Carousel Ride Risk Assessment

GENERAL INFORMATION:

Company / organisation:	(Insert company name).	ABN:	(Insert)							
Address:	(Insert)	State:	(Insert)							
Activity:	Carousel ride / amusement device installation and operation	Carousel ride / amusement device installation and operation.								
Date developed:	(Insert)	Developed by:	(Insert)							
RA approved by:	(Insert)	Date of next review:	(Insert)							

REQUIREMENTS:

Person(s) responsible for implementing and monitoring the risk assessment:	(Insert)
Applicable legislation and compliance references:	Work Health and Safety Act 2011 (ACT, NSW, QLD) 2012 (SA, TAS), 2020 (WA) Occupational Health and Safety Act 2004 (VIC) Work Health and Safety (National Uniform Legislation) Act 2011 (NT) Work Health and Safety Regulations 2011 (ACT, QLD), 2012 (SA, TAS), 2017 (NSW), 2022 (WA) Occupational Health and Safety Regulations 2017 (VIC) Work Health and Safety (National Uniform Legislation) Regulations 2011 (NT) Code of Practice – How to manage work health and safety risks Code of Practice – Work health and safety consultation, cooperation and coordination Code of Practice – Managing the risks of plant in the workplace Code of Practice – Amusement devices (OLD) Australian Standard Scott (Series) – Amusement devices
Training and induction requirements:	Staff induction, customer / patron information / instruction and risk assessment briefing.
Plant and equipment requirements:	Plant and equipment fit for purpose, compliant with Australian Standards and compliance certified by an engineer. Transport vehicle, electrical leads and trailers maintained and fit for purpose.
Personal protective equipment requirements:	Personnel involved in the setup and dismantle are required to wear enclosed footwear and gloves as required.
Inspection requirements	Staff or nominated personnel to inspect general areas and devices to address safety hazards and maintain housekeeping.
Chemicals and safety data sheets:	Oils and lubricants / maintenance consumables.

RISK ASSESSMENT MATRIX:

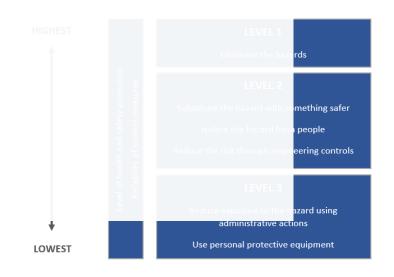
The risk assessment matrix is used to assess the inherent and residual risk score using the likelihood and consequence risk criteria.

				Consequence		
		1	2	3	4	5
Likelil	ood	Insignificant No injuries, no environment impact, no reputational impact, negligible financial loss.	Minor First aid treatment, short-term environment impact, minimal reputational impact, minor financial loss.	Moderate Medical treatment or hospitalisation. medium-term environment impact, localised reputational impact, moderate financial loss.	Major Permanent iniury. long-term environment impact, loss of operational capability, adverse reputational impact, major financial loss.	Catastrophic Death or irreversible environment effect, national reputation damage, catastrophic fin ncial impact.
5	Almost certain The event is expected to occur ir most circumstances					Extreme
4	Likely The event will probably occur in most discumstances					Extreme
3	Possible The event should occur at some					Extreme
2	Unlikely The event could occur sometime					High
1	Rare The event may occur only in exolutional circumstances		Low			1oderate

SAMPLE - INTENTIONALLY FADED

Risk actions including escalation, management and monitoring will be determined by the risk assessment.

Risk Actions	
Risk	
Extreme risk	
High risk	
Moderate risk	
Low risk	



HIERARCHY OF CONTROL

RISK ASSESSMENT:

Assess the likelihood (L) and consequence (C) of the inherent risk score (before treatment) and residual risk score (after treatments) using the risk assessment matrix.

