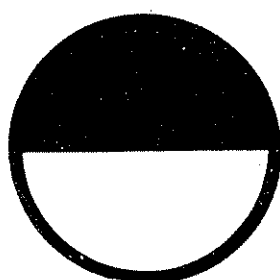
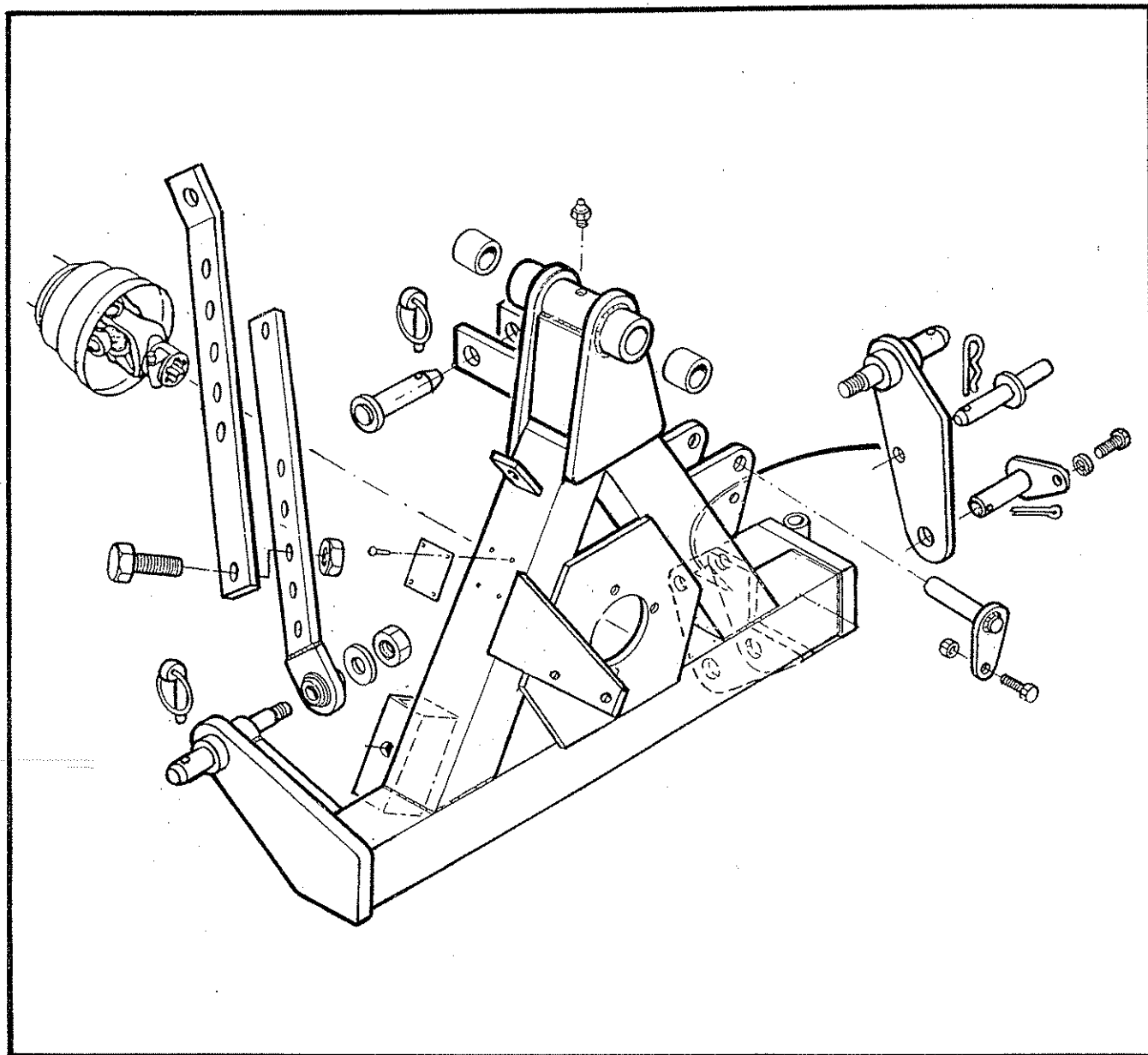


# PA 420

## Spare parts





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FOR NOTES

# **SPARE PARTS MANUAL**

## **FOR BEST PERFORMANCE....**

### **USE ONLY McCONNEL SPARE PARTS**

To be assured of the latest design improvements purchase your genuine replacements from the original equipment manufacturer **McConnel Ltd.** through your local dealer or stockist.

Always quote machine type and serial number as well as the part number.

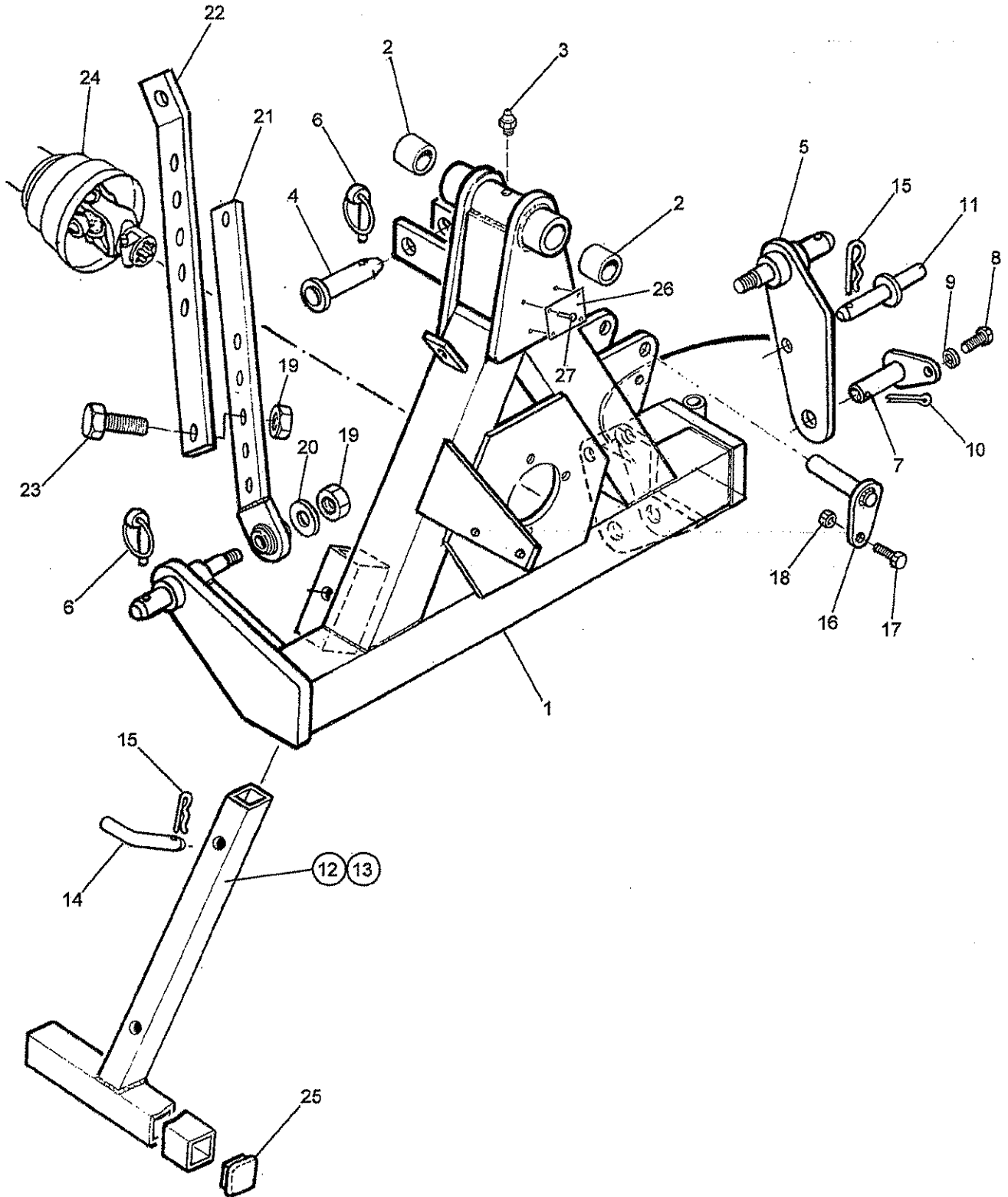
Design improvement may have altered some of the parts listed in this manual - The latest part will always be supplied when it is interchangeable with an earlier one.

