



## OPERATOR, MAINTENANCE & PARTS MANUAL

### Rippers & Pipe Layers STR-S & STR-L



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## TABLE OF CONTENTS

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Introduction & Machine Specifications.....	01
Safety.....	02
• Safety Instructions.....	02
• General Safety Guidelines.....	03
• Employer / Controller Responsibilities.....	04
• Supervision, Instructions and Training.....	04
• Inspection & Maintenance Safety.....	04
• Start-up Safety.....	05
• Operation.....	05
• Operation Safety.....	05
• Personal Protective Equipment (PPE).....	05
• Storage Transport.....	05
• Storage Safety.....	05
• Transport Safety.....	06
• Modifications.....	06
• Safety Signs.....	06
• Installation Safety Signs.....	06
Assembly Instructions.....	07
Operation Instructions.....	08
• Theory of Operation.....	08
Ripper Drawing.....	09
Ripper Parts List.....	10
Pipe Layer Drawing.....	11
Ripper Parts List.....	12
For Further Information.....	13
Warranty & Register Your Warranty.....	14
Warranty Process.....	15

**Manufacturers statement:** Due to continuing improvements Southern Cross Ag Machinery Pty Ltd reserves the right to modify machinery design and specifications provided herein without any preliminary notice. Information provided herein is of descriptive nature.

**WARNING**

READ THE OPERATOR, MAINTENANCE AND PARTS MANUAL BEFORE USING THE RIPPER AND OR PIPE LAYER.

## INTRODUCTION

Southern Cross Ag Machinery have two different single tine ripper and two different pipe layer attachments available. The tines are fitted with hardened teeth..

This manual contains valuable information about your new Ripper and or Pipe Layer. It has been carefully prepared to give you helpful suggestions for operating, adjusting and servicing your Ripper and or Pipe Layer. Keep this manual handy for frequent reference. All new operators or owners must review the manual before using the equipment and at least annually thereafter.

It is the owner's and/or operator's responsibility to;

- Read and understand the information contained in this manual.
- Operate, lubricate, assemble and maintain the equipment in accordance with all instructions and safety procedures in this manual.
- Inspect the equipment and replace or repair any parts that are damaged or worn which could cause damage, wear to other parts, or cause a safety hazard.

Please contact your Southern Cross Ag Machinery Dealer if you need any further assistance with your Ripper and or Pipe Layer or additional copies of the manual. Visit our website [www.sxm.com.au](http://www.sxm.com.au) for a complete list of dealers in your area. You can also download additional copies of this manual from our website.

## MACHINE SPECIFICATIONS

MODEL	STR-S	STR-L
Ripper Tine (mm)	20 x 100	30 x 150
Maximum working depth (mm)	400	600
Tractor (HP)	16-40	40-90
Tractor CAT Connection	Cat I	Cat I & II

## SAFETY

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### Safety Instructions

Southern Cross Ag Machinery encourages good safety practices. Good safety practices not only protect you but also the people around you. Please ensure that everyone using this equipment is familiar with the recommended operating and maintenance procedures, has read and understood the Operators Manual and follows all the safety precautions. Most accidents can be prevented. Do not risk serious injury or death by ignoring good safety practices.

The alert symbol is used throughout this manual and on the product safety decals. This symbol indicates attention is required and identifies hazards concerning your personal safety and the safety of others. Please follow the recommended precautions.



The safety alert symbol means...  
**ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!**



#### **CAUTION**

The Caution Symbol indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



#### **WARNING**

The Warning Symbol indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.



#### **DANGER**

The Danger Symbol indicates an imminently hazardous situation that, if not avoided will result in death or serious injury. This signal word is to be limited to the most extreme situations, typically for machine components that, for functional purposes, cannot be guarded.

