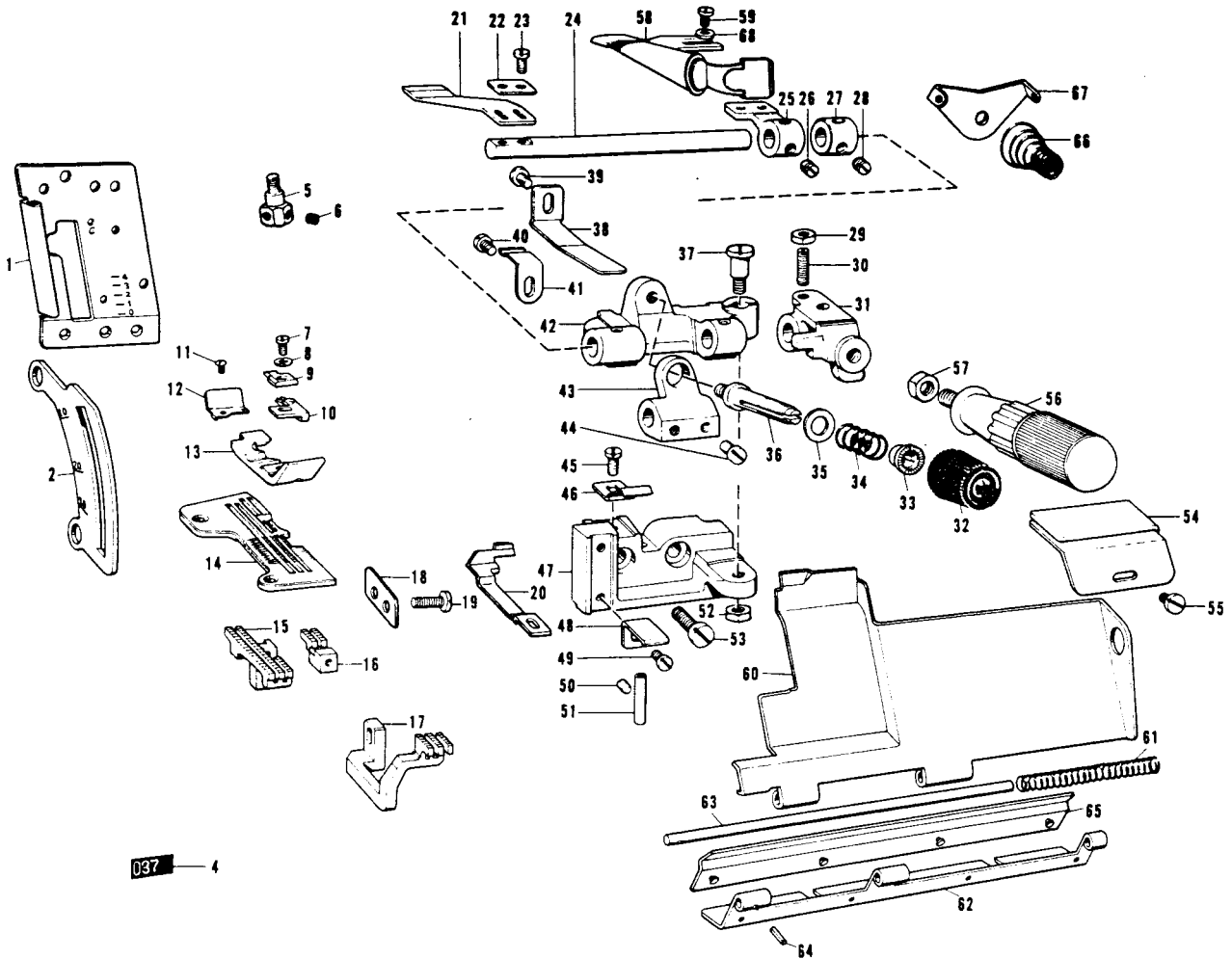
Part No.	Name of Parts	Qty	Parts No.	Assembly No.	Part No.	Name of Parts	Qty	Parts No.	Assembly No.
1	Face Plate	1	146430-0-01		35	Washer	1	144105-0-00	
2	Differential Feed Indicator	1	146562-0-01		36	Spring	1	144788-0-01	
3	Label	1			37	Washer	1	025770-2-32	
4	Needle Clamp 2.2	1			38	Looper Thread Tension Control Stud	1	110820-0-01	
5	Screw	1	146427-0-01	146773-0-01	39	Screw	1	147933-0-01	
6	Screw	1	100080-0-04		41	Spring	1	145811-0-01	
7	Washer	1	025030-1-32		40	Screw	1	009680-6-12	
8	Presser Foot Hinge Spring	1	144091-0-01	144815-0-01	42	Screw	1	001670-5-12	
9	Chaining-off Finger	1	144816-0-01		43	Spring	1	144764-0-01	
10	Screw	1	100105-0-05		44	Bracket for Ruffling Blade	1		146587-0-02
11	Presser Foot Chain Shield	1	144100-0-01		45	Spring Base	1		
12	Presser Foot U	1			46	Screw	2	105163-0-01	
13	Throat Plate	1			47	Screw	1	009680-6-12	
14	Main Feed (Back) Dog	1	146746-0-01		48	Spring	1	145808-0-01	
15	Chain Feed Dog	1	146578-0-01		49	Ruffler Base	1		
16	Differential Feed (Front) Dog	1	146751-0-01		50	Ruffling Blade Guide	2	145807-0-01	
17	Spacer	1	146787-0-01		51	Screw	2	009680-8-12	
18	Screw	2	105216-0-01		52	Screw	1	013679-4-12	
19	Needle Guard F	1	146777-0-01		53	Thread Guide Pipe	1	146592-0-01	
20	Looper (Right Hand)	1		147936-0-01	54	Nut	1	150553-0-01	
21	Screw	1	014680-4-22		55	Screw	2	009781-8-12	
22	Ruffling Blade	1	144783-0-01		56	Ruffler Guide	1	144793-0-00	
23	Washer	1	144784-0-01		57	Screw	1	112751-0-02	
24	Screw	2	009660-7-12		58	Handle	1	145809-0-01	
25	Ruffling Blade Base Shaft	1	145803-0-01	146587-0-02	60	Nut	1	150556-0-02	
26	Binder Base	1			61	Front Cover	1		
27	Screw	2	101706-0-01		62	Spring	1	146142-0-01	
28	Screw	1	101706-0-01	181995-0-02	63	Front Cover Hinge	1	146440-0-01	
29	Nut	1	105234-0-03		64	Front Cover Hinge Pin	1	146441-0-00	146763-0-01
30	Screw	1	110230-0-01		65	Pin	1	047140-8-42	
31	Handle Fixing Plate	1			66	Hinge Cover	1	148984-0-01	
32	Thread Tension Adjusting Nut	1	149566-0-02		67	Spring	2	144104-0-01	
					68	Needle Thread Guide Plate	1	110813-0-01	

NOTE: PREFIX ALL NUMBERS BY 'BR'  
EXAMPLE BR146222-0-01



## h. 832U037- Needle Gauge 2.2 mm (Ruffling (W/Piping))

This machine is the same as the 831U001 (A ~ H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

