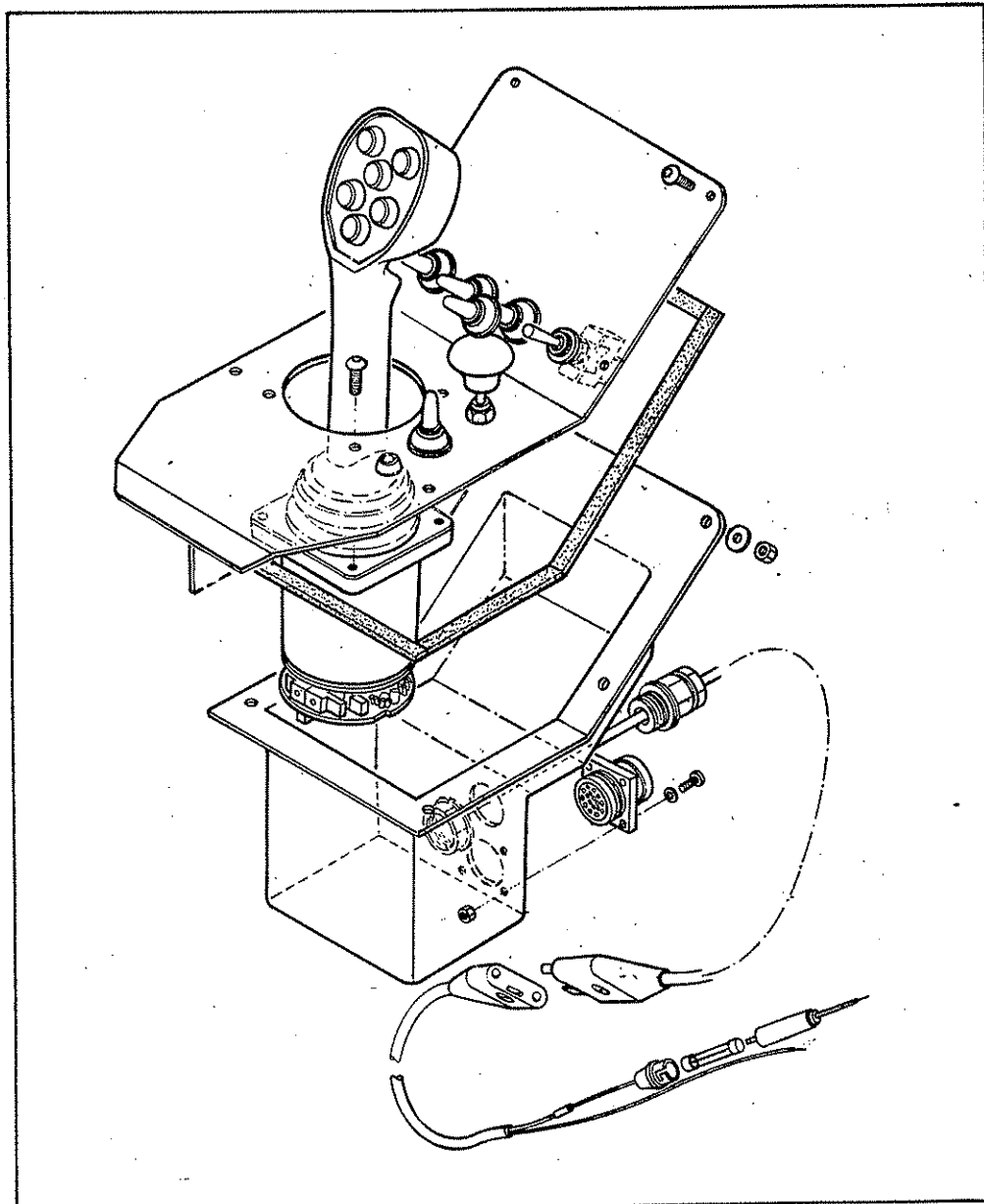


PA 2050 PA 2050 T PA 2050 M Spare parts

FOR MACHINES WITH PROPORTIONAL CONTROLS



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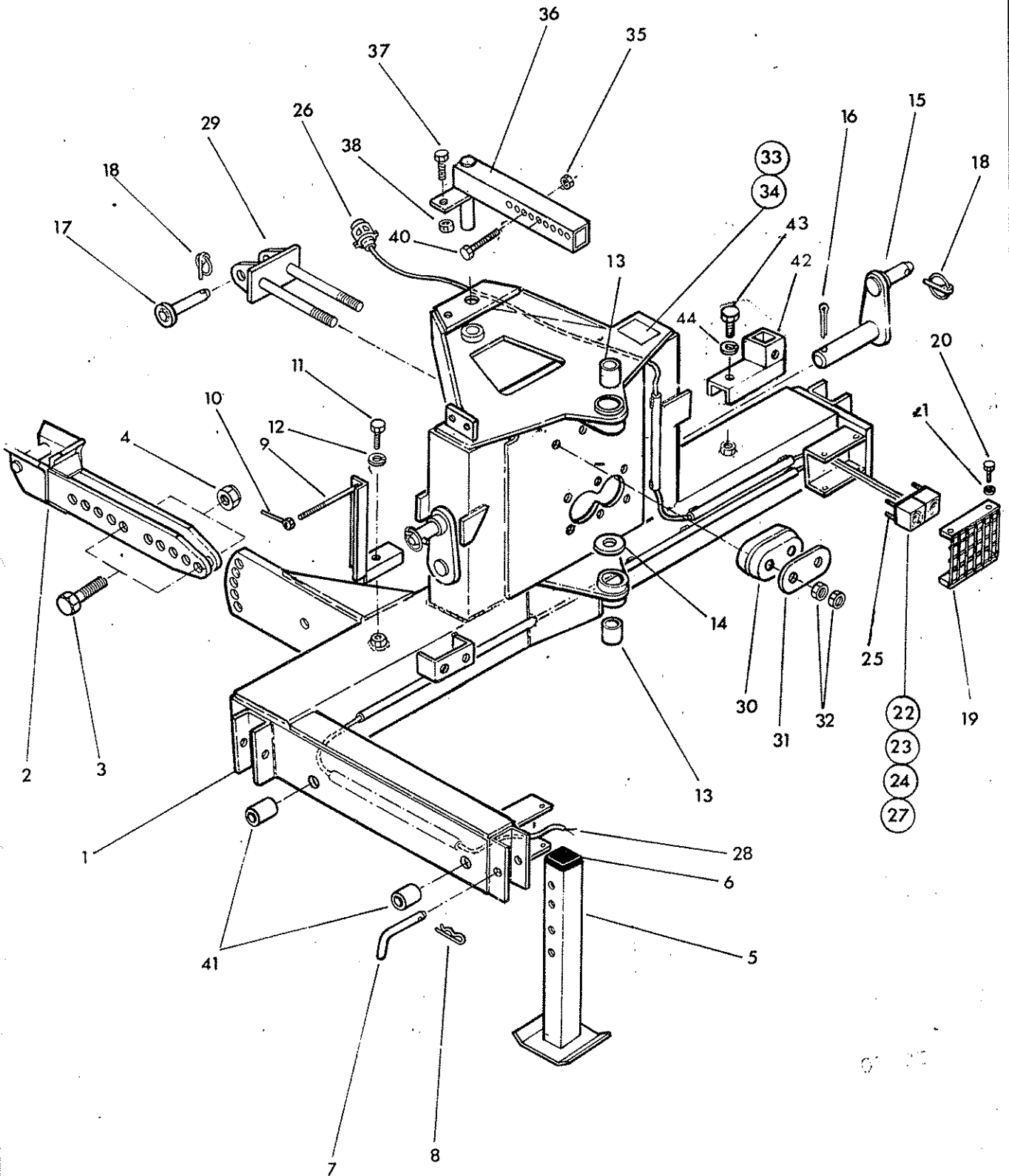
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MAIN FRAME



McCONEL



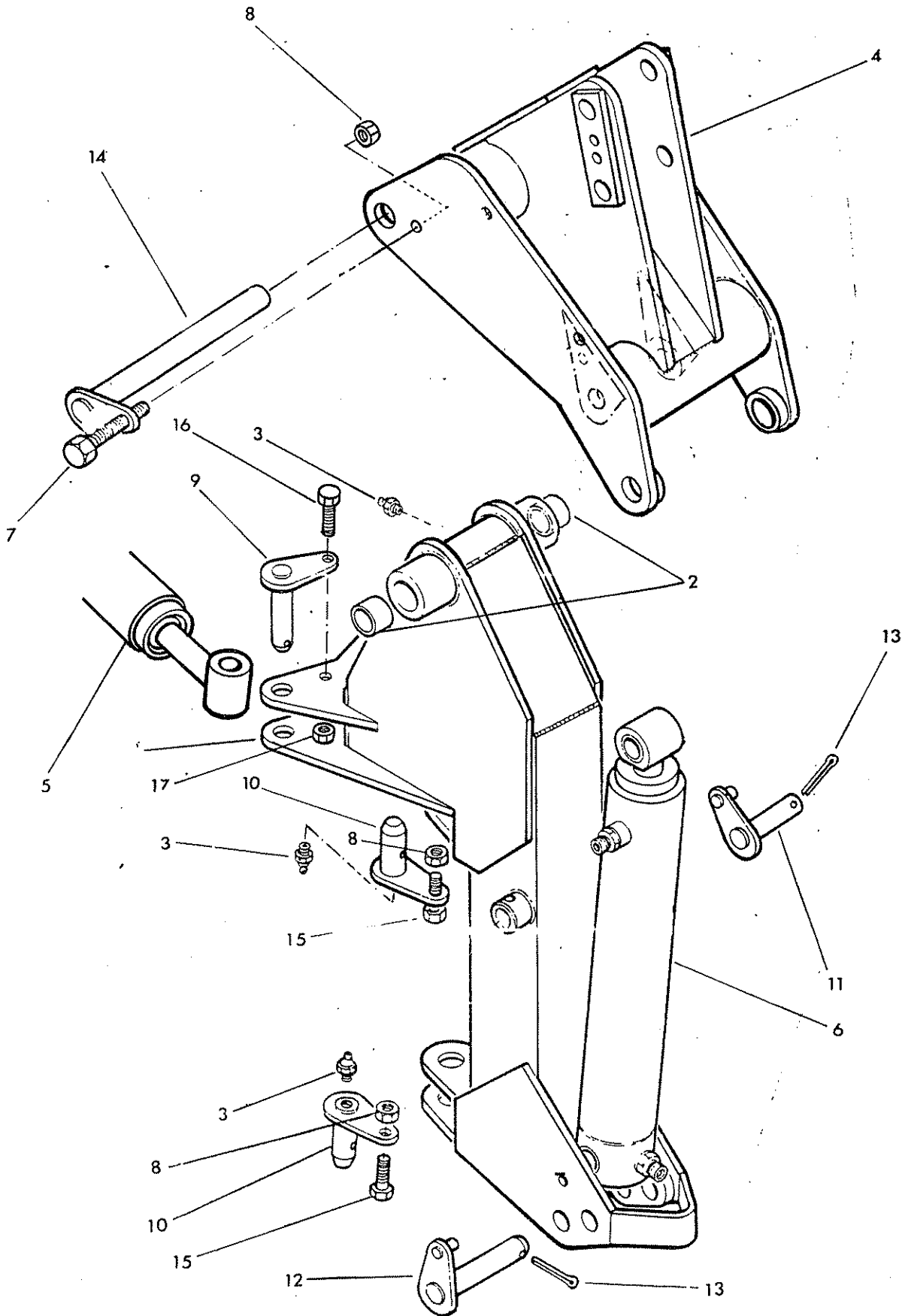


MCCORMEL

REF	PART NO	QTY	DESCRIPTION
			MAIN FRAME
1	75 50 281	1	Main frame - L hand - not illus
	75 50 280	1	Main frame - R hand
2	75 60 386	1	Mounting arm 1.0m L hand
			1.1m R hand
	75 60 387	1	Mounting arm 1.1m L hand
			1.0m R hand
3	92 13 159	4	Bolt
4	91 43 009	4	Self locking nut
5	75 60 021	3	Stand leg
6	71 91 108	3	Plastic bung
7	71 92 023	3	Pin
8	04 31 105	3	Spring cotter
9	75 60 373	1	Leg stay
10	75 60 062	1	Clamp nut
11	93 13 077	1	Setscrew
12	91 00 207	1	Spring washer
13	70 16 010	2	Bush
14	60 01 136	1	Thrust washer
15	75 60 374	2	Lift link pin
16	95 01 509	2	Split pin
17	71 18 112	1	Pin
18	04 31 217	3	Linch pin
19	75 60 353	2	Light guard
20	93 13 023	8	Setscrew
21	91 00 203	8	Spring washer
22	75 60 086	2	Rear light
23	75 60 087	2	Stop/tail bulb 12v
24	75 60 088	2	Flasher bulb 12v
25	93 00 142	8	Self tapping screw
26	75 60 089	1	Plug
27	75 60 098	8	Connector
28	75 60 090	1	Cable
29	75 60 398	1	Top hitch bracket
30	75 60 141	1	Rubber damper
31	75 60 130	1	Reaction plate
32*	91 13 009	4	Nut
33	12 90 055	1	Serial Number plate
34	71 03 230	4	Pop rivet
35	91 43 005	2	Self locking nut
36	75 50 021	1	Pin
37	92 13 066	1	Bolt
38	91 43 006	1	Self locking nut
39	75 50 306	1	PTO shaft 1000 rpm - not illus
	75 50 346	1	PTO shaft 750 rpm - not illus
40	92 13 225	2	Bolt
41	75 50 045	2	Tank mounting spacer
42	75 80 321	1	Cradle socket
43	93 13 077	1	Bolt
44	91 00 207	1	Sp.washer 5200M only

ASSEMBLY NOTE

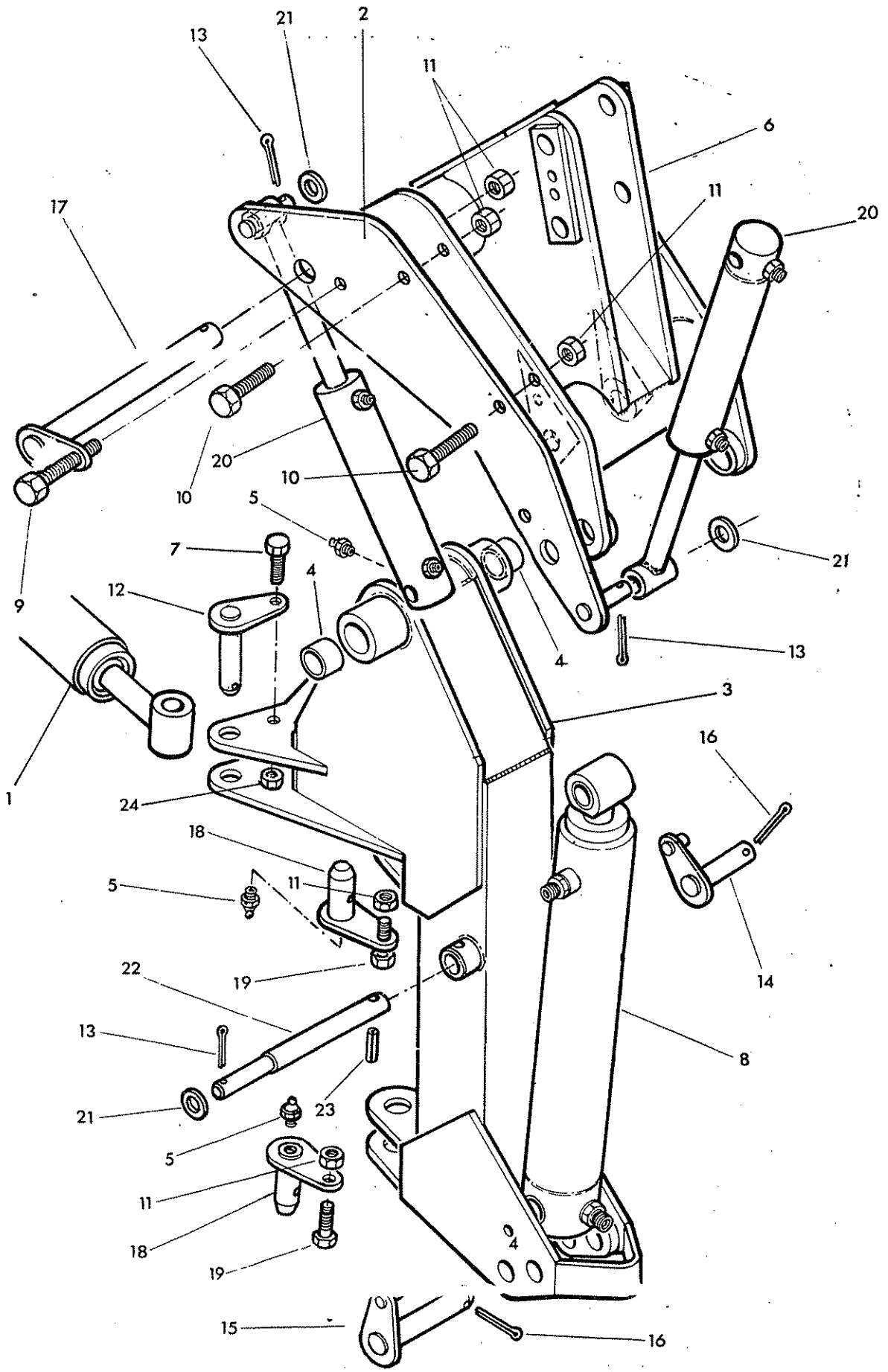
NUTS MUST BE TIGHTENED UNTIL THE RUBBER DAMPER IS COMPRESSED TO 120 mm THICK

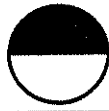




McCOMEL

REF	PART NO	QTY	DESCRIPTION
			SLEW COLUMN AND ROCKER - STANDARD MACHINES
1	71 96 291	1	Slew column
2	71 96 047	2	Bush
3	09 01 121	3	Greaser
4	71 96 303	1	Rocker
5	75 50 046	1	Slew/breakaway ram assembly
6	71 36 270	1	Lift ram assembly
7	93 13 087	1	Bolt
8	91 43 007	3	Self locking nut
9	71 96 021	1	Pivot pin-slew/breakaway ram rod
10	71 96 020	2	Pivot pin - slew column
11	71 96 016	1	Pivot pin - lift ram rod
12	71 96 017	1	Pivot pin - lift ram base
13	95 01 507	2	Split pin
14	71 96 044	1	Pivot pin - rocker
15	93 13 087	2	Bolt
16	92 13 066	1	Bolt
17	91 43 006	1	Self locking nut





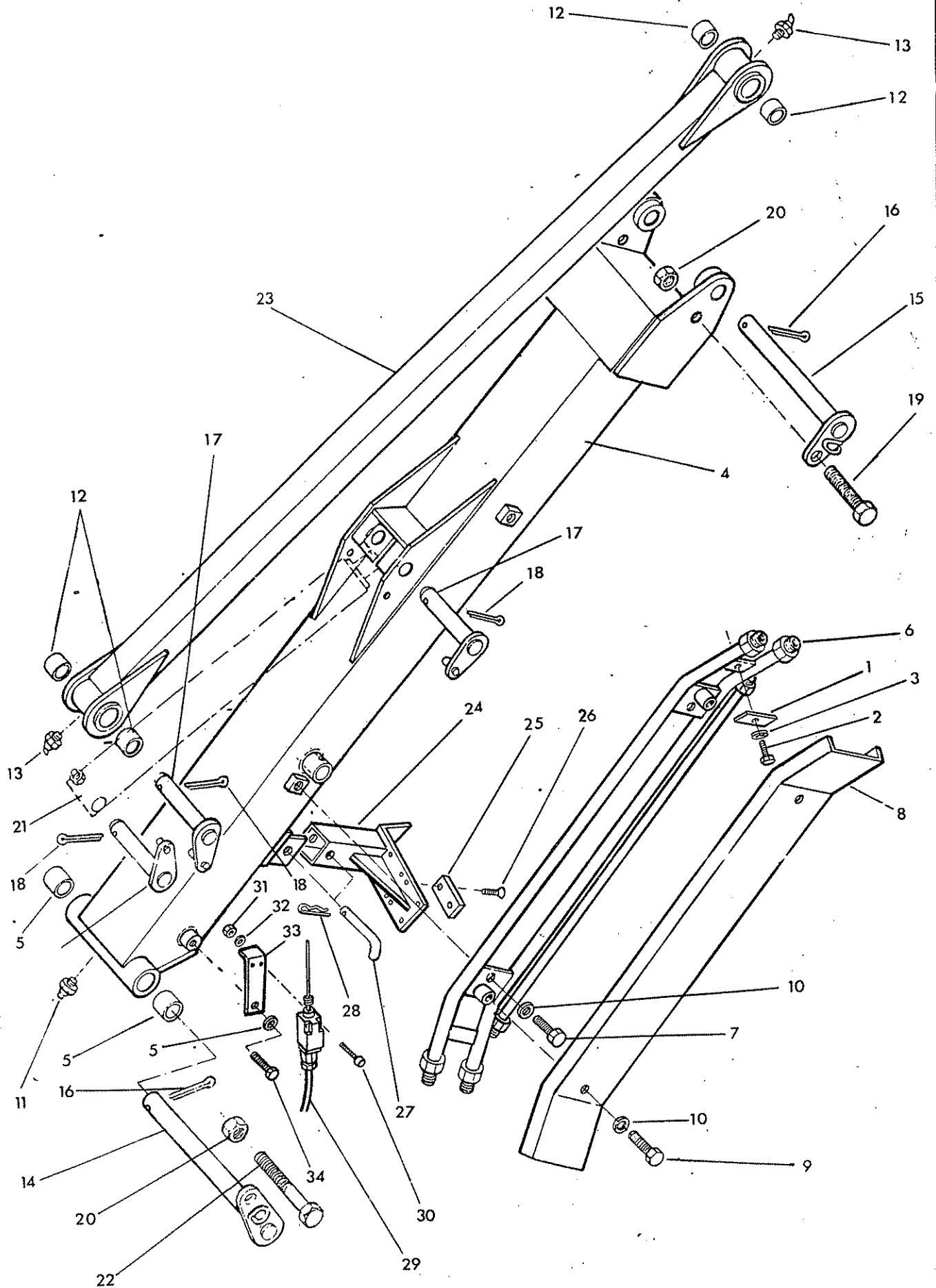
McCORMICK

REF	PART NO	QTY	DESCRIPTION
			SLEW COLUMN AND ROCKER - AHC MACHINES
1	75 50 046	1	Slew /breakaway ram assembly
2	71 96 306	1	Compensator ram plaate
3	71 96 291	1	Slew column
4	71 96 047	2	Bush
5	09 01 121	3	Greaser
6	71 96 303	1	Rocker
7	92 13 127	1	Bolt
8	71 36 270	1	Lift ram assembly
9	92 13 127	1	Bolt
10	92 13 107	2	Bolt
11	91 43 007	5	Self locking nut
12	71 96 021	1	Pivot pin-slew/breakaway ram rod
13	95 01 406	3	Split pin
14	71 96 016	1	Pivot pin - lift ram rod
15	71 96 017	1	Pivot pin - lift ram base
16	95 01 507	2	Split pin
17	71 96 044	1	Pivot pin - rocker
18	71 96 020	2	Pivot pin - slew column
19	93 13 087	2	Bolt
20	71 95 318	2	Compensator ram
21	71 92 001	3	Washer
22	71 96 011	1	Pivot pin-lift compensator ram base
23	04 22 628	1	Spring dowel
24	91 43 006	1	Self locking nut

MAIN ARM & LINK - Standard



MCCORMICK





MCCORMEL

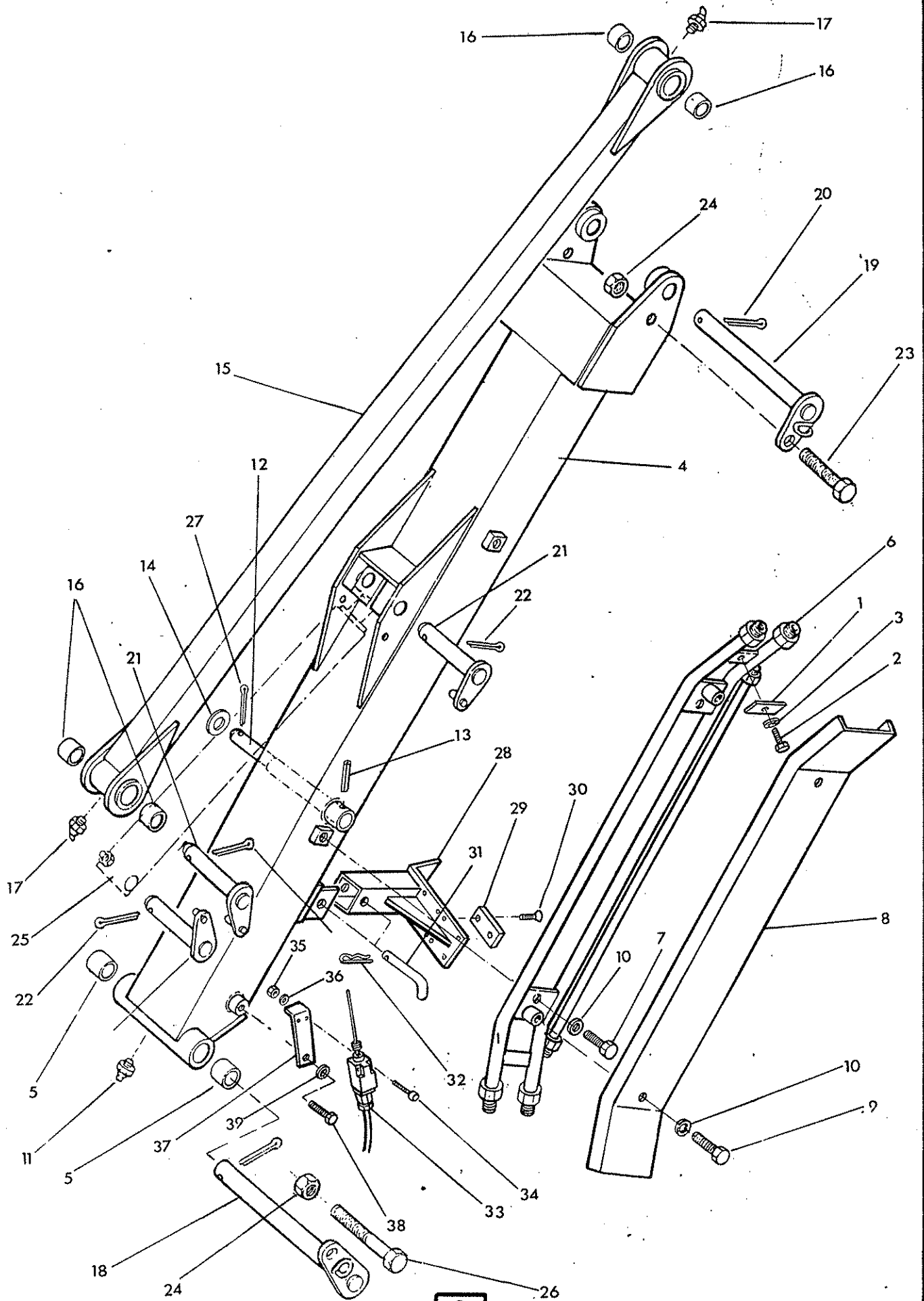
REF	PART NO	QTY	DESCRIPTION
MAIN ARM AND TENSION LINK - STANDARD MACHINES			
1	75 50 042	2	Hose clamp
2	93 13 053	2	Setscrew
3	91 00 203	2	Spring washer
4	75 50 251	1	Main arm
5	71 96 047	2	Bush
6	75 50 293	1	Rigid pipes
7	93 13 045	2	Setscrew
8	75 50 278	1	Pipe cover
9	92 13 075	2	Bolt
10	91 00 305	4	Internal serrated washer dia
11	09 01 121	1	Greaser
12	60 12 032	4	Bush
13	09 01 125	2	Greaser
14	71 96 044	1	Pivot pin - main arm
15	71 96 091	1	Pivot pin - dipper arm
16	05 03 166	1	Split pin
17	71 96 017	3	Pivot pin - reach ram & tension link lower
18	95 01 507	3	Split pin
19	93 13 087	1	Bolt
20	91 43 007	2	Self locking nut
21	71 36 270	1	Reach ram
22	93 13 087	1	Bolt
23	75 50 253	1	Tension link
24	75 80 323	1	Parking cradle
25	10 75 041	4	Cradle pad
26	10 75 047	8	Counter sunk rivet
27	75 80 015	1	Cradle pin
28	04 31 105	1	Spring cotter
	84 02 150		REACH IN LIMIT STOP SWITCH - 2050 MONLY
29	84 02 152	1	Limit switch incl. cable & Gland
30	92 43 062	2	Cap screw
31	91 00 014	2	Nut
32	91 00 202	2	Spring washer
33	75 80 317	1	Mounting bracket
34	03 11 065	1	Setscrew
35	01 00 305	1	Shakeproof washer

