



GROWING WITH YOU

# MULTIPRESS

## 2023 Mounted Range (MUL)

Machine Manual & Parts Book

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## Introduction

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

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

## Contents

<b>1.</b>	<b>Machine Range Summary .....</b>	<b>5</b>
<b>2.</b>	<b>Product Specifications .....</b>	<b>6</b>
<b>3.</b>	<b>Transport Positions &amp; Dimensions.....</b>	<b>7</b>
<b>4.</b>	<b>Danger Zone.....</b>	<b>8</b>
<b>5.</b>	<b>Risk Assessments .....</b>	<b>9</b>
<b>6.</b>	<b>Parts Book Index .....</b>	<b>11</b>
<b>6.1</b>	<b>MUL3 Base Machine .....</b>	<b>11</b>
<b>6.2</b>	<b>Standard Assemblies.....</b>	<b>12</b>
6.2.1	Three-Point Linkage Pins.....	12
6.2.2	Standard Subsoiler Tine & Points .....	13
6.2.3	Standard Paddle Assembly.....	15
6.2.4	Paddle Bar & Pivot Assembly .....	16
6.2.4.1	Paddle Bar.....	16
6.2.4.2	Standard Pivot Points.....	16
6.2.5	Paddles Hydraulic Assembly .....	17
6.2.6	Packer Options .....	18
6.2.6.1	Variable Packer Spine.....	18
6.2.6.2	Individual Replacement Weld-On Spokes.....	18
6.2.6.3	Individual Replacement Packer Segments.....	19
6.2.6.4	Standard Segment Fastening Arrangement.....	20
6.2.7	Packer Frame .....	21
6.2.8	Packer Mounting Arrangement.....	22
6.2.9	Packer Bearings Assembly.....	23
6.2.10	Lights Bracket Assembly .....	24
6.2.11	Stands.....	25
6.2.12	Scraper Assemblies.....	26
6.2.12.1	Finger Scraper – Applies to all spined packers. ....	26
<b>7.</b>	<b>Hydraulic Function Diagrams.....</b>	<b>27</b>
<b>7.1</b>	<b>MUL3 - Hydraulic Function Schematic.....</b>	<b>28</b>
<b>8.</b>	<b>Electrical Schematics .....</b>	<b>29</b>

**9. Standard Torque Values.....30**

## 1. Machine Range Summary

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

### **Stages One**

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

### **Stage Two**

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

### **Stage Three**

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

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

## 2. Product Specifications

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

### Multipress Mounted Range

Spec	Multipress 3m
Code	MUL3
Tine Qty	10
Tine Depth	25-250mm
Tine Spacing	300mm
Paddle Qty	11
Paddle Spacing	250mm
Machine Type	Rigid

### Available Options

Code	Option Code	Description	Specifications
MUL3	MUL3.CP	Channel Packer	Rings: 12 – Spacing 250mm

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.

#### Mounted Multipress

Due to mounted and adjustable nature of the Multipress machines, they do not have a set transport position, but it is advised that: All paddles are retracted/lifted to ensure that 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. Ensure rear lights and reflectors are suitably angled down.

#### 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 height/angle, wing positions, 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
MUL3	2422	3000	1375

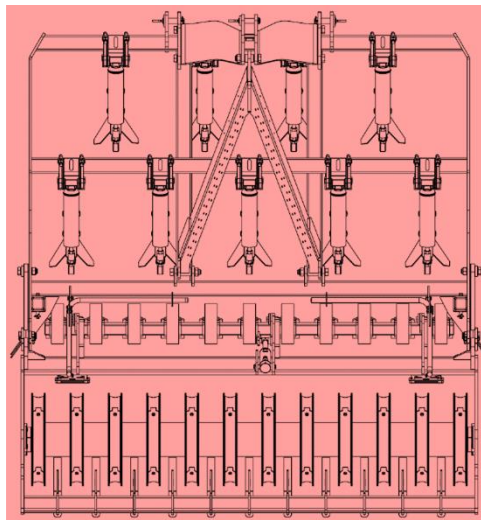
#### Machines (Including Options)

Code	Length	Width	Height
MUL3.CP	3294	-	-

## 4. Danger Zone

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

### Mounted Multipress



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:** Mounted Multipress

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

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

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

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

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

Hazard Identified in Using Machine	Who Might Be Harmed	Risk Evaluation /Level (1-5)	Precautions In Place	Further Action Required
Machine collision while in transport.	Operator, Members of The Public	2 Low - Mid	Tail lights, Side Lights & Indicator, reflectors.	Take care when using in both field and road situations. Maintain good visibility at all times.
Trapped fingers during leg depth position change.	Operator	1 Low	Warning Stickers	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.

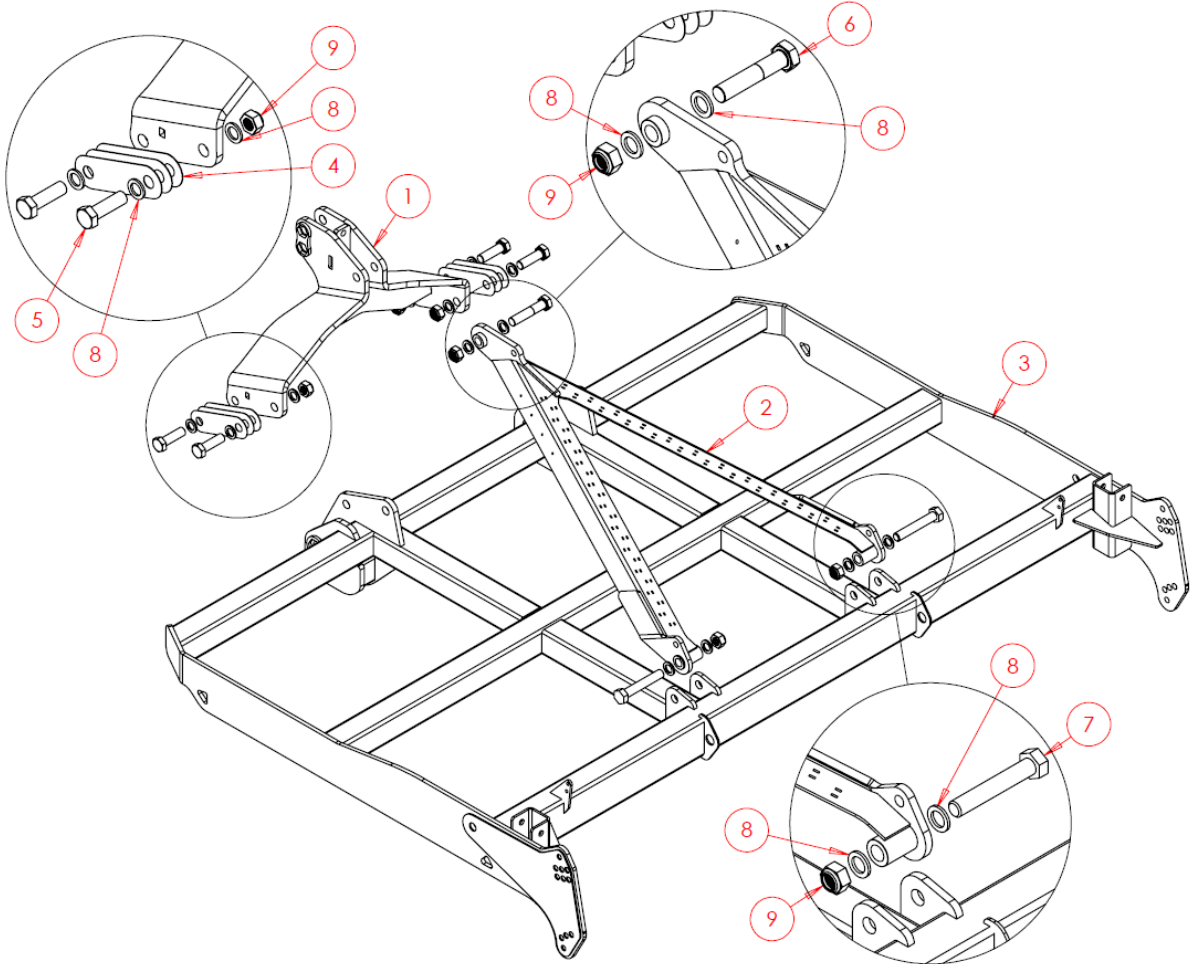
## 5 Risk Assessments - Continued

Hazard Identified in Using Machine	Who Might Be Harmed	Risk Evaluation /Level (1-5)	Precautions In Place	Further Action Required
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 the 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 MUL3 Base Machine