MAG 420

# MAIN FRAME & STABILISER



Module:  
7442501



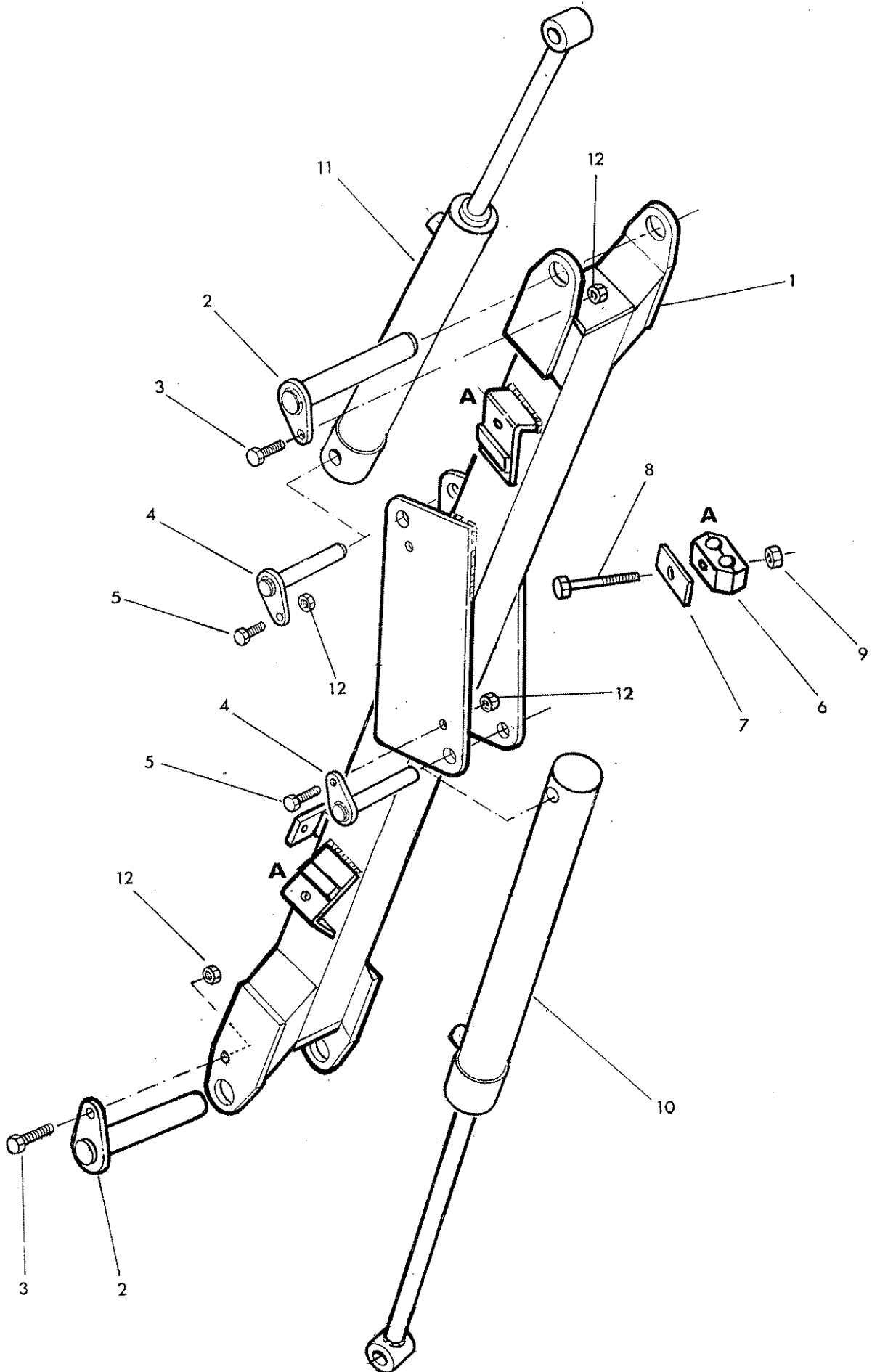


Ref	Part No.	Qty	Description
<b>MAIN FRAME AND STABILISER</b>			
1	42343.01	1	Mainframe
2	72 13 023	2	Bush
3	09 01 121	1	Greaser <small>1/2" x 1/2" x 1/2"</small> straight
4	71 18 112	1	Top link pin
5	42350.01	1	Swinging link
6	04 31 217	3	Linch pin
7	41693.05	1	Pivot pin - swing link
8	93 13 045	1	Setscrew
9	91 00 205	1	Spring washer
10	95 01 406	1	Split pin
11	42489.01	1	Pin - breakaway lock
12	42348.01	1	Stand leg L Hand
13	42348.02	1	Stand leg R Hand
14	71 92 023	2	Leg pin
15	04 31 105	3	Spring cotter
16	41691.03	1	Pin - lift ram
17	92 13 065	1	Bolt
18	91 43 005	1	Self locking nut
19	91 43 007	6	Self locking nut
20	01 00 106	2	Plain washer
21	42366.03	2	Stabiliser lower
22	42366.04	2	Stabiliser upper
23	93 13 077	4	Setscrew
24	71 14 289	1	PTO shaft
25	71 91 108	2	Bung
26	13 35 246	1	Serial No. plate
27	71 03 230	4	Pop rivet

MAIN ARM



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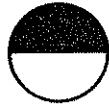




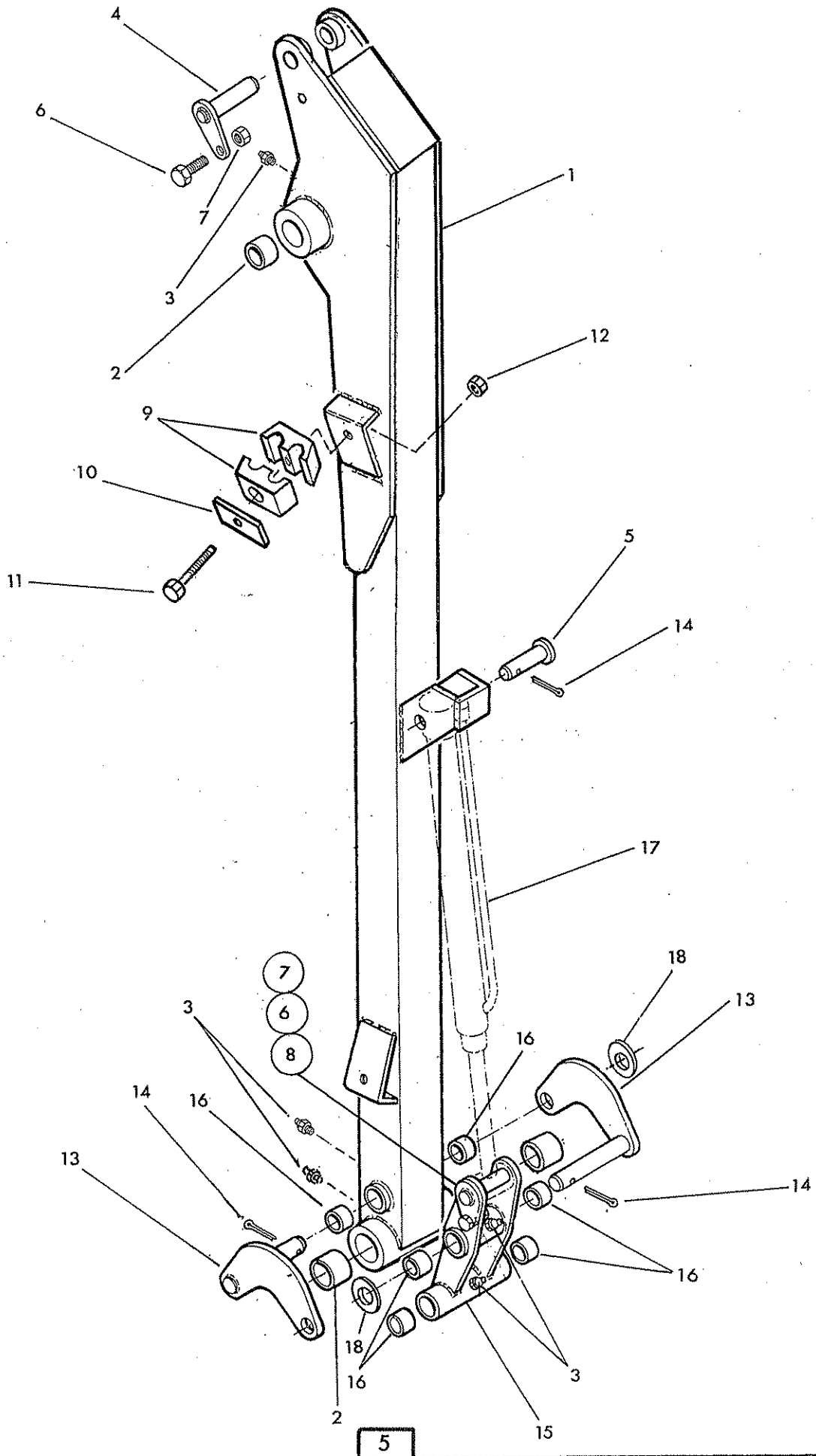


Ref	Part No.	Qty	Description
<b>MAIN ARM</b>			
1	42344.01	1	Main arm
2	42378.01	2	Pivot pin
3	92 13 075	2	Bolt
4	41691.04	2	Pin - lift + reach base
5	92 13 065	2	Bolt
6	71 98 077	2	Hose clamp
7	71 98 093	2	Clamp plate
8	92 13 134	2	Bolt
9	91 43 004	2	Self locking nut
10	42381.01	1	Lift ram assembly
11	42381.02	1	Reach ram assembly
12	91 43 005	4	Self locking nut

DIPPER ARM



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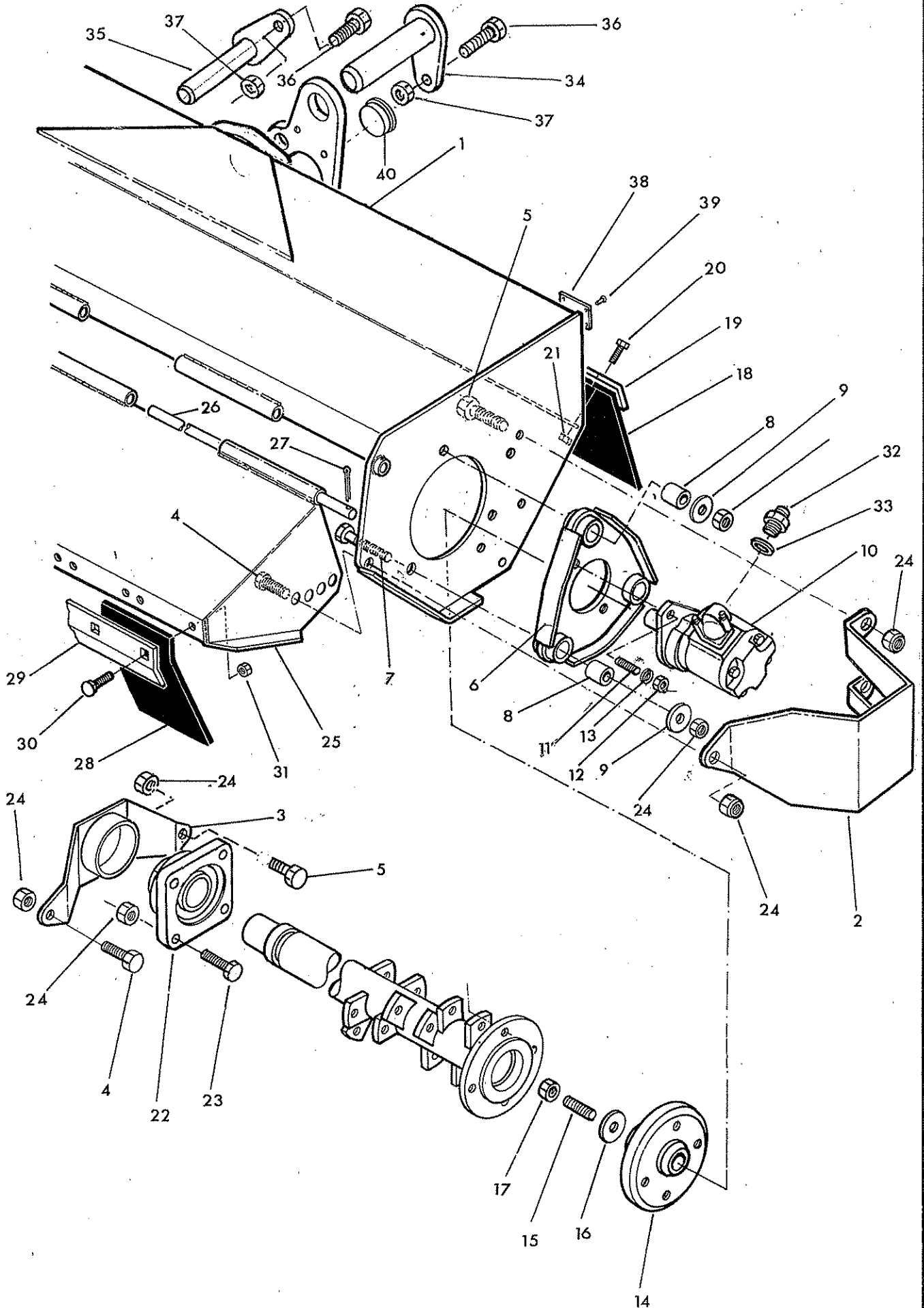


