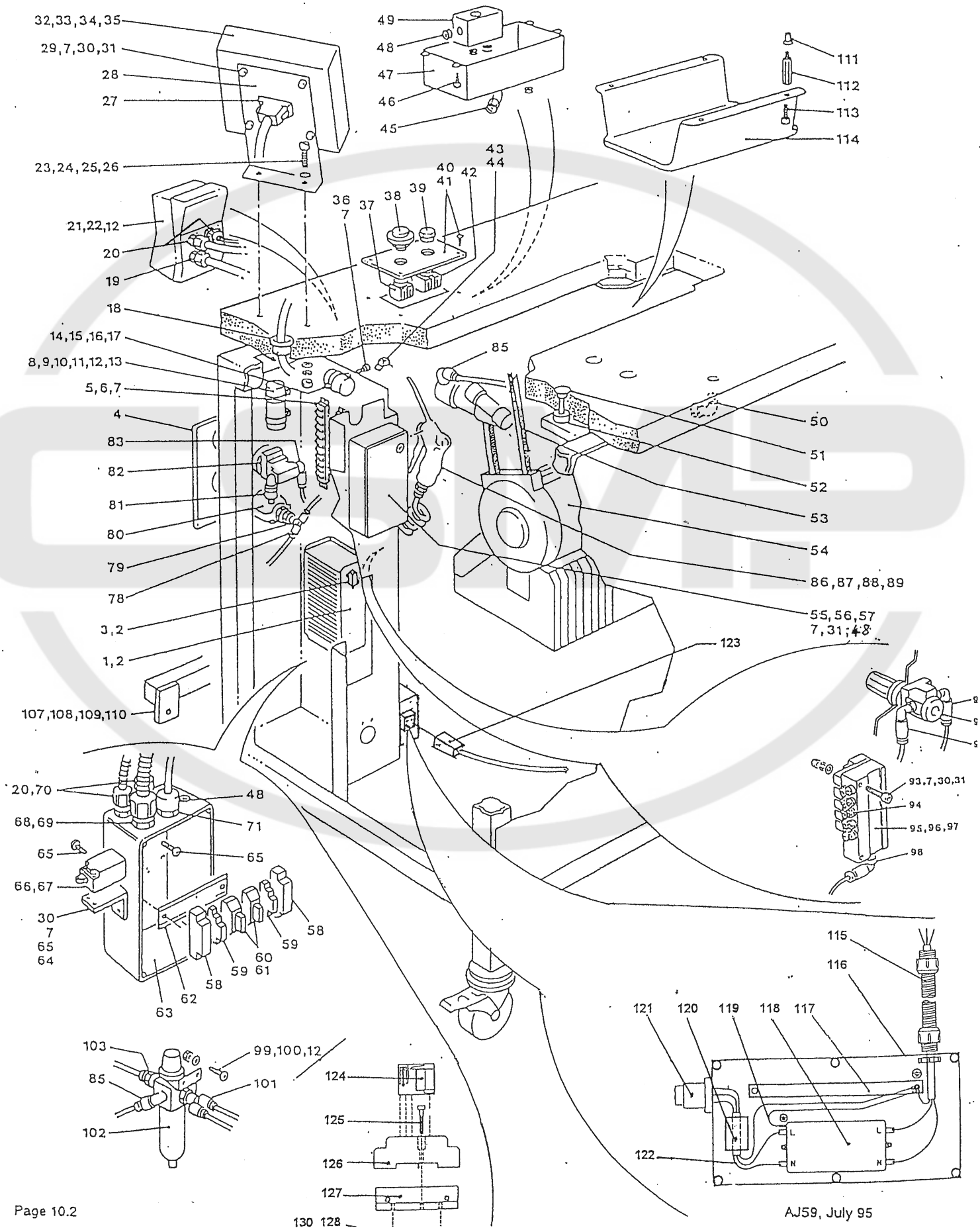
10.1 ELECTRICAL AND PNEUMATIC COMPONENTS



10.1 ELECTRICAL AND PNEUMATIC COMPONENTS

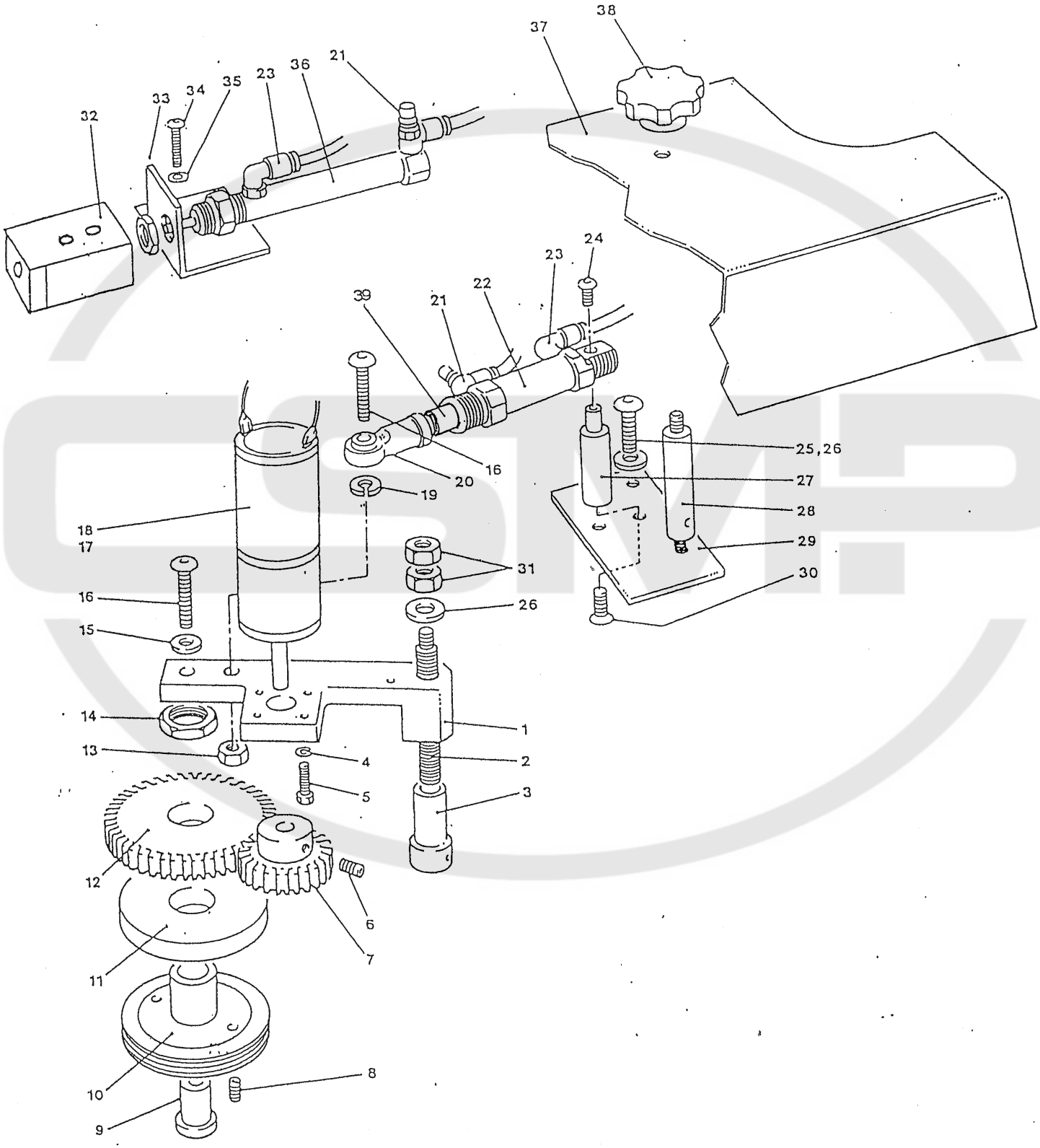
ITEM	CODE No.	DESCRIPTION	QTY
ELECTRICAL COMPONENTS			
1	049004	Power Supply Wier SMLC 75R03	1
2	020840	M3x5 Cap Hd Screw	5
3	049008	Metal Clad Resistor 5Ω	1
4	046500	On/Off Legend Plate	1
5	046795	Terminal Strip	3
6	020850	M4x12 Cap Hd Screw	4
7	021086	M4 Nut	21
8	063932	Capacitor	1
9	063934	Capacitor Clamp	2
10	—	M5x30 Butt Hd Screw	2
11	029111	Spacer	2
12	021098	M5 Plain Washer	6
13	021087	M5 Nut	2
14	048948	Capacitor	1
15	048947	Capacitor Clamp	1
16	020843	M3x12 Cap Hd Screw	1
17	021085	M3 Nut	1
18	025490	Grommet	3
19	058614	PG 11 Conduit Fitting, 16mm	1
20	058612	PG 13.5 Conduit Fitting, 16mm	4
21	—	EFKA Starter Box	1
22	—	M5x20 Cap Hd Screw	2
23	020871	M6x50 Cap Hd Screw	2
24	021099	M6 Plain Washer	4
25	021088	M6 Nut	2
26	021028	M6 Spring Washer	2
27	046895	External Harness/D Connector	1
28	046565	Program Box Mounting Brkt	1
29	020851	M4x16 Cap Hd Screw	4
30	021092	M4 Plain Washer	10
31	021026	M4 Spring Washer	10
32	046735	AMF Reece Controller	1
33	046575	Controller End Plate	2
34	058140	Controller Facia	1
35	048901	EPROM	1
36	—	M4x8 Cap Hd Screw	1
37	030957	Contact Block N/C	2
38	030922	Illuminated Stop Button	1
39	048460	Start Button	1
40	048455	Stop/Start Plate	1
41	020948	No6x5/8" Pan Hd Screw	4
42	030956	Contact Block N/O	1
43	058630	Cable Tie Mounting Saddles	6/9
44	020905	No8x1/2" Pan Hd Screw	10
45	058654	90° Conduit Connector, 20mm	1
46	020949	No6x5/8" Csk Screw	4
47	058626	Emergency Stop and Start Enclosure	1
48	M0073	Rubber Grommet	5
49	058624	Emergency Stop Enclosure	1
50	058646	90° Conduit Connector, 16mm	1
51	021068	Motor Mounting Bolt	3
52	052016	Anti-Vibration Mount	3
53	046955	Drive Belt	1
54	046730	EFKA Motor	1
55	058700	Drive Control Box	1
56	058562	PCB Support	4
57	—	M4x10 Butt Hd Screw	4
58	058616	RS Delay on Energiser	2
59	058620	3 Way Bus Bar Connector	3
60	058618	Finder 240V Relay	2
61	058622	Relay Mounting Base	2
62	058604	Din Rail	1
63	058602	Mains, Relay, Delay Enclosure	1
64	058636	Door Switch Bracket	1
65	—	M4x12 Butt Hd Screw	6
66	058632	Roller Plunger Safety Switch	1
67	058652	Cable Gland	1
68	058610	Flexi Conduit Connector, 20mm	1
69	058608	Conduit, 20mm	4.74m
70	058606	Conduit, 16mm	4.30m
71	046806	Dome Top Cable Gland	1
		Not Illustrated	
72	046900	Harness LCD	1
73	046880	Harness Speed/ Plug	1
74	046885	Internal Harness D Connector	1
75	049005	Multiway Connector	1
76	049006	Multiway Connector Cover	1
77	048996	Polarising Pin (Power Supply Con.)	3
PNEUMATIC COMPONENTS			
78	032155	'T' Connector	1
79	020727	Air Conector	1
80	046865	Pressure Gauge	1
81	020719	Elbow, 1/4"x8mm	1
82	032120	Air Valve On/Off	1
83	032105	Elbow, 6mm	1
84			
85	032100	Elbow, 1/8"x4mm	2
86	046910	Blow Gun	1
87	032080	Straight Fitting	1
88	062186	Coil Tube	1
89	020879	M4x40 Cap Hd Screw	1
90	060325	In-Line Flow Control	1
91	046801	Elbow, 6mm	2
	032095	Elbow, 4mm	4
92	060305	Pressure Regulator	3
93	020852	M4x25 Cap Hd Screw	2
94	046847	Push-In Fitting, 4mm	10
95	048401	Valve Manifold Assembly	1
96	058006	Valve Manifold	1
97	060390	Valve	5
98	032105	Elbow, 6mm	1
99	020982	M5x10 Butt Hd Screw	2
100	021087	M5 Nut	2
101	046800	'Y' Connector	1
102	048045	Filter/Regulator	1
103	032108	Straight Fitting, 6mm	1
		Not Illustrated	
104	048480	Tube, 4mm	As req'd
105	048481	Tube, 5mm	As req'd
106	048482	Tube, 6mm	As req'd
LIFTING BAR AND PFAFF GUARD			
107	—	Lifting Bar	1
108	—	M8x50 Cap Hd Screw	2
109	021058	M8 Nut	2
110	021093	M8 Plain Washer	2
111	046946	M4v Rivnut	4
112	M0079	M4 Spacer	4
113	020878	M4x10 Cap Hd Screw	4
114	—	PFAFF Guard	1

10.1 ELECTRICAL AND PNEUMATIC COMPONENTS.

ITEM	*CODE No.*	*DESCRPITION*	*QTY*
ELECTRICAL COMPONENTS			
115	058696	Filter to Efka Harness	1
116	058688	Enclosure	1
117	058690	Clamp Bar	1
118	058686	Mains Filter	1
119	058695	Earth Lead	1
120	058678	10mm ID Ferrite	1
121	058681	7 Way Straight Coupling	1
122	058694	Connector to Filter Harness	1
123	058679	7 Way Top Entry Hood	1
124	058745	24v DC Relay	1
125	020846	M3 x 20 Cap Hd Screw	1
126	058750	Relay Base	1
127	058735	Resistor Mounting Bkt	1
128	058755	10Ω 50W Resistor	1
129		M3 x 8 Bttn Hd Screw	2
130	058760	27Ω 50W Resistor	1
		Not Illustrated	
131	058736	Diode	4
132	058680	5/6mm Dia. Ferrite	2
133	058682	6/7mm Dia. Ferite	3
134	058684	13 mm Dia. Ferrite	1

CSMP

10.2 CONTINUOUS DRIVE ASSEMBLY

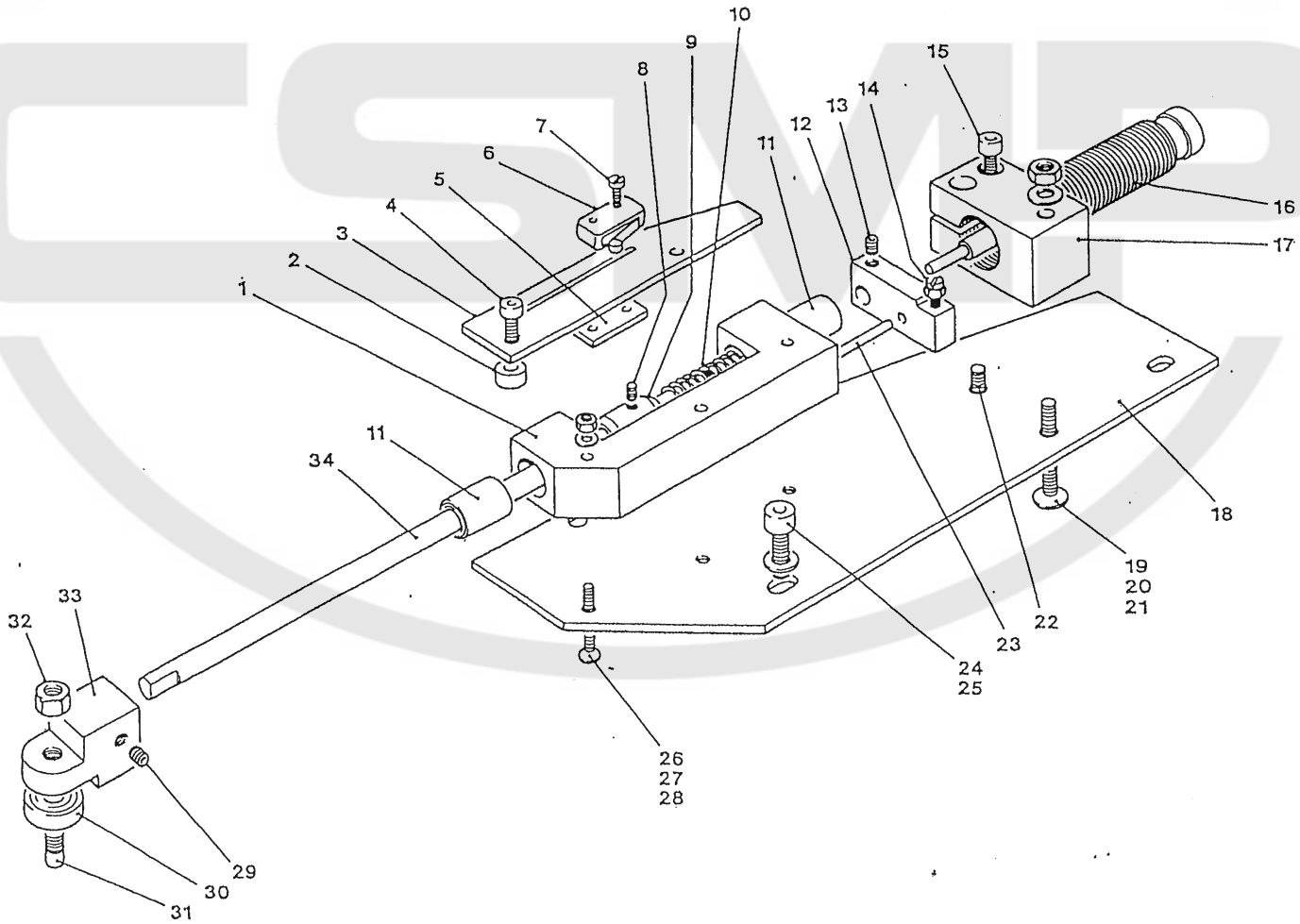


10.2 . CONTINUOUS DRIVE ASSEMBLY

ITEM	CODE No.	DESCRIPTION	QTY
1	046626	Drive Arm	1
2	046935	Drive Cover Stud	1
3	030511	Drive Arm Pivot	1
4	021025	M3 Spring Washer	4
5	—	M3x12 Hex Hd Screw	4
6	020922	M5x5 Cup Point Grub Screw	1
7	046623	Motor Gear	1
8	020922	M5x5 Grub Screw	2
9	025280	Pivot Spindle	1
10	029010	Drive Wheel	1
11	046624	Spacer	1
12	046622	Drive Wheel Gear	1
13	021088	M6 Nut	1
14	029030	Locknut	1
15	021099	M6 Plain Washer	1
16	020992	M6x25 Butt Hd Screw	2
17	046645	Motor	1
18	046650	Gearbox (35:1)	1
19	021028	M6 Spring Washer	1
20	028210	Rod End Bearing	1
21	032045	Flow Control	2
22	028192	Jig Drive Cylinder	1
23	032095	Elbow, 4mm	2
24	—	M4x6 Butt Hd Screw	1
25	—	M8x16 Butt Hd Screw	1
26	021093	M8 Plain Washer	2
27	030620	Drive Cylinder Stud	1
28	046930	Drive Cover Stud	1
29	046585	Jig Drive Base Plate	1
30	020807	M5x10 Csk Screw	1
31	021086	M8 Nut	2
32	047095	Jig Eject Block	1
33	046857	Jig Eject Bracket	1
34	020984	M5x16 Butt Hd Screw	2
35	021098	M5 Plain Washer	2
36	046952	Jig Eject Cylinder	1
37	046507	Drive Cover Guard	1
38	046525	Thumb Nut, 8mm	2
39	047090	Spacer	1

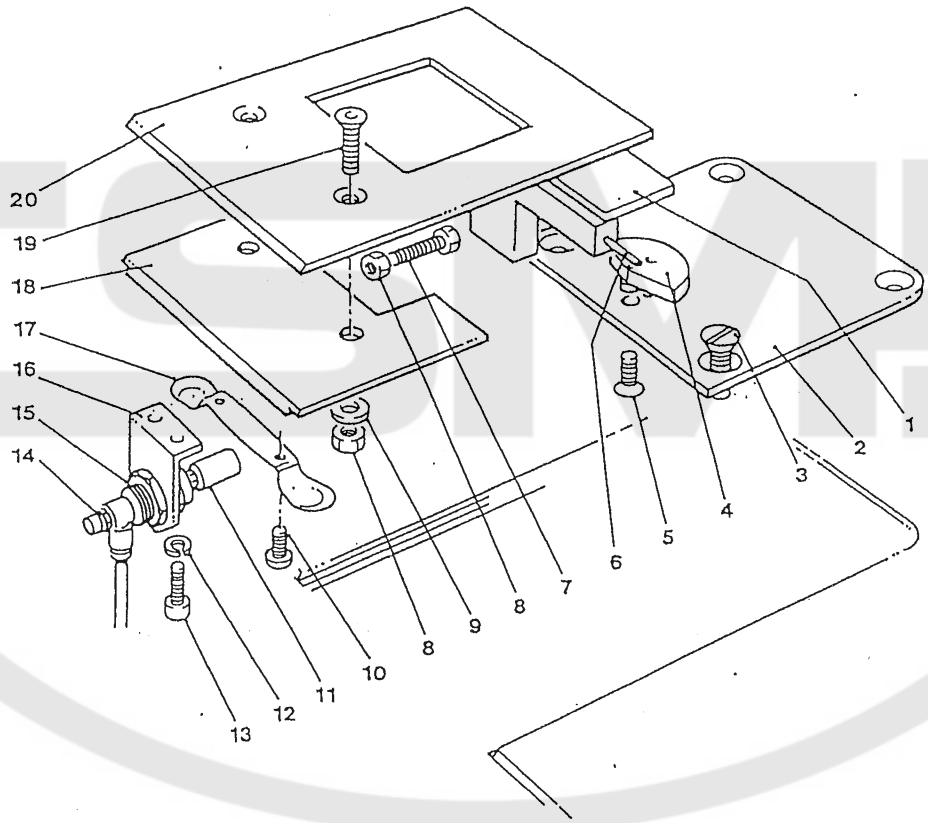
10.3 SNUBBER ASSEMBLY

ITEM	CODE No.	DESCRIPTION	QTY
1	030790	Bearing Housing	1
2	030860	Spacer	2
3	030865	Microswitch Bracket	1
4	020843	M3x12 Cap Hd Screw	2
5	030900	Microswitch Clamp	1
6	030910	Microswitch	1
7	020899	M2.5 Pan Hd Screw	4
8	020917	M3x5 Grub Screw	1
9	030835	Actuating Collar	1
10	030805	Compression Spring	1
11	030880	Bearing	2
12	030841	Sliding Block	1
13	020919	M4x5 Grub Screw	1
14	—	Nylon Screw	1
15	020856	M5x12 Cap Hd Screw	1
16	030870	Shock Absorber	1
17	030851	Support Clamp	1
18	048535	Base Plate	1
19	020809	M5x35 Csk Screw	1
20	021098	M5 Plain Washer	1
21	021087	M5 Full Nut	1
22	020807	M5x10 Csk Screw	1
23	030890	Locating Pin	1
24	020856	M5x12 Cap Hd Screw	2
25	021098	M5 Plain Washer	2
26	020801	M3x25 Csk Screw	3
27	021091	M3 Plain Washer	3
28	021085	M3 Full Nut	3
29	—	M4x8 Grub Screw	1
30	028251	Bearing	1
31	045115	Bearing Stud	1
32	021044	M5 Locknut	1
33	030802	Snubber Arm Block	1
34	030821	Snubber Arm Bar	1



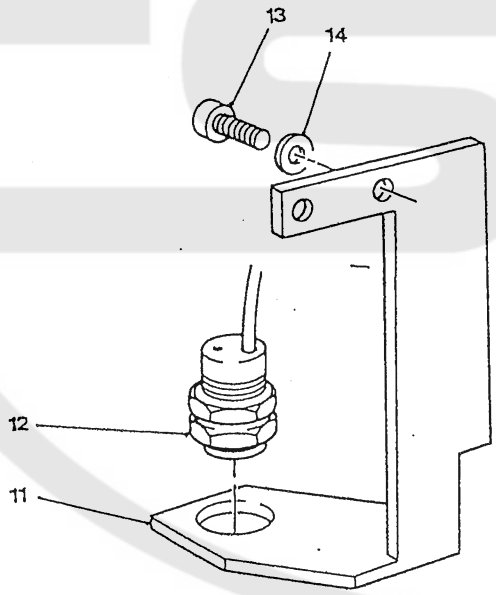
10.4 JIG FLAP

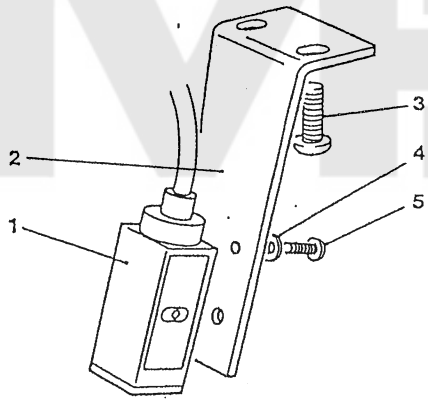
ITEM	CODE No.	DESCRIPTION	QTY	ITEM	CODE.No.	DESCRIPTION	QTY
1	046666	Jig Flap Bracket	1	11	046540	Nylon Nose	1
2	045015	Needle Plate	1	12	021025	M3 Spring Washer	2
3	054119	Needle Plate Screw	4	13	020841	M3x8 Cap Hd Screw	2
4	045020	Guide Stud	1	14	032045	Flow Control	1
5	020798	M3x6 Csk Screw	1	15	046745	Jig Flap Cylinder	1
6	040160	Throat Plate Locating Pin	1	16	046755	Jig Flap Cylinder Bracket	1
7	—	M3x16 Hex Hd Screw	1	17	046750	Jig Flap Spring	1
8	021085	M3 Nut	3	18	046760	Jig Eject Slide Plate	1
9	021091	M3 Plain Washer	2	19	020799	M3x10 Csk Screw	2
10	021073	M3x5 Pan Hd Screw	2	20	046676	Jig Flap Cover Plate	1

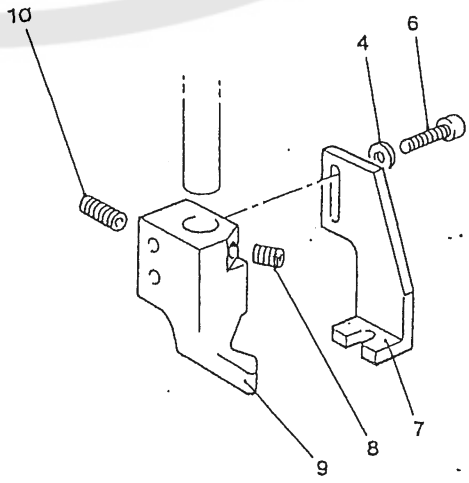


10.5 PHOTOCELL AND WIPER

ITEM	CODE No.	DESCRIPTION	QTY
PHOTOCELL ASSEMBLY			
1	051015	Photocell	1
2	045585	Bracket	1
3	020988	M6x10 Butt Hd Screw	2
4	021091	M3 Plain Washer	4
5	—	M3 Posi Rd Hd Screw (supplied with photocell)	2
WIPER			
6	020843	M3x12 Cap Hd Screw	2
7	046621	Static Wiper	1
8	020918	M4x5 Cone Grub Screw	1
9	045590	Presser Foot	1
10	020914	M4x8 Grub Screw	1
PROXIMITY SENSOR ASSEMBLY			
11	047085	Proximity Sensor Bracket	1
12	047087	Proximity Sensor	1
13	020856	M5x12 Cap Hd Screw	2
14	021098	M5 Plain Washer	2

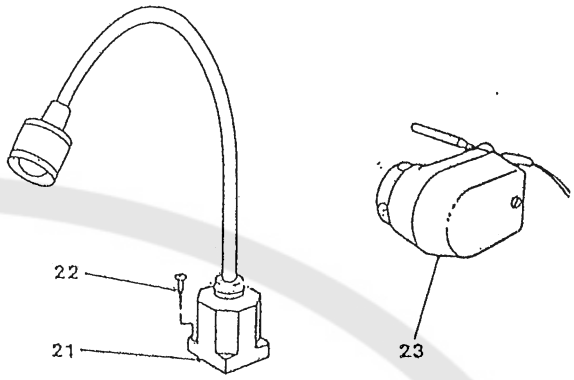


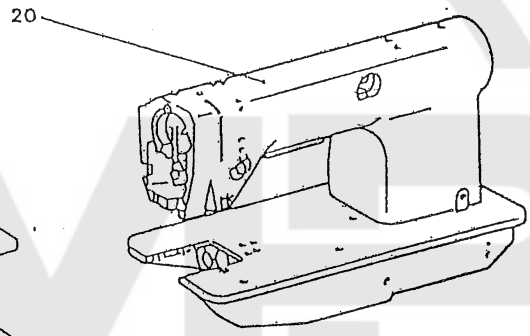


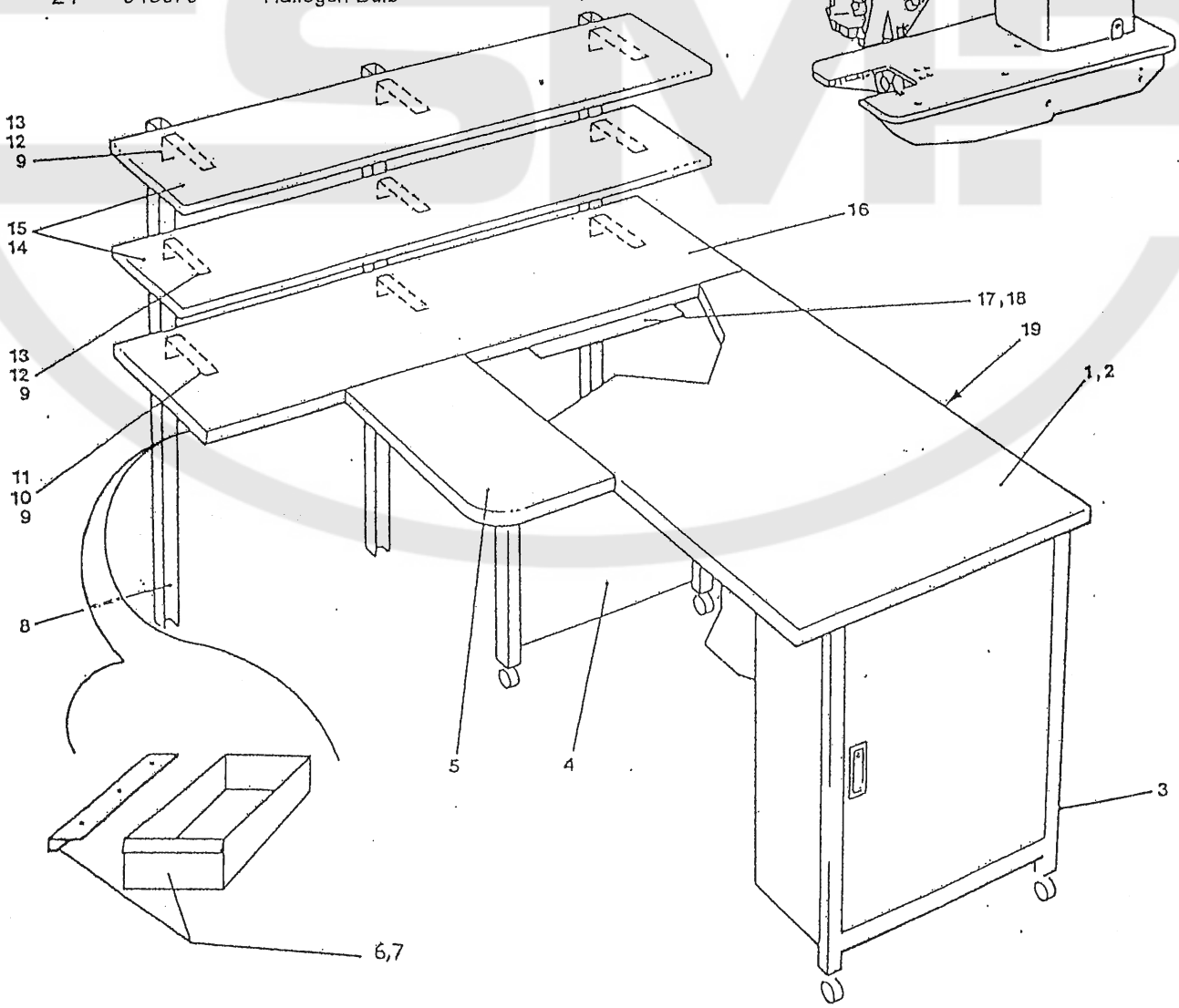


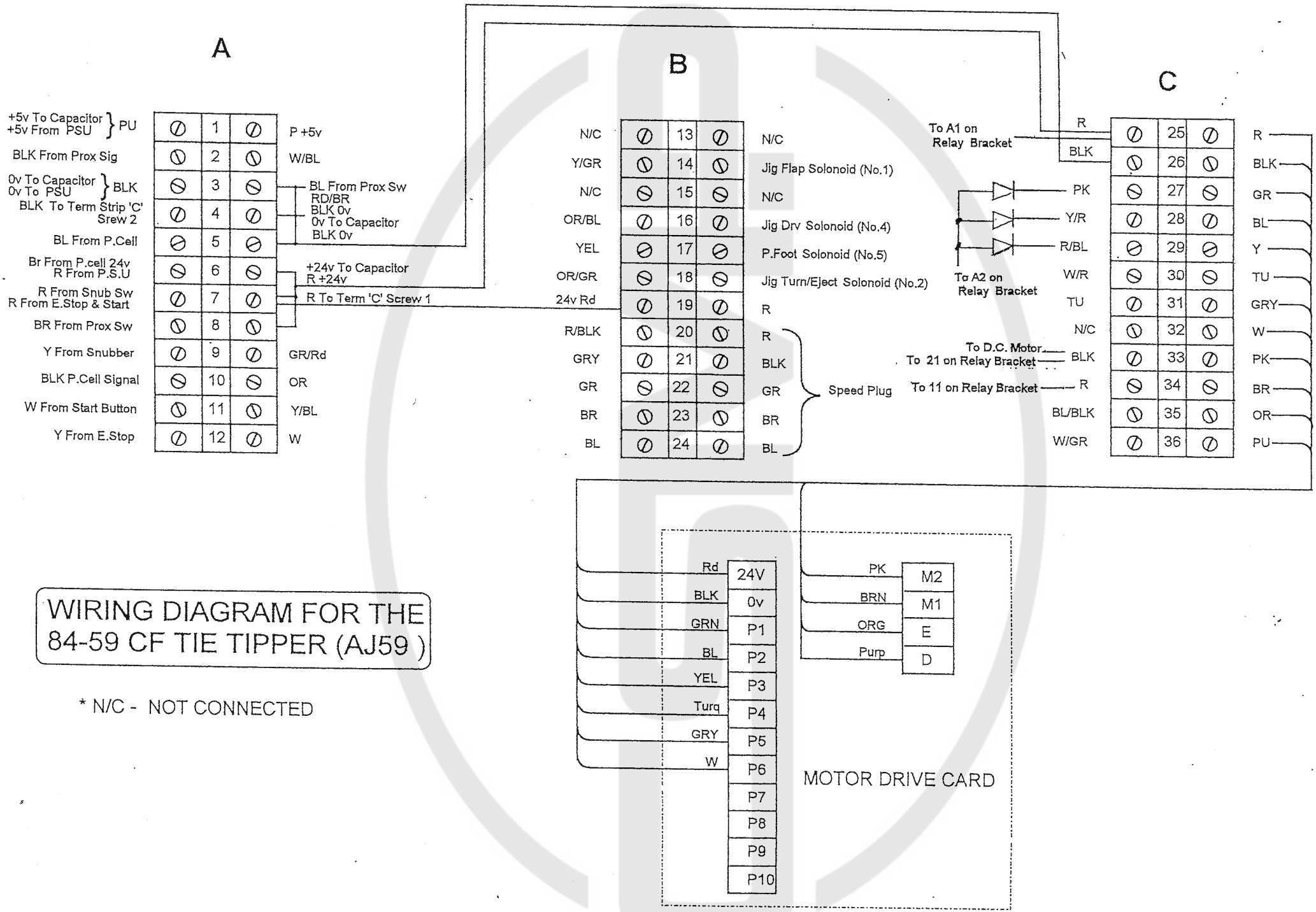
10.6 TABLE AND FRAME

ITEM	CODE No.	DESCRIPTION	QTY
1	046780	Table Top	1
2	—	No 12x1" Woodscrew	6
3	046715	Frame	1
4	046725	Side Panel	1
5	020445	Hinged Flap (Optional)	1
6	046860	Drawer and Runners	1
7	020948	No.6x5/8" Pan Hd Woodscrew	7
8	020345	Support Leg	3
9	049100	Bracket (3 Brackets Optional)	9
10	—	Coach Bolt	6
11	021093	M8 Plain Washer	6
12	021062	Clamp Nut, 10mm	12
13	—	M10x20 Hex Hd Bolt	12
14	020335	Shelf (1 Shelf Optional)	2
15	—	5/16"x1-1/4" Square Hd Coach Screw	4
16	020430	Extension (Large)	1
17	046582	Extended Flitch PLate	1
18	—	M8x30 Butt Hd Screw	6
19	046720	Rear Panel	1
20	020100	Pfaff Head	1
21	048075	Work Light Assembly	1
22	—	No.8 1-1/4"x4" Woodscrew	4
23	—	EFKA Synchroniser	1
24	048079	Hallogen Bulb	1









WIRING DIAGRAM FOR THE 84-59 CF TIE TIPPER (AJ59)

* N/C - NOT CONNECTED

PFAFF

PFAFF
Postfach 3020
D-67653 Kaiserslautern

Telefon: (0631) 200-0
Telefax: (0631) 17202
Telex: 45753

Gedruckt in der BRD
Printed in Germany
Imprimé en R.F.A.
Impreso en la R.F.A.
Stampato in R.F.G.
отпечатано ФРГ

CSMP

PFAFF

481-G
483-G

Teileliste
Parts list
Liste de pièces
Lista de piezas

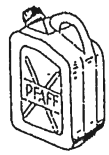
296-12-17306
dtscn./engl./franz./span. 12.93

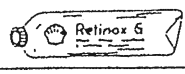
CSMP

Contents
Table des matières
Contenido

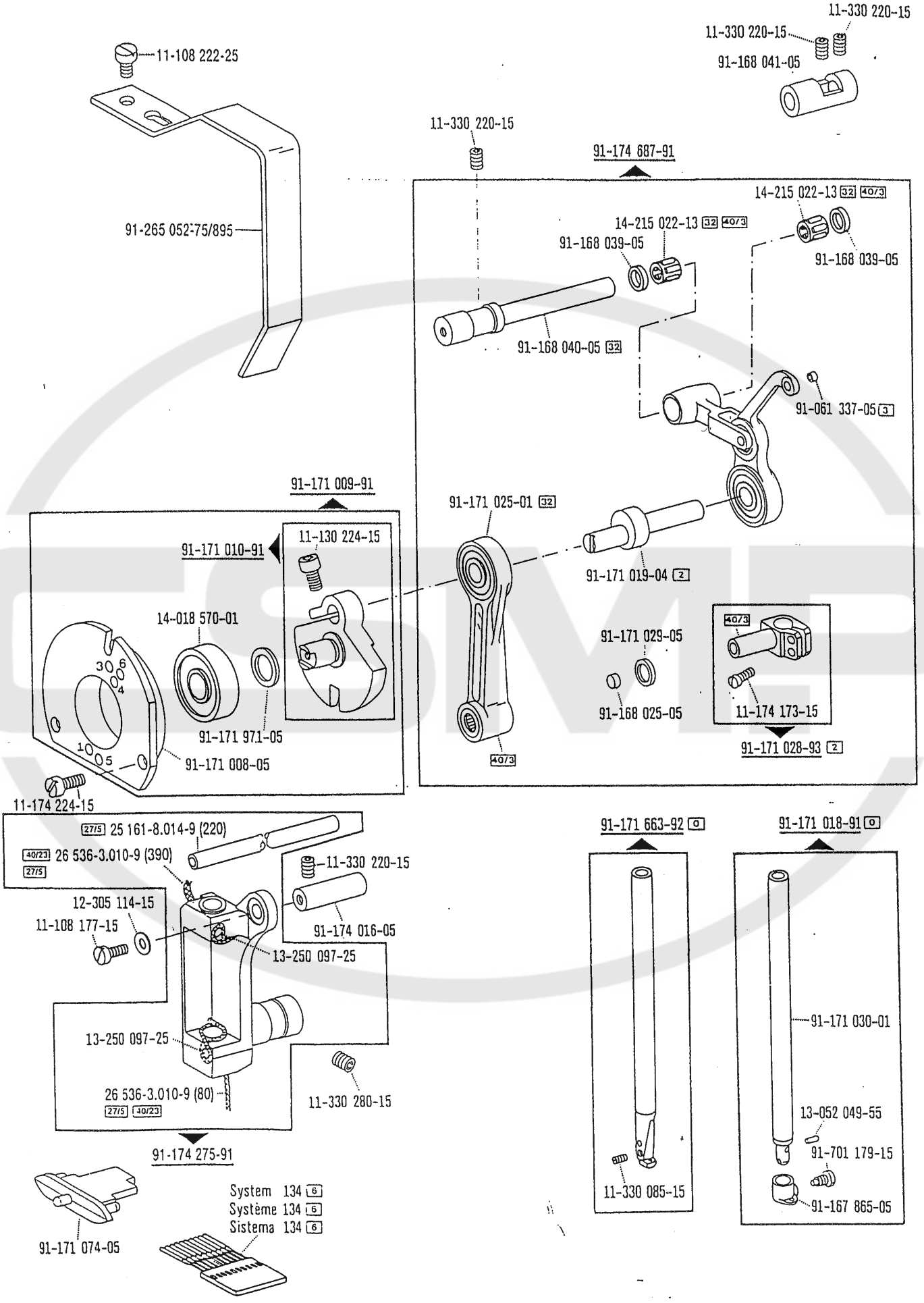
PFAFF 481-G ; 483-G

Schmiermittel
Lubricants
Lubrifiants
Lubricantes PFAFF 481-G ; 483-G

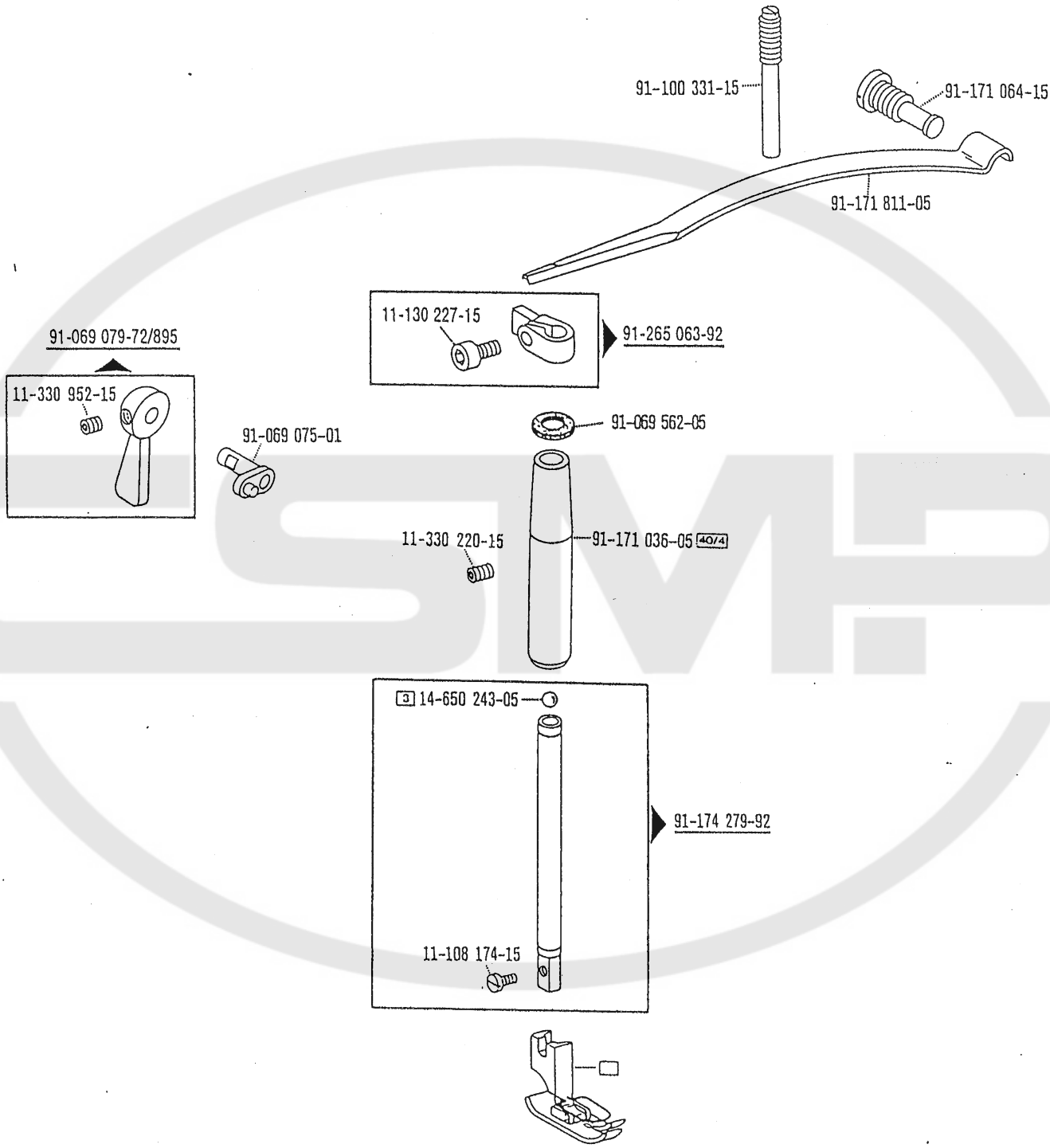
Öl Oil Huile Aceite	Mittelpunkts-Viskosität bei: Mean viscosity at: Viscosité moyenne à: Viscosidad media a:		Dichte bei: Density of: Densité à: Densidad a:		Bestellnummer für Behälter mit: Part number for can with: Numéro de commande pour récipients avec: Número de pedido para recipientes con:			
	°C	mm²/s	°C	g/cm³ (g/ml)	Liter Litre Litros			
280-1-120 105	40	10,0	15	0,874	40(ml)	91-027 974-91		
					0,25			
					1		91-027 975-91	
					5			91-027 976-91
					10			91-027 977-91
280-1-120 122	20	41,5	15	0,849	40(ml)	91-027 624-91		
					0,25			
					1		91-129 452-91	
					5			91-129 456-91
					10			91-129 541-91
280-1-120 144	40	22,0	15	0,865	80(ml)	91-027 631-91		
					0,25		91-129 916-91	
					1		91-129 917-91	
					5			91-129 919-91
					10			91-129 920-91
280-1-120 217			21	0,810	1		91-129 941-91	

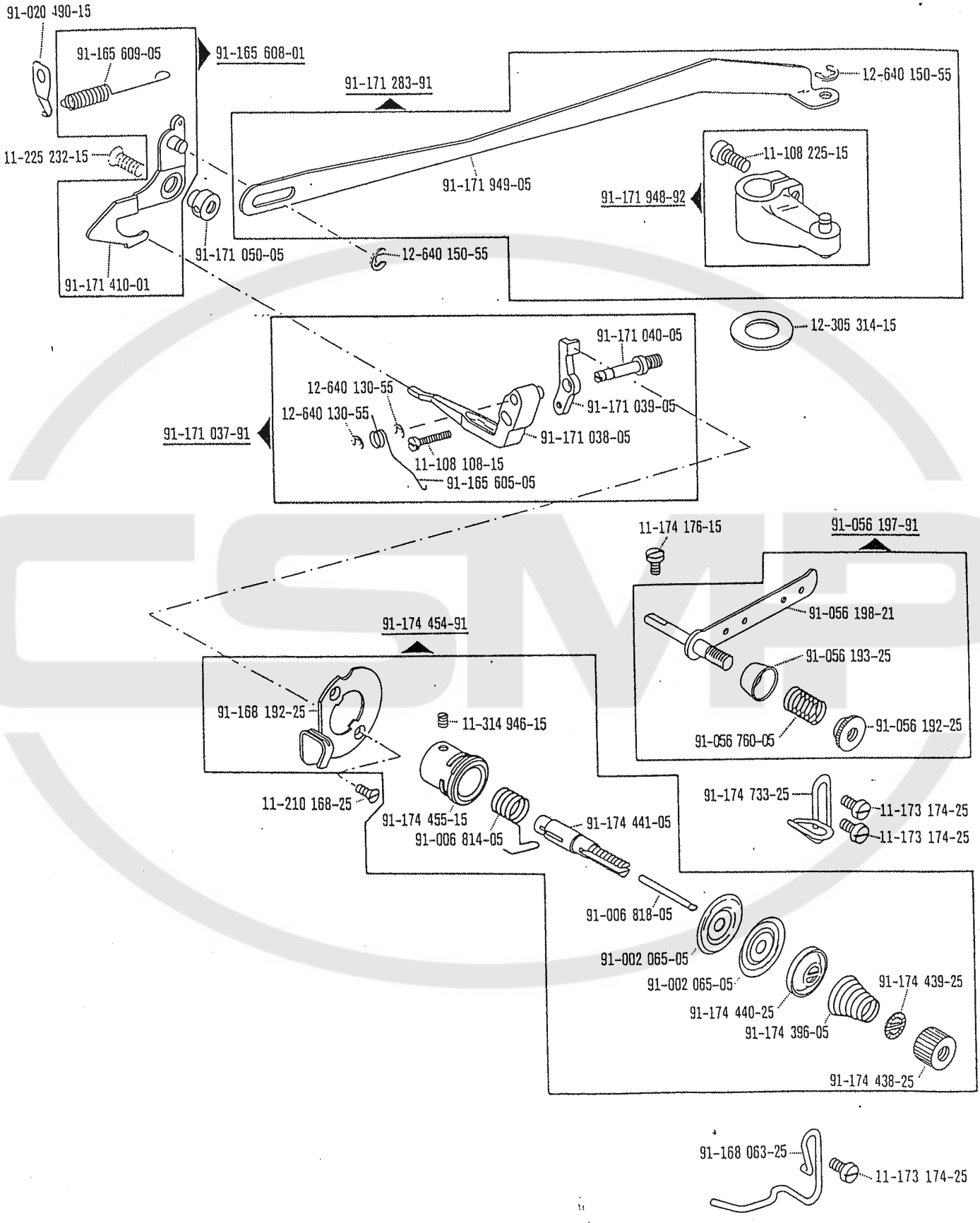
Fett Grease Graisse Grasa	Penetration Penetration Pénétration Penetración	Tropfpunkt Drip-point Point de suintement Punto de goteo	Bestellnummer für Behälter mit: Part number for can with: Numéro de commande pour récipients avec: Número de pedido para recipientes con:			
	mm/10	°C	kg			
280-1-120 205			0,5			
			1			280-1-120 205
280-1-120 243	375-405	150	0,5	280-1-120 243		
			1			
280-1-120 247	220-250	185	0,5			
			1		280-1-120 247	

69/2	Faltenbreite bei Bestellung angeben. Please state pleat widht on order. Indiquer la largeur des plis à la commande. Indíquese en los pedidos la anchura del pliegue.
81/3	Verwendung je nach Bedarf. To be used as required. Utilisation en fonction du besoin. Utilización, según sea necesario.
81/4	Verwendung nur bei Bedarf To be used only if required. Utilisation uniquement suivant besoin. Utilización, sólo cuando se necesario.
90/10	Für Maschinen ohne -900/.. For machines without -900/.. Pour machines sans -900/.. Para máquinas sin -900/..
90/19	Wartungseinheit -925/03 erforderlich. Air filter / lubricator -925/03 required. Conditionnneur d'air comprimé -925/03 requis. Requiere el grupo acondicionador del aire comprimido -925/03.
90/51	Großer Greifer. Large sewing hook. Grand crochet. Garfio grande.
90/52	Kleiner Greifer. Small sewing hook. Petit crochet. Garfio pequeno.
95/8	X-Wert bei Bestellung angeben. Please state x-values on order. Indiquer les valeurs "x" à la commande. Indíquese en los pedidos los valores "x".
96	Länge angeben. State length. Préciser longueur. Indiquese la largura.

