



Speedway Safety

&

Racetrack Guidelines

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Speedway Safety / Racetrack Guidelines

Introduction

The Western Australian Speedway Commission (WASC) through its Track Grading Committee (TGC) are in the process of inspecting all operating speedways in WA, the WASC is now solely responsible for track inspections, track licensing, event permits, training and accreditation of officials, with a requirement to report to DSR and local government

Barriers are only one aspect to consider in relation to protecting the health and safety of spectators, competitors and officials. These guidelines have been devised through extensive research and collaboration with the Health Department, WA Speedway Commission and the Western Australian Municipal Association.

They specify construction and operational requirements required ensuring that events are conducted in the safest environments. However, it is recognised that even with the best provisions in place, motor sports are dangerous and safety cannot be guaranteed.

The Guidelines are intended to be flexible to allow for the varying conditions throughout the State. Like the Sport of Speedway the Guidelines are a living document and will require amendment from time to time as the sport develops.

Although many speedways have been “approved” some have utilised equipment and materials that are approaching the end of their useful life. These parts must be monitored and replaced as necessary. There must be a continuing system in place to monitor the adequacy of the installed barriers and Guidelines.

It should be noted that there are various Health Regulations that are applicable to speedways. The safety requirements have been addressed under the Health Act Part VI. This identifies them as “public buildings” and requires them to comply with the Health (Public Buildings) Regulations 1992 and be approved by local government. Other Health requirements have not been addressed as part of the safety barrier programme because these aspects are the responsibility of local government and are best addressed as local issues.

If venues are having difficulty or have not been approved as public buildings then they should contact either their local government Principal Environmental Health Officer or DOHWA by phone on 9388 4962.

The Western Australian Speedway Commission is responsible for the coordination and development of Track Safety Standards and their associated compliance, also the confirmation of public liability insurance and to recognise these processes through the issuance of an annual Track Licence and Event Permits.

As far as these Guidelines are concerned the Western Australian Speedway Commission is also responsible for endorsing and grading vehicle specifications, licencing scrutineers and race officials to ensure that they have the appropriate expertise.

WA Speedway Commission Track Grades Speedway Track Grades February 2014

Venue	Grading	Last inspection	2013'14 Track License	2013/14 Event Permits	2013/14 Public Liab Ins	Pub Liab Insurer
Albany	1	Sep-12	Yes	Yes	Yes	Marsh
Boulder	1	Feb-13	Yes	Yes	Yes	Marsh
Broome	1	April -13	Yes	Yes	Yes	Miramar
Bunbury	1	Feb-12	Yes	Yes	Yes	Marsh
Carnarvon	1	Feb 13	Yes	Yes	Yes	Marsh
Collie	1	Jul-11	Yes	Yes	Yes	Marsh
Derby	3	Feb 13	Pending			
Ellenbrook	1	Dec-13	Yes	No	Yes	Marsh
Esperance	1	Feb-13	Yes	Yes	Yes	Marsh
Geraldton	1	Nov-12	Yes	Yes	Yes	Miramar
Kellerberrin	-	May-14	Yes	Yes	Yes	Miramar
Kununurra	2	Aug-13	Yes	Yes	Yes	
Kwinana Motorplex	1	Jan-11			Yes	Marsh
Manjimup	1	Feb 13	Yes	Yes	Yes	Marsh
Margaret River	1	Jul-11	Yes	Yes	Yes	Marsh
Meekatharra	3	Nov-10	n/op			
Moora	1	Aug-12	Yes	Yes	Yes	Marsh
Morawa	1	Sep 12	Yes	Yes	Yes	Miramar
Mt Barker	1	Sep-12	Yes	Yes	Yes	Marsh
Narrogin	1	Oct-12	Yes	Yes	Yes	Marsh
Newman	1	Nov-12	Yes	Yes	Yes	
Nickol Bay	1	Jun-12	Yes	Yes	Yes	Miramar
Northam	1	May-12			Yes	Miramar
Pithara	1	Dec 13	Yes		Yes	Miramar
Port Hedland	1	May-14	Yes	Yes	Yes	Marsh
Shark Bay	1	Mayr-13	Yes	Yes	Yes	Marsh
Tom Price	NA	Mar-12	Yes		Yes	Miramar

Racetracks recommencing		
Katanning	2	Feb 12
Corrigin		

Non-operational tracks		
Darkan	3	May-01
Kambalda	1	Jan-03
Pannawonica	3	May-98
Quairading	2	Jul-98
Southern Cross	2	1999

Track Safety Assessments

The WA Speedway Commission undertakes independent assessments of all speedway tracks in WA at least once every two years in order to:

- Assess that current minimum safety guidelines are in place
- Provide external and non-biased assistance in identifying hazards and safety issues
- Ensure access to updated information and advice on safety guidelines being developed for speedway facilities.

