

SUMO

GROWING WITH YOU

MULTIPRESS

2023 Trailed Range (MUL)

Machine Manual & Parts Book

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Introduction

Before reading this Machine Manual & Parts Book, please read the Cultivators Operator Manual in Full. This manual contains information specific to the machine/range but does not include all the general safety guidelines and practices necessary to understand and correctly use the machine. It is required that both manuals be read and understood before using any Sumo machine. For more information contact your local dealership/Sumo directly.

Please note, specifications, descriptions and illustrations in this manual are accurate, as known, at the time of publication but may be subject to change. If you notice any discrepancy and are in need of clarification, please contact us on the details given previously.

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1. Machine Range Summary

Sumo Multipress is an extremely versatile machine that offers exceptional soil movement and levelling ability combined with excellent consolidation and suits almost any type of cultivation system. It does this in three stages:

Stages One

Staggered rows of spring-loaded tines offer good mixing of crop residues, while breaking up compaction and aerating in stubble fields. The 310mm wide points create fissures and pores for water retention, further improving seed germination and root development. Narrower chisel points can be used to work in ploughing to break down clods, compaction and smear created by the plough.

Stage Two

A row of hydraulically adjustable levelling paddles allows a small amount of soil to be carried with the machine. These enable the machine to fill in and level furrows to create a seedbed. The paddles can be lifted out of work completely to allow trash to flow through when working on stubbles.

Stage Three

The sharp packer roller creates a trough in which surface water can move into and also help drive the packer eliminating smears on the soil surface. The design increases soil's resistance to wind and water erosion as the finish reduces the amount of soil particles that are carried away by the wind.

Note: This stage description is based on our standard offering but will change depending on packer selected. Consult the Cultivation Operators manual for more information.

2. Product Specifications

For standard machine dimensions and weight, see Cultivator Operators Manual. Note: Weights is described as the maximum laden mass but will increase with optional extra and attachments.

Multipress Trailed Range

Code	MUL5	MUL6
Tine Qty	16	20
Tine Spacing	300mm	300mm
Tine Depth	25-250m	25-250mm
Machine Type	Folding	Folding
Tyre Size	600/50-22.5	600/50-22.5
Tyre Pressure	35 psi	35 psi
Wheel Nut Toque	450 Nm	450 Nm
Max Axle Load	11,500kg	11,500kg

Available Options

Code	Option Code	Description	Specifications
MUL5	MUL5.SP	Twin Sharp Packer	Rings: 42 - Spacing: 125mm**
	MUL5.CH	Twin Channel Packer	Rings: 42 - Spacing: 125mm**
	MUL5.RO	Twin Roller Packer	Rings: 42 - Spacing: 125mm**
	MUL5.WE	Wheel Eradicators	Variable Spacing
	MUL5.HOMO	Homologation	Combines: HB & ABK Options
	MUL5.HB	Hazard Boards	Front & back*
	MUL5.RD	Rear Drawbar	Hydraulic
	MUL5.ABK	Air Brake Kit	*
MUL6	MUL6.SP	Twin Sharp Packer	Rings: 50 - Spacing: 125mm**
	MUL6.CH	Twin Channel Packer	Rings: 50 - Spacing: 125mm**
	MUL6.RO	Twin Roller Packer	Rings: 50 - Spacing: 125mm**
	MUL6.WE	Wheel Eradicators	Variable Spacing
	MUL6.HOMO	Homologation	Combines: HB & ABK Options
	MUL6.HB	Hazard Boards	Front & back*
	MUL6.RD	Rear Drawbar	Hydraulic
	MUL6.ABK	Air Brake Kit	*

* Available as separate options but included as standard in Homologation Kit.

** Values relate to complete machine setup, not individual rollers.

Other options may be available – See Sumo website / Contact your local dealer.

3. Transport Positions & Dimensions

The following transport positions must be followed before taking the specified Sumo machine on any public road. Failure to do so many mean the machine is no longer considered road legal. It is the sole responsibility of the owner/operator to ensure the machine is correctly positioned prior to transport and complies with all local laws and regulations.

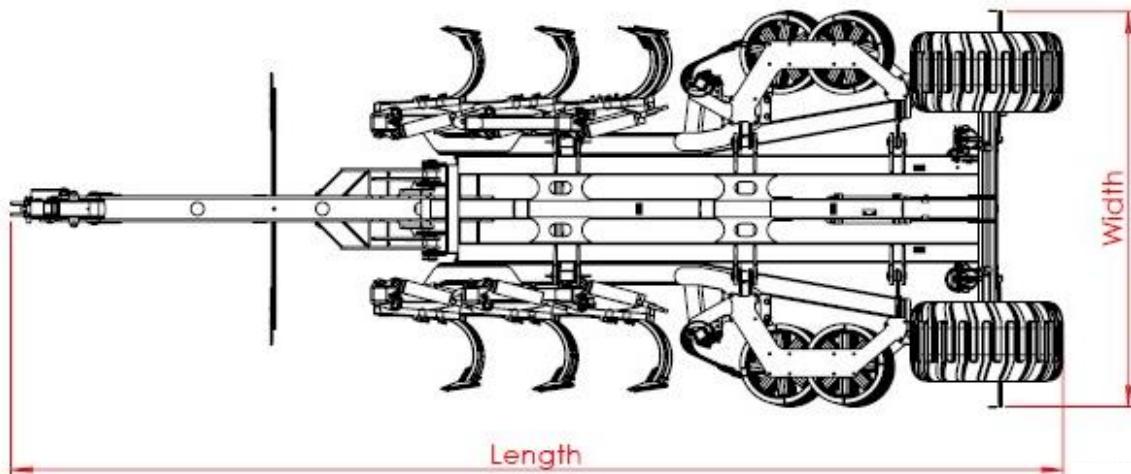
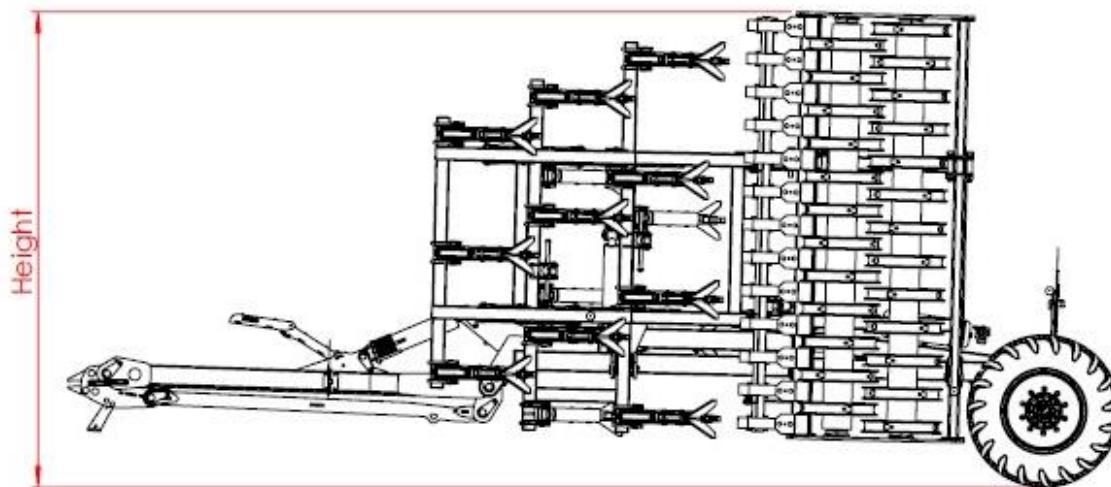
For all Sumo guidelines and safety protocols, read the related Sumo Cultivator Operators Manual thoroughly.

Trailed Folding Multipress

To achieve the dimensions given in the Cultivator Operators Manual, all trailedd Multipress must be positioned as follows:

- Adjustable drawbar must be horizontal to main body.
- Packer must be in shallowest position.
- Wings must be fully folded.
- Any locking mechanisms must be locked in position i.e. wing locks or dog bones.
- Hydraulics must be locked off to ensure no accidental unfolding.

For visual indication, see proceeding pictures for details.

Trailed Folding Subsoilers – Transport Visuals

Transport Dimensions (Approximate)

Note: Due to the fabricated and assembled construction of Sumo machines dimensions may vary and should only be used for reference.

Shown dimensions are of maximum extremities (Excluding assembly/fabrication tolerances) but can be reduced/increased by adjusting implement positions, chassis/axle height/angle, and reversing pins with handles. It is solely the owner/operator's responsibility to ensure they transport the machine within local legislation & laws.

Machines (Excluding Options)

Code	Length	Width	Height
MUL5	8195	2980	3350
MUL6	8195	2980	3590

Machines (Including Options)

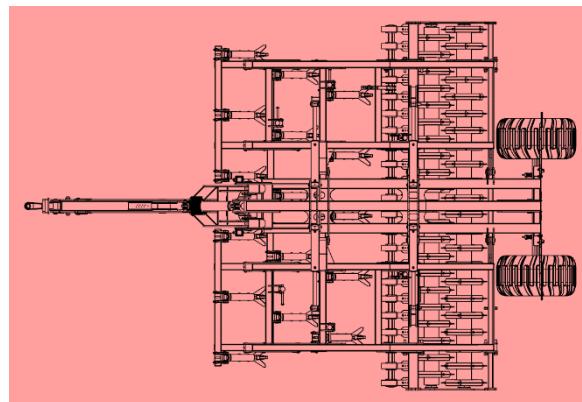
Code	Length	Width	Height
MUL5.SP	-	-	-
MUL5.CH	-	-	-
MUL5.RO	-	-	-
MUL5.WE	-	-	-
MUL5.HOMO	-	-	-
MUL5.HB	-	-	-
MUL5.RD	8550	-	-
MUL5.ABK	-	-	-
MUL6.SP	-	-	-
MUL6.CH	-	-	-
MUL6.RO	-	-	-
MUL6.WE	-	-	-
MUL6.HOMO	-	-	-
MUL6.HB	-	-	-
MUL6.RD	8550	-	-
MUL6.ABK	-	-	-

* Only applies to standard Sumo Subsoiler legs & points

4. Danger Zone

The area marked red indicates the Danger Zone of the machine. This refers to both folded & unfolded states.

Trailed Folding Multipress



The danger zone around the machine poses the following endangements:

- Accidental operation of the hydraulic system can trigger dangerous movements of the machine.
- Defective or not correctly fastened electric lines can cause electric shocks.
- With the drive still running, machine parts may rotate or swing out.
- Hydraulically raised machine parts can lower slowly and unnoticed.

Failing to pay attention to the danger zone can result in severe or even fatal physical injuries.

- Do not stand under lifted loads. Lower such loads to the ground first.
- Instruct persons to leave the danger zone around the machine and tractor.
- Before working in the danger zone of the machine or between machine and tractor: Shut down the tractor! This also applies for short-term inspection work. Many accidents happen because of carelessness and running machines!
- Follow all safety guidelines and procedures as outlined within the Cultivator Operators Manual.

5. Risk Assessments

Model: Trailed Folding Multipress

Notes: Ensure the Cultivator Operators Manual, & Machine Manual are read and fully understood.

Purpose of machine: Primarily designed to alleviate compaction and improve soil structure with minimal surface disturbance.

Description of machine: A single-point-hitch trailed, rigid or hydraulically folding farm implement consisting of 3 major elements.

1. A row of spring protected tines.
2. A sprung row of hydraulically controlled paddles.
3. A rigid roller.

All the above is arranged in a hydraulically folding heavy-duty fabricated steel framework. The machine is designed to couple to a suitably powered tractor.

Hazard Identified in Using Machine	Who Might Be Harmed	Risk Evaluation /Level (1-5)	Precautions In Place	Further Action Required
Machine collision while in transport.	Operator, members of the public	2 Low - Mid	Tail lights, Side Lights & Indicator, reflectors.	Take care when using in both field and road situations. Maintain good visibility at all times.
Trapped fingers during leg depth position change.	Operator	1 Low	Warnings, maintenance stands	Observe warning signs, maintain safe distance from moving parts, wear gloves. Ensure both of the stands are down. Clear excess soil (weight) from points before attempting to adjust legs.
Risk of crushing: - When coupling a tractor to the Sumo implements. - When changing points. - Rotating parts - When folding/unfolding - Machine tipping over	Operator	4 Mid - High	Warnings, maintenance stands	Take extreme care when working on legs, changing depth, replacing points etc, make sure stands are down and the machine is on a suitable firm piece of land. Ensure tractor hydraulics are in good working order. Ensure tractor is safely positioned and the parking brake is engaged when coupling up to the Sumo implements. Stay clear of any folding/unfolding elements. Lower wings slow and evenly to ensure the machine does not tip over. Be mindful of environmental factors.

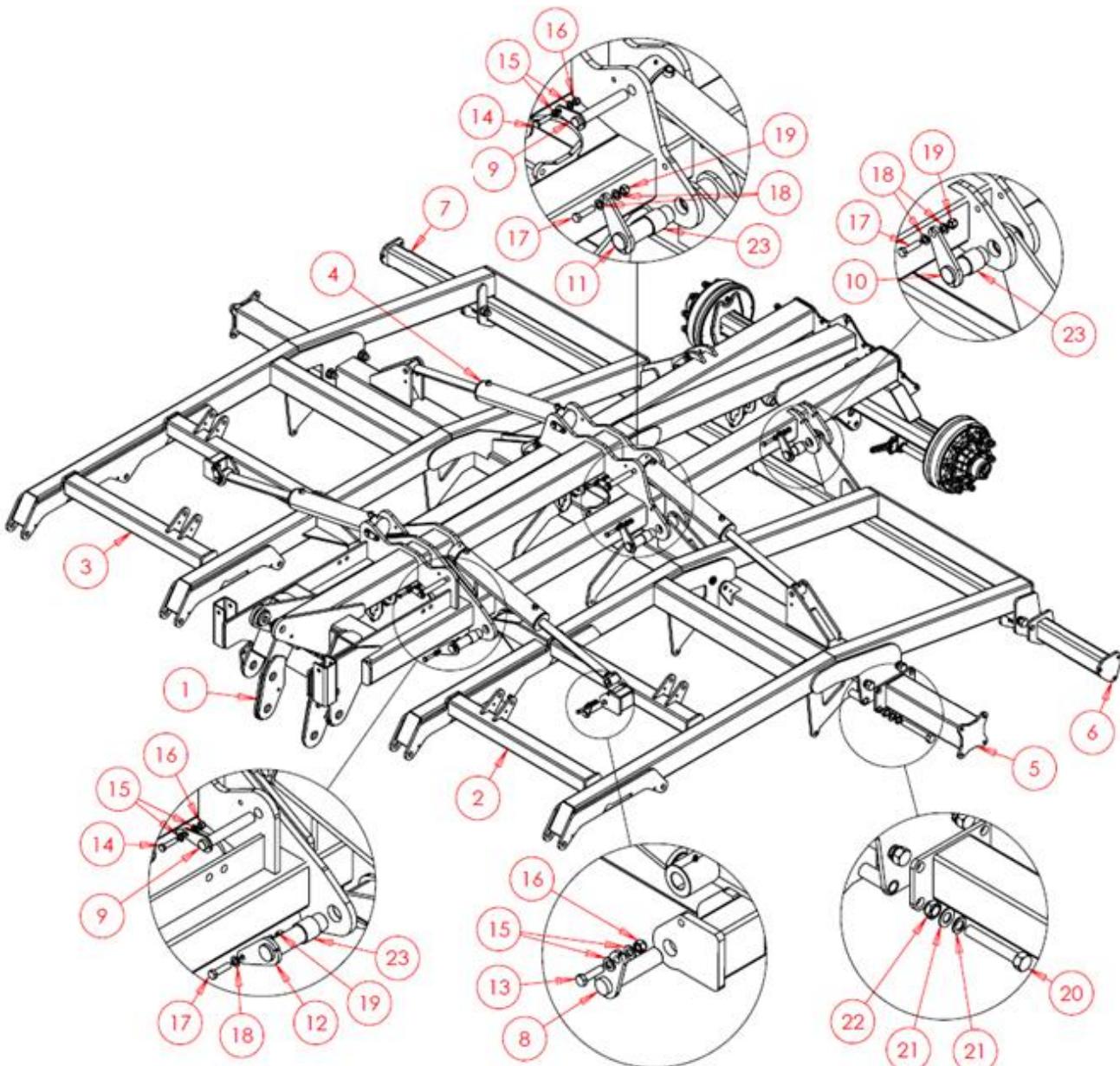
5 Risk Assessments - Continued

Hazard Identified in Using Machine	Who Might Be Harmed	Risk Evaluation /Level (1-5)	Precautions In Place	Further Action Required
Falling from machine	Operator	2 Low - Mid	Most alterations and maintenance do not require the operator to climb on the machine. If a seeder is fitted, then steps and a handrail will also be fitted to allow access.	Lower the machine to the floor to allow access for greasing discs, checking bearings etc...
Pressurised oil/ Burst hoses	Operator	4 Mid - High	Warnings	Always wear appropriate PPE. Do not remove hoses whilst pressurised, do not feel for leaks. If contact is made, wash affected area immediately. Do not inhale or consume.
Risk of crush during machine roll back	Operator, members of the public	4 Mid - High	Warnings, Parking stands and features.	Always park correctly on a solid stable land and firmly apply brakes, stands and any other parking features. If the machine still seems unstable use wooden chocks etc.

6. Parts Book Index

For older machines, see manuals & parts book available on the Sumo website.

6.1 MUL5 Base Machine

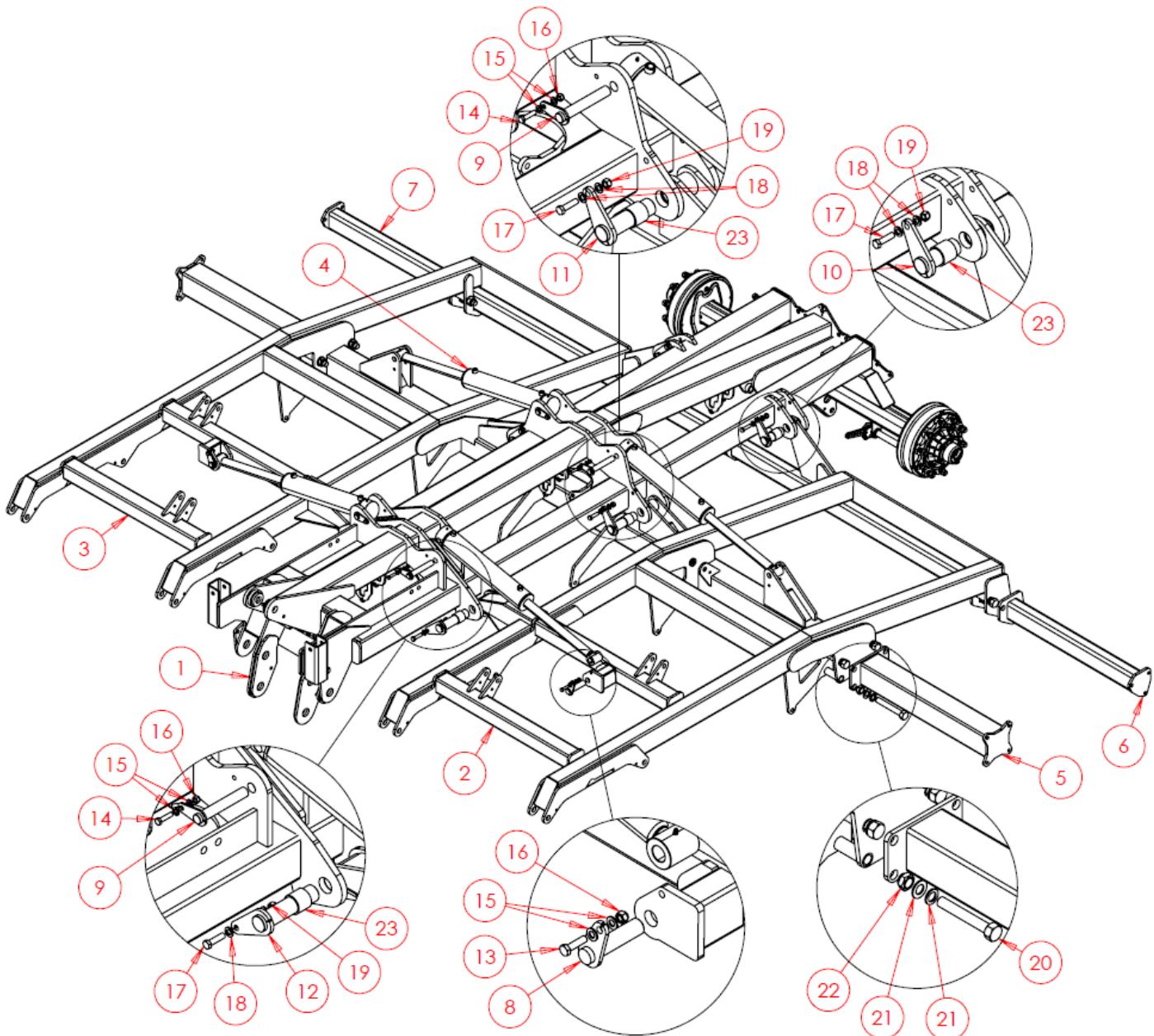


Item No.	Part Number	Description	Qty
1	SWA2398	Chassis	1
2	SWA2392	Left Wing	1
3	SWA2390	Right Wing	1
4	SWH133	Hydraulic Wing Cylinder	4

