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Q U A T R O

2023 Trailed Rigid 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 it 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 Rigid Range

Code	Q3	Q3.5
Legs Qty	6	7
Leg Spacing	500mm	583mm
Max Leg Depth	400mm	400mm
Disc Qty	48	56
Disc Depth	30-100mm	30-100mm
Disc Adjustment	Hydraulic	Hydraulic
Machine Type	Rigid	Rigid
Tyre Size	480/45-17	480/45-17
Tyre Pressure	28 psi	28 psi
Wheel Nut Toque	450 Nm	450 Nm
Max Axle Load	7,700kg	7,700kg

Available Options

Code	Option Code	Description	Specifications
Q3	Q3.AR	Auto Reset System	Max Leg Depth: 400mm *
	Q3.SP	Shear Pin System	Max Leg Depth: 400mm *
	Q3.MP	Multipacka	Rings: 12 - Spacing: 250mm
	Q3.DP	Diamond Packer	Rings: 14 - Spacing: 220mm
	Q3.SFKMP	Seeder Fitting Kit (MP)	Turbojet i-CON 8 - 6 Outlets
	Q3.SFKDP	Seeder Fitting Kit (DP)	Turbojet i-CON 8 - 6 Outlets
	Q3.SDO	SDO	Qty: 6 - Spacing: 500mm
	Q3.HB	Hazard Boards	Front & back
Q3.5	Q3.5.AR	Auto Reset System	Max Leg Depth: 400mm *
	Q3.5.SP	Shear Pin System	Max Leg Depth: 400mm *
	Q3.5.MP	Multipacka	Rings: 12 - Spacing: 250mm
	Q3.5.SFKMP	Seeder Fitting Kit (MP)	Turbojet i-CON 8 - 7 Outlets
	Q3.5.SDO	SDO	Qty: 7 - Spacing: 500mm
	Q3.5.HB	Hazard Boards	Front & back

* Only applies to standard Sumo Quatro legs & points.

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 Rigid Quatro's

Due to the nature of the Trailed Rigid design, the trailed rigid Quatro's do not have a set transport position, but it is advised that all legs are retracted/lifted to ensure they do not contact the ground and the packer is in its shallowest depth (Highest pinnable position). Ensure all stands are fully lifted and securely pinned.

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 soil retainers, 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
Q3	8760	3500	2170
Q3.5	8760	4100	2170

Machines (Including Options)

Code	Length	Width	Height
Q3.AR	-	-	-
Q3.SP	-	-	-
Q3.MP	9875	-	-
Q3.DP	9875	-	-
Q3.SFKMP	10000	-	2700
Q3.SFKDP	10000	-	2700
Q3.SDO	11140	-	-
Q3.HB	-	-	-
Q3.5.AR	-	-	-
Q3.5.SP	-	-	-
Q3.5.MP	9875	-	-
Q3.5.SFKMP	10000	-	2700



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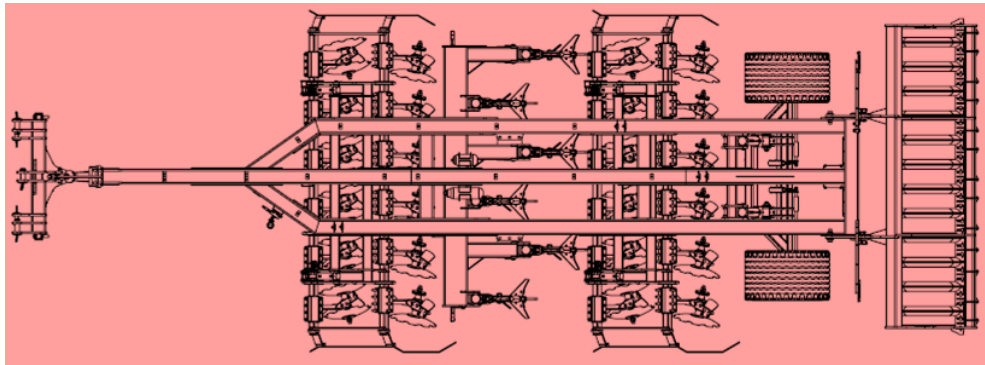
<i>Q3.5.SDO</i>	11140	-	-
<i>Q3.5.HB</i>	-	-	-

* Only applies to standard Sumo Trio legs & points

4 Danger Zone

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

Trailed Rigid 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 Rigid 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.

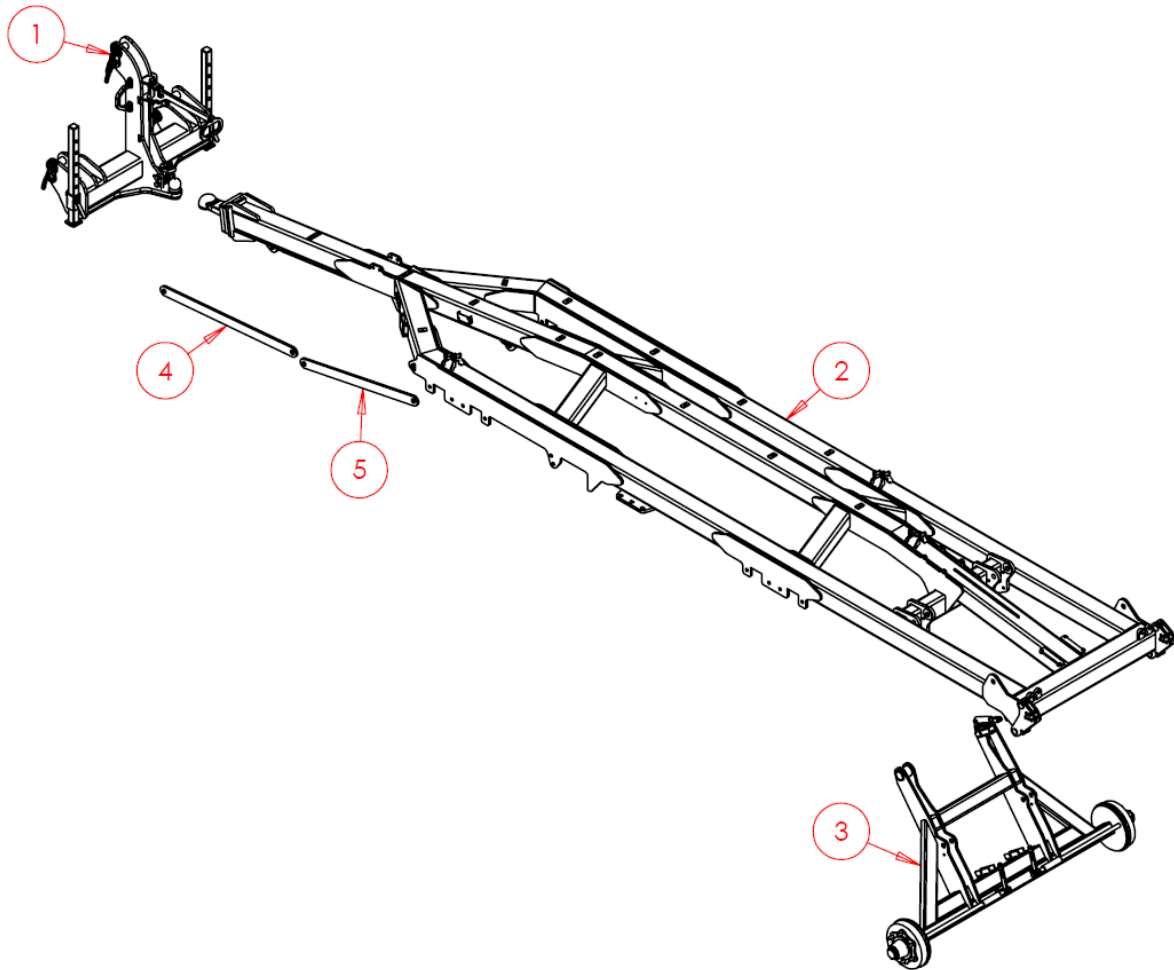
5 Risk Assessments - Continued

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.

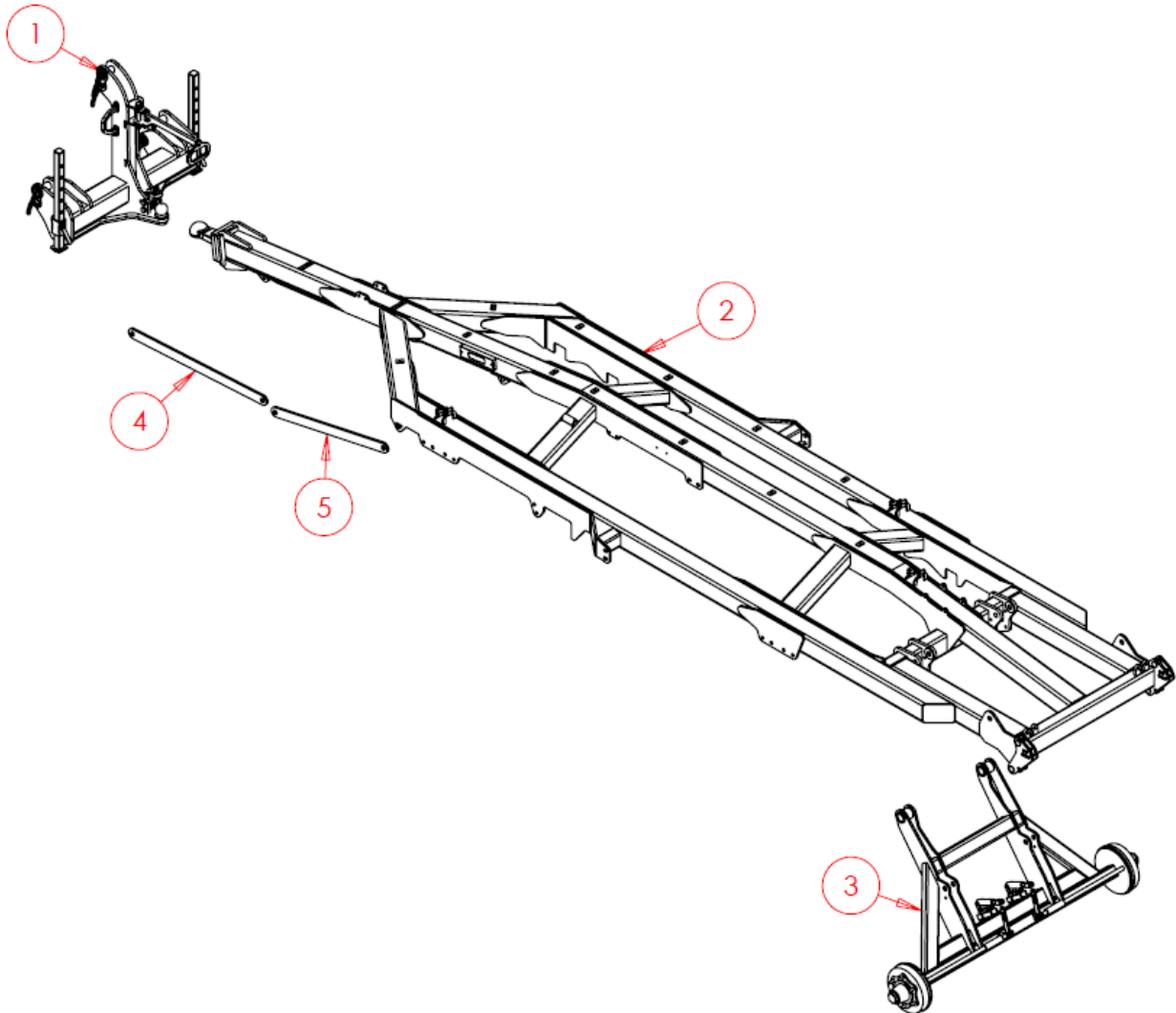
6.1 Base Machine - Q3 Only



Item No.	Part Number	Description	Qty
1	LMD3	LMD (CAT3 Pins) *	1*
1	LMD4	LMD (CAT4 Pins) *	1*
2	SW2134	Chassis	1
3	SW2138	Axle	1
4	SW3575	Tension Bar - Long	1
5	SW3576	Tension Bar - Short	1

* LMD pins are selected at the point of original purchase to suit customer needs. Only one set provided as standard.

6.2 Base Machine - Q3.5 Only

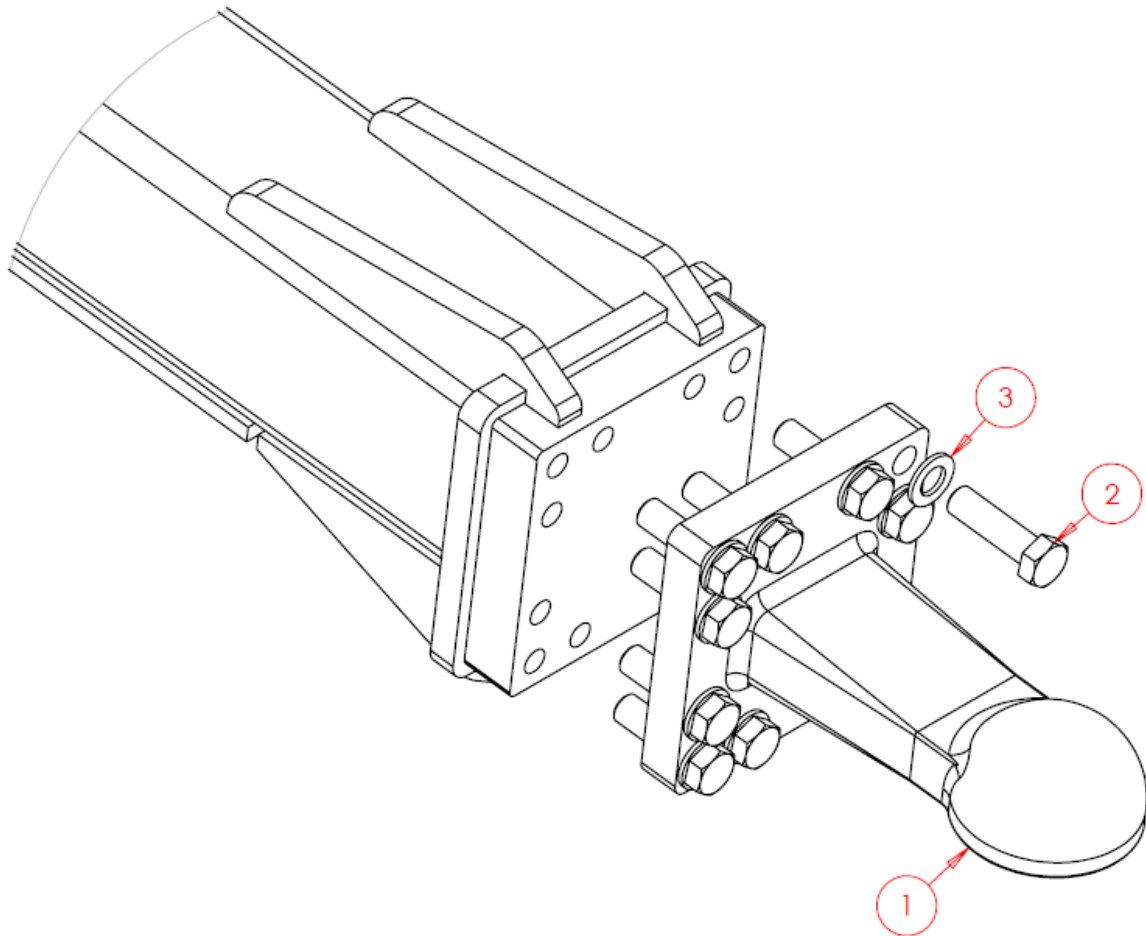


Item No.	Part Number	Description	Qty
1	LMD3	LMD (CAT3 Pins) *	1*
1	LMD4	LMD (CAT4 Pins) *	1*
2	SW2920	Chassis	1
3	SW2138	Axle	1
4	SWS10588	Tension Bar - Long	1
5	SWS10589	Tension Bar - Short	1

* LMD pins are selected at the point of original purchase to suit customer needs. Only one set provided as standard.

6.3 Standard Assemblies

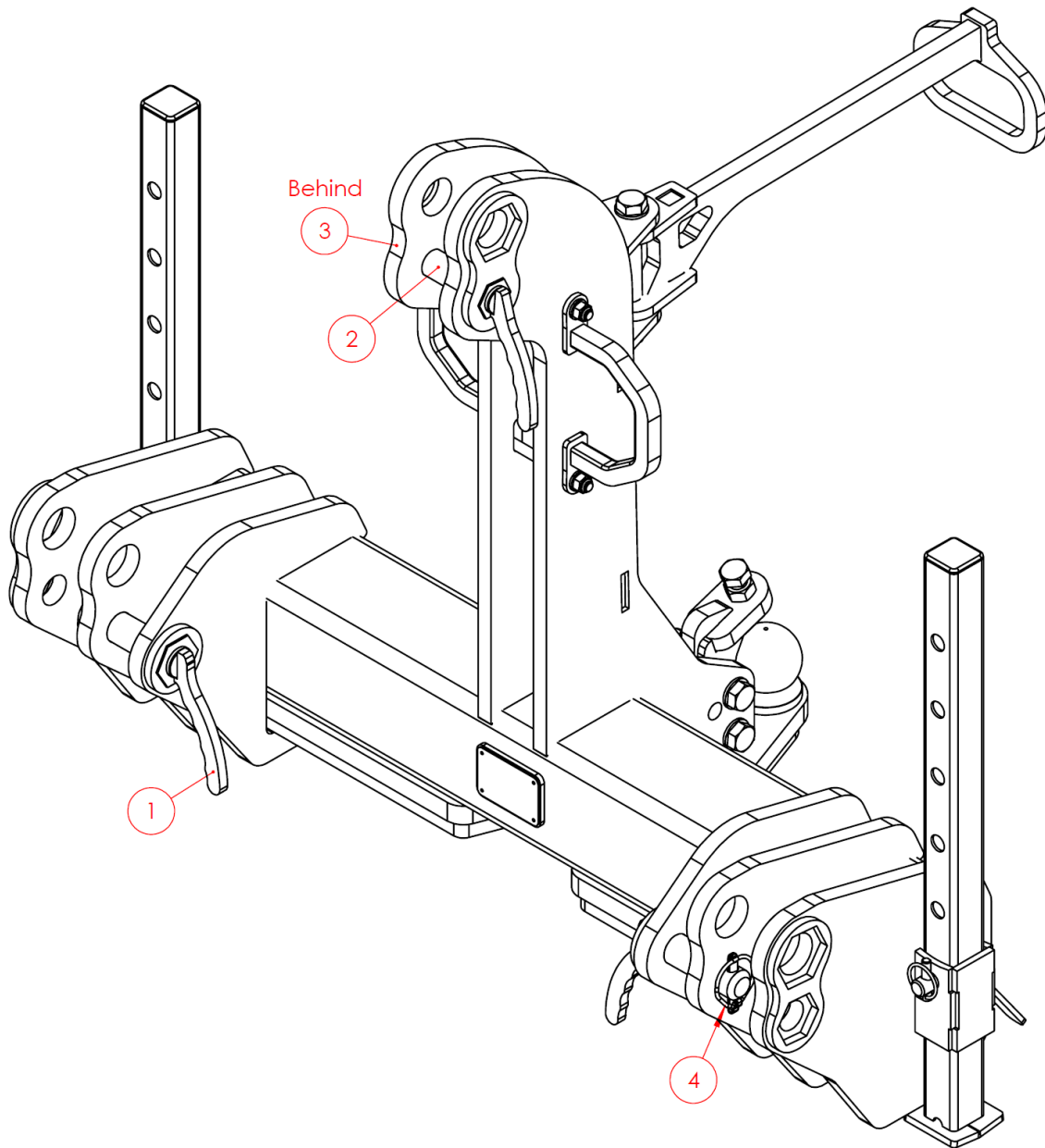
6.3.1 Scharmüller Hitch



Item No.	Part Number	Description	Qty
1	SWB1280	80mm Spoon Hitch	1
2	SWM2070	M20x70 Bolt	12
3	SWM20001	M20 Washer - Flat	12

6.3.2 LMD - CAT 3 Pins

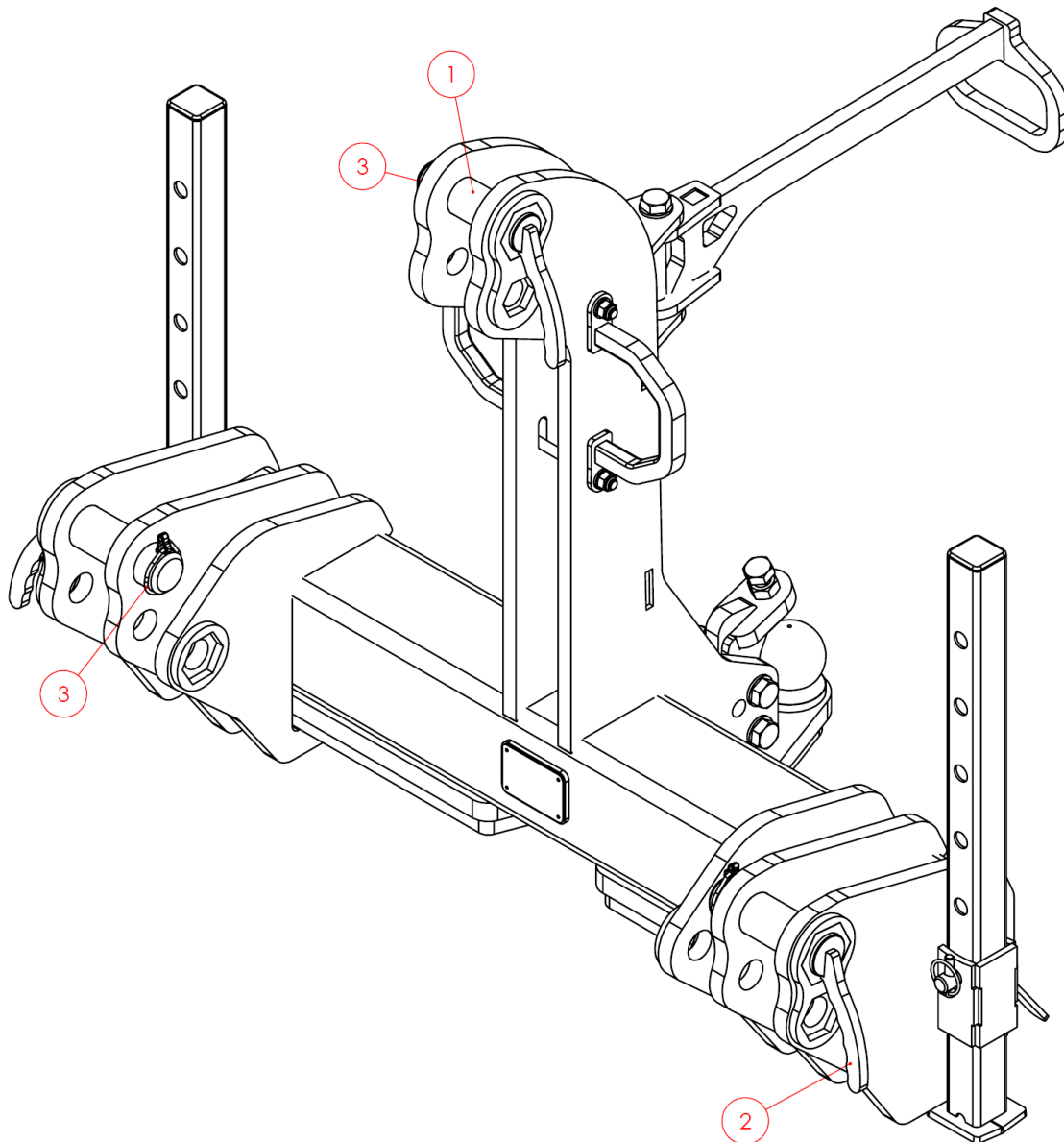
For full LMD parts, see the separate LMD parts book.