## **SAFETY continued**

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### **General Safety Guidelines**

- Have a first-aid kit available for use and know how to use it.
- Have a fire extinguisher available, stored in a highly visible location and know how to use it.
- Wear appropriate protective gear. This list may include but is not limited to:
  - hard hat
  - protective shoes with slip resistant soles and steel caps
  - protective glasses or goggles
  - heavy gloves
  - wet weather gear
  - hearing protection
  - respirator or filter mask
- Read and understand the Operator's Manual and all safety decals before operating, servicing, adjusting, repairing or hitching the equipment.
- Do not attempt any unauthorised modifications to your Southern Cross Ag Machinery product as this could affect function or safety and could affect the life of the equipment.
- Never operate the Ripper and or Pipe Layer except from the operator's station on the power unit.
- Inspect and clean the working area before operating. Remove all obstructions such as rocks, stumps and wire.
- Keep hands, feet, clothing, and hair away from moving parts.
- Ensure bystanders are clear of the area before operating. A minimum distance of 100 metres should be kept from all bystanders when Ripper and or Pipe Layer is in operation.
- Never operate this equipment while using alcoholic beverages or drugs that can hinder alertness or coordination. Consult your doctor about operating this machine while taking any medication.
- Under no circumstances should children under the age of 18 be allowed to work with or around this equipment. Do not allow anyone to operate or assemble this equipment until they have read and understood this manual.
- This equipment is dangerous to anyone unfamiliar with its operation. The operator should be responsible, properly qualified and physically able person familiar with farm machinery and competent in this equipments operation.
- All new operators or owners must review the manual before using the equipment and at least annually thereafter.
- In order to provide a clear view, certain illustrations in this manual may show an assembly with a safety guard removed equipment should never be operated in this condition. Keep all guards in place. If guard removal becomes necessary for repairs, reinstall the guards prior to use.
- Replace any safety decal that is not legible or is missing. The locations of such safety decals are indicated in this manual.
- Never exceed the limits of a piece of machinery. If its ability to do a job, or to do so safely, is in question – DON'T TRY IT.
- Avoid operating the machinery in wet conditions.
- In addition to the design of this implement, safety decals and safety equipment, accident prevention is dependent upon the awareness, common sense, forethoughts, and proper training of everyone involved in the operation, transport, maintenance and storage of the machine. Also refer to safety messages and operating instructions in each of the appropriate sections of the tractor manual. Pay close attention to the safety decals affixed to the tractor and the Ripper and or Pipe Layer.

## **SAFETY continued**

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### **Employer/Controller Responsibilities**

OH&S legislation places obligations on the employer, or the controller of the Ripper and or Pipe Layer, to identify the hazards and control the risks associated with the use of the Ripper and or Pipe Layer in their workplace and to do so in accordance with the manufacturer's instructions.

When purchasing a Ripper and or Pipe Layer:

- Ensure the manufacturer's instructions are provided at the point of purchase.
- Discuss your needs with the supplier, to ensure the Ripper and or Pipe Layer is compatible with the power of your tractor and is appropriate for the intended application.
- Seek practical advice and instruction from the supplier on the use and limitations of the Ripper and or Pipe Layer. If you are hiring, leasing or borrowing a Ripper and or Pipe Layer on a temporary basis, get safe use instructions from the person supplying it.
- The employer must provide safety instructions to all those involved in using a Ripper and or Pipe Layer.
- A copy of safety instructions must be kept in good condition with the Ripper and or Pipe Layer.
- Generally, the safety instructions should be the manufacturer's instructions. Any variations from the manufacturer's instructions must be based on a risk assessment and must not remove any of the safety features nor expose anyone to risks.

### **Supervision, Instruction and Training**

The employer must provide safe systems of work, adequate supervision, instruction and training to all those involved in using a Ripper and or Pipe Layer. They must be instructed in the safe operation of the Ripper and or Pipe Layer, including hazards specific to the workplace, including the terrain, stability of the tractor, working environment and the like. The employer should ensure that everyone achieves a level of understanding that enables them to safely and competently operate the Ripper and or Pipe Layer.

### **Inspection, Maintenance and Repair**

- The Ripper and or Pipe Layer must be inspected according to the manufacturer's instructions, prior to use.
- All problems identified must be rectified, prior to use.
- The Ripper and or Pipe Layer must be maintained according to the manufacturer's instructions.
- Replacement parts must be to the original manufacturer's specifications or their equivalent.
- Safety signs and decals should be legible, maintained and where necessary replaced.
- Repairs should be carried out by a competent person.
- When suspending the Ripper and or Pipe Layer for maintenance or repair, whether attached to the tractor or suspended in another way, adequate safety stands must be used to prevent inadvertent lowering of the Ripper and or Pipe Layer.

