

LEGUAN 125M2

Operator and Service manual



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www.leguanlifts.com



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1. INTRODUCTION AND WARRANTY CONDITIONS

1.1. Introduction

LEGUAN LIFTS wants to thank you for purchasing this LEGUAN access platform. It is the result of Leguan's long experience in design and manufacturing of access equipment. We ask you to read and understand the contents of this manual completely before operating the access platform. This will improve your operating and maintenance efficiency, help avoid breakdowns and damage and extend the life of your machine.



Pay special attention to this symbol. It indicates important safety factors that require special attention. Every operator must read and understand this manual before commencing operation, and the instructions in this manual must be followed. If you lend the access platform out to others, make sure that they familiarise themselves with and understand these instructions. If there is anything unclear with the operation, please contact your Leguan dealer.

If spare parts are needed, use only original LEGUAN parts. The strain that these parts are subjected to is taken into account in their manufacture. They will provide your machine with maximum life expectancy and ensure optimum safety.

It is not possible to give explicit operating instructions to all operating conditions of the machine. Therefore, the manufacturer is not responsible for any damage caused by eventual faults in this Operators Manual.

The manufacturer does not accept any responsibility for consequential losses resulting from the use of this self-propelled access platform.

The lifespan of the track system of an access platform on rubber tracks is heavily dependent on the working environment and work methods. If the access platform is being used on terrain with stones or gravel, on demolition sites with concrete, or in an environment with scrap metal, the lifespan of the track system may be significantly reduced. Therefore, damage to the tracks, track rollers or crawler track chassis, caused by operation in such environments, is not covered by warranty.

The machine operator can influence the service life of the tracks by complying with instructions for their use and maintenance.

1.2. Warranty conditions

This product is under warranty for a period of twenty-four (24) months without restrictions on operating hours.

The warranty covers manufacturing and material defects. All warranty obligations end when the warranty period ends. Warranty repair that has been started will be completed regardless of the expiry date of the warranty period.

A condition for the warranty is that both the buyer and the seller have accepted the delivery. If the buyer is not present when the delivery takes place and does not make a complaint within 14



days of delivery of this access platform, the sale is deemed closed and the warranty period is then officially underway.

This warranty does not restrict the buyer's legal right to submit a complaint about a flaw in the purchased product.

Warranty is limited to the repair of a faulty access platform without cost at an authorised Leguan service workshop. The warranty period for parts that are changed in connection with the repair will end when the warranty period for the access platform ends. Parts that have been changed in the warranty repair will remain Leguan Lifts' property without compensation.

The warranty does not cover the following situations:

- inappropriate use of the product
- changes and repair work performed without consent from the manufacturer
- insufficient or flawed maintenance
- machine breakdowns due to causes other than a manufacturing error
- acts of vandalism
- adjustments, repair and the replacement of parts due to normal wear and tear, negligent use or non-compliance with the instructions for use
- exceptional strain placed on the access platform, sudden and unforeseeable events, natural disasters
- external, mechanical or chemical causes (damage to the paintwork, such as scratches and abrasions caused by flying stones, pollution and environmental impurities, strong detergents, or by lifting operations or lifting equipment)
- alterations, repair or reinstallation performed without consent from the manufacturer or dealer
- any patterns or uneven patches on the paintwork
- if the warranty claim is not submitted within reasonable time of the buyer observing the flaw or when the flaw should have been noticed. Notification must always be submitted within two (2) weeks of the buyer noticing the defect. under all circumstances, the buyer must act so that his action does not make the defect(s) worse
- the manufacturer does not accept any responsibility for consequential losses resulting from the use of this access platform

In the event a fault occurs that is attributable to manufacturing or assembly defect, contact the dealer without delay.



ALKUPERÄINEN EY-VAATIMUSTENMUKAISUUSVAKUUTUS ORIGINAL EC DECLARATION OF CONFORMITY FOR MACHINERY

TÄTEN VAKUUTAMME, ETTÄ HEREWITH DECLARES THAT



ON KONEDIREKTIIVIN 2006/42/EY ASIAAN KUUULUVIEN SÄÄNNÖSTEN MUKAINEN IS IN ACCORDANCE WITH THE REGULATIONS LAID OUT IN THE MACHINERY DIRECTIVE: 2006/42/EC

KONE TÄYTTÄÄ LISÄKSI MUIDEN EY-DIREKTIIVIN VAATIMUKSET: 2004/108/EY THE MACHINE ALSO FULFILLS THE REQUIREMENTS LAID OUT IN THE DIRECTIVES 2004/108/EY

SEURAAVIA EUROOPPALAISIA YHDENMUKAISIA STANDARDEJA ON SOVELLETTU SUUNNITTELUSSA: EN280:2015 FOLLOWING EUROPEAN HARMONIZED STANDARDS ARE USED WHEN THE MACHINERY WAS DESIGNED: EN280:2015

Teknisen tiedoston on valtuutettu kokoamaan: Storage address of original documents:

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Finland

LEGUAN LIFTS OY

Ylötie 1, FI-33470 Ylöjärvi,

Paikka / Place Päiväys / Date

Ylöjärvi, FINLAND dd.mm.20yy

Valmistaja / Manufacturer:

LEGUAN LIFTS OY

Ylötie 10, FI-33470 Ylöjärvi, Finland



2. GENERAL INFORMATION

LEGUAN 125M2 is a self-propelled Mobile Elevating Work Platform – commonly called an 'access platform', designed for indoor and outdoor use. Access platforms are designed for the lifting of persons and their equipment only. Using an access platform as a crane is prohibited.

LEGUAN 125M2 has two rated loads and two work ranges. Loads of up to 135 kg permit working within the entire working range. For loads over 135 kg but below the maximum weight of 200 kg, the working range is restricted.

LEGUAN is designed and built in accordance with the international safety standards and MEWP (Mobile Elevating Work Platform) standards.

The figure below shows the machine's main parts. Except for its track system, the trackequipped machine is similar in structure to a device with wheels.

