

# Spearhead

## TWIGA 120



Edition 1.3 - July 2014  
Part No. 8999038

# PARTS MANUAL

# Spearhead TWIGA 120

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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 requirement 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:

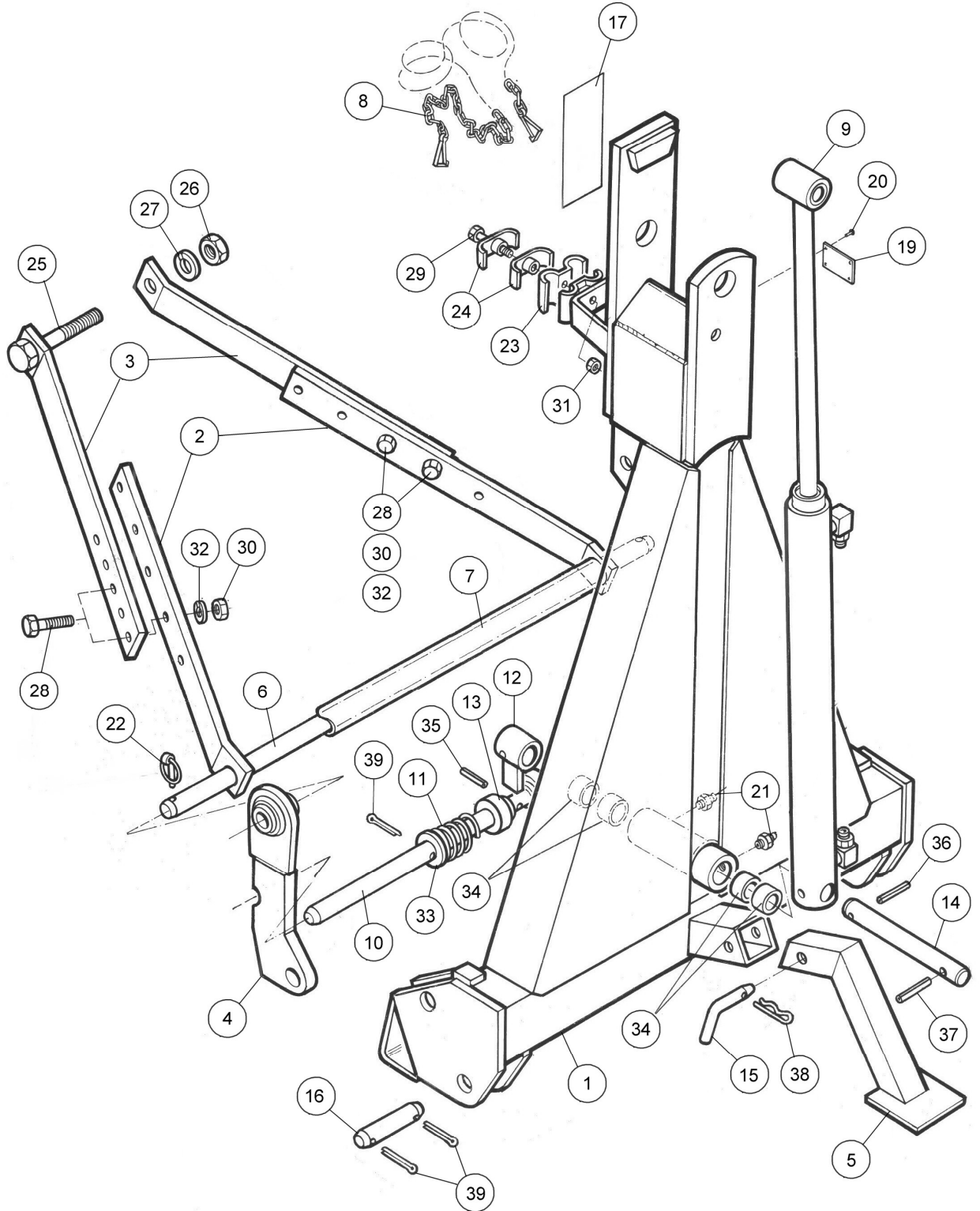
(LH) = Left hand  
(RH) = *Right hand*





# Spearhead TWIGA 120

## MAIN FRAME (REAR MOUNTED)



# Spearhead TWIGA 120

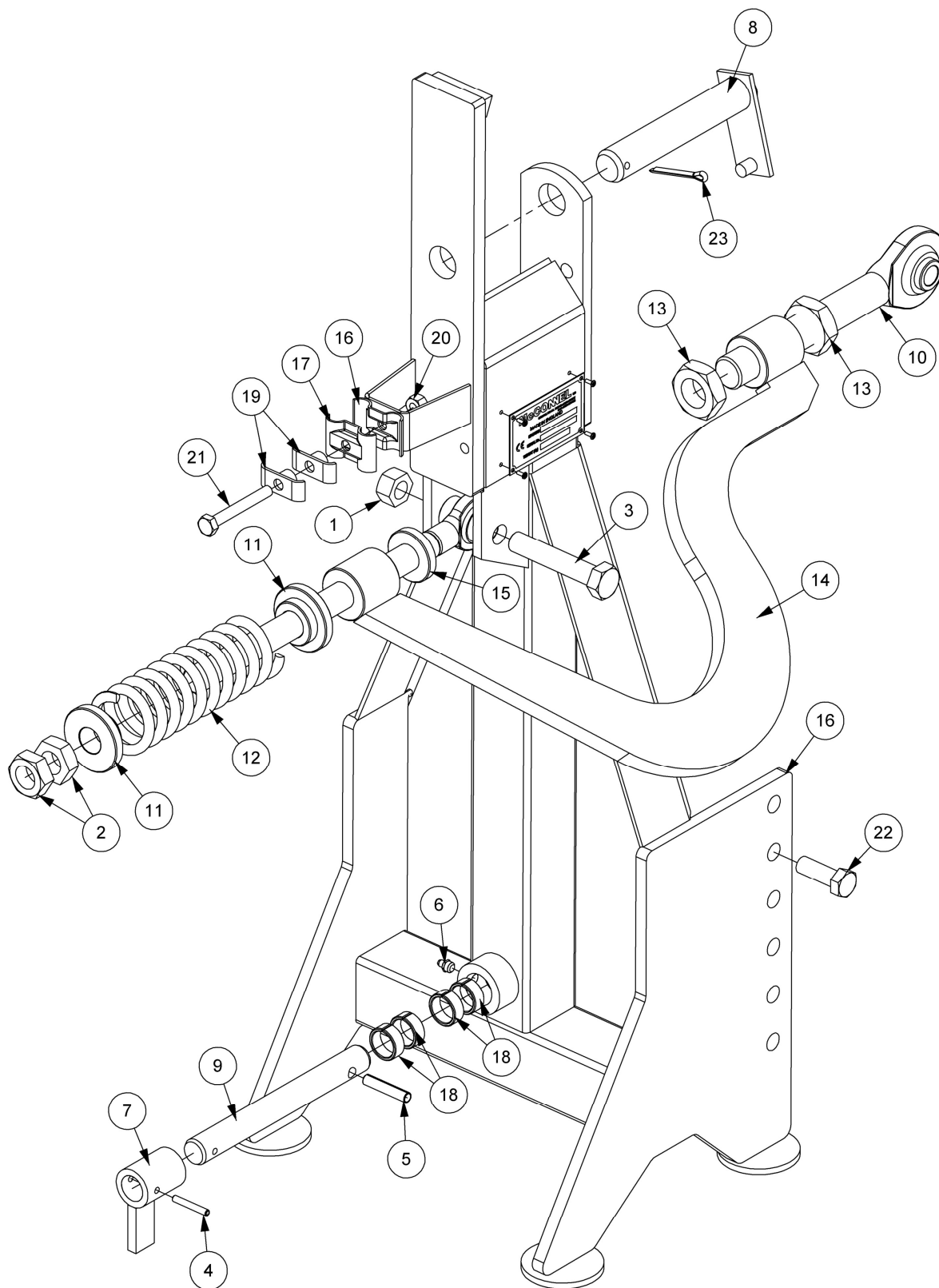
## MAIN FRAME (REAR MOUNTED)

REF.	QTY.	PART NO.	DESCRIPTION
			<b>MAINFRAME ASSEMBLY</b>
1	1	1090260	MAIN FRAME
2	2	1090270	STABILIZER - LOWER
3	2	1090269	STABILIZER - UPPER
4	2	1090022	SWING LINK
5	1	1090263	STAND LEG
6	1	1090025	MOUNTING BAR
7	1	1090384	SPACER TUBE
8	1	1090045	STOWAGE CHAIN
9	1	1090305	LIFT RAM ASSEMBLY - BSP Models
	1	1090306	LIFT RAM ASSEMBLY - JIC Models
10	1	1090264	INTERLOCK BAR
11	2	1090050	INTERLOCK SPRING
12	1	1090039	INTERLOCK LEVER
13	2	1090024	INTERLOCK SLEEVE
14	1	1090044	PIN - LIFT RAM BASE
15	1	1090051	PIN
16	2	1090023	PIN
17	1	1290004	DECAL - OPERATIONAL SAFETY
18	1	1290270	DECAL - CONTROL
19	1	1090052	SERIAL No. PLATE
20	4	7103230	POP RIVET
21	2	0901121	GREASER
22	2	0431217	LYNCH PIN
23	1	6012026	HOSE CLAMP
24	2	7114076	HOSE CLAMP
25	1	0211327	BOLT
26	1	0111007	NUT
27	1	0100207	SPRING WASHER
28	4	9313087	SETSCREW
29	1	9213165	BOLT
30	4	9113007	NUT
31	1	9143005	SELF-LOCKING NUT
32	4	9100207	SPRING WASHER
33	2	0100107	PLAIN WASHER
34	4	7012037	BUSH
35	1	0425525	SPRING DOWEL
36	1	0425640	SPRING DOWEL
37	1	0428150	SPRING DOWEL
38	1	0431104	SPRING COTTER
39	6	9501326	SPLIT PIN

# Spearhead TWIGA 120

## MAIN FRAME (FRONT MOUNTED)

Module:1090701



# Spearhead TWIGA 120

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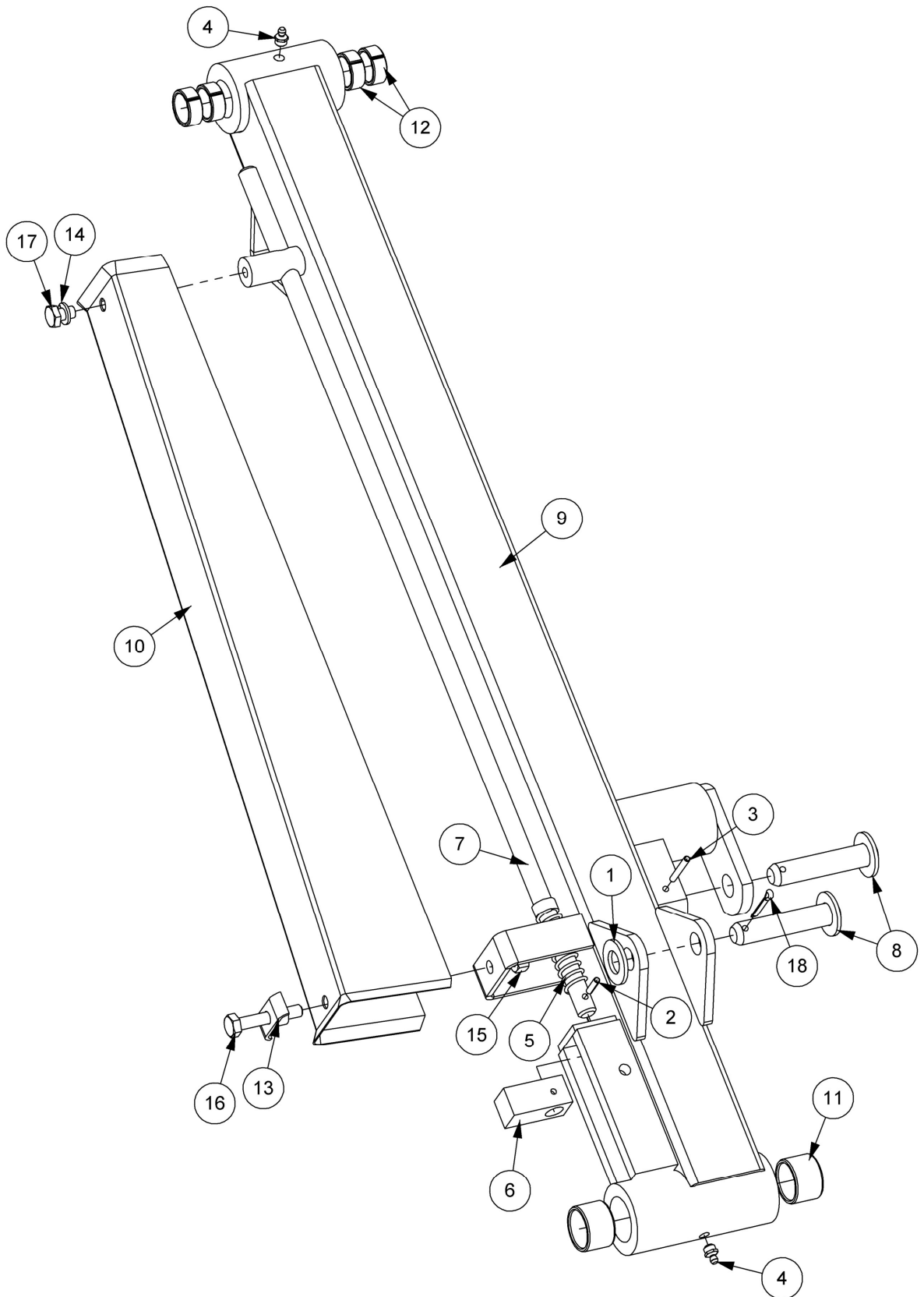
## MAIN FRAME (FRONT MOUNTED)

REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090701</b>	<b>FRONT MOUNTED MAINFRAME</b>
1	1	0111007	NUT
2	2	0131009	THIN NUT
3	1	0211327	BOLT
4	1	0425640	SPRING DOWEL
5	1	0428150	SPRING DOWEL
6	2	0901121	GREASE NIPPLE
7	1	1090039	INTERLOCK LEVER
8	1	1090042	PIVOT PIN
9	1	1090044	PIN - LIFT RAM BASE END
10	1	1090141	BALL END - CAT 1
11	2	1090142	SPRING SUPPORT
12	1	1090147	BREAKAWAY SPRING
13	2	1090148	NUT
14	1	1090342	TOP LINK
15	1	1090344	BREAKAWAY ROD
16	1	1090372	MAINFRAME
17	1	6012026	PIPE CLAMP
18	4	7012037	TENSION BUSH
19	2	7114076	HOSE CLAMP - LOWER
20	1	9143005	SELF-LOCKING NUT
21	1	9213165	BOLT
22	2	9313097	SETSCREW
23	1	9501507	SPLIT PIN

