

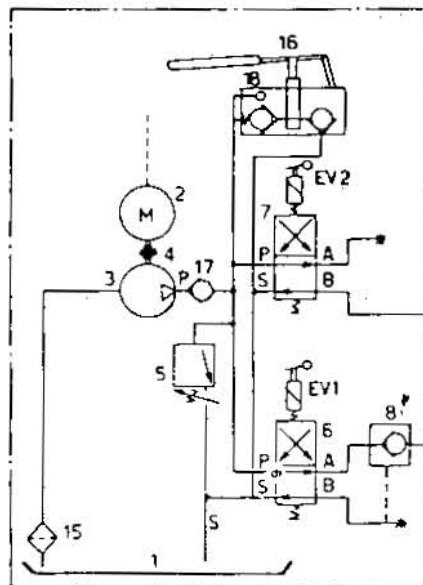
PARTS REFERENCE

Model 78 Jack

Model 3770/3870 Series Lift

Form Number 4713

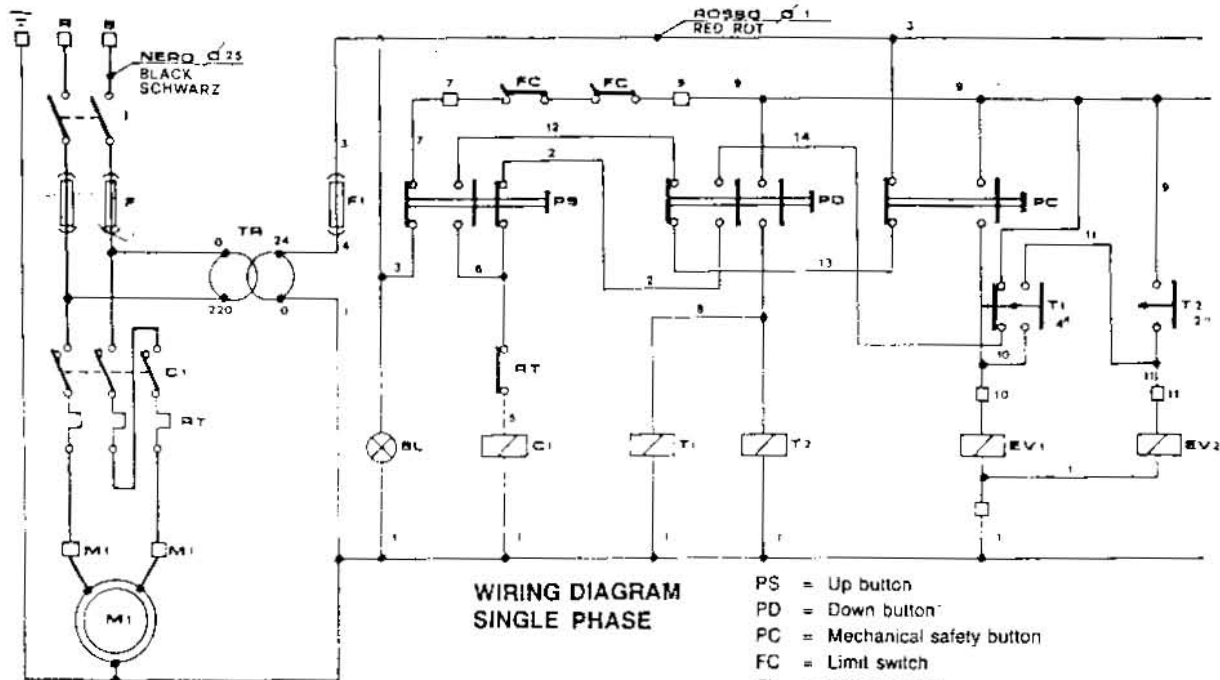
HYDRAULIC DIAGRAM



HYDRAULIC DIAGRAM

1. Oil tank
2. Electric motor
3. Gear pump
4. Motor-pump coupling
5. Pressure control valve
6. Interlocked directional valve with one-solenoid electric control and lever
7. Interlocked directional valve with one-solenoid electric control and lever
8. Hydraulic check valve
9. Flow regulating valve (for down movement)
10. Flow stopping valve (for down movement)
11. Single-acting lifting cylinder
12. Single acting cylinder for mechanical safety locks
13. Flexible tube R2 $\varnothing 3/8''$
14. Steel pipe $\varnothing 12 \times 1,5$ mm
15. Oil suction filter
16. Hand pump
17. Non-return valve
18. $1/4''$ gas-type connection for pressure gauge
19. Steel pipe $\varnothing 12 \times 1,5$ mm
20. Steel pipe $\varnothing 8 \times 1$ mm

ELECTRICAL DIAGRAM

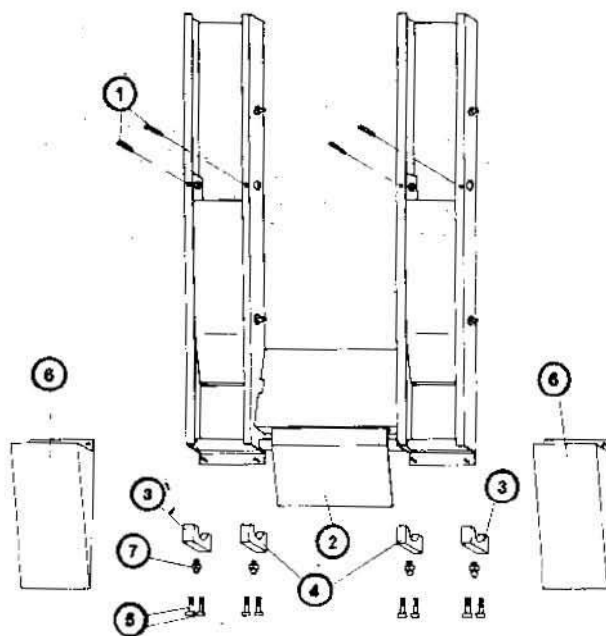


WIRING DIAGRAM SINGLE PHASE

- PS = Up button
 PD = Down button
 PC = Mechanical safety button
 FC = Limit switch
 SL = Warning lamp
 EV₁ = Electrovalve for up/down
 EV₂ = Electrovalve for mechanical locks
 C₁ = Contactor
 RT = Thermal cutout
 M₁ = Electric motor
 TR = Transformer 120 VA
 I = Switch
 F = Fuses 35 amp.
 F₁ = Fuses 10 amp.
 T₁ = Timer for EV₁
 T₂ = Timer for EV₂
 □ = From the terminal board

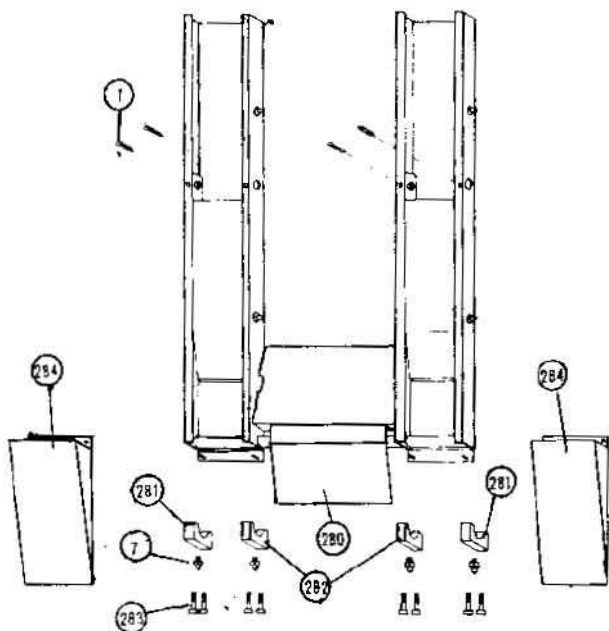
I	9	7	11	10	1	M1	M1	I	S	R	I
	FINE CORSA	LIMIT SWITCH	ENDSCHALTER	ELETTROVALVOLE	ELETTROVALVES	ELETTROVENTILE	MOTORE	MOTOR	LINEA MONOFASE	MAINS	STROM

