

## **PLANT DETAILS**

MANUFACTURER ATN Platforms

MODEL ZEBRA 12, ZEBRA 16

**PROJECT** MOBILE ELEVATING WORK PLATFORM

**CLIENT** ATN PLATFORMS

**DOCUMENT TITLE** RISK ASSESSMENT SUMMARY

**DOCUMENT ID** 095.D03

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| Innovations  |          |                                |             | Α     |
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| A6, 10 Compton Road, Underwood Q 4119<br>Tel: (07) 3123 1021 Fax: (07) 3102 9305 |          | ATN PLATFORMS                  | 01/12/      | /2016 |
| info@ediaust.com.au  | Project: |                                | Page:       |       |
|  |          | MOBILE ELEVATING WORK PLATFORM | 2           | of 6  |

This document is a summary of the Risk assessment prepared for ATN PLATFORMS as part of design verification process carried out by Engineering Design Innovations Pty Ltd on MOBILE ELEVATING WORK PLATFORM ZEBRA 12, ZEBRA 16. Hazards and control measures shown in the table must be actioned by plant owners and operators in order to minimise / eliminate risks such hazards represent. The Operator's Manual contains a list other residual risks associated with operation of this plant. Persons responsible for safety and operation of this plant should also refer to AS 2550.10 for guidelines on safe use of this type of plant.

Risk score: Low (1-5), Moderate (6-9), High (10-17), Very High (18-25).

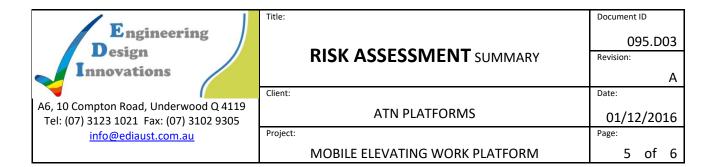
| Description of Hazard  | Risk<br>Score | Further Recommended Control Measure   |
|--|---------------|---|
| Persons injured due to not following proper operating procedures   | 21            | Train operators on safe use of the plant. Operator training should include at least the following:  • pre-operation inspections;  • Safe operation of plant;  • Regular maintenance tasks;  • Understanding of plant operation;  • Capabilities and limitations;  • Emergency procedures;  Do not operate the plant unless proper training has been received. |
| Operator or by-stander could be injured due to the operator not being 'fit for work' because of illness, fatigue, or being under the influence of drugs and alcohol. | 21            | Do not operate the plant when ill, excessively fatigued, or under the influence of drugs and alcohol.   |
| Persons could be injured due to misuse when the plant is left unattended or under storage.   | 18            | Always remove the key from the controls whenever the plant is unattended.   |
| Persons could be injured due to hazards associated with the job site   | 22            | Perform hazard and risk analysis before operating the plant on site.  |
| Persons could be injured when following a poor system of work in relation to the operation of the plant.   | 22            | Implement appropriate system of work based on manufacturer's recommendation (e.g. operating instructions shown in operator's manual).   |
| Persons could be injured due to operator using the controls in an abrupt manner.   | 13            | Avoid abrupt and jerky movements when operating the plant   |

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| info@ediaust.com.au  | Project:                       | Page:       |
|  | MOBILE ELEVATING WORK PLATFORM | 3 of 6      |

| Description of Hazard   | Risk<br>Score | Further Recommended Control Measure  |
|---|---------------|--|
| Operator could be catapulted off the platform due to unexpected movement of the plant                                       | 19            | Wear safety harness when in the platform.<br>Hold on to grab rails on the basket during platform movement.   |
| People could be crushed by overturning plant due to overloading of the platform   | 19            | Operator to become familiar with plant limitations.  |
| Persons could be crushed by overturning plant due to plant operation under environmental conditions beyond its capabilities | 15            | Operator to become familiar with limitation of plant.  |
| Persons could be injured if plant is misused. E.g. using the platform as a crane, loading pipes on platform, etc.           | 19            | Do not use the MEWP for any other purpose than its intended use as explained in the Operator's Manual.   |
| Persons could be injured due to hazards associated with the work site   | 22            | Ensure risk assessment of the work site is performed before operating the plant on site.   |
| Operator could fall from an elevated platform while attempting to climb down a broken down plant                            | 22            | Train operators about the dangers of working at heights. Ensure operators and service technicians are familiar with emergency procedures.            |
| By-stander and/or operator could have foot crushed by lowering outriggers.  | 18            | Take appropriate safety measures to keep people away from plant's operating area.  |
| By-stander and/or operator could be crushed by plant while outriggers are being raised.                                     | 22            | Take appropriate safety measures to keep people away from plant's operating area.  |
| By-stander could be crushed by lowering platform  | 9             | Take safety measures to keep people away from plant's operating area. Be aware of the presence of objects and persons in the area under the plant.   |
| Persons could be crushed by lowering platform while standing under plant working area                                       | 15            | Be aware of people surrounding the plant during platform descend.  Take appropriate safety measures to keep people away from plant's operating area. |

|  | Title:                         | Document ID |
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| info@ediaust.com.au  | Project:                       | Page:       |
|  | MOBILE ELEVATING WORK PLATFORM | 4 of 6      |