# Spearhead TWIGA 120

## MAIN ARM ASSEMBLY

Module:1090702



# Spearhead TWIGA 120

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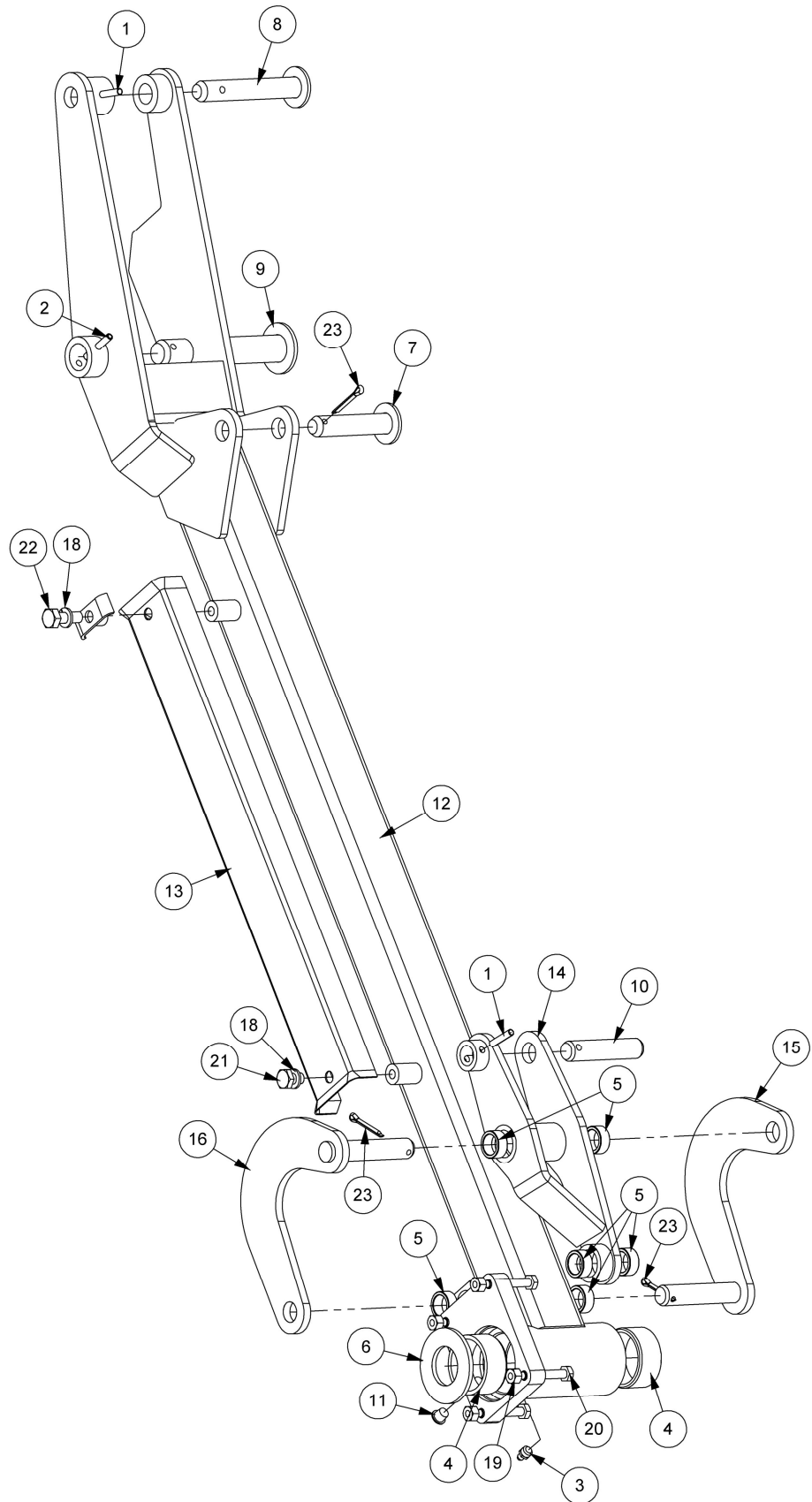
## MAIN ARM ASSEMBLY

REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090702</b>	<b>MAIN ARM ASSEMBLY</b>
1	1	0100107	FLAT WASHER
2	1	0425522	SPRING DOWEL
3	1	0425540	SPRING DOWEL
4	2	0901121	GREASE NIPPLE
5	1	1090003	INTERLOCK SPRING
6	1	1090040	INTERLOCK BLOCK
7	1	1090041	ARM INTERLOCK BAR
8	2	1090043	RAM PIN
9	1	1090262	MAIN ARM
10	1	1090283	HOSE GUARD
11	2	6012032	BUSH (PLASTIC)
12	4	7012037	TENSION BUSH
13	1	7114076	HOSE CLAMP - LOWER
14	1	9100205	SPRING WASHER
15	1	9143005	SELF-LOCKING NUT
16	1	9213125	BOLT
17	1	9313035	SETSCREW
18	1	9501326	SPLIT PIN

# Spearhead TWIGA 120

## DIPPER ARM ASSEMBLY

Module:1090703





# Spearhead TWIGA 120

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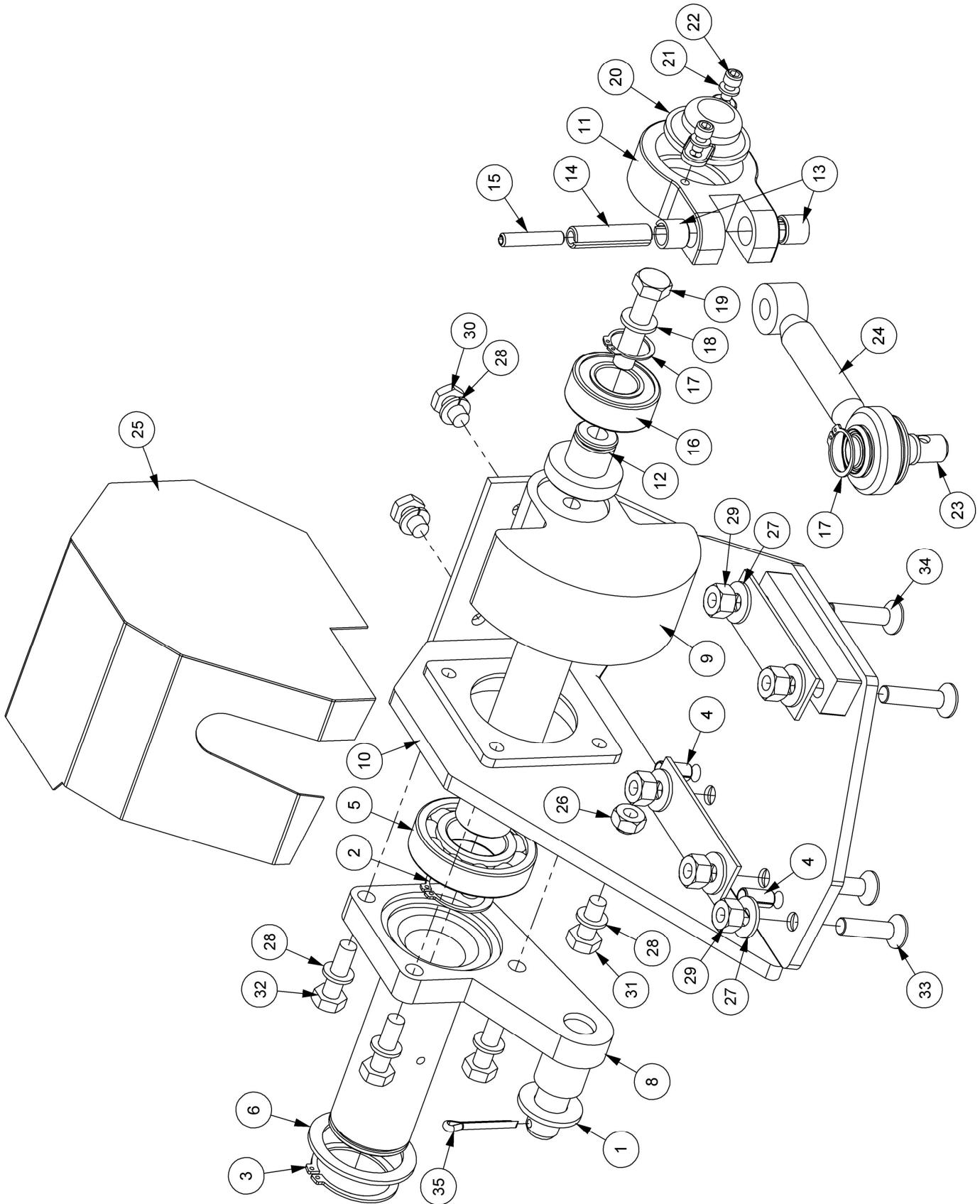
## DIPPER ARM ASSEMBLY

REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090703</b>	<b>DIPPER ARM ASSEMBLY</b>
1	2	0425630	SPRING DOWEL
2	1	0425640	SPRING DOWEL
3	1	0901121	GREASE NIPPLE
4	2	1090001	HINGE BEARING
5	6	1090002	BUSH
6	1	1090038	MOTOR LOCATING RING
7	1	1090043	RAM PIN
8	1	1090046	REACH RAM PIN (ROD END)
9	1	1090047	PIVOT PIN
10	1	1090048	ANGLE RAM PIN (ROD END)
11	1	1090103	PLASTIC TAPERED PLUG
12	1	1090265	DIPPER ARM
13	1	1090282	HOSE GUARD
14	1	1090279	SLAVE LINK
15	1	1090280	RADIUS ARM - FRONT
16	1	1090281	RADIUS ARM - REAR
17	1	7114076	HOSE CLAMP - LOWER
18	2	9100205	SPRING WASHER
19	4	9143004	SELF-LOCKING NUT
20	4	9213104	BOLT
21	1	9313035	SETSCREW
22	1	9313065	SETSCREW
23	3	9501326	SPLIT PIN

# Spearhead TWIGA 120

## CUTTERBAR MOUNTING

Module:1090704



# Spearhead TWIGA 120

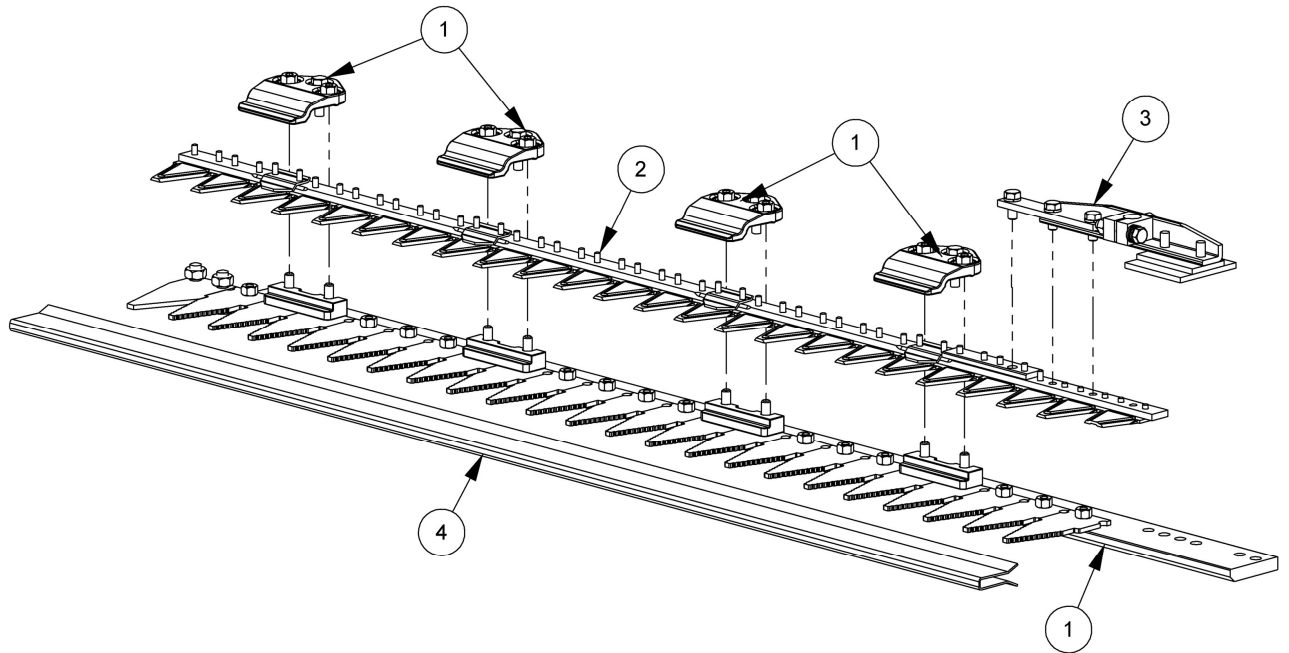
## CUTTERBAR MOUNTING

REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090704</b>	<b>CUTTERBAR MOUNTING ASSEMBLY</b>
1	1	0100107	FLAT WASHER
2	1	0406235	EXTERNAL CIRCLIP
3	1	0406247	EXTERNAL CIRCLIP
4	2	0428120	SPRING DOWEL
5	1	0600073	BALL BEARING
6	1	1090037	RETAINING WASHER
7	2	1090102	SPACER SHIM
8	1	1090277	PIVOT TUBE
9	1	1090278	CRANKSHAFT
10	1	1090284	CUTTERBAR MOUNTING BRACKET
		1090295	CONNECTING ROD ASSEMBLY c/o:
11	1	1090056	BEARING
12	1	1090057	SPIGOT
13	2	1090059	BUSH
14	1	1090060	SPRING DOWEL
15	1	1090061	SPRING DOWEL
16	1	0600074	BEARING
17	2	0401225	EXTERNAL CIRCLIP
18	1	9100206	SPRING WASHER
19	1	9213116	BOLT
20	1	1090054	BEARING CAP
21	2	9100203	SPRING WASHER
22	2	9343023	CAPSCREW
23	1	1090058	SWIVEL
24	1	1090055	CON ROD
25	1	1090308	DRIVE COVER
26	1	9117005	NUT
27	5	9100105	FLAT WASHER
28	7	9100205	SPRING WASHER
29	5	9143005	SELF-LOCKING NUT
30	2	9313035	SETSCREW
31	1	9313055	SETSCREW
32	4	9313075	SETSCREW
33	1	9353085	CAPSCREW
34	4	9353095	CAPSCREW
35	1	9501326	SPLIT PIN

# Spearhead TWIGA 120

## I.2M CUTTERBAR MODULE

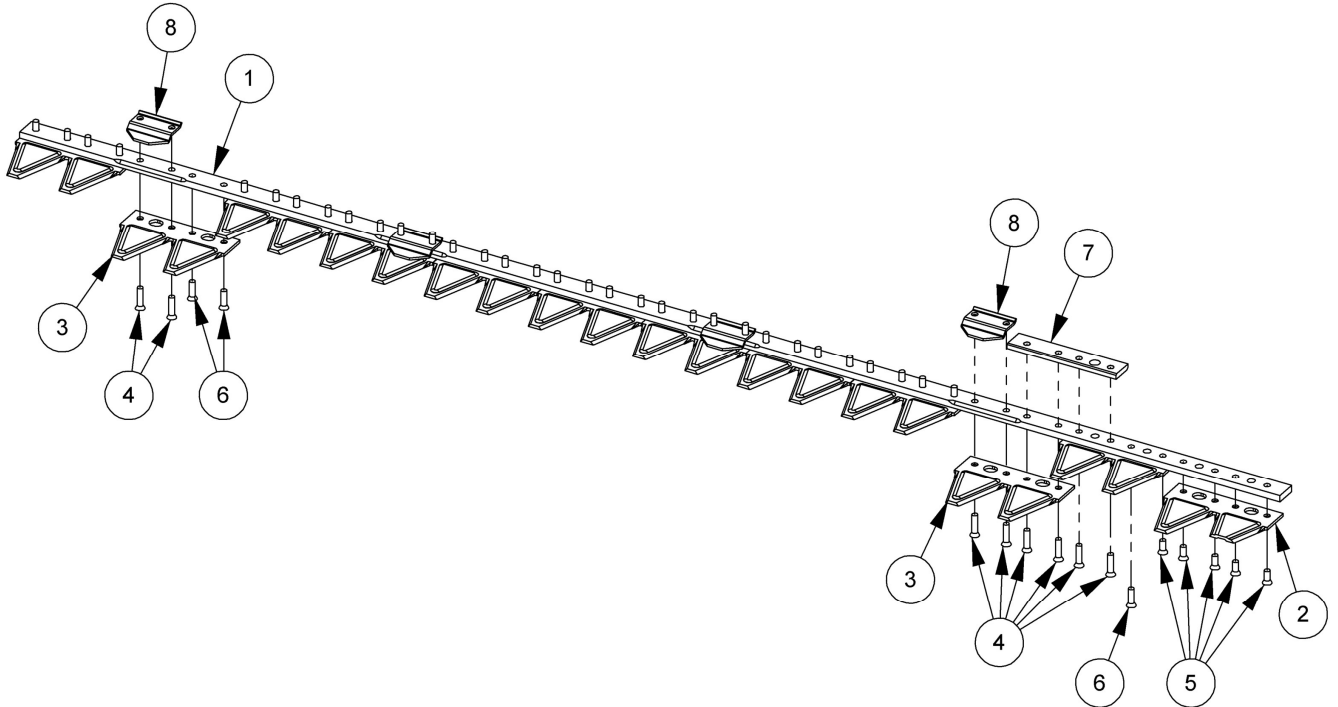
Module:1090290



REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090290</b>	<b>1.2M CUTTERBAR MODULE</b>
1	1	1090294	FINGER ASSEMBLY
2	1	1090291	KNIFE ASSEMBLY
3	1	1090292	KNIFE HEEL ASSEMBLY
4	1	1090091	KNIFE GUARD