FMC 3770



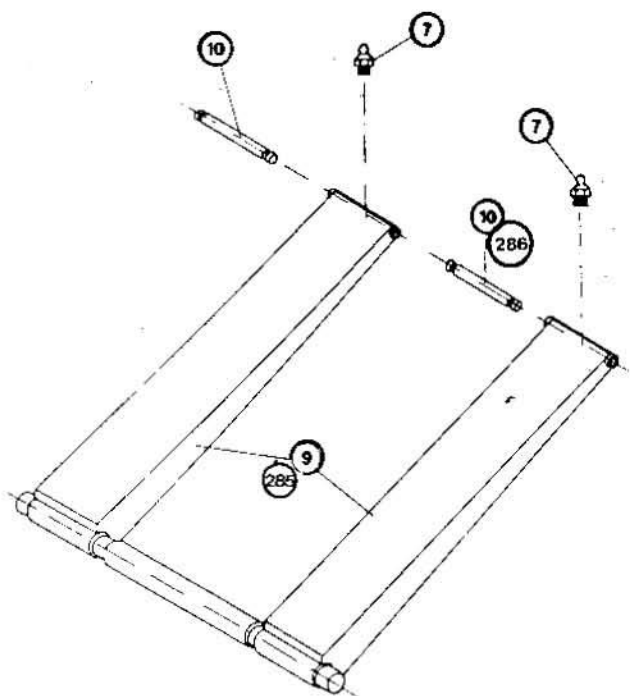
Ref. No.	Part No.	Description
1	69022	Retainer Bolt, M12 x 40
2	69023	Bar Cover Plate (3770)
280	69024	Bar Cover Plate (3870)
3	69025	Bar Support, 60mm Dia. (3770)
281	69027	Bar Support, 66mm Dia. (3870)
4	69026	Bar Support, 72mm Dia. (3770)
282	69028	Bar Support, 80mm Dia. (3870)
5	69029	SHCS M10 x 60 - uni 5931 (3770)
283	69030	SHCS M12 x 80 - uni 5931 (3870)
6	69012	Ramp (3770)
284	69018	Ramp (3870)
7	69031	Grease Nipple - M6

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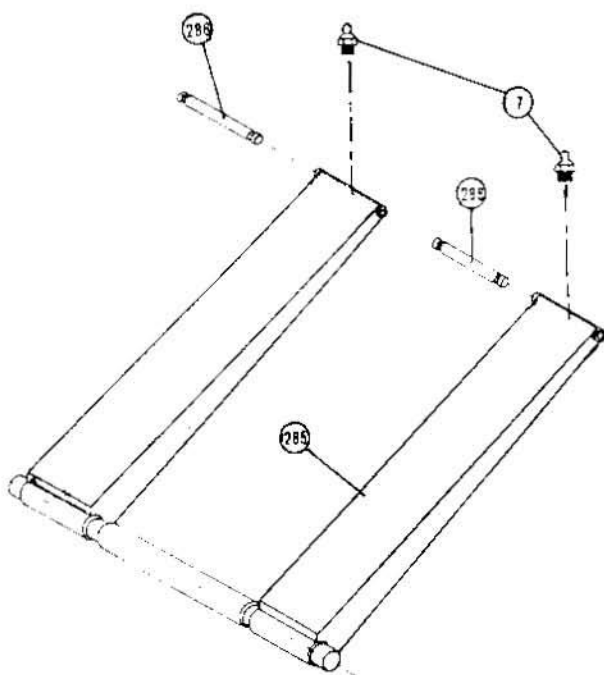
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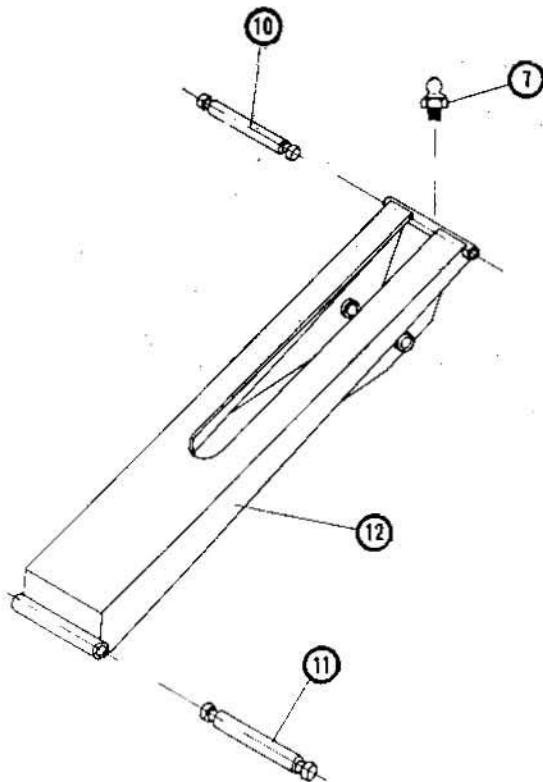
Ref. No.	Part No.	Description
7	69031	Grease Nipple - M6
9	69032	Back Arm Weldment, Complete (3770)
285	69033	Back Arm Weldment, Complete (3870)
10	69034	Pivot Pin, Upper - 30mm Dia. (3770)
286	69035	Pivot Pin, Upper - 35mm Dia. (3870)

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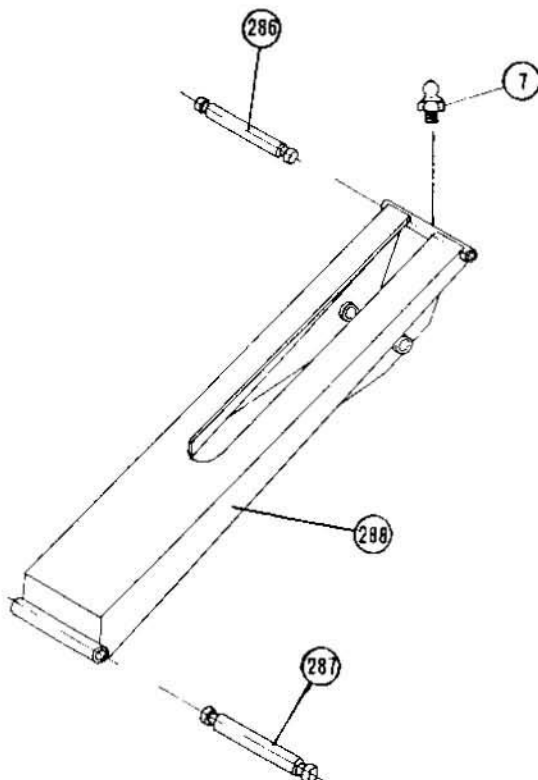
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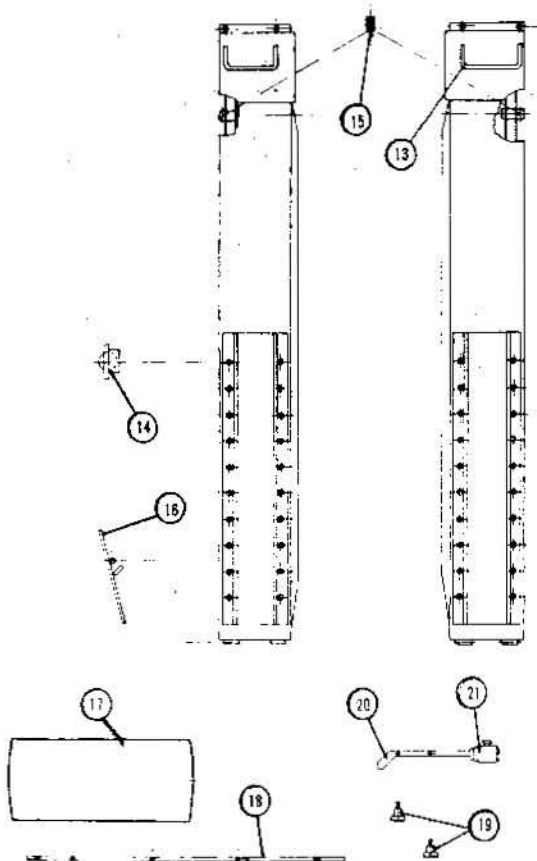
Ref. No.	Part No.	Description
7	69031	Grease Nipple - M6
10	69034	Pivot Pin, Upper - 30mm Dia. (3770)
286	69035	Pivot Pin, Upper - 35mm Dia. (3870)
11	69036	Pivot Pin, Lower - 30mm Dia. (3770)
287	69037	Pivot Pin, Lower - 35mm Dia. (3870)
12	69038	Front Arm Weldment, Complete (3770)
288	69039	Front Arm Weldment, Complete (3870)