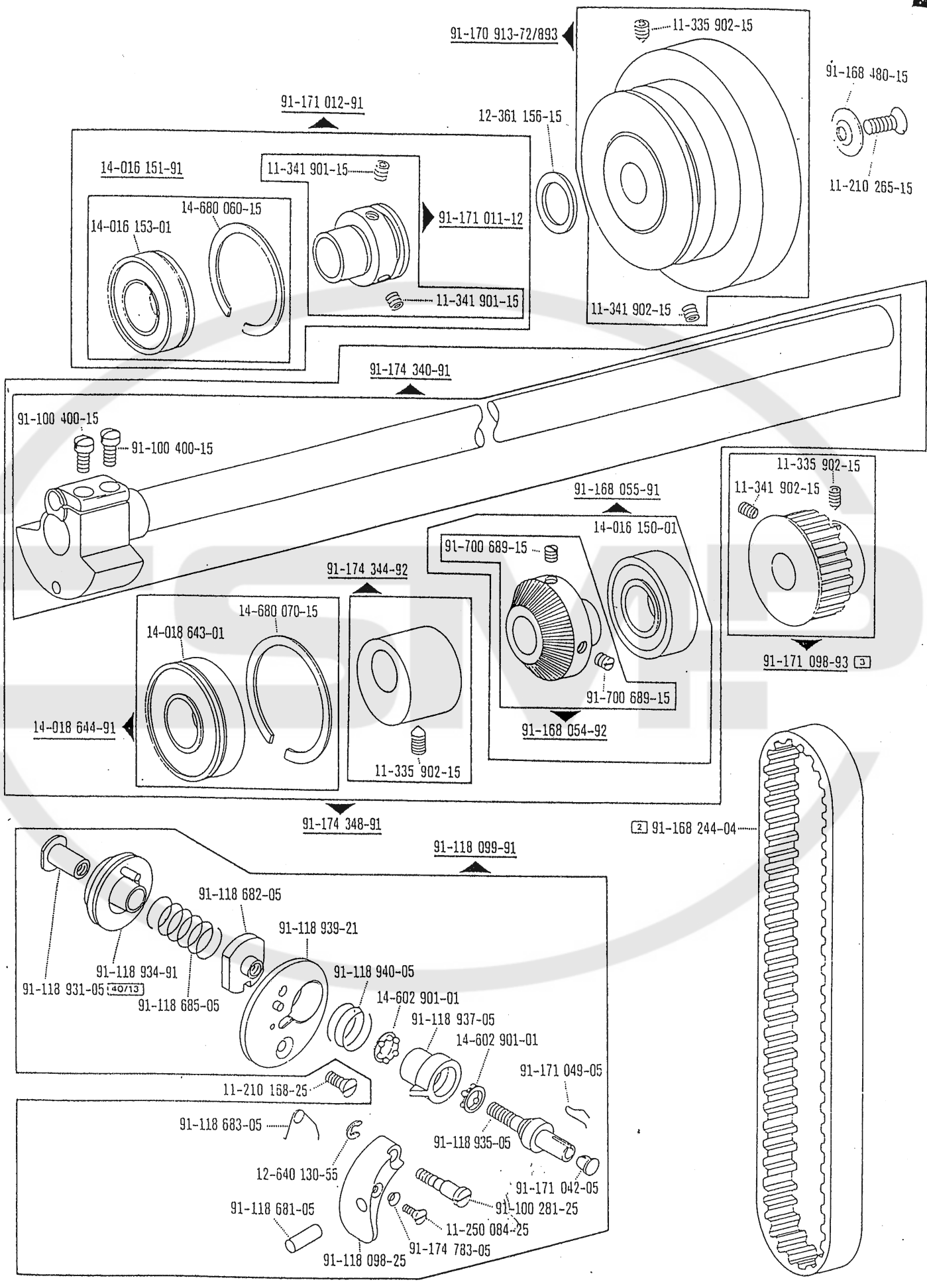


siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

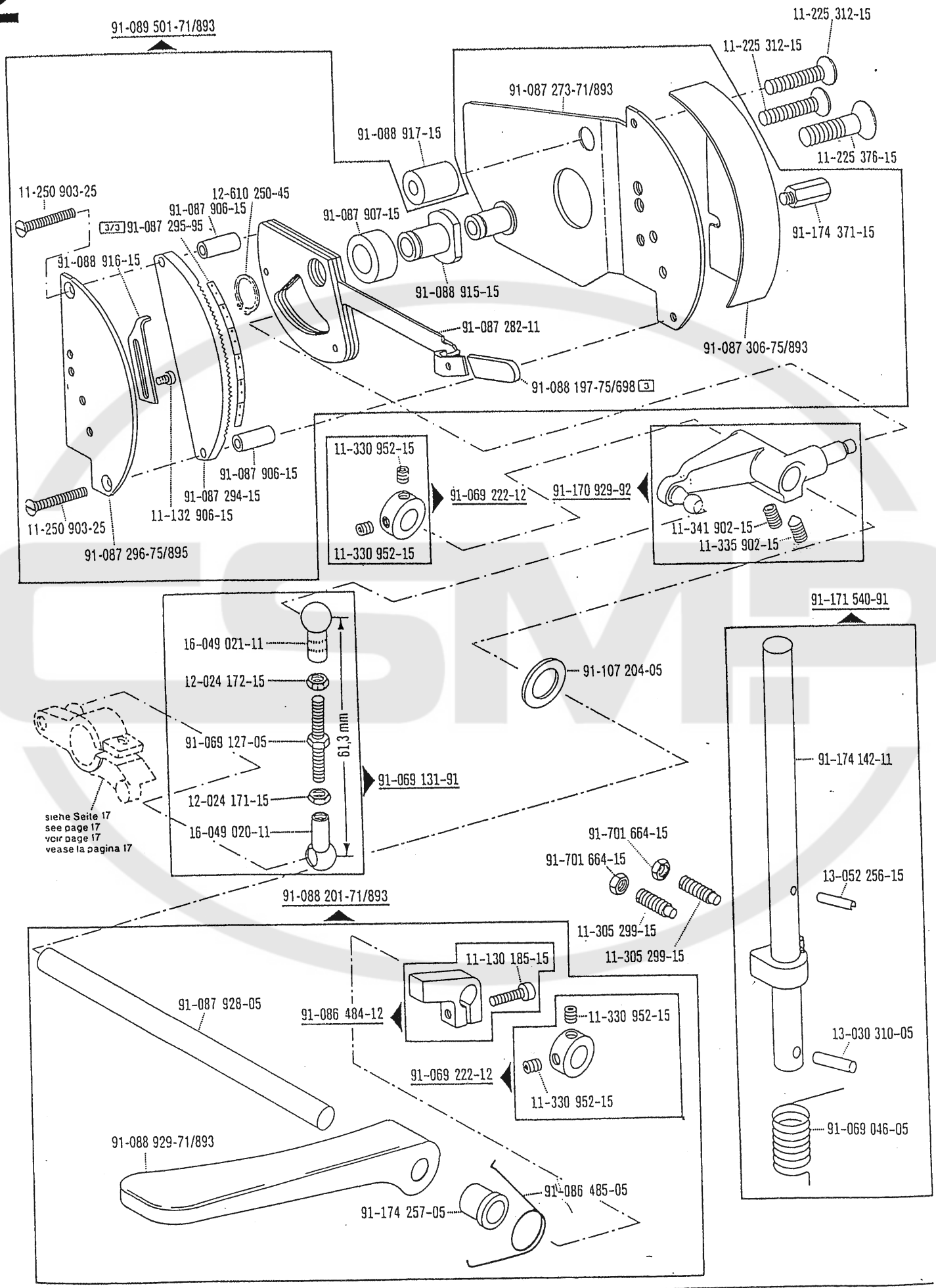

91-100 331-15
91-171 064-15
91-171 811-05
11-130 227-15
91-265 063-92
91-069 079-72/895
11-330 952-15
91-069 075-01
91-069 562-05
11-330 220-15
91-171 036-05 40/4
3 14-650 243-05
91-174 279-92
11-108 174-15



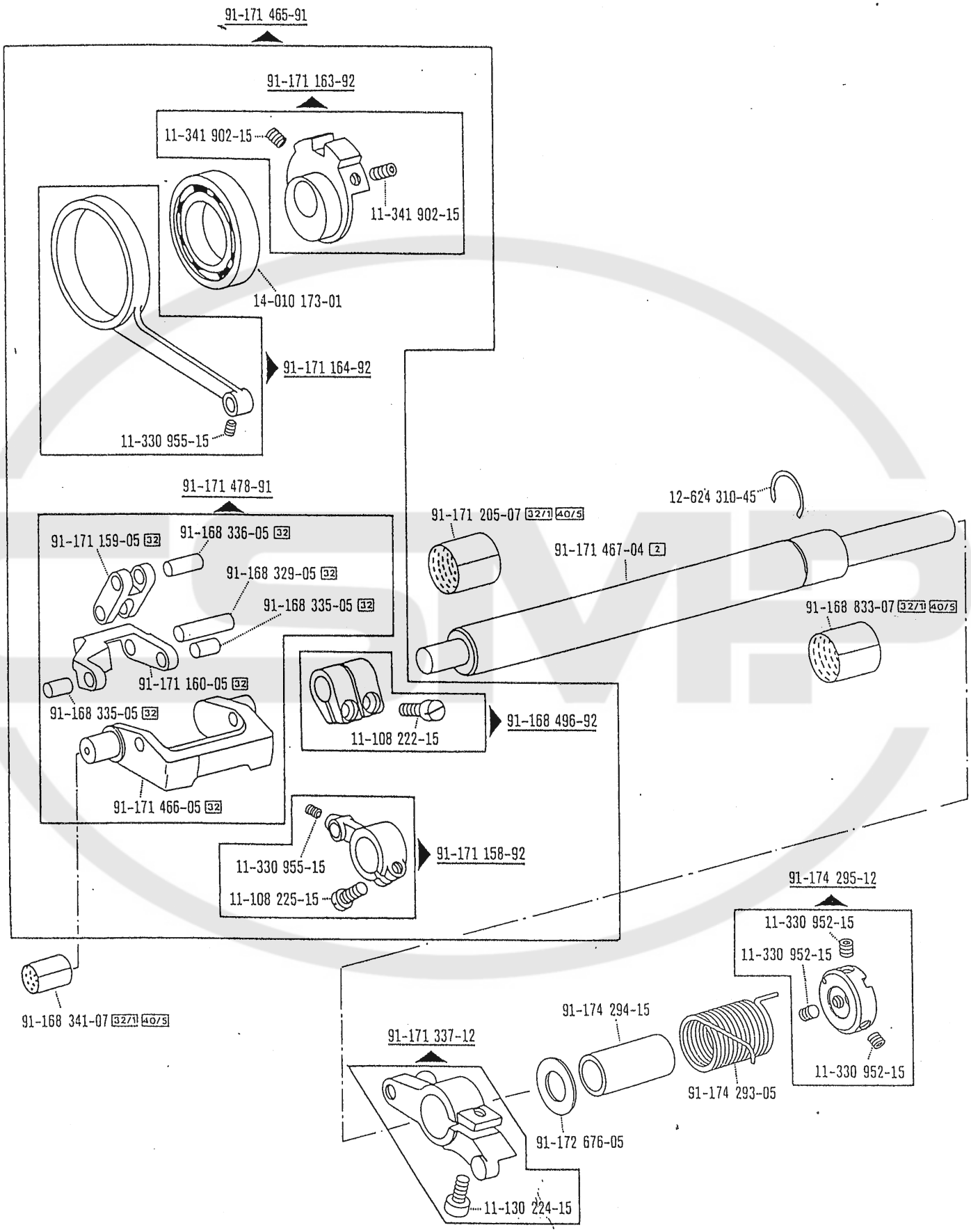
□ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

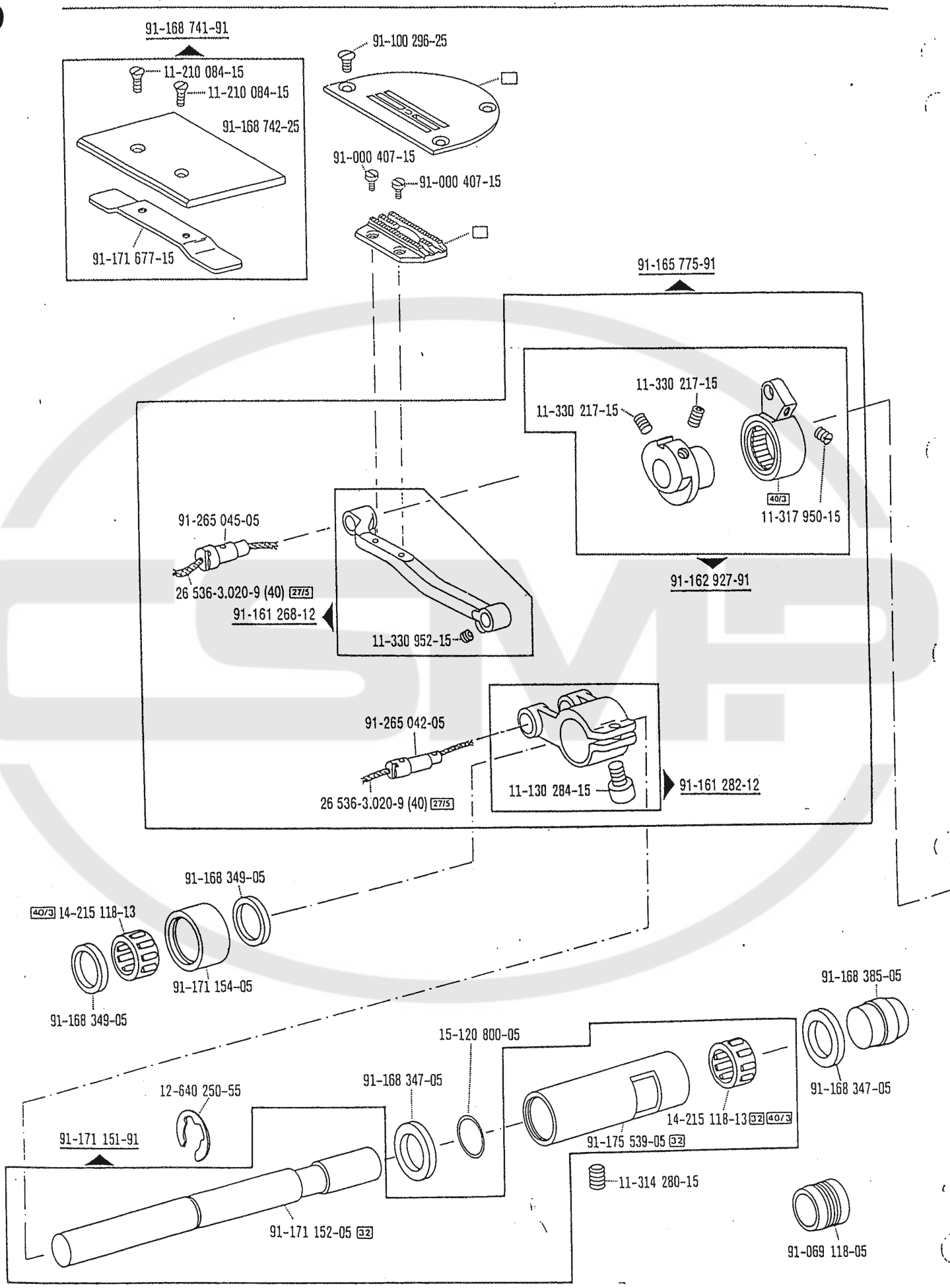


☐ siehe Erläuterungen Register 0
see explanations in section 0.
voir légende registre 0
ver explicaciones del registro 0

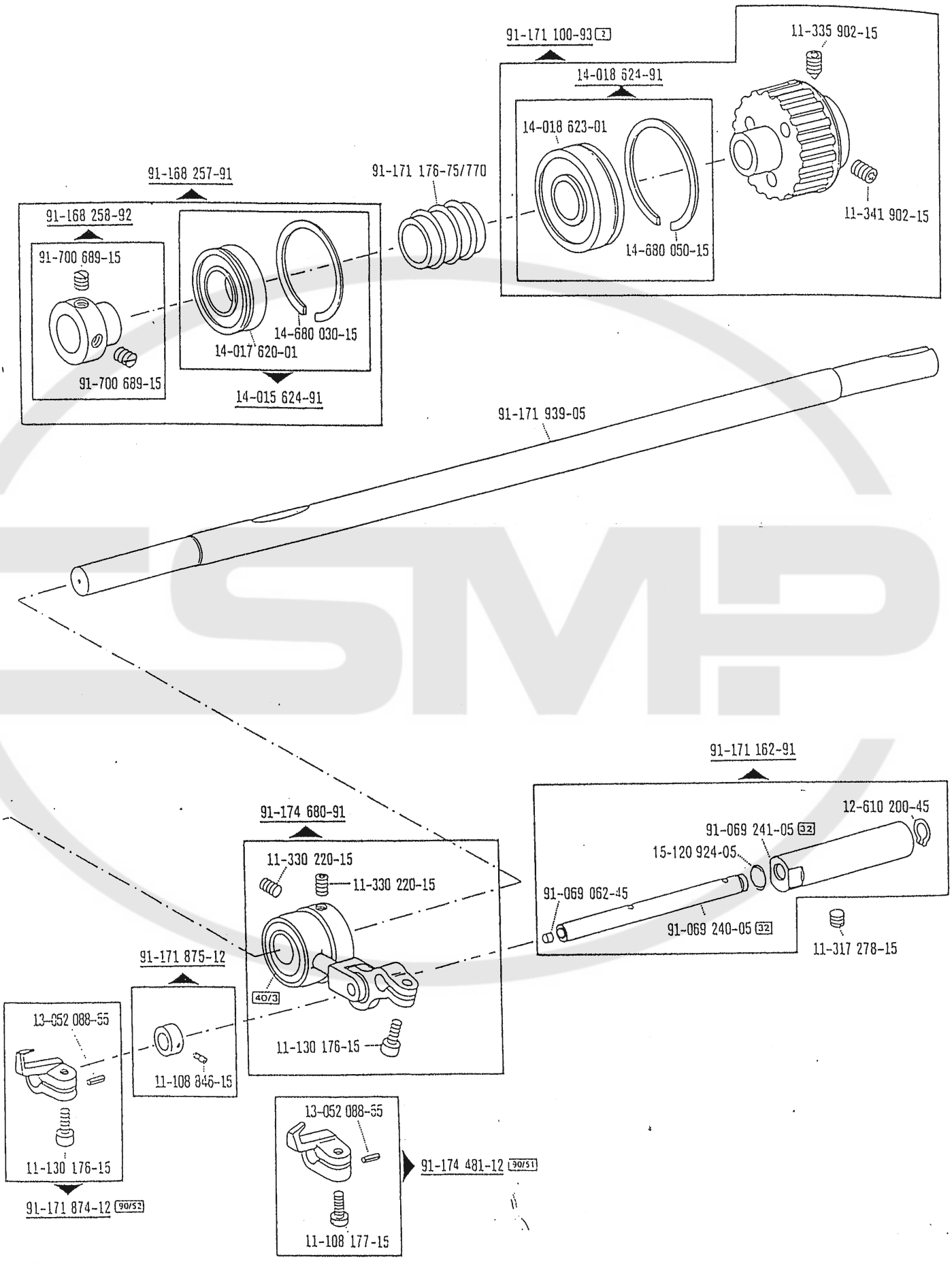


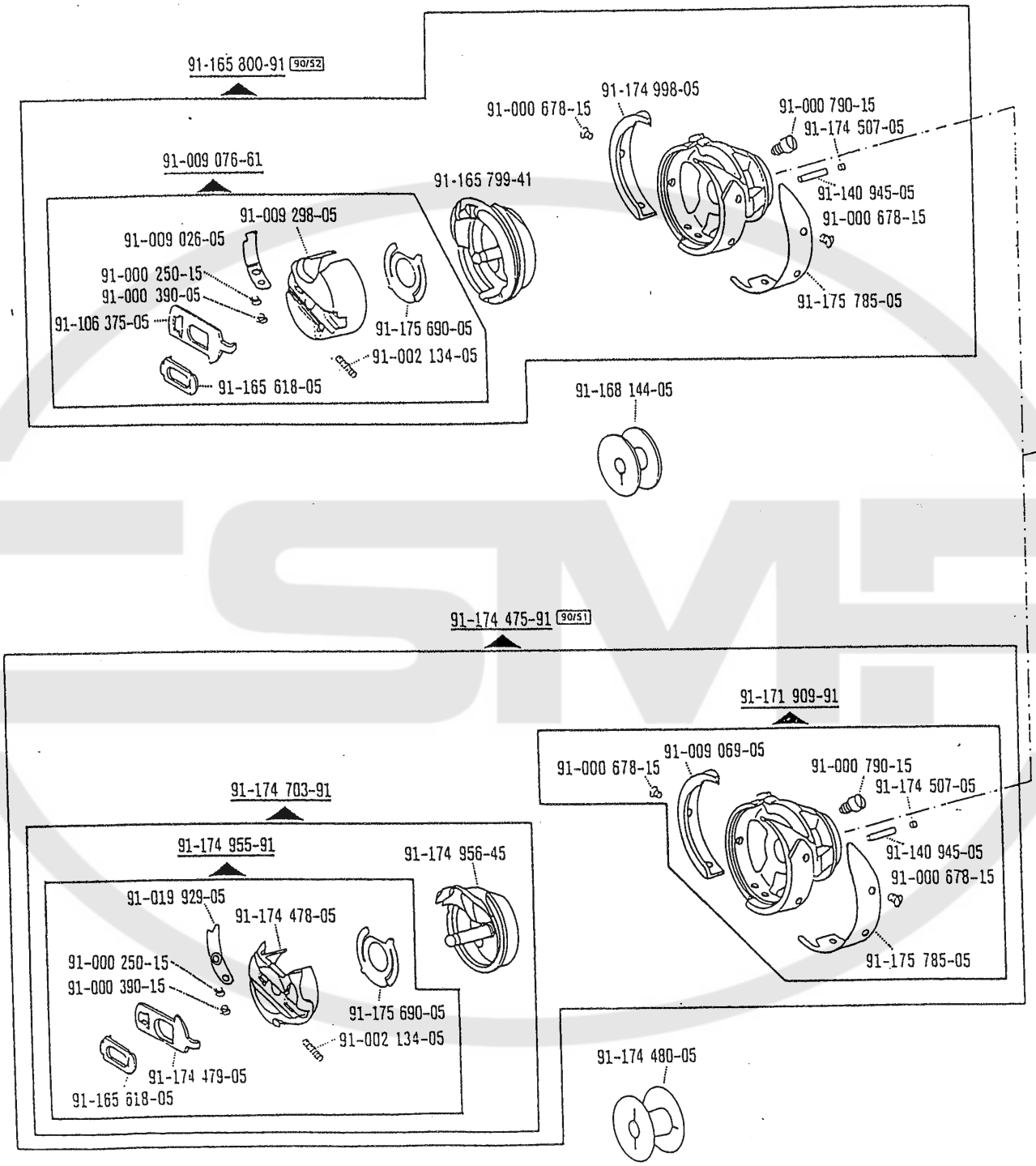
□ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0


91-171 465-91
91-171 163-92
11-341 902-15
11-341 902-15
14-010 173-01
91-171 164-92
11-330 955-15
91-171 478-91
91-171 159-05 32
91-168 336-05 32
91-168 329-05 32
91-168 335-05 32
91-171 160-05 32
91-168 335-05 32
91-171 466-05 32
91-171 205-07 32/1 40/5
12-624 310-45
91-171 467-04 2
91-168 833-07 32/1 40/5
11-108 222-15
91-168 496-92
11-330 955-15
11-108 225-15
91-171 158-92
91-168 341-07 32/1 40/5
91-174 295-12
11-330 952-15
11-330 952-15
11-330 952-15
91-174 294-15
91-174 293-05
91-171 337-12
91-172 676-05
11-130 224-15

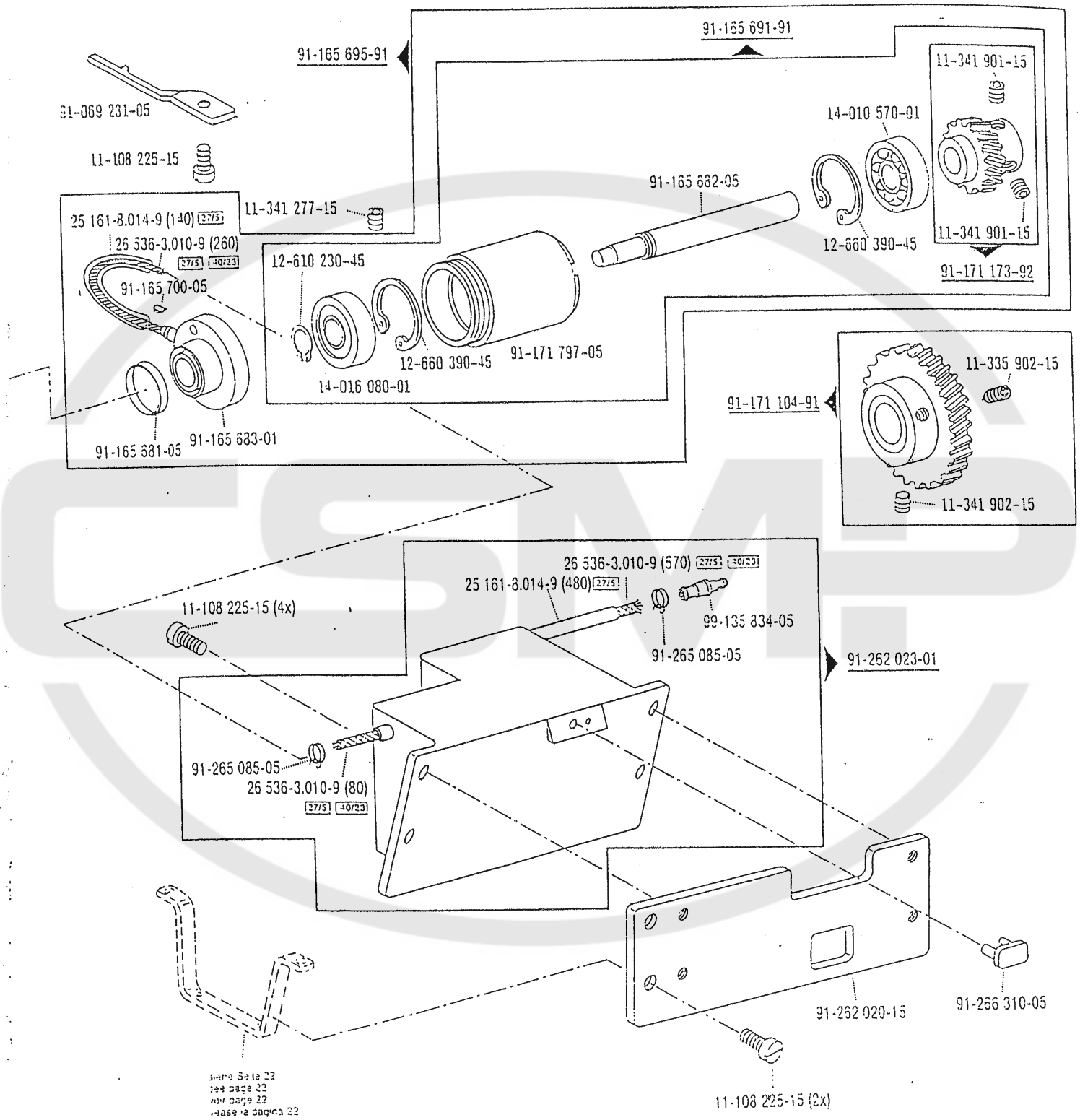


siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0


91-171 100-93 2
11-335 902-15
14-018 624-91
14-018 623-01
14-680 050-15
11-341 902-15
91-168 257-91
91-171 176-75/770
91-168 258-92
91-700 689-15
14-680 030-15
14-017 620-01
91-700 689-15
14-015 624-91
91-171 939-05
91-171 162-91
91-174 680-91
12-610 200-45
91-069 241-05 32
15-120 924-05
11-330 220-15
11-330 220-15
91-069 062-45
91-069 240-05 32
11-317 278-15
91-171 875-12
40/3
13-052 088-55
11-130 176-15
11-108 846-15
13-052 088-55
91-174 481-12 30/51
11-130 176-15
11-108 177-15
91-171 874-12 90/52

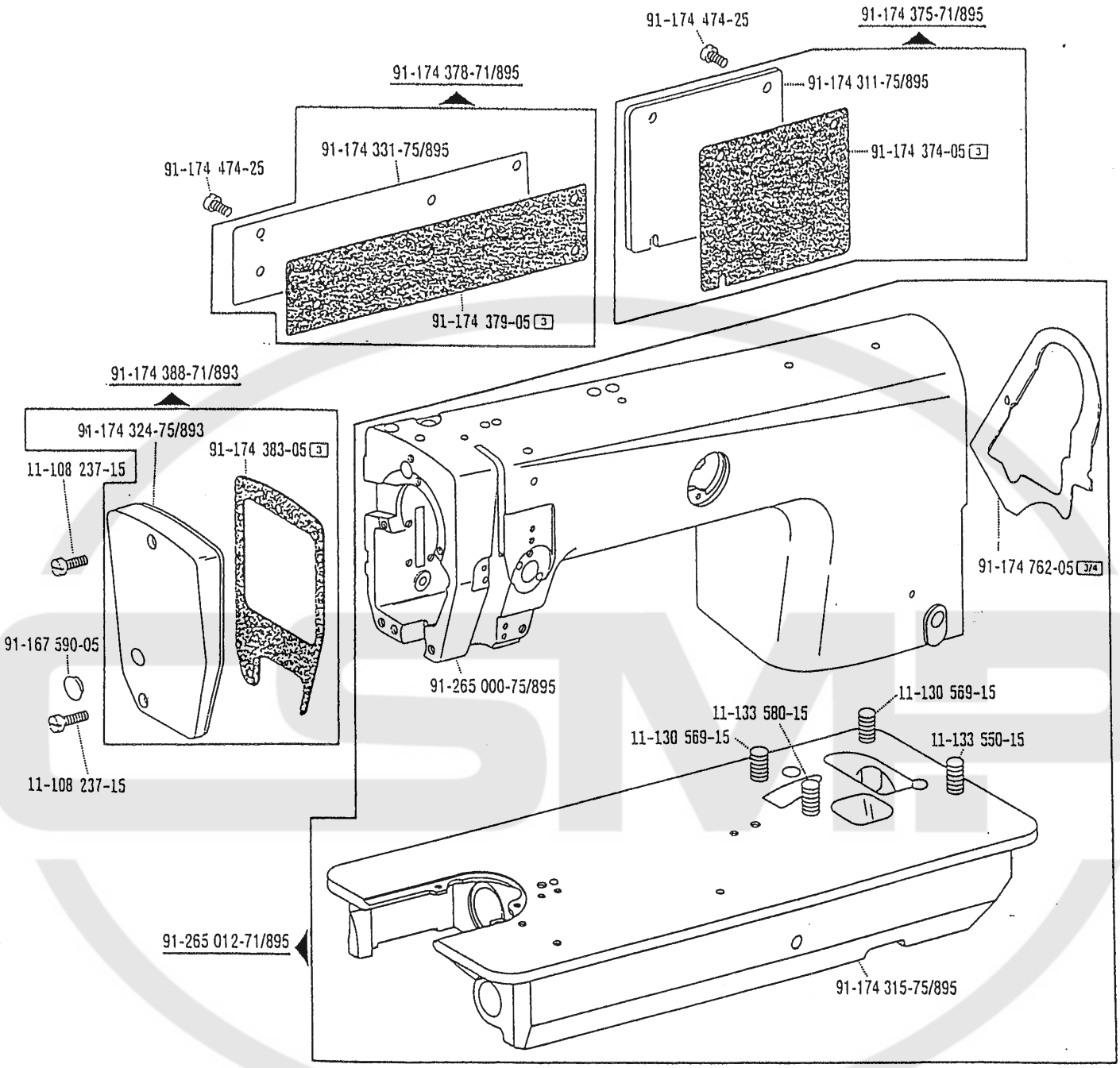


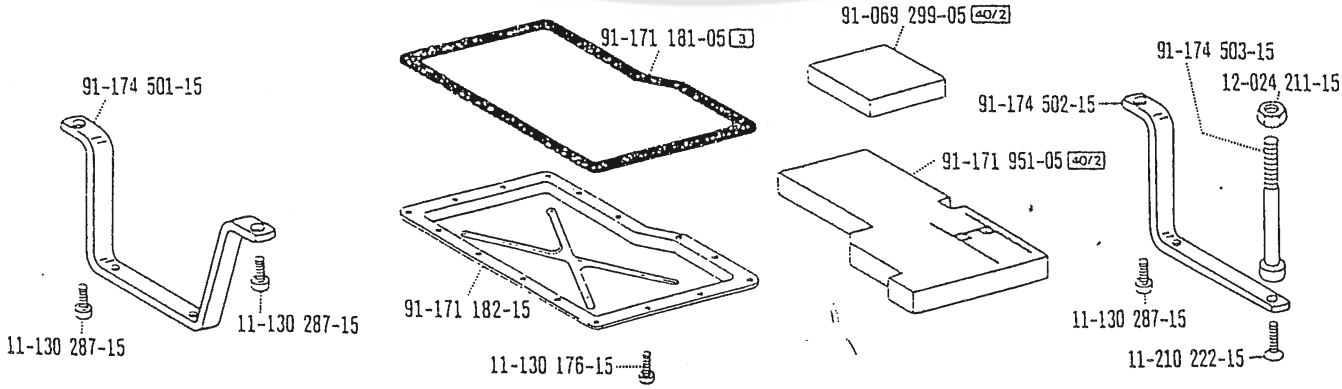
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

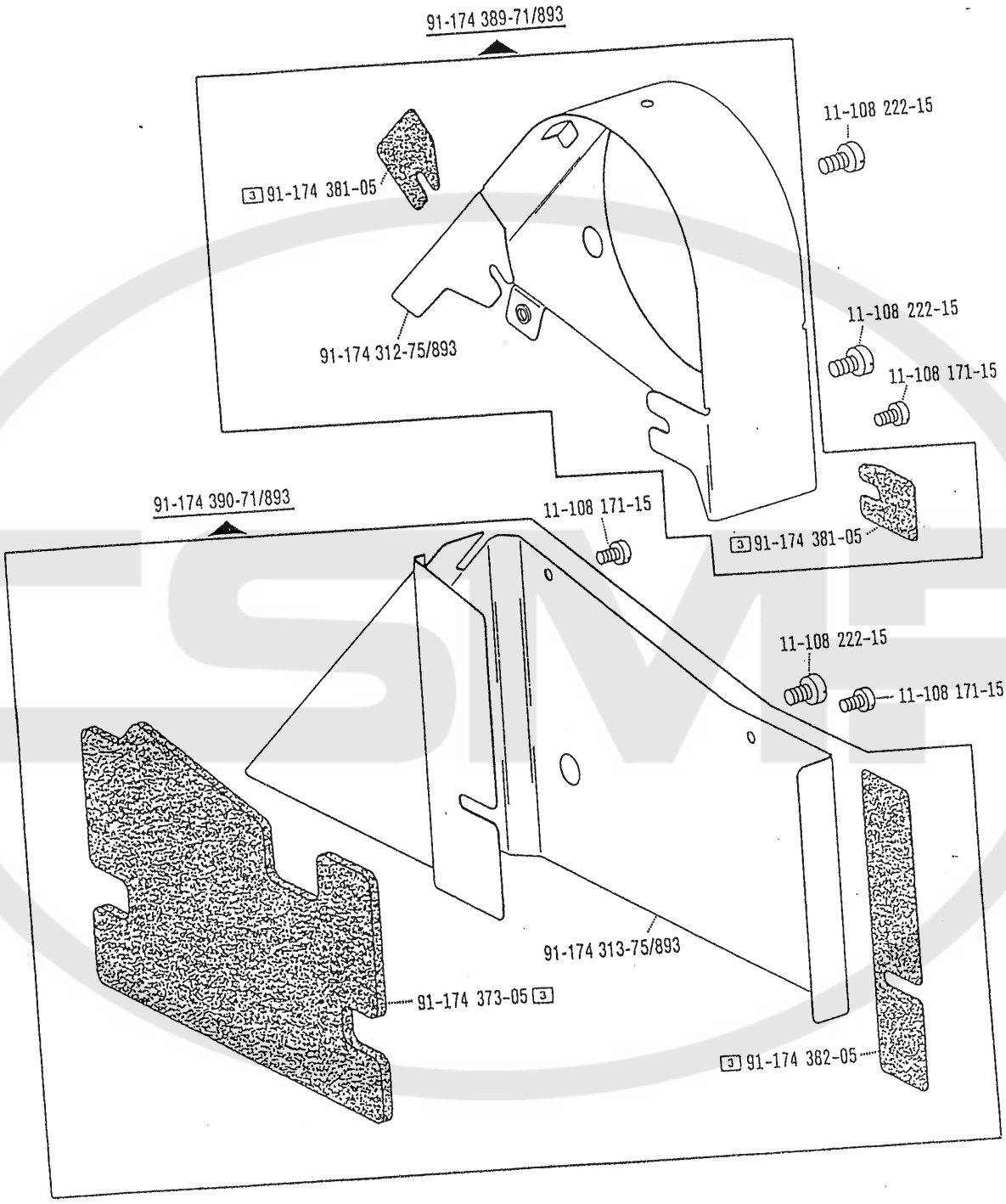


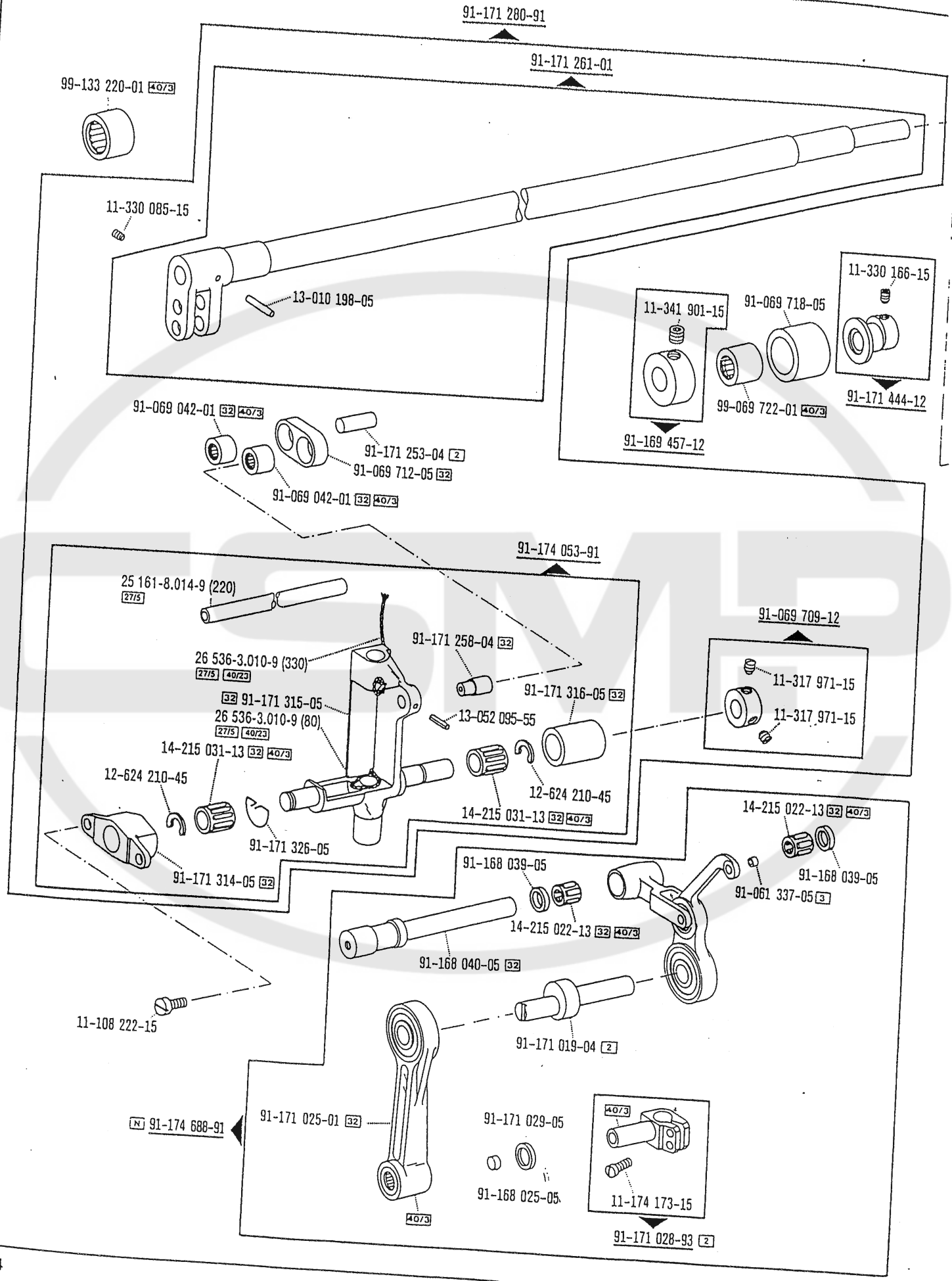
siehe Seite 22
see page 22
voir page 32
vease la página 32

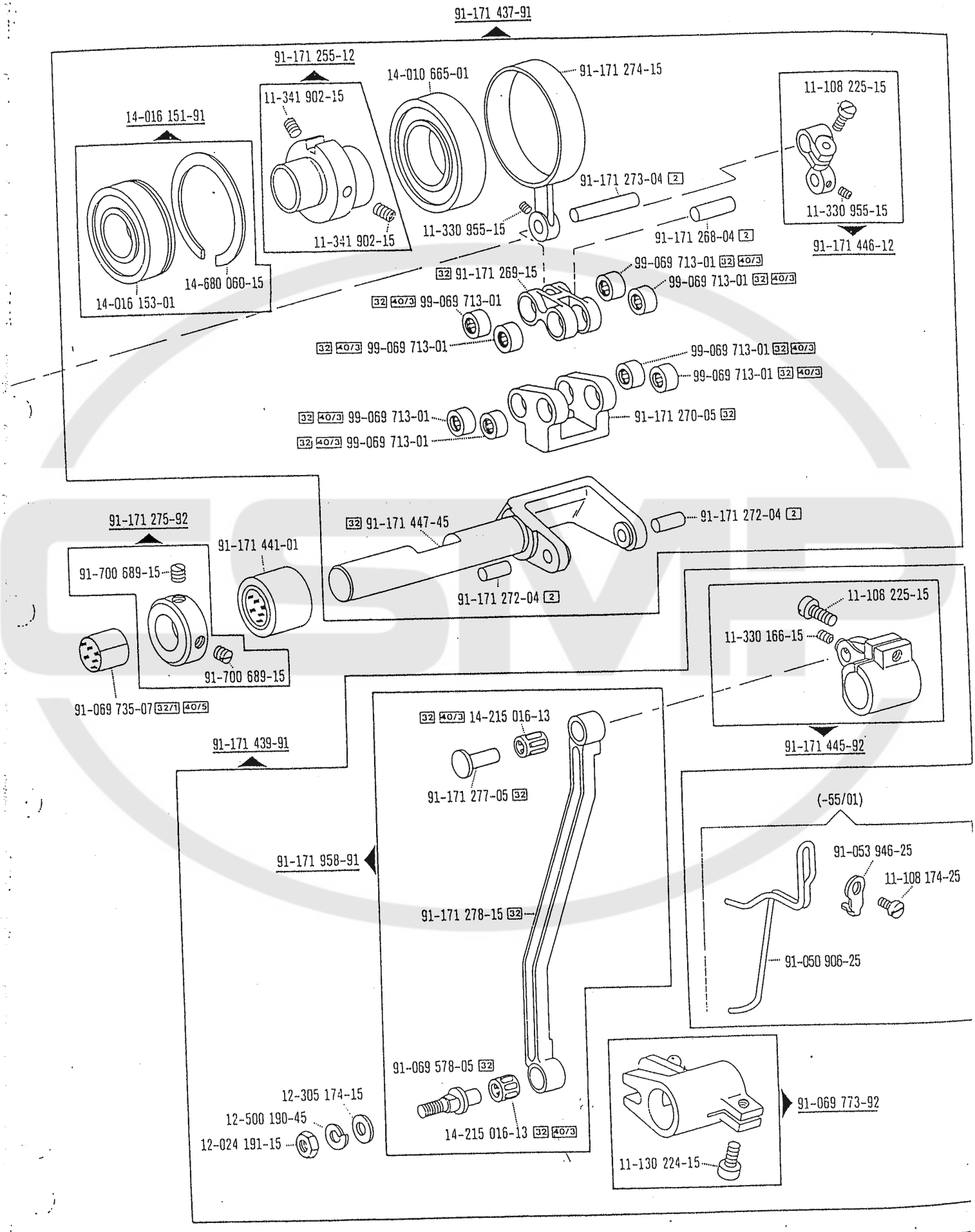
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0






91-174 389-71/893
11-108 222-15
3 91-174 381-05
91-174 312-75/893
11-108 222-15
11-108 171-15
91-174 390-71/893
11-108 171-15
3 91-174 381-05
11-108 222-15
11-108 171-15
91-174 313-75/893
91-174 373-05 3
3 91-174 382-05


91-171 280-91
91-171 261-01
99-133 220-01 40/3
11-330 085-15
13-010 198-05
11-341 901-15
91-069 718-05
11-330 166-15
99-069 722-01 40/3
91-171 444-12
91-169 457-12
91-069 042-01 32 40/3
91-171 253-04 2
91-069 712-05 32
91-069 042-01 32 40/3
91-174 053-91
25 161-8.014-9 (220) 27/5
91-171 258-04 32
26 536-3.010-9 (330) 27/5 40/23
91-069 709-12
11-317 971-15
11-317 971-15
32 91-171 315-05
26 536-3.010-9 (80) 27/5 40/23
13-052 095-55
91-171 316-05 32
14-215 031-13 32 40/3
12-624 210-45
12-624 210-45
14-215 031-13 32 40/3
91-171 326-05
91-171 314-05 32
14-215 022-13 32 40/3
91-168 039-05
91-168 039-05
91-061 337-05 3
14-215 022-13 32 40/3
91-168 040-05 32
11-108 222-15
91-171 019-04 2
N 91-174 688-91
91-171 025-01 32
91-171 029-05
91-168 025-05
40/3
40/3
11-174 173-15
91-171 028-93 2

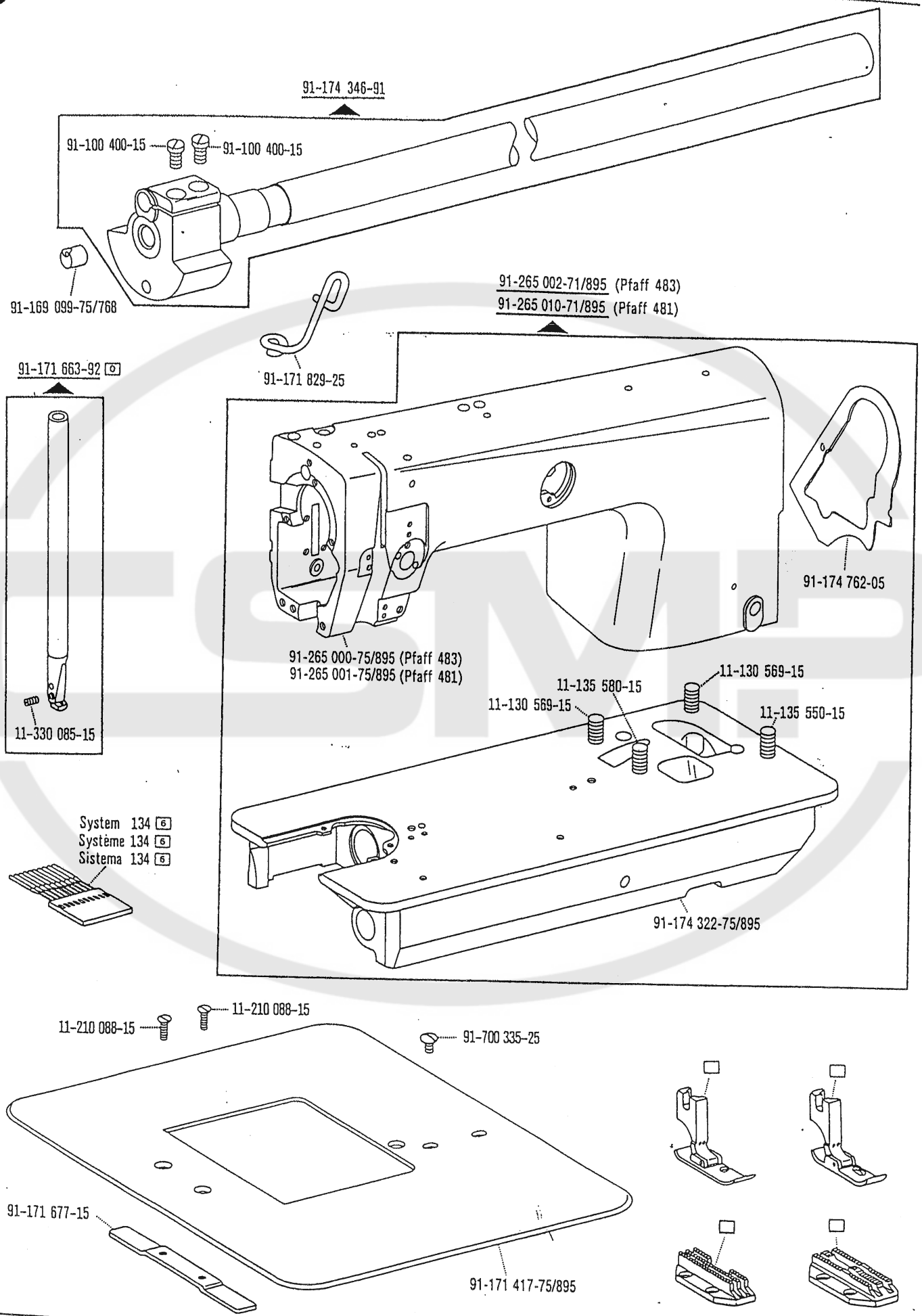


siehe Erläuterungen Register 0
see explanations in section 0

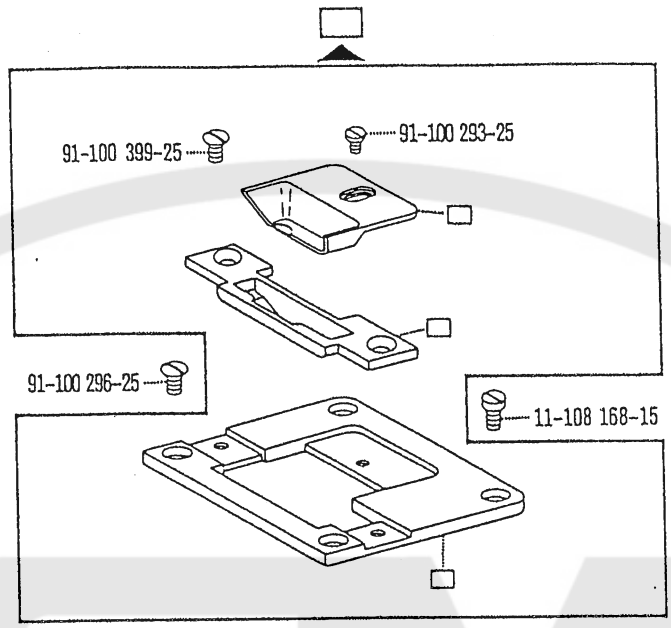
Kanten-Beschneideinrichtung
Edge trimmer
Couteau
Recortador

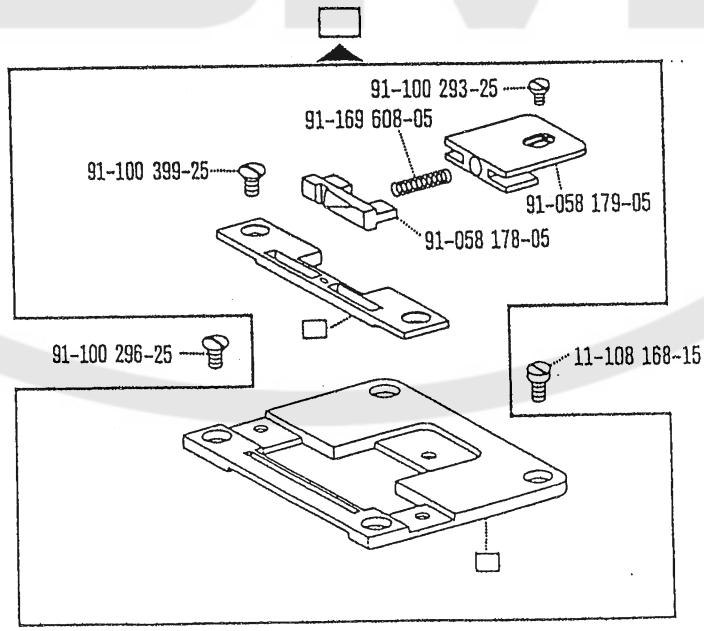
-731/11
-731/12
-731/14

zur • pour
for • para
PFAFF 481-G; 483-G



siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

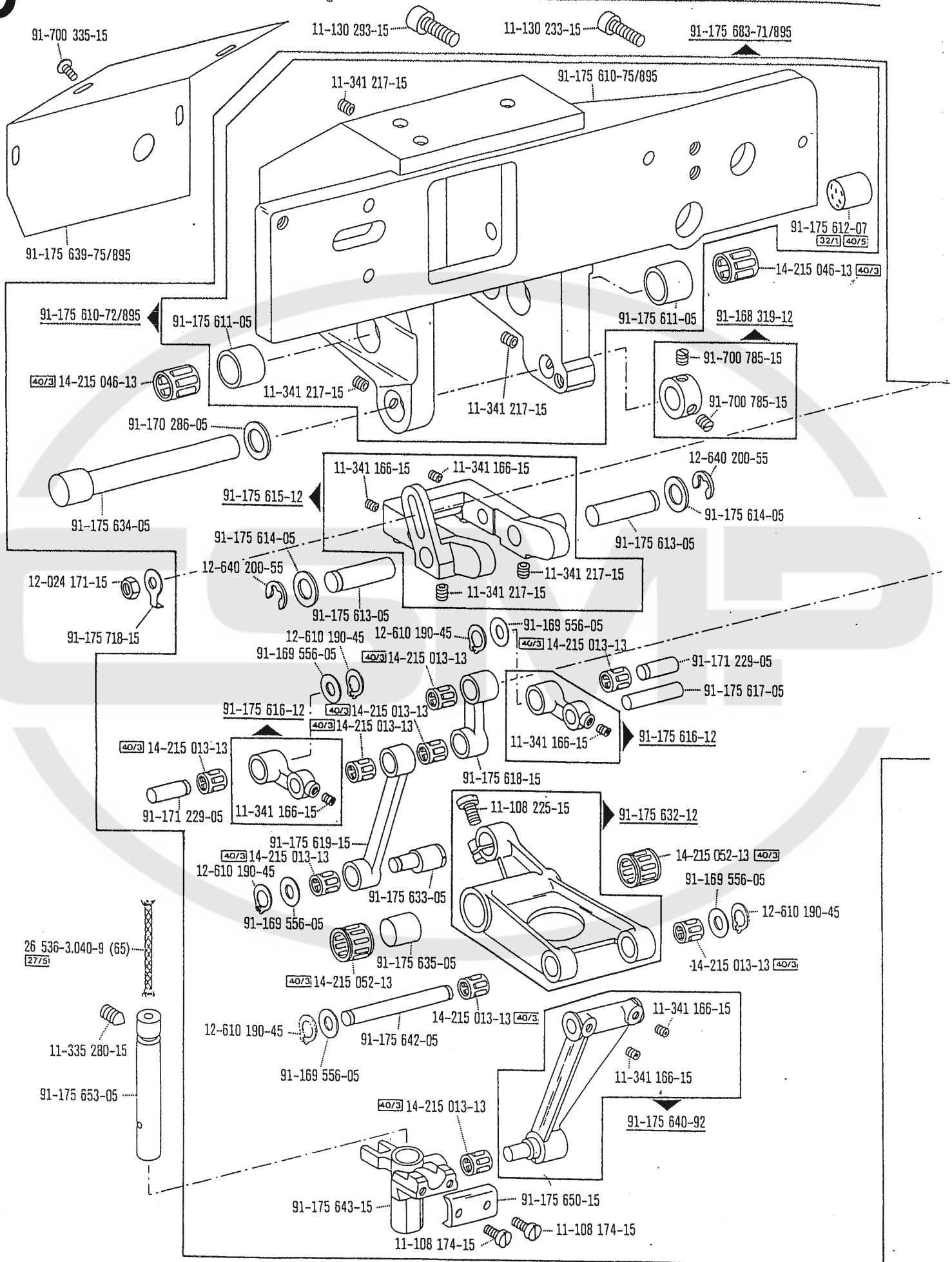

91-100 399-25
91-100 293-25
91-100 296-25
11-108 168-15


91-100 293-25
91-169 608-05
91-100 399-25
91-058 179-05
91-058 178-05
91-100 296-25
11-108 168-15