- 1. Chassis
- 2. Transmission, with wheels or crawler tracks
- 3. Outrigger
- 4. Outrigger cylinder
- 5. Transport support
- 6. Electric motor
- 7. Connection box of control system and emergency lowering switches
- 8. Pedestal
- 9. Valve box
- 10. Lift cylinder
- 11. Lower boom
- 12. Self-levelling bar

- 13. Linkage piece
- 14. Upper boom cylinder
- 15. Telescoping cylinder
- 16. Upper boom
- 17. Extension
- 18. Platform
- 19. Controls
- 20. Slewing faucet
- 21. Stabiliser's main cylinder (master cylinder)
- 22. Stabiliser's operating cylinder (slave cylinder)





Figure 1. LEGUAN 125M2 main parts



3. TECHNICAL SPECIFICATIONS

Working height, cage load	12.5 m	<135 kg	
	11.3 m	135–200 kg	
Platform height, cage load	10.5 m	<135 kg	
	9.3 m	135–200 kg	
Outreach, cage load	6.5 m	<135 kg	
	5.1 m	135–200 kg	
Safe working load	200 kg	-	
Transport length	5.158 mm		
Transport length without platform	4,500 mm		
Transport longar without prationin	1,000 11111		
Transport height	1,840 mm	23" tyres	
	1,840 mm	Tracks	
	,		
Width	1.020 mm	23x8.5-12" tyres	
	1,281 mm	Tracks	
	1,201 1111	THURS	
Cage dimensions			
width x length (2-person cage)	1.200 x 700 1	mm	
Slewing	360 °		
Gradeability	35 %		
Support dimensions	2 938 x 2 89	7 mm	
Maximum inaccuracy in installation	2,750 x 2,072	2 111111	
Maximum gradient for outriggers	$\frac{2}{22.0\%}$ (13.0)		
Waximum gradient for outriggers	22 /0 (13)		
Unladen weight (depending on the accessories)	1.500 - 1.700) kg	
Drive method	4WD / rubber tracks		
Drive speed	1.6 km/h - 4.1 km/h		
Drive speed	1.0 KH/H 1.		
Minimum operating temperature	- 20°C		
Starter battery / electrical system 12 VDC	-		
Sound power level at platform controls. LwA	92.5 dB		
I I () () ()			



3.1. Main dimensions



Figure 2. LEGUAN 125M2 main dimensions (4WD wheels)



Figure 3. LEGUAN 125M2 main dimensions (tracks)



3.2. Reach diagram



3.3. Support pattern



Figure 5. Leguan 125M2 support pattern



4. SIGNS AND MARKINGS

- 1. Machine plate and CE marking
- 2. Safe working load and reach diagram
- 3. Max. horizontal force and wind speed
- 4. General user instructions
- 5. Daily inspection
- 6. Always use outriggers
- 7. Control symbol labels
- 8. Emergency lowering
- 9. Residual current device
- 10. Electric motor voltage
- 11. Max. outrigger force
- 12. Distance from energised electric wires and sound level on the platform
- 13. Binding points
- 14. Tyre pressure
- 15. "Leguan 125"



Figure 6. Signs and markings



5. SAFETY INSTRUCTIONS

The operator must know and follow all safety instructions. The operator must receive sufficient instructions in order to be able to use the lift correctly and safely. This **Operator's Manual must always be kept in the machine**.

In order to prevent unauthorised use of the access platform, take the main switch key and the ignition key with you after concluding operation if the machine is left unsupervised.

NOTE! DANGER!



The access platform is not insulated from voltage. Never use it near any live parts or wires.

When working with the access platform, the operator(s) must always wear a certified safety harness that is properly connected to the attachment points.

5.1. Before using the machine

- read the instructions for use carefully before operating the machine.
- only persons aged 18 or older who have received sufficient training may use the access platform.
- the operator must know all the functions of this access platform as well as its Safe Working Load, loading instructions and safety instructions.
- if there is heavy traffic in the working area, it must be fenced off and marked with a fence or line. Road traffic regulations must be followed as well.
- make sure that there are no bystanders in the working area.
- do not use a faulty access platform. Submit notifications about all faults and defects and make sure that they are repaired before commencing operation.
- follow inspection and service instructions and intervals.
- the operator must check the access platform visually at the beginning of each work shift. This check is necessary in order to make sure that the machine is in working order before making the daily inspection prior to commencing operation.
- if a combustion engine is used indoors, make sure that the space is appropriately ventilated



5.2. **Risk of tipping over**

- Exceeding the access platform's maximum load or additional load or the maximum number of people permitted on the platform is strictly prohibited.
- When wind speed is equal to or greater than 12.5 m/s (28 mph), the use of the access platform must be discontinued immediately and the platform must be lowered down to the transport position.
- Ensure that the access platform is used on dry, solid, level ground only. The ground is solid enough if it can carry min. 3 kg/cm². On softer ground, use extra support plates under the outriggers (plate dimensions 400 x 400 mm).
- Do not use a ladder, chair, stool, scaffolding or any other means to increase the reach capability of this access platform.
- If the platform gets stuck or jammed, or it is too close to a building or a wall to be moved, do not try to release the platform by operating the controls. All persons must leave the platform first (with the help of a rescue service or fire brigade if necessary), only after that one can try to lower the platform by using the emergency lowering.
- Do not increase the area of the platform or the load. Increasing the area exposed to wind weakens the stability of the access platform.
- Weight must be equally distributed across the platform. Make sure that additional weight cannot shift on the platform.
- Do not drive on gradients that are steeper than the max. values given for this access platform and for the slope.
- Never use this access platform as a crane. This access platform is intended for lifting the max. allowed number of persons and additional load only.
- Check and make sure that all tyres are in good condition. If the tyres are full of air, make sure that there is correct pressure in the tyres.
- In order to ensure the safe operation of this access platform, the manufacturer has conducted approved tests for the **LEGUAN 125M2** in accordance with the standard EN 280:2015 static stability test in accordance with paragraph 6.1.4.2.1 and a dynamic overload test in accordance with paragraph 6.1.4.3.

5.3. Risk of falling 🥂

- When working with the access platform, the operator(s) must always wear a certified safety harness which is properly connected to the platform.
- Do not stretch or reach out over the handrails. Stand steadily on the platform floor.
- It is not allowed to go to or step out from the platform when the booms are lifted.
- Keep the platform floor clean.
- Always close the platform gate before commencing operation.

5.4. Risk of collision /

- Adjust the drive speed so that it is safe with regard to the ground conditions.
- When operating the lift, take into account that visibility may be limited
- The operator must follow all regulations concerning the use of safety equipment on the work site
- Make sure that there are no overhead obstacles on the work site that could prohibit lifting of the platform, or objects that might cause a collision
- Do not operate this access platform in the working area of another overhead lifting device or similar equipment that is moving, unless this lifting device is secured so that there is no risk of collision
- Beware of crushing hazard when holding the handrail of the platform in a potential collision situation
- When operating the lift, beware of limited visibility and trapping hazard.

