

Publication 176  
July 1992

Serial No.

Part No.  
71-93-862

# PA 9058

## Spares manual



# **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.

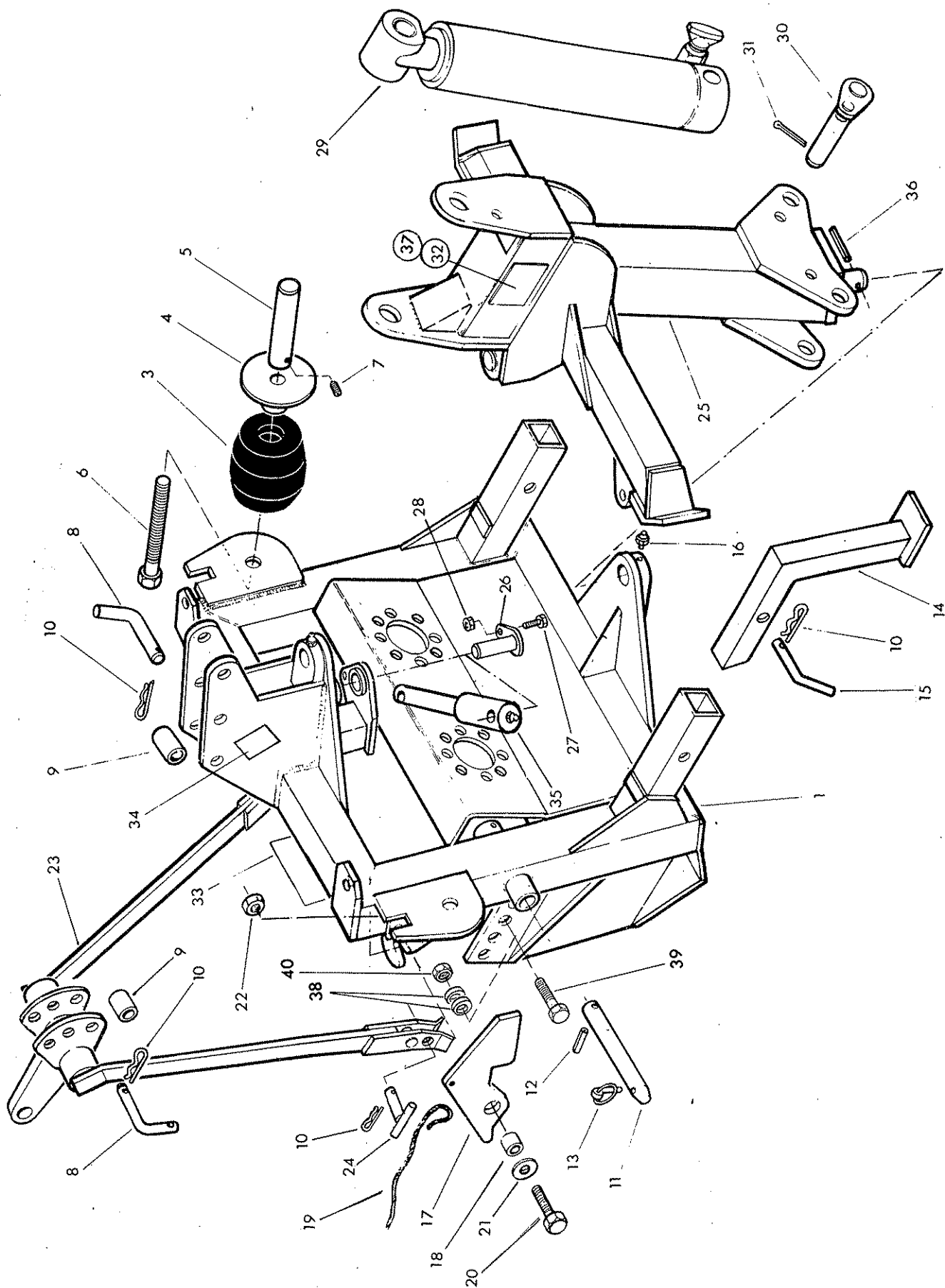
Always quote machine type and serial number as well as the part number.

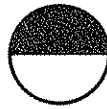
Design improvement may have altered some of the parts listed in this manual - The latest part will always be supplied when it is interchangeable with an earlier one.

**FOR NOTES**

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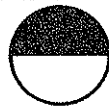
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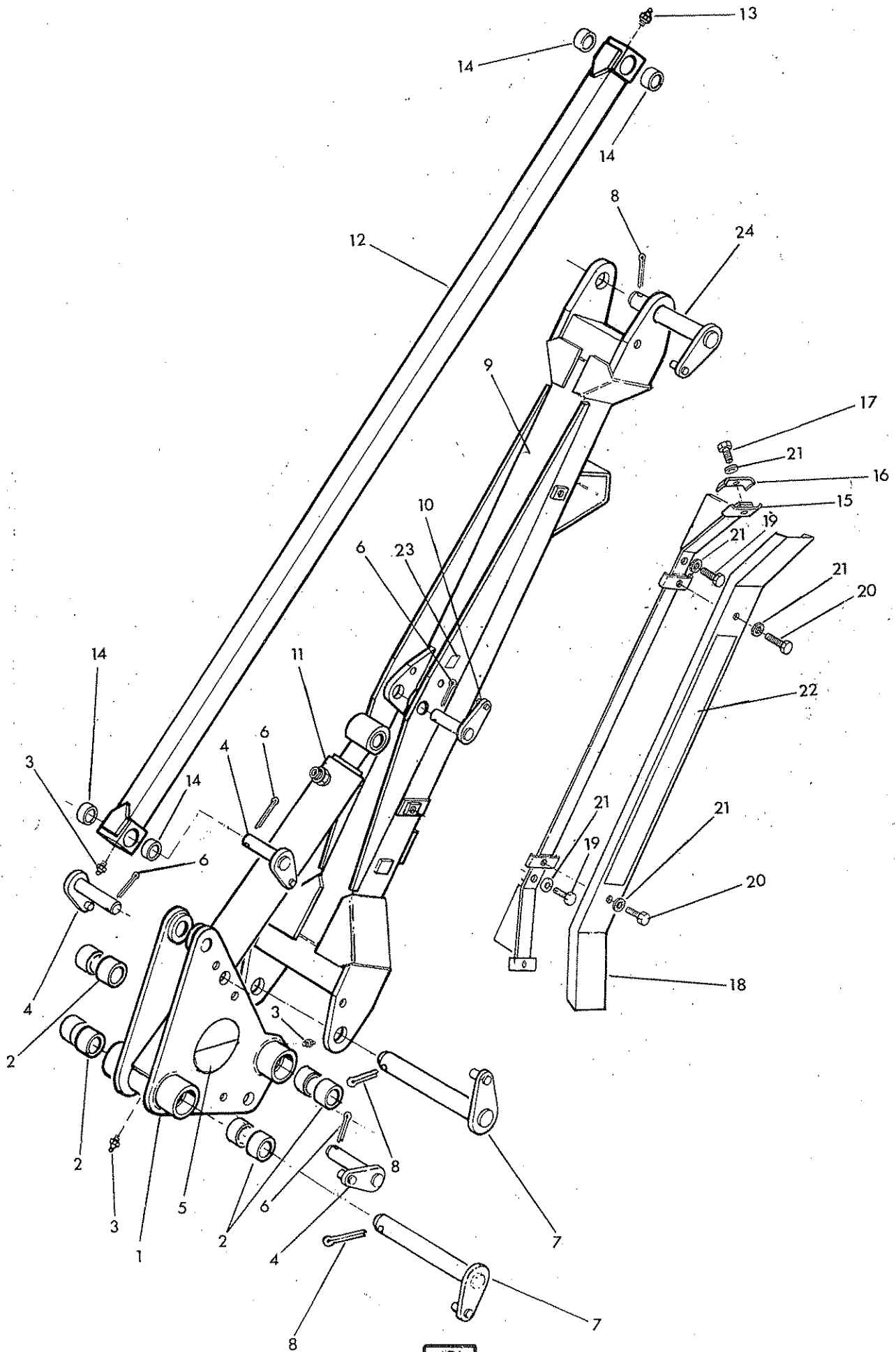


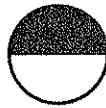
Ref.	Part No.	Qty.	Description
<b>MAIN FRAME, STABILISER &amp; PILLAR</b>			
1	71 93 381	1	Main frame
2	71 36 330	1	P.T.O. Shaft - not illustrated
3	71 35 033	1	Buffer
4	71 35 034	1	Buffer locating disc
5	71 93 323	1	Buffer abutment
6	71 35 293	1	Buffer bolt
7	93 63 034	1	Grubscrew M8 x 12 cup point
8	71 92 026	2	Top link pin
9	14 67 063	2	Sleeve
10	04 31 105	6	Spring cotter
11	71 93 020	2	Linkage pin
12	04 22 628	2	Spring dowel 3/8" dia x 1 3/4" long
13	04 31 217	2	Linch pin
14	71 92 307	2	Stand leg
15	71 92 023	2	Leg pin
16	09 01 121	2	Greaser 1/8 BSP - straight
17	71 93 325	1	Latch
18	71 35 097	1	Spacer
19	71 35 036	1	Operating cord
20	92 13 106	1	Bolt M12 x 50
21	91 00 106	1	Plain washer dia 12
22	91 43 006	1	Self locking nut M12
23	71 92 405	1	Stabiliser
24	71 92 027	2	Stabiliser pin
25	71 93 372	1	Pillar
26	71 93 054	2	Assistor ram pin
27	92 13 065	2	Bolt M10 x 30
28	91 43 005	2	Self locking nut M10
29	71 93 333	1	Lift ram assembly see page 41
30	71 93 025	1	Pin - Lift ram base
31	05 03 166	1	Split pin 1/4" dia x 2" long
32	13 35 246	1	Serial No. plate
33	71 35 295	1	Sticker - "Tighten check chains"
34	71 05 130	1	Sticker - "Read instruction book first"
35	71 93 374	1	Breakaway assistor ram see page 45
36	04 21 832	1	Spring dowel 1/4" dia x 2" lon
37	71 03 230	4	Pop rivet 1/8" dia
38	71 92 080	4	Eccentric collar
39	92 13 148	2	Bolt M20 x 70
40	91 43 008	2	Self locking nut M20

MAIN ARM & ROCKER



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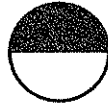




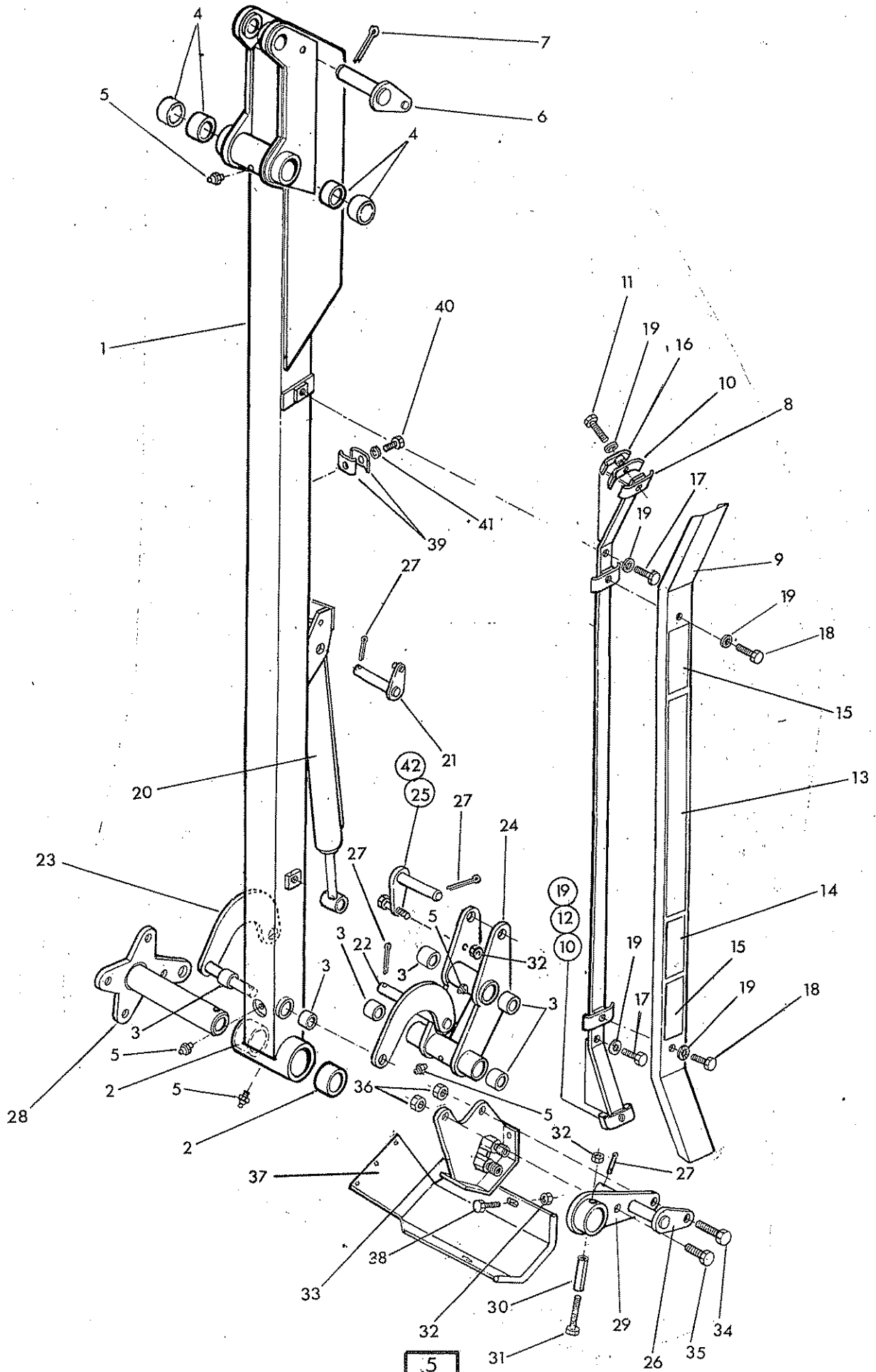
Ref.	Part No.	Qty.	Description
<b>MAIN ARM ROCKER &amp; TENSION LINK</b>			
1	71 93 330	1	Rocker
2	72 13 023	8	Bush - Rocker pivot
3	09 01 121	3	Greaser
4	71 93 025	4	Pivot pin - Tension link, Reach base & lift ram rod
5	12 90 296	1	Sticker "Logo roundel"
6	05 03 166	5	Split pin
7	71 93 033	2	Pivot pin - Main Arm and rocker
8	95 01 509	3	Split pin dia
9	71 93 358	1	Main arm
10	71 93 022	1	Pivot pin - Reach
11	71 93 334	1	Reach ram assembly - see page 43
12	71 93 360	1	Tension link
13	09 01 124	1	Greaser
14	60 12 032	4	Bush
15	71 93 370	1	Hose guide
16	71 93 014	2	Hose clamp
17	92 13 085	2	Bolt
18	71 93 366	1	Hose cover
19	93 13 055	2	Bolt
20	93 13 055	2	Setscrew
21	91 00 305	6	Internal serrated washer
22	12 90 255	1	Sticker "McConnel"
23	60 55 002	1	Sticker "Sling here"
24	71 93 034	1	Pivot pin - Dipper



DIPPER ARM

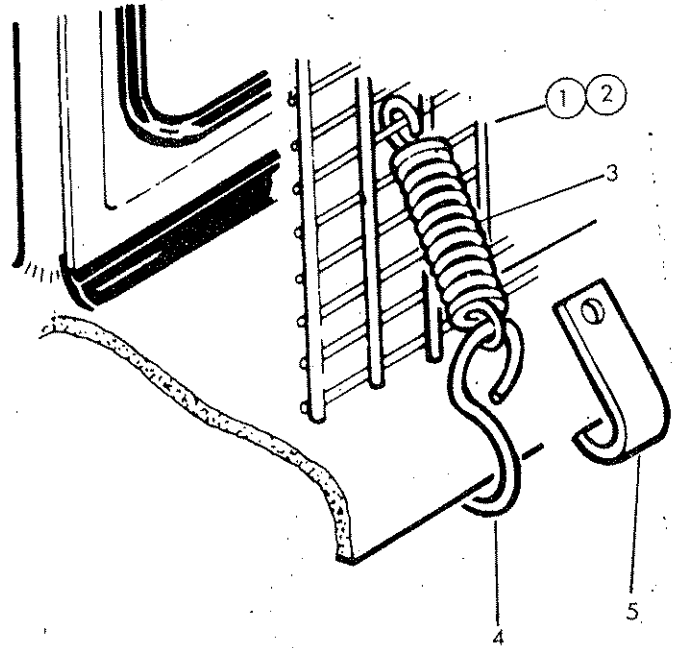
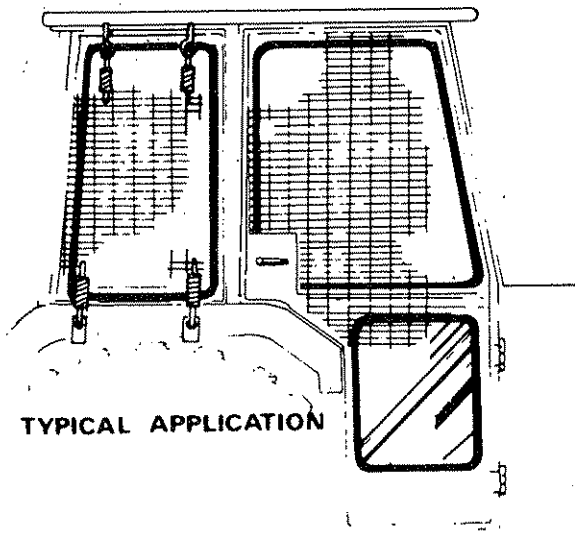
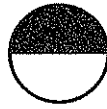


McCOMEL



**McCOMBELL**

Ref.	Part No.	Qty.	Description
<b>DIPPER ARM &amp; ANGLING MECHANISM</b>			
1	71 93 359	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	4	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 93 382	1	Hose guide - dipper
9	71 93 367	1	Hose cover - dipper
10	71 93 014	2	Hose clamp
11	92 13 125	1	Bolt
12	92 13 085	1	Bolt
13	12 90 295	1	Sticker 'Power Arm'
14	12 90 370	1	Sticker '9058'
15	12 90 347	2	Sticker 'Chevrons'
16	71 93 019	1	Hose clip - angle
17	93 13 055	2	Bolt
18	93 13 055	2	Setscrew
19	91 00 305	6	Internal serrated washer dia
20	75 60 344	1	Angle ram assembly - see page 44
21	71 92 024	1	Pivot pin - Angle ram base
22	74 50 251	1	Radius arm - rear
23	74 50 250	1	Radius arm - front
24	71 92 309	1	Slave link
25	41693-01	1	pivot pin - Angle ram rod
26	71 92 009	1	Pivot pin - Slave link
27	95 01 406	5	Split pin dia
28	71 92 308	1	Head pivot tube
29	71 92 316	1	Jaw plate
30	04 23 548	1	Spring dowel
31	92 13 185	1	Bolt
32	91 43 005	4	Self locking nut
33	71 93 376	1	Hose junction bracket
34	02 11 146	1	Bolt
35	02 11 126	1	Bolt
36	01 41 006	2	Self locking nut
37	71 93 375	1	Hose tray
38	93 13 045	2	Setscrew
39	71 96 024	2	Hose clamp
40	93 13 053	2	Setscrew
41	91 00 203	2	Spring washer
42	93 13 075	2	Setscrew

