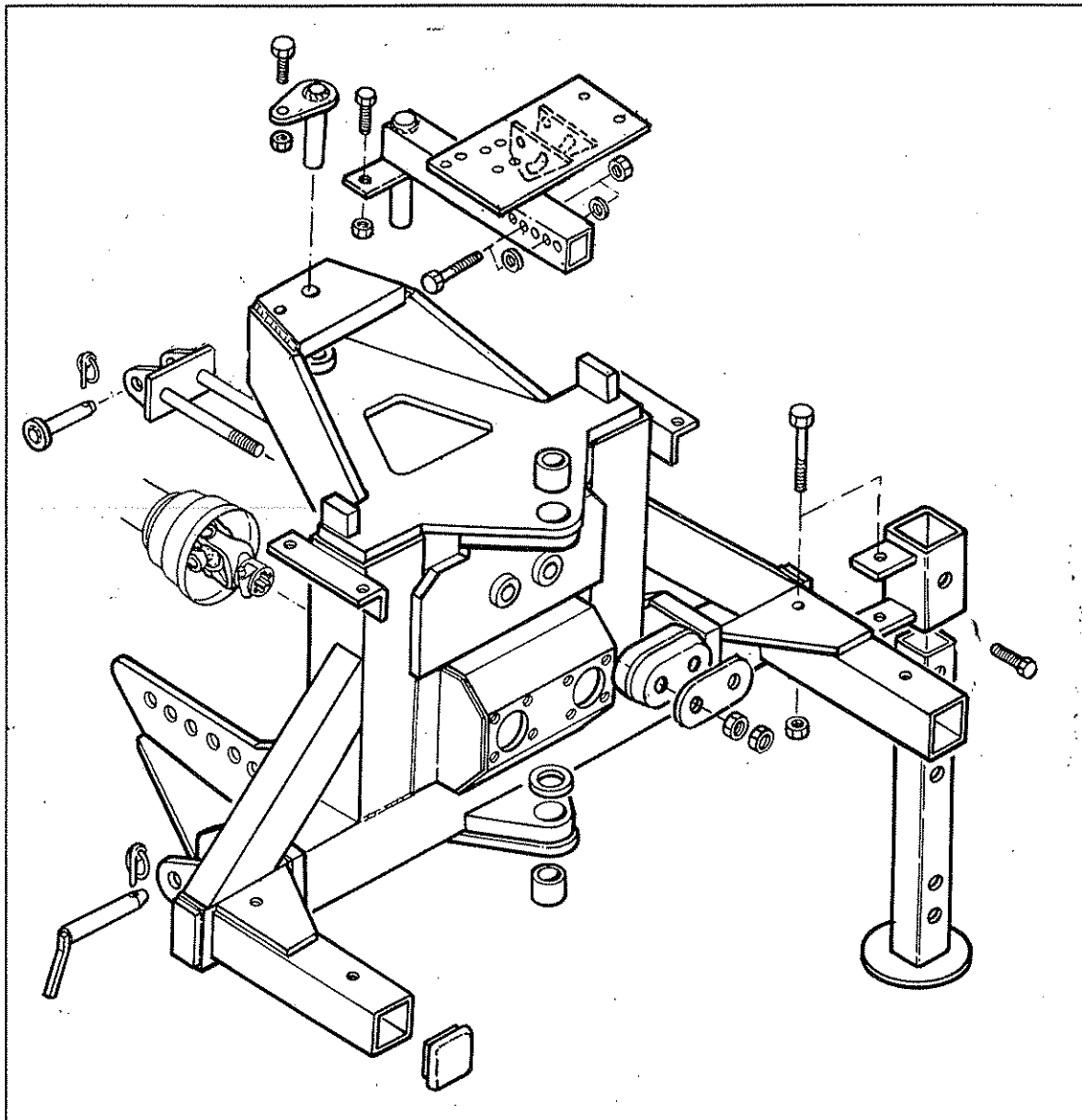


# MAG 500

## Pièces détachées

Pour les machines à commandes par téléflexibles



## LIST OF CONTENTS

### MAIN FRAME, PILLAR AND ARMS

Main Frame.....	Page 1
Pillar.....	Page 3
Main Arm and Rocker.....	Page 5
Dipper - std arm.....	Page 7
Dipper - midcut.....	Page 9
Control mounting.....	Page 11
Light bar (Optional extra).....	Page 12

### FLAIL HEADS

Flail head casing.....	Page 13
Rotors and flails.....	Page 21
Rollers.....	Page 23

### HYDRAULIC INSTALLATIONS

Primary circuit.....	Page 25
Service circuit.....	Page 27

### CONTROL VALVES

Main control valve.....	Page 29
Auxiliary control valve.....	Page 31
Rotor control valve.....	Page 33
Main control levers.....	Page 35
Secondary control levers.....	Page 37

### GENERAL HYDRAULICS

Pump and fittings.....	Page 39
Gearbox.....	Page 41
Hydraulic tank.....	Page 43
Lift float kit.....	Page 45

### HYDRAULIC RAMS

Lift ram.....	Page 47
Reach ram.....	Page 49
Slew/breakaway ram.....	Page 50
Angle ram.....	Page 51

### STICKERS

MAG500C.....	Page 53
--------------	---------

## NOTES PERSONELLES

## **MANUEL DE PIÈCES DÉTACHÉES**

### **POUR AVOIR LES MEILLEURES PERFORMANCES...**

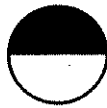
#### **UTILISER EXCLUSIVEMENT LES PIÈCES DÉTACHÉES McCONNEL**

Pour être certains d'avoir les dernières améliorations apportées, acheter vos pièces de remplacement chez le fabricant d'origine de votre équipement McConnell Ltd, chez votre concessionnaire ou stockiste local.

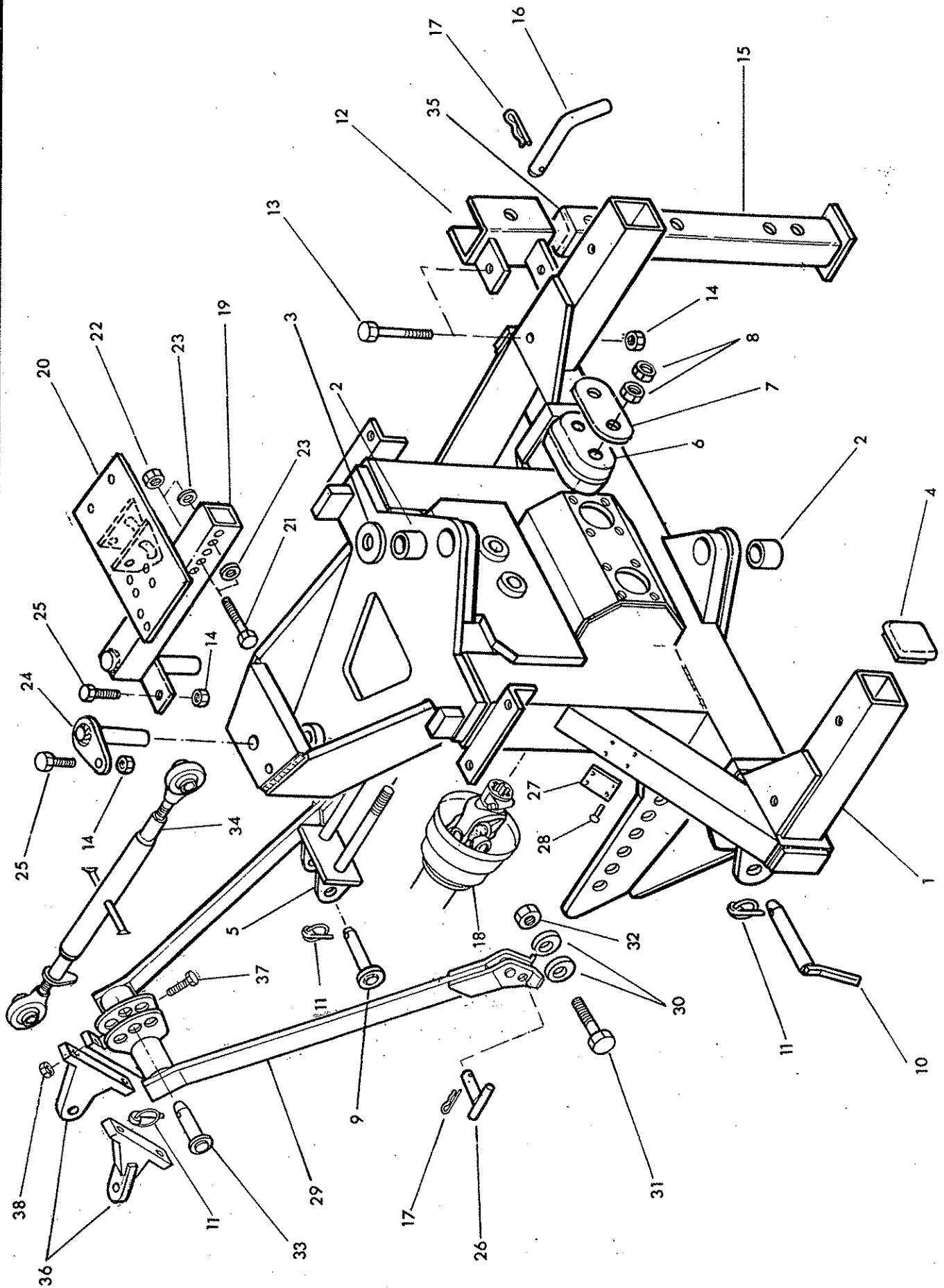
Donner toujours votre type et numéro de série de machine en même temps que le numéro de la pièce.

Des améliorations de conception peuvent avoir modifié certaines pièces listées dans ce manuel - La pièce la plus récente vous sera toujours fournie si elle est interchangeable avec la plus ancienne.

MAIN FRAME

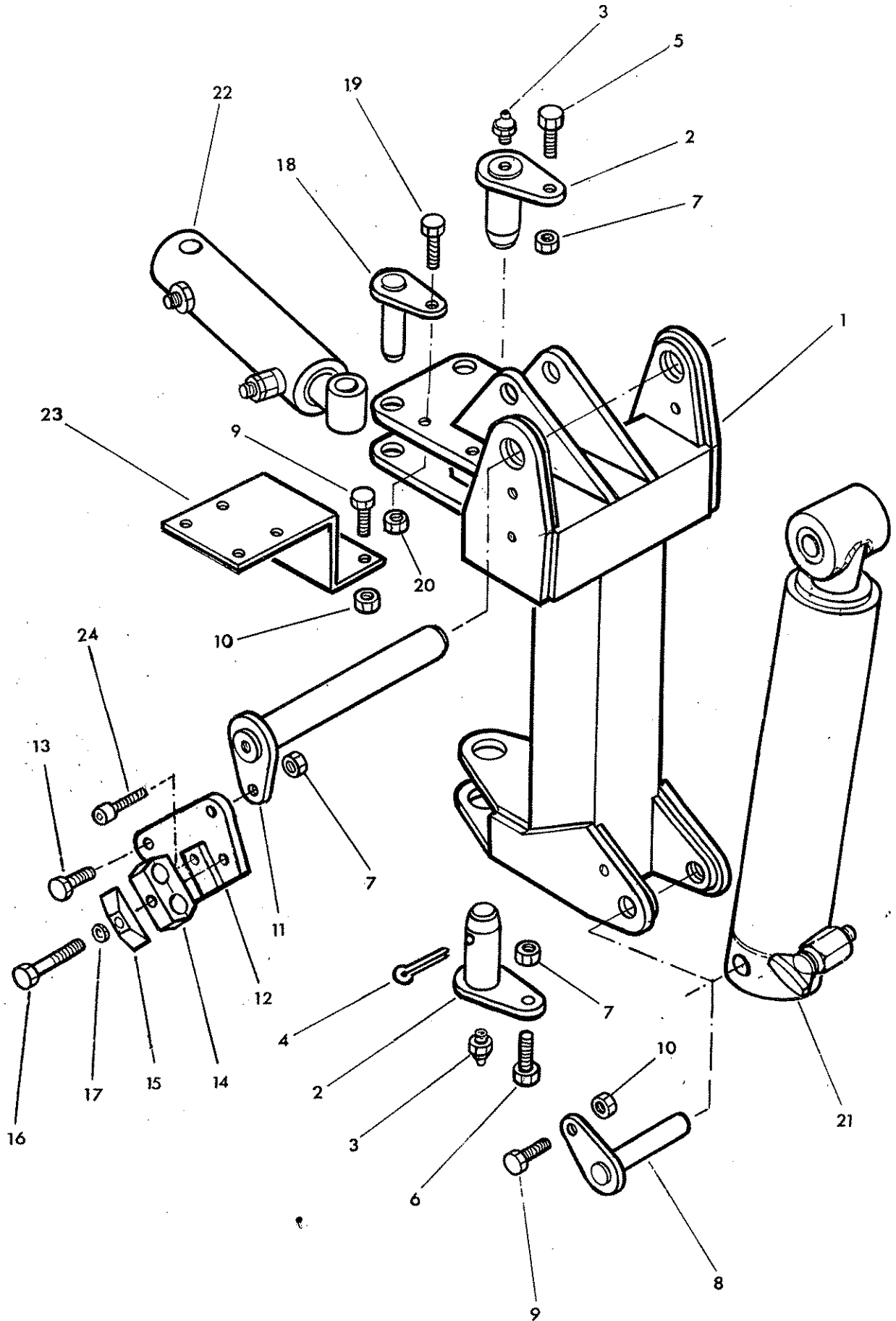


McCONNELL





Ref.	Part No.	Qty.	Description
<b>MAIN FRAME AND FITTINGS</b>			
1	41522.01	1	Main frame
2	70 16 010	2	Bush
3	60 01 136	1	Thrust washer
4	41580.01	2	Plastic plug
5	75 60 398	1	Top hitch bracket
6	75 60 141	1	Rubber clamper
7	75 60 130	1	Reaction plate
8	91 13 009	4	Plain nut
9	75 60 144	1	Top link pin
10	41559.01	2	Linkage pin
11	04 31 217	4	Linch pin
12	41551.01	1	Leg bracket
13	92 13 266	1	Bolt
14	91 43 006	2	Self locking nut
15	41773.01	1	Stand leg
16	71 92 023	1	Leg pin
17	04 31 105	4	Spring cotter
18	71 36 330	1	P.T.O. shaft
19	75 50 021	1	Slew ram base pin )
20	75 50 289	1	Valve mounting bracket ) -Cable
21	92 13 225	2	Bolt ) machines
22	91 43 005	2	Self locking nut ) only.
23	91 00 105	2	Plain washer )
24	41560.01	1	Slew ram base pin - switchbox and proportional machines only.
25	92 13 066	1	Bolt
26	71 92 027	2	Stabiliser pin
27	13 35 246	1	Serial No. plate
28	71 03 230	4	Pop rivet
29	42181.02	1	Stabiliser
30	71 92 080	4	Eccentric collar
31	92 13 148	2	Bolt
32	91 43 008	2	Self locking nut
33	71 18 112	1	Top link pin
34	07.584.01	1	Top link
35	71 91 108	1	Plastic Bung
36	42182.01	1	Stabiliser tongue Cat 2
	42182.02	1	Stabiliser tongue Cat 3
	42182.03	1	Stabiliser tongue Cat 2.5
	42182.04	1	Stabiliser tongue Cat 2 Thin
	42182.06	1	Stabiliser tongue -Special IH
37	92 00 029	2	Bolt
38	91 43 008	2	Self locking nut

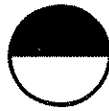




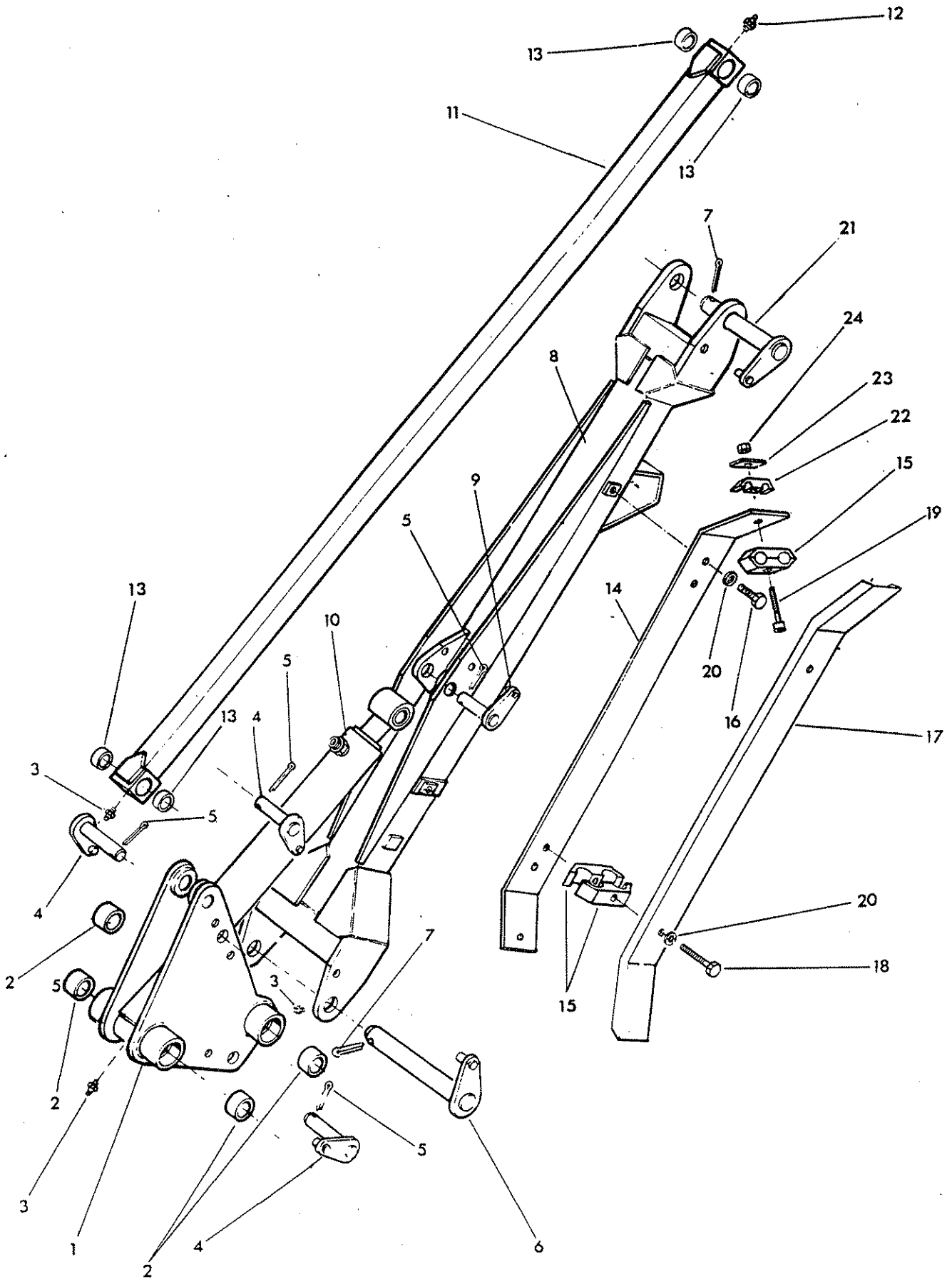
Ref.	Part No.	Qty.	Description
<b>PILLAR AND FITTINGS</b>			
1	41525.01	1	Pillar
2	41555.01	2	Pivot pin - pillar
3	09 01 121	2	Greaser
4	95 01 507	1	Split pin
5	93 13 087	1	Bolt
6	93 13 097	1	Bolt
7	91 43 007	3	Self locking nut
8	41557.01	1	Pivot pin - Lift ram base
9	92 13 066	3	Bolt
10	91 43 006	3	Self locking nut
11	41556.01	1	Pivot pin - Rocker
12	41574.01	1	Hose bracket
13	92 13 137	1	Bolt
14	42024.06	2	Hose clamp
15	71 93 064	2	Hose clamp plate
16	92 13 155	2	Bolt
17	91 00 305	2	Shakeproof washer
18	41558.01	1	Pivot pin
19	93 13 065	1	Setscrew
20	91 43 005	1	Self locking nut
21	71 93 333	1	Lift ram assembly
22	41565.01	1	Slew ram assembly
23	41508.01	1	Valve mounting brkt - E models only
24	93 43 075	1	Capscrew



MAIN ARM, ROCKER &  
TENSION LINK.