### **Service and Maintenance Safety**

- Stop engine, set brake, remove ignition key and wait for all moving parts to stop before servicing, adjusting, repairing or unplugging.
- Support the equipment with blocks or safety stands before working beneath it.
- Follow good shop practices including:
  - keep service area clean and dry
  - be sure electrical outlets and tools are properly grounded
  - use adequate light for the job.
- Use only tools, jacks and hoists of sufficient capacity for the job.
- Replace and secure all shields removed during servicing before operating.
- Use heavy leather gloves to handle sharp objects.

## **SAFETY continued**

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### **Start-up Safety**

- Do not let inexperienced operators or children use this equipment.
- Place all tractor and machine controls in neutral before starting.
- Operate only with Roll Over Protective System (ROPS) and seat belt equipped tractors.
- Do not operate inside a building unless there is adequate ventilation.
- Ensure all shields are in place and in good condition before operating.

### **Operation**

Prior to use, the Ripper and or Pipe Layer should be inspected to ensure it is working correctly. All safety features must be included in this inspection. If any safety feature is not working correctly, the Ripper and or Pipe Layer must not be used. The Ripper and or Pipe Layer must be operated according to the manufacturer's instructions.

The operator must ensure that no-one is exposed to risks arising from the operation of the Ripper and or Pipe Layer. Exercise extreme caution when changing direction on hills. Avoid sudden movement, sudden breaking, high speeds, rough terrain and steep slopes.

Additional safety controls may be required when operating in the vicinity of people or traffic – e.g. alongside highways, roads or other public areas.

Where adjustable or removable guarding is provided for specific applications, such as vineyards and horticulture, and the guarding has been removed or is no longer effective, appropriate control measures must be implemented. These controls must ensure that the risk of injury is eliminated or controlled. Before using a Ripper and or Pipe Layer in an application other than that outlined above, the guards must be readjusted or replaced so as to be effective.

These instructions should be used in conjunction with local regulations regarding Occupational Health and Safety.

### **Operation Safety**

- Do not permit riders.
- Do not wear loose fitting clothing during operation.
- Never operate the equipment in the raised position.

### **Personal Protective Equipment (PPE)**

Prior to use, a risk assessment must be undertaken to determine the appropriate PPE required. Any identified PPE must be provided by the employer and must be used by those involved in the operation and maintenance of the Ripper and or Pipe Layer. Examples of PPE are appropriate footwear and hearing & eye protection.

### **Storage and Transport**

When not in use, the Ripper and or Pipe Layer must be transported and stored according to the manufacturer's instructions. Requirements may differ when transporting a Ripper and or Pipe Layer within a property and on a public road – you must comply with all statutory requirements.

### **Storage Safety**

- Store the unit in an area away from human activity.
- Do not permit children to play on or around the stored machine.
- Support the frame on stands and blocks to provide a secure base.

## **SAFETY continued**

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### **Transport Safety**

- Review Transport Safety instructions in tractor manual before moving.
- Check with local authorities regarding transport on public roads. Obey all applicable laws and regulations.
- Make sure the SMV (Slow Moving Vehicle) emblem and all the lights and reflectors that are required by the local highway and transport authorities are in place, are clean, and can be seen clearly by all overtaking and oncoming traffic.
- Never have the equipment in operation during transport.
- Always travel at a safe speed.

### **Modifications**

A Ripper and or Pipe Layer should not be modified or altered. However, if it is necessary to make modifications, they must be done by a competent person and based on a risk assessment.

Before any modifications are done, contact the manufacturer or supplier.

Anyone who undertakes modifications subsequently assumes the role and responsibilities of the designer and manufacturer.

The instructions relating to the Ripper and or Pipe Layer and its use may need to be revised following a modification.

Any modifications made without manufacturers approval will void Warranty.

### **Safety Signs**

- Keep all safety signs clean and legible and replace any that are damaged or missing.
- When original parts are replaced, any safety signs affixed to those parts should be replaced as well. Replacement safety signs are available from your local dealer.

### **Installation of Safety Signs**

- To install safety signs, ensure the installation area is clean and dry. Decide on the exact position before you remove the backing paper. Remove the smallest portion of the split backing paper and align over the specified area. Carefully press in place.
- Slowly peel back the remaining paper and smooth the remaining portion in place. Small air pockets can be pierced with a pin and smoothed out.



