

S03-E

ELECTRIC SCISSOR LIFTS

Operation Service & Parts Manual



WARNING

THE MANUFACTURER SHALL NOT BE HELD LIABLE IN CASE OF FAULTS OR ACCIDENTS DUE TO NEGLIGENCE, INCAPACITY, INSTALLATION BY UNQUALIFIED TECHNICIANS AND IMPROPER USE OF THE MACHINE.

DO NOT OPERATE THIS MACHINE UNTIL YOU READ AND UNDERSTAND ALL THE DANGERS, WARNINGS AND CAUTIONS IN THIS MANUAL

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.

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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.

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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—safety and operator's manuals 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.

Decal Legend

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.

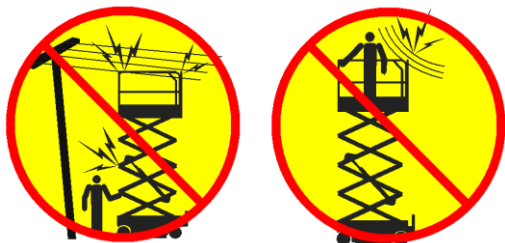
▲ CAUTION Yellow with safety alert symbol—used to indicate the presence of a potentially hazardous situation which, if not avoided, may cause minor or moderate injury.

NOTICE Yellow 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

⚠ Electrocuting Hazards

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.

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 use the machine as a ground for welding.

⚠ Tip-over Hazards

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

Maximum capacity – S03-E

Maximum occupants	1
Platform retracted	240 kg
Platform retracted wind rating 12.5m/s	150kg
Only platform	140 kg
Only extension deck	100 kg

Zero Wind Rating

Platform retracted



240kg

Platform extended



Extension
only
100kg

Platform
only
140kg

Wind Rated to Maximum 12.5m/s

Maximum occupants	1
Platform retracted only	150 kg



150kg 12.5m/s

Do not use the extension deck unless the machine is stop.

Safety Rules

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

Do not drive over 0.8 km/h with the platform raised.



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.

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



terrain, unstable surfaces or other hazardous conditions with the platform raised.

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

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

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

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

Be sure all tires are in good condition, castle nuts are properly tightened and cotter pins are properly installed.

Do not use batteries that weigh less than the original equipment. Batteries are used as counterweight and are critical to machine stability.

Each battery must weigh 37 kg.



Do not use the machine as a crane.

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

Do not contact adjacent structures with the platform.

Do not tie the platform to adjacent structures.

Maximum allowable manual force 200 N

Do not drive the machine on or near uneven

Safety Rules

⚠ Fall Hazards

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.



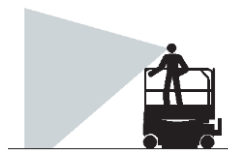
Do not climb down from the platform when raised.

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.

⚠ Collision Hazards



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

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

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



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

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

Safety Rules

machine.

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



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 Hazards

Do not use any battery or charger greater than 24V.

Do not use the machine as a ground for welding.

⚠ Explosion and Fire Hazards



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

⚠ Damaged Machine Hazards

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 and the appropriate DINGLI service manual.

Be sure all decals are in place and legible.

Be sure the operator's, safety and responsibilities manuals are complete, legible and in the storage container located in the platform.

⚠ Crushing Hazards

Keep hands and limbs out of scissors.

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.

⚠ Bodily Injury Hazard

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.

Safety Rules

⚠ Battery Safety

⚠ Burn Hazards

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.

⚠ Explosion Hazard



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

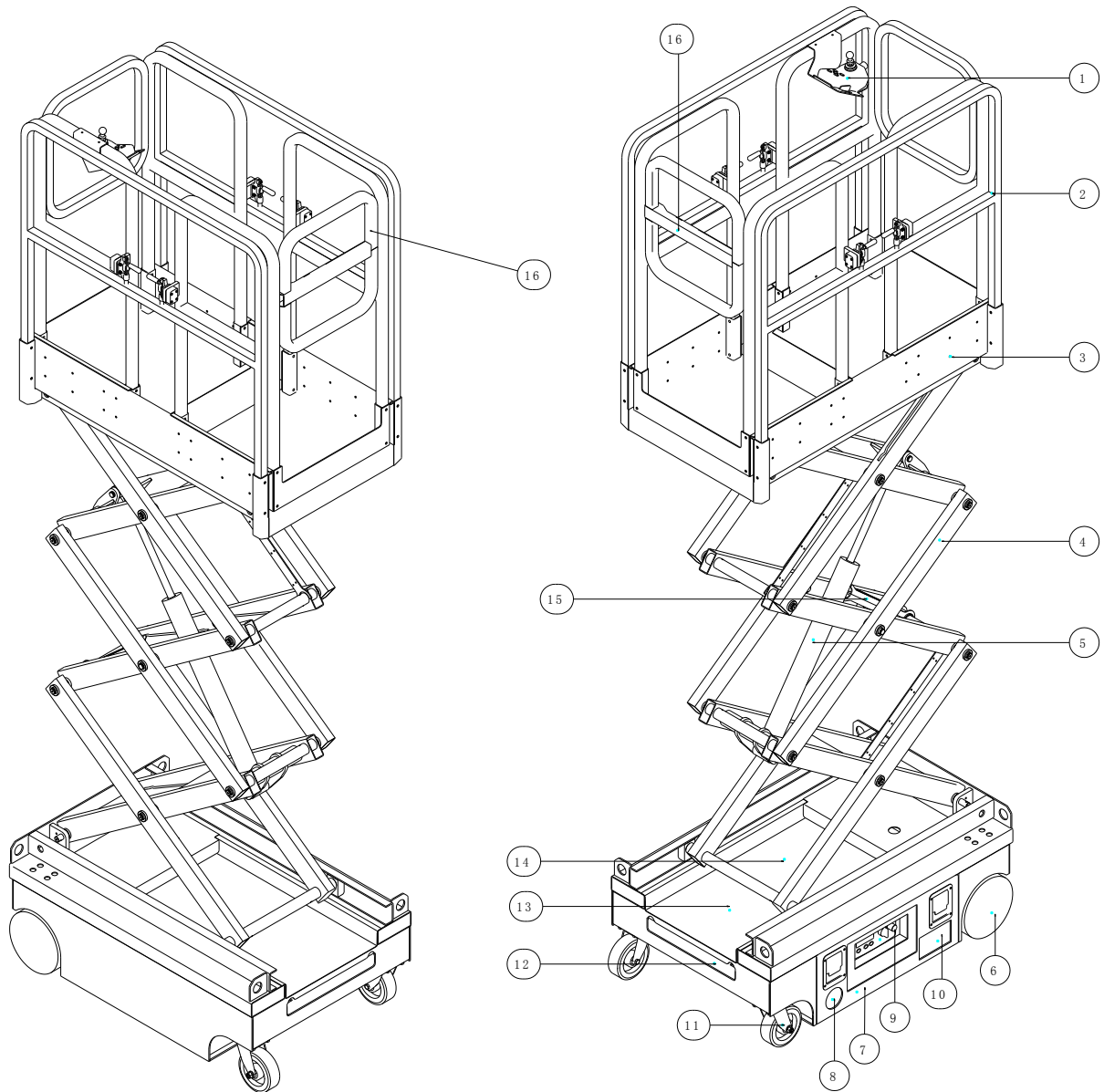
⚠ Electrocutation Hazard



Avoid contact with electrical terminals.

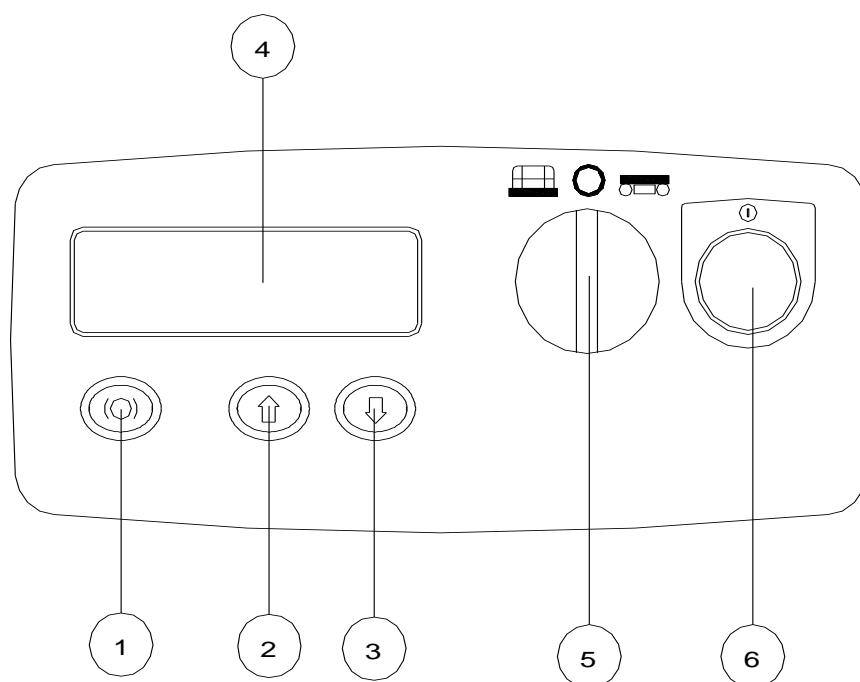
Safety Rules

Legend



- 1 Platform controller
- 2 Platform guard rails
- 3 Platform
- 4 Scissor
- 5 Hydraulic cylinder
- 6 Drive wheels
- 7 Pump & Ground Control Drawer
- 8 Emergency lowering knob

- 9 Ground Control Panel
- 10 Batteries charger
- 11 Steer Wheel
- 12 Step
- 13 Batteries (in the Drawer)
- 14 Hydraulic power pack (in the Drawer)
- 15 Safety arms
- 16 Platform entry gate

Control Panel**Ground Control Panel**

1 Break release button

2 Platform up button

Press the button and the platform will raise.

3 Platform down button

Press the button and the platform will lower.

