Read the operators manual entirely. When you see this symbol, the subsequent instructions and warnings are serious - follow without exception. Your life and the lives of others depend on it!

Illustrations may show optional equipment not supplied with standard unit.
DECLARATION OF CONFORMITY

Great Plains UK Ltd. hereby declare that the Great Plains Simba TL, 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.


Specifically related harmonised standards are:

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


THE MANUFACTURER:

Great Plains UK Ltd.
Woodbridge Road
SLEAFORD
Lincolnshire
NG34 7EW
England

Telephone (+44) (0)1529 304654.

CERTIFIED ON BEHALF OF GREAT PLAINS UK LTD.:

James McNair
Managing Director
WARRANTY
TERMS AND CONDITIONS

In this warranty Great Plains UK 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 Great Plains UK 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 any repair is carried out to the machine other than by or with the express written approval of the Company or
   (b) any alterations not expressly authorized by the Company in writing are made to the machine or the machine is damaged by accident or
   (c) 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 Great Plains UK 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 Great Plains UK 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:

<table>
<thead>
<tr>
<th>Serial Number</th>
<th>Type of Machine</th>
<th>Machine Width</th>
<th>Year of Construction</th>
<th>Delivery Date</th>
<th>First Operation</th>
<th>Accessories</th>
</tr>
</thead>
</table>

**Dealer Address:**
Name: ________________________________
Street: ______________________________
Place: ______________________________
Tel.: ________________________________

Dealer’s Customer No.: ________________________________

**Great Plains Address:**
Great Plains UK Ltd.
Woodbridge Road Ind. Est.
Sleaford
Lincolnshire
NG34 7EW

Tel.: +44 (0) 1529 304654
Fax: +44 (0) 1529 413468
E-Mail: simba@greatplainsmfg.com

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!

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 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!

Keep clear of the working range of foldable machine components!

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

No passengers are allowed on the machine!

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

Never reach into any revolving parts!
Operating Instructions:

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

- ![Important!](image)
- ![Risk of injury!](image)
- ![Risk of fatal and serious injuries!](image)

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 TL 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 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 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. Great Plains will accept no liability for damage resulting from the use of non-original parts or accessories.

The Simba TL 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. Great Plains will accept no liability for damage resulting from improper use. The risk will be borne solely by the operator.

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 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.

1.3.1 No Liability for Consequential Damage

The Simba TL has been manufactured by Great Plains 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.

Compensation claims for damage which has not occurred to the machine is excluded. This includes any consequential damage resulting from incorrect operation.
1.4 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.
- Passengers on the machine are strictly forbidden!
- Check that lights / indicators (if applicable) are working before transporting the machine.
- Max. road transport speed 16mph (25km/h).

1.5 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 tines or other moving parts. Ensure any heavy components are fully supported when removing pins / bolts.

1.5.1 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.

1.5.2 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.
1.5.3 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.

The person in charge must:

• provide the operator with a copy of the Operating Instructions.
• 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.

As transport regulations vary regionally, the regulations which apply to your locality should be complied with in terms of this machine. Note specific requirements regarding implement width, speed, and features such as lights and brakes: ensure these are complied with (for example keep to maximum transportation speeds with machines if not fitted with brakes, and/or according to machine transportation width).

1.6 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.

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 axles of any type.
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.

- The machine can be lifted off with a crane or other suitable lifting equipment.

- The machine should be hitched to a tractor and driven off a low-loader.

2.2 Transportation

The Simba TL can be transported on public roads by hitching it up to a tractor or on a low-loader.

- It is important to observe the permitted dimensions and weights when transporting the machine.

- If the machine is transported on a trailer or a low-loader, it must be secured using straps or other devices via the designated tie down points on the machine.

- 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. Transportation / Installation

2.4 Hitching Up / Preparing for Transport

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

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

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

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

4. Raise the machine using the tractor link arms.

Ensure the levelling disc beam is in the transport position before transporting the machine.

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.

Ensure that the tractor rear lights are visible from behind during transport.

2.6 Unhitching / 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!).

1. Park the machine on level and solid ground.

2. Move the roller into its lowest setting (ie float setting) by removing the shims from the front side of the depth control rod. This is to ensure the machine doesn’t tip backwards when unhitched.