## **ASSEMBLY INSTRUCTIONS**

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### **STEP 1**

Line up the lower linkage arms with the linkage pins of the implement, slide the linkage arms onto the pins and secure with linch pins.

### **STEP 2**

Attach the top link to the implement.

### **STEP 3**

The implement should not be used on tractors greater than that specified in the 'Machine Specification Table' (refer page 01).

### **STEP 4**

Ensure that anti-sway devices are connected to prevent implement moving from side to side. These could be chains or stabiliser bars.

### **STEP 5**

Ensure that tractor drawbar does not interfere with the ripper. It may need to be removed.

### **STEP 6**

Vibration can loosen bolts, so check regularly that all are secure.

## OPERATION INSTRUCTIONS

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### Theory of Operation



#### CAUTION

Do not operate close to underground services. If you are unsure please contact "Dial Before You Dig" telephone number: 1100 or visit [www.1100.com.au](http://www.1100.com.au).

Once you have followed all safety procedures as outlined in this manual, start the tractor and raise the implement clear of the ground. When ripping always travel in a straight line. When working on steep slopes, try to work down hill or across the slope. Make sure you select a low gear when ripping. Please note different soil types will determine the depth of your rip. You may need to make more than one pass with the ripper to achieve the maximum depth you are after.

### Operation – Pipe Layer

Check the pipe layer is connected securely. Only use the pipe layer in ground that has previously been ripped.

### Stopping

Lower the implement, stop the tractor engine (taking out the ignition key) and apply the parking brake. Ensure that the implement is on the ground or well supported when not in use.

### Maintenance

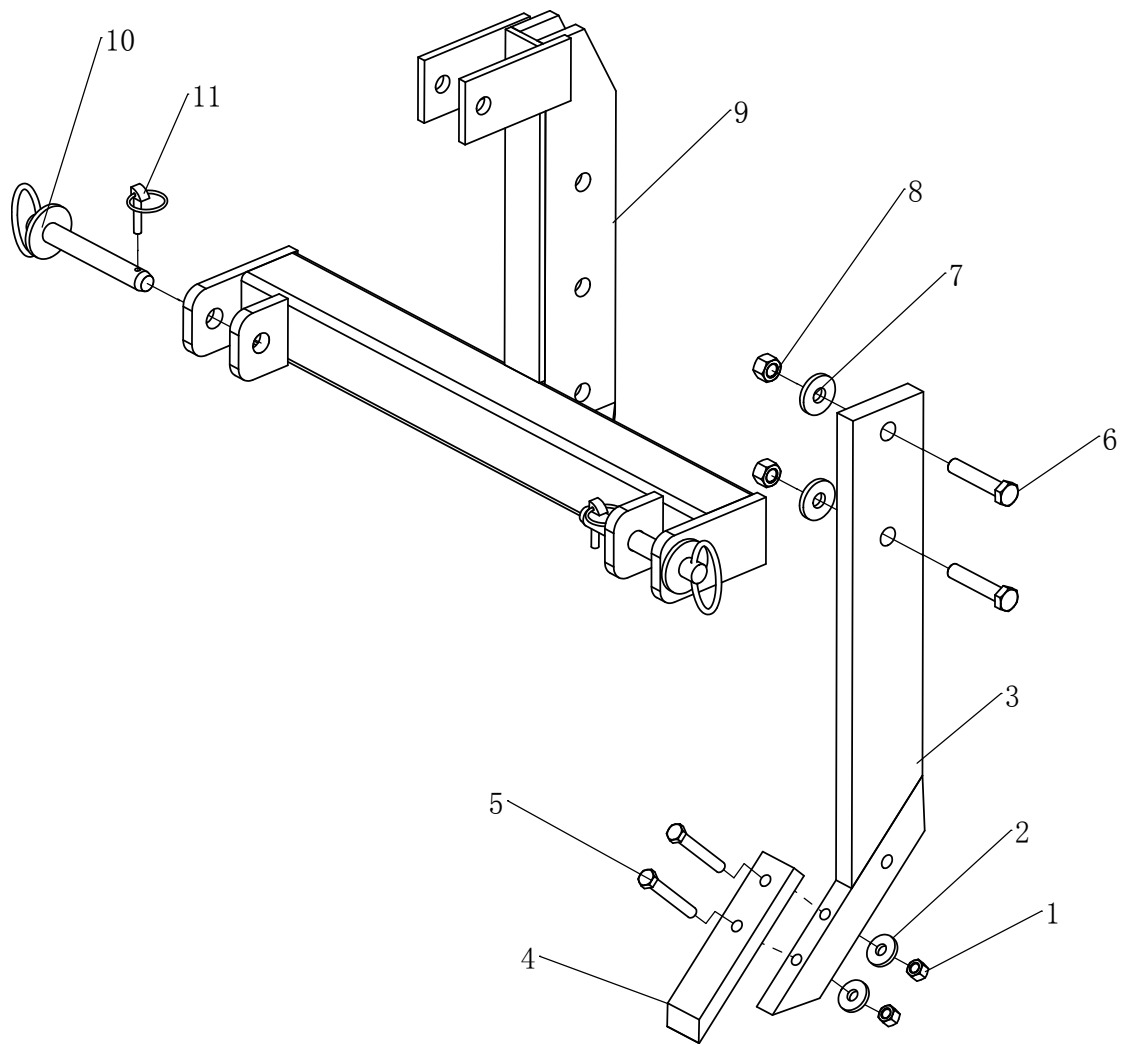
When doing any type of maintenance on this implement, always follow the safety steps outlined in this manual. Service should only be carried out by experienced / qualified person. Use only authorised SXM parts for replacement.