These assessments are undertaken by a member of the WA Speedway Commission Track Grading Committee. The information collected during a track assessment is presented to the Track Grading Committee and used to determine compliance of each track with the minimum safety specifications for speedway tracks, as outlined in the WA Speedway Commission “*Speedway Safety and Racetrack Guidelines*”.

Once compliance is assessed by the WA Speedway Commission Track Grading Committee, a Track Grade is allocated to determine the categories of cars/ divisions that can safely race at the track. Safety improvement works are identified and a report is prepared (this report) and circulated to relevant stakeholders, including:

- Local government land owners
- Lessee clubs/ track operators/ owners
- Insurers, including LGIS and other relevant organisations
- WA Department of Sport and Recreation.

If a track operator wishes to improve the allocated grading of their track they are required to provide evidence of completed improvements to the satisfaction of the WA Speedway Commission.

Upon improvements being completed, the compliance with minimum safety standards may be reassessed by the Track Grading Committee and a new Track Grade issued. The Track Grade is allocated in the Track License issued by the WA Speedway Commission each year.

Key Outcomes from Track Assessments

- Report outlining compliance with safety guidelines
- Track Grade determined
- Safety improvement works identified and documented in a Safety Improvement Plan
- Stakeholders (land owners, track operators, insurers) notified of issues and risks

Communication process established that allows for re-assessment of Track Grade once improvements are completed

Track Assessment Process

The Track Safety Assessment process has 5 stages. These are:

Stage 1. Pre-Assessment Survey

The Club Survey Form is sent to the track operator for completion in advance of the assessment

Stage 2. Assessment

A member of the Speedway West Track Grading Committee attends the track with a representatives of the club and other stakeholders (if available) to conduct the assessment and discuss findings

Stage 3. Track Grading Committee review and report

The results of the assessment are presented to the Track Grading Committee for consideration. A report is prepared and circulated to stakeholders.

- Track Grade is issued (determining which divisions of racing are suitable for the venue)
- Improvement plan is issued where rectification work or improvements have been identified

Stage 4. Post Assessment Follow-up

A member of the Track Grading Committee will contact the club to discuss the results and talk through the report and improvement plan

Stage 5. Assessment Close-Off

Evidence (photos) and information on improvements/ works is provided by the track operator to Speedway West upon completion:

- Improvement works are closed off
- Annual Track Licence is issued
- Operator may apply for event permits

Industry Standards Guidelines Intent

The intent is to identify the minimum requirements to make speedway as safe as possible for competitors, officials and patrons who attend speedways; and to assist both approving authorities and operators to provide adequate facilities and conditions.

They are therefore limited to subjects that have a direct relationship with safety issues that are not adequately documented by legislation.

It is not always possible to define in finite terms exact requirements, these are guidelines and intended to be relatively flexible.

Legislative Requirements

The Health Act 1911 Part VI Public Buildings, Section 173 captures speedways as public buildings. The intent of this Part of the Act is to protect public health and safety at places of assembly; administratively it requires local government to approve public buildings. Section 179 provides the power for either local government or Police to close unsafe speedways (public buildings).

For traditional buildings, compliance with the Building Code of Australia and the Health (Public Buildings) Regulations 1992 is mandatory. However, these have only limited application to most WA speedways. These guidelines assist local government approve speedways initially and then to ensure that they continue to operate safely.

Other health related legislation applicable to speedways is the Health (Food Hygiene) Regulations and the Noise Regulations. These have a clear application to speedway and are not considered in these guidelines. Speedways should refer to their local government Environmental Health Officer if they require information about these issues

Approval Process

To explain the approval process and local government's ongoing relationship with speedways we will assume that a new speedway is to be established and it is assumed that local government has given approval for the speedway to be established.

1. Before any construction work commences an application accompanied by plans must be submitted to local government for approval.