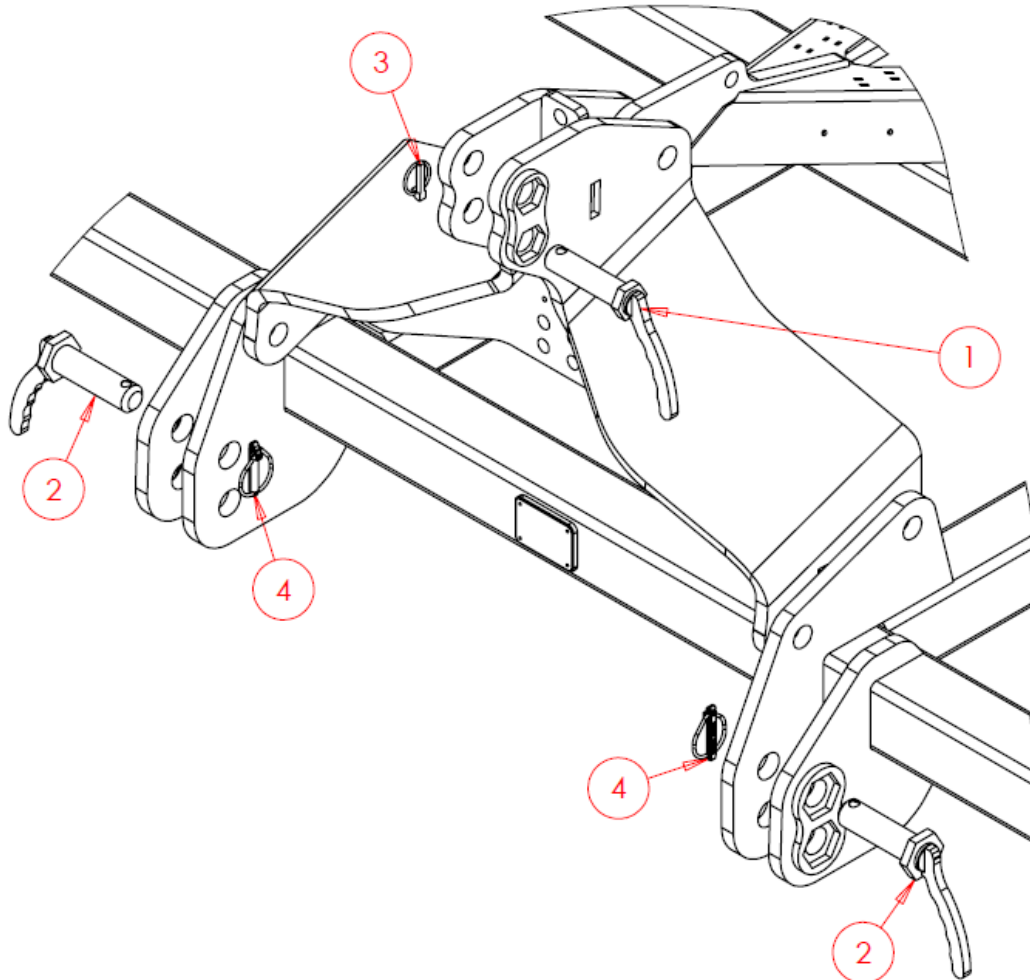


Item No.	Part Number	Description	Qty
1	SW2520	Headstock	1
2	SWA2514	'A' Frame	1
3	SWA2489	Chassis	1
4	SW6324	Shim	*
5	SWM30100	M30x100 Bolt	4
6	SWM30150	M30x150 Bolt	1
7	SWM30180	M30x180 Bolt	2
8	SWM30001	M30 Washer – Flat	14
9	SWM30004	M30 Nut – Nylock	7

\* Shim quantity is machine specific and reflects necessity.