Item No.	Part Number	Description	Qty
1	SW626	Cat 3 Linkage Pin	2
2	SW627EXT	Cat 3 Linkage Pin	1
3	SWB105	Lynch Pin (10 mm)	1
4	SWB107	Lynch Pin (11 mm)	2

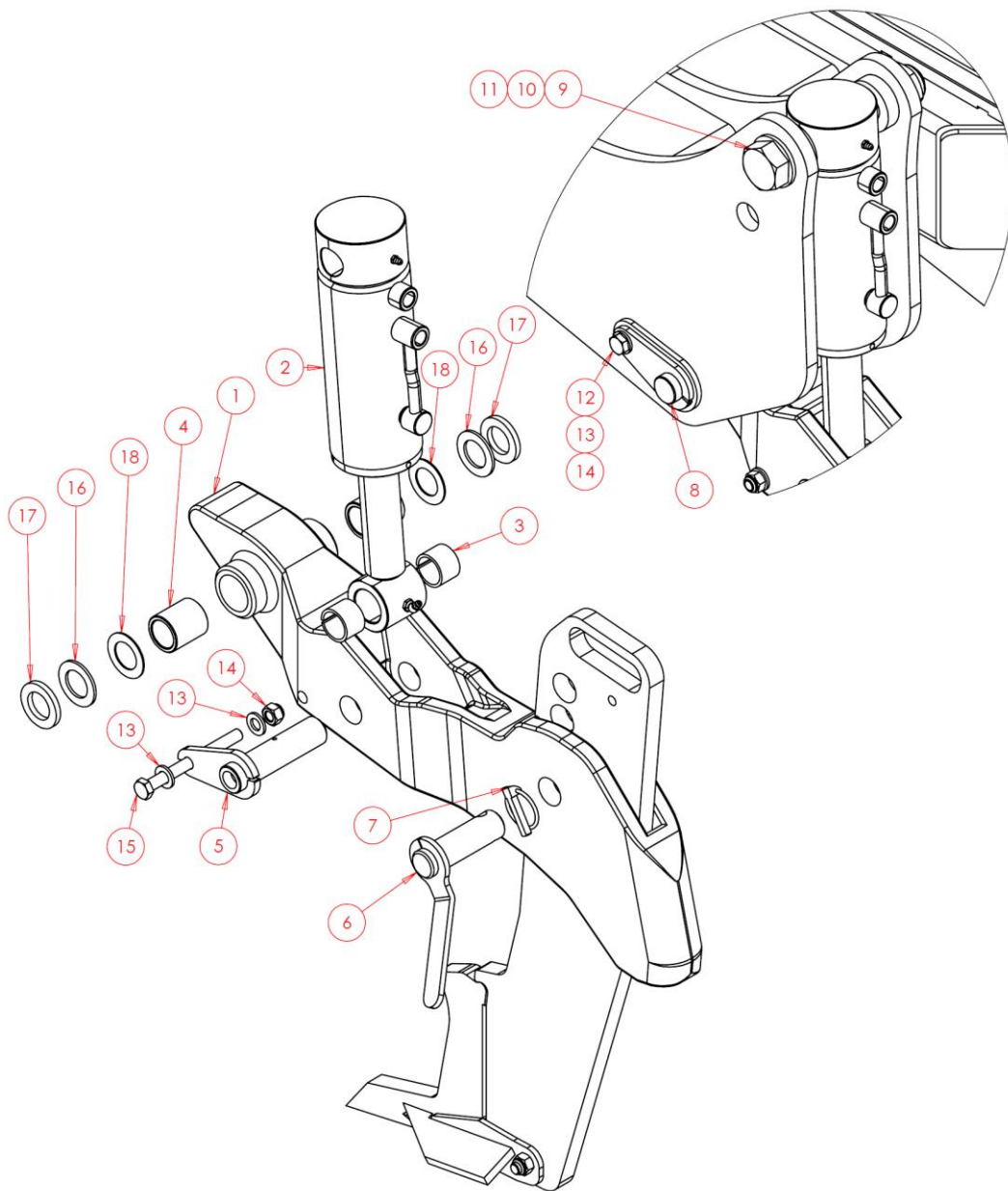
6.3.3 LMD - CAT 4 Pins

For full LMD parts, see the separate LMD parts book.



Item No.	Part Number	Description	Qty
1	SW501	Cat 4 Linkage Pin	2
2	SW627EXT	Cat 4 Linkage Pin	1
3	SWB107	Lynch Pin (11 mm)	3

6.3.4 Auto-Reset Leg



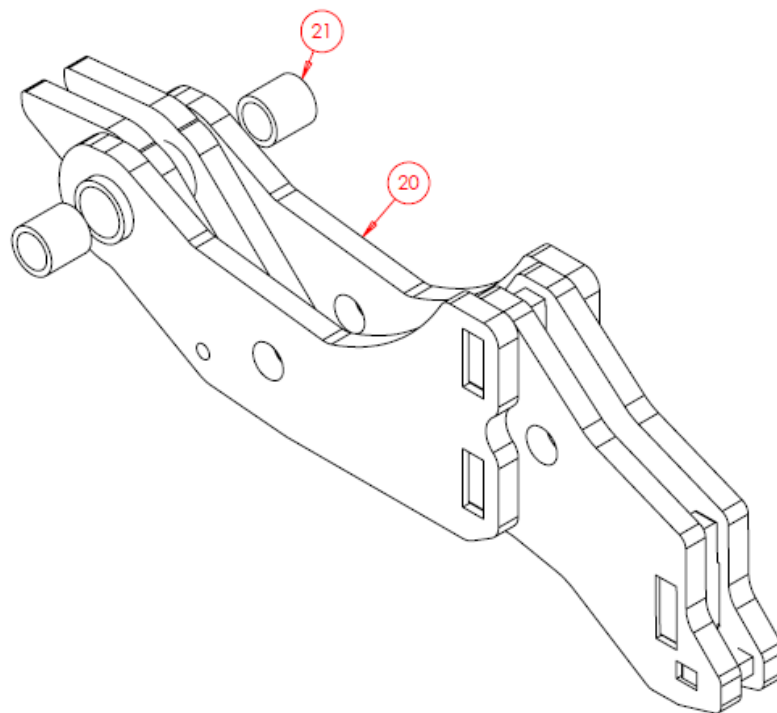
Item No.	Part Number	Description	Qty
1	SW1017	Auto Reset Socket Inc PB1 Bushes	1
2	SWH328	Hydraulic Cylinder	1
3	SWB374	Split Tension Bush - 36x30x25	2
4	SW188	PB1 Bush - 40x30x45	2
5	SWP30x105G	Pin - Grease	1
6	SWP30x90H	Pin - Handle	1
7	SWB105	Lynch Pin	1
8	SWP30x180	Pin - Tabbed	1
9	SWM30200	M30x200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

6.3.4 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*

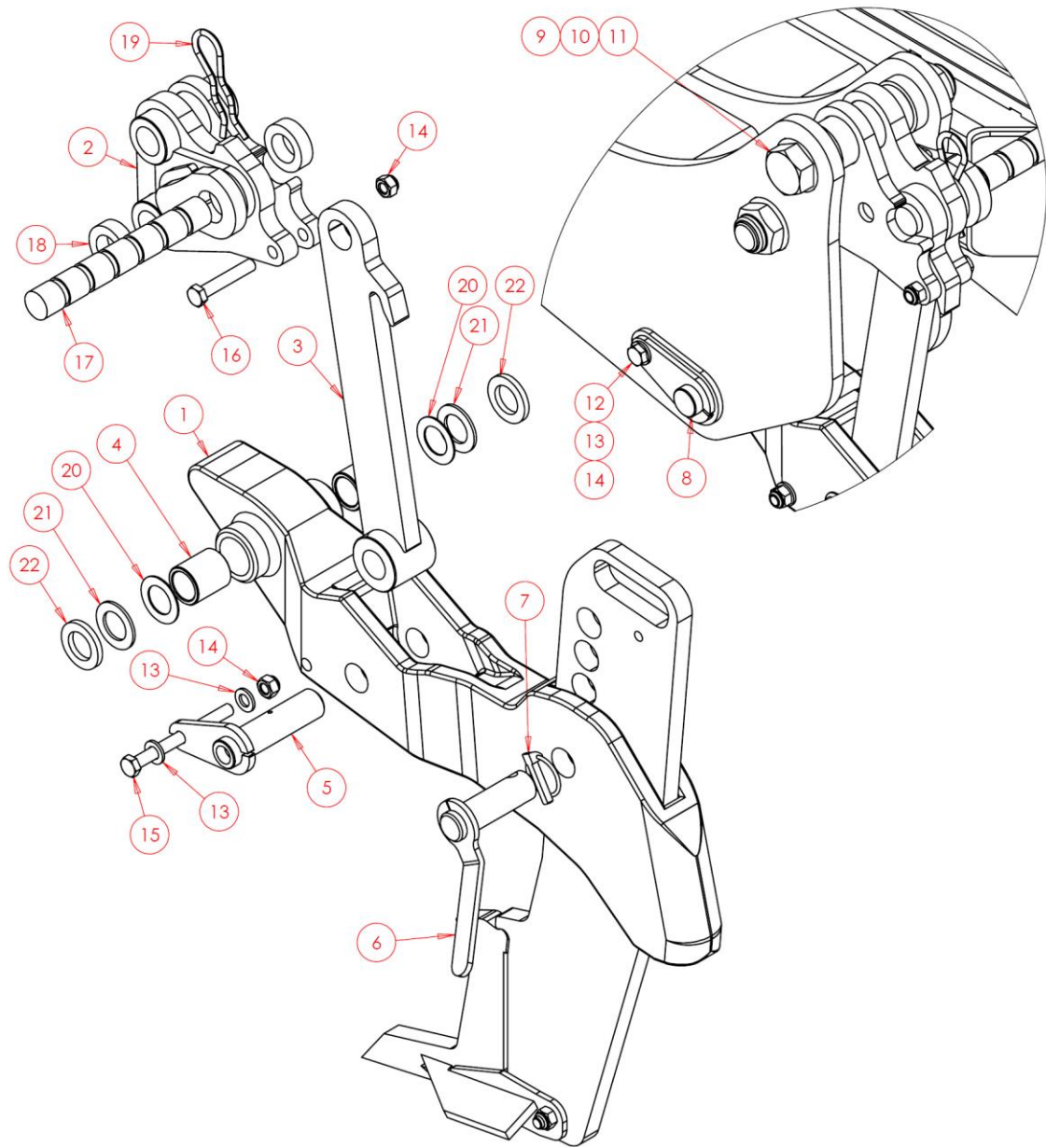
* Use dependant on fabricated tolerance

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

6.3.5 Shear Pin Leg



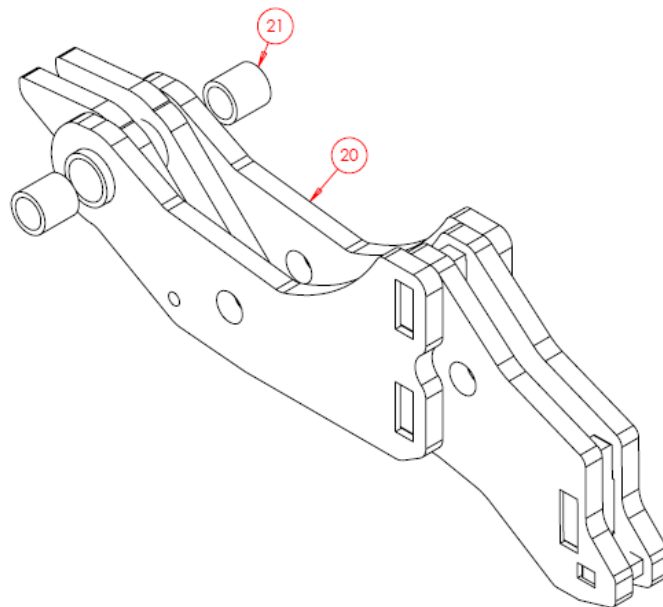
Item No.	Part Number	Description	Qty
1	SW1017	Auto Reset Socket Inc PB1 Bushes	1
2	SW1196	Shear Bar Socket	1
3	SW1197	Shear Bar Push Rod	1
4	SW188	PB1 Bush - 40x30x45	2
5	SWP30x105G	Pin - Grease	1
6	SWP30x90H	Pin - Handle	1
7	SWB105	Lynch Pin	1
8	SWP30x180	Pin - Tabbed	1

6.3.5 Shear Pin Leg – Continued

Item No.	Part Number	Description	Qty
9	SWM30200	M30x200 Bolt	2
10	SWM30004	M30 Nut - Nylock	2
11	SWM30001	M30 Washer - Flat	4
12	SWM1250	M12x50 Bolt	1
13	SWM12001	M12 Washer - Flat	4
14	SWM12004	M12 Nut - Nylock	3
15	SWM12130	M12x130 Bolt	1
16	SWM1270	M12x70 Bolt	1
17	SWB160	Shear Pin	1
18	SWS332	Spacer	2
19	SWB106	Retention Clip	1
20	SW6745	Leg Spacer Shim (3mm)	2*
21	SW6746	Leg Spacer Shim (6mm)	2*
22	SW6747	Leg Spacer Shim (1.5mm)	2*

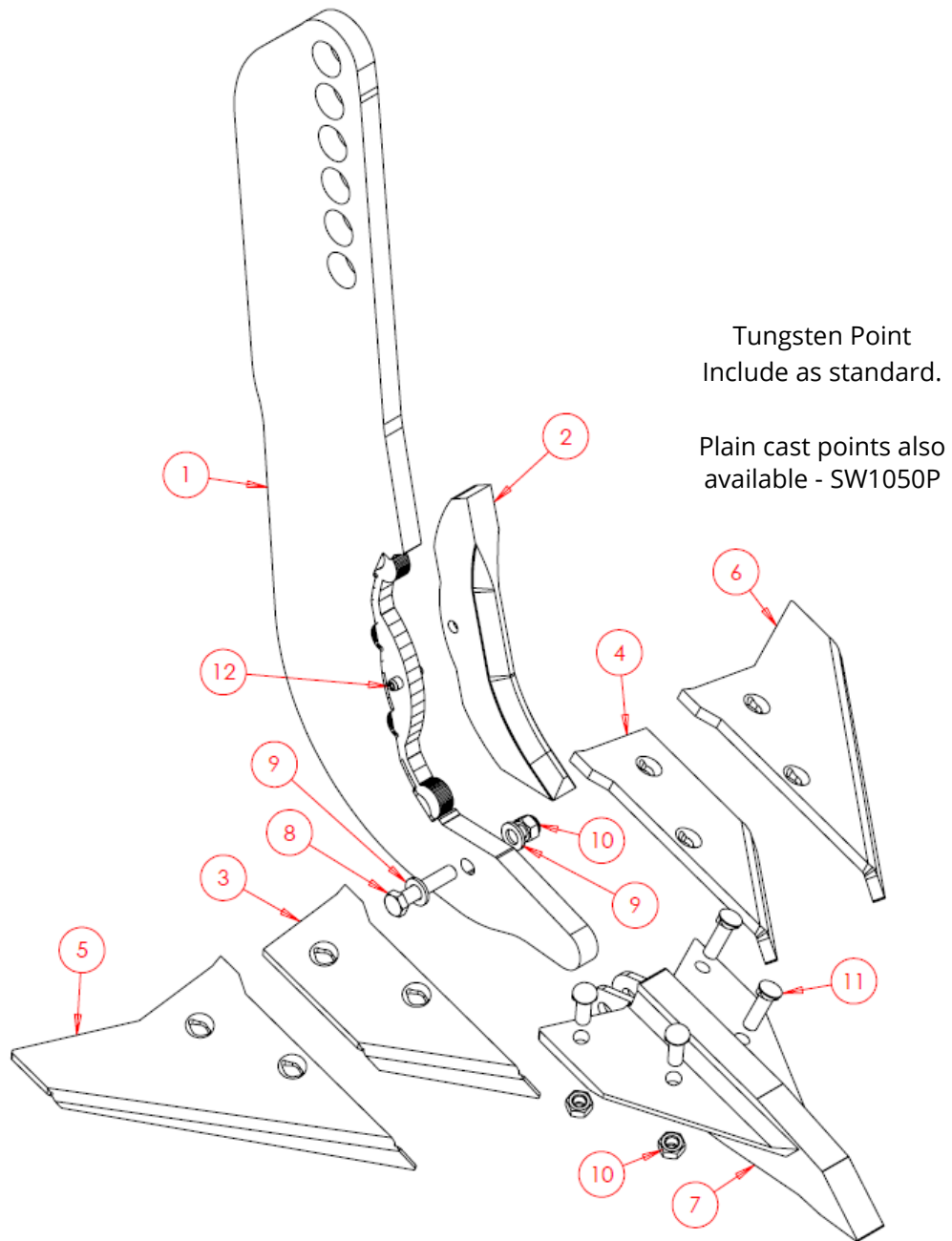
* Use dependant on fabricated tolerance

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

6.3.6 Standard Quatro Leg & Points



Item No.	Part Number	Description	Qty
1	SW1046	Standard Quatro 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	SWB368	8" Wing - Left	1
7	SW1050	Standard Trio Point - Tungsten	1

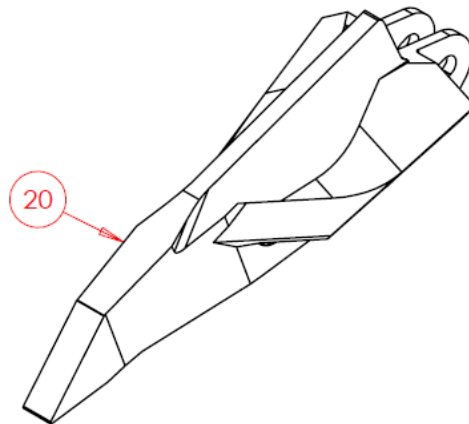
8	SWM1260	M12x60 Bolt	1
9	SWM12001	M12 Washer - Flat	4
10	SWM12004	M12 Nut - Nylock	5
11	SWM1235TN	M12x35 Screw - CSK NIB	1
12	SWB183	Split Dowel 10x32	1

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

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

Alternative Low Disturbance Point

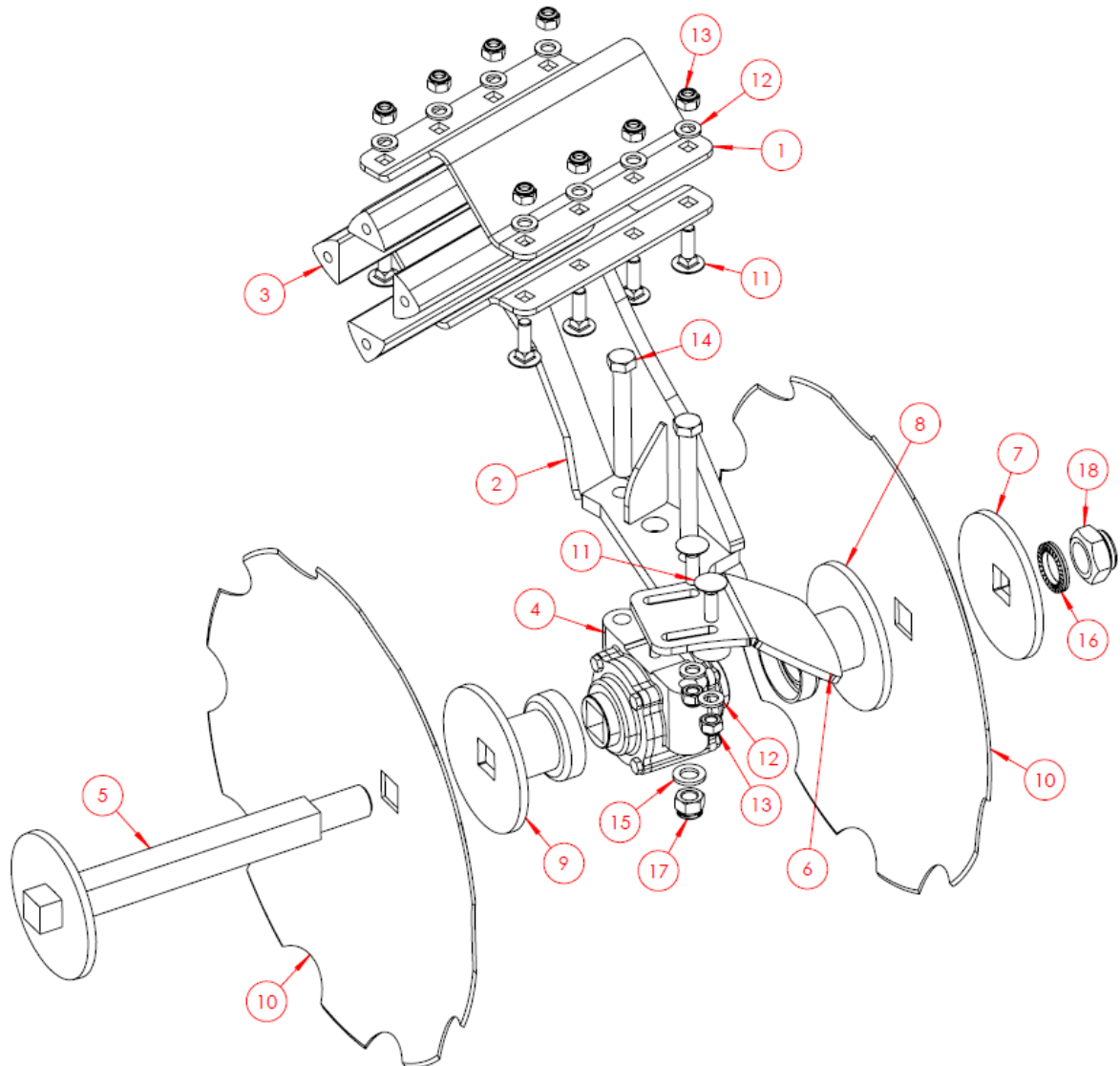
Available with or without tungsten. Not compatible with wings.



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

6.3.7 Disc Assemblies

6.3.7.1 Twin Disc Assembly - Left



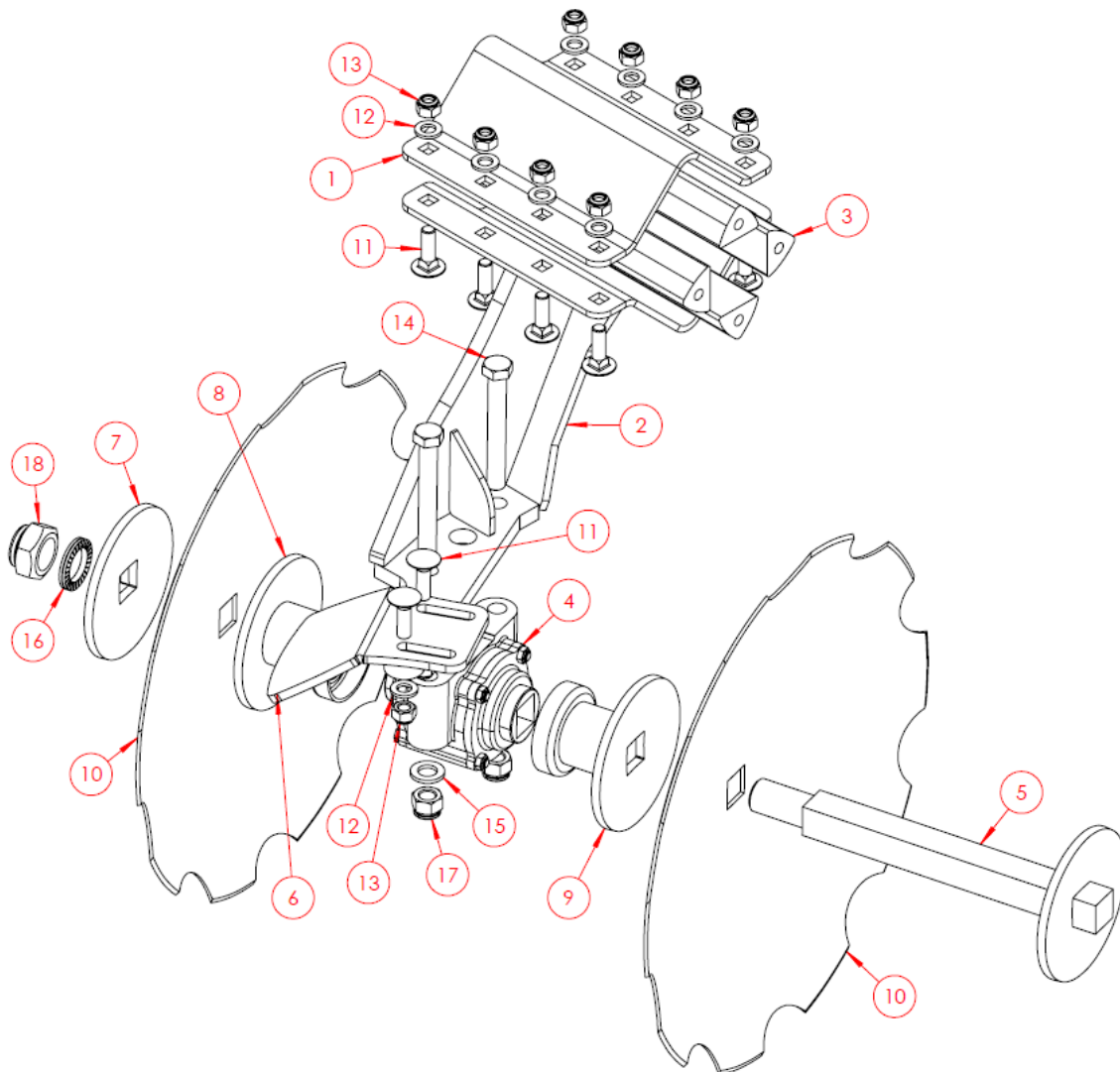
Item No.	Part Number	Description	Qty
1	SW107	Clamp Plate	1
2	SW390	Disc Arm - Left Hand	1
3	SWB679	Rubber - Triangle 28x35x270	4
4	SWB102	Pillar Bearing	1
5	SW101	Twin Disc Axle	1
6	SW646	Disc Scraper	1
7	SW108	Dis End Washer	1
8	SW103	Dust Cover Spacer	1

6.3.7 Disc Assemblies – 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.

6.3.7.2 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

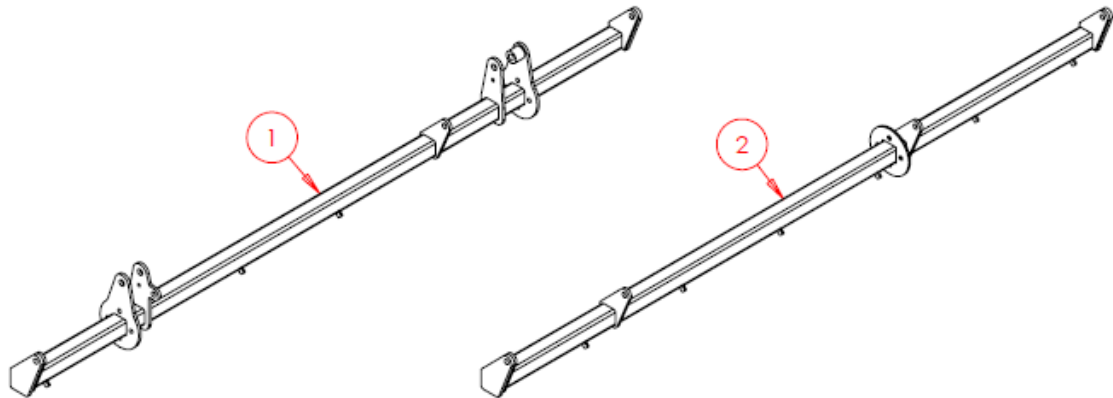
6.3.7.2 Twin Disc Assembly – Right – Continued

Item No.	Part Number	Description	Qty
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.