**MCCORMICK**



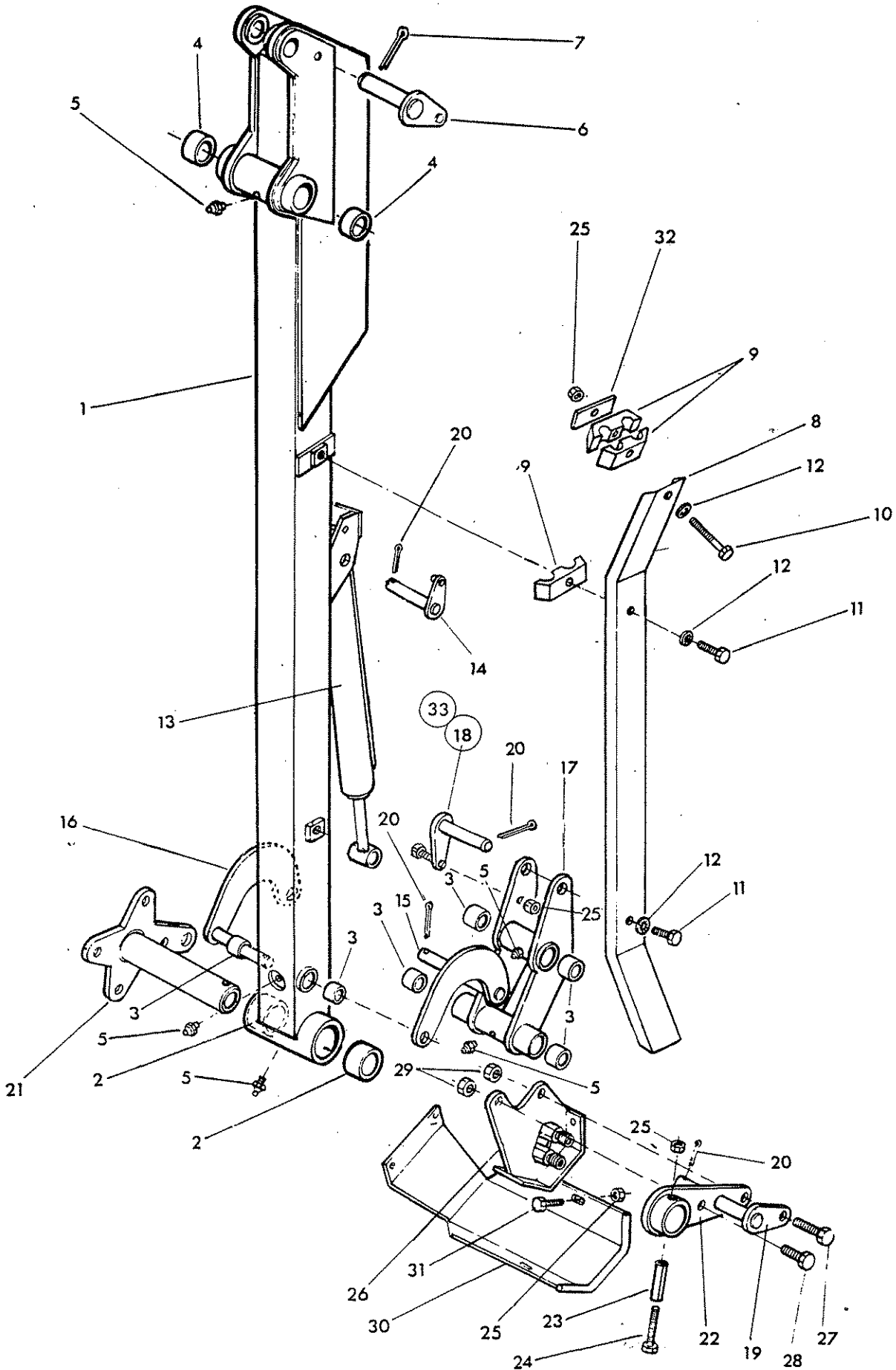


Ref.	Part No.	Qty.	Description
<b>MAIN ARM ROCKER &amp; TENSION LINK</b>			
1	71 93 330	1	Rocker
2	72 13 023	4	Bush - Rocker pivot
3	09 01 121	3	Greaser
4	71 93 025	4	Pivot pin - Tension link, Reach base & lift ram rod
5	05 03 166	5	Split pin
6	71 93 033	1	Pivot pin - Main Arm and rocker
7	95 01 509	2	Split pin
8	71 93 358	1	Main arm
9	71 93 022	1	Pivot pin - Reach
10	71 93 334	1	Reach ram assembly
11	71 93 360	1	Tension link
12	09 01 124	1	Greaser
13	60 12 032	4	Bush
14	71 93 397	1	Hose guide
15	42024 06	4	Hose clamp
16	93 13 035	2	Setscrew
17	71 93 398	1	Hose cover
18	92 13 145	2	Bolt
19	93 43 204	2	Capscrew
20	91 00 305	4	Internal serrated washer
21	71 93 034	1	Pivot pin - Dipper
22	42024 07	1	Clamp
23	71 93 066	2	Clamp plate
24	91 13 004	2	Self locking nut

DIPPER ARM & ANGLING  
MECHANISM



McCONEL



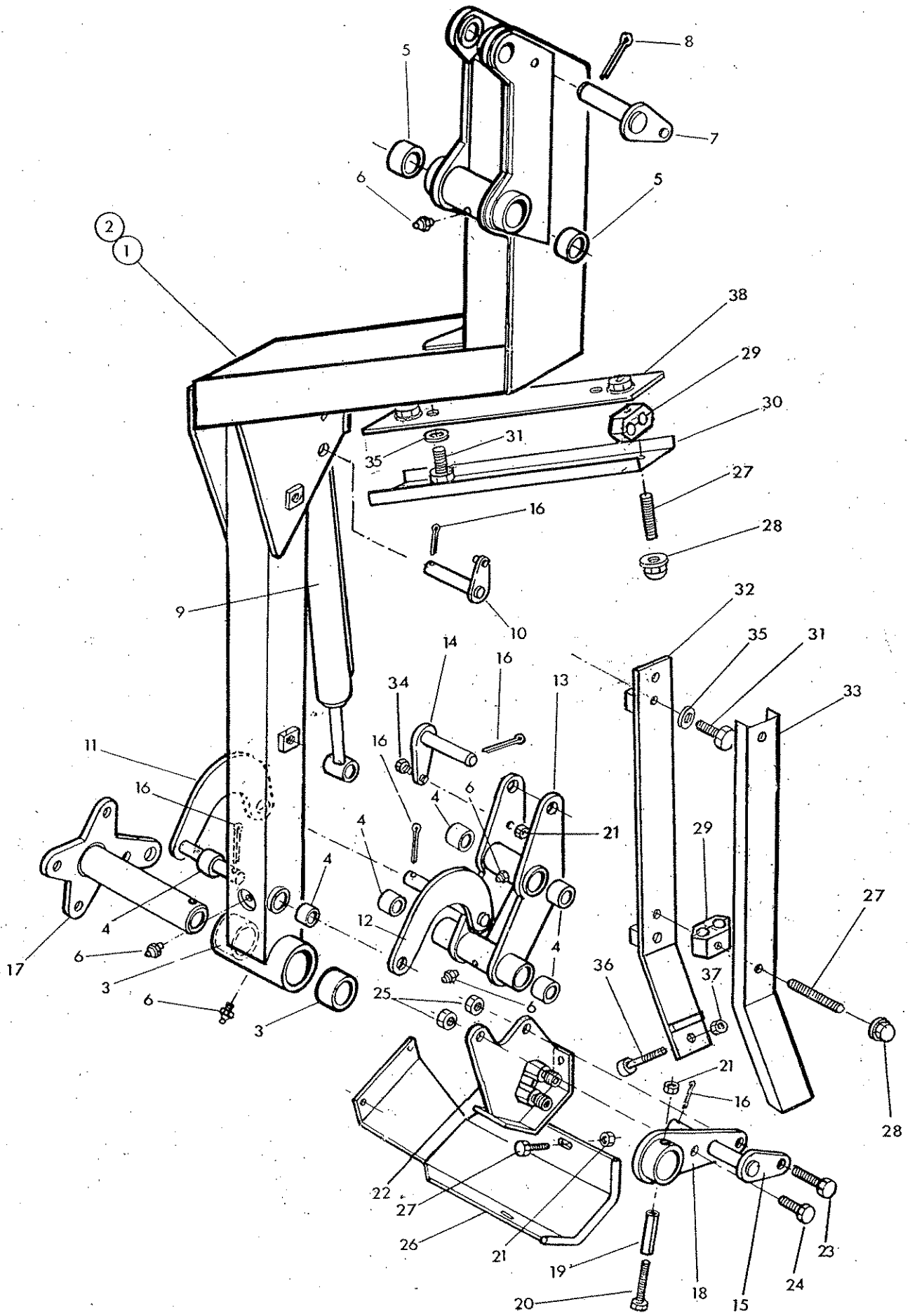


Ref.	Part No.	Qty.	Description
<b>DIPPER ARM &amp; ANGLING MECHANISM</b>			
1	71 93 308	1	Dipper arm
2	71 36 035	2	Bush - head pivot
3	41690-01	6	Bush - Radius arm pivot and slave link
4	72 13 023	2	Bush - Dipper pivot
5	09 01 121	4	Greaser
6	71 93 025	1	Pivot pin - Tension link
7	05 03 166	1	Split pin
8	71 93 399	1	Hose cover
9	42024-06	3	Hose clamp
10	92 13 155	2	Bolt
11	92 13 105	2	Bolt
12	91 00 305	2	Internal serrated washer
13	75 60 344	1	Angle ram assembly
14	71 92 024	1	Pivot pin - Angle ram base
15	74 50 250	1	Radius arm - rear
16	74 50 251	1	Radius arm - front
17	71 92 309	1	Slave link
18	41693-01	1	Pivot pin - Angle ram rod
19	71 92 009	1	Pivot pin - Slave link
20	95 01 406	5	Split pin
21	71 92 308	1	Head pivot tube
22	71 92 316	1	Jaw plate
23	04 23 548	1	Spring dowel
24	92 13 185	1	Bolt
25	91 43 005	6	Self locking nut
26	71 92 303	1	Hose junction bracket
27	02 11 146	1	Bolt
28	02 11 126	1	Bolt
29	01 41 006	2	Self locking nut
30*	71 92 324	1	Hose tray
31	93 13 045	2	Setscrew
32	71 93 064	2	Clamp plate
33	93 13 075	1	Setscrew
<b>* SPARES NOTE:</b>			
	72 90 346	1	Hose Tray - belt drive head

MID CUT DIPPER

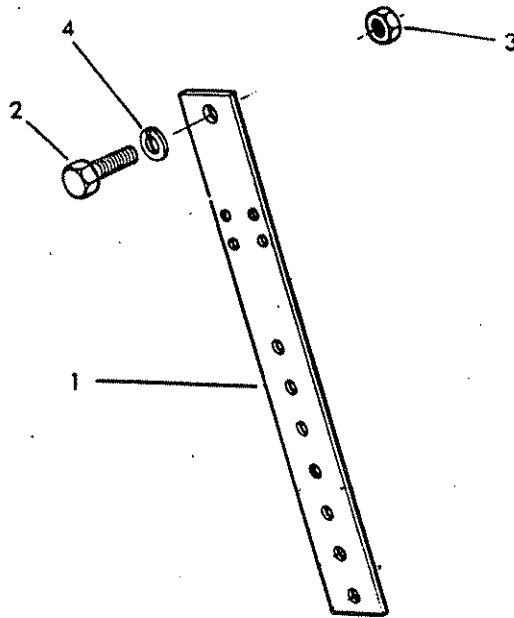


McCONNEL



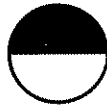


Ref	Part No	Qty	Description
			<b>MID CUT DIPPER ARMS AND ANGLING MECHANISM</b>
1	71 93 345		Dipper arm
3	71 36 035	2	Bush - head pivot
4	41690.01	6	Bush - radius arm pivot and slave link
5	72 13 023	2	Bush - dipper pivot
6	09 01 121	5	Greaser
7	71 93 025	1	Pivot pin - tension link
8	05 03 166	1	Split pin
9	75 60 344	1	Angle ram assembly
10	71 92 024	1	Pivot pin - angle ram base
11	74 50 251	1	Radius arm - front
12	74 50 250	1	Radius arm - rear
13	71 92 309	1	Slave link
14	41693.01	1	Pivot pin - angle ram rod
15	71 92 009	1	Pivot pin - slave link
16	95 01 406	5	Split pin dia
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	6	Self locking nut
22	71 95 303	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	71 92 324	1	Hose tray - direct drive head
	72 90 346	1	Hose tray - belt drive head
27	04.282.76	4	Stud
28	91 00 025	4	Dome nut
29	42024.06	5	Hose clamp - 1 pair
30	71 93 047	1	Hose cover
31	93 13 045	6	Bolt
32	42951.01	1	Hose guide
33	71 93 048	1	Hose cover
34	93 13 055	1	Setscrew
35	91 00 305	4	Internal serrated washer
36	92 43 154	1	Capscrew
37	91 43 004	1	Self locking nut
38	42952.01	1	Hose guide

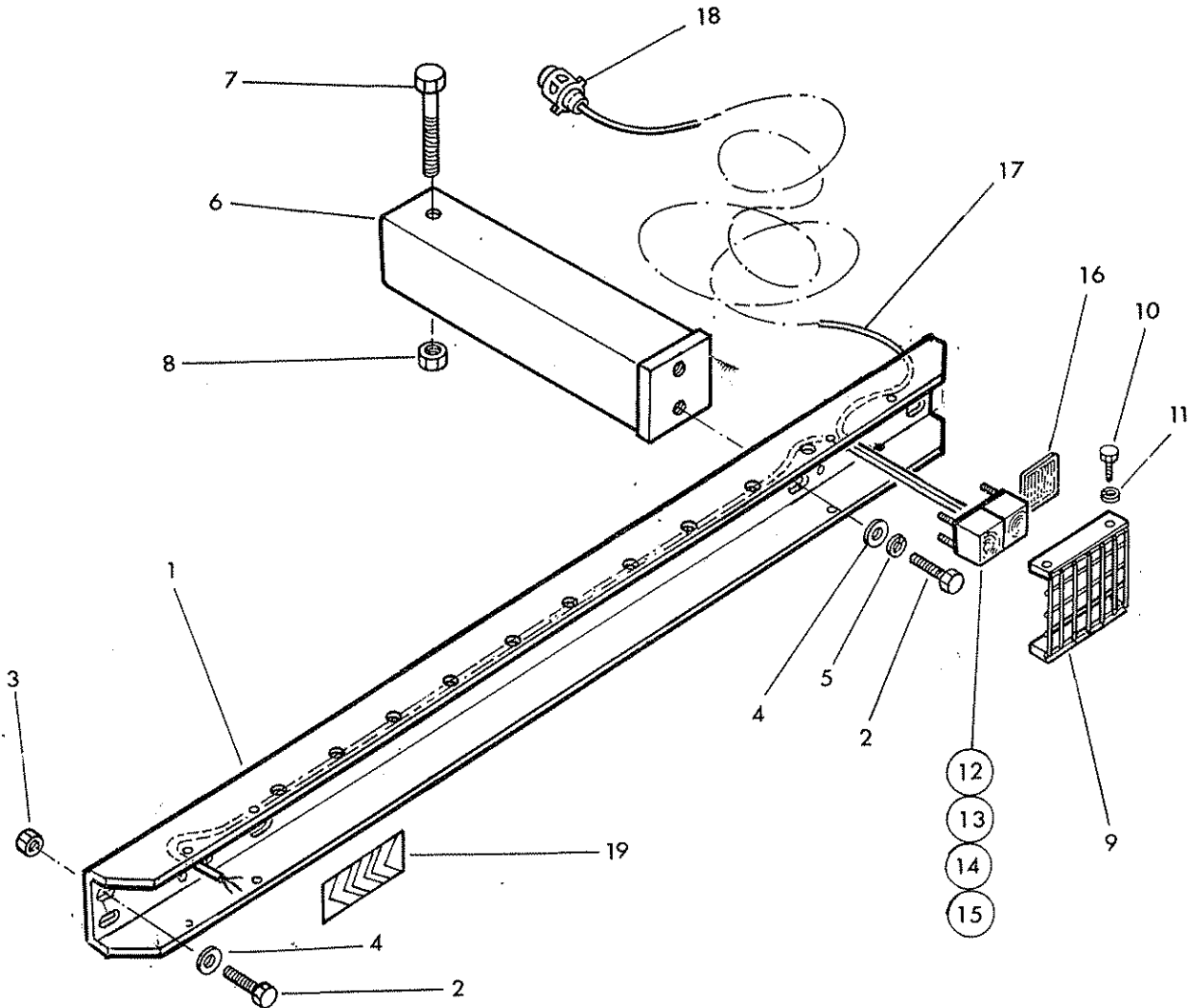


Ref.	Part No.	Qty.	Description
	<b>71-09-319</b>		<b>CONTROL MOUNTING ASSEMBLY</b>
1	71-09-146	1	Pillar including
2	93-11-086	1	Setscrew
3	01-11-006	1	Nut
4	01-00-206	1	Spring washer

