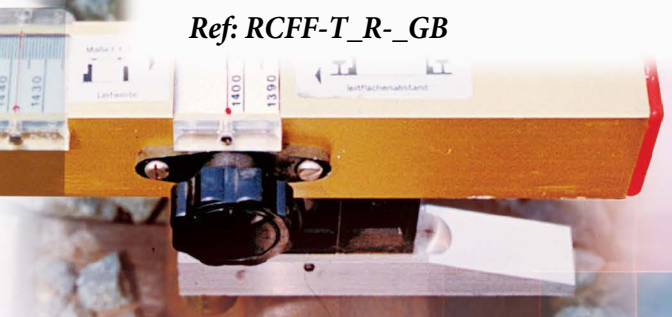
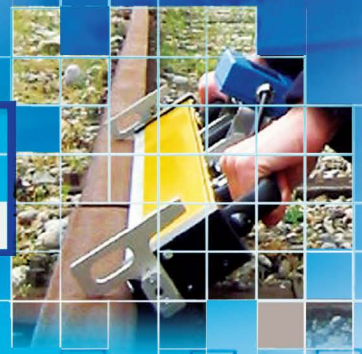
Ref: RCFF-T_R-_GB

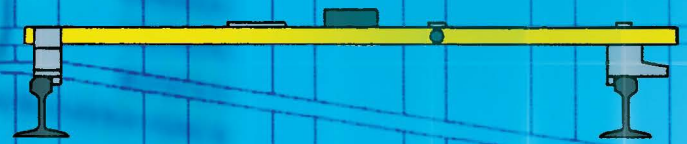
ANGLAIS (mm / inch) **RCFF / RCFF-T**

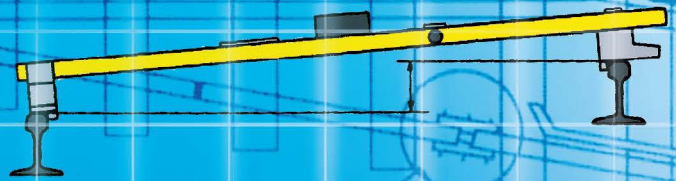
Translation from the original instruction manual

COMBINATION TRACK GAUGE









Type
RCFF
RCFF-T

SOCIÉTÉ DES ANCIENS ÉTABLISSEMENTS L. GEISMAR

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GEISMAR

STUMEC

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DEAR CLIENT,

You have just acquired work equipment from the GEISMAR Group.

We thank you for your confidence in us and trust this acquisition will be to your entire satisfaction.

The GEISMAR Group would like to draw your special attention to the recommendations contained in this document.

Permanent availability of the equipment, and its use under the best safety conditions require regular inspections and maintenance. The life span of a machine is directly related to the care taken with its management and maintenance.

To ensure maintenance of the equipment characteristics, GEISMAR would like to draw your attention to some essential points:

- respect maintenance frequencies.
- use recommended lubricants.
- replace defective parts with approved parts.
- do not make any modifications.

In many cases, this constitutes one of the conditions required to demonstrate validity of the warranty and maintenance that is compliant with applicable regulations.

The GEISMAR Group reminds you that rapid shipment of your spare parts depends on the precision of your order, and this directly affects the productivity of your work equipment.

We trust our equipment, which has been designed and developed using cutting-edge technology, meets your expectations.

Dear Client, we remain at your disposal.

Société des Anciens Etablissements L. GEISMAR

As part of our policy of respect for the environment, this manual was printed on recycled paper.

Revision history

Revision	Comments	Date	Validation
R-	Initial version after ERP coding	08/2017	-

CONTENTS

CHAPTER 1 – SAFETY

1.1 Introduction

The following is a collection of rules designed for protection of personnel and assets while the machine you have just acquired is in use. Non-respect of these rules can have serious consequences. Everyone concerned by the use, upkeep, storage or keeping of the machine discussed in this manual must be familiar with these rules. The manufacturer cannot foresee all situations involving risk. The recommendations in the manual are not exhaustive.

Any person who does not respect the rules in this manual and who causes an accident while using the machine described within will be held responsible for any and all results of the accident.

The notes and illustrations in this manual may show details and accessories that are different from your equipment. The basic characteristics may remain identical, but GEISMAR reserves the right to make improvements.

For additional information concerning your equipment, ordering spare parts or maintenance and repair work, please contact GEISMAR and provide the type, code and serial number on the name plate as a reference. The name plate must be kept in good condition.

1.2 Warnings

The manufacturer is not liable in the following situations:

- Use that does not comply with the recommendations in the use and maintenance manual.
- Non-respect of periodic inspection requirements as stated by the applicable regulations in the country where the equipment is being operated.
- Use by non-authorised personnel and/or personnel who do not have the required professional skills.
- Consequences resulting from a lack of understanding of the use and maintenance manual on the part of the user.
- Use that does not respect the requirements of the cited normative documents.
- Power supply faults.
- Non-respect of the specified servicing rules.
- Modification or work that has not been authorised by the manufacturer.
- Use of lubricants and supplies that are different from those recommended in the present maintenance manual.
- Extraordinary or unpredictable events.

Using and looking after the use and maintenance manual:

- The use and maintenance manual is for operating supervisors and personnel responsible for the maintenance of the equipment, as well as for all personnel who work on it. They should pay particular attention to the sections dealing with work safety.
- The use and maintenance manual provides the information required for proper use of the work equipment as planned by the manufacturer.
- The manual provides use and maintenance instructions for the work equipment. It does not in any way replace training of the personnel using the equipment.
- If the equipment is ceded, the user should provide the manufacturer with the contact information of the new owner.
- The user must provide the new owner the present use and maintenance manual with the equipment.

1.3 Safety and general usage recommendations

Proper training, skills and tools are required to correctly use, maintain and repair this material.

The instruction manual, appendices and applicable safety instructions must be thoroughly read and understood prior to any use of the corresponding material, including for maintenance purposes. General work site safety recommendations, as provided by the site manager, must be scrupulously respected, especially if the work is carried out without stoppage of traffic.

The operator's work posture must let him make measurements under good conditions. For this, a crouching position is recommended.

Use, maintenance and repair of the material must only be carried out by qualified personnel who have received relevant and thorough training. The equipment must be used under normal conditions and must be correctly maintained. The technical documentation and the recommendations within are intended solely as a complement to the skills acquired through training. They can never replace qualifying theoretical and practical training provided in accordance with good practice. If the operator does not feel capable of providing personnel with such required training, GEISMAR/STUMEC can be consulted concerning the training programme.

The training must cover the explanation of the different functions of the material, instructions for its use and maintenance, and the safety rules to respect, as well as practical exercises.

IMPORTANT! Everyone using this machine must comply with applicable work regulations

STUMEC/GEISMAR is not responsible for any modifications or repairs made without their written authorisation, in particular in the event of use of non-standard and non-provided parts.

1.4 General safety instructions

- The operator and his environment

  ⇨ To reduce risk of accident or injury, it is indispensable to have the equipment required on-site or for use of equipment. In the event of use of auditory protection, the site safety recommendations must be strictly respected.

  ⇨ It is important for the user to be in the physical and mental shape required for safe use of the material.

  ⇨ Do not begin to use the equipment if you have not taken steps to ensure use under fully safe conditions, both for you and for others.

  ⇨ If anything is unclear, whether it is with the machine or the tasks to be performed, ask someone qualified about it. Never suppose.

  ⇨ Respect the general and special safety recommendations that are applicable to the work area, and remain alert with respect to safety throughout all operation phases.

  ⇨ The user must respect all applicable environmental regulations governing the equipment.

  These safety and operating recommendations do not supersede applicable regulations in the country of use. It is the responsibility of the person supervising use of the equipment to ensure respect of this legislation.

- **The operator and the equipment**

  ⇨ Before each use, make sure the equipment functions and is in condition in accordance with the instructions.
  In particular, ensure the control components function freely. Never make any modifications that affect their functioning.

  ⇨ Always keep the equipment clean and remove any dust.

  ⇨ Never place the equipment near flame or any other heat source.

  ⇨ Never place the equipment on hot or uneven material which could damage some of the components.

  ⇨ Only authorised personnel may work on the equipment's electrical components.

  ⇨ The instructions for and all of the markings on the equipment must be read, understood and respected.

  ⇨ The markings consist of icons, information plates and instruction labels. Be sure to clean and replace them if they are damaged, missing or unreadable. If one of these markings should be on a replaced part, a new one must be present on the replacement part. Please contact us for this.

