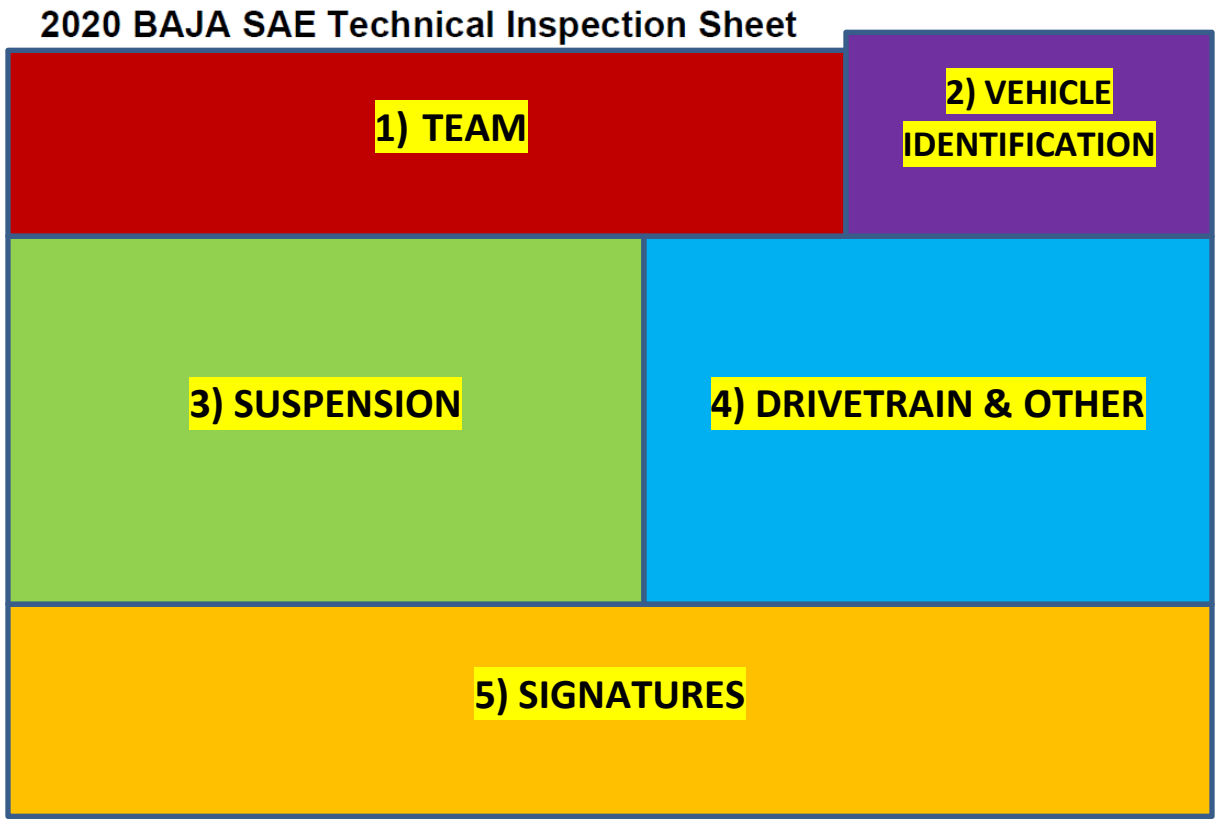
Baja SAE Technical Inspection Sheet Instructions

Introduction

To reduce time spent in technical inspection, it is important to have your vehicle self-inspected and the technical inspection sheets properly filled out before the event. This document will provide instructions for filling out a complete technical inspection sheet.

Cover Page

The cover page contains information regarding both the vehicle and the team, and can be divided into 5 categories: Team, Vehicle Identification, Suspension, Drivetrain & Other, and Signatures. The following sections will show how each section is to be filled out.



Team

The team section is where the official school name is listed. If the school has a specific team name, fill that out after the school name. Each driver should be listed in this section. If the team has more than 12 drivers, make a note in position 12 and list the remaining drivers on the back of the cover sheet.

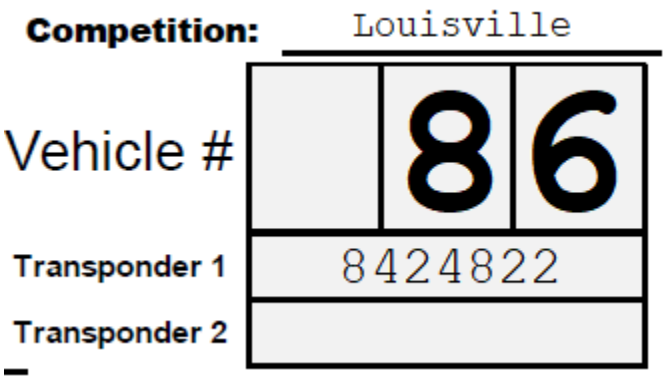
2020 BAJA SAE Technical Inspection Sheet

School: Dartmouth Regional Vocational School - Tiger Racing

1	Steve Rogers	5	Ted Johnson	9	DRIVER
2	Sarah Dunsworth	6	Julian Tremblay	10	DRIVER
3	Randall Bobandy	7	Ricky LaFleur	11	DRIVER
4	Barb Lahey	8	George Green	12	DRIVER

Vehicle Identification

Each vehicle will have a different number for each competition. The right-most box is for the ones-digit, the middle box is for the tens-digit, and the left box is for the hundreds-digit. Teams must record a transponder ID for each transponder used in the event. A maximum of two transponders is allowed.