6.1 MUL5 Base Machine – Continued

Item No.	Part Number	Description	Qty
5	SWA3013	Wing Extension – Front	2
6	SWA3010	Wing Extension – Rear LH	1
7	SWA3006	Wing Extension – Rear RH	1
8	SWP30X115	Pin	2
9	SWP30X180	Pin	4
10	SWP50X120	Pin	2
11	SWP50X175	Pin	2
12	SWP50X200	Pin	2
13	SWM1245	M12x45 Bolt	2
14	SWM1250	M12x50 Bolt	4
15	SWM12001	M12 Washer – Flat	12
16	SWM12004	M12 Nut – Nylock	6
17	SWM1660	M16x60 Bolt	6
18	SWM16001	M16 Washer – Flat	12
19	SWM16004	M16 Nut – Nylock	6
20	SWM30200	M30x200 Bolt	12
21	SWM30001	M30 Washer – Flat	24
22	SWM30004	M30 Nut – Nylock	12
23	SWB1046	Self-Lubricating Bush	10

6.2 MUL6 Base Machine



Item No.	Part Number	Description	Qty
1	SWA2398	Chassis	1
2	SWA2392	Left Wing	1
3	SWA2390	Right Wing	1
4	SWH133	Hydraulic Wing Cylinder	4
5	SWA1486	Wing Extension - Front	2
6	SWA1496	Wing Extension - Rear LH	1
7	SWA1485	Wing Extension - Rear RH	1
8	SWP30X115	Pin	2

6.2 MUL6 Base Machine - Continued

Item No.	Part Number	Description	Qty
9	SWP30X180	Pin	4
10	SWP50X120	Pin	2
11	SWP50X175	Pin	2
12	SWP50X200	Pin	2
13	SWM1245	M12x45 Bolt	2
14	SWM1250	M12x50 Bolt	4
15	SWM12001	M12 Washer - Flat	12
16	SWM12004	M12 Nut - Nylock	6
17	SWM1660	M16x60 Bolt	6
18	SWM16001	M16 Washer - Flat	12
19	SWM16004	M16 Nut - Nylock	6
20	SWM30200	M30x200 Bolt	12
21	SWM30001	M30 Washer - Flat	24
22	SWM30004	M30 Nut - Nylock	12
23	SWB1046	Self-Lubricating Bush	10

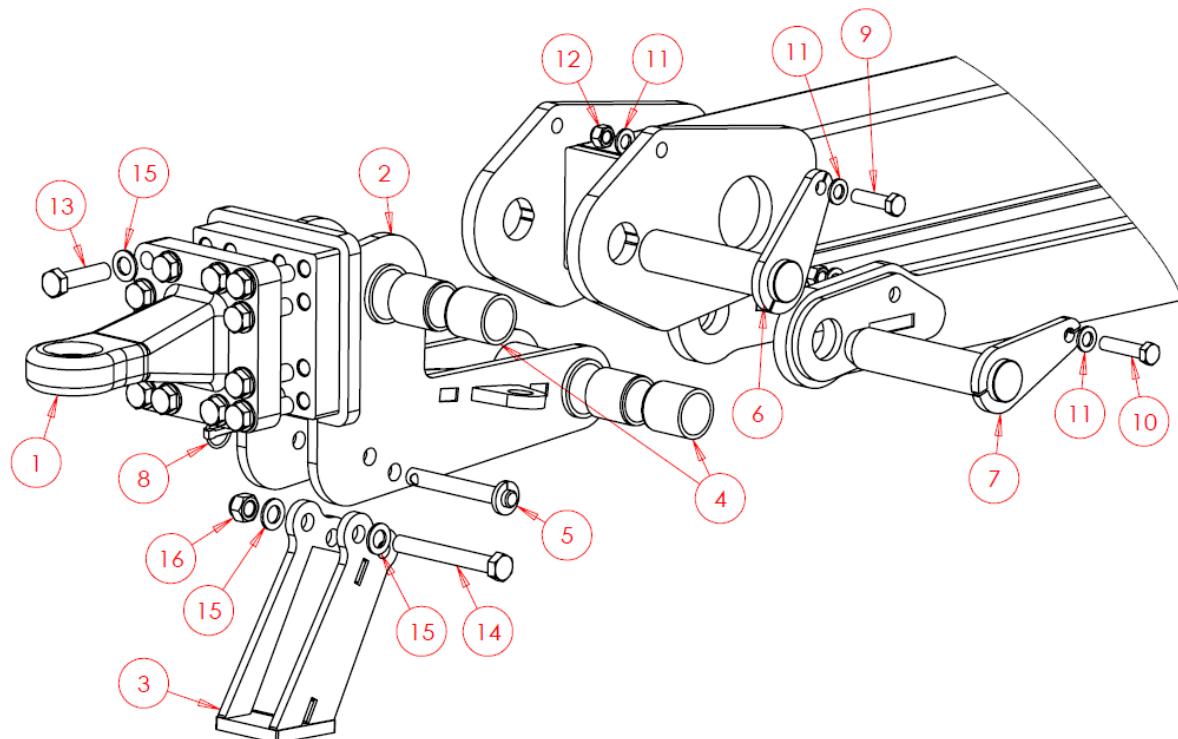
6.3 Standard Assemblies

6.3.1 Standard Scharmüller Hitch Assembly

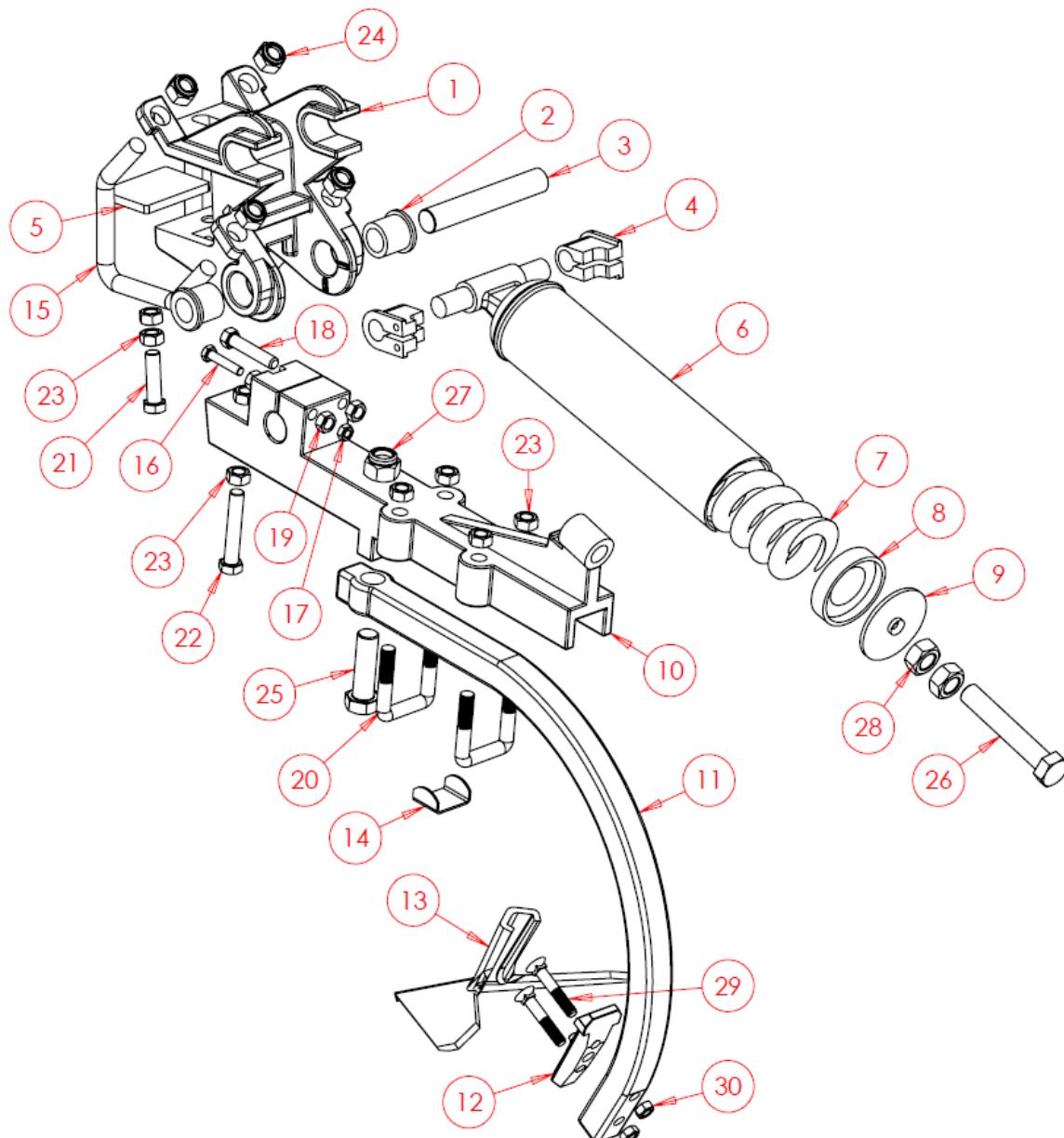
Note: Hitch type and CAT rating are variable.

Standard machines include a CATIII Ring Hitch as shown.

Contact your local dealership for alternative options.



Item No.	Part Number	Description	Qty
1	SWB1267	Ring Hitch	1
2	SWA2010	Knuckle	1
3	SW136	Stand	1
4	SWB1004	Self-Lubricating Bush	4
5	SWP20X130W	Pin	1
6	SWP50X200	Pin	1
7	SWP50X225C	Pin	1
8	SWB105	Lynch Pin	1
9	SWM1660	M16x60 Bolt	1
10	SWM1670	M16x70 Bolt	1
11	SWM16001	M16 Washer - Flat	4
12	SWM16004	M16 Nut - Nylock	2
13	SWM2080	M20x80 Bolt	12
14	SWM20160	M20x160 Bolt	1
15	SWM20001	M20 Washer - Flat	14
16	SWM20004	M20 Nut - Nylock	1

6.3.2 Standard Subsoiler Tine & Points

Quantities below are for individual Subsoiler Tine and Points, not per machine.

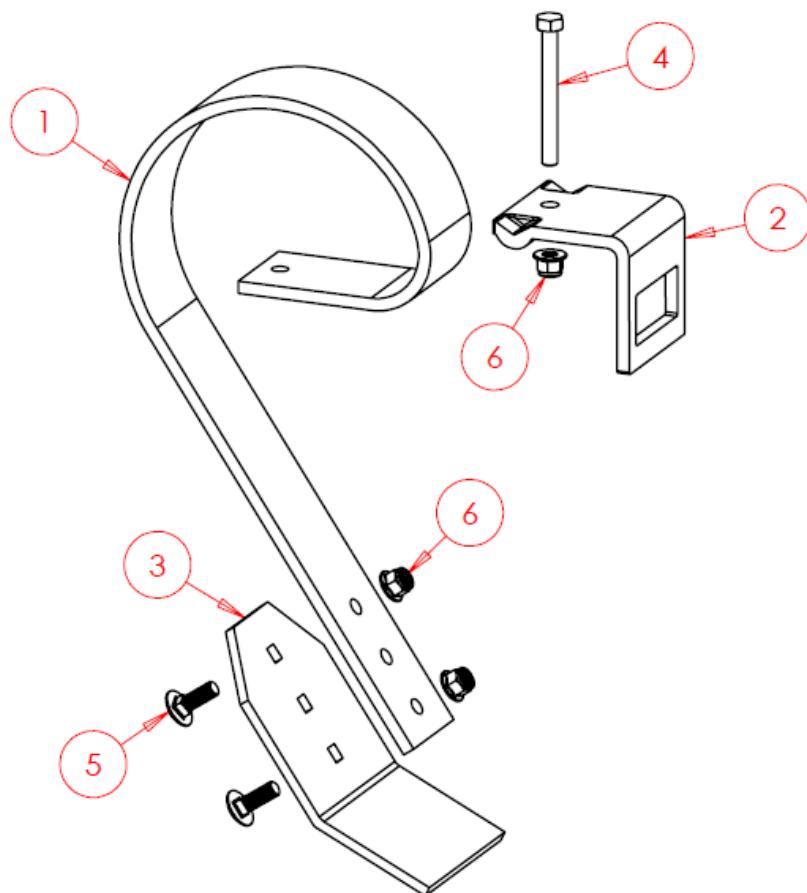
Complete Assembly - SWA272

Item No.	Part Number	Description	Qty
1	SWB111	Mounting Clamp	1
2	SWB117	Bottom Top Hat Bush	2
3	SWB124	Straight Pin	1
4	SWB114	Top Bush	2
5	SWS19568	Knock Plate	1
6	SWB115	Tube	1

6.3.2 Standard Subsoiler Tine & Points – Continued**Complete Assembly - SWA272**

Item No.	Part Number	Description	Qty
7	SWB118	Spring	1
8	SWB119	Spring Drive Bush	1
9	SWB120	Spring Compression Plate	1
10	SWB112	Tine Support	1
11	SWB113	Tine	1
12	SWB110	Knock On Base	1
13	SWB116	Point	1
14	SWB1262	Coupling	1
15	SWM20100WA	Clamp Bolt	2
16	SWM1050	M10x50 Bolt	1
17	SWM10003	M10 Nut - Plain	1
18	SWM1470	M14x70 Bolt	2
19	SWM14003	M14 Nut – Plain	2
20	SWM1650UB	M16x50 U Bolt	2
21	SWM1660	M16x60 Bolt	1
22	SWM1690	M16x90 Bolt	1
23	SWM16003	M16 Nut – Plain	8
24	SWM20004	M20 Nut – Nylock	4
25	SWM2480	M24x80 Bolt	1
26	SWM24140	M24x140 Bolt	1
27	SWM24003	M24 Nut – Nylock	1
28	SWM20004	M24 Nut – Plain	2
29	SWM1265CNTSK	M12x65 C/Sink Bolt	2
30	SWM12004	M12 Nut – Nylock	2

6.3.3 Standard Paddle Assembly

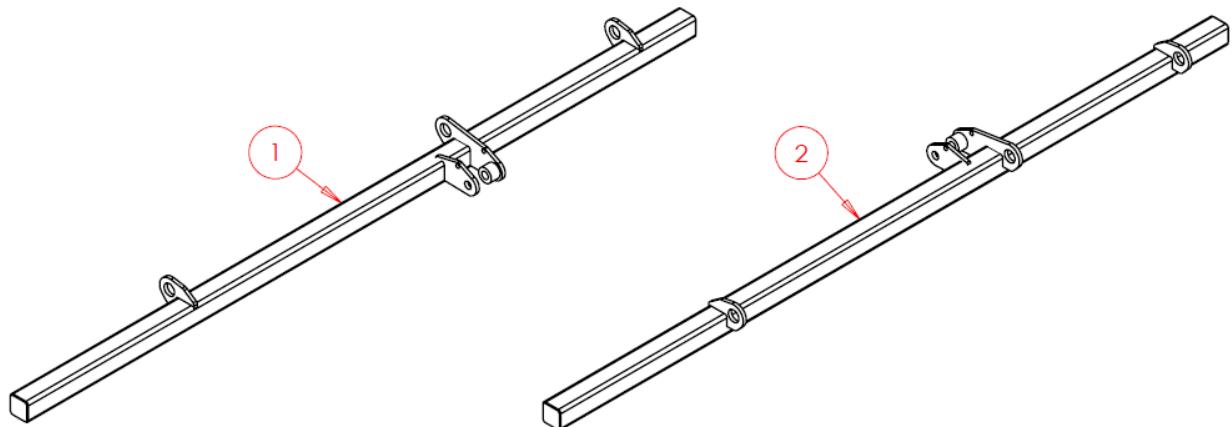


Quantities below are for individual paddles, not per machine.

Complete Assembly - SWA268			
Item No.	Part Number	Description	Qty
1	SWB121	Spring	1
2	SWB123	Clamping Plate	1
3	SWB122	Paddle	1
4	SWM12110	M12x110 Bolt	1
5	SWM1235CHSQ	M12x35 Cup Head Square Bolt	2
6	SWM12005	M12 Nut - Flanged Nylock	3

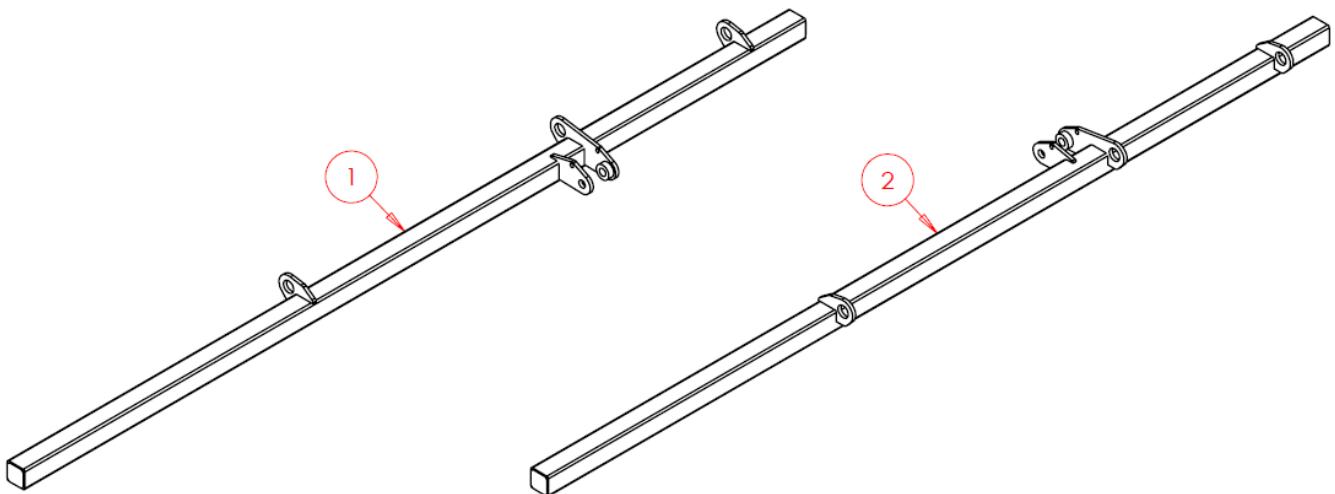
6.3.4 Paddle Bars & Pivot Assembly

6.3.4.1 Paddle Bars - MUL5 Only

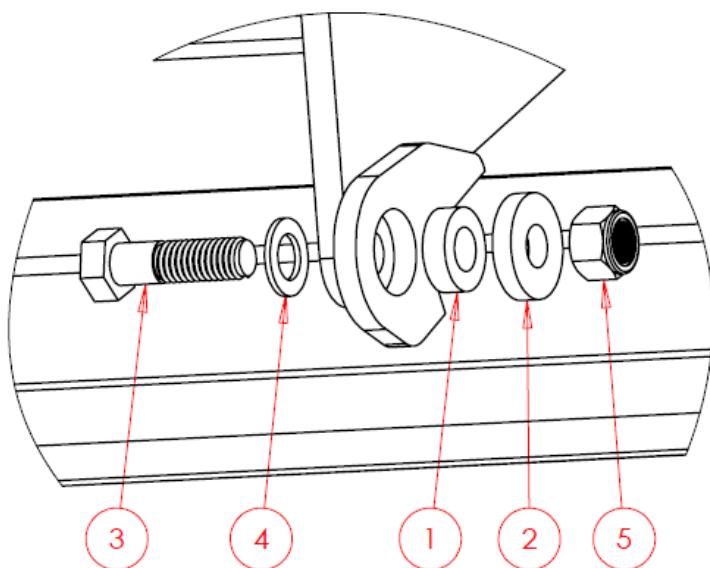


Item No.	Part Number	Description	Qty
1	SW3721	Paddle Bar - Left	1
2	SW3735	Paddle Bar - Right	1

