



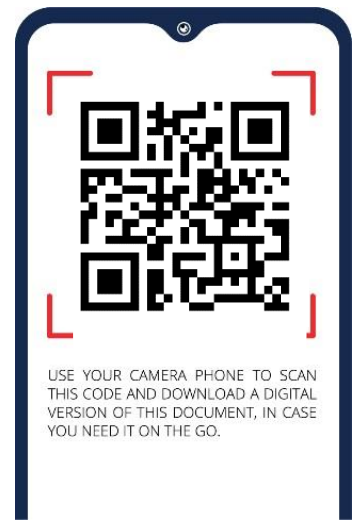
GROWING WITH YOU

Q U A T R O

2023 Trailed Folding Range (Q)

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

The SUMO Quatro, a unique one pass soil conditioning machine designed and manufactured in Britain, comprising as its name suggests of four elements, each of these tuned to comprehensively create the finish required. Three of the four elements are controlled using the machines electro hydraulics, therefore meaning that the Quatro can be run in various configurations.

Stages One

A double row of 500mm concave discs, mounted in pairs on independently suspended arms giving a shock proof durable system with quality low maintenance triple sealed taper roller bearings. Double mounting gives unrivalled performance when working in adverse conditions. The hydraulically adjustable front discs mean that disc working depth can be changed to ensure the machine is used to its full potential.

Stage Two

The ultra-low draught auto reset protected Subsoiler legs are mounted in a staggered pattern on a heavy-duty toolbar, adjusting to a maximum depth of 400mm (at the point) via pins. Due to the design of the legs and their mounting, when a leg is obstructed, the auto reset ram allows the leg to trip. Both rows of legs trip in a fashion which allows the point to come clear of the ground and to pass by the obstacle. These legs feature quick change points and shins.

Stage Three

A repeat bank of double row discs to create a fine tilth.

Stage Four

The patented Multipacka is uniquely designed to fulfil a number of criteria, comprising, 609mm x 10mm tube mounted on heavy duty quality bearings fitted with notched cutting/drive rings to keep turning in arduous conditions, giving a total diameter of 800mm. The ring shoulders feature a convex shape adjacent to the barrel, creating consolidation and cracking even on the top of the ridge. All these features make a packer which presses and firms to a higher quality with a lower power requirement than any other packer available.

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.

Quatro Trailed Folding Range

Code	Q4	Q5	Q6
Legs Qty	8	10	12
Leg Spacing	500mm	500mm	500mm
Max Leg Depth	400mm	400mm	400mm
Disc Qty	64	80	96
Disc Depth	30-100mm	30-100mm	30-100mm
Disc Adjustment	Hydraulic	Hydraulic	Hydraulic
Machine Type	Folding	Folding	Folding
Tyre Size	600/50-22.5	710/45-26.5	710/45-26.5
Tyre Pressure	35 psi	34 psi	34 psi
Wheel Nut Toque	450 Nm	450 Nm	450 Nm
Max Axle Load	11,500kg	11,500kg	11,500kg

Available Options

Code	Option Code	Description	Specifications
Q4	Q4.AR	Auto Reset System	Max Leg Depth: 400mm *
	Q4.MP	Multipacker	Rings: 18 - Spacing: 250mm
	Q4.DP	Diamond Packer	Rings: 20 - Spacing: 220mm
	Q4.HOMO	Homologation	Combines: HB &ABK Options
	Q4.HB	Hazard Boards	Front & back**
	Q4.RD	Rear Drawbar	Hydraulic
	Q4.ABK	Air Brake Kit	**
	Q4.SFK	Seeder Fitting Kit	Turbojet i-CON 8 - 8 Outlets
Q5	Q5.AR	Auto Reset System	Max Leg Depth: 400mm *
	Q5.MP	Multipacker	Rings: 22 - Spacing: 250mm
	Q5.HOMO	Homologation	Includes: HB & ABK Options
	Q5.HB	Hazard Boards	Front & back**
	Q5.RD	Rear Drawbar	Hydraulic
	Q5.ABK	Air Brake Kit	**
	Q5.SFK	Seeder Fitting Kit	Turbojet i-CON 8 - 10 Outlets
Q6	Q6.AR	Auto Reset System	Max Leg Depth: 400mm *
	Q6.MP	Multipacker	Rings: 26 - Spacing: 250mm
	Q6.HOMO	Homologation	Includes: HB & ABK Options
	Q6.HB	Hazard Boards	Front & back**
	Q6.RD	Rear Drawbar	Hydraulic
	Q6.ABK	Air Brake Kit	**
	Q6.SFK	Seeder Fitting Kit	Turbojet i-CON 8 - 12 Outlets

* Only applies to standard Sumo Trio legs & points.

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

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 may 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.

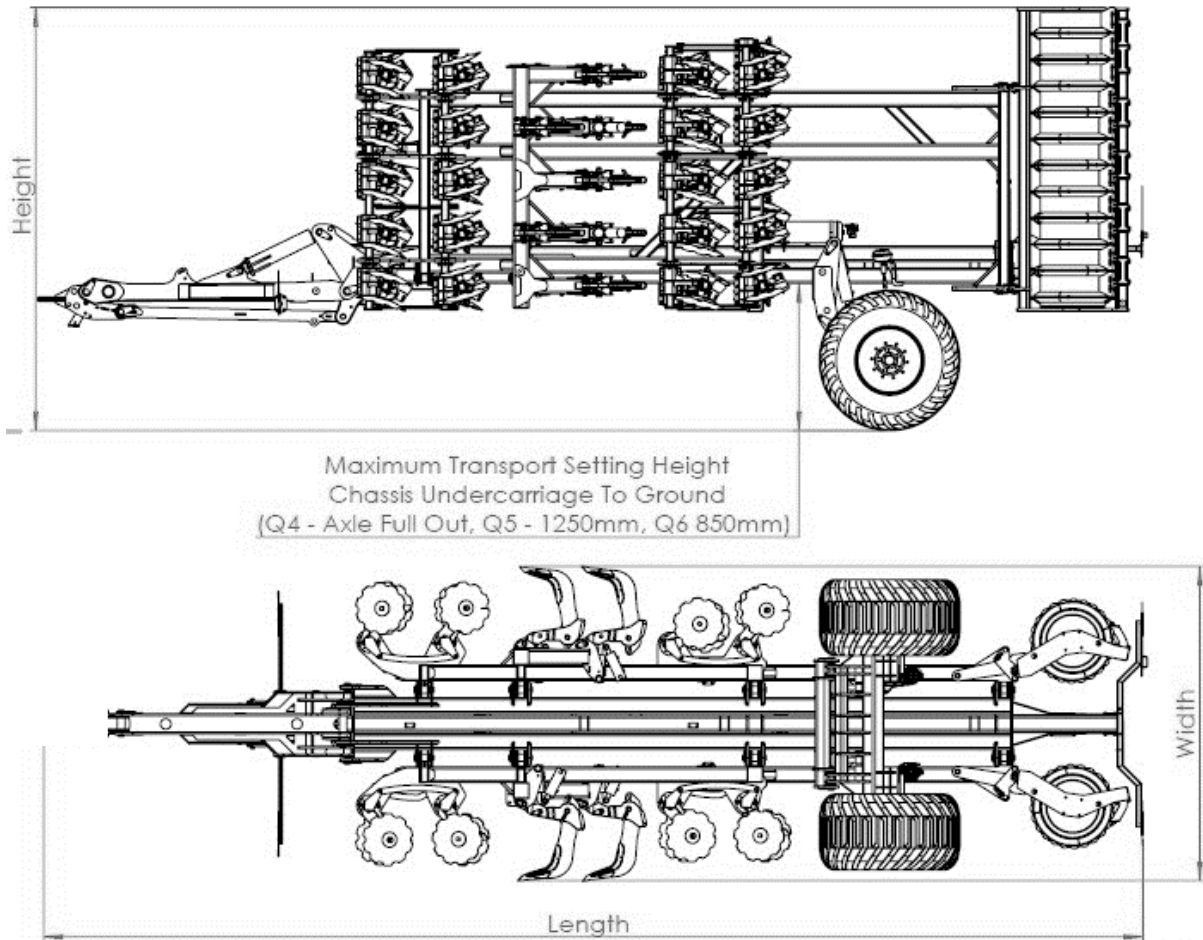
Trailed Folding Quatro

To achieve the dimensions given in the Cultivator Operators Manual, all Quatro's must be positioned as follows:

- Adjustable drawbar must be horizontal to main body.
- Legs must be in shallowest position.
- 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 Homologated Machines Only: The Q5 & Q6 must not have the axle fully extended and the chassis must be lowered and secured in the specified heights.

For visual indication, see proceeding pictures for details.

Trailed Folding Quatro's - 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
Q4	10400	2980	3560
Q5	10400	2980	3940
Q6	10400	2980	3960

Machines (Including Options)

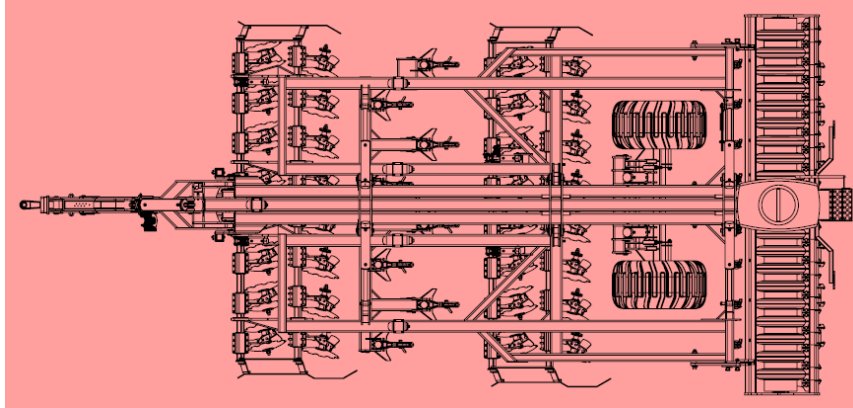
Code	Length	Width	Height
Q4.AR	-	-	-
Q4.MP	-	-	-
Q4.HOMO	-	-	-
Q4.HB	-	-	-
Q4.RD	-	-	-
Q4.ABK	-	-	-
Q4.SFK	-	-	-
Q5.AR	-	-	-
Q5.MP	-	-	-
Q5.HOMO	-	-	-
Q5.HB	-	-	-
Q5.RD	-	-	-
Q5.ABK	-	-	-
Q5.SFK	-	-	-
Q6.AR	-	-	-
Q6.MP	-	-	-
Q6.HOMO	-	-	-
Q6.HB	-	-	-
Q6.RD	-	-	-
Q6.ABK	-	-	-
Q6.SFK	-	-	-

* Only applies to standard Sumo Quatro 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 Quatro's



The danger zone around the machine poses the following endangerments:

- 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 Quatro's

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

Purpose of machine: Versatile, one pass, minimum tillage cultivator with four elements that can be fine-tuned to adapt to a variety of conditions.

Description of machine: A single-point-hitch trailed, rigid or hydraulically folding farm implement consisting of 4 major elements.

1. A bank of two rows of rubber suspended cultivating discs.
2. A row of subsoiler legs, hydraulically protected from obstruction.
3. A second bank suspended cultivating discs.
4. 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.

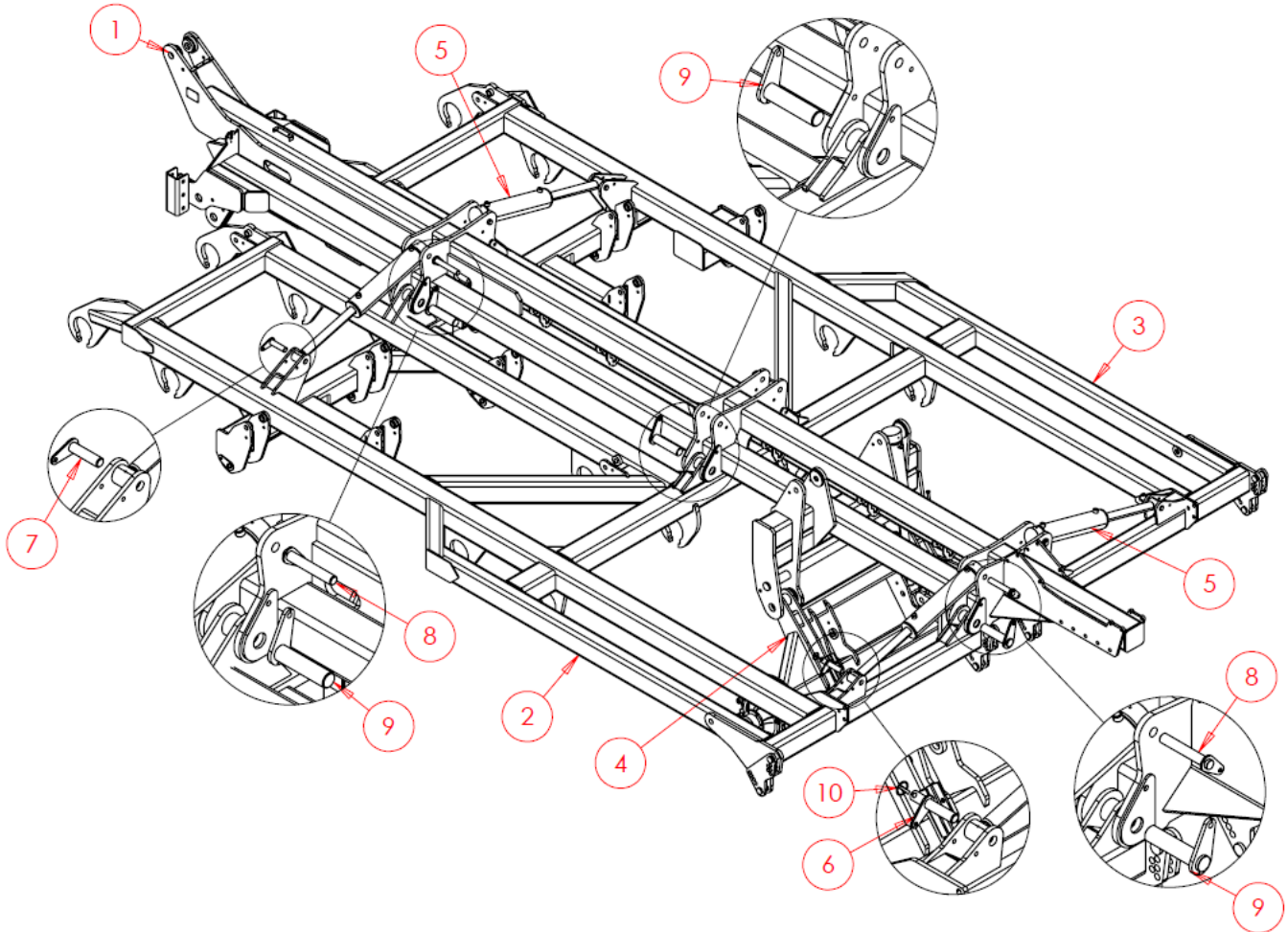
Hazard identified in using machine	Who might be harmed	Risk evaluation /level (1-5)	Precautions in place	Further action required
Machine collision while in transport.	Operator, members of the public	2 Low - Mid	Tail lights, Side Lights & Indicator, reflectors.	Take care when using in both field and road 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.
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

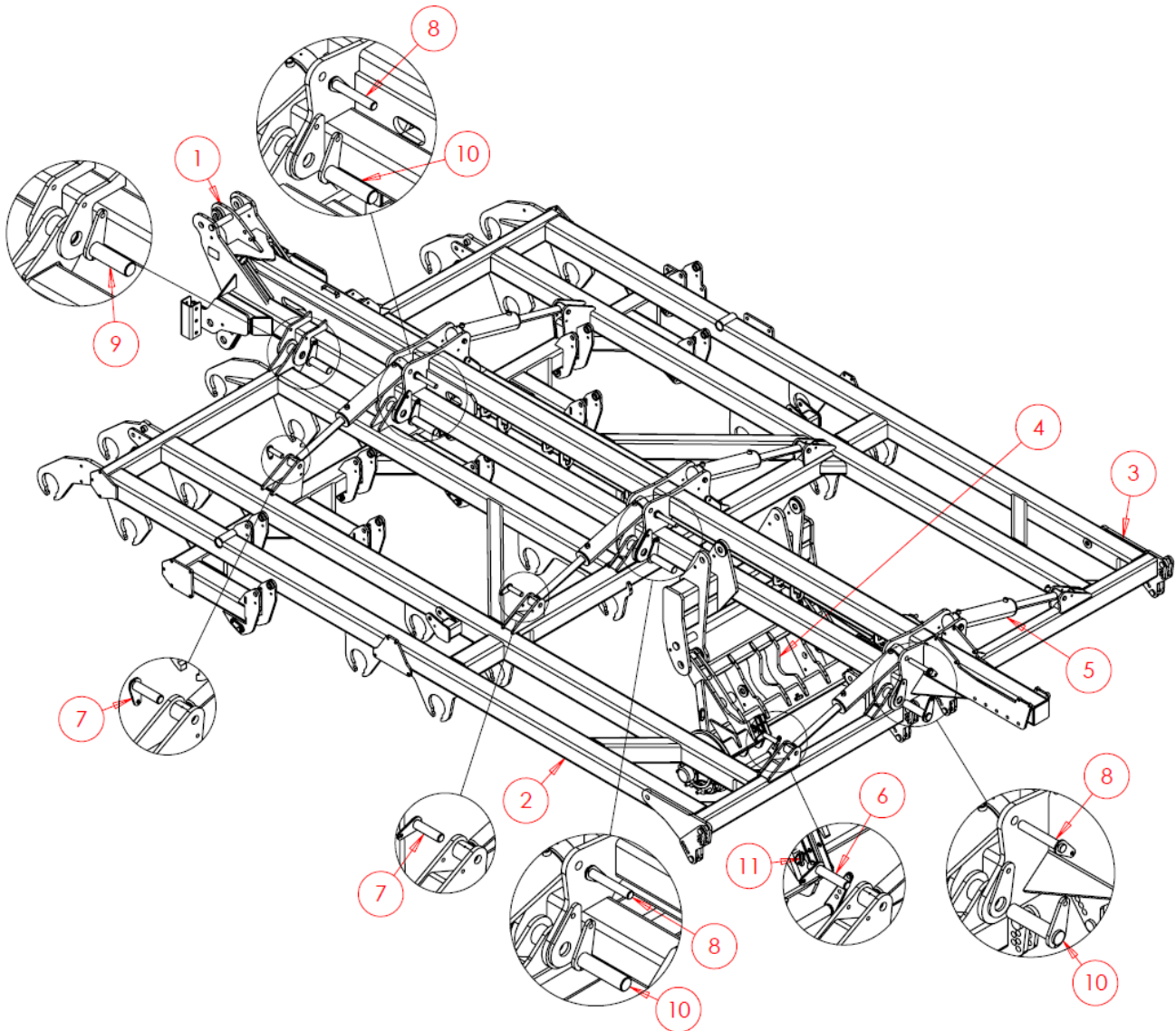
For older machines, see manuals & parts book available on the Sumo website.

6.1 Q4 Base Machine



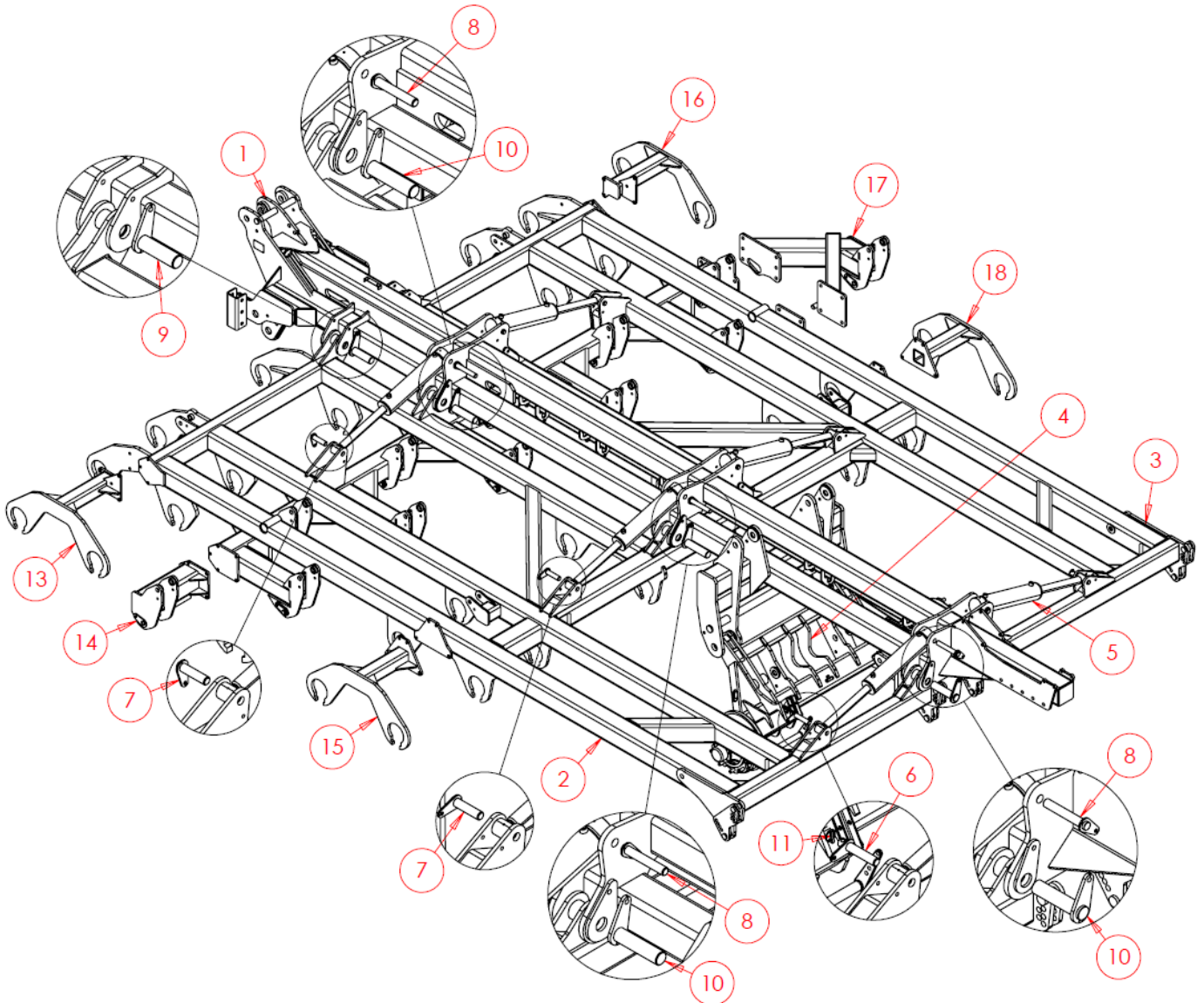
Item No.	Part Number	Description	Qty
1	SW1433	Chassis	1
2	SW1443	Wing LH	1
3	SW1438	Wing RH	1
4	SW1494	Axle	1
5	SWH132	Hydraulic Cylinder	4
6	SWP30X110DB	Pin - Dog Bone	2
7	SWP30X115	Pin	2
8	SWP30X180	Pin	4
9	SWP50X200	Pin	6
10	SWB105	Lynch Pin	2
11	SWB142	Oilite Bush	12

6.2 Q5 Base Machine



Item No.	Part Number	Description	Qty
1	SW3552	Chassis	1
2	SW3550	Wing LH	1
3	SW3551	Wing RH	1
4	SW3580	Axle	1
5	SWH132	Hydraulic Cylinder	6
6	SWP30X110DB	Pin - Dog Bone	2
7	SWP30X115	Pin	4
8	SWP30X180	Pin	6
9	SWP50X165	Pin	2
10	SWP50X200	Pin	6
11	SWB105	Lynch Pin	2
12	SWB142	Oilite Bush	16

6.3 Q6 Base Machine



Item No.	Part Number	Description	Qty
1	SW3552	Chassis	1
2	SW3550	Wing LH	1
3	SW3551	Wing RH	1
4	SW3580	Axle	1
5	SWH132	Hydraulic Cylinder	6
6	SWP30X110DB	Pin - Dog Bone	2
7	SWP30X115	Pin	4
8	SWP30X180	Pin	6
9	SWP50X165	Pin	2
10	SWP50X200	Pin	6
11	SWB105	Lynch Pin	2
12	SWB142	Oilite Bush	16



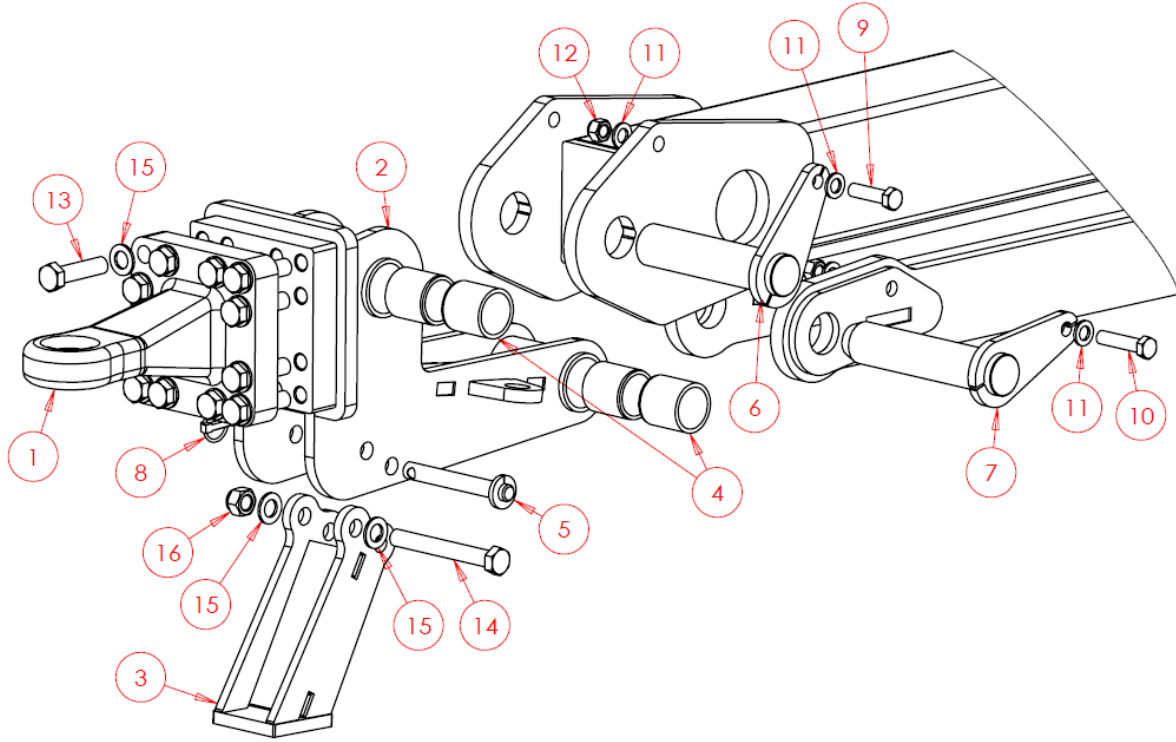
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13	SW3977	Front Wing Extension LH	1
14	SW3979	Leg Extension LH	1
15	SW3976	Rear Wing Extension LH	1
16	SW3978	Front Wing Extension RH	1
17	SW3980	Leg Extension RH	1
18	SW3976	Rear Wing Extension RH	1

6.4 Standard Assemblies

6.4.1 Standard Scharmüller Hitch Assembly

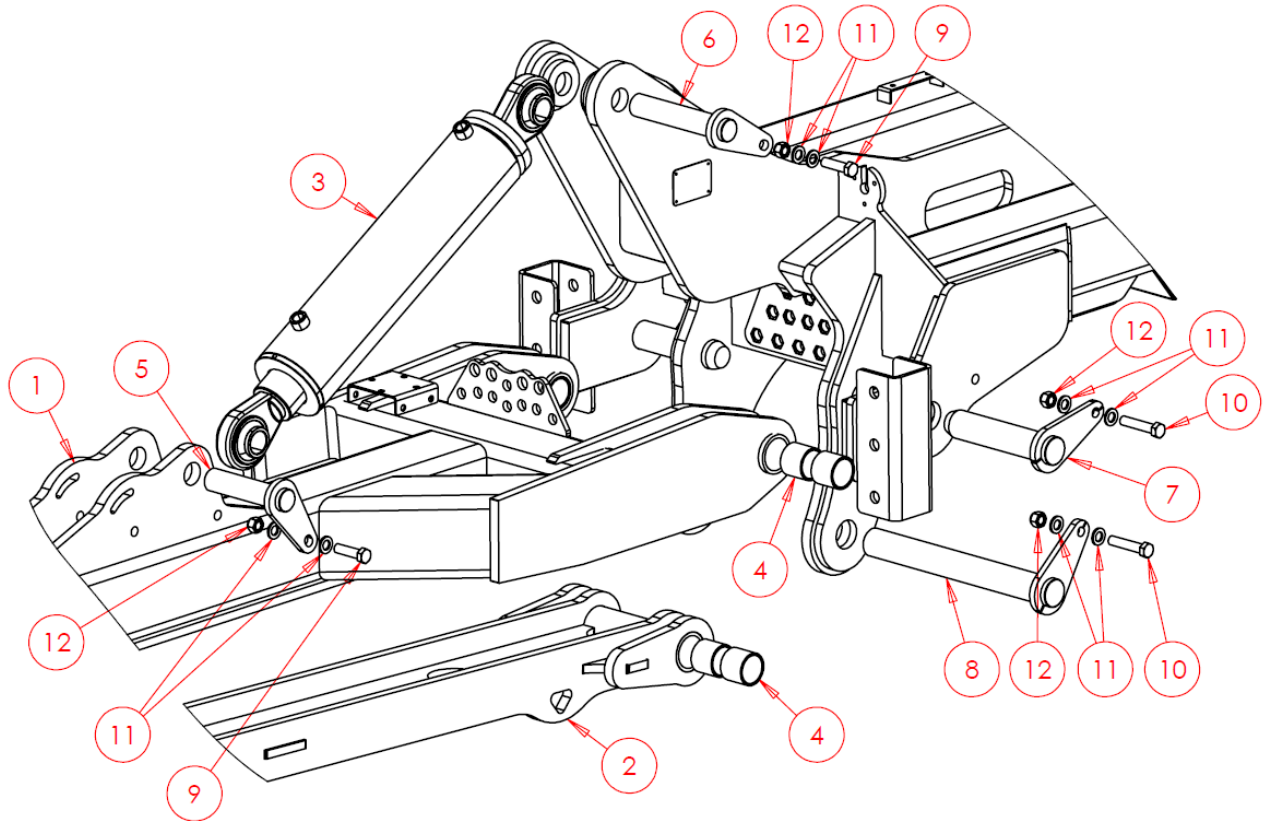
Note: Hitch type and CAT rating are variable. Standard machines include a CATIII Ring Hitch as shown. Contact your local dealership for alternative options.



