ENGLISH
P18414B
MARCH 2012

OPERATORS MANUAL
& PARTS LIST

FLATLINER 500

SIMBA Great Plains

DECLARATION OF CONFORMITY

Simba International Limited hereby declare that the **Simba Great Plains Flatliner 500**, as defined by the Serial Number attached to the Machine Chassis, conforms with the following Directives and Regulations, and has been certified accordingly.

EC Machinery Directive 2006/42/EC.

The Supply of Machinery (Safety) Regulations 2008.

The Provision and Use of Work Equipment Regulations 1998.

Specifically related harmonised standards are:

EN ISO 12100-1: 2003 (Safety of Machinery).

EN ISO 12100-2: 2003 (Safety of Machinery).

EN ISO 4254-1: 2009 (Agricultural machinery - Safety - General Requirements).

THE MANUFACTURER:

Simba International Limited
Woodbridge Road
SLEAFORD
Lincolnshire
NG34 7EW
England

Telephone (+44) (0)1529 304654.

CERTIFIED ON BEHALF OF SIMBA INTERNATIONAL LIMITED:

Colin Adams

Managing Director

CE

WARRANTY

TERMS AND CONDITIONS

In this warranty Simba International Ltd., is referred to as “the Company”.

1. Subject to the provisions of this warranty the Company warrants each new machine sold by it to be sold free from any defect in material or workmanship for a period of 12 months from date of installation with the end-user.

   Some specific items have additional warranty over and above the standard 12 months. Details of these can be obtained upon request directly from the distributor or Simba International Ltd.

2. If the machine or part thereof supplied by the Company is not in accordance with the warranty given in clause 1 the Company will at its option:

   (a) make good the machine or part thereof at the Company’s expense, or
   (b) make an allowance to the purchaser against the purchase price of the machine or part thereof, or
   (c) accept the return of the machine and at the buyers option either:
      I) repay or allow the buyer the invoice price of the machine or part thereof, or
      II) replace the machine or part thereof as is reasonably practical.

3. This warranty shall not oblige the Company to make any payment in respect of loss of profit or other consequential loss or contingent liability of the Purchaser alleged to arise from any defect in the machine or impose any liability on the Company other than that contained in clause 2.

4. Any claim under this warranty must be notified to the Company in writing specifying the matters complained of within 14 days from the date of repair.

5. Any claim under this warranty must be made by the original purchaser of the machine and is not assignable to any third party.

6. If the purchaser hires out the machine to any third party the warranty shall apply only to matters notified to the Company in writing within 90 days of the date of delivery and clause 1 shall be read as if the period of 90 days were substituted for the period of 12 months.

7. The warranty will cease to apply if:

(a) any parts not made, supplied or approved in writing by the Company are fitted to the machine or
(b) any repair is carried out to the machine other than by or with the express written approval of the Company or
(c) any alterations not expressly authorized by the Company in writing are made to the machine or
(d) the machine is damaged by accident or
(e) the machine is abused or overloaded or used for a purpose or load beyond its design capabilities, or used in conjunction with a tractor whose power output capability exceeds the stated implement power requirement by more than 40%. For the purpose of these terms and conditions, “stated implement power requirement” refers to wheeled tractors unless specifically stated. These power requirements should be reduced by 20% when used in conjunction with tracked tractors.
(f) the machine is operated as part of a ‘cultivation train’ where more than one implement is being towed, without the express written approval of Simba International Ltd.
(g) any maintenance is not carried out in accordance with the service schedules in the operator’s manual.
(h) the Installation and Warranty Registration Certificate is not received by Simba International Ltd., Service Dept., Woodbridge Road, Sleaford, Lincolnshire, England, NG34 7EW, within 7 days of installing a new machine.

Machine Identification

Enter the relevant data in the following list upon acceptance of the machine:

Serial Number	
Type of Machine	
Machine Width	
Year of Construction	
Delivery Date	
First Operation	
Accessories	

Operating Instructions/Spare Parts List: March 2012

Dealer Address:

Name: _____

Street: _____

Place: _____

Tel.: _____

Dealer's Customer No.: _____

Simba Great Plains Address:

Simba Great Plains
Woodbridge Road Ind. Est.
Sleaford
Lincolnshire
NG34 7EW

Tel.: +44 (0) 1529 304654

Fax: +44 (0) 1529 413468

E-Mail: simba.international@simba.co.uk

SImba Great Plains Customer No.: _____

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Introduction

Foreword

Make sure you have read and follow the Operating Instructions carefully before using the machine. By doing so, you will avoid accidents, reduce repair costs and downtime and increase the reliability and service life of your machine. Pay attention to the safety instructions!

Simba Great Plains will not accept any responsibility for any damage or malfunctions resulting from failure to comply with the Operating Instructions.

These Operating Instructions will assist you in getting to know your machine and in using it correctly for its intended purposes. First, you are given general instructions in handling the machine. This is followed by sections on servicing, maintenance and the action to be taken should a malfunction occur.

These operating instructions are to be read and followed by all persons working on or with the machine, e.g.:

- Operation (including preparation, remedying of faults in the operating sequence and servicing).
- Maintenance (maintenance and inspection)
- Transportation.

Together with the Operating Instructions, you receive a Spare Parts List and a Machine Registration form. Field service technicians will instruct you in the operation and servicing of your machine. Following this, the Machine Registration form is to be returned to your dealer. This confirms your formal acceptance of the machine. The warranty period begins on the date of delivery.

We reserve the right to alter illustrations as well as technical data and weights contained in these Operating Instructions for the purpose of improving the machine.

Warranty Guidelines

The period of liability for material defects (warranty) relating to our products is 12 months**.** In the case of written deviations from the statutory provisions, these agreements shall apply.

They shall become effective upon installation of the machine with the end customer. All wear parts are excluded from the warranty.

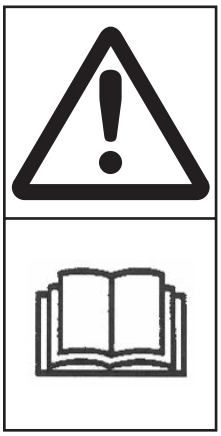
All warranty claims must be submitted to Simba Great Plains via your dealer.

1. Safety Data

The following warnings and safety instructions apply to all sections of these Operating Instructions.

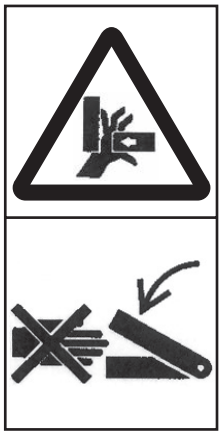
1.1 Safety Symbols

On the machine



Read and observe the Operating Instructions before starting up the machine!

Watch out for escaping pressurised fluids! Follow the instructions in the Operating Instructions!



Never reach into areas where there is a danger of being crushed by moving parts!

Parts may fly off during operation. Keep a safe distance away from the machine!

Keep clear of the working range of foldable machine components!

No passengers are allowed on the machine!

Never reach into any revolving parts!

Refer to Operating Instructions before attempting maintenance.

Operating Instructions:

The Operating Instructions distinguish between three different types of warning and safety instructions. The following graphic symbols are used:

Important!

Risk of injury!

Risk of fatal and serious injuries!

It is important that all the safety instructions contained in these Operating Instructions and all the warning signs on the machine are read carefully.

Ensure that the warning signs are legible. Replace any signs that are missing or damaged.

These instructions must be followed in order to prevent accidents. Inform other users of the warnings and safety instructions.

Do not carry out any operations which may affect safe use of the machine.

All references to left and right in this manual are made from the rear of the machine, facing the direction of travel (unless otherwise stated).

1.2 Use for the Intended Purpose

The Simba Great Plains Flatliner 500 is built using the latest technology and in accordance with the relevant recognised safety regulations. However, risks of injury for the operator or third parties and impairment of the machine or other tangible assets can arise during use.

The machine is only to be operated when in a technically perfect condition and for the intended purpose, taking into consideration safety and risks and following the Operating Instructions. In particular, faults that can impair safety are to be remedied immediately.

Original parts and accessories from Simba Great Plains have been specially designed for this machine. Spare parts and accessories not supplied by us have not been tested or authorised. Installation or use of non-original Simba Great Plains products may have a detrimental effect on specific design features of the machine and affect the safety of machine operators and the machine itself. Simba Great Plains will accept no liability for damage resulting from the use of non-original parts or accessories.

The Simba Great Plains Flatliner 500 is designed solely as a cultivation implement. Use for any other purpose, e.g., as a means of transport, will be deemed to be improper use. Simba Great Plains will accept no liability for damage resulting from improper use. The risk will be borne solely by the operator.

Use of the Flatliner 500 behind high power tractors (in excess of 40% above the maximum recommended) can lead to high loads and stresses which can cause long term structural damage to the chassis and key components. Such overloading can compromise safety and is to be avoided.

1.3 Operational Safety

The machine is to be put in operation only after instruction has been provided by an employee of the authorised dealer or an employee of Simba Great Plains. The “Machine Registration” form is to be completed and returned to your dealer.

All protective and safety equipment, such as removable protective equipment, must be in place and functioning reliably before the machine is put in use.

Check screws and bolts regularly for tightness and retighten if necessary.

In the event of malfunctions, stop and secure the machine immediately.

Ensure that any faults are remedied immediately.

1.4 No Liability for Consequential Damage

The Flatliner 500 has been manufactured with great care. However, problems may still occur when it is used for the intended purpose. These may include:

- Worn wearing parts.
- Damage caused by external factors.
- Incorrect driving speeds.
- Incorrect setting of the unit (incorrect attachment, non-adherence to the Setting instructions).

Therefore, it is crucial to always check your machine before and during operation for correct operation and adequate application accuracy.

Compensation claims for damage which has not occurred to the machine is excluded. This includes any consequential damage resulting from incorrect operation.

1.5 Road Traffic Safety

When driving on public roads, tracks and areas, it is important to observe the relevant road traffic laws as well as the specific regulations relating to this machine.

Pay attention to the permitted axle loads, tyre carrying capacity, and total weight in order to maintain adequate braking and steerability (these figures are shown on the serial plate).

Passengers on the machine are strictly forbidden!

Max. road transport speed 16mph (25km/h).

1.6 Accident Prevention

In addition to the Operating Instructions, it is important to observe the accident prevention regulations specified by agricultural trade associations. It is the Operator's responsibility to ensure that all other persons are excluded from the danger zones surrounding or on the machine during its operation.

It is the Owner's responsibility to ensure:

• the Operator is trained and competent to use the machine & tractor,
• the tractor is suitable for the machine
• adequate Risk and COSHH assessments have been undertaken regarding the machine's use. Specifically, these include issues concerning contact with the soil, dust, crop residues, chemicals, lubricants and other compounds during operation or maintenance, and the possibility of stones being ejected at high speed during work.

Beware of trapping hazards when manipulating the parking stands or other moving parts. Ensure any heavy components are fully supported when removing pins / bolts.

1.6.1 Hitching-up the machine

There is a risk of injury when hitching/ unhitching the machine. Observe the following:

- Secure the machine against rolling.
- Take special care when reversing the tractor!
- There is a risk of being crushed between the machine and the tractor!
- Park the machine on firm, level ground.

1.6.2 On the Hydraulic System

Do not connect the hydraulic lines to the tractor until both hydraulic systems (machine and tractor) are depressurised.

Any hydraulic system containing an accumulator can remain under pressure permanently (even after following manual depressurisation procedures with a tractor / implement combination). It is therefore important to check all lines, pipes, and screw connections regularly for leaks and any recognisable external damage.

The hydraulic circuit contains specialised fittings which should not be tampered with under any circumstances. Do not attempt to modify hose routings or hose clamping arrangements, doing so my cause serious damage to the machine and/or injury.

Only use appropriate aids when checking for leaks. Repair any damage immediately. Spurting oil can cause injuries and fires!

In case of injury, contact a doctor immediately.

The socket and plugs for the hydraulic connections between the tractor and the machine should be colour-coded in order to avoid incorrect use.

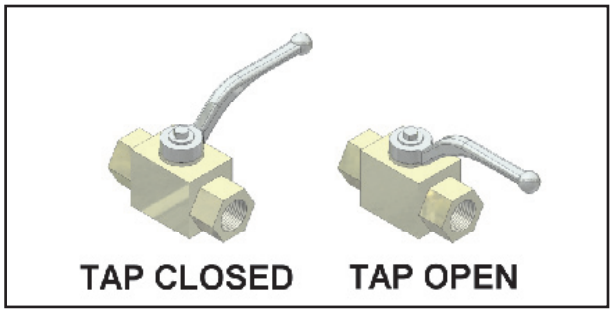


Fig. 1.01: HydraulicTaps

1.6.3 Changing Equipment

- Secure the machine to prevent it from accidentally rolling away!
- Use suitable supports to secure any raised frame sections suspended above you!
- Caution! Risk of injury due to projecting parts!

Never climb on to rotating parts such as the roll unit. These parts may rotate causing you to slip and suffer serious injury!

Removing components during maintenance may affect the stability of the machine. Ensure it is fully supported in case of unexpected weight shifts.

1.6.4 During Operation

Ensure that the working range and the area around the machine are clear (children!) before operating the machine.

Always ensure adequate visibility!

Do not stand on the machine while it is in operation!

Operators must have a valid driving licence in order to drive on public roads. In the operating area, the operator is responsible for third parties.

The person in charge must:

• provide the operator with a copy of the Operating Instructions, and

• ensure that the operator has read and understood the instructions.

• make sure that the operator is aware of the specific regulations relating to the machine when driving on public roads.

1.7 Servicing & Maintenance

Ensure that regular checks and inspections are always carried out within the periods required by law or specified in these Operating Instructions.

When carrying out service and maintenance work always:

- switch off the tractor engine and remove the ignition key.
- wait until all the machine parts have stopped moving.
- depressurise the hydraulic system.

Many hydraulic circuits contain lock or overcentre valves which can retain pressure in the lines even after depressurising the tractor side of these circuits. If in doubt, consult trained personnel (such as your local Simba Great Plains Dealer) to ensure such valves are depressurised to the correct procedure before removing or servicing any parts connected downstream of these valves.

Check all hydraulic lines for leaks, loose connections, chafe marks and damage. Remedy any deficiencies immediately! Pay particular attention to hose renewal intervals as outlined in the specific sections which follow. ALL hydraulic hoses have a safe maximum working life of 6 (SIX) years from date of installation, provided they remain in a safe condition. Hoses which exceed 6 years of age should be replaced, or inspected and certified by a suitably qualified person to have an extended life period which should be recorded.

Pay particular attention to those items which require specialist service tools or training to be carried out by qualified personnel. Do not attempt to service these items yourself! These include items retaining pressure (e.g. accumulator circuits), or force (e.g. spring tines), and DD Rolls of any type.

Prior to performing maintenance and servicing work, ensure that the machine is positioned on solid, level ground and is secured to prevent it rolling away. Do not use any parts to climb on to the machine unless they are specifically designed for this purpose.

Before cleaning the machine with water, steam jets (high-pressure cleaning apparatus) or other cleaning agents, cover all openings into which, for reasons of safety or operation, no water, steam or cleaning agents are to penetrate (bearings, for instance).

Lubricate all the lubricating points to force out any trapped water.

When carrying out servicing and maintenance work, retighten any loose screw connections.

When servicing the machine take precautions against soil, dust, seed coatings, oil or any other hazardous substances that you might encounter.

On a new machine tighten all nuts and bolts after 5 hours work and again after 15 hours. This also applies to parts that have been moved or replaced. After the initial 15 hours of work a once a week check should be sufficient depending on daily work rates.

1.8 Operating Areas

The operating areas include the drawbar, hydraulic connections and depth adjustment equipment as well as all operating points requiring maintenance.

All operating areas will be specified and described in detail in the following chapters on servicing and maintenance.

Observe all safety regulations included in the section dealing with Safety, and in the subsequent sections.

1.9 Authorised Operators

Only those persons who have been authorised and instructed by the operator may operate the machine. The operator must be at least 16 years of age.

1.10 Protective Equipment

For operation and maintenance, you require:

• Tight fitting clothing.

• Strong protective gloves (to provide protection against sharp-edged machine components).

• Protective goggles (to stop dirt getting into your eyes).

2. Transportation and Installation

Transportation and initial installation of the machine are described in this chapter.

2.1 Delivery

The machine is normally delivered, fully assembled, on a (low-bed) truck.

- The machine can be lifted off with a crane, fork-lift truck, or other suitable lifting equipment. When doing so, the weights (see Technical Data), the centre of gravity and the attachment points on the machine are to be taken into account. Depending on the lifting gear, attachment is only to be at appropriate points on the frame.
- The machine can be hitched to a tractor and driven off a low-loader.

2.2 Transportation

The Flatliner 500 can be transported on public roads by hitching it up to a tractor or on a low-bed truck.

- It is important to observe the permitted dimensions and weights when transporting the machine.
- Use suitable lifting gear, e.g. a fork-lift truck.
- If the machine is transported on a trailer or a flat-bed truck, it must be secured using straps or other devices.
- Before transporting the machine on public roads, it must be adjusted to its transportation position and the stipulations relating to road transportation fulfilled.
- The maximum permissible speed is 25 km/h.

2.3 Installation

When carrying out installation and maintenance work there is a higher risk of injury. It is important that you familiarise yourself with the machine and read the Operating Instructions beforehand.

Operator instruction and initial installation of the machine are carried out by our service technicians or authorised distributors.

The machine must not be used in any way beforehand! The machine can only be released for operation after instructions have been provided by our service technicians or authorised distributors.

- If any modules or parts have been removed for transportation, these shall be mounted by our service technicians/ authorised dealers before the instruction takes place.
- Check all important screw connections!
- Lubricate all nipples and joints!

2.4 Hitching Up

2.4.1 Hitching up a Tractor to the Flatliner 500 / Preparing for Transport

When hitching-up the machine, ensure that no-one is between the tractor and the machine.

Tractor Oil Flow Adjustment: As a general rule the tractor oil flow rate should be set in the lowest setting before starting. This can then be increased to allow the desired rate of operation as applicable. This will minimise excessive oil flow and consequent power usage and heat generation.

1. Ensure the tractor hydraulics are depressurised and in the locked or closed (not float) setting.

2. Couple the hydraulic hoses to the tractor ensuring that the two wing hoses (yellow) are together, the roll circuit hoses are together and the tine circuit hoses (if applicable) are together.

3. Connect the tractor to the machine using the hydraulics to raise or lower the the height of the tractor lower link arms.

4. When the lower link arms are aligned fit the lower link pins and the lynch pins.

5. Fit the tractor toplink between the tractor and the machine.

6. Raise the machine using the tractor link arms.

If the machine was parked unfolded ensure that it is fully raised, then fold using the wing cylinders.

2.5 When driving on the road

When driving on the road the machine must be converted to the transportation position.

When driving on the road, raise the machine completely to prevent the working elements dragging on the ground.

2.6 Parking the machine

In order to avoid damage as a result of moisture, the machine should be parked, if possible, indoors or under cover.

When manoeuvring the machine, pay attention to your surroundings. Ensure that nobody is in the manoeuvring area (watch for children!).

- Unfold the machine.
- Extend the roll cylinders to lower the rolls. Add shims to the cylinders.
- Lower the parking stands into the parking position.
- Lower the machine to the ground ensuring that it is stable.
- Remove the toplink and lower the link arms so that pins can be removed.
- Switch off the tractor.
- Disconnect hydraulic and electric lines from the tractor.

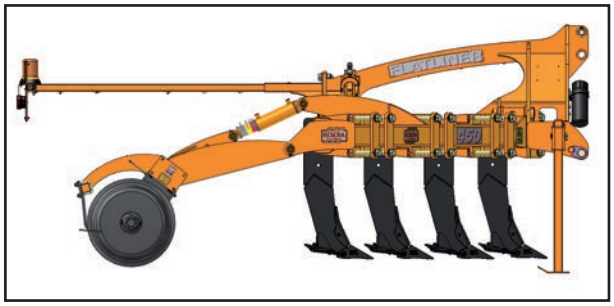


Fig. 2.01: Parking Position

3. Technical Data
Flatliner 500

	Shear Tine Models	Trip Reset Tine Models
Working Width (mm)	4530	4530
Transport Width (mm)	2800	2800
Transport Length (mm)	3975	3975
Weight (Kg)	3735	4810
Tines Qty/Spacing (mm)	7 / 645	7 / 645
Power Requirement (Hp)*	210-360	210-360

* It is important to correctly match your implement to your tractor for optimum performance.

4. Adjustment/Operation

4.1 Description

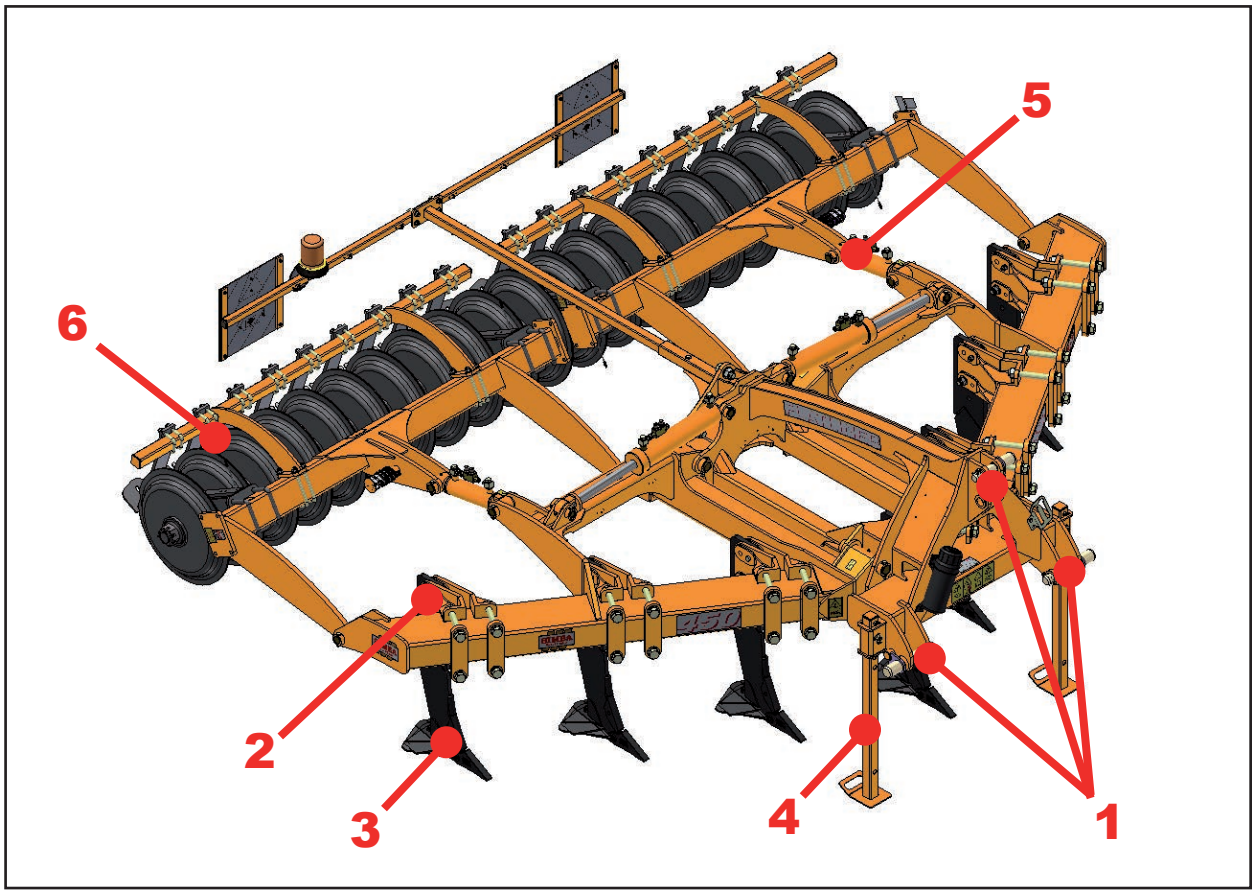


Fig. 4.01: Flatliner 500 (with Double Disc roll)

1. 3 Point Linkage
2. Adjustable Tine Clamps
3. Pro-Lift Tines
4. Parking Stands
5. Roll Cylinders
6. Rear Roll Unit

The Simba Great Plains Flatliner 500 is a heavy duty 'V' framed subsoiler designed to operate at depths of 300-500mm. Adjustable tine clamps offer flexibility of spacing to provide optimum shatter. Depth control is achieved using the rear roll, ensuring maximum consolidation.

4.2 Tines

The Flatliner 500 is fitted with with Pro-Lift tines and points. The tines are arranged in a 'V' frame to give lower draft requirements and the ability to work progressively deeper.

Different wings are available to suit the soil conditions and optimise the performance of the machine.

Main working depth is set using the rear roll. On machines fitted with shear-bolted tines coarse tine depth can be adjusted by moving the tines up and down in the adjustable clamps.