Ref	Part No.	Qty	Description
<b>DIPPER ARM AND ANGLING</b>			
1	42345.01	1	Dipper arm
2	72 13 023	4	Bush
3	09 01 121	5	Greaser - straight
4	41691.01	1	Pivot pin - reach gland
5	71 91 041	1	Pivot pin - angle base
6	92 13 065	2	Bolt
7	91 43 005	2	Self locking nut
8	71 91 042	1	Pivot pin - angle rod
9	71 98 077	2	Hose clamp
10	71 98 093	2	Clamp plate
11	92 13 134	2	Bolt
12	91 43 004	2	Self locking nut
13	71 91 282	2	Radius arm
14	95 01 406	3	Split pin
15	71 91 281	1	Slave link
16	41690.01	6	Bush
17	71 91 072	1	Angle ram assembly
18	01 00 109	1	Plain washer

# FLAIL CASING



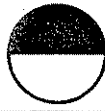
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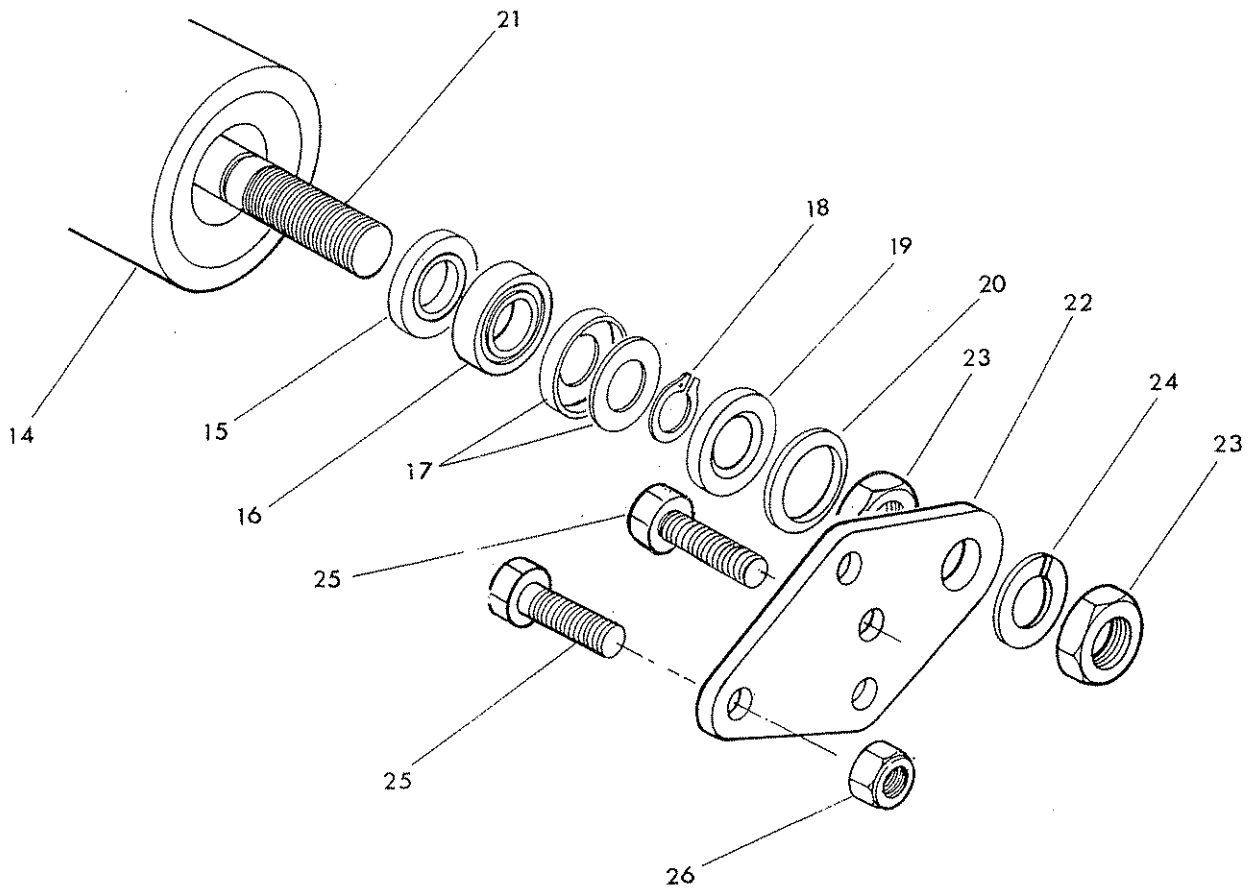
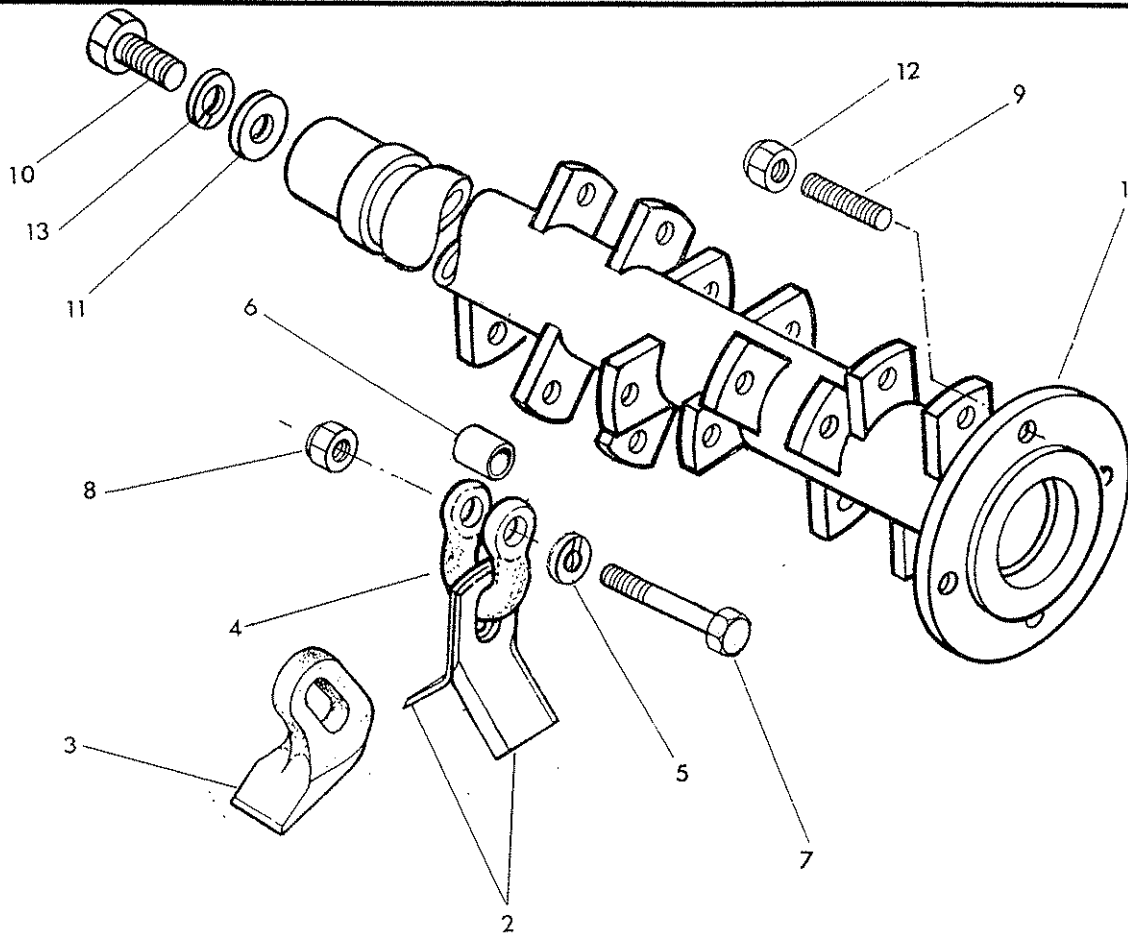


Ref	Part No.	Qty	Description
<b>FLAIL HEAD CASING</b>			
1	41282.03	1	Casing
2	42495.01	1	Motor cover
3	42496.01	1	Bearing cover free end
4	93 13 066	2	Setscrew
5	93 13 056	3	Setscrew
6	09.132.02	1	Motor mounting plate
7	92 13 126	3	Bolt
8	03.871.01	3	Rubber bush
9	02.824.01	3	Washer
10	08.785.04	1	Hydraulic motor
11	04 282 56	2	Stud
12	91 13 065	2	Plain nut
13	91 00 205	2	Spring washer
14	03.833.01	1	Drive plate
15	03.960.02	1	Stud
16	03.959.02	1	Plain washer special
17	01 41 003	1	Self locking nut
18	41289.02	1	Rear flap
19	41290.02	1	Clamp strip
20	93 13 034	9	Setscrew
21	91 43 004	9	Self locking nut
22	03.008.01	1	Flanged bearing
23	93 13 076	4	Setscrew
24	91 43 006	12	Self locking nut
25	41283.02	1	Front hood
26	41293.02	1	Hood pivot bar
27	95 01 325	2	Split pin
28	41296.02	7	Front flap
29	41291.02	1	Clamp strip
30	92 93 054	14	Bolt cup square
31	91 43 004	14	Self locking nut
32	85 81 136	2	Union
33	86 50 106	2	Bonded seal
34	71 91 034	1	Head pivot pin
35	71 91 043	1	Slave link pin
36	93 13 075	2	Setscrew
37	91 43 005	2	Self locking nut
38	13 35 246	1	Serial No. plate
39	71 03 230	4	Pop rivet
40	02.717.02	1	Plastic bung

