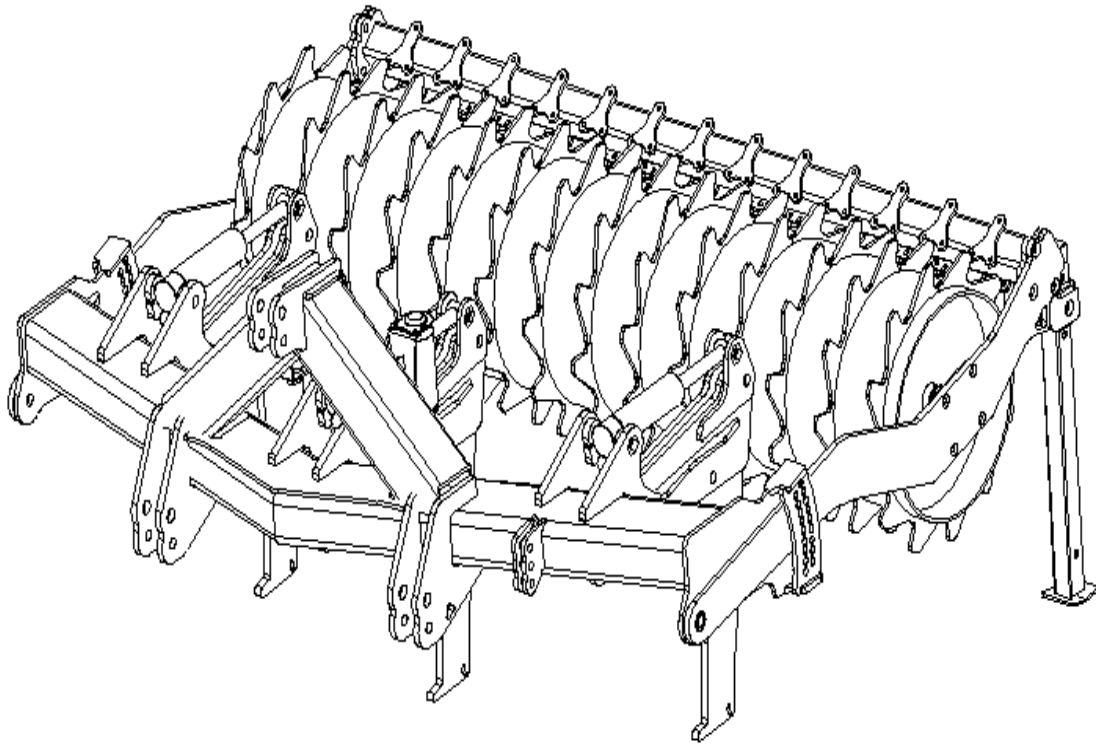


AGRI WELD

OPERATOR MANUAL SUBSOILER



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USER INFORMATION

This manual contains basic advice, which should be observed during setting-up, operation and maintenance. It must be read by personnel concerned prior to starting up and using the machine and be available at all times to all operators.

If safety instructions are not complied with, it can lead to the risk of injury to yourself and others as well as damage to the environment or the machine. Non-compliance to the safety instructions can also lead to claims for damages becoming invalid.

New equipment - be careful!

It is very important to be careful when new equipment is going to be used for the first time. Incorrect mounting of equipment and operational errors can lead to expensive repair work and operational losses.

Your warranty with Agriweld is not valid if the instructions in this operating manual are not followed correctly.

QUALIFICATION AND TRAINING

- Competent personnel may only perform any work on, or with the machine. Statutory minimum age limits must be observed.
- Only trained or instructed staff should operate, set up and maintain this machine. Individual responsibilities of personnel concerning operation, setting up, maintenance and repair must be clearly established.
- Define the machine operator's responsibilities – also with regard to observing traffic regulations. The operator must have the authority to refuse any instructions issued by third parties, which contravene safety.
- Persons undergoing training or instruction should not be allowed to work on or with the machine unless they are under the constant supervision of an experienced person.
- The use of spare parts, accessories and ancillary equipment not supplied and/or not approved by Agriweld could have detrimental effects to this machine or its functions and hence impair the active and/or passive driving and/or operational safety (accident prevention).
- Agriweld shall not be responsible for any damage caused by the use of spare parts, accessories and ancillary equipment not supplied and/or approved by Agriweld.
- Conversions of, or modifications to the machine may only be carried out after consultation with Agriweld.

THINK SAFETY

Read the instruction manual and follow the instructions given.