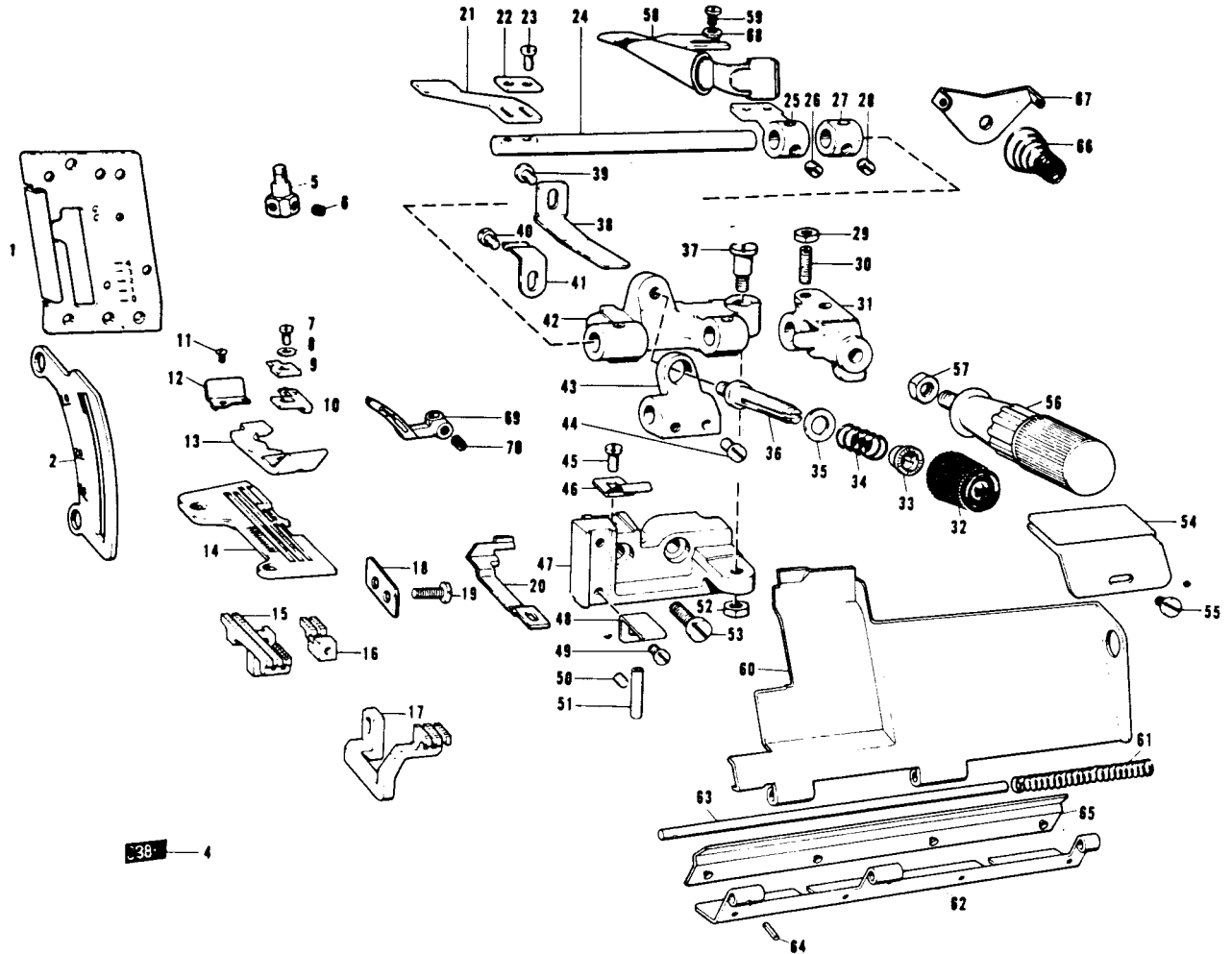


Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
h-1	Face Plate	1	146430-0-01		h-35	Washer	1	025770-0-01	
h-2	Differential Feed Indicator	1	146562-0-01		h-36	Looper Thread Tension Control Stud	1	110820-0-01	
h-4	Label	1			h-37	Screw	1	147933-0-01	
h-5	Needle Clamp 2.2	1		146773-0-01	h-38	Spring	1	145811-0-01	
h-6	Screw	2	146427-0-01		h-39	Screw	1	009680-6-12	
h-7	Screw	1	100080-0-04		h-40	Screw	1	001670-5-12	
h-8	Washer	1	025030-1-32		h-41	Spring	1	144764-0-01	
h-9	Presser Foot Plate	1	144091-0-01	147439-0-01	h-42	Bracket for Ruffling Blade	1		
h-10	Chaming-off Finger	1	144816-0-01		h-43	Spring Base	1		
h-11	Screw	1	100105-0-05		h-44	Screw	2	105163-0-01	146587-0-02
h-12	Presser Foot Chain Shield	1	144100-0-01		h-45	Screw	1	009680-6-12	
h-13	Presser Foot	1			h-46	Spring	1	145808-0-01	
h-14	Throat Plate	1			h-47	Ruffler Base	1		
h-15	Main Feed (Back) Dog	1	147828-0-01		h-48	Ruffling Blade Guide	2	145807-0-01	
h-16	Chain Feed Dog	1	147832-0-01		h-49	Screw	2	009680-8-12	
h-17	Differential Feed (Front) Dog	1	146751-0-01		h-50	Screw	1	013679-4-12	
h-18	Spacer	1	146787-0-01		h-51	Thread Guide Pipe	1	146592-0-01	
h-19	Screw	2	105216-0-01		h-52	Nut	1	150553-0-02	
h-20	Needle Guard F	1	146777-0-01		h-53	Screw	2	009781-8-12	
h-21	Ruffling Blade	1	144783-0-01		h-54	Ruffler Guide	1	144793-0-00	
h-22	Washer	1	144784-0-01		h-55	Screw	1	112751-0-02	
h-23	Screw	2	009660-7-12		h-56	Handle	1	145809-0-01	
h-24	Ruffling Blade Base Shaft	1	145803-0-01	146587-0-02	h-57	Nut	1	150556-0-02	
h-25	Binder Base	1			h-58	Binder	1	147440-0-00	
h-26	Screw	2	101706-0-01		h-59	Screw	2	009680-6-12	
h-27	Set Collar	1			h-60	Front Cover	1		
h-28	Screw	2	101706-0-01	181995-0-02	h-61	Spring	1	146442-0-01	
h-29	Nut	1	105234-0-03		h-62	Front Cover Hinge	1	146440-0-01	
h-30	Screw	1	110230-0-01		h-63	Front Cover Hinge Pin	1	146441-0-00	146763-0-01
h-31	Handle Fixing Plate	1			h-64	Pin	1	047140-8-42	
h-32	Thread Tension Adjusting Nut	1	149566-0-02		h-65	Hinge Cover	1	148984-0-01	
h-33	Washer	1	144105-0-00		h-66	Spring	2	144104-0-01	
h-34	Spring	1	144788-0-01		h-67	Needle Thread Guide Plate	1	110813-0-01	
					h-68	Washer	2	110735-0-02	

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01]

**h' . 832U038** Needle Gauge 2.2 mm  
(Ruffling (W/Piping))

This machine is the same as the 831U001 (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

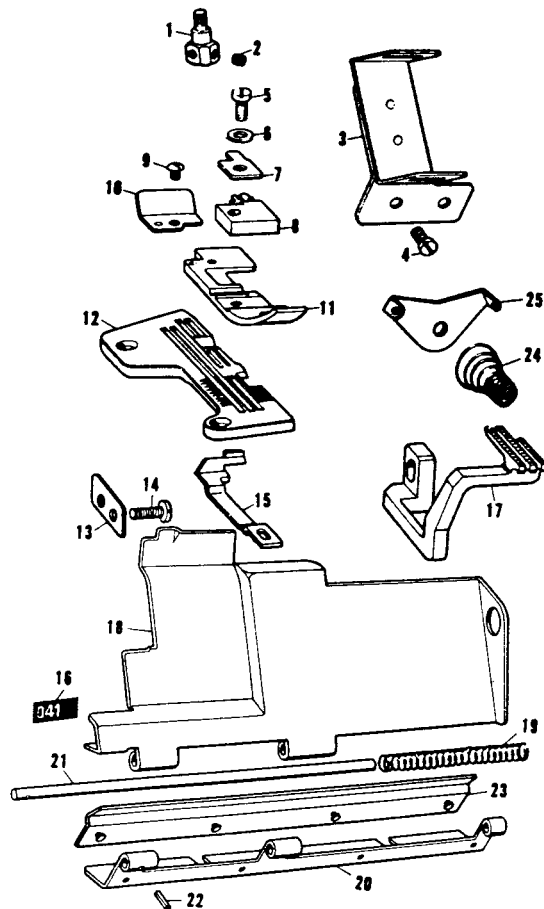


Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Qty	Parts No.	Assembly No.
h'-1	Face Plate	1	146430-0-01		h'-36	Looper Thread Tension Control Stud	1	110820-0-01	
h'-2	Differential Feed Indicator	1	146562-0-01		h'-37	Screw	1	147933-0-01	
h'-4	Label	1			h'-38	Spring	1	145811-0-01	
h'-5	Needle Clamp 2.2	1			h'-39	Screw	1	009680-6-12	
h'-6	Screw	2	146427-0-01	146773-0-01	h'-40	Screw	1	001670-5-12	
h'-7	Screw	1	100080-0-04		h'-41	Spring	1	144764-0-01	
h'-8	Washer	1	025030-1-32		h'-42	Bracket for Ruffling Blade	1		
h'-9	Presser Foot Plate	1	144091-0-01		h'-43	Spring Base	1		
h'-10	Chaining-off Finger	1	144816-0-01	147439-0-01	h'-44	Screw	2	105163-0-01	146587-0-02
h'-11	Screw	1	100105-0-05		h'-45	Screw	1	009680-6-12	
h'-12	Presser Foot Chain Shield	1	144100-0-01		h'-46	Spring	1	145808-0-01	
h'-13	Presser Foot	1			h'-47	Ruffler Base	1		
h'-14	Throat Plate	1			h'-48	Ruffling Blade Guide	2	145807-0-01	
h'-15	Main Feed (Back) Dog	1	147828-0-01		h'-49	Screw	2	009680-8-12	
h'-16	Chain Feed Dog	1	147832-0-01		h'-50	Screw	1	013679-4-12	
h'-17	Differential Feed (Front) Dog	1	146751-0-01		h'-51	Thread Guide Pipe	1	146592-0-01	
h'-18	Spacer	1	146787-0-01		h'-52	Nut	1	150553-0-02	
h'-19	Screw	2	105216-0-01		h'-53	Screw	2	009781-8-12	
h'-20	Needle Guard F	1	146777-0-01		h'-54	Ruffler Guide	1	144793-0-00	
h'-21	Ruffling Blade	1	144783-0-01		h'-55	Screw	1	112751-0-02	
h'-22	Washer	1	144784-0-01		h'-56	Handle	1	145809-0-01	
h'-23	Screw	2	009660-7-12		h'-57	Nut	1	150556-0-02	
h'-24	Ruffling Blade Base Shaft	1	145803-0-01	146587-0-02	h'-58	Binder	1	147440-0-00	
h'-25	Binder Base	1			h'-59	Screw	2	009680-6-12	
h'-26	Screw	2	101706-0-01		h'-60	Front Cover	1		
h'-27	Set Collar	1			h'-61	Spring	1	146442-0-01	
h'-28	Screw	2	101706-0-01	181995-0-02	h'-62	Front Cover Hinge	1	146440-0-01	
h'-29	Nut	1	105234-0-03		h'-63	Front Cover Hinge Pin	1	146441-0-00	146763-0-01
h'-30	Screw	1	110230-0-01		h'-64	Pin	1	047140-8-42	
h'-31	Handle Fixing Plate	1			h'-65	Hinge Cover	1	148984-0-01	
h'-32	Thread Tension Adjusting Nut	1	149566-0-02		h'-66	Spring	2	144104-0-01	
h'-33	Washer	1	144105-0-00		h'-67	Needle Thread Guide Plate	1	110813-0-01	
h'-34	Spring	1	144788-0-01		h'-68	Washer	2	110735-0-02	
h'-35	Washer	1	025770-2-32		h'-69	Looper (Right Hand)	1		
					h'-70	Screw	2	014680-4-22	147936-0-01

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
EXAMPLE BR146222-0-01

**j.** 832U041- Needle Gauge 2.2 mm  
(Taping on Light, Medium Work)

This machine is the same as the 831U001- (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

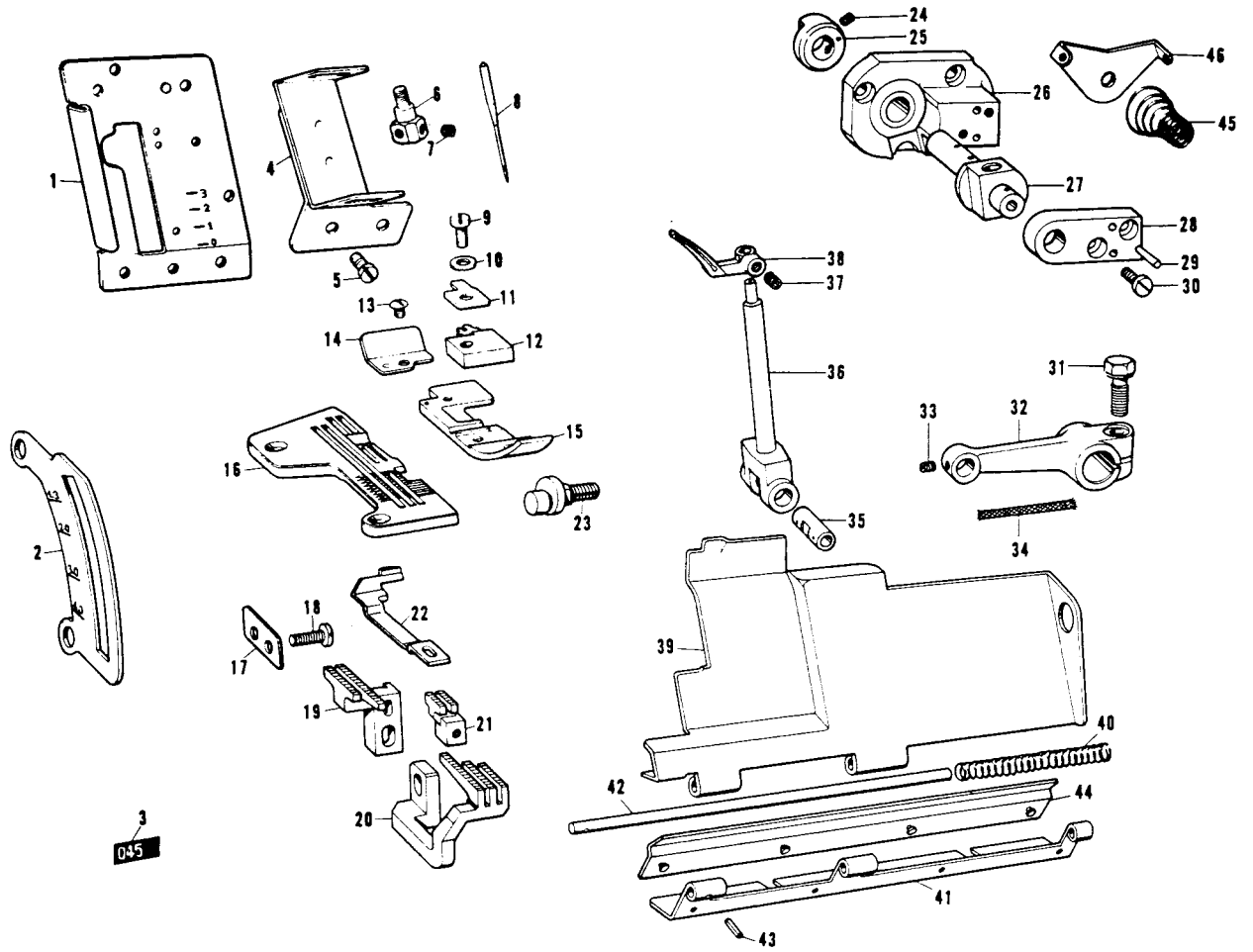


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
j-1	Needle Clamp 2.2	1		146773-0-01	j-14	Screw	2	105216-0-01	
j-2	Screw	2	146427-0-01		j-15	Needle Guard F	1	146777-0-01	
j-3	Tape Guide	1	146883-0-01		j-16	Label	1		
j-4	Screw	2	009669-4-12		j-17	Differential Feed (Front) Dog	1	146749-0-01	
j-5	Screw	1	100080-0-04		j-18	Front Cover	1		
j-6	Washer	1	025030-1-32		j-19	Spring	1	146442-0-01	148993-0-01
j-7	Presser Foot Hinge Spring	1	146887-0-01		j-20	Front Cover Hinge	1	146440-0-01	
j-8	Chaining-off Finger	1	146907-0-01	146906-0-01	j-21	Front Cover Hinge Pin	1	146441-0-00	
j-9	Screw	1	100105-0-05		j-22	Pin	1	047140-8-42	
j-10	Presser Foot (Rear)	1	145774-0-01		j-23	Hinge Cover	1	148984-0-01	
j-11	Presser Foot	1			j-24	Spring	2	144104-0-01	
j-12	Throat Plate	1			j-25	Needle Thread Guide Plate	1	110813-0-01	
j-13	Spacer	1	146787-0-01						