ROTOR & FLAIL OPTIONS  
ROLLER



**McCORMICK**

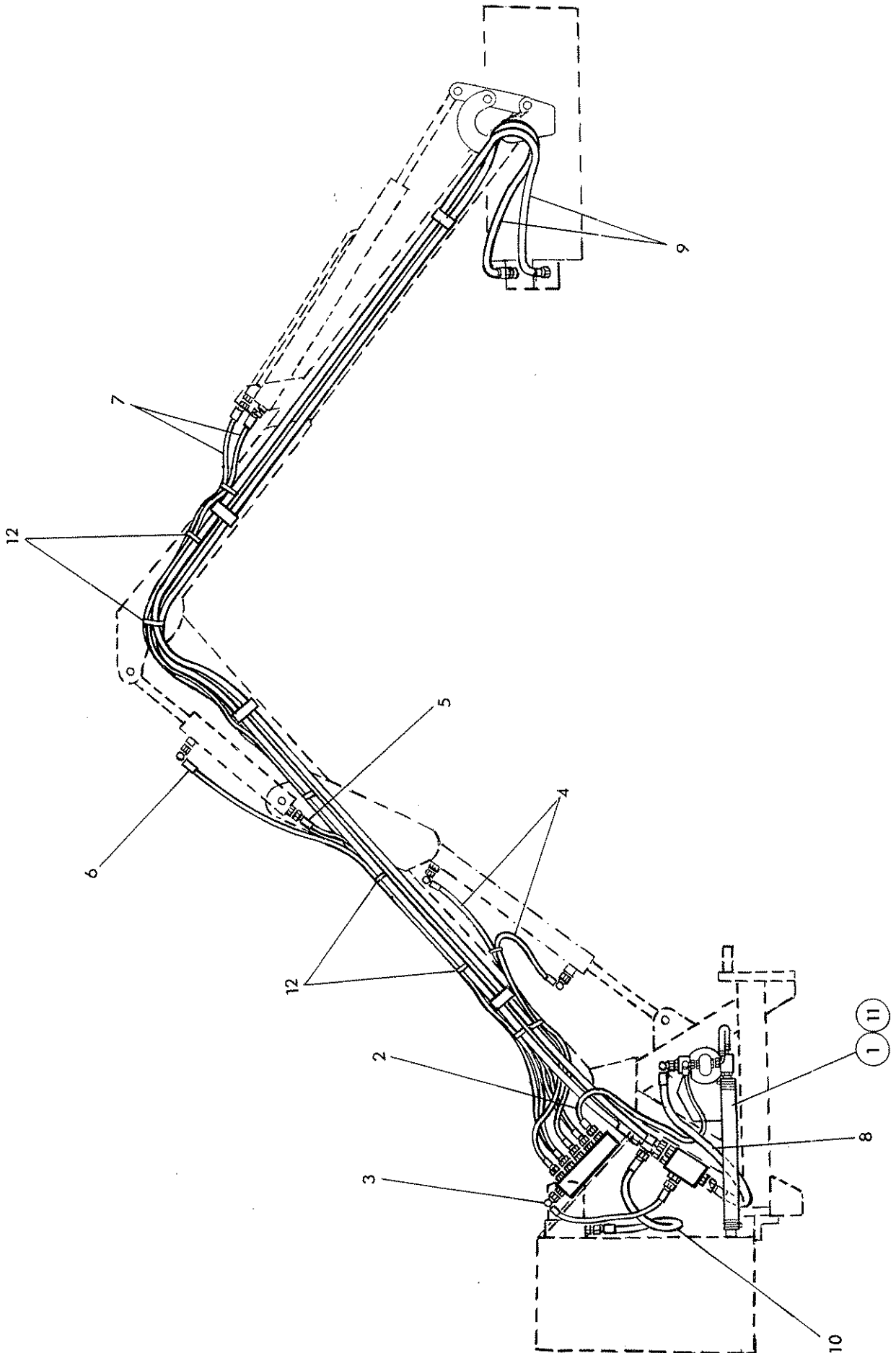




Ref	Part No.	Qty	Description
<b>ROTOR</b>			
1	41284.02	1	Rotor
2	71 90 166	56	Flail - grass
3	71 90 463	28	Flail - universal
4	05.895.01	28	Shackle
5	91 00 207	28	Spring washer
6	02.807.01	28	Spacer
7	05 775 10	28	Bolt - special
8	05 968 06	28	Self locking nut
9	03.917.01	4	Stud
10	93 53 076	1	Setscrew c/sunk
11	42503.01	1	Washer - special c/sunk
12	05 968 02	4	Self locking nut
13	91 00 206	1	Spring washer

**ROLLER**

	41301.02	1	Roller assembly compr:-
14	41301.33	1	Roller
15	04.456.07	2	Seal
16	04.456.11	2	Bearing
17	04.456.06	2	Labyrinth seal
18	04.456.04	2	External circlip
19	04.456.08	2	V seal
20	04.456.05	2	Bearing retainer
21	41301.34	1	Roller shaft
22	41285.01	2	Roller bracket
23	91 13 008	4	Plain nut
24	91 00 208	2	Spring washer
25	93 13 076	4	Setscrew
26	91.43.006	4	Self locking nut







Ref Part No. Qty Description

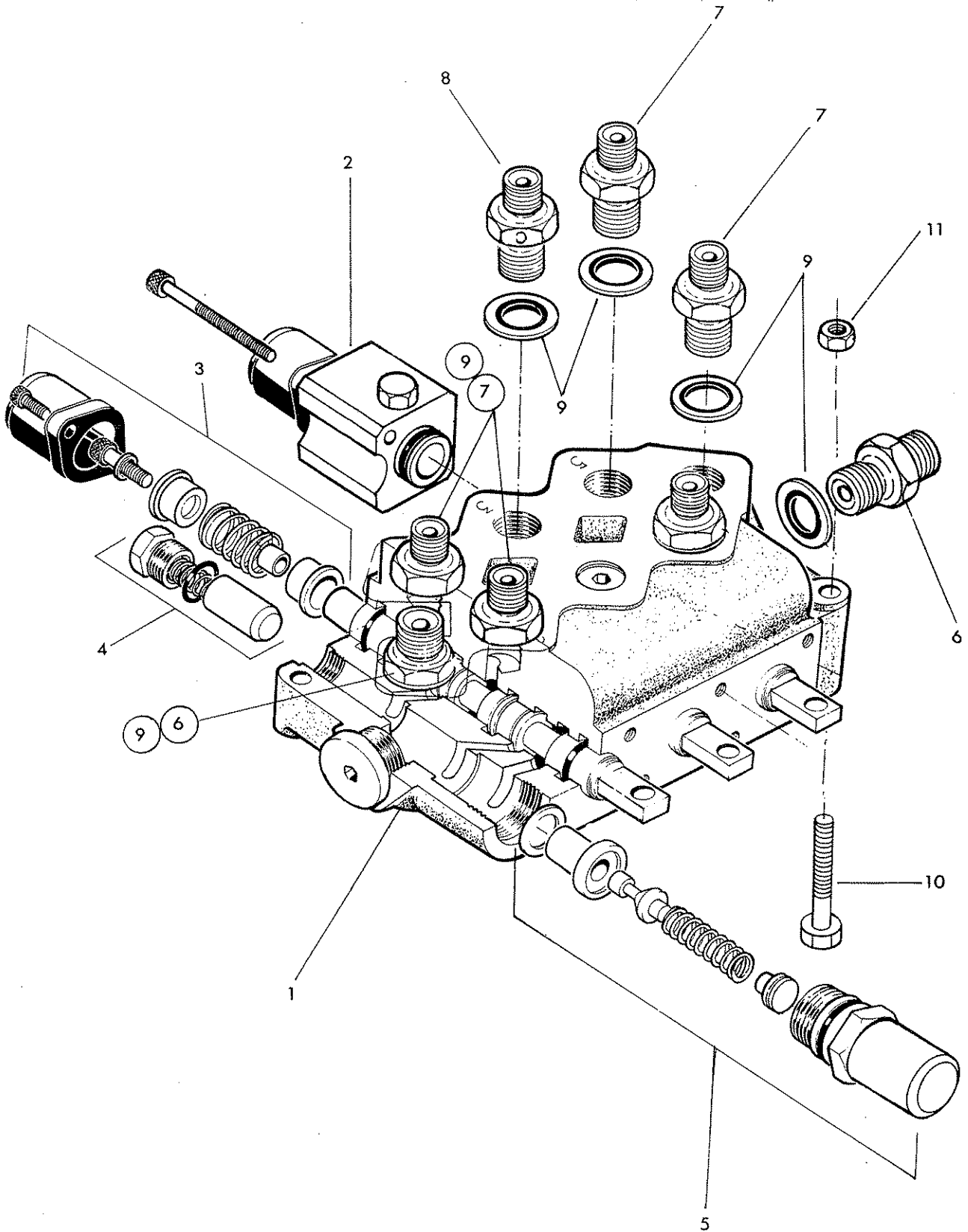
**HOSE INSTALLATION**

1	85 01 218	1	Hose - suction 1 1/2" bore x 530 long
2	10.004.10	1	Hose 3/8 BSP x 500 long pump - valve
3	10.004.11	1	Hose 3/8 BSP x 550 valve - R C valve
4	10.002.23	2	Hose 1/4 BSP x 1300 - lift
5	10.001.26	1	Hose 1/4 BSP x 1600 - Reach base
6	10.002.31	1	Hose 1/4 BSP x 2100 - Reach gland
7	10.001.44	2	Hose 1/4 BSP x 3400 - Angle
8	10.010.16	1	Hose 3/4 BSP x 800 pump - R C valve
9	10.009.63	2	Hose 3/4 BSP x 5300 flail motor
10	10.009.11	1	Hose 3/4 BSP x 550 Return to tank
11	09.04.107	4	Hose clip
12	71 35 084	12	Hose tie

ARM CONTROL VALVE



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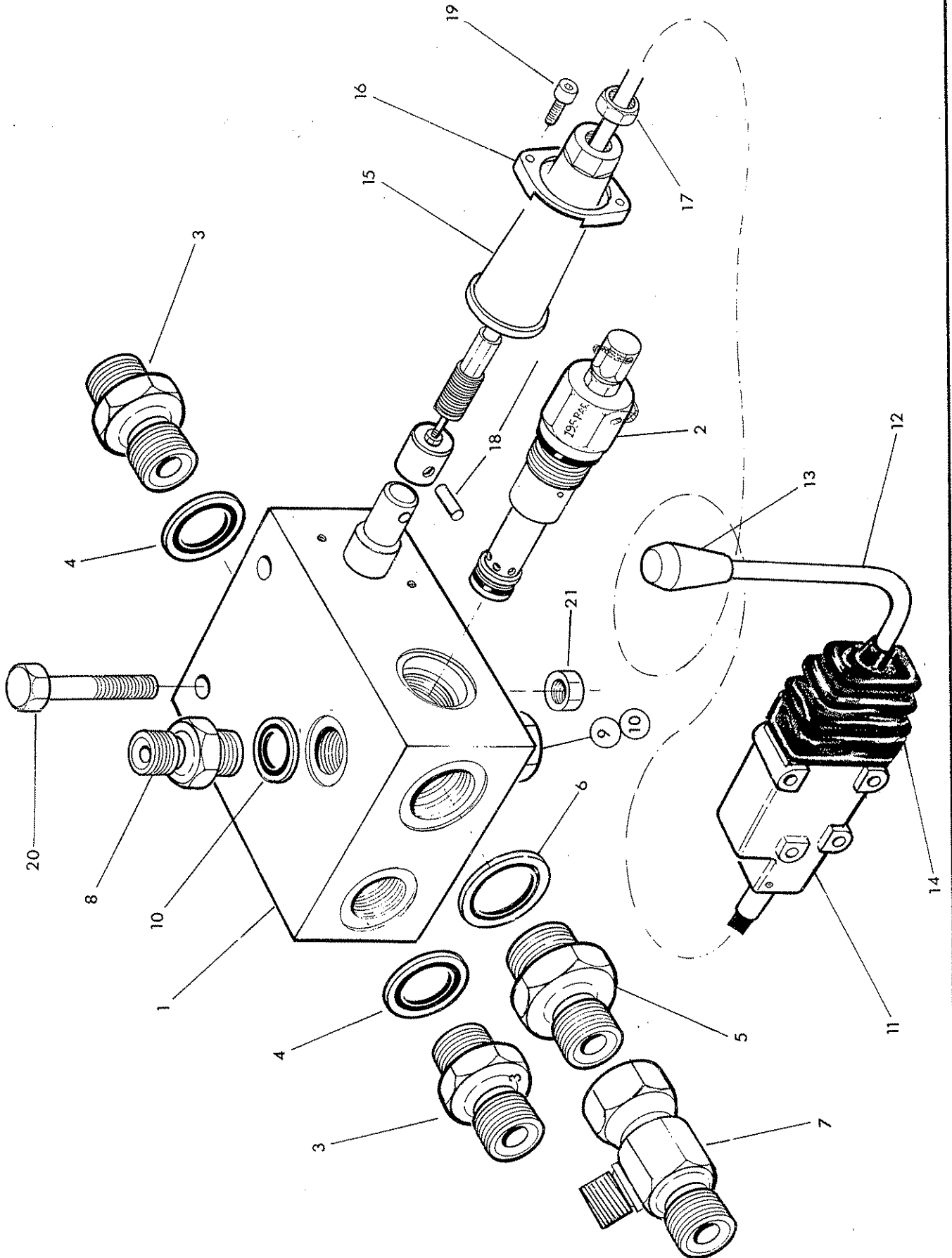