5.5. Risk of electric shock /

- This machine is not insulated from voltage or protected against contact with live parts
- Do not touch the machine if it comes in contact with a live electric line
- Persons on the platform or at ground level must not touch or operate the machine before power has been cut off from the electric line
- During welding repairs, using any part of this access platform as an earth conductor is prohibited
- Do not use this access platform during a thunderstorm or in high winds
- Leave clearance for electric lines, taking into account movements of the platform, movements of electric lines, and high winds and gusts.

The minimum safety clearances for overhead cables are shown in the following table. The clearances for the most commonly used voltages in overhead lines are as follows:

VOLTAGE	MIN. DISTANCE
0 - 1,000 V	2 m
1-45 kV	3 m
110 kV	5 m
220 kV	5 m
400 kV	5 m



5.6. Risk of fire / explosion

- The machine must not be started in a place where one can smell LPG, petrol, solvent or other flammable substance
- Do not add fuel when the engine is running
- Charge the battery only in places with sufficient ventilation, where there is no open fire and no activity which could cause spark emissions (such as welding).

5.7. Daily inspections before starting work

- ground
- supports
- horizontal position
- emergency stop button
- emergency lowering
- control devices
- access routes
- platform
- oil leakage
- work area

NOTE!

If you note faults or missing equipment on this access platform, do not use the machine before the faults have been corrected. Never set the access platform up in a place where the ground may be too soft. Beware of soft ground and potholes in particular.



6. CONTROLS AND SWITCHES

6.1. Control devices on the platform

The platform's controls and indicators on the control panel may be slightly different in different models. Indicators and switches that are marked as optional are not installed on all models.



- 1. 1st boom control lever
- 2. 2nd boom control lever
- 3. Boom slew control lever
- 4. Telescope boom control lever
- 5. Control lever for the self-levelling of the platform



- 1. Emergency stop
- 2. Mode selection; drive, outrigger operation or boom operation
- 3. Ignition key; stop power on start
- 4. Motor selection, electric or combustion engine
- 5. Drive speed selection
- 6. Outrigger control override
- 7. Emergency lowering, lower boom upper boom
- 8. Choke
- 9. Overload indicator light
- 10. The signal light for the full work range, switches on when the cage load is below 135 kg



6.2. The base's controls and switches

6.2.1 The base's main power switch



Using the main power switch disconnects the power circuit of the battery's positive terminal. Except for the emergency lowering and GPS tracker (optional accessory), low-voltage functions are disabled when the power is switched off. DO NOT switch the power off if the booms are not in the transport position! **The charger functions even when the power is off.**



6.2.2 Controls in the chassis valve casing

- 1. Drive control levers
- 2. Water level
- 3. Hour meter
- 4. Outrigger pressure signal lights, red LED
- 5. 'Lift approved' signal light
- 6. Outrigger control levers



6.2.3 Emergency lowering button at ground level and slewing release



- 1. Emergency lowering, lower boom
- 2. Emergency lowering, upper boom
- 3. Slewing release lever

6.2.4 230 V connections and switches



- 1. 230V 50Hz, 16A connection cable, output either on the side or at the back (electric engine model)
- 2. Residual current device switch. The residual current device switch must be in the ON position to prevent all 230V devices, including sockets, from working. The functioning of the RCD unit, along with power supply from the network, can be tested by pressing the TEST button in the unit. If the RCD unit is not activated by pressing the TEST button, either the RCD unit is faulty or the connection cable does not carry a voltage.
- 3. Battery charger. Two Led indicators indicate the battery level. These indicator lights can be checked through the netting at the front of the machine.

Yellow = battery level low, Yellow + green = battery almost fully charged Green = battery fully charged / trickle charge



6.2.5 Lower control switches (optional)



- 1. Emergency stop
- 2. Ignition; stop power on start
- 3. Selection of the control position; upper control lower control
- 4. Overload warning light
- 5. 1st boom control lever
- 6. 2nd boom control lever
- 7. Boom slew control lever
- 8. Telescope boom control lever

Functioning of the lower control:

- 1. The ignition key on the platform must be turned to the 'power on' position.
- 2. The control mode the platform or the lower controls is selected with the selection switch. The machine can only be controlled from a single control panel at any given time.
- 3. When the lower control panel is selected, the machine can be switched on and off from the ignition on the lower panel.
- 4. Except for the platform self-levelling, the boom can now be controlled with the lower boom control lever.

When the work takes place in an area that is open to the public, the control selection ignition key should be removed to prevent unauthorised use and the machine can only be used from the platform.

NOTE! The emergency stop buttons of the lower control and platform panels function regardless of which control mode is selected.



7. STARTING THE MACHINE

Read this Operator's Manual and the Operator's Manual for the engine carefully before commencing operation. Read the safety instructions in this manual and make sure you understand them before commencing operation. It is the operator's responsibility to understand and follow all operating and safety instructions. An access platform is designed only for the lifting of persons and their equipment; its use for any other purpose is prohibited for reasons of safety. If more than one person uses the machine during a shift, all of them must be qualified to do so and they must comply with the operating and safety instructions and rules.

- 1. Switch on the main power switch.
- 2. If using the electric motor, connect **230** V **16** A cable and check the residual current device. The RCD-unit TEST button can also be used to test the power supply
- 3. Make sure that the booms are down in the transport position. When necessary, press the emergency lowering buttons one at a time.
- 4. Check the functioning of the emergency stop button by twisting it upwards.
- 5. Attach the safety harness to the attachment points and close the gate.
- 6. Select the engine mode with the 'engine selection' switch.
- 7. Set the hand throttle (1) to the $\frac{3}{4}$ position.
- 8. In temperatures below +5°C, use the choke when starting the machine.
- 9. Switch on the engine by turning the ignition key.
- 10. When the machine is running, turn the hand throttle down to the desired drive range



Figure 7. Use of the hand throttle

NOTE! The engine must always be switched off using the ignition key.

NOTE! When you use the machine's electric motor, use an extension cord with a maximum length of 20 m and a minimum wire area of 2.5 mm². Buildings' fixed electrical wiring may have an effect on the functioning of the electric motor.