NOTE! PREFIX ALL NUMBERS BY 'BR'.  
EXAMPLE BR146222-0-01

**k.** 832U045-○ Needle Gauge 2.2 mm  
(Taping on Bulky Knit Work)

This machine is the same as the 831U001-○ (A~H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

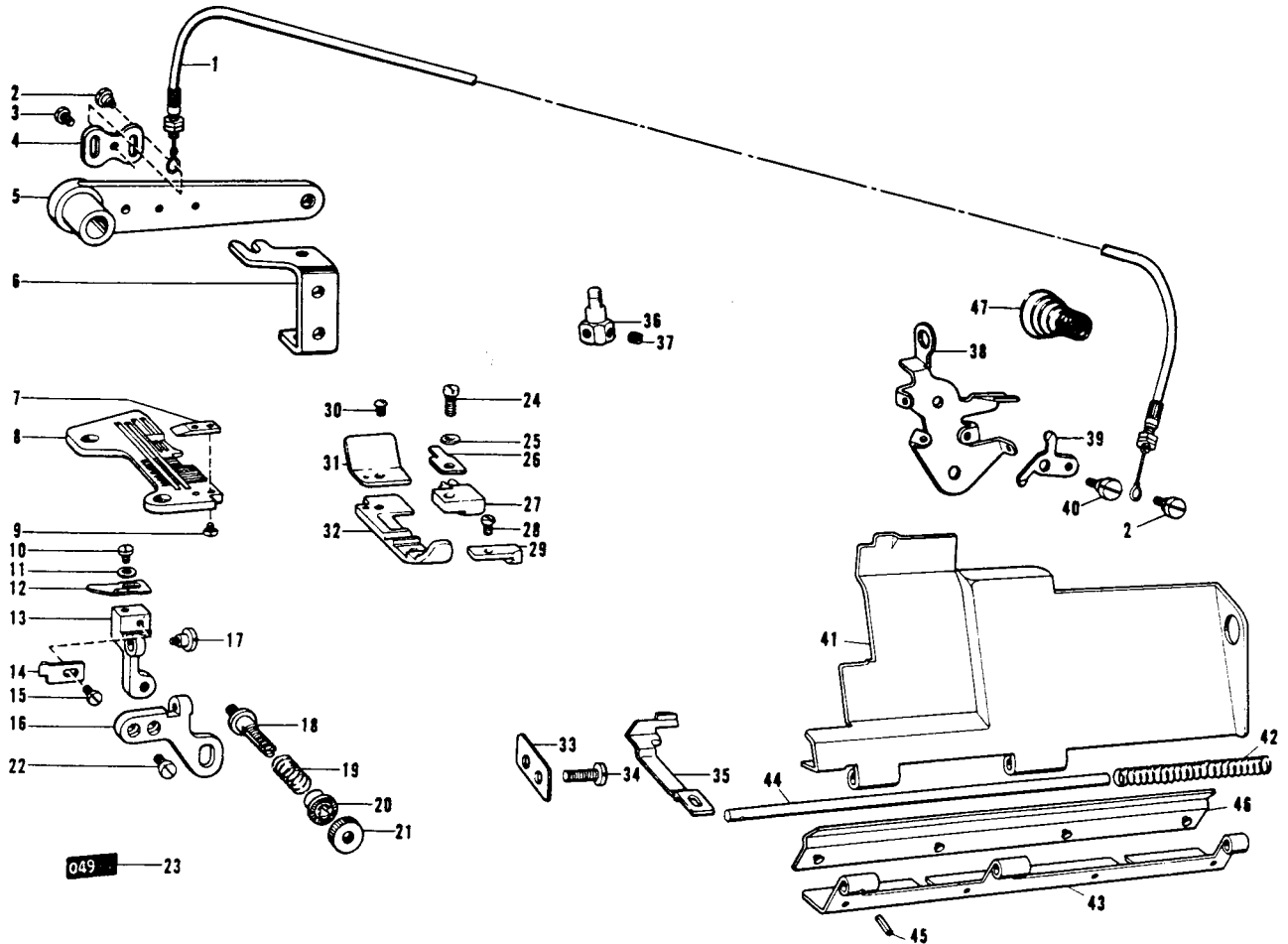


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
k-1	Face Plate	1	146706-0-01		k-26	Looper (Right Hand) Holder Guide Base	1		
k-2	Differential Feed Indicator	1	146742-0-01		k-27	Looper (Right Hand) Holder Guide Block	1		
k-3	Label	1			k-28	Looper (Right Hand) Holder Supporting Plate	1		
k-4	Tape Guide	1	146883-0-01		k-29	Taper Pin	2		146611-1-01
k-5	Screw	2	009669-4-12		k-30	Screw	2	009681-0-12	
k-6	Needle Clamp 2.2	1		146773-0-01	k-31	Screw	1	149170-0-01	
k-7	Screw	2	146427-0-01		k-32	Looper (Right Hand) Driving Lever	1		
k-8	Needle Cat. No. 6120 #14	2	151200-0-14		k-33	Screw	1	148294-0-01	
k-9	Screw	1	100080-0-04		k-34	Wick	1	140416-0-00	
k-10	Washer	1	025030-1-32		k-35	Looper (Right Hand) Holding Shaft	1		
k-11	Presser Foot Hinge Spring	1	146887-0-01		k-36	Looper (Right Hand) Holder	1		
k-12	Chaining-off Finger	1	146907-0-01	146906-0-01	k-37	Screw	1	014680-4-22	147937-0-01
k-13	Screw	1	100105-0-05		k-38	Looper (Right Hand)	1		
k-14	Presser Foot (Rear)	1	145774-0-01		k-39	Front Cover	1		
k-15	Presser Foot	1			k-40	Spring	1	146442-0-01	
k-16	Throat Plate	1			k-41	Front Cover Hinge	1	146440-0-01	
k-17	Spacer	1	146787-0-01		k-42	Front Cover Hinge Pin	1	146441-0-00	148993-0-01
k-18	Screw	2	105216-0-01		k-43	Pin	1	047140-8-42	
k-19	Main Feed (Back) Dog	1	146745-0-01		k-44	Hinge Cover	1	148984-0-01	
k-20	Differential Feed (Front) Dog	1	146750-0-01		k-45	Spring	2	144104-0-01	
k-21	Chain Feed Dog	1	146578-0-01		k-46	Needle Thread Guide Plate	1	110813-0-01	
k-22	Needle Guard F	1	146777-0-01						
k-23	Main Feed Shaft	1	144068-0-01						
k-24	Screw	2	014680-4-22	146611-1-01					
k-25	Set Collar	1							

[NOTE! PREFIX ALL NUMBERS BY 'BR']  
EXAMPLE BR146222-0-01

**m.** 832U049- Needle Gauge 2.2 mm  
(Chain-back)

This machine is the same as the 831U001- (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :

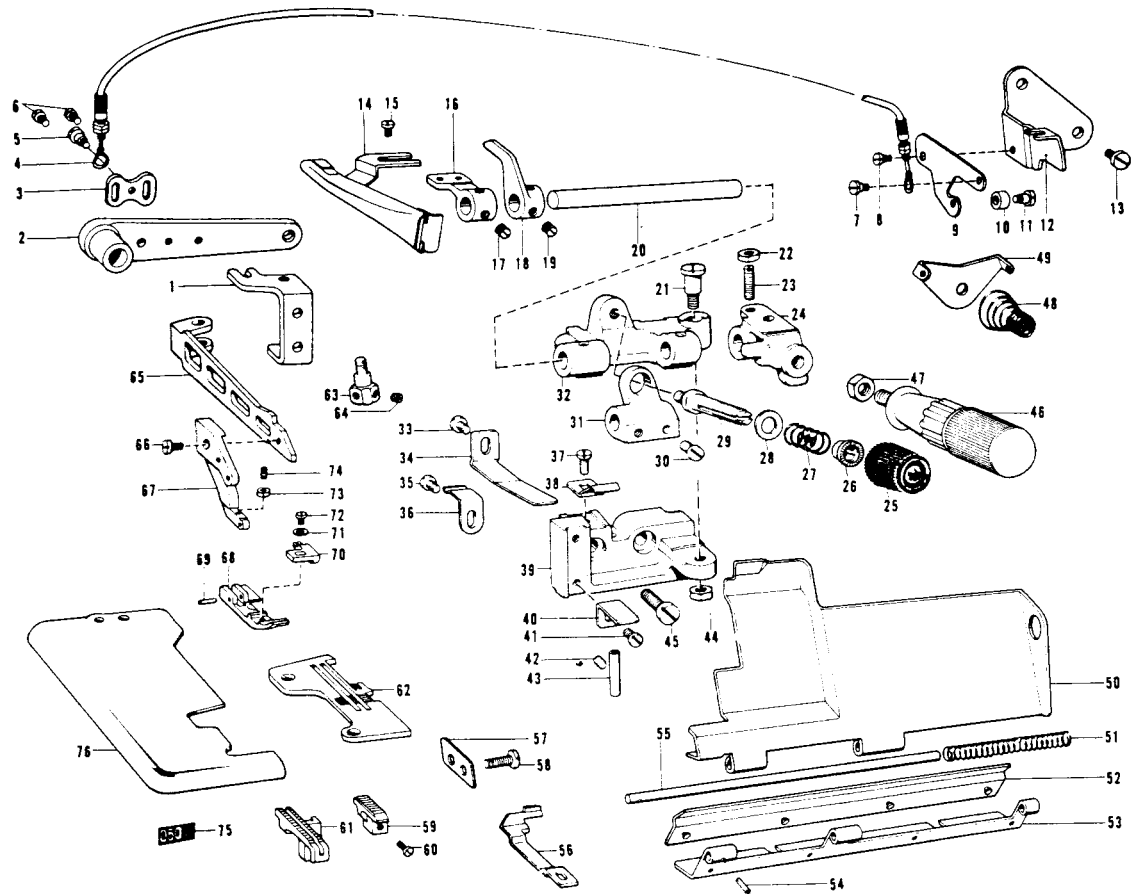


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
m-1	Flexible Wire Assembly	1	147480-0-01		m-23	Label	1		
m-2	Screw	2	141514-0-01		m-24	Screw	1	100080-0-04	
m-3	Screw	2	009670-6-12		m-25	Washer	1	025030-1-32	
m-4	Wire Plate	1	147672-0-01		m-26	Presser Foot Hinge Spring	1	146887-0-01	
m-5	Presser Foot Lifter Lever	1	148369-0-01		m-27	Chaining-off Finger	1	146903-0-01	
m-6	Lever Adjuster Plate	1	147454-0-01		m-28	Screw	1	009639-3-12	146902-0-01
m-7	Chain-Back Guide	1	147484-0-01		m-29	Presser Foot (Front)	1	146888-0-01	
m-8	Throat Plate	1			m-30	Screw	1	100105-0-05	
m-9	Screw	2	141544-0-01		m-31	Presser Foot (Rear)	1	146889-0-01	
m-10	Screw	1	009660-4-12		m-32	Presser Foot	1		
m-11	Washer	1	025030-1-32		m-33	Spacer	1	146787-0-01	
m-12	Chain-Back Blade Presser Plate	1	147477-0-01		m-34	Screw	2	105216-0-01	
m-13	Chain-Back Blade Holder	1			m-35	Needle Guard F	1	146777-0-01	
m-14	Chain-Back Knife	1	147478-0-01		m-36	Needle Clamp 2.2	1		
m-15	Screw	1	009660-4-12		m-37	Screw	2	146427-0-01	146773-0-01
m-16	Chain-Back Blade Holder Supporter	1		147473-0-01	m-38	Thread Guide Support	1	148370-0-01	
m-17	Screw	1	147476-0-01		m-39	Tension Release Lever	1	148371-0-01	
m-18	Thread Tension Control Stud	1	147148-0-01		m-40	Screw	1	141514-0-01	
m-19	Spring	1	147479-0-01		m-41	Front Cover	1		
m-20	Washer	1	144105-0-00		m-42	Spring	1	146442-0-01	
m-21	Upper Thread Tension Adjusting Screw	1	105230-0-01		m-43	Front Cover Hinge	1	146440-0-01	
m-22	Screw	2	009670-6-12		m-44	Front Cover Hinge Pin	1	146441-0-00	148993-0-01
					m-45	Pin	1	047140-8-42	
					m-46	Hinge Cover	1	148984-0-01	
					m-47	Spring	2	144104-0-01	