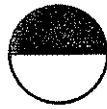
Ref	Part No.	Qty	Description
<b>ARM CONTROL VALVE ASSEMBLY</b>			
1	81 30 417	1	Arm control valve incl.
2	81 30 084	1	Angle detent assy
3	81 30 134	2	Centering spring assembly
4	81 30 022	1	Non return valve assembly
5	G381 2539	1	Main relief valve assy 160 Bar
6	60 00 113	2	Union
7	85 81 115	5	Adaptor
8	81 30 048	1	Adaptor - restricted
9	86 50 103	8	Bonded seal
10	92 13 124	3	Bolt
11	91 13 004	3	Self locking nut
	86 99 163		<b>SEAL KIT</b>

ROTOR CONTROL VALVE



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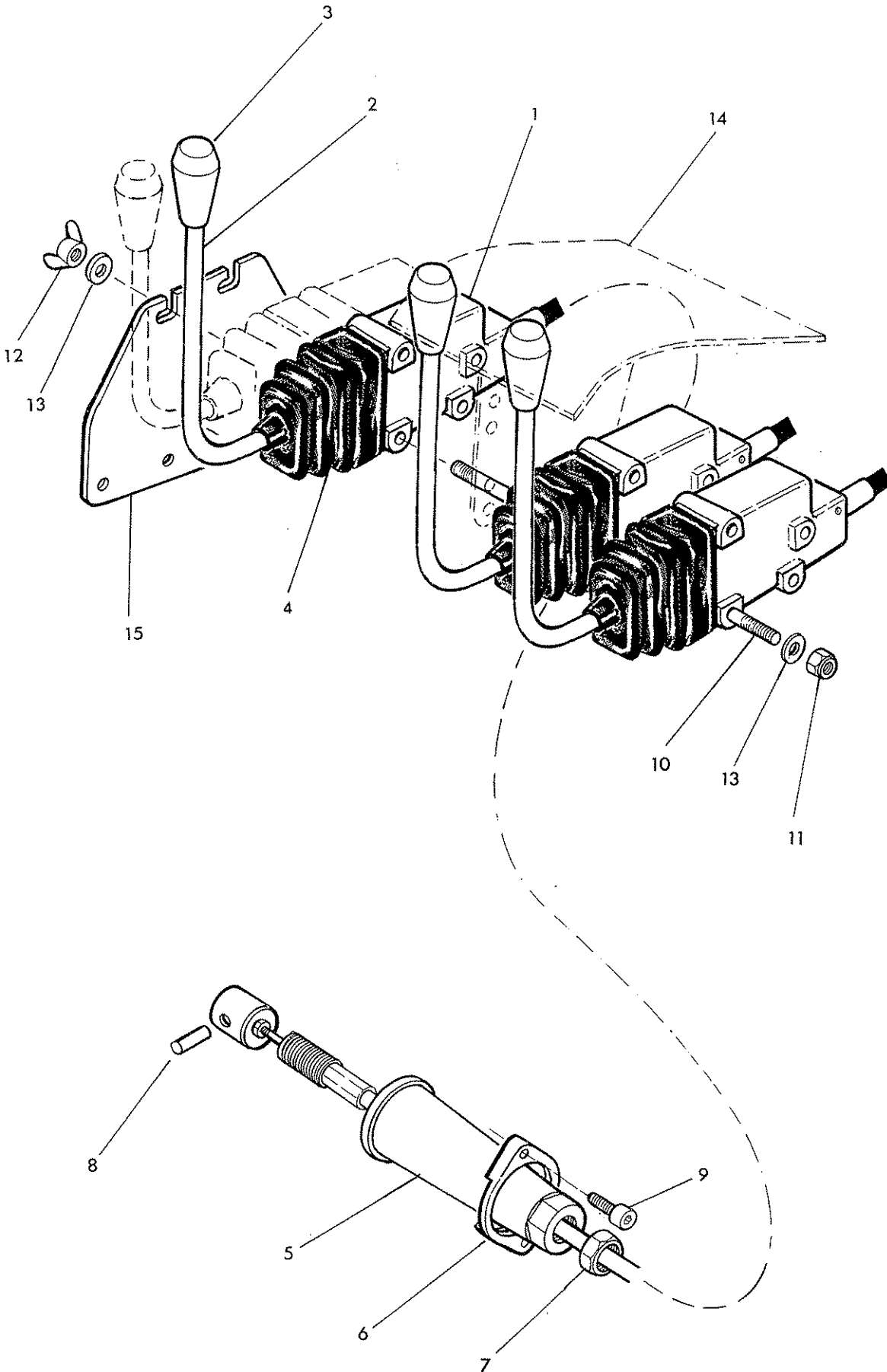


Ref	Part No.	Qty	Description
	<b>74 42 252</b>		<b>ROTOR CONTROL VALVE ASSEMBLY</b>
1	06.284.01	1	Rotor control valve incl.
2	06.299.03	1	Relief valve 210 bar
3	85 81 136	2	Union
4	86 50 106	2	Bonded seal
5	80 02 086	1	Adaptor
6	86 50 108	1	Bonded seal
7	04.056.01	1	Tee
8	60 00 113	1	Union
9	80 03 001	1	Plug
10	86 50 103	2	Bonded seal
11	04.265.35	1	Control head and cable assy incl.
12	04.265.53		lever
13	04.265.29		knob - red
14	04.265.10		weather gaiter
15	04.265.19		sleeve
16	04.265.17		flange
17	04.265.15		locknut
18	04.265.28		pin
19	04 42 061	2	Capscrew
20	92 13 145	2	Bolt
21	91 43 005	2	Self locking nut
	<b>06.284.02</b>		<b>SEAL KIT</b>

LEVER CONTROLS



**McCORMICK**



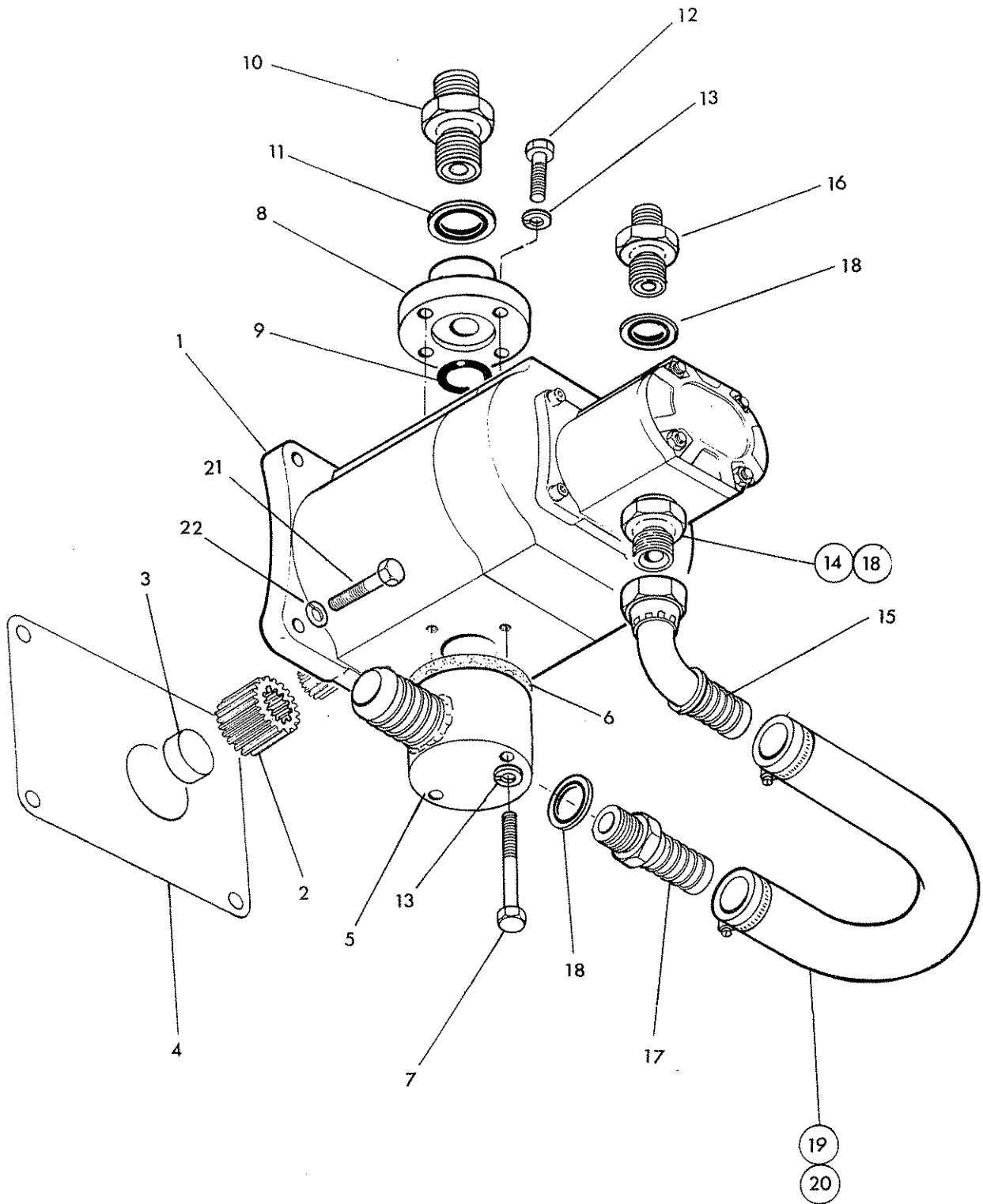


Ref	Part No.	Qty	Description
<b>ARM CONTROL ASSEMBLY</b>			
1	04.265.82	3	Control head and cable assy incl.
2	04.265.38	1	lever
3	04.265.09	1	knob - black
4	04.265.10	1	weather gaiter
5	04.165.84	1	sleeve
6	04.265.83	1	flange
7	04.265.15	1	locknut
8	04.265.86	1	pin
9	93 43 022	6	Capscrew
10	04.282.01	3	Stud
11	91 43 004	3	Self locking nut
12	91 93 004	3	Wing nut
13	91 00 104	6	Plain washer
14	42.256.01	1	Wrist support
15	42.491.01	1	Mounting bracket