6.3.4.2 Paddle Bars - MUL6 Only



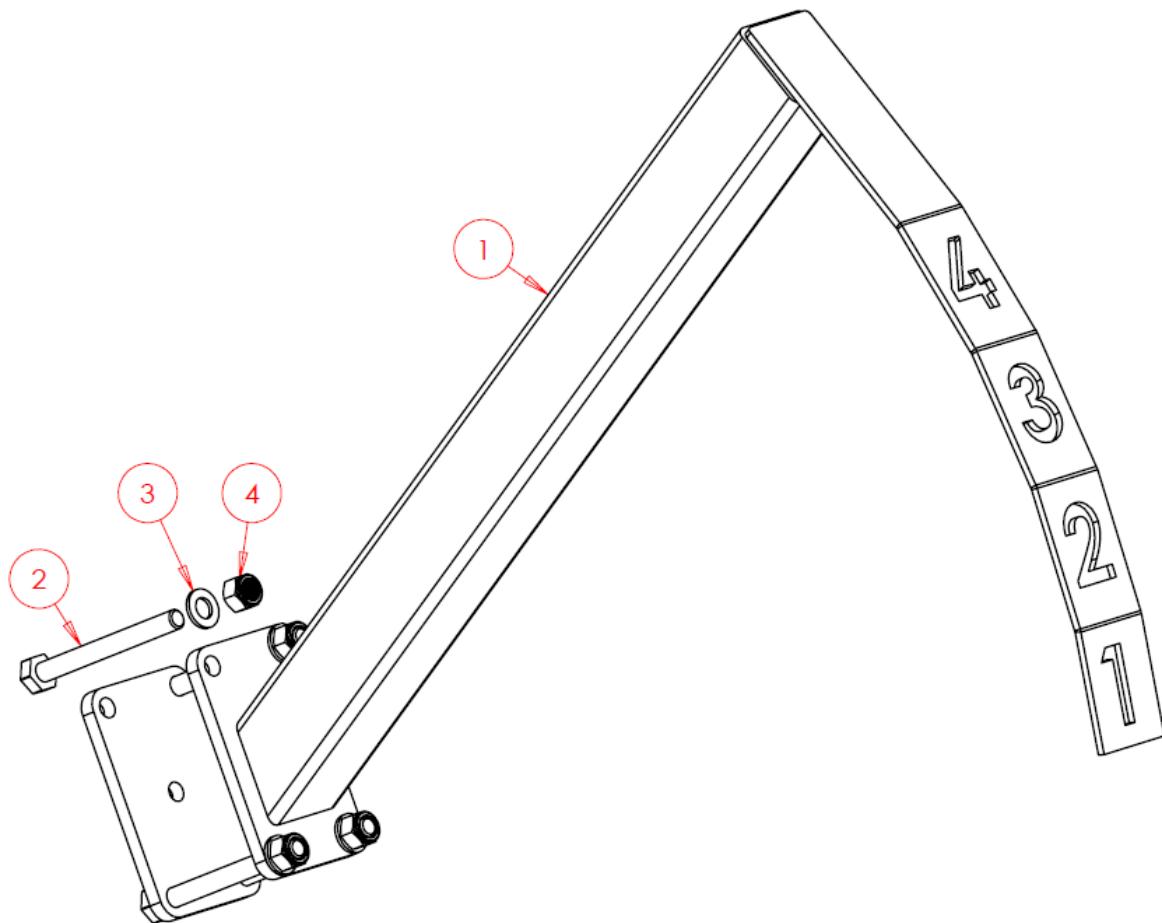
Item No.	Part Number	Description	Qty
1	SWA1369	Paddle Bar - Left	1
2	SWA1368	Paddle Bar - Right	1

6.3.4.3 Standard Pivot Points

Quantities below are for individual pivot points, not per machine.

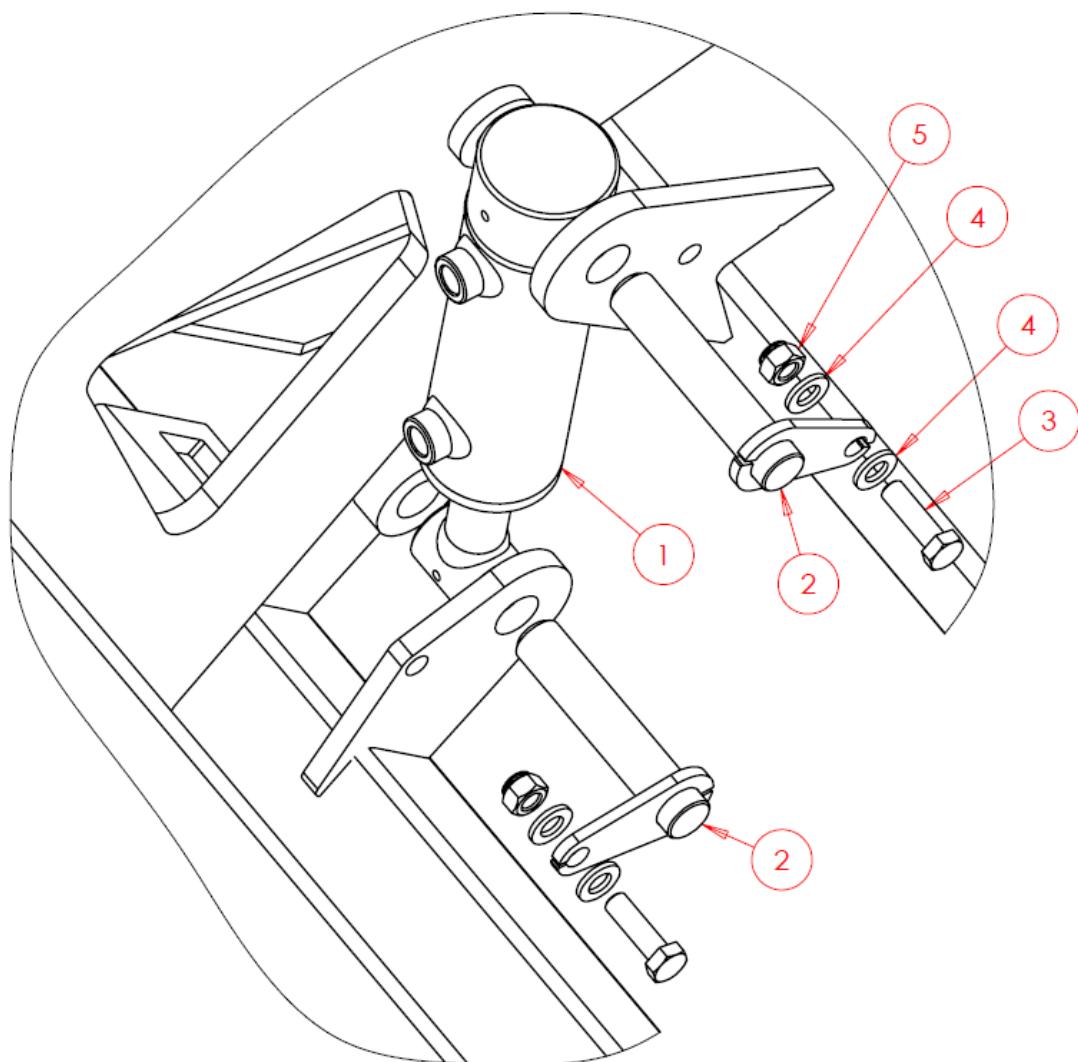
Item No.	Part Number	Description	Qty
1	SW125	Bush	1
2	SW3731	Extra Large Washer	1
3	SWM2070	M20x70 Bolt	1
4	SWM20001	M20 Washer – Flat	1
5	SWM20004	M20 Nut – Nylock	1

6.3.5 Paddles Depth Gauge



Item No.	Part Number	Description	Qty
1	SWA1578	Depth Gauge	1
2	SWM10100	M10X100 Bolt	4
3	SWM10001	M10 Washer - Flat	4
4	SWM10004	M10 Nut - Nylock	4

6.3.6 Paddles Hydraulic Assembly

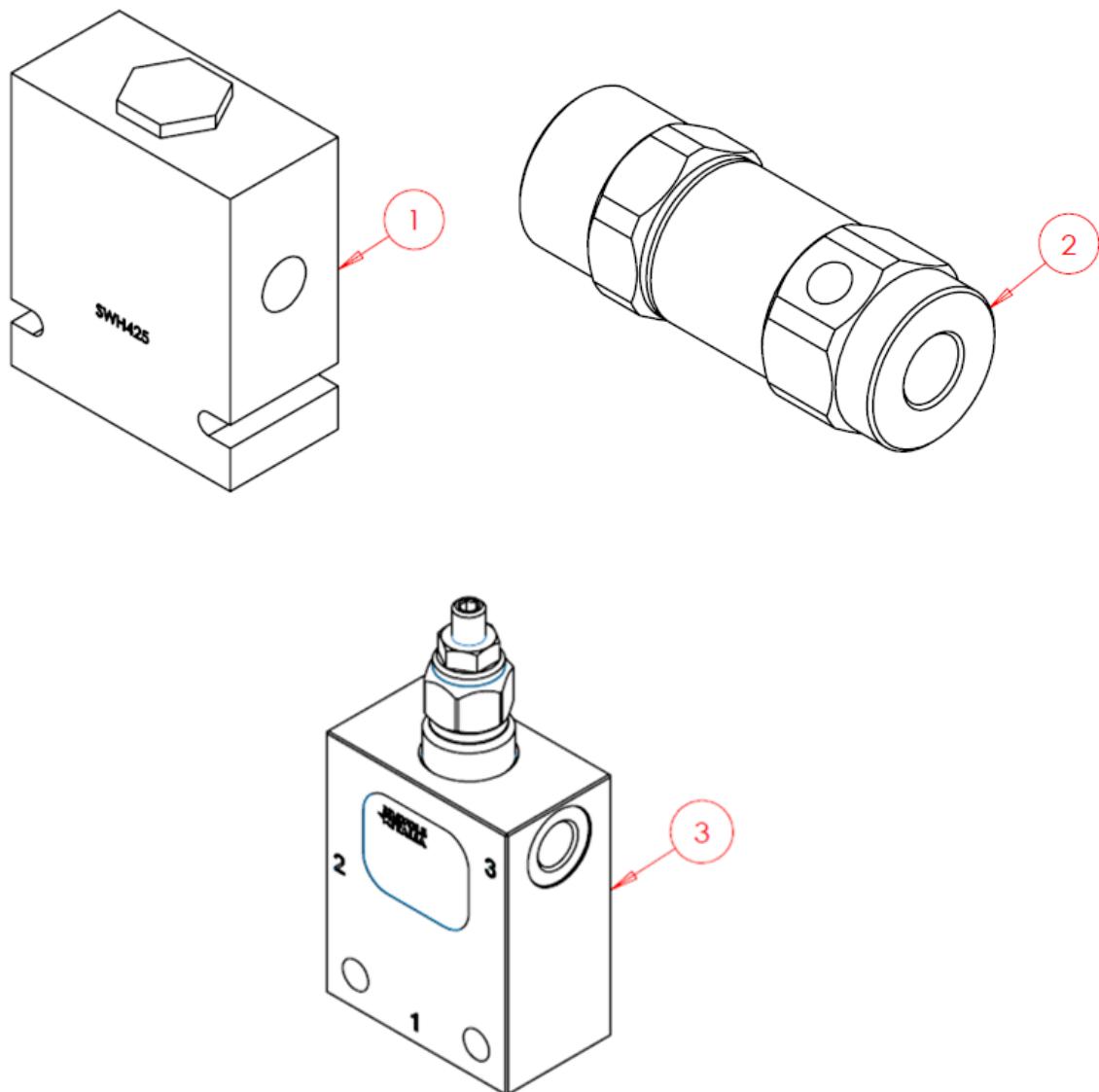


Quantities below are per hydraulic cylinder, not per machine.

Item No.	Part Number	Description	Qty
1	SWH113	Hydraulic Cylinder	1
2	SWP25X115	Pin – Tabbed	2
3	SWM1240	M12x40 Screw	2
4	SWM12001	M12 Washer – Flat	4
5	SWM12004	M12 Nut – Nylock	2

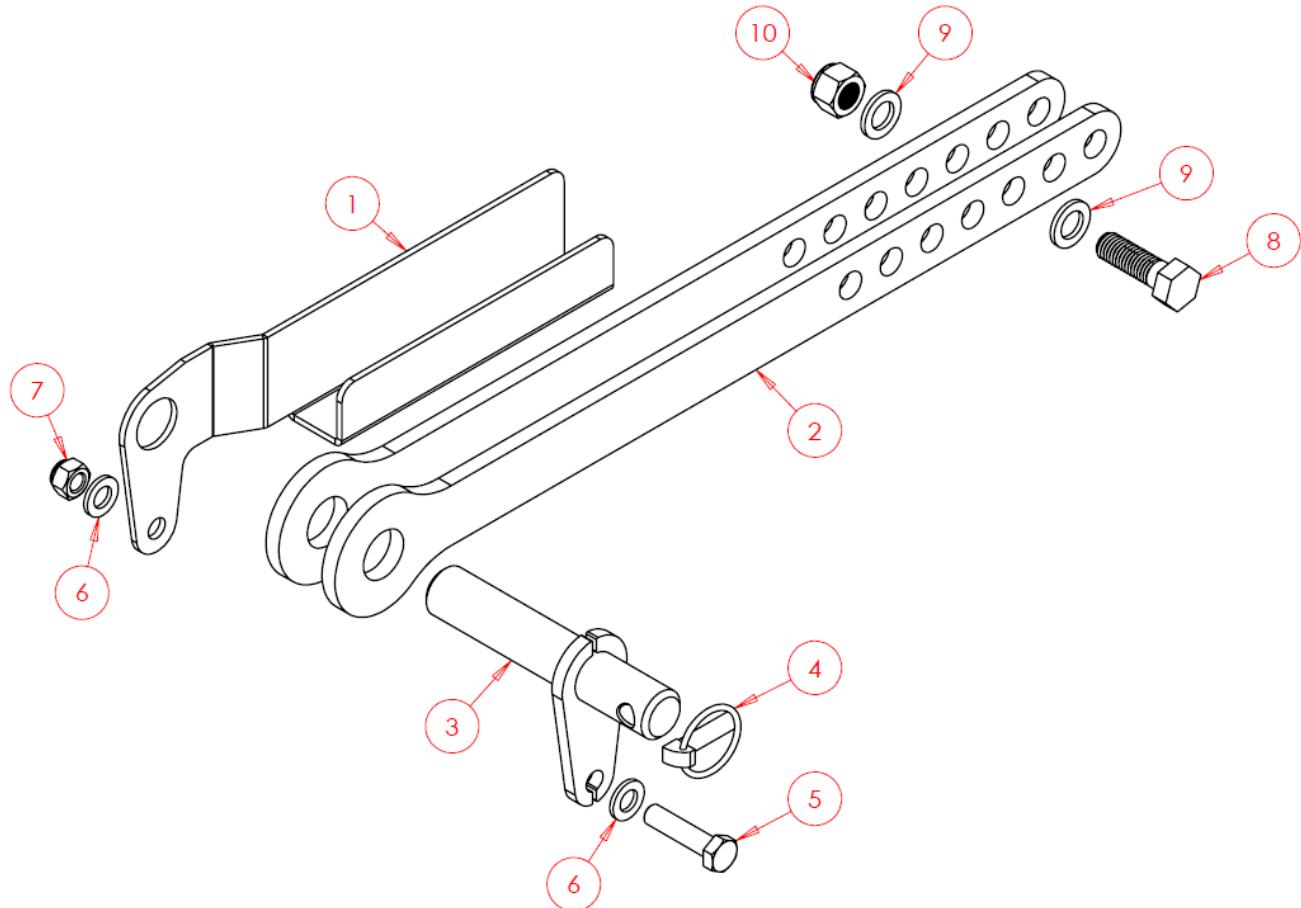
6.3.7 Wing Equalizer, Lock & Load Holding Valves

Quantities below are per hydraulic cylinder, not per machine.



Item No.	Part Number	Description	Qty
1	SWH425	Wing Equalizer – Flow Divider	N/A
2	SWB1308	Wing Lock – Pilot Operated Check Valve	1
3	SWH749	Load Holding Valve – Counterbalance Valve	1

6.3.8 Dog Bone Arrangement

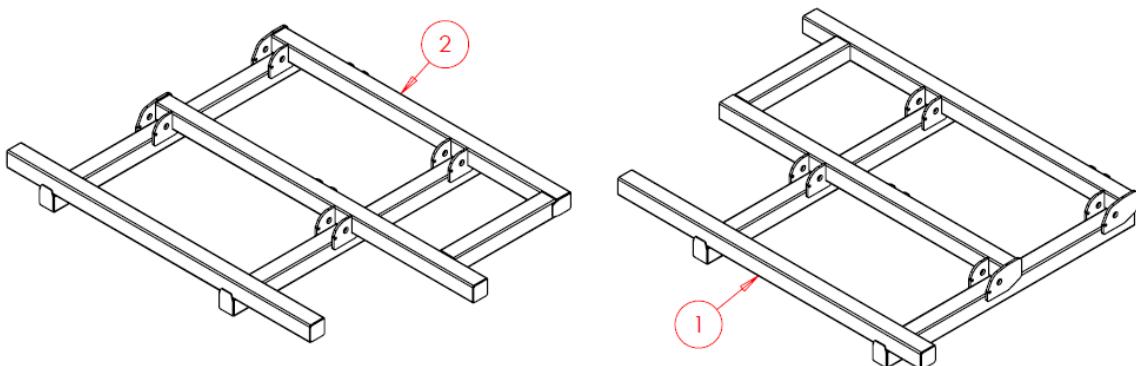


Item No.	Part Number	Description	Qty
1	SWS21127	Holder	1
2	SWS21126	Dog Bone	2
3	SWP30x110DB	Pin - Dog Bone	2*
4	SWB105	Lynch Pin	2*
5	SWM1250	M12x50 Bolt	2*
6	SWM12001	M12 Washer - Flat	4*
7	SWM12004	M12 Nut - Nylock	2*
8	SWM1650	M16x50 Bolt	1
9	SWM16001	M16 Washer - Flat	2
10	SWM16004	M16 Nut - Nylock	1

* Full arrangement is not shown, so full quantity may not be illustrated

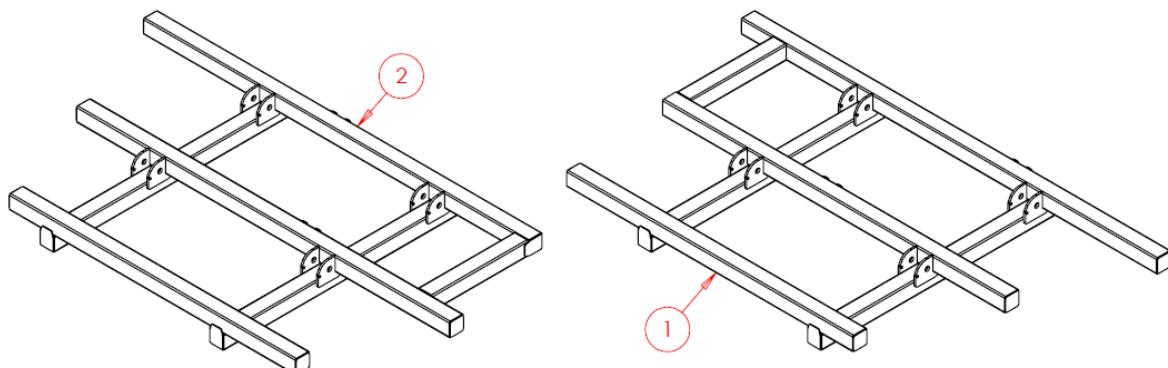
6.3.9 Swing Frames, Suspension Linkage & Hydraulics

6.3.9.1 Swing Frames – MUL5 Only



Item No.	Part Number	Description	Qty
1	SWA3012	LH Swing Frame	1
2	SWA3008	RH Swing Frame	1