(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
EXAMPLE BR146222-0-01

**n.** 832U050- Needle Gauge 2.2 mm  
(Piping)

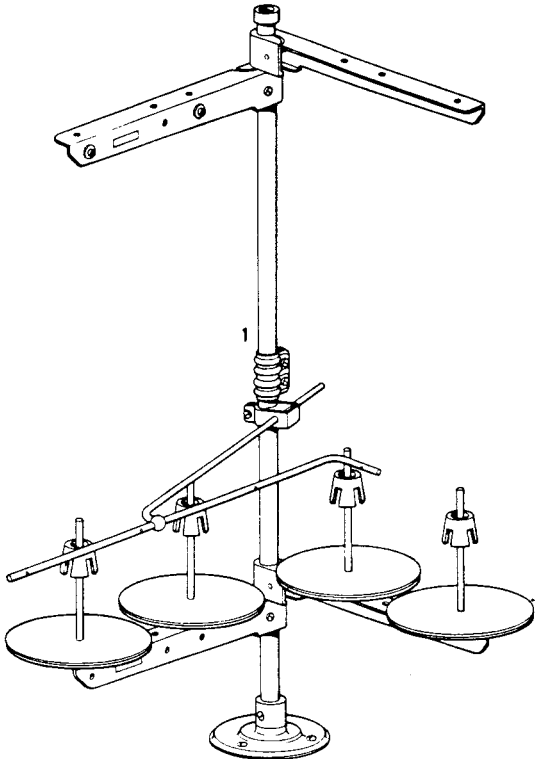
This machine is the same as the 831U001- (A-H) with exceptions of 832U Common Parts (Page 20, a) and Parts shown below :



Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.	Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
n-1	Lever Adjuster Plate	1	147454-0-01		n-39	Ruffler Base	1		
n-2	Presser Foot Lifter Lever	1	148369-0-01		n-40	Ruffling Blade Guide	2		
n-3	Wire Plate	1	147672-0-01		n-41	Screw	2	009680-8-12	149202-0-01
n-4	Flexible Wire Assembly	1	148391-0-01		n-42	Screw	1	013679-4-12	
n-5	Screw	1	141514-0-01		n-43	Thread Guide Pipe	1		
n-6	Screw	2	009670-6-12		n-44	Nut	1	150553-0-02	
n-7	Screw	1	141514-0-01		n-45	Screw	2	009781-8-12	
n-8	Screw	1	141514-0-01		n-46	Handle	1	145809-0-01	
n-9	Ruffling Plate Lifter Lever	1	148388-0-01	148395-0-01	n-47	Nut	1	150556-0-02	
n-10	Roller	1	148390-0-01		n-48	Spring	2	144104-0-01	
n-11	Screw	1	112301-0-01		n-49	Needle Thread Guide Plate	1	110813-0-01	
n-12	Presser Foot Lifter Lever Support	1	148389-0-01		n-50	Front Cover	1		
n-13	Screw	2	110735-0-02		n-51	Spring	1	146442-0-01	
n-14	Binder	1	149197-0-00		n-52	Hinge Cover	1	148984-0-01	146763-0-01
n-15	Screw	2	009680-6-12		n-53	Front Cover Hinge	1	146440-0-01	
n-16	Binder Base	1			n-54	Pin	1	047140-8-42	
n-17	Screw	2	101706-0-01		n-55	Front Cover Hinge Pin	1	146441-0-00	
n-18	Presser Foot Lifter	1	148387-0-01		n-56	Needle Guard F	1	146777-0-01	
n-19	Screw	2	101706-0-01		n-57	Spacer	1	146787-0-01	
n-20	Ruffling Blade Base Shaft	1	149203-0-01		n-58	Screw	1	105216-0-01	
n-21	Screw	1			n-59	Chain Feed Dog	1	149194-0-01	
n-22	Nut	1	105234-0-03		n-60	Screw	1	009660-7-12	
n-23	Screw	1	110230-0-01		n-61	Main Feed (Back) Dog	1	149193-0-01	
n-24	Handle Fixing Plate	1			n-62	Throat Plate	1		
n-25	Thread Tension Adjusting Nut	1	149566-0-02		n-63	Needle Clamp 2.2	1		146773-0-01
n-26	Washer	1	144105-0-00	149202-0-01	n-64	Screw	1	146427-0-01	
n-27	Spring	1	144788-0-01		n-65	Main Presser Arm	1	146526-0-01	
n-28	Washer	1	025770-2-32		n-66	Screw	1	009680-7-12	
n-29	Looper Thread Tension Control Stud	1	110820-0-01		n-67	Sub Presser Arm	1		
n-30	Screw	2	105163-0-01		n-68	Presser Foot	1		
n-31	Spring Base	1			n-69	Pin	1	149183-0-01	
n-32	Bracket for Ruffling Blade	1			n-70	Chaining-off Finger	1	150739-0-01	149195-1-01
n-33	Screw	1	009680-6-12		n-71	Washer	1	025030-1-32	
n-34	Spring	1			n-72	Screw	1	009660-4-12	
n-35	Screw	1	001670-5-12		n-73	Nut	1	021660-1-02	
n-36	Spring	1	144764-0-01		n-74	Screw	1	103978-0-02	
n-37	Screw	1	009680-6-12		n-75	Label	1		
n-38	Spring	1	145808-0-01		n-76	Cloth Plate	1	146716-0-01	

(NOTE! PREFIX ALL NUMBERS BY 'BR'.)  
EXAMPLE BR146222-0-01

**Z. Thread Unwinder 4 THF**

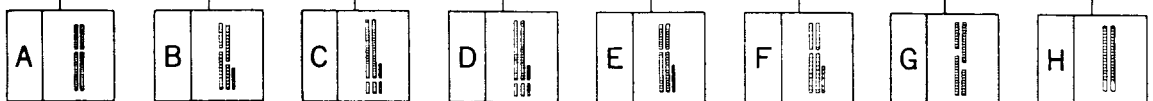


Ref. No.	Name of Parts	Q'ty	Parts No.	Assembly No.
z- 1	Thread Unwinder 4 THF	1	150161-0-02	

[NOTE! PREFIX ALL NUMBERS BY 'BR'.]  
 EXAMPLE BR146222-0-01

# DIFFERENT PARTS LIST

Class	Variety	No. of Needles	No. of Threads	Needle Gauge	Bight	Max. Stitch	Differential Ratio	Presser Foot Lift	Feed Dog		Needle Size	Sewing Speed	Face Plate Assembly		Front Cover Assembly		Needle Bar Assembly		Needle Bar	
									Pitch	Type										
831U	001-3 -4 -5 -6	1	3	-	3 4 5 6	3.6	0.6-1.8	6	1.6	A	#11	6500	A-7	146428001	A 35-39 -83	148991001	B 12-13	147629001		
	002-5 -6 -7	1	3	-	5 6 7	2.5	1.3-4	7	2	B	#14	6000	1-1	146706001	A 35-39 -83	148991001	B 12-13	147629001		
	003-3 -4 -5	1	3	-	3 4 5	3.6	0.6-1.8	6	1.6	A	#9	6500	A-7	146428001	A 35-39 -83	148991001	B 12-13	147629001		
	004-3 -4	1	2	-	3 4	3.6	0.6-1.8	6	1.6	A	#9	6500	A-7	146428001	A 35-39 -83	148991001	B 12-13	147629001		
	005-4 -5 -6	1	2	-	4 5 6	3.6	0.6-1.8	4	1.6	A	#14	6000	A-7	146428001	A 35-39 -83	148991001	B 12-13	147629001		
	006-4 -5	1	3	-	4 5	3.6	0.6-1.8	4	1.6	A	#14	6000	A-7	146428001	A 35-39 -83	148991001	B 12-13	147629001		
	007-2 -4	1	3	-	2 4	3.6	1.6-1.8	6	1.6	A	#11	6500	A-7	146428001	A 35-39 -83	148991001	B 12-13	147629001		
	008-5	1	3	-	5	3.3	1-3	5	1.6	C	#11	6000	K-1	146430001	K 53-58	146710001	B 12-13	147629001		
	009-5	1	3	-	5	3.3	1-3	5	1.6	D	#11	6000	L-1	146430001	L 56-61	146710001	B 12-13	147629001		
	010-5	1	3	-	5	3.6	0.6-1.8	6	1.6	A	#11	6500	A-7	146428001	A 35-39 -83	148991001	B 12-13	147629001		
	011-6 -7	1	3	-	6 7	2.5	1.3-4	7	2	B	#14	6000	N-1	146706001	A 35-39 -83	148991001	B 12-13	147629001		
	012-3 -4 -5 -6	1	3	-	3 4 5 6	3.6	0.6-1.8	6	1.6	A	#11	6500	A-7	146428001	A 35-39 -83	148991001	B 12-13	147629001		
832U	021-4	2	4	1.8	4	3.6	0.6-1.8	6	1.6	A	#11	6500	A-7	146428001	b 22-27	148993001			a-1	146483001
	022-5 -6	2	4	2.2	5 6	3.6	0.6-1.8	6	1.6	E	#11	6500	A-7	146428001	c 18-23	148993001			a-1	146483001
	023-5 -6	2	4	2.2	5 6	3.6	0.6-1.8	6	1.6	E	#11	6500	A-7	146428001	d 20-25	148993001			a-1	146483001
	024-5	2	4	3	5	3.6	0.6-1.8	6	1.6	E	#11	6500	A-7	146428001	b 17-22	148995001			a-1	146483001
	025-6	2	4	3	6	3.6	0.6-1.8	6	1.6	E	#11	6500	A-7	146428001	c 19-24	148995001			a-1	146483001
	026-4 -5 -6	2	4	1.8	4 5 6	2.5	1.3-4	7	1.6	G	#11	6000	d-1	146706001	d 27-32	148993001			a-1	146483001
	027-5 -6 -7	2	4	2.2	5 6 7	2.5	1.3-4	7	2	B	#14	6000	e-1	146706001	e 37-42	148993001			a-1	146483001
	028-5 -6 -7	2	4	2.2	5 6 7	2.5	1.3-4	7	2	B	#14	6000	e-1	146706001	e 37-42	148993001			a-1	146483001
	031-7	2	4	3	7	3.6	0.6-1.8	7	2.5	F	#21	6000	A-7	146428001	f 20-25	148995001			a-1	146483001
	032-7	2	4	3	7	3.6	0.6-1.8	7	2.5	F	#21	6000	A-7	146428001	f 20-25	148995001			a-1	146483001
	033-5	2	4	2.2	5	3.3	1-3	5	1.6	C	#11	6000	g-1	146430001	g 58-63	146763001			a-1	146483001
	034-5	2	4	2.2	5	3.3	1-3	5	1.6	C	#11	6000	g-1	146430001	g 61-66	146763001			a-1	146483001
	037-5	2	4	2.2	5	3.3	1-3	5	1.6	D	#11	6000	h-1	146430001	h 60-65	146763001			a-1	146483001
	038-5	2	4	2.2	5	3.3	1-3	5	1.6	D	#11	6000	h-1	146430001	h 60-65	146763001			a-1	146483001
	041-5	2	4	2.2	5	3.6	0.6-1.8	6	1.6	E	#11	6500	A-7	146428001	i 18-23	148993001			a-1	146483001
	045-5 -6 -7	2	4	2.2	5 6 7	2.5	1.3-4	7	2	B	#14	6000	K-1	146706001	k 39-44	148993001			a-1	146483001
	049-5 -6	2	4	2.2	5 6	3.6	0.6-1.8	6	1.6	A	#11	6500	A-7	146428001	m 41-46	148993001			a-1	146483001
	050-5	2	4	2.2	5	3.6	—	5	1.6	H	#11	6500	A-7	146428001	n 50-55	146763001			a-1	146483001