8. DRIVE

When transferring the platform, pay attention to the following factors:

- 1. Do not exceed maximum inclination for the drive. Make sure the driving surface is solid.
- 2. <u>Secure tools and other materials</u> to prevent them from falling or shifting.
- 3. <u>Wear safety harnesses and keep them fastened</u> whenever operating the machine.
- 4. Manoeuvre the drive levers in a controlled manner.

To drive the machine:

- 1. Switch on the machine and turn the 'mode selection' switch to the drive position.
- 2. Ensure that the drive speed selection is in the correct position. <u>Changing the drive speed</u> while the access platform is moving is prohibited!
- 3. Driving takes place by turning the drive control levers in either direction. Pushing the lefthand side lever forward causes the wheels on the left to turn forward. The wheels spin backwards when the left-hand side lever is pulled back. The right wheels are controlled in a similar manner using the right-hand side lever. The machine is controlled with the skid steer method and the control properties vary depending on terrain, so great care must be taken when starting to drive.

The access platform can only be driven when all the booms are in the transport position!

The machine's transmission system is hydrostatic. The model with wheels is 4-wheel drive, with each wheel having its own hydraulic motor. The access platform equipped with tracks has two hydraulic motors.

When necessary, the access platform can be turned on the spot by pushing one control lever as far as it goes, while pulling the other lever.

Note! Learn how to drive with the machine at a low speed. Operate the drive control levers gently in order to avoid abrupt and jerky movements. When driving, pay special attention to stability and the dimensions, especially the length, of the machine.



8.1. Determining the gradient of the slope

Measure the slope with a digital clinometer, or do as follows: Take a water level, a straight piece of wood (at least 1 m long), and a pocket tape measure.

Place the wood on the gradient. Put the water level on the lower edge of the stick and lift the stick until it is in a horizontal position.

Keep the stick level and measure the distance from the lower end of the stick to the ground. Divide the distance (height) by the length of the wood stick (distance) and multiply the result by 100.

Example: Wood length = 2 m Height = 0.5 m (0.5 / 2) * 100 = 25% slope.



Note! On slopes, drive upwards or downwards. If you have to drive sideways on a slope, lower the downhill side outriggers so that they are close to the ground. This prevents the machine from tipping over.

8.2. **Operating instructions for the model with tracks**

8.2.1 General information on tracks and their service life

An access platform with a skid steer chassis, equipped with a crawler track chassis, offers many advantages compared with a machine on wheels. However, certain things regarding operation and the working environment must be taken into account with an access platform on tracks. In order to achieve the maximum service life for the rubber tracks and crawler track chassis, follow the instructions below.

The lifespan of the track system of an access platform on rubber tracks is heavily dependent on the working environment and working methods. The machine operator can greatly influence the service life of the tracks by complying with instructions for their use and maintenance provided below. If the access platform is being used on terrain with stones or gravel or demolition sites with concrete, or in an environment with scrap metal, the lifespan of the track system may be significantly reduced. Therefore, damage to the tracks, track rollers or crawler track chassis, caused by operation in such environments, is not covered by warranty.



8.2.2 Fixing nuts for the tracks' rear sprocket

It is important to check the tightening of nuts on the rear sprocket (bigger track wheel) 2 days after commissioning the access platform. When driving with a new machine, the parts in the track system adapt to each other and "find their place". Because of this, the nuts may loosen during operation. Loose nuts can cause serious damage to the crawler track chassis. Tighten the tracks' rear sprockets as follows:

- First tighten the nuts to 120 Nm diagonally opposite.
- Finally tighten the nuts to 140 Nm diagonally opposite.
- We recommend inspecting the tightness of the nuts once a week

8.2.3 Instructions related to the operating environment of an access platform with tracks

In order to extend the lifespan of the track system, avoid driving on the following terrains or work sites:

- Environments with crushed stone, iron bars, scrap metal or similar recycling material.
 - Rubber tracks are not designed for such environments.
- Daily/continuous driving on asphalt or concrete.
 - Continuous operation on these surfaces will shorten the lifespan of rubber tracks.
- Work sites with sharp objects, such as broken stones or concrete waste.
 - Sharp objects like these may cut or damage the rubber tracks permanently. Conditions which may damage tyres can also damage rubber tracks. Usually, damaged tracks cannot be repaired, and they must be replaced instead. The warranty does not cover damage to the tracks if it occurs in such conditions.
- Work sites with corrosive substances (fuels, oil, salt or fertilisers).
 - Corrosive substances can oxidise the metal parts in rubber tracks. If such substances come into contact with the surface of the rubber track, the tracks must be rinsed with water immediately after stopping work.

8.2.4 Instructions for operating an access platform with tracks

- Check the tightness of the tracks regularly.
 - \circ Tracks that are too loose may fall off the sprockets. Make sure not to tighten the tracks too much as this results in a loss of power and causes strain on the tracks and the track chassis.
- Change turning direction as often as possible.
 - Turning only in one direction causes uneven wear of the sprocket and the rubber track.
- Check the condition of the track system regularly.
 - $\circ~$ Excessive wear on the rollers, idlers, sprockets and bearings may damage the tracks.
- Avoid driving sideways on a gradient.
 - Always drive with the slopes straight up and down, and only turn on a flat, even surface. Continuous operation on uneven terrains or driving sideways on a gradient causes wear in the track guides and rollers and makes tracks jump off the sprockets.



- Avoid repeated sharp turns.

- By making wider and more gentle turns, you can avoid unnecessary wear of the tracks and/or tracks jumping off the sprockets.
- Avoid driving with one track on a level surface and one track on a gradient.
 - Always drive on an even surface. If the tracks bend continuously from the inside or from the outside during operation, the metal structure of the tracks can break or get worn.



9. OPERATION OF THE OUTRIGGERS

The outriggers are placed in the support position as follows:

- 1. Turn the 'mode selection' switch to the outrigger operation position.
- 2. <u>Ensure that the four red outrigger pressure signal lights are on and that the green light does</u> <u>not light up!</u> If the red outrigger pressure lights are not on, push all the outrigger levers up. The red lights should light up.
- 3. Place all the outriggers down by pushing the control levers. The outriggers may be controlled individually but operating two at a time is recommended. Check that all the outriggers are placed on a solid surface when necessary, use plates for additional support.
- 4. <u>The outriggers must be placed down so that none of the wheels touch the ground!</u> Usually the outriggers should not be driven further unless it is necessary to achieve the correct elevation.
- 5. When all the outriggers are down and the wheels are off the ground, level the platform using the water level. The water level is mounted on top of the base's control casing. <u>The booms may only be lifted once the platform is level!</u>
- 6. When the access platform is level and appropriately supported, the green lifting light switches on and all the red lights switch off the 'mode selection' switch can now be turned to the 'boom operation' position. If the platform is level and supported by the outriggers but one or more red pressure lights remains lit up, press all the outrigger control levers down sharply.

