

## OPERATOR'S SAFETY AND MAINTENANCE HANDBOOK

FOR PRO 6 IQ, PRO 8 IQ, PRO 10 IQ

# PRO IQ

**PRO 6 IQ** sn: S3006P-01-000631+

**PRO 8 IQ** sn: S3008P-01-001100+

**PRO 10 IQ** sn: S3010P-01-000877+

POP\*

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## **CONTENTS**

DECLARATION OF CONFORMITY	2	PLATFORM	13
HARNESS ATTACHMENT POINT	3	RAISING AND LOWERING	13
SAFETY RULES	4	LOWERING INTERRUPT	13
INTRODUCTION	6	COMPONENT TRAY	13
COMPONENT IDENTIFICATION	7	EMERGENCY LOWERING	13
SPECIAL LIMITATIONS	7	TRANSPORTING THE MACHINE	14
PLATFORM CAPACITY	7	PREPARING FOR TRANSPORTATION	14
MANUAL FORCE	7	TRANSPORTING	14
LIFT LEVEL SENSOR INTERLOCK	7	LIFTING WITH A FORKLIFT	14
LOWERING ALARM	7	LIFTING WITH A TAIL LIFT	14
LOWERING INTERRUPT	8	MAINTENANCE	15
CONTROLS AND INDICATORS	8	HYDRAULIC FLUID	15
LOWER CONTROLS	8	CHECK HYDRAULIC FLUID	15
EMERGENCY STOP BUTTON	8	BATTERY MAINTENANCE	15
CONTROL SELECTOR SWITCH	8	BATTERY CHARGING	15
GROUND OPERATION BUTTON	9	INSPECTION AND MAINTENANCE	16
PLATFORM RAISE/LOWER BUTTONS	9	SCHEDULE	17
BATTERY CHARGER MODE	9	DAILY PREVENTATIVE MAINTENANCE	17
SELECTOR	9	CHECKLIST	18
UPPER CONTROLS	9	PREVENTATIVE MAINTENANCE REPORT	19
EMERGENCY STOP BUTTON	9	GENERAL SPECIFICATIONS - PUSH 6 IQ	20
INTERLOCK BUTTON	9	GENERAL SPECIFICATIONS - PUSH 8 IQ	21
PLATFORM RAISE/LOWER BUTTONS	10	GENERAL SPECIFICATIONS - PUSH 10 IQ	22
PRE-OPERATION SAFETY INSPECTION	10		
SYSTEM FUNCTION INSPECTION	12		
OPERATION	12		
PREPARING FOR OPERATION	12		
LOWER CONTROLS	12		



## EC DECLARATION OF CONFORMITY FOR MACHINERY



Declaration De Conformite CE pour les Machines 2006/42/EC Declaracion De Conformidad CE Para Maquinaria 2006/42/EC Dichiarazione Di Conformità CE Per Le Macchine 2006/42/EC EC Declaration of Conformity of Machinery 2006/42/EC EC-Konformitätserklärung für Maschinen 2006/42/EC

EU Deklaration Avseende Överensstammelse För Maskinutrustning CE Conformiteitsverklaring voor Machinerie 2006/42/EC 2006/42/EC

EF-Overensstemmelseserklaering for Maskiner 2006/42/EC EF-Samsvarserklaering For Maskiner 2006/42/EC EU Vaatimustenmukaisuusvakuutus 2006/42/EC

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Valmistaja

Tillverkare Produsent Fabrikant

> **Authorized Representative** Representante autorizado Autorisierte Vertretung Representant autorise

Erkend vertegenwoordiger Auktoriserad representant Mandatario

Autorisert representant Valtuutettu edustaja Represenentant

Piattaforma di sollevamento motorizzata Platforma aerea de trabajo con motor Plate-forme elevatrice de personnel **Aerial Work Platform** Arbeitsbühne Bezeichnung Description Descripcion. Descrizione Description.

Mechanisch aangedreven werkplatform

Höj-och sänkbar arbetsplattform

Selvgående arbetsplattform Motordrevet lofteplatform

Konevoimalla toimiva nostolava

Beschrijving Beskrivelse Beskrivning Beskrivelse Kuvaus..

Selvgående personarbetslift

Paivamaara Datum Fecha Dato Data

POPUP PRO 6.8,10 iQ

Verticaal model Malli

Modello

Modelo

Serial number Matricola

Numero de serie Serienummer Sarajanumero

Notified body

Matricola

Notifizierte Stelle

Certification Ltd (PAC) Applethwaite Lodge Cumbria LA23 1JQ

Windermere

Powered Access

Aangemelde instantie Organismo notificado Organisme notifie

**Myndighet** 

Notified body number 0545

Asiasta on tehty ilmoitus seuraaville tahoille Avendte harmoniserte standarder Udpeget organ

Ente Notificatore

EC Type Examination Certificate number Examen type CE Numero de Certificat EC-Typenprufung Zertifikat-Nr

Onderzoek van het type EC Certificaatnummer Inspeccion tipo CE Numero de certificado EU typkontroll Certifieringsnummer Attestato di certificazione CE nr

EF-typegodkendelse Nummer pa typeattest EU-tyyppitarkastuksen nr.