Printing

To reduce technical inspection times, it is imperative that the technical inspection sheets are printed in the correct manner. The technical inspection sheets are laid out such that each area of the vehicle may be split up among different technical inspectors.

The technical inspection sheets should be printed in landscape (horizontal) format, single sided, and not stapled. The form should be filled out with legible handwriting and be kept free of wrinkles, tears, liquids, fire, and chemicals.

Suspension

The suspension section is where the team will write down some basic information about tires, wheels, and dampers. For some events, the organizer may place identifier labels on tires and wheels. These spaces will be filled out at the time of technical inspection, so leave those fields blank. If any component is custom made by the team, put the school initials in “Make”, and “Custom” in “Model”.

Front Suspension				Rear Suspension			
Tire Size	23	7	10	Tire Size	25	8	12
Tire Make	Maxxis			Tire Make	Kenda		
Tire Model	RAZR 2			Tire Model	Bear Claw		
Tire Left ID	NTI Only			Tire Left ID	NTI Only		
Tire Right ID	NTI Only			Tire Right ID	NTI Only		
Damper Make	DRVS			Damper Make	Elka		
Damper Model	Custom			Damper Model	Stage 1		

Drivetrain and Other

Transmission, gearing, and other components must be recorded by the team. Like for suspension, if a team constructs a custom part, use the school initials for “Make” and “Custom” for “Model”. For a majority of teams, a traditional belt-drive CVT will be used for a transmission. If this is the case, be sure to weigh the flyweights and springs. Also indicate the number of weights used. For final drive ratio, this ratio should be the speed reduction between the CVT/transmission secondary shaft and the rear wheel. For example, at Endurance teardown, a tech inspector will spin the rear tire one revolution and count the number of revolutions of the CVT secondary. For the example below, the technical inspector should count nine and one-half turns of the shaft for every one turn of the rear wheel. 4WD check and custom parts will be noted by technical inspectors as needed.

Transmission		Final Drive	
Type	Belt Drive CVT	Ratio	9.5
Make	CVTech	4WD Check	NTI Only
Model	Powerbloc ALT	Other	
Primary Flyweight	3 x 260 g	Hydraulic System	No
Primary Spring	50 g	Custom Part 1	NTI Only
Secondary Spring	42 g	Custom Part 2	NTI Only
4WD Equipped	No	Custom Part 3	NTI Only

Signatures

Once the team has self-inspected the vehicle, the team captain will sign and date the cover page, and the faculty advisor will sign as well. The technical inspector will sign the inspection sheet once the technical inspection is complete. The box marked “Final Tech” will be initialed by the team captain *when directed by the lead technical inspector at the completion of technical inspection* to indicate they understand rule C.2.6. Briggs and Stratton will sign in their respective box once the engine check is successfully completed.

Required Signatures

Team Captain	Steve Rogers 4-1-2020
Faculty Advisor	Jim Lahey 4-2-2020
Technical Inspector	SIGN AND DATE

NTI Use Only			
In		Tech Num.	
Out			
In		Tech Num.	
Out			
In		Tech Num.	
Out			

C2.6 - "As Approved" Condition
This form will be used to certify at any time that a vehicle has the original components presented at technical inspection. *Any vehicle found to have a tire/wheel and/or drivetrain configuration not matching this form shall receive a 75 point penalty for each time they are found in violation.*