Take care when hitching up or unhitching the machine to and from the tractor

It is forbidden to allow any persons to sit or ride on the implement at any time

The tractor should be fitted with enough front-end weights for stability and to maintain secure steering.

Driving, steering and braking characteristics are influenced by mounted machines and ballast weights. The operator must ensure adequate steering and braking ability

Use the tractor's position control when coupling the implement to the tractor.

Do not stand between tractor and implement while it is being raised.

The tractor's lower link arms should be stabilised before driving on a public road so that the implement and tractor lower link arms do not touch the tyres during transport.

Make sure that all nuts and bolts are always fully tightened.

NEVER stand or work beneath a suspended load unless supported by chocks or stands capable of carrying the implements weight and bulk.

The user is responsible for ensuring the implement complies with the law when driving on public roads and to check the lighting units are in full working order.

Always lower the implement attached to a tractor whilst parked.

OPERATION AND ADJUSTMENT

Attach the Subsoiler to the tractor using the 3 point linkage. It is important to the function of the Subsoiler to ensure the machine is running level to allow optimum level of soil disturbance and to prolong the lifespan of the wearing parts.

Please ensure that the implement is mounted correctly.

Check that the hydraulic hoses (if relevant) are free of damage and not in a position to foul when lifting and lowering the Subsoiler on the tractors linkage.

Check that all nuts and bolts are firmly tightened.

For folding machines, attach the hydraulics.

HYDRAULIC SYSTEM

The hydraulic system is working under high pressure and is therefore potentially dangerous. It is very important that all hoses and connections are checked frequently for leakage and external damage.

The hydraulic hoses should not be connected to, or removed from the hydraulic system on the tractor unless the oil pressure in both the tractor and implement has been released.

Porous and defective hoses must always be replaced immediately.

Oil leakage from damaged hoses and connections can cause fatal injury and possible fire risk.

Always seek medical treatment immediately following any injury.

PACKER ROLLER ADJUSTMENT

Remove the top left and right adjustment pin on the packer arm adjuster.

Lower the Subsoiler in to the ground to the desired depth.

Replace the top pin to the nearest hole for the depth required. Make sure the same setting is selected on both sides.

Move the lower pins from the adjuster to the nearest hole as possible to the packer arm to prevent movement when lifting from the ground.

Rules of Conduct for Operation

The following points must always be observed before the machine is started up and during operation:

- Never leave the machine unattended.
- Check the machine regularly for oil leakage. Replace defective components immediately.
- Do not use if any parts are found defective.
- Check the machine for dirt accumulation and keep the unit clean at all times.
- Perform regular maintenance checks to ensure faults are noticed.
- Perform a regular greasing routine. The machine needs to be well greased at all times.

Rules of conduct when handling the hydraulic system

DANGER

The hydraulic system is under high pressure!

Fluids escaping under high pressure can penetrate the skin and cause serious injuries! If such injuries occur, call a doctor immediately as otherwise there is a risk of serious infection which can lead to death!

Consequently: Work only on the hydraulic system when the hydraulic system is depressurized and the drive is switched off.

Note

All components of the machine are driven hydraulically. Replace defective hose connections immediately. Do not attempt to repair damaged hoses.

REVERSING/REPLACING THE POINTS

Only carry out reversing/replacing the points on solid ground conditions, e.g. cement/tarmac, to avoid the risk of sinking and potential injuries whilst changing the points. The implement must be raised on the tractor linkage and the tractor engine turned off. Remember to use the parking brake and/or wheel chocks to ensure that the tractor is held stable. It is important to support the Subsoiler's weight with stands/chocks in the event of failure of the tractor hydraulics. Remember it is forbidden to work under a suspended load without the adequate support.

Once you are confident that you have met the safety standards required you can proceed;

Unbolt each worn point to free the worn point. A new point can then be replaced into the same position with the appropriate nut/bolt tightened up to secure it in position.

For Cast points ensure that the fixings are NOT over tightened to prevent damage.

When you have finished replacing the points, remove the Subsoiler supports/chocks and lower the machine as in the Think Safety! Section above until you are ready to move off.

Acquiring spare parts

Please quote the details on the type plate(s) as well as the machine's serial no. on every order for spare parts or accessories, or enquiries of a technical nature.

The use of spare parts supplied by others shall only be permitted after consultation with the manufacturer. Original spare parts and accessories authorised by the manufacturer ensure safe and reliable operation. The use of other parts may invalidate the liability of the manufacturer for any consequences arising from such use.

Disposing of replaced parts

The following points should be observed before replacing or disposing of parts.