LIGHTBAR



**McCormel**



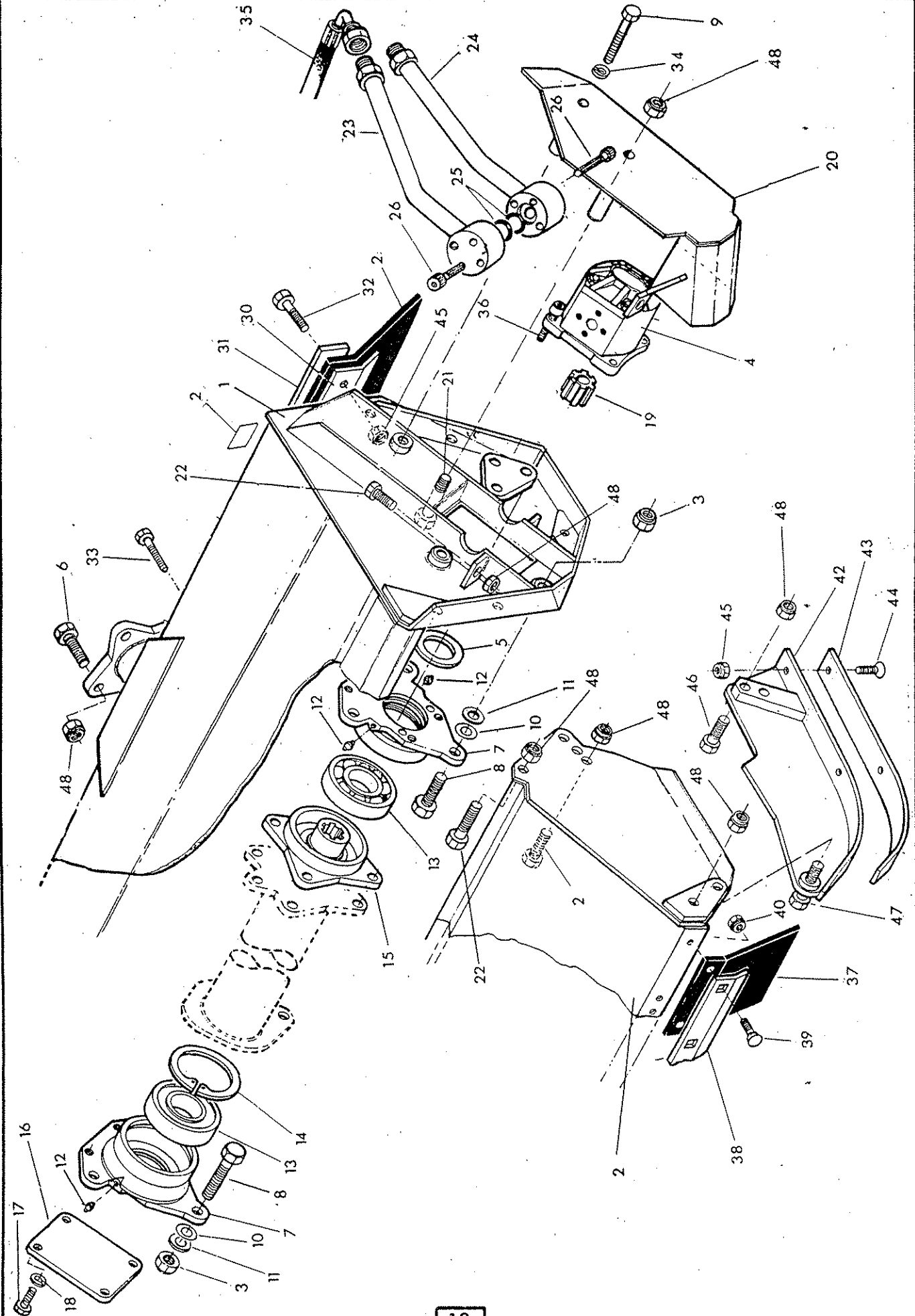
Ref.	Part No.	Qty.	Description
	<b>74 50 922</b>		<b>LIGHT BAR KIT</b>
1	41549.01	1	Light bar
2	93 13 065	4	Setscrew
3	91 43 005	2	Self locking nut
4	91 00 105	4	Plain washer
5	91 00 205	2	Spring washer
6	41527.01	1	Light bar mount
7	05.292.23	1	Bolt
8	91 43 006	1	Self locking nut
9	75 60 353	2	Light guard
10	93 13 023	8	Setscrew
11	91 00 203	8	Spring washer
12	75 60 086	2	Light incl:-
13	75 60 087	2	Stop/tail bulb 12v
14	75 60 088	2	Flasher bulb 12v
15	93 00 142	8	Self tap screw
16	75 60 093	2	Reflector - self adhesive
17	75 60 090	1	Cable
18	75 60 089	1	Plug - 7 pin
19	12 90 347	2	Sticker - chevron



FLAIL CASING - Direct drive



McCONNELL





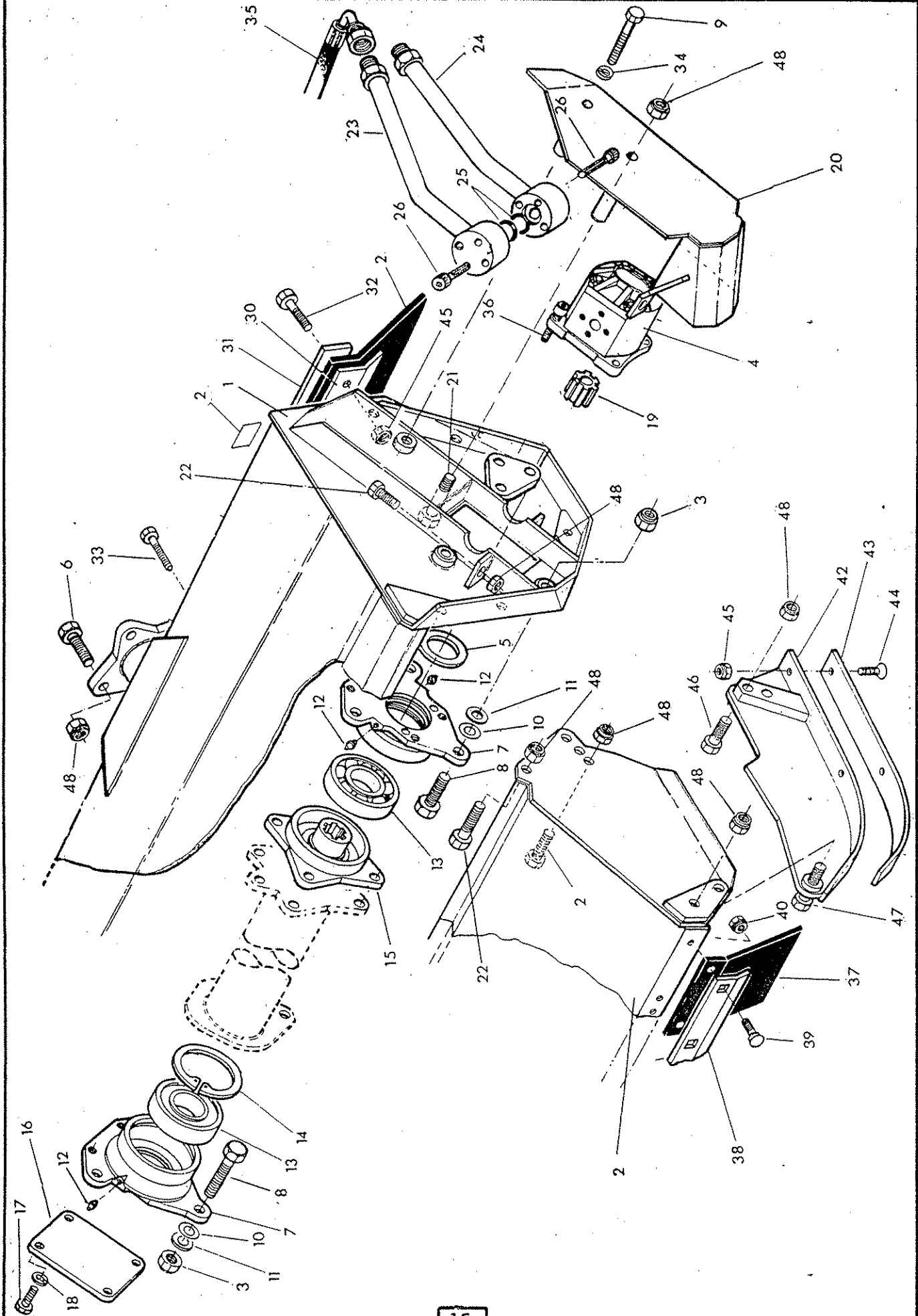
# McDONNELL

Ref.	Part No.	Qty	Description
			<b>FLAIL HEAD CASING - DIRECT DRIVE</b>
1	71 90 262	1	Flail casing
2	13 35 246	1	Serial No. plate
3	91 00 024	6	Special nut M16 fine
4	83 01 282	1	Hydraulic motor
5	71 90 015	1	Motor locating washer
6	02 11 186	4	Bolt
7	71 90 261	2	Bearing housing
8	92 00 023	6	Special bolt
9	02 11 326	1	Bolt
10	81 21 043	as reqd	Shim
11	81 21 044	as reqd	Shim
12	09 01 121	4	Greaser
13	06 00 018	2	Bearing
14	71 90 022	1	Internal circlip
15	71 90 571	2	Rotor hub
16	71 90 444	1	Cover plate
17	93 13 045	4	Setscrew
18	91 00 205	4	Spring washer
19	71 90 573	1	Drive coupling
20	42282 01	1	Motor cover
21	02 11 566	1	Bolt
22	03 11 126	2	Setscrew 5/8 UNF x 1 1/2" long
23	71 90 378	1	Motor pipe - upper
24	71 90 379	1	Motor pipe - lower
25	86 00 121	2	'O' ring
26	93 00 014	6	Capscrew 'wedglok'
27	71 90 288	1	Front hood
28	03 11 106	2	Setscrew 5/8 UNF x 1 1/2" long
29	71 90 314	1	Rear flap
30	71 90 312	1	Mounting strip
31	71 90 313	1	Clamp strip
32	93 13 065	7	Setscrew
33	93 13 075	2	Setscrew
34	01 00 206	1	Spring washer
35	85 01 154	2	Hose 1" BSP x 42" long
36	93 00 144	4	Capscrew wedglok
	86 99 236		SEAL KIT for hydraulic motor
	86 29 209		Shaft seal

FLAIL CASING - Direct drive



McCOMBI



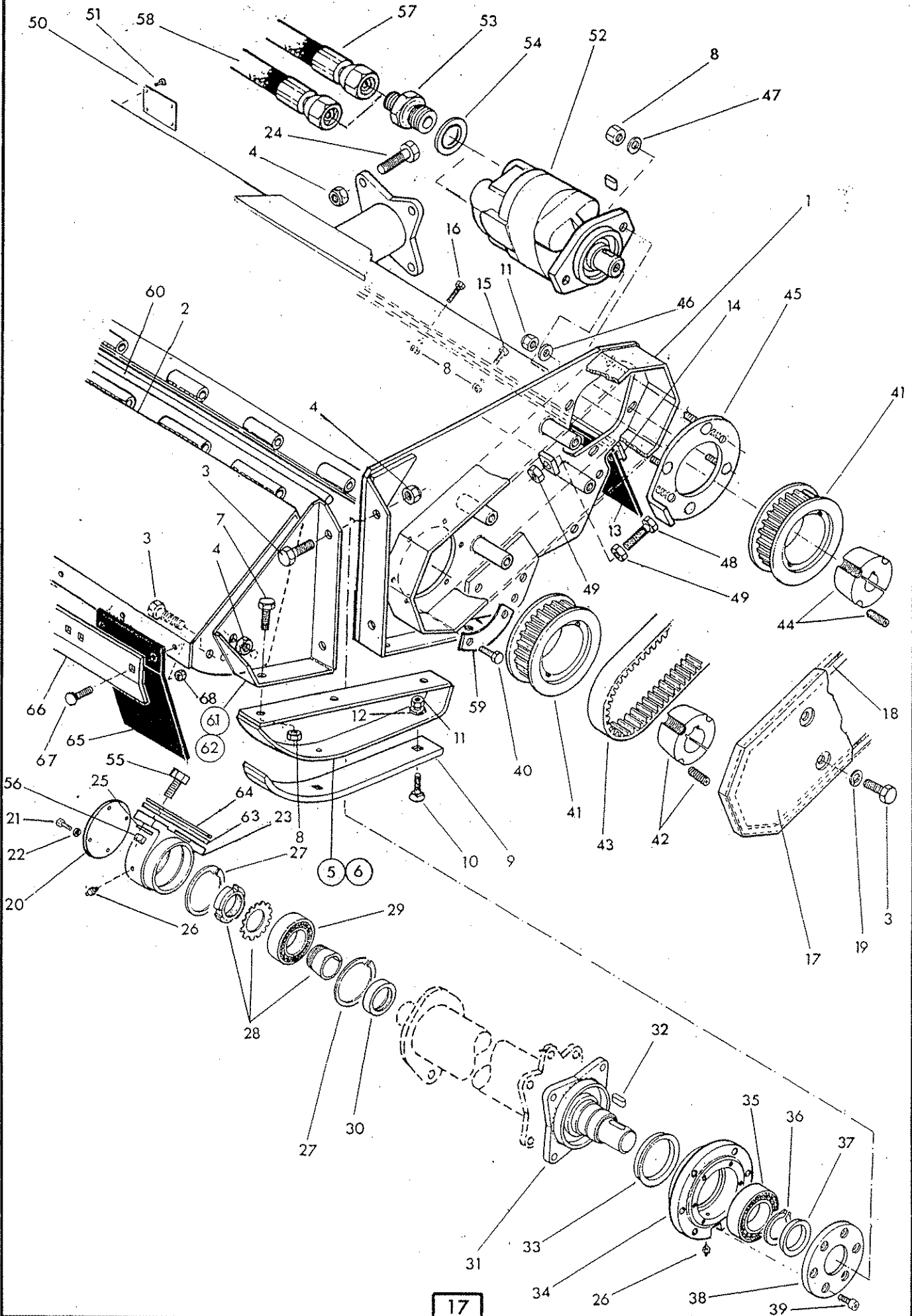


Ref.	Part No.	Qty	Description
			<b>FLAIL HEAD CASING - DIRECT DRIVE</b>
	<b>72 90 375</b>		<b>FRONT FLAP KIT</b>
37	72 90 053	8	Flap
38	71 90 304	1	Flap clamp strip
39	92 93 054	16	Cup square bolt
40	91 43 004	16	Self locking nut
	71 90 421		SKID KIT
41	71 90 300	1	Skid R. Hand - not illus.
42	71 90 301	1	Skid L. Hand
43	73 14 323	1	Wear Skid
44	93 13 065	6	Setscrew c/sunk
45	91 43 005	15	Self locking nut
46	03 11 146	2	Setscrew
47	03 11 086	2	Setscrew
48	01 41 006	15	Self locking nut

FLAIL CASING - Belt drive



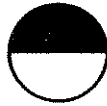
McCOMEL



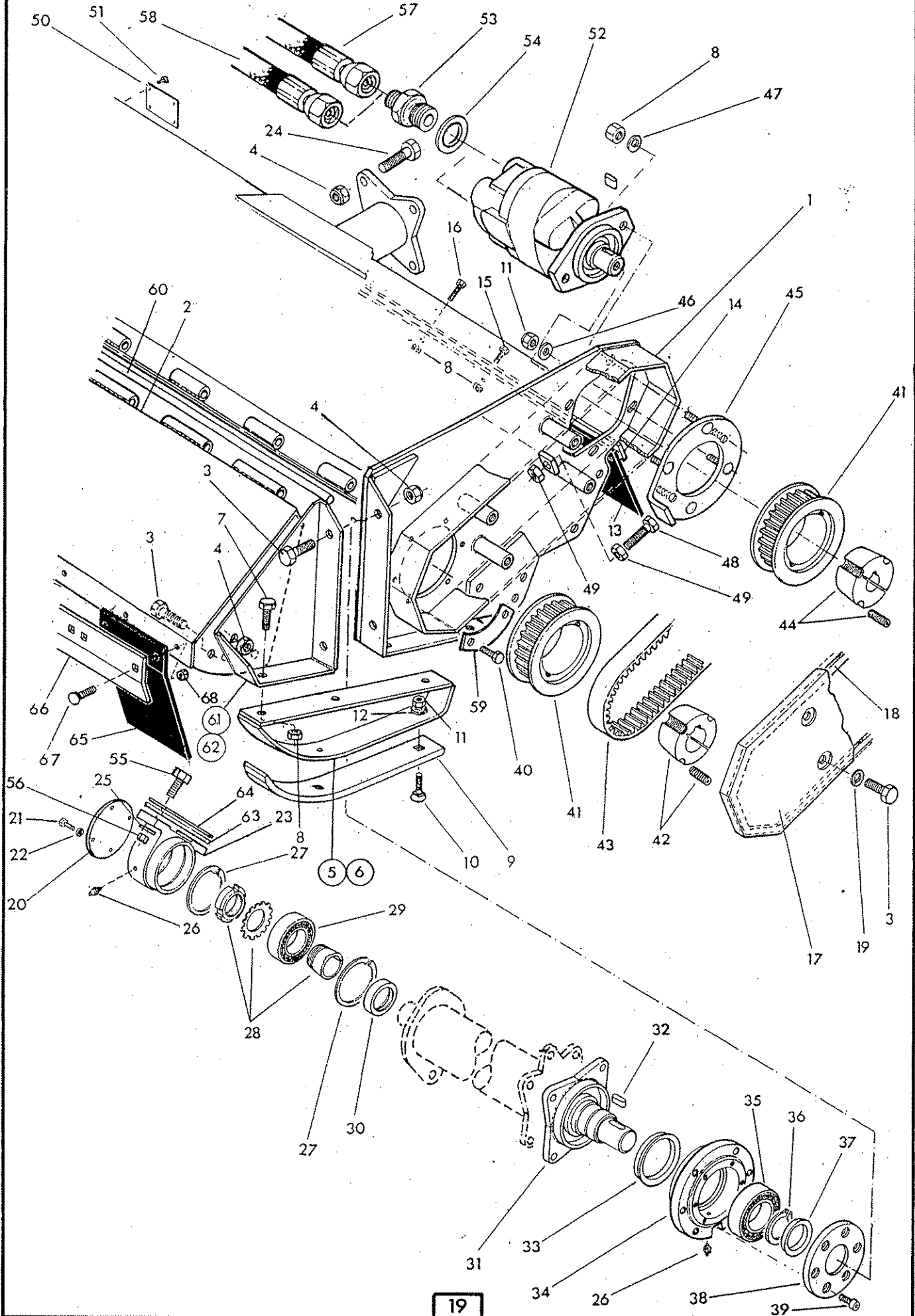


Ref.	Part No.	Qty.	Description
<b>1.2M BELT DRIVE FLAIL HEAD CASING</b>			
1	72 90 333	1	Hood
2	72 90 386	1	Front hood
3	03 11 106	10	Setscrew
4	01 41 006	10	Self locking nut
5	72 90 389	1	Skid - R. hand
6	72 90 390	1	Skid - L. hand
7	93 13 055	6	Setscrew
8	91 43 005	23	Self locking nut
9	72 90 391	2	Wear skid
10	60 12 034	6	Tine bolt
11	01 42 004	10	Self locking 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	4	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

