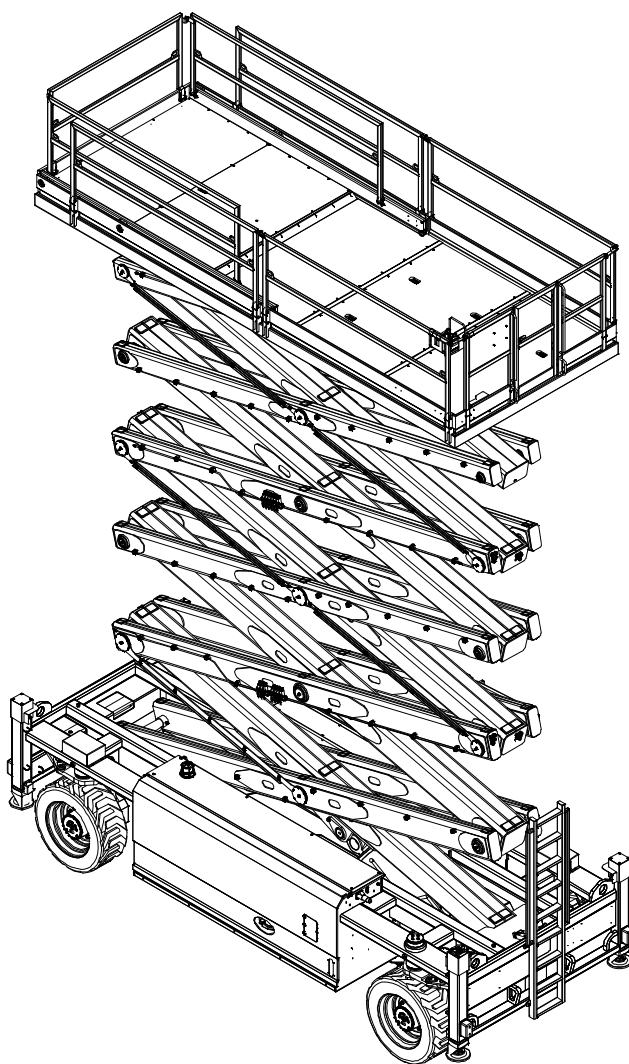


Operator's Manual

with Maintenance Information

SL2625-HRT
SL3025-HRT

From SN JPH0025A00017



Part Number: SM012410325
Version Number: Rev1.0
February 2025 Printing

Version of the Record

Version of the Record

Version Number

Create Date

SM012410325_Rev1.0 2025-02

Introduction

Important

Read, understand and obey these safety rules and operating instructions before operating this machine.

Only trained and authorized personnel shall be permitted to operate this machine. This manual should be considered a permanent part of your machine and should remain with the machine at all times. If you have any questions, please call DINGLI Machinery.

Identification of the Manual

The identification code of the Manual is shown on the cover; it is advisable to note this down in the Inspection Register.

If the Manual is lost, to request a new Manual, mention the code on the cover or the manufacturing number of the machine.

It is advisable to mention the machine manufacturing number on the cover in such a way as to clearly identify the Manual with the machine.

The manual and certificates are placed in the platform manual storage container.

Owners, Users and operators:

We appreciate your choice of our machine for your application. Our number one priority is user safety, which is best achieved by our joint efforts. We feel that you make a major contribution to safety if you, as the equipment users and operators:

- 1 Comply with employer, job site and governmental rules.
- 2 Read, understand and follow the instructions in this and other manuals supplied with this machine.
- 3 Use good safe work practices in a commonsense way.
- 4 Only have trained / certified operators, directed by informed and knowledgeable supervision, running the machine.

If there is anything in this manual that is not clear or which you believe should be added, please contact us.

Introduction

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Safety Rules



Danger

Failure to obey the instructions and safety rules in this manual will result in death or serious injury.

Do Not Operate Unless:

- ☒ You learn and practice the principles of safe machine operation contained in this operator's manual.
 - 1 Avoid hazardous situations.**
 - Know and understand the safety rules before going on to the next section.**
 - 2 Always perform a pre-operation inspection.
 - 3 Always perform function tests prior to use.
 - 4 Inspect the workplace.
 - 5 Only use the machine as it was intended.
- ☒ You read, understand and obey the manufacturer's instructions and safety rules — operator's manual and machine decals.
- ☒ You read, understand and obey employer's safety rules and worksite regulations.
- ☒ You read, understand and obey all applicable governmental regulations.
- ☒ You are properly trained to safely operate the machine.

Hazard Classification

DINGLI product decals use symbols, color coding and signal words to identify the following:



Safety alert symbol — used to alert personnel to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

⚠ DANGER

Red — used to indicate the presence of an imminently hazardous situation which, if not avoided, will result in death or serious injury.

⚠ WARNING

Orange — used to indicate the presence of a potentially hazardous situation which, if not avoided, could result in death or serious injury.

⚠ CAUTION

Yellow with safety alert symbol — used to indicate the presence of a potentially hazardous situation which, if not avoided, may cause minor or moderate injury.

NOTICE

Blue without safety alert symbol — used to indicate the presence of a potentially hazardous situation which, if not avoided, may result in property damage.

Safety Rules

The relevant conditions of using the equipment

The surface of work ground should be flat and hard with no obstacles in air and the safety distance between the equipment and high-tension line is adequate.

The environment temperature should be within $-20^{\circ}\text{C}\sim 40^{\circ}\text{C}$; Height above sea level $\leq 1000\text{m}$.

The environment humidity $\leq 90\%$.

Work cycle

The life of designed work cycle is no more than 40000 times.

Intended Use

This machine is intended to be used only to lift personnel, along with their tools and materials to an aerial work site.

Never use in the conditions outside design without approval of Dingli.

Safety Sign Maintenance

Replace any missing or damaged safety signs. Keep operator safety in mind at all times. Use mild soap and water to clean safety signs. Do not use solvent-based cleaners because they may damage the safety sign material.

Operator

Only the trained and qualified are permitted to operate this machine. Always use safety belt and helmet when aerially working.

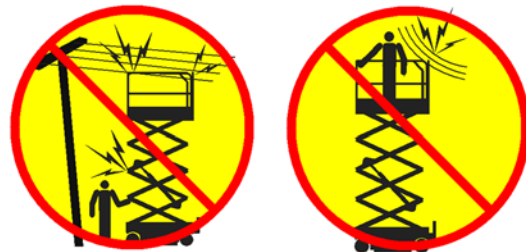
If you are subject to dizziness or seizures, or are bothered by heights, you must not operate

this type of machinery.

An operator must not use drugs or alcohol that can change his/her alertness or coordination. An operator on prescription or over-the-counter drugs needs medical advice on whether or not he/she can safely operate machines.

⚠ Electrocuting Hazard

This machine is not electrically insulated and will not provide protection from contact with or proximity to electrical current.



Maintain safe distances from electrical power lines and apparatus in accordance with applicable governmental regulations and the following chart.

Voltage Phase to Phase	Minimum Safe Approach Distance Meters
0 to 300V	Avoid Contact
300V to 50kV	3.05
50kV to 200kV	4.60
200kV to 350kV	6.10
350kV to 500kV	7.62
500kV to 750kV	10.67
750kV to 1000kV	13.72

Allow for platform movement, electrical line sway or sag and beware of strong or gusty winds.

Safety Rules

Keep away from the machine if it contacts energized power lines. Personnel on the ground or in the platform must not touch or operate the machine until energized power lines are shut off.

Do not operate the machine during lightning or storms.

Do not use the machine as a ground for welding.

▲ Tip-over Hazard

Occupants, equipment and materials must not exceed the maximum platform capacity or the maximum capacity of the platform extension.

Do not overload the work platform

Maximum capacity – SL2625-HRT

Maximum occupants	4
Platform allowable maximum load	1000kg

Maximum capacity – SL3025-HRT

Maximum occupants	4
Platform allowable maximum load	1000kg

Work Area Safety

Do not raise the platform unless the machine is on a firm, level surface.

Do not drive over maximum speed with the platform raised. Refer to specifications.



Do not depend on the tilt alarm as a level indicator. The tilt alarm sounds on the chassis

and in the platform when the machine is on a slope.

If the tilt alarm sounds:

Lower the platform. Move the machine to a firm, level surface. If the tilt alarm sounds when the platform is raised, use extreme caution to lower the platform.

For outdoor use machine, Do not raise the platform when wind speeds may exceed 12.5 m/s. If wind speeds exceed 12.5 m/s when the platform is raised, lower the platform and do not continue to operate the machine.

Do not operate the machine in strong or gusty winds. Do not increase the surface area of the platform or the load. Increasing the area exposed to the wind will decrease machine stability.



Do not use the platform controls to free a platform that is caught, snagged or otherwise prevented from normal motion by an adjacent structure. All personnel must be removed from the platform before attempting to free the platform using the ground controls.

Use extreme care and slow speeds while driving the machine in the stowed position across uneven terrain, debris, unstable or slippery surfaces and near holes and drop-offs.

Do not drive the machine on or near uneven terrain, unstable surfaces or other hazardous conditions with the platform raised.

Safety Rules

Do not push off or pull toward any object outside of the platform.



Maximum allowable manual force

Model	Application	Manual force	Maximum occupants
SL2625-HRT	Outdoor	400N	4
	Indoor	400N	4
SL3025-HRT	Outdoor	400N	4
	Indoor	400N	4

Never alter the MEWP without Dingli's written approval.

Do not use the machine as a crane.

Do not place or attach fixed or overhanging loads to any part of this machine.

Do not push the machine or other objects with the platform.

Do not contact adjacent structures with the platform.

Do not alter or disable the limit switches.

Do not tie the platform to adjacent structures.

Do not place loads outside the platform perimeter.



Do not alter or disable machine components

that in any way affect safety and stability.

Do not replace items critical to machine stability with items of different weight or specification.

Do not modify or alter an aerial work platform without prior written permission from the manufacturer. Mounting attachments for holding tools or other materials onto the platform, toe boards or guard rail system can increase the weight in the platform and the surface area of the platform or the load.

Do not place ladders or scaffolds in the platform or against any part of this machine.

Do not transport tools and materials unless they are evenly distributed and can be safely handled by person(s) in the platform.

Do not use the machine on a moving or mobile surface or vehicle.

Be sure all tires are in good condition, air-filled tires are properly inflated and lug nuts are properly tightened.

▲ Crushing Hazard

Keep hands and limbs out of scissors.

Keep hands clear when turning over rails.

Use common sense and planning when operating the machine with the controller from the ground. Maintain safe distances between the operator, the machine and fixed objects.

Maintain a firm grasp on the platform rail when removing the rail pins. Do not allow the platform guard rails to fall.

▲ Operation on Slopes Hazard

Do not drive the machine on a slope that exceeds the slope and side slope rating of the machine.

Slope rating applies to machines only in the stowed position.

Safety Rules

Model	Maximum slope rating stowed position	Maximum side slope rating stowed position
SL2625-HRT	30% (17°)	30% (17°)
SL3025-HRT	30% (17°)	30% (17°)

Note: Slope rating is subject to ground conditions and adequate traction.

▲ Fall Hazard

The guard rail system provides fall protection. If occupant(s) of the platform are required to wear personal fall protection equipment (PFPE) due to job site or employer rules, PFPE equipment and its use shall be in accordance with the PFPE manufacturer's instructions and applicable governmental requirements.



Do not sit, stand or climb on the platform guard rails. Maintain a firm footing on the platform floor at all times.



Do not climb down from the platform when raised.

Keep the platform floor clear of debris.

Close the entry gate before operating.

Do not operate the machine unless the guard rails are properly installed and the entry is secured for operation.

Do not enter or exit the platform unless the machine is in the stowed position.

Do not get on and off the work platform when elevated.

Be careful when traveling.

▲ Collision Hazard



Be aware of limited sight distance and blind spots when driving or operating.

Be aware of extended platform position(s) when moving the machine.

Check the work area for overhead obstructions or other possible hazards.



Be aware of crushing hazards when grasping the platform guard rail.

Operators must comply with employer, job site and governmental rules regarding use of personal protective equipment.

Observe and use color-coded direction arrows on the platform controls and platform decal plate for drive and steer functions.

Do not operate a machine in the path of any crane or moving overhead machinery unless the controls of the crane have been locked out and/or precautions have been taken to prevent any potential collision.

No stunt driving or horseplay while operating a machine.

Do not lower the platform unless the area below is clear of personnel and obstructions.

Safety Rules



Limit travel speed according to the condition of the ground surface, congestion, slope, location of personnel, and any other factors which may cause collision.

▲ Component Damage Hazard

Do not use any battery or charger greater than 80V to charge the battery.

Do not use any battery or charger greater than 12V to jump-start the Engine.

Do not use the machine as a ground for welding.

Do not replace or modify the recharge plug (if equipped) and other electric connectors without written authorization from Dingli

Do not have spare parts that affect health and safety.

▲ Explosion and Fire Hazard

Do not refuel the machine with the Engine running.

Refuel the machine and charge the battery only in an open, well-ventilated area away from sparks, flames and lighted tobacco.

Do not operate the machine in hazardous locations or locations where potentially flammable or explosive gases or particles may be present.

Do not spray ether into Engines equipped with glow plugs.

It is forbidden to store anything in the cabin, which would result in high temperature spontaneous combustion or short circuit, and then fire as a disaster.

▲ Damaged Machine Hazard

Do not use a damaged or malfunctioning machine.

Conduct a thorough pre-operation inspection of the machine and test all functions before each work shift. Immediately tag and remove from service a damaged or malfunctioning machine.

Be sure all maintenance has been performed as specified in this manual. Be sure all decals are in place and legible.

Be sure the operator's manual is complete, legible and in the storage container located in the platform.

▲ Modification to the intended use

In the event of any special working methods or conditions which are outside those specified by the "intended use", you shall obtain the guidance and approval of the manufacturer.

▲ National traffic regulations

This platform meets the requirements of the EN280 Standard. It can be used on public roads to carry out work at heights. During use, the work area of the platform must be delimited by appropriate signs. Security rules must follow the legislation of the country in which the platform operates. The platform cannot circulate on public roads as it is not

Safety Rules

approved for road traffic. To move the platform from one work site to another on public roads, the platform must be transported on special vehicles. The platform work area must be authorized by the national road traffic authorities.

⚠ Bodily Injury Hazard

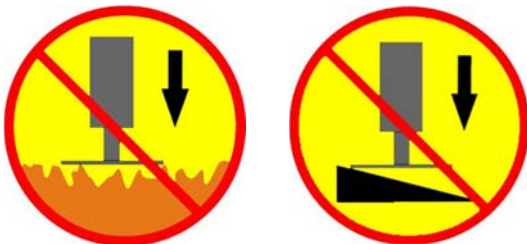
Always operate the machine in a well-ventilated area to avoid carbon monoxide poisoning.

Do not operate the machine with a hydraulic oil or air leak. An air leak or hydraulic leak can penetrate and/or burn skin.

Improper contact with components under any cover will cause serious injury. Only trained maintenance personnel should access compartments. Access by the operator is only advised when performing a pre-operation inspection. All compartments must remain closed and secured during operation.

⚠ Outrigger Safety

Do not lower the outriggers unless the machine is on a firm surface. If the ground does not meet the requirements specified of the relevant regulations, sufficient ground preparation shall be carried out in advance to confirm its safety before operation. Avoid drop-offs, holes, unstable or slippery surfaces and other possible hazardous conditions.



In case of special (soft or inclined) ground, the

wood or steel pad suitable for the ground must be used under the support plate, and it must be firm and not cave in during the operation.

When using the backing plate, the backing plate must be of a solid structure that can fully withstand the pressure of the supporting leg. If the steel plate is set under the support plate, it should be used with small deformation.

When the auto level function is not being used and the outriggers are being lowered individually, the steer-end outriggers must be lowered first.

Do not raise the platform unless the machine is level. Do not set the machine up on a surface where it cannot be leveled using only the outriggers.

Do not raise the platform unless all four outriggers are properly lowered, the footpads are in firm contact with the ground and the machine is level.

Do not adjust the outriggers while the platform is raised.

Do not drive while the outriggers are lowered.

⚠ Battery Safety

⚠ Burn Hazard



Batteries contain acid. Always wear protective clothing and eye wear when working with batteries.

Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.

Safety Rules

Rinse eyes or skin splashed with acid using plenty of clean water and consult a doctor immediately. Wash clothing contaminated with acid with plenty of water.

If the lithium battery local fire, can be buried in sand, such as hot gas, it needs a lot of water foam to cool treatment.

⚠ Explosion Hazard



Keep sparks, flames and lighted tobacco away from batteries. Batteries emit explosive gas.

Avoid fire and risk of explosion caused by short circuits.

The battery tray should remain open during the entire charging cycle.

Do not contact the battery terminals or the cable clamps with tools that may cause sparks.

⚠ Electrocution/ Hazard

Avoid contact with electrical terminals.

⚠ pollute Hazard

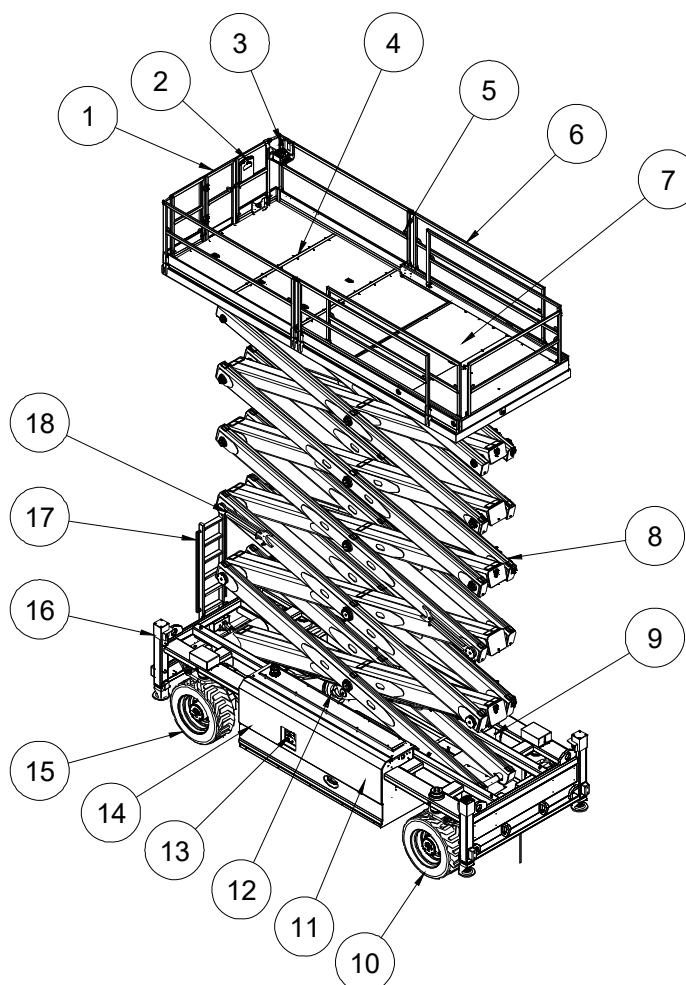
Dispose of old battery must comply with job site and governmental rules.

Lockout after Each Use

- 1 Select a safe parking location - firm level surface, clear of obstruction and traffic.
- 2 Lower the platform.
- 3 Turn the key switch to the off position and remove the key to secure from unauthorized use.
- 4 Push in the red Emergency Stop buttons to "off" position.
- 5 Disconnect the main power.
- 6 Chock the wheels.
- 7 Charge the batteries.