Booms must not be operated without properly deployed outriggers!

NOTE! If the green lifting light switches on even though the outriggers are not appropriately positioned, using the access platform is strictly prohibited! Contact the maintenance service!



10. USE OF THE BOOMS

When you activate the boom operation mode:

- 1. Check to make sure that all the outriggers lie on solid ground, that the platform is level and that the green lifting light is on. If an attempt is made to raise the boom while the signal light is not on, the machine engine switches off and cannot be restarted before the booms have been lowered into the transport position using the emergency lowering function.
- 2. Turn the 'mode selection' switch to the 'boom operation' position.
- 3. Adjust the hand throttle so that it is slightly above idle speed.
- 4. The booms are controlled with the levers of a control valve located on the platform.
- 5. When the '<135 kg' signal light is on, the entire work range can be used. If the light is not on, the working range is restricted in this case, the extension extends outwards for a metre. When the load is below the limit, the <135 kg signal light must light up irrespective of the position of the extension. If the light is not on or is on continuously, the use of the machine must be discontinued and the machine must be inspected. In addition, the Leguan 125M2 machine is equipped with an overload protection system that prevents all boom motions if the load exceeds 200 kg or 135 kg when the extension is extended further than the permitted range. The machine sounds an alarm and the control panel's warning light switches on if the maximum load is exceeded. The boom operation is enabled only when the excess weight is removed and the ignition key is turned to the '0' position (the engine is turned on and off again).</p>

Note! If the <135 kg signal light does not switch on and more than 30 cm of the green bar on top of the extension is visible, the use of the machine must be stopped immediately and the maintenance service must be contacted. THERE IS A SERIOUS RISK OF IT TIPPING OVER!

Thanks to the fully hydraulic controls, the boom movements are very smooth, exact and stepless. Operate the control levers with ease and without hesitation – learn to operate the booms precisely.

The platform self-levelling system keeps the bottom of the platform level automatically. NOTE! If the level position of the platform must be adjusted – for instance in case the machine has not been used for a long time and the platform has tilted – operate the control lever for platform self-levelling carefully, especially when the booms are up.

Note! Always lift the lower booms from transport support first before operating other movements. When lowering the booms, make sure to drive them straight down to the transport supports.



11. EMERGENCY LOWERING AND EMERGENCY USE

11.1. Electric lower controls

If the operating power supply cuts off (fuel running out, power cut or damage to the extension cord), the booms can be lowered as follows:

- Emergency lowering switches are located on the platform control panel and in the control system connection box. <u>When the emergency lowering button is pressed down</u>, the selected boom moves downwards slowly for as long as the button is pressed. The emergency lowering system is connected to the battery, so it functions independently of the main power switch. Emergency lowering valves are protected with a 10 A fuse, located in the connection box on the side at ground level.
- 2. Before lowering the booms down, ensure that they will be placed on the transport supports. When necessary, the booms can be rotated by opening the faucet of the slewing cylinder referred to in Section 6.2.3 and by pushing the booms into the desired position. To do this, switch off the power.

Check the functioning of emergency lowering before commencing operation.

11.2. Outrigger control override

For possible emergency situations, this access platform is equipped with an outrigger monitoring override button (the platform control panel), which allows the user to operate booms even when the outriggers are not deployed properly. This function can be used, for example, in a situation where the platform has tilted backwards during extended storage.

The override button must only be used under extreme circumstances!

The use of the override button from the platform's control panel:

- Loosen the locking screw of the override button's lid
- Switch to drive mode
- Start the combustion or electric motor
- Press the white override button down and keep it depressed.
- Carry out the required boom movements.
- Release the white override button and stop the motor.
- Close the lid and tighten the locking screw.

NOTE! If the booms are not in the transport position, the engine switches off and will not restart before the booms have been placed on the transport supports.



12. STOPPING OPERATION

After concluding operation:

- 1. Lower the booms down to transport position.
- 2. Lift the outriggers completely up to transport position.
- 3. Turn the ignition key to the '0' position and take it with you.
- 4. Remove safety harnesses from the platform and take them with you (harnesses must be kept in their place and in their box/package).
- 5. Turn the main ignition key to the horizontal position and take it with you.
- 6. Close the fuel faucet (see the engine manufacturer's manual).
- 7. If the machine stays in a place where it can be connected to a 230VAC mains current, it is recommended to leave it connected to charge the battery (e.g., overnight). The battery charges even when the main power switch is engaged.

NOTE! Prevent unauthorised use of the access platform!



13. TRANSPORT OF THE ACCESS PLATFORM

The chassis and outriggers are equipped with lifting and binding points which are indicated with symbols. The machine may only be secured for transport from these binding points. The machine must always be lifted from the designated lifting points. When lifting, it is advisable to use a lifting beam in order to prevent the outriggers from getting damaged.



Figure 10. Lifting point

Figure 9. Binding point

Before transport, the booms are placed on the transport supports and the outriggers are raised.

NOTE! This access platform may only be transported in its transport position. No persons or materials are allowed to be transported on the platform.

- 1. Lifting point
- 2. Binding point



Figure 11. Lifting and binding points



There is an automatic hydraulic brake in the rear axle that engages automatically when the combustion engine/electric motor is not running.

If the machine is transported on a trailer, a lorry or a similar vehicle, it must be secured carefully. There are four binding points marked on the corners of the chassis which make it easy to secure the machine. Always secure the machine diagonally from each corner.



NOTE! The machine must not be secured so that the ropes go over the booms. Only the marked binding points can be used!

NOTE! Shut off the fuel faucet of the combustion engine for longer transport to prevent motor oil and petrol from becoming mixed and causing problems in the running of the motor.

14. INSTRUCTIONS FOR SERVICE, MAINTENANCE AND INSPECTIONS

This access platform must be inspected once a year. The inspection can only be performed by a <u>qualified person</u>. Persons who conduct the periodical services must familiarise themselves with the operation and technical features of this access platform before performing any service operations. All service and maintenance operations must be carried out in accordance with the instructions in this manual. If the access platform has not been used for a long time, the oil levels must be checked and the machine's functioning must be inspected before the next use.