FLAIL CASING - Belt drive



McCONEL

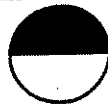




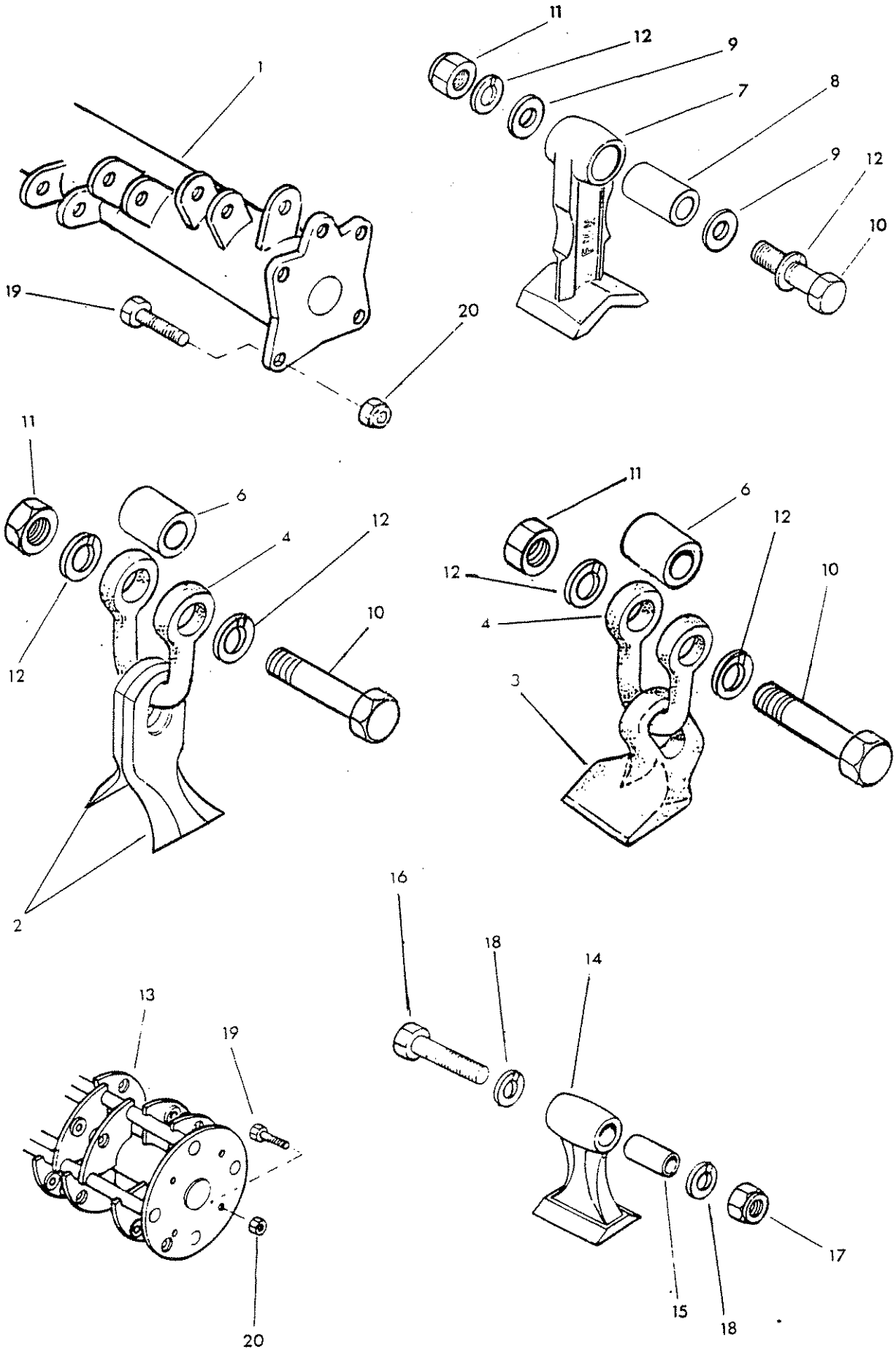
Ref.	Part No.	Qty.	Description
<b>1.2M BELT DRIVE FLAIL HEAD CASING</b>			
<b>Continued</b>			
34	72 90 321	1	Bearing housing - drive end
35	06 00 095	1	Bearing - drive end
36	04 01 255	1	External circlip
37	72 90 049	1	Seal
38	72 90 023	1	Bearing retainer
39	93 43 034	6	Capscrew
40	93 13 045	6	Setscrew
41	72 90 047	2	Drive sprocket
42	72 90 016	1	Taper lock drive bush
43	72 90 046	1	Belt
44	05-424-07	1	Taper lock drive bush
45	72 90 426	1	Motor mounting plate
46	72 90 051	4	Special washer
47	91 00 105	2	Plain washer
48	93 13 117	1	Belt adjuster screw
49	91 13 007	2	Nut
50	13 35 246	1	Serial No. plate
51	71 03 230	4	Pop rivet
52	09-773-05	1	Hydraulic motor
53	80 02 086	2	Adaptor
54	86 50 106	2	Bonded seal
55	92 00 023	2	Special bolt
56	91 00 024	2	Special nut
57	85 01 227	1	Hose 1" BSP x 21" long SF- 135F
58	85 01 228	1	Hose 1" BSP x 22 1/2" long SF - 135F
59	72 90 073	3	Tab washer
60	72 90 061	1	Pivot rod
61	72 90 388	1	Hood carrier bracket L hand
62	72 90 387	1	Hood carrier bracket R Hand - not illustrated
63	72 90 425	as	Shim
64	72 90 424	reqd	Shim
<b>72 90 375 FRONT FLAP KIT</b>			
65	72 90 053	8	Front flap
66	71 90 304	1	Clamp strip
67	92 93 054	16	Dome headed coach bolt
68	91 43 005	16	Self locking nut



ROTOR & FLAIL OPTIONS



McCOMEL





REF.	PART NO.	QTY	DESCRIPTION
------	----------	-----	-------------

ROTORS AND FLAILS

1	73 90 270	1	Rotor
---	-----------	---	-------

The following flails are suitable for use with 73 90 270

2	41654.01	48	Flail
3	71 90 462	24	Flail
4	73 90 013	24	Shackle
6	73 90 018	24	Spacer sleeve
7	73 14 366	24	Flail
8	73 14 223	24	Pivot boss
9	73 90 005	48	Spacer
10	73 90 006	24	Special bolt
11	01 41 006	24	Self locking nut
12	01 00 206	48	Spring washer
13	71 90 465	1	Rotor - Omega

The following are used with 71 90 465

14	71 90 464	20	Flail
15	71 90 117	20	Bush
16	73 90 006	20	Special bolt
17	01 41 006	20	Self locking nut
18	01 00 206	20	Spring washer

The following are used with both rotors

19	92 00 025	2	Special bolt
20	91 00 024	2	Special nut

#### ROTOR ASSEMBLIES - DIRECT DRIVE

71 90 501	Rotor assembly - Hedge
71 90 502	Rotor assembly - Grass
71 90 503	Rotor assembly - Universal
71 90 471	Rotor assembly - Omega

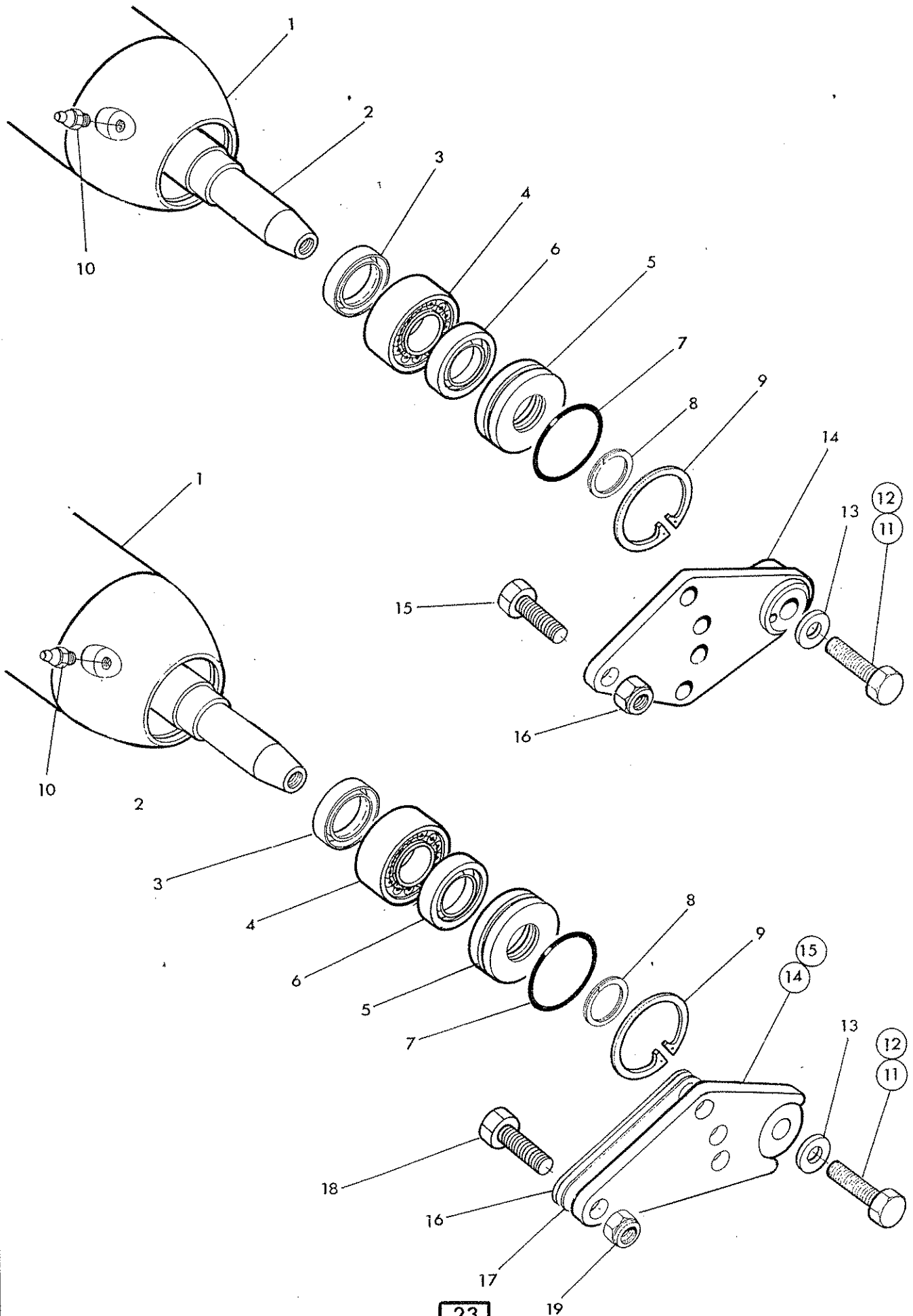
#### ROTOR ASSEMBLIES - BELT DRIVE

73 90 271	Rotor assembly - Hedge
73 90 272	Rotor assembly - Grass
73 90 273	Rotor assembly - Universal
71 90 498	Rotor assembly - Omega

ROLLERS



McCONNEL





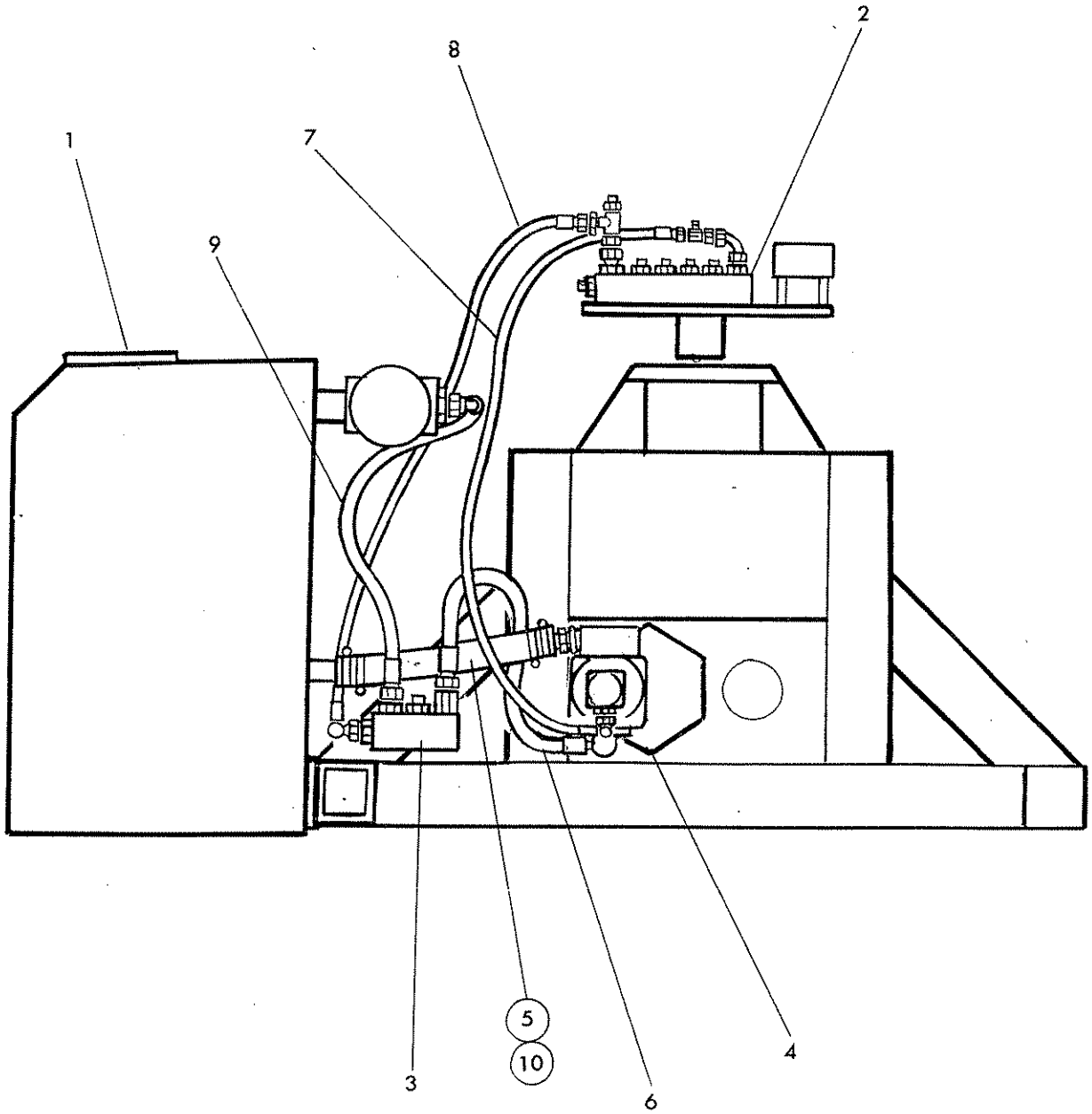
Ref	Part No.	Qty	Description
<b>ROLLER ASSEMBLIES</b>			
<b>42241.25                      DIRECT DRIVE HEADS</b>			
1	42241.10	1	Roller
2	42242.04	1	Roller axle
3	86 29 181	2	Seal
4	06 00 099	2	Bearing
5	73 90 011	2	Seal carrier
6	86 29 125	2	Seal
7	86 00 422	2	'O' ring
8	04 12 120	2	Spring ring
9	04 11 262	2	Circlip - internal
10	09 01 121	2	Greaser
11	93 00 150	1	Special set screw                      L Hand
12	93 00 149	1	Special set screw                      R Hand
13	42503.02	2	Special washer
14	42246.03	2	Roller bracket
15	02 11 186	4	Bolt
16	01 41 006	4	Self locking nut

<b>42241.24                      BELT DRIVE HEADS</b>			
1	42241.10	1	Roller
2	42242.04	1	Roller axle
3	86 29 181	2	Seal
4	06 00 099	2	Bearing
5	73 90 011	2	Seal carrier
6	86 29 125	2	Seal
7	86 00 422	2	'O' ring
8	04 12 120	2	Spring ring
9	04 11 262	2	Circlip - internal
10	09 01 121	2	Greaser
11	93 00 150	1	Special set screw                      L Hand
12	93 00 149	1	Special set screw                      R Hand
13	42503.02	2	Special washer
14	42246.01	1	Roller bracket L Hand
15	42246.02	1	Roller bracket R Hand
16	42257.02	as req.	Shim
17	42257.01	as req.	Shim
18	93 13 097	4	Setscrew
19	91 43 007	4	Self locking nut