4 LED

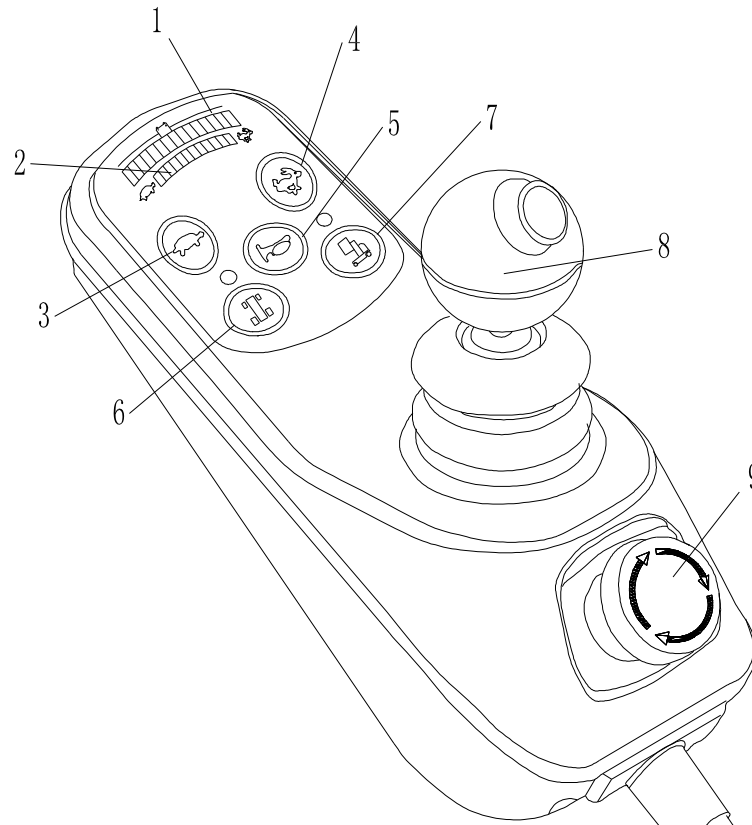
5 Key switch for platform / off / ground control selection

Turn the key switch to the platform position and the platform controls will operate. Turn the key switch to the off position and the machine will be off. Turn the key switch to the base position and the ground controls will operate.

6 Red Emergency Stop button

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.

Control Panel



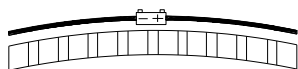
Platform Control

- | | |
|---------------------------------------|--------------------------------|
| 1. Battery Charge/Fault Code (LEDs) | 6. Drive Function (Enable) |
| 2. Max. Drive Speed Setting (LEDs) | 7. Platform Function (Enable) |
| 3. Decrease Max. Drive Speed | 8. Joystick with Enable Button |
| 4. Increase Max. Drive Speed | 9. Red Emergency Stop button |
| 5. Horn | |

Control Panel

Platform Control Panel

1. Battery Charge/Fault Code (LEDs)



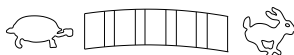
On normal power-up and operation this series of LEDs visually indicates the amount of charge left in the batteries.

- (+) GREEN LEDs lit indicate maximum charge.
- (-) RED LED's lit indicate minimum charge remaining.

The number of LEDs lit will change depending on the level of charge in the batteries.

If battery voltage falls below 16.8 volts a fault condition will occur and the machine will stop operating. The batteries will need recharged.

2. Max. Drive Speed Setting (LEDs)



Indicates current Maximum Drive Speed Setting. Slow to Fast

3. Decrease Max. Drive Speed

Press this button to decrease the drive speed.



4. Increase Max. Drive Speed

Press this button to increase the drive speed.

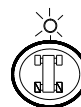


5. Horn Button

Push the horn button and the horn will sound. Release the horn button and the horn will stop.

6. Drive Function (Enable)

Press the button to enable the drive function.



7. Platform Function (Enable)

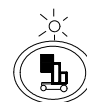
Press the button to enable the Left function.



8. Joystick with Enable Button

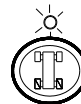
On the side of control handle, press the enable button to active the drive or left function.

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 forward direction the platform will raise. Move the control handle in the backward direction the platform will lower. The descent alarm should sound while the platform is lowering.

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 forward direction the machine will move ahead. Move the control handle in the backward direction the machine will move back. Move the control handle in the left direction the machine will turn to left. Move the control handle in the right direction the machine will turn to right.

9. Red Emergency Stop button

Push in the red Emergency Stop button to the off position to stop all functions. Turn clockwise the red Emergency Stop button to the on position to operate the machine.

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 Always perform function tests prior to use.

4 Inspect the workplace.

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 the responsibilities manual.

Pre-operation Inspection

Pre-operation Inspection

- ☐ Be sure that the operator's, safety and responsibilities manuals 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 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.

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
- ☐ Hydraulic tanks
- ☐ Drive motors
- ☐ Wear pads
- ☐ Tires and wheels
- ☐ Limit switches, alarms
- ☐ Nuts, bolts and other fasteners
- ☐ Platform entry gate
- ☐ Beacon and alarms
- ☐ Safety arm
- ☐ Scissor pins and retaining fasteners
- ☐ Platform control joystick

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
- ☐ Side rails are installed and bolts are fastened



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 the responsibilities manual.

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.

Check the Batteries



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

⚠ WARNING Electrocution 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.

Maintenance

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

The hydraulic oil level can be checked by removing the filler cap fitted to the hydraulic oil tank. The correct amount of oil is in the tank when hydraulic fluid appears on the tip of the dipstick. This check must be carried out with the platform is in the level surface.

The hydraulic oil can be topped up by adding oil to the filler located. Take care not to spill hydraulic fluid over any of the surrounding machine components.

The hydraulic oil can be drained by removing the tank by removing the bolts and separating the tank from the pump body. The hydraulic fluid can then be correctly disposed of. Re-assembly is the reverse of above.

Hydraulic oil specifications

The hydraulic oil recommended for use with this machine is: Mineral basis hydraulic oil with lubricating, antifoaming, anti-corrosive, antioxidant HL - HLP (ISO and UNI HM) – HV - HLPD performances according to DIN51524 part 1- 2 standards.

-18°C ~ -5°C 10W

-18°C ~ 99°C 10W-20, 10W-30

Scheduled Maintenance

Maintenance performed quarterly, annually and every two years must be completed by a person trained and qualified to perform maintenance on this machine according to the procedures found in the service manual for this machine.

Machines that have been out of service for more than three months must receive the quarterly inspection before they are put back into service.

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 Always perform function tests prior to use.**

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

- 4 Inspect the workplace.
- 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.

At the Ground Controls

- 3 Pull out the platform and ground red Emergency Stop buttons to the on position.
- 4 Turn the key switch to ground control or platform control position.

⊙ Result: The LED will light.

Test Emergency Stop

- 5 Push in the ground red Emergency Stop button to the off position.
- ⊙ Result: The LED indicator will turn off and no functions should operate.
- 6 Pull out the red Emergency Stop button to the on position.

Test Up / Down Functions

- 7 Turn the key switch to ground control
- 8 Press the platform up button.
- ⊙ Result: The platform should raise.
- 9 Press the platform lower button.
- ⊙ Result: The platform should lower. The descent alarm should sound while the platform is lowering.

Test the Emergency Lowering

- 10 Activate the up function and raise the platform approximately 60 cm.
- 11 Pull the emergency lowering knob located the ground control side .
- ⊙ Result: The platform should lower. The descent alarm will not sound.
- 12 Turn the key switch to platform control.

At the Platform Controls

Test Emergency Stop

- 13 Push in the platform red Emergency Stop button to the off position.
- ⊙ Result: No functions should operate.
- 14 Turn clockwise and release to reset Emergency Stop

Test the Horn

- 15 Push the horn button.
- ⊙ Result: The horn should sound.

Test Up / Down Functions and Function Enable

- 16 Press and release the Platform Function Button to active lift function.
- ⊙ Result: The flashing LED indicates the function is active and will remain active 3 to 4 seconds.
- 17 Move the control handle forward or backward
- ⊙ Result: The platform should not raised.
- 18 Press and hold the function enable switch on side the Joystick, move the control handle forward.
- ⊙ Result: The platform should raise.
- 19 Press and hold the function enable switch on side the Joystick, move the control handle backward direction.
- ⊙ Result: The platform should lower then stop at the height is 0.9 m.
- 20 Wait for seconds. Move the control handle backward direction to lower the platform fully

Function Tests

Test the Steering

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

- 21 Press and release the Drive Function Button to active drive function.
 - ⊙ Result: The flashing LED indicates the function is active. The function remains active 3 to 4 seconds.
- 22 Press and hold the function enable switch on side the Joystick, Move the control handle to left.
 - ⊙ Result: The steer wheels should turn. The machine should turn to left.
- 23 Press and hold the function enable switch on side the Joystick, Move the control handle to right.
 - ⊙ Result: The steer wheels should turn. The machine should turn to right.

Test Drive and Braking

- 24 Press and hold the function enable switch, Slowly move the proportional control handle to forward direction, then return the control handle to the center position.
 - ⊙ Result: The machine should move forward then come to an abrupt stop.
- 25 Press and hold the function enable switch, Slowly move the proportional control handle to downward direction, then return the control handle to the center position.
 - ⊙ Result: The machine should move backward 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

- 26 Press and release the Platform Function Button to active lift function. Press and hold the function enable switch, move the control handle to forward direction to raise the platform approximately 1 m from the ground.
- 27 Press and release the Drive Function Button to active drive function.
- 28 Press the low drive speed select button to active the lower drive speed.
- 29 Press and hold the function enable switch, Slowly move the control handle to the full drive position.
 - ⊙ Result: The maximum achievable drive speed with the platform raised should not exceed 22 cm/s. If the drive speed with the platform raised exceeds 22 cm/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.