M only

MAIN ARM & LINK - AHC

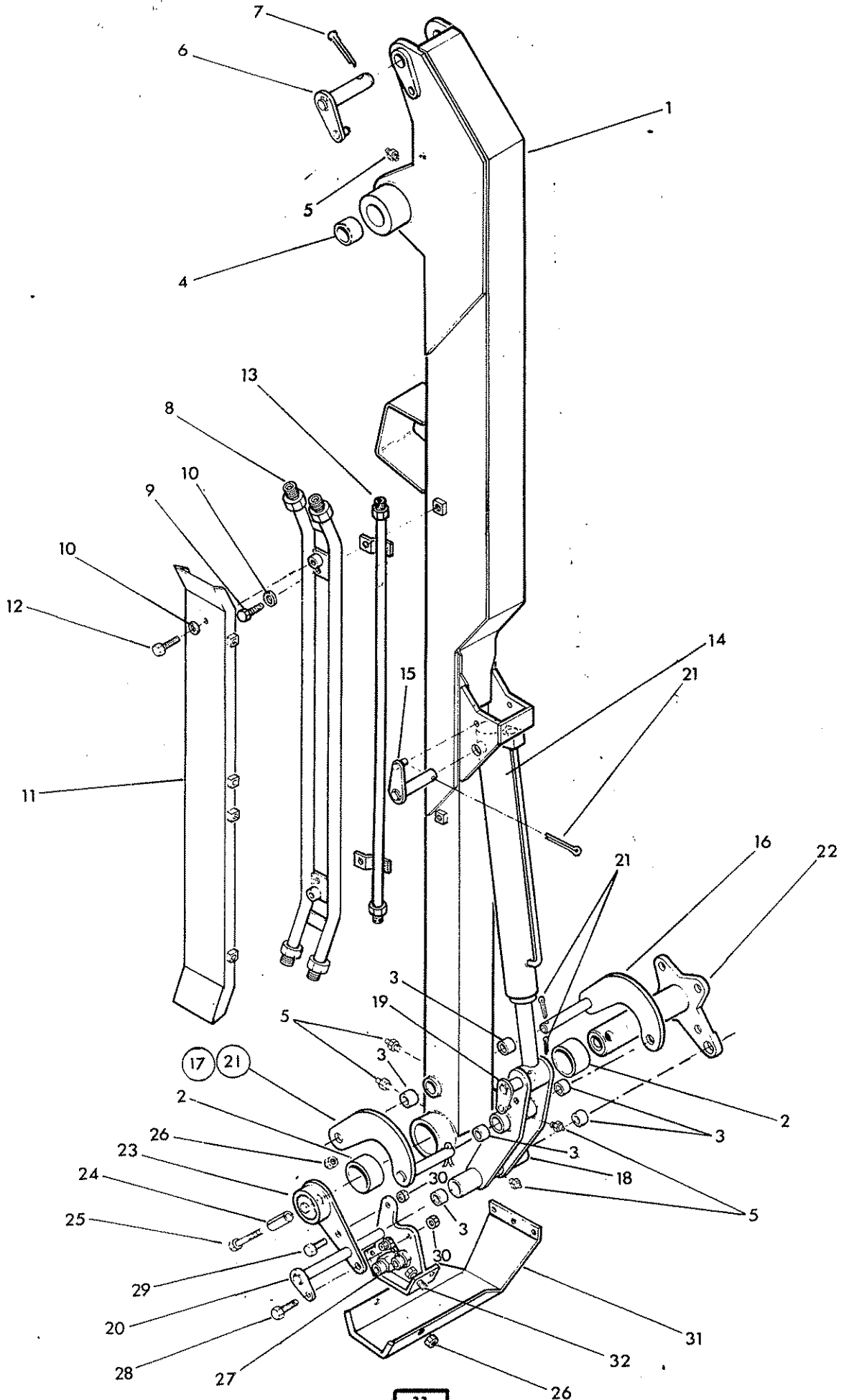


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REF	PART NO	QTY	DESCRIPTION
MAIN ARM AND TENSION LINK - AHC MACHINES			
1	75 50 042	2	Hose clamp
2	93 13 053	2	Setscrew
3	91 00 203	2	Spring washer
4	75 50 251	1	Main arm
5	71 96 047	2	Bush
6	75 50 293	1	Rigid pipes
7	93 13 045	2	Setscrew
8	75 50 278	1	Pipe cover
9	92 13 075	2	Bolt
10	91 00 305	4	Serrated washer
11	09 01 121	1	Greaser
12	71 96 012	1	Pivot pin - reach compensator ram base
13	04 22 628	1	Spring dowel
14	71 92 001	1	Washer
15	75 50 253	1	Tension link
16	60 12 032	4	Bush
17	09 01 125	2	Greaser
18	71 96 044	1	Pivot pin - main arm
19	71 96 019	1	Pivot pin - dipper arm
20	05 03 166	1	Split pin
21	71 96 017	3	Pivot pin - reach ram & tension link lower
22	95 01 507	3	Split pin
23	93 13 087	1	Bolt
24	91 43 007	2	Self locking nut
25	71 36 270	1	Reach ram
26	93 13 087	1	Bolt
27	95 01 406	1	Split pin
28	75 80 323	1	Parking cradle
29	10 75 041	4	Cradle pad
30	10 75 047	8	Countersunk rivet
31	75 50 015	1	Cradle pin
32	04 31 105	1	Spring cotter
} M only			
REACH IN LIMIT STOP SWITCH - 2050 M ONLY			
33	84 02 152	1	Limit switch incl. cable & gland
34	92 43 062	2	Capscrew
35	91 00 014	2	Nut
36	91 00 202	2	Spring washer
37	75 80 317	1	Mounting bracket
38	03 11 065	1	Setscrew
39	01 00 305	1	Shakeproof washer





REF	PART NO	QTY	DESCRIPTION
			DIPPER ARM AND FITTINGS FOR STANDARD ARM
1	75 50 252	1	Dipper arm
2	71 36 035	2	Bush - head pivot
3	71 01 083	6	Bush - Radius arm pivot and slave link
4	70 16 010	2	Bush - Dipper pivot
5	09 01 121	5	Greaser
6	71 96 017	1	Pivot pin - tension link
7	95 01 507	1	Split pin
8	75 50 287	1	Rigid pipe
9	93 13 045	2	Setscrew
10	91 00 305	4	Internal serrated washer
11	75 50 286	1	Pipe cover
12	92 13 085	2	Bolt
13	75 50 294	1	Rigid pipe
14	75 60 344	1	Angle ram assembly
15	71 92 024	1	Pivot pin - angle ram
16	71 92 311	1	Radius arm - front
17	71 92 310	1	Radius arm - rear
18	71 92 309	1	Slave link
19	71 92 008	1	Pivot pin - angle ram rod
20	71 92 009	1	Pivot pin - slave link
21	95 01 406	5	Split pin
22	71 92 308	1	Head pivot tube
23	71 92 316	1	Jaw plate
24	04 23 548	1	Spring dowel
25	92 13 185	1	Bolt
26	91 43 005	5	Self locking nut
27	75 50 307	1	Hose junction bracket
28	02 11 146	1	Bolt
29	02 11 126	1	Bolt
30	01 41 006	2	Self locking nut
31	72 90 346	1	Hose tray - belt drive head
32	93 13 045	2	Setscrew



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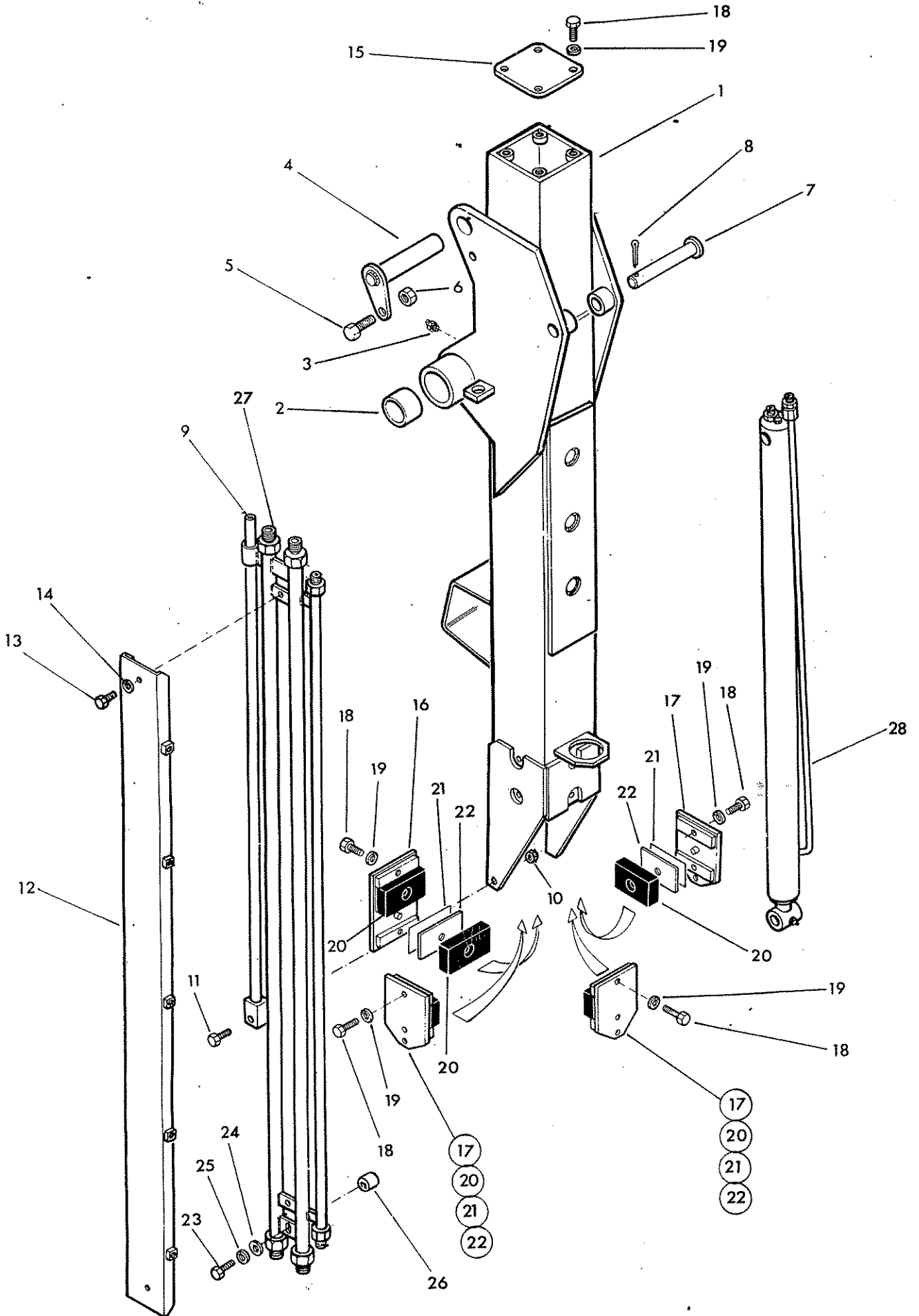
REF	PART NO.	QTY	DESCRIPTION
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2050 M DIPPER ARM & FITTINGS

1	75 50 269	1	Dipper arm
2	71 36 035	1	Nyon head bush
3	71 01 083	6	Bush
4	09 01 121	4	Greaser
5	75 80 023	1	Pin
6	92 13 107	1	Bolt
7	91 43 007	1	Self locking nut
8	75 60 063	1	Pin
9	75 50 276	1	Rigid pipe cover
10	93 13 055	2	Setscrew
11	93 13 075	2	Setscrew
12	91 00 205	5	Spring washer
13	71 92 024	1	Pin
14	71 92 311	1	Radius arm front
15	71 92 310	1	Radius arm rear
16	71 92 309	1	Slave link
17	71 92 008	1	Pin
18	71 92 009	1	Pin
19	95 01 406	4	Split pin
20	81 92 308	1	Head pivot tube
21	71 92 316	1	Jaw plate
22	04 23 548	1	Spring dowel
23	92 13 185	1	Bolt
24	91 43 005	1	Self locking
25	75 50 307	1	Hose junction bracket
26	02 11 146	1	Bolt
27	02 11 126	1	Bolt
28	01 41 006	2	Self locking
29	72 90 346	1	Hose tray
30	92 13 045	3	Setscrew
31	91 43 005	2	Self locking nut
32	75 50 298	1	Rigid pipe
33	75 60 344	1	Angling ram
34	75 50 277	1	Rigid pipes

FORWARD EXTENSION AND FITTINGS

35	75 50 267	1	Forward extension 1.0m R.Hand
36	75 60 050	2	Bush
37	09 01 121	2	Greaser
38	75 50 013	1	Pin
39	93 13 077	1	Bolt
40	91 43 007	1	Self locking nut
41	75 60 064	1	Pin
42	92 13 065	1	Bolt
43	91 43 005	1	Self locking nut
44	70 16 010	2	Bush
45	75 50 288	1	Breakaway ram





REF	PART NO	QTY	DESCRIPTION
			TELE DIPPER SOCKET AND FITTINGS
1	71 97 281	1	Tele dipper socket
2	70 16 010	2	Bush
3	09 01 121	1	Greaser
4	71 97 005	1	Pin
5	92 13 066	1	Bolt
6	91 43 006	1	Self locking nut
7	75 50 006	1	Pin - Tele ram base
8	95 01 406	1	Split pin
9	71 97 012	1	Guide rod
10	91 43 005	1	Self locking nut
11	92 13 125	1	Bolt
12	71 97 015	1	Rigid pipe cover
13	93 13 055	2	Setscrew
14	9100 305	2	Internal serrated washer
15	71 36 069	1	Cover plate
16	71 36 315	1	Wear pad carrier - lower
17	71 36 314	3	Wear pad carrier sides and top
18	03 11 065	12	Setscrew
19	01 00 205	12	Spring washer
20	71 36 001	5	Wear pad
21	71 36 058	As reqd.	Shim
22	71 36 059	As reqd.	Shim
23	92 17 406	1	Bolt
24	91 00 106	1	Plain washer
25	91 00 206	1	Spring washer
26	71 97 009	1	Spacer
27	75 50 297	1	Rigid pipes
28	71 36 275	1	Tele ram assy

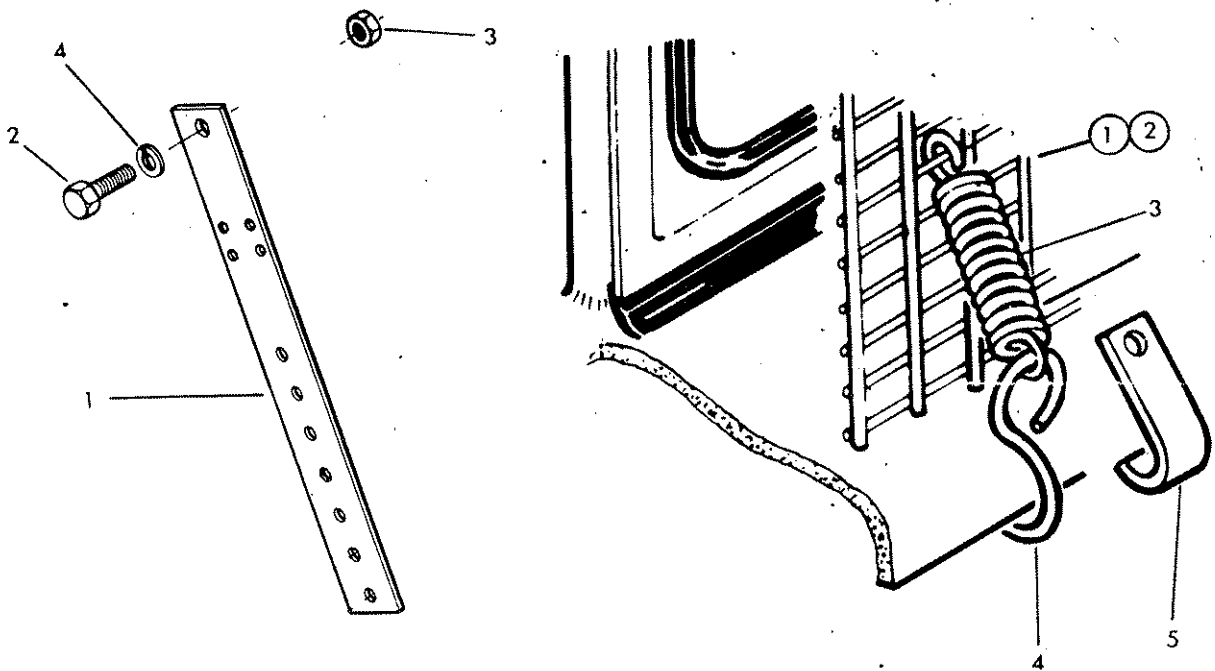


REF	PART NO	QTY	DESCRIPTION
			TELE DIPPER SLIDER AND FITTINGS
1	71 97 280	1	Tele dipper arm
2	71 36 035	2	Nylon head bush
3	71 01 083	6	Bush
4	71 36 001	4	Wear pad
5	71 36 058	As reqd	Shim
6	71 36 059	As reqd	Shim
7	93 53 075	4	Setscrew c/sunk
8	71 36 148	1	Plastic bung
9	71 97 004	1	Pin
10	71 92 024	1	Pin
11	71 92 311	1	Radius arm front
12	71 92 310	1	Radius arm rear
13	71 92 309	1	Slave link
14	71 92 008	1	Pin
15	71 92 009	1	Pin
16	95 01 406	5	Split pin
17	71 92 308	1	Head pivot tube
18	71 92 316	1	Jaw plate
19	04 23 548	1	Spring dowel
20	92 13 185	1	Bolt
21	91 43 005	7	Self locking nut
22	75 50 307	1	Hose junction bracket
23	02 11 146	1	Bolt
24	02 11 126	1	Bolt
25	01 41 006	2	Self locking nut
26	72 90 346	1	Hose tray
27	93 13 045	2	Setscrew
28	09 01 121	4	Greaser
29	75 60 344	1	Angling ram

**CONTROL MOUNTING
OPERATOR GUARD**

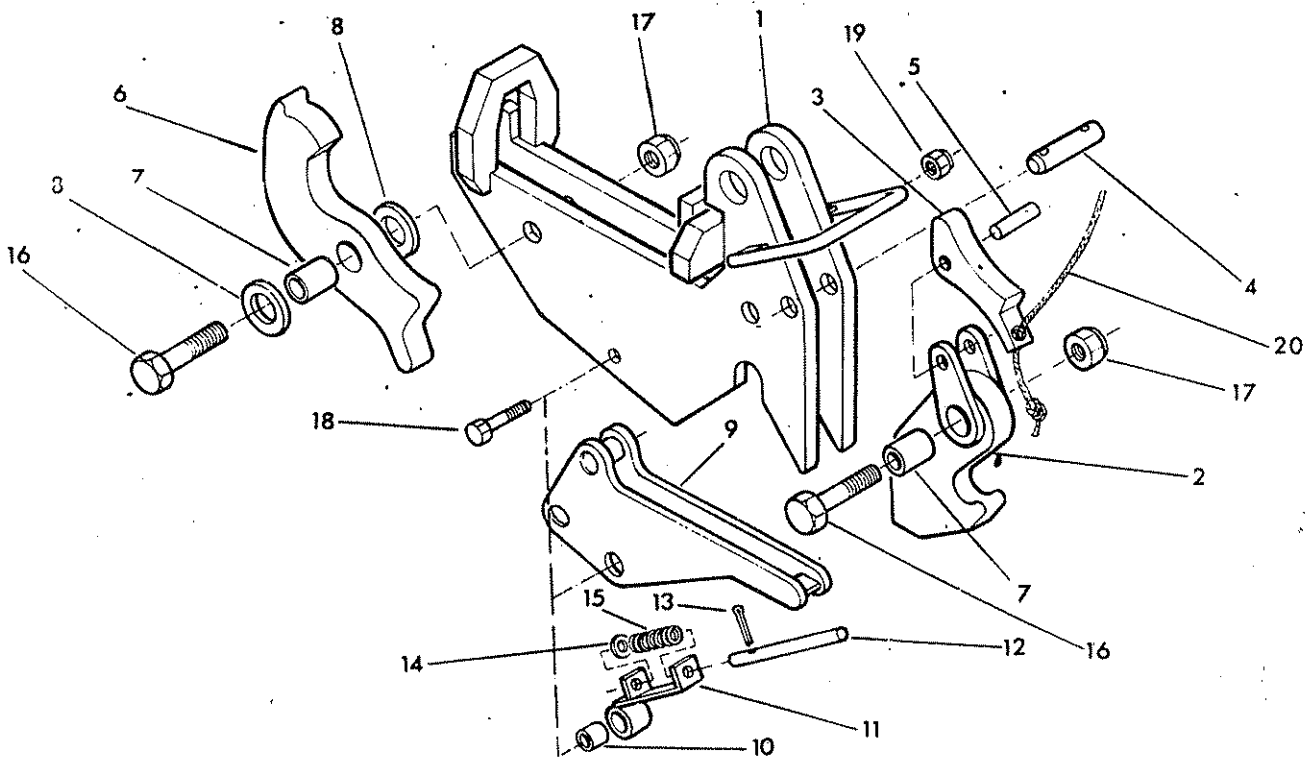


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Ref.	Part No.	Qty.	Description
	71-09-319		CONTROL MOUNTING ASSEMBLY
1	71-09-146	1	Pillar including
2	93-11-086	1	Setscrew
3	01-11-006	1	Nut
4	01-00-206	1	Spring washer

Ref.	Part No.	Qty.	Description
	73-13-324		CAB GUARD KIT
1	73-13-049	1	Guard panel - large
2	73-13-050	1	Guard panel - small
3	60-01-064	12	Spring
4	60-01-065	6	Hook
5	73-13-051	6	Hook

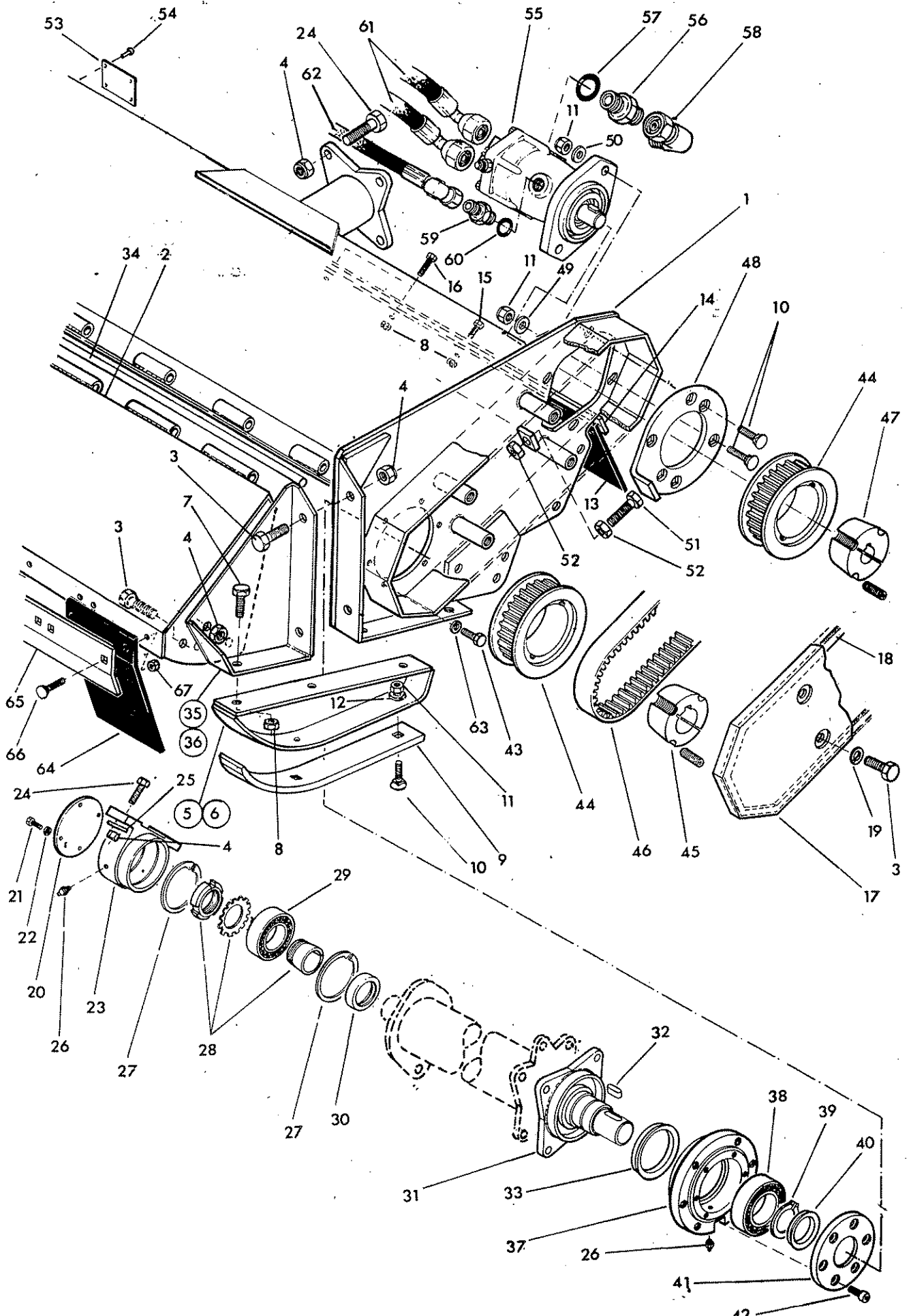


Ref.	Part No.	Qty.	Description
	20-20-999		CATCH ASSEMBLY
1	20-20-901	1	Catch body
2	20-20-902	1	Hitch hook
3	20-20-903	1	Hook release
4	20-20-904	1	Locking pin
5	20-20-906	1	Pivot - hook release
6	20-20-907	1	Plate latch
7	20-20-908	2	Pivot sleeve
8	20-20-909	2	Spacer - plate latch
9	20-20-910	1	Catch lock
10	20-20-911	1	Sleeve - spring rocker
11	20-20-912	1	Spring rocker
12	20-20-913	1	Spring shaft
13	95-01-325	1	Split pin
14	91-00-105	1	Plain washer
15	20-20-914	1	Spring
16	92-13-188	2	Bolt
17	91-43-008	2	Self locking nut
18	92-13-166	1	Bolt
19	91-43-006	1	Self locking nut
20	20-20-915	1	Release cord