**HOSE INSTALLATION -  
Primary circuits**



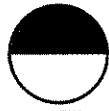
**McCOMEL**



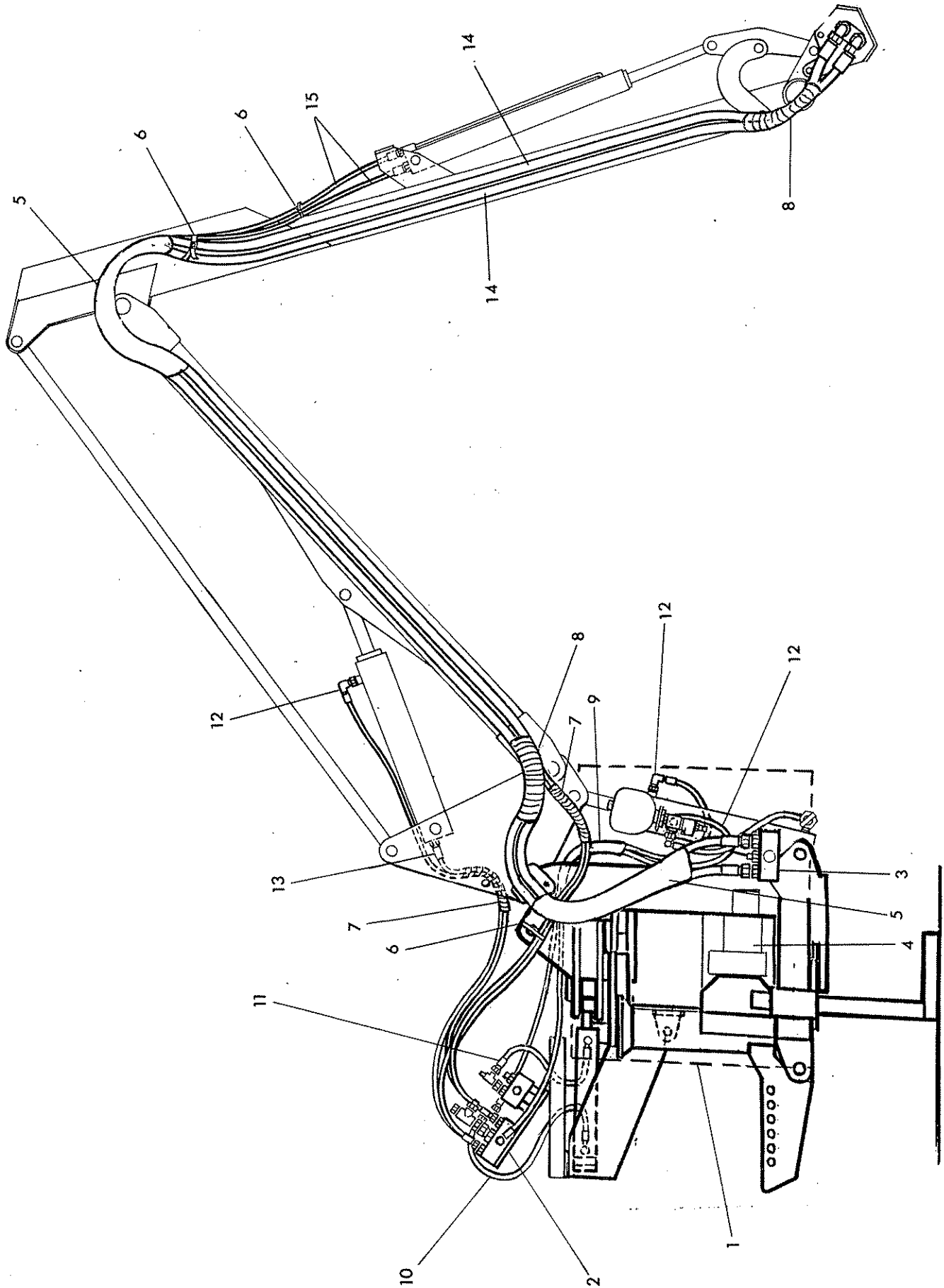


Ref. Part No.	Qty.	Description
		<b>HOSE INSTALLATION - PRIMARY CIRCUIT</b>
1		Hydraulic reservoir
2		Main control valve
3		Rotor control valve
4		Pump and gearbox
5	85 01 252	1 Hose 1 1/2" bore x 14"long - suction
6	85 01 170	1 Hose 1" BSP x 14"long - Pump -RC Valve
7	85 33 094	1 Hose 1/2" BSP x 63" long -Pump-Arm Valve
8	85 38 105	1 Hose 3/4 BSP x 59" long -Arm valve-RC Valve
9	85 01 206	1 Hose 1" BSP x 50" long - Tank return
10	09 04 107	4 Hose clip 1 1/2 bore

**HOSE INSTALLATION -**  
Service circuits



**McCOMBI**





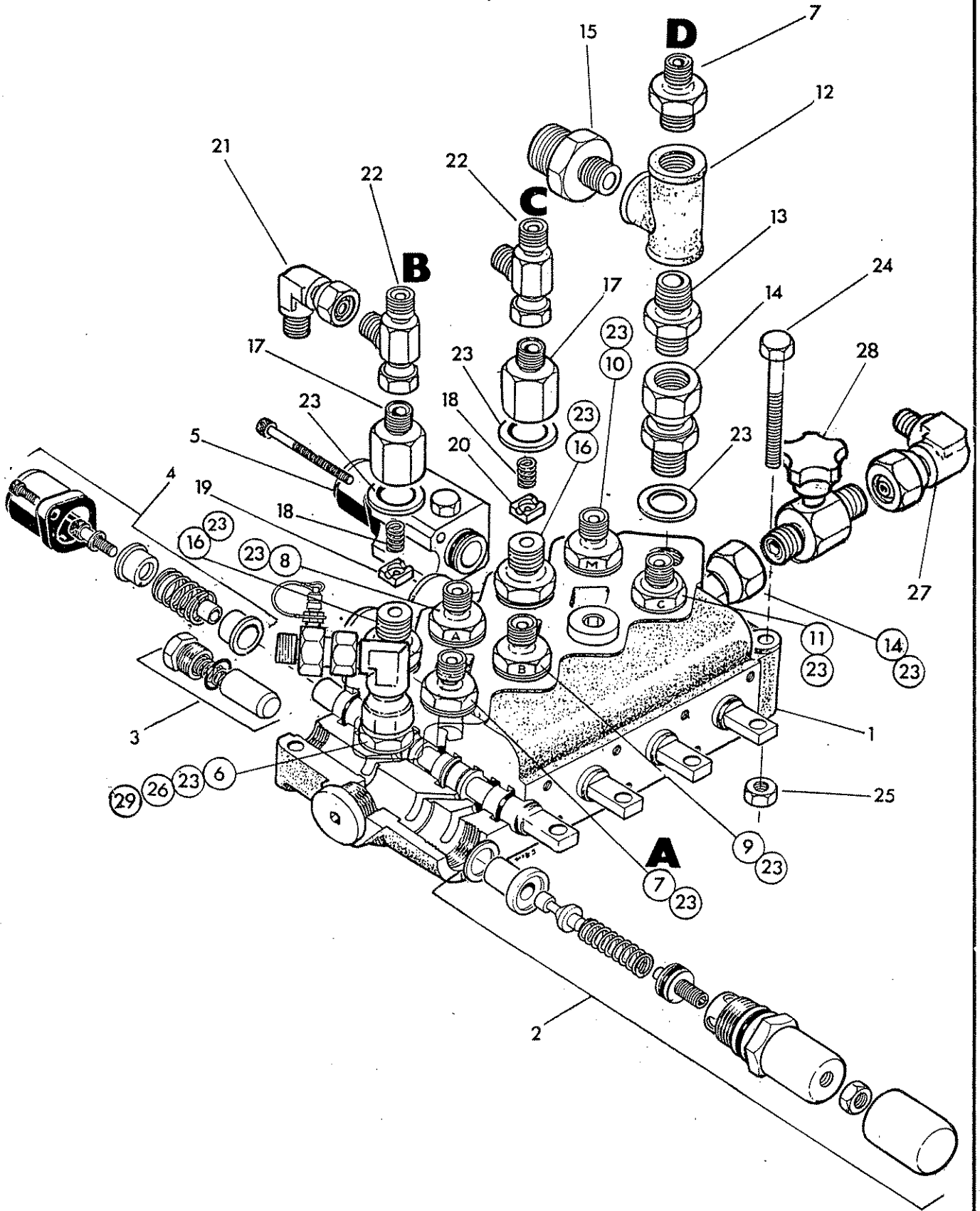
Ref. Part No.	Qty.	Description
		<b>HOSE INSTALLATION - SERVICE CIRCUITS</b>
1		Hydraulic reservoir
2		Main control valve
3		Rotor control valve
4		Pump and gearbox
5	75 50 063	2 Hose sleeve
6	71 35 084	6 Hose tie
7	72 13 005	2 Hose armour 3/8" dia x 450
8	71 36 143	2 Hose armour 1" dia x 450
9	09.868.05	1 Hose sleeve
10	85 36 082	1 Hose 1/4 BSP x 29"long -slew base
11	85 35 092	1 Hose 1/4 BSP x 22"long -slew gland
12	85 35 072	3 Hose 1/4 BSP x 60"long -lift & reach gland
13	85 15 052	1 Hose 1/4 BSP x 40"long -reach base
14	85 01 243	2 Hose 1" BSP x 220"long-flail std arm
	85 01 265	2 Hose 1" BSP x 235"long -flail midcut
15	85 15 122	2 Hose 1/4 BSP x 162"long -angle std arm
	85 15 072	2 Hose 1/4 BSP x 174"long -angle midcut



MAIN CONTROL VALVE



McDONNELL



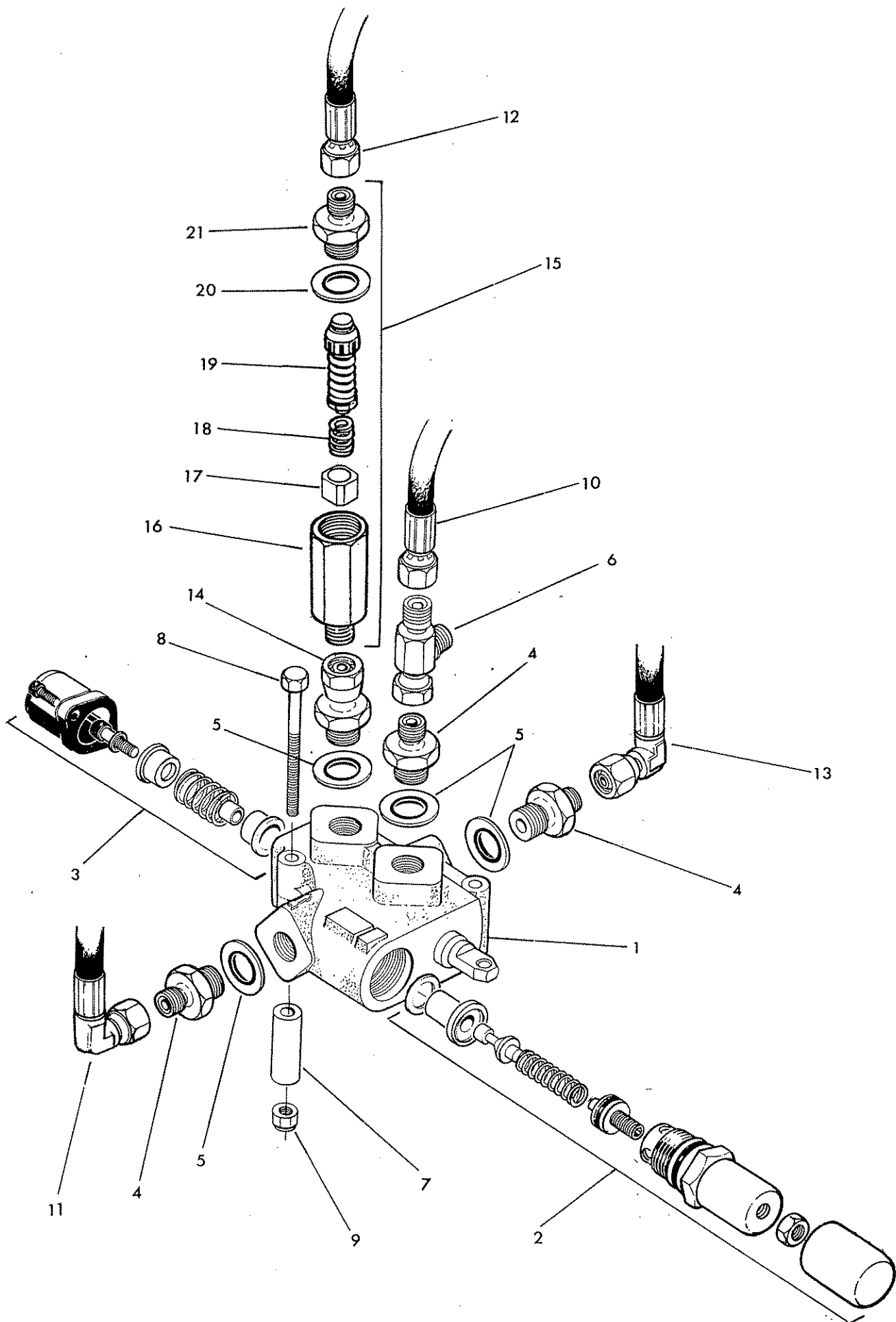


Ref. Part No.	Qty.	Description
		<b>HYDRAULIC CONTROL ASSEMBLY -CONTROL VALVE FOR LIFT, REACH, ANGLE AND SLEW FUNCTIONS -CABLE STD.ARM MACHINES</b>
1	81 30 466	1 Valve including
2	G3812542	1 Main relief valve assembly 190 Bar
3	81 30 022	1 Non return valve assembly
4	81 30 134	3 Centering spring assembly
5	81 30 084	1 Angle float detent assembly
6	60 00 112	1 Union
7	85 81 115	1 Adaptor
8	81 30 046	1 Restrictor union 'A'
9	81 30 047	1 Restrictor union 'B'
10	81 30 066	1 Restrictor union 'M'
11	81 30 048	1 Restrictor union 'C'
12	85 81 073	1 Cast Tee F-F-F
13	80 05 007	1 Union
14	85 81 178	1 Swivel adaptor
15	85 81 131	1 Adaptor
16	85 81 209	2 Adaptor
17	85 81 214	2 Restrictor body
18	81 16 011	2 Restrictor spring
19	81 23 041	1 Restrictor disc - 'Red'
20	81 23 043	1 Restrictor disc - 'Green'
21	85 81 190	1 Swivel elbow
22	85 81 254	2 Tee
23	86 50 103	12 Bonded seal
24	92 13 134	3 Bolt
25	91 43 004	3 Self locking nut
26	85 81 215	1 Elbow
27	520 372	1 Elbow
28	81 30 109	1 Tap
29	81 31 009	1 Test point union
	86 99 163	2 SEAL KIT

AUXILIARY CONTROL VALVE



**MCCORMICK**





Ref. Part No.	Qty.	Description
<b>CONTROL VALVE FOR SLEW/AUTO RESET SELECTION</b>		
1	81 30 467	1 Valve including
2	G381 2540	1 Relief valve assembly 2500 Psi(170Bar)
3	81 30 134	1 Centering spring assembly
4	85 81 115	3 Union
5	86 50 103	4 Bonded seal
6	85 81 254	1 Tee
7	71 96 052	2 Mounting spacer
8	92 13 224	2 Bolt
9	91 43 004	2 Self locking nut
10*	85 15 092	1 Hose 1/4 BSP x 12"long SF-SF
11*	85 35 102	1 Hose 1/4 BSP x 17"long SF-90F
12*	85 15 032	1 Hose 1/4" BSP x 16"long SF-SF
13*	85 35 102	1 Hose 1/4" BSP x 17"long SF-90F
14	81 03 005	1 Adaptor
15	81 30 172	1 Relief valve assy compr:-
16	81 30 173	1 Relief valve housing
17	81 30 174	1 Support plug
18	81 16 011	1 Spring
19	81 30 141	1 Relief valve code 05
20	86 50 104	1 Bonded seal
21	81 30 083	1 Relief union

86 99 163 SEAL KIT

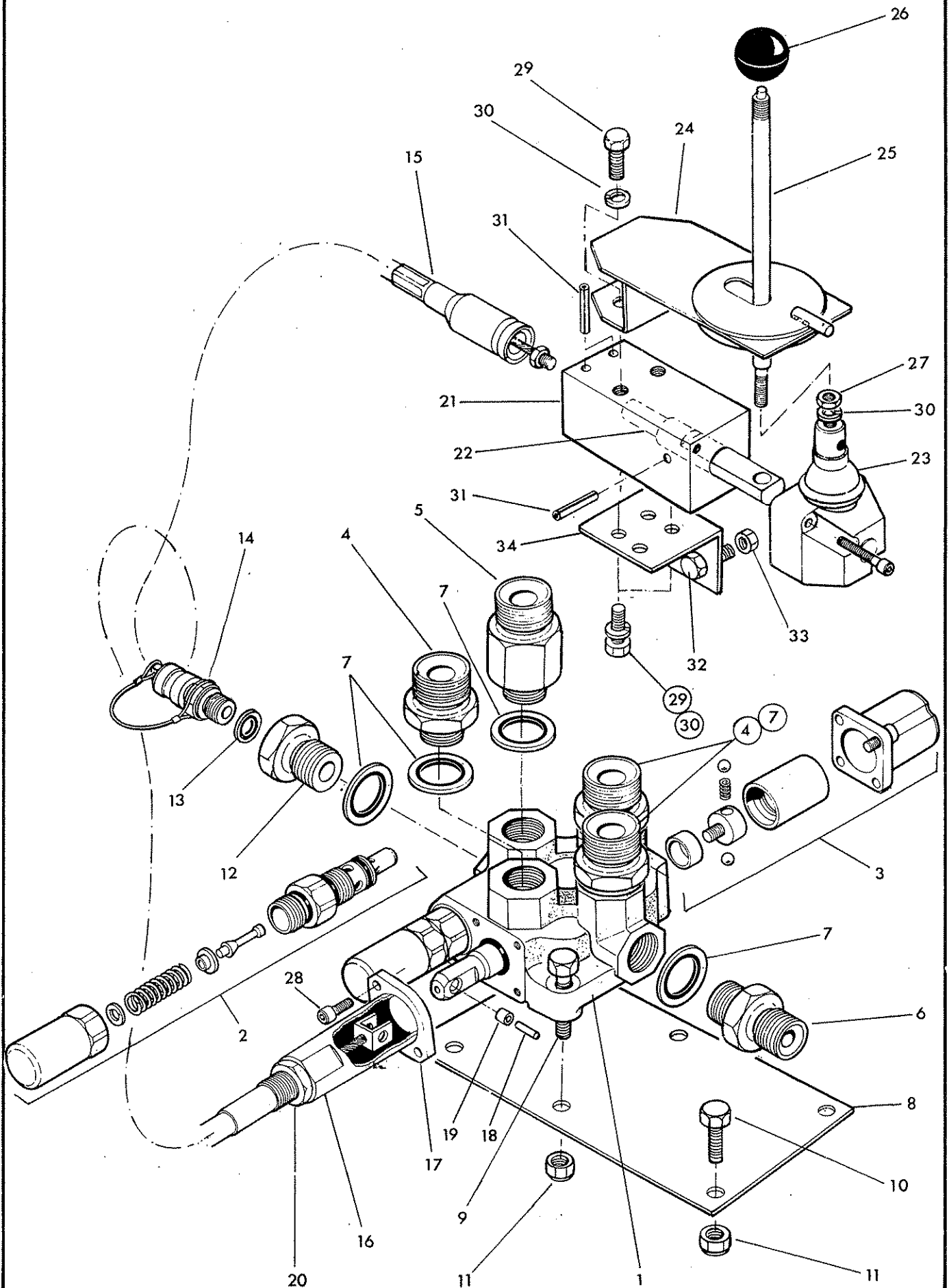
**\*Assembly note**

- Item 10 connects to position A
- Item 11 connects to position B      Shown on
- Item 12 connects to position C      page 29
- Item 13 connects to position D

ROTOR CONTROL VALVE



McCORMEL





Ref. Part No. Qty. Description

## ROTOR CONTROL VALVE AND FITTINGS

### Common items

1	81 25 356	1	Rotor control valve including
2	81 25 108	1	Relief valve 190 Bar(2750PSI)
3	81 25 109	1	Detent assembly
4	80 02 086	3	Adaptor
5	85 81 295	1	Extended adaptor
6	85 81 136	1	Union
7	86 50 106	6	Bonded seal
8	41509.01	1	Valve mounting plate
9	92 13 095	2	Bolt
10	93 13 055	2	Setscrew
11	91 43 005	4	Self locking nut
12	81 03 006	1	Adaptor
13	86 50 102	1	Bonded seal
14	81 31 008	1	Test connection

The remaining items are required on the following models only.