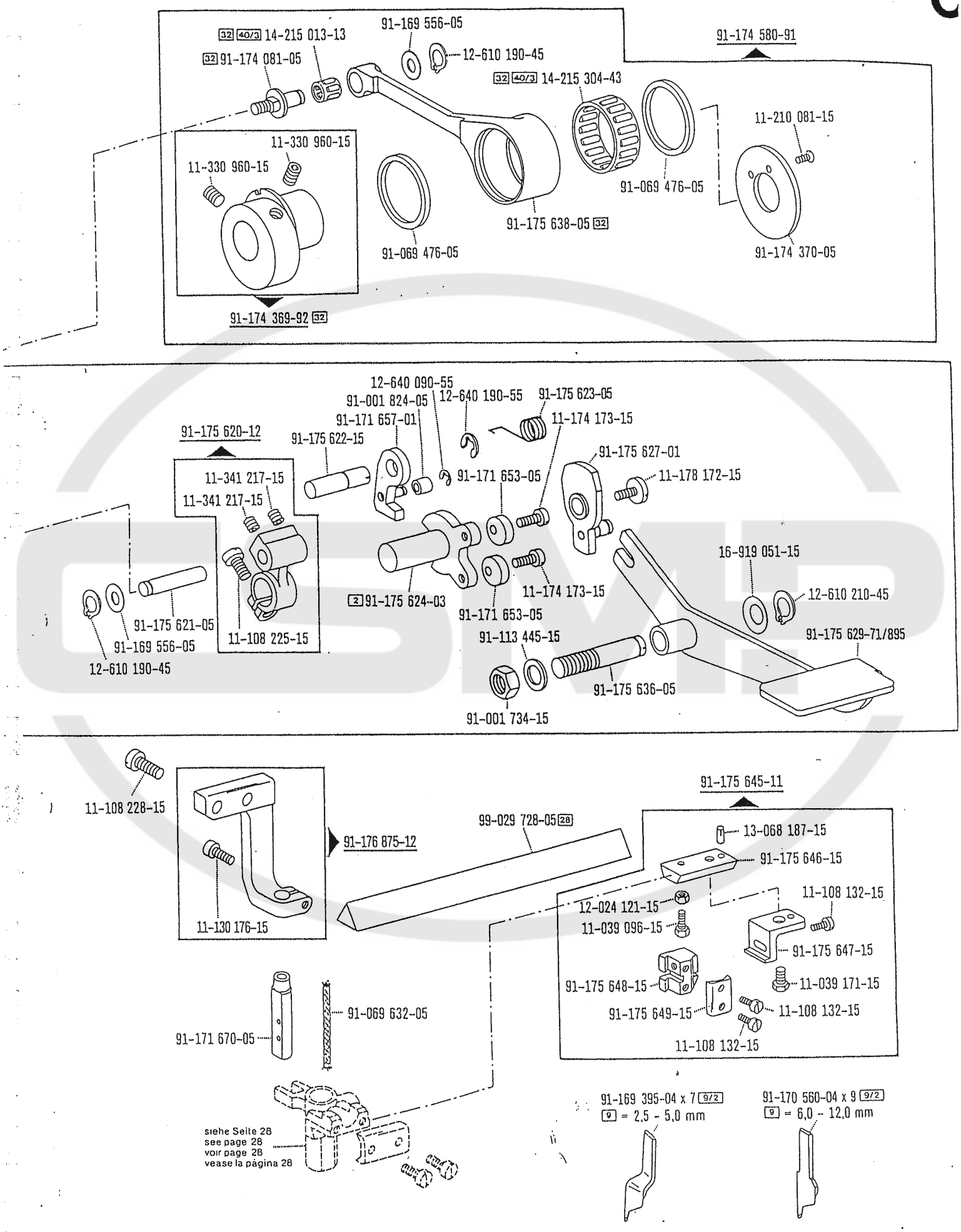
6

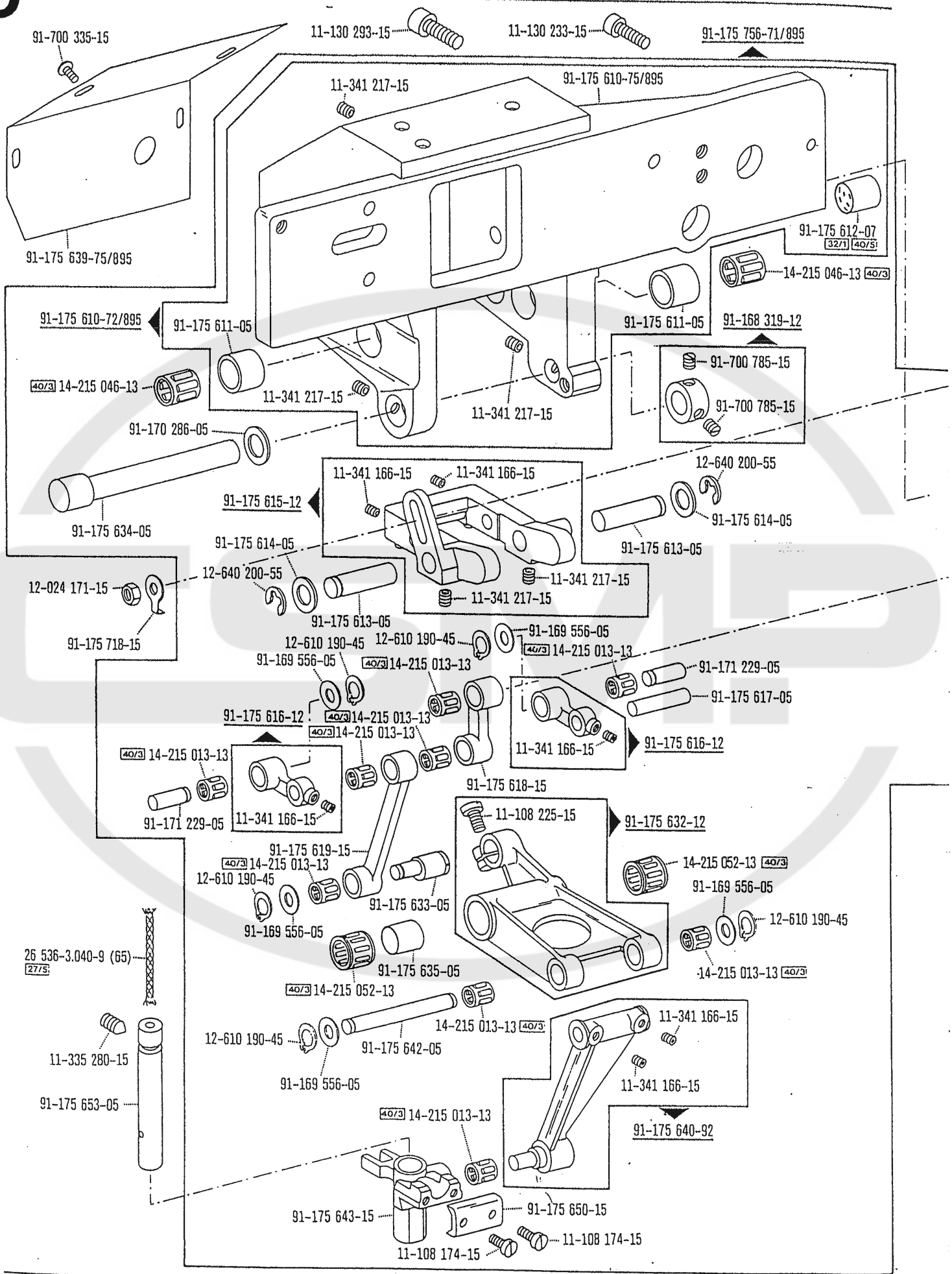
Kanten-Beschneideinrichtung
Edge trimmer
Couteau
Recortador

-731/11 zur · pour for · para PFAFF 481-G; 483-G

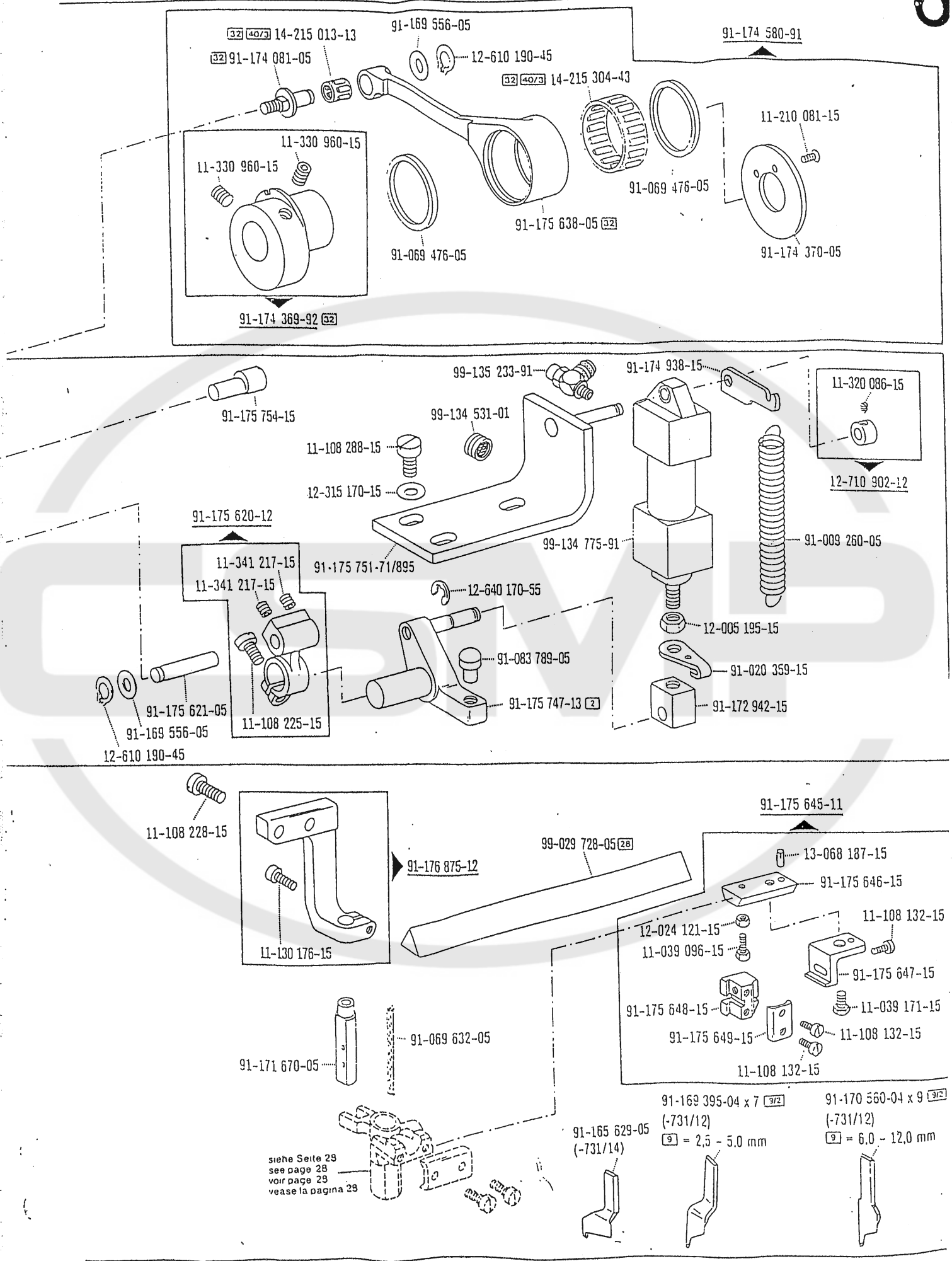


siehe Erlauterungen Register 0
see explanations in section 0
voir légende registre 0


32 40/3 14-215 013-13
91-169 556-05
12-610 190-45
32 91-174 081-05
91-174 580-91
32 40/3 14-215 304-43
11-210 081-15
11-330 960-15
11-330 960-15
91-069 476-05
91-175 638-05 32
91-069 476-05
91-174 370-05
91-174 369-92 32
12-640 090-55
91-001 824-05
12-640 190-55
91-175 623-05
91-171 657-01
11-174 173-15
91-175 620-12
91-175 622-15
91-175 627-01
11-341 217-15
91-171 653-05
11-178 172-15
11-341 217-15
16-919 051-15
12-610 210-45
2 91-175 624-03
11-174 173-15
91-171 653-05
91-175 621-05
91-169 556-05
11-108 225-15
91-113 445-15
91-175 629-71/895
12-610 190-45
91-175 636-05
91-001 734-15
11-108 228-15
91-175 645-11
99-029 728-05 28
91-176 875-12
13-068 187-15
91-175 646-15
11-108 132-15
12-024 121-15
11-039 096-15
91-175 647-15
11-130 176-15
91-175 648-15
11-039 171-15
91-175 649-15
11-108 132-15
11-108 132-15
91-171 670-05
91-069 632-05
91-169 395-04 x 7 9/2
9 = 2,5 - 5,0 mm
91-170 560-04 x 9 9/2
9 = 6,0 - 12,0 mm
siehe Seite 28
see page 28
voir page 28
vease la página 28



siehe Erlauterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0



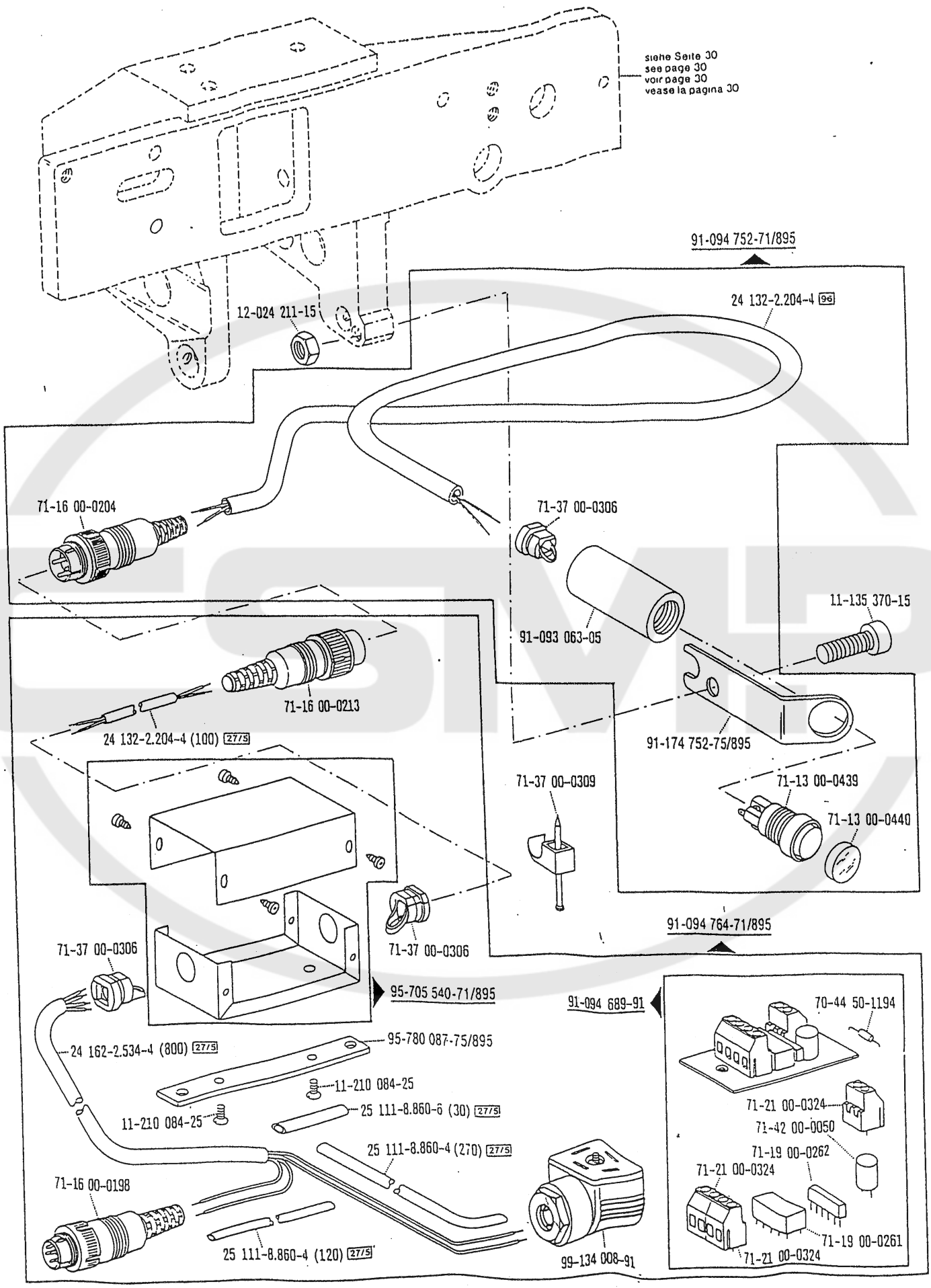
☐ siehe Erläuterungen Register 0
see explanations in section 0
voir legende registre 0
ver explicaciones del registro 0

Kanten-Beschneideinrichtung
Edge trimmer
Couteau
Recortador

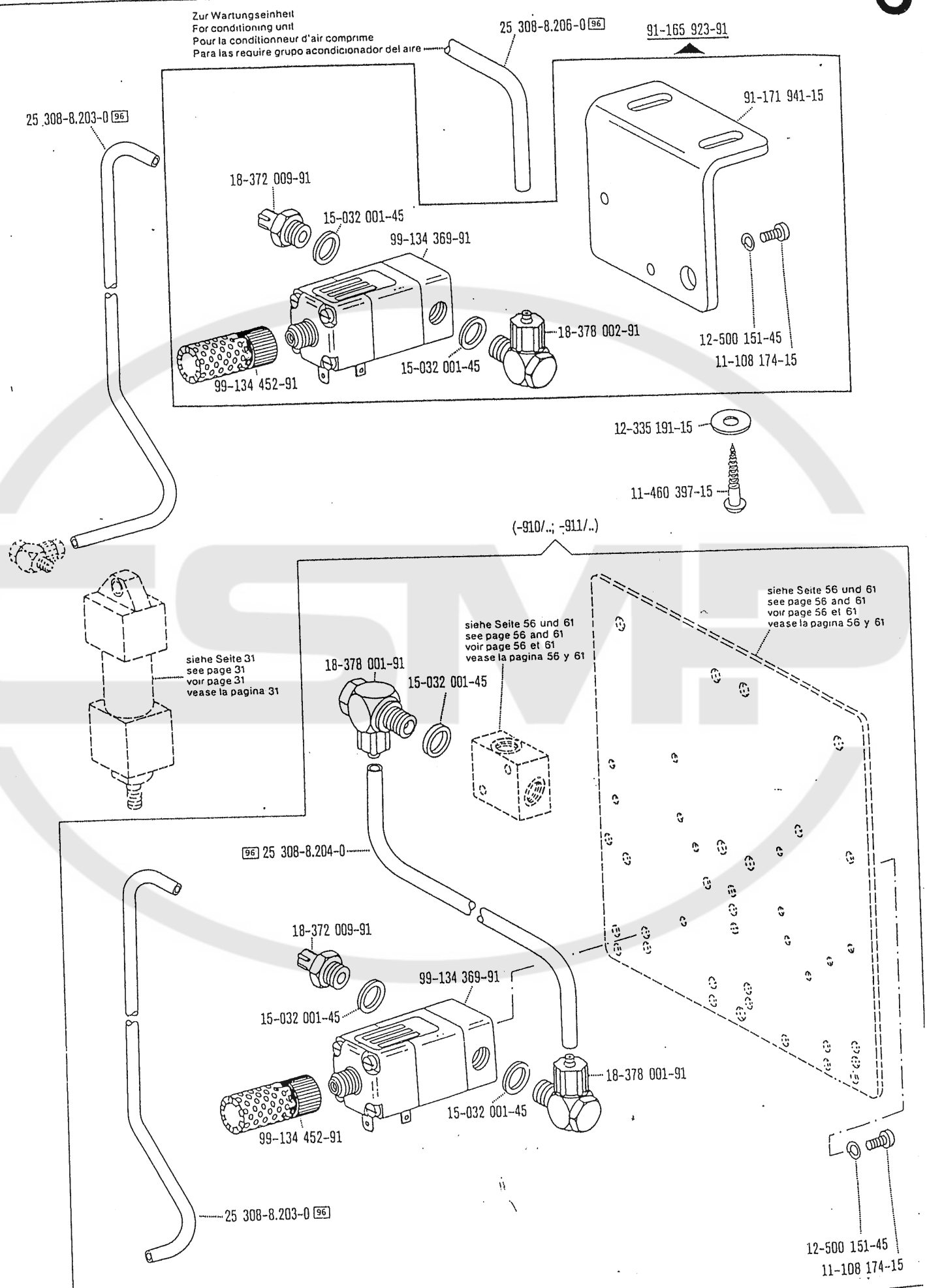
-731/12
-731/14

zur · pour
for · para

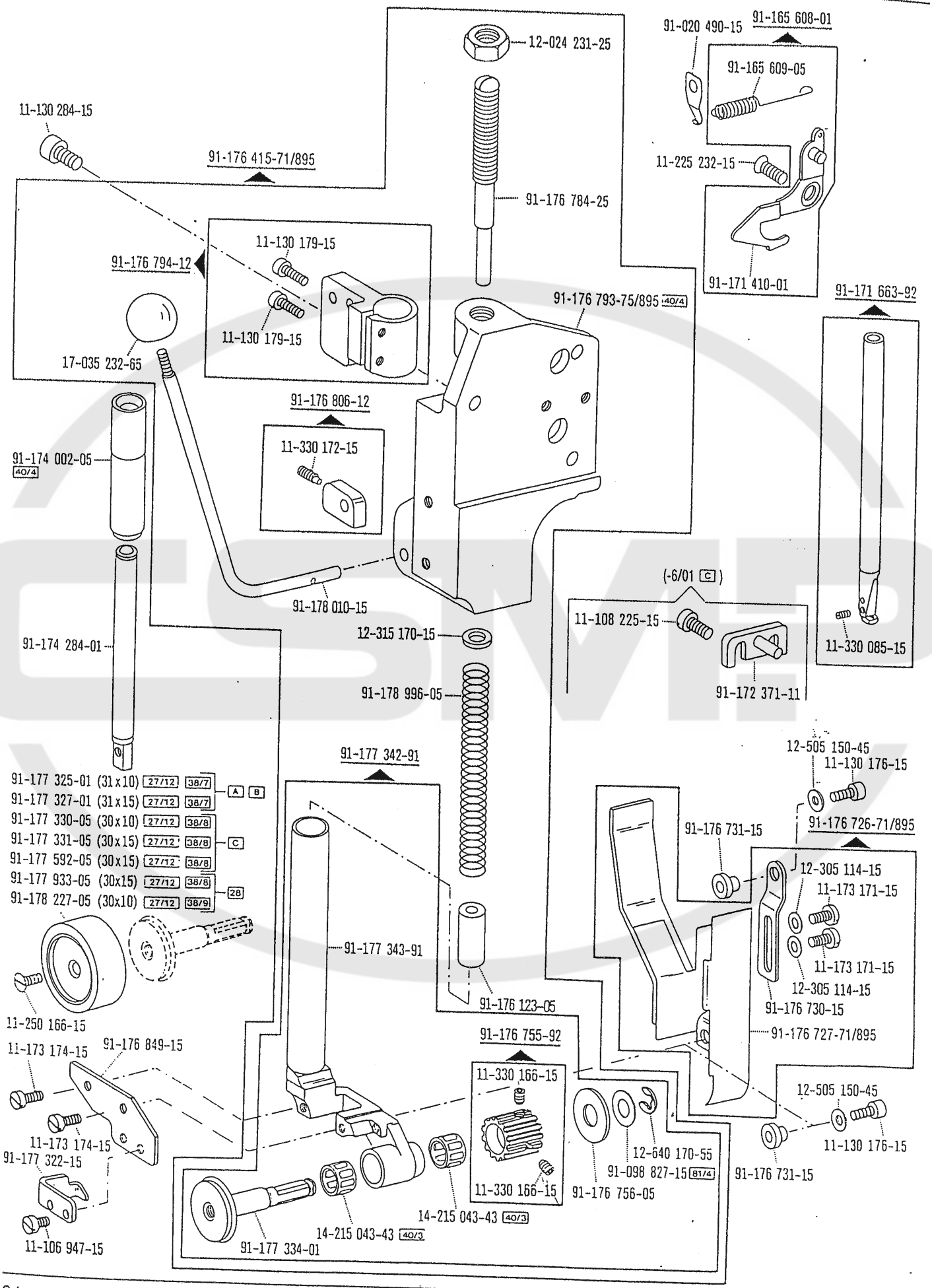
PFAFF 481-G; 483-G



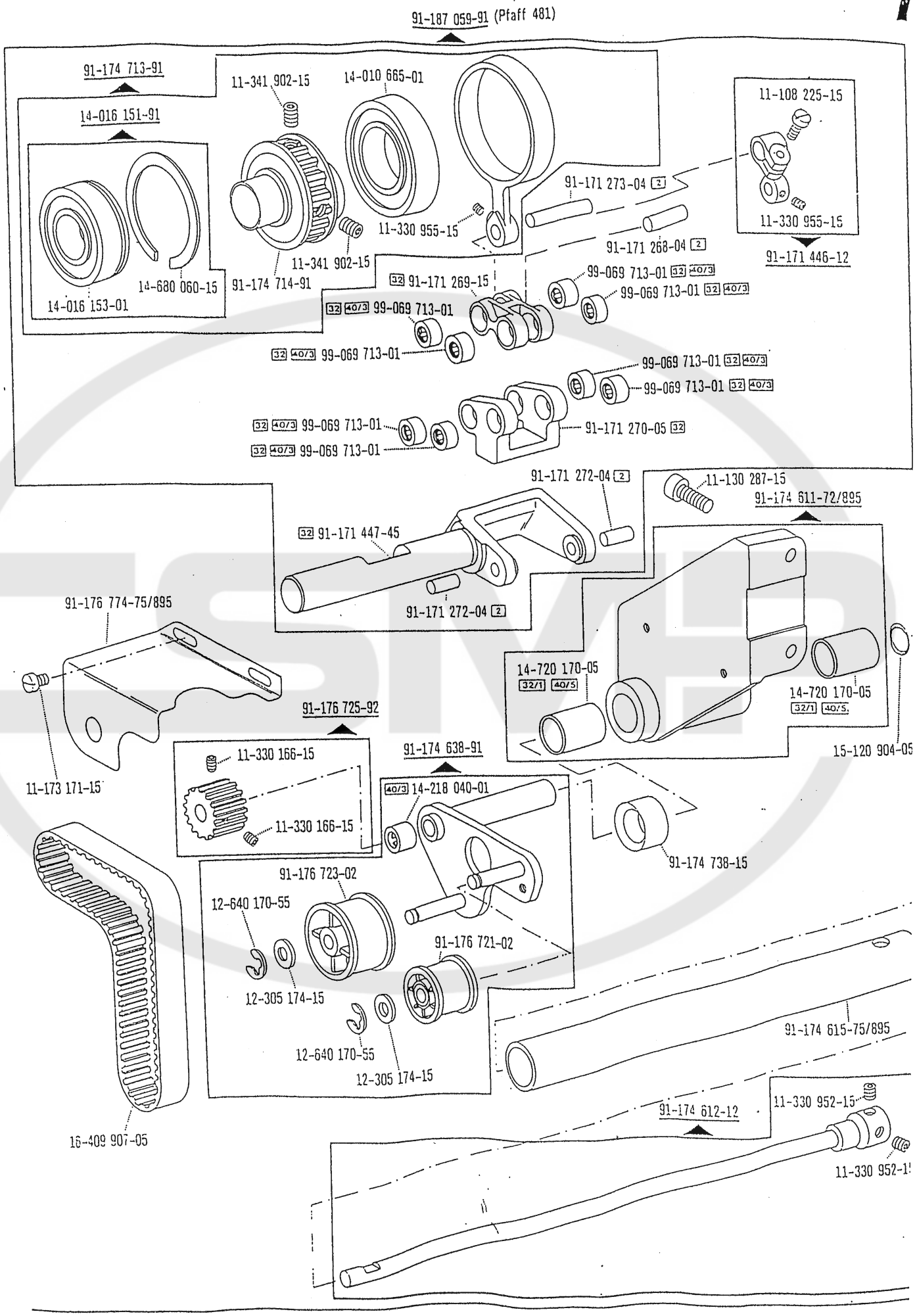
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0



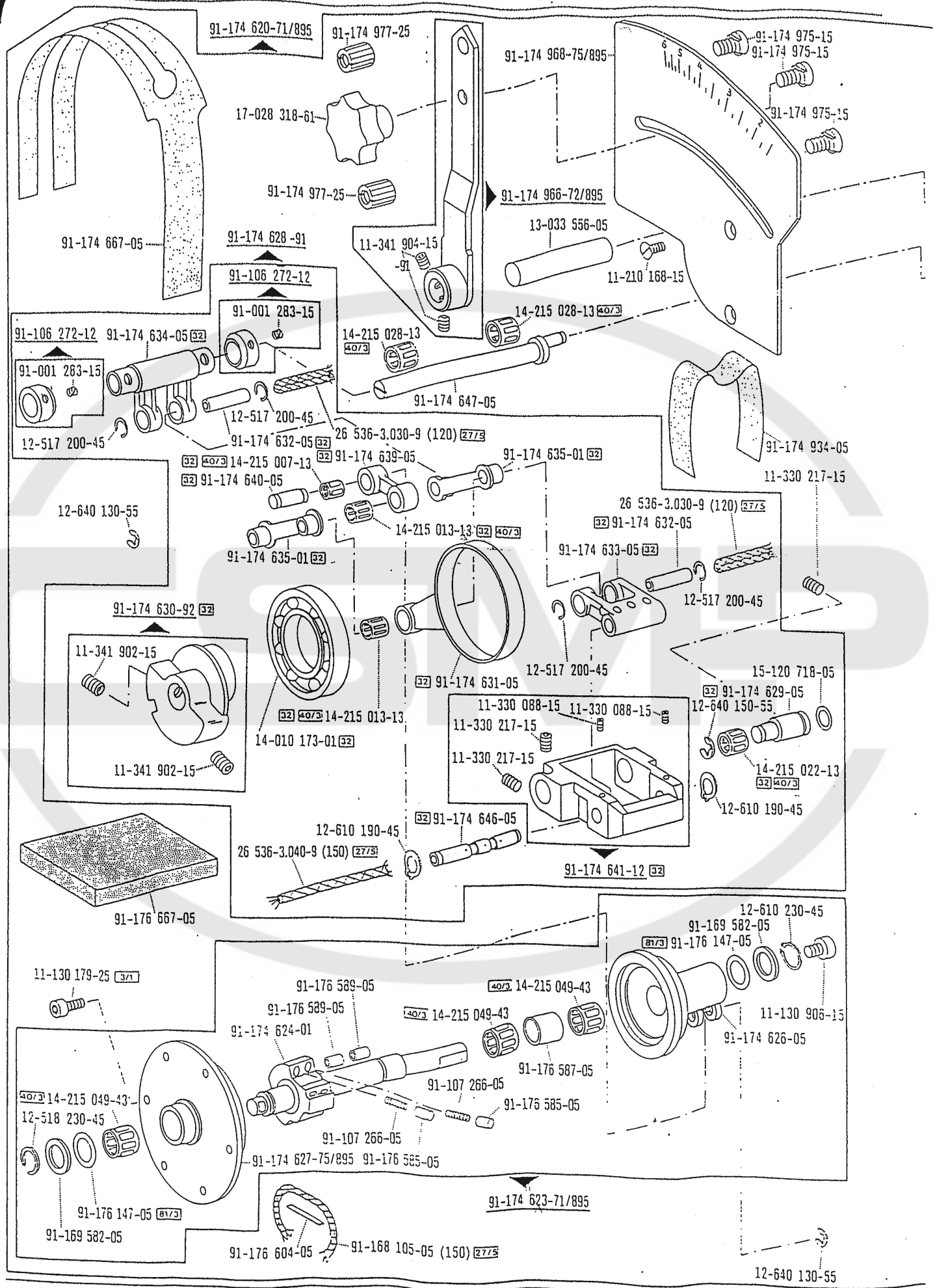
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0



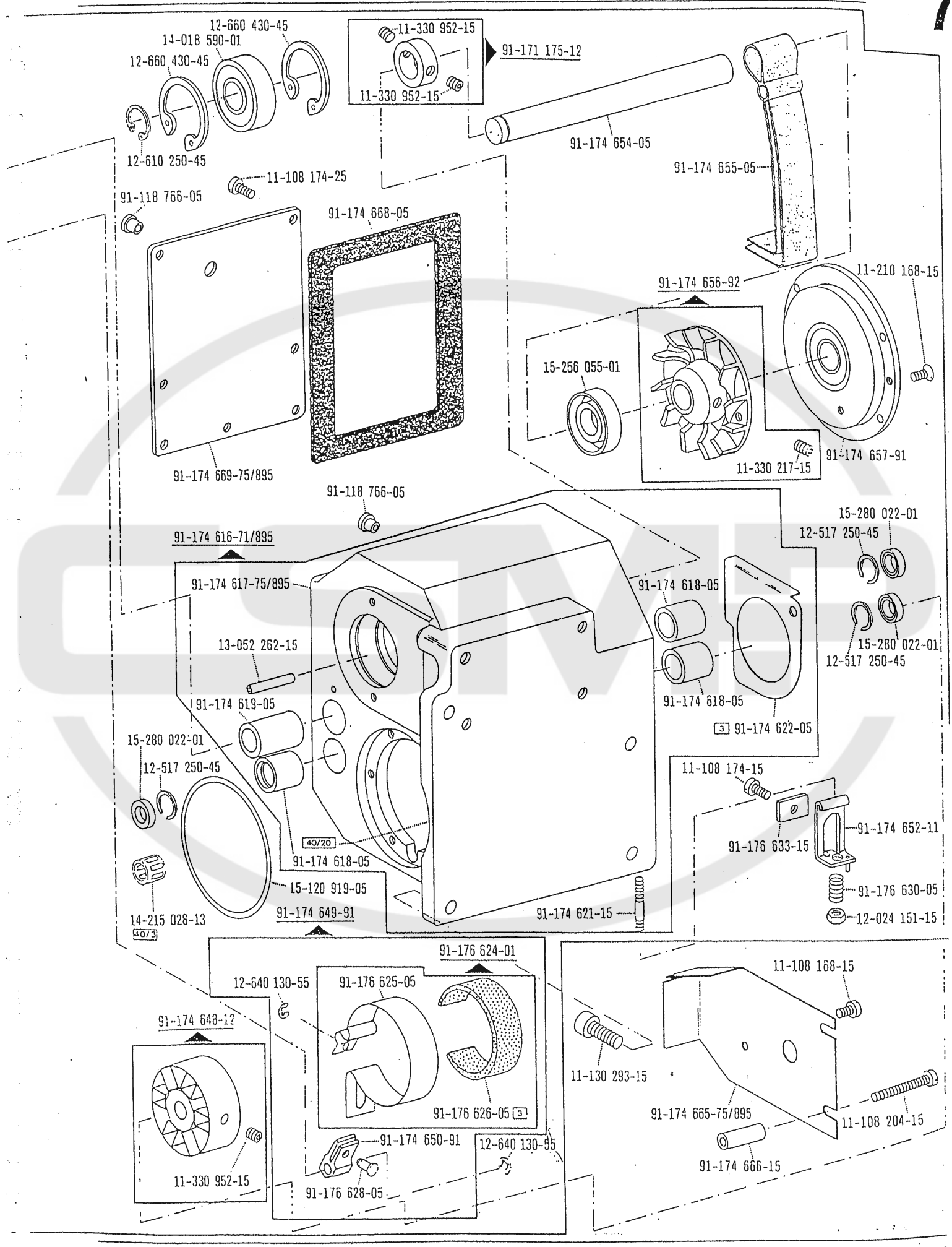
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0



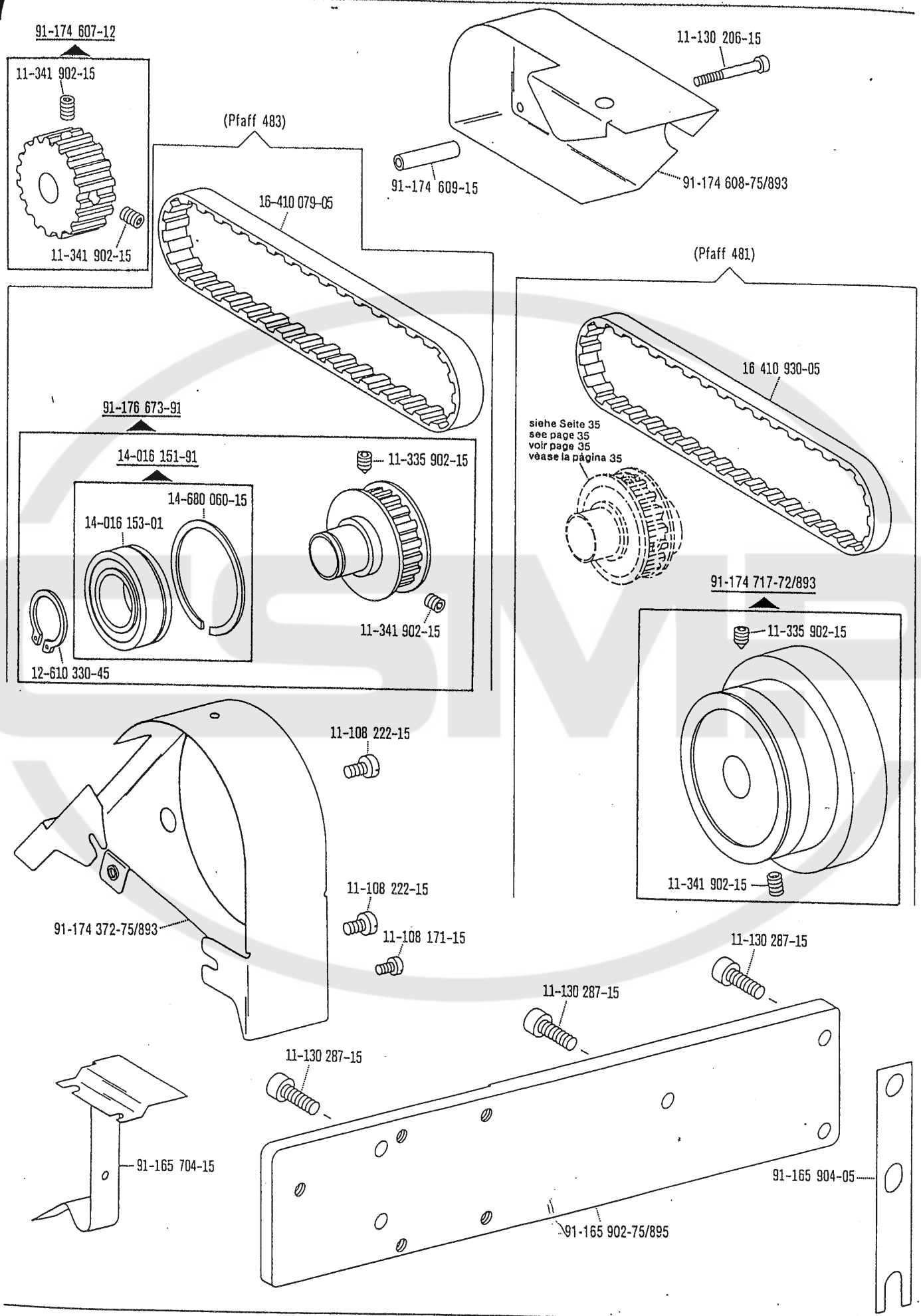
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0



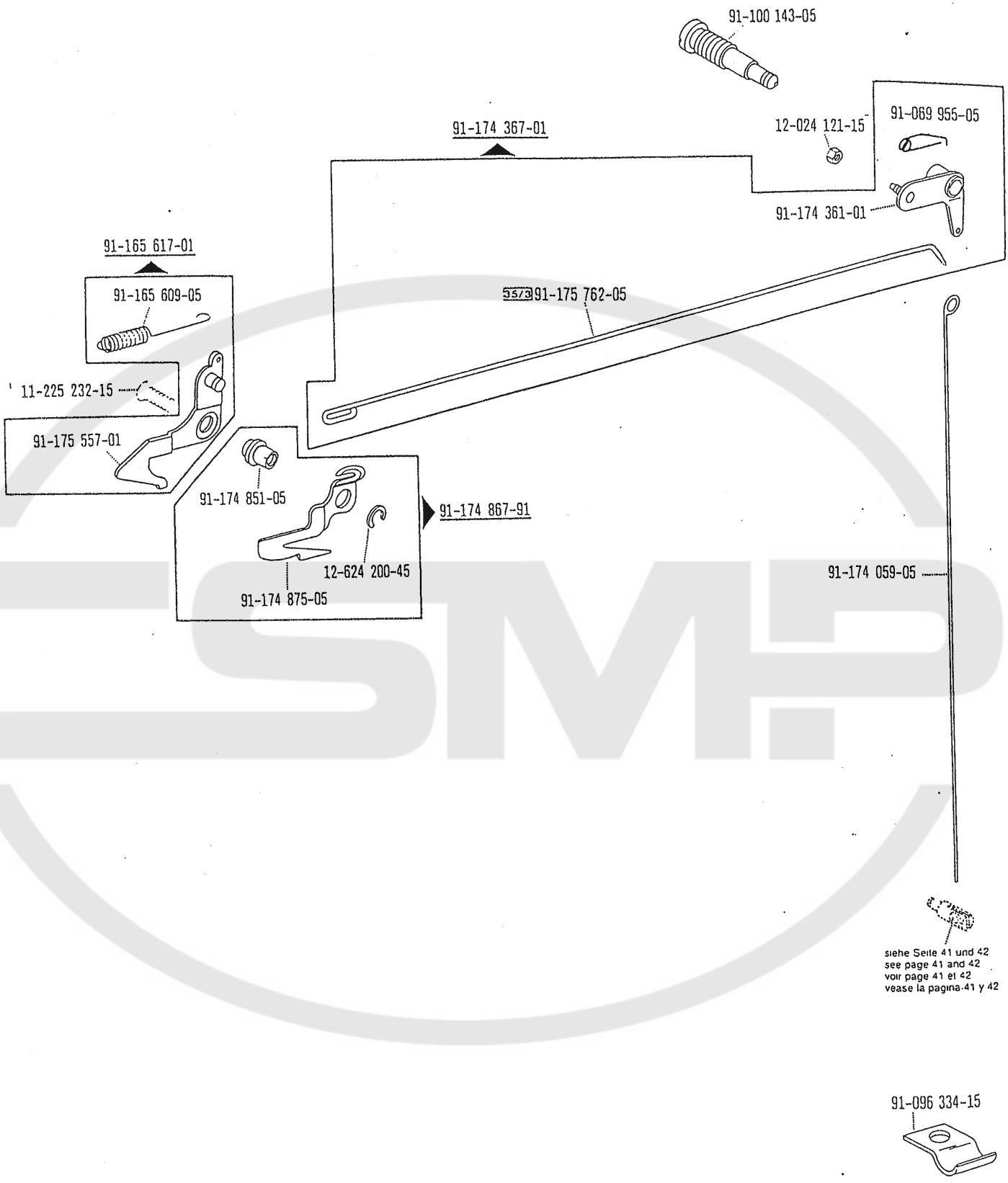
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0



siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

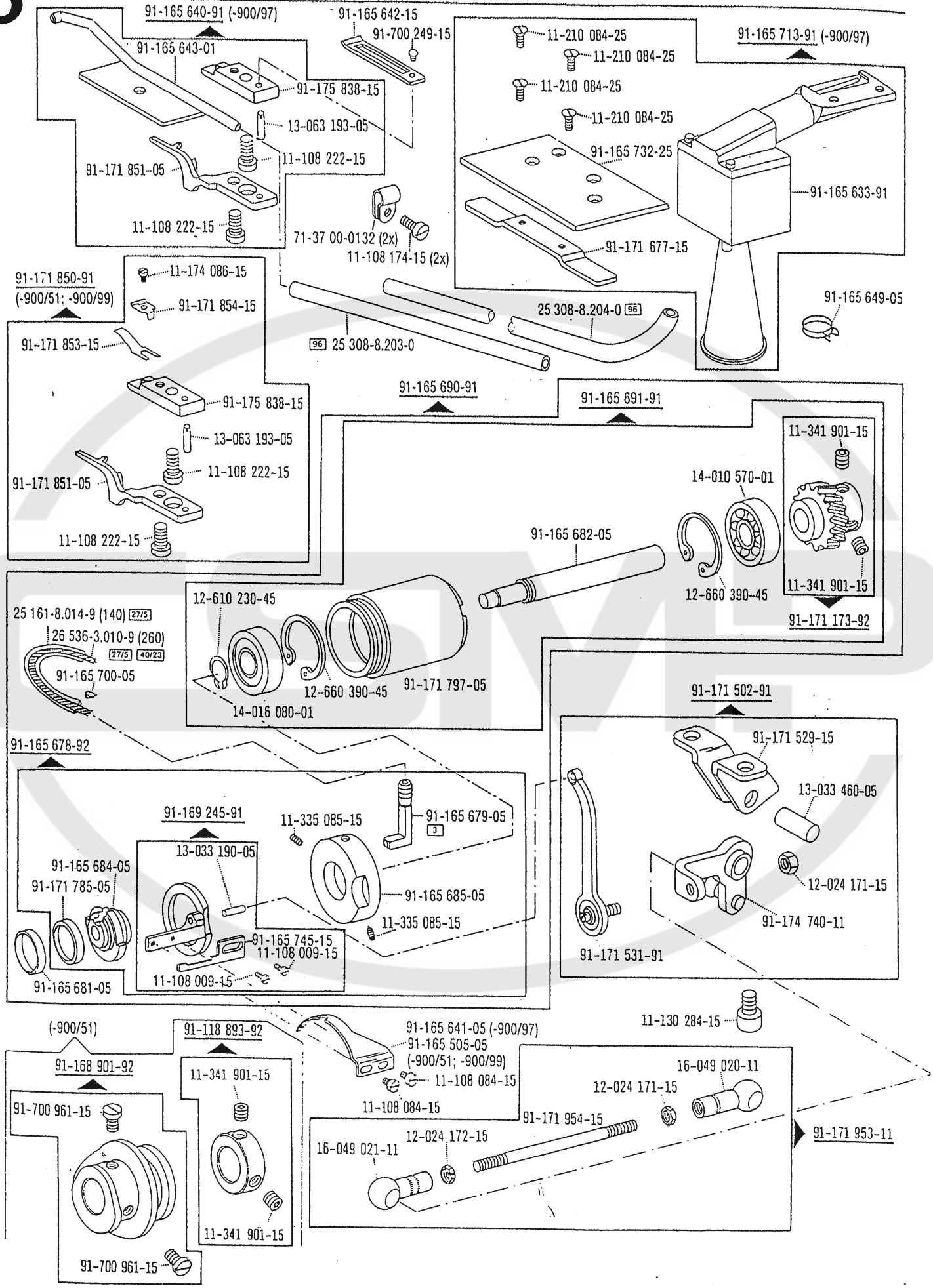


siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

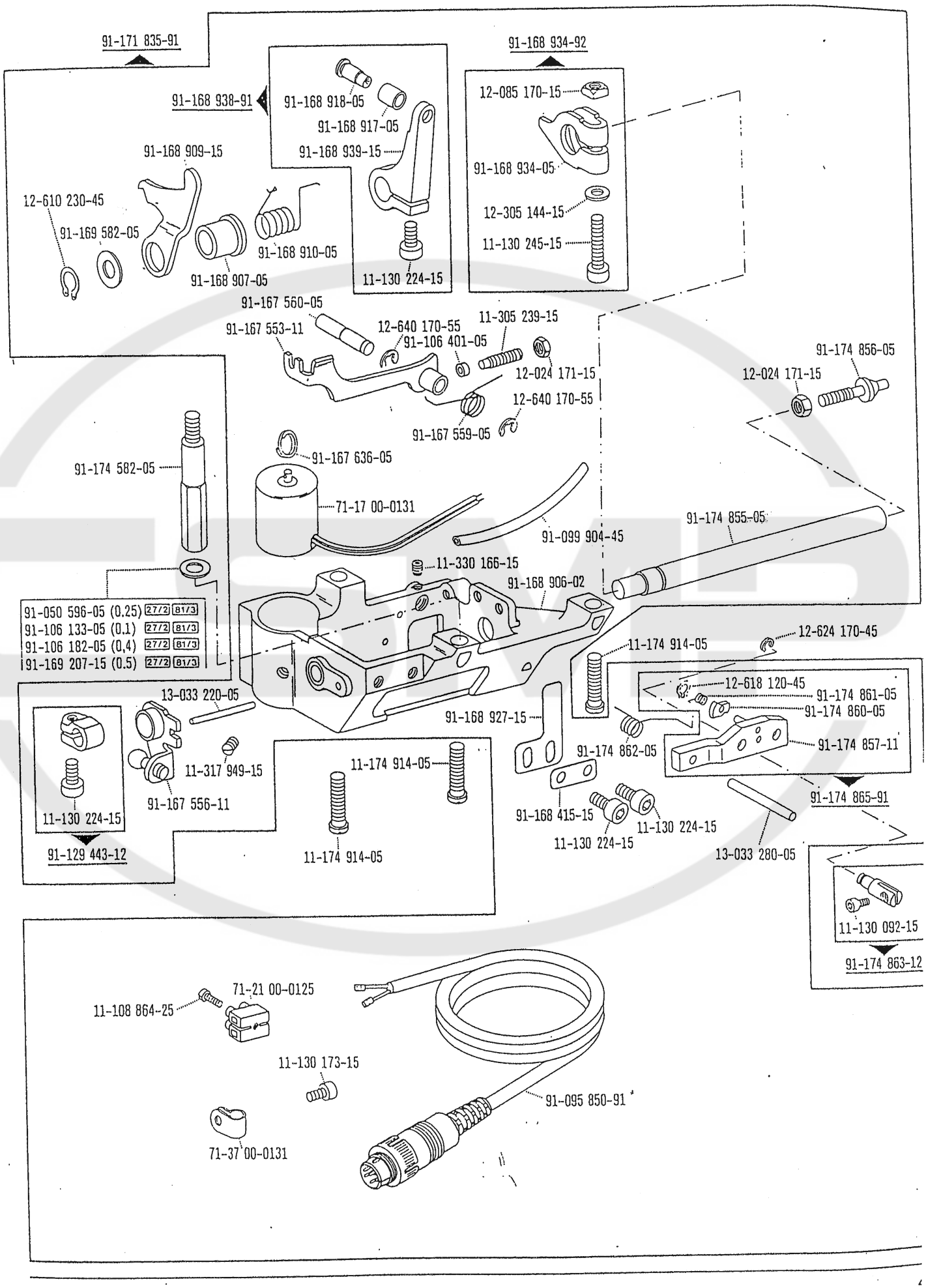

91-100 143-05
91-174 367-01
12-024 121-15
91-069 955-05
91-174 361-01
91-165 617-01
91-165 609-05
3573 91-175 762-05
11-225 232-15
91-175 557-01
91-174 851-05
91-174 867-91
12-624 200-45
91-174 875-05
91-174 059-05
siehe Seite 41 und 42
see page 41 and 42
voir page 41 et 42
vease la pagina 41 y 42
91-096 334-15

8

Fadenabschneid-Einrichtung
Thread trimmer -900/51
Coupe-fil -900/97
Cortahilos -900/99 zur · pour for · para PFAFF 481-G; 483-G