- 30 Fully lower the platform.
- 31 Drive both wheels on one side onto a 2.5 cm block.
- 32 Press and release the Platform Function Button to active lift function.
- 33 Raise the platform at least 0.9 m.
 - ⊙ Result: The platform should stop and the tilt alarm will sound.
- 34 Press and release the Platform Function Button to active the drive function.
- 35 Press and hold the function enable switch, move the control handle to forward or backward direction.
 - ⊙ Result: The drive function should not work in

Function Tests

either direction.

- 36 Press and release the Platform Function Button to active the lift function.
- 37 Lower the platform and drive the machine off the block.

Test the Up Limit

- 38 Press and release the Platform Function Button to active the lift function.
- 39 Press and hold the function enable switch, move the control handle to forward direction to raise the platform.
- Result: The platform should raise to full height.
- 40 Move the control handle to backward direction to lower the platform.

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 Always perform function tests prior to use.
- 4 Inspect the workplace.**

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

- 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

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
- The presence of unauthorized personnel
- Other possible unsafe conditions

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 Always perform function tests prior to use.
- 4 Inspect the workplace.

5 Only use the machine as it was intended.

Fundamentals

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, safety and responsibilities manuals.

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, safety and responsibilities manuals. 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 Pull out both ground and platform red Emergency Stop buttons to the on position.
- 2 Be sure the battery pack is connected before operating the machine.
- 3 Turn the key switch to ground control.

To Position Platform

- 1 Press the platform up button to raise the platform.
- 2 Press the Platform down button to lower the platform.

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

Operation from Platform

- 1 Pull out the ground and platform red Emergency Stop buttons to the on position.
- 2 Press and release the Platform Function Button to active lift function.
- 3 Be sure the battery pack is connected before operating the machine.

To Position Platform

- 1 Press and hold the function enable switch, Move the control handle forward to raise the platform.
- 2 Press and hold the function enable switch, Move the control handle backward to lower the platform.

To Steer

- 1 Press and release the Platform Function Button to active drive function.
- 2 Press and hold the function enable switch, Move the control handle left to turn the machine to left direction.
- 3 Press and hold the function enable switch, Move the control handle right to turn the machine to right direction.

To Drive

- 1 Press and release the Platform Function Button to active drive function.
- 2 Press and hold the function enable switch, Move the control handle forward direction.
- 3 Press and hold the function enable switch, Move the control handle backward direction.
- 4 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..

Machine travel speed is restricted when the platform is raised.

Emergency Lowering

At the Ground Controls

In the event of a power failure, use the backup auxiliary lowering function.

Operating Instructions

Fall Protection

Personal fall protection equipment (PFPE) is not required when operating this machine. If PFPE is required by job site or employer rules, the following shall apply:

All PFPE must comply with applicable governmental regulations and must be inspected and used in accordance with the manufacturer's instructions.

Operation From Ground with Controller

Maintain safe distances between the operator, machine and fixed objects.

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

After Each Use

- 1 Select a safe parking location—firm level surface, clear of obstructions 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 Chock the wheels.
- 5 Charge the batteries.

Error indicator readout

Fault code	Description of fault	Conditions to check
01	Low Battery Voltage	Battery cable ends loose or corroded at battery posts. Charger DC output wires from charger to batteries damaged or disconnected.
02	Left PHP Bar – Up	Obstruction under Left pothole bar. Obstruction around the actuator assembly at the base of the mast.
03	Right PHP Bar – Up	Obstruction under Right pothole bar. Obstruction around the actuator assembly at the base of the mast.
04	Tilt Condition	If machine is on a tilt of more than the angle set in either or both the X or Y direction, this is normal operation. When the lift platform is raised then drive and lifting are disabled when tilt is detected. Check if Ground Station is mounted securely to the mast support column.
05	Obstruction Sensor System- No communication with Ground Module	Is machine equipped with an Obstruction Sensor System? Check all cabling from the OSS module is undamaged.
06	Reserved	
07	Left Drive Motor – Disconnected	Check left drive motor M1 connector at the Traction Module for secure and proper connection.
08	Right Drive Motor - Disconnected	Check right drive motor M2 connector at the Traction Module for secure and proper connection.
09	Left Brake - Disconnected	Check left drive motor M1 connector at the Traction Module for secure and proper connection.
10	Right Brake – Disconnected	Check right drive motor M2 connector at the Traction Module for secure and proper connection.
11	Left Drive Motor – Short Circuit	Wiring harness from motor M1 connector on Traction module to left drive motor for damage.
12	Right Motor – Short Circuit	Wiring harness from motor M2 connector on Traction module to right drive motor for damage.
13	Traction Module – In Foldback	Machine is operating on a continuous grade or rough terrain

Operating Instructions

14	Pump Motor - Disconnected	Check the positive and negative cables from the Ground Module to the Pump Motor studs for loose or corroded connections.
15	Lift Down Valve - Disconnected	Inspect wire terminals on the lift down valve wiring harness or a damaged lift down valve coil.
16	Lift Down Valve - Short Circuit	Damaged wiring in the lift down valve wiring harness or a damaged lift down valve coil.
17	Ground Module - In Over temperature	Pump is not being permanently driven Check heat sinking of Ground Module
18	Alarm - Short Circuit	Damaged wiring in the alarm wiring harness or a damaged alarm.
19	Alarm - Disconnected	Damaged wiring in the alarm wiring harness or a damaged alarm. Activate a function to check if alarm sounds
20	Beacon - Short Circuit	Damaged wiring in the beacon wiring harness or a damaged beacon unit.
21	Beacon - Disconnected	Is machine equipped with flashing beacon light.
22	Horn - Short Circuit	Damaged wiring in the horn wiring harness or a damaged horn unit.
23	Horn - Disconnected	Is machine connected with a horn.
24	Auxiliary 1 Circuit - Short Circuit	Damaged wiring in the Auxiliary 1 Component wiring harness or a damaged component.
25	Auxiliary 1 Circuit - Disconnected	Is machine equipped with a component on the Auxiliary 1 circuit.
26	Auxiliary 2 Circuit - Short Circuit	Damaged wiring in the Auxiliary 2 Component wiring harness or a damaged component.
27	Auxiliary 2 Circuit - Disconnected	Is machine equipped with a component on the Auxiliary 2 circuit
28	Reserved	
29	Reserved	
30	Traction Module - No communication with Ground Module	Check if the communications cable connections, P5 connector on the Ground Station and the round plug on the Traction Module are seated properly in their sockets at each end. Check the positive and negative power cable connections from the Ground Station to the Traction Module are tight and secure at both ends.
31	Platform Control Console - No communication with the Ground Module	Check the harness connection at the P4 connector on the Ground Station and the harness connection at the other end on the Platform Junction Box.
32	Pump Motor - Over Current	Platform overload condition. Obstruction in mast system. Pump positive and negative connections are secure and undamaged. Crushed or kinked hydraulic lines. Hydraulic leaks.
33	Both PHP Bars - Up	Obstruction under left or right pothole bar. Obstruction around the actuator assembly at the base of the mast.
34	Aux 1 - Inhibit	Auxiliary 1 switch input is active.
36	Aux 2 - Inhibit	Auxiliary 2 switch input is active.
49	Aux 3 - Inhibit	Auxiliary 3 switch input is active.
50	Aux 4 - Inhibit	Auxiliary 4 switch input is active.
100 - 199	Ground Station - Fault Condition	Battery and harness connectors are secure and undamaged on the Ground Module. Batteries have sufficient charge. Confirm that the static ground strap attached under base frame is secure and undamaged.
200 - 299	Platform Control Console - Fault Condition	Damage to Platform Control Console wiring harness. Check connections from the Platform Control Console down to the Ground Module. Confirm that the static ground strap attached under base frame is secure and undamaged.
300 - 399	Traction Module - Fault Condition	Damage to Traction Module wiring harness. Confirm that the static ground strap attached under base frame is secure and undamaged.

Operating Instructions



Battery and Charger Instructions

Observe and Obey:

- ☒ Do not use an external charger or booster battery.
- ☒ Charge the battery in a well-ventilated area.
- ☒ Use proper AC input voltage for charging as indicated on the machine.
- ☒ Use only a Dingli authorized battery and charger.

Dry Battery Filling and Charging Instructions

- 1 Remove the battery vent caps and permanently remove the plastic seal from the battery vent openings.
- 2 Fill each cell with battery acid (electrolyte) until the level is sufficient to cover the plates.

Do not fill to the maximum level until the battery charge cycle is complete. Overfilling can cause the battery acid to overflow during charging.

Neutralize battery acid spills with baking soda and water.

- 3 Install the battery vent caps.
- 4 Charge the battery.
- 5 Check the battery acid level when the charging cycle is complete. Replenish with distilled water to the bottom of the fill tube. Do not overfill.

To Charge Batteries

- 1 Be sure the batteries are connected before charging.
- 2 Open the battery compartment. The compartment should remain open for the entire charging cycle.
- 3 Remove the battery vent caps and check the battery acid level. If necessary, add only enough distilled water to cover the plates. Do not overfill prior to the charge cycle.
- 4 Replace the battery vent caps.
- 5 Connect the battery charger to a grounded AC circuit.

Note: For optional charger/inverter, connect AC power to the plug on the back of the machine.

- 6 The charger will indicate when the battery is fully charged.

Operating 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.
- ☒ 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.

Brake Release Operation

- 1 Chock the wheels to prevent the machine from rolling.
- 2 Be sure the winch line is properly secured to the drive chassis tie points and the path is clear of all obstructions.
- 3 Turn the key switch to power on.
- 4 Pull out both ground and platform red Emergency Stop buttons to the on position.
- 5 Press the brake release button release the brakes.

After the machine is loaded:

- 1 Press the brake release button to reset the brakes.
- 2 Push in both ground and platform red Emergency Stop buttons to the off position.
- 3 Turn the key switch to the off position.
- 4 Chock the wheels to prevent the machine from rolling.

Transport and Lifting Instructions

Securing to Truck or Trailer for Transit

Always chock the machine wheels in preparation for transport.

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

Inspect the entire machine for loose or unsecured items.

Securing the Chassis

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

Use a minimum of two chains or straps.

Use chains or straps of ample load capacity.