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

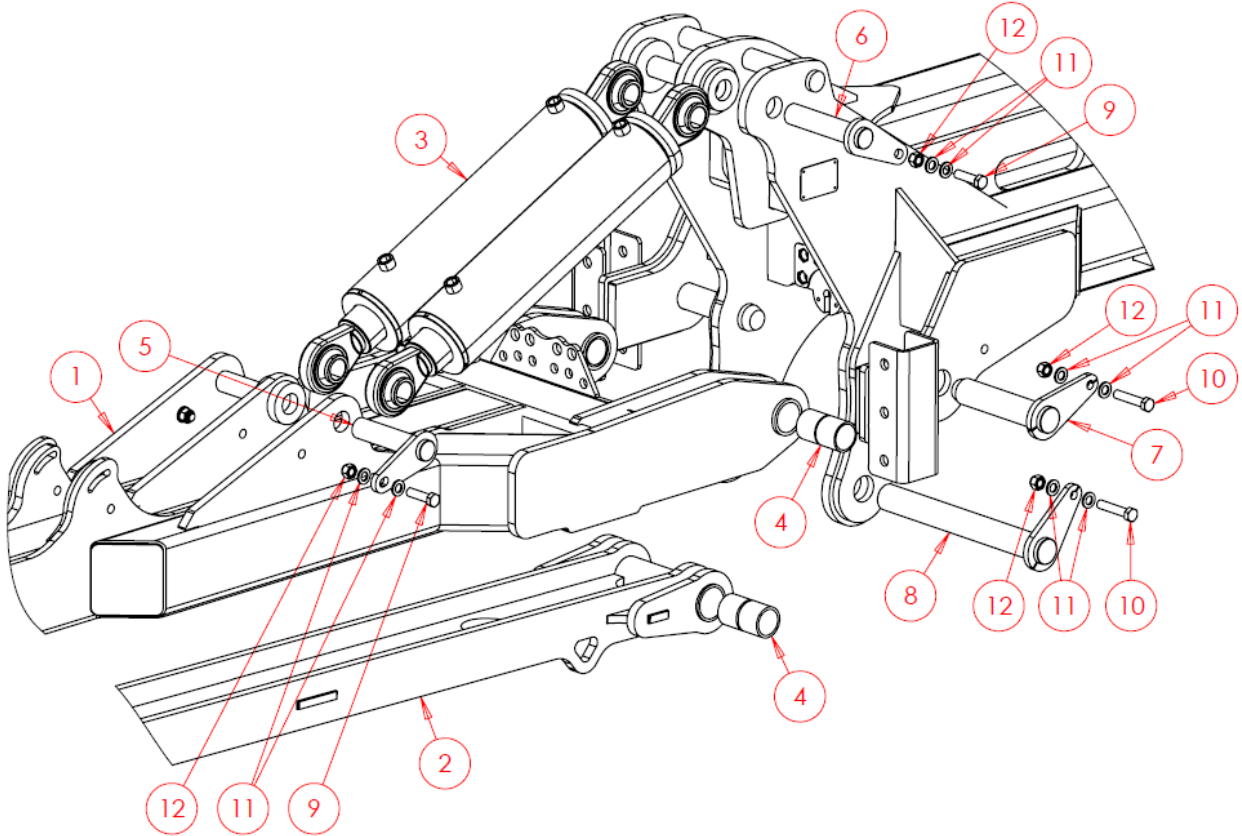
6.4.2 Drawbar System

6.4.2.1 Drawbar System (Q4 Only)



Item No.	Part Number	Description	Qty
1	SW1491	Drawbar - Upper	1
2	SW1490	Drawbar - Lower	1
3	SWH293	Hydraulic Cylinder	1
4	SWB142	Oilite Bush	8
5	SWP40X160	Pin	1
6	SWP40X200	Pin	1
7	SWP50X225C	Pin	2
8	SWP50X415	Pin	1
9	SWM1660	M16x60 Bolt	2
10	SWM1680	M16x80 Bolt	2
11	SWM16001	M16 Washer - Flat	8
12	SWM16004	M16 Nut - Nylon	4

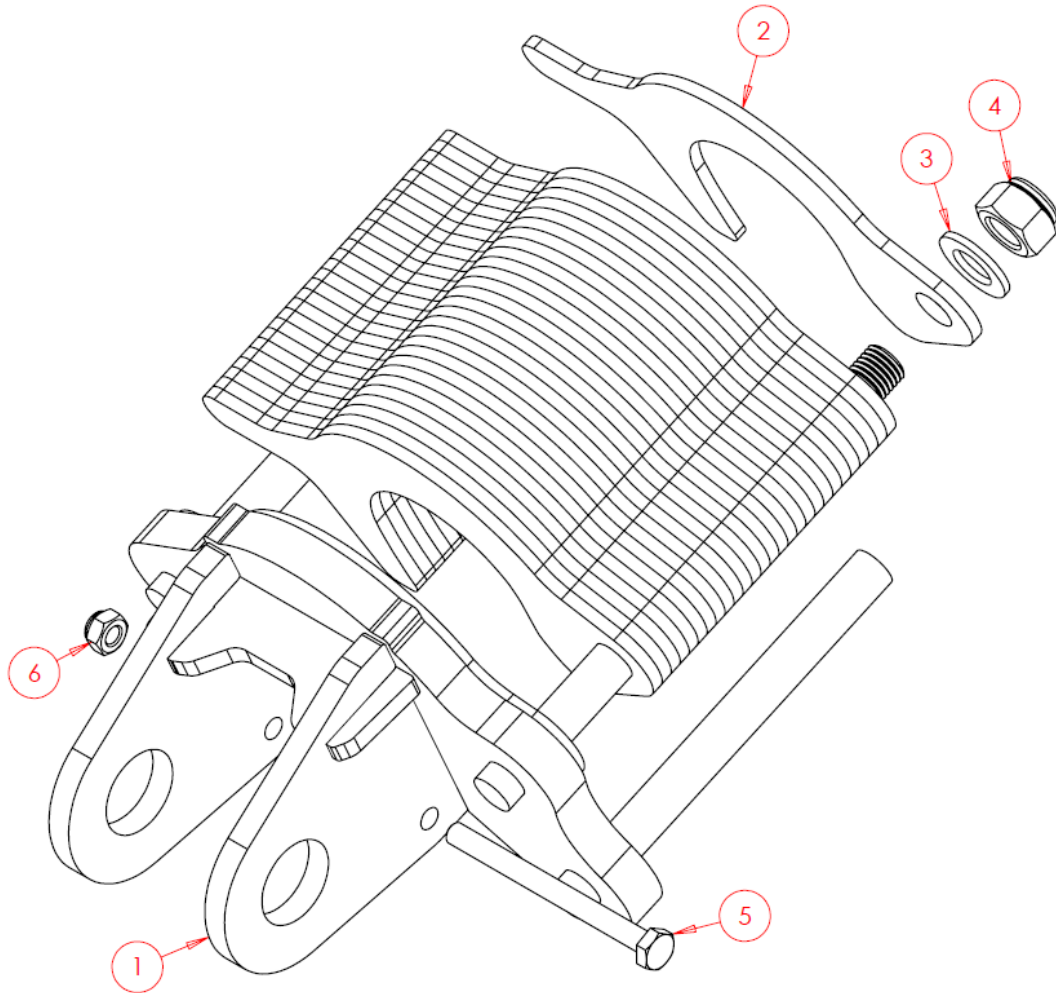
6.4.2.2 Drawbar System (Q5 & Q6 Only)



Item No.	Part Number	Description	Qty
1	SW3997	Drawbar - Upper	1
2	SW3569	Drawbar - Lower	1
3	SWH293	Hydraulic Cylinder	2
4	SWB1046	Self-Lubricating Bush	8
5	SWP40X165	Pin	2
6	SWP40X180	Pin	2
7	SWP50X225C	Pin	2
8	SWP50X415	Pin	1
9	SWM1660	M16x60 Bolt	4
10	SWM1680	M16x80 Bolt	3
11	SWM16001	M16 Washer - Flat	14
12	SWM16004	M16 Nut - Nylon	7

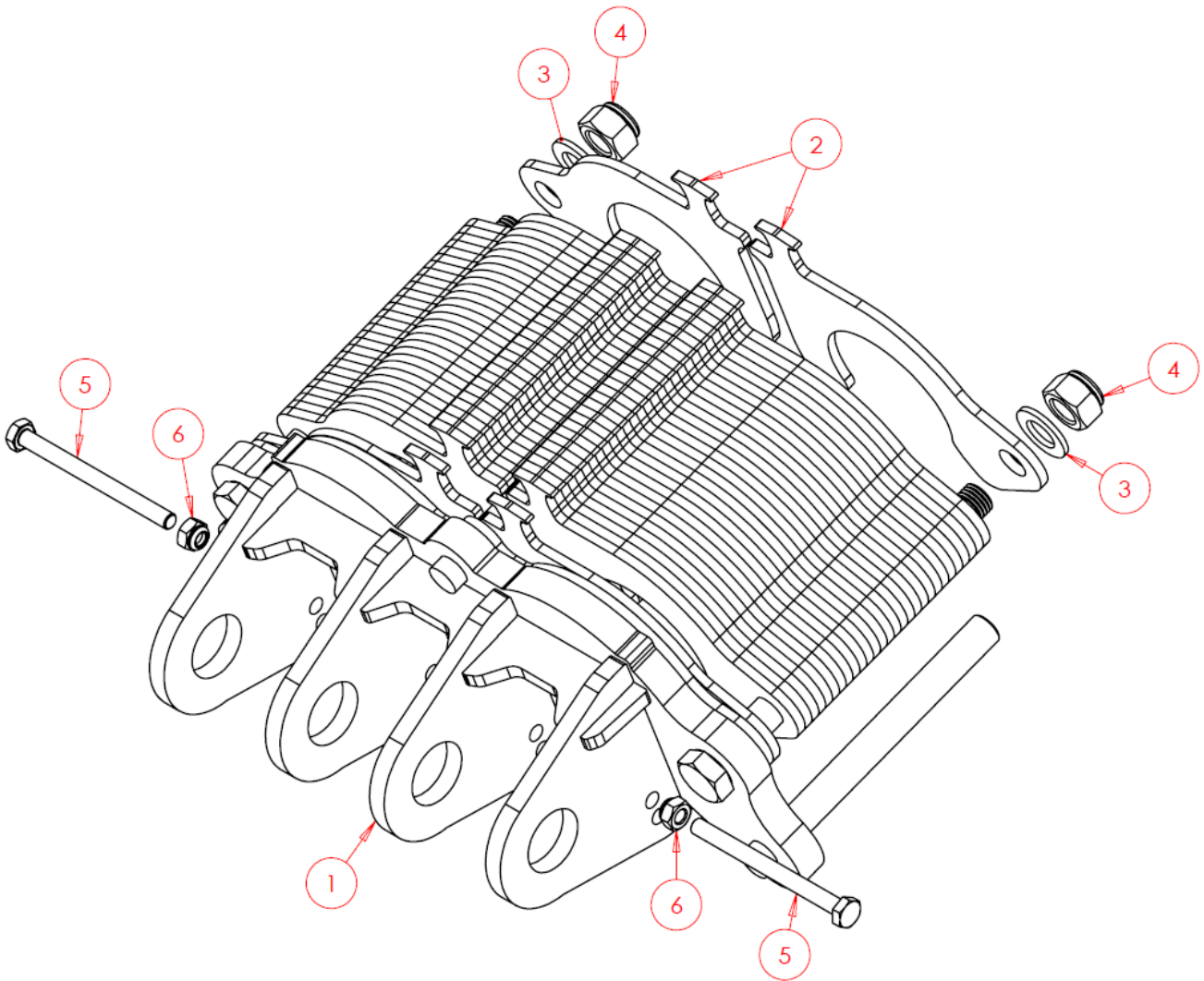
6.4.3 Shim Holder Assemblies

6.4.3.1 Shim Holder Assembly (Q4 Only)



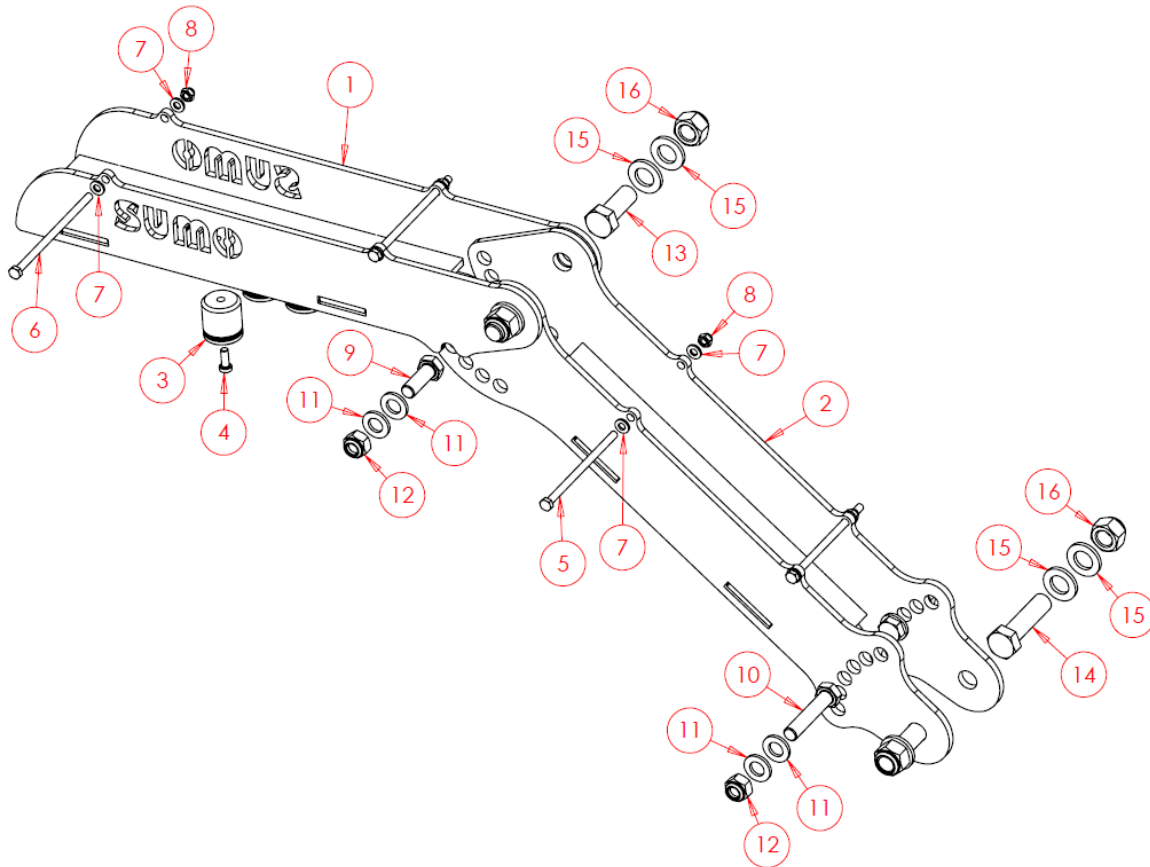
Item No.	Part Number	Description	Qty
1	SW536	Shim Holder	1
2	SW144	Shims	28
3	SWM20001	M20 Washer - Flat	1
4	SWM20004	M20 Nut - Nylock	1
5	SWM10120	M10x120 Bolt	1
6	SWM10004	M10 Nut - Nylock	1

6.4.3.2 Shim Holder Assembly (Q5 & Q6 Only)



Item No.	Part Number	Description	Qty
1	SW2436	Shim Holder	1
2	SW3585	Shims	56
3	SWM20001	M20 Washer - Flat	2
4	SWM20004	M20 Nut - Nylock	2
5	SWM10120	M10x120 Bolt	2
6	SWM10004	M10 Nut - Nylock	2

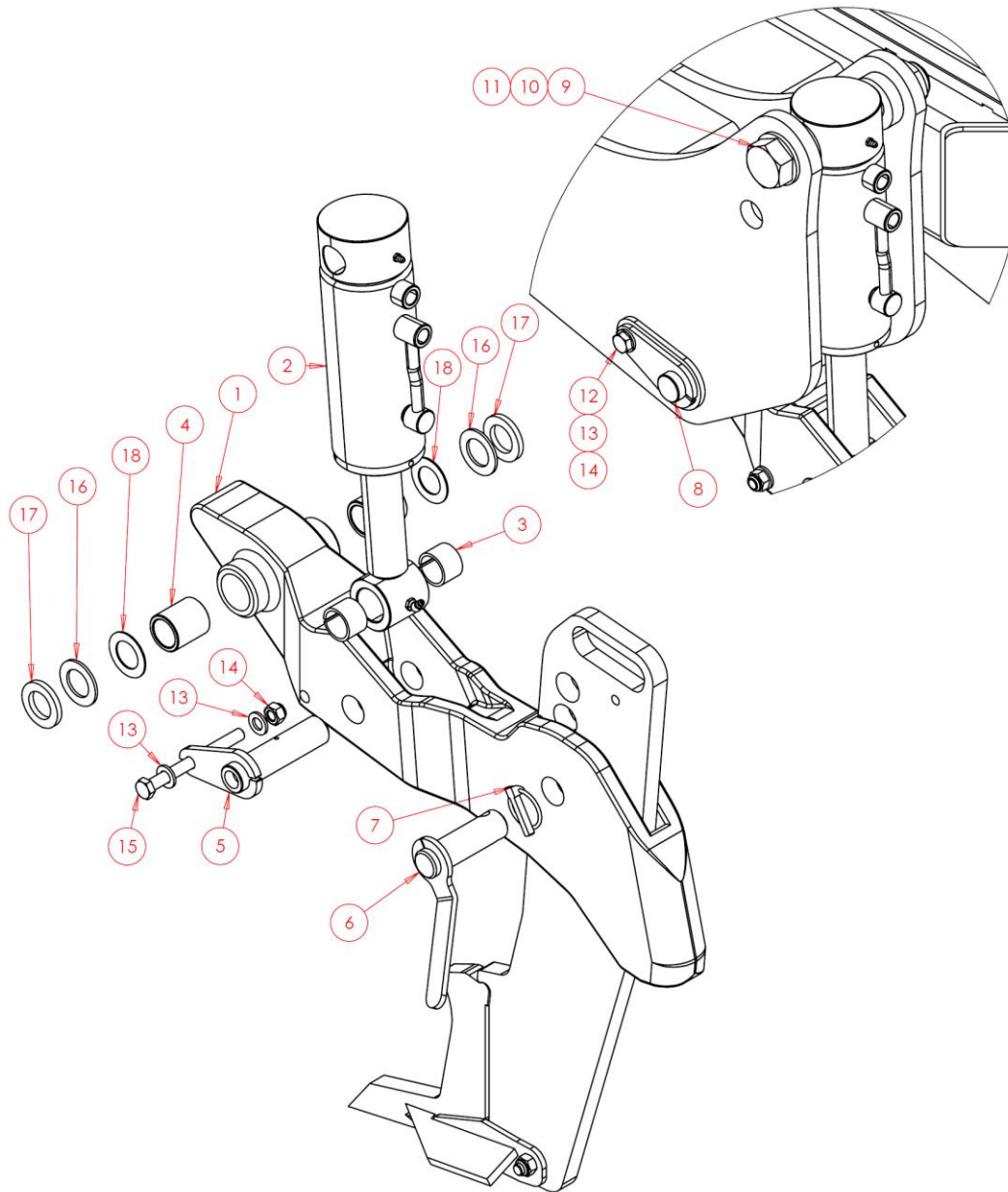
6.4.4 Hydraulic Hose Holder Assembly



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.

6.4.5 Auto-Reset Leg



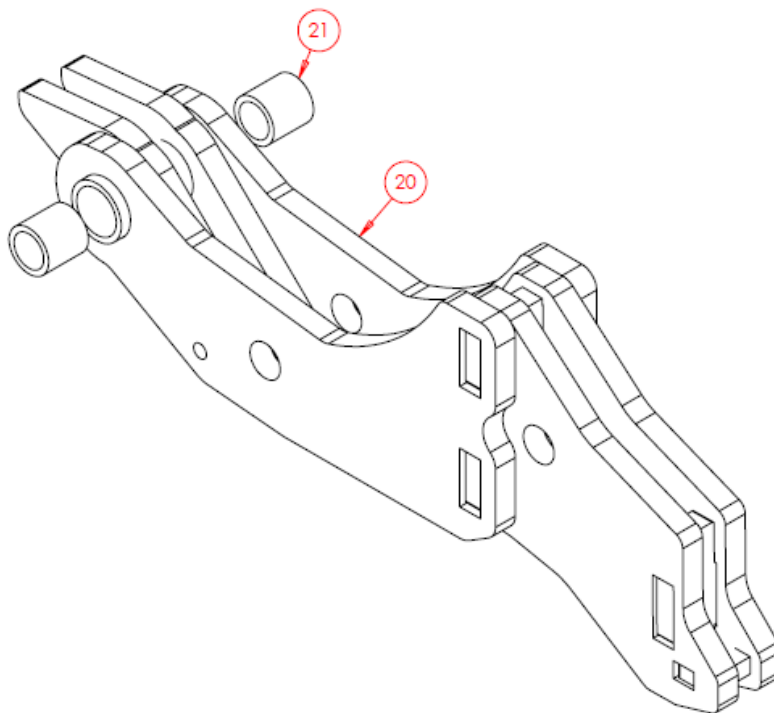
Item No.	Part Number	Description	Qty
1	SW1017	Auto Reset Socket Inc PB1 Bushes	1
2	SWH328	Hydraulic Cylinder	1
3	SWB374	Split Tension Bush - 36x30x25	2
4	SW188	PB1 Bush - 40x30x45	2
5	SWP30x105G	Pin - Grease	1
6	SWP30x90H	Pin - Handle	1
7	SWB105	Lynch Pin	1
8	SWP30x180	Pin - Tabbed	1
9	SWM30200	M30x200 Bolt	1

6.4.5 Auto-Reset Leg- Continued

10	SWM30004	M30 Nut - Nylock	1
11	SWM30001	M30 Washer - Flat	2
12	SWM1250	M12x50 Bolt	1
13	SWM12001	M12 Washer - Flat	4
14	SWM12004	M12 Nut - Nylock	2
15	SWM12130	M12x130 Bolt	1
16	SW6745	Leg Spacer Shim (3mm)	2*
17	SW6746	Leg Spacer Shim (6mm)	2*
18	SW6747	Leg Spacer Shim (1.5mm)	2*

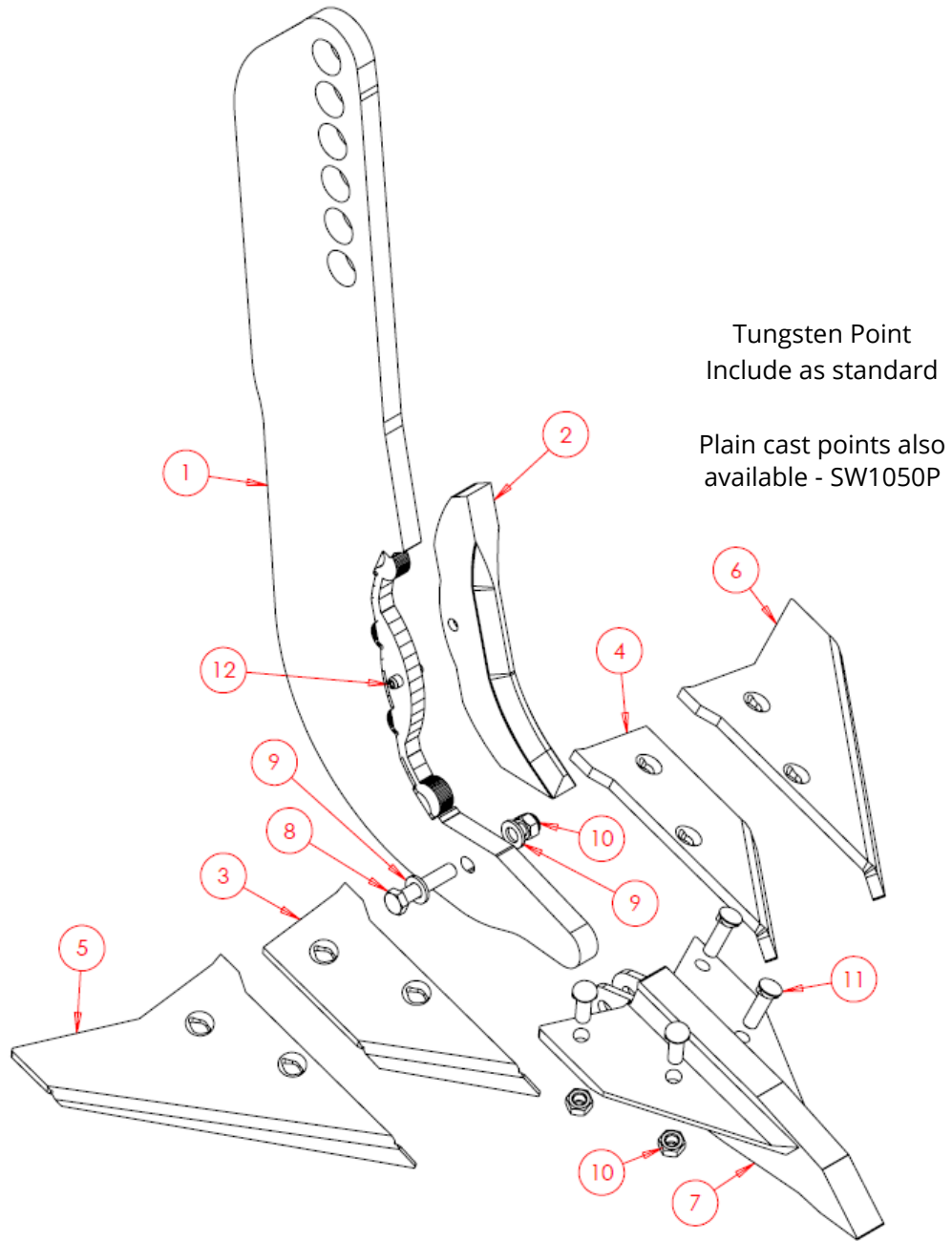
* Use dependant on fabricated tolerance

Alternative fabricated socket arrangement below (All other details remain the same). This version is interchangeable with the cast socket but will only be supplied in the event of the cast version being unavailable.