EF-typeproving Sertifikatnummer

Signed For Snorkel

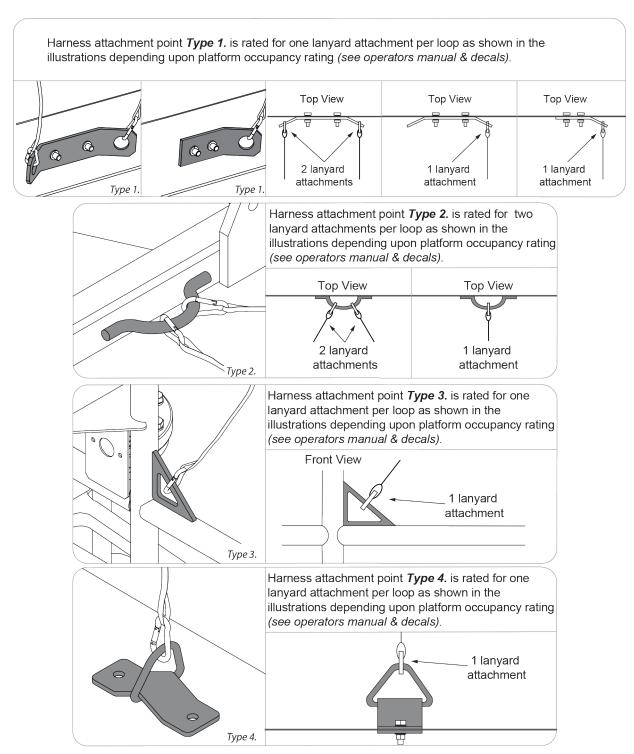
Modele Modell Model

#### HARNESS ATTACHMENT POINTS

Harness attachment points are provided in the platform and the manufacturer recommends the usage of a fall restraint harness, especially where required by national safety regulations.

All harness attachment points on SNORKEL vehicles have been tested with a force of 3,650 lbs (16.3 KN) per person.

See below examples of harness attachment points used on SNORKEL vehicles with their corrosponding rating;



NOTE - THERE CAN BE MORE HARNESS ATTACHMENT POINTS PER MACHINE THAN THE MAXIMUM NUMBER OF OCCUPANTS ALLOWED IN A PLATFORM. REFER TO THE PLATFORM DECAL & SPECIFICATIONS TABLE LISTED IN THE OPERATORS MANUAL FOR THE CORRECT OCCUPANCY RATING BEFORE USE.

## SAFETY RULES

WARNING: ALL PERSONNEL SHALL CAREFULLY READ, UNDERSTAND AND FOLLOW ALL SAFETY RULES AND OPERATING INSTRUCTIONS BEFORE OPERATING OR PERFORMING MAINTENANCE ON ANY SNORKEL AERIAL WORK PLATFORM.

**ELECTROCUTION** HAZARD



THIS MACHINE IS NOT INSULATED!

TIP OVER HAZARD



NEVER elevate the platform or drive the machine while on a firm, level surface.

**COLLISION HAZARD** 



NEVER position the platform without first checking for elevated unless the machine is overhead obstructions or other hazards.

FALL HAZARD



NEVER climb, stand, or sit midrail.

TRAPPING/CRUSHING HAZARD



Beware of crushing hazard on platform guardrails or when holding handrails while the platform is moving in close proximity to other objects.

USE OF THE AERIAL WORK PLATFORM: This aerial work platform is intended to lift persons and his tools as well as the material used for the job. It is designed for repair and assembly jobs and assignments at overhead workplaces (ceilings, cranes, roof structures, buildings etc.). All other uses of the aerial work platform are prohibited!

THIS AERIAL WORK PLATFORM IS NOT INSULATED! For this reason it is imperative to keep a safe distance from live parts of electrical equipment! DO NOT get closer than the minimum distance recommended by the "National Regulations".

Exceeding the specified permissible maximum load is prohibited! See "Platform Capacity" on page 18 for details. The use and operation of the aerial work platform as a lifting tool or a crane is prohibited!

NEVER exceed the manual force allowed for this machine. See "Manual Force" on page 18 for details.

**DISTRIBUTE** all platform loads evenly on the platform.

**NEVER** operate the machine without rst surveying the work area for surface hazards such as holes, drop-offs, bumps, curbs, or debris; and avoiding them.

**OPERATE** machine only on surfaces capable of supporting wheel loads.

NEVER operate the machine when wind speeds exceed this machine's wind rating. See "Beaufort Scale" on page 18 for

**NEVER** attach notice boards etc. to the platform, as this will increase wind loading.

IN CASE OF EMERGENCY push EMERGENCY STOP switch to deactivate all powered functions.

IF ALARM SOUNDS while platform is elevated, STOP, carefully lower platform. Move machine to a firm, level surface.

Climbing up the railing of the platform, standing on or stepping from the platform onto buildings, steel or prefab concrete structures, etc., is prohibited!

Dismantling the entry gate or other railing components is prohibited! Always make certain that the entry gate is closed and securely locked!

It is prohibited to keep the entry gate in an open position when the platform is raised!

To extend the height or the range by placing of ladders, scaffolds or similar devices on the platform is prohibited!

**NEVER** perform service on machine while platform is elevated without blocking elevating assembly.

**INSPECT** the machine thoroughly for cracked welds, loose or missing hardware, hydraulic leaks, loose wire connections, and damaged cables or hoses before using.

VERIFY that all labels are in place and legible before using.

**NEVER** use a machine that is damaged, not functioning properly, or has damaged or missing labels.

To bypass any safety equipment is prohibited and presents a danger for the persons on the aerial work platform and in its working range.

NEVER charge batteries near sparks or open flame. Charging batteries emit explosive hydrogen gas.

Modifications to the aerial work platform are prohibited or permissible only at the approval by Snorkel.

AFTER USE, secure the work platform from unauthorized use by turning the keyswitch off and removing key. The driving of MEWP's on the public highway is subject to national traffic regulations.

Care must be taken to ensure that the machine meets the requirements of stability during use, transportation, assembly, dismantling when out of service, testing, or foreseeable breakdowns.

In the event of an accident or breakdown see "Emergency Lowering" on page 12, do not operate the aerial platform if it is damaged or not functioning properly. Qualified maintenance personnel must correct the problem before putting the aerial platform back into service.

## **INTRODUCTION**

This manual covers the PRO 6 iQ, PRO 8 iQ and the PRO 10 iQ Aerial Work Platforms.