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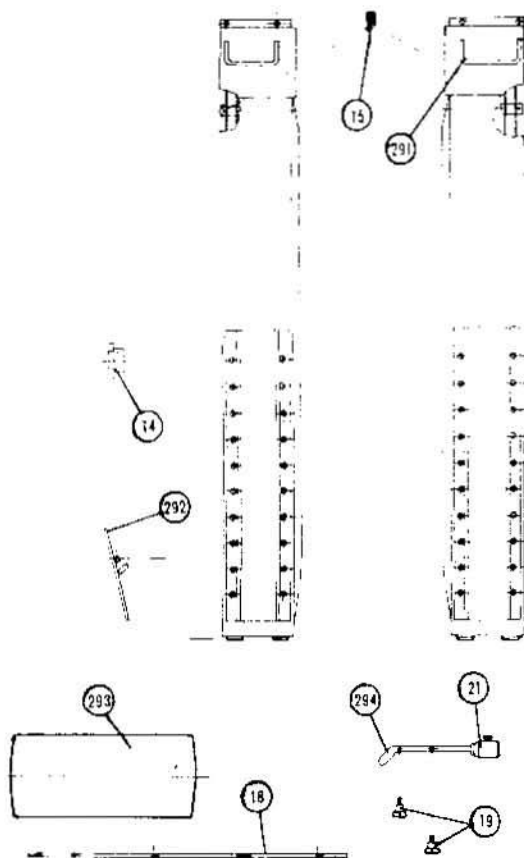
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Ref. No.	Part No.	Description
13	69015	Wheel Stop Bar (3770)
291	69020	Wheel Stop Bar (3870)
14	69014	Bearing, SP 15-B type
15	69060	Set Screw, M8 x 12
16	69013	Rear Wheel Stop (3770)
292	69019	Rear Wheel Stop (3870)
17RF	69291	Rear Slip Plate, RF (3770)
17RR	69292	Rear Slip Plate, RR (3770)
17LF	69293	Rear Slip Plate, LF (3770)
17LR	69294	Rear Slip Plate, LR (3770)
293LF	69295	Rear Slip Plate, LF (3870)
293LR	69296	Rear Slip Plate, LR (3870)
293RF	69297	Rear Slip Plate, RF (3870)
293RR	69298	Rear Slip Plate, RR (3870)
18	69061	Locking Rod - Slip Plates
19	69062	Shoulder Bolt
20	69063	Locking Lever - Rear Slip Plate (3770)
294	69064	Locking Lever - Rear Slip Plate (3870)
21	69016	Locking Knob
.	69418	Runway Extension Assy. (3770)
.	69420	Runway Extension Assy. (3870)
.	1234434	Wheel Stop - Rear (4 Pieces)
.	69290	Step, Side

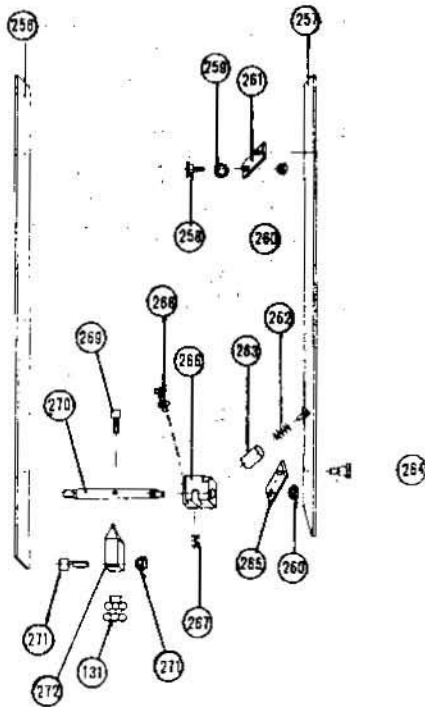
Not Shown

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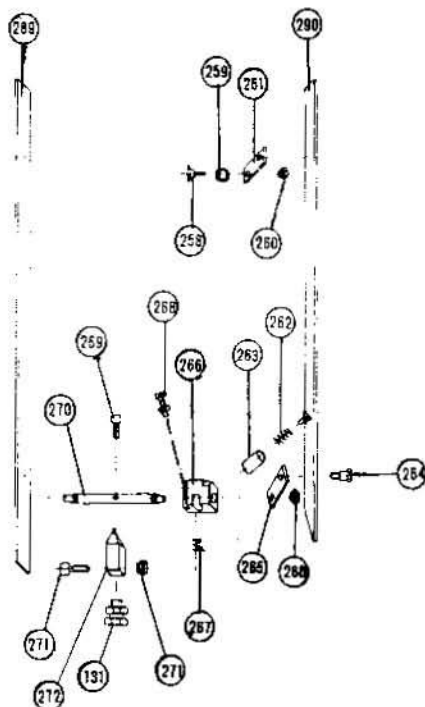
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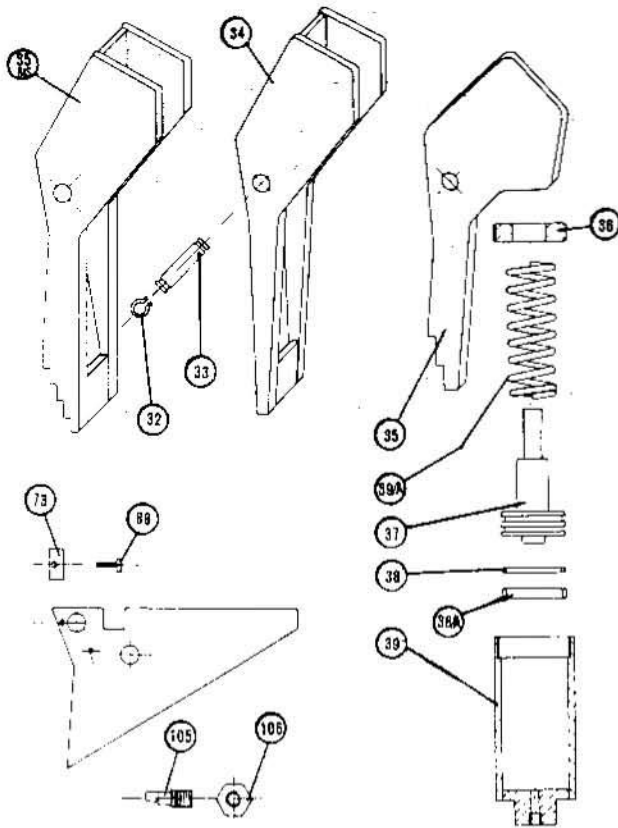
Ref. No.	Part No.	Description
131	69040	Cable Bushing PG 13,5
256	69041	Safety Bar - Outside (3770)
289	69043	Safety Bar - Outside (3870)
257	69042	Safety Bar - Inside (3770)
290	69044	Safety Bar - Inside (3870)
258	69045	Shoulder Bolt (3770)
259	69046	Washer
260	69047	Nut - M10 uni 5587
261	69048	Safety Bar Cantilever Plate
262	69049	Spring, Tension - Safety Bar
264	69051	Shoulder Bolt, M10 x 31,8
265	69052	Safety Bar Actuator Plate
266	69053	Actuator Block - Microswitch
267	69054	Spring, Tensioner - Actuator Block
268	69055	Bolt, M6 x 20 - Spring Retainer
269	69056	SHCS M6 x 15 - Block Retainer
270	69057	Actuator Shaft - Microswitch
271	69058	SHCB M5 x 45, Mtg. - Microswitch
272	69059	Microswitch - Siemens 3SE3 120-1D

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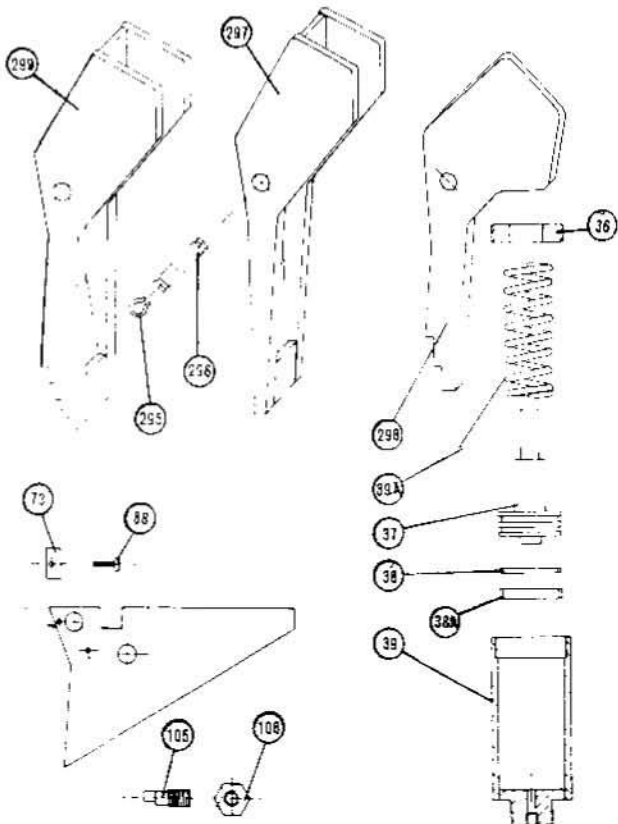
FMC 3770/3870