THE MACHINE MUST NEVER BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS DESIGNED

1.5 Specific safety recommendations

1.5.1 Transport and storage

Handle with care, avoid shocks, use appropriate equipment.

Only carry the gauge using the transport handle. Never transport the equipment in a vehicle without first carefully fastening the gauge to immobilise it.

Respect the storage recommendations; in particular do not stack, as this could lead to deformation. Never store in an abnormal position; use chocks when transporting.

Protect against corrosion and harmful external factors.

Following prolonged non-use or during a periodic inspection:

If deformation or unusual wear is observed, the parts must be replaced immediately.

Check the tightening and connections of the assembly components.

1.5.2 Work

The gauge must only be used by a single authorised operator.

If the work takes place on a double track, pay particular attention to activity on the track that is free to traffic. In all cases, use of the equipment must respect the railway recommendations applicable where the rule is being used.

During use, the necessary precautions should be taken to ensure the equipment is maintained in proper working condition.

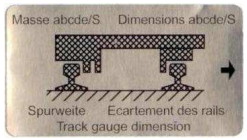
This gauge was designed for metrological measurements only. Any use other than that described in this manual will be considered "*non-compliant*" and will free the manufacturer of all responsibility; the user will be entirely and solely responsible.

"*Compliant use*" presumes observation of the recommendations for use and maintenance of the equipment as stated in this manual. All recommendations for work accident prevention described herein must also be respected, while fully respecting the general applicable legislation governing safety and worksite health.

1.5.3 Icons

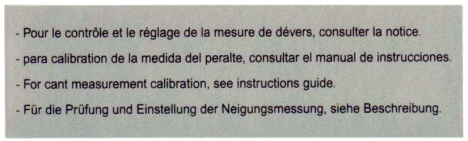
Icons must be present on the equipment at the location indicated.
If one is missing or has deteriorated, another must be ordered immediately and installed in its place.
If a component bearing a label has been replaced, make sure a new label is placed on the replacement part.

Type : RCFF
Model : Track gauge
Date : Date of manufacture
S/N : Serial number



<u>Reference</u>: N° H 64827 (grey background)
<u>Location</u>: stuck on the frame of the gauge to the left of the track gauge window.

<u>Reference</u>: N° N 03896 (grey background/ blue writing)
<u>Location</u>: stuck on the gauge transport handle.



<u>Reference</u>: N° H 81693 (grey background)
<u>Location</u>: stuck on the gauge transport handle.

CHAPTER 2 – DESCRIPTION OF THE MACHINE

2.1 General points

Manufacturer:	**SOCIETE TURRIPINOISE DE MECANIQUE** Route d'Italie 38110 LA TOUR DU PIN
Description of equipment:	COMBINATION TRACK GAUGE
Type:	RCFF / RCFF-T

The RCFF model combination gauge for track equipment inspection and track gauge and superelevation measurement is an instrument specifically designed for on-track and on-site measurement of the following parameters:

- track gauge,
- superelevation in algebraic values,

The gauge is comprised of a light, yellow, anodised aluminium structure. The track gauge is measured using a manually moved mobile support and superelevation with a spirit level associated with a turning knob. A blocking knob locks the mobile support in place to make superelevation measurement easier.
The measurements are read through windows.

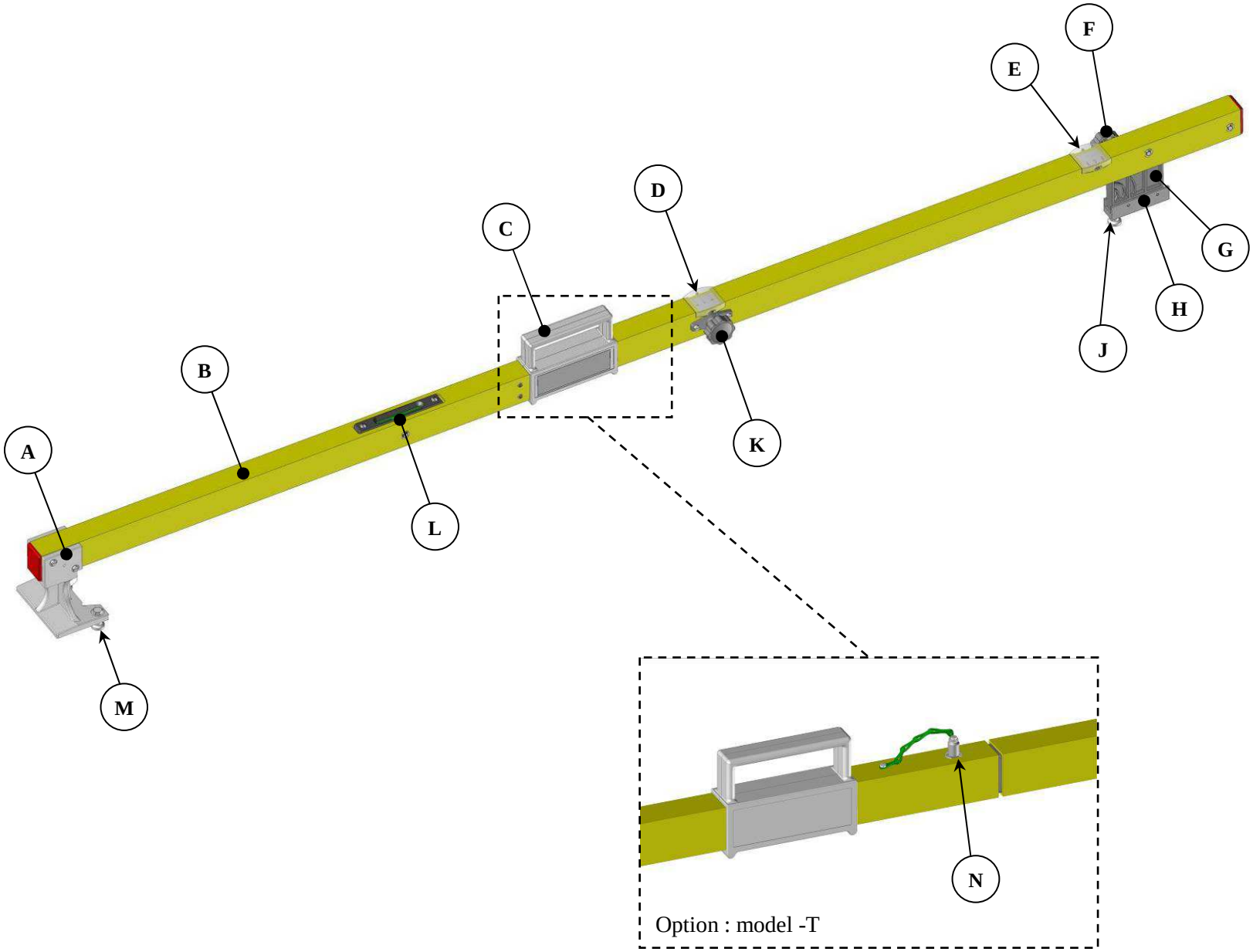
The legs of the RCFF gauge are electrically insulated and therefore they do not interfere with the track signals. Electrical resistance is greater than 1000MΩ.

There is a transport handle for easy transport.

The gauge can be optionally equipped with a dismantling system for separating the device into 2 parts using a pin and an isolating bar. If this option is selected, the gauge is called an RCFF-T gauge.

2.2 Overview

Ref.	Description
A	Fixed support
B	Frame
C	Transport handle
D	Superelevation reading window
E	Track gauge reading window
F	Blocking knob
G	Telescopic holder
H	Mobile support
J	Mobile lug
K	Turning knob
L	Spirit level
M	Fixed lug
N	Pin



2.3 **Technical characteristics** (for 1435mm track)

- Track gauge……..	mm	1 435 *
- Measurement beneath the running rail ……	mm	14 **
- Diameter of support lugs (fixed lug and flangeway)….	mm	16
- Diameter of support lugs (telescopic support)…….	mm	20
- Track gauge measurement range ……..	mm	-15/+50
- Track gauge measurement precision…….	mm	0.5
- Track gauge measurement scale……	mm	1
- Superelevation measurement range ……..	mm	-30/+200
- Superelevation measurement precision ……	mm	0.5
- Superelevation measurement scale ……	mm	1
- Units of measurement ……..	…..	metric
- Dimensions: ***		
Length……	mm	1655
Width……	mm	102
Height……..	mm	163
- Mass……	kg	2.4

* List of possible standard track gauges: 762, 914, 950, 1000, 1065, 1067, 1435, 1520, 1524, 1600, 1668, 1676. For other track gauges, consult us.