14.1. General instructions

- Making structural changes to the machine without written permission from the manufacturer is strictly prohibited.
- All defects that may have an effect on the safe use of this machine must be repaired before commencing operation.
- Inappropriate handling of protected parts causes a risk of serious injury. Only professional maintenance personnel may open the covers.
- Make sure that maintenance is performed in accordance with this Operator's Manual and the engine manufacturer's Service Manual.
- Stop the engine before starting any service or inspection operation, ALSO, DISCONNECT THE 230 VAC PLUG!
- Do not smoke during service and inspection operations.
- Keep the machine, and particularly the platform, clean.
- Ensure that the instructions for use are complete and legible and that they are available in the platform's storage box.
- Make sure that all labels are in place and readable.

NOTE! All spare parts – especially electric components and sensors – must be original Leguan parts.

14.1.1 Battery handling

When handling the battery, bear in mind that:

- The battery contains corrosive sulfuric acid handle the battery with care! When handling the battery, wear protective clothing and eyewear.
- Avoid contact with clothes or skin; if electrolyte gets on your skin or clothes, flush it with a large quantity of water.
- In case of contact with eyes, flush with a lot of water for at least 15 minutes and seek medical assistance immediately.
- Do not touch the battery terminals or cables with tools that may cause spark emissions.
- In order to avoid spark emissions, always disconnect the (-) cable first and connect it last.



14.1.2 Handling of fuel and oil products

When handling fuel and oil products, bear in mind:

- Do not let any oil leak on the ground.
- Use oil qualities recommended by the manufacturer. Do not mix different oil types and/or brands with one another.
- When handling oil, always wear appropriate protective equipment.
- Before refuelling, always stop the combustion engine / electric motor and disconnect from mains current.
- Only use fuels recommended by the engine manufacturer. Do not mix any additives with the fuel.
- If fuel or oil gets into the eyes, mouth or open wound, clean it immediately with a lot of water or designated fluid and call a doctor.

Check hydraulic hoses and components only when the engine is stopped and with pressure released from the hydraulic system. Do not operate the machine if you have noticed faults or leaks in the hydraulic system. Ejection of hydraulic fluid can cause burns or penetrate the skin and cause serious injuries. Consult a doctor immediately if hydraulic fluid penetrates your skin. Wash any body part that has come in contact with hydraulic oil carefully with water and soap. Hydraulic oil is also harmful to the environment – prevent oil leakages. Only use hydraulic oil types approved by the manufacturer.



Never handle pressurised hydraulic components, because in case of failure on a fitting or component, a spray of high pressure hydraulic fluid can cause the machine to tip over and result in serious injuries. Do not operate the machine if you have noticed a fault in the hydraulic system.

Check hydraulic hoses for any cracks and wear. Monitor the hoses for wear and stop operation if the outer layer of any hose has worn out. Check routing of the hoses, adjust the hose clamps if necessary in order to prevent chafing. The hose's expiry date is marked on it. After this date, the component must be replaced. If any signs of a leak are observed, place a piece of cardboard underneath the suspected component to determine the source.

If you find a fault, operation of the access platform must be stopped immediately and the hose or the component must be replaced. Contact the Leguan service.



14.2. Maintenance and inspections, service schedule

Regarding the service of the engine, also see the engine manufacturer's Operator's Manual. EM = engine manual

CH = check CL = clean	R	= repl	ace A	= adjust	$\mathbf{F} = \mathbf{first}$	service after 50	h
Measure		day	month	100 h	200 h / 12 months	400 h / 24 months	1,000 h
Engine oil, EO	FR	CH		R			
Air filter			CH/CL		R		
Fuel sediment bowl			CH/CL				
Spark plug, EM				CH	R		
Valve clearance, EM							CH
Fuel tank and filter strainer						CL	
Fastening of the platform	FCH	CH					
Hydraulic oil					R		
Hydraulic oil level	FCH			CH			
Hydraulic oil suction filter							CL
Hydraulic oil filters	FR				R		
Battery water			СН				
Locking of bearings and pivot pins	FCH		СН				
Electrical wires					CH		
Hydraulic fittings and hoses	FCH	CH					
Cylinders, load holding- and check valves	FCH	СН					
Functioning of emergency lowering	FCH	СН					
Function of emergency stop circuit	FCH	CH					
Functioning of set up system	FCH	CH					
Pressure adjustments	FCH				СН		
Functioning of control valves	FCH	CH					
Mounting of booms on the chassis					СН		
Condition of steel structures			CH				
Movement speeds of the booms	FCH		CH		А		
Greasing			R				
Functioning of load monitoring	FCH			CH	A		
Position of the water level	FCH		СН				

Hydraulic oil: Recommended oil: Hydraulic system oil volume: Engine oil: Grease:

Pressure settings of hydraulic system:

ISO VG 32

FUCHS HYDRAULIC OIL 131 HP Oil tank 35 l, complete system 55 l See engine manufacturer's manual Lithium NLGI 2 grease (not MoS2),

main pressure 275 bar outriggers 200 bar, booms 200 bar



The wear pads on the telescopic boom must be checked and, when necessary, replaced at least every 5 years.

The abovementioned service intervals are recommendations. If the operating conditions are challenging and/or the machine is in heavy duty use, the service and change intervals must be shortened.

15. SERVICE INSTRUCTIONS

15.1. Greasing

Greasing of the machine is of utmost importance to prevent wear in joints. Most of the joints are service free - however the slewing bearings must be greased in accordance with the maintenance schedule, using grease that contains EP (extreme pressure) additive. Outrigger bearings and articulation bearings in all hydraulic cylinders must be greased in accordance with the maintenance schedule.

15.2. Handling of fuel and refuelling



Check the fuel level and refuel if necessary (1). Before refuelling, check whether the engine runs on petrol or diesel.

Petrol specified by the manufacturer in its manual must be used in a machine with a petrol engine.

NOTE! To switch on the engine, the ignition (2) must be in position 1!

15.3. Hydraulic oil and hydraulic oil filter replacement



The hydraulic return oil filter is located on top of the hydraulic oil tank (1) on the chassis. Replace the filter by removing the filter cap and replacing the filter cartridge. When replacing the hydraulic oil, the oil can be removed with a suction pump from the opening of the breather cap (2), or by opening the drain plug. In both cases, it is important to clean the magnetic drain plug.

The hydraulic pressure filter cartridge (3) must always be changed when the return filter is changed.