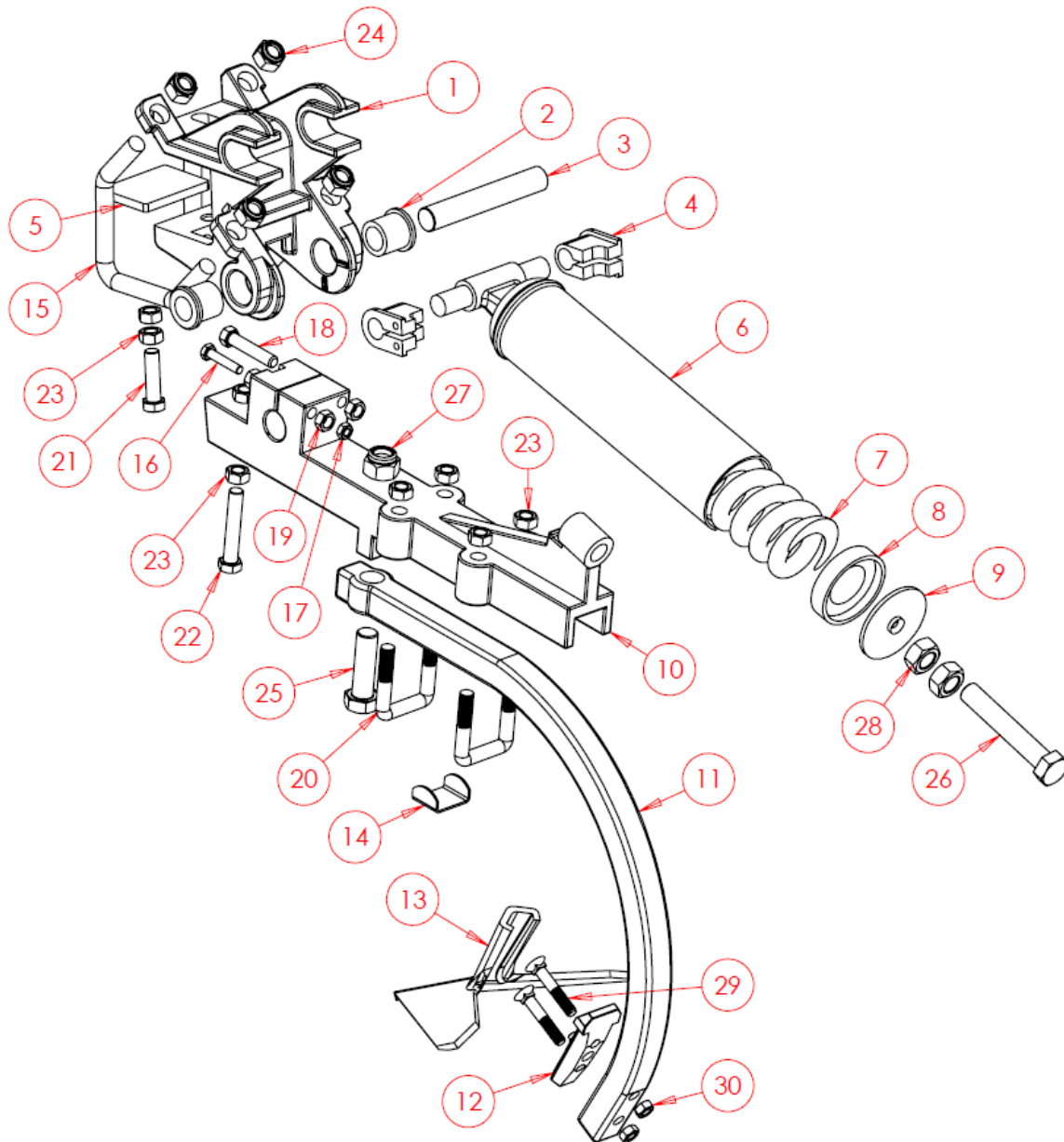
## 6.2 Standard Assemblies

### 6.2.1 Three-Point Linkage Pins



Item No.	Part Number	Description	Qty
1	SW627	Top Link Pin	1
2	SW626	Bottom Link Pin	2
3	SWB105	Lynch Pin	1
4	SWB107	Lynch Pin	2

## 6.2.2 Standard Subsoiler Tine & Points



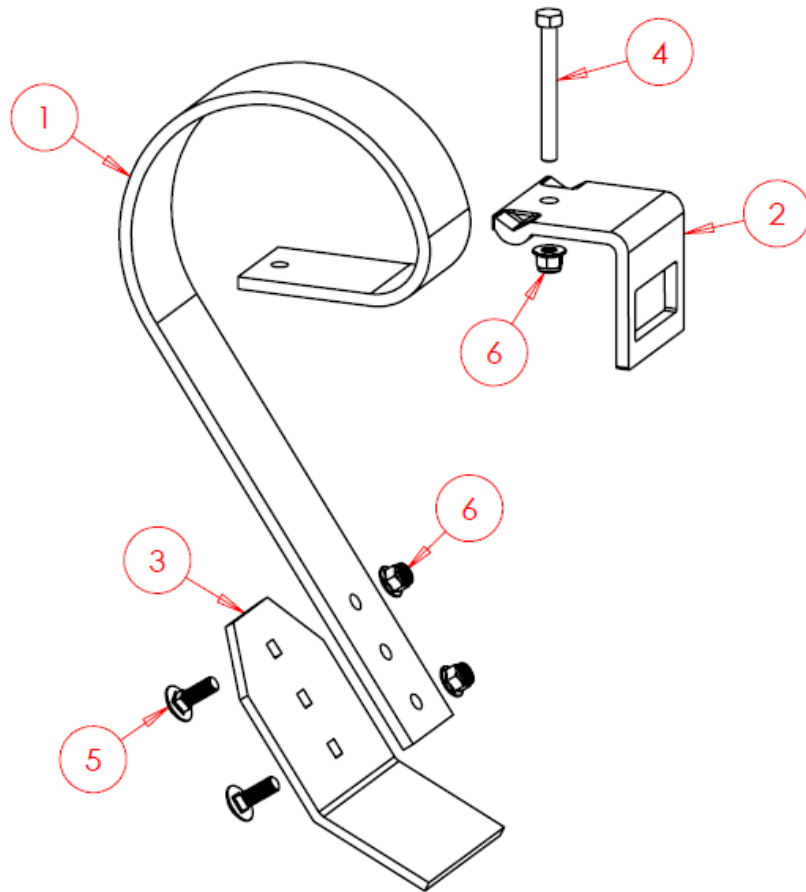
Quantities below are for individual Subsoiler Tine and Points, not per machine.

Complete Assembly - SWA272			
Item No.	Part Number	Description	Qty
1	SWB111	Mounting Clamp	1
2	SWB117	Bottom Top Hat Bush	2
3	SWB124	Straight Pin	1
4	SWB114	Top Bush	2
5	SWS19568	Knock Plate	1
6	SWB115	Tube	1

## 6.2.2 Standard Subsoiler Tine & Points – Continued

Complete Assembly – SWA272			
Item No.	Part Number	Description	Qty
7	<b>SWB118</b>	<b>Spring</b>	<b>1</b>
8	SWB119	Spring Drive Bush	1
9	SWB120	Spring Compression Plate	1
10	SWB112	Tine Support	1
11	SWB113	Tine	1
12	SWB110	Knock On Base	1
13	SWB116	Point	1
14	SWB1262	Coupling	1
15	SWM20100WA	Clamp Bolt	2
16	SWM1050	M10x50 Bolt	1
17	SWM10003	M10 Nut - Plain	1
18	SWM1470	M14x70 Bolt	2
19	SWM14003	M14 Nut – Plain	2
20	SWM1650UB	M16x50 U Bolt	2
21	SWM1660	M16x60 Bolt	1
22	SWM1690	M16x90 Bolt	1
23	SWM16003	M16 Nut – Plain	8
24	SWM20004	M20 Nut – Nylock	4
25	SWM2480	M24x80 Bolt	1
26	SWM24140	M24x140 Bolt	1
27	SWM24003	M24 Nut – Nylock	1
28	SWM20004	M24 Nut – Plain	2
29	SWM1265CNTSK	M12x65 C/Sink Bolt	2
30	SWM12004	M12 Nut – Nylock	2

### 6.2.3 Standard Paddle Assembly

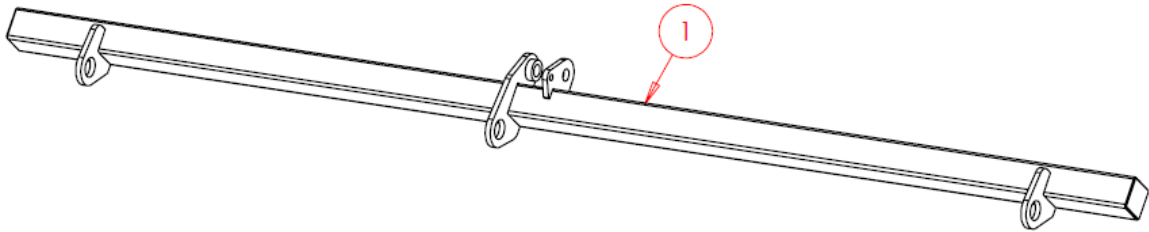


Quantities below are for individual paddles, not per machine.