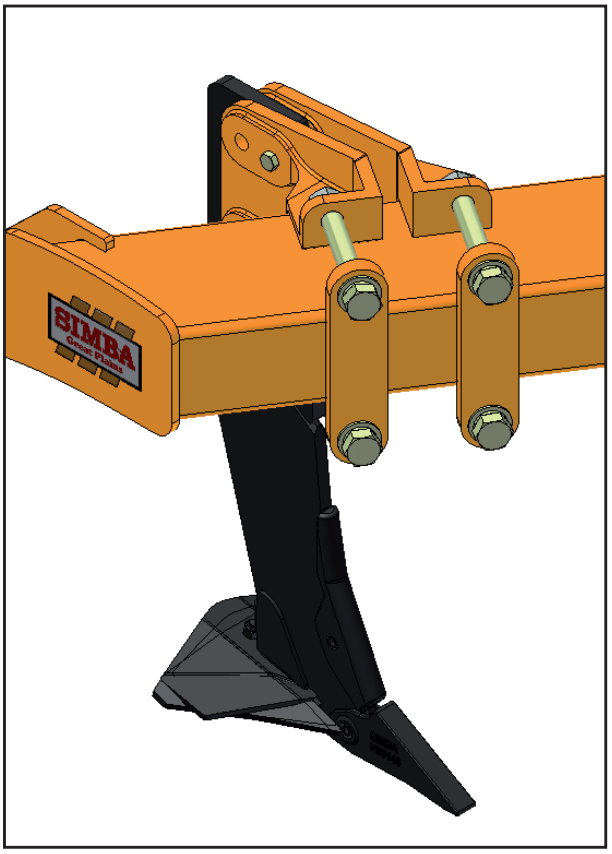


Fig. 4.02: Tine in Tine Clamp

4.3 Pro-Lift Wings

Standard Wing

P09060

- Maximum soil disturbance with minimum draft requirement under normal circumstances.
- Wing angle reduces wear rates on leg.

Extra Lift Wing

P10392

- Increased lift height and and rake angle creates greater soil disturbance on all soil types especially in moister conditions.
- Lower relative distance between edge of wing and point reduces draft requirement.
- Has ability to work at lower depths with no decrease in soil disturbance or risk of smear.

Extra Wide Wing

P10411

- Improved lateral shatter in moist/wet soils, or non-cohesive soils.
- Ideal for deep vegetable applications under light/medium soils.

Wear Shroud

P11181

- Wear plate to take soil abrasion so lower trailing edge of tine does not wear.

4.4 Double Disc Roller

The standard DD600 roller is made up of individual Double Disc (patented) Ring segments.

The DD rings are designed to consolidate the soil whilst cutting and crushing any clods.

Even in heavy, wet soils it can easily be operated with minimal blockages occurring.

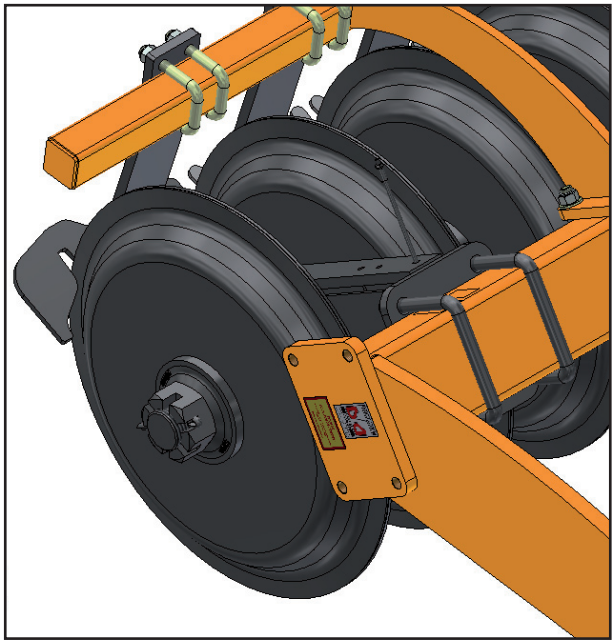


Fig. 4.03: DD600 Roll

4.5 Operation

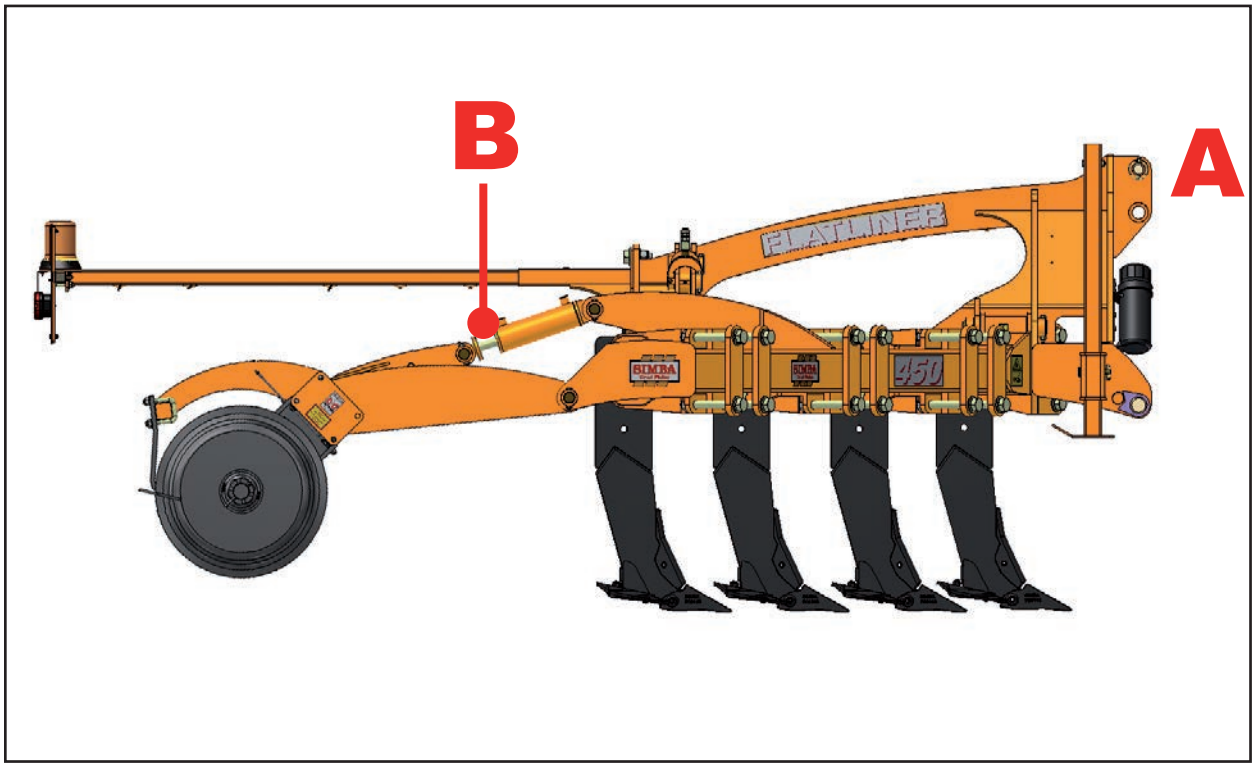


Fig. 4.04: Flatliner Operation

With the Flatliner 500 mounted on the tractor three-point linkage, lower the machine until the foot of the leading tine is resting on the ground. The trailing tines should be 50 to 125mm clear of the ground, depending on the width of the implement and what the desired operating depth is to be. Set the trailing tines by adjusting the length of the toplink (A).

Once in work the operating depth of the machine has to be controlled by the roll unit or else it will attempt to go deeper. The roll unit is set using shims in the roll cylinders (B).

The roll unit serves two functions; it conserves soil moisture, breaking up any clods left by the tines and limits the operating depth of the machine. The pressure that may be exerted upon the clods by the roll is limited by the weight of the implement and the downward tine thrust. This downward thrust can be increased by fitting wider wings, or slightly increasing the angle of the points and wings (shortening the toplink - A), and by minimising any draft control setting on the tractor. This is the first area to be investigated, if more crumbler pressure should be required. Draft control can also inhibit initial penetration if the implement is lowered too quickly on the move into work. The rapid increase in draft is sensed by the tractor, which then inhibits further penetration. The solution is to gradually lead the implement into work, thereby not imposing a rapid increase in pulling force.

In most cases where a significant roll pressure is required it is advisable to eliminate draft control if possible.

The Flatliner 500 must run reasonably level or slightly nose down to achieve consistant results across its width and any increase in downward thrust will significantly increase the pull required.

If the roll is exerting too much pressure for the conditions, but if raised will cause the machine to operate too deeply, then draft control may have to be used. The operating depth can be controlled to a certain extent by lengthening the tractor top link. This causes the implement to run tail down and reduces the downward thrust on the points and wings, reducing the shattering effect of the tines.

The lowest draught requirement is achieved when the machine is slightly tail down (all points touching the ground at the same time). However the best shattering effect is achieved when the main frame is running level, this attitude being more desirable.

Hard/Dry Conditions

The Flatliner 500 achieves best results in dry conditions but under very hard/dry conditions it may produce large clods of soil at the surface. If the roll unit is unable to break these clods down effectively this may be overcome by removing the tines and increasing the spacing, or an initial precultivation at 50 to 100mm (eg. Disc) depth to eliminate the possibility of forming large clods from soil at this depth.

Surface Trash

The ‘ V ‘ shape of the Flatliner frame is ideal for fields with surface trash as there are few places for blockages to occur, but under extreme conditions fouling may still be evident. This can be overcome by either increasing the mainframe to ground clearance of the implement (by lowering the tines in their clamps) or by removing some tines if necessary.

4.6 Using Shims

Before using shims to alter machine settings ensure the machine is stationary and the tractor is turned off with the keys out. Ensure that all operators are clear of the machine and that no load is being held on any existing shims in the cylinder / depth control rod.

To fit the shims hold them by the handle and, using a firm action, clip them onto the rod as shown in *Fig. 4.05*. They are removed by using a finger to pull firmly on the handle.

Check the cylinder / depth control rod for damage and debris before fitting shims.

Only attempt to add or remove shims using the handle. Trying to manipulate shims using the jaws could result in injury.

When changing machine settings ensure both sides of the machine mirror each other. The left hand cylinder should contain the same amount of shims as the right, for example. Failure to do this could result in damage to the machine.

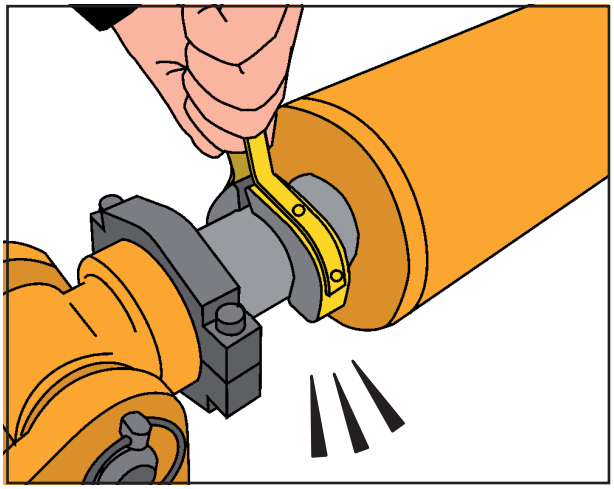


Fig. 4.05: Shims

4.7 Work Instructions

Driving speed

The Flatliner 500 should be driven within a speed range of 7-10 km/h.

This depends on the field conditions (type of soil, surface trash, etc.).

Drive more slowly if the conditions are difficult.

Turning:

Before turning, the machine should be eased out of work while driving. Likewise, it should eased back into work once the turn has been completed.

4.8 Parking the machine

In order to avoid damage as a result of moisture, the machine should be parked, if possible, indoors or under cover.

When manoeuvring the machine, pay attention to your surroundings. Ensure that nobody is in the manoeuvring area (watch for children!).

- Unfold the machine.
- Extend the roll cylinders to lower the rolls. Add shims into the cylinders.
- Lower the parking stands into the parking position.
- Lower the machine to the ground ensuring that it is stable.
- Remove the toplink and lower the link arms so that pins can be removed.
- Switch off the tractor.
- Disconnect hydraulic and electric lines from the tractor.

4.9 Checks

The working quality depends on the adjustments and checks made prior to and during work, as well as on regular servicing and maintenance of the machine.

Before beginning work it is therefore important to carry out any necessary servicing and to lubricate the machine as required.

Checks prior to, and during work:

- Is the machine correctly hitched up and the coupling device locked?
- Is the machine in a level operating position and the working depth set correctly?

Working Elements

- Are the tines and other cultivation tools in a serviceable condition?
- Are the scrapers still operable, so that the rolls do not jam?

5. Servicing and Maintenance

Follow the safety instructions for servicing and maintenance.

Specialist equipment is required for the disassembly of Double Disc axles. Please consult your dealer under any circumstances that require disassembly of these axles.

5.1 Servicing

Your machine has been designed and constructed for maximum performance, operational efficiency and operator friendliness under a wide variety of operating conditions.

Prior to delivery, your machine has been checked at the factory and by your authorised dealer to ensure that you receive a machine in optimum condition.

To ensure trouble-free operation, it is important that servicing and maintenance work is performed at the recommended intervals.

5.2 Cleaning

In order to ensure that the machine is always in operating condition and to achieve optimum performance, perform the cleaning and servicing work at regular intervals.

Avoid cleaning the roll bearings with a high-pressure hose or a direct water jet. The housing, screwed connections and ball bearings are not watertight.

5.3 Changing Tine Points and Wings

When changing the tine points and wings it is important to observe safe working practices.

- The machine should be raised and the parking stands should be put into the lowest setting.
- Fully extend the roll cylinders and add shims in.
- Lower the machine so it it supported by the roll and parking stands
- While still attached to the tractor, the tine points will be clear of the ground allowing for the maintenance to take place (remove the tractor key for safety).

Do not attempt to assist fitting tine points with a steel headed hammer, as this can lead to splintering of the metal due to its hardness, which can cause injury. If tine fitting requires assistance, a copper/hide mallet should be used. Wear eye protection.

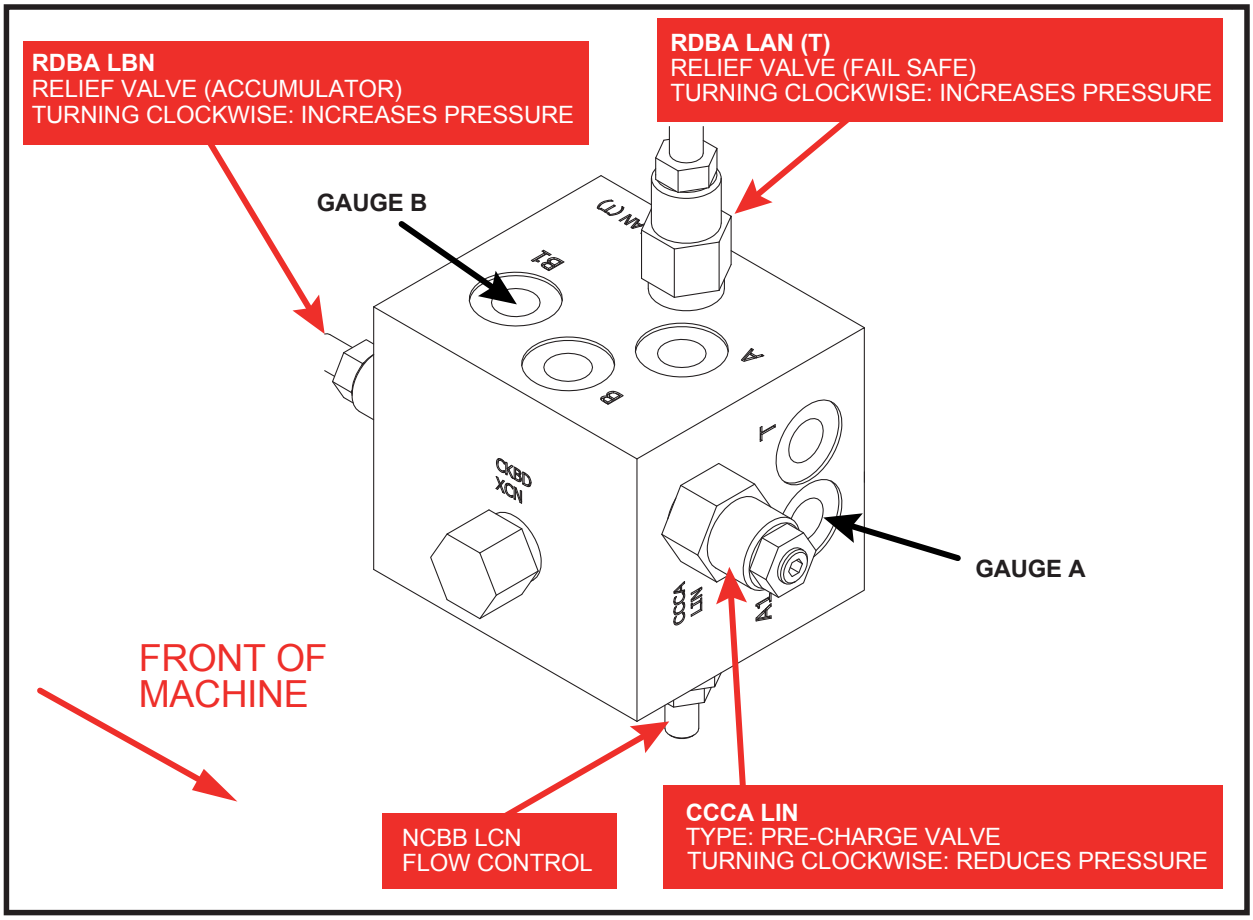
5.4 Hydraulics

A low oil flow should be used, i.e., tractor tickover or low flow selected.

Exercise extreme care when checking the valve or circuits, and *under no circumstances* attempt to adjust or loosen fittings without prior reference to your authorised dealer, and detailed maintenance instructions.

The hydraulic circuit contains specialised fittings which should not be tampered with under any circumstances. Do not attempt to modify hose routings or hose clamping arrangements, doing so my cause serious damage to the machine and/or injury.

5.5 Trip Reset Tine Hydraulics



The circuit allows for the tines to be pressurised down into work where a relief valve allows the tine to trip up if necessary.

In normal operation, oil is locked in the cylinder circuit at a pressure determined by the relief valves.

De-pressurising the Circuit

To de-pressurise the circuit, identify and adjust the following valves on the Tine Control Manifold.

All valves can be identified by stamped codes adjacent to each valve (above).

1 Set tractor hydraulics to neutral, machine raised.

2 Adjust pre charge valve (**marked CCCA LIN**) fully clockwise. If necessary, note the number of turns that it takes for the system to be reset.

3 Adjust relief (**marked RDBA LBN**) fully anticlockwise. If necessary, note the number of turns that it takes for the system to be reset.

4 Set tank return line circuit to float or down to return oil to tractor.

5 Set main system to float, or allow oil pressure to be released in both directions.

6 Refer to pressure gauges on machine. Ensure both read zero before attempting any maintenance. Repeat the above procedure until both gauges read zero in all circumstances.

Follow detailed setting sequence on page 26 to reset the system prior to returning to work, or alternatively revert the above valves back to their original setting (number of turns).

5.5.1 Valve Setting Sequence - Factory Setting

1. Raise machine, to ensure tines are fully clear of the ground at depth.

2. Adjust reliefs (marked **RDBA LBN** and **RDBA LAN**) and precharge valve (**CCCA LIN**) all clockwise fully.

3. Adjust flow control (**NCBB LCN**) fully clockwise, then anti-clockwise 2 turns.

4. Raise tines, then pressure fully down. Set failsafe (**RDBA LAN**) to between 190-220 bar. If available pressure is insufficient to achieve this, set to ½ turn clockwise above that where valve relieves at tractor maximum pressure.

If tines do not relieve under severe overload, this valve should be reduced (anti-clockwise) until this occurs in work, otherwise damage may occur.

5. Pressure tines down, and set accumulator relief (**RDBA LBN**) to 90 bar as tines are lowered.

6. Pressure tines down and check cylinder pressure reads 90 bar and the corresponding rod pressure reads between 10-20 bar (achieved by adjusting precharge valve (**CCCA LIN**)).

7. Put main circuit in float, check above pressures are maintained at least at the lower values indicated.

5.5.2 Valve Adjustment - To Suit Field Conditions

(a) Normal / Stony conditions

To avoid damage to tines and chassis in severe stone conditions reduce accumulator relief (**RDBA LBN**) as tines are held in 'lower' to read 90 bar.

(b) Hard, stone free conditions

It is permissible to increase gauge pressure for accumulator relief (**RDBA LBN**) as tines are held in 'lower' to read up to 120 bar.

5.6 Double Disc Axles

The axles on this roller are tensioned by the main axle through the centre of the rings and bearings.

Specialist equipment is required for the disassembly of Double Disc axles. Please consult your dealer under any circumstances that require disassembly of these axles.

Maintenance of these rollers is limited to daily greasing of the bearings to flush out dirt, and regular inspection to ensure the assemblies are tight, and scrapers are correctly set. The axles can be tightened provided the bearing pillar 'U' bolts are loosened to avoid preloading the bearings as they move sideways to each other. Ensure the bearing pillars are re- tightened to the mainframe after this.

5.7 Preparation for Storage

If you need to store the machine for a longer period, observe the following points:

- Park the machine undercover if possible.
- Protect the roll against rust. If you need to spray the roll with oil, use light biologically degradable oils, e.g. rape oil.

Cover any rubber sections before using oil sprays. These sections must not be oiled.
Remove any traces of oil with a suitable cleaning agent.

5.8 Operator Support

If you have a problem, please contact your dealer. They will endeavour to solve any problems which may occur and provide you with support at all times.

In order to enable your dealer to deal with problems as quickly as possible, it helps if you can provide them with the following data. Always state the:

- Customer Number
- Name and Address
- Machine Model
- Date of Purchase and Operating Hours
- Type of Problem

5.9 Maintenance Intervals

Apart from daily maintenance, the maintenance intervals are based on the number of operating hours and time data.

Keep a record of your operating hours to ensure that the specified maintenance intervals are adhered to as closely as possible.

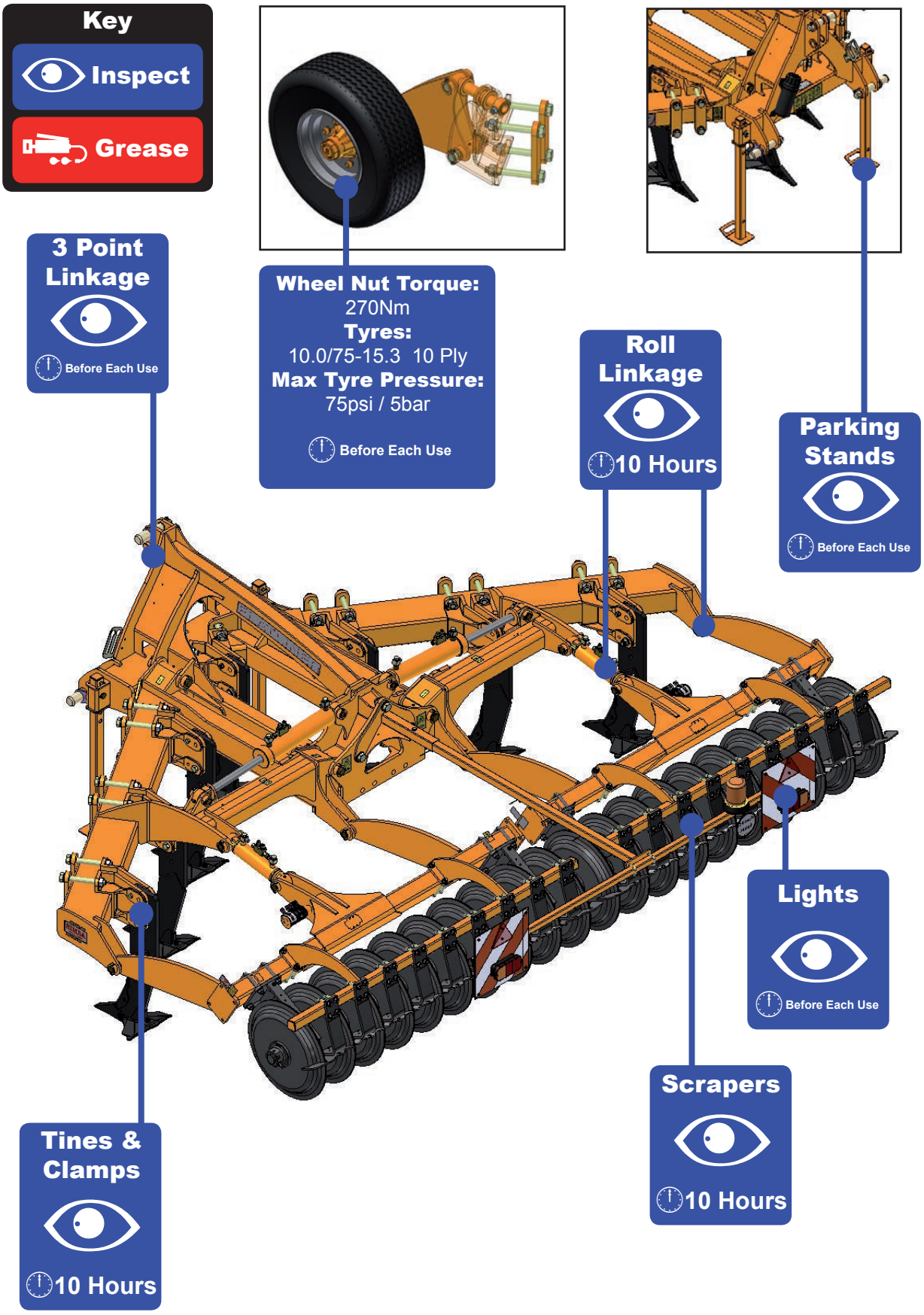
Never use a machine that is due for maintenance. Ensure that all deficiencies found during regular checks are remedied immediately.