- Replaced parts, which still function, should be cleaned and stored in an orderly manner.
- Machine parts, which cannot be repaired should only be disposed of at appropriate collecting points or be collected by a scrap metal dealer.

- So-called “valuable” materials should be disposed of in a proper way, i.e. plastics, rubber, scrap metal, etc. should be recycled.
- Collect and dispose of old oil in accordance with the current regulations.

TRANSPORT

Before taking the tractor with the implement attached on to a public road, implements wider than 3m will require folding up into transport position.

With the machine attached to the tractor and in raised position, fold it up using the tractor hydraulics. Lower the machine to the ground and fit the safety bar onto the left and right ram pin mount. Lock off the ball valves on the left and right hydraulic cylinders (located directly on top of each cylinder). Check all lights are working before setting off on the road.

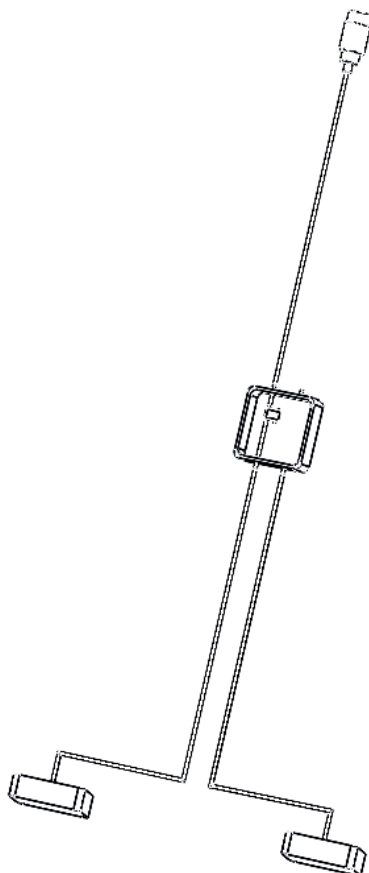
The Department for Transport requires the maximum width of an agricultural machine to be 2.55m. However, under special circumstances Agricultural machines wider than 2.55m are permitted to use public roads. The Road Vehicles Order 2003 permits the road use of Agricultural vehicles that are up to 4.3 metres in width, subject to terms and conditions. The key ones are as follows:

Width – between 2.55m and 3m: speed must not exceed 20mph

Width – between 3m and 3.5m: maximum speed 20mph as above, plus if the journey is over 5 miles or the speed limit in the road is 40mph or lower, the operator must notify the Police in advance of the journey.

Width – between 3.5m and 4.3m: the Police must be notified, the maximum speed is limited to 12mph and the vehicle(s) must be accompanied by an attendant, who may ride in a different vehicle but must ensure no danger is cause to the vehicle or other road users. The police, following notification, may place restrictions on the use of the vehicle in the interests of road safety or to avoid undue traffic congestion.

ELECTRIC LIGHT ASSEMBLY



Item Number	Part number	Description	Quantity per machine
1	6003	Plug	1
2	270	Junction Box	1
3	LT595	LH Light inc indicator	1
4	LT596	RH Light inc indicator	1
5	Stripconnector	6 hole strip connector	1

MAINTENANCE

The following areas must be kept greased at all times:

- AUTO RESET LEG PIVOT POINTS
- AUTO RESET HYDRAULIC RAM POINTS
- HYDRAULIC FOLDING PIVOTS
- PACKER ROLLER BEARINGS (although be careful not to over grease to prevent damage to the bearing seals)

ALL GREASING POINTS ARE CLEARLY MARKED AND VISIBLE ON THE SUBSOILER

Check all bolts and fastenings prior to use for tightness and to ensure none are missing.

Replace wearing parts before excessive wear causes poor performance and damage to the leg.

WEARING PARTS

The wearing parts used on the Subsoiler can vary although as standard we fit a one piece "Tim Howard" style point. Parts can be obtained through Agriweld Ltd directly or through your local dealer.

AUTO RESET (Applicable to all auto-reset models)

The auto reset pressure is set at 45 bars for dispatch. You will need to adjust this setting to your own conditions. If the legs trip too easily the pressure can be increased. If the legs do not trip the pressure will need decreasing. Please see Charging Oil Pressure below for instructions. PLEASE NOTE: The pressure may need adjusting for different working locations as soil conditions can vary.

Prior to use, the pressure should be visually checked to ensure that it has not reduced or whether adjustment is required. The pressure gauge is situated under the headstock on the main frame. If for any reason the pressure has reduced, the machine can still be operated but excessive tripping of the legs may occur and it will need re-charging from the tractor.