# Spearhead TWIGA 120

## KNIFE ASSEMBLY (1.2M CUTTERBAR)

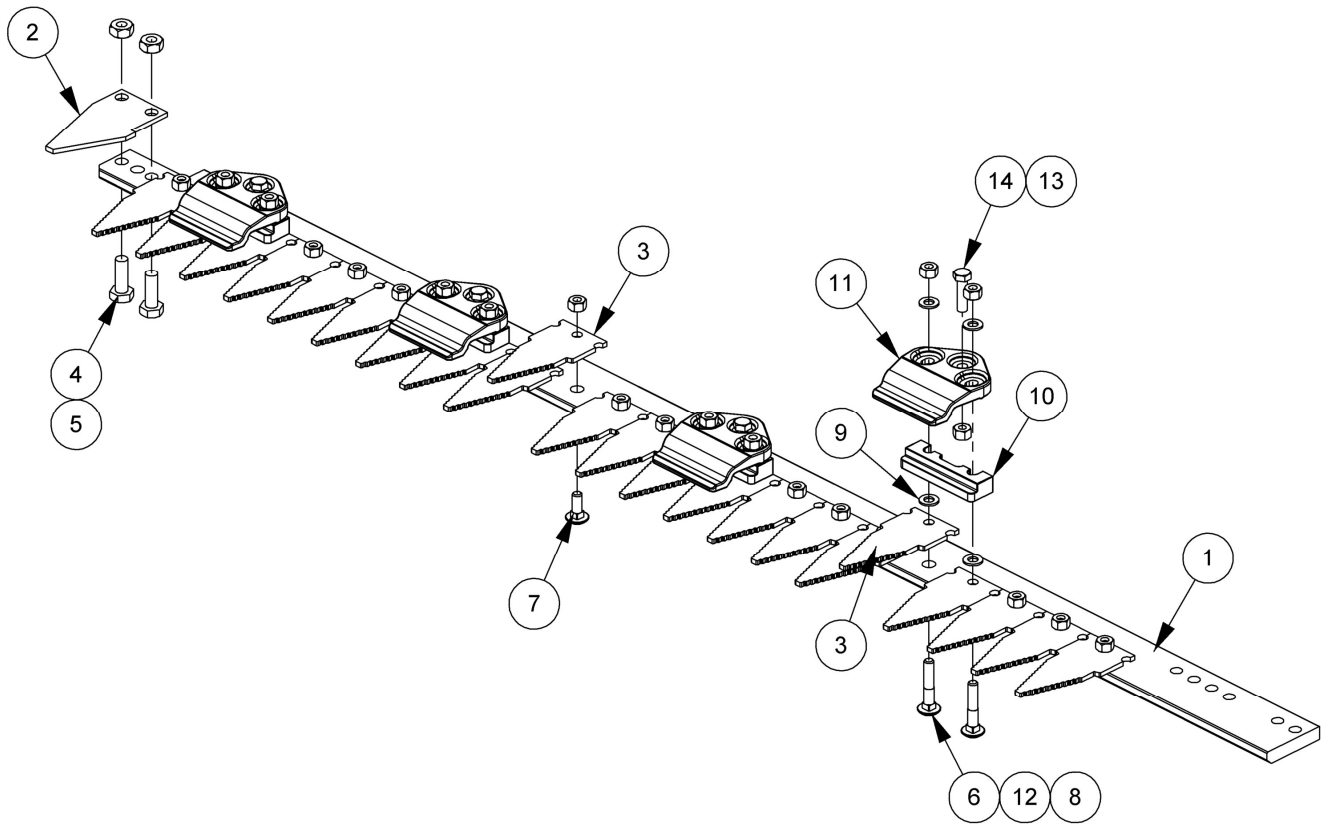


REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090291</b>	<b>KNIFE ASSEMBLY</b>
1	1	1090070	KNIFE BACK
2	1	1090066	KNIFE SECTION
3	11	1090067	KNIFE SECTION
4	12	1090064	RIVET
5	5	1090062	RIVET
6	31	1090063	RIVET
7	1	1090069	REINFORCEMENT
8	4	1090068	ABUTMENT PLATE

# Spearhead TWIGA 120

## FINGER ASSEMBLY

Module:1090294

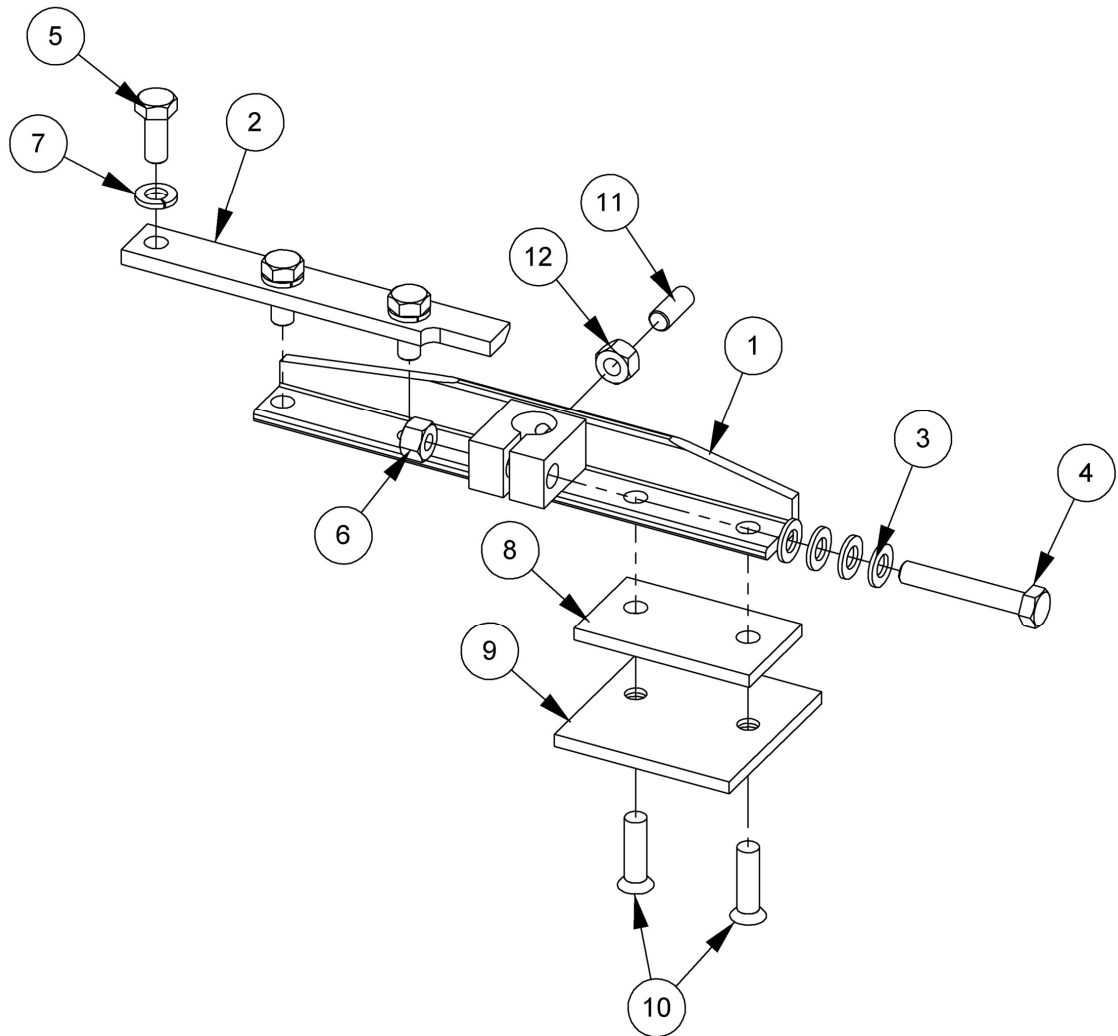


REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090294</b>	<b>FINGER ASSEMBLY</b>
1	1	1090071	BAR
2	1	1090080	END FINGER
3	22	1090072	FINGER
4	2	9313065	SETSCREW
5	2	9113005	PLAIN NUT
6	8	1090077	DOME BOLT
7	14	1090073	DOME BOLT
8	22	9113004	NUT
9	8	1090078	WASHER
10	4	1090075	ABUTMENT BLOCK
11	4	1090074	KNIFE CLIP
12	8	1090079	PLAIN WASHER
13	4	9147004	SELF-LOCKING NUT
14	4	9313064	SETSCREW

# Spearhead TWIGA 120

## KNIFE HEEL ASSEMBLY

Module:1090292



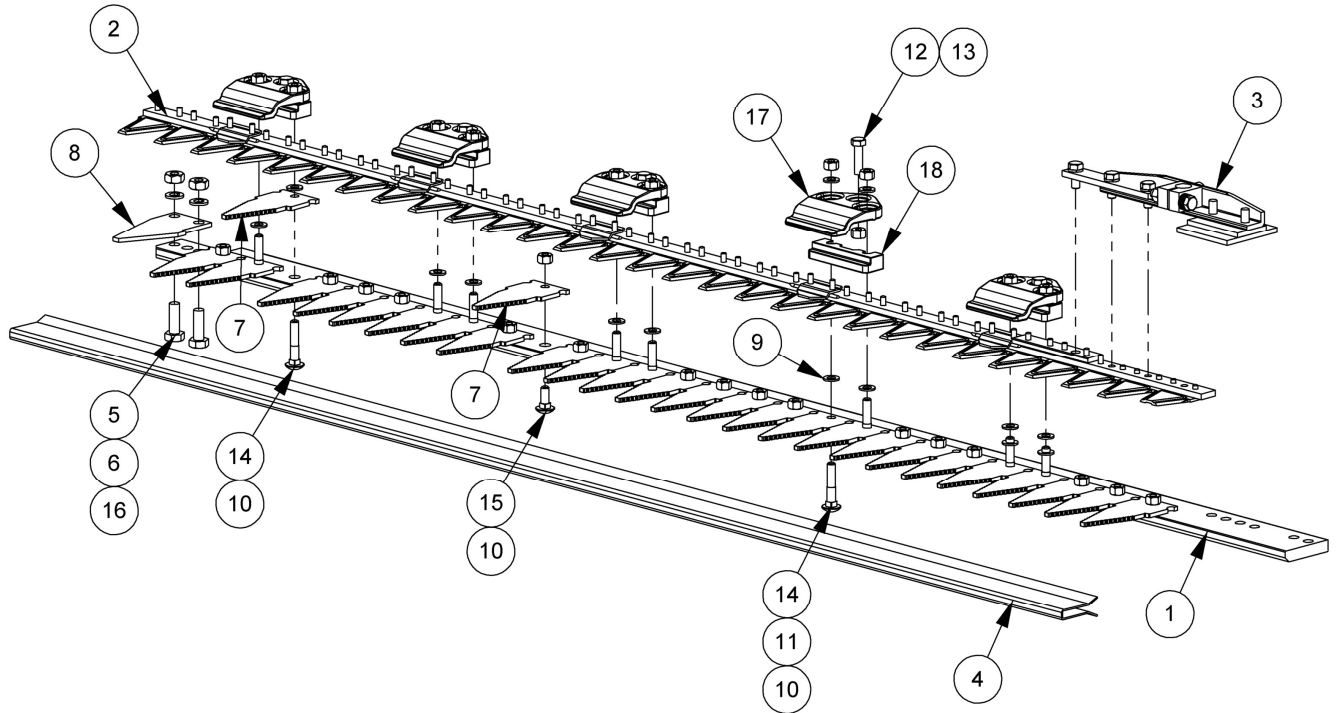
REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090292</b>	<b>KNIFE HEEL ASSEMBLY</b>
1	1	1090081	KNIFE HEEL
2	1	1090085	DISTANCE PIECE
3	4	1090119	DISC SPRING
4	1	9213104	BOLT
5	1	9143004	SELF-LOCKING NUT
6	3	9100204	SPRING WASHER
7	3	9313044	BOLT
8	1	1090083	WEAR PLATE
9	1	1090082	WEAR PLATE
10	2	1090084	RIVET
11	1	9363044	GRUB SCREW
12	1	9113004	NUT



# Spearhead TWIGA 120

## I.5M CUTTERBAR

Module:1090326

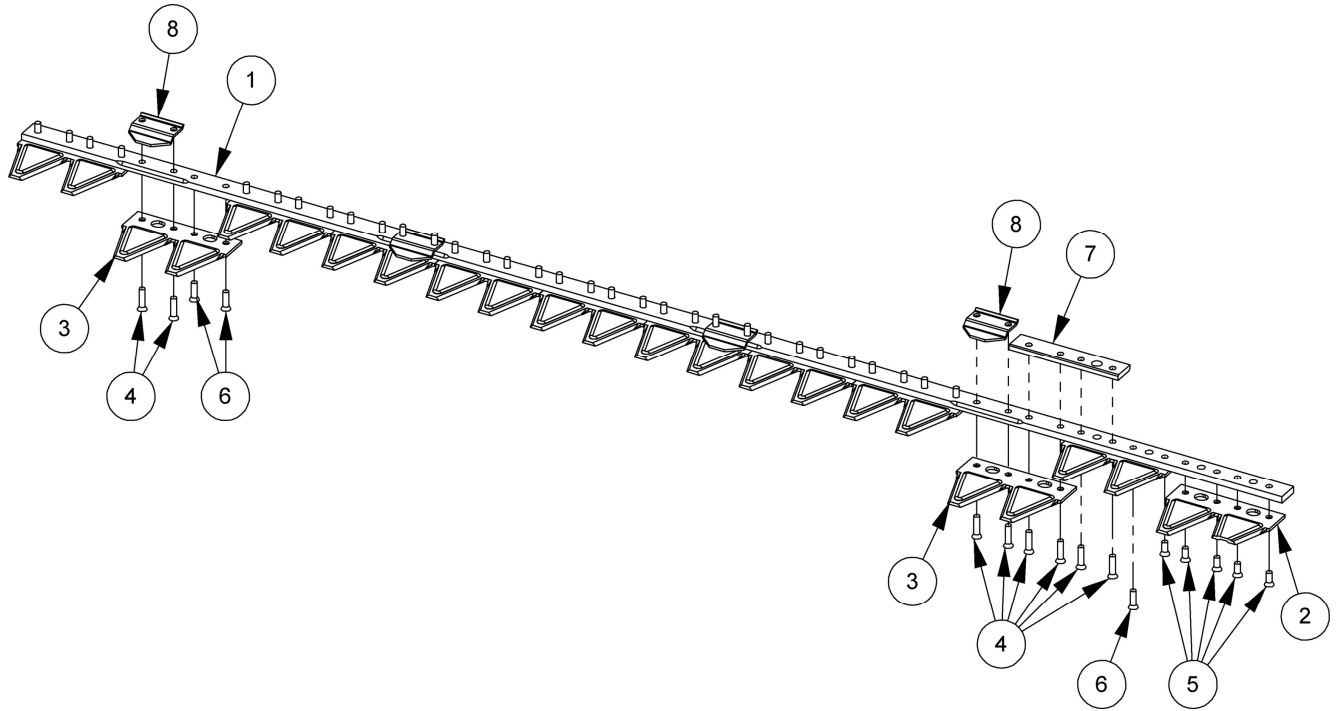


REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090326</b>	<b>1.5M CUTTERBAR MODULE</b>
1	1	1090151	BAR
2	1	1090327	KNIFE ASSEMBLY
3	1	1090292	KNIFE HEEL ASSEMBLY
4	1	1090152	KNIFE GUARD
5	2	9313065	SETSCREW
6	2	9100205	SPRING WASHER
7	27	1090072	FINGER
8	1	1090080	END FINGER
9	10	1090078	WASHER
10	27	9113004	NUT
11	10	1090119	DISC SPRING
12	5	9313064	SETSCREW
13	5	9147004	SELF-LOCKING NUT
14	10	1090077	DOME BOLT
15	17	1090073	DOME BOLT
16	2	9113005	PLAIN NUT
17	5	1090074	KNIFE CLIP
18	5	1090075	ABUTMENT BLOCK