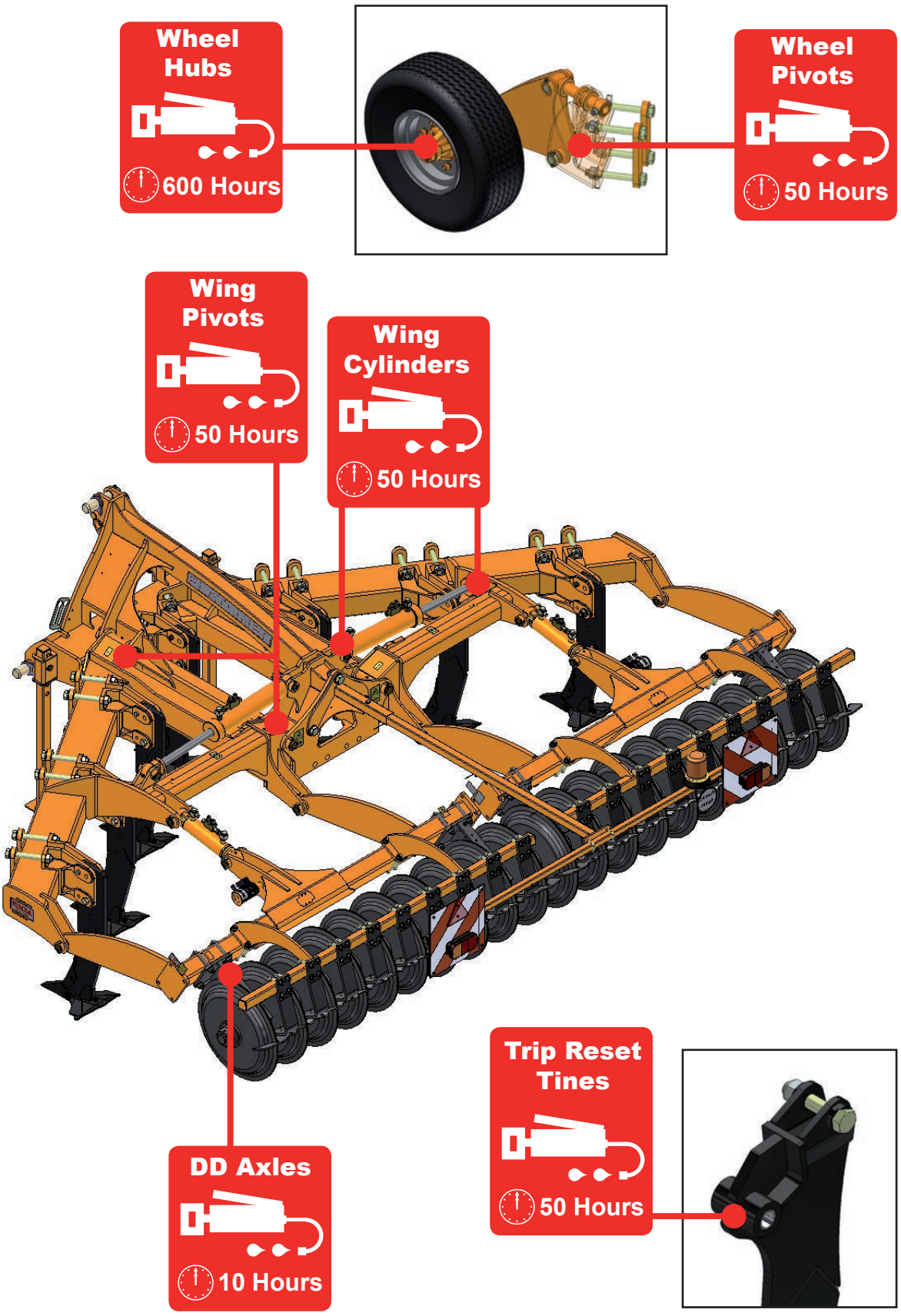
Avoid sharp-edged and pointed parts (tine points, etc.) when working on the machine.

Place the machine on suitable supports when working underneath! Do not work under a machine which is not supported!

On a new machine tighten all nuts and bolts after 5 hours work and again after 15 hours. This also applies to parts that have been moved or replaced. After the initial 15 hours of work a once a week check should be sufficient depending on daily work rates.

5.10 Maintenance Overview




Wheel Hubs
600 Hours
Wheel Pivots
50 Hours
Wing Pivots
50 Hours
Wing Cylinders
50 Hours
DD Axles
10 Hours
Trip Reset Tines
50 Hours

5.11 Lubricating the Machine

Please read the section below carefully before lubricating the machine.

The machine must be lubricated regularly in order for it to remain serviceable. Regular lubrication also contributes towards extending the service life of your machine.

The recommended lubricating intervals are specified in “Maintenance Overview”.

After it has been washed using a high-pressure hose or steam cleaned, the machine should always be lubricated using a grease gun.

5.12 Handling of Lubricants

Please ensure that you read the following instructions as well as the relevant information. This also applies to any of your employees who handle lubricants.

Hygiene

Lubricants do not present a health hazard provided they are used for their specified purpose.

In the case of prolonged skin contact, lubricants, especially low-viscosity oils, may remove the natural layer of fat contained in the skin, resulting in dryness and possible irritation.

It is important to take extreme care when handling waste oil as it may contain other irritants.

Vapours given off by cleaning agents and oils are also a potential health hazard.
You should therefore not carry any oily cloths around. Change soiled work clothing as soon as possible.

Always exercise extreme care and observe the recommended hygiene rules when handling mineral oil products. Details of these handling regulations can be found in information provided by the health authorities.

Storage and Handling

- Always store lubricants where they cannot be accessed by children.
- Never store lubricants in open or unlabelled containers.

Fresh Oil

- Apart from taking the usual care and observing hygiene rules, there is no need to take any special precautions when handling fresh oil.

Waste Oil

- Waste oil can contain harmful contaminants which may cause skin cancer, allergies and other illnesses.

Attention!

Oil is a toxic substance. Should you swallow any oil, do not try to vomit. Contact a doctor immediately.
Protect your hands with barrier cream or wear gloves to avoid contact with the skin. Wash off any traces of oil thoroughly with soap and hot water.

- Wash your skin thoroughly with soap and water.
- Use special cleaning agents to clean any dirt off your hands.
- Never wash oil residue from your skin with petrol, diesel fuel or paraffin.
- Avoid skin contact with any oily clothing.
- Do not keep any oily rags in your pockets.
- Wash soiled clothing before wearing it again.
- Ensure that any oily footwear is disposed of in the proper manner.

Measures in case of injury through oil

Eyes:
Should any oil be splashed into your eyes, rinse with water for 15 minutes. If the eye is still irritated, contact a doctor immediately.

If oil is swallowed
If oil is swallowed, it is important not to induce vomiting. Contact a doctor immediately.

Skin irritation caused by oil
In case of prolonged skin contact, wash off the oil with soap and water.

Oil Spills
Use either sand or a suitable granular absorbent to soak up any spilt oil. Dispose of the oil-contaminated absorbent in the proper manner.

Oil Fires
Never use water to extinguish an oil fire. The oil will float on the water causing the fire to spread.

Burning oil-lubricant must be extinguished using a carbon dioxide powder or foam extinguisher. Always wear respiratory equipment when dealing with fires of this type.

Waste Oil Disposal
Oil-contaminated waste and used oil must be disposed of in accordance with current legislation.

Waste oil must be collected and disposed of in accordance with local regulations. Never pour used oil into unsealed sewage systems or drains or onto the ground.

5.13 Lubricants & Hydraulic Oil

Hydraulic System
The hydraulic fluid from the tractor is mixed with the hydraulic fluid from the machine.

The supplied machine hydraulic system contains Total AZOLLA ZS 32 oil.

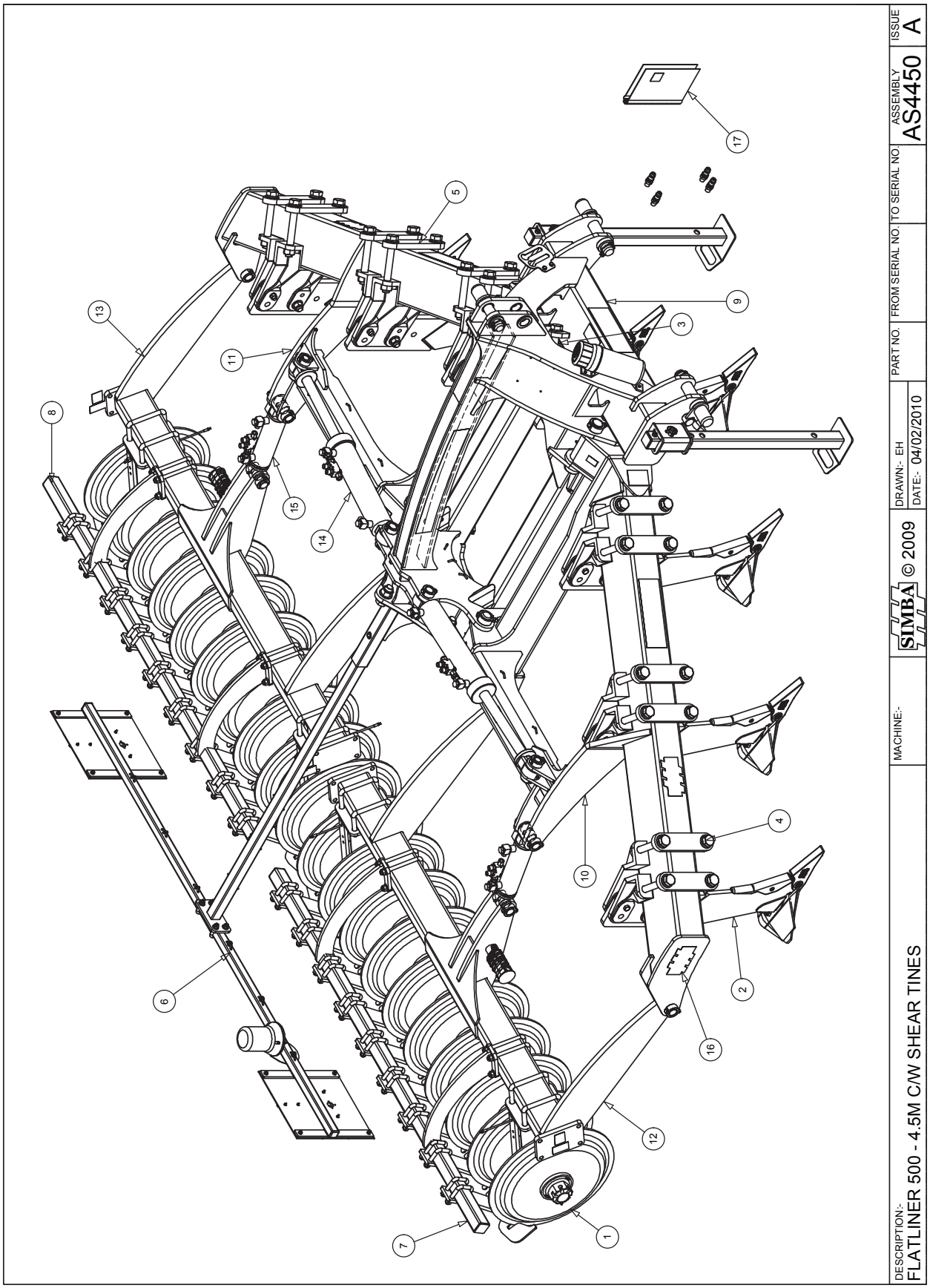
Lubricants
All lubricating points on the machine can be lubricated with multigrade lubricating grease as specified in DIN 51825 KP/2K - 40.

6. Faults and Remedies

Troubleshooting		
Fault	**Possible Cause**	**Remedy**
DD roller does not turn	Bearing seized	Replace bearing
	Scraper misaligned	Re-align scraper
Surface finish is uneven and cloddy	Not enough roll pressure	Reduce draft control
	Wings too aggressive	Fit different wings, either narrower wings or wings with a shallower rake (see section 4.3)
	Running nose down	Level frame
	Working too shallow	Increase tine depth
All ground not being moved by tines	Working too shallow	Increase tine depth
	Wings not aggressive enough	Fit wider wings

7. Parts & Assembly

Table of contents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DESCRIPTION:-
FLATLINER 500 - 4.5M C/W SHEAR TINES
MACHINE:-
SIMBA © 2009
DRAWN:- EH
DATE:- 04/02/2010
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4450
ISSUE
A

	AS4450	FLATLINER 500 - 4.5m C/W SHEAR TINES		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	AS0949	AXLE ASSEMBLY - DD600 10 RINGS	2	
2	AS1266	TINE ASSEMBLY PROLIFT	7	
3	AS3857	TINE CLAMP ASSEMBLY - CENTRE	1	
4	AS3858	TINE CLAMP ASSEMBLY - RH	3	
5	AS3859	TINE CLAMP ASSEMBLY - LH	3	
6	AS3872	LIGHT MOUNT ASSEMBLY - NO OSR	1	
7	AS4002	SCRAPER RAIL ASSEMBLY RH - DD600	1	
8	AS4003	SCRAPER RAIL ASSEMBLY LH - DD600	1	
9	AS4451	CHASSIS ASSEMBLY - FL500F	1	
10	AS4452	WING ASSEMBLY RH - 4.5m	1	
11	AS4453	WING ASSEMBLY LH - 4.5m	1	
12	AS4454	ROLL FRAME ASSEMBLY RH - 4.5m	1	
13	AS4455	ROLL FRAME ASSEMBLY LH - 4.5m	1	
14	AS4459	WING FOLD HYDRAULIC LAYOUT	1	
15	AS4460	DEPTH CONTROL HYDRAULIC LAYOUT	1	
16	AS4461	STICKER LAYOUT - FL500F 4.5	1	
17	P18414	FLATLINER 500F-MANUAL	1	
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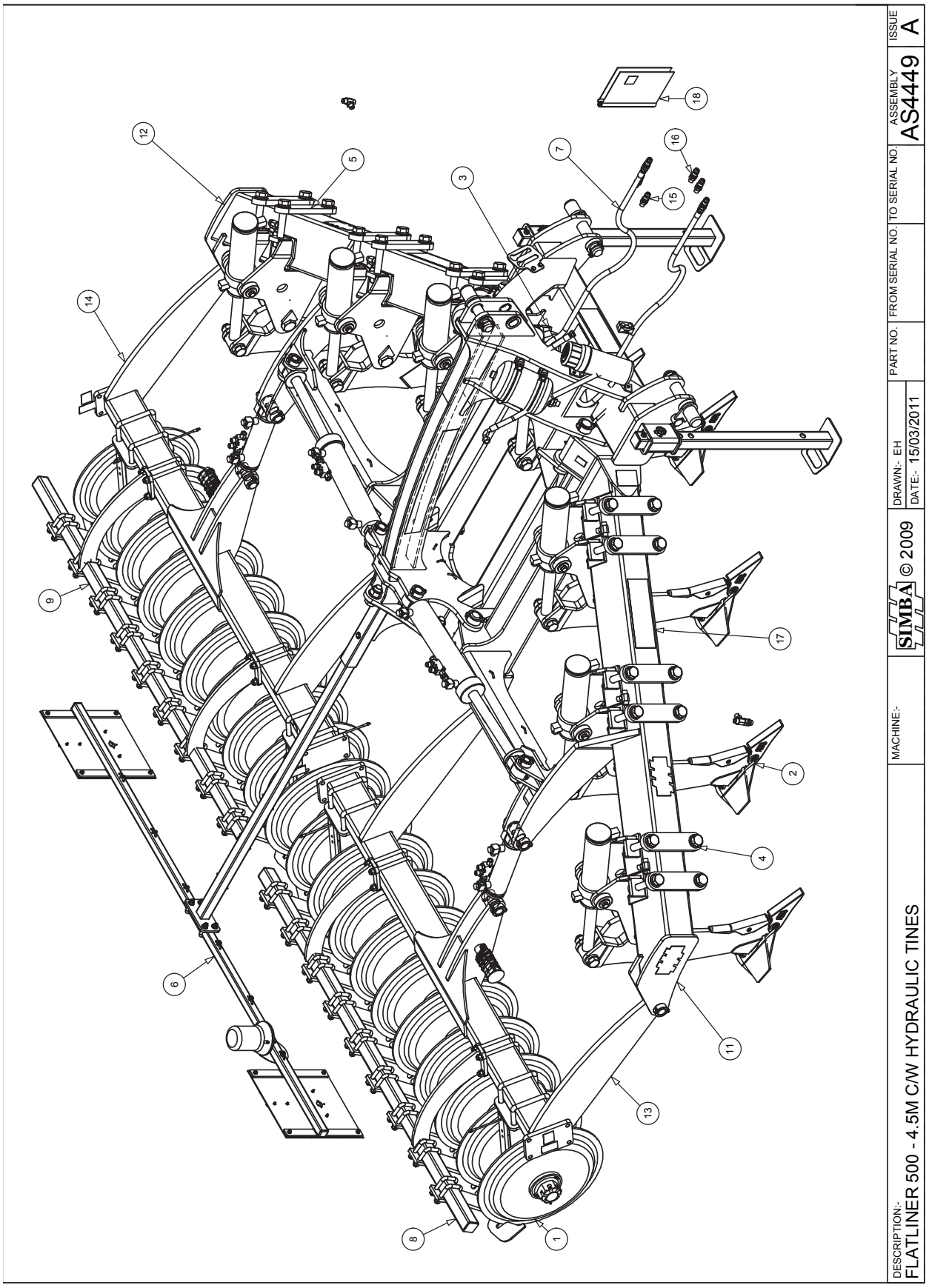
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FLATLINER 500 - 4.5M C/W HYDRAULIC TINES
MACHINE:-
SIMBA © 2009
DRAWN:- EH
DATE:- 15/03/2011
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4449
ISSUE
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	AS4449	FLATLINER 500 - 4.5m C/W HYDRAULIC TINES		
ITEM	**PART NO**	**DESCRIPTION**	**QTY**	**COMMENTS**
1	AS0949	AXLE ASSEMBLY - DD600 10 RINGS	2	
2	AS3860	TINE ASSEMBLY - AUTO RESET	7	
3	AS3861	F/W AUTO RESET TINE CLAMP CENTRE	1	
4	AS3862	TINE ASSEMBLY RH - AUTO RESET FL500	3	
5	AS3863	TINE ASSEMBLY LH - AUTO RESET FL500	3	
6	AS3872	LIGHT MOUNT ASSEMBLY - NO OSR	1	
7	AS3875	AUTO RESET TINE HYDRAULIC CIRCUIT	1	
8	AS4002	SCRAPER RAIL ASSEMBLY RH - DD600	1	
9	AS4003	SCRAPER RAIL ASSEMBLY LH - DD600	1	
10	AS4451	CHASSIS ASSEMBLY - FL500F	1	
11	AS4452	WING ASSEMBLY RH - 4.5m	1	
12	AS4453	WING ASSEMBLY LH - 4.5m	1	
13	AS4454	ROLL FRAME ASSEMBLY RH - 4.5m	1	
14	AS4455	ROLL FRAME ASSEMBLY LH - 4.5m	1	
15	AS4459	WING FOLD HYDRAULIC LAYOUT	1	
16	AS4460	DEPTH CONTROL HYDRAULIC LAYOUT	1	
17	AS4461	STICKER LAYOUT - FL500F 4.5m	1	
18	P18414	FLATLINER 500F-MANUAL	1	
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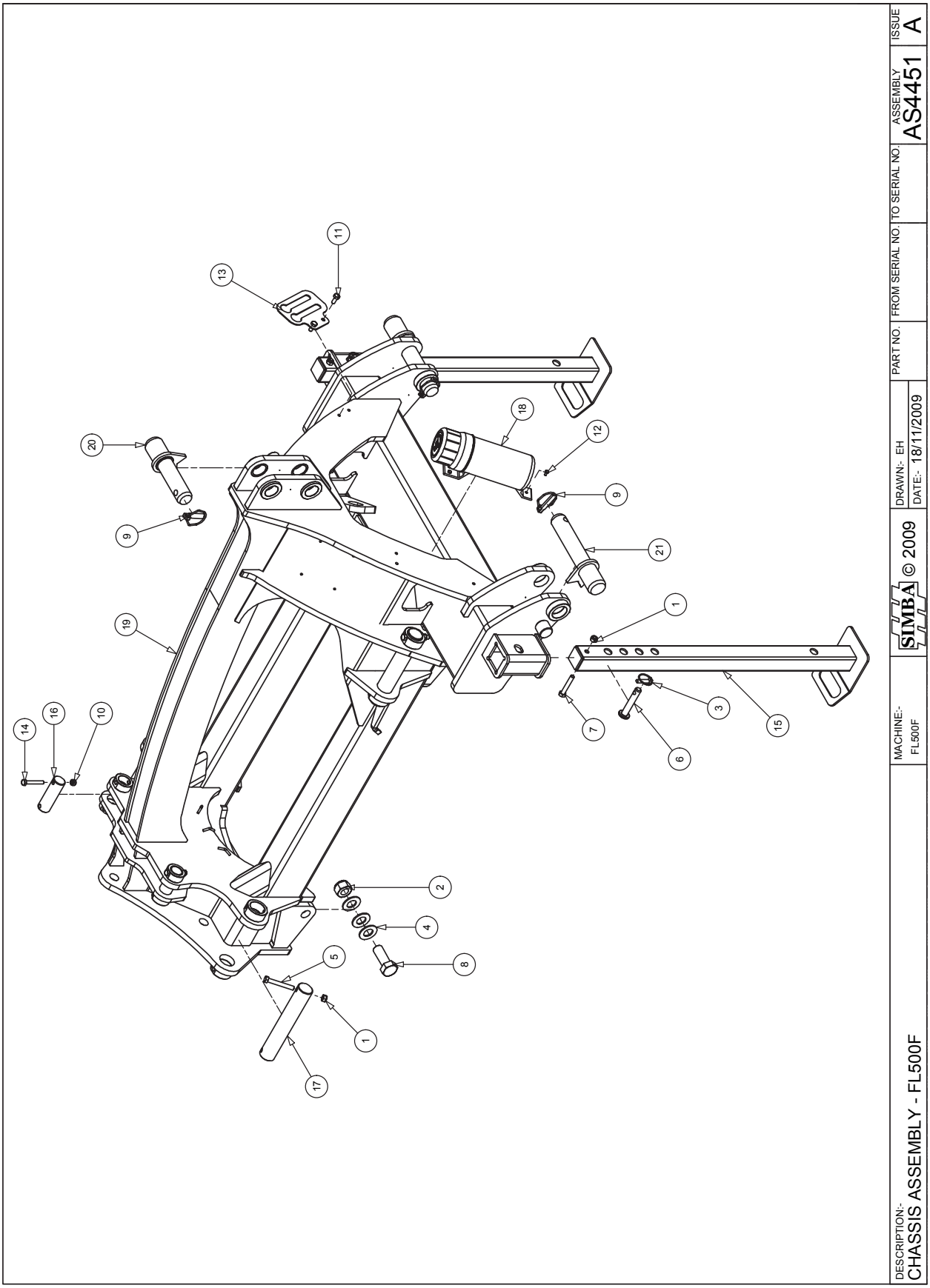
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CHASSIS ASSEMBLY - FL500F
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- EH
DATE:- 18/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4451
ISSUE
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AS4451		CHASSIS ASSEMBLY - FL500F		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P02007	NUT LOCK M12	6	
2	P02011	NUT LOCK M30	2	
3	P02484	LYNCH PIN CAT 2	2	
4	P02608	WASHER FLAT M30	6	
5	P02652	BOLT M12x90 GR. 8.8	4	
6	P02834	PIN - Ø25x170	2	
7	P03093	BOLT M12x75 GR. 8.8	2	
8	P03471	BOLT M30x80 GR. 8.8	2	
9	P04423	LYNCH PIN CAT 3	3	Ø16 LOCKING
10	P05534	NUT LOCK M10	2	
11	P06651	BOLT M10x25 GR. 8.8	2	
12	P06857	BOLT M6x12 GR. 8.8	3	
13	P09092	HOSE STOWAGE PLATE	1	
14	P14520	BOLT M10x70 GR8.8	2	
15	P17272	STAND - FLATLINER	2	
16	P17579	PIN Ø40x125 TYPE P	2	
17	P17609	PIN Ø50x300 TYPE P	4	
18	P17815	MANUAL HOLDER - COMPLETE	1	
19	P18276	CHASSIS - FL500F	1	
20	P18390	TOP LINK PIN CAT 4	1	
21	P18393	LOWER LINK PIN CAT 4	2	
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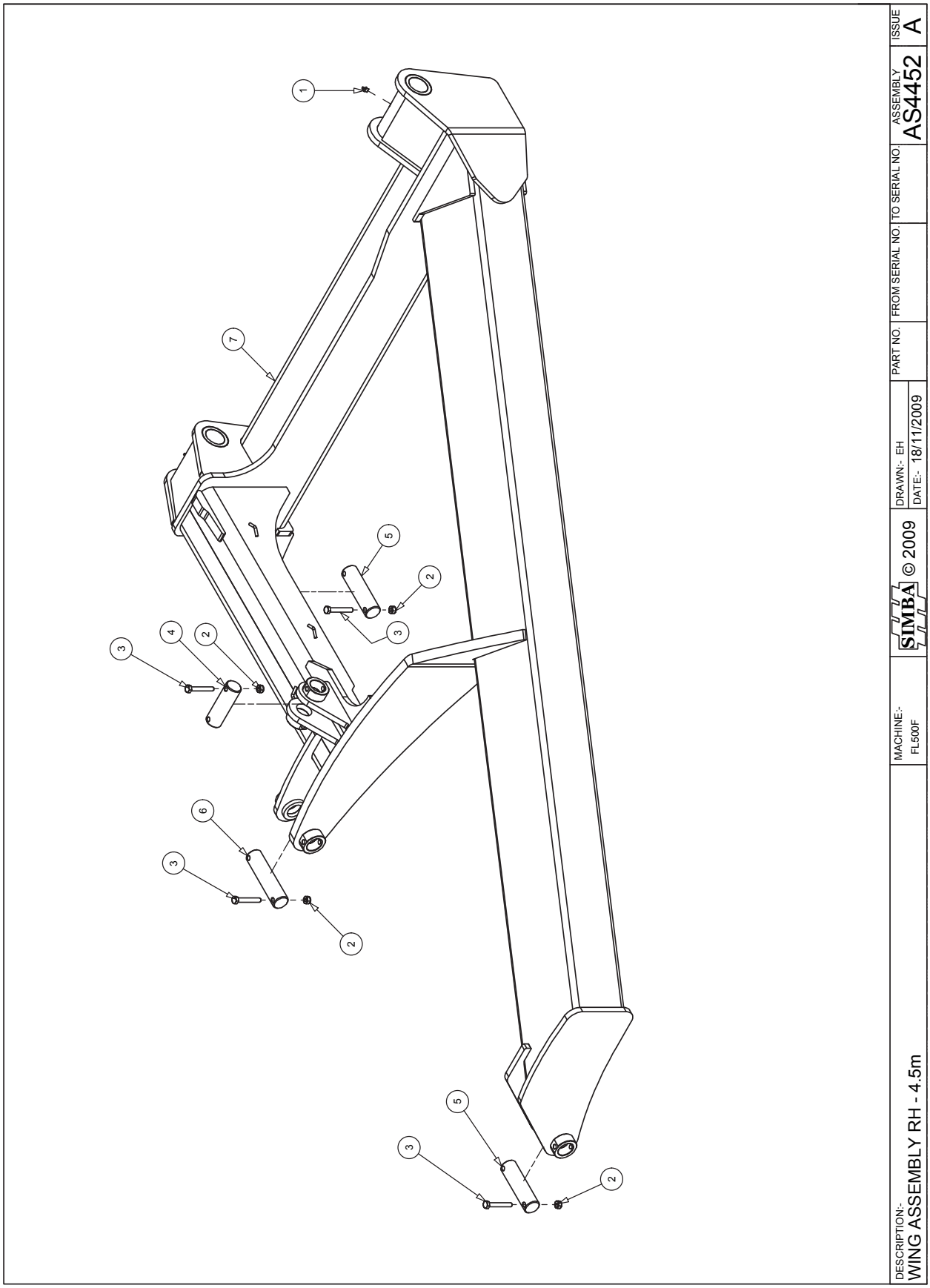
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DESCRIPTION:-
WING ASSEMBLY RH - 4.5m
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- EH
DATE:- 18/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4452
ISSUE
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	AS4452	WING ASSEMBLY RH - 4.5m		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00071	NIPPLE - GREASE	2	
2	P05534	NUT LOCK M10	4	
3	P14520	BOLT M10x70 GR8.8	4	
4	P17579	PIN Ø40x125 TYPE P	1	
5	P17581	PIN Ø40x145 TYPE P	2	
6	P17583	PIN Ø40x165 TYPE P	1	
7	P18277	WING FRAME RH - 4.5m	1	
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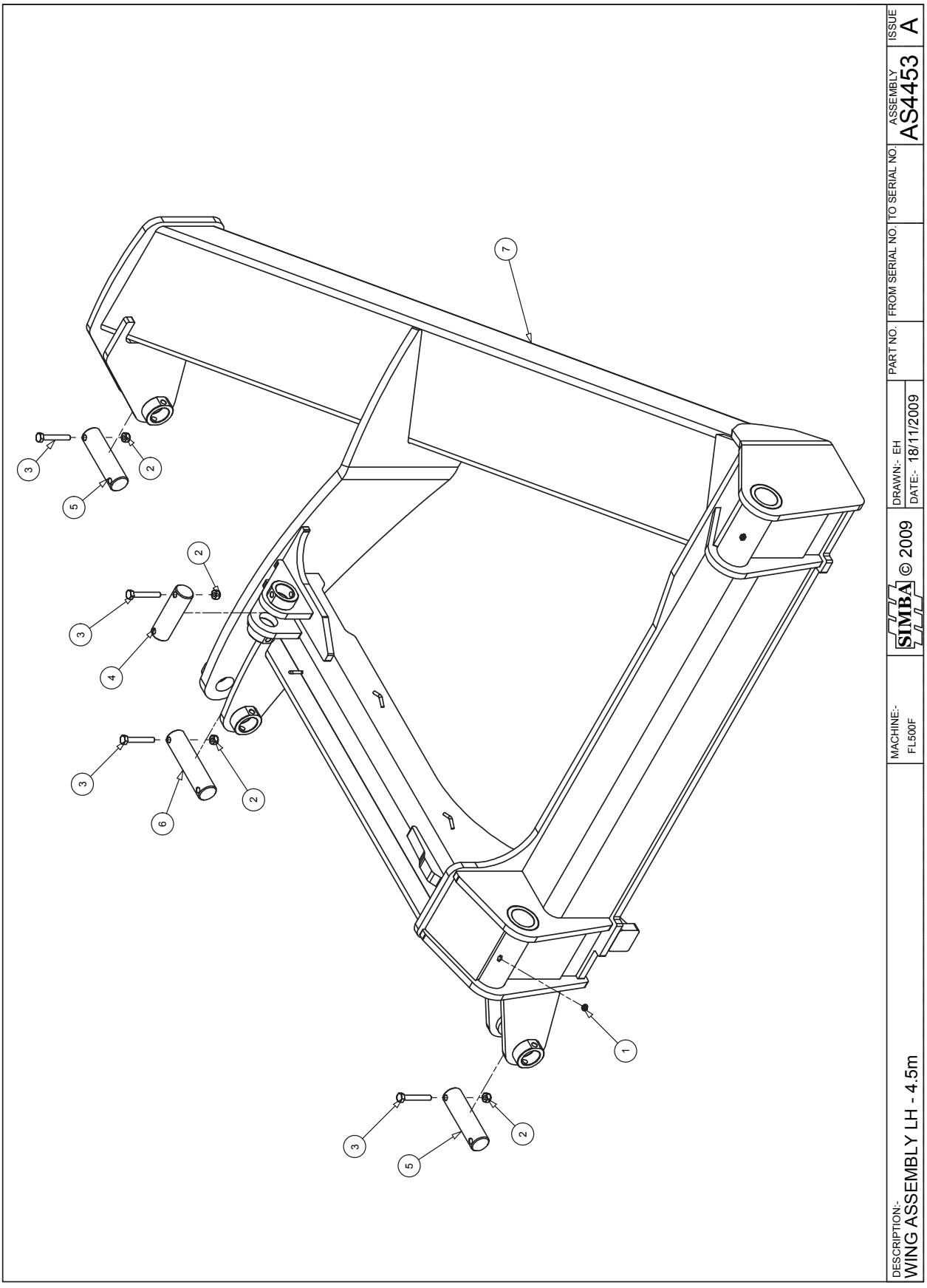
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WING ASSEMBLY LH - 4.5m
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- EH
DATE:- 18/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4453
ISSUE
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	AS4453	WING ASSEMBLY LH - 4.5m		
ITEM	**PART NO**	**DESCRIPTION**	**QTY**	**COMMENTS**
1	P00071	NIPPLE - GREASE	2	
2	P05534	NUT LOCK M10	4	
3	P14520	BOLT M10x70 GR8.8	4	
4	P17579	PIN Ø40x125 TYPE P	1	
5	P17581	PIN Ø40x145 TYPE P	2	
6	P17583	PIN Ø40x165 TYPE P	1	
7	P18278	WING FRAME LH - 4.5m	1	
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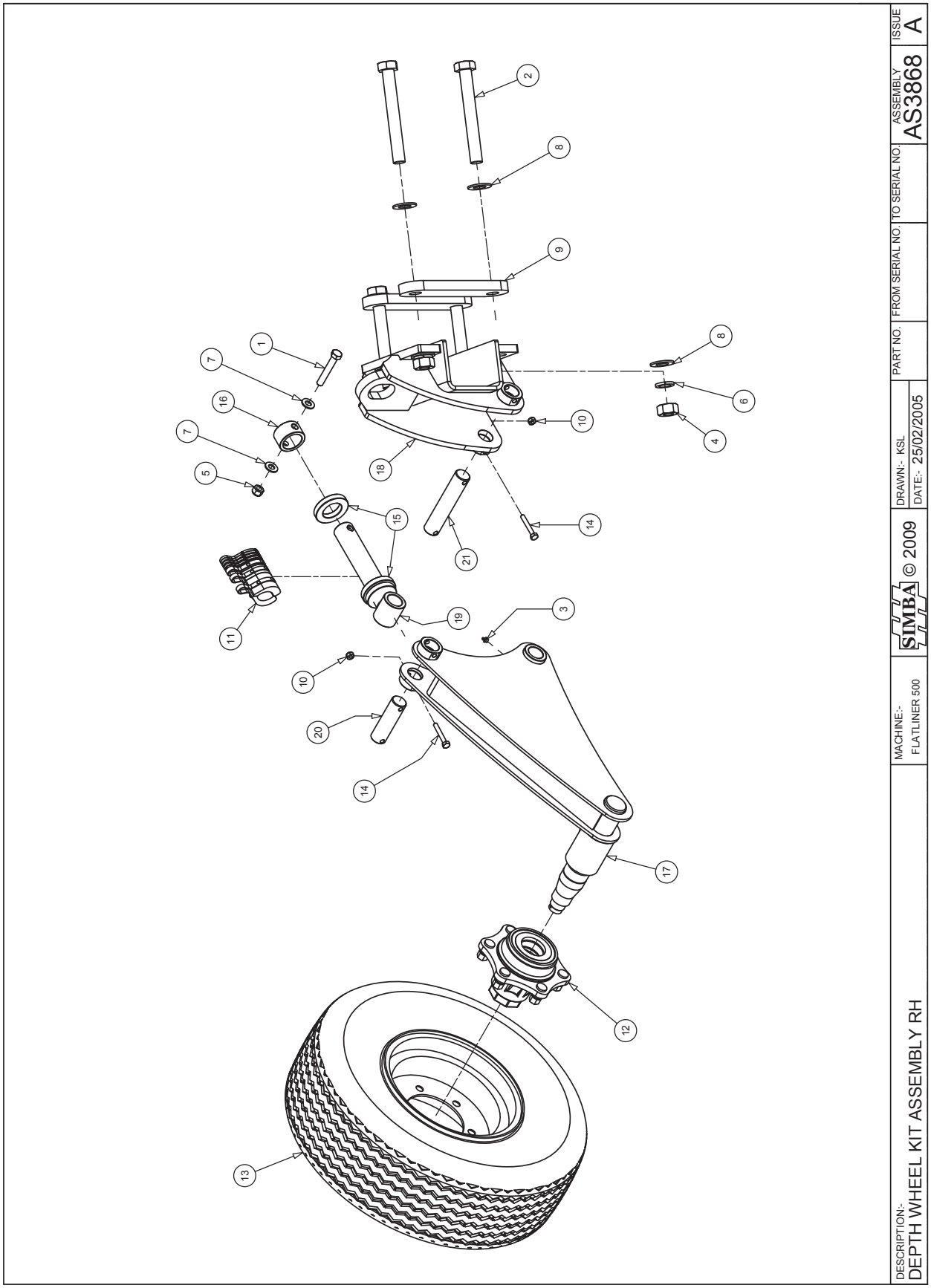
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MACHINE:-
FLATLINER 500
SIMBA © 2009
DRAWN:- KSL
DATE:- 25/02/2005
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3868
ISSUE
A

