

### **Operator's Instruction Manual**

### **BEDMAKERS**

Models

### 3842-SB 3842-AR 3842-AR+



### INSTALLATION & REGISTRATION DOCUMENT



### Machine Details:

Machine Model:	
Serial No:	
Invoice No:	
Delivery Note No:	
Installation Date:	

### Acceptance by Purchaser:

I / We have taken delivery and inspected the machine as detailed on this form and acknowledge that it conforms to my / our order placed with the aforementioned dealer / distributor.

I / We have been instructed in the operation, routine servicing procedures and safety precautions and acknowledge the receipt of the Operators instruction manual

I / We understand my / our entitlement to the benefits of the warranty.

I / We will ensure that all operators of the machine will be properly instructed on the operator's manual and that the operator's manual will be available to the users at all times.

### **Operating Instructions:**

I / We have carried out the pre-delivery inspection and have delivered and installed the machined detailed on this form.

I / We have explained to the purchaser, the operation, routine servicing procedures and safety precautions involved with this machine and passed on to the purchaser / operator the operators manual.

I / We have advised the purchaser of his entitlement to warranty.

I / We have carried out the relevant checklist with the purchaser or operator overleaf.

### **Purchaser Details:**

Farm / Business Name:	A
Address:	
Postcode:	
Contact Tel:	

[	Owner	Manager	Contractor
Purcha	aser Signat	ure:	
Purcha	aser Name	:	
Date:			

Name:	
Depot Address:	
Signature:	
Name:	
Date:	

<u>Please Note</u>: This form should be completed by the Dealer / Company representative / Retail customer within 7 days of the installation. Please return to the below postal address or email address.

East Mains of Burnside, By Forfar, Angus, DD8 2RX T: 01307 818 000 <u>ewan.harper@scanstone.co.uk</u> T: 07976 260 546



### **EC Declaration of Conformity**

in accordance with BS EN ISO/IEC 17050-1:2004

### **RGS Forfar Ltd.**

East Mains of Burnside, Forfar, Angus, Scotland DD8 2RX

declare that:

Equipment:	3 Bed Former			
Model No	3842-SB	3842-AR	3842-AR+	
Serial No.				

in accordance with the following directive:

**2006/42/EC** Conforms with the essential requirements of the Machinery Directive and its amending directives

has been designed and manufactured to the following specifications:

**BS EN ISO 12100-1 2003 Safety of Machinery** - Basic concepts, general principles for design - Basic terminology, methodology.

**BS EN ISO 12100-2 2003 Safety of Machinery** - Basic concepts, general principles for design - Technical principles and specifications.

**BS EN 982: 1996** Safety of machinery. Safety requirements for fluid power systems and their components - Hydraulics

**BS EN ISO 4254-1: 2009** Agricultural machinery - Safety - Part 1: General requirements

### BS EN ISO 13857: 2008

Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs.

Signed:-

jular /

Gordon Skea Director RGS Forfar Ltd.

at:- RGS Forfar Ltd. Forfar, Angus, UK on:- 7th April 2010

( (

FORFAR LTD.

### Foreword

ScanStone 3842-SB, 3842-AR and 3842-AR+ series machines have been designed specifically for ridging and bed making purposes and are not intended for any other use. The manufacturer shall not be liable for damage resulting from mis-usage. The user shall bear all responsibility.

Intended use also comprises adherence to the operating, maintenance and servicing instructions outlined by the manufacturer.

The machine must only be used in perfect working condition, in accordance with the aforementioned intended use and with instructions outlined in the operator's handbook. Any functional disorders, especially those which may affect safety of personnel must be rectified without delay.

Following the setting up and operating instructions provided should allow the operator to achieve the best performance from the machine which should result in increased reliability. Owing to wide variations in operating conditions however, it is impossible for the manufacturer to make comprehensive statements in this publication regarding performance or methods of working.

The efficiency of the machine always depends on the suitability of the operating conditions. Working on Steep inclines or land that is too wet can significantly affect the finished work.

Operators should read carefully the Safety notes contained within the manual prior to using the machine in order to help avoid dangerous situations, expensive repairs and prolonged downtime. In addition operator's should also read all relevant legislation regarding health, safety and accident prevention applicable to the country in which the machine is to be used or resold.

ScanStone products are manufactured to the highest possible standards and specifications in the UK using carefully selected materials and components and in accordance with recognised safety standards.

The right to change specifications, equipment and maintenance instructions at any time, without notice is reserved as part of our policy of continuous development and improvement.

No liability can be accepted for any inaccuracies or omissions in this manual, although every possible care has been taken to make it as complete and accurate as possible.

Owners who encounter a problem not covered in the manual should contact their dealer or ScanStone direct at the following address:-

### The Service Manager,

RGS Forfar Ltd. East Mains of Burnside, Forfar, Angus, Scotland. DD8 2RX tel & fax: 00 44 (0) 1307 818994 e-mail:- rgssales@btconnect.com The serial number plate is attached to the toolbar cross member. Use the space on the sample plate below to record the serial number for future reference.

0	ScanStone POTATO SYSTEMS	े
	SERIAL No.	]
	MODEL	
	YEAR	
	UNLADEN WEIGHT (KG)	
	DRAWBAR WEIGHT (KG)	
	AXLE WEIGHT (KG)	
$\bigcirc$	RGS Forfar Ltd. Burnside, Forfar, Scotland (6	0

### Warranty

ScanStone when supplying new goods guarantee subject to certain conditions that those goods are free of defects both in material and workmanship.

The following conditions apply:-

- That the machine has only been used for ridging and bed making purposes.
- That service and warranty work is carried out only by authorised ScanStone dealerships.
- That the original specification of the machine has not been altered by unauthorised modification.

Correct operation of the machine and regular maintenance will help to prevent breakdowns. If however, operating trouble is experienced during the warranty period the following actions should be adopted:-

Notify the dealer from whom the machine was purchased, quoting the model and serial number. This should be done immediately!

Do not operate the machine. Even though the original failure may be covered by warranty - resultant damage to the machine arising from delay in reporting the fault will not be covered.

It should be noted that items consumed during normal maintenance services, by operation of the machine and by factors over which the manufacturer has no control are not automatically warrantable.

These items include - hydraulic and lubricating oils and ground engaging parts.

The manufacturer cannot accept liability for damage to machines or third party through operational negligence.

### **Table of Contents**

EC Declaration of Conformity	. i
Foreword	
Warranty	ii

### Part 1 - Safety Precautions

General	. 1.1
Before Work	
During Work	. 1.1
After Work	. 1.1
Safe Maintenance and Servicing	. 1.1
Servicing the Hydraulic System	. 1.2
Road Transportation	. 1.2
•	

### Part 2 - Setting up, Adjustment and Maintenance

A	Attaching to the Tractor Three Point Linkage	2.1
	Adjustment of Ploughs	
	Hydraulic System Pressure	
	Accumulator Pressure	
	Marker Arm Hydraulics	
N	Marker Arms and Discs	2.3
(	Coupling to the ScanStone Bed Tiller	2.3
5	Shearbolts	2.4
L	Lubrication	2.4
E	End of Season Storage	2.4
	<u> </u>	

### Part 3 - Troubleshooting

	Problems, Causes and Remedies	3.1
Part 4 -	Technical Data	
	Machine Equipment & Specifications	4.2

Machine Equipment & Specifications	4.2
Handling Oil and Grease	4.3

### Part 5 - Parts List

### Part 1 Safety Precautions

### Ignoring these precautions may result in serious personal injury or damage to the machine.



This symbol is used throughout the manual to draw attention to important information where particular care is required to ensure safe operation and maintenance of the machine.

### General

The operator's handbook should be considered as a part of the machine and should be available for immediate use at any time during operation of the machine. Suppliers of new and second hand machines are advised to obtain documentary evidence that this manual was provided with the machine at time of sale.

Owners of machines should ensure that prior to commencement of work the operator has read and understood the operator's handbook and in particular the information regarding safety. This also applies to persons involved in setting up, maintenance and cleaning of the machine.



### Reading the instructions after work has begun is too late!

Operator's should also consult the tractor handbook for information and instructions on mounting implements and other related safe working methods.

### Before starting work

- Do not add to or modify any part of the machine which could affect safety without the prior approval of the manufacturer. This also applies to welding work.
- Check that warning and safety decals are in good condition. Replace any which are missing or those which have become illegible.
- Check the machine to ensure all services are operational and functioning correctly.
- Inspect the field for hazards such as large boulders, poles, overhead power lines and uneven ground. Take care when working to avoid obstacles and when working in unstable conditions.
- Warn bystanders to keep clear of the machine whilst working or when hydraulic functions are operational.
- Use personal protective equipment when circumstances require or to meet legislation. e.g. ear plugs. In extremely dry conditions face masks should be worn if dust levels are unacceptable.

### **During work**

- Reduce tractor speed when working on sloping ground.
- Never leave the driving position of a moving or running tractor.
- Avoid ridging across the face of slopes or on uneven ground where there is a danger of the tractor overturning.
- Check the machine regularly during operations for signs of wear and damage especially if an obstacle is struck.
- Do not allow children to play anywhere near the ridger or on the headlands when the machine is operational especially if hydraulic marker arms are fitted.

### After work

- Never park the machine or carry out maintenance work when underneath overhead power lines.
- Adhere to replacement intervals noted in the manual if applicable even if signs of wear to components are not evident.

### Safe maintenance and servicing

- Check operator's instruction book for details of service and maintenance schedules.
- Before commencement of maintenance work position the machine on flat level ground and secure using the tractor handbrake. Use the support stand (provided with auto-reset models) for extra stability.
- Always remember to remove the tractor ignition key!
- Take care when carrying out maintenance under the machine. Make sure adequate support devices are in position to prevent sudden lowering.
- When large assemblies are to be lifted make sure lifting devices, slings and suspension systems have the necessary lifting capacity and are properly attached.

### Do not allow anyone to stand below suspended loads.

- After cleaning the machine check all hydraulic pipes and hoses for leaking or operational damage.
   Repair before putting the machine back in service.
- When servicing is complete, check all nuts and bolts loosened during repairs have been tightened satisfactorily.
- Dispose of hydraulic fluids, filters and contaminated materials safely with due consideration to the environment.
- Always use genuine ScanStone spare parts.

### Part 1

### Servicing the Hydraulic system.

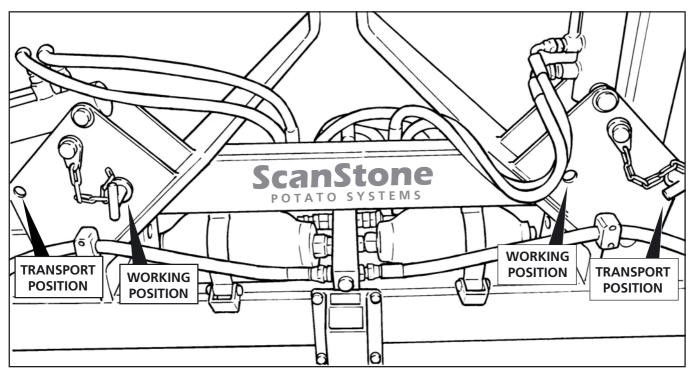


Warning - The hydraulic system works under high pressure.

- When servicing or repair work is to be carried out on the machine use only suitably qualified engineers working to the relevant hydraulic standards and codes of practice.
- Check hydraulic lines regularly for any sign of leakage. Do not tighten a leaking fitting whilst the hydraulic system is pressurised. Always de-pressurise before maintenance to hydraulic components.
- Ensure hoses are properly fitted, free from twisting and clear of moving parts of machinery.
- Always replace hoses at the first sign of damage.