Legend

Legend



- | | |
|-----------------------------|---|
| 1 Platform entry gate | 10 Rear wheel |
| 2 Manual storage containers | 11 Hydraulic tanks, Hydraulic manifold (behind cover) |
| 3 Platform controls | 12 Lift Cylinder |
| 4 Main Platform | 13 Ground controls |
| 5 Lanyard anchorage point | 14 Engine (behind cover) |
| 6 Platform guard rails | 15 Front wheel |
| 7 Platform extensions | 16 Outrigger |
| 8 Scissor Arms | 17 Entry ladder |
| 9 Batteries, (behind cover) | 18 Safety arm |

Decals

Decal Inspection

Use the pictures on the next page to verify that all decals are legible and in place.

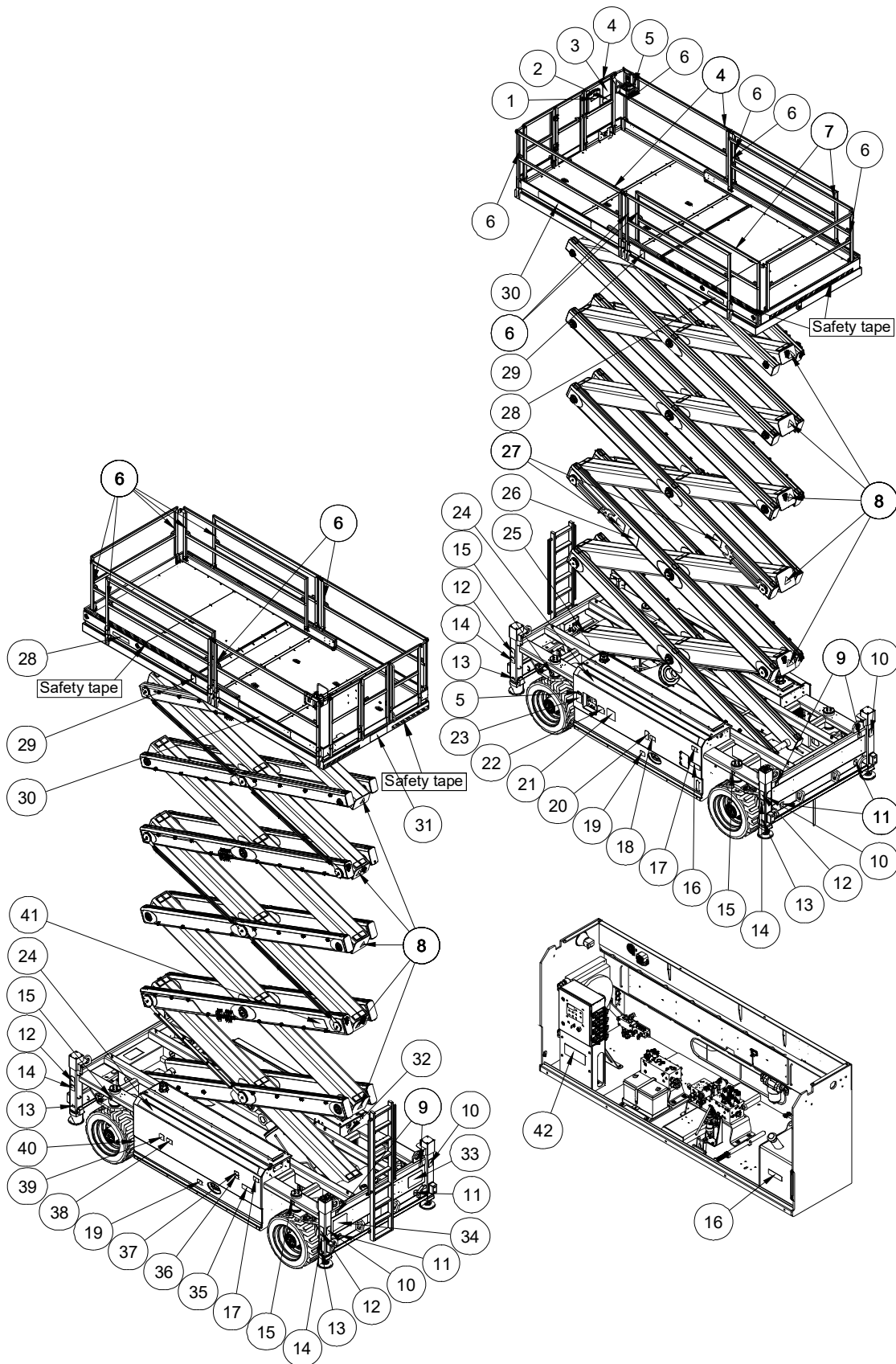
Below is a numerical list with quantities and descriptions.

No.	Part No.	Description	Qty.	Remark
1	09340001	Decal, Notice-Keep the manual with the machine	1	
2	09440119	Decal, Danger-Tip-over hazard, tilt-alarm	1	
3	09440001	Decal, Danger-General safety rules	1	
4	09340070	Decal, Symbols-Non operating hand position	3	
5	09340003	Decal, Instructions-Refer the operator to the instructions for use	2	
6	09440011	Decal, Label-Lanyard anchorage point	14	
7	09440212	Decal, Warning-Crushing hazard	2	
8	09430007	Decal, Symbols-Crushing hazard	10	
9	09310049	Decal, Instructions-Lift point	4	
10	09420005	Decal, Warning-Collision hazard	4	
11	09310050	Decal, Instructions-Tie down point	4	
12	09410157	Decal, Symbols-Outrigger using warning	4	
13	09310498	Decal, Instructions-Maximum outrigger load: 8300kg	4	SL2625-HRT
	09310700	Decal, Instructions-Maximum outrigger load: 10160kg	4	SL3025-HRT
14	09410069	Decal, Warning-Crushing hazard, outrigger	4	
15	09310497	Decal, Instructions-Maximum wheel load 8300kg	4	SL2625-HRT
	09310699	Decal, Instructions-Maximum wheel load 10160kg	4	SL3025-HRT
16	09540001	Decal, Label-CE	2	
17	09310148	Decal, Instructions-Emergency	1	
18	09410071	Decal, Warning-Injection hazard	1	
19	09410279	Decal, Danger-It is forbidden to store anything in the cabin	2	

Decals

No.	Part No.	Description	Qty.	Remark
20	09410001	Decal, Danger-Explosion/burn hazard	2	
21	09410234	Decal, Symbols-Slope rating	1	
22	09310349	Decal, Notice-Main power switch operation	2	
23	09410003	Decal, Warning-Inspected and operation properly	1	
24	09310302	Decal, Instructions-Noise 104dB	1	
25	09420011	Decal, Caution-High temperature	2	
26	09410005	Decal, Danger-Do not alter or disable limit switch	1	
27	09910192	Decal, Label-SL2625-HRT	2	SL2625-HRT
	09910193	Decal, Label-SL3025-HRT	2	SL3025-HRT
28	09330012	Decal, Symbols-Grease filling port	1	
29	09430001	Decal, Danger-Safety arm	2	
30	09640414	Decal, Label- SL2625-HRT	2	SL2625-HRT
	09640415	Decal, Label- SL3025-HRT	2	SL3025-HRT
31	09440007	Decal, Caution-Max. manual force 400N	2	
32	09940004	Decal, Label-Summit	2	
33	09310054	Decal, Instructions-Hydraulic	1	
34	09310053	Decal, Instructions-Lowest oil level	1	
35	09310052	Decal, Instructions-Highest oil level	1	
36	09310494	Decal, Symbols-Emergency operating instructions	1	
37	09440434	Decal, Label-Capacity 1000kg	1	
38	09410186	Decal, Symbols-High temperature	1	
39	09310508	Decal, Instructions-Grease filling port	1	
40	09310510	Decal, Instructions-Grease filling port	1	
41	09320003	Decal, Instructions-Diesel	2	
42	09330010	Decal, Instructions-Grease filling port	1	

Decals



Decals

① 09340001

② 09440119

④ 09340070

⑤ 09340003

③ 09440001

⑧ 09430007

⑨ 09310049

⑥ 09440011

⑦ 09440212

⑩ 09420005

⑪ 09310050

⑫ 09410157

⑭ 09410069

⑮ 09310497

⑮ 09310699

⑮ 09540001

⑮ 09310148

⑮ 09410071

⑮ 09410279

⑮ 09410234

⑮ 09310349

⑮ 09310302

⑮ 09410003

⑮ 09410001

⑮ 09420011

⑮ 09410005

⑮ 09910192

⑮ 09910193

Decals

③① 09640414

SL2625-HRT

③① 09640415

SL3025-HRT

③② 09940004

Summit

②⑨ 09430001



③① 09440007



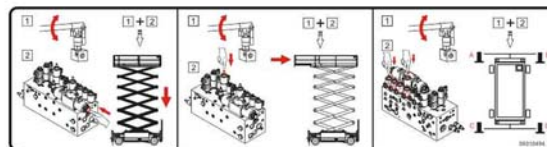
③③ 09310054

HYDRAULIC

③④ 09310053



③⑥ 09310494



③⑤ 09310052



③⑧ 09410186



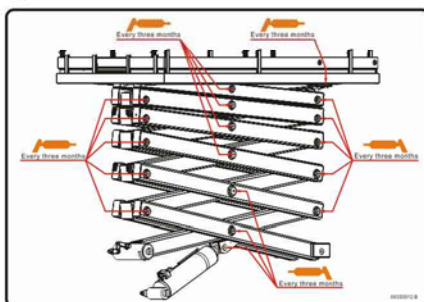
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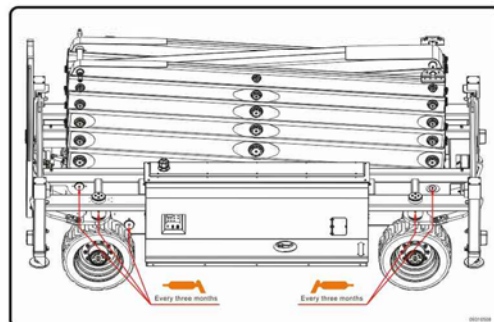
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DIESEL

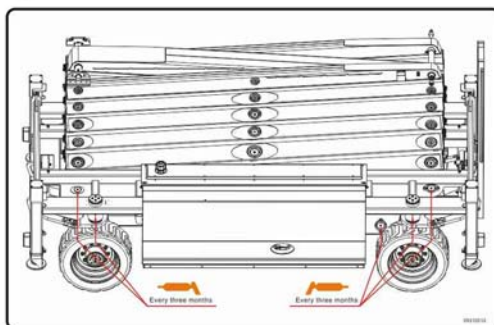
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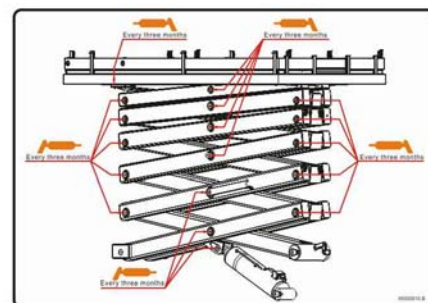
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④① 09310510



④② 09330010



Specifications

Model: SL2625-HRT

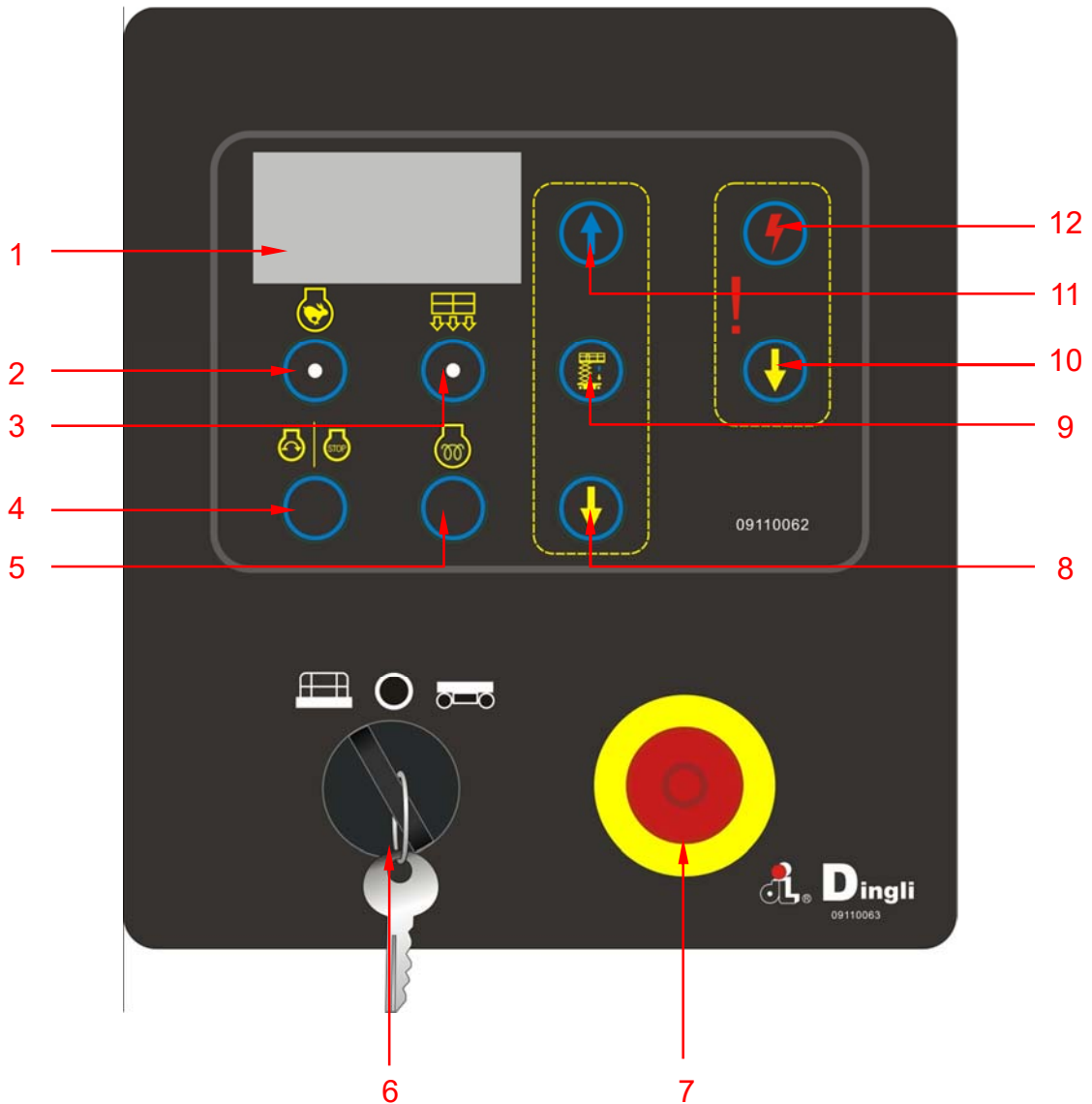
Height, working maximum	28m	Tire size	355/55D625
Height, platform maximum	26m	Airborne noise emissions	<80 dB
Height, stowed maximum Rails up	4.13m	Maximum sound level at normal operating workstations (A-weighted)	
Height, stowed maximum Rails down	3.19m	Vibration value does not exceed 2.5m/s^2	
Width	2.50m	Maximum slope rating, Stowed position	30% (17°)
Length, platform retracted	5.96m	Maximum side slope rating, Stowed position	30% (17°)
Platform dimensions (length × width)	5.48m×2.45m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.1m	Maximum working slope	X-2° (side to side) Y-3° (front to rear)
Maximum load capacity	1000kg		
Maximum wind speed	12.5m/s	Drive speeds	
Wheelbase	4.10m	Stowed, maximum	3.5 km/h
Turning radius (outside)	6.0m	Platform raised, maximum	0.3 km/h
Turning radius (inside)	3.5m	Floor loading information	
Ground clearance	23cm	Tire load, maximum	8300kg
Power source	420AH	Outrigger load, maximum	8300kg
System voltage	80V	Tire contact pressure	906kPa
Weight (See Serial Label)		Occupied floor pressure	21.2kPa
Machine weights vary with option configurations		Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Controls	Proportional	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
AC outlet in platform	Standard		
Maximum hydraulic pressure (functions)	250 bar		

Specifications

Model: SL3025-HRT

Height, working maximum	32m	Tire size	15-625
Height, platform maximum	30m	Airborne noise emissions	<80 dB
Height, stowed maximum Rails up	4.13m	Maximum sound level at normal operating workstations (A-weighted)	
Height, stowed maximum Rails down	3.19m	Vibration value does not exceed 2.5m/s^2	
Width	2.55m	Maximum slope rating, Stowed position	30% (17°)
Length, platform retracted	6.73m	Maximum side slope rating, Stowed position	30% (17°)
Platform dimensions (length × width)	6.20m×2.45m	Note: Slope rating is subject to ground conditions and adequate traction.	
Platform extension length	2.1m	Maximum working slope	X-2° (side to side) Y-3° (front to rear)
Maximum load capacity	1000kg		
Maximum wind speed	12.5m/s	Drive speeds	
Wheelbase	4.86m	Stowed, maximum	3.5 km/h
Turning radius (outside)	6.3m	Platform raised, maximum	0.3 km/h
Turning radius (inside)	3.8m	Floor loading information	
Ground clearance	20cm	Tire load, maximum	10160kg
Power source	420AH	Outrigger load, maximum	10160kg
System voltage	80V	Tire contact pressure	1031.8kPa
Weight (See Serial Label)		Occupied floor pressure	14.5kPa
Machine weights vary with option configurations		Note: Floor loading information is approximate and does not incorporate different option configurations. It should be used only with adequate safety factors.	
Controls	Proportional	Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.	
AC outlet in platform	Standard		
Maximum hydraulic pressure (functions)	250 bar		

Ground Control Panel



- | | |
|----------------------------|--|
| 1 Display | 7 Red Emergency Stop button |
| 2 Not used | 8 Platform down button |
| 3 Overload indicator light | 9 Lift function enable button |
| 4 Engine start/stop button | 10 Emergency lowering down button |
| 5 Engine glow plug button | 11 Platform up button |
| 6 Key switch | 12 Emergency lowering down enable button |

