

Spearhead

Excel 504/Highway 504 & Twiga 5000 Reach Mowers



PARTS MANUAL

Spearhead

Excel 504/ Highway 504 & Twiga 5000

Parts Book

7th Edition – July 2008

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Spearhead Excel 504

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Ordering Your Part's

When ordering parts please refer to your parts list to help your dealer with your order.

Part number and quantity
Description
Machine model number
Serial number of the machine
Delivery instructions (e.g. next day).

Delivery is normally via carrier direct to your dealer. Please check with your dealer for stock availability and arrangement of dispatch. Ensure you or your dealer has sufficient cover for parts required outside factory hours.

When ordering your seal kits please quote both codes stamped on the base of the cylinder.

Important Note

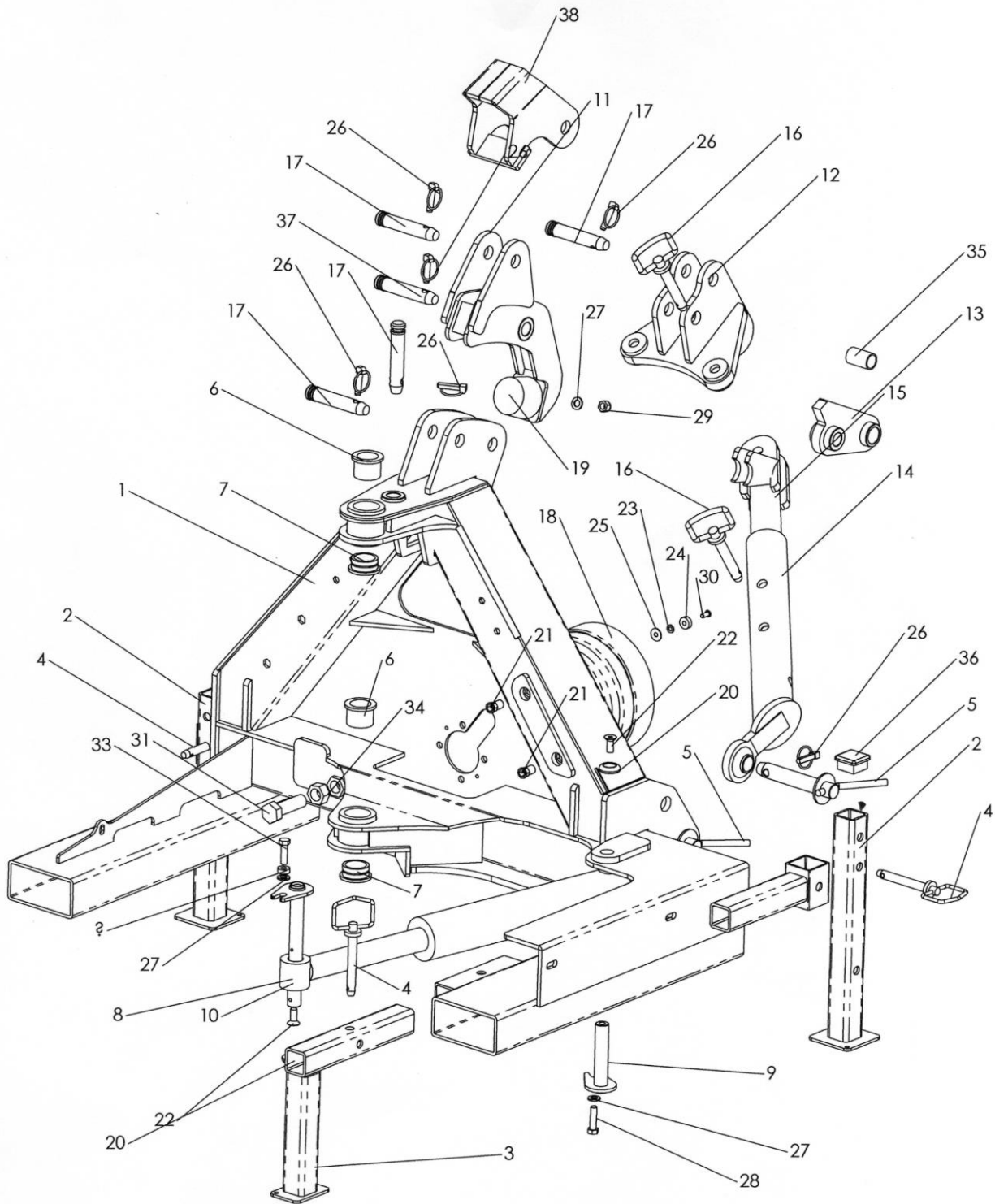
The information contained in this manual is correct at the time of publication. However, in the course of constant development, changes in specification are inevitable. Should you find the information given in this book different to the machine it relates to, please contact the "After Sales Department" for advice.

Key:

(LH) = Left hand
(RH) = *Right hand*

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Main Frame Assembly



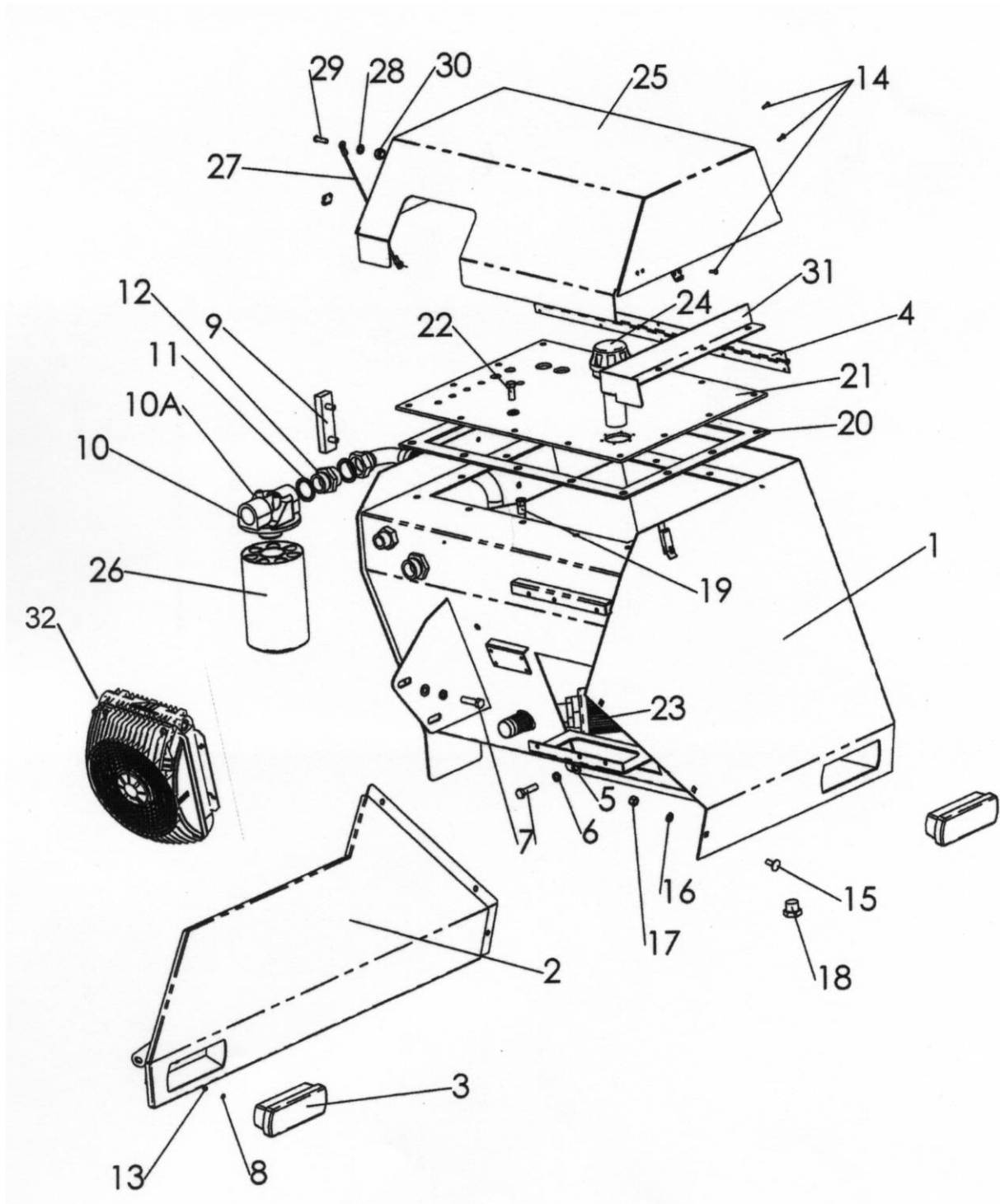
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Main Frame Assembly

REF. NO	PART NO.	DESCRIPTION
1	1777770C	A FRAME – LH
	1777770RC	A FRAME – RH
2	1777870	LEG STAND
3	1777871	REAR LEG
4	6310220	CAT 0 PIN (HANDLE)
5	6310208	CAT 2 CRANKED PIN
6	4600127-A	BUSH
7	4600126	BUSH
8	3580632	RAM
	3570667HP	RAM SEAL KIT
9	1770678	PIN 25 X 136
10	1777916A	PIN & GREASER
11	1777868	FABRICATION
12	1777872	BRACKET
13	1777873	BRACKET CAT 3 (32MM)
	1777873N	BRACKET (28MM)
14	1777533A	TUBE (OUTER)
15	1777532	TUBE (INNER)
16	6310215	CAT 1 PIN (HANDLE)
17	6310203	CAT 2 PIN
17A	6310239	CAT 2 PIN (HANDLE)
18	5770106	CONE WITH WINDOW
19	8770634	RUBBER CUSHION
20	1777209	WASHER
21	2770205	RIVET NUT
22	2770506	BOLT
23	2770432	FLAT WASHER
24	2770433	SPRING WASHER
25	2770244	REPAIR WASHER
26	6310206	LYNCH PIN
27	2770436	WASHER
28	2770397	BOLT
29	2770417	NUT
30	2770370	BOLT
31	2770551	BOLT
32	2770442	SPRING WASHER
33	2770443	BOLT
34	2770460	NUT
35	6310214	BUSH
36	8777519	SQUARE PLASTIC
37	6310235	CAT 2 PIN – LONG
38	1777887	LIFT FRAME STOP BRACKET

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Tank Assembly



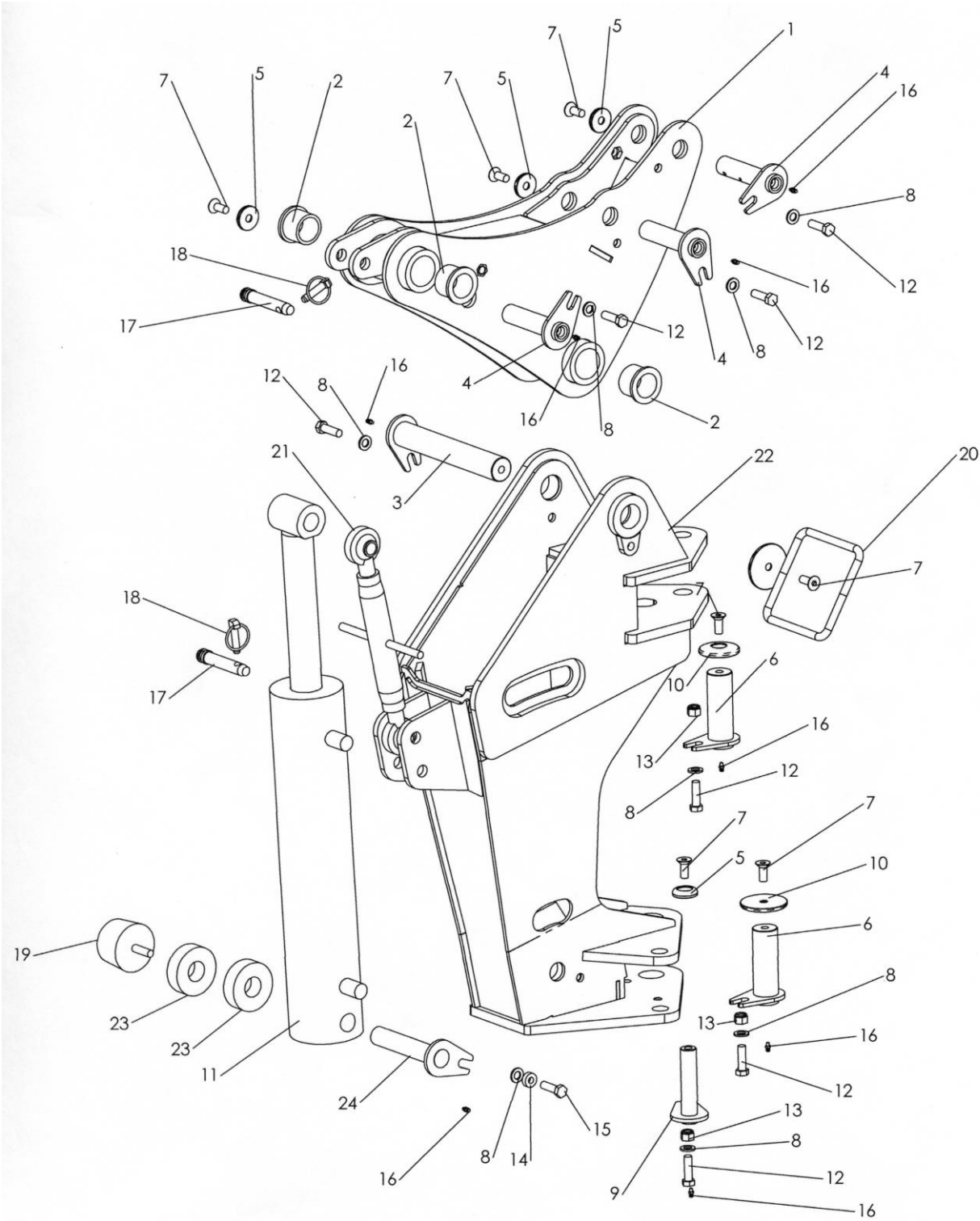
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Tank Assembly

REF. NO	PART NO.	DESCRIPTION
1	1777773E	TANK – LH
	1777773ER	TANK – RH
2	1777319B	REAR PANEL – LH
	1777319RB	REAR PANEL – RH
3	8770668	REAR LIGHT
3A	8770669A	LENS
4	8400300	PIANO HINGE
5	2770436	FLAT WASHER
6	2770442	SPRING WASHER
7	2770397	BOLT
8	2770391	FLAT WASHER
9	3900069	TANK LEVEL GAUGE
10	3900066	IN LINE FILTER HEAD
10A	3900061	FILTER INDICATOR
11	3260075	BONDED SEAL
12	3360095	ADAPTOR
13	2770394	NUT
14	2770580	PAN SCREW
15	2770255	BOLT
16	2770353	FIBRE WASHER
17	2770412	NUT
18	3460106	MALE PLUG
19	2770203	NUT
20	5771633A	GASKET
21	1777103B	TANK LID
22	2770421	SET SCREW
22A	2770353	FIBRE WASHER
23	3900053	SUCTION STRAINER
24	3900050	TANK FILER
25	1777869	TANK LID – LH
	1777869R	TANK – LID RH
26	3900066A	IN LINE FILTER – 225MM
27	6770939	WIRE ROPE
28	2770432	FLAT WASHER
29	2770368	BUTTON SCREW
30	2770416	NUT
31	1777937A	TANK TOOL TRAY
32	3151068	OIL COOLER (OPTIONAL)
NOT SHOWN	8770603	ANTI – VIBRATION MOUNT
	2770416	NUT
	2770432	WASHER
	47313.03	THERMOSTAT
	8770711	ELECTRIC CONTROL
	8770712	POWER LEAD

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Slew & Lift Frame Assembly



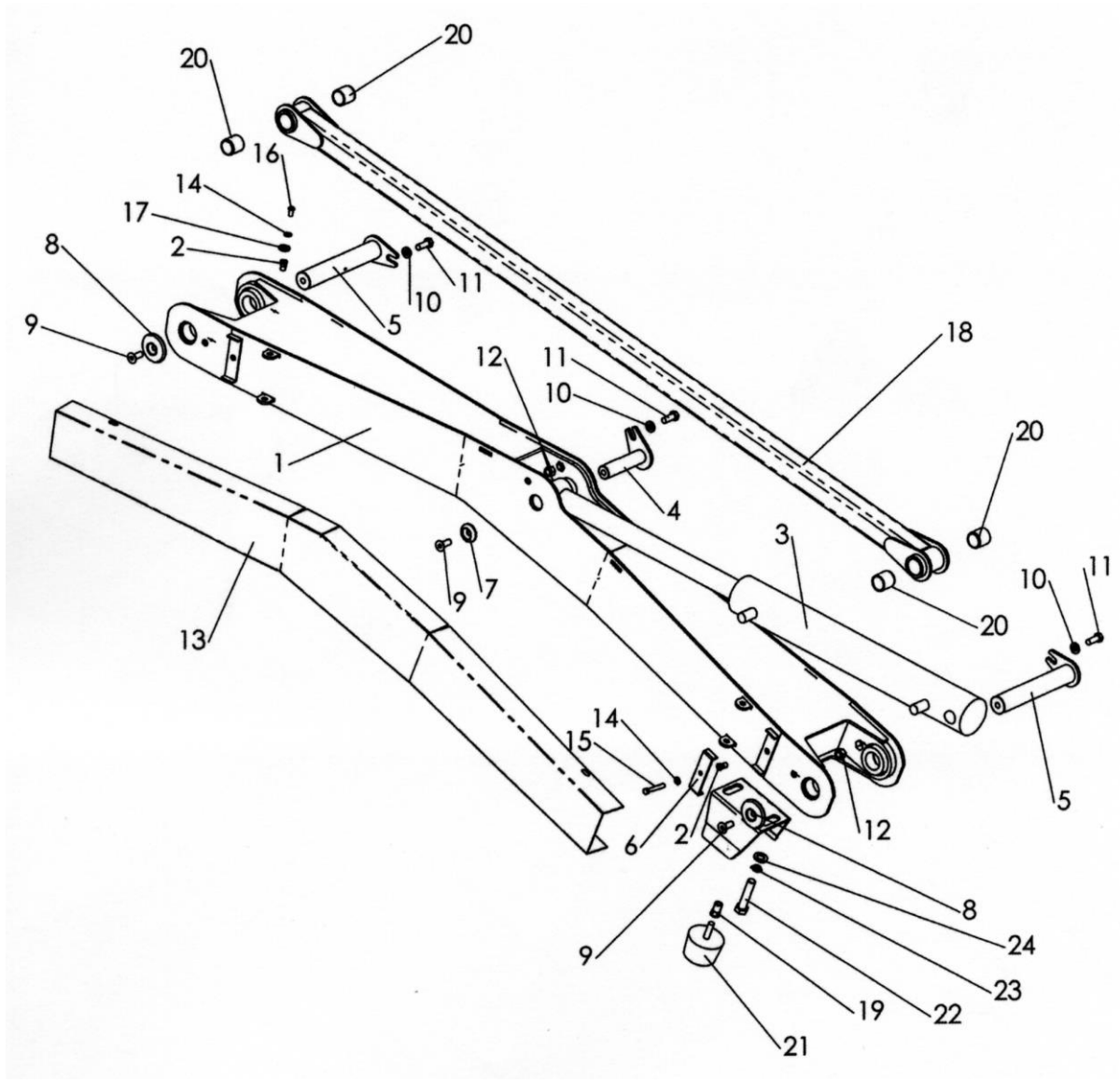
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Slew & Lift Frame Assembly