Ref. No.	Part No.	Description
31	69065	Hydraulic Cylinder - Complete, 40mm
32	69066	Snap Ring, 30mm (3770)
295	69067	Snap Ring, 35mm (3870)
33	69069	Pin - Lock Pivot, 30mm (3770)
296	69068	Pin - Lock Pivot, 35mm (3870)
35	69071	Mechanical Safety, Short (3770)
298	69074	Mechanical Safety, Short (3870)
34	69070	Mechanical Safety, Medium (3770)
297	69073	Mechanical Safety, Medium (3870)
35BIS	69072	Mechanical Safety, Long (3770)
299	69075	Mechanical Safety, Long (3870)
36	69076	Bronze Ring Nut
37	69077	Rod, 25mm Dia.
38	69078	Seal, Basile TSE 157 118 - 40mm Dia.
38/A	69079	Guide Ring, 40/2
39	69080	Cylinder, 40mm
39/A	69081	Spring
73	69082	Retainer Plate, Lock Pivot Pin
88	69083	Screw, M6 x 15 - Retainer Plate
105	69084	Travel Limiter - Lock Plates, M14 x 45
106	69085	Lock Nut - Travel Limiter, M14 uni 5589

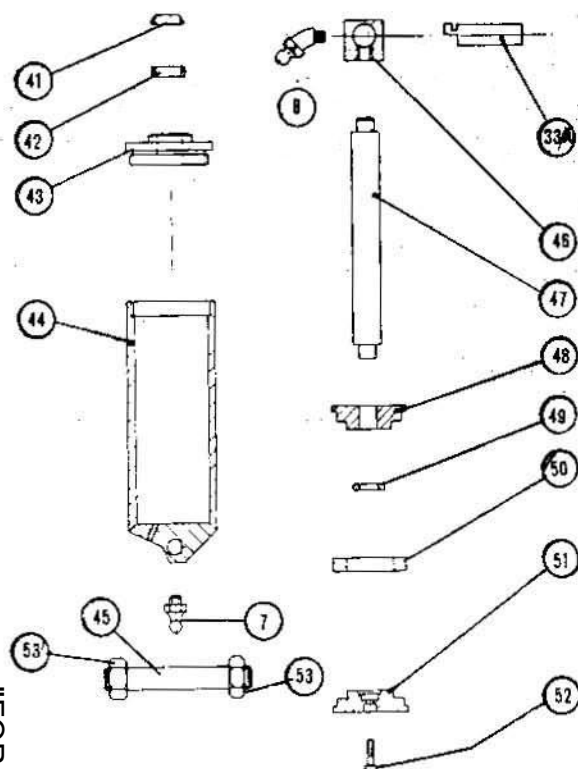
Note: #31 consists of items 36, 37, 38, 38/A, 39, 39/A.

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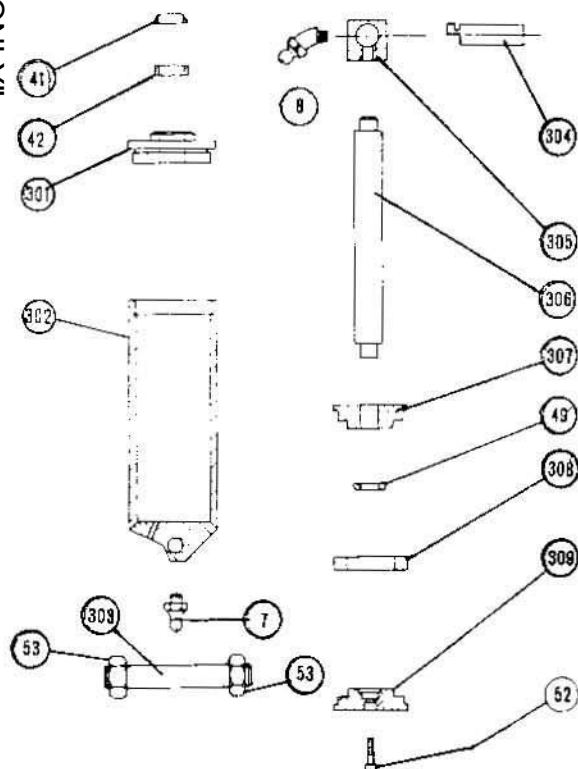


Ref. No.	Part No.	Description
7	69031	Grease Nipple, M6
8	69086	Grease Nipple, M6 - 90 Degree
33/A	69088	Pivot Pin (3770)
304	69106	Pivot Pin (3870)
40	69089	Hydraulic Cylinder, 100mm Dia. - Complete (3770)
300	69102	Hydraulic Cylinder, 110mm Dia. - Complete (3870)
41	69087	Scraper Ring, 40mm Dia.
42	69090	Guide Ring, 40mm Dia.
43	69091	Ring Nut (3770)
301	69103	Ring Nut (3870)
44	69092	Cylinder (3770)
302	69104	Cylinder (3870)
45	69093	Pivot Pin, 35mm Dia. - Thds. both ends (3770)
303	69105	Pivot Pin, 35mm Dia. - Thds. both ends (3870)
46	69094	Pivot Block (3770)
305	69107	Pivot Block (3870)
47	69095	Piston Rod, 40mm Dia. (3770)
306	69108	Piston Rod, 40mm Dia. (3870)
48	69096	Piston Half - outer (3770)
49	69097	Seal, OR 217 Type (3770)
50	69098	Seal, Polypac D11W 393295 (3770)
51	69099	Piston Half - inner (3770)
307	69109	Piston Half - outer (3870)
308	69110	Seal, Polypac (3870)
309	69111	Piston Half - inner (3870)
52	69100	SHCS M12 x 30 uni 3931
53	69101 69300	Selflocking Nut, 27mm Dia.

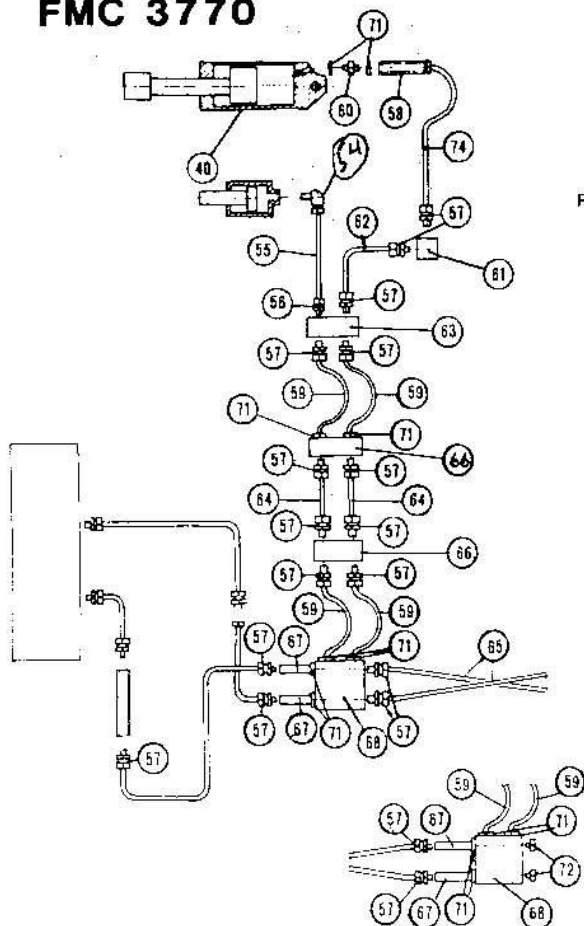
NOTE: #40 Hydraulic cylinder consists of items 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, & 52.

#300 Hydraulic cylinder consists of items 41, 42, 301, 302, 305, 306, 307, 49, 308, 309, and 52.