RE-CHARGING OIL PRESSURE (Applicable to all)

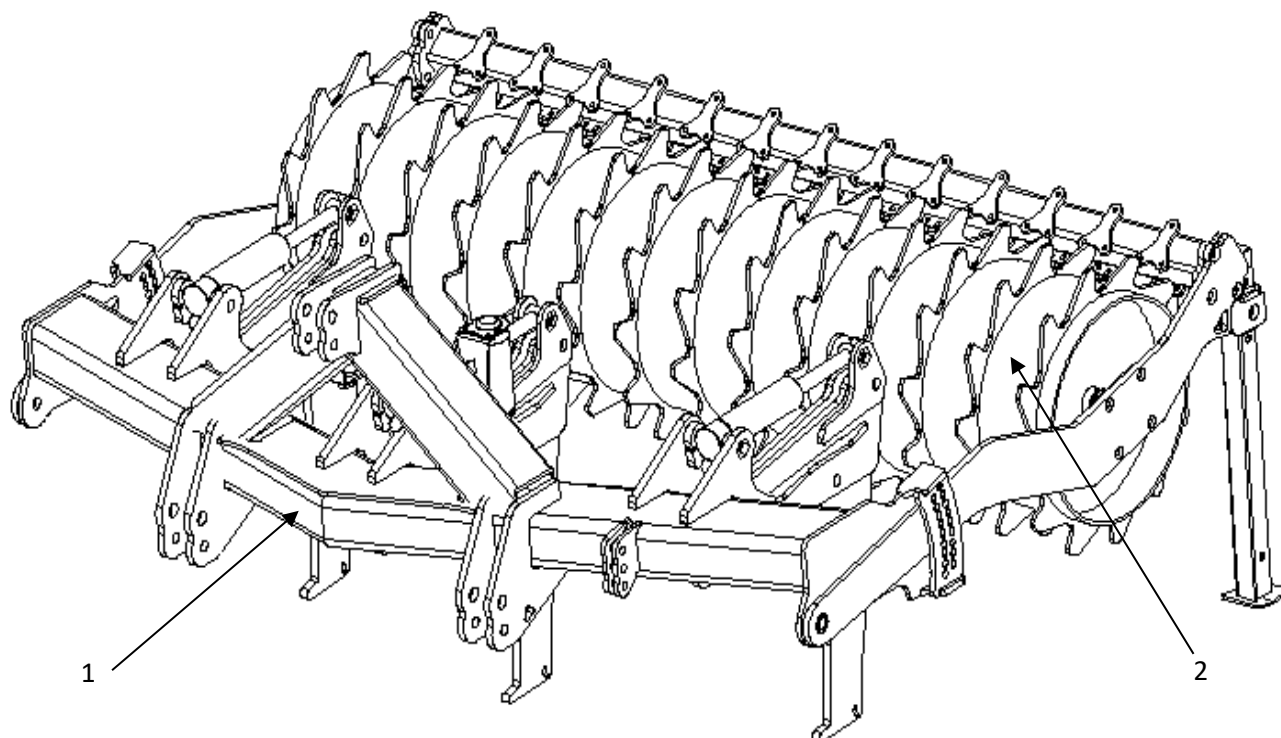
Connect the hydraulic pipe situated off the pressure gauge to the tractor spool, open the tap (a couple of turns will suffice) operate the tractor spool to pump oil into the system and until the gauge needle reaches selected pressure bar. The pressure can be dropped by operating the spool the other way to let the oil back out. Once desired pressure is reached turn off tap to lock and remove pipe.

ATTACHMENT OF FOLDING HYDRAULIC PIPES (Hydraulic Folding Models Only)

Once the Subsoiler is attached to the rear of the tractor, plug the hydraulic folding pipes into the tractor spool. When at the field and prior to working, operate the spool to lower the wings until they contact with the levelling bolts (on the headstock below wing pivot point). The valve fitted to the hydraulic cylinders (folding) locks the wings in position and will not move until oil pressure is supplied again.