The implement must be adequately supported under its body on all 3 point linkage implements (ensure it cannot fall).

Check all bolts and nuts are tightened. Ensure all points are replaced when worn.

**RIPPER DRAWING – MODEL NO. SSL**

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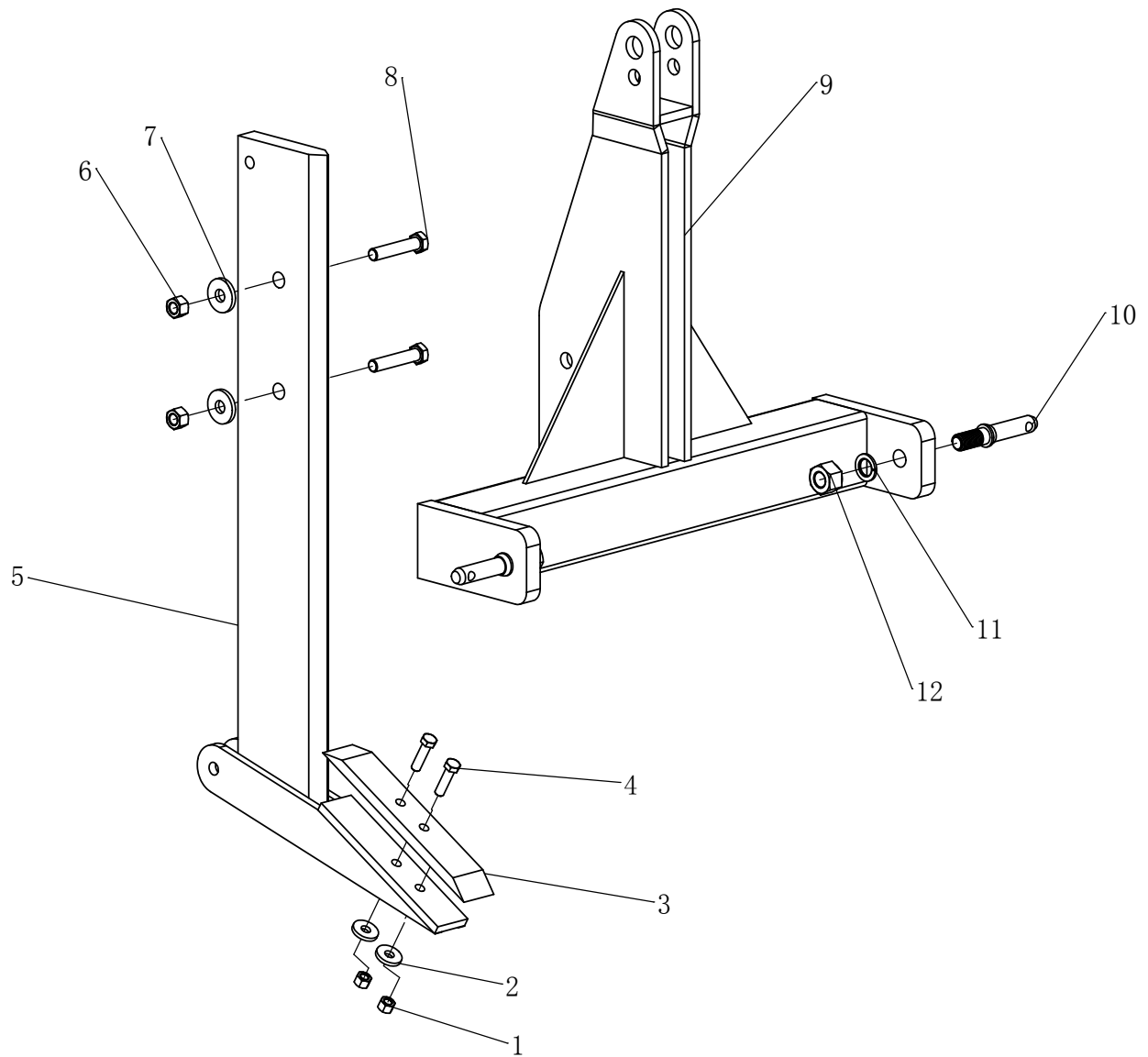