# Spearhead TWIGA 120

## KNIFE ASSEMBLY (1.5M CUTTERBAR)

Module 1090327



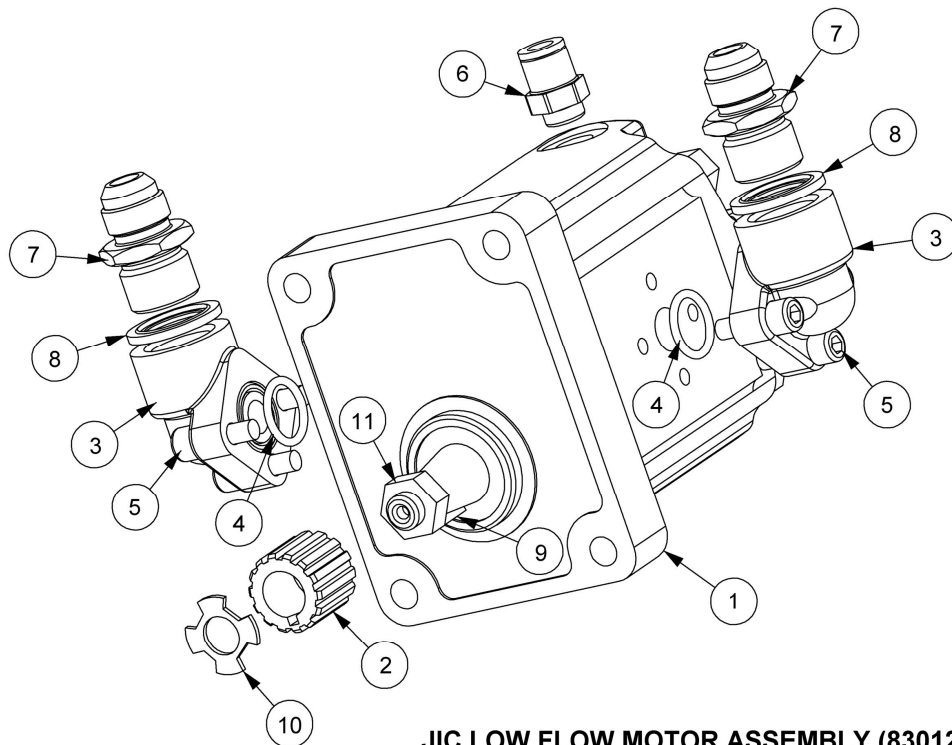
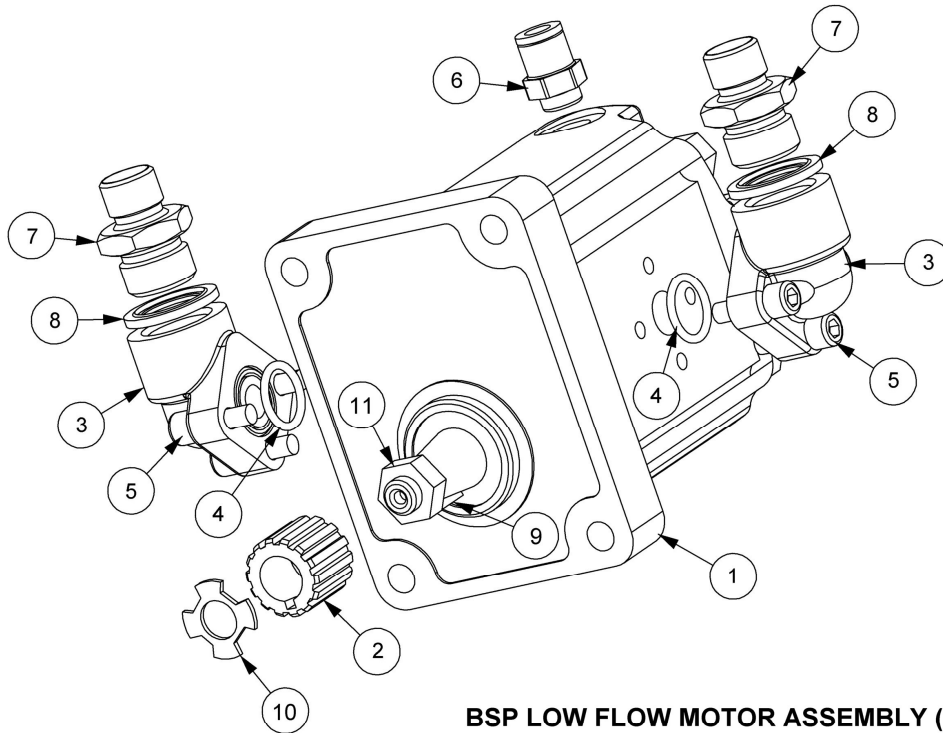
REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090291</b>	<b>KNIFE ASSEMBLY</b>
1	1	1090070	KNIFE BACK
2	1	1090066	KNIFE SECTION
3	11	1090067	KNIFE SECTION
4	12	1090064	RIVET
5	5	1090062	RIVET
6	31	1090063	RIVET
7	1	1090069	REINFORCEMENT
8	4	1090068	ABUTMENT PLATE

# Spearhead TWIGA 120

## LOW FLOW MOTOR (20 L/Min)

Modules 8301266 – BSP Build

8301267 – JIC Build



# Spearhead TWIGA 120

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## LOW FLOW MOTOR (20 L/Min)

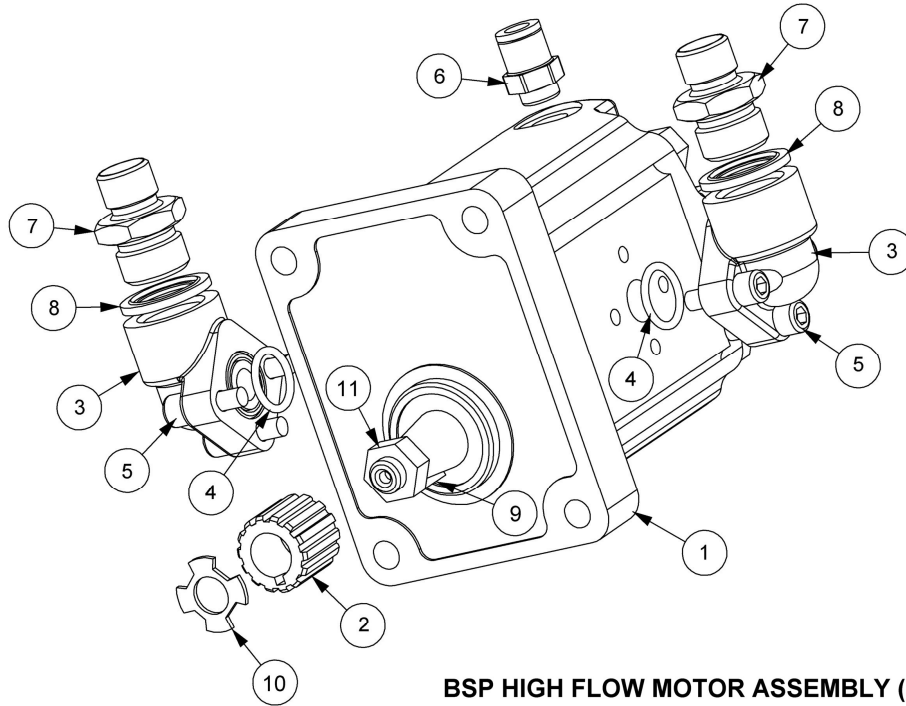
REF.	QTY.	PART NO.	DESCRIPTION
		<b>8301266</b>	<b>BSP LOW FLOW MOTOR ASSEMBLY (20 L/Min)</b>
		8301288	LOW FLOW MOTOR & COUPLINGS - <i>consists of:</i>
1	1	8301287	MOTOR
2	1	1090035	SPLINED ADAPTOR
3	2	8301045	ELBOW KIT (Includes O Ring & 3 x Capscrews)
4	2	8600112	O RING
5	6	9343043	CAPSCREW
6	1	8581330	UNION
7	2	6000112	BSP ADAPTOR
8	2	8650104	BONDED SEAL
9	1	8201133	WOODRUFF KEY
10	1	8201134	TAB WASHER
11	1	8201135	SPECIAL THIN NUT
		<b>8301267</b>	<b>JIC LOW FLOW MOTOR ASSEMBLY (20 L/Min)</b>
	1	8301288	LOW FLOW MOTOR & COUPLINGS - <i>consists of:</i>
1	1	8301287	MOTOR
2	1	1090035	SPLINED ADAPTOR
3	2	8301045	ELBOW KIT (Includes O Ring & 3 x Capscrews)
4	2	8600112	O RING
5	6	9343043	CAPSCREW
6	1	8581330	UNION
7	2	8120003	JIC ADAPTOR
8	2	8650104	BONDED SEAL
9	1	8201133	WOODRUFF KEY
10	1	8201134	TAB WASHER
11	1	8201135	SPECIAL THIN NUT
		<b>8699243</b>	<b>SEAL KIT for Low Flow Motor</b>

# Spearhead TWIGA 120

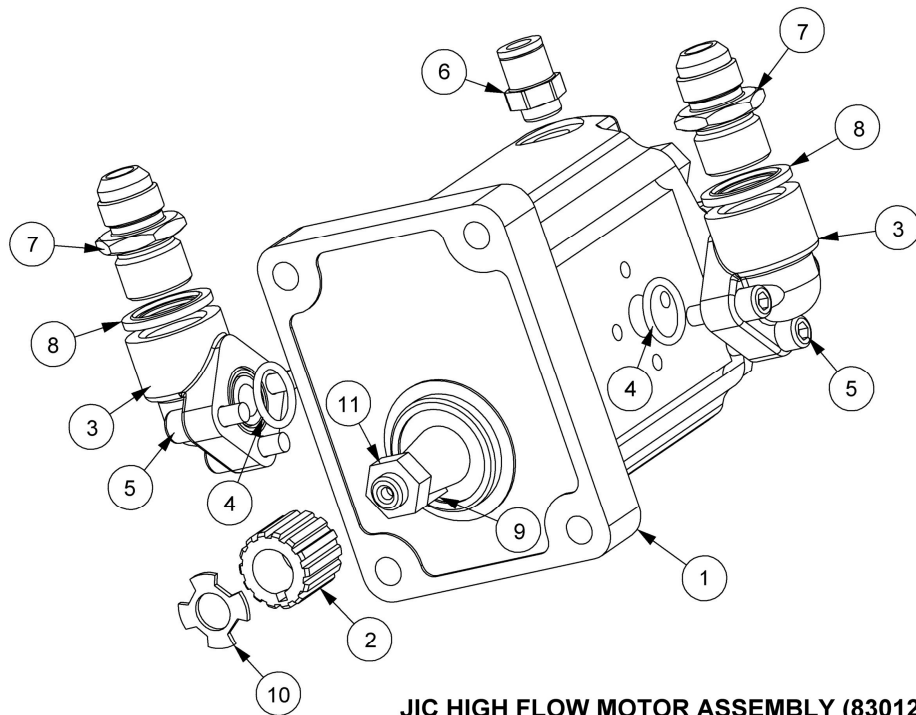
## HIGH FLOW MOTOR (30 L/Min)

Modules: 8301269 – BSP Build

8301270 – JIC Build



**BSP HIGH FLOW MOTOR ASSEMBLY (8301269)**



**JIC HIGH FLOW MOTOR ASSEMBLY (8301270)**

# Spearhead TWIGA 120

## HIGH FLOW MOTOR (30 L/Min)

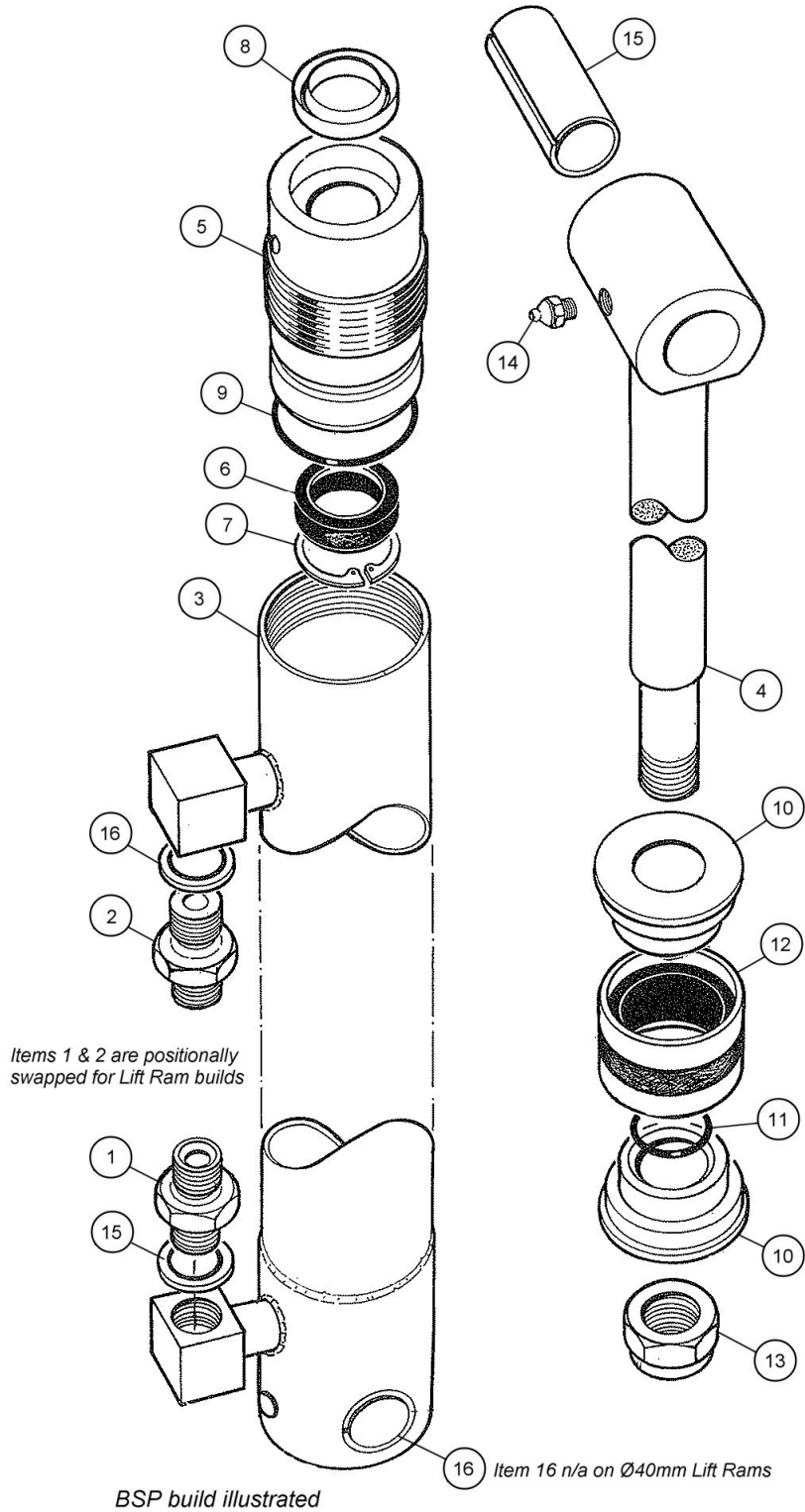
REF.	QTY.	PART NO.	DESCRIPTION
		<b>8301269</b>	<b>BSP HIGH FLOW MOTOR ASSEMBLY (30 L/Min)</b>
1	1	8301305	HIGH FLOW MOTOR
2	1	1090035	SPLINED ADAPTOR
3	2	8005052	ELBOW KIT (Includes O Ring & 3 x Capscrews)
4	2	8600112	O RING
5	6	9343043	CAPSCREW
6	1	8581330	UNION
7	2	6000112	BSP ADAPTOR
8	2	8650104	BONDED SEAL
9	1	8201133	WOODRUFF KEY
10	1	8201134	TAB WASHER
11	1	8201135	SPECIAL THIN NUT
		<b>8301270</b>	<b>JIC HIGH FLOW MOTOR ASSEMBLY (30 L/Min)</b>
1	1	8301305	HIGH FLOW MOTOR
2	1	1090035	SPLINED ADAPTOR
3	2	8005052	ELBOW KIT (Includes O Ring & 3 x Capscrews)
4	2	8600112	O RING
5	6	9343043	CAPSCREW
6	1	8581330	UNION
7	2	8120003	JIC ADAPTOR
8	2	8650104	BONDED SEAL
9	1	8201133	WOODRUFF KEY
10	1	8201134	TAB WASHER
11	1	8201135	SPECIAL THIN NUT
		<b>8699227</b>	<b>SEAL KIT for High Flow Motor</b>