15.4. Hydraulic oil level

The level of hydraulic oil can be checked with the dipstick in the filler cap (2). The oil level should be at the upper mark in the dipstick when the booms are positioned on the transport supports and the outriggers are in the transport position. The oil level can also be inspected via an oil inspection hole on the side of the machine.



15.5. Battery check

Inspection of the battery (4) liquid level and terminals. In order to secure the activation process and safe operation, the battery must be inspected regularly. The battery liquid levels are checked by loosening the caps. Also inspect the battery terminals and clean them when necessary.

NOTE! Clean the battery before loosening the caps to prevent dirt from entering the battery cells.

15.6. Functioning of set up system /

<u>Check set-up control before operating the access platform</u>. If the red signal lights do not light up, briefly, raise the outriggers' control valve levers. If all the red lights light up and the green light does not, then the set-up control will function appropriately.

NOTE! If the set-up control does not function as described above, contact the maintenance service and do not use the access platform before the flaw has been rectified.

15.7. Inspection of the water level A

Correct position of the water level (on top of the control valve box at ground level) in relation to the upper surface of the slewing ring must be checked in accordance with the maintenance schedule, or if there is reason to believe that the position of the water level has changed.

Make sure that the booms are in the transport position and put a water level on the slewing ring. Compare the position of this water level to the position of the water level on the control valve box. If the positions are different, adjust the water level on the valve box with the adjustment screws so that both levels are in the same position. Perform the adjustment both lengthwise and sideways.



15.8. Hydraulic system settings

The hydraulic system has been adjusted to correct values at the factory and usually there is no need to adjust them. The figure shows the chassis valve housing opened.



- 1. Hydraulic pressure measurement fixture. All the machine hydraulic pressures are measured via this fixture.
- 2. Drive valve, solenoid K98B (outriggers)
- 3. Drive valve, main pressure adjustment 275 bar
- 4. Lower control selection valve K11S (optional, lower control)
- 5. Drive valve, solenoid K98A (booms)
- 6. Tank segment, boom pressure electric solenoid K9
- 7. Outrigger pressure switch PS5
- 8. The outrigger pressure switches are PS1-PS4. The pressure is adjusted from a screw located between connectors. The setting is 45 bar.

The main hydraulic pressure is adjusted from the drive valve pressure boundary, part 3 in the picture. When necessary, the outrigger pressure is adjusted from the pressure boundary of the outrigger valve. The boom pressure is adjusted from the boom valve located on the platform.



All boom cylinders (except the slave cylinder) are equipped with load control valves (1) which prevent boom movements in case of, e.g., a hydraulic hose failure.

When the boom emergency lowering is used, the electric solenoid (2) located in the cylinder's hydraulic segment engages, oil flows into the tank and the booms move downwards. The emergency lowering speed is restricted with a fixed choke mounted on the cylinder.

Load relief valves (3) located at the end of the telescopic cylinder valve and the electric valve K7 (4) that restricts cylinder impact.



15.9. Overload protection components

Overload control has been set to the correct values at the factory and it is strictly forbidden to change its settings. THERE IS A RISK OF THE ACCESS PLATFORM TIPPING OVER!



The overload control mechanism is located between the working platform and the platform support and can be viewed by opening the protective cover located in the cage. The platform is supported on a spring between limit switches, which cut the current when the load is too large.

The measurement of the load is duplicated via the internal duplication of limit switches S17 (1) and S18 (2).

The limit switch S17 is activated when the platform load exceeds 135 kg. When the limit switch is activated, the signal light (3) that indicates a platform load of less than 135 kg is switched off and the telescope boom's reach is restricted. If the limit is engaged while the limit switches at either ends of the telescopic boom reach are engaged, an overload alarm is sounded and an alarm light (4) switches on and all boom movements are prevented. The overload state can be deactivated by switching off the machine and removing the excess load before restarting the access platform.

The limit switch S18 is activated when the cage load exceeds 200 kg. The limit switch monitors the access platform's safe working load. If the limit switch is activated, an overload warning is given.

If the maximum platform load is exceeded, irrespective of the boom position, the access platform activates an alarm and the engine switches off. In either case, an alarm is sounded on both control locations and a red alarm light flashes.



NOTE! If the 135 kg signal light does not switch on when the access platform is in the boom drive mode and the green 'lift approved' light is on when the platform is empty and switches off when the load clearly exceeds 135 kg, the use of the machine must be stopped and the maintenance service must be contacted.



15.10. Electric sensors



The transport position sensor S8 (1) is located between the combustion engine and the chassis. The plastic protection of the boom's transport support must be adjusted in such a manner as to offer sufficient support without placing too much strain on the booms.



The limit switches that monitor telescopic boom impact are mounted at the end of the upper boom. The primary limit switch S16 (1) stops the telescopic boom when the detection rail turns the sensor stem if the load exceeds 135 kg.

In case the motion is not stopped for some reason, limit switch S19 (2) acts as a back-up system and causes an overload alarm, switches off the engine and stops all boom movements.

The connection box of the telescope boom's limit switches (3).



15.11. Inspection of the track tightness and adjustment

The tightness of the track is inspected and adjusted with the access platform raised on the outriggers. The tracks must be inspected for the first time and adjusted, if necessary, after one hour of use. After this initial inspection, the tracks should be checked and adjusted once a week. At the same time, the sprocket bolts and nuts should be inspected to ensure that they have not loosened. Take steps to keep the tracks appropriately tight. This has direct impact on wear and tear of the track chassis and helps to ensure that the tracks do not come off the sprockets.





To inspect the tightness of the tracks:

- Raise the access platform off the ground using the outriggers.
 - Drive the tracks back and forth slightly. Check that the tracks are tight:
 - **Method 1:** Check the gap between the track and the support skid, see Section 1 in the picture above. The distance should be between 10 and 30 mm. If the gap exceeds 30 mm, tighten the tracks.
 - **Method 2:** Check to make sure that the front-end plate 4 of the track chassis tightener can move freely. The end plate is located at the front of the track chassis behind the front sprocket. If the plate moves freely, the adjustment is correct. If the plate does not move easily, the track must be tightened.

15.11.1 Adjustment of the tightness of the track

Adjustment of the track:

- The adjustment of the tightness of the track begins with the loosening of locking screw 2.
- After this, tighten the tracks using tightening screw 3 until the gap between the pulley and the track is about 10 mm or until front end plate 4 feels loose.
- Finally, tighten locking screw 2. The key gap between the tightening and locking screw is 36 mm.
- The nut in the end plate must not be adjusted in connection with the tightening of the track.