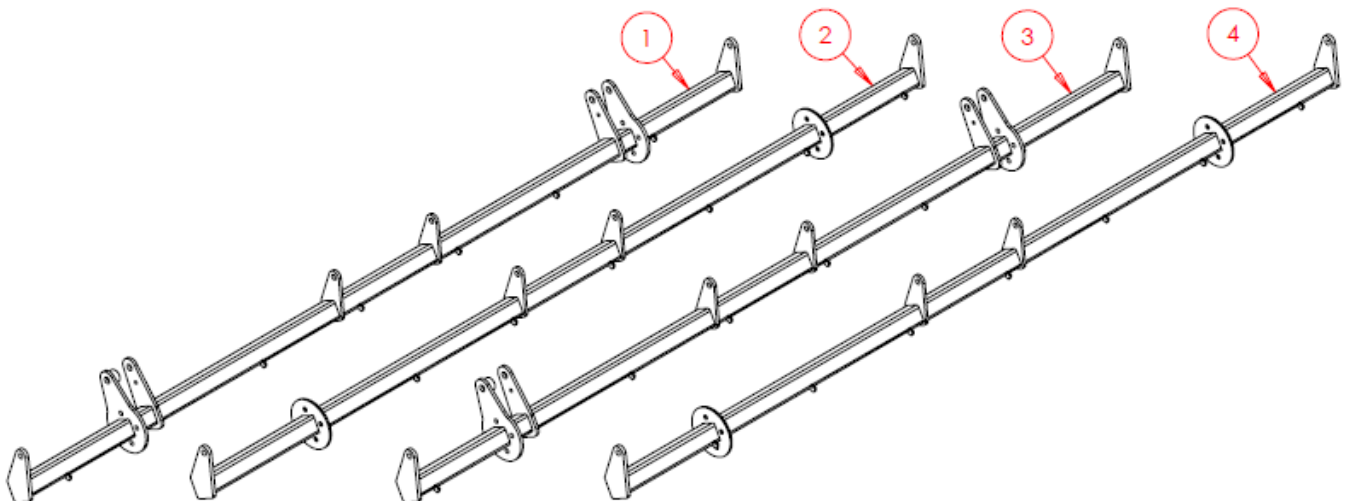
6.3.8 Disc Bars & Set Up Arrangement

6.3.8.1 Disc Bars - Q3



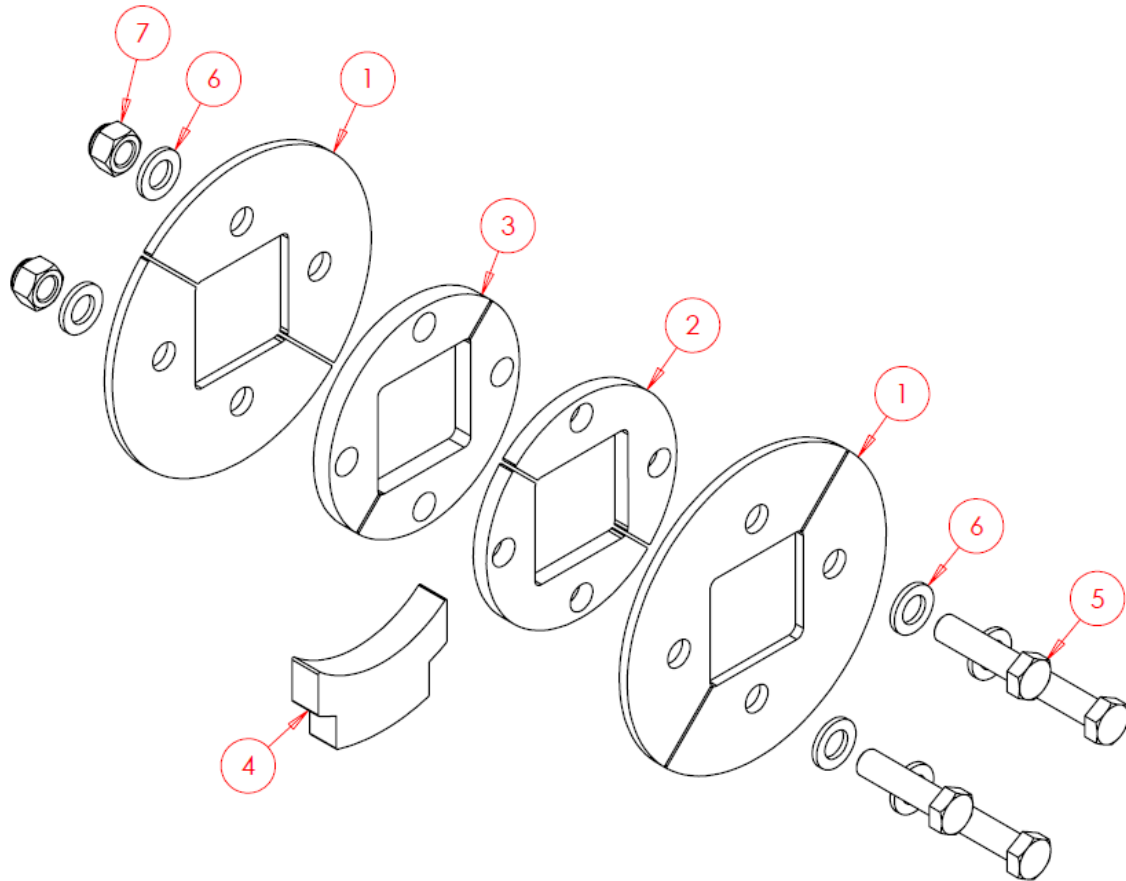
Item No.	Part Number	Description	Qty
1	SW2139	Disc Bar Row 1 & 3	2
2	SW2140	Disc Bar Row 2 & 4	2

6.3.8.2 Disc Bars - Q3.5



Item No.	Part Number	Description	Qty
1	SW2925	Disc Bar Row 1	1
2	SW2926	Disc Bar Row 2	1
3	SW2927	Disc Bar Row 3	1
4	SW2928	Disc Bar Row 4	1

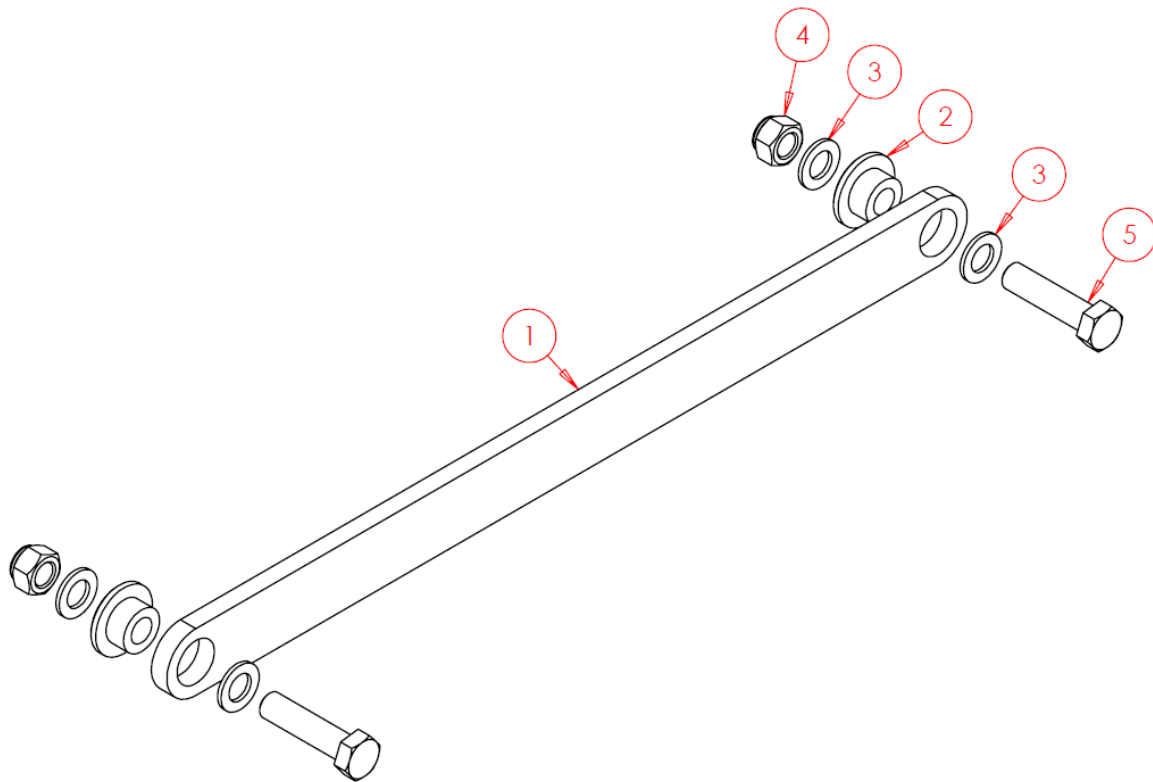
6.3.8.3 Standard Bearing Arrangement



Quantities below are per bearing, not per machine.

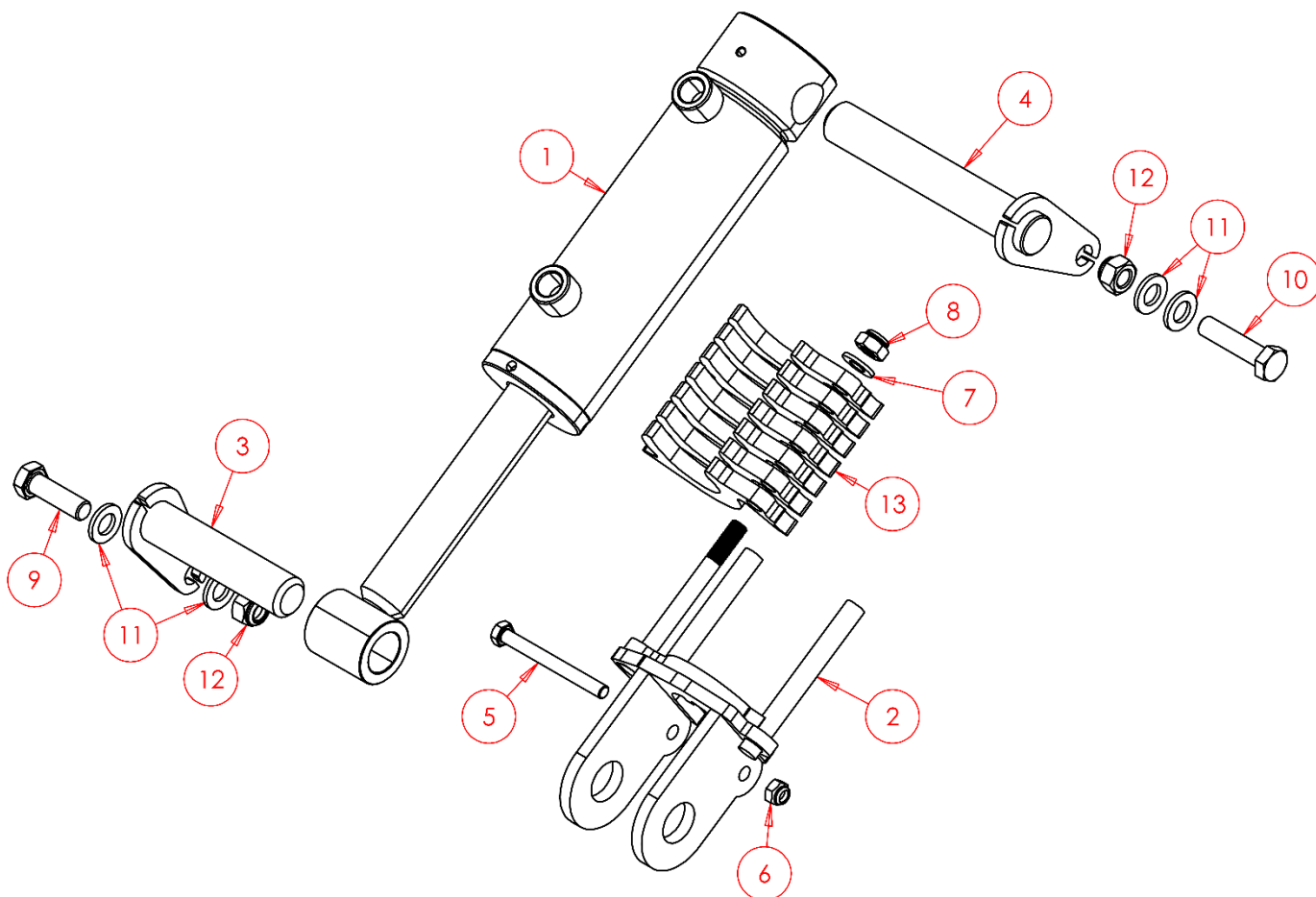
Item No.	Part Number	Description	Qty
1	SWS8680	Outer Bearing Plate	4
2	SWS8679-10	Bearing Spacer - 10mm	2
3	SWS8679-12	Bearing Spacer - 12mm	2
4	SWS8682	Tee Piece	1
5	SWM1660	M16x60mm Bolt	4
6	SWM16001	M16 Flat Washer	8
7	SWM16004	M16 Nylock Nut	4

6.3.8.4 Standard Inner Push Bar Arrangement



Item No.	Part Number	Description	Qty
1	SWS8642	Straight 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

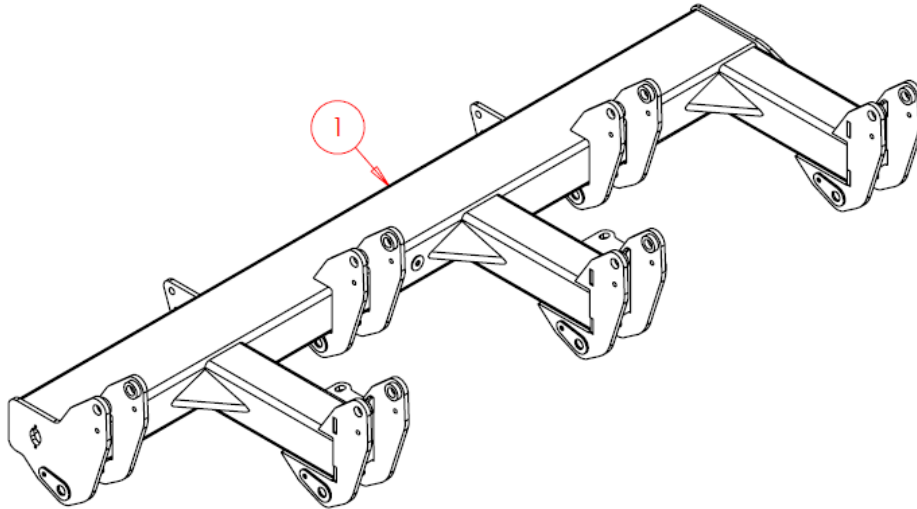
6.3.8.5 Standard Hydraulic Disc Arrangement



Item No.	Part Number	Description	Qty
1	SWH113	Hydraulic Cylinder	4
2	SW3277	Shim Holder LH	2
2	SW1334	Shim Holder RH (Not Shown)	2
3	SWP25X110	Pin	4
4	SWP25X150	Pin	4
5	SWM880	M8x80 Bolt	1
6	SWM8001	M8 Washer - Flat	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

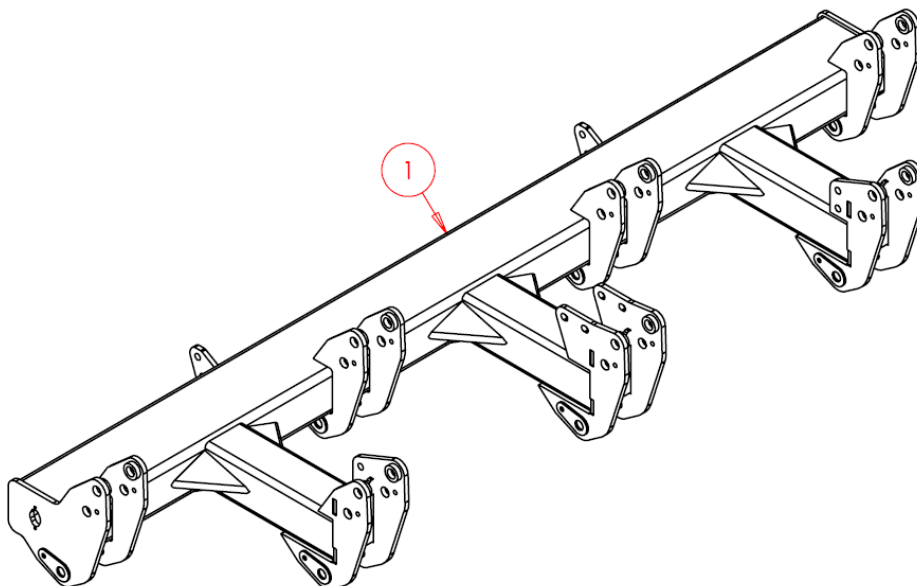
6.3.9 Leg Beams

6.3.9.1 Leg Beam – Q3 Only



Item No.	Part Number	Description	Qty
1	SW2135	Leg Beam – Q3 Only	1

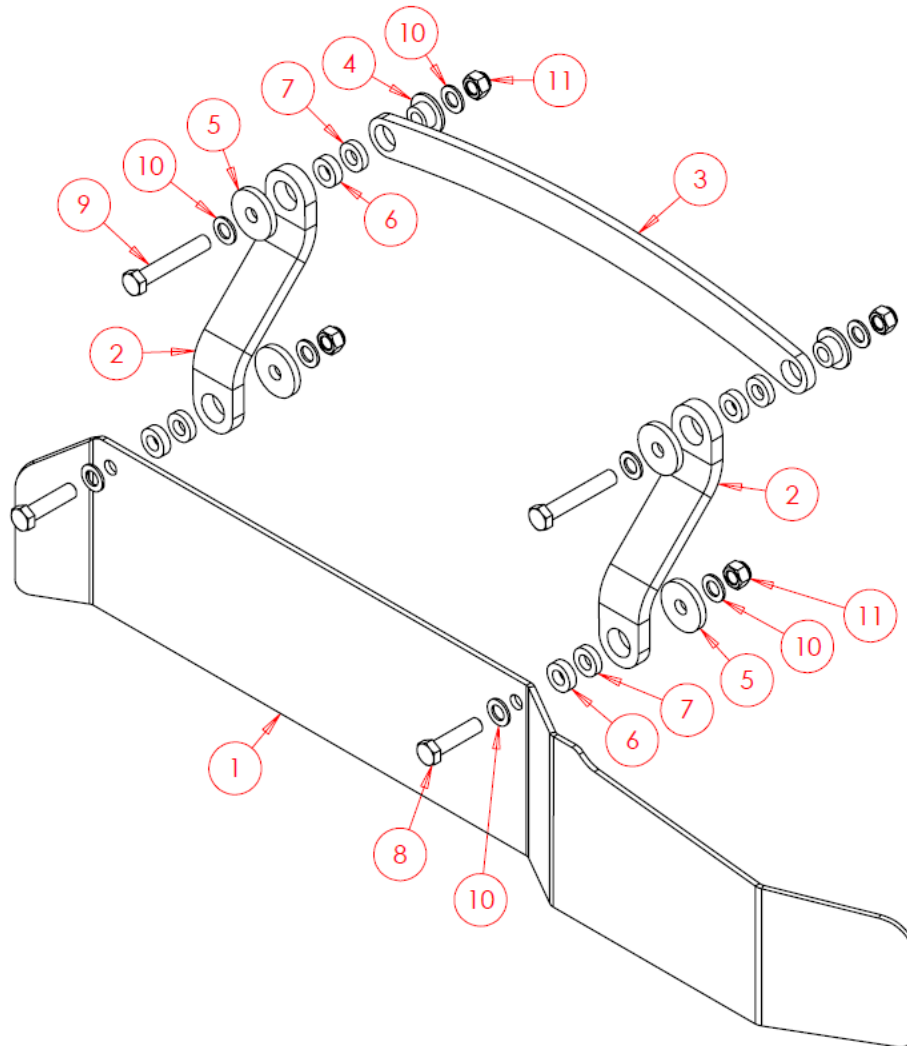
6.3.9.2 Leg Beam – Q3.5 Only



Item No.	Part Number	Description	Qty
1	SW2921	Leg Beam – Q3.5 Only	1

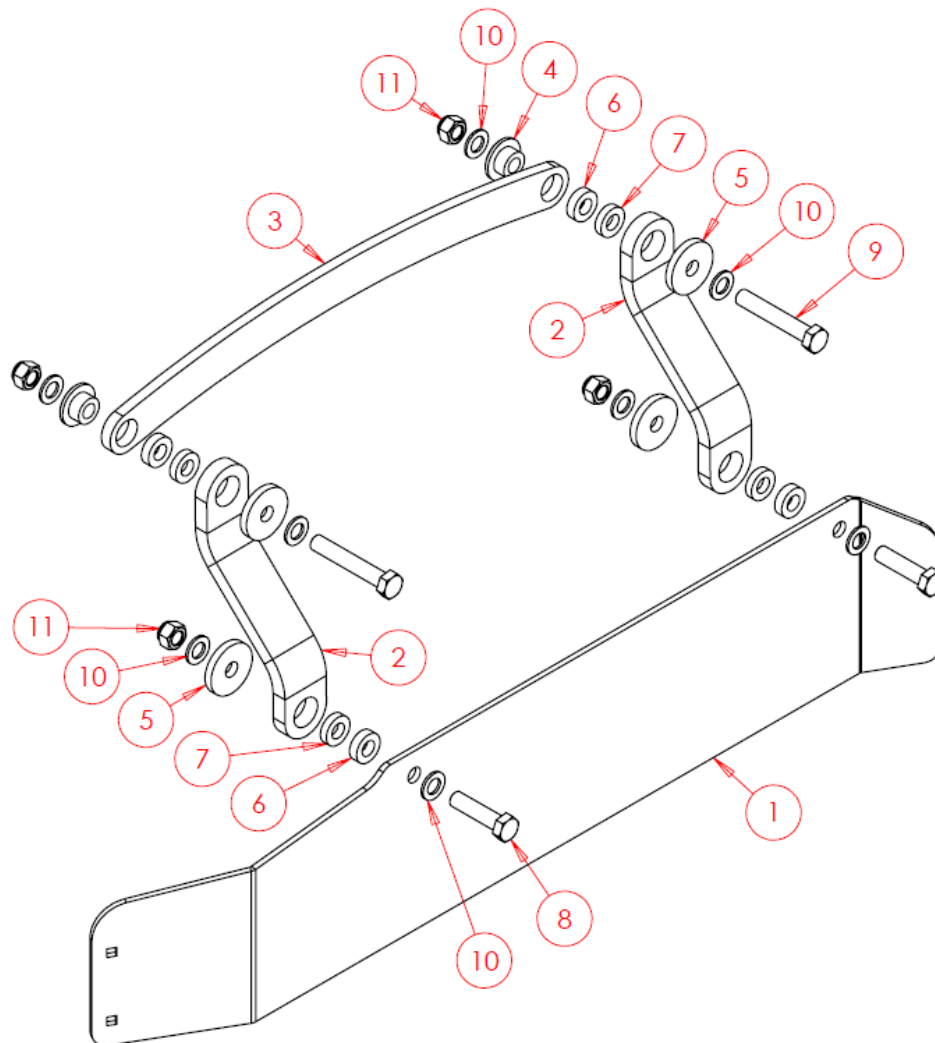
6.3.10 Soil Retainers

6.3.10.1 Soil Retainer Assembly - Left Hand Side - Q3 & Q3.5



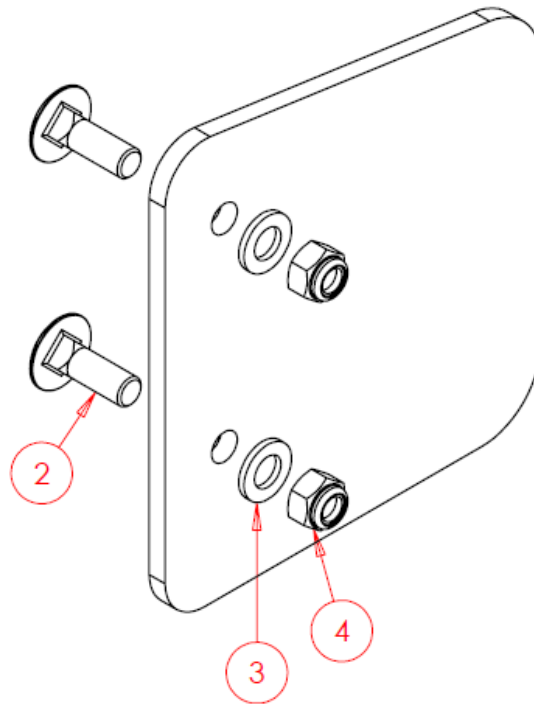
Item No.	Part Number	Description	Qty
1	SWS11324	Soil Retainer LH	1
2	SW4766	Soil Retainer Arm	2
3	SWS8643	Curved Push Bar	1
4	SWB582	Top Hat Bearing Spacer	2
5	SW123	10mm SR Extra Large Washer	4
6	SW125	12mm SR Washer	4
7	SW126	10mm SR Spacer	4
8	SWM2080	M20x80mm Bolt	2
9	SWM20120	M20x120mm Bolt	2
10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