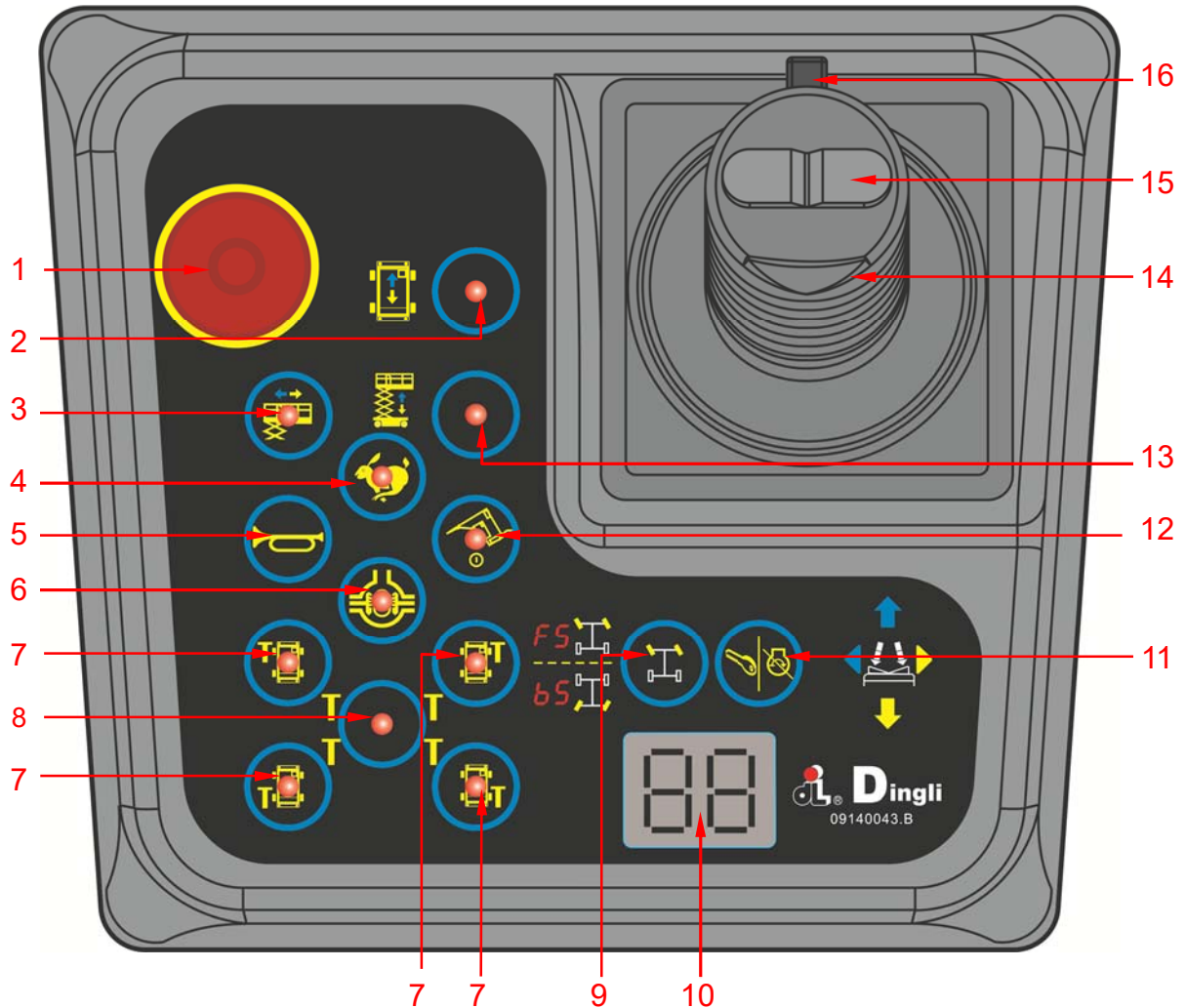
Controls

Ground Control Panel

- | | | | |
|---|--|----|--|
| 1 | Display | 7 | Red Emergency Stop button |
| | Diagnostic readout | | Push in the red Emergency Stop button to the off position to stop all functions. Pull out the red Emergency Stop button to the on position to operate the machine. |
| 2 | Not used | 8 | Platform down button |
| 3 | Overload indicator light | | Press this button and the platform will lower |
| | Light on indicates when overloaded. | 9 | Lift function enable button |
| 4 | Engine start/stop button | | Press this button to activate the lift function. |
| | Press this button to start/stop the engine. | 10 | Emergency lowering down button |
| 5 | Engine glow plug button | | Press this button and the platform will lower |
| | Press and hold this button to preheat engine. | 11 | Platform up button |
| 6 | Key switch | | Press this button and the platform will lift. |
| | Turn the key switch to the platform position and the platform controls will operate. | 12 | Emergency lowering down enable button |
| | Turn the key switch to the off position and the machine will be off. | | Press this button to activate the Emergency down function. |
| | Turn the key switch to the base position and the ground controls will operate. | | |

Controls

Platform Control Panel



- 1 Red Emergency Stop button
- 2 Drive function select button
- 3 Power platform button
- 4 Drive speed select button
- 5 Horn button
- 6 Standby
- 7 Outrigger function enable button
- 8 Outrigger auto level button

- 9 Steer mode select button
- 10 LED readout screen
- 11 Engine start / stop button
- 12 Engine glow plug button
- 13 Lift function select button
- 14 Proportional control handle
- 15 Thumb rocker switch
- 16 Function enable switch

Controls

Platform Control Panel

- | | |
|--|---|
| <p>1 Red Emergency Stop button</p> <p>Push in the red Emergency Stop button to the off position to stop all functions. Pull out the red Emergency Stop button to the on position to operate the machine.</p> <p>2 Drive function select button</p> <p>Press this button to activate the drive function.</p> <p>3 Power platform button</p> <p>Press and hold this button to activate the platform extendable / retractable function.</p> <p>4 Engine high speed idle select button</p> <p>Press this button to select the drive speed. Light on indicates high drive speed is selected.</p> <p>5 Horn button</p> <p>Press this button and the horn will sound.</p> <p>Release the button and the horn will stop.</p> <p>6 Standby</p> <p>7 Outrigger function enable button</p> <p>Press this button to activate the individual outrigger up/down function.</p> <p>8 Outrigger auto level button</p> <p>Press this button to activate the auto level function.</p> | <p>9 Steer mode select button</p> <p>Press this button to select steer mode: FS mode (Front Steer mode), bS mode (Back Steer mode).</p> <p>10 LED readout screen</p> <p>Diagnostic readout and steer mode.</p> <p>11 Engine start / stop button</p> <p>Press this button to start/ stop the Engine.</p> <p>12 Engine glow plug button</p> <p>Press and hold this button to preheat engine.</p> <p>13 Lift function select button</p> <p>Press this button to activate the lift function.</p> <p>14 Proportional control handle</p> <p>Lift function: Press and hold the function enable switch to enable the lift function on the platform control handle. Move the control handle in the direction indicated by the blue arrow and the platform will raise. Move the control handle in the direction indicated by the yellow arrow and the platform will lower. The descent alarm should sound while the platform is lowering.</p> <p>Drive function: Press and hold the function enable switch to enable the drive function on the platform control handle. Move the control handle in the direction indicated by the blue arrow on the control panel and the machine will move in the direction that the blue arrow points. Move the control handle in the direction indicated by the yellow arrow on the control panel and the machine will move in the direction that the yellow arrow</p> |
|--|---|

points.

Outrigger extendable / retractable function:

Press and hold the function enable switch to enable the Outrigger extend/ retract function on the platform control handle.

Move the control handle in the direction indicated by the yellow arrow and the outrigger will extend. Move the control handle in the direction indicated by the blue arrow and the outrigger will retract.

platform extendable / retractable function:

Press and hold the function enable switch to enable the platform extendable / retractable function on the platform control handle.

Move the control handle in the direction indicated by the yellow arrow and the platform will extend. Move the control handle in the direction indicated by the blue arrow and the platform will retract.

15 Thumb rocker switch

Press the thumb rocker switch in either direction to activate steer function.

16 Function enable switch

Press and hold the function enable switch to enable the drive/lift function.

Pre-operation Inspection



Do Not Operate Unless:

- ☒ You learn and practice the principles of safe machine operation contained in this operator's manual.

- 1 Avoid hazardous situations.
- 2 Always perform a pre-operation inspection.**

Know and understand the pre-operation inspection before going on to the next section.

- 3 Inspect the workplace.
- 4 Always perform function tests prior to use.
- 5 Only use the machine as it was intended.

Fundamentals

It is the responsibility of the operator to perform a pre-operation inspection and routine maintenance.

The pre-operation inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with a machine before the operator performs the function tests.

The pre-operation inspection also serves to determine if routine maintenance procedures are required. Only routine maintenance items specified in this manual may be performed by the operator.

Refer to the list on the next page and check each of the items.

If damage or any unauthorized variation from factory delivered condition is discovered, the machine must be tagged and removed from service.

Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications. After repairs are completed, the operator must perform a pre-operation inspection again before going on to the function tests.

Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications and the requirements listed in this manual.

Pre-operation Inspection

Pre-operation Inspection

- ☐ Be sure that the operator's manual are complete, legible and in the storage container located in the platform.
- ☐ Be sure that all decals are legible and in place. See Decals section.
- ☐ Check for Engine oil leaks and proper oil level. Add oil if needed. See Maintenance section.
- ☐ Check for hydraulic oil leaks and proper oil level. Add oil if needed. See Maintenance section.
- ☐ Check for battery fluid leaks and proper fluid level. Add distilled water if needed. See Maintenance section.
- ☐ **Always carry out pre-operative inspection after storage before use.**

Check the following components or areas for damage, improperly installed or missing parts and unauthorized modifications:

- ☐ Electrical components, wiring and electrical cables
- ☐ Hydraulic hoses, fittings, cylinders and manifolds
- ☐ Battery pack and connections
- ☐ Drive motors
- ☐ Wear pads
- ☐ Tires and wheels
- ☐ Engine and related components
- ☐ Ground strap
- ☐ Limit switches, alarms and horn
- ☐ Nuts, bolts and other fasteners
- ☐ Platform overload components
- ☐ Platform entry gate

- ☐ Beacon (if equipped)
- ☐ Safety arm
- ☐ Platform extension(s)
- ☐ Scissor pins and retaining fasteners
- ☐ Platform control joystick
- ☐ Brake release components
- ☐ Pothole guard
- ☐ Lanyard anchorage point

Check entire machine for:

- ☐ Cracks in welds or structural components
- ☐ Dents or damage to machine
- ☐ Be sure that all structural and other critical components are present and all associated fasteners and pins are in place and properly tightened
- ☐ Be sure side rails are installed and rail pins and bolts are fastened.
- ☐ Be sure that the chassis trays are closed and latched and the batteries are properly connected.

Note: If the platform must be raised to inspect the machine, make sure the safety arm is in place. See Operating Instructions section.

Workplace Inspection



Do Not Operate Unless:

- ☒ You learn and practice the principles of safe machine operation contained in this operator's manual.

- 1 Avoid hazardous situations.
- 2 Always perform a pre-operation inspection.

3 Inspect the workplace.

Know and understand the workplace inspection before going on to the next section.

- 4 Always perform function tests prior to use.
- 5 Only use the machine as it was intended.

Fundamentals

The workplace inspection helps the operator determine if the workplace is suitable for safe machine operation. It should be performed by the operator prior to moving the machine to the workplace.

It is the operator's responsibility to read and remember the workplace hazards, then watch for and avoid them while moving, setting up and operating the machine.

Workplace Inspection

Be aware of and avoid the following hazardous situations:

- Drop-offs or holes
- Bumps, floor obstructions or debris
- Sloped surfaces
- Unstable or slippery surfaces
- Overhead obstructions and high voltage conductors
- Hazardous locations
- Inadequate surface support to withstand all load forces imposed by the machine
- Wind and weather conditions
- The presence of unauthorized personnel
- Other possible unsafe conditions
- Altitude exceeding 1000m.
- Presence of explosive atmosphere
- Ambient temperature less than -20°C or more than 40°C

Function Tests



Do Not Operate Unless:

- ☒ You learn and practice the principles of safe machine operation contained in this operator's manual.
- 1 Avoid hazardous situations.
- 2 Always perform a pre-operation inspection.
- 3 Inspect the workplace.
- 4 Always perform function tests prior to use.**

Know and understand the function tests before going on to the next section.

- 5 Only use the machine as it was intended.

Fundamentals

The function tests are designed to discover any malfunctions before the machine is put into service.

The operator must follow the step-by-step instructions to test all machine functions.

A malfunctioning machine must never be used. If malfunctions are discovered, the machine must be tagged and removed from service. Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications.

After repairs are completed, the operator must perform a pre-operation inspection and function tests again before putting the machine into service.

Function Tests

- 1 Select a test area that is firm, level and free of obstruction.
- 2 Be sure the battery pack is connected.
- 3 Turn on the main power

At the Ground Controls

- 4 Pull out the platform and ground red Emergency Stop button to the on position.
- 5 Turn the key switch to ground control.
- 6 Observe the display on the ground controls.

- ⊙ Result: The display will come on and display system interface.

Test Emergency Stop

- 7 Push in the ground red Emergency Stop button to the off position.
- ⊙ Result: No functions should operate.
- 8 Turn the red Emergency Stop button clockwise to the on position.

Test Up/Down Functions and Function Enable

A buzzer with different sound frequency is controlled in central system. The descent alarm sounds at 60 beeps per minute. The descent delay alarm sounds at 180 beeps per minute. The alarm that goes off when the machine is not level sounds at 120 beeps per minute. An optional automotive-style horn is also available.

- 9 Do not press the lift function enable button. Press and hold the platform up/down button.

- ⊙ Result: No function should operate.

- 10 Press and hold the lift function enable

button. Press and hold the platform up button.

- ⊙ Result: The platform should rise.

- 11 Press and hold the lift function enable button. Press and hold the platform down button.

- ⊙ Result: The platform should lower the descent alarm should sound while the platform is lowering. The platform stop at the height is approximately 4.5 m from the ground. The descent delay alarm will sound.

Note: Be sure the area below the platform is clear of personnel and obstructions before continuing.

- 12 Press and hold the lift function enable button. Press and hold the platform down button.

- ⊙ Result: The platform should lower to end. The descent delay alarm should sound while the platform is lowering.

Test the Emergency Lowering

- 13 Activate the up function and raise the platform approximately 60 cm.

- 14 Push in the red Emergency Stop button to the off position.

- 15 Pull out the ground red Emergency Stop button to the on position.

- 16 Press and hold the emergency lowering down enable button. Press and hold the emergency lowering down button.

- ⊙ Result: The platform should lower.

- 17 Turn the key switch to platform control.

Function Tests

At the Platform Controls

Test Emergency Stop

- 18 Push in the platform red Emergency Stop button to the off position.
 - ⦿ Result: No functions should operate.
- 19 Pull the red Emergency Stop button out to the on position.
 - ⦿ Result: The LED indicator light should come on.

Test the Horn

- 20 Push the horn button.
 - ⦿ Result: The horn should sound.

Test Up/Down Functions and Function Enable

- 21 Do not hold the function enable switch on the control handle.
- 22 Slowly move the control handle in the direction indicated by the blue arrow, then in the direction indicated by the yellow arrow.
 - ⦿ Result: No functions should operate.
- 23 Press the lift function select button.
- 24 Press and hold the function enable switch on the control handle.
- 25 Slowly move the control handle in the direction indicated by the blue arrow.
 - ⦿ Result: The platform should raise.
- 26 Release the control handle.
 - ⦿ Result: The platform should stop raising.
- 27 Press and hold the function enable switch. Slowly move the control handle in the direction indicated by the yellow arrow.
 - ⦿ Result: The platform should lower. The

descent alarm should sound while the platform is lowering.

Test the Steering

Note: When performing the steer and drive function test, stand in the platform facing the steer end of the machine.

- 28 Press the drive function select button. The indicator light should turn on.
- 29 Push the steer mode select button for steer FS mode (Front Steer mode).
- 30 Press and hold the function enable switch on the proportional control handle. Depress the thumb rocker switch on top of the proportional control handle in the direction identified by the blue triangle on the control panel.
 - ⦿ Result: The front wheels should turn in the direction that the blue triangle points on the control panel.
- 31 Press and hold the function enable switch on the proportional control handle. Depress the thumb rocker switch in the direction identified by the yellow triangle on the control panel.
 - ⦿ Result: The front wheels should turn in the direction that the yellow triangle points on the control panel.
- 32 Press the drive function select button. The indicator light should turn on.
- 33 Push the steer mode select button for steer bS mode (Back Steer mode).
- 34 Press and hold the function enable switch on the proportional control handle. Depress the thumb rocker switch on top of the proportional control handle in the direction identified by the blue triangle on the control panel.

Function Tests

- ⊙ Result: The front wheels should turn in the direction that the yellow triangle points on the control panel.
- 35 Press and hold the function enable switch on the proportional control handle.
Depress the thumb rocker switch in the direction identified by the yellow triangle on the control panel.
- ⊙ Result: The front wheels should turn in the direction that the blue triangle points on the control panel.

Test Drive and Braking

- 36 Press and hold the function enable switch on the proportional control handle.
- 37 Slowly move the proportional control handle in the direction indicated by the blue arrow on the control panel until the machine begins to move, then return the proportional control handle to the center position.
- ⊙ Result: The machine should move in the direction that the blue arrow points on the control panel, then come to an abrupt stop.
- 38 Press and hold the function enable switch on the proportional control handle.
- 39 Slowly move the proportional control handle in the direction indicated by the yellow arrow on the control panel until the machine begins to move, then return the proportional handle to the center position.
- ⊙ Result: The machine should move in the direction that the yellow arrow points on the control panel, then come to an abrupt stop.

Note: The brakes must be able to hold the machine on any slope it is able to climb.

Test Limited Drive Speed

- 40 Press the lift function select button. Raise

the platform approximately 4.5 m from the ground.

- 41 Press the drive function select button.
- 42 Press and hold the function enable switch on the proportional control handle slowly move the proportional control handle to the full drive position.
- ⊙ Result: The maximum achievable drive speed with the platform raised should not exceed 8.3cm/s.
- ⊗ Result: If the drive speed with the platform raised exceeds 8.3cm/s, immediately tag and remove the machine from service.

Test the Tilt Sensor Operation

Note: Perform this test from the ground with the platform controller. Do not stand in the platform.

- 43 Fully lower the platform.
- 44 Drive both wheels on one side onto an 18cm block.
- 45 Raise the platform approximately 4.5 m from the ground.
- ⊙ Result: The platform should stop and the tilt alarm will sound at 120 beeps per minute. The platform controls LED readout should display LL.
- 46 Press the drive function select button.
- 47 Press and hold the function enable switch on the control handle.
- 48 Move the proportional control handle in the direction indicated by the blue arrow, then move the proportional control handle in the direction indicated by the yellow arrow.
- ⊙ Result: The drive function should not work in either direction.
- 49 Press the lift function enable button.

Function Tests

- 50 Lower the platform and drive the machine off the block.

Test the Outrigger System

- 51 Press the lift function enable button. Raise the platform.
- 52 Push and hold the auto level button.
- 53 Press and hold the function enable switch. Activate the proportional control handle in the direction indicated by the yellow arrow.
- ⊙ Result: The outriggers will extend and level the machine. A beep will sound when the machine is level. The indicator lights on the four outrigger function enable buttons will turn on.
- 54 Push and hold the auto level button.
- 55 Press and hold the function enable switch. Activate the proportional control handle in the direction indicated by the blue arrow.
- ⊙ Result: The outriggers should retract and return to the stowed position.

Test Platform extendable / retractable Functions

- 56 Push and hold the Power platform button. Press and hold the function enable switch. Activate the proportional control handle in the direction indicated by the yellow arrow.
- ⊙ Result: The platform should extend.
- 57 Push and hold the Power platform button. Press and hold the function enable switch. Activate the proportional control handle in the direction indicated by the blue arrow.
- ⊙ Result: The platform should retract.

Operating Instructions



Do Not Operate Unless:

☒ You learn and practice the principles of safe machine operation contained in this operator's manual.

- 1 Avoid hazardous situations.
- 2 Always perform a pre-operation inspection.
- 3 Inspect the workplace.
- 4 Always perform function tests prior to use.
- 5 **Only use the machine as it was intended.**

Fundamentals

This machine is a self-propelled hydraulic lift equipped with a work platform on the scissor mechanism. Vibrations emitted by these machines are not hazardous to an operator in the work platform. The machine can be used to position personnel with their tools and supplies at position above ground level and can be used to reach work areas located above and over machinery or equipment.