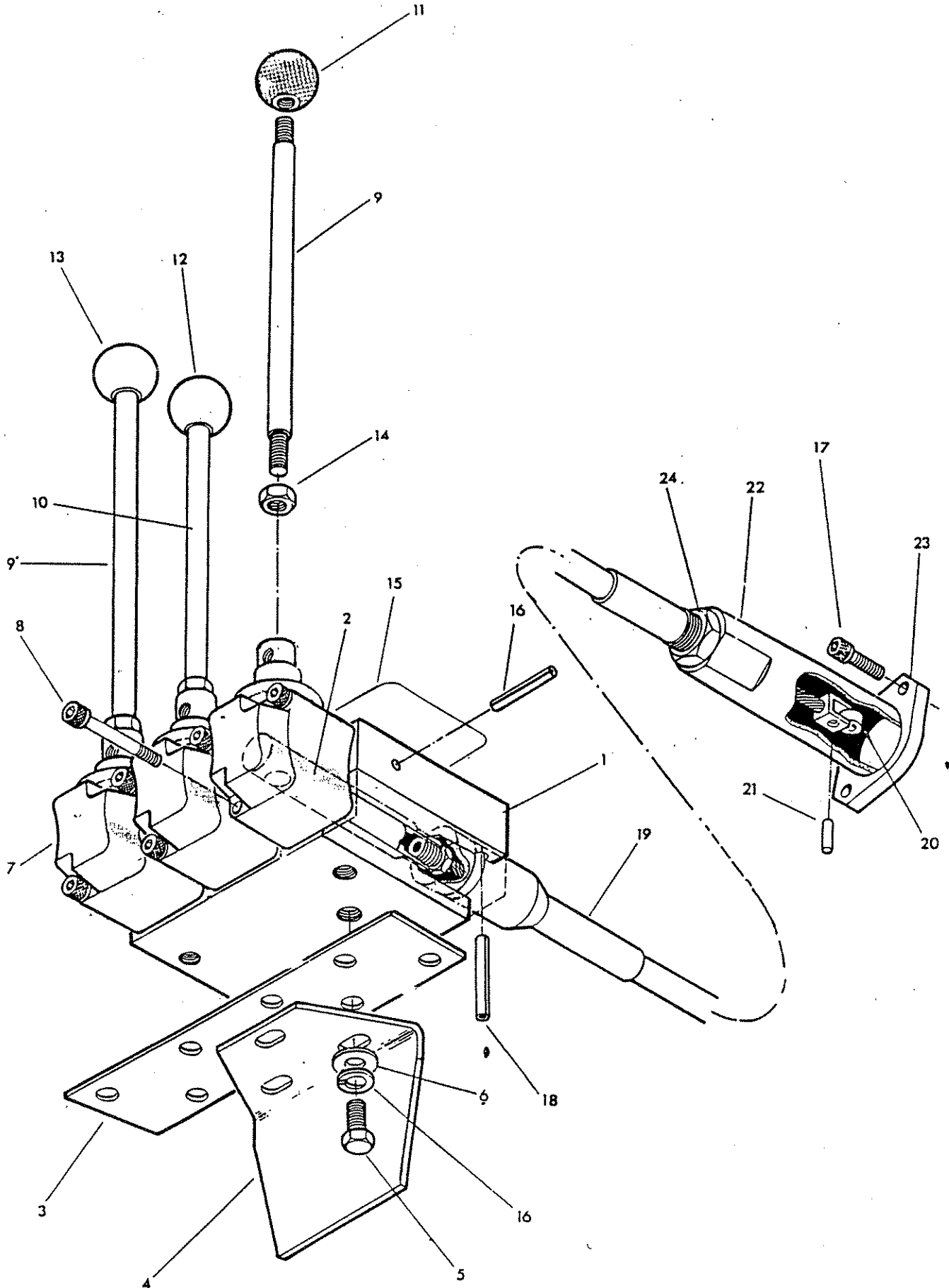
### All electric machines.

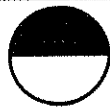
15	81 25 102	1	Cable assembly 3m
16	81 25 097	1	Sleeve
17	81 25 098	1	Flange
18	81 25 099	1	Pin
19	81 25 100	1	Bush
20	01 31 006	1	Thin locknut
21	81 25 093	1	Control block
22	81 30 053	1	Spindle
23	81 30 065	1	Pivot box assembly
24	81 25 089	1	Lever control gate
25	71 14 072	1	Lever
26	09 03 121	1	Knob - black
27	91 13 004	1	Thin nut
28	93 43 033	2	Capscrew
29	93 13 034	4	Setscrew
30	91 00 204	5	Spring washer
31	04 25 540	3	Spring dowel
32	93 13 044	2	Bolt
33	91 43 004	2	Self locking nut
34	81 25 070	1	Mounting bracket

MAIN LEVER CONTROLS -  
All models



**McCORMEL**





Ref.	Part No.	Qty.	Description
<b>LEVER ASSY. FOR LIFT REACH AND ANGLE FUNCTIONS -ALL CABLE MACHINES</b>			
1	81 30 391	3	Control block
2	81 30 144	3	Control block spindle
3	71 14 071	1	Control block mounting base
4	80 17 006	1	Mounting bracket
5	93 13 034	6	Setscrew
6	01 00 102	6	Thin washer
7	81 30 065	3	Lever pivot box assembly
8	92 43 072	6	Socket headed capscrew
9	71 09 131	2	Lever handle long
10	71 09 132	1	Lever handle short
11	09 03 112	1	Lever knob Reach (Red)
12	09 03 113	1	Lever knob Angle (Green)
13	09 03 114	1	Lever knob-Lift (Yellow)
14	91 13 004	3	Hexagon nut
15	12 90 368	1	Operating instruction label
16	91 00 204	3	Spring washer
17	93 43 022	6	Socket headed capscrew
18	04 25 540	6	Spring dowel
19*	G241 0627	3	Cable & spacer & pin,sleeve,flange etc
20	71 15 158	1	Spool eye bush
21	71 15 160	1	Pin
22	71 15 162	1	Sleeve
23	81 25 050	1	Flange
24	01 31 006	1	Thin locknut

\* An alternative cable assembly may be fitted depending on supply availability

The complete assembly is interchangeable and thus retains the same assembly Part Number

Individual cable components are not interchangeable thus before ordering spares the cable must be correctly identified.

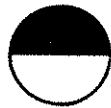
The cable listed above is **BLACK**

The alternative cable is **RED** and consists of

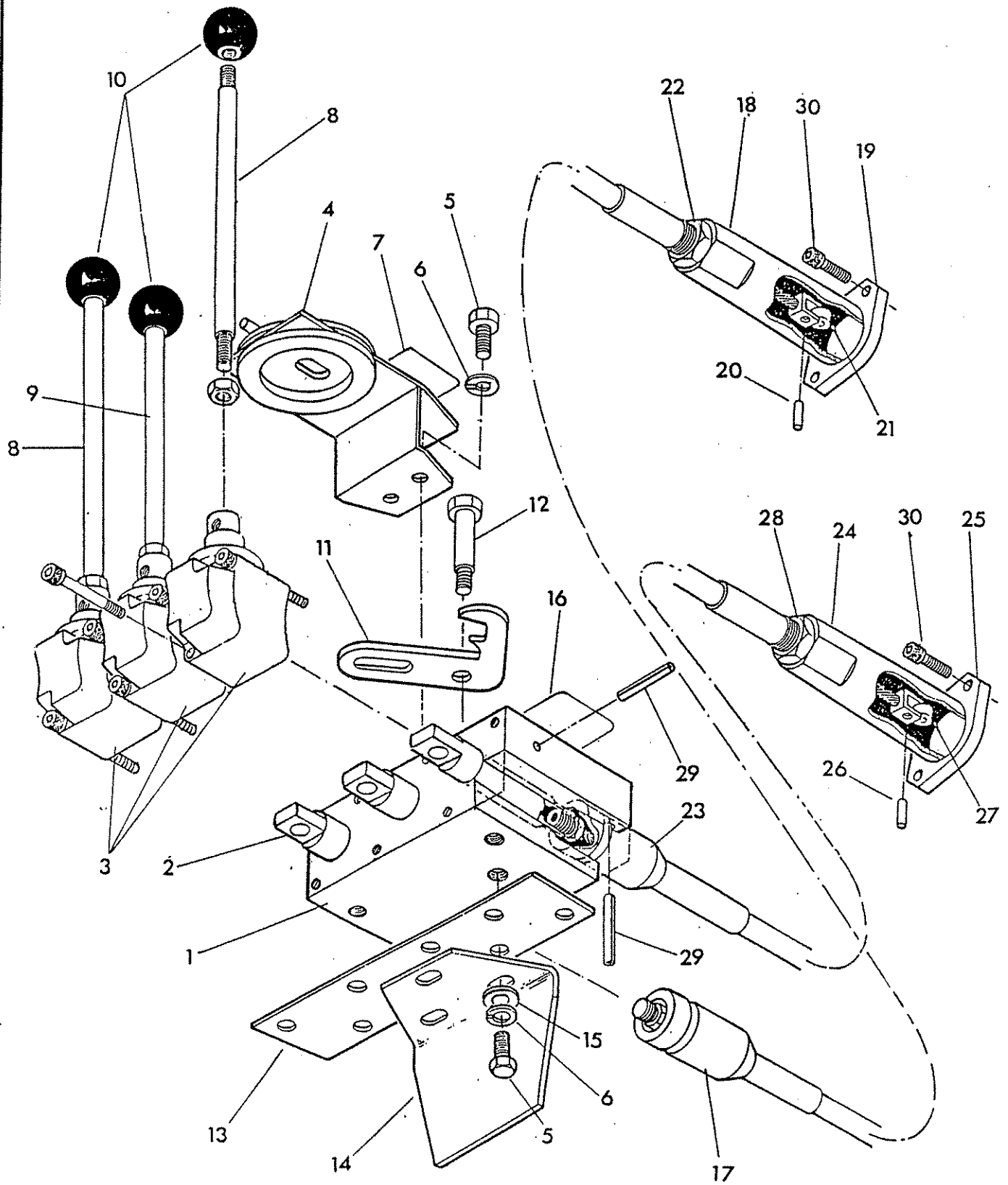
19	G241 0627	1	Cable assembly c/w sleeve,flange etc
20	80 17 004	1	Spool eye bush
21	81 25 051	1	Pin
22	81 25 049	1	Cable sleeve
23	81 25 050	1	Flange
24	91 00 016	1	Thin locknut



AUXILIARY & ROTOR CONTROL  
LEVERS - Cable machines std arm



McCONNEL





Ref.	Part No.	Qty.	Description
			<b>LEVER CONTROLS FOR SLEW, AUTO RESET/SLEW SELECTION AND ROTOR CONTROL - CABLE STD. ARM MACHINES</b>
1	71 96 054	1	Control block
2	81 30 144	3	Spindle
3	81 30 065	3	Lever pivot box assembly
4	81 25 089	1	Lever control gate
5	93 13 034	5	Setscrew
6	91 00 204	5	Spring washer
7	12 90 338	1	Instruction label -Rotor control
8	71 09 132	2	Lever handle
9	71 14 072	1	Lever handle
10	09 03 121	3	Knob - black
11	71 96 310	1	Control latch
12	71 96 055	1	Shoulder bolt
13	71 14 071	1	Control block mounting base
14	80 17 006	1	Mounting bracket
15	01 00 102	1	Plain washer
16	12 90 357	1	Instruction label - slew and auto reset/slew
17	G241 0631	1	Cable assy - Rotor control-including
18	81 25 097	1	Sleeve
19	81 25 098	1	Flange
20	81 25 099	1	Pin
21	81 25 100	1	Bush
22	01 31 006	1	Thin locknut
23	G241 0627	2	Cable assy -Slew & Auto reset slew selection incl.
24	71 15 162	1	Sleeve
25	81 25 050	1	Flange
26	71 15 160	1	Pin
27	71 15 158	1	Bush
28	01 31 006	1	Thin locknut
29	06 25 540	6	Spring dowel
30	93 43 022	6	Socket headed capscrew