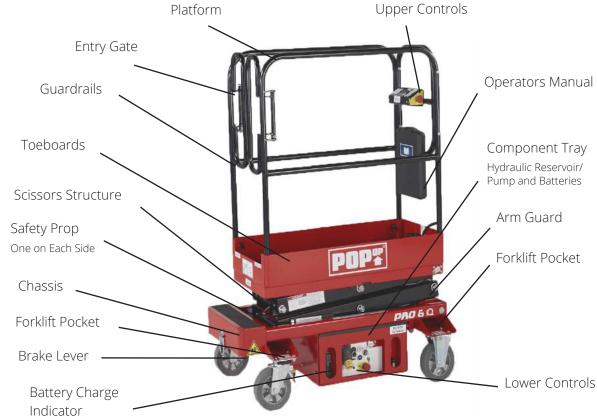
This manual must be stored on the machine at all times.

Read, understand and follow all safety rules and operating instructions before attempting to operate the machine.

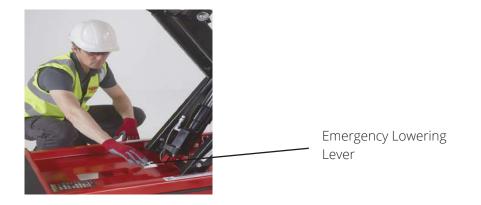
When contacting Pop Up for service or parts information, be sure to include the MODEL and SERIAL NUMBERS from the equipment nameplate. Should the nameplate be missing, the SERIAL NUMBER is also stamped on the front of the chassis.

## **COMPONENT IDENTIFICATION**





## Rear



#### **SPECIAL LIMITATIONS**

Elevating the platform is limited to firm, level surfaces only.

DANGER: THE ELEVATING FUNCTION SHALL ONLY BE USED WHEN THE WORK PLATFORM IS LEVEL AND ON A FIRM SURFACE.

The work platform is NOT intended to be pushed over uneven, rough, or soft terrain.

#### **PLATFORM CAPACITY**

One person and tools may occupy the platform when the machine is indoors only. The maximum platform capacity for the aerial platform is stated in the "Specifications" on pages 16 to 18.

DANGER: DO NOT EXCEED THE MAXIMUM PLATFORM CAPACITY OR THE PLATFORM OCCUPANCY LIMITS FOR THIS MACHINE.

## **MANUAL FORCE**

Manual force is the force applied by the occupants to objects such as walls or other structures outside the work platform. In zero wind conditions the maximum allowable manual force is limited to 200 N.

DANGER: DO NOT EXCEED THE MAXIMUM AMOUNT OF MANUAL FORCE FOR THIS MACHINE.

## LIFT LEVEL SENSOR INTERLOCK

The aerial platform lift function is interlocked through a level sensor system.

If the chassis is tilted more than 2 degrees side-to-side or front-to-rear, an alarm will sound when the power is turned on and the lift function will not operate. When the alarm sounds, only the platform lower function will operate.

Position the machine on a level surface when the lift level sensor alarm sounds. When the machine is properly positioned on a level surface, the alarm will not sound and all functions will be operational.

The lift level sensor system is for added protection and

#### **LOWERING ALARM**

When a platform control button is pressed to lower the platform, the alarm emits a loud beeping sound to warn personnel in the work area to stand clear.

DANGER: PINCH POINTS EXIST ON THE SCISSORS STRUCTURE. DEATH OR SERIOUS INJURY WILL RESULT IF THE SCISSORS STRUCTURE LOWERS ONTO PERSONNEL WITHIN THE SCISSORS ARMS OR UNDER THE RAISED PLATFORM. STAND CLEAR WHILE RAISING AND LOWERING THE PLATFORM.

Be careful when lowering the platform. Keep hands and fingers away from the scissors structures components.

## LOWERING INTERRUPT (ARM GUARD)

When the platform is lowered to about 1.5 m (5') lowering stops. This is the first decent limit the platform will not lower for three seconds regardless of the control position to allow personnel to clear the area of the scissors before the platform completely lowers. To continue lowering release the controls, wait for three seconds then operate the controls to lower again. The allarm will sound, the beacon will flash and there will be a 1.5 second delay before lowering begins. Any releasing of the controls below the first decent limit will result in this 1.5 second delay being repeated the next time the controls are operated.

Beaufort	WIND SPEED				
Rating	m/s	km/h	ft/s	mph	GROUND CONDITIONS
3	3,4~5,4	12,25~19,4	11,5~17,75	7,5~12,0	Papers and thin branches move, flags wave.
4	5,4~8,0	19,4~28,8	17,75~26,25	12,0~18	Dust is raised, papers whirl up, and small branches sway.
5	8,0~10,8	28,8~38,9	26,25~35,5	18~24,25	Shrubs with leaves start swaying. Wave crests are apparent in ponds/swamps
6	10,8~139	38,9~50,0	35,5~45,5	24,5~31	Tree branches move. Power lines whistle. It is difficult to open an umbrella.
7	13,9~17,2	50,0~61,9	45,5~56,5	31~38,5	Whole trees sway. It is difficult to walk against the wind.

Figure 1 - Beaufort Scale

#### **CONTROLS AND INDICATORS**

The operator shall know the location of each control and indicator and have a thorough knowledge of the function and operation of each before attempting to operate the machine.

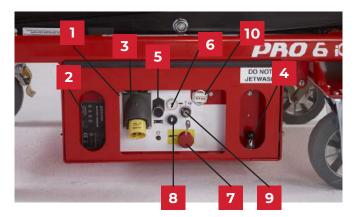


Figure 2 - Lower Controls and Indicators



Figure 3 - Upper Controls and Indicators

- 1 Tilt/lowering alarm
- 2 Battery charge indicator
- 3 110V battery charger plug
- 4 Tray Latch
- 5 Ground Operation Button
- 6 Platform raise button
- **7** Emergency stop button
- 8 Platform lower button
- 9 Control selector switch
- 10 Diagnostic Port
- 11 Interlock button
- 12 Battery condition indicator LED
- 13 Platform lower button
- 14 Platform raise button
- 15 Emergency stop button

DANGER: PINCH POINTS MAY EXIST BETWEEN MOVING COMPONENTS. DEATH OR SERIOUS INJURY WILL RESULT FROM BECOMING TRAPPED BETWEEN COMPONENTS, BUILDINGS, STRUCTURES, OR OTHER OBSTACLES. MAKE SURE ALL PERSONNEL STAND CLEAR WHILE OPERATING THE AERIAL PLATFORM.