REF. NO	PART NO.	DESCRIPTION
1	1777772B	LIFT FRAME – LH
	1777772RB	LIFT FRAME - RH
2	4600127 – A	FLANGE BUSH
3	1777910A	PEAR PIN
4	1777912A	PEAR PIN
5	1777209	RETAINING WASHER
6	1777760	PEAR PIN
7	2770506	BOLT
8	2770436	FLAT WASHER
9	1777916A	PEAR PIN
10	1777208	RETAINING WASHER
11	3580649A	RAM
	3570667HP	RAM SEAL KIT
12	2770443	BOLT
13	2770417	NUT
14	2770442	SPRING WASHER
15	2770458	BOLT
16	2770467	GREASE NIPPLE
17	6310202	CAT 1 TOP LINK PIN
18	6310206	LYNCH PIN
19	8770634	RUBBER CUSHION
20	1770693	HOSE GUIDE
21	6310233A	CAT 1 TOP LINK
22	1777469B	SLEW FRAME LH
22	1777469BR	SLEW FRAME RH
23	1770677	SPACER
24	1777375A	PEAR PIN

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Main Arm Assembly



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Main Arm Assembly

REF. NO	PART NO.	DESCRIPTION
1	1777470C	MAIN ARM – LH
1	1777470CR	MAIN ARM – RH
2	2770201	RIVET NUT
3	3580640	RAM
	3570664HP	RAM SEAL KIT
4	1777912A	PEAR PIN
5	1777910A	PEAR PIN
6	1777954	HOSE CLAMP PLATE
7	1777209	RETAINING WASHER
8	1777208	RETAINING WASHER
9	2770506	BOLT
10	2770436	FLAT WASHER
11	2770420	BOLT
12	2770417	NUT
13	1777473B	HOSE COVER – LH
13	1777473BR	HOSE COVER – RH
14	2770323	SHAKE PROOF WASHER
15	2770451	BOLT
16	2770370	BOLT
17	2770432	GREASE NIPPLE
18	1777472A	TIE BAR
19	2770205	RIVET NUT
20	4600411	BUSH
21	8770634	RUBBER CUSHION
22	2770472	BOLT
23	2770456	SPRING WASHER
24	2770454	WASHER
25	1777144	ADJUSTABLE BUMP STOP

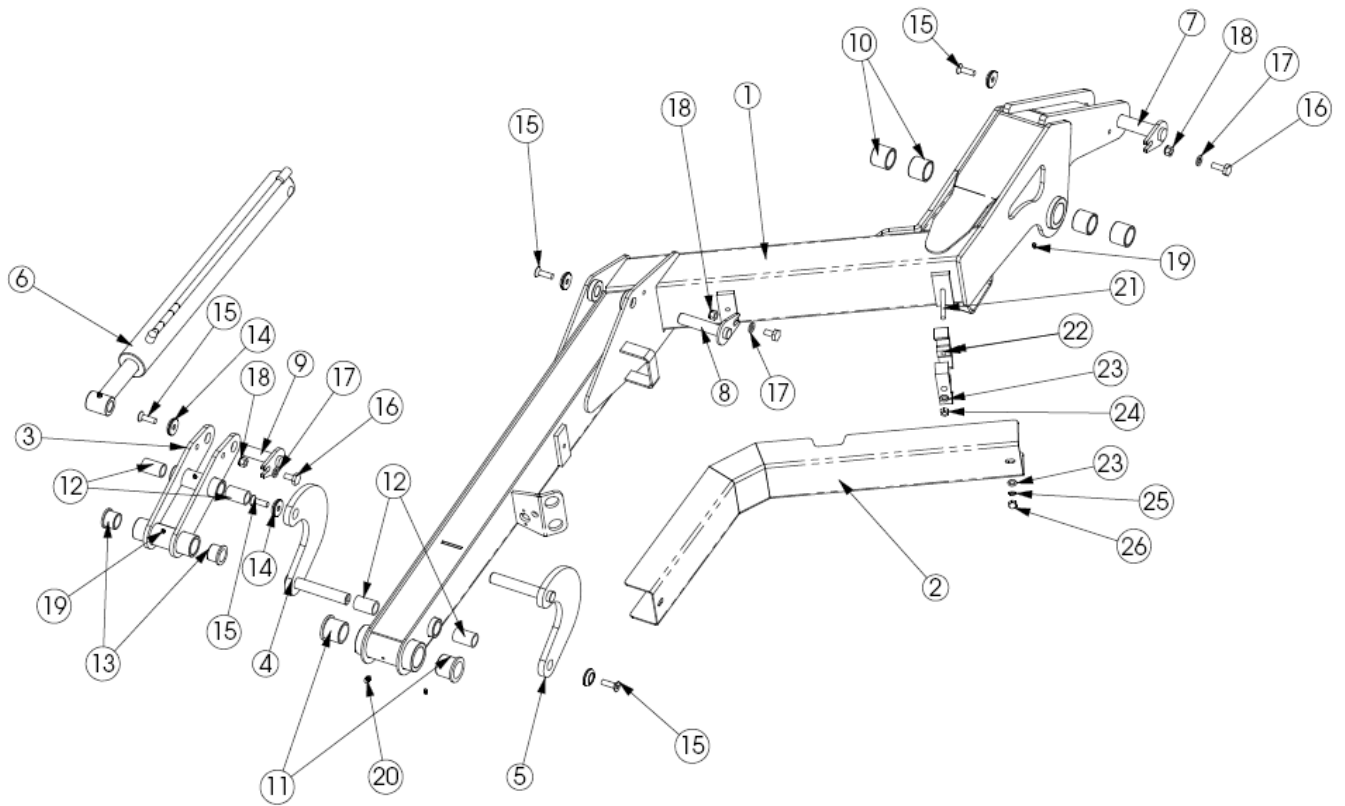
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Dipper Arm Assembly

REF. NO	PART NO.	DESCRIPTION
1	1777471B	DIPPER ARM LH
1	1777471BR	DIPPER ARM RH
2	4600124	PLAIN BUSH
3	4600127 – A	FLANGE BUSH
4	1777117R	CURVED LINK – RH
5	1777117L	CURVED LINK – LH
6	1777116A	HEAD CROWD LINK BRACKET
7	1777915A	PEAR PIN – TIE BAR
7	1778038	PEAR PIN – HEAD RAM
8	1777918A	PEAR PIN
9	1777209	RETAINING WASHER
10	2770506	SOCKET SCREW
11	2770436	FLAT WASHER
12	2770535	SET SCREW
13	2770417	NUT
14	2770201	RIVET NUT
15	1777954	HOSE CLAMP PLATE
16	2770432	FLAT WASHER
17	2770451	BOLT
18	1777475A	DIPPER ARM COVER
19	2770370	BUTTON SCREW
20	3580636	HEAD RAM
	3570666HP	SEAL KIT
21	4600135	FLANGE BUSH
22	2770323	SHAKE PROOF WASHER
23	2770467	GREASE NIPPLE
24	2770244	REPAIR WASHER
25	1778038	PIN

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Excel 504 Fixed Forward Arm



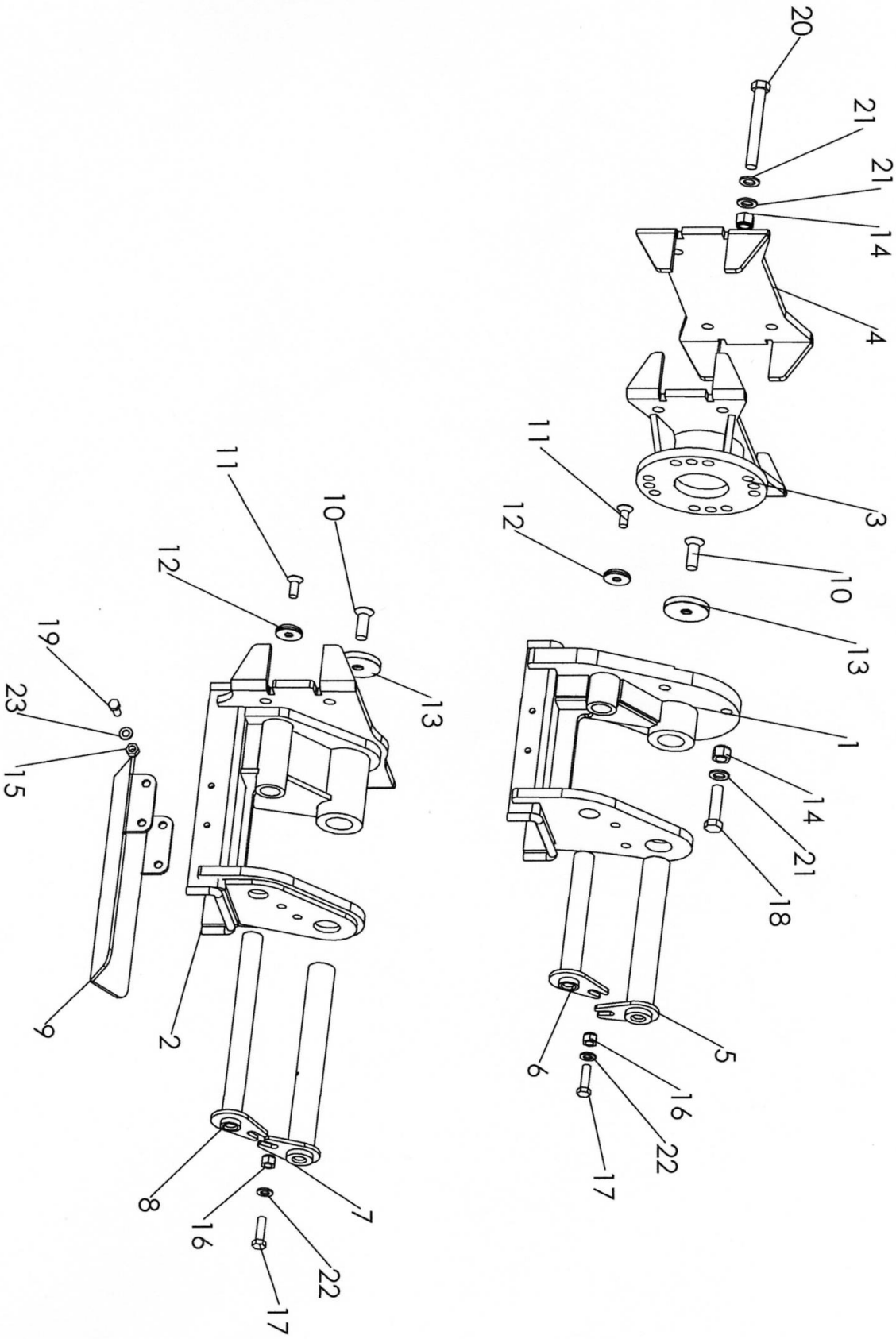
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Excel 504 Fixed Forward Arm

ITEM NO:	PART NO:	DESCRIPTION:	QTY:
1	180940	LH ARM	1
	180941	RH ARM	1
2	180946	GUARD	1
3	1777116A	HEAD CROWD LINK BRACKET	1
4	1777117R	RH CURVED LINK	1
5	1777117L	LH CURVED LINK	1
6	3580636	HEAD CROWD RAM	1
7	1777915A	PEAR PIN	1
8	1777037	PEAR PIN	1
9	1777918A	PEAR PIN	1
10	4600125	BUSH	4
11	4600127-A	BUSH	2
12	4600124	BUSH	4
13	4600135B	BUSH	2
14	1777209	RETAINING WASHER	5
15	2770398	CSK BOLT	5
16	2770535	BOLT	3
17	2770436	FLAT WASHER	3
18	2770417	NYLOCK NUT	3
19	2770467	GREASE NIPPLE STRAIGHT	4
20	2770497	GREASE NIPPLE 90 DEG	1
21	04.282.09	STUD - M10 X 85MM	3
22	45630.02	HOSE CLAMP	6
23	2770434	FLAT WASHER	6
24	2770438	FULL NUT	3
25	2770469	SPRING WASHER	3
26	9100025	DOMED NUT	3

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Head Mount Bracket Assembly



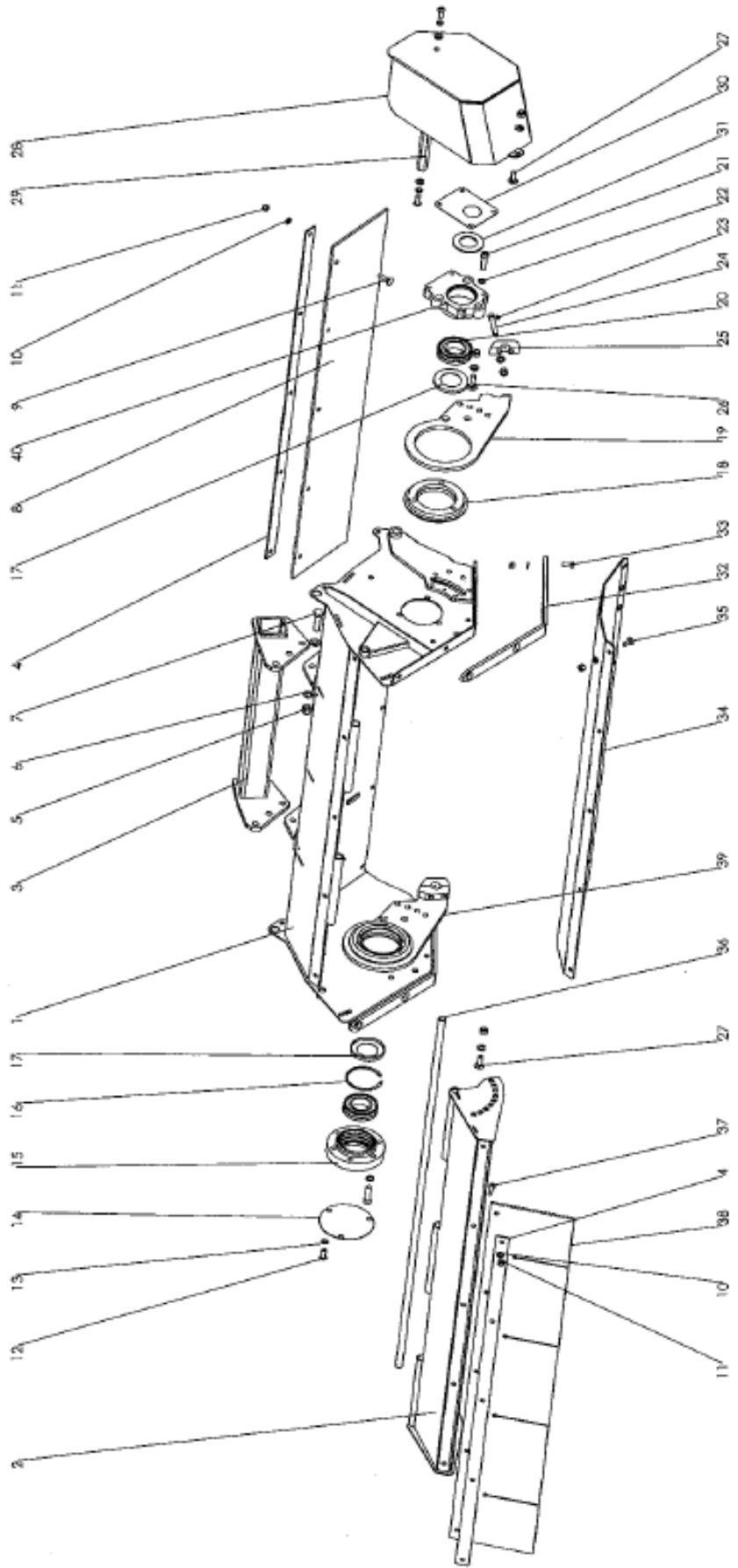
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Head Mount Bracket Assembly

REF. NO	PART NO.	DESCRIPTION
1	1777316E	HEAD CROWD BRACKET LH
1	1777316ER	HEAD CROWD BRACKET RH
2	1778300	HEAD CROWD BRACKET LH
2	1778300R	HEAD CROWD BRACKET RH
3	1777315B	HEAD ANGLE BRACKET
4	1777325B	HEAD RETAINING PLATE
5	1777911A	PEAR PIN
6	1777914A	PEAR PIN
7	1777935A	PEAR PIN
8	1777934A	PEAR PIN
9	1777879	HOSE CARRIER BRACKET
10	2770461	SOCKET SCREW
11	2770506	SOCKET SCREW
12	1777209	RETAINING WASHER
13	1777850A	RETAINING WASHER
14	2770447	NYLOCK NUT
15	2770434	FLAT WASHER
16	2770417	NYLOCK NUT
17	2770458	SET SCREW
18	2770423	SET SCREW
19	2770407	SET SCREW
20	2770346	BOLT
21	2770454	FLAT WASHER
22	2770436	FLAT WASHER
23	2770469	SPRING WASHER

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Direct Drive MP Head
Post July 08