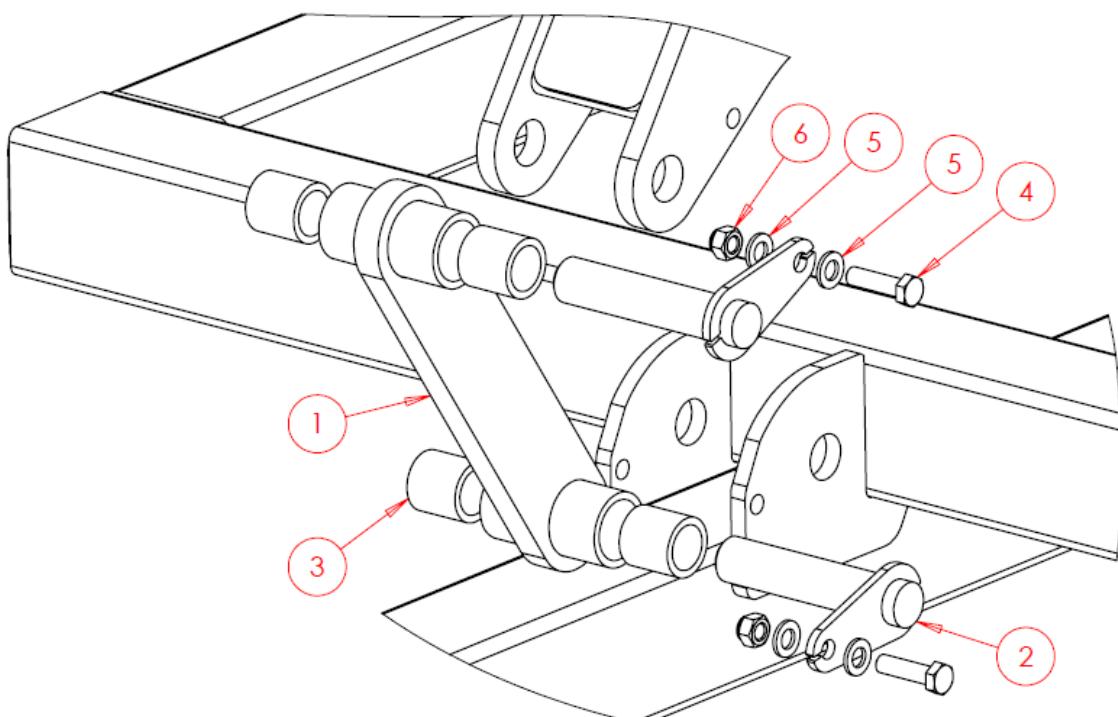
6.3.9.2 Swing Frames – MUL6 Only



Item No.	Part Number	Description	Qty
1	SWA2396	LH Swing Frame	1
2	SWA2394	RH Swing Frame	1

6.3.9.3 Standard Suspension Linkage

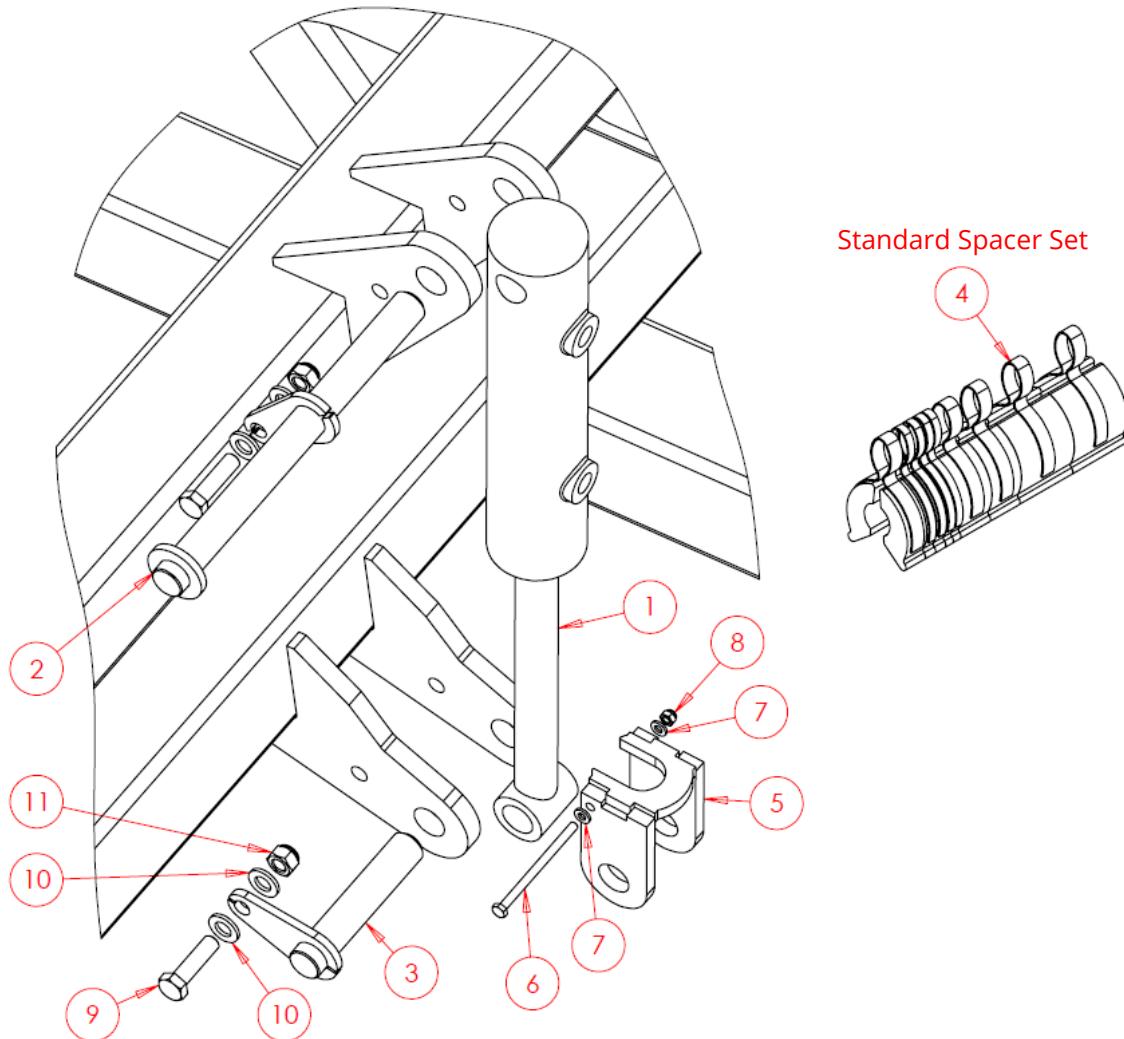
Quantities provided are per linkage, not per machine.



Item No.	Part Number	Description	Qty
1	SWA1377	Linkage	1
2	SWP30X135	Pin	2
3	SWB1219	Bush	4
4	SWM1245	M12x45 Bolt	2
5	SWM12001	M12 Washer - Flat	4
6	SWM12004	M12 Nut - Nylock	2

6.3.9.4 Swing Frame Hydraulics Arrangement

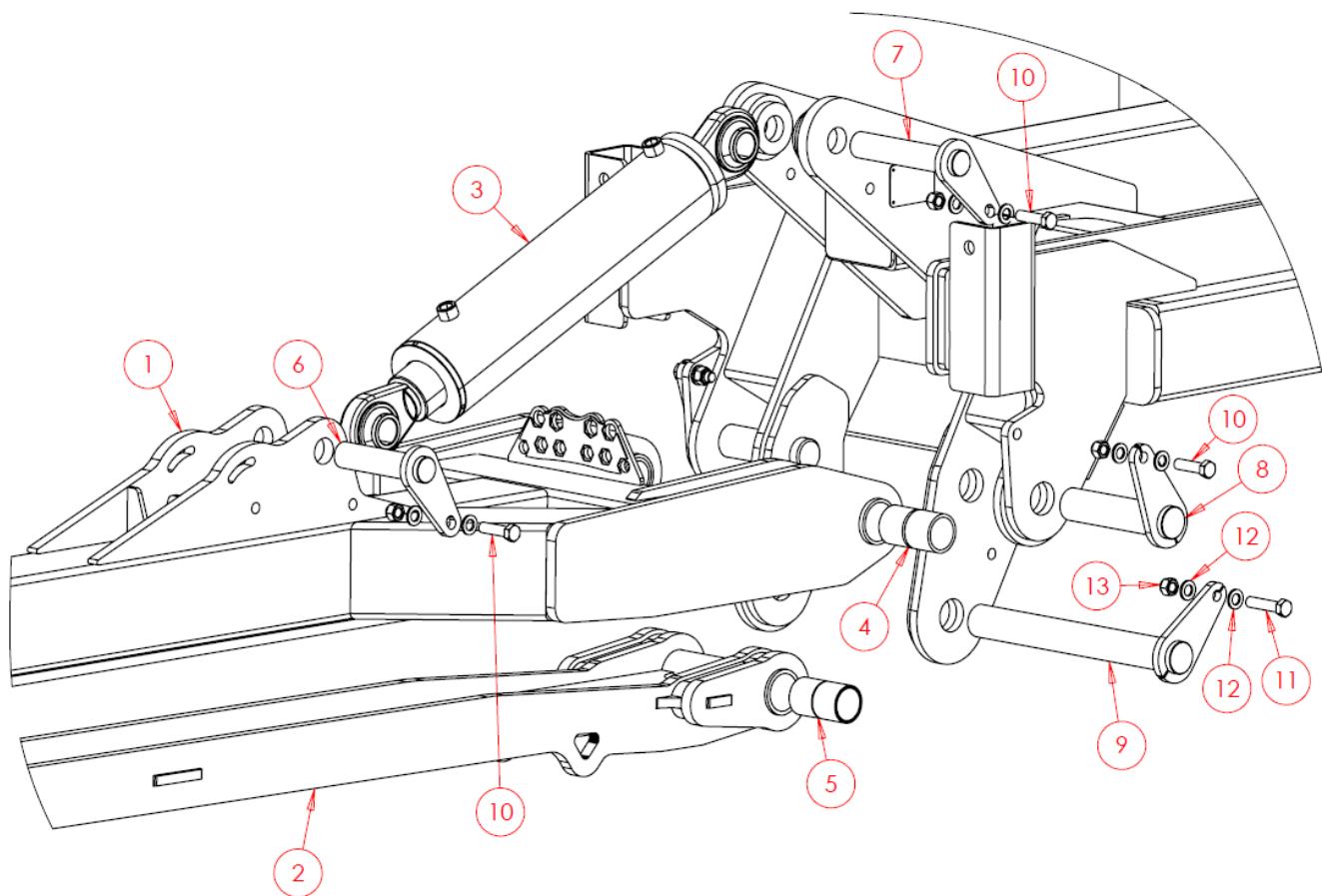
Quantities provided are per hydraulic cylinder, not per machine.



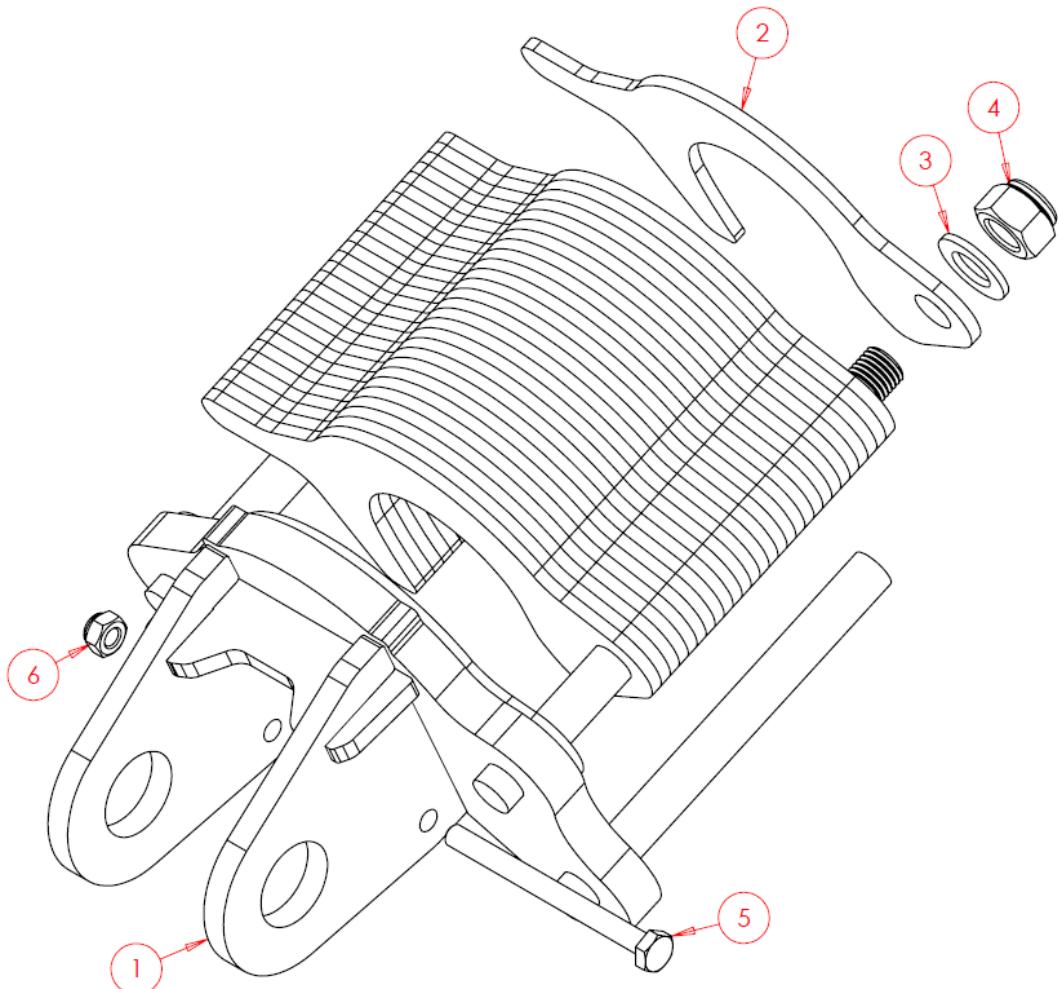
Item No.	Part Number	Description	Qty
1	SWH114	Hydraulic Cylinder	1
2	SW3929	Pin	1
3	SWP25X115	Pin	1
4	SWB1010	Hydraulic Stroke Limiters - Spacer Set	1
5	SW3581	Ram Stop	1
6	SWM690	M6x90 Bolt	1
7	SWM6001	M6 Washer - Flat	2
8	SWM6004	M6 Nut - Nylock	1
9	SWM1245	M12x45 Bolt	2
10	SWM12001	M12 Washer - Flat	4
11	SWM12004	M12 Nut - Nylock	2

6.3.10 Drawbar System

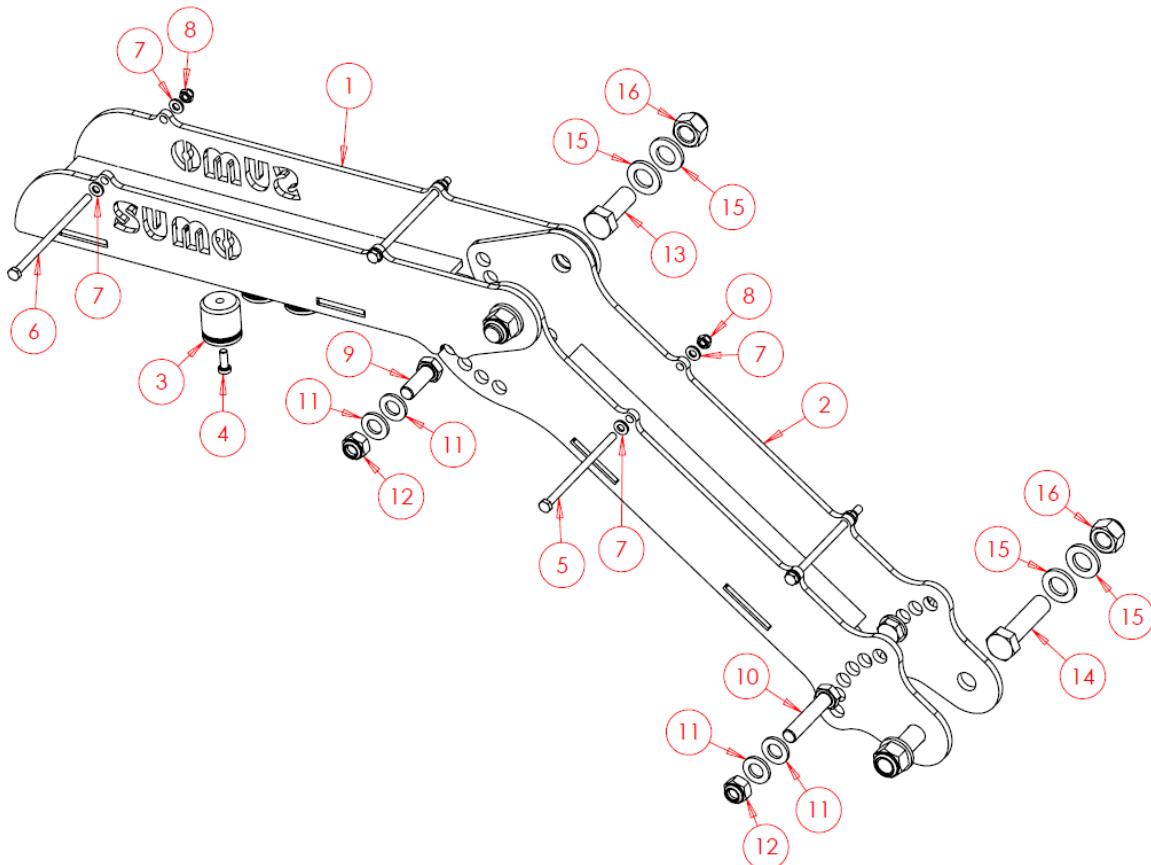
6.3.10.1 Drawbar & Hydraulic Assembly



Item No.	Part Number	Description	Qty
1	SWA1317	Drawbar - Upper	1
2	SW2032	Drawbar - Lower	1
3	SWH293	Hydraulic Cylinder	1
4	SWB1046	Self-Lubricating Bush	4
5	SWB142	Oilite Bush	4
6	SWP40X160	Pin	1
7	SWP40X200	Pin	1
8	SWP50X200	Pin	2
9	SWP50X415	Pin	1
10	SWM1660	M16x60 Bolt	4
11	SWM1670	M16x70 Bolt	1
12	SWM16001	M16 Washer - Flat	10
13	SWM16004	M16 Nut - Nylon	5

6.3.10.2 Shims Holder Assembly

Item No.	Part Number	Description	Qty
1	SW536	Shim Holder	1
2	SW144	Shims	28
3	SWM20001	M20 Washer - Flat	1
4	SWM20004	M20 Nut - Nylock	1
5	SWM10120	M10x120 Bolt	1
6	SWM10004	M10 Nut - Nylock	1

6.3.10.3 Hydraulic Hose Holder Assembly

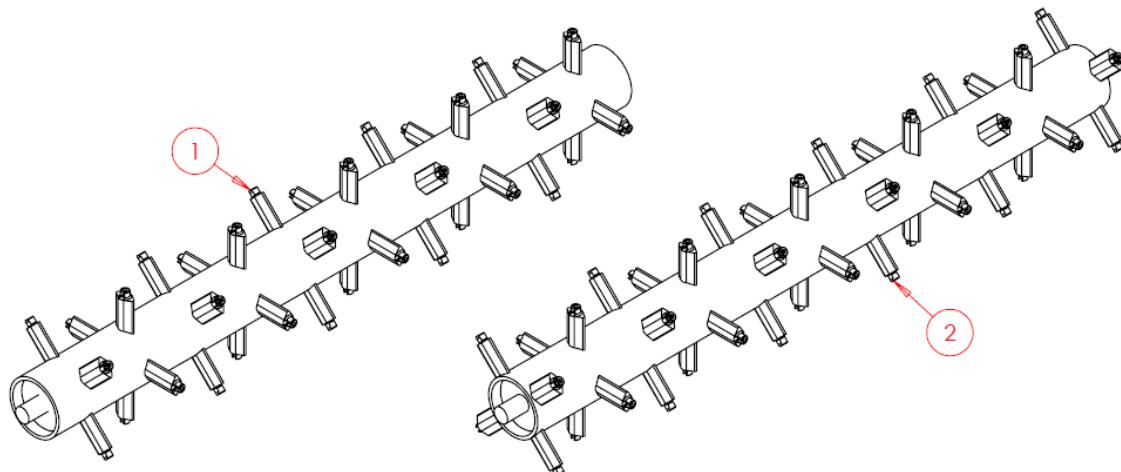
Item No.	Part Number	Description	Qty
1	SW379	Hydraulic Hose Holder – Top	1
2	SW380	Hydraulic Hose Holder – Bottom	1
3	SWH419	Hose Coupling	*
4	SWM616AKH	M6x16 Socket Head Screw	*
5	SWM6110	M6x110 Bolt	2
6	SWM6120	M6x120 Bolt	2
7	SWM6001	M6 Washer – Flat	8
8	SWM6004	M6 Nut – Nylock	4
9	SWM1235	M12x35 Screw	2
10	SWM1260	M12x60 Bolt	2
11	SWM12001	M12 Washer – Flat	8
12	SWM12004	M12 Nut – Nylock	4
13	SWM1640	M16x40 Screw	2
14	SWM1660	M16x60 Bolt	2
15	SWM16001	M16 Washer – Flat	8
16	SWM16004	M16 Nut – Nylock	4

* Quantity is dependent on machine and hydraulic services provided.

