Conor

750, 900 & 1000 ///

Side Spreader

Operator's manual & Parts list

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Declaration of Conformity

We, Conor Engineering Ltd, of
Monreagh,
Tubber,
Co. Clare
Rep. of Ireland

Declare on our sole responsibility that the product

Side Spreader

Model: _____ ***Serial No:*** _____

When properly installed, maintained and used only for its intended purpose, the Conor Side Spreader complies with all the essential Health & safety requirements of:

2006/42/EC - The Machinery Directive
And
Harmonised Standards:

EN ISO 12100-1:2003, Safety of Machinery Part 1: Basic terminology, methodology
EN ISO 12100-2:2003, Safety of Machinery Part 2: Technical Principles
EN ISO 4254-1:2005, Agricultural Machinery – Safety – Part 1: General requirements
EN ISO 14121-1: 2007, Safety of Machinery – Principle of Risk Assessment

Enda O'Connor _____ Dispatch date

For any warranty claims to be considered, the product must be registered at www.conoreng.com/about-us/product-registration/ with 14 days of purchase.

Introduction

Congratulations. You are the owner of a Conor Side Spreader, manufactured for the professional farmer. With correct operation and adequate maintenance this machine can be used for many years.

Before using the Side Spreader, please read this manual carefully.

Disclaimer:

At Conor Engineering, we strive to continuously improve our products therefore, Conor Engineering reserves the right to revise the machinery, aesthetically and technically, that is contained within this manual without prior notice.

Further to this, Conor Engineering assumes no liability for any damages which may result from the use of the information contained within this manual.

Designated Use of Machine

The Conor Engineering Side Spreader is exclusively designed for use of transporting and spreading agricultural manure.

Conor Engineering will not be held responsible for any loss or damage resulting from machine applications other than those specified above. Designated use means operating the Side Spreader is exclusively for persons familiar with the machine and fully aware of that the operating, maintenance, repair instructions and the associated risks involved in operating it. Any alteration of equipment fitted will result in the loss of liability from Conor engineering.

Attention!

For any warranty claims to be considered, the Conor Side Spreader needs to be registered online within 14 days of purchase. Registration can be completed at:

www.conoreng.com/about-us/product-registration/

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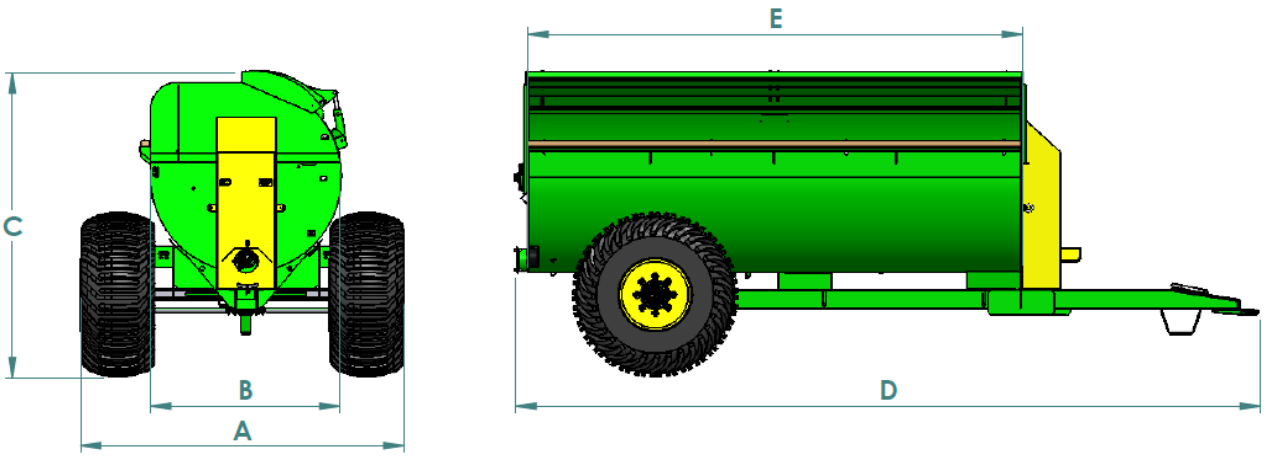
Technical Specifications and Dimensions



Model	750	900	1000
Capacity (yd3/m3)	7/5.36	8.5/6.5	10/7.65
Loading Height	1670mm	1670mm	1670mm
Overall Width (A)	2420mm	2420mm	2420mm
Overall Length (D)	4770mm	5547mm	5782mm
Overall Height (C)	2300mm	2300mm	2300mm
Body Width (B)	1420mm	1420mm	1420mm
Body Length (E)	3100mm	3785mm	4100mm
Unladen Weight	1470kg	2100kg	2100kg
Recommended HP	70	85	95
Number of Flail Chains	26	36	40
Lid Thickness	4mm	4mm	4mm
Tub/End Thickness	4/6mm	5/6mm	5/6mm
**All dimensions are measured with 550/60 Tyres*			

Recommend tyre pressure;

Minimum Tyre Pressure(bar) for travelling at 40KPH				
Tyre		**750**	**900**	**1000**
385/65 R22.5	Remould	7.5	7.5	7.5
550/60 R22.5	BKT 648	2.4	2.4	2.4
21.3 R24 *154 A8*		1.7	1.7	1.7

Safety Instructions

It is of vital importance that all safety instructions are strictly adhered to at all times.
Conor Engineering has done its utmost to inform the user of all the safety guidelines relevant to the operation of this machine but it is by no means exhaustive. The operator should be safety alert at all times and employ common sense when operating the Side Spreader.
The following instructions must be strictly followed to prevent accidents and the information must be made known to all users.

General safety

- Carefully read this operating manual before operating the machine. It is the owner's responsibility to ensure that any operators of this machine are competent, experienced and have fully read the safety and operating instructions.
- Stop the tractor and disengage the PTO before maintaining or adjusting the machine
- **Warning;** max speed of the PTO is 540rpm, and always disengage the PTO when turning.
- PTO guards/covers should be in place at all times and the guards are not to be used as a step.
- The PTO shaft is to be left on the stand provided, when the machine is not in use to prevent the shaft guard from being damaged.
- **Warning:** Do not stand in the spreading area or attempt to maintain the machine while the PTO shaft of the machine is connected to the tractor.
- Take care to match tractor angle to side-spreader angle on soft or sloping ground to prevent dangerous uncontrollable situations from occurring.
- **Caution:** The operator must ensure that during the operation of the machine, no person is standing in the spreading area. Flying debris or chains could cause serious injury.
- Damaged or worn hydraulic hoses should be replaced.
- Inexperienced operators should not be allowed to work or maintain the machine without supervision.
- **Warning:** If entering the machine, disconnect the PTO shaft from the tractor and extreme care should be taken to prevent slipping in the machine.
- If you have any doubts as to the safe operation of the side-spreader advice should be sought from your local dealer or direct from the manufacturer.
- The P.T.O. shaft must be used and maintained properly at all times.
- Do not operate the side-spreader with an excessively worn hitch eye – replace it. The hitch eye should be checked regularly, particularly on side-spreaders used for long periods during the season.

All necessary protective clothing and devices should be worn when operating the spreader

Hydraulics safety

- The hydraulic system operates under extremely high pressure and stores a considerable amount of energy. Care must be taken when working with or near.
- Caution: Never tighten or loosen fittings while the system is still operating.
- The hydraulic hoses need to be inspected regularly and any worn or damaged hoses need to be replaced.
- Pressure should be released from the system both on the tractor and the side spreader prior to connecting the hoses to the tractor's hydraulic system.
- Hydraulic oil forced out under high pressure can break the skin and cause severe injury.
- In the event of a hydraulic oil leak stop the tractor and oil flow immediately.
- Where there is a risk of fluid, etc. coming into contact with eyes, safety glasses should be worn as necessary.
- Caution: Many hydraulic fluids are flammable; ensure a fire extinguisher is kept close at hand when performing repairs and preventative maintenance to equipment.