FMC 3870



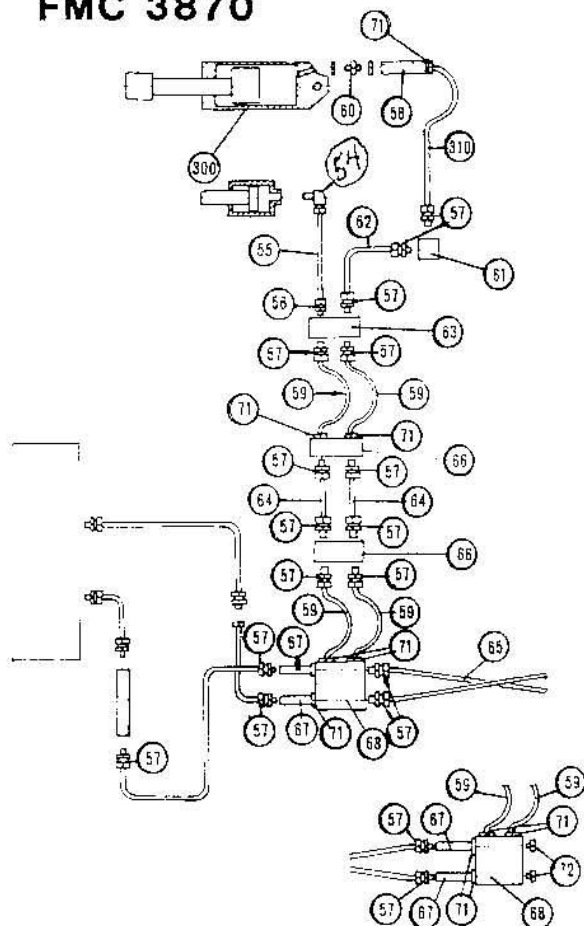
FMC 3770



Ref. No.	Part No.	Description
40	69089	Hydraulic Cylinder, 100mm - Complete (3770)
300	69102	Hydraulic Cylinder, 110mm - Complete (3870)
54	69112	Nipple, 1/4" x 8mm Dia. - 90 Deg.
55	69113	Hydraulic Tubing, 8mm Dia.
56	69114	Fitting, 1/4" x 8mm
57	69115	Fitting, 3/8" x 12mm
58	69116	Safety Valve
59	69117	Flexible Hydraulic Tube, 3/8" x 12mm Dia. - 670mm long
60	69118	Nipple, 3/8" gas x 3/8" gas
61	69119	Manifold, Front (under runway at front)
62	69120	Hydraulic Tubing, 8mm Dia. x 1.5m
63	69121	Manifold (Located under runway, center)
64	69122	Hydraulic Tubing, 12mm Dia. x 1.5m
65	69123	Hydraulic Tubing, 12mm Dia. x 1.5m
66	69124	Manifold (Located in rear leg assy. - top)
67	69125	Extension
68	69126	Manifold (Under Bar Cover Plate - Item #2)
71	69127	Rubber Washer, 3/8"
72	69128	Oil Drain Plug
74	69129	Flex. Hyd. Tube, 3/8" x 12mm Dia. - 630mm lgth. (3770)
310	69130	Flex. Hyd. Tube, 3/8" x 12mm Dia. - 730mm lgth. (3870)
..	69299	12mm x 1.5mm wall Hydraulic Tubing - 5' Length
..	69300	Self Locking Nut, 27mm
..	69301	Pressure Regulator Valve
..	69302	Tubing - Air

.. Optional - for extending range of placement of control console only.
Order amount desired (extra fittings included with tubing length).

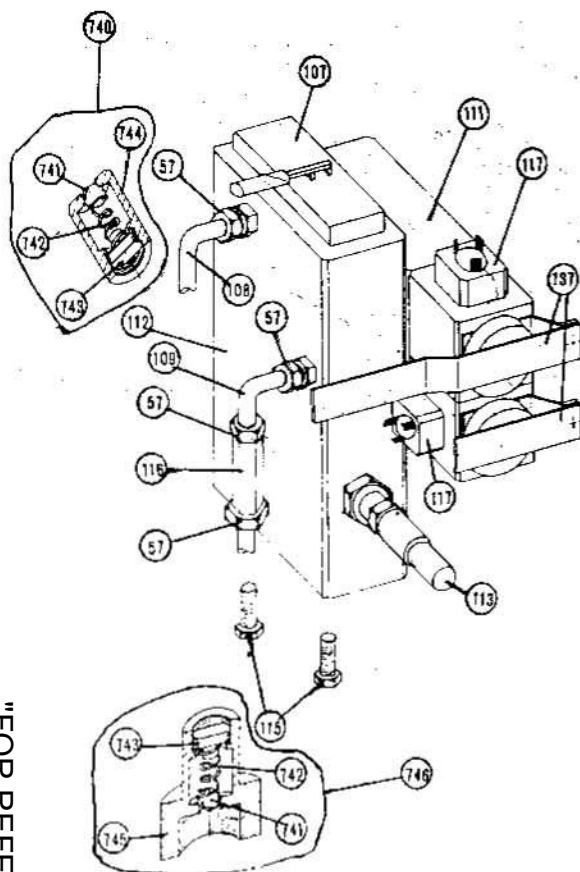
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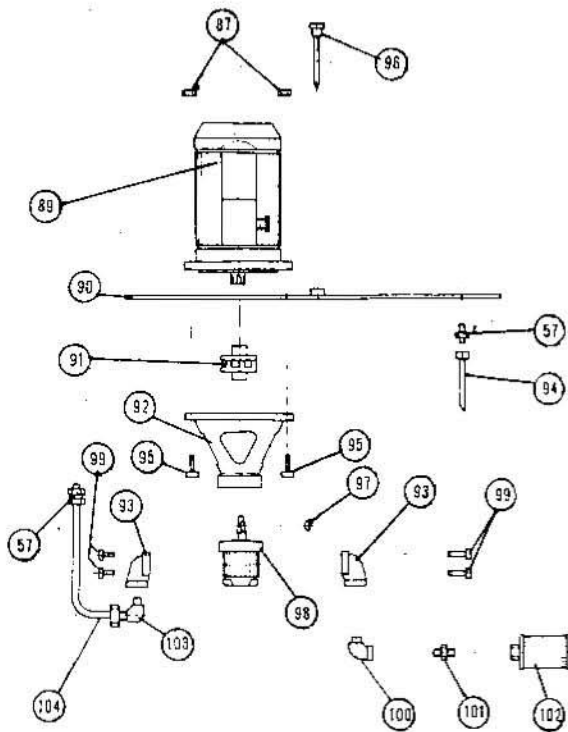
FMC 3770/3870



Ref. No.	Part No.	Description
57	69115	Fitting, 3/8" x 12mm
107	69131	Hand Pump
108	69132	Hydraulic Tubing, 12mm x 1.5m
109	69133	Hydraulic Tubing, 12mm x 1.5m
111	69134	Electrovalve
111/A	69135	Electrovalve - Complete
112	69136	Manifold - Console
114	69137	Check Valve
115	69138	Bolt, M8 x 35
116	69139	Delivery Valve, SB 15 (3770)
117	69140	Solenoid, mm 55/Kg 2/24V
137	69141	Lever, Manual Electrovalve Actuating
740	69142	Check Valve - Complete
741	69143	Ball
742	69144	Spring
743	69145	Adjusting Screw
744	69146	Check Valve Body
745	69147	Check Valve Body
746	69148	Check Valve - Complete

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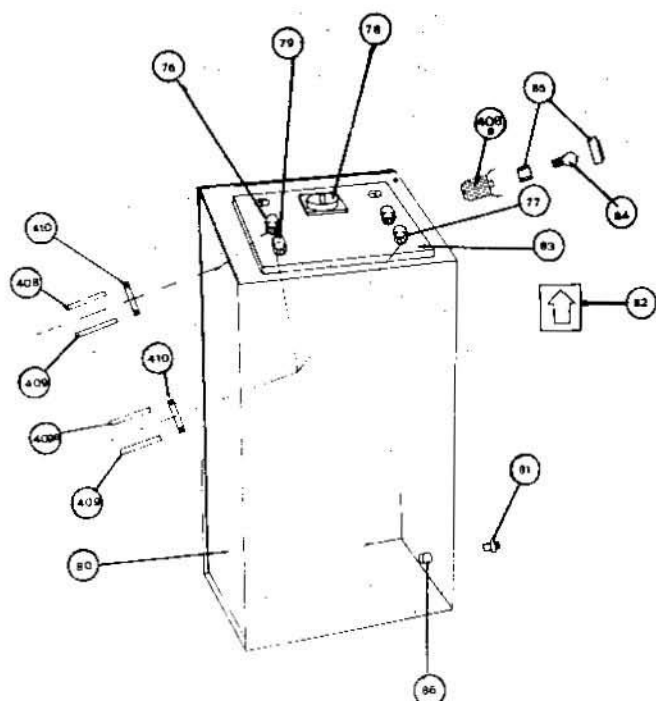
FMC 3770/3870



Ref. No.	Part No.	Description
57	69115	Fitting, 3/8" x 12mm Dia.
87	69149	Hex Nut, M10
89/M	69151	Motor, Single Phase - 230VAC
90	69152	Motor Support Plate
91	69153	Coupling, Flexible
92	69154	Spider
93	69155	90 Degree Ell
94	69156	Hydraulic Tubing, 12mm x 1.5m
95	69157	SHCS, M10
96	69158	Oil Fill Plug
97	69159	Woodruff Key
98	69160	Pump, Gear
99	69161	SHCS, M5
100	69162	90 Degree Ell
101	69163	Nipple, 1/2" gas
102	69164	Filter, MPA 25/90 - 1/2" gas
103	69165	90 Degree Ell, 3/8" x 12mm Dia.
104	69166	Tubing, 1/2 x 1.5m