6.3.10.2 Soil Retainer Assembly – Right Hand Side – Q3 & Q3.5



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

6.3.10.3 Soil Retainer RH Extension – Optional Extra

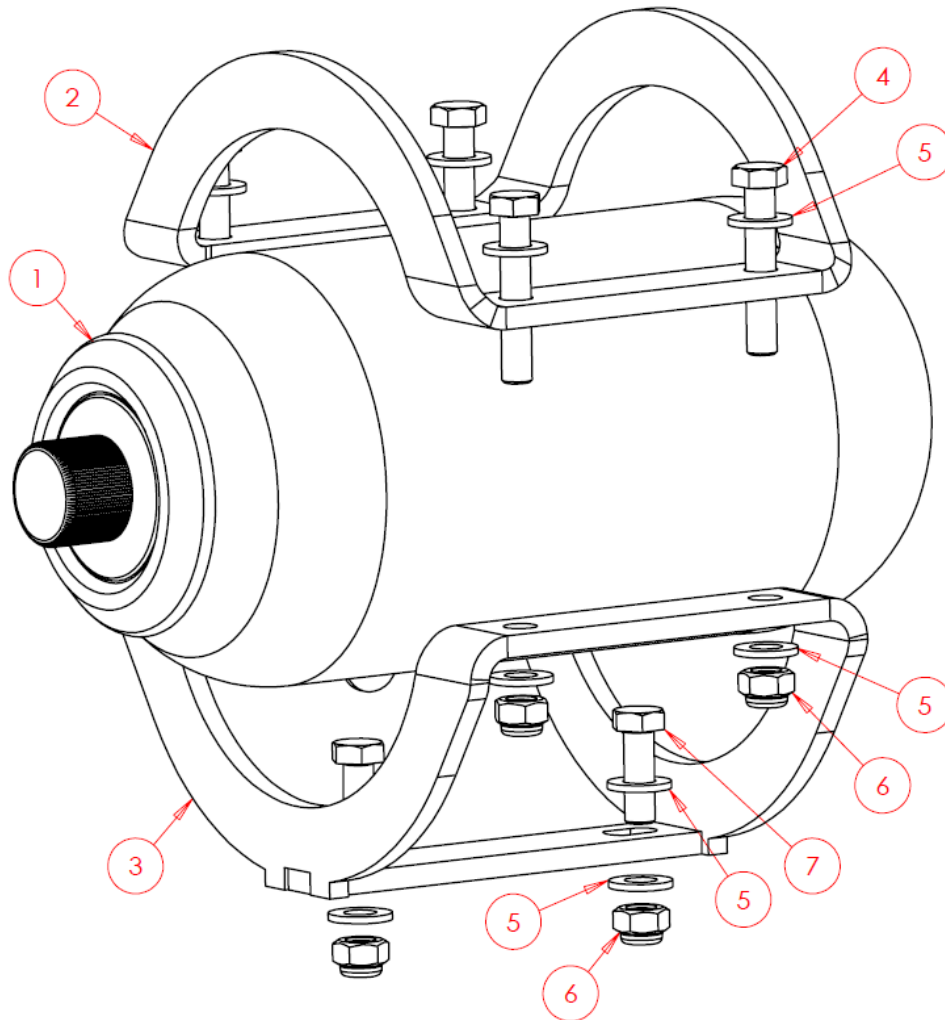


Item No.	Part Number	Description	Qty
1	SW163	Soil Retainer RH Extension	1
2	SWM1235CHSQ	M12x35 Cup Head Square Bolt	2
3	SWM12001	M12 Washer - Flat	2
4	SWM12004	M12 Nut - Nylock	2

6.3.11 Accumulators & Valve Block (Auto Reset Only)

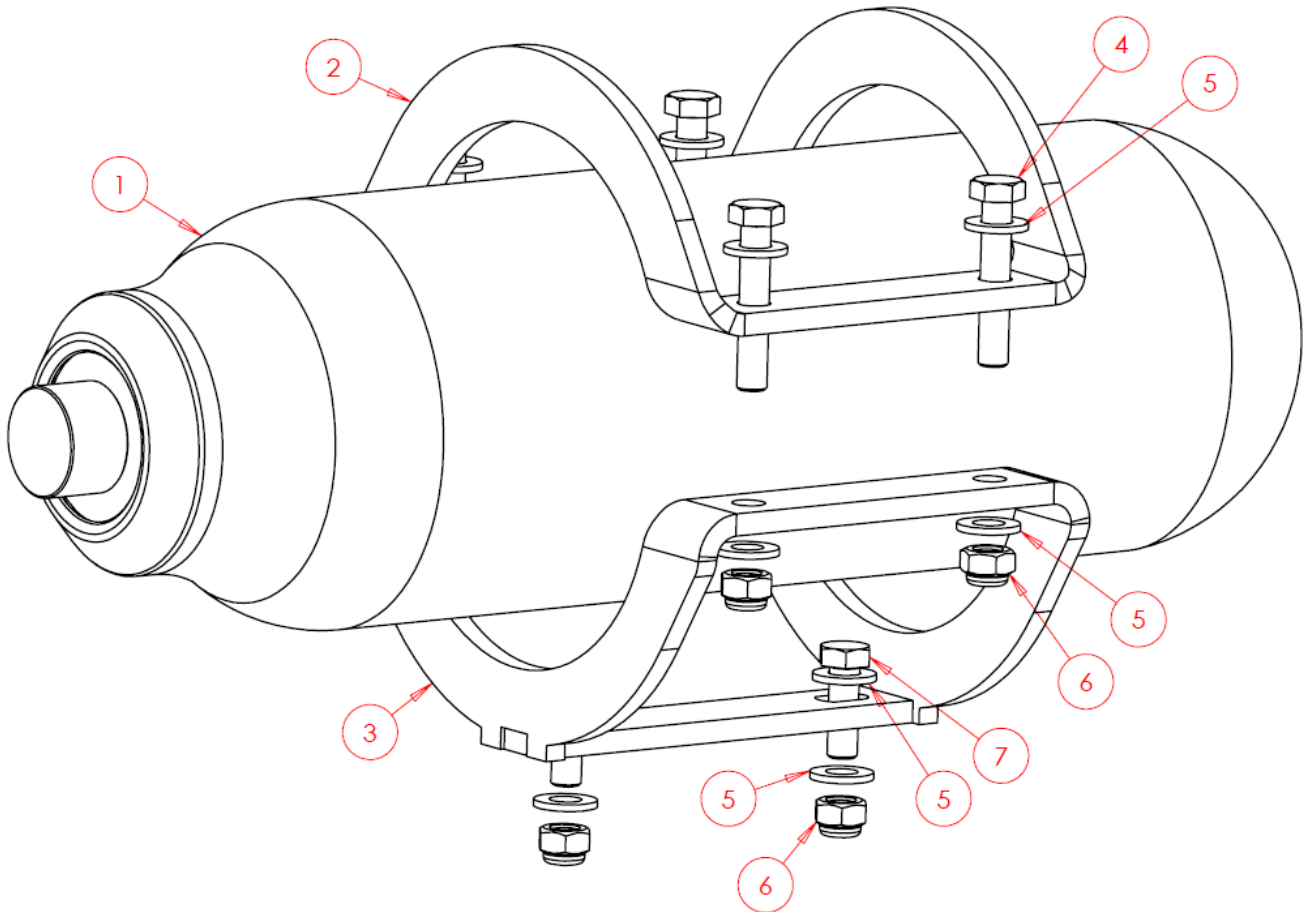
For full system details see Hydraulic Connection Diagrams.

6.3.11.1 1.4 Litre Membrane Accumulator



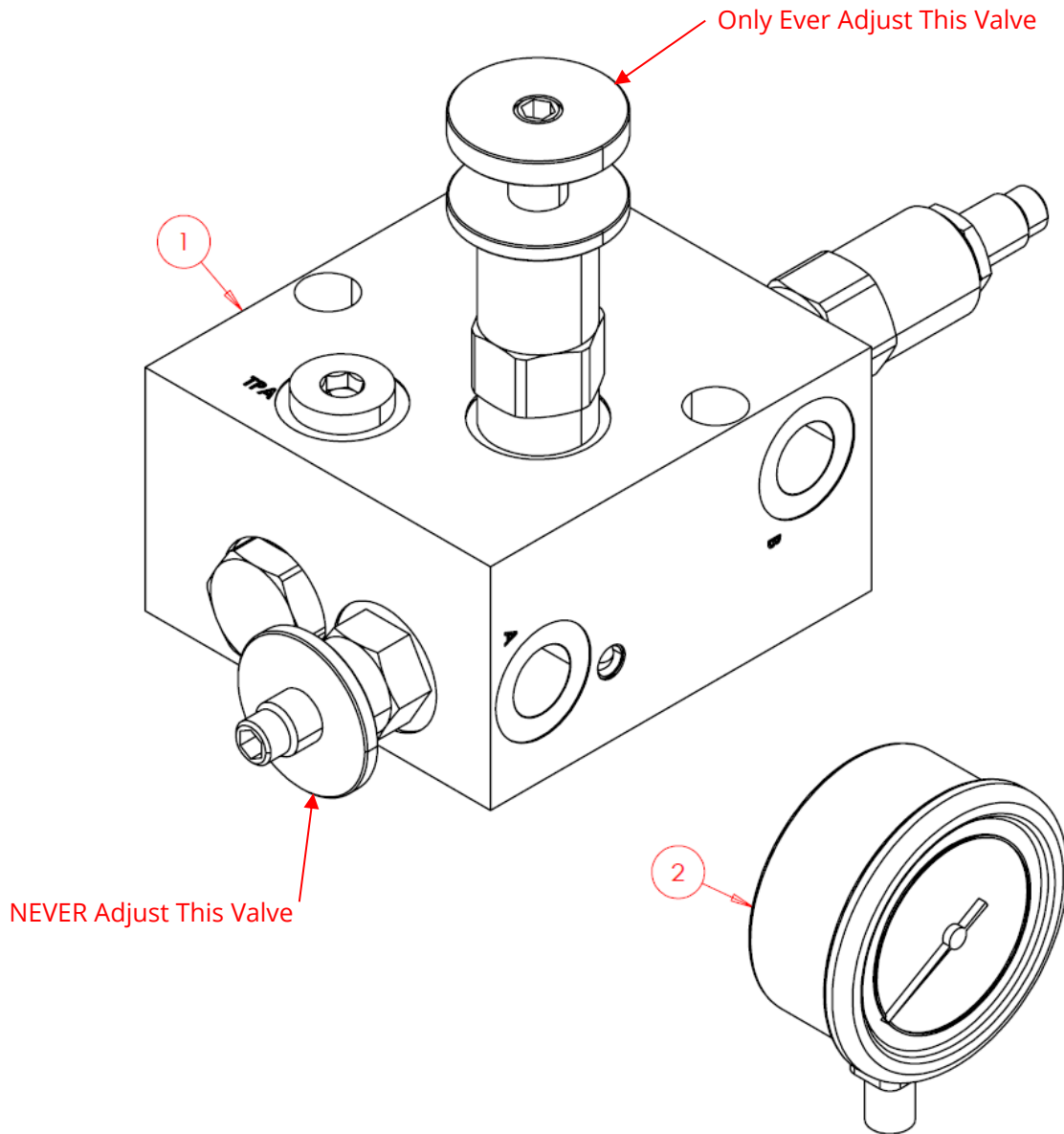
Item No.	Part Number	Description	Qty
1	SWH685	1.4 Litre Membrane Accumulator	1
2	SW1510	Top Bracket	1
3	SW1511	Base Bracket	1
4	SWM845	M8x45 Bolt	4
5	SWM8001	M8 Washer - Flat	12
6	SWM8005	M8 Nut - Nylock	6
7	SWM425	M8x25 Screw	2

6.3.11.2 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	SWM8005	M8 Nut - Nylock	6
7	SWM425	M8x25 Screw	2

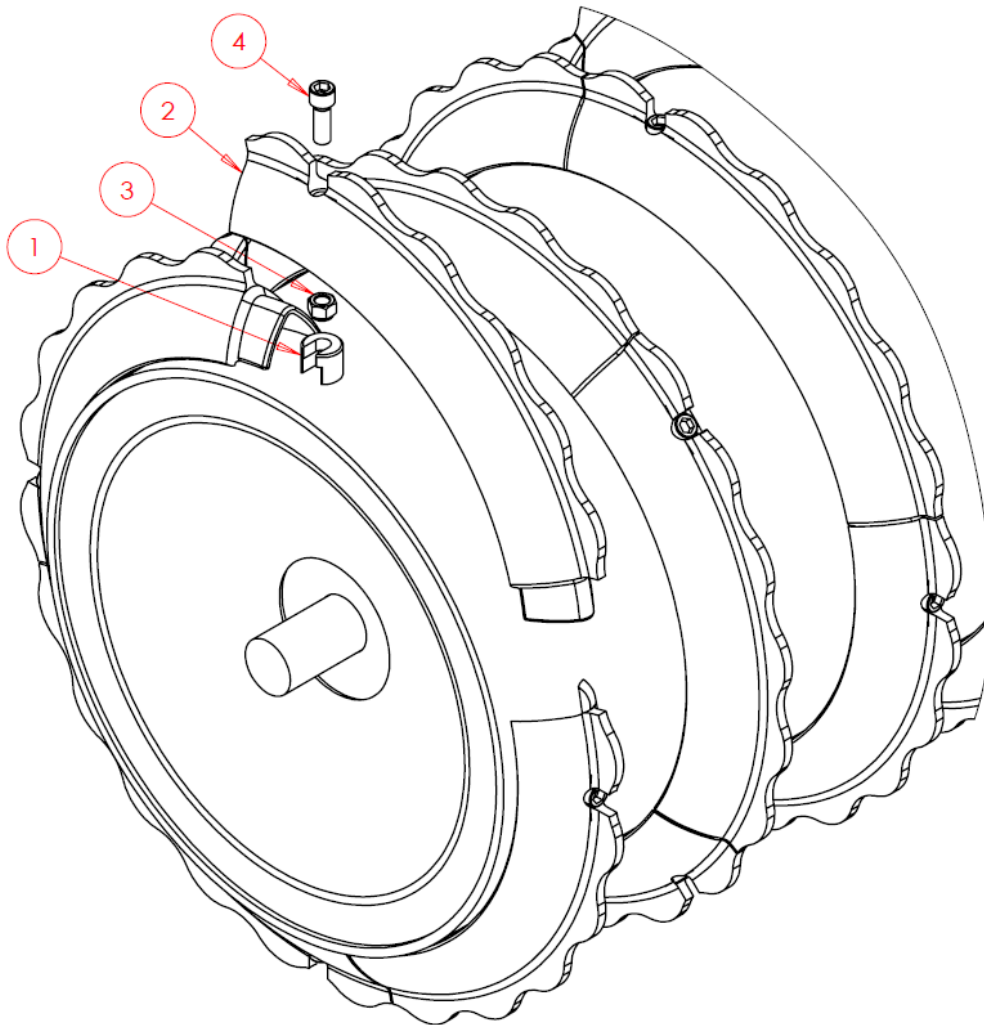
6.3.11.3 Standard Auto Reset Valve Block & Pressure Gauge



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

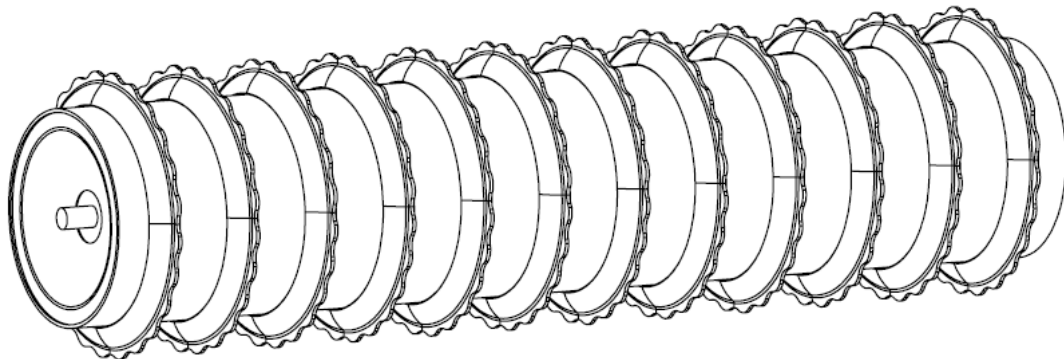
6.3.12 Packers Options

6.3.12.1 Quadrant Assembly Per Ring – All 610 Multipackers



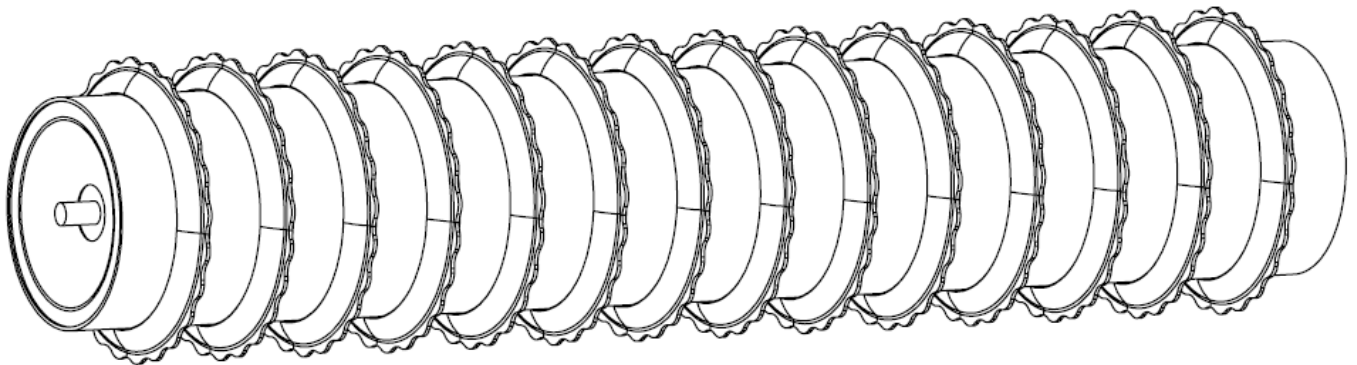
Item No.	Part Number	Description	Qty
1	SWB608	610 Weld-On Nut Retainer	4
2	SWB609	610 Quadrant – Plain	4
3	SWM16004	M16 Nut – Nylock	4
4	SWM1645CH	M16x45 Cap Head Screw	4

6.3.12.2 609 Multipacker - Q3

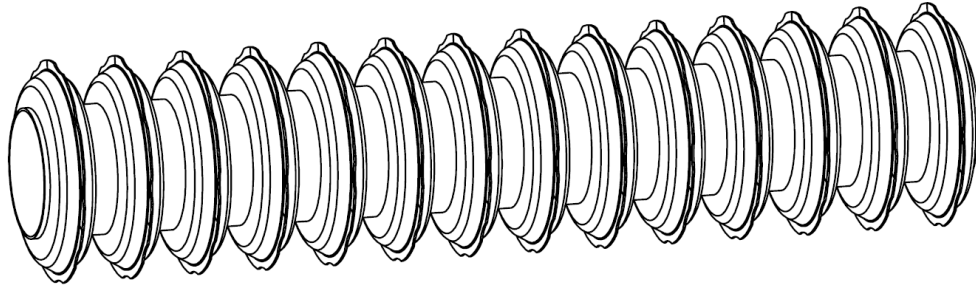


Complete Assembly - SW1924			
Item No.	Part Number	Description	Qty
1	SWB608	609 Weld on Nut Retainer	48
2	SWB609	609 Quadrant - Plain	48
4	SWM12004	M12 Nut - Nylock	48
5	SWM1240CH	M12x40 Cap Head Screw	48

6.3.12.3 609 Multipacker - Q3.5



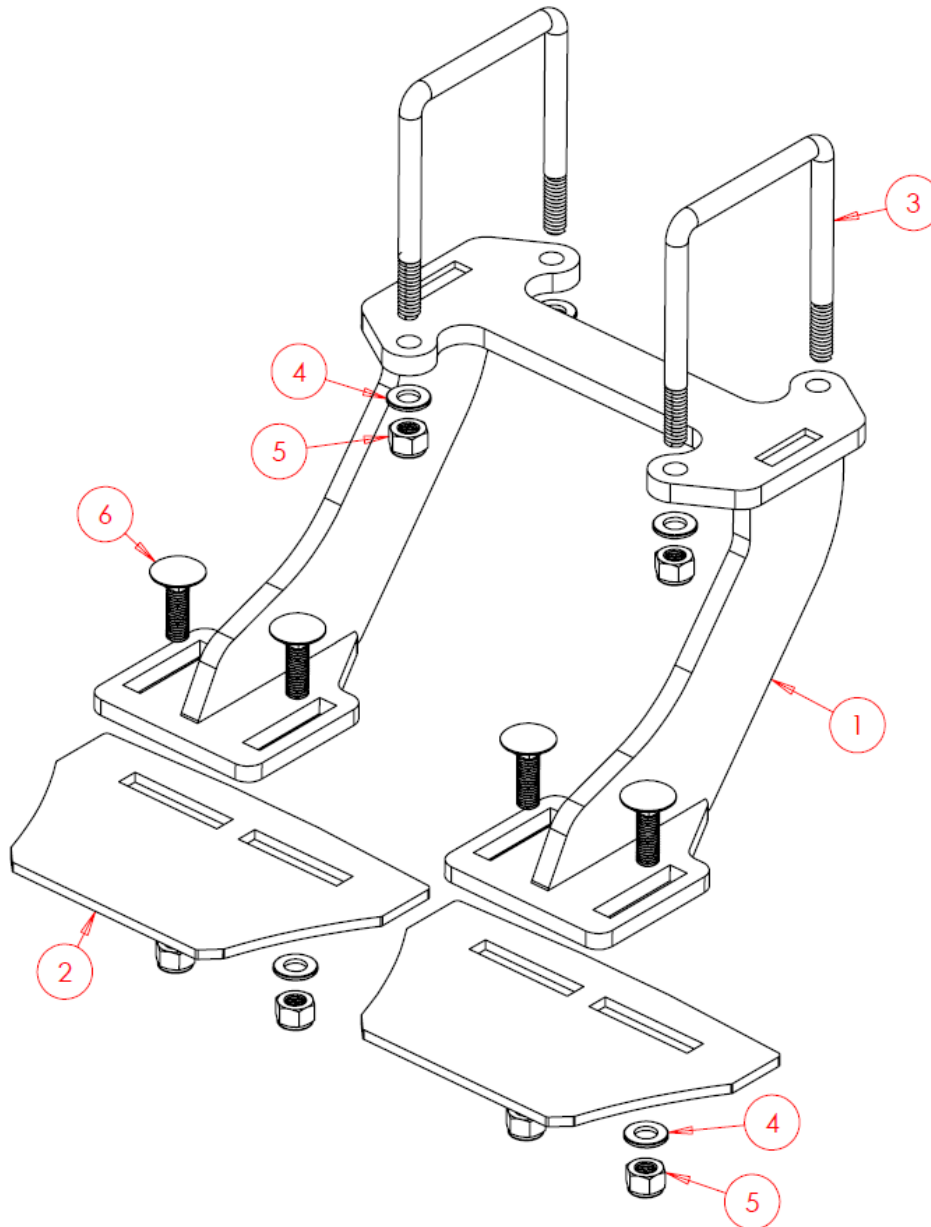
Complete Assembly - SW2923			
Item No.	Part Number	Description	Qty
1	SWB608	609 Weld on Nut Retainer	56
2	SWB609	609 Quadrant - Plain	56
4	SWM12004	M12 Nut - Nylock	56
5	SWM1240CH	M12x40 Cap Head Screw	56