Adjust the rigging to prevent damage to the chains.

Be sure the machine is level when lowering the forks.

NOTICE

Lifting the machine from the side can result in component damage.

Lifting the Machine with a Forklift

Be sure the extension deck, controls and component trays are secure. Remove all loose items on the machine.

Fully lower the platform. The platform must remain lowered during all loading and transport procedures.

Use the forklift pockets located on both sides

Position the forklift forks in position with the forklift pockets.

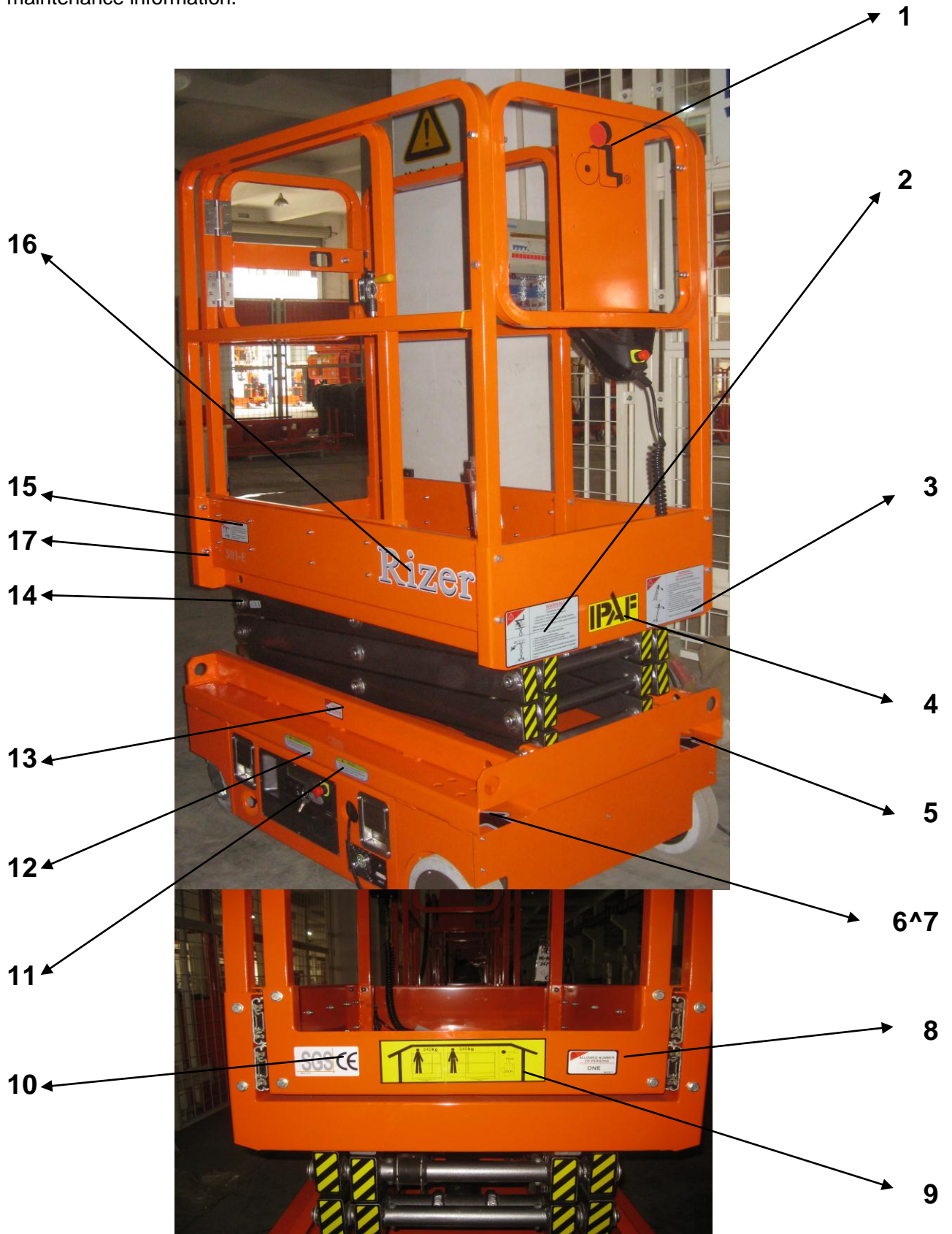
Drive forward to the full extent of the forks.

Raise the machine 6 in / 15 cm and then tilt the forks back slightly to keep the machine secure.

Decals

S03-E

Green - used to indicate operation or maintenance information.



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.
1		Logo	1
2	9413013	Warning-Crushing Hazard/Fall Hazard	1
3	9413011	Warning-Tip-over Hazard	1
4		Label-IPAF	1
5		Forklift Pocket	4
6-7		Forklift Pocket	4
8		Label-allowed number of persons	1
9		Capacity	1
10	9421037	Label- SGS / CE	1
11	9443019	Notice-Charge Time	1
12	9443021	Notice- Saving the electricity	1
13		Warning-Crushing Hazard	1
14		Decal - Scissors	2
15		Decal - Danger	2
16		Series Name Decal	2
17		Model Name Decal	2

Specifications**S03-E Specification**

Height, working maximum	5 m
Height, platform maximum	3 m
Height, stowed maximum	1.85 m
Width	0.76 m
Length	1.15 m
Length with one extension deck, platform extended	1.95 m
Maximum load capacity	240 kg (1 person + 160kg tools & materials)
Maximum wind speed	12.5m/s with retracted extension decks & maximum 150kg(1person)
Wheelbase	0.92 m
Turning radius (outside)	2.5 m
Ground clearance	5.5 cm
Weight	510kg /560kg (S.E.P.) / 578kg (D.E.P.)
Rated Slope	Level Surface
Maximum working slope	2°
Gradeability	25%
Maximum hydraulic Pressure	110 bar
Tire size	6" Caster ϕ 230 x 80
Platform length	1.15 m
Platform extension length	0.7 m
Platform width	0.6 m
Stowed, maximum drive speeds	4 km/h
Platform raised, maximum drive speeds	0.8 km/h
Airborne noise emissions	70 dB
Maximum sound level at normal operating workstations (A-weighted)	

Floor loading information

Tire load, maximum	500 kg
Tire contact Pressure	7.8 kg/cm ² / 8.6kg/m ² (S.E.P.) / 8.8kg/m ² (D.E.P.)
Occupied floor Pressure	858 kg/m ² / 915kg/m ² (S.E.P.) / 936kg/m ² (D.E.P.)

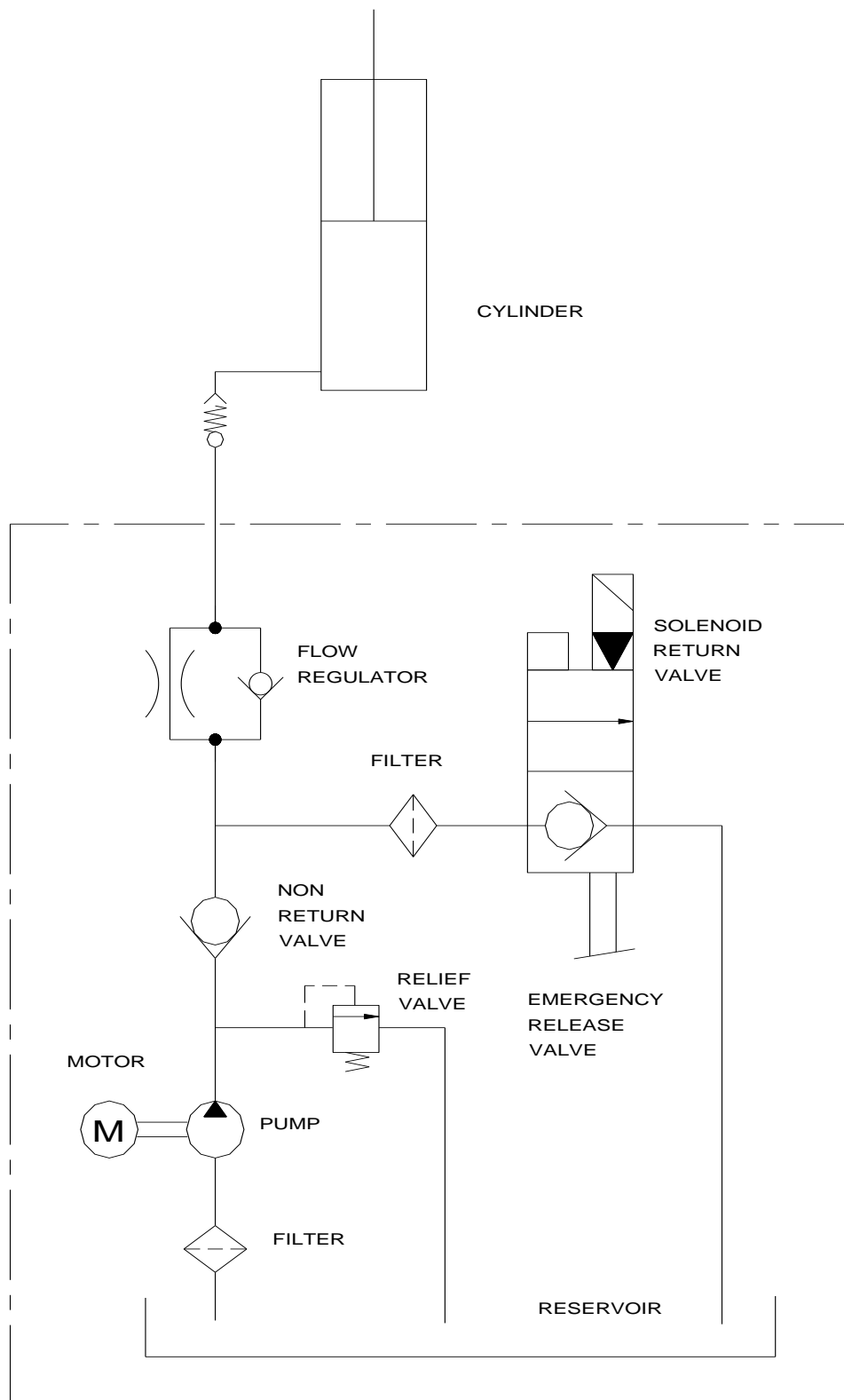
Note: Floor loading information is approximate and does not incorporate different option configurations.