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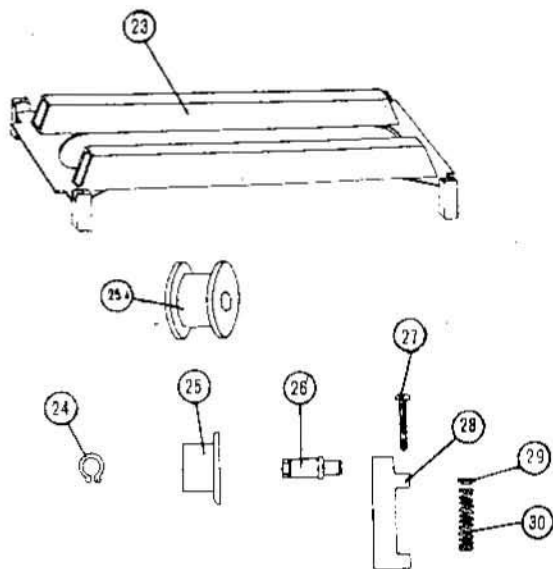
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Ref. No.	Part No.	Description
76	69168	"UP" Push Button, 3SB 1000-AE20
77	69169	"MECH. LOCK POS." Push Button, 3SB 1000-OAD20
78	69170	Switch, Main Power
79	69171	"DOWN" Push Button, 3SB 1000-OAB20
80	69172	Console Weldment
81	69173	Oil Drain Plug
82	69174	Decal, Set
83	69175	Console Control Panel
84	69176	Lamp, 24V 3890 BA9S
85	69177	Socket, Lamp
408	69183	Contact, Push Button - INC/3SB 1400-OC
408/B	69184	Contact, Lamp - 3SB 1400-2A
409	69185	Contact, Push Button - N.V.G. INC+INO 35B 1400 OA
409/B	69186	Contact, Push Button - INO/3SB 1400 OB
410	69187	Push Button Plate - 3SB 1902-1 AC

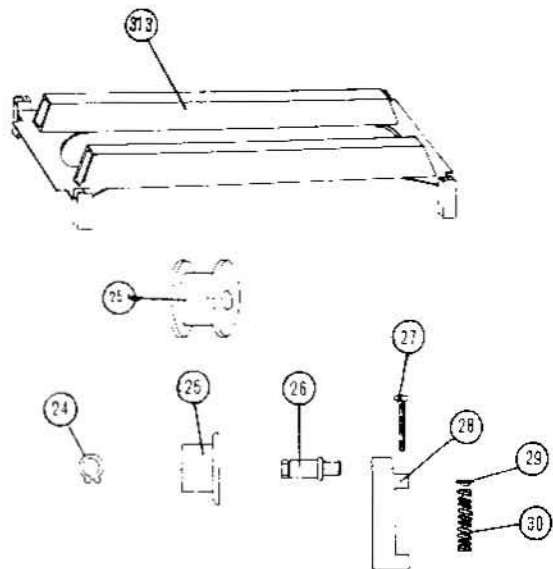
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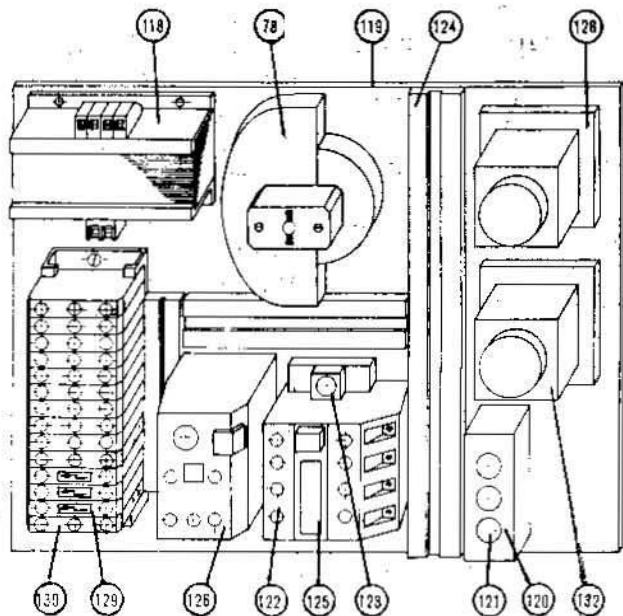
Ref. No.	Part No.	Description
23	69211	Carriage (3770)
313	69217	Carriage (3870)
24	69203	Snap Ring, 16mm
25	69204	Wheel
25/A	69205	Wheel
26	69206	Axle, Wheel
27	69207	Screw, M6 x 40
28	69208	Bracket, Wheel Mounting
29	69209	Compression Fitting, Spring
30	69210	Spring
.	1177882	Fitting - Elbow
.	1177534	Fitting - Brass (with plastic compression sleeve)
.	68030	Pilot Actuator
.	59781	Valve - Pneumatic
.	996074	Tubing - Plastic (3/6")
.	69407	Fitting - Tee (brass)
.	69406	Fitting - Elbow (brass)
.	69408	Plate - Hose retainer
.	1105423	1/8" NPT Nipple

* Part of 78 Jack Safety Device. Not Shown.

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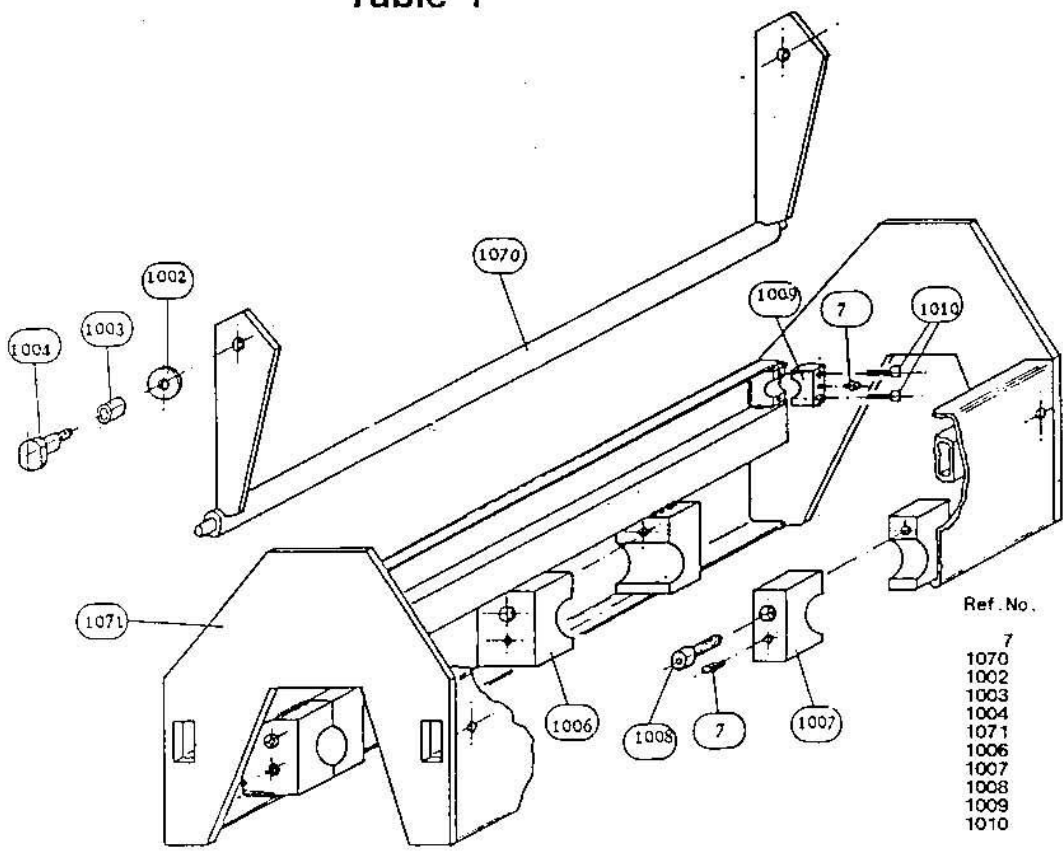


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Ref. No.	Part No.	Description
78	69170	Switch
118/M	69189	Transformer, 220-24V
119	69190	Bakelite Board
120	69191	Fuse Block
121/M	69193	Fuses (30A)
122	69194	Fuse Block
123/M	69196	Fuses (10A)
124	69197	Cover, Wiring
125/M	69199	Contactor, Siemens
126/M	69200	Thermal Cutout, Siemens
132	69282	Timer
128	69279	Timer Socket
129	69280	Terminal Block, CABUR ED M6
130	69281	Terminal Block, CABUR ED M6 GIA-VE