FINAL TECH

Briggs & Stratton

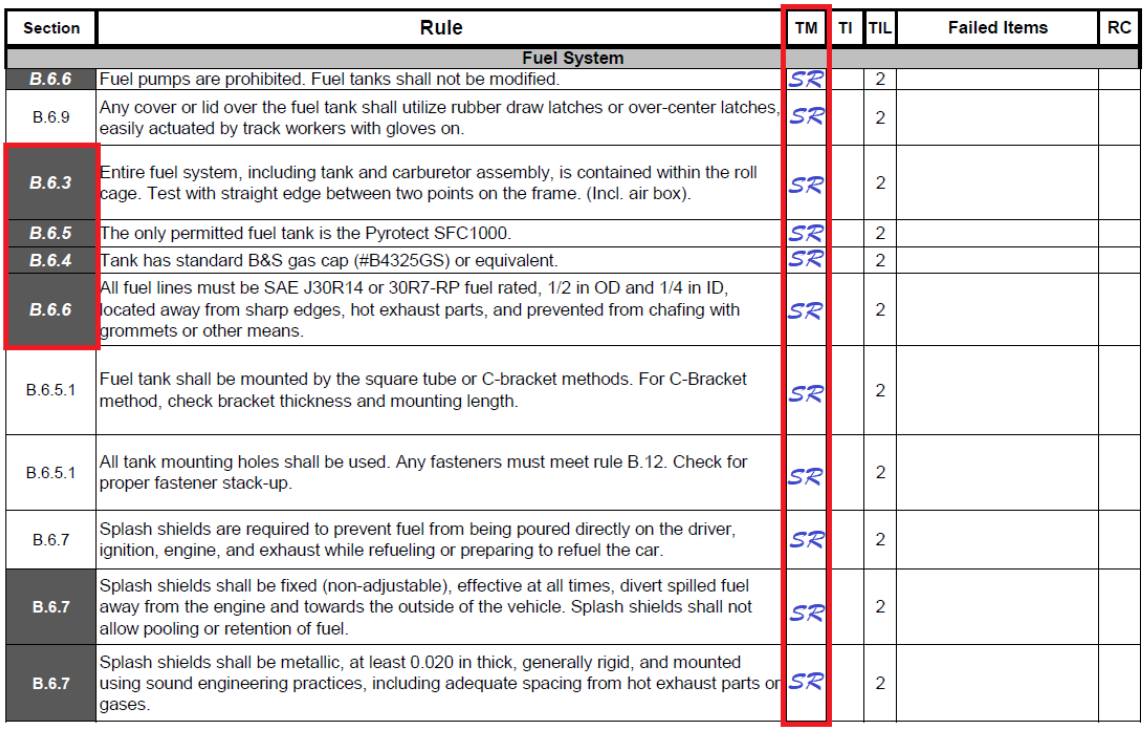
Inspection Pages

The inspection pages following the cover page list the individual checklist items inspected by technical inspectors. The dark colored rule numbers in the “Section” column indicate rules that are generally quantitative, measureable, and are readily complied with. At the discretion of the technical inspector, teams failing to meet the requirements of three or more of these rules will be asked to leave technical inspection, fix the items currently noted, fully review their self-inspection, and return to the line. An example is highlighted by the left box in the example image.

The column marked “TM” is for “Team”, and is the column where the team records their self-inspection. The person performing the inspection for that specific line should record their initials. Items with check marks, x’s or other marks are not acceptable. This column is highlighted by the right box in the example image. The column marked “TI” is for “Technical Inspector”, and is the column where the technical inspector records if the team has met the requirements of the rule. “TIL” is for “Technical Inspector Level”. Technical Inspectors have three levels: Lead Technical Inspector, Level 2, and Level 1. Technical Inspectors qualified for Level 1 items may only inspect items listed as Level 1. Level 2 technical inspectors may inspect items listed as Level 1 and Level 2. The Lead Technical Inspector may perform the final inspection review, and may inspect items listed as Level 1 and Level 2.

At the bottom of each page, there is a space to indicate the car number. Be sure to fill out your car number on each page so any lost sheets may be directly returned to your team.

“Failed Items” is a location where the technical inspector will indicate what is not meeting the inspection criteria and what must be fixed. “RC” is for “Re-check” and is where a failed item re-check is recorded.



Section	Rule	TM	TI	TIL	Failed Items	RC
	Fuel System					
B.6.6	Fuel pumps are prohibited. Fuel tanks shall not be modified.	SR		2		
B.6.9	Any cover or lid over the fuel tank shall utilize rubber draw latches or over-center latches, easily actuated by track workers with gloves on.	SR		2		
B.6.3	Entire fuel system, including tank and carburetor assembly, is contained within the roll cage. Test with straight edge between two points on the frame. (Incl. air box).	SR		2		
B.6.5	The only permitted fuel tank is the Pyrotect SFC1000.	SR		2		
B.6.4	Tank has standard B&S gas cap (#B4325GS) or equivalent.	SR		2		
B.6.6	All fuel lines must be SAE J30R14 or 30R7-RP fuel rated, 1/2 in OD and 1/4 in ID, located away from sharp edges, hot exhaust parts, and prevented from chafing with grommets or other means.	SR		2		
B.6.5.1	Fuel tank shall be mounted by the square tube or C-bracket methods. For C-Bracket method, check bracket thickness and mounting length.	SR		2		
B.6.5.1	All tank mounting holes shall be used. Any fasteners must meet rule B.12. Check for proper fastener stack-up.	SR		2		
B.6.7	Splash shields are required to prevent fuel from being poured directly on the driver, ignition, engine, and exhaust while refueling or preparing to refuel the car.	SR		2		
B.6.7	Splash shields shall be fixed (non-adjustable), effective at all times, divert spilled fuel away from the engine and towards the outside of the vehicle. Splash shields shall not allow pooling or retention of fuel.	SR		2		
B.6.7	Splash shields shall be metallic, at least 0.020 in thick, generally rigid, and mounted using sound engineering practices, including adequate spacing from hot exhaust parts or gases.	SR		2		

Summary

Technical inspection sheets are critical documents and care must be given in their creation and storage. Take time to perform your own inspections, or perhaps get a local mechanic to help perform your own inspection. Make sure to triple-check and declare the correct information about your vehicle. More often than not, penalties are the result of carelessness with filling out the technical inspection sheets than malintent. Print your sheets in the correct format and protect them from damage. Engineering is not just about designing systems and components, but is also about managing and organizing the information for those systems and components.