2. Local Government Issues an approval together with any conditions they consider necessary. Conditions may include operational procedures that will also include WASC Safety Guidelines
3. The venue is constructed.
4. Prior to using the venue, local government must be advised that it is complete and request that a Certificate of Approval be issued.
5. Issuance of Track Licences and Event Permits by the Western Australian Speedway Commission.
6. If local government is satisfied then a Certificate of Approval is issued and the speedway is ready for use. A certificate of Approval designates a type of use and a maximum capacity. For speedways capacities are generally determined by toilet facilities. If a capacity increase is required for a special event local government may allow increases subject to additional temporary toilets being provided

Vehicle Requirements

All vehicles must be constructed and maintained to State and National standards approved by the WA Speedway Commission. The Commission through a panel of industry experts scrutinises vehicle specifications to ensure that they are constructed to a standard that will ensure the integrity of the vehicle and allocate a grade. Track specifications are also graded to ensure that vehicle and track safety is coordinated.

TRACK GRADING TO VEHICLE CLASSIFICATIONS 2013

Permitted vehicles	Vehicles allowed	
Grade 1 ALL Vehicles	Category's A/B/C	
Grade 2 ALL vehicles except Category A	Category's B/C	
Grade 3 ALL vehicles except Category A & B	Category's C	

VEHICLE CLASSIFICATIONS 2013

<p>Category A</p>	<p>Open Sprint cars, 360 Sprintcars, Limited Sprintcars, 320 Sprintcars</p> <p>Speed cars, Wingless Sprintcars, Formula 500, V8 Dirt Modified</p>
<p>Category B</p>	<p>Late Model Sedans, Super Sedans, Litre Sprints</p> <p>Super Six Sedans, Super Modified, AMCA Nationals</p> <p>Winged Dirt Speedway Karts (QRC)</p>
<p>Category C</p>	<p>Modified Sedans, Street Stock Sedans, Junior Sedans,</p> <p>Modified & Production Sedans, Rally Cross/Buggies, Qtr Midgets</p> <p>Go Karts, Demolition Derby</p> <p>Quad Bikes, Auto Cross, Stock Bikes</p>

- All vehicles must be registered with a club or other organisation endorsed by the WA Speedway Commission to control that class of vehicle.

- Every vehicle must have a logbook to record all inspections, repairs and modifications. Only one logbook per vehicle.
- All vehicles must be safety examined in accordance with the rules governing that class of vehicle, by a vehicle examiner accredited by the WASC to examine that type of vehicle, prior to each meeting.

The scrutineer must provide a record of the inspection showing the condition of the vehicle and any remedial works required. Inspection details should be recorded in the vehicle logbook and club register, in addition to any other statutory notification required by other class rules.

Track Classification

A track license as qualified by the WASC Track Grading Committee inspection grading, is to be issued by the WASC prior to the commencement of a season.

Barriers

The following safety barriers provide minimum standards of safety at speedways. It is recognised that absolute safety can not be guaranteed because motor sports are inherently dangerous and engineering solutions can not be designed to account for every situation that may occur.

Primary Barrier

This barrier defines the outer edge of the track and is intended to arrest vehicles at track level; they must be substantial to withstand the impact of fast moving vehicles. Combinations of soft traps and fixed barriers are also acceptable, however having an existing sand/soft trap does not reduce the requirements to meet all other barrier and catch fence safety criteria. (i.e. A track will still have to have the same barrier height and dimensions, catch fence, upright poles, cables and all there applicable positions and dimensions etc) – The minimum sand trap width is 10metres, (if racetrack has a sand trap)

The primary barrier should have a minimum working height of 1200 mm above the track surface. It must be of solid construction and present a vertical uniform surface. The preferred barriers are concrete with an earth backing. Other types may be approved on application to the WASC. If existing tracks using drums or tyres then it is strongly recommended that they be lined to present a uniform surface. Old conveyor belts are ideal for this purpose although they tend to prevent colliding vehicles from rebounding back to the circuit.

The preferred primary barrier is a 1200mm high concrete wall. They are robust and maintenance free and unlikely to deteriorate over a long time. If an alternative barrier that is equally effective and maintenance free is used this may be acceptable.

Other barriers less than the minimum height may still be allowed, however they will be subject to a more regular monitoring program and must be upgraded to the correct height(1200mm) should there be substantial damage from impacts or accelerated deterioration found.(i.e. Subject to WASC inspection and monitoring). Other barriers may be acceptable but as their reliability is dependent upon regular maintenance they therefore will also be subject to more rigorous and regular monitoring.