### **Road Transportation**

- Check that the machine is free of earth, stones and clods, tools or other items of loose equipment before driving on public roads.
- Retract the marker arm outer tubes and secure with the pinch screws. Use the marker arm locking pins to hold the markers in the upright position, Fig 1.
- When turning or at bends take the width and load of the machine into consideration.
- When stopped secure the machine to prevent rolling or unauthorised use.



### Part 2 Setting up, Adjustment and Maintenance

### Attaching to the tractor Three Point Linkage

The machine is fitted with standard category 2 three point linkage. This linkage combines the ridger / bed maker and the tractor into a single working unit. Lift and position are controlled hydraulically.

Consult the Tractor Operator's manual for instructions on mounting implements and for rear hitch adjustment.



During hitching operations or when using external lift controls, the operator must at all times keep outside the drawbar frame.

The stabilizer chains on each lower link should be evenly adjusted to reduce side play to approximately 11/2" (38mm) to each side of the tractor.

Fit front end weights if required for stability and steering control as load will be transferred from the front to the rear wheels of the tractor when the three point linkage is raised.

### Adjustment of Ploughs

The effective length of the mouldboard stays can be adjusted to increase or decrease the plough width allowing the operator to vary the shape of the bed to suit the type and condition of the soil.

To adjust the width:-

Loosen the nut attaching the inner end of the stays to the plough mounting leg, Fig 2:1.

Loosen the locknuts attaching the stays to the mouldboard brackets, Fig 2:2 and increase or decrease the stay length to suit the new setting required.

Ensure both sides are adjusted equally before tightening nuts.

Although a trial run is often the best way to decide on bed shape - wider plough widths which produce shallow sided ridges are generally more suited to heavier clay type soils. In moist sandy conditions - narrower ploughs producing a steeper wall angle are more suitable.

If bed tilling or stone and clod separation is to take place after ridging - note that ridged beds should be prepared with tops as flat as possible. This will help to minimise wear damage to the centre of the machines.

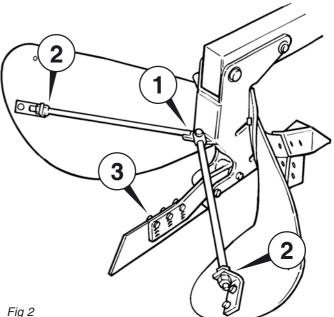


Fig 2

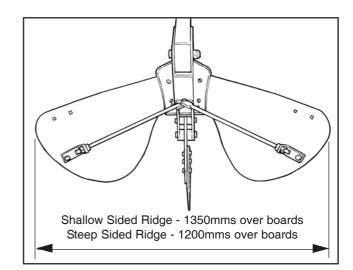
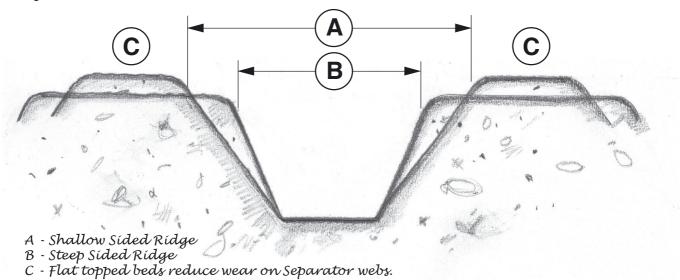


Fig 3



### Part 2

### **Hydraulic System Pressure**

On Auto-reset models the hydraulic system is pre-charged using the tractor hydraulics to a pressure setting sufficient to hold the ploughs in work.

Accumulators are positioned either side of the headstock.

### NOTE: Alternative accumulators are used on the equipment depending on which plough body system is installed.

Standard ScanStone plough bodies are fitted with 1.4 litre accumulators and AR+ Double Action plough bodies are fitted with 2.0 litre accumulators, Fig 6.

Follow the instructions below to pressurise the system:-

- Starting with the first accumulator couple the quick release pressurising hose (from the accumulator lock valve, Fig 5:1) to the tractor auxiliary hydraulic outlet.
- Open the system lock valve by turning in an anticlockwise direction, Fig 5:2.
- Operate the tractor auxiliary system to obtain a precharge working pressure shown on the gauge according to the table below.
- Close the lock valve by turning in a clockwise direction.
- Disconnect the quick release pressurising hose from the accumulator lock valve and repeat proceedure for the second accumulator.

Tie up to prevent the hose end from trailing on the ground during operation.

The system is now charged and ready for use.

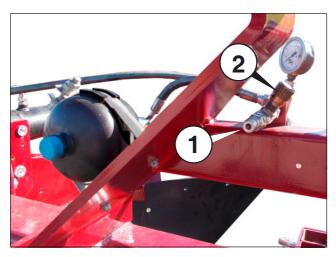


Fig 5

Accumulator type	Pre-charge Working Pressure
1.4 Ltr.	172 bar (2500 psi)
2.0 Ltr.	115 bar (1670 psi)



### WARNING

Do not use the lock valve to depressurise the system, or at any other time unless the pressure hose is connected to the tractor hydraulic outlet.

### **Accumulator Pressure**

If Standard ScanStone bodies are fitted the 1.4 litre accumulators are each pre-charged to 170 bar (2465 psi). For AR+ Double Action type bodies the 2 litre accumulators fitted are each pre-charged to 110 bar (1595 psi). Accumulators require no user maintenance.

If a fault develops with an accumulator the operator should notify his ScanStone dealer.

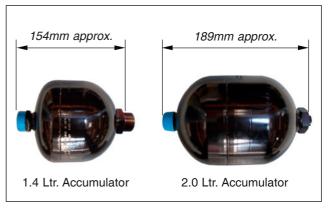


Fig 6

### **Marker Arm Hydraulics**

Optional hydraulically operated marker arms can be fitted to allow the operator to retract the markers when turning at headlands or when folding for transportation. (see Fig 1 for pin position details).



Always ensure pin is moved from transport to working position before unfolding markers. Failure to do so could result in damage to the machine.

### To fold / unfold:-

Connect the quick release hoses to the tractor auxiliary outlets.

Use the tractor spool lever to operate the marker rams to fold or unfold.

Note: When the markers are supplied they may be set up to operate in one of the two following ways:-

- When the spool lever is engaged the marker arms at each side of the machine will fold together. or
- When the spool lever is engaged the first marker arm will unfold to the working position followed by the other, and vice-versa when folding.

Operators who wish to change from one system to the other can do so by disconnecting the two hose ends on one of the marker arm rams and changing their positions.

### **Marker Arms and Discs**

Marker Arms consist of inner and outer sliding tubes held by pinch screws, Fig 7:1, which when loosened allow the operator to extend the inner tube to the required position. A pig tail spring attached to the end of the inner tube holds the marker disc in work.

To increase or decrease the marking depth - remove bolts and reposition them in any of the holes provided, Fig 7:2.

**Note:** Always retract the marker arm outer tubes and secure with pinch screws before travelling on public roads.

### Coupling to the ScanStone Bed Tiller

Before coupling to the Bed Tiller the linkage kit should be fitted to the Tiller as shown, Fig 8.

The kit consists of a linkage mount frame, Fig 8 (A), 2 mount brackets (B), a top link extension bracket (C), 2 top links (D), 2 latches (E), and all necessary pins and bolts.

Fit the pivot pins in either of the 3 height adjustment holes in the mount brackets, Fig 8:1.

Remove the latch retaining bolts, and raise latches ready to mount the Bedmaker, Fig 8:2.

Mount the Bed Tiller on the tractor 3 point linkage and raise the Support Stand.

Fit lower link pins to the Bedmaker, in either upper or lower holes, Fig 8:3.

Reverse the mounted Tiller slowly toward the Bedmaker until in position below the Bedmaker lower link pins. Raise the Bed Tiller to engage the lower link pins and ensure they are properly seated in the linkage jaws. Re-fit the latch plate retaining bolts.

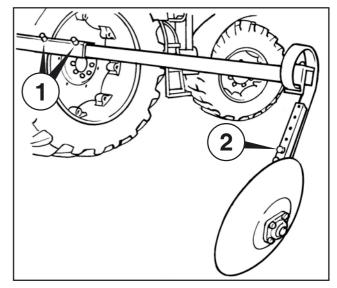


Fig 7

Connect the top links and adjust so that the Bedmaker is leaning back slightly.

Test run the combined unit adjusting the top link if necessary to ensure that the ridge bottom width is sufficient for stone and clod placement during separation and that the plough points are not bringing up uncultivated soil onto the ridge.

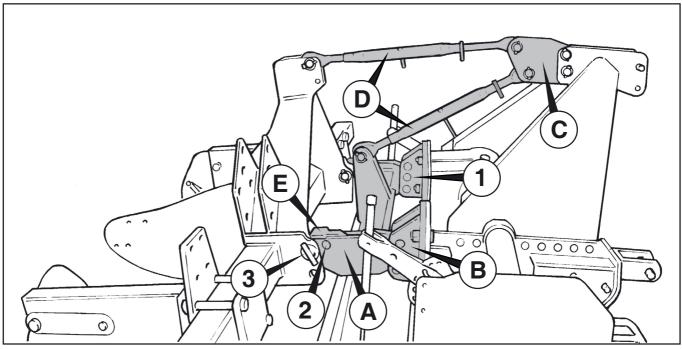


Fig 8

### Part 2

### Shearbolts

Plough Stems are connected to the beams using special Shearbolts, Fig 9:1. These Shearbolts will snap free should the plough become snagged on an underground obstruction.

Do not replace the shearbolts with ordinary bolts as this could cause serious damage to the mounting plates.

### Lubrication

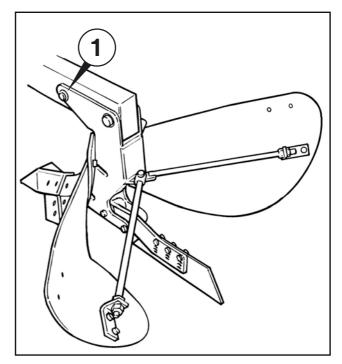
6 grease nipples are fitted on Auto-reset models.

These are located on ram ends and beam pivot pins, Fig 10: 1, 2 & 3. Grease daily.

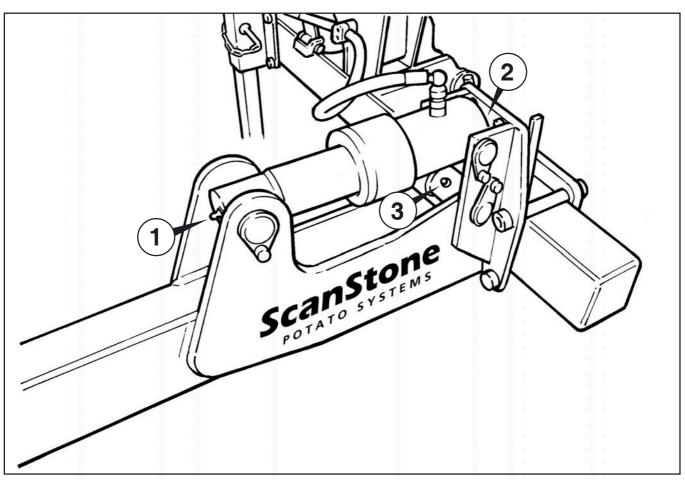
Grease nipples are fitted on marker disc bearings (2 per disc) - grease every 40 hours.

### **End of Season Storage**

- Clean the machine thoroughly to remove all remains of dirt.
- Check for any signs of wear or damage, and replace badly worn parts as necessary.
- Inspect shearbolts for damage replacing only with special ScanStone shearbolts.
- Grease all plough parts thoroughly.
- Store the machine in dry conditions under cover.
- Tie up all hydraulic hoses ensuring ends are clear of the ground.









