

Hazards Associated with the Operation of
AMF 82 70/90 Pinspotter Machines
Including Machine Access Frequencies Guide

hollywood bowl
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The information contained in this document has been provided at the request of the HSE to allow better understanding of the inherent hazards associated with AMF Pinspotter machines. It is the property of Hollywood Bowl (operated by Mitchells and Butlers Leisure Retail Limited) and forms part of a Machinery Risk Assessment Document for the operation of the AMF 82 70/90 Pinspotter machines according to Hollywood Bowl's own operating procedures. The information is provided only as a reference document to allow hazards from certain parts of the machinery to be recognised. This document consists of a list of tasks and hazards and is not a risk assessment in itself. The list of hazards identified by Hollywood Bowl cannot be regarded as exhaustive because individual operating policies may create new hazards that need to be identified and assessed. Hollywood Bowl accepts no liability whatsoever to any third parties for any use of this information, in whole or in part. All content © Hollywood Bowl 2007.

Hazards exposed during the operation of AMF 82/70 , 82/90 Pinspotter machines

	Area of access / Job being undertaken	Hazards exposed to
1	Access up the ladder between uneven pairs of machines from the back of the machine	General access onto the top of the machine from the machine corridor – access to moving pin table, into the machine pit, contact with distributor, entanglement with the inside of the pin wheel
2	Pin Wheel cover	General access to the pin wheel from the machine corridor - drive belts – entanglement / entrapment
3	PBL cover	General access into the PBL (ball lift) entanglement into belts, entrapment / impact from light ball sensor mechanism
4	Access to the front of the machine	General access by a member of the public / technician into the front of the Pinspotter machine from the bowling lanes. – crushed by pin table, impact from sweep arm, crush by sweep arm
5	Dealing with a distributor pin fault, or a broken butt spacer fault – access onto the top of the machine -	Falling whilst on access ladder
		Amputation risk from arm/hand falling through pin bin
		Entrapment in pin shuttle
		Entrapment and crush injury to leg from second machines table and shuttle

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		Hair / clothes entanglement in distributor belt
		Impact from the moving distributor arm
		Falling into machine pit
6	Dealing with a ball jam problem from the pin wheel guard. - Access into the pit by arms / head -	Impact from ball bowled by a customer
		Hand injury from moving pins
		Entanglement in pin wheel,
7	Dealing with a ball jam problem from the machine pit area. Undertaking regular weekly cleaning duties to the machines – side kick backs, ploughs, ball door within the machine pit - Access into the pit area with whole body	Impact from ball bowled by a customer,
		Entanglement in pin wheel
		Hand injury from moving pins
		Slip hazard from pins in pit
		Slip hazard from balls in pit
		Friction burns from moving carpet
		Crush injuries from light ball sensor mechanisms in the ball door
		Crush injuries from access to a live machine / table area
		Fall from the ladder gaining access to the machine
8	Dealing with a pin in table fault, finger cell fault, sweep out of	Impact with the distributor arm

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	position fault, broken pin cup fault. Access between the pin bin and a lowered table with upper torso / head. Major service jobs – removal of distributor, removal of ball lift, removal of carpet mechanism, removal of pin wheel.	Entanglement with the distributor belt
		Friction burns from the pit carpet
		Hit by a ball bowled from a customer
		Crushed by the table returning to its up position
		Hand trapped by pin cup as it is moved to free the trapped pin
		Fall on ladder gaining access
		Injuries from falling onto the adjacent machine
		Crush injuries from the light ball sensor mechanism in the ball door
		Fall from the top of the machine when hand winding the table or sweep
9	Undertaking cleaning duties to the machines – pin cups, shuttle and pin bin, pin table. Access to the top of the machines	Hand trapped by shuttle
		Hand trapped between table and pin bin / pin cup
		Fall on ladder gaining access
		Injuries from falling onto the adjacent machine
		Fall from the top of the machine,
10	Undertaking cleaning duties – pin deck area under the table. Adjusting the front cam mechanism	Hit by a ball bowled from a customer
		Crushed by the table dropping due to a broken retaining pin at the

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		motor.
		Crushed by the sweep arm collapsing due to a broken retaining pin
		Slip on the oil on the lanes on approach
		Entrapment and crush from other bowling machines by walking to the left or right along the front of other machines
		Impact from bowling balls due to walking to the left or right along the front of other machines
11	Undertaking cleaning duties – ball lift belts and light ball sensor mechanism. Adjusting the light ball sensor mechanism	Entanglement in pin wheel drive belt
		Entanglement in PBL drive belts
		Fingers crushed by Light ball sensor mechanism
12	Repairing the sweep, removal of a front end motor, requires standing the lane side of the sweep	Hit by a ball bowled by a customer
		Crushed by the sweep arm collapsing due to a broken retaining pin
		Impact from the sweep arm as it is removed
13	Use of the front end control box whilst on top or in front of the machine exposes the technician to all hazards	All hazards
14	Exposure to live electrical terminals	
15	Machine is turned back on by a third party whilst working level 1 isolation	

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16	Machine is turned back on by a third party whilst working level 2 isolation	
17	Machine is turned back on by a third party whilst working level 3 isolation	
18	Excessive noise exposure	
19	Unexpected start up / over run	
20	Failure of power supply	
21	Failure of control circuit	
22	Errors in fitting parts	
23	Break up during operation	
24	Machine cannot be stopped in an emergency	
25	Pin ejected form the machine	
26	Fall from height whilst on top of the machine from a height of 1.5m	
27	Fall whilst gaining access to the machine (1m high)	

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