6.3.11 Packers Options

6.3.11.1 Variable Packer Spines – MUL5 Only

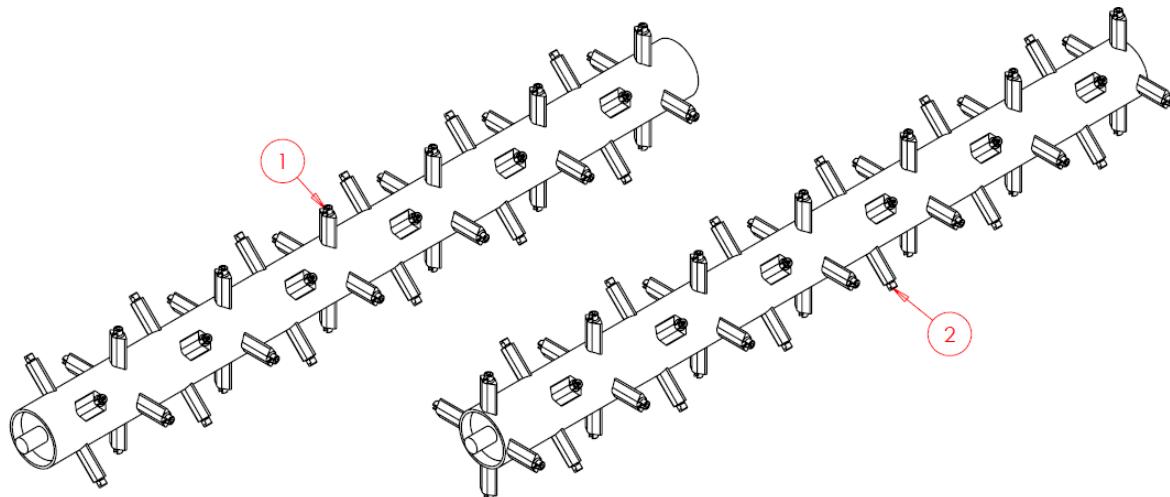
Only suitable for Roller, Channel & Sharp packers.



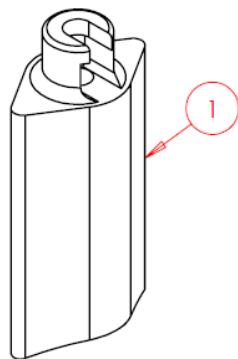
Item No.	Part Number	Description	Qty
1	SW3718	Front Packer Spine	2
2	SW3717	Rear Packer Spine	2

6.3.11.2 Variable Packer Spines – MUL6 Only

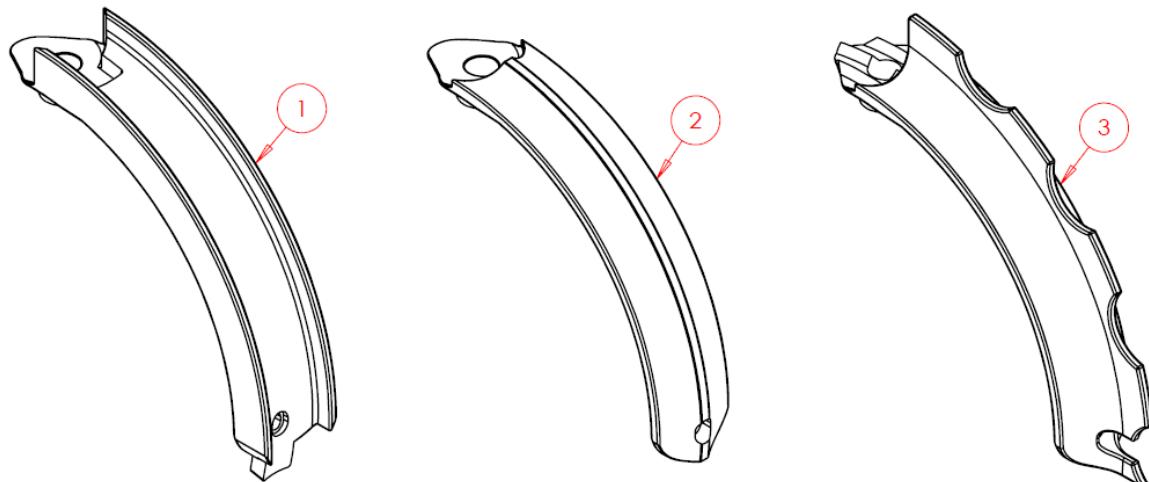
Only suitable for Roller, Channel & Sharp packers.



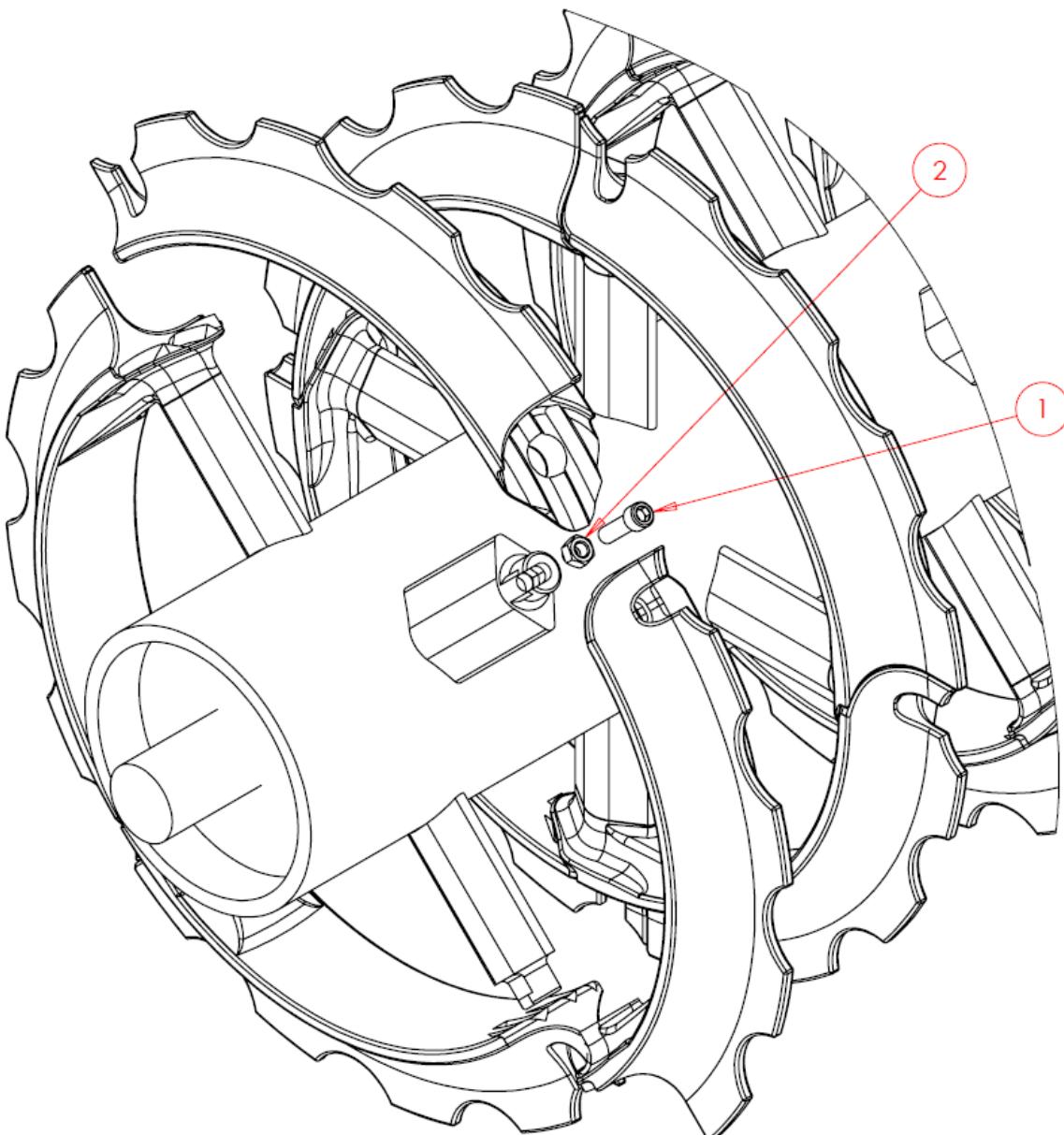
Item No.	Part Number	Description	Qty
1	SWA1363	Front Packer Spine	2
2	SWA1360	Rear Packer Spine	2

6.3.11.3 Individual Replacement Weld-On Spokes

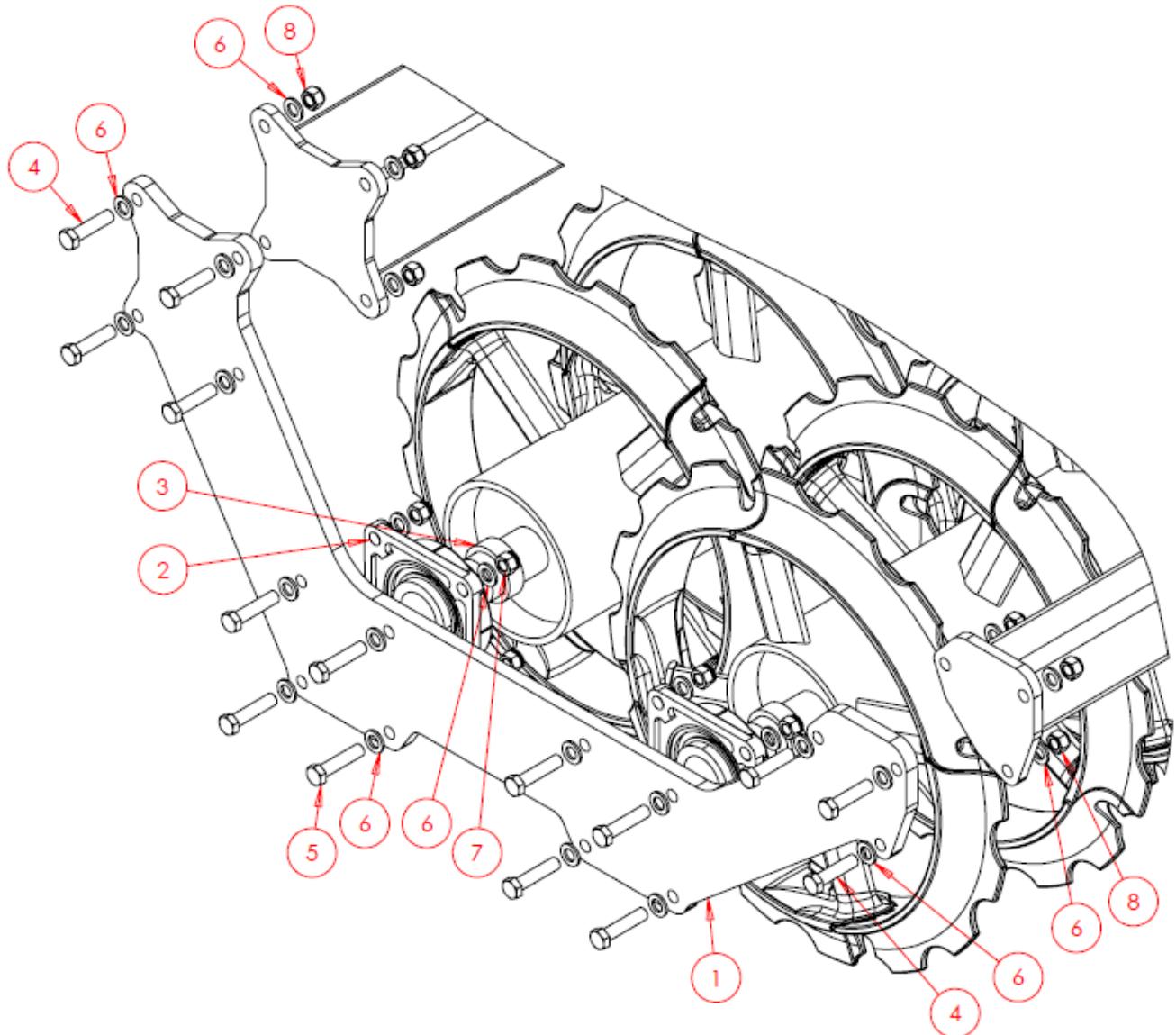
Item No.	Part Number	Description	Qty
1	SWB800	Weld-On Spokes	N/A

6.3.11.4 Individual Replacement Packer Segments

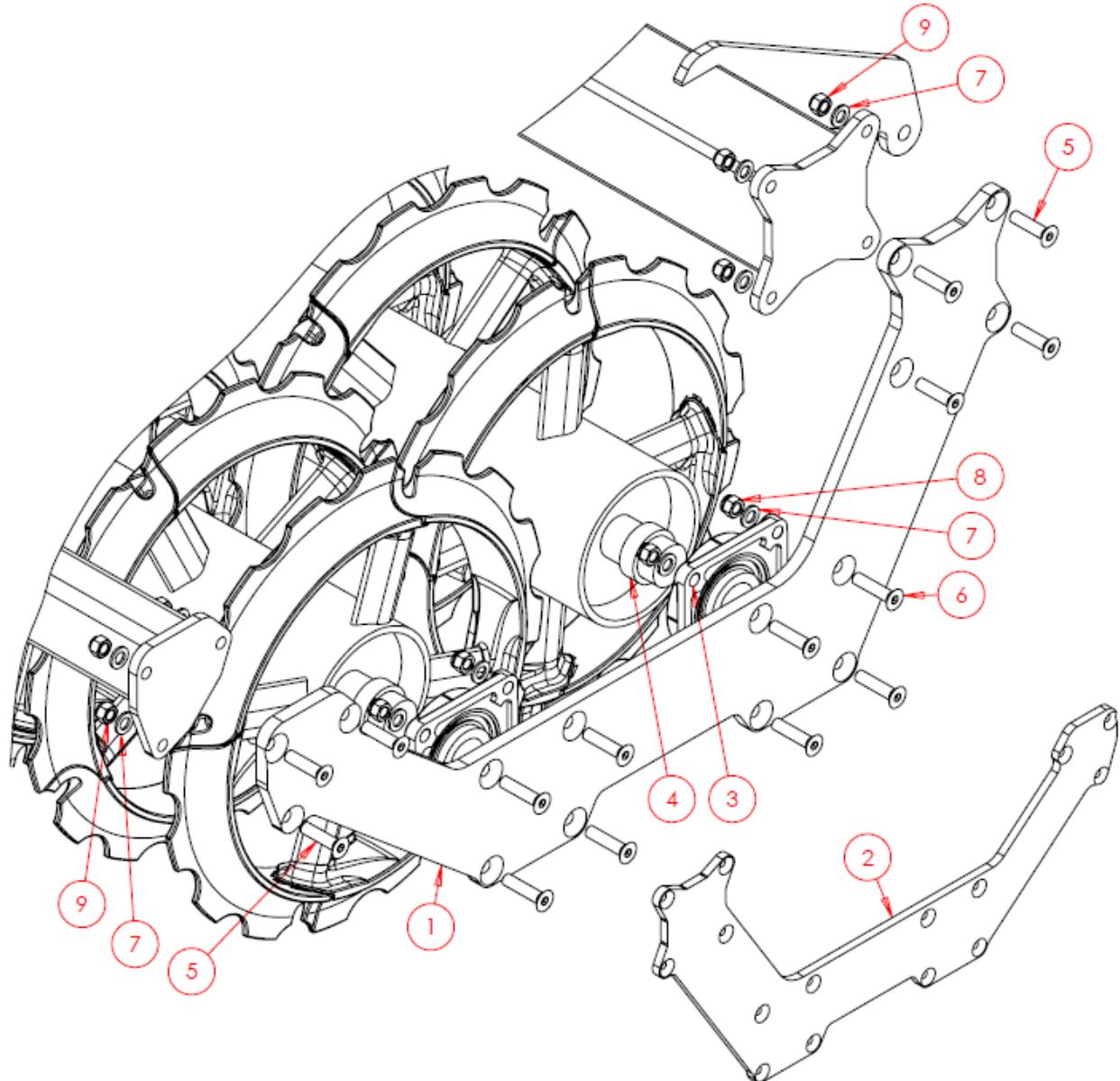
Item No.	Part Number	Description	Qty
1	SWB801	Channel Packer Segment	N/A
2	SWB802	Roller Packer Segment	N/A
3	SWB803	Sharp Packer Segment	N/A

6.3.11.5 Standard Segment Fastening Arrangement

Item No.	Part Number	Description	Qty
1	SWM1240CH	M12x40 Socket Head Bolt	N/A
2	SWM12004	M12 Nut – Nylock	N/A

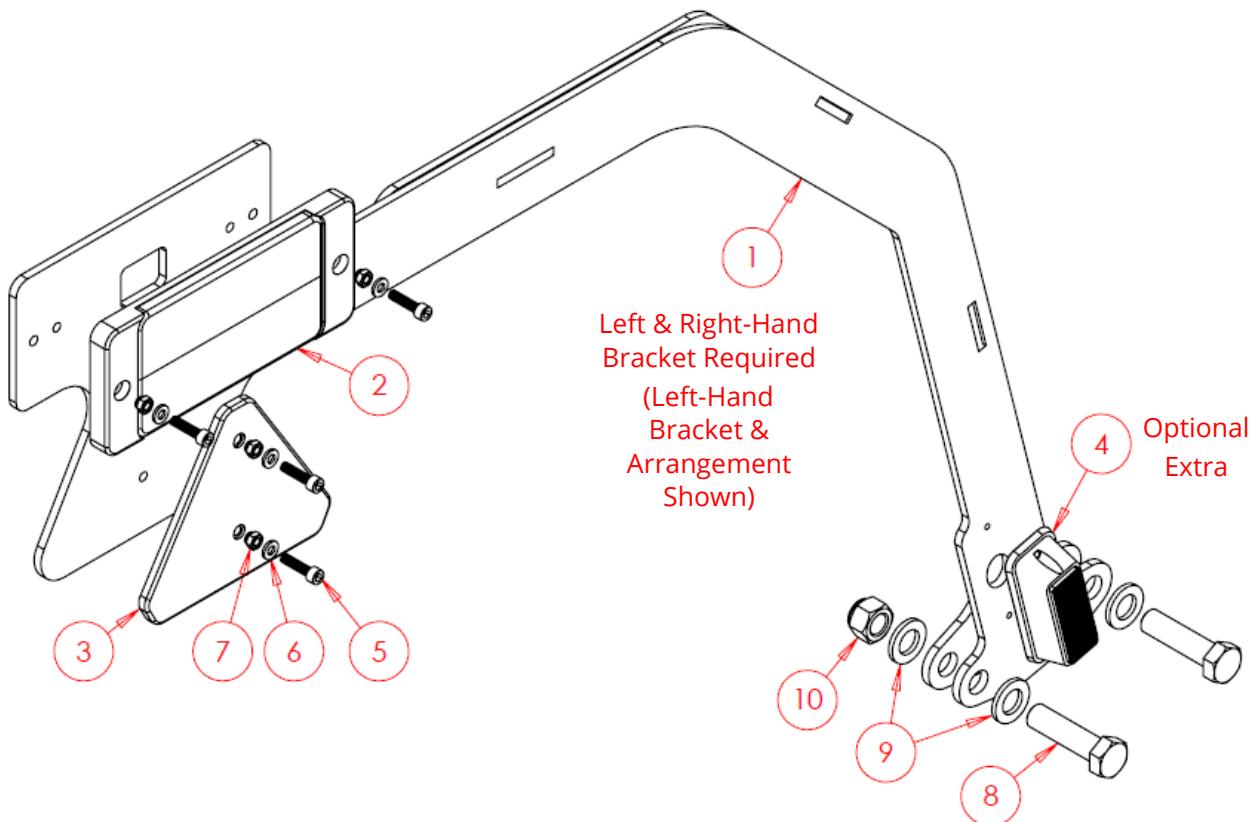
6.3.12 Packer Arms & Bearing Assembly**6.3.12.1 All Twin Packer Assemblies – Outer Packer Arms**