** Specific stops on request.

*** These dimensions vary with the gauge model.

→ RCFF approved SNCF under number MTP 17070

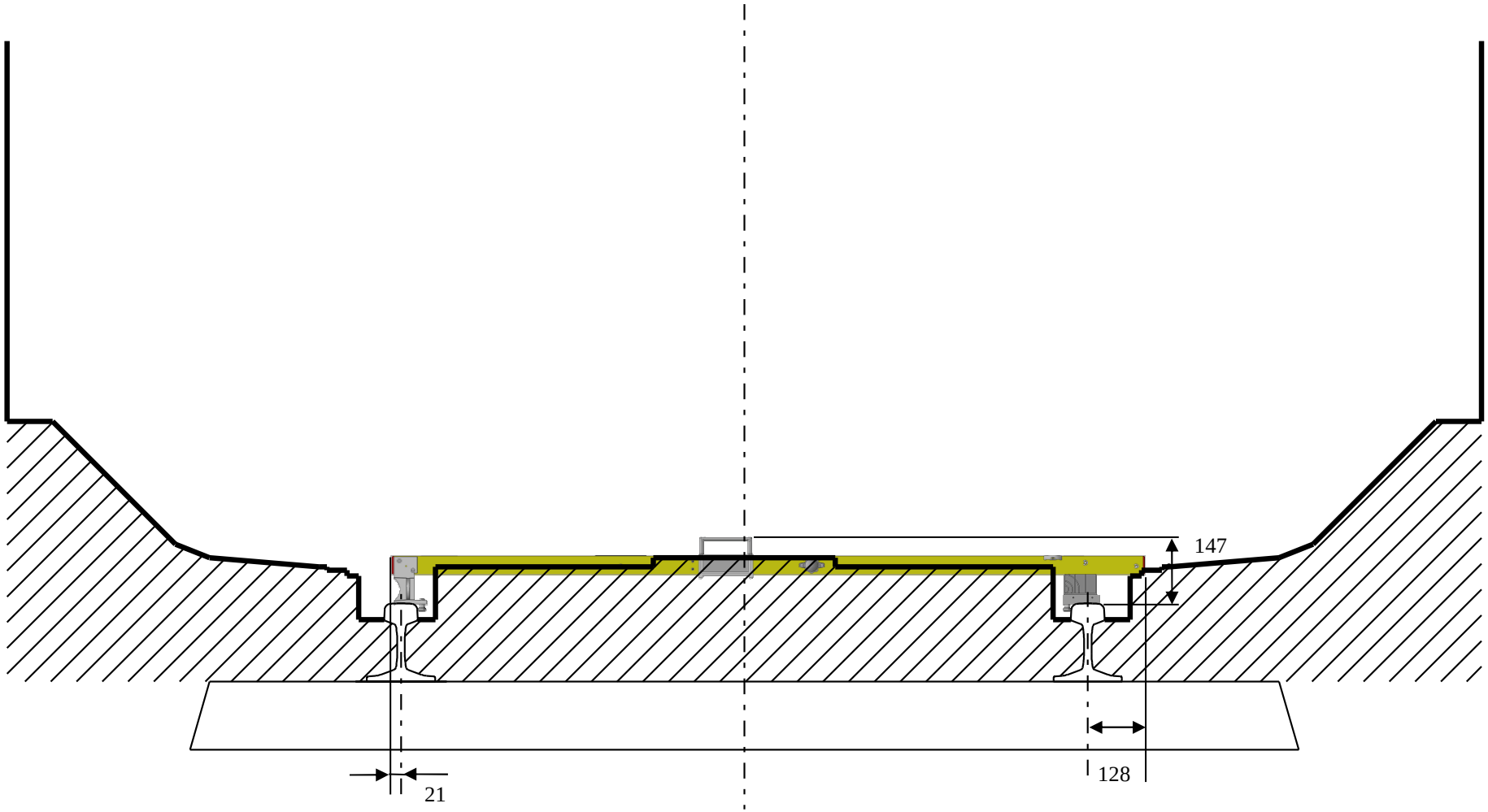
2.3 Technical characteristics (for 56" ½ track)

- Track gauge……..	inches	56" ½ *
- Measurement beneath the running rail ……	inches	5/8" **
- Diameter of support lugs (fixed lug and flangeway)….	inches	5/8"
- Diameter of support lugs (telescopic support)…….	inches	13/16"
- Track gauge measurement range ……..	inches	-1"½ / +1½ 15/16
- Track gauge measurement precision…….	inches	1/32"
- Track gauge measurement scale……	inches	1/16"
- Superelevation measurement range ……..	inches	-1" / +8"
- Superelevation measurement precision ……	inches	1/32"
- Superelevation measurement scale ……	inches	1/16"
- Units of measurement ……..	…..	imperial (inches)
- Dimensions: ***		
Length……	inches	64" ¼
Width……	inches	4"
Height……..	inches	6" 7/16
- Mass……	kg	2.4

* For other track gauges, consult us 56"1/2, 58"7/8, 59", 62"1/2, 66". For other track gauges, consult us.
** Specific stops on request.
*** These dimensions vary with the gauge model.

2.4 Location of the machine in the loading gauge

The diagram below shows the dimensions of the measurement apparatus (for 1435 mm track) in relation to the UIC 505-1 low loading gauge (track with nominal displacement of 1435).



CHAPTER 3 – INSTALLATION – STARTING

3.1 Introduction

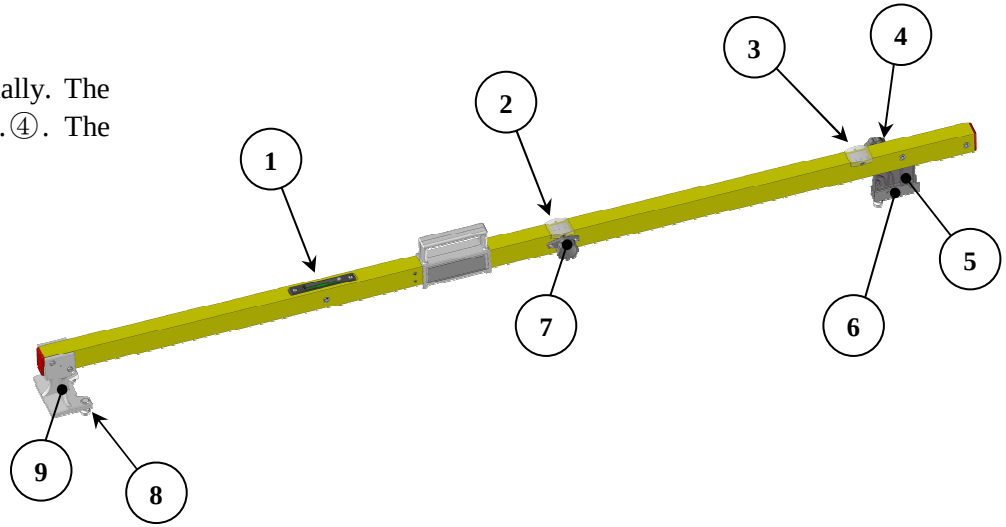
So that use of the equipment complies with the safety rules stated in §1.3 “Safety and general usage recommendations” and §1.4 “General safety instructions” it is indispensable for the equipment to be installed and started up in accordance with the steps described in §3.4 to §3.7.

3.2 Description of the equipment

The mobile support Fig.⑥ fixed to the telescopic holder Fig.⑤ is moved manually. The telescopic holder Fig.⑤ can be locked in place using the blocking knob Fig.④. The telescopic holder is made of plastic and provides electrical insulation.

The fixed support Fig.⑨, made of aluminium alloy, has 2 lugs Fig.⑧, which come in contact with the side of the rail and are positioned perpendicular to the track.

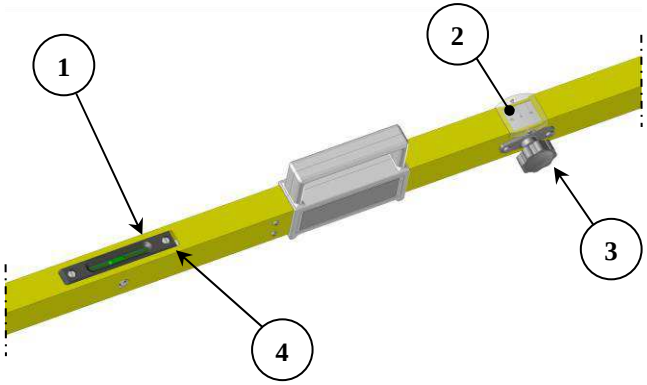
The spirit level Fig.① is embedded in the frame of the gauge. It is tilted using the button Fig.⑦.