FLAIL HEAD CASING

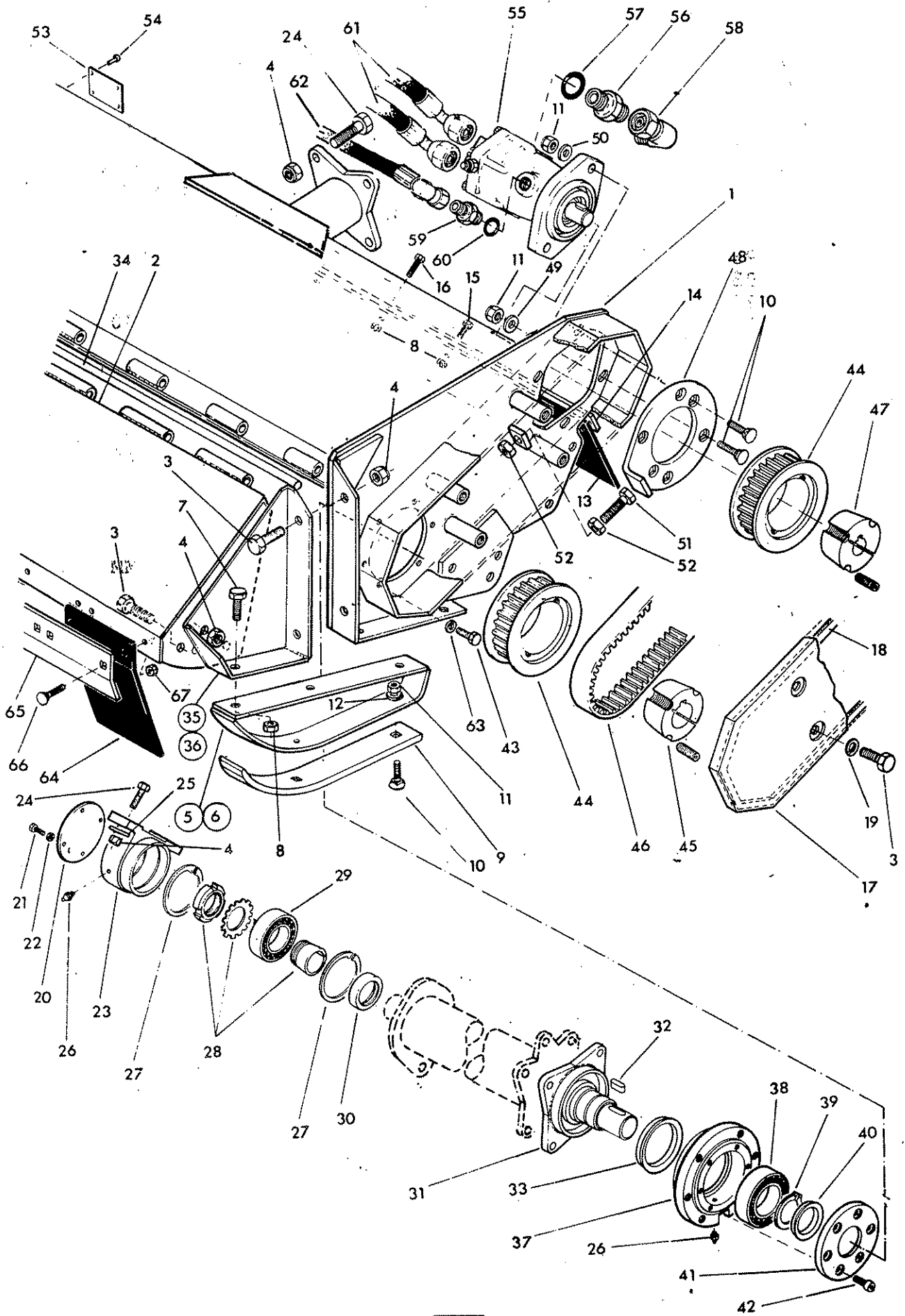


MCCORMICK





REF	PART NO	QTY	DESCRIPTION
			1.2m BELT DRIVE FLAIL HEAD CASING
1	72 90 352	1	Hood L hand
	72 90 333	1	Hood R hand
2	72 90 386	1	Front hood
3	03 11 106	10	Setscrew
4	01 41 006	12	Self locking nut
5	72 90 389	1	Skid - R hand - not illus.
6	72 90 390	1	Skid - L hand
7	93 13 055	6	Setscrew
8	91 43 005	21	Self locking nut
9	72 90 391	2	Wear skid
10	60 12 034	12	Tine bolt
11	01 42 004	12	Self lock nut
12	01 00 104	6	Plain washer
13	72 90 348	1	Rear flap
14	72 90 347	1	Clamp strip
15	93 13 065	6	Setscrew
16	93 13 075	3	Setscrew
17	72 90 343	1	Belt cover
18	72 90 052	1	Seal strip
19	01 00 206	4	Spring washer
20	72 90 042	1	Bearing cover - free end
21	93 13 033	4	Setscrew
22	91 00 203	4	Spring washer
23	72 90 322	1	Bearing housing
24	02 11 186	6	Bolt
25	10 65 077	2	Special washer
26	09 01 121	2	Greaser
27	72 90 056	2	Internal circlip
28	06 00 097	1	Adaptor sleeve assembly
29	06 00 096	1	Bearing - free end
30	72 90 013	1	Bearing adaptor
31	72 90 323	1	Drive hub
32	72 90 017	1	Key
33	72 90 048	1	Seal
34	72 90 061	1	Hood pivot rod
35	72 90 388	1	Hood bracket L hand
36	72 90 387	1	Hood bracket R hand - not illus.





Ref. Part No.	Qty.	Description
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**1.2m BELT DRIVE FLAIL HEAD
CASING - continued**

37	72 90 321	1	Bearing housing - drive end
38	06 00 095	1	Bearing - drive end
39	04 01 255	1	External circlip
40	72 90 049	1	Seal
41	72 90 023	1	Bearing retainer
42	93 43 034	6	Capscrew
43	93 13 045	6	Setscrew
44	72 90 047	2	Drive sprocket
45	72 90 016	1	Taper lock drive bush
46	72 90 046	1	Belt
47	72 90 045	1	Taper lock drive bush
48	72 90 340	1	Motor mounting plate
49	72 90 051	4	Special washer
50	01 00 104	2	Plain washer
51	93 13 117	1	Belt adjuster screw
52	91 13 007	2	Nut
53	13 35 246	1	Serial number plate
54	71 03 230	4	Pop rivet
55	83 01 284	1	Hydraulic motor
56	85 81 256	2	Adaptor
57	86 00 916	2	'O' ring
58	85 81 212	2	Elbow
59	85 81 327	1	Adaptor
60	86 00 908	1	'O' ring
61	85 01 237	2	Hose 1" BSP x 28" long
62	85 01 222	1	Hose 5/8 BSP x 34" long
63	91 00 205	6	Spring washer

72 90 375

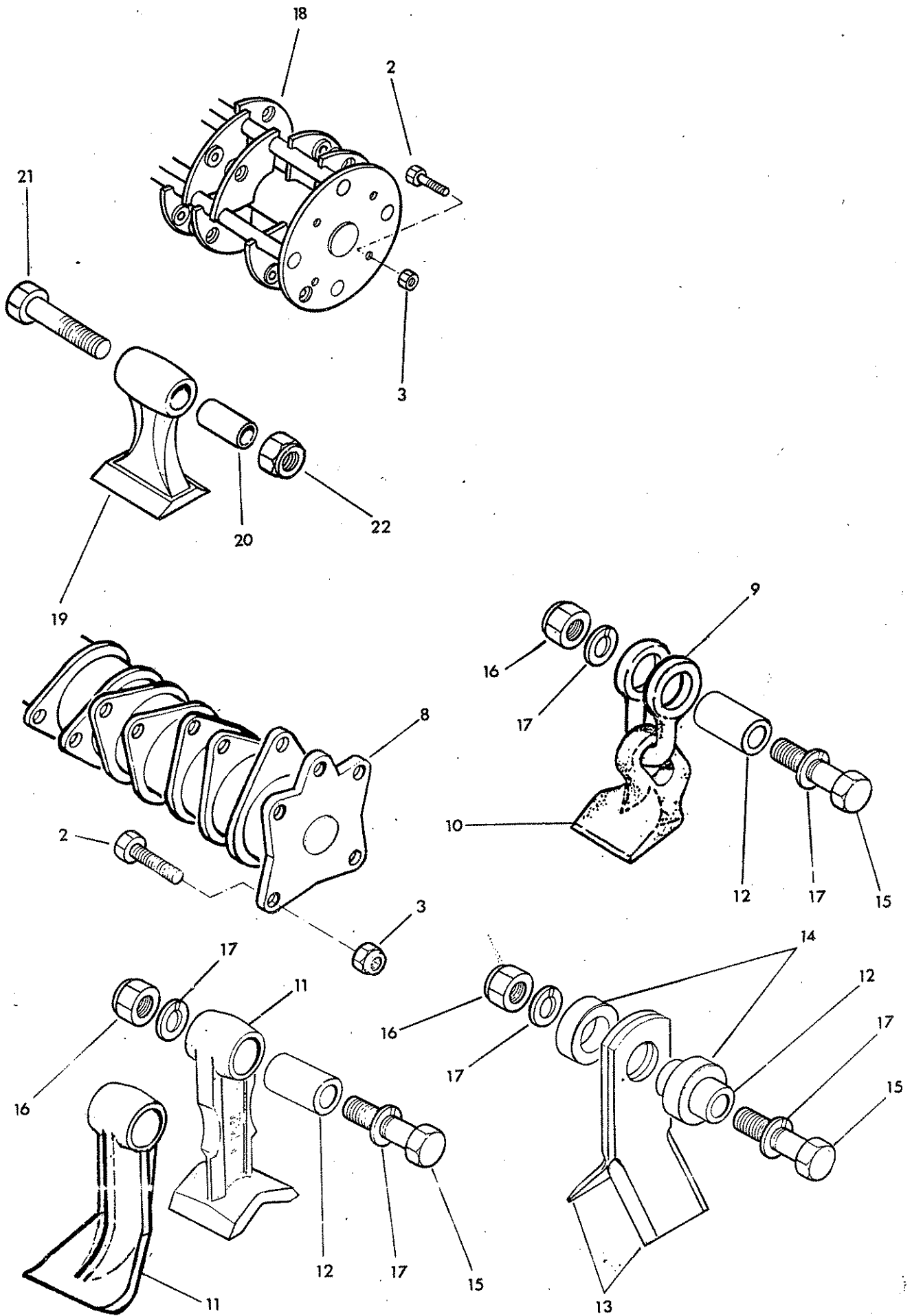
FRONT FLAP KIT

64	72 90 053	8	Front flap
65	71 90 304	1	Clamp strip
66	92 93 054	16	Dome headed coach bolt
67	91 43 005	16	Self locking nut

ROTOR & FLAIL OPTIONS



McDONEL





Ref	Part No	Qty	Description
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ROTORS AND FLAILS

2	03 11 146	4	Setscrew
3	01 41 006	4	Self locking nut

100mm DIA ROTOR

8	71 90 370	1	Rotor (24 flail stations)
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FLAIL OPTIONS FOR 100mm DIA ROTORS - Quantities show are per flail station.

9	71 90 106	1	Shackle
10	71 90 462	1	Flail
11	73 14 366	1	Flail F10H
	73 90 276	1	Flail - alternative single edged
12	73 14 223	1	Pivot bush
13	71 90 315	2	Flail
14	71 90 010	2	Flail spacer
15	73 14 201	1	Special bolt
16	01 41 006	1	Self locking nut
17	01 00 206	2	Spring washer

OMEGA ROTOR SUITABLE FOR 1.2 METRE FLAIL HEADS

18	71 90 465	1	Rotor (20 flail stations)
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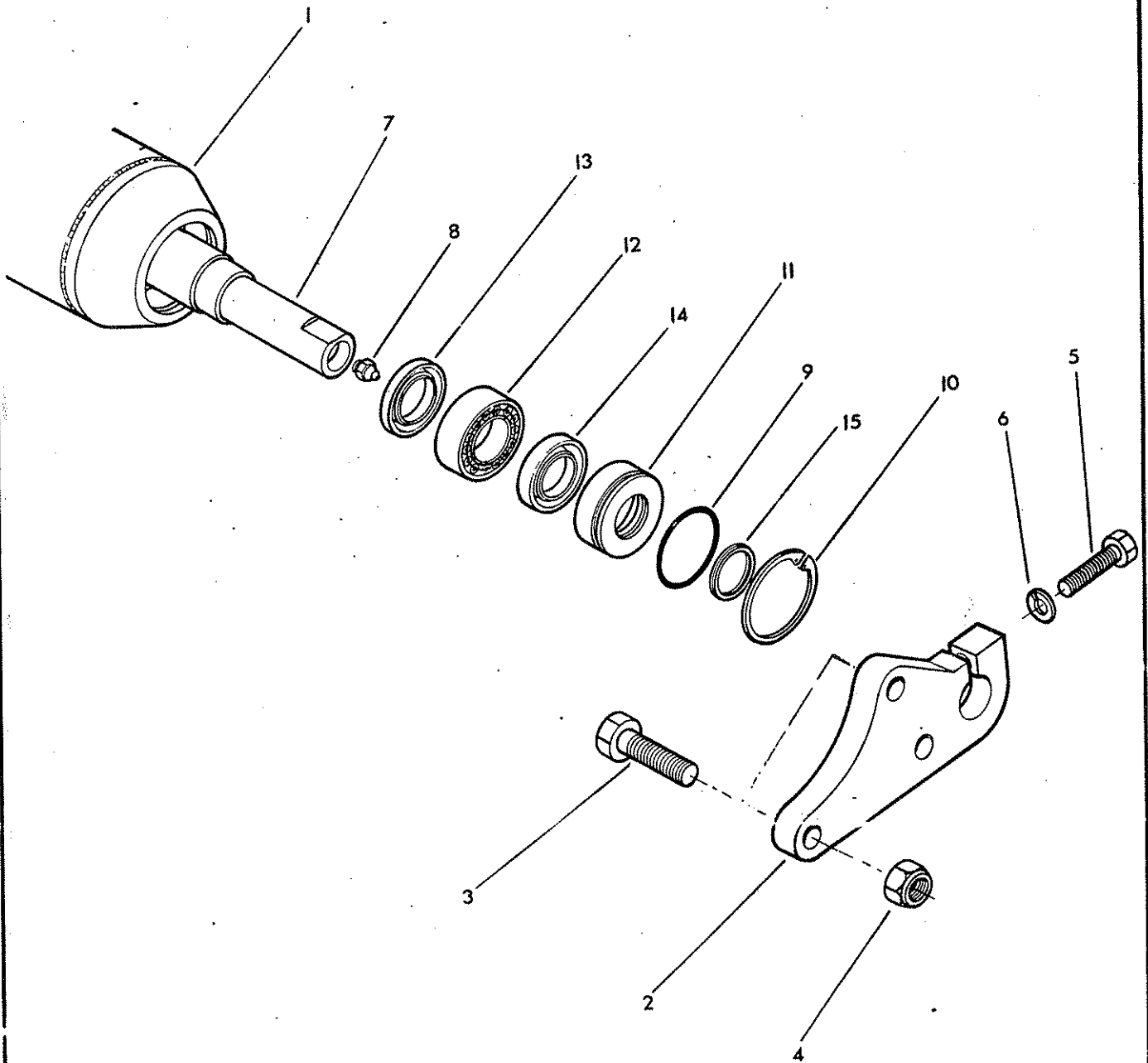
**FLAIL FOR OMEGA ROTOR
Quantities are per flail station**

19	71 90 464	1	Flail
20	71 90 117	1	Bush
21	71 90 118	1	Special bolt
22	01 41 006	1	Self locking nut

ROLLER



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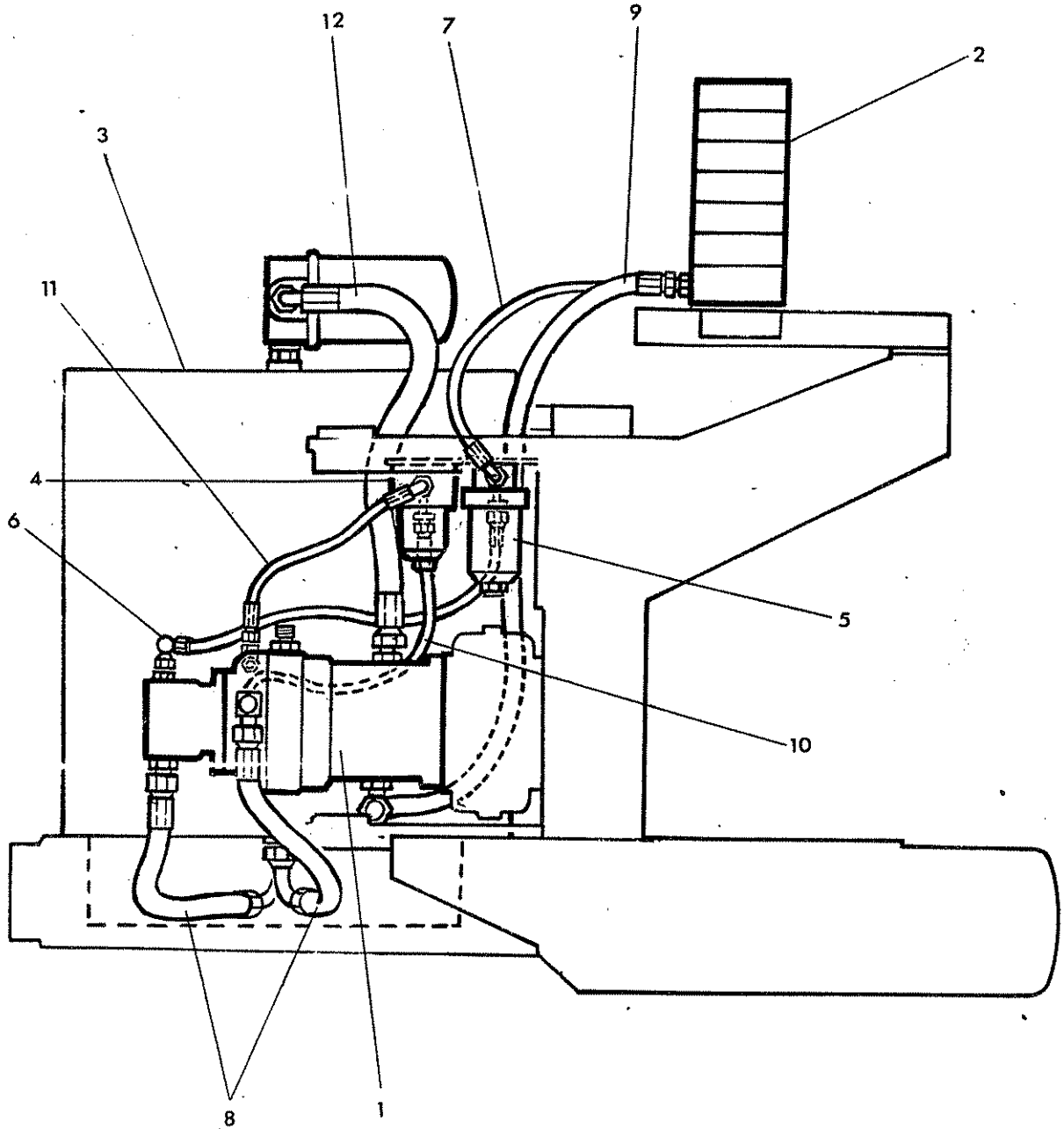


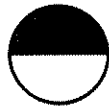
Ref	Part No	Qty	Description
ROLLER ASSEMBLY			
1	73 90 282	1	Roller
2	72 90 328	2	Mounting bracket
3	02 11 166	4	Bolt
4	01 41 006	4	Self locking nut
5	02 11 185	2	Bolt
6	01 00 205	2	Spring washer
7	73 90 279	1	Axle
8	09 01 121	2	Greaser
9	86 00 422	2	'O' ring
10	04 11 262	2	Internal circlip
11	73 90 011	2	Seal carrier
12	06 00 099	2	Bearing
13	86 29 181	2	Seal
14	86 29 125	2	Seal
15	04 12 120	2	Spring ring

**HOSE INSTALLATION -
Primary circuits - all models**



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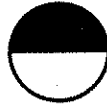
REF. PART NO.

QTY DESCRIPTION

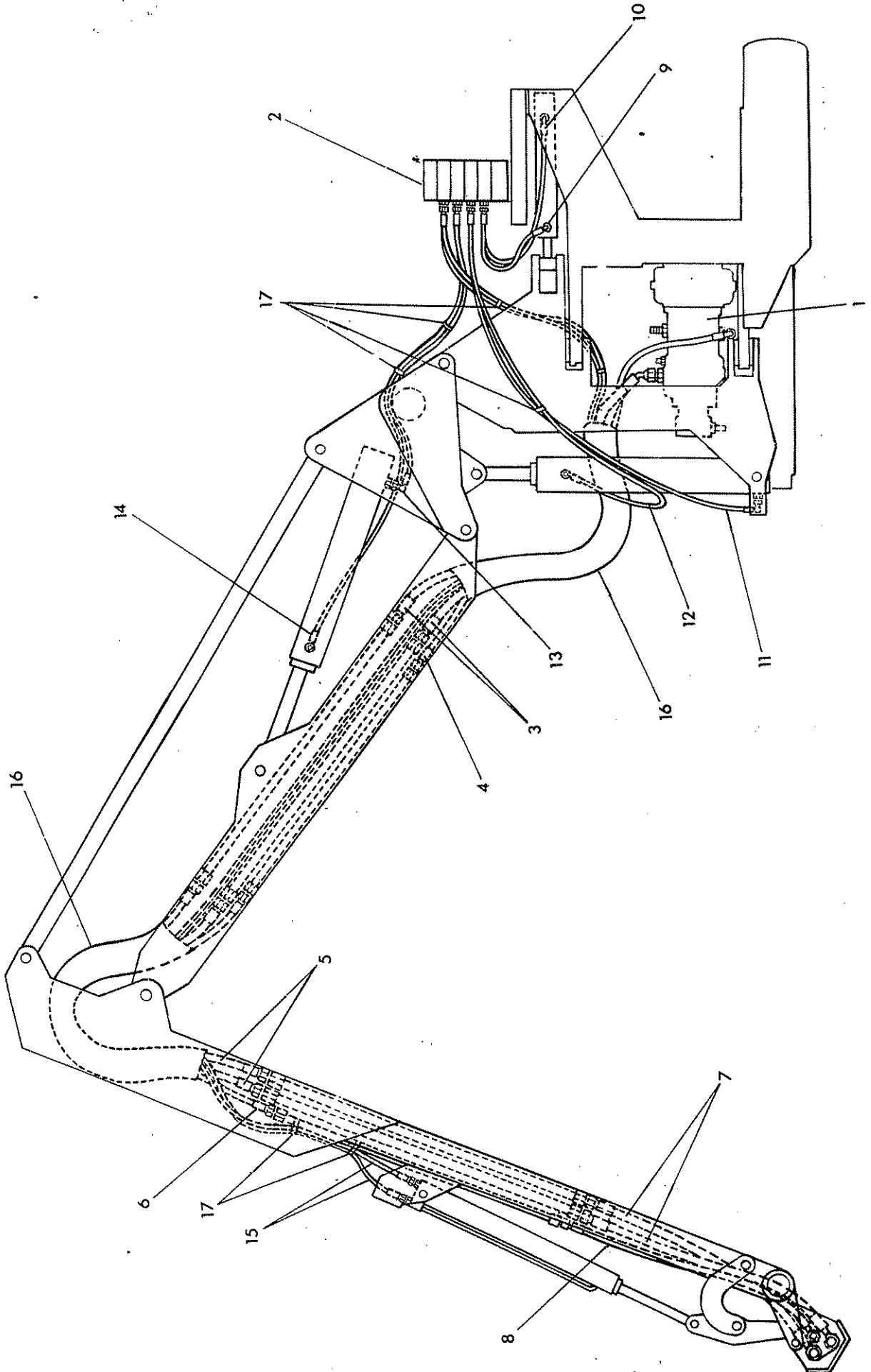
HOSE INSTALLATION FOR PRIMARY
CIRCUITS - ALL MODELS

1			Pump
2			Control valve
3			Hydraulic tank
4			Charge filter
5			Pressure filter
6	85 33 144	1	Hose 1/2 BSP x 22" long pump- press. filter
7	85 33 124	1	Hose 1/2 BSP x 29" long press. filter valve
8	85 01 169	2	Hose 1" BSP x 29" long suction
9	10.010.23	1	Hose 3/4 BSP x 1300mm long valve-pump
10	85 33 134	1	Hose charge filter supply 1/2 BSP x 19" long
11	85 30 043	1	Hose charge filter return 3/8 BSP x 15" long
12	85 01 098	1	Hose 1" BSP x 48" long return to tank