# Spearhead TWIGA 120

## HYDRAULIC RAMS (Std. Ø40mm)

### Modules:

- 1090300 – Lift BSP Builds
- 1090301 – Lift JIC Build
- 1090302 – Reach & Angle BSP Builds
- 1090303 – Reach & Angle JIC Builds





# Spearhead TWIGA 120

## HYDRAULIC RAMS (Std. Ø40mm)

REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090302</b>	<b>REACH &amp; ANGLE RAMS (Ø 40mm) - BSP Build</b>
		<b>1090300</b>	<b>LIFT RAM (Ø 40mm) - BSP Build</b>
1	1	8581145	UNION (BSP)
2	1	8130068	RESTRICTOR UNION (BSP)
3	1	1090272	CYLINDER
4	1	1090031	PISTON ROD
5	1	1090273	GLAND NUT
6	1	8629162	GLAND SEAL
7	1	0416234	CIRCLIP
8	1	8629161	WIPER RING
9	1	8600123	O RING
10	1	1090034	PISTON
11	1	8600112	O RING
12	1	8629160	PISTON SEAL
13	1	0141007	SELF-LOCKING NUT
14	1	0901121	GREASER
15	2	8650103	BONDED SEAL
16	2	1090005	BUSH - <i>n/a on Lift Ram 1090300</i>
		<b>8699202</b>	<b>SEAL KIT</b>

REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090303</b>	<b>REACH &amp; ANGLE RAMS (Ø 40mm) - JIC Build</b>
		<b>1090301</b>	<b>LIFT RAM (Ø 40mm) - JIC Build</b>
1	1	1075115	UNION (JIC)
2	1	8130130	RESTRICTOR UNION (JIC)
3	1	1090272	CYLINDER
4	1	1090031	PISTON ROD
5	1	1090273	GLAND NUT
6	1	8629162	GLAND SEAL
7	1	0416234	CIRCLIP
8	1	8629161	WIPER RING
9	1	8600123	O RING
10	1	1090034	PISTON
11	1	8600112	O RING
12	1	8629160	PISTON SEAL
13	1	0141007	SELF-LOCKING NUT
14	1	0901121	GREASER
15	2	8650103	BONDED SEAL
16	2	1090005	BUSH - <i>n/a on Lift Ram 1090301</i>
		<b>8699202</b>	<b>SEAL KIT</b>

NOTE: On Ø40mm Lift Ram assemblies 1090300 & 1090301 items 1 & 2 are positionally reversed and item 16 is not applicable. Items 3 - 15 are common to all rams listed on this page.

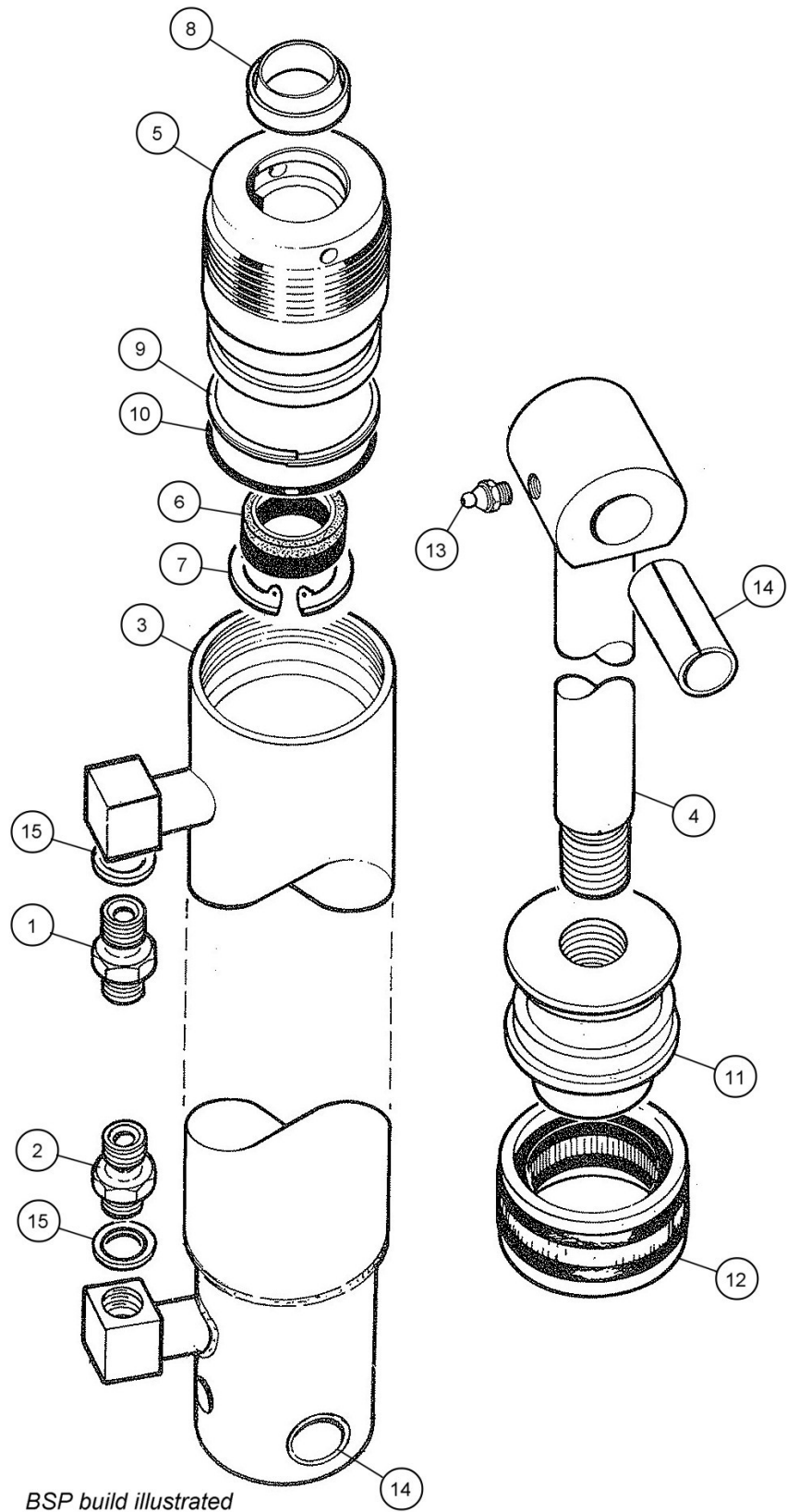
# Spearhead TWIGA 120

## LIFT RAM (Ø50mm Alternative)

**Modules:**

1090305 – BSP Build

1090306 – JIC Build



# Spearhead TWIGA 120

## LIFT RAM (Ø50mm Alternative)

REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090305</b>	<b>LIFT RAM ASSEMBLY - BSP Build</b>
1	1	8581145	UNION (BSP)
2	1	8130068	RESTRICTOR UNION (BSP)
3	1	1090275	CYLINDER
4	1	1090122	PISTON ROD
5	1	7135291	GLAND HOUSING
6	1	8629148	GLAND SEAL
7	1	0416240	CIRCLIP
8	1	8629149	WIPER RING
9	1	8609302	AE RING
10	1	8600302	O RING
11	1	7135008	PISTON
12	1	8638788	PISTON SEAL
13	1	0901121	GREASER
14	2	1090005	BUSH
15	2	8650103	BONDED SEAL
		<b>8699188</b>	<b>SEAL KIT</b>

REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090306</b>	<b>LIFT RAM ASSEMBLY - JIC Build</b>
1	1	1075115	UNION (JIC)
2	1	8130130	RESTRICTOR UNION (JIC)
3	1	1090275	CYLINDER
4	1	1090122	PISTON ROD
5	1	7135291	GLAND HOUSING
6	1	8629148	GLAND SEAL
7	1	0416240	CIRCLIP
8	1	8629149	WIPER RING
9	1	8609302	AE RING
10	1	8600302	O RING
11	1	7135008	PISTON
12	1	8638788	PISTON SEAL
13	1	0901121	GREASER
14	2	1090005	BUSH
15	2	8650103	BONDED SEAL
		<b>8699188</b>	<b>SEAL KIT</b>

NOTE: Items 3 to 15 are common to both BSP & JIC builds

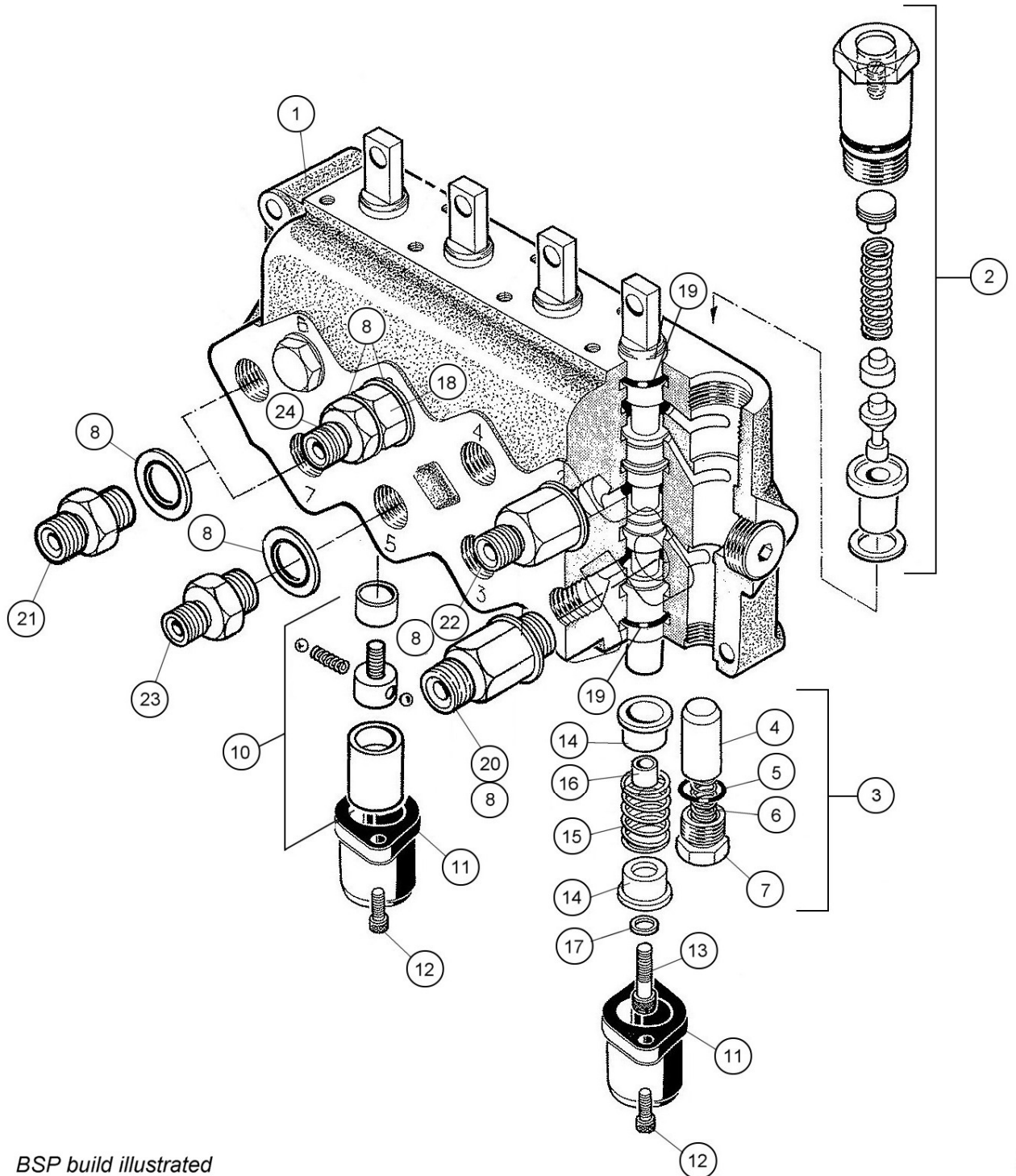
# Spearhead TWIGA 120

## CABLE CONTROL VALVE

### Modules:

8130358 – BSP build

8130359 – JIC build



*BSP build illustrated*

# Spearhead TWIGA 120

## CABLE CONTROL VALVE

REF.	QTY.	PART NO.	DESCRIPTION
		<b>8130358</b>	<b>CABLE CONTROL VALVE - BSP Models</b>
		<b>8130359</b>	<b>CABLE CONTROL VALVE - JIC Models</b>
1	1	8130355	BASIC VALVE - <i>complete with:</i>
2	1	8130023	MAIN RELIEF VALVE
3	1	8130022	NON-RETURN VALVE - <i>comprising of:</i>
4	1	8130006	SUPPLY CHECK VALVE
5	1	8600501	O RING
6	1	8130007	SPRING
7	1	8130008	PLUG
8	11	8650103	BONDED SEAL
9	1	8130147	RELIEF VALVE ASSEMBLY
10	1	8130133	DETENT ASSEMBLY
11	4	8130002	CENTRING SPRING COVER
12	8	9343032	CAPSCREW
13	4	9383043	SETSCREW
14	8	8130003	CENTRING SPRING CUP
15	4	8130004	CENTRING SPRING
16	4	8130005	DISTANCE PIECE
17	4	8130020	WASHER
18	2	8581208	RESTRICTOR ADAPTOR
19	8	8600112	O RING

Items 1 - 19 above are common to both BSP and JIC builds, items 20 - 24 below are specific to a particular build. Select items from list 'A' for BSP build or list 'B' for JIC build.