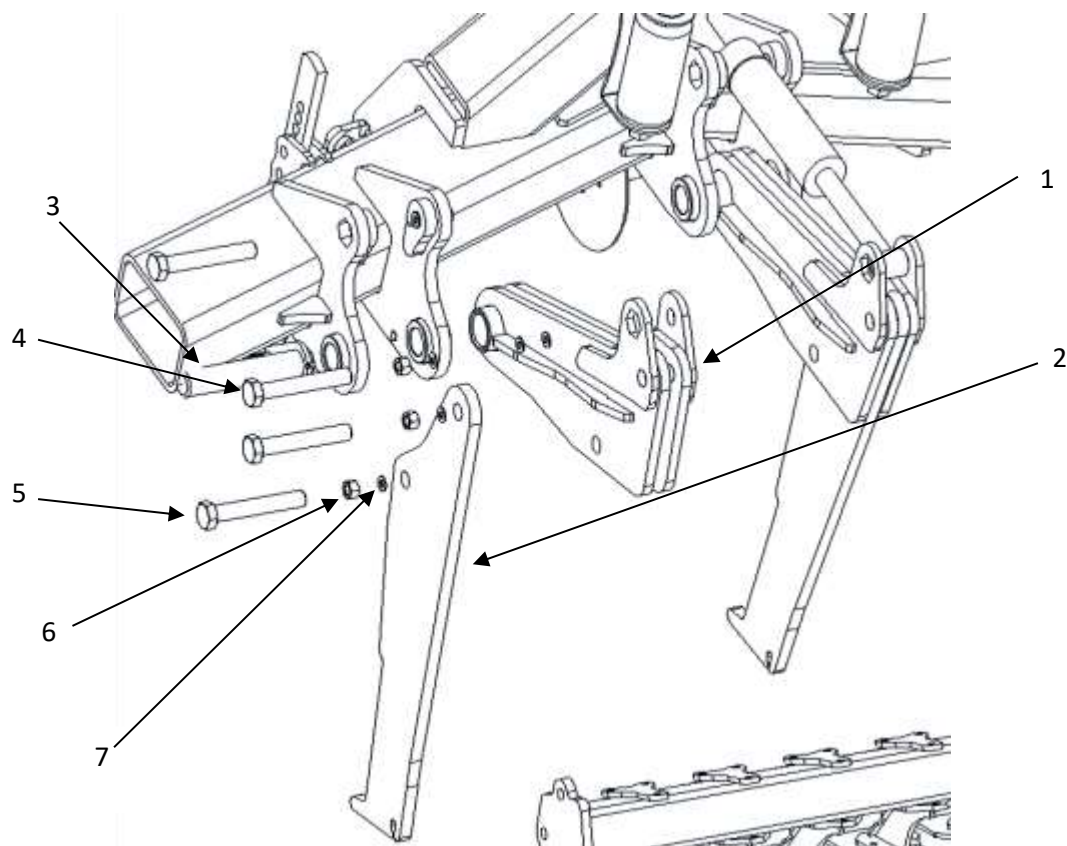
If the wings appear to be sagging or uneven, adjust the stop bolts accordingly. These are positioned under the headstock below the wings pivot point. Always transport a hydraulic folding Sub Soiler in it's folded position.

Main Assembly



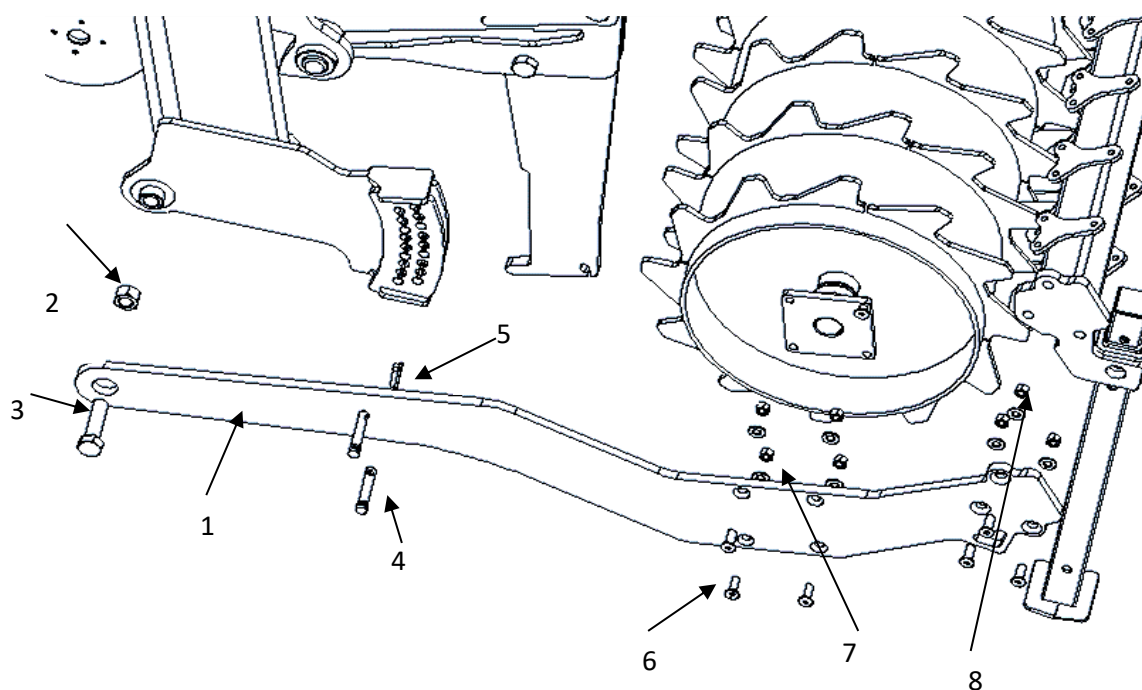
Item number	Part number	Description	Quantity per machine
1	Main_Frame	Main Frame	1
2	Packer_Assembly	Packer Roller	1