HOSE INSTALLATION -
Service circuits - 2050 STD



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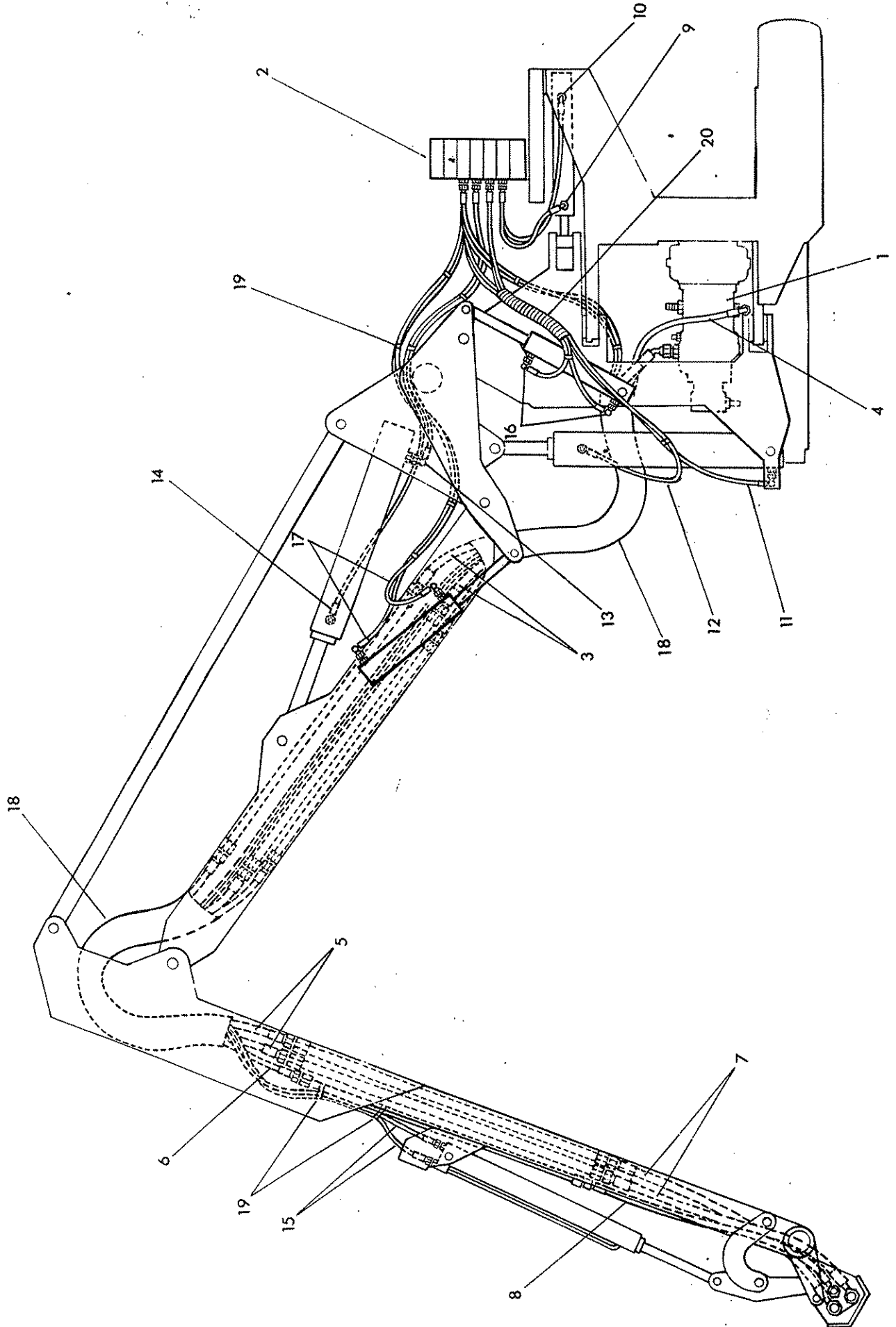


REF	PART NO	QTY	DESCRIPTION
			2050 STD HOSE INSTALLATION FOR SERVICE CIRCUITS
1			Pump
2			Control box
3	85 01 224	2	Hose pump to pipes 1"BSPx65"long
4	85 01 221	1	Hose pump to pipes 5/8 BSPx75"long
5	85 01 225	2	Hose dipper pivot 1"BSPx43"long
6	85 01 220	1	Hose dipper pivot 5/8 BSPx46"long
7	85 01 226	2	Hose dipper pipes to pivot 1" BSP x 34" long
8	85 01 222	1	Hose dipper pipes to pivot 5/8 BSP x 34" long
9	85 35 092	1	Hose slew gland 1/4 BSPx22"long
10	85 36 082	1	Hose slew base 1/4 BSPx29"long
11	85 35 072	1	Hose lift base 1/4 BSPx60"long
12	85 35 022	1	Hose lift gland 1/4 BSPx48"long
13	85 35 192	1	Hose reach base 1/4 BSPx44"long
14	85 35 112	1	Hose reach gland 1/4 BSPx66"long
15	85 15 182	2	Hose angle 1/4 BSPx200"long
16	75 50 025	2	Sleeve 53" long
17	71 35 084	10	Hose tie

HOSE INSTALLATION -
Service circuits -2050 AHC



McCONNEL



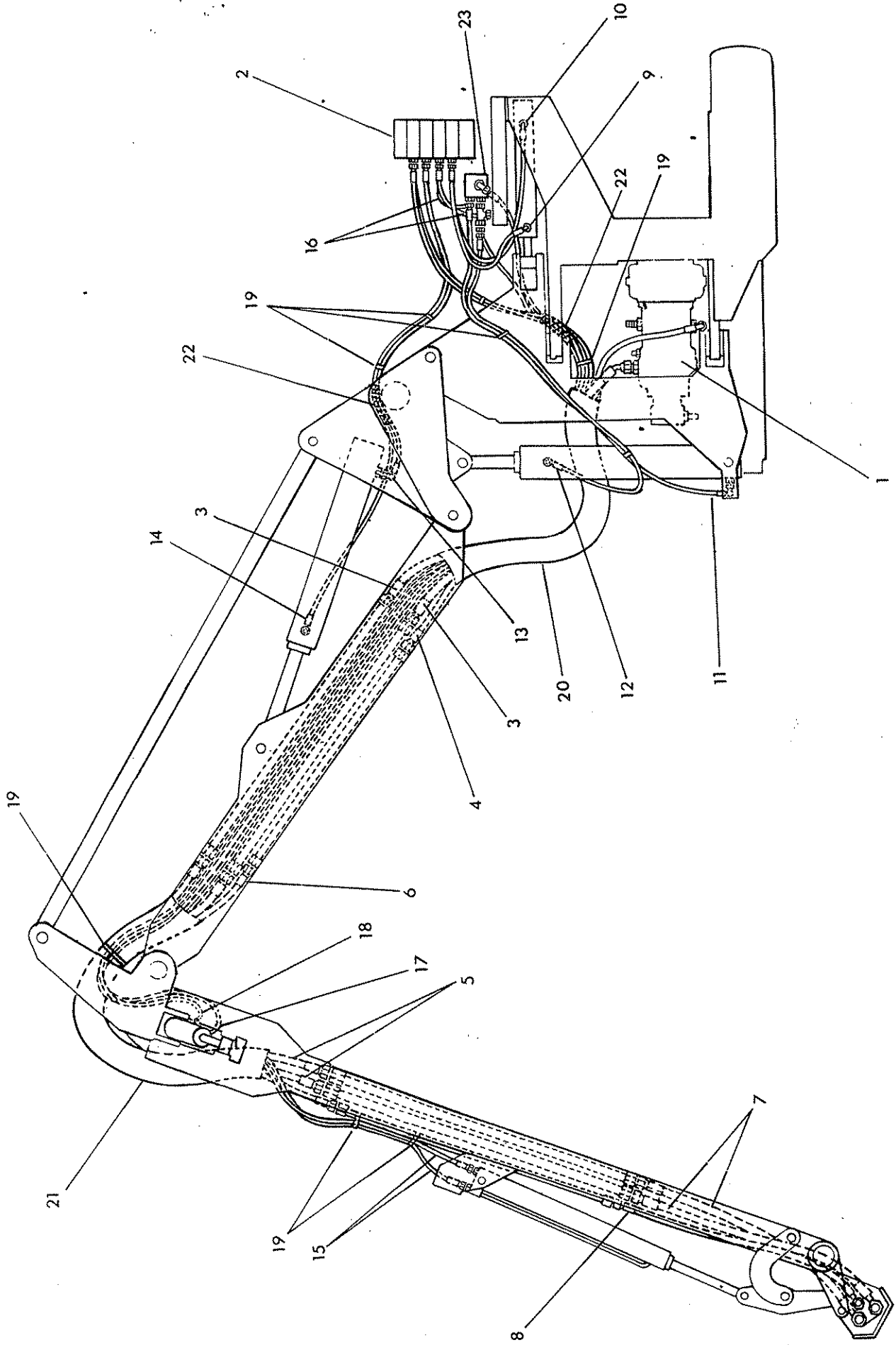


REF	PART NO	QTY	DESCRIPTION
			2050 STD - AHC HOSE INSTALLATION FOR SERVICE CIRCUITS
1			Pump
2			Control valve
3	85 01 224	2	Hose pump to pipes 1 BSPx65"long
4	85 01 221	1	Hose pump to pipes 5/8 BSPx75"long
5	85 01 225	2	Hose dipper pivot 1 BSPx43" long
6	85 01 220	1	Hose dipper pivot 5/8 BSPx46"long
7	85 01 226	2	Hose dipper pipes to pivot 1 BSP x 34"long
8	85 01 222	1	Hose dipper pipes to pivot 5/8 BSP x 34" long
9	85 35 092	1	Hose slew gland 1/4 BSPx22"long
10	85 36 082	1	Hose slew base 1/4 BSPx29"long
11	85 35 072	1	Hose lift base 1/4 BSPx60"long
12	85 35 022	1	Hose lift gland 1/4 BSPx48"long
13	85 35 192	1	Hose reach base 1/4 BSPx44"long
14	85 35 112	1	Hose reach gland 1/4 BSPx66"long
15	85 15 182	2	Hose angle 1/4 BSPx 200"long
16	85 35 162	2	Hose lift compensator 1/4 BSP x 36" long
17	85 35 112	2	Hose reach compensator 1/4 BSP x 66" long
18	75 50 025	2	Sleeve 53" long
19	71 35 084	12	Hose tie
20	71 96 046	1	Hose armour

HOSE INSTALLATION -
Service circuits - 2050 MID CUT



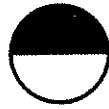
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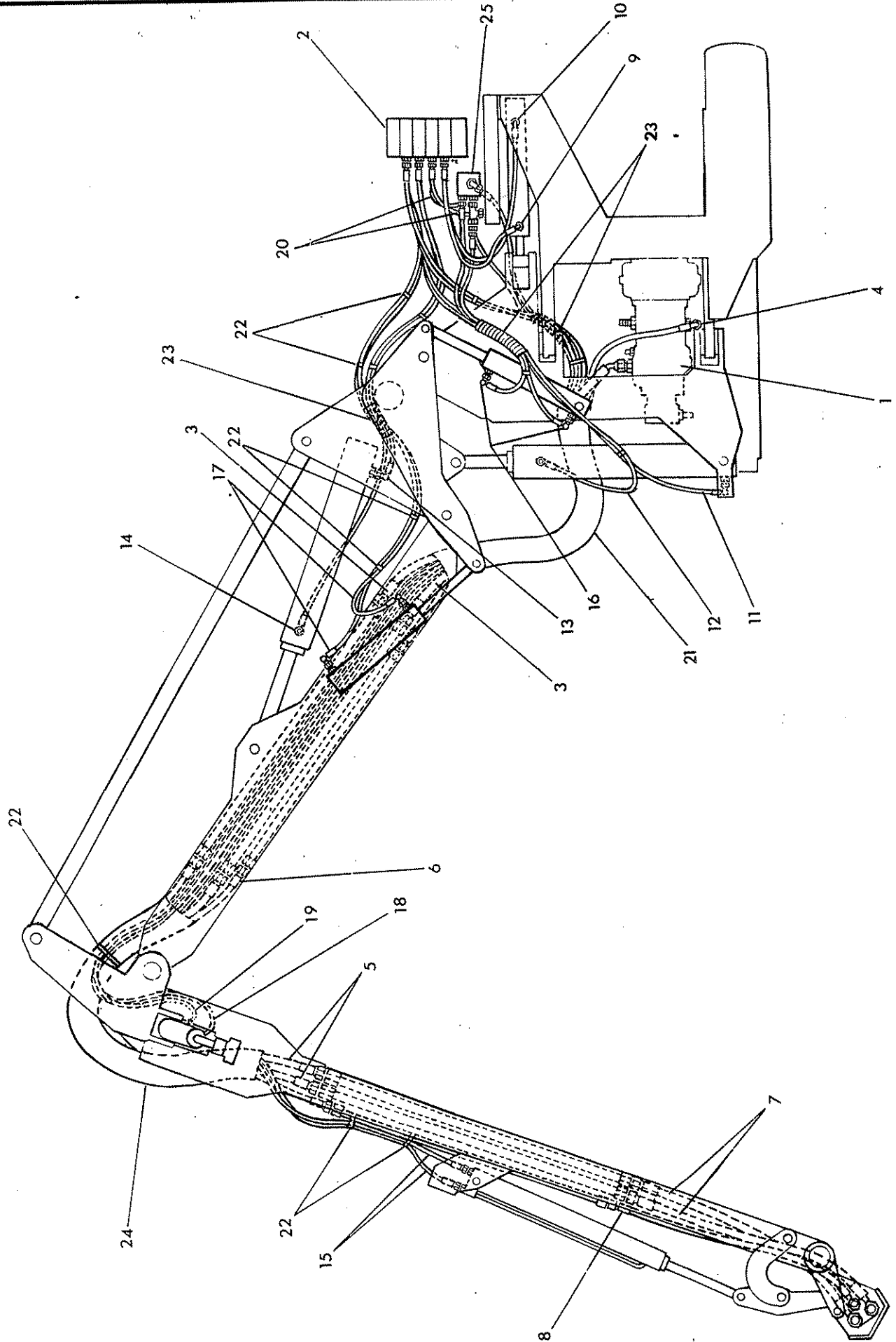


REF	PART NO	QTY	DESCRIPTION
			2050 M HOSE INSTALLATION FOR SERVICE CIRCUITS
1			Pump
2			Control box
3	85 01 224	2	Hose pump to pipes 1"BSPx65"long
4	85 01 221	1	Hose pump to pipes 5/8 BSPx75"long
5	85 01 240	2	Hose dipper pivot 1"BSPx71"long
6	85 01 241	1	Hose dipper pivot 5/8 BSPx73"long
7	85 01 226	2	Hose dipper pipes to pivot 1" BSP x 34" long
8	85 01 222	1	Hose dipper pipes to pivot 5/8 BSP x 34" long
9	85 35 092	1	Hose slew gland 1/4 BSPx22"long
10	85 36 082	1	Hose slew base 1/4 BSPx29"long
11	85 35 072	1	Hose lift base 1/4 BSPx60"long
12	85 35 022	1	Hose lift gland 1/4 BSPx48"long
13	85 35 192	1	Hose reach base 1/4 BSPx44"long
14	85 35 112	1	Hose reach gland 1/4 BSPx66"long
15	85 15 022	2	Hose angle 1/4 BSPx224"long
16	85 15 032	2	Hose lift pilot&check.1/4BSPX16"lg
17	85 45 092	1	Hose breakaway gland 163" long
18	85 35 122	1	Hose breakaway base 142" long
19	71 35 084	10	Hose tie
20	75 50 025	1	Sleeve 53" long
21	75 50 026	1	Sleeve 66" long
22	71 35 090	3	Hose armour
23		1	Park/work valve

HOSE INSTALLATION -
Service circuits - 2050 M-AHC



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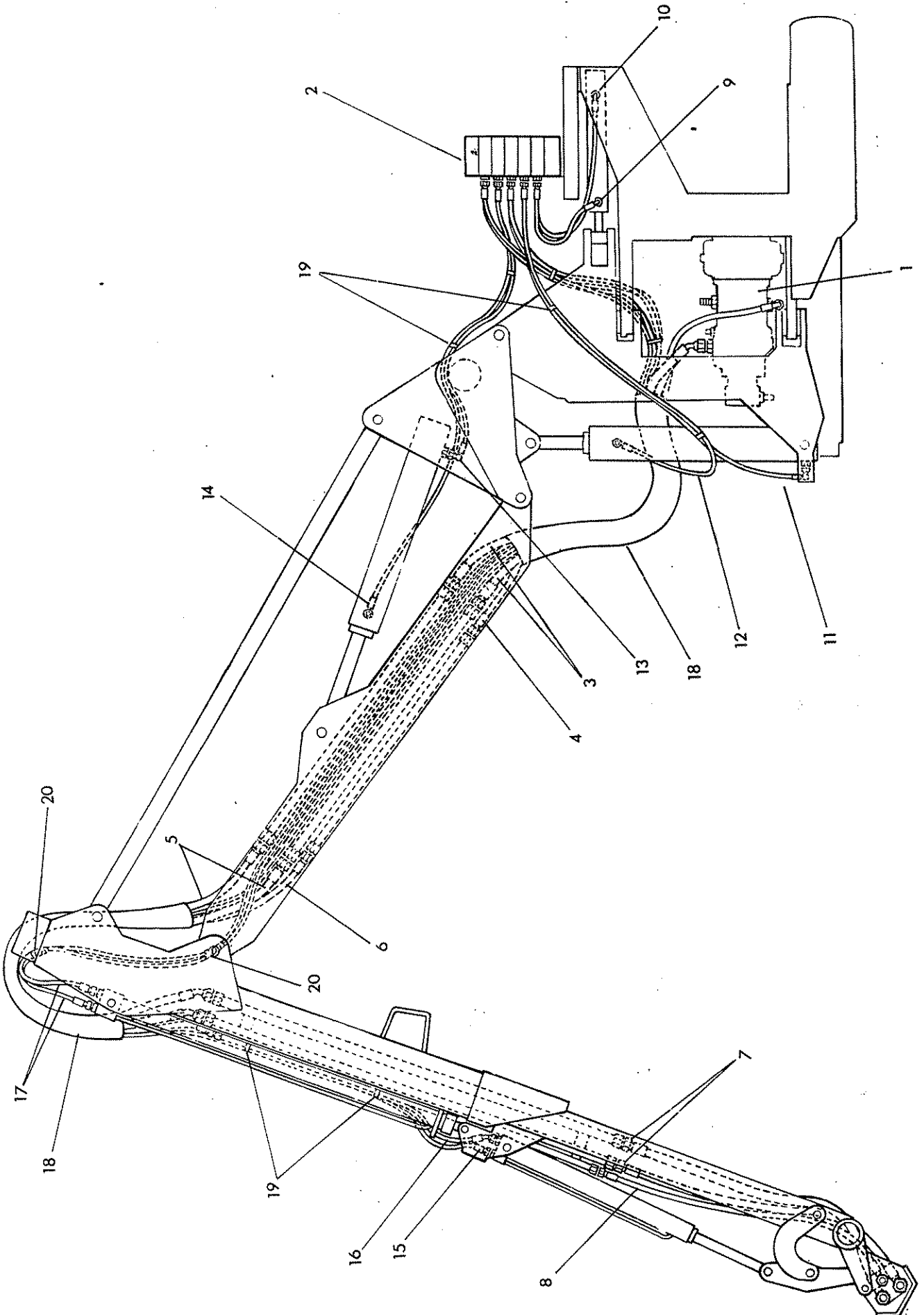


REF	PART NO	QTY	DESCRIPTION
			2050 MID CUT AHC HOSE INSTALLATION FOR SERVICE CIRCUITS
1			Pump
2			Control valve
3	85 01 224	2	Hose pump to pipes 1 BSPx65"long
4	85 01 221	1	Hose pump to pipes 5/8 BSPx75"long
5	85 01 240	2	Hose dipper pivot 1 BSPx71" long
6	85 01 241	1	Hose dipper pivot 5/8 BSPx73"long
7	85 01 226	2	Hose dipper pipes to pivot 1 BSP x 34"long
8	85 01 222	1	Hose dipper pipes to pivot 5/8 BSP x 34" long
9	85 35 092	1	Hose slew gland 1/4 BSPx22"long
10	85 36 082	1	Hose slew base 1/4 BSPx29"long
11	85 35 072	1	Hose lift base 1/4 BSPx60"long
12	85 35 022	1	Hose lift gland 1/4 BSPx48"long
13	85 35 192	1	Hose reach base 1/4 BSPx44"long
14	85 35 112	1	Hose reach gland 1/4 BSPx66"long
15	85 15 022	2	Hose angle 1/4 BSPx 224"long
16	85 35 162	2	Hose lift compensator 1/4 BSP x 36" long
17	85 35 112	2	Hose reach compensator 1.4 BSP x 66" long
18	85 45 092	1	Hose breakaway gland 1/4 BSP x 163" long
19	85 35 122	1	Hose breakaway base 1/4 BSP x 142" long
20	85 15 032	2	Hose lift check & pilot 1/4 BSPx 16" long
21	75 50 026	1	Sleeve 53" long
22	71 35 084	12	Hose tie
23	71 96 046	2	Hose armour
24	75 50 026	1	Sleeve 66" long
25		1	Park/work valve

HOSE INSTALLATION -
Service circuits - 2050 TELE



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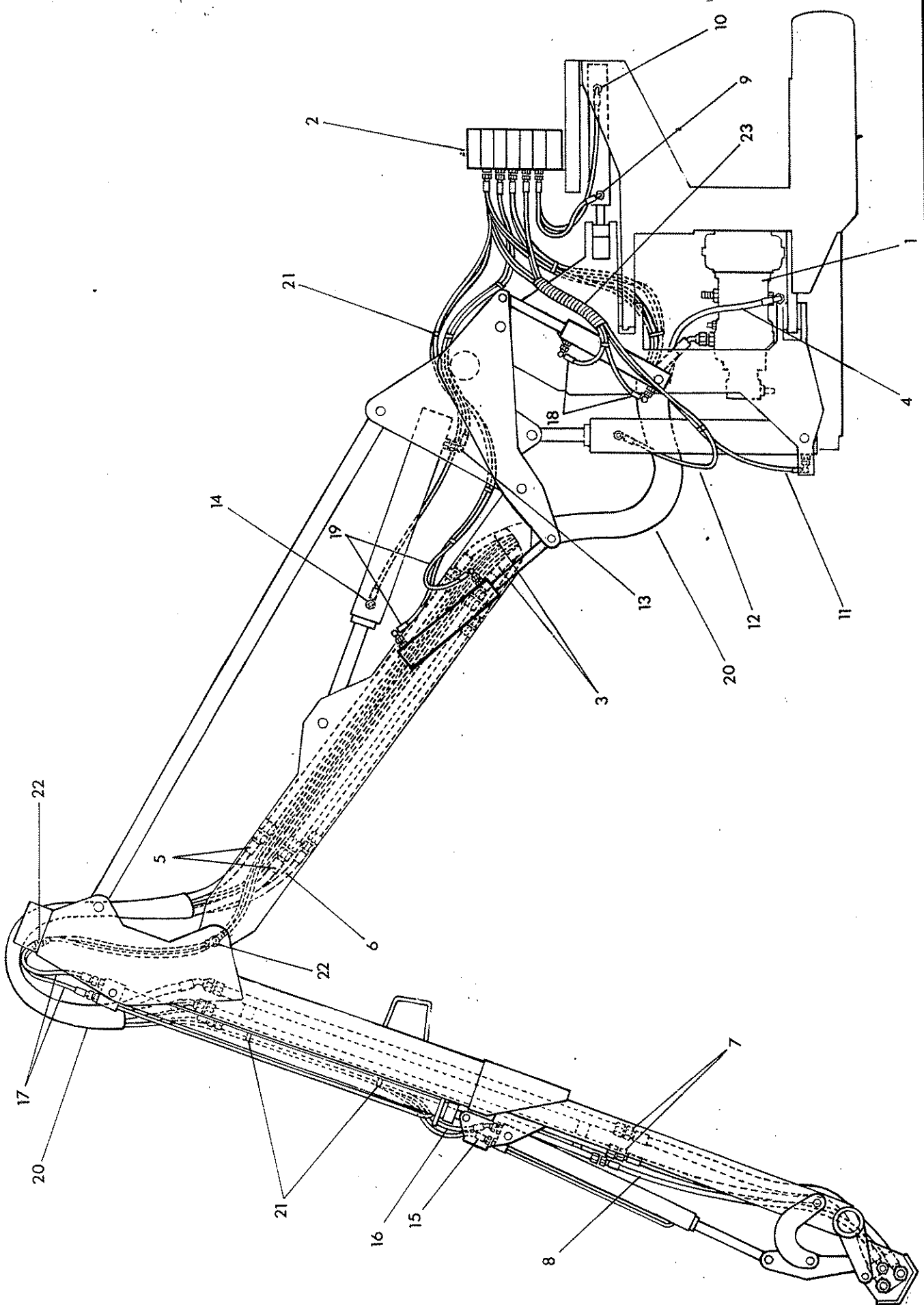


REF	PART NO	QTY	DESCRIPTION
			2050 TELE - HOSE INSTALLATION FOR SERVICE CIRCUITS
1			Pump
2			Control valve
3	85 01 224	2	Hose pump to pipes 1 BSPx65"long
4	85 01 221	1	Hose pump to pipes 5/8 BSPx75"long
5	85 01 224	2	Hose dipper pivot 1 BSPx65"long
6	85 01 229	1	Hose dipper pivot 5/8 BSPx73"long
7	85 01 226	2	Hose dipper pipes to pivot 1 BSP x 34"long
8	85 01 222	1	Hose dipper pipes to pivot 5/8 BSP x34"long
9	85 35 092	1	Hose slew gland 1/4 BSPx22"long
10	85 36 082	1	Hose slew base 1/4 BSPx29"long
11	85 35 072	1	Hose lift base 1/4 BSPx60"long
12	85 35 022	1	Hose lift gland 1/4 BSPx48"long
13	85 35 192	1	Hose reach base 1/4 BSPx44"long
14	85 35 112	1	Hose reach gland 1/4 BSPx66"long
15	85 15 022	1	Hose angle gland 1/4 BSPx224"long
16	85 45 012	1	Hose angle base 1/4 BSPx224"long
17	85 15 072	2	Hose tele 1/4 BSPx174"long
18	75 50 026	2	Sleeve 88"long
19	71 35 084	10	Hose tie
20	71 35 090	1	Hose armour