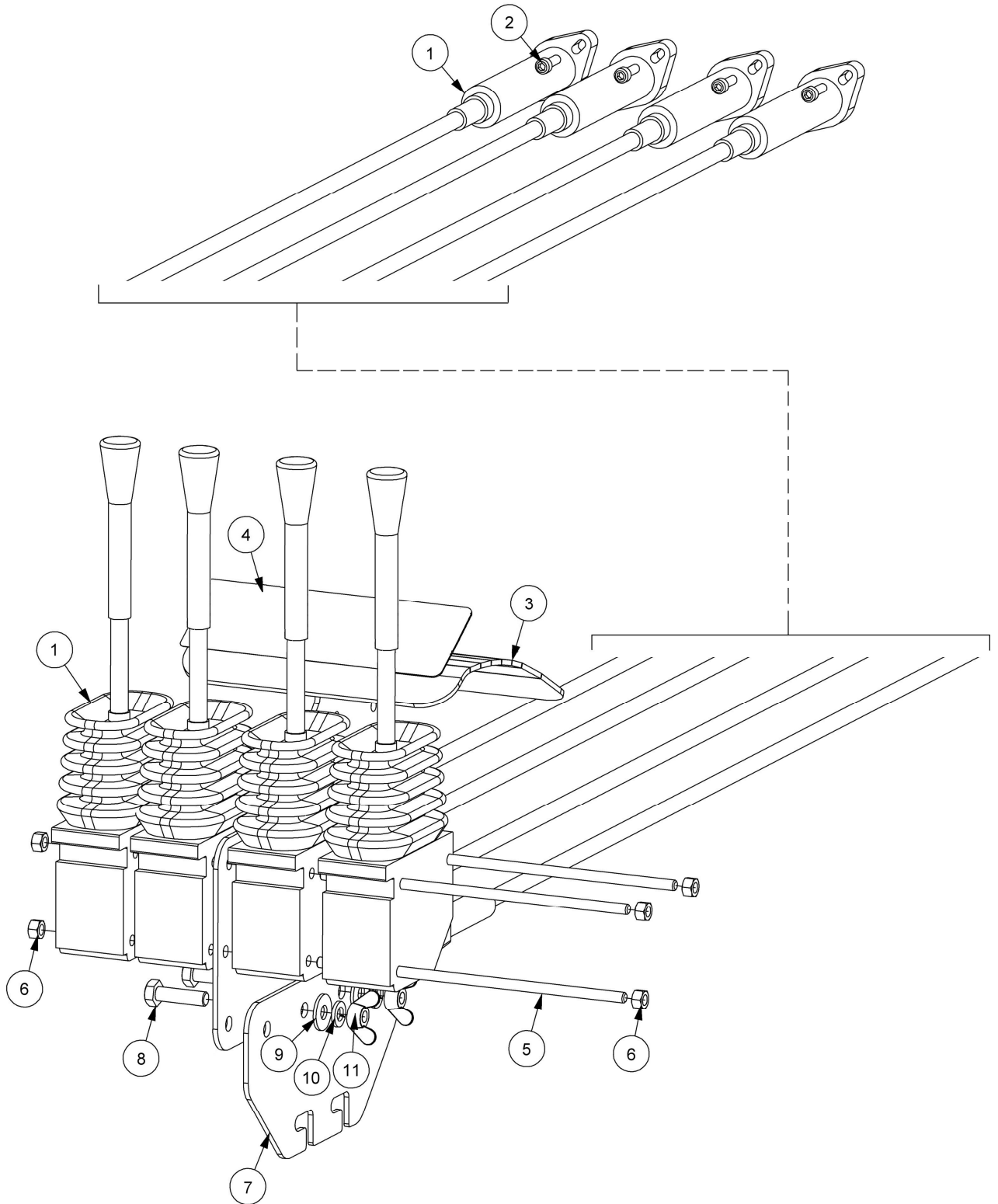
<b>A</b>		<b>8130358</b>	<b>BSP Build</b>
20	1	8581236	UNION ( <i>BSP</i> )
21	2	6000113	UNION ( <i>BSP</i> )
22	1	8581146	UNION ( <i>BSP</i> )
23	3	8581145	UNION ( <i>BSP</i> )
24	2	8130068	RESTRICTOR ( <i>BSP</i> )
<b>B</b>		<b>8130359</b>	<b>JIC Build</b>
20	1	8581235	UNION ( <i>JIC</i> )
21	2	8581217	UNION ( <i>JIC</i> )
22	1	8581218	UNION ( <i>JIC</i> )
23	3	1075115	UNION ( <i>JIC</i> )
24	2	8130130	RESTRICTOR ( <i>JIC</i> )

# Spearhead TWIGA 120

## CABLE CONTROLS ASSEMBLY

Modules:

Sub-components of 8130358 & 8130359



# Spearhead TWIGA 120

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## CABLE CONTROLS ASSEMBLY

Sub-components of: **8130358**

**CABLE CONTROL VALVE - BSP Models**

Sub-components of: **8130359**

**CABLE CONTROL VALVE - JIC Models**

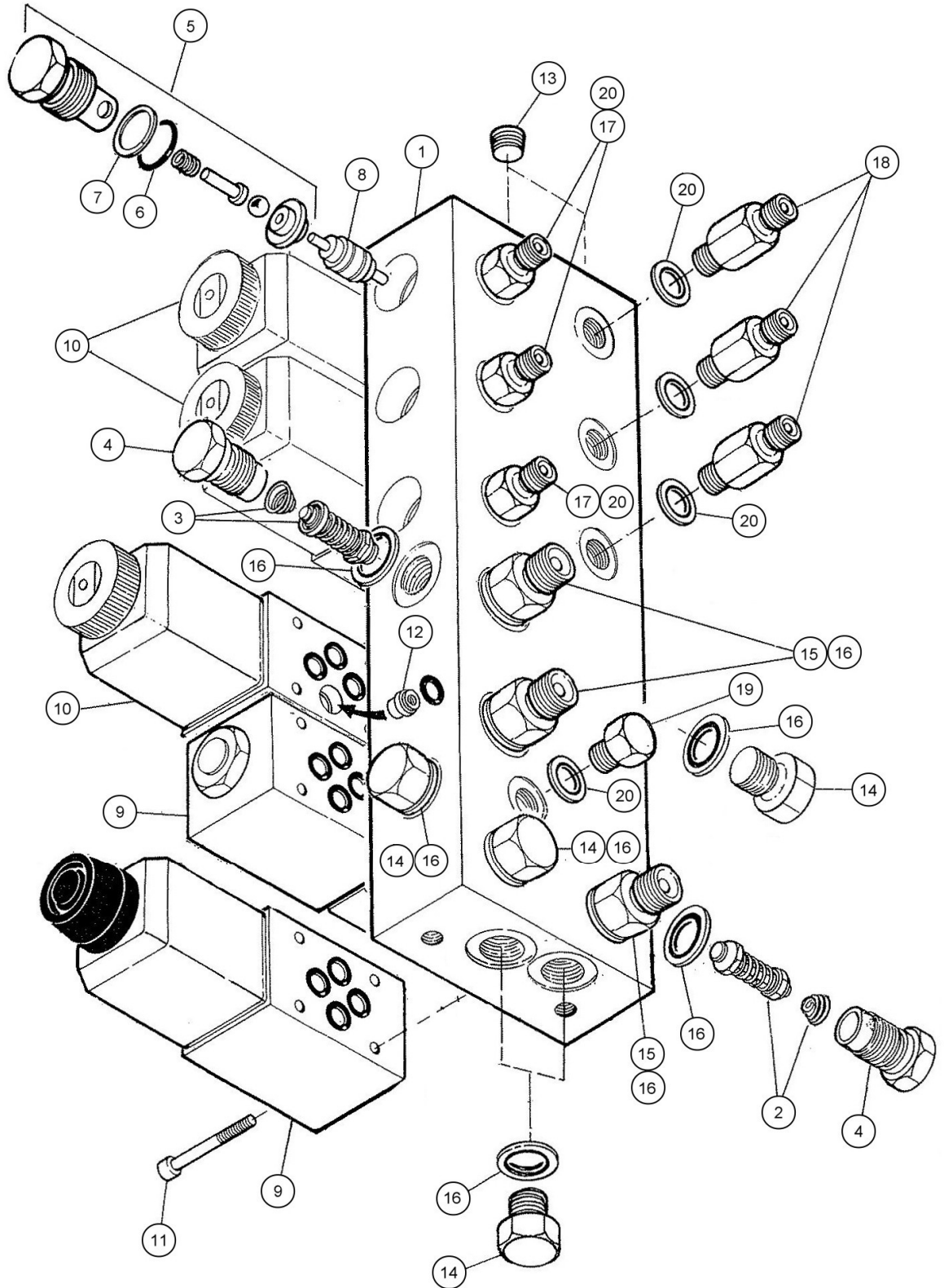
REF.	QTY.	PART NO.	DESCRIPTION
1	4	8017058	CONTROL HEAD & CABLE - 2.5m
2	8	9343032	CAPSCREW
3	1	7650306	ARMREST - 4 LEVER
4	1	1290270	DECAL - CONTROL OPERATION
5	3	04.282.70	STUD
6	6	9143003	SELF-LOCKING NUT
7	1	42491.01	CAB MOUNTING BRACKET
8	2	9213064	BOLT
9	2	9100104	FLAT WASHER
10	2	9100204	SPRING WASHER
11	2	9193004	WING NUT
12	1	09.968.99	KNOB (RED) - <i>Reach Control Lever</i>



# Spearhead TWIGA 120

## PROPORTIONAL VALVE

Module: 1090360



# Spearhead TWIGA 120

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## PROPORTIONAL VALVE

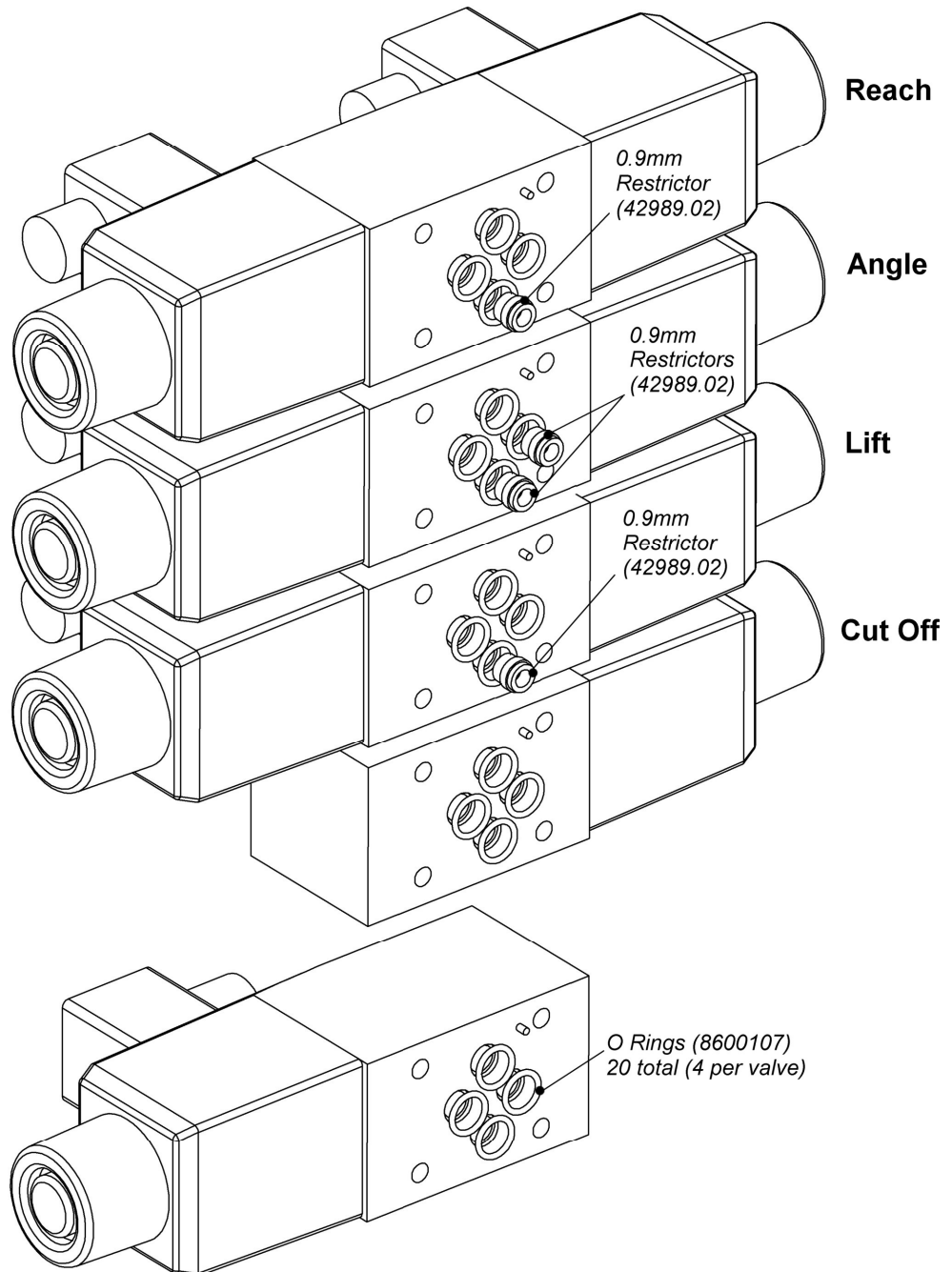
REF.	QTY.	PART NO.	DESCRIPTION
		<b>1090360</b>	<b>PROPORTIONAL VALVE ASSEMBLY</b>
1	1	8132276	MANIFOLD BLOCK
2	1	8130151	RELIEF VALVE (100BAR) - <i>Arm Services</i>
3	1	8130151	RELIEF VALVE (100BAR) - <i>Motor</i>
4	2	8130032	RELIEF VALVE CAP
5	6	8130090	CHECK VALVE ASSEMBLY c/w:
6	1	8700644	O RING
7	1	8709644	AE RING
8	3	8130087	ACTUATOR
9	2	8130456	SINGLE SOLENOID VALVE
10	3	41784.48	PROPORTIONAL DOUBLE SOLENOID
11	20	9243062	CAPSCREW
12	4	42989.02	RESTRICTOR INSERT
13	2	8582042	TAPER PLUG
14	6	05.433.01	HEXAGON PLUG
15	4	6000113	UNION
16	11	8650103	BONDED SEAL
17	3	8581169	UNION
18	3	8581279	EXTENDED UNION
19	4	520378	HEXAGON PLUG
20	10	8650102	BONDED SEAL
		<b>8699197</b>	<b>SEAL KIT</b>