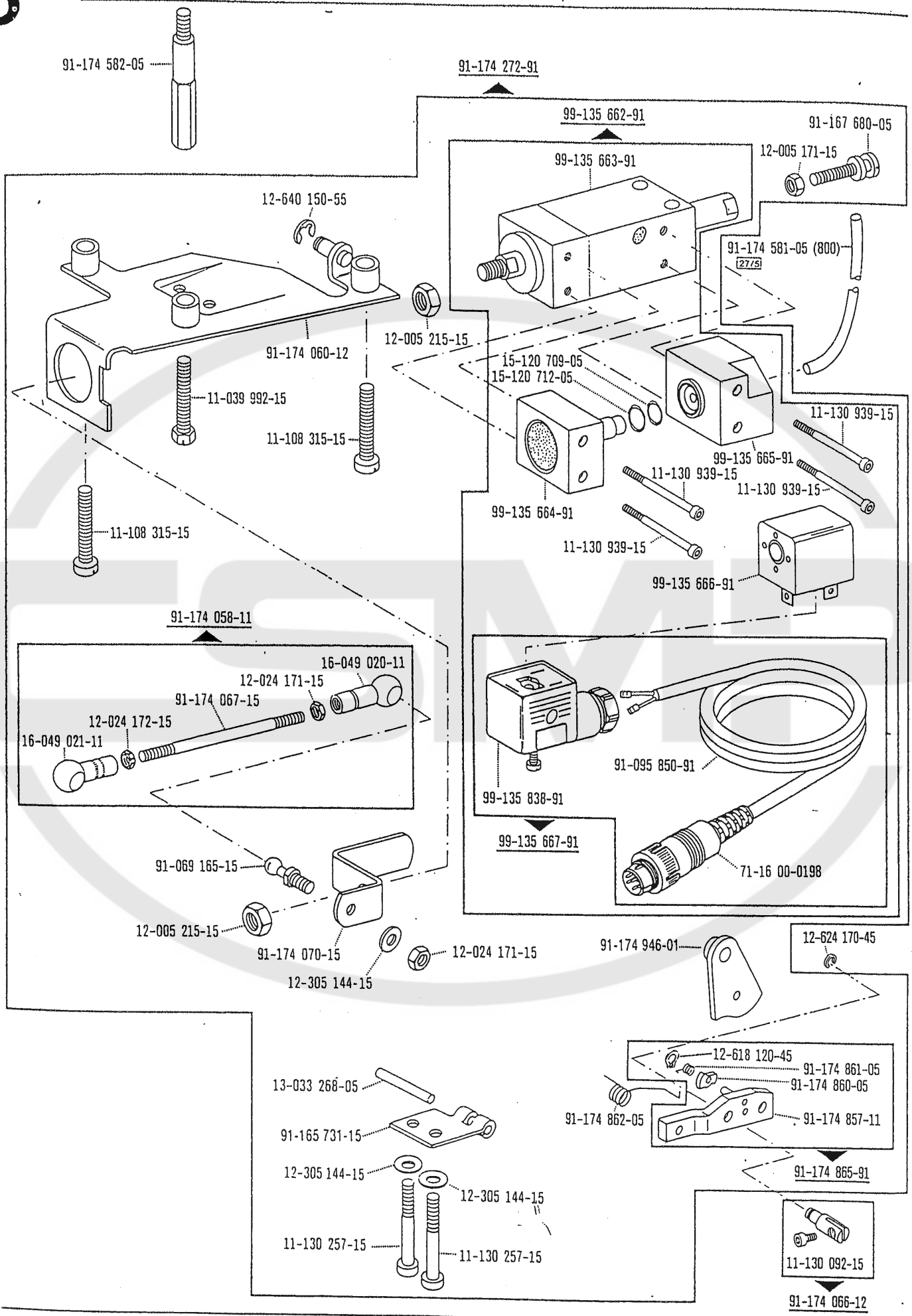


siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

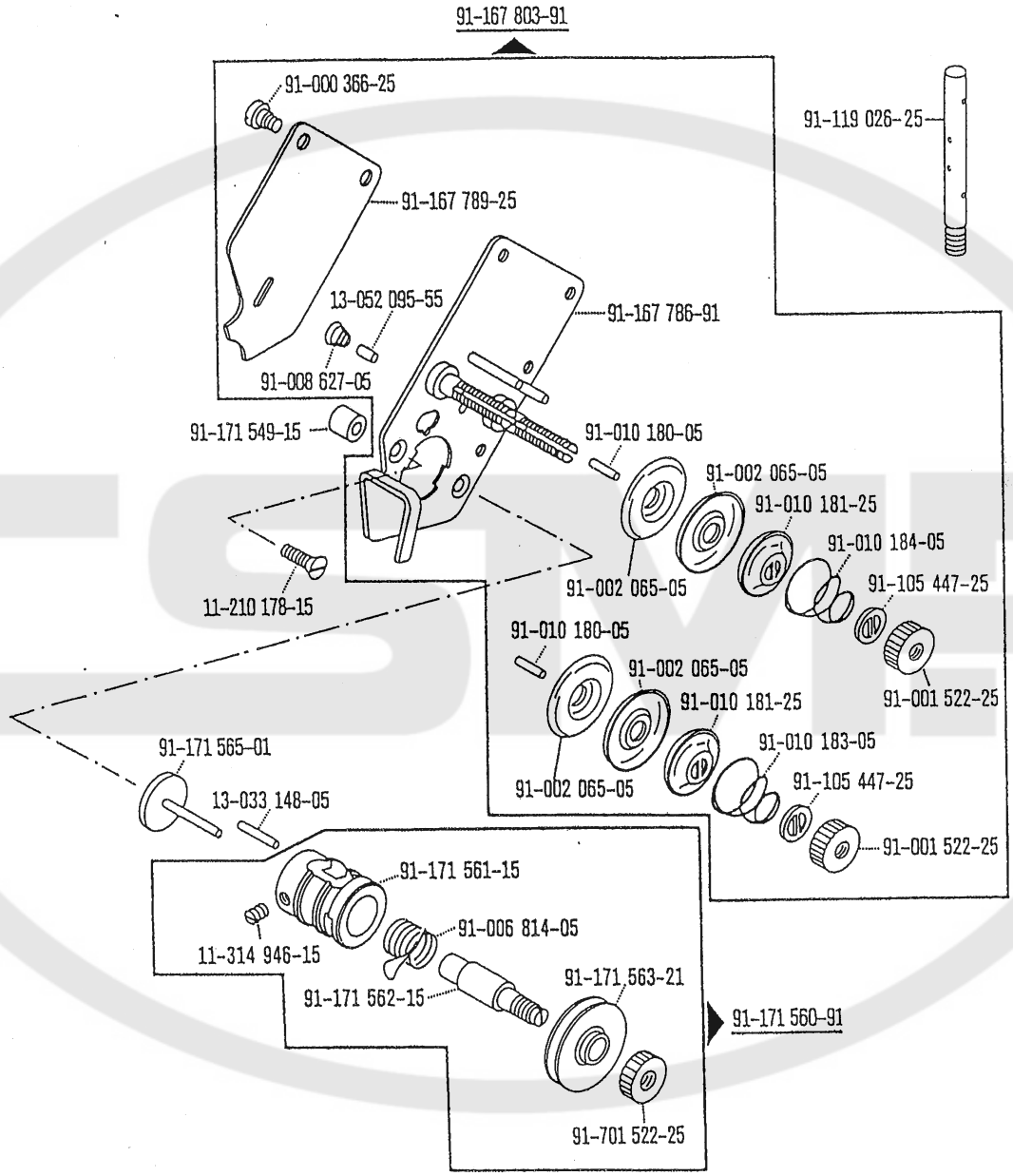

91-171 835-91
91-168 938-91
91-168 918-05
91-168 917-05
91-168 939-15
91-168 909-15
12-610 230-45
91-169 582-05
91-168 910-05
91-168 907-05
11-130 224-15
91-168 934-92
12-085 170-15
91-168 934-05
12-305 144-15
11-130 245-15
91-167 560-05
91-167 553-11
12-640 170-55
91-106 401-05
11-305 239-15
12-024 171-15
12-640 170-55
91-167 559-05
91-174 856-05
12-024 171-15
91-174 582-05
91-167 636-05
71-17 00-0131
91-099 904-45
91-174 855-05
11-330 166-15
91-168 906-02
91-050 596-05 (0.25) 27/2 81/3
91-106 133-05 (0.1) 27/2 81/3
91-106 182-05 (0,4) 27/2 81/3
91-169 207-15 (0.5) 27/2 81/3
13-033 220-05
11-317 949-15
91-167 556-11
11-130 224-15
91-129 443-12
11-174 914-05
11-174 914-05
91-168 927-15
11-174 914-05
12-624 170-45
12-618 120-45
91-174 861-05
91-174 860-05
91-174 857-11
91-174 862-05
91-168 415-15
11-130 224-15
11-130 224-15
91-174 865-91
13-033 280-05
11-130 092-15
91-174 863-12
71-21 00-0125
11-108 864-25
11-130 173-15
91-095 850-91
71-37 00-0131

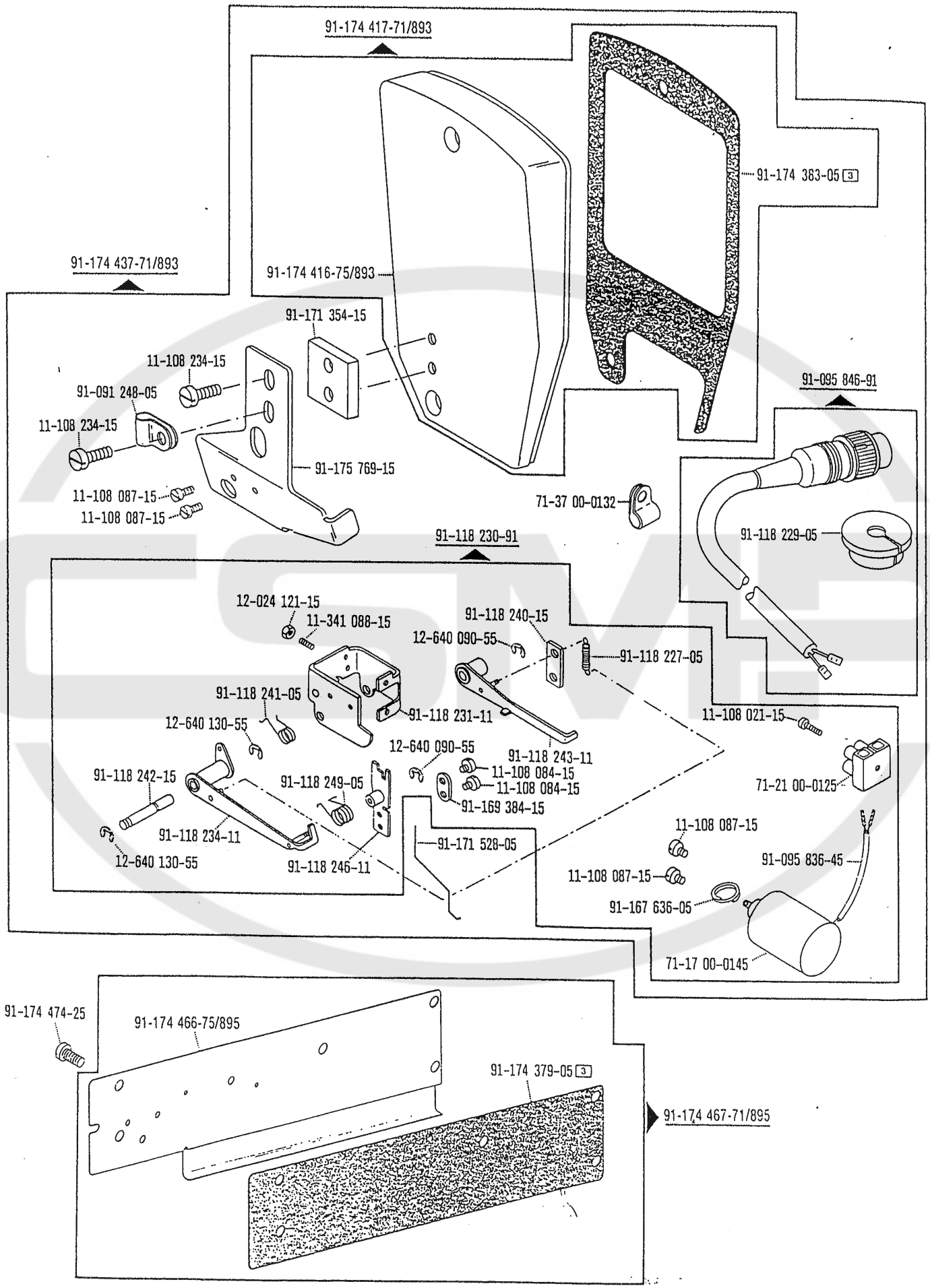
Fadenabschneid-Einrichtung
Thread trimmer
Coupe-fil
Cortahilos

-900/97
-900/99 zur • pour for • para PFAFF 481-G; 483-G

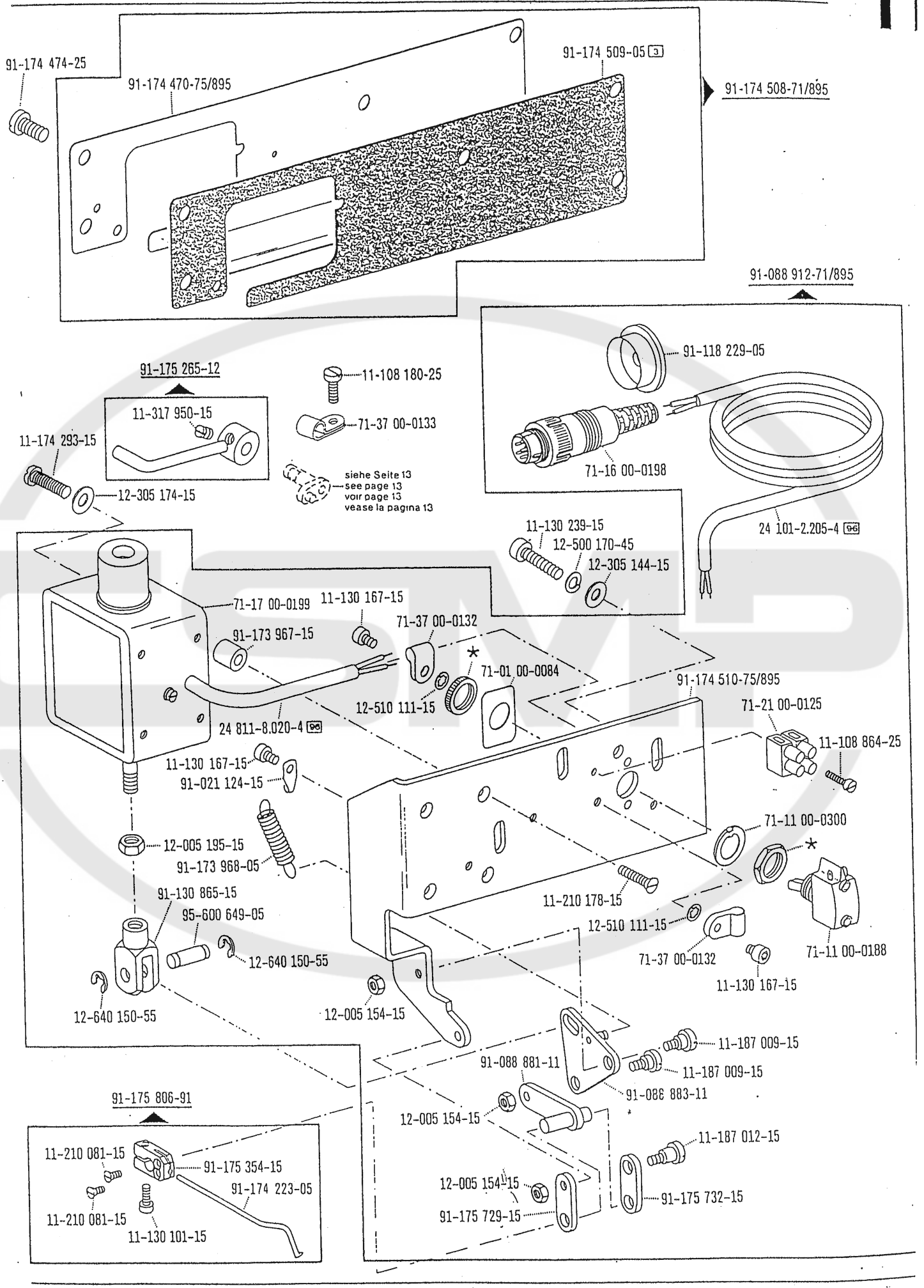


siehe Erlauterungen Register 0
see explanations in section 0
voir légende registre 0


91-167 803-91
91-000 366-25
91-119 026-25
91-167 789-25
13-052 095-55
91-167 786-91
91-008 627-05
91-171 549-15
91-010 180-05
91-002 065-05
91-010 181-25
91-010 184-05
91-105 447-25
11-210 178-15
91-002 065-05
91-001 522-25
91-010 180-05
91-002 065-05
91-010 181-25
91-010 183-05
91-105 447-25
91-171 565-01
13-033 148-05
91-002 065-05
91-001 522-25
91-171 561-15
91-006 814-05
11-314 946-15
91-171 563-21
91-171 562-15
91-171 560-91
91-701 522-25

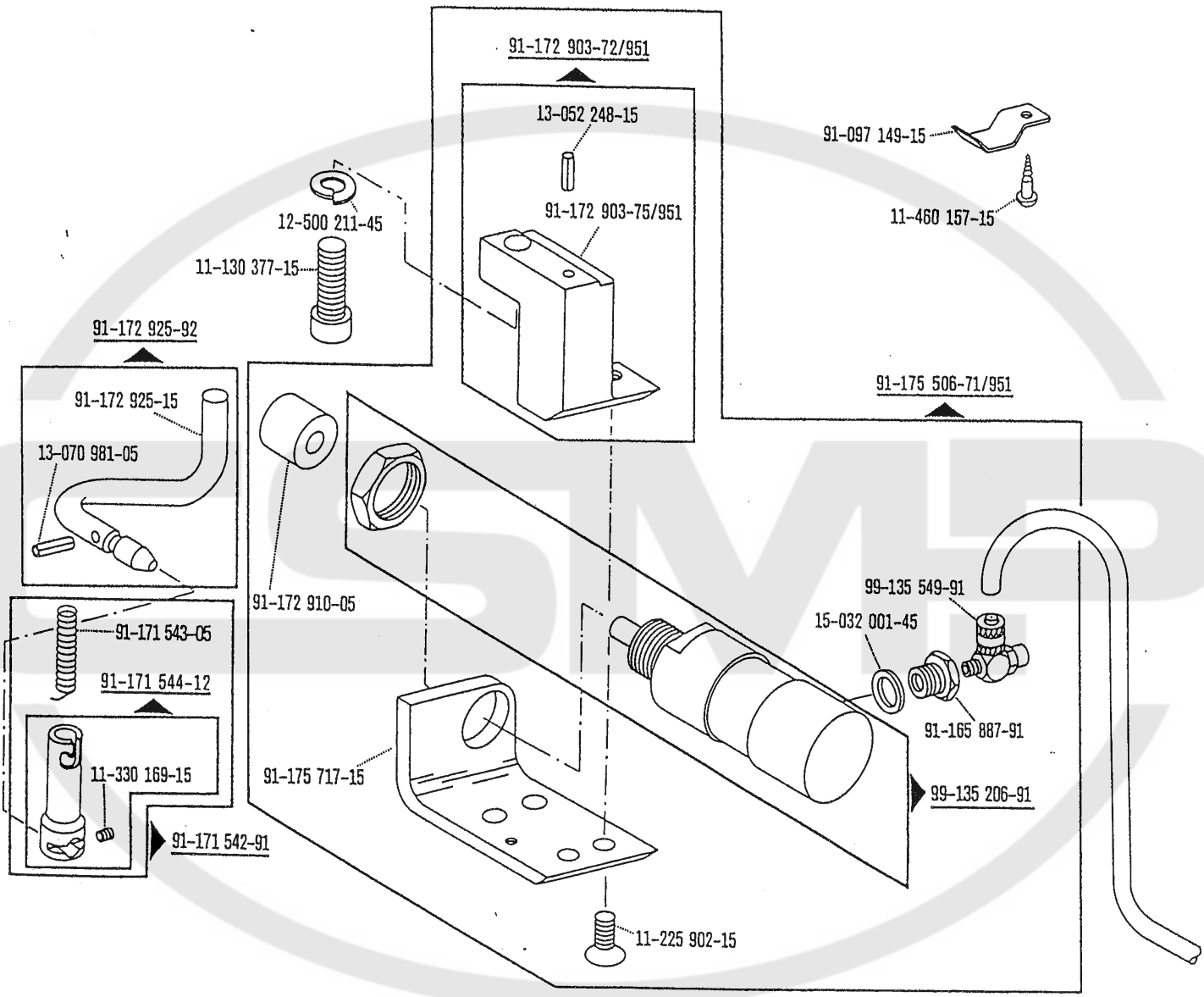


siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

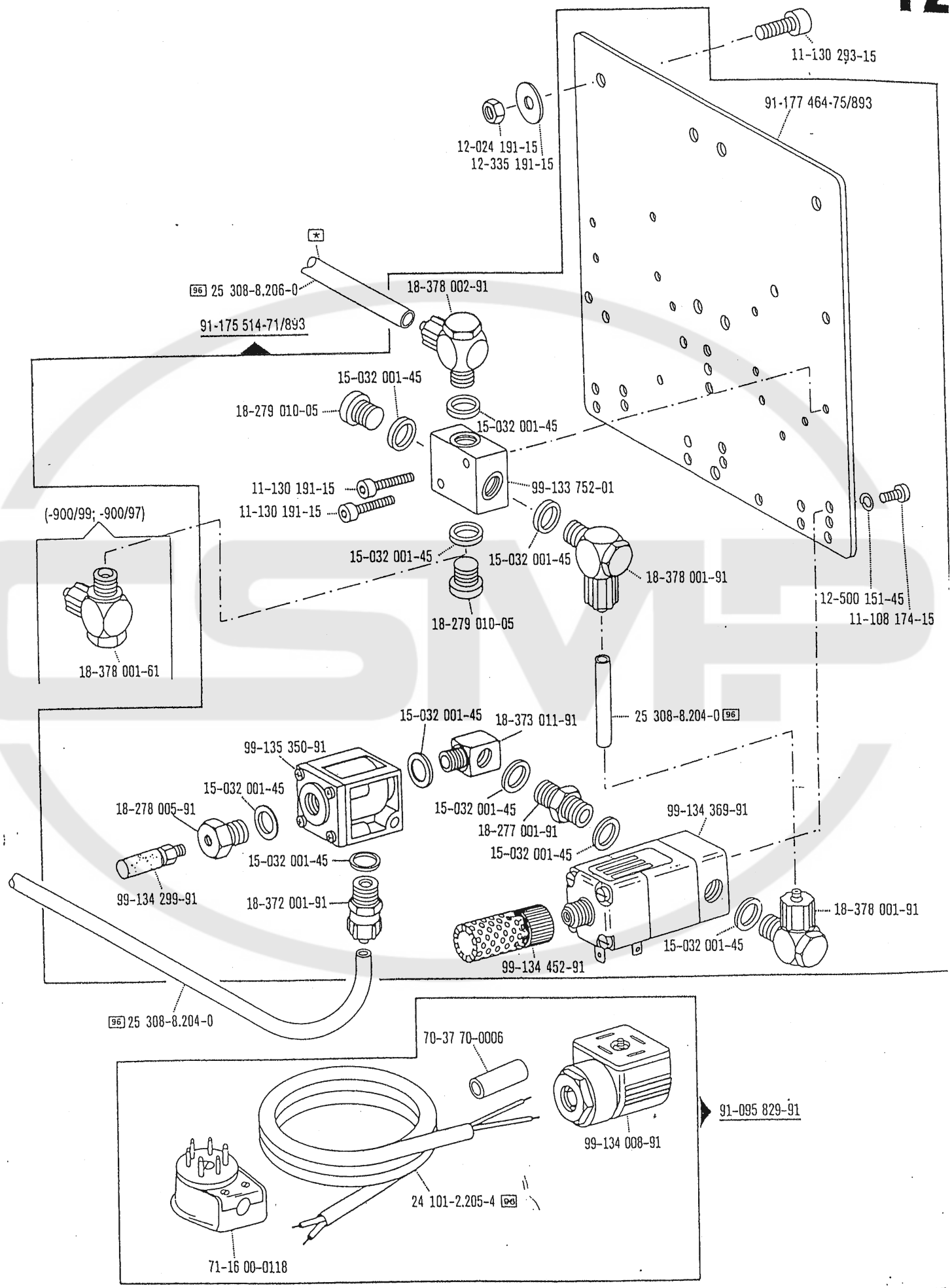


☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

* In Nr. 71-1100-0188 enthalten
In No. 71-1100-0188 included
Est inclu en n° 71-1100-0188

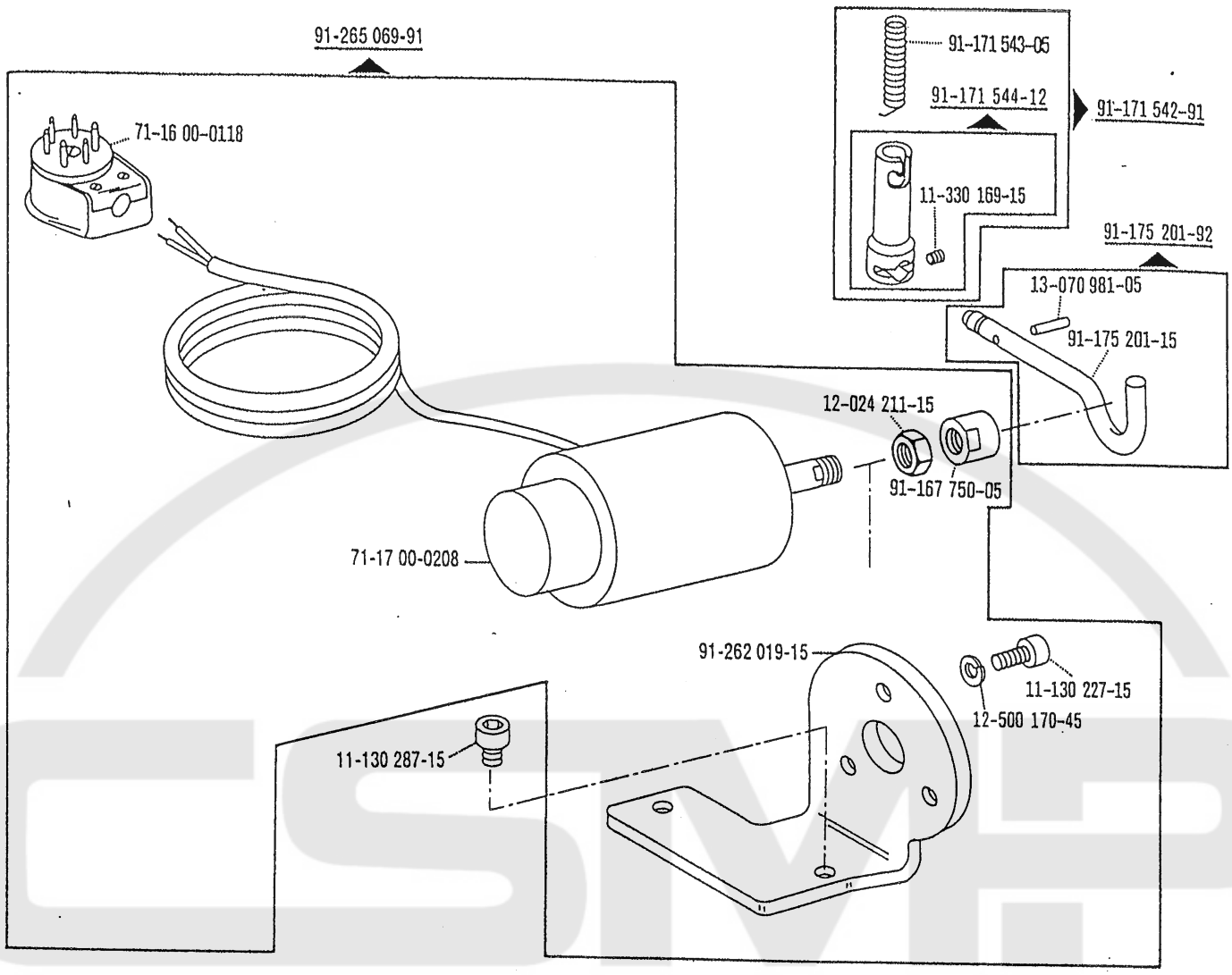


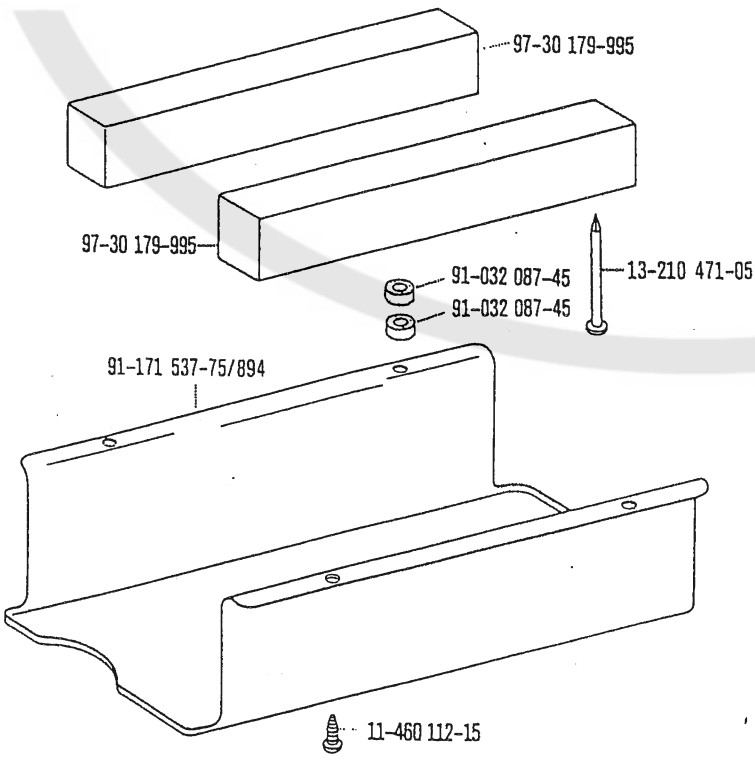
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0



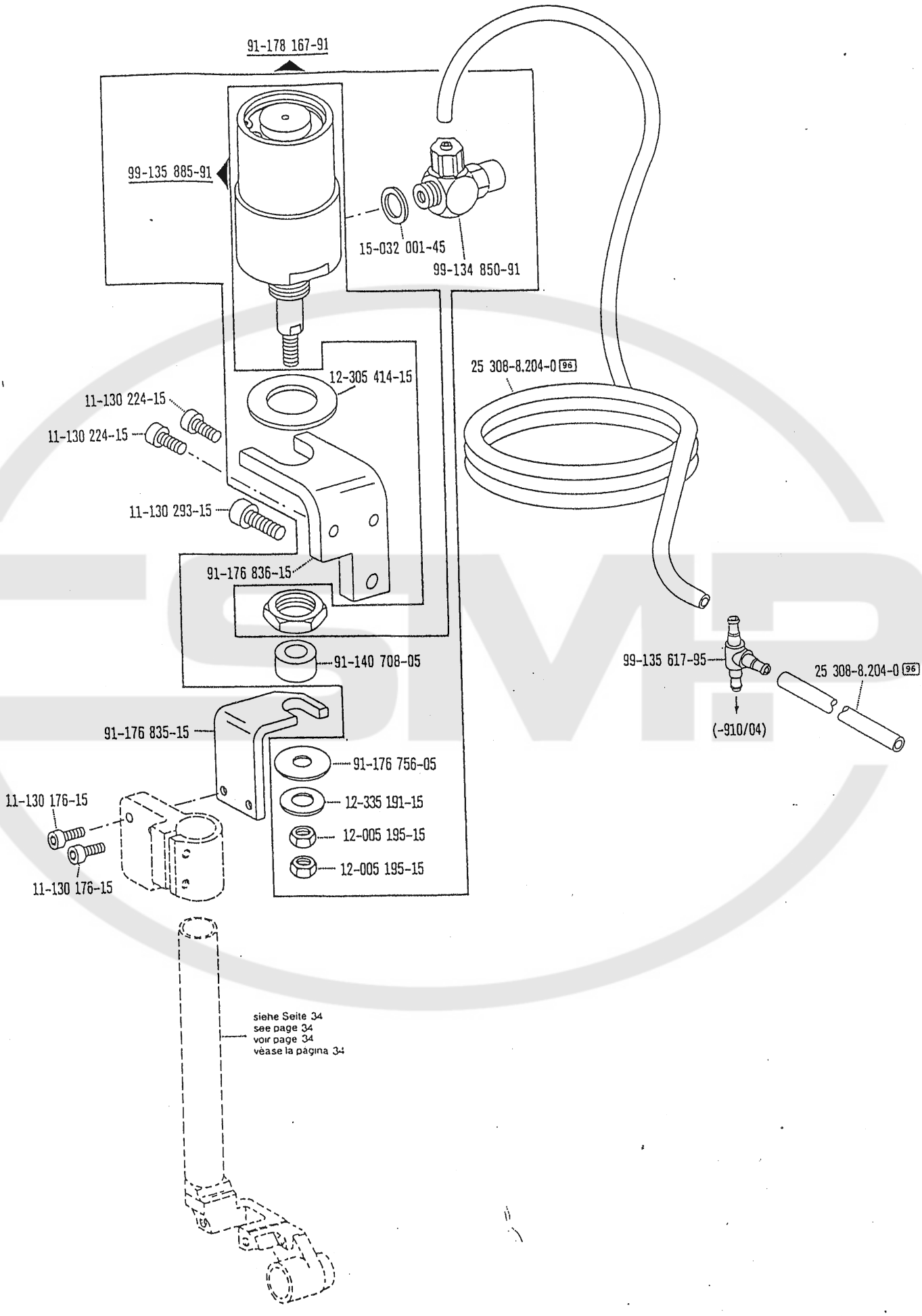
□ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

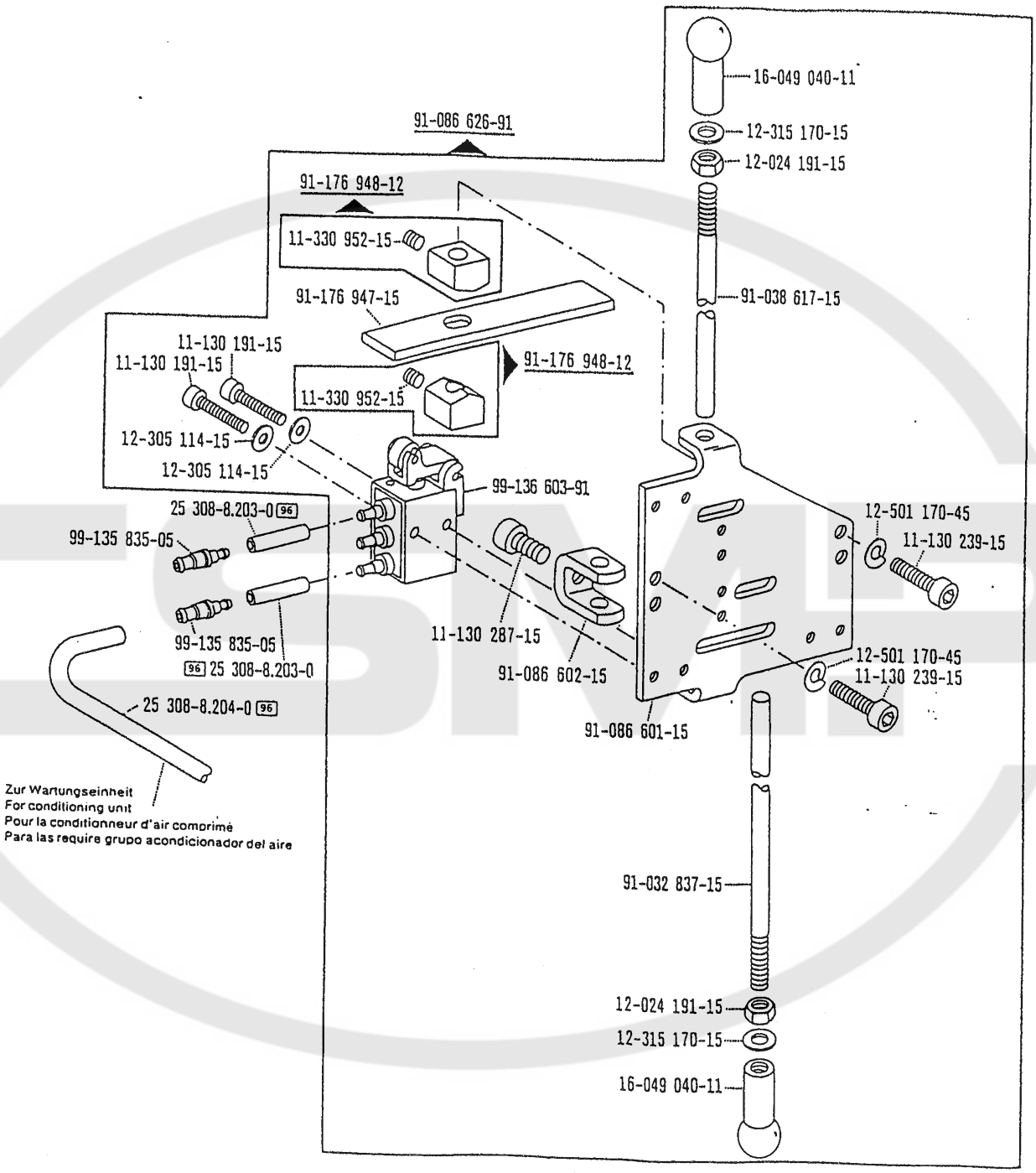
⊡ Zur Wartungseinheit
For conditioning unit
Pour la conditionneur d'air comprimé





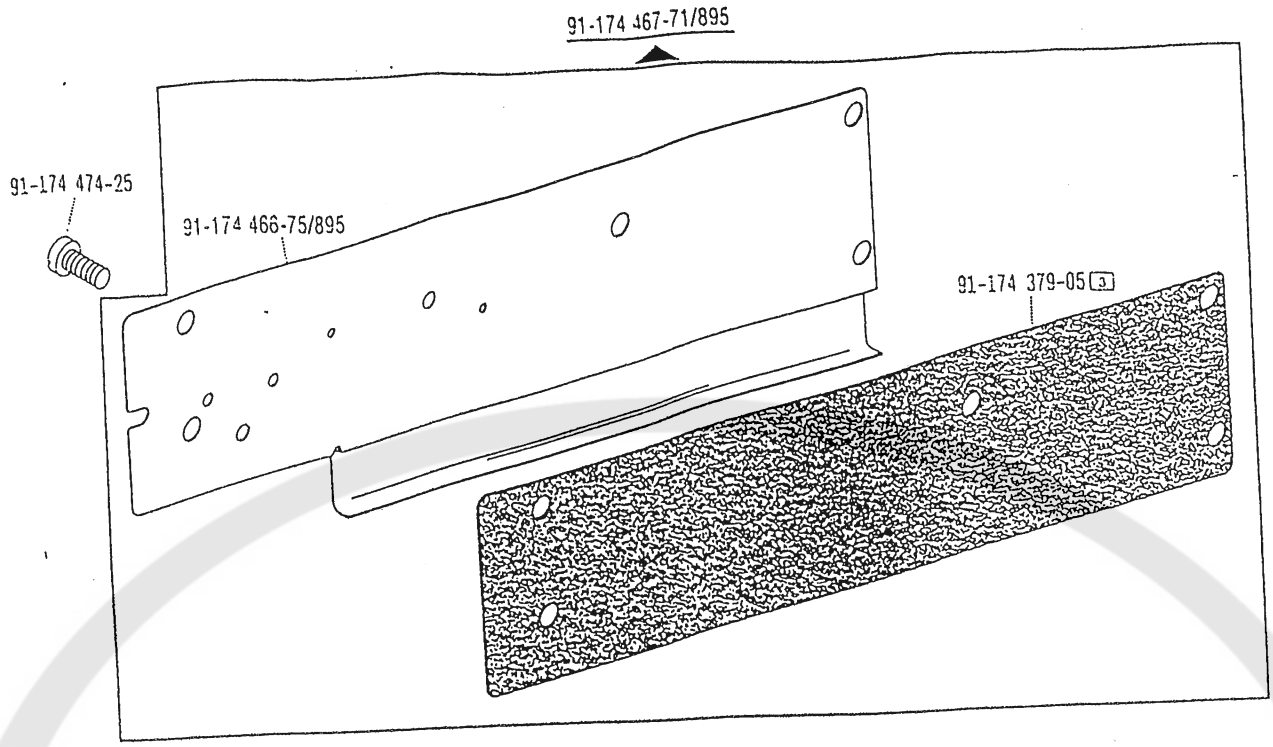
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

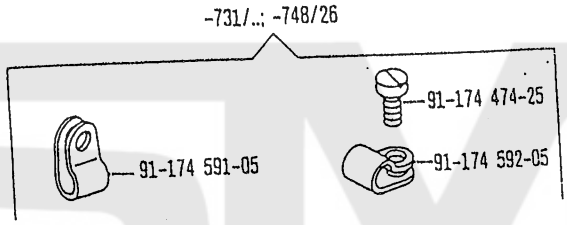

91-178 167-91
99-135 885-91
15-032 001-45
99-134 850-91
25 308-8.204-0 96
12-305 414-15
11-130 224-15
11-130 224-15
11-130 293-15
91-176 836-15
91-140 708-05
99-135 617-95
25 308-8.204-0 96
(-910/04)
91-176 835-15
91-176 756-05
12-335 191-15
12-005 195-15
12-005 195-15
11-130 176-15
11-130 176-15
siehe Seite 34
see page 34
voir page 34
véase la página 34

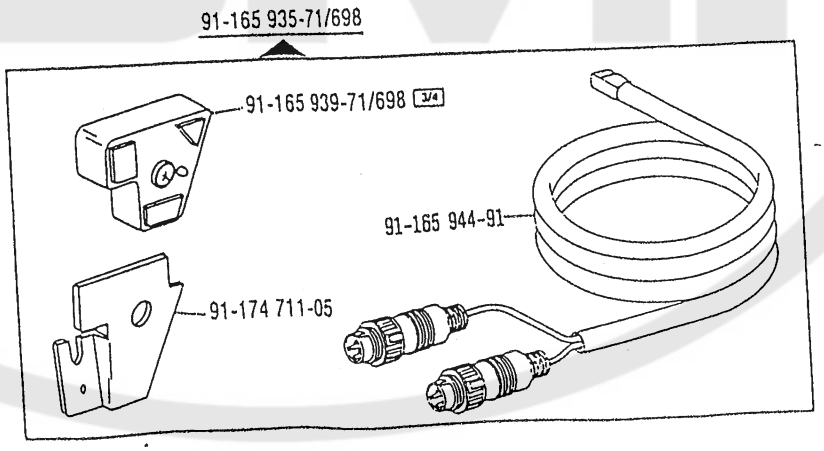


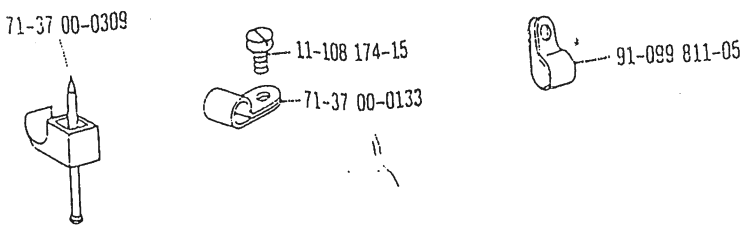
*) Beinhaltet Presserfuß-Automatik -910/04
With automatic presser foot lifter -910/04
Relève-pied compris, -910/04
Alzaprensatelas automático -910/04

siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0



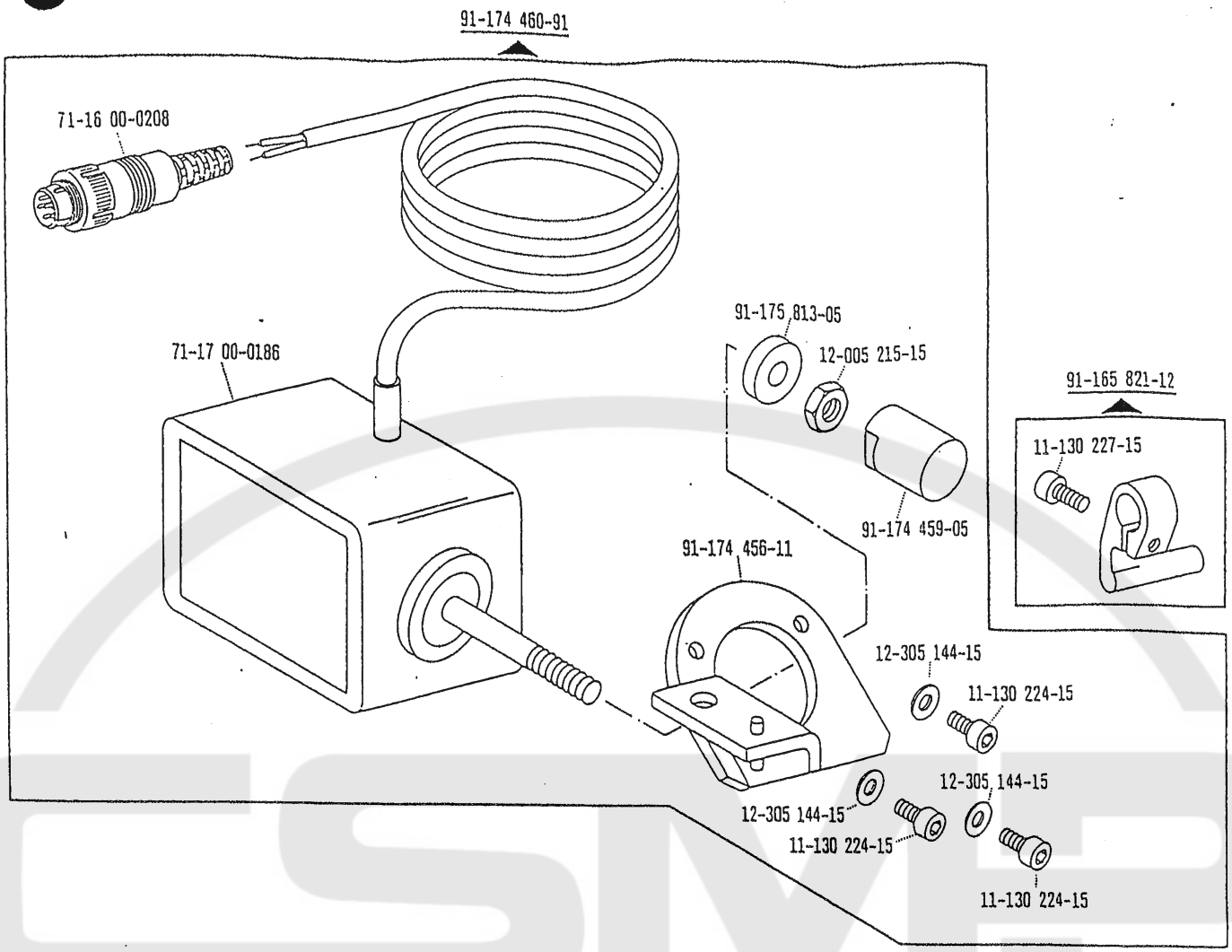


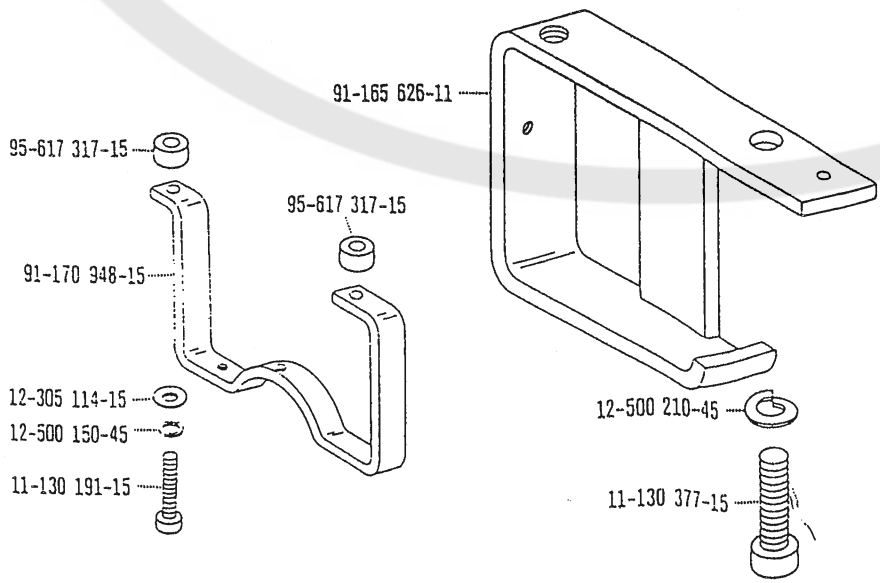




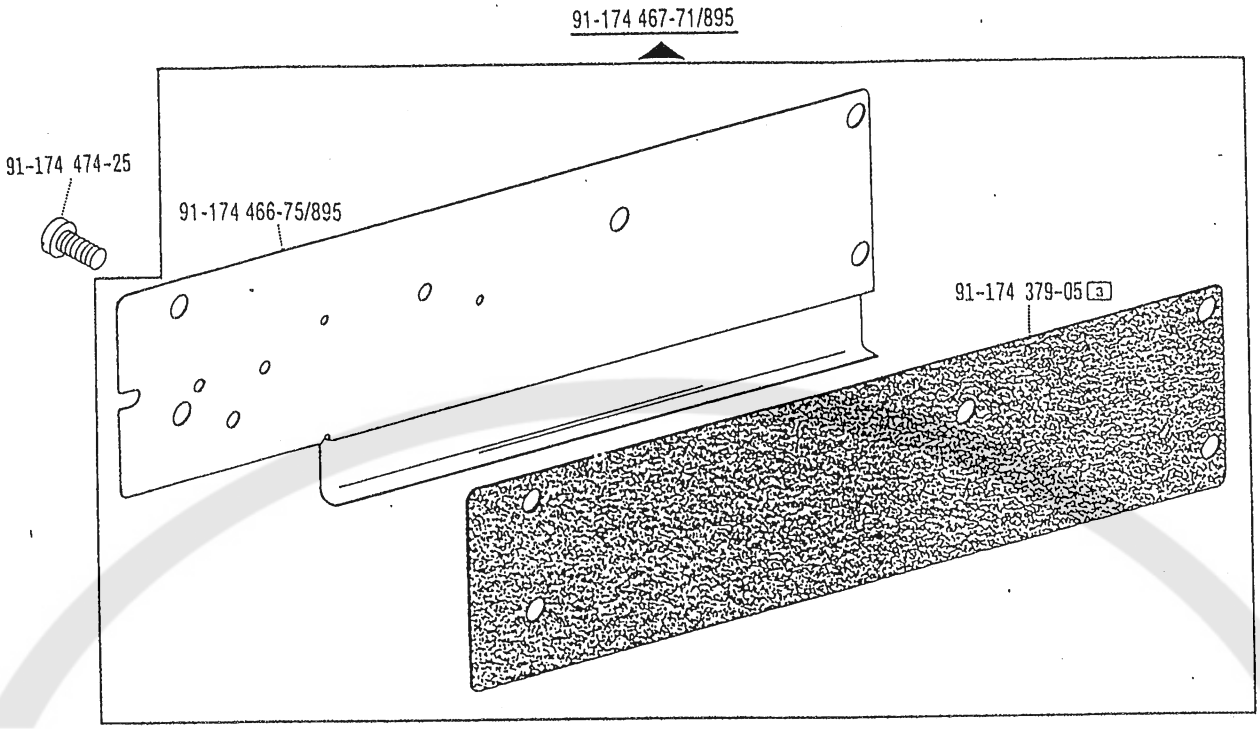
☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

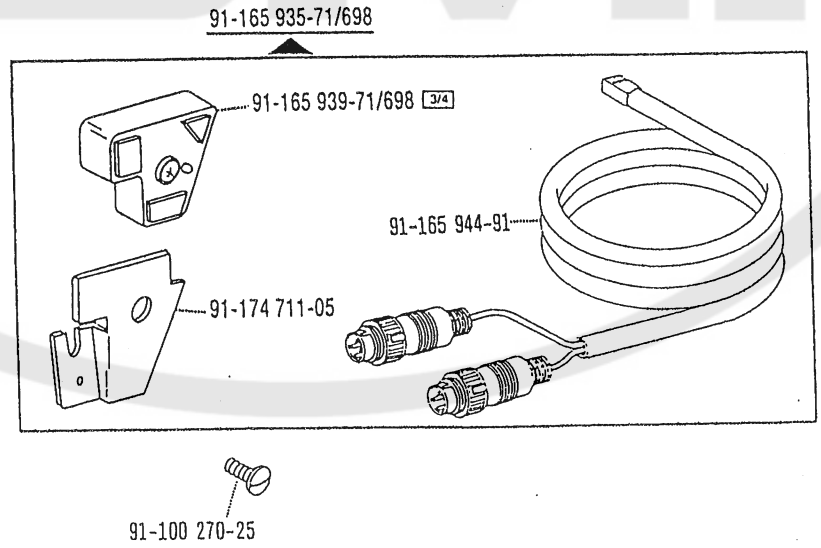
*) Beinhaltet Presserfuß-Automatik -910/04
With automatic presser foot lifter -910/04
Relève-pied compris, -910/04
Alzaprensatelas automatico -910/04

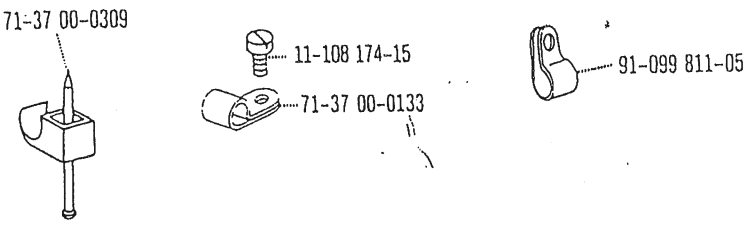




siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0


91-174 467-71/895
91-174 474-25
91-174 466-75/895
91-174 379-05 3

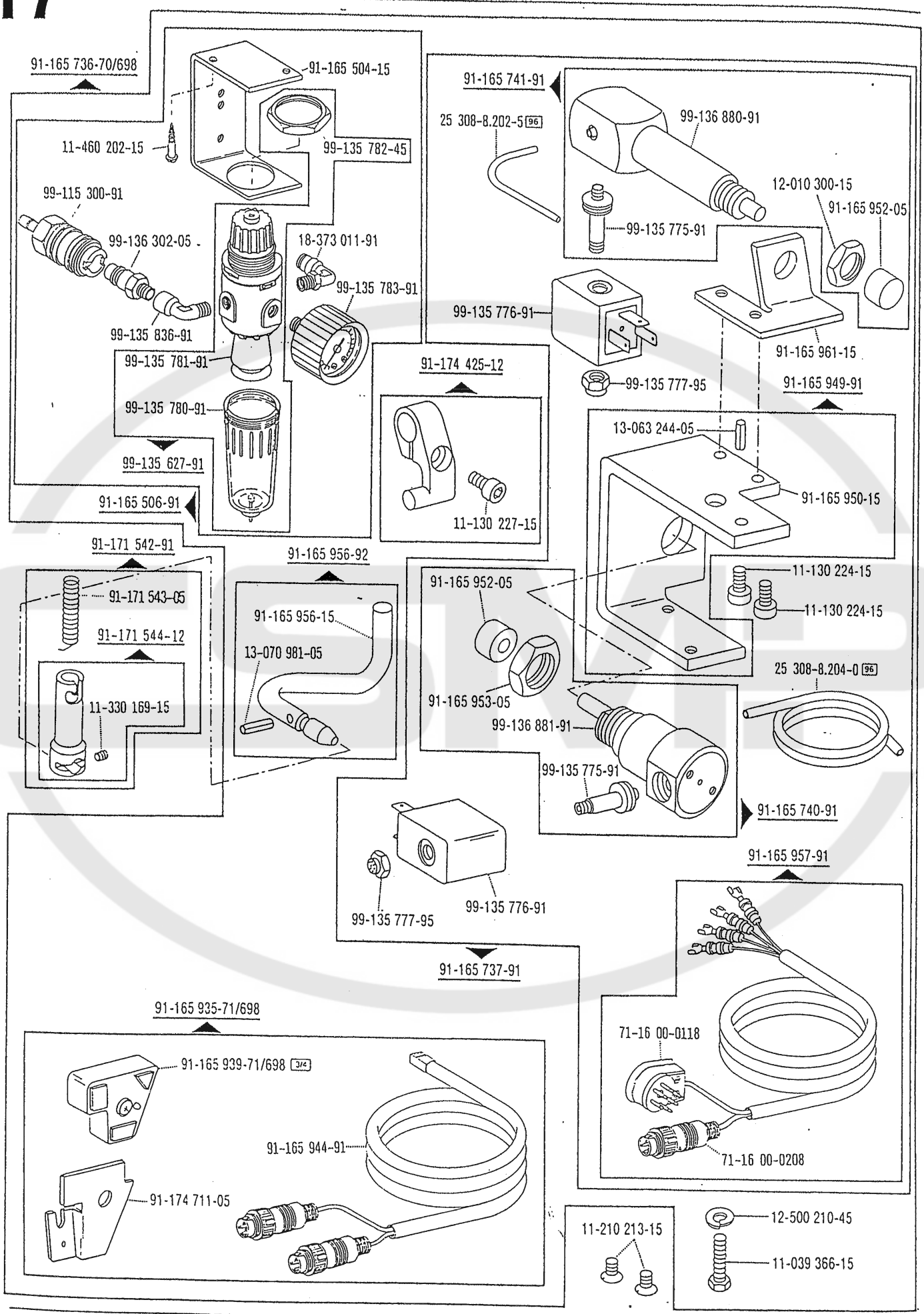

91-165 935-71/698
91-165 939-71/698 3/4
91-165 944-91
91-174 711-05
91-100 270-25