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)	(wh	erent F at is th trols)	Risk: e risk before	Risk Treatments and Controls: (how are the risks managed)	(wh	idual R at is the trols)	isk: e risk after	Responsibility: (who is responsible)
		L	С	Risk		L	С	Risk	
Insurances	insurances not in place exposing the company to potential or actual direct financial and legal liability for harm or property damage.	L3	C4	High	Public liability insurance placed. Workers' compensation insurance placed. Asset / property insurance placed. Other insurances placed as required.	L1	C4	Moderate	Management
Indemnity									Management
Working with children									Management
Staff training and competency	Staff not trained on company policies, customer service, safe amusement device operation, compliance and emergency procedures resulting in an incident, injury and or property damage.		LE - I		PALLY FADED nducted / trained on policies and procedures including safety, compliance, emergency and customers / patron safety. All staff trained on correct / safe operation of amusement devices and emergency procedures. Annual refresher training is conducted.				Management
First aid and emergency management	Emergency management plan and provisions not established or maintained inhibiting / delaying a response to an emergency situation.	L3	C5	Extreme	Amusement device operators trained in first aid (at least one person onsite). First aid kit and injury register available / in close proximity to amusement device. Fire extinguisher with current maintenance tag in close proximity to amusement device. Emergency management and evacuation procedures in place for amusement devices. Staff trained on enacting / implementing emergency and evacuation procedures. Emergency procedures communicated with customers / patrons prior to use of amusement device. Tatal regularly tested on enacting emergency drills / procedures.	L1	C5	Moderate	Management

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)	Inherent Risk: (what is the risk before controls)				Risk Treatments and Controls: (how are the risks managed)		idual R at is the trols)	i sk: e risk after	Responsibility: (who is responsible)
		L	С	Risk		For second and an analysis of the second analysis of the second analysis of the second and an analysis of the second and analysis of the second and an analysis of the second and an analy	L	С	Risk	
Contractors and thir I parties	Contractor and third party compliance requirements not established or effectively implemented resulting in contractors operating without the required safe systems or works, qualifications or insurance coverage.	L3	C3	Moderate	•	Engagement or reputable providers Certificates of insurance are collected Risk assessments / documentation are collected and reviewed (for high-risk activities)	L1	C3	Low	Management
Aggressive behaviour or violence										Menagement Operators Au horities / police
Manual handling	Poor manual handling practices when loading, unloading, setting up and packing up amusement devices resulting in musculoskeletal injury / soft issue injury.			Moderate TENTIONA	ALLY	Correct training in manual handling Delivery of equipment as close as possible to set up areas (if safe and approved) Operators understand and follow manual handling guidelines. Warm/up stretches and rotation of manual tasks between operators Using mechanical aids when available. Rotating between staff to reduce repetitive Y FADED is.				Ms nagement Or erators
Cleaning and hygien										Management Staff / Operator
Personal protective equipment	Staff / operators not wearing correct PPE during set up / dismantle or operation of ride resulting in injury. Staff / operators exposed to sun / heat and not wearing sun smart PPE resulting in sunburn and or dehydration.	L3	C3	Moderate		Management to advice staff / operators of correct / mandatory PPE when inducted. Staff / Operators to wear appropriate PPE at all times including set up / dismantle and operating ride. Sun smart PPE implemented by management including sunscreen, hats and regular injuration.	L2	C3	Moderate	Management Operators