Note: Replacement O Rings for Solenoid Valves are Part No. 8600107

# Spearhead TWIGA 120

## RESTRICTOR LOCATIONS

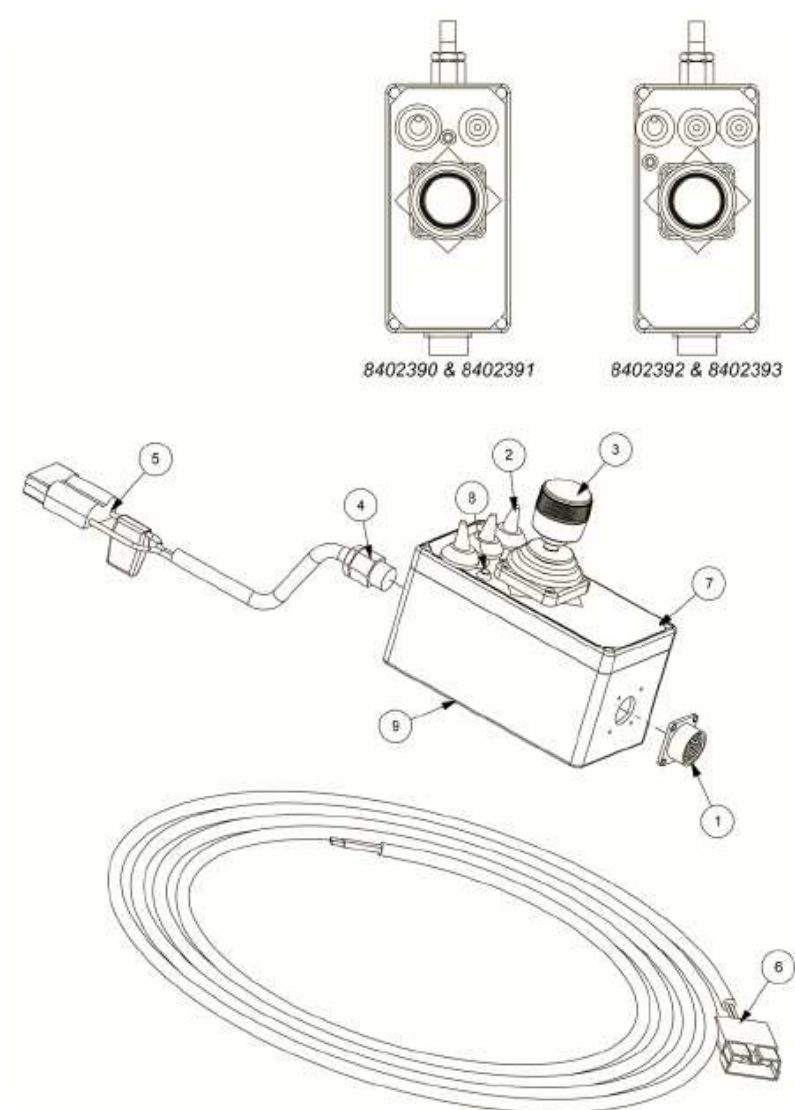
Module: 1090360 Sub-components



# Spearhead TWIGA 120

## PROPORTIONAL CONTROL UNIT

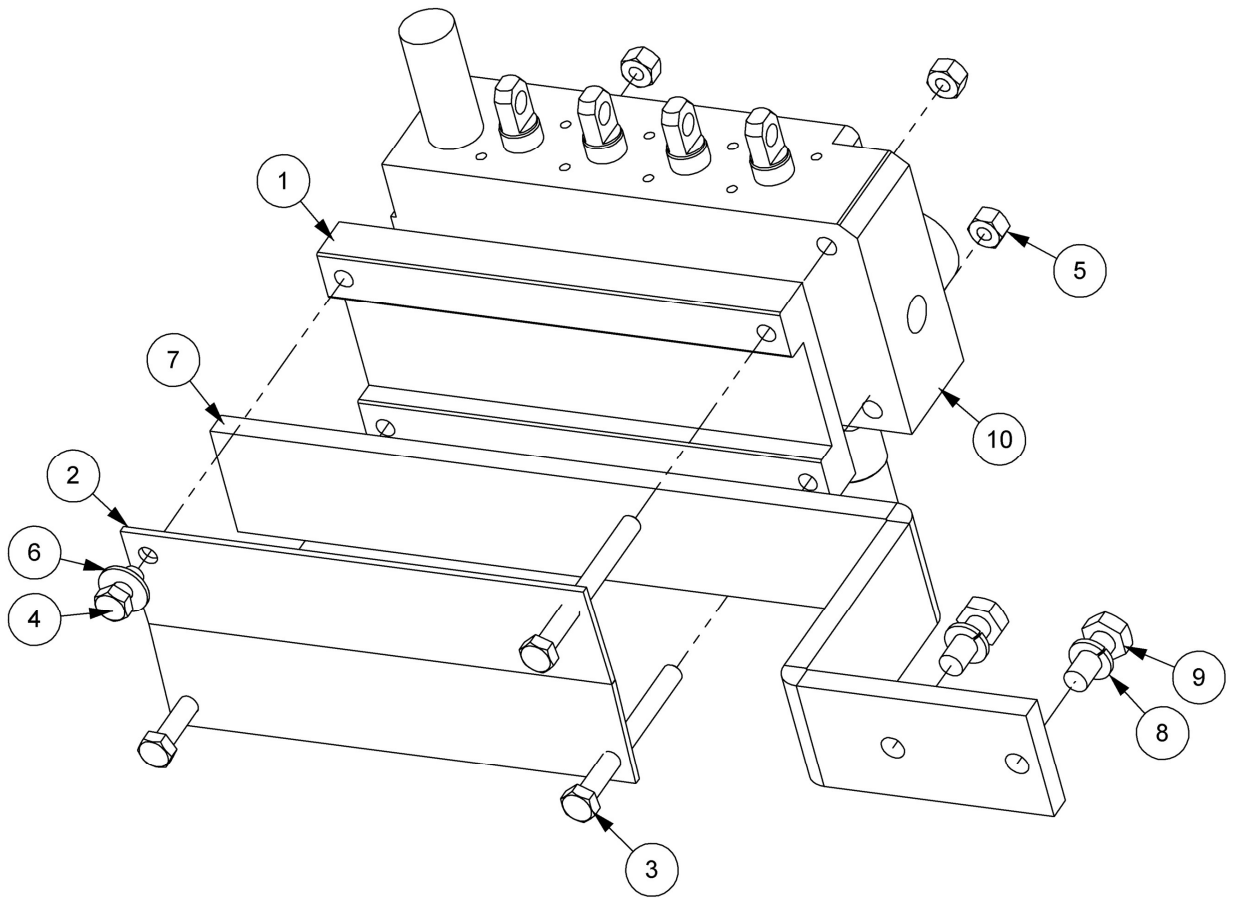
Module:: 8402393



REF.	QTY.	PART No.	DESCRIPTION
		<b>8402393</b>	<b>PROPORTIONAL CONTROL UNIT (3 Switch)</b>
1	1	8402189	PANEL MTG SHELL
2	3	8402024	SWITCH COVER
3	1	8402246	JOYSTICK (4 AXIS)
4	1	8402149	GLAND - PLASTIC
5	1	43022.47	CONNECTOR
6	1	8402237	LOOM POWER SUPPLY
7	1	1290494	DECAL - SWITCH BOX
8	1	41845.41	LED
9	1	8402349	CONTROL BOX
10	1	43034.02	BLADE FUSE - 20 amp

# Spearhead TWIGA 120

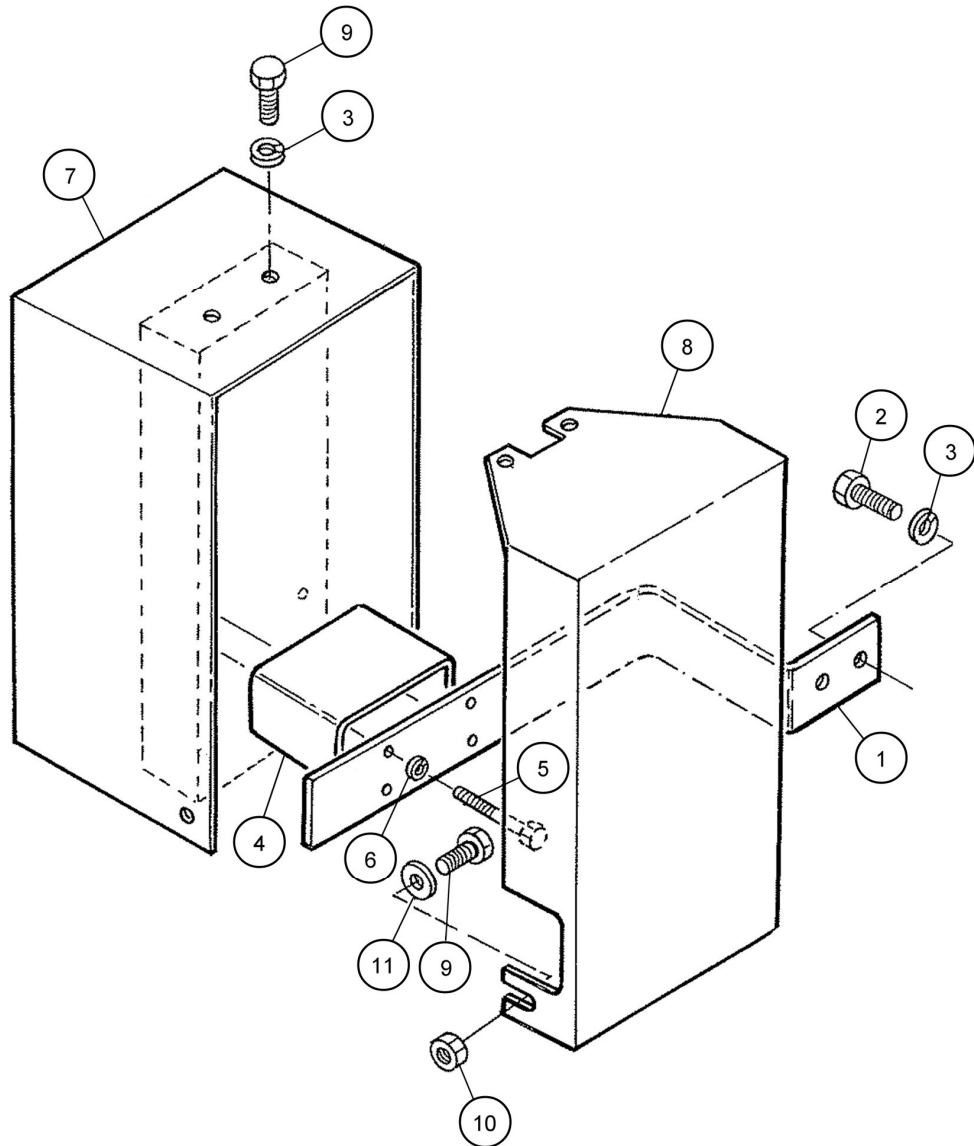
## CABLE VALVE MOUNTING



REF.	QTY.	PART NO.	DESCRIPTION
			<b>CABLE CONTROL VALVE MOUNTING</b>
1	1	1090312	VALVE MOUNTING PLATE
2	1	1090313	VALVE MOUNTING CLAMP PLATE
3	3	9213164	VALVE MOUNTING BAR
4	1	9313003	SETSCREW
5	3	9143004	SELF-LOCKING NUT
6	1	9100104	SPRING WASHER
7	1	1090124	VALVE MOUNTING BAR
8	2	9100205	SPRING WASHER
9	2	9313055	SETSCREW
10	1	8130358	CONTROL VALVE ASSEMBLY - BSP Build
	1	8130359	CONTROL VALVE ASSEMBLY - JIC Build

# Spearhead TWIGA 120

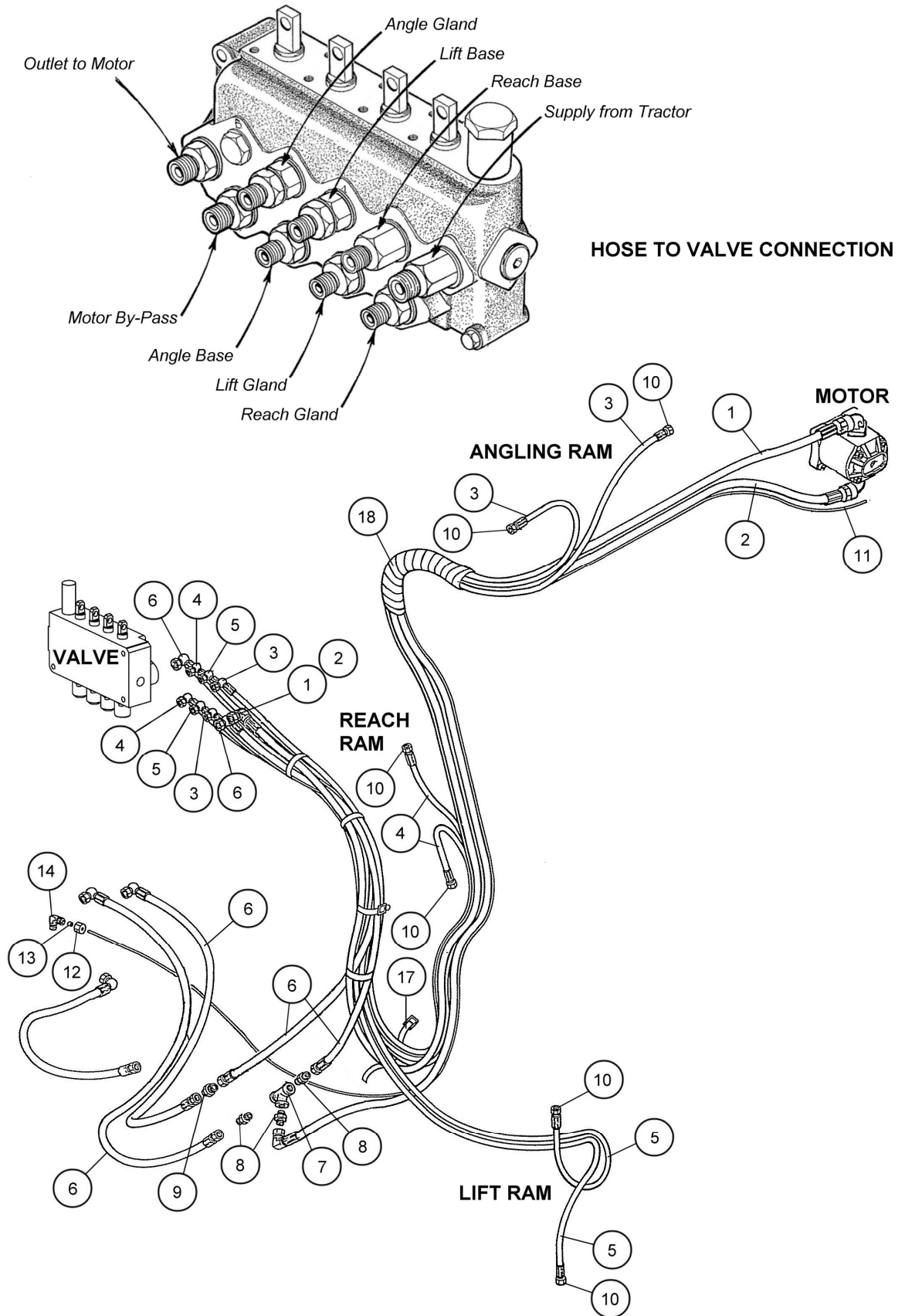
## PROP VALVE MOUNTING/COVER



REF.	QTY.	PART NO.	DESCRIPTION
1	1	43087.01	VALVE MOUNTING BAR
2	2	9313055	SETSCREW
3	4	9100205	SPRING WASHER
4	1	43124.01	SPACER
5	4	9213184	BOLT
6	4	9100204	SPRING WASHER
7	1	43086.01	VALVE COVER - MANIFOLD
8	1	43086.02	VALVE COVER - SOLENOIDS
9	4	9313045	SETSCREW
10	2	9143105	SELF-LOCKING NUT
11	2	9100105	PLAIN WASHER

# Spearhead TWIGA 120

## HOSE INSTALLATION



# Spearhead TWIGA 120

## HOSE INSTALLATION

REF.	QTY.		PART NO.	DESCRIPTION
	BSP	JIC		
				<b>HYDRAULIC HOSE INSTALLATION</b>
1	1	-	8531363	HOSE - 3/8" BSP x 160" <i>Motor Supply</i>
	-	1	8531038	HOSE - 3/4" JIC x 160" <i>Motor Supply</i>
2	1	-	8531373	HOSE - 3/8" BSP x 130" <i>Motor Return</i>
	-	1	8531048	HOSE - 3/4" JIC x 130" <i>Motor Return</i>
3	2	-	8535122	HOSE - 1/4" BSP x 142" <i>Angling Ram</i>
	-	2	8535017	HOSE - 1/2" JIC x 142" <i>Angling Ram</i>
4	2	-	8535132	HOSE - 1/4" BSP x 100" <i>Reach Ram</i>
	-	2	8535027	HOSE - 1/2" JIC x 100" <i>Reach Ram</i>
5	2	-	8535052	HOSE - 1/4" BSP x 70" <i>Lift ram</i>
	-	2	8535047	HOSE - 1/2" JIC x 70" <i>Lift Ram</i>
6	4	-	8531343	HOSE - 3/8" BSP x 36"
	-	4	8531058	HOSE - 3/4" JIC x 36"
7	1	-	8581073	TEE PIECE (BSP)
	-	1	8581237	TEE PIECE (JIC)
8	3	-	8505007	UNION
9	1	-	6000113	UNION
10	-	6	8120003	UNION - (BSP to JIC ADAPTOR)
11	1	1	8501148	NYLON HOSE - 5000mm
12	1	1	8581200	UNION NUT
13	1	1	8581199	OLIVE
14	1	1	8581198	ELBOW - 90°
15	2	2	8002108	DUST CAP <i>(not illustrated)</i>
16	2	2	8002109	DUST PLUG <i>(not illustrated)</i>
17	3	3	7106187	HOSE STRAP
18	1	1	1090053	HOSE SLEEVING - 800mm
19	1	1	7135084	HOSE TIE
20	1	1	1090092	DRAIN LINE ADAPTOR - LARGE
21	1	1	1090093	DRAIN LINE ADAPTOR - SMALL