HOSE INSTALLATION -
Service circuits - 2050 T AHC



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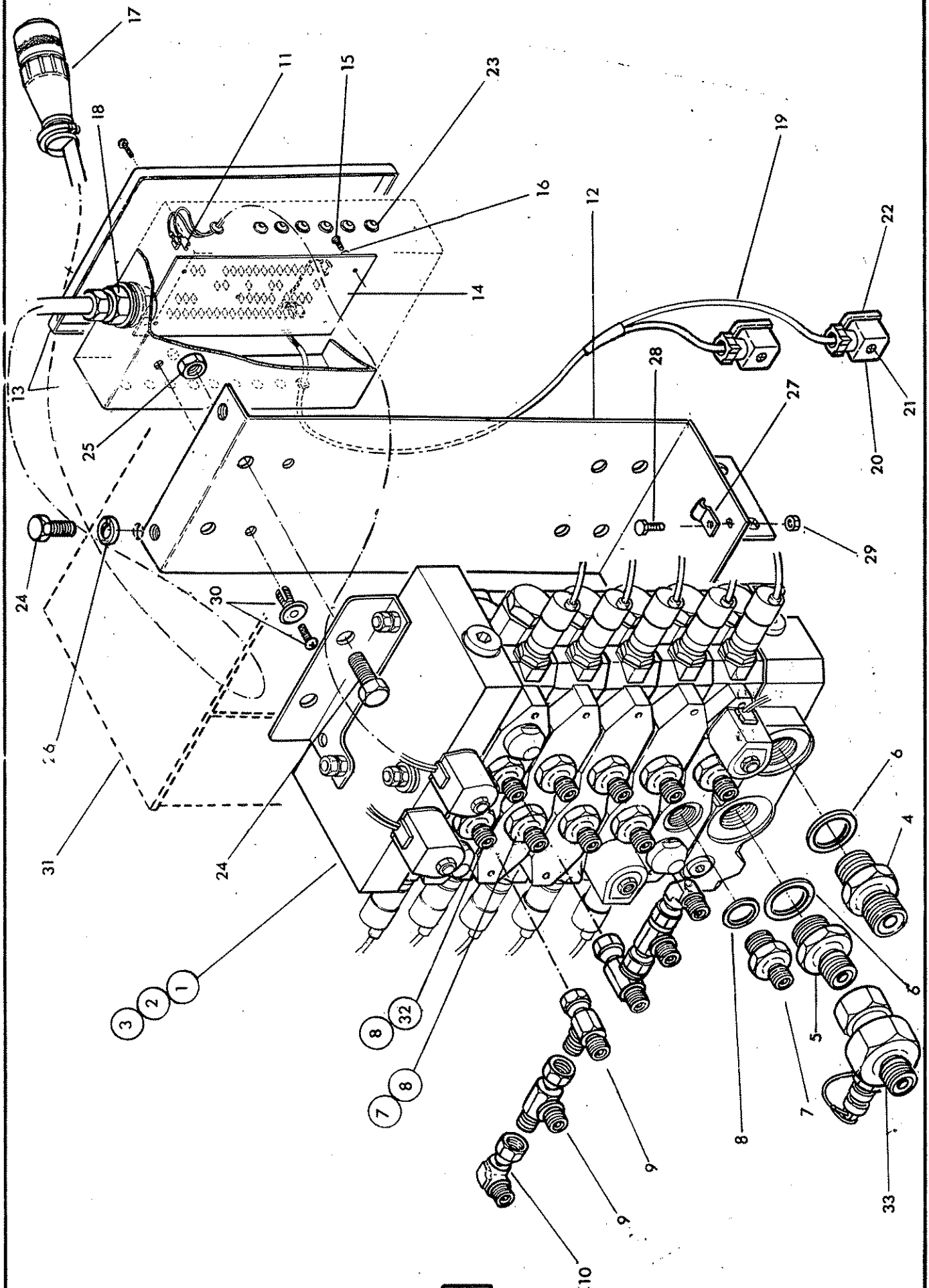


REF	PART NO	QTY	DESCRIPTION
			2050 TELE -AHC HOSE INSTALLATION FOR SERVICE CIRCUITS
1			Pump
2			Control box
3	85 01 224	2	Hose pump to pipes 1 BSP x 65"long
4	85 01 221	1	Hose pump to pipes 5/8 BSP x75"long
5	85 01 224	2	Hose dipper pivot 1 BSPx65"long
6	85 01 229	1	Hose dipper pivot 5/8 BSPx73"long
7	85 01 226	2	Hose dipper pipes to pivot 1 BSPx34"long
8	85 01 222	1	Hose dipper pipes to pivot 5/8 BSPx34"long
9	85 35 092	1	Hose slew gland 1/4 BSPx22"long
10	85 36 082	1	Hose slew base 1/4 BSPx29"long
11	85 35 072	1	Hose lift base 1/4 BSPx60"long
12	85 35 022	1	Hose lift gland 1/4 BSPx48"long
13	85 35 192	1	Hose reach base 1/4 BSPx44"long
14	85 35 112	1	Hose reach gland 1/4 BSPx66"long
15	85 15 022	1	Hose angle gland 1/4 BSPx224"long
16	85 45 012	1	Hose angle base 1/4 BSPx224"long
17	85 15 072	2	Hose tele 1/4 BSPx174"long
18	85 35 162	2	Hose lift compensator 1/4 BSP x 36"long
19	85 35 112	2	Hose reach compensator 1/4 BSP x 66"long
20	75 50 026	2	Sleeve 66 " long
21	71 35 084	12	Hose tie
22	71 35 090	2	Hose armour
23	71 96 046	1	Hose armour

MAIN VALVE AND FITTINGS



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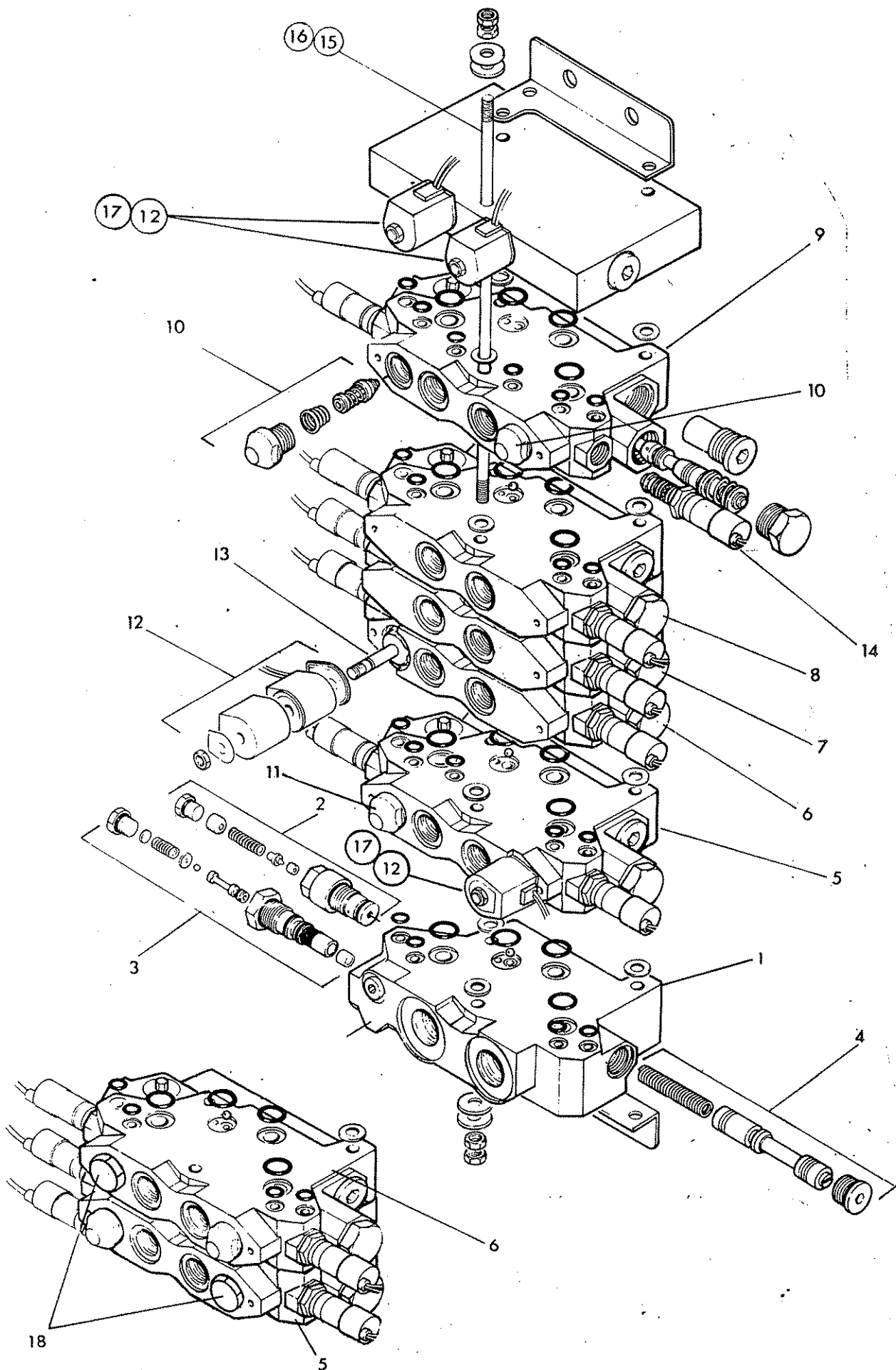
REF.	PART NO.	QTY	DESCRIPTION
PROPORTIONAL CONTROL VALVE AND FITTINGS			
1	81 33 261	1	Control valve - 2050
2	81 33 263	1	Control valve - 2050M
3	81 33 262	1	Control valve - 2050T illust.
4	85 81 136	1	Adaptor
5	85 81 130	1	Adaptor
6	86 50 106	2	Bonded seal
7*	85 81 172	7	Adaptor
8*	86 50 104	8	Bonded seal
9	85 81 254	4	'Tee' AHC
10	85 81 190	2	Elbow only
11 ^o	75 60 098	25	Female connector
12	75 50 295	1	Valve mounting bracket
13	84 02 329	1	Junction box incl. circuit board cables etc.
14	84 02 186	1	Circuit board
15	92 00 007	4	Screw-positdrive pan head
16	91 00 400	4	External serrated washer
17	84 02 187	1	Main power cable with plug and connectors
18	84 02 029	1	Cable gland
19	84 02 166	1	Pump power cable with connectors
20	07.835.04	1	Plug incl. screw+gasket
21	07.835.03	1	Screw
22	07.835.02	1	Gasket
23	75.50 050	16	Grommet
24	93 13 045	6	Setscrew M10 x 20
25	91 43 005	4	Self locking nut
26	91 00 405	2	Shakeproof washer
27	71 09 151	1	Cable clamp
28	93 13 034	1	Setscrew
29	91 43 004	1	Self locking nut
30	75 50 051	1	Fastener
31	75 50 296	1	Valve cover
32	81 24 097	1	Restrictor union
33	81 31 009	1	Test point union

SPARES NOTE: * FOR TELE MACHINES QUANTITY IS 10 OFF
^o FOR TELE MACHINES QUANTITY IS 29 OFF

CONTROL VALVE ASSEMBLY



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REF	PART NO.	QTY	DESCRIPTION
			PROPORTIONAL CONTROL VALVE 2050 STD/2050 TELE
1	81 33 001	1	Inlet/outlet section block
2	81 33 002	1	Main relief valve
3	81 33 003	1	Pilot valve
4	81 33 004	1	Compensator
5*	81 33 006	1	Slew section
6*	81 33 008	1	Lift section
7	81 33 010	1	Telescopic section (if fitted)
8	81 33 012	1	Reach section
9	81 33 014	1	Angle section
10	81 33 019	2	Service relief valve 140 bar angle section
11	81 33 020	1	Service relief valve 175 bar slew.
12*	81 33 018	4	Coil
13*	81 33 027	1	Solenoid valve
14	81 33 016	10	Pulsar
15	81 33 022	1	Tie rod kit - 2050 / 2050M
16	81 33 023	1	Tie rod kit - 2050 TELE
17*	81 33 017	3	Solenoid valve

86 99 240
86 99 241

VALVE SECTION SERVICE KIT
VALVE SEAL KIT

**PROPORTIONAL CONTROL VALVE -
2050 MID CUT**

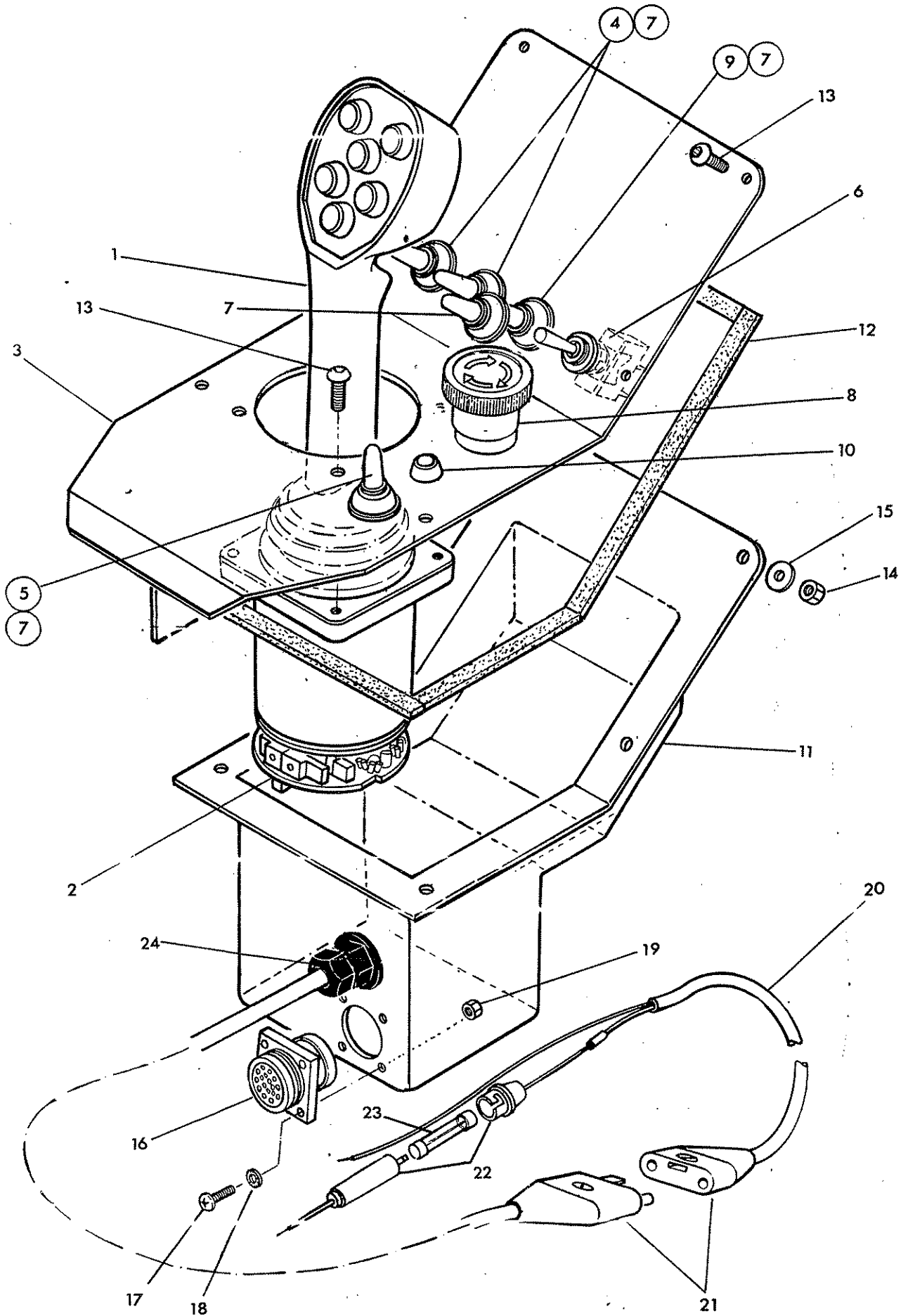
Spare parts for the **2050M** are as above with the following exceptions:

5	81 33 025	1	Slew section
6	81 33 026	1	Lift section
12*	becomes quantity 2 off		
13*	is deleted		
17*	becomes quantity 2 off		
18	81 33 024	2	Cavity plug

CONTROL UNIT



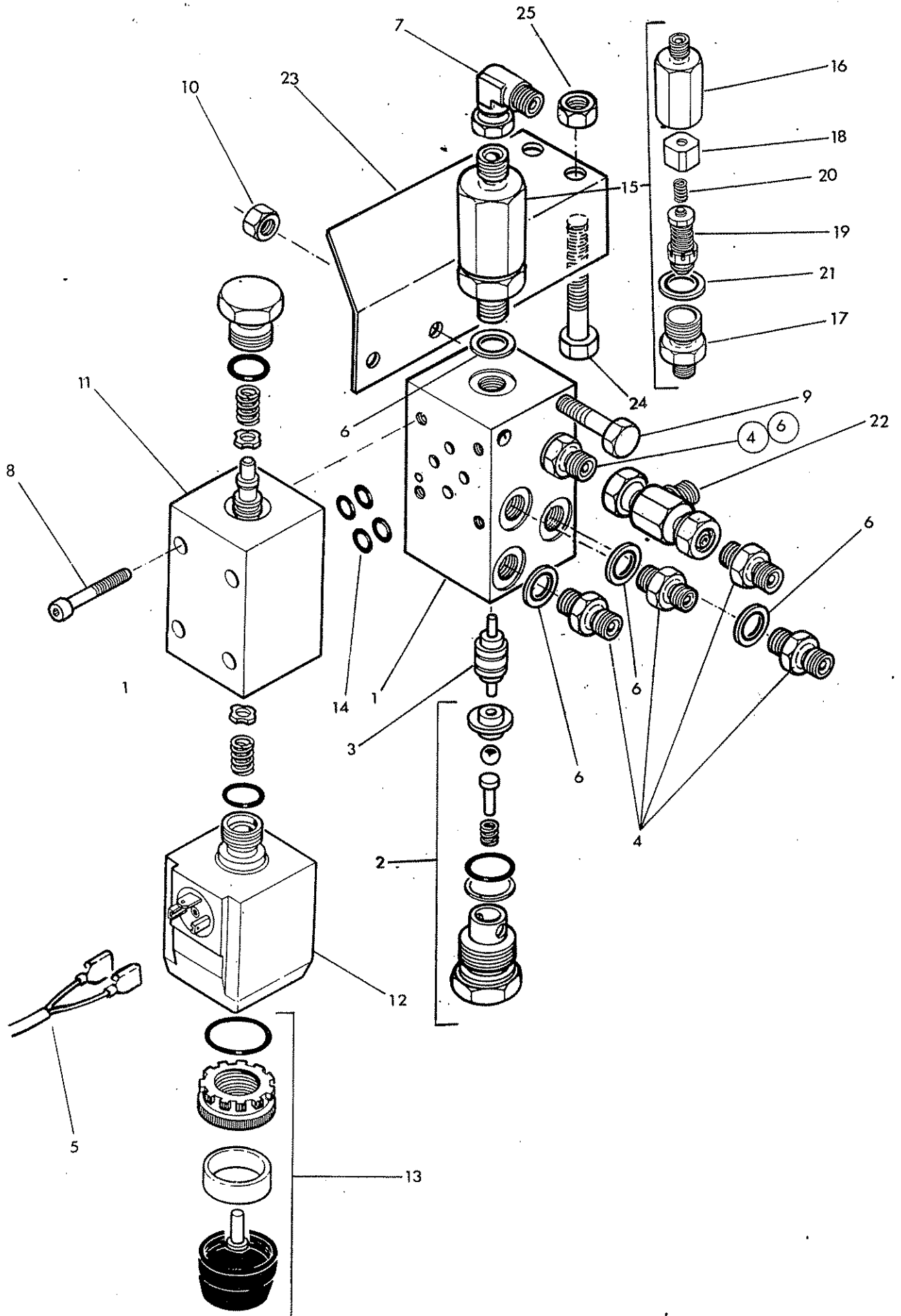
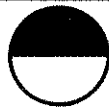
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REF.	PART NO.	QTY	DESCRIPTION
	84 02 327		CONTROL ASSEMBLY - 2050 STD/ TELE
1	81 33 252	1	Joystick incl: circuit board - 5 service
2	84 02 171	1	Circuit board
3	75 50 339	1	Top plate
4	84 02 023	2	Switch - lift, float & angle float
5	84 01 173	1	Switch - pump power/reset
6	84 02 182	1	Switch - slew/auto reset
7	84 02 024	5	Weathercover
8	84 02 184	1	Emergency stop plunger
9	84 02 185	1	Switch - Rotor direction and on/off
10	84 02 174	1	L.E.D. - main power on
11	75 50 300	1	Cover pod
12	72 90 052	1	Sealing strip - cut to suit
13	93 00 125	10	Screw button head
14	91 43 003	6	Self locking nut
15	91 00 103	6	Washer
16	84 02 172	1	Socket and wires
17	92 00 007	4	Screw posidrive pan head
18	91 00 400	4	Ext. serrated washer
19	91 00 013	4	Nut - plated
20	84 02 284	1	Power supply harness incl. plug & fuse
21	84 02 062	1	Plug/socket
22	84 02 114	1	Fuse holder
23	84 02 037	1	Fuse - 10amp
24	84 02 042	1	Gland
	84 02 328		CONTROL ASSEMBLY 2050 MID CUT

The control assemblies are not interchangeable due to circuitry variations. Available spares are identical to above.



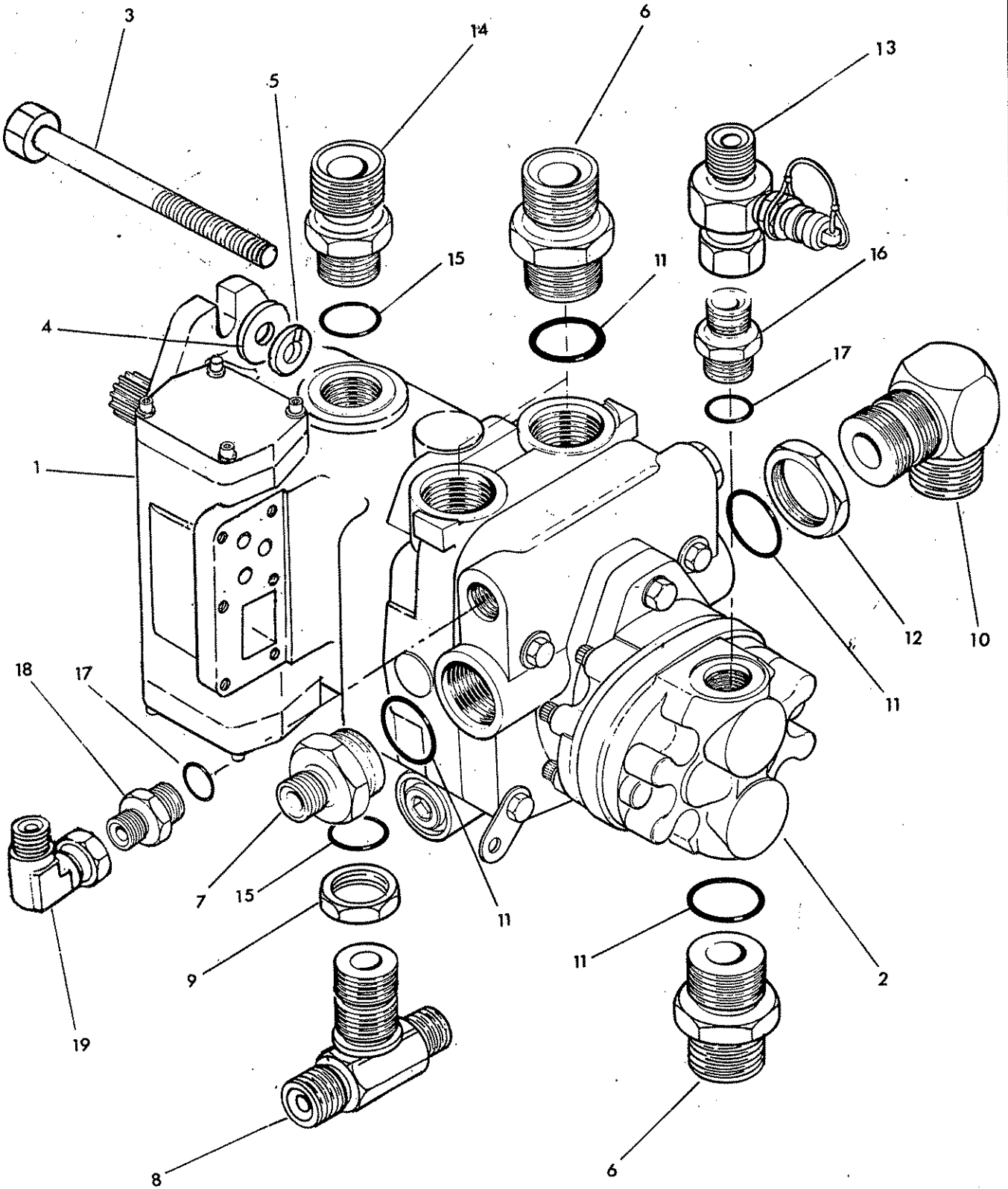


REF	PART NO.	QTY	DESCRIPTION
PARK/WORK VALVE ASSEMBLY - 2050 MID CUT			
1	81 32 265	1	Valve block
2	81 30 090	1	Check valve assembly
3	81 30 087	1	Actuator
4	85 81 169	5	Union
5	84 02 059	1	Wiring harness
6	86 50 102	5	Bonded seal
7	85 81 190	1	Swivel elbow
8	92 43 062	4	Capscrew socket headed
9	92 13 143	2	Bolt
10	91 43 003	2	Self locking nut
11	81 30 458	1	Single solenoid valve assy. incl:
12	81 30 175	1	Coil
13	81 30 176	1	Manual override kit
14	87 00 511	4	'O' ring
15	81 30 172	1	Relief valve assembly compr:-
16	81 30 173	1	Relief valve housing
17	81 30 083	1	Relief valve plug
18	81 30 174	1	Support plug
19	81 30 141	1	Relief valve code 05
20	81 16 011	1	Spring
21	86 50 104	1	Bonded washer
22	85 81 289	1	Tee
23	75 50 055	1	Mounting bracket
24	92 13 205	2	Bolt
25	91 43 005	2	Self locking nut
	86 99 224		SOLENOID SEAL KIT