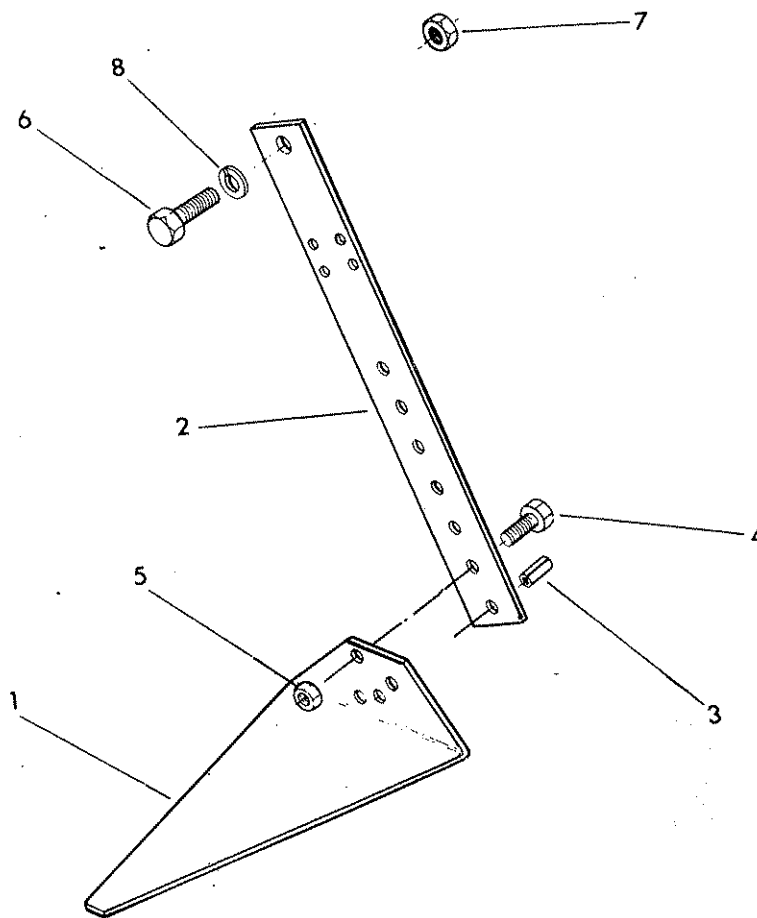


Ref.	Part No.	Qty.	Description
	<b>73-13-324</b>		<b>CAB GUARD KIT</b>
1	73-13-049	1	Guard panel - large
2	73-13-050	1	Guard panel - small
3	60-01-064	12	Spring
4	60-01-065	6	Hook
5	73-13-051	6	Hook

**CONTROL MOUNTING  
ASSY**

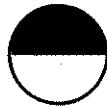


**McCormel**



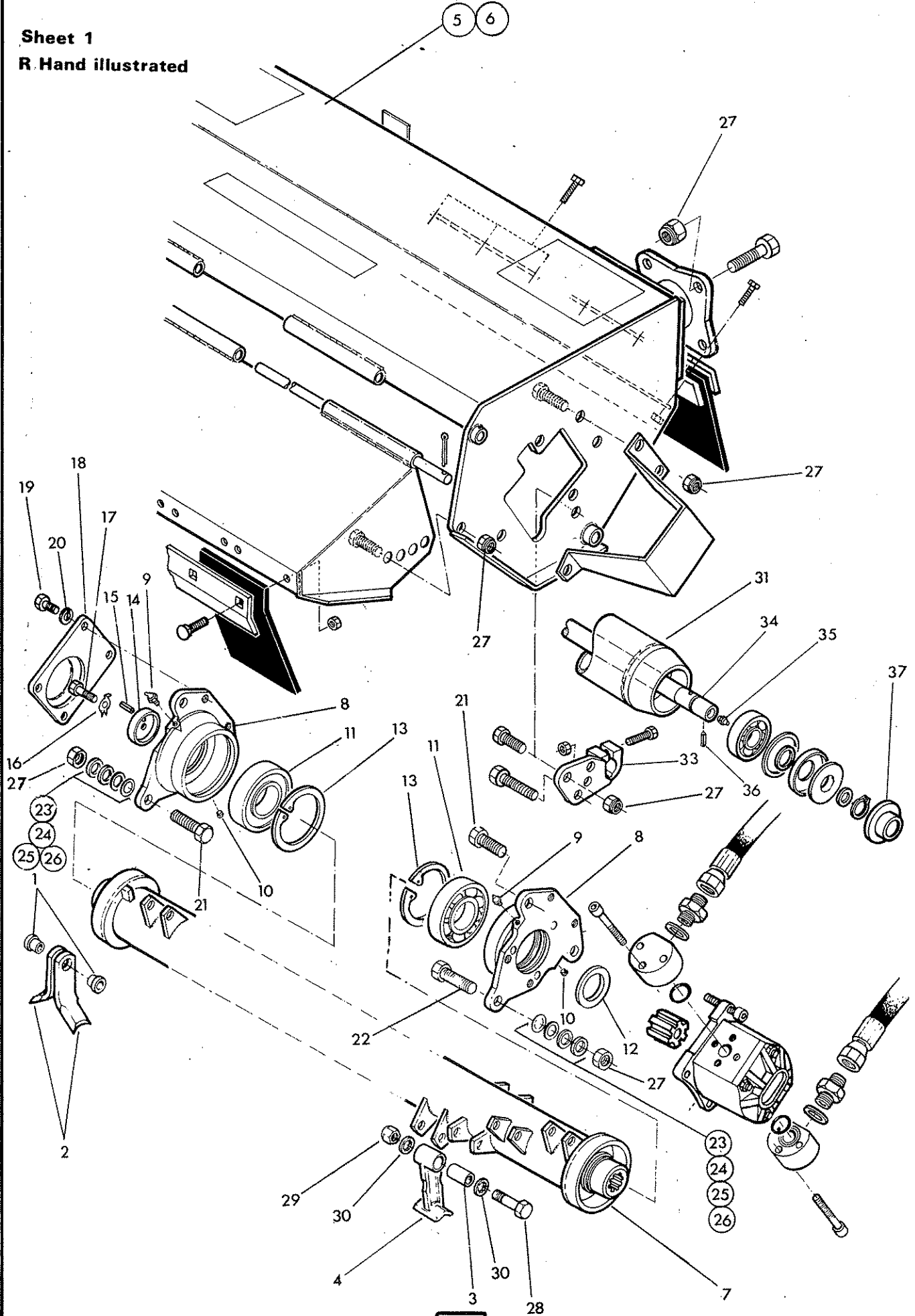
Ref.	Part No.	Qty.	Description
	<b>71-90-319</b>		<b>CONTROL MOUNTING ASSEMBLY</b>
1	71-09-320	1	Sandwich plate
2	71-09-146	1	Pillar including spring dowel
3	04-22-816	1	Spring dowel
4	93-13-066	1	Setscrew
5	91-13-006	1	Nut
6	93-11-086	1	Setscrew
7	01-11-006	1	Nut
8	01-00-206	1	Spring washer

FLAIL HEAD



McCOMEL

Sheet 1  
R Hand illustrated





Ref.	Part No.	Qty.	Description
	<b>71 93 407</b>		<b>FLAIL HEAD L HAND WITH PRESSED FLAILS</b>
	<b>71 93 406</b>		<b>FLAIL HEAD R HAND WITH PRESSED FLAILS</b>
1	71 91 095	48	Flail bush
2	71 90 315	48	Flail - pressed
	<b>71 93 405</b>		<b>FLAIL HEAD L HAND WITH CAST FLAILS</b>
	<b>71 93 404</b>		<b>FLAIL HEAD R HAND WITH CAST FLAILS</b>
3	71 91 054	24	Flail bush
4	71 91 320	24	Flail - cast

Parts lists for left or right hand flails are identical for either pressed or cast flail builds the difference being in the assembly.

The 'hand' of a flail head is determined by which end of the rotor the motor is mounted on when viewed from the rear.

Machines are despatched as standard with the motor mounted on the inboard end of the rotor therefore it should be noted that a left hand flail head is needed if it is required to cut on the right side of the tractor.

The remaining items are common to all flail assemblies

5	71 93 394	1	Flail casing R Hand
6	71 93 395	1	Flail casing L Hand
7	71 91 358	1	Rotor
8	71 90 261	2	Bearing housing
9	09 01 124	2	Greaser
10	85 82 041	2	Plug
11	06 00 018	2	Ball bearing
12	71 90 015	1	Motor locating washer
13	71 90 022	2	Internal circlip
14	71 90 025	1	Clamp washer
15	04 21 608	1	Spring dowel
16	71 90 024	1	Tabwasher
17	93 13 076	1	Setscrew
18	71 90 292	1	Cover plate
19	93 13 045	4	Setscrew
20	91 00 205	4	Spring washer
21	03 11 126	5	Setscrew
22	03 11 146	1	Setscrew
23	81 21 044	as req.	Shim
24	81 21 043	as req.	Shim
25	71 91 099	as req.	Shim
26	71 91 098	as req.	Shim
27	01 41 006	18	Self locking nut
28	71 91 109	24	Bolt
29	01 41 005	24	Self locking nut
30	01 00 305	48	Internal shakeproof washer
31	71 91 359	1	Roller
32	71 91 288	1	Roller bracket - Right hand - not illus
33	71 91 287	1	Roller bracket - Left hand
34	71 91 360	1	Roller axle
35	09 01 121	2	Greaser
36	04 25 408	1	Spring dowel
37	71 91 285	2	Roller spacer

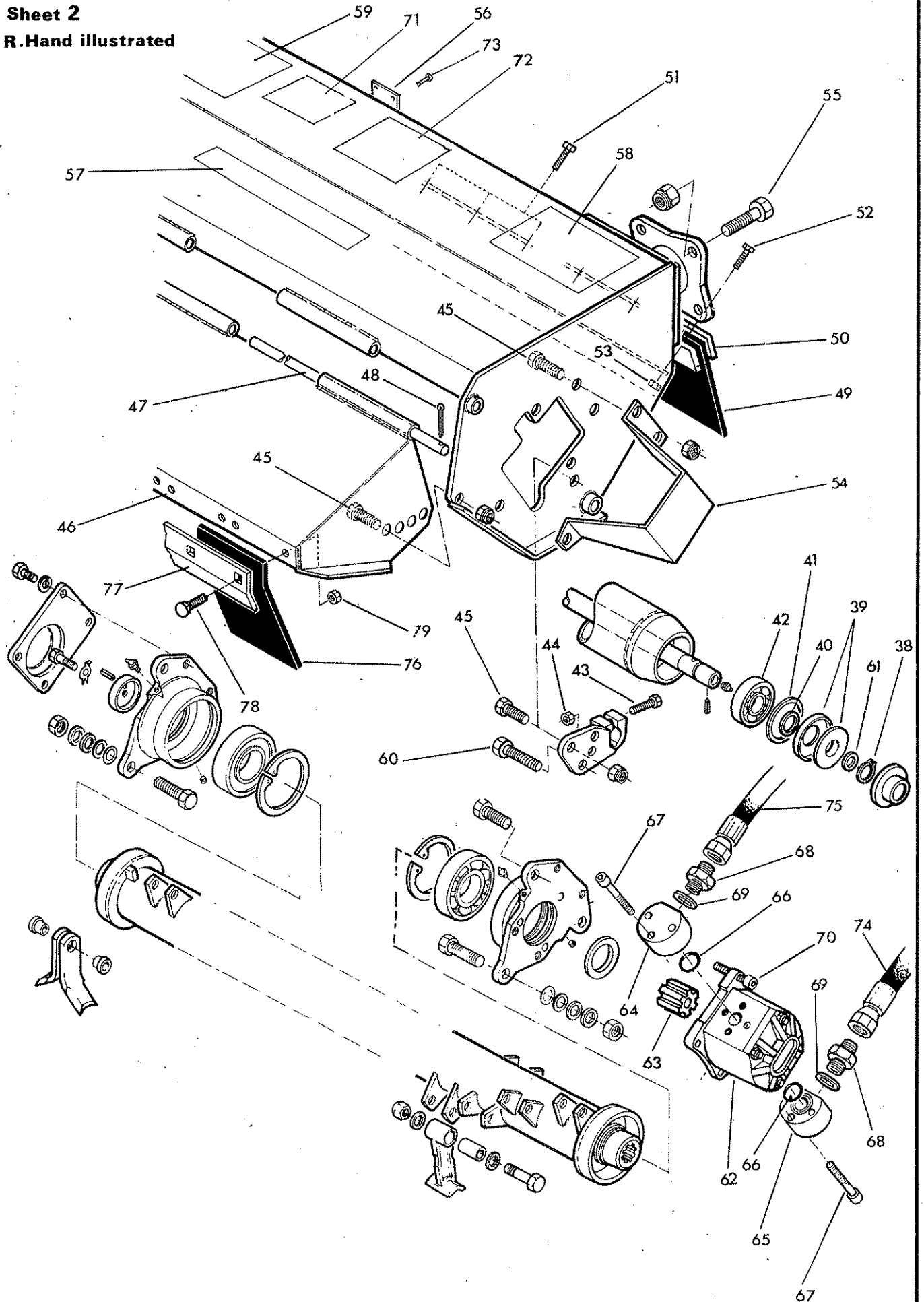
FLAIL HEAD - Continued

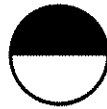


McCONEL

Sheet 2

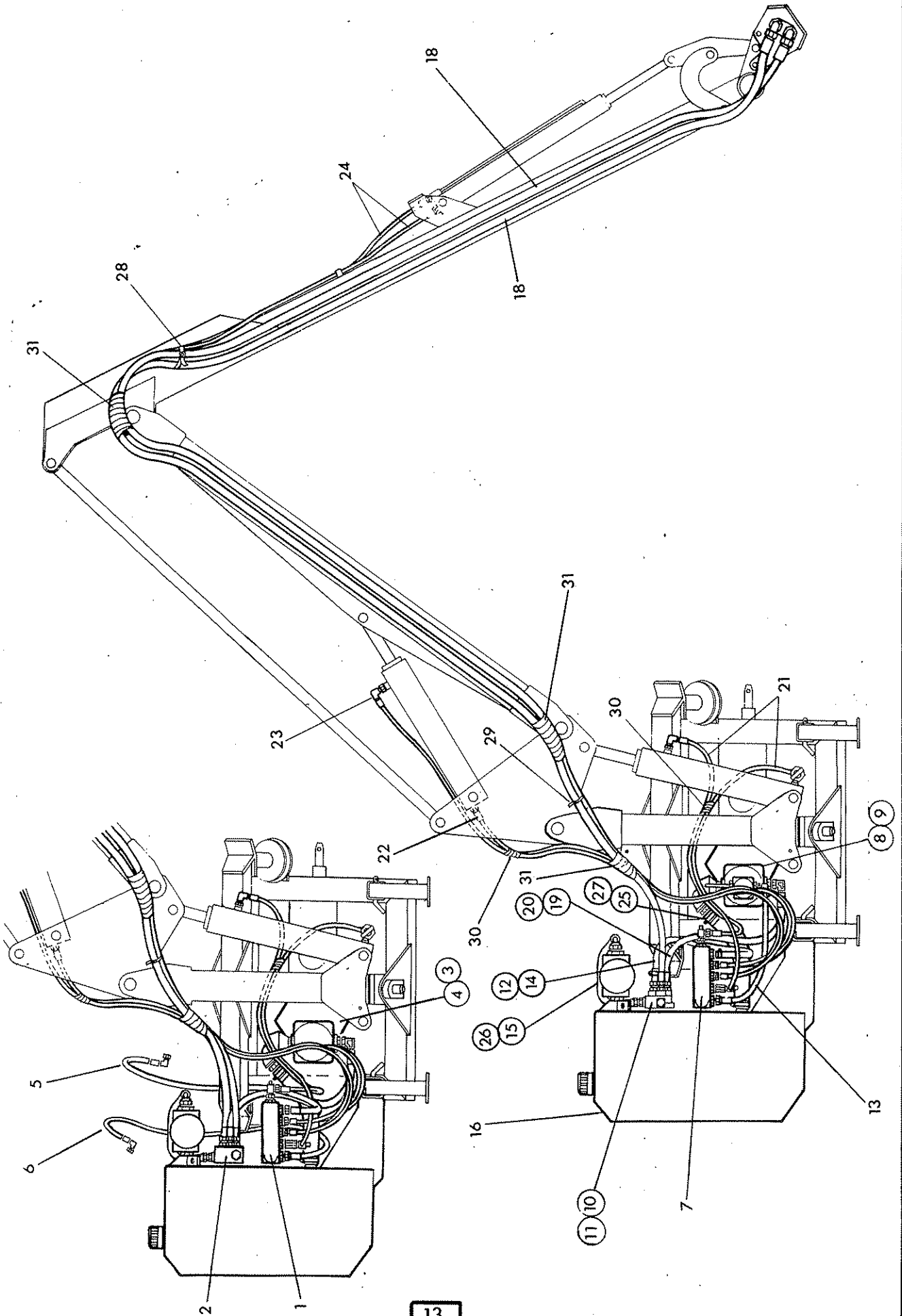
R.Hand illustrated





Ref.	Part No.	Qty.	Description
<b>FLAIL HEAD ASSEMBLIES - continued</b>			
The following items are common to all flail head assemblies			
38	04 01 225	2	External circlip
39	71 91 091	2	Sealing washer set
40	71 91 092	2	Spacer washer - small
41	71 91 093	2	Spacer washer - inner
42	06 00 088	2	Ball bearing
43	02 11 183	2	Bolt
44	01 41 003	2	Self locking nut
45	03 11 106	6	Setscrew
46	71 91 352	1	Front hood
47	71 91 116	1	Hood pivot pin
48	95 01 406	1	Split pin
49	71 91 361	1	Rear flap
50	71 91 362	1	Clamp strip
51	93 13 075	3	Setscrew
52	93 13 055	10	Setscrew
53	91 43 005	13	Self locking nut
54	71 91 283	1	Motor cover
55	02 11 186	4	Bolt
56	13 35 246	1	Serial No. plate
57	12 90 255	1	Sticker "McConnel"
58	12 90 377	1	Sticker "Instructions"
59	12 90 341	1	Sticker 'Flail' guarding
60	03 11 146	2	Setscrew
61	71 91 107	as req.	Roller shim
62	83 01 263	1	Hydraulic motor - until April 1993
	83 01 281	1	Hydraulic motor - from April 1993
63	71 90 009	1	Drive coupling
64	71 91 055	1	Motor connection R Hand
65	71 91 056	1	Motor connection L Hand
66	86 00 121	2	'O' ring
67	93 00 014	6	Capscrew socket headed
68	85 81 270	2	Union
69	86 50 106	2	Bonded seal
70	93 00 144	4	Capscrew socket headed
71	12 90 392	1	Sticker - Parts
72	0075 6485	1	Sticker - Blade warning
73	71 03 230	4	Pop rivet
74	85 18 045	1	Hose 3/4" BSP x 25" long - Motor lower
75	85 18 065	1	Hose 3/4" BSP x 28" long - Motor upper
<b>ADDITIONAL PARTS FOR FLAILS WITH PRESSED FLAILS</b>			
	71 91 363		FRONT FLAP KIT compr:-
76	71 90 020	8	Front flap
77	71 90 304	1	Clamp strip
78	92 93 054	16	Bolt - cup sq.
79	91 43 004	16	Self locking nut
	<b>86 99 216</b>		<b>SEAL KIT for hydraulic motor - until April 1993</b>
	<b>86 99 236</b>		<b>SEAL KIT for hydraulic motor - from April 1993</b>