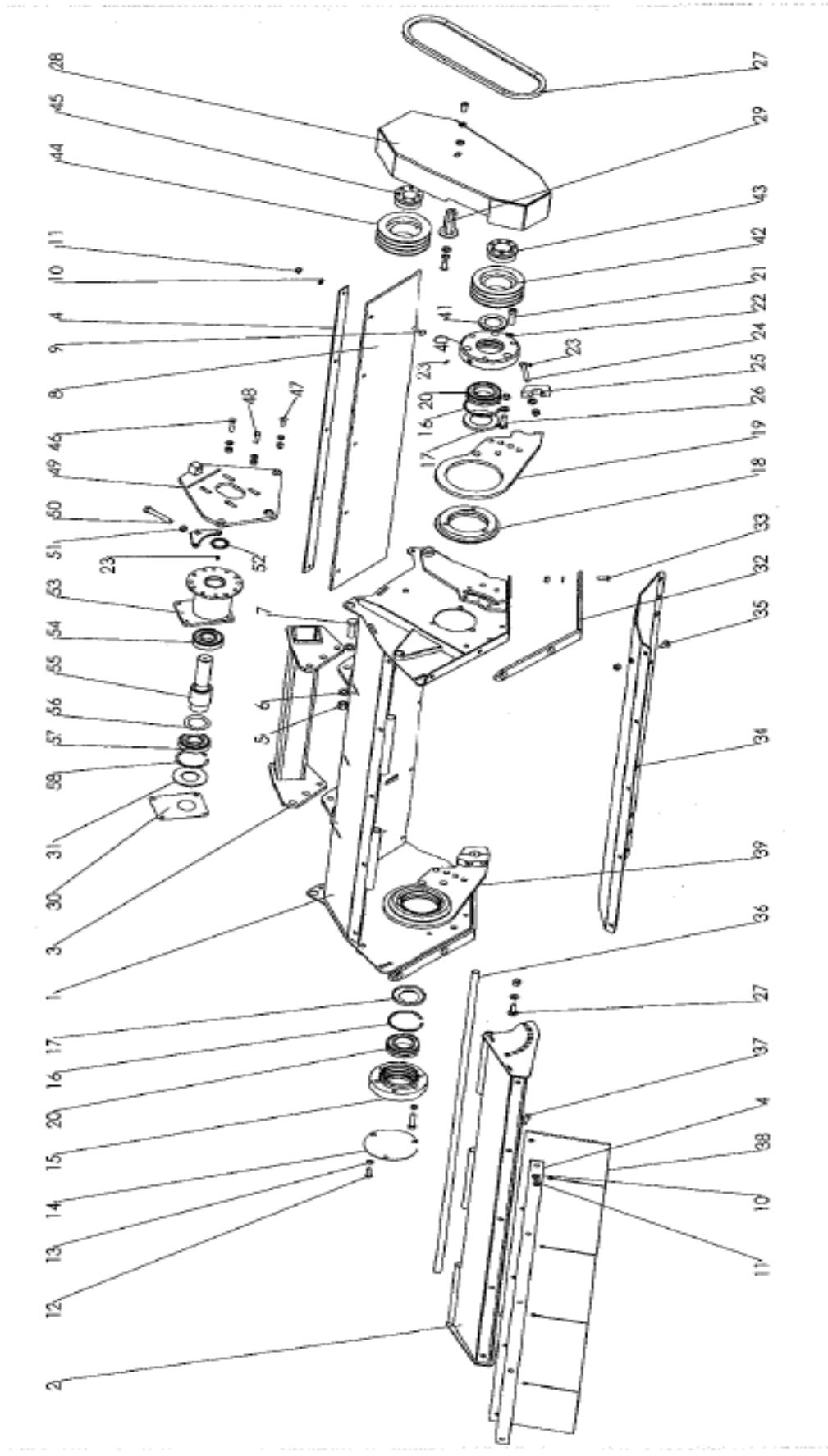
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Direct Drive MP Head
Post July 08

REF. NO	PART NO.	DESCRIPTION
1	1800183	HEAD SHELL – 1.2M
2	1778064	FRONT HOOD – 1.2M
3	1800184	HEAD MOUNT BRACKET
4	1777398	RETAINING BAR 1.2M
5	2770447	LOCKNUT
6	2770454	FLAT WASHER
7	2770425	BOLT
8	8400207B	REAR FLAP 1.2M
9	2770257	BOLT
10	2770434	FLAT WASHER
11	2770412	LOCKNUT
12	9300148	SCREW
13	2770442	SPRING WASHER
14	1800186	NON DRIVE COVER
15	1800187	BEARING HOUSING
16	2777521	CIRCLIP
17	3570676	SEAL
18	1800188	PROTECTION RING
19	1778060L	LH ROLLER PLATE
20	4770666	BEARING
21	2770337	SCREW
22	2770457	SPRING WASHER
23	2770467	GREASE NIPPLE
24	2770347	SCREW
25	040000D	ROLLER CLAMP
26	2770259	BOLT
27	2770258	BOLT
28	1800255	LH MOTOR GUARD
	1800256	RH MOTOR GUARD
29	1800250	MOUNTING PIN
30	3151019	GASKET
31	1777806	CENTRING WASHER 90MM
32	1777543	SKID
33	2770509	BOLT
34	1800257	INNER SKIN 1.2M
35	2770261	BOLT
36	1800194	HINGE BAR 1.2M
37	2770396	BOLT
38	8400204	FRONT FLAP 1.2M
39	1778060R	RH ROLLER PLATE
40	1800198	BEARING HOUSING

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Belt Drive Assembly MP Head
Post July 08



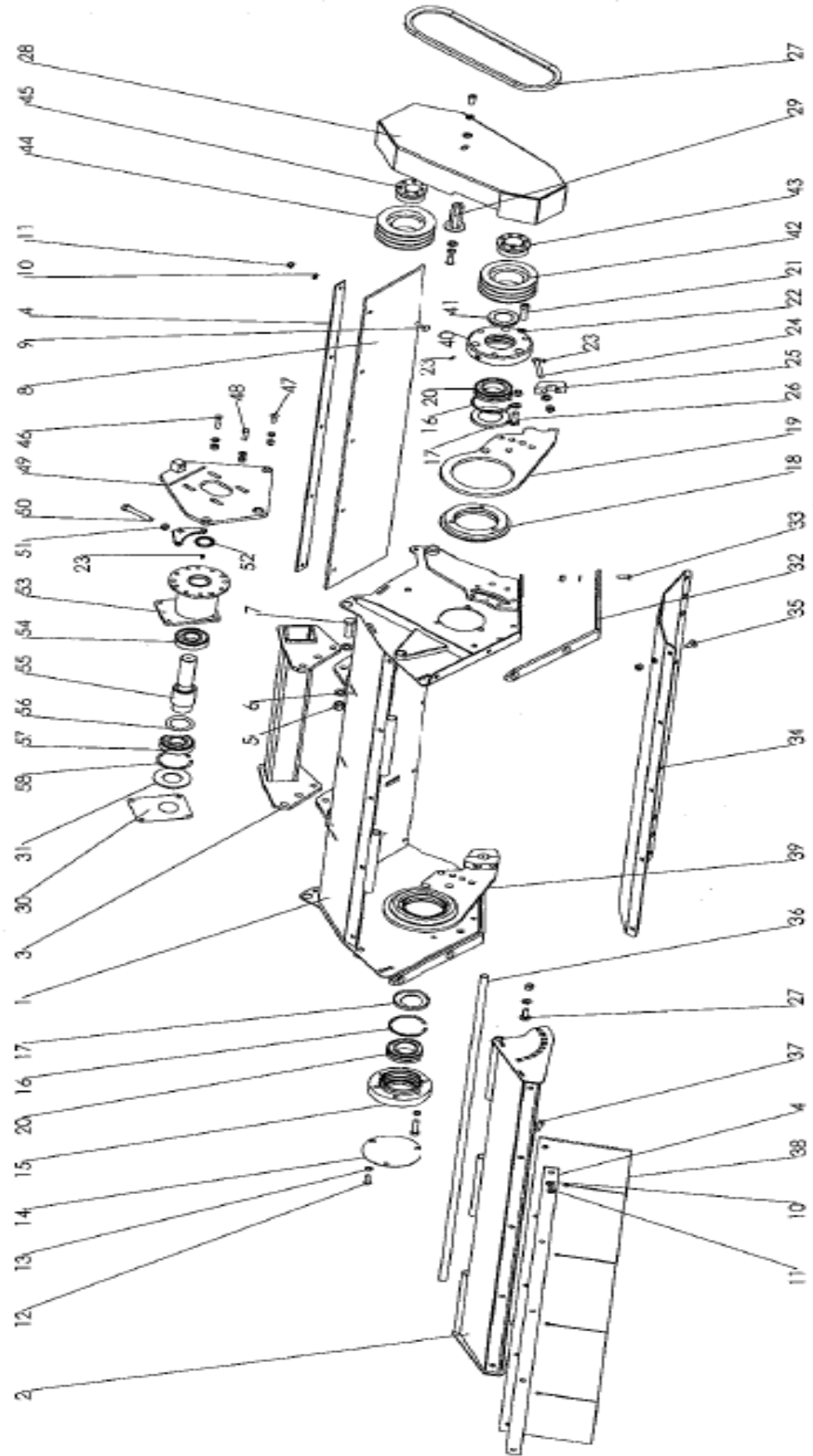
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Belt Drive Assembly MP Head Post July 08

REF. NO	PART NO.	DESCRIPTION
1	1800183	1.2M HEAD SHELL
2	1778064	1.2M FRONT COWL
3	1800184	MOUNTING BRACKET
4	1777398	1.2M RETAINING BAR
5	2770447	NUT
6	2770454	WASHER
7	2770425	BOLT
8	8400207B	1.2M REAR FLAP
9	2770257	BOLT
10	2770434	WASHER
11	2770412	NUT
12	9300148	SCREW
13	2770442	SPRING WASHER
14	1800186	COVER
15	1800187	BEARING HOUSING
16	2777521	CIRCLIP
17	3570676	SEAL (NON DRIVE END)
17	4771500	SEAL (PULLEY END)
18	1800188	PROTECTION RING
19	1778060L	LH ROLLER PLATE
20	4770666	BEARING
21	2770337	SCREW
22	2770457	SPRING WASHER
23	2770467	GREASE NIPPLE
24	2770347	SCREW
25	040000D	ROLLER CLAMP
26	2770259	BOLT
27	4770868	BELT X 3
28	1800189	BELT GUARD
29	1800191	MOUNTING PIN
30	3151019	GASKET
31	1777806A	CENTRING WASHER 100MM
32	1777543	SKID
33	2770509	BOLT
34	1800257	INNER SKIN 1.2M
35	2770261	BOLT
36	1800194	HINGE BAR 1.2M
37	2770396	BOLT
38	8400204	FRONT FLAP 1.2M
39	1779060R	RH ROLLER PLATE
40	1800187	BEARING HOUSING

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Belt Drive Assembly MP Head Post
July 08



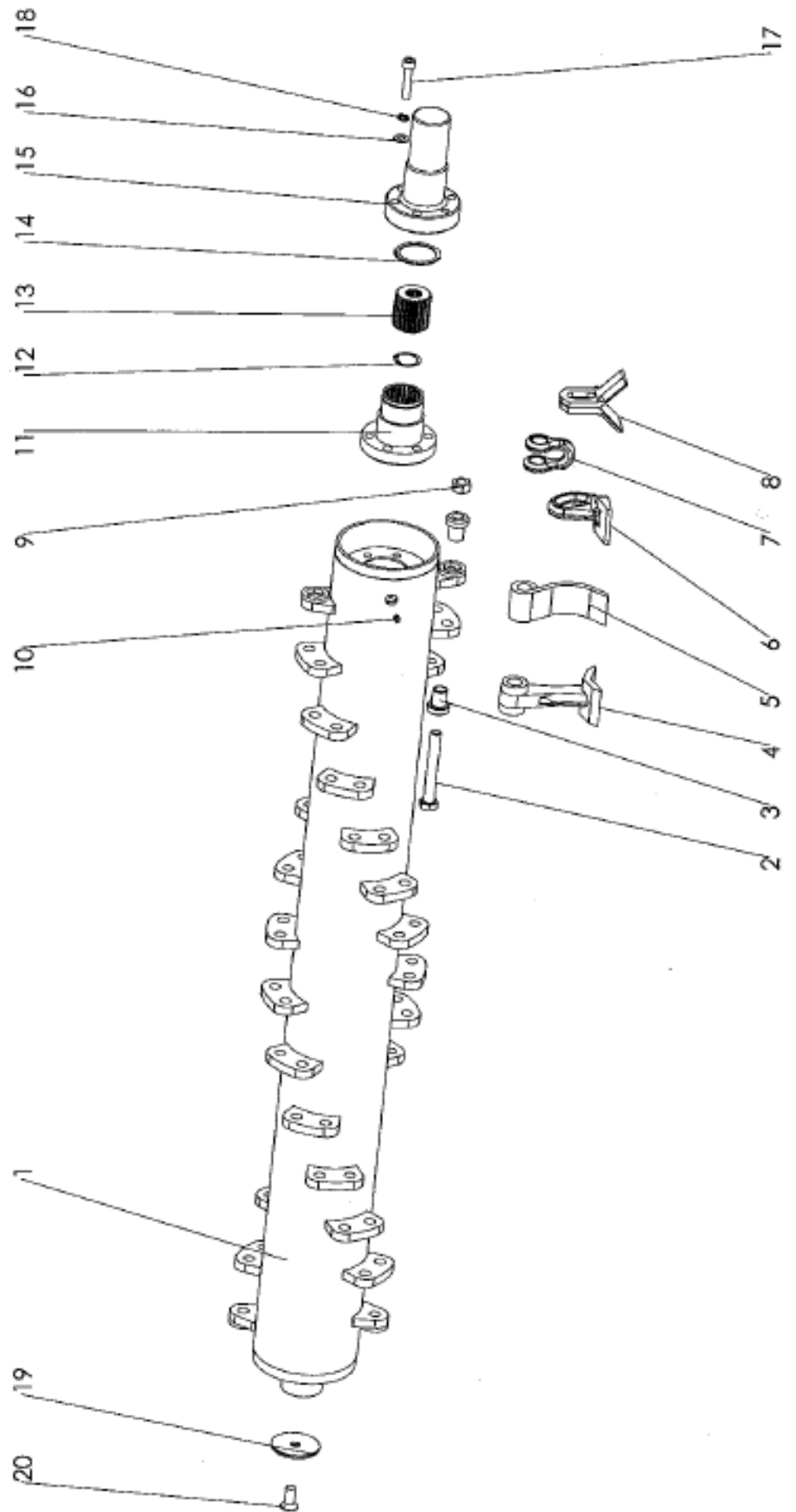
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**Belt Drive Assembly MP Head Post
July 08**

REF. NO	PART NO.	DESCRIPTION
41	4771511	SEAL
42	4770924	PULLEY (150MM)
43	4770922	CLAMP
44	4770925	PULLEY (160MM)
45	4770921	CLAMP
46	2772283	BOLT
47	2770520	BOLT
48	2770396	BOLT
49	1800190	BACK PLATE
50	2770448	BOLT
51	2770536	NUT
	1777939	BELT TENSIONER
52	4771505	SEAL
53	1777920B	HOUSING
54	4770872	BEARING
55	1800281	SHAFT – GEAR MOTOR
56	4600137	SHIM
57	4771607	BEARING
58	2771109	CIRCLIP

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Rotor Assembly M
Post July 08



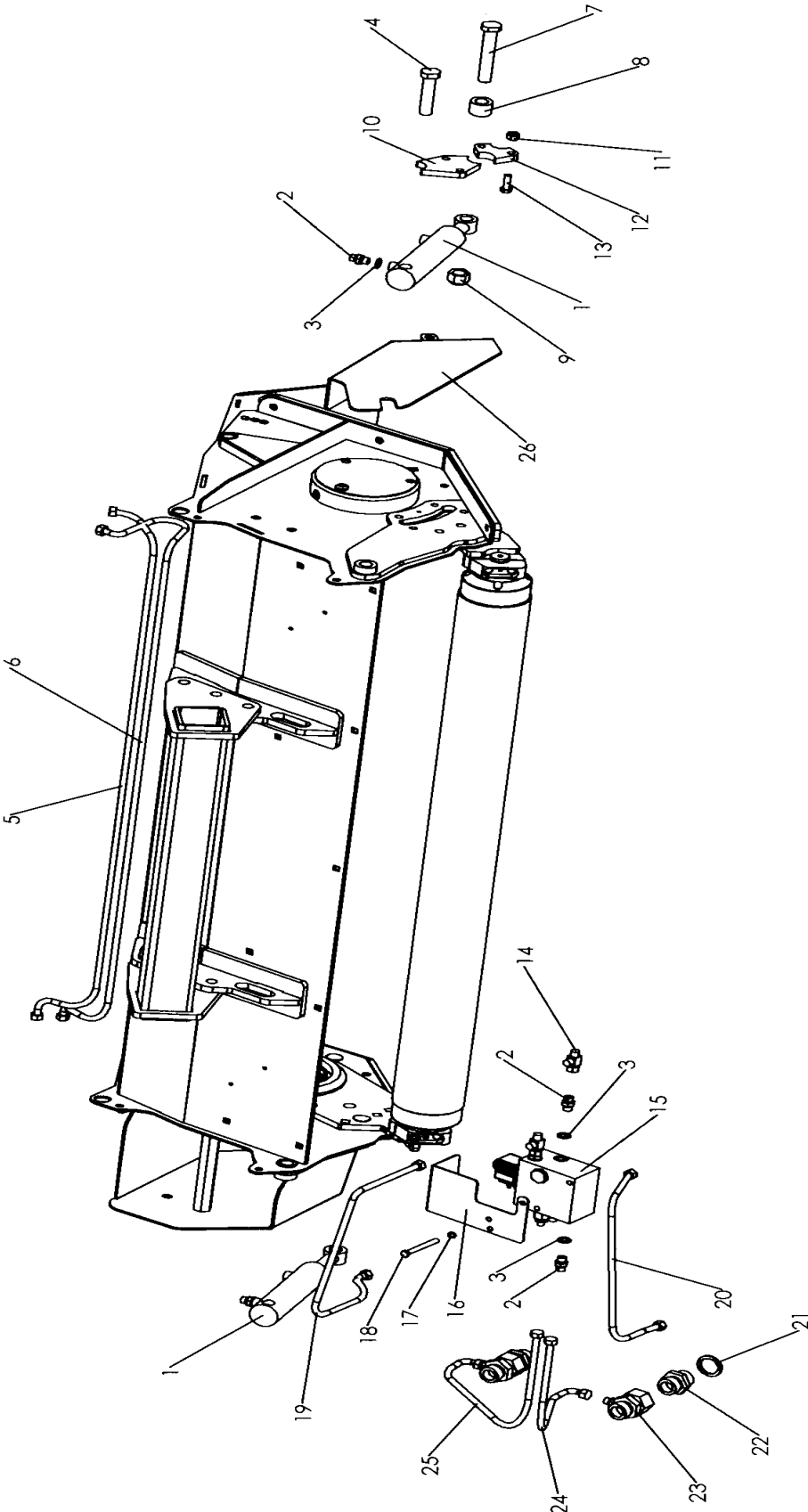
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**Rotor Assembly MP
Post July 08**