Controls to position the platform are located on the lower control panel on the chassis and t the upper control panel in the platform.

## **LOWER CONTROLS**

The lower controls (refer to Figure 2) are located on the right side of the chassis. The following are located on the lower control panel: Emergency stop button, Control selector switch, Ground operation button, Platform raise/lower buttons, Battery charger.

WARNING: THE AERIAL PLATFORM IS FREE TO MOVE WHEN THE BRAKES ARE RELEASED. DEATH OR SERIOUS INJURY CAN RESULT. ENGAGE THE BRAKES BEFORE OPERATING THE AERIAL PLATFORM.

## **EMERGENCY STOP BUTTON**

The emergency stop is a two-position red push button. Push the button inward to disconnect power to all control circuits. Pull the button outward to restore power.

## **CONTROL SELECTOR SWITCH**

Insert the key into the control selector switch.

- Turn the switch to the lower controls position to operate aerial platform functions from the lower controls. The upper controls will not operate while the control selector is in the lower position.
- Turn the switch to the upper controls position to operate the aerial platform functions from the upper controls.
- In the center position, aerial platform functions will not operate from the lower or upper controls.

#### **GROUND OPERATION BUTTON**

The ground operation button prevents platform movement if the platform raise or lower button is accidentally pressed. This switch is spring returned to the off position.

Press and hold the ground operation switch inward continually to operate the machine from the lower controls.

## PLATFORM RAISE/LOWER BUTTONS

The platform raise/lower buttons are used to raise or lower the platform. The buttons are spring returned to the off position.

- Press and hold the platform raise button to raise the platform.
- Press and hold the platform lower button to lower the platform.
- An alarm will sound as the platform lowers.

#### **BATTERY CHARGER**

The battery charger is operated on a 110V electrical circuit.

## **UPPER CONTROLS**

The upper controls (refer to Figure 3) are located on the control panel at the front of the platform. The following controls are located on the upper control panel: Interlock button, Battery condition indicator, Platform raise/lower buttons, Emergency stop button.

WARNING: THE AERIAL PLATFORM IS FREE TO MOVE WHEN THE BRAKES ARE RELEASED. DEATH OR SERIOUS INJURY CAN RESULT. ENGAGE THE BRAKES BEFORE OPERATING THE AERIAL PLATFORM.

#### **EMERGENCY STOP BUTTON**

The emergency stop is a two-position, red push button on the right side of the upper control panel.

- Push the button inward to disconnect power from all control circuits at the upper controls.
- Twist the button clockwise to restore power. Push the button in when the upper controls are not in use to help protect against unintentional platform operation.

## **INTERLOCK BUTTON**

The interlock button prevents platform movement if the platform raise or lower button is accidentally pressed. This switch is spring returned to the off position.

Press and hold the interlock button inward continually to operate the machine from the upper controls.

#### PLATFORM RAISE/LOWER BUTTONS

The platform raise/lower buttons are used to raise or lower the platform. The buttons are spring returned to the off position.

- Press and hold the platform raise button to raise the platform.
- Press and hold the platform lower button to lower the platform.
- An alarm will sound as the platform lowers.

#### **BATTERY CONDITION LED**

The Battery Condition LED illuminates to give an approximate indication of the amount of charge remaining in the battery as follows:

NOT ILLUMINATED - 100% TO 40% SLOW FLASH - 40% TO 20% FAST FLASH - 20% TO 10% STEADY ON - LESS THAN 10%

**Note:** To maximise battery life always recharge the battery after use and never store the machine for extended periods without first fully recharging the battery.

## **PRE-OPERATION SAFETY INSPECTION**

Note: Carefully read, understand and follow all safety rules, operating instructions, labels and National Safety Instructions/Requirements.

- 1 Open the tray and inspect for damage, fluid leaks or missing parts daily.
- 2 Check daily the level of the hydraulic uid with the platform fully lowered. The fluid level must be within 6 mm (1/4") of the top of the Il hole. Add recommended hydraulic fluid if necessary. See "Specifications" on pages 16 to 18.
- 3 Check weekly that the uid level in the batteries is correct. See "Battery Maintenance" on page 15.
- 4 Verify that the batteries are charged daily.
- 5 Check daily that the AC extension cord has been disconnected from the outlet on the side of the chassis.
- 6 Inspect the brakes daily on the rear castor wheels for proper operation. Step down on the brake levers and verify that the machine will not move.
- 7 Check daily that all guardrails are in place and all fasteners are properly tightened.
- 8 Inspect the machine thoroughly each day for cracked welds and structural damage, loose or missing hardware, hydraulic leaks, damaged control cable and loose wire connections.

## SYSTEM FUNCTION INSPECTION

Refer to "Controls and Indicators" on page 6 for the locations of various controls and indicators.

WARNING: STAND CLEAR OF THE WORK PLATFORM WHILE PERFORMING THE FOLLOWING CHECKS. BEFORE OPERATING THE MACHINE, SURVEY THE WORK AREA FOR SURFACE HAZARDS SUCH AS HOLES, DROPOFFS, BUMPS AND DEBRIS. CHECK IN ALL DIRECTIONS, INCLUDING ABOVE THE WORK PLATFORM, FOR OBSTRUCTIONS AND ELECTRICAL CONDUCTORS.