It should be used only with adequate safety factors.

Continuous improvement of our products is a DINGLI policy. Product specifications are subject to change without notice or obligation.

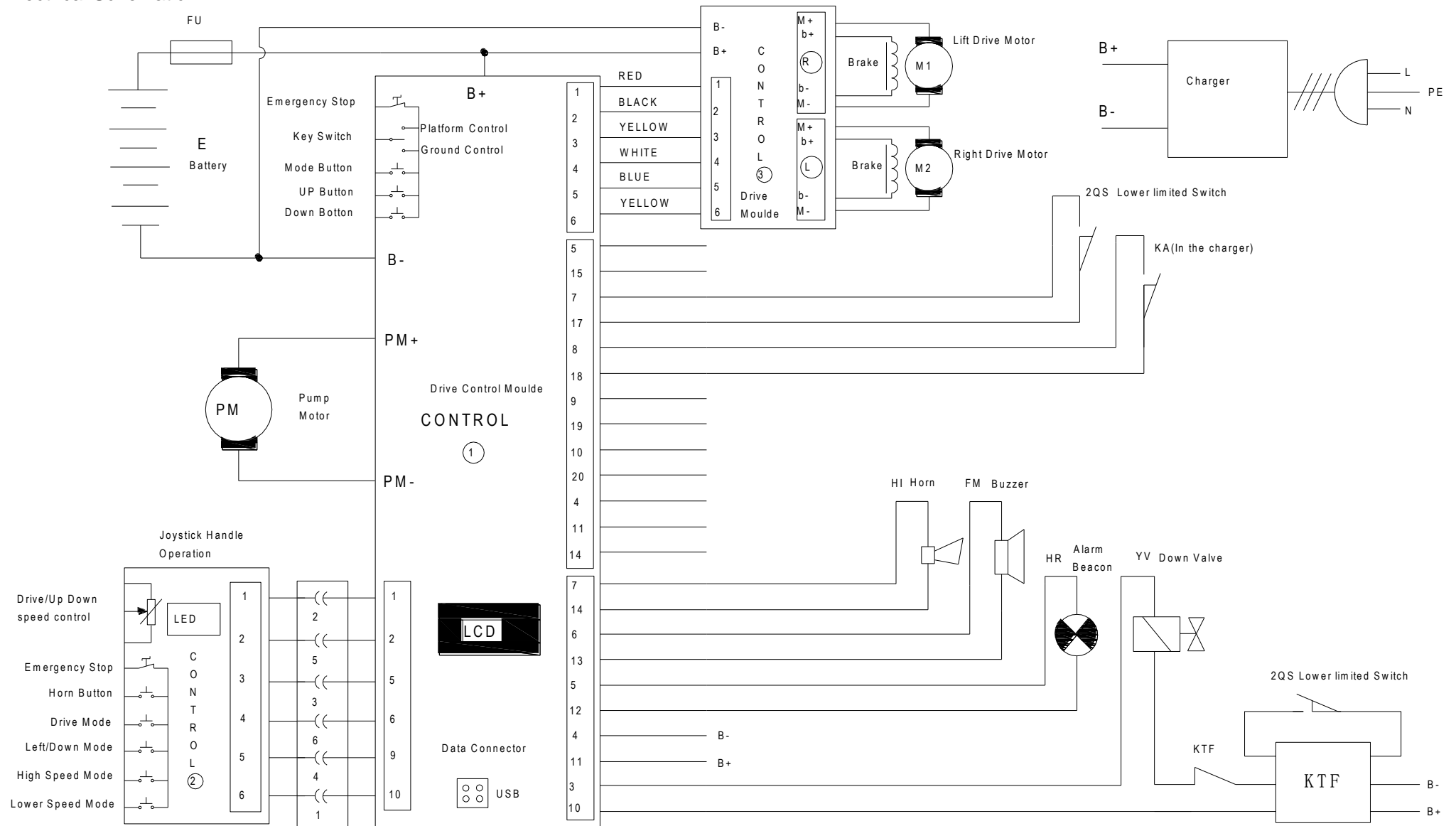
Schematic

Hydraulic Schematic

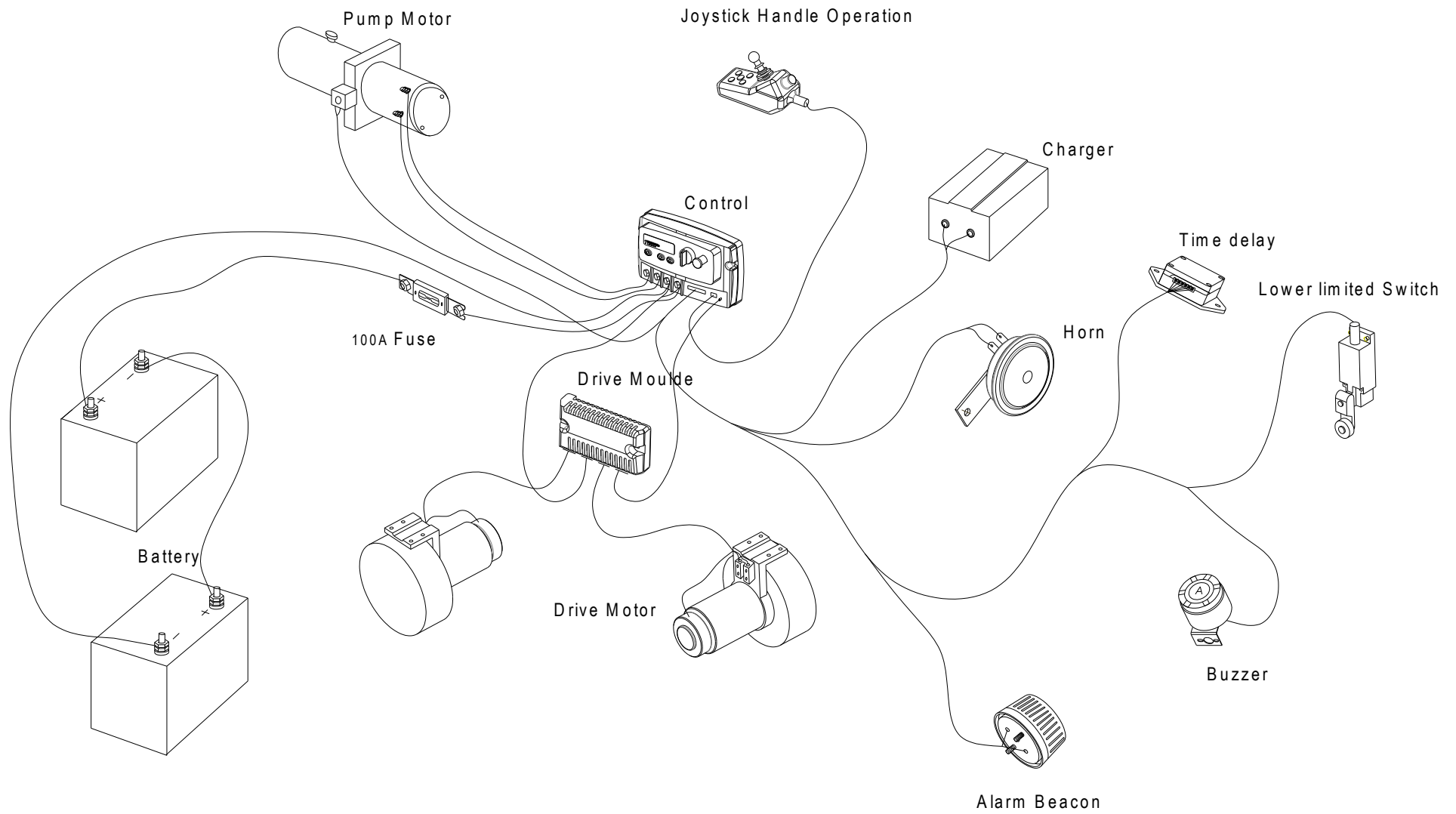


Schematic

Electrical Schematic



Schematic



Schematic

No.	Symbol	Description	Q'ty.
1	E	Battery	2
2	FU	Fuse	1
3	2QS	Lower Limited Switch	1
4	HI	Horn	1
5	FM	Buzzer	1
6	HR	Alarm Beacon	1
7	YV	Down Valve	1
8	KTF	Time delay	1
9	M1	Lift Drive Motor	1
10	M2	Right Drive Motor	1
11	PM	Pump Motor	1