REF. NO	PART NO.	DESCRIPTION
1	1800260	1.2M ROTOR – T FLAIL
	1800261	LH 1.2M ROTOR – C FLAIL
	1800262	RH 1.2M ROTOR – C FLAIL
	1800263	LH 1.2M ROTOR – BOOT FLAIL
	1800264	RH 1.2M ROTOR – BOOT FLAIL
	1800265	1.2M ROTOR – B2B FLAIL
2	2770599	BOLT
3	1777721	BUSH
4	7770713	T FLAIL
5	7770699	C FLAIL
6	7770723A	BOOT FLAIL
7	7770722	SHACKLE
8	7770725	BACK 2 BACK
9	05.968.06	NUT
10	2770467	GREASE NIPPLE
11	1777975	DIRECT DRIVE SHAFT
12	N/A	CIRCLIP
13	N/A	ADAPTOR (PISTON MOTOR)
14	2777511	CIRCLIP
15	1800197	BELT DRIVE SHAFT
16	2770434	WASHER
17	2772293	BOLT
18	2770469	SPRING WASHER
19	1777208	WASHER
20	2770506	SCREW

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Hyd Rear Roller MP
Post July 08



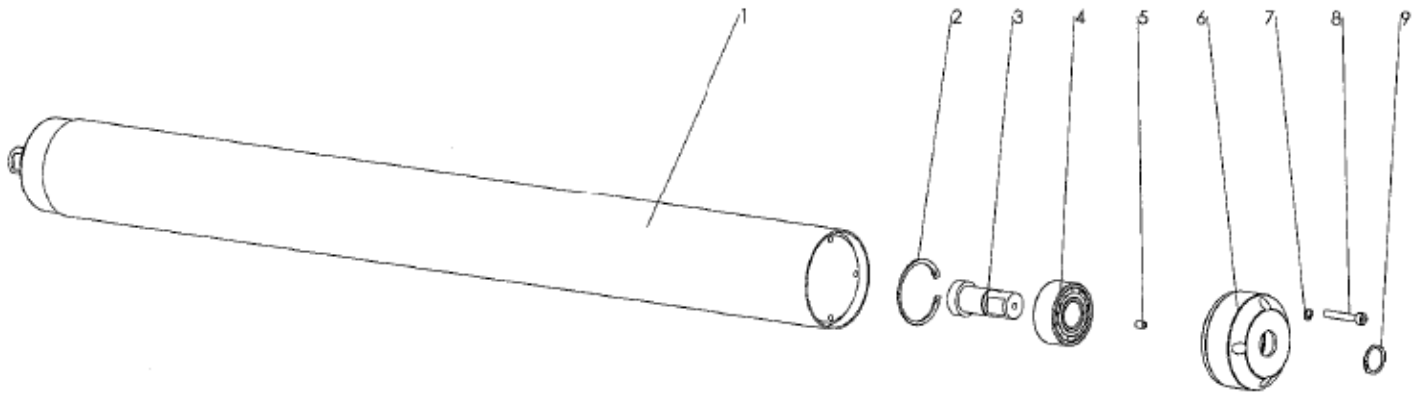
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Hyd Rear Roller MP
Post July 08

REF. NO	PART NO.	DESCRIPTION
1	3580664	RAM
	3580664W	SEAL KIT
1	3580664WH	RAM (FEB 09)
2	3360080	ADAPTOR
3	3260070	WASHER
4	2772308	BOLT
5	3760405	HOSE
6	3760404	HOSE
7	2772309	BOLT
8	1778062	SPACER
9	2770344	LOCKNUT
10	1778058	STOP PLATE – LARGE
11	2770402	LOCKNUT
12	1778059	STOP PLATE – SMALL
13	2770396	BOLT
14	3460100	ADAPTOR
15	3610082	VALVE ASSY
	3610082/1	SOLENOID
	3610030	COIL
	3610048	CAP
16	1800254	GUARD
17	2770433	SPRING WASHER
18	2772289	BOLT
19	3760403	HOSE
20	3760402	HOSE
21	3260074	WASHER
22	3360092	ADAPTOR
23	3700167	ADAPTOR 1”
24	3760401	HOSE
25	3760400	HOSE
26	180367	RH RAM GUARD
	180366	LH RAM GUARD

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Rear Roller MP
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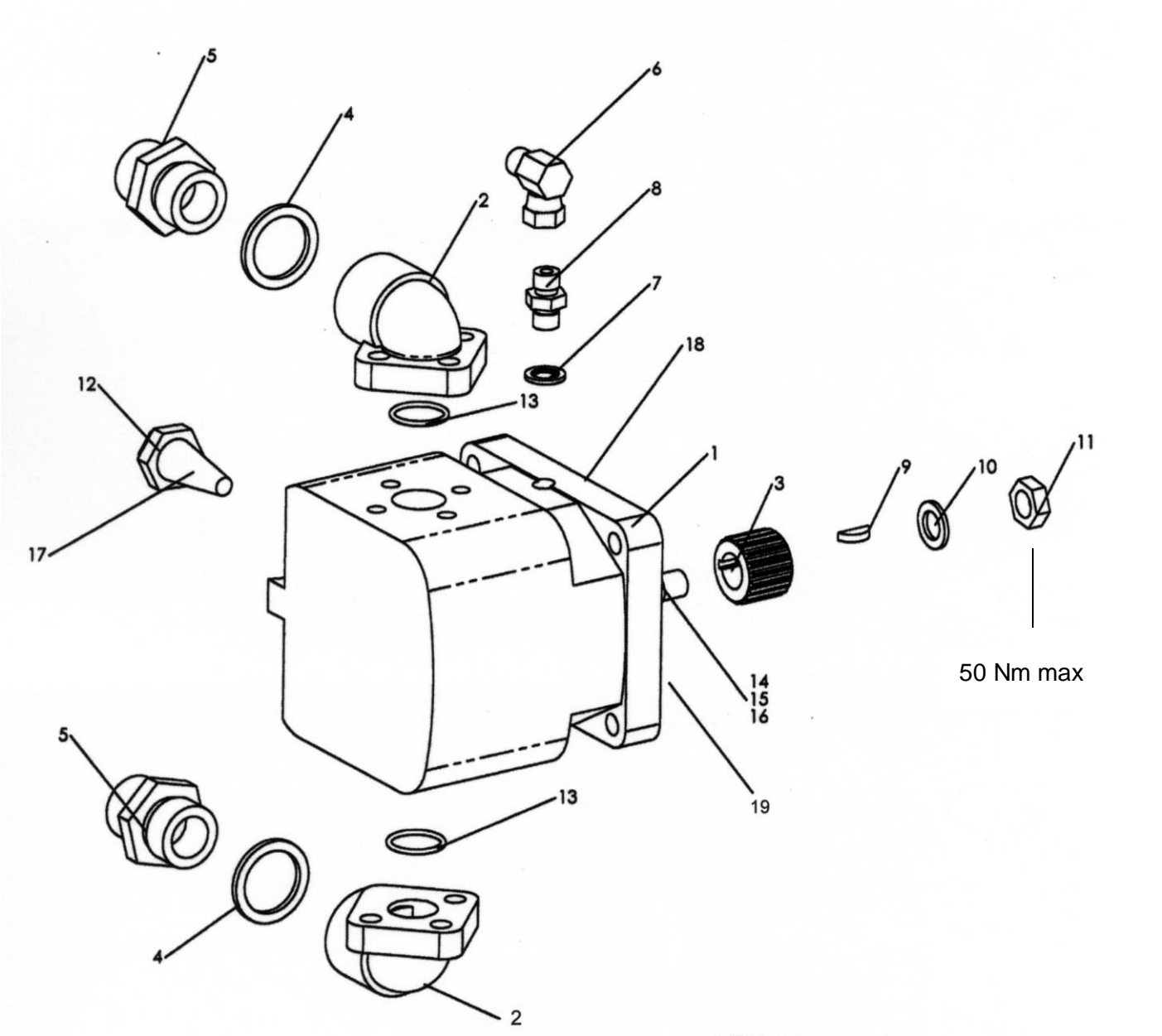
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**Rear Roller MP
Post July 08**

REF. NO	PART NO.	DESCRIPTION
	SA05112	1.2M X 5" ROLLER ASSEMBLY
	SA06112	1.2M X 6" ROLLER ASSEMBLY
1	1800199	1.2M X 5" TUBE
	1800298	1.2M X 6" TUBE
2	2771108	CIRCLIP
3	1800196	SHAFT
4	4771608	BEARING
5	2770239	SCREW
6	1800195	5" END CAP
	1800299	6" END CAP
7	2770433	SPRING WASHER
8	05.625.29	BOLT
9	2777519	CIRCLIP

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Head Motor Assembly



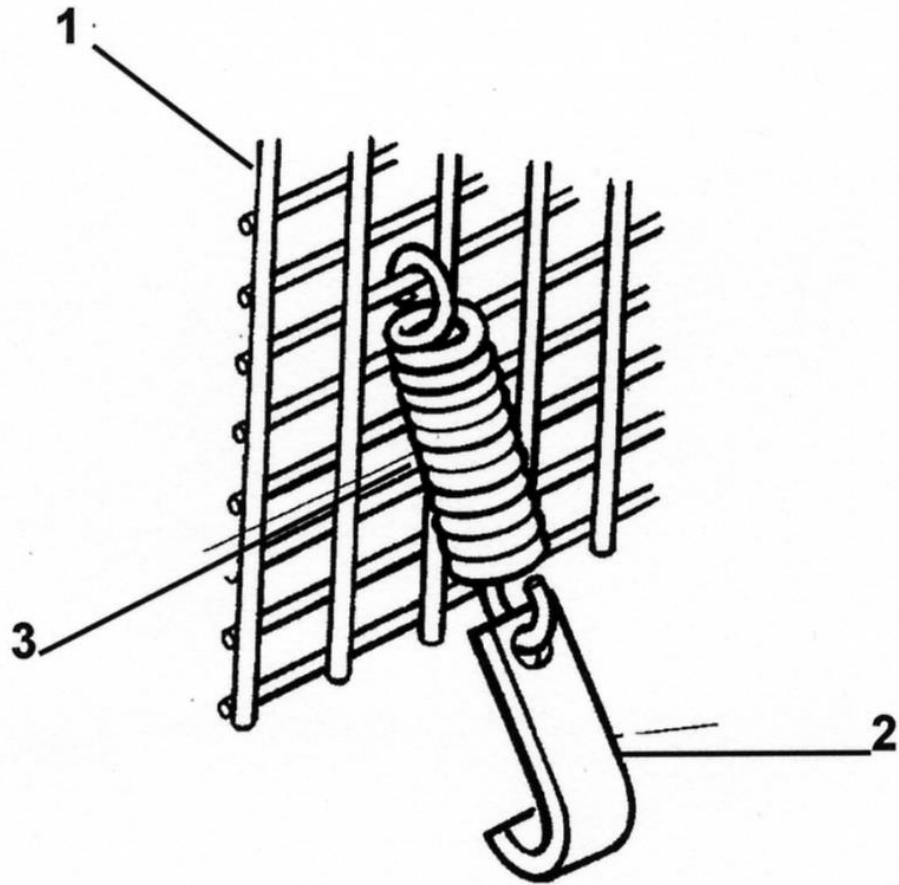
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Head Motor Assembly

REF. NO	PART NO.	DESCRIPTION
1	3151034	MOTOR – 34CC
2	3151008	PORT ELBOW
3	3151011	HUB COUPLING – BELT DRIVE
3A	3151028	DIRECT DRIVE
4	3260074	BONDED SEAL
5	3360092	ADAPTOR
6	3460107	ADAPTOR
7	3260070	BONDED SEAL
8	3250150	ADAPTOR
9	4772226	KEY
10	2770457	WASHER
11	2770350	NUT
12	3610049	ANTI CAVITATION VALVE
13	3261001	O-RING
14	3500001	INNER SHAFT SEAL (NOT SHOWN)
15	3500003	BACK UP WASHER (NOT SHOWN)
16	3500002	OUTER SHAFT SEAL (NOT SHOWN)
	5770044	MOTOR SHAFT
17	3610061K	ANTI CAV. SEAL KIT (NOT SHOWN)
18	3151034K	MOTOR SEAL
19	3151019	GASKET

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Cab Guard Assembly



Spearhead Excel 504

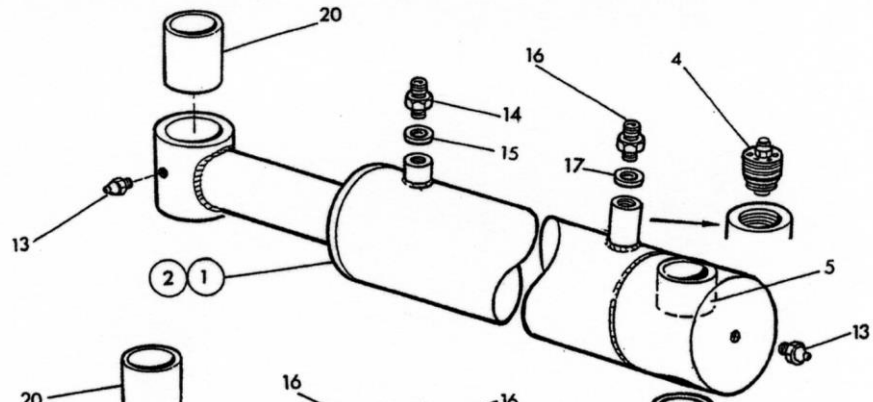
Cab Guard Assembly

REF. NO	PART NO.	DESCRIPTION
1	1777140	GUARD
2	1777141	CLIP
3	6310209	SPRING
4	8550131	RUBBER
	OPT0603	KIT (1,2,3 & 4)

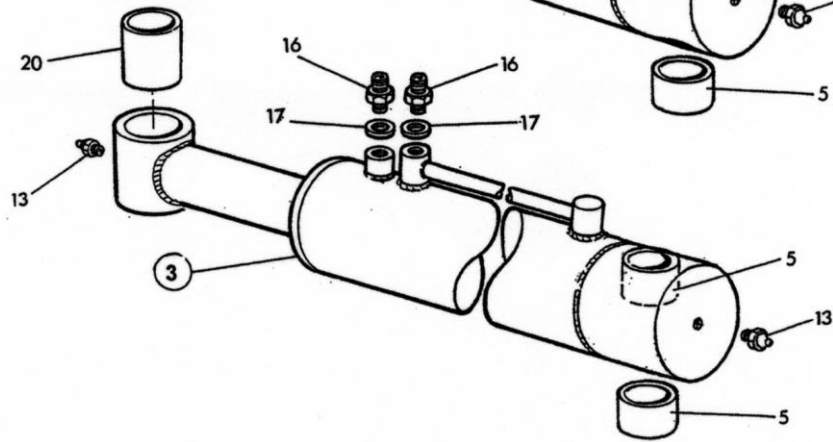
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Hydraulic Cylinder Assembly

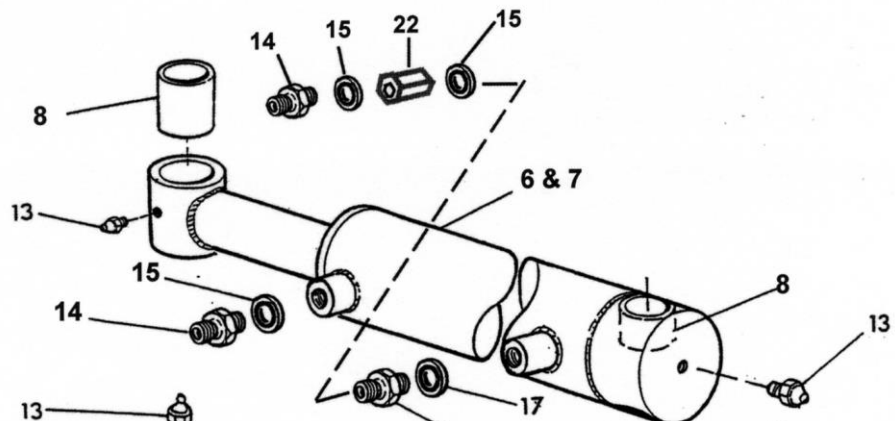
Main lift ram



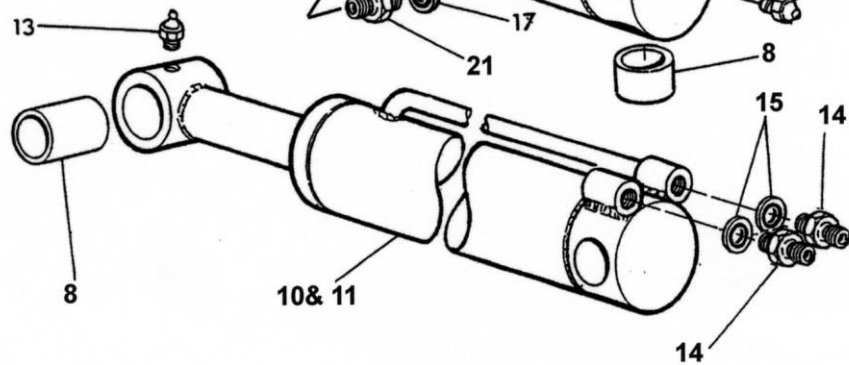
Reach ram



Slew ram



Head ram



Spearhead Excel 504

Hydraulic Cylinder Assembly

REF. NO	PART NO.	DESCRIPTION
1	3580649A	RAM (90MM MAIN LIFT)
2	3570667HP	RAM SEAL KIT
3	3580640	REACH RAM
	3570664HP	RAM SEAL KIT
4	3600118	CARTRIDGE
5	4600414	BUSH
6	3580632	SLEW RAM
7	3570667HP	RAM SEAL KIT
8	4600413	BUSH
10	3580636	HEAD RAM
11	3570666HP	RAM SEAL KIT
13	2772300	GREASE NIPPLE
14	3360080	ADAPTOR
15	3260070	OIL SEAL
16	3360071	ADAPTOR
17	3260071	OIL SEAL
20	4600412	BUSH
21	3360083	ADAPTOR
22	3900010	ADJUSTABLE FLOW RESTRICTOR