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

## 6.2.4 Paddle Bar & Pivot Assembly

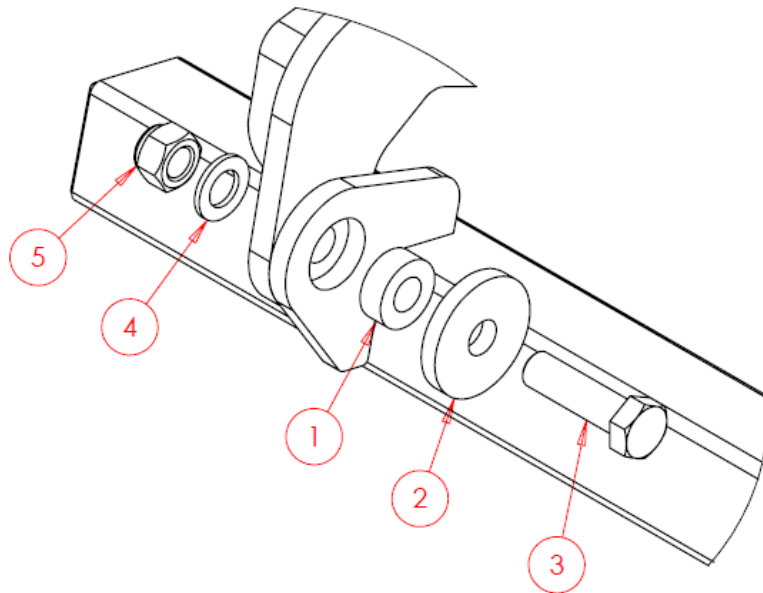
### 6.2.4.1 Paddle Bar



Item No.	Part Number	Description	Qty
1		Paddle Bar	1

### 6.2.4.2 Standard Pivot Points

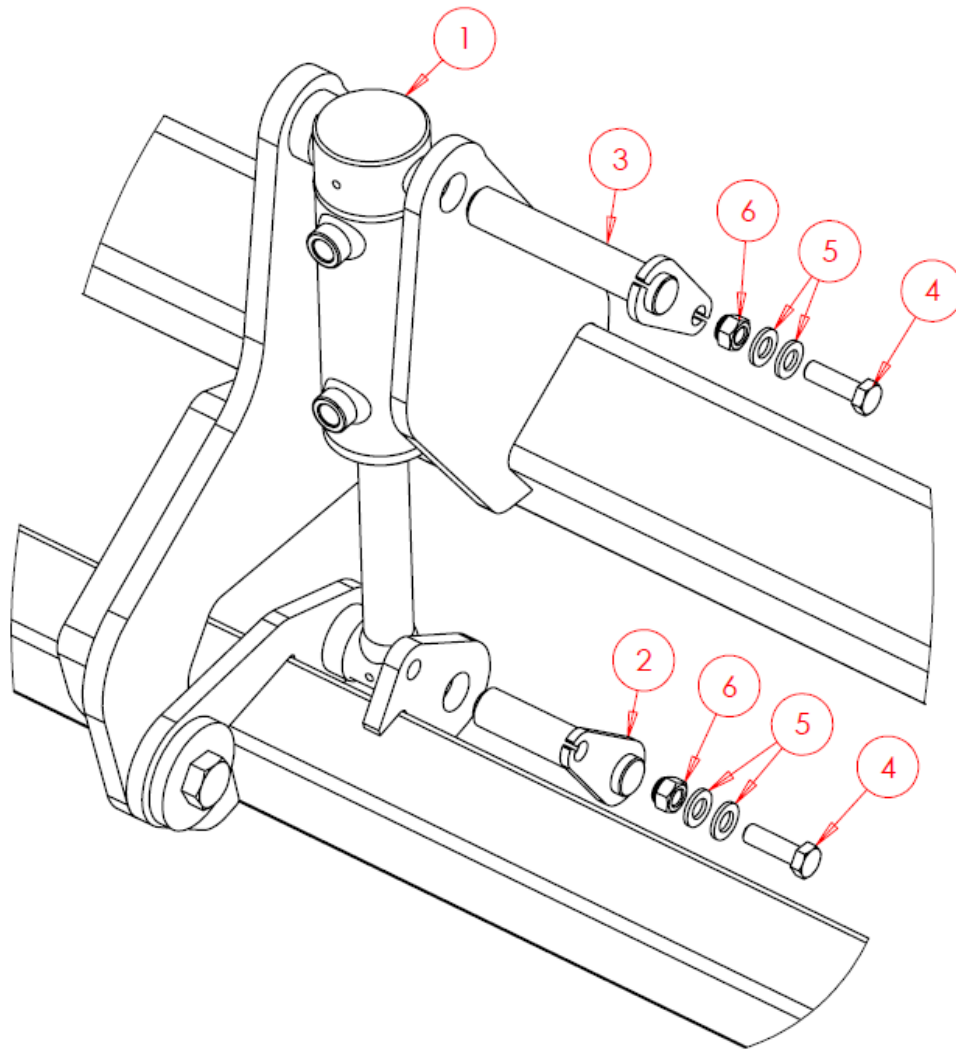
Quantities below are for individual pivot points, not per machine.



Item No.	Part Number	Description	Qty
1	SW2081	Bush	1
2	SW123	Extra Large Washer	1
3	SWM2070	M20x70 Bolt	1
4	SWM20001	M20 Washer - Flat	1
5	SWM20004	M20 Nut - Nylock	1



## 6.2.5 Paddles Hydraulic Assembly

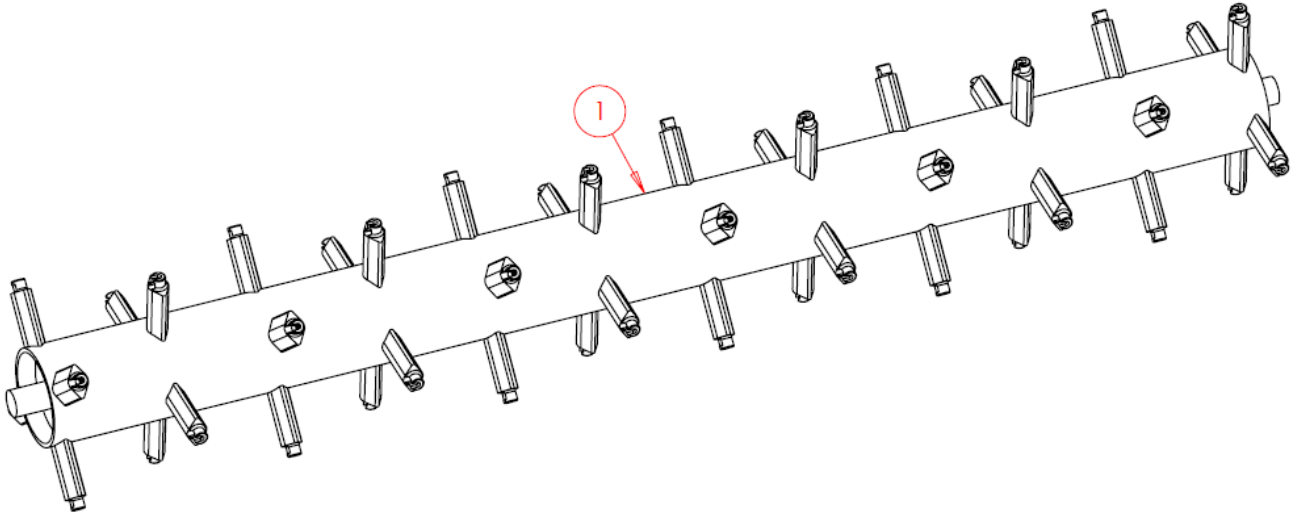


Item No.	Part Number	Description	Qty
1	SWH113	Hydraulic Cylinder	1
2	SWP25X100	Pin - Tabbed	1
3	SWP25X130	Pin - Tabbed	1
4	SWM1240	M12x40 Screw	2
5	SWM12001	M12 Washer - Flat	4
6	SWM12004	M12 Nut - Nylock	2

## 6.2.6 Packer Options

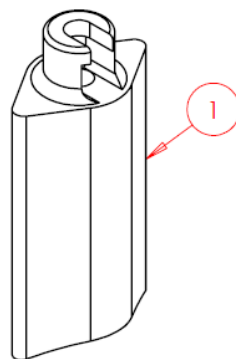
### 6.2.6.1 Variable Packer Spine

Only suitable for Roller, Channel & Sharp packers.