Item No.	Part Number	Description	Qty
1	SW6283	Twin Packer Arm - Outer	2
2	SWB104	Bearing	4
3	SWS3272	Spacer Collar	4
4	SWM1665	M16x65 Bolt	14
5	SWM1670	M16x70 Bolt	16
6	SWM16001	M16 Washer - Flat	60
7	SWM16006	M16 Nut - Aerotight	16
8	SWM16004	M16 Nut - Nylock	14

6.3.12.2 All Twin Packer Assemblies – Inner Packer Arms

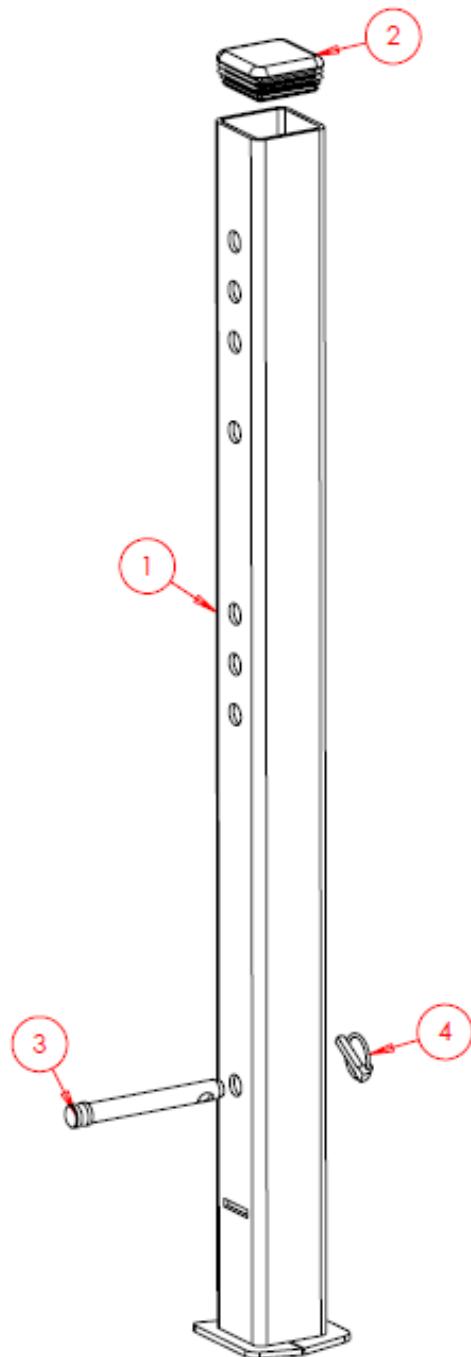
Item No.	Part Number	Description	Qty
1	SW6281	Twin Packer Arm – Inner LH	1
2	SW6282	Twin Packer Arm – Inner RH	1
3	SWB104	Bearing	4
4	SWS3272	Spacer Collar	4
5	SWM1665CSK	M16x65 Countersink Bolt	14
6	SWM1670CSK	M16x70 Countersink Bolt	16
7	SWM16001	M16 Washer – Flat	30
8	SWM16006	M16 Nut – Aerotight	16
9	SWM16004	M16 Nut – Nylock	14

6.3.13 Light Bracket Assemblies

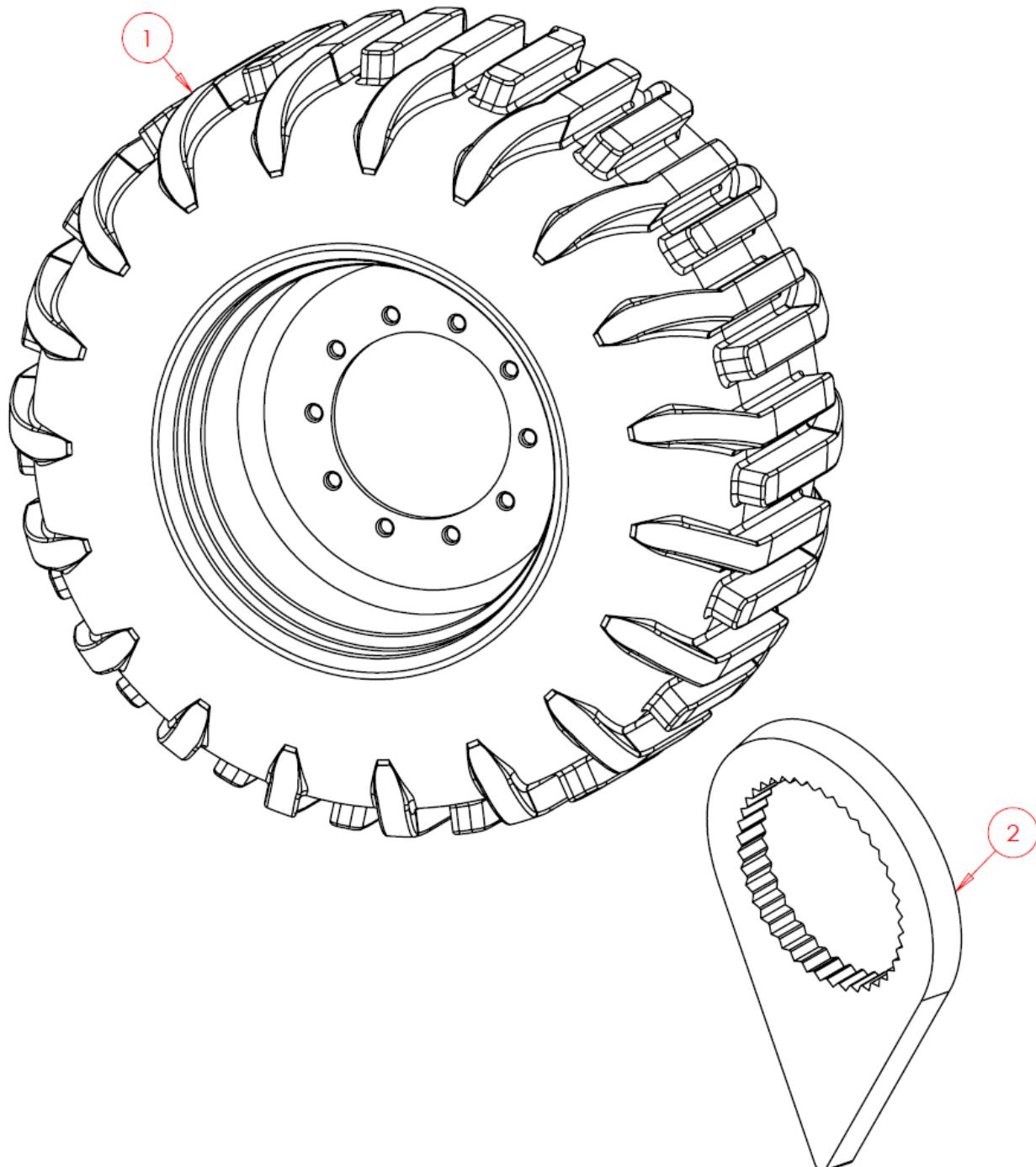


Item No.	Part Number	Description	Qty
1	SW445	Light Bracket LH	1
1	SW444	Light Bracket RH (Not Shown)	1
2	SWB715	Rear Light Stop Light / Indicator	2
3	SWB162	Reflector – Red Triangle	2
4	SWB274	Marker Light – White *	2
5	SWM625AKH	M6x25 Cap Head Screw	8
6	SWM6001	M6 Washer – Flat	8
7	SWM6004	M6 Nut – Nylock	8
8	SWM1660	M16x60 Bolt	4
9	SWM16001	M16 Washer – Flat	8
10	SWM16004	M16 Nut – Nylock	4

* Marker Lights are an optional extra and do not appear on standard machines.

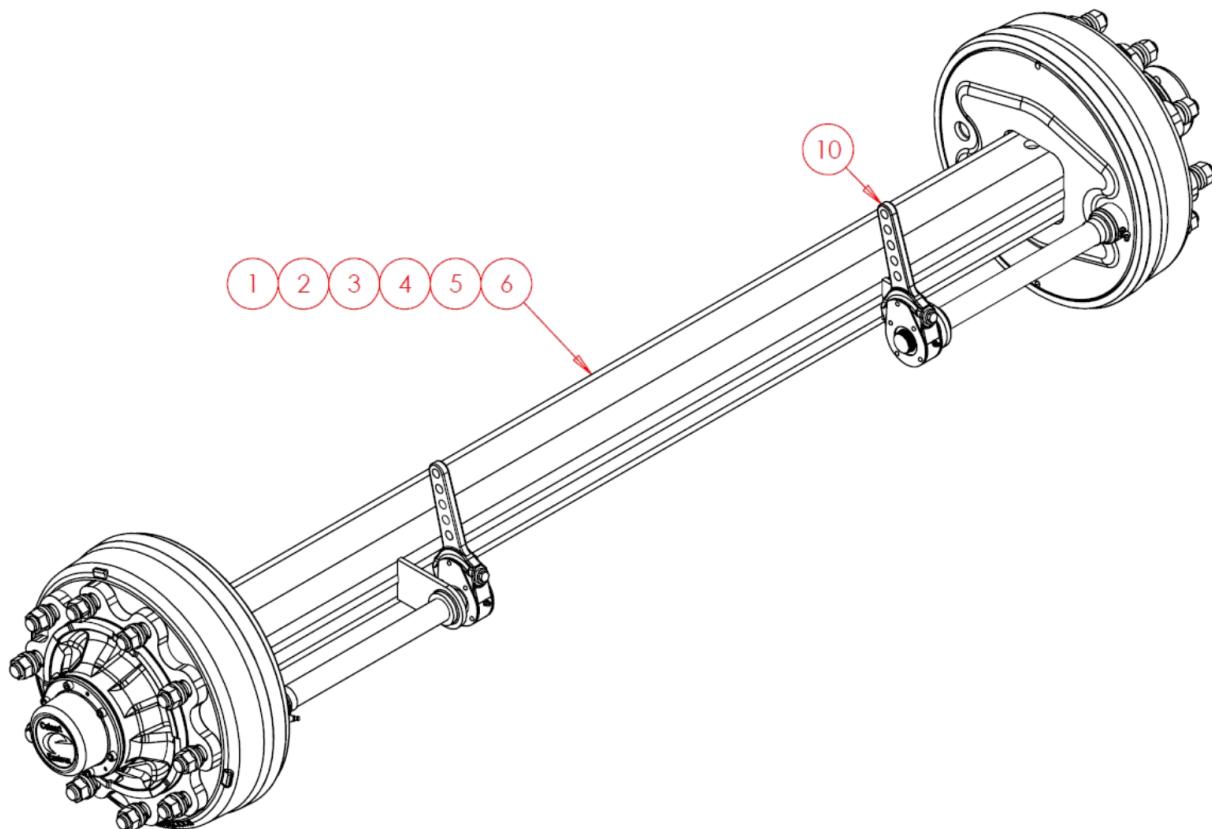
6.3.14 Stands

Item No.	Part Number	Description	Qty
1	SW117	Stand	2
2	SWB144	Plastic Bung	2
3	SW118	Stand Pin	2
3	SWB105	Lynch Pin	2

6.3.15 Tyre & Axle Assemblies**6.3.15.1 Tyre Assembly**

Item No.	Part Number	Description	Qty
1	SWB414	Tyre & Rim 600/50-22.5 10 Stud	2
2	SWB634	30mm Marker Arrow	20

6.3.15.2 10 Stud Axle - Spare Parts List



Complete Assembly – SWB1200*

Item No.	Part Number	Description	Qty
1	SWB749	Wheel Nuts & Washers	20
2	SWB519	Dust Seal Kit (Outside)	2
3	SWB748	Stud	20
4	SWB744	Bearing Kit	2
5	SWB742	Crown Nut & Pin	2
6	SWB741	3 Piece Seal Kit (Inside)	2

* Quantities for whole axle (both Drums).

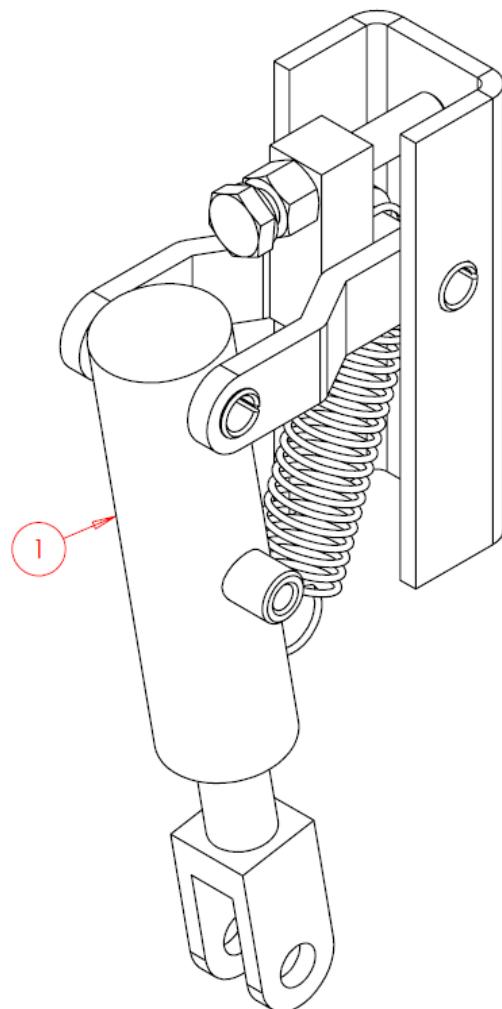
Item No.	Part Number	Description	Qty
10	SWB1076	Brake Lever	2

* Quantities for whole axle (both Drums).

6.3.15.3 Brake Cylinders Assembly (Standard Option)

Brake cylinder will change if the machine is homologated. See homologation option.

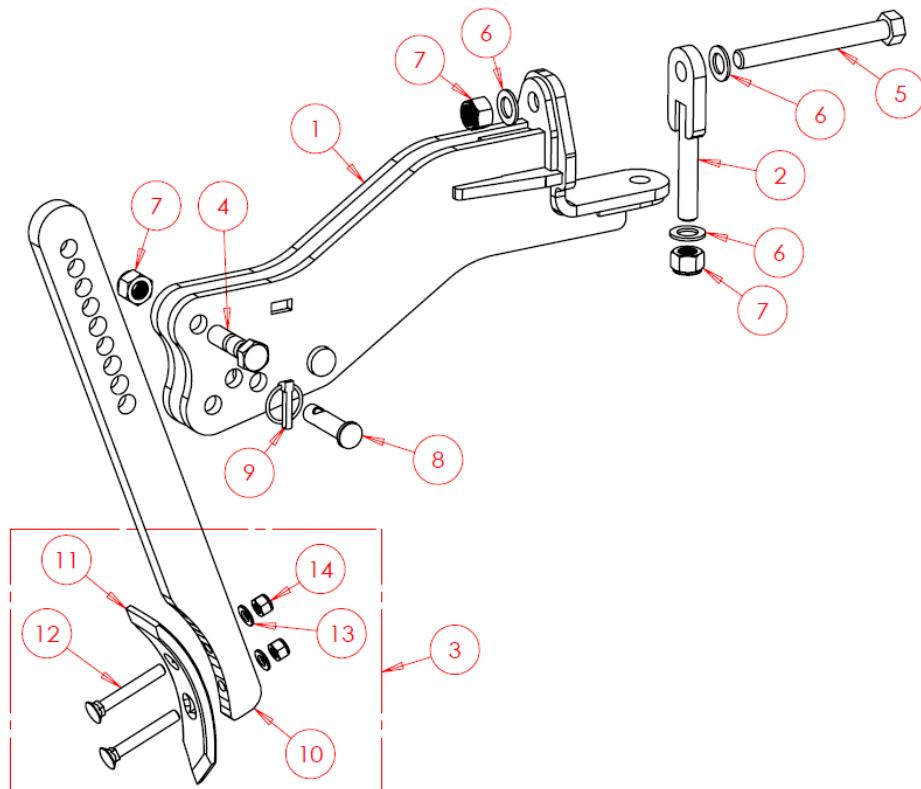
Note: Parts for this assembly are not sold separately.



Item No.	Part Number	Description	Qty
1	SWB134	Brake Cylinder Assembly	2

6.4 Optional Extras/Attachments

6.4.1 Wheel Eradicators



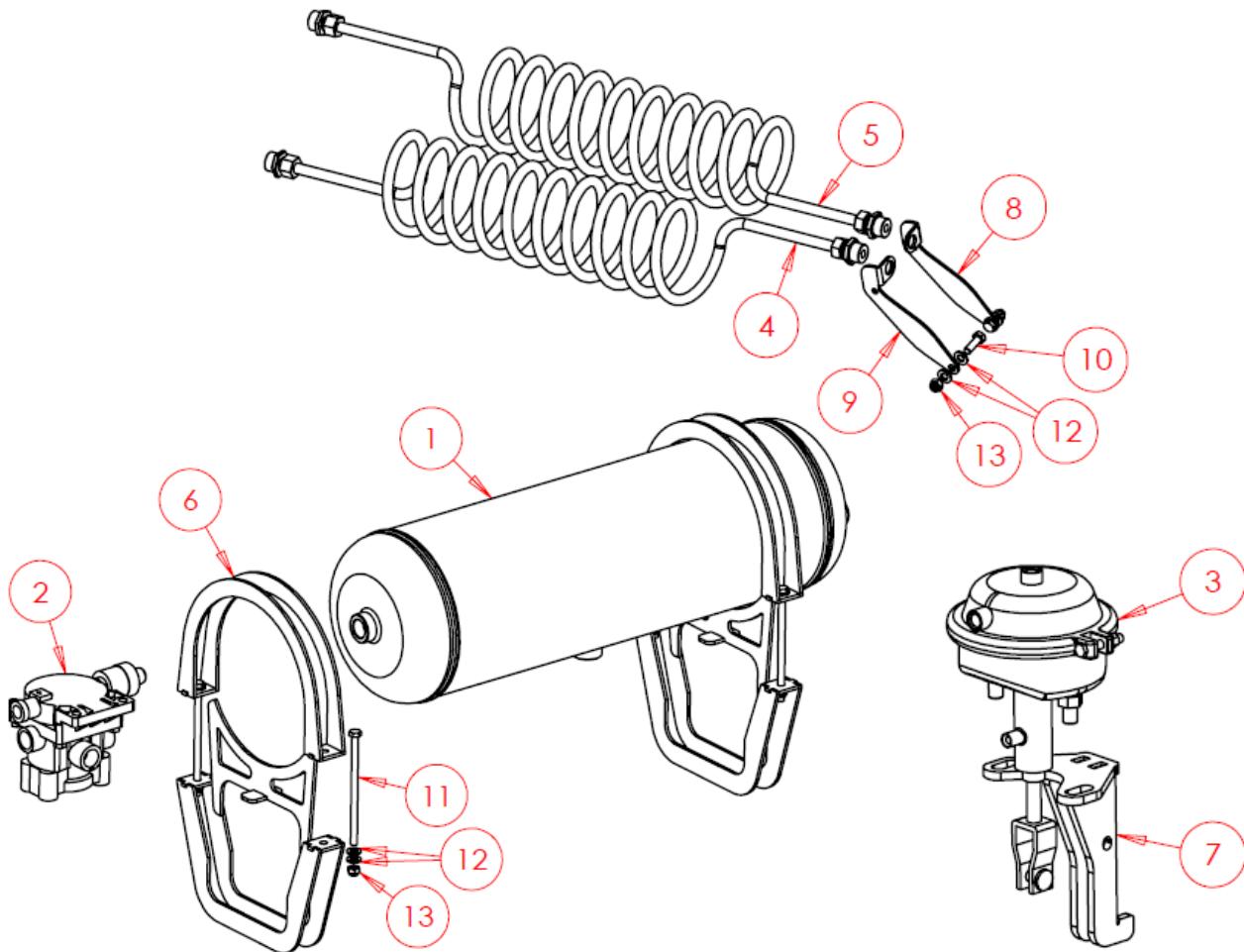
Complete Assembly Including Tine – SWA2365