Vertical barriers less than 1200mm high are not regarded as adequate, existing barriers currently approved under 1200mm will be regularly monitored and over the course of a two (2) year period will be required to be brought up to minimum requirements, being 1200mm

All new tracks and/or tracks that are required to upgrade their primary barrier and catch fence must locate the primary barrier and catch fence adjacent to the track edge. (i.e. No major gap between the primary barrier and catch fence – The catch fence is not set back!)

Infield Barriers

NO infield barriers or structures, of any description, that would impede a race vehicle, are allowed within 3 metres of kerb line Same are a danger to competitors

Catch Fence

This is a very important barrier it is designed to arrest air borne vehicles that will not be restrained by the primary barrier. The height is determined by the category but in all cases it consists of a series of posts and steel wire cables. . (Note: Primary barrier height plus catch fence including turnout, vertical height to be 4.5 metres minimum for grade 1 and 2 tracks and 3.5metres minimum for grade 3 tracks) measured at track surface.

This barrier depends upon a series of cables to arrest airborne vehicles or parts of vehicles that are not arrested at the primary barrier. The more cables there, the more effective the barrier will be given that the supporting posts or structures are also adequate. There must be cables to 2.5 metres above the track, ideally for the better tracks they must extend higher. The maximum distance between cables is 900mm. some existing tracks have cables further apart. In most cases they should be able to continue to operate but the distance between cables will have to be rectified in the future.

Posts

Posts shall be equivalent to 75mm diameter pipe or 100mm cross section railway line, at no more than 5 or 7 metre spacings respectively. Alternatives may be used subject to approval by the EDPH. If railway line is used then the top or rounded section should face the track.

Cables

Cables should be clamped at each post and consist of 13mm (1/2") minimum diameter steel cables at 900mm centres shall extend around all grade 1, 2 and 3 tracks. Cables less than 12.7mm diameter are not acceptable (measured as per the drawing found in the WASC Track Safety Guidelines)

Cables shall be terminated and joined in accordance with recognised safe practices as shown in appendix 1. Cables joins shall be entwined loops. Parallel joints are not acceptable.

The lowest catch cable must be installed no more than 250mm above the primary barrier. Unless approved otherwise by the WASC.

Grade 1 & 2 tracks must have the top 450mm turned towards the track at approximately 45 degrees. A minimum of 1 catch cable must be provided at the extremity of the turn out.

Minimum heights of catch fences including primary barrier above the track surface

Grade 1 - 4500mm (must have 450 mm turn out)

Grade 2 - 4500mm

Grade 3 – 3500mm

Debris Fence

This is a mesh fence designed to prevent debris from vehicles leaving the track area.

A debris barrier must extend from the top of the primary barrier to a total height of 4500mm measured from the track surface. Debris barriers must have a maximum mesh size of 120mm x 120mm. Ring Lock type fencing is adequate provided that the mesh size is suitable. Preferred mesh is 50mm link mesh. The mesh must be secured on the trackside of the support posts with robust wire ties equivalent to 2mm-diameter wire.

Crowd Fence

This is a physical barrier to keep spectators away from the debris barrier. It identifies the area that the spectators can occupy. It should be at least 3 metres outside the debris barrier. The minimum height is 750mm.

A crowd fence must be erected no closer than 3 metres to the debris barrier. It shall consist of a 750mm high barrier to define the extent of the spectator area in relation to the track. The organising body must not permit spectators to occupy the area between the crowd fence and debris barriers. On application to the WASC crowd fences may be allowed within 2 metres of the debris fence.

Note: There are varying ways that the basic safety requirements may be met, if a track has alternative methods to achieve the same result then application to have the alternative methods adopted may be made to the WASC.

The above requirements apply to all spectator-viewing areas including pit areas where viewing takes place.

Track Gates

Track gates shall: (Also see recommended gate drawing, available on request through WASC)

- Be solidly constructed and present a dead front to the track.
- Steel framed with suitable supporting structure, shall be able to withstand the impacts relating to the class of vehicles racing at that venue.
- Shall have adequate hinges 2 to 3 on gate itself
- Wooden gates must have a thick sheet metal face. Adequately welded to a suitable support structure or as approved by WASC.
- Have positive crash resistant locking mechanisms as approved by WASC.
- Have catch fences and debris barriers equal to the remainder of the track unless otherwise approved.
- Catch fence section, as mounted on the gate on the hinge side, to have an upper hinge or cable wrap at the upper/top portion of the catch fence.