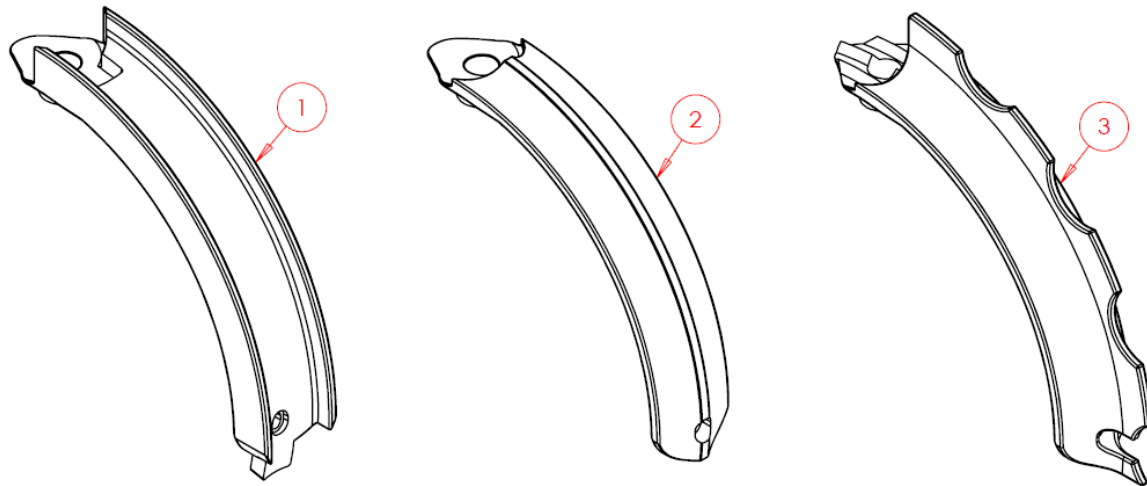
Item No.	Part Number	Description	Qty
1	SWA2490	Packer Spine	1

### 6.2.6.2 Individual Replacement Weld-On Spokes



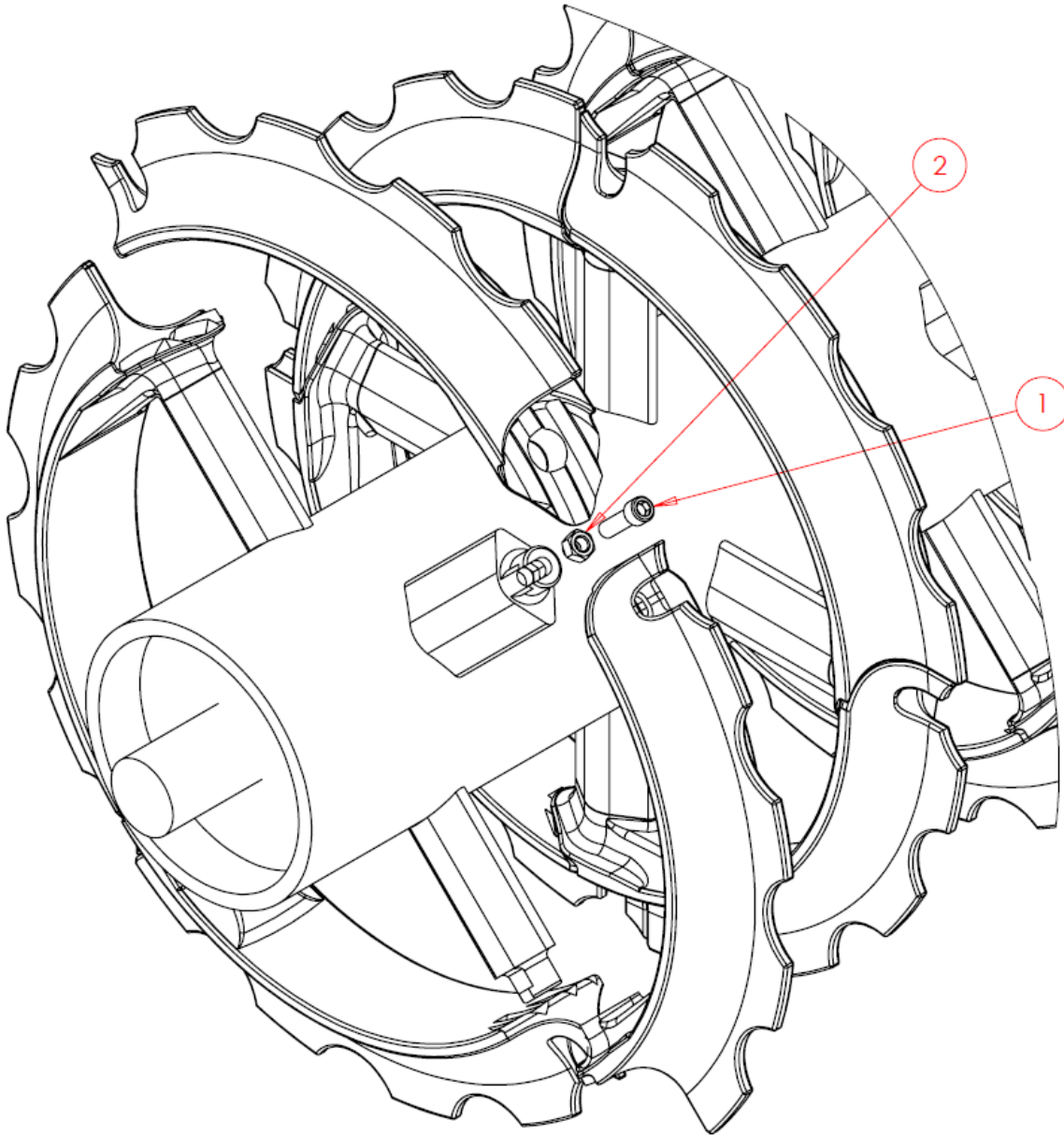
Item No.	Part Number	Description	Qty
1	SWB800	Weld-On Spokes	N/A