Needle Clamp Assembly		Needle Cat. No. 8120-8538 8122		Needle Guard F		Throat Plate		Spacer		Screw		Presser Foot Assembly		Main Feed Link Shaft		Differential Feed Indicator	
		B-14	151200011	B-64	146726001	B-80	146730001 146731001 146732001 146733001			H-5	100257010	E 58-66	146884001	D-22	143564001	D-91	146561001
		I-4	151200014	B-64	146726001	I-12	146734001 146735001 146736001			H-5	100257010	I 5-11	146898001	I-16	144068001	I-2	146742001
		J-6	151200009	B-64	146726001	J-23	146730001 146731001 146732001			H-5	100257010	J 1-5	146890001	D-22	143564001	D-91	146561001
		I'-6	151200009	B-64	146726001	I'-27	146730001 146731001			H-5	100257010	I' 1-5	146890001	D-22	143564001	D-91	146561001
		M-1	151200014	B-64	146726001	M-26	146731001 146732001 146733001			H-5	100257010	M 2-10	146893001	D-22	143564001	D-91	146561001
		J'-1	151200014	B-64	146726001	J'-22	146731001 146732001			H-5	100257010	J' 2-10	146893001	D-22	143564001	D-91	146561001
		B-14	151200011	B-64	146726001	K'10-12	148352001 148314001			H-5	100257010	K' 1-5	148311001	D-22	143564001	D-91	146561001
		B-14	151200011	B-64	146726001	K-12	146737001			H-5	100257010	K 5-11	144811001	D-22	143564001	K-2	146562001
		B-14	151200011	B-64	146726001	L-12	146737001			H-5	100257010	L 5-11	147433001	D-22	143564001	L-2	146562001
		B-14	151200011	B-64	146726001	M-11	146732001			H-5	100257010	M' 3-9	146895001	D-22	143564001	D-91	146561001
		N-6	151200014	B-64	146726001	N-14	146735001 146736001			H-5	100257010	N 7-13	146895001	N-18	144068001	N-2	146742001
		B-14	151200011	B-64	146726001	N-7	147449001 147450001 147451001 147452001			H-5	100257010	E 58-66	146884001	D-22	143564001	D-91	146561001
b 1-2	146771001	b-3	151206011	b-16	146777001	b-13	146779001	b-14	146787001	b-15	105216001	b 4-12	146963001	D-22	143564001	D-91	146561001
c 1-2	146773001	B-14	151200011	c-15	146777001	c-12	146781001 146782001	c-13	146787001	c-14	105216001	c 3-11	146902001	D-22	143564001	D-91	146561001
d 1-2	146773001	B-14	151200011	d-16	146777001	d-12	146781001 146782001	d-13	146787001	d-14	105216001	d 3-11	146902001	D-22	143564001	D-91	146561001
b' 1-2	146775001	B-14	151200011	b'-15	146778001	b'-12	148030001	b'-13	146788001	b'-14	105216001	b' 3-11	146965001	D-22	143564001	D-91	146561001
c' 1-2	146775001	B-14	151200011	c'-15	146778001	c'-12	148031001	c'-13	146788001	c'-14	105216001	c' 3-11	146965001	D-22	143564001	D-91	146561001
d' 3-4	146771001	d-5	151206011	d'-18	146777001	d'-15	146779001 146780001 148832001	d'-16	146787001	d'-17	105216001	d' 6-14	146963001	d-22	144068001	d'-2	146742001
e 4-5	146773001	e-6	151200014	e-20	146777001	e-14	146781001 146782001 146783001	e-15	146787001	e-16	105216001	e 7-13	147952001 146904001 146904001	e-21	144068001	e-2	146742001
e' 4-5	146773001	e-6	151200014	e-20	146777001	e-14	146781001 146782001 146783001	e-15	146787001	e-16	105216001	e 7-13	147952001 146904001 146904001	e-21	144068001	e-2	146742001
f 1-2	146775001	f-3	152186021	f-16	146778001	f-13	146785001	f-14	146788001	f-15	105216001	f 4-12	146965001	D-22	143564001	D-91	146561001
f' 1-2	146775001	f-3	152186021	f-16	146778001	f'-13	146785001	f'-14	146788001	f'-15	105216001	f' 4-12	146965001	D-22	143564001	D-91	146561001
g 5-6	146773001	B-14	151200011	g-20	146777001	g-14	146786001	g-18	146787001	g-19	105216001	g 7-13	144815001	D-22	143564001	g-2	146562001
g' 5-6	146773001	B-14	151200011	g'-20	146777001	g'-14	146786001	g'-18	146787001	g'-19	105216001	g' 7-13	144815001	D-22	143564001	g-2	146562001
h 5-6	146773001	B-14	151200011	h-20	146777001	h-14	146786001	h-18	146787001	h-19	105216001	h 7-13	147433001	D-22	143564001	h-2	146562001
h' 5-6	146773001	B-14	151200011	h'-20	146777001	h-14	146786001	h-18	146787001	h-19	105216001	h' 7-13	147433001	D-22	143564001	h-2	146562001
j 1-2	146773001	B-14	151200011	j-15	146777001	j-12	146781001	j-13	146787001	j-14	105216001	j 5-11	146906001	D-22	143564001	D-91	146561001
k 6-7	146773001	K-8	151200014	k-22	146777001	k-16	146781001 146782001 146783001	k-17	146787001	k-18	105216001	k 9-15	146906001	K-23	144068001	K-2	146742001
m 36-37	146773001	B-14	151200011	m-35	146777001	m-8	148366001 148367001	m-33	146787001	m-34	105216001	m 24-32	146902001	D-22	143564001	D-91	146561001
n 63-64	146773001	B-14	151200011	n-56	146777001	n-62	149192001	n-57	146787001	n-58	105216001	n 67-74	149195101	D-22	143564001	D-91	146561001

027-5	e-10	Presser Foot Chaining-off Finger	1	146907-0-01
027-6	e-10	Presser Foot Chaining-off Finger	1	146905-0-01
.7				

028-5	e'-10	Presser Foot Chaining-off Finger	1	146907-0-01
028-6	e'-10	Presser Foot Chaining-off Finger	1	146905-0-01
.7				

Class	Variety	Main Feed (Back) Dog		Differential Feed (Front) Dog		Chain Feed Dog		Looper (Right Hand) Holder Assembly		Looper (Right Hand) Assembly		Needle Thread Take-up		Washer		Oil Cap	
8 3 1 U	001-3 -4 -5 -6	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001
	002-5 -6 -7	I-13	146745001	I-15	146750001	I-14	146578001	I 17-29	146611101	I 30-31	147937001	F-8	144108001	F-9	105248003	A-28	111865001
	003-3 -4 -5	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001
	004-3 -4	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	I 10-11	147935001	I-9	142201001			A-28	111865001
	005-4 -5 -6	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	M 13-14	147935001	M-12	142201001				
	006-4 -5	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003		
	007-2 -4	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001
	008-5	K-13	146746001	K-15	146751001	K-14	146578001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003		
	009-5	L-13	147828001	L-15	146751001	L-14	147832001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003		
	010-5	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001
	011-6 -7	N-15	146745001	N-17	146750001	N-16	146578001	N 19-31	146611101	N 32-33	147937001	F-8	144108001	F-9	105248003	A-28	111865001
012-3 -4 -5 -6	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001	
8 3 2 U	021-4	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001
	022-5 -6	D-49	146744001	c-17	146749001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001
	023-5 -6	D-49	146744001	d-17	146749001	D-51	146577001	C 21-27 C 44-49	146603101	d 18-19	147936001	F-8	144108001	F-9	105248003	A-28	111865001
	024-5	D-49	146744001	b-16	146749001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001
	025-6	D-49	146744001	c-16	146749001	D-51	146577001	C 21-27 C 44-49	146603101	c 17-18	147936001	F-8	144108001	F-9	105248003	A-28	111865001
	026-4 -5 -6	d-19	148401001	d'-21	148402001	d-20	146578001	d 33-45	146611101	d 46-47	147937001	F-8	144108001	F-9	105248003	A-28	111865001
	027-5 -6 -7	e-17	146745001	e-18	146750001	e-19	146578001	e 22-34	146611101	e 35-36	147937001	F-8	144108001	F-9	105248003	A-28	111865001
	028-5 -6 -7	e'-17	146745001	e-18	146750001	e-19	146578001	e 22-34	146611101	e 35-36	147936001	F-8	144108001	F-9	105248003	A-28	111865001
	031-7	f-18	146790001	f-19	146791001	D-51	146577001	f 26-38	146611101	f 39-40	147937001	F-8	144108001	F-9	105248003	A-28	111865001
	032-7	f'-18	146790001	f'-19	146791001	D-51	146577001	f 26-38	146611101	f 39-40	147936001	F-8	144108001	F-9	105248003	A-28	111865001
	033-5	g-15	146746001	g-17	146751001	g-16	146578001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003		
	034-5	g'-15	146746001	g'-17	146751001	g'-16	146578001	C 21-27 C 44-49	146603101	g 21-22	147936001	F-8	144108001	F-9	105248003		
	037-5	h-15	147828001	h-17	146751001	h-16	147832001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003		
	038-5	h'-15	147828001	h'-17	146751001	h'-16	147832001	C 21-27 C 44-49	146603101	h 69-70	147936001	F-8	144108001	F-9	105248003		
	041-5	D-49	146744001	J-17	146749001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001
	045-5 -6 -7	K-19	146745001	K-20	146750001	K-21	146578001	K 24-36	146611101	k 37-38	147937001	F-8	144108001	F-9	105248003	A-28	111865001
	049-5 -6	D-49	146744001	D-53	146748001	D-51	146577001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003	A-28	111865001
050-5	n-61	149193001			n-59	149194001	C 21-27 C 44-49	146603101	C 51-52	147934001	F-8	144108001	F-9	105248003			

Threading Diagram		Label		Cloth Plate		Label		Thread Guide Supporter		Presser Foot Lifter Lever		Adjuster Plate		Felt Holder Assembly		Blind Stitch Hemming Guide Assembly	
A-34	146718001	A-20	146974001 146974002 146974003 146974054	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
A-34	146718001	I-3	146974004 146974005 146974006	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
A-34	146718001	J-7	146974007 146974008 146974009	J-24	146716001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000	J 8-21	147710001
I'-8	146719001	I'-7	146974010 146974011	I'-28	146716001			F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000	I'12-25	147710001
M-11	146719001	M-25	146974014 146974015	A-62	146448001			F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
A-34	146718001	J'-21	146974017	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
A-34	146718001	K'-13	146974057 146974056	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
A-34	146718001	K-4	146974019	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
A-34	146718001	L-4	146974020	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
A-34	146718001	M-10	146974021	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
A-34	146718001	N-3	146974025	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
A-34	146718001	N'-26	146974042 146974043 146974044 146974058	A-62	146448001	A-111	147943001	N'-23	147485001	N'-5	148369001	N'-6	147454001	H 1-4	146738000		
a-12	146765001	b-17	146975039	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	b 18-21	148008000		
a-12	146765001	c-16	146975004 146975005	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	d-15	146975065 146975010	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	b'-23	146975064	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	c-25	146975010	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	d-48	146975068 146975012 146975013	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	d 23-26	148008000		
a-12	146765001	e-3	146975062 146975041 146975015	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	e-3	146975063 146975069 146975016	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	f-17	146975017	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	f'-17	146975018	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	g-4	146975019	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	g'-4	146975020	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	h-4	146975021	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	h'-4	146975022	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	j-16	146975023	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	k-3	146975031 146975032 146975033	A-62	146448001	A-111	147943001	F-11	146649001	E-21	143323103	E-23	146522001	H 1-4	146738000		
a-12	146765001	m-23	146975066 146975067	A-62	146448001	A-111	147943001	m-38	148370001	m-5	148369001	m-6	147454001	H 1-4	146738000		
a-12	146765001	n-75	146975072	n-76	146716001	A-111	147943001	F-11	146649001	n-2	148369001	n-1	147454001	H 1-4	146738000		