	AS3868	DEPTH WHEEL KIT ASSEMBLY RH		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00010	BOLT M16x100 GR. 8.8	1	
2	P00056	BOLT M30x240 GR. 8.8	4	
3	P00071	NIPPLE - GREASE	1	
4	P00896	NUT PLAIN M30	4	
5	P02008	NUT LOCK M16 'TYPE T'	1	
6	P02598	WASHER SPRING M30	4	
7	P02602	WASHER FLAT M16	2	
8	P02608	WASHER FLAT M30	8	
9	P04675	RETAINING PLATE	2	
10	P05534	NUT LOCK M10	2	
11	P08802	SHIM KIT 7 PIECE	1	
12	P13033	HUB ASSEMBLY 6 STUD COMPLETE	1	
13	P13253	WHEEL 10.0/75-15 6 STUD RIM	1	
14	P14520	BOLT M10x70 GR8.8	2	
15	P16850	SHIM COLLAR	2	
16	P16851	SHIM END BLOCK	1	
17	P17491	WHEEL ARM RH	1	
18	P17493	WHEEL ARM MOUNT RH	1	
19	P17499	DEPTH ROD - 290mm	1	
20	P17580	PIN Ø40x135	1	
21	P17585	PIN Ø40x200	1	
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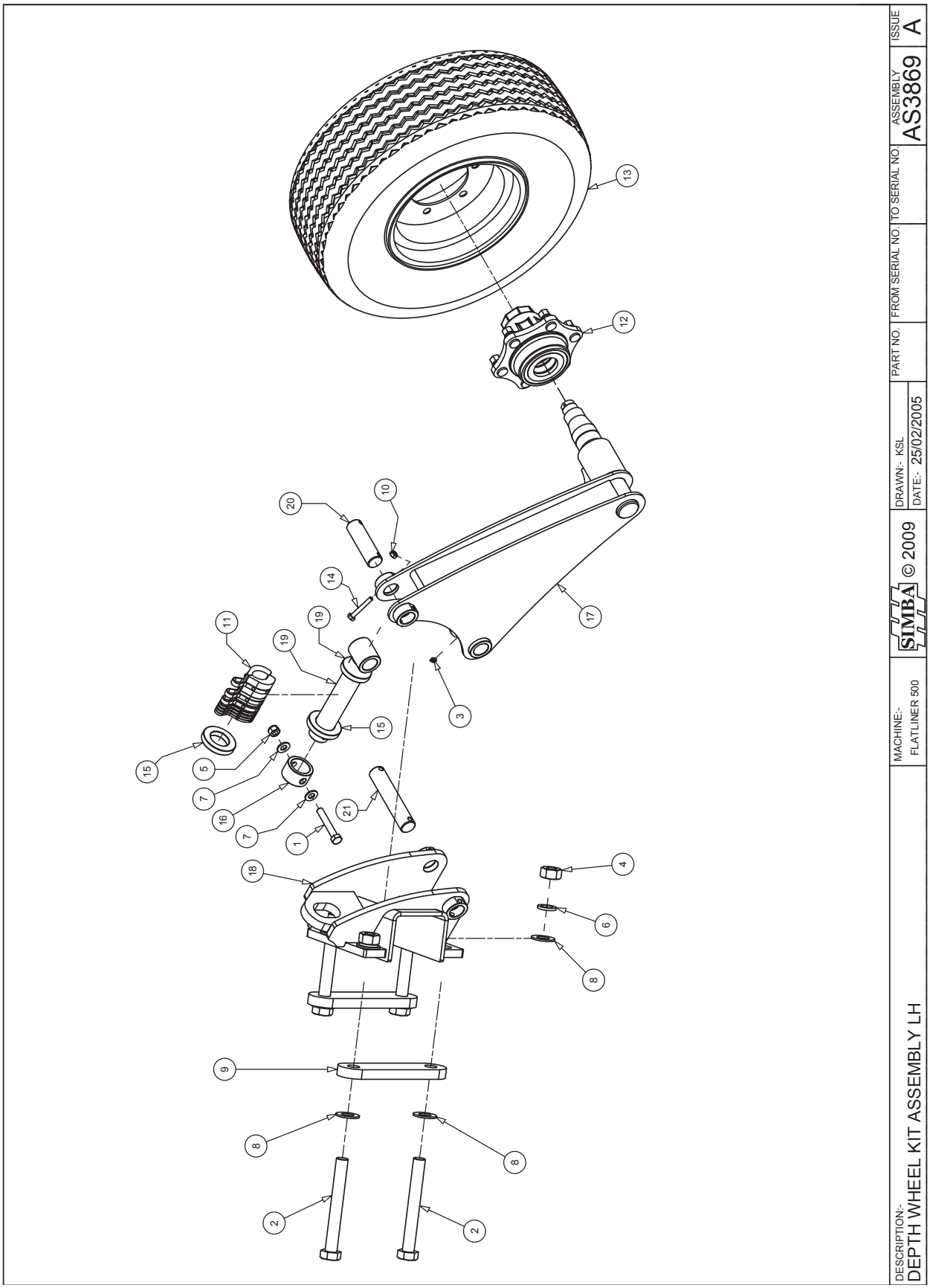
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DEPTH WHEEL KIT ASSEMBLY LH
MACHINE:-
FLATLINER 500
SIMBA © 2009
DRAWN:- KSL
DATE:- 25/02/2005
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3869
ISSUE
A

	AS3869	DEPTH WHEEL KIT ASSEMBLY LH		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00010	BOLT M16x100 GR. 8.8	1	
2	P00056	BOLT M30x240 GR. 8.8	4	
3	P00071	NIPPLE - GREASE	1	
4	P00896	NUT PLAIN M30	4	
5	P02008	NUT LOCK M16 'TYPE T'	1	
6	P02598	WASHER SPRING M30	4	
7	P02602	WASHER FLAT M16	2	
8	P02608	WASHER FLAT M30	8	
9	P04675	RETAINING PLATE	2	
10	P05534	NUT LOCK M10	2	
11	P08802	SHIM KIT 7 PIECE	1	
12	P13033	HUB ASSEMBLY 6 STUD COMPLETE	1	
13	P13253	WHEEL 10.0/75-15 6 STUD RIM	1	
14	P14520	BOLT M10x70 GR8.8	2	
15	P16850	SHIM COLLAR	2	
16	P16851	SHIM END BLOCK	1	
17	P17492	WHEEL ARM LH	1	
18	P17494	WHEEL ARM MOUNT LH	1	
19	P17499	DEPTH ROD - 290mm	1	
20	P17580	PIN Ø40x135	1	
21	P17585	PIN Ø40x200	1	
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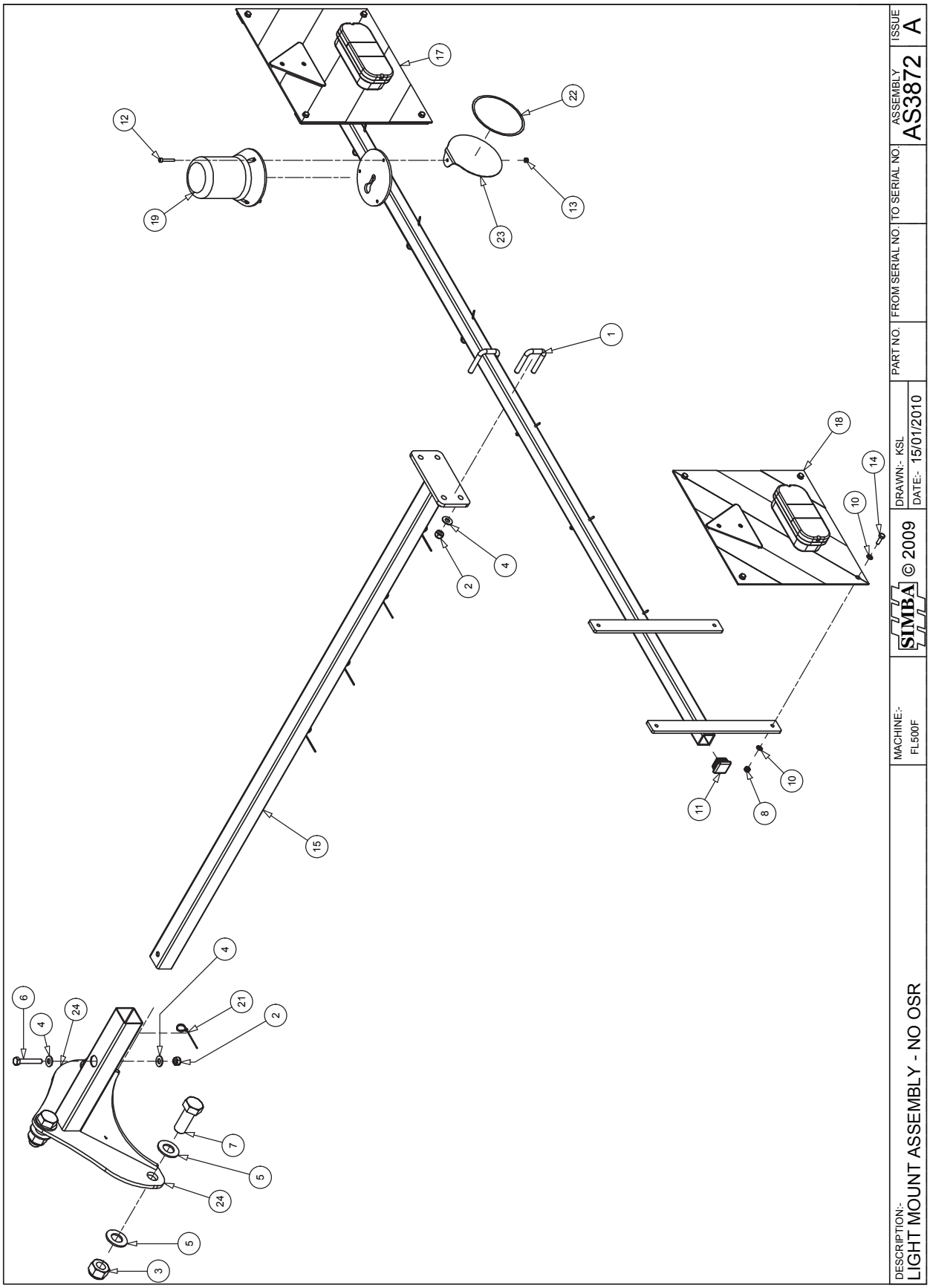
DESCRIPTION:-
LIGHT MOUNT ASSEMBLY - NO OSR
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- KSL
DATE:- 15/01/2010
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3872
ISSUE
A

	AS3872	LIGHT MOUNT ASSEMBLY - NO OSR		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00002	BOLT U M12 GR8.8 70x54	2	
2	P02007	NUT LOCK M12	5	
3	P02011	NUT LOCK M30	3	
4	P02601	WASHER FLAT M12	6	
5	P02608	WASHER FLAT M30	6	
6	P03093	BOLT M12x75 GR. 8.8	1	
7	P03471	BOLT M30x80 GR. 8.8	3	
8	P04754	NUT LOCK M8	8	
9	P05400	WASHER FLAT M6	2	
10	P05535	WASHER FLAT M8	16	
11	P07543	PLASTIC END CAP 40x40	2	
12	P07980	CAPSCREW M6x40 GR10.9	3	
13	P07981	NUT LOCK M6	3	
14	P09597	BOLT M8x25 GR. 8.8	8	
15	P14971	LIGHT MOUNT	1	
16	P14973	LIGHT BEAM	1	
17	P15562	LIGHT BOARD RRH	1	
18	P15563	LIGHT BOARD RLH	1	
19	P15567	FLASHING BEACON	1	
20	P15941	WIRING LOOM - X-PRESS 4.0m FW	1	
21	P16070	ZIP TIE - BLACK 4x125	12	
22	P16838	DECAL-SPEED	1	
23	P17298	DECAL MOUNT - SPEED 90°	1	
24	P17482	LIGHT MOUNT BASE	1	
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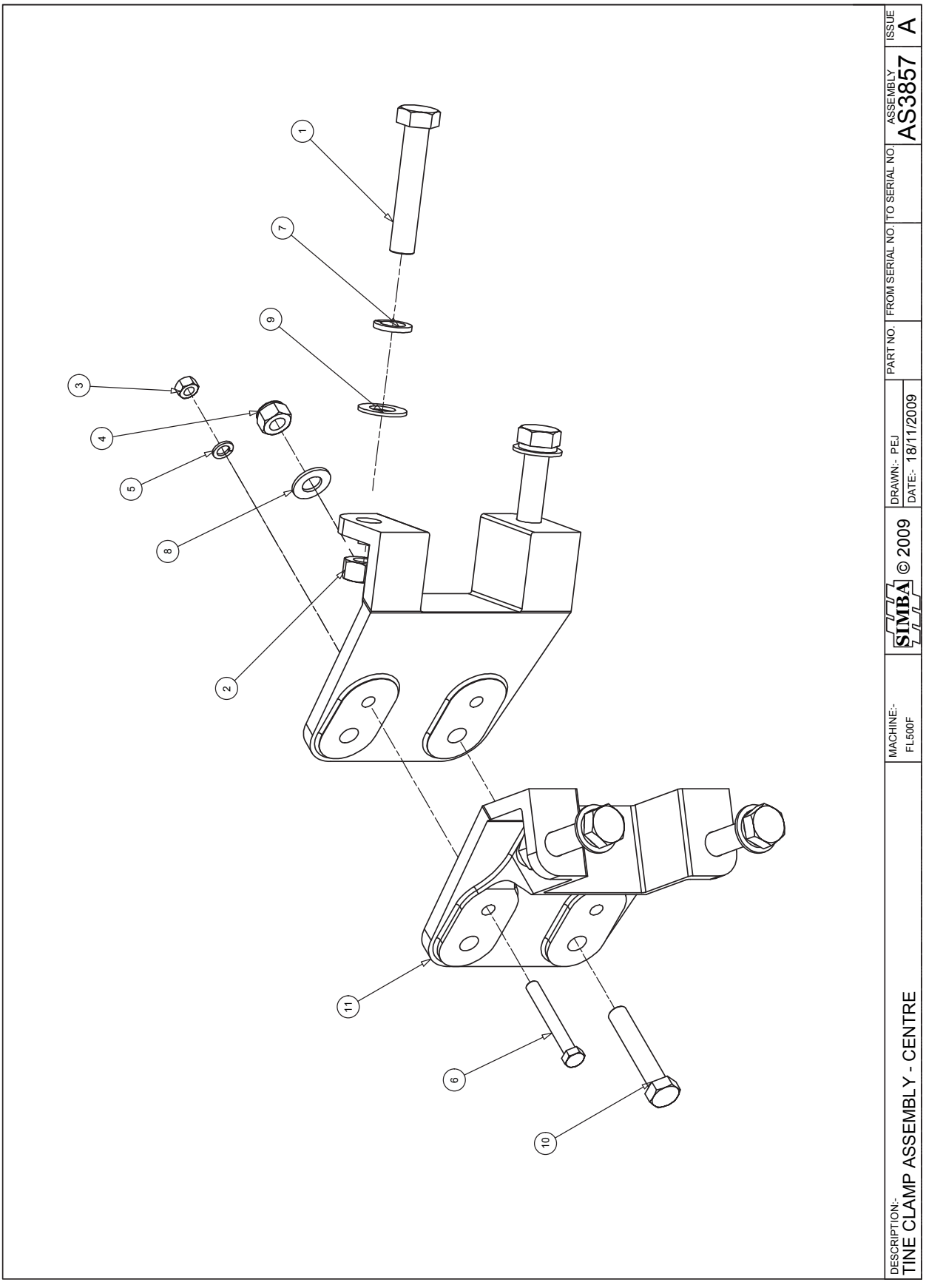
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DESCRIPTION:-
TINE CLAMP ASSEMBLY - CENTRE
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- PEJ
DATE:- 18/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3857
ISSUE
A