Item No.	Part Number	Description	Qty
20	SW6525	Auto Reset Socket (Fabricated)	1
21	SWB1235	Bush - 40x30x40	1

6.4.6 Standard Quatro Leg & Points



Item No.	Part Number	Description	Qty
1	SW1046	Standard Trio Leg	1
2	SW1048	Shin	1
3	SWB401	4" Wing - Right	1
4	SWB400	4" Wing - Left	1
5	SWB367 *	8" Wing - Right	1 *
6	SWB366 *	8" Wing - Left	1 *
7	SW1050	Standard Trio Point - Tungsten	1

6.4.6 Standard Quatro Leg & Points - Continued

Item No.	Part Number	Description	Qty
8	SWM1260	M12x60 Bolt	1
9	SWM12001	M12 Washer – Flat	5
10	SWM12004	M12 Nut – Nylock	5
11	SWM1235TN	M12x35 Screw – CSK NIB	4
12	SWB183	Split Dowel 10x32	1

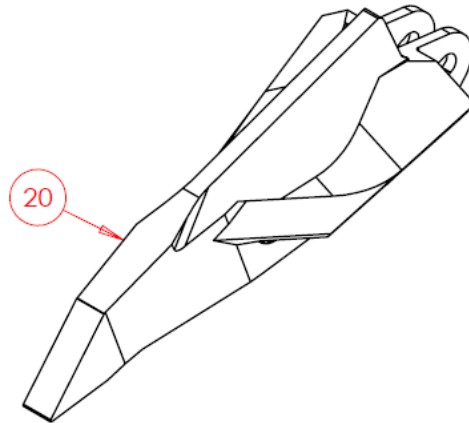
* Optional Wings Available upon Request

Alternative plain cast point is also available but will need specifying separately.

Item No.	Part Number	Description	Qty
7	SW1050P	Plain Cast Point	1

6.4.6.1 Alternative Low Disturbance Point

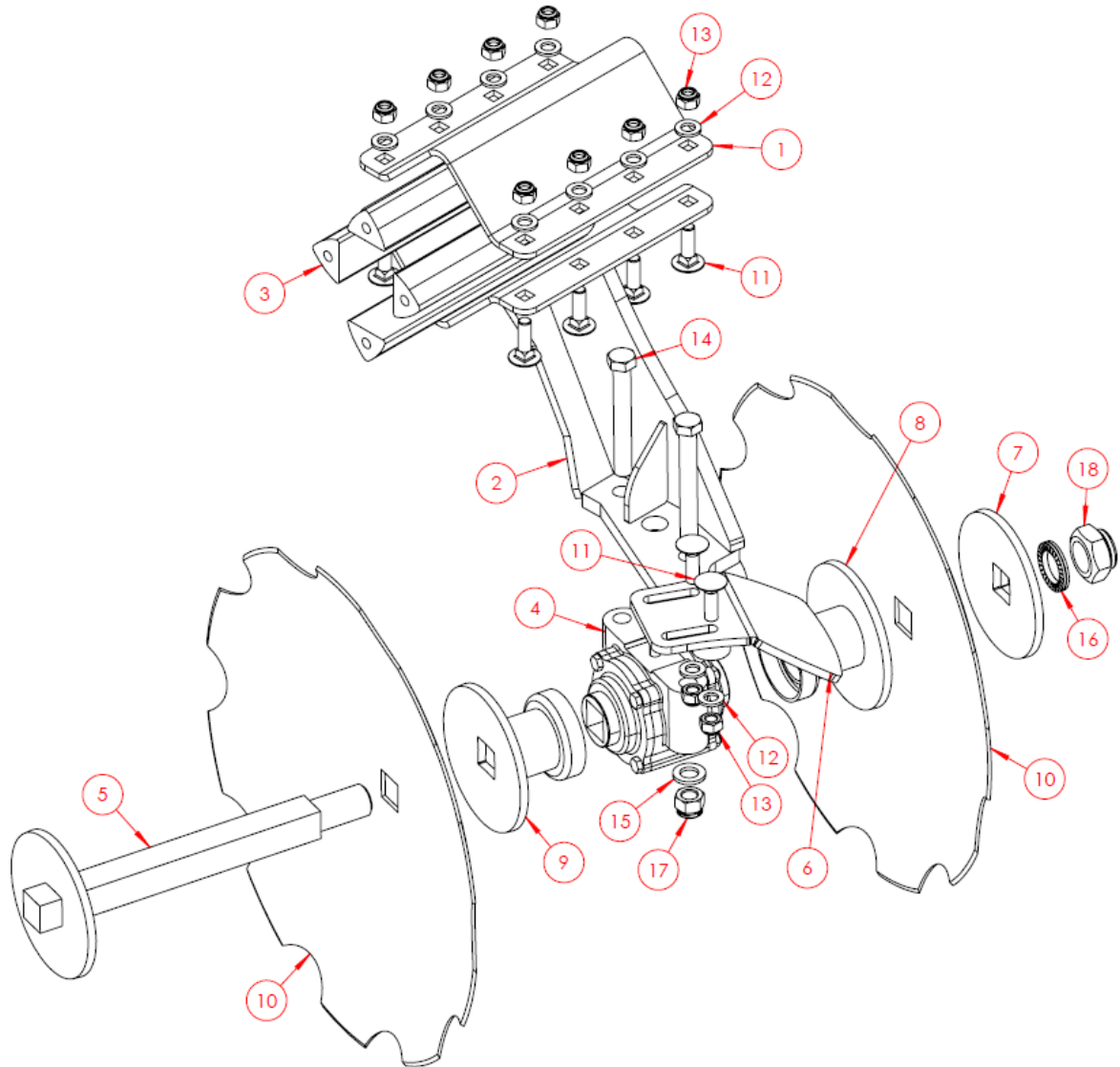
Available with or without tungsten. Not compatible with wings.



Item No.	Part Number	Description	Qty
20	SWB441	Low Disturbance Point – Plain	-
20	SWB441TC	Lod Disturbance Point – Tungsten	-

6.4.7 Disc Assemblies

6.4.7.1 Twin Disc Assembly - Left



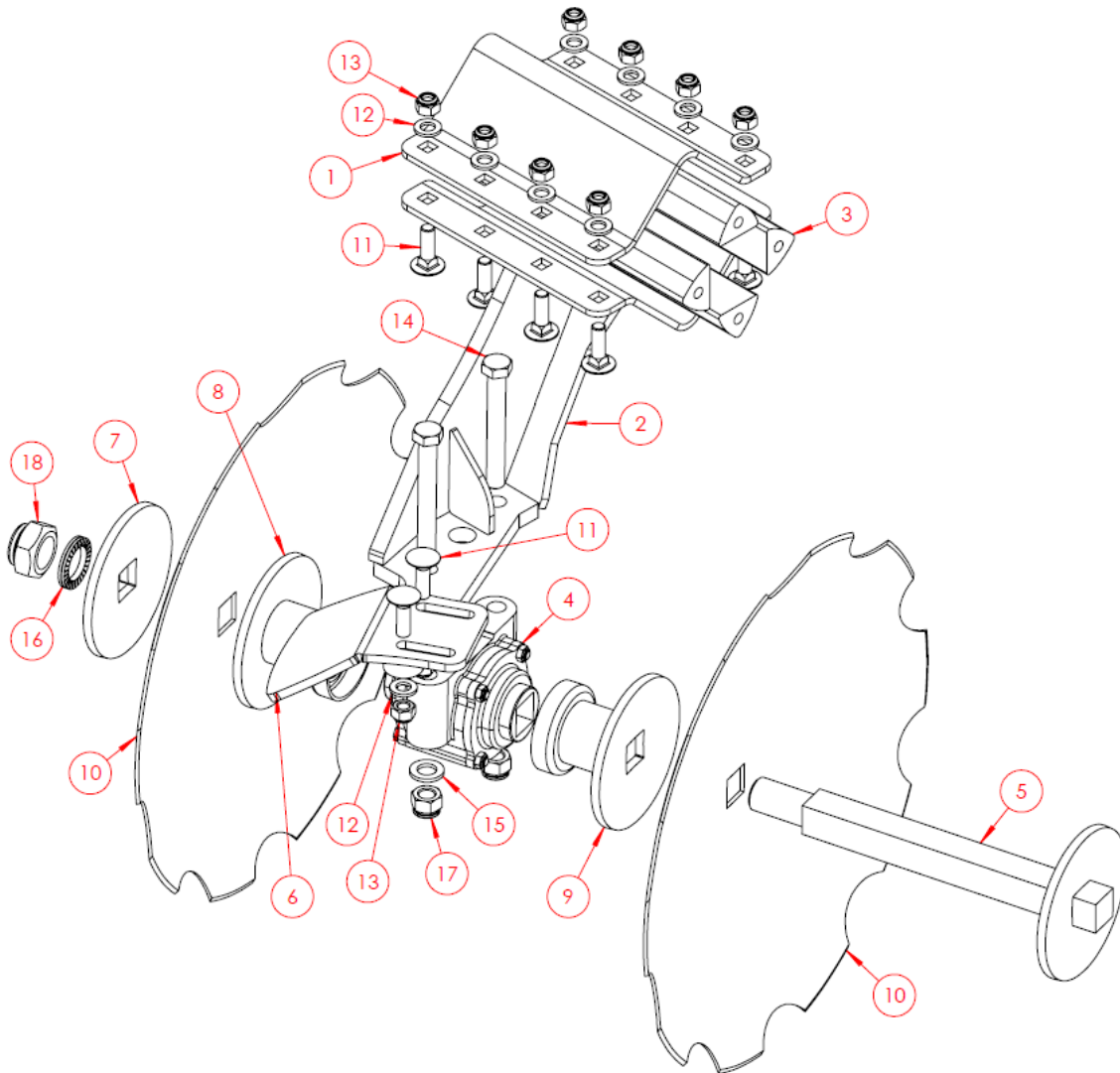
Item No.	Part Number	Description	Qty
1	SW107	Clamp Plate	1
2	SW390	Disc Arm - Left Hand	1
3	SWB679	Rubber - Triangle 28x35x270	4
4	SWB102	Pillar Bearing	1
5	SW101	Twin Disc Axle	1
6	SW646	Disc Scraper	1
7	SW108	Dis End Washer	1
8	SW103	Dust Cover Spacer	1

6.4.7.1 Twin Disc Assembly – Left- Continued

Item No.	Part Number	Description	Qty
9	SW102	Dust Cover Spacer	1
10	SWB101	Disc – 20" Curved – 30 Square	2
11	SWM1240CHSQ	M12x40 Screw – Cup Head Square	10
12	SWM12001	M12 Washer – Flat	10
13	SWM12004	M12 Nut – Nylock	10
14	SWM16120	M16x120 Bolt	2
15	SWM16001	M16 Washer – Flat	2
16	SWM30001	M30 Washer – Flat	1
16	SWB1259	M30 Washer – Nord-Lock *	1
17	SWM16006	M16 Nut – Aerotight	2
18	SWM30004	M30 Nut – Nylock	1

* Nord-Lock washers are not included as standard and are an optional extra.

6.4.7.2 Twin Disc Assembly - Right



Item No.	Part Number	Description	Qty
1	SW107	Clamp Plate	1
2	SW391	Disc Arm - Right Hand	1
3	SWB679	Rubber - Triangle 28x35x270	4
4	SWB102	Pillar Bearing	1
5	SW101	Twin Disc Axle	1
6	SW646	Disc Scraper	1
7	SW108	Dis End Washer	1
8	SW103	Dust Cover Spacer	1
9	SW102	Dust Cover Spacer	1
10	SWB101	Disc - 20" Curved - 30 Square	2

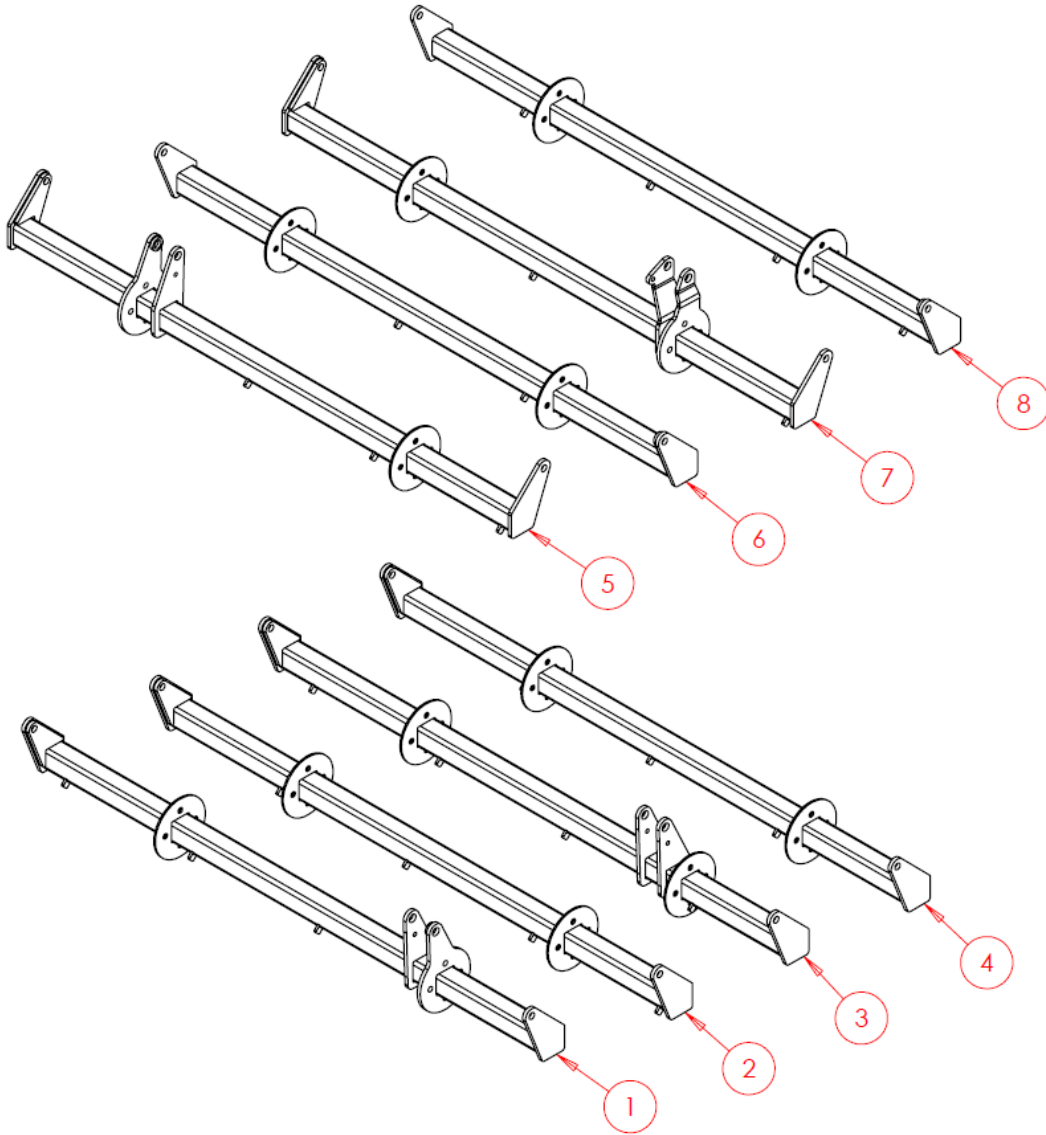
6.4.7.2 Twin Disc Assembly – Right – Continued

11	SWM1240CHSQ	M12x40 Screw – Cup Head Square	10
12	SWM12001	M12 Washer – Flat	10
13	SWM12004	M12 Nut – Nylock	10
14	SWM16120	M16x120 Bolt	2
15	SWM16001	M16 Washer – Flat	2
16	SWM30001	M30 Washer – Flat	1
16	SWB1259	M30 Washer – Nord-Lock *	1
17	SWM16006	M16 Nut – Aerotight	2
18	SWM30004	M30 Nut – Nylock	1

* Nord-Lock washers are not included as standard and are an optional extra.

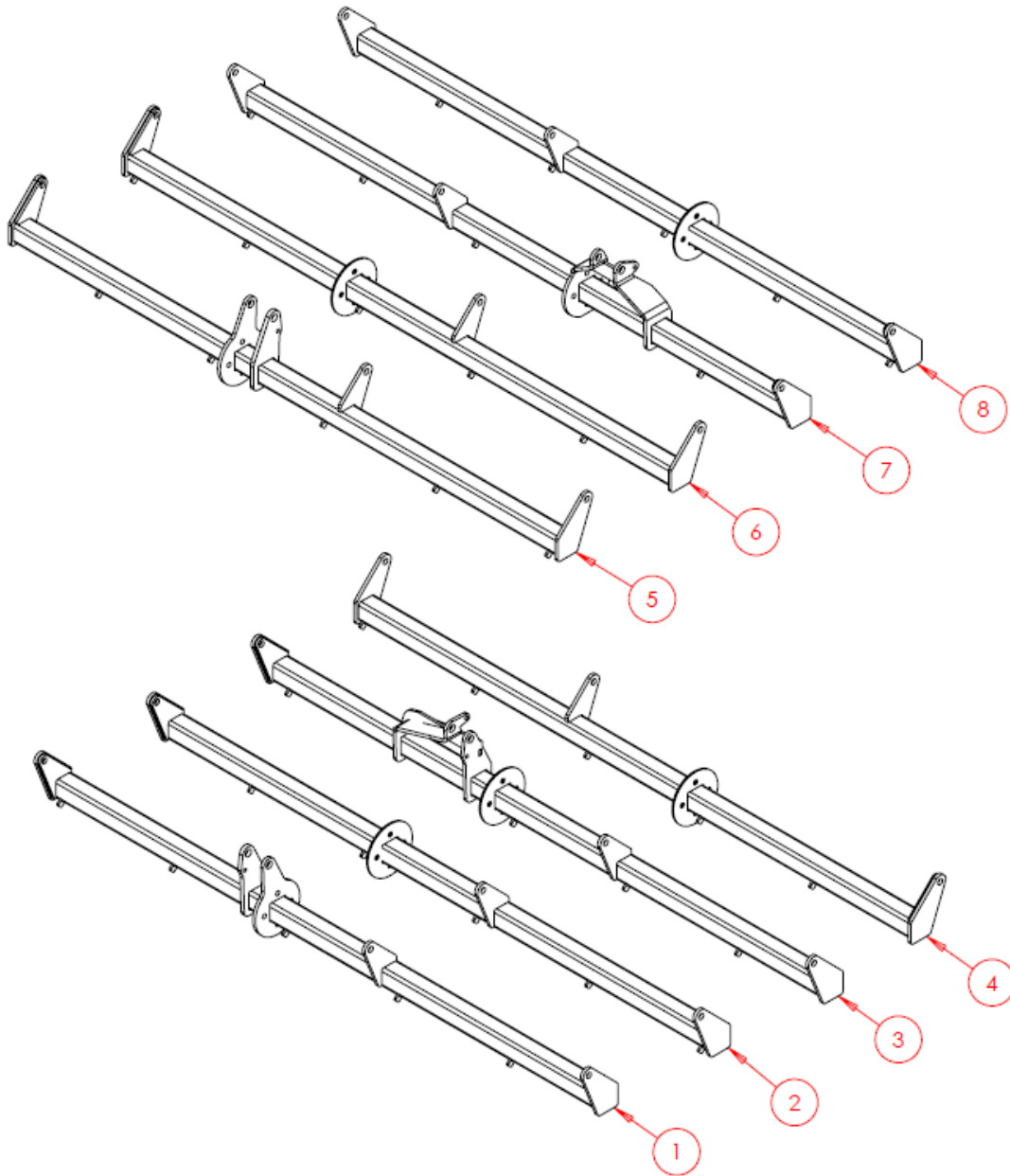
6.4.8 Disc Bars & Set Up Arrangement

6.4.8.1 Disc Bars - Q4



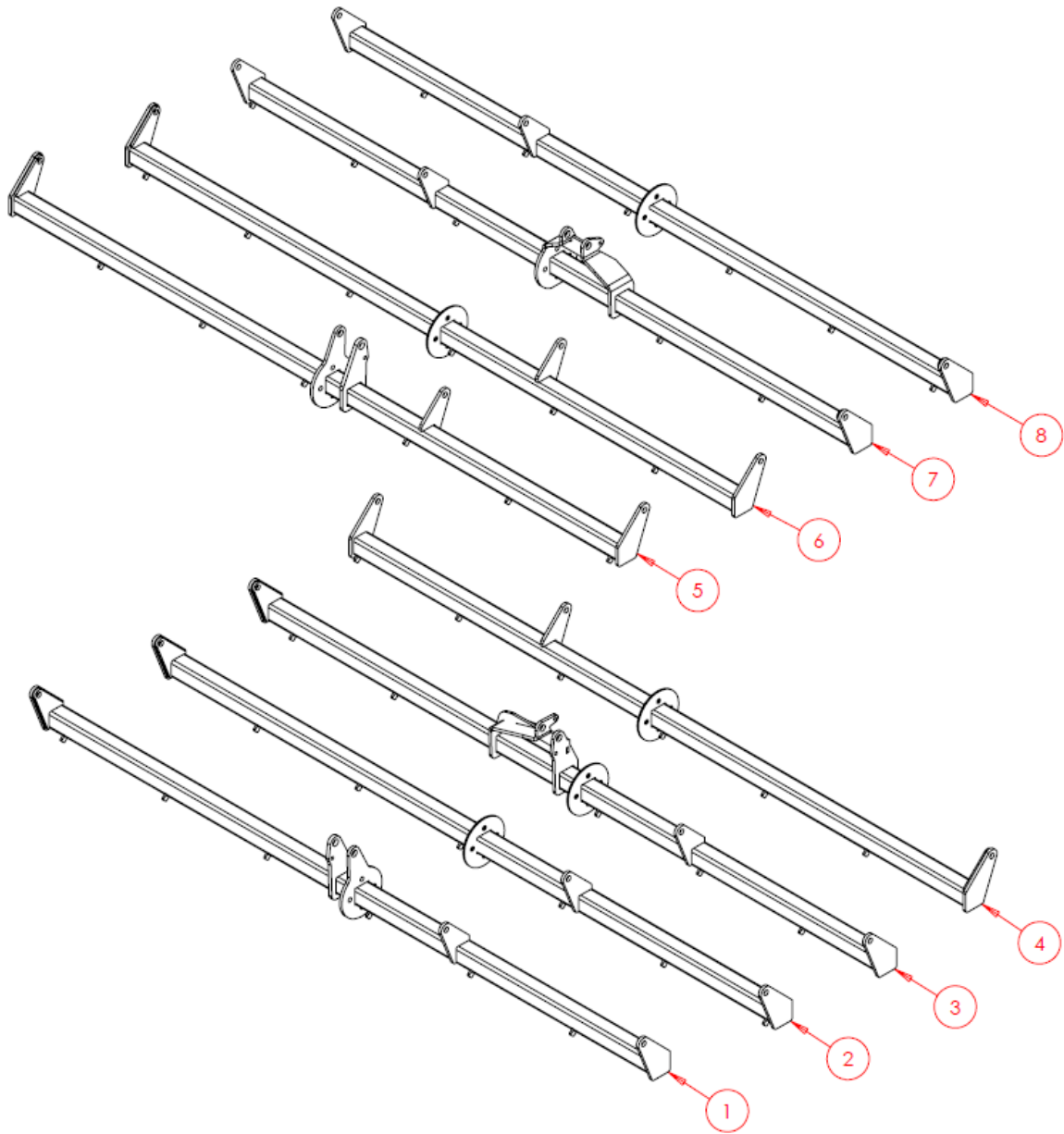
Item No.	Part Number	Description	Qty
1	SW1448	Disc Bar Row L1	1
2	SW1453	Disc Bar Row L2	1
3	SW1458	Disc Bar Row L3	1
4	SW1463	Disc Bar Row L4	1
5	SW1466	Disc Bar Row R1	1
6	SW2008	Disc Bar Row R2	1
7	SW1472	Disc Bar Row R3	1
8	SW1475	Disc Bar Row R4	1

6.4.8.2 Disc Bars - Q5



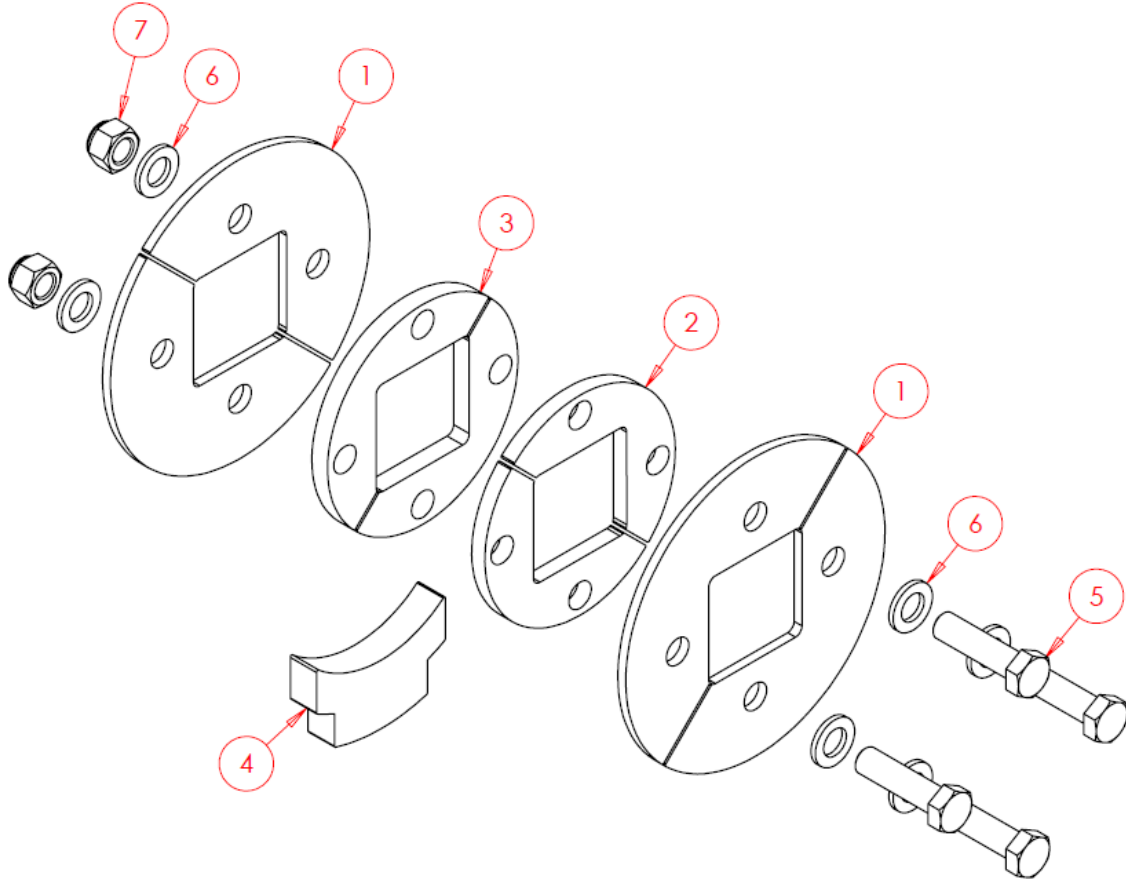
Item No.	Part Number	Description	Qty
1	SW3560	Disc Bar Row L1	1
2	SW3561	Disc Bar Row L2	1
3	SW3562	Disc Bar Row L3	1
4	SW3563	Disc Bar Row L4	1
5	SW3564	Disc Bar Row R1	1
6	SW3565	Disc Bar Row R2	1
7	SW3566	Disc Bar Row R3	1
8	SW3567	Disc Bar Row R4	1

6.4.8.3 Disc Bars - Q6



Item No.	Part Number	Description	Qty
1	SW3981	Disc Bar Row L1	1
2	SW3982	Disc Bar Row L2	1
3	SW3983	Disc Bar Row L3	1
4	SW3984	Disc Bar Row L4	1
5	SW3985	Disc Bar Row R1	1
6	SW3986	Disc Bar Row R2	1
7	SW3987	Disc Bar Row R3	1
8	SW3988	Disc Bar Row R4	1

6.4.8.4 Standard Bearing Arrangement



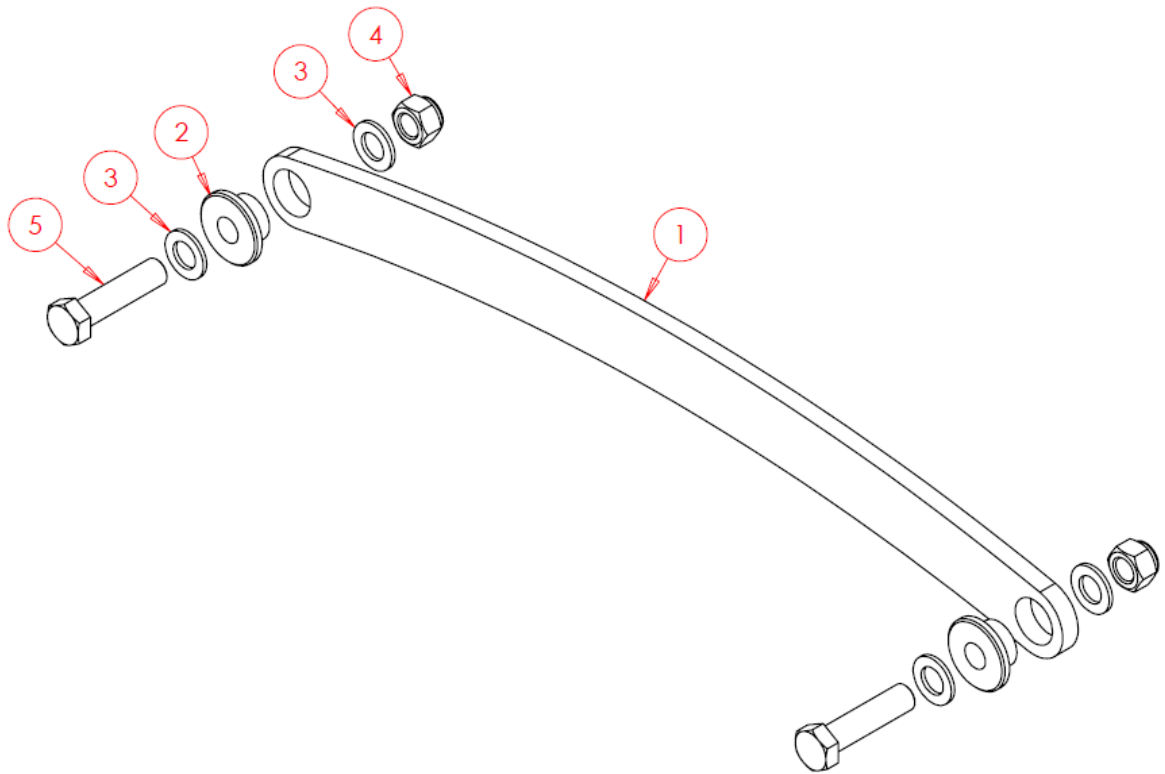
Quantities below are per bearing, not per machine.