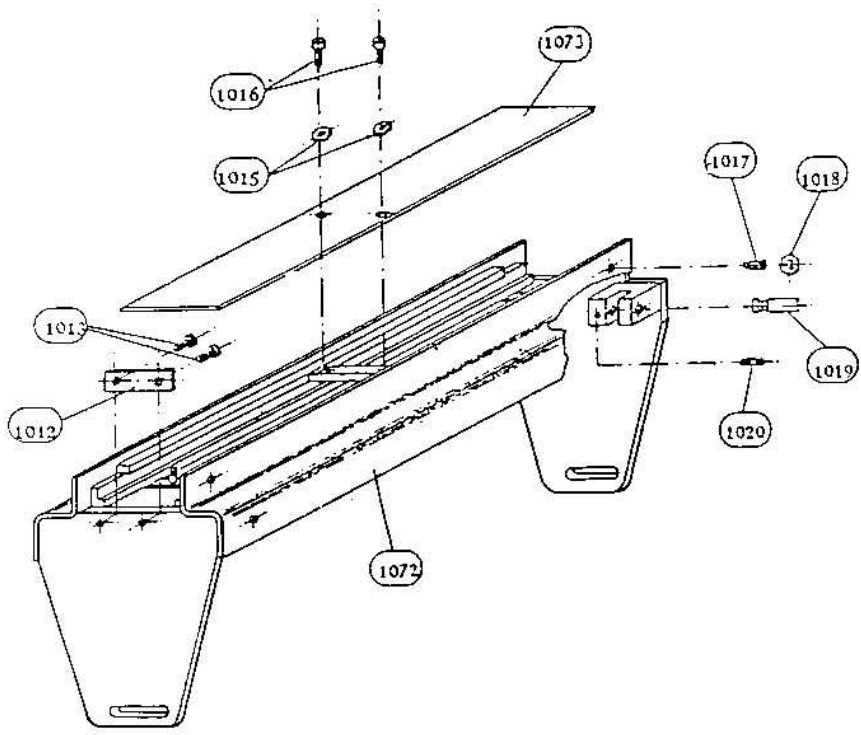
78 JACK PARTS REFERENCE

Table 1



Ref. No.	Part No.	Description
7	69031	Grease Nipple, M6
1070	69218	Torsion Bar
1002	69223	Washer
1003	69224	Bushing
1004	69225	Shoulder Bolt
1071	69219	Frame, Lower
1006	69226	Block, Left
1007	69227	Block, Right
1008	69228	Screw, M12 x 30
1009	69229	Torsion Bar Support
1010	69230	Screw, M6 x 30

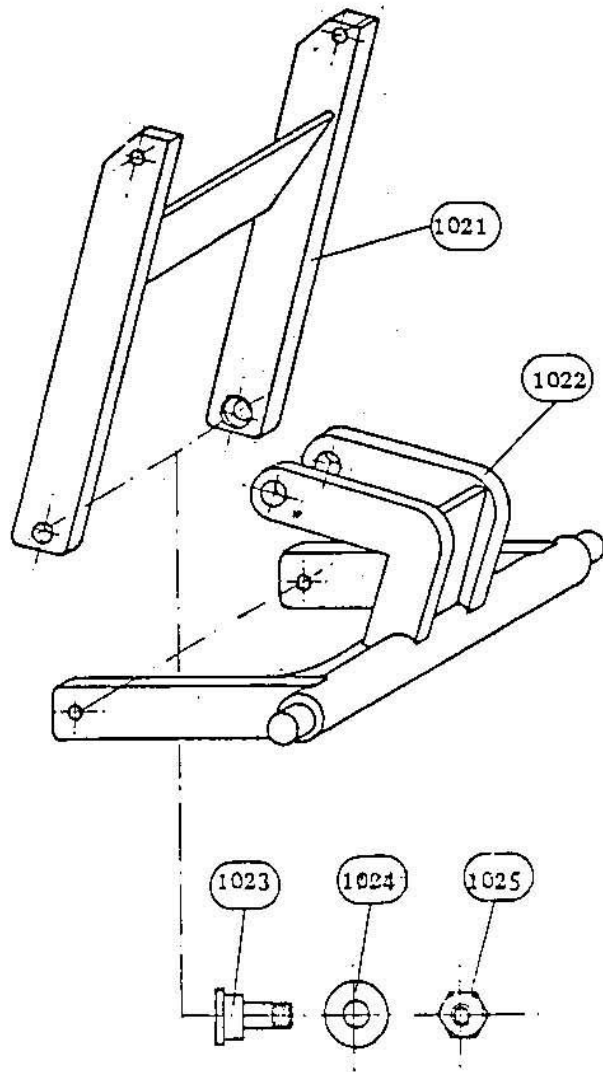
Table 2



Ref. No.	Part No.	Description
1072	69220	Frame, Upper
1012	69231	Block
1013	69232	Screw, M6 x 15
1073	69221	Cover Plate - Rubber
1014	69233	Washer, 4mm
1015	69234	Screw, M4 x 15
1016	69235	Screw, M8 x 25
1017	69236	Nut, M8
1018	69237	Pin
1019	69238	Screw, M6 x 15
1020		

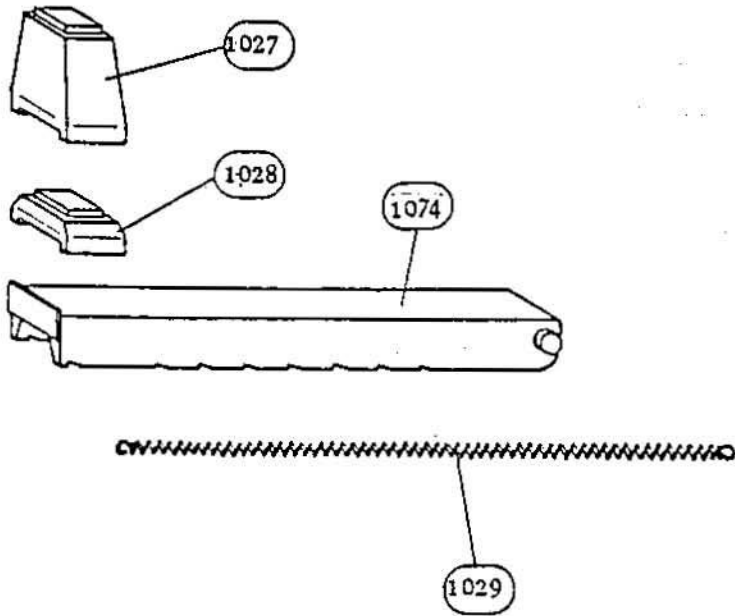
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Table 3



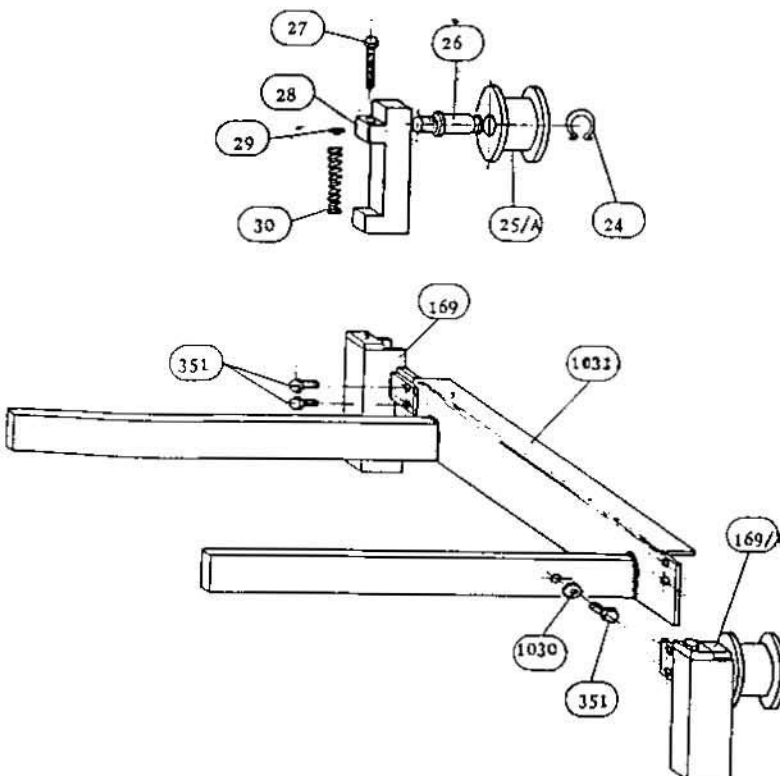
Ref. No.	Part No.	Description
1021	69239	Upper Arm
1022	69240	Lower Arm
1023	69241	Shoulder Bolt
1024	69242	Washer
1025	69243	Nut, M12