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)	(wha	erent R at is the trols)	isk: e risk before	Risk Treatments and Controls: (how are the risks managed)	(wh	idual R at is the trols)	l isk: e risk after	Responsibility: (who is responsible)
		L	С	Risk		L	С	Risk	
Amusement device co apliance	Mechanical amusement device non-compliance with Australian Standards resulting in asset defect or failure, customer / patron injury / death and or voidance of insurance.	L3	C4	High	Manufacturing and testing in accordance with Australian Standard 3533 (series) — Amusement rides and devices. Certificates of conformity obtained from manufacturer. Annual registration with Regulator and engineering inspection / conformance verification certificate.	L1	C4	Moderate	Management
	SA	۱	_E - II	NTENTION	Daily inspections completed by staff / operators prior to customer / patron use. Post-setup inspection and safety checks prior to allowing use (following the device inspection checklist / MFG instructions). Regular inspection, lubrication and maintenance of main bearings and components. NALLY FADED tenance inspection by a				
Maintenance	Mechanical amusement device not adequately inspected or maintained resulting in critical failure and serious injury / death to a customer / patron and or property damage.	L3	C4	High	competent engineer. Major inspections and NDT completed in accordance with manufacturer and Australian Standards requirements. Routine maintenance in accordance with manufacturers manual and maintenance schedule. Routine and corrective maintenance where issues, damage and defects are identified. Prevention of any unsafe or damaged amusement device from being used. Regular completion of tog book and maintenance records in accordance with maintenance schedule / MFG manual. Electrical inspection / test and tag of portable electrical equipment and RCD for mains. Hydraulics set up as per manufactures manual are inspected daily / maintained as	L1	C4	Moderate	Management

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)			Risk: e risk before	Risk Treatments and Controls: (how are the risks managed)	(wh	idual R at is the trols)	i sk: e risk after	Responsibility: (who is responsible)
Transporting amuserr ent device	Motor vehicle accident, amusement device not secured correctly or signed it parts hanging off trailer resulting in serious road incident, property damage and or fines.		C4	Risk High	Onerator has a current and annronriate drivers licence and is confident travelling with a trailer / towing device. Transport vehicle and trailer is registered and regularly maintained / road worthy. All amusement equipment is securely fixed to the vehicle and or trailer. Appropriate signage is on the vehicle or trailer (if oversize / overhang). Inspect location conditions prior to driving to the set up areas to avoid incorrect setup of vehicle / trailer becoming bogged or contacting structures and fixed assets. Driver completed operational / visual checks on car / trailer prior to travelling. NALLY FADED: e procedures in place to ensure driver stopping / resting at adequate intervals.	L		Risk Moderate	Mar agement Ope ator
Site arrival / departure	Vehicles / trucks / trailers operating at site when pedestrian traffic is high resulting in collision with operators and or public. Vehicles / trucks / trailers entering site at high speed, no hazard lights on or unsure where to drive / park resulting in pedestrian injury and or property damage.	L3		High	Installation location confirmed with client and inspected for safety hazards. Set ride delivery and departure times are arranged by client to ensure pedestrian activity is minimal. Site roads inspected to ensure no hazards / obstacles on road / site location. Staff to monitor pedestrian movement while trucks are moving and guide pedestrians away from trucks path. Driver to maintain a very low speed. Hazard lights / safety lights and or reversing peepers operating when venicte in site area. Spotters used when reversing or when line of sight is compromised.	L1	C4	Moderate	Mar agement Operator

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)	Inherent (what is t controls)	the risk before	Risk Treatments and Controls: (how are the risks managed)		sidual R at is the itrols)	lisk: e risk after	Responsibility: (who is responsible)
		L C	Risk		L	С	Risk	
				Staff trained and competent to install amusement device safely. Installation location confirmed with client and inspected for safety hazards.				
Set up of amusement device	SAM	IPLE - IN	NTENTION	ALLY FADED				Management
Set up of amusement device			rugn	 Frequent checks of jacks / stabilizer legs during operation to ensure trailer / ride is stable. Access equipment, guarding and rails installed to provide safe access to the device and prevent access to moving parts. Operational controls and electrical installations secure / restricted access and trip hazards eliminated using cable covers and or barriers. Barriers / Fencing erected prior to set up of amusement to ensure unauthorised access. Staff to ensure all shielding is installed / secure on all mechanical / exposed areas. Clear / restricted zones established for staff when setting up amusement. Hydraulics set up / inspected / maintained daily as per manufactures guidelines. Generators set up / Inspected / maintained as 			Flouerate	Cherator