2025 BAJA SAE Technical Inspection Sheet

Event: _____

School: _____

1	DRIVER	5	DRIVER	9	DRIVER
2	DRIVER	6	DRIVER	10	DRIVER
3	DRIVER	7	DRIVER	11	DRIVER
4	DRIVER	8	DRIVER	12	DRIVER

Vehicle #	100	10	1

Transponder 1	
Transponder 2	

Front Suspension				Rear Suspension				Transmission		Final Drive	
Tire Size	D	W	R	Tire Size	D	W	R	Type	CVT / Manual / Other	Ratio-Rear	Transmission input to tire
Tire Make	Must match on tire			Tire Make	Must match on tire			Make	Must match on transmission	Ratio-Front	Transmission input to tire
Tire Model	Must match on tire			Tire Model	Must match on tire			Model	Must match on transmission	4WD Check	NTI Only
Tire Left ID	NTI Use Only			Tire Left ID	NTI Use Only			Primary Flyweight	Weigh in Grams	Other	
Tire Right ID	NTI Use Only			Tire Right ID	NTI Use Only			Primary Spring	Weigh in Grams	Hydraulic System	NTI Only
Damper Make & Model	Must match on damper			Damper Make & Model	Must match on damper			Secondary Spring	Weigh in Grams	Custom Part 1	NTI Only
Damper ID	NTI Use Only			Damper ID	NTI Use Only			In Car Radio	Yes / No	Custom Part 3	NTI Only

Required Signatures

Team Captain	SIGN AND DATE
Faculty Advisor	SIGN AND DATE
Technical Inspector	SIGN AND DATE

NTI Use Only			
Tech Num. 1		Tech Num. 2	
Tech Num. 3		Tech Num. 4	
Tech Num. 5		Tech Num. 6	

C2.6 - "As Approved" Condition
This form will be used to certify at any time that a vehicle has the original components presented at technical inspection. *Any vehicle found to have a configuration not matching this form shall receive a 75 point penalty for each time they are found in violation.*

FINAL TECH

ENGINE TECH

Section	Rule	TM	TI	TIL	Failed Items	RC
Design Constraints						
C.2.2.2	Technical sheets are printed single sided, horizontal format, and not stapled.			FR		
B.1.5.1	Wheeled vehicles must have four (4) or more wheels not in a straight line.			FR		
B.1.5.1	Tracked vehicles must meet the requirements of General Notice 2025-01			NTI		
B.1.6	Max width 1626 mm (64 in.) with wheels pointing forward			FR		
Roll Cage - Material & Documentation						
B.3.2.17	Newly completed roll cage specification sheet must be present and filled out.			FR		
B.3.7.1	Calculations, purchase invoices, and material certifications of the materials used in the roll cage and bracing shall be required at technical inspection. Must be within 5 years of Jan 1 of the competition year.			FR		
B.3.2.16	Primary roll cage members must be constructed of steel tubing with a minimum carbon content of 0.18%., OD of 25 mm (1.0 in), wall thickness of 3.0 mm (0.120 in).			FR		
B.3.2.16	Roll cage documentaiton package was accepted online. If status is not accepted, documentation package must be verified on site.			FR		
B.3.2.3	Secondary members may be circular or rectangular in shape and have a minimum OD (or width) of 25.4mm (1.0 in) and a minimum wall thickness of 0.89mm (0.035 in).			FR		
B.3.2.16	Check thickness of Primary and Secondary Roll Cage Materials in a minimum of two places each. (1.57 mm (0.062 in) and 0.89 mm (0.035 in) minimum)			FR		
B.3.2.15	One destructive testing (sample #1) and one destructive inspection (sample #2) weld sample for each process performed by each roll cage welder is required at technical inspection. Weld samples shall be permanently marked with welder name, welder school, and weld date. A completely separated destructive test speciment (sample 1) will not be accepted.			FR		
B.3.2.15	Weld samples are constructed of the same Primary Material and with the same process(es) as the inspected vehicle.			FR		
B.3.2.15	Weld samples exhibit superior weld strength with respect to the base material.			FR		
B.3.2.15	Weld samples exhibit sufficient and substantially uniform weld penetration.			FR		

Section	Rule	TM	TI	TIL	Failed Items	RC
Roll Cage - Geometry (Section 1)						
B.3.2.1	Straight members may not extend longer than 1016 mm (40 in.) between Named Points and bent roll cage members may not be longer than 838 mm (33 in) unsupported. Bent members shall not contain an individual bend greater than 30 deg. or comply with B.3.2.4			FR		
B.3.2.5	Front two points (C) shall be joined by a lateral cross member (CLC); Located on the top plane of the roll cage. Lateral cross members not less than 8 in. long.			FR		
B.3.2.6	RRH must have continuous vertical members and driver seat cannot protrude aft of the RRH plane.			FR		
B.3.2.6	Rear Roll Hoop (RRH) must be substantially vertical (+/- 20° from vertical).			FR		
B.3.2.7	LDB max 127 mm (5 in) from top and 127 mm (5 in) from bottom of roll cage. Min angle of RRH and LDB ≥ 20°. A single, straight LDB exempt from length requirement.			FR		
B.3.2.12	Front Bracing (FBM) max 45 deg. between vertical and FBMUP w/o Front FAB. No angle requirement if front braced.			FR		
B.3.2.12	FBM_{UP} joins points C to D. FBM_{LOW} joins points D to F.			FR		
B.3.2.9	LFS members must extend from RRH to points forward of driver's heels which are connected by the FLC (and ELC for nose cars).			FR		
B.3.2.12.1	If the RHO and FBM_{UP} are not made of a continuous tube, a gusset is required at point C.			FR		
B.4.2.4.3	Tubes anchoring safety harness shoulder straps shall be mounted to the primary welded structure of the vehicle and within the plane of the RRH. Shoulder belt harness tube must extend from one side of the RRH to the other.			FR		
B.3.2	Roll cage members and tubes shall be joined by welding the entire circumference and shall not exhibit any injurious defects such as cracking, burn-through, cold lapping, or insufficient penetration.			FR		
B.3.6	Members which are drilled through both walls for the purpose of mounting fasteners or routing accessories shall be reinforced with a weld-in sleeve no larger than 50% of the member diameter.			FR		