There are 2 possible measurements:

- the track gauge is visible through the window in Fig.③ (see §4.2.3).
- the superelevation is visible through the window in Fig.② (see §4.2.4).

3.3 Checking the adjustment of the superelevation



Before use, the gauge's superelevation measurement system must be checked by reversal.

Do this as follows:

❶ Place the gauge on a track with low elevation (less than 20 mm).
❷ Place the bubble in the centre of the spirit level Fig.① using the adjusting button Fig.③ and read the value displayed on the graduated scale Fig.②.
❸ Rotate the gauge through 180°.
❹ Place the bubble in the centre of the spirit level Fig.① using the adjusting button Fig.③ and read the value displayed on the graduated scale Fig.②.
❺ The adjustment is correct if the 2 previously read values are the same on either side of the zero point.

3.4 Adjusting the superelevation

If the initial superelevation setting is incorrect, adjust it again as follows:

It is not necessary to rotate the gauge 180°.

❶ Position the graduated scale zero Fig.② under the red line of the window using the adjusting button Fig.③.
❷ Position the bubble in the centre of the spirit level Fig.① using the adjusting bolt Fig.④ of the spirit level Fig.① by screwing it in or out.

NOTE: **use the same bolt for each adjustment operation. The other bolt must never be used to make adjustments and must not be completely screwed in, so that the spirit level still has adjustment clearance.**

❸ Rotate the gauge through 180°.
❹ Place the bubble in the centre of the spirit level Fig.① using the adjusting button Fig.③ and read the value displayed on the graduated scale Fig.② (for example: 40mm).

Note: If the value is less than 30mm, return to point ❶ above without rotating the rule through 180°.

❺ Divide the value (read at point ❹ above) by 2 (e.g. 40/2 = 20mm)
❻ Position this new value (example: 20mm) beneath the red line on the window.
❼ Position the bubble in the centre of the spirit level Fig.① using the adjustment bolt Fig.④ on the spirit level Fig.①.
❽ Check that the adjustment is correct by applying the procedure in paragraph §3.3 Checking the adjustment of the superelevation.

Note: If the superelevation is not properly adjusted, repeat steps **❶ to ❽** in paragraph §3.4 "Adjusting the superelevation."

3.5 Track measurement system calibration and certificate

This measurement equipment must be inspected annually. Geismar has metrological resources and can provide a certificate of compliance.
Regular calibration checks are carried out during routine maintenance operations. They must be performed while making measurements using the measuring apparatus at specific locations where the geometry is already known. If there is a suspected fault, the instrument must be immediately returned to your Geismar representative for complete calibration or repair.
We recommend returning the measurement equipment to your Geismar representative for calibration every 12 months or in accordance with your company's Quality policy.

3.6 Inspecting the equipment

Each component of the gauge must be inspected by a qualified person prior to commissioning in order to detect any defects. This is mainly a visual and operational inspection.
The inspection phase ensures the different components are in good condition and have not been damaged during transport or storage.

- ***General inspection of the measuring apparatus***

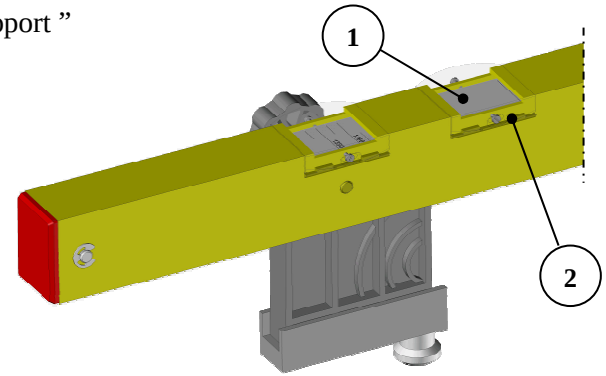
  Make sure all components are tightened properly, that there are no deformations, superficial cracks, wear or signs of corrosion.
  Make sure all mobile lugs are in good condition.

- ***Checking the operation***

  Make sure the adjustment turning knobs function properly: this means that when they are operating, the components must move as smoothly as possible, without sticking.
  Make sure the telescopic holder slides without sticking and there is not too much functional clearance.
  If necessary, refer to §5.1.3 " Adjusting the flangeway and telescopic holder cursor of the mobile support "

- ***Checking the presence of glue sealing on the reading window***

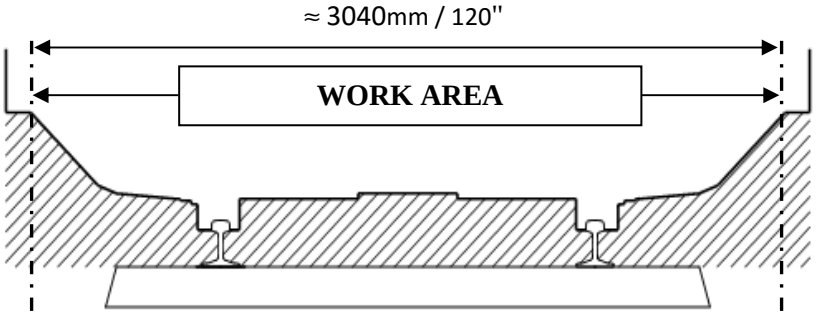
  Make sure each reading window Fig.① of the measurement apparatus has glue sealing Fig. ② on one of the sides.



IN THE EVENT AN ANOMALY SHOULD BE FOUND DURING THIS INSPECTION OR DURING USE, THE MACHINE MUST BE RESTORED TO FULL COMPLIANCE BY QUALIFIED PERSONNEL OR BY THE MANUFACTURER PRIOR TO RE-USE.

CHAPTER 4 – USE

4.1 Conditions of use



4.1.1 Work area and operator position

The operator work area is situated within the two vertical limits (between the two rails), defined by the UIC 505-1 loading gauge (Cf. §2.4 "Location of the machine in the loading gauge").
During work, the operator must always crouch in front of the gauge in order to maintain complete control of it.
The operator must always be positioned in the middle of the track, never be located outside the two vertical limits of the UIC 505-1 loading gauge.

4.1.2 Precautions to take before carrying out measurements

Prior to each use, check:
- that the sides of the support are clean.
- that everything functions properly.
- the period of validity of the measuring device.

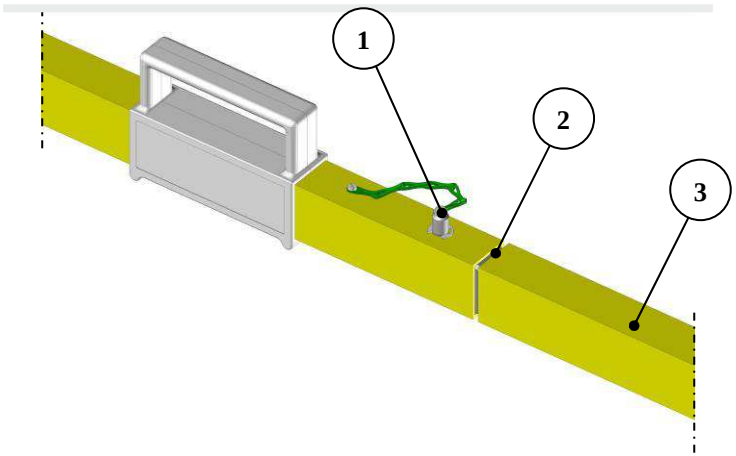
⚠ Prior to each measurement, make sure the gauge is perpendicular to the track, meaning the 2 fixed support lugs are in contact with the side of the rail.
⚠ The fixed support must always be to the left of the person making the measurement.

4.2 Operating the equipment

4.2.1 Assembling the gauge and isolating bar (options: model -T)

The isolating bar-equipped rules Fig.② must be assembled prior to use.

To do this, make sure the frame of the gauge Fig.③ and the isolating bar Fig.② are clean. Insert the isolating bar Fig.② in the frame of the detached part of the gauge Fig.③. Insert the pin Fig.① to lock the assembly in place.