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)			isk: e risk before	Risk Treatments and Controls: (how are the risks managed)	(wh	idual R at is the trols)	isk: e risk after	Responsibility: (who is responsible)
		L	С	Risk		L	С	Risk	
Access and restricted use	Access control provisions not installed resulting in unauthorised access to the mechanical amusement device or back of house areas such as controls and electrical equipment resulting in injury. Customer / patron restrictions including age, height, weight and medical not established or communicated resulting injury / death or medical event. Customers / patrons crushed on entry / exit points or slip when walking on pathways	L3		High	Installation of perimeter fencing / containment and one way access and egress points. Installation and communication of terms, conditions, customer / patron restrictions and safety rules / signage including height, weight, age and medical restrictions. Installation and communication or warnings and information on the possible effects the use of the amusement device may have on customers / patrons. Entrance / exit gate are visible and pathways routinely inspected and kept clear.	L1	C4	Moderate	Management Operator
Pre-use / post setur inspection	Mechanical amusement device not secured correctly or safe installation / setup confirmed resulting in a serious injury / death to a customer / patron and or property damage. Setup / installation untidy exposing staff and customers / patrons to trip hazards and resulting in injury.		- IN7		Post setup inspection checklist completed by competent staff / operator. Inspection of stabiliser points / jacks, poles, general condition of device, electrical / console and housekeeping. ALLY FADED of carousel horses, tower and floor to ensure in good working condition with no cracks / leaks / damage. Staff / operators to check for any loose wiring, damage and loose items. Staff / operators to check locking pins are secure, turnbuckles, nuts and bolts are tight, automatic safety devices are working correctly. Staff / operator ensures ride is clear from hazards, and other objects / structures. Staff / operators to complete a test operation of the mechanical device prior to first customers / patrons to ensure ride is safe. Staff / operators to test the brakes and emergency stop button. Re-check blocking after test ride / completion of set up / daily to ensure blocking under trailer leveling jacks remain solid Hydraulics set up as per manufactures manual are inspected daily / maintained as per manufactures manual. Maintenance schedule checked / up to date. Staff to ensure ride and ride area is clean for public use prior to operating.	L1	C4	Moderate	Management Operator

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)		Risk: e risk before	Risk Treatments and Controls: (how are the risks managed)	(wh	idual F at is the trols)	Risk: e risk after	Responsibility: (who is responsible)
Operational controls and exclusion zones / areas	Excessive control speed resulting in customer / patron injury or health incident. Staff / operators or customers / patrons access the loading deck while the device is in motion resulting in serious injury / death and or property damage. Staff / operators or customers / patrons access the counterweigh enclosure resulting in serious injury / death and or property damage. Operational control cabinet not shut correctly and risk of electric shock. Unauthorized person climbs fence / tampers with ride / damages ride	C C4	Risk High	Variable speed of device set to a fixed maximum set within the control system. Regular inspection, speed and adjustment testing by a competent person. Staff / operators to ensure that counterweigh enclosure is secure with interlocking doors. Ride cannot commence unless doors closed. Loading deck provided with fencing / barriers and staff / operators to ensure the exclusion zone area is clear prior to commencing ride. Containment fencing / barriers and or guarding to be installed to prevent access to moving parts, crush zones, pinch points, contact zones and other identified exclusion zones / areas. Staff / operators to monitor / maintain full view of all areas and prevent access to exclusion zones / areas. Entry gates locked when ride is in operation. Controls are locked whilst the ride is on operation to prevent unauthorized operation. Controls have a safeguard control system installed to prevent uncontrolled starts.	L1		Risk Moderate	Mar agement Operator
Passenger restraints	Passenger restraints not in working order, damaged and or customers / patrons are able to remove restraint resulting in serious injury / death to a customer / patron and or property damage. Ride starts without patrons correctly secured and falls off carousel horse / animal.	E - IN		Seatbelts are clipped in so that customers / patrons cannot remove while the ride is in operation / ride stopped if patron unclips. Operators to assist patrons with securing seatbelts Carousel horses fitted with stirrups to help with balance of patrons. Only patrons who cannot balance themselves can have assistance by adults standing next to horse when ride is in motion. Operator to ensure patrons are also holding onto pole at all times. Operator spotter throughout ride checking all patrons are in the correct position and seatbelts are secure. Seatbelts regularly inspected, tested and maintained in accordance with the manufacturer's requirements and maintenance schedule. Staff / operators to inspect and ensure customers / patrons are secure before the amusement ride starts. Staff / operators to ensure all primary and secondary latches are secure. Patrons / customers must meet ride restraint requirements and ride entry conditions.	L1	C4	Moderate	Mar agement Operator

