

20 OVAL TRACK MACHINE SPECIFICATIONS

- 20.1 There are 7 types of eligible machines -
- a. Speedway Solos
 - b. Speedway Sidecars
 - c. Grass Track Sidecars
 - d. Longtrack Solos
 - e. Stockbike Solos
 - f. ATV
 - g. Juniors

SPEEDWAY SOLOS (a) Only modifications specifically mentioned in this chapter are approved - no other modifications are allowed.

20.2 ENGINE:

20.2.1 Motorcycle engine shall not exceed 500cc.

20.2.2 Engine must be Single-cylinder, four-stroke type equipped with not more than one spark plug and not more than one carburettor.

20.2.3 **No motorcycle shall exceed noise emission see Chapter 10.**

20.3 EXHAUST SYSTEM:

20.3.1 The exhaust pipe must be fitted securely to the engine and frame of the machine in two separate locations (cylinder head not included) or one place if held on the front engine plate and the silencer must be secured to the frame in at least two separate locations which must be at least four inches (100 mm) apart. Springs may not be used.

20.3.2 The outlet of the exhaust system must discharge horizontally and parallel to the centre line of the rear wheel and must not extend beyond the tangent at the rear of the rear tyre.

20.3.3 The gap between the silencer and the rear tyre must not exceed beyond 60mm.

20.3.4 If, during a race, a silencer or any part of the exhaust system becomes displaced or detached so that all the exhaust gases fail to pass through the silencer, the rider must be immediately excluded from that race.

20.4 FOOTRESTS:

Right-hand footrests must be of rigid construction, but may be able to swing and not be more than 12 inches (30cm) from the centre of frame to the outside end of footrest rod, the outer edge of the footrest to be suitably protected with rubber or other suitable material (Donald Smith type footrest acceptable) and auxiliary footrests of no greater length than 2 inches (50mm) may be fitted to front left engine plate.

- 20.5 BRAKES:
Any brake on a motorcycle is prohibited.
- 20.6 CLUTCH LEVERS:
All clutch levers shall be ball ended, the ball to be not less than 3/4" in diameter, and to be braised or welded on to the clutch lever. The clutch lever shall not exceed seven inches in length from the fulcrum to the end of the ball inside of the clutch lever to be rounded.
- 20.7 HANDLE BARS:
Handle bars must not be of greater width than thirty-six (36) inches (92cm), and must have the ends securely capped or plugged.
- 20.7.1 Racing Numbers: All motorcycles to have front number-plate 20cm in diameter with maximum 2 digit numbers 150cm high and 30mm thick - black numbers on white background, i.e. BMX type plastic number plate.
- 20.8 WHEELS:
All spokes must be tight. Rear wheel rim to be 19"
- 20.9 Rear tyre shall not exceed 110mm.
- 20.10 PRIMARY CHAIN GUARD:
A guard which ensures that the chain and sprocket cannot be touched accidentally must be fitted.
- 20.10.1 If made of metal it must be substantial enough to prevent a broken chain throwing upwards and causing injury to rider.
- 20.10.2 If plastic guard is fitted a steel stud or bolt of not less than 10mm diameter must be fitted close to the clutch sprocket and in the area of lower rear quadrant of the sprocket to prevent a broken chain throwing upward. Stud to protrude 10mm outside clutch sprocket.
- 20.11 SEALING:
All motorcycles to have top front crank case bolt or screw head to be drilled with 1/16" hole and a 1/16" hole to be drilled in the bottom fin in a position relative to the crank case bolt or screw for sealing when necessary.
- 20.12 IGNITION CUT-OUT:
A device must be fitted to ensure that the ignition is automatically interrupted if the rider is thrown from his/her machine and must be mounted on the handle bar or the handle bar clamp and attached to the RIGHT WRIST. The interrupter must operate in the primary (low-tension) circuit of the ignition system.
- 20.13 DANGEROUS CONSTRUCTION:
The Steward of the meeting may exclude any vehicle the construction of which he/she deems to be dangerous and will give full effect to these Regulations by requiring the Machine Examiner to examine every vehicle prior to its taking part in a competition. Unnecessary equipment (such as - inter alia lamps, horns and speedometer, exhaust pipes directed so as to raise dust,

spikes or other attachments to tyres) may be deemed dangerous. The direction of all officials must be strictly obeyed.