	AS3857	TINE CLAMP ASSEMBLY - CENTRE		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00034	BOLT M30x160 GR. 8.8	4	
2	P00896	NUT PLAIN M30	4	
3	P01358	NUT PLAIN M16	1	
4	P02010	NUT LOCK M24	1	
5	P02038	WASHER SPRING M16	1	
6	P02318	BOLT M16x120 GR. 8.8	1	
7	P02598	WASHER SPRING M30	4	
8	P02604	WASHER FLAT M24 Ø50	1	
9	P02608	WASHER FLAT M30	4	
10	P04536	BOLT M24x130 GR. 8.8	1	
11	P06510	CLAMP - SHORT	2	
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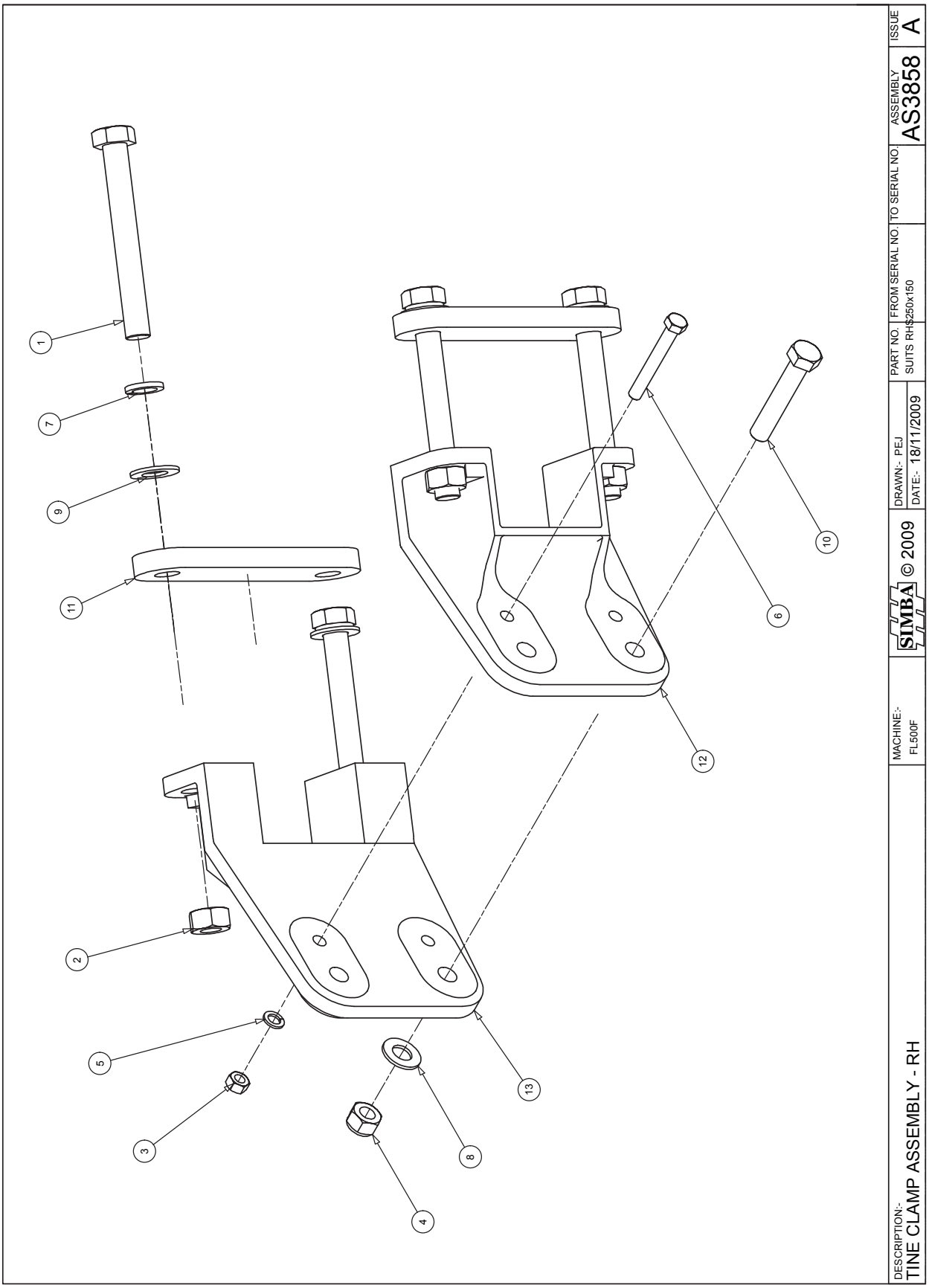
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DESCRIPTION:-
TINE CLAMP ASSEMBLY - RH
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- PEJ
DATE:- 18/11/2009
PART NO.
SUITS RH 250x150
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3858
ISSUE
A

	AS3858	TINE CLAMP ASSEMBLY - RH		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00056	BOLT M30x240 GR. 8.8	4	
2	P00896	NUT PLAIN M30	4	
3	P01358	NUT PLAIN M16	1	
4	P02010	NUT LOCK M24	1	
5	P02038	WASHER SPRING M16	1	
6	P02318	BOLT M16x120 GR. 8.8	1	
7	P02598	WASHER SPRING M30	4	
8	P02604	WASHER FLAT M24 Ø50	1	
9	P02608	WASHER FLAT M30	4	
10	P04536	BOLT M24x130 GR. 8.8	1	
11	P04675	RETAINING PLATE	2	
12	P06510	CLAMP - SHORT	1	
13	P06511	CLAMP - LONG	1	
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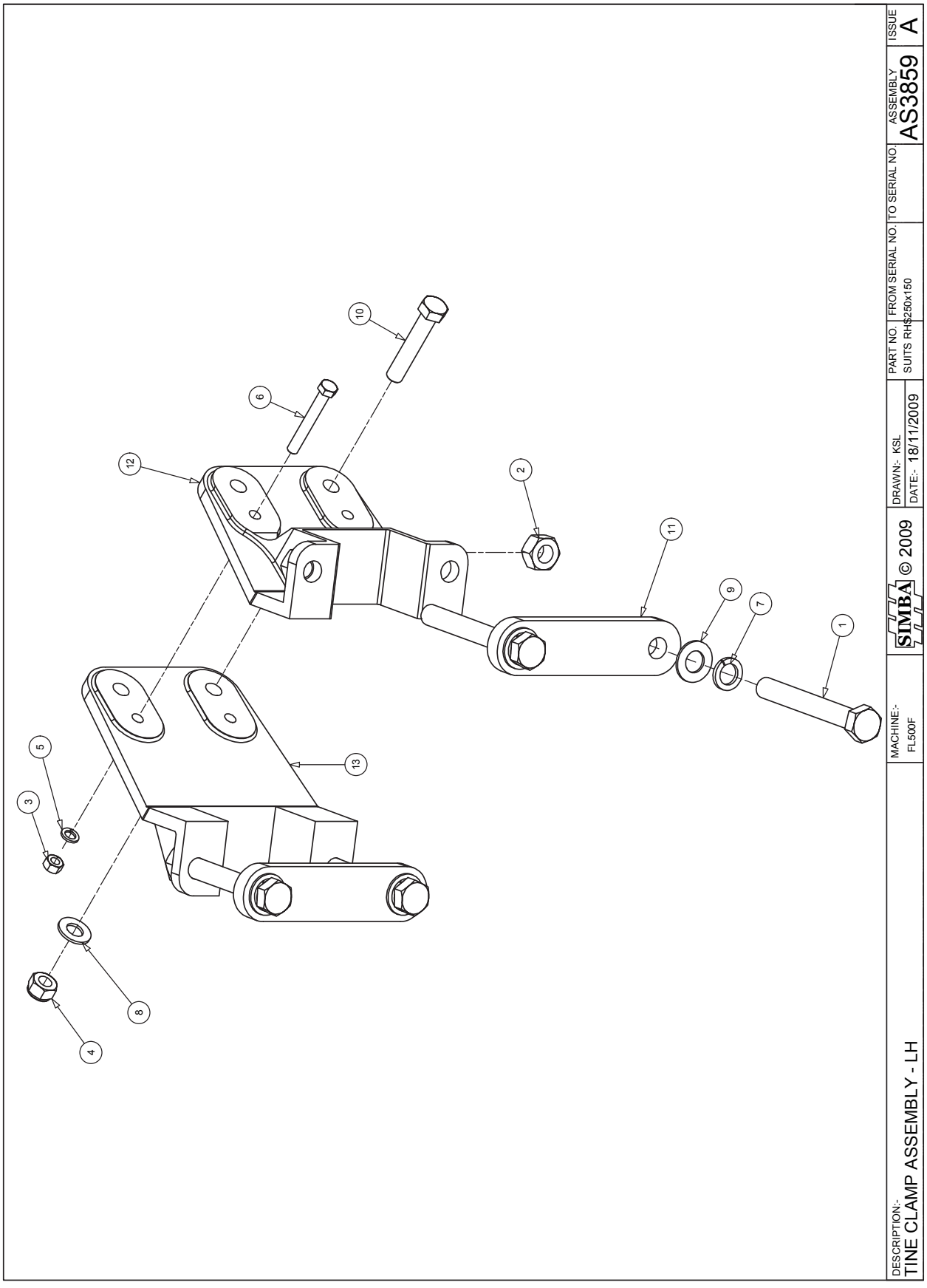
DESCRIPTION:-
TINE CLAMP ASSEMBLY - LH
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- KSL
DATE:- 18/11/2009
PART NO.
SUITS RH 250x150
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3859
ISSUE
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	AS3859	TINE CLAMP ASSEMBLY - LH		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00056	BOLT M30x240 GR. 8.8	4	
2	P00896	NUT PLAIN M30	4	
3	P01358	NUT PLAIN M16	1	
4	P02010	NUT LOCK M24	1	
5	P02038	WASHER SPRING M16	1	
6	P02318	BOLT M16x120 GR. 8.8	1	
7	P02598	WASHER SPRING M30	4	
8	P02604	WASHER FLAT M24 Ø50	1	
9	P02608	WASHER FLAT M30	4	
10	P04536	BOLT M24x130 GR. 8.8	1	
11	P04675	RETAINING PLATE	2	
12	P06510	CLAMP - SHORT	1	
13	P06511	CLAMP - LONG	1	
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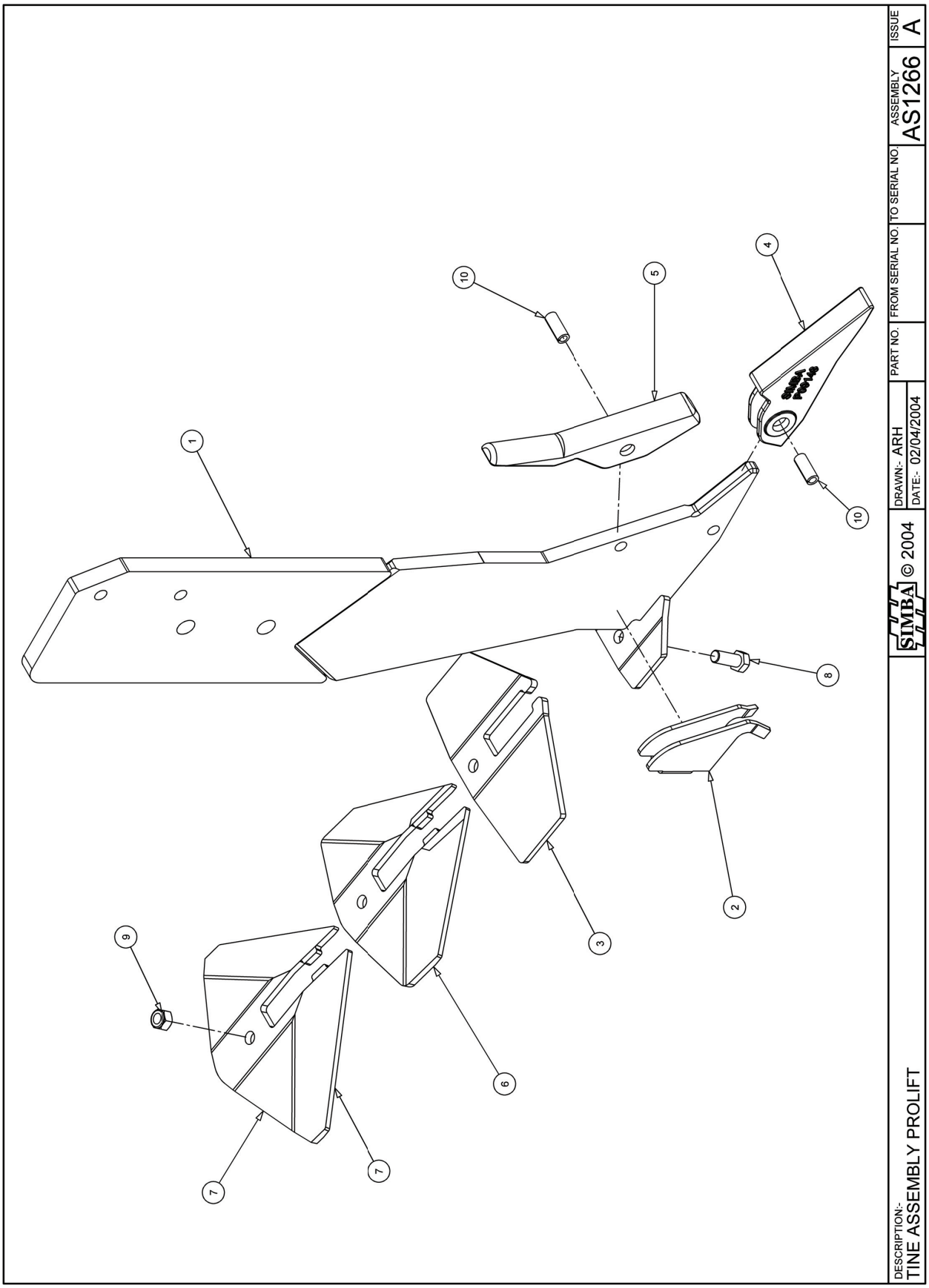
DESCRIPTION:-
TINE ASSEMBLY PROLIFT
SIMBA © 2004
DRAWN:- ARH
DATE:- 02/04/2004
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS1266
ISSUE
A

AS1266		TINE ASSEMBLY FLATLINER 500		
ITEM	**PART NO**	**DESCRIPTION**	**QTY**	**COMMENTS**
1	P10486	PROLIFT TINE - FLATLINER 500	1	
2	P11181	WEAR SHROUD	1	
3	P09060	WING - PROLIFT LOW	1	
4	P09148	POINT - PROLIFT CrFe	1	
5	P10391	WEARSHIN NON REVERSIBLE	1	
6	P10392	WING - PROLIFT 250mm	1	
7	P10411	WING - PROLIFT 350mm	1	
8	P00007	BOLT M16x40 GR. 8.8	1	
9	P02008	NUT LOCK M16	1	
10	P02481	ROLL PIN Ø16x40	2	
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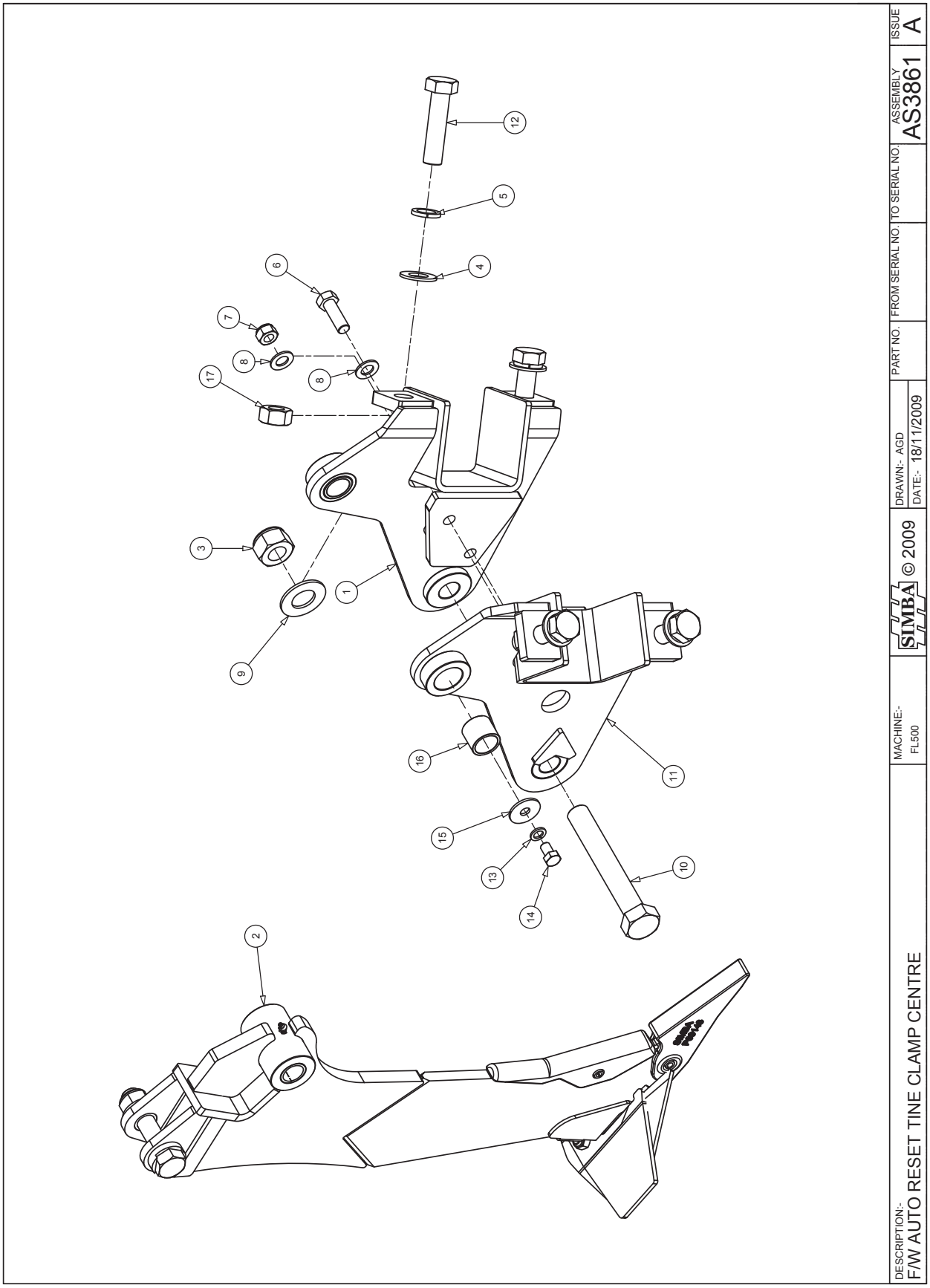
DESCRIPTION:-
F/W AUTO RESET TINE CLAMP CENTRE
MACHINE:-
FL500
SIMBA © 2009
DRAWN:- AGD
DATE:- 18/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3861
ISSUE
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AS3861	FOLDING WING FLATLINER AUTO RESET CENTRE CLAMP		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P17380	CLAMP OUTER LH	1	
2	AS3860	TINE ASSEMBLY - AUTO RESET	1	
3	P02012	NUT LOCK M36	1	
4	P02608	WASHER FLAT M30	4	
5	P02598	WASHER SPRING M30	4	
6	P03115	BOLT M20x60 GR. 8.8	2	
7	P02009	NUT LOCK M20	2	
8	P02603	WASHER FLAT M20	4	
9	P02609	WASHER FLAT M39	1	
10	P00047	BOLT M36x240 GR. 8.8	1	
11	P17378	CLAMP OUTER RH	1	
12	P12765	BOLT M30x120 GR. 8.8	4	
13	P02038	WASHER SPRING M16	2	
14	P04618	BOLT M16x25 GR. 8.8	2	
15	P15149	WASHER FLAT M12 Ø54	2	
16	P17384	BUSH Ø49.75xØ40.25x42	2	
17	P00896	NUT PLAIN M30	4	
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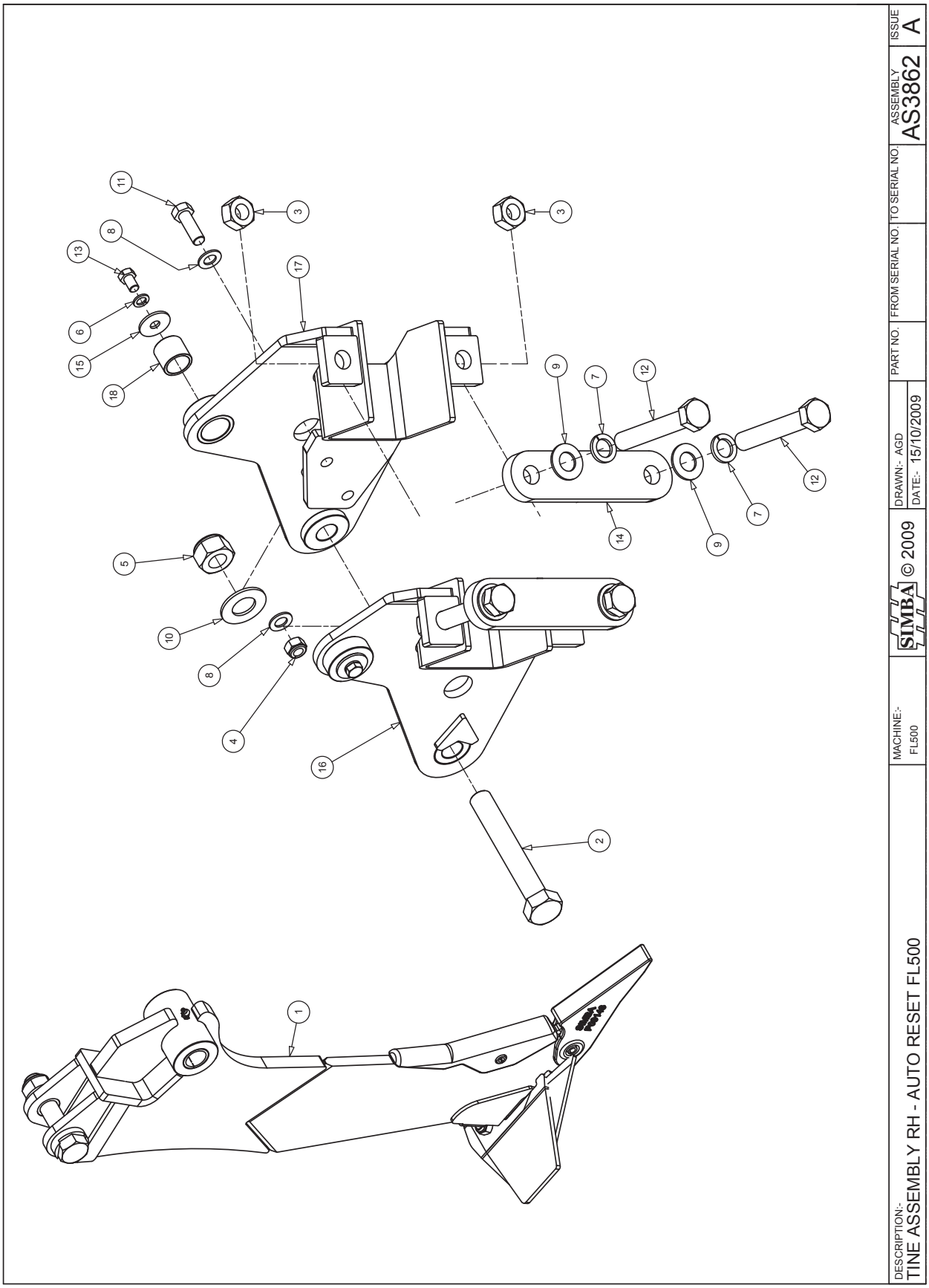
DESCRIPTION:-
TINE ASSEMBLY RH - AUTO RESET FL500
MACHINE:-
FL500
SIMBA © 2009
DRAWN:- AGD
DATE:- 15/10/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3862
ISSUE
A