Item No.	Part Number	Description	Qty
1	SWS8680	Outer Bearing Plate	4
2	SWS8679-10	Bearing Spacer – 10mm*	2*
2	SWS8679-15	Bearing Spacer – 15mm (Not Shown) *	2*
3	SWS8679-12	Bearing Spacer – 12mm	2
4	SWS8682	Tee Piece – 20mm**	1**
4	SWS8682-25	Tee Piece – 25mm (Not Shown)**	1**
5	SWM1660	M16x60mm Bolt	4
6	SWM16001	M16 Flat Washer	8
7	SWM16004	M16 Nylock Nut	4

* Part 2 can either be 10mm or 15mm thick depending on the thickness of the mounting plate.

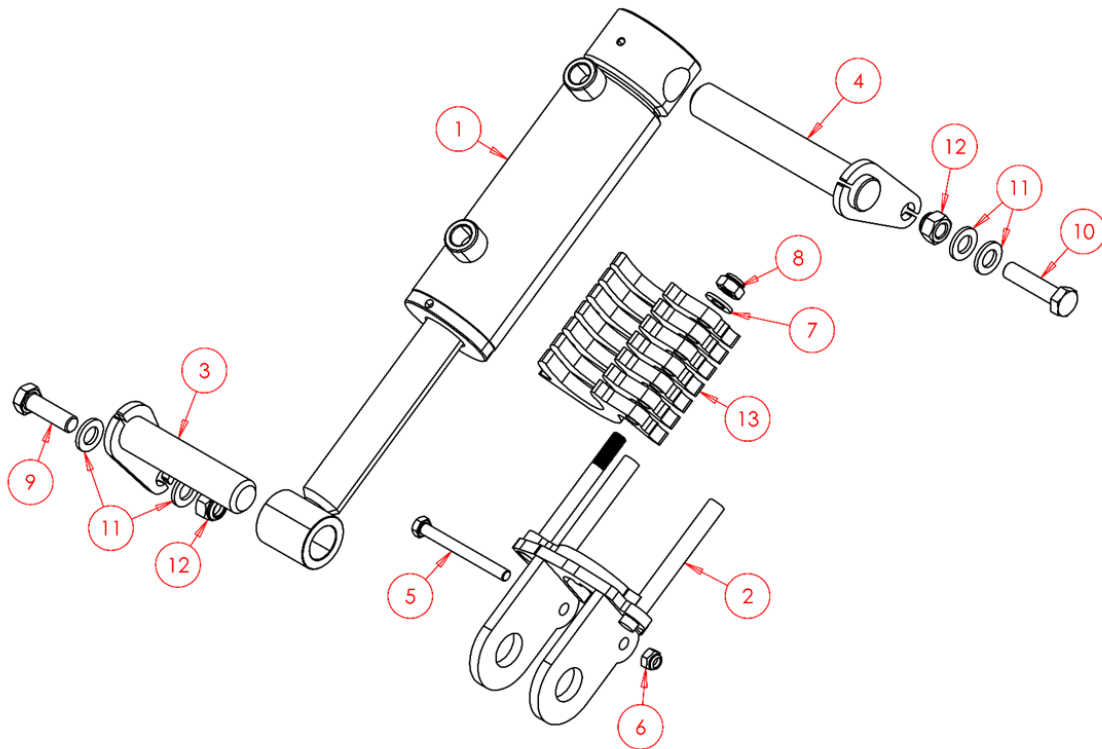
** Part 4 can either be 20mm or 25mm thick depending on the thickness of the mounting plate.

6.4.8.5 Standard Inner Push Bar Arrangement



Item No.	Part Number	Description	Qty
1	SWS8643	Curved Push Bar	4
2	SWB582	Top Hat Bearing Spacer	16
3	SWM20001	M20 Flat Washer	32
4	SWM20004	M20 Nylock Nut	16
5	SWM2080	M20x80mm Bolt	16

6.4.8.6 Standard Hydraulic Disc Arrangement

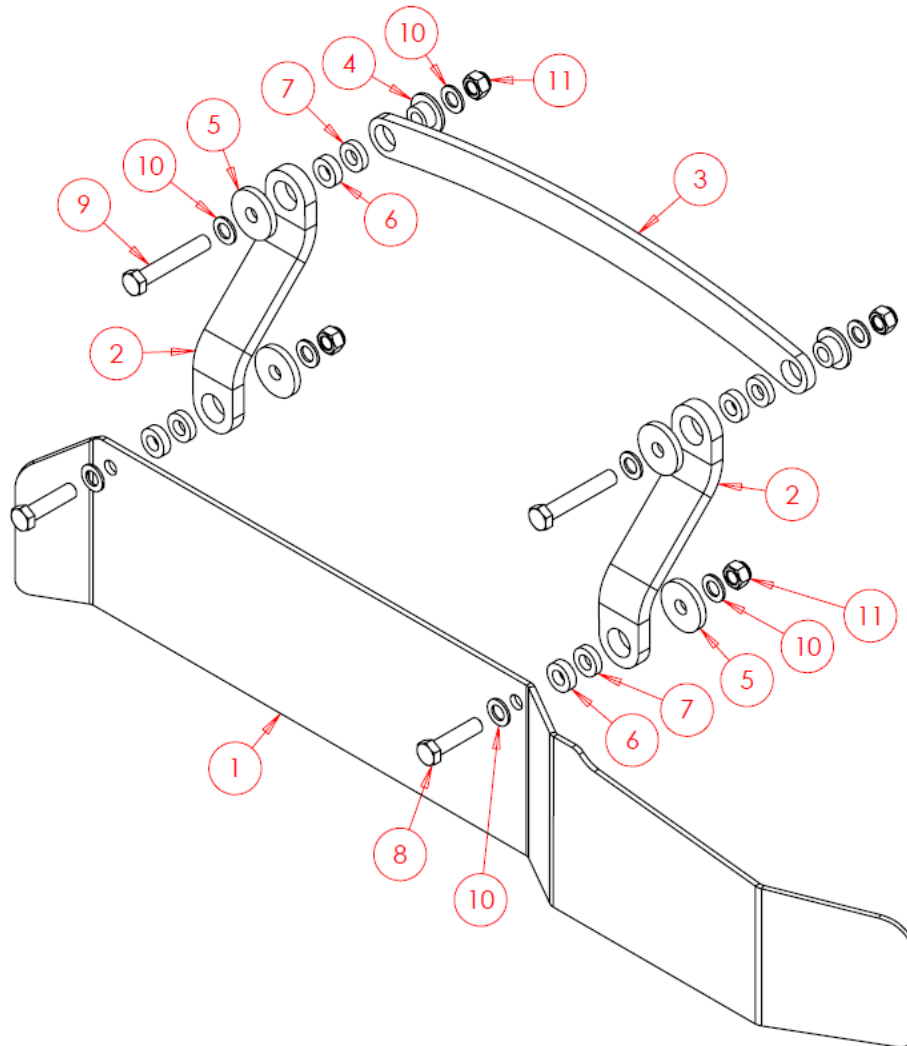


Item No.	Part Number	Description	Qty
1	SWH113	Hydraulic Cylinder	4
2	SWA048	Shim Holder LH	2
2	SW1334	Shim Holder RH (Not Shown)	2
3	SWP25X100	Pin	*
3	SWP25X110	Pin	*
3	SWP25X120	Pin	*
4	SWP25X110	Pin	*
4	SWP25X120	Pin	*
4	SWP25X130	Pin	*
5	SWM880	M8x80 Bolt	1
6	SWM8004	M8 Nut - Nylock	1
7	SWM10001	M10 Washer - Flat	1
8	SWM10004	M10 Nut - Nylock	1
9	SWM1240	M12x40 Screw	4
10	SWM1250	M12x50 Bolt	4
11	SWM12001	M12 Washer - Flat	16
12	SWM12004	M12 Nut - Nylock	8
13	SW1333	Separate Shims (Supplied With Holder)	N/A

* Pins vary depending on location.

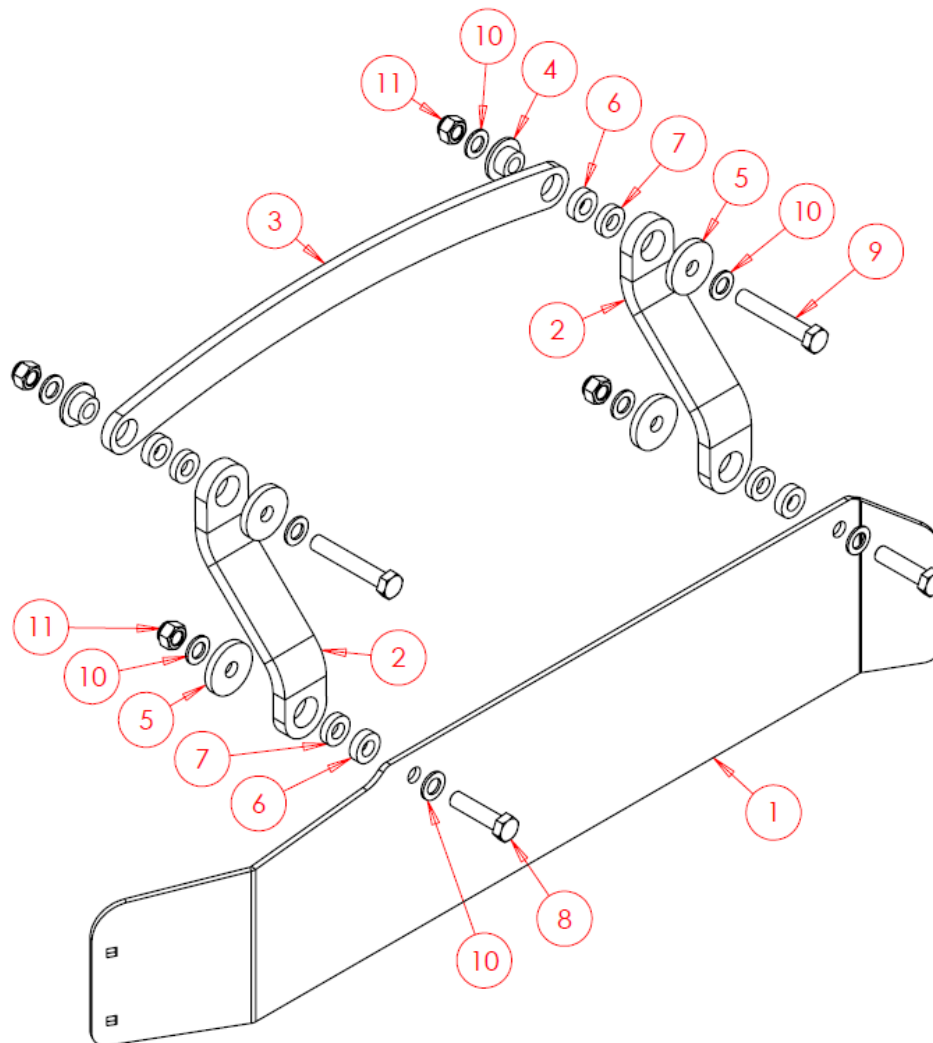
6.4.9 Soil Retainers

6.4.9.1 Soil Retainer Assembly - Left Hand Side



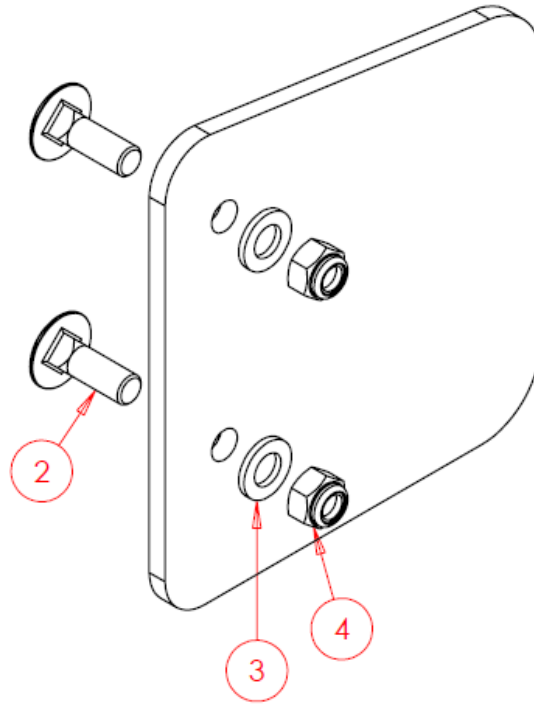
Item No.	Part Number	Description	Qty
1	SWS11324	Soil Retainer LH	1
2	SW4766	Soil Retainer Arm	2
3	SWS8643	Curved Push Bar	1
4	SWB582	Top Hat Bearing Spacer	2
5	SW123	10mm SR Extra Large Washer	4
6	SW125	12mm SR Washer	4
7	SW126	10mm SR Spacer	4
8	SWM2080	M20x80mm Bolt	2
9	SWM20120	M20x120mm Bolt	2
10	SWM20001	M20 Flat Washer	8
11	SWM20004	M20 Nylock Nut	4

6.4.9.2 Soil Retainer Assembly – Right Hand Side



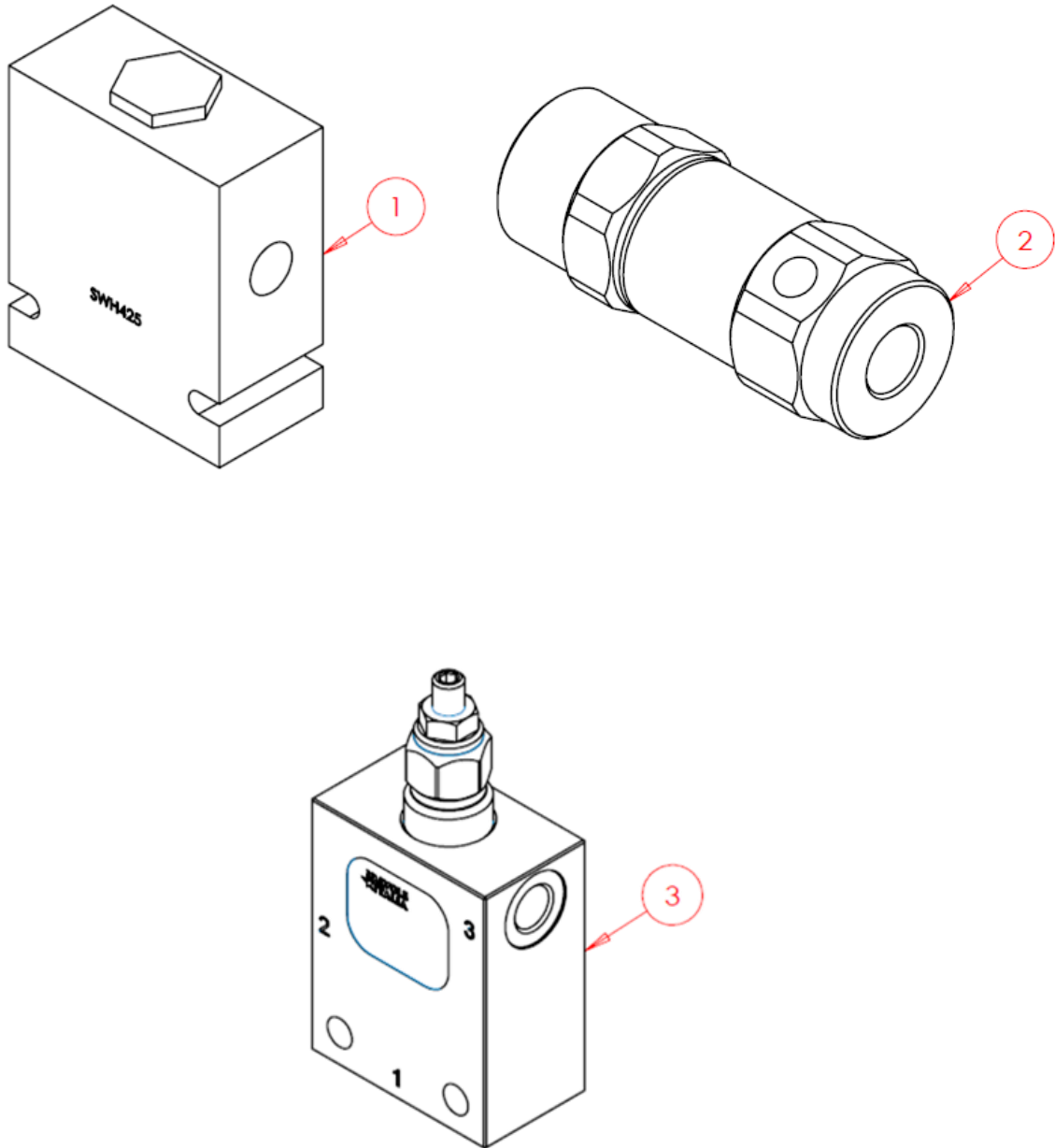
Item No.	Part Number	Description	Qty
1	SWS11290	Soil Retainer RH	1
2	SW4766	Soil Retainer Arm	2
3	SWS8643	Curved Push Bar	1
4	SWB582	Top Hat Bearing Spacer	2
5	SW123	10mm SR Extra Large Washer	4
6	SW125	12mm SR Washer	4
7	SW126	10mm SR Spacer	4
8	SWM2080	M20x80mm Bolt	2
9	SWM20120	M20x120mm Bolt	2
10	SWM20001	M20 Flat Washer	8
11	SWM20004	M20 Nylock Nut	4

6.4.9.3 Soil Retainer RH Extension – Optional Extra



Item No.	Part Number	Description	Qty
1	SW163	Soil Retainer RH Extension	1
2	SWM1235CHSQ	M12x35 Cup Head Square Bolt	2
3	SWM12001	M12 Washer - Flat	2
4	SWM12004	M12 Nut - Nylock	2

6.4.10 Wing Equalizer, Lock & Load Holding Valves



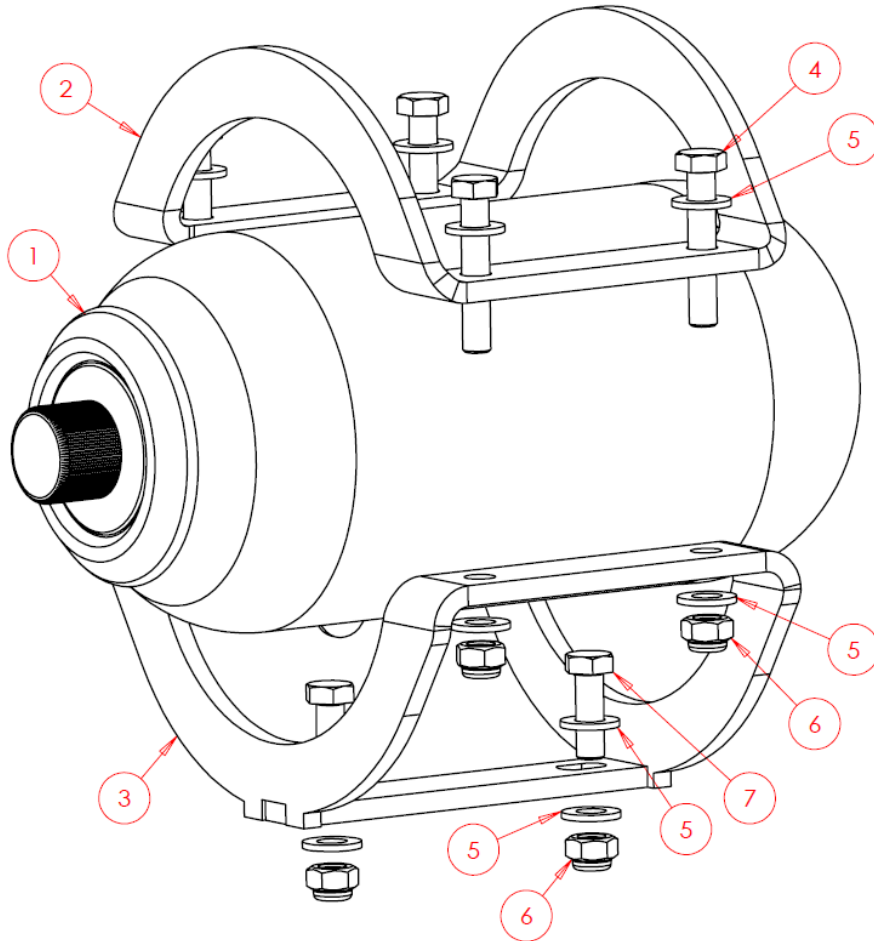
Quantities below are per hydraulic cylinder, not per machine.

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

6.4.11 Accumulators & Valve Block (Auto Reset Only)

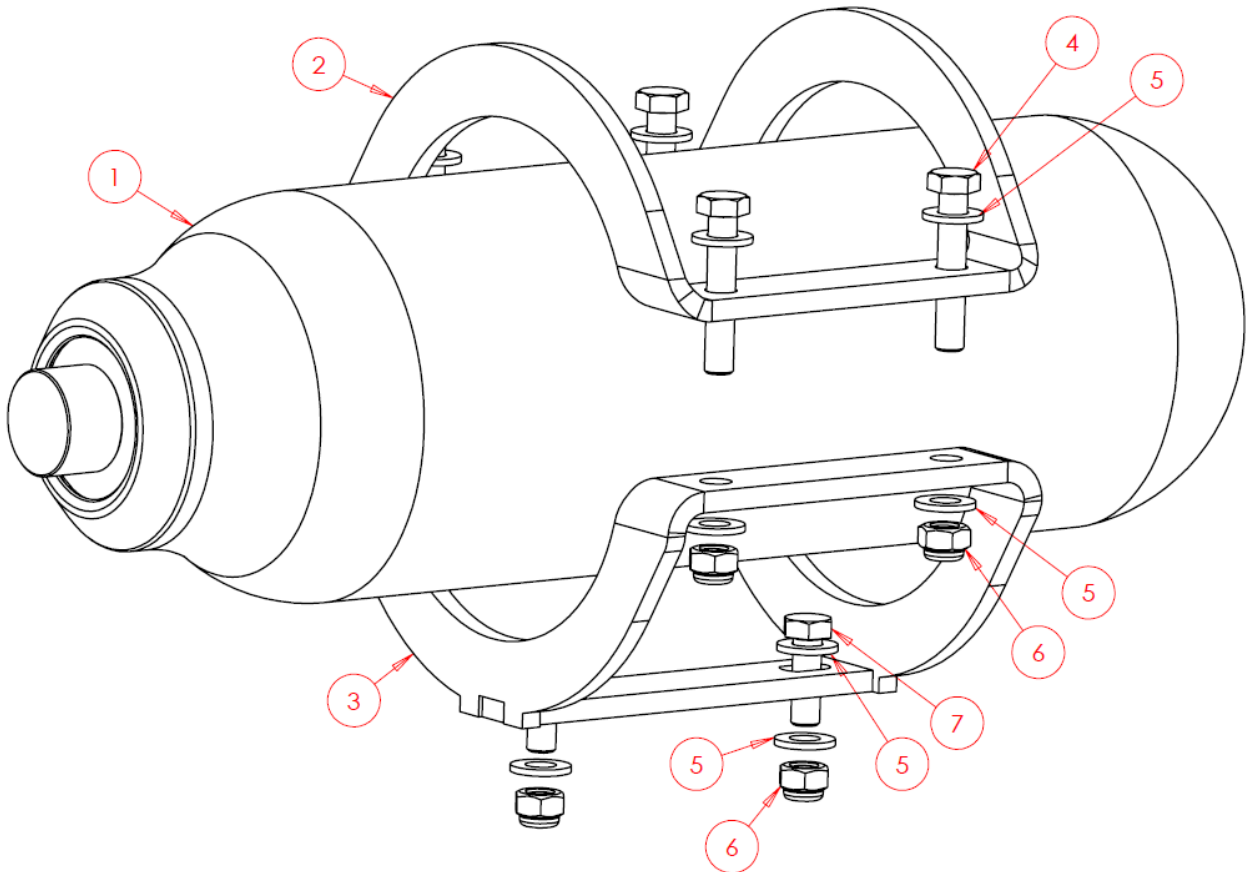
For full system details see Hydraulic Connection Diagrams.