### **Part 3 Troubleshooting**

Problem	Probable Causes	Suggested Remedy
Ploughs trip too easily.	<ul> <li>Extremely hard or compacted subsoil.</li> </ul>	<ul> <li>Subsoiling/deep cultivation required with chisel plough or similar prior to ridging.</li> </ul>
	• Low hydraulic pressure.	<ul> <li>Charge the hydraulic system pressure as described on page 2.2 and to the pressures given in the table.</li> </ul>
		<ul> <li>Connect the quick release pressurising hose to the tractor auxiliary outlet, and allow the hydraulic oil to flow back to the tractor.</li> <li>With the ploughs in the ground move the tractor forward until the ploughs are in the maximum trip position.</li> <li>Disconnect the hose from the first ram and drain the remaining oil into a container for safe disposal.</li> <li>Take care to avoid sudden discharge of oil due to residual system pressure when disconnecting the ram hose.</li> <li>Use the tractors hydraulic system to flush the hose allowing oil to expel as much air as possible.</li> <li>Loosely reconnect the hose to the ram to allow any remaining air to be bled before final tightening up of connector.</li> <li>Repeat these procedures for the second ram.</li> <li>The system should now be free of trapped air and can be charged up to working pressure.</li> </ul>
• Excessive Shearbolt failure.	<ul> <li>Ploughs are snagging under large rocks, tree roots or other obstacles.</li> </ul>	<ul> <li>Reduce system working pressure and tractor forward speed when working in fields which have roots or other hidden obstructions.</li> <li>Have the accumulator pressures checked by your local ScanStone dealer.</li> </ul>

### **Maintenance Note**

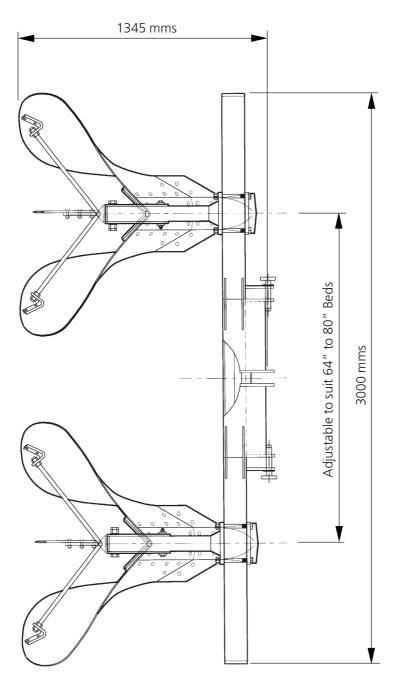
Hose Replacement Intervals - Hoses should be replaced every 5 years even if signs of wear or damage is not apparent.

When replacing hoses always use the correct specification\*:-

*SAE 100 R2 AT	٠	DIN EN 853 2SN
----------------	---	----------------

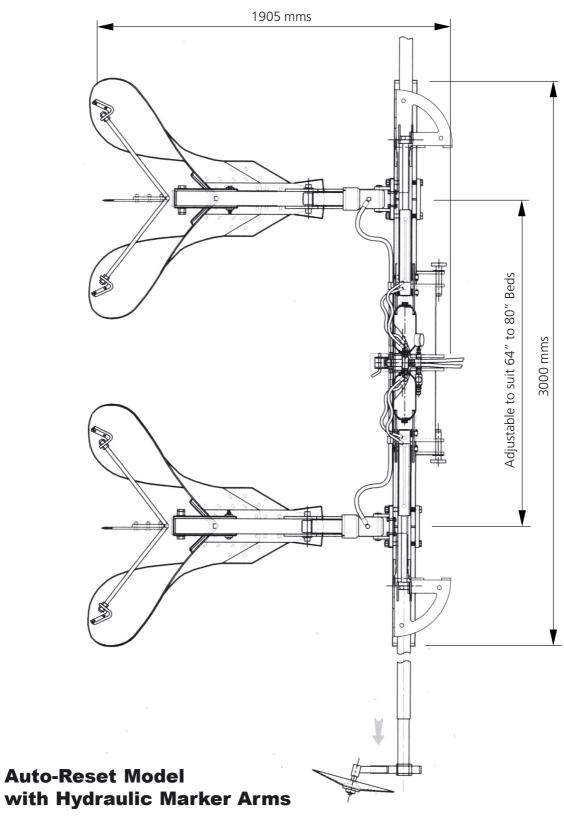
SIZE	WORKING PRESSURE	MIN. BURST PRESSURE
1/4"	400 bar (5800 psi)	1600 bar (23200 psi)
3/8"	330 bar (4800 psi)	1320 bar (19150 psi)

### **Part 4 Machine Specifications**



### **Shearbolt Model**

Toolbar Width	3000 mms
Length	1345 mms
Row Widths available	64" - 80"
Weight c/w Markers and Fins	574 Kg - 1265 Lbs
Weight without Markers and Fins	449 Kg - 990 Lbs
o/a Height to Head Stock	1330 mms
o/a Height with folded Markers	3000 mms approx.



Toolbar Width	3000 mms
Length	1905 mms
Row Widths available	64" - 80"
Weight c/w Markers and Fins	708 Kg - 1561 Lbs
Weight without Markers and Fins	583 Kg - 1285 Lbs
o/a Height to Head Stock	1330 mms
o/a Height with folded Markers	3000 mms approx.



### Handling Oil & Grease

Oil and grease products used on this machine are not considered to be particularly hazardous to health unless ingested. Handle these products responsibly and in accordance with good industrial hygiene and safety practices.

Contact with skin:-

Wash skin with plenty of soap and water for several minutes. Seek medical attention if irritation develops or persists.

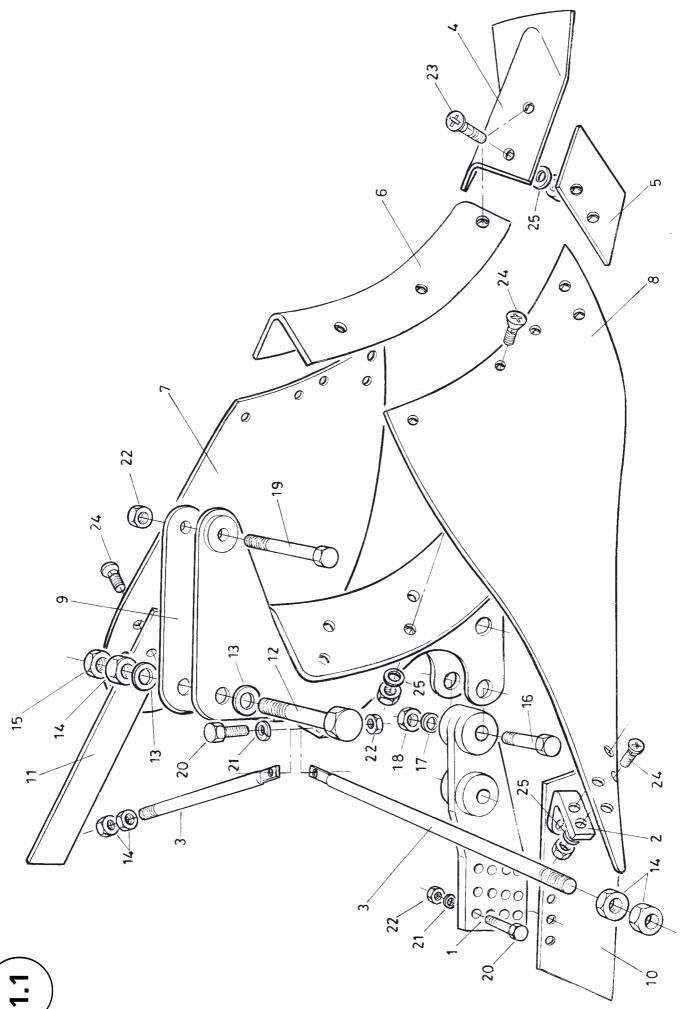
Contact with eyes:-

Flush eyes with plenty of water for several minutes. Seek medical attention if irritation develops or persists.

**Warning:** Diesel fuel or hydraulic fluid under pressure can penetrate the skin or eyes and cause serious personal injury, blindness or death. Fluid leaks, under pressure, may not be visible. Use a piece of cardboard or wood to find leaks. DO NOT use your bare hand. Wear safety goggles for eye protection. If any fluid is injected into the skin, it MUST be surgically removed within a few hours by a doctor familiar with this type of injury.

### Parts List - Assembly Groups

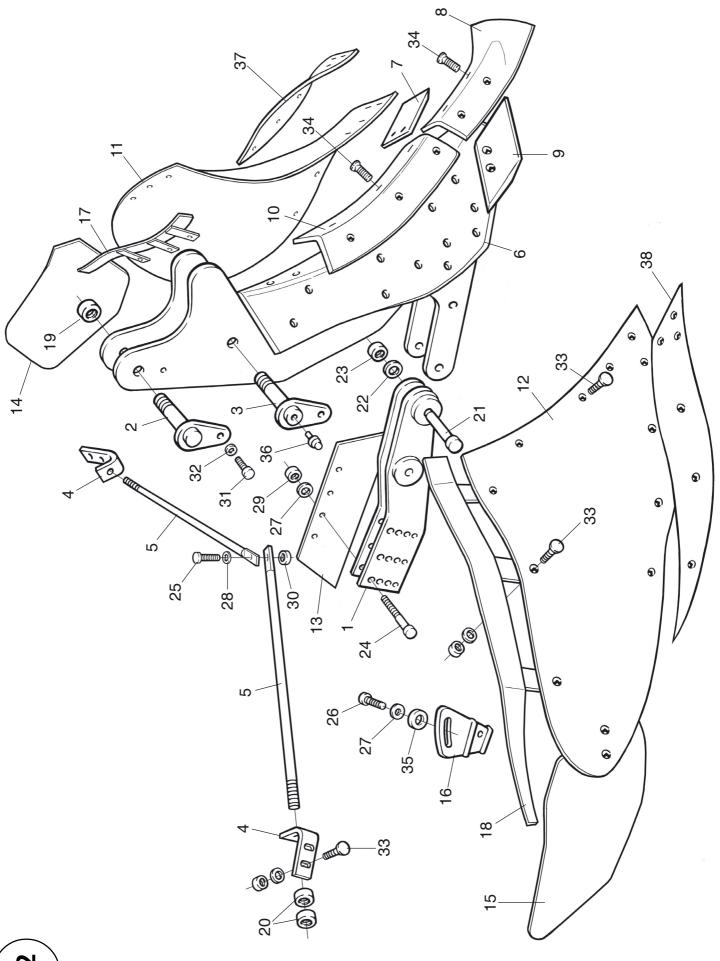
- 1.1 Plough Assembly
- 1.2 AR+ Plough Assembly
- 2 Toolbar & Shearbolt Beams
- 3.1 Toolbar & Auto-Reset Beams
- 3.2 Heavy Duty Toolbar & Auto-Reset Beams
- 4.1 Marker Arms & Discs (Up to 2014)
- 4.2 Marker Arms & Discs (2015 onwards)
- 5.1 Auto Reset Hydraulics (Up to 2014)
- 5.2 Auto Reset Hydraulics (2015 onwards)
- 6 Marker Arm Hydraulics