PUMP



McCOMBELL





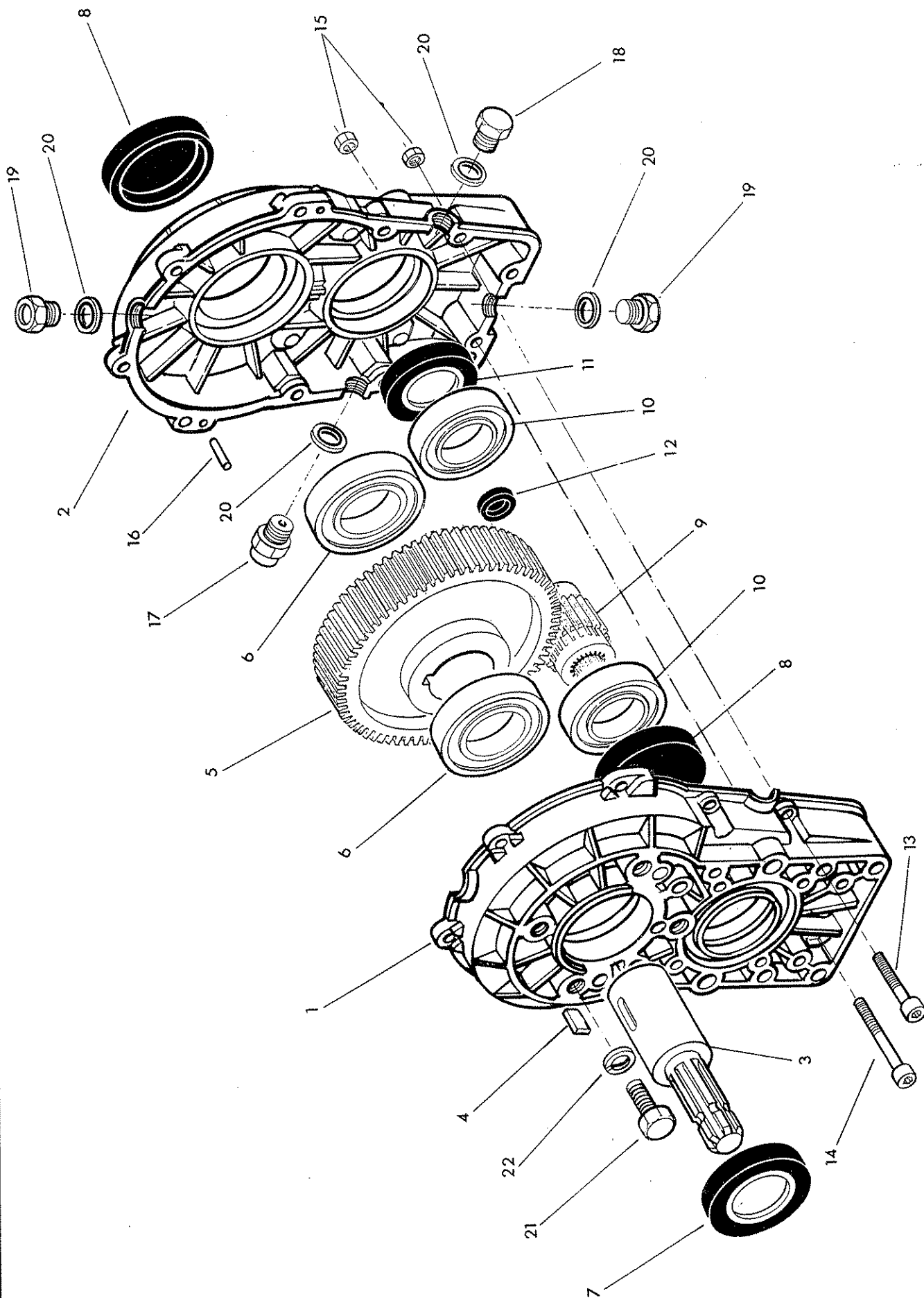


Ref	Part No.	Qty	Description
<b>PUMP ASSEMBLY</b>			
1	82 01 466	1	Pump comprising
	82 01 684	1	Large pump
	82 01 677	1	Small pump
2	80 13 097	1	Splined adaptor
3	42415.01	1	Spacer
4	80 13 056	1	Pump face gasket
5	80 13 098	1	Suction connection
6	80 13 023	1	Gasket
7	92 13 144	2	Bolt
8	80 13 088	1	Pressure connection flange
9	86 00 119	1	O ring
10	85 81 136	1	Union
11	86 50 106	1	Bonded seal
12	93 13 054	4	Setscrew
13	91 00 404	8	Washer - external shakeproof
14	G381 2120	1	Adaptor
15	85 81 173	1	Swivel elbow - low pressure
16	60 00 112	1	Adaptor
17	80 02 059	1	Adaptor low pressure
18	86 50 104	3	Bonded seal
19	85 01 099	1	Hose 5/8" bore x 13" long
20	09 04 204	2	Hose clip
21	92 13 075	4	Bolt
22	91 00 405	4	Washer external shakeproof
	86 99 231		SEAL KIT

GEARBOX



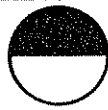
McCONNELL



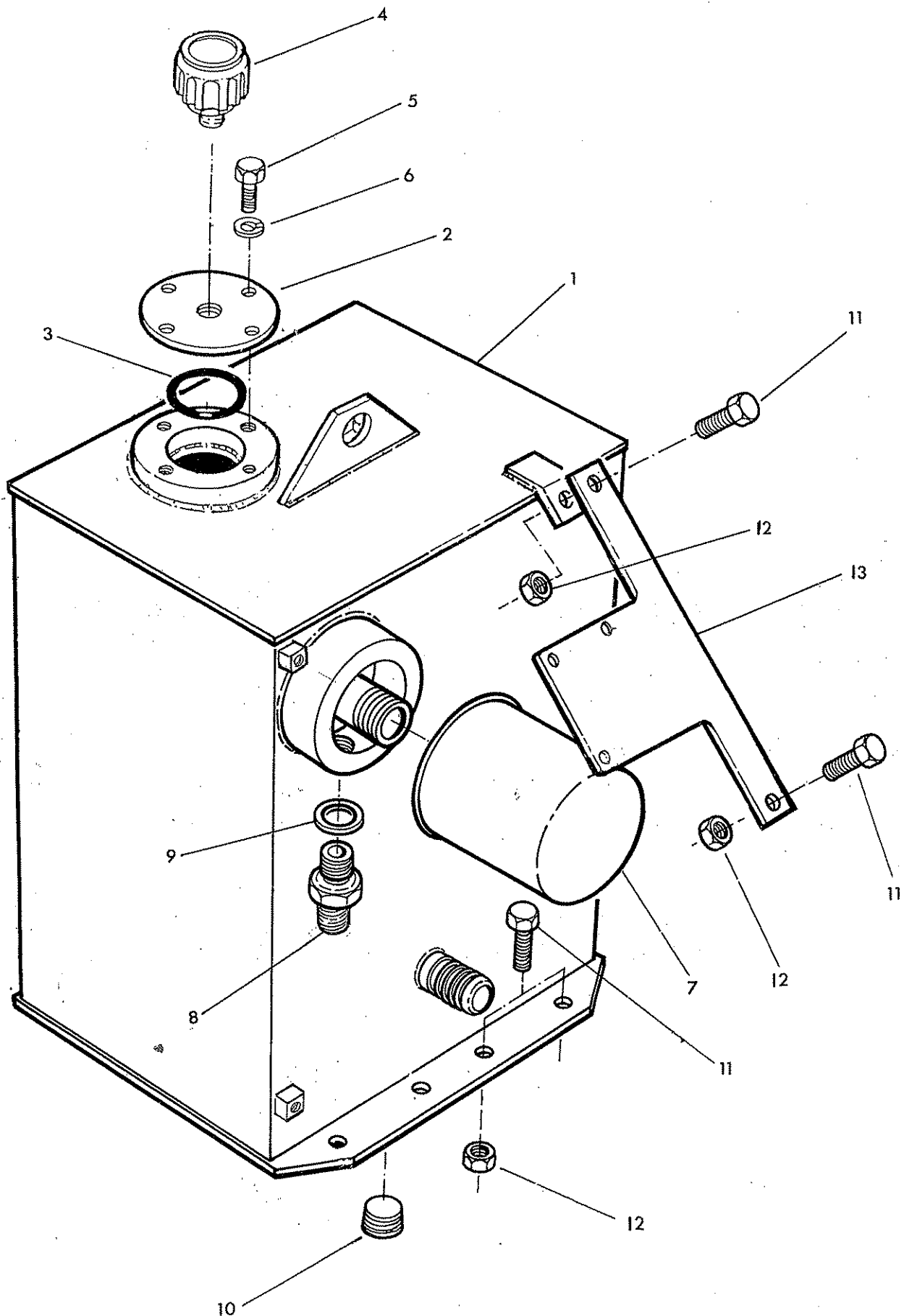


Ref	Part No.	Qty	Description
	<b>80 13 536</b>		<b>GEARBOX ASSEMBLY</b>
1	80 13 537	1	Case - input
2	80 13 538	1	Case - output
3	80 13 539	1	Input shaft
4	80 13 540	1	Key
5	80 13 541	1	Gear
6	06 00 048	2	Bearing
7	80 13 542	1	Seal
8	80 13 543	2	Cap
9	80 13 544	1	Gear
10	06 00 047	2	Bearing
11	80 13 545	1	Seal
12	80 13 546	1	Cap
13	93 43 054	8	Capscrew
14	93 43 124	2	Capscrew
15	91 43 004	10	Self locking nut
16	80 13 547	2	Dowel pin
17	80 13 068	1	Breather
18	80 13 548	1	Plug
19	80 03 001	2	Plug
20	86 50 103	4	Bonded seal
21	93 13 056	4	Setscrew
22	91 00 206	4	Spring washer