71-37 00-0309
11-108 174-15
71-37 00-0133
91-099 811-05

17

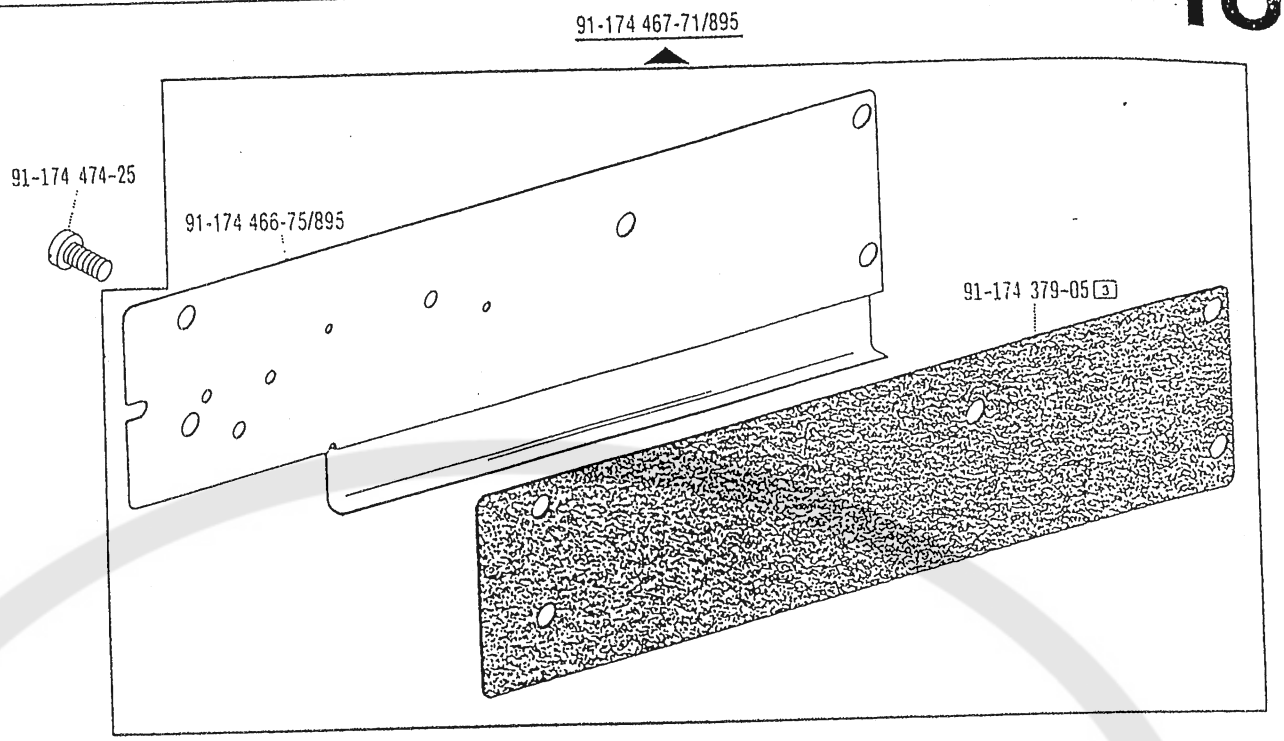
Verriegelungs-Einrichtung
Backtacking mechanism
Dispositif à points d'arrêt
Rematador

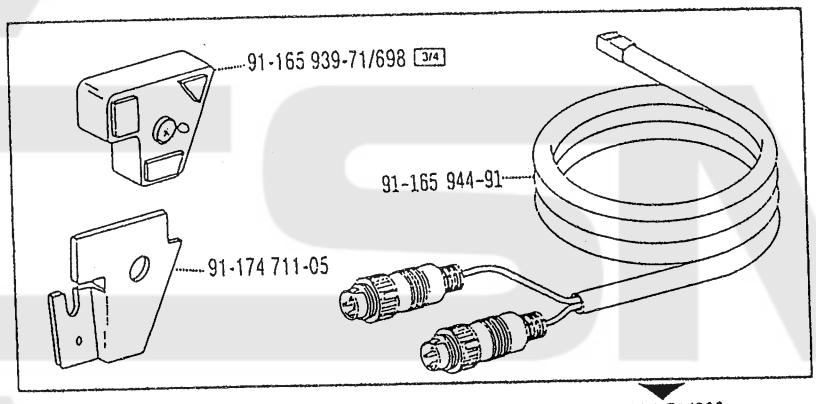
-911/97*) zur • pour lor • para PFAFF 481-G; 483-G

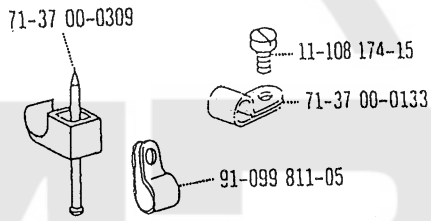


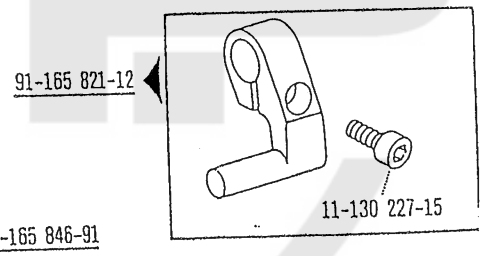
*) Beinhaltet Presserfuß-Automatik -910/04
With automatic presser foot lifter -910/04
Releve-pied compris. -910/04
Alzaprensatelas automatico -910/04

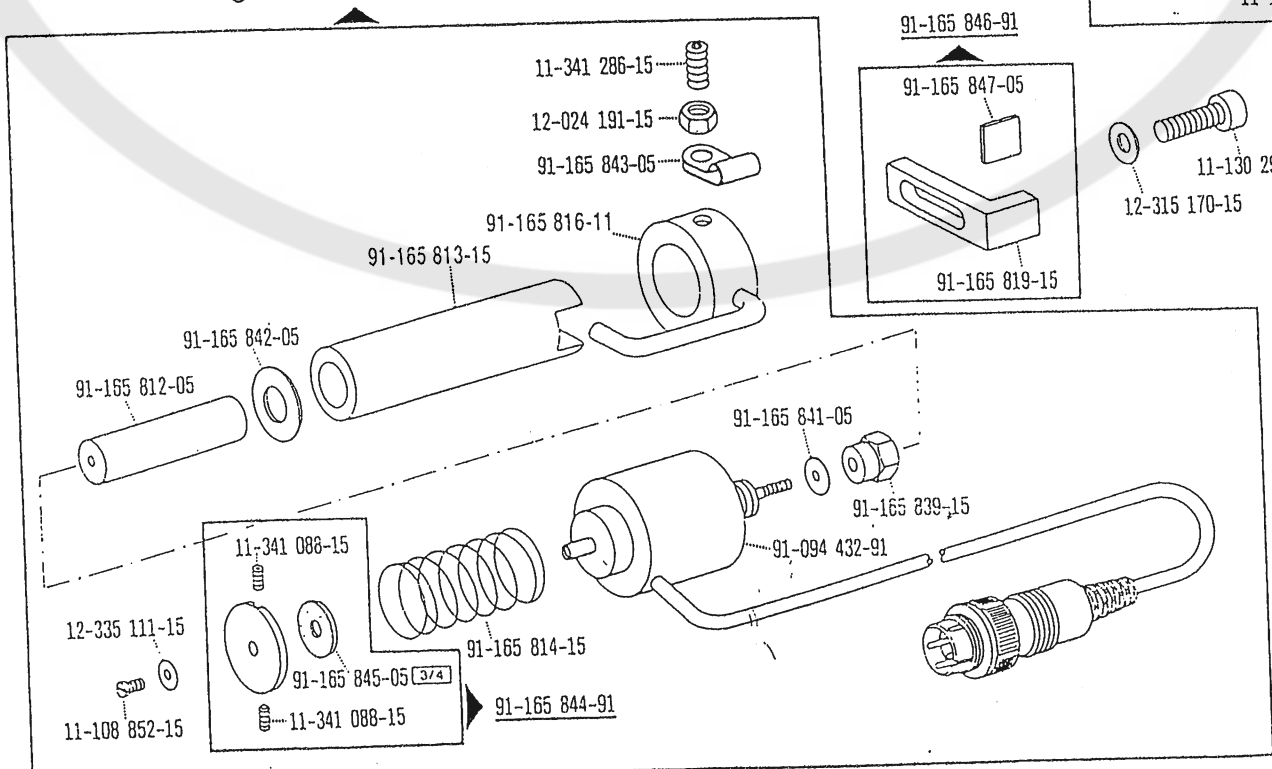
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0





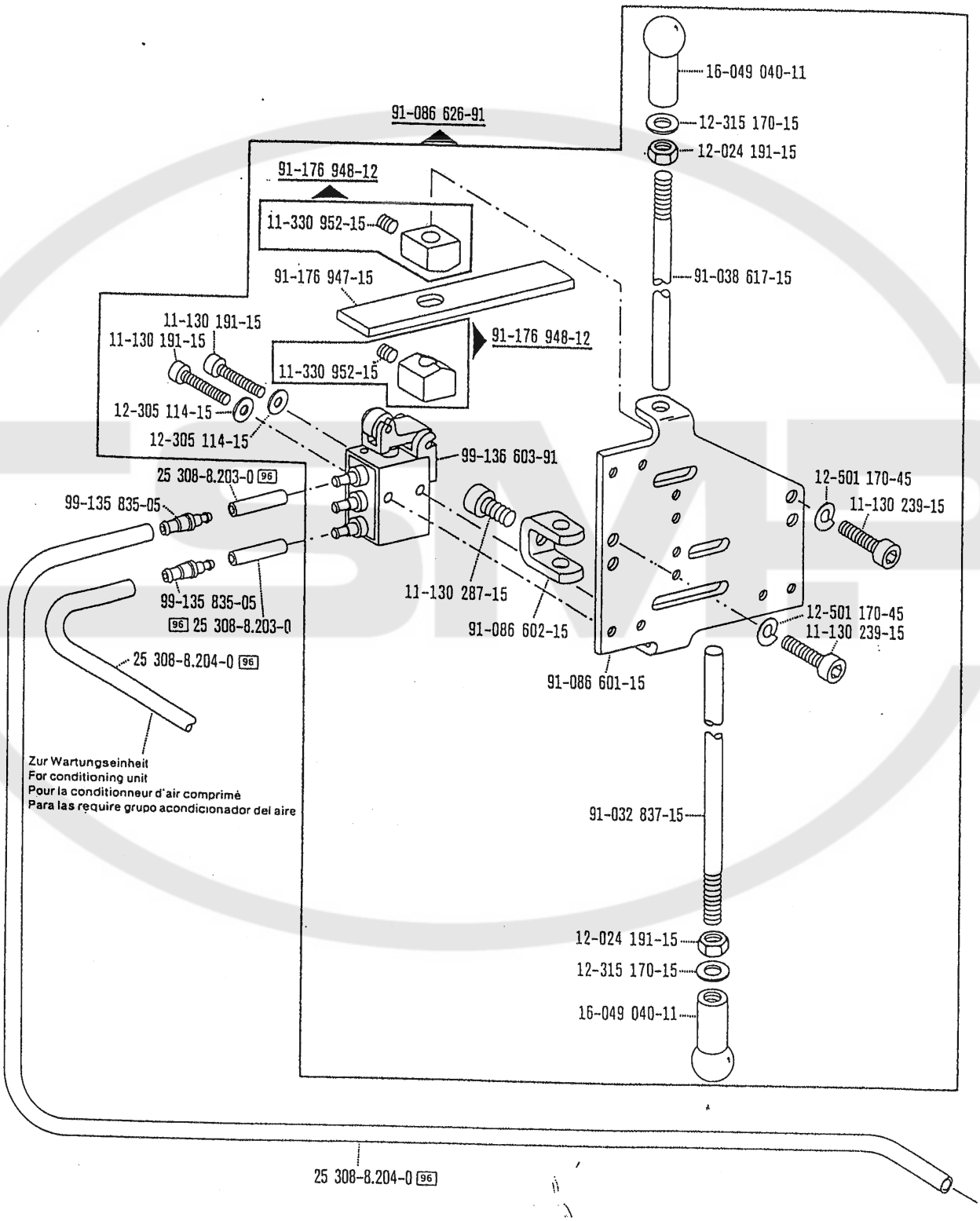




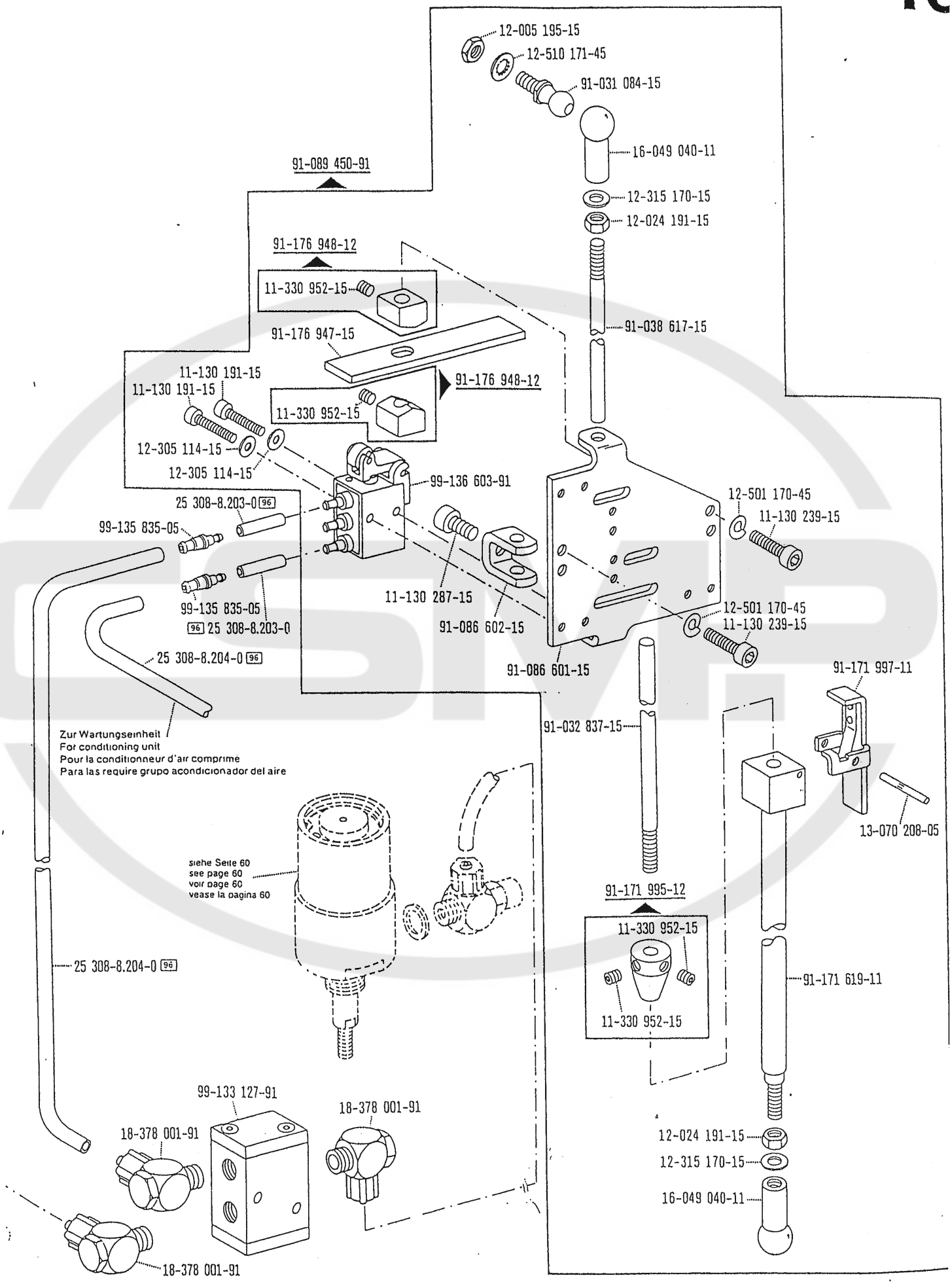


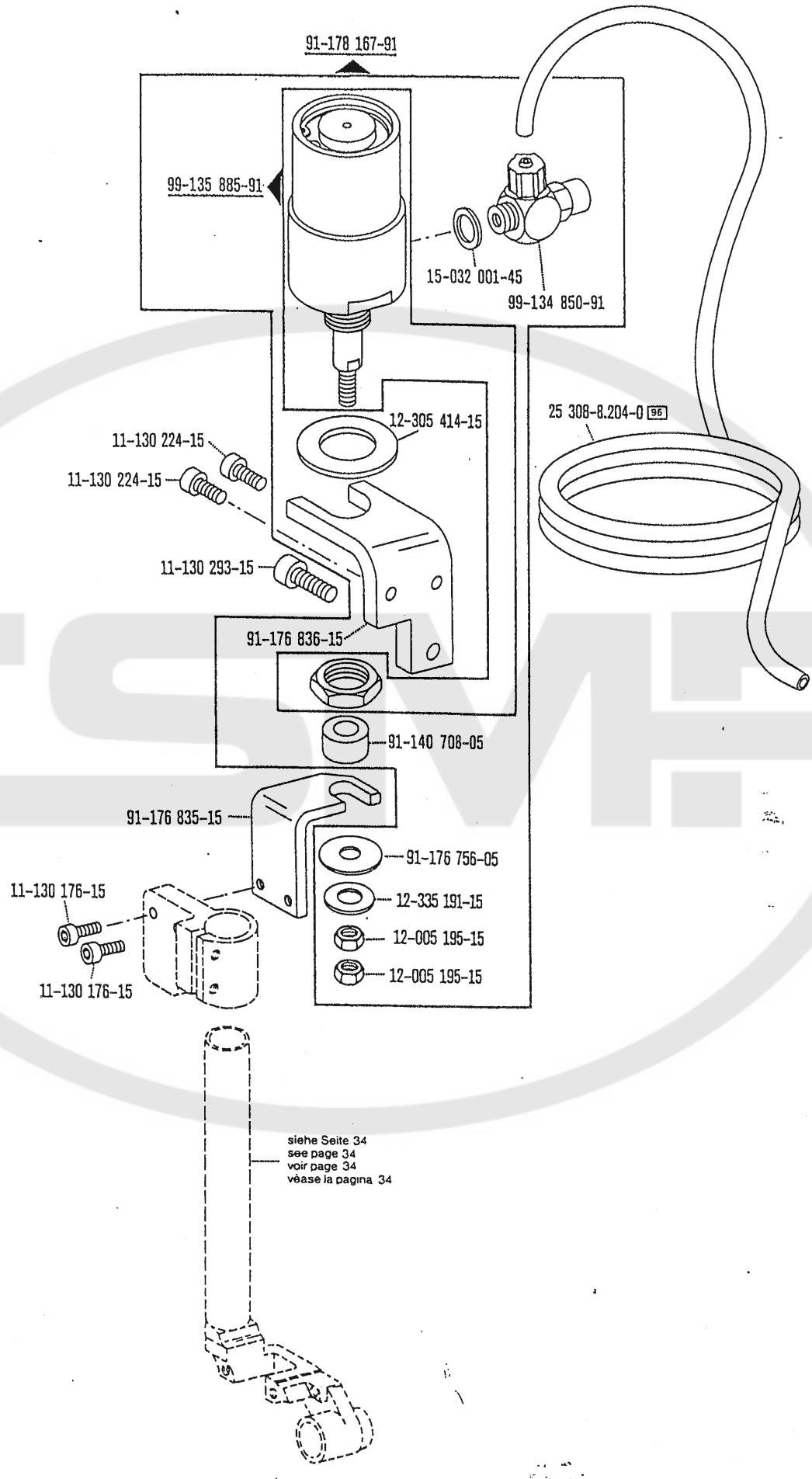
☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

*) Beinhaltet Verriegelungs-Einrichtung -911 35
With backtacking mechanism -911 35
Dispositif à points d'arrêt compris -911 35

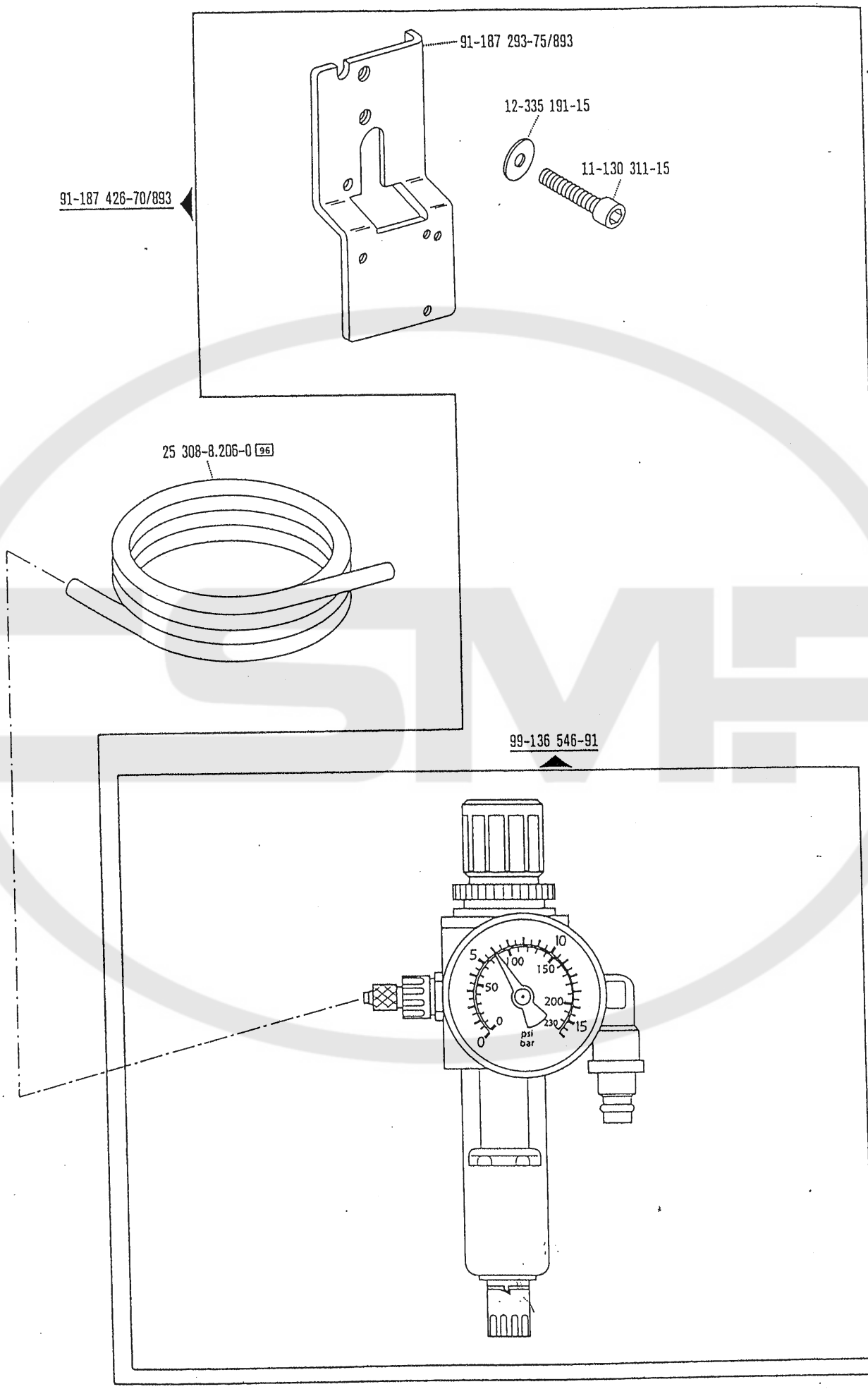


siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

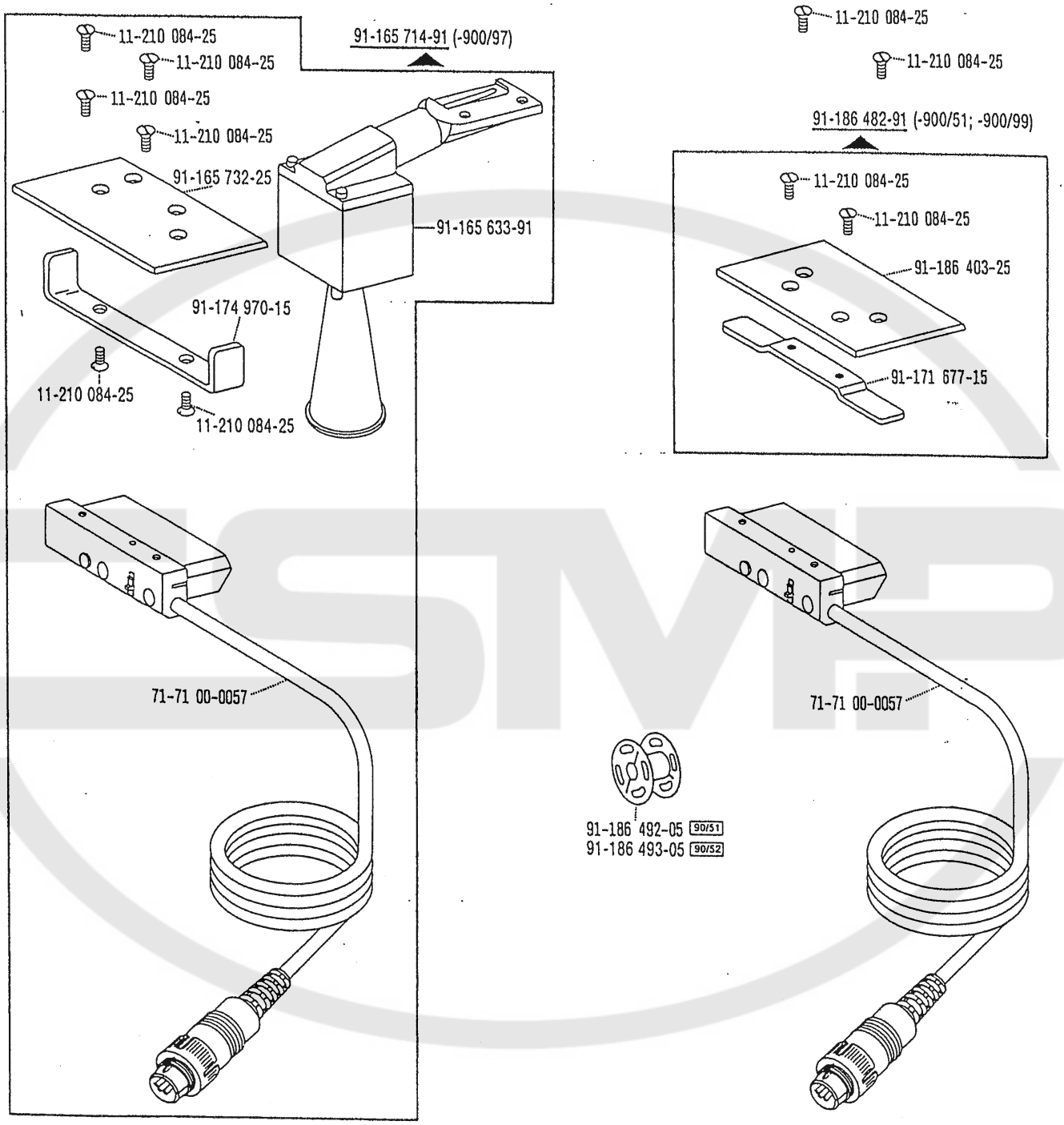

12-005 195-15
12-510 171-45
91-031 084-15
16-049 040-11
91-089 450-91
12-315 170-15
12-024 191-15
91-176 948-12
11-330 952-15
91-038 617-15
91-176 947-15
11-130 191-15
11-130 191-15
91-176 948-12
11-330 952-15
12-305 114-15
12-305 114-15
99-136 603-91
25 308-8.203-0 96
99-135 835-05
12-501 170-45
11-130 239-15
11-130 287-15
99-135 835-05
96 25 308-8.203-0
91-086 602-15
12-501 170-45
11-130 239-15
25 308-8.204-0 96
91-086 601-15
91-171 997-11
91-032 837-15
Zur Wartungseinheit
For conditioning unit
Pour la conditionneur d'air comprimé
Para las require grupo acondicionador del aire
13-070 208-05
siehe Seite 60
see page 60
voir page 60
vease la pagina 60
91-171 995-12
11-330 952-15
25 308-8.204-0 96
91-171 619-11
11-330 952-15
99-133 127-91
18-378 001-91
18-378 001-91
12-024 191-15
12-315 170-15
16-049 040-11
18-378 001-91



siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

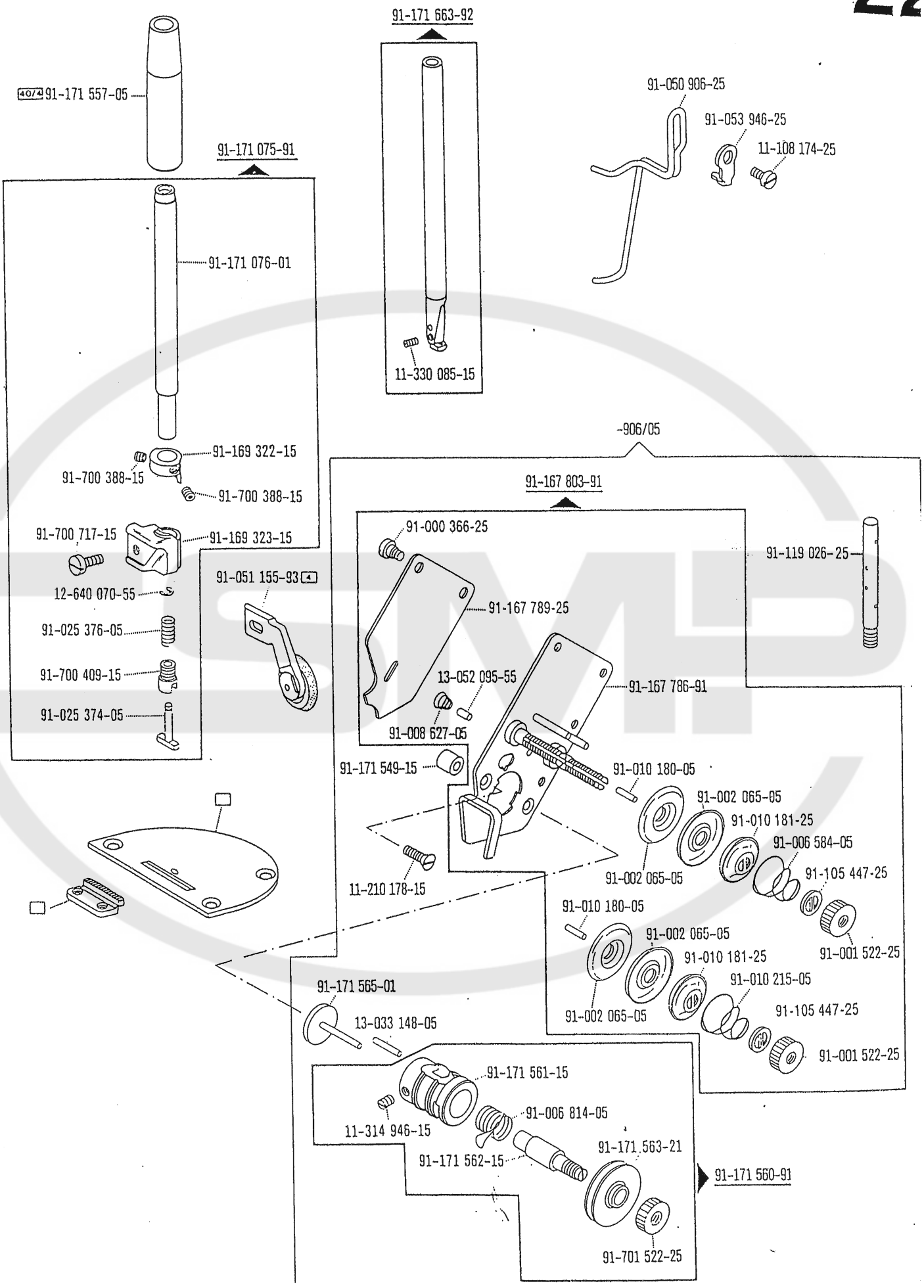


☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0



*) Beinhaltet Presserfuß-Automatik -910/04
With automatic presser foot lifter -910/04
Releve-pied compris. -910/04
Alzaprensatelas automático -910/04

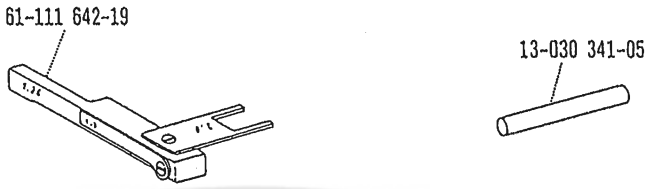
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0



siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

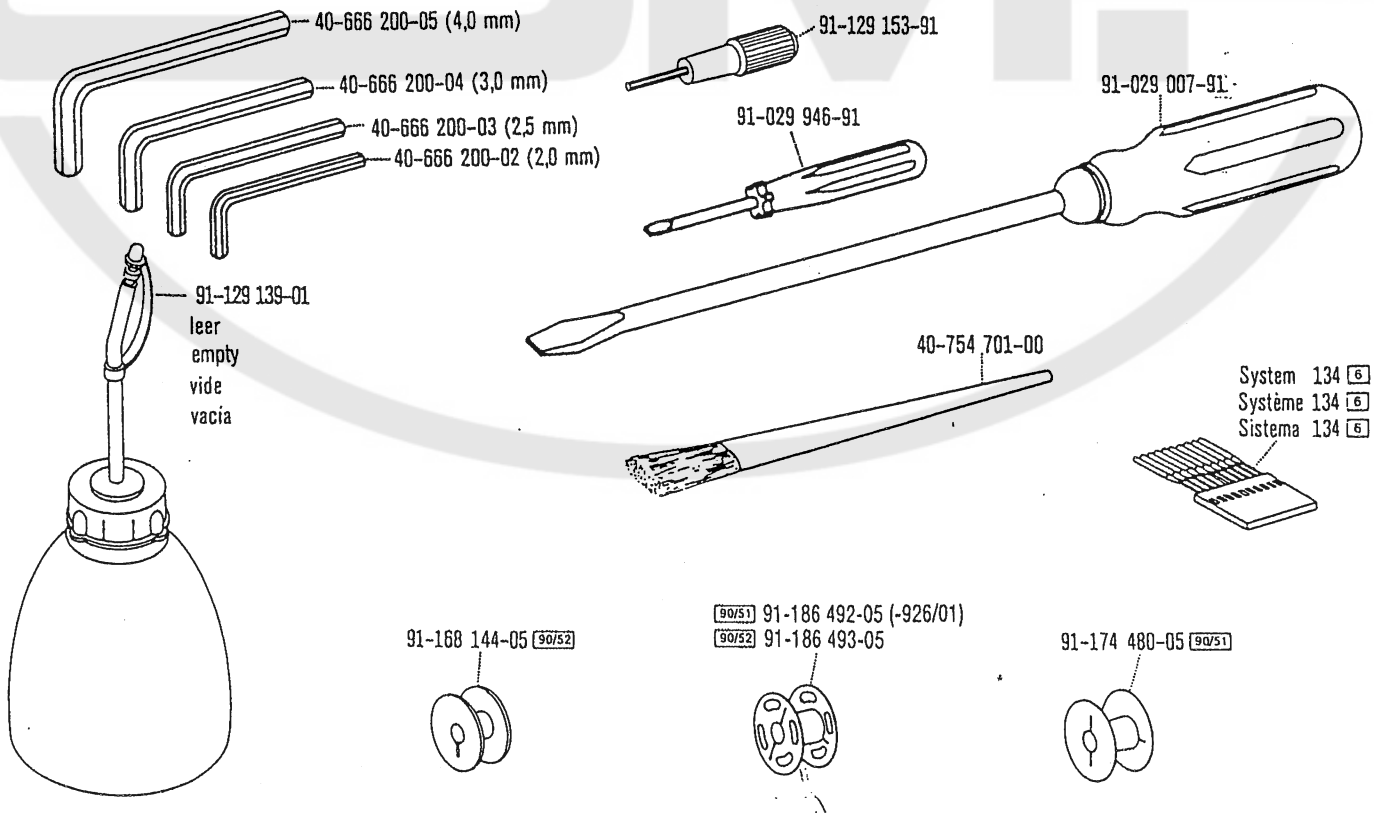
23 Einstellehren
Adjustment gauges
Calibres
Calibres de ajuste

zur • pour
for • para PFAFF 481-G; 483-G

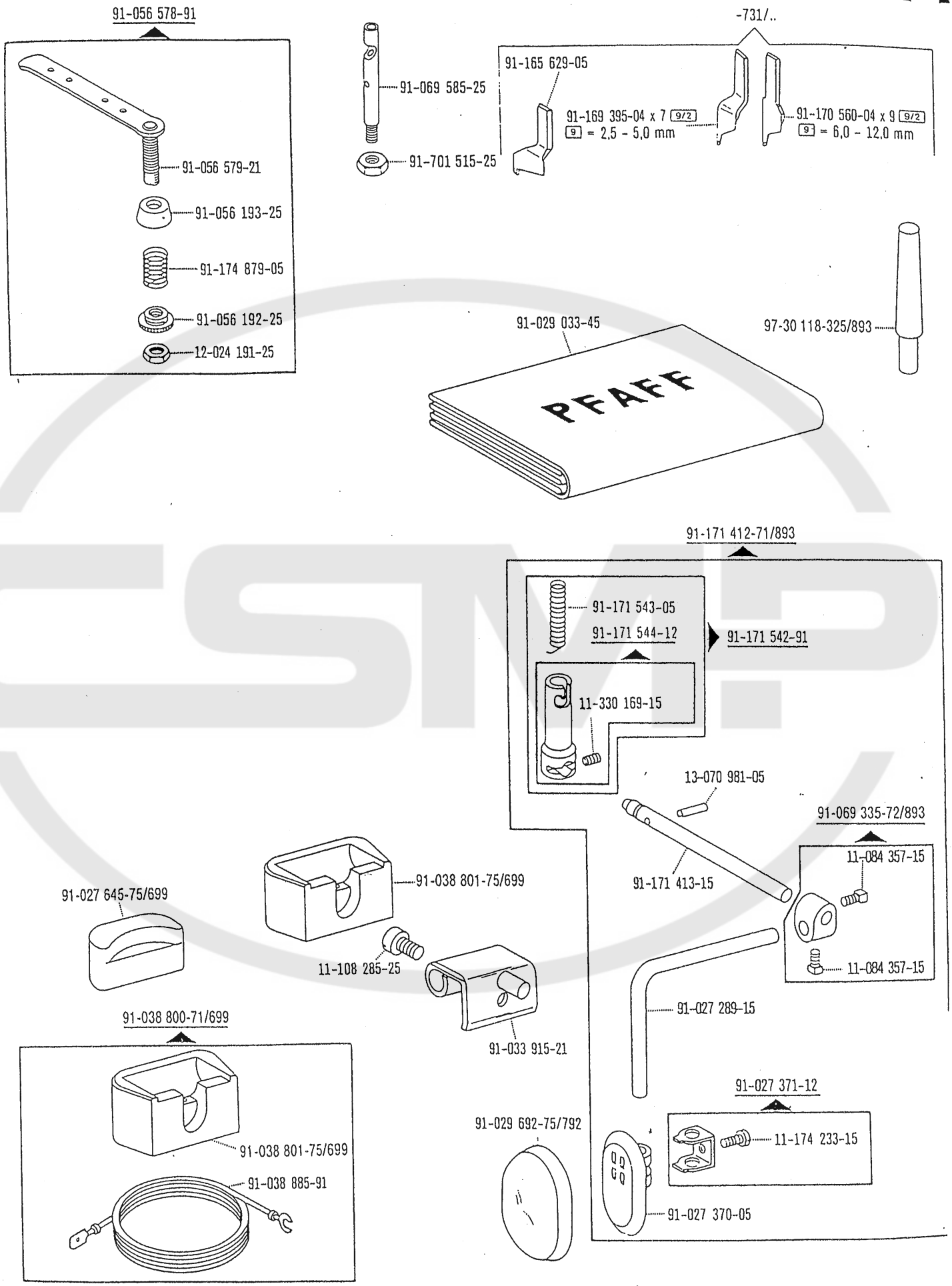


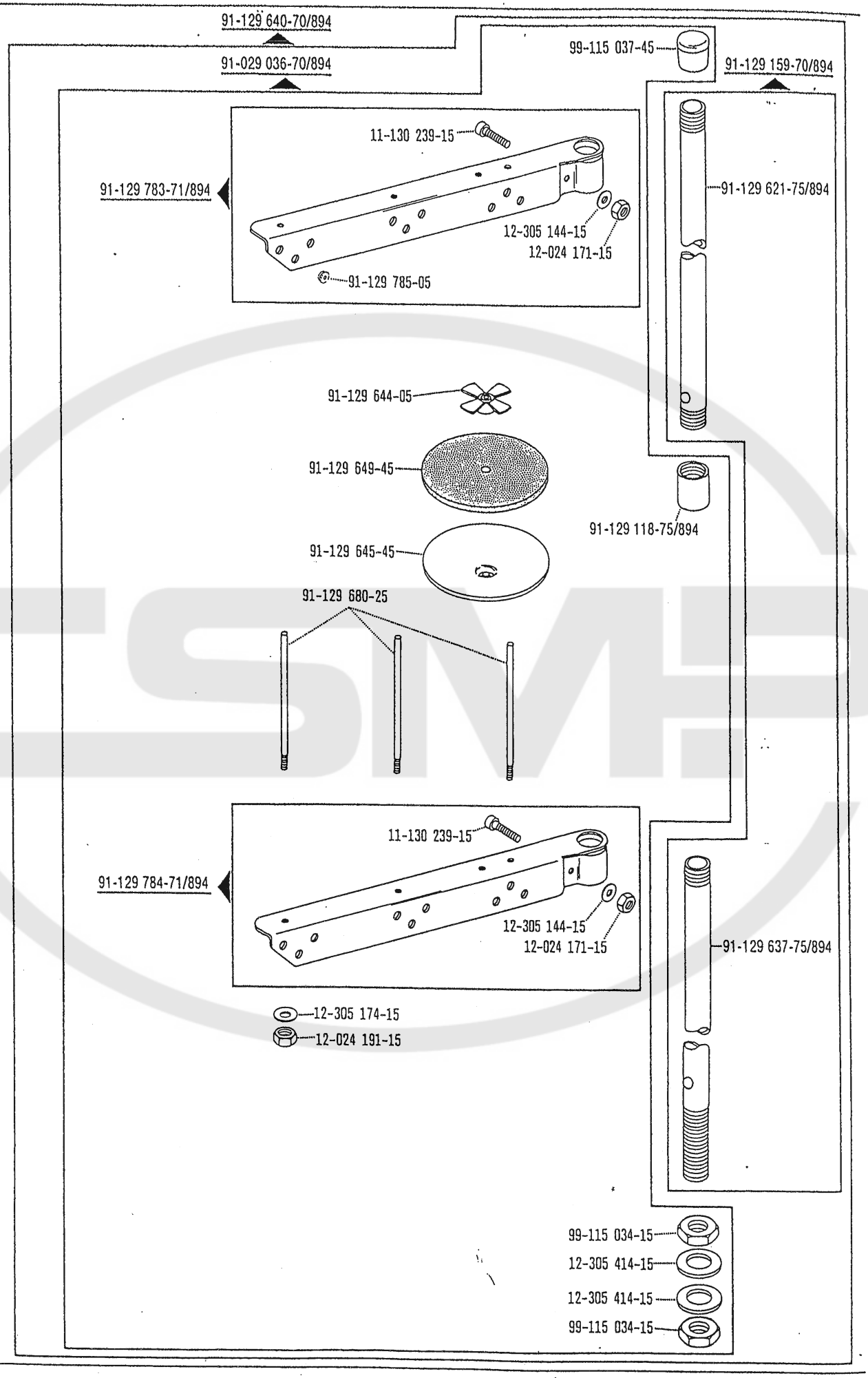
24 Zubehörteile
Accessory parts
Accessoires
Accesorios

zur • pour
for • para PFAFF 481-G; 483-G

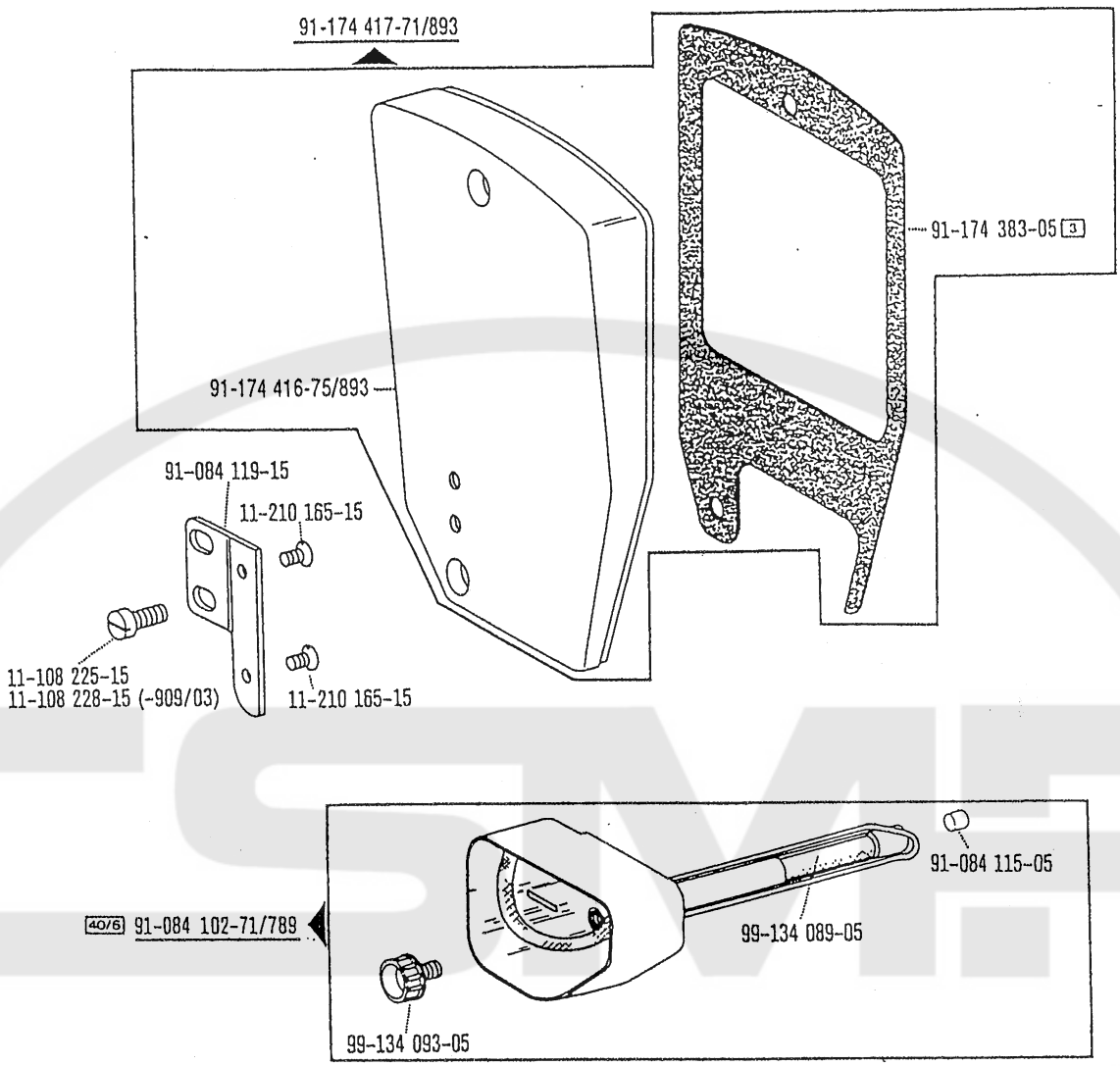


☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0


91-056 578-91
91-056 579-21
91-056 193-25
91-174 879-05
91-056 192-25
12-024 191-25
91-069 585-25
91-701 515-25
-731/..
91-165 629-05
91-169 395-04 x 7 9/2
9 = 2,5 - 5,0 mm
91-170 560-04 x 9 9/2
9 = 6,0 - 12,0 mm
97-30 118-325/893
91-029 033-45
PFAFF
91-171 412-71/893
91-171 543-05
91-171 544-12
91-171 542-91
11-330 169-15
13-070 981-05
91-069 335-72/893
11-084 357-15
91-171 413-15
11-084 357-15
91-038 801-75/699
91-027 645-75/699
11-108 285-25
91-027 289-15
91-033 915-21
91-038 800-71/699
91-038 801-75/699
91-038 885-91
91-027 371-12
91-029 692-75/792
11-174 233-15
91-027 370-05



siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0


91-174 417-71/893
91-174 383-05 3
91-174 416-75/893
91-084 119-15
11-210 165-15
11-108 225-15
11-108 228-15 (-909/03)
11-210 165-15
40/6 91-084 102-71/789
91-084 115-05
99-134 089-05
99-134 093-05

Keilriemenscheiben-Tabelle
Tableau des poulies à gorge en V

Table of V-belt pulleys
Tabla de poleas para correas en "V"

Nähgeschwindigkeit max.. Stiche/min Maximum sewing speed in s.p.m. Nombre de points max./mn Número máx. de puntadas por minuto	Motordrehzahl U/min Motor speed in r.p.m. Régime moteur en tours/mn Régimen del motor en r.p.m.	Frequenz Frequency Fréquence Frecuencia	Handrad-Durchmesser[1] in mm Balance wheel diameter[1] in mm Diamètre du volant[1] en mm Diámetro del volante[1] en mm	Keilriemenscheiben-Durchmesser[1] in mm V-belt pully diameter[1] in mm Diamètre de la poulie à gorge[1] en mm Diámetro de la polea para correa en "V"[1] en mm	Teilenummer der Keilriemenscheibe Part number of V-belt pulley Numéro de pièce des poulies à gorge en V Nº de las piezas de poleas para correas en "V"
PFAFF 481-G					
6000	3400	60 Hz	65	118	16-437 120-05
6000	2800	50 Hz	65	136	16-437 902-05
5500	3400	60 Hz	65	106	16-437 100-05
5500	2800	50 Hz	65	132	16-437 901-05
4800	3400	60 Hz	65	95	16-437 080-05
4800	2800	50 Hz	65	112	16-437 110-05
4200	3400	60 Hz	65	80	16-437 050-05
4200	2800	50 Hz	65	100	16-437 090-05
PFAFF 483-G					
6000	3400	60 Hz	65	118	16-437 120-05
6000	2800	50 Hz	65	136	16-437 902-05
5500	3400	60 Hz	65	106	16-437 100-05
5500	2800	50 Hz	65	132	16-437 901-05
5000	3400	60 Hz	65	100	16-437 090-05
5000	2800	50 Hz	65	118	16-437 120-05
4800	3400	60 Hz	65	95	16-437 080-05
4800	2800	50 Hz	65	112	16-437 110-05
4200	3400	60 Hz	65	80	16-437 050-05
4200	2800	50 Hz	65	100	16-437 090-05
4000	3400	60 Hz	65	80	16-437 050-05
4000	2800	50 Hz	65	95	16-437 080-05
3500	3400	60 Hz	65	67	16-437 020-05

[1] Wirksamer Durchmesser
Effective diameter
Diamètre effectif
Diámetro efectivo

PFAFF

PFAFF
Postfach 3020
D-67653 Kaiserslautern

Telefon: (0631) 200-0
Telefax: (0631) 17202
Telex: 45753

Gedruckt in der BRD
Printed in Germany
Imprimé en R.F.A.
Impreso en la R.F.A.
Stampato in R.F.G.
отпечатано ФРГ

No.	Seite Page Pages Página
16-049 040-11	50, 58, 59
16-409 907-05	35
16-410 079-05	38
16-410 930-05	38
16-437 020-05	68
16-437 050-05	68
16-437 080-05	68
16-437 090-05	68
16-437 100-05	68
16-437 110-05	68
16-437 120-05	68
16-437 901-05	68
16-437 902-05	68
16-919 051-15	29
17-028 318-61	36
17-035 232-65	34
18-272 010-65	52
18-277 001-91	47, 52
18-278 005-91	47, 52
18-279 010-05	47, 52
18-372 001-91	47, 52
18-372 009-91	33
18-373 011-91	47, 52, 56
18-378 001-91	33, 47, 52. 59
18-378 002-91	33, 47, 52
40-666 200-02	64
40-666 200-03	64
40-666 200-04	64
40-666 200-05	64
40-754 701-00	64
61-111 642-19	64
70-37 70-0006	47, 51, 52
70-44 50-1194	32