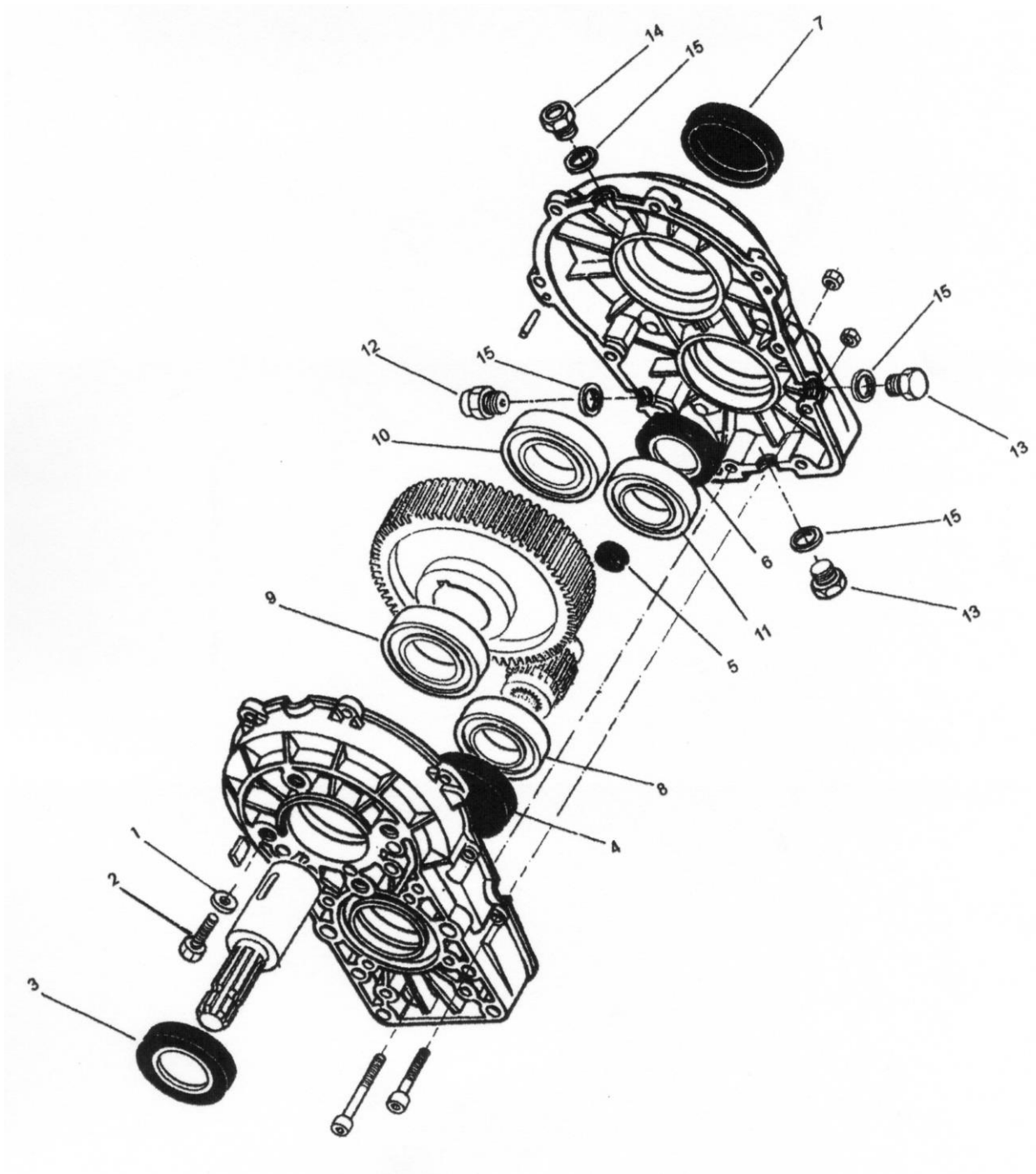
Spearhead Excel 504

P.T.O. Shaft Assembly

REF. NO	PART NO.	DESCRIPTION
1	5770084C	P.T.O. ASSEMBLY
	5772263	GUARD
2	5771020	CHAIN
3	5772240	YOKE – 6 SPLINE
3A	5772241	YOKE – 21 SPLINE
5	5772242	CROSS JOURNAL
6	5772244	YOKE
7	5772264	YOKE
8	2770479	PIN
9	5772248	TUBE
10	5772250	TUBE
11	4770815	INNER BEARING
12	4770814	OUTER BEARING

Spearhead Excel 504

Gearbox Assembly (RH)



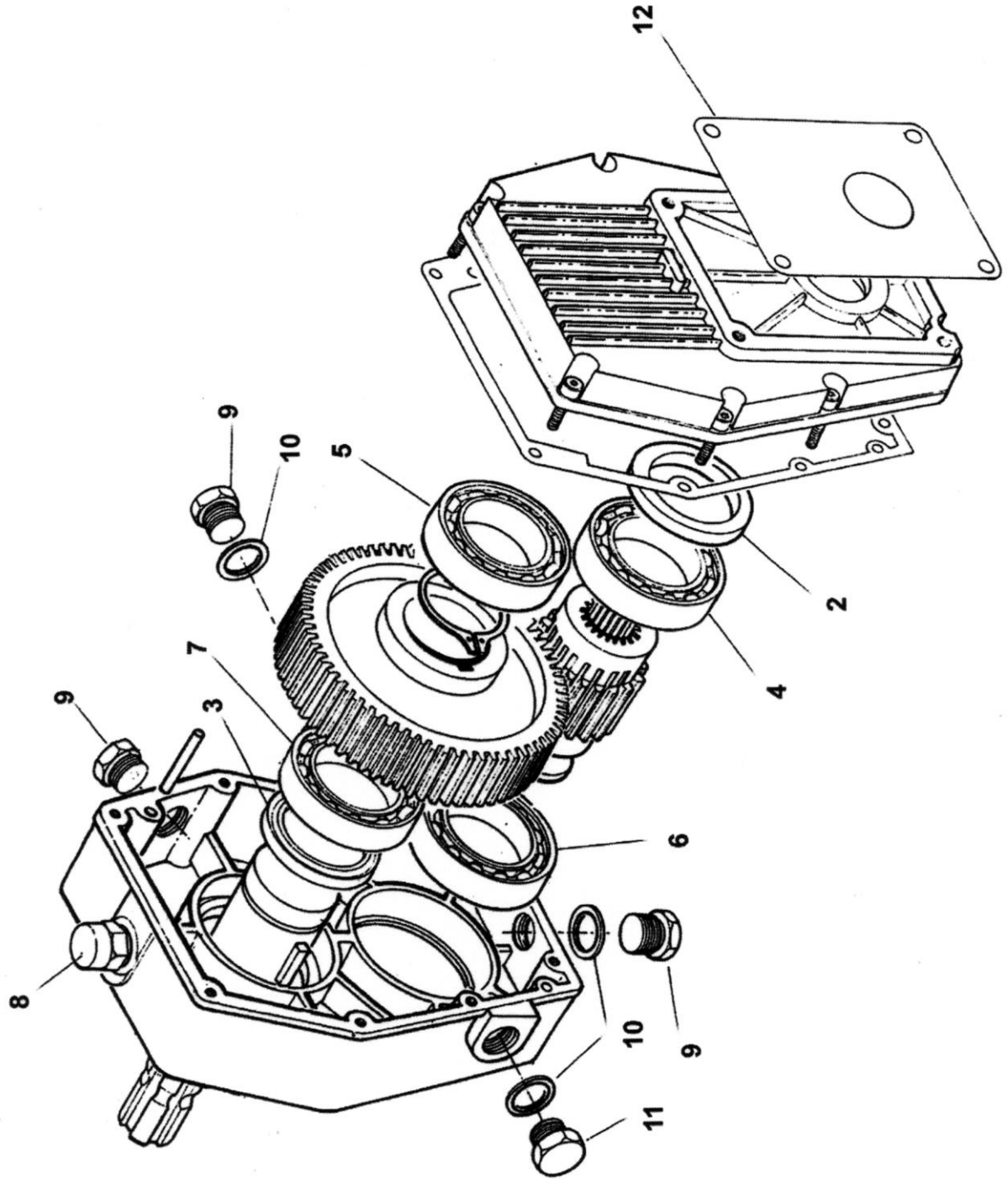
Spearhead Excel 504

Gearbox Assembly (RH)

REF. NO	PART NO.	DESCRIPTION
	3151026	GEARBOX ASSEMBLY
1	2770436	WASHER
2	2770535	BOLT
3	5771620	OIL SEAL
4	5771624	OIL SEAL
5	5771622	OIL SEAL
6	5771623	OIL SEAL
7	5771624	OIL SEAL
8	NOT AVAILABLE	BEARING
9	NOT AVAILABLE	BEARING
10	NOT AVAILABLE	BEARING
11	NOT AVAILABLE	BEARING
12	5771607	BREATHER
13	5771608	PLUG
14	5771610	GAUGE
15	5771609	WASHER

Spearhead Excel 504

Gearbox Assembly (LH)



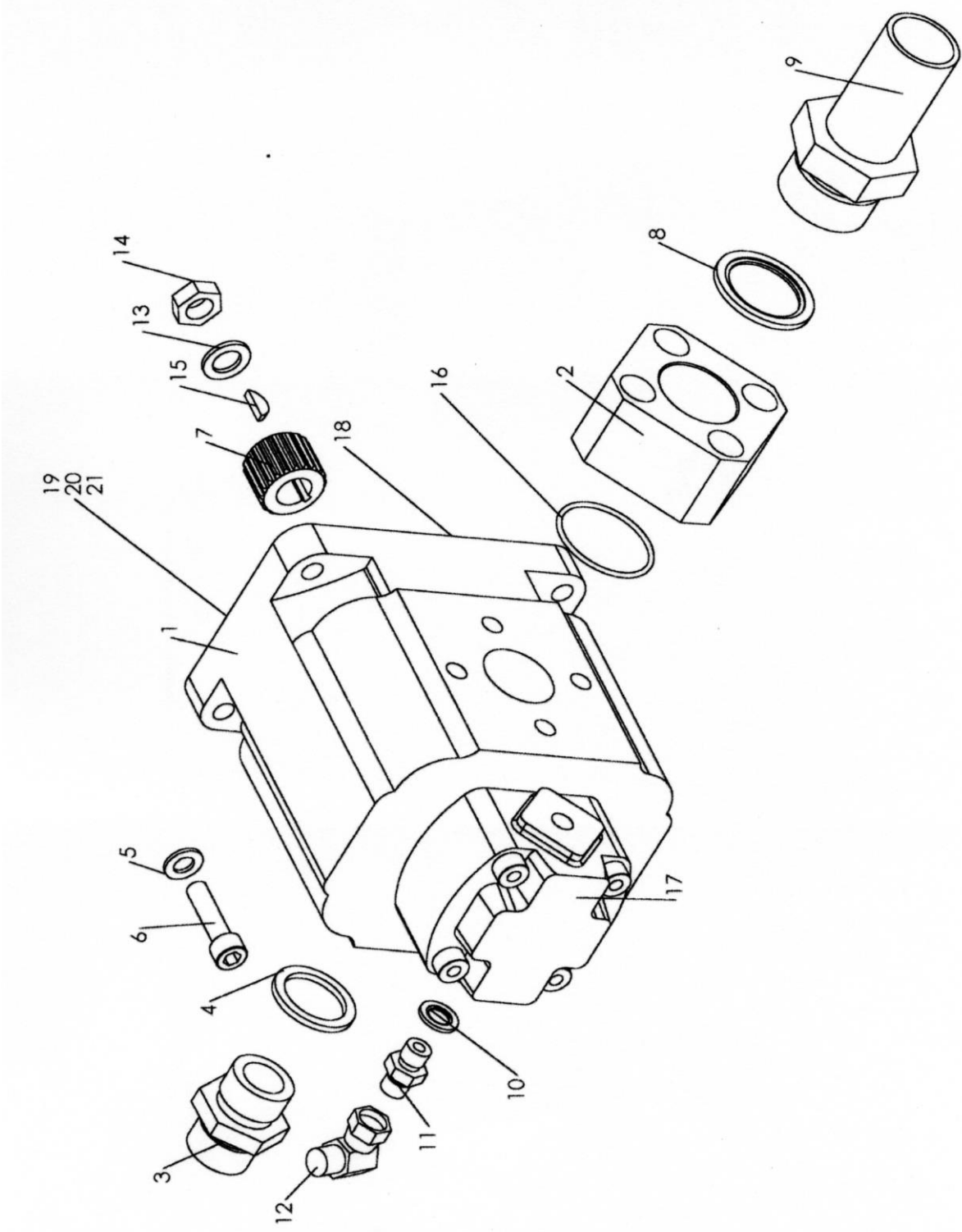
Spearhead Excel 504

Gearbox Assembly (LH)

REF. NO	PART NO.	DESCRIPTION
	3151020	GEARBOX ASSEMBLY
2	5771601	OIL SEAL
3	5771602	OIL SEAL
4	NOT AVAILABLE	BEARING
5	NOT AVAILABLE	BEARING
6	NOT AVAILABLE	BEARING
7	NOT AVAILABLE	BEARING
8	5771607	BREATHER
9	5771608	PLUG
10	5771609	WASHER
11	5771610	GAUGE
12	3151019	GASKET

Spearhead Excel 504

Tandem Pump Assembly



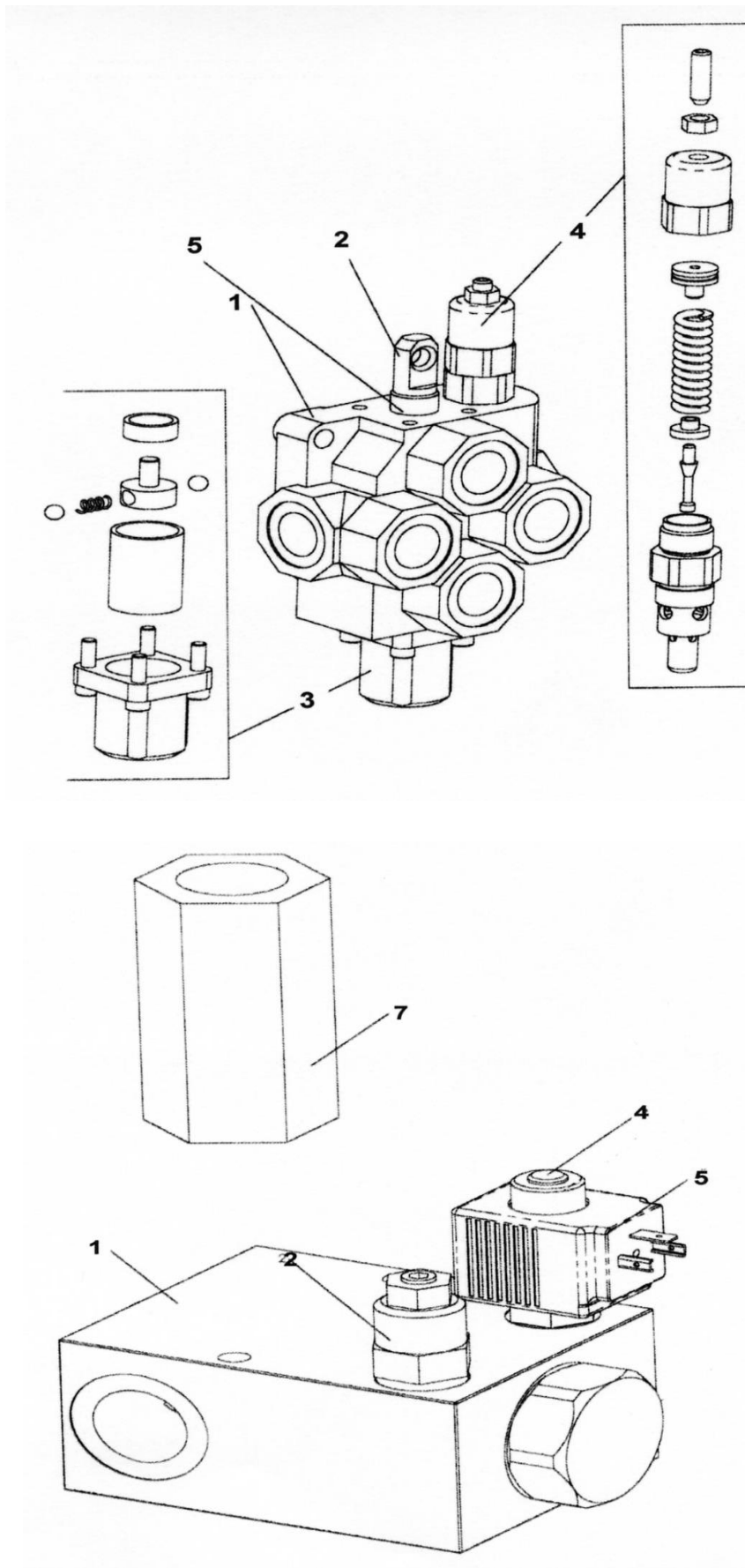
Spearhead Excel 504

Tandem Pump Assembly

REF. NO	PART NO.	DESCRIPTION
1	3151033A	TANDEM PUMP
2	3761012	STRAIGHT FLANGE
3	3360092	ADAPTOR
4	3260074	BONDED SEAL
5	2770434	FLAT WASHER
6	2772284	BOLT
7	3151011	HUB COUPLING
8	3260075	BONDED SEAL
9	3761000	MALE INSERT
10	3260070	BONDED SEAL
11	3360080	ADAPTOR
12	3460107	ADAPTOR
13	2770457	WASHER
14	2770350	NUT
15	4772226	KEY
16	3261006	O-RING
17	3151043	SERVICE PUMP
18	3151033K	TANDEM SEAL KIT
19	3500002	SHAFT SEAL
20	3151019	GASKET