| Description of Hazard   | Risk<br>Score | Further Recommended Control Measure  |
|---|---------------|--|
| People could be injured due to malfunction of electric / electronic components which form part of safety related functions. | 15            | Users to familiarise with location of emergency stop buttons. Carry out pre-operational function tests at the start of every work shift.   |
| Persons could be injured by moving plant.   | 14            | Set up work exclusion zone to prevent persons from being injured by moving plant.  |
| Operator could be injured due to plant being struck by another plant  | 18            | Ensure no other equipment is being operated near the plant, including overhead cranes, forklifts and other aerial work platforms.  |
| Operator and by-stander could be crushed by overturning plant when working near a ditch, trench, or pit wall.               | 22            | Always maintain a safe distance from ditches, trenches or pit walls while operating the plant.   |
| Persons could be injured by rolling down plant due to travelling on an excessively steep incline.                           | 19            | Do not drive the plant over inclined surfaces beyond manufacturer's recommendations.   |
| Operator could be catapulted off the platform while driving on uneven ground.   | 18            | Do not drive at high speed when travelling on uneven ground. Wear safety harness at all times while inside the platform.   |
| Operator could suffer head trauma while driving the plant backwards.  | 18            | Wear hard hat when working in areas with overhead obstructions. Beware of low-laying objects; always check for potential hazards in the direction on movement before driving the plant, particularly when reversing. |
| Persons could be injured due to plant driving in the wrong direction when platform is slewed beyond the rear axle.          | 18            | Check direction of travel against plant decals before operating the controls.  |
| Persons could be injured by plant<br>due to failure of the hydraulic<br>system because of excessive<br>hydraulic pressure   | 10            | Check system pressure settings during preventative maintenance.  |



| Description of Hazard  | Risk<br>Score | Further Recommended Control Measure   |
|--|---------------|---|
| Operator could be injured due to platform overturning because of excessive chassis inclination while the plant is driven in the stowed position. | 22            | Do not drive the plant over ground slopes which exceed its limitations. Carry out job site risk assessment to determine suitability of the site before commencing any work. |
| Operator could be injured due to failure of plant controls   | 15            | Check operation of function enable foot switch daily.   |
| Operator and by-stander could be crushed by overturning plant due to inadequate ground conditions.   | 22            | Check that ground conditions are suitable to withstand maximum ground pressure shown in operator's manual and plant decals.   |
| Operator could be injured due to failure of hydraulic components.  | 15            | Test operation of load holding valves during maintenance.   |
| Persons could be crushed by overturning plant if operated under excessive wind loads.  | 22            | Observe and adhere to plant limitations. Constantly monitor wind speed when operating in wind-sensitive areas.  |
| Persons could be injured due to plant tipping over because of failure of a tyre.   | 15            | Check condition of tyres in daily checks.   |
| Persons could be struck by falling objects from platform.  | 21            | Do not place items such as tools which could fall from the platform.  |
| Operator could be electrocuted while using 240VAC power tools on the platform due to damage to electrical cable.                                 | 22            | Operators to ensure electrical tools and extension lead have been tested and tagged (as per requirements of AS 3000).   |
| Operator could be electrocuted if struck by lightning.   | 15            | Do not operate the plant during a thunderstorm.   |
| Persons could be injured due to structural failure because of undetected structural damage (bent, corroded or cracked structural components).    | 15            | Carry out regular maintenance tasks to assist in detecting plant damage.  |
| Person could be injured by accidental movement of engine cradle while service the engine.  | 8             | Always engage cradle locking pin when servicing the engine.   |

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| info@ediaust.com.au  | Project: |                                | Page:       |   |
|  |          | MOBILE ELEVATING WORK PLATFORM | 6 of        | 6 |

| Description of Hazard   | Risk<br>Score | Further Recommended Control Measure  |
|---|---------------|--|
| Persons could be injured by plant falling during lifting or transportation because it has been secured/lifted from an unsuitable point in the chassis | 22            | Follow recommended procedure in Operator's Manual to handle / transport the plant  |
| Persons could be crushed due do failure of lifting slings, chains, etc.   | 19            | Ensure lifting / tie down gear is in good condition. Only use chains and slings for their intended purpose. E.g. Do not use ratchet straps in lifting applications |
| Operator and by-stander could be overcome by engine exhaust fumes while working indoors   | 22            | Ensure there is enough ventilation in job site whenever combustion engine is used to operate the plant.  |
| Persons could be injured by attempting to operate a faulty or out of order plant.   | 10            | Implement a 'tag out' procedure for maintenance / faulty plants  |
| Injured operator could suffer complications if immediate emergency treatment could not be administered due to the operator working solo.              | 15            | Do not work alone. Ensure there is a competent person on site able to operate the plant in case of an emergency.   |
| Persons could be injured while operating the plant in an area with insufficient light.  | 6             | Ensure there is sufficient lighting in the work area.  |
| Persons could get burned by becoming in contact with the engine or exhaust.   | 8             | Do not touch engine or exhaust while hot.  |
| Persons could lose hearing due to exposure to engine noise during long periods of time.   | 15            | Use hearing protection if exposed to engine noise for prolonged periods of time.   |
| Persons could be injured due to modifications made to the plant after completion of this risk assessment.   | 22            | Ensure any modifications made are inspected, assessed and approved by a competent person.  |