3. Lower the machine onto the tines ensuring that it is stable.

4. Remove the toplink and lower the link arms so that pins can be removed.

5. Switch off the tractor.
### 3. Technical Data

<table>
<thead>
<tr>
<th></th>
<th>TL300</th>
<th>TL350</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport Width</td>
<td>2982mm</td>
<td>3480mm</td>
</tr>
<tr>
<td>Working Width</td>
<td>3000mm</td>
<td>3500mm</td>
</tr>
<tr>
<td>Length</td>
<td>3765mm</td>
<td>3765mm</td>
</tr>
<tr>
<td>Weight</td>
<td>1980kg</td>
<td>2580kg</td>
</tr>
<tr>
<td>Tractor Power Required (H.P.)*</td>
<td>150-180 (max)</td>
<td>170-210 (max)</td>
</tr>
<tr>
<td>Centre of Gravity (Dimension from linkage)</td>
<td>1879mm</td>
<td>2129mm</td>
</tr>
</tbody>
</table>

* It is important to correctly match your implement to your tractor for optimum performance.
4. Adjustment/Operation
4.1 Description

The Great Plains Simba TL is designed for high speed, medium depth cultivation up to 250mm deep.
4.2 3 Point Linkage
The Simba TL is fitted with a standard Category 3 linkage at the front of the machine.

Fig. 4.02: 3 Point Linkage

4.3 Tines
The tines on the Simba TL are arranged over 3 rows to give lower draft requirements and the ability to work progressively deeper. The tines are spaced at 290mm. Each tine is protected using a sprung unit allowing the tine to trip up and over obstacles.

Fig. 4.03: Tines

4.4 Levelling Discs
The Simba TL features a row of covering discs to level behind the tines. They are mounted onto an adjustable beam. Rubber torsion rods inside the mounting provide shock resistance / stone protection in work. The levelling disc beams slide in and out for work / road transport.

Fig. 4.04: Levelling Discs

Fig. 4.05: Levelling Discs: Suggested Start Setting
4.5 DD Light Roller
The DD Light roller is made up of individual Double Disc (patented) Ring segments.

The DD Light roll is 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.

The rear DD Light roller carries a proportion of the machine’s weight to ensure consolidation. It also regulates the depth of the machine. The corrugated surface left by the roller is weatherproof both for wet or dry situations.

Fig. 4.06: DD Light Roller

4.6 Cage Roller
The cage roller provides a clod crushing and consolidating action and leaves a loose, open soil profile. It is well suited for dry, light, non-sticky soils.

In work, the cage roller carries a proportion of the machine’s weight to ensure consolidation. It also regulates the depth of the machine.

Fig. 4.07: Cage Roller
4.7 Work Settings
Optimum performance has been found to be achieved when the DD Light roll rings have worn away the painted finish leaving a smooth shiny surface. When the DD Light rings are new or rusty, soil may tend to pick up on the surface and blockage may occur, this will reduce when the rings are shiny again.

The Simba TL should be run with the chassis level. In practice it is possible to use the Simba TL on ground conditions that are unsuitable to achieve the desired effect, and it is usually possible to operate the DD Light roll without regular blockage under such unsuitable conditions, assuming that the roll assemblies are tight, the scrapers correctly adjusted and rings smooth. As such, especially under wet conditions, it is advisable to check on the cultivation effect of the Simba TL.

The Simba TL should be lifted fully clear of the ground for all headland turns. Turning with the tines, disc units or roller on the ground could lead to damage of these components.

In work, the tractor lower link arms should be run in position control with draft introduced if required.

4.8 Adjusting Depth
The depth of the machine in work is controlled using the 3 point linkage and the roll unit.

When the depth has been altered, lower the machine into work and check operation. If the depth change has been significant then other settings could be affected. This could be chassis pitch (front to rear).

A small amount of cultivation, eg. a 20 metre run, should be carried out before altering these settings to check whether they are now suitable for the cultivation effect required. These settings should be addressed immediately to prevent too much work being carried out.
4.9 Work Instructions

Driving speed
The Simba TL can be driven at speeds of up to 12 km/h.

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

Drive more slowly if the conditions are difficult or a firmer finish is required.

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

4.10 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!).

1 Park the machine on level and solid ground.
2 Move the roller into its lowest setting (ie float setting) by removing the shims from the front side of the depth control rod. This is to ensure the machine doesn't tip backwards when unhitched.
3 Lower the machine onto the tines ensuring that it is stable.
4 Remove the toplink and lower the link arms so that pins can be removed.
5 Switch off the tractor.

4.11 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 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. 4.09. They are removed by using a finger to pull firmly on the handle.