Spearhead Excel 504

Rotor Valve Assembly



Spearhead Excel 504

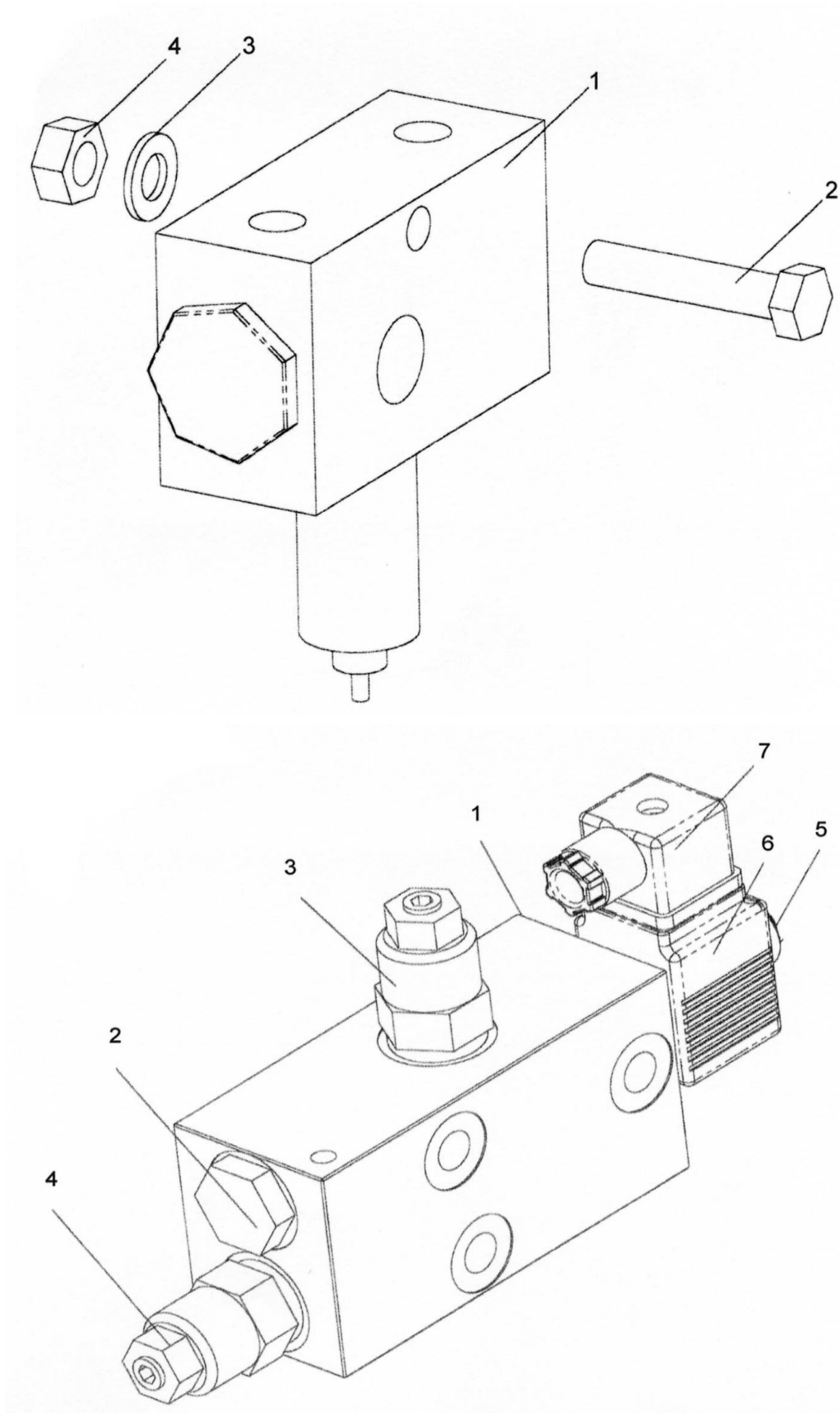
Rotor Valve Assembly

REF. NO	PART NO.	DESCRIPTION
1	3600101	VALVE ASSEMBLY
2	-	SPOOL
3	3610081	SPOOL DETENT KIT (2 POS)
	3610081A	SPOOL DETENT KIT (3 POS)
4	3600080	VALVE CARTRIDGE
5	3600101S	O-RING

REF. NO	PART NO.	DESCRIPTION
1	3600099A	VALVE ASSEMBLY
2	3600144A	RELIEF VALVE CARTRIDGE
4	3600142A	SINGLE POPPET VALVE
5	3610030A	COIL
7	3600089	CHECK VALVE

Spearhead Excel 504

Break Back Valve



Spearhead Excel 504

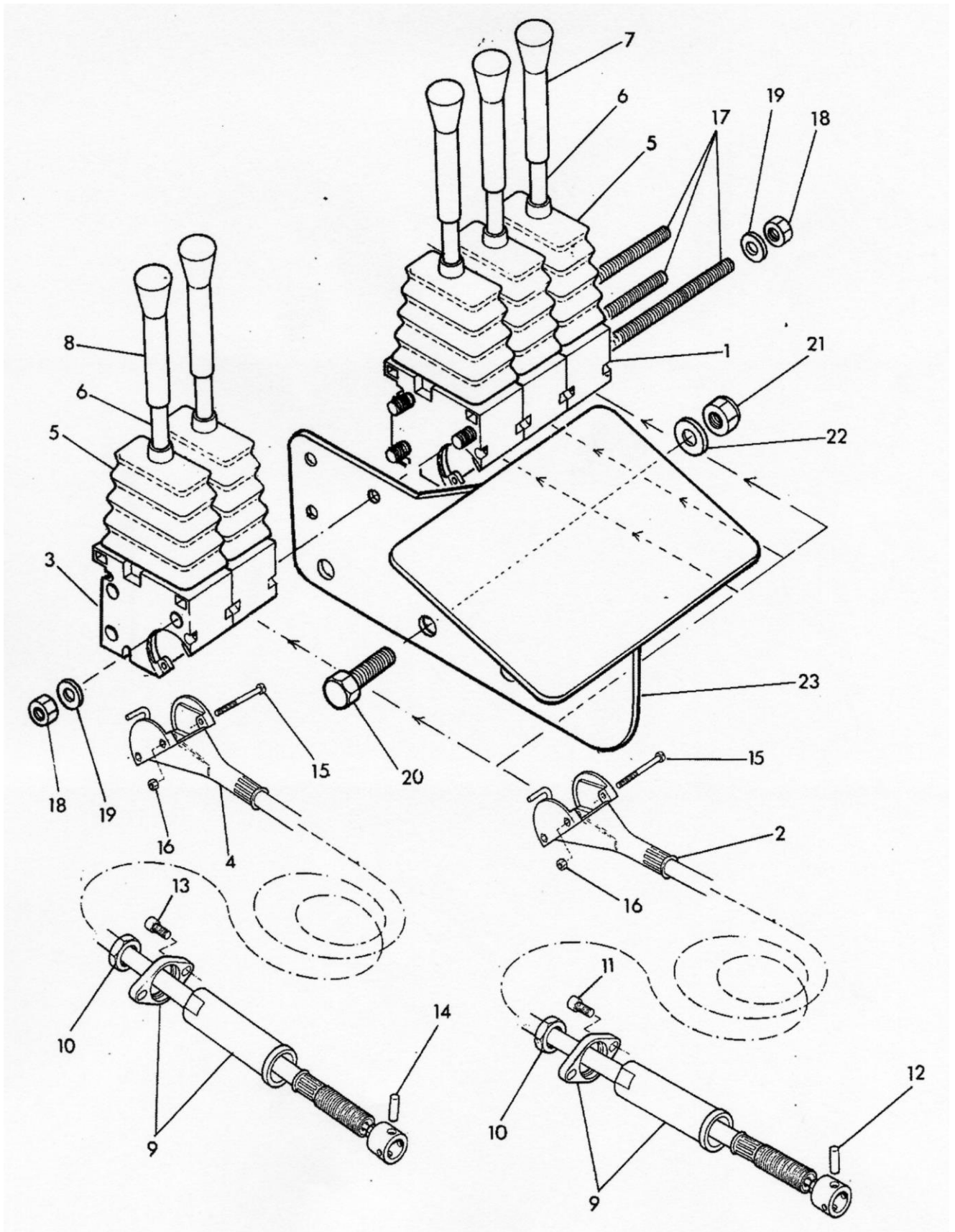
Break Back Valve

REF. NO	PART NO.	DESCRIPTION
1	3610056A	BREAK BACK VALVE
2	2772285	BOLT
3	2770434	FLAT WASHER
4	2770438	FULL NUT

REF. NO	PART NO.	DESCRIPTION
1	3610057	AUTO RESET VALVE ASSY
2	3610054	P.O.C. CARTRIDGE
3	3600137	SEQUENCE CARTRIDGE
4	3600144	RELIEF VALVE CARTRIDGE
5	3610032A	SOLENOID CARTRIDGE
6	3610030A	COIL
7	3610048	DIN CONNECTOR

Spearhead Excel 504

Cable Control



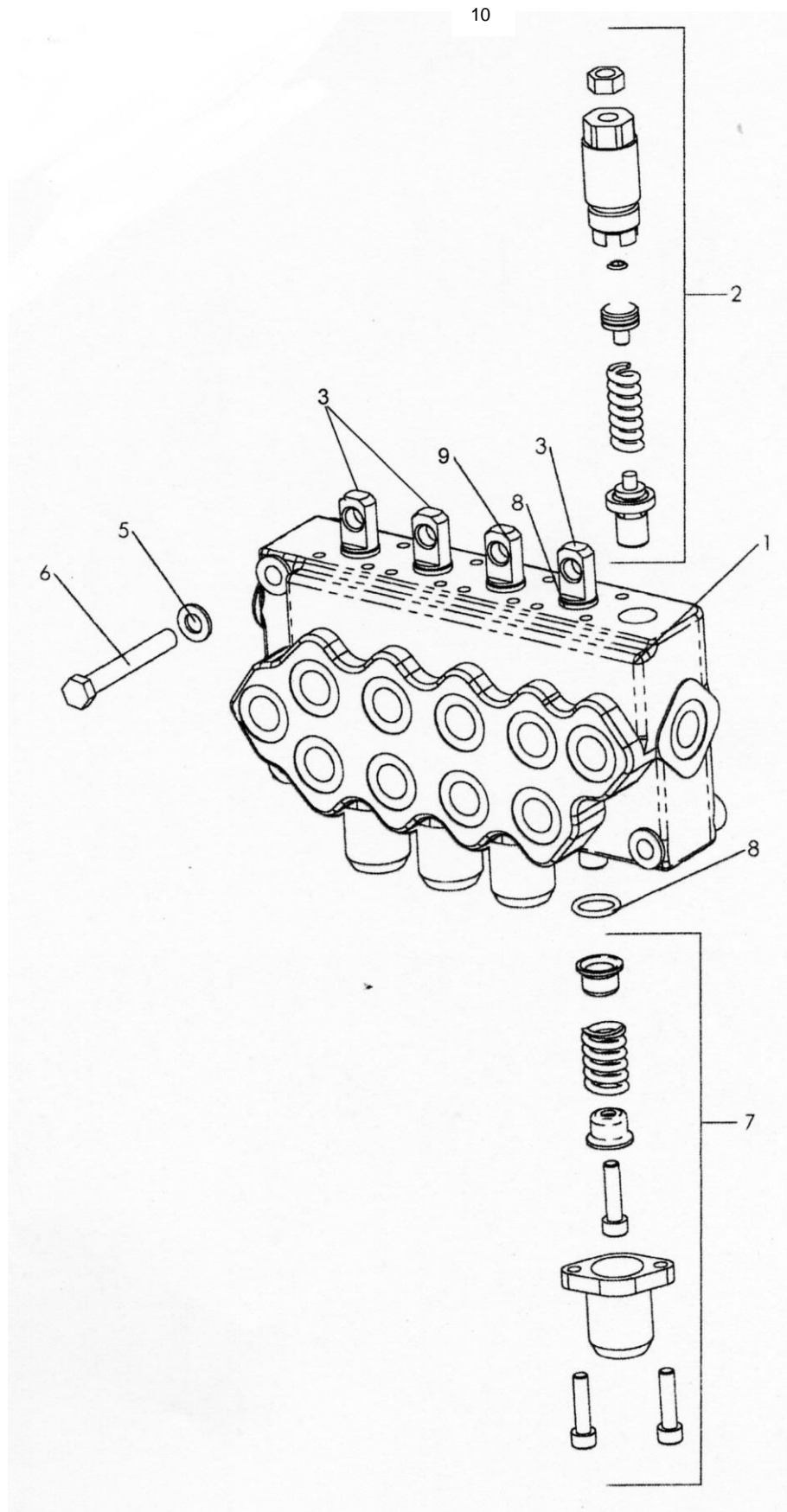
Spearhead Excel 504

Cable Control

REF. NO	PART NO.	DESCRIPTION
1	3910311	ASSEMBLY – INC. NO'S 1, 2, 5, 6, 7, 9, 10, 15, 16
	3910318	CABLE - 3M
2	3910308	CABLE – 3.5M
	3910307	CABLE 4M
	3910306	CABLE 4.5M
3	3910310	ASSEMBLY ROTOR- INC.NO'S 3, 4, 5, 6, 8, 9, 10, 15, 16
4	3910320	3M MOTOR CABLE
5	N/A	RUBBER
6	3910316	LEVER
7	N/A	GUARD / COVER
8	N/A	GUARD / COVER
9	3910319	VALVE/CABLE CONNECTOR
	3910313	MOTOR/CABLE CONNECTOR
10	2770449	NUT
11	2770243	BOLT
12	3910322	PIN
13	N/A	BOLT
14	3910321	PIN
15	2770252	BOLT
16	N/A	NUT
17	2770576	BOLT
18	2770373	NUT
19	2771408	WASHER
20	2770484	BOLT
21	2770417	NUT
22	2770436	WASHER
23	1777073	BRACKET

Spearhead Excel 504

Auxiliary Valve Assembly – Cable Control



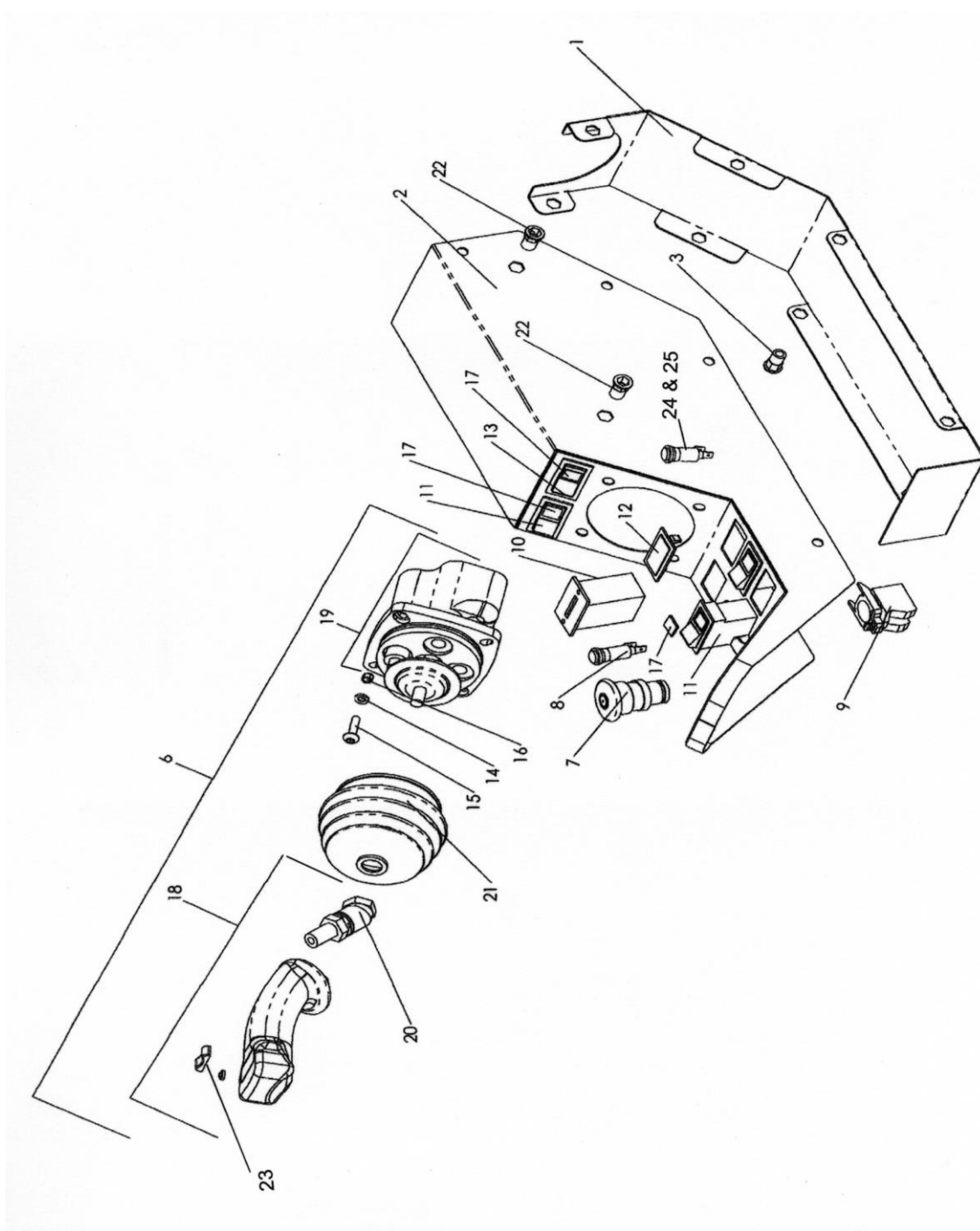
Spearhead Excel 504

Auxiliary Valve Assembly – Cable Control

REF. NO	PART NO.	DESCRIPTION
1	3600105	VALVE BODY ASSEMBLY
2	3600093	RELIEF VALVE CARTRIDGE
3	3610096	DA SPOOL
5	2770432	FLAT WASHER
6	2770430	BOLT
7	3610000	SPRING KIT – CABLE
8	3261000	O - RING
9	3610001	FLOAT SPOOL
10	3610098	SA SPOOL

