

FIA SCRUTINEERING PROCEDURES

Weighing procedure for rally

Version	Publication date
V00	23.09.2025

1. APPLICABLE REGULATION

See Applicable Regulations / Appendix J.

2. PARAMETER TO MEASURE

Weight of the car in different conditions:

- Dry weight (without crew).
- Racing weight (with crew).

3. PARTS AND MEASUREMENT DEVICES

The car in ready-to-race conditions (see example):



Checking equipment:

Scale for automotive application including ramps. Recommended characteristics:

- Range: up to 2,000 kg for rally cars.
- Resolution: 0.5 kg.
- Wireless.
- Ramps according to rally needs.

Examples:



Calibration certificate:

Document including the global uncertainty (4 pads) of the device in every calibration point.

The last date of calibration should not exceed one year.

Example:

<p>Trescal</p> <p>CERTIFICADO DE CALIBRACIÓN Certificate of Calibration</p> <p>Número ESTEM-TOL-CI-25004190 Number</p> <p>Página 1 de 5 páginas Page 1 of 5 pages</p> <hr/> <p>TRESCAL ESPAÑA DE METROLOGÍA, S.L. Laboratorio de Illescas y Sevilla Avda. de la Industria, 5 - 45200 ILLESCAS (Toledo) Teléfono: 925 54 02 16 - Fax: 925 54 02 89 laboratorio.illescas@trescal.com www.trescal.com</p> <hr/> <p>OBJETO Item INSTRUMENTO DE PESAJE</p> <p>MARCA Mark INTERCOMP</p> <p>MODELO Model QUIK WEIGH SW650</p> <p>IDENTIFICACIÓN Identification N° DE SERIE: 1101SR19001 CÓDIGO: N/C</p> <p>SOLICITANTE Applicant REAL FEDERACION ESPAÑOLA DE AUTOMOVILISMO C/ Escultor Persejo, 68 bis 28023 ARAVACA (MADRID)</p> <p>FECHA/S DE CALIBRACIÓN Dates of calibration 18/01/2025</p> <hr/> <p>Signatario/s autorizado/s Authorized signatory/ies Firmado digitalmente por: / Digitally signed by:</p> <p>Firmado digitalmente por: GONZALEZ FERNANDO / 03630372K Motivo: Aprobación Responsable de área Fecha y hora: 23.01.2025 11:08:00</p>	<p>Trescal</p> <p>Certificado N° ESTEM-TOL-CI-25004190 Página 4 de 5</p> <p>NUMERO : 1101SR19001 ESCALA : 2400 kg RESOLUCION : 0,5 kg</p> <table border="1"><thead><tr><th>MASAS PATRÓN (kg)</th><th colspan="3">DESVIACIONES OBTENIDAS (kg)</th></tr></thead><tbody><tr><td>480</td><td>0,0</td><td>0,0</td><td>0,0</td></tr><tr><td>960</td><td>0,5</td><td>0,0</td><td>0,5</td></tr><tr><td>1440</td><td>0,5</td><td>0,5</td><td>0,5</td></tr><tr><td>1920</td><td>0,5</td><td>0,5</td><td>0,0</td></tr><tr><td>2400</td><td>-2,0</td><td>-2,0</td><td>-2,0</td></tr></tbody></table> <table border="1"><thead><tr><th>PUNTO DE CALIBRACIÓN</th><th>IoI (kg)</th><th>Δxci (kg)</th><th>Sci (kg)</th><th>Il (kg)</th></tr></thead><tbody><tr><td>480</td><td>0,024</td><td>0,00</td><td>0,000</td><td>0,29</td></tr><tr><td>960</td><td>0,048</td><td>0,33</td><td>0,289</td><td>0,80</td></tr><tr><td>1440</td><td>0,096</td><td>0,50</td><td>0,000</td><td>0,59</td></tr><tr><td>1920</td><td>0,192</td><td>0,33</td><td>0,289</td><td>0,82</td></tr><tr><td>2400</td><td>0,384</td><td>-2,00</td><td>0,000</td><td>2,1</td></tr></tbody></table>	MASAS PATRÓN (kg)	DESVIACIONES OBTENIDAS (kg)			480	0,0	0,0	0,0	960	0,5	0,0	0,5	1440	0,5	0,5	0,5	1920	0,5	0,5	0,0	2400	-2,0	-2,0	-2,0	PUNTO DE CALIBRACIÓN	IoI (kg)	Δxci (kg)	Sci (kg)	Il (kg)	480	0,024	0,00	0,000	0,29	960	0,048	0,33	0,289	0,80	1440	0,096	0,50	0,000	0,59	1920	0,192	0,33	0,289	0,82	2400	0,384	-2,00	0,000	2,1
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4. PROCEDURE OF MEASUREMENT