OIL TANK



**McCORMEL**

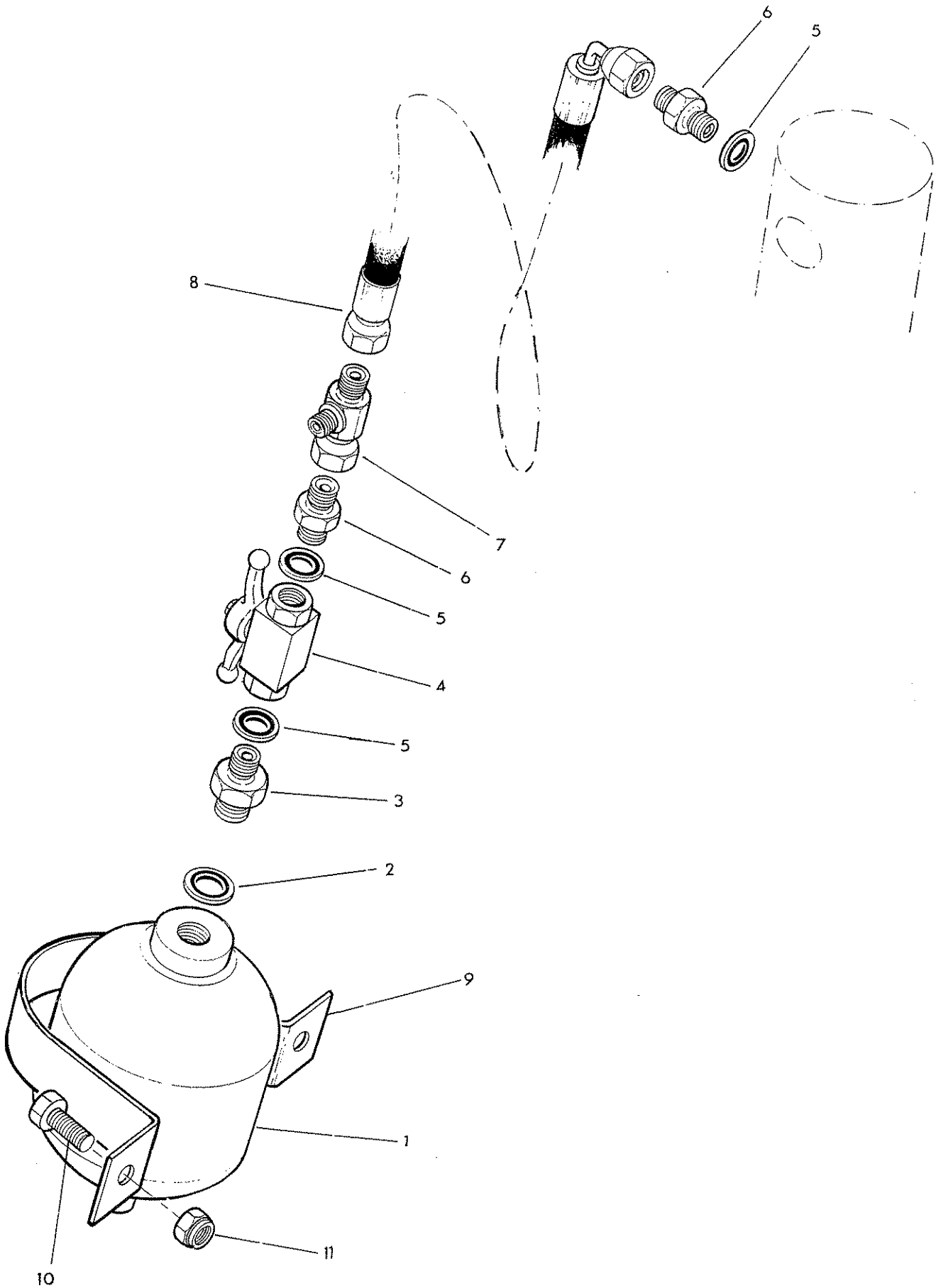
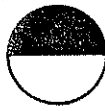


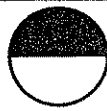


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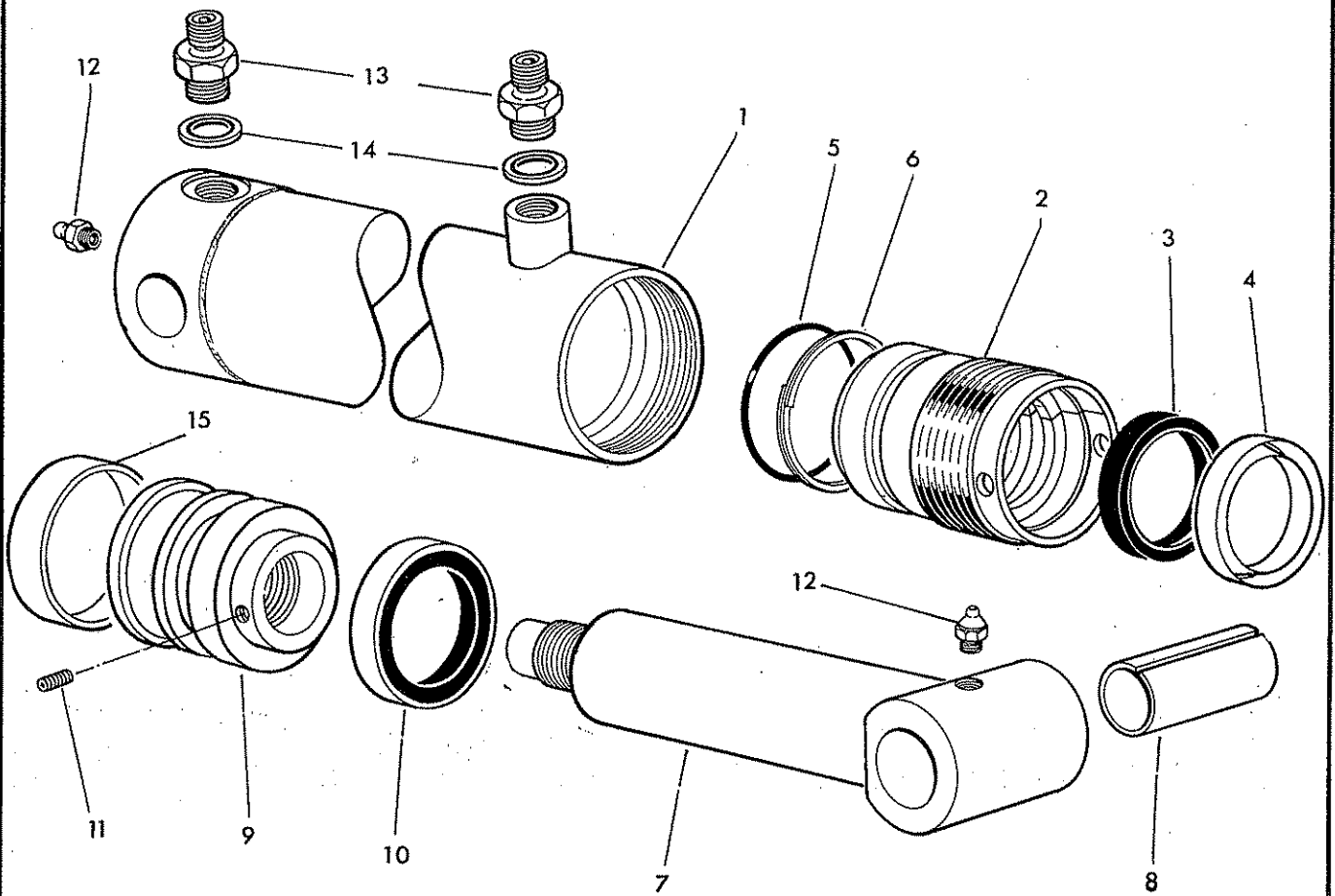
**HYDRAULIC TANK AND FITTINGS**

	74 42 505	1	Hydraulic tank assy.
1	42347.01	1	Hydraulic tank
2	71 92 063	1	Cover
3	86 00 151	1	O ring
4	84 01 063	1	Breather
5	93 13 054	4	Setscrew
6	91 00 204	4	Spring washer
7	84 01 041	1	Filter
8	85 81 136	1	Adaptor
9	86 50 106	1	Bonded seal
10	85 81 203	1	Drain plug
11	92 13 065	4	Bolt
12	91 43 005	4	Self locking nut
13	42349.01	1	Tank stay bracket





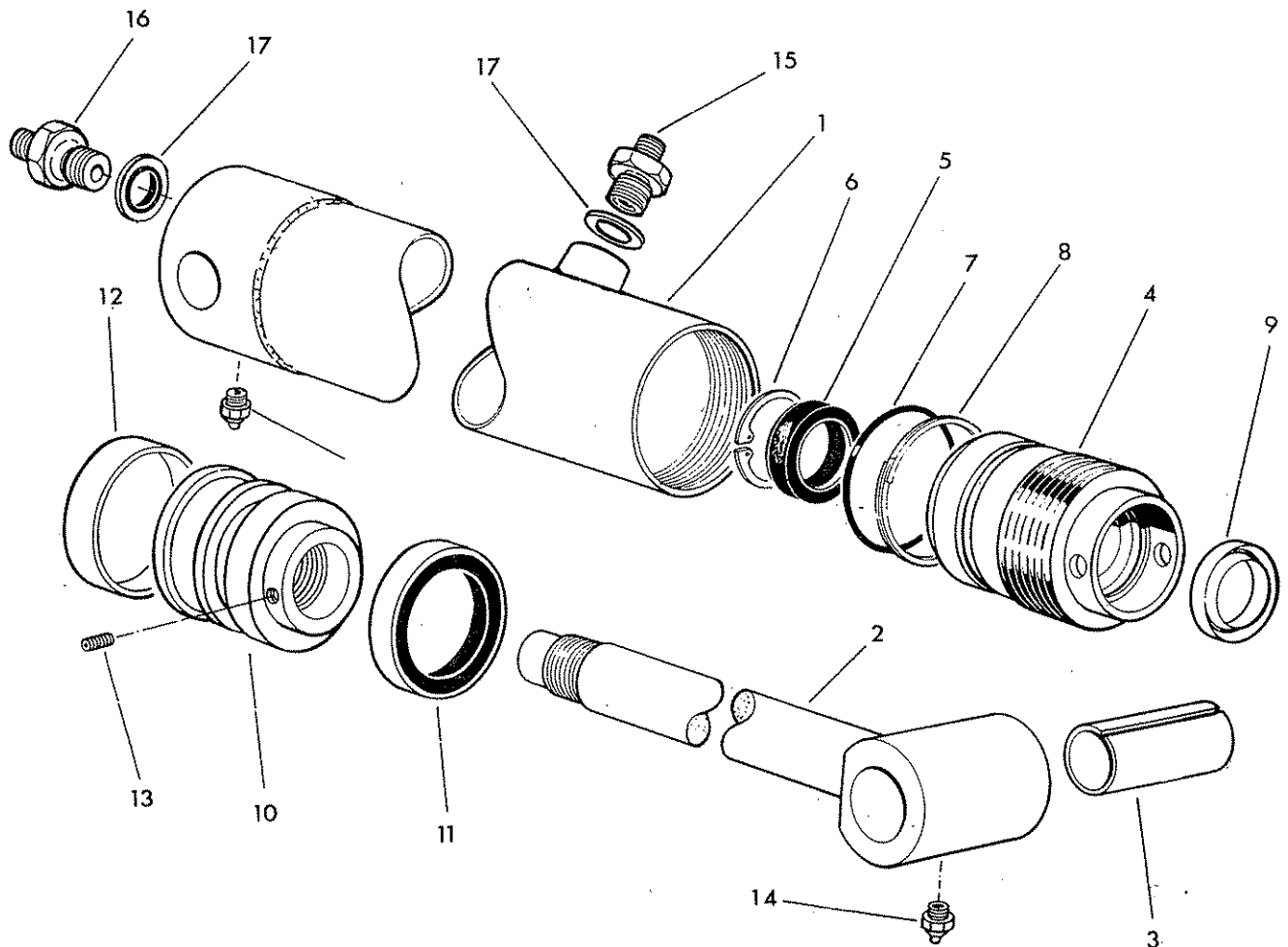
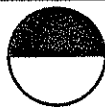
Ref	Part No.	Qty	Description
	<b>81 26 305</b>		<b>LIFT FLOAT - Optional extra</b>
1	41451.02	1	Accumulator
2	86 50 104	1	Bonded seal
3	G241 0380	1	Adaptor
4	08.200.01	1	Tap
5	86 50 103	3	Bonded seal
6	60 00 113	2	Adaptor
7	04.056.16	1	Tee
8	85 31 353	1	Hose 3/8 bsp X 22" long
9	00.858.01	1	Clamp strap
10	93 13 075	2	Setscrew
11	91 43 005	2	Self locking nut