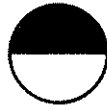




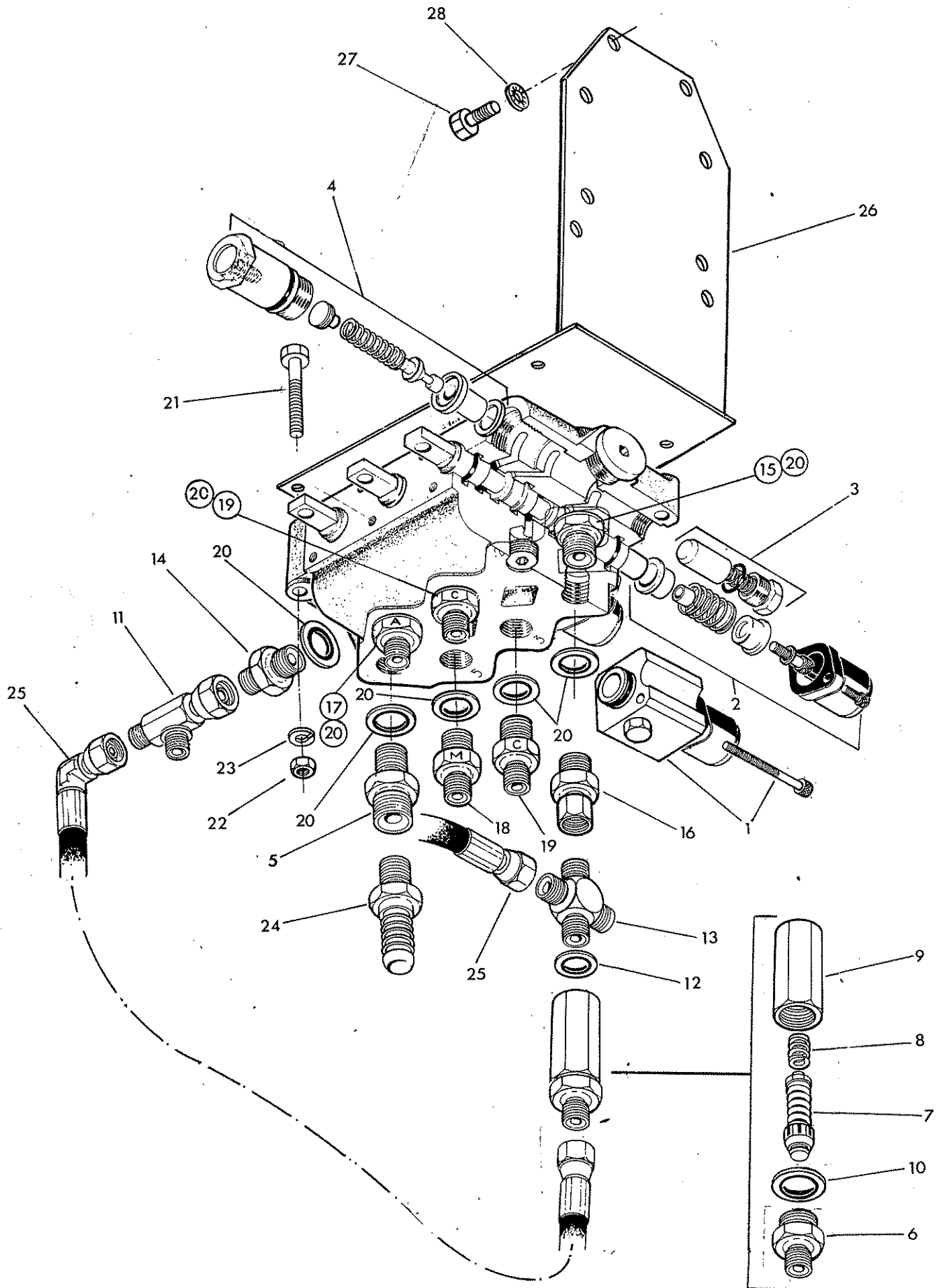


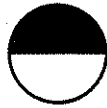
Ref.	Part No.	Qty.	Description
<b>HYDRAULIC INSTALLATION SEMI INDEPENDENT MODEL ONLY</b>			
1	81 30 410	1	Control valve assembly see pages 15 - 18
2	81 25 360	1	Rotor relief valve assembly see page 33
3	80 13 457	1	Gearbox/pump assembly R. Hand see page 27
4	80 13 456	1	Gearbox/pump assembly L Hand see page 27
5	85 32 014	1	Hose 1/2 BSP x 80" long Return tractor
6	85 31 323	1	Hose 3/8 BSP x 80" long supply-tractor
<b>HYDRAULIC INSTALLATION FULLY INDEPENDENT MODEL ONLY</b>			
7	81 30 411	1	Cable control valve assy as illus see pages 15 - 18
	81 30 412	1	Electric control valve assy not illus see pages 19 - 24
8	80 13 459	1	Gearbox/pump assembly see page
9	80 13 456	1	Gearbox/pump assembly L. Hand see page 25
10	81 25 377	1	Rotor control valve assembly R Hand see page 25
11	81 25 378	1	Rotor control valve assembly L Hand see page
12	85 01 158	1	Hose 5/8" bore x 24" long. Return to rotor on/off valve
13	85 11 253	1	Hose 3/8" BSP x 18" long. Supply from pump
14	09 04 204	2	Hose clip
The remaining items are common to all models			
15	85 00 836	1	Hose low pressure 1" bore x 36" long rotor valve-tank
16			Tank assembly see page 35
17	71 09 319	1	Control mounting assembly-not illus-see page 8
18	85 38 085	2	Hose 3/4" BSP x 240" long motor supply
19	85 38 045	1	Hose 3/4" BSP x 29" long. Pump-RC valve R.Hand
20	85 38 075	1	Hose 3/4" BSPx 20" long Pump-RC valve L.Hand
21	85 35 022	2	Hose 1/4" BSP x 48" long. lift
22	85 15 132	1	Hose 1/4" BSP x 64" long. Reach base
23	85 35 142	1	Hose 1/4" BSP x 90" long. Reach gland
24	85 15 182	2	Hose 1/4" BSP x 200" long-Angle
25	85 01 122	1	Hose 1 1/2" bore x 11 3/4" long. Suction from tank
26	09 04 106	4	Hose clip
27	09 04 107	4	Hose clip
28	71 06 187	2	Hose tie
29	71 35 084	2	Hose tie
30	72 13 005	2	Hose armour coil
31	71 93 026	3	Hose armour coil

CONTROL VALVE - CABLE



McDONNELL





Ref.	Part No.	Qty.	Description
	<b>81 30 410</b>		<b>HYDRAULIC CONTROL ASSEMBLY FOR SEMI INDEPENDENT MODEL</b>
			<b>CONTROL VALVE</b>
1	81 30 084	1	Centering spring and detent assy-Angle
2	81 30 134	2	Centering spring assembly
3	81 30 022	1	Non-return valve assembly
4	G381 2539	1	Relief valve assembly
5	60 00 112	1	Union
6	81 30 156	1	Relief valve housing
7	81 30 029	1	Relief valve
8	81 16 011	1	Spring
9	81 30 083	1	Relief valve body
10	86 50 104	1	Bonded seal
11	85 81 254	1	Tee
12	86 50 102	1	Bonded seal
13	85 81 300	1	1/4 cross
14	85 81 115	1	Adaptor
15	60 00 113	1	Union
16	85 81 259	1	Swivel adaptor
17	81 30 046	1	Restrictor union 'A'
18	81 30 066	1	Restrictor union 'M'
19	81 30 048	2	Restrictor union 'C'
20	86 50 103	8	Bonded seal
21	92 13 124	3	Bolt
22	91 13 004	3	Nut
23	91 00 204	3	Spring washer

**86 00 163****SEAL KIT****81 30 411****HYDRAULIC CONTROL ASSEMBLY FOR FULLY INDEPENDENT MODEL**

The parts list is identical to above with the following exceptions. becomes

24	81 25 008	1	Return connection
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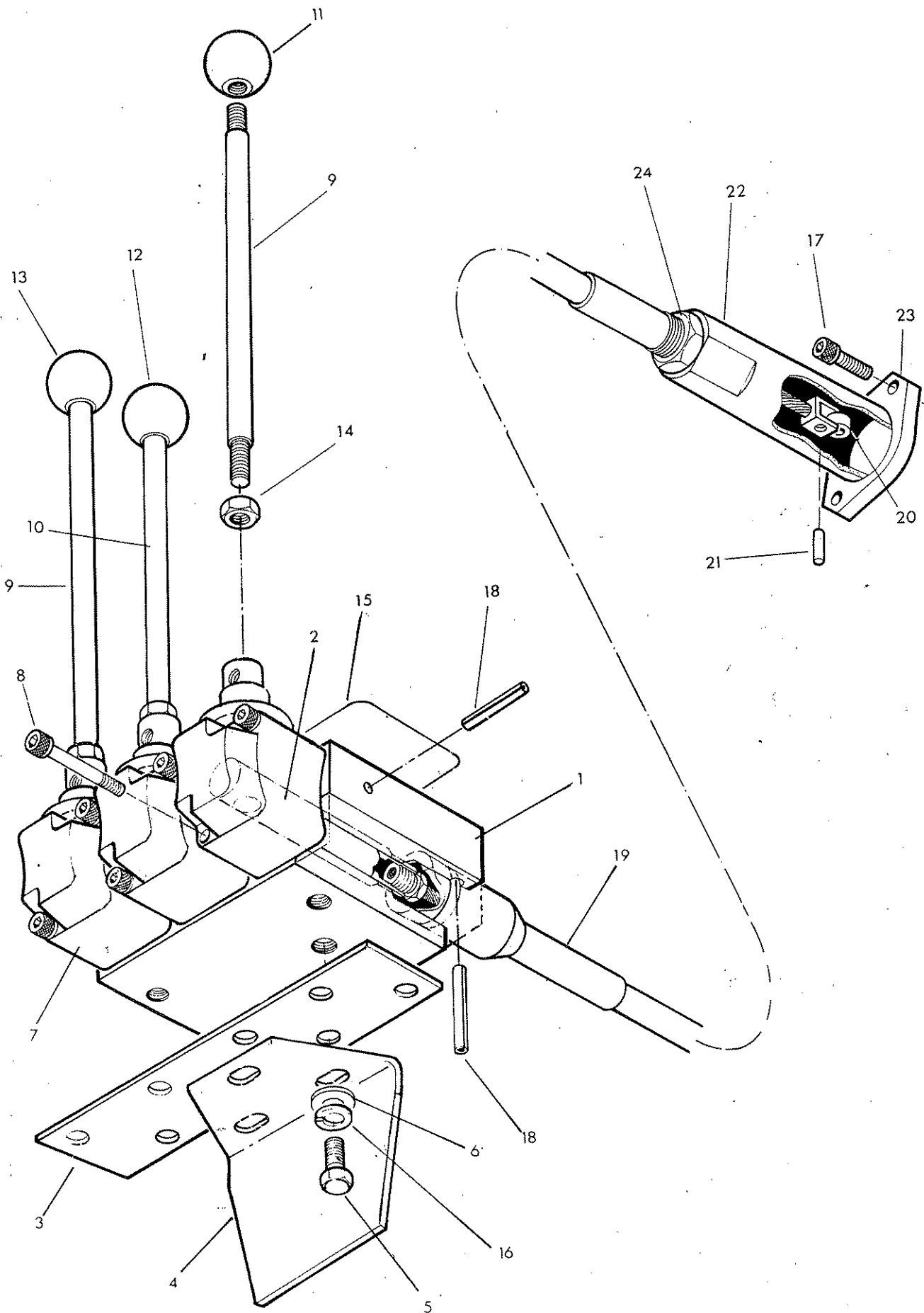
**ANCILLIARY PARTS**

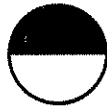
25	85 35 092	2	Hose 1/4 BSP 90 deg F x 22" long. Cross-breakaway ram and lift relief valve - return
26	71 93 039	1	Valve mounting plate
27	93 13 045	1	Setscrew
26	91 00 305	2	Internal serrated washer

LEVER CONTROLS



**McCORMICK**





# MCCORMICK

Ref.	Part No.	Qty.	Description
	<b>81 30 371</b>		<b>HYDRAULIC CONTROL ASSY FOR T.I MODELS</b> <b>Continued</b>
	<b>81 30 372</b>		<b>HYDRAULIC CONTROL ASSY FOR S.I.</b> <b>MODELS Continued</b>
1	81 30 391	1	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	3	Setscrew
6	01 00 102	3	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*	81 25 046	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

**\*Spare Note**

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

**The complete assembly is interchangeable and retains the same PartNumber 81 25 046**

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

**The cable listed above is BLACK**

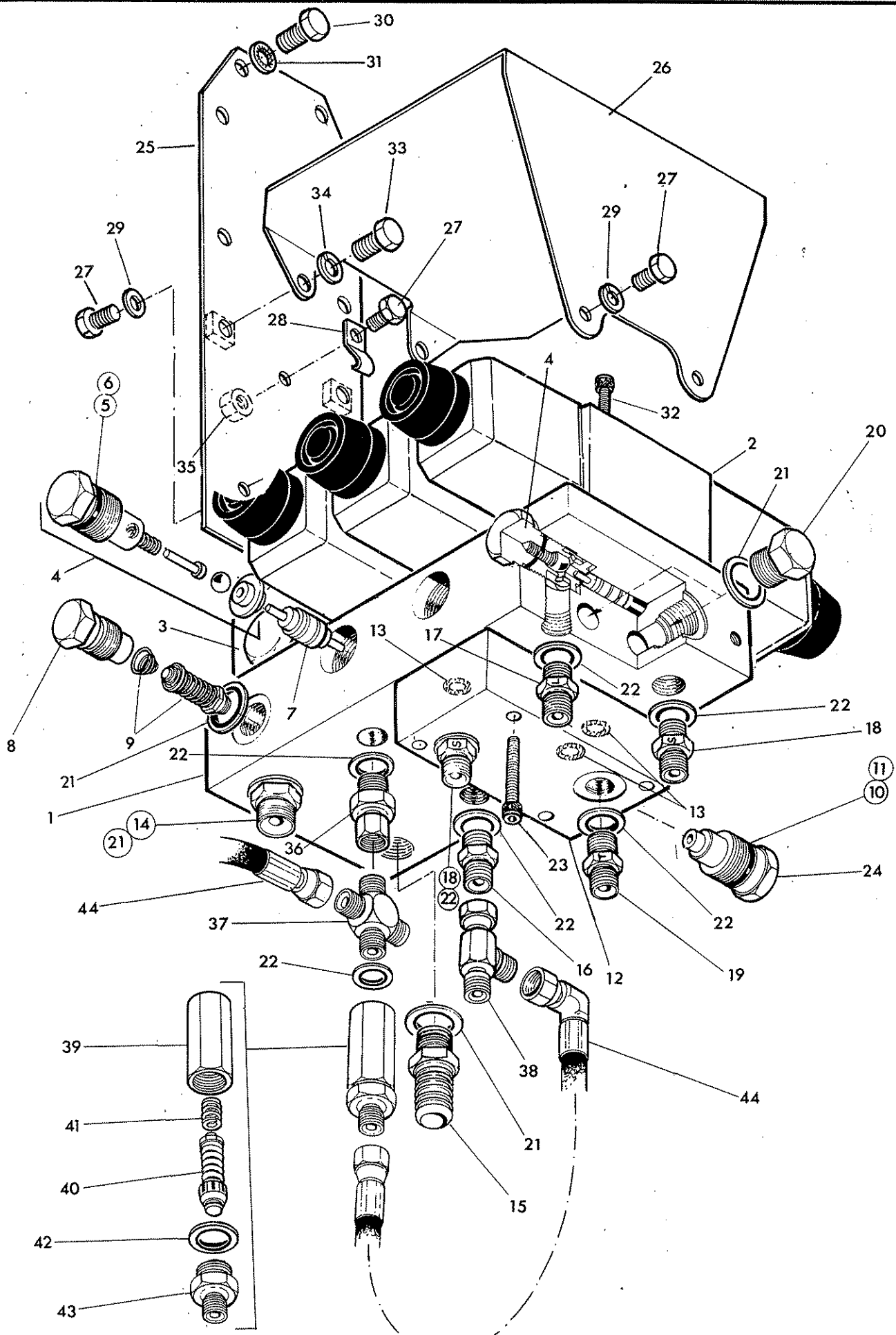
**The alternative cable is RED and consists of**

19	81 25 046	1	Cable assembly incl sleeve, flange etc
20	81 25 049	1	Cable sleeve
21	81 25 050	1	Flange
22	81 25 051	1	Pin
23	91 00 016	1	Thin locknut
24	80 17 004	1	Spool eye bush

# ELECTRIC CONTROL VALVE



# MCCORMEL





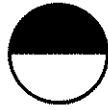
Ref.	Part No.	Qty.	Description
	<b>81-30-412</b>		<b>ELECTRIC CONTROL PACK</b>
			Solenoid/manifold assembly compr:
1	81-30-321	1	Manifold block
2	81-30-455	3	Double solenoid valve }See page 23
3	81-30-456	1	Single solenoid valve
4	81-30-090	5	Check valve assembly incl.
5	87 00 644	1	O ring
6	87 09 644	1	Anti extrusion ring
7	81-30-087	3	Actuator
8	81-30-032	1	Relief valve cap
9	81-30-142	1	Relief valve c/w spring
10	87-09-644	1	Anti extrusion ring
11	87-00-644	1	'O' ring
12	81 30 322	1	Hose plate incl. O rings
13	87 00 511	3	O ring
14	60-00-113	1	Union
15	81-25-008	1	Return connection
16	80-02-117	1	Union
17	81-30-038	1	Restrictor Union 'L'
18	81-30-037	2	Restrictor Union 'S'
19	81 30 103	1	Restrictor union T
20	80 03 001	2	Plug
21	86 50 103	5	Bonded seal
22	86-50-102	7	Bonded seal
23	92-43-082	4	Socket headed setscrew
24	81-30-078	1	Check valve gallery plug
25	71-94-003	1	Valve mounting plate
26	71 94 277	1	Valve cover
27	93-13-034	5	Setscrew
28	71-09-151	1	Cable clamp
29	91-00-204	4	Spring washer
30	93-13-045	2	Setscrew
31	91-00-305	2	Internal serrated washer
32	92-43-062	16	Capscrew, socket headed
33	93-13-035	2	Setscrew
34	91-00-205	2	Spring washer
35	91 43 004	1	Self locking nut
36	85 81 309	1	Swivel adaptor
37	85 81 300	1	Male cross
38	85 81 254	1	T Piece
39	81 30 083	1	Relief valve body
40	81 30 029	1	Relief valve -
41	81 16 011	1	Spring
42	86 50 104	1	Bonded seal
43	81 30 156	1	Relief valve housing
44	85 35 092	2	Hose 1/4" BSP x 22" long cross - b/away ram and return - lift relief valve