-

### Assembly Group 1.1 - Plough Assembly

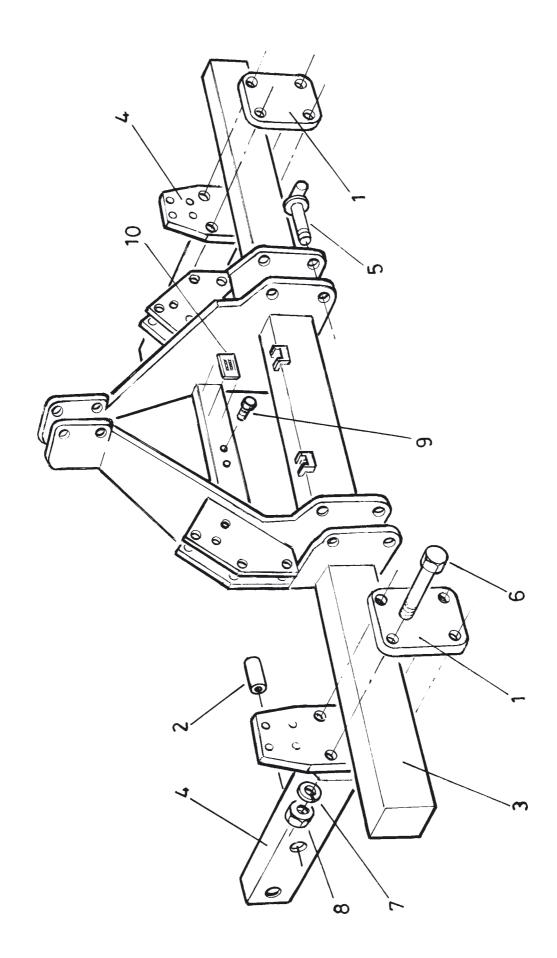
			•
-	Fin Bracket	UN-15039	-
2	Mouldboard Bracket	UN-15056	2
m	Adjuster	UN-15059	2
4	Point	UN-15632	۱
5	Wing (RH)	UN-15633	-
5	Wing (LH - NI)	UN-15630	-
6	Shin	UN-15634	۱
7	Mouldboard L.H.	UN-15635	-
8	Mouldboard R.H.	UN-15636	-
6	Frog	UN-15639	۱
10	Fin	UN-15640	۱
11	Extension Wing	UN-00625	A/R
12	Hex Bolt M/24 x 140	UN-B1M24X140	1
13	Plain Washer M24	UN-W4M24	2
14	Hex Nut M24	UN-N1M24	-
15	Half Nut M24	UN-N2M24	۱
16	Hex Bolt M16 x 120	UN-B1M16X120	2
17	Spring Washer M16	UN-W1M16	2
18	Hex Nut M16	UN-N1M16	2
19	Shearbolt M12 x 140 (Gr. 10.9) c/w Nut	UN-00427	1
20	Hex Bolt M12 x 40	UN-B1M12X40	4
21	Spring Washer M12	UN-W1M12	4
22	Hex Nut M12	UN-N1M16	2
23	Countersunk Square Bolt 7/16" UNF x 45 c/w Nut	UN-01816	9
24	Countersunk Square Bolt 7/16" UNF x 32 c/w Nut	UN-00426	24
25	Plain Washer 7/16"	UN-W2 7/16	30
26	Hex Nut M20	UN-N1M20	4
		-	



	-	•			
ltem	Description	Part No.	Qty.	ltem	Å
-	Heavy Duty Fin Bracket	UN-15490	4	35	 Wa
2	Rear Ram Pin	UN-15615	4	36	Gre
m	Leg Pivot Pin	UN-15616	4	37	Lov
4	Mouldboard Adjuster Bracket	UN-15622	∞	38	Lov
ъ	Mouldboard Adjuster Rod	UN-15623	∞		
9	Extra High Plough Body	UN-15627	4		
7	Wing L.H.	UN-15630	4		
∞	Point	UN-15632	4		
6	Wing R.H.	UN-15633	4		
10	Shin	UN-15634	4		
11	Mouldboard L.H.	UN-15670	4		
12	Mouldboard R.H.	UN-15671	4		
13	Fin	UN-15640	4		
14	Tail L.H.	UN-17713	4		
15	Tail R.H.	UN-17716	4		
16	Tail Adjuster	UN-17718	∞		
17	Mouldboard Extension L.H.	UN-15674	4		
18	Mouldboard Extension R.H.	UN-15675	4		
19	Nyloc Nut M24	UN-N3M24	∞		
20	Hex Nut M20	UN-N1M20	16		
21	Hex Bolt M16 x 120	UN-B1M16x120	∞		
22	Plain Washer M16	UN-W2M16	∞		
23	Hex Nut M16	UN-N1M16	∞		
24	Hex Bolt M12 × 65	UN-B1M12x65	12		
25	Set Screw M12 x 40	UN-S1M12x40	4		
26	Set Screw M12 x 25	UN-S1M12x25	8		
27	Plain Washer M12	UN-W2M12	8		
28	Spring Washer M12	UN-W1M12	4		
29	Nyloc Nut M12	UN-N3M12	12		
30	Hex Nut M12	UN-N1M12	4		
31	Set Screw M10 x 20	UN-S1M10x20	8		
32	Plain Washer M10	UN-W2M10	8		
33	Countersunk Square Bolt 7/16" UNF x 35 c/w Nut	UN-01778	80		
34	Countersunk Square Bolt 7/16 " UNF x 45 c/w Nut	UN-01816	56		

Assembly Group 1.2 - AR+ Plough Assembly

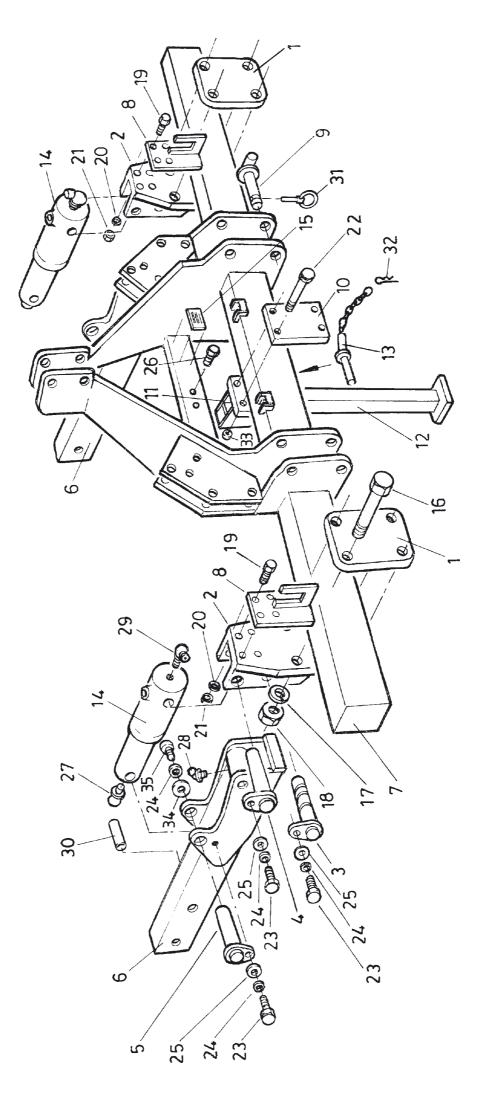
ltem	Description	Part No.	Qty.
35	Washer	UN-11017	∞
36	lipple M6 - Straight	UN-GNM6	4
37		UN-15672	4
38	Lower Wearstrip R.H.	UN-15673	4



### Assembly Group 2 - Toolbar & Shearbolt Beams

Clamn Plate	-	•
	UN-15001	2
Bush	UN-15022	2
Toolbar Frame	UN-15035	-
Shearbolt Beam	UN-15044	2
Linkage Pin	UN-15103	2
Hex Bolt M20 x 180	UN-B1M20X180	8
Spring Washer M20	UN-W1M20	∞
Hex Nut M20	UN-N1M20	∞
Set Screw M8 x 16	UN-S1M8X16	2
Serial Number Plate	UN-01572	-
Linch Pin	UN-PLP6mm	2

ltem	Description	Part No.	Qty.

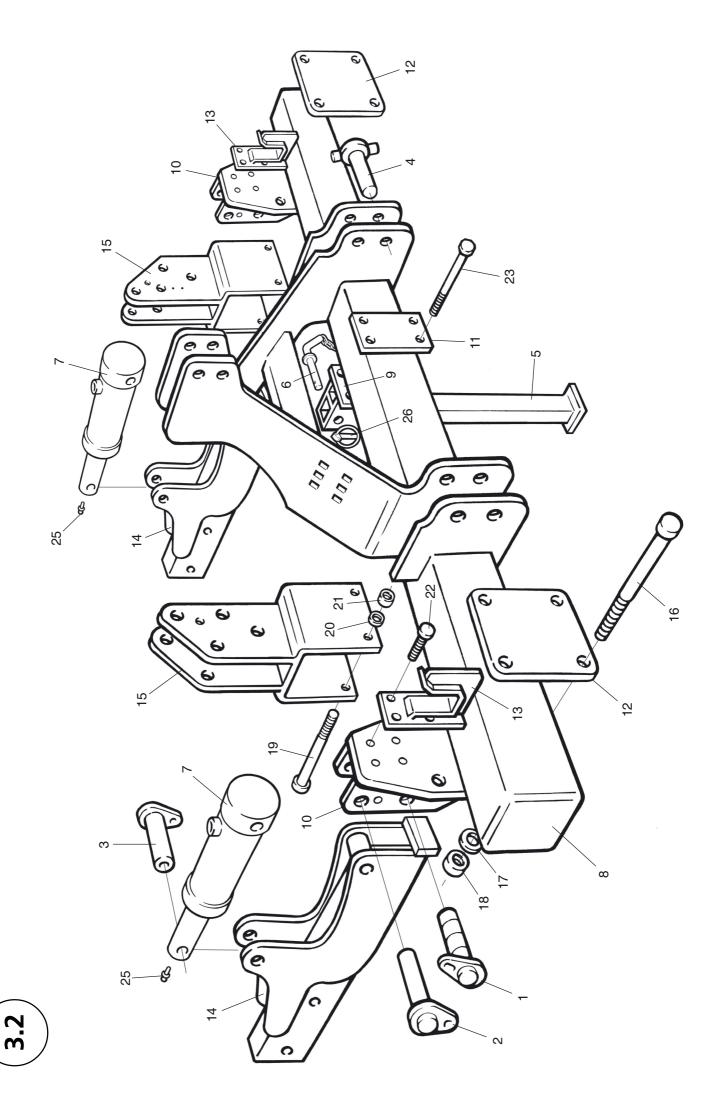


**3.1** 

ltem	Description	Part No.	Qty.	ltem
-	Clamp Plate	UN-15001	2	
2	Hinge Bracket	UN-15005	2	
m	Pivot Pin	UN-15009	2	
4	Ram Anchor Pin	UN-15011	2	
ß	Ram Pin	UN-15012	2	
9	Beam	UN-15021	2	
7	Toolbar Frame	UN-15035	-	
∞	Marker Support	UN-15053	2	
<b>б</b>	Linkage Pin	UN-15103	2	
10	Clamping Plate	UN-15112	1	
11	Stand Bracket	UN-15116	1	
12	Stand	UN-15119	-	
13	Stand Pin	UN-15121	-	
14	Auto Reset Beam Ram	UN-15131	2	
14A	Auto Reset Beam Ram Seal Kit	UN-15132		
15	Serial Number Plate	UN-01572	-	
16	Hex Bolt M20 x 180	UN-B1M20x180	∞	
17	Spring Washer M20	UN-W1M20	∞	
18	Hex Nut M20	UN-N1M20	∞	
19	Hex Bolt M12 x 40	UN-B1M12X40	∞	
20	Spring Washer M12	UN-W1M12	∞	
21	Hex Nut M12	UN-N1M12	∞	
22	Hex Bolt M10 x 150	UN-B1M10X150	4	
23	Set Screw M10 x 30	UN-S1M10X30	9	
24	Spring Washer M10	UN-W1M10	10	
25	Plain Washer M10	UN-W2M10	9	
26	Set Screw M8 x 16	UN-S1M8X16	2	
27	Grease Nipple M8 x 1.25 - Straight	UN-GNM8	2	
28	Grease Nipple M8 x 1.25 x 45°	UN-GNM8X45	2	
29	Grease Nipple M8 x 1.25 x 90°	UN-GNM8X90	2	
30	Bush	UN-15022	2	
31	Linch Pin	UN-PLP6mm	2	
32	R-Pin 3mm	UN-RRP3mm	1	