- 1 Move the machine, if necessary, to an unobstructed area to allow for full elevation.
- 2 Pull the Lower Control Emergency Stop Switch to the ON position.
- 3 Turn the Upper Control Emergency Stop Switch clockwise to the ON position.
- 4 Visually inspect the scissors structure, lift cylinder, and hoses for cracked welds and structural damage, loose hardware, hydraulic leaks, loose wire connections, and erratic operation. Check for missing or loose parts.
- 5 Press and hold the ground operation button inward. Test each machine function from the lower control station (refer to Figure 2).
- 6 Test the emergency lowering system for proper operation.
- 7 Push the Lower Control Emergency Stop Button to check for proper operation. All machine functions should be disabled. Pull the Lower Control Emergency Stop Button outward to resume.
- 8 Enter the platform and close the gate.
- 9 Check that the route is clear of obstacles (persons, obstructions, debris), is level, and is capable of supporting the wheel loads.
- 10 Test each machine function from the upper control station by engaging the interlock and operating the function controls (refer to Figure 3).
- 11 Push the Upper Control Emergency Stop Button to check for proper operation. All upper control machine functions should be disabled. Turn the Upper Control Emergency Stop Button clockwise to resume.
- 12 Check to ensure that the Auto Brake system works correctly by raising the machine slightly from the lower controls. Check that the brake is engaged against the rear castor wheels. Check to make sure the machine will not move when elevated.

## **OPERATION**

The aerial platform may be operated from either the lower or upper controls.

DANGER: THE AERIAL PLATFORM IS NOT ELECTRICALLY INSULATED. DEATH OR SERIOUS INJURY WILL RESULT FROM CONTACT WITH, OR INADEQUATE CLEARANCE FROM, AN ENERGIZED CONDUCTOR. DO NOT GO CLOSER THAN THE MINIMUM SAFE APPROACH DISTANCE AS DE NED BY NATIONAL SAFETY REGULATIONS. PINCH POINTS MAY EXIST BETWEEN MOVING COMPONENTS. DEATH OR SERIOUS INJURY WILL RESULT FROM BECOMING TRAPPED BETWEEN COMPONENTS, BUILDINGS, STRUCTURES, OR OTHER OBSTACLES. MAKE SURE THERE IS SUF CIENT CLEARANCE AROUND THE MACHINE BEFORE MOVING THE CHASSIS OR PLATFORM. ALLOW SUFFICIENT ROOM AND TIME TO STOP MOVEMENT TO AVOID CONTACT WITH STRUCTURES OR OTHER HAZARDS. THE AERIAL PLATFORM CAN TIP OVER IF IT BECOMES UNSTABLE. DEATH OR SERIOUS INJURY WILL RESULT FROM A TIP-OVER ACCIDENT. OPERATE THE AERIAL PLATFORM ON A FIRM, FLAT, LEVEL SURFACE. ENGAGE BOTH OF THE REAR BRAKES BEFOR ENTERING THE PLATFORM. DO NOT POSITION THE AERIAL PLATFORM FOR ELEVATED USE NEAR ANY DROP- OFF, HOLE, SLOPE, SOFT OR UNEVEN GROUND, OR OTHER TIP-OVER HAZARD. DO NOT RAISE THE PLATFORM IN WIND SPEEDS ABOVE 0 M/S.

The platform rated work load is the total weight of the personnel and equipment that may be lifted in the platform.

The work loads are stated on the platform rating placard at the entrance to the platform.

DANGER: THE AERIAL PLATFORM CAN TIP OVER IF IT BECOMES UNSTABLE. DEATH OR SERIOUS INJURY WILL RESULT FROM A TIP-OVER ACCIDENT. DO NOT EXCEED THE CAPACITY VALUES INDICATED ON THE PLATFORM RATING PLACARD.

Capacity values indicate the rated lifting capacity and do not indicate aerial platform stability.

The operator bears ultimate responsibility for ensuring that the aerial platform is properly set up for the particular conditions encountered.

## PREPARING FOR OPERATION

Use the following procedure to prepare the aerial platform for operation:

- 1 Perform a pre-operation safety and system function inspection.
- 2 Close and latch the component tray.
- 3 Position the machine in the work place and make certain the area is flat and horizontal.
- 4 Step down on each of the brake levers to lock the rear wheels in position. Verify that the brakes are engaged before entering the platform.

## LOWER CONTROLS

The platform raise and lower functions may be operated from the lower controls. The lower controls may be used for initial set up of the aerial platform, and for testing and inspection.

Use the following procedure to raise or lower the platform using the lower controls.

- 1 Pull the emergency stop button outward (refer to Figure 2).
- 2 Insert the key into the control selector switch and turn the switch to the lower controls position.
- 3 Press and hold the ground operation button inward.
  - To raise the platform, press and hold the platform raise button.
  - To lower the platform, press and hold the platform lower button.
- 4 Release the button to stop movement.

## **UPPER CONTROLS**

Before operating the upper controls, properly set up the aerial platform as described under Preparing for Operation.

Use the following procedure to operate the aerial platform from the upper controls:

## UPPER CONTROLS CONT

- 1 From the lower controls, pull the emergency stop button outward (refer to Figure 2).
- 2 Insert the key into the control selector switch and turn the switch to the upper controls position.

Note: The upper controls will not operate while the control selector is in the lower position.

- 3 Enter the platform and secure the gate.
- 4 From the upper controls, turn the emergency stop button clockwise to the on position (refer to Figure 3).
- 5 The platform may be raised and lowered from the upper controls.

## **PLATFORM**

Use care when entering and exiting the platform to avoid slipping and/or falling. Securely close the safety gate when the platform is occupied.

#### RAISING AND LOWERING

Press and hold the interlock button on the left side of the upper control box.

- To raise the platform, press and hold the platform raise button until the desired height is reached.
- To lower the platform, press and hold the platform lower button until the desired height is reached.

## LOWERING INTERRUPT (ARM GUARD)

When the platform is lowered to about 1.5 m (5') lowering stops. This is the first decent limit the platform will not lower for three seconds regardless of the control position to allow personnel to clear the area of the scissors before the platform completely lowers.

To continue lowering release the controls, wait for three seconds then operate the controls to lower again. The allarm will sound, the beacon will flash and there will be a 1.5 second delay before lowering begins. Any releasing of the controls below the first decent limit will result in this 1.5 second delay being repeated the next time the controls are operated.

## **COMPONENT TRAY**

Batteries and hydraulic components are enclosed in the component tray on the left side of the chassis.

DANGER: THE AERIAL PLATFORM CAN TIP OVER IF IT BECOMES UNSTABLE. DEATH OR SERIOUS INJURY CAN RESULT FROM A TIP-OVER ACCIDENT. DO NOT OPEN THE TRAY WHEN THE PLATFORM IS ELEVATED.