Dry weight (minimum)

This is the real weight of the car, with neither driver nor co-driver nor their equipment and with a maximum of one spare wheel.

The equipment comprising the following:

- Driver's helmet + head restraining device.
- Co-driver's helmet + head restraining device.

When two spare wheels are carried in the car, the second spare wheel must be removed before weighing.

At no time during the competition may a car weigh less than this minimum weight.

In case of a dispute during weighing, the full equipment of the driver and co-driver must be removed; this includes the helmet, but the headphones external to the helmet may be left in the car.

The use of ballast is permitted in the conditions provided for under Article 252-2.2 of the "General Prescriptions".

Check that the car complies with the above-mentioned conditions to be weighed, that is, with no crew equipment inside (except headphones) and with one spare wheel. If specified in the technical regulations, the tanks containing consumable liquids can be drained from the tank (see Technical Regulations applicable to the car).

If no spare wheel in the car, see specific Technical Regulations.

Racing weight

The combined minimum weight of the car and crew (driver + co-driver) is the minimum weight plus what is stated in the applicable regulations (for example +160 kg in general and +170 kg in Rally1).

Checking during an event

The following procedures should be followed during an event:

- **Pre-event Scrutineering:**

- Setup a list with the minimum weight of the cars (see applicable regulation).
- Weigh the cars including sump guard, the spare wheel and with no crew nor their equipment.
- Tools that are well fixed may be included.

- **Scrutineering during the event:**

- Find a place where the floor surface is horizontal enough.
- Setup a list with the dry weight (minimum) and/or racing weight of the cars.
- If racing weight is going to be checked, weigh the cars including the crew and one spare wheel. If the weight of the car is close to the minimum racing weight, proceed with no crew nor their equipment.

- **Final Scrutineering:**

- Setup a list with the dry weight (minimum) of the cars.
- If specified in the technical regulation, the tanks containing consumable liquids can be drained from the tank.
- Weigh the cars with no crew nor their equipment and one spare wheel.
- If no spare wheel in the car, see specific Technical Regulations.

5. RESULTS

Acceptance criteria

The weight of the car shall be over the minimum weight set in the regulation.

According to the procedures established by dimensional metrology, uncertainty (U) should be taken into account.

At any time of the event, a car should be over the minimum admissible weight, which is, minimum weight minus the uncertainty.

In the event of car is found below the minimum admissible weight, the next procedure should be followed:

1. **Move backward the car.**
2. **Set the scale to Zero.**
3. **Weigh the car.**
4. **Repeat again the steps 1 to 3.**
5. **Maximum value of the three weights will be considered for the final result. If three values are identical, consider that weight.**
6. **Make some photos of the display and the car over scale.**

Example considering with $U = 0.59 \text{ kg}$ (value of the uncertainty according to the calibration certificate).

Minimum admissible weight = dry weight (minimum) – $U = 1230$ (example) – $0.59 = 1229.41 \text{ kg}$.

If the scale has a resolution of 0.5 kg, a car will be below the minimum when the scale shows a value of 1229.0 kg or lower.

6. REMARKS

- Scale shall be installed over a clean and flat surface.
- All tyres must be located over the pads without touching the ramps.
- Nobody shall be touching the car, doors shall be closed and the wind is not affecting the weight and wait till the measure is stabilized.
- The scale is suitable for all cars.
- Remove the lightest spare wheel, especially if one rim without tyre.