## RIPPER PARTS LIST – MODEL NO. SSL

PARTS NUMBER	DESCRIPTION	QUANTITY
1	Lock Nut M12	2
2	Washer 12	2
3	Tooth	1
4	Bolt M12 x 45	2
5	Shank	1
6	Lock Nut M18	2
7	Washer 18	2
8	Bolt M18 x 80	2
9	Main Frame	1
10	Hitch Pin	2
11	Lock Washer 22	2
12	Hex Nut M22	2

**RIPPER DRAWING – MODEL NO. STR**

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**RIPPER PARTS LIST – MODEL NO. STR**

PARTS NUMBER	DESCRIPTION	QUANTITY
1	Lock Nut M12	2
2	Washer 12	2
3	Tooth	1
4	Bolt M12 x 45	2
5	Shank	1
6	Lock Nut M18	2
7	Washer 18	2
8	Bolt M18 x 80	2
9	Main Frame	1
10	Hitch Pin	2
11	Lock Washer 22	2
12	Hex Nut M22	2

## FOR FURTHER INFORMATION

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### **WorkCover NSW**

Visit [www.workcover.nsw.gov.au](http://www.workcover.nsw.gov.au)

Call the WorkCover Assistance Service on **13 10 50**

Call the WorkCover Publications Hotline on **1300 799 003**

Visit your nearest WorkCover office.

For technical specifications on Ripper and or Pipe Layers, contact your local manufacturer.

### **SafeWork South Australia**

GPO Box 465

Adelaide SA 5001

Help Centre: **1300 365 255**

Website: [www.safework.sa.gov.au](http://www.safework.sa.gov.au)

### **Workplace Health and Safety Queensland, Department of Justice and Attorney-General**

GPO Box 69

Brisbane QLD 4001

Workplace health and safety infoline: **1300 369 915**

Electrical Safety infoline: **1300 650 622**

Website: [www.worksafe.qld.gov.au](http://www.worksafe.qld.gov.au)

### **WorkSafe Victoria**

Advisory Service 222

Exhibition Street

Melbourne VIC 3000

Telephone: **03 9641 1444**

Toll free: **1800 136 089**

Email: [info@worksafe.vic.gov.au](mailto:info@worksafe.vic.gov.au)

Website: [www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)

### **WorkSafe Western Australia**

1260 Hay Street

West Perth WA 6005

Telephone: **08 9327 8777**

Toll Free: **1300 307 877**

Email: [safety@commerce.wa.gov.au](mailto:safety@commerce.wa.gov.au)

Website: [www.worksafe.wa.gov.au](http://www.worksafe.wa.gov.au)