6.3.12.4 Diamond Packers - Q3

Item No.	Part Number	Description	Qty
1	SWB1091	TTR3 Diamond Packer	1

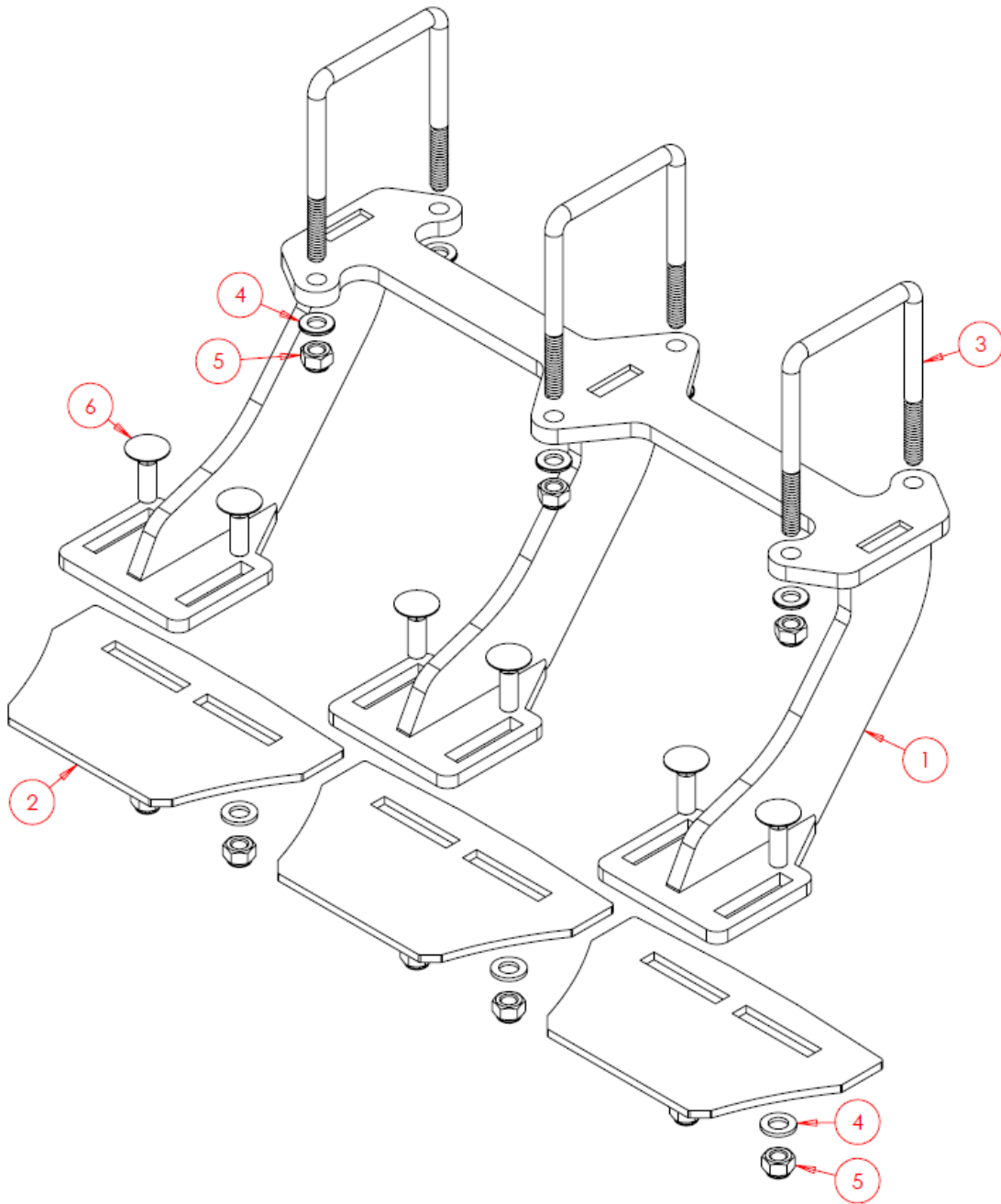
6.3.13 Scraper Assemblies

6.3.13.1 All Multipacker Options - Double Scraper



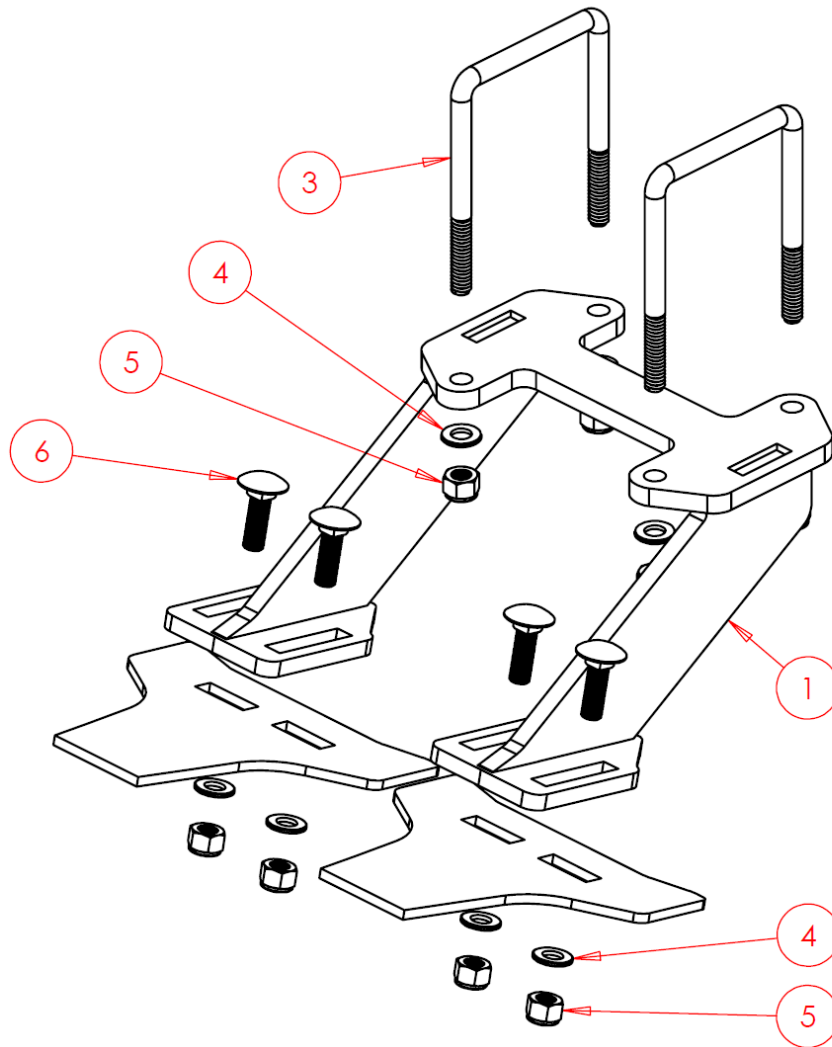
Item No.	Part Number	Description	Qty
1	SW961	Hanger	1
2	SW651	Scraper	2
3	SWM12100UB	M12x100 U bolt	2
4	SWM12001	M12 Washer - Flat	8
5	SWM12004	M12 Nut - Nylock	8
6	SWM1240CHSQ	M12x40 Bolt - Cup Head Square Bolt	4

6.3.13.2 All Multipacker Options - Triple Scraper



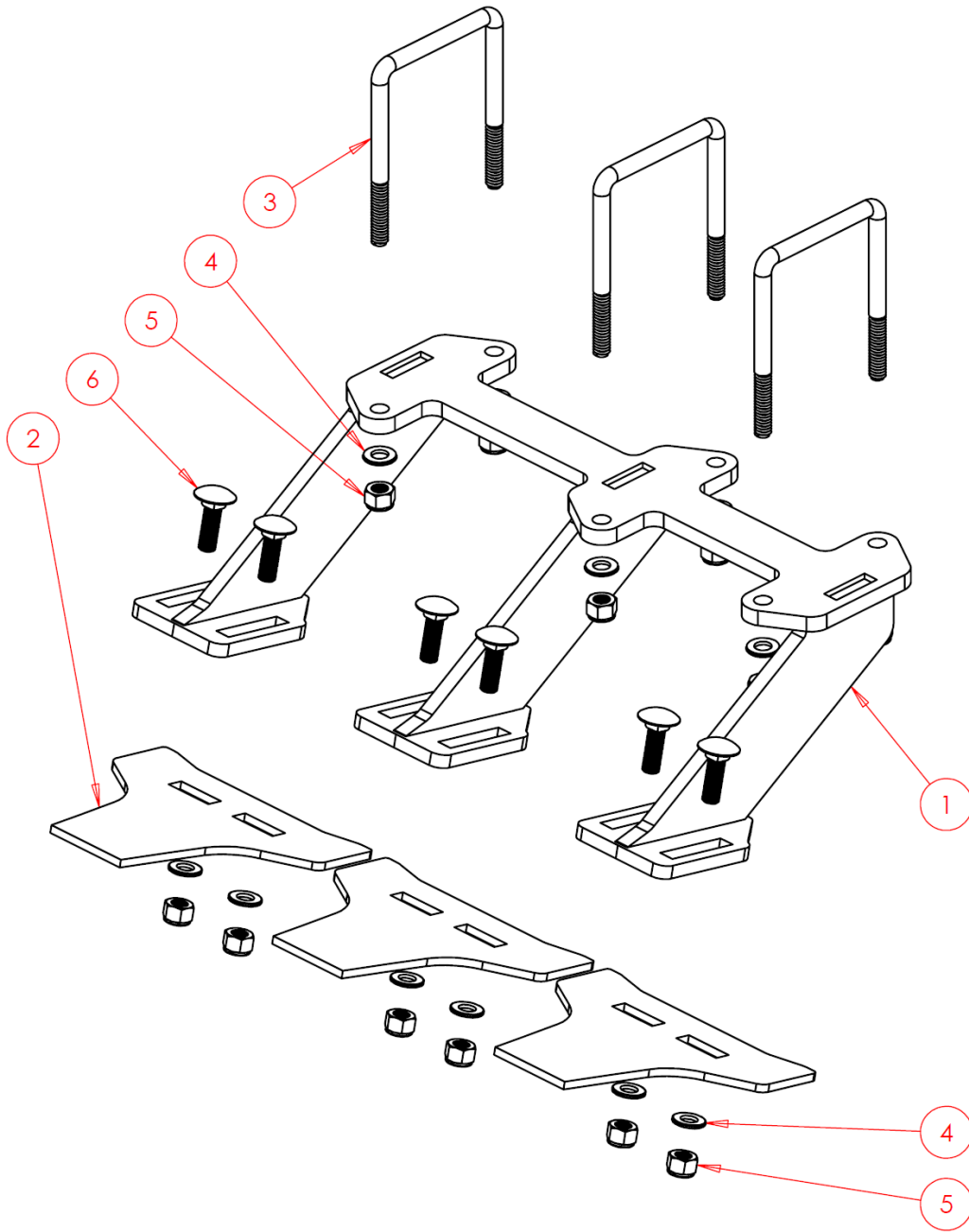
Item No.	Part Number	Description	Qty
1	SW1003	Hanger	1
2	SW651	Scraper	3
3	SWM12100UB	M12x100 U bolt	3
4	SWM12001	M12 Washer - Flat	12
5	SWM12004	M12 Nut - Nylock	12
6	SWM1240CHSQ	M12x40 Bolt - Cup Head Square Bolt	6

6.3.13.3 All Diamond Packer Options - Double Scraper



Item No.	Part Number	Description	Qty
1	SW3942	Hanger	1
2	SW3944	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

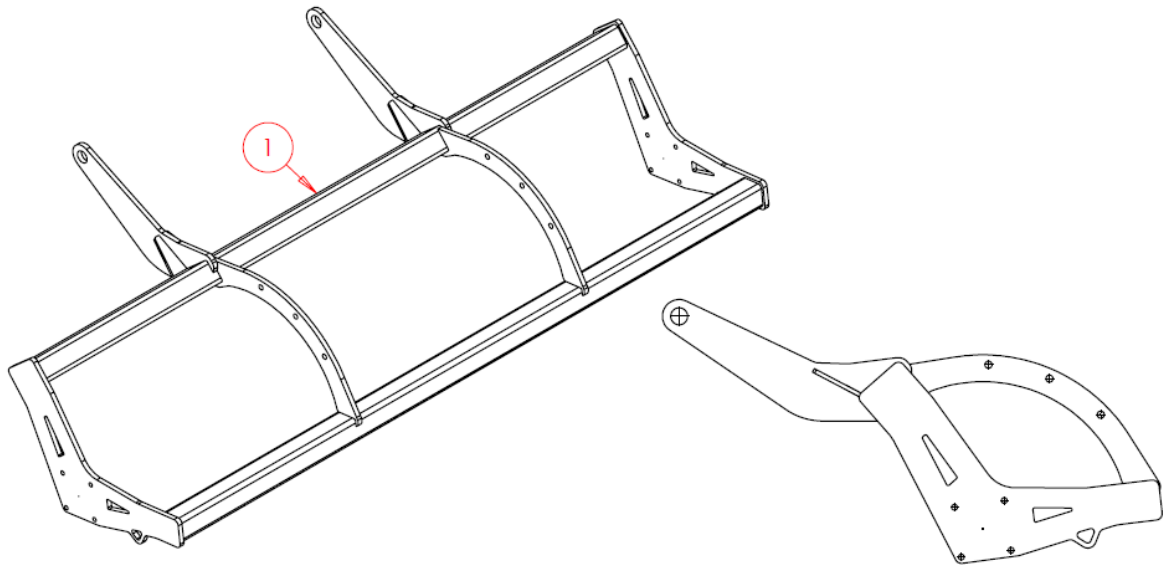
6.3.13.4 All Diamond Packer Options - Triple Scraper



Item No.	Part Number	Description	Qty
1	SW3943	Hanger	1
2	SW3944	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

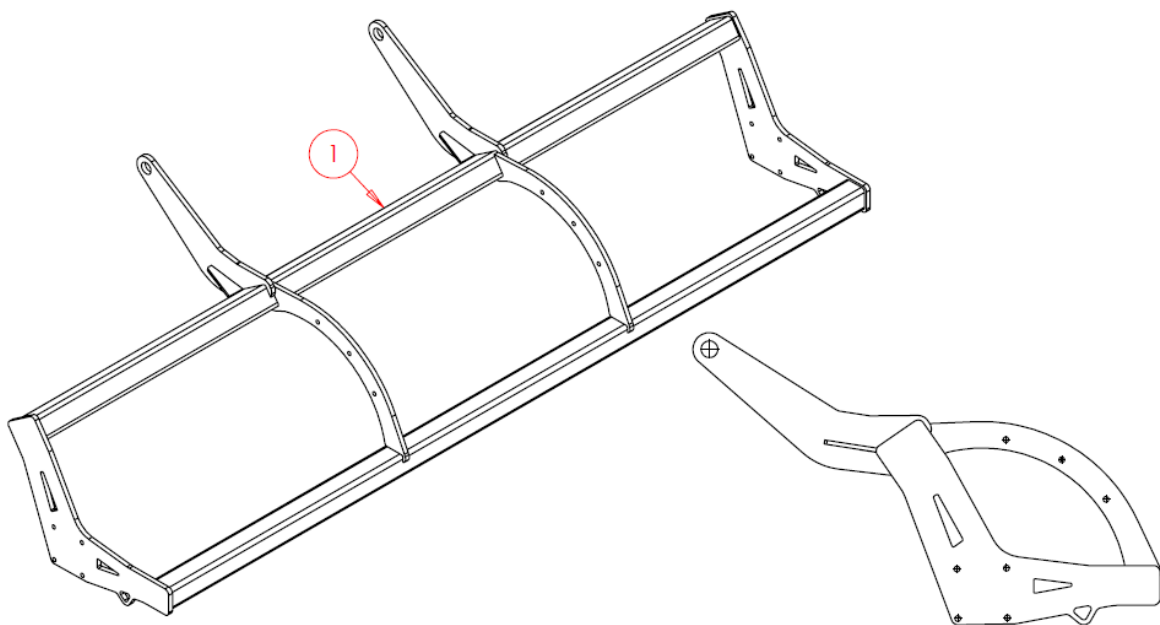
6.3.14 Packer Frames

6.3.14.1 Multipacker Packer Frame - Q3



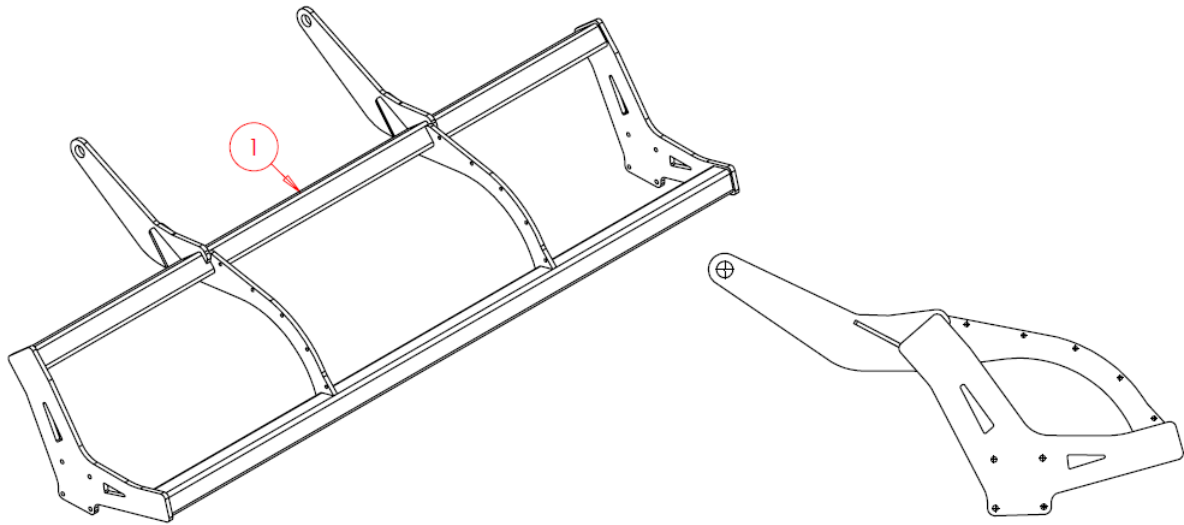
Item No.	Part Number	Description	Qty
1	SW1925	Multipacker Frame - Q3	1

6.3.14.2 Multipacker Packer Frame - Q3.5



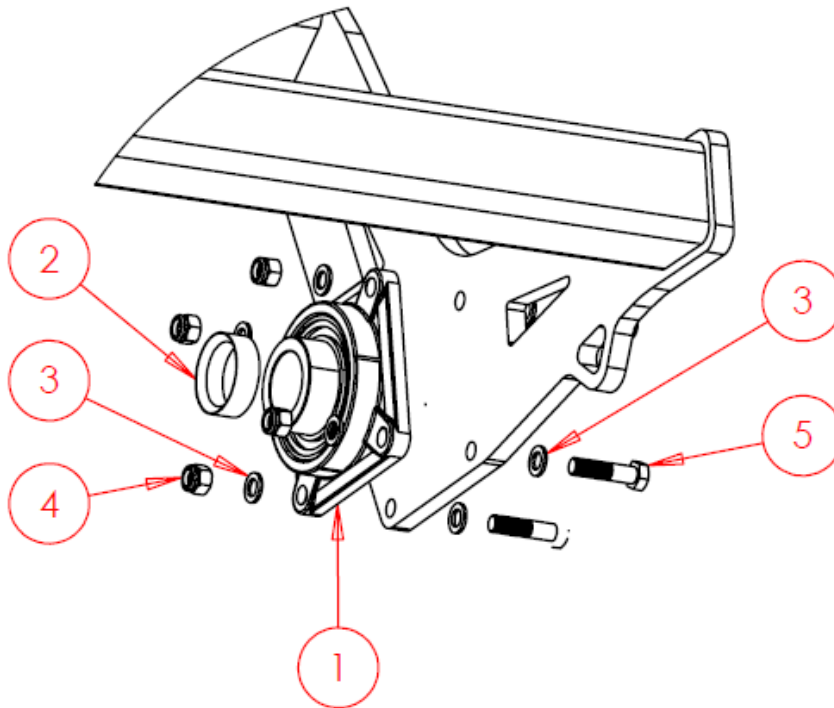
Item No.	Part Number	Description	Qty
1	SW2922	Multipacker Frame - Q3.5	1

6.3.14.3 Diamond Packer Frame - Q3



Item No.	Part Number	Description	Qty
1	SW3685	Diamond Packer Frame - Q3	1

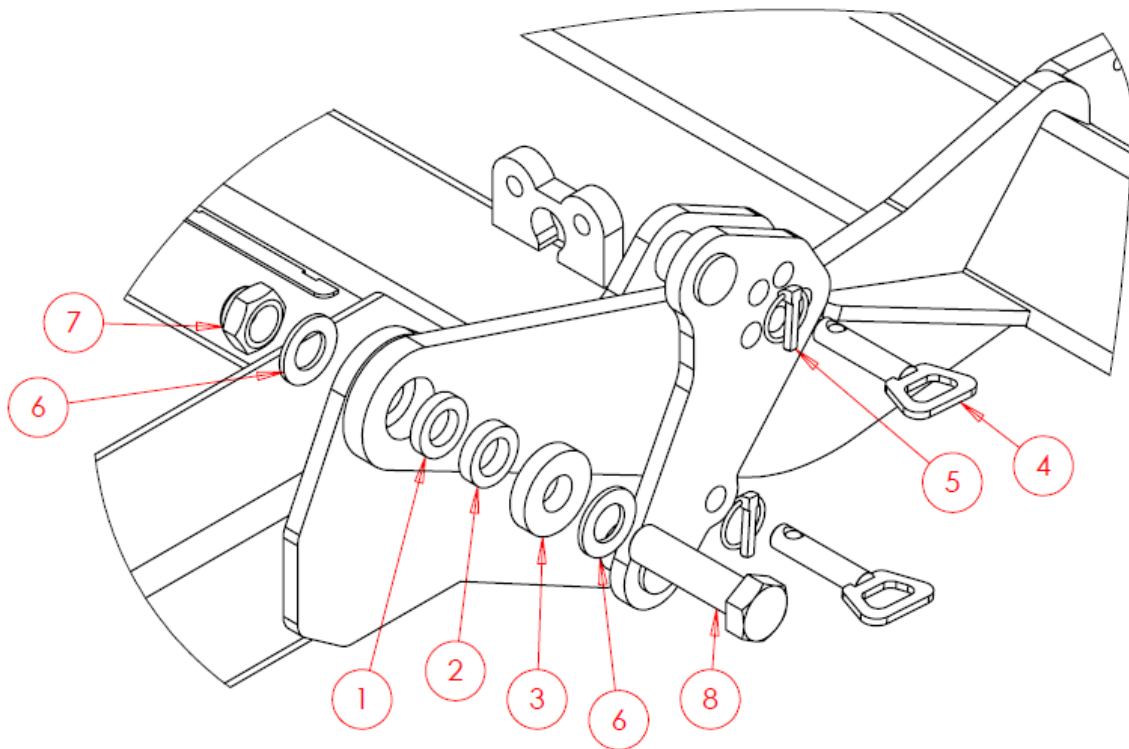
6.3.15 Standard Packer Bearings Assembly



Quantities below are per Machine, Not per bearing.