Leg Assembly



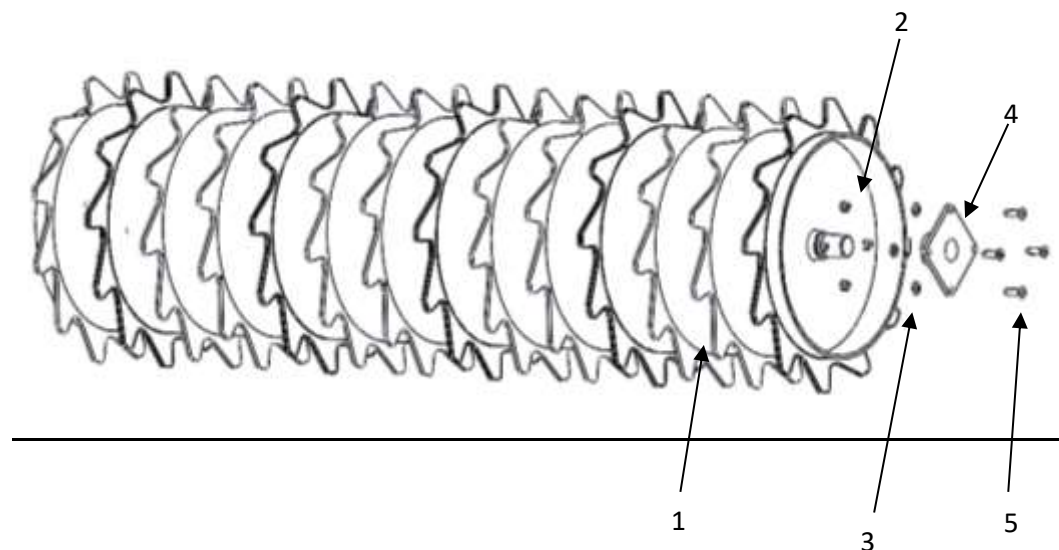
Item number	Part number	Description	Quantity per machine
1	SS_AR_2003	Leg reset pivot plate	3
2	AR_LEG_2011	Subsoiler leg	3
3	MAIN-PIN	Pivot pin	3
4	M30X80	M30 Bolt	3
5	M30X120	M30 Bolt	12
6	M30 Nut	M30 Nut	12
7	M30 Washer	M30 Washer	18