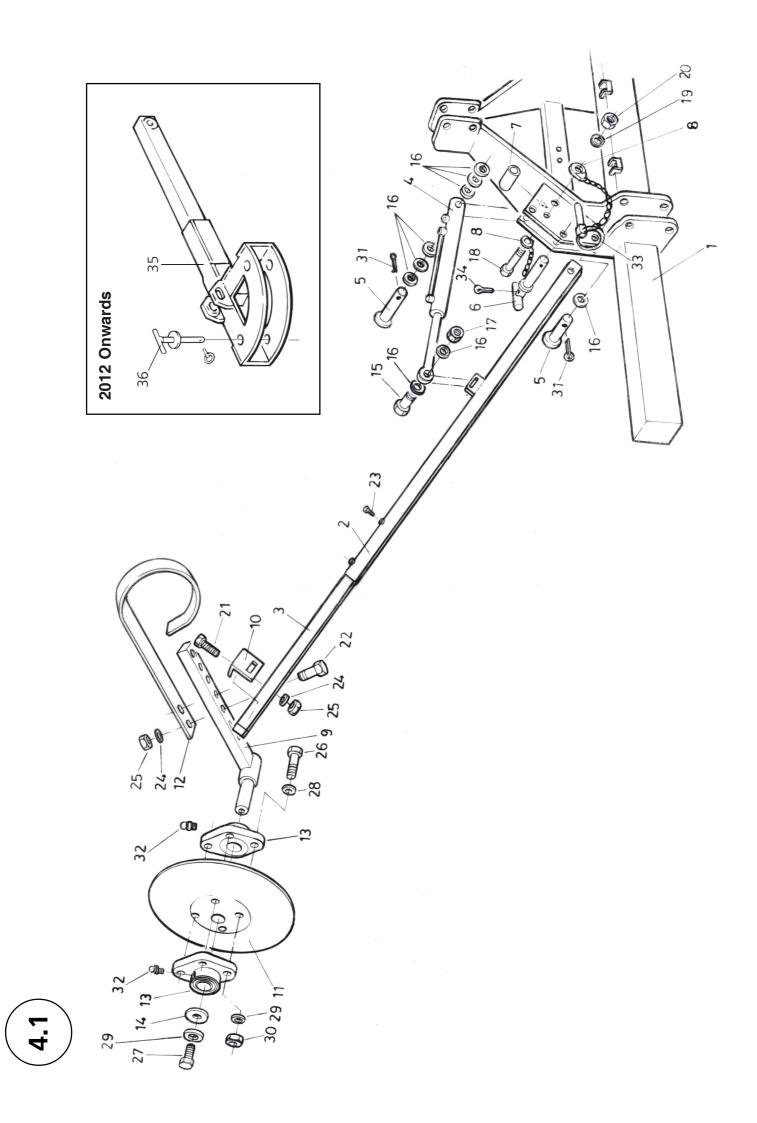
ltem	Description	Part No.	Qty.

Assembly Group 3.1 - Toolbar & Auto-Reset Beams



t Beams
uto-Rese
oolbar & Aı
V T
eavy Duty
Ŧ
Group 3.2
Assembly

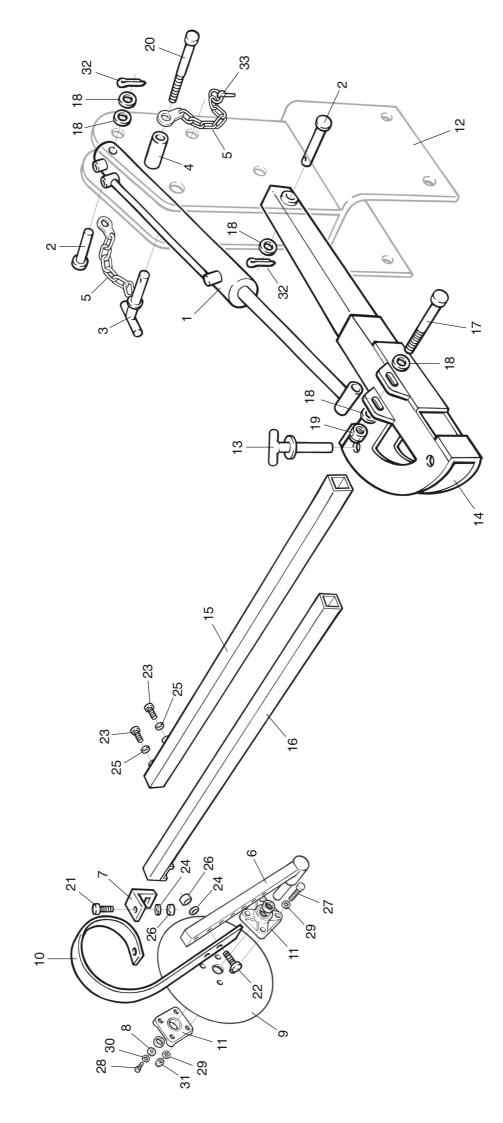
ltem	Description	Part No.	Qty.	ltem	Description	Part No.	Qty.
-	Pivot Pin	UN-15009	2				
2	Ram Anchor Pin	UN-15011	2				
m	Ram Pin	UN-15012	2				
4	Linkage Pin	UN-15103	2				
ß	Stand	UN-15119	-				
9	Stand Pin	UN-15121	-				
7	Auto Reset Beam Ram	UN-15131	2				
ТA	Auto Reset Beam Ram Seal Kit	UN-15132					
∞	Toolbar Frame	UN-15433	-				
6	Stand Bracket	UN-15443	-				
10	Hinge Bracket	UN-15448	2				
11	Clamp Plate	UN-15455	1				
12	Clamp Plate	UN-15457	2				
13	Marker Support	UN-15480	2				
14	Auto Reset Beam	UN-15485	2				
15	Marker Mount Bracket	UN-15503	2				
16	Hex Bolt M20 x 220		8				
17	Plain Washer M20		8				
18	Nyloc Nut M20		8				
19	Hex Bolt M16 x 200		4				
20	Plain Washer M16		4				
21	Nyloc Nut M16		4				
22	Set Screw M12 x 40		8				
23	Hex Bolt M10 x 200		4				
24	Nyloc Nut M10		4				
25	Grease Nipple M8 x 1.25 - Straight	UN-GNM8	2				
26	Lynch Pin	UN-PLP6mm	-				



## Assembly Group 4.1 - Marker Arms & Discs (Up to 2014)

ltem	Description	Part No.	Qty.	Ē
-	Toolbar Frame	UN-15035	-	
2	Marker Arm (Up to 2011)	UN-15064	2	
2	Marker Arm (2012 onwards)	UN-17380	2	
m	Extension Marker Arm (Up to 2011)	UN-15068	2	
m	Extension Marker Arm (2012 onwards)	UN-17383	2	
4	Marker Ram	UN-15070	2	
4A	Marker Ram Seal Kit	UN-15071		
ß	Marker Pin	UN-15105	4	
9	Marker Safety Pin	UN-15108	2	
7	Spacer	UN-15109	2	
8	Chain Assembly	UN-15111	4	
6	Marker Adjuster Arm	UN-15124	2	
10	Clamp	UN-15125	2	
11	18" Disc	UN-15150	2	
12	Pig Tail Marker	UN-15152	2	
13	25mm Bearing	UN-15153	4	
14	Clamp Washer	UN-15126	2	
15	Hex Bolt M20 x 110	UN-B1M20X110	2	
16	Plain Washer M20	UN-W2M20	20	
17	Nyloc Nut M20	UN-N3M20	2	
18	Hex Bolt M16 x 120	UN-B1M16X120	2	
19	Spring Washer M16	UN-W1M16	2	
20	Hex Nut M16	UN-N1M16	2	
21	Hex Bolt M12 x 100	UN-B1M12X100	2	
22	Hex Bolt M12 x 65	UN-B1M12X65	4	
23	Set Screw M12 x 25	UN-S1M12X25	4	
24	Spring Washer M12	UN-W1M12	9	
25	Hex Nut M12	UN-N1M12	9	
26	Hex Bolt M10 x 50	UN-B1M10X50	8	
27	Set Screw M10 x 30	UN-S1M10X30	2	
28	Plain Washer M10	UN-W2M10	16	
29	Spring Washer M10	UN-W1M10	2	
30	Nyloc Nut M10	UN-N3M10	8	
31	Split Pin 5/16" × 1 1/4"	UN-SCP 5/16 X 1 1/4	4	

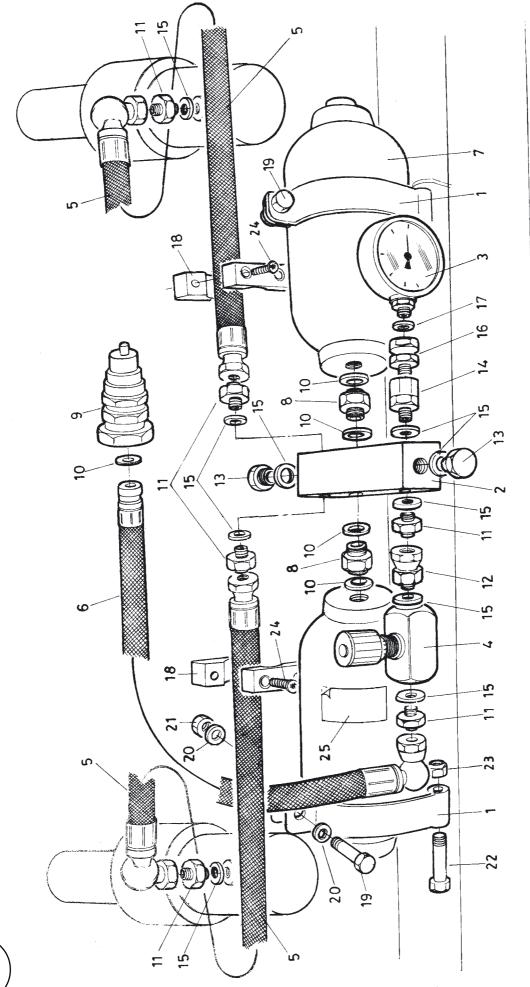
ltem	Description	Part No.	Qty.
32	Grease Nipple M6 - Straight	UN-GNM6	4
33	Linch Pin 8mm	UN-PLP8mm	2
34	Split Pin 3 x 30	UN-SCP 9/64 X 1 1/4	2
35	Marker Pivot Arm (LH) 2012 onwards	UN-17366	1
35	Marker Pivot Arm (RH) 2012 onwards - NI	UN-17377	1
36	Marker Pin - 2012 onwards	UN-17153	2
	A/R = As Required NI = Not Illustrated N/A = Not Applicable	ustrated N/A = Not Ap	plicable