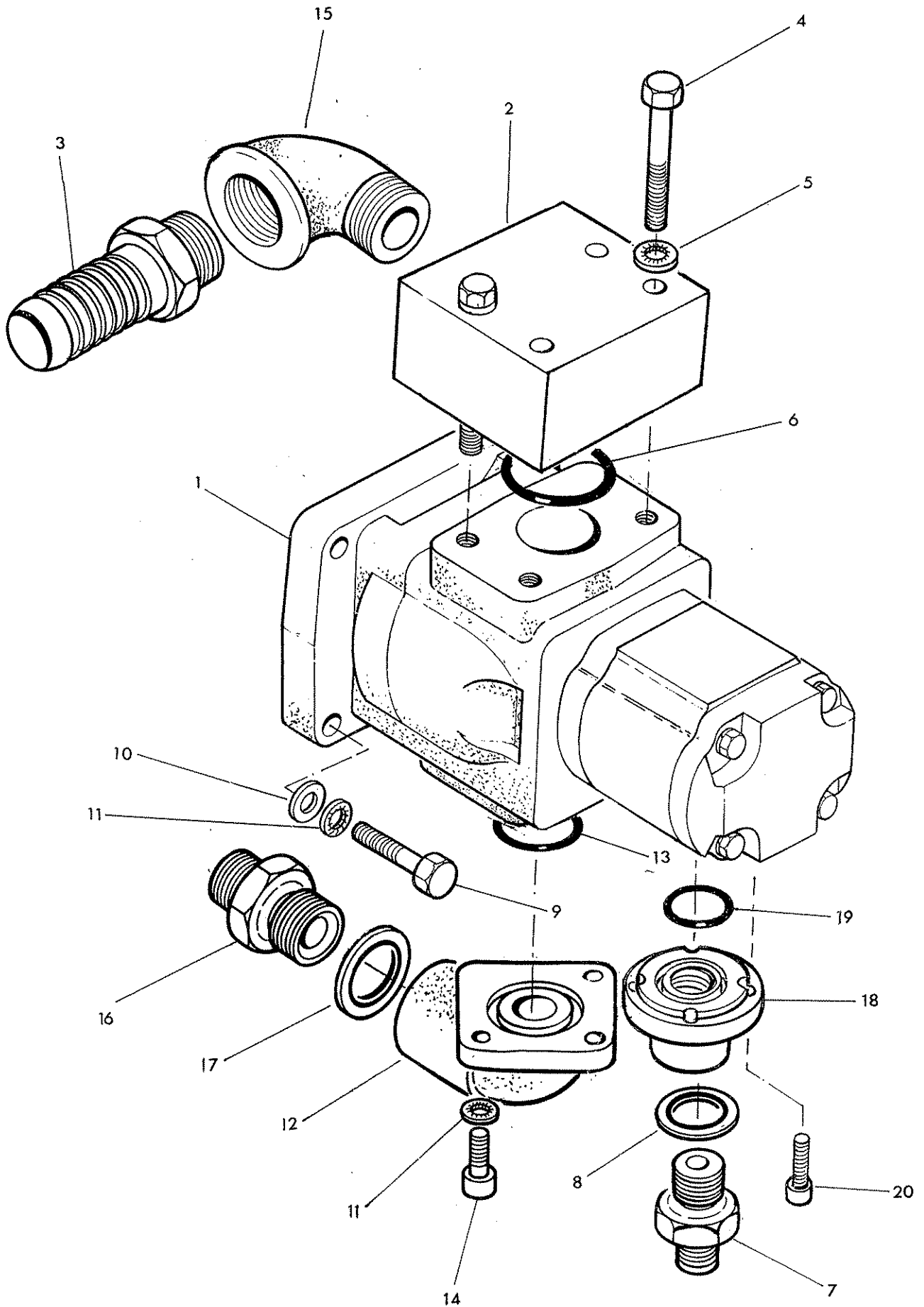
### Spares note

Cable alternatives for item 23 are as detailed on page. 36

PUMP



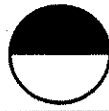
**MCCORMELL**



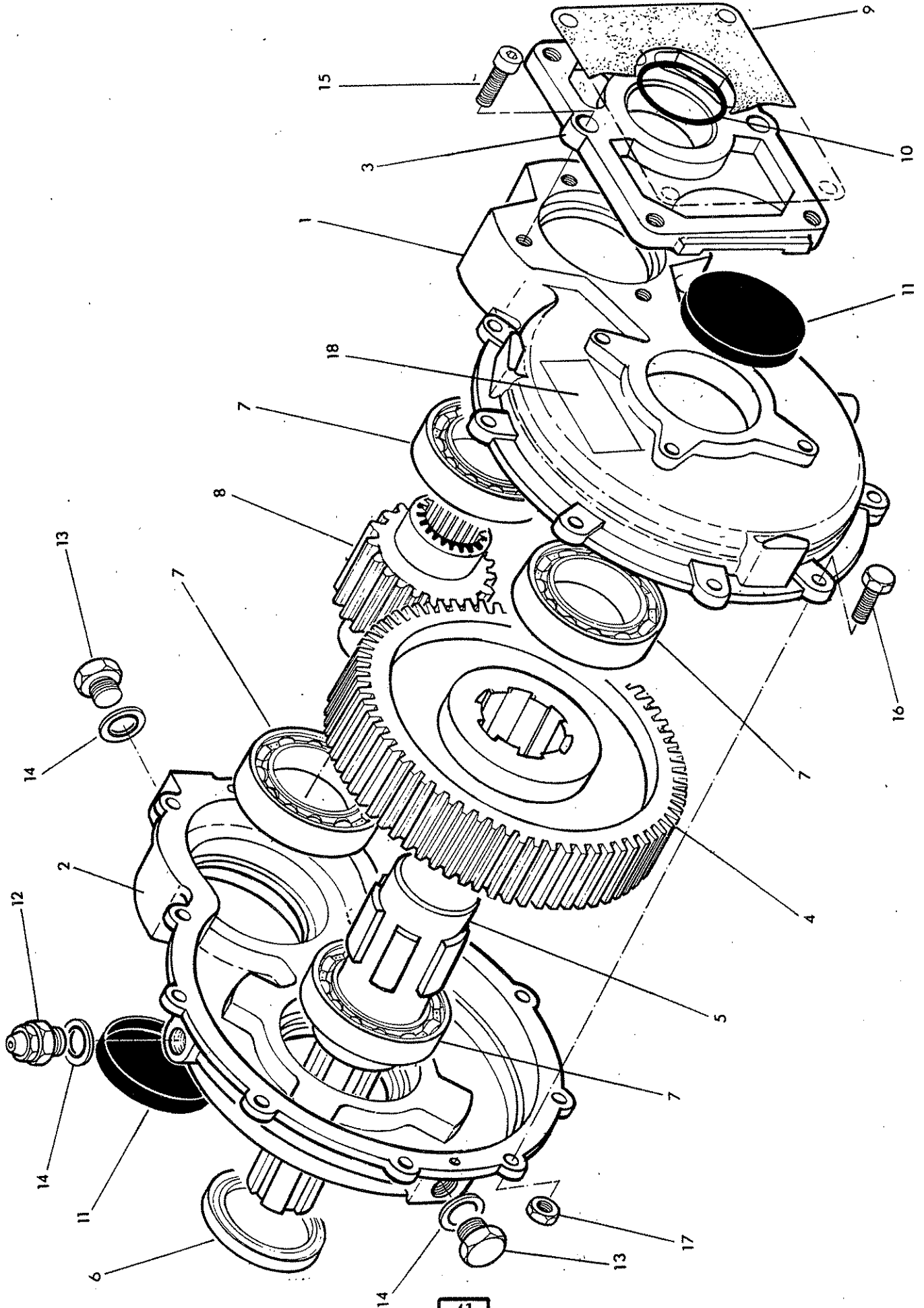


Ref.	Part No.	Qty.	Description
<b>PUMP ASSEMBLY</b>			
1	82 01 685	1	Tandem pump compr:-
	82 01 165	1	Large-pump
	82 01 166	1	Small-pump
2	85 81 312	1	Suction flange
3	85 81 367	1	Adaptor <span style="float: right;">low pressure</span>
4	92 13 146	4	Bolt
5	91 00 406	4	Shakeproof washer
6	86 00 304	1	'O' ring
7	85 81 110	1	Adaptor
8	86 50 104	1	Bonded seal
9	93 13 074	4	Bolt
10	91 00 104	4	Plain washer
11	91 00 404	7	Shakeproof washer
12	80 05 052	1	Pressure connection
13	86 00 403	1	'O' ring
14	93 43 054	3	Capscrew
15	85 81 261	1	Elbow 90 degrees
16	80 02 086	1	Adaptor
17	86 50 106	1	Bonded seal
18	42029-01	1	Pressure connection
19	86 00 405	1	'O' ring
20	93 00 147	4	Cap screw
<b>SEAL KIT</b>			
	86 99 234		Shaft seal
	86 29 209		

GEARBOX



McCONNELL



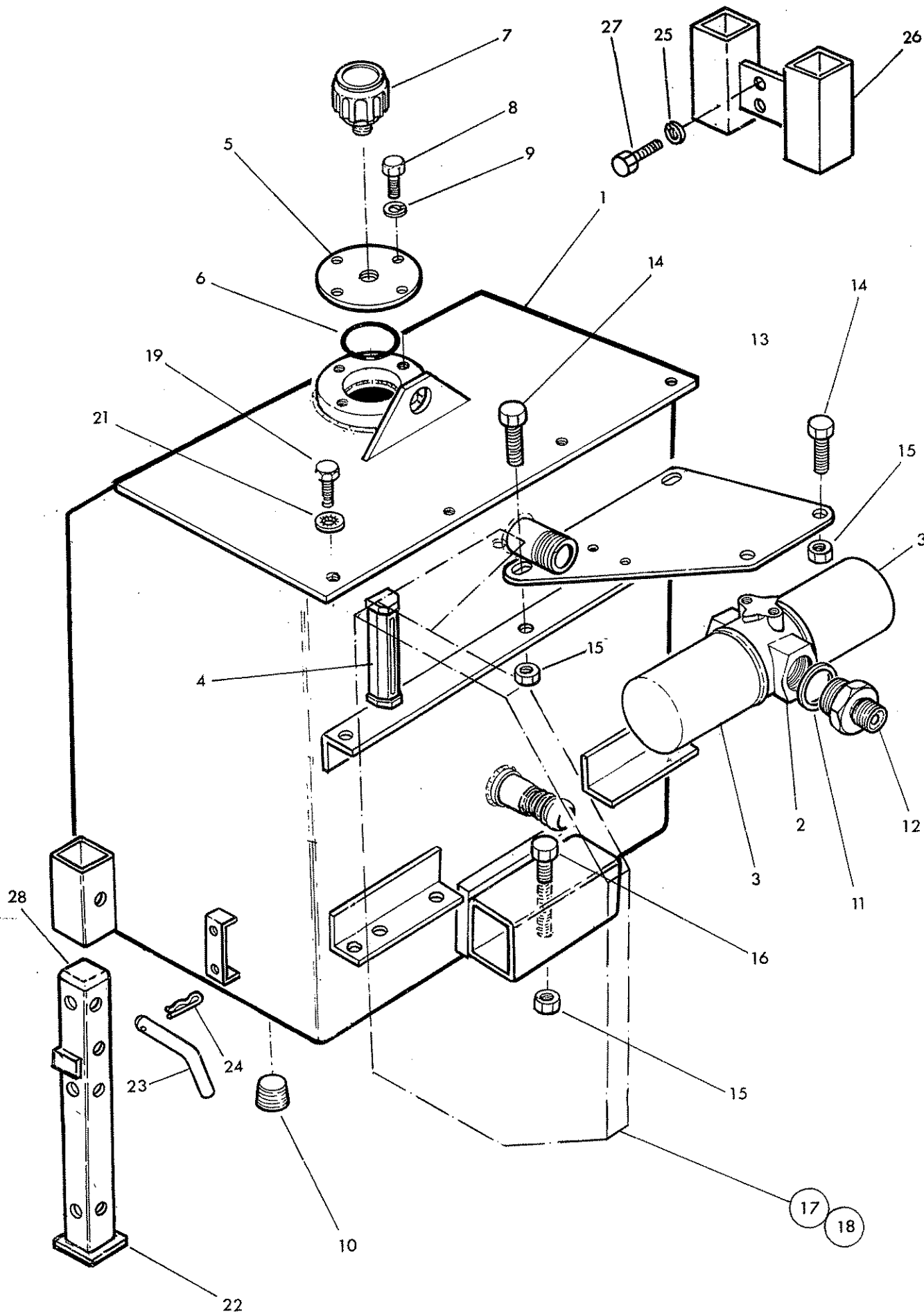


Ref	Part No	Qty	Description
	<b>80 13 444</b>		<b>GEARBOX</b>
1	80 13 100	1	Case - output side
2	80 13 101	1	Case - input side
3	80 13 102	1	Pump mounting flange
4	80 13 103	1	Gear 72t.
5	80 13 105	1	Shaft
6	86 29 196	1	Shaft seal
7	06 00 042	4	Bearing
8	80 13 104	1	Pinion 17t.
9	80 13 056	1	Gasket
10	86 00 523	1	'O' ring
11	80 13 106	2	End cover
12	80 13 107	1	Breather/adaptor
13	85 81 133	4	Plug
14	86 50 102	4	Bonded seal
15	93 43 045	3	Capscrew socket headed
16	92 13 064	10	Bolt
17	91 43 004	10	Self locking nut
18	12 90 054	1	Sticker

RESERVOIR



McCONEL

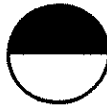




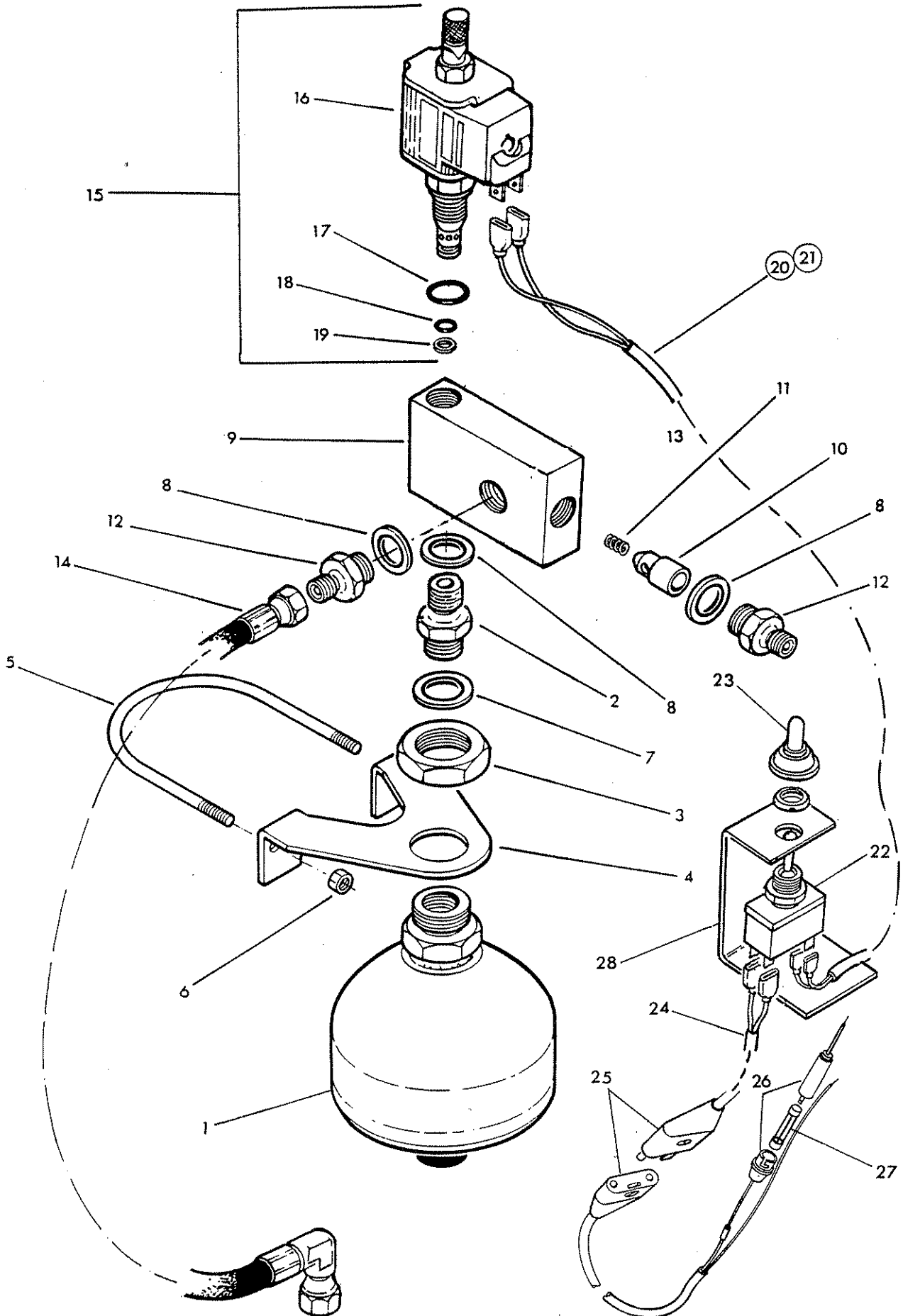
Ref.	Part No.	Qty.	Description
<b>OIL TANK AND FITTINGS</b>			
1	41523.01	1	Oil tank
2	84 01 060	1	Filter head
3	84 01 041	2	Filter element
4	84 01 048	1	Level guage
5	71 92 063	1	Cover
6	86 00 151	1	'O' ring
7	84 01 063	1	Breather
8	93 13 054	4	Setscrew
9	91 00 204	4	Spring washer
10	85 81 203	1	Drain plug
11	86 50 224	1	Bonded seal
12	85 81 291	1	Adaptor
13	41553.01	1	Tank stay bracket
14	93 13 056	4	Setscrew
15	91 43 006	5	Self locking nut
16	92 13 226	1	Bolt
17	41529.01	1	Tank fairing - L.Hand
18	41529.02	1	Tank fairing - R.Hand
19	93 13 045	2	Setscrew
20	93 13 055	1	Setscrew
21	91 00 305	2	Shakeproof washer
22	41528.01	2	Stand leg
23	71 92 023	2	Leg pin
24	04 31 105	2	Spring cotter
25	91 05	2	Spring washer
26	41743.01	1	Leg stow bracket
27	91 13 065	2	Setscrew
28	71 91 108	2	Plastic bung



LIFT FLOAT KIT

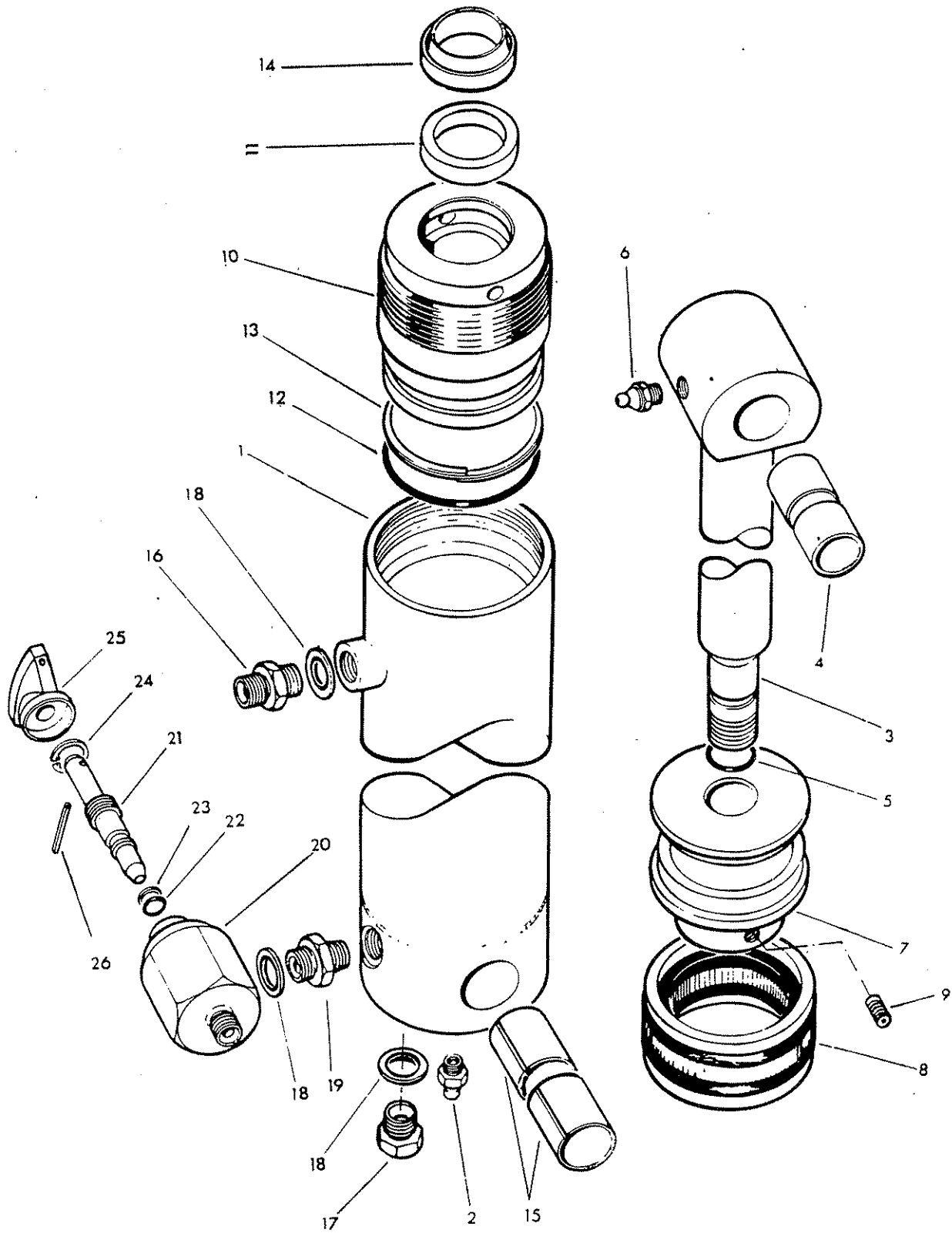
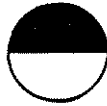


McCONNEL





Ref.	Part No.	Qty.	Description
	81 26 295		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 12" 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 02 194	1	Cable assy incl.
21	84 02 194/1	1	Cable
22	84 02 091	1	Switch
23	84 02 024	1	Switch cover
24	84 02 284	1	Supply harness incl.
25	84 02 062	1	Plug/Socket
26	84 02 114	1	Fuse holder
27	84 02 037	1	Fuse 10 amp
28	71 92 081	1	Switch mounting bracket