PUMP



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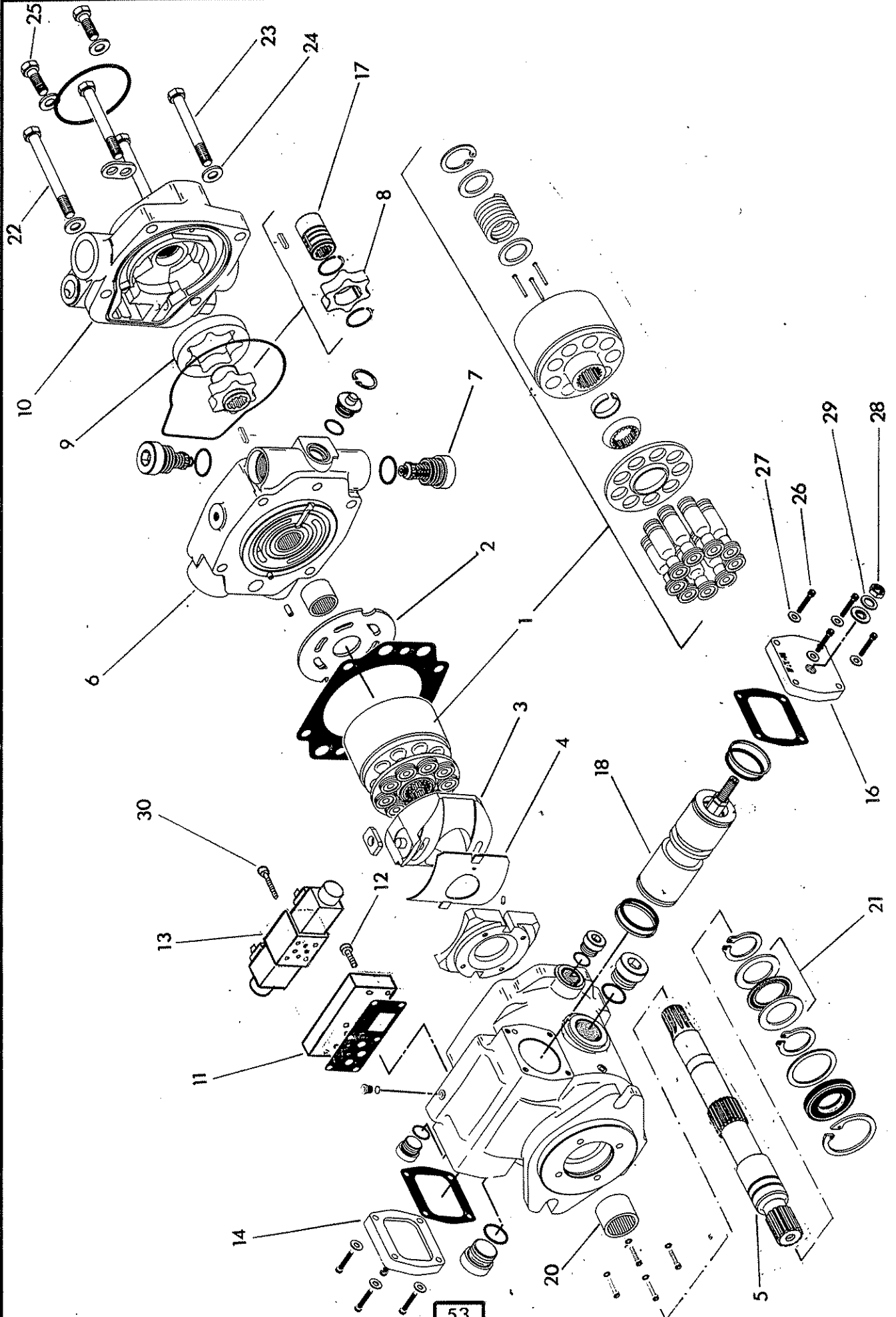


REF.	PART NO.	QTY	DESCRIPTION
			PUMP ASSY
1	82 01 698	1	Pump incl. small gear pump
2	82 01 163	1	Auxiliary gear pump
3	92 00 019	2	Special bolt
4	91 00 106	2	Plain washer
5	91 00 206	2	Spring washer
6	85 81 256	3	Adaptor
7	85 81 321	1	Adaptor
8	85 81 332	1	Tee
9	05.948.38	1	thin locknut
10	85 81 335	1	Elbow 90 deg
11	86 00 916	5	'O' ring
12	75 50 047	1	Nut thin
13	81 31 009	1	Test point
14	08.955.24	1	Adaptor
15	86 00 912	2	'O' ring
16	85 81 226	1	Adaptor
17	86 00 910	2	'O' ring
18	520 622	1	Adaptor
19	85 81 117	1	Elbow 90 deg
20	81 31 009	1	Test point

PUMP ASSEMBLY



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REF.	PART NO.	QTY	DESCRIPTION
PISTON PUMP ASSEMBLY			
1	82 01 169	1	Rotating kit
2	82 01 170	1	Valve plate
3	82 01 171	1	Cam plate
4	82 01 172	1	Cam bushing
5	82 01 173	1	Shaft
6	82 01 174	1	Back plate assembly
7	82 01 175	1	Relief valve
8	82 01 176	1	Gerotor - inner ring
9	82 01 177	1	Gerotor - outer ring
10	82 01 178	1	Charge assembly
11	41.251.01	1	Solenoid interface plate
12	0342.060	6	Cap screw
13	41.252.01	1	Double solenoid
14	82 01 181	1	Coverplate
15	82 01 182	2	Gasket
16	82 01 183	1	Coverplate
17	82 01 185	1	Coupler
18	82 01 180	1	Servo piston assembly
19	82 01 187	1	Gasket
20	83 01 038	1	Needle bearing
21	83 01 039	1	Thrust washer
22	02 12 323	3	Bolt
23	02 12 283	3	Bolt
24	01 00 103	8	Washer
25	03 11 103	2	Setscrew
26	03 42 080	8	Capscrew
27	01 00 100	8	Washer
28	01 12 003	1	Nut
29	01 00 103	1	Washer
30	92 43 082	9	Socket headed cap screw

86 99 239

SEAL KIT

SERVICE NOTE

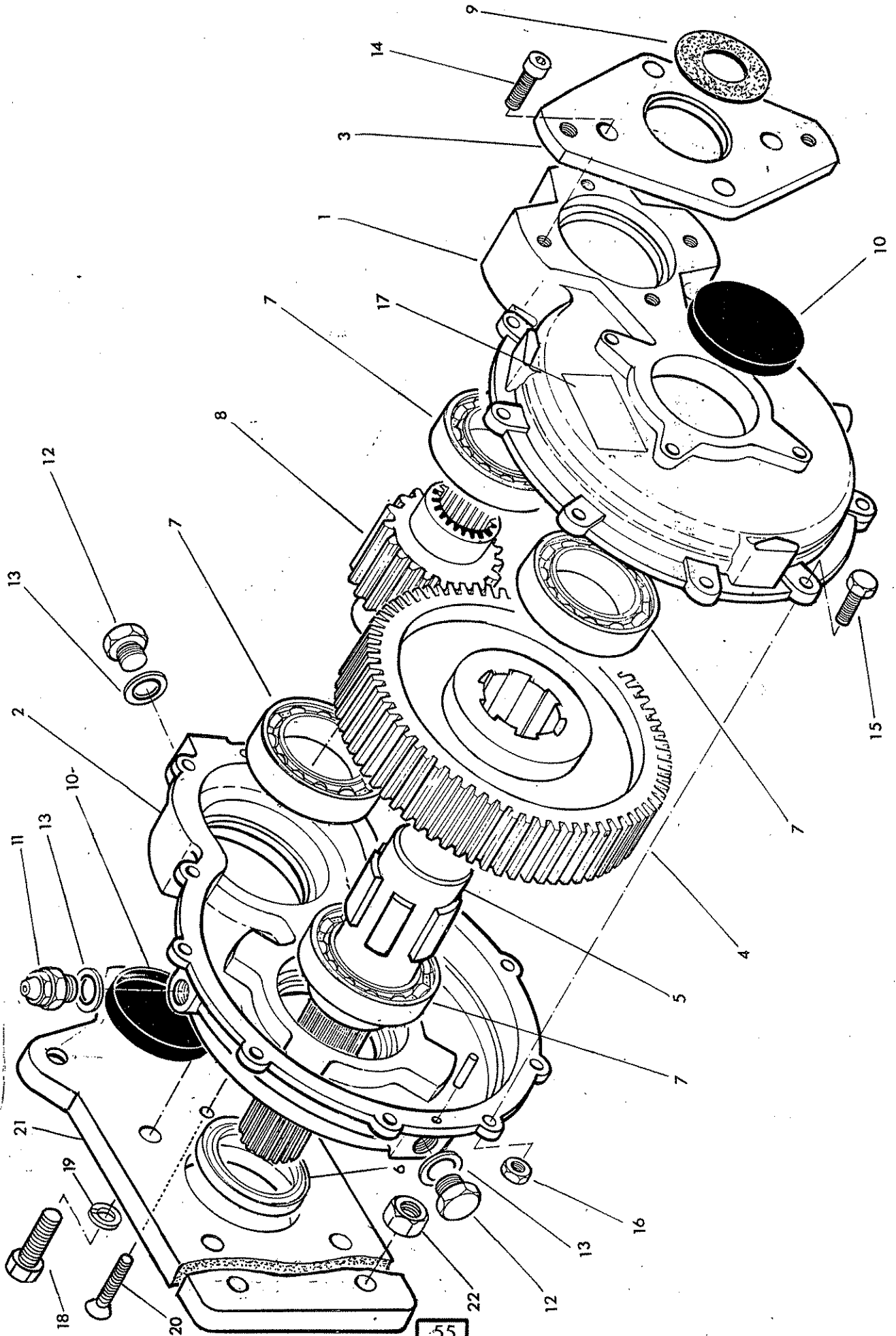
Piston pumps are manufactured to very fine tolerances. With the exception of replacing item 7 any service work must be carried out by qualified specialist technicians working in a clean, dust free environment.

If in any doubt contact McConnel Service department for advice.

GEARBOX

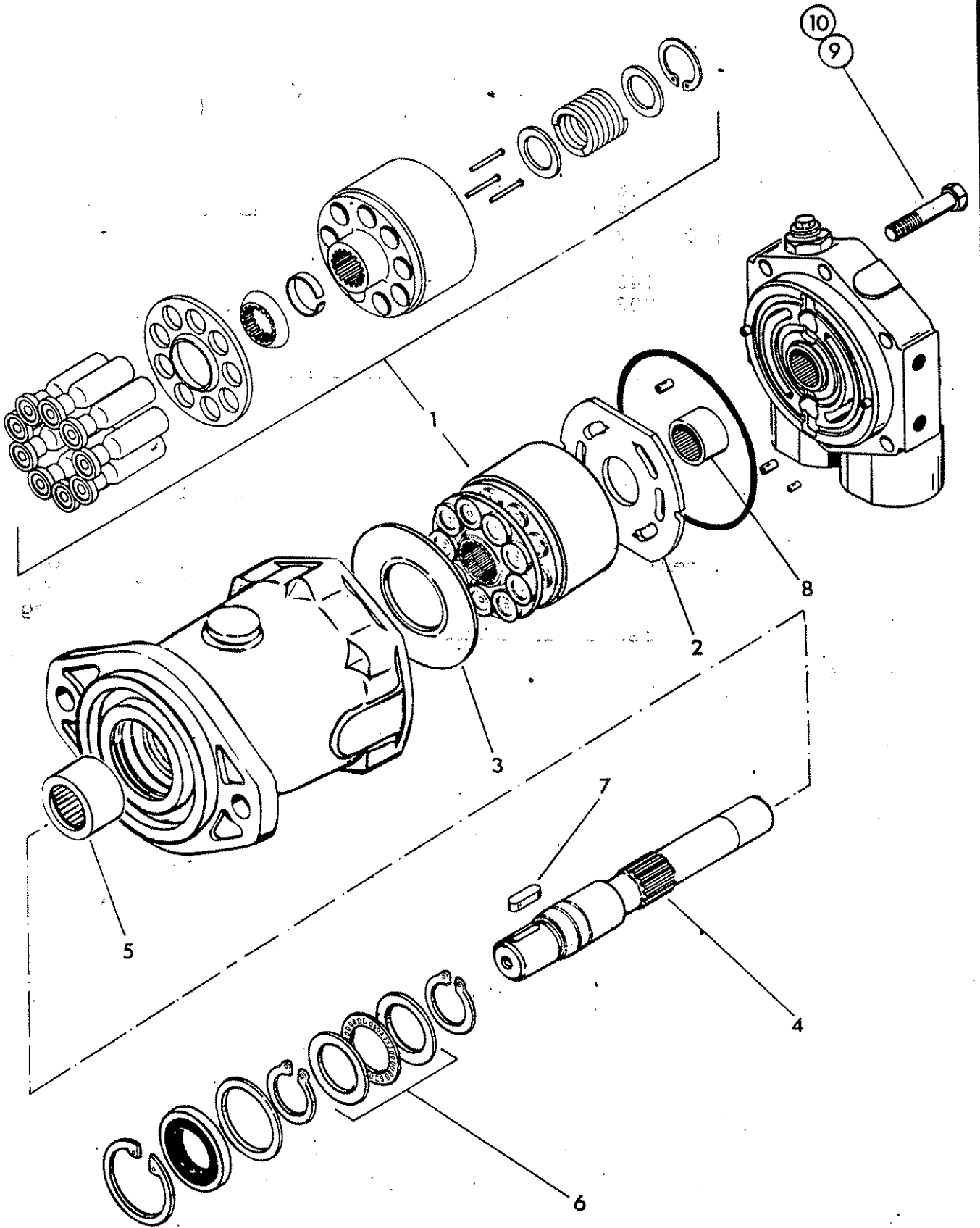


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REF	PART NO	QTY	DESCRIPTION
	80 13 446		GEARBOX 1000 RPM 21 spline - illus
	80 13 445		GEARBOX 750 RPM 6 spline
		1	
1	80 13 112	1	Case - output side
2	80 13 101	1	Case - input side
3	80 13 111	1	Pump mounting flange
4	80 13 109	1	Gear-1000
	80 13 114	1	Gear-750
5	80 13 108	1	Shaft -1000
	80 13 105	1	Shaft-750
6	86 29 196	1	Shaft seal
7	06 00 042	4	Bearing
8	80 13 110	1	Pinion-1000
	80 13 115	1	Pinion-750
9	75 50 316	1	Gasket
10	80 13 106	2	End cover
11	80 13 107	1	Breather/adaptor
12	85 81 133	4	Plug
13	86 50 102	4	Bonded seal
14	93 43 045	4	Capscrew socket headed
15	92 13 064	10	Bolt
16	91 43 004	10	Selflocking nut
17	12 90 054	1	Sticker
18	93 13 086	6	Setscrew
19	91 00 206	4	Spring washer
20	93 53 065	2	Setscrew c/sunk
21	75 50 299	1	Gearbox support plate
22	91 43 006	2	Self locking nut



**McCONNEL**

REF	PART NO	QTY	DESCRIPTION
	83 01 284		MOTOR ASSEMBLY
1	83 01 035	1	Rotating kit assembly
2	83 01 036	1	Valve plate
3	83 01 037	1	Cam plate
4	83 01 041	1	Shaft
5	83 01 038	1	Needle bearing
6	83 01 039	1	Thrust bearing
7	83 01 042	1	Key
8	83 01 040	1	Needle bearing
9	02 12 142	3	Bolt
10	02 12 202	3	Bolt
	86 99 238		SEAL KIT

SERVICE NOTE:

To safeguard warranty rights during the warranty period the motor must not be dismantled prior to examination by McConnel engineers.

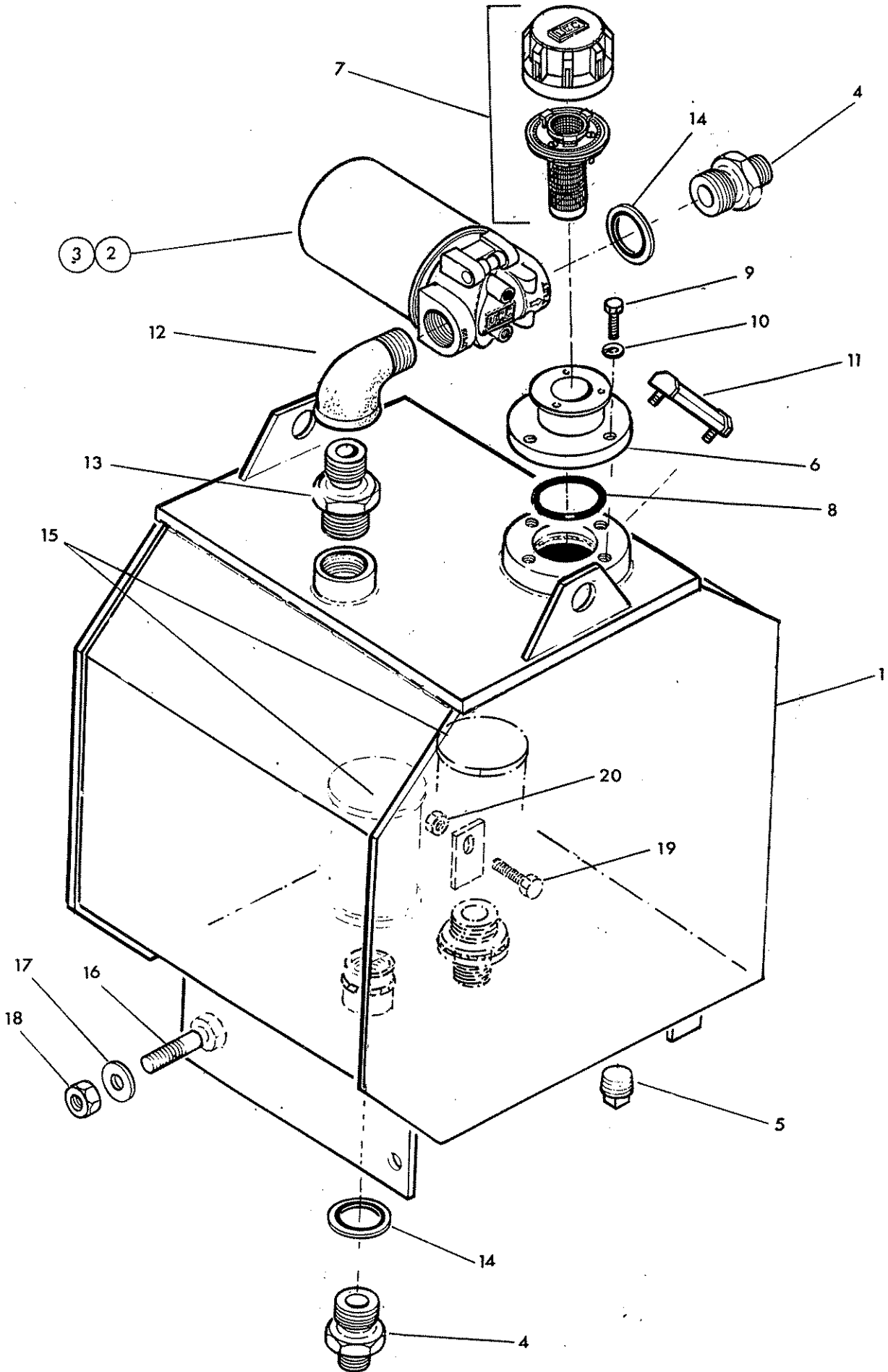
Subsequently, when servicing, always be aware that piston motors are manufactured to very fine tolerances and any service work must be carried out by qualified specialist technicians working in a clean, dust free environment.

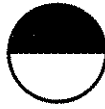
If in any doubt contact McConnel Service department for advice.

HYDRAULIC TANK



McCONEL

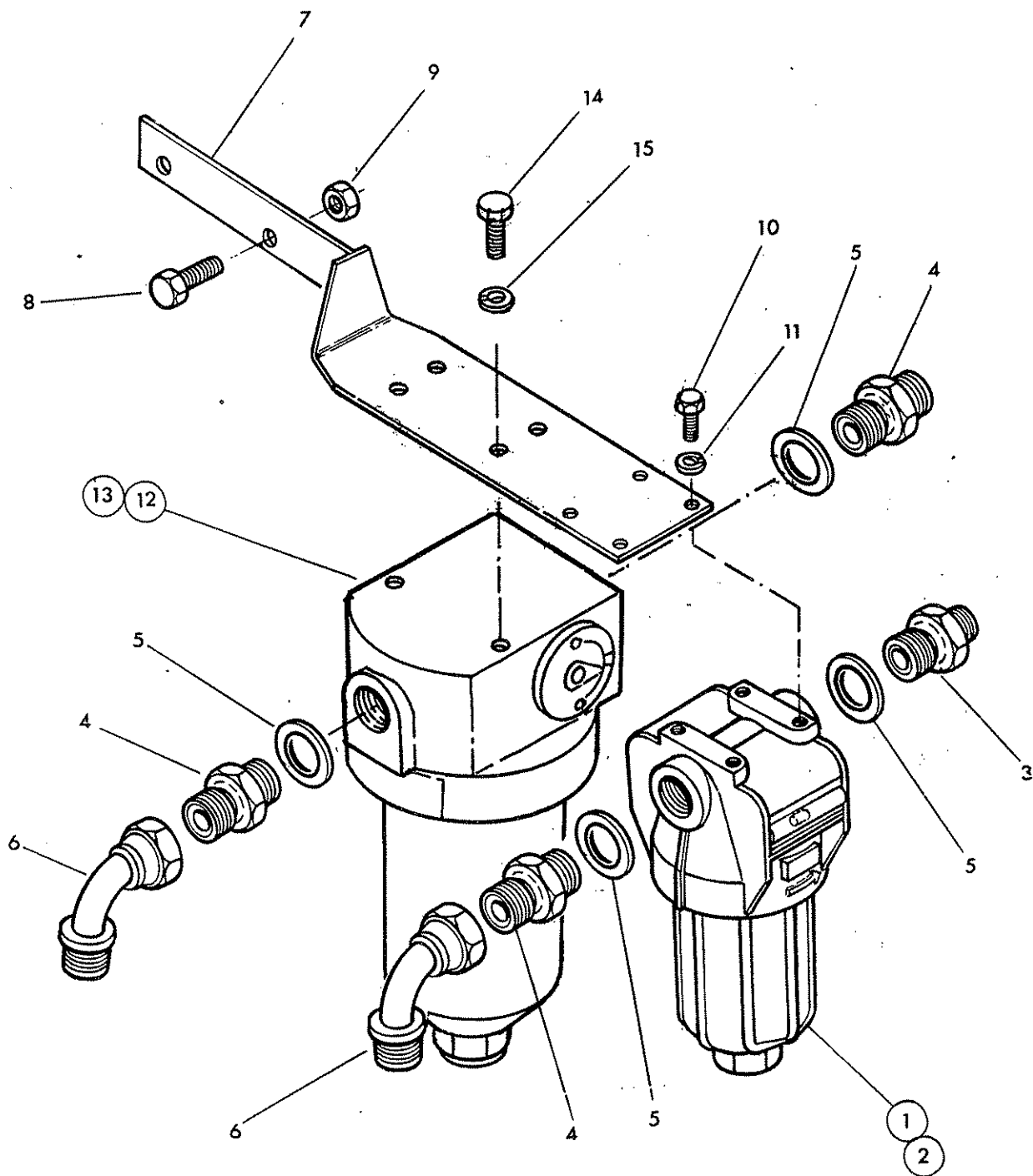




REF.	PART NO.	QTY	DESCRIPTION
ENDURO OIL TANK AND FITTINGS			
	75 50 304	1	Oil tank assembly compr:-
1	75 60 431	1	Oil tank
2	84 01 069	1	Filter
3	84 01 070	1	Filter element
4	80 02 104	2	Adaptor
5	85 81 203	1	Drain plug
6	71 92 090	1	Access cover
7	84 01 074	1	Filter/breather
8	86 00 151	1	'O' ring
9	93 13 054	4	Setscrew
10	91 00 204	4	Spring washer
11	84 01 048	1	Oil level gauge
12	85 81 261	1	Elbow
13	85 81 187	1	Adaptor
14	86 50 109	2	Bonded seal
15	84 01 047	2	Strainer
16	92 13 097	2	Bolt
17	91 00 107	2	Plain washer
18	91 43 007	2	Self locking nut
19	92 13 086	1	Bolt
20	91 43 006	1	Self locking nut

ASSEMBLY NOTE:

*Item 12 to be fitted using PTFE tape, Permabond A115 or similar.