A full and detailed implementation of EN ISO 13849-1/2 is correctly applied on our MEWP design. SISTEMA, a software tool for PL Calculation Tool, is also used to perform some relatively straightforward calculations on subsystem to determine the overall PL of the system.

Reliability data, diagnostic coverage [DC], the system architecture [Category], common cause failure and, where relevant, requirements for software are used to assess the PL to comply with PLr of SRP/CS in EN 280.

The Operating Instructions section provides instructions for each aspect of machine operation. It is the operator's responsibility to follow all the safety rules and instructions in the operator's manual.

Using the machine for anything other than lifting personnel, along with their tools and materials, to an aerial work site is unsafe and dangerous.

Only trained and authorized personnel should be permitted to operate a machine. If more than one operator is expected to use a machine at different times in the same work shift, they must all be qualified operators and are all expected to follow all safety rules and instructions in the operator's manual. That means every new operator should perform a pre-operation inspection, function tests, and a workplace inspection before using the machine.

Operating Instructions

Emergency Stop

Push in the red Emergency Stop button to the off position at the ground controls or the platform controls to stop all machine functions.

Repair any function that operates when either red Emergency Stop button is pushed in.

Operation from Ground

- 1 Turn the key switch to ground control.
- 2 Pull out the platform and ground red Emergency Stop button to the on position.
- 3 Be sure the battery pack is connected before operating the machine.

To Position Platform

- 1 Press the lift function enable button.
- 2 Press the platform up/down button to activate the up function or the down function.

Drive and steer functions are not available from the ground controls.

Operation from Platform

- 1 Turn the key switch to platform control.
- 2 Pull out the platform and ground red Emergency Stop button to the on position.
- 3 Be sure the battery pack is connected before operating the machine.

To Position Platform

- 1 Press the lift function select button.
- 2 Press and hold the function enable switch on the control handle.
- 3 Activate the proportional control handle in the desired direction.

To Steer

- 1 Press the drive function select button.
- 2 Press and hold the function enable switch on the control handle.
- 3 Push the steer mode select button for steer mode (FS. bS)
- 4 Turn the steer wheels with the thumb rocker switch located on the top of the control handle.

To Drive

- 1 Press the drive function select button.
- 2 Press and hold the function enable switch on the control handle.
- 3 Increase speed: Slowly move the control handle off center.

Decrease speed: Slowly move the control handle toward center.

Stop: Return the control handle to center or release the function enable switch.

Use the direction arrows on the platform controls to identify the direction the machine will travel.

Machine travel speed is restricted when the platform is raised.

Drive speed select

The drive controls can operate in two different drive speed modes. When the torque speed select button light is on, slow drive speed mode is active. When the High speed select button light is on, fast drive speed mode is active.

Driving on a slope

Determine the slope and side slope ratings for the machine and determine the slope grade.

Maximum slope rating, stowed position 30%,

Operating Instructions

Maximum side slope rating, stowed position
30%

Note: Slope rating is subject to ground conditions and adequate traction.

Press the drive speed select button to the fast drive speed mode.

To determine the slope grade

Measure the slope with a digital inclinometer or use the following procedure.

You will need:

Carpenter's level

Straight piece of wood, at least 1 m long
tape measure

Lay the piece of wood on the slope

At the downhill end, lay the level on the top edge of the piece of wood and lift the end until the piece of wood is level.

While holding the piece of wood level, measure the distance from the bottom of the piece of wood to the ground.

Divide the tape measure distance (rise) by the length of the piece of wood (run) and multiply by 100.

Example:

Run = 3.6 m

Rise = 0.3 m

$0.3 \text{ m} \div 3.6 \text{ m} = 0.083 \times 100 = 8.3\%$



If the slope exceeds the maximum slope or side slope rating, the machine must be winched or transported up or down the slope. See Transport and Lifting section.

To Extend and Retract Platform

- 1 Push and hold the Power platform button.
- 2 Press and hold the function enable switch.
- 3 Activate the proportional control handle in the direction indicated by the arrow.

Operation from Ground with Controller

Maintain safe distances between operator, machine and fixed objects.

Be aware of the direction the machine will travel when using the controller.

Outrigger Operation

- 1 Position the machine below the desired work area.
- 2 Push and hold the outrigger auto level button.
- 3 Press and hold the function enable switch. Activate the proportional control handle in the direction indicated by the yellow arrow. The outriggers will extend and level the machine. A beep will sound when the machine is level.

When at least one but not all of the four outriggers are in firm contact with the ground, the indicator light of the function enable button for that one(s) outrigger lights up, while the others remain off. In this situation, all drive and lift functions are disabled.

When all the four outriggers are in firm contact with the ground, the four indicator lights of the function enable button light up. In this situation, all drive functions are disabled.

Operating Instructions

To control individual outrigger

- 1 Push and hold one or more outrigger function enable buttons.

Press and hold the function enable switch. Activate the proportional control handle in the direction indicated by the yellow arrow. The outriggers will extend and level the machine.

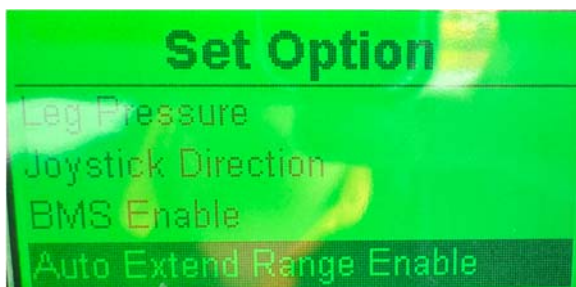
Emergency Lowering

- 1 Turn the key switch to ground control.
- 2 Press and hold the emergency lowering down enable button.
- 3 Press and hold the emergency lowering down button.

The Range-extended System

Range-extended system refers to a system that uses the Engine electricity to charger the power supply while the machine is normal use. Range-extended charging and mains charging are mutually exclusive.

Start and stop operation of Engine



Setting interface – “Auto Extend Range Enable”, ON indicates the automatic extender mode, which automatically starts the Engine according to the preset SOC start value, automatically stop the Engine according to the preset SOC stops value or manually stops the Engine, OFF indicates the manual extender

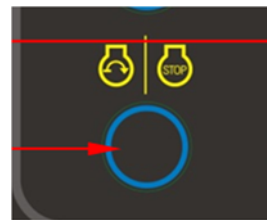
mode, which can only starts the Engine manually, and manually stops the Engine or SOC greater than the SOC stop value.

Automatic Start and stop operation of Engine

SOC start value is 30% by default and adjustable form 0 to 90%.

SOC stop value is 90% by default and adjustable form 0 to 90%.

Manual Start and stop operation of Engine



Chassis panel operation: when the Engine is closed, long press Start button to start the Engine, when the Engine is start, long press Start button again to stop the Engine.



Platform handle operation: when the Engine is closed, long press Start button to start the Engine, when the Engine is start, long press Start button again to stop the Engine.

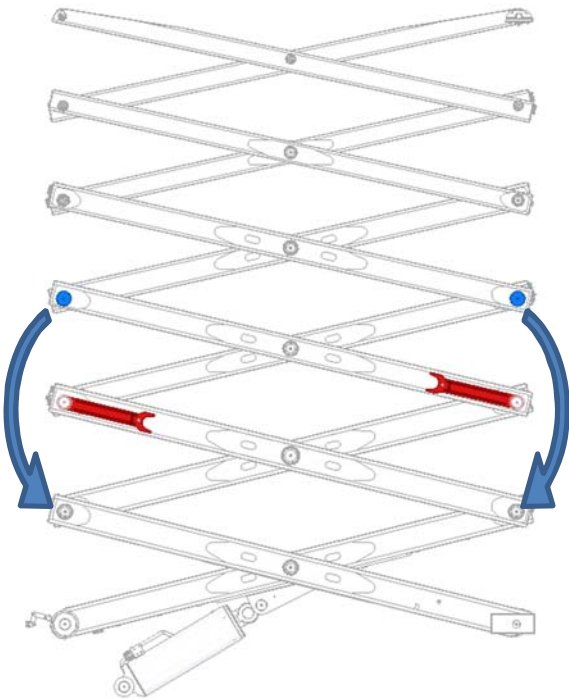
Note: When the automatic range extension function is turned on, the Engine starts automatically. If the Engine is manually turned off, the automatic start is invalid at this time, and the power is turned on and off again to restore.

Operating Instructions

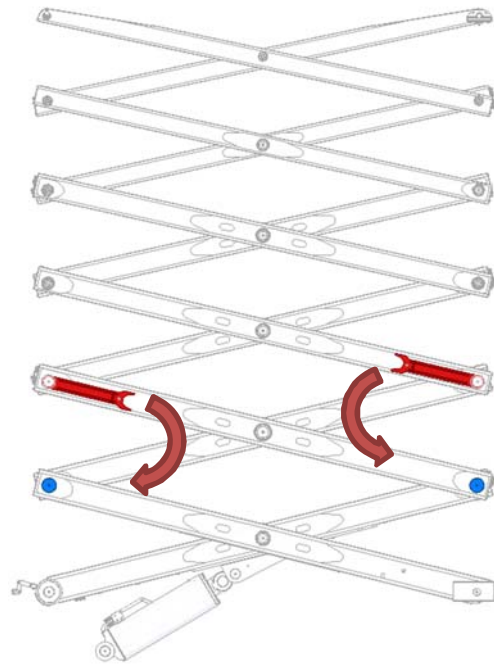
How to use the Safety Arm

The safety arm side of the scissor system needs to be used for maintenance work. This safety arm relief the lifting cylinder and they hold the working platform safe.

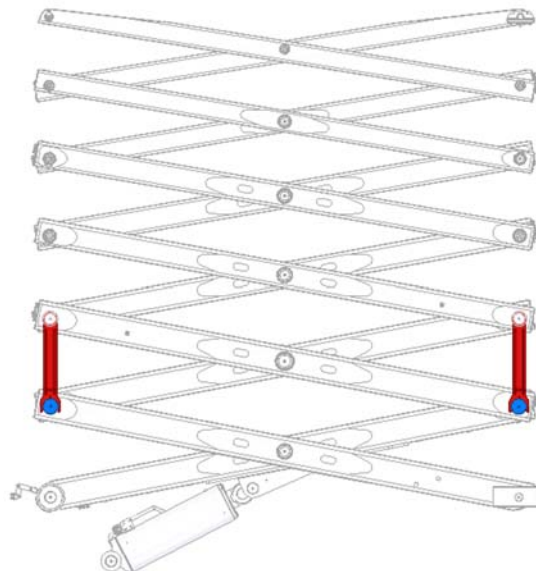
- 1 Raise the platform until the distance of the two sets of scissor at least 1.2m, then remove the upper two blue protection plates and install to the lower position. (refer to the picture)



- 2 Remove the screw and rotate downward the Safety arms to a vertical position



- 3 Lower the platform until the safety arms rests securely on the shaft. Keep clear of the safety arm when lowering the platform.



NOTICE

When the safety arms is retracted, the Protection plates must be reset before stowed the scissor

⚠ DANGER

Don't engage the safety arm unless unload the platform.

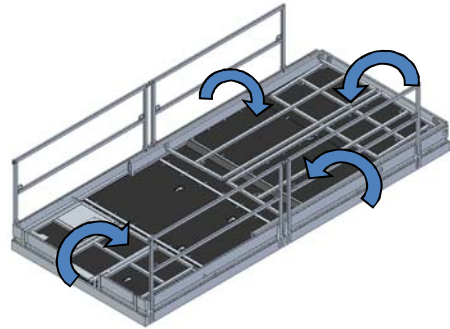
Operating Instructions

⚠ DANGER

Each scissor is equipped with two safety arms, which must be used together.

⚠ WARNING

Using this safety arm is necessary during operations near the scissor system if the platform is lifted!



How to Turn Over the Guardrails

The platform railing system consists of three rail section for the extension deck and three sections for the main deck. All sections are held in place by four latches.

- 1 Fully lower the platform and retract the platform extension.
- 2 Remove the platform controls.
- 3 Opening the latches in the corners the rails have to be turned over in correct order of the numbering.

⚠ WARNING

During the turning over of the guardrails, occupants on the platform must wear personal fall protection equipment with a lanyard attached to an lanyard platform floor point.

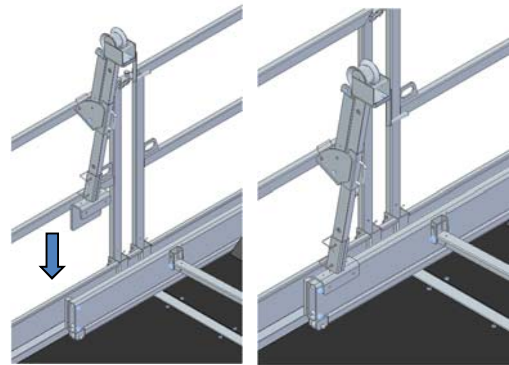
⚠ DANGER

When the platform guardrails are lowered, operators are not allowed to work on the platform. Falling from the working platform when it is raised can cause serious injury or death.

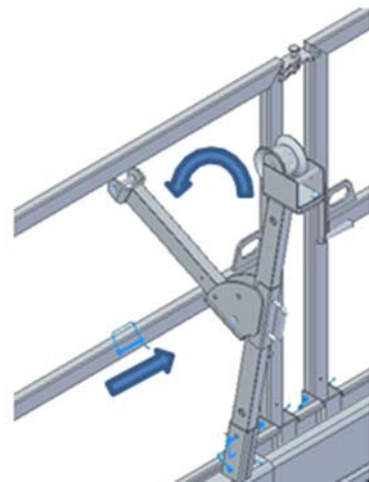
A. Use the guardrail Winch to lower the guardrails on the platform.

- a) Turn over the platform guardrails on the "front side and extended-platform" towards to inside as described in the operator's manual.

- b) Insert the guardrail winch into the track of the platform.

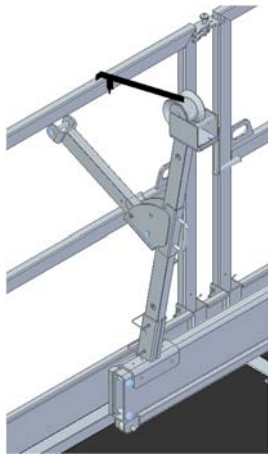


- c) Lower the "swing bar" and secure it with the locking pin.



- d) Use the straps of the winch to tie the upper end of the guardrail.

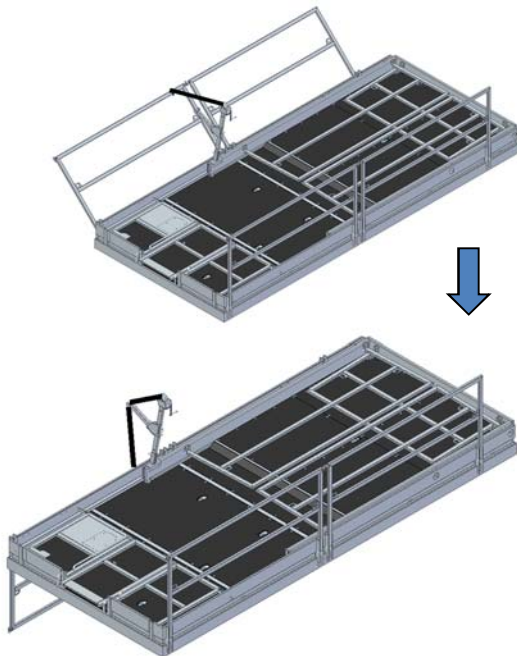
Operating Instructions



- e) Remove all locking pins from the guardrail

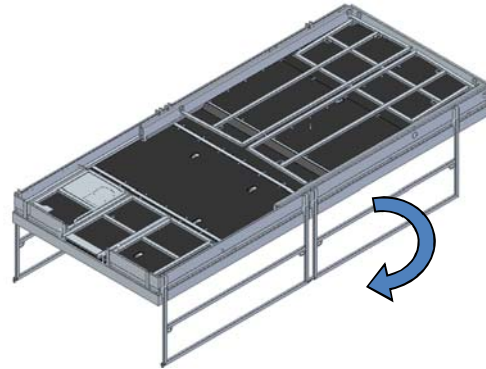


- f) Turn the winch handle to slowly lower the guardrail outward until the guardrail lowers to bottom



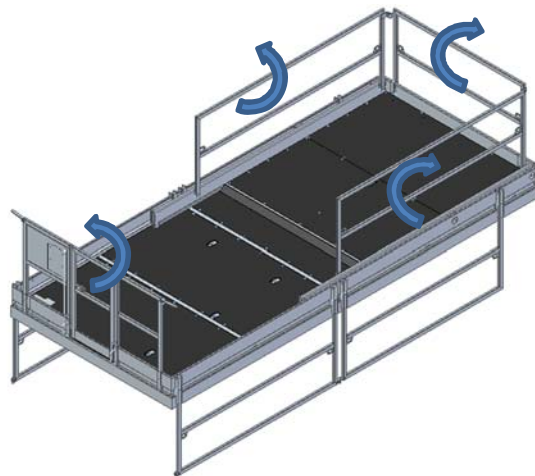
- g) Loosen the straps tied to the guardrail, turn the winch handle, and retract the strap on to the winch.

- h) Remove the guardrail winch, repeat the steps b)~g), to lower the guardrail on the other side, and put the guardrail winch back into place.



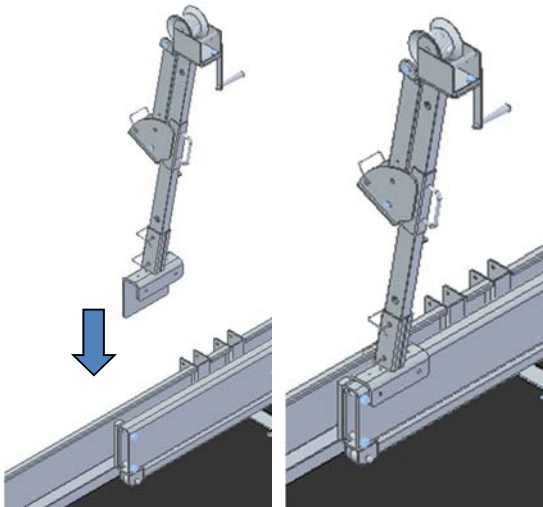
B. Use the guardrail winch to retract the guardrails on the fixed platform.

- a) Lift up the platform guardrails of the "front side and extended-platform" as described in the operator's manual

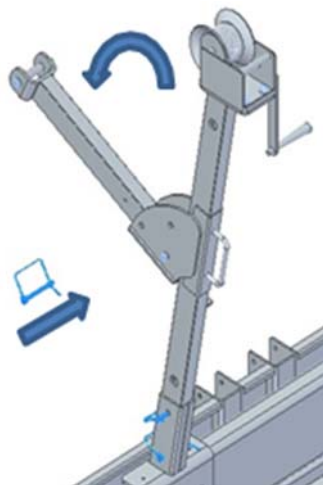


- b) Insert the guardrail winch into the track of the platform.