Recommended Gate minimum dimensions

- Gate outer frame 50mm steel RHS x 3mm w.t. with adequate bracing
- Gate face 3mm thick steel

Alternative materials and dimensions may also be suitable. Existing gates that do not meet the material dimensional criteria may still be approved subject to specific WASC approval.

Track access gates for officials are to be structurally sound, solidly constructed and present a dead front to the track, shall have a minimum of 2 hinges and 2 locking bolts or latches.

Note: There are varying ways that the basic safety requirements may be met, if a track has alternative methods to achieve the same result then application to have the alternative methods adopted may be made to WASC.

Stewards Box (Also see recommended drawing, available on request through WASC)

To be located in as safe a position as possible, behind the catch fence and debris mesh, offering protection from impact with ground and air borne vehicles.

Electrical

All electrical installations must comply with AS 3000 and the requirements of the Health (Public Buildings) Regulations 1992. When any electrical work is undertaken a Certificate of Electrical Compliance must be submitted to the local government Principal Environmental Health Officer in addition to completing normal electrical supply authority requirements. Bare aerial conductors shall not be installed above or in close proximity to the track. All aerial conductors must have residual current device protection.

Any electrical leads or other equipment including portable generators and equipment used by competitors must be tested and tagged by an electrical contractor in accordance with clause 13 of AS 3012 within the past six months. (These are similar to the Worksafe construction sites).

Lighting

Spectator areas and public amenities must be adequately lit if tracks operate at night, including track entry exit and pit areas

The Race Tracks should be provided with even lighting to a recommended 200 lux.

No point on the track should be less than 100 lux.

Spectator Facilities

Spectator accommodation must be adequately designed and constructed and will usually be assessed and approved separately by the local government. It must be structurally sound and not present a safety hazard.

Competitors Protective clothing

As defined in specific Class specifications of State and National bodies

Safety Equipment - All Speedway Tracks

Every track must have basic safety and first aid equipment available.

Basic equipment should include but not be limited to the following.

Vehicle Related Safety Equipment

Fire Safety Standards (refer safety manual also)

The following equipment must be available in the pits and track areas for the duration of organised events including practice sessions.

- Fire blanket
- Bolt cutters
- Seat Belt Cutter
- Vehicle capable of lifting approximately 1.5 tonnes
- 4 x 7.7 kg dry powder extinguishers (2 in pit area, 2 infield)
- 4 x 7.7 kg alcohol resistant foam fire extinguishers (2 in pit area, 2 infield)
- Access to water in the Pit Area (e.g. drums, buckets).

Two fire safety officers in fire resistant suits on standby ready for an immediate response to an emergency, or a FESA fully manned and operational fire fighting facility.

In addition to the above prior to the start of any practice session or event the person responsible for fire emergencies must be advised of the fuel types of competing vehicles and check all extinguishers are full and in working order. This is particularly important where FESA crews or crews who may not be fully conversant with speedway are utilised.

Additional facilities are required within canteens and clubrooms.

First Aid / Medical Standards

All equipment must be available in the pits and track areas for the duration of organised events including practice sessions specifically to attend to competitors, race crews or officials. For large events additional resources to treat patrons may be required.

An ambulance/first aid crew with medical facilities and equipment must be on standby for all events Bikes as per the MAWA ruling.

Operational Requirements

All events must be conducted by a Speedway Commission official. A person must be nominated as the controlling steward and have the ultimate authority to abandon or stop races if safety to any person can or may be placed at risk.

All facilities and events are subject to inspection at any time by Race Track Inspectors approved by the WA Speedway Commission in addition to the statutory requirements of all relevant legislation.

Auditors are required to notify the relevant speedway and local government of the results of all audits.

Track Signals

The following flags must be available at all events

Flag Dimensions

Quantity	Colour
One	Green
One	White
One	Black & White check
Four	Yellow
Four	Red
One	Black
One	Black with White stripe
One	Blue with Yellow ball
One	Yellow with Red stripe
One	Yellow with Black stripe

- Flags must be rectangular 750 mm long and 600 mm deep
- Stripes must be 100 mm wide and on both sides of the flag.
- Checks must be no less than 100 mm and no more than 150 mm
- A ball must be 300 mm diameter and on both sides of the flag.

Signal Lights

For night events in addition to the flags, signal lights controlled by the chief steward are required.