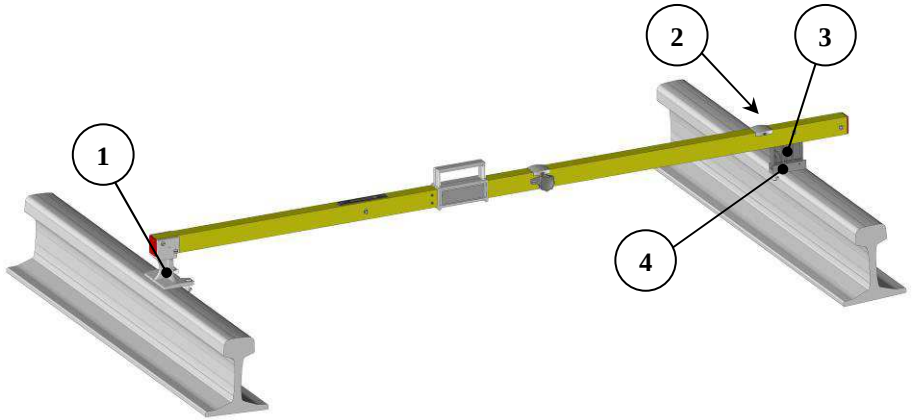


⚠ Make sure there is no play once the gauge is assembled.

4.2.2 Placing the gauge on the track

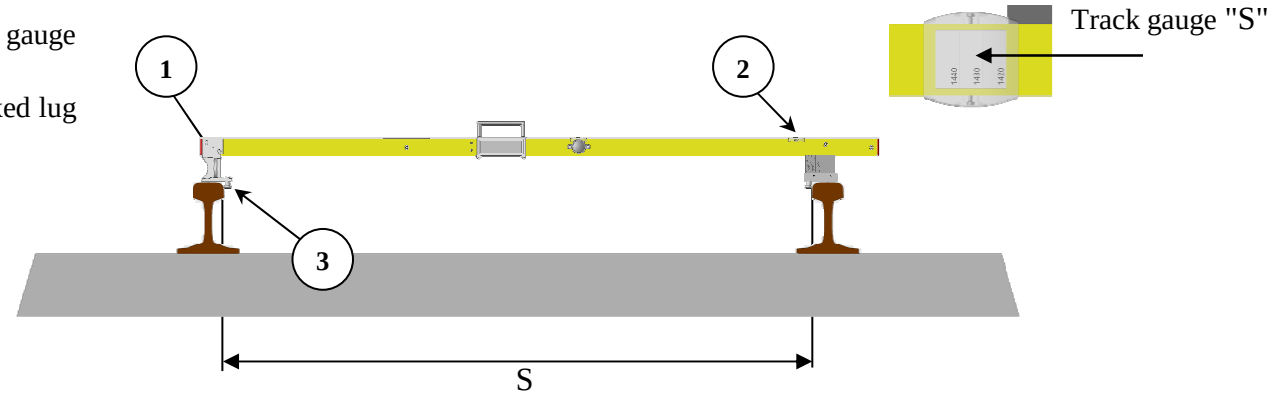
The gauge must be on a fixed support Fig.① and a mobile support Fig.④ lying directly on the rails. Do this as follows:

❶ Partially unscrew the turning knob Fig.② to free the telescopic holder Fig.③.
❷ Place the fixed support Fig.① on the first rail.
❸ Pull the telescopic holder Fig.③ and simultaneously position the mobile support Fig. ④ on the rail.
❹ Release the telescopic holder Fig.③.



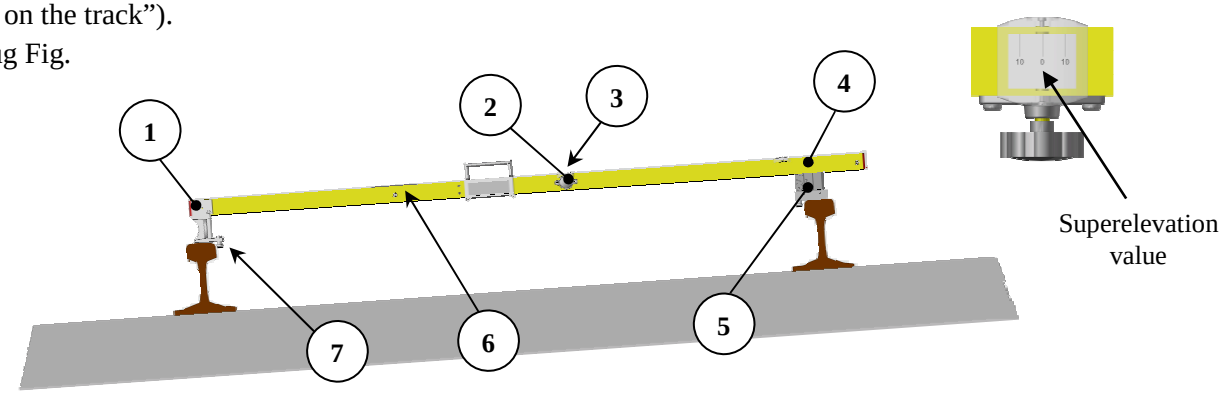
4.2.3 Measuring the track gauge

- Place the gauge on the track (refer to §4.2.2 “Placing the gauge on the track”).
- Push the fixed support Fig.① against the left rail so the fixed lug Fig.③ is flat against the side of the rail.
- Read value "S" of the track gauge on the graduated scale through the track gauge reading window Fig. ②.



4.2.4 Measuring the superelevation

- Place the gauge on the track (refer to §4.2.2 “Placing the gauge on the track”).
- Push the fixed support Fig.① against the left rail so the fixed lug Fig. ⑦ is flat against the side of the rail.
- Pull the telescopic holder ig.⑤ and lock it in place using the turning knob Fig.④ to obtain a track gauge that is less than the track to be measured.
- Turn the button Fig.② on the side of the transport handle to centre the bubble with respect to the scale of the spirit level Fig.⑥.
- Read the superelevation value through the reading window Fig.③ located below the turning knob Fig.②.



4.3 Storage

General storage recommendations

During periods when the equipment is not in use, it is indispensable to store it properly in order to keep it in good working order. Poorly-stocked equipment may deteriorate when recommissioned. Il is also important for the personnel responsible for storage operations to take great care during storage, and to carefully follow the recommendations.

⇨ Storage protection system

The choice of storage protection systems depends on 2 main factors:

- the duration of storage.
- the storage conditions: "unprotected" storage (exposure to bad weather) and "protected" storage (building, closed hangar, open hangar, canopy, etc.)

⇨ Storage sites

In general, premises for storing equipment should provide as good protection as possible against:

- dust, humidity.
- direct sunlight.
- rapid temperature changes.

⇨ Storage procedures

The state of the equipment when recommissioned after storage depends on the way it was prepared and protected before storage:

- cleaning the equipment.
- technical inspections to check for anomalies.

CHAPTER 5 – SERVICING / MAINTENANCE

5.1 Servicing

Proper training, skills and tools are required to correctly use, maintain and repair this material.
This equipment may only be serviced and repaired by skilled personnel with a thorough knowledge of general metrology.

⚠ Any malfunction or fault must give rise to a metrological inspection.

⚠ Waste resulting from servicing and maintenance operations (fluids, filters, used cloths, etc.) must be processed in accordance with applicable regulations governing the protection of the environment.

⚠ **Any part that is worn, damaged or missing must be changed or repaired immediately, whenever there is a risk in terms of safety.**

⚠ All replaced parts must be metrologically inspected.

5.1.1 List of equipment and accessories essential for servicing

The following tooling is required for carrying out all servicing and maintenance operations correctly:

Maintenance and servicing tooling (not provided with the machine)
Flat-head screwdriver. Phillips-head screwdriver. N° 8 and 10 open-ended spanners. 1, 5, 2 and 4 spanners Multifunction pliers.

This list of tooling does not exclude the need for normal necessary equipment such as: cloths, brushes, etc.

