

1st January

**APPENDIX - G** 

2018

THIS DOCUMENT WILL SUPERSEED ALL OTHER PREVIOUS VERSIONS OF APPENDIX G AND WILL BE EFFECTIVE UNTIL FURTHER NOTICE.

TO BE READ IN CONJUCTION WITH THE NATIONAL SPORTING CODE (NSC) OFTHE SRI LANKA AUTOMOBILE SPORTS.

Note: all other modifications, not specifically allowed or mentioned herein are prohibited.

SRI LANKA AUTOMOBILE SPORT

## APPENDIX G 2018

## THE INTERPRETATION OF THESE RULES AND REGULATIONS LIES WITH THE SLAS COUNCIL AND SUCH INTERPRETATION WILL BE FINAL AND BINDING

In The event of any dispute or inconsistency arising out of the interpretation, the English text shall prevail

Effective from 1<sup>st</sup> January 2018

HONY. SECRETARY
SRI LANKA AUTOMOBILE SPORTS

#### APPENDIX "G" - CLASSIFICATION OF AUTOMOBILES 2018

(Other than Karts)

#### Section 1-GENERAL SPECIFICATIONS

- G/01 These regulations shall apply to all automobiles other than Karts. The word "car" used in these regulations shall have the same meaning as the word automobile.
- G/02 Construction:
  - (A) Body shell:

The major structural part of the homologated vehicle, constructed of all parts which are permanently attached (by welding, brazing, bonding etc., around which are assembled the mechanical components and the bodywork. Components or panels which are attached by means of removable fasteners are not considered to be part of the body shell. The fitting of underbody protections is authorized in rallies only, provided that these really are protections which respect the ground clearance, which are removable and which are designed exclusively and specifically in order to protect the following parts: engine, radiator, suspension, gearbox, tank, transmission, exhaust, extinguisher bottles. These protections must be made from aluminum alloy, Kevlar, Carbon or steel and have a minimum thickness of 4 mm and 2 mm for steel. Nevertheless, it is possible to reinforce the upper part with metal or composite ribs and to add non-structural composite parts. Underbody protections may extend the whole width of the underside part of the front bumper only in front of the front wheel axis.

THE SILHOUETTE AND PLAN VIEW: must remain as per the original design. Widening or changing of the original

Fender design is strictly prohibited for Group SL-N and SL- E classes.

However for Group SL-A, SL-S, SL-T&J, SL-H, SL-GT the following regulations will be apply.

The wheel archers/ fenders may be extended, however the wheel rim or the tire cannot be jutting out of the fender when the wheels are straight.

All competitors should be familiar with the Appendix C, for license categories for respective classes.

#### (B) Body parts

- (a) Components or panels which are attached by means of removable fasteners are not considered to be part of the body shell.
- (b) All Cars (except formula) should have the bonnet stay Rod Fitted Permanently.(Cannot be mounted with wire/tape etc)
- (c) The chief scrutinizer of the Meet may exclude an Automobile, the construction of which is deemed to be dangerous.

#### G/03 Construction Requirements: All Automobiles to which these regulations apply shall:

- (d) Have four non-aligned complete wheels, of which at least two are used for steering and at least two for propulsion (excluding the spare).
- (e) Be equipped with brakes which comply with statutory requirements as to construction of motor vehicles, or if there is no mechanical system available for applying braking effort to at least two wheels, there shall be two hydraulic systems so that in the event of failure of one system, braking on at least two wheels remain effective. Dual circuit hydraulic systems are recommended.
- (f) Have a steering wheel, which has a full diameter rim. Aircraft type wheels are not permitted. (Except for Formulas)
- (g) Except Formulas all cars have to be fitted with a Front Windscreen Glass and The Driver's Side Door Glass
- (h) Have a protective bulkhead between the engine and the driver's/passenger's compartment, suitable and sufficient in the case of fire for preventing the passage of flames.
- (i) Have a complete floor rigidly supported and of adequate strength within the driver's/passenger's compartment.
- (j) Have the fuel tank mounted outside the Drivers/Passenger compartment (in the case of hatchback/ saloon type vehicles a protective bulkhead fabricated with steel or Aluminum between the luggage and passenger compartment is required if the fuel tank is fitted inside the luggage compartment of the car and have any fuel line(s) or vents passing through the driver's/passenger's compartment covered or enclosed in a solid metal cover. All openings situated within the interior body panel behind the driver's compartment should be covered
- (k) Have a transmission and exhaust system outside the driver's/passenger's compartment or beneath the floor of the car or secured in casings or covers of solid metal.
- (I) Except rear-engine single seated Racing Cars, have a bonnet or casing of metal or if original, solid non-inflammable material covering and/or surrounding the engine and which is secured by fastenings of adequate strength and positive locking action.
- (m) Have positive and secure fastening for all doors and all hinged or detachable parts of the bodywork.
- (n) Be fitted with sprung suspension between the wheels and the chassis. The suspension and steering movement shall be controlled to avoid the road wheels fouling any part of the car.
- (o) Be fitted with Door / Wing Mirrors on either side of the vehicle. Also with one mirror of a reflective surface as a rear view mirror within the car of at least 50 sq. cms, securely mounted in the original position as to give a clear view to the rear. The mirror glass shall be enclosed in a suitable frame with no sharp edges exposed such as would cause injury in the event of an accident.

#### (p) Roll cage - If a closed car:

Have a FIA homologated 6 point roll cage securely mounted inside the car or

Have a Roll cage of adequate strength mounted onto the chassis or body shell of the car. All joints of the cage have to be welded or Bolted (Mig Welding is Recommended). This roll cage must be braced to resist collapse in all directions and must be manufactured so that the top of the roll cage is at least 5 cms above the driver's helmet when the driver is in the normal driving position. For all classes the Minimum outer Diameter of the pipes used should be  $1^{1}/_{2}$  inches (38.1MM) and the Minimum Thickness of the material used should be a minimum of 1.6MM. The material should be of Steel Pipes or UN alloyed carbon steel tubing both of which should be none seem welded in between two joints.

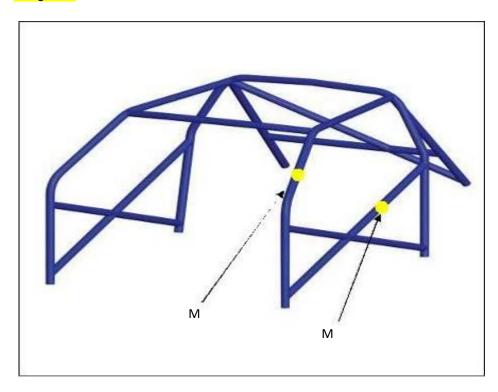
When mounting the Roll Cage to the Chassis/ Floor Board of the car a minimum base of 4x4 inches is required.

The Roll cage may be Welded or Bolted to the Floor Board of the car. If bolted a counter plate measuring the same size (4x4 inches) as the base must be fixed to the car.

The following design of the ROLL CAGE as a minimum requirement is Compulsory. Refer drawing n/1 for design of roll cage) A hole should be drilled with an 7mm size drill bit on the left side of the roll cage in order to measure its thickness. (Refer point "M" on roll cage diagram/ drawing). If the roll cage is being painted an area of 2 inches either way should be left bear (without paint) from where the hole is situated.

- For Hill Climbs, Autocross Meets Circuit Meets, Road Races and Special Stage Rallies a 6-point Roll cage
  - is Mandatory
- For TSD Rallies a 4 point Roll cage is recommended.

#### Image n/1





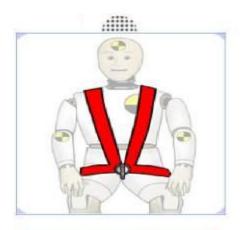
- Effective means of ventilating the driver's/passenger's compartment.
- Operable means of access (from both inside and outside) on either side to the driver's/passenger's

compartment sufficient in size for removal of the occupant.

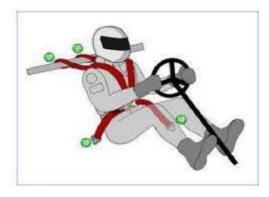
(q) If an open car, have a Roll bar of adequate strength mounted onto the chassis or body of the car. This roll bar must be braced to resist collapse in all directions and must be manufactured so that the top of the roll bar is at least 5 cms above the driver, when the driver is in the normal driving position.

#### (r)SAFTY HARNESS

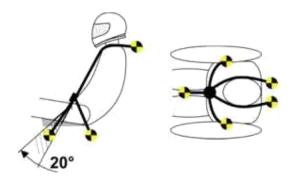
Be fitted with a safety harness belt of at least 4 points, with a central release. Compulsory for all classes (EXCEPT TSD) a minimum of 2 points of the belt should be securely mounted to the Chassis of the car according to diagram and specs given. Lap Straps are prohibited. (2/3 point seat belts are prohibited). The belts cannot be mounted to the same bolt with which the seats are bolted to the frame.(Refer images)

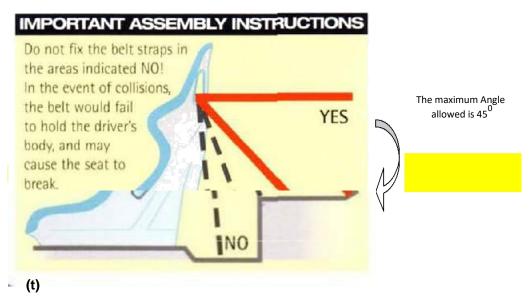












(s) Be fitted with a fire extinguisher containing a minimum of 1.0 Kg AFFF extinguisher .lt should be mounted securely within the reach of the driver when the driver is strapped in with the seat belt and is in the driving position. This will be applicable for all motor racing events including TSD Rallies. For Speed Rallies a Fire extinguisher with a minimum of 2.0 Kg AFFF extinguisher is Mandatory. The Extinguisher should have a Display/ Meter which shows the Condition and pressure of the contents inside.



\* If a Fire extinguishing system (properly wired and fixed) is installed within the car the Extinguisher can be mounted according to a given diagram by the manufacturer or to facilitate the length of the tubing. However the activation switch has to be fixed within the drivers reach when the driver is strapped in to the seat.



- (t) Except for rallies, have all hubcaps, number plates and wheel embellishers removed. All glass lenses to be taped down to prevent their shattering. For TSD and Speed Rallies Valid Number plates are compulsory. (These plates should match the number declared in the entry form for the particular event)
- (u) To have a general circuit breaker that will cut all electrical circuits, battery, alternator or dynamo, lights, hooters, ignition, electrical controls etc and must also stop the engine. This is compulsory for all classes. It must be spark-proof and will be accessible from inside and outside the car.

As for the outside, the triggering system of the circuit breaker will compulsorily be Situated at the lower part of the windscreen mounting of the left side for closed cars(Right hand drive) If a left hand drive car the mounting will be on the right hand side. This outside triggering system only concerns closed cars.



- (v) ALL BATTARIES WHICH ARE MOUNTED WITHIN THE PASSENGER COMPARTMENT AND THE LUGGAGE COMPARTMENT SHOULD BE SECURELY COVERED WITH A NON CONDUCTIVE SOLID MATERIAL. (Paper based material prohibited).
- (w) Have on each throttle, whether butterfly, slide or other type, a return spring which in the event of the throttle linkage becoming detached will in all cases return each throttle to the closed position.
- (x) Be fitted with tires which have not been re-treaded, recapped, repaired or in any way are re-conditioned.
- (y) Seats –A bucket type racing seat is compulsory. Seat supports must be attached to the shell/chassis via a minimum of 4 mounting points per seat, using bolts with a STEM LENGHT of 3 Cms and a minimum diameter of 8 mm and counter plates. Reclinable seats are prohibited. Please refer below pictures for recommended seats. (Picture for reference and as an example only)





(z) The original headlights can be made inoperative and covered with adhesive tape or alternately removed. The side lights may be removed. However except in formula type cars, the working brake lights should remain. In addition, a switch operable indicator light (permanent light) (red) must be fixed in a central position at the rear at approximately the height of the rear parcel tray. Working/ operative brake lights are compulsory. The original mounting positions of the tail lights/ brake lights have to be retained. (Unless specified in the each class regulation) The lenses of these lights have to be clean. The brightness of which to be tested at scrutinizing (Bulb 21watts). LED lights will be allowed only as permanent lights. (Size 2inches x 4inches). LED AND AFTER MARKET lights as brake lights are strictly prohibited UNLESS FACTORY FITTED BY MANUFACTURER.

The 21 watt permanent light and Brake lights when illuminated should be visible from at least 10 ft away will be compulsory for all gravel and Tarmac events except for Hill climbs and TSD Rallies.

(aa)At all Meets, (except TSD Rallies) all automobiles (Except Formula cars) must be fitted with front and rear tow hooks. Tow hook position should be highlighted and indicated clearly. However tow hooks cannot be supported by any crash/metal bars fixed additionally. IF screw type two hooks are used the end of the hook has to remain within the periphery of the body of the vehicle. If a car does not come with a permanent tow hook one should be fabricated

and fixed. Fixing of tow straps is recommended. Refer Image for ex.



**(bb) Mud flaps**: Rear mud flaps are mandatory at all rallies (Speed and TSD), circuit meets, super cross and autocross events (Gravel).Mud flaps minimum thickness 4mm and should be broader than the tyre being used. The flap cannot be sagging and minimum height from ground level should be 4 inches. If at any race meet there are two races of the same class irrelevant of the conditions mud flaps will be compulsory for both races.

**(cc) Fuel -** Only "fuels" commercially retailed in Sri Lanka & currently available at Ceylon Petroleum Corporation (CPC) and Indian Oil Company (IOC) are permitted to be used. No additives or oxides are permitted.

The highest grade of fuel that can be used is Aviation Gasoline.

As per the Ceylon Petroleum Corporation the Aviation Gasoline should conform to the following Parameters. (Refer Supplementary Regulations for additional details)

S.NO	PROPERTY	LIMIT		
1	APPEARANCE	Clear and Bright		
2	WATER,SEDIMENT,SUSPENDED MATTER	Nil		
3	TEL CONTENT, as lead g lead/liter	Max. 0.56		
4	COLOUR (Visual)	Blue		
5	Density @ 15'C kg/m3 Refer Report			
6	VOLATILITY (A) DISTILLATION			
6.1	Initial boiling point 'C	75.0 Max		
6.2	10% recorded @ 'C	75.0 Max		
6.3	40% recorded @ 'C	75.0 Max		
6.4	50% recorded @ 'C	105 Max		
6.5	90% recorded @ 'C	135 Max		
6.6	End point @ "C	170 Max		
6.7	Sum of 10% plus 50% Evaporated Temperatures "C  135.0 Max			
6.8	Residue % Vol	1.5 Max		
6.9	Loss % Vol	1.5 Max		
7	REID VAPOUR PRESSURE (RVP) kpa	Min 38.00 / Max 49.00		
8	CORROSION Cu 2 hrs@100"C 1 Max			
9	EXISTENT GUM (Air Jet) mg/100ml	3.0 Max		
10	WATER REACTION VOLUME CHANGE ml	2.0 Max		
11	FLUIDITY			
	FREEZING POINT 'C	-58.0 Max		

Aviation Gasoline cannot be mixed with any other type of fuel (Example - 90 or 95 Octane Petrol).

Having water/ Sediments or any other suspended matter in the fuel is not permitted. Having a clean fuel tank is the driver's responsibility. It is mandatory that competitors declare the type of fuel which is been used at the time of submitting an entry form for a meet. Further the same type of fuel should be used for qualifying and for racing/at hill climbs for both runs.

All Competitors (Except group SL-N, group F and group T&J) should make sure to retain a minimum of 8 liters of fuel in the fuel tank at the end of each event during the following as a mandatory requirement, Competitors failing to do so will be liable for immediate disqualification and or (Refer Supplementary regulations)

1) Closed Circuit meets (Tarmac/ Gravel) (Each race)

#### 2) Hill Climbs (each Run)

#### 3) Road Races

In the event of a protest and/or a club decides to check the fuel on a competition car (Please refer supplementary regulations)

#### **ALL CLASSES – GENERAL**

All body parts must be retained as per the original car. However, **only Polycarbonate (of minimum thickness 5mm)** may replace the Rear Glasses (Non Operable Glasses). The Front Windscreen and the Driver's Side Door Glass is Compulsory. Removing the headlights, seats, upholstery, dashboard and carpeting is permitted. The holes may be closed using sheet metal or plastic materials, and may be welded, stuck or riveted. Other apertures in the bodywork may

The front, rear and side glasses should be free from any sponsor stickers. Sponsor stickers maximum 5 inches wide at the top of the Front windscreen and Maximum 6 inches wide at the top of the rear glass are permitted.

The Driver should be visible from behind and the side. However cutting of holes for Ventilation purposes is allowed on the side glasses only, except the driver's door.

Passenger Seat – ALL REAR PASSENGER SEATS HAVE TO BE REMOVED. THE FRONT PASSENGER SEAT MAY BE REMOVED OR RETAINED. IF RETAINED IT SHOULD BE SECURLY MOUNTED AS PER THE REGULATIONS COVERING THE DRIVERS SEAT IN SECTION G/03/y.

POWER STEERING – CAN BE DISCONNECTED Gravel Tires are permitted for Gravel Events.

#### Name and Blood Group

\* The Name and blood group (as specified on SLAS license) should be displayed on the car.

For Closed Circuit meets (Gravel and Tarmac) For Road Races, Hill Climbs and Rallies the Name and Blood Group should be displayed on the Rear Left and Right size door glass only. (If Hatch back or a two door car on the rear side glass)(For Rallies Driver and Navigator should be clearly marked)

The height/Font Size of the Name and Blood Group should be 5cm and can be displayed only in White color. Name and Blood group written over any tape will not be permitted. No sponsor stickers will be permitted in this area.

#### G/04 Categories and Groups:-

Cars competing in events shall be distributed / Categorized into the following groups.

(a) Group
 (b) Group
 (c) Group
 (d) Group
 SLF : SLAS Homologated Cars
 SLF : Single - Seater Formula Cars

) Group SLF : Single - Seater Formula Cars
(e) Group SL-T&J : Trucks, Jeeps, Double Cabs, Single Cabs, SUV's.(Estates and

station wagons are excluded).

(f) Group SL-GT: Grand Touring Cars

(q) Group SL-S: Specials - Modified

(h) Group SL-E: Entry Level

Each of the above group/s will have a specific category of competition license

(A vehicle cannot be classified in more than one group). Upgrading is not allowed for one make events.

#### G/05 Where classification is by cubic capacity:

In the case of **supercharging** or **turbo-charging**, the normal cylinder capacity will be multiplied by 1.7 and the car will pass into the class corresponding to the fictive volume thus obtained.

In the case of  ${\bf rotary\ engines}$ , the capacity (cc) will be deemed to be the equivalent to twice (x2) the volume of the working chamber.

G/06 Where classification is by the Weight/Power Ratio:

#### **SECTION 2 –NOTES**

- 1. The Ratio will be calculated by dividing the SLAS Homologated weight expressed in Kilograms by the SLAS Homologated Horse Power expressed in Metric Units (hp).
- 2. Note: All categories of cars except FIA-N and SL-F should be homologated by
- 3. The following conversion factors will be used:

One		= 1.37
(01)	Kilowatt	hp
One		= 1.00
(01)	P.S	hp
One	Imperial Horse	= 0.9863
(01)	Power	hp
Gross	s Horse Power to	
Nett		= 0.90

Mandatory Requirements for SL-N need to be strictly enforced

All vehicles participating in Group SL-N should furnish the

Following documents with their entry.

- Documentary proof of manufacturer's weight and maximum power.
- Detailed specifications (cams, piston, all dimensions pertaining to engine) gearbox, suspension, ECU details provided by the manufacturers or manufactures agent pertaining to that specific model.
- If the vehicle has not been registered in Sri Lanka, the competitor Should provide the valid documentation of import of the said motor vehicle and this will be valid only for a period of 3 months.

Any variations will need SLAS special approval.

Clubs may apply in writing and obtain prior approval of the Council of SLAS to include One -Make car events provided a minimum of eight vehicles are assured with the proposal.

Mandatory Requirements for All Classes-All Competitors Participating in any of the SLAS approved race meets should strictly comply with the Minimum Safety standards, in relation to the race gear (Separate attachment).

#### **SECTION 3 - GROUPS & CLASSES**

#### 1.0 Group N Production Cars

- 1. Cars Over 1500cc up to and including 3500cc For Rallies only (SL N regulations).
- 2. Ford Laser / Mazda 323 up to 1500 cc BD, BE, BF Hatchbacks & Sedans

#### 1.2 Group F (FORMULA CARS)

- 3. Formula McLarens 1300cc CARB
- 4. Formula McLarens 1300cc EFI
- 5. Formula Cars up to 1600cc (Ford Formula)
- 6. Formula Cars Modified (Up to 1665 cc)

## 1.3 Group T&J (Trucks, Jeeps, Double Cabs, Single Cabs, SUV's. (Estates and station wagons are excluded).

- 7. Diesel up to 5500 cc
- 8. Open for Diesel & Petrol Vehicles (SUV's Allowed).

#### 1.4 Group A (Modified Cars)

- 9. **up to 1050cc**
- 10. Mini 7 (See separate regulations- One Make) no upgrading allowed.

#### 1.5 Group H

- 11. SL H Cars up to 1618cc (One make Honda 3 door Hatch back Cars only)
- 12. Subaru Legacy cars up to 2000cc

## 1.7 Group GT (Grand Touring Cars) (Engine interchange allowed as per SL-H regulations)

13. Up to 3500 cc

#### 1.8 Group E (Group E)

- 14. Cars up to 1000CC one make Nissan March (Entry Level)
- 15. Ford Laser/ Mazda 323 up to 1300cc BD,BE,BF Hatch backs & Sedans (Entry Level)
- 16. Mini up to 1275 One Make (Entry Level)

#### 1.9 Group S (Group S)

17. Cars up to 1500cc

#### **SECTION 4 - REGULATIONS & TECHNICAL SPECIFICATIONS**

#### **REGULATIONS FOR SL-N** Production Cars

#### 1. DEFINITION

Large scale series Production Cars, equipped with normally aspirated engines.

#### 2. HOMOLOGATION

At least 2,500 identical examples of these cars must have been manufactured in 12 consecutive months (One-Make Series classes are excluded from this rule). Proof of which should be produced.

#### 3. NUMBER OF SEATS

Cars must be at least a two seater whilst being manufactured.

#### 4. MODIFICATIONS OR ADJUNCTIONS ALLOWED OR OBLIGATORY

All the modifications which are not allowed by the present regulations are expressly forbidden. The only work which may be carried out on the car is that necessary for its normal servicing, or for the replacement of parts worn through use or accident. The limits of the modifications and fittings allowed are specified hereinafter. Apart from these, any part worn through use or accident can only be replaced by an original part or an OEM part identical to the original one. The cars must be strictly series production models identifiable by the homologation form data.

The entrant must produce the technical specifications of the engine declared including the maximum power developed by the engine. Such information must be from the manufacturer or a publication authorized by the manufacturer acceptable to the Council of Sri Lanka Automobile Sports.

Where a manufacturer produces the same series of engines in different variants SLAS will determine highest power and minimum weight to classify such variants.

#### 5. MINIMUM WEIGHT AND NETT POWER

At the time of homologation, the SLAS Classification Committee of the Sri Lanka Automobile Sports (SLAS) will establish the minimum weight for each make and model of car, based on the manufacturer's nett weight. Where a particular model of car has several weights declared, the SLAS will establish the lowest weight applicable in each case, and the competitor will be permitted to reduce the weight in accordance with the rules applicable in the SL-N Group.

The SLAS Committee will also determine the maximum nett power and/or cc of the engine as declared by the Manufacturer of the engine.

#### 6. ENGINE

#### a. Cylinder-Block, Cylinder-Head:

b. The Series Production Engine should be retained. Maximum re-bore allowed is the second oversize specified by the manufacturer, in relation to the original bore, Unless specified under individual class rules. The re-sleeving of the engine is allowed within the conditions as for re-boring and the sleeve material modified. Planning of the cylinder block and the cylinder head will be allowed up to a maximum of 0.50 mm. reducing the cubic capacity of a series production engine is strictly prohibited.

#### c. **Ignition:**

The make and type of the spark plugs, rev. limiter and high-tension leads are free. The electronic control unit and ignition components in the electronic unit are free, nevertheless, the system must be entirely interchangeable with the original unit i.e. the engine must work when the unit is replaced with the series unit). Sensors and actuators on the input side must be standard as must their function. Sensors may not be added even for the purpose of data recording. Any data recording system is forbidden, unless fitted on the homologated vehicle.

#### d. Cooling System:

The thermostat is free as is the control system and the temperature at which the fan cuts in. Locking system for the radiator cap is free.

#### e. Carburetors:

The original system and type of carburetor must be retained. The operating principal of the carburetor venture doors have to remain as per the manufacturer.

The components of the Carburetor which control the quantity of petrol entering the combustion chamber may be modified, provided that they do not have any influence over the quantity of air admitted. Air filter(s) are free and they may be removed however the original air cleaner housing should be retained.

#### f. Injection:

The original system must be retained. Components of the injection system situated Downstream of the air-flow measuring device, and which control the quantity of petrol .Entering the combustion chamber may be modified but not replaced, provided that they do not have any influence over the quantity of air admitted. The injectors may be modified or replaced in order to modify their flow rate, but without modifying their operating principle and their mountings. The injector rail may be replaced with another of free design.

#### g. Lubrication:

The fitting of baffles in the oil sump is authorized. Replacement oil filter cartridges are accepted in the same way as the original ones.

#### h. Engine Mounts:

The material of the elastic part of the engine mountings is free.

#### i. Exhaust

Free, as long as the original exhaust manifold is retained.

#### j. Cylinder Head Gasket:

The material is free, but not the thickness.

#### k. Flywheel:

The original flywheel should be retained.

#### Cruising Speed Controller: - This controller may be disconnected

## 7. Transmissio n Clutch:

The Clutch Plate and pressure plate should conform to manufacturer's specs.

#### **Gear Box:**

The original gear box ratios should be retained, i.e. no modifications are permitted.

#### **Final Drive:**

The final drive ratio should be as per the manufacturer's specification, i.e. no changes can be made, but in the event of One-Make Series they will be specified (please refer to separate rules applicable to **14.3 SL-N** cars).

#### 8. SUSPENSION

The manufacturer's original design type and mechanism must be retained. However, parts may be **replaced** in accordance with Clause **4.0**.

#### 9. WHEELS AND TYRES

**Wheels**: All 4 Rims should be of the same size, and of the same OFFSET and of the same DESIGN. All 4 Tyres should be of the same size and same Type/ Make. (Unless specified under particular class rules) Hubcaps must be removed.

#### Tyres:

The size of the tyre and the word "Competition tyres" are specifically excluded, except in "Off-track" (gravel and rallies etc). The tyres may be changed from the manufacturer's specification provided that the aspect ratio is equal to or greater than 50%, unless otherwise specified by the manufacture. By this rule, slicks, semi slicks/special racing tyres are specifically excluded.

#### 10. BRAKING SYSTEM

#### a. Brake Linings:

Free, as well as their mountings (riveted, bonded etc) provided that the contact surface of the brakes is not increased. Protection plates may be removed or bent. In the case of a car fitted with servo-assisted brakes, this device may be disconnected. The same applies for anti-lock braking systems.

#### b. Hand-Brake:

The mechanical hand-brake may be replaced with a hydraulic system.

#### 11. BODY, SHELL AND CHASSIS

No modifications may be made to the manufacturer's design of the series production body shell and/or chassis. Reinforcements, in the form of crash or similar bars inside or outside, are not permitted except for the fitting of a Roll Cage.

#### 12. LIGHTING SYSTEM

a. Lights The original headlights can be made inoperative and covered with adhesive tape or alternatively removed, side lights may be removed. However, a switch operable indicator light (red) must be fixed at a central position at the rear, at the height of normal brake lights/Mounted at the level on the parcel shelf. The holes may be closed using sheet metal or plastic materials, and may be welded, stuck or riveted. The other holes in the bodywork may be closed, by adhesive tape only. Working break lights are compulsory. The original tail lights and Brake lights have to remain in its original mounting position and be in operating condition unless otherwise specified in specific rules for classes.

#### b. Battery:

Free. However, must be securely fixed and covered to avoid short-circuiting and leaks. Refer G/03/t

#### 13. FUEL AND FUEL CIRCUIT

**a. Fuel:** Will be restricted to commercially available fuel. Nitrous and other oxides or any type of additive are not permitted.

#### REGULATIONS FOR SL-A

#### 1.0 DEFINITION

Large scale series production cars.

#### 2.0 HOMOLOGATION

At least 2500 identical body shells of these cars must have been manufactured in 12 consecutive months.

#### 3.0 NUMBER OF SEATS

Cars should have two (02) seats minimum in design at original production stage.

#### 4.0 WEIGHT:

C.C. Weight
Cars up to and including 1050 cc 650 Kg

#### **5.0 ENGINE MODIFICATIONS:**

All modifications are permitted, as long as a series production engine block and cylinder head of the same series of body shell used is retained and the cubic capacity (cc) does not exceed the class limit. "Reducing the Cubic Capacity of any engine is strictly prohibited.

- **6.0** For **Turbocharged** or **Supercharged** engines the capacity of the engine will be deemed to be the measured capacity multiplied by the factor 1.70.
- **7.0** For **Rotary engine**, the capacity (cc) will be deemed to be equivalent to twice (x2) the volume of the working chamber.
- **8.0 CHASSIS / BODYSHELL:** No modifications may be made in the manufacturer's design of the series production body shell and/or chassis. Reinforcements, in the form of crash or similar bars inside or outside, are not permitted except for the fitting of a Roll Cage However Seam welding, strengthening are permitted.

#### 9.0 BODY PARTS and GLASS ITEMS:

All body parts must be retained as per the original car. However, **only Polycarbonate (of minimum thickness 5mm)** may replace the Rear Glasses (Non Operable Glasses). The Windscreen and the Driver's Side Door Glass is Compulsory. Removing the headlights, seats, upholstery, dashboard and carpeting is permitted. The holes may be closed using sheet metal or plastic materials, and may be welded, stuck or riveted. Other apertures in the bodywork may be closed, by adhesive tape only. The original mounting points of the tail light/ brake lights have to be retained. The lenses of these lights have to be clean.

Buffers may be removed for Gravel circuit meets and rallies, compulsory for tarmac and hill climbs.

10.0 RE-BORING: Re-boring must not result in increased capacity so as to make the engine pass into a higher class or exceed the limit allowed by these regulations.

### **REGULATIONS FOR SL-H**

As per rules of Group SL-N of page 4 G/4.0 including the following rules.

WEIGHT / ENGINE / TRANSMISSION / SUSPENSION / BRAKES

- (a) The Engine could be interchanged with an earlier/later model of same make or series. However, such engines should conform to all standard specifications of the vehicle it was derived from. After market Oil cooler and oil catch tank is allowed. Adjustable struts and Camber adjusters are permitted.
- (b) When applying for **homologation** technical data should be submitted by the applicant (driver) not less than 45 days prior to approval being required. Only data/information from the manufacturer or publication with the given authority of the manufacturer will be accepted. The SLAS homologation committee acceptance or rejection is final and binding.
- (c) A car which has not changed from manufacturer's specifications will be homologated according to the FIA homologated weight. If this vehicle is not a FIA homologated vehicle the manufacturer's minimum weight will be taken for SLAS homologation. All cars to follow SLAS homologated minimum weight. In case where the driver has opted to upgrade the engine, then the minimum weight will be the homologated to the minimum weight of the car from which the engine was chosen. At any stage the driver will not be permitted to reduce the weight less than the original SLAS homologated weight of the car.
- SL –H 1618 CLASS minimum WEIGHT will be 1000KG Additional Rules Covering SL H Class (Addition to SL N Rules which are published separately), and are confined to this class only.

# SPECIFIC REGULATIONS FOR SL H up to and including 1618cc –One Make (HONDA ONLY) 3 door hatch back cars only.

#### A. SL - H 1618cc - HONDA

\* Specifications of the Honda B16 A engine, for Honda 1600cc. (SL – H – 1618cc only).

#### 1. **DEFINITIONS**

1.1 Manufacturer	HONDA MOTOR CO., LTD		
1.2 Engine	B16A		
Cylinder 1.3 capacity	1,596.0	cm (STD)	
2. Weight 1000KG			

3. ENGINE

```
3.1 Bore
                                       81mm
            3.2 Stroke
                                                        77.4mm
            3.3 Connecting rod
                                                      Steel
            3.4 Crank Shaft
                                                      Steel
            3.5 Sleeves
                                                       Cast-iron
                  Total minimum volume of a combustion chamber in the cylinder
            3.6 head
                                                                                         41.6 cm
                  Minimum volume of a combustion chamber in the cylinder
            3.7 head
                                                                                 42.2
                                                                                            cm
                  Maximum compression ratio (in relation with the
            3.8 unit)
                                                                            10.6:1
            3.9 Minimum height of the cylinder block
                                                                             mm
                                                               263
4 .Piston
            4.1 Material Aluminum-alloy
             4.2 Number of Rings 3
             4.3 Minimum weight
                                                            392
                                                                        g
             4.4 Distance from gudgeon pin center line to highest point of piston crown 13.5 +/- 0.1 mm
            4.5 Distance (+/-) between the top of the piston at TDC and the gasket plane of the Cylinder block +3.5
                                +/- 0.15mm
                  Piston groove
             4.6 volume
             4.7 Crankshaft Maximum diameter of big end journals 45.0
                                    c) Minimum
             4.8 Cylinder head:
                                    height
                                                                       141.95
                                                                                                   mm
             4.9 Thickness of the lightened cylinder head gasket
                                                                             0.7 +/-0.2
                                                                                              mm
             4.10 Valve Lift Inlet 10.7mm Exhaust 9.4mm
             4.11 Throttle bore diameter 60mm +/- 0.2 mm
            4.1
             2
                 Inlet Valve Diameter 33mm
            4.13 Exhaust Valve Diameter 28mm
                         Diameter of
    Camshafts
                          bearings -
                                                          \mathsf{mm}
    Primary cam
    Cam Dimensions
                                                                           A = 29.5 \text{ mm +/-0.1mm}
                                                        Inlet:
                                                                             B = 33.1 \text{ mm } +/-0.1 \text{mm}
                                                                              A = 29.5 \text{ mm } + /-0.1 \text{mm}
                                                        Exhaust
                                                                            B = 32.8 \text{ mm +/-0.1mm}
    Timing
                 Theoretical timing clearance
                                                      Inlet
                                                                 0.23 mm
                                                                                  Exhaust 0.26 mm
                       Cam Lifts (dismounted camshaft)
                                                                                  Exhaust
                       Inlet
                         3.6
                                                                           0 = 3.3 \, \text{mm}
                                                      3.2 mm
                                                                           5^{\circ} = 3.2 \text{ mm}
              3.5 \text{ mm} + 5^{\circ} =
                                3.5 mm
                                                      - 10° =
              3.4 \text{ mm} + 10^{\circ} =
                                                      3.1 mm
                                                                          10^{\circ} = 3.2 \text{ mm}
                                3.4 mm
                                                      - 15° =
              3.3 \text{ mm} + 15^{\circ} = 3.3 \text{ mm}
                                                      3.0 mm
                                                                               = 3.0 \text{ mm}
      15° =
```

- 30° =

 $+ 30^{\circ} = 2.3 \text{ mm}$ 

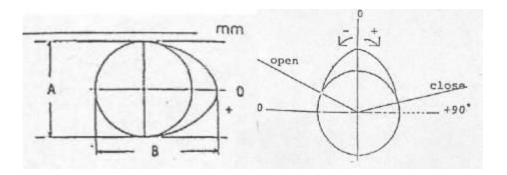
30° =

 $2.5 \text{ mm} + 30^{\circ} = 2.4 \text{ mm}$ 

```
2.2 mm
                                                                - 45° =
              1.3 \text{ mm} + 45^{\circ} = 1.0 \text{ mm}
                                                                1.0 mm
                                                                                + 45^{\circ} = 1.3 \text{ mm}
                                                               - 60° =
      60^{\circ} = 0.3 \text{ mm} + 60^{\circ} = 0.2 \text{ mm}
                                                                                 + 60^{\circ} = 0.3 \text{ mm}
                                                                0.2 mm
                                                               - 75° =
. 75^{\circ} = 0.1 \text{ mm} + 75^{\circ} = 0.1 \text{ mm}
                                                                0.1 mm
                                                                                  +75^{\circ} = 0.1 mm
90^{\circ} = 0 \text{ mm} + 90^{\circ} = 0 \text{ mm}
                                                                0 mm
                                                                                    + 90^{\circ} = 0 \text{ mm}
105^{\circ} = 0 \text{ mm} + 105^{\circ} = 0 \text{ mm}
                                                               : 0 mm
                                                                                  +105^{\circ} = 0 \text{ mm}
120^{\circ} = 0 \text{ mm} + 120^{\circ} = 0 \text{ mm}
                                                               : 0 mm
                                                                                  +120° = 0 mm
135^{\circ} = 0 \text{ mm} + 135^{\circ} = 0 \text{ mm}
                                                               : 0 mm
                                                                                  +135^{\circ} = 0 \text{ mm}
      150° + 150°
                  0 \text{ mm} =
                                         0 mm
                                                                :0 mm
                                                                                  +150^{\circ} = 0 \text{ mm}
```

18

#### TOLERANCE: ±/- 0.2mm and ±2 Deg



#### Secondary cam

Cam Dimensions A = 29.5 mm +/-0.1mm

> B = 35.0 mm +/-0.1 mmInlet:

A = 29.5 mm +/-0.1mm

Exhaust B = 34.7 mm +/-0.1mm

Theoretical timing clearance Inlet 0.23 mmExhaust 0.26 mm Cam Lifts(dismounted camshaft)

Inlet Exhaust 5.5 0 = 5.2 mm0  $\mathsf{mm}$ 

 $5.4 \text{ mm} + 5^{\circ}$ 5.1 mm  $5^{\circ} = 5.2 \text{ mm}$  $= 5.4 \, \text{mm}$  $10^{\circ} = 5.3 \text{ mm}$  $+ 10^{\circ} = 5.3 \text{ mm}$  $-10^{\circ} =$ 5.0 mm  $+ 10^{\circ} = 5.0 \text{ mm}$ 5.1 mm  $+ 15^{\circ} = 5.1$ - 15° = 4.8 mm  $+ 15^{\circ} = 4.8 \text{ mm}$ - 30° = 3.6 mm  $+ 30^{\circ} = 3.8 \text{ mm}$ 4.1 mm  $+30^{\circ} = 3.9 \text{ mm}$  $-45^{\circ} = 1.7 \text{ mm}$ = 2.4 mm $45^{\circ} = 2.5 \text{ mm} + 45^{\circ} = 1.8 \text{ mm}$ + 45° 0.7 mm  $+60^{\circ} = 0.3 \text{ mm}$ - 60° = 0.2 mm + 60° = 0.7 mm  $75^{\circ} = 0.2 \text{ mm}$  $+75^{\circ} = 0.1$  mm - 75° = 0.1 mm + 75° = 0.2 mm 0 mm + 90° = 0 mm - 90° = 0 mm + 90° = 0 mm + 105° = 105° =  $-105^{\circ} = 0 \text{ mm}$ 0 mm 0 mm +105° 0 mm  $0 \text{ mm} + 120^{\circ} =$ 120° = 0 mm  $-120^{\circ} = 0 \text{ mm}$ +120° 0 mm 135° =  $0 \text{ mm} + 135^{\circ} =$ 0 mm  $-135^{\circ} = 0 \text{ mm}$ +135° = 0 mm 150° =  $0 \text{ mm} + 150^{\circ} =$ - 150 = = 0 mm

> TOLERANCE:  $\pm$ /- 0.2mm and  $\pm$  2 Deg

0 mm

#### V-Tec cam

Cam dimensions V-Tec A = 29.5 + /-0.1mm

0 mm

Inlet: B = 36.4 + /-0.1 mm

+150°

A=29.5 +/-0.1mm

Exhaust B=35.7 +/-0.1mm

Timing Theoretical timing clearance Inlet 0.23 mm Exhaust 0.26 mm Cam Lifts(dismounted camshaft)

Inlet Exhaust

0	=	6.9	mm		0 = 6.2  mm
				6.2	
5° =	6.9 mm	+ 5° = 6	3.9 mm	- 5° = mm	+ 5° = 6.2 mm
10° =	6.8 mm	$+ 10^{\circ} = 6.8$	8 mm	- 10° = 6.0 mn	$+ 10^{\circ} = 6.1 \text{ mm}$
15° =	6.6 mm	+ 15° = 6.5	5 mm	$-15^{\circ} = 5.9 \text{ mm}$	$+ 15^{\circ} = 5.9 \text{ mm}$
				- 30° = 4.6	
30° =	5.6 mm	+ 30° = 5.3	3 mm`	mm	$+ 30^{\circ} = 5.0 \text{ mm}$
45° =	4.2 mm	+ 45° = 3.	1 mm	$-45^{\circ} = 2.5 \text{ mm}$	$+ 45^{\circ} = 3.6 \text{ mm}$
60° =	2.4 mm	$+60^{\circ} = 0.4$	4 mm	$-60^{\circ} = 0.3 \text{ mm}$	$+ 60^{\circ} = 1.8 \text{ mm}$
75° =	0.5 mm	$+75^{\circ} = 0.2$	2 mm	- 75° = 0.1 mm	+ $75^{\circ}$ = 0.4 mm
90° =	0.1 mm	+ 90° =	0 mm	$-90^{\circ} = 0 \text{ mn}$	$+ 90^{\circ} = 0.2 \text{ mm}$
105°		+ 105°			
=	0 mm	=	0 mm	$-105^{\circ} = 0 \text{ mm}$	$+ 105^{\circ} = 0 \text{ mm}$
120°		+ 120°			
=	0 mm	=	0 mm	$-120^{\circ} = 0 \text{ mm}$	$+ 120^{\circ} = 0 \text{ mm}$
135°		+ 135°			
=	0 mm	=	0 mm	-135° = 0 mm	$+ 135^{\circ} = 0 \text{ mm}$
150°		+ 150°			
=	0 mm	=	0 mm	- 150 = 0 mm	$+ 150^{\circ} = 0 \text{ mm}$
					+/- 0.2mm and

 $\pm$ /- 0.2mm and TOLERANCE:  $\pm$ 2

#### **Valve Springs**

<u>Inlet</u>

Number of springs per

valve 2

Exterior diameter of the SP 1N 20.2 +/- 0.2 springs mm OUT 28.9 +/- 0.2mm

Diameter of spring

wire IN 2.3 +/- 0.1 mmOUT 3.5 +/- 0.1mm

Number of spring OUT coils IN 7.74 mm 6.43

coils IN 7.74 mm

Maximum free length of the springs IN 36.71

mm OUT 40.92mm

Exhaust

Diameter of the manifold 42.0 +/- 1.5 exit(s) mm

Number of springs per

valve

Exterior diameter of the springs 29.3 +/- 0.2

mm

Number of springs

coils 6.44

Diameter of spring

wire 3.7 +/- 0.1mm

Maximum free length of the springs 41.95 mm

Exhaust is free. However the original (Manufacturers) Exhaust Manifold has to be retained.

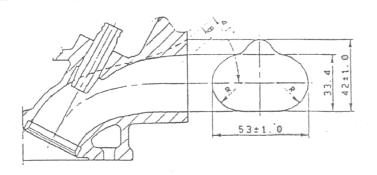
Ignition system

Number of coils - 1

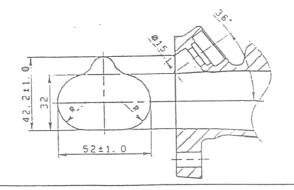
Re-sleeving of the engine is allowed within the conditions as for re-boring. Planning of the cylinder head will be allowed up to a maximum of 0.50mm. Total CC cannot exceed 1618cc.

#### Engine / =>>>

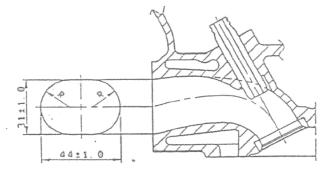
I Cylinderhead inlet ports, manifold side (tolerances on dimensions: -2%, +4%) シリンダーインテークボート、マニホールド側 (寸法公差: -2%+4%)



II Inlet manifold ports, cylinderhead side (tolerances on dimensions: -2%, +4%) インテークマニホールドポート、シリンダーヘッド側 (寸法公差: -2%+4%)

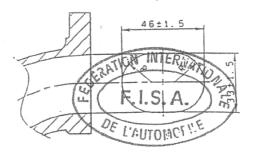


III Cylinderhead exhaust ports, manifold side(tolerances on dimensions: -2%, +4%) シリンダーヘッドエキゾーストボート、マニホールド側 (寸注公差:-2%+4%)



W Exhaust manifold ports, cylinderhead side (tolerances on dimensions: -2%, +4%) エキゾーストマニホールドボート、シリンダーヘッド側 (寸法公差: -2%+4%)





#### 6. TRANSMISSION / DRIVE

☐ Clutch 6.1 - Free

**1** st

2nd

3rd

4th

5<sup>th</sup>

Rivers

Final Drive

6.2 Fly Wheel Weight -- Minimum 7.4 KG

1

Limited slip differential (LSD) – USE OF AFTER MARKET LSD IS PERMITTED.

#### Gear Ratios as follows for B16A

3.230 2.105 1.458 1.107

> 0.848 3.000

4.40

#### 7. BODY PARTS and GLASS ITEMS:

All body parts must be retained as per the original car. However, **only Polycarbonate (of minimum thickness 5mm)** may replace the Rear Glasses (Non Operable Glasses). The Windscreen and the Driver's Side Door Glass is Compulsory.

Removing of headlights/ front lights, seats is permitted. All interior equipment's can be removed or replaced. **The original** 

mounting position of the tail light/ brake lights has to be retained. The lenses of these lights have to be clean. Head lights apertures may be covered with suitable material. Buffers may be removed for Gravel circuit meets and rallies only, compulsory for tarmac and hill climbs.

#### 8. OTHERS

8.1. The use of Data Loggers allowed.

- 8.2. Twin or multiple injectors are not allowed, unless it is original spec of the manufacturer.
- 8.3. Cooling System Radiator Size is free. Additional fans may be fixed.
- 8.4. Injection a fuel Pressure Regulator may be fixed.
- 8.5. Engine Mounts The Number of Mounts are free.
- 8.6. Wire Harness and ECU is Free.
- 8.7. Brakes are free.
- 8.8. Suspension is free.
- 8.9. 15 Inch Semi Slick Tires are permitted for Tarmac and Hill Climb Events.(Dot Rated and should br road Legal)
- 8.10. Original Fuel Tank, in its original mounting position should be retained.

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# Specific Rules for SL-E CARS up to and including 1000 cc – (One Make – Nissan March)

These rules should be read in conjunction with SLN rules

#### **Engine Specifications**

Class Weight - 760kg

Bore -71 mm & Stroke- 63 mm Using up to maximum of 0.50mm on  $2^{\text{nd}}$  oversize from the standard size pistons is allowed. Additional cc from using  $2^{\text{nd}}$  oversize pistons is allowed.

Head Height – 120 mm (minimum) / Block Height – 191 mm (minimum)

Throttle body Diameter at butterfly Side (Manifold side) – Maximum 46 mm

Inlet valve diameter - 27.5mm +\_ 0.2 mm (tolerance) / Exhaust Valve diameter - 22.5mm

Cam Lobe dimensions – Inlet Lobe Height 38mm – Base Circle 32 mm,

Exhaust Lobe Height 38mm - Base Circle 32 mm

Valve Springs wire Diameter- Inlet 2.7 mm, exhaust 2.7 mm / No of valves- Inlet 8, Exhaust8



Standard head gasket should be used.

Intake port -37 mm, 30 mm, 20 mm +/-1 mm (caliper should be placed on the outer edge of the port)



#### Exhaust port - 33 mm, 25 mm +/- 1 mm



Final drive ratio of 4.47 (maximum allowed)

Gear Ratios- Nissan March series gear box should be used (K10, k11 can be interchanged with newer models but gear ratios should as per Nissan march K11 and k10 series.)

Brakes – Upgrading and aftermarket permitted.

Suspension – The Use of competition Shock absorbers (Height or pressure adjustable) is prohibited. However After Market coil springs are permitted. Example – KYB/ KOBE Shocks will be permitted as long as they confirm to the above regulations. All other parts should remain standard including mounting points.

Wheel Rims and Tyres- Rim size allowed will be 13 inch (Spacers are strictly prohibited).

Racing tires, Slicks or Semi Slicks not permitted. 175 x 70 x 13 (Only CEAT tyres will be permitted for Tarmac Circuit, Road Races and Hill Climbs Events) \* Please contact the SLAS secretariat for information on obtaining tyres.

THE SILHOUETTE AND PLAN VIEW: must remain as per the original design. Widening, Cutting or changing of the Original fender design is strictly prohibited.

Air cleaner, Air Intake, cooling system, wiring Harness and ECU is free.

Limited Slip Differential (LSD) - Not Permitted.

Fly wheel - minimum weight should be 6 kg

Clutch: Competition/Aftermarket not permitted.

## **REGULATIONS FOR SL-GT (Cars up to 3500cc)**

#### 1GT. DEFINITION

Large scale series production cars.

#### **2GT. HOMOLOGATION**

At least 2500 identical body shells of these cars must have been manufactured in 12 consecutive months.

#### **3GT. NUMBER OF SEATS**

Cars must have four (04) seats minimum whilst being manufactured.

#### 4GT. WEIGHT:

Cars are subject to the following scale of minimum Net weights in relation to their cubic capacity.

C.C. Weight

Up to 3500 cc 1350KG. (To be weight with the driver) (The Car has to be weight with the driver seated in the driving seat.) Any driver failing to drive his/her car on to the weighing scale after the event will be liable for immediate disqualification.

#### **5GT. ENGINE:**

All modifications are permitted as long as a series production engine block is retained and the cubic capacity (cc) does not exceed the class limit. The Engine could be interchanged with an earlier/later model of the same make or series.

Oil cooler is free.

**SUSPENSION:** After Market allowed. Adjustable struts and camber adjustments free.

- **6GT.** For **Turbocharged** or **Supercharged** engines the capacity of the engine will be deemed to be the measured capacity multiplied by the factor 1.70.
- **7GT.** For **Rotary engine**, the capacity (cc) will be deemed to be equivalent to twice (x2) the volume of the working chamber.

#### 8GT. BODYSHELL/CHASSIS

No modifications may be made to the manufacturer's design of the series production body shell and / or chassis. However, the only modifications permitted to the body shell/ Chassis is seam welding, strengthening, mounting roll cage and that which is necessary to convert or upgrade a vehicle from a two wheel drive to a four wheel drive. Widening the Fender/s is allowed.

**9GT. BODY PARTS and GLASS ITEMS**: All body parts must be retained as per the original car. However, **only Polycarbonate (of minimum thickness 5mm)** may replace the Rear Glasses (Non Operable Glasses). The Windscreen and the Driver's Side Door Glass is Compulsory

The original tail lights and stop lights have to be retained and be in operating condition. Headlights/ front lights, seats, all interior equipment's can be removed or replaced. Head lights apertures may be covered with suitable material). Buffers may be removed for Gravel circuit meets and rallies only, compulsory for tarmac and Hill Climb Events,

Use of fiberglass on Mud Guards / Front Fenders Allowed, as an option to the original parts. (All other Material Prohibited)

Use of fiberglass bumpers for front and rear as an option to the original part is allowed as long as the original shape and mounting methods are retained. (All Other materials Prohibited). Hidden lurk bars behind the front and rear bumpers is strictly prohibited. Also aero dynamical devices will be allowed as long as the body shape does not change. Trim strips and body moldings may be removed.

- **10GT. RE-BORING:** Re-boring must not result in increased capacity so as to make the engine pass into a higher class or exceed the limit allowed by these regulations.
- 11GT. Turbocharged or Supercharged cars up to 3500 cc: The series production turbocharger or supercharger must be retained, further it should be fitted in the original mounting position as per the standard engine. Modifications to internals or housings or any other part among series production turbochargers or superchargers is strictly prohibited. No Modifications can be made to the Turbo Charger / Super Charger or to its attachments or its operating Mechanism. Only Modification permitted is to Facilitate the Restrictor been fitted to the Turbo Housing. The function and placement of the waste gate and actuator must be retained as per the manufactures specification. External Waste Gates are not allowed. Using of a Ball bearing or needle bearing turbo charger will be allowed only for those models that have been manufactured with the same.
- **12GT. RESTRICTOR:** All turbocharged or supercharged cars must be fitted with a 34mm restrictor fixed to the compressor housing. The 34 mm area should be maintained for a minimum of 3 mm. All the air necessary for feeding the engine must pass through the restrictor.

#### RESTRICTOR

The maximum internal diameter of the restrictor is 34 mm, maintained for a minimum distance of 3 mm measured downstream of a plane perpendicular to the rotational axis situated at a maximum of 50 mm upstream of a plane passing through the most upstream extremities of the wheel blades. This diameter must be complied regardless of the temperature conditions. This rule will apply to all Events Except for Hill Climbs.

The external diameter of the restrictor at its narrowest point, must be less than 40 mm, and must be maintained over a distance of 5 mm to each side.

The mounting of the restrictor onto the turbocharger must be carried out in such a way that two screws have to be entirely removed from the body of the compressor, or from the restrictor in order to detach the restrictor from the compressor. Attachments by means of needle screws are not authorized. (Having a loose restrictor will result in a disqualification)

In the event a car fails to stop when the Air intake through the Restrictor is checked at a Race Meet, It will result in a disqualification.

For the installation of this restrictor it is permitted to remove material from the compressor housing, and add to it, for the sole purpose of attaching the restrictor onto the compressor housing. The head of the screws must be pierced so that they can be sealed.

The restrictor must be made from a single material and may be pierced solely for the purpose of mounting and sealing which must be carried out between the mounting screws, between the restrictor (or the restrictor-compressor housing attachments), the compressor housing (or the housing/flang attachment) and the turbine housing (or the housing-flang attachment). See drawing No 1(In separate attachment) In case of an engine with two parallel compressors, each compressor must be limited by a restrictor with a maximum internal diameter of 24.0 mm and a maximum external diameter of 30 mm in the conditions set out above.

Normal aspirated engines with a CC of more than 2000 should have a restrictor, with an internal diameter of 37 mm (in the case of one restrictor) and 27 MM in the case of two (02) restrictor's. Restrictor will be compulsory at Speed Rallies, Autocross, Super cross, Rally cross, Tarmac, Street Circuit and closed circuit Meets.

#### 13GT. RACEWORTHINESS AND SAFETY

Competitors must ensure that the competition vehicle is race worthy and safe. The interpretation of this clause will lie with the Chief scrutinizer / Stewards of the meet.

#### 14GT. Tires

Tires are Free for Gravel, Rallies and Hill Climbs, However an one make <u>Tire</u> has been Approved and made compulsory for all Circuit (Tarmac) Race meets.

TIRES permitted (Under Dry Conditions) for qualifying and Racing will be as follows.

- HANKOOK VENTUS Z214
- SIZE 245/40ZR17
- COMPOUND (C51)

#### 15GT. Fuel Tank

The fuel tank should be mounted in the original manufactures mounting position.

### **REGULATIONS FOR SL-T&J**

Specific Regulations apply for SL-T&J

Specific Rules & Regulations for SL-T&J Double and Single Cabs, SUVs and other 4-wheel drive vehicles

- 1. **DEFINITION:** Double Cabs, Single Cabs, Special Utility Vehicles and other fourwheel drive vehicles.
- 2. MINIMUM WEIGHT: 900 KG
- 3. **MODIFICATIONS:** As per Group SL- S, all modifications permitted. However, any vehicle considered endangering other competitors as deemed by the Chief Scrutinizer/ Stewards of the Meet or the Organizing Committee will not be permitted to participate.

The original tail lights or lights of similar size have to be fixed in its original mounting points. Modified or individual lights will not be permitted.

# REGULATIONS FOR GROUP SL –S Up to and Including1500CC

- 1. Homologation Any Body shell/Chassis
- 2. Change/Modification of Engine, Gearbox, Suspension and Braking System is permitted, provided the engine is originally designed for/ or derived from any automobile of any make or model. Motor cycle/boat/aircraft engines not allowed.
- 3. Turbo, Rotary and super charged engines, are allowed, provided that it does not exceed the class limit.
- 4. Number of Seats Minimum 02 front mounted seats when being manufactured.
- 5. Maximum Cubic Capacity up to and including:1500 cc
- 6. Minimum weight to be. 725KG
- 7. The original tail lights or lights of similar size have to be fixed in its original mounting points. Modified or individual lights will not be permitted

#### **ANY OTHER CLASSES:**

Any One make class based on proposals submitted to SLAS which conforms to SLAS competition requirements will be considered with a minimum of 60 days' notice.

# REGULATIONS FOR FORD LASER/MAZDA 323 1300 cc one make series (To be read in conjunction with SL-N Regulations) (SL-E - Entry Level)

Specific Rules and Regulations for Ford Laser/Mazda 323 up to 1300 CC - 4 Door Sedan/Hatchback.

A.1 Body shell and Chassis: Only BD, BE, BF series 4-door sedan/hatchback

A.2 Weight (Minimum): 790 kg

**A.3Engine:** E3 (chain driven single or dual)

a). Bore : 77 mm / Stroke 69.6 mm / CC 1297

b) Maximum re-bore allowed is the second oversize specified by the manufacturer(.50) in relation to the original

bore, The re-sleeving of is allowed within the conditions as for re-boring and the the engine sleeve material modified.

Planning of the cylinder block and the cylinder head will be allowed up to a maximum of 0.50 mm. However the

maximum cylinder capacity increased due to reboring cannot exceed 1314cc.

Cylinder head Port sizes:

Intake Port Size: 33mm	Tolerance: + / - 0.6mm
Exhaust Port Size : 28mm	Tolerance: + / - 0.6mm

c). Compression Ratio:

Increase in Compression Ratio up to a maximum of 9.5:1 Permitted by facing of cylinder head or block only.

d). Camshaft : Camshaft must remain as per manufacturer's specifications.

e). Flywheel : Minimum weight 7 kg.

f). Gear Box : Standard (Ratios 1<sub>st</sub> Gear 3.416, 2<sub>nd</sub> Gear 1.842, 3<sub>rd</sub> Gear 1.290, 4<sub>th</sub> Gear 0.918, 5<sub>th</sub> Gear 0.775).

g). Final Drive ratio : 4.105.

h). Tyres : 175 or 185 x 70 x 13 (Only CEAT tyres will be permitted for Tarmac

Circuit, Road Races and

Hill Climbs Events) \* Please contact the SLAS Secretariat for information on obtaining tyre.

- i) Rim Size: 5.5J x 13 (Spacers are strictly prohibited)
- j) The original tail lights or lights of similar size have to be fixed in its original mounting points. Modifies or individual lights will not be permitted.
- k) THE SILHOUETTE AND PLAN VIEW: must remain as per the original design. Widening, cutting or changing of the original fender design is strictly prohibited.

# REGULATIONS FOR FORD LASER/MAZDA 323 1500 cc one make series – series (To be read in conjunction with SL-N Regulations).

Specific Rules and Regulations for Ford Laser/Mazda 323 up to 1500 cc - 4 Door Sedan/Hatchback.

- 1. Body shell and Chassis: Only BD, BE, BF series 4-door sedan/hatchback.
- 2. Weight (Minimum): 865 kg
- 3. Engine: E5 (chain driven single or dual)
  - a). Bore: 77 mm / Stroke 80 mm / CC 1491.

## b)Maximum re-bore allowed is the second oversize specified by the manufacturer(.50) in relation to the

original bore, The re-sleeving of the engine is allowed within the conditions as for re-boring and the sleeve material modified. Planning of the cylinder block and the cylinder head will be allowed up to a maximum of 0.50 mm. However the maximum cylinder capacity due to reboring cannot exceed 1510cc.

**Cylinder head Port sizes:** 

In take Port Size:33mm	Tolerance: +/- 0.6mm
Exhaust port Size: 28mm	Tolerance: +/- 0.6mm

c). Compression Ratio:

Increase in Compression Ratio up to a maximum of 9.5:1 permitted by facing of cylinder head or block only. d). Camshaft: Camshaft must remain as per manufacturer's specifications.

- e). Flywheel: Minimum weight 7 kg.
- f). Gear Box: Standard (Ratio's  $1_{st}$  Gear 3.416,  $2_{nd}$  Gear 1.842,  $3_{rd}$  Gear 1.290,  $4^{th}$  Gear 0.918,  $5_{th}$  Gear 0.775).
- g). Final Drive ratio: 3.850.
- h). Tyres: 175 or 185 x 70 x 13 (Only CEAT tyres will be permitted for Tarmac Circuit, Road Races and Hill Climbs Events) \* Please contact the SLAS Secretariat for information on obtaining tyre.
- i) Rim Size: 5.5J x 13 (Spacers are strictly prohibited)
- j) The original tail lights or lights of similar size have to be fixed in its original mounting points. Modified or individual lights will not be permitted.
- k) THE SILHOUETTE AND PLAN VIEW: must remain as per the original design. Widening, cutting or

changing of the original fender design is strictly prohibited.

# Specific Rules for GROUP E CARS up to and including 1275cc – (One Make Mini 1275cc) (SLE - Entry Level)

These rules shall apply to *Mini / Mini clubman cars manufactured up to 2000*No alternations are allowed on the Engine, Cylinder Head or Gearbox for that model apart from those modifications specifically allowed below

#### 1. ENGINE

All cars must be raced with standard Mini 1275 cc, non-Cooper/S engines and gearbox.

#### Standard 1275 cc Cylinder block is mandatory.

All '12 A' '12 H' series blocks.

It is permitted to convert a car normally supplied or homologated as a 850 cc / 998 cc/1275 cc (or vice versa) provided that all the elements that would have had to have been present in the original form of the vehicle according to these regulations are still present after conversion.

The Connecting Rod Can only be replaced with part # BHM 1137

Bore (2.78in + .060in = 2.84in) 70.61mm + 1.5mm = 72.14mm x (3.2) 81.28mm (1275 cc)

Maximum bore size permitted 70.61 + 1.5mm = 72.14mm

Only the Standard mini 1275cc (12G940) Cylinder Head must be retained. The Ports of the Original / above mentioned 1275cc Cylinder heads may be enlarged. 12A & 12H engine blocks will be permitted. Minimum bore diameter permitted is (+ 60 piston) 72.14

Crankshaft Any production Mini with standard stroke 81.28 mm permitted.

#### Camshafts- Camshaft standard.

Checkina

Clearance 0.017 in

Inlet Valve Lift - 0 Exhaust Valve Lift - 0 .263

.263 in / in

Camshaft Duration: 230 degree / 252
Inlet Exhaust degrees
Lobe center 106 degree/ 109
angle : Inlet Exhaust degrees

Optimizing valve timing is permitted. Provided the original wheels are retained.

The use of venire adjustments is prohibited.

Valves and springs – Double Valve Springs Permitted. Inlet 33.32mm dia., Exhaust 29.38mm dia. (as per specs of Haynes Manual)
Pistons and rings [minimum of 3 rings] must be of original specification and material and cannot be modified. The pistons can be flush with the block face, but no part of it can protrude beyond the block face.

The original / standard piston can only be replaced with unmodified aftermarket pistons.

The connecting rod can only be replaced with part number:

A Series - 2 Nos. 12G123 } Gudgeon Pin

> 2 Nos. 12G126 } Bush Type

A+ Series - 2 Nos. 12A1997 } Interference 2 Nos. 12A1999

} Fi Type

The only flywheel permitted is the Cast Iron or Steel one fitted as standard on the A or A+ engines. Reshaping of the cylinder head inlet and exhaust ports and/or valve chambers is allowed.

Cooper S Crankshafts Part Nos: 12 A 595, 12A1454, BHM 1436 not allowed

#### 2. INDUCTION SYSTEM

A single 1.75" mm SU HS6 Carb or single 1.75" (HIF 44) carburettor is permitted. The air filter element free.

#### 3. EXHAUST SYSTEM

The exhaust system is free.

#### 4. IGNITION SYSTEM

The ignition system shall only be with a contact breaker system.

The ignition distributor should be as fitted as standard, Nos. 25D4 / 45D4 / 49D4 / 59D4 / 65DM4.

Electronic ignition allowed.

The use of magnetic field electrical breakers will be permitted in place of platinum electrical breakers.

#### 5. COOLING

The standard engine driven cooling fan should be retained in original working order.

#### 6. TRANSMISSION & CLUTCH

The combined weight of the flywheel and clutch assembly [clutch plate and back plate] should not be less than 5.9kg.

#### **Prohibited**

Aluminum or competition flywheel / racing gears

#### 7. GEAR RATIOS

Final Drive STD helical cut 3.211 RATIO (pinion 19-teeth and crown wheel 61 teeth). [A+ Series]

The 29-tooth Primary Gear and the 29-tooth Input Gear must remain standard along with the intermediate gear [idler]

37-tooth and must not be interchanged with any other ratios. The intermediate gear must remain standard. (29:37:29)

#### **Prohibited**

Locked, torque reducing or any form of limited slip diff prohibited.

The replacement of any gears from the main gear cluster and lay gear as fitted to the Mini 1000 that will in any way alter the ratios is not allowed.

#### 8. SUSPENSION

Rear radius arms cannot be lightened or altered.

The vehicle may be lowered by alteration of cone/doughnut only.

The original shock absorber length, mounting points and supports cannot be changed. Only pressure Adjustable shock absorbers Allowed. Negative Camber not allowed.

#### 9. BRAKES Prohibited

MINIFINS NOT ALLOWED.

### 10. WHEELS, TYRES & STEERING

Wheel width and size: up to 6 inches by 10 inches OR 12 inches.

#### **Prohibited**

The drilling or grooving of any brake parts. Split-rimmed wheels are prohibited.

Racing tires, Slicks or Semi Slicks not permitted. 155 x 65 x 12 (Only CEAT tyres will be permitted for Tarmac Circuit, Road Races and Hill Climbs Events)  $^{*}$  Please contact the SLAS secretariat for information on obtaining tyres

#### 11. ELECTRICAL SYSTEM

The lights [head, side and tail] must be taped over and remain standard and be in working condition.

#### 12. MINIMUM WEIGHT: 620 kg

Ballast should be a solid mass fixed with a minimum of two bolts to the passenger seat floor.

## II. SPECIFIC REGULATIONS FOR MINI 7 ONE MAKE SERIES – SL - A

These rules shall apply to Mini / Mini clubman cars manufactured up to 2000

No alternations are allowed on the Engine, Cylinder Head or Gearbox for that model apart from those modifications specifically allowed below

#### 1. ENGINE

All cars must be raced with standard Mini 998 cc, non Cooper/S engines and Gearbox.

#### Standard 998 cc 'A' series or 'A'+ cylinder block is mandatory.

All '99H' series blocks.

It is permitted to convert a car normally supplied or homologated as a 850 cc to a 998 cc/1275 cc (or vice versa) provided that all the elements that would have had to have been present in the original form of the vehicle according to these regulations are still present after conversion.

#### Bore 64.58mm x 76.2mm (1040 cc)

Maximum bore size permitted 64.58 + 1.5mm = 66.08mm

Only the Standard mini 1000cc Cylinder Head must be retained. The Ports of the Original / above mentioned 1000cc Cylinder heads may be enlarged.

**Crankshaft -** Any production Mini with standard stroke 76.20 mm permitted.

Camshafts - Free

Optimizing valve timing is permitted. Provided the original duplex wheels are retained.

The use of venire adjustments are prohibited.

Valves and springs – Double Valve Springs Permitted.

Inlet 1 1/6in inch dia., Exhaust 1 inch dia.

**Pistons and rings** [minimum of 3 rings] must be of original specification and material and cannot be modified. The pistons can be flush with the block face, but no part of it can protrude beyond the block face.

The original / standard piston can only be replaced with unmodified aftermarket pistons.

#### **The connecting rod** can only be replaced with part number:

A Series - 2 Nos. 12G123 } Gudgeon Pin/ 2 Nos. 12G126 Bush type A+ Series - 2 Nos. 12A1997 } Interference/ 2 Nos. 12A1999 } Fi Type

The only **flywheel** permitted is the Cast Iron or Steel one fitted as standard on the A or A+ engines. Reshaping of the cylinder head inlet and exhaust ports and/or valve chambers is allowed.

Cooper S Crankshafts Part Nos: 12 A 595, 12A1454, BHM 1436 not allowed

#### 2. INDUCTION SYSTEM

A single 1.5" / 38.1 mm SU HS4 Carb or single 1.5" (HS4/HIF) carburetor. The air filter element free.

#### 3. EXHAUST SYSTEM

The exhaust system is free.

#### 4. IGNITION SYSTEM

The low tension switching of the ignition system shall only be with a contact breaker System. The ignition distributor should be as fitted as standard.

Nos. 25D4 / 45D4 / 49D4 / 59D4.

#### 5. COOLING

The standard engine driven cooling fan should be retained in original working order.

#### 6. TRANSMISSION & CLUTCH

The combined weight of the flywheel and clutch assembly [clutch plate and back plate] should not be less than **5.9kg**.

#### **Prohibited**

Aluminum or competition flywheel / racing gears

#### 7. GEAR RATIOS

**Final Drive STD helical cut 3.76 RATIO** (pinion 17-teeth and crown wheel 64-teeth).

The **29-tooth Primary Gear** and the **29-tooth Input Gear** must remain standard along with the **intermediate gear [idler]** 37-tooth and must not be interchanged with any other ratios. The intermediate gear must remain standard. [A+ Series]

The **24-tooth Primary Gear** and the **24-tooth Input Gear** must remain standard along with the **intermediate gear [idler]** 31-tooth and must not be interchanged with any other ratios. The intermediate gear must remain standard. [A Series]

#### **Prohibited**

Locked, torque reducing or any form of limited slip diff prohibited.

The replacement of any gears from the ain gear cluster and lay gear as fitted to the Mini 1000, which will in any way alter the ratios, is not allowed.

#### 8. SUSPENSION

Rear radius arms cannot be lightened or altered.

The vehicle may be lowered by alteration of cone/doughnut only.

The original shock absorber length, mounting points and supports cannot be changed. Adjustable shock absorbers Allowed. Negative Camber Allowed.

#### 10. BRAKES

Prohibited -MINIFINS NOT ALLOWED.

#### 11. WHEELS, TYRES & STEERING

Wheel width and size: up to 6 inches by 10 inches OR 12 inches.

#### **Prohibited**

The drilling or grooving of any brake parts /Split-rimmed wheels are prohibited/ No racing slick tyres allowed.

#### 12. ELECTRICAL SYSTEM

The lights [head, side and tail] must be taped over and remain standard and be in Working condition/The original mounting position of the tail lights/ stop lights have to be retained.

#### 13. MINIMUM WEIGHT: 620 kg

Ballast should be a solid mass fixed with a minimum of two bolts to the passenger seat floor.

# REGULATIONS FOR SL -H SUBARU LEGACY CARS UP TO 2000CC (ONE MAKE SERIES)

- Make: Only Subaru Legacy
   Weight (Minimum): 1100kg
- 3. *Engine:* 2000cc (Non Turbo)
- 4. *All other rules as per SL H rules*5. Any Subaru non turbo engine and Subaru gear box is permitted.

It was decided that the SUBARU LEGACY one make series be run under SL – H regulations from cars from 1989 to 1999 bearing the following chassis prefixes only –

MODELS allowed: BC, BJ, BF, BD, BG and BK.