Table 4



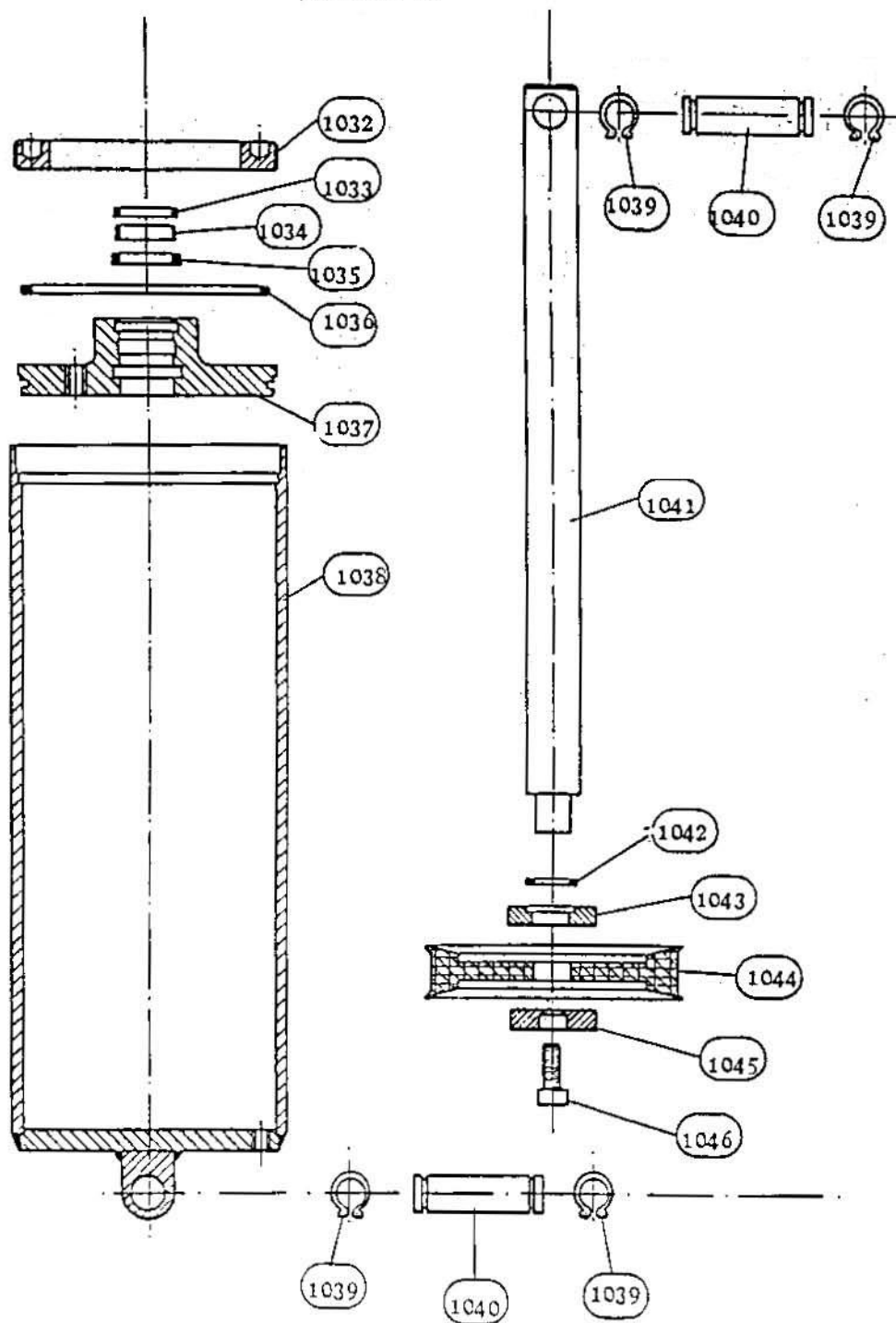
Ref. No.	Part No.	Description
1074	69222	Extension Arm
1027	69244	Block, Large
1028	69245	Block, Small
1029	69246	Spring

Table 5



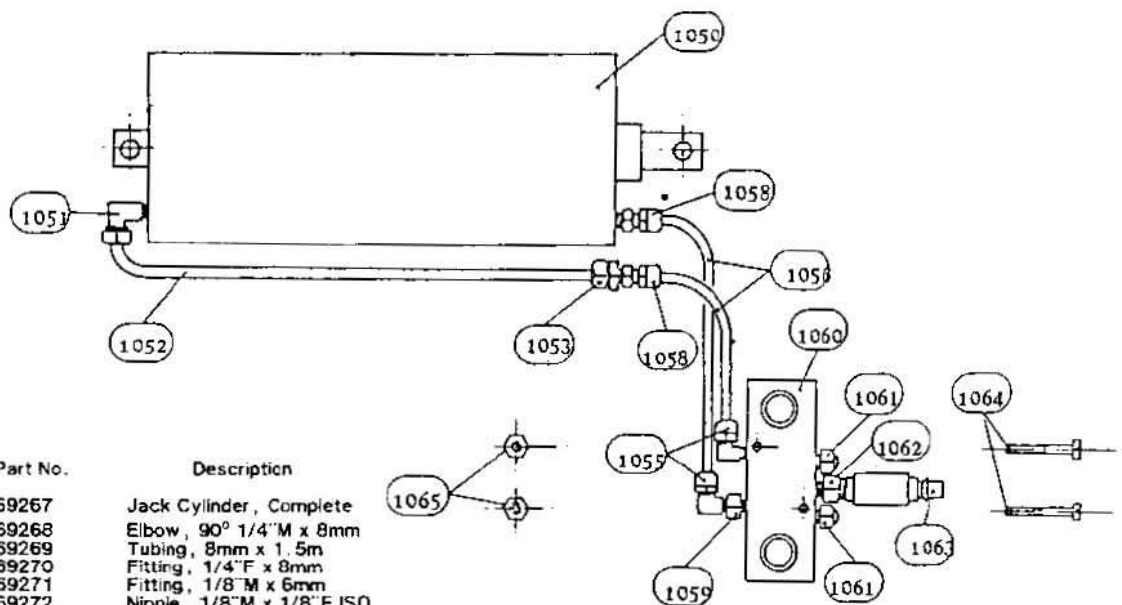
Ref. No.	Part No.	Description
24	69203	Snap Ring, 16mm
25/A	69205	Wheel
26	69206	Axle
27	69207	Screw, M6 x 40
28	69208	Bracket
29	69209	Compression Ring
30	69210	Spring
169	69249	Bracket, Support
169/A	69250	Bracket Support Assy, Comp.
351	69251	Screw, M8 x 15
1030	69247	Washer, M8
1031	69248	Bracket, Angle

Table 6



Ref. No.	Part No.	Description
1032	69252	Lock Ring
1033	69253	Scraper Ring, WRM 118149
1034	69254	Guide Ring, 1/DWR/30/2
1035	69255	Seal, B157118
1036	69256	Seal, O-Ring
1037	69257	Nut - Ring
1038	69258	Cylinder
1039	69259	Snap Ring, 20mm
1040	69260	Pin
1041	69261	Piston Rod
1042	69262	Seal, O-Ring
1043	69263	Flange, Piston
1044	69264	Seal, TPU 150
1045	69265	Flange, Piston
1046	69266	Screw, M10 x 25
1050	69267	Jack Cylinder, Complete

Table 7



Ref. No.	Part No.	Description
1050	69267	Jack Cylinder, Complete
1051	69268	Elbow, 90° 1/4" M x 8mm
1052	69269	Tubing, 8mm x 1.5m
1053	69270	Fitting, 1/4" F x 8mm
1058	69271	Fitting, 1/8" M x 6mm
1059	69272	Nipple, 1/8" M x 1/8" F ISO
1060	69273	Manifold
1061	69274	Muffler
1062	69275	Reducer
1063	69276	Quick Connect, 14mm
1064	69277	Screw, M4 x 35
1065	69278	Nut, M4
	69303	Adapter, 1/8" ISO(M) to 1/8" NPT(F)

- Not Shown. Use when incorporating any standard quick connect to jack.

LABELS - 78 JACK

Part No.	Description
68453	Label - "78", 1
69287	"Capacity 4400 Lbs.", 1
69283	Arrow - Black, 2
59841	Warning - Jack, 1
59840	Warning - Roller, 1
81088	Logo - "FMC", 2

LABELS - 3770 LIFT

Part No.	Description
68450	"3770", 1
69285	"Mechanical Locks", 1
69284	Arrow - Silver, 2
69288	"Capacity - 6600 Lbs.", 2
69286	"Hydraulic Connections", 3
68452	"FMC" - 2" x 6" Silver, 2
68001	Label - Safety, 2
81088	"FMC" - 2" x 6" Black, 2
985255	Striping Tape - 1/4" Red, 61"

LABELS - 3870 LIFT

Part No.	Description
68451	"3870", 1
69285	"Mechanical Locks", 1
69284	Arrow - Silver, 2
69289	"Capacity - 11000 Lbs.", 2
69286	"Hydraulic Connections", 3
68452	"FMC" - 2" x 6" Silver, 2
68001	Label - Safety, 2
81088	"FMC" - 2" x 6" Black, 2
985255	Striping Tape - 1/4" Red, 61"

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