16. REPAIR INSTRUCTIONS

16.1. Welding

All load-carrying steel parts are manufactured from S420MC EN10149 sheet and S420MH/S355J2H EN10219 tubular pipe.



Welding repairs may only be carried out by professional welders. When welding, use only methods and additives suited for the abovementioned steel qualities.

SFS EN-ISO 5817 quality level D is suitable for all welding, except for load-bearing parts. Load-bearing structures may only be welded with consent from the manufacturer. If you are at all uncertain about whether the damage can be repaired by welding, contact the manufacturer.

Note! The structure of this access platform may not be altered without written permission from the manufacturer.



17. INSTRUCTIONS FOR TEMPORARY STORAGE

- The cable of the + pole of the battery should be disconnected, if the access platform is being stored for a period longer than one month. The access platform must be protected and stored in an indoor storage facility or other covered space that cannot be accessed by unauthorised persons (a locked space)
- Make sure that chemical leaks during storage will not cause environmental harm, such as problems related to wastewater.

Note! Also see the engine manufacturer's instructions about storage of the engine.

18. TROUBLESHOOTING

The following table shows failures and malfunctions of the access platform and the ways to repair them.

ISSUE	CAUSE	CORRECTIVE ACTION
The motor does not start when	When the work begins, the	Place the booms on the transport
the start lever is pulled	booms do not rest on the	supports using the emergency
	transport supports and the	lowering function. Select the
combustion engine or electric	outrigger monitoring function is	drive mode and start the engine.
motor	not on.	
the motor does not start when the START lever is pulled (also see the engine manufacturer's manual).	The main power switch is in the 'OFF' position. The engine's ignition key is in the 'OFF' position. The engine selection switch located on the platform's control panel is in the wrong position. The emergency stop switch is turned down. The motor is too cold. The fuel faucet is closed. The fuel tank is empty.	Turn the switch on. Switch the ignition key switch to 'ON'. Turn it to the right position. Release the emergency stop switch by turning it. Use the choke. Open the fuel faucet (petrol engine). Refill. Charge the battery by connecting
	Empty start battery.	the 230 V plug.
	The combustion engine fuse (inside the ignition) has blown. The fuse inside the machine's electric centre has blown. Fuses at the other end of the strip connection rail.	Replace the fuse (also see the engine manual). Replace the fuse.
The motor does not start when	Connection flaw in the wiring.	Use a meter to check voltages,
the START lever is pulled (see also the engine manual).	Faulty START switch.	wires and connections. Replace the switch.



ISSUE	CAUSE	CORRECTIVE ACTION
The electric motor does not start	Mains cable is not connected to	Connect the plug to the
when the start lever is pulled.	network.	230V/16A output.
	The engine selection switch located on the platform's control panel is in the wrong position.	Turn the switch to the right position.
	The emergency stop switch is turned down.	Release the emergency stop by turning it.
	The main power switch is in the 'OFF' position.	Turn the switch on.
	Empty battery.	Charge the battery by connecting the 230 V plug.
	The fuse inside the machine's electric centre has blown. Fuses at the other end of strip connection rail.	Replace the fuse, and if the problem reoccurs, investigate the reason.
The electric motor stops suddenly during operation.	Power failure.	Lower the booms by using the emergency lowering. Check that there is current in the mains.
	The emergency stop button was pressed accidentally.	Release all emergency stop buttons.
	Electric motor thermal overload relay (F1) in the connection box has gone off.	Wait for approx. 2 min. and start the motor – the relay will return to the 'ON' position automatically.
	Connection fault in mains or	Check the voltage and wining
Movements do not work even though the combustion engine / electric motor is running.	The function selection switch is in the wrong position.	Select the correct function.
	Failure in the hydraulic system – e.g., hydraulic pump broken.	Check hydraulic pressure. If there is no pressure, check the functioning of the hydraulic pump safety valve.
	Overload on the platform.	Remove the excess load.
The combustion engine / electric motor stops when the booms are lifted from the transport support.	Outriggers are not correctly positioned in the support position – the green indicator lamp is not lit.	Lower the booms down to transport supports with emergency lowering, restart the combustion engine / electric motor and deploy the outriggers properly



ISSUE	CAUSE	CORRECTIVE ACTION
The boom comes down on its	Dirt in the load control valve or	Clean valve with compressed
own.	a defective valve	air, and if that does not help,
		change the valve.
		Clean valve with compressed
	Dirt in the emergency lowering	air, and if that does not help,
	valve or a defective valve	change the valve.
The boom comes down on its		.
own.	The encourse and largering veloce	Inspect the emergency lowering
	does not react to the control	abask whether the amorgonov
	button	lowering valve has come loose
		lowering valve has come loose.
		Change the cylinder seals.
	Lift cylinder seals are faulty.	5 7
Outrigger gives way.	Make sure that the ground does	Put extra support plates under
	not give way.	the outriggers or move the
		machine to another place
	Air in the outrigger cylinder(s).	
		Drive outriggers up and down a
		couple of times.
	Dirt in the load check valve.	
		Clean the valve with compressed
	Faulty load check valve.	
	Faulty outrigger cylinder seals	Change the valve
		Change the cylinder seals.
The platform tilts backwards by	Air in the hydraulic system.	Start the combustion engine /
itself when the booms are down		electric motor, drive the
on the transport supports.		platform to the extreme end
		positions. If this doesn't help, do
		the air bleeding of the platform
	Dirt in the load control valve or	self-levelling system (the self-
	a defective valve.	levelling cylinders are equipped
		with bleeding screws)
	Cylinder seals faulty	Clean the valve with compressed
	Cymuci scais faulty.	air if that does not help, change
		the valve.
		Change the cylinder seals.
		•

19. PERFORMED SERVICE

It is advisable to write down all service operations that are included in the periodical service. All services that have been performed during the warranty period must be noted on the list below, otherwise the manufacturer's warranty will not be valid. The service operations mentioned in the maintenance schedule on page 24 must be recorded as follows: FIRST SERVICE, 1 MONTH SERVICE, 6 MONTH SERVICE, ETC.

	date	operating hours	auth	nor	information	
1.						
2.						
3.						
4.						
5.						
6.		. <u> </u>				
7.						
8.						
9.						
1()	- <u></u>				
1	1					
12	2					
11	3					
14	1					