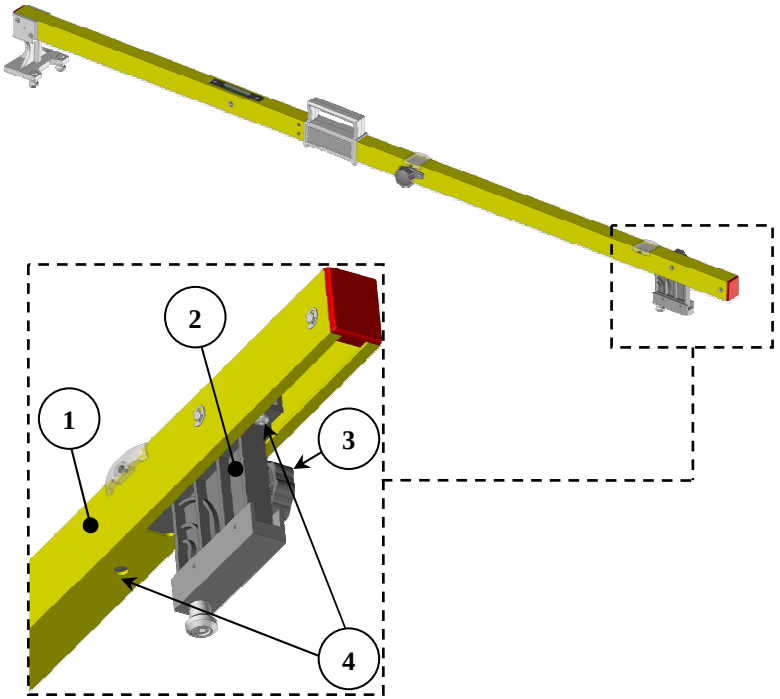
5.1.2 Cleaning

The gauge is a measuring instrument. Make sure that the equipment is kept as clean as possible. Care in cleaning the gauge will lead to longer service life and improved performance.

Clean the equipment carefully with a clean cloth or an airgun, taking special care to remove all dirt that has accumulated on it, especially close to any moving parts. Do not use fuel for cleaning operations. Only use non-inflammable, non-toxic products that are inoffensive for both the operator and the machine.

5.1.3 Adjusting the telescopic holder of the mobile support

For translation guidance of the telescopic holder, there must be functional clearance between the frame of the gauge Fig.① and the telescopic holder Fig.②. This clearance can be adjusted via 2 bolts Fig.④ but must remain minimal for the mechanism to function properly. If these 2 bolts are too tight, the telescopic holder will be locked in place. It must be able to freely slide and return to initial position for contact and recall on the side of the rail. If there is too much clearance, however, the values given will be distorted by the rotation of the graduated scale attached to the telescopic holder.



To verify the adjustment of the clearance of the telescopic holder, do the following:

❶ Partially unscrew the turning knob Fig.③ to free the telescopic holder Fig.②.

❷ Pull the telescopic holder Fig.② to the inside of the track, simultaneously rotating it, to visualise the functional clearance, then release it.
- If the telescopic holder does not return to initial position, there is not enough functional clearance, and the clearance must be adjusted.
- If the rotation causes the graduated scale to move, there is too much clearance: adjust it.

To adjust the clearance, proceed as follows:

❶ Partially unscrew the 2 bolts Fig.④.

❷ Progressively tighten the 2 bolts by the same number of turns.

Repeat steps ❶ and ❷ until it is correctly adjusted.

The 2 bolts Fig.④ must be tight enough to limit the clearance and allow the mobile support to move, without locking the assembly and while maintaining the precision of the gauge measurement.

5.2 Maintenance

5.2.1 Preventive maintenance schedule

COMPONENTS	TYPE OF OPERATION	FREQUENCY						See
		Before each use	After each use	Every week	Every 50 hours	Every 100 hours	Malfunction	
Complete gauge	Inspection of the measuring apparatus	X						Chap.3 § 7
	Perform general cleaning with a clean cloth or blow nozzle to remove dirt from the measuring apparatus		X					Chap.5 § 1.2
Superelevation device	Checking the adjustment of the superelevation	X						Chap.3 § 4
	Adjusting the superelevation						X	Chap.3 § 5
Telescopic holder	Adjustment			X			X	Chap.5 § 1.3
Flangeway cursor (for equipped models)	Adjustment			X			X	Chap.5 § 1.3
Isolating bar	Verification of adjustment	X					X	Chap. 4 § 2.1

NOTE: These recommendations are not exhaustive. Constant monitoring of equipment and properly organising regular preventative maintenance can only extend the lifespan of the rules.

Indications given on the preventive maintenance schedule are given for machines used under normal conditions. In more difficult working conditions and longer working days the frequency of maintenance operations must be shortened accordingly.

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5.2.2 List of normally-wearing parts

This is a list of normal wear parts on the equipment together with the conditions under which they should be replaced.

Nevertheless, any part that is worn, damaged or missing must be changed or repaired immediately, whenever there is a risk in terms of safety.

Description	Ref.	New reference	No.	Replacement conditions
Spirit level	N 00235	200045	1	Deterioration
Transport handle	H 11831	---	2	
Turning knob	H 11855	200040	Depending on model	Wear or breakage
Blocking knob (RCFF only)	H 11865	---	1	
Stop valve	H 82922	---	2	Loss or deterioration
Pin (if equipped)	H 80839	---	1	

CHAPTER 6 – SPARE PARTS CATALOG

6.1 Drawings and parts lists

IMPORTANT

Afin que votre commande de pièces de rechange soit suivie d'une livraison prompte et correcte, bien indiquer :

- Le rep., le nombre et la désignation des pièces de rechange
- Le type et le n° de série de la machine (plaque sur le châssis)

****

IMPORTANT

To ensure that you are delivered promptly and correctly after placing an order for spare parts please state:

- the Reference, number and description of the spare parts
- the type and serial number of the machine (to locate this number, look at the plate on the chassis)

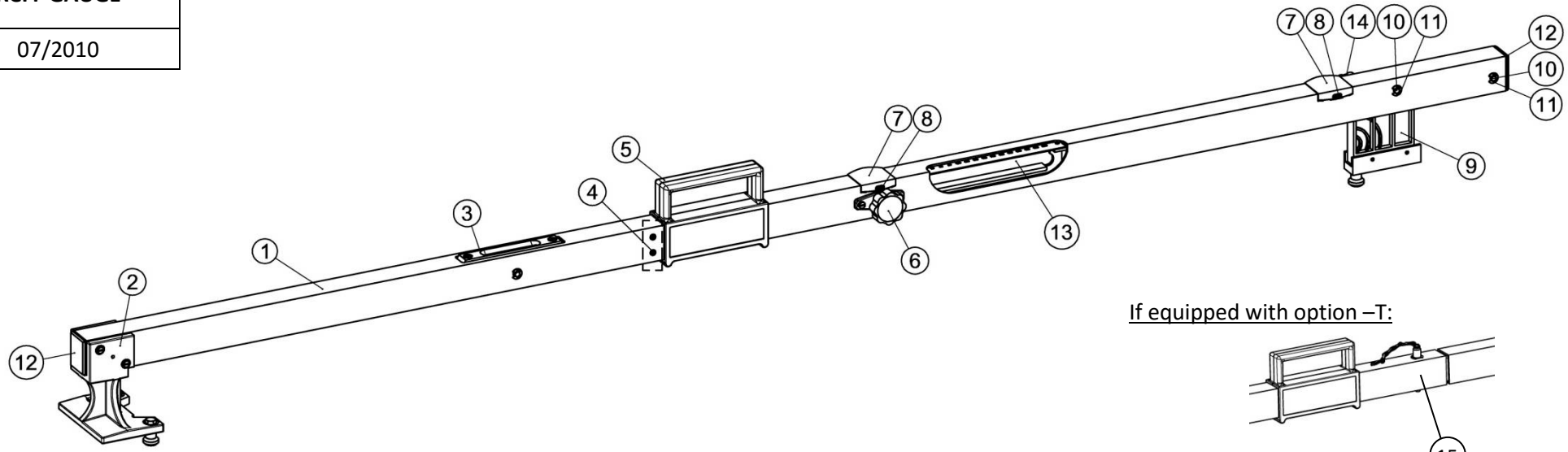
****

WICHTIG

Um uns eine schnelle und fehlerlose Erledigung lhres Ersatzteil-Auftrages zu erlauben, bitten wir Sie um folgende Angaben :

- Seriennummer und Baujahr der maschine
- Benennung und Bestellnummer der Ersatzeile