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)		erent F at is the trols)	Risk: e risk before	Risk Treatments and Controls: (how are the risks managed)		idual R at is the trols)	isk: e risk after	Responsibility: (who is responsible)
		L	С	Risk		L	С	Risk	
Emergency stop button	Emergency stop button not labelled, not in an accessible location resulting in a delayed device cessation in the event of an emergency or issue.	L3	C4	High	Emergency stop buttons are installed on all mechanical amusement devices. Emergency stop buttons are labelled, clearly is visible and tested on a daily basis as a part of the pre-operation inspection process. Staff / operators are trained on the use of emergency stop buttons and maintain clear access at all times. Staff / operators to remain at the control console and emergency stop button at all times during device operations.	L1	C4	Moderate	Manage ment Operator
Fire extinguisher									Manage ment Operater
Electrical equipment and power				INTENTIC	All electrical systems and equipment to inspected and confirmed fit for purpose. DNALLY FADED and equipment inspected, tested and tagged by a competent person in the required frequencies. Mains power protected by RCD and RCD tested at the required frequencies. Minimum distance between power and ride Electrical leads are covered with a lead mat if necessary. Ride is shut down and locked when not in operation.				Manage ment Operater
Flammable liquids	Flammable liquids not stored correctly resulting in fire , explosion, operator / bystander injury and or death.	L3	C4	High	Fuel is stored in appropriate container and correctly labelled. Fuel is stored in a cool, safe, and secured area away from ignition sources and public. Appropriate minimum amount of fuel stored onsite for day use and additional fuel quantities stored off site. All fuel / liquids are stored in bunding. Spill kit near onsite and off-site locations. Only trained staff to re-fuel. Substance release pathways identified and protected including ground, drains, slopes. Generator to be turned off for a minimum of 10 minutes prior to refuelling. Minimum two trained staff when refuellings.	L1	C4	Moderate	Manage ment Operator