4.2

## Assembly Group 4.2 - Marker Arms & Discs (2015 onwards)

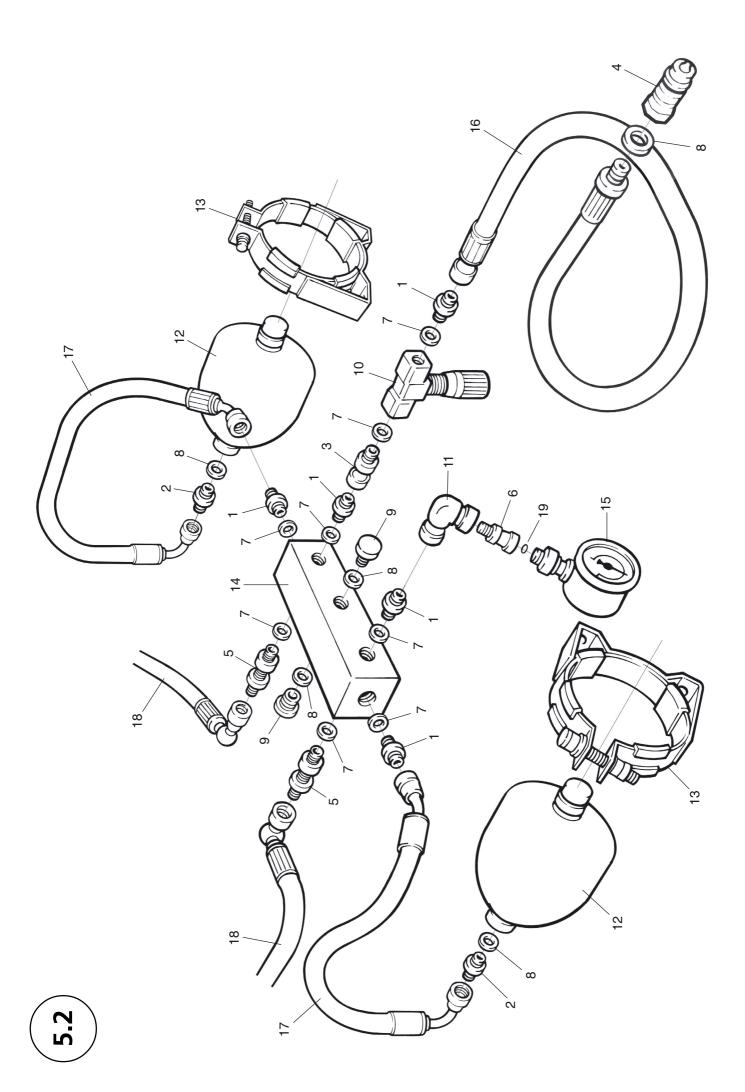
ltem	Description	Part No.	Qty. It	ltem	Description	Part No.	Qty.
-	Marker Ram	UN-15070	2	33	Linch Pin 8mm UN-F	UN-PLP8mm	2
1A	Marker Ram Seal Kit	UN-15071					
2	Marker Pin	UN-15105	4				
З	Marker Safety Pin	UN-15108	2				
4	Spacer	UN-15109	2				
5	Chain Assembly	UN-15111	4				
9	Marker Adjuster Arm	UN-15124	2				
7	Clamp	UN-15125	2				
8	Clamp Washer	UN-15126	2				
6	18" Disc	UN-15150	2				
10	Pig Tail Marker	UN-15152	2				
11	25mm Bearing	UN-15153	4				
12	Marker Mount Bracket	UN-15503	2				
13	Marker Pin	UN-17153	2				
14	Marker Pivot Arm (LH) - NI	UN-17366	1				
14	Marker Pivot Arm (RH)	UN-17377	1				
15	Marker Arm	UN-17210	2				
16	Extension Marker Arm	UN-17383	2				
17	Hex Bolt M20 x 130	UN-B1M20X130	2				
18	Plain Washer M20	UN-W2M20	10				
19	Nyloc Nut M20	UN-N3M20	2				
20	Hex Bolt M16 x 120	UN-B1M16X120	2				
21	Hex Bolt M12 x 100	UN-B1M12X100	2				
22	Hex Bolt M12 x 65	UN-B1M12X65	4				
23	Set Screw M12 x 25	UN-S1M12X25	4				
24	Spring Washer M12	UN-W1M12	6				
25	Half Nut M12	UN-N2M12	4				
26	Hex Nut M12	UN-N1M12	9				
27	Hex Bolt M10 x 50	UN-B1M10X50	8				
28	Set Screw M10 x 30	UN-S1M10X30	2				
29	Plain Washer M10	UN-W2M10	16				
30	Spring Washer M10	UN-W1M10	2				
31	Nyloc Nut M10	UN-N3M10	8				
32	Split Pin 5/16" x 1 1/4"	UN-SCP 5/16 X 1 1/4	4				



5.1

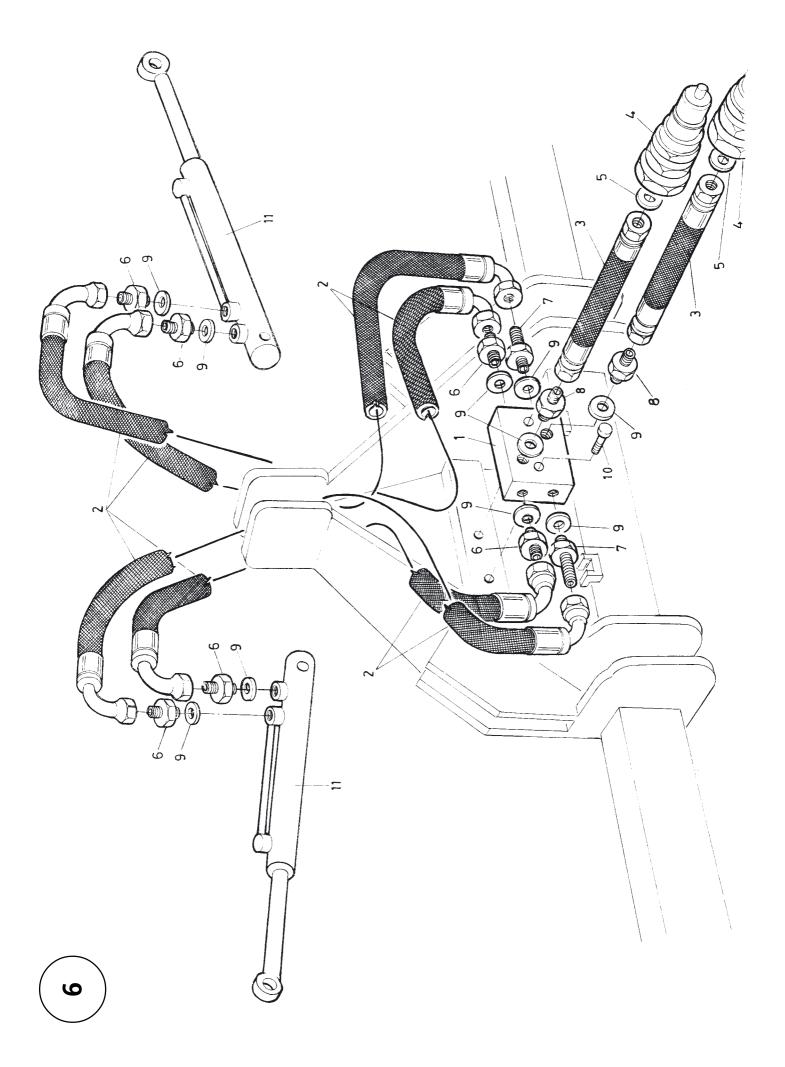
## Assembly Group 5.1 - Auto Reset Hydraulics (Up to 2014)