Item No.	Part Number	Description	Qty
1	SWB104	Bearing	2
2	SWS3272	Spacer Collar	2
3	SWM16001	M16 Washer - Flat	16
4	SWM16006	M16 Nut - Aerotight	8
5	SWM1665	M16x65 Bolt	4

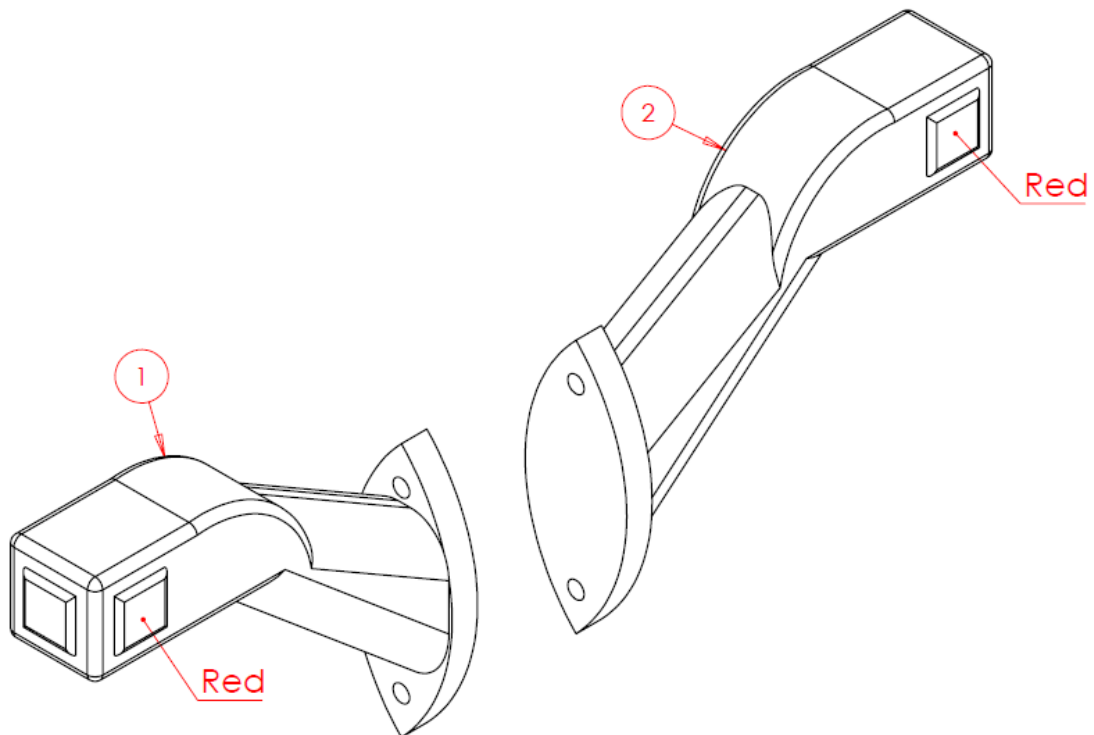
6.3.16 Standard Packer Mounting Arrangement



Item No.	Part Number	Description	Qty
1	SW722	10mm Small spacer	2
2	SW723	12mm Small Spacer	2
3	SW129	15mm Extra Large Washer packer	2
4	SWP20x80HDP	Pin - Handle Depth	4
5	SWB105	Lynch Pin	4
6	SWM30001	M30 Washer	4
7	SWM30004	M30 Nylock	2
8	SWM30100	M30x100 bolt	2

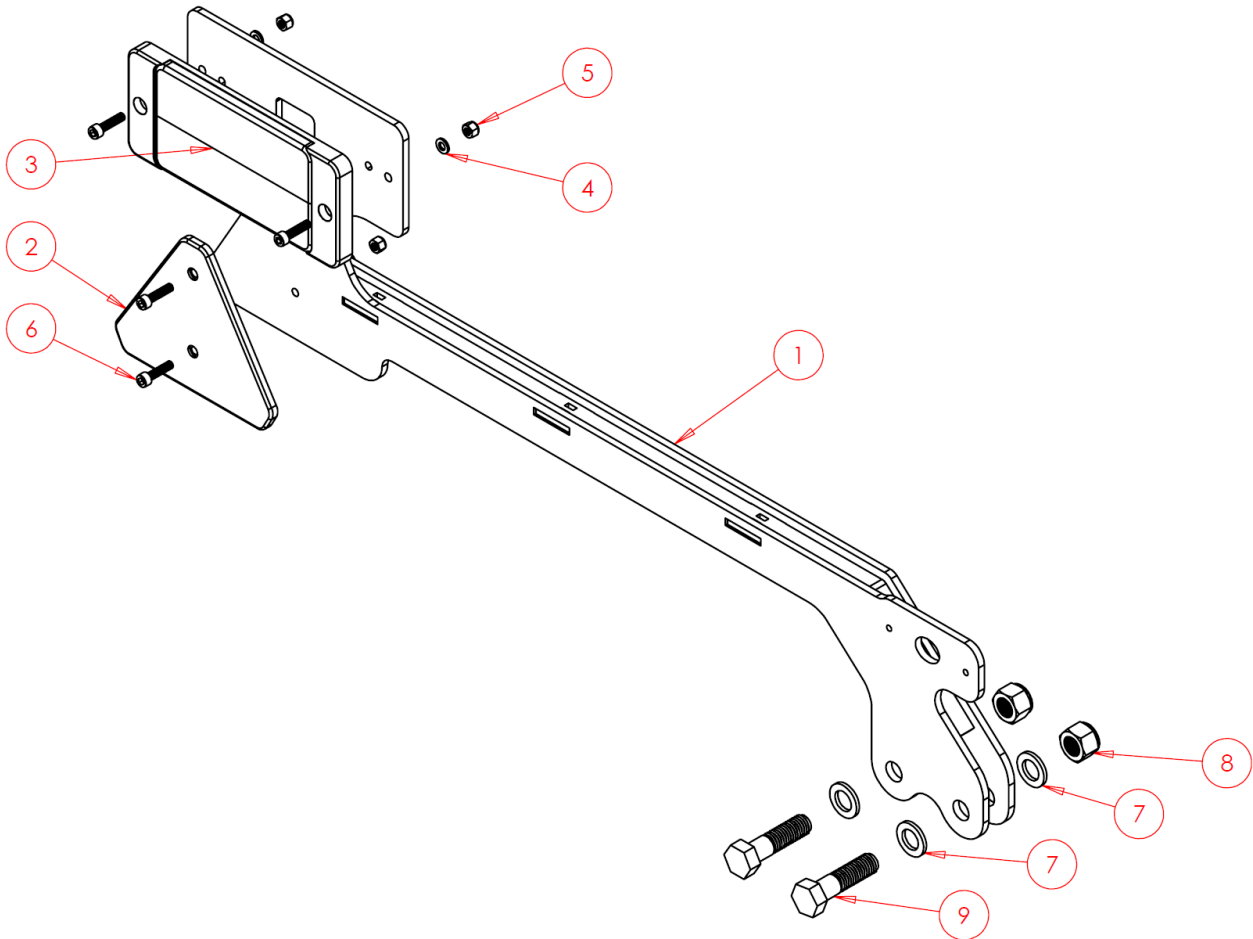
6.3.17 Side Indicators & Lights Bracket Assemblies

6.3.17.1 Side Indicators



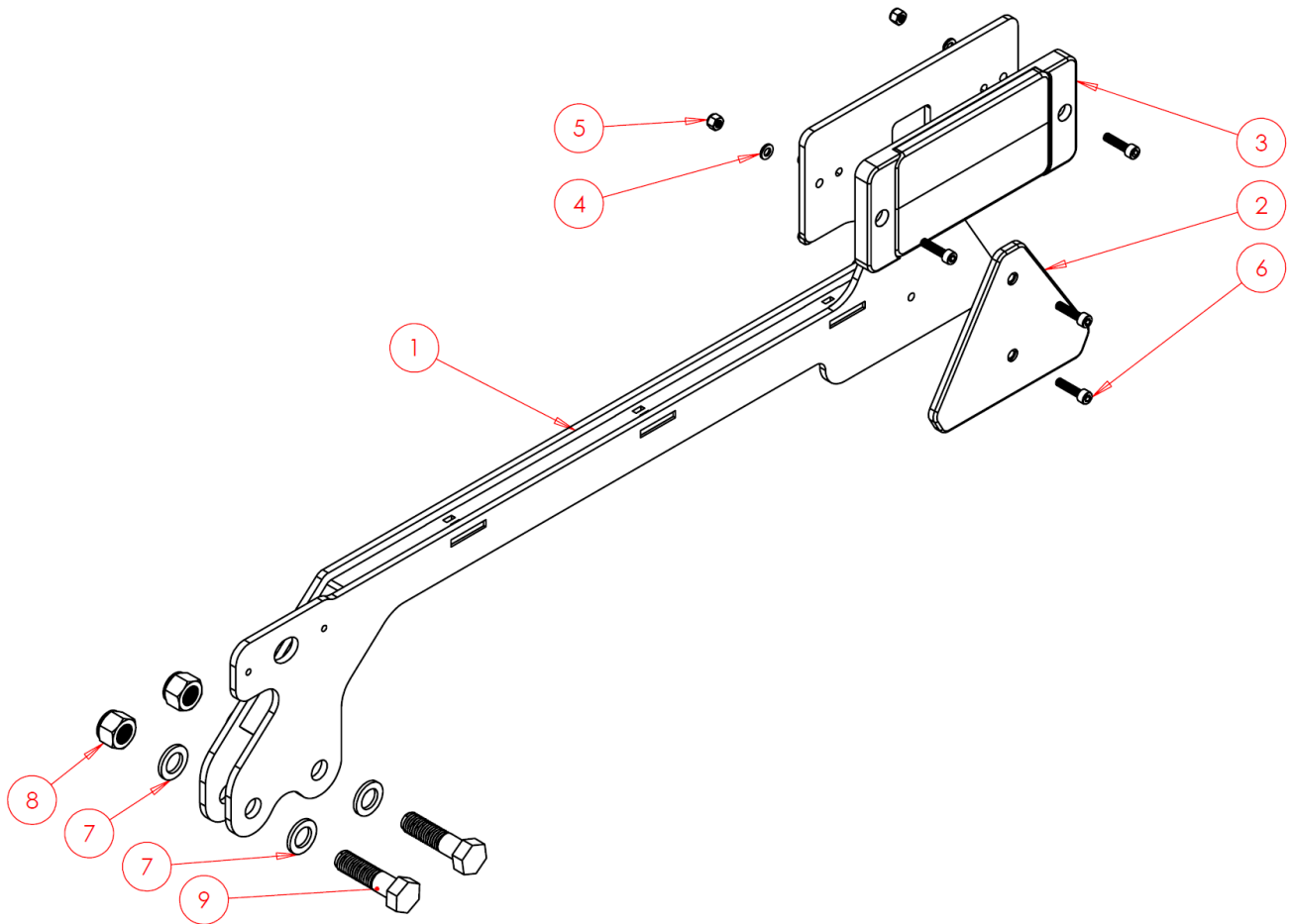
Item No.	Part Number	Description	Qty
1	SWB172	Side Indicator LH	1
2	SWB173	Side Indicator RH	1

6.3.17.2 Light Bracket Assembly - Left Hand



Item No.	Part Number	Description	Qty
1	SW1275	Left Hand Trailed Trio Light Bracket	1
2	SWB162	Reflector Triangle	1
3	SWB715	Rear LED Light Unit	1
4	SWM6001	M6 Washer - Flat	4
5	SWM6004	M6 Nut - Nylock	4
6	SWM625AKH	M6x25 Cap Head Screw	4
7	SWM16001	M16 Washer - Flat	4
8	SWM16004	M16 Nylock Nut	2
9	SWM1660	M6x60 Bolt	2

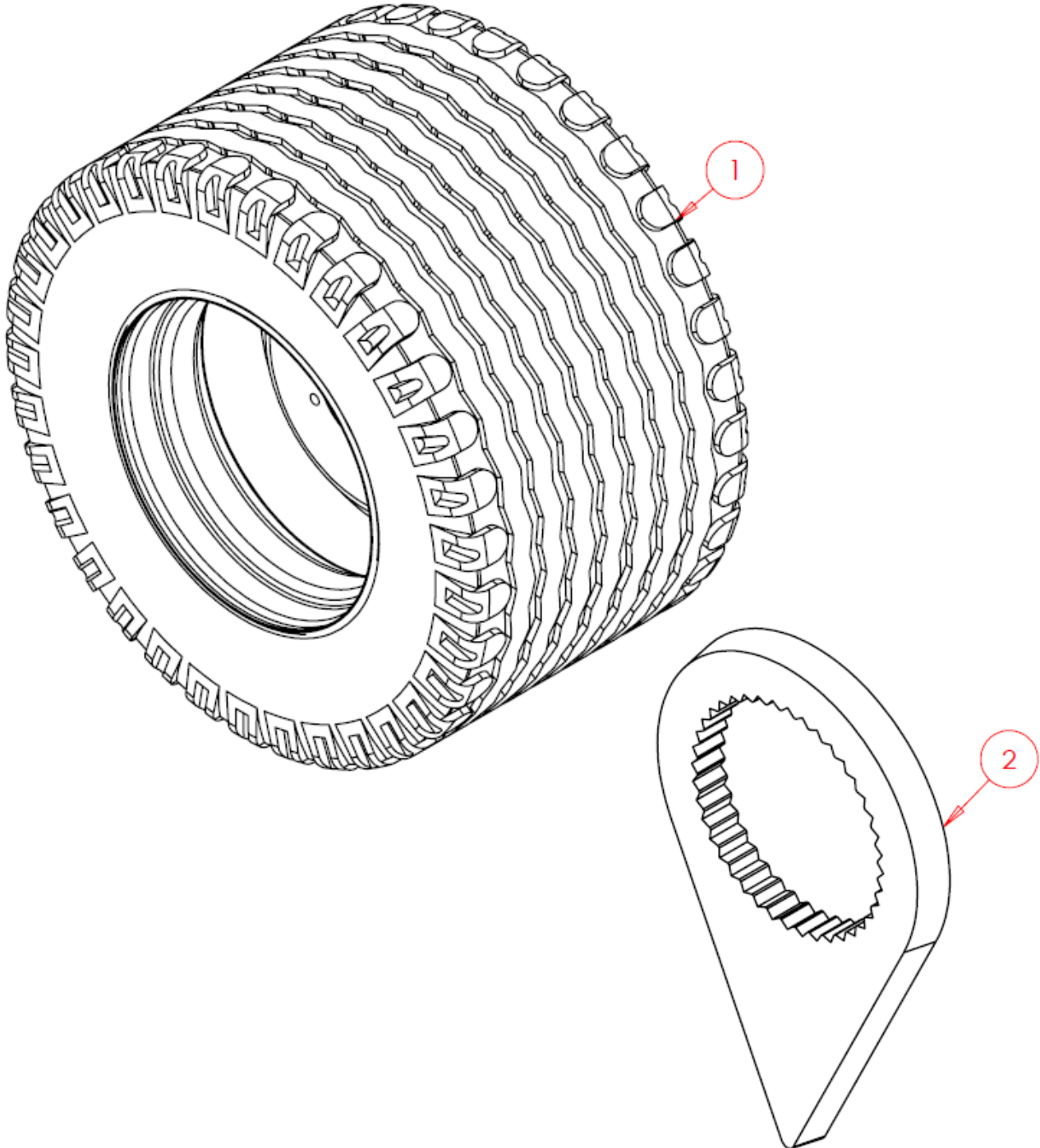
6.3.17.3 Light Bracket Assembly – Right Hand



Item No.	Part Number	Description	Qty
1	SW1276	Right Hand Trailed Trio Light Bracket	1
2	SWB162	Reflector Triangle	1
3	SWB715	Rear LED Light Unit	1
4	SWM6001	M6 Washer – Flat	4
5	SWM6004	M6 Nut – Nylock	4
6	SWM625AKH	M6x25 Cap Head Screw	4
7	SWM16001	M16 Washer – Flat	4
8	SWM16004	M16 Nylock Nut	2
9	SWM1660	M6x60 Bolt	2

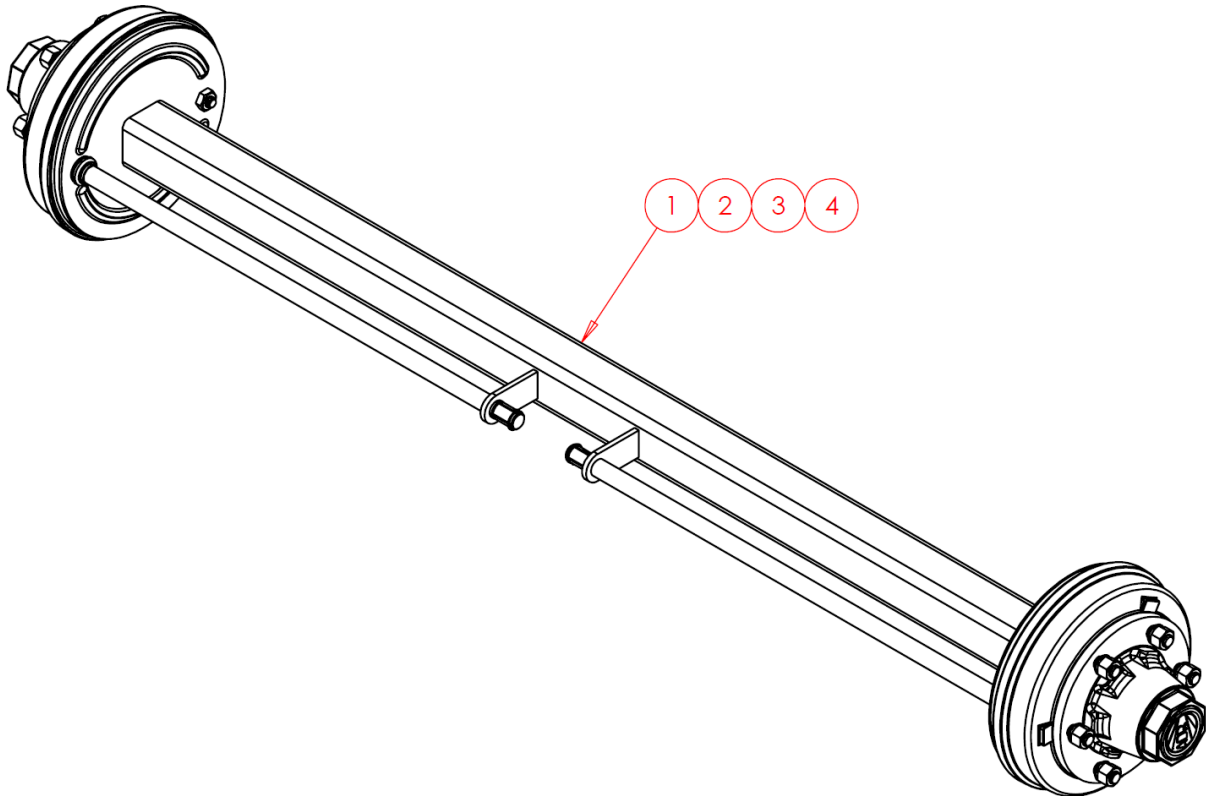
6.3.18 Tyres, Brakes & Axle Assemblies

6.3.18.1 Tyres & Marker Arrows



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

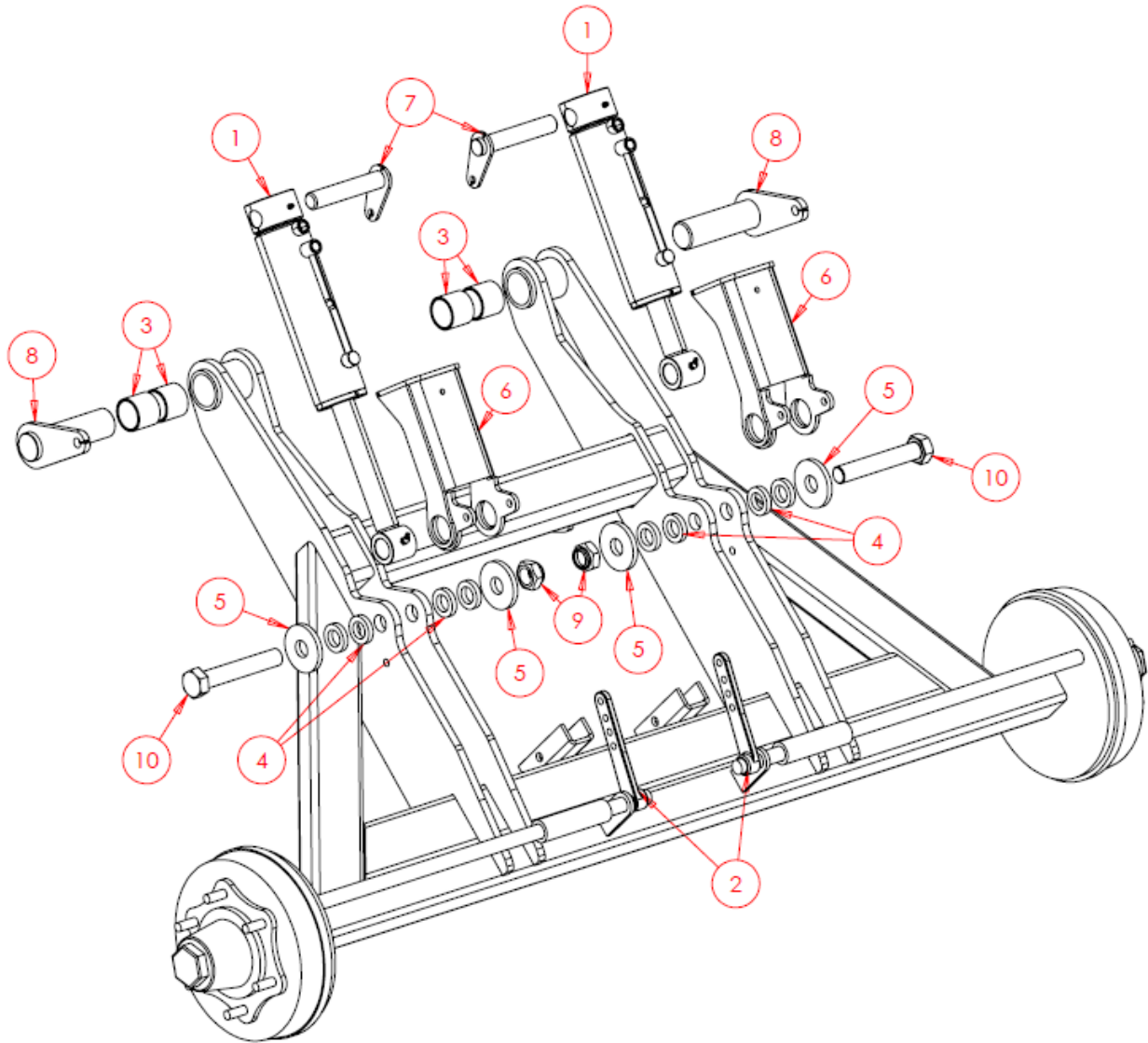
6.3.18.2 6 Stud Axle – Spare Parts List



Quantities below are for whole axle (both Drums).

Complete Assembly – SWB1195			
Item No.	Part Number	Description	Qty
1	SWB1371	Bearing	2
2	SWB1372	Seal (Inside)	2
3	SWB1373	Castle Nut & Pin	2
4	SWB1374	Hub Cap	2

6.3.18.3 Swing Axle Assembly

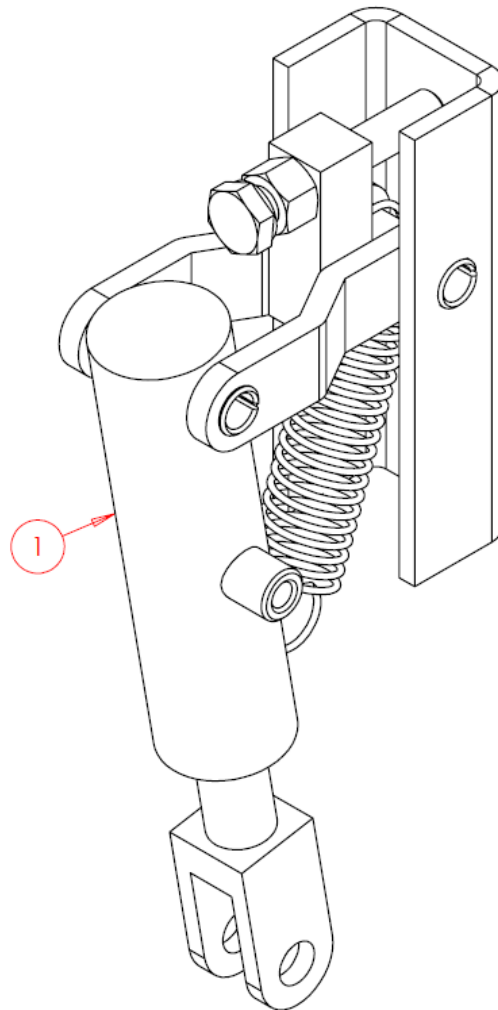


Item No.	Part Number	Description	Qty
1	SWH125	Hydraulic Cylinder	2
2	SW2138	Brake Kit Axle	1
3	SWB142	Oilite Bearing - 58x50x50	4
4	SW1318	10mm Washer 30 ID 50 OD	8
5	SW1319	10mm Washer 30 ID 85 OD	4
6	SW661	Trailed Axle Ram Stop	2
7	SWP30x160	Pin - Tabbed	2
8	SWP50x160	Pin - Tabbed	2
9	SWM30004	M30 Nylock	4
10	SWM30180	M30x180 Bolt	2

6.3.18.4 Brake Cylinders Assembly (Standard Option)

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

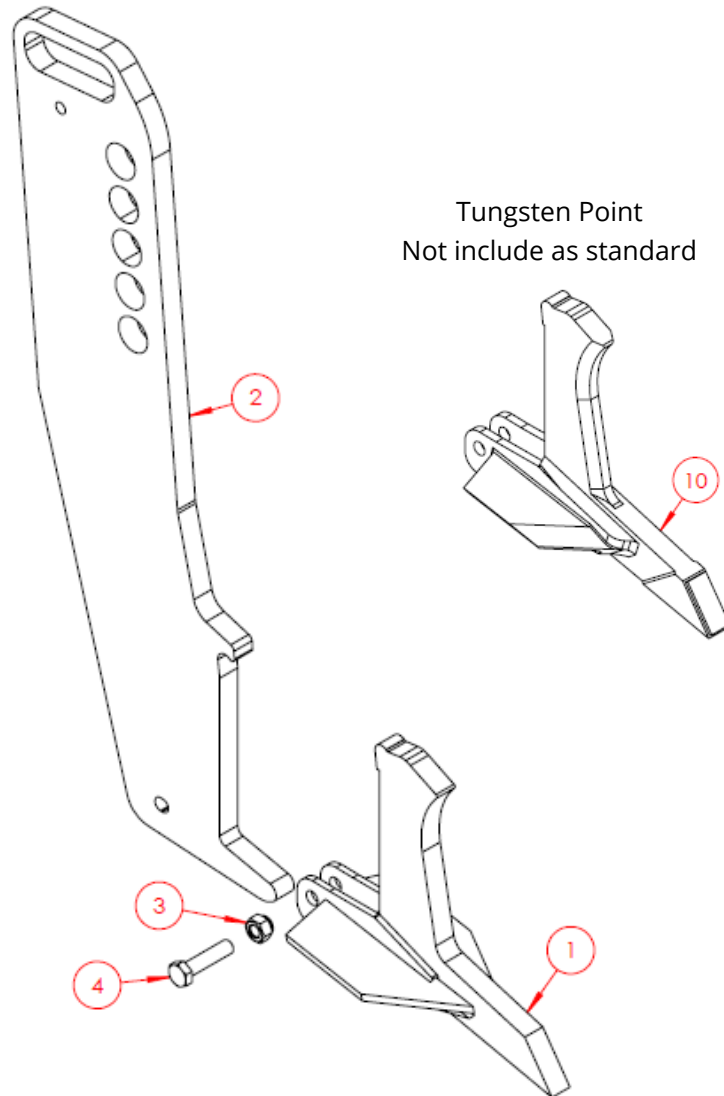
Note: Parts for this assembly are not sold separately.