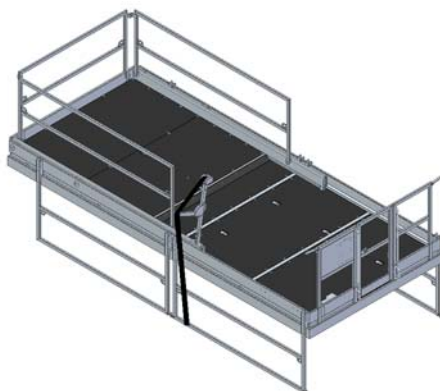
Operating Instructions



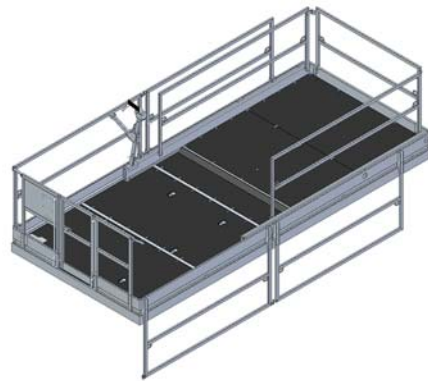
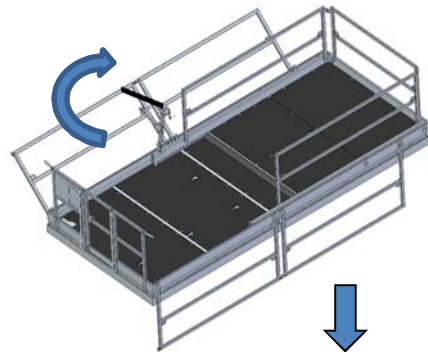
- c) Lower the "swing bar" and secure it with the locking pin.



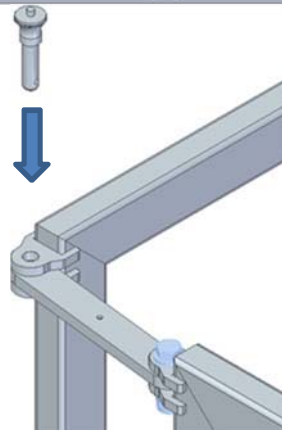
- d) Use the straps of the winch to tie the upper end of the guardrail.



- e) Turn the handle of the winch to slowly lift the guardrail up until the guardrail reaches a completely vertical state.

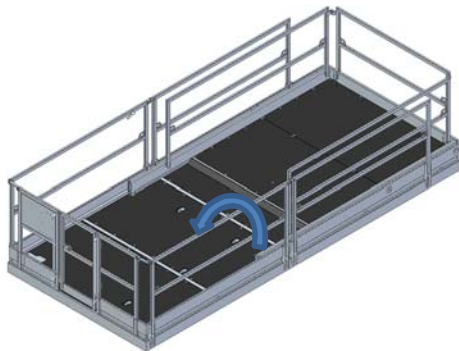


- f) Insert all locking pins to secure the guardrail.

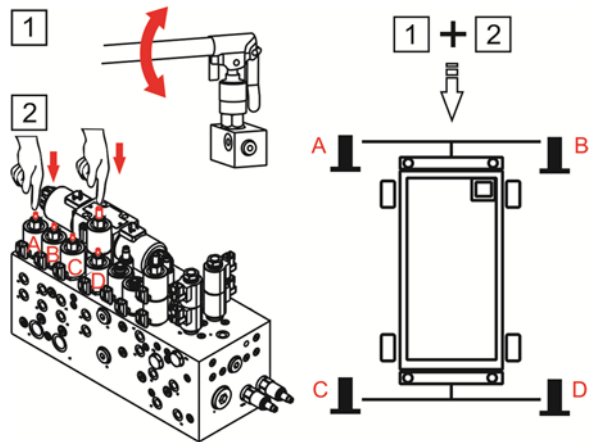


Operating Instructions

- g) Loosen the straps tied to the guardrail, turn the winch handle, and retract the straps to the winch.
- h) Remove the guardrail winch, repeat the steps b)-g), flip and lift the guardrail on the other side, and put the guardrail winch back into place.



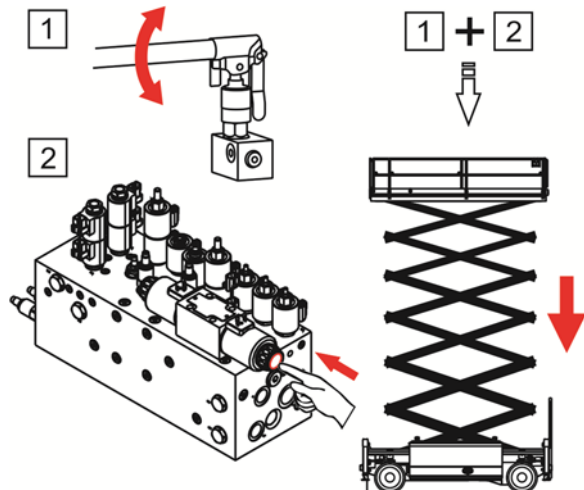
Retracting outriggers



- 1 Unplug the lever and put it into the hand pump (1)
- 2 Press and hold the button (4).
- 3 Choose the outrigger which needs to retract, Press and hold the corresponding button.
- 4 Operate the hand pump with the lever, the outrigger emergency retract

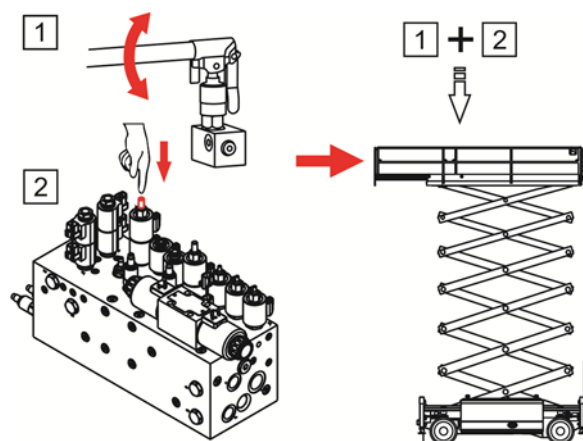
Emergency operating with hand pump

Emergency Lowering



- 1 Unplug the lever and put it into the hand pump (1).
- 2 Press and hold the button (2).
- 3 Operate the hand pump with the lever, the platform should lower.

Retracting Pothole guard

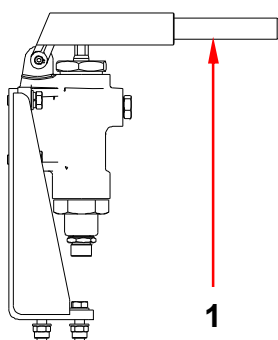


- 1 Unplug the lever and put it into the hand pump (1).
- 2 Press and hold the button (3).
- 3 Operate the hand pump with the lever, the platform should retract.

Operating Instructions

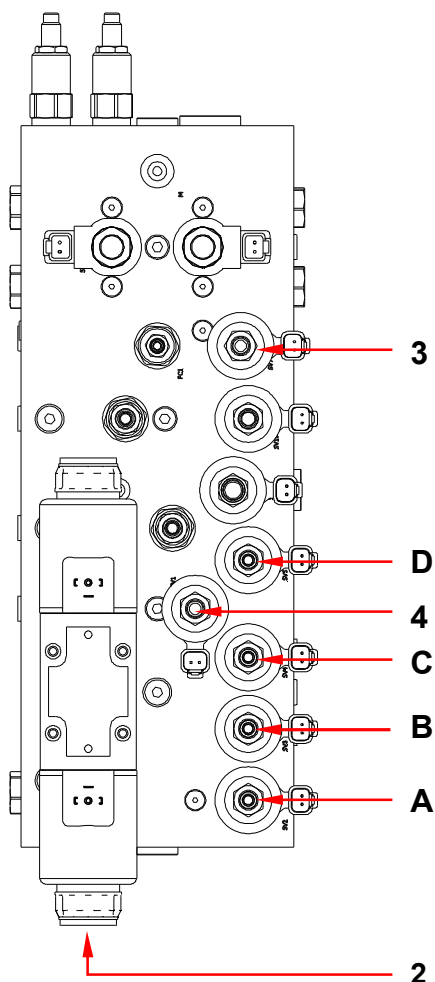
⚠ WARNING Do not emergency lift/lower the platform and retract outriggers simultaneously.

⚠ WARNING Emergency actuation of outriggers only in normal position danger of tipping!



After Each Use

- 1 Select a safe parking location - firm level surface, clear of obstruction and traffic.
- 2 Lower the platform.
- 3 Turn the key switch to the off position and remove the key to secure from unauthorized use.
- 4 Push in the red Emergency Stop buttons to "off" position.
- 5 Disconnect the main power.
- 6 Chock the wheels.
- 7 Charge the batteries.



Operating Instructions

Description of centralized lubrication device (Option)

- 1 The centralized lubrication device is a separate system, independent of the vehicle control system. The start-up battery only provides 12V power to the centralized lubrication system, and the booster module converts 12V to 24V to power the lubrication pump.
- 2 The lubrication pump is filled with lithium-based grease 2# (Delo Starplex EP 2) by default. Customers can choose the appropriate grease according to the ambient temperature: lithium-based grease 1# or 0#. Grease can be filled through the grease nipple on the side of the pump, and the amount of grease should be between the maximum and minimum scales.
- 3 The initial set pressure of the lubrication pump is 25Mpa, and the initial set time is to run once every 2 hours. For each run, 0.2g of grease is added to each lubrication point. After the pump is pressurized, it is necessary to ensure that each pointer is in the extended position and extended long enough, and then the pointer can be fully retracted after the pressure is relieved. If the pointer of the lubricator is not fully extended after the pump is pressurized, the set pressure can be increased appropriately, and the maximum should not exceed 30Mpa. The frequency of lubrication is related to the operating state of the machine, and the lubrication interval can be adjusted appropriately when the equipment is frequently raised and lowered.

Please refer to the *Single-Line Pump 603S with Control Unit User Manual* and *QSL*

Metering Device User Manual for operating instructions related to adjusting pressure and time.

Be sure to turn off the machine power after daily use. If you do not cut off the power, the lubrication system will continue to work at the set time and consume battery power.

If the power of the start-up battery is exhausted, the whole machine will not be able to start. Continuous operation will result in waste of electricity, and will squeeze out the grease and cause pollution to the equipment and the environment.

Transport and Lifting Instructions



Observe and Obey:

- ☒ Common sense and planning must be applied to control the movement of the machine when lifting it with a crane or forklift.
- ☒ Only qualified aerial lift operators should move the machine on or off the truck.
- ☒ The transport vehicle must be parked on a level surface.
- ☒ The transport vehicle must be secured to prevent rolling while the machine is being loaded.
- ☒ Be sure the vehicle capacity, loading surfaces and chains or straps are sufficient to withstand the machine weight. See the serial label for the machine weight.
- ☒ The machine must be on a level surface or secured before releasing the brakes.
- ☒ Do not allow the rails to fall when the snap pins are removed. Maintain a firm grasp on the rails when the rails are lowered.
- ☒ Do not drive the machine on a slope that exceeds the slope or side slope rating. See Driving on a Slope in the Operating Instructions section.
- ☒ If the slope of the transport vehicle bed exceeds the maximum slope rating, the machine must be loaded and unloaded using a winch as described.

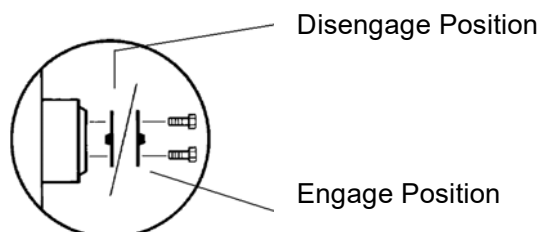
Free-wheel Configuration for Winching

Chock the wheels to prevent the machine from rolling.

Release the wheel brakes by turning over all four torque hub disconnect caps.

Be sure the winch line is properly secured to the drive chassis tie points and the path is clear of all obstructions.

Reverse the procedures described to re-engage the brakes.



Transport and Lifting Instructions

Securing to Truck or Trailer for Transit

Always chock the machine wheels in preparation for transport.

Retract and secure the extension deck(s).

Use the tie-down points on the chassis for anchoring down to the transport surface.

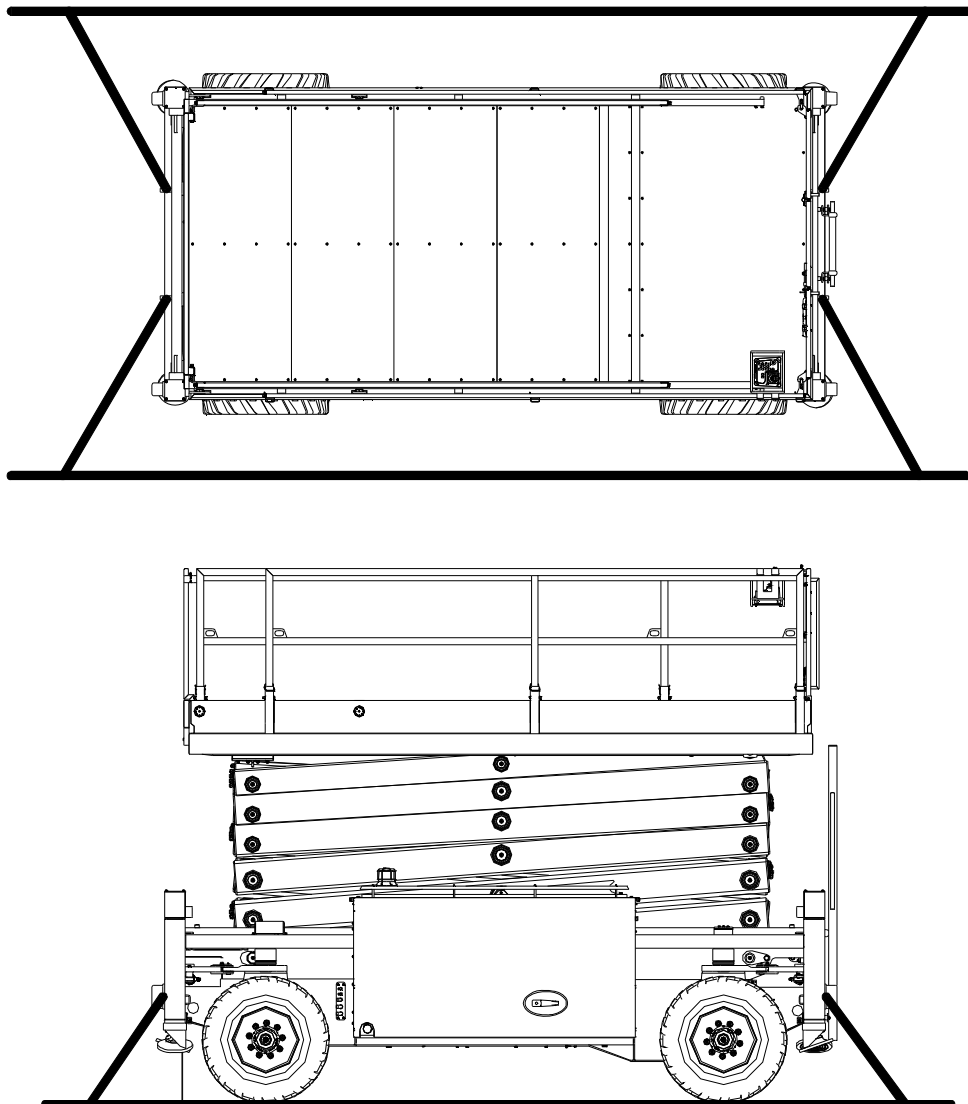
Use a minimum of four chains or straps.

Use chains or straps of ample load capacity.

Turn the key switch to the off position and remove the key before transporting.

Inspect the entire machine for loose or unsecured items.

If the railings have been turned over, secure them with straps before transporting.



Transport and Lifting Instructions



Observe and Obey:

- ☒ Only qualified riggers should rig and lift the machine.
- ☒ Be sure the crane capacity, loading surfaces and straps or lines are sufficient to withstand the machine weight. See the serial plate for the machine weight.

Determine the center of gravity of your machine using the table and the picture on this page.

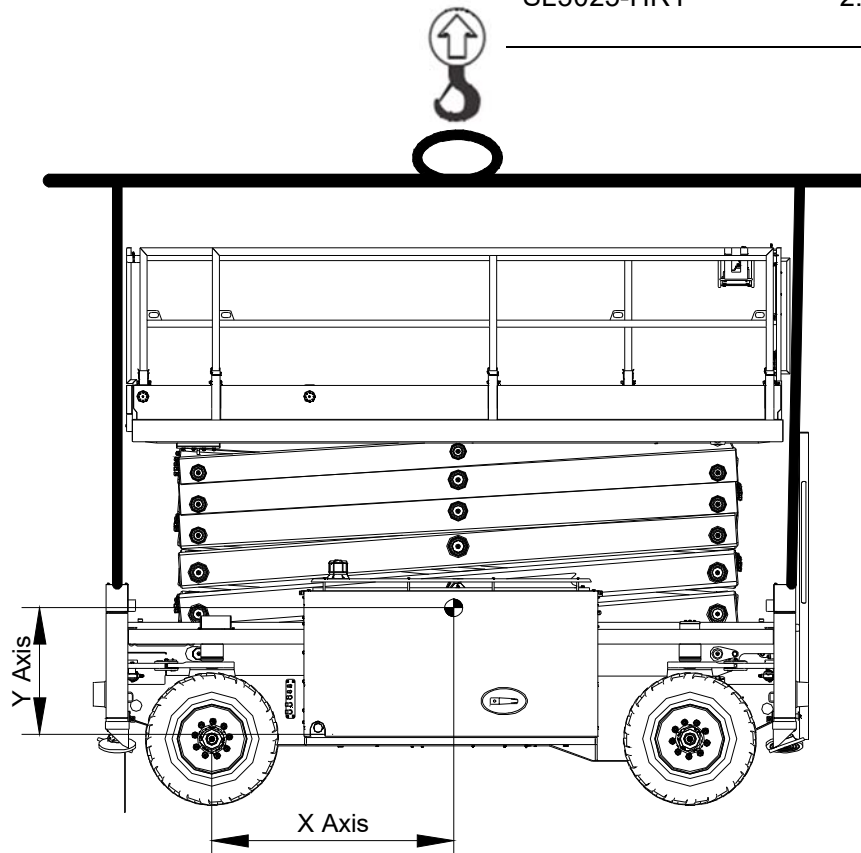
Attach the rigging only to the designated lifting points on the machine. There are two lifting points on each end of the machine.

Adjust the rigging to prevent damage to the machine and to keep the machine level.

Lifting Instructions

Fully lower the platform. Be sure the extension decks, controls and covers are secure. Remove all loose items on the machine.

Center of gravity	X Axis	Y Axis
SL2625-HRT	2.3m	1.0m
SL3025-HRT	2.7m	1.0m



Emergency Procedures

Processing methods for machine malfunctions

- 1 After the machine malfunctions, if it can still be lowered down, it must be ensuring safety when lowering the platform.
 - 2 If the faulty machine can not descend normally, please transfer personnel on the platform first, and then descend the platform through emergency operation.
 - 3 After ensuring that the machine is in a safe position, turn off the power and evacuate personnel.
 - 4 Marking faulty machines.
 - 5 Notify the Dingli warranty department.
- 2) Other qualified personnel on the platform may use the platform controls with regular or auxiliary power. **DO NOT CONTINUE OPERATION IF CONTROLS DO NOT FUNCTION NORMALLY.**
 - 3) Cranes, forklift trucks or other equipment which may be available are to be used to remove platform occupants and stabilize motion of the machine in case machine controls are inadequate or malfunction when used.

Emergency Operation

1 Use of Ground Controls

Know how to use the ground controls in an emergency situation.

Ground personnel must be thoroughly familiar with the machine operating characteristics and the ground control functions. Training should include operation of the machine, review and understanding of this section and hands-on operation of the controls in simulated emergencies.