Packer Attachment



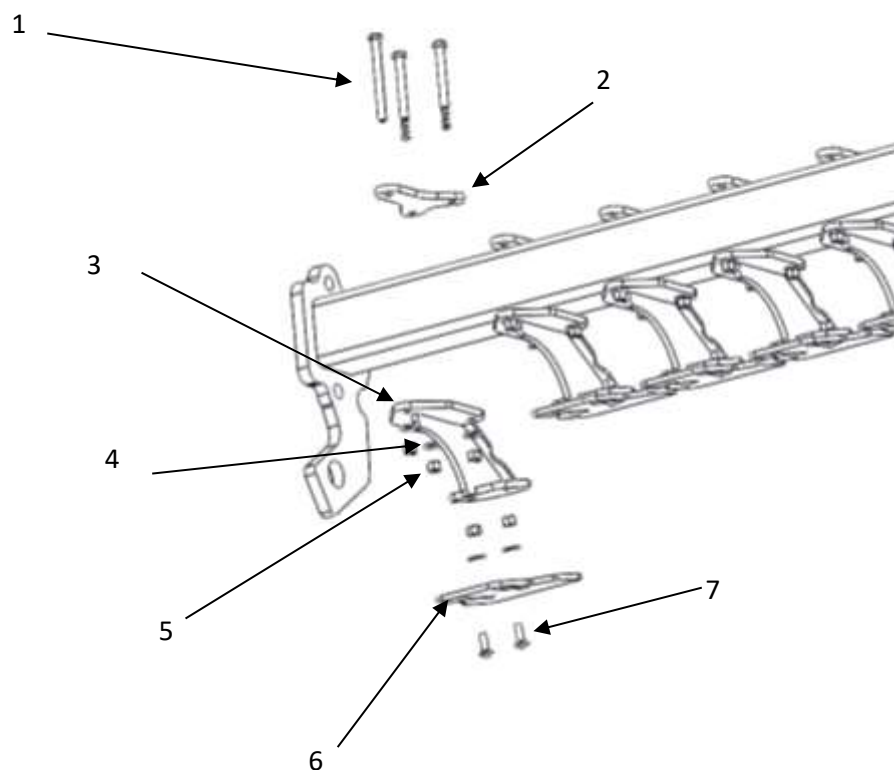
Item Number	Part number	Description	Quantity per machine
1	750_ARS_2010	Packer attachment profile	2
2	M30 Nut	M30 Nut	2
3	M30X100	M30 Bolt	2
4		19mm Kramp pin	4
5	LP6Z	6mm Linch pin	4
6	M16X60 CSK	M16 countersink bolt	14
7	M16 Washer	M16 Washer	14
8	M16 Nut	M16 Nut	14

Packer Assembly



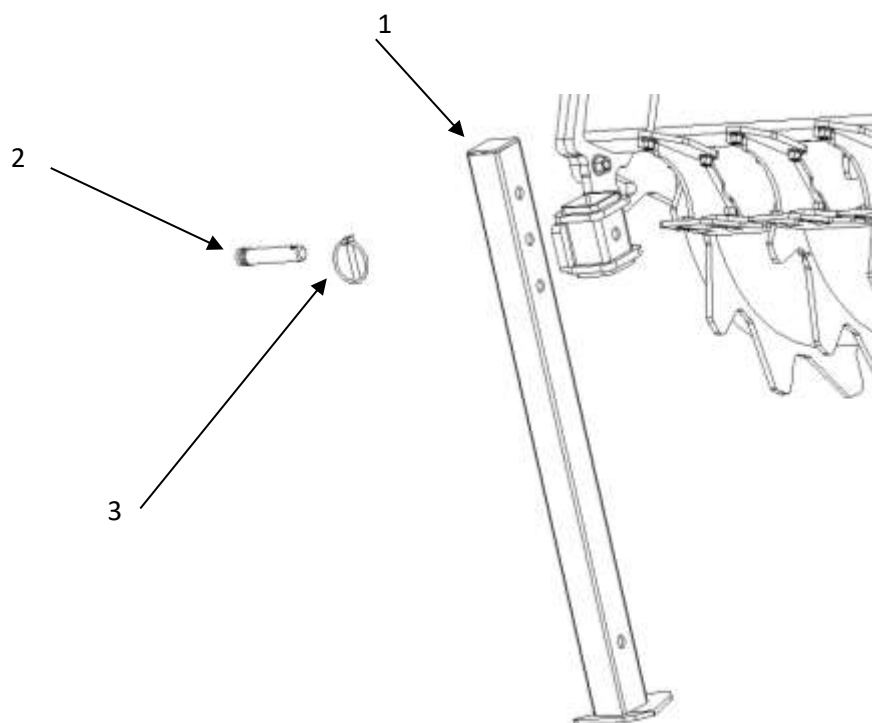
Item number	Part number	Description	Quantity per machine
1	750_C_Packer	Main packer	1
2	M16 Nut	M16 Nut	8
3	M16 Washer	M16 Washer	8
4	Bearing	Packer bearing	2
5	M16X60 CSK	M16 Counter sink	8

Scraper Assembly



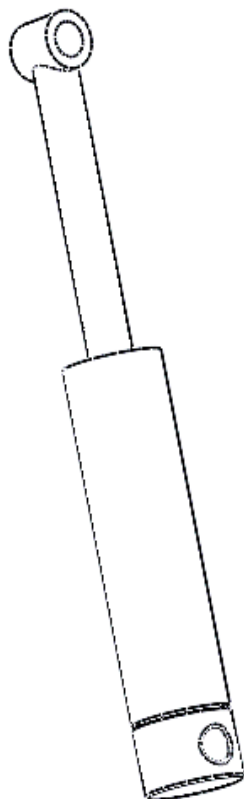
Item number	Part number	Description	Quantity per machine
1	M12X140	M12 bolt	39
2	TOP-PLATE-MK2	Scraper attachment	13
3	SUB-SCRAPPER	Scraper attachment	13
4	M12 washer	M12 Washer	65
5	M12 Nut	M12 Nut	65
6	AR_SS_0850	Scraper plate	13
7	M12X35 CHS	M12 cup head square	26