- 20.14 **IMPOUNDING A MOTOR-CYCLE:**
The Steward of the Meeting may order any motorcycle which he/she has reason to believe may not be in accordance with the Rules or Supplementary Regulations to be impounded or sealed and such motorcycle shall be retained as may be directed by the Steward for such a period as may reasonably be necessary for its examination.
- 20.15 **FUEL:**
The use of Nitro Methane blends and other comparable additives are prohibited from all competition.
Standard penalty for use of Nitro Methane - 12 month suspension from the date of the offence.
- 20.16 **SPEEDWAY SIDECAR SPECIFICATION (b)**
- 20.16.1 The maximum track of a sidecar to be no more than 3ft 6in (107cm).
- 20.16.2 No part of the sidecar frame shall extend forward beyond the steering head.
- 20.16.3 Any frame member on outside of side car wheel is prohibited.
- 20.16.4 Any brake on motorcycle sidecar is prohibited.
- 20.16.5 The cubic capacity of the machine is limited to 1000cc plus 50cc tolerance and only the rear wheel of the machine shall be driven.
- 20.16.6 The sidecar wheel shall be adequately shielded either with one piece metal discs extending from the hub to the rim, or total enclosure of upper portion of the wheel. The axle of the sidecar wheel shall not be less than 16mm diameter mild steel. One sided alloy ex-brake hubs are not to be used as sidecar wheels.
- 20.16.7 Two wheels in straight line, one fore one aft with the sidecar wheel axle being no further forward than half the distance of the wheel base. Any wheels with slotted hubs must have bolts fitted between the spoke heads.
- 20.16.8 Front wheels of motorcycles to be fitted with knock-out spindle or an approved clamp to fasten on fork tips.
- 20.16.9 Any tyres with knobs or lugs protruding out past the side walls are not permitted on the front wheel.
- 20.16.10 The one rear wheel and one rear tyre of a sidecar shall not exceed (8 inches) or 203.2mm maximum tread width. The tyre and wheel to be of motorcycle configuration.
- 20.16.11 Rear wheel to have guard on both sides, to prevent passenger's hand being caught in chain or spokes. The rear guard of the machine to extend not less than 35 degrees measured from the vertical centre line of the axle of the rear wheel. Use of front guard is optional. All sidecar machine rear fork legs to have an enclosed axle eye.

- 20.16.12 All sidecars must be inspected by an approved official who shall have the authority to bar any machine or equipment he/she considers unfit for racing purposes, such decision to be final.
- 20.16.13 The sidecar floor to be of sound construction and to fully cover area from front of crankcase to rear of sidecar chassis.
- 20.16.14 A 4 point suspension for sidecar chassis must be used, the positioning being optional, providing that two points are at the top side of the motorcycle frame and two points at the bottom.
- 20.16.15 Handle Bars: Handle bars must not be of greater width than thirty-six (36) inches (92cm), and must have the ends securely capped or plugged.
- 20.16.16 Sidecar wheel must be staggered inwards. No outward stagger is allowed.
- 20.16.17 A suitable hand hold must be provided for the passenger on the offside of the rear wheel of machine. Offside is left hand side when standing at rear of machine facing forward.
- 20.16.18 Ignition Cut-Out: A device must be fitted to ensure that the ignition is automatically interrupted if the rider is thrown from his/her machine and must be mounted on the handle bar or the handle bar clamp and attached to the RIGHT WRIST. The interrupter must operate in primary (low-tension) circuit of the ignition system.
- 20.16.19 Dangerous Construction: The Steward of the meeting exclude any vehicle, the construction of which he/she deems to be dangerous and shall give full effect to these Regulations by requiring the Machine Examiner to examine every vehicle prior to its taking part in any competition. Unnecessary equipment (such as inter alia lamps, horns and speedometer, exhaust pipes directed so as to raise dust, spikes or other attachments to the tyres) may be deemed dangerous. The direction of all officials must be strictly obeyed.
- 20.16.20 Impounding a Sidecar: The Steward of the meeting may order any Side-car which he/she has reason to believe may not be in accordance with the Rules or Supplementary Regulations to be impounded or sealed and such sidecar shall be retained as may be directed by the steward for such a period as may reasonably be necessary for its examination.
- 20.16.21 Fuel: The use of Nitro Methane blends and other comparable additives are prohibited for all competition. Standard penalty for use of Nitro Methane is 12 months suspension from the date of the offence.
- 20.16.22 Racing Numbers: All motorcycles to have front number plate 20cm in diameter with maximum 2 digit numbers 150mm high and 30mm thick – black numbers on white background, i.e. BMX type plastic number plate.
- 20.17 All outfits that have pneumatic or hydraulic adjusting sidecar chassis must comply with the following safety requirements:

- a. Each competitor must produce a current Certificate of Inspection for their storage bottles at the beginning of each season.
- b. Only small commercial type recognised storage bottles may be used.
- c. Storage bottles must be clamped around centre and secured from lateral movement at top and (no rubber bands).
- d. Compressed nitrogen or compressed air may be used. Oxygen is not allowed.
- e. High pressure hose and fitting to be used.
- f. A safety catch, wire cable or chain must be used to prevent outfit opening out like a hinge in the event of ram shaft or piston failure.
- g. System to be used for initial start only and not to be activated after first corner.

20.18 GRASS TRACK SIDECAR SPECIFICATIONS (c)

20.19 Unless otherwise stated in these specifications, Sidecars will adhere to the technical requirements in Chapter 10.

20.20 The sidecar shall be rigidly attached to the left side of the motorcycle.

20.21 All combinations must have two wheels in straight line fore and aft with the sidecar wheel centre being no further forward than half the distance of the wheelbase.