6.4.11.1 1.4 Litre Membrane Accumulator



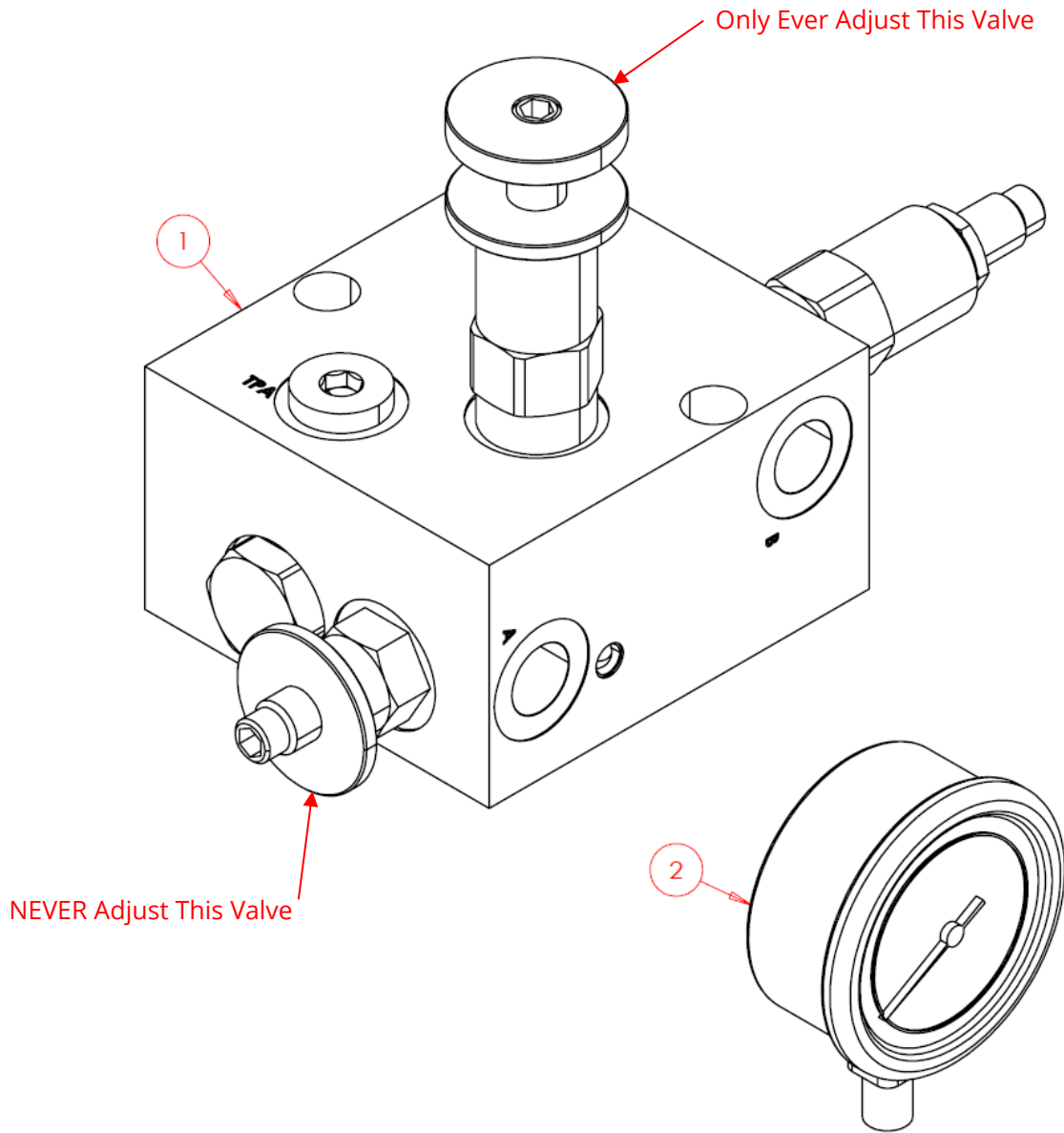
Item No.	Part Number	Description	Qty
1	SWH685	1.4 Litre Membrane Accumulator	1
2	SW1510	Top Bracket	1
3	SW1511	Base Bracket	1
4	SWM845	M8x45 Bolt	4
5	SWM8001	M8 Washer - Flat	12
6	SWM8004	M8 Nut - Nylock	6
7	SWM825	M8x25 Screw	2

6.4.11.2 2.8 Litre Membrane Accumulator



Item No.	Part Number	Description	Qty
1	SWH686	2.8 Litre Membrane Accumulator	1
2	SW1510	Top Bracket	1
3	SW1511	Base Bracket	1
4	SWM845	M8x45 Bolt	4
5	SWM8001	M8 Washer - Flat	12
6	SWM8004	M8 Nut - Nylock	6
7	SWM825	M8x25 Screw	2

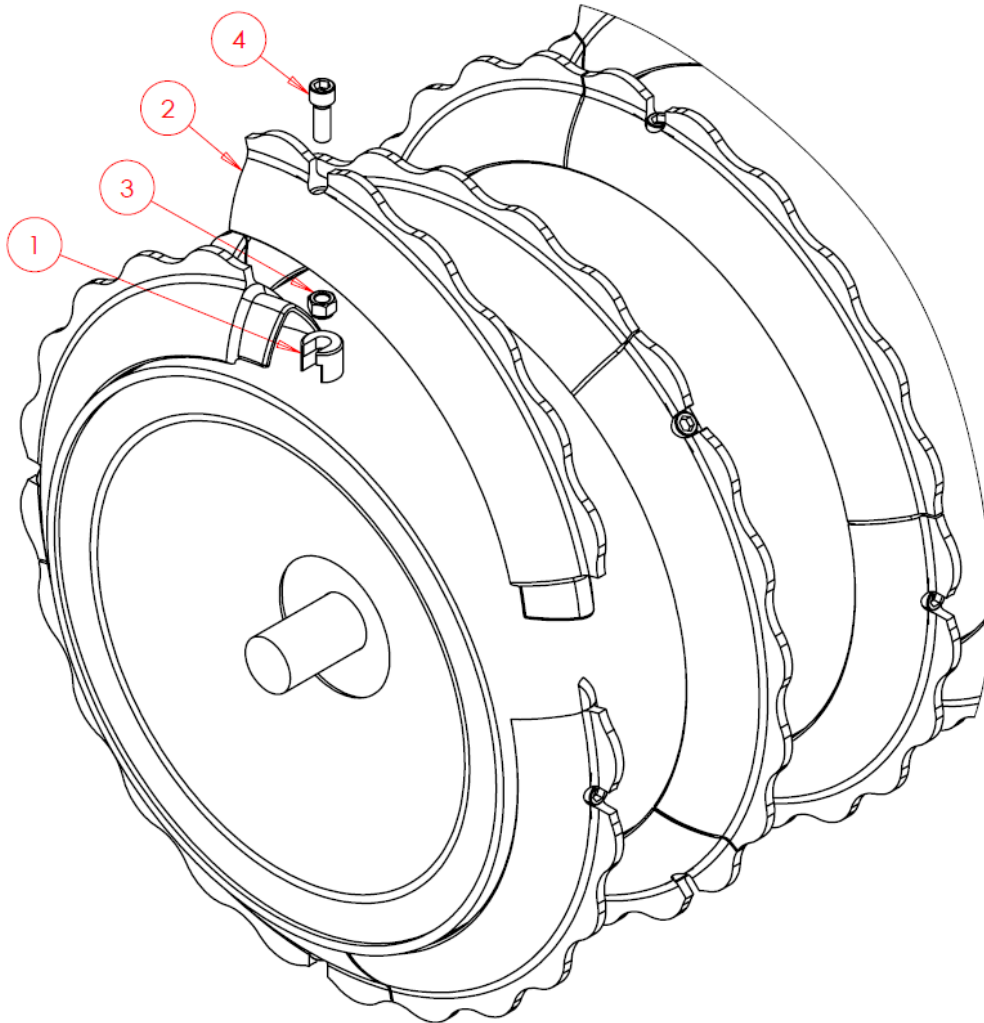
Standard Auto Reset Valve Block & Pressure Gauge



Item No.	Part Number	Description	Qty
1	SWH298	Auto Reset Valve Assembly	1
2	SWH612	Pressure Gauge	1

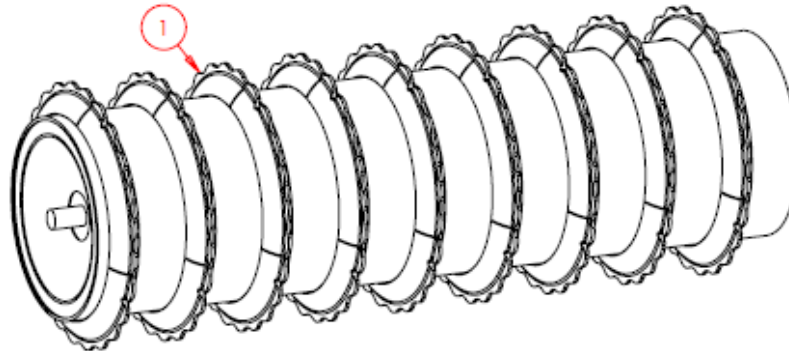
6.4.12 Packers Options

6.4.12.1 Quadrant Assembly Per Ring – All 610 Multipackers



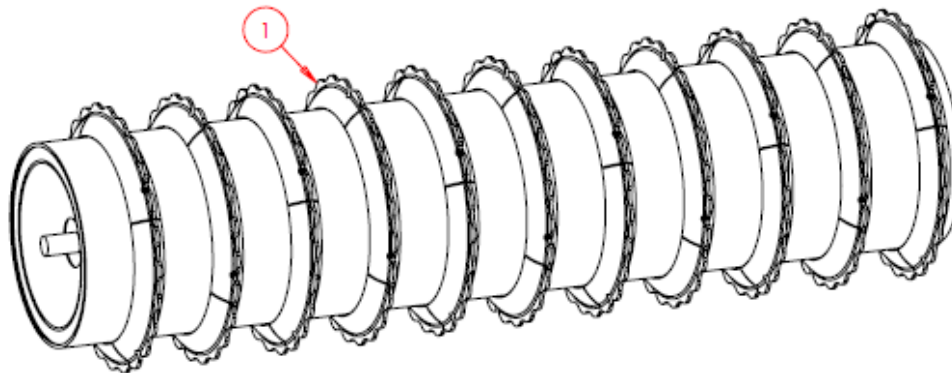
Item No.	Part Number	Description	Qty
1	SWB608	610 Weld-On Nut Retainer	4
2	SWB609	610 Quadrant – Plain	4
3	SWM16004	M16 Nut – Nylock	4
4	SWM1645CH	M16x45 Cap Head Screw	4

6.4.12.2 610 Multipackers (Q4 Only) - 250mm Spacing



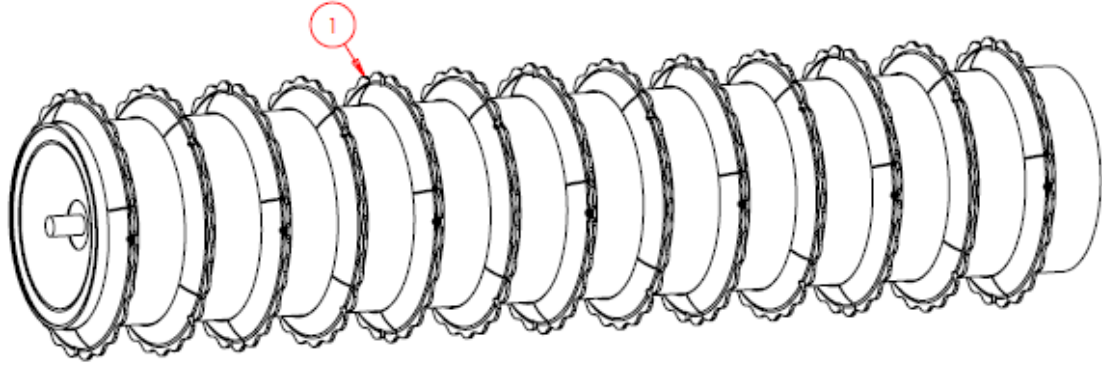
Item No.	Part Number	Description	Qty
1	SW2011	Multipacker (Q4 Only)	1
	SWB608	610 Weld-On Nut Retainer	36
	SWB609	610 Quadrant - Plain	36
	SWM16004	M16 Nut - Nylock	36
	SWM1645CH	M16x45 Cap Head Screw	36

6.4.12.3 610 Multipackers (Q5 Only) - 250mm Spacing



Item No.	Part Number	Description	Qty
1	SW3554	Multipacker (Q5 Only)	1
	SWB608	610 Weld-On Nut Retainer	44
	SWB609	610 Quadrant - Plain	44
	SWM16004	M16 Nut - Nylock	44
	SWM1645CH	M16x45 Cap Head Screw	44

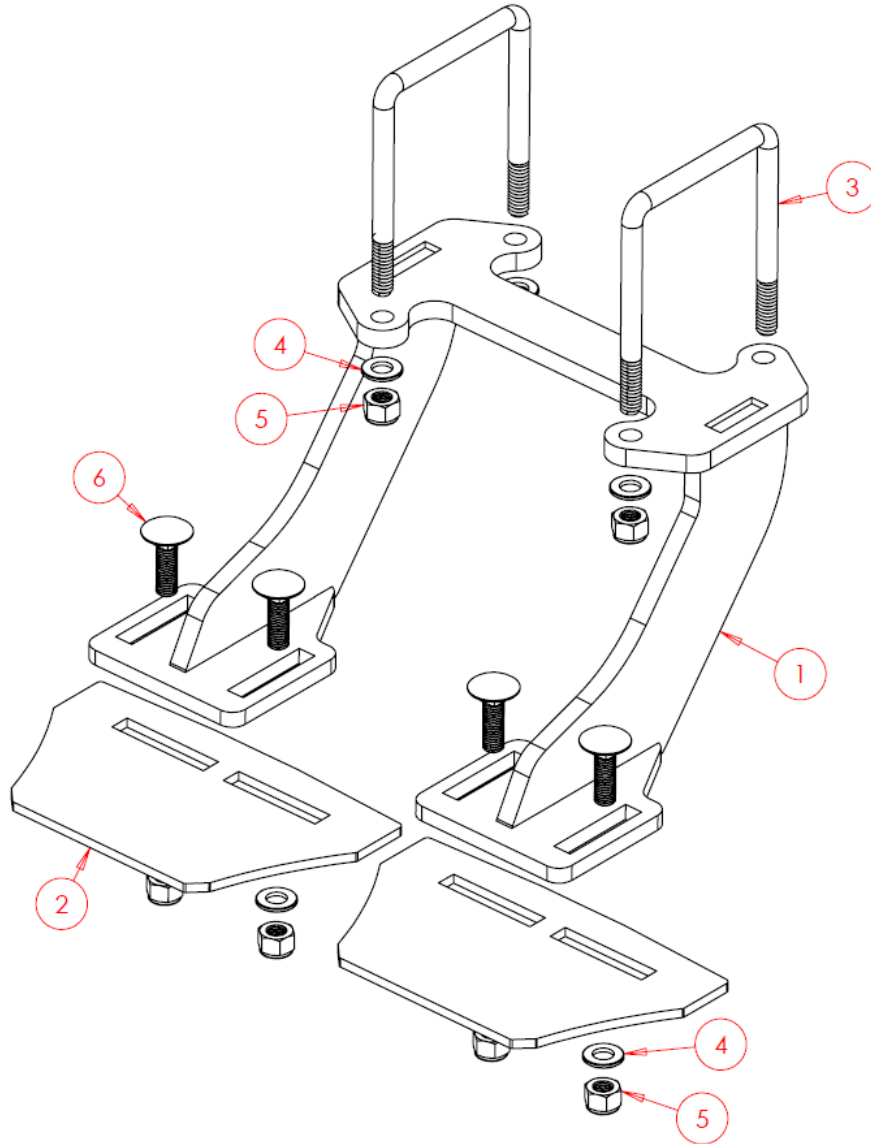
6.4.12.4 610 Multipackers (Q6 Only) - 250mm Spacing



Item No.	Part Number	Description	Qty
1	SW3991	Multipacker (Q6 Only)	1
	SWB608	610 Weld-On Nut Retainer	52
	SWB609	610 Quadrant - Plain	52
	SWM16004	M16 Nut - Nylock	52
	SWM1645CH	M16x45 Cap Head Screw	52

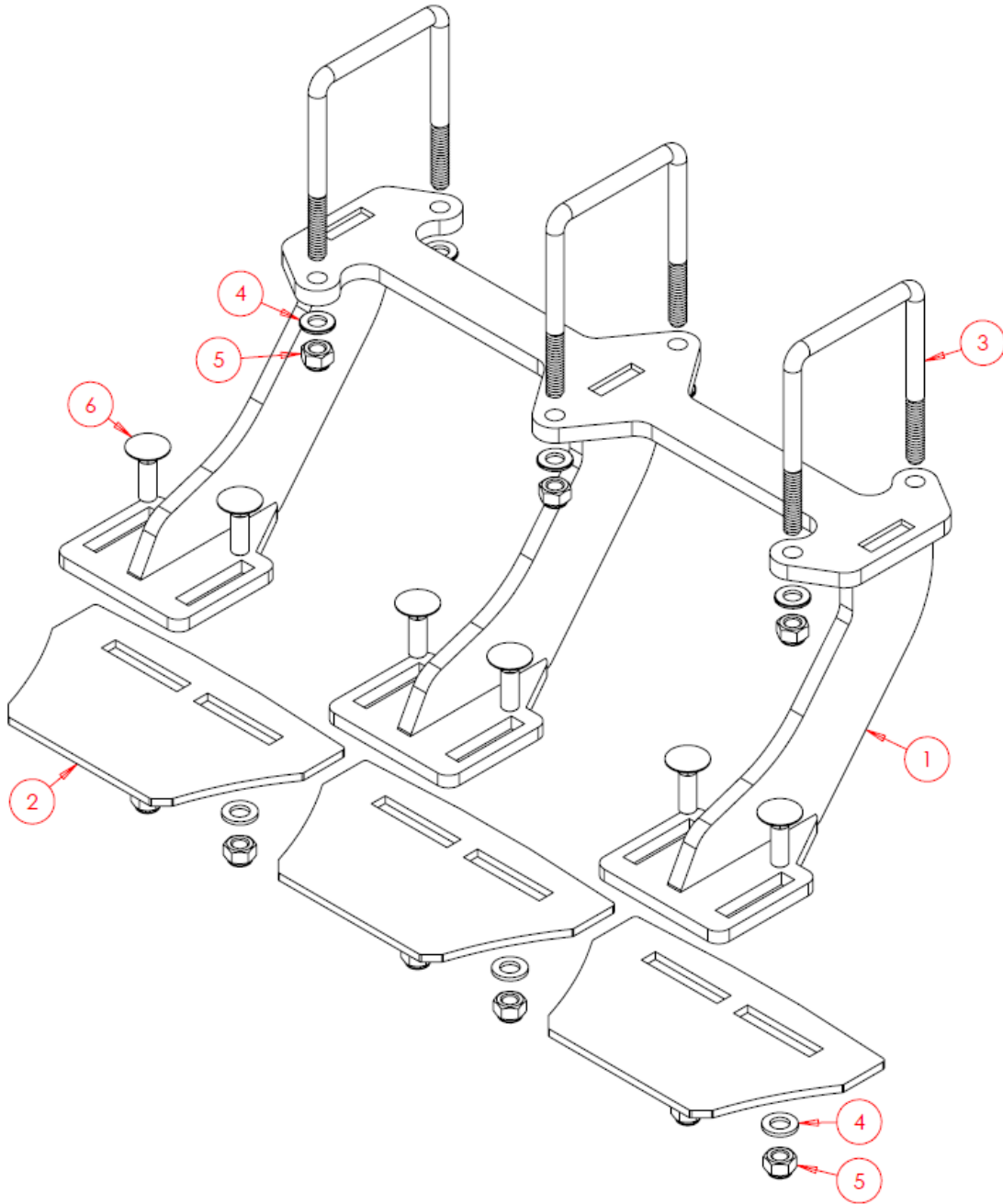
6.4.13 Scraper Assemblies

6.4.13.1 All Multipacker Options - Double Scraper



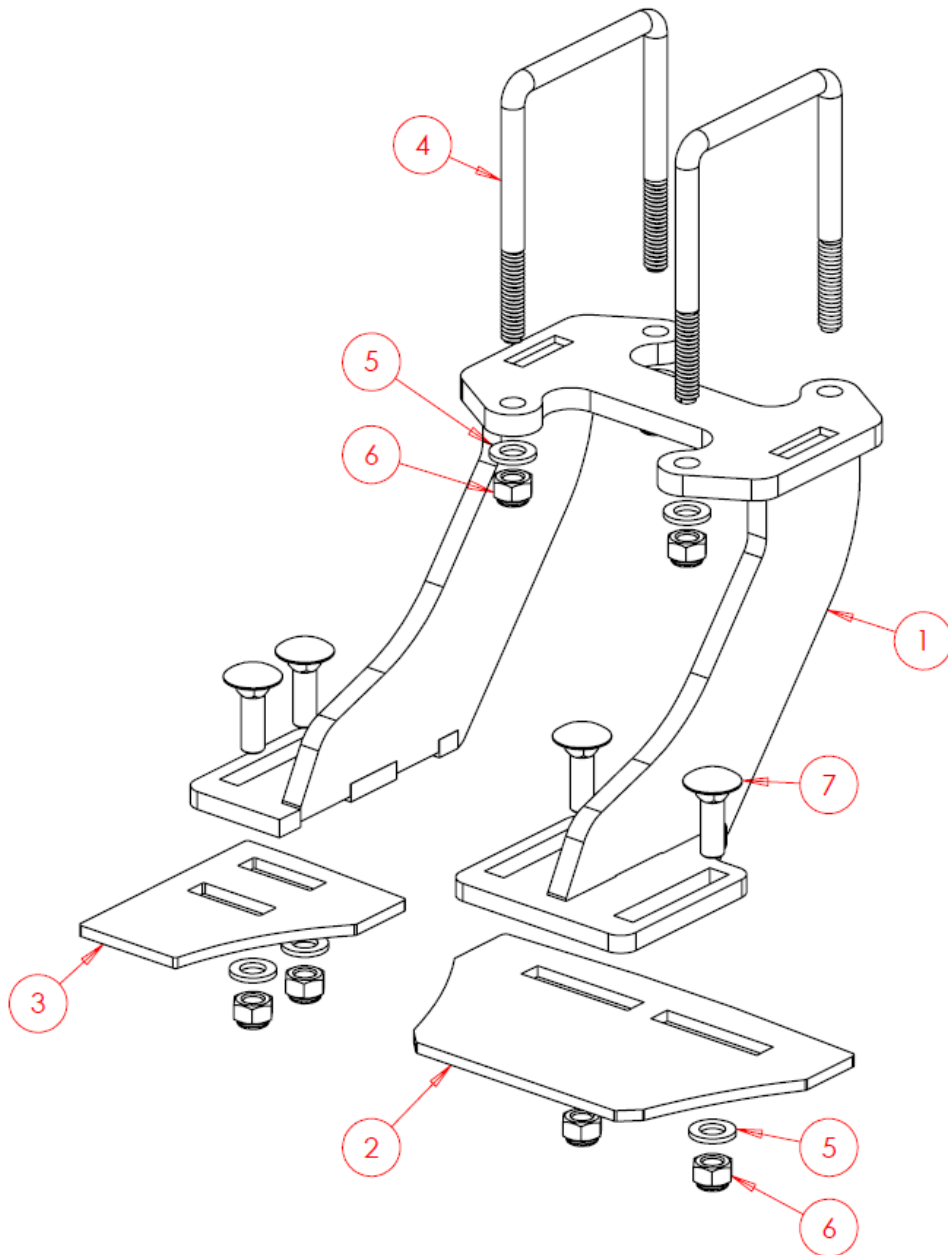
Item No.	Part Number	Description	Qty
1	SW961	Hanger	1
2	SW651	Scraper	2
3	SWM12100UB	M12x100 U bolt	2
4	SWM12001	M12 Washer - Flat	8
5	SWM12004	M12 Nut - Nylock	8
6	SWM1240CHSQ	M12x40 Bolt - Cup Head Square Bolt	4

6.4.13.2 All Multipacker Options - Triple Scraper



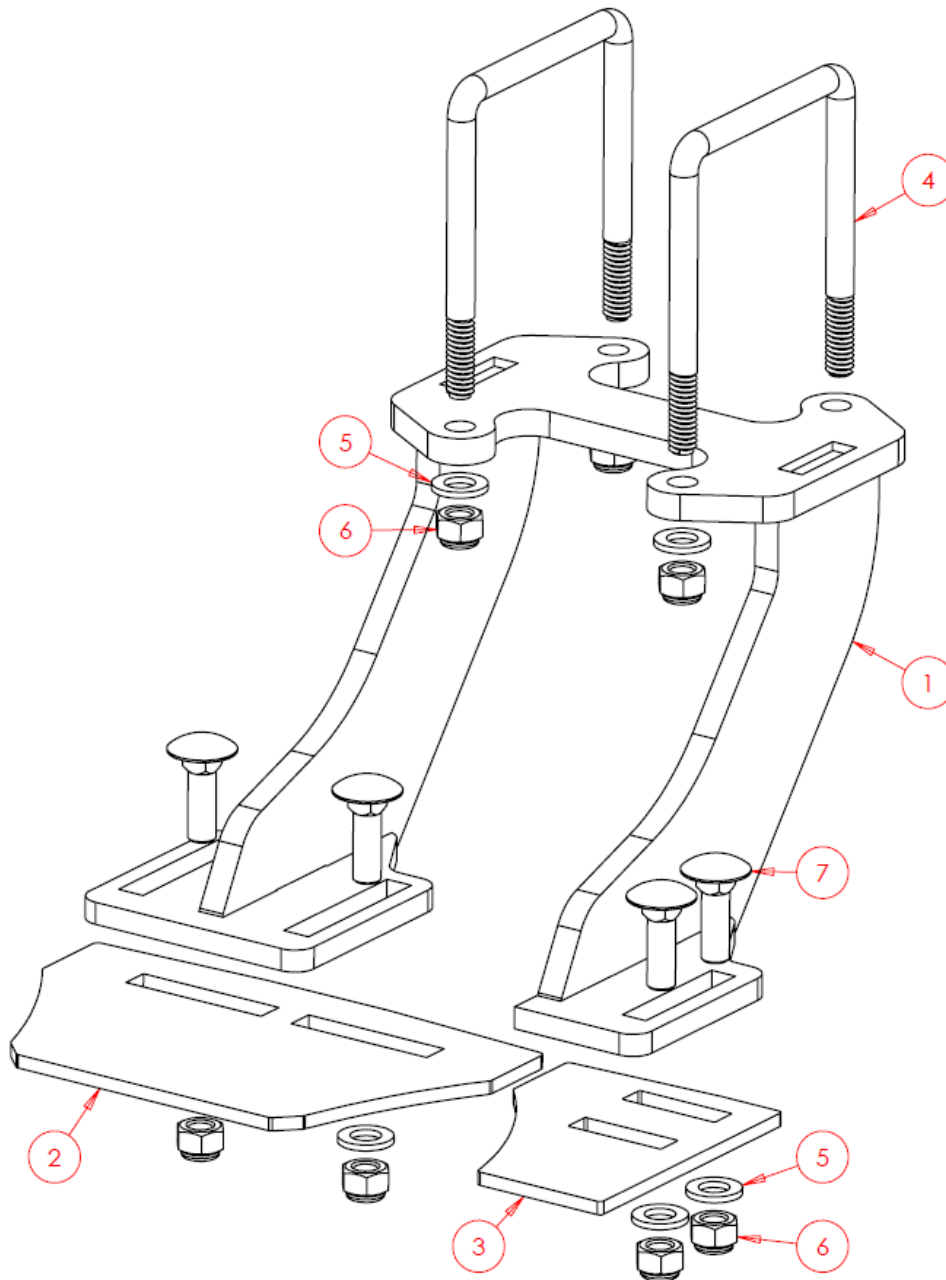
Item No.	Part Number	Description	Qty
1	SW1003	Hanger	1
2	SW651	Scraper	3
3	SWM12100UB	M12x100 U bolt	3
4	SWM12001	M12 Washer - Flat	12
5	SWM12004	M12 Nut - Nylock	12
6	SWM1240CHSQ	M12x40 Bolt - Cup Head Square Bolt	6

6.4.13.3 All Multipacker Options - 1.5 Scraper LH



Item No.	Part Number	Description	Qty
1	SW963	Hanger	1
2	SW651	Scraper	1
3	SW667	½ Scraper	1
4	SWM12100UB	M12x100 U bolt	2
5	SWM12001	M12 Washer - Flat	8
6	SWM12004	M12 Nut - Nylock	8
7	SWM1240CHSQ	M12x40 Bolt - Cup Head Square Bolt	4

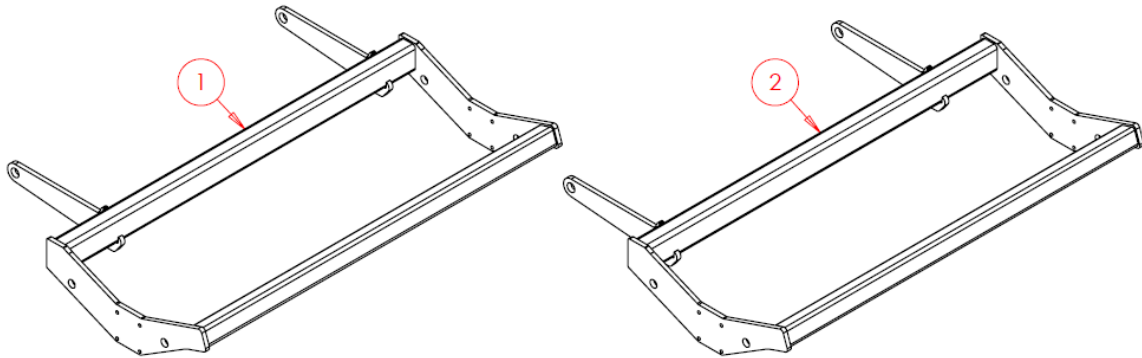
6.4.13.4 All Multipacker Options - 1.5 Scraper RH



