

ArrowBoard Type C – Manufacturer (OEM) Plant Risk Assessment

This risk assessment document is provided by Data Signs as the manufacturer of this plant equipment. Data Signs recommends that our customers complete their own risk assessment for plant operation as part of their operating procedures.

Purpose for which the ArrowBoard Type C is Designed

The portable ArrowBoard Type C is a trailer-mounted device typically used as a traffic management sign used for the temporary diversion of vehicular traffic on roads. The ArrowBoard Type C manufactured by Data Signs Pty Ltd complies with Australian standard AS 4192-2006, *Illuminated flashing arrow signs*. The use of illuminated flashing arrow signs on public roads is subject to regulation. Check with the appropriate traffic control or roads authorities. Guidance for the use of the ArrowBoard Type C is provided in Part 3 of AS 1742.3, *Manual on uniform traffic control devices*.

It is a specific requirement for using illuminated flashing arrow signs within New South Wales (Australia) that they be type approved as discussed in section 3.2.11 of Version 4 of the RTA's Traffic Control at Work Sites manual¹. The ArrowBoard Type C designed and manufactured by Data Signs Pty Ltd is type approved for use in New South Wales. Data Sign type approval number is ITS-TAN000055

Operator Requirements

The operators of this plant must be trained and competent in the use of this equipment. The *Operations & Maintenance Manual* supplied with each plant should be read and understood and followed. This document should be stowed in the box compartment on the Sign. Regular servicing of the equipment prevents machine damage and interruption to the usage of the mobile plant. The servicing standards are outlined in the Operations & Maintenance Manual.

Fire and Hazard Risk from Batteries

The ArrowBoard Type C is fitted with Valve Regulated Sealed Lead Acid Rechargeable Batteries. Under normal conditions of use, no gases are released. However, when the batteries are overheated they may release hydrogen gas which is highly flammable. NO SMOKING near this equipment.

<http://www.rta.nsw.gov.au/doingbusinesswithus/downloads/technicalmanuals/tcwsversion4/tcwsv4i2.pdf>

Sulfuric acid vapors and mist may be generated when the batteries are overheated, oxidized or otherwise processed or damaged. Hazardous exposure to lead compounds may occur when the batteries are overheated, oxidized or otherwise processed or damaged creating dust, vapor or fumes. The Material Safety Data Sheet for the battery is available upon request.

Transportation of ArrowBoard Type C

The trailer-mounted ArrowBoard Type C is usually towed by a road vehicle. Ensure an appropriate capacity vehicle is used. When towing, be mindful of prevailing weather conditions. Do not tow above **80 km/h**. There is a risk of “fish-tailing” or roll-over if travelling too fast around corners or roundabouts.

Never tow the ArrowBoard-C Trailer while the Arrow sign head is in the raised position !

Follow the procedures outlined in the Operations & Maintenance manual for correct take down and towing.

Equipment Handling

Always wear PPE when handling the ArrowBoard Type C. The *Operations & Maintenance Manual* supplied with each plant should be read and understood and followed.

Check the weight of the ArrowBoard Type C on the VIN plate attached to the trailer chassis. There is a possibility of muscle strain when hitching to the vehicle or unhitching from the vehicle if incorrect procedures are followed. Use the jockey wheel to assist with the uncoupling procedure.

Striking/Hitting or Crushing

The ArrowBoard Type C is fitted with a manual override braking system. Use this before uncoupling the tow coupling from the vehicle to avoid uncontrolled or unexpected movement of the plant resulting in serious injury or crushing. Set up on level ground. Proper deployment of the wind-down legs will stabilize the trailer and keep it from moving.

When setup in accordance with the Operations & Maintenance Manual, the ArrowBoard Type C has been rated to withstand winds of up to 37 m/s (134 km/h). Where winds are expected to exceed 37 m/s Data Signs recommends that the plant be taken down to avoid it tipping over.

When lowering the Arrow Display (Sign Head) down the mast pole, keep body parts clear of the base of the mast pole to avoid jamming, hitting, pinching or crushing. When deploying or retracting the wind-down legs or Jockey Wheel, do so carefully to avoid jamming, hitting or pinching of hands or feet.

The Arrow Display (Sign Head) has corners that when deployed may protrude. Setting up a safety exclusion zone through use of bollards and safety tape is recommended in pedestrian thoroughfares to avoid striking. This includes where the lid of the Sign Head is opened for maintenance.

Slipping or Tripping

When raising the Arrow Display (Sign Head) from the trailer, if damp the operator should not stand on the trailer base (checker-plate) which may be slippery.

The deployed wind-down legs and Tow Bar protrude from the trailer and can pose a tripping risk. Setting up a safety exclusion zone through use of bollards and safety tape is recommended in pedestrian thoroughfares.

Electrical Shock from Overhead Power Lines

Avoid electrical shock by checking for and avoiding overhead power lines when raising the Arrow Display (Sign Head); "Look Up and Live". Tree branches may damage the equipment if struck while raising the Arrow Display (Sign Head).

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