Spearhead Excel 504

Hydraulic Control Assembly



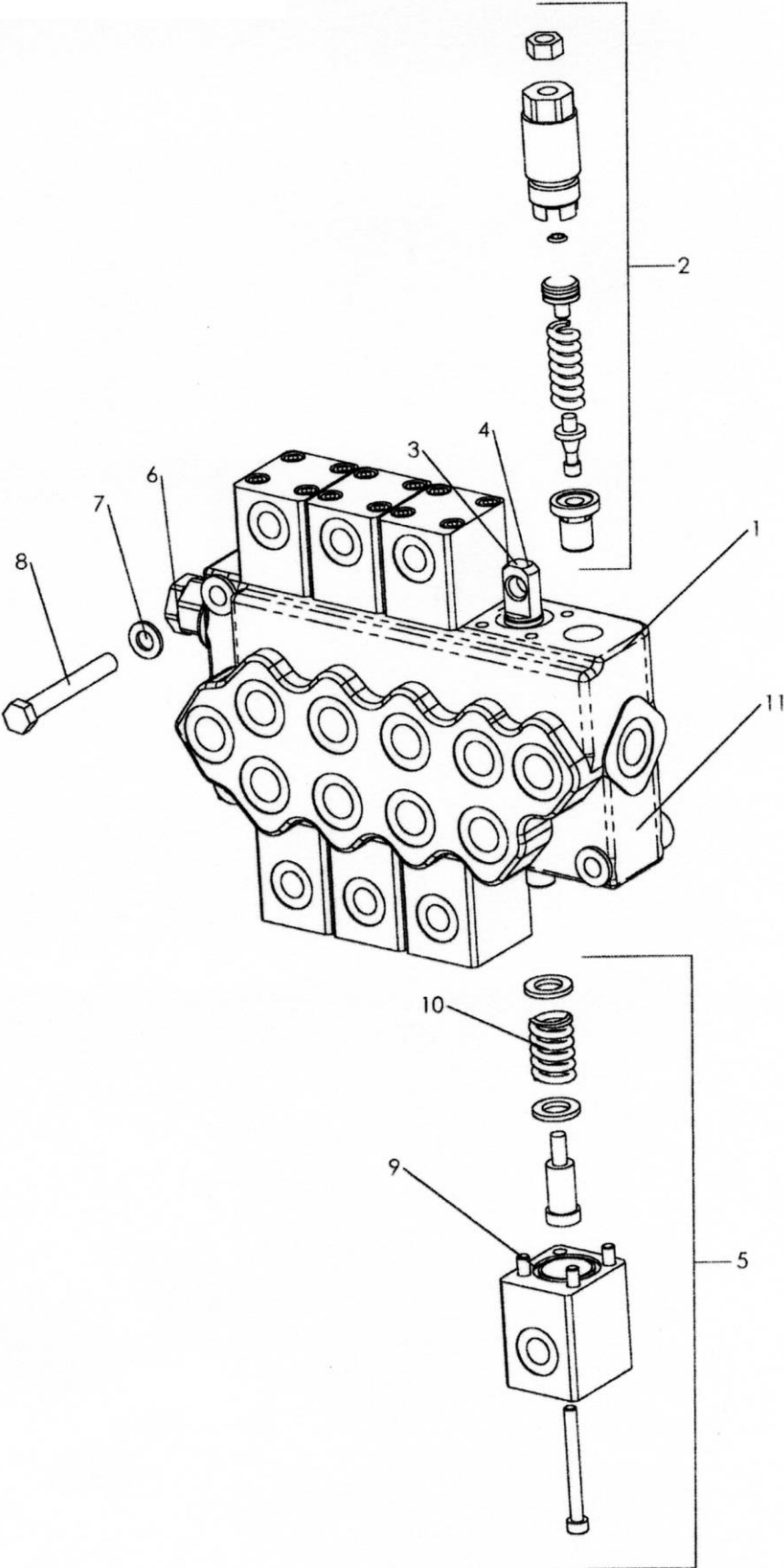
Spearhead Excel 504

Hydraulic Control Assembly

REF. NO	PART NO.	DESCRIPTION
1	1777033	CONTROL PLATE
2	1777028A	JOYSTICK BRACKET
3	2770201	RIVET NUT
4	2770432	FLAT WASHER
5	2770370	BOLT
6	3910028A	JOYSTICK ASSEMBLY
7	8400167	ROTOR ON – OFF KNOB
8	8400168	ROTOR WARNING LIGHT
9	8400166	ROTOR ON – OFF SWITCH BASE
10	8400180	HOUR COUNTER
11	3910276	SWITCH ON – OFF ILLUM
	8400035	SWITCH ON-ON-OFF
12	8400162	SWITCH BLANK
13	8400160	ROCKER SWITCH - SLEW
14	2771408	FLAT WASHER
15	2770336	BOLT
16	2770373	NUT
17	8400163G	GREEN INSERT
	8400163Y	YELLOW INSERT
	8400163B	BLACK INSERT
	8400163R	RED INSERT
18	3910225	HANDLE
19	NOT AVAILABLE	VALVE
20	3910229/1	STUD
21	3910270	RUBBER
22	2770202	RIVET NUT
23	3910222	SWITCH
24	8400183	FUSE HOLDER
25	8400184	FUSE 20AMP

Spearhead Excel 504

Auxiliary Valve Assembly – Hydraulic Proportional Control



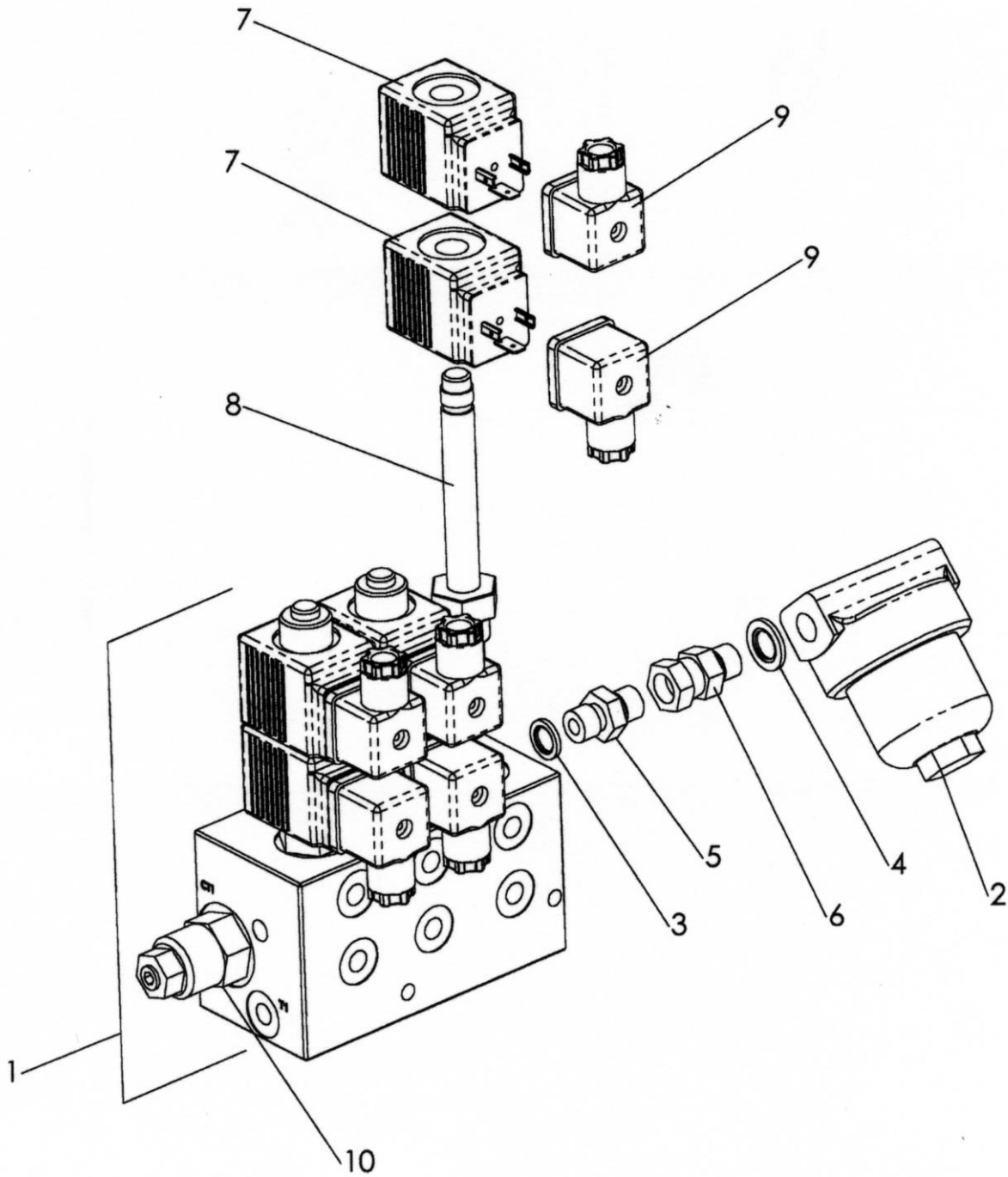
Spearhead Excel 504

Auxiliary Valve Assembly – Hydraulic Proportional Control

REF. NO	PART NO.	DESCRIPTION
1	3910291	VALVE ASSEMBLY – (AUTO PILOT)
	3910295	VALVE ASSEMBLY – (STANDARD)
2	3600093	RELIEF VALVE CARTRIDGE
3	3610096	DOUBLE ACTING SPOOL
4	3610098	SINGLE ACTING SPOOL
5	3610003	HYDRAULIC PROP KIT
6	5770300	CARTRIDGE
7	2770432	FLAT WASHER
8	2770430	BOLT
9	3261005	O – RING
10	3610003S	SPRING
11	3261003	SEAL KIT

Spearhead Excel 504

Electric Solenoid Spool Back Assembly



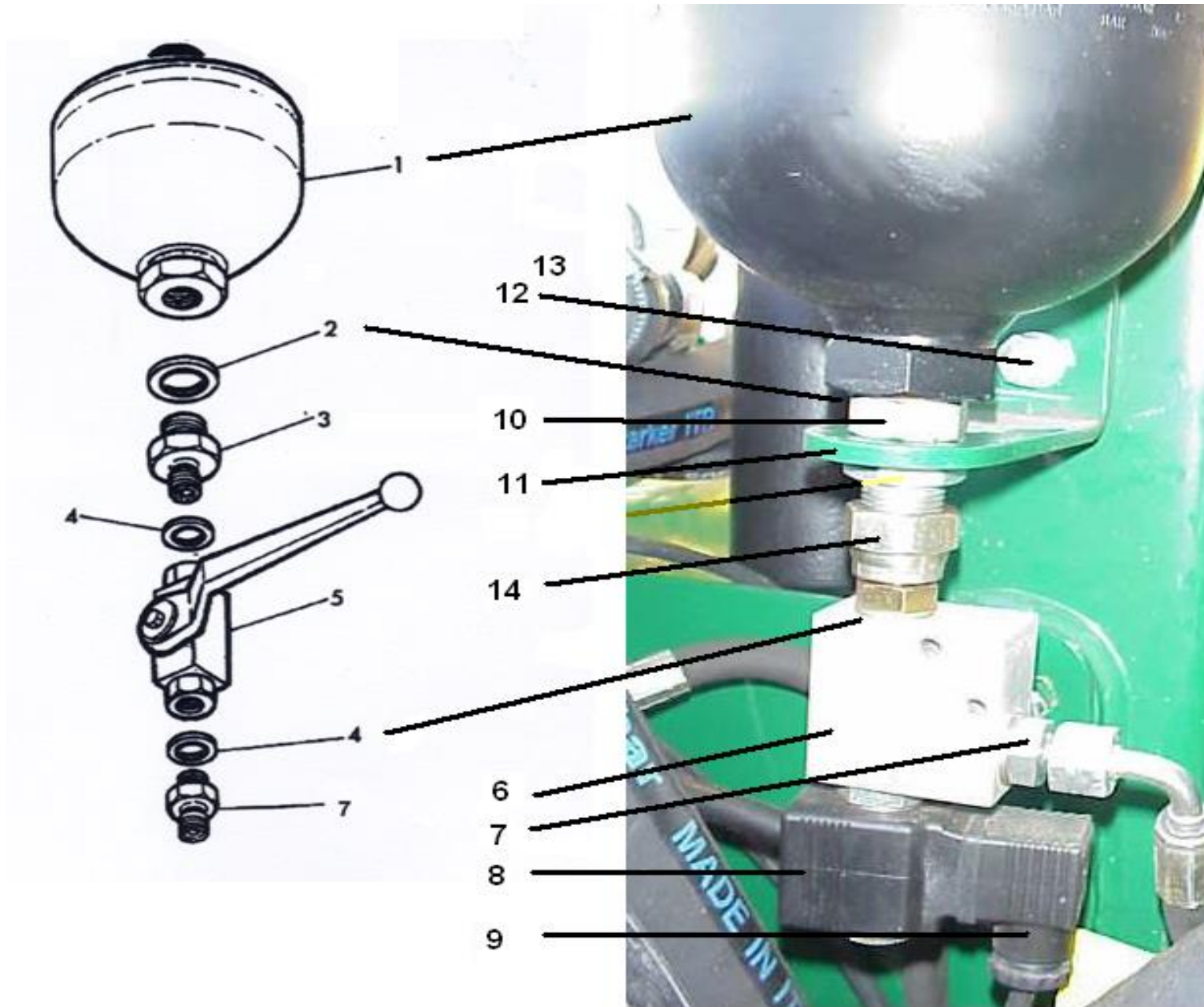
Spearhead Excel 504

Electric Solenoid Spool Back Assembly

REF. NO	PART NO.	DESCRIPTION
1	3610083	BLOCK (3 BANK)
	3610085	BLOCK (2 BANK)
	3900058	FILTER
2	3900059	FILTER ELEMENT – 32MM
	3900059A	FILTER ELEMENT – 35MM
3	3260069	OIL SEAL
4	3260070	OIL SEAL
5	3360080	ADAPTOR
6	3360081	ADAPTOR
7	3610052	COIL
8	3610051	HYDRAULIC SPOOL
9	3610048	DIN CONNECTOR
10	3610055	CARTRIDGE

Spearhead Excel 504

Head/Arm Float Assembly



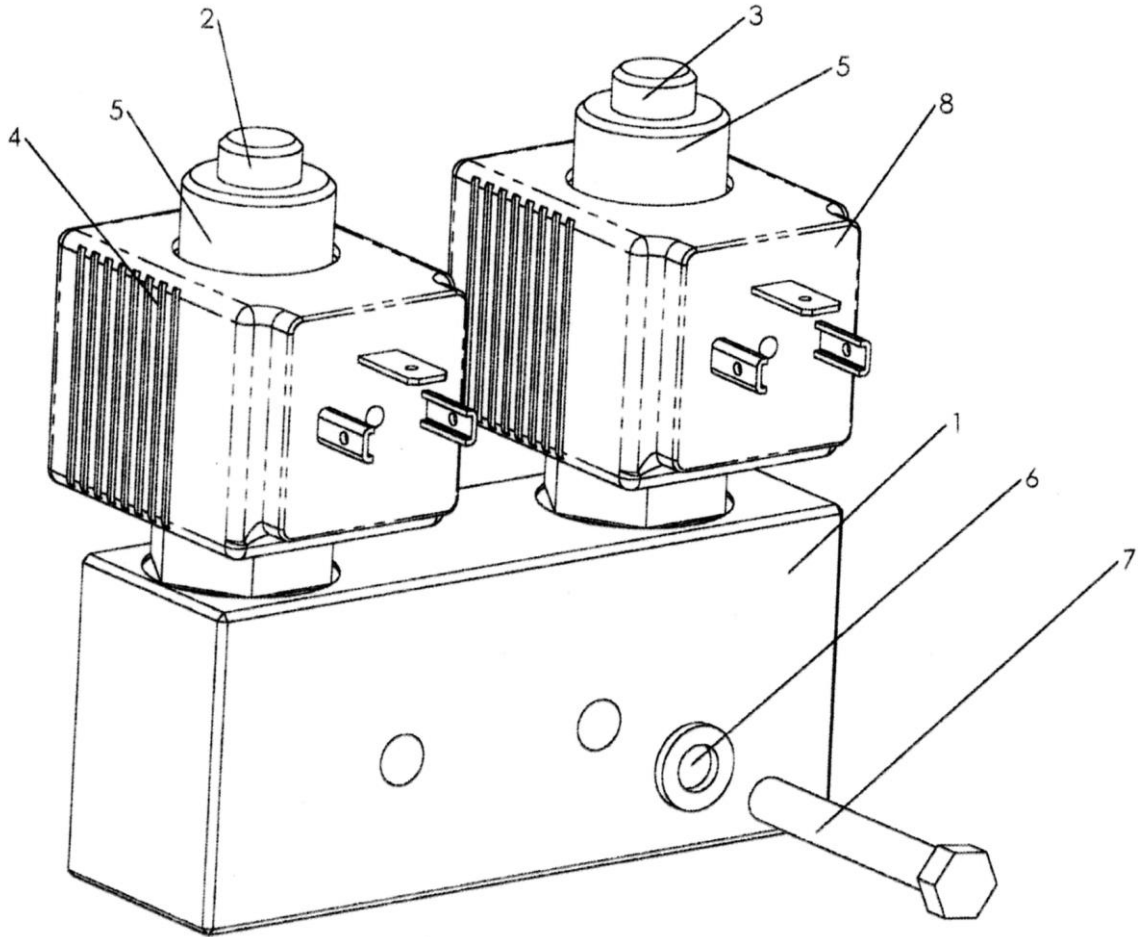
Spearhead Excel 504

Head/Arm Float Assembly

REF. NO	PART NO.	DESCRIPTION
	OPT0502	COMPLETE ASSEMBLY (INCLUDES NO'S 1 – 4 ,6 –15)
1	3900071	ACCUMULATOR
2	3260072	OIL SEAL
3	3360074	ADAPTOR
4	3260070	OIL SEAL
5	3600120	VALVE (TAP)
6	3610053	VALVE (ELECTRIC)
7	3360080	ADAPTOR
8	3610030	COIL
9	3610048	PLUG
10	3700187	½" BULKHEAD ADAPTOR
11	1777132C	BRACKET
12	2770418	M 10 X 20 BOLT
13	2770434	WASHER
14	3490003	ADAPTOR
15	2770203	M10 RIVET NUT
	3460101	¼" TEE
	3760115	HOSE
	3910276	SWITCH

