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# Explanation of Rules to Pass the Technical Inspection for Formula SAE Japan

2025 Formula SAE Japan Local Rules  
FSAEJローカルルール編

- Aims and positioning of local rules/ ローカルルールの狙い、位置付け
  - Explanation item/ 解説項目
    - GR - General Regulations / 一般規則
    - F - Chassis and Structural / シャーシと構造
    - T - Technical Aspects / 技術的側面
    - VE - Vehicle and Driver Equipment / 車両とドライバーの装備
    - IC – Internal Combustion Engine Vehicles /内燃機関車両
    - IN - Technical Inspection /技術検査
    - etc...
- ※Explanations of obvious items and EV areas will be omitted.  
明白な項目とEV領域は省略します。

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※Explanation of EV rules is omitted / EV領域は省略

## Aim of the rules/ローカルルールの狙い

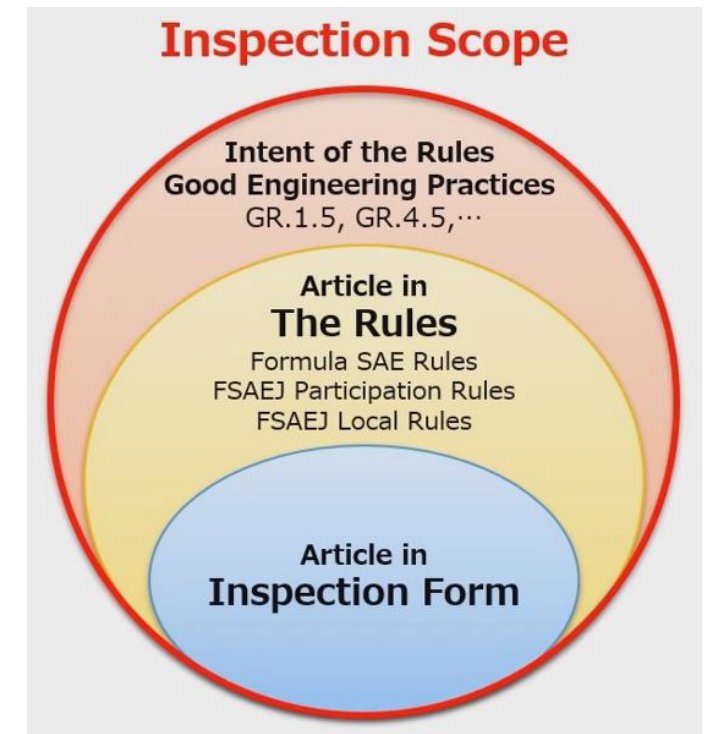
- In order to ensure the smooth running of the competition, the rules reflect the Japanese environment and past customs.  
競技をスムーズに運営するため、日本の環境や過去の慣習などを反映。
- Clarify the judging criteria by quantifying any unclear points in the rules.  
ルール上不明瞭なところを数値化などで審査基準を明確にします。

## Position/ローカルルールの位置付け

- These rules are positioned above the FSAE rules.  
ローカルルールは、FSAEルールのより優先される

Items described in the Participation Rules and the Local Rules take priority over the Formula SAE® Rules 2025.

大会規則およびローカルルールに記載されている事項は、Formula SAE® Rules 2025 よりも優先されます。



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※Explanation of EV rules is omitted / EV領域は省略

## J2025-GR-01 Competition Year

(refer to Formula SAE® Rules 2025 GR. 9.2.1, FSAEJ 2025 Participation Rules Article 10)

Competition Year starts when the **vehicle takes its first technical inspection at the competition**, not when the team registers.

At the time of the first mechanical inspection at the competition  
大会において、機械車検の初回車検を受けた時点で確定

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## J2025-F-01 Baseline Steel Material

(refer to Formula SAE® Rules 2025 F.3.4.2)

The baseline steel material must be a material that satisfies the following condition.

Mild or alloy steel with a minimum tensile strength of 290 N/mm<sup>2</sup> as guaranteed by a mechanical strength standard. The “STKM11A” is one of them.

It is possible to use “JIS standard steel”

入手性の良い「JIS規格鋼材」の使用が可能です

However, JIS standard steel has its own material characteristics, so please consider these points carefully before designing

但し、JIS規格鋼材の素材特性を有するため、その点を見極めた設計をすること



J2025-F-02 Upper Side Impact Member and IA height  
(refer to Formula SAE® Rules 2025 F.6.4.4, F.8.5.6)

The followings are accepted at the Technical Inspection:

(1) Photo evidence

Teams may bring photo evidence shown in APPENDIX J-F-1 and skip the measurement.