**86 99 177****SEAL KIT**

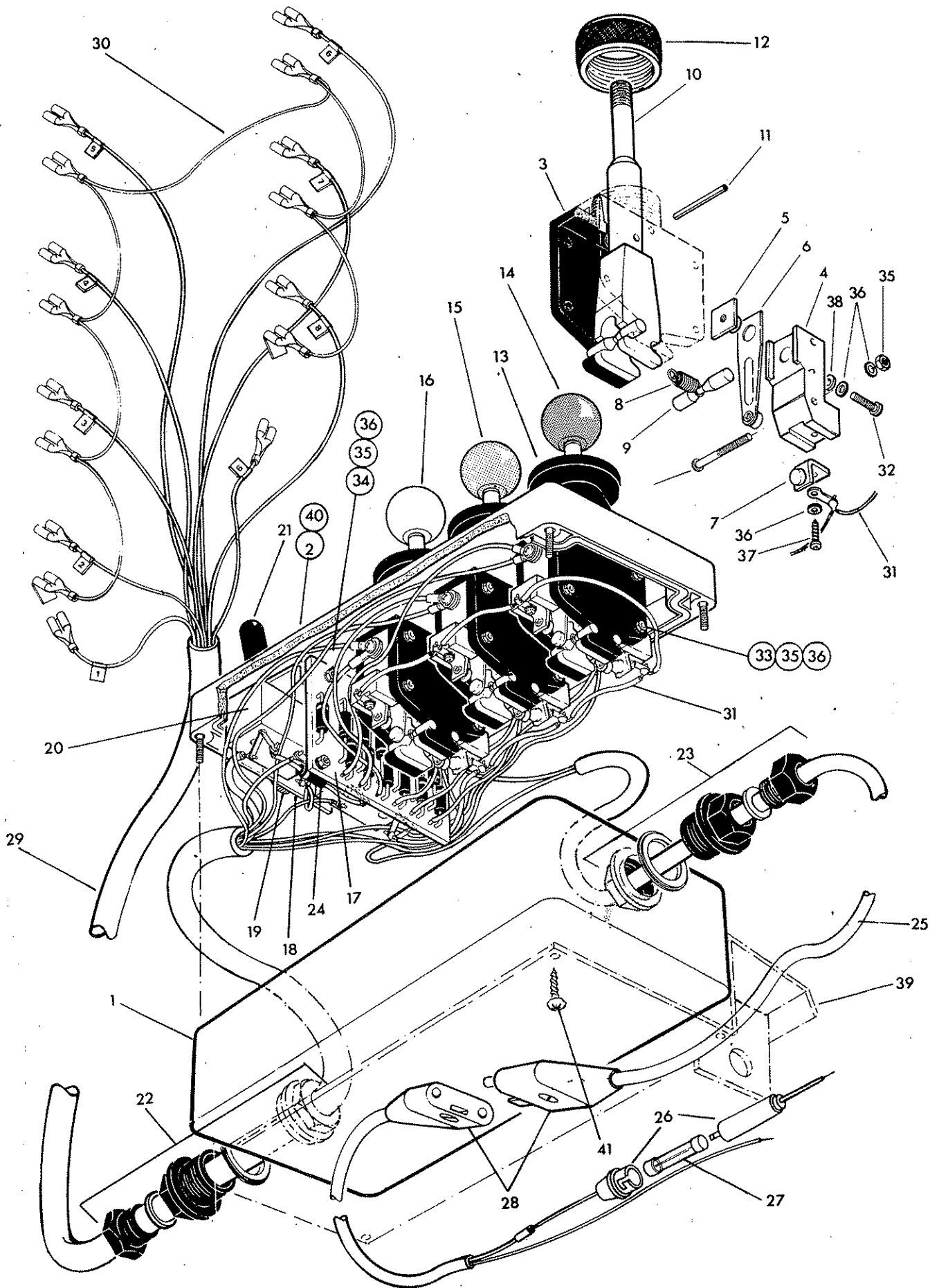
Switch box - see page 21



SWITCHBOX & LOOM

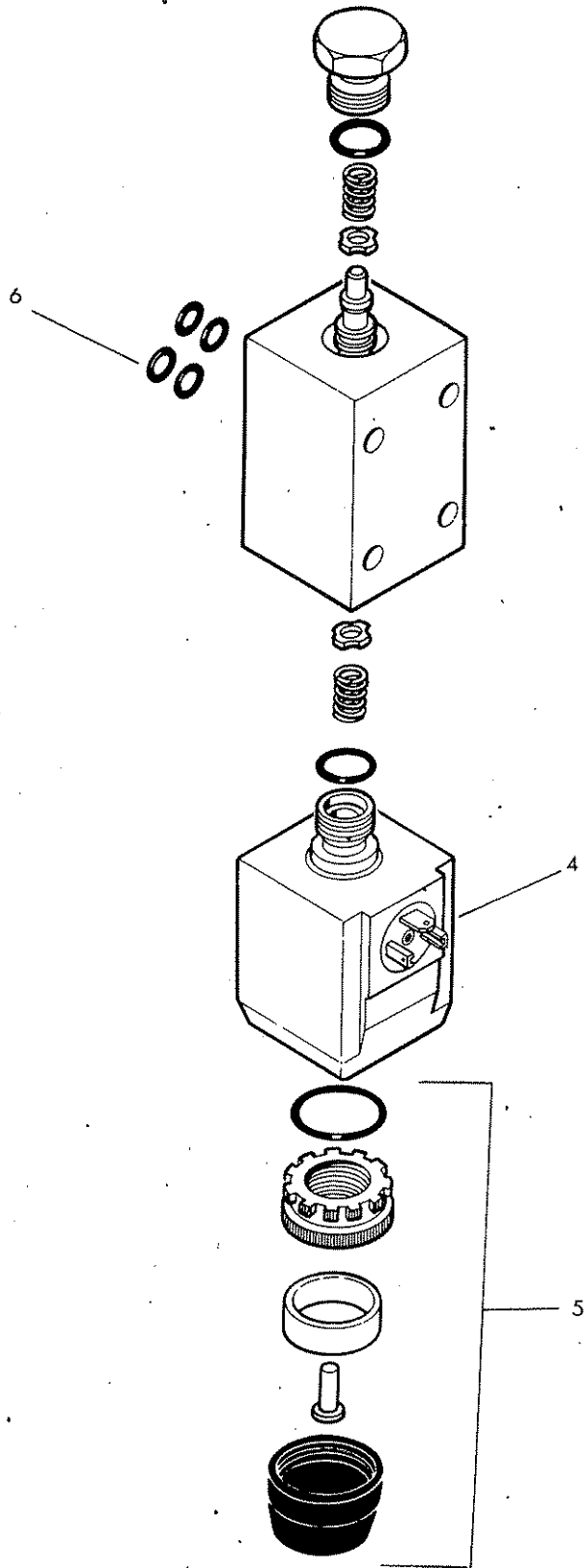
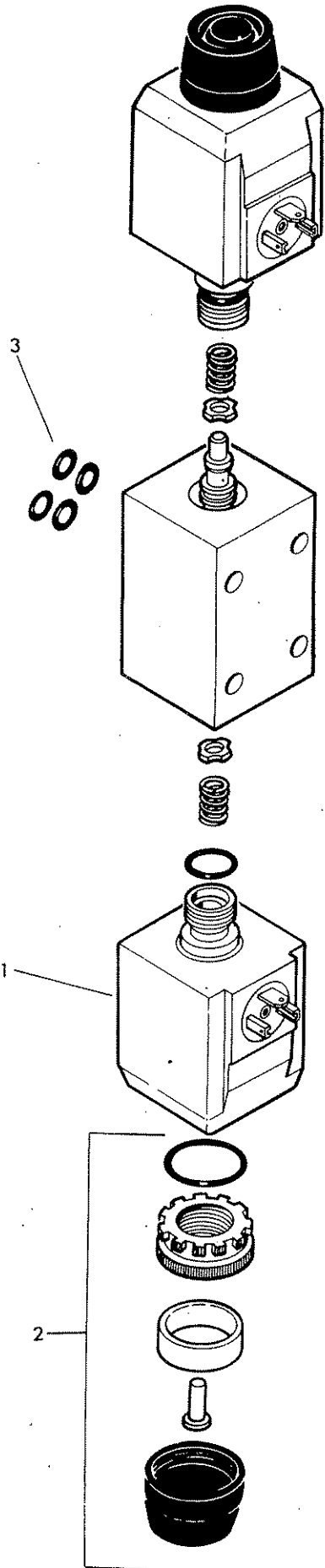
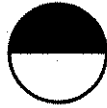


McCONEL





Ref.	Part No.	Qty.	Description
	<b>81-30-367</b>		<b>ELECTRIC CONTROL PACK - cont</b>
	84-02-280		Switch box assembly compr:-
	84-02-281	1	Box assembly
1	84-02-263	1	Box body
2	84-02-282	1	Box lid c/w screws
3	84-02-285	3	Body
4	84-02-106	6	Contact holder
5	84-02-109	6	Spring contact retainer
6	84-02-113	6	Spring contact
7	84-02-108	6	Fixed contact
8	84-02-101	3	Spring
9	84-02-111	6	Bar
10	84-02-256	3	Lever
11	04-25-320	3	Spring dowel dia.
12	84-02-051	3	Bezel ring
13	84-02-022	3	Lever gaiter
14	84-02-026	1	Knob red
15	84-02-027	1	Knob green
16	84-02-028	1	Knob yellow
17	84-02-115	1	Printed circuit assembly
18	84-02-110	1	Bracket c/w diode
19	84-02-281	1	Diode
20	84-02-023	2	Toggle switch
21	84-02-024	2	Switch cover
22	84-02-029	1	Gland assembly - large
23	84-02-042	1	Gland assembly - small
24	84-02-025	1	Diode
25	84-02-284	1	Power supply harness compr:-
26	84-02-114	1	Fuse Holder
27	84-02-037	1	Fuse
28	84-02-062	1	Plug / socket
29	84-02-283	1	Main harness c/w common link
30	84-02-058	1	Common link harness
31	84-02-116	1	Common link - switchbox
32	92-00-005	6	Screw - posidrive pan-head
33	92-00-006	12	Screw- posidrive pan-head
34	92-00-007	3	Screw-posidrive pan-head
35	91-00-013	15	Hexagon nut-plated
36	91-00-400	27	External serrated washer
37	84-02-119	6	Self tapping screw
38	84-02-280	6	Plain washer
39	84-02-260	1	Switch box mounting bracket c/w label
40	12-90-353	1	Instruction label
41	28-00-203	4	Self tapping screw





## 81-30-455

1	81-30-175	2
2	81-30-176	2
3	87-00-511	4

## DOUBLE SOLENOID VALVE

Coil  
Manual override kit  
'O' ring

## 81-30-456

4	81-30-175	1
5	81-30-176	1
6	87-00-511	4

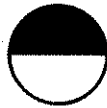
## SINGLE SOLENOID VALVE

Coil  
Manual override kit  
'O' ring

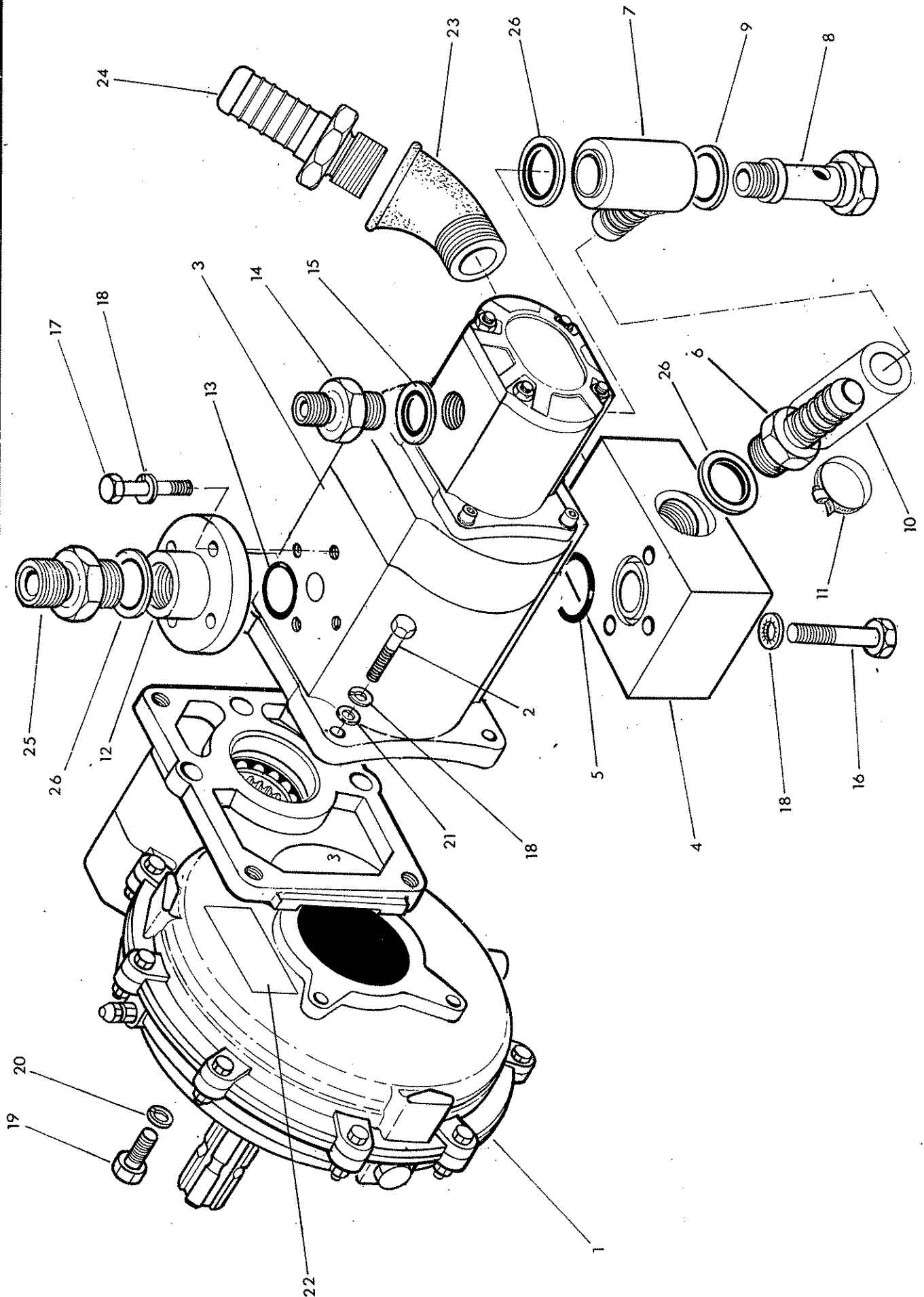
## 86-99-224

## SEAL KIT

PUMP/GEARBOX - T.I.



McCONNELL

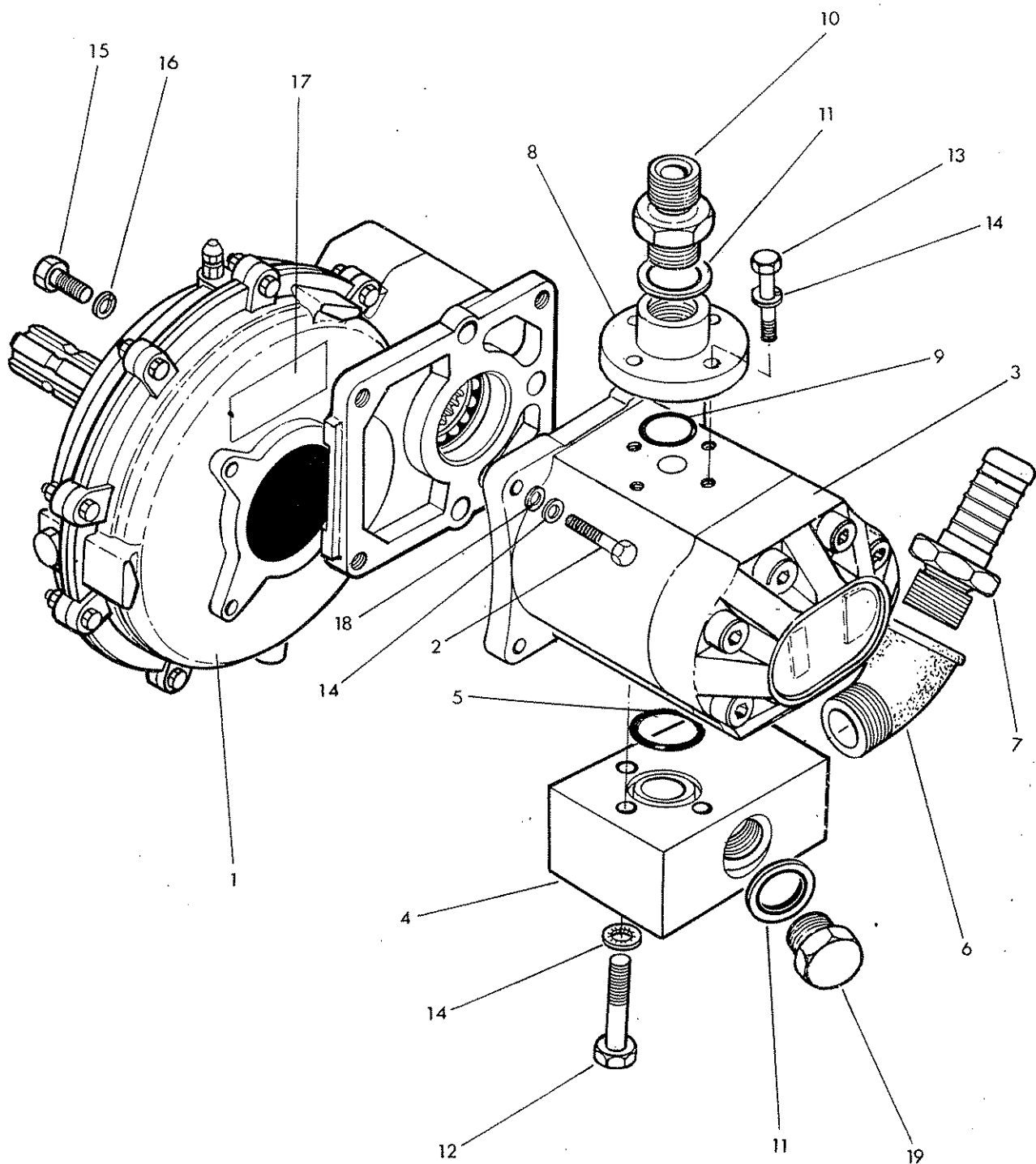




Ref	Part No	Qty	Description
	<b>80 13 459</b>		<b>GEARBOX PUMP ASSEMBLY -FOR STD. POWER T.I.M/CS R.HAND - from June 1992</b>
	<b>80 13 458</b>		<b>GEARBOX PUMP ASSEMBLY FOR STD. POWER T.I.M/CS L.HAND - from June 1992</b>
<b>The parts list for right and left hand is identical. Assemblies vary only in build arrangement and comprise:-</b>			
1	86 13 444	1	Gearbox
2	92 13 094	4	Bolt
3	82 01 466	1	Tandem pump CPL 33/5.7 - as shown -Compr.
	82 01 664	1	Large pump
	82 01 667	1	Small pump
	82 01 466	1	Tandem pump - cast iron end plate - alternative build compr:-
	82 01 684	1	Large pump
	82 01 677	1	Small pump
4	71 92 371	1	Suction block
5	86 00 122	1	'O' ring
6	85 81 301	1	Adaptor
7	80 13 096	1	Banjo
8	80 13 095	1	Banjo bolt
9	86 50 107	1	Bonded seal
10	85 01 213	1	Connecting hose
11	09 04 204	2	Hose clip
12	80 13 088	1	Pump flange
13	86 00 119	1	'O' ring
14	60 00 112	1	Adaptor
15	85 50 104	1	Bonded seal
16	92 13 144	3	Bolt
17	93 13 054	4	Setscrew
18	91 00 404	11	Shakeproof washer
19	93 13 056	4	Setscrew
20	91 00 206	4	Spring washer
21	91 00 104	7	Plain washer
22	12 90 054	1	Gearbox label
23*	85 81 283	1	Elbow
24*	85 81 367	1	Adaptor
25	85 81 136	1	Union
26	86 50 106	3	Bonded seal
	<b>86 99 215</b>		<b>PUMP SEAL KIT -33/5.7</b>
	<b>86 99 231</b>		<b>PUMP SEAL KIT -Cast iron end plate</b>