2 Operator Unable to Control Machine

If the Platform Operator Is Pined, Trapped or Unable to Operate or Control the Machine

- 1) Operate the machine from ground controls **ONLY** with the assistance of other personnel and equipment (cranes, overhead hoists, etc.) as may be required to safely remove the danger or emergency condition.

3 Platforms Caught Overhead

If the platform becomes jammed or snagged in overhead structures or equipment, do not continue operation of the machine from either the platform or the ground until the operator and all personnel are safely moved to a secure location. Only then should an attempt be made to free the platform using any necessary equipment and personnel. Do not operate controls to cause one or more wheels to leave the ground.

4 Post Incident Inspections and Repair

Following any incident, thoroughly inspect the machine and test all functions first from the ground controls, then from the platform controls. Do not lift above 4 m until you are sure that all damage has been repaired, if required, and that all controls are operating correctly.

**Observe and Obey:**

- ☒ The storage of the machine shall be as follows, Incorrect storage may affect the performance and service life of the machine
- 1 The machine should be stored indoor coeditor and the ground should be firm and level. If be stored in outdoor condition the machine should be covered to prevent the water and dust.
- 2 Ensure the machine have been cleaned and the functional before stop to the storage. Repair an maintain it if necessary.
- 3 Stop the machine in suitable position so as the drive or move the machines conveniently.
- 4 The environment temperature should be within $-20^{\circ}\text{C}\sim 40^{\circ}\text{C}$ and the environment humidity $\leq 90\%$.

Rust protection

- 1 Before the machine is stored into the storage. Inspecting the paint before the machine is stored into the storage repaint the machine partly all completely against the damage.
- 2 For moving parts grease can be applied to prevent rust, such as bearings, joints and sliding rails

Instructions for brake inspection

- 1 For electric drive motors, when storing the machine for a long time (1 month ~ half a year), brake release should be performed once a month to prevent the brake pads from sticking.
- 2 If the brake pads are sticking, brake assembly need to be replaced.

Before use after a period of storage

The machine be stored long time or exposed to extreme environmental conditions (heat, cold, humidity, dust, etc,) cannot be used to service until it has been inspected and maintained according to the daily check procedure and function test.

Maintenance



Observe and Obey:

- ✓ Only routine maintenance items specified in this manual shall be performed by the operator.
- ✓ Scheduled maintenance inspections shall be completed by qualified service technicians, according to the manufacturer's specifications and the requirements specified in this manual.
- ✓ Before maintaining the machine, the workers must wear the personnel protective equipment such as gloves, safety shoes, safety cap and so on.
- ✓ Need to comply with local national laws and regulations of regular inspection and inspection frequency requirements.

Maintenance Symbols Legend

NOTICE

The following symbols have been used in this manual to help communicate the intent of the instructions. When one or more of the symbols appear at the beginning of a maintenance procedure, it conveys the meaning below.



Indicates that tools will be required to perform this procedure.



Indicates that new parts will be required to perform this procedure.



Indicates that a cold Engine is required before performing this procedure.



Indicates that a warm Engine will be required to perform this procedure.



Indicates that dealer service will be required to perform this procedure.

Pre-delivery Preparation Report

The pre-delivery preparation report contains checklists for each type of scheduled inspection.

Make copies of the Pre-delivery Preparation report to use for each inspection. Store completed forms as required.

Maintenance Schedule

There are five types of maintenance inspections that must be performed according to a schedule— daily, quarterly, semi-annually, annually, and two year. The Scheduled Maintenance Procedures Section and the Maintenance Inspection Report have been divided into five subsections—A, B, C, D, and E. Use the following chart to determine which group(s) of procedures are required to perform a scheduled inspection.

Inspection	Checklist
Daily or every 8 hours	A
Quarterly or every 250 hours	A+B
Semi-annually or every 500 hours	A+B+C
Annually or every 1000 hours	A+B+C+D
Two year or every 2000 hours	A+B+C+D+E

Maintenance

Maintenance Inspection Report

The maintenance inspection report contains checklists for each type of scheduled inspection.

Make copies of the Maintenance Inspection Report to use for each inspection. Maintain completed forms for a minimum of 4 years or in compliance with your employer, jobsite and governmental regulations and requirements.

Pre-delivery Preparation Report

Fundamentals

It is the responsibility of the dealer to perform the Pre-delivery Preparation.

The Pre-delivery Preparation is performed prior to each delivery. The inspection is designed to discover if anything is apparently wrong with a machine before it is put into service.

A damaged or modified machine must never be used. If damage or any variation from factory delivered condition is discovered, the machine must be tagged and removed from service.

Repairs to the machine may only be made by a qualified service technician, according to the manufacturer's specifications.

Scheduled maintenance inspections shall be performed by qualified service technicians, according to the manufacturer's specifications and the requirements listed in this manual.

Instructions

Use the operator's manual on your machine.

The Pre-delivery Preparation consists of completing the Pre-operation Inspection, the Maintenance items and the Function Tests.

Use this form to record the results. Place a check in the appropriate box after each part is completed. Follow the instructions in the operator's manual.

If any inspection receives an N, remove the machine from service, repair and re-inspect it. After repair, place a check in the R box.

Legend

Y = yes, completed

N = no, unable to complete

R = repaired

Comments

Pre-Delivery Preparation	Y	N	R
Pre-operation inspection completed			
Maintenance items completed			
Function tests completed			

Model

Serial number

Date

Machine owner

Inspected by (print)

Inspector signature

Inspector title

Inspector company

Maintenance

Maintenance Inspection Report

Model
Serial number
Date
Hour meter
Machine owner
Inspected by (print)
Inspector signature
Inspector title
Inspector company
Instructions
• Make copies of this report to use for each inspection. • Select the appropriate checklist(s) for the type of inspection to be performed.
☐ Daily or 8 hours Inspection: A
☐ Quarterly or 250 hours Inspection: A+B
☐ Semi-annually or 500 hours Inspection: A+B+C
☐ Annually or 1000 hours Inspection: A+B+C+D
☐ Two year or 2000 hours Inspection: A+B+C+D+E
• Place a check in the appropriate box after each inspection procedure is completed. • Use the step-by-step procedures in this section to learn how to perform these inspections. • If any inspection receives an "N", tag and remove the machine from service, repair and re-inspect it. After repair, place a check in the "R" box.
Legend
Y = yes, acceptable
N = no, remove from service
R = repaired

Checklist A	Y	N	R
A-1 Manuals and decals			
A-2 Pre-operation inspect			
A-3 Check the Batteries			
A-4 Check the Engine Oil Level			
A-5 Check the Hydraulic Oil Level			
A-6 Function tests			
A-7 Lanyard anchorage point			
Perform after 40 hours:			
A-8 30 day service			
Perform after 50 hours:			
A-9 Engine maintenance			
Perform after 100 hours:			
A-10 Engine maintenance			
Perform after 200 hours:			
A-11 Engine maintenance			
Perform after 400 hours:			
A-12 Engine maintenance			
Checklist B	Y	N	R
B-1 Battery			
B-2 Electrical wiring			
B-3 Tires and wheels			
B-4 Drive hub oil level			
B-5 Key switch			
B-6 Emergency Stop			
B-7 Horn			
B-8 Drive brakes			
B-9 Drive speed - stowed			

Maintenance

B-10 Drive speed - raised			
B-11 Lubrication			
B-12 Hydraulic oil analysis			
Checklist C	Y	N	R
C-1 Platform overload			
C-2 Engine maintenance500			
C-3 Engine maintenance800			
Checklist D			
D-1 Return filter element			
D-2 Free-wheel configuration			
D-3 Engine maintenance1500			
Checklist E	Y	N	R
E-1 Test or replace hydraulic oil			
E-2 Engine maintenance2000			
Perform every 3000 hours:			
E-3 Engine maintenance3000			

Maintenance

Checklist A Procedures

A-1

Inspect the Manuals and Decals

Maintaining the operator's manual in good condition is essential to safe machine operation. Manuals are included with each machine and should be stored in the container provided in the platform. An illegible or missing manual will not provide safety and operational information necessary for a safe operating condition.

In addition, maintaining all of the safety and instructional decals in good condition is mandatory for safe machine operation. Decals alert operators and personnel to the many possible hazards associated with using this machine. They also provide users with operation and maintenance information. An illegible decal will fail to alert personnel of a procedure or hazard and could result in unsafe operating conditions.

- 1 Check to make sure that the operator's manual is present and complete in the storage container on the platform.
- 2 Examine the pages of manual to be sure that they are legible and in good condition.

⊙ Result: The operator's manual is appropriate for the machine and the manual are legible and in good condition.

⊗ Result: The operator's manual is not appropriate for the machine or the manual is not in good condition or is illegible. Remove the machine from service until the manual is replaced.

- 3 Open the operator's manual to the decals inspection section. Carefully and thoroughly inspect all decals on the machine for legibility and damage.

⊙ Result: The machine is equipped with all required decals, and all decals are legible and in good condition.

⊗ Result: The machine is not equipped with all required decals, or one or more decals are illegible or in poor condition. Remove the machine from service until the decals are replaced.

- 4 Always return the manual to the storage container after use.

Note: Contact your authorized DINGLI distributor or DINGLI machinery if replacement manuals or decals are needed.

Maintenance

A-2

Perform Pre-operation Inspection

Completing a Pre-operation Inspection is essential to safe machine operation. The Pre-operation Inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with a machine before the operator performs the function tests. The Pre-operation Inspection also serves to determine if routine maintenance procedures are required.

Complete information to perform this procedure is available in the appropriate operator's manual. Refer to the operator's manual on your machine.

A-3

Check the Batteries



Proper battery condition is essential to good machine performance and operational safety. Improper fluid levels or damaged cables and connections can result in component damage and hazardous conditions.

Note: This check is not required for machines with lithium batteries, sealed batteries, or Maintenance - free batteries.

⚠ WARNING Electrocutation hazard.

Contact with hot or live circuits may result in death or serious injury. Remove all rings, watches and other jewelry.

⚠ WARNING Bodily injury hazard.

Batteries contain acid. Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.

- 1 Put on protective clothing and eye wear.
- 2 Be sure that the battery cable connections are tight and free of corrosion.
- 3 Be sure that the battery hold-down bars are secure.
- 4 Remove the battery vent caps.
- 5 Check the battery acid level. If needed, replenish with distilled water to the bottom of the battery fill tube. Do not overfill.
- 6 Install the vent caps.

Note: Adding terminal protectors and a corrosion preventative sealant will help eliminate corrosion on the battery terminals and cables.

Maintenance

A-4

Check the Engine Oil Level



Maintaining the proper Engine oil level is essential to good Engine performance and service life.

Operating the machine with an improper oil level can damage Engine components.

NOTICE Check the oil level with the Engine off.

- 1 Open the Engine cover
 - 2 Pull out the lubricating oil dipstick and wipe off a lint-free, clean cloth.
 - 3 Insert the lubricating oil dipstick as it will go.
 - 4 Extract the lubricating oil dipstick and read off the oil level
- ⊙ Result: The oil level must always be between the MIN and MAX mark. Top up to the MAX mark if necessary.

-20℃～120℃ (Full Synthetic)	5W-30
-20℃～30℃	5W-30
70℃～120℃	10W-40
0℃～120℃	10W-30

A-5

Check the Hydraulic Oil Level



Maintaining the hydraulic oil at the proper level is essential to machine operation. Improper hydraulic oil levels can damage hydraulic components. Daily checks allow the inspector to identify changes in oil level that might indicate the presence of hydraulic system problems.

NOTICE Perform this procedure with the platform in the stowed position and the Engine off.

- 1 Visually inspect the sight of hydraulic oil level from the side of the hydraulic oil tank.
- ⊙ Result: The hydraulic oil level should be between the maximum level and minimum level.
- 2 Add oil if necessary. Do not overfill.

NOTICE **Original Hydraulic oil specifications: L-HV46**

Customers shall choose the appropriate hydraulic oil according to the ambient temperature used.

Example: L-HV32 or L-HV68

A-6**Perform Function Tests**

Completing the function tests is essential to safe machine operation. Function tests are designed to discover any malfunctions before the machine is put into service. A malfunctioning machine must never be used. If malfunctions are discovered, the machine must be tagged and removed from service.

Complete information to perform this procedure is available in the appropriate operator's manual. Refer to the Operator's Manual on your machine.

A-7**Check Lanyard anchorage point**

The lanyard anchorage point is the key component of the high-altitude operation safety system, which is directly related to the personal safety of the operator. Therefore the regular inspection and maintenance of the Lanyard anchorage point are particularly important.

Before each use, the comprehensive inspection of the anchorage points belt should be carried out to ensure that there are no cracks or de-welding phenomena in the welds, and no cracks or deformations in the structural components. Ensure the labels are clear and complete, attach only one lanyard per lanyard anchorage point.

If signs of damage are found at the anchorage points, it should be stopped immediately, and can only be used after the repair is qualified.

Maintenance

A-8

Perform 30 Day Service



The 30 day maintenance procedure is a one time procedure to be performed after the first 30 days or 40 hours of usage. After this interval, refer to the maintenance tables for continued scheduled maintenance.

- 1 Perform the following maintenance procedures:
 - B-3 Inspect the Tires and Wheels (including lug nut torque)

A-9

Perform Engine Maintenance



Engine specifications require that this procedure be performed every 50 hours Engine operation.

Required maintenance procedures and additional Engine information is available in the Engine operator's manual.

A-10

Perform Engine Maintenance



Engine specifications require that this procedure be performed every 100 hours Engine operation.

Required maintenance procedures and additional Engine information is available in the Engine operator's manual.

A-11

Perform Engine Maintenance



Engine specifications require that this procedure be performed every 200 hours Engine operation.

Required maintenance procedures and additional Engine information is available in the Engine operator's manual.

A-12

Perform Engine Maintenance



Engine specifications require that this procedure be performed every 400 hours Engine operation.

Required maintenance procedures and additional Engine information is available in the Engine operator's manual.

Checklist B Procedures**B-1****Inspect the Batteries**

DINGLI requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Proper battery condition is essential to good machine performance and operational safety. Improper fluid levels or damaged cables and connections can result in component damage and hazardous conditions.

⚠ WARNING

Electrocution / burn hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

⚠ WARNING

Bodily injury hazard. Batteries contain acid. Avoid spilling or contacting battery acid. Neutralize battery acid spills with baking soda and water.

- 1 Put on protective clothing and eye wear.
- 2 Be sure that the battery cable connections are free of corrosion.

Note: Adding terminal protectors and a corrosion preventative sealant will help eliminate corrosion on the battery terminals and cables.

- 3 Be sure that the battery retainers and cable connections are tight.
- 4 Fully charge the battery. Allow the battery to rest 24 hours before performing this procedure to allow the battery cells to equalize.

Models without maintenance-free or sealed batteries:

- 5 Remove the battery vent caps and check the specific gravity of each battery cell with a hydrometer. Note the results.
- 6 Check the ambient air temperature and adjust the specific gravity reading for each cell as follows:
 - Add 0.004 to the reading of each cell for every 5.5° C above 26.7° C.
 - Subtract 0.004 from the reading of each cell for every 5.5° C below 26.7° C.
- ⊙ Result: All battery cells display an adjusted specific gravity of 1.277 or higher. The battery is fully charged. Proceed to step 10.
- ⊗ Result: One or more battery cells display a specific gravity of 1.276 or below. Proceed to step 7.
- 7 Perform an equalizing charge OR fully charge the batteries and allow the battery to rest at least 6 hours.
- 8 Remove the battery vent caps and check the specific gravity of each battery cell with a hydrometer. Note the results.
- 9 Check the ambient air temperature and adjust the specific gravity reading for each cell as follows:
 - Add 0.004 to the reading of each cell for every 5.5° C above 26.7° C.
 - Subtract 0.004 from the reading of each cell for every 5.5° C below 26.7° C.
- ⊙ Result: All battery cells display a specific gravity of 1.277 or greater. The battery is

Maintenance

fully charged. Proceed to step 10.

- ☐ Result: The difference in specific gravity readings between cells is greater than 0.1 OR the specific gravity of one or more cells is less than 1.177. Replace the battery.
- 10 Check the battery acid level. If needed, replenish with distilled water to 1/8 inch | 3 mm below the bottom of the battery fill tube. Do not overfill.
- 11 Install the vent caps and neutralize any electrolyte that may have spilled.

All models:

- 12 Check each battery pack and verify that the batteries are wired correctly.
- 13 Inspect the battery charger plug and pigtail for damage or excessive insulation wear. Replace as required.
- 14 Connect the battery charger to a properly grounded 110 - 230V / 50 – 60 Hz single phase AC power supply.
- ⊙ Result: The charger should operate and begin charging the batteries.
- ☐ Result: If, simultaneously, the charger alarm sounds and the LEDs blink, correct the charger connections at the fuse and battery. The charger will then operate correctly and begin charging the batteries.

Note: For best results, use an extension of adequate size with a length no longer than 15m.

Note: If you have any further questions regarding the battery charger operation, please contact the DINGLI Service Department.

B-2

Inspect the Electrical Wiring



DINGLI requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Maintaining electrical wiring in good condition is essential to safe operation and good machine performance. Failure to find and replace burnt, chafed, corroded or pinched wires could result in unsafe operating conditions and may cause component damage.

⚠ WARNING

Electrocution / burn hazard. Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

- 1 Inspect the underside of the chassis for damaged or missing ground strap(s).
- 2 Inspect the following areas for burnt, chafed, corroded and loose wires:
 - Ground control panel
 - Hydraulic power unit module tray
 - Battery pack module tray
 - Platform controls
- 3 Inspect for a liberal coating of dielectric grease in the following locations:
 - Between the ECM and platform controls
 - All wire harness connectors
 - Level sensor

Maintenance

- 4 Inspect the center chassis area and scissor arms for burnt, chafed and pinched cables.
- 5 Inspect the following areas for burnt, chafed, corroded, pinched and loose wires:
 - Scissor arms
 - ECM to platform controls
 - Power to platform wiring
- 6 Inspect for a liberal coating of dielectric grease in all connections between the ECM and the platform controls.

B-3

Inspect the Tires and Wheels



Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes

Maintaining the tires and wheels in good condition is essential to safe operation and good performance. Tire and/or wheel failure could result in a machine tip-over. Component damage may also result if problems are not discovered and repaired in a timely fashion.

- 1 Check all tire treads and sidewalls for cuts, cracks, punctures and unusual wear.
- 2 Check each wheel for damage, bends and cracks.
- 3 Check each lug nut for proper torque.

Lug nut torque	450Nm
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Maintenance

B-4

Check the Oil Level in the Drive Hubs



Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes

Failure to maintain proper drive hub oil levels may cause the machine to perform poorly and continued use may cause component damage.

- 1 Before draining oil it is mandatory to rotate the planetary gear reduction in order to move the oil plug in filling position, then loosen the oil plug and wait until the internal pressure is completely released.
- 2 Remove the plug located and check the oil level.
- ⊙ Result: The oil level should be even with the bottom of the plug hole.
- 3 If necessary, remove the plug and add oil until the oil level.
- 4 Apply pipe thread sealant to the plug(s), and then install the plug(s) in the drive hub.
- 5 Repeat this procedure for each drive hub.

B-5

Test the Key Switch

Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Proper key switch action and response is essential to safe machine operation. Failure of the key switch to activate the appropriate control panel could cause a hazardous operating situation.