## WARRANTY

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Southern Cross Ag Machinery warrants all their products against defective workmanship and, or materials for a period of twelve (12) months from the date of purchase. A three-year extended warranty program applies to gearboxes supplied with the following products; Ripper and or Pipe Layers, finishing mowers and post-hole diggers sold from June 25th 2009. For attachments used in commercial enterprises the Warranty period is six (6) months on all components with the exception of components that are not included as per the detailed listed in the next paragraph. Proof of purchase plus proof of the defect will be required and must be received by Southern Cross Ag Machinery within seven days of product failure and prior to the end of the twelve (12) month period from date of purchase. A *Warranty Claim Form* MUST be lodged through the Dealer where the item was purchased. A *Warranty Claim Number* will be issued. Work commenced without a Claim Number issued and therefore warranty approval will not be covered by Southern Cross Ag Machinery.

Southern Cross Ag Machinery takes no responsibility for the repair of any products rendered defective or damaged through normal wear and tear or incorrect use of the product. Southern Cross Ag Machinery does not provide warranty on any cutting blades, tilling / hoe blades, rippers, scarifiers, tynes, tyres, clutch plates, friction plates, V-belts and Post Hole Digger cutting bits. Southern Cross Ag Machinery does not provide warranty on any products that have undergone modification. Southern Cross Ag Machinery reserves the right to determine whether the product is defective. Southern Cross Ag Machinery does not accept responsibility for any product which is damaged in transit. Faulty parts may need to be returned to Southern Cross Ag Machinery as part of the Warranty process. Freight costs each way will be paid by the owner / purchaser of the product.

Purchasers, dealers or agents of the Southern Cross Ag Machinery product are not authorised to give warranty on behalf of Southern Cross Ag Machinery. Claims will only be recognised, if lodged as outlined on page 29 in the *Warranty Process*. Any work commenced without Southern Cross Ag Machinery approval will not be honoured.

Product specifications are subject to change due to our company's policy of improvement. Design changes and improvements maybe made by Southern Cross Ag Machinery whenever it believes the effectiveness of its products can be improved. Southern Cross Ag Machinery has no obligation to incorporate any improvements to products, which are currently in service or have been supplied.

## REGISTER YOUR WARRANTY

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To register your Warranty please ensure the dealer from where the product has been purchased completes the *Southern Cross Ag Machinery Installation / Warranty Registration* Form. This triplet document needs to be signed by the purchaser. One copy remains with the Dealer, one copy needs to be mailed to Southern Cross Ag Machinery (Rear 18 Parramatta Road, Homebush NSW 2140) and one copy will remain with the purchaser for your reference.

If you have any queries regarding the warranty of your Southern Cross Ag Machinery product please call our office Tel. (02) 9746 9060 or email [sales@sxm.com.au](mailto:sales@sxm.com.au).



## WARRANTY PROCESS

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1. Contact your dealer or point of purchase who will contact Southern Cross Ag Machinery.
2. Photos and or video footage may be required to process your claim with a short description of the problem. This will be lodged through your dealer or point of purchase by the completion of the Southern Cross Ag Machinery *Warranty Claim Form*.
3. The claim will be assessed by Southern Cross Ag Machinery to determine whether the warranty claim will be approved. This can take up to five working days from when Southern Cross Ag Machinery is first notified of the problem and proof of product failure along with *Warranty Claim Form* is supplied.
4. If the *Warranty Claim* is approved a *Warranty Claim Number* will be issued to the Dealer.
5. Any work commenced without approval from Southern Cross Ag Machinery and without a *Warranty Claim Number* will not be covered by Warranty. Repairs must be made by Southern Cross Ag Machinery or an authorised dealer. Southern Cross Ag Machinery reserves the exclusive right to determine whether it will pay labour costs for warranty repairs or replacements and the amount of such costs that it will pay and the time in which the repairs will be made. Southern Cross Ag Machinery will not approve invoices sent for repairs that Southern Cross Ag Machinery has not previously approved.
6. Travel and freight charges associated with the processing of the *Warranty Claim* will not be covered by the Southern Cross Ag Machinery Warranty and is the responsibility of the owner / purchaser.

### DISCLAIMER

Whilst information is true at time of printing actual product may differ slightly from the product described herein due to our company's policy of improvement. Errors and omissions may happen from time to time, we apologise for any inconvenience should this occur. Products may differ slightly in appearance to illustrations / photographs provided.

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**AUTHORISED SXM DEALER**