Maintenance and Repair Record**Maintenance**

Date	Scheduled maintenance undertaken	By

Repairs

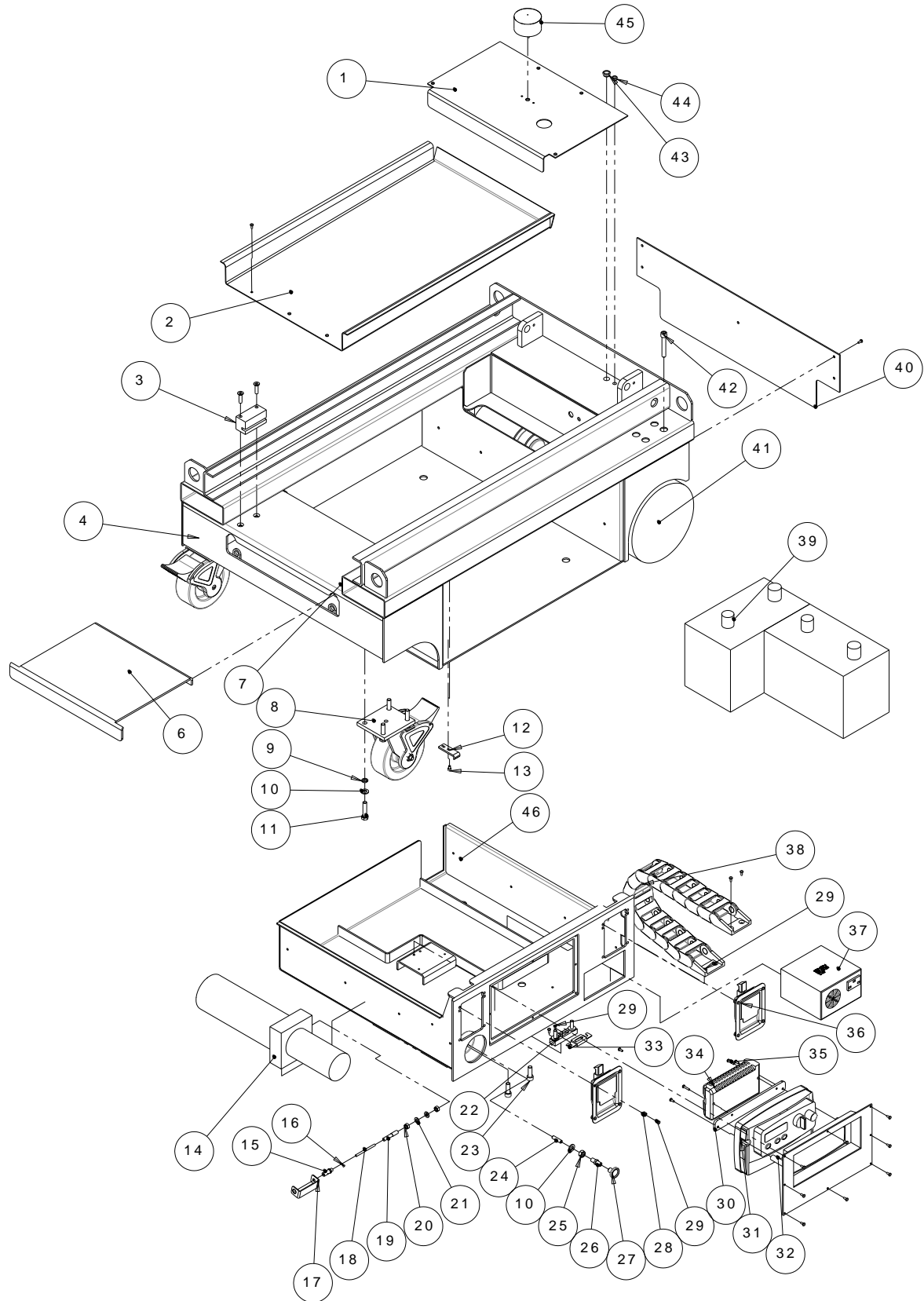
Date	Repairs undertaken	By

Examinations / tests

Date	Examinations / tests undertaken	By

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Chassis



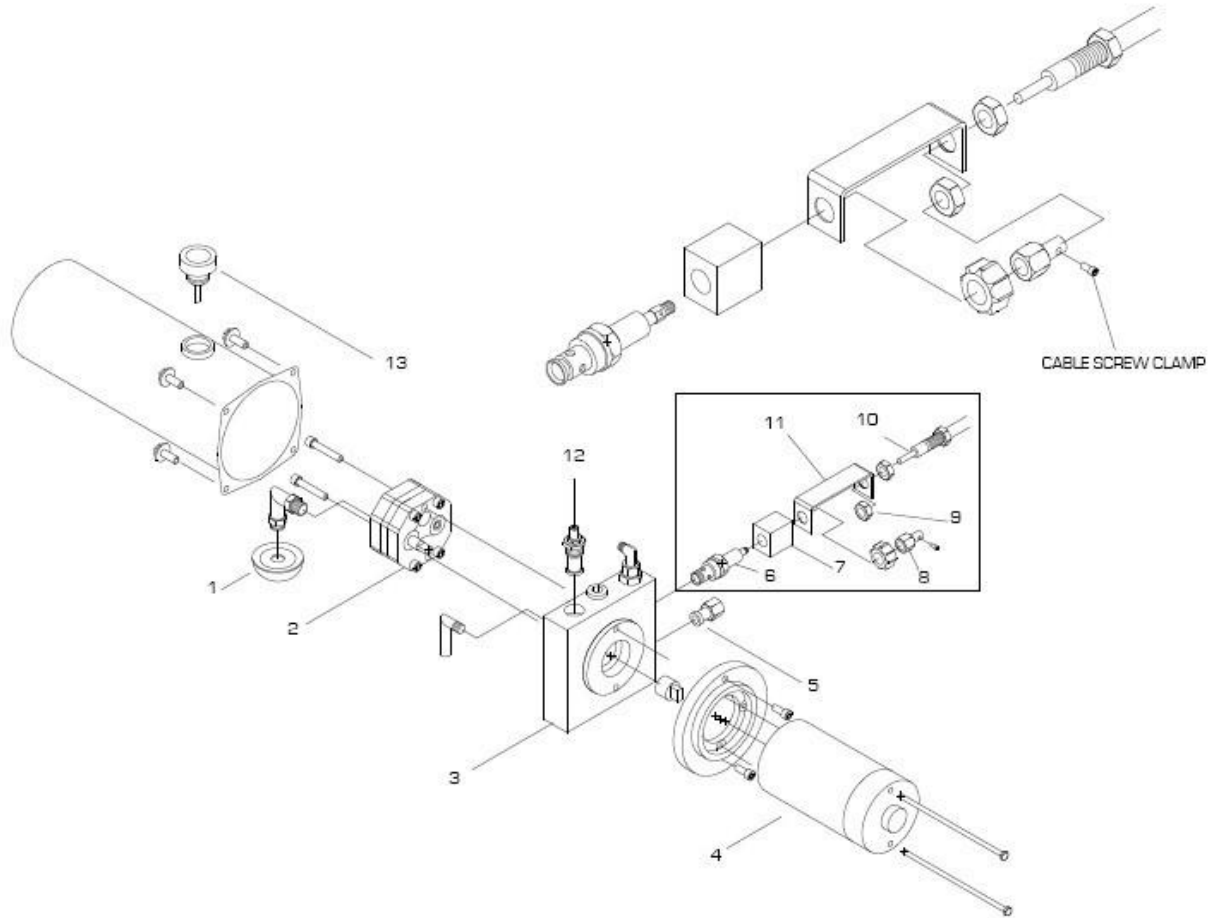
Part Manual

NO.	Parts NO.	Description	Qty.	Remark
1	JCPT5007MQ-113004	Cover plate2	1	
2	JCPT5007MQ-113003	Cover plate	1	
3	JCPT5007MQ-113002	Plate	2	
4	JCPT5007MQ-113100	Chassis	1	
6	JCPT5007MQ-113001	Pedal plate	1	
7	GB/T 819.2-1997	Screw M8×30	4	
8		6" swivel wheel	1	
9	GB/T 93-1987	Washer 10	8	
10	GB/T 97.1-2002	Washer 10	9	
11	GB/T 5782-2000	Bolt M10×45	8	
12	JCPT5007MQ-113007	Lock	2	
13	GB/T 70.1-2000	Screw M5×8	1	
14		Pump	1	0.8kW
15	JCPT1212HD-13203	Sleeve	1	
16	GB/T 70.1-2000	Screw M3×10	1	
17	JCPT0630-6001	plate	1	
18	JCPT1212HD-13232	Linker	1	
19	JCPT1212HD-13244	Sleeve 2	1	
20	GB/T 6171-2000	Nut M8×1	2	
21	GB/T 97.1-2002	Washer 8	2	
22		Circuit protector	1	
23	GB/T 70.1-2000	Screw M10×30	2	
24	JCPT1212HD-13242	Slide sleeve	1	
25	GB/T 6170-2000	nut M10	1	
26	JCPT1212HD-13241	Joint	1	
27	JCPT1212HD-13250	Handle	1	
28	GB/T 889.1-2000	Nut M6	8	
29	GB/T 818-2000	Screw M4×10-H	33	
30	JCPT5007MQ-113006	Plate	1	
31	JCPT0630-13011	Ground Station	1	
32	JCPT5007MQ-00300	Control plate 2	1	
33		Circuit protector	1	
34		Control modular	1	

Part Manual

NO.	Parts NO.	Description	Qty.	Remark
35	GB/T 818-2000	Screw M4×20-H	2	
36	JCPT0630-12012	Lock	2	
37		Charger	1	
38	25'Bi=57N.1PZ	Towline	1	19 step
39		Battery	2	95AH
40	JCPT5007MQ-113005	Plate	1	
41		Driving wheel	2	D230x80
42	GB/T 70.1-2000	Screw M10×65	8	
43		Shield sleeve 12	1	
44	JCPT3707M-00018	Shield sleeve 6	1	
45		Alarm beacon	1	
46	JCPT5007MQ-113200	Battery box weld	1	