To open the tray, lift up on the tray latch and pull the tray open.

## **EMERGENCY LOWERING**

Use the following procedure to operate the emergency lowering system.

WARNING: THE POTENTIAL FOR AN ACCIDENT INCREASES WHEN SAFETY DEVICES DO NOT FUNCTION PROPERLY. DEATH OR SERIOUS INJURY CAN RESULT FROM SUCH ACCIDENTS. IMMEDIATELY PUSH THE EMERGENCY STOP BUTTON INWARD TO DISABLE THE CONTROL SYSTEM BEFORE USING THE EMERGENCY LOWERING SYSTEM IN THE EVENT OF AN EMERGENCY.

- 1 Immediately push the emergency stop button inward to disable the control system in the event of an emergency.
- 2 Make sure there is nothing in the way to obstruct the platform when it lowers.
  - Push downward on the lever to lower the platform.
- 3 Make certain the lever/handle is fully released and the emergency lowering valve is fully closed before operating the aerial platform.

## TRANSPORTING THE MACHINE

#### PREPARING FOR TRANSPORTATION

Use the following procedure to prepare the aerial platform for transportation.

- 1 Remove any unnecessary tools, materials, or other loose objects from the platform.
- 2 Close and latch the component tray.

#### **TRANSPORTING**

The equipment used to load, unload, and transport the aerial platform must have adequate capacity. The empty vehicle weight is listed in "Specifications" on pages 16 to 18 and is stamped on the serial number placard.

The user assumes all responsibility for:

- · Choosing the proper method of transportation.
- · Choosing the proper selection and use of transportation and tie-down devices.
- · Making sure the equipment used is capable of supporting the weight of the aerial platform.
- Making sure all manufacturer's instructions and warnings, regulations and safety rules of their employer, the DOT, and/or any other state or federal law are followed.

#### LIFTING WITH A FORKLIFT

Use the following procedure to lift the aerial platform with a forklift.

- 1 Properly stow the aerial platform.
- 2 Engage the brakes on both of the rear wheels.
- 3 Remove all personnel, tools, materials, or other loose objects from the platform.
- 4 Insert the forklift forks into the pockets on either side of the machine.

CAUTION: LIFTING THE AERIAL PLATFORM WITH THE FORKLIFT FORKS POSITIONED IMPROPERLY CAN PRODUCE ENOUGH FORCE TO DAMAGE MACHINE COMPONENTS. WHEN LIFTING THE MACHINE WITH A FORKLIFT, ONLY USE THE DESIGNATED LIFT POINTS.

5 Do not raise the aerial platform higher than necessary to transport it. Drive the forklift slowly and carefully when transporting the aerial platform.

#### LIFTING WITH A TAIL LIFT

Use the following procedure to lift the aerial platform with a forklift.

- 1 Properly stow the aerial platform.
- 2 Remove all personnel, tools, materials, or other loose objects from the platform.
- 3 Position the aerial platform on the tail lift.
- 4 Engage the brakes on both of the rear wheels.
- 5 Carefully raise the lift and position the aerial platform in the transport vehicle.
- 6 Secure the machine to the transport vehicle using straps through the fork lift pockets.

## **MAINTENANCE**

WARNING: ALWAYS BLOCK THE ELEVATING ASSEMBLY WHENEVER IT IS NECESSARY TO PERFORM MAINTENANCE WHILE THE PLATFORM IS ELEVATED.



Figure 5 - Safety Props

Use the following procedure to properly position the safety props:

- 1 Remove all tools and material from the platform.
- 2 Using the lower controls, raise the platform until the open distance on the chassis is wide enough to position the safety props. Refer to Figure 5.
- 3 Rotate the safety props downward from the storage position to the support position.
- 4 Remove hands and arms from the scissors area.
- 5 Lower the platform until the scissors are supported by the safety props.

## **HYDRAULIC FLUID**

The hydraulic fluid reservoir is located in the component tray. Refer to Figure 6.

Note: Never add fluid if the platform is elevated.



Figure 6 - Component Tray

## **CHECK HYDRAULIC FLUID**

- 1 Make sure that the platform is fully lowered.
- 2 Visually check to make sure the fluid is within 6 mm (1/4") of the top of the fill hole.
- 3 If necessary, remove the filler cap and add fluid of the proper type. Replace the cap making sure it is tightly in place. Refer to "Specifications" pages 16 to 18.

## **BATTERY MAINTENANCE**

WARNING: HAZARD OF EXPLOSIVE GAS MIXTURE.
KEEP SPARKS, FLAME, AND SMOKING MATERIAL
AWAY FROM THE BATTERY. ALWAYS WEAR SAFETY
GLASSES WHEN WORKING NEAR THE BATTERY.
BATTERY FLUID IS HIGHLY CORROSIVE. THOROUGHLY
RINSE AWAY ANY SPILLED FLUID WITH CLEAN
WATER. ALWAYS REPLACE THE BATTERY WITH A
MANUFACTURER APPROVED REPLACEMENT.

- Check the battery fluid level weekly, especially if the machine is being used in a warm, dry climate.
- If electrolyte level is lower than 6 mm (1/4") above the plates add distilled water only. DO NOT use tap water with high mineral content, as it will shorten battery life.
- Keep the terminals and top of the battery clean.
- Refer to the Service Manual to extend battery life and for complete service instructions.

WARNING: ALWAYS USE MANUFACTURER APPROVED REPLACEMENT PARTS.

## **BATTERY CHARGING**

Charge the battery at the end of each work shift or sooner if the battery has been discharged.

Note: The PRO 6, 8, 10 iQ series has a built in feature whereby power is cut to the lift function when the battery level reaches a manufacturer preset limit, this is to prevent excessive wear or damge to the battery. The machine should immediately be placed on charge if this occurs.