Check the 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 adjuster should contain the same amount of shims as the right, for example. Failure to do this could result in damage to the machine.

Fig. 4.09: Shims
4.12 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.

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 / disc bearings with a high-pressure hose or a direct water jet. The housing, screwed connections and ball bearings are not watertight.

5.3 Tines

When performing maintenance work on tines extreme care should be taken. Wear goggles and gloves at all times when maintaining tines.

Ensure the machine is safely supported before attempting maintenance work on tines.

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

Ensure the tine leg is supported when removing pins to ensure it doesn’t fall.

5.4 Disc Hub Maintenance

Disc hubs are sealed for life and do not require greasing.

Check disc hubs regularly for tightness. Tighten if necessary.
5.5 DD Light Roll
The spacers and rings on the DD Light Roll are held under tension by the end plates at the outer ends of the roll tube.

Specialist equipment is required for the disassembly of DD Light rollers. Please consult your dealer under any circumstances that require disassembly of these rollers.

Maintenance of these rollers is limited to yearly/end of season greasing of the bearings and regular inspection to ensure the assemblies are tight, and scrapers are correctly set.

The scraper is intended to clear dirt from blocking between adjacent DD rings. If adjustment to the scrapers is required ensure that the scraper cannot contact the spacer even under load. Regularly inspect the spacers for signs of wear and adjust any scrapers to ensure no contact can be made.

5.6 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 / discs against rust. If you need to spray the implements 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.

5.6.1 End of Season Service/Storage

The machine should be left parked in the unfolded position

Wheel bearings should be inspected and re-packed with grease if required

All greased pins/pivots should be lubricated.

Check for worn or damaged components and hardware, replace where required.

If fitted, check and where required adjust DD roller tension

Where hydraulic cylinder rods are exposed, re-coat chrome with oil/grease.

If the machine has been washed before storage it is good practice to function all hydraulic cylinders and services before storage.

Remove all fertiliser and seed from all metering units and hoppers.

Remove all metering cassette elements.
5.7 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
- Serial Number of Machine
- Date of Purchase and Operating Hours
- Type of Problem

5.8 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.

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.

Avoid sharp-edged and pointed parts (disc blades, 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!
5.9 Maintenance Overview

Key
- **Inspect**
- **Grease**

- **200 Hrs**
  - One pump only!
- **10 Hrs**

![Diagram of maintenance schedule with Key and maintenance intervals marked](image-url)
5.10 Lubricating the Machine

Please read the section entitled “Using Lubricants” 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 “Inspection” and “Maintenance Intervals”.

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

5.11 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.

5.12 Lubricants

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

<table>
<thead>
<tr>
<th>Fault</th>
<th>Possible Cause</th>
<th>Remedy</th>
</tr>
</thead>
<tbody>
<tr>
<td>DD Light Roll blocks regularly.</td>
<td>Scrapers incorrectly adjusted</td>
<td>Adjust scrapers to clear dirt from between DD Rings.</td>
</tr>
<tr>
<td></td>
<td>Conditions may not be ideal for using machine.</td>
<td>Wait for more favourable conditions.</td>
</tr>
<tr>
<td>Inadequate consolidation.</td>
<td>Not enough weight on rear roll.</td>
<td>Increase chassis pitch slightly via tractor toplink.</td>
</tr>
<tr>
<td></td>
<td>Not enough cultivated soil depth.</td>
<td>Increase working depth.</td>
</tr>
<tr>
<td></td>
<td>Speed too fast.</td>
<td>Reduce speed (&lt;12kmh).</td>
</tr>
<tr>
<td>Surface finish is uneven and cloddy</td>
<td>Not enough roll pressure</td>
<td>Reduce draft control.</td>
</tr>
<tr>
<td></td>
<td>Running nose down</td>
<td>Level frame.</td>
</tr>
<tr>
<td></td>
<td>Working too shallow</td>
<td>Increase tine depth.</td>
</tr>
<tr>
<td></td>
<td>Levelling beam working incorrectly</td>
<td>Adjust levelling beam pitch.</td>
</tr>
<tr>
<td>Machine pulls to one side</td>
<td>Tines not set evenly left to right</td>
<td>Set tines evenly.</td>
</tr>
<tr>
<td></td>
<td>Levelling discs not set evenly left to right</td>
<td>Set levelling discs evenly.</td>
</tr>
<tr>
<td>All ground not being moved by tines</td>
<td>Working too shallow</td>
<td>Increase tine depth.</td>
</tr>
</tbody>
</table>