Item No.	Part Number	Description	Qty
1	SW962	Hanger	1
2	SW651	Scraper	1
3	SW667	½ Scraper	1
4	SWM12100UB	M12x100 U bolt	2
5	SWM12001	M12 Washer - Flat	8
6	SWM12004	M12 Nut - Nylock	8
7	SWM1240CHSQ	M12x40 Bolt - Cup Head Square Bolt	4

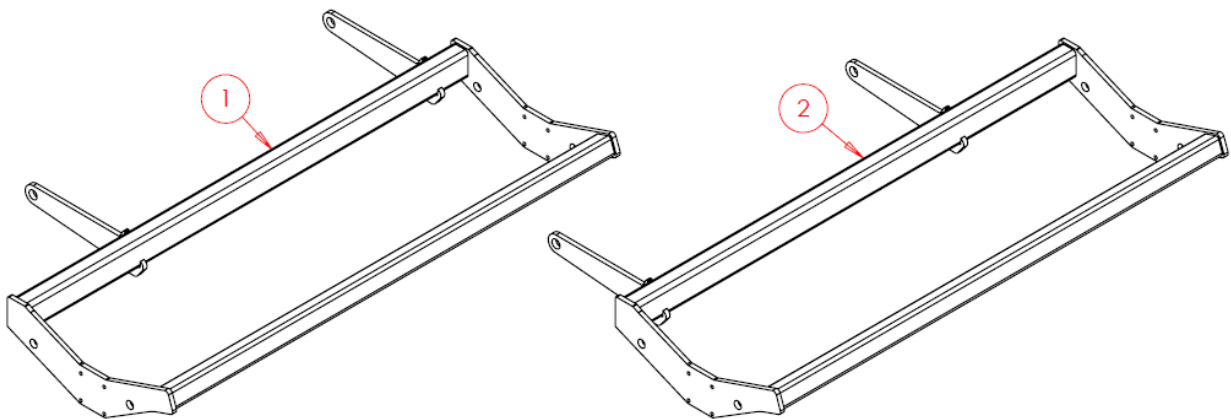
6.4.14 Packer Frames

6.4.14.1 Packer Frames – Multipacker (Q4 Only)

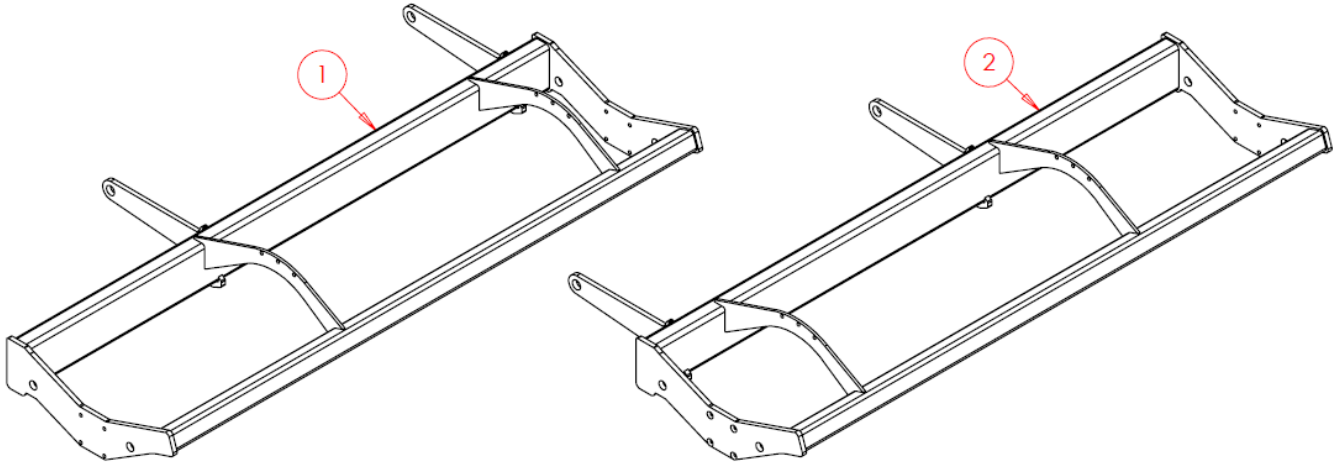


Item No.	Part Number	Description	Qty
1	SW3278	Multipacker Packer Frame LH (Q4 Only)	1
2	SW3279	Multipacker Packer Frame RH (Q4 Only)	1

6.4.14.2 Packer Frames – Multipacker (Q5 Only)



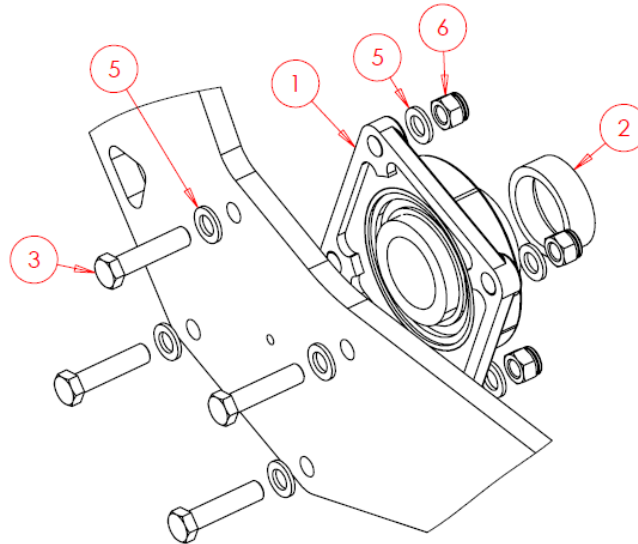
Item No.	Part Number	Description	Qty
1	SW3558	Multipacker Packer Frame LH (Q5 Only)	1
2	SW3559	Multipacker Packer Frame RH (Q5 Only)	1

6.4.14.3 Packer Frames - Multipacker (Q6 Only)

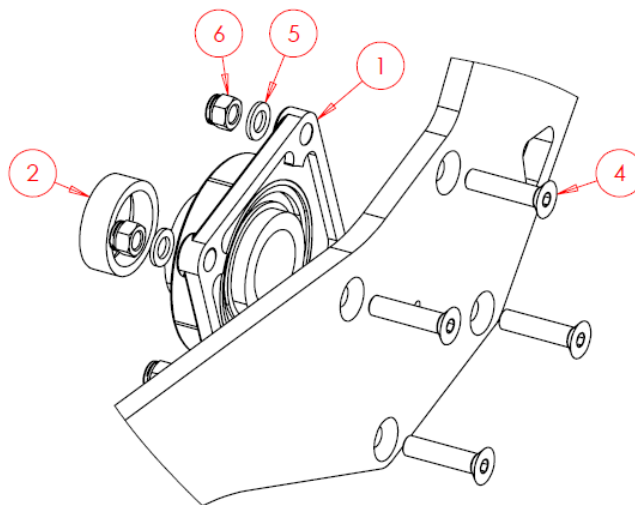
Item No.	Part Number	Description	Qty
1	SW3989	Multipacker Packer Frame LH (Q6 Only)	1
2	SW3990	Multipacker Packer Frame RH (Q6 Only)	1

6.4.15 Standard Packer Bearing Assembly

External Arrangement



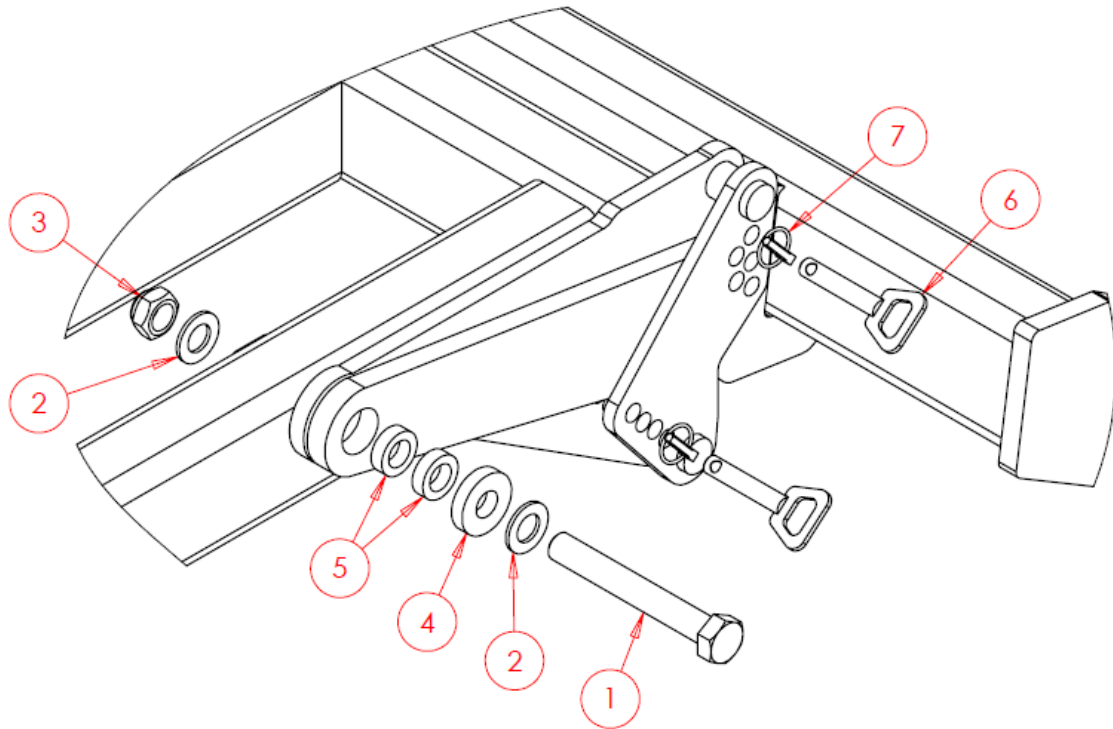
Internal Arrangement



Quantities are per packer, not per machine.

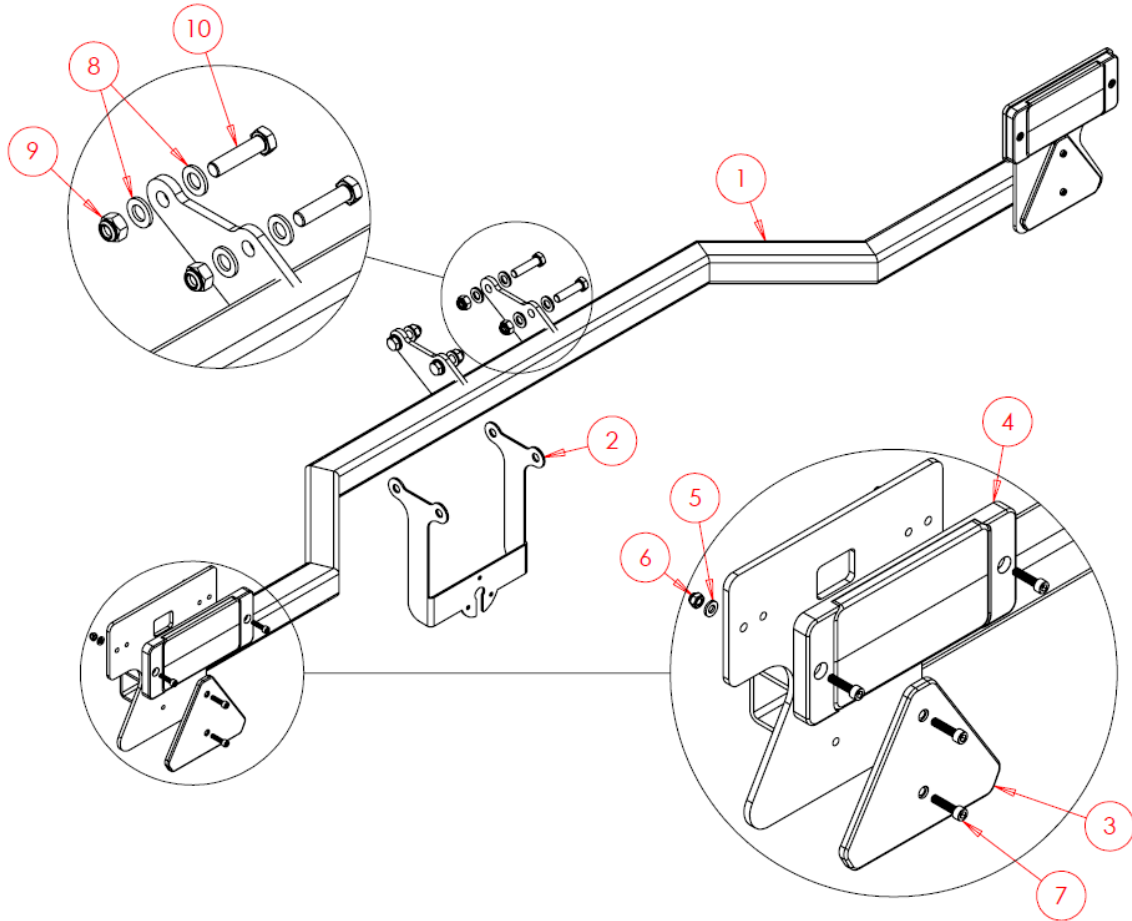
Item No.	Part Number	Description	Qty
1	SWB104	Bearing	2
2	SWS3272	Spacer Collar	2
3	SWM1670	M16x70 Bolt	4
4	SWM1665CSK	M16x65 Counter Sink Screw	4
5	SWM16001	M16 Washer - Flat	12
6	SWM16006	M16 Nut - Aerotight	8

6.4.16 Packer Mounting & Depth Pins Assembly



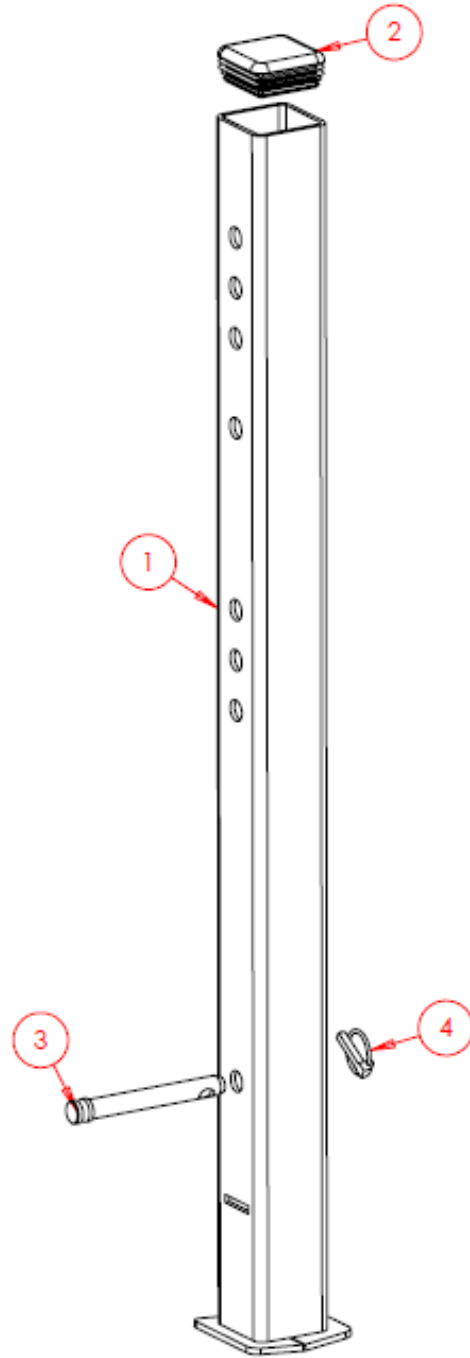
Item No.	Part Number	Description	Qty
1	SWM30220	M30x220 Bolt	4
2	SWM30001	M30 Washer - Flat	8
3	SWM30004	M30 Nut - Nylock	4
4	SW129	Packer Arm Retention Washer	4
5	SW227	Spacer	8
6	SWP20x80HDP	Pin - Handle Depth Pin	8
7	SWB105	Lynch Pin	8

6.4.17 Lights Bracket Assembly



Item No.	Part Number	Description	Qty
1	SW3509	Light Bracket	1
2	SWS23251	Seven Pin Plug Bracket	1
3	SWB162	Reflector Triangle	2
4	SWB715	Rear LED Light Unit	2
5	SWM6001	M6 Washer - Flat	8
6	SWM6004	M6 Nut - Nylock	8
7	SWM625AKH	M6x25 Cap Head Screw	8
8	SWM12001	M12 Washer - Flat	8
9	SWM12004	M12 Nylock Nut	4
10	SWM1250	M12x50 Bolt	4

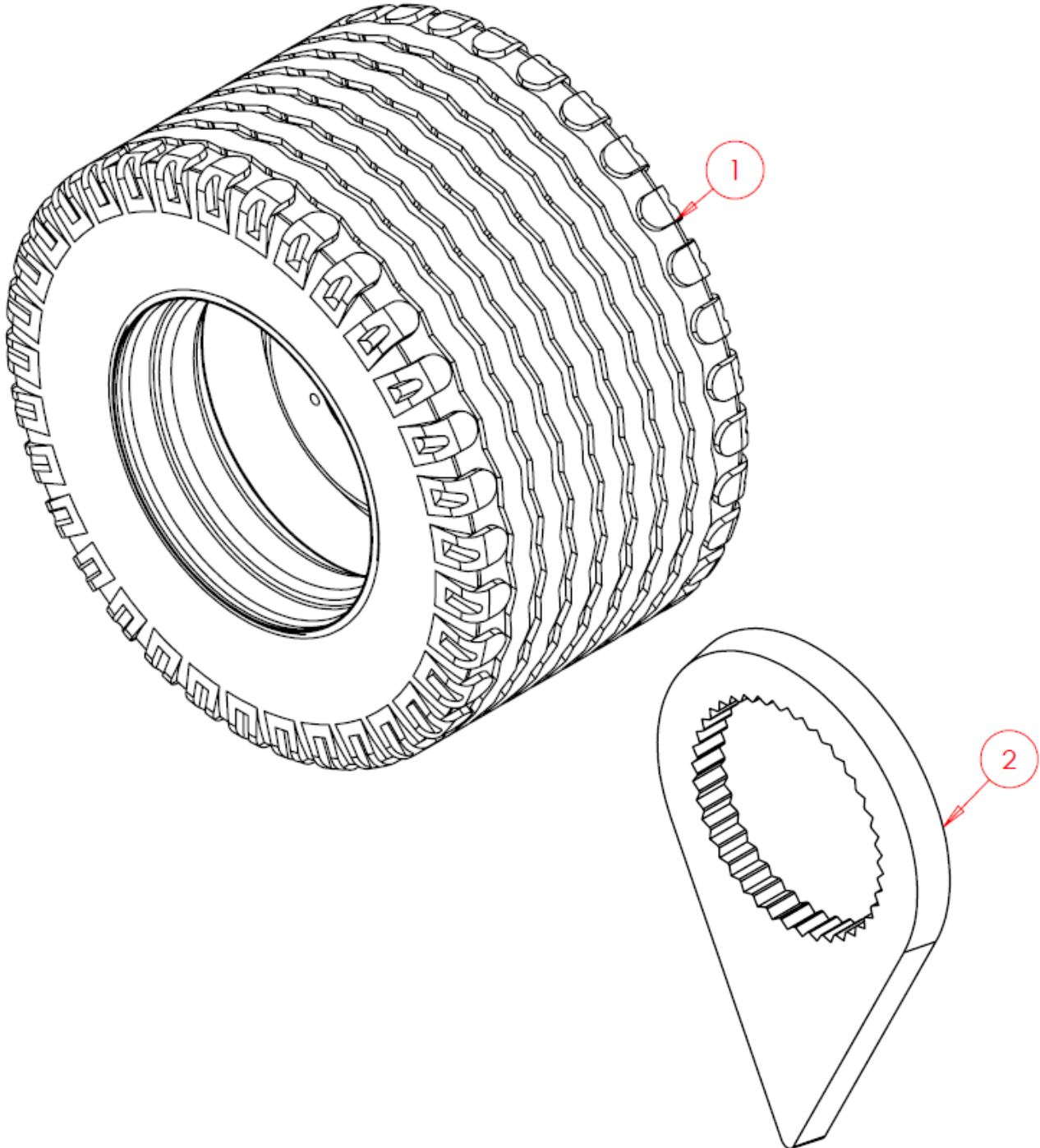
6.4.18 Stands



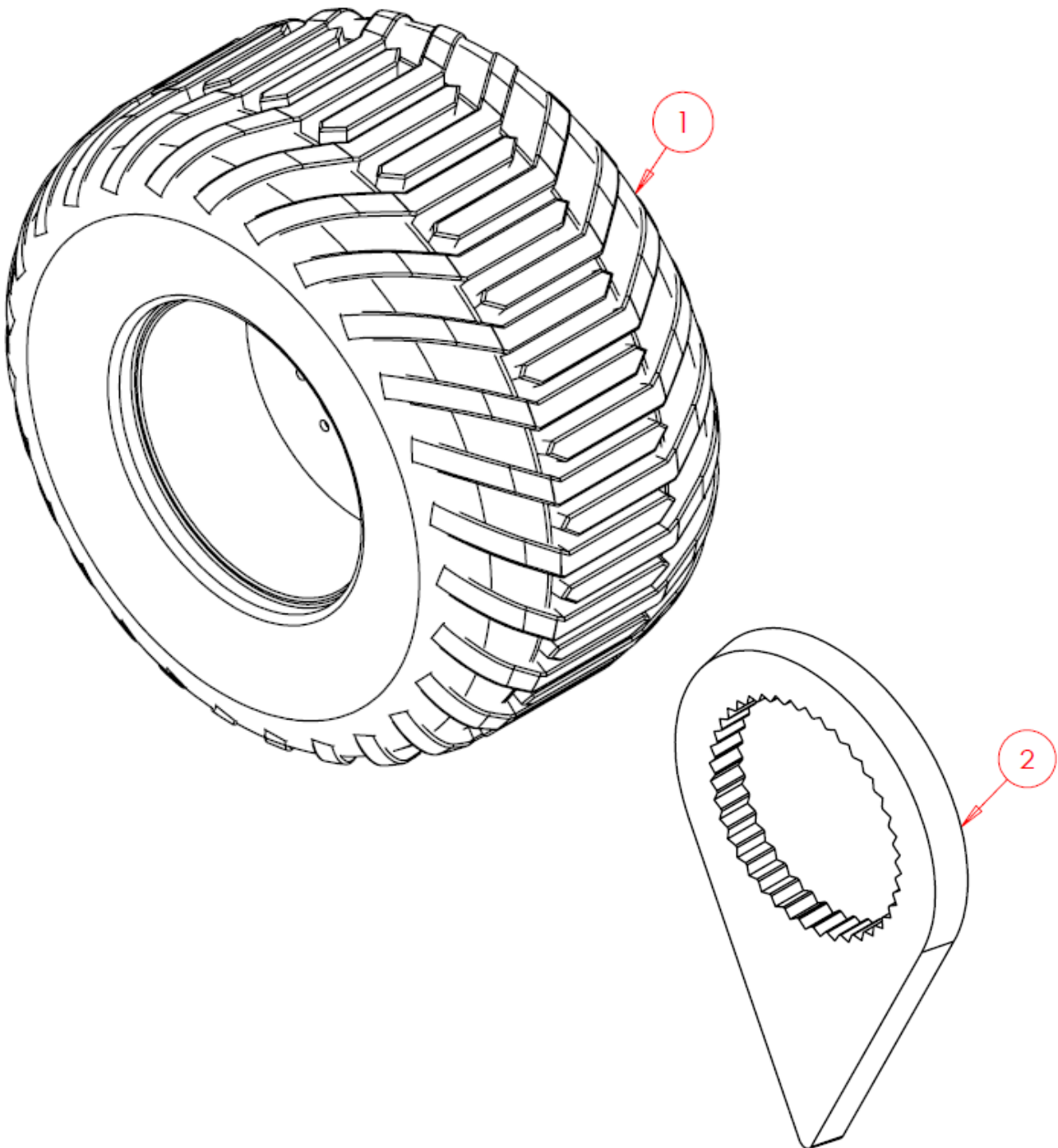
Item No.	Part Number	Description	Qty
1	SW117	Stand	2
2	SWB144	Plastic Bung	2
3	SW118	Stand Pin	2
4	SWB105	Lynch Pin	2

6.4.19 Tyres, Brakes & Axle Assemblies

6.4.19.1 Tyres & Marker Arrows - Q4 Only

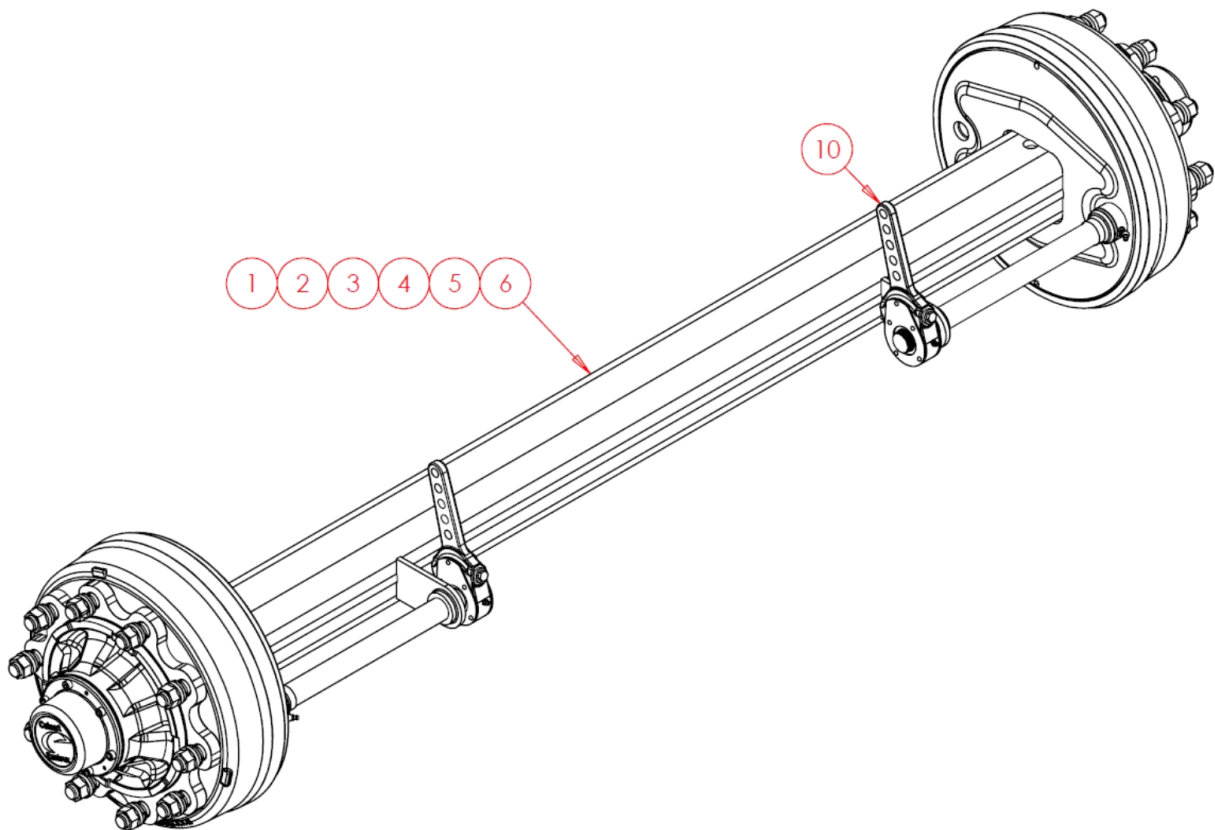


Item No.	Part Number	Description	Qty
1	SWB813	Alliance 327 480/45/17 Wheel & tyre	2
2	SWB676	24mm Marker Arrow	12

6.4.19.2 Tyres & Marker Arrows - Q5 & Q6 Only

Item No.	Part Number	Description	Qty
1	SWB632	Trelleborg 710/45-26.5 404 Wheel & tyre	2
2	SWB633	32mm Marker Arrow	20

6.4.19.3 10 Stud Axle - Spare Parts List



Note: Axle for all folding Quatro's is the same, but the Q5 & Q6 axle body has been altered to suit design necessity. All other replacement aspects remain the same.