WARNING: CHARGE THE BATTERY IN A WELL VENTILATED AREA. DO NOT CHARGE THE BATTERY WHEN THE MACHINE IS NEAR A SOURCE OF SPARKS OR FLAMES. PERMANENT DAMAGE TO THE BATTERY WILL RESULT IF THE BATTERY IS NOT IMMEDIATELY RECHARGED AFTER DISCHARGING. NEVER DISCONNECT THE CABLES FROM THE BATTERY WHEN THE CHARGER IS OPERATING.

## INSPECTION AND MAINTENANCE SCHEDULE

## **KEEP THE CHARGER DRY**

- 1 At the lower controls, turn the control selector switch to the off position.
- 2 Open the component tray to access the battery. Remove the caps from the battery.
- 3 Visually check the battery fluid level making sure the level is within 6 mm (1/4") of the bottom of the ller neck inside each hole. If needed, add distilled water.
- 4 Tightly replace the caps on each battery and replace and latch the battery tray covers.
- 5 Plug the battery charger into a properly grounded outlet (110 volt AC, 50/60 Hz) using a 3 conductor, 1.5 mm (12 gauge) or larger extension cord. The extension cord must be as short as possible and in good electrical condition.
- 6 Visually inspect the battery charge indicator for proper charging rate. The LED's are visible on the left side of the lower controls. Refer to Figure 7 for the function of each LED. The battery should be fully charged when the 95% LED is on.
- 7 Leave the battery charger plugged in until it shuts itself off.

Note: If the charging cycle exceeds 16 hours without the battery being fully recharged, unplug the charger and have the battery checked.

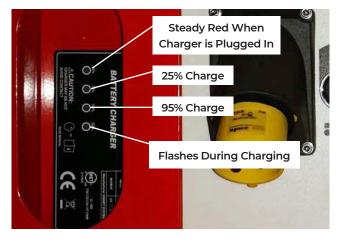


Figure 7 - Battery Charge Indicator

- 8 After the battery charger turns itself off, it is not necessary to immediately unplug the extension cord from the battery charger. The charger will monitor the charge state of the battery and recharge them if the voltage drops off.
- 9 Slide the component tray open to access the battery. Remove the caps from the battery.
- 10 Visually check the battery fluid level making sure the level is within 6 mm (1/4") of the bottom of the ller neck inside each hole. If needed, add distilled water.
- 11 Tightly replace the caps on the battery and

## INSPECTION AND MAINTENANCE SCHECULE

CAUTION: FREQUENCY AND EXTENT OF PERIODIC EXAMINATIONS MAY DEPEND ON NATIONAL REGULATIONS.

The Complete Inspection consists of periodic visual and operational checks, along with periodic minor adjustments that assure proper performance. Daily inspection will prevent abnormal wear and prolong the life of all systems. The inspection and maintenance schedule should be performed at the specified intervals and after prolonged periods of storage before returning the machine to service. Inspection and maintenance shall be performed by personnel who are trained and familiar with mechanical and electrical procedures.

WARNING: BEFORE PERFORMING PREVENTATIVE MAINTENANCE, FAMILIARIZE YOURSELF WITH THE OPERATION OF THE MACHINE. ALWAYS BLOCK THE SCISSORS STRUCTURE WHENEVER IT IS NECESSARY TO PERFORM MAINTENANCE WHILE THE PLATFORM IS ELEVATED.

The daily preventative maintenance checklist has been designed for machine service and maintenance. Please photocopy the Daily Preventative Maintenance Checklist and use the checklist when inspecting the machine.

## DAILY PREVENTATIVE MAINTENANCE CHECKLIST

## PREVENTATIVE MAINTENANCE REPORT

DATE	SERIAL NO.		
OWNER	SERVICED BY		
MODEL NO			

ITEM	INSPECT FOR	Y	N	R
OPERATOR'S MANUAL	In manual holder, all pages readable and intact.			
ELECTRICAL SYSTEM				
Battery Terminals	Clean, connectors tight.			
Battery Charge Indicator	Proper operation.			
Battery Charger	Proper operation.			
Cables and Wiring Harness	No wear or physical damage.			
HYDRAULIC SYSTEM				
Fluid Level	Between full and add marks with platform stowed.			
Hoses, tubes and fittings	No leaks, all fittings tight.			
CASTORS	Good condition, no damage/smooth movement.			
MANUAL BRAKES	Proper operation, no damage or deformation.			
LOWER CONTROL STATION				
Operating Controls	Proper operation.			
Emergency Stop	Shuts off lower controls/proper operation.			
Lowering Alarm and Interrupt	Sounds when platform lowers/proper operation.			
EMERGENCY LOWERING	Proper operation.			
SAFETY PROP	No damage or deformation.			
STRUCTURES				
Weldments - Scissors, chassis, steps, platform, etc.	Welds intact, no damage or deformation.			
Platform Slide Rollers	In place, no damage or deformation.			
Fasteners	In place, tight, and no damage.			
Scissor and Cylinder Pins	Securely in place, no damage or corrosion.			
JPPER CONTROL STATION				
Guardrail System	Welds intact, no damage or deformation.			
	All fasteners in place, no loose or missing parts.			
Platform Floor	No damage or deformation.			
	Clean to prevent slip and fall hazards.			
Entry Gate	Proper operation, no damage or deformation.			
Operating Controls	Proper operation/raise and lower.			
Lowering Delay	Proper operation, limit switch delays lowering.			
Emergency Stop	Shuts off upper controls.			
OPERATION AND SAFETY DECALS	In place and readable.			