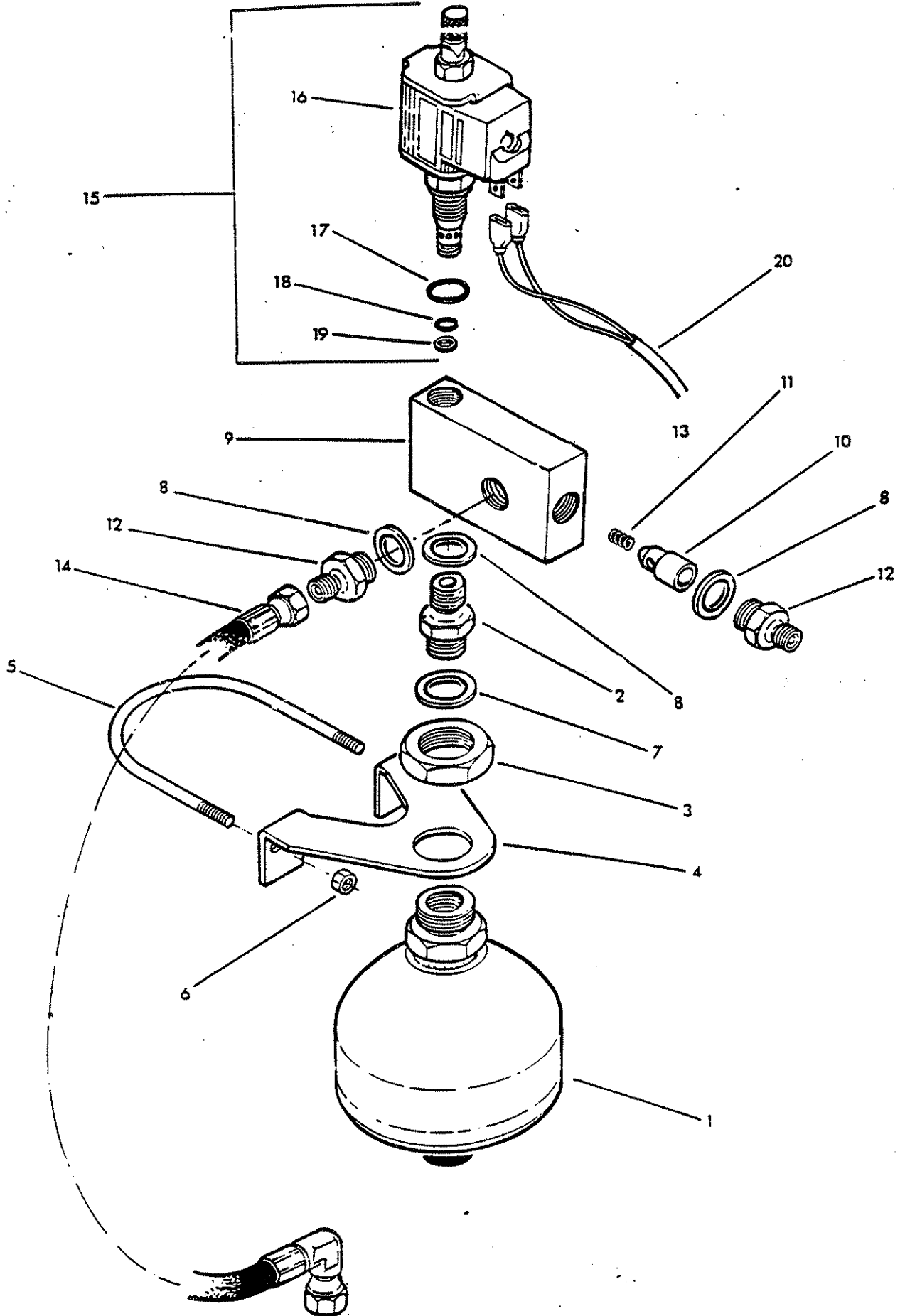


REF.	PART NO.	QTY	DESCRIPTION
FILTER ASSEMBLYS			
1	84 01 066	1	Charge filter end element
2	84 01 067	1	Element
3	60 00 112	1	Adaptor
4	85 81 110	3	Union
5	86 50 104	4	Bonded washer
6	85 81 215	2	Elbow - swept 90 deg
7	75 50 041	1	Filter mounting bracket
8	93 13 065	2	Setscrew
9	91 43 005	2	Self locking nut
10	93 13 013	4	Setscrew
11	91 00 203	4	Spring washer
12	84 01 072	1	Pressure filter incl. element
13	84 01 073	1	Element
14	93 13 034	2	Setscrew
15	91 00 204	2	Spring washer

LIFT FLOAT KIT



McCONNEL



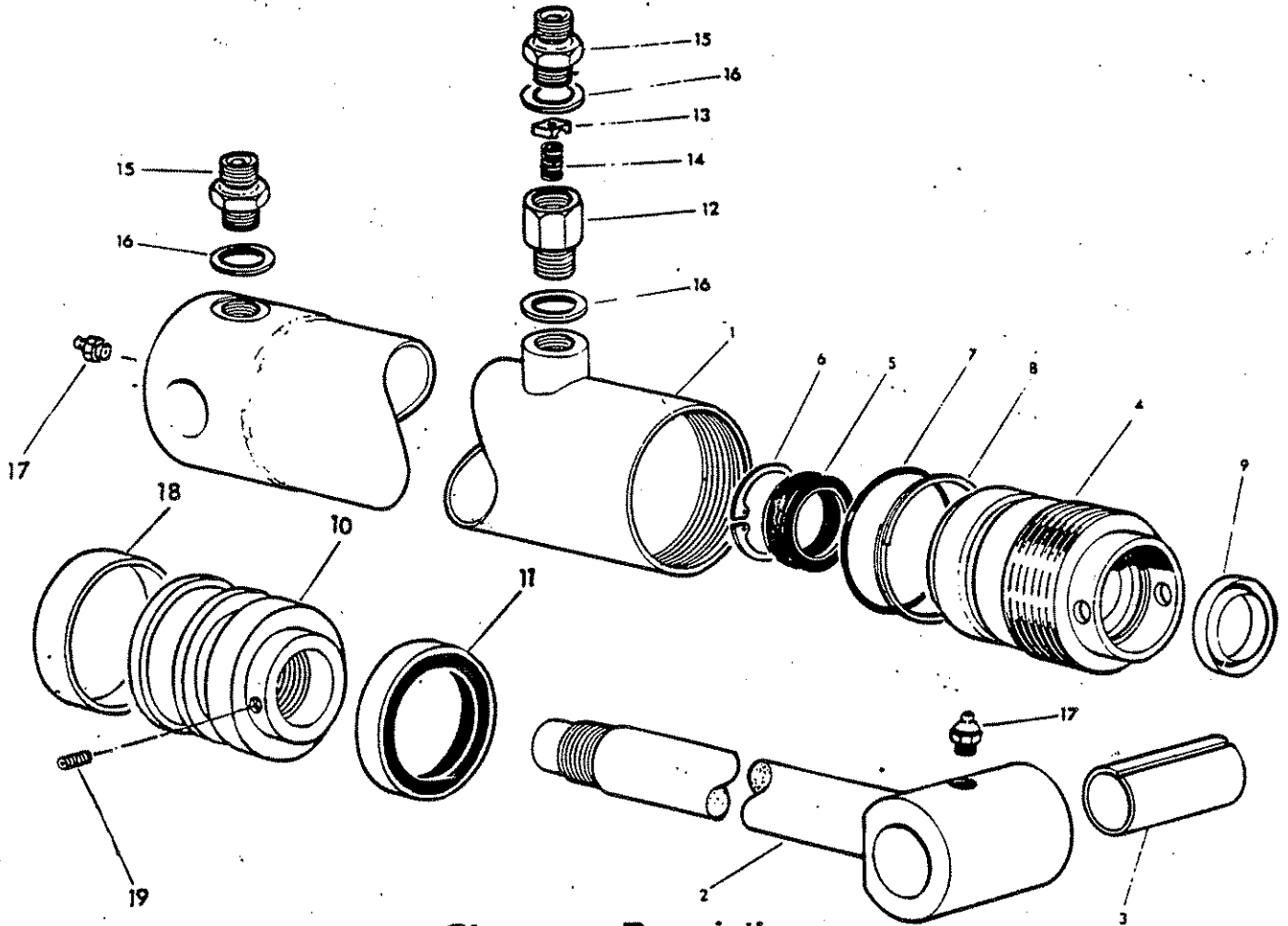


REF.	PART NO.	QTY.	DESCRIPTION
	81 26 294		LIFT FLOAT KIT - Quick response
1	81 26 042	1	Accumulator
2	G241 0380	1	Adaptor
3	81 26 035	1	Bulkhead nut
4	81 26 286	1	Bracket
5	81 26 031	1	U bolt
6	91 43 004	2	Self locking nut
7	86 50 322	1	Bonded seal
8	86 50 103	3	Bonded seal
9	81 26 287	1	Control block
10	81 26 037	1	Response piston
11	81 16 011	1	Spring
12	85 81 115	2	Adaptor
13	12 90 061	1	Operating sticker
14	85 35 012	1	Hose 1/4" BSP x 18" long SF-90F
15	81 30 183	1	Poppet valve including:-
16	81 30 184	1	Coil
17	87 00 017	1	O ring
18	87 00 511	1	O ring
19	87 09 511	1	Anti extrusion ring
20	84 02 195	1	Cable

SLEW/BREAKAWAY RAM



McCOMEL



Ref.	Part No.	Qty.	Description
	71 36 274		SLEW/BREAKAWAY RAM ASSEMBLY
	71 36 061	1	Ram assembly basic
1	71 36 065	1	Ram barrel
2	71 36 062	1	Piston rod
3	71 05 050	1	Bush
4	71 36 312	1	Gland housing
5	86 29 148	1	Gland seal
6	04 16 240	1	Internal circlip
7	86 00 306	1	'O' ring
8	86 09 306	1	Anti extrusion ring
9	86 29 149	1	Rod wiper ring
10	71 20 368	1	Piston
11	86 29 156	1	Piston seal
12	85 81 115	1	Restrictor body
13	81 23 047	1	Restrictor disc-green and white
14	81 16 011	1	Spring
15	85 81 145	2	Union
16	86 50 103	3	Bonded seal
17	09 01 121	2	Greaser
18	86 29 157	1	Guide ring
19	93 63 023	1	Grubscrew socket headed

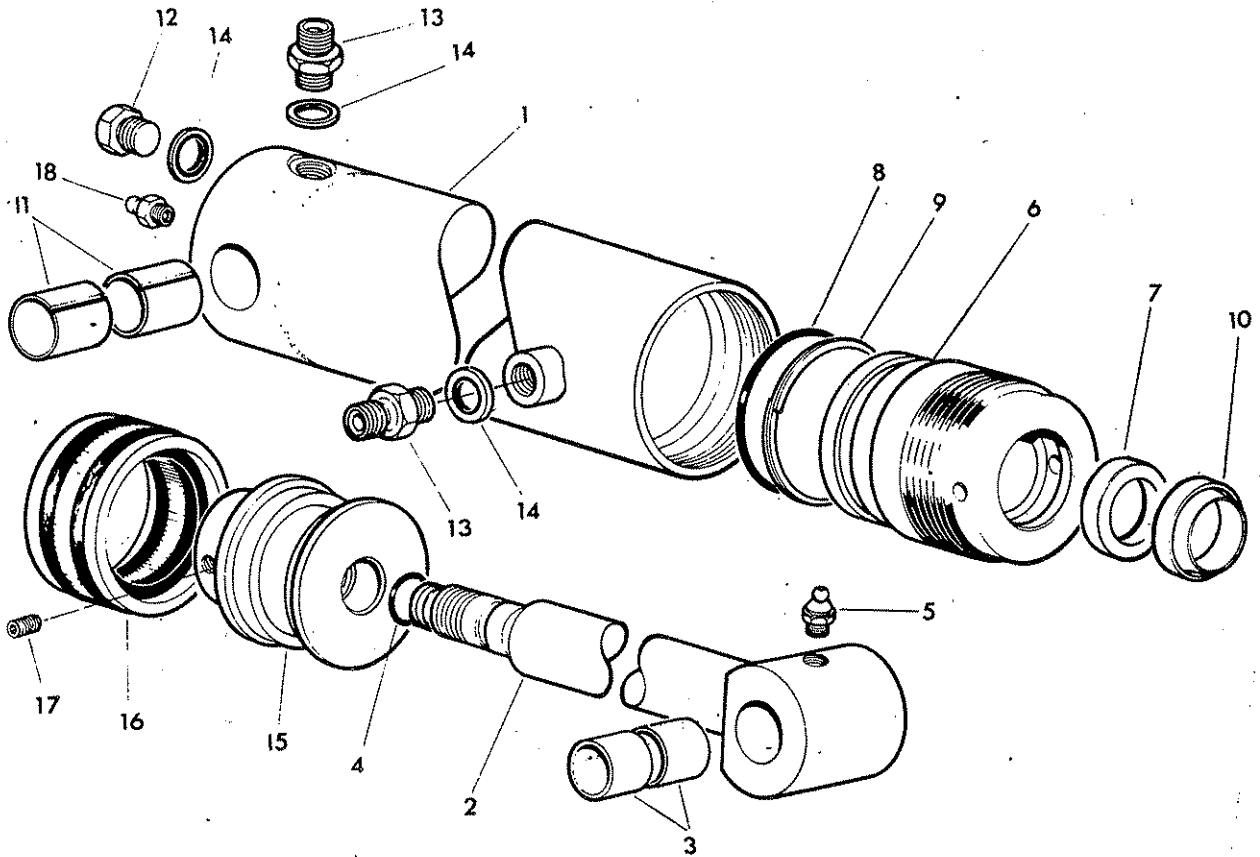
86 99 190

SEAL KIT

LIFT AND REACH RAM ASSEMBLY



MCCORMEL

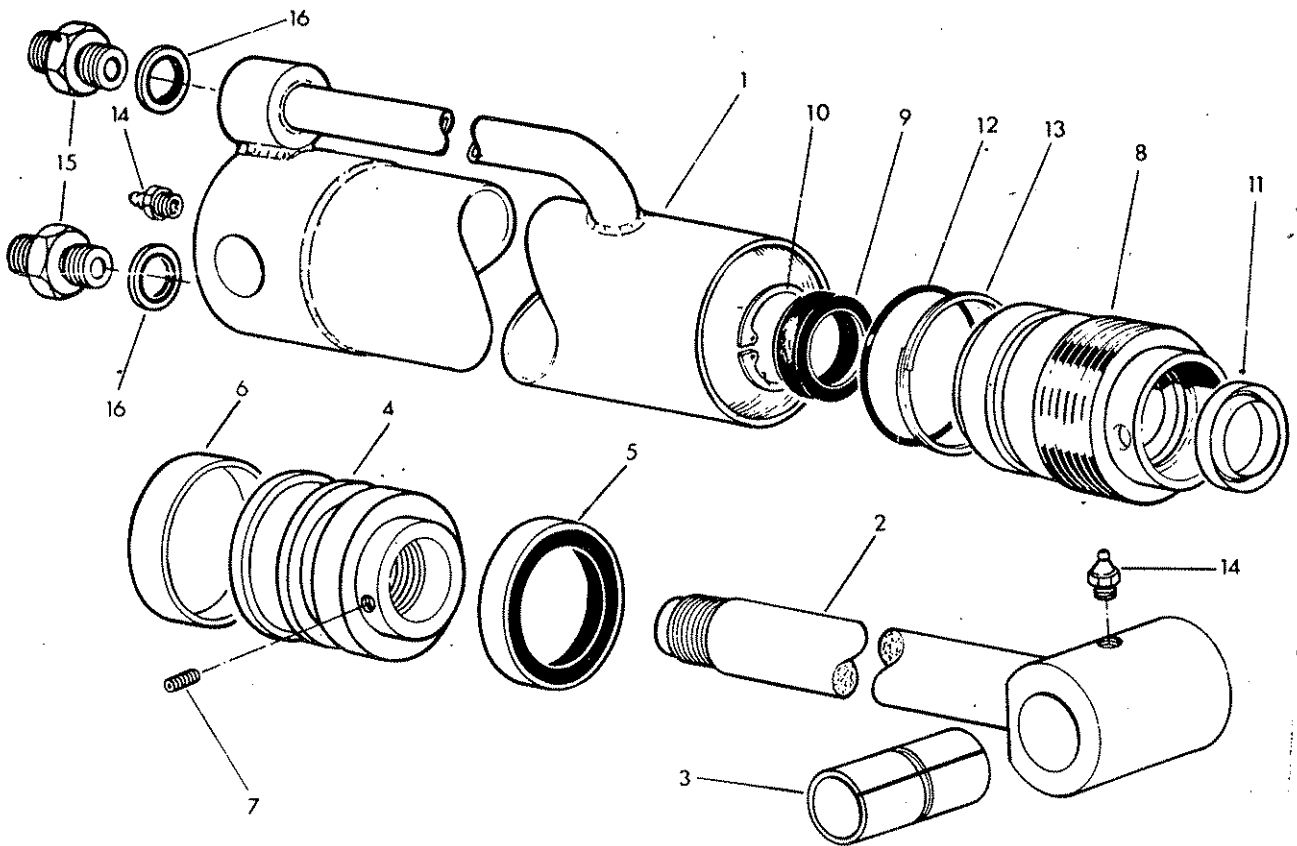


Ref.	Part No.	Qty.	Description
	71 36 270		LIFT AND REACH RAM ASSEMBLY
1	71 36 271	1	Ram cylinder
2	71 36 333	1	Piston rod
3	60 12 032	2	Bush
4	86 00 119	1	'O' ring
5	09 01 121	1	Greaser
6	71 35 282	1	Gland housing
7	86 29 164	1	Gland seal
8	87 00 740	1	'O' ring
9	87 09 740	1	Anti extrusion ring
10	86 29 147	1	Piston rod wiper ring
11	71 01 134	2	Bush
12	80 03 001	1	Plug
13	85 81 115	2	Union
14	86 50 103	3	Bonded seal
15	71 35 004	1	Piston
16	86 38 740	1	Piston seal
17	93 63 023	1	Grub screw
18	09 01 121	1	Greaser
	86 99 187		SEAL KIT

ANGLING RAM



McDONNELL



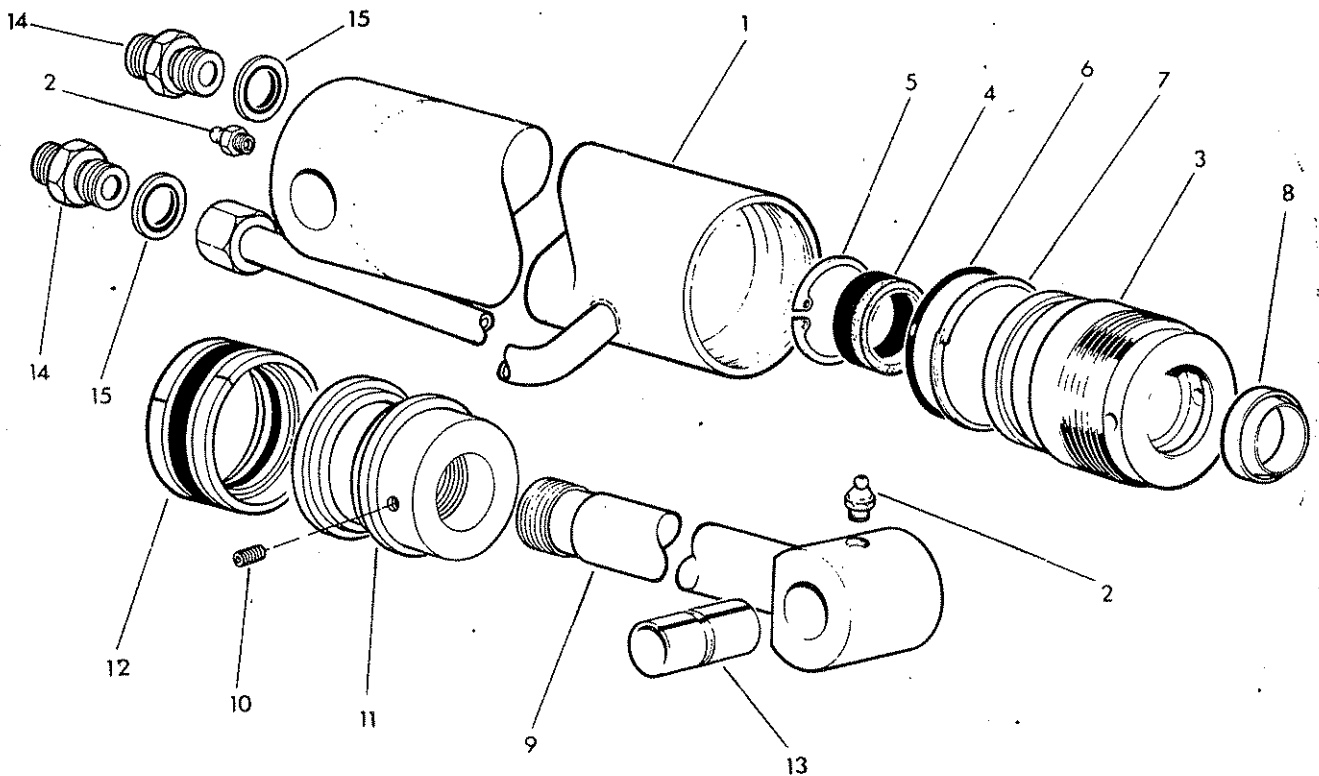
Ref.	Part No.	Qty.	Description
	75-60-344		ANGLING RAM ASSEMBLY
1	71-35-292	1	Cylinder
2	71-35-009	1	Rod
3	71-05-050	1	Bush
4	75-60-095	1	Piston
5	86-29-187	1	Piston seal
6	86-29-188	1	Bearing ring
7*	93-63-023	1	Grub screw socket head
8	71-35-291	1	Gland housing
9	86-29-148	1	Gland seal
10	04-16-240	1	Internal circlip
11	86-29-149	1	Wiper seal
12	86-00-302	1	'O' ring
13	86-09-302	1	Anti extrusion ring
14	09-01-121	2	Greaser
15	85-81-169	2	Union
16	86-50-102	2	Bonded seal

86-99-188

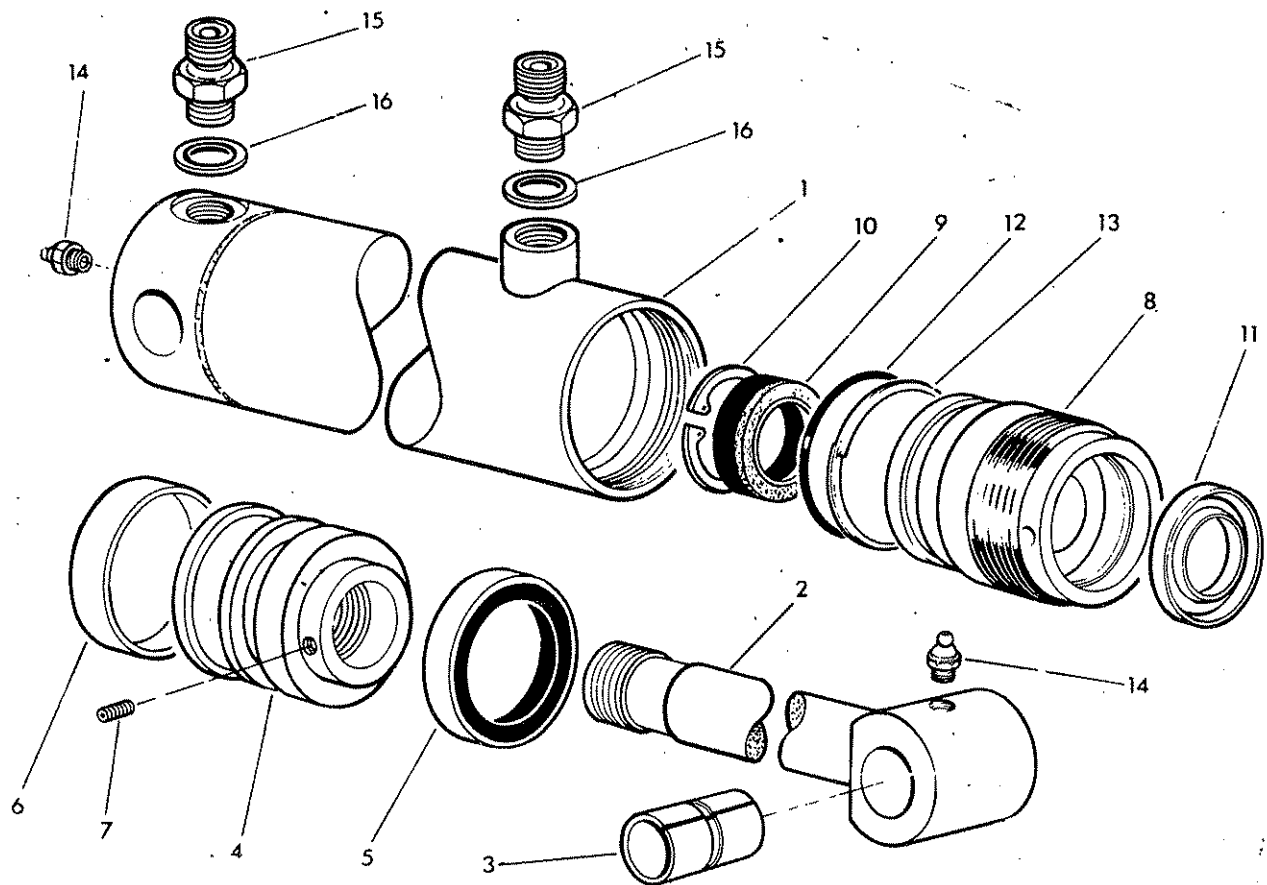
SEAL KIT

*** Assembly note**

Tighten fully and centre punch edge of hole to secure.



Ref	Part No	Qty	Description
	71-36-275		TELE RAM ASSEMBLY
1	71-36-276	1	Ram cylinder
2	09-01-121	2	Greaser
3	71-35-291	1	Gland housing
4	86-29-148	1	Gland seal
5	04-16-240	1	Internal circlip
6	86-00-302	1	'O' ring
7	86-09-302	1	Anti extrusion ring
8	86-29-149	1	Piston rod wiper seal
9	71-36-104	1	Piston rod
10	93-63-023	1	Grubscrew - socket headed
11	71-35-008	1	Piston
12	86-38-788	1	Piston seal
13	71-05-050	1	Bush
14	85-81-169	2	Union
15	86-50-102	2	Bonded seal
	86-99-188		SEAL KIT

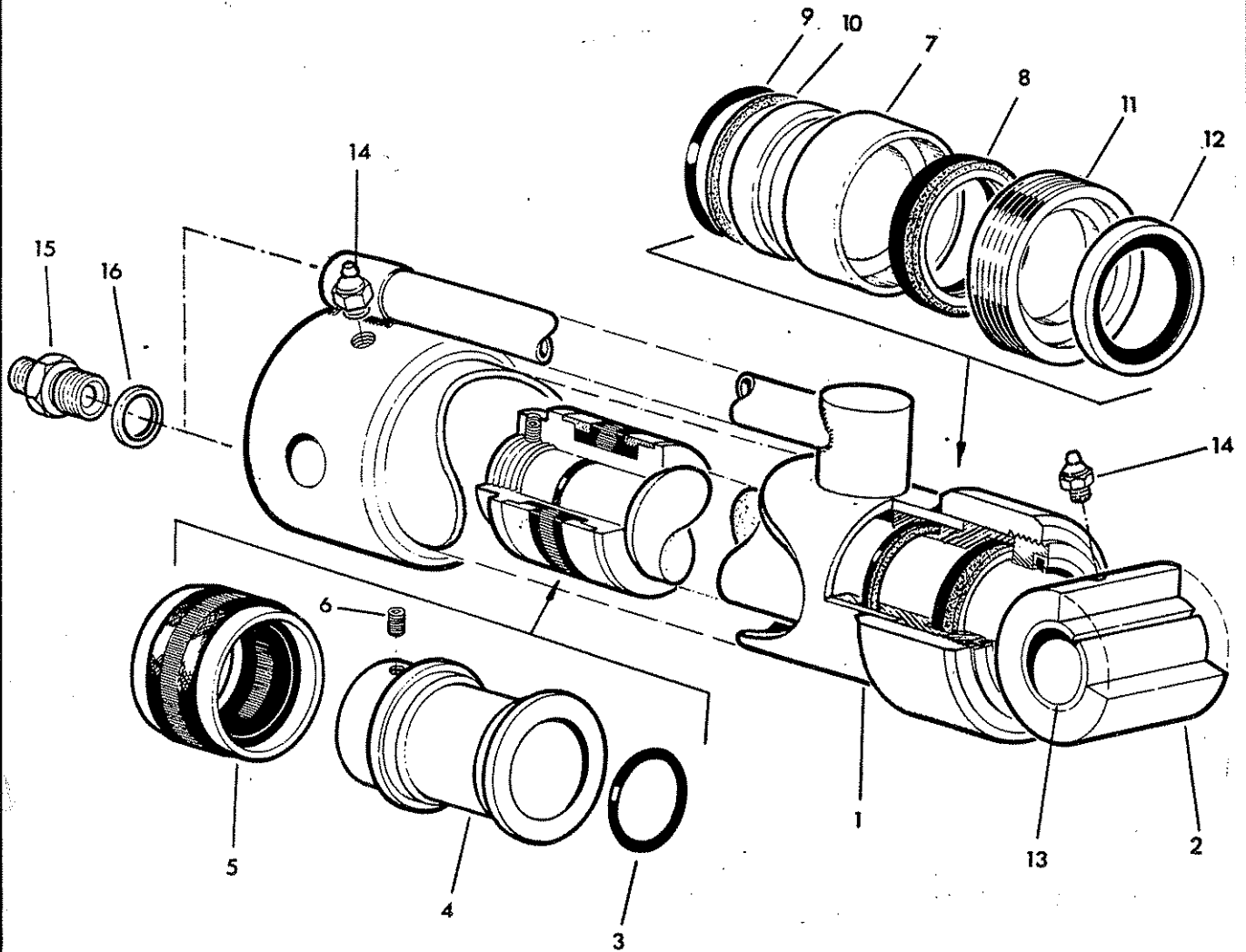
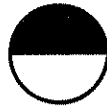