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

6.4 Optional Extras/Attachments

6.4.1 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

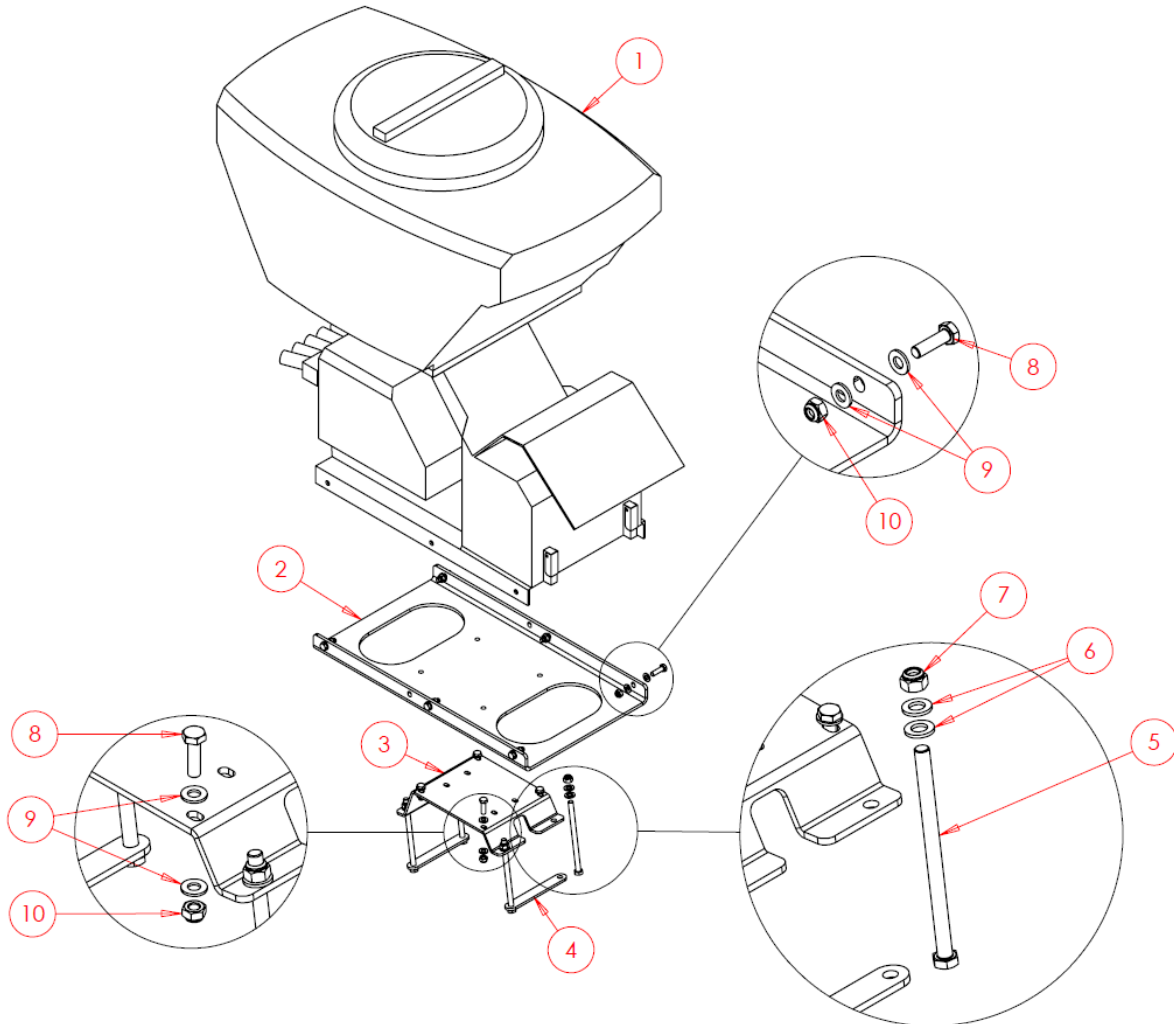
Alternative tungsten tip point is also available but will need specifying separate.

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

6.4.2 Seeder Fitting Kit

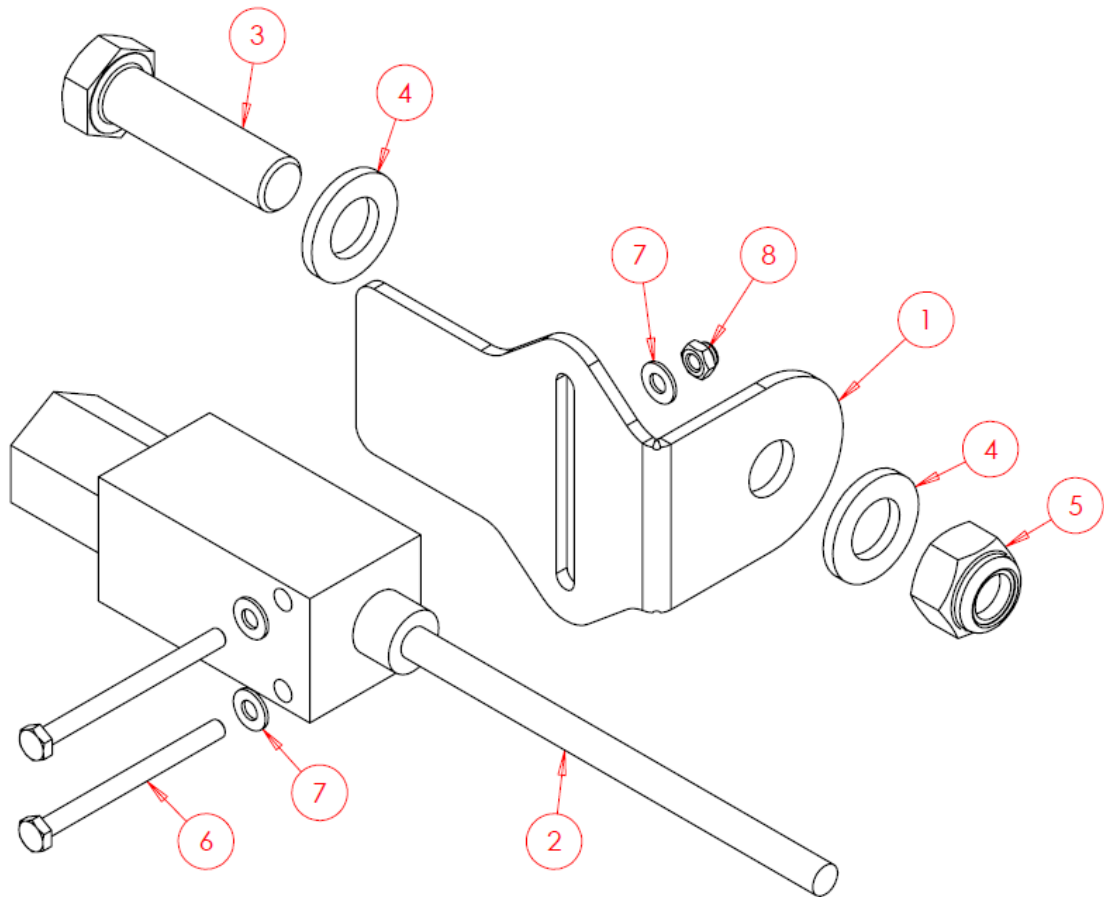
Seeder Fitting Kit steps differ depending on packer type. All other details remain the same.

6.4.2.1 Seeder Mounting Assembly



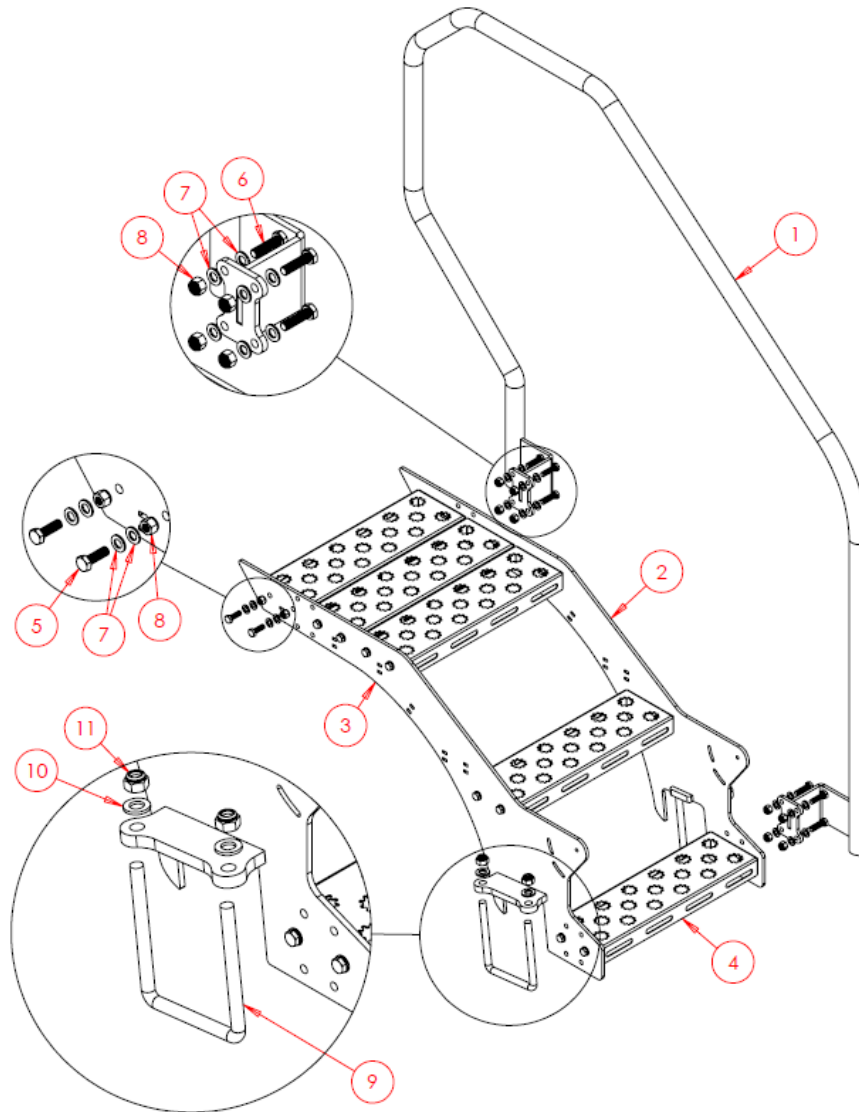
Item No.	Part Number	Description	Qty
1	Turbojet8	Turbojet i-CON 8	1
2	SW6426	Seeder Adaptor	1
3	SWS12128	Seeder Mount	1
4	SWS23711	Clamping Plate	2
5	SWM12190	M12x190 Bolt	4
6	SWM12001	M12 Washer - Flat	8
7	SWM12004	M12 Nut - Nylock	4
8	SWM1035	M10x35 Screw	10
9	SWM10001	M10 Washer - Flat	20
10	SWM10004	M10 Nut - Nylock	10

6.4.2.2 Finger Switch Assembly



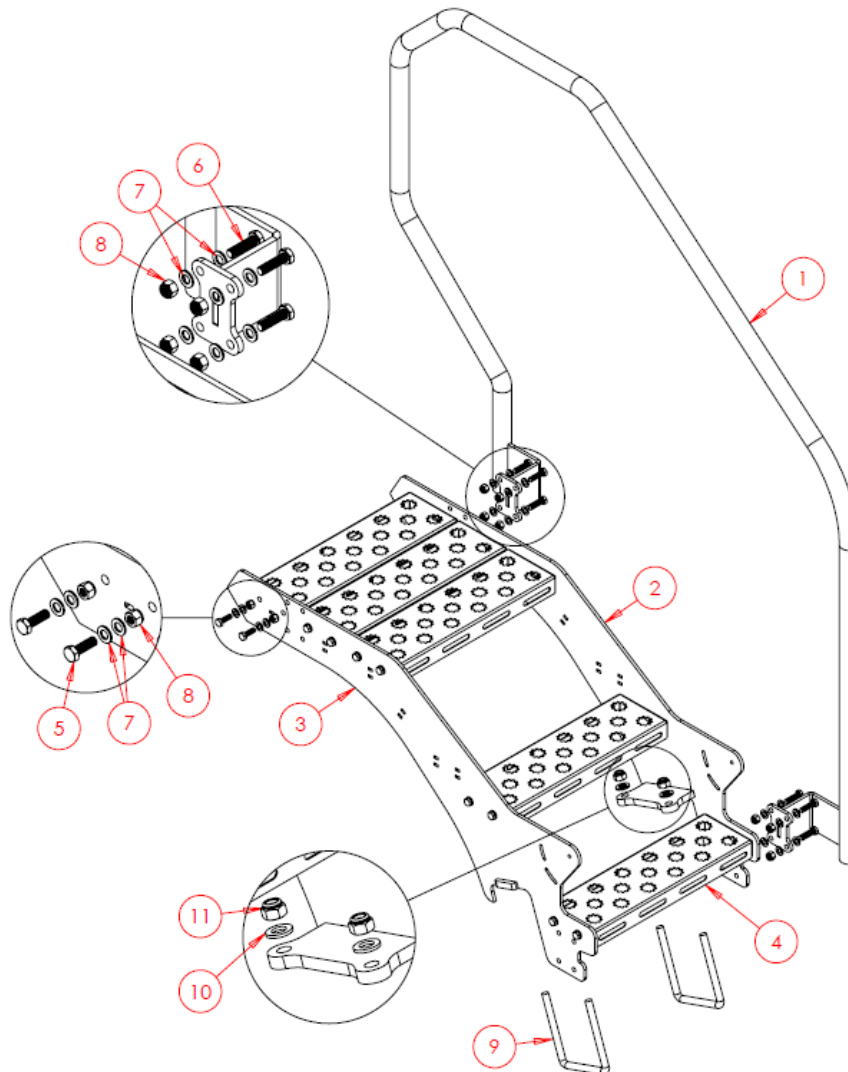
Item No.	Part Number	Description	Qty
1	SWS7188	Bracket	1
2	SWB850	Finger Switch	1
3	SWM1245	M12x45 Bolt	1
4	SWM12001	M12 Washer - Flat	2
5	SWM12004	M12 Nut - Nylock	1
6	SWM450	M4x50 Screw	2
7	SWM4001	M4 Washer - Flat	4
8	SWM4004	M4 Nut - Nylock	2

6.4.2.3 Steps & Handrail Assembly - Multipacker



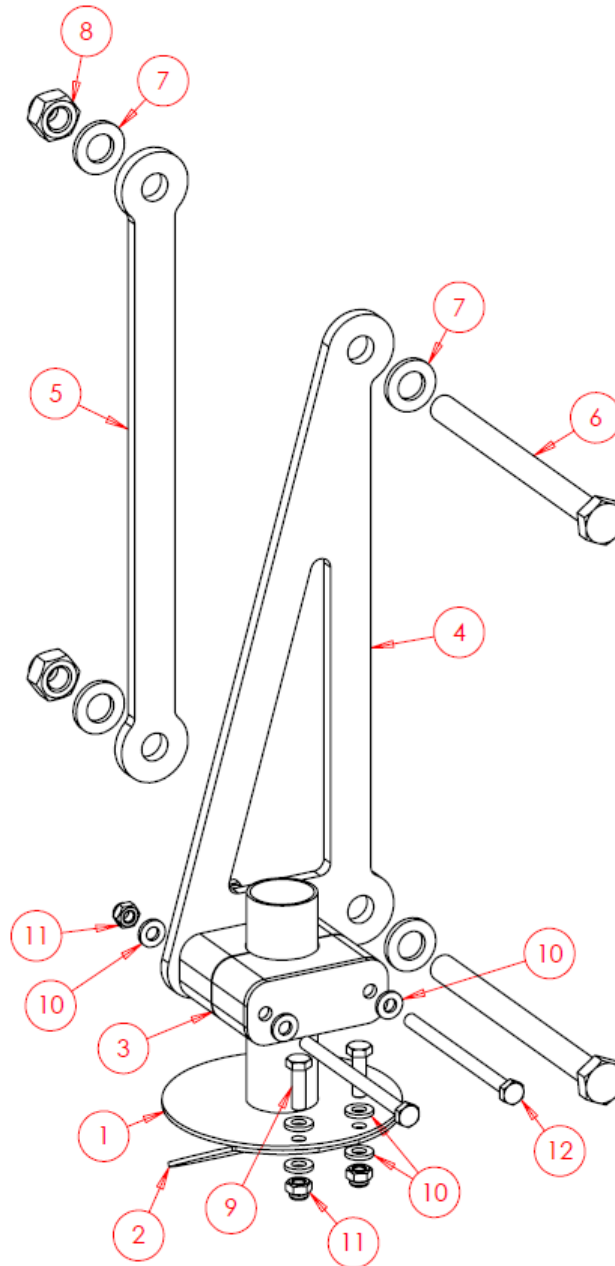
Item No.	Part Number	Description	Qty
1	SW2916	Handrail	1
2	SW2915	Side Plate RH	1
3	SW2914	Side Plate LH	1
4	SW1290	Step	5
5	SWM825	M8x25 Screw	20
6	SWM830	M8x30 Screw	8
7	SWM8001	M8 Washer - Flat	56
8	SWM8004	M8 Nut - Nylock	28
9	SWM12100UB	M12x100 U Bolt	2
10	SWM12001	M12 Washer - Flat	4
11	SWM12004	M12 Nut - Nylock	4

6.4.2.4 Steps & Handrail Assembly - Diamond Packer - Q3 Only



Item No.	Part Number	Description	Qty
1	SW2916	Handrail	1
2	SW4156	Side Plate RH	1
3	SW4155	Side Plate LH	1
4	SW1290	Step	5
5	SWM825	M8x25 Screw	20
6	SWM830	M8x30 Screw	8
7	SWM8001	M8 Washer - Flat	56
8	SWM8004	M8 Nut - Nylock	28
9	SWM12100UB	M12x100 U Bolt	2
10	SWM12001	M12 Washer - Flat	4
11	SWM12004	M12 Nut - Nylock	4

6.4.2.5 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



GROWING WITH YOU

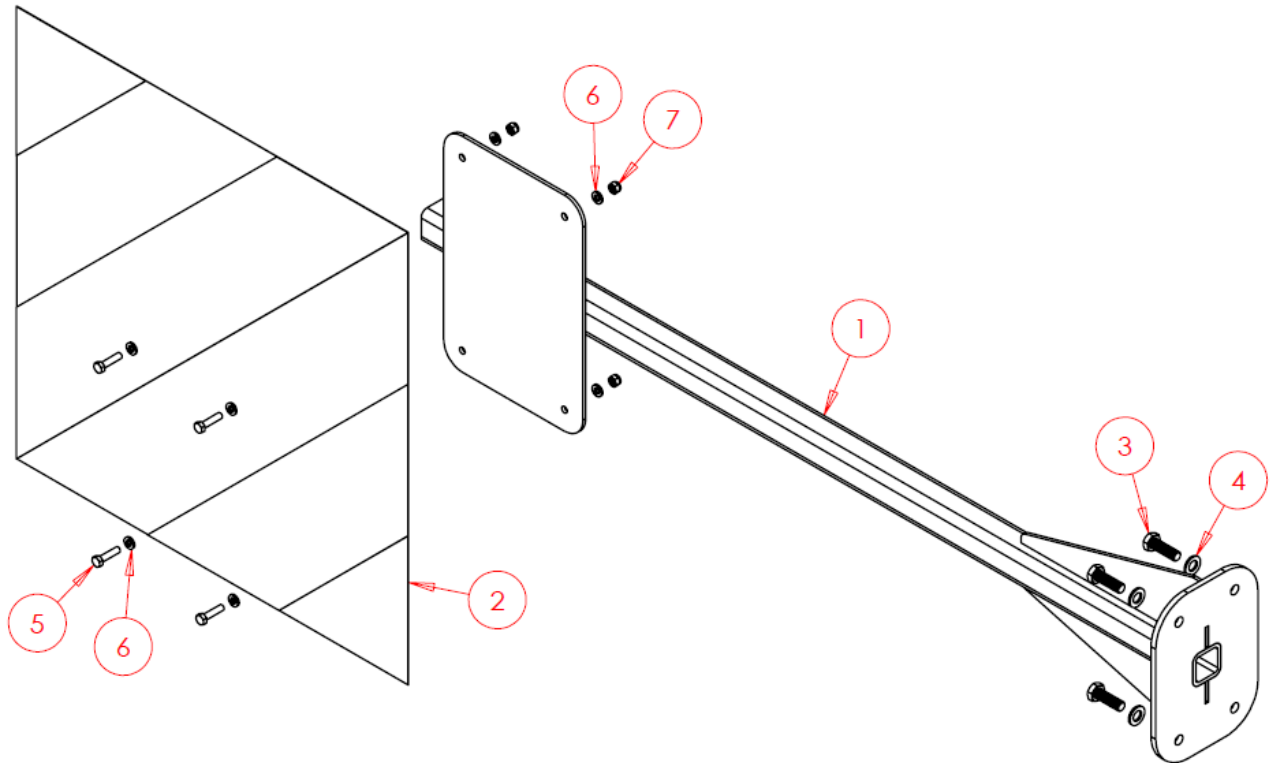
9	SWM620	M6x20 Screw	2
10	SWM6001	M6 Washer - Flat	8
11	SWM6004	M6 Nut - Nylock	4
12	SWM690	M6x90 Bolt	2
**	SWB344	Seed Hose	-

* Quantities above are per outlet, NOT per machine.