No.	Seite Page Pages Página
71-01 00-0084	45
71-11 00-0188	45
71-11 00-0300	45
71-13 00-0439	32
71-13 00-0440	32
71-16 00-0118	47, 48, 52, 56
71-16 00-0198	32, 42, 45
71-16 00-0204	32
71-16 00-0208	51, 54, 56
71-16 00-0213	32
71-17 00-0131	41
71-17 00-0145	44
71-17 00-0186	54
71-17 00-0199	45
71-17 00-0208	48
71-19 00-0261	32
71-19 00-0262	32
71-21 00-0125	41, 44, 45
71-21 00-0324	32
71-37 00-0131	41
71-37 00-0132	40, 44, 45
71-37 00-0133	45, 53, 55, 57
71-37 00-0306	32
71-37 00-0309	32, 53. 55, 57
71-42 00-0050	32
71-71 00-0057	62
91-000 250-15	20
91-000 366-25	43, 63
91-000 390-05	20
91-000 407-15	18
91-000 678-15	20
91-000 790-15	20
91-001 283-15	36

No.	Seite Page Pages Página
91-001 522-25	43, 63
91-001 734-15	29
91-001 824-05	29
91-002 065-05	14, 43, 63
91-002 134-05	20
91-006 584-05	63
91-006 814-05	14, 43, 63
91-006 818-05	14
91-008 627-05	43, 63
91-009 026-05	20
91-009 069-05	20
91-009 076-61	20
91-009 260-05	31
91-009 298-05	20
91-010 180-05	43, 63
91-010 181-25	43, 63
91-010 183-05	43
91-010 184-05	43
91-010 215-05	63
91-019 929-05	20
91-020 359-15	31
91-020 490-15	14, 34
91-021 124-15	45
91-025 374-05	63
91-025 376-05	63
91-027 289-15	65
91-027 370-05	65
91-027 371-12	65
91-027 624-91	6
91-027 631-91	6
91-027 645-75/699	65
91-027 974-91	6
91-027 975-91	6

No.	Seite Page Pages Página
91-027 976-91	6
91-027 977-91	6
91-029 007-91	64
91-029 033-45	65
91-029 036-70/894	66
91-029 692-75/792	65
91-029 946-91	64
91-031 084-15	59
91-032 087-45	48
91-032 837-15	50, 58, 59
91-033 915-21	65
91-038 617-15	50, 58, 59
91-038 800-71/699	65
91-038 801-75/699	65
91-038 885-91	65
91-050 596-05	41
91-050 906-25	25, 63
91-051 155-93	63
91-053 946-25	25, 63
91-056 192-25	14, 65
91-056 193-25	14, 65
91-056 197-91	14
91-056 198-21	14
91-056 578-91	65
91-056 579-21	65
91-056 760-05	14
91-058 178-05	27
91-058 179-05	27
91-061 337-05	24
91-064 337-05	12
91-069 042-01	24
91-069 046-05	16
91-069 062-45	19


CSMP

No.	Seite Page Pages Página	No.	Seite Page Pages Página	No.	Seite Page Pages Página	No.	Seite Page Pages Página
25 308-8.202-5	56						
25 308-8.203-0	33, 40, 50, 58, 59						
25 308-8.204-0	33, 40, 47, 49, 50, 52, 56, 58, 59, 60						
25 308-8.206-0	33, 47, 52, 61						
26 536-3.010-9	12, 21, 24, 40						
26 536-3.020-9	18						
26 536-3.030-9	36						
26 536-3.040-9	28, 30, 36						


CSMP

PFAFF

481-G

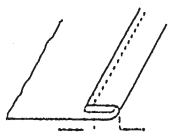
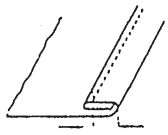
Unterklassen-Ausstattung
Subclass parts
Composition des sous-classes
Composición de las subclases

Unterklasse Subclass Sous-classe Subclase	-3/03 (-900/..)	-6/01 (-900/..)	-6/01 (-900/..)	-8/01 (-900/..)
Arbeitsgang Operation Opération Operación	Für linke Kantennäharbeiten. Standardform des Teilesatzes mit 2teiligem Fuß (Nähfuß mit Lineal). For marginal stitching operations (left fabric edge). Standard part set with two-part presser foot (presser foot with edge guide). Coutures au bord gauche, avec un jeu de pièces standard (pied bipartite et guide-bord au pied). Para costuras marginales a la izquierda. Juego de piezas estandard (pie bipatido con guía).	Für allgemeine Näharbeiten. Standardform des Teilesatzes. For ordinary sewing operations. Standard part set. Travaux d'utilité courante. Jeu de pièces standard. Para trabajos de costura en general. Juego de piezas estándard.	Für allgemeine Näharbeiten. Standardform des Teilesatzes. For ordinary sewing operations. Standard part set. Travaux d'utilité courante. Jeu de pièces standard. Para trabajos de costura en general. Juego de piezas estándard.	Universalteilesatz, zum Nähen mittlerer Materialien. Universal part set for sewing medium-weight materials. Jeu de pièces universel, pour matières moyennes. Juego de piezas universal para coser géneros semipesados.
Ausführung Model Version Tipo de máquina	AN 3,0; BN 3,0	A; B	BN; CN	B
Nadelstange Needle bar Barre à aiguille Barra de aguja	91-171 018-91	91-171 018-91	91-171 018-91	91-171 018-91
Stoffschieber [4] Feed dog Griffe Transportador inferior	91-059 842-04	91-059 843-04	91-059 841-04	91-059 816-05
Stichplatte [4] Needle plate Plaque à aiguille Placa de aguja	91-158 386-05	91-058 356-25	91-058 579-25	91-150 315-25
Nähfuß [4] Presser foot Pied presseur Pie prensatelas	91-157 771-91	91-054 839-23	91-055 959-23	91-154 172-21
Fingerschutz Finger guard Protège-doigts Salvadedos	91-055 189-25			
Stoffanschlag Fabric guide Guide-bord Guía tope	91-056 650-21			

☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

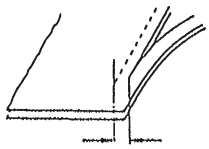
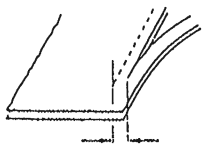
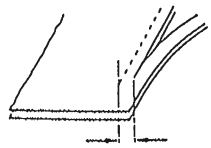
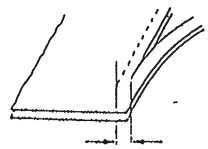
Unterklassen-Übersicht
Table of subclasses
Table des sous-classes
Tabla de subclases

PFAFF 481-G

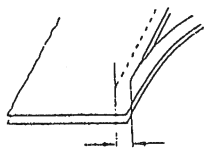
Unterklasse Subclass Sous-classe Subclase	-19/27 (-900/..)	-19/27 (-900/..)	-34/02 (-900/..)	-55/01 (-900/..)
Arbeitsgang Operation Opération Operación			Zum Nähen besonders feiner Stoffe mittels Brücken-Teilesatz. For stitching delicate fabrics with bridge-type part set. Couture de tissus particulièrement fins; jeu de pièces en pont. Para generos muy finos mediante juego de piezas en puente.	Für allgemeine Näharbeiten an Leder, Kunstleder, Moltopren usw. mittels ausschwenkbarem Rollfuß. For ordinary sewing operations on leather, leatherette, moltoprene etc. Retractable roller presser. Travaux de couture courants sur cuir, similicuir, moltoprène, etc. Pied à roulette relevable. Para trabajos de costura general sobre cuero, cuero sintetico, moltopren, etc., mediante pie rodante levadizo.
Ausführung Model Version Tipo de maquina	BN	CN	A; B	B
Saumbreite in mm Hem width in mm Largeur de l'ourlet en mm Anchura del dobladillo en mm	15; 20; 30	15; 20; 30		
Nadelstange Needle bar Barre à aiguille Barra de aguja	91-171 018-91	91-171 018-91	91-171 018-91	91-171 663-92
Stoffschieber [4] Feed dog Griffe Transportador inferior	91-059 841-04	91-059 841-04	91-059 838-04	91-059 836-04
Stichplatte [4] Needle plate Plaque à aiguille Placa de aguja	91-058 579-25	91-058 579-25	91-058 456-25	91-058 188-05
Nähfuß [4] Presser foot Pied presseur Pie prensatelas	91-057 676-03 x 13 [5] [13] = 15 mm 91-057 678-93 x 18 [5] [13] = 20 mm 91-057 678-93 x 28 [5] [13] = 30 mm	91-057 676-03 x 13 [5] [13] = 15 mm 91-057 678-93 x 18 [5] [13] = 20 mm 91-057 678-93 x 28 [5] [13] = 30 mm	91-054 841-23	
Rollfuß [4] Roller presser Pied à roulette Pie rodante				91-051 926-93
Apparat [5] Attachment Appareil Aparato	91-056 572-93	91-056 602-93		
Träger Bracket Support Soporte	91-753 936-90	91-753 936-90		

☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

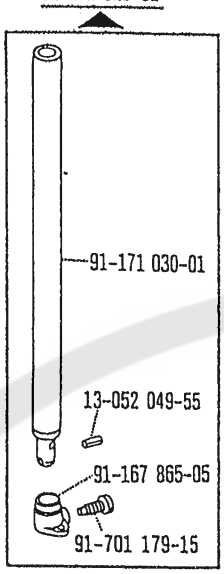
Unterklassen-Übersicht
Table of subclasses
Table des sous-classes
Tabla de subclases PFAFF 481-G

Unterklasse Subclass Sous-classe Subclase	-731/11 (/12) -2/99 (-900/..) ■	-731/11 (/12)-6/01	-731/11 (/12)-6/01 -900/..	-731/11 (/12)-6/01 -900/..
Arbeitsgang Operation Opération Operación				
Ausführung Model Version Tipo de máquina	B	B	B	B
Schneidabstand in mm Trimming margin in mm Distance de coupe en mm Margen de corte en mm	4,0; 5,0	2,5 - 3,5	2,5 - 3,5	4,0 - 12,0
Nadelstange Needle bar Barre à aiguille Barra de aguja	91-171 663-92	91-171 663-92	91-171 663-92	91-171 663-92
Stoffschieber [4] [9/2] Feed dog Griffe Transportador inferior	91-059 832-04	91-059 645-04	91-047 621-04	91-059 645-04
Stichplatte [4] [9/2] Needle plate Plaque à aiguille Placa de aguja	91-058 803-93	91-158 507-93	91-058 176-93	91-158 507-93
Nähfuß [4] Presser foot Pied presseur Pie prensatelas	91-057 346-04	91-054 426-03	91-054 426-03	91-054 426-03
Fingerschutz Finger guard Protège-doigts Salvadedos	91-055 189-25			
Lineal Edge guide Guide-droit Guía recta	91-057 342-91			
Messer [9/2] Knife Couteau Cuchilla	91-169 395-04 x 7 [9] = 4,0; 5,0 mm	91-169 395-04 x 7 [9] = 2,5 - 3,5 mm	91-169 395-04 x 7 [9] = 2,5 - 3,5 mm	91-169 395-04 x 7 [9] = 4,0 - 5,0 mm 91-170 560-04 x 9 [9] = 6,0 - 12,0 mm
Abdeckplatte Cover plate Plaque de recouvrement Placa cubierta	91-172 918-05			

☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

Unterklasse Subclass Sous-classe Subclase	-731/14-6/01 (-900/..)	-748/26-6/01 (-900/..)	-748/26-8/01 (-900/..)
Arbeitsgang Operation Operation Opéracion		Für allgemeine Näharbeiten mittels Standardteilesatz. Die Maschine ist mit Walzentransport-Einrichtung ausgestattet. For general sewing operations with standard part set. The machine is equipped with puller feed Pour les coutures d'utilité courante par jeu de pièces standard. La machine est équipée d'un puller. Para trabajos de sostura general mediante juego de piezas estándard. La máquina va equipade con un puller.	Universalteilesatz, zum Nähen mittlerer Materialien. Die Maschine ist mit Walzentransport-Einrichtung ausgestattet. Universal part set for sewing medium-weight materials. The machine is equipped with puller feed. Jeu de pièces universel, pour matieres moyennes. La machine est équipée d'un puller. Juego de piezas universal para coser géneros semipesados. La maquina va equipade con un puller.
Ausführung Model Version Tipo de máquina	B	B	B
Schneidabstand in mm Trimming margin in mm Distance de coupe en mm Margen de corte en mm	5,0		
Nadelstange Needle bar Barre à aiguille Barra de aguja	91-171 663-92	91-171 663-92	91-171 663-92
Stoffschieber [4] [9/2] Feed dog Griffe Transportador inferior	91-059 645-04	91-059 843-04	91-059 816-05
Stichplatte [4] [9/2] Needle plate Plaque à aiguille Placa de aguja	91-158 507-93	91-058 356-25	91-150 315-25
Nähfuß [4] Presser foot Pied presseur Pie prensatelas	91-054 426-03	91-157 736-03	91-154 495-23
Messer [9/2] Knife Couteau Cuchilla	91-165 629-05		

91-171 018-91

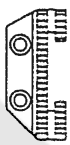


-3/03 (-900/..)
-6/01 (-900/..)
-8/01 (-900/..)
-19/27 (-900/..)
-34/02 (-900/..)

91-171 663-92

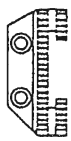
-55/01 (-900/..)
-731/11 (/12)-2/99 (-900/..)
-731/11 (/12)-6/01 (-900/..)
-731/14 (/12)-6/01 (-900/..)
-748/26-6/01 (-900/..)
-748/26-8/01 (-900/..)

91-047 621-04 [4] [9/2]
[9] = 2,5 - 3,5 mm



-731/11 (/12)-6/01-900/..

91-059 645-04 [4] [9/2]
[9] = 2,5 - 3,5 mm

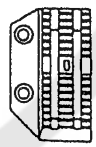


-731/11 (/12)-6/01

91-059 645-04 [4] [9/2]
[9] = 4,0 - 7,0 mm

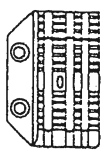
-731/11 (/12)-6/01 (-900/..)
-731/14-6/01 (-900/..)

91-059 645-04 [4] [9/2]
[9] = 8,0 mm; 10,0 mm



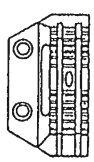
-731/11 (/12)-6/01 (-900/..)

91-059 645-04 [4] [9/2]
[9] = 12,0 mm



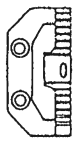
-731/11 (/12)-6/01 (-900/..)

91-059 816-05



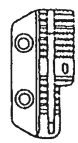
-8/01 (-900/..)
-748/26-8/01 (-900/..)

91-059 832-04 [4] [9/2]
[9] = 4,0 mm; 5,0 mm



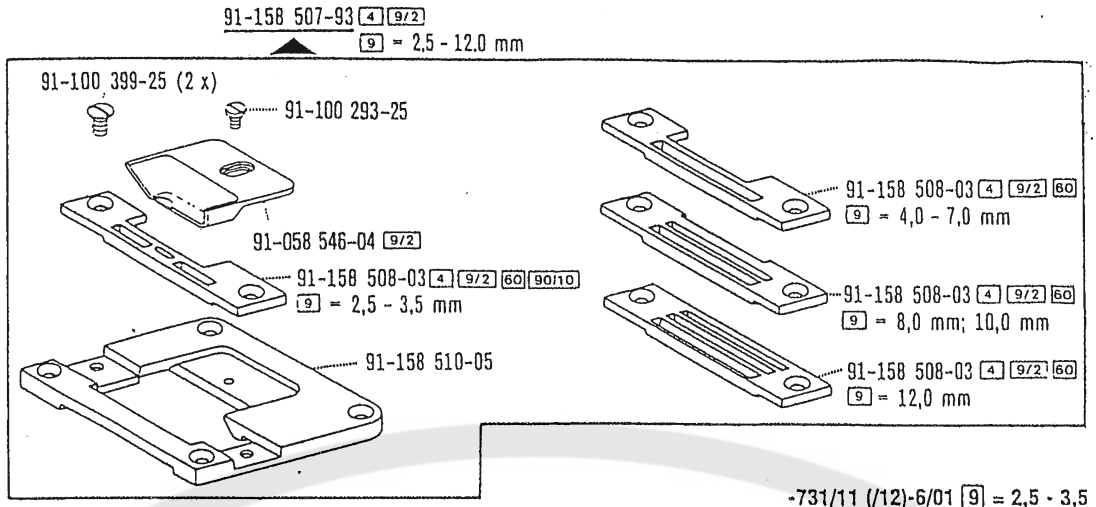
-731/11 (/12)-2/99 (-900/..)

91-059 836-04 [4]

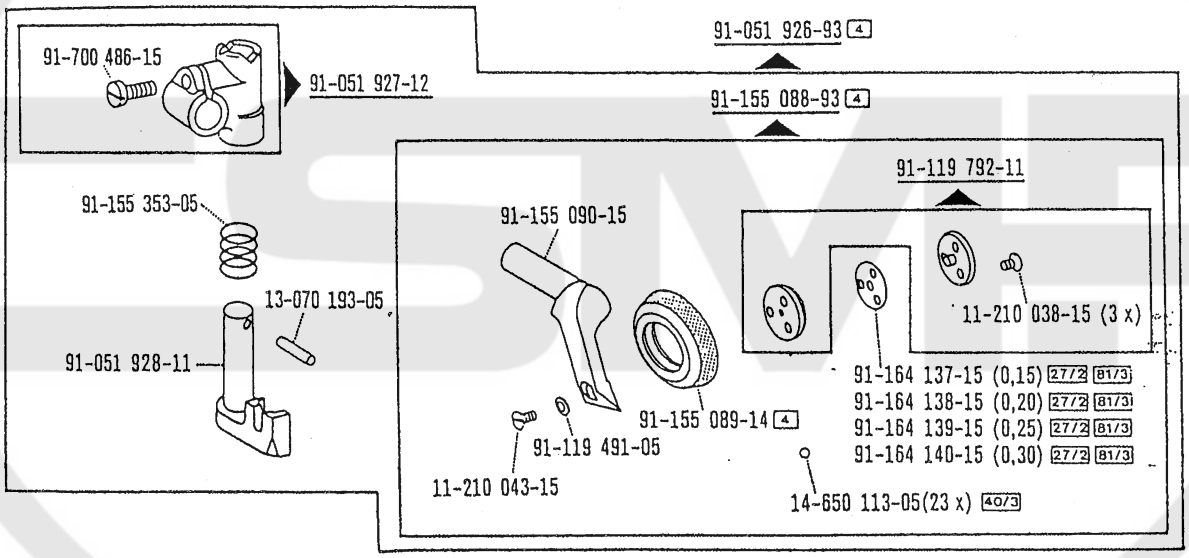


-55/01 (-900/..)

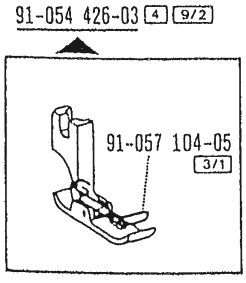
siehe Erläuterungen Register 0
see explanations in section 0
voir legende registre 0
ver explicaciones del registro 0



-731/11 (/12)-6/01 9 = 2,5 - 3,5 mm
-731/11 (/12)-6/01 (-900/..) 9 = 4,0 - 12,0 mm
-731/14-6/01 (-900/..) 9 = 5,0 mm

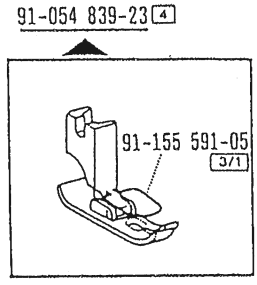


-55/01 (-900/..)

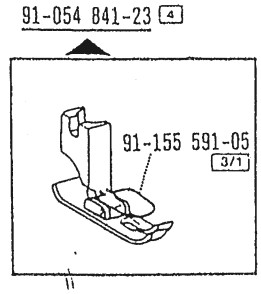


9 = 2,5 - 12,0 mm

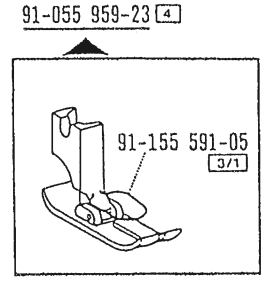
-731/11 (/12)-6/01 (-900/..)
-731/14-6/01 (-900/..)



-6/01 (-900/..)



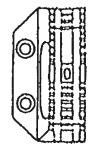
-34/02 (-900/..)



-6/01 (-900/..)

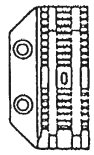
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

91-059 838-04 [4]



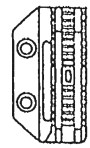
-34/02 (-900/..)

91-059 841-04 [4]



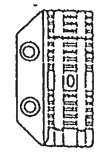
-6/01 (-900/..)
-19/27 (-900/..)

91-059 842-04 [4]

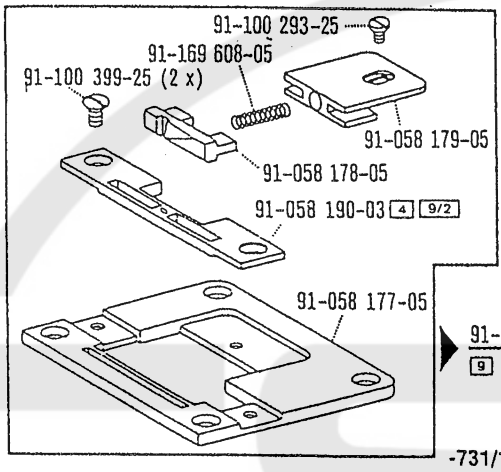


-3/03 (-900/..)

91-059 843-04 [4]

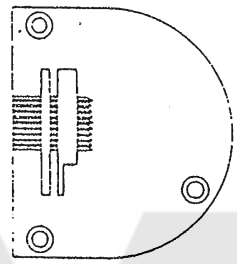


-6/01 (-900/..)
-748/26-6/01 (-900/..)



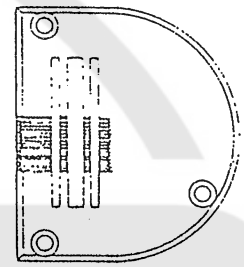
-731/11 (/12)-6/01-900/..

91-058 188-05 [4]



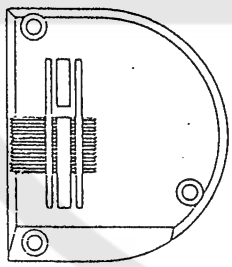
-55/01 (-900/..)

91-058 356-25 [4]



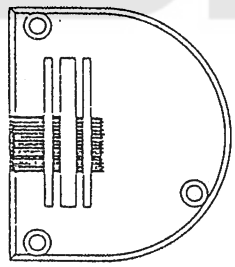
-6/01 (-900/..)
-748/26-6/01 (-900/..

91-058 456-25 [4]

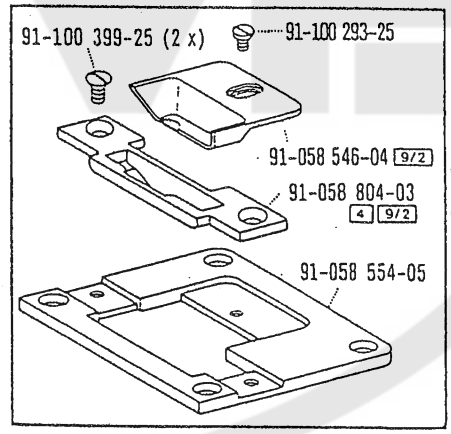


-34/02 (-900/..)

91-058 579-25 [4]

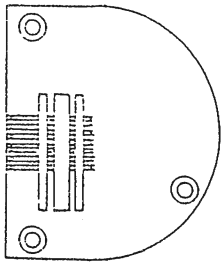


-6/01 (-900/..)
-19/27 (-900/..)



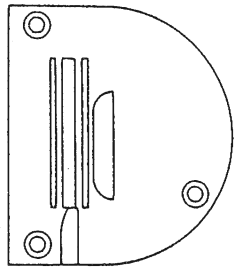
-731/11 (/12)-2/99 (-900/..)

91-150 315-25



-8/01 (-900/..)
-748/26-8/01 (-900/..)

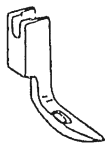
91-158 386-05 [4]



-3/03 (-900/..)

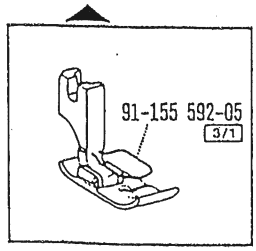
☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

91-057 346-04 [4]



-731/11 (/12)-2/99 (-900/..)

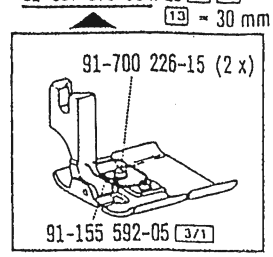
91-057 676-03 x 13 [4] [5]



[13] = 15 mm

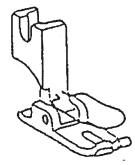
-19/27 (-900/..)

91-057 678-93 x 18 [4] [5]
[13] = 20 mm
91-057 678-93 x 28 [4] [5]
[13] = 30 mm



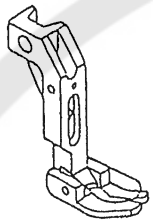
-19/27 (-900/..)

91-154 172-21



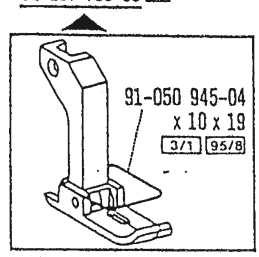
-8/01 (-900/..)

91-154 495-23



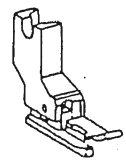
-748/26-8/01 (-900/..)

91-157 736-03 [4]



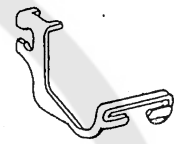
-748/26-6/01 (-900/..)

91-157 771-91 [4]



-3/03 (-900/..)

91-055 189-25

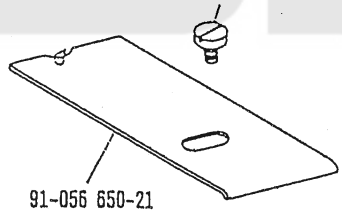


-3/03 (-900/..)
-731/11 (/12)-2/99 (-900/..

91-057 342-91

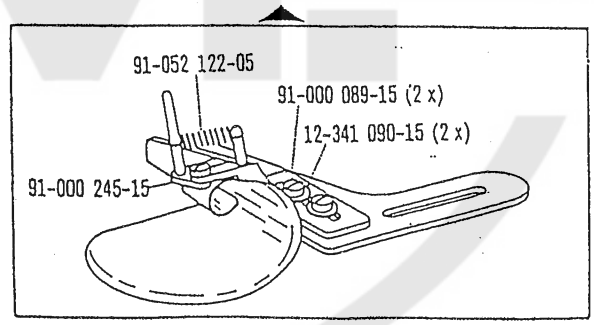
-731/11 (/12)-2/99 (-900/..)

91-000 521-25



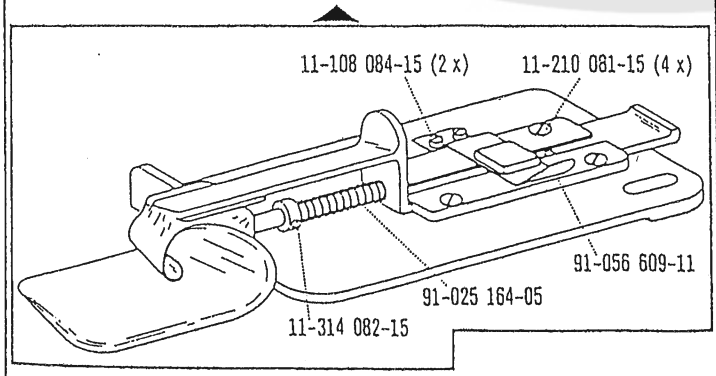
-3/03 (-900/..)

91-056 572-93 [5]



-19/27 (-900/..)

91-056 602-93 [5]



-19/27 (-900/..)

91-165 629-05

-731/14-6/01 (-900/..)

91-169 395-04 x 7 [9] [2]
[9] = 2.5 - 5.0 mm

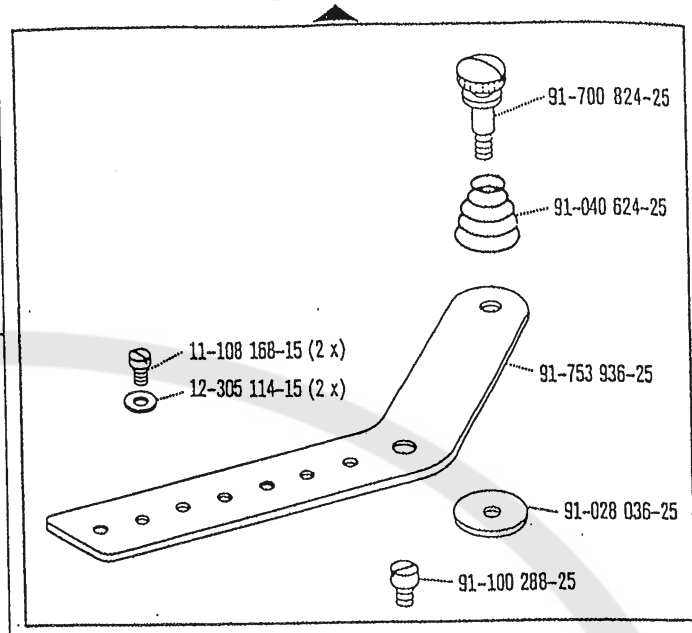
-731/11 (/12)-2/99 (-900/
-731/11 (/12)-6/01 (-900

☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

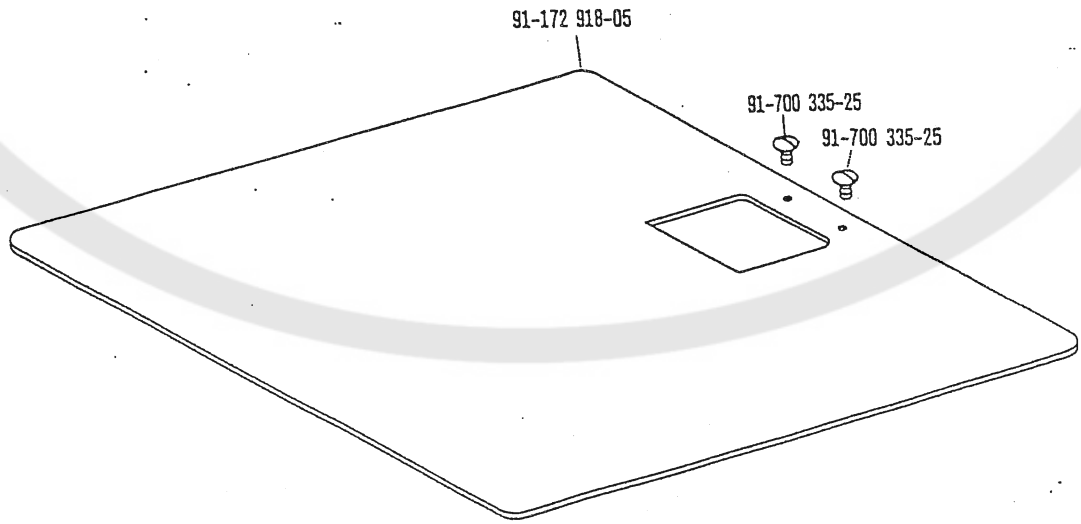
91-170 560-04 x 9 [9 2]
[9] = 6,0 - 12,0 mm

-731/11 (/12)-6/01 (-900/..)

91-753 936-90



-19/27 (-900/..)



-731/11 (/12)-2/99 (-900/..)

siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

PFAFF

483-G

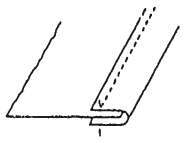
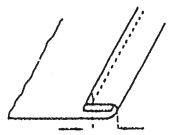
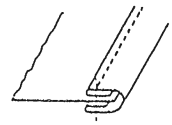
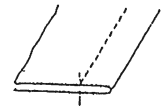
Unterklassen-Ausstattung
Subclass parts
Composition des sous-classes
Composición de las subclases

Unterklassen-Übersicht
Table of subclasses
Table des sous-classes
Tabla de subclases PFAFF 483-G

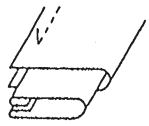
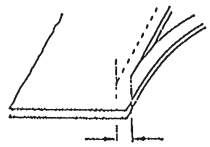
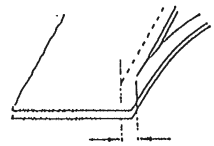
Unterklasse Subclass Sous-classe Subclase	-6/01 (-900/..)	-6/01 (-900/.. 51/99)	-8/01 (-900/..97)
Arbeitsgang Operation Opération Operación	Für allgemeine Näharbeiten. Standardform des Teilesatzes. For ordinary sewing operations. Standard part set. Travaux d'utilité courante. Jeu de pièces standard. Para trabajos de costura en general Juego de piezas estándard.	Universalteilesatz, zum Nähen mittlerer Materialien. Universal part set for sewing medium-weight materials. Jeu de pièces universel, pour matières moyennes. Juego de piezas universal para coser géneros semipesados.	Universalteilesatz, zum Nähen mittlerer Materialien. Universal part set for sewing medium-weight materials. Jeu de pièces universel, pour matières moyennes. Juego de piezas universal para coser generos semipesados.
Ausführung Model Version Tipo de máquina	BN; CN	B	B
Nadelstange Needle bar Barre à aiguille Barra de aguja	91-171 018-91	91-171 018-91	91-171 018-91
Stoffschieber [4] Feed dog Griffe Transportador inferior	91-047 816-04	91-059 392-05	91-059 479-05
Stichplatte [4] Needle plate Plaque à aiguille Placa de aguja	91-058 410-24	91-158 960-25	91-150 498-25
Nähfuß [4] Presser foot Pied presseur Pie prensatelas	91-155 547-03	91-155 599-21	91-155 599-21

☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

Table of subclasses
Table des sous-classes
Tabla de subclases PFAFF 483-G

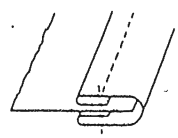
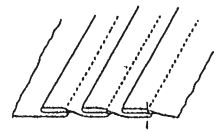
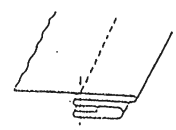
Unterklasse Subclass Sous-classe Subclase	-17/31 (-900/..)	-19/51 (-900/..)	-34/01 (-900/..)	-39/31 (-900/..)	-151/03 (-900/..)
Arbeitsgang Operation Opération Opéracion			Zum Nähen feiner Materialien. Standardform des Teilesatzes. For sewing light fabrics. Standard-size parts set. Pour la couture de matieres fines. Jeu de pièces standard. Para coser materiales finos. Juego de piezas estándard.		
Ausführung Model Version Tipo de máquina	B	A; B	AN 3,5; BN 3,5	B	B
Saumbreite in mm Hem width in mm Largeur de l'ourlet en mm Anchura del dobladillo en mm		1,5 - 8,0			
Nadelstange Needle bar Barre à aiguille Barra de aguja	91-171 018-91	91-171 018-91	91-171 018-91	91-171 018-91	91-171 018-91
Stoffschieber [4] Feed dog Griffe Transportador inferior	91-047 670-04	91-047 350-04 [A] 91-059 480-05 [B]	91-059 872-05 [A] 91-047 350-04 [B]	91-047 670-04	91-047 350-04
Stichplatte [4] Needle plate Plaque à aiguille Placa de aguja	91-058 233-24	91-058 130-24 [A] 91-150 516-25 [B]	91-150 438-25 [A] 91-058 130-24 [B]	91-058 233-24	91-058 130-24
Nähfuß [4] Presser foot Pied presseur Pie prensatelas	91-051 951-23 [12/2]	91-052 036-93	91-051 742-23	91-051 951-23 [12/2]	91-054 651-03
Apparat [5] Attachment Appareil Aparato	91-040 980-23			91-040 976-23	91-461 440-21
Haltewinkel Bracket Equerre de retenue Soporte angular				91-025 559-25	
Bandteller Tape disc Plateau dérouleur Disco portacintas	91-043 943-70/895			91-043 943-70/895	
Bandführung Tape guide Guide-ruban Guiacintas	91-040 392-21				

☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

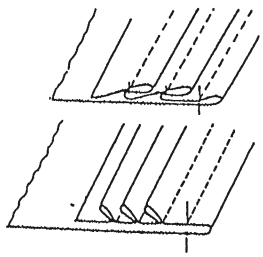
Unterklasse Subclass Sous-classe Subclase	-193/01 (-900/..)	-731/11 (/12) -6/01 (-900/..)	-731/11 (/12) -6/01 (-900/..)	-748/26 -6/01 (-900/..)	-748/26 -6/01 (-900/..)
Arbeitsgang Operation Operation Operacion				Für allgemeine Näharbeiten mittels Standardteilesatz. Die Maschine ist mit Walzentransport-Einrichtung ausgestattet. For general sewing operations with standard part set. The machine is equipped with puller feed. Pour les coutures d'utilité courante par jeu de pièces standard. La machine est équipée d'un puller. Para trabajos de costura general mediante juego de piezas estándard. La maquina va equipade con un puller.	Für allgemeine Näharbeiten mittels Standardteilesatz. Die Maschine ist mit Walzentransport-Einrichtung ausgestattet. For general sewing operations with standard part set. The machine is equipped with puller feed. Pour les coutures d'utilité courante par jeu de pièces standard. La machine est équipée d'un puller. Para trabajos de costura general mediante juego de piezas estándard. La máquina va equipade con un puller.
Ausführung Model Version Tipo de máquina	A; B	A [9] = 2,5 mm; 3,0 mm B [9] = 2,5 - 3,0 mm	B	B	CN
Schneidabstand in mm Trimming margin in mm Distance de coupe en mm Margen de corte en mm		2,5 - 3,5	4,0 - 12,0		
Nadelstange Needle bar Barre à aiguille Barra de aguja	91-171 018-91	91-171 663-92	91-171 663-92	91-171 663-92	91-171 663-92
Stoffschieber [4] Feed dog Griffe Transportador inferior	91-047 633-04	91-059 644-04	91-059 644-04	91-047 547-04	91-047 816-04
Stichplatte [4] Needle plate Plaque à aiguille Placa de aguja	91-058 201-24	91-158 499-93	91-158 503-93	91-058 132-24	91-058 410-24
Nähfuß [4] Presser foot Pied presseur Pie prensatelas	91-054 335-23	91-054 338-03 [9/2]	91-054 338-03 [9/2]	91-155 125-03	91-155 125-03
Apparat [5] Attachment Appareil Aparato	91-040 346-23				
Haltewinkel Bracket Equerre de retenue Soporte angular	91-025 559-25				
Bandteller Tape disc Plateau dérouleur Disco portacintas	91-043 943-70/895				
Bandführung Tape guide Guide-ruban Guiacintas	91-040 304-90				
Durchziehhaken Pull-through hook Tire-ruban Gancho	91-046 681-04 [95/8]				
Messer [9/2] Knife Couteau Cuchilla		91-169 395-04 x 7 [9] = 2,5 - 3,5 mm	91-169 395-04 x 7 [9] = 4,0 - 5,0 mm 91-170 560-04 x 9 [9] = 6,0 - 12,0 mm		

siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

Unterklassen-Übersicht
Table of subclasses
Table des sous-classes
Tabla de subclases PFAFF 483-G

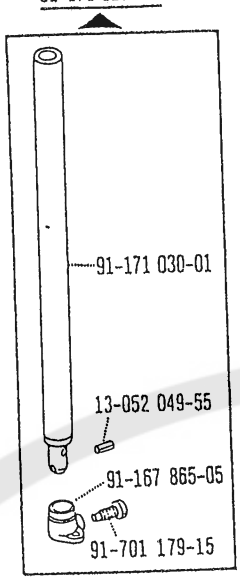
Unterklasse Subclass Sous-classe Subclase	-748/26 -8/01 (-900/..)	-748/26 -34/01 (-900/..)	-748/26 -39/73 (-900/..)	-748/26 -151/02 (-900/..)	-748/26 -315/98 (-900/..)
Arbeitsgang Operation Opération Operación	Universalteilesatz, zum Nähen mittlerer Materialien. Die Maschine ist mit Walzentransport-Einrichtung ausgestattet. Universal part set for sewing medium-weight materials. The machine is equipped with puller feed. Jeu de pièces universel, pour matieres moyennes. La machine est équipée d'un puller. Juego de piezas universal para coser géneros semipesados. La máquina va equipade con un puller.	Zum Nähen feiner Materialien. Standardform des Teilesatzes. Die Maschine ist mit Walzentransport-Einrichtung ausgestattet. For sewing light fabrics. Standard-size parts set. The machine is equipped with puller feed. Pour la couture de matières fines. Jeu de pièces standard. La machine est équipée d'un puller. Para coser materiales finos. Juego de piezas estándard. La maquina va equipade con un puller.			
Ausführung Model Version Tipo de máquina	B	AN 3,5; BN 3,5	A; B	A; B	A
Nadelstange Needle bar Barre à aiguille Barra de aguja	91-171 663-92	91-171 663-92	91-171 663-92	91-171 663-92	91-171 663-92
Stoffschieber [4] Feed dog Griffe Transportador inferior	91-059 392-05	91-059 872-05 [A] 91-047 350-04 [B]	91-047 547-04	91-059 872-05 [A] 91-047 350-04 [B]	91-059 872-05
Stichplatte [4] Needle plate Plaque à aiguille Placa de aguja	91-158 960-25	91-150 438-25 [A] 91-058 130-24 [B]	91-058 132-24	91-150 438-25 [A] 91-058 130-24 [B]	91-150 438-25
Nähfuß [4] Presser foot Pied presseur Pie prensatelas	91-154 490-21	91-157 866-03	91-155 019-03	91-155 784-03 [69/2] [69] = 3,0 - 15,0 mm 91-154 074-93 [69/2] [69] = 16,0 - 30,0 mm	91-157 866-03
Apparat [5] Attachment Appareil Aparato			91-053 818-93	91-156 445-71/993 [69/2] [69] = 3,0 - 15,0 mm 91-156 448-71/993 [69/2] [69] = 16,0 - 30,0 mm	99-117 942-23
Knieschalter Knee switch Interrupteur de genouillère Interruptor de rodilla					91-084 180-71

☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

Unterklasse Subclass Sous-classe Subclase	-748/26 -351/99 (-900/..)	-944/07 (-900/..)
Arbeitsgang Operation Opération Operación		Für Stepparbeiten an Schuhschäften und sonstigen Lederwaren mittels Rollfuß (verkleinerter Teilesatz). For sewing operations on shoe uppers and other leather articles; machine equipped with roller presser and small-size parts set. Pour les piqûres sur tiges de chaussures et sur d'autres articles en cuir. Comprend un pied à roulette (pièces plus petites). Para trabajos de aparado en cortes de calzado y demás artículos de cuero mediante pie rodante. (Juego de piezas reducido).
Ausführung Model Version Tipo de máquina	A; B	AN; BN; CN
Nadelstange Needle bar Barre à aiguille Barra de aguja	91-171 663-92	91-171 663-92
Stoffschieber [4] Feed dog Griffe Transportador inferior	91-059 872-05 [A] 91-047 350-04 [B]	91-059 209-04
Stichplatte [4] Needle plate Plaque à aiguille Placa de aguja	91-150 438-25 [A] 91-058 130-24 [B]	91-158 156-04
Nähfuß [4] Presser foot Pied presseur Pie prensatelas	91-154 357-23	
Apparat [5] Attachment Appareil Aparato		91-051 155-93
Kniehebel Knee switch Interrupteur de genouillère Interruptor de rodilla	91-461 265-91	

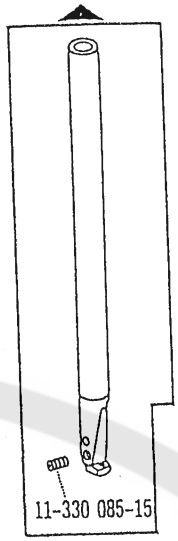
[ ] siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

91-171 018-91



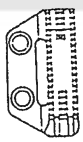
-6/01 (-900/..)
-8/01 (-900/..)
-17/31 (-900/..)
-19/51 (-900/..)
-34/01 (-900/..)
-39/31 (-900/..)
-151/03 (-900/..)
-193/01 (-900/..)

91-171 663-92



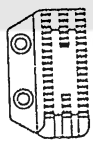
-731/11 (/12)-6/01 (-900/..)
-748/26-6/01 (-900/..)
-748/26-8/01 (-900/..)
-748/26-34/01 (-900/..)
-748/26-39/73 (-900/..)
-748/26-151/02 (-900/..)
-748/26-315/98 (-900/..)
-748/26-351/99 (-900/..)
-944/07 (-900/..)

91-047 350-04 [4]



-19/51 (-900/..)
-34/01 (-900/..)
-151/03 (-900/..)
-748/26-34/01 (-900/..)
-748/26-151/02 (-900/..)
-748/26-351/99 (-900/..)

91-047 547-04 [4]

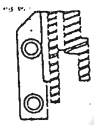


-748/26-6/01 (-900/..)
-748/26-39/73 (-900/..)

91-047 633-04 [4]

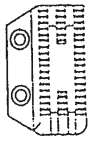
-193/01 (-900/..)

91-047 670-04 [4]



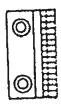
-17/31 (-900/..)
-39/31 (-900/..)

91-047 816-04 [4]



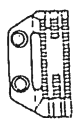
-6/01 (-900/..)
-748/26-6/01 (-900/..)

91-059 209-04 [4]



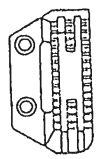
-944/07 (-900/..)

91-059 392-05 [4]



-8/01 (-900/..)
-748/26-8/01 (-900/..)
???????

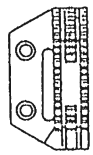
91-059 479-05 [4]



-8/01 (-900/9

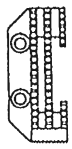
[4] siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

91-059 480-05 [4]



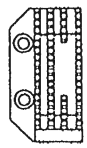
-19/51 (-900/..)

91-059 644-04 [4] [9/2]
[9] = 2,5 - 6,0 mm



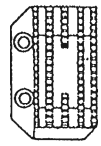
-731/11 (/12)-6/01 (-900/..)

91-059 644-04 [4] [9/2]
[9] = 7 mm; 8 mm



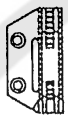
-731/11 (/12)-6/01 (-900/..)

91-059 644-04 [4] [9/2]
[9] = 10 mm; 12 mm



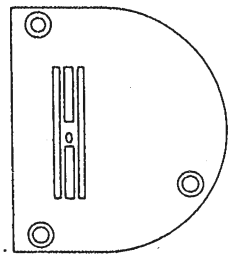
-731/11 (/12)-6/01 (-900/..)

91-059 872-05 [4]



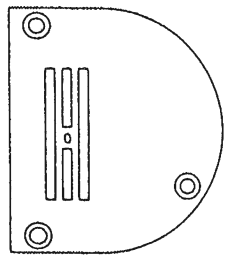
-34/01 (-900/..)
-748/26-34/01 (-900/..)
-748/26-151/02 (-900/..)
-748/26-315/98 (-900/..)
-748/26-351/99 (-900/..)

91-058 130-24 [4]



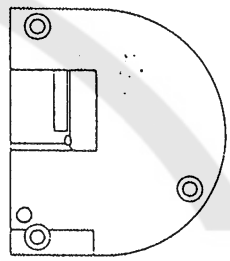
-19/51 (-900/..)
-34/01 (-900/..)
-151/03 (-900/..)
-748/26-34/01 (-900/..)
-748/26-151/02 (-900/..)
-748/26-351/99 (-900/..)

91-058 132-24 [4]



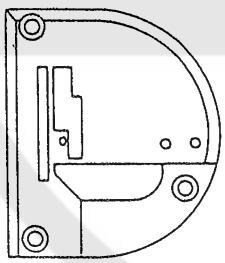
-748/26-6/01 (-900/..)
-748/26-39/73 (-900/..)

91-058 201-24 [4]



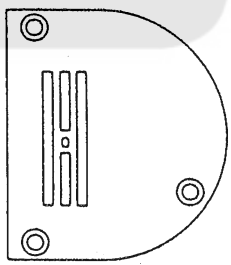
-193/01 (-900/..)

91-058 233-24 [4]



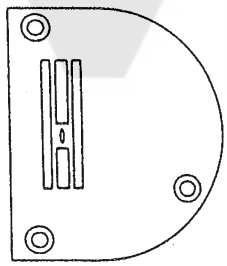
-17/31 (-900/..)
-39/31 (-900/..)

91-058 410-24 [4]



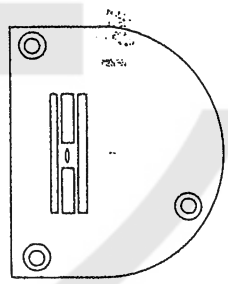
-6/01 (-900/..)
-748/26-6/01 (-900/..)

91-150 438-25 [4]



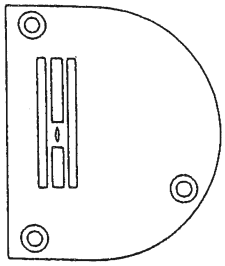
-34/01 (-900/..)
-748/26-34/01 (-900/..)
-748/26-151/02 (-900/..)
-748/26-315/98 (-900/..)
-748/26-351/99 (-900/..)

91-150 498-25 [4]



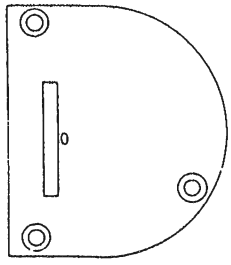
-8/01 (-900/..)

91-150 516-25 [4]

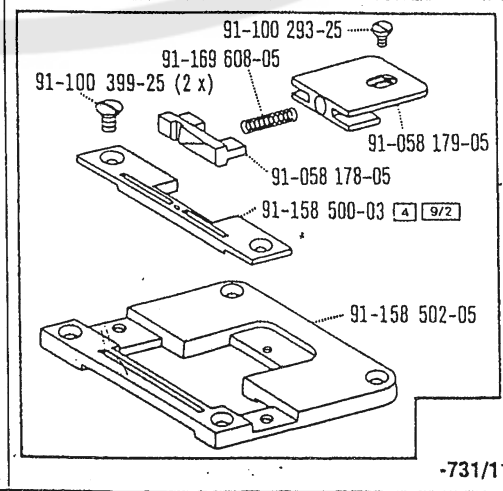


-19/51 (-900/..)

91-158 156-04 [4]



-944/07 (-900/..)

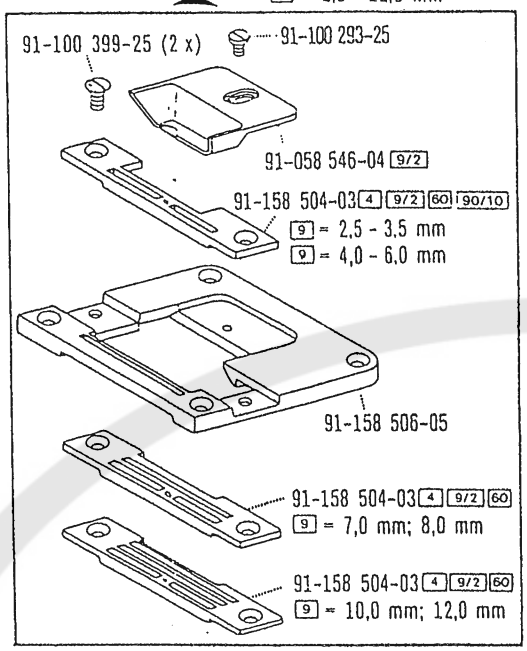


91-158 499-93
[4] [9/2]
[9] = 2,5 - 3,5 mm

-731/11 (/12)-6/01 (-900/..)

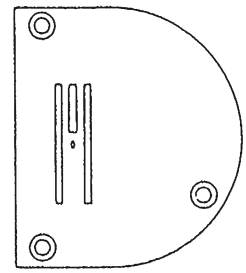
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

91-158 503-93 [4] [9/2]
[9] = 2,5 - 12,0 mm



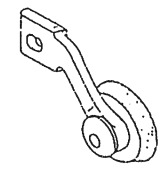
-731/11 (/12)-6/01 [9] = 4,0 - 12,0 mm

91-158 960-25 [4]



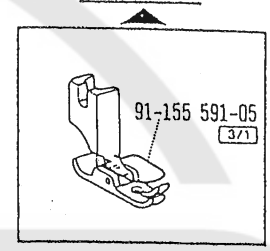
-8/01 (-900/.. -51/99)
-748/26-8/01 (-900/..)

91-051 155-93 [4]



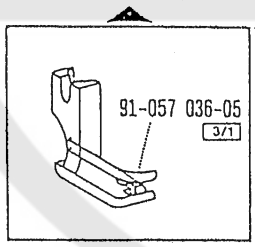
-944/071 (-900/..)

91-051 742-23 [4]



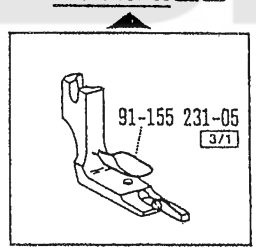
-34/01 (-900/..

91-051 951-23 [4] [12/3]



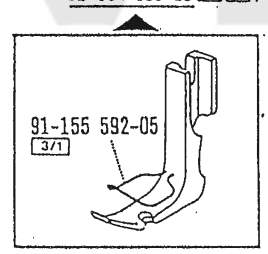
-17/31 (-900/..)
-39/31 (-900/..)

91-052 036-93 [4] [5]



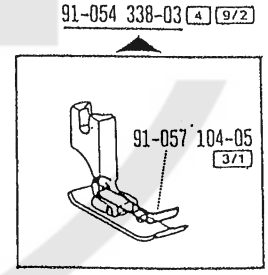
-19/51 (-900/..)

91-054 335-23 [4] [5]



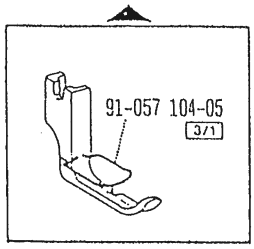
-193/01 (-900/..)