Ref.	Part No.	Qty.	Description
	71-95-318		COMPENSATOR RAM ASSEMBLY
1	71-95-305	1	Cylinder
2	71-95-012	1	Rod
3	70-12-037	1	Bush
4	75-60-095	1	Piston
5	86-29-187	1	Piston seal
6	86-29-188	1	Bearing ring
7	93-63-023	1	Grubscrew socket head
8	71-35-291	1	Gland housing
9	86-29-148	1	Gland seal
10	04-16-240	1	Internal circlip
11	86-29-149	1	Wiper seal
12	86-00-302	1	'O' ring
13	86-09-302	1	Anti extrusion ring
14	09-01-121	2	Greaser
15	85-81-169	2	Union
16	86-50-102	2	Bonded seal

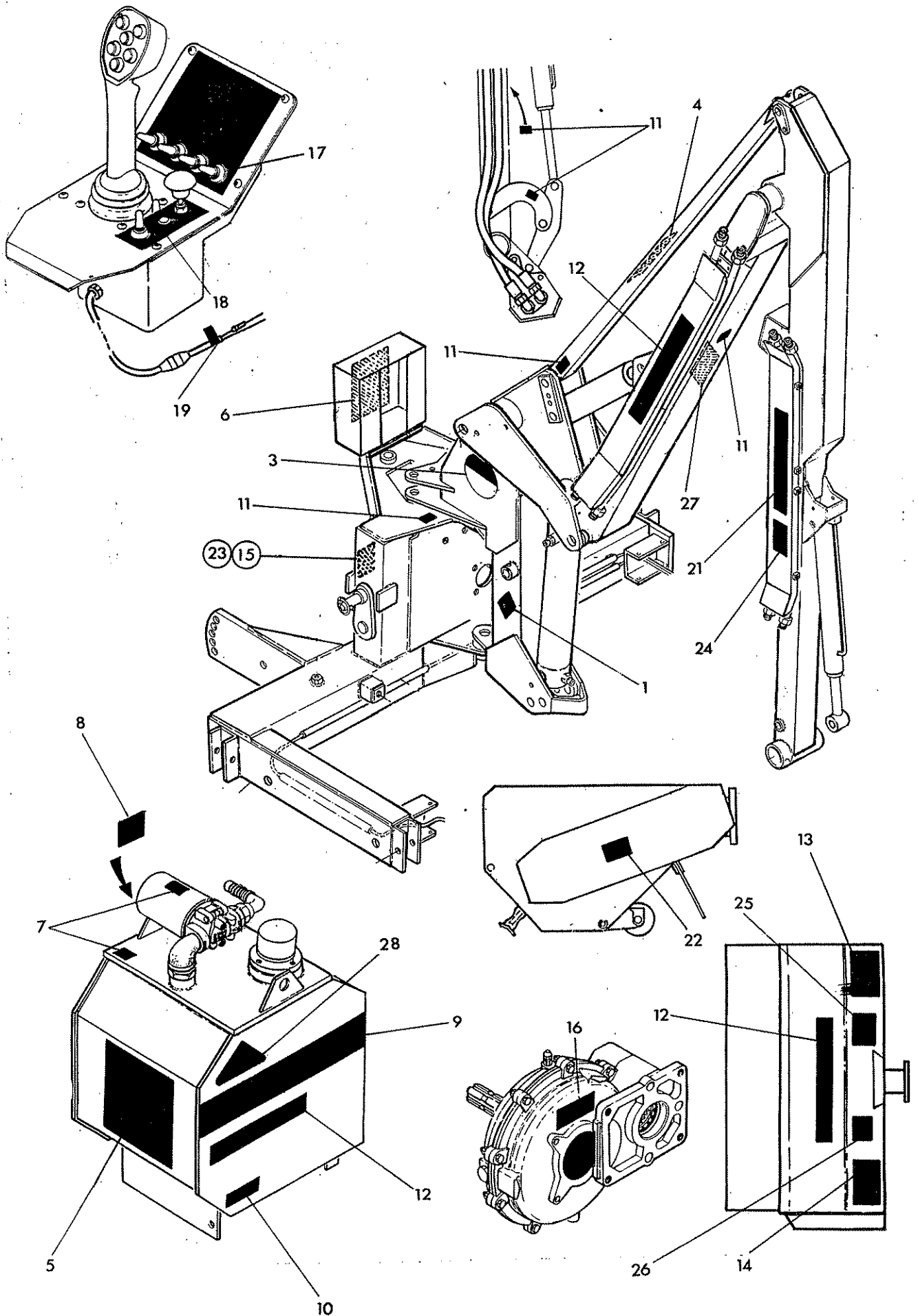
86-99-188 SEAL KIT

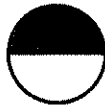
*** Assembly note**

Tighten fully and centre punch edge of hole to secure.

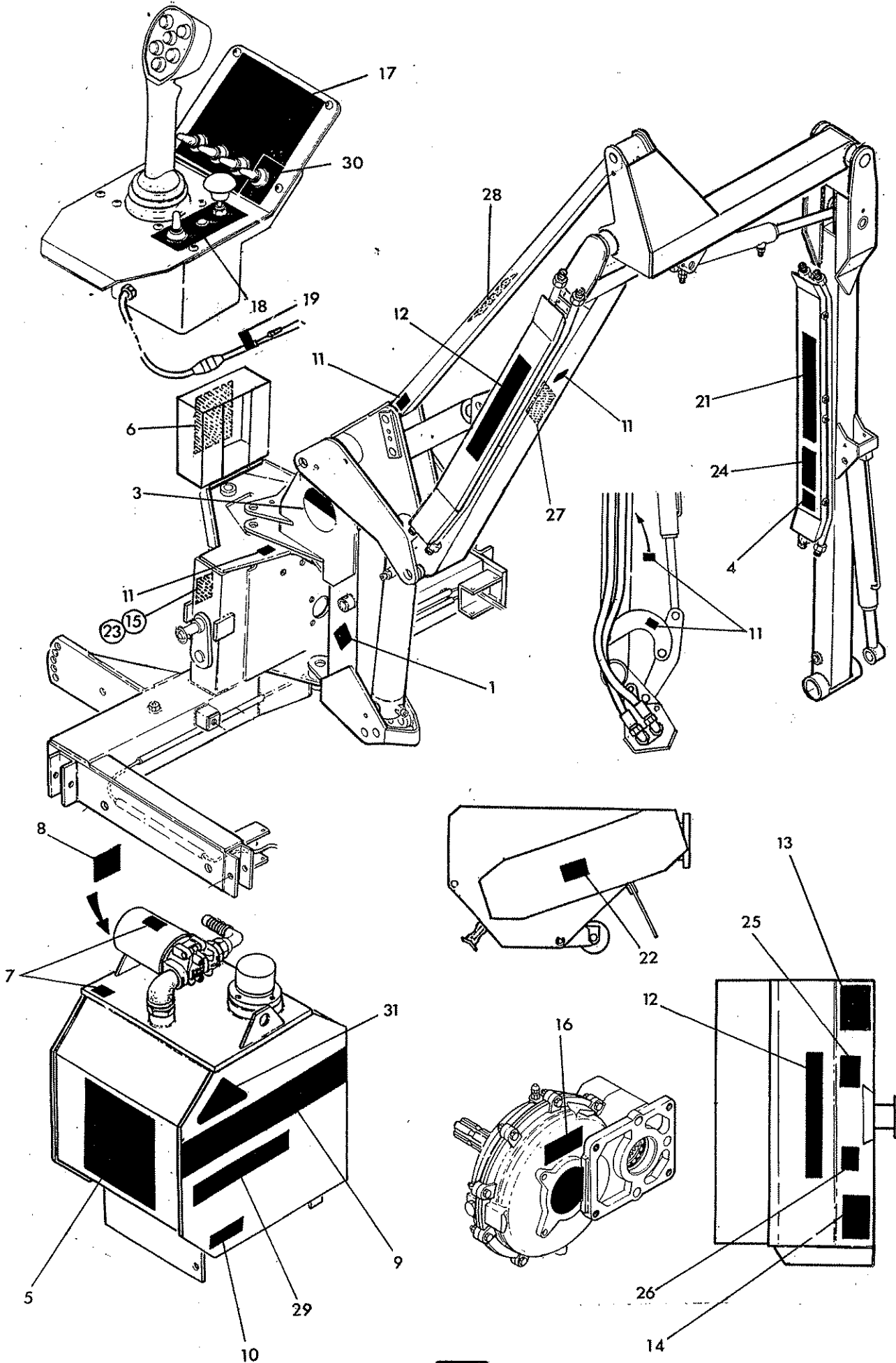


REF	PART NO.	QTY	DESCRIPTION
	75 50 288		BREAKAWAY RAM 2050 MID CUT ONLY
1	72 12 272	1	Ram cylinder
2	72 14 004	1	Piston rod
3	86 00 119	1	'O' ring
4	71 01 165	1	Piston
5	86 36 131	1	Piston seal
6	93 00 110	1	Grub screw
7	71 01 099	1	Gland seal housing
8	86 22 127	1	Gland seal
9	86 00 304	1	'O' ring
10	86 09 304	1	Anti extrusion ring
11	71 01 100	1	Gland nut
12	86 40 328	1	Piston rod wiper
13	71 05 050	1	Bush
14	09 01 121	2	Greaser
15	85 81 115	2	Union
16	86 50 103	2	Bonded seal
	86 99 102		RAM SEAL KIT



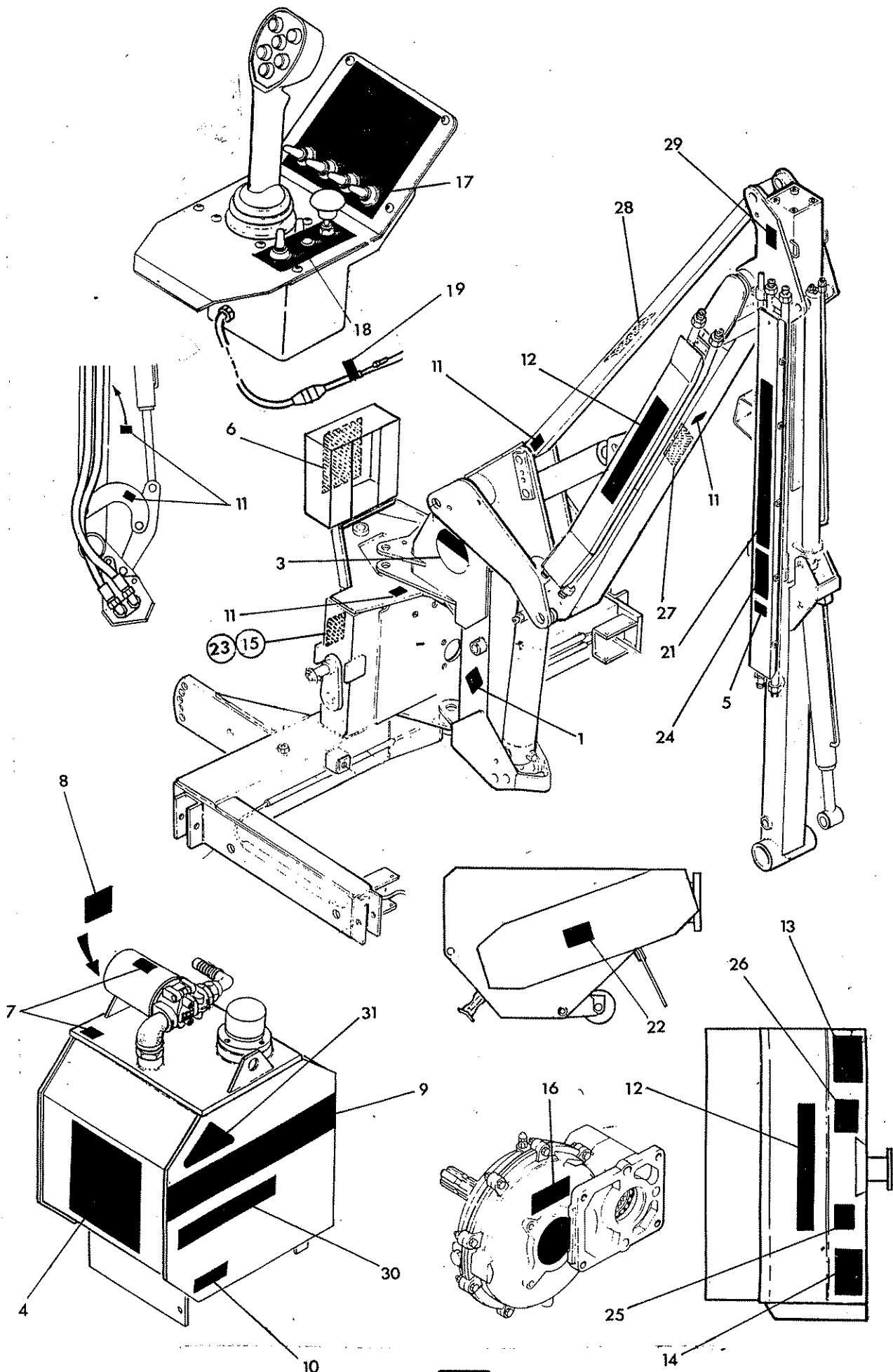


Ref. Part No.	Qty.	Description
STICKERS - PA2050		
1	71 05 136	1 Read book first
2	12 90 074	1 Sling here symbol-not illus-on packing strap
3	12 90 296	1 Logo roundel
4	12 90 406	1 Transport warning
5	12 90 391	1 General warning
6	12 90 420	1 Wiring connections
7	12 90 023	2 Oil filter instructions
8	00 75 6494	1 Fitting P.T.O. shaft
9	12 90 395	1 PA2050
10	12 90 376	1 Enduro Tank
11	00 96 2764	8 Pinch point
12	12 90 255	3 McConnell
13	12 90 462	1 Flailhead instructions
14	12 90 341	1 Flailheadguarding
15	12 90 461	1 1000 rpm
16	12 90 054	1 Gerbox oil capacity
17	12 90 451	1 Joystick controls
18	12 90 080	1 Power
19	12 90 038	1 Polarity label
20	84 02 138	1 Slew warning-desp.loose-not illus-in cab
21	12 90 295	1 Power Arm
22	12 90 065	1 Belt tension
23	12 90 460	750 rpm
24	12 90 397	1 2050
25	00 75 6485	1 Rotating blade warning
26	12 90 392	1 Use McConnell Spares
27	12 90 403	1 Breakaway return warning
28	12 90 346	1 Warning triangle





Ref.	Part No.	Qty.	Description
STICKERS - PA2050M			
1	71 05 136	1	Read book first
2	12 90 074	1	Sling here symbol-not illus-on packing strap
3	12 90 296	1	Logo roundel
4	12 90 059	1	M
5	12 90 391	1	General warning
6	12 90 420	1	Wiring connections
7	12 90 023	2	Oil filter instructions
8	00 75 6494	1	Fitting P.T.O. shaft
9	12 90 395	1	PA2050
10	12 90 376	1	Enduro Tank
11	00 96 2764	8	Pinch point
12	12 90 255	2	McConnel
13	12 90 462	1	Flailhead instructions
14	12 90 341	1	Flailheadguarding
15	12 90 461	1	1000 rpm
16	12 90 054	1	Gerbox oil capacity
17	12 90 451	1	Joystick controls
18	12 90 080	1	Power
19	12 90 038	1	Polarity label
20	84 02 138	1	Slew warning-desp.loose-not illus-in cab
21	12 90 295	1	Power Arm
22	12 90 065	1	Belt tension
23	12 90 460	1	750rpm
24	12 90 397	1	2050
25	00 75 6485	1	Rotating blade warning
26	12 90 392	1	Use McConnel Spares
27	12 90 403	1	Breakaway return warning
28	12 90 406	1	Transport warning
29	12 90 361	1	Midcut
30	12 90 034	1	Park/work overlay
31	12 90 346	1	Warning triangle





McCONNEL

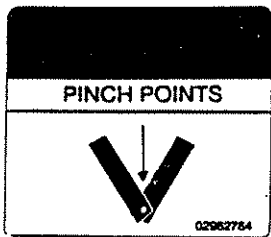
Ref. Part No.	Qty.	Description
STICKERS - PA2050T		
1	71 05 136	1 Read book first
2	12 90 074	1 Sling here symbol-not illus-on packing strap
3	12 90 296	1 Logo roundel
4	12 90 391	1 General warning
5	12 90 057	1 T
6	12 90 420	1 Wiring connections
7	12 90 023	2 Oil filter instructions
8	00 75 6494	1 Fitting P.T.O. shaft
9	12 90 395	1 PA2050
10	12 90 376	1 Enduro Tank
11	00 96 2764	8 Pinch point
12	12 90 255	2 McConnell
13	12 90 462	1 Flailhead instructions
14	12 90 341	1 Flailheadguarding
15	12 90 461	1 1000 rpm
16	12 90 054	1 Gerbox oil capacity
17	12 90 451	1 Joystick controls
18	12 90 080	1 Power
19	12 90 038	1 Polarity label
20	84 02 138	1 Slew warning-desp.loose-not illus-in cab
21	12 90 295	1 Power Arm
22	12 90 065	1 Belt tension
23	12 90 460	1 750 rpm
24	12 90 397	1 2050
25	00 75 6485	1 Rotating blade warning
26	12 90 392	1 Use McConnell Spares
27	12 90 403	1 Breakaway return warning
28	12 90 406	1 Transport warning
29	12 90 005	1 Grease socket
30	12 90 396	1 Telescopic
31	12 90 346	1 Warning triangle



McCORMEL

McCORMEL

12 90 255



PINCH POINTS

02062764

0096 2764

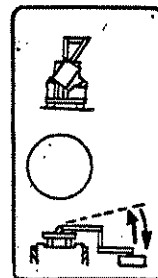


**EVERY 200 HOURS
REMOVE END COVER
AND RE-GREASE
INSIDE OF SOCKET.**

12 90 005



12 90 074



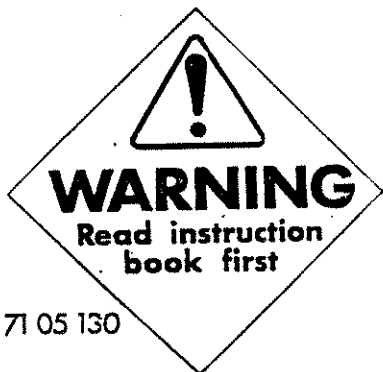
12 90 034

Power Arm

12 90 295

Enduro Tank

12 90 376



71 05 130

2050

12 90 397

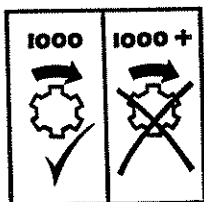
T

12 90 057

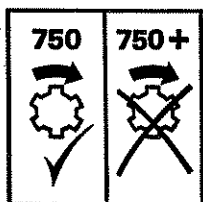
TENSION ONLY SUFFICIENTLY TO REMOVE SLACK FROM BELT. EXCESSIVE TENSION WILL DAMAGE BELT AND HYDRAULIC MOTOR.

TENDRE LES COURROIES SUFFISAMMENT POUR ELIMINER LE JEU, MAIS PAS TROP. UNE TENSION EXCESSIVE ENDOMMAGERA LES COURROIES ET LE MOTEUR HYDRAULIQUE

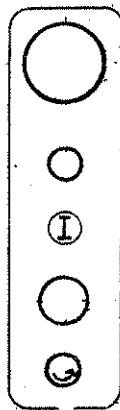
12 90 065



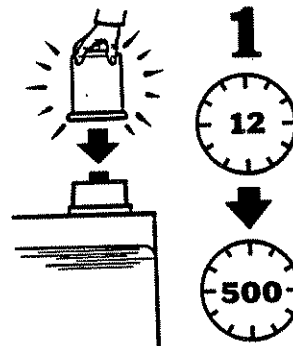
12 90 461



12 90 460



12 90 080



12 90 023

▲ DANGER ▲

BEWARE AUTOMATIC BREAKAWAY RETURN. KEEP WELL CLEAR OF THE FRONT OF THE ARM AND HEAD.

12 90 403

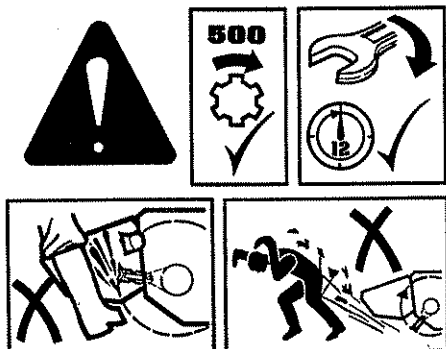
MID-CUT

12 90 361

M

12 90 059

84 02 136



12 90 377



FLAIL PARTS INFORMATION

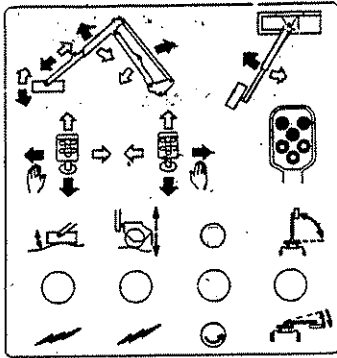
McCormel Flail Mowers use dynamically balanced and mated system components for Cutter Shafts (Rotors), Knives (Flails), Knife Hangers (Shackles), Bolts, Bushes, Rollers, Drivetrain Components, Bearings Belts and Belt Pulleys. McCormel parts are made and tested to meet close-tolerance specifications of balance, quality and consistency that assure long, trouble-free service. "Will-Fit" parts do not ordinarily meet McCormel Standards and could reduce Mower performance, void warranties, and present an increase in the safety hazard-potential.

DONT GAMBLE!
USE GENUINE McCORMEL SERVICE PARTS
See your McCormel dealer

12 90 392



MCCORMICK



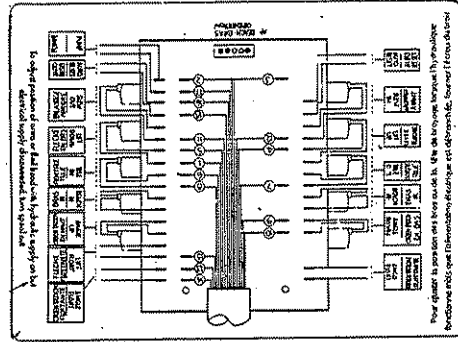
12 90 406

12 90 451

CAUTION
CHECK ARM/CAB CLEARANCE
WHEN SLEWING.
84 02 135



12 90 346



12 90 420



12 90 395

Telescopic

12 90 396



12 90 296

! DANGER !

FALLING TO FOLLOW SAFETY MESSAGES AND OPERATING INSTRUCTIONS CAN CAUSE SERIOUS INJURY OR DEATH TO OPERATOR OR OTHERS IN AREA.

1. Study operator manual and safety decals for tractor and tillage mower thoroughly to prevent misuse, abuse and accidents. Practice before operating.
2. Operate only with safety cab or roll bars to prevent injury and possible crushing death from overturn. Allow no riders on machine. Falling off can cause serious injury or death by being run over by the tractor or by being cut by the mower. Allow no bystanders, especially children, near the tractor/mower.
3. Operator and assistants must wear a hard hat, safety glasses and shoes to prevent injury from falling or thrown objects.
4. Before transport, engage all transport devices. See operator manual.
5. Block up or support machine securely before placing any part of the body beneath the machine to prevent crushing, injury or death from sudden dropping. Make certain area is clear before lowering.
6. Make certain lights, reflectors, and in U.S.A. the SAWS sign is clearly visible. Follow highway regulations. Slow down at night, in turns and on "hillsides".
7. Before dismounting, secure tillage mower in transport position or lower to ground. Stop P.T.O., cut tractor in gear or set hand brake, stop engine and remove the key. Never mount or dismount a moving vehicle to prevent possible injury or death.
8. Each rear wheel must have a minimum of 1000lbs contact with ground to prevent lateral instability and possible tip over and bodily injury. Widen wheel track and add weights if needed. Contact manufacturer for counterweight procedure.
9. Rear mounted tillage mowers move center of gravity to rear and remove weight from front wheels. Add front ballast until at least 20% of the tractor's weight is on front wheels to prevent rearing up, loss of steering control and possible injury.
10. Never operate unit without an operator guard to prevent injury from falling or thrown objects. Keep bystanders at a safe distance. Stop cutting if they enter the danger area.
11. Never operate the machine without the correct tillage head guards in position. Ensure they are in good condition.
12. Beware overhead obstructions. Keep at least two feet away from power lines to prevent accidental contact or electrocution and possible serious injury and death.
13. Transport carefully! Slow down even more on slopes and when turning. Never turn up a slope sharply or at high speed and use extra care in rough or bumpy areas to prevent overturn and possible crushing injury or death. If your view to the rear is blocked it is your responsibility to install mirrors in or provide a rear view to prevent accidents from blind spots.



12 90 054



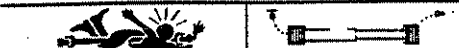
84 02 105



1. MAKE CERTAIN DRIVELINES ARE OF THE CORRECT LENGTH AND SECURELY ATTACHED. DRIVELINE SEPARATION AND/OR PTO SHAFT FAILURE CAN CAUSE INJURY OR DEATH. (See Operator's Manual for procedure.)



2. MAKE CERTAIN THAT DRIVELINE SHIELDS ARE INSTALLED CORRECTLY AND TURN FREELY TO PREVENT INJURY OR DEATH FROM ENTANGLEMENT



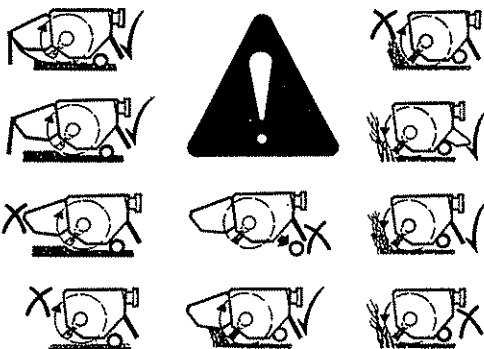
3. IF DRIVELINE SHIELDS HAVE TETHER CHAINS ATTACH TETHER CHAINS SECURELY TO MOWER AND TRACTOR TO PREVENT SHIELD ROTATION BELL AND OR SHIELD FAILURE AND SERIOUS INJURY OR DEATH

4. SAG PTO RPM UNLESS SPECIFICALLY MARKED OTHERWISE

0075 6494



12 90 391



12 90 341



84 02 121

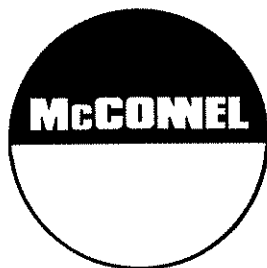


KEEP AWAY - ROTATING BLADES

SERIOUS INJURY OR DEATH CAN RESULT FROM THROWN OBJECTS OR BLADE CONTACT.

- STOP MOWING IF PERSONS ARE NOT CLEAR OF THROWN OBJECTS
- DO NOT STAND ON OR NEAR MACHINE WHEN IN OPERATION
- DO NOT OPERATE WITH DEFLECTORS OR GUARDS REMOVED

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