

Daytona DS100 Mobile Stage ~ Risk Assessment

WORK ACTIVITY Erection and operation of Daytona DS100 Mobile Stage

SPECIFIC LEGAL REQUIREMENTS

Provision and Use of Work Equipment Regulations 1998
Lifting Operations and Lifting Equipment Regulations 1998
Electricity at Work Regulations 1989
The Work at Height Regulations 2005

VERSION 2nd Revision
Risk Assessment revised to take account of operational experience of the unit in service, including in severe winds (gusting to 75 mph).

APPROPRIATE STANDARDS AND GUIDANCE

Safe use of Work Equipment - ACOP L22 HSE Books
Safe use of Lifting Equipment - ACOP L113 HSE Books
The Event Safety Guide - HSG195 HSE Books
Temporary Demountable Structures, Guidance on design, procurement and use. 3rd Edition 2007

DATE 1st May 2009

PREPARED BY John Sursham CMIOSH

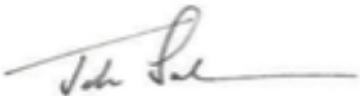
HAZARD	PEOPLE AT RISK	WORST OUTCOME	PRINCIPAL PRECAUTIONS	RESIDUAL RISK	COMMENTS AND/OR ADDITIONAL PRECAUTIONS
Delivery - Contact with fixed structures	Crew Property damage	Serious	Minimum dimensions for site access set out on flyer (4.2m height x 2.7m with), Visual inspection of venue on arrival to identify any low cables, structures or street furniture which may hamper delivery Reversing supervised by banksman (2 nd member of crew)	Low	
Delivery - contact with pedestrians	Crew Public	Catastrophic	Area cleared of public/crew on arrival, if necessary organisers stewards deployed to clear area. Reverse warning bleeper and flashing amber strobes on unit Reversing supervised by banksman (2 nd member of crew)	Low	
Collapse of roof at 45°	Crew	Serious	Roof opened out to horizontal using hydraulics which are then locked out to be fail safe Further fail safes are provided by 2 x 45° support bars and 2 x horizontal support bars per side Moment imposed by suspended roof reduced by angle brace inserted Crew do not work under unsupported structure	Low	
Collapse of roof	Crew Performers		Roof supported centrally and at all four corners Roof designed to support u.d.l. of 6,000 kg Structure designed to withstand wind speed of 25ms ⁻¹ Back/side walling - gap left at top to allow wind to spill and reduce	Low	

HAZARD	PEOPLE AT RISK	WORST OUTCOME	PRINCIPAL PRECAUTIONS	RESIDUAL RISK	COMMENTS AND/OR ADDITIONAL PRECAUTIONS
			<p>internal pressure (aluminium flap to prevent rain penetration)</p> <p>Steel wire connecting uprights to prevent flex in extreme wind conditions</p> <p>External netting to rear of back wall to retain any boards if dislodged by severe winds (in excess of design speed)</p>		
Collapse of structure - failure of legs	Crew Performers	Catastrophic	<p>Corner legs designed to safe working lift of 10 tonnes, (max service lift 2.5 tonnes)</p> <p>Hydraulics checked before use for leaks etc, and routinely examined under the requirements of LOLER</p> <p>Remote control of hydraulics by means of handheld pickle</p> <p>In the event of failure of central legs stage can only fall down to wheels.</p> <p>Stage deck supported by trailer with 4 main landing legs and 4stabilising legs, the decks themselves also have a total of 12 supporting legs.</p> <p>All legs placed centrally on load bearing pads</p> <p>Checks to ensure that stage legs do not bear on manhole or drain covers</p>	Low	
Falls from height	Crew	Catastrophic	<p>Installation work on truss carried out from a BS compliant scaffold tower assembled to manufacturers instructions on a level surface.</p> <p>When used, stepladders to BS EN 131, in good condition, checked for damage and located on a level base</p> <p>Step ladders always used fully open</p> <p>When used on stage, steps located away from edge.</p> <p>Loads carried up ladders kept small and over- reaching from ladders to be avoided</p> <p>Heavier loads or secondary trussing lifted by hoists (supplied by client/clients contractors)</p>	Low	
Falls from height	Performers	Serious	<p>Full height walls on stage sides and back</p> <p>Front of stage marked by raised aluminium edging nose which provides colour differentiation (access to front of stage normally restricted by monitors etc).</p> <p>Handrails fitted to stage steps</p> <p>2 sets of access steps to steps to rear of stage, one each side.</p>	Low	
Struck by falling objects	Crew Performers	Serious	<p>Roof loadings within load limits</p> <p>Flown equipment attached with purpose built connectors (ie not cable ties)</p> <p>Secondary means of support for flown equipment</p> <p>External netting to rear wall to retain any boards dislodged by</p>	Low	

HAZARD	PEOPLE AT RISK	WORST OUTCOME	PRINCIPAL PRECAUTIONS	RESIDUAL RISK	COMMENTS AND/OR ADDITIONAL PRECAUTIONS
			excessively high winds		
Work after dark	Crew	Serious	Working lights on trailer and tractor units to permit independent working after dark	Low	
Manual handling-strain injuries	Crew	Serious	Hydraulics used to lift stage platform and roof Legs either built in and hinged or hydraulically operated Aluminium trussing in sections used for corner pillars and mid stage supports Back and side walls constructed from pre-formed lightweight plastic sections	Low	
Fire	Crew Performers	Catastrophic	Electrical equipment regularly tested and visually inspected during installation Materials used in construction of stage meet BS476 Part 7:1971 with a surface spread of flame classification of Class 1 Fabrics used for scrim meet BS5867Part 2:1980 Electrical equipment maintained in good condition Under stage storage prohibited Combustible articles kept away from sources of heat ~ lights etc	Low	Fire extinguishers ~ fire points on each side of stage: 1 CO ₂ (rating 21B minimum) for electrical risks 2 Water (rating 13A) for paper, cardboard, fabric etc Fire blanket
RESIDUAL RISK FOR THE INSTALLATION AND OPERATION OF THE DAYTONA DS100 MOBILE STAGE				Low	

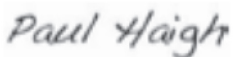
PERSONS AT RISK		POTENTIAL WORST OUTCOME		ESTIMATION OF RESIDUAL RISK (TAKING INTO ACCOUNT CONTROL MEASURES)	
Crew	Employees of Daytona Stage Hire	Catastrophic	Fatality, multiple major injuries, major property damage or fire	High	Imminent danger exists and the work activity should be stopped immediately (or not started)
Performers	Artistes	Serious	Major injury, damage to health, serious property damage or fire	Medium	Additional actions required to control hazards fully
Public	Members of the Public, visitors, guests	Minor	Minor injury, minor property damage	Low	Hazards controlled and minor injury unlikely

Risk assessment compiled by John Sursham and developed from information supplied by Daytona Mobile Stage Hire and from manufacturers operating instructions for the equipment.

Signed  John Sursham CMIOSH

Date 1st May 2009

Accepted by Daytona Stage Hire:

Signed:  Print: PAUL HAIGH

Date: 1st May 2009