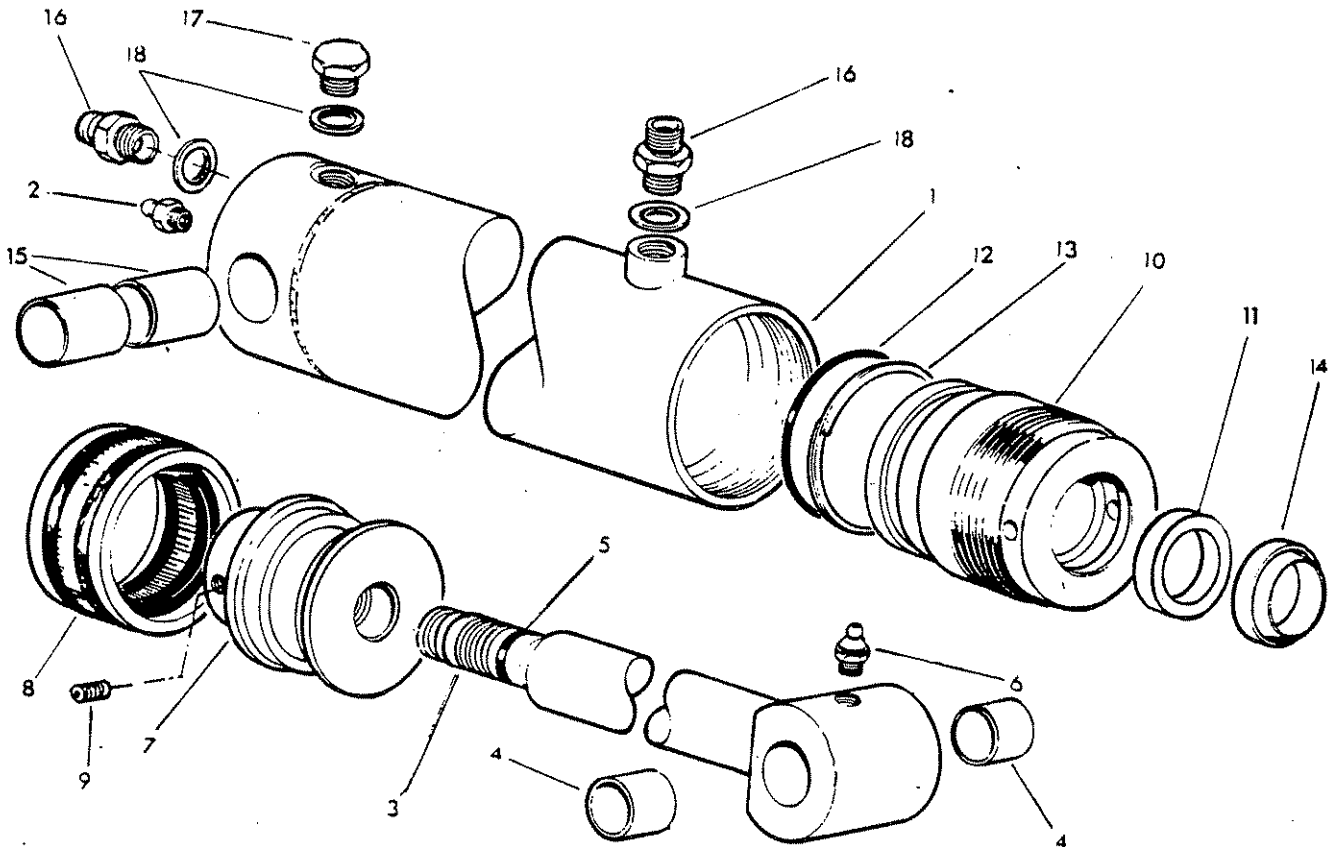




Ref.	Part No.	Qty.	Description
	<b>71-93-333</b>		<b>LIFT RAM ASSEMBLY</b>
1	71-35-283	1	Ram cylinder
2	09-01-121	1	Greaser
3	71-93-029	1	Piston rod
4	60-12-032	2	Bush
5	86-00-119	1	'O' ring
6	09-01-121	1	Greaser
7	71-35-004	1	Piston
8	86-38-740	1	Piston seal
9	93-63-023	1	Grub screw
10	71-35-282	1	Gland housing
11	86-29-164	1	Gland seal
12	87-00-740	1	'O' ring
13	87-09-740	1	Anti extrusion ring
14	86-29-147	1	Wiper
15	71-01-134	2	Bush - ram base
16	85-81-115	1	Union
17	80-03-001	1	Plug
18	86-50-103	3	Bonded seal
19	80-05-007	1	Taper adaptor
	71-35-005	1	Lock tap assembly compr:
20	71-35-284	1	Tap body
21	71-35-006	1	Tap spindle
22	86-00-107	1	'O' ring
23	86-09-107	1	Anti extrusion ring
24	04-16-110	1	Internal circlip
25	81-08-006	1	Tap knob
26	04-20-820	1	Spring dowel

**86-99-187****SEAL KIT**

**Assembly note** Fully tighten item 9 and centre pop edge of hole to retain.



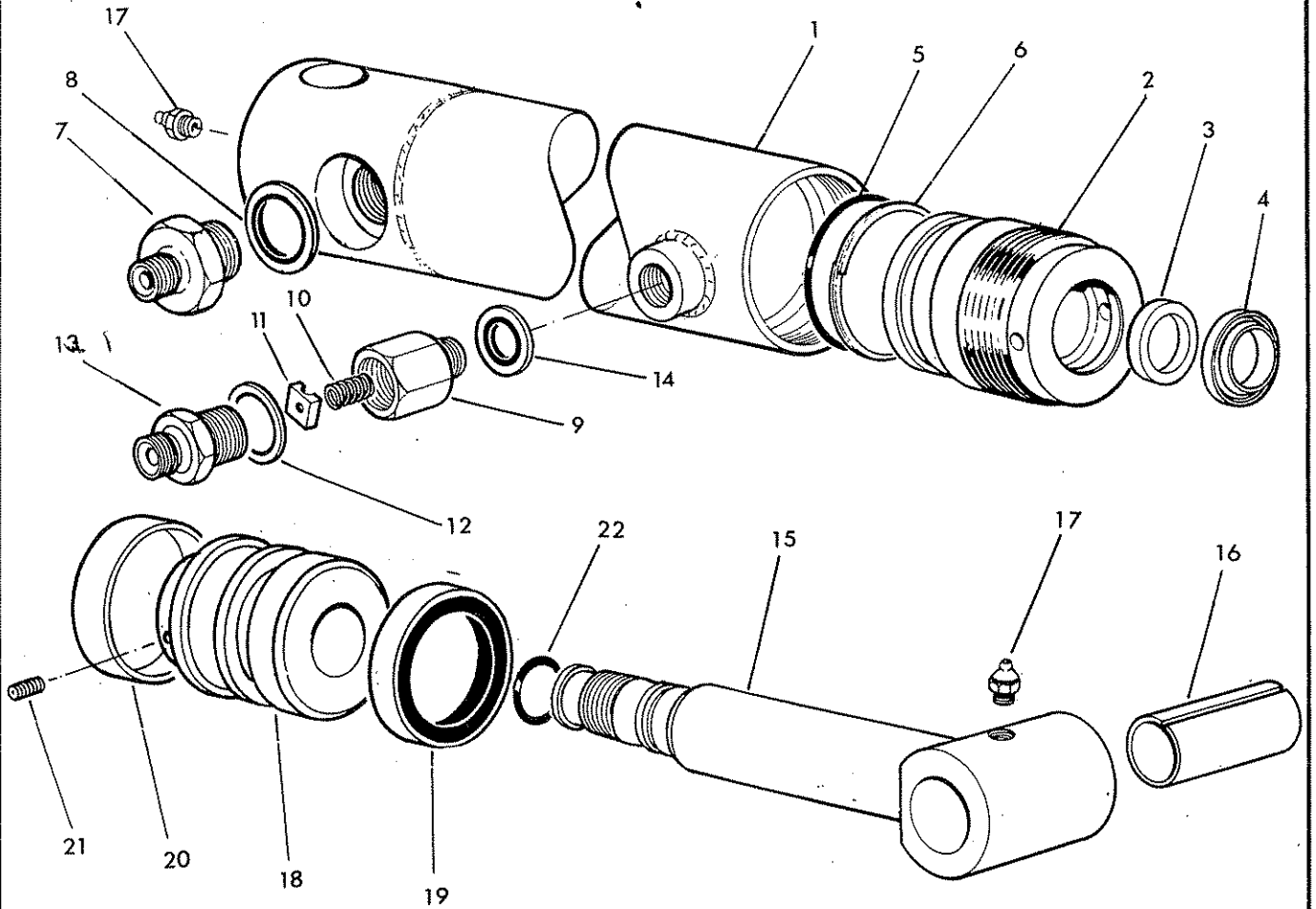
Ref.	Part No.	Qty.	Description
	<b>71-93-334</b>		<b>REACH RAM ASSEMBLY</b>
1	71-35-283	1	Ram cylinder
2	09-01-121	1	Greaser
3	71-93-029	1	Piston rod
4	60-12-032	2	Bush
5	86-00-119	1	'O' ring
6	09-01-121	1	Greaser
7	71-35-004	1	Piston c/w seal and grub screw
8	86-38-740	1	Piston seal
9	93-63-023	1	Grub screw
10	71-35-282	1	Gland housing
11	86-29-164	1	Gland seal
12	87-00-740	1	'O' ring
13	87-09-740	1	Anti extrusion ring
14	86-29-147	1	Wiper
15	71-01-134	2	Bush - ram base
16	85-81-115	2	Union
17	80-03-001	1	Plug
18	86-50-103	3	Bonded seal
	<b>86-99-187</b>		<b>SEAL KIT</b>

**Assembly note** Fully tighten item 9 and centre pop edge of hole to retain.

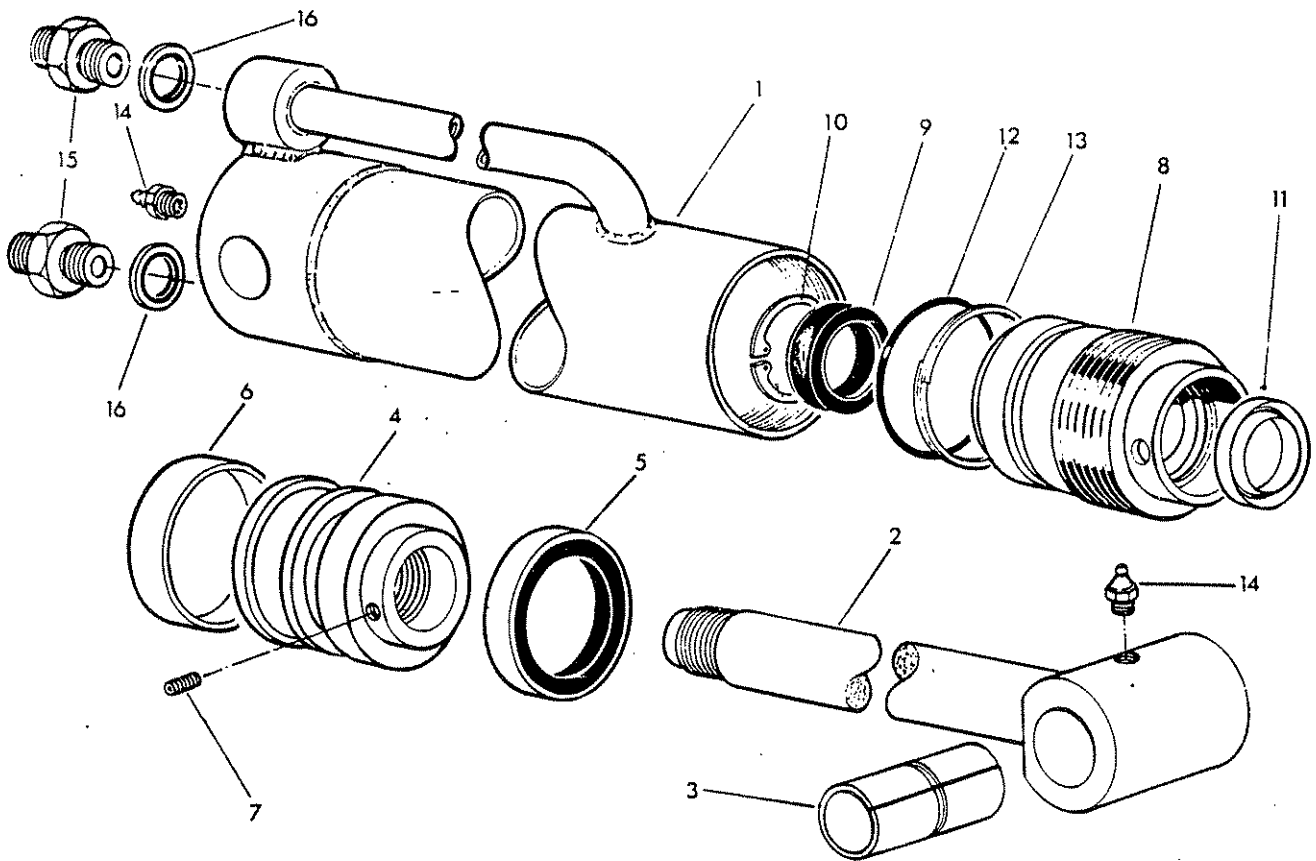
**SLEW/BREAKAWAY RAM**



**McCORMEL**



Ref.	Part No.	Qty	Description
	<b>41565.02</b>		<b>SLEW/BREAKAWAY RAM ASSEMBLY</b>
1	41566.01	1	Ram barrel
2	71 20 384	1	Gland housing
3	86 29 164	1	Rod seal
4	86 29 147	1	Wiper seal
5	86 00 429	1	'O' ring
6	86 09 429	1	Anti extrusion ring
7	85 81 172	1	Union
8	86 50 104	1	Bonded seal
9	85 81 214	1	Restrictor body
10	81 16 011	1	Spring
11	81 23 047	1	Restrictor disc
12	86 50 103	1	Bonded seal
13	85 81 145	1	Adaptor
14	86 50 102	1	Bonded seal
15	41567.01	1	Rod
16	71 05 050	1	Bush
17	09 01 121	2	Greaser
18	71 20 383	1	Piston
19	86 29 189	1	Piston seal
20	86 29 190	1	Guide ring
21	93 63 023	1	Grub screw
22	86 00 403	1	'O' ring
	<b>86 99 228</b>		<b>SEAL KIT</b>



Ref.	Part No.	Qty.	Description
	<b>75-60-344</b>		<b>ANGLING RAM ASSEMBLY</b>
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
	<b>86-99-188</b>		<b>SEAL KIT</b>

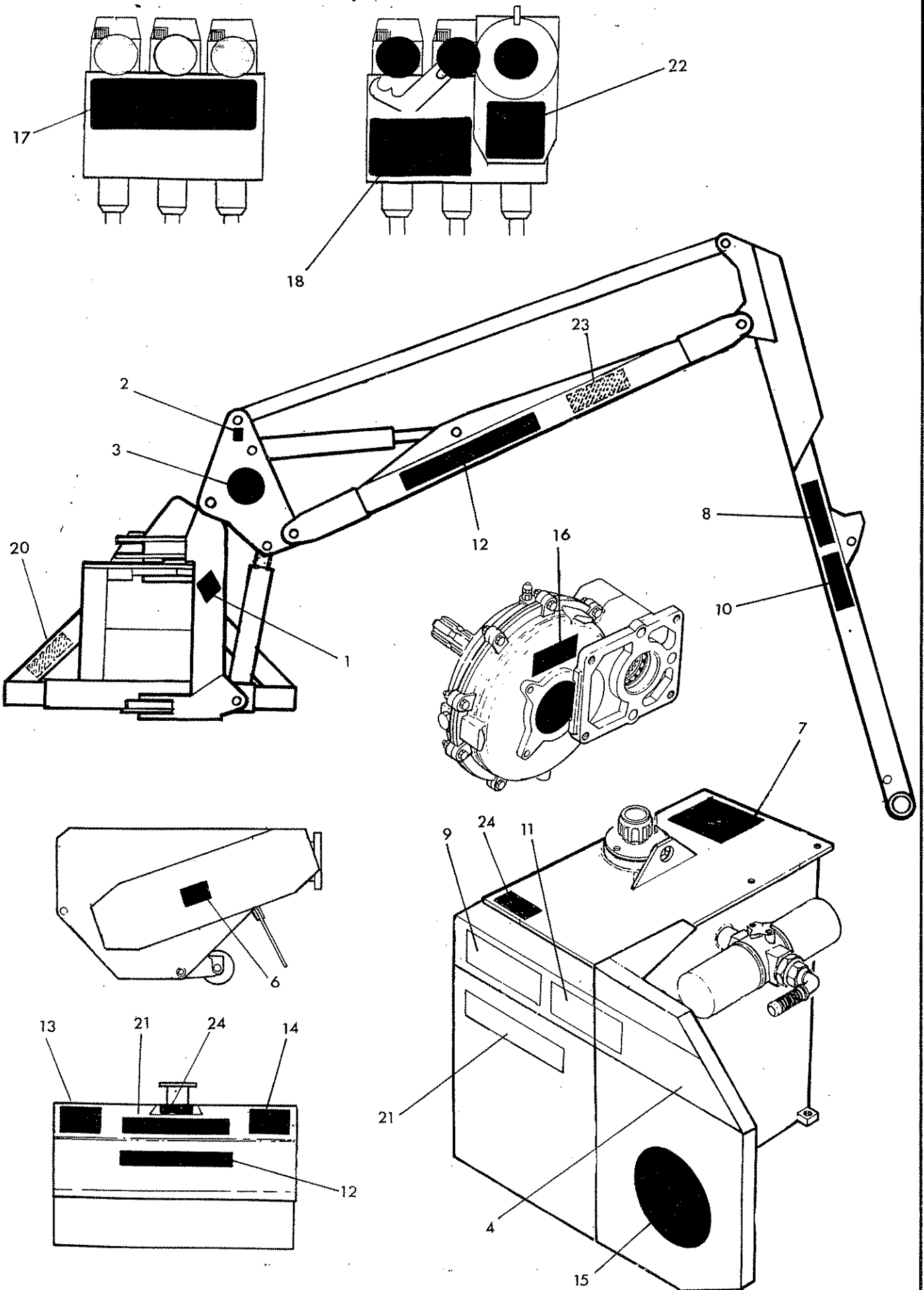
**\* Assembly note**

Tighten fully and centre punch edge of hole to secure.



**McCONNEL**







Ref.	Part No.	Qty.	Description
<b>STICKERS - CABLE MACHINES</b>			
1	71 05 130	1	Read book first
2	09-843-05	1	Sling here symbol on packing strap
3	12 90 296	1	Logo roundel
4	12 90 432	1	Tank stripe
5	12 90 352	1	Gen warning - despatched loose -not illus. in cab
6	12 90 065	1	Belt tension
7	12 90 476	1	Greasing
8	12 90 411	2	Mag - black
9	12 90 412	1	Mag - yellow
10	12 90 448	2	500 - black
11	12 90 449	1	500 - yellow
12	12 90 255	3	McConnel
13	12 90 377	1	Flailhead instructions
14	12 90 341	1	Flailhead guarding
15	12 90 365	1	McConnel roundel
16	12 90 054	1	Gearbox oil capacity
17	12 90 368	1	Lever controls - lift, reach & angle
18	12 90 357	1	Lever control - slew/auto reset
19	84 02 138	1	Slew warning - despatched loose in cab
20	12 90 331	1	Check chains
21	12 90 435	2	Sticker - Agram
22	12 90 338	1	Rotor controls
23	12 90 450	1	Breakaway warning
24	12 90 500	2	52 hp



## ***PAYEN IMPORT***

*Zae du Cèdre Briard,  
77320 BETON BAZOCHES,  
FRANCAIS  
Tél: 01 60 58 53 36  
Fax: 01 64 01 05 31*



## ***McCONNEL LIMITED***

*Temeside Works, Ludlow,  
Shropshire SY8 1JL. England.  
Tel: 01584 873131  
Fax: 01584 876463  
[www.mcconnel.com](http://www.mcconnel.com)*