### 6.2.6.3 Individual Replacement Packer Segments



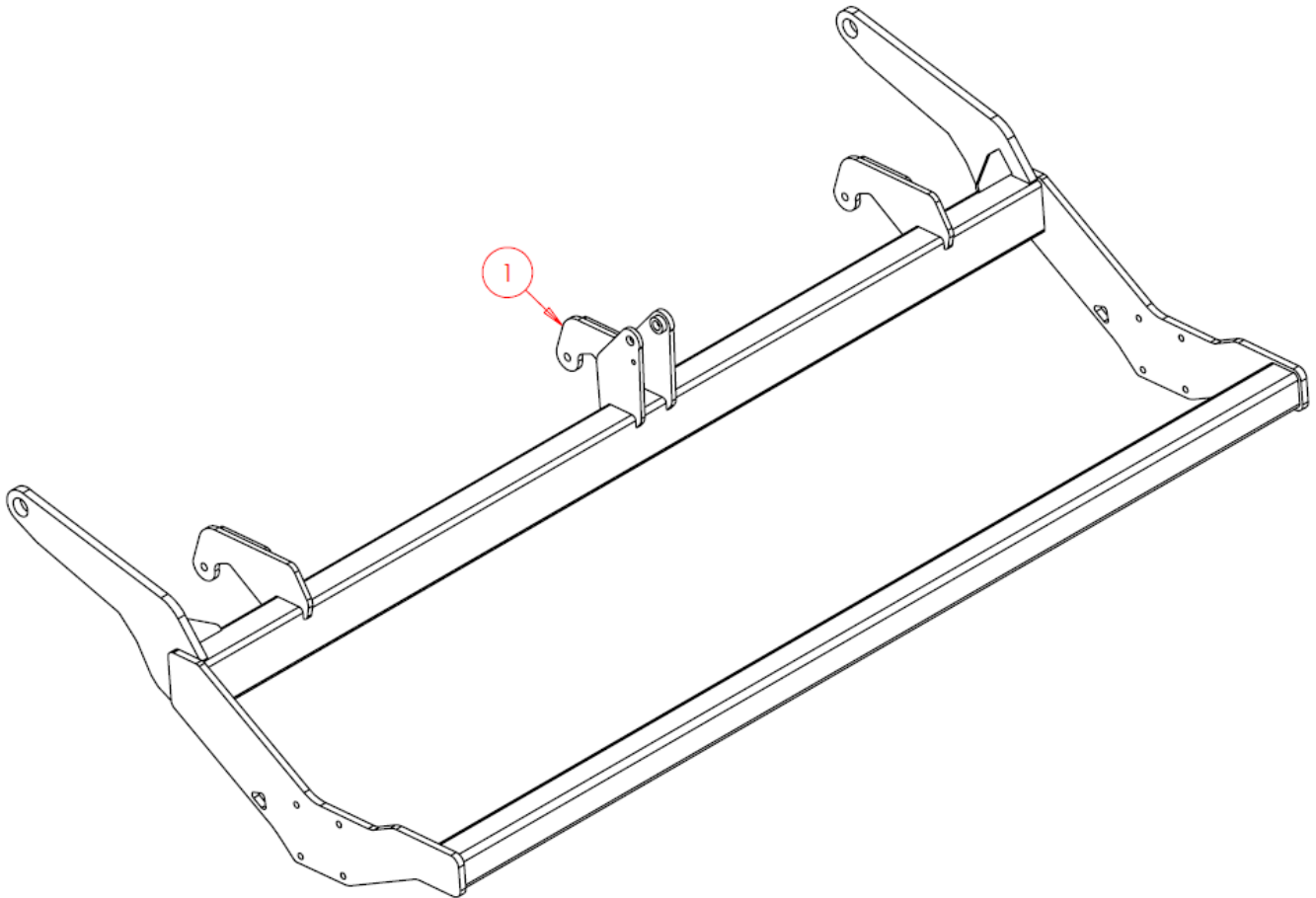
Item No.	Part Number	Description	Qty
1	SWB801	Channel Packer Segment	N/A
2	SWB802	Roller Packer Segment	N/A
3	SWB803	Sharp Packer Segment	N/A

#### 6.2.6.4 Standard Segment Fastening Arrangement



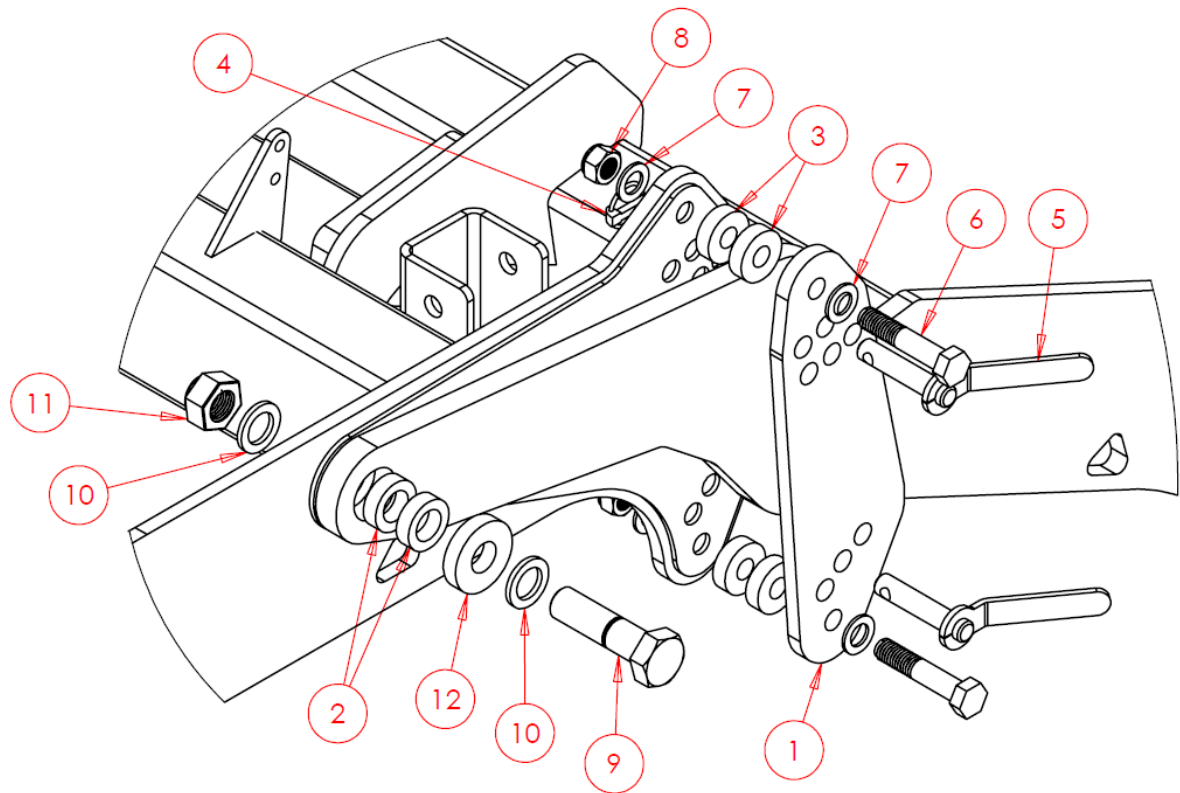
Item No.	Part Number	Description	Qty
1	SWM1240CH	M12x40 Socket Head Bolt	N/A
2	SWM12004	M12 Nut - Nylock	N/A

## 6.2.7 Packer Frame



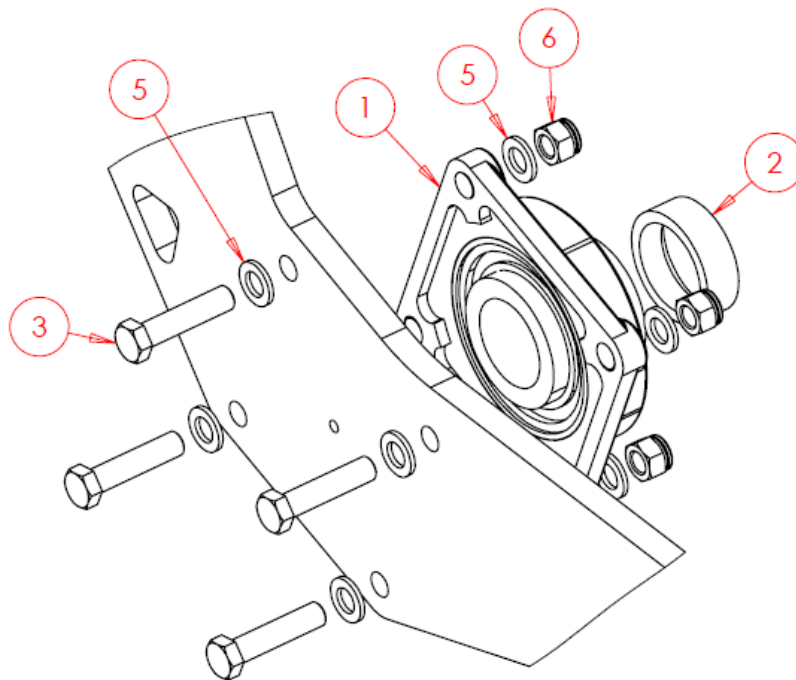
Item No.	Part Number	Description	Qty
1	SW2359	Packer Frame	1