- 1 Pull out the platform and ground red Emergency Stop button to the on position.
- 2 Turn the key switch to ground controls.
- 3 Check any machine function from the platform controls.
- ⊙ Result: The machine functions should not operate.
- 4 Turn the key switch to platform controls.
- 5 Check any machine function from the ground controls.
- ⊙ Result: The machine functions should not operate.
- 6 Turn the key switch to the off position.
- ⊙ Result: No machine functions should operate.

Maintenance

B-6

Test the Emergency Stop

Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

A properly functioning Emergency Stop is essential for safe machine operation. An improperly operating red Emergency Stop button will fail to shut off power and stop all machine functions, resulting in a hazardous situation.

As a safety feature, selecting and operating the ground controls will override the platform controls, except the platform red Emergency Stop button.

- 1 Turn the key switch to ground control and Pull out the platform and ground red Emergency Stop button to the on position.
- 2 Push in the red Emergency Stop button at the ground controls to the off position.

⊙ Result: No machine functions should operate.

- 3 Turn the key switch to platform control and Pull out the platform and ground red Emergency Stop button to the on position.
- 4 Push down the red Emergency Stop button at the platform controls to the off position.

⊙ Result: No machine functions should operate.

Note: The red Emergency Stop button at the ground controls will stop all machine operation, even if the key switch is switched to platform control.

B-7

Test the Automotive-style Horn

Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

A functional horn is essential to safe machine operation. The horn is activated at the platform controls and sounds at the ground as a warning to ground personnel. An improperly functioning horn will prevent the operator from alerting ground personnel of hazards or unsafe conditions.

- 1 Turn the key switch to platform control and Pull out the platform and ground red Emergency Stop button to the on position.
- 2 Push down the horn button at the platform controls.

⊙ Result: The horn should sound.

Note: If necessary, the horn can be adjusted to obtain the loudest volume by turning the adjustment screw near the wire terminals on the horn.

Maintenance

B-8

Test the Drive Brakes



Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Proper brake action is essential to safe machine operation. The drive brake function should operate smoothly, free of hesitation, jerking and unusual noise.

Hydraulically-released individual wheel brakes can appear to operate normally when they are actually not fully operational.

Note: The brakes must be able to hold the machine on any slope it is able to climb.

- 6 Replace the brakes and repeat this procedure beginning with step 1.

Braking distance, maximum

High range on paved surface	120cm
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- 1 Mark a test line on the ground for reference.
 - 2 Turn the key switch to platform control and Pull out the platform and ground red Emergency Stop button to the on position.
 - 3 Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the test line.
 - 4 Bring the machine to top drive speed before reaching the test line. Release the function enable switch on the control handle or release the control handle when your reference point on the machine crosses the test line.
 - 5 Measure the distance between the test line and your machine reference point.
- ☉ Result: The machine stops within the specified braking distance. No action required.
- ☐ Result: The machine does not stop within the specified braking distance.

Maintenance

B-9

Test the Drive Speed - Stowed Position



Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes

Proper drive function movement is essential to safe machine operation. The drive function should respond quickly and smoothly to operator control. Drive performance should also be free of hesitation, jerking and unusual noise over the entire proportionally control led speed range.

- 1 Create start and finish lines by marking two lines on the ground 12.2m apart.
- 2 Turn the key switch to platform controls
- 3 Pull out the platform red Emergency Stop button to the on position.
- 4 Pull out the ground red Emergency Stop button to the on position.
- 5 Lower the platform to the stowed position.
- 6 Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the start and finish lines.
- 7 Bring the machine to maximum drive speed before reaching the start line. Begin timing when your reference point on the machine crosses the start line.
- 8 Continue at full speed and note the time when the machine reference point passes over the finish line. The time is less than 11 sec.

B-10

Test the Drive Speed -Raised Position



Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Proper drive function movement is essential to safe machine operation. The drive function should respond quickly and smoothly to operator control. Drive performance should also be free of hesitation, jerking and unusual noise over the entire proportionally control led speed range.

- 1 Create start and finish lines by marking two lines on the ground 12.2m apart.
- 2 Turn the key switch to platform controls
- 1 Pull out the platform red Emergency Stop button to the on position.
- 3 Pull out the ground red Emergency Stop button to the on position.
- 4 Press and hold the function enable button. Raise the platform approximately 4.5m from the ground.
- 5 Choose a point on the machine; i.e., contact patch of a tire, as a visual reference for use when crossing the start and finish lines.
- 6 Bring the machine to maximum drive speed before reaching the start line. Begin timing when your reference point on the machine crosses the start line.
- 7 Continue at full speed and note the time when the machine reference point passes over the finish line. The time is less than 146 sec.

Maintenance

B-11

Lubrication



Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

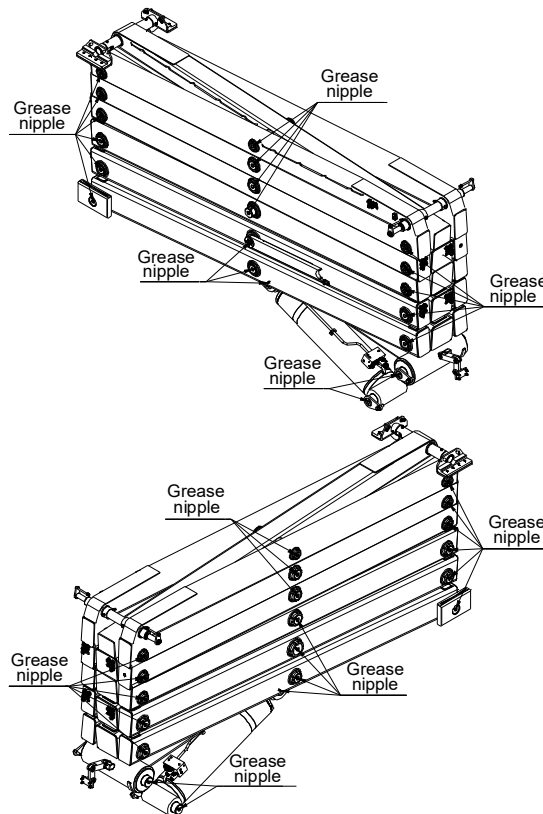
Good lubrication is essential to machine performance and service life. Failure to lubricate may cause the machine to perform poorly and continued use may cause component damage.

Lubrication involves:

- The lubricating points on the scissor joints
- The lubricating points on the chassis.
- The lubricating points on the platform

The following points must be lubricated on the scissor joint in particular:

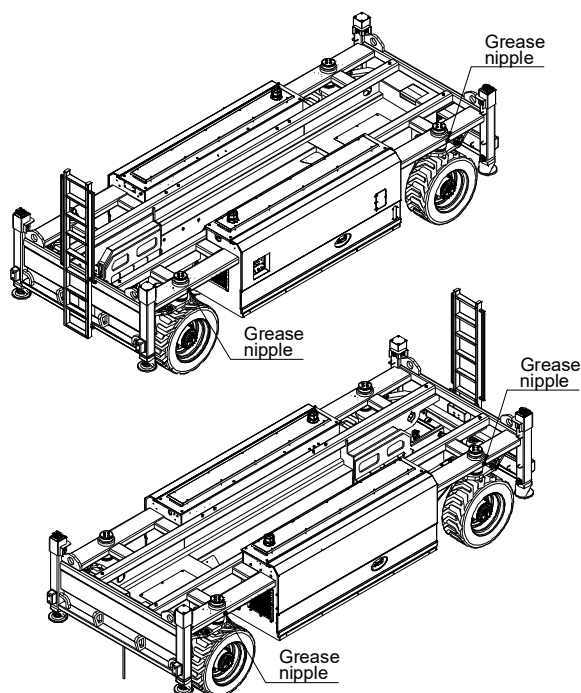
- Scissor shaft
- Sliding blocks



The following points must be lubricated on the chassis in particular:

- Steering
- lifting cylinder
- Sliding tracks of the sliding blocks

Maintenance



The following points must be lubricated on the platform in particular:

- Sliding blocks - sliding tracks

Note: Lubricate all grease points of the aerial work platform only slightly when re-lubricating, but always ensure sufficient lubrication. Use high temperature-resistant grease.

B-12

Perform Hydraulic Oil Analysis



Dingli requires that this procedure be performed every 250 hours or quarterly, whichever comes first.

Replacement or testing of the hydraulic oil is essential for good machine performance and service life. Dirty oil and a clogged suction strainer may cause the machine to perform poorly and continued use may cause component damage. Extremely dirty conditions may require oil changes to be performed more often.

Note: Before replacing the hydraulic oil, the oil may be tested by an oil distributor for specific levels of contamination to verify that changing the oil is necessary. If the hydraulic oil is not replaced at the two year inspection, test the oil quarterly. Replace the oil when it fails the test. See E-1, Test or Replace the Hydraulic Oil.

Maintenance

Checklist C Procedures

C-1

Test the Platform Overload System



Dingli specifications require that this procedure be performed every 500 hours or semi-annually, whichever comes first OR when the machine fails to lift the maximum rated load.

Testing the platform overload system regularly is essential to safe machine operation. Continued use of an improperly operating platform overload system could result in the system not sensing an overloaded platform condition. Machine stability could be compromised resulting in the machine tipping over.

Note: Perform this procedure with the machine on a firm, level surface that is free of obstructions.

- 1 Turn the key switch to platform controls.
Pull out the platform and ground red Emergency Stop button to the on position.
- 2 Determine the maximum platform capacity.
- 3 Using a suitable lifting device, place an appropriate test weight equal to the maximum platform capacity in the center of the platform floor. Raise the platform.
 - ⊙ Result: The overload alarm not sounds during the whole trip, indicating a normal condition.
 - ⊗ Result: The overload alarm sounds during the whole trip. Calibrate the platform overload system.

- 4 The platform should lower to the stowed position
- 5 Add an additional weight to the platform not to exceed 20% of the maximum rated load. Raise the platform.
 - ⊙ Result: The overload alarm at the platform controls sound, indicating a normal condition.
 - ⊗ Result: The overload alarm at the platform controls does not sound. Calibrate the platform overload system.
- 6 Test all machine functions from the platform controls.
 - ⊙ Result: All platform control functions should not operate.
- 7 Turn the key switch to ground control.
- 8 Test all machine functions from the ground controls
 - ⊙ Result: All ground control functions should not operate.
- 9 Lift the test weight off the platform floor using a suitable lifting device.
 - ⊙ Result: The overload alarm at the platform controls should not sound, indicating a normal condition.
 - ⊗ Result: The overload alarm at the platform controls sounds. Calibrate the platform overload system.
- 10 Test all machine functions from the ground controls.

Maintenance

- ⊙ Result: All ground control functions should operate.
- 11 Turn the key switch to platform controls.
- 12 Test all machine functions from the platform controls.
- ⊙ Result: All platform control functions should operate.

C-2

Perform Engine Maintenance



Engine specifications require that this procedure be performed every 500 hours Engine operation.

Required maintenance procedures and additional Engine information is available in the Engine operator's manual.

C-3

Perform Engine Maintenance



Engine specifications require that this procedure be performed every 800 hours Engine operation.

Required maintenance procedures and additional Engine information is available in the Engine operator's manual.

Maintenance

Checklist D Procedures

D-1

Replace the Hydraulic Tank Return Filter Element



DINGLI requires that this procedure be performed every 1000 hours or annually, whichever comes first.

Replacement of the hydraulic tank return filter is essential for good machine performance and service life. A dirty or clogged filter may cause the machine to perform poorly and continued use may cause component damage. Extremely dirty conditions may require that the filter be replaced more often.

CAUTION Beware of hot oil. Contact with hot oil may cause severe burns.

- 1 Open the cover.
- 2 Tag and disconnect the hydraulic tank return line .Cap the fitting on the filter head.
- 3 Clean the area around the oil filter. Remove the filter with an oil filter wrench.
- 4 Apply a thin layer of oil to the new oil filter gasket.
- 5 Install the new filter and tighten it securely by hand.
- 6 Use a permanent ink marker to write the date and number of hours from the hour meter onto the filter.
- 7 Inspect the filter and related components to be sure that there are no leaks.
- 8 Clean up any oil that may have spilled.

D-2

Check the Free-wheel Configuration



Dingli specifications require that this procedure be performed every 1000 hours or annually, whichever comes first.

Proper use of the free-wheel configuration is essential to safe machine operation. The free-wheel configuration is used primarily for towing. A machine configured to free-wheel without operator knowledge may cause death or serious injury and property damage.

WARNING Collision hazard. Select a work site that is firm and level.

NOTICE Component damage hazard. If the machine must be towed, do not exceed 4.0km/h.

- 1 Chock the front wheels.
- 2 Center a lifting jack of ample capacity (50,000 lbs / 25,000 kg) under the drive chassis between the rear wheels.
- 3 Lift the wheels off the ground and place blocks under the drive chassis for support.

WARNING Crushing hazard. The chassis could fall if not properly supported.

- 4 Release the brake.
- 5 Manually rotate each rear wheel.
- ⊙ Result: Each wheel should rotate with minimum effort.
- 6 Reset the brake. Rotate each wheel to check for engagement. Raise the machine and remove the blocks. Lower the machine.

Maintenance

- 7 Chock the rear wheels.
- 8 Center a lifting jack of ample capacity (50,000 lbs / 25,000 kg) under the drive chassis between the front wheels.
- 9 Lift the wheels off the ground and place blocks under the drive chassis for support.

⚠ WARNING Crushing hazard. The chassis could fall if not properly supported.

- 10 Release the brake.
- 11 Manually rotate each front wheel.
- ⦿ Result: Each wheel should rotate with minimum effort.
- 12 Reset the brake. Rotate each wheel to check for engagement. Raise the machine and remove the blocks. Lower the machine.

D-3

Perform Engine Maintenance



Engine specifications require that this procedure be performed every 1500 hours Engine operation.

Required maintenance procedures and additional Engine information is available in the Engine operator's manual.

Maintenance

Checklist E Procedures

E-1

Test or Replace the Hydraulic Oil



DINGLI requires that this procedure be performed every 2000 hours or every two years, whichever comes first.

Replacement or testing of the hydraulic oil is essential for good machine performance and service life. Dirty oil and suction strainers may cause the machine to perform poorly and continued use may cause component damage. Extremely dirty conditions may require oil changes to be performed more frequently.

NOTICE

Component damage hazard.

The work area and surfaces where this procedure will be performed must be clean and free of debris that could get into the hydraulic system.

Before replacing the hydraulic oil, the oil may be tested by an oil distributor for specific levels of contamination to verify that changing the oil is necessary.

If the hydraulic oil is not replaced at the two year inspection, test the oil quarterly. Replace the oil when it fails the test.

Note: Perform this procedure with the platform in the stowed position.

⚠ WARNING

Electrocution / burn hazard: Contact with electrically charged circuits could result in death or serious injury. Remove all rings, watches and other jewelry.

⚠ WARNING

Bodily injury hazard.

Spraying hydraulic oil can penetrate and burn skin. Loosen hydraulic connections very slowly to allow the oil pressure to dissipate gradually. Do not allow oil to squirt or spray.

- 1 Disconnect the battery pack from the machine.
- 2 Open the power unit module cover.
- 3 Remove the oil drain plug at bottom Drain all of the oil into a suitable container.
- 4 Tag and disconnect the hydraulic tank return line from the hydraulic filter head and remove the line from the tank. Cap the fitting on the filter head.
- 5 Tag and disconnect the hydraulic pump inlet line and remove the line from the tank. Cap the fitting on the pump.
- 6 Remove the hydraulic tank retaining fasteners and remove the hydraulic tank from the machine.
- 7 Remove the breather cap from the hydraulic tank.
- 8 Clean the inside of the hydraulic tank using a mild solvent. Allow the tank to dry completely.
- 9 Tighten the drain plug.

Maintenance

- 10 Install the breather cap onto the hydraulic tank.
- 11 Install the hydraulic tank and install and tighten the hydraulic tank retaining fasteners.
- 12 Install the hydraulic pump inlet line into the tank. Install the fitting onto the pump and torque.
- 13 Install the hydraulic pump return line into the tank. Install the fitting onto the hydraulic filter head and torque.
- 14 Add the tank with hydraulic oil until the fluid is equal in the hydraulic tank.

⚠ WARNING Component damage hazard.
The pump can be damaged if operated without oil. Be careful not to empty the hydraulic tank while in the process of filling the hydraulic system. Do not allow the pump to cavitate.

E-2

Perform Engine Maintenance



Engine specifications require that this procedure be performed every 2000 hours Engine operation.

Required maintenance procedures and additional Engine information is available in the Engine operator's manual.

E-3

Perform Engine Maintenance



Engine specifications require that this procedure be performed every 3000 hours Engine operation.

Required maintenance procedures and additional Engine information is available in the Engine operator's manual.