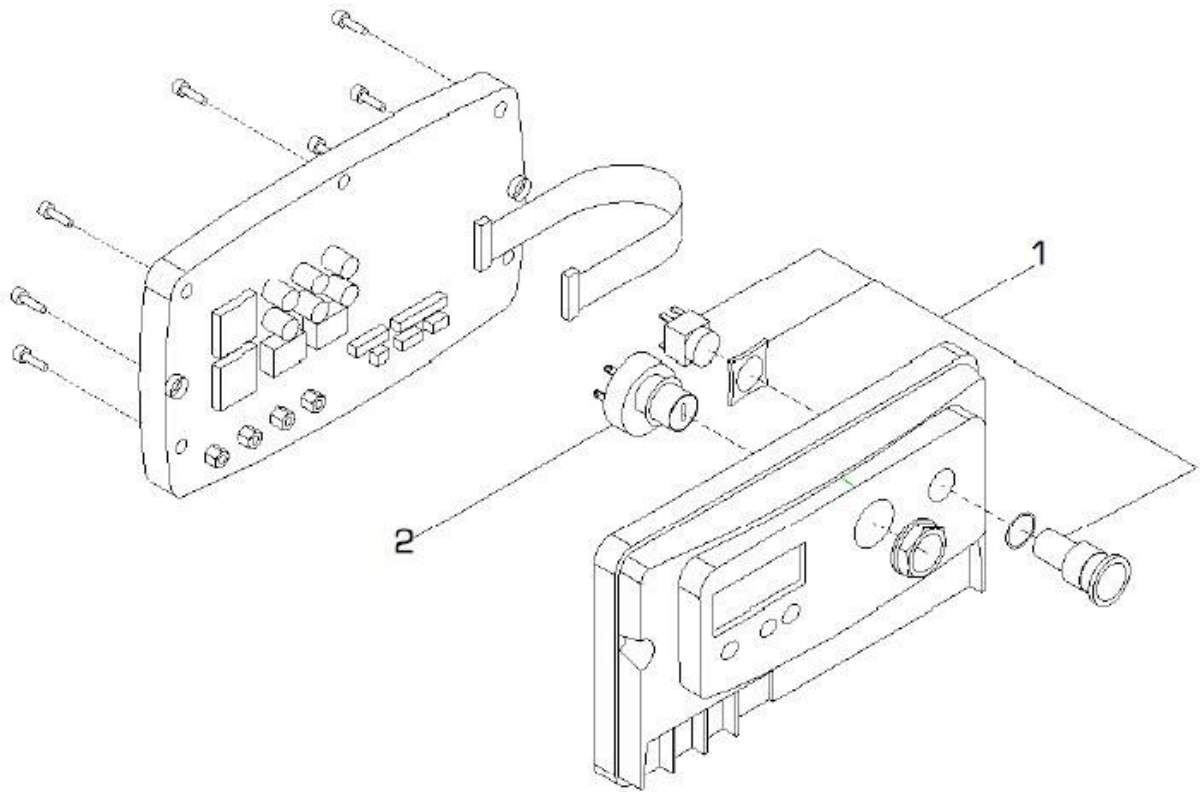
PUMP Assembly



6.1.1 PUMP MOTOR ASSEMBLY ASSEMBLY PART # XDH11

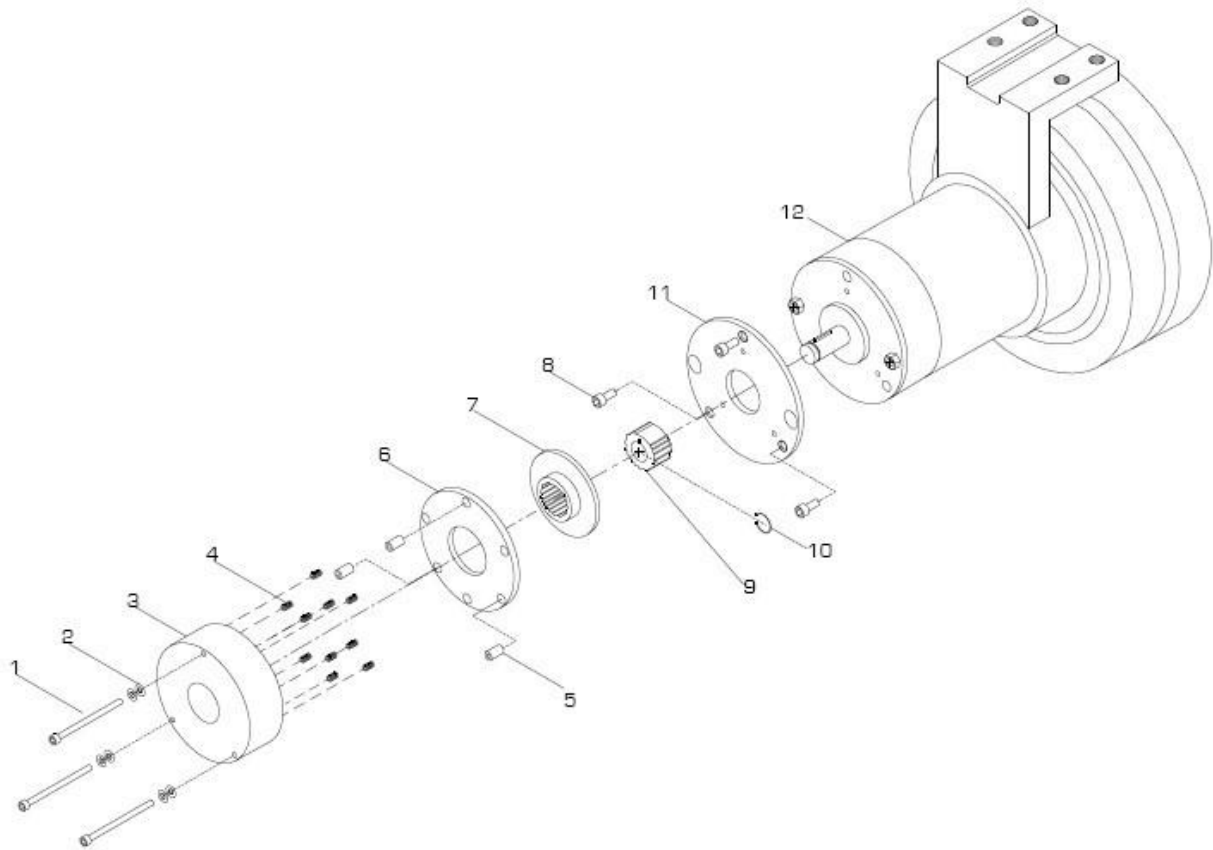
ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1	XDH13	SUMP STRAINER	1	8	XDM38	CABLE RETAINER	1
2	XDH20	PUMP	1	9		JAM NUT	1
3	XDH23	MANIFOLD ASSEMBLY	1	8- 10	XDM74	CABLE ASSEMBLY	1
4	XDE46	ELECTRIC MOTOR	1	11	XDF63	ADAPTOR	1
5	XDH22	VALVE, CHECK	1	12	XDH12	VALVE, RELIEF	1
6	XDH14	VALVE, DOWN	1	13	XDH19	BREATHER CAP	1
7	XDE44	COIL, DOWN VALVE	1	14			

Ground Station



ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1	XDE64	EMERGENCY STOP SWITCH	1	3	XDE 47	LOWER CONTROL MODULE	1
2	XDE63	KEYED SELECTOR SWITCH	1				

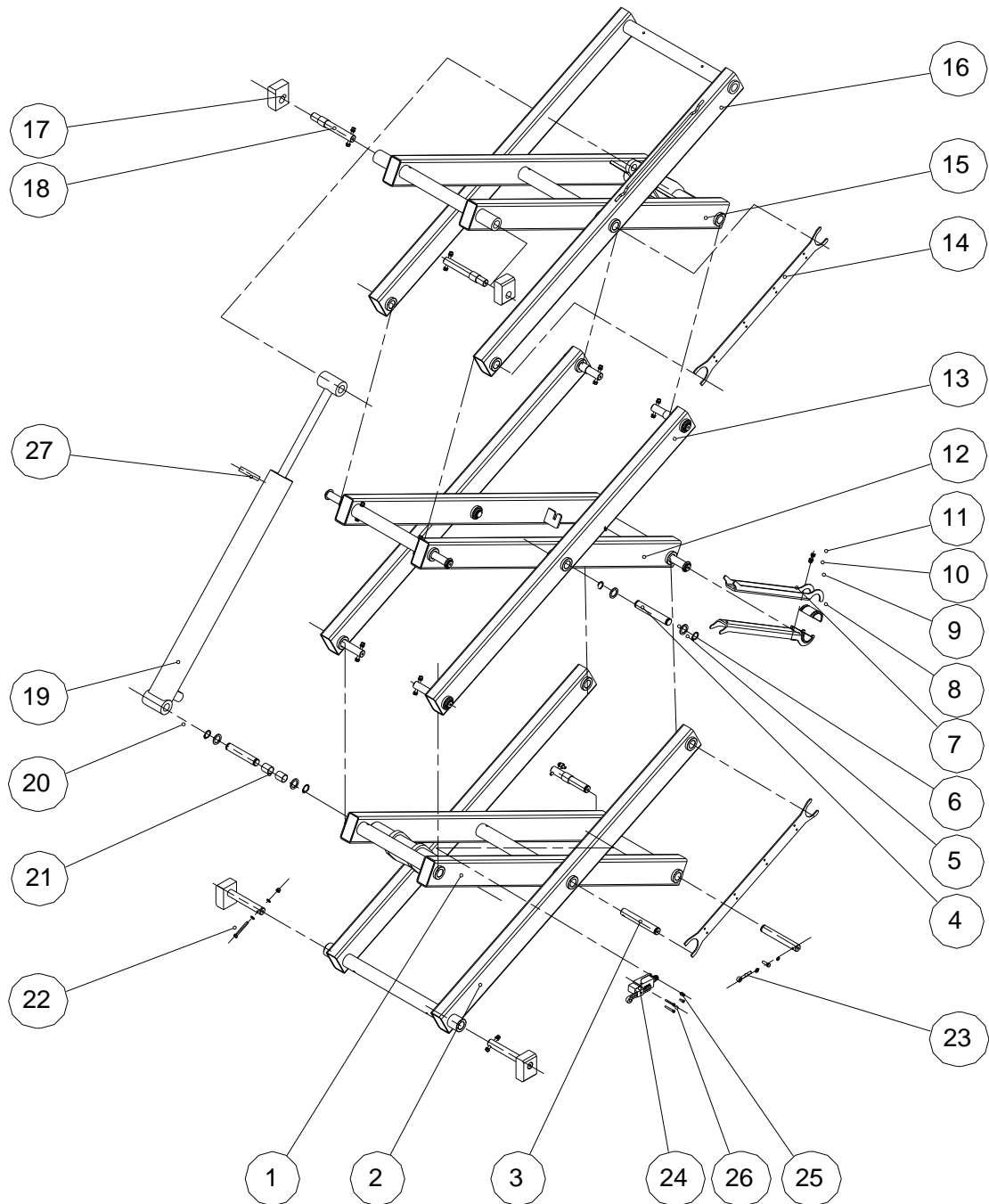
Drive Motor Assembly



BRAKE ASSEMBLY ITEMS 1 - 7 PART XDE58

ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1		8 - 36 X 1.75 SCREW SHCS	3	7	XDM24	ROTOR	1
2		# 8 SMALL FIT WASHER	6	8		5 - .8 x 12 mm SHCS	3
3	XDM28	STATOR	1	9	XDM29	COUPLING	1
4	N/S	SPRING	10	10	N/S	SNAP RING	1
5	N/S	SPACER	3	11	XDM31	ADAPTER	1
6	N/S	ARMATURE PLATE	1	12	XDEM11	DRIVE MOTOR	2