## 6.2.8 Packer Mounting Arrangement



Item No.	Part Number	Description	Qty
1	SW2368	Guide Plate	2
2	SW227	Bearings	4
3	SW6342	Spacer	8
4	SWB105	Lynch Pin	4
5	SWP20X92H	Pin	4
6	SWM20100	M20x100 Bolt	4
7	SWM20001	M20 Washer – Flat	8
8	SWM20005	M20 Nut – Nylock	4
9	SWM30110	M30x110 Bolt	2
10	SWM30001	M30 Washer – Flat	4
11	SWM30004	M30 Nut – Nylock	2
12	SW129	Ex Large Washer	2

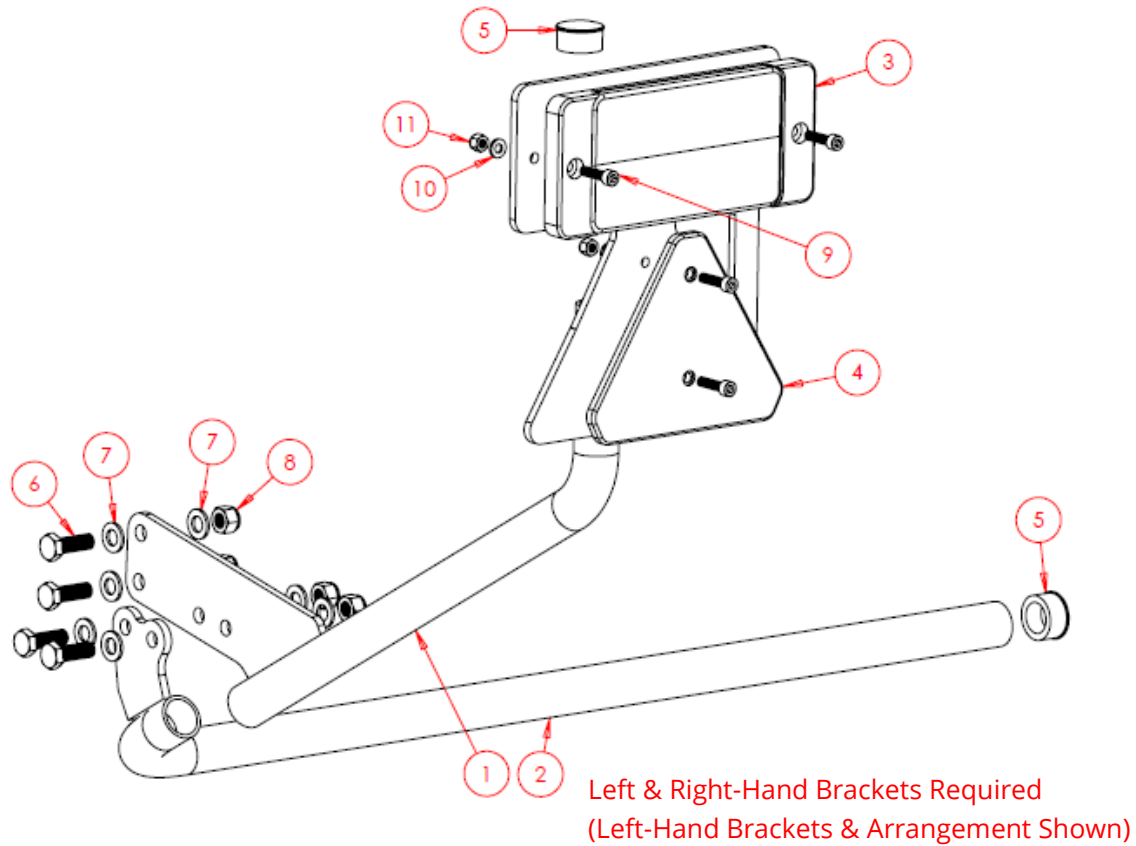
## 6.2.9 Packer Bearings Assembly



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	8
5	SWM16001	M16 Washer – Flat	12
6	SWM16006	M16 Nut – Aerotight	8

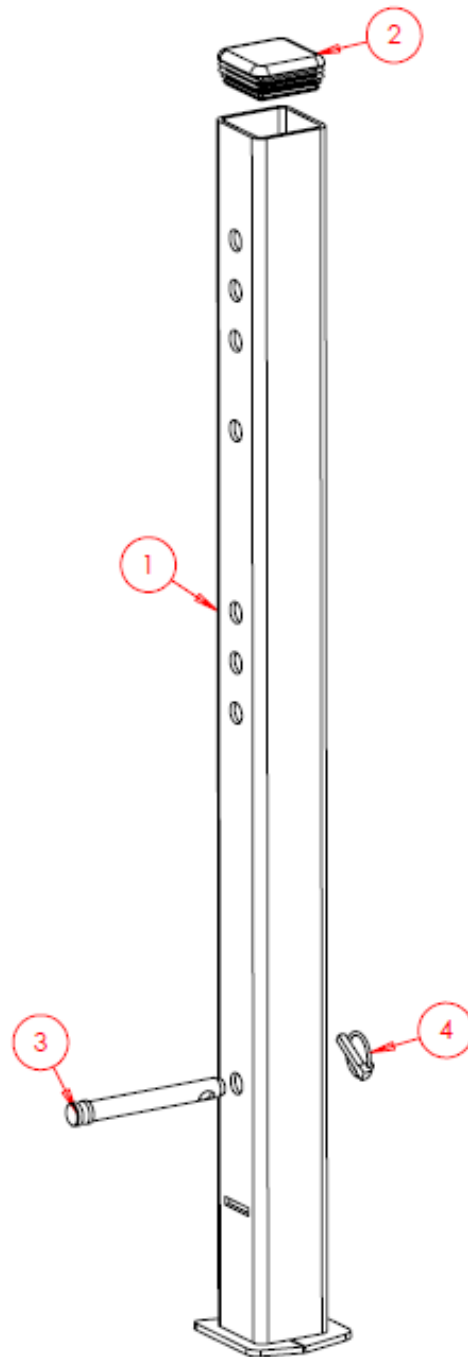
## 6.2.10 Lights Bracket Assembly



Item No.	Part Number	Description	Qty
1	SW2931	Light Bracket Top LH	1
1	SW2929	Light Bracket Top RH (Not Shown)	1
2	SW2930	Light Bracket Bottom LH	1
2	SW2932	Light Bracket Bottom RH (Not Shown)	1
3	SWB715	Rear Light Stop Light / Indicator	2
4	SWB162	Reflector – Red Triangle	2
5	SWB541	Plastic Bung	4
6	SWM1030	M10x30 Bolt	8
7	SWM10001	M10 Washer – Flat	16
8	SWM10004	M10 Nut – Nylock	8
9	SWM625AKH	M6x25 Cap Head Screw	8
10	SWM6001	M6 Washer – Flat	8
11	SWM6004	M6 Nut – Nylock	8