Stabilising Leg Assembly

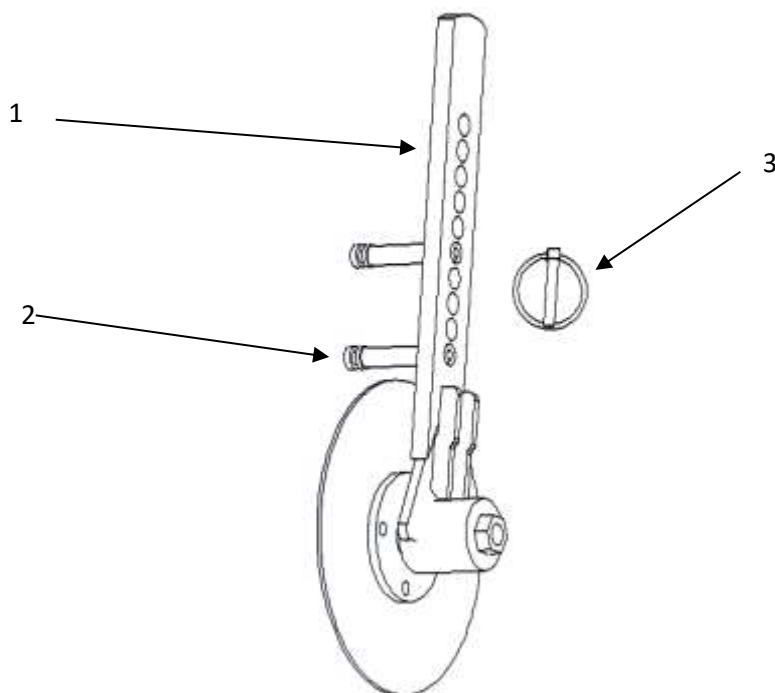


Item number	Part number	Description	Quantity per machine
1	Stand assembly	Stands	2
2	20mm Kramp pin	20mm Kramp pin	2
3	11mm Linch pin	11mm Linch pin	2

Rams; 705/2/40/80



Disc Assembly (optional extra)



Item number	Part number	Description	Quantity per machine
1	Beaver_Disc_01	Cutting disc	3
2	19mm Kramp pin	19mm cramp pin	6
3	11mm Linch pin	11mm Linch pin	6

STICKERS

Sticker	Part number	Description	Quantity per machine
	RHINO_AGRI_01	160x110mm Rhino cultivation oval	2
	AGRI_Greenlogo	180X85mm Green agriweld logo	2
	Green_GB_logo	87X55mm Green made in GB	2
	Grease_nipple	45X25mm Grease nipple	8
	AW_OM_S	Read operator manual sticker	1

WARRANTY

Your Agriweld subsoiler is covered for a period of 12 months from the date of dispatch (which is recorded on our files) against faulty components and/or bad workmanship.

Our welders are coded to ISO 9606-1 and our welding procedures are approved in accordance with ISO 15614-1 to manufacture your equipment. All products are checked for quality prior to delivery/collection.

We cannot be responsible for claims arising from ignorance, occurrences outside our control, such as accidents, and malicious damage and non-compliance with safety instructions.

Any damage occurred during transit must be reported on signing for the item from the haulier to enable us to enter a claim for damages direct with the haulier.

WARRANTY CLAIMS FOR DAMAGE DURING TRANSIT

Damage occurred during transit via an external haulier must be reported immediately upon unloading and signing for the item. The limit of our liability to undertake repairs to products damaged during transit is dependent on signing for any damaged product upon delivery as "DAMAGED".

CE DECLARATION OF CONFORMITY

The equipment which accompanies this declaration is in conformity with EU Directive(s):-

2006/42/EC Machinery Directive

Manufacturer Name:	Agriweld Ltd
Manufacturer Address:	Main Street Garton-on-the-Wolds Driffield East Yorkshire YO25 3ET
Product:	Subsoiler
Product Options:	All
Individual Serial Number:	
Product Description:	AGRIWELD Subsoiler
Date of Last Load Test Report:	N/A
Supplementary Information:	
Authorised Signatory on Behalf of Manufacture:	
Name of Signatory:	Dawn Foster
Position in Company:	Director
Date of Issue:	