91-054 338-03 [4] [9/2]



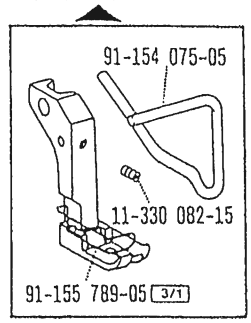
-731/11 (/12)-6/01 (-900/..)

91-054 651-03 [4]



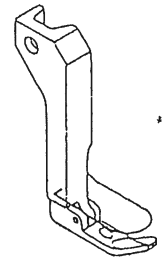
-151/03 (-900/..)

91-154 074-93 [4] [69/2]



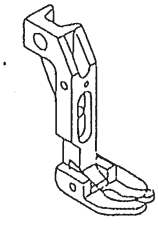
-748/26-151/02 (-900/..)

91-154 357-23 [4]

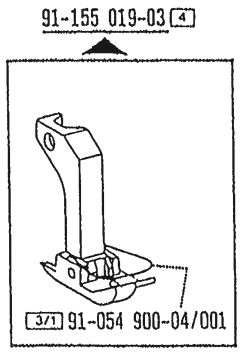


-748/26-351/99 (-900/..)

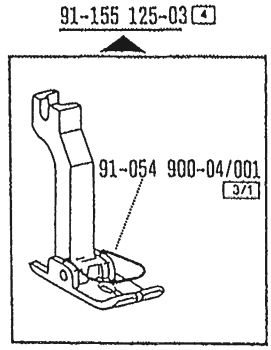
91-154 490-21 [4]



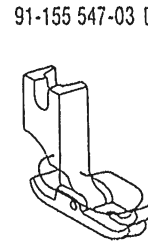
-748/26-8/01 (-900/..



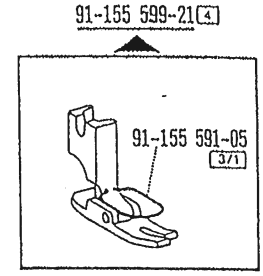
-748/26-39/73 (-900/..)



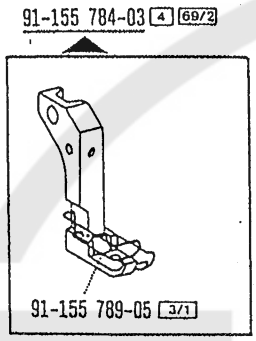
-748/26-6/01 (-900/..)



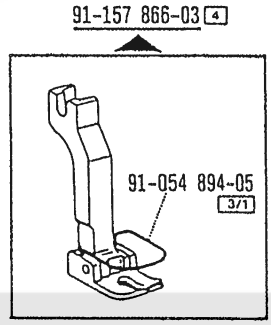
-6/01 (-900/..)



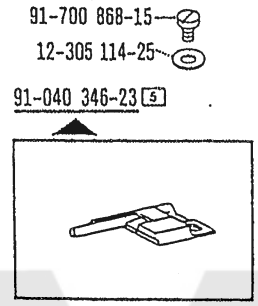
-8/01 (-900/..)



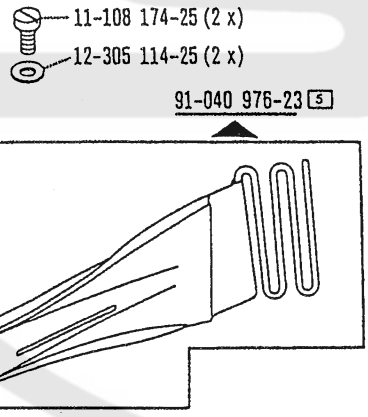
-748/26-151/02 (-900/..)



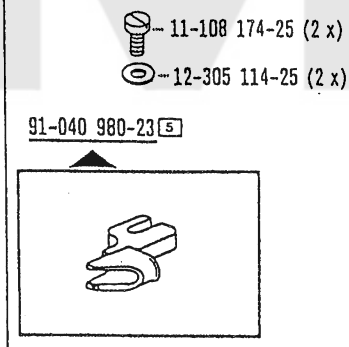
-748/26-34/01 (-900/..)
-748/26-315/98 (-900/..)



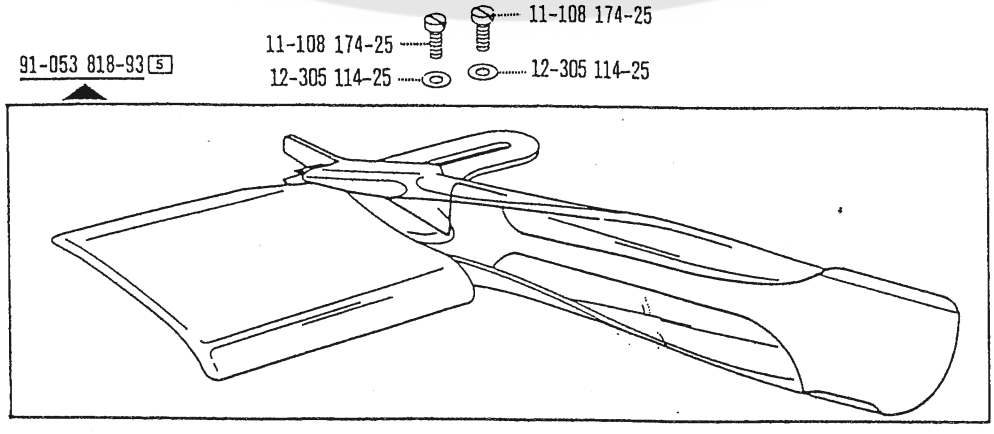
-193/01 (-900/..)



-39/31 (-900/..)

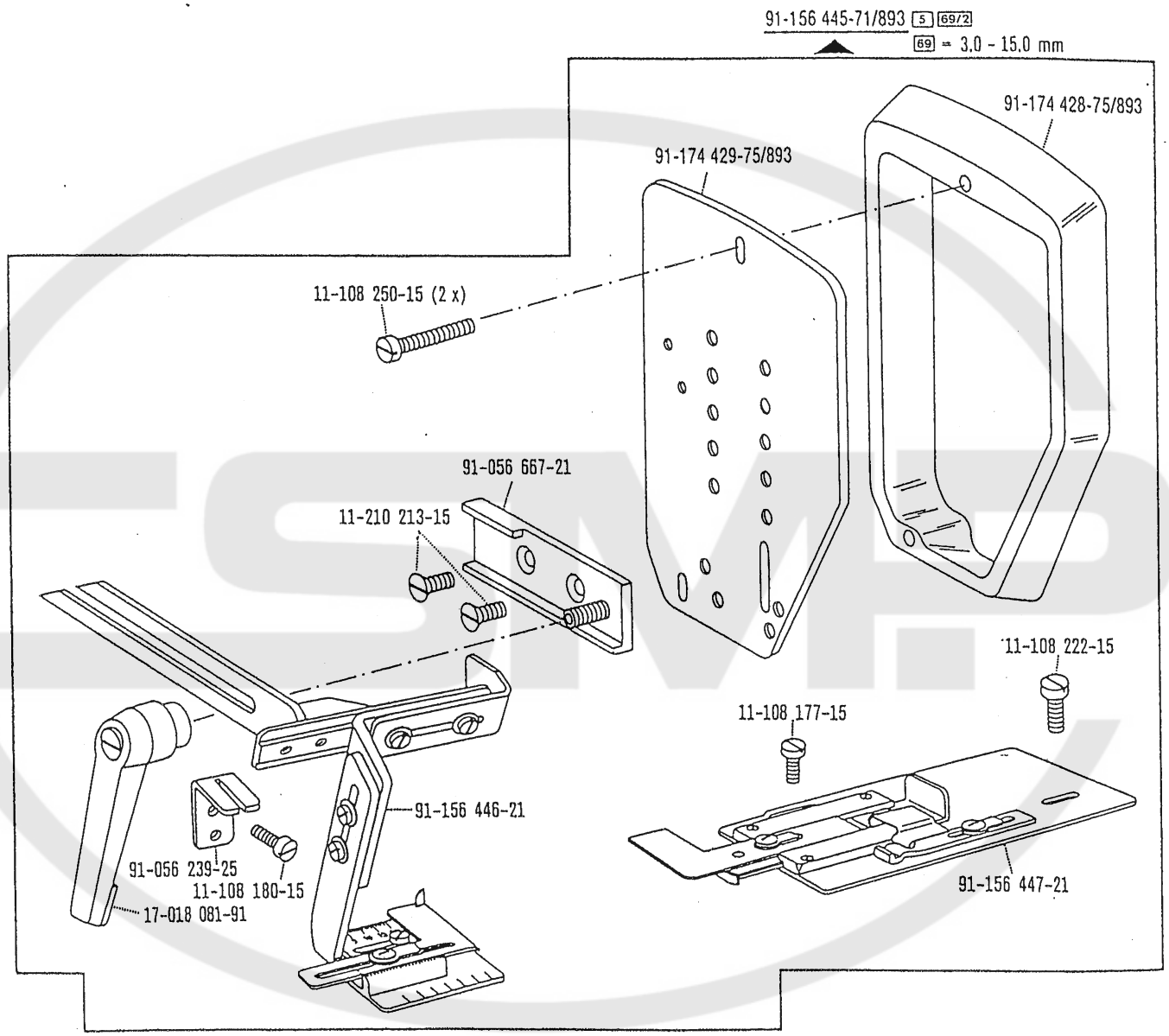


-17/31 (-900/..)

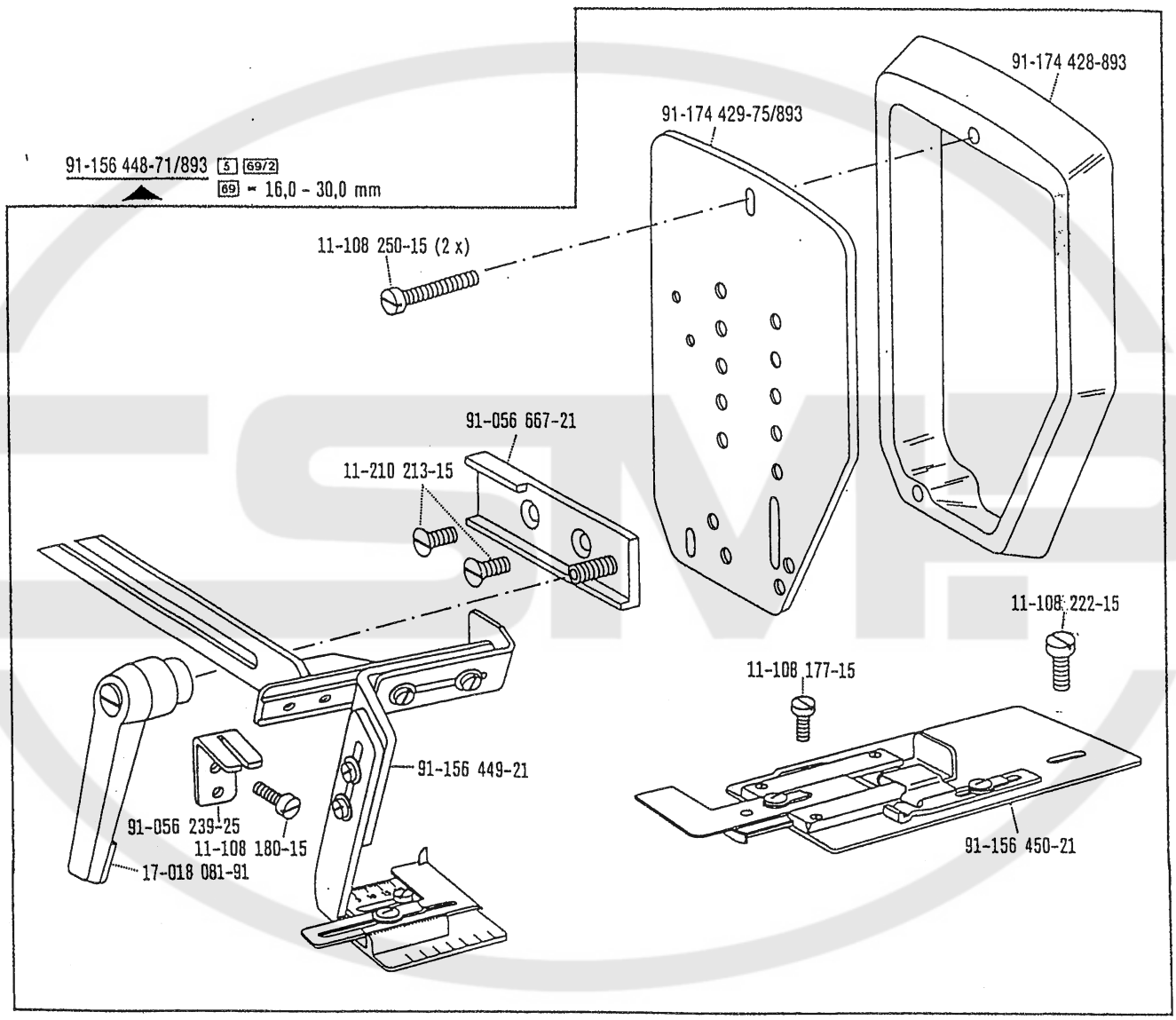


-748/26-39/73 (-900/..)

siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0

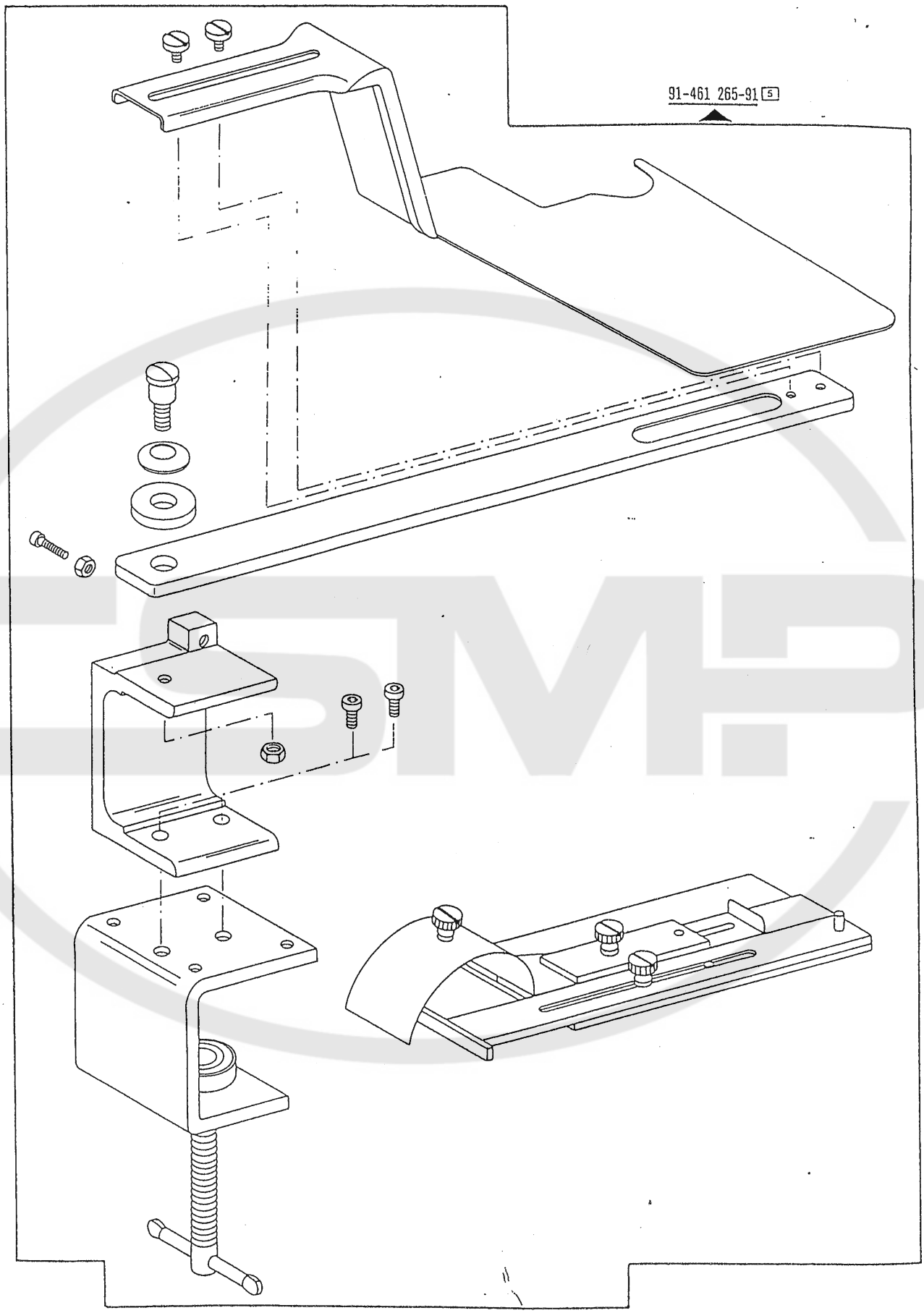


☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

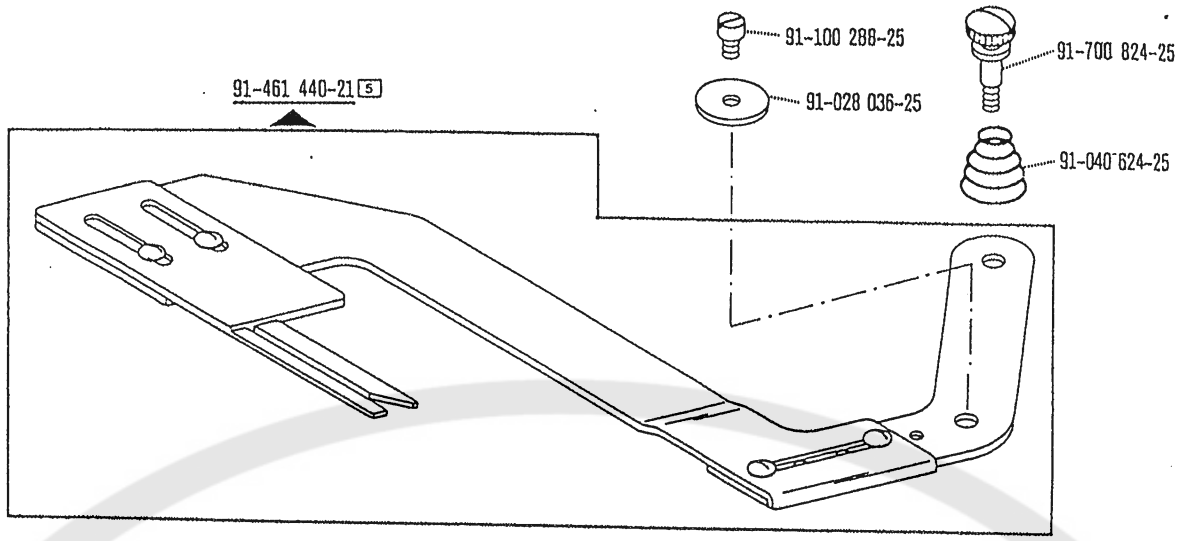


-748/26-151/02 (-900/..)

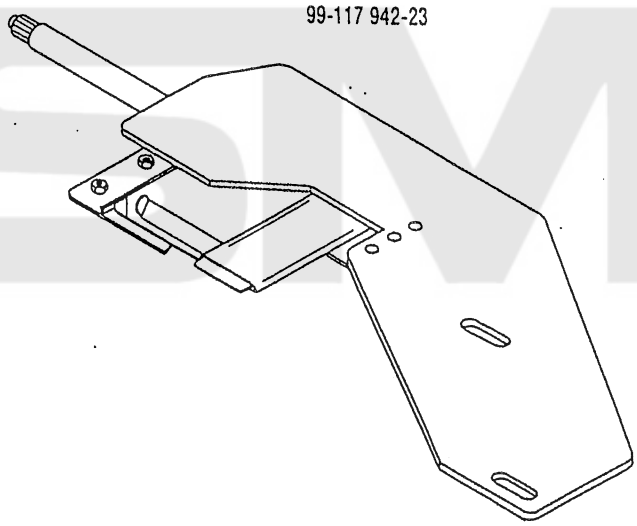
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0



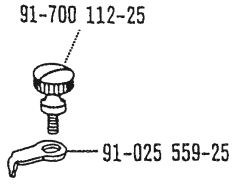
☐ siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0



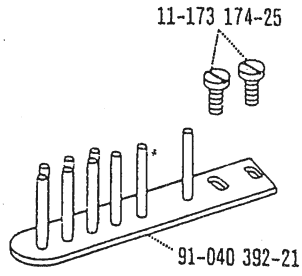
-151/03 (-900/..)



-748/26-315/98 (-900/..)



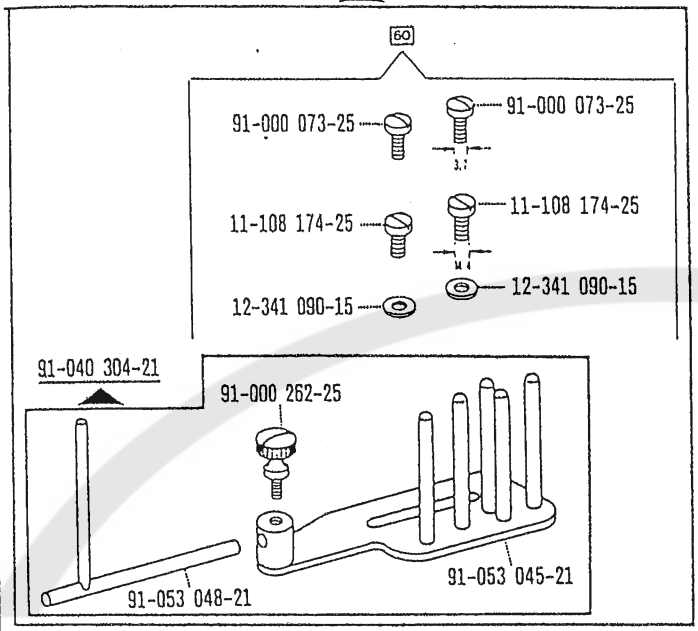
-39/31 (-900/..)
-193/01 (-900/..)



-17/31 (-900/..)

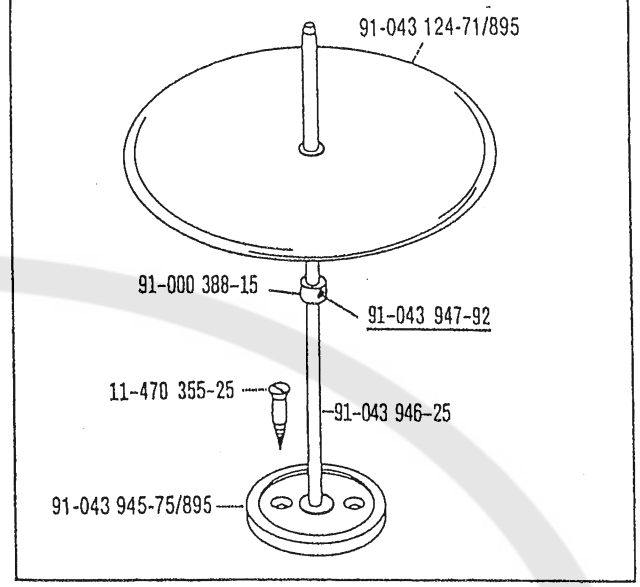
siehe Erläuterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

91-040 304-90



-193/01 (-900/..)

91-043 943-70/895



-17/31 (-900/..)
-39/31 (-900/..)
-193/01 (-900/..)

91-170 560-04 x 9 9/2
9 = 6.0 - 12,0 mm

-731/11 (/12)-6/01 (-900/..)

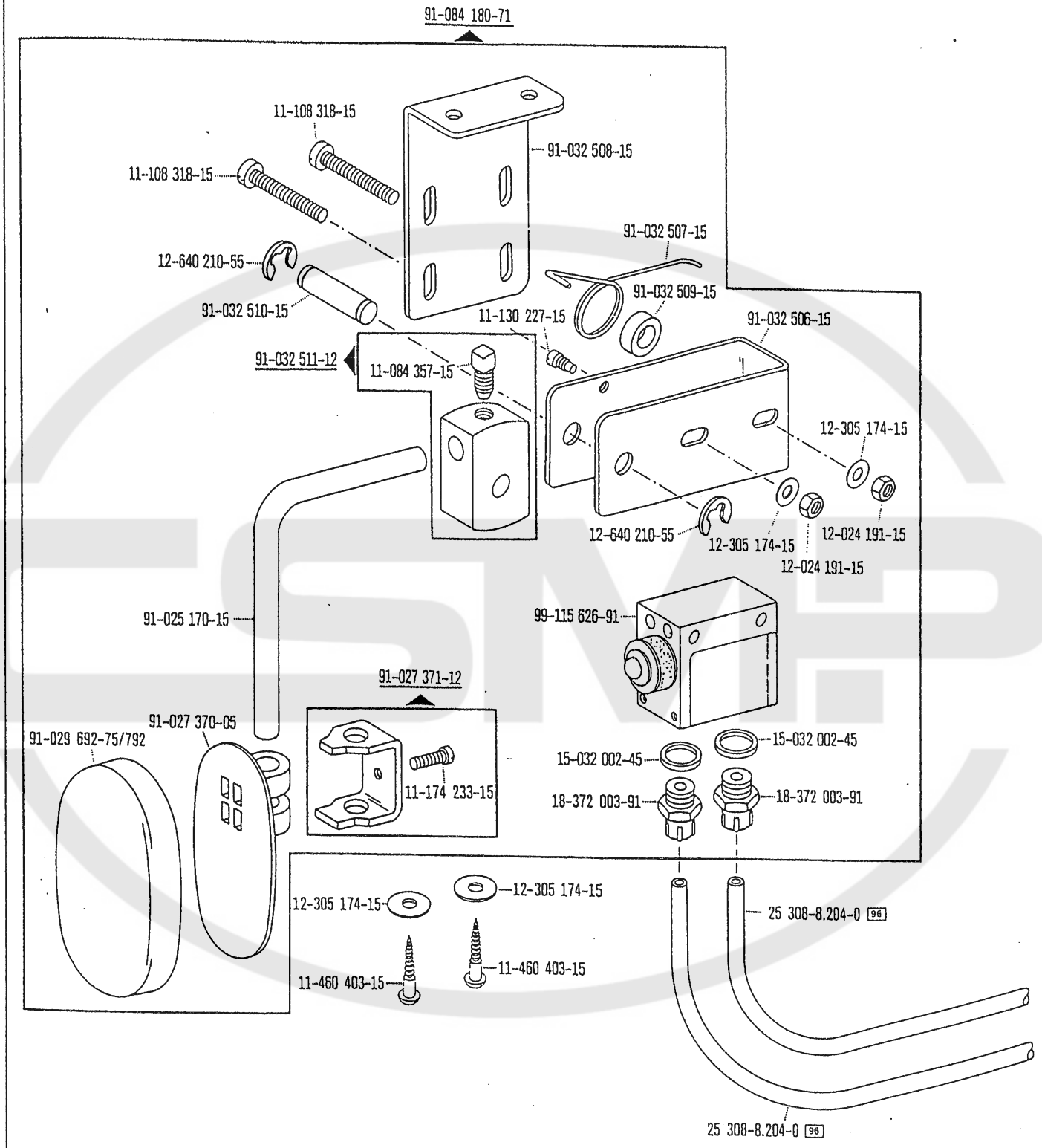
91-046 681-04 95/8

x = 2,0 mm
3,0 mm
3,5 mm

91-169 395-04 x 7 9/2
9 = 2,5 - 5,0 mm

-731/11 (/12)-6/01 (-900/..)

-193/01 (-900/



siehe Erlauterungen Register 0
see explanations in section 0
voir légende registre 0
ver explicaciones del registro 0

Efka
FRANKL & KIRCHNER GMBH & CO KG
SCHEFFELSTRASSE 73 · D-68723 SCHWETZINGEN
TEL.: (06202)2020 · TELEFAX: (06202)202115
email: info@efka.germany.net · http://www.efka.germany.net

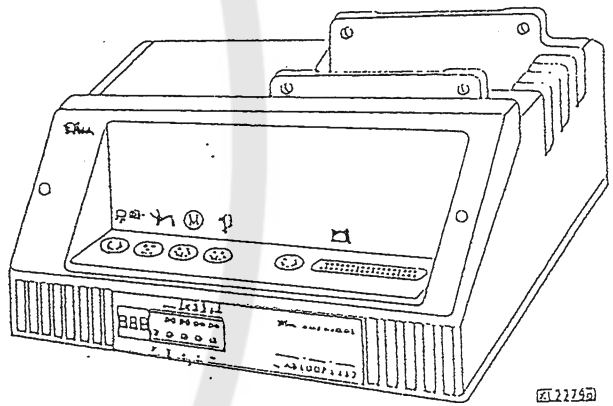
Efka
OF AMERICA INC.
3715 NORTHCREST ROAD · SUITE 10 · ATLANTA · GEORGIA 30340
PHONE: (770)457-7006 · TELEFAX: (770)458-3899 · email: efkaus@aol.com

Efka
ELECTRONIC MOTORS SINGAPORE PTE. LTD.
67, AYER RAJAH CRESCENT 05-03 · SINGAPORE 139950
PHONE: 7772459 · TELEFAX: 7771048 · email: efkas@cyberway.com.sg

I(1)-100998-A(402252EN)

Efka euramot

CONTROL AB60D1467

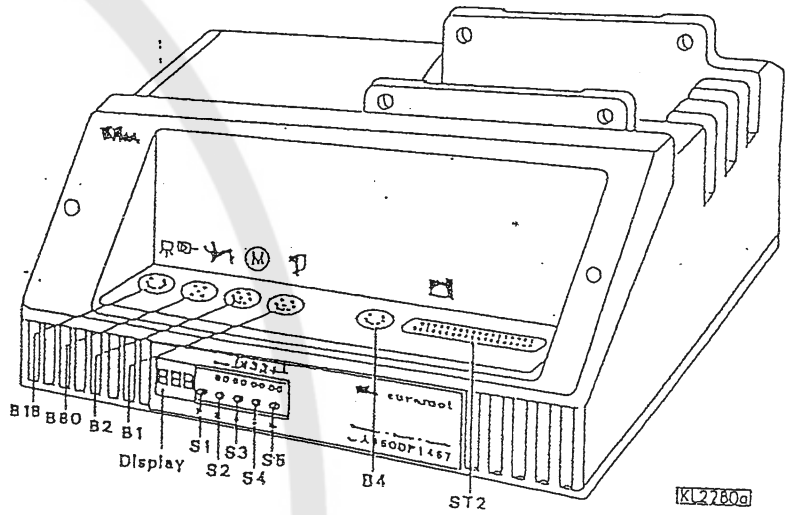


INSTRUCTION MANUAL

No. 402252 english


CSMP

10. Operating Elements and Socket Connectors on the Control



B1 - Position transmitter
B2 - Commutation transmitter for d.c. motor
B4 - Inputs for pushbuttons
B18 - Light barrier module
B80 - Actuator
ST2 - Inputs and outputs for solenoids / solenoid valves / displays / pushbuttons and switches

S1..S5 - Pushbuttons for programming and selection of functions
Display - 3 digits

For your notes:

Contents

9. Error Messages

General Information	
On the control	Signification
A1	Pedal not in neutral position, when switching the machine on (according to setting of parameter 233)
A2	Blocking of machine run (safety switch)
A3	Bobbin thread monitor
A6	Light barrier control

Programming Functions and Values (Parameters)	
On the control	Signification
Returns to the first digit	Wrong code number or parameter number input

Serious Situation	
On the control	Signification
E1	After power On, position transmitter or commutation transmitter defective or connecting cables have been changed by mistake. During machine run or after a sewing operation, only position transmitter defects can be identified.
E2	Line voltage too low, or time between power off and power on too short
E3	Machine locks or does not reach the desired speed
E4	Control disturbed by deficient grounding or loose contact

Hardware Disturbance	
On the control	Signification
H1	Commutation transmitter cord or frequency converter disturbed
H2	Processor disturbed

8. Signal Test

Functions	Parameter
Test of inputs and outputs	173

Function test of the external inputs and the transistor power outputs with the actuators connected to them (e.g. solenoids and solenoid valves).

8.1 Signal Test Using the Incorporated Control Panel

Output test:

- Address parameter 173
- Select the desired output by the +/- pushbuttons
- Actuate the selected output by pushbutton > > on the incorporated control panel

Pushbutton	Output	
ON/OFF	Input test	
01	Free	on socket ST2/34
02	Presser foot lifting	on socket ST2/35
03	Output M1	on socket ST2/37
04	Output M3	on socket ST2/27
05	Output M2	on socket ST2/28
06	Free	
07	Output ML	on socket ST2/32

Input test:

- Press the (-) pushbutton several times until "OFF" or "ON" appears on the control display.
- Actuation of the external switches or pushbuttons will be indicated by alternating the switching state (ON/OFF) on the display.
- Several switches must not be closed at the same time.

2. Range of Applications

The drive is suitable for lockstitch, chainstitch and overlock machines of various manufacturers.

This drive can be used as a replacement for the following controls, if using adapter cords (adapter cords see Special Accessories):

Machine manufacturer	Replacing	Machine	Class	Thread trimming mode	Adapter cord
Aisin	AB60C	Lockstitch	AD3XX,AD158 3310,EK1	0	1112815
Brother	AB60C	Lockstitch	737-113,737-913	0	1112814
Brother	AB60C	Chainstitch	FD3 B257	5	1112822
Dürkopp Adler	AB60C	Lockstitch	210,270	0	1112845
Global		Chainstitch	CB2803-56	5	1112866
Juki	AB60C	Lockstitch	5550-6	14	1112816
Juki	AB60C	Lockstitch	5550-7	14	1112817
Kansai	AB60C	Chainstitch	NX 9803	5	1112819
Pegasus	AB60C	Chainstitch	W500/UT	5	1112821
Pegasus	AB60C	Backlatch		8	1112827
Pfaff	AB60C	Lockstitch	563,953,1050, 1180	0	1112841
Pfaff		Lockstitch	1425	13	1113072
Rimoldi		Chainstitch	F27	5	1113096
Singer	SN62AV	Lockstitch	211,212,591	1 / 2	1112824
Union Special	US80A	Lockstitch	63900AMZ	10	1112823
Union Special	US80A	Chainstitch	34000, 36200	4	1112865
Union Special	US80A	Chainstitch	CS100/FS100	4	1112905
Yamato	JU60B/AB60C	Chainstitch		5	1112818
Yamato	AB60C	Backlatch	ABT3	9	1112826
Yamato		Backlatch	ABT13	9	1112898

7.26 Signal Output - 120 Impulses/Rotation

- Transistor output with open collector
- Switches whenever a generator slot of the position transmitter is sensed
- 120 impulses per rotation of the handwheel
- Independent of sewing, thus also when turning the handwheel manually
- Suitable e.g. for the connection of a counter
- An inverted signal is emitted on socket ST2/22

7.27 Actuator

With the help of the actuator connected with the pedal the commands for the sewing operation are inputted. Instead of the built-in actuator another external actuator can be connected to socket B80.

Table: Coding of the pedal steps

Pedal step	D	C	B	A	
-2	H	H	L	L	full heelback (e.g. initiating the seam end)
-1	H	H	L	H	slight heelback (e.g. presser foot lifting)
0	H	H	H	H	Pedal in position 0 (neutral)
X	H	H	L	H	Pedal slightly forward (e.g. presser foot lowering)
1	H	L	L	H	Speed stage 1 (n1)
2	H	L	L	L	
3	H	L	H	L	
4	H	L	H	H	
5	L	L	H	H	
6	L	L	H	L	
7	L	L	L	L	
8	L	L	L	H	
9	L	H	L	H	
10	L	H	L	L	
11	L	H	H	L	
12	L	H	H	H	Speed stage 12 (Pedal fully forward) (n2)

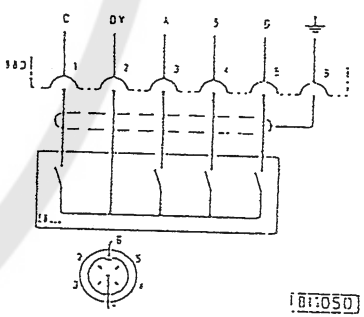
Functions		Parameter
Selectable pedal functions	(-Pd)	019

019 = 0 Pedal in pos. -1 blocked in the seam. With pedal in pos. -2, however, presser foot lifting in the seam is possible

019 = 1 With pedal in pos. -1, presser foot lifting in the seam is blocked

019 = 2 With pedal in pos. -2, thread trimming is blocked

019 = 3 With pedal in pos. -1 and -2, all functions are activated



ED... - Actuator

Functions	Parameter
Speed stage graduation	119

The characteristic curves of the pedal (speed change from stage to stage) can be adjusted by this parameter.

Possible characteristic curves:
- linear
- progressive
- highly progressive

7.28 Master Reset

Recovery of factory settings.

- Press pushbutton "P" and turn power on
- Input code number "190"
- Press pushbutton "E"
- Parameter 100 is shown on the display
- Press pushbutton "E"
- The parameter value is shown on the display
- Set at "170" with pushbutton "+"
- Press pushbutton "P" twice
- Turn power off
- Trun power on. All parameters are reset to their factory settings.

1. Important Safety Instructions

When using an EFKA drive and accompanying devices (e.g. for sewing machines), basic safety precautions should always be followed, including the following:

- Read all instructions thoroughly before using this drive.
- Drive, its accessories and accompanying devices should be mounted and put into operation by qualified personnel in accordance with the guidelines provided in the instruction manual.

To reduce the risk of burns, fire, electric shock, or personal injury:

- Use this drive only for its intended use as described in the instruction manual.
- Use only attachments recommended by the manufacturer or as contained in the instruction manual.
- Do not operate without corresponding protective devices.
- Never operate this drive if one or more parts (e.g. cables, plugs) are damaged, if it is not working properly, if any damages can be identified or are to be suspected (e.g. after it has been dropped). Only qualified personnel are authorized to make adjustments, eliminate faults and complete repair work.
- Never operate the drive with the air openings blocked. Keep ventilation openings of the drive free from the accumulation of lint, dust and loose cloth.
- Never drop or insert any object into any opening.
- Do not use drive outdoors.
- Do not operate where aerosol (spray) products are being used or where oxygen is being administered.
- To disconnect, turn off main switch, then remove plug from outlet.
- Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
- Keep fingers away from all moving machine parts. Special care is required e.g. around the sewing machine needle and the V-belt.
- Before mounting and adjusting accompanying devices, i.e. position transmitter, reversing device, light barrier, etc., disconnect drive from mains (turn off main switch, remove mains plug from outlet [DIN VDE 0113 part 301; EN 60204-3-1; IEC 204-3-1]).
- Always switch off (0) machine and remove plug from outlet, when removing covers, mounting accompanying devices, position transmitter especially, light barrier, etc., or any other devices mentioned in the instruction manual.
- Only qualified personnel are authorized to work on the electrical components.
- Work on high voltage circuit areas is forbidden, except as stated in the respective regulations, e.g. DIN VDE 0105 part 1.
- Only specially trained personnel are authorized to complete repair work.
- Cables to be wired must be protected against expectable strain and fastened adequately.
- Cables near moving machine parts (e.g. V-belts) must be wired at a minimum distance of 25 mm (see DIN VDE 0113 part 301; EN 60204-3-1; IEC 204-3-1).
- For safety it is preferred to wire the cables separately from each other.
- Before connecting the mains line make sure that the mains voltage corresponds to the specifications on the motor rating plate and on the nameplate of the power pack.
- Connect this drive to a properly grounded outlet only. See Grounding Instructions.
- Electric accompanying devices and accessories must only be connected to safety low voltage.
- EFKA DC drives are protected according to overvoltage class 2 (DIN VDE 0160 § 5.3.1).
- Observe all safety guidelines before undertaking conversions or modifications.
- For repair and maintenance use only original replacement parts.

Warnings in the instruction manual which point out particular risks of personal injury or risk to the machine are marked with this symbol wherever applicable.

This symbol is a warning on the control and in the instruction manual. It indicates hazardous voltage.

CAUTION - In the case of failure this area can be current-carrying even after having turned the power off (non discharged capacitors).

- The drive is not an independently operating unit, but is designed to be incorporated into other machinery. It must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of the EC Directive.

Save these Instructions for future reference.

Potential equalization cord 700 mm long, LIY 2.5 mm², grey, with forked cable brackets on both sides	- part no. 1100313
Fitting piece for position transmitter	- part no. 0300019
Extension cable for position transmitter P5-..., approx. 1100 mm long, complete with plug and socket connector	- part no. 1111584
Extension cable for position transmitter P5-..., approx. 315 mm long, complete with plug and socket connector	- part no. 1111229
Extension cable for motor connection, approx. 400 mm long	- part no. 1111858
Extension cable for motor connection, approx. 1500 mm long	- part no. 1111857
Knee switch type KN3 (pushbutton) with cord of approx. 950 mm length without plug	- part no. 58.0013
Pulley 40 mm ϕ with special belt intake and slip-off protection (use SPZ belt)	- part no. 1112223
Pulley 50 mm ϕ with special belt intake and slip-off protection (use SPZ belt)	- part no. 1112224
Adapter cord for the connection to BROTHER cl. 737-13, 737-913	- part no. 1112814
Adapter cord for the connection to AISIN high-speed seamer AD3XX, AD158, 3310 and overlock machine EK1	- part no. 1112815
Adapter cord for the connection to JUKI high-speed seamer with index -4	- part no. 1112816
Adapter cord for the connection to JUKI high-speed seamer with index -7	- part no. 1112817
Adapter cord for the connection to YAMATO	- part no. 1112818
Adapter cord for the connection to KANSAI machines cl. RX 9803	- part no. 1112819
Adapter cord for the connection to PEGASUS cl. W500/UT	- part no. 1112821
Adapter cord for the connection to BROTHER chainstitch machine cl. FD3 B257	- part no. 1112822
Adapter cord for the connection to UNION SPECIAL lockstitch machine cl. 63900AMZ (as a replacement for the US80A)	- part no. 1112823
Adapter cord for the connection to SINGER cl. 211, 212U-UTT (magn. thread trimmer) and 591	- part no. 1112824
Adapter cord for the connection to YAMATO backlatch machine ABT3	- part no. 1112826
Adapter cord for the connection to PEGASUS backlatch machine	- part no. 1112827
Adapter cord for the connection to PFAFF cl. 563, 953, 1050, 1180	- part no. 1112841
Adapter cord for the connection to DÜRKOPP ADLER cl. 210; 270	- part no. 1112845
Adapter cord for the connection to UNION SPECIAL cl. 34000 and 36200	- part no. 1112865
Adapter cord for the connection to GLOBAL cl. CB2803-56	- part no. 1112866
Adapter cord for the connection to YAMATO backlatch machine ABT13	- part no. 1112898
Adapter cord for the connection to UNION SPECIAL cl. CS100 and FS100	- part no. 1112905
Adapter cord for the connection to PFAFF cl. 1425	- part no. 1113072
Adapter cord for the connection to RIMOLDI cl. F27	- part no. 1113096
Sewing light transformer	- please indicate line voltage and sewing light voltage (6.3V or 12V)
7-pin plug with locking screw (Mas 7100S)	- part no. 1110805 *)
37-pole SubminD connector cpl.	- part no. 1112900 *)
Single pins for 37 pole SubminD with strand of approx. 5 c. length	- part no. 1112899
Pfitman rod	- part no. 1112399 *)

*) These items are available as set of accessories Z50 !

7.21 Switching Functions of the Inputs in1, in3 and in4

Function		Parameter
Selection of the input function	in1/in3/in4	240/242/243

Various functions of the pushbuttons can be selected for each input on sockets ST2 and B4.

The following input functions are possible with parameters 240, 242 and 243:

240 = 0	Input function blocked
240 = 1	Needle up/down: By pressing the pushbutton the drive runs from position 1 to position 2 and/or from position 2 to position 1. If the drive is outside of the stop position it runs to the next position possible.
240 = 2	Needle up: By pressing the pushbutton the drive runs from position 1 to position 2.
240 = 3	Single stitch (basting stitch): By pressing the pushbutton the drive performs one rotation from position 1 to position 1. If the drive is in position 2, it runs to position 1 upon pressing the pushbutton and from position 1 to position 1 each time when the pushbutton is pressed again.
240 = 4	Full stitch: By pressing the pushbutton the drive performs one entire rotation depending upon the stop position.
240 = 5	Needle to position 2: If the drive is outside of position 2 it runs to position 2 upon pressing the pushbutton.
240 = 6	Blocking of machine run effective with open contact: When opening the switch the drive stops in the preselected basic position.
240 = 7	Blocking of machine run effective with closed contact: When closing the switch the drive stops in the preselected basic position.
240 = 8	Blocking of machine run effective with open contact (unpositioned): When opening the switch the drive stops immediately unpositioned
240 = 9	Blocking of machine run effective with closed contact (unpositioned): When closing the switch the drive stops immediately unpositioned
240 = 10	Run at automatic speed (n12): By pressing the pushbutton the drive runs at automatic speed. The pedal is not used.
240 = 11	Run at limited speed (n12): By pressing the pushbutton, the drive runs at limited speed. The pedal must be pressed forward.
240 = 12	Presser foot lifting with pedal in position 0 (neutral)
240 = 13	High lift for walking foot operation mode not stored: While the pushbutton is pressed down, the signal "high lift for walking foot" is emitted and the drive runs with speed limitation (n10).
240 = 14	High lift for walking foot operation mode stored/flip-flop: When the pushbutton is pressed, the signal "high lift for walking foot" is emitted and the drive runs with speed limitation (n10). When the pushbutton is pressed again, the process is switched off.
240 = 15	Tape cutter and/or fast scissors (mode 6/7): By pressing the pushbutton, the tape cutter is switched on over a preset time.
240 = 16	Intermediate backtack/intermediate stitch condensing: By pressing the pushbutton, the backtack and/or the stitch condensing is switched on anywhere in the seam and at standstill of the drive.
240 = 17	No function
240 = 18	Unlocking the chain: By pressing the pushbutton, reversion is performed at the seam end. Moreover, the thread trimmer will be suppressed.
240 = 19	Bobbin thread monitor: After inserting a full bobbin, the stitch counter is set by parameter 031 by pressing the pushbutton.
240 = 20	Machine run at positioning speed (n1): By pressing the pushbutton, the drive runs at positioning speed. The pedal is not used.
240 = 21	Reversal of the direction of rotation: The direction of rotation of the motor is reversed upon pressing the pushbutton in mode 12.
240 = 22	No function.
240 = 23	Speed limitation n9: As long as the pushbutton remains pressed down in the seam, the speed limitation n9 remains activated.
240 = 24	Needle moves from position 1 to position 2 (flip-flop): By pressing the pushbutton, the presser foot is immediately lifted and the needle moves from position 1 to position 2. The blocking of machine run is also activated, but will be deactivated when the pushbutton is pressed again. If the needle is outside of position 1, machine start is blocked for safety reasons and the presser foot is immediately lifted.
240 = 25	Speed limitation with external potentiometer: By pressing the pushbutton, the external speed limitation becomes effective. Parameter 126 must be set at 2.
240 = 26	Unlocking the chain: By pressing the pushbutton, the function "unlock the chain" will be performed without using the pedal.

The input functions of parameters 242 and 243 are identical with those described for parameter 240.

7.22 Speed Limitation with External Potentiometer

Functions	Parameter
Speed limitation with external potentiometer (maximum value)	124
Speed limitation with external potentiometer (minimum value)	125
Function speed limitation with external potentiometer	126

A speed limitation can be set with parameters 124 and 125 using the external potentiometer which can be connected to sockets ST2/2, ST2/3 and ST2/4.

Parameter 124: Maximum value for speed limitation with external potentiometer

Parameter 125: Minimum value for speed limitation with external potentiometer

Parameter 126: Function for speed limitation with external potentiometer

- 0 = Function external potentiometer Off.
- 1 = The external potentiometer is active whenever the pedal is pressed forward. The drive always runs with the set speed limitation.
- 2 = The external potentiometer is only active if an input has been set at "25" with parameters 240, 242 and/or 243. If the selected input is switched on and the pedal pressed forward, the drive runs at limited speed. The speed limitation can be switched on and off with the pushbutton anywhere in the seam.

7.23 Function Error Message A1 On/Off

Functions	Parameter
Error message A1 On/Off	233

Error message A1 can be switched off with parameter 233, if the pedal is not in position 0 (neutral) when switching the machine on.

233 = OFF Error message A1 is displayed. No function is possible.
233 = ON Error message A1 is suppressed. After that, normal function (e. g. with automats).

7.24 Signal Output Position 1

- Transistor output with open collector
- Switches whenever the needle is in the slot between position 1 and 1A
- Independent of sewing, thus also when turning the handwheel manually
- Suitable e.g. for the connection of a counter
- An inverted signal is emitted on socket ST2/20

7.25 Signal Output Position 2

- Transistor output with open collector
- Switches whenever the needle is in the slot between position 2 and 2A
- Independent of sewing, thus also when turning the handwheel manually
- Suitable e.g. for the connection of a counter
- An inverted signal is emitted on socket ST2/21

2.1 Use in Accordance with Regulations

The drive is not an independently operating machine, but is designed to be incorporated into other machinery. It must not be put into service until the machinery into which it is to be incorporated has been declared in conformity with the provisions of the EC Directive (Appendix II, paragraph B of the Directive 89/392//392/EEC and supplement 91/368/EEC).

The drive has been developed and manufactured in accordance with the respective EC standards:

EN 60204-3-1: 1990 Electrical equipment of industrial machines:
Particular requirements for industrial sewing machines, sewing units and sewing systems.

The drive can only be operated:

- on thread processing machines
- in dry areas

3. Complete Drive Unit Consisting of

1	Direct current motor	DC....
1	Electronic control	euramot AB60D1467
	- Power pack	N156A
1	Position transmitter	PS-2 standard PS-4 Singer cl. 211, 212, 591
1	Mains switch	NS106 (optional NS106d/for 230V supply systems NS107 and NS107s)
1	Set of standard accessories consisting of:	B131 belt guard, complete set of hardware motor mounting foot bracket 1 and 2, short documentation
1	Set of accessories consisting of:	Z3 pitman rod, complete
1	Pulley	

3.1 Special Accessories

Reflection light barrier module LSM001A	- part no. 6100028
Solenoid type EM1..(for e.g. presser foot lifting, etc.)	- available versions see specification "solenoids"
Extension cable for external actuator, approx. 750 mm long, complete with plug and socket connector	- part no. 1111845
Extension cable for external actuator, approx. 1500 mm long, complete with plug and socket connector	- part no. 1111787
5-pin plug with locking screw for the connection of another external actuator	- part no. 0501278
External actuator type EB301 with approx. 250 mm connecting cable and 5-pin plug with locking screw	- part no. 41.0011
External actuator type EB302 (softer spring) approx. 250 mm connecting cable and 5-pin plug with locking screw	- part no. 41.0012
Foot control type FB301 with one pedal for standing operation with approx. 1400 mm connecting cable and plug	- part no. 4170013
Foot control type FB302 with three pedals for standing operation with approx. 1400 mm connecting cable and plug	- part no. 4170018

0.5 Automatic Start by Light Barrier

ctions	Parameter
y of automatic start	128
omatic start on/off	129
t barrier sensing uncovered	131
ving start blocked with light barrier uncovered	132

unction allows the automatic start of sewing as soon as the light barrier has sensed the insertion of fabric.

following conditions must be met:
rameter 132 = ON (no sewing start, when light barrier uncovered).
rameter 131 = ON (light barrier sensing uncovered).
rameter 129 = ON (automatic start on).
ght barrier switched on.
e pedal must remain pushed forward at the seam end.

afety reasons, this function becomes active only after a normal sewing start in the first seam. The light barrier must vered, when the pedal is in neutral position; then the pedal can be pushed forward.
safety function is reset, when the pedal does not remain pushed forward after the end of the seam.

0.6 Light Barrier Filter for Knitted Fabrics

nctions	Parameter
mber of stitches of the light barrier filter	005
ht barrier filter On/Off	130
ht barrier sensing uncovered and/or covered	131

filter prevents premature triggering of the light barrier function, when sewing knitted fabrics.

The filter can be switched on or off by parameter 130
The filter is not active if parameter 005 = 0
By changing the number of filter stitches the mesh will be adapted
Knitted fabric sensing will only be activated if the light barrier senses covered -> uncovered, if parameter 131 = ON
Knitted fabric sensing will only be activated if the light barrier senses uncovered -> covered, if parameter 131 = OFF

20.7 Functional Variations of the Light Barrier Input

unctions	Parameter
election of the input function on socket B18/5	239

he light barrier function is not used, the input on socket B18/5 can be set with a switching function, analogous with uts in1, in3 and in4.

e following input functions are possible with parameter 239:

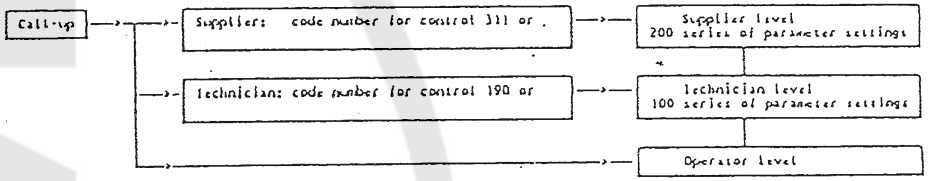
= 0 Light barrier function: The input is prepared for a light barrier function.
= 1...26 All other input functions are identical with those described for parameter 240.

4. Operating the Control without Variocontrol

4.1 Access to Programming on Command Input

In order to prevent the unintentional modification of preset functions the input commands are distributed at various levels, as shown in the following diagram.

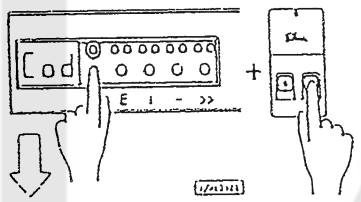
The following persons have access:
- the supplier to the highest and all subordinate levels by a code number
- the technician to the next lower and all subordinate levels by a code number
- the operator to the lowest level without code number



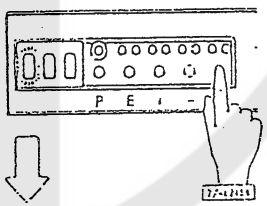
4.2 Programming the Code Number

Note
The parameter numbers in the illustrations below serve as examples and may not be available in all program versions. In this case, the display shows the next higher parameter number. See Parameter List.