N°	RCFF
RCFF GAUGE	
07/2010	

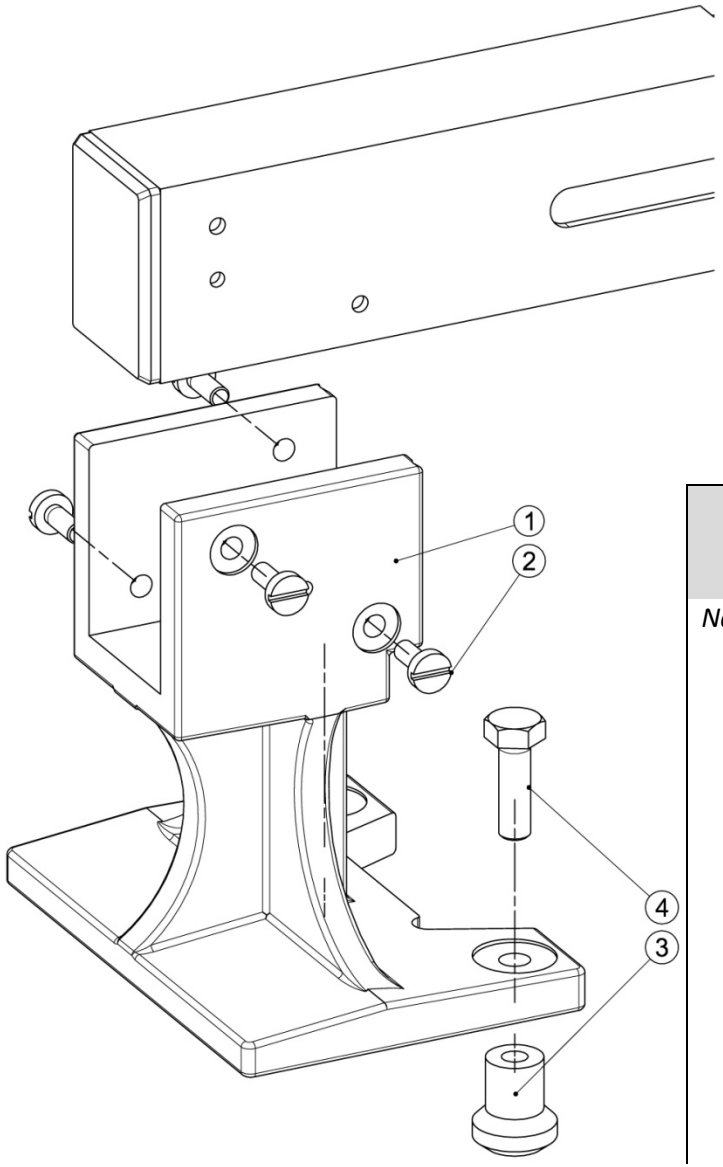


If equipped with option –T:

N°	Description	Quantity	Reference
1	Gauge frame	1	-
2	Wide support	1	*See A*
3	Spirit level	1	*See B*
4	Lifter	1	*See C*
5	Half-handle	2	H11831
6	Turning knob	1	*See D*
7	Window	2	H64868
8	CS M2x5 bolt	4	LMY
9	Track measurement system	1	*See E1*
10	Axis	2	N02481
11	Ø6 ring	4	HSF
12	Stop valve	2	H82922
13	Slider block	1	*See F*
14	Blocking knob	1	*See G*
15	Separation system	1	*See J*

N°	A1
Wide support	
07/2017	

N°	Description	Quantity	Reference	New reference
1	Wide support	1	H64867	200042
2	TC M4x10 bolt	4	LMT	---
3	Measurement lug	2	*See (1)*	---
4	H 6x20 bolt	2	R*	---



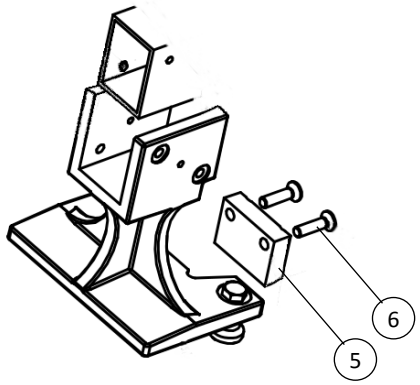
Type	Reference	Old reference	Diameter *(mm)*	Height of measurement beneath centre line *(mm)*
	200021	N02585	16	16
	200016	N02586	16	14
	200022	N02587	16	9
	200023	H22484	16	14
	200024	N02814	16	10
	200025	N02581	16	9

Other lugs: consult us.

(1) Choice of measurement lug

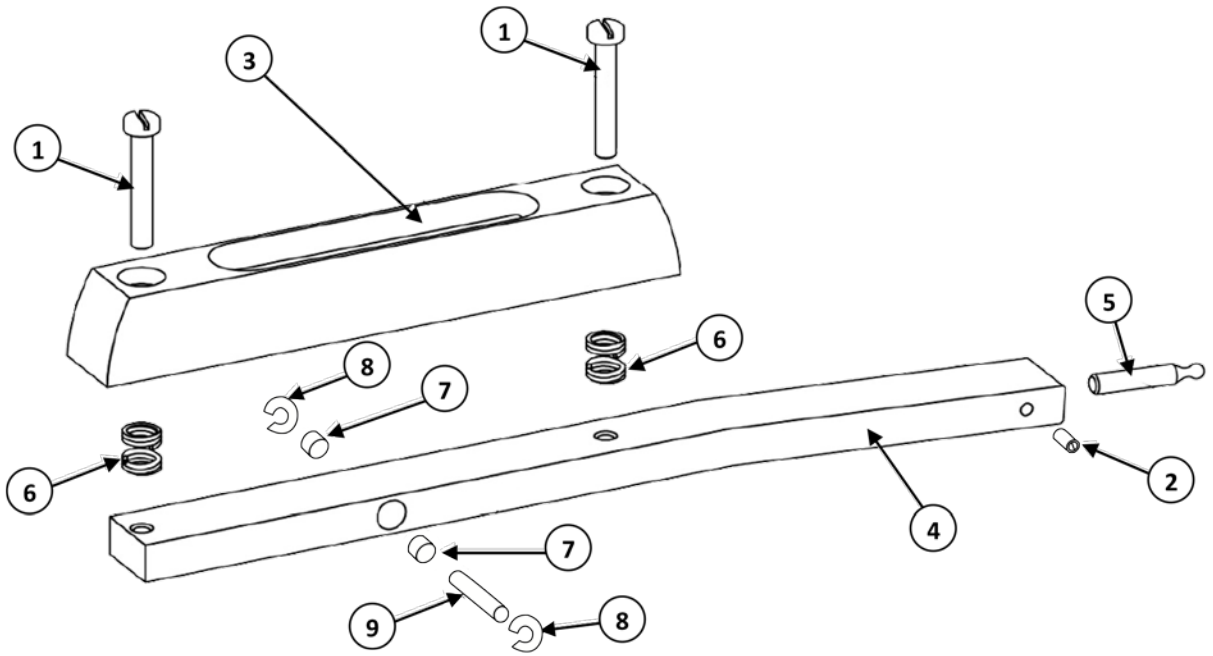
Option for gauges RCFF 1065

Name : Longitudinal stop



N°	Description	Quantity	Reference
1	Wide support	1	200042B
2	Screw TC M4x10	1	LMT
3	Measurement lug	2	200016
4	Screw H 6x20	2	R*
5	Plate	1	200074
6	Screw	2	BRC

N°	B
Level	
07/2017	

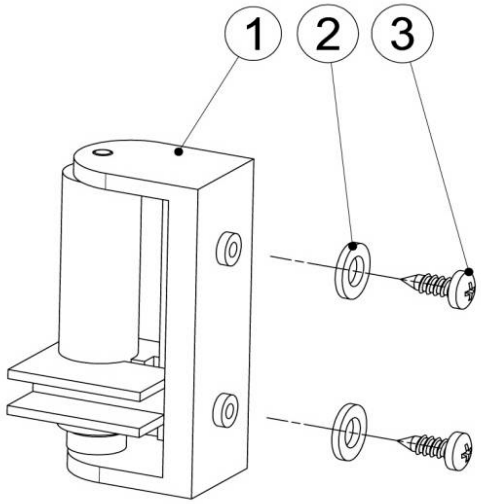


1) Choice of level support adjustment beam

N°	Description	Quantity	Reference	New reference
1	CS 4x25 bolt	2	AOD	---
2	HC 3x6 flat-end bolt	1	LMW	---
3	Spirit level	1	N00235	200045
4	Level support adjusting beam	1	*See (1)*	---
5	Pin	1	N02478	---
6	Compression spring	2	N02480	---
7	Spacer	2	N02482	---
8	Ring	2	HSF	---
9	Axle	1	N02481	---