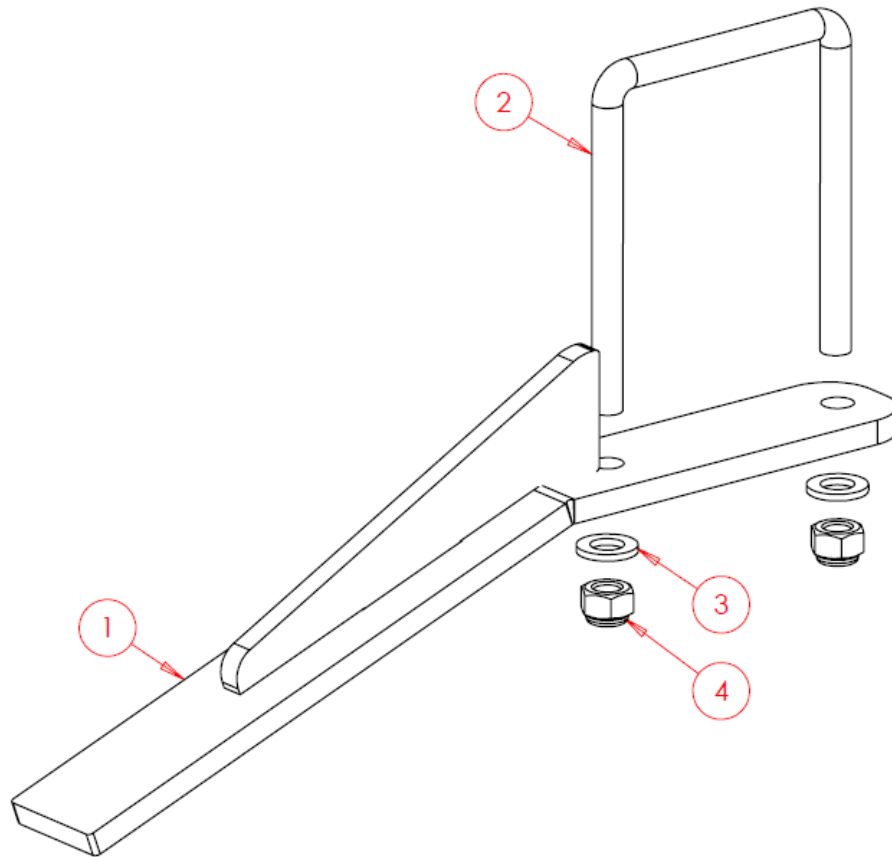
## 6.2.11 Stands



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

## 6.2.12 Scraper Assemblies

### 6.2.12.1 Finger Scraper – Applies to all spined packers.

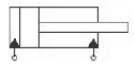

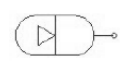
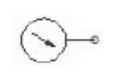

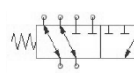

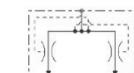
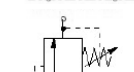
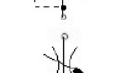


Quantities below are per scraper, not per machine.

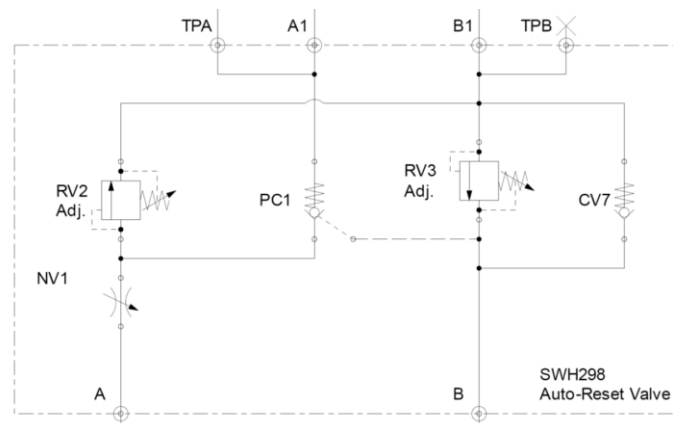
Item No.	Part Number	Description	Qty
1	SW3583	Finger Scraper	1
2	SWM12100UB	M12x100 U Bolt	1
3	SWM12001	M12 Washer – Flat	2
4	SWM12004	M12 Nut – Nylock	2

## 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 MUL3 - Hydraulic Function Schematic

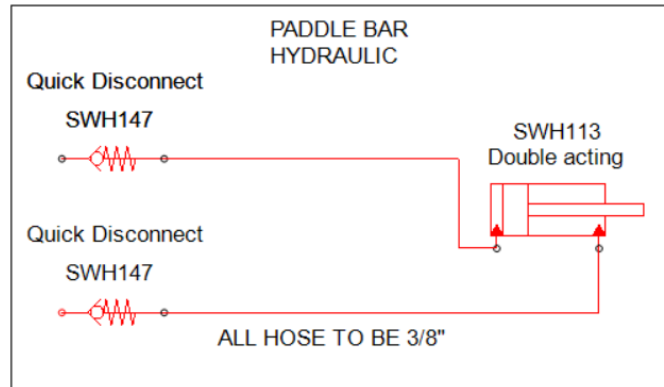
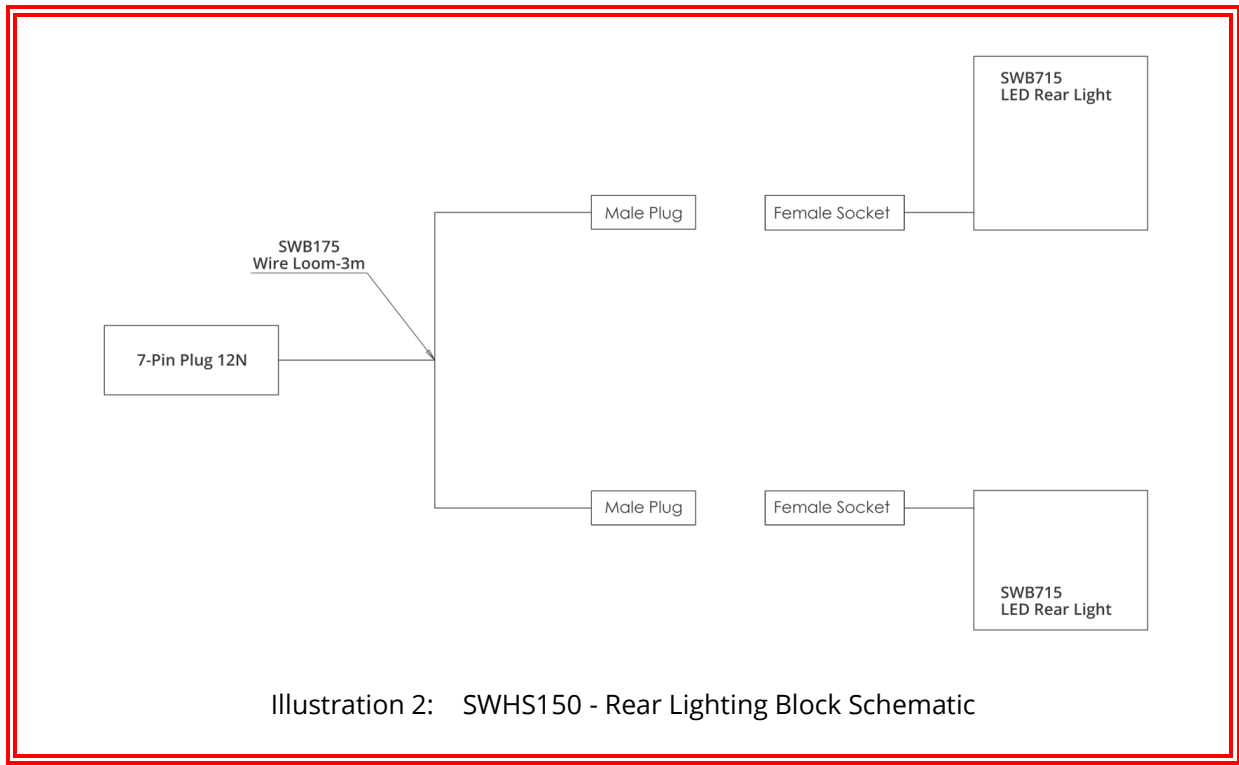


Illustration 1: SWHS – Hydraulic Schematic MUL3

## 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](#)