Mandatory locations are: -

- Entering Turn One
- Exiting Turn Two
- Entering Turn Three
- Exiting Turn Four

Colours Required

Red	Solid
Amber	Flashing
Amber	Solid
Green	Solid
Lights out	

Insurance

It is mandatory for adequate public liability and accident insurance to be secured prior to any event. The minimum recommended cover in 2012 for Public Liability is \$20 million.

Minimum recommended Criteria for Public Liability Insurance

Sum Insured \$20m

Must be Claims occurring Policy

Must include Errors & Omissions (this is claims made)

Must be APRA Approved (No Foreign Insurers)

The Insured name: must include

Name of club xxxxxx including all Participants, All State and National bodies, volunteers, support services including Property Owners & Lessees of Property

Business must include the following wording

Principally administrators organisers and Promoters of Speedway and Dirt Track Racing including Track Owners and/or operators together with Marketing and Risk Management and all incidental activities thereto including all club activities as declared from time to time

Territorial Limits: Anywhere in Australia

Extensions: Tenants Liability (FF&E) Practise sessions/Liability to Participants/Member to Member liability/Cross liability/Landing areas/Contractual Liability/Principal's liability/medical facilities/hold harmless agreement/Hoists, cranes, Unregistered vehicles/goods sold, supplied/Social clubs/Non-motor sport activities/No contribution/subrogation against Governments named within the Policy

Note: Participant to Participant liability – only applicable in Tasmania anyone person\$10000 anyone claim\$100000

Liability of one participant to another participant to another participant in competing vehicles is not insured unless otherwise provided for.

Terrorism exclusion to apply

Incident Reporting

Every incident involving vehicle collisions and or any injuries to any person at a speedway event including practice must be entered into the Chief Stewards Report. Chief Steward Reports are to be filed with the WA Speedway Commission within seven (7) days of the race meeting.

All incident details shall be forward to the Western Australian Speedway Commission at the conclusion of each race meeting

Emergency Planning

Every speedway must have an emergency plan that effectively identifies emergency situations and applicable responses. The plans must be submitted to the local authority for approval and be readily available to club members. It is recommended that a copy be lodged with the WA Speedway Commission. Plans must be reviewed and amended appropriately prior to the start of each season.

Pits

Pits should be enclosed and restricted to competitors, crews and officials whilst vehicles are moving around. Public access should be permitted only if they are covered by a suitable insurance policy and only during periods where there are no vehicle movements. No smoking or intoxicating substances are

permitted at any time within pits. (Specific smoking areas allowed) Appropriate signs declaring the limitations on pits access must be posted at all pit entry points.

Scrutineering Guidelines

Refer 'WASC Minimum Standards Scrutineering Guidelines' for Scrutineers State-wide, competitors and their equipment.

Chief Steward Location

1. Must have a clear unobstructed view of the whole track;
2. Behind the catch fence and debris barriers (or equivalent protection);
3. Located near the start / finish line;
4. The area must not be accessible to the public;
5. The area must be large enough to accommodate at least two other stewards (three in total);
6. The control lights must be operated from this location; and
7. The Chief Steward is responsible for the operation of the flags but not necessarily the person in control

Appendix 1

Information on Cables

The properties of wire rope are derived from its size, construction, quality, lay and type of core.

Size

Ropes are referred to by diameter size. The correct way to measure wire rope is shown below.

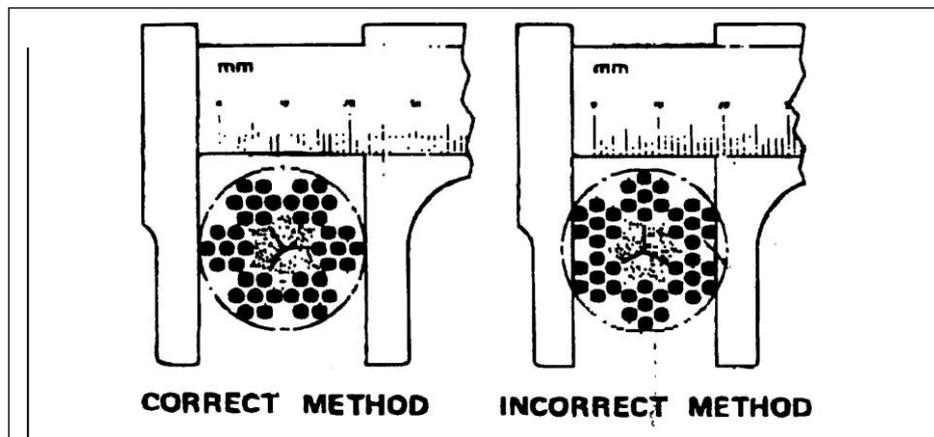


Figure 1. Cable Measurement

Joints and Terminations

When wire rope grips are used they must be fitted as shown in figure 2 and not as shown in figure 3. The bridge of the grip should invariably be fitted on the working part of the rope and the U bolt on the tail or dead end. Grips should not alternate in position on the rope.