Class	Variety	Screw	Guide	Screw	Ruffler Device Assembly	Screw	Ruffler Guide	Screw	Knee Adjuster Parts Set
831U	001-3 -4 -5								
	002-5 -6 -7								
	003-3 -4 -5	J-22 009670612							
	004-3 -4	I-26 009670612							
	005-4 -5 -6		M 16-24 146761001	M-15 110201001					
	006-4 -5		J'12-20 146761001	J'-11 110201001					
	007-2 -4								
	008-5				K 16-47 146587002	K-48 009781812	K-49 144793001	K-50 112751002	P 18-37 151224001
	009-5				L 16-47 146587002	L-48 009781812	L-49 144793001	L-50 112751002	P 18-37 151224001
	010-5								
	011-6 -7								
	012-3 -4 -5 -6								
832U	021-4								
	022-5 -6								
	023-5 -6								
	024-5								
	025-6								
	026-4 -5 -6								
	027-5 -6 -7								
	028-5 -6 -7								
	031-7								
	032-7								
	033-5				g 21-52 146587002	g-53 009781812	g-54 144793000	g-55 112751002	P 18-37 151224001
	034-5				g 23-54 146587002	g-55 009781812	g-56 144793000	g-57 112751002	P 18-37 151224001
	037-5				h 21-52 146587002	h-53 009781812	h-54 144793000	h-55 112751002	P 18-37 151224001
	038-5				h 21-52 146587002	h-53 009781812	h-54 144793000	h-55 112751002	P 18-37 151224001
	041-5								
	045-5 -6 -7								
	049-5 -6								
	050-5				n 16-44 149202001	n-45 009781812			



Class	Variety	Screw	Screw Driver	Handle	Nut	Presser Foot Assembly For Chain-back	Screw	Chain-back Guide	Screw
831U	001-3 -4 -5 -6								
	002-5 -6 -7								
	003-3 -4 -5								
	004-3 -4								
	005-4 -5 -6								
	006-4 -5								
	007-2 -4		K'-14 148925001						
	008-5			K-51 145809001	K-52 150556002				
	009-5			L-51 145809001	L-52 150556002				
	010-5	M-2 009669412							
	011-6 -7	N-5 009669412							
	012-3 -4 -5 -6					N'10-21 147473001	N'-22 009670612	N'-8 147484001	N'-9 141544001
832U	021-4								
	022-5 -6								
	023-5 -6								
	024-5								
	025-6								
	026-4 -5 -6								
	027-5 -6 -7								
	028-5 -6 -7								
	031-7								
	032-7								
	033-5			g-56 145809001	g-57 150556002				
	034-5			g'-58 145809001	g'-60 150556002				
	037-5			h-56 145809001	h-57 150556002				
	038-5			h'-56 145809001	h'-57 150556002				
	041-5	j-4 009669412							
	045-5 -6 -7	k-5 009669412							
	049-5 -6					m10-21 147473001	m-22 009670612	m-7 147484001	m-9 141544001
	050-5			n-46 145809001	n-47 150556002				



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Class	Variety	Ruffler Interlocking Parts Assembly
831U	001-3 -4 -5 -6	
	002-5 -6 -7	
	003-3 -4	
	004-3 -4	
	005-4 -5 -6	
	006-4 -5	
	007-2 -4	
	008-5	Q 1-14 151227002
	009-5	Q 1-14 151227002
	010-5	
	011-6 -7	
	012-3 -4 -5 -6	
832U	021-4	
	022-5 -6	
	023-5 -6	
	024-5	
	025-6	
	026-4 -5 -6	
	027-5 -6 -7	
	028-5 -6 -7	
	031-7	
	032-7	
	033-5	Q 1-14 151227002
	034-5	Q 1-14 151227002
	037-5	Q 1-14 151227002
	038-5	Q 1-14 151227002
	041-5	
	045-5 -6 -7	
	049-5 -6	
	050-5	

Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.	
001660-5-12	E-69	009670-6-12	n-6	013679-4-12	h-50	
001670-5-12	A-57	009670-8-12	B-7	013689-4-12	n-42	
	A-59		B-39		A-82	
	K-35		C-18		013760-6-12	A-80
	L-35		F-35	013761-4-10	C-12	
	g-40		G-19		B-55	
	g'-42	009671-0-12	G-33	013770-7-10	D-87	
	h-40	009671-4-12	B-72	014680-4-22	A-26	
	n-35	009679-3-12	J-16		C-16	
	001670-6-14	I'-12	J'-17		C-22	
		J-8	I'-18		C-51	
001680-5-12	B-74	M-21	E-11			
	B-78	009680-6-12	K-34		I-17	
005710-8-12	M-18		K-40		I-30	
	J'-14		L-34		I'-11	
009630-8-12	D-52		L-40-54		M-14	
	009639-3-12		E-60		g-39	N-19
J'-6			g-45	N-32		
M-6			g'-40	c'-18		
K'-6			g'-47	d'-19		
b-8			h-39	d'-33		
c-7			h-45	d'-46		
d-7		h-59	e-22			
b'-7		n-15	e-35			
c'-7		n-33	e'-22			
d'-10		n-37	e'-35			
009660-4-12	f-8	009680-7-12	A-1	f-26		
	f'-8		A-66	f-39		
	m-28		A-69	f'-26		
	009660-5-02		F-6	B-11	f'-39	
			J-10	B-38	g-22	
			I'-14	C-29	k-24	
			N-10	D-24	k-37	
			N-16	E-26		
			m-10	E-56		
			m-15	J-20	014770-6-22	B-52
n-72		I'-24	D-32			
009660-5-12		D-78	n-66	F-20		
		Z-3	009680-8-12	K-44	P-20	
009660-7-12	D-12	L-44		P-29		
	K-18	Q-8		017771-4-12	C-36	
	L-18	g-49		D-15		
	g-23	g-51		D-19		
	g'-25	h-49		D-90		
	h-23	n-41		D-101		
	n-60	009681-0-12		A-76	E-52	
	009669-3-12	F-10		B-57	017771-6-12	A-47
		009669-4-12		Y-39	C-27	B-1
	M-2		H-15	B-30		
N-5	I-23		C-7			
j-4	N-25		D-8			
k-5	Y-18		E-13			
Z-7	Z-7		E-29			
009670-6-12	A-13		d'-39	018061-6-22	B-73	
	A-41		e-28	021080-1-06	Z-11	
	A-49		e'-28	021660-1-02	n-73	
	A-53		f-32	021670-2-02	B-71	
	A-61	f'-32	021680-2-02	M-24		
	B-63	k-30	025030-1-32	J'-20		
	B-65	009681-2-12		A-18	E-63	
	D-61			G-34	I-6	
	E-49			009711-2-12	K-48	I'-2
	F-7			009781-8-12	L-48	J-2
F-23	g-53			J'-3		
F-37	g'-55			K-6		
F-41	h-53			K'-2		
G-5	n-45			L-6		
J-22	011711-4-12			E-24	M-3	
I'-26	013679-4-12		B-17	M-4		
N-3	K-45	N-8				
N-22	L-45	N-11				
m-3	g-50	b-5				
m-22	g'-52	c-4				
Q-14		d-4				



Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.			
025030-1-32	b' - 4	100080-0-04	L - 5	101706-0-01	h -26	110230-0-01	L -25	112436-0-01	E -44			
	c' - 4		M - 2		h -28		g -30		Y -34			
	d' - 7		M' - 3		n -17		g' -32		112735-0-00	D -35		
	e - 8		N - 7		n -19		h -30		112751-0-02	K -50		
	e' - 8		b - 4		102538-0-02		n -23		L -50			
	f - 5		c - 3		102627-0-01		E -51		110641-0-01	A -43		
	f' - 5		d - 3		102843-0-04		A - 8		110668-0-01	B -50		
	g - 8		b' - 3		103978-0-02		n -74		110670-0-00	B -58		
	g' - 8		c' - 3						110672-0-00	B -60	113431-0-02	A -65
	h - 8		d' - 6		104619-0-02		P -33		110673-0-00	B -61	D -21	
	j - 6		e - 7		104890-0-02		P -21		110704-0-01	C - 5	D -56	
	k -10		e' - 7				P -30			C -34	D -58	
	m -11		f - 4		105034-0-03		C - 4		110735-0-02	L -55	H -20	
	m -25		f' - 4				C -33			h -68	Z - 6	
	n -71		g - 7		105078-0-01		B - 8			n -13	113589-0-01	A -17
			g' - 7		105079-0-01		B -10		110793-0-01	E -19	114255-0-02	B -19
	025030-2-37		J -11				h - 7		105163-0-01	K -39	110813-0-01	F -32
I' -15			j - 5		L -39		b -29	114483-0-02	Y -37			
Z - 2			k - 9		g -44		c -25	114966-0-01	P -36			
025080-2-36	Z - 9		m -24		g' -46		d -27	114967-0-01	P -34			
025350-3-32	G -20				h -44		b' -25	117160-0-01	A -31			
025680-2-32	Y -17	100105-0-05	E -66	105216-0-01	n -30		c' -27	117466-0-00	Y -13			
025770-2-32	D -89		I - 9		J' - 8	b -15	c -14		d' -50	117515-0-01	E -46	
	K -30		K - 9		K - 9	d -14	d -14		e -44	117516-0-01	D -50	
	L -30		L - 9		L - 9	b' -14	c' -14		e' -44		D -54	
	g -35		M - 8		M - 8	c' -14	d' -17		f -42		E -47	
	g' -37		M' -7		M' -7	d' -17	e -16		f' -42	117517-0-03	D -86	
	h -35		N -11		N -11	e -16	e' -16		g -65	118837-0-01	Y -11	
	n -28		K - 3		K - 3	e' -16	f -15		g' -68	122771-0-02	F -39	
028050-2-42	P - 5		b -10		b -10	f -15	f -15		h -67	122991-0-02	Y - 1	
028080-2-42	Z -10		c - 9		c - 9	f -15	g -19		j -25	123185-0-01	A -33	
031311-3-02	Y -15		d - 9		d - 9	g -19	g' -19		k -46	140063-0-01	D -99	
033452-5-02	P -18		b' - 9		b' - 9	g' -19	h -19	110820-0-01	n -49	140066-0-01	A -79	
047140-8-42	A -38		c' - 9		d' -12	e -11	j -14		F -12	140077-0-01	A -54	
	K -57		d' -12		e -11	k -18	k -18		F -31	140084-0-00	B -53	
	L -60		e -11		e -11	m -34	n -58		K -31	140088-0-01	B -25	
	b -26		f -10		f -10	g -11	105230-0-01	N -21	L -31	140092-0-01	B -21	
	c -22		g -11		g -11	g' -11	105234-0-03	m -21	a - 4		B -32	
	d -24	h -11	h -11	h -11	j - 9	L -24	g -36	140093-0-00	B -20			
	b' -21	j - 9	k -13	k -13	k -13	g -29	g' -38	140096-0-01	B - 4			
	c' -23	k -13	m -30	m -30	m -30	g -31	h -36	140165-0-01	D -79			
	d' -31	m -30	P -15	P -15	P -15	h -29	n -29	140176-0-01	D -85			
	e -41		H - 5	105248-0-01	F - 9	111486-0-01	F -13	140180-0-01	B -54			
	e' -41		C -39	105343-0-01	Y - 3		F -30	140187-0-00	D - 2			
	f -24		E -36	106568-0-03	D -108	111865-0-01	a - 5	140188-0-04	D - 1			
	f' -24		D -97	107093-0-02	D -82	112299-0-01	g' -38	140205-0-01	D -18			
	g -62		B -22	107231-0-02	E -73	112300-0-01	h -36	140207-0-01	D -44			
	g' -65	100136-0-01	B -26	107244-0-01	B -62	112301-0-01	n -29	140208-0-01	D -40			
	h -64	100257-0-10	B -33	107351-0-01	B -81		Q - 5	140209-0-01	D -45			
	j -22	100260-0-01	E -32	107407-0-03	A -40		n -11	140210-0-01	D -47			
	k -43		P - 2		D -57	112348-0-01	J -14	140217-0-01	D -39			
	m -45	100294-0-02	P - 7		D -59		A -70	140232-0-01	E -30			
	n -54	100366-0-01	P -24		E -41		B -77	140233-0-01	E -31			
			P -32		E -57			140235-0-00	E -37			
	048020-3-42	E - 3						G - 1	140248-0-01	E -55		
	048030-3-42	J -18	100444-0-02	P - 2				G - 8	140261-0-01	E -14		
	I' -22	100447-0-01	P - 7				G -11	140262-0-00	E -17			
048040-3-42	D -66	100463-0-01	P -24				G -13	140263-0-00	E -12			
048080-3-42	E -16		P -32				G -17	140317-0-00	C -20			
048150-1-43	D -67						H - 7		E -27			
071023-8-50	C -53	10118-0-01	P -17	107779-0-01	Y - 8		H -11	140320-0-00	B -24			
072600-0-00	B -42	101572-1-01	Y -12	108494-0-01	P -13		H -14	140325-0-01	G - 4			
072600-1-00	B -59	101706-0-01	A -72	108495-0-01	P -14		H -19	140326-0-01	B - 6			
100025-0-02	D -73		D -30	108960-0-02	A - 3		G -18		C -28			
100032-0-03	A -63		D -43	109203-0-01	A -44		H - 9		D - 9			
	B -79		G -24		D -100	112359-0-01	H -10		D - 9			
100080-0-02	P - 3		K -21	109852-0-01	P - 4		H -13	140327-0-01	B -23			
100080-0-04	E -64		K -23	109853-0-01	P - 1		H -18		C - 9			
	I - 5		L -21	110087-0-01	P -35		G - 2		D - 5			
	I' - 1		L -23	110161-0-03	P - 6		G - 7	140342-0-01	Y - 2			
	J - 1		g -26	110161-0-06	E -25	112364-0-01	G -10	140415-0-00	B - 9			
	J' - 2		g -28	110201-0-01	M -15		G -10	140416-0-00	C -46			
	K - 5		g' -28		J -11		G -15					
	K - 1		g' -30	110230-0-01	K -25							

Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.		
140416-0-00	I -27	144075-0-01	E -43	144784-0-01	K -17	146404-0-01	D -76	146441-0-00	k -42		
	N -29	144079-0-01	E -7		L -17	146405-0-01	D -72		m -44		
	d' -43	144081-0-01	E -9		g' -22	146419-0-01	A -14		n -55		
	e -32	144083-0-01	E -4		g' -24	146420-0-00	A -15				
	e' -32	144084-0-01	E -2		h -22	146421-0-00	A -16		146442-0-01	A -37	
	f -36	144085-0-01	E -5		K -29	146422-0-01	A -2			K -54	
	f' -36	144086-0-01	E -6		L -29	146425-0-01	A -11			L -57	
	k -34	144088-0-01	E -72		g' -34	146426-0-00	A -10			b -23	
					J' -13	g' -36	146427-0-01			A -9	c -19
	140417-0-00	C -50			M -17	h -34				b -2	d -21
140418-0-00	B -5	144091-0-01	K -7	n -27		c -2	b -18				
140421-0-01	A -81		L -7	144793-0-00	K -49	d -2	c -20				
140503-0-01	P -37		g -9	L -49	g -54	b' -2	d' -28				
140504-0-01	E -68		g' -9	g' -56	h -54	c' -2	e -38				
140759-0-00	Y -32		h -9			d' -4	e' -38				
140778-0-01	G -12	144100-0-01	K -10			e -5	f -21				
140779-0-01	G -9		L -10	144803-0-01	P -19	e' -5	f' -21				
140780-0-01	G -6		g -12	144804-0-01	P -22	f -2	g -59				
140888-0-01	Y -35		g' -12	144805-0-01	P -26	f' -2	g' -62				
141183-0-00	A -74		h -12	144806-0-01	P -23	g -6	h -61				
141514-0-01	N -2	144103-0-02	F -15	144811-0-01	K -5-11		g' -6	j -19			
	N -25		F -28	144813-0-01	K -8		h -6	k -40			
	Q -1		a -7	L -8		j -2	m -42				
	Q -2	144104-0-01	F -16	144815-0-01	g' -7-13		k -7	n -51			
	Q -13		b -28		g' -7-13		m -37				
	m -2		c -24	144816-0-01	g -10		n -64	146446-0-01	A -32		
	m -40		d -26		g' -10			146448-0-01	A -62		
	n -5		b' -24		h -10	146428-0-01	A -7	146449-0-01	A -56		
	n -7		c' -26	145277-1-04	Y -38	146430-0-01	K -1	146450-0-01	A -58		
	n -8		d -49	145446-0-01	F -14		L -1	146451-0-01	B -67		
141544-0-01	N -9		e -43	F -29		g -1	146452-0-01	B -68			
	m -9		e' -43	a -6		g' -1	146453-0-01	B -69			
			f -41	145663-0-01	D -74	h -1	146454-0-01	B -66			
142125-0-00	Y -14		f' -41	145664-0-00	A -51	146432-0-01	A -12	146457-0-01	A -52		
142201-0-01	M -12		g -64	145774-0-01	I -10	146433-0-00	A -6	146458-0-02	A -46		
	I' -9		g' -67		M -8	146436-0-01	A -48	146460-0-01	A -60		
142262-0-01	Y -26		h -66		N -12	146440-0-01	A -36	146461-0-01	A -4		
142274-0-01	B -43		j -24		e -12		K -55	146473-0-01	B -46, 47		
142343-0-01	Y -36		k -45		e -12		L -58	146476-1-01	B -25-29		
142669-0-01	F -38		m -47		j -10		b -24	146478-0-01	B -27		
143179-0-00	B -48, 49		n -48		k -14		c -20	146479-0-01	B -31		
143311-0-01	B -40						d -22	146480-0-01	B -1-4		
143312-0-00	B -41	144105-0-00	F -17	145803-0-01	K -19		b' -19	146481-0-01	B -2		
143323-1-03	E -21		F -25		L -19		c -21	146482-0-01	B -3		
143325-0-01	E -22		K -28		g -24		d' -29	146483-0-01	a -1		
143374-0-01	A -75		L -28		g' -26		e -39	146484-0-01	B -18		
143564-0-01	D -22		N -20		h -24		e -39	146485-0-01	B -16		
143565-0-01	D -20		a -9	145807-0-01	K -43		f -22	146486-0-00	B -15		
143566-0-01	Y -7		g -33		L -43		f' -22	146494-0-01	B -76		
143750-0-02	P -16		g' -35		g -48		g -60	146495-0-01	B -75		
143757-0-01	F -5		h -33		g' -50		g' -63	146511-0-00	H -16, 17		
143767-0-02	P -8-16		m -20		h -48		h -62	146512-0-00	H -12		
143976-0-01	P -11, 12		n -26	145808-0-01	K -41		j -20	146515-0-00	H -8		
143978-0-01	P -9, 10	144108-0-01	F -8		L -41		k -41	146516-0-00	H -6		
143980-0-01	P -8	144110-0-01	F -27		g -46		m -43	146521-0-01	E -8		
143989-0-01	P -25	144111-0-01	F -21		g' -48		n -53	146522-0-01	E -23		
	P -31	144116-0-00	H -4		h -46			146523-0-01	E -18		
143992-0-01	A -5		b -21		n -38	146441-0-00	A -39	146524-0-01	E -15		
144025-0-01	C -30-32		d -26	145809-0-01	K -51		K -56	146525-0-01	E -10		
144029-0-00	C -37	144117-0-00	E -28		L -51		L -59	146526-0-01	n -65		
144031-0-00	C -41	144124-0-01	Y -9		g -56		b -25	146527-0-01	E -74		
144044-0-01	C -1-3	144127-0-01	C -17		g' -58		c -21	146528-0-01	D -67-86		
144049-0-01	C -19	144622-0-01	G -22		h -56		d -23	146529-0-01	D -68		
144053-0-01	D -71, 71	144764-0-01	K -36		n -46		b' -20	146530-0-01	D -83		
144055-0-01	D -69		L -36	145811-0-01	K -33		c -22	146531-0-01	D -84		
144068-0-01	I -16		g -41		L -33		d' -30	146532-0-01	D -11		
	N -18		g' -43		g -38		e -40	146533-0-01	D -7		
	d' -22		h -41		g' -41		e' -40	146534-0-01	D -64		
	e -21		n -36		h -38		f -23	146535-0-01	D -65		
	e' -21	144783-0-01	K -16	146315-0-00	A -22	A -71	f' -23	146536-0-01	D -63		
	k -23		L -16		g -21	146401-0-01	D -80	g -61	146537-0-00	D -62	
144073-0-01	E -40		g' -23	146402-0-01	D -75		g' -64	146538-0-01	D -4		
144074-0-00	E -42		h -21	146403-0-01	D -77		h -63	146539-0-00	D -6		
							j -21	146540-0-00	D -23		

Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.
146541-0-01	D-26, 28, 48	146615-0-00	C - 8	146745-0-01	e -17	146779-0-01	d' -15	146888-0-01	E -59
146542-0-01	D -28	146616-0-00	C -13		e' -17	146780-0-01	d' -15		J' - 7
146543-0-01	D -26	146617-0-01	C -15		k -19	146781-0-01	c -12		M - 7
146544-0-00	D -48	146636-0-01	G - 3				d -12		K - 8
146547-0-00	D -27			146746-0-01	K -13		e -14		b - 9
146548-0-01	D -31	146644-0-00	B -36		g -15		e' -14		c - 8
146549-0-01	D -25	146645-0-01	B -35		g' -15		j -12		d - 8
146550-0-01	D -12~16	146647-0-01	B -51	146748-0-01	D -53		k -16		b' - 8
146554-0-01	D -36	146648-0-01	F -19	146749-0-01	d -17	146782-0-01	c -12		c' - 8
146555-0-01	D -41	146649-0-01	F -11		b' -16		d -12		d' -11
146556-0-01	D -103	146652-0-01	F -33		c -17		e -14		f - 9
146558-0-01	D -95	146653-0-01	F -34		c' -16		e' -14		f' - 9
146559-0-01	D -98	146654-0-01	F -36		j -17		k -16		m -29
146560-0-01	D -96	146700-0-01	Y -10	146750-0-01	I -15	146783-0-01	e -14	146889-0-01	E -65
146561-0-01	D -91	146704-0-01	A -77		N -17		e' -14		M - 9
146562-0-01	K - 2	146705-0-00	A -78		e -18		k -16		K' - 7
	L - 2	146706-0-01	I - 1		e' -18	146785-0-01	f -13		b -11
	g - 2		N - 1		k -20		f' -13		c -10
	g' - 2		d' - 1	146751-0-01	K -15	146786-0-01	g -14		d -10
	h - 2		e - 1		L -15		g' -14		b' -10
146563-0-01	D -88		e' - 1		g -17		h -14		c' -10
146564-0-01	D -93		k - 1		g' -17	146787-0-01	b -14		d' -13
146565-0-01	D -94				h -17		c -13		f -11
146566-0-01	D -92	146708-0-00	A -68	146754-0-01	E -45		d -13		f' -11
146577-0-01	D -51	146709-0-00	A -67	146759-0-01	J -16		d' -16		m -31
146578-0-01	I -14	146710-0-01	K -53~58		I' -23		e -15	146890-0-01	J - 1~ 5
	K -14		L -56~61	146760-0-01	J -21		e' -15		I' - 1~ 5
	N -16	146712-0-01	A -42		I' -25		g -18	146892-0-01	J - 4
	d' -20	146713-0-01	A -29, 30	146761-0-01	J' -12~20		g' -18		I' - 4
	e -19	146716-0-01	J -24		M -16~24		h -18	146893-0-01	M - 2~10
	e' -19		I' -28	146762-0-01	J' -18		j -13		J' - 2~10
	g -16		n -76		M -22		k -17	146894-0-01	M - 5
	g' -16	146717-1-01	A -64	146763-0-01	g -58~63		m -33		J' - 5
	k -21	146718-0-01	A -34		g' -61~66		n -57	146895-0-01	M' - 3~ 9
		146719-0-01	I' - 8		h -60~65				N - 7~13
146580-0-01	E -38		M -11		n -50~55	146788-0-01	b' -13	146897-0-01	M - 6
146581-0-01	E -35	146724-0-01	B -44	146765-0-01	a -12		c -13		N -10
	C -38	146725-0-01	B -70	146771-0-01	b - 1, 2		f -14	146898-0-01	I - 5~11
146582-0-01	E -50	146726-0-01	B -64		d' - 3, 4		f -14	146900-0-01	I - 8
146584-0-01	E -53	146730-0-01	B -80	146773-0-01	c - 1, 2	146789-0-01	E -67	146902-0-01	c - 3~11
146585-0-01	E -48		J -23		d - 1, 2	146790-0-01	f -18		d - 3~11
146586-0-01	E -54		I' -27		e - 4, 5		f' -18		m -24~32
146587-0-02	K -16~47	146731-0-01	B -80		e' - 4, 5	146791-0-01	f -19	146903-0-01	c - 6
	L -16~47		J -23		g - 5, 6		f' -19		d - 6
	g -21~52		I' -27		g' - 5, 6	146793-0-01	a - 2		m -27
	g' -23~54		M -27		h - 5, 6	146883-0-01	M - 1	146904-0-01	e - 7~13
	h -21~52		J' -22		j - 1, 2		N - 4		e' - 7~13
146592-0-01	K -46	146732-0-01	B -80		k - 6, 7		j - 3	146905-0-01	e -10
	L -46		J -23		m -36, 37		k - 4		e' -10
	g -51		M -27		n -63, 64	146884-0-01	E -58~66	146906-0-01	j - 5~11
	g -53		M -11			146886-0-01	E -61		k - 9~15
	h -51	146733-0-01	B -80	146775-0-01	b' - 1, 2	146887-0-01	E -62	146907-0-01	j - 8
146593-0-01	P -28	146734-0-01	I -12		c - 1, 2		I' - 7		k -12
146594-0-01	P -27	146735-0-01	I -12		f - 1, 2		J - 3	146914-0-01	D -101, 102
146596-0-01	J' -19		N -14		f' - 1, 2		I' - 3	146924-0-00	A -30
	M -23	146736-0-01	I -12	146777-0-01	b -16		J' - 4	146926-0-01	F -22
146597-0-01	J' -16	146737-0-01	K -12		c -15		M - 4	146929-0-01	F -40
	M -20		L -12		d -16		M - 5	146963-0-01	b - 4~12
146598-0-01	J' -15	146738-0-00	H - 1~ 4		d' -18		N - 9		d' - 6~14
	M -19	146739-0-00	H - 3		e -20		K - 4	146964-0-01	b - 7
146599-0-01	J' -12	146740-0-00	H - 1		e' -20		b - 6		d - 9
	M -16		b -18		g -20		c - 5	146965-0-01	b' - 3~11
146602-0-01	C -40		d' -23		h -20		d - 5		c' - 3~11
146603-1-01	C 21~27, 44~49	146741-0-00	D -42		j -15		b' - 5		f - 4~12
146611-1-01	I -17~29	146742-0-01	I - 2		k -22		c - 5		f' - 4~12
	N -19~31		N - 2		m -35		d' - 8	146966-0-01	b - 6
	d' -33~45		d' - 2		n -56		e - 9		c - 6
	e -22~34		e - 2				e' - 9		f - 7
	e' -22~34		e' - 2				f - 6		f' - 7
	f -26~38		k - 2	146778-0-01	b' -15		f' - 6	146974-0-01	A -20
	f' -26~38				c -15		j - 7	146974-0-02	A -20
	k -24~36	146744-0-01	D -49		f -16		k -11	146974-0-03	A -20
		146745-0-01	I -13		f' -16		m -26	146974-0-04	I - 3
146614-0-01	C -10		N -15	146779-0-01	b -13			146974-0-05	I - 3

Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.	Parts No.	Ref. No.
146974-0-06	I - 3	147454-0-01	n - 1	148030-0-01	b' -12	148984-0-01	e -42	150868-0-01	p - 4
146974-0-07	J - 7	147473-0-01	N'10~21	148031-0-01	c' -12		e' -42	150869-0-01	p -15~23
146974-0-08	J - 7		m -10~21	148033-0-01	C -43		f -25	150871-0-01	p -18
146974-0-09	J - 7	147476-0-01	N'14	148034-0-01	C -54		f' -25	150872-0-01	p -23
146974-0-10	I' - 7		m -17				g -63	150873-0-01	p -10
146974-0-11	I' - 7	147477-0-01	N'12	148042-0-01	Z - 5		g' -66	151017-0-01	Z - 1~ 3
146974-0-14	M-25		m -12	148084-0-01	A -25		h -65	151059-0-01	A -27
146974-0-15	M-25	147478-0-01	N'15	148174-0-00	D -55		j -23	151060-0-00	A -45
146974-0-17	J' -21		m -14	148281-0-01	E -39		k -44	151173-0-01	J - 9~12
146974-0-19	K - 4	147479-0-01	N'19	148294-0-01	C -47		m -46		I' -13~16
146974-0-20	L - 4		m -19		C -55		n -52	151200-0-11	B -14
146974-0-21	M-10	147480-0-01	N' 1		I -26			151200-0-14	I - 4
146974-0-25	N - 3		m - 1		N -28	148991-0-01	A-35~39,83	151200-0-09	J - 6
146974-0-42	N'26	147483-0-01	N'24		d' -42	148993-0-01	b -22~27	151200-0-09	I' - 6
146974-0-43	N'26	147484-0-01	N' 8		e -31		c -18~23	151200-0-14	J' - 1
146974-0-44	N'26		m - 7		e' -31		d -20~25	151200-0-14	M - 1
146974-0-54	A -20	147485-0-01	N'23		f -35		b' -17~22	151200-0-14	N - 6
146974-0-56	K'13	147521-0-01	G -19~33		f' -35		c' -19~24	151200-	Y -22
146974-0-58	N'26	147522-0-00	G -25		k -33		d' -27~32	151200-0-14	e - 6
146975-0-04	c -16	147523-0-01	G -26~29				e -37~42	151200-0-14	e' - 6
146975-0-05	c -16	147527-0-01	G -30	148311-1-01	K' - 1~ 9		e' -37~42	151200-0-19	f - 3
146975-0-10	c' -25	147528-0-00	G -31	148313-0-01	K' - 5		j -18~23	151200-0-19	f' - 3
146975-0-12	d' -48	147529-0-00	G -32	148314-0-01	K'10~12		k -39~44	151200-0-14	k - 8
146975-0-13	d' -48	147629-0-01	B -12, 13	148348-0-01	Z - 4~ 7		m -41~46		
146975-0-15	e - 3	147631-0-01	B -13	148352-0-01	K'10~12			151201-0-01	a -10, 13
146975-0-16	e' - 3	147672-0-01	N - 4	148354-0-01	K'11	148995-0-01	f -20~25	151201-0-02	F -24, 43
146975-0-17	f -17		Q -11	148355-0-01	K'12		f' -20~25	151201-0-03	F -18, 42
146975-0-18	f' -17		m - 4	148366-0-01	m - 8	149170-0-01	C -44	151201-0-04	F -44, 45
146975-0-19	g - 4		n - 3	148367-0-01	m - 8		I -24	151206-0-11	b - 3
146975-0-20	g' - 4	147698-0-02	Y -25	148369-0-01	N' - 5		N -26		d' - 5
146975-0-21	h - 4	147710-0-01	J - 8~21		Q -10		d' -40	180323-0-01	C -11, 12
146975-0-23	j -16		I' -12~25		m - 5		e -29	180814-0-01	P -31~37
146975-0-31	k - 3	147712-0-01	J -17		n - 2		e' -29	181031-0-01	P - 1~ 7
146975-0-32	k - 3		I' -21	148370-0-01	m -38		f -33	181969-0-03	A -72, 73
146975-0-33	k - 3	147713-0-01	J -15	148371-0-01	m -39		f' -33		D -29, 30
146975-0-39	b -17		I' -19	148372-0-01	E -20		k -31	181995-0-02	G -23, 24
146975-0-41	e - 3	147738-0-00	H - 2	148387-0-01	Q - 7				K -22, 23
146975-0-62	e - 3		b -19		n -18	149171-0-01	C -14		L -22, 23
146975-0-63	e' - 3		d' -24	148388-0-01	Q - 3	149173-0-01	Y - 6		g -27, 28
146975-0-64	b' -23	147759-0-01	E - 1		n - 9	149183-0-01	n -69		g' -29, 30
146975-0-65	d -15	147773-0-01	D -26, 28	148389-0-01	Q - 6	149197-0-01	n -62		h -27, 28
146975-0-66	m-23	147828-0-01	L -13		n -12	149193-0-01	n -61	210973-0-01	Z - 8
146975-0-67	m-23		h -15	148390-0-01	Q - 4	149194-0-01	n -59	508693-0-01	G -35
146975-0-68	d' -48	147832-0-01	L -14		n -10	149195-1-01	n -67~74	147952-0-01	e - 7~13
146975-0-69	e - 3		h -16	148391-0-01	Q -12	149197-0-00	n -14		e' - 7~13
146975-0-72	n -75	147848-0-02	B -56		n - 4	149202-0-01	n -16~44	148120-0-00	B -34
146975-0-81	p - 3	147919-0-01	Z -13	148395-0-01	Q - 2~ 6	149203-0-01	n -20	150307-0-00	B -37
146975-0-82	p - 3	147919-0-02	Z -14		n - 8~12	149566-0-02	K -27	151224-0-01	P -18~37
147049-0-01	a -13	147933-0-01	K -32				L -27	151227-0-02	Q - 1~14
147049-0-02	F -43		L -32	148401-0-01	d' -19		g -32	146732-0-01	J -22
147049-0-03	F -42		g -37	148402-0-01	d' -21		g' -34	146736-0-01	N -14
147049-0-04	F -45		g' -39	148425-0-01	B -29		h -32	152186-0-21	f - 3
147148-0-01	N'18		h -37		C - 1		n -25		f - 3
	m -18	147934-0-01	C -51, 52		C -30	149886-0-00	D -106		
147211-0-01	G -16	147935-0-01	I' -10, 11		E -34	149887-0-01	D -107		
147217-0-00	D -34		M -13, 14	148427-0-01	E -30~34	149888-0-00	D -60		
147318-0-00	D -10	147936-0-01	c' -17, 18	148428-0-00	E -33	150160-0-02	Z -15		
	G -14		d -18, 19	148430-0-01	Y -16	150161-0-02	Z - 1		
147344-0-01	F - 1		g' -21, 22	148431-0-01	Y -19	150339-0-01	J -12		
147361-0-00	A -50		f' -39~40	148432-0-01	Y -20		I' -16		
147362-0-00	D -33	147937-0-01	I -30, 31	148447-0-00	Z -12	150553-0-02	K -47		
147363-0-00	D -17		N -32, 33	148782-0-01	C -56		L -47		
147415-0-02	B -82		d' -46, 47	148832-0-01	d' -15		g -52		
147433-0-01	L - 5~11		e -35, 36	148834-0-01	D -106		g' -54		
147439-0-01	h - 7~13		e' -35, 36	148925-0-01	K'14		h -52		
147440-0-00	L -53		f -39, 40	148984-0-01	A -83		n -44		
	h -58		k -37, 38		K -58	150556-0-02	K -52		
147449-0-01	N' 7				L -61		L -52		
147450-0-01	N' 7	147943-0-01	A -101		b -27		g -57		
147451-0-01	N' 7				c -23		g' -60		
147452-0-01	N' 7	148008-0-00	b -18~21		d -25		h -57		
147454-0-01	N' 6		d' -23~26		b' -22		n -47		
	Q - 9	148009-0-00	b -20		c' -24	150739-0-01	n -70		
	m - 6		d' -25		d' -32	150867-0-01	p - 4		