AS3862	TINE ASSEMBLY RH AUTO RESET FL500F		

ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	AS3860	TINE ASSEMBLY - AUTO RESET	1	
2	P00047	BOLT M36x240 GR. 8.8	1	
3	P00896	NUT PLAIN M30	4	
4	P02009	NUT LOCK M20	2	
5	P02012	NUT LOCK M36	1	
6	P02038	WASHER SPRING M16	2	
7	P02598	WASHER SPRING M30	4	
8	P02603	WASHER FLAT M20	4	
9	P02608	WASHER FLAT M30	4	
10	P02609	WASHER FLAT M39	1	
11	P03115	BOLT M20x60 GR. 8.8	2	
12	P03222	BOLT M30x200 GR. 8.8	4	
13	P04618	BOLT M16x25 GR. 8.8	2	
14	P04675	RETAINING PLATE	2	
15	P15149	WASHER FLAT M12 Ø54	2	
16	P17378	CLAMP OUTER RH	1	
17	P17379	CLAMP INNER RH	1	
18	P17384	BUSH Ø49.75xØ40.25x42	2	
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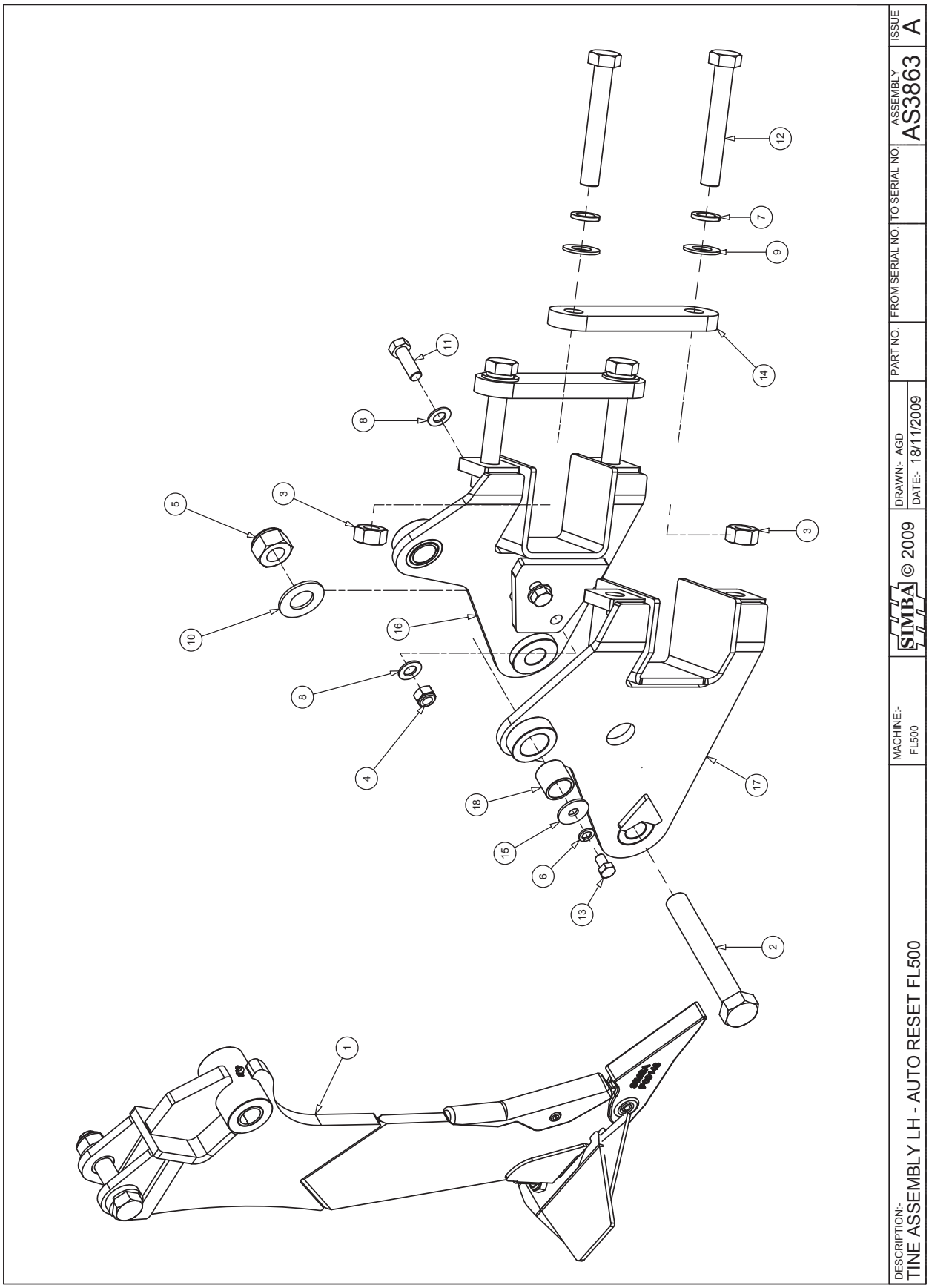
DESCRIPTION:-
TINE ASSEMBLY LH - AUTO RESET FL500
MACHINE:-
FL500
SIMBA © 2009
DRAWN:- AGD
DATE:- 18/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3863
ISSUE
A

AS3863	TINE ASSEMBLY LH AUTO RESET FL500		

ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	AS3860	TINE ASSEMBLY - AUTO RESET	1	
2	P00047	BOLT M36x240 GR. 8.8	1	
3	P00896	NUT PLAIN M30	4	
4	P02009	NUT LOCK M20	2	
5	P02012	NUT LOCK M36	1	
6	P02038	WASHER SPRING M16	2	
7	P02598	WASHER SPRING M30	4	
8	P02603	WASHER FLAT M20	4	
9	P02608	WASHER FLAT M30	4	
10	P02609	WASHER FLAT M39	1	
11	P03115	BOLT M20x60 GR. 8.8	2	
12	P03222	BOLT M30x200 GR. 8.8	4	
13	P04618	BOLT M16x25 GR. 8.8	2	
14	P04675	RETAINING PLATE	2	
15	P15149	WASHER FLAT M12 Ø54	2	
16	P17380	CLAMP OUTER LH	1	
17	P17381	CLAMP INNER LH	1	
18	P17384	BUSH Ø49.75xØ40.25x42	2	
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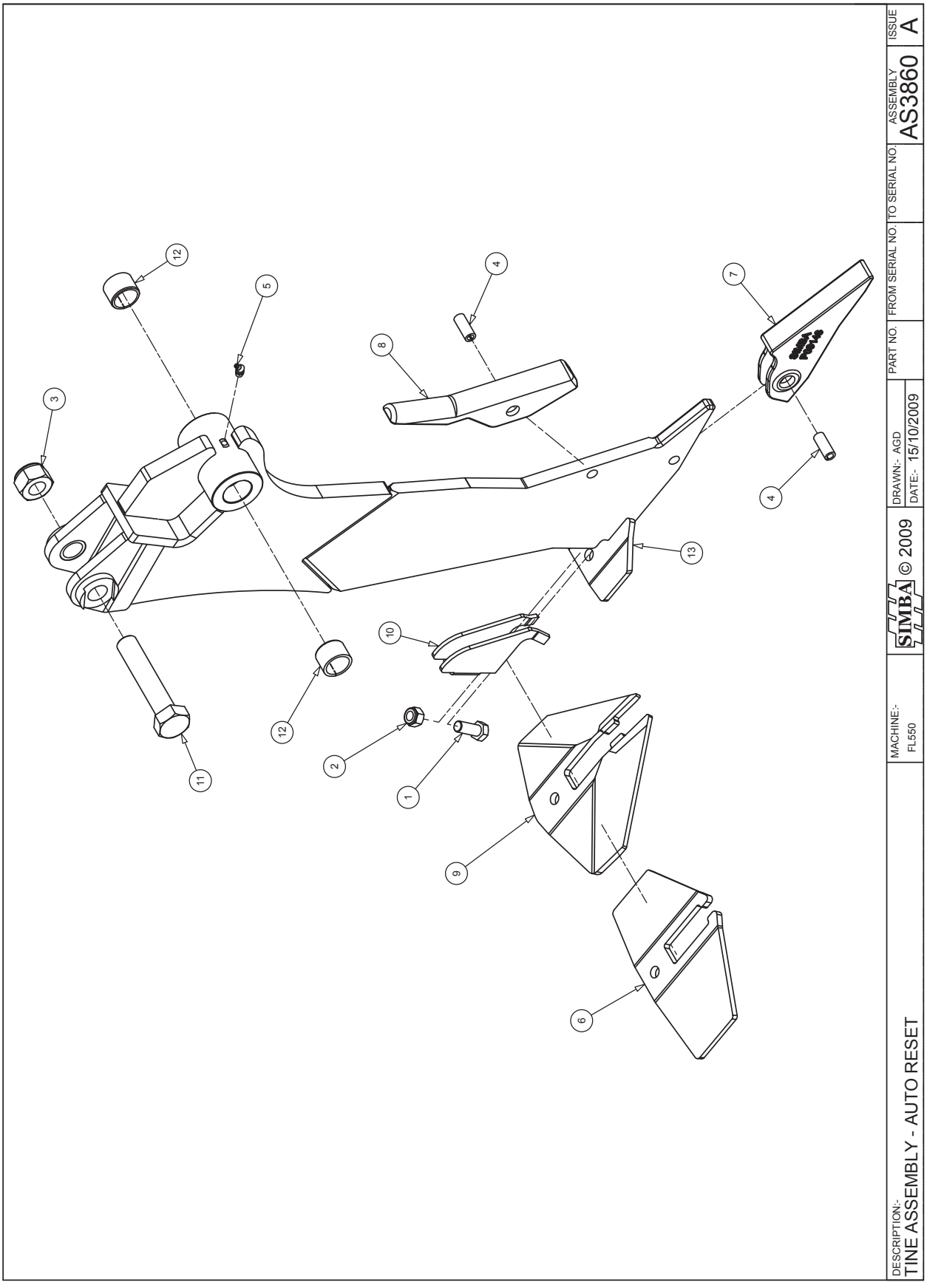
DESCRIPTION:-
TINE ASSEMBLY - AUTO RESET
MACHINE:-
FL550
SIMBA © 2009
DRAWN:- AGD
DATE:- 15/10/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3860
ISSUE
A

AS3860		TINE ASSEMBLY AUTO RESET		
ITEM	**PART NO**	**DESCRIPTION**	**QTY**	**COMMENTS**
1	P00007	BOLT M16x40 GR. 8.8	1	
2	P02008	NUT LOCK M16 'TYPE T'	1	
3	P02011	NUT LOCK M30	1	
4	P02481	ROLL PIN Ø16x40	2	
5	P07361	GREASE NIPPLE 45°	1	
6	P09060	WING - PROLIFT LOW	1	
7	P09148	POINT - PROLIFT CrFe	1	
8	P10391	WEARSHIN NON REVERSIBLE	1	
9	P10392	WING - PROLIFT 250mm	1	
10	P11181	WEAR SHROUD	1	
11	P13789	BOLT M30x150 GR.12.9 STR	1	
12	P14781	BUSH SPRUNG - Ø44xØ36x30	2	
13	P17385	TINE - AUTO RESET FL500	1	
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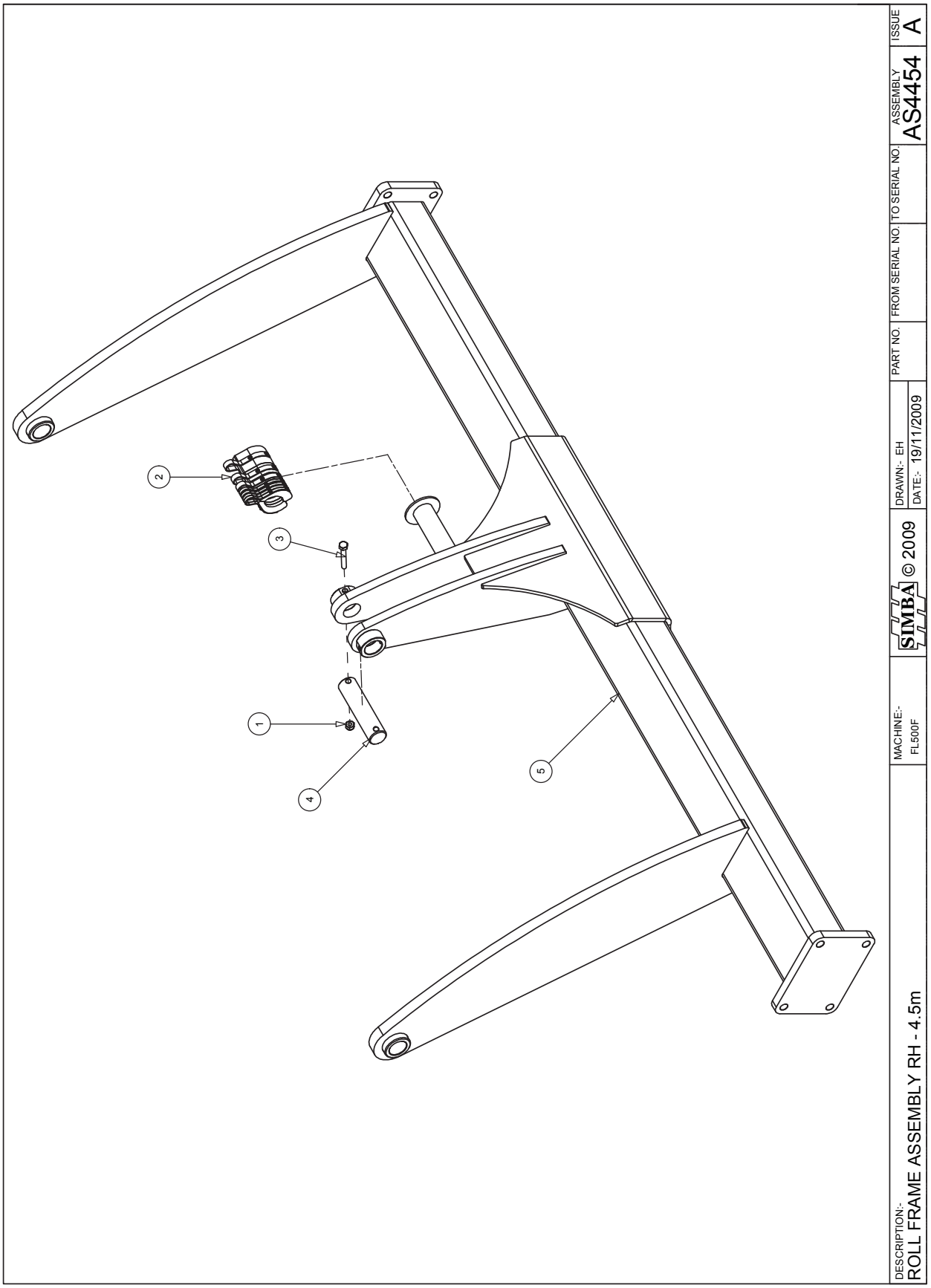
DESCRIPTION:-
ROLL FRAME ASSEMBLY RH - 4.5m
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- EH
DATE:- 19/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4454
ISSUE
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	AS4454	ROLL FRAME ASSEMBLY RH - 4.5m		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P05534	NUT LOCK M10	1	
2	P08802	SHIM KIT 7 PIECE	1	
3	P14520	BOLT M10x70 GR8.8	1	
4	P17583	PIN Ø40x165 TYPE P	1	
5	P18283	ROLL FRAME RH - 4.5m	1	
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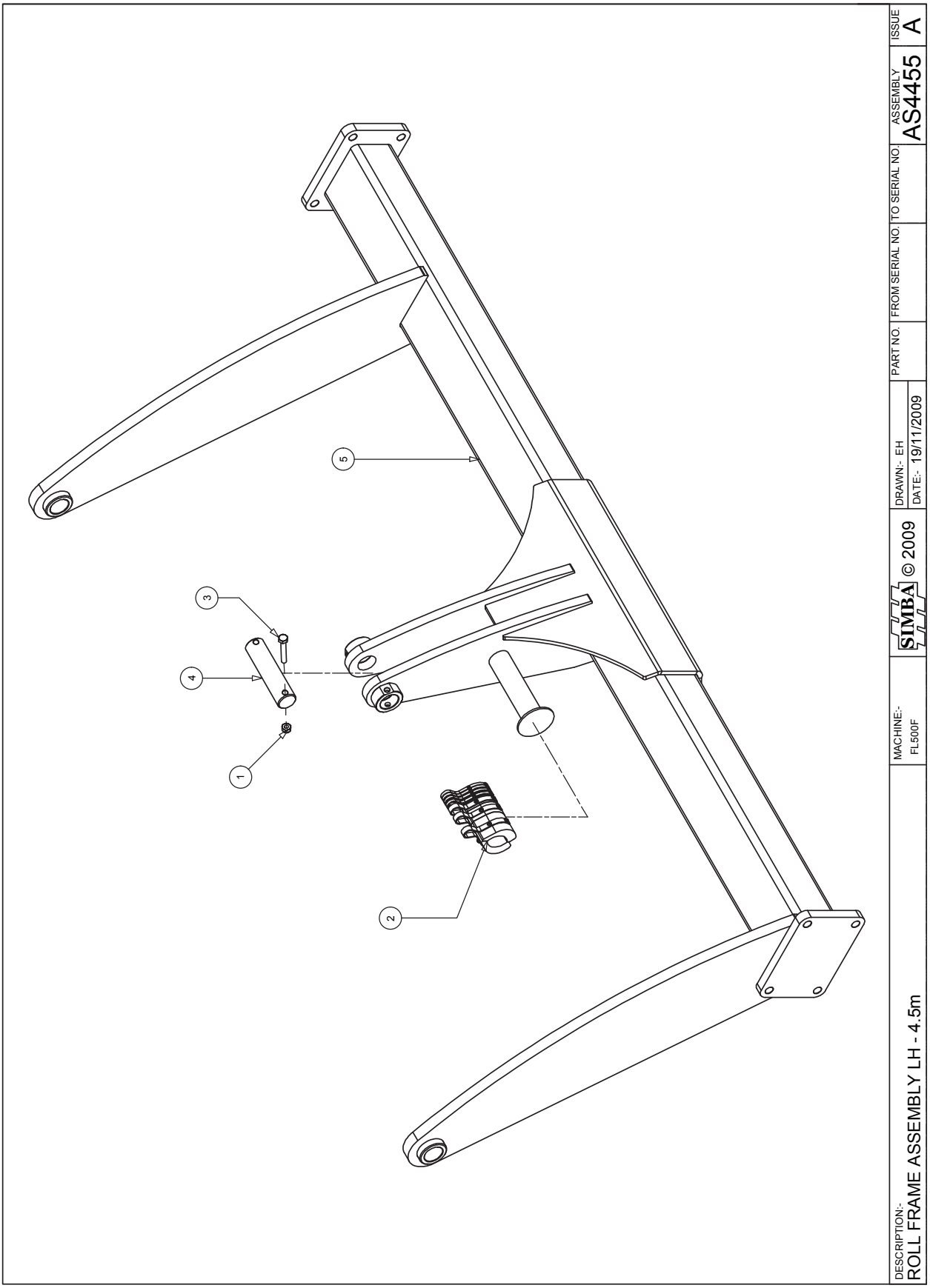
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DESCRIPTION:-
ROLL FRAME ASSEMBLY LH - 4.5m
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- EH
DATE:- 19/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4455
ISSUE
A