**\*Assembly note :-** tems 20 and 21 to be assembled using PTFE tape

**Spares note :-** Check pump identification carefully before ordering section replacements.





Ref	Part No	Qty	Description
	<b>80 13 457</b>		<b>GEARBOX PUMP ASSEMBLY FOR STANDARD POWER S.I. MACHINES R.HAND - from June 1992</b>
	<b>80 13 456</b>		<b>GEARBOX PUMP ASSEMBLY FOR STANDARD POWER S.I. MACHINE L.HAND - from June 1992</b>

**The parts list for right and left hand is identical. Assemblies vary only in build arrangement and comprise:-**

1	80 13 444	1	Gearbox -see page 30
2	92 13 094	4	Bolt
3	82 01 463	1	Pump CPL 33/5.7 - as shown
	82 01 463	1	Pump - cast iron end plate - alternative build
4	71 92 371	1	Suction block
5	86 00 122	1	'O' ring
6*	85 81 283	1	Elbow
7*	85 81 367	1	Adaptor
8	80 13 088	1	Pump flange
9	86 00 119	1	'O' ring
10	85 81 136	1	Union
11	86 50 106	2	Bonded seal
12	92 13 144	3	Bolt
13	93 13 054	8	Setscrew
14	91 00 404	11	Shakeproof washer
15	93 13 056	4	Setscrew
16	91 00 206	4	Spring washer
17	12 90 054	1	Gearbox label
18	91 00 104	7	Plain washer
19	85 81 302	1	Plug

**86 99 215**

**PUMP SEAL KIT -33.5.7**

**86 99 231**

**PUMP SEAL KIT - Cast iron end plate**

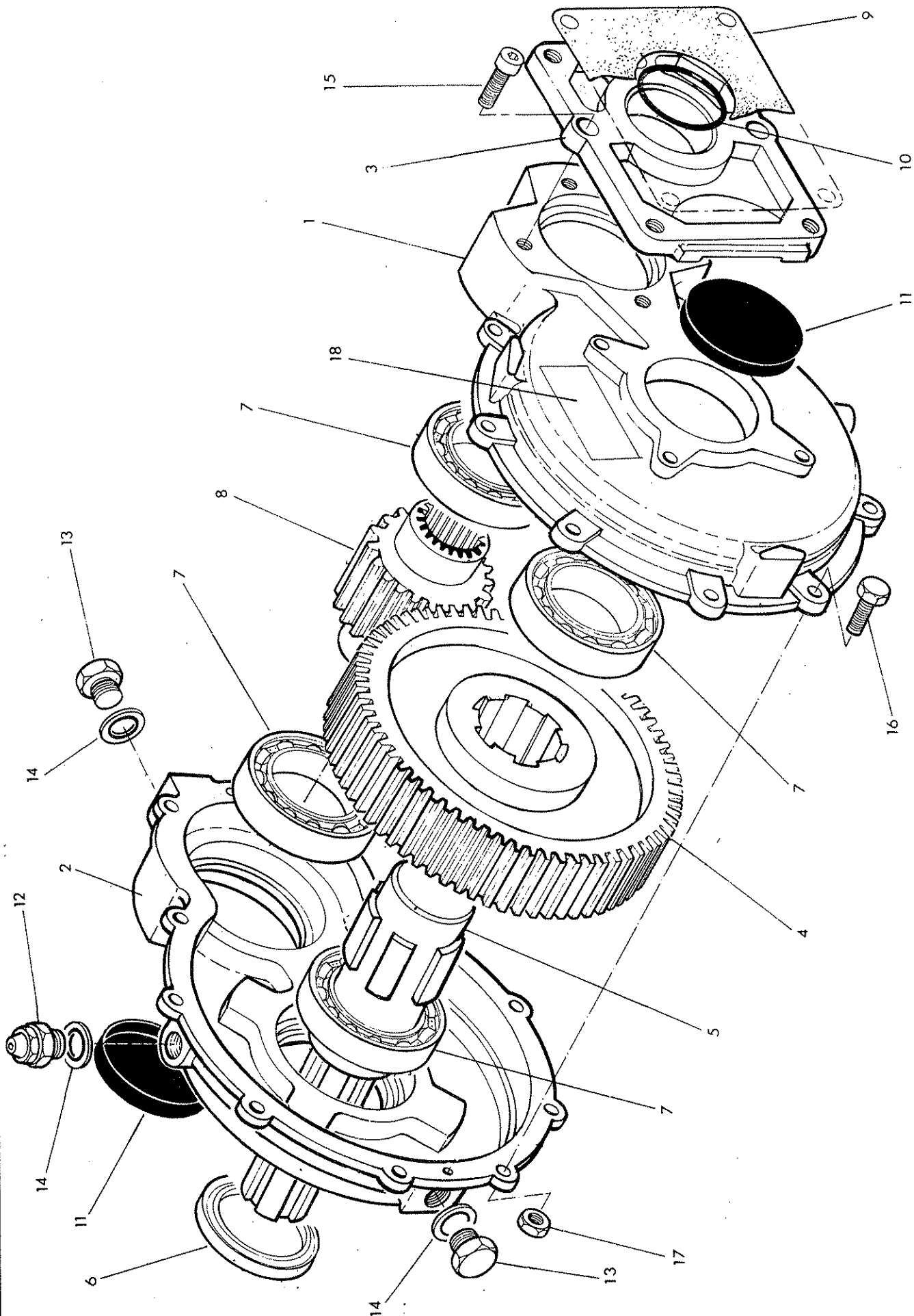
**\*Assembly note**

**Items 6 & 7 to be assembled using PTFE tape**

**Spares note**

**Check pump carefully to correctly identify before ordering section replacements.**







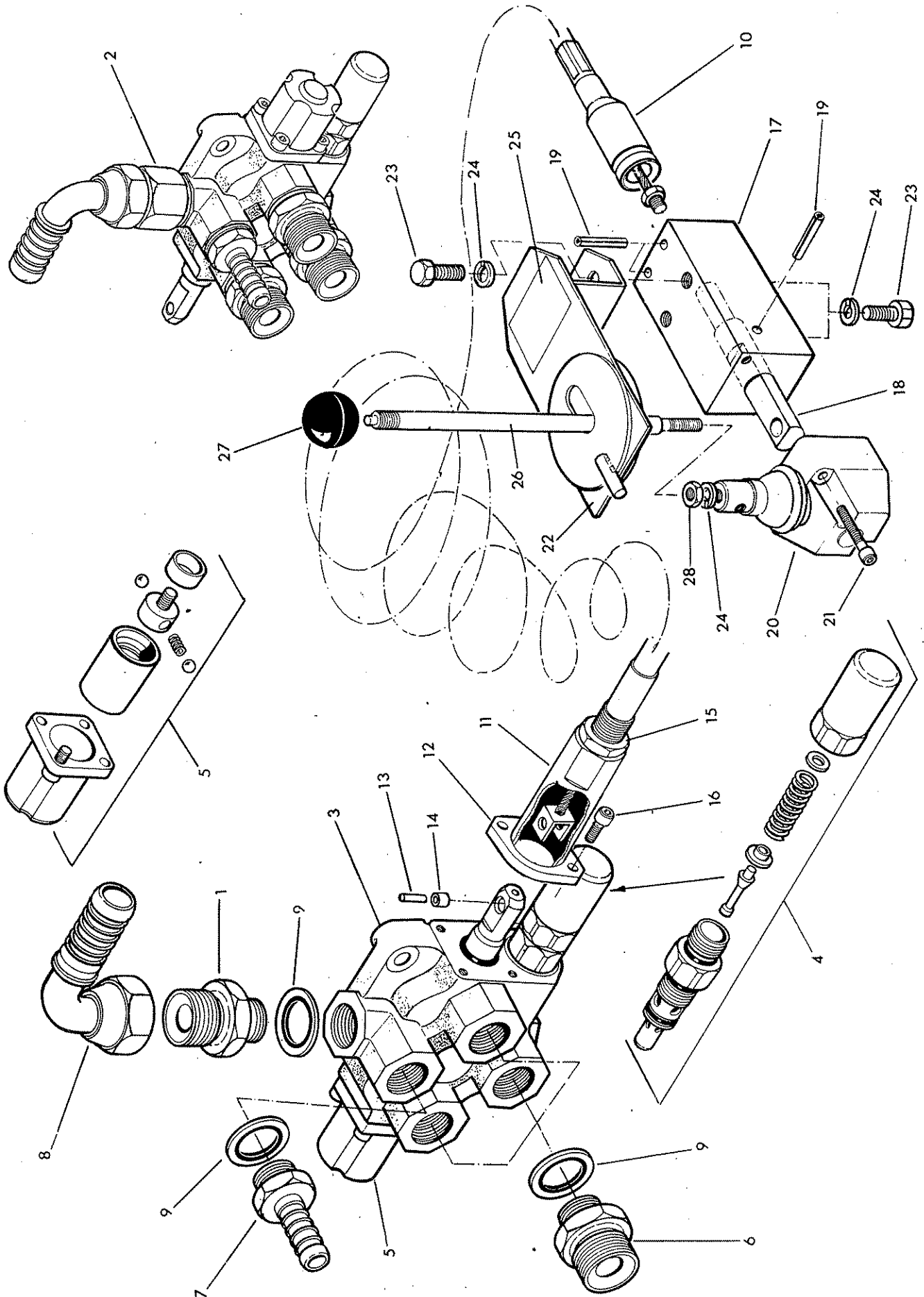
Ref	Part No	Qty	Description
	<b>80 13 444</b>		<b>GEARBOX</b>
1	80 13 100	1	Case - output side
2	80 13 101	1	Case - input side
3	80 13 102	1	Pump mounting flange
4	80 13 105	1	Gear
5	80 13 105	1	Shaft
6	86 29 196	1	Shaft seal
7	06 00 042	4	Bearing
8	80 13 104	1	Pinion
9	80 13 056	1	Gasket
10	86 00 523	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
18	12 90 054	1	Sticker

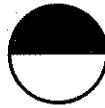
# ROTOR CONTROL VALVE



# McCONNELL

T.I. only





Ref.	Part No.	Qty.	Description
	<b>81 25 377</b>		<b>ROTOR CONTROL VALVE ASSEMBLY T.I. MACHINES R.HAND.</b>
1	80 02 086	1	Adaptor
	<b>81 25 378</b>		<b>ROTOR CONTROL VALVE ASSEMBLY T.I. MACHINES L. HAND - shown inset</b>
2	85 81 295	1	Extended adaptor

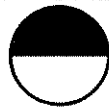
**Items 3 -28 inclusive are common to both R and L Hand rotor control valves**

3	81 25 355	1	Rotor control valve
4	81 25 107	1	Relief valve
5	81 25109	1	Detent assembly
6	85 81 136	3	Union
7	85 81 269	1	Adaptor
8	71 14 005	1	Elbow
9	86 50 106	5	Bonded seal
10	81 25 102	1	Cable assembly c/w sleeve flange etc
11	81 25 097	1	Sleeve
12	81 25 098	1	Flange
13	81 25 099	1	Pin
14	81 25 100	1	Bush
15	01 31 006	1	Thin locknut
16	93 43 033	2	Capscrew - socket headed
17	81 25 093	1	Control block
18	81 30 053	1	Control spindle
19	04 25 540	3	Spring dowel
20	81 30 065	1	Pivot box assembly
21	92 43 072	2	Capscrew - socket headed
22	81 25 089	1	Lever control gate
23	93 13 034	4	Setscrew
24	91 00 204	5	Spring washer
25	12 90 338	1	Operating label
26	71 14 072	1	Lever
27	09 03 121	1	Knob - black
28	91 13 004	1	Thin nut

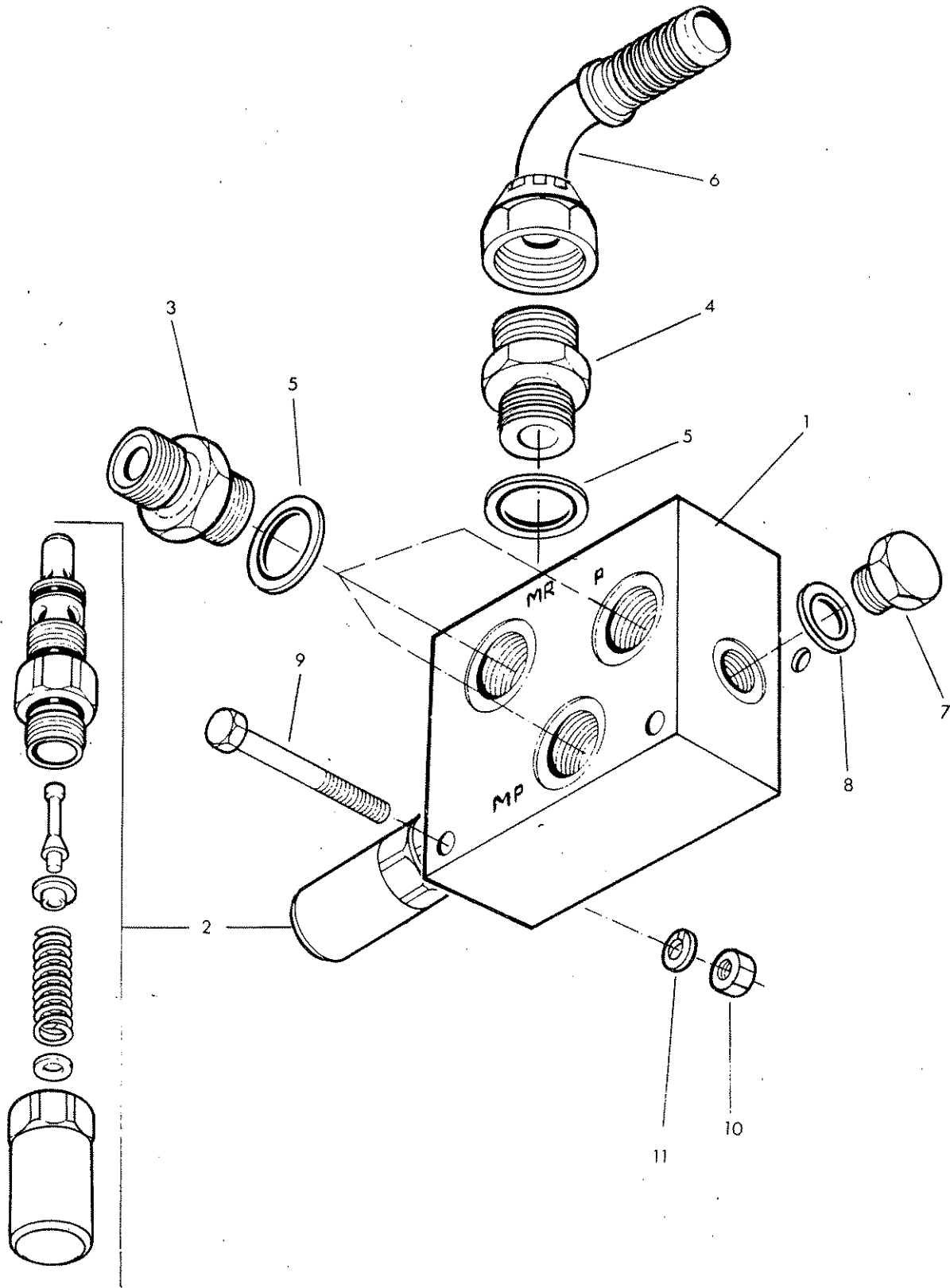
**86 99 218**

**SEAL KIT**

ROTOR RELIEF VALVE

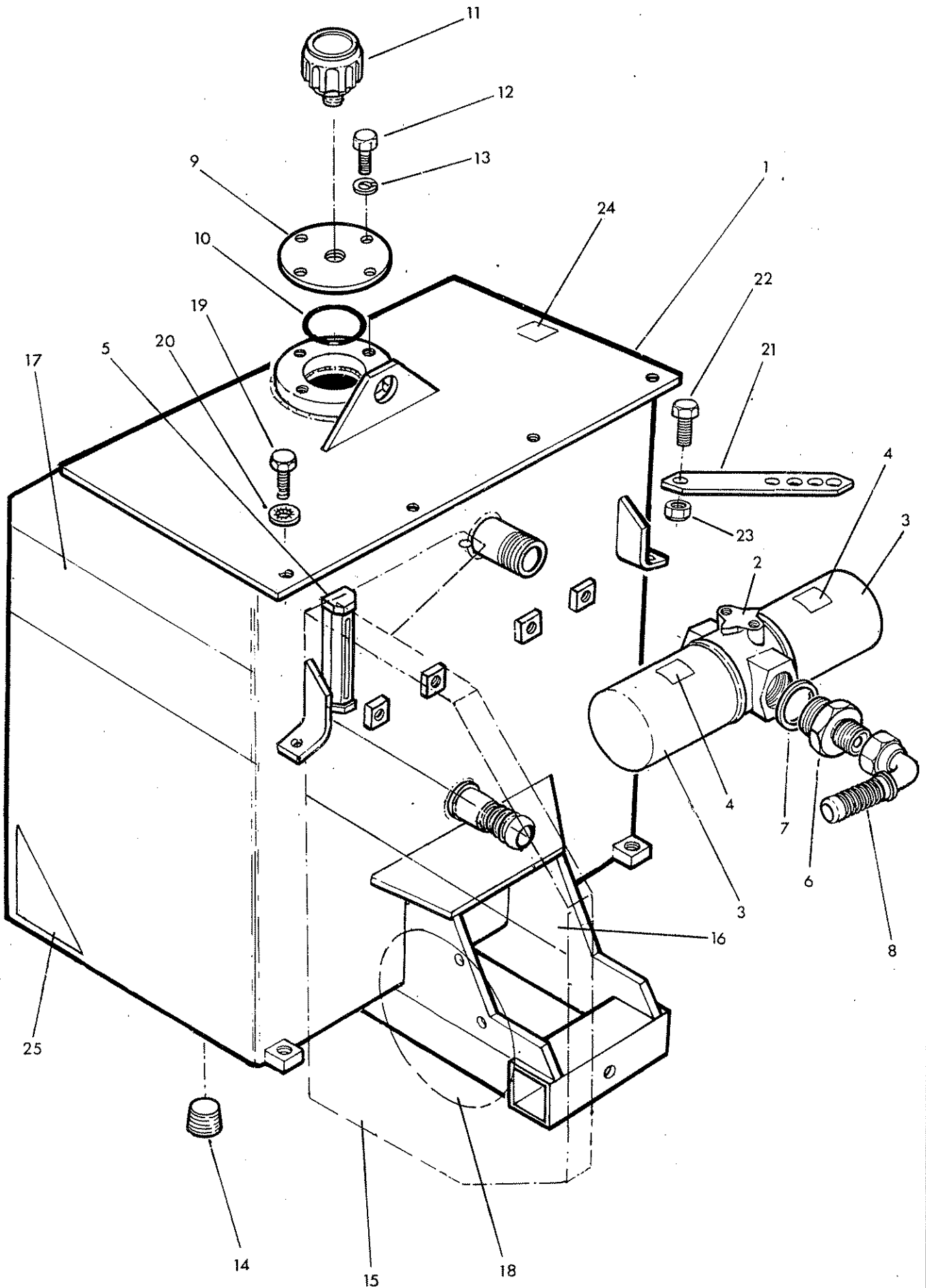
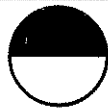


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**McCORMEL**

Ref.	Part No.	Qty.	Description
	<b>81 25 360</b>		<b>ROTOR RELIEF VALVE ASSEMBLY (SI MODELS ONLY)</b>
1	81 25 352	1	Valve block
2	81 25 107	1	Relief valve cartridge incl. 'O' rings
3	85 81 136	3	Union
4	80 02 086	1	Adaptor
5	86 50 106	4	Bonded seal
6	71 14 005	1	Swept 90 elbow
7	80 03 001	1	Plug
8	86 50 103	1	Bonded seal
9	92 13 135	2	Bolt
10	91 13 005	2	Nut
11	91 00 205	2	Spring washer





Ref	Part No	Qty	Description
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**ENDURO HYDRAULIC TANK AND COVER  
PLATE R. HAND**

	71 93 392		Oil tank assembly compr:-
1	71 93 386	1	Oil tank
2	84 01 060	1	Return filter head
3	84 01 041	2	Filter element
4	12 90 023	2	Sticker "filter instructions"
5	84 01 048	1	Level guage
6	85 81 291	1	Union
7	86 50 224	1	Bonded seal
8	71 14 005	1	Elbow
9	71 92 062	1	Cover
10	86 00 151	1	'O' ring
11	84 01 063	1	Breather
12	93 13 054	4	Set screw
13	91 00 204	4	Spring washer
14	85 81 203	1	Drain plug
15	71 93 389	1	Cover plate R. hand
16	12 90 283	1	Stripe - R. hand
17	12 90 369	1	Tank stripe PA9058
18	12 90 365	1	Sticker 'McConnel' rounded
19	93 13 045	2	Set screw
20	91 00 305	2	Internal serrated washer
21	71 92 029	1	Tank strap
22	93 13 056	2	Set screw
23	91 43 006	2	Self locking nut
24	12 90 023	1	Label 'oil filter
25	12 90 376	1	Sticker 'Enduro'

**ENDURO HYDRAULIC TANK AND COVER  
PLATE L.HAND**

Parts are identical to the R. hand assembly with the following exceptions.