1         Automatactione         041:530         1           2         Readimatic (anio)         041:550         1           3         Lange         UN-1550         1           4         Haus Manduled is lam         UN-1550         1           5         Hear Manduled is lam         UN-1550         1           6         Hear Manduled is lam         UN-1550         2           7         Neurolise         UN-1550         2           8         12: Septone         UN-1550         2           9         12: Septone         UN-1550         2           11         28: Septone         UN-1550         2           12         28: Septone         UN-1550         2           13         26: Septone         UN-1550         2           13         26: Septone         UN-1550         2           13         26: Septone         UN-1550         2           14         28: Septone         UN-1550         2           15         26: Septone         UN-1550         2           16         12: Septone         UN-1550         2           17         28: Septone         UN-1550         2	Liell	Description	Fart NO.	ζιy.	llell	Part No.	ςις.
Manifold         UW-15080           Gauge         UW-15081           Fourde         UW-15081           Needle Valve         UW-15083           Hose: Manifold Ram         UW-15083           Hose: Probe to Manifold         UW-15083           1/2: ESP MA adapter         UW-05102           1/2: ESP Probe         UW-05002           1/2: ESP Probe         UW-05002           1/2: ESP Probe         UW-05002           1/2: ESP Probe         UW-05002           1/2: ESP MX 14" ESP F Swivel Adapter         UW-05002           38: ESP MX 14" ESP F Swivel Adapter         UW-05002           38: ESP MX 14" ESP F Swivel Adapter         UW-05002           38: ESP MX 14" ESP F Swivel Adapter         UW-05002           38: ESP MX 14" ESP F Swivel Adapter         UW-05002           1/4' ESP MX 14" ESP F Swivel Adapter         UW-05002           1/4' ESP MX 14" ESP F Swivel Adapter         UW-05002           1/4' ESP MX 14" ESP MX 14" ESP F Swivel Adapter         UW-05002           1/4' ESP MX 14" ESP M	-	Accumulator Clamp	UN-15031	4			
Gauge         UN-15081           Needle Valve         UN-15083           Hose: Manifold to Ram         UN-15083           Hose: Probe to Manifold         UN-15084           Hose: Probe to Manifold         UN-15084           12° BSP MAdapter         UN-05102           12° BSP MA x12° BSP MAdapter         UN-05002           12° BSP MA x12° BSP MAdapter         UN-05002           12° BSP MA x14° BSP F Swivel Adapter         UN-05002           28° BSP MX x14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001           28° BSP MX 14° BSP F Swivel Adapter         UN-05001	2	Manifold	UN-15080	-			
Needle Value         Un-05198           Hose: Manifold to Ram         UN-15083           Hose: Probe to Manifold to Ram         UN-15084           Hose: Probe to Manifold to Ram         UN-15084           Hose: Probe to Manifold         UN-15084           Accumulator         UN-15084           1/2: BSP Madapter         UN-05002           1/2: BSP Madapter         UN-05002           1/2: BSP Madapter         UN-05001           3/8: BSP MX 3/8' BSP F Swivel Adapter         UN-05001           3/8: BSP MX 14" BSP F Swivel Adapter         UN-05001           3/8: BSP MX 14" BSP F Swivel Adapter         UN-05001           3/8: BSP MX 14" BSP F Swivel Adapter         UN-05001           3/8: BSP MX 14" BSP F Swivel Adapter         UN-05001           3/8: BSP MX 14" BSP F Swivel Adapter         UN-05001           3/8: BSP MX 14" BSP F Swivel Adapter         UN-05001           3/8: BSP MX 14" BSP F Swivel Adapter         UN-05001           3/8: BSP MX 14" BSP F Swivel Adapter         UN-05001           3/8: BSP MX 14" BSP F Swivel Adapter         UN-05001 <td>m</td> <td>Gauge</td> <td>UN-15081</td> <td>-</td> <td></td> <td></td> <td></td>	m	Gauge	UN-15081	-			
Hose: Manifold to Ram       UN-15083         Hose: Probe to Manifold       UN-15084         Hose: Probe to Manifold       UN-15084         Accumulator       UN-15084         1/2: "BSP MX 1/2" BSP MA dapter       UN-05002         1/2: "BSP MX 1/2" BSP MA dapter       UN-05010         1/2: "BSP MX 3/8" BSP MX adapter       UN-05010         1/2: "BSP MX 3/8" BSP MX adapter       UN-05010         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05010         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05030         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05030         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05030         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05030         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05030         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05030         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05030         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05043         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05030         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05030         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05043         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05043         3/8" BSP MX 1/4" BSP F Stwiel Adapter       UN-05044	4	Needle Valve	UN-05198	-			
Hose: Probe to Manifold       UN-15170         Hose: Probe to Manifold       UN-15170         Accumulator       UN-05002         1/2* BSP MA 1/2* BSP MAdapter       UN-05002         1/2* BSP Probe       UN-05010         1/2* BSP MAdapter       UN-05010         1/2* BSP MAdapter       UN-05010         3/8* BSP MX 3/8* BSP MAdapter       UN-05010         3/8* BSP MX 3/8* BSP F Swivel Adapter       UN-05030         3/8* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         3/8* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         3/8* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         3/8* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapter       UN-05030         1/4* BSP MX 1/4* BSP F Swivel Adapte	5	Hose: Manifold to Ram	UN-15083	2			
Accumulator         UN-15170           Accumulator         UN-05002           1/2* BSP MAdapter         UN-05002           1/2* BSP Probe         UN-05010           1/2* BSP MAdapter         UN-05010           3/8* BSP MX 3/8* BSP MAdapter         UN-05010           3/8* BSP MX 3/8* BSP MAdapter         UN-05010           3/8* BSP MX 3/8* BSP F Swivel Adapter         UN-05030           3/8* BSP MX 1/4* BSP F Swivel Adapter         UN-05030           3/8* BSP MX 1/4* BSP F Swivel Adapter         UN-05030           3/8* BSP Dowy Washer         UN-05030           1/4* BSP F Swivel Adapter         UN-05047           3/8* BSP Dowy Washer         UN-05030           1/4* BSP F Swivel Adapter         UN-07033           1/4* BSP F Swivel Adapter         UN-07033           1/4* BSP F Swivel Adapter         UN-07033           1/4* BSP F Swivel Ad	9	Hose: Probe to Manifold	UN-15084	-			
1/2       BSP Mx 1/2       BSP M dapter       UN-05075       IU-05075         1/2       BSP Probe       UN-05010       IU-05010       IU-05010         1/2       BSP Mx 38°       BSP M dapter       UN-05010       IU-05010       IU-05010         3/8       BSP Mx 38°       BSP M Adapter       UN-05010       IU-05010       IU-050100       IU-05010	7	Accumulator	UN-15170	2			
1/2       BSP Prode       UN-05075       I         1/2       BSP Dowyt Washer       UN-05102       I         3/8       BSP MX 338" BSP MAdapter       UN-05010       I         3/8       BSP MX 338" BSP F Swivel Adapter       UN-05010       I         3/8       BSP PIUg       UN-05010       I         3/8       BSP PIUg       UN-05030       I         3/8       BSP MX 14" BSP F Swivel Adapter       UN-05030       I         3/8       BSP MX 14" BSP F Swivel Adapter       UN-05030       I         3/8       BSP MX 14" BSP F Swivel Adapter       UN-05030       I         3/8       BSP MX 14" BSP MX 14" BSP F Swivel Adapter       UN-05030       I         3/8       BSP MX 14"	∞	1/2 " BSP M × 1/2 " BSP M Adapter	UN-05002	2			
1/2       BSP Dowy Washer       UN-05102         38       BSP M x 38* BSP M Adapter       UN-05010         38* BSP M x 38* BSP M X adapter       UN-05010         38* BSP M x 38* BSP F Swivel Adapter       UN-05030         38* BSP M x 14* BSP F Swivel Adapter       UN-05030         38* BSP M x 14* BSP F Swivel Adapter       UN-05030         38* BSP M x 14* BSP F Swivel Adapter       UN-05030         38* BSP M x 14* BSP F Swivel Adapter       UN-05035         14* BSP M x 14* BSP F Swivel Adapter       UN-05035         14* BSP M x 14* BSP F Swivel Adapter       UN-05035         14* BSP M x 14* BSP F Swivel Adapter       UN-05035         10       Hose Clamp       UN-0500         114* BSP M x 14* BSP F Swivel Adapter       UN-05035         114* BSP M x 14* BSP F Swivel Adapter       UN-05035         114* BSP M x 14* BSP F Swivel Adapter       UN-05035         114* BSP M x 14* BSP F Swivel Adapter       UN-05035         114* BSP M x 14* BSP F Swivel Adapter       UN-05035         114* BSP M x 14* BSP F Swivel Adapter       UN-05035         110       Nylor Nut M10       UN-N/NM10         Nylor Nut MI0       Nylor Nut MI8       UN-01423         Nylor Nut MI8       Lock Valve Decal       UN-01423         Lock Valve	6	1/2 " BSP Probe	UN-05075	-			
38* BSP Mx 3A8* BSP Mx Adapter       UN-05001         38* BSP Mx 3A8* BSP Swivel Adapter       UN-05010         38* BSP Mx 14* BSP F Swivel Adapter       UN-05047         38* BSP Mx 14* BSP F Swivel Adapter       UN-05047         38* BSP Mx 14* BSP F Swivel Adapter       UN-05047         38* BSP Mx 14* BSP F Swivel Adapter       UN-05047         38* BSP Mx 14* BSP F Swivel Adapter       UN-05047         38* BSP Mx 14* BSP F Swivel Adapter       UN-05047         14* BSP Mx 14* BSP F Swivel Adapter       UN-05047         17* BSP Mx 14* BSP F Swivel Adapter       UN-05085         17* BSP Mx 14* BSP F Swivel Adapter       UN-05047         17* BSP Mx 14* BSP F Swivel Adapter       UN-05085         17* BSP Mx 10       UN-05085         Hex Bolt MI 0 × 50       UN-N3M10         Nylor Nut MI0       UN-N3M10         Nylor Nut MI0       UN-N3M10         Nylor Nut MI8       UN-01423         Socket Cap Screws M6 x 45       UN-01423         Lock Valwe Decal       UN-01423	10	1/2 " BSP Dowty Washer	UN-05102	ъ			
38* BSP Mx 38* BSP Fswirel Adapter       UN-05010         38* BSP Plug       UN-05030         38* BSP Plug       UN-05030         38* BSP Mx 14* BSP F Adapter       UN-05047         38* BSP Mx 14* BSP F Swirel Adapter       UN-05085         38* BSP Mx 14* BSP F Swirel Adapter       UN-05099         14* BSP Mx 14* BSP F Swirel Adapter       UN-05099         10* BSP Mx 14* BSP F Swirel Adapter       UN-05099         110* BSP Mx 14* BSP F Swirel Adapter       UN-05099         1110       UN-05099       UN-05099         Hex Bolt M10 x 50       UN-05099       UN-05099         Hex Bolt M10 x 50       UN-107M10       UN-107M10         Nyloc Nut M10       UN-01423       UN-01423         Nyloc Nut M10       UN-01423       UN-01423         Socket Cap Screws M6x 45       UN-01423       UN-01423         Icck Valve Decal       UN-01423       UN-01423         Icck Valve Decal       UN-01423       IC         Icck Valve Decal       UN-01423       IC </td <td>11</td> <td>3/8 " BSP M x 3/8 " BSP M Adapter</td> <td>UN-05001</td> <td>9</td> <td></td> <td></td> <td></td>	11	3/8 " BSP M x 3/8 " BSP M Adapter	UN-05001	9			
38" BSP Plug       UN-05030         38" BSP Mx 14" BSP F Adapter       UN-05047         38" BSP Dowty Washer       UN-05101         38" BSP Dowty Washer       UN-05035         38" BSP Mx 14" BSP F Swivel Adapter       UN-05085         14" BSP Mx 14" BSP F Swivel Adapter       UN-05099         Nubber "0" Rinp       UN-05099         Hex Bolt M10 x 50       UN-05099         Hex Bolt M10 x 50       UN-81M10X50         Nyloc Nut M10       UN-WB1M8X50         Nyloc Nut M10       UN-WB1M8X50         Nyloc Nut M10       UN-1423         Lock Valve Decal       UN-01423         Lock Valve Decal       UN-01423         No       UN-01423         No       UN-01423         No       UN-01423         Lock Valve Decal       UN-01423         No       UN-01423         No       UN-01423         No       UN-01423         No       UN-01423         No       UN-01423         No       UN-01423         UN-01423       UN-01423         UN-01423       UN-01423         UN-01423       UN-01423         UN-01423       UN-01423         UN-01423	12	3/8 " BSP M x 3/8 " BSP F Swivel Adapter	UN-05010	-			
38* BSP Mx 14* BSPF Adapter       UN-05047         38* BSP Dowy Washer       UN-05101         38* BSP Dowy Washer       UN-05101         38* BSP Dowy Washer       UN-05085         14* BSP Mx 14* BSP F Swivel Adapter       UN-05085         Rubber "O" Ring       UN-05099         Hex Bolt M10 x 50       UN-05099         Plain Washer M10       UN-05099         Nyloc Nut M10       UN-070099         Nyloc Nut M10       UN-070099         Nyloc Nut M10       UN-070099         Nyloc Nut M10       UN-07009         Nyloc Nut M10       UN-07009         Nyloc Nut M8       UN-01423         Socket Cap Screws M6 x 45       UN-01423         Lock Valve Decal       UN-01423         UN-01423       UN-01423         I       UN-01423	13	3/8" BSP Plug	UN-05030	2			
38* BSP Dowy Washer       UN-05085         14* BSP Mx 1/4* BSP F Swirel Adapter       UN-05085         Rubber "O" Ring       UN-05085         Rubber "O" Ring       UN-05099         Hex Bolt M10 x 50       UN-05099         Hex Bolt M10 x 50       UN-05099         Hex Bolt M10 x 50       UN-N3M10         Nyloc Nut M10       <	14	3/8 " BSP M x 1/4 " BSP F Adapter	UN-05047	-			
1/4" BSP fX x 1/4" BSP F Swivel Adapter       UN-05085       UN-05085         Rubber "O" Ring       UN-05099       UN-05099         Hose Clamp       UN-B1M10x50       UN-B1M10x50         Hex Bolt M10 x 50       UN-N2M10       UN-N2M10         Nyloc Nut M10       UN-N3M10       UN-N3M10         Nyloc Nut M10       UN-N3M10       UN-N3M10         Nyloc Nut M10       UN-N3M10       UN-N3M10         Nyloc Nut M10       UN-N1433       I         Nyloc Nut M18       UN-N3M10       UN-N3M10         Nyloc Nut M18       UN-N1423       I         Nyloc Nut M18       UN-01423       I<	15	3/8 " BSP Dowty Washer	UN-05101	10			
Rubber "O" Ring       UN-05099         Hose Clamp       UN-05099         Hex Bolt M10 x 50       UN-B1M10X50         Plain Washer M10       UN-W2M10         Nyloc Nut M10       UN-N3M10         Nyloc Nut M8       UN-N3M8         Socket Cap Screws M6 x 45       UN-N3M8         Lock Valve Decal       UN-01423         Lock Valve Decal       UN-01423         No       UN-01423         No       UN-01423         No       UN-01423	16	1/4" BSP M x 1/4" BSP F Swivel Adapter	UN-05085	-			
Hose Clamp         UN-05099         UN-05099           Hex Bolt M10 x 50         UN-W1100X10         UN-W2M10           Plain Washer M10         UN-W3M10         UN-W3M10           Nyloc Nut M10         UN-N3M10         UN-N3M10           Not Nut M10         UN-N3M10         UN-N3M10           No	17	Rubber "O" Ring		-			
Hex Bolt M10 x 50       UN-B1M10X50       UN-W2M10         Plain Washer M10       UN-W2M10       UN-W2M10         Nyloc Nut M10       UN-N3M10       UN-N3M10         Hex Bolt M8 x 50       UN-N3M10       UN-N3M10         Nyloc Nut M10       UN-N3M10       UN-N3M10         Not Nut M8       UN-N3M10       UN-N3M10         Not Nut M8       UN-N3M8       UN-N3M8         Socket Cap Screws M6 x 45       UN-N3M8       Involated         Lock Valve Decal       UN-S4M6X45       Involated         Lock Valve Decal       UN-S4M6X45       Involated         Involation       UN-S4M6X45       Involated	18	Hose Clamp	0020-NU	2			
Plain Washer M10       UN-W2M10       UN-W2M10       UN-W3M10         Nyloc Nut M10       UN-B1M8X50       UN-B1M8X50       UN-B1M8X50         Hex Bolt M8 x 50       UN-B1M8X50       UN-B1M8X50       UN-B1M8X50         Nyloc Nut M8       UN-B1M8X50       UN-B1M8X50       UN-B1M8X50         Socket Cap Screws M6 x 45       UN-N3M8       UN-1423       UN-1423         Lock Valve Decal       UN-01423       UN-01423       UN-01423         V       UN-01423       UN-01423       UN-01423       UN-01423         V       UN-01423       UN-01423       UN-01423       UN-01423       UN-01423         V       UN-01423       UN-01423       UN-01423       UN-01423       UN-01423       UN-01423       UN-01423       UN-01423         V       UN-01423       UN-01423       UN-01423       UN-01423       UN-01423       UN-01423         V       UN-0142	19	Hex Bolt M10 x 50	UN-B1M10X50	2			
Nyloc Nut M10         UN-N3M10         UN-N3M10         IN-N3M10	20	Plain Washer M10	UN-W2M10	4			
Hex Bolt M8 x 50       UN-B1M8X50       UN-B1M8X50         Nyloc Nut M8       UN-V3M8       UN-V3M8         Socket Cap Screws M6 x 45       UN-S4M6X45       UN-S4M6X45         Lock Valve Decal       UN-61423       I         Lock Valve Decal       UN-01423       I         Note the Decal       UN-01423       I         Lock Valve Decal       UN-01423       I         Note the Decal       UN-01423       I	21	Nyloc Nut M10	UN-N3M10	2			
Nyloc Nut M8         UN-N3M8         UN-N3M8           Socket Cap Screws M6 x 45         UN-S4M6X45         UN-S4M6X45           Lock Valve Decal         UN-01423         UN-01423           Note Decal	22	Hex Bolt MB x 50	UN-B1M8X50	4			
Socket Cap Screws M6 x 45       UN-S4M6X45       UN-S4M6X45         Lock Valve Decal       UN-01423       UN-01423         Note the Decal       UN-01423       UN-0	23	Nyloc Nut M8	UN-N3M8	4			
Lock Valve Decal       UN-01423         Image: Comparison of the compari	24	Socket Cap Screws M6 x 45	UN-S4M6X45	4			
	25	Lock Valve Decal	UN-01423	1			