Spearhead Excel 504

Head Angle Float Assembly



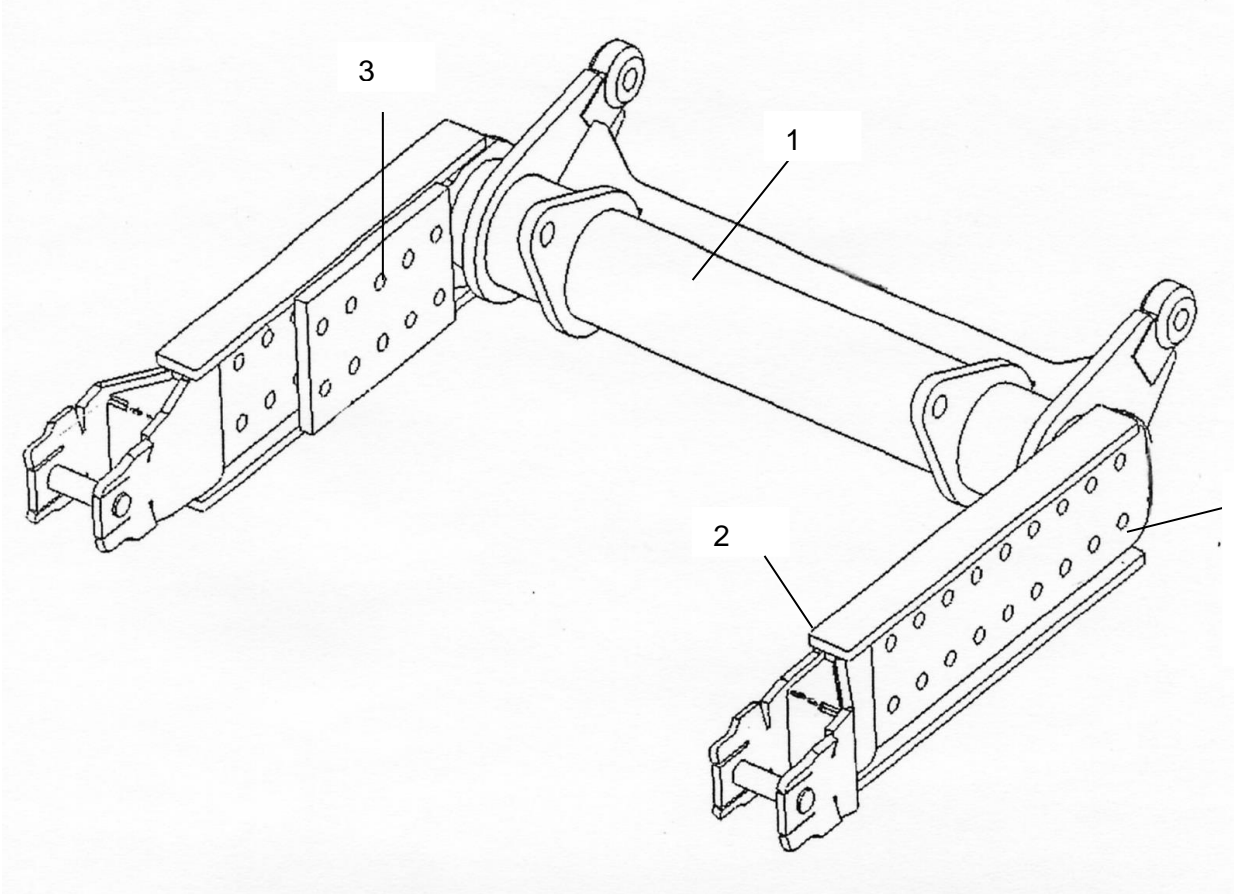
Spearhead Excel 504

Head Angle Float Assembly

REF. NO	PART NO.	DESCRIPTION
1	3600132	VALVE ASSY
2	3610032A	DOUBLE VALVE S217AN
3	3600142	SINGLE VALVE S202N
4	3610030	COIL (14 WATTS)
5	3610030	COIL (14 WATTS)
6	2771408	FLAT WASHER
7	2770485	BOLT
8	3610048	DIN CONNECTOR (NOT SHOWN)

Spearhead Excel 504

Axle Mount Assembly



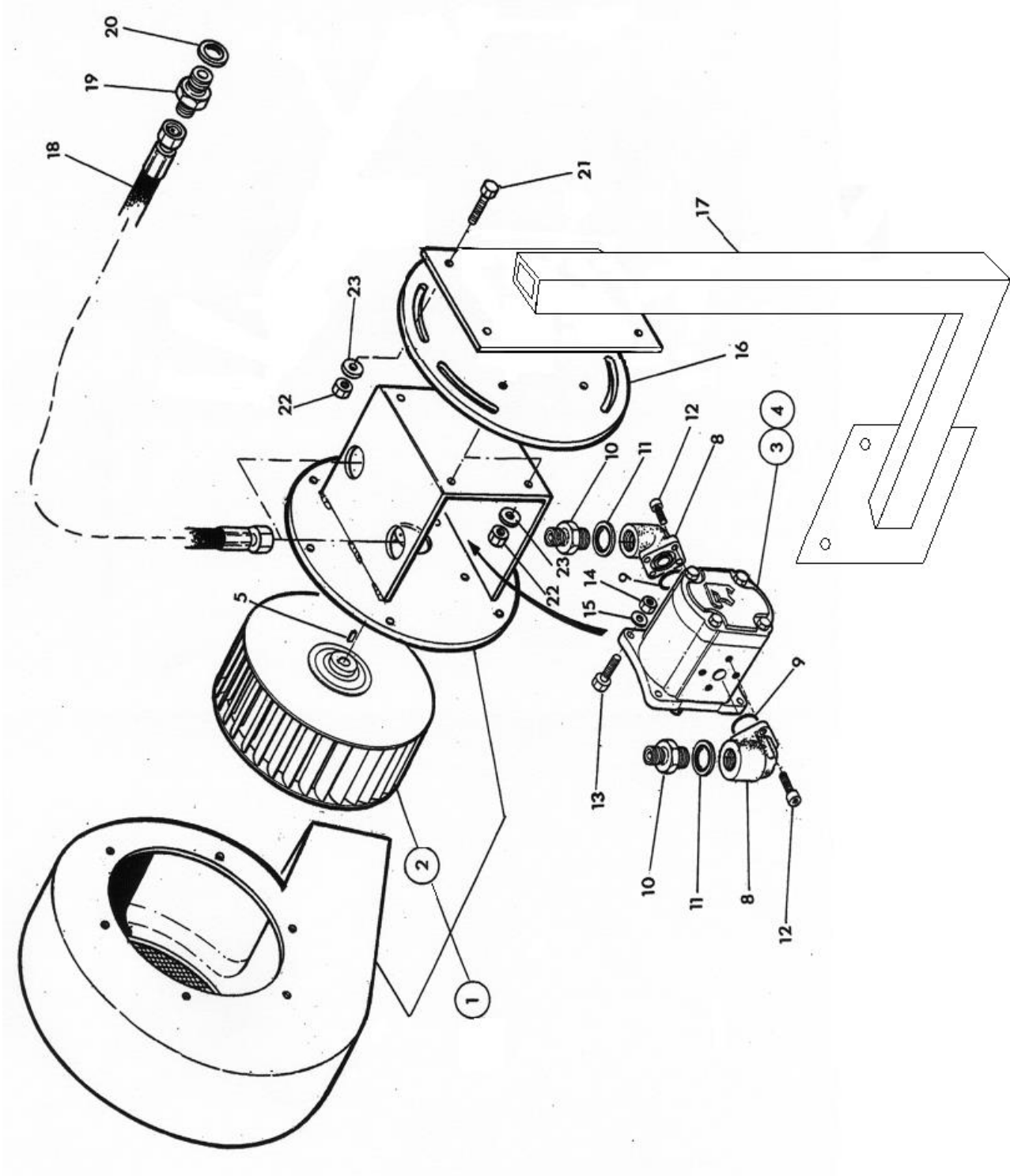
Spearhead Excel 504

Axle Mount Assembly

REF. NO	PART NO.	DESCRIPTION
1	1777030A	FRAME
2	1777032A	SIDE ARM
3	1777035	PLATE
4	2770550	BOLT
5	2770496	BOLT
6	2770517	WASHER
7	2770409	NYLOCK NUT
8	2770518	SPRING WASHER
	OPT0201	AXLE MOUNT ASSEMBLY (NO'S 1 – 8)

Spearhead Excel 504

Debris Blower Assembly



Spearhead Excel 504

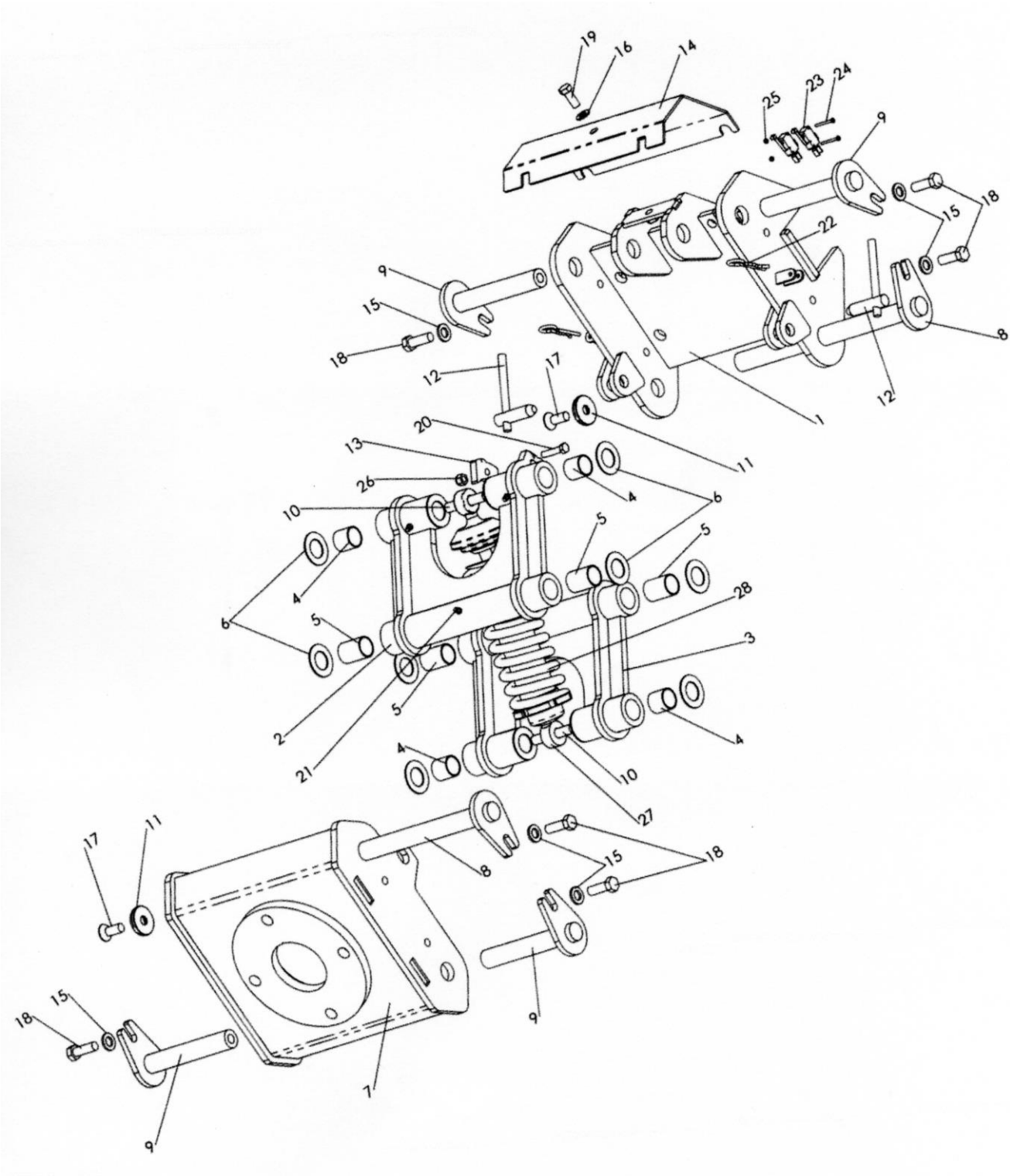
Debris Blower Assembly

REF. NO	PART NO.	DESCRIPTION
1	3250200	GUARD / COVER
2	3250200.01	FAN
3	3151039	HYDRAULIC MOTOR
4	3151039K	SEAL KIT
5	4772234	KEY
8	3151007	ADAPTOR
9	3261004	OIL SEAL
10	3360102	ADAPTOR
11	3260073	OIL SEAL
12	2770520	BOLT
13	2770390	BOLT
14	2770433	WASHER
15	2770491	NUT
16	1777447	PLATE
17	1777446	PLATE
18	3760197	HOSE
	3760294	HOSE
19	3360088	ADAPTOR
20	3760072	OIL SEAL
21	2770396	BOLT
22	2770412	NUT
23	2770434	WASHER
24	2770421	BOLT
25	1777481	BAR
26	2770407	BOLT

	NOT ILLUSTRATED
3610037	FLOW REGULATOR
3610039	CHECK VALVE (0.5 BAR)
3750153	QUICK RELEASE MALE - ADAPTOR

Spearhead Excel 504

Autopilot Assembly



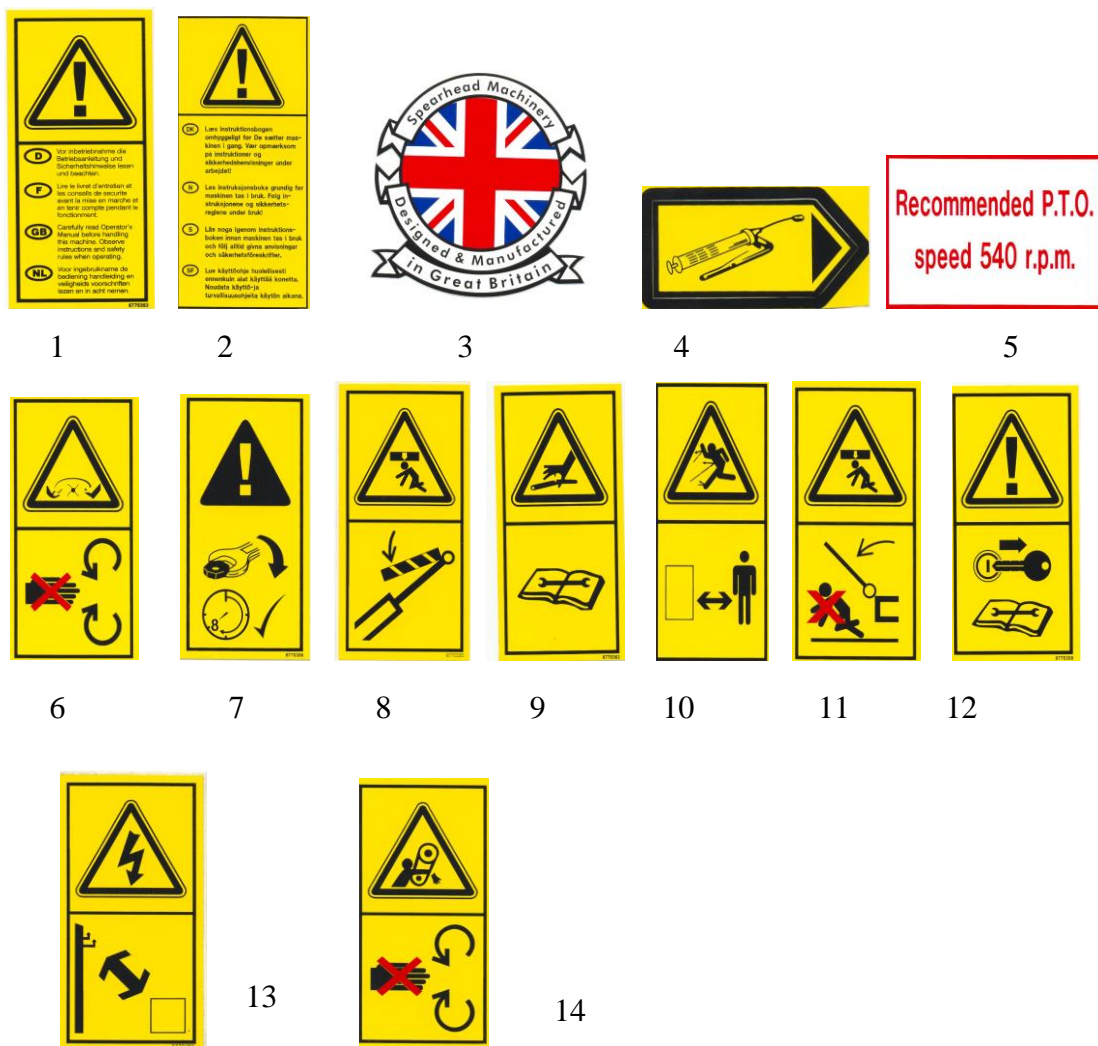
Spearhead Excel 504

Autopilot Assembly

REF. NO	PART NO.	DESCRIPTION
	OPT02008	COMPLETE ASSEMBLY
1	1777817A	FLOAT CLAMP BRACKET
2	1777818A	FLOAT INK& CAM
3	1777818B	FLOAT LINK
4	4600417	BUSH
5	4600418	BUSH
6	4600419	THRUST WASHER
7	1777816A	FLOAT LINK BACK PLATE
8	1777941	PEAR PIN
9	1777942	PEAR PIN
10	1777822	PIN
11	1777209	WASHER
12	1777749	LOCKING PIN
13	1777848A	REAR CAM
14	1777748A	CAM GUARD
15	2770436	FLAT WASHER
16	2770434	FLAT WASHER
17	2770506	SCREW
18	2770535	SET SCREW
19	2770407	SET SCREW
20	2770488	SET SCREW
21	2770467	GREASE NIPPLE
22	6310194	CLIP
23	3910275	SWITCH
24	2770237	SCREW
25	2770236	NUT
26	2770416	NUT
27	8770600	SHOCK ABSORBER
	8770600/1	TOP COLLET
	8770600/2	BOTTOM COLLET
	8770600/3	SPHERICAL BEARING
28	8770601	SPRING

Spearhead Excel 504

Stickers



REF. NO	PART NO.	DESCRIPTION
1	8770363	READ MANUAL
2	8770367	READ MANUAL
3	8770307	GB
4	8770322	GREASE POINT
5	8770305	540 PTO
6	8770361	MOVING BLADES
7	8770306	KEEP BOLTS TIGHT
8	8770355	RAM STOP
9	8770362	ESCAPING FLUID
10	8770357	KEEP YOUR DISTANCE
11	8770368	DANGER UN-PROPED
12	8770358	REMOVE KEY
13	8770359	DANGER OVERHEAD POWER CABLES
14		DANGER MOVING PARTS