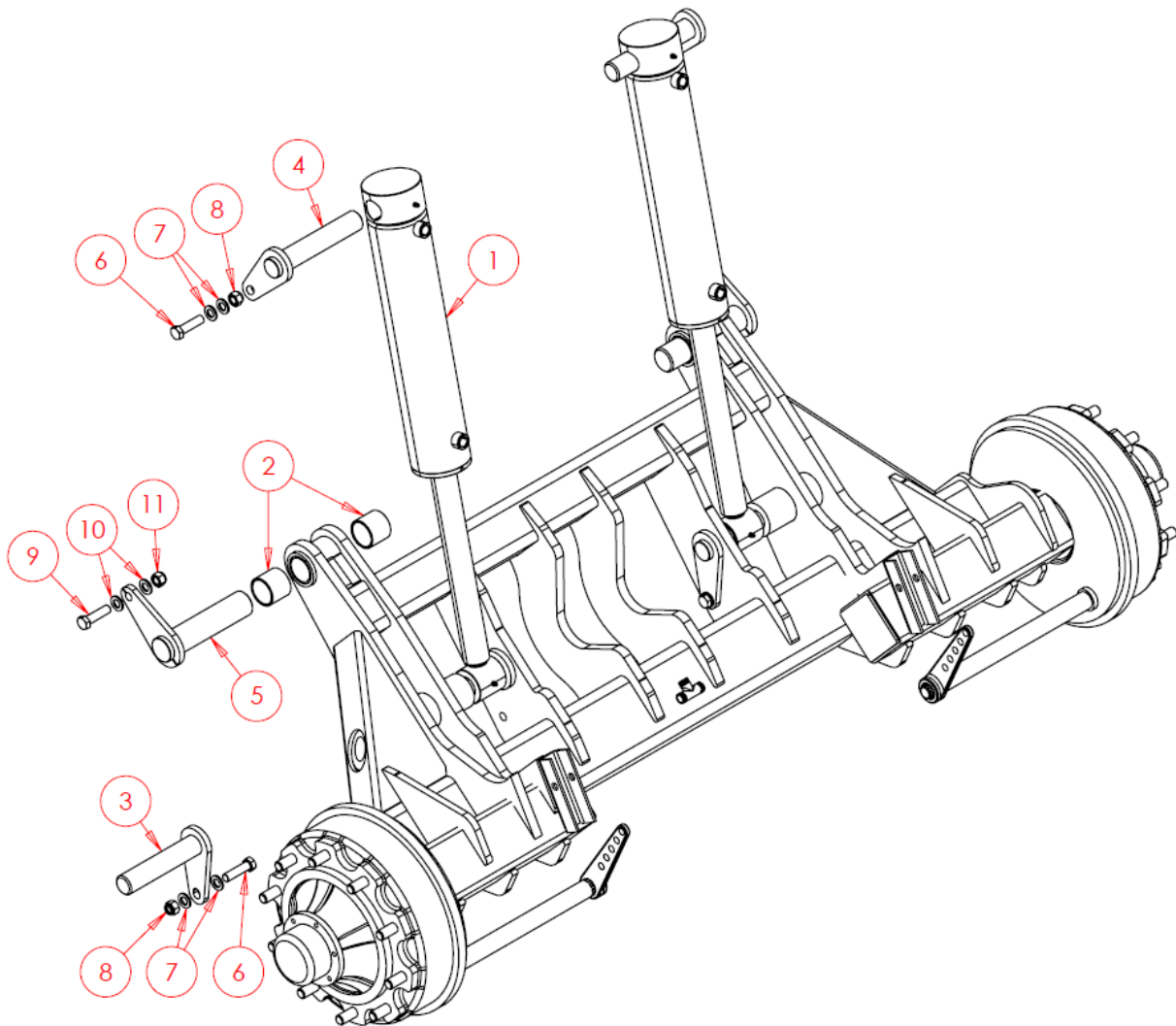
Complete Assembly - SWB1200*			
Item No.	Part Number	Description	Qty
1	SWB749	Wheel Nuts & Washers	20
2	SWB519	Dust Seal Kit (Outside)	2
3	SWB748	Stud	20
4	SWB744	Bearing Kit	2
5	SWB742	Crown Nut & Pin	2
6	SWB741	3 Piece Seal Kit (Inside)	2

* Quantities for whole axle (both Drums).

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

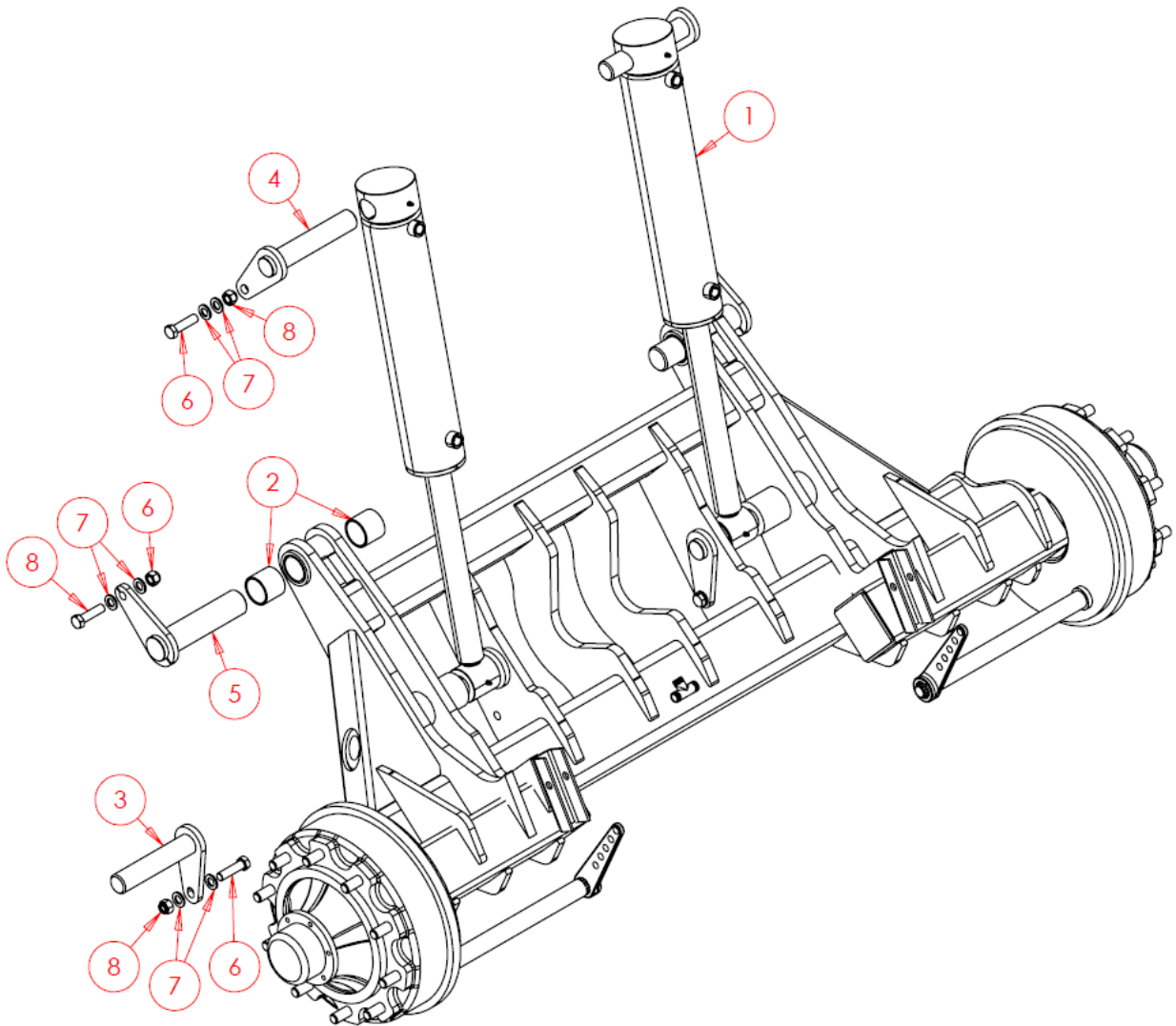
* Quantities for whole axle (both Drums).

6.4.19.4 Swing Axle Assembly - Q4 Only



Item No.	Part Number	Description	Qty
1	SWH132	Hydraulic Cylinder	2
2	SWB142	Oilite Bearing - 58x50x50	4
3	SWP30X150	Pin - Tabbed	2
4	SWP30X205	Pin - Tabbed	2
5	SWP50X200	Pin - Tabbed	2
6	SWM1250	M12x50 Bolt	4
7	SWM12001	M12 Washer - Flat	8
8	SWM12004	M12 Nut - Nylock	4
9	SWM1660	M16x60 Bolt	2
10	SWM16001	M16 Washer - Flat	4
11	SWM16004	M16 Nut - Nylock	2

6.4.19.5 Swing Axle Assembly - Q5 & Q6 Only

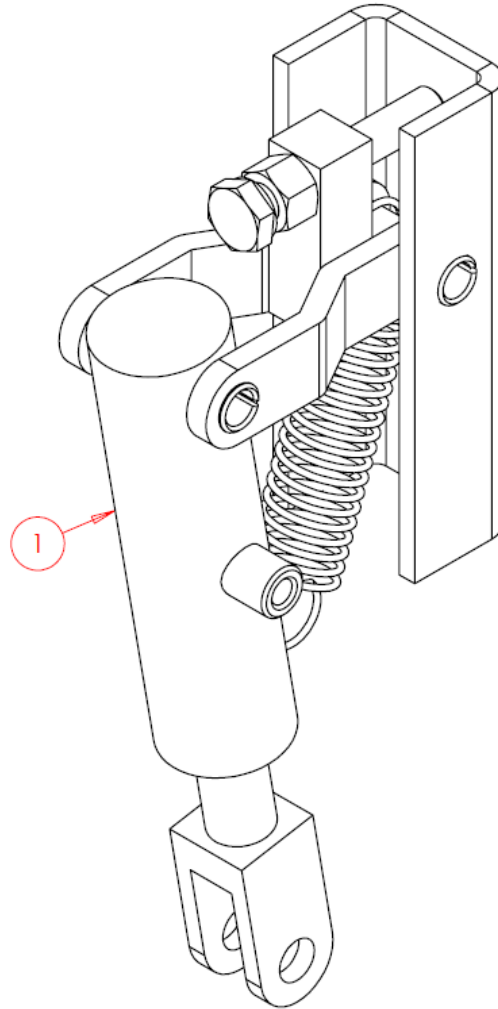


Item No.	Part Number	Description	Qty
1	SWH430	Hydraulic Cylinder	2
2	SWB142	Oilite Bearing - 58x50x50	4
3	SWP40X190	Pin - Tabbed	2
4	SWP40X205	Pin - Tabbed	2
5	SWP50X200	Pin - Tabbed	2
6	SWM1660	M16x60 Bolt	6
7	SWM16001	M16 Washer - Flat	12
8	SWM16004	M16 Nut - Nylock	6

6.4.19.6 Brake Cylinders Assembly (Standard Option)

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

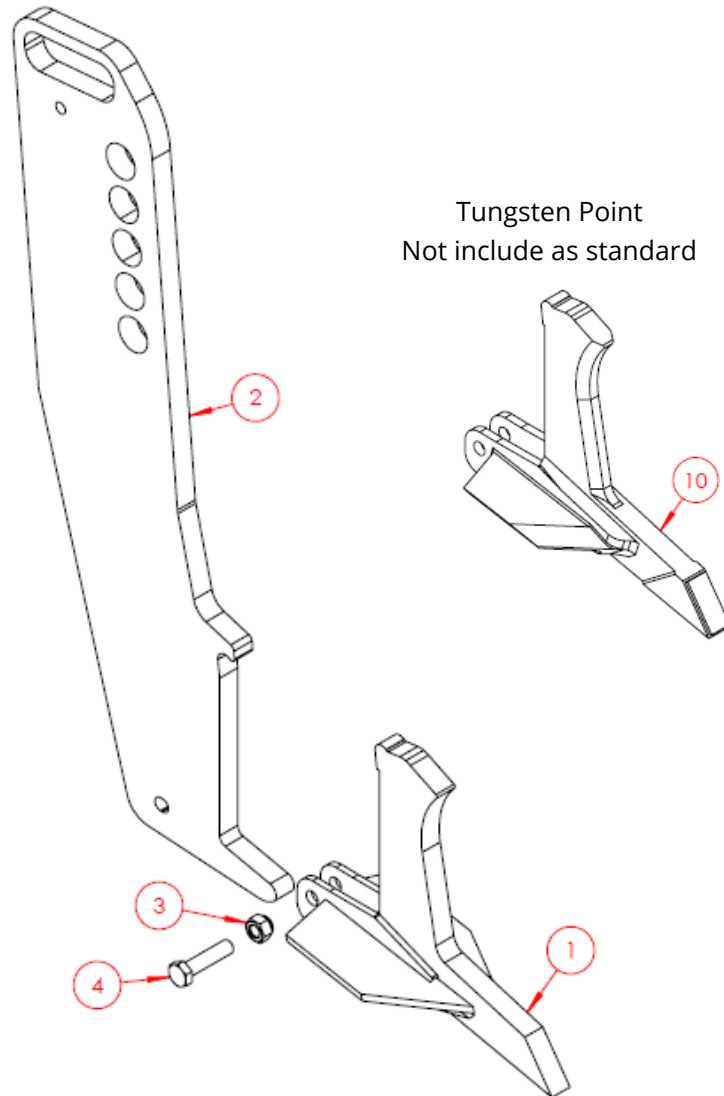
Note: Parts for this assembly are not sold separately.



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

6.5 Optional Extras/Attachments

6.5.1 Low Disturbance Legs & Points



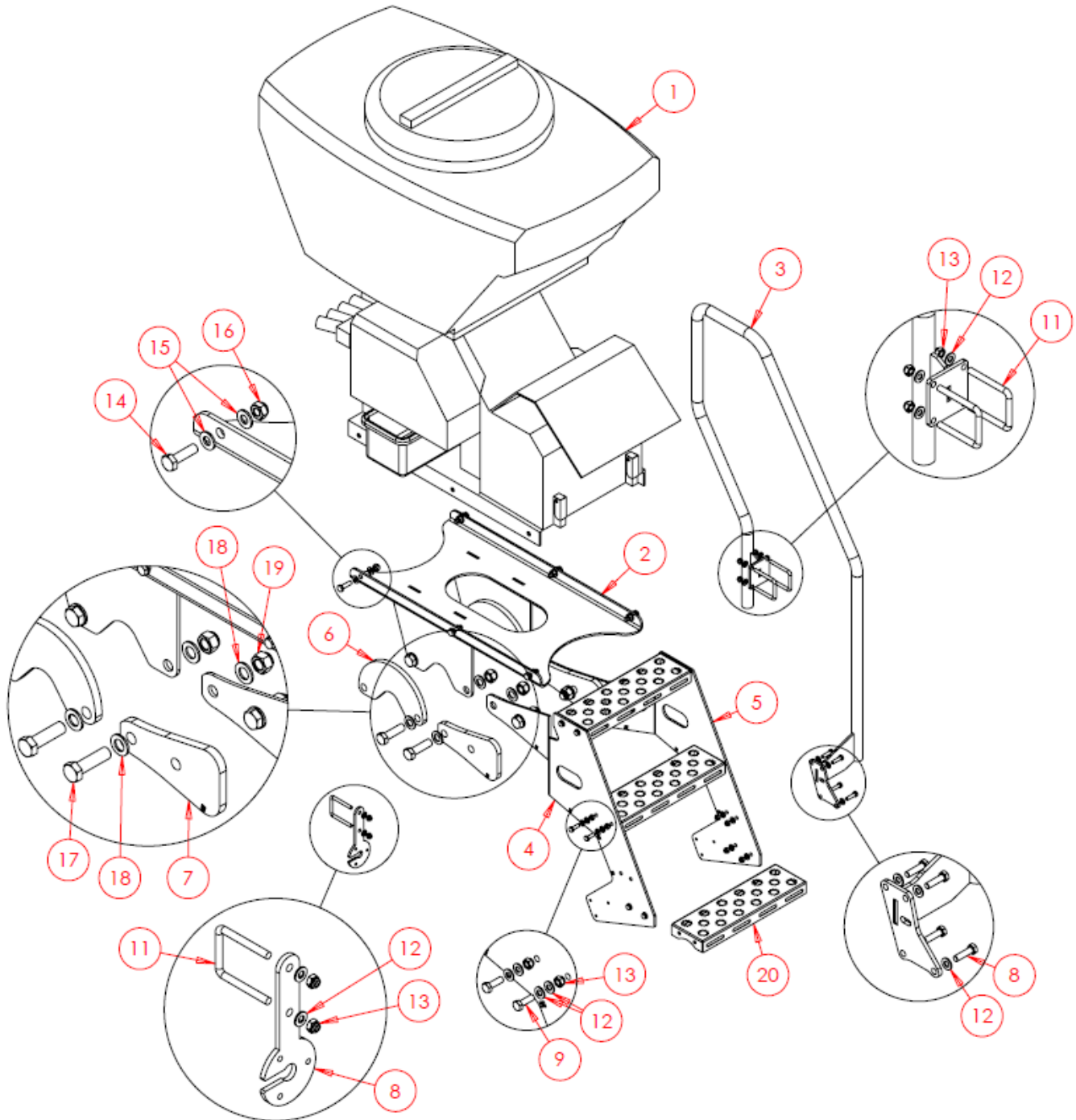
Item No.	Part Number	Description	Qty
1	SW1116	Low Disturbance Point	1
2	SW1151	Leg	1
3	SWM12004	M12 Nut – Nylock	1
4	SWM1250	M12x50 Bolt	1

Alternative tungsten tip point is also available but will need specifying separate.

Item No.	Part Number	Description	Qty
10	SW1087	Low Disturbance Point c/w Tungsten Tip	1

6.5.2 Seeder Fitting Kit

6.5.2.1 Seeder Assembly

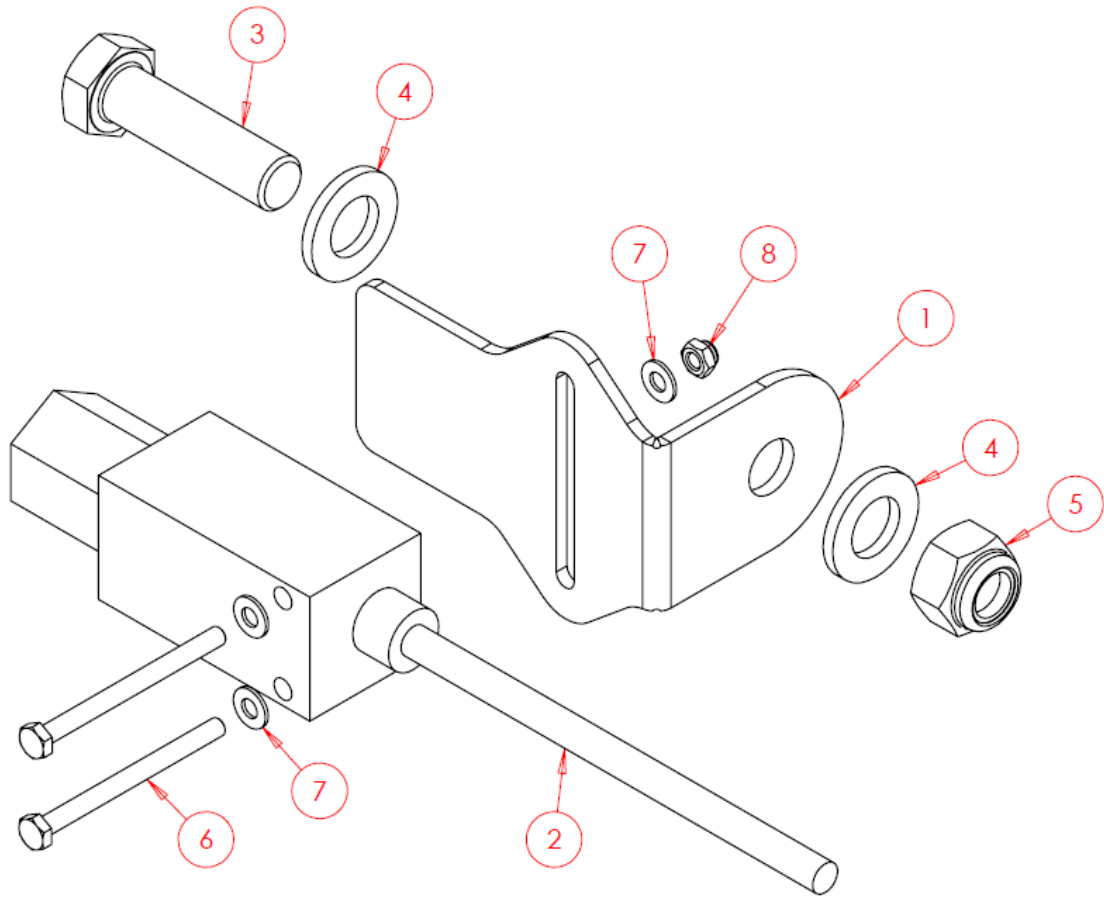


Item No.	Part Number	Description	Qty
1	Turbojet8	Turbojet i-CON 8	1
2	SW6520	Seeder Mount	1
3	SW1622	Handrail	1
4	SWS12087	Steps Side Panel LH	1

5	SWS12086	Steps Side Panel RH	1
6	SWS24132	Shim	2*
7	SWS24133	Shim	2*
8	SWS24134	Plug Bracket	1
9	SWM825	M8x25 Screw	10
10	SWM830	M8x30 Screw	4
11	SWM850UB	M8x50 U Bolt	3
12	SWM8001	M8 Washer - Flat	34
13	SWM8004	M8 Nut - Nylock	20
14	SWM1035	M10x35 Screw	6
15	SWM10001	M10 Washer - Flat	12
16	SWM10004	M10 Nut - Nylock	6
17	SWM2070	M20x70 Bolt	8
18	SWM20001	M20 Washer - Flat	16
19	SWM20004	M20 Nut - Nylock	8
20	SW1290	Galvanised Step	3

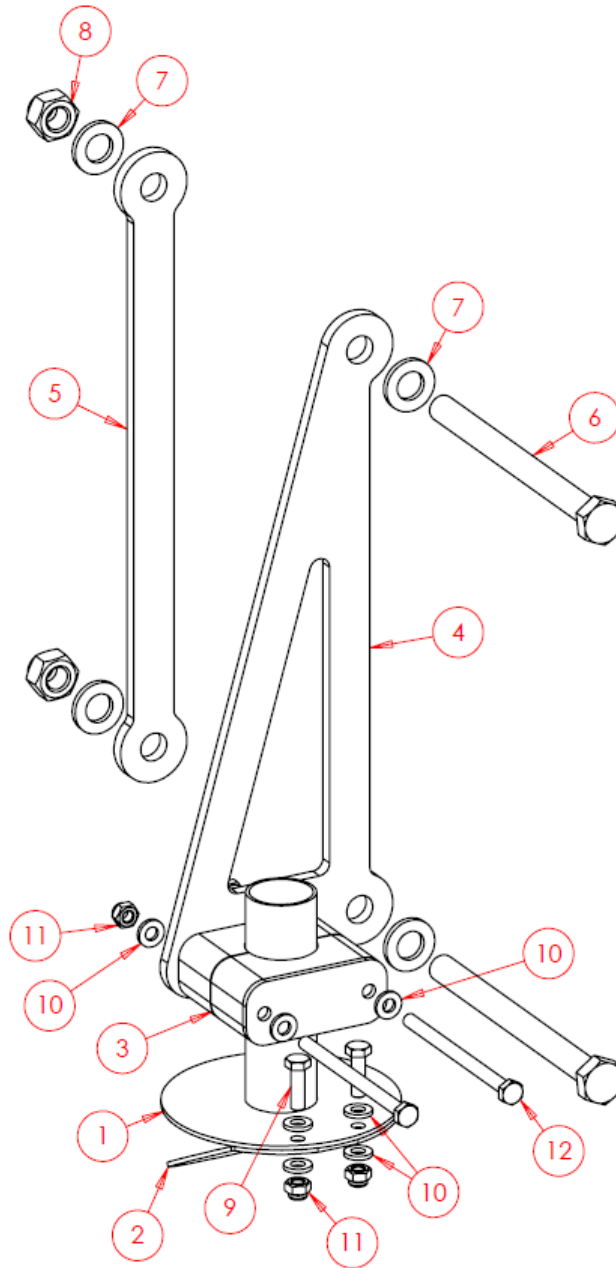
* Not included where Rear Drawbar is provided.

6.5.2.2 Finger Switch Assembly



Item No.	Part Number	Description	Qty
1	SWS7188	Bracket	1
2	SWB850	Finger Switch	1
3	SWM1245	M12x45 Bolt	1
4	SWM12001	M12 Washer - Flat	2
5	SWM12004	M12 Nut - Nylock	1
6	SWM450	M4x50 Screw	2
7	SWM4001	M4 Washer - Flat	4
8	SWM4004	M4 Nut - Nylock	2

6.5.2.3 Seeder Outlet Assembly



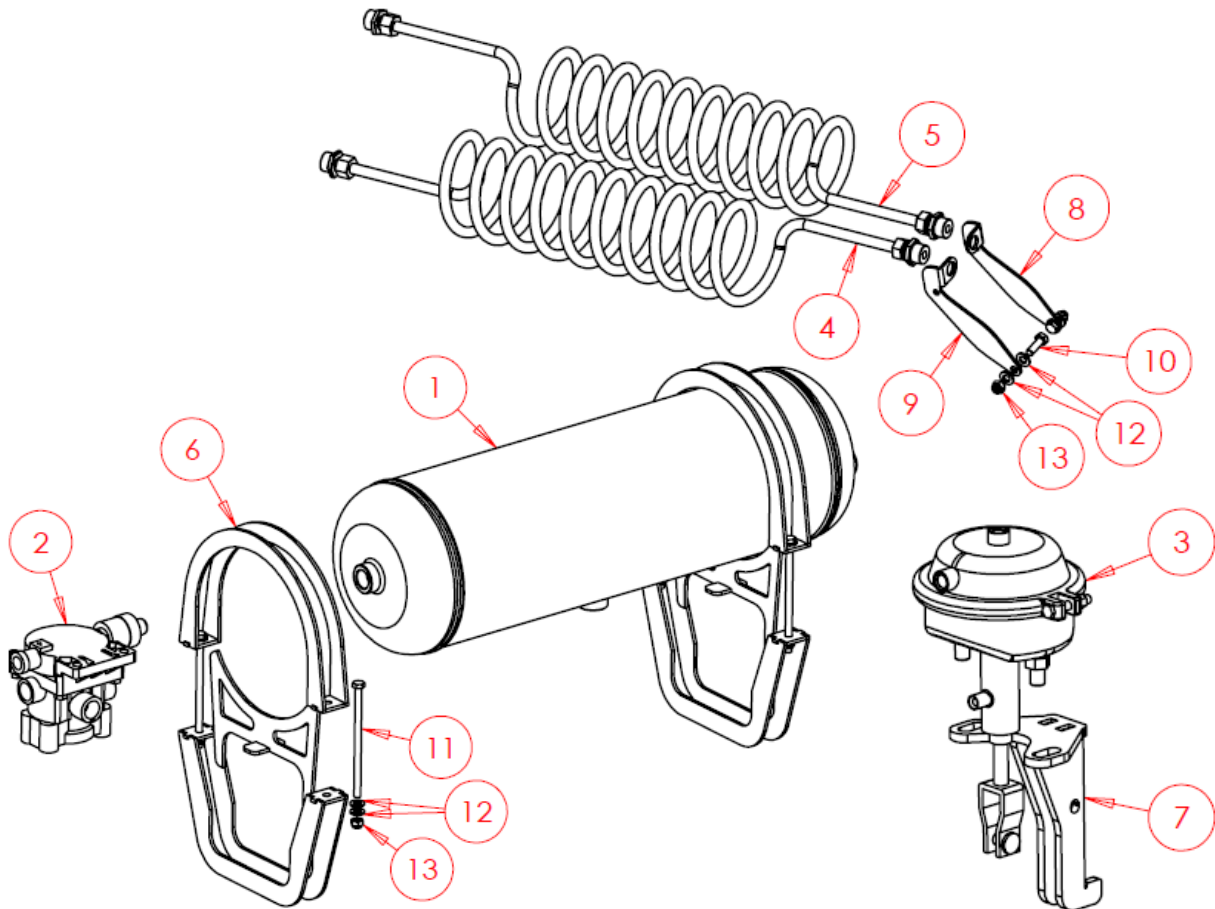
Item No.	Part Number	Description	Qty
1	SWA2607	Seeder Outlet	1
2	SW6357	Splash Plate	1
3	SWB1385	32mm Stauff Clamp	1
4	SW6427	Outlet Mounting Clamp - Front	1
5	SW6428	Outlet Mounting Clamp - Rear	1
6	SWM12140	M12x140 Bolt	2
7	SWM12001	M12 Washer - Flat	4
8	SWM12004	M12 Nut - Nylock	2

9	SWM620	M6x20 Screw	2
10	SWM6001	M6 Washer – Flat	8
11	SWM6004	M6 Nut – Nylock	4
12	SWM690	M6x90 Bolt	2
**	SWB344	Seed Hose	-

* Quantities above are per outlet, NOT per machine.