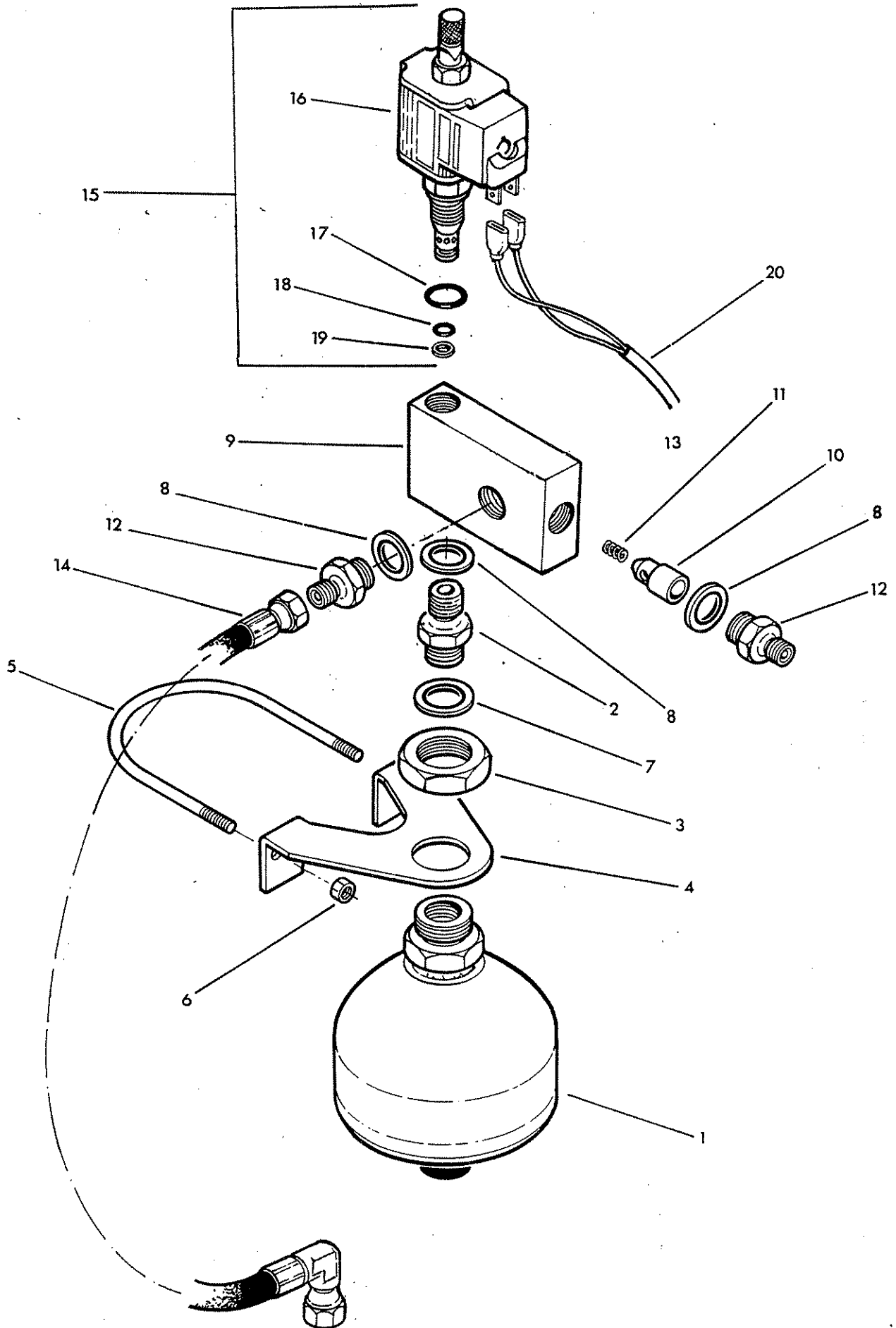
15	71 93 390	1	Cover plate L. hand
16	12 90 284	1	Stripe L. hand

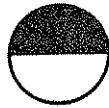


LIFT FLOAT KIT



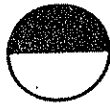
McCOMEL



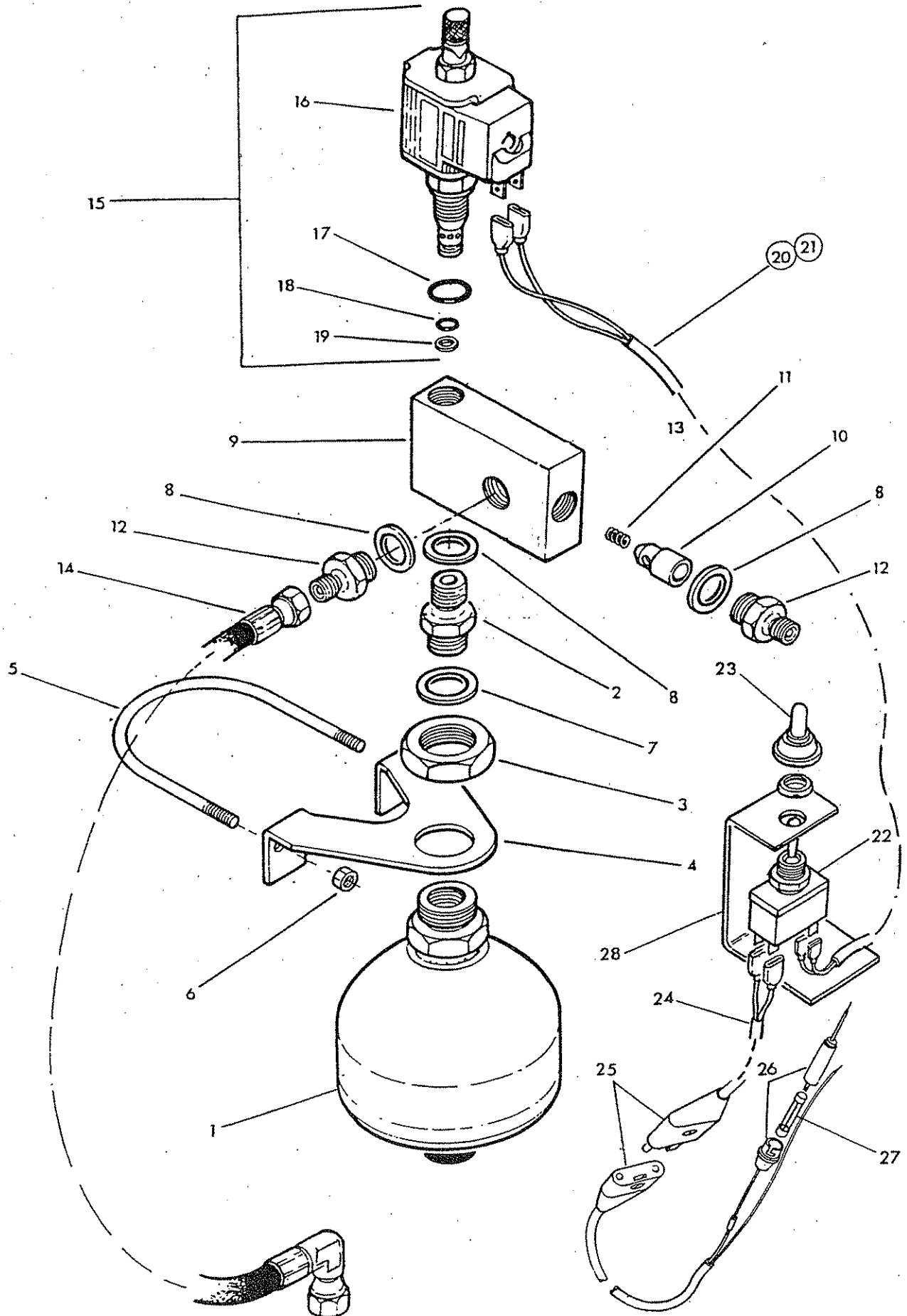


Ref.	Part No.	Qty.	Description
	<b>81 26 290</b>		<b>LIFT FLOAT KIT - Quick response</b>
1	81 26 042	1	Accumulator
2	G241 0380	1	Adaptor M22
3	81 26 035	1	Bulkhead nut M33
4	81 26 286	1	Bracket
5	81 26 031	1	U. bolt
6	91 43 004	2	Self locking nut M8
7	86 50 322	1	Bonded seal M22
8	86 50 103	3	Bonded seal 3/8" BSP
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 3/8" BSP - 1/4" BSP
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 02 159	1	Cable - electric machines only

LIFT FLOAT KIT - Cable



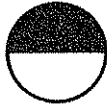
McCOMB





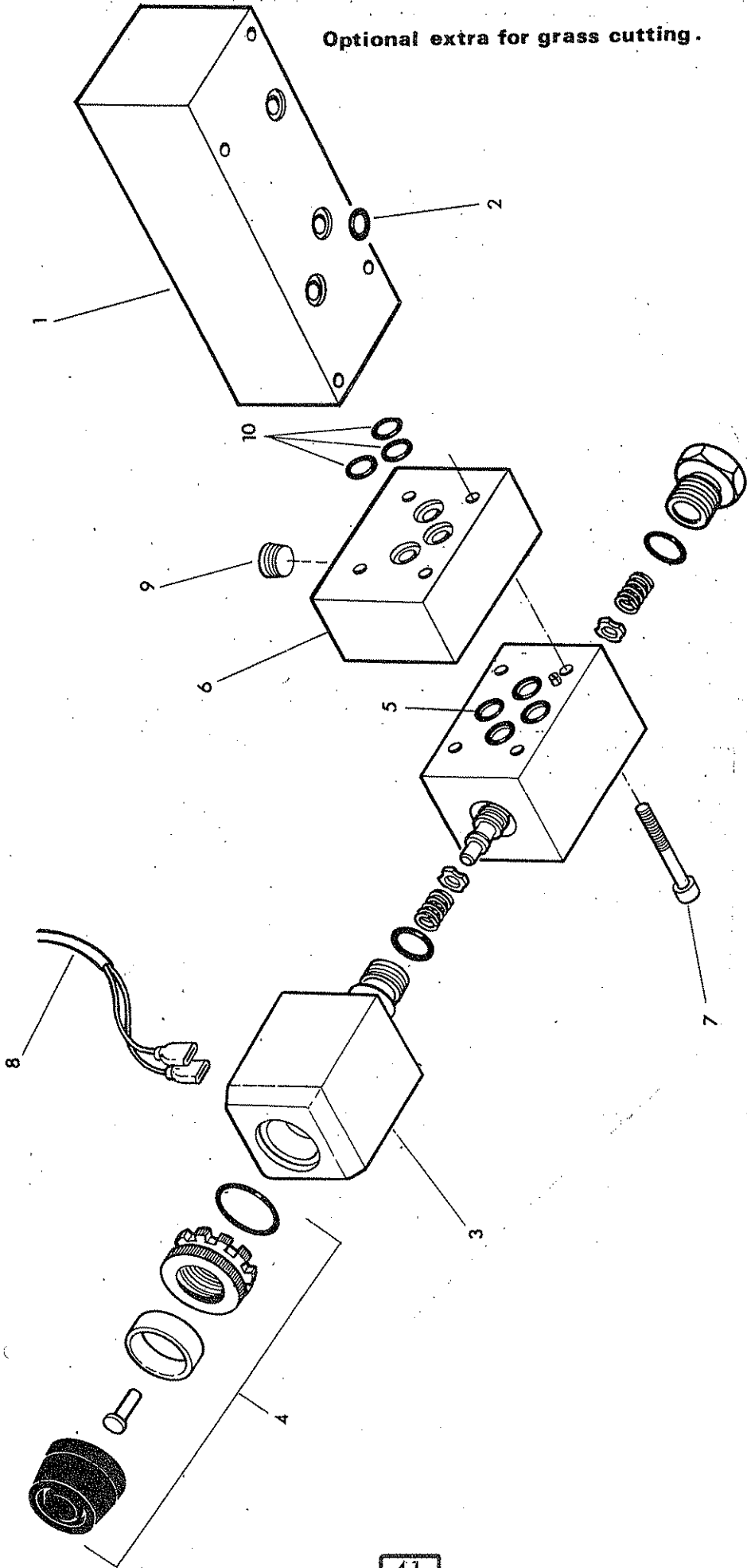
Ref.	Part No.	Qty.	Description
	81 26 295		LIFT FLOAT KIT - Quick response
1	81 26 042	1	Accumulator
2	G241 0380	1	Adaptor M22
3	81 26 035	1	Bulkhead nut M33
4	81 26 286	1	Bracket
5	81 26 031	1	U bolt
6	91 43 004	2	Self locking nut M8
7	86 50 322	1	Bonded seal M22
8	86 50 103	3	Bonded seal 3/8" BSP
9	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 3/8" BSP - 1/4" BSP
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 02 182	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

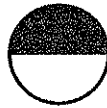
ANGLE FLOAT KIT



McGraw-Hill

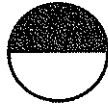
Optional extra for grass cutting.



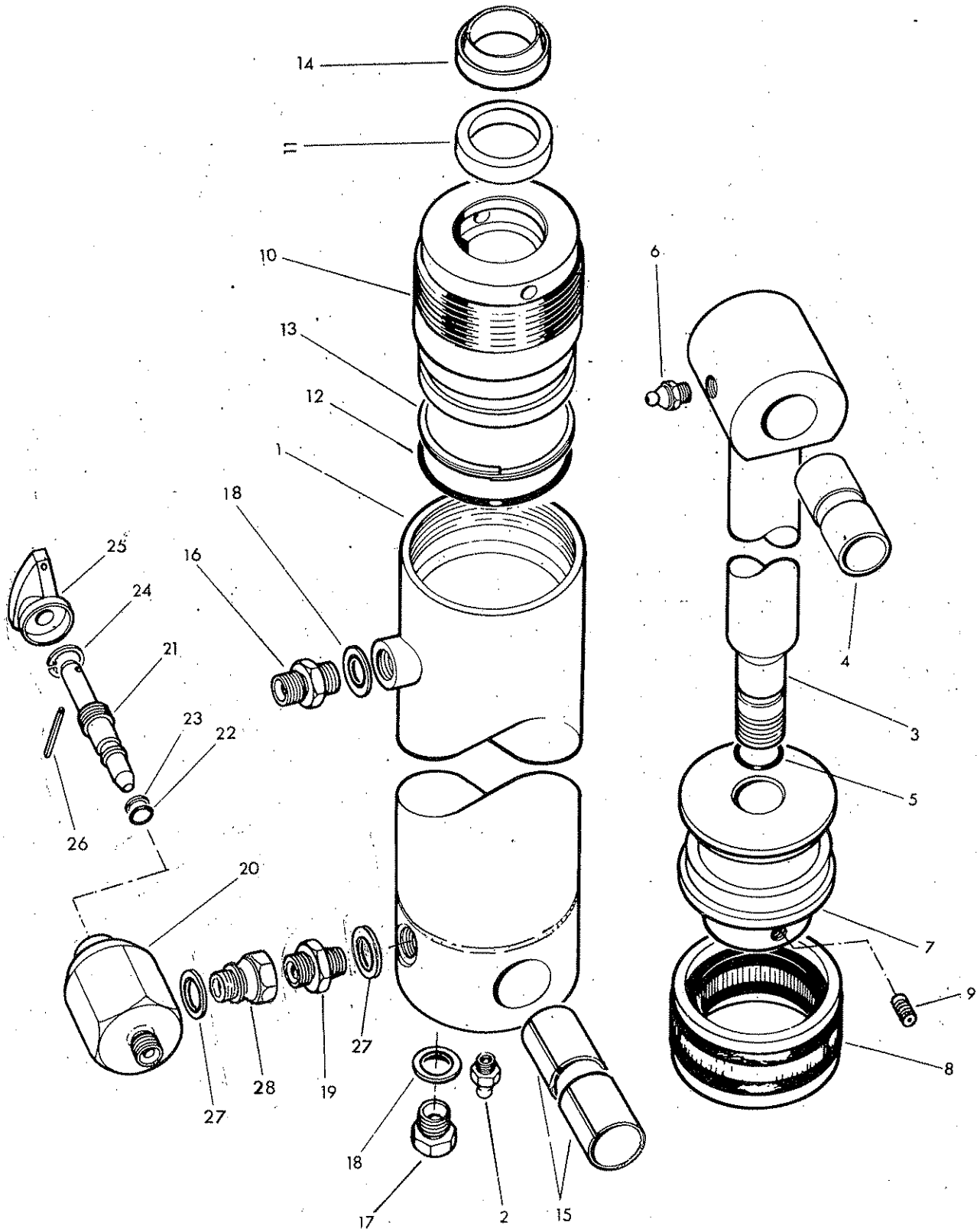


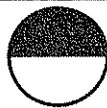
Ref.	Part No.	Qty.	Description
	<b>81-26-261</b>		<b>ANGLE FLOAT KIT Optional extra for PA9058 E when ground cutting</b>
1	81-30-323	1	Float valve block
2	87-00-511	3	O ring
	81-30-457	1	Angle float solenoid incl:-
3	81-30-175	2	Coil
4	81-30-176	1	Manual override kit
5	87-00-511	4	O ring
6	81-26-280	1	Bridging plate
7	92-43-102	4	Setscrew socket headed
8	84-02-059	1	Wiring harness
9	85-82-041	1	Plug
10	87-00-511	3	'O' ring - ref only
	<b>86-99-224</b>		<b>SOLENOID SEAL KIT</b>