Activity / Focus Areas: (break down the activities)	What is the risk heto			Risk Treatments and Controls: (how are the risks managed)		idual R at is the trols)	isk: : risk after	Responsibility: (who is responsible)	
		L	С	Risk		L	С	Risk	
Hydraulics	Hydraulic oil leakage resulting in operator / patron fall on slippery surface. Hydraulic failure during lowering / raising trailer resulting in crush points to operator. Hydraulic pump failure or hose bursts resulting in mechanical failure of ride and shut down.			Moderate	Regular inspections of hydraulics and oil level as per daily pre-opening checklists and maintenance / annual inspections. PPE required when filling oil Staff are trained in using the hydraulic to lower / lift trailer Safe perimeter around trailer is established when lowering / raising hydraulics. Hydraulics are turned off when not required / in use Hydraulic system fitted for purpose to ensure no oversize or over pressure of the system can cause over speed bypass valves and routinely checked. Operators to ensure hose is not obstructed Daily checks on hydraulics / pump / hose daily with pre-opening checks and throughout the day Barriers and signage installed to ensure no unauthorised patrons enter. Regular inspection of hydraulic control system.	L1	C3	Low	Management Operator
Operator / Attendants of amusement	Prolonged static postures maintained for long periods of time resulting in injury to operator. Fatigue of operator due to not having adequate breaks, becomes tired and not focused on ride safety putting patrons at risk / property damage. Operator standing on or near carousel ride and hit by patrons resulting in injury.			INTENTIC Moderate	attendants have regular breaks. Ride rotation among staff to reduce repetitive movements and fatigue levels. Shift work / rotating roster to ensure adequate breaks in busy periods. Operators to report any fatigue / safety issues to management. Noise / Vibrations routinely tested to ensure in line with standards. Staff / Operators remain off impact / ride area / seats and behind barrier when ride is in operation.				Management Operator
Crowd Control / Security	Maximum number of customers / patrons exceeded on device resulting in over crowing and or serious injury. Patrons intoxicated or misbehaving. Ride tampered with / stolen when left unattended / carnival closed.	L3	C3	Moderate	Staff / operator to load number of customers / patrons on the device as per manufactures requirements ensuring maximum numbers on ride is not exceeded. Barriers to ride and queue areas clearly marked and secure. Where possible installation of CCTV cameras covering ticketing box / line up and device. Patron's mis behaving / intoxicated will not be able to participant in the ride and ask to leave the ride area. Staff instructed to call security	L1	C3	Low	Management Staff / c perator

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)	Inherent Risk: (what is the risk before controls)			Risk Treatments and Controls: (how are the risks managed)		sidual R at is the itrols)	isk: risk after	Responsibility: (who is responsible)
	Customers / patrons not clear on or falls to adhere to terms, conditions and requirements resulting in injury to a customer / patron and or property damage.	(what confidence of the confid	at is the	Risk Moderate	Staff / operators trained and competent in operating the amusement device.	(wh con	at is the itrols)	Risk	
					Appropriate nonslip deck / platform / nandralls in loading area. All staff / patrons / bystanders behind safety barrier prior to ride starting.				

Activity / Focus Areas: (break down the activities)	Risks: (what could happen or go wrong)	(wha	erent F at is the trols)	lisk: e risk before	Risk Treatments and Controls: (how are the risks managed)		idual F at is the trols)	Risk: e risk after	Responsibility: (who is responsible)
		L	С	Risk		L	С	Risk	
Emergency	Emergency management provisions not enacted delaying a response to an emergency situation. Venue emergency situation (fire, threat, essential services disruption).	L3	C4	High	Staff to enact emergency procedures Render / assist if it is safe to do so in the event of an emergency. Call 000 in the event of a medical emergency, contact the venue / client and escalate with management. For venue related emergencies, follow emergency protocols under the direction of venue operations / nominated emergency wardens and remain calm.	L2	C4	Moderate	Management
Inclement Weather	Inclement weather such as windy conditions, rain, storm or electrical storm event compromises the integrity of the mechanical amusement device and creates unsafe conditions resulting in a serious injury / death to a customer / patron and or property damage.		C4	IONALLY High	Daily weather information monitored on BOM, WillyWeather and My lightning tracker app. Wind regularly monitored using a portable entermometer. FADED usement device cessation if inclement weather / conditions are identified that will compromise safety or the amusement device is forecasted. Daily weather information provided to staff and customers / patrons. Staff and customers / patrons instructed on emergency / cessation procedures. Amusement device cessation requirements in storm events including rain, electrical and when wind gusts reach thresholds identified in manufacturers manual and weather and wind management plan. Amusement device to cease if wind speeds / gusts reach tolerance / thresholds. Safety checks including device integrity and stippery surfaces to be conducted and addressed prior to recommencement after inclement weather / event. Secure and reinforce / strap device and loose items if windy conditions are expected or identified / detected.	L1	C4	Moderate	Management Operator
Other:					•				

CONSULTATION AND REVIEW:

All workers involved in the activity must confirm that consultation and review of this risk assessment has occurred.

First Name:	Last Name:	Employer:	Date:	Signature: