



Appendices C - Nordic Superstock 1000 Technical Regulations 2010

1. General Regulations Nordic Superstock 1000 class

Nordic Superstock 1000 must have an FIM homologation in compliance with Article 2.7 of the category Superstock / Stocksport. All motorcycles must in all respects comply with the FIM Technical Appendices International meetings for Road Racing. The appearance of Nordic Superstock motorcycles from the front, from the rear and in profile must comply with the homologated shape (as originally produced by the manufacturer), unless otherwise stated.

2. Displacement capacities

Over 600 – 1000 cc, 4 stroke 4 cylinders
Over 750 – 1000 cc, 4 stroke 3 cylinders
Over 850 – 1200 cc, 4 stroke 2 cylinders

Each rider may use only one motorcycle. In the case of proved total wreckage (frame, fork, swinging fork), the use of a reserve motorcycle is permitted. A decision will be taken by the Chief of Technical control. This provision is not applicable for set-up sessions scheduled by the organiser before the meeting. It is, however, applicable for races/ practice sessions other than nordisc races/ practice sessions if those are scheduled for the class Superstock or similar within the same round.

The Technical control must be informed about any change or engine between the 1st and the 2nd round. Any offence during a practice session will result in exclusion from the practice session, and an offence during a race will result in exclusion from the round.

3. Minimum Weight

The minimum weights are as follows: 4 cylinder: 162kg 3/2 cylinder: 170kg Additional weights are permitted but they must be properly fixed by screws. The motorcycle must comply with the minimum weight (including fuel tank) at all times during the event. No items, including water, oil, fuel and tyres, may be added to the motorcycle before the weighing. During the practice sessions, each motorcycle may be weighed in the pit lane. (This will be done in such a way so as to disturb the riders and teams as little as possible. In all cases the rider and the team must however comply with this request for a control).

4. Start Numbers

See FIM Art. 2.7.3

5. Fuel

All Nordic Superstock 1000 engines must run on normal unleaded fuel. See also specifications in FIM Art. 02.10. The FIM fuel specifications are applicable.

6. Component Description

All components not described below must remain as originally produced by the manufacturer for use on the homologated motorcycle.

7. Main Frame and Rear Sub Frame

The frame must remain as originally produced by the manufacturer for use on the homologated motorcycle. It is permitted to protect the sides of the frame through parts of composite material. These protection components must be adjusted to the shape of the frame. The main frame may not be altered by the addition of parts through welding. No parts may be removed through any kind of machining.

All motorcycles must display a vehicle identification number on the main frame body (chassis number). Mountings or steel plates to support the engine must remain as originally produced by the manufacturer for use on the homologated motorcycle. The sub frame (rear sub frame) may be altered or replaced.

8. Front Fork

The front fork structure (spindle, bridge, tube etc.) must remain as originally produced by the manufacturer for use on the homologated motorcycle. All the interior standard parts and fork oils may be modified or replaced. It is permitted to alter or replace the fork clamps but for the only purpose of allowing for an external adjustment. Height and position of the front fork (stanchion) in relation to the fork bridge is free. The upper and lower fork bridges (triple bridges) must remain as originally produced by the manufacturer for use on the homologated motorcycle. Steering dampers may be added or replaced by an after market damper. The steering damper must not act as a steering lock limiting device. Foil fork warming devices may be added to pre-heat the fork. It is permitted to provide the sliding tubes with a nitrite coating in case of repair or subsequently.

9. Rear Fork (Swing arm)

All components of the rear fork must remain as originally produced by the manufacturer for use on the homologated motorcycle (including the rear chain adjuster). A rear wheel stand device may, however, be added to the rear fork by welding or by bolts. Any such device must have rounded edges (with a large radius). Attachments points for these devices must be securely fixed to the fork. It is permitted to securely lock the brake calliper permanently in one position on the fork, but the brake calliper itself may not be altered. For safety reasons, a chain guard must be fitted in such a way to reduce the possibility that any part of the riders' body should become trapped between the lower chain run and the rear wheel sprocket.

10. Rear Suspension System

The rear suspension system is free, provided that the original attachments on the frame and on the rear fork and the homologated levers and lever ratios are used.

11. Wheels/ Rims

Wheels and associated parts may be altered or replaced from those fitted to the homologated motorcycle. Carbon fibre or carbon composite wheels are not allowed. The speedometer may be removed and the drive may be replaced by a spacer. Spacers may be replaced and modified. No modifications on the axles or on any attachments points of the front and the rear brake callipers may be carried out. Wheel rim diameter and width must remain as originally homologated. Magnesium wheels are only allowed if homologated with the machine.

12. Brakes

The front and the rear brake discs including their suspension may be replaced, but no modifications on the original brake callipers and their attachment are allowed. The external diameter of the brake discs and the venting systems must remain as originally produced by the manufacturer for use on the homologated motorcycle. A tolerance of +/-1.5mm for the brake disc thickness is accepted, the minimum dimension is the one which eventually is specified by the manufacturer as wear limit in accordance with the homologation for the model concerned. Internally ventilated discs are not allowed as after market part. The brake discs must be of ferrous material. Floating brake discs are permitted, floaters are free. The front and rear brake callipers and brake calliper mounting must remain as originally produced by the manufacturer for use on the homologated motorcycle. Cover plates may be removed. The front and rear master brake cylinder must remain as originally produced by the manufacturer for use on the homologated motorcycle. The brake fluid container may be modified or replaced. The arrangement of the rear master brake cylinder and its reservoir are free. The front and rear brake lines are free. It is permitted to use quick connectors. The split of the front brake lines for both front brake callipers must be made above the lower fork bridge. The front and rear brake pads may be replaced. Brake pad locking pins may be modified for quick change type.

Additional air ducts are not allowed. An additional manual actuation of the rear brake (so-called toggle brake) is permitted. Both systems must operate independently. A check will be carried out by the Technical control.

13. Tyres

Tyres may be modified or replaced (see also Article 01.49). The use of tyre warmers is permitted. Hand-cut slicks are prohibited. The tyres must be normally available through commercial channels. The use of wet-weather tyres is permitted.

14. Foot Rest/ Foot Controls

Foot rests may be replaced but brackets must be mounted to the frame at the original mounting points. Foot control devices may be modified to invert the gear selection, shifting interior components may only be modified for the purpose of the gear inversion. Foot rests may be of a folding type but in this case must be fitted with a device which automatically returns them to the normal position. The end of the foot rest must have a spherical radius, and an integral protection is to be provided at the end of the footrest which must have at least 8 mm solid spherical radius (See diagrams A & C). Non folding „metallic‘ footrests must have an end (plug) which is permanently fixed, made of plastic, Teflon® or an equivalent type of material (min. Ø 8mm).

15. Handle Bars and Hand Controls

Handle bars, hand controls and levers may be replaced (not applicable for the brake master cylinder) or be relocated. Clutch and brake levers may be replaced by an after market part, if applicable with manual adjusting device. An engine stop switch must be located on the handle bar (see also Article 01.33). Annotation: The master cylinder for the brakes and the clutch must remain as homologated.

16. Fairing / Mudguard

- a) Fairing and mudguard must appear to be as originally produced by the manufacturer for the homologated motorcycle.
- b) Fairing may be replaced and the material may be changed. The fairing may be cut at the front towards the bottom, in the area of the radiator, to achieve a better air supply to the radiator. The fairing in the area of generator, gearbox and crankshaft may be closed.
- c) Size and dimensions must be the same as the original parts without any addition or subtractions of design elements (except weight).
- d) The windscreen may be replaced by a duplicate of transparent material, the shape may be changed (so-called bubble form). The attachment must be as homologated. No surface / profiles may be added.
- e) No fairing (except a device as described under h)) may be added to motorcycles which were originally not equipped with a fairing. This device may not exceed a horizontal line drawn from one axis to the other one.
- f) The original combination instrument/ fairing brackets may be replaced. All other fairing brackets may be altered or replaced. Each attachment point of the front/rear wheel suspension must either be screwed to the frame or to the engine block. No part may protrude beyond the fairing (except foot pads). Modifications of the fairing for the purpose of achieving this part are permitted. The maximum distance between the device and the fairing is 5 mm.

- g) The original air ducts running between the fairing and the air box may be altered or replaced. The air inlets in the fairing must remain as original, additional air inlets are permitted, but the original shape from all perspectives must remain as original.
- h) The lower fairing has to be constructed to hold, in case of an engine breakdown, at least half of the total oil and engine coolant capacity used in the engine (minimum 5 litres). The lower edge of the openings in the fairing must be positioned at least 50 mm above the bottom of the fairing.
- i) The lower fairing must incorporate a maximum of two holes of 25 mm at the lowest point. These holes must remain closed in dry conditions and may only be opened in wet race conditions as declared by the Clerk of the Course.
- j) The front mudguard may be replaced by cosmetic duplicate of the original parts. The rear mudguard may be modified, replaced or removed.
- k) The front mudguard may be spaced upward for increase of tyre clearance.
- l) Rear mudguards fixed to the swing arm that incorporates the chain guard can be modified to accommodate larger diameter rear sprockets.
- m) All exposed edges must be rounded.

17. Fuel Tank

No modifications may be made to the fuel tank. The fuel cock must remain as originally produced by the manufacturer for use on the homologated motorcycle. A drain hole/device may be added. The fuel tank filler cap may be modified to a quick filling system. Fuel tanks with tank breather pipes must be fitted with non-return valves that discharge into a catch tank with a minimum volume of 250 cc made of a suitable material. All fuel tanks must be completely filled with fuel cell foam (preferably with "Explosafe®").

18. Seat

Seat, seat base and associated bodywork may be replaced with parts of similar appearance but the appearance from the front, from the rear and in profile must conform in principle to the originally production by the manufacturer for the homologated machine. The top portion of the rear bodywork around the seat may be modified to a solo seat and may be closed on the lower part towards the wheel. The seat/rear cowl replacement must allow for proper number display. All exposed edges must be rounded.

19. Wire Loom

The wire loom may be modified or replaced.

20. Battery

The size and type of battery may be altered.

21. Radiator and Oil Cooler

Additional radiators and oil coolers are permitted, including the necessary connections. The only accepted form is a square, rectangle, triangle or trapezium with flat side faces. The calculated total volume (not the capacity) of the component results from length x width x height exterior dimensions and may not exceed 3.500 cm³. The component must be fixed inside the fairing. The existing heat exchanger may be modified, replaced or removed. It is permitted to add cooler fans. The cooler expansion tank may be modified or removed. The cooler pipes from and to the engine may be replaced. The only permitted cooling liquid is water without any addition. The thermostat inlet may be removed or modified.

22. Air Box

The air box may be modified (the air box may not be replaced). The air filter element may be modified or removed. The air box must be completely closed around the induction bell mouth of the carburettor/ injection system. The carburettor/ injection system may be entirely within the air box. The air box drains must be sealed. All motorcycles must have a closed breather system. The oil breather line must be connected and discharge in the air box or in another oil collector box. The breather system (air box plus any breather oil collector box) must be capable of retaining a minimum of 1000 cc of discharged fuel in the event of drain pipe blockage.

23. Carburettors

Carburettors must remain as originally homologated. Carburettor jets and needles may be replaced. The holes in the slide-valve control may be modified. Electronic or mechanical enriching devices may be removed. Intake trumpets and bell mouths may be modified or replaced.

24. Fuel Injection System

No modifications are permitted. The injectors must be standard parts as on the homologated motorcycle. Intake trumpets and connections between injection body/throttle body and cylinder head are free. Modifications on the original fuel pump or on the original pressure regulator are permitted within the prescriptions of Article 01.38. Electronic or mechanical enriching devices may be removed. Variable length fuel injection intake tract devices that function while the engine is operating are not allowed, unless homologated. The throttle body may not be replaced or modified. The fuel injection management computer chip (EPROM) may be changed. The use of flash memory ("flash RAM") for fuel injection mapping is permitted. An additional control unit to modify the fuel mixture may be mounted and must be attached to the original connections. The original wire coil may not be modified.

25. Fuel Supply

Fuel lines may be replaced. It is permitted to use quick connectors. Fuel vent lines may be replaced. Fuel filters may be added.

26. Cylinder Head

No modifications are permitted. No material may be added or removed. The cylinder head gasket may be replaced. The valves, valve seats, valve guides, valve springs and support devices must remain as originally produced by the manufacturer for use on the homologated motorcycle.

27. Camshaft

No modifications are permitted. Chains/cam chains or cam belt tensioning devices may be replaced or modified. Tensioning devices for tooth belts are free.

28. Cam Sprockets

The cam sprockets may be modified or replaced to allow for another timing.

29. Crankshaft

Modifications, including polishing and lightening, are not allowed.

30. Oil Pumps and Oil Lines

No modification of the pump is allowed. Oil lines may be modified or replaced. Oil lines containing positive pressure, if replaced, must be of metal reinforced construction with swaged or treaded connectors.

31. Connecting Rods

Modifications, including polishing and lightening, are not allowed.

32. Pistons

Modifications, including polishing and lightening, are not allowed.

33. Piston Rings

No modifications are allowed.

34. Piston Pins and Clips

No modifications are allowed.

35. Cylinders

No modifications are allowed.

36. Crankcase and other Engine Cases

(Ignition, clutch and protecting caps)

No modifications, including polishing and lightening, are allowed. Oil leading components which risk to be damaged in case of an accident (e.g. engine and gearbox housing as well as ignition, clutch and generator covers) must be protected by additional means made of steel, light-alloy, carbon, Kevlar or composite material components. Engine case guards in the form of strengthened engine side covers may be installed. These covers must be made of the same material and may not be lighter in weight than the standard material. The original covers may be modified. The position and the dimension of the fairing components may not be modified. The pinion cover may be removed or modified. Covers of a dry clutch may be modified to achieve a better cooling.

37. Transmission/ Gearbox

No modifications are allowed. (Exception: shifting interior components). Electronic quick shift systems (ignition breaker) and shift indicators are permitted. Pinions, chain sprockets, chain pitch and size may be modified.

38. Clutch

No modifications are allowed. Friction and drive discs as well as clutch springs may be replaced but their numbers and operating system must remain original. The fluid container may be modified or replaced.

39. Ignition/ Engine Control System

Ignition box and engine control system/CDI may be modified or replaced. The ignition rotor and the corresponding sensor (pick-up) may be modified or replaced. Spark plugs, ignition cables and spark plug connectors may be replaced. It is permitted to use an ignition breaker device to optimize the gear shifting.

40. Alternator, Generator, Electric Starter

No modifications are permitted. The electric starter (including all relating starting system parts and connections) may however be removed. It must at all times (practice/ race) be possible to start the engine of the motorcycle, if necessary with the assistance of an auxiliary starting device (or electric starter). Annotation: The alternator must supply the battery with charging tension whilst the engine is running.

41. Exhaust System

Exhaust pipes and silencers may be replaced or modified. Position and arrangement of the silencer must remain as originally homologated. The number and shape of the exhaust final exit of the exhaust pipes are free, but there must be no sharp edges. Wrapping of exhaust systems is not permitted. The noise limit is FIM Art. 2.14. This noise limit must be respected throughout the whole duration of the event.

42. Fasteners/Connections

Standard fasteners/connections (Annotation: e.g. screws, bolts, etc.) may be replaced. Titanium fasteners may not be used. These fasteners may be drilled for safety wire, but intentional weight saving modifications are not allowed. Fairing fasteners may be changed to the quick disconnect type. Aluminium fasteners may only be used in non-structural locations.

43. The following items may be altered or replaced from those fitted to the homologated motorcycle:

Any type of lubrication, brake or suspension fluid may be used. Any type of spark plugs may be used. Any type of tubes (if fitted) or inflation valves may be used. Wheel balance weights may be removed, replaced or added. Gaskets and gasket materials. Painted external surfaces finishes and decals. Heat protection mats may be added or removed.

44. The following items may be removed:

-Lights and reflectors -Instruments, including cables and instrument brackets - Horn -Licence plate bracket -Tool box -Tachometer, drive shaft and drive - Speedometer -Radiator fan and wiring -Passenger foot rests -Passenger grab rail -Chain guard as long as it is not incorporated in the rear fender -Components screwed onto the sub frame -Ignition lock and wiring -Emission control system components inside or in the vicinity of the airbox -Control motors and their control cables from the area of the exhaust system -Lambda probe -Secondary air system -Air ducts in the area fairing/cooler

45. The following items must be modified or replaced:

Motorcycles must be equipped with a functional ignition breaker switch or button mounted either on the right or the left side of the handlebar (within reach of the hand while on the hand grips) that is capable of stopping a running engine. Throttle controls/throttle valves must be self-closing when not held by the hand. It is compulsory to fit a camber gauge. If, after the qualifying practice or the race, it is not working within 15 seconds a fine of 100.- will be imposed. Safety bars, centre and side stands must be removed, but fixed brackets must remain. All drain plugs must be wired. External screws and bolts in the area of an oil flow must be safety wired and secured with external oil filter. Where breather or overflow pipes are fitted they must discharge via existing outlets. The original closed system must be retained, no direct atmospheric emission is permitted. Where an oil breather pipe is fitted, the outlet must discharge into a catch tank located in an easily accessible position and which must be emptied before the start of a race. The minimum size of a catch tank shall be 250 cc for gear-box breather pipes and 500 cc for engine breather pipes. All motorcycles must have a closed breather system. Head lamps, rear lamps and turn indicators must be removed, but profile and front appearance of the motorcycle must be retained. The shape of the turn indicators, if integrated in the fairing, must be retained. The openings must be covered by a suitable material.

46. Additional Equipment

Additional equipment not on the original homologated motorcycle may be added (data acquisition, computer, recording equipment, etc.). Necessary attachment holes up to 6 mm may be drilled for this purposed. Electronic driving assistance is permitted.