(2) Team proposed measurement methods

Teams may propose measurement methods if they are appropriate.

If none of the above is presented, the Technical Inspectors indicate the measurement methods, and teams must follow them.

Since the Upper SIS and IA height examinations are expected to be extremely difficult and time-consuming in actual vehicle inspections, we have established a rule to omit the actual vehicle inspections

実車検における高さ審査は、困難で時間を要することから現車審査省略のルールを設定

When proving height with a photograph, specific numerical values must be able to be confirmed.

写真では、具体的な数値が確認できること

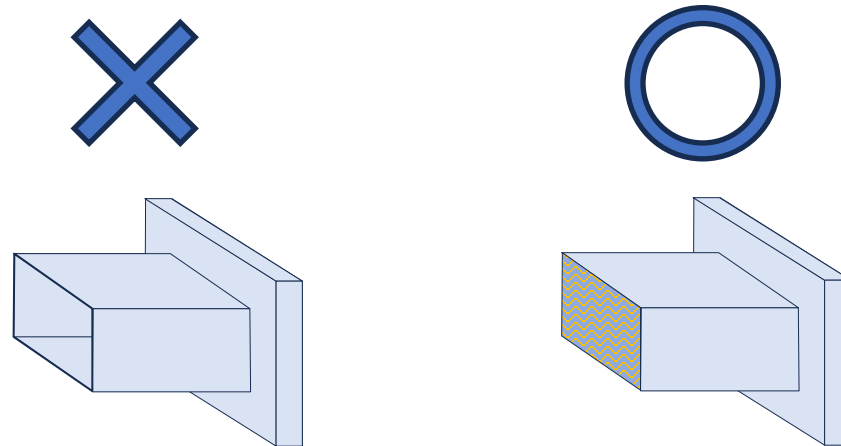
J2025-F-03 Custom Impact Attenuator  
(refer to Formula SAE® Rules 2025 F.8.4.2)

Add the following to F.8.4.2 as e.

e. Designed with a closed front section.

When a collision occurs, the impact must be with a "surface" of specified dimensions  
衝突時に規定寸法の「面」で当ててください・・・ということです

In other words, the area must be at least  $200 \times 100 \text{ mm}^2$   
 $200 \times 100 \text{ mm}^2$ 以上の面積が必要



J2025-F-04 Standard Foam Impact Attenuator  
(refer to Formula SAE® Rules 2025 F.8.4.1)

DuPont Styro Corporation's DX-45 is considered equivalent material to IMPAXX™ 700 for Standard Foam Impact Attenuator.

Please search the internet to find out where to purchase.  
購入先などは、ネット検索などで調べてください。

Purchases are in units of four, so please consider purchasing them together with a nearby team.  
購入は4個単位となっておりますので近隣のチームと共同購入するなど活用してみてください。

J2025-F-07 Clarification regarding Monocoque  
(refer to Formula SAE® Rules 2025 F.7.1.4)

Inspection holes :

The area around the inspection hole (approximately 10 mm from the center of the hole) must not be painted, have stickers or sheets attached.

This is to accurately measure the thickness of the panel.  
パネルの厚さを正しく測定するためです。

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## J2025-T-02 Driver Harness Installation

(refer to Formula SAE® Rules 2025 T.2.5 - T.2.7)

One belt may be attached to the eyebolt compliance with JIS B 1168-1994.

- If shoulder or lap harness is mounted to the above as an eyebolt, it must be M10 or greater.
- If anti-submarine harness is mounted to the above as an eyebolt, it must be M8 or greater.

*“As an eyebolt” stands for fastening with its thread.*

- T.2.4.4b is NOT required for the above as a pad-eye, if its base is welded all perimeter.

*“As a pad-eye” stands for cut off its thread part and welding its eye part.*

For shoulder and/or anti-submarine, wrap mounting is recommended.

Refer to the table of APPENDIX J-T-1.

		1 Belt		2 Belts
		Shoulder/Lap	Anti-sub	All
Eye-Bolt compliance with JIS B 1168-1994	M8	Not OK	OK	Not OK
	M10 or more	OK	OK	Not OK
above as Pad-Eye (welded all perimeter)	M8 or more	OK	OK	Not OK

JIS standard eye bolts can also be used / JIS規格のアイボルトも使用可能です。

"As a pad eye" means that the threaded part of the eye bolt is cut off and the eye part is welded, but in actual use the entire seat part should be welded.

「パッドアイとして」は、アイボルトのネジ部を切断し、アイ部を溶接することを意味しますが実際の使用にあたっては全周溶接してください。

J2025-T-06 The heat-resistant temperature of the catch tank  
(refer to Formula SAE® Rules 2025 T.5.6)

Based on GR1.5, the following rules are established.