Section	Rule	TM	TI	TIL	Failed Items	RC
Roll Cage - Geometry (Section 2)						
B.3.2.13	Projected to side view, roll hoop bracing triangulation angles must be at least 20°.			FR		
B.3.2.13.1	If front roll hoop bracing is used, it must connect FBMUP, LFS, and SIM <5 in from Point C. Point P must be vertically supported to Point Q. Points P and Q only exist with a complete front FAB system.			FR		
B.3.2.13.2	If rear bracing is used, there must be a structural triangle connecting point B (within 2 in) to either point A or S (within 2 in). The aft vertex of the structural triangle must also be connected to whichever point A or S (within 2 in) is not part of the structural triangle (this member is exempt from the maximum 30° bend rule). The aft vertices must be joined the lateral cross member RLC. Members connecting to A must have a 45 degree angle with ALC.			FR		
B.3.2.8	RHO must be >1041 mm (41 in) above driver seat; LC at point C must be >305 mm (12 in) forward of seat back; and RRH must be >737 mm (29 in) wide at 686 mm (27 in) above seat. All dimensions are with respect to the template in B.3.2.8			FR		
B.3.2.10	The side impact members shall run between 203 mm (8 in) and 356 mm (14 in) above the lowest point of the seat in contact with the driver.			FR		
B.3.2.11	The UST shall connect the LFS members and pass below the seat.			FR		
B.3.2.14	All butt joints are reinforced with an internal sleeve and exhibit at least 102 mm (4 in) linear distance of weld bead.			FR		
B.3.5	Bolted roll cage meets specifications.			FR		
Roll Cage - Driver Clearance						
B.3.3.1	The roll cage is large enough for the largest driver. The driver's helmet will be at least 152 mm (6 in) away from a straight-edge applied to any two places outside of the structure.			FR		
B.3.3.1	The driver's torso, knees, shoulders, elbows, hands, and arms must have 76 mm (3 in) of clearance to the outside structure of the cockpit, less the roll cage padding.			FR		
B.3.2.10	The structure provides 25 mm (1.0 in) of clearance between a straight edge applied to any two points on the roll cage and any part of the driver's foot while actuating all pedals through the full range of motion.			FR		
B.3.1	The roll cage **protects** the driver as intended. No tubes showing any cracks or deformation. Final judgment will rest with National Technical Inspectors.			FR		

Section	Rule	TM	TI	TIL	Failed Items	RC
Driver Restraint						
B.4.4	SFI 45.2 rated head restraint must be mechanically fastened (No Velcro or adhesive) to the vehicle. Head restraints may also be mechanically fastened or integral to the driver's seat.			1		
B.4.2	Minimum 5-point harness with 3-inch webbing and a single metal-to-metal quick release lever buckle. No cam lock systems.			1		
B.4.2.1	All driver restraint systems must meet either SFI Specification 16.5/16.1, or FIA specification 8853/98. Not older than 3 years as of Jan 1st of competition year. New style tags only.			1		
B.4.2.4.2	The shoulder webbing shall be laterally spaced between a minimum of 152 mm (6.0 in.) and 229 mm (9.0 in.) center to center and be directly routed towards the driver's shoulders.			1		
B.4.2.4.6	Restraint webbing may pass through the firewall as long as the firewall construction is extended to protect the harness webbing.			2		
B.4.2.4.3	Shoulder belts shall be looped around a straight frame tube meeting secondary member requirements and have provisions to limit lateral webbing movement.			2		
B.4.2.4.3	The shoulder harness must be securely mounted to the primary welded structure of the vehicle and within the plane of the RRH. Check for proper adjuster routing.			2		
B.12.2	Lap and anti-sub belt mounting tabs shall be no less than 0.090 in. thick, have at least 1.3125 (1-5/16") in of weld length per tab, have no holes other than those required for bolts, and not display significant deformation when pulled on. Fastener and tab hole diameters must be the same.			2		
B.4.2.5.2	Lap belt tabs must be in double shear, free to pivot and align with the direction of the load. Tabs must be welded to the primary structure. Webbing may not be routed against the seat as to impede the function of the restraint system.			2		
B.4.2.6	Anti-submarine belts may be bolted by tabs, wrapped around a tube, or wrapped around a bolt in double shear. Webbing redirections over 30° are unacceptable. Webbing must not significantly twist between mounting point and latches.			2		
B.12 B.4.2.5.2 B.4.2.6.3	All fasteners in the **driver's harness** system shall meet requirements of B.12. Lap belt and/or anti-submarine belt bolts must be at least 12 mm or 7/16 in.			2		

Section	Rule	TM	TI	TIL	Failed Items	RC
Seat						
B.4.5	Vehicle must have a conventional seat with the driver's back angle between 90 and 65 degrees from horizontal. Suspension seats are prohibited.			2		
B.4.5.3.2	The seat has a distinct back plane (not the firewall), with at least two mounting points no closer than 6 inches apart, at or near the RRH to tubes meeting at least secondary frame member requirements.			2		
B.4.5.3.2	The seat has a distinct bottom plane (not the skid plate), with at least four mounting points no closer than 6 inches to tubes meeting at least secondary frame member requirements.			2		
B.4.5.3.3	Unmodified FIA or SFI rated seats are permitted if factory mounting procedures are followed.			2		
B.4.5.3.3	Any tubes mounting the seat shall be terminated at both ends			2		
B.12.2	All tabs used to mount seats shall be at least 0.125 in thick accomodating a fastener of 0.25 in. diameter. Seat tab dimensions shall meet requirements of B12.2. Spacers shall not be greater than 0.5 in thick. Radially drilled tubes must be sleeved.			2		
B.4.2.6.2	Driver anti-submarine belt angle is between 0 and 20 degrees aft of the chest line.			2		
B.4.2.4.5	Belts shall be adjustable for different drivers. Minimum excess webbing is 4 inches.			2		
B.4.5	Seat works in concert with the safety harness to secure driver.			2		

Section	Rule	TM	TI	TIL	Failed Items	RC
Fuel System						
B.6.6	Fuel pumps are prohibited. Fuel tanks shall not be modified.			2		
B.6.9	No cover or lid shall obstruct the view of the fuel tank by trackside observer positioned directly behind the vehicle.			2		
B.6.3	Entire fuel system, including tank, carburetor, and air cleaner assembly, is contained within the roll cage. Test with straight edge between two points on the frame. Air cleaner relocation prohibited.			2		
B.6.5	The only permitted fuel tank is the Pyrotect SFC1000. No stickers or coatings.			2		
B.6.4	Tank has standard B&S gas cap (#B4325GS) or equivalent.			2		
B.6.6	All fuel lines must be SAE J30 / 30R7 rated, 3/16" ID to carburetor, (1/4 allowed to fuel tank) located away from sharp edges, hot exhaust parts, and prevented from chafing or tension by grommets or other means. Fuel line is continuous thru splash shield to carb and secured by #4 or Kohler clamps.			2		
B.6.5.1	Fuel tank shall be mounted by the square tube or C-bracket methods. For C-Bracket method, check bracket thickness and mounting length. No cantilevered fuel tank mounts allowed.			2		
B.6.5.1	All tank mounting holes shall be used. Any fasteners must meet rule B.12. Check for proper fastener stack-up. Metallic washer OD must be between 0.812 in. and 0.875 in.			2		
B.6.7	Splash shields shall be fixed (non-adjustable), effective at all times, divert spilled fuel away from the engine and towards the outside of the vehicle. Splash shields shall not allow pooling or retention of fuel anywhere on the vehicle.			2		
B.6.7	Splash shields shall be metallic, at least 0.020 in thick, generally rigid, and mounted using sound engineering practices, including adequate spacing from hot exhaust parts or gases. **Fuel shall be directed away from the flow of exhaust gases.**			2		

Section	Rule	TM	TI	TIL	Failed Items	RC
Guards						
B.9.1	All powertrain components, such as gears, belts, chains, sprockets, etc. must have guarding/shielding systems to protect against hazardous release of energy, pinch points/entanglement, and release of lubricating oil.			2		
B.9.2.2.4	Axleshafts and associated CV or universal joints forward of the firewall connecting the wheels / uprights to the front differential do not require guarding for track workers but must meet requirements of B.8.5 and B.8.6. All other universal joints, CV joints, or similar must be protected with HROE guarding.			2		
B.9.2	Shields protecting against release of hazardous energy must extend around the periphery of ***all*** rotating assemblies and be wider than the component they are guarding. Hydraulic hoses must be jacketed with ISO 3457 jacketing.			2		
B.9.2.1	Material protecting against hazardous release of energy shall be 1010 steel plate or better and at least 1.524 mm (0.060 in) thick or 6061-T6 aluminum or better and at least 3.0 mm (0.12 in) thick. All other materials are prohibited. Overlapping of multi-part covers shall not be less than 0.5 inches along the periphery. Gearboxes are exempt from overlap requirements.			2		
B.2.7.13	Mufflers must retain the OEM protective cage around the muffler. Relocated mufflers are not permitted. Check for proper exhaust clearance.			2		
B.9.5	Unmodified, OEM, stock guarding shall be considered to meet the requirements of B.9.2 and B.9.3. Modified OEM components will be inspected for compliance with B.9.2 and B.9.3.			2		
B.9.3	All moving powertrain parts must be guarded **on all sides** so that a finger cannot be inserted into them. U-Joints, axle shafts, brake rotors and hubs in the final drive stage are exempt. OEM CVT covers are subject to finger guard requirements. Non rigid, fabric coverings such as “Frogskin”, Ceconite, and neoprene are unacceptable.			2		
B.9.4	Gearboxes shall be equipped to prevent fluid loss during rollover or thermal expansion by bellows, vent tubes, or other acceptable means. Gearbox vent systems shall be kept clear of the exhaust system by 100 mm (3.94 in.).			2		
B.9.2.2.2	4WD/AWD driveshafts in the cockpit shall be surrounded by material meeting B.9.2.2, and completely separate the driver from the rotating equipment. Driveshafts must have finger guarding and hoops for hazardous energy containment			2		

Section	Rule	TM	TI	TIL	Failed Items	RC
Cockpit						
B.8.3	This firewall must be metal, and at least 0.508 mm (0.020 in) thick. Large cutouts, including those for CVT and engine air intakes are explicitly prohibited. Drivetrain clearances are permitted per B.9.1 and have no gaps larger than 6.35mm (0.25in)			1		
B.8.7	Open universal joints in steering system near drivers feet shall be covered to prevent entanglement. Steering linkages shall be properly shielded and covered with a sturdy, full-width cover.			1		
B.8.6	Skid plate material must be metal, fiberglass, plastic, or similar material. Skid plates shall extend the length of the cockpit and prevent debris and foreign object intrusion into the cockpit.			1		
B.8.8	Fire extinguisher mounted on the right side, easily accessible, with the top below the driver's eye, and the top half above the SIM. Mounting bolts must meet B12 and match hole geometry. The pull knob shall be free and clear of any access obstructions. ***Radial clearance to the pull knob shall be 2.5 in.***			1		
B.12.2	The fire extinguisher may be mounted with traditional 0.125 in thick tabs per B.12.2, or by fuel tank style tabs per B.6.5.1.			1		
B.8.8.4	Mount must resist shaking loose, but the extinguisher must be easily removable.			1		
B.8.8	Two extinguishers with a Minimum UL rating of 5 B C; must be equipped with a **manufacturer installed dial gauge**; gauge must be **readable and properly charged**. Must have OEM pin retainer. No zip ties or tape.			1		
B.8.8.3	Fire extinguisher mount is the approved Drake or DV8 quick-release mount. No other mounts are acceptable.			1		
B.8.8.1	All extinguishers must be labeled with school name and car number.			1		
B.7.2	Only foot operated, cable throttle controls are allowed. Wide open throttle stop is required (at the pedal).			1		
B.7.2	Throttle cable cannot be bare from the forward mounting point to the firewall.			1		
B.8.3	The firewall shall separate the cockpit and engine area, covering the entire plane of the RRH. Pass throughs for 4WD equipment are permitted if sealed.			1		
B.8.5	Body panels must cover the area between LFS member and SIM. The material must be plastic, fiberglass, metal or similar material. No gaps can exist that are larger than 6.35 mm (0.25 in). Must use quick-disconnect methods.			1		

Section	Rule	TM	TI	TIL	Failed Items	RC
Electrical						
B.10.4.1	BSAE approved, unmodified brake lights shall be mounted minimum 1000 mm (39.4 in) from ground, and clearly visible in daylight when illuminated. Light shall be completely extinguished when brakes are not actuated.			1		
B.10.4.1	Brake and reverse lights must be entirely visble when viewed at a 45 degree angle from center. The total viewing angle shall be no less than 90 deg.			1		
B.10.4.1	Each independent brake circuit must be equipped with a hydraulic pressure switch. Actuation of any one circuit or combination of any circuits shall turn the brake light on.			1		
B.10.4.2	Cars with reverse must have reverse light (SAE "R") of LED design and alarm mounted at min 700 mm (27.6 in) from the ground and aft of the RRH/firewall.			1		
B.10.3.2	Vehicle must have two kill switches of type: Ski-Doo 01-171, 27-0154, 27-0152, or Polaris 4015321 and must only be used for engine kill switch functions and shall not de-energize the brake light.			1		
B.10.3.3	One switch must be located on the driver's right side of the vehicle, aft of the RRH, on a ***panel perpendicular (+/- 15°) to the firewall*** , no more than 178 mm (7 in) from the top of the roll cage. Threaded kill switch fasteners shall meet rule B.12.			1		
B.10.3.3	The second kill switch must be located on the driver's left side, along the SIM, and be easily actuated by the driver. No other push button switches are permitted on the left SIM. Any type of guard/cover to prevent accidental contact is explicitly prohibited.			1		
B.10.2	Kill switch wiring must be sealed, protected or securely attached to the frame to prevent the wires from being entangled with the driver or obstacles.			1		
B.10.4.1	Reverse and brake lights shall remain effective at all times. No cut-out or disabling switches are permitted for any braking or reverse system.			1		
B.10.1	Max system voltage 60 VDC or 50 VAC RMS. All circuits shall have appropriate means of circuit protection.			1		
B.10.1.1.3	Min battery voltage for safety appliances is 11 VDC (nominal).			1		
B.10.1.1 B.10.1.1.5	The batteries must be effectively sealed and secured and not leak in the event of a roll over. Terminals shall be insulated. Check battery chemistry.			1		

Section	Rule	TM	TI	TIL	Failed Items	RC
Brakes						
B.7.1.1	Vehicle must have two independent brake circuits. Single, dammed reservoirs are permitted. Check for unobstructed travel of brake pedal.			2		
B.7.1.2	Outboard or inboard brakes are permitted, and must operate through the drive axle. Braking on an intermediate stage is prohibited.			2		
B.7.1.4	Brake lines shall be routed to prevent abrasion, pinching, tension, and fatigue for all suspension and steering positions. Brake lines must also not fall below any portion of the vehicle to be exposed to the terrain. Plastic brake lines are prohibited.			2		
B.7.1	Brake pedals shall have robust design and construction and shall have sufficient travel in a partial brake system failure.			2		
B.7.1.3	"Cutting brakes" are permitted provided section B.7.1 is satisfied.			2		
Identification						
B.13.2.1	All vehicles must have a MYLAPS MX transponder. Classic, Flex, TR2 and X2 only.			1		
B.13.6	All vehicles must have an SAE issued RFID tag mounted to the right RHO.			1		
B.13.2.3.2	Transponder shall be mounted on the right side, forward of the seat and within 610 mm (24 in) of the ground. The transponder shall be properly oriented and have unobstructed line-of-sight to the ground.			1		
B.13.3	Each vehicle must have three sets of single-color, raised numbers in the approved font, 152 mm (6 in) tall, project between 0.5 in to 1.5 in, within 3 deg of horizontal, off a high contrast, single color background. 1-2 inch spacing, min 1 in to panel edge.			1		
B.13.3	One number shall be mounted forward of the RRH, facing forward. Two numbers must be affixed to the upper side of the frame, behind the RRH. They must be in the vertical plane on the side of the car.			1		
B.13.3.2.2	One number shall be visible from the front of the vehicle. Numbers mounted above the SIM shall be less than or equal to 45° from vertical. Numbers mounted below the SIM are not permitted.			1		
Miscellaneous						
B.11.2	Front hitch is tubular, Max OD 1.25 in, Min OD 1.00 in. Vertical location between LFS and SIM. Must be able to pass hitch inspection gauge.			1		
B.11.3	Rear hitch may be fixed or swivel style, 0.125 to 0.375 in thick, Hole diameter is 1.0 in to 1.25 in. 1.0 in max edge distance. Fixed style attachment width is 3.0 in minimum. Swivel hitches require a graded fastener and tabs 0.125 in thick with a total attachment weld length of at least 3.0 inches.			1		
B.7.3.1	Compressed gas control systems meet composition, storage, and service reqs.			1		

Section	Rule	TM	TI	TIL	Failed Items	RC
Driver Equipment						
B.5.1	BSAE 2024 Helmet sticker required. Snell **M2020, ECE R22-05, R22-06.**			1		
B.5.1	One-piece Motocross style helmet only, fitted with Tear Offs/Roll Off system. Check that tear offs are installed properly.			1		
B.5.3	Neck Support meeting SFI 3.3 certification or HANS device and in good condition. Horseshoe collars, and Leatt devices are not allowed.			1		
B.4.3	Separate, independent arm restraints meeting SFI 3.3 certification, and in good condition.			1		
B.5.4	Drivers must wear socks, shoes, gloves, fire resistant long pants with appropriate marking ,a long sleeved fire resistant upper garment. Check for good condition. No date restriction. Upper garment SFI 3.2, 3.3, 3.4, FIA 8856-2000.			1		
Egress						
B.7.1	Verify vehicle brake system is capable of statically locking the front and rear axles.			1		
B.8.1	Arm restraints must be secured to driver restraint system and must separate completely from the vehicle when the driver releases the harness.			1		
B.4.2.4.1	Shoulder belts mounted at or below the driver's shoulders (No more than 102 mm (4 in) below shoulder level.)			2		
B.4.2.5.2	The harness mounts shall not exhibit noticeable deformation when webbing is adjusted.			1		
B.4.3	Arm Restraints must prevent arms from extending beyond the plane of the roll cage (plane is defined by RHO and SIM).			1		
B.10.3.3.1	Cockpit kill switch within easy reach of the restrained driver; Arm restraints do not impede driver's ability to reach kill switch.			1		
B.7.2.1	No type of extension to the driver's foot pedals are allowed.			1		
B.7.2.1	Feet can not get trapped in the pedals and the driver's feet can not stick out of the car.			2		
B.4.2.5.1	Lap belt angle is between 45 and 80 degrees when worn, and in proper adjustment with the anti-submarine belt such that the belts are worn over the driver's pelvis.			2		
B.8.1	For vehicles that run in car radio, ensure connection for egress. This must separate just like belts.			2		
B.8.2	Maximum egress time of 5 seconds, equipped with all safety gear per B16.			2		
B.8.1	Designed for driver protection & easy driver egress in an emergency.			2		

Section	Rule	TM	TI	TIL	Failed Items	RC
Design Constraints						
B.2.5	Hybrid electric power systems are specifically prohibited.			2		
B.2.6	Energy storage devices used for propulsion, other than hydraulic accumulators, are specifically prohibited.			2		
B.2.6.1	Hydraulic power systems must be properly shielded and documentation of the shielding made available for review by the National Technical Inspectors.			2		
B.8.4	Front or mid-engine cars must meet specification B.8.4			2		
B.2.7.13.1	Engine remains stock. Check exhaust, fuel system, and governor for compliance.			2		
B.3.4	Inspect vehicle for sharp edges which may harm drivers, crew, or track workers.			2		
A.3.4	The technical inspectors can require any modification at their discretion.			2		