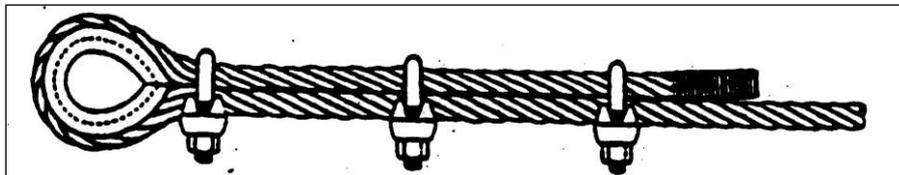


Figure 2. Correct method of fitting wire rope grips – minimum of two (2)

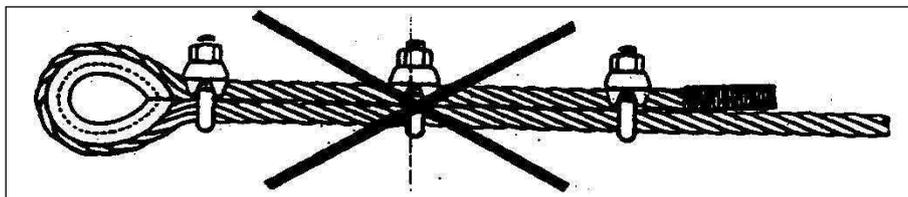


Figure 3. Incorrect method of fitting wire rope grips

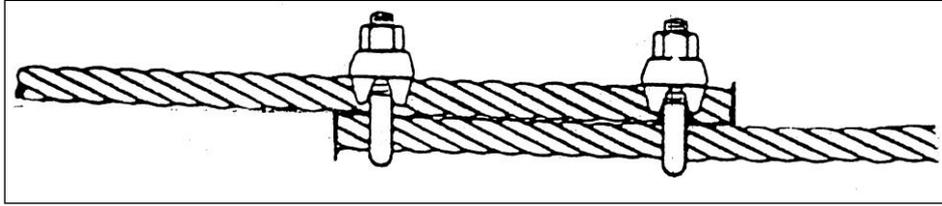


Figure 4. Dangerous catch fence cable joint

Appendix 2 **Track Safety Check List**

Item No.	Category	Assessment		
Dangerous Activity Warning Signage		✓ ✗ n/a		
WS.1	“Important Notice”/ dangerous activity warning sign is prominently displayed at all venue entrances and is in good condition?			
Exclusion Zones		✓ ✗ n/a		
EZ.1	Track safety barriers (primary barrier, catch fence, turn-out, debris mesh) provide protection for the entire perimeter of the track, or areas not adequately protected are exclusion zones with adequate fencing preventing spectator/ participant access?			
Track Infield		✓ ✗ n/a		
INF.1	Any infield hazards appropriately protected?			
Pit Area and Access		✓ ✗ n/a		
PA.1	“Important Notice”/ dangerous activity warning sign is prominently displayed at each pit entrance (competitor and spectator entrances) and is in good condition (easily read)?			
PA.2	Form up/ dummy grid area is of adequate size and well located to the track?			
Pit Gates		✓ ✗ n/a		
PG.1	Appropriate control or protection barrier is in place behind pit gates during racing to prevent access to hot zone, which is commensurate with the swing radius of the gate?			
PG.2	Pit gates are solidly constructed with steel frame at least 50mm steel RHS x 3mm w.t. with adequate bracing, or provides equivalent protection?			
PG.3	Pit gates present flat front to the track of sheet steel at least 3mm thick, or provides equivalent protection?			
PG.4	Pit gates have adequate positive crash resistant locking mechanisms?			
PG.5	Pit gates have a minimum of two adequate hinges on gate?			
PG.6	Pit gates have strong upper hinge/ cable loop or similar on top section of gate attached to adequate vertical support post?			
PG.7	Pit gate and debris fence provides protection equivalent to the rest of track (i.e. has less than 100mm gap under gate; gate to same height as primary barrier; catch/debris fence to same height as rest of track; and turnout on or above debris gate)?	Grade 1	Grade 2	Grade 3
PG.8	Track and gate sections of catch/ debris fence are closely aligned (i.e. minimal gap in protection)?			
PG.9	Pit gates are in adequate condition?			
Primary Barrier		✓ ✗ n/a		
PB.1	Primary barrier has a minimum working height of 1200 mm above the surface of the track and is a vertical, uniform surface with appropriate joints between sections?	Grade 1	Grade 2	Grade 3