LIFT RAM



McCORMICK





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	2	Bonded seal

**ANCILLIARY PARTS**

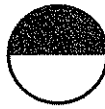
19	60 01 125	1	Restrictor union
	71 35 005	1	Lock tap assembly compr:
20	71 35 284	1	Tap body
21	71 35 006	1	Tap spindle
22	86 00 107	1	'O' ring
23	86 09 107	1	Anti extrusion ring
24	04 16 110	1	Internal circlip
25	81 08 006	1	Tap knob
26	04 20 820	1	Spring dowel
27	86 50 103	2	Bonded seal
28	85 81 178	1	Swivel adaptor

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

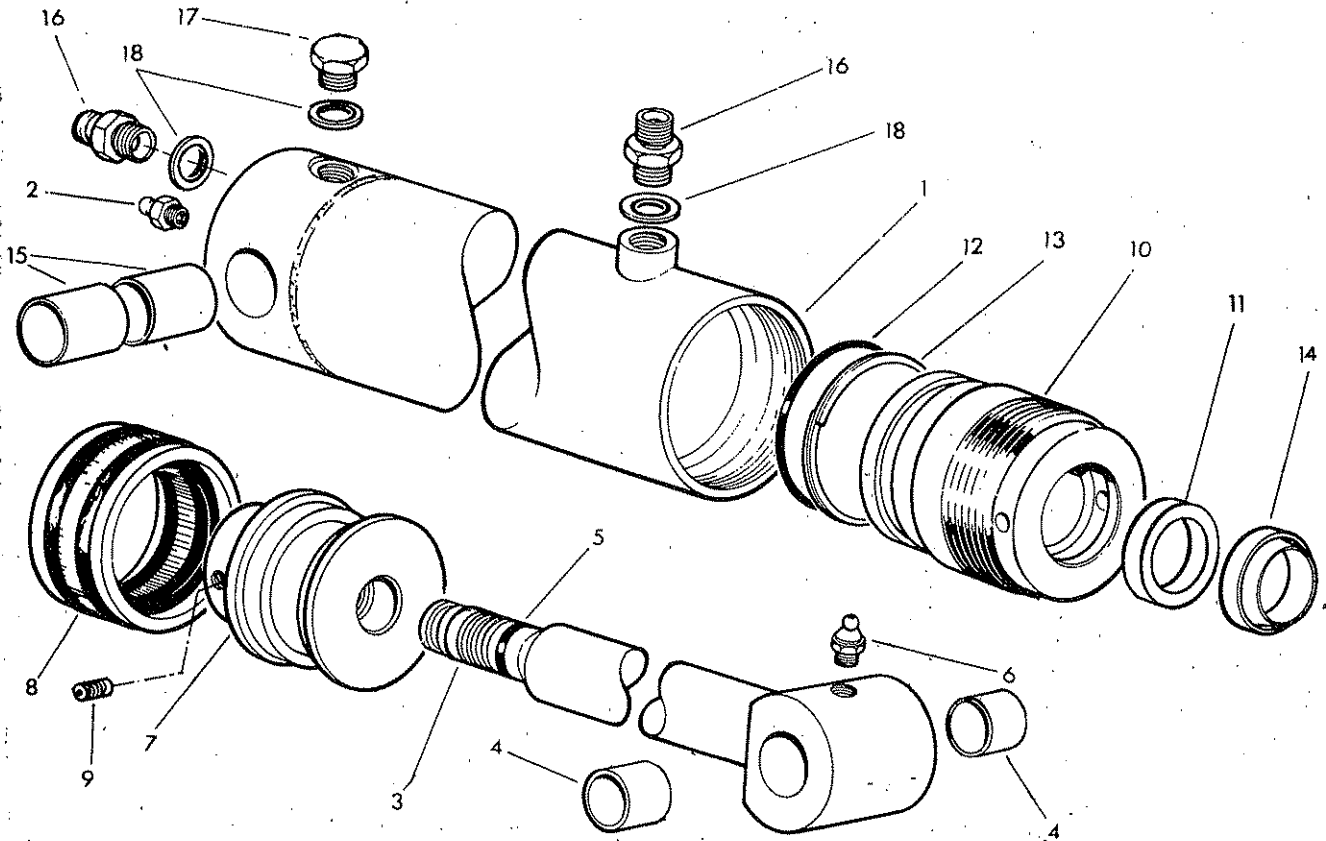
**Assembly note** Fully tighten item 9 and centre pop edge of hole to retain.



# REACH RAM



# McCormick

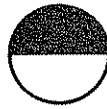


Ref.	Part No.	Qty.	Description
	<b>71-93-334</b>		<b>REACH RAM ASSEMBLY</b>
1	71-35-283	1	Ram cylinder
2	09-01-121	1	Greaser
3	71-93-029	1	Piston rod
4	60-12-032	2	Bush
5	86-00-119	1	'O' ring
6	09-01-121	1	Greaser
7	71-35-004	1	Piston c/w seal and grub screw
8	86-38-740	1	Piston seal
9	93-63-023	1	Grub screw
10	71-35-282	1	Gland housing
11	86-29-164	1	Gland seal
12	87-00-740	1	'O' ring
13	87-03-740	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

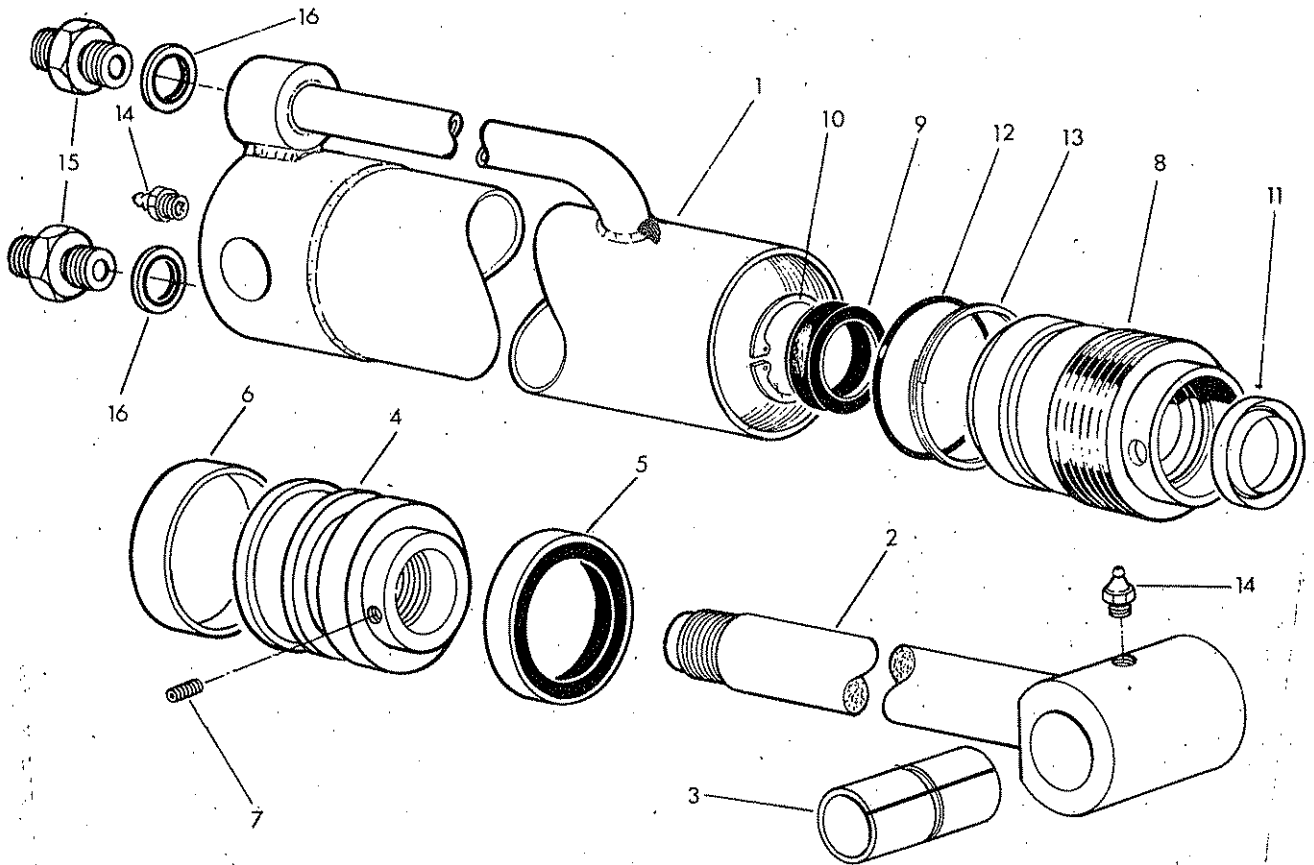
**86-99-187 SEAL KIT**

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

# ANGLING RAM



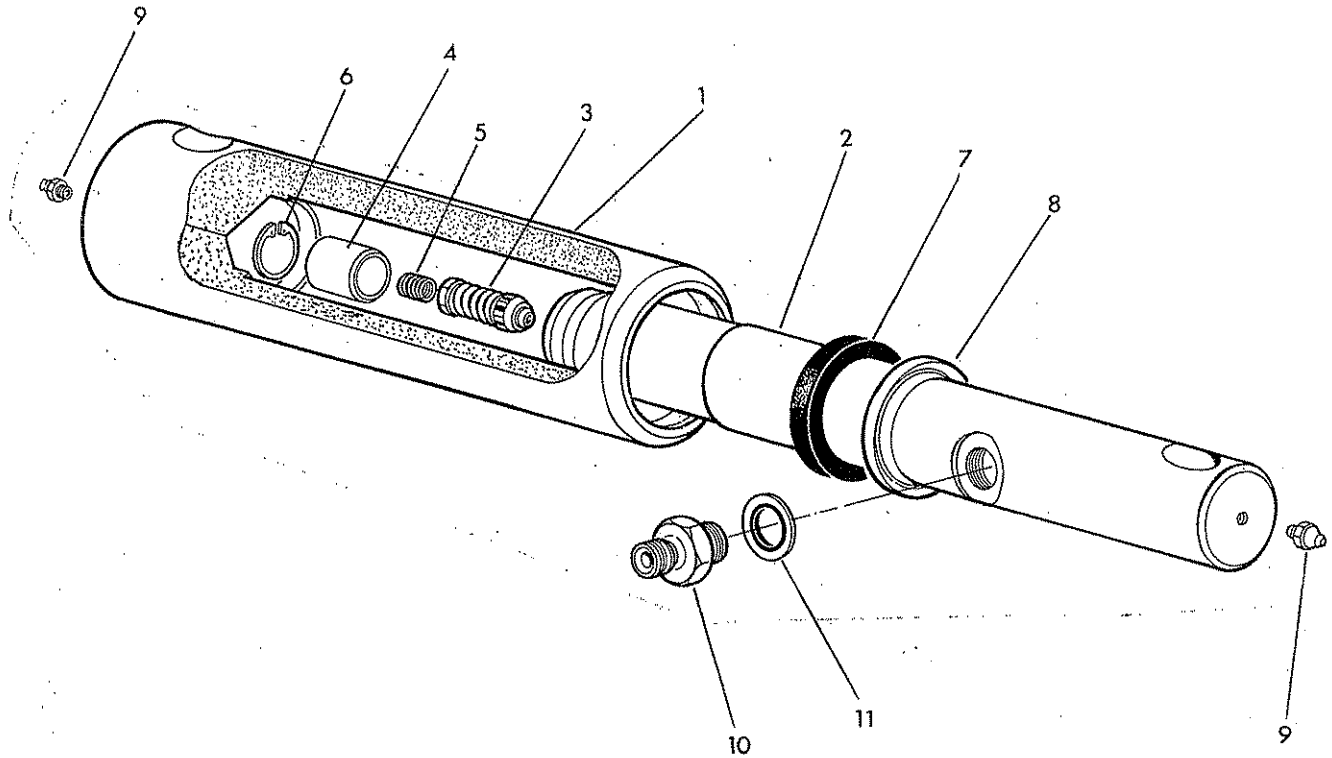
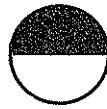
**WILCOX**



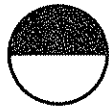
Ref.	Part No.	Qty.	Description
	<b>75-60-344</b>		<b>ANGLING RAM ASSEMBLY</b>
1	71-35-292	1	Cylinder
2	71-35-009	1	Rod
3	71-05-050	1	Bush
4	75-60-095	1	Piston
5	86-29-187	1	Piston seal
6	86-29-188	1	Bearing ring
7*	93-63-023	1	Grub screw socket head
8	71-35-291	1	Gland housing
9	86-29-148	1	Gland seal
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**

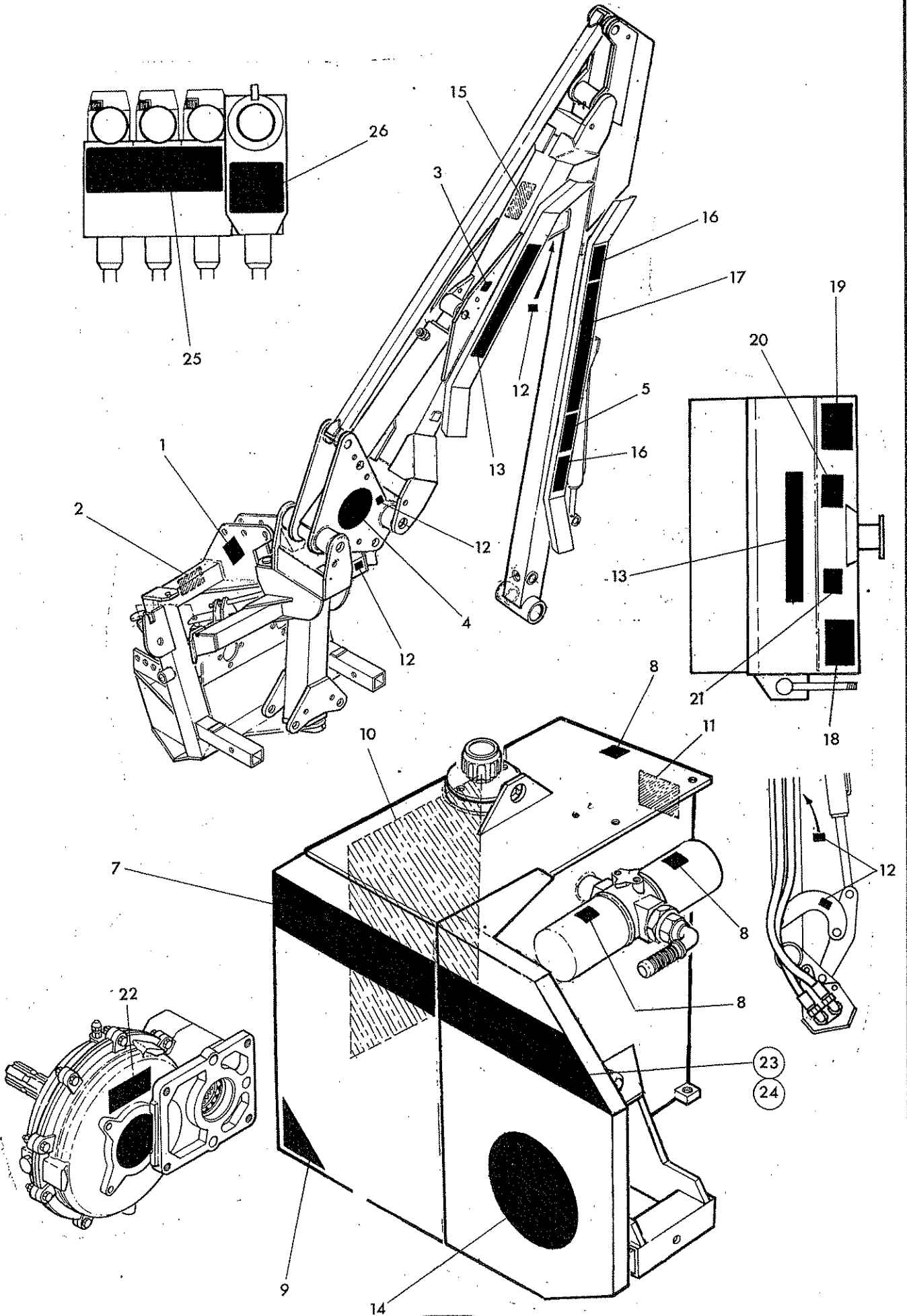
Tighten fully and centre punch edge of hole to secure.

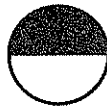


Ref	Part No	Qty	Description
<b>BREAKAWAY ASSISTOR RAM ASSEMBLY</b>			
1	71 93 379	1	Ram barrel
2	71 93 380	1	Ram rod
3	81 30 164	1	Relief valve
4	71 93 058	1	Valve retainer
5	81 16 011	1	Spring
6	04 11 216	1	Internal circlip
7	86 29 158	1	Rod seal
8	86 29 152	1	Rod wiper seal
9	09 01 121	2	Greaser
10	85 81 115	1	Adaptor
11	86 50 103	1	Bonded seal

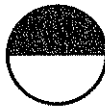


**McCOMBELL**





Ref	Part No	Qty	Description
<b>STICKERS</b>			
1	71 05 130	1	Read book first
2	71 35 295	1	Tighten check chains
3	C0 55 002	1	Sling here symbol
4	12 90 296	1	Logo roundel
5	12 90 370	1	9058
6	12 90 352	1	Gen. warning - despatched loose
7	12 90 369	1	PA9058
8	12 90 023	3	Oil filter instructions
9	12 90 376	1	Enduro tank
10	12 90 391	1	General warning
11	0075 6494	1	Fitting P.T.O. shaft
12	0096 2764	5	Pinch point
13	12 90 255	2	McConnel
14	12 90 365	1	McConnel roundel
15	12 90 403	1	Breakaway return warning
16	12 90 347	2	Chevrons
17	12 90 295	1	Power Arm
18	12 90 377	1	Flail head instructions
19	12 90 341	1	Flail head gaurding
20	0075 6485	1	Rotating blade warning
21	12 90 392	1	Use McConnel spares
22	12 90 054	1	Gearbox oil capacity
23	12 90 283	1	Cover plate stripe (R.Hand only)
24	12 90 284	1	Cover plate stripe (L.Hand only)
25	12 90 368	1	Lever controls
26	12 90 338	1	R.C. valve controls (Ti only)



Peel off sticker and affix to tractor in operators view.

Vignette à coller au poste de conduite de votre tracteur  
bein en vue du conducteur.

<b>McCORMEL</b>	<b>McCORMEL</b>
<b>VITAL SAFETY RULES</b>	<b>IMPORTANTES REGLES DE SECURITE</b>
<ul style="list-style-type: none"> <li>- Read the instruction book first</li> <li>- Fit safety screens</li> <li>- If no cab fitted wear helmet and goggles</li> <li>- Keep all bolts and nuts tight.</li> <li>- PTO speed 500 R.P.M.</li> <li>- Always disengage PTO when rotor is 'OFF'</li> <li>- Grease daily</li> </ul>	<ul style="list-style-type: none"> <li>- Avant la premier mise en route, vous reporter au manue de l'utilisateur</li> <li>- Mettez en place les grilles de protection</li> <li>- Si le tracteur n'est pas equipe d'une cabine, portez un casque et des lunettes de securite</li> <li>- Verifier tous les jours, le bon serrage des boulons et de ecrous</li> <li>- En position de-transport, debrayez la prise de force</li> <li>- Ne jamais dépasser 500 T/MN à la prise de force</li> <li>- Graisseur tous les jours</li> </ul>

6

**⚠ DANGER ⚠**

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

- Study operator manual and safety decals for tractor and flail mower thoughtly to prevent misuse, abuse and accidents. Practice before operating.
- 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.
- Operator and assistants must wear a hard hat, safety glasses and shoes to prevent injury from falling or thrown objects.
- Before transport, engage all transport devices. See operator manual.
- 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.
- Make certain lights, reflectors, and in U.S.A., the SMV sign is clearly visible. Follow highway regulations. Slow down at night, in turns and on hillsides.
- Before dismounting, secure flail mower in transport position or lower to ground. Stop P.T.O., put tractor in park or set hand brake, stop engine and remove the key. Never mount or dismount a moving vehicle to prevent possible injury or death.
- Each rear wheel must have a minimum of 100lbs 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.
- Rear mounted flail mowers move centre 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.
- 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.
- Never operate the machine without the correct flail head guards in position. Ensure they are in good condition.
- Beware overhead obstructions. Keep at least five feet away from power lines to prevent accidental contact or electronic flashover and possible serious injury and death.
- 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 that provide a rear view to prevent accidents from blind spots.



22

**⚠ DANGER**

- 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.)
- MAKE CERTAIN THAT DRIVELINE SHIELDS ARE INSTALLED CORRECTLY AND TURN FREELY TO PREVENT INJURY OR DEATH FROM ENTANGLEMENT.
- 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
- 540 PTO RPM UNLESS SPECIFICALLY MARKED OTHERWISE

11

**⚠ DANGER**

USE PAPER OR CARDBOARD TO CHECK FOR OIL LEAKS. NEVER USE YOUR HAND. IF AN ADMINISTRATOR'S SIGN, INQUIRY OR OTHER INQUIRY COULD OCCUR. GET IMMEDIATE MEDICAL HELP.

**⚠ DANGER**

**ROTATING DRIVELINE CONTACT CAN CAUSE DEATH. KEEP AWAY.**

DO NOT OPERATE WITHOUT: FULL DRIVELINE, TRACTOR AND TETHER CHAINS SECURELY ATTACHED TO BUSHES. DRIVELINE SHIELDS THAT TURN FREELY ON DRIVELINE.

**⚠ DANGER**

**CRUSHING AND PINCH POINTS**

MOVING MACHINE PARTS CAN PINCH OR CRUSH, OR FALL, WHICH MAY CAUSE INJURY OR DEATH.



10

**GUARDING REQUIREMENTS EQUIPMENTS DE SECURITE**

<p><b>GROUND CUTTING COUPE DE SOL</b></p> <p>Always cut upwards. Roller set below flails. Skids recommended.</p> <p>Toujours couper en aspiration. Rouleau regle sous les flaux. Patins recommandés.</p>	<p><b>HEDGE CUTTING TAILLE DE HAIES</b></p> <p>With flails cutting upwards. Roller set above flails.</p> <p>Les flaux travaillent en aspiration. Rouleau regle au dessus des flaux.</p>	<p><b>HEDGE CUTTING TAILLE DE HAIES</b></p> <p>With flails cutting downwards. Roller set above flails.</p> <p>Les flaux travaillent en attaque. Rouleau regle au dessus des flaux.</p>
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19

**⚠ DANGER**

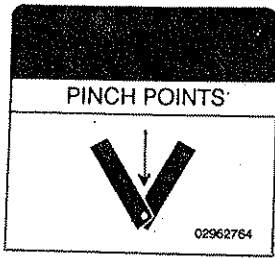
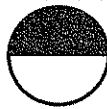


**KEEP AWAY - ROTATING BLADES**

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

20



12

**McCORMEL**

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**PA9058**

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**9058**

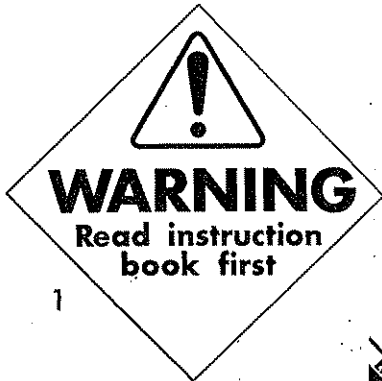
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**Power Arm**

17



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1



4



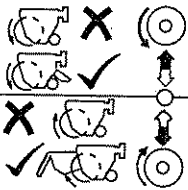
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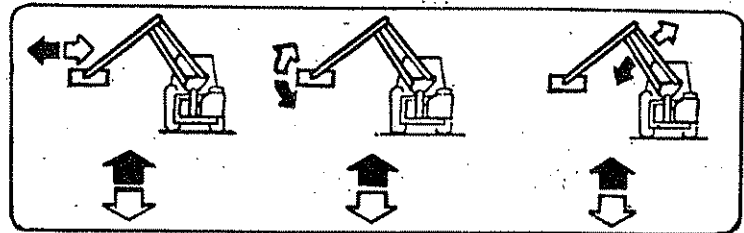
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**TIGHTEN CHECK CHAINS AND/OR STABILISER BARS BEFORE OPERATION**

2



**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.

**DON'T GAMBLE!**  
USE GENUINE McCORMEL SERVICE PARTS  
See your McCormel dealer

21

**▲ DANGER ▲**

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

15



**ATTENTION**



Recommended P.T.O. speed 500 r.p.m.

Vitesse recommandee 500 T/min a la prise de force.

**DANGER**

Rotating cutters under here.

**DANGER**

Rotor ne pas approcher.

**KEEP BOLTS TIGHT**

Check bolt tightness after 1 hour, 4 hours, 10 hours and thereafter daily.

**MAINTENEZ LES BOULONS SERRES**

Et controlez serrage apres 1 heure, 4 heures, 10 heures puis chaque jour.

**BEWARE OF FLYING DEBRIS. KEEP PEOPLE AWAY. ATTENTION AUX PROJECTIONS. SE TENIR A L'ECART.**

18

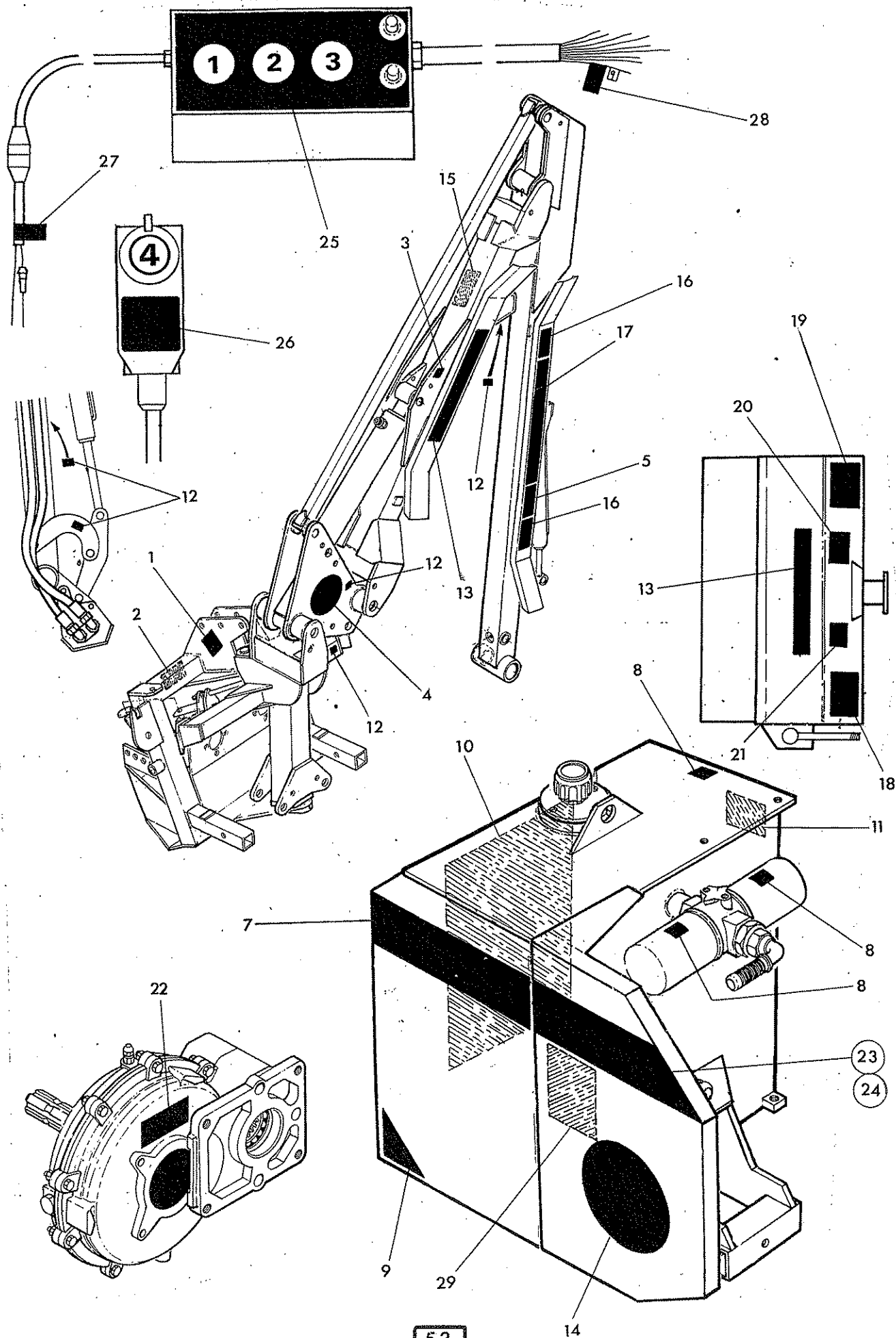
**IMPORTANT**

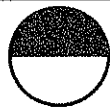
We recommend that Element is replaced after first 50 hours service and every 500 hours service thereafter. Apply Oil film to gasket when replacing element.

Nous recommandons de remplacer la cartouche une première fois après 50 heures de service puis ensuite toutes les 500 heures. Enduire le joint d'une pellicule d'huile lorsqu'on change la cartouche.

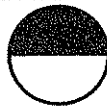
8







Ref	Part No	Qty	Description
<b>STICKERS</b>			
1	71 05 130	1	Read book first
2	71 35 295	1	Tighten check chains
3	60 55 002	1	Sling here symbol
4	12 90 296	1	Logo roundel
5	12 90 370	1	9058
6	12 90 352	1	Gen. warning - despatched loose
7	12 90 369	1	PA9058
8	12 90 023	3	Oil filter instructions
9	12 90 376	1	Enduro tank
10	12 90 391	1	General warning
11	0075 6494	1	Fitting P.T.O. shaft
12	0096 2764	5	Pinch point
13	12 90 255	2	McConnel
14	12 90 365	1	McConnel roundel
15	12 90 403	1	Breakaway return warning
16	12 90 347	2	Chevrons
17	12 90 295	1	Power Arm
18	12 90 377	1	Flail head instructions
19	12 90 341	1	Flail head guarding
20	0075 6485	1	Rotating blade warning
21	12 90 392	1	Use McConnel spares
22	12 90 054	1	Gearbox oil capacity
23	12 90 283	1	Cover plate stripe (R.Hand only)
24	12 90 284	1	Cover plate stripe (L.Hand only)
25	12 90 353	1	Switch box controls
26	12 90 338	1	R.C. valve controls
27	84 02 105	1	Polarity label
28	84 02 121	1	Connection warning
29	71 09 143	1	Solenoid connections



Peel off sticker and affix to tractor in operators view.

Vignette à coller au poste de conduite de votre tracteur  
bein en vue du conducteur.

<b>McCORMICK</b>	<b>McCORMICK</b>
<b>VITAL SAFETY RULES</b>	<b>IMPORTANTES REGLES DE SECURITE</b>
<ul style="list-style-type: none"> <li>- Read the instruction book first</li> <li>- Fit safety screens</li> <li>- If no cab fitted wear helmet and goggles</li> <li>- Keep all bolts and nuts tight.</li> <li>- PTO speed 500 R.P.M.</li> <li>- Always disengage PTO when rotor is 'OFF'</li> <li>- Grease daily</li> </ul>	<ul style="list-style-type: none"> <li>- Avant la premier mise en route, vous reporter au manue de l'utilisateur</li> <li>- Mettez en place les grilles de protection</li> <li>- Si le tracteur n'est pas equipe d'une cabine, portez un casque et des lunettes de securite</li> <li>- Verifier tous les jours, le bon serrage des boulons et de ecrous</li> <li>- En position de transport, debrayez la prise de force</li> <li>- Ne jamais dépasser 500 T/MN à la prise de force</li> <li>- Graisseur tous les jours</li> </ul>

6

## ⚠ DANGER ⚠

FAILING 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 flail 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 SMV sign is clearly visible. Follow highway regulations. Slow down at night, in turns and on hillsides.
7. Before dismounting, secure flail mower in transport position or lower to ground. Stop P.T.O., put tractor in park 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 flail mowers move centre 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 flail head guards in position. Ensure they are in good condition.
12. Beware overhead obstructions. Keep at least five feet away from power lines to prevent accidental contact or electronic flashover 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 that provide a rear view to prevent accidents from blind spots.

**0.5L**  
**SAE**  
**30/50**

22

**CAUTION**

CONNECT BROWN TO +  
CONNECT BLUE TO -  
INCORRECT CONNECTION  
MAY DAMAGE CONTROL UNIT

BROWN +  
BLUE -

27

## ⚠ DANGER ⚠

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. 540 PTO RPM UNLESS SPECIFICALLY MARKED OTHERWISE

11

**NOTE**

CONNECT ONLY WHEN  
AUXILIARY FUNCTION  
IS FITTED. EG. HEAD  
ANGLE FLOAT KIT (SEE  
INSTRUCTION BOOK)

**NOTE**

CONNECT ONLY WHEN  
AUXILIARY FUNCTION  
IS FITTED. EG. HEAD  
ANGLE FLOAT KIT (SEE  
INSTRUCTION BOOK)

28

**GUARDING REQUIREMENTS  
EQUIPMENTS DE SECURITE**

<p><b>GROUND CUTTING COUPE DE SOL</b></p> <p>Always cut upwards. Roller set below flails. Skids recommended.</p> <p>Toujours couper en aspiration. Rouleau regle sous les fleaux. Patins recommandés.</p>	<p><b>HEDGE CUTTING TAILLE DE HAIES</b></p> <p>With flails cutting upwards. Roller set above flails.</p> <p>Les fleaux travaillant en aspiration. Rouleau regle au dessus des fleaux.</p>	<p><b>HEDGE CUTTING TAILLE DE HAIES</b></p> <p>With flails cutting downwards. Roller set above flails.</p> <p>Les fleaux travaillant en attaque. Rouleau regle au dessus des fleaux.</p>
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## ⚠ DANGER ⚠

CUTTING BLADES      THROWN OBJECTS

FLAIL      ROTARY      FLAIL      ROTARY

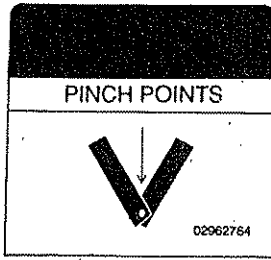
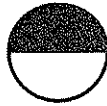
KEEP AWAY - ROTATING BLADES

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

19

20



12

**McCONNEL**

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**PA9058**

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**9058**

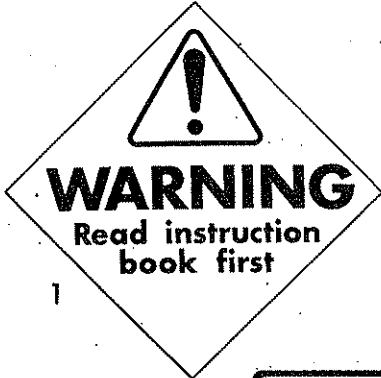
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**Power Arm**

17



24



1

**HI-POWER**



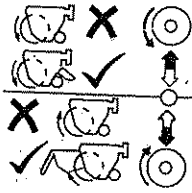
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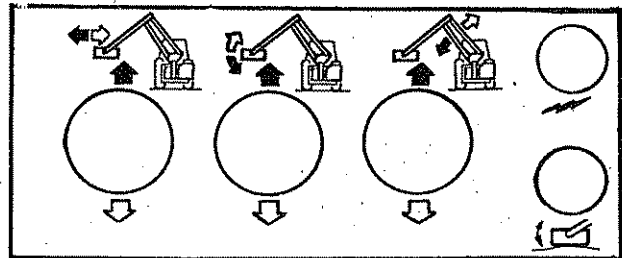
26

**IMPORTANT**

We recommend that Element is replaced after first 50 hours service and every 500 hours service thereafter. Apply Oil film to gasket when replacing element.

Nous recommandons de remplacer la cartouche une première fois après 50 heures de service puis ensuite toutes les 500 heures. Enduire le joint d'une pellicule d'huile lorsqu'on change la cartouche.

8



25



**TIGHTEN CHECK CHAINS AND/OR STABILISER BARS BEFORE OPERATION**

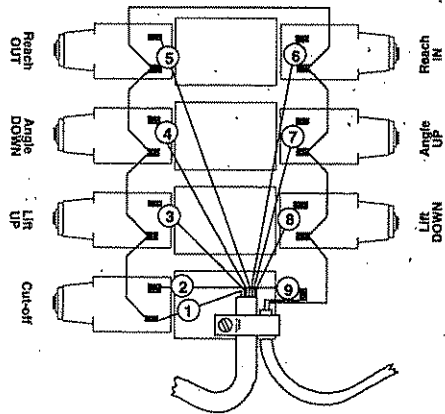
2

**▲ DANGER ▲**

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

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To adjust position of arms or flail head with hydraulic supply on but electrical supply disconnected, push in plunger on end of solenoid required and at the same time depress plunger on cut-off solenoid.



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**ATTENTION**



Recommended P.T.O. speed 500 r.p.m.

Vitesse recommandée 500 T/min à la prise de force.

**DANGER**

Rotating cutters under here.

**DANGER**

Rotor ne pas approcher.

**KEEP BOLTS TIGHT**

Check bolt tightness after 1 hour, 4 hours, 10 hours and thereafter daily.

**MAINTENEZ LES BOULONS SERRES**

Et contrôlez serrage après 1 heure, 4 heures, 10 heures puis chaque jour.

**BEWARE OF FLYING DEBRIS. KEEP PEOPLE AWAY. ATTENTION AUX PROJECTIONS. SE TENIR A L'ECART.**

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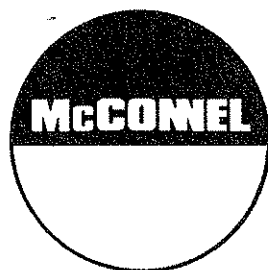
**FLAIL PARTS INFORMATION**

McConnell 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. McConnell 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 McConnell Standards and could reduce Mower performance, void warranties, and present an increase in the safety hazard potential.

**DON'T GAMBLE!**

USE GENUINE McCONNEL SERVICE PARTS  
See your McConnell dealer

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