# Assembly Group 5.2 - Auto Reset Hydraulics (2015 onwards)

ltem [	Description	Part No.	Qty.	ltem	Description	Part No.	Qty.
-	3/8" BSP M x 3/8" BSP M Adapter	UN-05001	5				
2	3/8" BSP M x 1/2" BSP M Adapter	UN-05004	2				
m	3/8" BSP M x 3/8" BSP F Swivel Adapter	UN-05010	<del>ر</del>				
4	1/2" BSP Probe	UN-05075	1				
5	3/8" BSP M Bulkhead Adapter	UN-05081	2				
9	1/4" BSP M x 1/4" BSP F Swivel Adapter	UN-05085	-				
7	3/8 " BSP Dowty Washer	UN-05101	œ				
∞	1/2 " BSP Dowty Washer	UN-05102	4				
6	1/2 " BSP Blank Plug	UN-05152	2				
10	Needle Valve	UN-05198	-				
11	3/8 " BSP F x 3/8 " BSP F 90° Elbow	UN-05273	-				
12	1.4 Ltr. Accumulator	UN-05304	2				
13	Accumulator Clamp	UN-05303	2				
14	Manifold	UN-15080	-				
15	Gauge	UN-15081	1				
16	Hose: Probe to Manifold	UN-15084	-				
17	Hose: Manifold to Accumulator		2				
18	Hose: Manifold to Auto-Reset Ram		2				
19	Rubber 'O' Ring		1				



### Assembly Group 6 - Marker Arm Hydraulics

	Description	Part No.	Qty.	
4	Marker Manifold	UN-15085	-	
-	Hose: Manifold to Marker Ram	UN-15086	4	
+	Hose: Probe to Marker Manifold	UN-15087	2	
	1/2 " BSP Probe	UN-05075	2	•
	1/2 " BSP Dowty Washer	UN-05102	2	
	1/4" BSP M x 1/4" BSP M Adapter	UN-05000	9	
	1/4" BSP M x 1/4" BSP M Bulkhead Adapter	UN-05080	2	
	1/4" BSP M x 1/4" BSP M Restrictor (1mm hole)	UN-05050	2	
	1/4" BSP Dowty Washer	UN-05100	10	
	Hex Bolt M8 x 40	UN-B1M8X40	2	•
	Ram	UN-15070	2	
	Marker Ram Seal Kit	UN-15071		
				•
				•
1			j	

Qty.																	
Part No.																	
Description																	
Item																	

UN-00426 UN-00427	Assembly	ltem	Assembly	ltem	Assembly	ltem	As
UN-00427	1.1	UN-15021	3.1	UN-15150	4.1 4.2	UN-17366	4
	1.1	UN-15022	2 3.1	UN-15152	4.1 4.2	UN-17377	4
UN-00625	1.1	UN-15031	5.1	UN-15153	4.1 4.2	UN-17380	
UN-01423	5.1	UN-15035	2 3.1 4.1	UN-15170	5.1	UN-17383	4
UN-01572	2 3.1	UN-15039	1.1	UN-15433	3.2	UN-17713	
UN-01778	1.2	UN-15044	2	UN-15443	3.2	UN-17716	
UN-01816	1.2	UN-15053	3.1	UN-15448	3.2	UN-17718	
UN-05000	9	UN-15056	1.1	UN-15455	3.2		
UN-05001	5.1 5.2	UN-15059	1.1	UN-15457	3.2		
UN-05002	5.1	UN-15064	4.1	UN-15480	3.2		
UN-05004	5.2	UN-15068	4.1	UN-15485	3.2		
UN-05010	5.1 5.2	UN-15070	4.1 4.2 6	UN-15490	1.2		
UN-05030	5.1	UN-15071	4.1 4.2 6	UN-15503	3.2 4.2		
UN-05047	5.1	UN-15080	5.1 5.2	UN-15615	1.2		
UN-05050	6	UN-15081	5.1 5.2	UN-15616	1.2		
UN-05075	5.1 5.2 6	UN-15083	5.1	UN-15622	1.2		
UN-05080	6	UN-15084	5.1 5.2	UN-15623	1.2		
UN-05081	5.2	UN-15085	9	UN-15627	1.2		
UN-05085	5.1 5.2	UN-15086	9	UN-15630	1.1 1.2		
UN-05099	5.1	UN-15087	9	UN-15632	1.1 1.2		
UN-05100	6	UN-15103	2 3.1 3.2	UN-15633	1.1 1.2		
UN-05101	5.1 5.2	UN-15105	4.1 4.2	UN-15634	1.1 1.2		
UN-05102	5.1 5.2 6	UN-15108	4.1 4.2	UN-15635	1.1		

### 

Assembly	4.1 4.2	4.1 4.2	4.1	4.1 4.2	1.2	1.2	1.2																											
ltem	UN-17366	UN-17377	UN-17380	UN-17383	UN-17713	UN-17716	UN-17718																											
Assembly	4.1 4.2	4.1 4.2	4.1 4.2	5.1	3.2	3.2	3.2	3.2	3.2	3.2	3.2	1.2	3.2 4.2	1.2	1.2	1.2	1.2	1.2	1.1 1.2	1.1 1.2	1.1 1.2	1.1 1.2	1.1	1.1	1.1	1.1 1.2	1.2	1.2	1.2	1.2	1.2	1.2	4.1 4.2	4.2
ltem	UN-15150	UN-15152	UN-15153	UN-15170	UN-15433	UN-15443	UN-15448	UN-15455	UN-15457	UN-15480	UN-15485	UN-15490	UN-15503	UN-15615	UN-15616	UN-15622	UN-15623	UN-15627	UN-15630	UN-15632	UN-15633	UN-15634	UN-15635	UN-15636	UN-15639	UN-15640	UN-15670	UN-15671	UN-15672	UN-15673	UN-15674	UN-15675	UN-17153	UN-17210
Assembly	3.1	2 3.1	5.1	2 3.1 4.1	1.1	2	3.1	1.1	1.1	4.1	4.1	4.1 4.2 6	4.1 4.2 6	5.1 5.2	5.1 5.2	5.1	5.1 5.2	9	9	9	2 3.1 3.2	4.1 4.2	4.1 4.2	4.1 4.2	4.1 4.2	3.1	3.1	3.1 3.2	3.1 3.2	4.1 4.2	4.1 4.2	4.1 4.2	3.1 3.2	3.1 3.2
ltem	UN-15021	UN-15022	UN-15031	UN-15035	UN-15039	UN-15044	UN-15053	UN-15056	UN-15059	UN-15064	UN-15068	UN-15070	UN-15071	UN-15080	UN-15081	UN-15083	UN-15084	UN-15085	UN-15086	UN-15087	UN-15103	UN-15105	UN-15108	UN-15109	UN-15111	UN-15112	UN-15116	UN-15119	UN-15121	UN-15124	UN-15125	UN-15126	UN-15131	UN-15132
Assembly	1.1	1.1	1.1	5.1	2 3.1	1.2	1.2	6	5.1 5.2	5.1	5.2	5.1 5.2	5.1	5.1	9	5.1 5.2 6	9	5.2	5.1 5.2	5.1	9	5.1 5.2	5.1 5.2 6	5.2	5.1 5.2	5.2	5.2	5.2	1.2	2 3.1	3.1	3.1 3.2	3.1 3.2	3.1 3.2
ltem	UN-00426	UN-00427	UN-00625	UN-01423	UN-01572	UN-01778	UN-01816	UN-05000	UN-05001	UN-05002	UN-05004	UN-05010	UN-05030	UN-05047	UN-05050	UN-05075	UN-05080	UN-05081	UN-05085	UN-05099	UN-05100	UN-05101	UN-05102	UN-05152	UN-05198	UN-05273	UN-05303	UN-05304	UN-11017	UN-15001	UN-15005	UN-15009	UN-15011	UN-15012

Every effort is made to ensure the data contained in this manual is as accurate and as up to date as possible at time of going to print. ScanStone however reserves the right to make changes or add improvements to its range of products at any time without notice.

Part No. UN-07058



### SOIL PREPARATION SYSTEMS

### RGS Forfar Ltd.

East Mains of Burnside, Forfar, Angus, Scotland DD8 2RX Tel & Fax: 0044 (0) 1307 818994 e-mail: rgssales@btconnect.com www.scanstone.co.uk