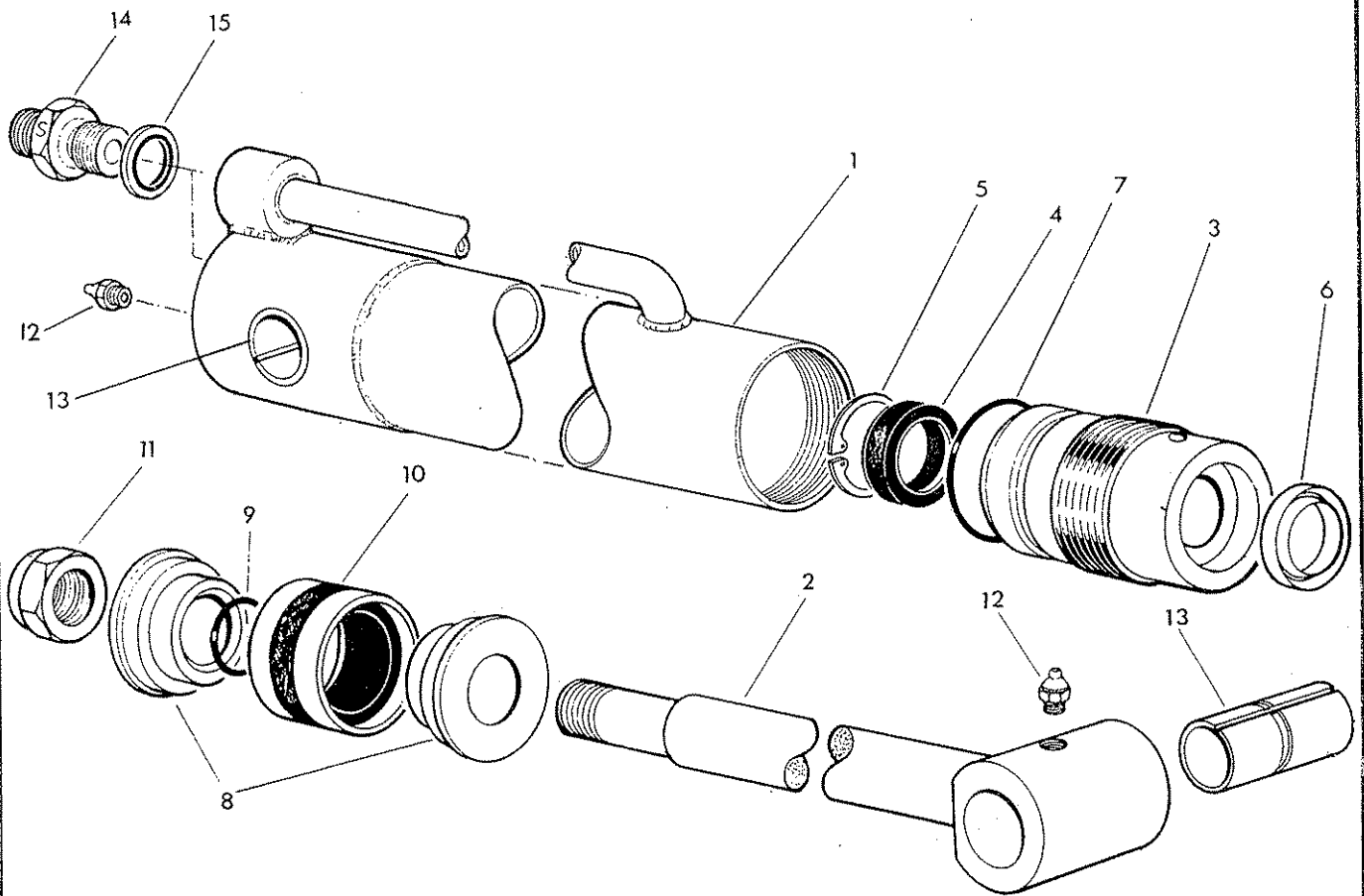
Ref	Part No.	Qty	Description
	<b>42381.01</b>		<b>LIFT RAM ASSEMBLY</b>
1	42381.31	1	Ram barrel
2	11 86 512	1	Gland housing
3	86 29 164	1	Gland seal
4	86 29 147	1	Piston rod wiper seal
5	86 00 306	1	'O' ring
6	86 09 306	1	Anti extrusion ring
7	71 91 307	1	Piston rod
8	71 05 050	1	Bush
9	71 91 307	1	Piston
10	86 29 156	1	Piston seal
11	93 63 023	1	Grub screw
12	09 01 121	2	Greaser
13	85 81 115	2	Adaptor
14	86 50 103	2	Bonded seal
15	86 29 157	1	Guide ring
	86 99 217		<b>SEAL KIT</b>

socket headed  
straight





Ref	Part No.	Qty	Description
	<b>42381.02</b>		<b>REACH RAM ASSEMBLY</b>
1	42381.33	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	86 29 157	1	Guide ring
13	93 63 023	1	Grubscrew socket headed
14	09 01 121	2	Greaser
15	81 30 066	1	Adaptor
16	86 50 103	3	Bonded seal
17	81 30 048	1	Adaptor
	<b>86 99 190</b>		<b>SEAL KIT</b>



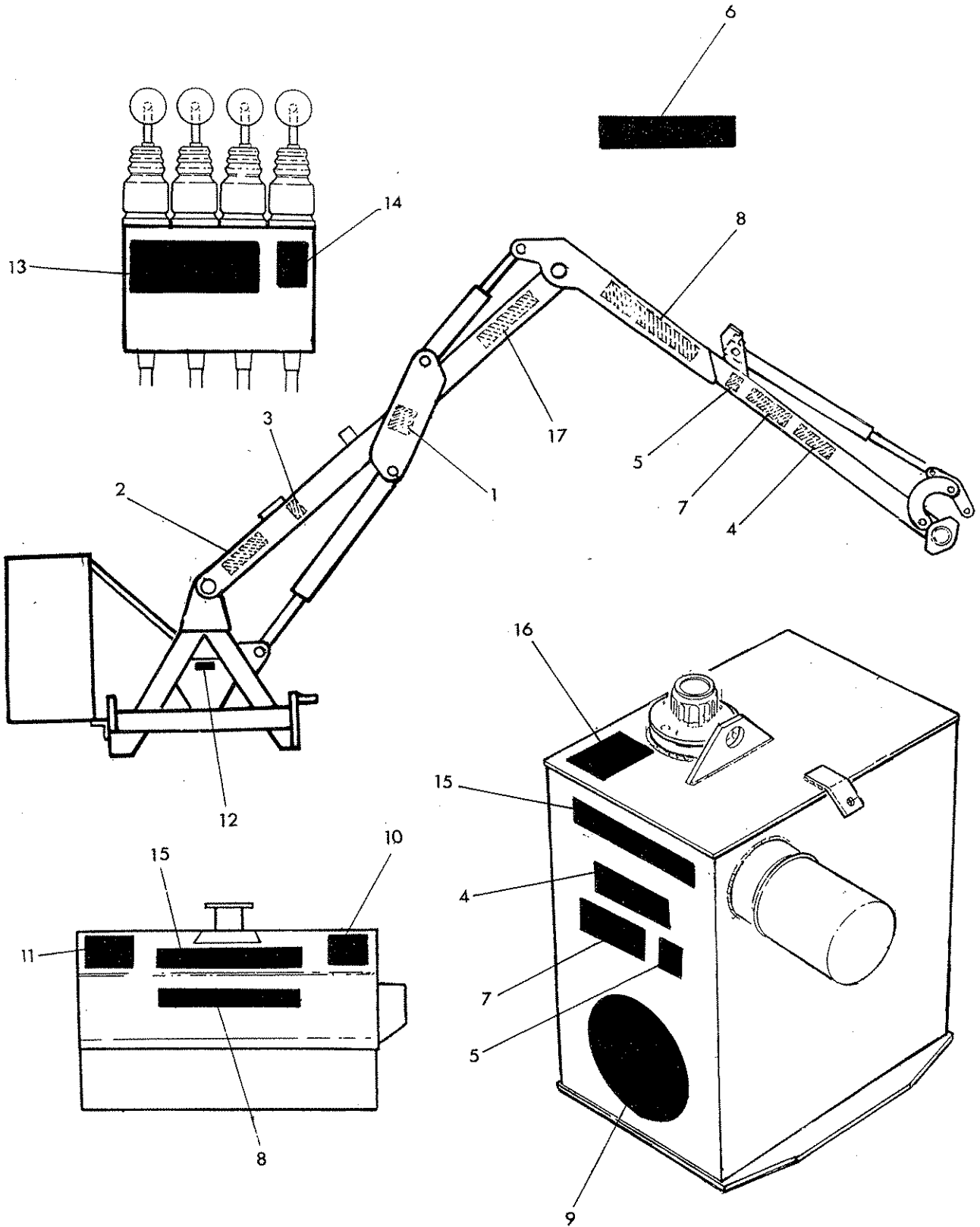
Ref.	Part No.	Qty.	Description
	<b>71-91-072</b>		<b>ANGLING RAM ASSEMBLY</b>
	71-91-295	1	Ram basic comprising:-
1	71-91-296	1	Cylinder
2	10-90-031	1	Piston rod
3	10-90-273	1	Gland nut
4	86-29-162	1	Gland seal
5	04-16-234	1	Circlip
6	86-29-161	1	Wiper ring
7	86-00-123	1	'O' ring
8	10-90-034	1	Piston
9	86-00-112	1	'O' ring
10	86-29-160	1	Piston seal
11	01-41-007	1	Self locking nut
12	09-01-121	1	Greaser
13	10-90-005	2	Bush
14	81-30-037	2	Restrictor union 'S'
15	86-50-102	2	Bonded seal
	<b>86-99-202</b>		<b>SEAL KIT</b>

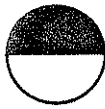
**Assembly note**

Assemble locknut onto rod using 'Permabond A113' or similar medium strength thread locking compound.



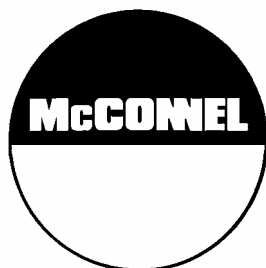
**McCOMBELL**





Ref	Part No.	Qty	Description
<b>STICKERS</b>			
1	71 05 136	1	Read book first
2	12 90 331	1	Tighten check chains
3	12 90 074	1	Sling here symbol
4	12 90 411	2	Mag
5	12 90 047	2	S
6	12 90 352	1	Gen warning - despatched loose
7	12 90 492	2	420
8	12 90 255	1	McConnel
9	12 90 496	1	McConnel roundel
10	12 90 377	1	Flail head instructions
11	12 90 341	1	Flail head guarding
12	12 90 088	1	Gearbox oil capacity
13	12 90 354	1	Lever controls
14	71 14 079	1	Rotor controls
15	12 90 436	2	Agram
16	12 90 474	1	Greasing
17	12 90 450	1	Breakaway return warning





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