The heat-resistant temperature of catch tank must be appropriate.

For ICV coolant, it must be 120°C or higher.

For ICV engine oil, it must be 140°C or higher.

For EV coolant & oil, it should be 120°C or higher, and it must be higher than 100°C.

The temperature of boiling water with pressure type radiator cap will be higher than 120°C.

Since the rules do not contain specific numbers, this rule will clarify the judging criteria.  
ルールには具体的な数値が書かれていませんので、このルールで審査基準を明確にします。

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J2025-VE-01 Vehicle Number stickers  
(refer to Formula SAE® Rules 2025 VE.1.1)

The Vehicle Number stickers will be supplied to the teams at the competition site by the organizer. They have approximate dimensions of 297 mm (width) × 210 mm (height). Locations; In three places, on the front of the chassis and the left and right sides. The left and right sides must be attached in a place that can be seen from the side.

The size is A4 landscape / サイズはA 4横です。

In particular, make sure the side of the vehicle is attached vertically so that it can be clearly seen by dynamic staff.

特に、車両側面は動的スタッフが明確に確認できるよう垂直面になるように貼り付けてください。

Be careful not to tilt it diagonally or upwards so that it becomes difficult to distinguish.

斜めや上向きになって判別できなくならないように注意ください。

Excludes the front / 正面視は除く

## J2025-VE-06 Fire Extinguishers

(refer to Formula SAE® Rules 2025 VE.2.3)

(1) Teams may use fire extinguishers with NO pressure gauge. However, each fire extinguisher must be within its expiration date and the operation lever seal must be in place. For fire extinguishers without a displayed expiration date, it must be within 5 years from the date of manufacture.

(2) The fire extinguishers should be 3-ABC type

(3) There is no problem when CO2 type is used outside, but there is a risk of suffocation when used indoors such as garages.

*Therefore, care must be taken. (Ex of security: Preparing indoor & outdoor products.)*

CO2 type fire extinguishers are convenient because they leave no extinguishing agent behind, making them easy to clean up after use, but they extinguish the fire by cutting off oxygen, which poses the risk of suffocation.

CO2タイプは、消火剤が残らないため使用後の対応が容易で便利ですが、酸素を遮断して消火しますので窒息の危険があります。

Please be especially careful when using indoors / 特に室内での使用には注意してください。

It is desirable that all team members learn "knowledge" / チーム員全員で「知識」を学んでください。

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## J2025-IC-02 Fuel Supply

(refer to Formula SAE® Rules 2025 IC.5.2)

Teams may fully refuel the tank of the vehicle at the fueling station before undergoing the Technical Inspections.

During inspection, the fuel pump will be checked for operation and fuel leaks, so refueling is required.

車検時に燃料ポンプの作動確認～燃料漏れの確認しますので、確認できるように給油してきてください。

A full tank is not required for a mechanical inspection / 機械車検では満タンである必要はありません

J2025-IC-03 Extracting fuel from the Fuel Tank  
(refer to Formula SAE® Rules 2025 IC.5.3.5)

The Fuel System must have a provision for emptying the Fuel Tank without any electric motor pump.

The use of electric pumps is prohibited as there is a risk of sparks causing a fire.  
電動ポンプを使用すると「火花」が出る懸念があり、火災を誘発する可能性がありますので禁止します。

Fuel must be drained by non-electrical means / 電気を使わない手段で燃料を抜いてください。  
This is usually a drain bolt / ドレンボルトが一般的です。

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J2025-IN-02 Driver Egress Test  
(refer to Formula SAE® Rules 2025 IN.5.2)

In the Driver Egress Test, the direction of egress (i.e., to the left or right of the vehicle) will be instructed by the judges at that time.

The inspection staff will also explain other procedures / その他の手順も審査員が審査時に説明します  
Please follow the instructions of the inspection staff / 審査員の指示に従ってください

## J2025-IN-08 Clarification regarding Monocoque (refer to Formula SAE® Rules 2025 IN.8.3.1)

The laminate thickness (In some cases the skin thickness also) will be measured using the special caliper shown in APPENDIX J-IN-1.

And both sides of the inspection holes must be directly visible. Evidence by photographs will not be accepted.

Measure using the vernier caliper shown in the attached diagram

付図（左記）に示すノギスを用いて測定します

Be properly prepared for measurements

測定できるように適切に準備しておいてください

APPENDIX J-IN-1 Special caliper for measuring laminate thickness (J2025-IN-08)





# End of Local Rules