	AS4455	ROLL FRAME ASSEMBLY LH - 4.5m		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P05534	NUT LOCK M10	1	
2	P08802	SHIM KIT 7 PIECE	1	
3	P14520	BOLT M10x70 GR8.8	1	
4	P17583	PIN Ø40x165 TYPE P	1	
5	P18284	ROLL FRAME LH - 4.5m	1	
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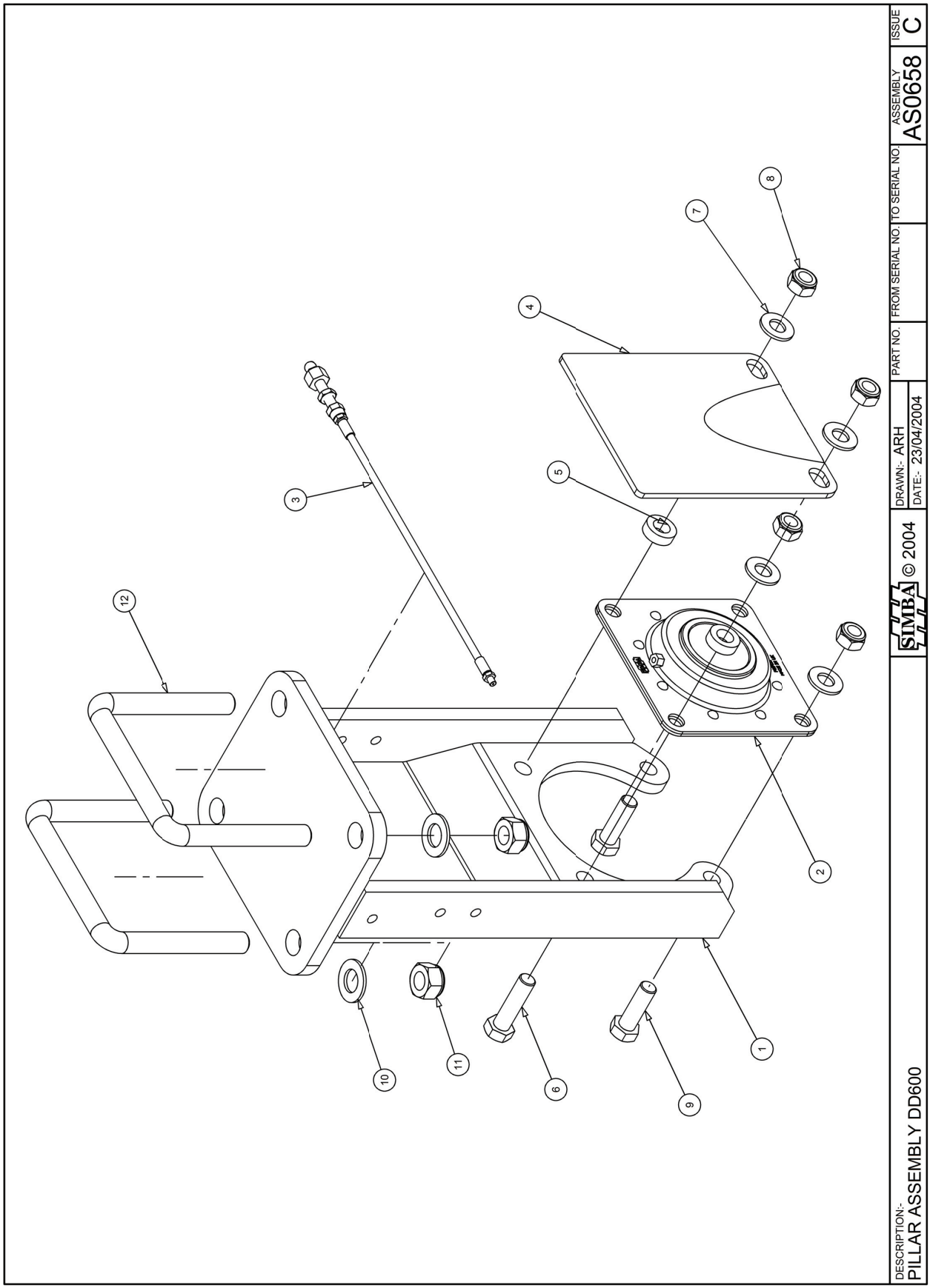
DESCRIPTION:-
PILLAR ASSEMBLY DD600
SIMBA © 2004
DRAWN:- ARH
DATE:- 23/04/2004
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS0658
ISSUE
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AS0658		PILLAR ASSEMBLY DD600 + 700		
ITEM	**PART NO**	**DESCRIPTION**	**QTY**	**COMMENTS**
1	P07696	PRESS ROLL PILLAR	1	
2	P05431	BEARING - PRESSED STEEL	1	
3	P08276	GREASE PIPE	1	
4	P08450	BEARING GUARD	1	
5	P08298	SPACER 10mm	2	
6	P00057	BOLT M16x60 GR. 8.8	2	
7	P02602	WASHER FLAT M16	4	
8	P02008	NUT LOCK M16	4	
9	P01704	BOLT M16x50 GR. 8.8	2	
10	P02603	WASHER FLAT M20	4	
11	P02009	NUT LOCK M20	4	
12	P01619	BOLT U M20 GR8.8 145x172	2	
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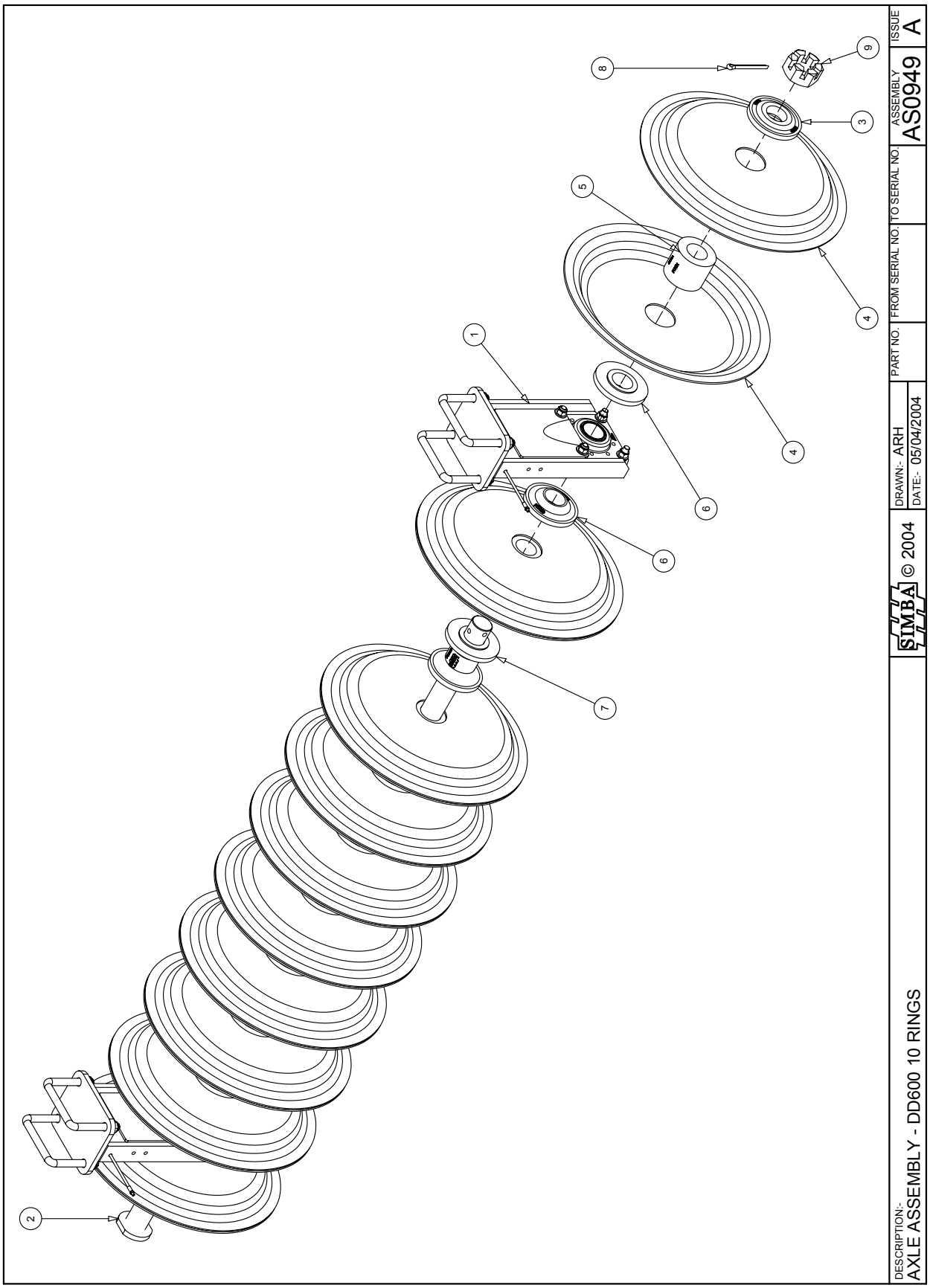
DESCRIPTION:-
AXLE ASSEMBLY - DD600 10 RINGS
SIMBA © 2004
DRAWN:- ARH
DATE:- 05/04/2004
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS0949
ISSUE
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AS0949		AXLE ASSEMBLY DD600 10 RINGS		
ITEM	**PART NO**	**DESCRIPTION**	**QTY**	**COMMENTS**
1	AS0658	PILLAR ASSEMBLY DD600	2	
2	P10349	AXLE Ø60x2325	1	
3	P08190	DD 600 - NUT SPOOL	2	
4	P08192	DD 600 RING	20	
5	P08191	DD 600 - INTERNAL SPACER	10	
6	P08189	DD 600 - BEARING SPOOL	4	
7	P08188	DD 600 - SPOOL	7	
8	P02489	PIN SPLIT Ø10x100	1	
9	P01698	NUT CASTLE M60	1	
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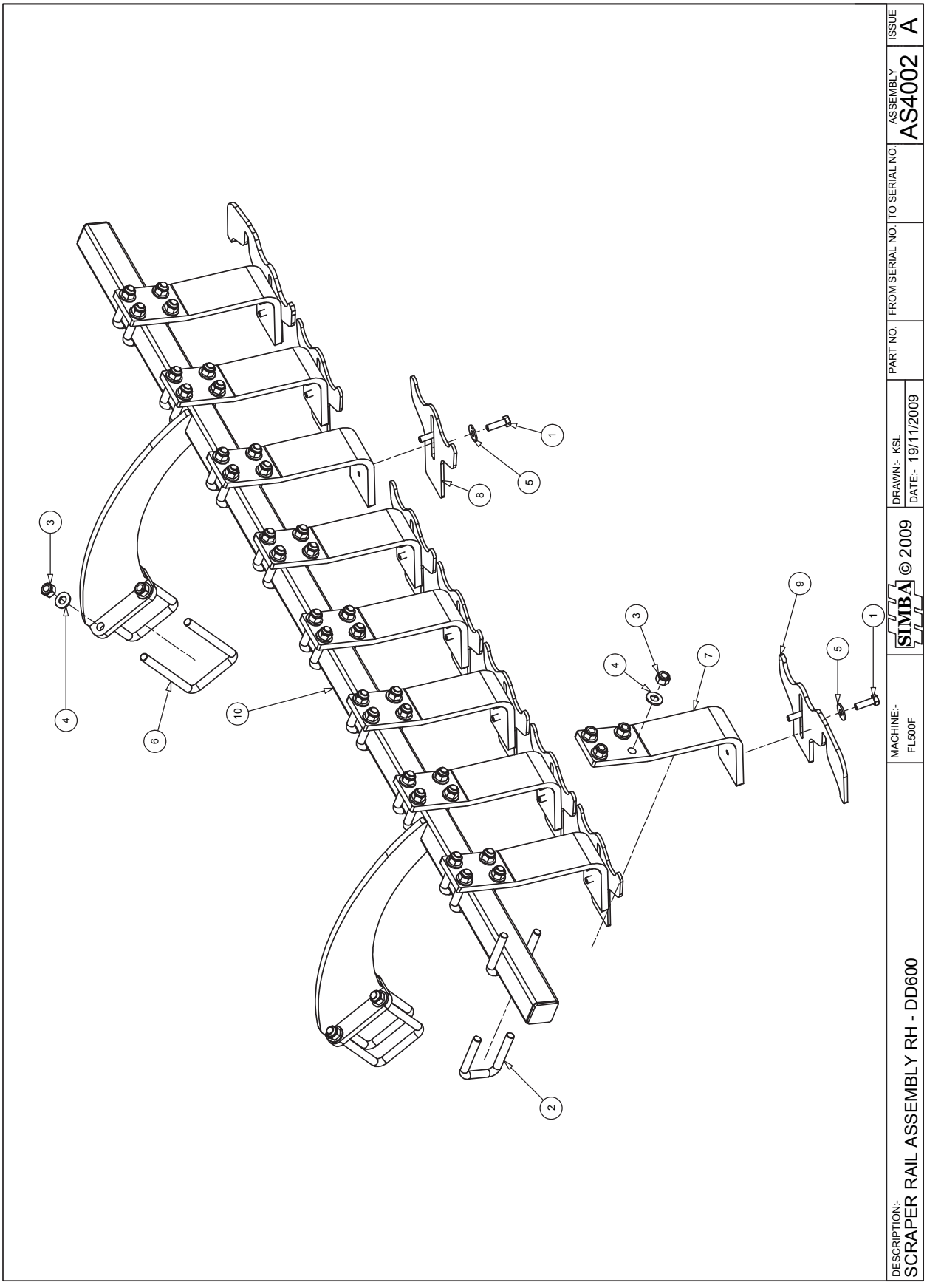
DESCRIPTION:-
SCRAPER RAIL ASSEMBLY RH - DD600
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- KSL
DATE:- 19/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4002
ISSUE
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	AS4002	SCRAPER RAIL ASSEMBLY RH		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00003	BOLT M12x40 GR. 8.8	18	
2	P01613	BOLT U M16 GR8.8 100x78	18	
3	P02008	NUT LOCK M16 'TYPE T'	44	
4	P02602	WASHER FLAT M16	44	
5	P04179	WASHER FLAT M12 Ø38	18	
6	P06802	BOLT U M16 GR8.8 190x117	4	
7	P07736	SCRAPER STEM	9	
8	P08601	SCRAPER PLATE DD RING LONG	7	
9	P10029	SCRAPER 1 1/2	2	
10	P17481	SCRAPER RAIL - DD600	1	
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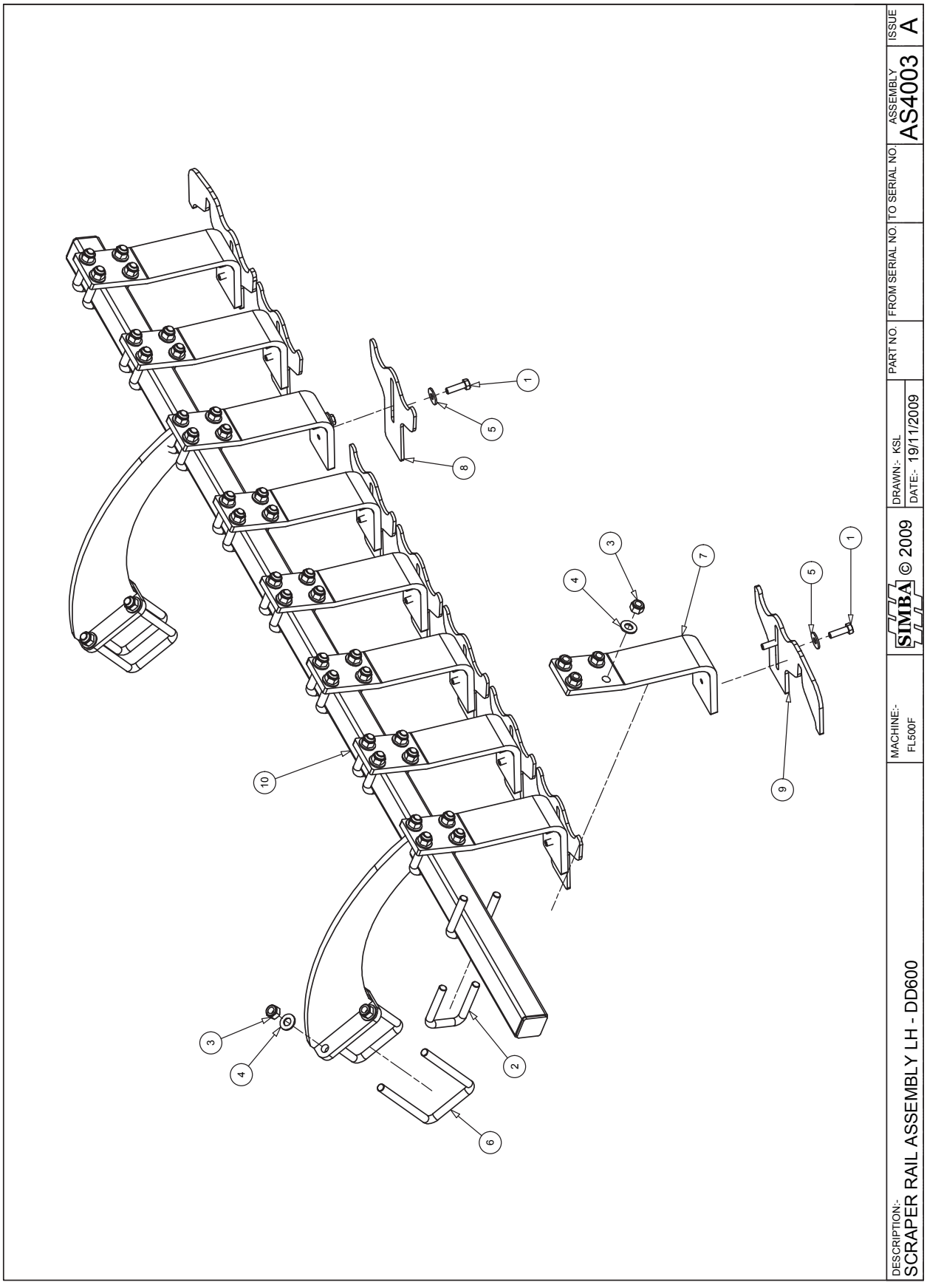
DESCRIPTION:-
SCRAPER RAIL ASSEMBLY LH - DD600
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- KSL
DATE:- 19/11/2009
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4003
ISSUE
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	AS4003	SCRAPER RAIL ASSEMBLY LH		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00003	BOLT M12x40 GR. 8.8	18	
2	P01613	BOLT U M16 GR8.8 100x78	18	
3	P02008	NUT LOCK M16 'TYPE T'	44	
4	P02602	WASHER FLAT M16	44	
5	P04179	WASHER FLAT M12 Ø38	18	
6	P06802	BOLT U M16 GR8.8 190x117	4	
7	P07736	SCRAPER STEM	9	
8	P08601	SCRAPER PLATE DD RING LONG	7	
9	P10029	SCRAPER 1 1/2	2	
10	P17481	SCRAPER RAIL - DD600	1	
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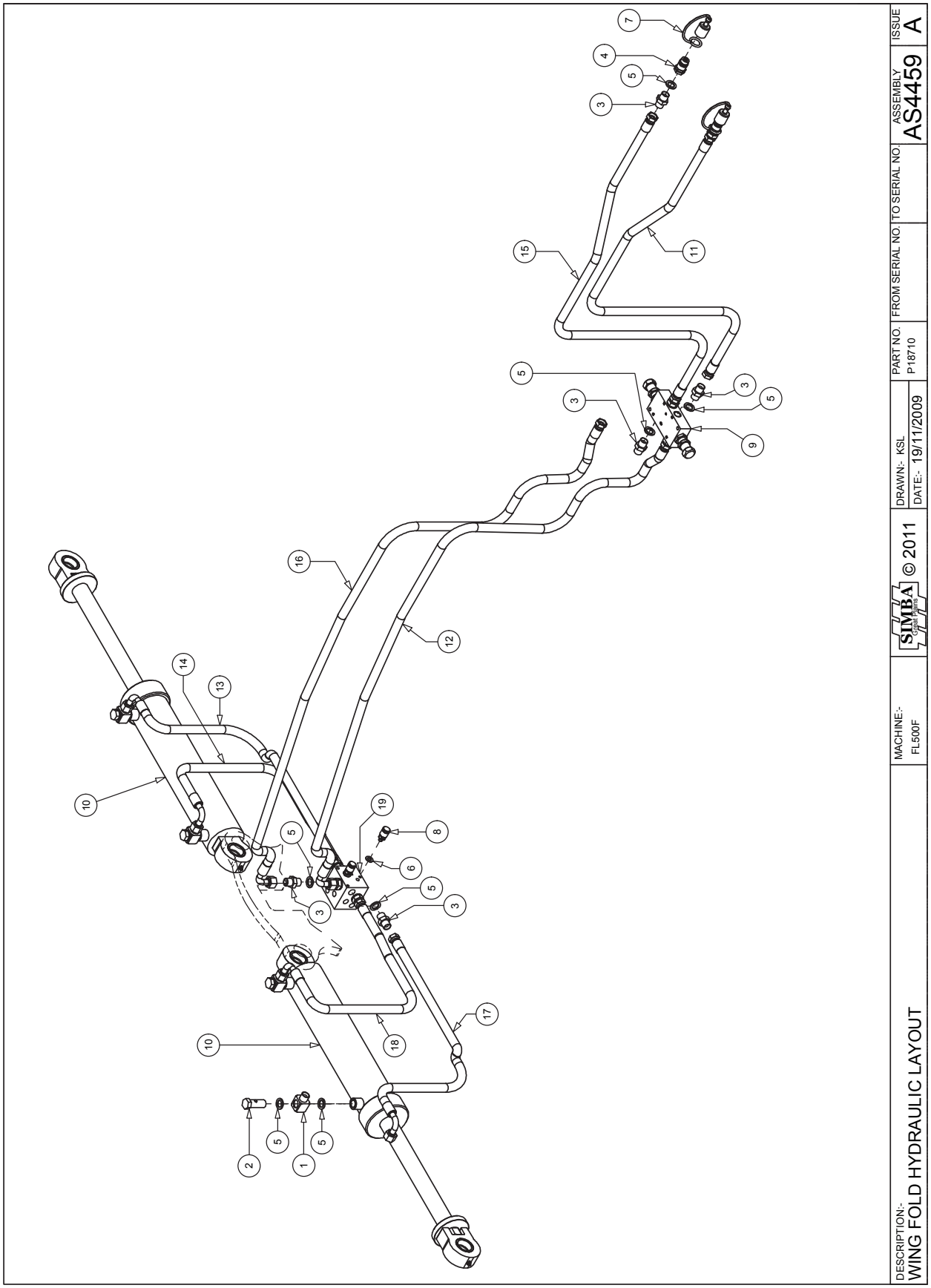
DESCRIPTION:-
WING FOLD HYDRAULIC LAYOUT
MACHINE:-
FL500F
SIMBA Great Plains © 2011
DRAWN:- KSL
DATE:- 19/11/2009
PART NO.
P18710
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4459
ISSUE
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	AS4459	WING FOLD HYDRAULIC LAYOUT		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00200	BANJO BLOCK ½" BSP	4	
2	P00201	BANJO BOLT ½" BSP	4	
3	P00203	ADAPTOR MALE-MALE ½" BSP	12	
4	P00205	QUICK RELEASE MALE - ½" BSP	2	
5	P02263	DOWTY SEAL ½" BSP	20	
6	P02741	DOWTY SEAL ¼" BSP	2	
7	P09537	CAP FOR MALE - YELLOW	2	
8	P15581	CHECK PORT 1/4 BSP	2	
9	P16391	DOC VALVE (REXROTH)	1	
10	P18323	CYLINDER - Ø90x400 - 45	2	
11	P18727	HA 1/2"X2134 F/F	1	
12	P18728	HA 1/2"X1905 F/F90	1	
13	P18729	HA 1/2"X975 F/F90	1	
14	P18730	HA 1/2"X715 F/F90	1	
15	P18731	HA 1/2"X2134 F/F	1	
16	P18732	HA 1/2"X1905 F/F90	1	
17	P18733	HA 1/2"X975 F/F90	1	
18	P18734	HA 1/2"X715 F/F90	1	
19	P18735	MANIFOLD-WING/ROLL	1	
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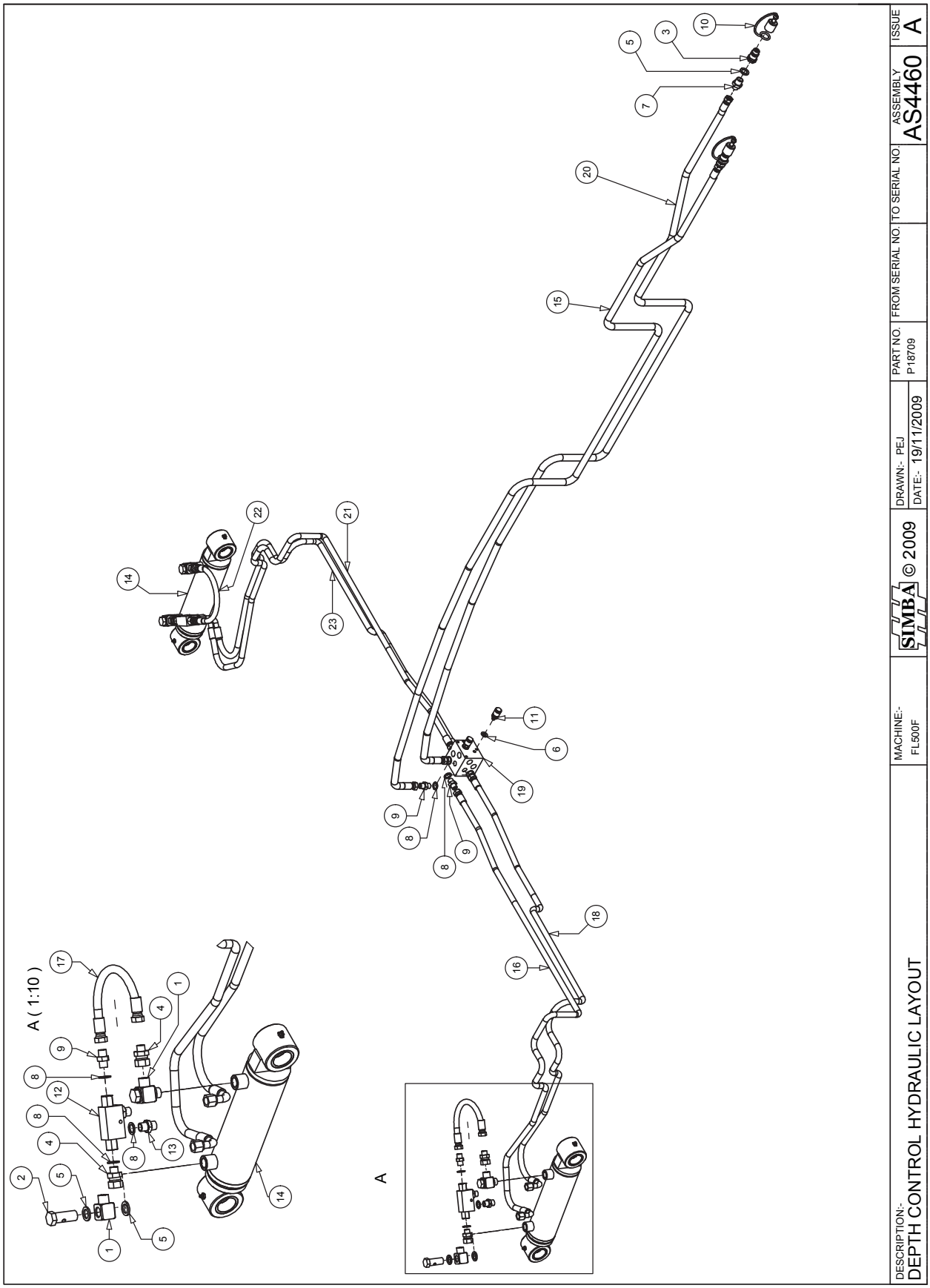
DESCRIPTION:-
DEPTH CONTROL HYDRAULIC LAYOUT
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- PEJ
DATE:- 19/11/2009
PART NO.
P18709
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4460
ISSUE
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	AS4460	DEPTH CONTROL HYDRAULIC LAYOUT		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00200	BANJO BLOCK ½" BSP	4	
2	P00201	BANJO BOLT ½" BSP	4	
3	P00205	QUICK RELEASE MALE - ½" BSP	2	
4	P01796	M3/8"-F1/2"	4	
5	P02263	DOWTY SEAL ½" BSP	10	
6	P02741	DOWTY SEAL ¼" BSP	2	
7	P03686	ADAPTOR MALE - MALE ½"-3/8" BSP	2	
8	P03687	DOWTY SEAL 3/8" BSP	14	
9	P06641	ADAPTOR MALE - MALE 3/8"-3/8" BSP	8	
10	P09543	CAP FOR MALE - BLUE	2	
11	P15581	CHECK PORT 1/4 BSP	2	
12	P16285	CHECK VALVE FPD-3/8-35L	2	
13	P16709	M/M 3/8" RESTRICTED	4	
14	P17747	CYL - Ø80x175-45	2	
15	P18723	HA 3/8"X4040 F/F	1	
16	P18724	HA 3/8"X1735 F/F90	1	
17	P18725	HA 3/8"X330 F/F	1	
18	P18726	HA 3/8"X1735 F/F90	1	
19	P18735	MANIFOLD-WING/ROLL	1	
20	P18736	HA 3/8"X4040 F/F	1	
21	P18737	HA 3/8"X1735 F/F90	1	
22	P18738	HA 3/8"X330 F/F	1	
23	P18739	HA 3/8"X1735 F/F90	1	
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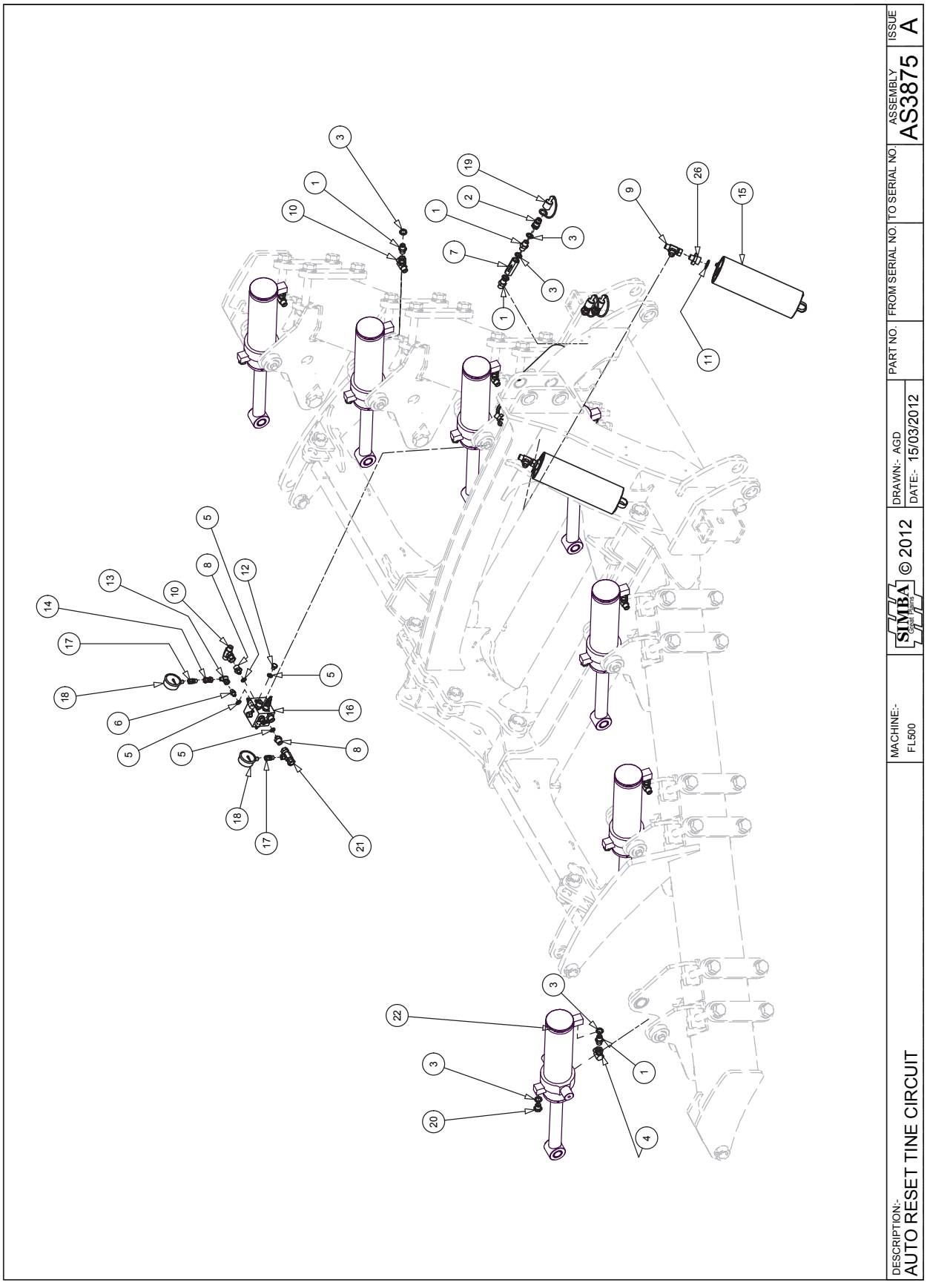
DESCRIPTION:-
AUTO RESET TINE CIRCUIT
MACHINE:-
FL500
SIMBA Great Plains
© 2012
DRAWN:- AGD
DATE:- 15/03/2012
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS3875
ISSUE
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AS3875		AUTO RESET TINE HYDRAULIC CIRCUIT		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P00203	ADAPTOR MALE-MALE ½" BSP	11	
2	P00205	QUICK RELEASE MALE - ½" BSP	3	
3	P02263	DOWTY SEAL ½" BSP	19	
4	P02734	ELBOW MALE-FEM COMPACT ½" BSP	2	
5	P02741	DOWTY SEAL ¼" BSP	7	
6	P02881	ADAPTOR MALE-MALE ¼" BSP	1	
7	P03061	CHECK VALVE 1/2"BSP - 20 BAR	1	
8	P03685	ADAPTOR M½"-M¼" BSP	5	
9	P06216	ADAPTOR T SFOR ½" BSP	4	
10	P06217	ADAPTOR T SFOE ½" BSP	5	
11	P06249	DOWTY SEAL 1" BSP	4	
12	P06268	BLANKING PLUG - 1/4" BSP	1	
13	P06287	1/4"BSP MALE - FEMAL	1	
14	P07348	F-F1/4"	1	
15	P08837	ACCUMULATOR 2L PISTON 80b	4	
16	P09078	MANIFOLD - TINE CONTROL	1	
17	P09116	1/4" PRESSURE GAUGE ADAPTOR - BODY	2	
18	P09117	PRESSURE GAUGE 250BAR	2	
19	P09541	CAP FOR MALE - GREEN	3	
20	P13739	BLANKING PLUG ½" BSP VENTED	7	
21	P15646	ADAPTOR T F/F ½"F 1/4"	1	
22	P17382	CYLINDER Ø100x310-50	7	
23	P18276	CHASSIS - FL500F	1	
24	P18277	WING FRAME RH - 4.5m	1	
25	P18278	WING FRAME LH - 4.5m	1	
26	P18479	ADAPTOR 1" MALE-MALE ½" BSP	4	
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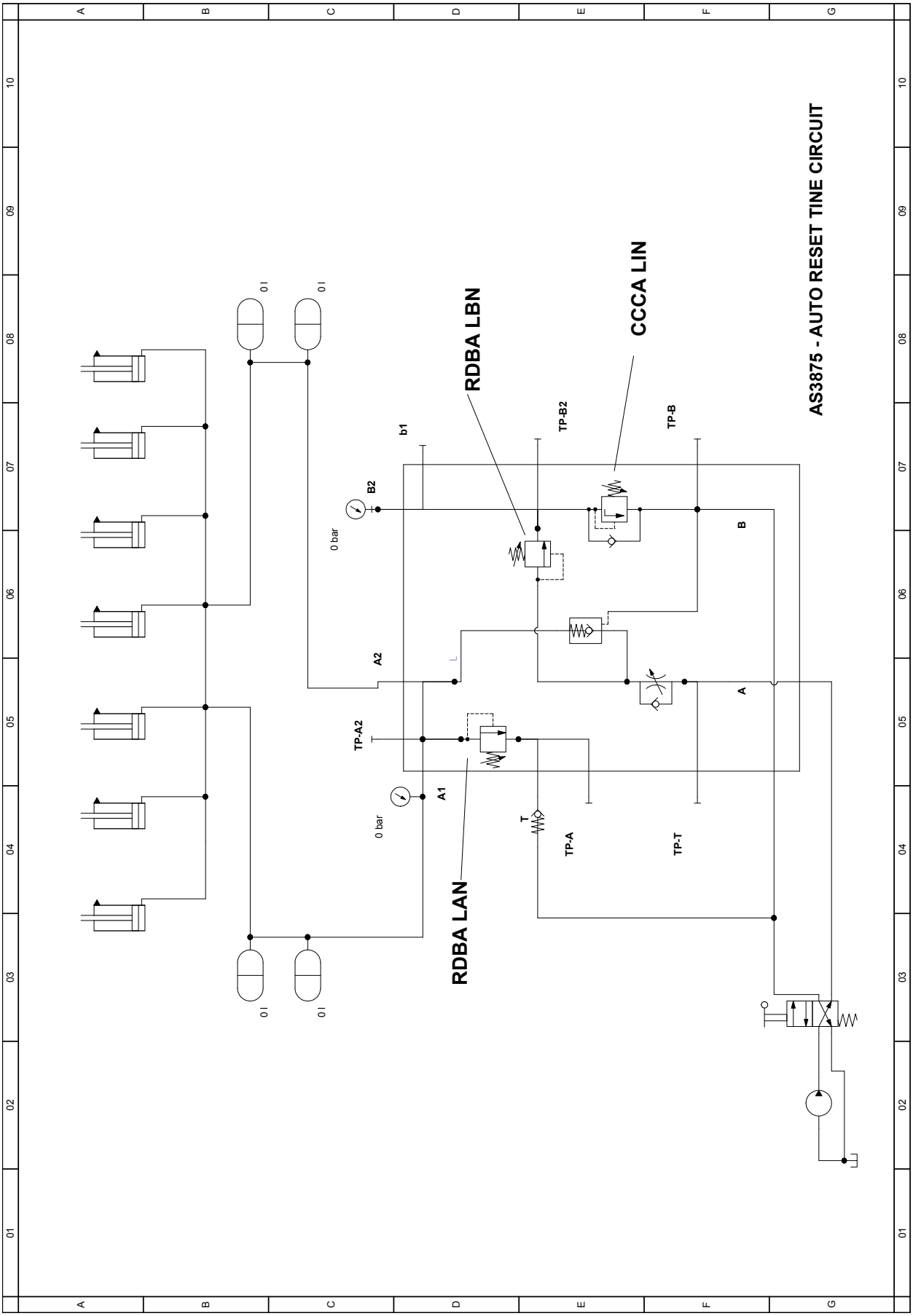
AS3875 - AUTO RESET TINE CIRCUIT
CCCA LIN
RDBA LBN
RDBA LAN
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0 l
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B2
0 bar
TP-B2
TP-B
B
A2
TP-A2
A1
0 bar
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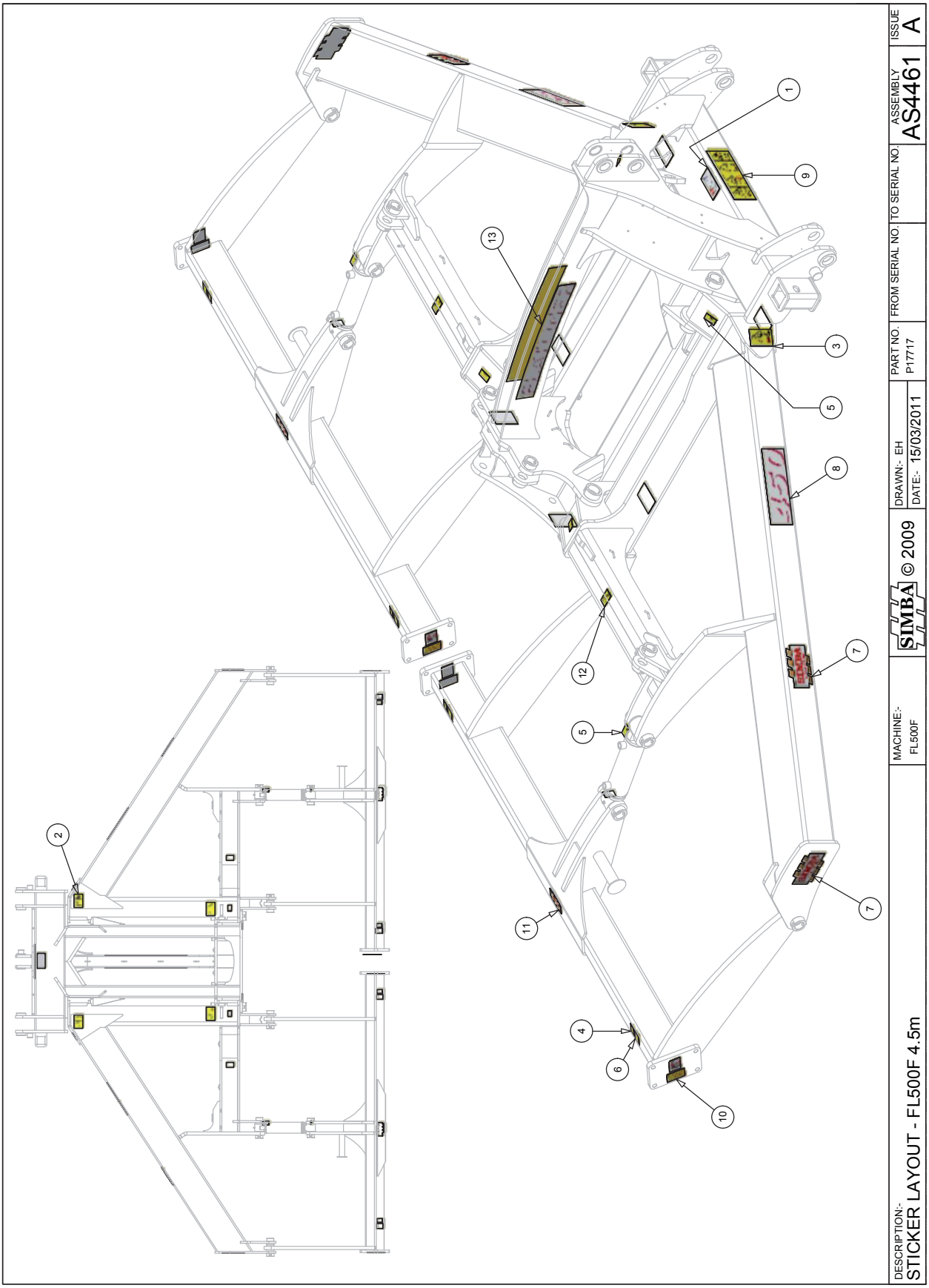
TP-A
TP-T
A