Item No. Category		Assessment		
PB.2	Primary barrier is reinforced and/or supported, and is appropriately retained and secured for the construction material?			
PB.3	Primary barrier is earth backed to full height? (not free standing)			
PB.4	Top of barrier is free of protruding posts/ objects (excluding catch fence posts)?			
PB.5	Primary barrier is of adequate condition?			
PB.6	Sand trap (if applicable) is of adequate width and condition and is regularly ploughed/ furrowed?			
Catch Fence and turn out (excluding gates)		✓ ✗ n/a		
CF.1	Catch fence has a turn-out of at least 450mm at approximately 45 degrees for the entire perimeter of the track, which is adequately attached to uprights and in good condition?	Grade 1	Grade 2	Grade 3
CF.2	Catch fence/ turn-out has at least one catch cable at the extremity?			
CF.3	Fence uprights/ post thickness is at least 75mm diameter or 100mm cross section railway line at no more than 5 meter spacings, or is of greater thickness if more than 5 meter spacing (post thickness)?			
CF.4	Post spacing is 5 to no more than 7 meters and adequate for the thickness of posts (post spacing)?			
CF.5	Catch fence cable thickness is at least 13mm and cables are in good condition??			
CF.6	Cables joins/ returns are entwined loops with a minimum of two suitable clamps?			
CF.7	Cables are appropriately attached to uprights, with cable attachments at the top of all uprights?			
CF.8	Cable spacing is 900mm or less?			
CF.9	The lowest cable is no more than 250mm above primary barrier/ ground level?			
CF.10	Catch fence provides adequate vertical height and protection and is in good condition?	Grade 1	Grade 2	Grade 3
Debris Mesh		✓ ✗ n/a		
DM.1	Debris fence mesh size is no more than 120 x 120mm and gauge is at least 8AWG or 3.3mm diameter			
DM.2	Debris mesh is secured on the track side of posts?			
DM.3	Debris fence is adequately secured to cables and uprights with robust wire ties equivalent to 2mm diameter minimum?			
DM.4	Debris mesh covers the entire catch fence and turn-out and is in good condition?			
Crowd Control Fence		✓ ✗ n/a		
CCF.1	The barrier is of adequate strength/ construction to keep spectators away from the debris fence?			

Item No.	Category	Assessment
CCF.2	Set back from debris fence is 3m or more? If no, is it at least 2m?	
CCF.3	The fence is in good condition?	
CCF.4	Crowd control fences have appropriate "no entry" signage?	
	Officials' Access Gate	✓ ✗ n/a
OAG.1	Access gate maintains integrity of primary barrier and/ or catch and debris fence?	
OAG.2	Access gate is solidly constructed and in adequate condition?	
	Steward's Box	✓ ✗ n/a
SB.1	Steward's box is safely located near the start/ finish line with unobstructed view of the whole track?	
SB.2	Steward's box provides appropriate protection for stewards from vehicle or debris impacts and is located behind the catch and debris fence?	
SB.3	Opening in debris fence for racing flags provides for ease of use whilst maintaining integrity of protection for stewards/ flag officials?	
SB.4	Steward's box is large enough to accommodate 3 people, with a method of restricting public access?	
SB.5	Steward's box is in good condition?	
	Track Lighting and Racing Control	✓ ✗ n/a
LRC.1	Racing light control mechanism is appropriately located for steward's use and is in good condition?	
LRC.2	Track lights are clean?	
LRC.3	Electrical installations appear to have been professionally installed?	
LRC.4	Race control lights are correctly located around the track and provide for adequate visual control of drivers during racing?	
LRC.5	A lighting audit (lux level) been conducted by WA Speedway Commission?	
	First Aid and Safety	✓ ✗ n/a
FAS.1	There is dedicated parking for an Ambulance, which is easily accessed and has clear passage to the road?	
FAS.2	Information is displayed at venue to advise spectators/ competitors of location of 1 st aid/ emergency equipment or how to access medical treatment/ emergency assistance?	