PTO Safety and Shaft Shortening

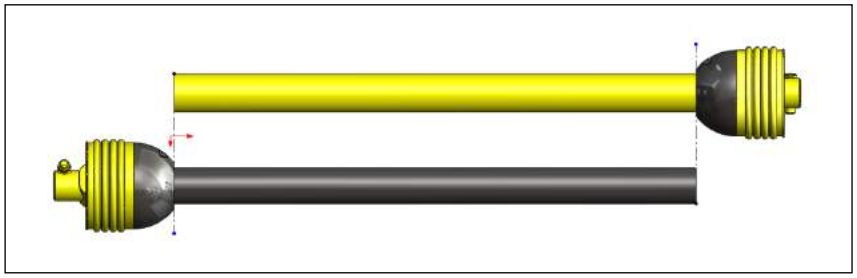
MAX PTO INPUT 540 R.P.M. Contact your nearest dealer or a specialised retail outlet if the PTO must be replaced with a longer one, since this must belong to the same power category and possess the same characteristics. An unsuitable PTO could easily break.

WARNING

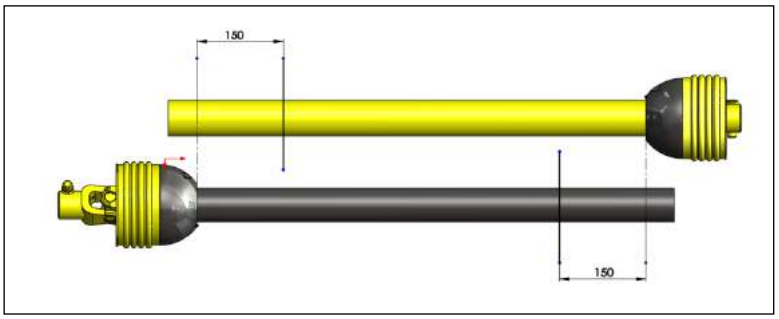
PTO shafts have claimed lives and caused serious injury. *Don't take chances!*

Individual tractors may require different PTO shaft lengths. The PTO shaft can be cut to fit a specified tractor through the following steps.

1. Connect the side spreader to the tractor to determine the shortest distance the PTO will be from the tractor.
2. Separate the two halves of the PTO. Insert one half into the tractor PTO and one half onto the drive shaft of the machine.
3. Lay the two halves of the PTO together, keeping them parallel.



4. Mark the PTO shafts leaving a minimum of 6" (150mm) free travel to allow for shaft closing while turning.



5. Remove the PTO guards and cut off the marked sections of the profile shafts, both by the same amount.
6. Cut the two PTO guards by the same length.
7. Deburr the edges of the profile with a file and remove any grinding dust.
8. Make sure that the length of the driveline conforms to the maximum elongation conditions.
9. Grease the 2 profiles and join the PTO together again.
10. Ensure the PTO guard is correctly reassembled.

Note: A manual is also provided with the PTO shafts. Please read this manual fully and store it carefully with this manual for future reference.

Safety Decals

Decals on the machine warn you of particular hazards. Each decal is attached close to a part of the machine where there is a possible hazard. Read and make sure you understand the safety message before you work with or on that part of the machine.

Keep all decals clean and readable. Replace lost or damaged decals. Each decal should be available to order from your local distributor should a new one be needed. The decals and their attachment points are shown on the following pages.

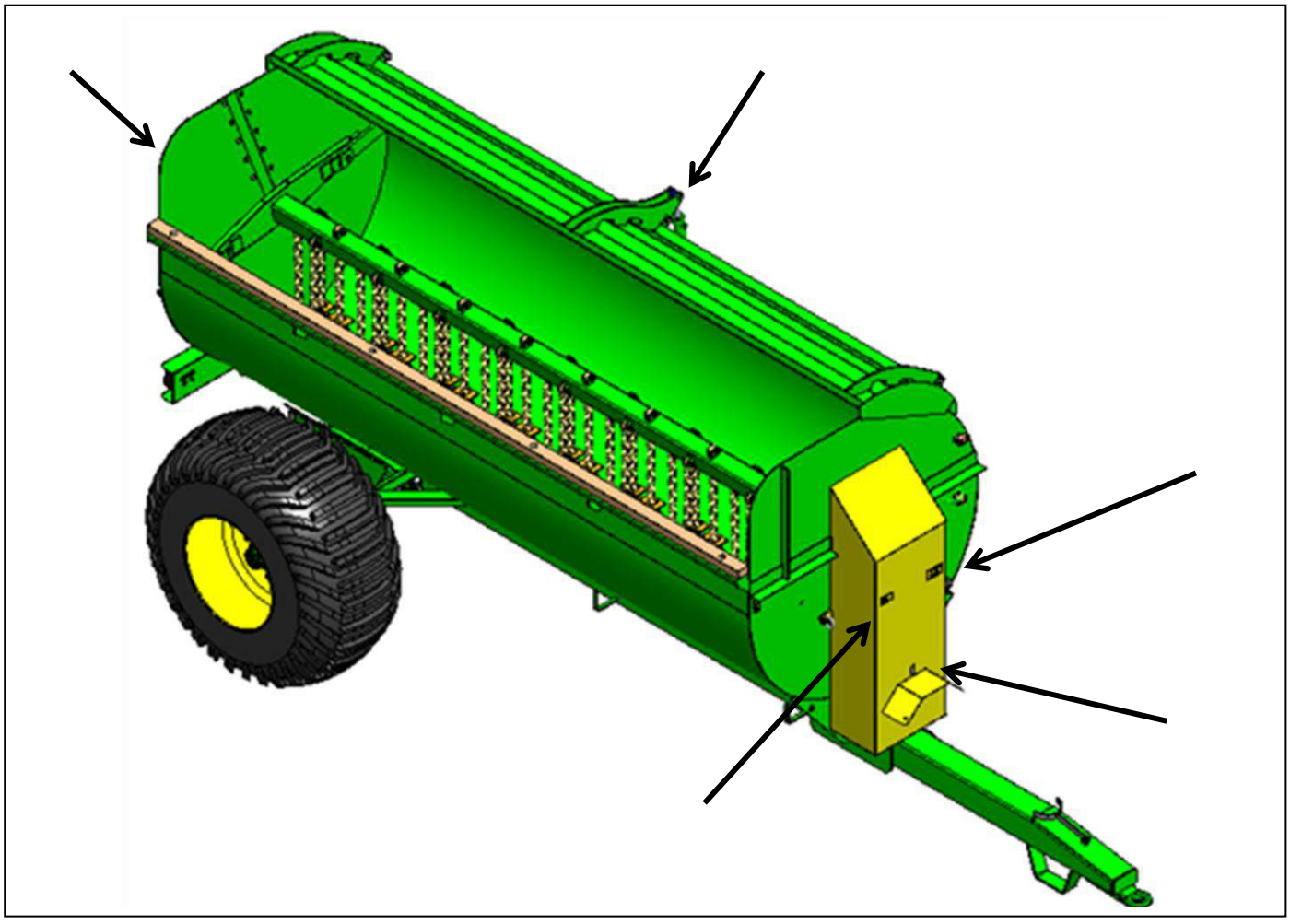
! WARNING

If you need eye-glasses for reading, make sure you wear them when reading the safety decals. Decals are strategically placed around the machine to remind you of possible hazards. Do not over-stretch or place yourself in dangerous positions to read the decals.