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

6.4.3 Hazard Boards

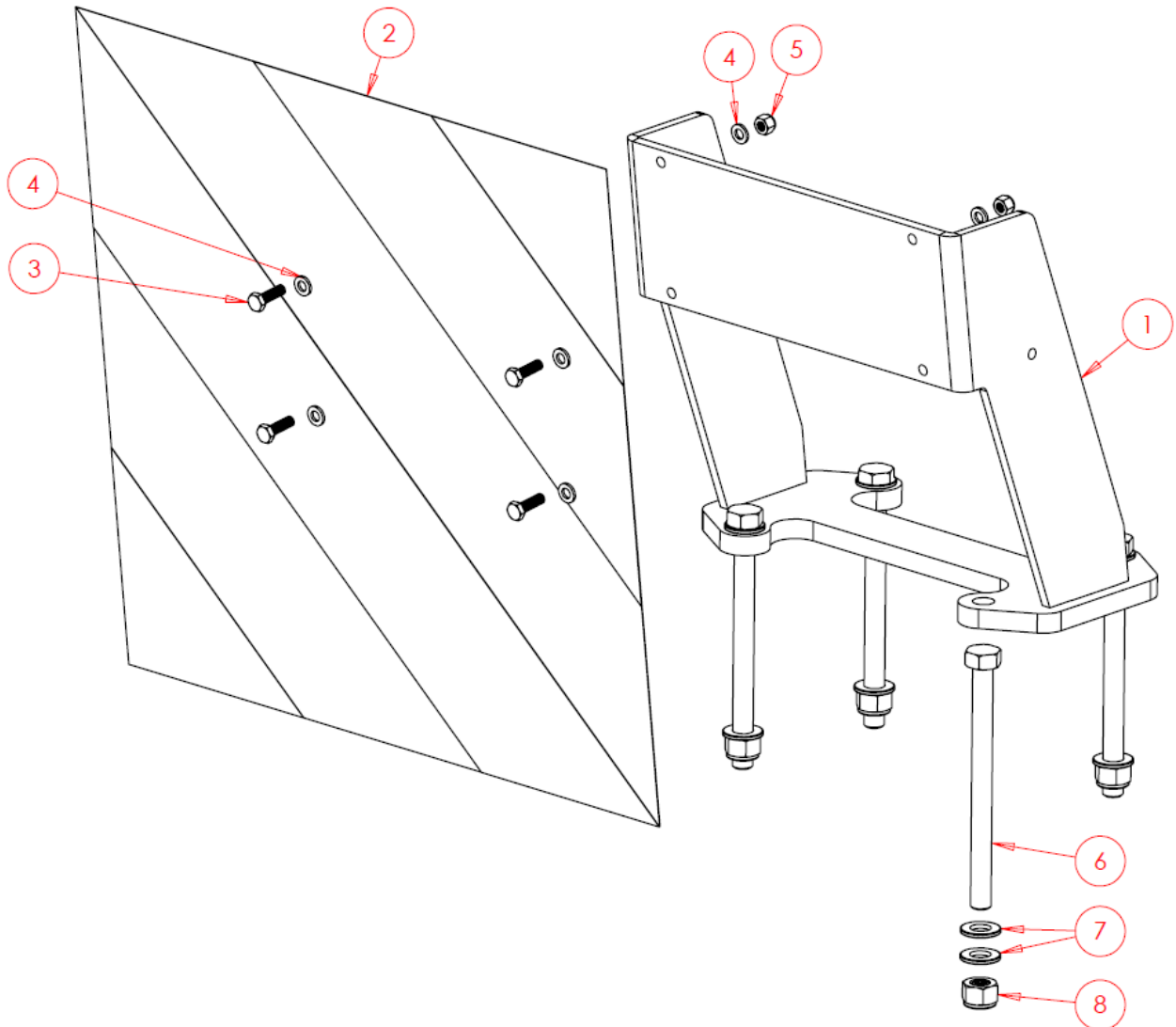
6.4.3.1 Front Hazard Boards



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

Item No.	Part Number	Description	Qty
1	SW4633	Bracket	2
2	SWB651	Hazard Board	2
3	SWM825	M8x25 Screw	8
4	SWM8001	M8 Washer – Flat	8
5	SWM620	M5x20 Screw	6
6	SWM6001	M5 Washer – Flat	12
7	SWM6004	M5 Nut – Nylock	6

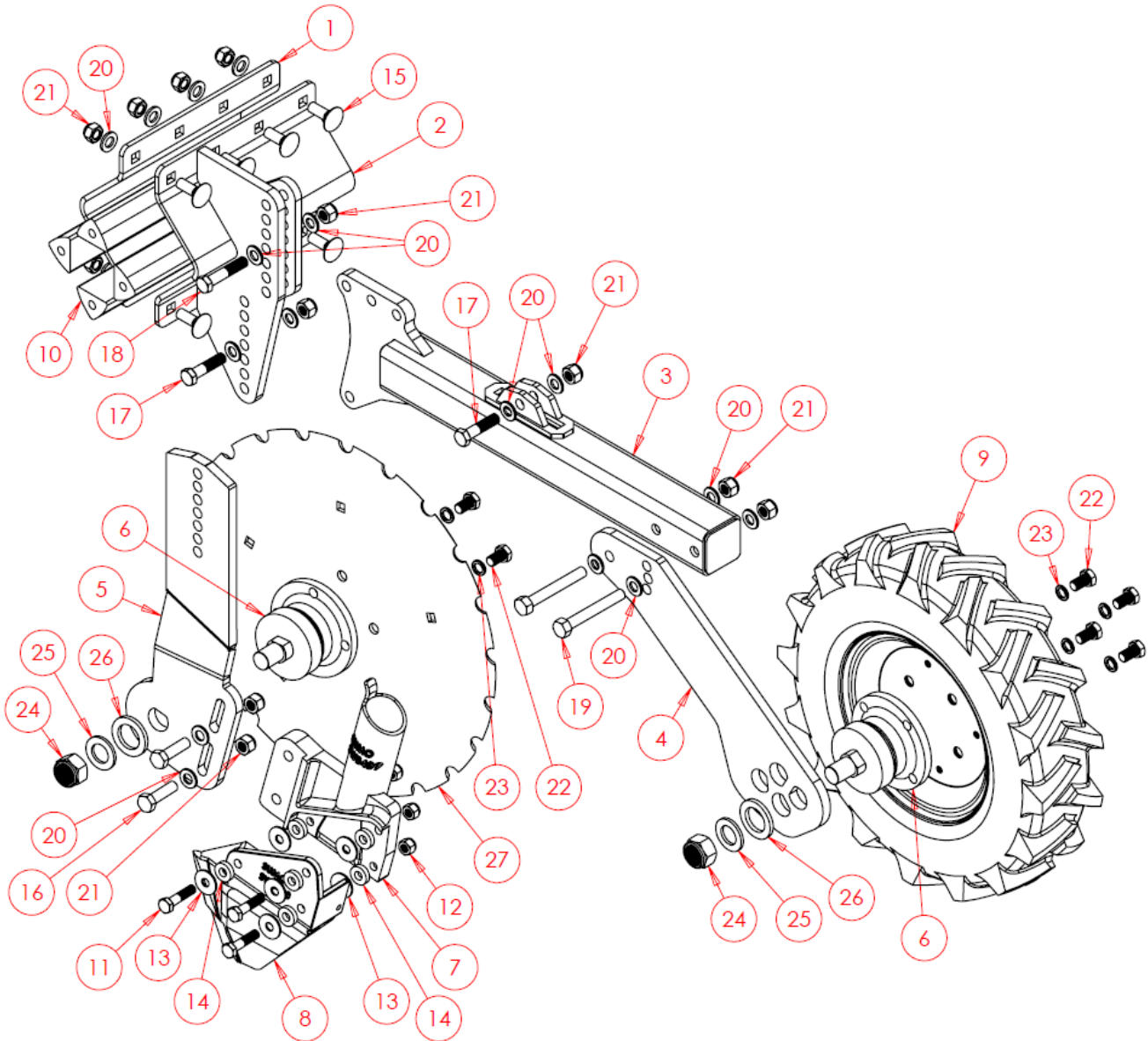
6.4.3.2 Rear Hazard Boards



Item No.	Part Number	Description	Qty
1	SW4116	Bracket LH	2
2	SWB651	Hazard Board	2
3	SWM620	M6x20 Screw	8
4	SWM6001	M6 Washer - Flat	16
5	SWM6004	M6 Nut - Nylock	8
6	SWM12150	M12x150 Screw	8
7	SWM12001	M12 Washer - Flat	16
8	SWM12004	M12 Nut - Nylock	8

6.4.4 SDO Arrangements

6.4.4.1 Standard SDO Arrangement



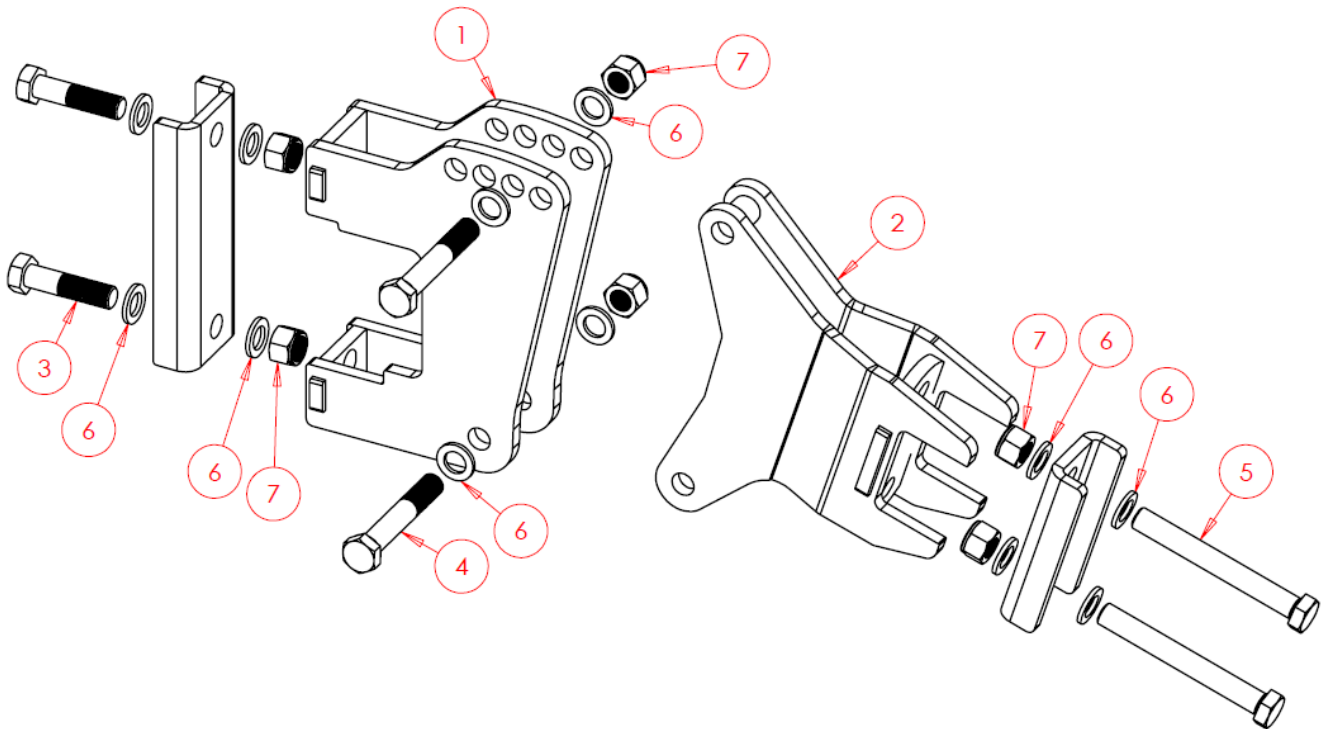
Item No.	Part Number	Description	Qty
1	SW107	Clamping Plate	1
2	SW3763	Hanger	1
3	SW3760	Main Body	1
4	SW3761	Press Wheel Body	1
5	SW3762	Coulter Leg	1
6	SWB399	Bearing	2
7	SWB489	Coulter Casting - Top Half	1

6.4.4.1 Standard SDO Arrangement- Continued

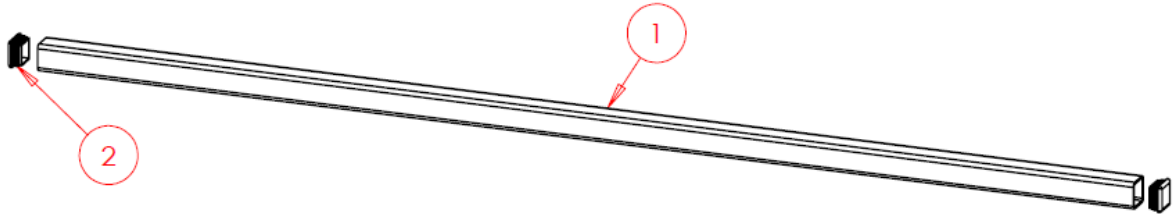
8	SWB490	Coulter Casting – Bottom Half	1
9	SWB452	Press Wheel *	1
10	SWB679	Rubber – Triangle	4
11	SWM1045	M10x45 Screw	3
12	SWM10004	M10 Nut – Nylock	3
13	SW3133	Stainless Steel Washer	3
14	SWB794	Rubber Washer	6
15	SWM1235CHSQ	M12x35 Cup Head Square Screw	8
16	SWM1245	M12x45 Bolt	2
17	SWM1250	M12x50 Bolt	2
18	SWM1260	M12x60 Bolt	1
19	SWM1290	M12x90 Bolt	2
20	SWM12001	M12 Washer – Flat	20
21	SWM12004	M12 Nut – Nylock	15
22	SWM1220FP	M12x20 Fine Thread Screw	8
23	SWM12002	M12 Washer – Spring	8
24	SWM222004FP	M22 Nut – Fine Thread Nylock	2
25	SWM22001	M22 Washer – Flat	2
26	SWM30001	M30 Washer – Flat	2
27	SWB442	450mm Disc	1

* Press wheels available either Air or Resin filled. Delays may be applicable upon selection.

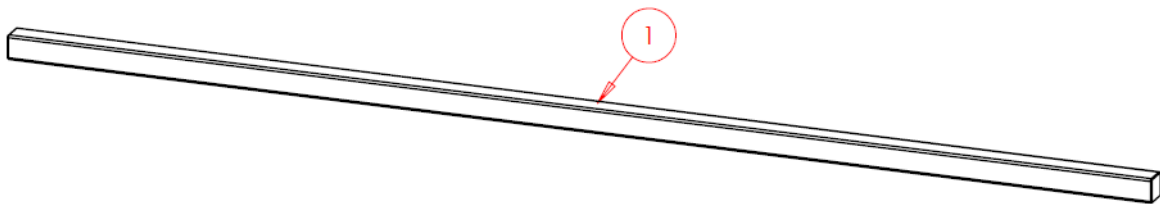
6.4.4.2 Standard SDO Bar Clamp



Item No.	Part Number	Description	Qty
1	SW4251	Hanger	1
2	SW4252	SDO Bar Clamp	1
3	SWM1665	M16x65 Bolt	2
4	SWM16100	M16x100 Bolt	2
5	SWM16130	M16x130 U Bolt	2
6	SWM16001	M16 Washer - Flat	12
7	SWM16004	M16 Nut - Nylock	6

6.4.4.3 SDO Bar - Q3

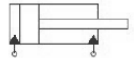

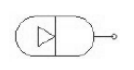
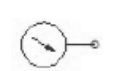

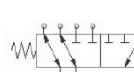

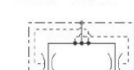
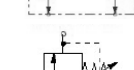
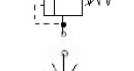
Item No.	Part Number	Description	Qty
1	SW4249	SDO Bar - Q3 Only	1
2	SWB1216	Plastic Bung - Q3 Only	2

6.4.4.4 SDO Bar - Q3.5

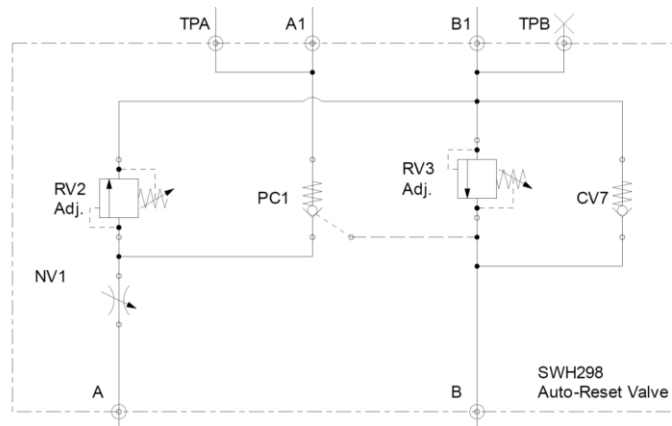
Item No.	Part Number	Description	Qty
1	SW6534	SDO Bar - Q3.5 Only	1

7 Hydraulic Function Diagrams

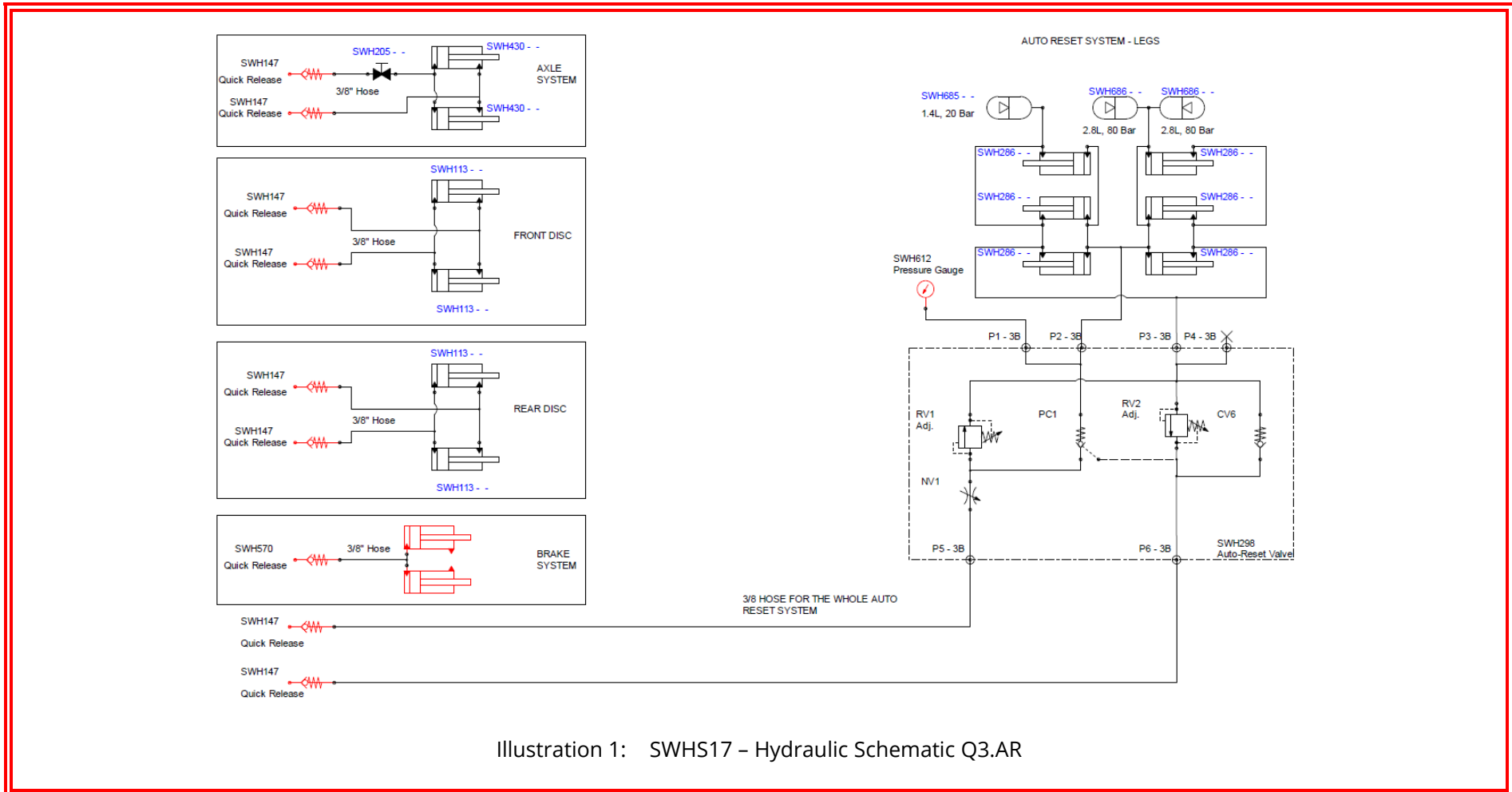
Standard Symbols Key:

	=	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 Q3.AR - Hydraulic Function Schematic



7.2 Q3.5.AR - Hydraulic Function Schematic

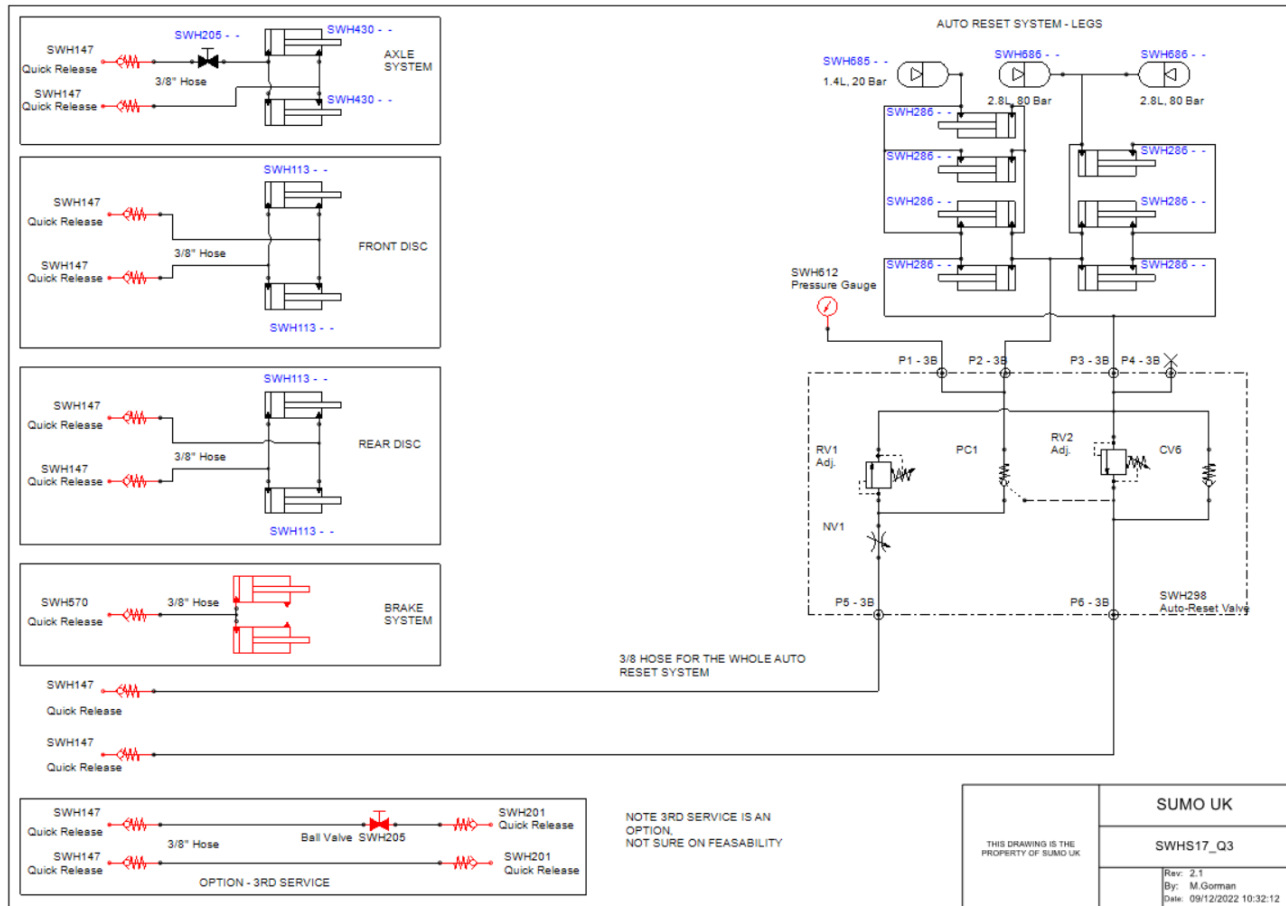
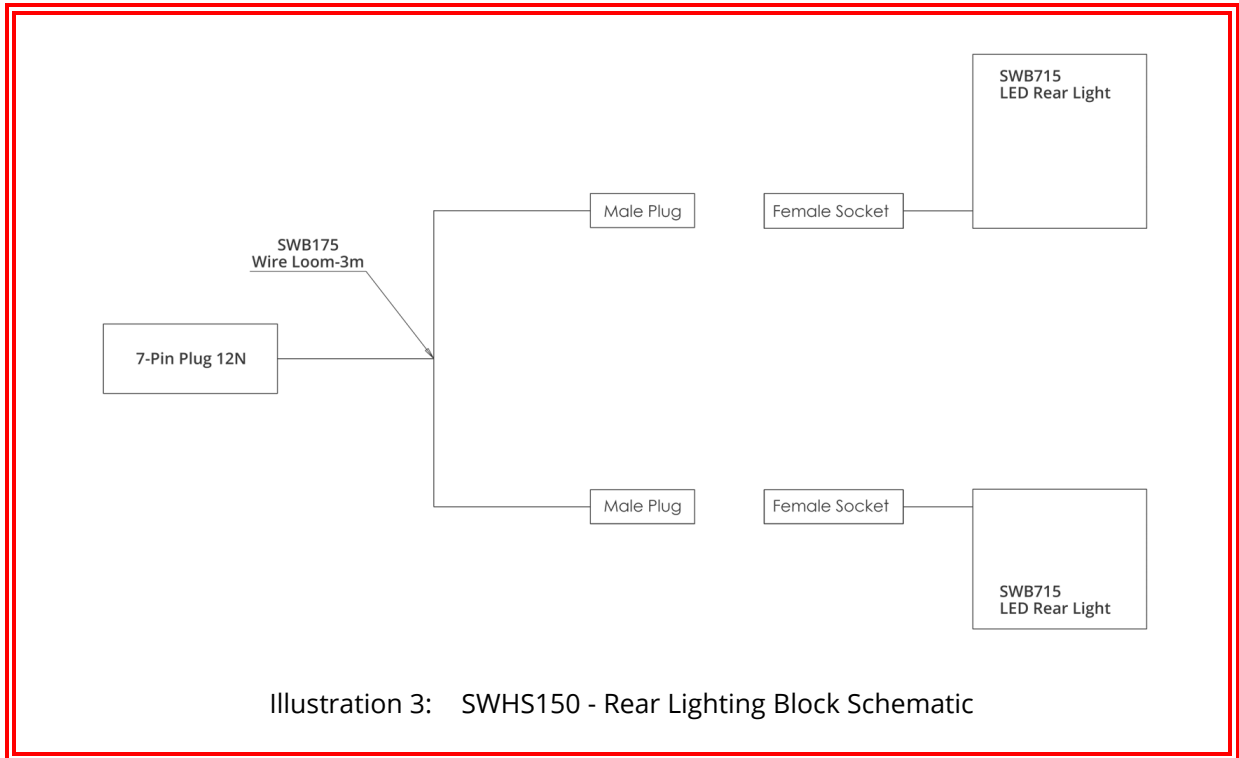


Illustration 2: SWHS17 - Hydraulic Schematic Q3.5.AR

8 Electrical Schematics



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](#)