# Spearhead TWIGA 120

## PUMP & TANK KIT ASSEMBLIES

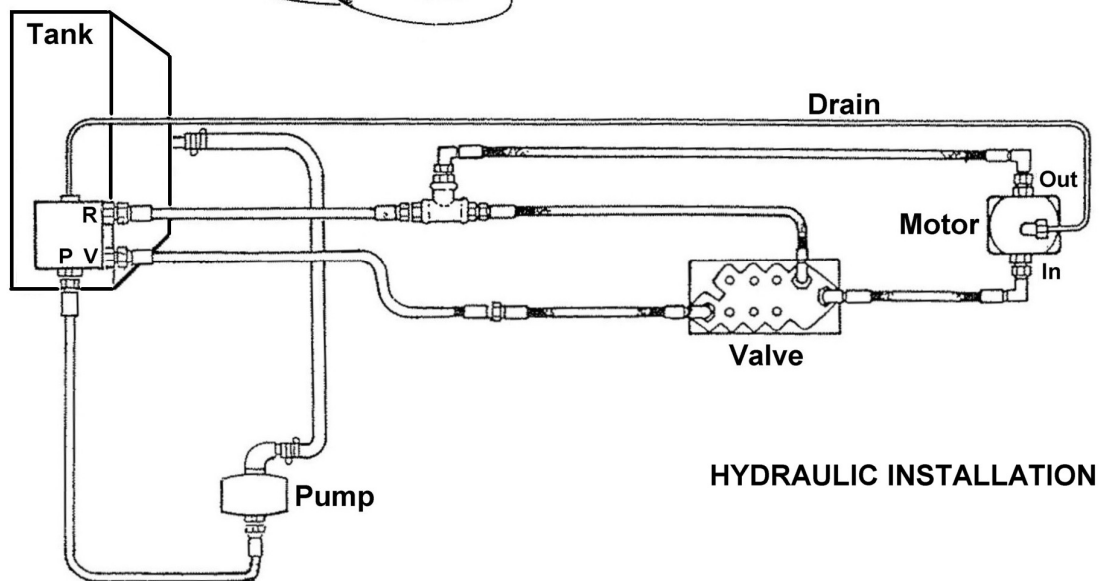
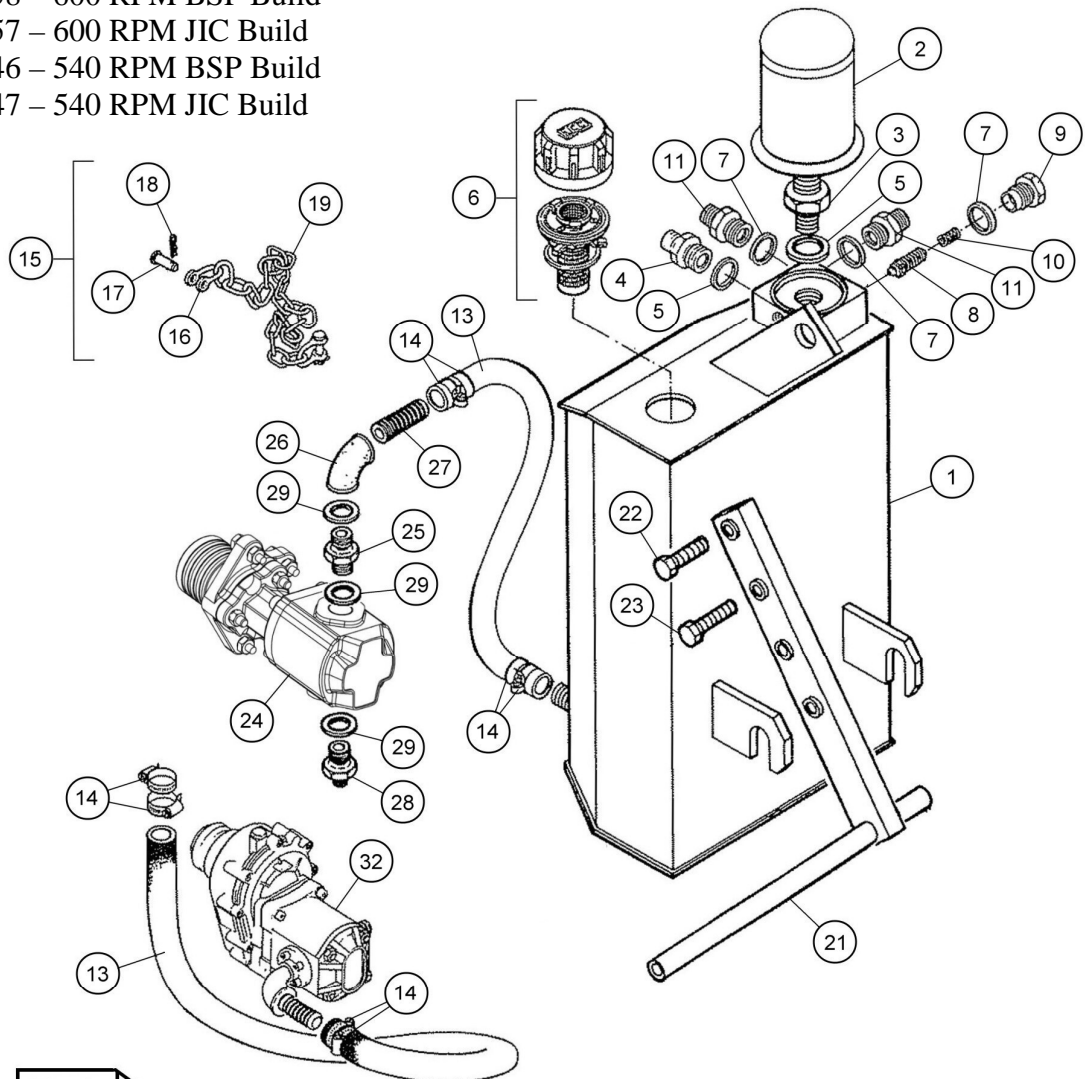
### Modules:

1090258 – 600 RPM BSP Build

1090257 – 600 RPM JIC Build

1090346 – 540 RPM BSP Build

1090347 – 540 RPM JIC Build



# Spearhead TWIGA 120

## PUMP & TANK KIT ASSEMBLIES

REF.	QTY.	PART NO.	DESCRIPTION
		1090258	PUMP & TANK KIT (600 RPM PTO SPEED) - BSP Build
		1090257	PUMP & TANK KIT (600 RPM PTO SPEED) - JIC Build
		1090346	PUMP & TANK KIT (540 RPM PTO SPEED) - BSP Build
		1090347	PUMP & TANK KIT (540 RPM PTO SPEED) - JIC Build
		1090340	TANK ASSEMBLY (540 & 600 RPM) - <i>BSP Builds</i>
		1090341	TANK ASSEMBLY (540 & 600 RPM) - <i>JIC Builds</i>
1	1	1090339	HYDRAULIC OIL TANK
2	1	8401045	FILTER
3	1	8581174	UNION
4	1	6000112	BSP ADAPTOR - <i>BSP build only</i>
	1	8120003	JIC ADAPTOR - <i>JIC build only</i>
5	2	8650104	BONDED SEAL
6	1	8401050	FILLER / BREATHER ASSEMBLY
7	3	8650103	BONDED SEAL
8	1	8130029	RELIEF VALVE
9	1	8130031	RELIEF VALVE CAP
10	1	8116011	SPRING
11	2	6000113	BSP ADAPTOR - <i>BSP build only</i>
	2	8581170	JIC ADAPTOR - <i>JIC build only</i>
12	1	8531353	HOSE - 3/8" BSP FS/F90 x 22" - <i>BSP build only</i>
	1	8531078	HOSE - 3/4" JIC FS/F90 x 22" - <i>JIC build only</i>

The following items are sub-components of Pump & Drive Assemblies and are common to all builds.

13	1	8500865	SUCTION HOSE - 1" BORE x 36"
14	4	0904106	HOSE CLIP
15	2	6000087	SHACKLE ASSEMBLY c/o:
16	1	6000088	SHACKLE
17	1	6000089	SHACKLE PIN
18	1	0481105	SPRING COTTER
19	1	0902330	REACTION CHAIN
20	1	8013389	TORQUE ARM - <i>600RPM Builds only</i>
	1	8005033	TORQUE ARM - <i>540RPM Builds only</i>
21	1	1090345	VALVE MOUNTING
22	1	9213137	BOLT
23	1	9213147	BOLT

All additional Pump & Drive components are specific to builds and are listed on the following page.

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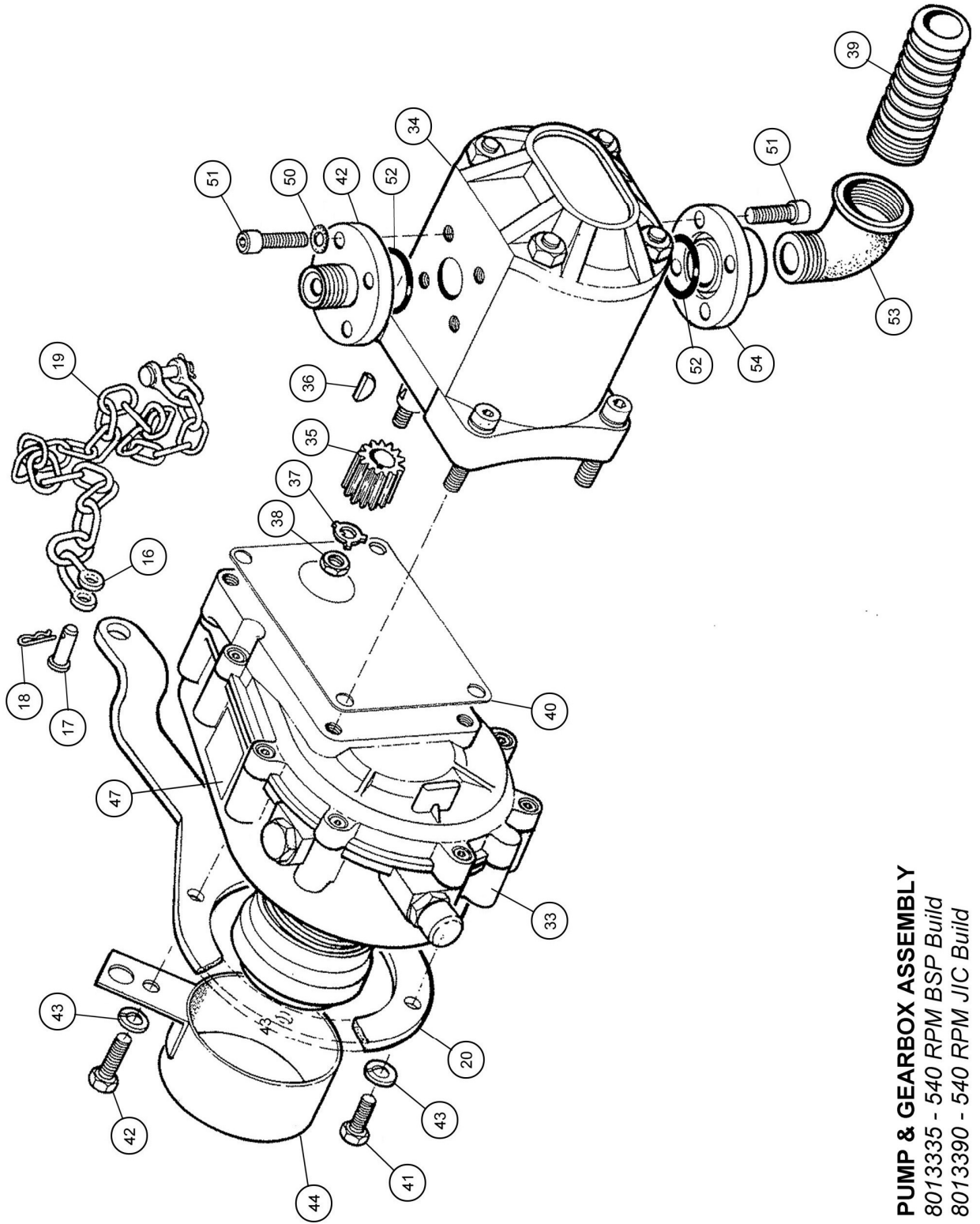
# Spearhead TWIGA 120

## PUMP & TANK KIT ASSEMBLIES

### Modules:

8013335 – 540 RPM BSP Build

8013390 – 540 RPM JIC Build



**PUMP & GEARBOX ASSEMBLY**  
8013335 - 540 RPM BSP Build  
8013390 - 540 RPM JIC Build

# Spearhead TWIGA 120

## PUMP & TANK KIT ASSEMBLIES

5	2	8650104	BONDED SEAL
6	1	8401050	FILLER / BREATHER ASSEMBLY
7	3	8650103	BONDED SEAL
8	1	8130029	RELIEF VALVE
9	1	8130031	RELIEF VALVE CAP
10	1	8116011	SPRING
11	2	6000113	BSP ADAPTOR - <i>BSP build only</i>
	2	8581170	JIC ADAPTOR - <i>JIC build only</i>
12	1	8531353	HOSE - 3/8" BSP FS/F90 x 22" - <i>BSP build only</i>
	1	8531078	HOSE - 3/4" JIC FS/F90 x 22" - <i>BSP build only</i>

The following items are sub-components of Pump & Drive Assemblies and are common to all builds.

13	1	8500865	SUCTION HOSE - 1" BORE x 36"
14	4	0904106	HOSE CLIP
15	2	6000087	SHACKLE ASSEMBLY c/o:
16	1	6000088	SHACKLE
17	1	6000089	SHACKLE PIN
18	1	0481105	SPRING COTTER
19	1	0902330	REACTION CHAIN
20	1	8013389	TORQUE ARM - <i>600RPM Builds only</i>
	1	8005033	TORQUE ARM - <i>540RPM Builds only</i>
21	1	1090345	VALVE MOUNTING
22	1	9213137	BOLT
23	1	9213147	BOLT

All additional Pump & Drive components are specific to builds and are listed on the following page.

*Continued...*

REF.	QTY.	PART NO.	DESCRIPTION
		8013420	<b>PUMP &amp; DRIVE SUPPORT - 600 RPM BSP Build</b>
		8013391	<b>PUMP &amp; DRIVE SUPPORT - 600 RPM JIC Build</b>
24	1	8013418	PUMP & DRIVE ASSEMBLY
25	1	8581136	UNION
26	1	8581055	ELBOW - 90°
27	1	8005037	UNION
28	1	8581131	BSP ADAPTOR - <i>BSP build only</i>
	1	8581244	JIC ADAPTOR - <i>JIC build only</i>
29	3	8650106	BONDED SEAL
30	4	9213085	BOLT
31	4	9143005	NUT
		8699230	<b>SEAL KIT FOR PUMP (600 RPM)</b>
		8013335	<b>PUMP, GEARBOX &amp; SUPPORT - 540 RPM BSP Build</b>
		8013390	<b>PUMP, GEARBOX &amp; SUPPORT - 540 RPM JIC Build</b>





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