20.21.1 The wheel track, measured between the centres of the points of contact of the rear and sidecar tyres with the ground surface shall be not more than 105cm and no less than 82cm.

20.22 No part of the frame structure or body may extend forward of the steering head.

20.22.1 No part of the sidecar frame or body shall extend sideways more than 8cm from the outer edge of the sidecar tyre.

20.22.2 No part of the sidecar frame, other than suspension or body supports if carried outside the sidecar wheel, shall be higher than the sidecar wheel centre, measured with the sidecar wheel suspension fully depressed.

20.23 The minimum shielding of the sidecar wheel shall be a full disc covering the outer face of the wheel.

20.24 Where any combination wheel is fitted with a hub having spoke slots instead of holes, such slots must be fitted with security bolts to prevent the spikes pulling out.

20.25 LONG TRACK (d)

20.26 Eligible machines -

Type A - Speedway solos (previously described).

Type B - Non Speedway solos.

Type C - Speedway Sidecar (previously described).

Type D – Long Track Solos

- 20.26.1 Type B -
1. Capacity Limit - 1300cc
 2. All machines must have at least 2 forward gears that they may use to change up and down during racing.
- 20.26.2 LONG TRACK SOLO:
As per FIM Rules
- 20.27 STOCKBIKE SOLOS (e)
- 20.28 Flat Track Stockbike - Technical:
A Stockbike must be derived from either a road legal or motocross motorcycle of which at least 200 machines of the same model must have been produced by the manufacturer. The responsibility lies with the competitor for proof (i.e. no one-off specials).
- 20.28.1 Frame - Standard production Frame - Modifications allowed include alteration of steering head angle, engine position and swing-arm pivot position (up to 70mm in any direction). If the machine was manufactured post-1960 the swing-arm must be retained (rear suspension optional).
- 20.28.2 Frame - Non Factory Production frames may be used but they must closely resemble the original frame. Steering head, swing-arm pivot and engine mounting positions only, may be altered by up to 70mm in any direction along the centreline of the frame from their original position on the original frame. Non factory production frames must be made of chrome-moly or mild steel seamless tubing of no less than 16 gauge (1.6mm) wall thickness.
- 20.28.3 Tank and Seat - Tank must be of a saddle design (unless original tank is different) and of a capacity of no less than 5 litres. The Stockbike must have an adequate seat (the rider's pants should not be able to touch the frame), with covered padding. Seat and tank must be secured firmly to the frame.
- 20.28.4 Forks - Forks must be hydraulically damped telescopic type and must have straight stanchion tubes (i.e. steering geometry cannot be altered by bending any part of the fork's construction). If the fork caps protrude through the top yoke higher than the handlebar clamps, bars with a brace must be used. If the fork caps are higher than the handlebar brace, fork caps must be used.
- 20.28.5 Engine and Gearbox - Engine must be that of a road legal or Motocross motorcycle of which at least 200 machines of the same model have been produced by the manufacturer. Capacity to be no larger than 750cc. External appearance of the head, cylinder and crankcase cannot be altered. No turbo or superchargers allowed.
Stockbikes must retain an operational gearbox of no less than three gears.
- 20.28.6 Primary Cover - The primary drive (engine to gearbox) must be fully enclosed.
- 20.28.7 Fuel - See 10.17.1

- 20.28.8 Exhaust Pipe - See 10.6. If the silencer is not welded to the exhaust pipe it must be secured to the frame. Exhaust noise shall not exceed 98 dba with 2 dba tolerance measured from the infield.
- 20.28.9 Wheels - Rim sizes to be no greater than 21" front, 20" rear.
Interpretation of rule 'wheel sizes' - should a motorcycle have fitted as standard a front wheel of greater than 21" as in the case of a Honda XR500 A model, this is eligible.
However these wheels cannot be fitted to other makes or other models of the same brand.
- 20.28.10 Rear Tyre - Rear tyre must have either trials universal, speedway or road pattern tread (11mm max. tread depth, 9mm gap between knobs). Motocross tyres are not allowed.
- 20.28.11 Brakes - An effective rear brake fitted. All cables, levers or hydraulics to front wheel brake must be removed.
- 20.28.12 Rear Mudguard - A guard must be fitted over the top quarter of the rear wheel.
- 20.28.13 Handlebars - No wider than 92cm. See 10.9. Grips not lower than top yoke and well clear of tank at full lock.
- 20.28.14 Number Plates - Refer to 10.2.5 and 10.3.5.
- 20.28.15 Foot Rests: Left-side footrest must be of the folding type if longer than 75mm. Right side footrest to be no lower than bottom main frame rail or bottom of original engine case and must be of the folding type if longer than 75mm.
- 20.29 Juniors are permitted an operational rear brake.
- 20.30 Protective Clothing – Speedway solo and sidecar same as for S.C.B. of MNZ. Stockbike refer rule 8.1.4 with protection in addition for left knee, hip and elbow.
- 20.31 ATV(f)
ATV's must conform to the requirements of Chapter 11
- 20.32 **Classes see Appendix D**