Maintenance

Fault State

List of Fault Codes			
Display for Platform	Display for Ground	Description	Description
01	System fault	Main ECU System Fault	Replace Main ECU
02	Communication fault	ECU/Platform Communication Fault	Check the wiring, check the platform/ground control
06	BMS fault	Battery BMS fault	Check the BMS, check the wiring
07	Angle Fu sa Warning	Angle sensor warning: Abnormal change in angle sensor detected.	Check the sensor, check the machine
14	Angle Sensor Fault	Angle Sensor Fault	Check the sensor, check the wiring
15	Load Sensor Fault	Load Sensor Fault	Check the sensor, check the wiring
20	chassis start button fault	chassis start button fault	Check the switch, check the wiring
22	chassis up button fault	chassis up button fault	Check the switch, check the wiring
24	chassis down button fault	chassis down button fault	Check the switch, check the wiring
25	PCU steer left button fault	PCU steer left button fault	Check the switch, replace the platform
26	PCU steer right button fault	PCU steer right button fault	Check the switch, replace the platform
27	PCU enable button fault	PCU enable button fault	Check the switch, replace the platform
28	PCU joystick out of neutral fault	PCU joystick out of neutral fault	Check the switch, replace the platform
32	PCU start button fault	PCU start button fault	Check the switch, replace the platform
33	PCU LF outrigger button fault	PCU LF outrigger button fault	Check the switch, replace the platform
34	PCU RF outrigger button fault	PCU RF outrigger button fault	Check the switch, replace the platform
35	PCU LR outrigger button fault	Platform Left Rear Outrigger Enable Switch ON at power-up	Check the switch, replace the platform

Maintenance

Display for Platform	Display for Ground	Description	Repair
36	PCU RR outrigger button fault	Platform Right Rear Outrigger Enable Switch ON at power-up	Check the switch, replace the platform
37	PCU auto outrigger button fault	Platform Outrigger Auto Level Enable Switch ON at power-up	Check the switch, replace the platform
38	PCU Generator button fault	Platform Outrigger Auto Level Enable Switch ON at power-up	Check the switch, replace the platform
42	Down limit switch fault	Down limit switch fault	Check the limit switch, check the wiring
43	Outrigger not extended	Outrigger not extended	Check the limit switch, check the wiring
44	Plug in and charge	The machine be charged by alternating current	Check the charger, check the wiring
45	Water temperature fault	Engine Water temperature fault	Check the engine, check the wiring
46	Oil pressure fault	Engine Oil pressure fault	Check the engine, check the wiring
46	Float limit switch fault	Float limit switch fault	Check the limit switch, check the wiring
47	BMS Extend-Range Circuit Fault	BMS Extend-Range Circuit Fault	Check the BMS, check the wiring
49	E-Stop Relay Fault	E-Stop Relay Fault	Check the EMS switch, check the wiring
50	Ultrasonic Fault	Ultrasonic Fault or the Ultrasonic sensor detect obstruction	Check the sensor, check the wiring
53	Fast Down Valve Fault	Fast Down Valve Fault	Check the wiring, replace the valve
54	UP valve fault	UP valve fault	Check the wiring, replace the valve
55	Down valve fault	Down valve fault	Check the wiring, replace the valve
56	Steer forward right valve fault	Steer forward right valve fault	Check the wiring, replace the valve
57	Steer forward left valve fault	Steer forward left valve fault	Check the wiring, replace the valve
58	Brake valve fault	Brake valve fault	Check the wiring, replace the valve

Maintenance

Display for Platform	Display for Ground	Description	Repair
59	Slow Down Valve Fault	Slow Down Valve Fault	Check the wiring, replace the valve
61	Turn Switch Valve Fault	Turn Switch Valve Fault	Check the wiring, replace the valve
62	Steer reverse right valve fault	Steer reverse right valve fault	Check the wiring, replace the valve
63	Steer reverse left valve fault	Steer reverse left valve fault	Check the wiring, replace the valve
64	Unload 1 valve fault	Unload 1 valve fault	Check the wiring, replace the valve
65	Unload 2 valve faultt	Unload 2 valve faultt	Check the wiring, replace the valve
66	Master Unload Valve Fault	Master Unload Valve Fault	Check the wiring, replace the valve
68	Battery low voltage fault	Battery low voltage fault	check the wiring, check the battery
73	PUMP2 AC fault	PUMP Motor controller 2 fault	Check the wiring, replace the controller
74	PUMP AC fault	PUMP Motor controller fault	Check the wiring, replace the controller
75	LF AC fault	LF Motor controller fault	Check the wiring, replace the controller
76	RF AC fault	RF Motor controller fault	Check the wiring, replace the controller
77	LR AC fault	LR Motor controller fault	Check the wiring, replace the controller
78	RR AC fault	RR Motor controller fault	Check the wiring, replace the controller
80	Low SOC fault	Low SOC fault	check the wiring, check the battery
81	LF outrigger valve fault	LF outrigger valve fault	Check the wiring, replace the valve
82	LR outrigger valve fault	LR outrigger valve fault	Check the wiring, replace the valve
83	RF outrigger valve fault	RF outrigger valve fault	Check the wiring, replace the valve
84	RR outrigger valve fault	RR outrigger valve fault	Check the wiring, replace the valve
85	Extend outrigger valve fault	Extend outrigger valve fault	Check the wiring, replace the valve
86	Retract outrigger valve fault	Retract outrigger valve fault	Check the wiring, replace the valve

Maintenance

Display for Platform	Display for Ground	Description	Repair
89	Outrigger valve fault,	Outrigger valve fault,	Check the wiring, replace the valve
90	Factory Test Mode,	Factory Test Mode	Factory Test Mode
92	Out platform valve fault	Platform extend valve fault	Check the wiring, replace the valve
93	In platform valve fault	Platform retract valve fault	Check the wiring, replace the valve
94	SOC high, inhibit extend range	BMS SOC high, inhibit extend range start	check the wiring, check the battery
98	LegPressureFault	Outrigger pressure sensor fault	Check the sensor, check the wiring
OL	Platform Overload	Platform Overload Fault	Remove the excess load immediately.
LL	Chassis Tilt	Machine Tilted Beyond Safe Limits Fault	check the wiring, replace the sensor

For more information, please consult the appropriate Dingli Service Dept.

Disposal

Disposal

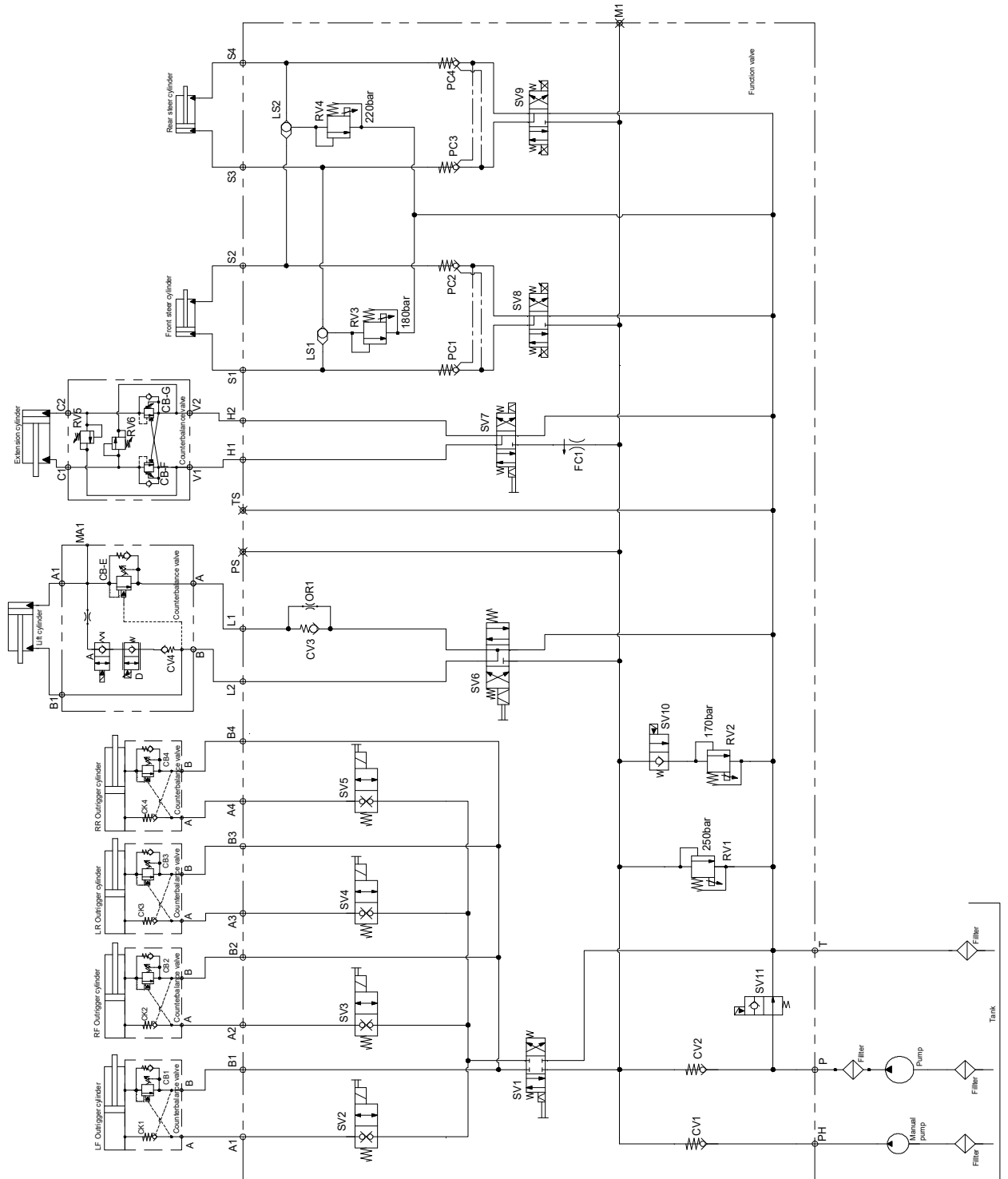
When the MEWP is damaged, contact Dingli for further evaluation. If it cannot be repaired for safe use, the MEWP must be disposed. Always follow your local law or regulations to dispose the MEWP.

To prevent pollution, pay attention on waste disposal:

Drain the hydraulic oil into a container, do not it directly into the ground, sewers, rivers, oceans or lakes. Follow laws and regulation for the disposal of hazardous substance such as hydraulic, battery etc.

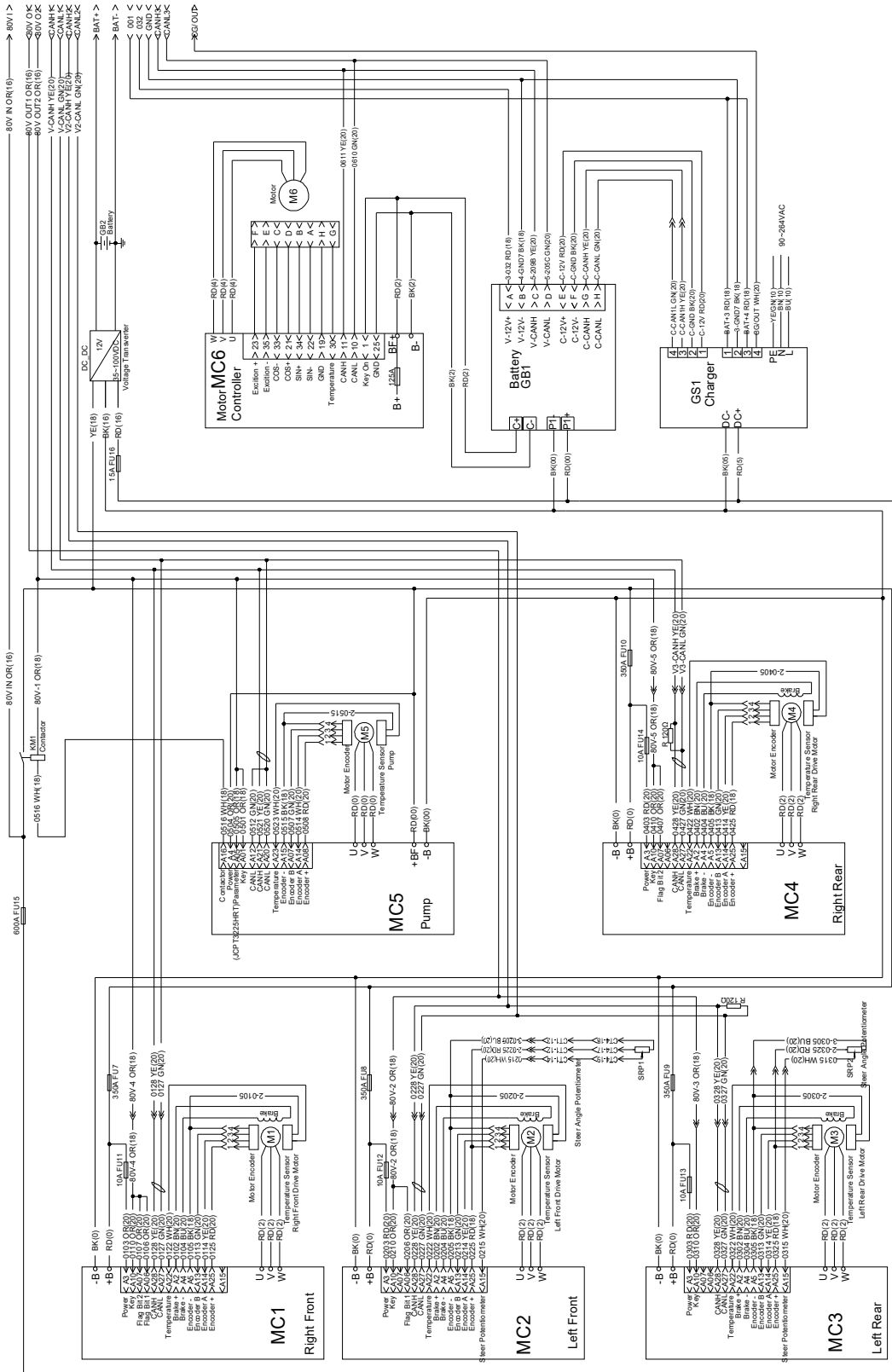
Properly dispose of the machine and spare parts according to laws and regulations.

Hydraulic Schematic



Schematic

Electrical Schematic

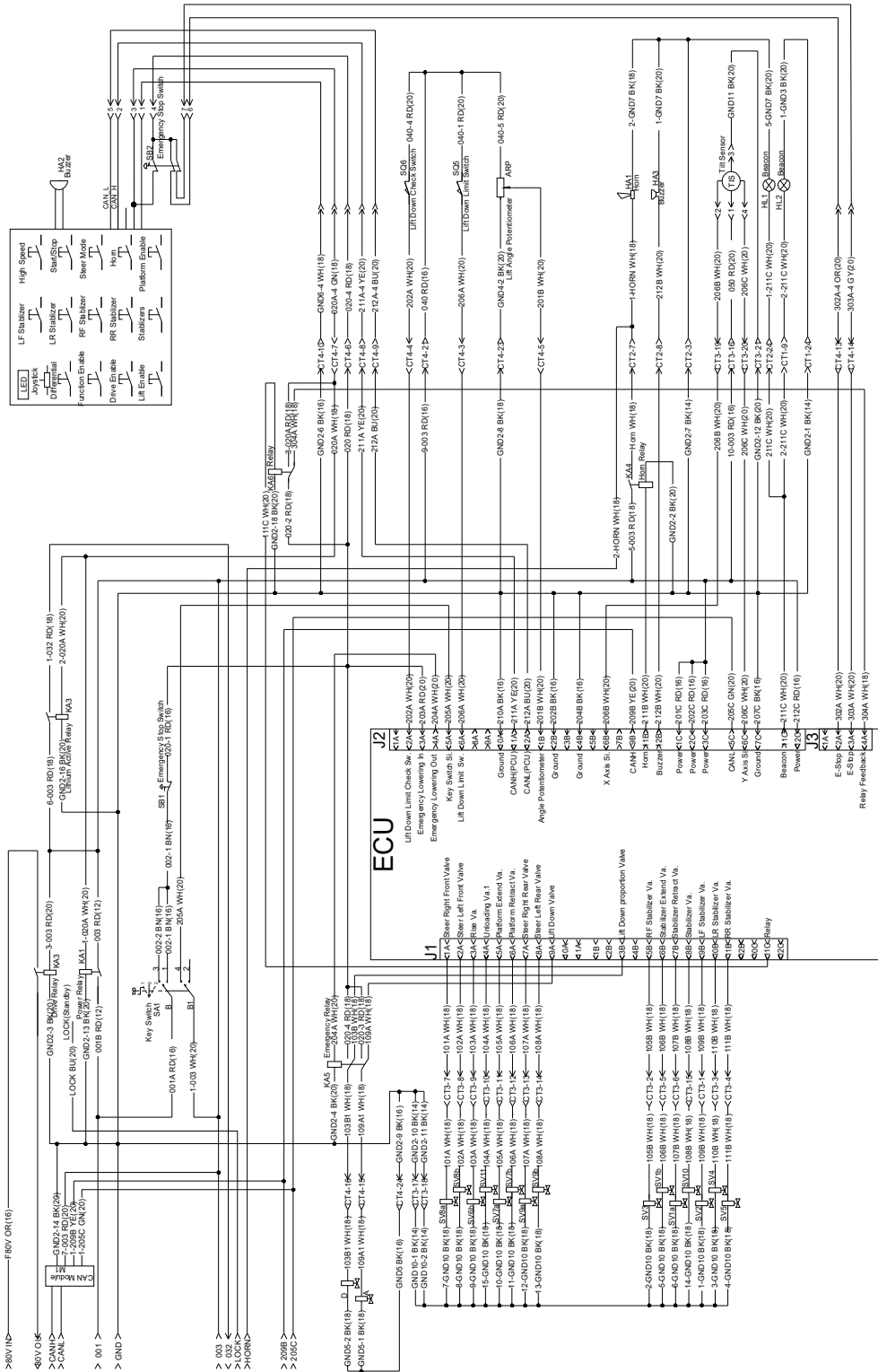


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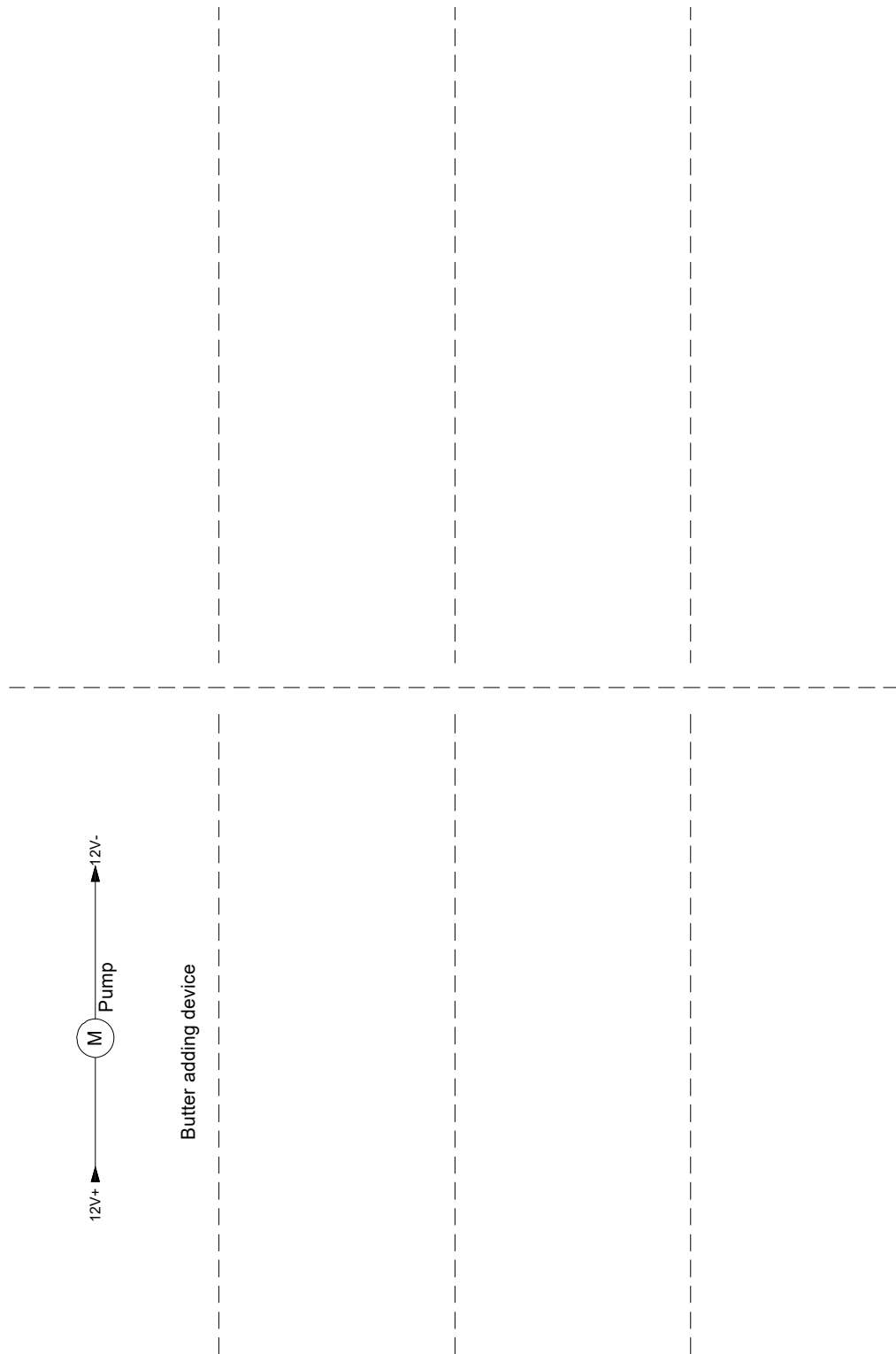
Schematic

Electrical Schematic



Schematic

Electrical Schematic-optional



The Inspection Register must be considered as an integral part of the machine; it must accompany the machine throughout its life, up to final disposal. The Inspection Register must be at the disposal of the competent vigilance authorities for a period of five years from the last records or until the equipment is decommissioned, depending on whichever is done first. A document certifying the last inspection must accompany the equipment wherever it is used.

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