DESCRIPTION:-
STICKER LAYOUT - FL500F 4.5m
MACHINE:-
FL500F
SIMBA © 2009
DRAWN:- EH
DATE:- 15/03/2011
PART NO.
P17717
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4461
ISSUE
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	AS4461	STICKER LAYOUT - FL500F 4.5m		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P05122	SERIAL PLATE	1	
2	P11643	DECAL - FALLING WINGS	4	110x70
3	P11645	DECAL - HAND TRAP	4	110x70
4	P11694	DECAL - GREASE 10 HOURS	4	50x30
5	P11695	DECAL - GREASE 50 HOURS	8	50x30
6	P15618	DECAL - ANTI TAMPER	4	62.5x40
7	P16755	DECAL-SIMBA GP 130X227	4	130x227
8	P17102	DECAL - 450	2	110x315
9	P17212	DECAL-GROUP WARNING	1	
10	P17251	DECAL-DD AND TENSION	4	
11	P17424	DECAL SIMBA 80X139 GP	2	65x114
12	P17704	DECAL - LEAKING OIL	2	62.5x40
13	P17718	DECAL - FLATLINER	2	
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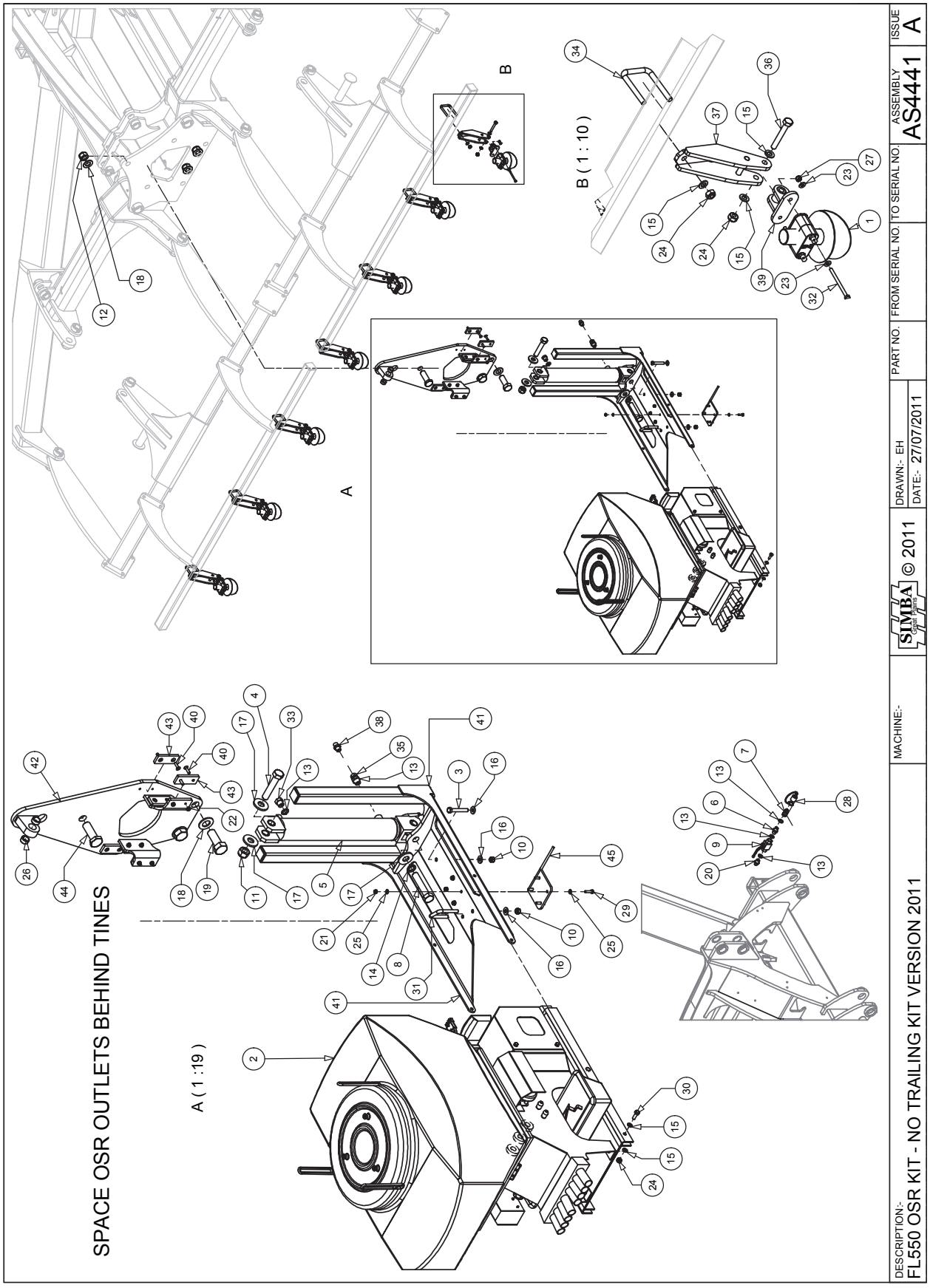
SPACE OSR OUTLETS BEHIND TINES
A (1 :19)
B (1 : 10)
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B
DESCRIPTION:-
FL550 OSR KIT - NO TRAILING KIT VERSION 2011
MACHINE:-
SIMBA © 2011
DRAWN:- EH
DATE:- 27/07/2011
PART NO.
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS4441
ISSUE
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AS4441	FL550 OSR KIT - NO TRAILING KIT VERSION 2011		

ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	AS2520	DISTRIBUTOR HEAD ASSEMBLY	7	
2		TURBOJET - GENERAL ASSEMBLY	1	
3	P00006	BOLT M12x80 GR. 8.8	1	
4	P00019	BOLT M24x120 GR. 8.8	1	
5	P00166	CYLINDER - Ø75x400	1	
6	P00203	ADAPTOR MALE-MALE ½" BSP	1	
7	P00205	QUICK RELEASE MALE - ½" BSP	1	
8	P00771	BOLT M24x120 GR10.9	1	
9	P00774	SHUT OFF TAP ½" BSP	1	
10	P02007	NUT LOCK M12	3	
11	P02010	NUT LOCK M24	1	
12	P02011	NUT LOCK M30	3	
13	P02263	DOWTY SEAL ½" BSP	5	
14	P02593	WASHER SPRING M24	1	
15	P02600	WASHER FLAT M10	36	
16	P02601	WASHER FLAT M12	4	
17	P02605	WASHER FLAT M24 Ø60	3	
18	P02608	WASHER FLAT M30	5	
19	P03471	BOLT M30x80 GR. 8.8	2	
20	P03686	ADAPTOR MALE - MALE ½"-3/8" BSP	1	
21	P04754	NUT LOCK M8	4	
22	P05213	NUT LOCK M8 TYPE T	8	
23	P05400	WASHER FLAT M6	28	
24	P05534	NUT LOCK M10	25	
25	P05535	WASHER FLAT M8	8	
26	P07922	BUSH SPRUNG - Ø32xØ26x15	2	
27	P07981	NUT LOCK M6	14	
28	P09539	CAP FOR MALE - RED	1	
29	P09726	BOLT M8x30 GR. 8.8	4	
30	P12690	BOLT M10x30 GR. 8.8	4	
31	P13586	BOLT U M12 GR8.8 80x70	1	
32	P13672	BOLT M6x80 GR. 8.8	14	
33	P13739	BLANKING PLUG ½" BSP VENTED	1	
34	P13961	BOLT U M10 GR8.8 71x88	7	
35	P14095	ADAPTOR MALE 1/2" - FEMALE 3/8"	1	
36	P14520	BOLT M10x70 GR8.8	7	
37	P15893	OSR RAIL MOUNT	7	
38	P16709	M/M 3/8" RESTRICTED	1	
39	P16806	OSR OUTLET MOUNT	7	
40	P17318	SCREW M8x30 CSK	12	
41	P18716	OSR MOUNT - BASE	1	
42	P18717	OSR MOUNT-BACK PLATE	1	
43	P18718	NYLON GUIDE BLOCKS	6	
44	P18749	BOLT M30x87 GR. 8.8	1	
45	P18766	RDS RADAR BRACKET	1	
46	P18766	RDS RADAR BRACKET	1	
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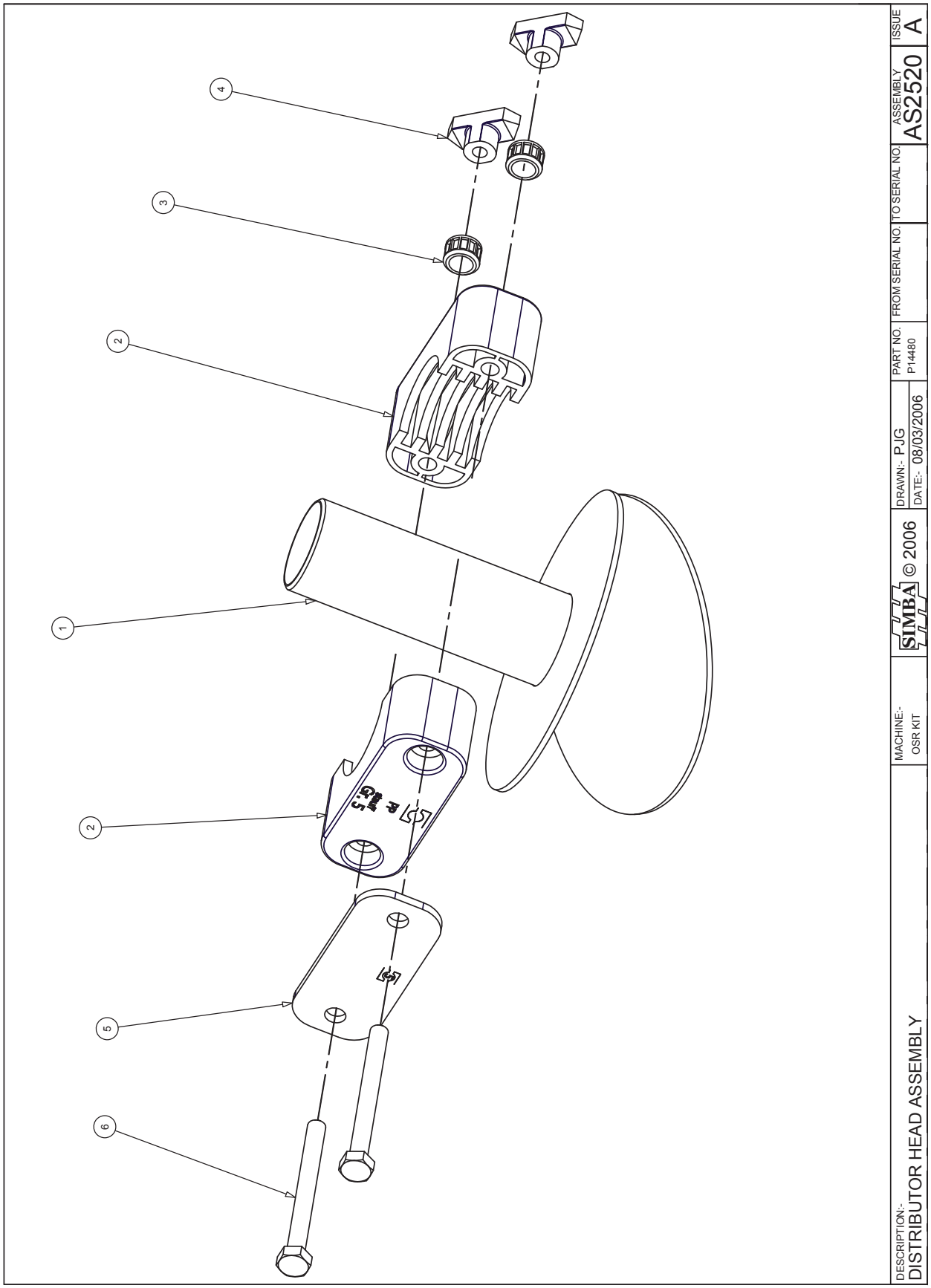
DESCRIPTION:-
DISTRIBUTOR HEAD ASSEMBLY
MACHINE:-
OSR KIT
SIMBA © 2006
DRAWN:- PJG
DATE:- 08/03/2006
PART NO.
P14480
FROM SERIAL NO.
TO SERIAL NO.
ASSEMBLY
AS2520
ISSUE
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AS2520		DISTRIBUTOR HEAD ASSEMBLY		
ITEM	PART NO	DESCRIPTION	QTY	COMMENTS
1	P14473	DISTRIBUTOR HEAD	1	
2	P14477	STAUFF CLAMP - 1 1/4"	2	
3	P14479	RUBBER MOUNT	2	
4	P14478	CLAMP LOCK NUT	2	
5	P14476	TOP PLATE	1	
6	P14474	BOLT M6x60 GR. 8.8	2	
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8	P14480	STAUFF CLAMP COMPLETE. 1 1/4"	1	ITEMS 2 - 6
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SIMBA Great Plains

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W www.simba.co.uk