Item No.	Part Number	Description	Qty
1	SWA2366	Wheel Eradicator Body	1
2	SWA2367	Eye Bolt	1
3	SWA332	Tine Assembly	1
4	SWM2070SB	Shear Bolt	1
5	SWM20180	M20x180 Bolt	1
6	SWM20001	M20 Washer – Flat	3
7	SWM20004	M20 Nut – Nylock	3
8	SWB145	Pin	1
9	SWB105	Lynch Pin	1

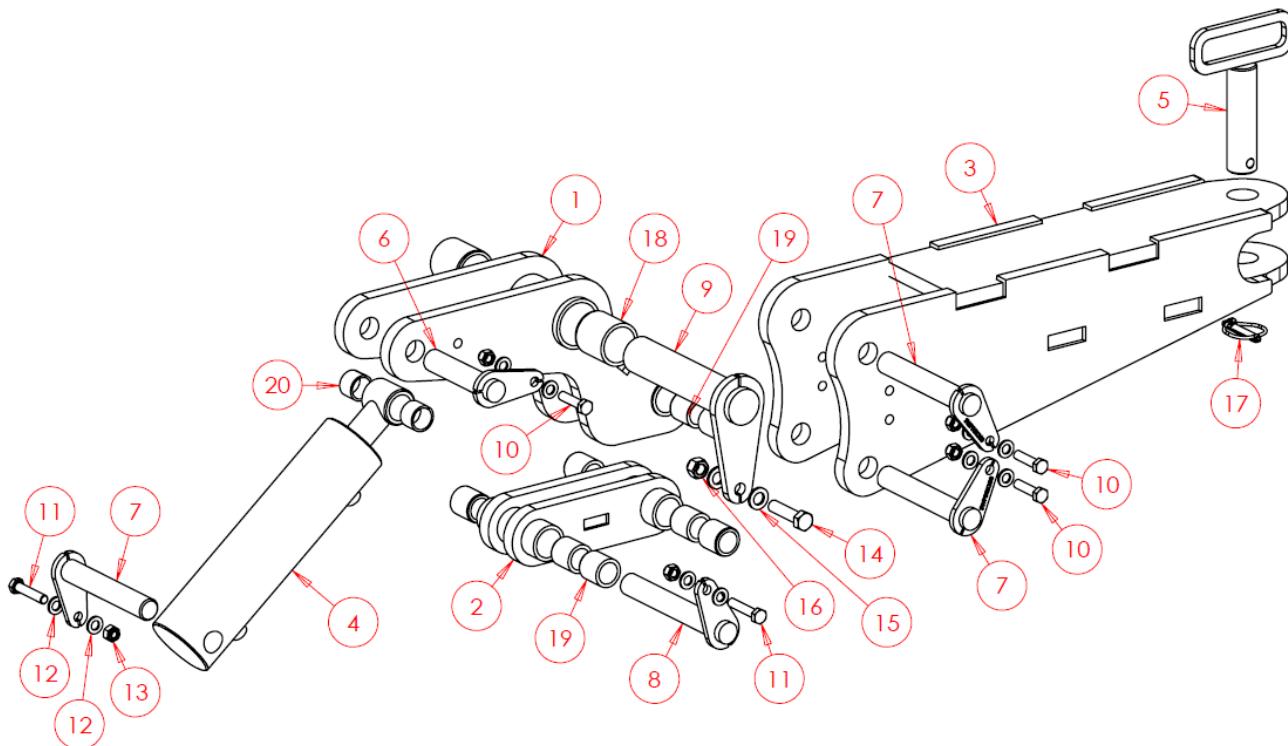
Individual Tine – Complete Assembly – SWA332

Item No.	Part Number	Description	Qty
10	SW198	Tine	1
11	SW199	Point	1
12	SWM1280PB	M12x80 Plough Bolt	2
13	SWM12001	M12 Washer – Flat	2
14	SWM12004	M12 Nut – Nylock	2

6.4.2 Air Brake Kits

**Air Brake Kit - SWB1296**

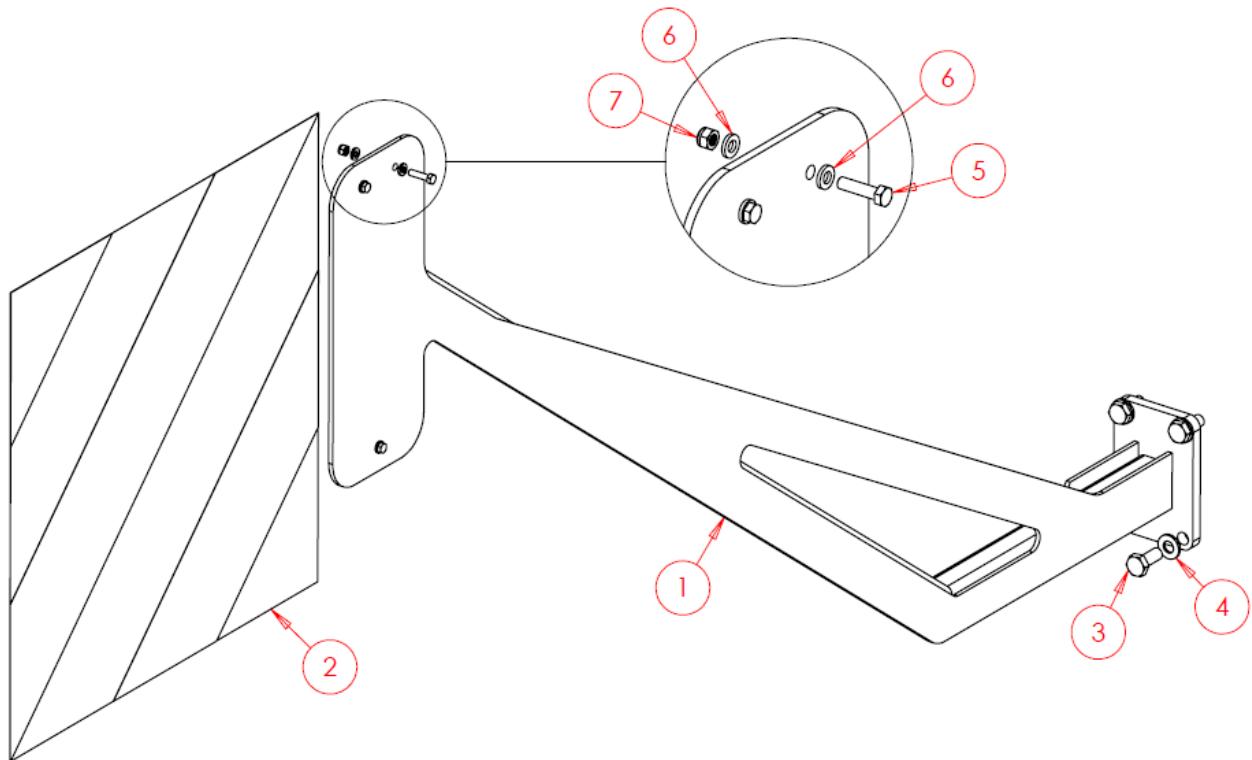
Item No.	Part Number	Description	Qty
1	SWB1068	Reservoir	1
2	SWB1070	Distribution Valve	1
3	SWH683	Air-Brake Chamber	2
4	SWB1389	Emergency Line – Red	1
5	SWB1388	Service Line – Yellow	1
6	SW3905	Reservoir Bracket	2
7	SWA1580	Air-Brake Chamber Bracket	2
8	SWS12111-RH	Service Line Bracket	1
9	SWS12111-LH	Emergency Line Bracket	1
10	SWM825	M8x25 Screw	2
11	SWM8140	M8x140 Bolt	4
12	SWM8001	M8 Washer – Flat	12
13	SWM8004	M8 Nut – Nylock	6

6.4.3 Rear Drawbar**Complete Assembly Including Tine – SWA2290**

Item No.	Part Number	Description	Qty
1	SWA2286	Top Link	1
2	SWA2287	Bottom Link	1
3	SWA2288	Towing Bar	1
4	SWH125	Hydraulic Cylinder	1
5	SW1139	Pin	1
6	SWP30X130	Pin	1
7	SWP30X180	Pin	3
8	SWP30X210	Pin	1
9	SWP50X225	Pin	1
10	SWM1250	M12x50 Bolt	3
11	SWM1260	M12x60 Bolt	2
12	SWM12001	M12 Washer - Flat	10
13	SWM12004	M12 Nut - Nylock	5
14	SWM1665	M16x65 Bolt	1
15	SWM16001	M16 Washer - Flat	2
16	SWM16004	M16 Nut - Nylock	1
17	SWB107	Lynch Pin	1
18	SWB1004	Self-Lubricating Bush	2
19	SWB1235	Self-Lubricating Bush	9
20	SWB374	Spring Tension Bush	2

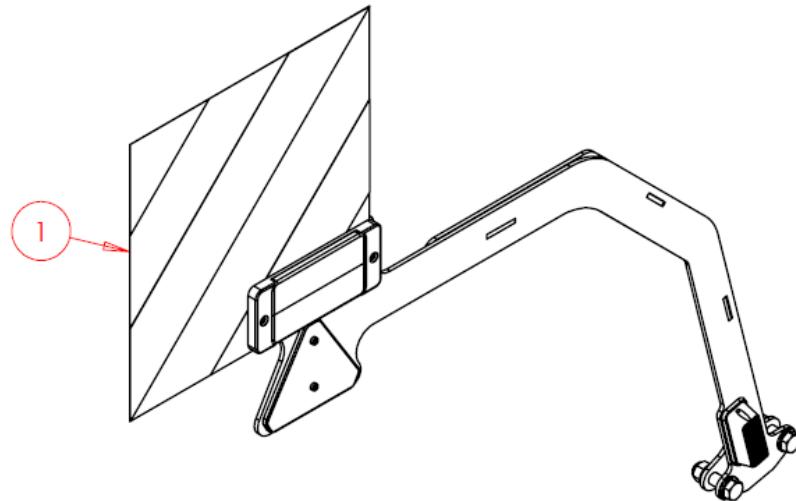
6.4.4 Hazard Boards

6.4.4.1 Front Hazard Boards



Left & Right-Hand
Bracket Required
(Right-Hand Bracket
& Arrangement
Shown)

Item No.	Part Number	Description	Qty
1	SW4621	Bracket RH	1
1	SW4622	Bracket LH (Not Shown)	1
2	SWB651	Hazard Board	2
3	SWM1025	M10x25 Screw	8
4	SWM10001	M10 Washer - Flat	8
5	SWM520	M5x20 Screw	6
6	SWM5001	M5 Washer - Flat	12
7	SWM5004	M5 Nut - Nylock	6

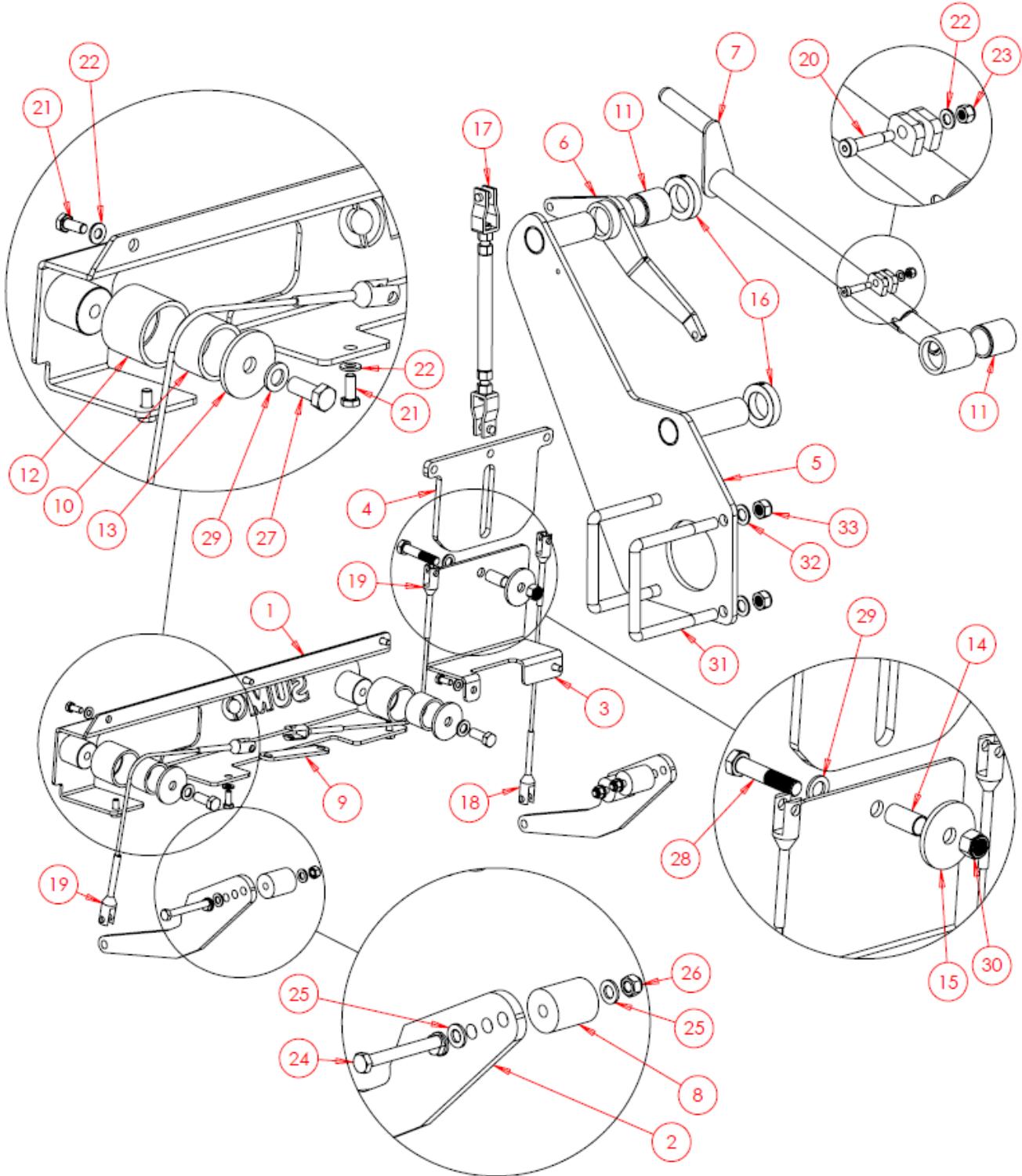
6.4.4.2 Rear Hazard Boards

Item No.	Part Number	Description	Qty
1	SWB651	Hazard Board	2

6.4.5 Homologation

The homologation kit consists of Hazard Boards, Air Brake Kit, & Handbrake Kit below.

6.4.5.1 Handbrake Kit

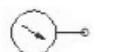
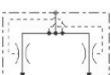
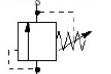


6.4.5.1 Handbrake Kit - Continued

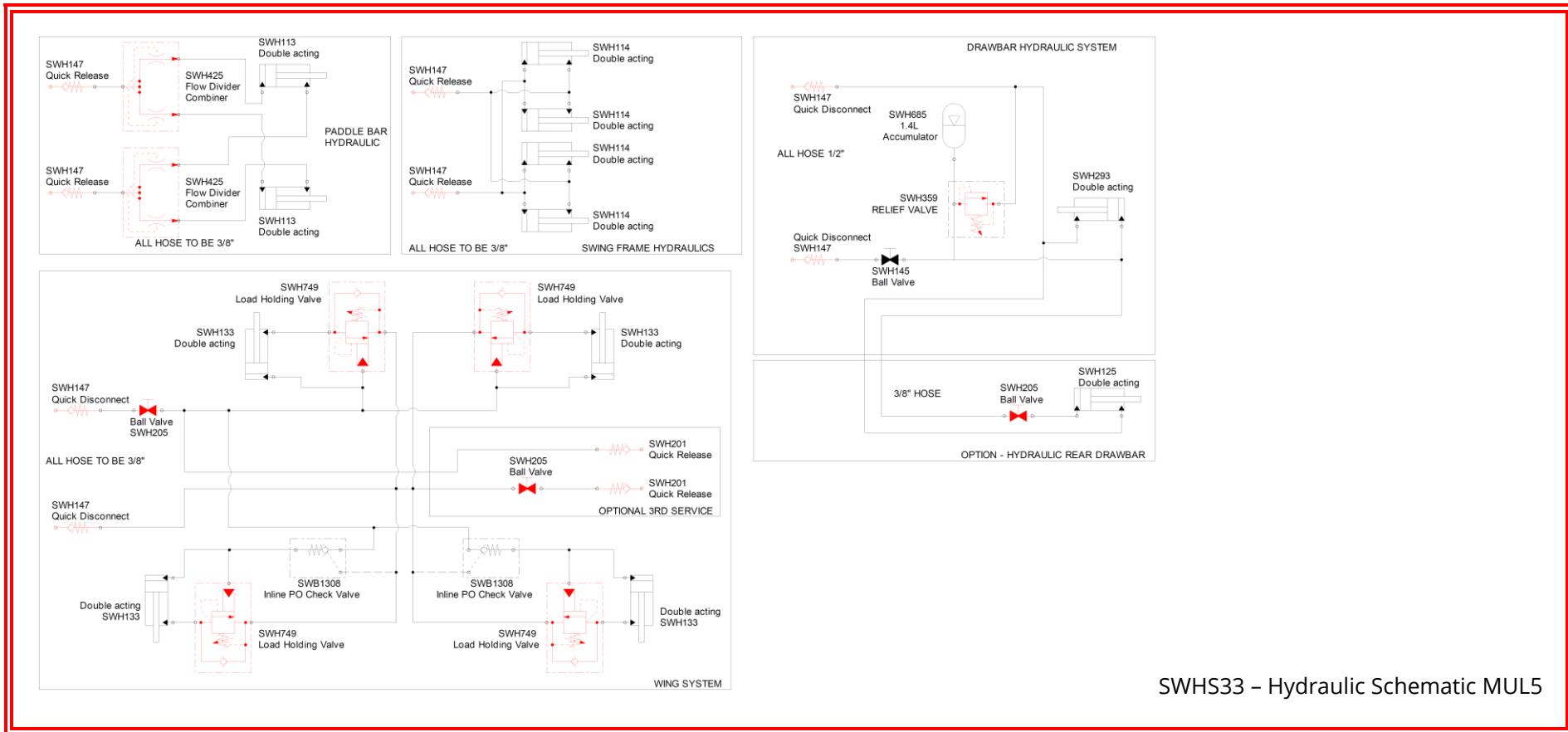
Complete Assembly - SWA1300			
Item No.	Part Number	Description	Qty
1	SWA1259	Brake Lever Carrier Bracket	1
2	SWS19737	Brake Lever	2
3	SWS19746	Slide Cover	1
4	SWS19743	Slide	1
5	SWA1301	Jockey Wheel Mounting Bracket	1
6	SWA1302	Amplifier Lever	1
7	SWA1304	Jockey Wheel	1
8	SW4639	Brake Spacer	4
9	SWS19799	Carrier Link	1
10	SWB1306	Self-Lubricating Bush	2
11	SWB1004	Self-Lubricating Bush	2
12	SW4641	Roller	2
13	SWS24769	Ex Large Washer	2
14	SW4647	Spacer Tube	1
15	SW2460	Ex Large Washer	1
16	SWB1188	Shaft Collar	2
17	SWA1303	Pulling Rod	1
18	SWB1174	Return Cable - 500mm	1
19	SWB1183	Transition Cable - 600mm	2
20	SWM10X12X40SSB	M10x12x40 Bolt	1
21	SWM1025	M10x25 Screw	8
22	SWM10001	M10 Washer - Flat	9
23	SWM10004	M10 Nut - Nylock	1
24	SWM12100	M12x100 Screw	4
25	SWM12001	M12 Washer - Flat	8
26	SWM12004	M12 Nut - Nylock	4
27	SWM1640	M16x40 Screw	2
28	SWM1680	M16x80 Bolt	1
29	SWM16001	M16 Washer - Flat	3
30	SWM16004	M16 Nut - Nylock	1
31	SWM20150UB	M20x150 U Bolt	2
32	SWM20001	M20 Washer - Flat	4
33	SWM20004	M20 Nut - Nylock	4

7. Hydraulic Function Diagrams

Standard Symbols Key:

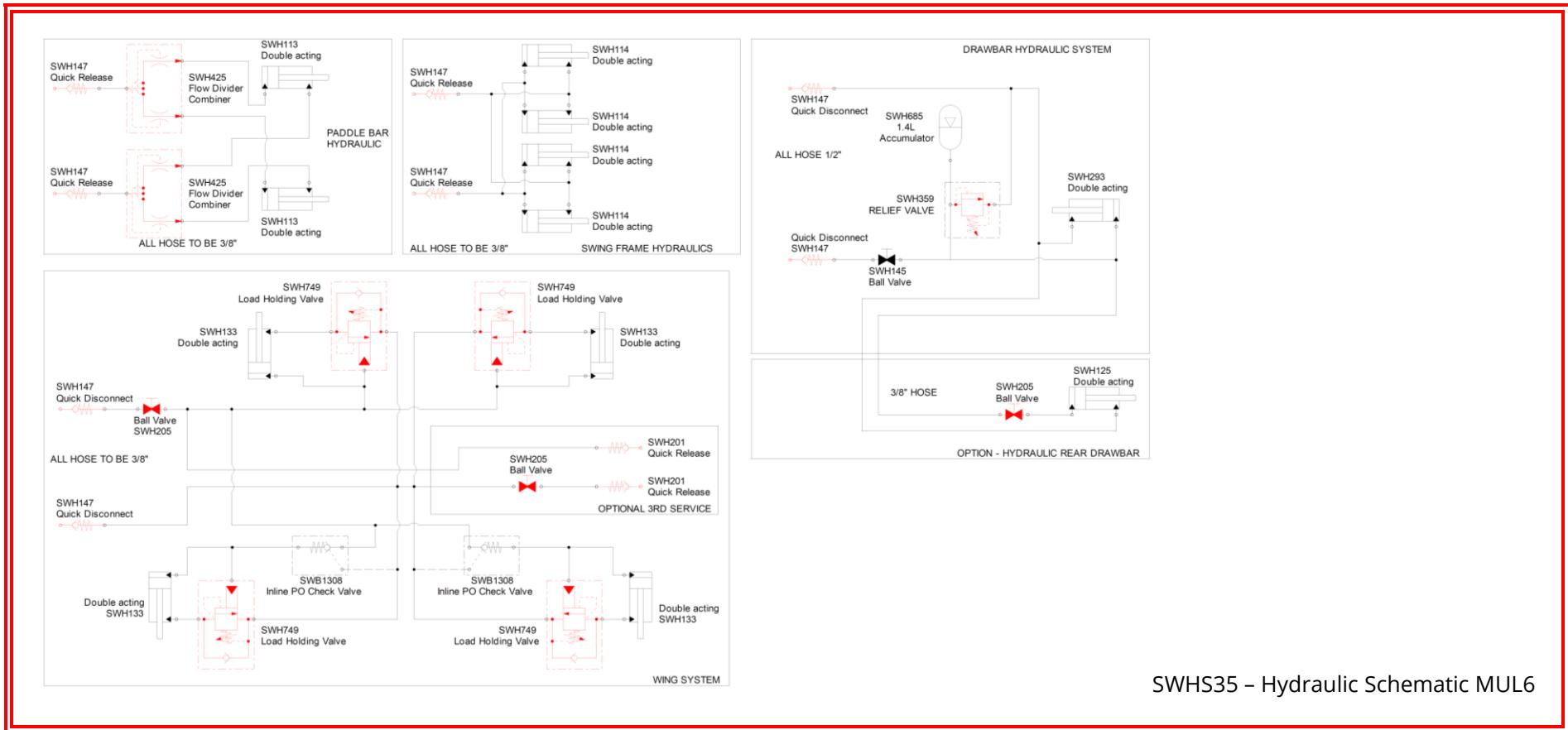
	=	Double Acting Cylinder
	=	Single Acting Cylinder
	=	Accumulator
	=	Pressure Gauge
	=	Quick Release/Check Valve
	=	Ball Valve
	=	Flow Divider/Combiner
	=	Pilot Operated Relief Valve
	=	Flow Restrictor

7.1 MUL5 - Hydraulic Function Schematic

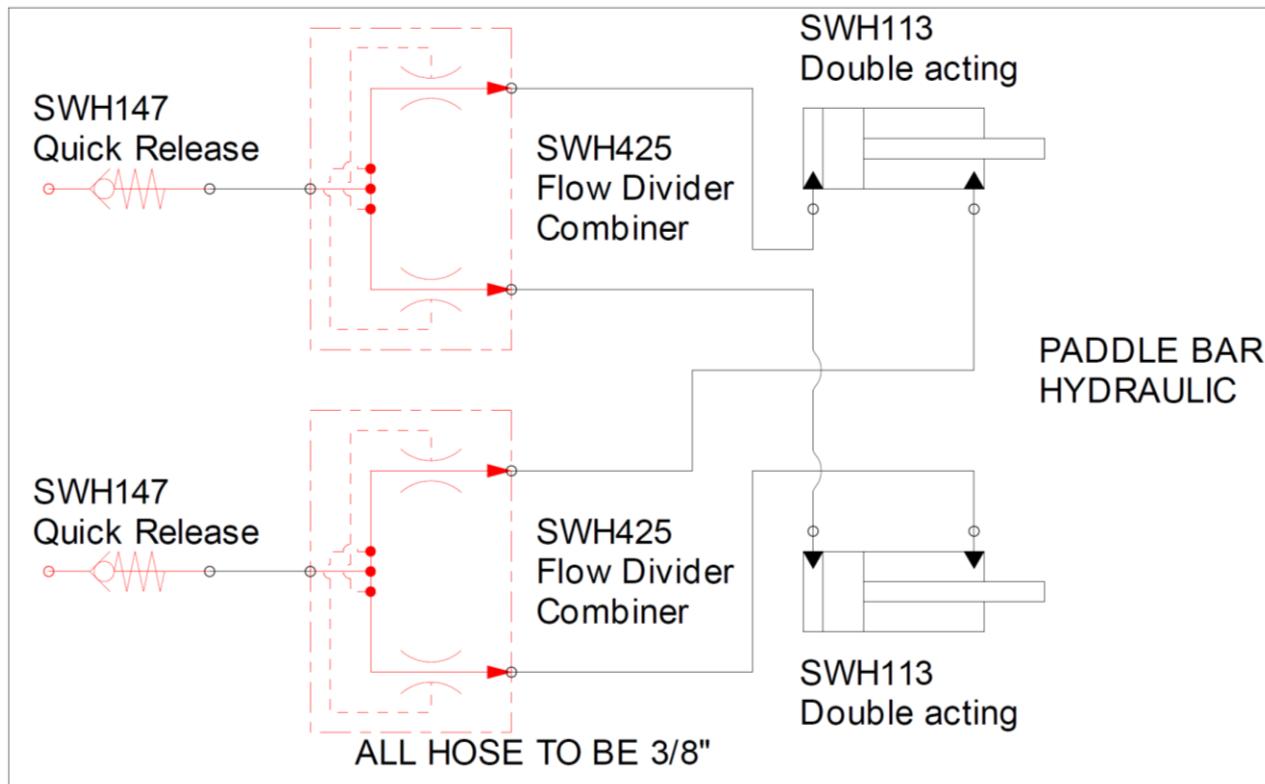


SWHS33 – Hydraulic Schematic MUL5

7.2 MUL6 - Hydraulic Function Schematic



7.3 Paddle Bar Hydraulic Circuit



7.4 Swing Frame Hydraulic Circuit

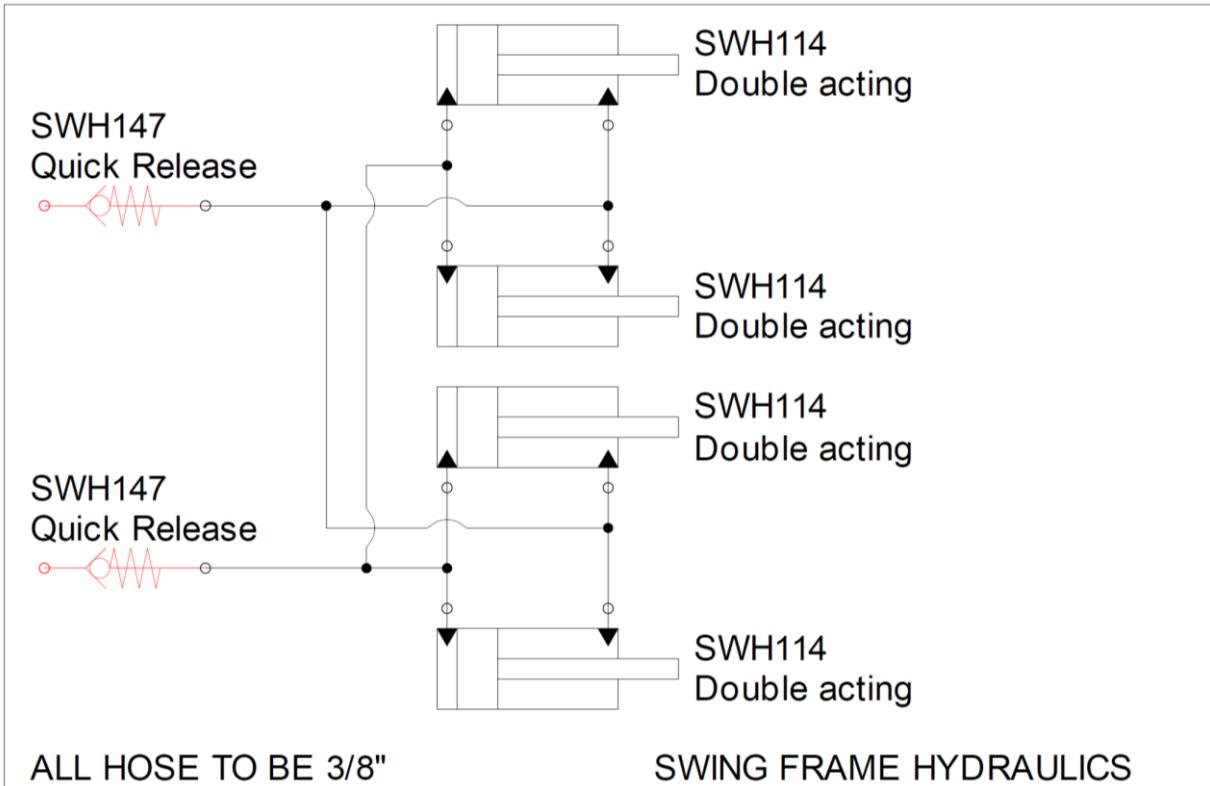
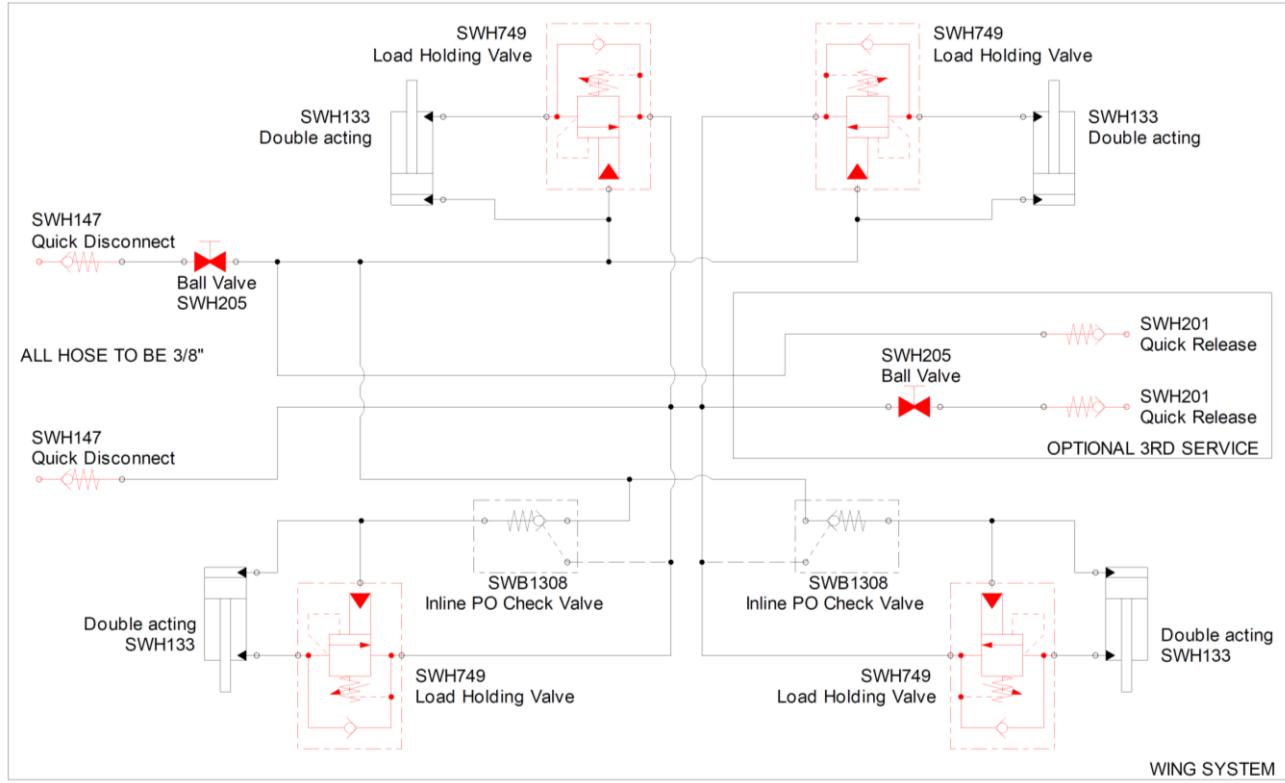
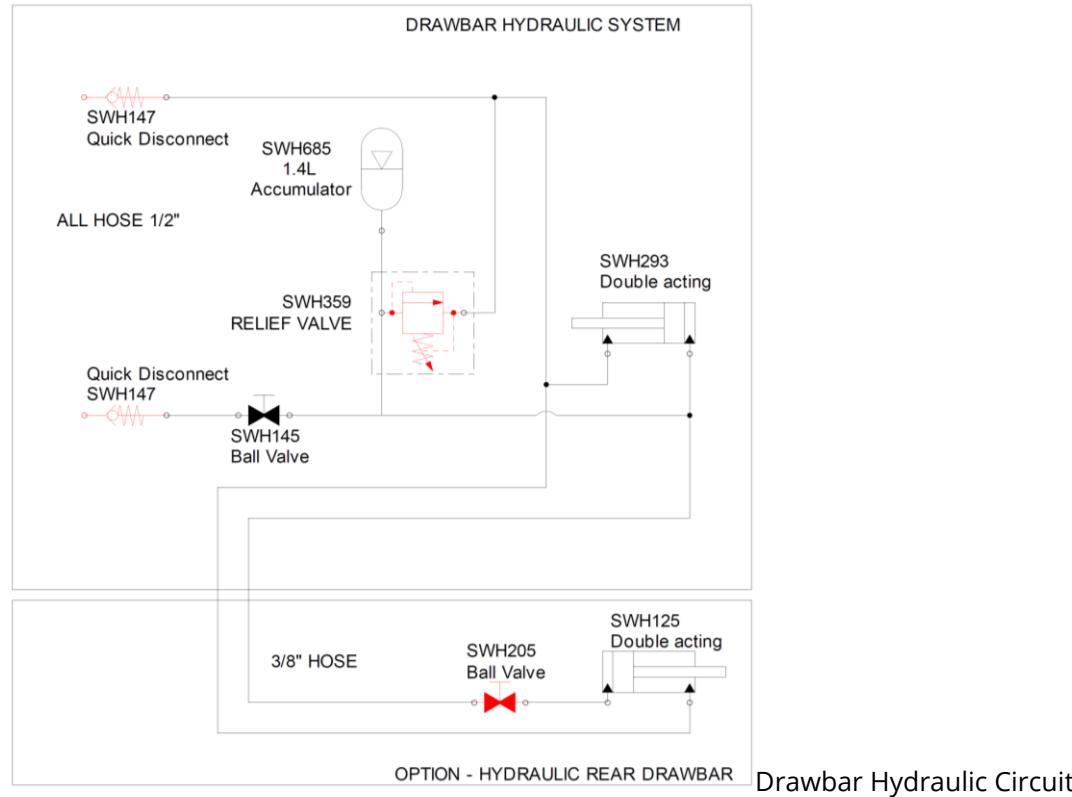


Illustration 4: Swing Frame Hydraulic Circuit

7.5 Wing System Hydraulic Circuit

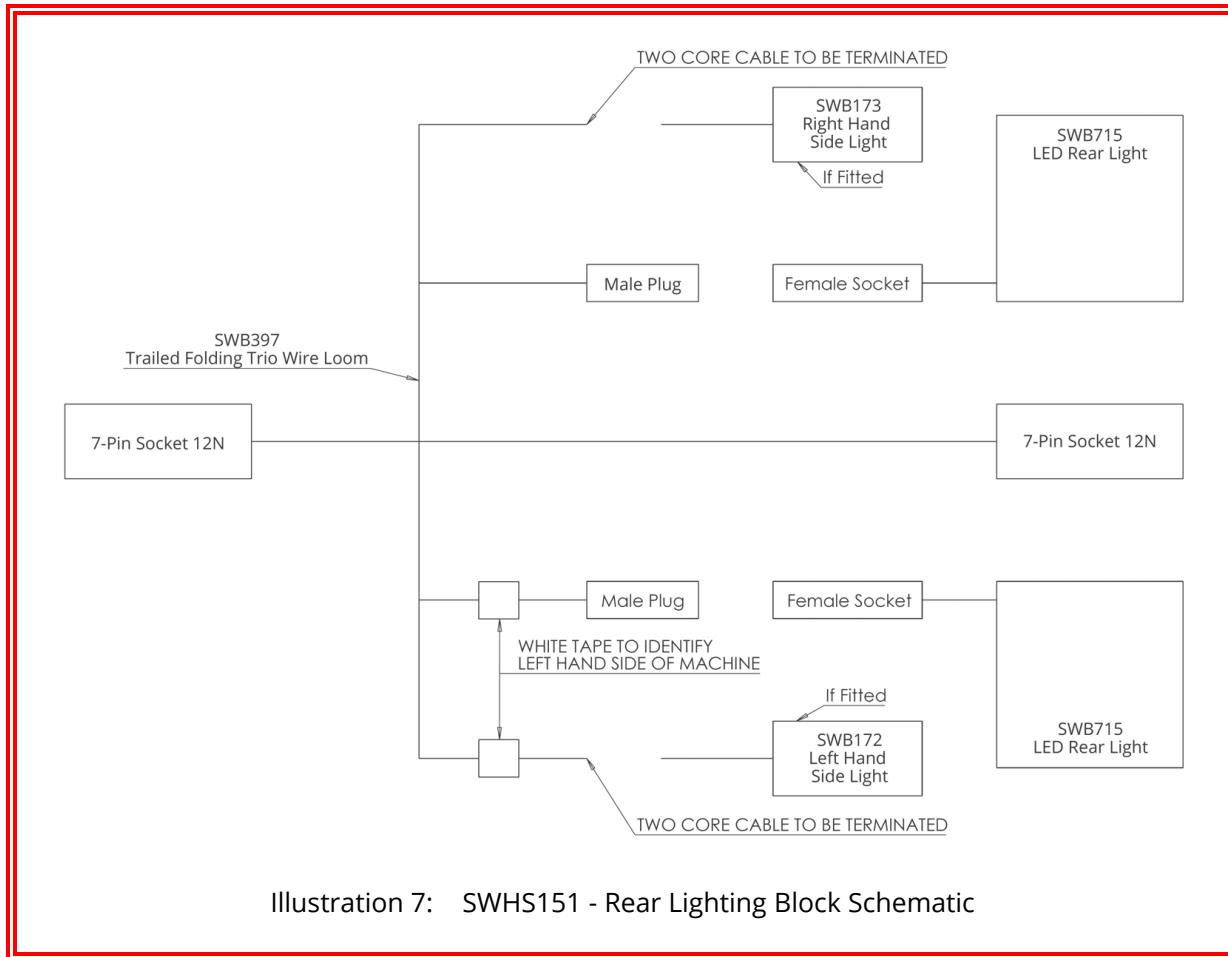


7.6 Drawbar Hydraulic Circuit



8. Electrical Schematics

8.1 Rear Lighting



9. Standard Torque Values

Non-Standard torque values will appear in the parts book section of this document.

Standard Toque Values (Nm) (Unless Otherwise Stated)			
Thread	Grade 8.8	Grade 10.9	Stainless Steel
M6	10	14	7
M8	25	36	17
M10	50	70	33
M12	86	121	57
M16	215	314	140
M20	410	580	273
M24	710	1000	472
M30	1400	1450	930

For any arrangement using Nord-Lock washers, see Nord-Lock website:

[Torque Guide for Nord-Lock Washers - Nord-Lock Group](#)