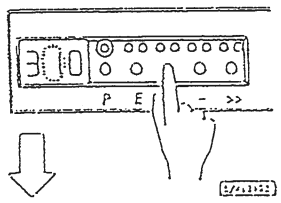
1. Press pushbutton P and turn power on



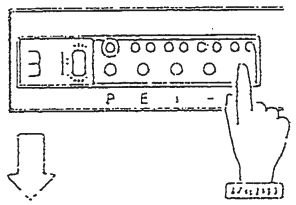
2. Press pushbutton > > (first digit blinks)



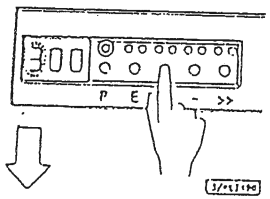
5. Press pushbutton + and/or - to select the second digit



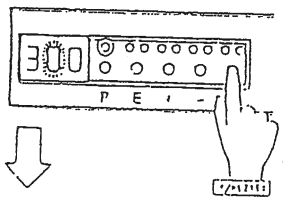
6. Press pushbutton > > (third digit blinks)



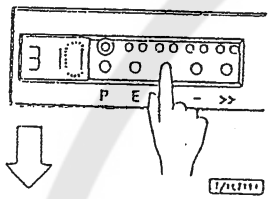
3. Press pushbutton + and/or - to select the first digit
   Technician level = = > Code no. 190
   Supplier level = = > Code no. 311



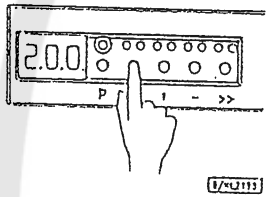
4. Press pushbutton > > (second digit blinks)



7. Press pushbutton + and/or - to select the third digit



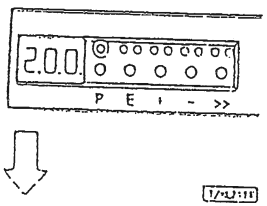
8. Press pushbutton E; the parameter number is displayed, which is indicated by points between the digits.



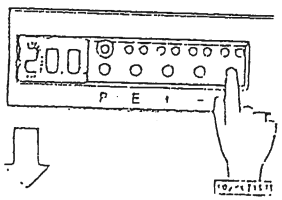
4.3 Selection of the Parameters

4.3.1 Direct Selection

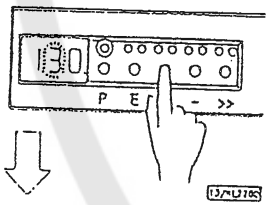
1. After inputting the code number on the programming level



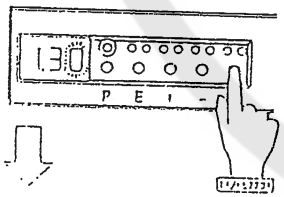
2. Press pushbutton > > (first digit blinks)



5. Press pushbutton + and/or - to select the second digit



6. Press pushbutton > > (third digit blinks)



7.20.2 General Light Barrier Functions

Functions		Parameter
Light barrier compensating stitches	LS	004
Number of light barrier seams		006
Light barrier sensing uncovered		131
Sewing start blocked with light barrier uncovered		132
Light barrier seam end with thread trimming		133

- After sensing the seam end, counting of the compensating stitches at light barrier speed is performed.
- Parameter 192 = ON (speed pedal controlled)
  Parameter 192 = OFF (speed nS after light barrier sensing)
- Interruption with pedal in position 0. Cessation with pedal in position -2.
- Disabling of the thread trimming operation by parameter 133, independently of the setting by pushbutton S3 . the control. Stop in the basic position.
- Programming of up to 15 light barrier seams, according to the setting of parameter 006, with stop in the bas position. After the last light barrier seam, a thread trimming operation will be performed.
- Light barrier sensing uncovered or covered at the seam end can be selected by parameter 131.
- Blocking of machine start, when light barrier is uncovered, can be programmed by parameter 132.
- The light barrier compensating stitches can be programmed and varied with parameter 004 directly in t control.

7.20.3 Reflection Light Barrier

Functions	Parameter / Pushbutton
Light barrier On/Off on the control	009

Adjustments

Sensitivity:

Depending on the distance of the light barrier to the reflection area, adjust sensitivity to a minimum.
(Turn potentiometer as far as possible to the left).
- LSM001A - Potentiometer directly on the light barrier module

Mechanical Adjustment:
- LSM001A - The orientation is facilitated through a visible light spot on the reflection area.

7.20.4 Light Barrier Control

Functions	Parameter / Pushbutton
Stitches for light barrier control	195

In order to check the optical and electrical function it is possible to select a number of stitches with parameter 195.
While these stitches are performed, the light barrier must be activated at least once.
When counting is completed and the light barrier has not been activated, the drive stops and the message A6 appears.
The number of stitches must be greater than that required for the seam.
If the number of stitches =0, the function is switched off.

.3 Seam with Stitch Counting When Light Barrier Is On

tions	Parameter
t barrier On/Off ch counting On/Off	009 015

"stitch counting and light barrier function" is set, the number of stitches will be executed first, then the light r will be activated.

9 Free Seam and Seam with Light Barrier

ctions		Parameter
sitioning speed	n1	110
per limit of the maximum speed	n2	111
nited speed according to setting of parameter 142	n12	118
wer limit of the maximum speed		121
eed mode Free seam		142

ed control for the free seam and for the seam with light barrier can be selected with the speed mode.

= 0: Execution at pedal controlled speed from n1 to n2.
= 1: Execution at fixed speed n12, when pedal is forward (position > =1).
= 2: Execution at limited speed n12, when pedal is forward (position > =1)
= 3: Only for the seam with light barrier:
- Automatic execution at fixed speed as soon as the pedal has been pushed once.
- The seam end is initiated by the light barrier.
- Interruption by heelback (-2) is possible.
- If the light barrier is not on, speed as with parameter setting 142 = 0.

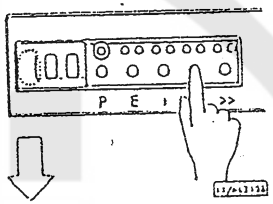
20 Light Barrier

Functions	Parameter/Pushbutton
Light barrier On/Off on the control Light barrier function on the input of socket B18/5 (LS-L) activated only if parameter	009 239 = 0

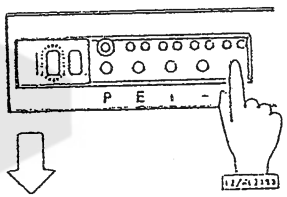
.20.1 Speed after Light Barrier Sensing

Functions		Parameter
Speed after light barrier sensing	n5	114

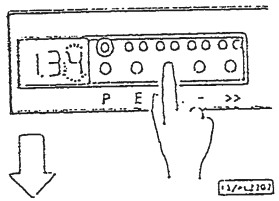
3. Press pushbutton + and/or - to select the first digit



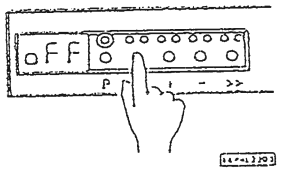
4. Press pushbutton > > (second digit blinks)



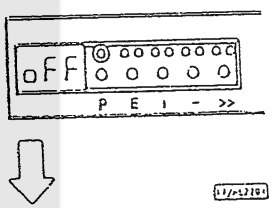
7. Press pushbutton + and/or - to select the third digit



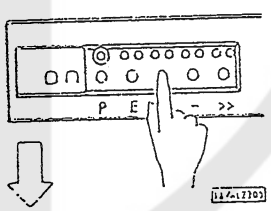
8. Press pushbutton E; parameter value is displayed. There are no points between the digits.



4.3.2 Changing Parameter Values



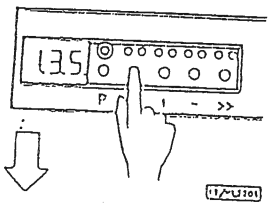
Display after selecting the parameter value



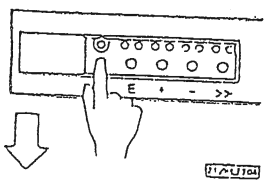
Change parameter value by pressing pushbutton + and/or -

Possibility n° 1:

Press pushbutton E. The next parameter number is displayed.

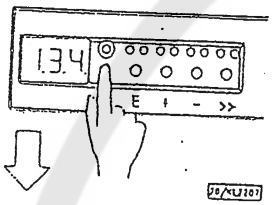


Press pushbutton P. Exit programming. The changed parameter values will only be saved by starting to sew again!

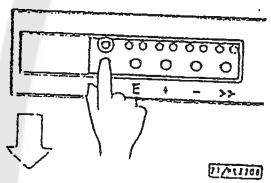


Possibility n° 2:

Press pushbutton P. The same parameter number is displayed.

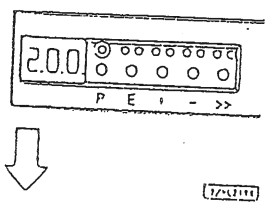


Press pushbutton P. Exit programming. The changed parameter values will only be saved by starting to sew again!

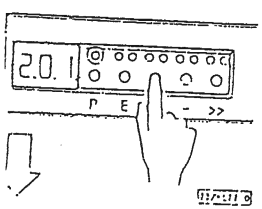


4.3.3 Selection by Using the +/- Pushbuttons

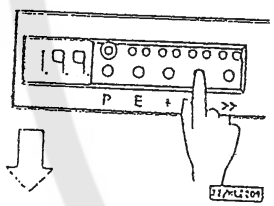
1. After inputting the code number on the programming level



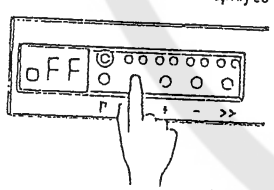
2. Select the next parameter by pressing the + pushbutton



3. Select previous parameter by pressing the - pushbutton



4. After pressing pushbutton E, the parameter value is displayed



7.16 Manual Tape Cutter/Fast Scissors

By pressing an external pushbutton depending on the preselection of parameter 240, 242 or 243, the tape cutter and/o fast scissors can be switched anywhere in the seam and at standstill.

See chapter "Connection Diagram" in the Parameter List!

7.17 Functions for Backlatch Machines (Mode 8/9)

See the timing diagrams in the parameter list for the functions for backlatch machines in the two modes.

An addditional function is provided especially for mode 9 (parameter 290 = 9=).

Whether or not a light barrier is connected or whether any changes have occurred at the light barrier input, is automatically sensed after power on or switching on mode 9. During sewing, input in3 is prepared by briefly pressing the pushbutton for switching the automatic speed (n-auto) on after sensing the light barrier and for making the machine stop with the safety switch. If the machine is restarted, it runs at pedal controlled speed. The light barrier is reactivated only by briefly pressing the pushbutton on input in3.

7.18 Seam with Stitch Counting

Functions	Parameter
Stitch counting On/Off	015

7.18.1 Stitches for Stitch Counting

Functions		Parameter
Number of stitches for a seam with stitch counting	Stc	007

The stitches for stitch counting can be varied with the above parameters directly in the control.

7.18.2 Stitch Counting Speed

Functions		Parameter
Stitch counting speed		118
Speed mode for a seam with stitch counting	n12	141

Speed control for stitch counting can be selected with parameter 141.

141 = 0: Execution at pedal controlled speed.
141 = 1: Execution at fixed speed n12, when pedal is forward.
141 = 2: Execution at limited speed n12, when pedal is forward.
141 = 3: Automatic execution at fixed speed as soon as the pedal has been pushed once. Interruption by "heelback (-2)" is possible.

The sewing speed is reduced in each stitch depending on the actual speed (max. 11 stitches before the end of stitch counting) in order to be able to stop exactly at the end of stitch counting. When the light barrier is switched on, free sewing will be performed after stitch counting.

14 Function of the Output Signal M3

unctions	Parameter
unctions of signal M3	297

following settings are possible with parameter 297:

= 0	Function according to setting of parameter 290
= 1	Signal M3 is switched on whenever the light barrier is uncovered
= 2	Signal M3 is switched on whenever the light barrier is covered
= 3	Signal M3 is switched on only after light barrier uncovered and/or covered until seam end
= 4	Signal M3 is switched on as with setting 3. Signal ML (machine running), however, is switched off while signal M3 is emitted.

ne of the parameters 146, 147, 148 is set at "3", parameter 297 is automatically set at "0". If this setting is changed 1...4", parameters 146, 147, 148 are reset at "0". The function of the parameter that was last changed is carried out.

15 Tape Cutter (Mode 6/7)

signal tape cutter can be preselected for the start and end counting, with pushbutton S3 on the control.

unctions		Control
ape cutter at the start of the seam On	LED 3 on	Pushbutton S3
ape cutter at the end of the seam On	LED 4 on	

15.1 Functions Tape Cutter

signal tape cutter can be influenced with parameter 020 to the effect that the signal remains On at the seam end and l be switched off after some run-out stitches, which can be set with parameter 021, when starting to sew again. This on serves as clamp.

unctions		Parameter
lamp at the seam end (output ST2/27) On/Off (mode 7)	kLM	020
un-out stitches (ckL) of the clamp at the start of the seam (mode 7)	ckL	021

15.2 Times for Tape Cutter/Fast Scissors

Functions		Parameter
Activation time for fast scissors AH1 (mode 6)	kt3	286
Activation time for fast scissors AH2 (mode 6)	kt2	283

Functions		Parameter
Parameter 232 = OFF		
Activation time for tape cutter AH (mode 7)	kt3	286
Parameter 232 = ON		
Activation time for fast scissors AH1 (mode 7)	kt3	286
Activation time for fast scissors AH2 (mode 7)	kt2	283

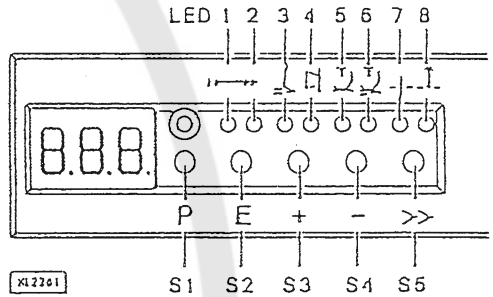
When selecting the function "fast scissors" parameter 232 = ON, the delay time must also be set at "0" with parameter 821

4.4 Changing All Parameter Values of the Operator Level

All parameter values of the operator level (see Parameter List) can be changed without inputting a code number.

- Press pushbutton P => First parameter number will be displayed.
- Press pushbutton E => Parameter value will be displayed.
- Press pushbuttons +/- => Parameter value will be changed.
- Press pushbutton E => Next parameter will be displayed.
- Press pushbutton E => Parameter value will be displayed.
- Press pushbuttons +/- => Parameter value will be changed.

  etc.
- Press pushbutton P 2x => Exit programming on the operator level.



4.5 Switchable Functions

Switchable functions can be changed by pressing a pushbutton. The switching state is indicated by light emitting diodes (LED). See above illustration!

Table: Allocation of functions for pushbuttons and LEDs

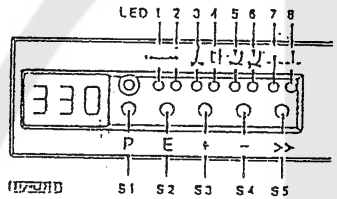
Function	Pushbutton		LED number	
Softstart On	E	(S2)	1 = on	2 = off
Softstart Off	E		1 = off	2 = off
Thread trimmer On (in all modes except mode 7, 11 and 12)	↓	(S3)	3 = on	4 = off
Thread wiper On	↑		3 = off	4 = on
Thread trimmer and thread wiper On	↓		3 = on	4 = on
Thread trimmer and thread wiper Off	↓		3 = off	4 = off
Tape cutter at the start of the seam On (mode 7)	↓	(S3)	3 = on	4 = off
Tape cutter at the seam end On	↑		3 = off	4 = on
Tape cutter at the start of the seam and at the seam end On	↓		3 = on	4 = on
Tape cutter at the start of the seam and at the seam end Off	↓		3 = off	4 = off
Presser foot lifting at stop in the seam (automatic)	-	(S4)	5 = on	6 = off
Presser foot lifting at the seam end (automatic)	-		5 = off	6 = on
Presser foot lifting at stop in the seam and at the seam end (automatic)	-		5 = on	6 = on
Presser foot lifting (automatic) off	-		5 = off	6 = off
Basic position down (position 1)	>>	(S5)	7 = on	8 = off
Basic position up (position 2)	>>		7 = off	8 = on

4.6 Direct Input of Maximum Speed Limitation (DED)

The maximum speed of the machine can be limited to the specific level according to the application directly by using pushbuttons +/- on the Variocontrol during machine run or during intermediate stop.
This function is blocked at the start of the seam and/or after the seam end. The actual value is shown on the display and must be multiplied by 10.

Example:

The value 330 on the control display corresponds to a speed of 3300 RPM



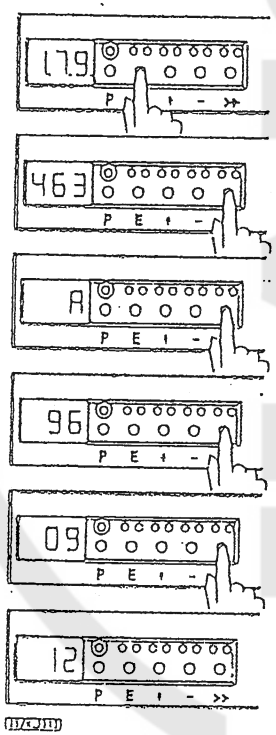
4.7 Program Identification on the Control

Function	Parameter
Display of program number, modification index and identification number	179

After having selected parameter 179, the display shows the following information in succession:

Example:

- Select parameter 179 and press pushbutton E!
- On the display the program number (1463) is shortened by one digit! Continue by pressing pushbutton > > !
- The display shows the modification index (A) of the program! Continue by pressing pushbutton > > !
- Identification number digit 1 and 2! Continue by pressing pushbutton > > !
- Identification number digit 3 and 4! Continue by pressing pushbutton > > !
- Identification number digit 5 and 6!



The routine is exited by pressing pushbutton P twice. The drive is again ready for sewing. By pressing pushbutton E, the routine is as well exited, and the next parameter number is displayed.

The following settings are possible in the overlock mode (mode 7) with the following parameters:
018 = ON Sequence without stop. Parameter 022 must be set at ON.
018 = OFF Sequence with stop.

022 = ON The signal chain suction at the seam end remains On until the pedal is in pos. = (neutral).
022 = OFF The signal chain suction at the seam end is switched off after counting c2.

With the following parameters it is possible to select the speed function during stitch counting at the start of the seam and at the seam end:
143 = 0 Fixed speed n3 (parameter 112) at the start of the seam.
143 = 1 Limited pedal controlled speed n3 at the start of the seam.

144 = 0 Fixed speed n4 (parameter 113) at the seam end.
144 = 1 Limited pedal controlled speed n3 at the seam end.

193 = 0 Chain suction after the light barrier compensating stitches.
193 = 1 Chain suction from light barrier uncovered onwards.

7.13.2 Start and End Countings

Functions		Parameter
End counting (c2) at limited speed n4 until stop	c2	000
Start counting (c1) at limited speed n3 for chain suction	c1	001
Counting (c3) tape cutter at the start of the seam	c3	002
End counting (c4) for tape cutter at the seam end	c4	003
Seam end in mode 7 through end counting (c2) or (c4)		191
Stitch counting speed at the start of the seam	n3	112
Stitch counting speed at the seam end	n4	113

With parameter 191, the following settings are possible for determining the seam end:
191 = 0 Seam end after counting c4 (tape cutter)
191 = 1 Seam end after counting c2 (chain suction)

Functions	Parameter
Sequence overlock mode (mode 7) with or without stop	018
Speed n3 during stitch counting at the start of the seam	143
Speed n4 during stitch counting at the seam end	144

The following settings are possible in the overlock mode (mode 7) with the following parameters:
018 = ON Sequence without stop.
018 = OFF Sequence with stop.

With the following parameters the speed function at the start of the seam and at the seam end can be determined:
143 = 0 Fixed speed n3 (parameter 112) at the start of the seam.
143 = 1 Pedal controlled speed at the start of the seam.

144 = 0 Fixed speed n4 (parameter 113) at the seam end.
144 = 1 Pedal controlled speed at the seam end.

2.1.1 Trimming Speed

ctions		Parameter
nming speed	n7	116

2.2 Chainstitch Thread Trimmer (Modes 4, 5 and 6)

thread trimming with chainstitch machines (modes 4, 5 and 6) is performed at machine standstill in position

drive stops in position 2 at the seam end, when thread trimming is off.
signal sequence of M1...M4 and of the presser foot can be set to either parallel or sequential with parameters ..285 and 288.

nctions	Parameter
lection chainstitch trimmer only in mode 5 "general/Pegasus"	196

chapter "Timing Diagrams" in the Parameter List!

12.2.1 Trimming Signal Times

unctions		Parameter
Delay time output M1	kd1	280
Activation time output M1	kt1	281
Delay time output M2	kd2	282
Activation time output M2	kt2	283
Delay time output M3	kd3	284
Activation time output M3	kt3	285
Delay time until presser foot On	kdF	288

he functioning of the control during operation is shown in the timing diagrams in the Parameter List. See also apter "Selection of the Functional Sequences (Thread-Trimming Operations)".

7.13 Functions for Overlock Machines (Mode 7)

7.13.1 Signal Chain Suction

Functions	Parameter
Sequence overlock mode (mode 7) with or without stop	018
Signal chain suction at the seam end until end of counting c2 or pedal in pos. 0	022
Speed during stitch counting at the start of the seam	143
Speed during stitch counting at the seam end	144
Signal chain suction on output M1, M2 or M3 (only if parameter 290 = 7)	148
Switch on signal chain suction at the seam end	193

5. Starting Service

Before putting the control into operation, the following must be ensured, checked and/or adjusted:

- The correct installation of the drive, the position transmitter and accompanying devices, if necessary
- The correct adjustment of the direction of rotation of the motor with parameter 161
- The correct selection of the trimming operation with parameter 290
- The correct selection of the functions of the pushbuttons (inputs) with parameter 240/242/243
- The correct positioning speed with parameter 110
- The correct maximum speed compatible with the sewing machine with parameter 111
- The setting of the positions
- The setting of the remaining relevant parameters
- Start sewing in order to save the set values

6. Setting the Basic Functions

6.1 Direction of Rotation of the Motor

Functions	Parameter
Direction of rotation of the motor	161

161 = 0: Clockwise rotation of the motor (look at the motor shaft)
161 = 1: Counterclockwise rotation of the motor

Attention
If the motor is mounted differently, e.g at a different angle or with gear, make sure that the value set with parameter 161 corresponds to the direction of rotation.

6.2 Selection of the Functional Sequences (Thread Trimming Operations)

Lockstitch, chainstitch and overlock machines with different functional sequences can be operated by using this control. The functional sequences can be selected by parameter 290.

Attention
Before switching the functional sequences disconnect cables from the inputs and outputs! Please ensure that the machine installed provides the set functional sequence! Set parameter 290 only after power On!

Setting the functional sequence by using Parameter 290

Mode	Designation	Adapter	Outputs					Inputs		
	Power transistors ->		FL ST2/35	M1 ST2/37	M2 ST2/38	M3 ST2/27	ML ST2/32	In1 ST2/7	In3 ST2/6	In4 ST2/8
0	Lockstitch; e.g.									
	Brother (737-113, 737-913)	1112814	FL	FA1 +	FA2	FW	ML	-	NIIT	-
	Absin (ADJXX, AD138, 3310, EK1)	1112815	FL	FA1 +	FA2	FW	ML	-	NIIT	-
	Pfaff (563, 953, 1050, 1180)	1112841	FL	FA1	FA2	FW	ML	-	-	FLEX
	Dürkopp Adler (210, 270)	1112845	FL	FA1 +	FA2	FW	ML	LSP	-	-
1	Lockstitch; e.g. Singer (591, 211U,212U)	1112824	FL	-	FA2	FW	ML	NIIT	-	-
3	Lockstitch; e.g. Singer (212 UTT)	1112824	FL	-	FA	FSPL	ML	NIIT	-	-
3	Lockstitch; e.g. Dürkopp Adler (467)		FL	FA	FSPL	FW	ML	NIIT	-	-
4	Chainstitch; Union Special (34000 and 36700 -replacement for US80A-)	1112865	FL	-	FA-V	FW	ML	LSP	LSP	ENTK
5	(CS100 und FS100) Chainstitch; parallel sequence	1112903	FL	-	FA-V	FW	ML	LSP	LSP	-
	Yamato	1112818	FL	FA	-	FW	ML	LSP	-	-
	Kansai (RX 9803)	1112819	FL	FA	-	FW	ML	LSP	-	-
	Pegasus (W500/UT)	1112821	FL	FA	FA	FW	ML	LSP	-	-
	Brother (FD3 B257)	1112822	FL	FA	FA	FW	ML	LSP	ENTK	-
	Global (CB2803-56)	1112866	FL	-	-	FA	ML	LSP	-	-
	Rimoldi (F27)	1113096	FL	FW	FAO	FAU	ML	-	-	-
6	Chainstitch; tape cutter / fast scissors		FL	M1	AH1	AH2	ML	-	-	-
7	Overlock;		FL	M1	M2	AH	ML	-	-	-
8	BackJatch; Pegasus	1112827	-	PD ≤ -1	PD ≥ 1	-	ML	LSP	N.AUTO	-
9	BackJatch; Yamato (ABT3)	1112826	-	PD ≤ -1	PD ≥ 1	-	ML	LSP	N.AUTO	-
	BackJatch; Yamato (ABT13)	1112898	-	PD ≤ -1	PD ≥ 1	-	ML	LSP	N.AUTO	-
10	Lockstitch; e.g. Union Special (63900AMZ -replacement for US80A-)	1112873	FL	-	FA-V	FW	ML	-	-	-
11	Reversal of the direction of rotation with pedal in pos. -2		FL	DR-UK	PD = -2	ML	ML	N.POS	-	-
12	Reversal of the direction of rotation with input In3		FL	DR-UK	PD = 0	ML	ML	N.POS	DR-UK	-
13	Lockstitch; Pfaff (1473)	1113072	FL	FA	FSPL	FW	ML	NII	POS2	DB
14	Lockstitch; e.g. Juki (5550-6)	1112816	FL	FA1 +	FA2	FW	ML	-	-	-
	Juki (5550-7)	1112817	FL	FA1 +	FA2	FW	ML	-	-	-

Outputs:

FL	= Presser foot lifting *
M1	= Thread trimmer pos 1...1A
M2	= Thread trimmer pos. 1A...2
FSPL	= Thread tension release
FA-R/FA-V	= Thread trimmer backward/forward
ML	= Machine running
FW	= Thread wiper
AH/AH1/AH2	= Tape cutter/tape cutter 1/tape cutter 2
DR-UK	= Reversal of the direction of rotation
PD=0	= Pedal in position 0 (neutral)
FAO	= Needle thread trimmer
FAU	= Bobbin thread trimmer
PD=-2	= Pedal step -2
PD≥1	= Pedal steps 1...12
PD≤-1	= Pedal steps -1 / -2

Inputs:

NIIT	= Needel up/down
VST	= Full stitch
FLEX	= External presser foot lift
N.POS	= Positioning speed
N.AUTO	= Automatic speed
LSP	= Blocking of machine run (safety switch)
DR-UK	= Reversal of the direction of rotation
NII	= Needel up
POS2	= Run to position 2
DB	= Speed limitation n12
ENTK	= Unlock the chain

7.11 Bobbin Thread Monitor

Functions	Parameter
Bobbin thread monitor without stop = 2 / with stop = 1 / Off = 0	030
Number of stitches for bobbin thread monitor	031

For operating the bobbin thread monitor, a number of stitches is preset with parameter 031, depending on the length of the bobbin thread. After these stitches have been executed, the drive stops and a message appears on the display, which signals that the bobbin thread will run out. When pushing the pedal again, the seam can be completed or the thread can be trimmed. After inserting a full bobbin and pushing the enter button, a new sewing operation can be started.

Activate bobbin thread monitor:
- Set parameter 030 at "1" and/or "2"
- Input the desired maximum number of stitches with parameter 031 (inputted value x 100 = number of stitches, e.g. 180 x 100 = 18000)
- Determine an input for the function of the pushbutton "start counter" (parameter 240/242/243)
- Start the sewing operation

Bobbin thread monitor is On:
- The drive stops when the stitch counter has run out
- The message "A3" appears on the control
- When the pedal is in position 0 (neutral) and is actuated again, the sewing operation can be continued and/or completed. All sewing functions are maintained.
- The message "A3" remains on the control

Making the bobbin thread monitor ready for operation:
- Insert a full bobbin
- Press the selected external pushbutton
- Set counting with parameter 031 and start counting
- The message "A3" on the control disappears

7.12 Thread Trimming Operation

Functions	Parameter
Thread trimmer On/Off	013
Thread wiper On/Off	014

The trimming operation can be switched on and off separately with parameters 013 and 014. When thread trimming is switched off, the drive stops in position 2 at the seam end.

7.12.1 Lockstitch Thread Trimmer (Modes 0...3, 10, 13 and 14)

Functions		Parameter
Switch signal M1 thread trimmer pos. 1...pos. 2/pos. 1...pos. 1A (only mode 0)		145
Thread wiper time	t6	205
Activation angle of thread trimmer	tFA	250
Switch-off delay of thread tension release	FSA	251
Activation delay of thread tension release	FSE	252
Stop time for thread trimmer	tFA	253
Holding power output M1 of the thread trimmer backward	tAM	254

The thread trimming with lockstitch machines (modes 0...3, 10, 13 and 14) is performed at trimming speed.
The drive stops in position 2 at the seam end, when thread trimming is off.
The operating time (t6) with lockstitch machines is set with parameter 205. The return time (t7) that can be set with parameter 206, prevents presser foot lifting before the thread wiper is in its basic position. If a thread wiper is not connected there will be a time lag tFL after thread trimming until the presser foot is lifted.
The thread trimming signal M1 (only in mode 0) can be altered with parameter 145.

145 = ON Thread trimming signal M1 from position 1 to position 2
145 = OFF Thread trimming signal M1 from position 1 to position 1A

High Lift for Walking Foot Operation Mode Not Stored (Parameter 240/242/243 = 13)

llowing function will be performed if "0" for run-out stitches is programmed with parameter 185:
Press pushbutton "high lift for walking foot" at drive standstill; signal "high lift for walking foot" is On.
Release pushbutton "high lift for walking foot" at drive standstill; signal "high lift for walking foot" is Off.

llowing function will be performed if "> 0" for run-out stitches is programmed with parameter 185:
1. Press pushbutton "high lift for walking foot" at drive standstill; signal "high lift for walking foot" is On and remains On after releasing the pushbutton.
2. Press pushbutton "high lift for walking foot" at drive standstill; signal "high lift for walking foot" remains On and will be switched off after releasing the pushbutton.

ignal "high lift for walking foot" is On at the start of the drive, the speed is limited. After the run-out stitches, the is switched off and the speed limitation is released after the run-out time (parameter 152).

the drive is running if "≥ 0" for run-out stitches is programmed with parameter 185:
Press pushbutton "high lift for walking foot" while the drive is running; signals "high lift for walking foot" and "high lift walking speed" are On.
Release pushbutton "high lift for walking foot" while the drive is running; signal "high lift for walking foot" is switched off after the run-out stitches. The speed limitation is released after the run-out time (parameter 152).

6 High Lift for Walking Foot Operation Mode Stored/Flip-Flop 1 (Parameter 240/242/243 = 14)

1. Press pushbutton "high lift for walking foot" while the drive is running; signals "high lift for walking foot" and "high lift walking speed" are On.
2. Press pushbutton "high lift for walking foot" while the drive is running; signal "high lift for walking foot" is switched off after the run-out stitches. The speed limitation is released after the run-out time (parameter 152).

ctions	Parameter
itching off flip-flop 1 at the seam end On/Off	183

meter 183 determines whether or not the signal "high lift for walking foot" is to be switched off at the seam end.
3 = 0, the signal is switched off by pressing the pushbutton.
= 0Signal "high lift for walking foot" (flip-flop 1) is not switched off at the seam end.
= 1Signal "high lift for walking foot" (flip-flop 1) is switched off at the seam end.

10 Speed Limitation n9

unctions	Parameter
peed limitation n9 (n9)	122

pressing an external pushbutton depending on the preselection of parameters 240...249 = 23, a speed limitation n9 be switched on.

Mode 0 Lockstitch machine
- Thread trimming from leading to trailing slot edge position 1
- Thread trimming from trailing slot edge position 1 to leading slot edge position 2
- Thread wiping for a programmable time (t6)
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")

Mode 1 Lockstitch machine (Singer 591, 211U, 212U)
- Thread trimming from trailing slot edge position 1 to leading slot edge position 2
- Drive stops at the trailing edge of position 2
- Threadwiping for a programmable time (t6)
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")

Mode 2 Lockstitch machine (Singer 212 UTT)
- Thread trimming for a programmable time (kt2) after intermediate stop in position 1
- Thread tension release from leading slot edge position 1 to stop after leading slot edge position 2
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")

Mode 3 Lockstitch machine with thread trimming system (e.g. Dürkopp-Adler)
- Thread trimming for a programmable time (tFA) and programmable increments (iFA) after intermediate stop in position 1
- Thread tension release from start in position 1 after delay (FSE) for the operating time (FSA)
- Thread wiping for a programmable time (t6)
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")

Mode 4 Chainstitch machines (Union Special)
- Thread trimmer forward after stop in position 2 after delay (kd2) for the operating time (kt2)
- Thread trimmer backward after stop in position 2 after delay (kd1) for the operating time (kt1)
- Thread wiper after stop in position 2 after delay (kd3) for the operating time (kt3)
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")

Mode 5 Chainstitch machines in general
- Signal "machine running"

196 = 0
- Signal M1 after stop in position 2 after delay (kd1) for the operating time (kt1)
- Signal M2 after stop in position 2 after delay (kd2) for the operating time (kt2)
- Signal M3 after stop in position 2 after delay (kd3) for the operating time (kt3)

196 = 1
- Signal M1 after stop in position 2 after delay (kd1) for the operating time (kt1)
- Signal M2 after stop in position 2 after delay (kd2) for the operating time (kt2)
- Signal M3 On after stop in position 2 after delay (kd3) for the operating time (kt3) and one more machine rotation. After that signal M3 turns off (see timing diagram!)
- Presser foot lifting with time delay (t7) after the last signal has turned off

Mode 6 Chainstitch machines with tape cutter or fast scissors
- Signal M1 after stop in position 2 after delay (kd1) for the operating time (kt1)
- Fast scissors M2 after delay (kd2) for the operating time (kt2) alternating with M3
- Fast scissors M3 after delay (kd3) for the operating time (kt3) alternating with M2
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")

Mode 7 Overlock machines
- Signal M1 after stop in position 2 and after delay (kd1) for the operating time (kt1)
- Signal M2 after stop in position 2 and after delay (kd2) for the operating time (kt2) or with parameter 232 = ON, fast scissors alternating with M3 (set parameter 282 = 0)
- Tape cutter at the start of the seam after stitch counting (c3) and at the seam end after stitch counting (c4)
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")

Mode 8 Backlatch machine (Pegasus)
- Signal M1 with pedal in position -1 and -2
- Signal M2 with pedal in positions 1-12
- Inverted signal M3 with pedal in positions 1-12
- Presser foot lifting (see chapter "Presser Foot Lifting")
- Signal "machine running"
- Blocking of machine run effective with open contact (input in1 / parameter 240 = 6)
  -Automatic speed has priority over blocking of machine run-
- Pushbutton for machine run at automatic speed (input in3 / parameter 242 = 10)

Mode 9 Backlatch machine (Yamato)
- Signal M1 with pedal in position -1 and -2
- Signal M2 with pedal in positions 1-12
- Inverted signal M3 with pedal in positions 1-12
- Presser foot lifting (see chapter "Presser Foot Lifting")
- Signal "machine running"
- Blocking of machine run effective with open contact (input In1 / parameter 240 = 6)
  •Blocking of machine run has priority over automatic speed•
- Pushbutton for machine run at automatic speed (input In3 / parameter 242 = 10)
  •the function 'automatic speed' is inverted•

Mode 10 Lockstitch machine
- Thread trimmer forward from trailing slot edge position 1 to leading slot edge position 2
- Thread trimmer backward with full power for the time (kt1), after that pulsed signal
- Thread wiper after stop in position 2 after delay (kd3) for the operating time (kt3)
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")

Mode 11 Reversal of the direction of rotation with pedal = -2
- Signal M1 direction of rotation
- Signal M2 pedal = -2
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")
- Pushbutton for machine run at positioning speed (input In1 / parameter 240 = 20)

Mode 12 Reversal of the direction of rotation with input in3
- Signal M1 direction of rotation
- Signal M2 pedal 0 (neutral)
- Signal "machine running"
- Presser foot lifting (see chapter "Presser Foot Lifting")
- Pushbutton for machine run at positioning speed (input In1 / parameter 240 = 20)
- Pushbutton for reversal of the direction of rotation (input In3 / parameter 242 = 21)

Mode 13 Lockstitch machines with thread trimming system (Pfaff 1425)
- Thread trimming for programmable increments (iFA) from leading slot edge position 1
- Thread tension release from leading slot edge position 1 after delay (FSE) for the operating time (FSA)
- Thread wiping for a programmable time (t6)
- Presser foot lifting (see chapter "Presser Foot Lifting")
- Signal "machine running"
- Pushbutton for function "needle up" (input In1 / parameter 240 = 2)
- Pushbutton for run to position 2 (input In3 / parameter 242 = 24)
- Pushbutton for reversal of the direction of rotation (n12) (input In4 / parameter 243 = 11)

lode 14 Lockstitch machine
- Thread trimming from leading slot edge position 1 to leading slot edge position 2
- Signal M2 after stop in position 2 after delay (kd4) for the operating time (kt4)
- Thread wiping M3 for a programmable time (t6)
- Presser foot lifting (see chapter "Presser Foot Lifting")

ee chapter "Timing Diagrams" in the parameter list for the various modes!

3 Functions of the Pushbuttons Inputs in1, in3 and in4

unctions		Parameter
nput 1	in1	240
nput 3	in3	242
nput 4	in4	243

Parameter List for possible input functions of the pushbuttons.

7.9.1 Signal "High Lift for Walking Foot"

Function	Parameter
Signal high lift for walking foot on output M1, M2 or M3 On/Off	146

146 = 0 Signal "high lift for walking foot" Off
146 = 1 Signal "high lift for walking foot" effective on output M1.
146 = 2 Signal "high lift for walking foot" effective on output M2.
146 = 3 Signal "high lift for walking foot" effective on output M3. If parameter 146 is set at "3", parameter 297 is automatically set at "0". If this setting is changed to "1...4", parameter 146 is also automatically set at "0". The function of the parameter that was last changed is taken into account.

A signal "high lift for walking foot" can be programmed to one of the three outputs M1, M2 or M3 with parameter 146. A pushbutton can be allocated according to the selection of parameter 240/242/243. By pressing this pushbutton the signal "high lift for walking foot" can be switched on anywhere in the seam. If parameter 146 is set to "0" the respective output is reset to the function provided by the selected mode.

See chapter "Connection Diagram" in the Parameter List!

Attention!
Before changing the parameter, please ensure that the machine installed provides the set function! Otherwise the machine may be permanently damaged!

7.9.2 High Lift Walking Speed

Functions		Parameter
High lift walking speed	n10	117

7.9.3 High Lift Walking Speed Run-Out Time

Functions		Parameter
High lift walking speed run-out time	thP	152

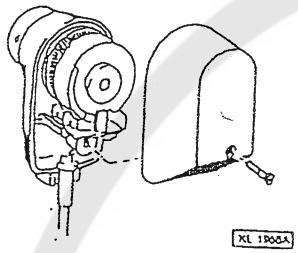
7.9.4 High Lift Walking Stitches

Functions with or without Variocontrol		Parameter
Number of high lift walking stitches	chP	185

By pressing the external pushbutton "high lift for walking foot", depending on the setting of parameter 240/242/243, the speed is limited to high lift walking speed. The solenoid for high lift for walking foot is switched on if the speed ≤ high lift walking speed. It is possible to program run-out stitches by parameter 185. The high lift for walking foot remains on until stitch counting is completed. The speed limitation remains effective during the run-out time after disengaging of the solenoid for high lift for walking foot.

The positions are set as follows:

- Remove position transmitter cover after loosening the screw.
- Select basic position needle down (LED 7 on the control lights up) by pushbutton S5.
- Adjust central disc for position 1 in the desired direction.
- Push pedal briefly forward.
- Check stop position.
- Push pedal backward (trimming).
- Select basic position needle up (LED 8 on the control lights up) by pushbutton S5.
- Adjust outer disc for position 2 in the desired direction.
- Push pedal briefly forward.
- Check stop position.
- Repeat procedure if necessary.
- Select the desired basic position by pushbutton S5.
- Put cover on again and tighten screw.



Note:
For functional sequences that are controlled by the slot width, set slot width if necessary according to the above. The desired functional sequence is to be activated in order to check the setting. The opening angle of position transmitters with adjustable slot width must not be below 20°.

Note:
To ensure a correct trimming operation, the positions 1 and 2 must not overlap.

6.8 Display of the Signal and Stop Positions

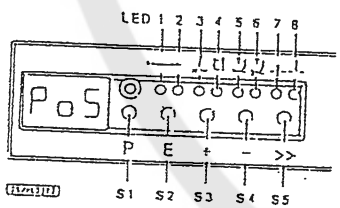
Functions	Parameter
Display of positions 1 and 2	172

The setting of the positions can easily be tested by parameter 172.

- Address parameter 172
- "PoS" appears on the control display
- Turn handwheel corresponding to the direction of rotation of the motor

Control display

LED 7 on	corresponds to position 1
LED 7 turns off	corresponds to position 1A
LED 8 on	corresponds to position 2
LED 8 turns off	corresponds to position 2A



Attention!
Before changing this parameter, please ensure that the machine installed provides the set function! Otherwise the machine may be permanently damaged!

7.6 Reversion

Functions		Parameter
Positioning speed	n1	110
Number of reversion increments	ird	180
Activation delay of reversion	drd	181
Reversion On/Off	-	182

The function "reversion" is performed after trimming.
When the stop position is reached, the drive stops for the time of the activation delay of reversion (parameter 182). Then it reverses at positioning speed for an adjustable number of increments.
1 increment corresponds to approx. 0.7°.

7.7 Unlocking the Chain (Mode 4/5/6/7)

When unlocking the chain at the seam end, the functions trimming operation and/or tape cutter/fast scissors are automatically suppressed. The drive stops in position 1 if parameter 180 = >0. If parameter 180 = 0, the drive stops in the selected basic position. With this setting, reversion is blocked and the function tape cutter/fast scissors is possible, if parameter 190 is set at "3". Moreover, the run-out stitches (parameter 184) and the function "blow fabric on stack" are performed on output M1.

Functions		Parameter
Number of run-out stitches when unlocking the chain (only effective if parameter 190 = 3)	c6	184
Function "unlock the chain" in modes 4, 5, 6 and 7		190

Settings necessary for the function of unlocking the chain:
- Set "unlocking the chain" with parameter 190 = 1 / 2 / 3 (190 = 0 "unlocking the chain switched off)
- Switch on reversion with parameter 182
- Set activation delay with parameter 181 and reversing angle with parameter 180
- Set one of the parameters 240, 242 or 243 at "18". This determines the function "unlock the chain" for a pushbutton

190 = 1: Sequence with pedal in position -2 from machine run or from position 2:
- Press pushbutton "unlock the chain"
- Run to position 1 at positioning speed
- Start delay according to the setting of parameter 181
- Sequence of the reversing angle at positioning speed according to the setting of parameter 180

190 = 1: Sequence with pedal in position -2 from standstill in position 1:
- Press pushbutton "unlock the chain"
- Start delay according to the setting of parameter 181
- Sequence of the reversing angle at positioning speed according to the setting of parameter 180

190 = 2: Automatic sequence with light barrier at the seam end without cutting/ pedal in position -2 according to the setting of parameter 019:
- Press pushbutton "unlocking the chain"
- After light barrier sensing, run to position 1
- Sequence of the reversing angle at positioning speed after an activation delay that can be set

= 3: Automatic sequence with light barrier at the seam end with cutting and run-out stitches (only possible in mode 7) / pedal in position -2 according to the setting of parameter 019:
Press pushbutton "unlocking the chain"
After light barrier sensing, execution of compensating stitches and end counting until cutting
Run-out stitches until unlocking the chain, can be set with parameter 184
After the stop the machine will not run in reverse direction, but will emit the signal M1 "blow fabric on stack", unless parameters 146, 147, 148 have not been set differently.

over, one of the parameters 240, 242 or 243 can be set at "26". This way, the function "unlock the chain" can be rimed whenever the external pushbutton is pressed.

functioning of the control during operation is shown in the timing diagrams in the parameter list.

Blocking of Machine Run (Safety Switch)

Attention!
This is not a safety function.
The line voltage must still be switched off during maintenance and repair work.

function "blocking of machine run" is possible by connecting a switch to socket ST2 and/or B4, depending on the election of parameter 240/242/243.

play after the activation of the blocking of machine run:

isplay on the control ! ==> A2

ocking of machine run in the free seam, in the seam with stitch counting and in the light barrier seam:
opening and/or closing the switch the seam is interrupted
itop in the basic position
Needle up is not possible
Sewing foot lifting is possible

w start after blocking of machine run

Functions	Parameter
New start after blocking of machine run	234

arameter 234 determines how a new start is possible after closing and/or opening the switch.
34 = ON New start after the deactivation of the blocking of machine run only if the pedal had been put to position 0 (neutral)
34 = OFF New start after the deactivation of the blocking of machine run without influence by the pedal. This setting is, for example, applicable to automats.

7.9 High Lift For Walking Foot / Flip-Flop 1

Functions		Parameter
High lift for walking foot On/Off	(hP)	137

6.4 Positioning Speed

Functions		Parameter
Positioning speed	n1	110

The positioning speed can be set with parameter 110 on the control within a range of 70...390 RPM.

6.5 Maximum Speed Compatible with the Sewing Machine

The maximum speed of the machine is determined by the pulley selected and by the following settings:

- Set the maximum speed with parameter 111 (n2).
- Set the maximum speed limitation to the specific level according to the application as described in chapter "Direct Input of the Maximum Speed Limitation (DED)"

6.6 Maximum Speed

Functions		Parameter
Maximum Speed	n2	111

Note:
For the maximum speed of the sewing machine see instruction manual of the sewing machine manufacturer.

Note:
Select the pulley such that the motor runs at approx. 4000 RPM with max. stitch number.

When programming 3-digit and/or 4-digit parameter values in the control, the 2-digit and/or -digit values displayed must be multiplied by 10.

6.7 Positions

Before setting the position transmitter ensure that the direction of rotation of the motor shaft is correctly set !

Attention!
If the motor is mounted differently, e.g at a different angle or with gear, make sure that the parameter value is assigned correctly to the direction of rotation.

Attention!
Turn power off before adjusting the positioning discs.

Attention!
Be very careful when adjusting the positioning discs.
Risk of injury.
Please ensure that positioning discs and generator disc (inner disc) are not damaged.

lowers:

m manual foot-lifting: press pedal to position 0 (neutral)
n automatic foot lifting: press pedal to position 1/2 (slightly forward)
pressing the pedal forward from lifted sewing foot, the start delay (t3) that can be set with parameter 202 becomes ive. See also chapter "Timing Diagrams"!

Intermediate Backtack

ctions	Parameter
nal "backtacking" on output M1, M2 or M3 On/Off	148

= 0 Signal "backtacking" Off
= 1 Signal "backtacking" effective on output M1.
= 2 Signal "backtacking" effective on output M2.
= 3 Signal "backtacking" effective on output M3. If parameter 148 is set to "3", parameter 297 is automatically set to "0". If this setting is changed to "1...4", parameter 148 is also automatically set to "0". The function of the parameter that was last changed is taken into account.

cktacking signal can be programmed to one of the three outputs M1, M2 or M3 with parameter 148. A pushbutton e allocated according to the selection of parameter 240/242/243. By pressing this pushbutton the backtacking signal e switched on anywhere in the seam or at standstill.
rameter 148 is set to "0" the respective output is reset to the function provided by the selected mode. See chapter nnection Diagram" in the Parameter List!

Attention!
Before changing this parameter, please ensure that the machine installed provides the set function! Otherwise the machine may be permanently damaged!

Signal "Machine Running"

nctions	Parameter
nal machine running on output M1, M2 or M3 On/Off	147
de "machine running"	155
vitch-off delay for signal "machine running"	156

= 0 Signal "machine running" Off
= 1 Signal "machine running" effective on output M1.
= 2 Signal "machine running" effective on output M2.
= 3 Signal "machine running" effective on output M3. If parameter 147 is set at "3", parameter 297 is automatically set at "0". If this setting is changed to "1...4", parameter 147 is also automatically set at "0". The function of the parameter that was last changed is taken into account.

gnal "machine running" can be programmed to one of the three outputs M1, M2 or M3 with parameter 147. the l function of this output is suppressed
rameter 147 is set to "0" the respective output is reset to the function provided by the selected mode.
cover, the signal machine running is always active on socket ST2/32.

= 0 Signal "machine running" Off
= 1 Signal "machine running" will always be emitted, when the drive is running
= 2 Signal "machine running" will always be emitted, when the speed is higher than 3000 RPM
= 3 Signal "machine running" will always be emitted, when the pedal is not in position 0 (neutral)

switch-off time of the signal can be delayed with parameter 156.
chapter "Connection Diagram" in the Parameter List!

6.9 Braking Behavior

Functions	Parameter
Braking effect when modifying the preset value ≤ 4 stages Braking effect when modifying the preset value ≥ 5 stages	207 208

- The braking effect for the stop is influenced by parameter 207
- The braking effect between the speed stages is controlled by parameter 208

The following applies to all setting values:
The higher the value the stronger the braking reaction!

6.10 Braking Power at Standstill

Functions	Parameter
Braking power at standstill	163

This function prevents unintentional "wandering" of the needle at standstill.
The effect can be tested by turning the handwheel.

- The braking power works at standstill
  - at stop in the seam
  - after the seam end
- The effect can be set
- The higher the set value, the higher the braking power

6.11 Start Behavior

Functions	Parameter
Starting edge	220

The drive accelerating dynamics can be adapted to the characteristic of the sewing machine (light, heavy).

- High setting value = high acceleration

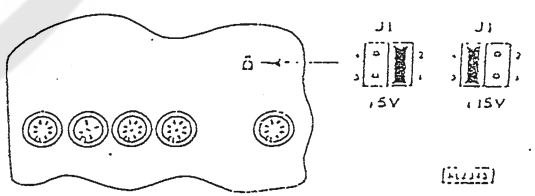
With a high starting edge setting and, in addition, possibly high braking parameter values on a light machine, the behavior may appear coarse. In this case, one should try to optimize the settings.

6.12 Supply Voltage 5V and/or 15V

Attention!
Turn power off before opening the control box!

For external devices there is a supply voltage of +5V on socket BH8/6. After opening the cover, this voltage can be changed to +15V by moving a multipole connector J1 on the printed circuit board to a different position.

+5V = Connect pins 1 and 2 right with jumper (factory setting)
+15V = Connect pins 3 and 4 left with jumper



7. Functions

7.1 First Stitch After Power On

Functions	Parameter
1 stitch at positioning speed after POWER ON	231

For the protection of the sewing machine and when parameter 231 is on, the first stitch after power on will be performed at positioning speed, independently of the pedal position and the function Softstart.

7.2 Softstart

Functions	Parameter
Softstart on/off	134

Function:
- after power on
- at the beginning of a new seam
- speed pedal controlled and limited to (n6)
- lower speed of a function running parallel predominates (e.g. start backtack, stitch counting)
- stitch counting synchronized to position 1
- interruption with pedal in position 0 (neutral)
- cessation by full heelback (position -2)

7.2.1 Softstart Speed

Functions	Parameter
Softstart speed	115

When programming 3-digit and/or 4-digit parameter values in the control, the 2-digit and/or 3-digit values displayed must be mutiplied by 10.

7.2.2 Softstart Stitches

Functions		Parameter
Softstart stitches	SSc	100

If the function "slow stitch after power on" has been selected by parameter 231, the first stitch after power on will be performed at positioning speed, independently of the softstart setting.

7.3 Presser Foot Lifting

Functions		Pushbutton on the control
Automatic in the seam	Left LED above pushbutton ON	Pushbutton S4
Automatic after thread trimmming	Right LED above pushbutton ON	Pushbutton S4

Functions		Parameter
Automatic presser foot with pedal forward at the seam end, If light barrier or stitch counting is switched on		023
Activation delay when pedal is in position -1, half heelback	t2	201
Start delay after switching off the sewing foot lift signal	t3	202
Time of full power	t4	203
Operating time with pulsing	t5	204
Delay after thread wiping until presser foot lifting	t7	206
Delay after thread trimming without thread wiper until presser foot lifting	tFL	211

Sewing foot is lifted:

- in the seam
  - by heeling the pedal back (position -1)
    or automatically (with pushbutton S4 on the control, left LED lights up)
  - by pressing a pushbutton depending on the preselection of parameter 240/242/243
- after thread trimming
  - by heeling the pedal back (position -1 or -2)
    or automatically (with pushbutton S4 on the control, right LED lights up)
  - by pressing a pushbutton depending on the preselection of parameter 240/242/243
  - by light barrier, automatically, with pedal forward according to the setting of param. 023
  - by stitch counting, automatically, with pedal forward according to the setting of param. 023
  - start delay after thread wiping (t7)
  - start delay without thread wiping (tFL)

Unintentional foot lifting before thread trimming, when changing from pedal position 0 (neutral) to position -2, can be prevented by setting an activation delay (t2) with parameter 201.

Holding power of the lifted foot:

The presser is lifted by full power. Then the solenoid is switched to partial power in order to reduce the load for the control and for the connected solenoid.
The duration of full power is set with parameter 203, the holding power at partial power with parameter 204.

Stage	Operating time	Effect
1	12.5 %	low holding power
2	25 %	
3	37.5 %	
4	50 %	
5	62.5 %	
6	75 %	
7	87.5 %	high holding power
0	100%	full power

Caution!
If the holding power is set too high the solenoid and the control may be permanently damaged. Please observe the allowed operating time of the solenoid and set the appropriate value according to the above table.

AJ59
WIRING DIAGRAM