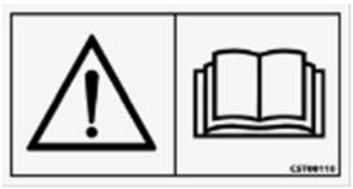
! WARNING

Decals

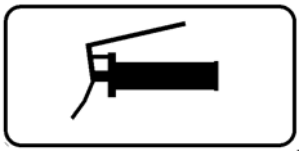
You can be injured if you do not obey the decal safety instructions. Keep decals clean. Replace unreadable or missing decals with new ones before operating the machine. Make sure replacement parts include warning decals where necessary.



Decals and description of their meaning



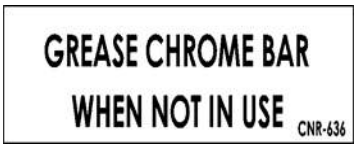
Ensure you have read the manual for the correct wheel tightening torque



Location of a grease point

Ensure that the drive chain guard is fitted correctly before use

Max PTO speed of 540rpm



Grease chrome bar when not in use

Do not power wash with hot water above 3000psi or closer than 60cm as this can cause paint to be removed

Note: *Should decals become unreadable or go missing, decals should be replaced with new ones before operating the machine again. These can be bought from your Local dealer or from Conor Engineering.*

Getting Started

Horsepower Requirements

- As standard for the 750 model – minimum of 70 HP
- As standard for the 900 model – minimum of 85 HP
- As standard for the 1000 model – minimum of 95 HP

Hydraulic Requirements

- 1 single acting spool valve

Inspections before Use

1. Check the wheels nuts before use.
2. Check the tyre pressure
3. Check tightness of all nuts, bolts and retaining screws after the first and second hours of work. Ensure that grub screws and spline shaft bearings are tight on spline
4. Ensure safety guards and covers are securely in place at all times where fitted.

* Always disengage PTO, Switch off tractor engine and engage the parking brake before making adjustment to the machine.

Connecting to the Tractor

1. Connect the tractors hitch to the hitch eye on the drawbar.
2. Connect brake connection to the tractor.
3. Connect tail light plug to the tractor.
4. Adjust the height of the spreader drawbar to ensure that the spreader is level or high to the front when attached to the tractor.
5. Connect PTO shaft to tractor making sure that shaft guard chains are anchored. Please ensure the PTO is the correct length (As detailed in “PTO Safety and Shaft Shortening”).

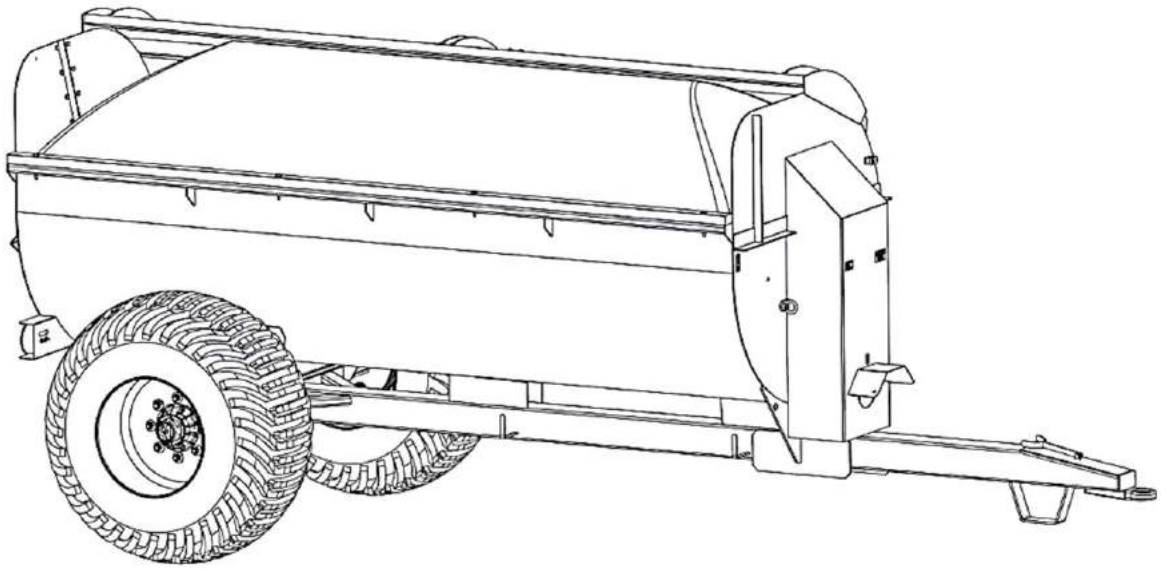
Operating Instructions

Loading and Operations

1. Ensure the spreader is parked on level ground and that the handbrake is applied on the tractor.
2. Open the machine lid firstly before loading and fill using your front loader or by own means ensuring that the spreader is evenly loaded.
3. When the level of the rotor is reached engage PTO and at low RPM rotate driving mechanism wrapping the flails around the rotor. This has the effect of reducing power requirements during side spreader start-up.
4. Once loaded close the lid and transport to the spreading area.
5. **Caution:** Before starting ensure the area around the spreader is completely clear.
6. Upon reaching the spread area engage the PTO and drive forward. The application rate is governed by the PTO speed and the forward ground speed.
7. For different types of manure please follow the application guide below:

Consistency of Farm Yard Manure	Fill Height	Chain position	Tractor Speed	PTO rpm
Heavy	Heaped	All flails available	Slow	Fast
Medium	Heaped	Every alternating	Fast	Slow
Light-Liquid	Level with lip	All flails available	Fast	Fast

Not this is only a guide and best application comes from repeated practise. Also ensure flail shaft remains balanced as excessive vibration can cause damage.



Maintenance and Lubrication

Side Spreader Care

A good regular maintenance schedule and correct usage greatly increases the expected lifespan of the Side Spreader, as-well as ensuring the Spreaders safety features last for their manufactured expectancy. A quick daily walk around will help notice any wear spots but it is recommended that a full check be done before periods of continued use.

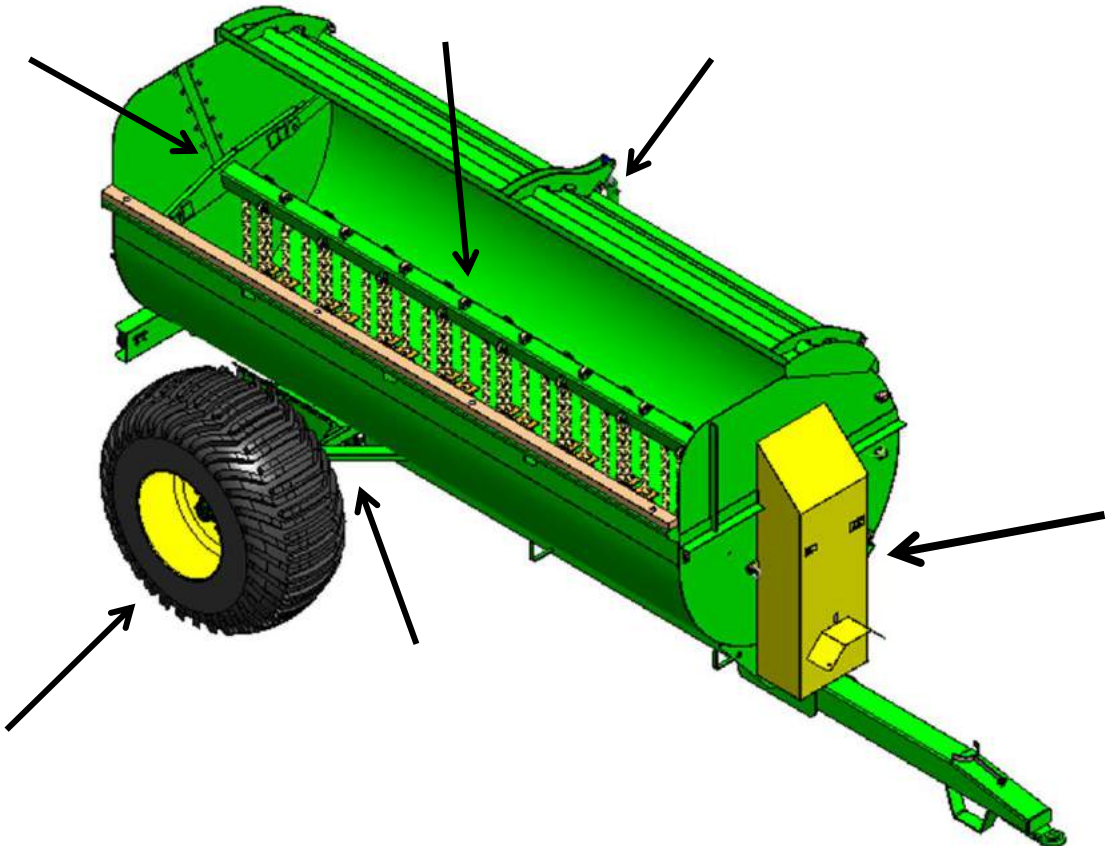
It is vital that all maintenance operations, inspections, checks and repairs are carried out with the utmost care and with the vacuum pump off and the PTO disconnected.

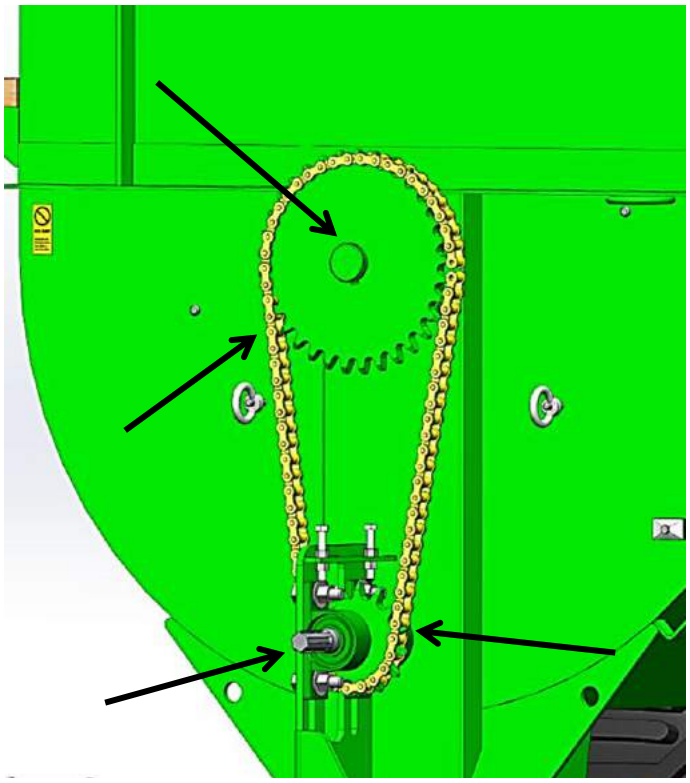
General Checks

1. Check wheel nuts are tight for the first use, the first working week and every 6 months after.
2. Check that tyre pressures are at recommended pressure for the spreader.
3. Check and ensure drive chain is set to correct tension with no more than 3/4" total play to allow the loaded side of the chain.
4. Ensure machine is well lubricated and the drive chain is well-greased.
5. Check all hoses for cracks/wear and replace if necessary.

Maintenance Schedule	Initially	Daily	Weekly	Monthly	Every 6 months
Grease the universal joint drive shaft	X		X		
Grease the flail end bearings	X		X		
Grease chain and sprockets	X		X		
Separate the sliding chain adjustment assembly and grease			X		
Check tyre pressure	X		X		
Check all nuts and bolts and ensure tight	X		X		
Check for damaged or missing flail chains	X		X		
Grease driveshaft bearing housing	X			X	
Remove and wash chain				X	
Grease wheel hubs				X	
Repack road wheel bearings with grease					X
Check universal joint assembly and chain linkages					X

Grease Points





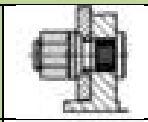
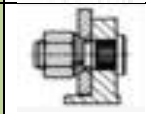
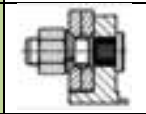
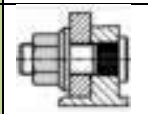
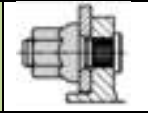
Wheel changing procedure

It is advised to call a tyre replacement company to carry out any wheel changing as these companies are professionals with the proper lifting equipment. Most will be able to replace or fix the wheel on site.

If this is not possible:

1. Pull up to a level area and apply the handbrake on the tractor and ensure that the machine is away from the road and not a hazard.
2. Ensure that the machine is empty and is the lightest it can be. Transfer content into another storage vessel if needs be.
3. Loosen the wheel nuts a turn before jacking.
4. Before Jacking the following hazards should be taken into consideration:
    - Always use appropriate jacks/lifting equipment
    - Small movements of liquid load can change the centre of gravity
    - Soft or uneven ground

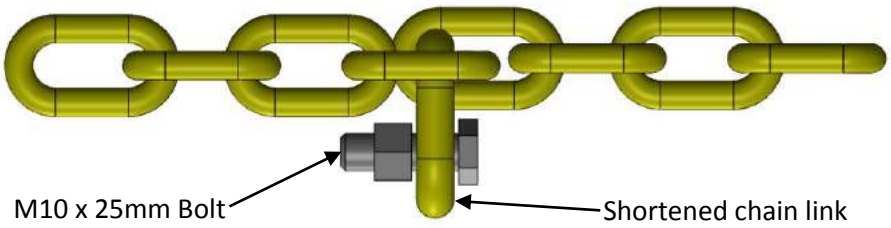
5. Place jack under axle on the side you wish to lift. Ensure that your jacking equipment has sufficient lift capacity.
6. Remove and replace wheel, wheels may be very heavy so get assistants or use lifting equipment. When tightening nuts use the proper torque settings supplied below.

NUT TYPE		Spanner	Wheel Stud	Tightening Torque	Leverage (*L)	Force
		mm	mm	Nm	mm	Kg
DIN		17	M12X1.5	90	300	30
		19	M14x1.5	130	300	40
		24	M18x1.5	270	450	60
Plain nut		24	M18x1.5	270	450	60
		27	M20x1.5	350	600	60
		30	M22x1.5	450	800	60
"Twin"		24	M18x1.5	270	450	60
		27	M20x1.5	350	600	60
		30	M22x1.5	450	800	60
"M"		-	-	-	-	-
		27	M20x1.5	415	800	55
		32	M22x1.5	575	1000	60
"Bec"		28	M18x1.5	270	450	60
		30	M20x1.5	350	600	60
		32	M22x1.5	450	800	60

Troubleshooting

Chain Flail shortening

With use over time it can be possible that the flail chain stretches due to fatigue. This fatigue may cause the heads of the flail to hit the drum of the spreader and cause damage. To prevent this from happening, flails can be shortened by inserting an M10x 25mm or 1 ½" bolt with a self slocking nut through the chain. The bolt should be placed on the back side of the chains rotation to ensure protecting from debris.



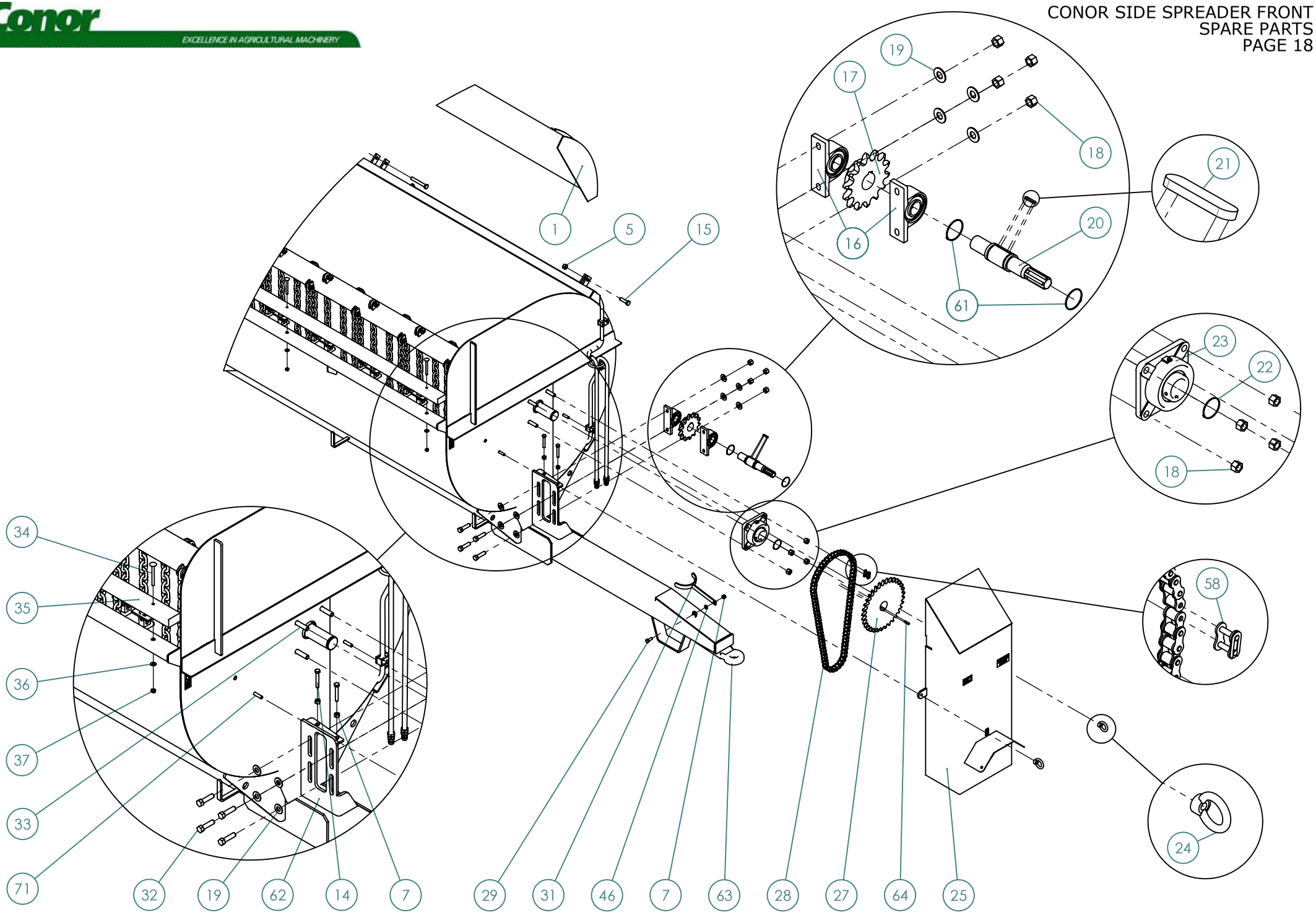
Note; Continued hard usage will cause the chains to wear and therefore must be replaced. It is recommended that once any part of the link is less than 8mm it should be replaced. Replacements can be bought through your local dealer or at Conor Engineering. When replacing the chain always renew the attaching nut and bolt.

Drive-Chain Slipping

If the drive chain of your spreader begins to slip this could be due to too much slack on the chain. Adjustments can be made by loosening the 4 attachment bolts and sliding the chain mount plate down ensuring about ¾" of play.

Always Use

Spare Parts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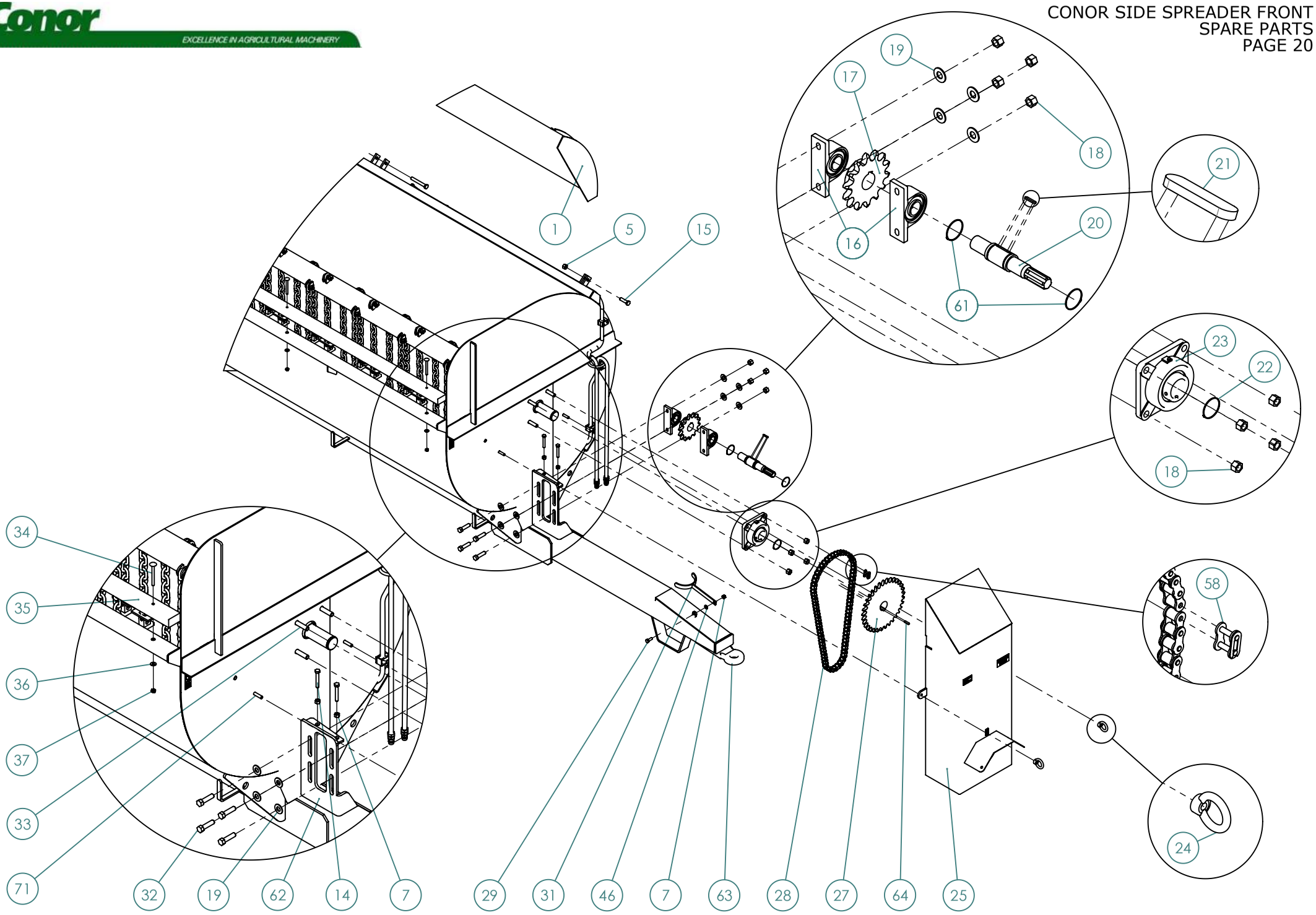
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	MODEL
1	SS-4000-A	Lid 750	1	750
1	SS-4010-A	Lid 900	1	900
1	SS-4020-A	Lid 1000	1	1000
5	FS-6161-A	M16 Locknut	1	All
7	FS-6121-A	M12 Locknut	5	All
14	FS-1280-A	M12 x 80 Hex Bolt	2	All
15	FS-1660-A	M16 x 60mm Hex Bolt	1	All
16	AA-0315-A	UCP x 08 Bearing	2	750x900
16	AA-0310-A	UCP x 09 Bearing	2	1000
17	AA-0512-A	14 T.Sp.1.1/4"50mm 12x8K M10Th	1	750&900
17	AA-0515-A	14 T. Duplex 1 1/4" 50mm 12mm key	1	1000
18	FS-6181-A	M18 Locknut	8	All
19	FS-8171-A	M18 Washer	8	All
20	PC-7007-A	Splined shaft	1	750&900
20	PC-7003-A	Splined shaft	1	1000
21	AA-0169-A	Key Steel 12 x 8 x 55mm	1	750&900
21	AA-0169-A	Key Steel 12 x 8 x 70mm	1	1000
22	AA-0086-A	60mm circlip	1	All
23	AA-0313-A	UCFx12 60mm 4 bolt flange	1	All
24	FS-6123-A	M12 Wing Nut	2	All
25	SS-0018-A	Chain Cover	1	750&900
25	SS-0018-A	Chain Cover	1	1000
27	AA-0513-A	33 T.Sp.1.1/4"" 60mm18x10k M16Th	1	750&900
27	AA-0516-A	33 T. dup spr 1 1/4" 60-bore 18-key	1	1000
28	AA-0920-A	20B-1 Roller Chain (Per metre)	2m	750&900
28	AA-0922-A	20B-2 Roller Chain (Per metre)	2m	1000
29	FS-1235-A	M12 x 35mm Hex Bolt	1	All
31	TK-8304-A	PTO shaft holder	1	All
32	FS-1870-A	M18 x 70mm Hex Bolt	4	All
33	FS-1860-A	M18 x 60 Hex set screw zinc	4	All
34	FS-1011-A	M10 x 110mm Coach Bolt	4	All
35	SS-2019-A	3" x 2" Timber	1	All
36	FS-8102-A	M10 Washer	4	All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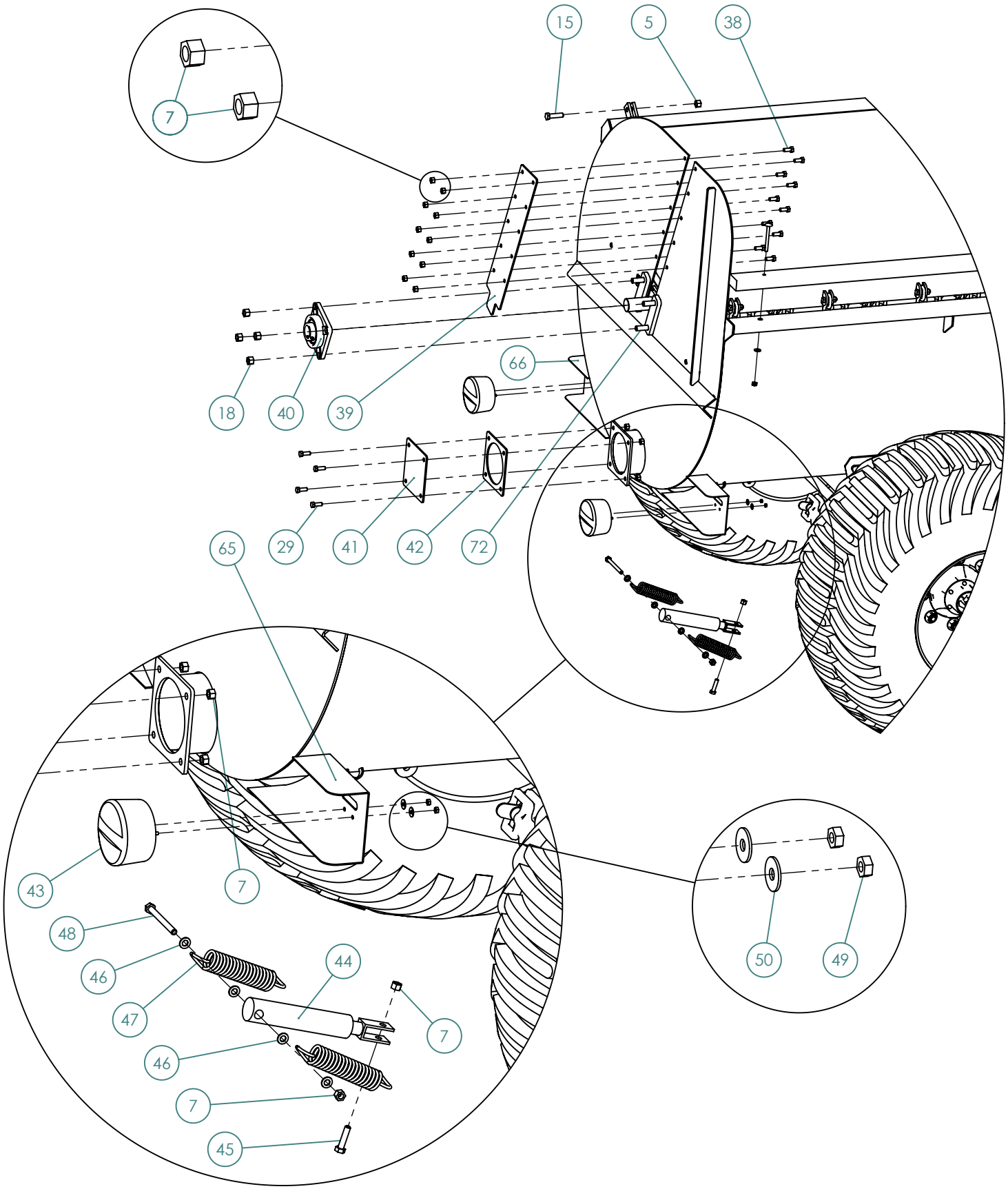
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	MODEL
37	FS-6101-A	M10 Locknut	4	All
46	FS-8122-A	M12 Washer	4	All
58	AA-0921-A	20B-1 Chain Joiner	1	750&900
58	AA-0923-A	20B-2 Chain Joiner	1	1000
61	AA-0084-A	50mm Circlip	2	All
62	SS-0022-A	Bearing Carrier Side Spreader	1	750&900
62	SS-0023-A	Bearing Carrier Side Spreader	1	1000
63	AA-0033-A	Flat Hitch Eye	1	All
64	AA-0168-A	Key Steel 18 x 11 x 50mm	1	750&900
64	AA-0168-A	Key steel 18 x 11 x 70mm	1	1000
71	FS-1261-A	M12 x 60mm Hex Bolt	2	All
*	SS-2028-A	Side Spreader Label Kit	1	All
*	AX-7060-A	70mm 6 stud 1750 track	1	750
*	AX-8082-A	80mm 8 stud 1900 track	1	750
*	AX-9084-A	90mm 8 stud 1900 track	1	900&1000
*	AA-1314-A	T80 PTO	1	1000
*	AA-1302-A	T50 PTO	1	750&900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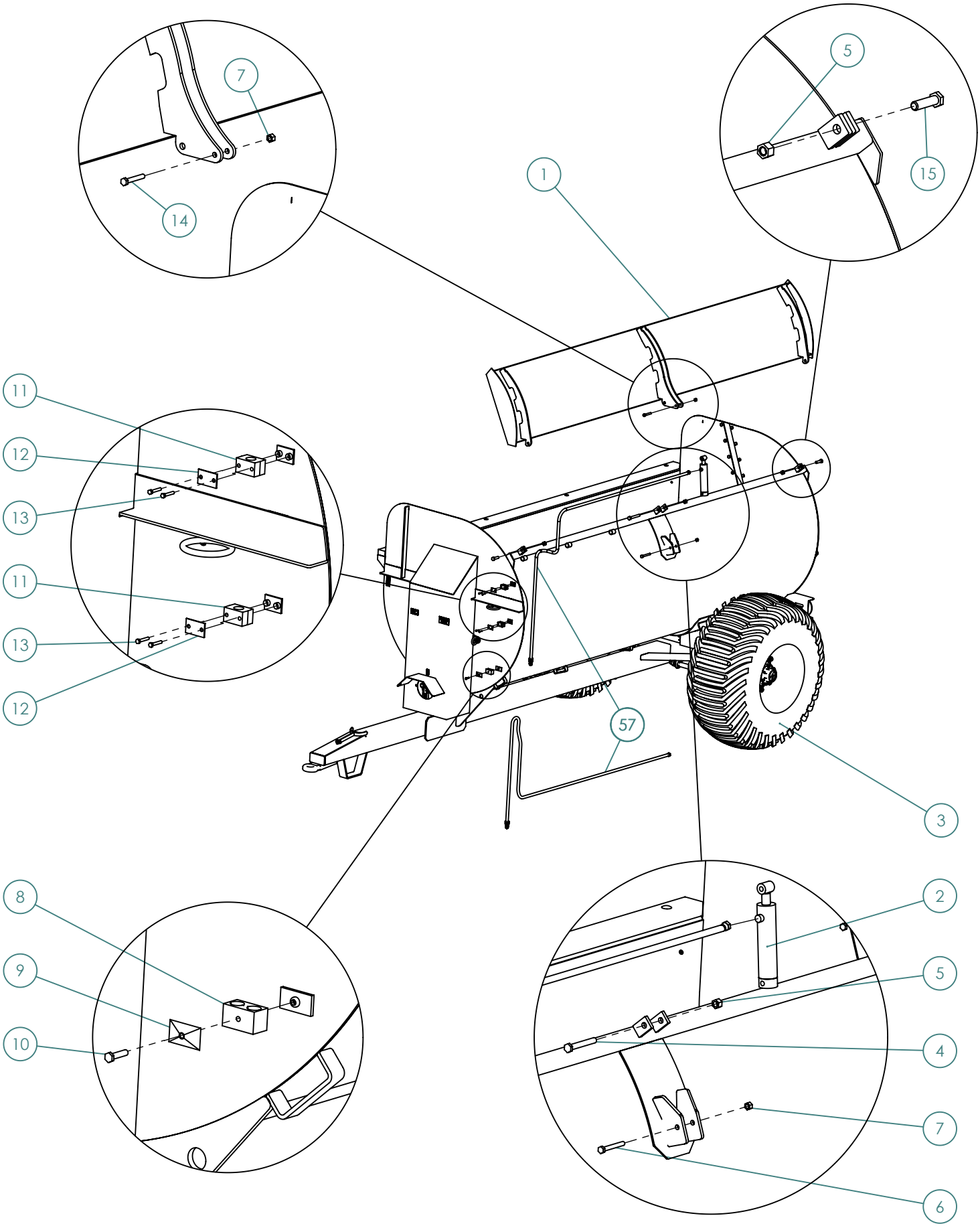
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	MODEL
5	FS-6161-A	M16 Locknut	1	All
7	FS-6121-A	M12 Locknut	16	All
15	FS-1660-A	M16 X 60mm Hex Bolt	1	All
18	FS-6181-A	M18 Lock Nut	4	All
29	FS-1235-A	M12 x 35mm Hex Bolt	4	All
38	FS-1230-A	M12 x 30mm Hex Bolt	10	All
39	SS-0029-a	Cover plate rear SS.	1	All
40	SS-2001-A	50mm Flange bearing	1	All
41	TK-0882-A	6" Blanking plate	1	All
42	TK-9244-A	6" Gasket	1	All
43	AA-4151-A	SS-R/H Light c/w lead (0.15m) "See page ??"	2	All
44	HY-6302-A	25mm brake ram	1	All
45	FS-1250-A	M12 x 50mm Hex Bolt	1	All
46	FS-8122-A	M12 Washer	4	All
47	AA-0137-A	Brake Ram Spring	2	All
48	FS-1213-A	M12 x 130mm Hex Bolt	1	All
49	FS-6061-A	M6 Locknut	4	All
50	FS-8062-A	M6 Washer	4	All
65	SS-2003-A	Light bracket RHS	1	All
66	SS-0028-A	Light bracket LHS	1	All
72	FS-1801-A	M18 Threaded bar x 60mm	4	All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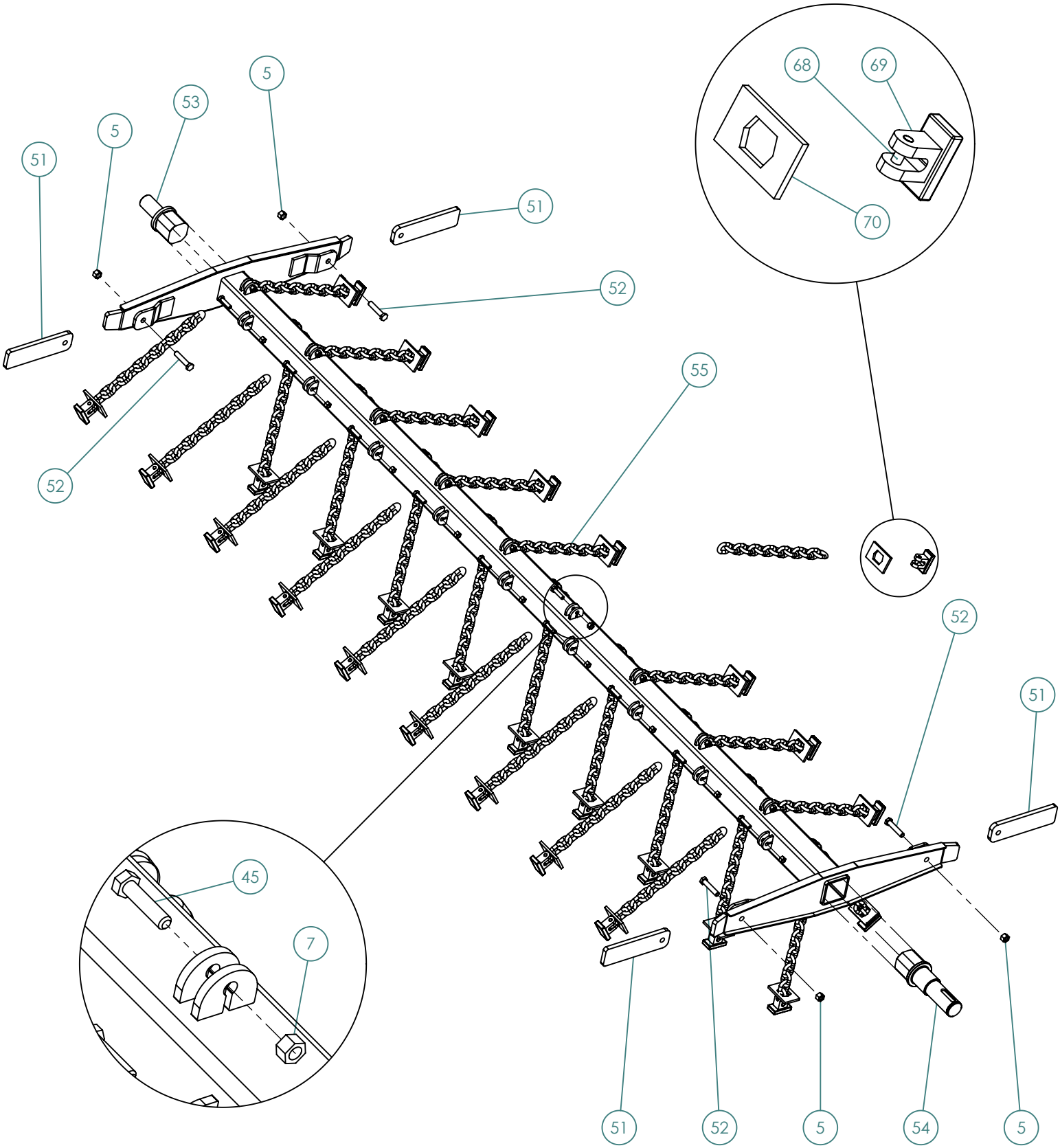
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	MODEL
1	SS-4000-A	Lid 750	1	750
1	SS-4010-A	Lid 900	1	900
1	SS-4020-A	Lid 1000	1	1000
2	HY-6420-A	Sidespreader lid ram	1	All
3	WH-1063-A	550 60 x 22.5 wheel complete	2	All
4	FS-1612-A	M16 X 120mm Bolt	1	All
5	FS-6161-A	M16 Locknut	3	All
6	FS-1210-A	M12 X 100mm Hex Bolt	1	All
7	FS-6121-A	M12 Locknut	2	All
8	HY-0419-A	Double Hose Clamp Jaws 18mm	1	All
9	HY-0417-A	Double Hose Clamp Cover plate 18mm	1	All