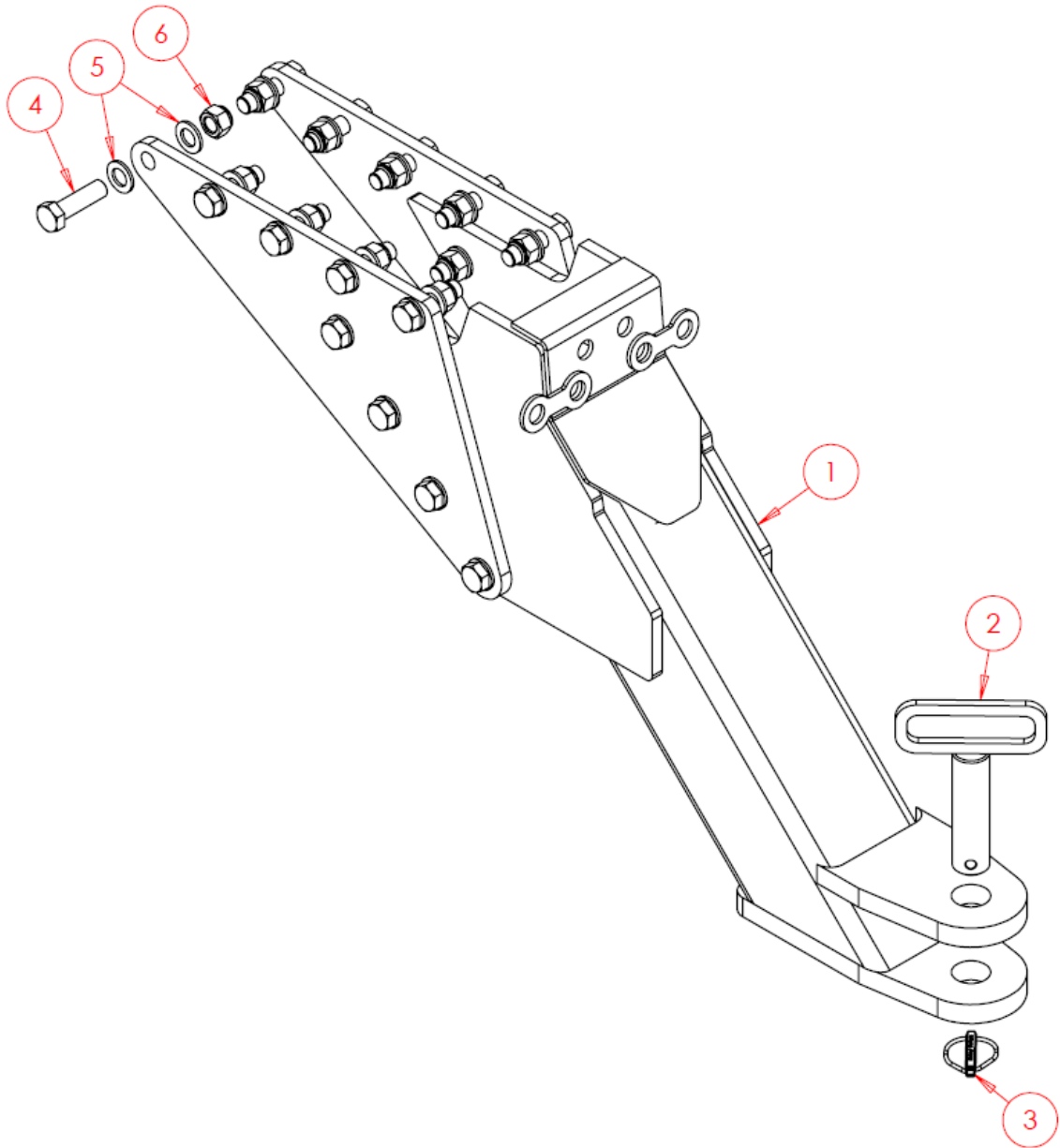
** Hose is typically sold in metres, provide desired cut length when requesting.

6.5.3 Air Brake Kits



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

6.5.4 Rear Drawbar

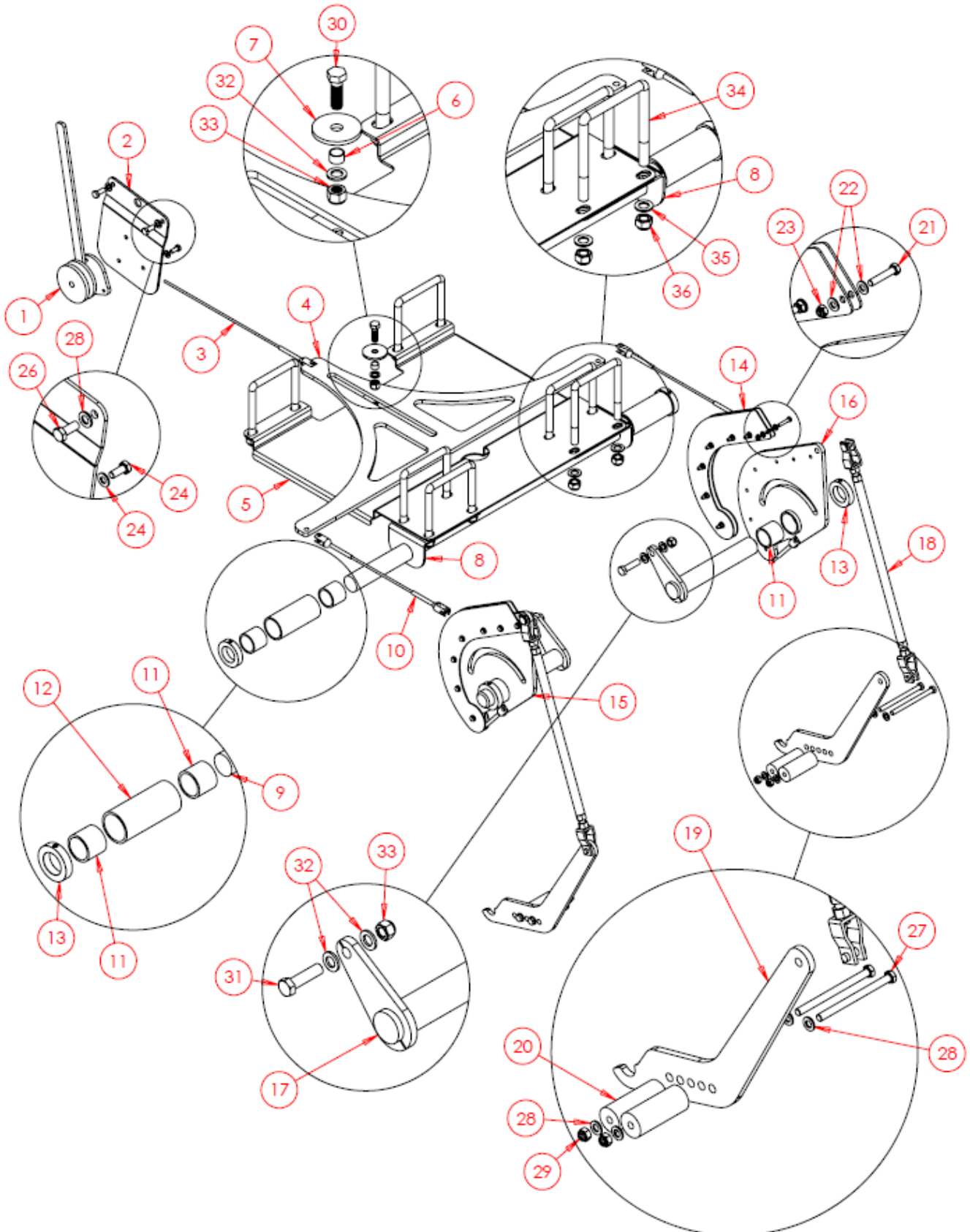


Item No.	Part Number	Description	Qty
1	SW3975	Rear Drawbar	1
2	SW1139	Pin - Handle	1
3	SWB107	Lynch Pin	1
4	SWM2070	M20x70 Bolt	18
5	SWM20001	M20 Washer - Flat	36
6	SWM20004	M20 Nut - Nylock	18

6.5.5 Homologation

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

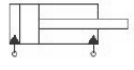

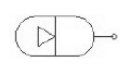
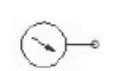

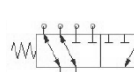

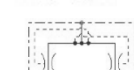
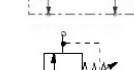
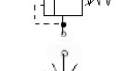
6.5.5.1 Handbrake Kit



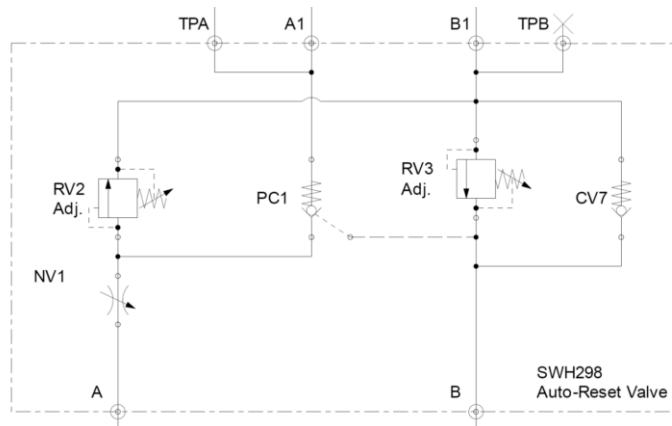
Item No.	Part Number	Description	Qty
1	SWB1157	Hand Brake	1
2	SW4627	Hand Brake Mounting Bracket	1
3	SWB1173	Draw Cable	1
4	SWS19786	Axle Balancer	1
5	SWS19797	Balancer Support Bracket	1
6	SW4688	Guide Spacer	1
7	SW2460	Extra Large Washer	1
8	SWS19809	Inner Shaft Axle Bracket	2
9	SW4689	Inner Shaft Axle	1
10	SWB1199	Balancer Cable	2
11	SWB1046	Self-Lubricating Bush	6
12	SW4631	Fairlead Roll	2
13	SWB1188	Set Shaft Collar	4
14	SWS19813	Balancer Cable Guide	4
15	SWA1323LH	Toggle Lever LH	1
16	SWA1323RH	Toggle Lever RH	1
17	SWP50X300	Pin	2
18	SWA1308	Brake Cable	2
19	SWS19800	Brake Lever	2
20	SW4666	Brake Lever Spacer	4
21	SWM840	M8x40 Bolt	14
22	SWM8001	M8 Washer - Flat	28
23	SWM8004	M8 Nut - Nylock	14
24	SWM1025	M10x25 Screw	3
25	SWM10001	M10 Washer - Flat	3
26	SWM1230	M12x30 Screw	2
27	SWM12160	M12x160 Bolt	4
28	SWM12001	M12 Washer - Flat	10
29	SWM12004	M12 Nut - Nylock	6
30	SWM1650	M16x50 Bolt	1
31	SWM1660	M16x60 Bolt	2
32	SWM16001	M16 Washer - Flat	5
33	SWM16004	M16 Nut - Nylock	3
34	SWM20150UB	M20x150 U Bolt	6
35	SWM20001	M20 Washer - Flat	12
36	SWM20004	M20 Nut - Nylock	12

7. Hydraulic Function Diagrams

Standard Symbols Key:

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

Auto Reset Valve:



7.1 Q4.AR - Hydraulic Function Schematic

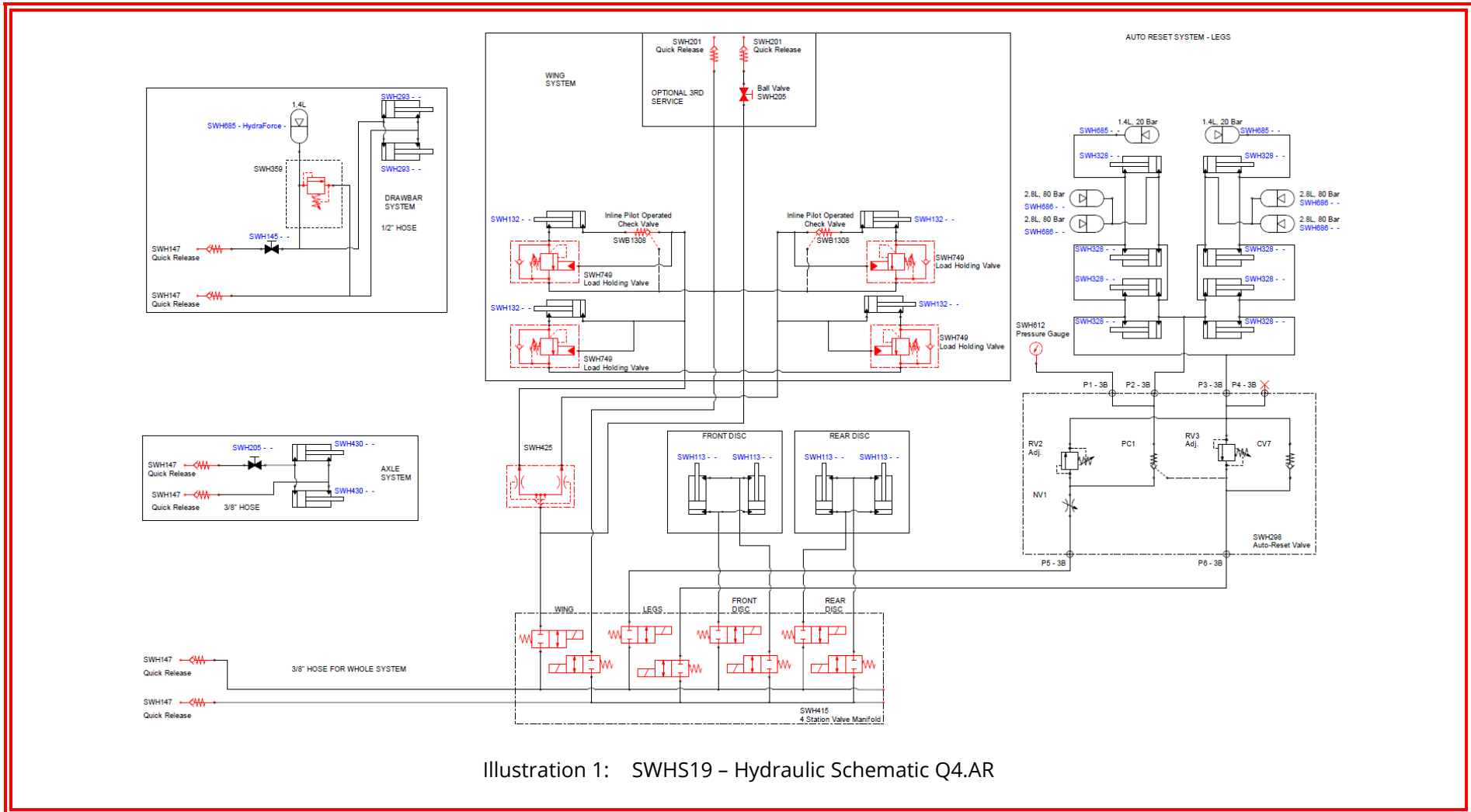


Illustration 1: SWHS19 – Hydraulic Schematic Q4.AR

7.2 Q5.AR - Hydraulic Function Schematic

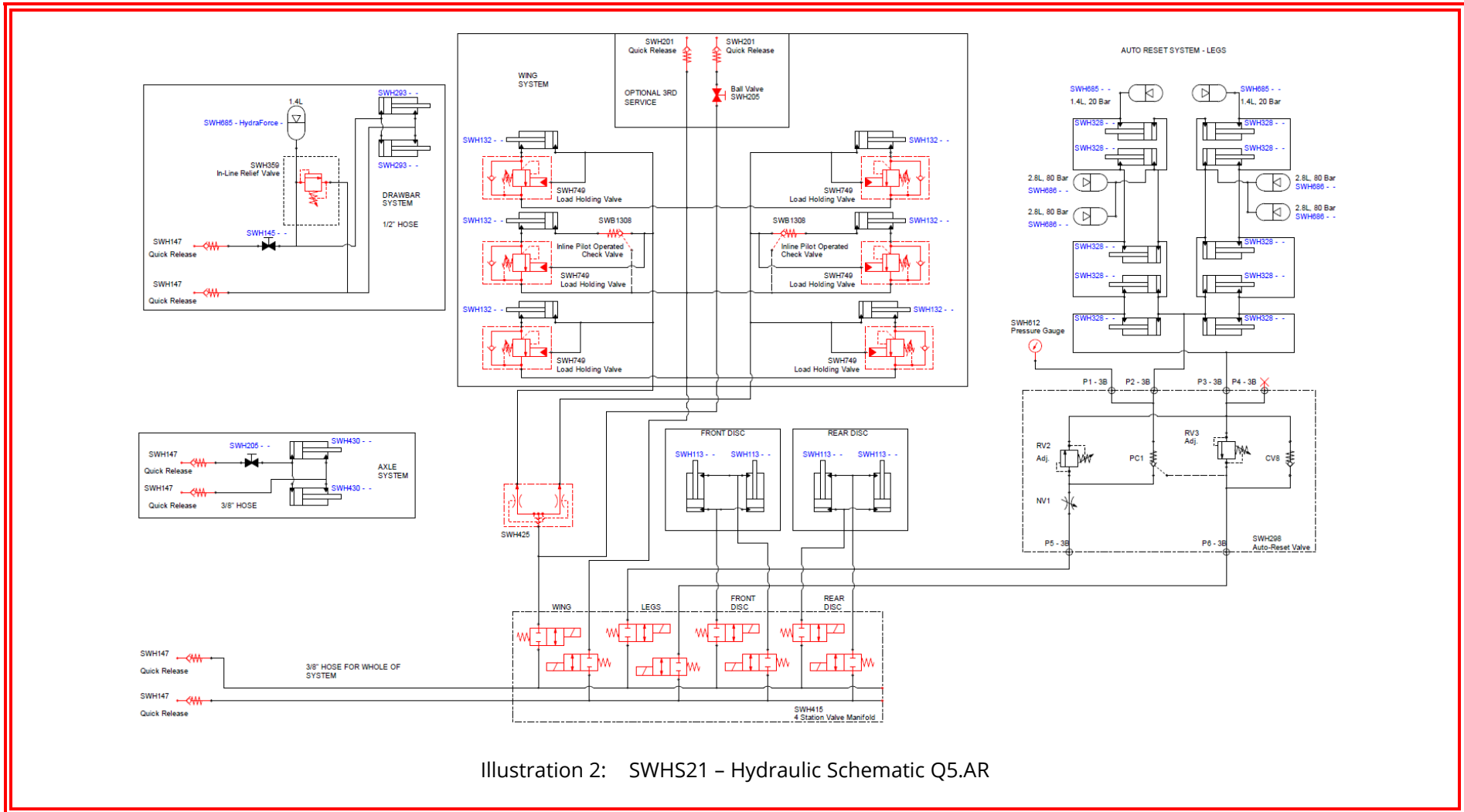


Illustration 2: SWHS21 – Hydraulic Schematic Q5.AR

7.3 Q6.AR - Hydraulic Function Schematic

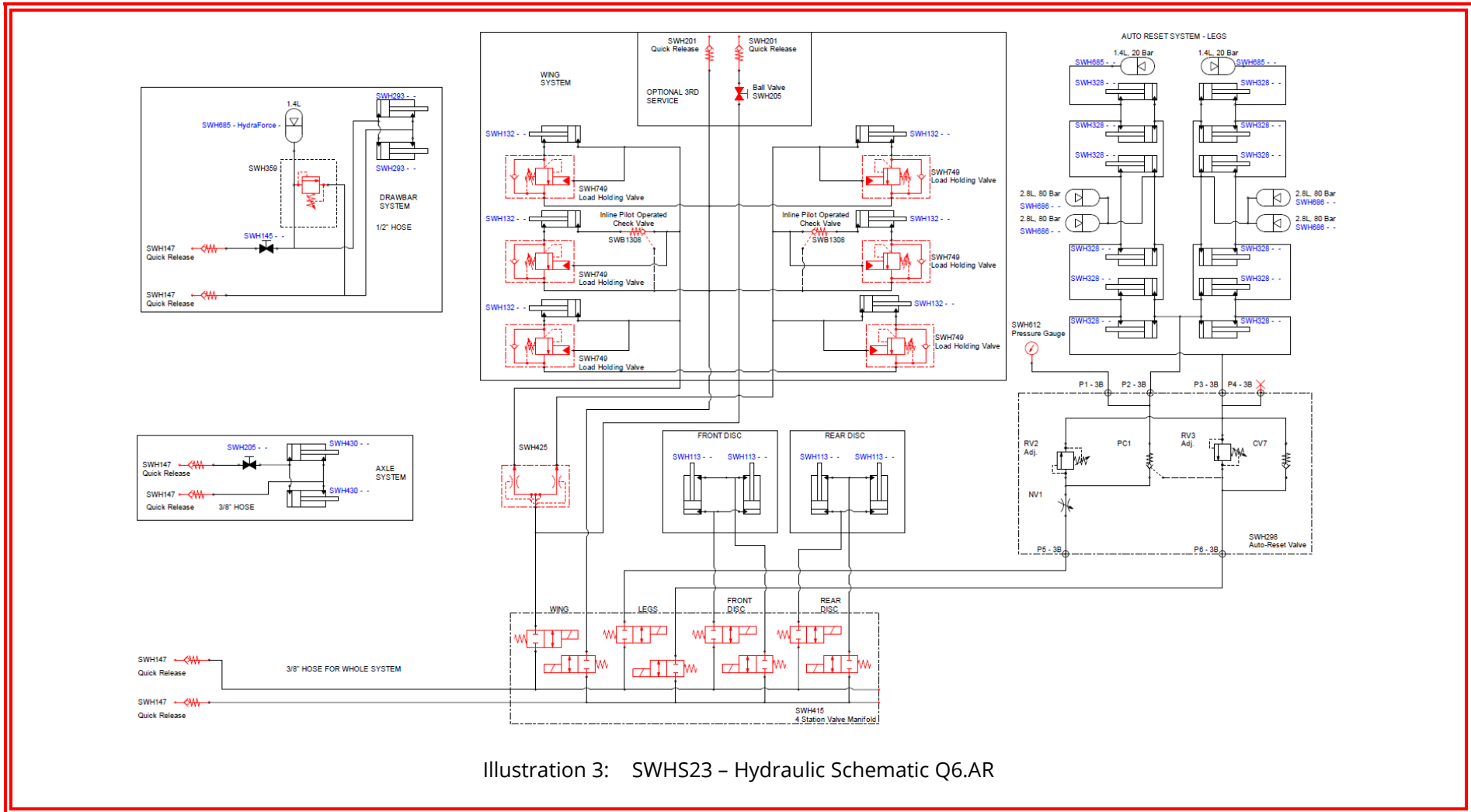


Illustration 3: SWHS23 – Hydraulic Schematic Q6.AR

7.4 Brake System Connections

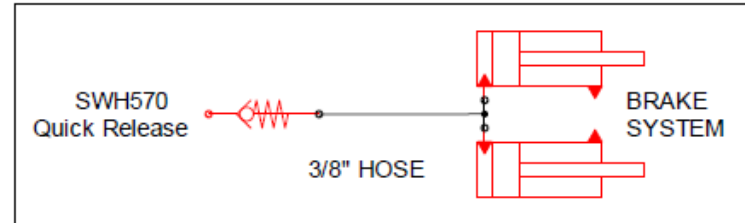


Illustration 4: Hydraulic Schematic - Brake System Connections

7.5 Optional 3rd Service

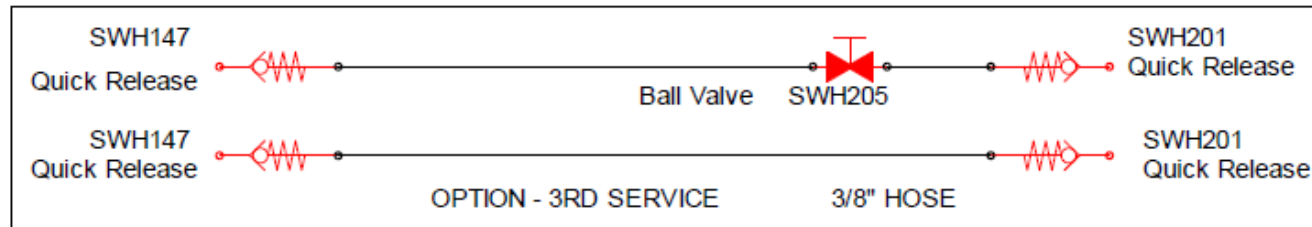
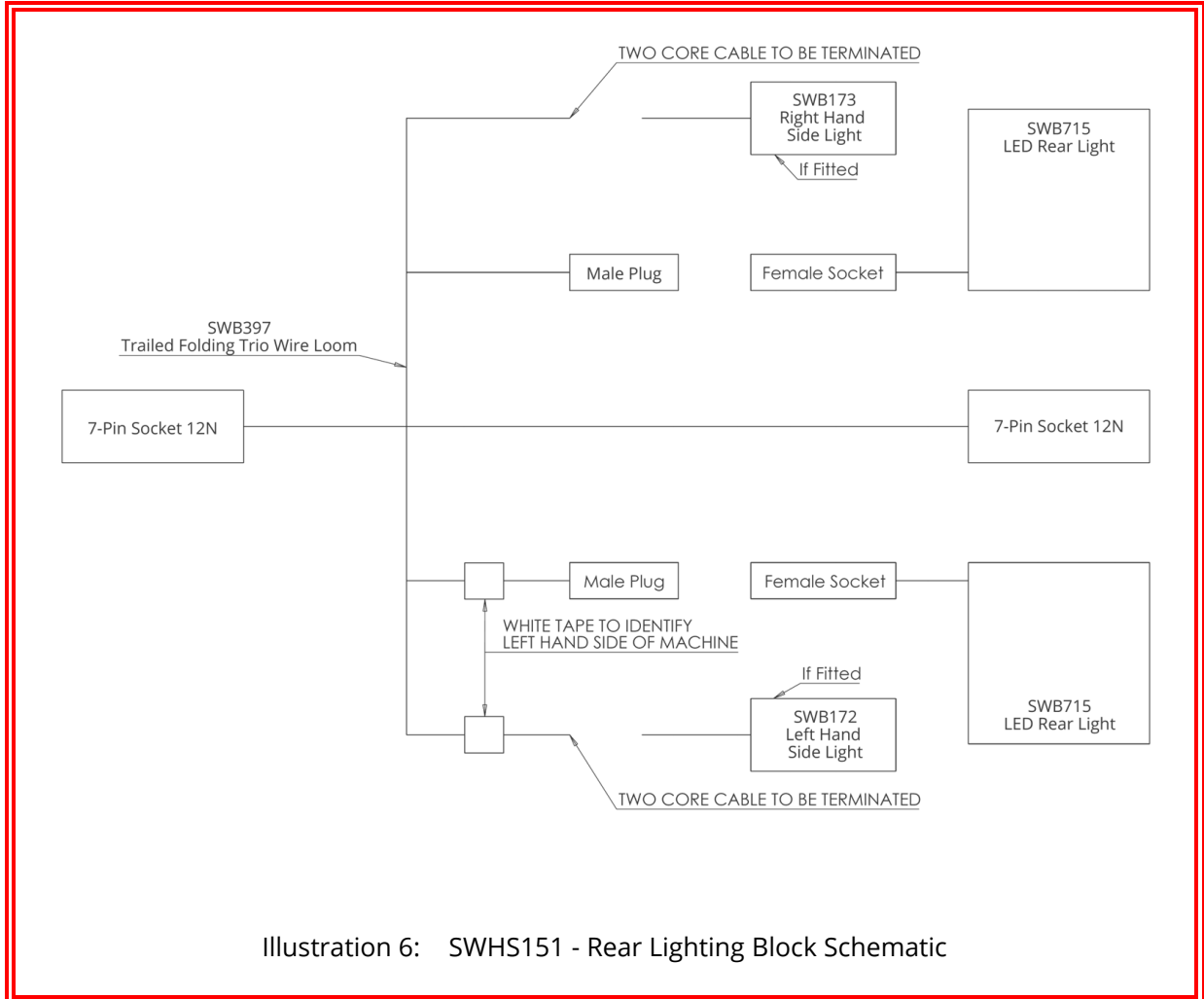


Illustration 5: Hydraulic Schematic - Optional 3rd Service

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](#)