 ${\it Maintenance Table Key: Y = Yes/Acceptable, N = No/Not Acceptable, R = Repaired/Acceptable}$ 

## **GENERAL SPECIFICATIONS - PRO 6 iQ**

## **AERIAL PLATFORM**

Working beight

## **ELECTRICAL SYSTEM**

Working height	3.30 111	voltage	12 v Be negative chassis ground
Maximum platform height	1.96 m	Source	One - 12 V 105 amp hour battery

Wheelbase 1 m Fluid Recommended distilled water

Ground clearance 1.9 cm Charger 15 amp

3.96 m

Maximum wheel load 170 kg

Maximum ground pressure 71 kg/cm<sup>2</sup>

Floor loading 933 kg/m<sup>2</sup>

Weight, EVW

**Approximate** 310 kg

Stowed width 76.2 cm

Stowed length 1.23 m

Stowed height 1.67 m

## **PLATFORM**

Dimensions 51.3 cm x 109 cm

Guardrail height 110.4 cm

Toeboard height 15.3 cm

Rated work load 240 kg

Maximum number of occupants 1 indoors

## **FUNCTION SPEED**

Platform Raise 6 to 10 seconds

Platform Lower 6 to 10 seconds

## LIFT LEVEL SENSOR INTERLOCK

Side-to-side 1.5 degrees

Front-to-rear 2 degrees

**TIRES Nonmarking** 

solid rubber

12 V DC negative chassis ground Voltage

#### HYDRAULIC SYSTEM

Maximum pressure 19,305 kPa

Pressure Relief Valve Setting 2,000 psi

Reservoir capacity 3.78 l

System capacity 71°C (160°F)

Maximum operating temperature Hydraulic fluid recommended

Above -13°C (10°F) ISO VG32 (Mobil DTE-13M)

3.78 I

Below -13°C (10°F) ISO VG15 (Mobil DTE-11M)

## AMBIENT AIR TEMPERATURE **OPERATING RANGE**

-18°C to 43°C Celsius

0°F to 110°F Fahrenheit

## MAXIMUM WIND SPEED

Gust or steady 0 m/s

## **VIBRATION**

< 0.5 m/sec<sup>2</sup> Whole Body Vibration

Hand/Arm Vibration < 2.5 m/sec<sup>2</sup>

#### SOUND PRESSURE LEVEL

At work station Below 70 dB(A)

## **GENERAL SPECIFICATIONS - PRO 8 iQ**

## **AERIAL PLATFORM**

## **ELECTRICAL SYSTEM**

Working height	4.56 m	Voltage	12 V DC negative chassis ground
Maximum platform height	2.56 m	Source	One - 12 V 105 amp hour battery

Wheelbase 1 m

Ground clearance 1.9 cm Charger

Maximum wheel load 220 kg

Maximum ground pressure 92 kg/cm<sup>2</sup>

Floor loading 1000 kg/m<sup>2</sup>

Weight, EVW

**Approximate** 350 kg

Stowed width 76.2 cm

Stowed length 1.23 m

Stowed height 1.82 m

**PLATFORM** 

Dimensions 51.3 cm x 109 cm

Guardrail height 110.4 cm

Toeboard height 15.3 cm

Rated work load 240 kg

Maximum number of occupants 1 indoors

**FUNCTION SPEED** 

Platform Raise 6 to 12 seconds

Platform Lower 8 to 12 seconds

LIFT LEVEL SENSOR INTERLOCK

Side-to-side 1.5 degrees

Front-to-rear 2 degrees

**TIRES Nonmarking** 

solid rubber

Voltage 12 V DC negative chassis ground

Fluid Recommended distilled water

15 amp

HYDRAULIC SYSTEM

Maximum pressure 19,305 kPa

Pressure Relief Valve Setting 2,000 psi

Reservoir capacity 3.78 l

System capacity 3.78 I

71°C (160°F) Maximum operating temperature

Hydraulic fluid recommended

Above -13°C (10°F) ISO VG32 (Mobil DTE-13M)

Below -13°C (10°F) ISO VG15 (Mobil DTE-11M)

AMBIENT AIR TEMPERATURE **OPERATING RANGE** 

-18°C to 43°C Celsius

0°F to 110°F Fahrenheit

MAXIMUM WIND SPEED

Gust or steady 0 m/s

**VIBRATION** 

Whole Body Vibration < 0.5 m/sec<sup>2</sup>

Hand/Arm Vibration < 2.5 m/sec<sup>2</sup>

SOUND PRESSURE LEVEL

At work station Below 70 dB(A)

## **GENERAL SPECIFICATIONS - PRO 10 iQ**

## **AERIAL PLATFORM**

## **ELECTRICAL SYSTEM**

HYDRAULIC SYSTEM

Pressure Relief Valve Setting

Maximum operating temperature

Hydraulic fluid recommended

Above -13°C (10°F)

Maximum pressure

Reservoir capacity

System capacity

Working height	5 m	Voltage	12 V DC negative chassis ground
Maximum platform height	3.0 m	Source	One - 12 V 105 amp hour battery

Wheelbase 1 m Fluid Recommended distilled water

Ground clearance 1.9 cm Charger 15 amp

Maximum wheel load 240 kg

Maximum ground pressure 100 kg/cm<sup>2</sup>

1035 kg/m<sup>2</sup> Floor loading

Weight, EVW

**Approximate** 370 kg Stowed width 76.2 cm

Stowed length 1.23 m

Stowed height 1.78 m

**PLATFORM** 

Dimensions 51.3 cm x 109 cm

Guardrail height 110.4 cm

Toeboard height 15.3 cm

Rated work load 240 kg

Maximum number of occupants 1 indoors Below -13°C (10°F) ISO VG15 (Mobil DTE-11M)

## AMBIENT AIR TEMPERATURE **OPERATING RANGE**

-18°C to 43°C Celsius 0°F to 110°F Fahrenheit

19,305 kPa

2,000 psi

71°C (160°F)

3.78 l

3.78 I

ISO VG32 (Mobil DTE-13M)

## **FUNCTION SPEED**

Platform Raise 10 to 14 seconds

Platform Lower 10 to 14 seconds

## MAXIMUM WIND SPEED

SOUND PRESSURE LEVEL

Gust or steady 0 m/s

## LIFT LEVEL SENSOR INTERLOCK

Side-to-side 1.5 degrees

Front-to-rear 2 degrees

## **VIBRATION**

< 0.5 m/sec<sup>2</sup> Whole Body Vibration

Hand/Arm Vibration < 2.5 m/sec<sup>2</sup>

#### **TIRES Nonmarking**

solid rubber

#### At work station Below 70 dB(A)