10	FS-0835-A	M8 x 35mm Hex Bolt	1	All
11	HY-0408-A	3/8" Single hose clamp Jaws	2	All
12	HY-0407-A	3/8" Single Hose clamp cover plate	2	All
13	FS-0635-A	M6 x 35mm Hex Bolt	4	All
14	FS-1280-A	M12 x 80mm Hex Bolt	1	All
15	FS-1660-A	M16 X 60mm Hex Bolt	2	All
57	HY-7128-A	Hose Kit	1	750
57	HY-7126-A	Hose Kit	1	900
57	HY-7127-A	Hose Kit	1	1000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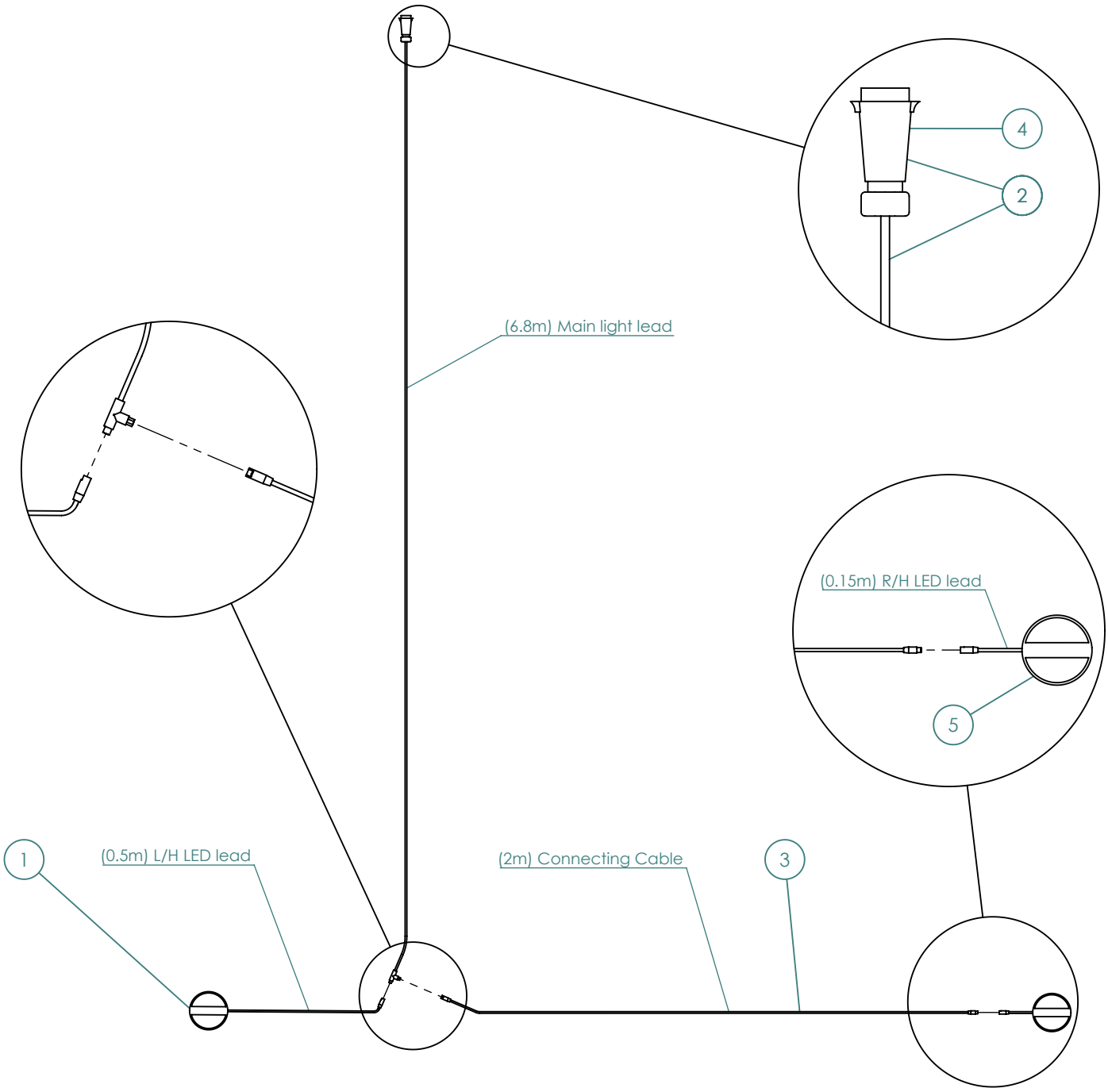
ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	MODEL
5	FS-6161-A	M16 Locknut	4	All
7	FS-6121-A	M12 Locknut	36	900
45	FS-1250-A	M12 x 50mm Hex Bolt	36	900
51	SS-0020-A	Swinging flail SS	4	All
52	FS-1680-A	M16 X 80mm Hex Bolt	4	All
53	PC-7009-A	Back shaft 100mm	1	750&900
53	PC-7002-A	Back shaft 100mm	1	1000
54	PC-7008-A	Front shaft 100mm	1	750&900
54	PC-7001-A	Front shaft 100mm	1	1000
55	SS-2010-A	Flail Chain c/w head	28	750
55	SS-2010-A	Flail Chain c/w head	36	900
55	SS-2010-A	Flail Chain c/w head	40	1000
68	FS-1244-A	Spiral roll pin 12 x 40mm	28	All
69	SS-2015-A	Head for chain	36	All
70	SS-2014-A	Flail Plate 4"	40	All



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	MODEL
1	AA-5152-A	SS-L/H LED light c/w lead (0.5m)	1	All
2	AA-4153-A	Main lead light c/w plug (6.8m)	1	All
3	AA-4150-A	SS-Connecting cable (2m)	1	All
4	AA-0401-A	7 Pin Plug	1	All
5	AA-4151-A	SS-R/H LED light c/w lead (0.15m)	1	All
*	AA-4108-A	Lighting kit SS complete	1	All

Conor

EXCELLENCE IN AGRICULTURAL MACHINERY

Conor Side Spreader

750, 900 & 1000

Farm Check List

- Are safety access covers in place?
- Is there proper protection of openings?
- Are agitation guidelines being followed?
- Are PTO shafts covered?
- Is the machine operator aware of the hazards?

Think Safety and Take Action

Other Products in the Conor range:

Vacuum Tanks
Megamix Slurry Agitators
Diet Feeders
Balewrappers
Bale handlers
Rear Discharge Spreader
Swath - Conditioner