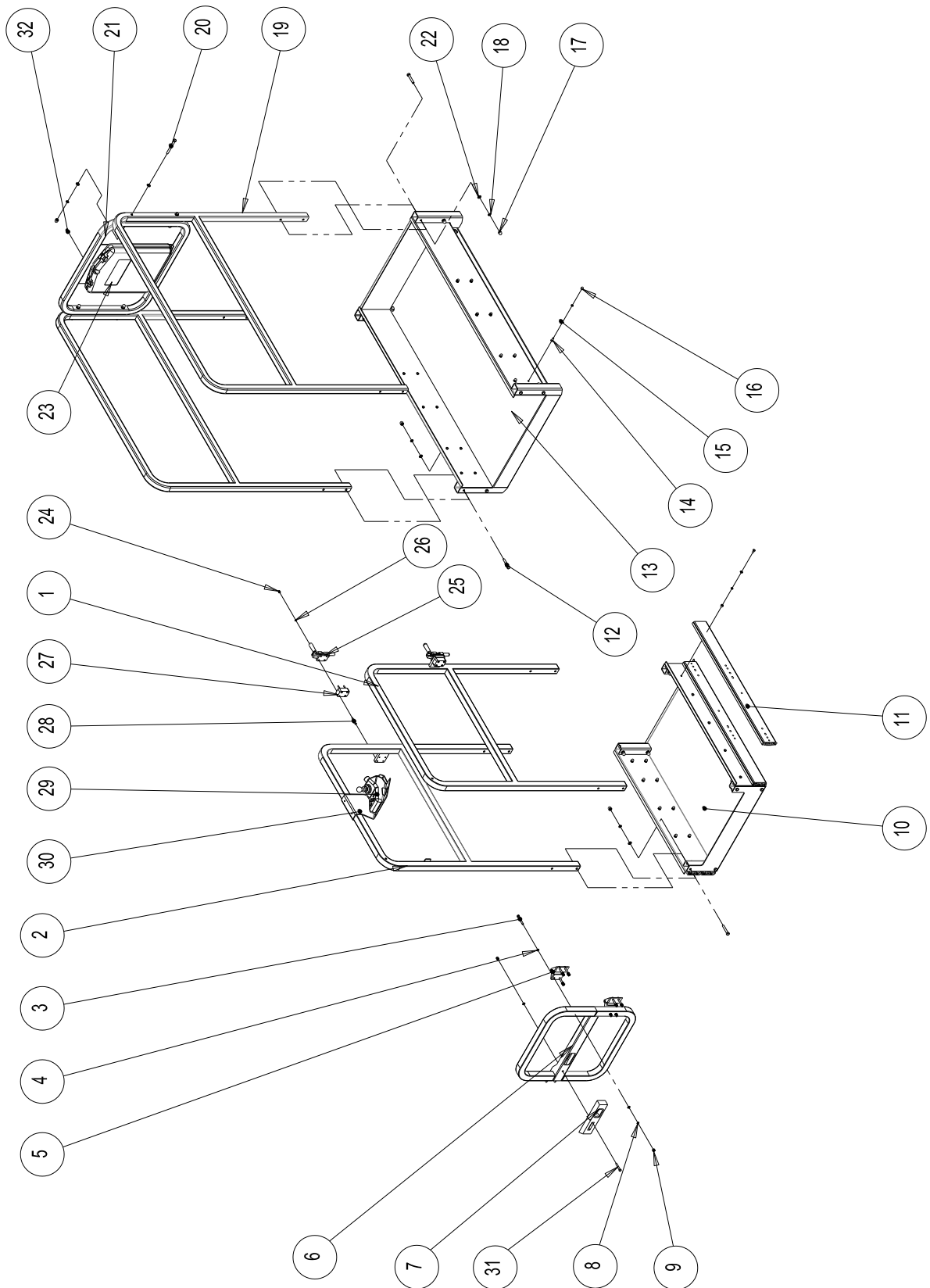
Scissors Arms Assembly



Part Manual

NO.	Parts NO.	Description	Qty.	Remark
1	JCPT5007MQ-131100	Inner 1 arm	1	
2	JCPT5007MQ-131200	Out 1 arm	1	
3	JCPT5007MQ-131009	Axis	14	
4	JCPT5007MQ-131010	Axis	2	
5		Flange	20	
6	GB894.2-1986	Bead flange D20	20	
7	JCPT5007MQ-131006	Safety arm	2	
8	JCPT5007MQ-131007	Safety holder	2	
9	GB/T 97.1-2002	Washer 6	40	
10	GB/T 5783-2000	Bolt M6×20	5	
11	GB/T 889.1-2000	Nut M6	20	
12	JCPT5007MQ-131300	Inner 2 arm	1	
13	JCPT5007MQ-131400	Out 2 arm	1	
14	JCPT5007MQ-131004	Plate	2	
15	JCPT5007MQ-131500	Inner 3 arm	1	
16	JCPT5007MQ-131600	Out 3 arm	1	
17	JCPT5007MQ-131002	slide block	4	
18	JCPT5007MQ-131001	Axis	6	
19	JCPT5007MQ-153100	Cylinder	1	
20	JCPT5007MQ-131008	Axis	2	
21	25-2023	Bearing	22	
22	GB/T 5782-2000	Bolt M10×90	18	
23	6x65.S	Pin	2	
24	TZ-8108	Travel switch	1	
25	GB/T 70.1-2000	Screw M4×10	2	
26	GB/T 70.1-2000	Screw M4×30	2	
27		Silencer	1	

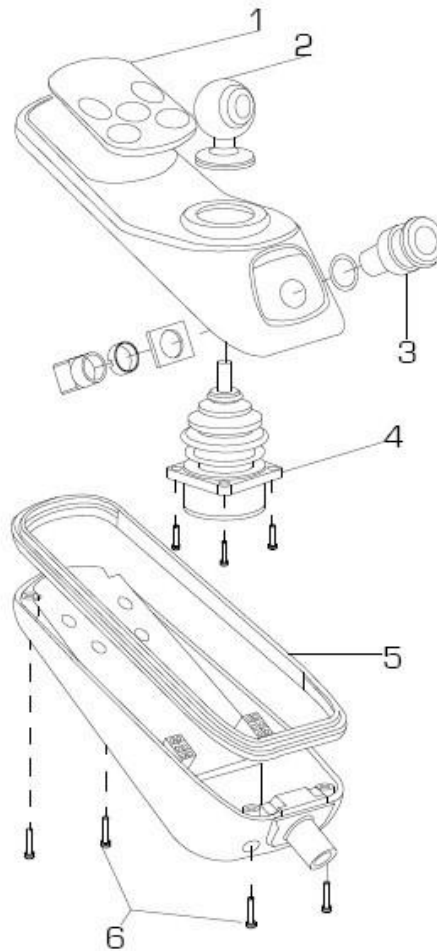
Platform with one extension deck



Part Manual

No.	Parts No.	Description	Qty.	Remark
1	JCPT5007MQ-43410B	Rail,Side Extension (Left)	1	
2	JCPT5007MQ-43420B	Rail,Side Extension (Right)	1	
3	GB/T 5782-2000	Bolt M6×50	8	
4	GB/T 848-1985	Washer 6	8	
5	TYHY6957-8020	Hinge 31	2	
6	JCPT5007MQ-44430B	Door	1	
7	JCPT3707M-43301	Doorknob	1	
8	GB/T 93-1987	Washer 6	44	
9	GB/T 6182-2000	Nut M6	9	
10	JCPT5007MQ-145200	Deck,Extension	1	
11	76-30	Glide track	4	
12	GB/T 5782-2000	Bolt M8×50	16	
13	JCPT5007MQ-145100	Singe Deck Extension	1	
14	GB/T 819.2-1997	Bolt M6×16-H	36	
15	GB/T97.1-2002	Washer 6	45	
16	GB/T 923-1988	Nut M6	36	
17	GB/T 923-1988	Nut M8	20	
18	GB/T 93-1987	Washer 8	20	
19	JCPT5007MQ-145310	Rail,Side Options	2	
20	GB/T 5782-2000	Bolt M8×80	4	
21	JCPT5007MQ-145320	Rail,End Options	1	
22	GB/T 97.1-2002	Washer 8	24	
23		Handbook ,Box	1	
24	GB/T 6182-2000	Nut M5	8	
25	DYT2-27-36010	Lanyard	2	
26	GB/T 97.1-2002	Washer 4	8	
27	JCPT5007MQ-43405	Board	2	
28	GB/T 818-2000	Bolt M4×40-H	8	
29		Up Controller	1	
30	JCPT5007MQ-00100	Hold of console	1	
31	GB/T 5782-2000	Bolt M6×40	1	
32	GB/T 70.3-2000	Bolt M5×20	4	

Up Controller



PART # XDE49

COMPLETE PLATFORM CONTROL MODULE ASSEMBLY ITEMS 1 - 6 WITH CABLE HARNESS

ITEM	PART #	DESCRIPTION	QTY	ITEM	PART #	DESCRIPTION	QTY
1		BUTTON FACE PAD	1	5		SHELL SEAL	1
2		JOYSTICK KNOB	1	6		ASSEMBLY SCREWS	4
3		EMERGENCY STOP ASSEMBLY	1				
4		JOYSTICK CONTROLLER	1				

[illegible]