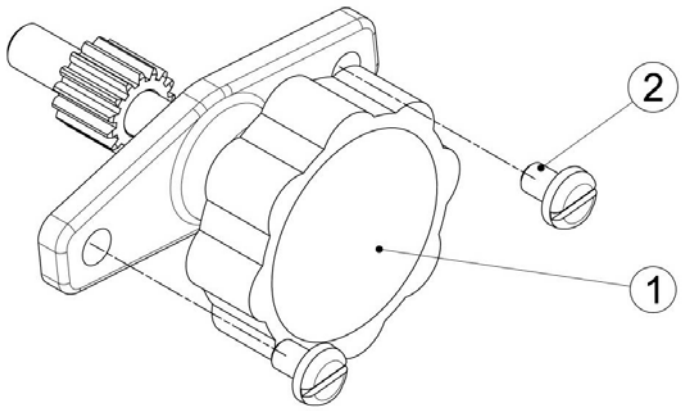
For track =	Reference	Old reference
762mm	200000 CN	-
900mm	200019	N04210
914mm / 36“	200031	N04211
950mm	200032	N02676
1000mm	N02625	-
1067mm / 42“	200013	N02628
1435mm / 56“1/2	N02476	-
1520mm	200017	N02841
1600mm	200018	N02632
1668mm / 1676mm	N02633	-

N°	**C**
Lifter	
07/2010	



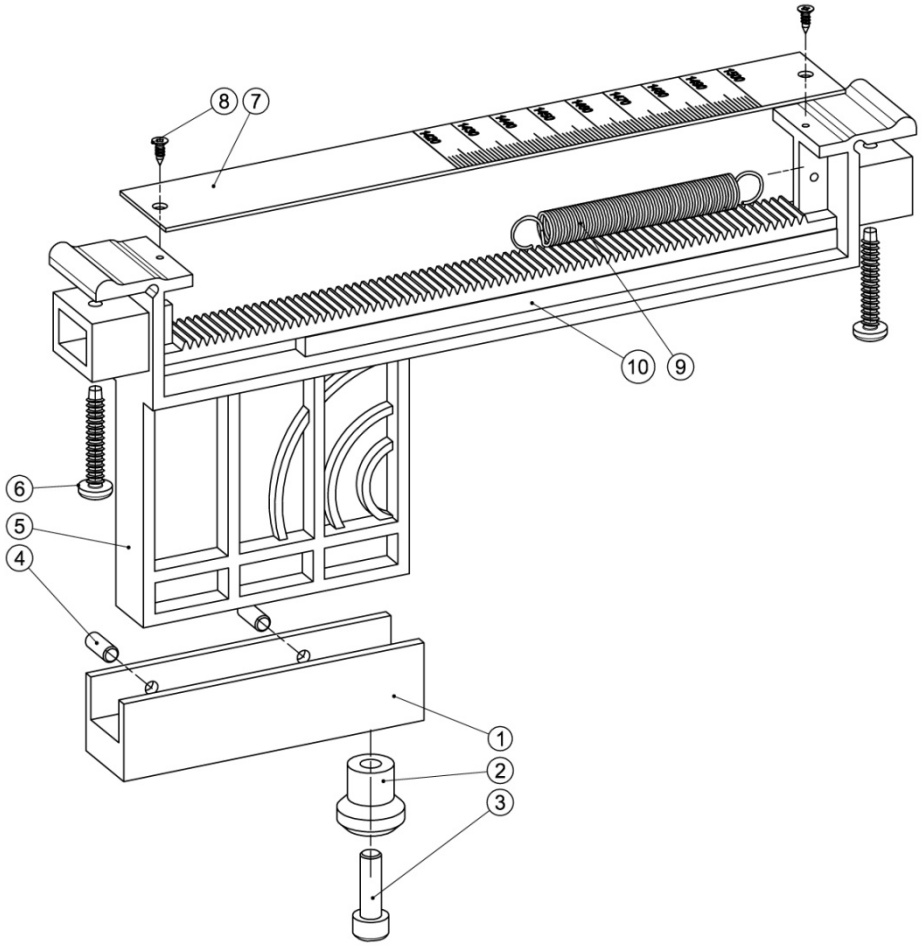
N°	Description	Quantity	Reference
1	Complete lifter	1	N02465
2	Z3 washer	2	DBS
3	Bolt	2	LMZ

N°	D
Turning knob	
07/2010	



N°	Description	Quantity	Reference
1	Turning knob	1	N02514
2	TC 4x6 bolt	2	LMS

N°	**E1**
RCFF track gauge measurement system	
12/2010	



N°	Description	Quantity	Reference
1	Straight support	1	*See (3)*
2	Measurement lug	1	*See (2)*
3	CHC 5x16 bolt	1	BPW*
4	HC 4x10 flat-end bolt	2	LMV
5	Track telescopic holder	1	H82048
6	Ø4x25 bolt	2	LBF
7	Track rule	1	*See (1)*
8	TF2.2x6.5 CZ sheet bolt	2	LNA
9	Return spring	1	D15493
10	Rod	1	N02523

(1) Choice of track rule

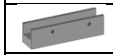
For track =	Reference
36“	N04209
42“	N02682
1435mm	N02592
56“1/2	N02734
Other track in mm (relative measurement)	200012

(2) Choice of measurement lug

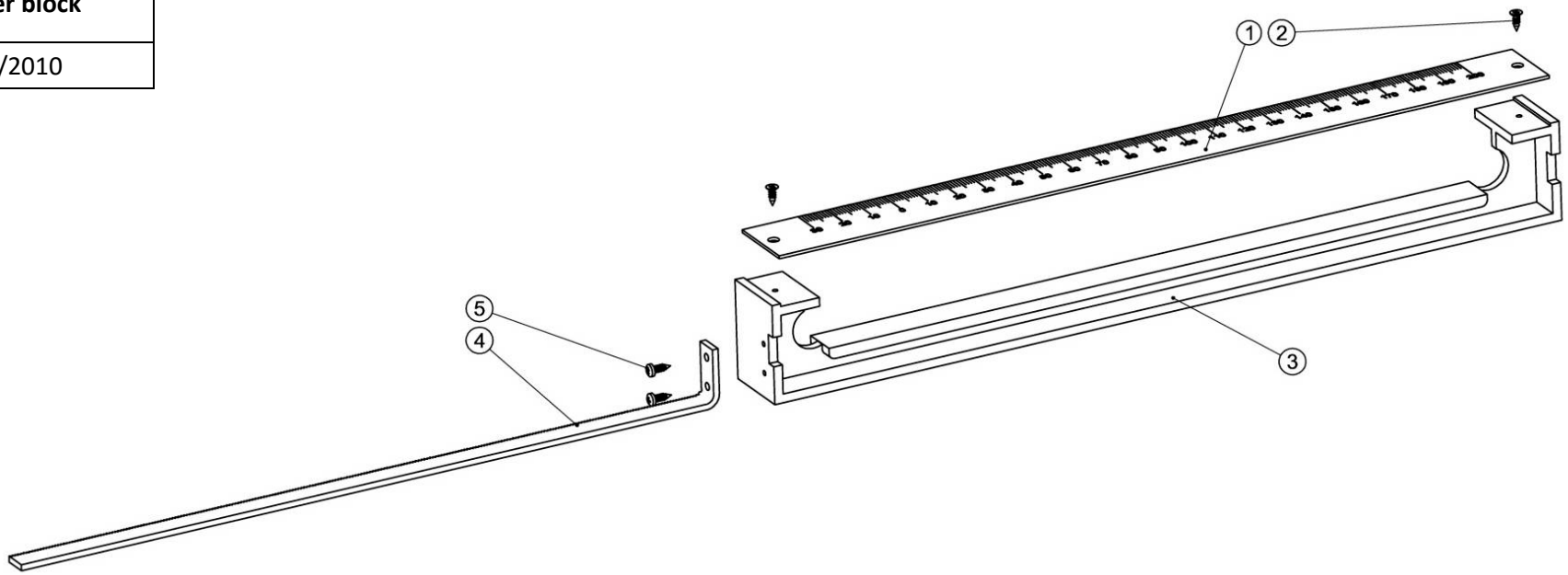
Type	Reference	Old reference	Diameter *(mm)*	Height of measurement beneath centre line *(mm)*
	200021	N02585	16	16
	200016	N02586	16	14
	200022	N02587	16	9
	200023	H22484	16	14
	200024	N02814	16	10
	200025	N02581	16	9

Other lugs: consult us.

(3) Choice of straight support

Type	Reference
	200005
	H70254

N°	F
Slider block	
07/2010	

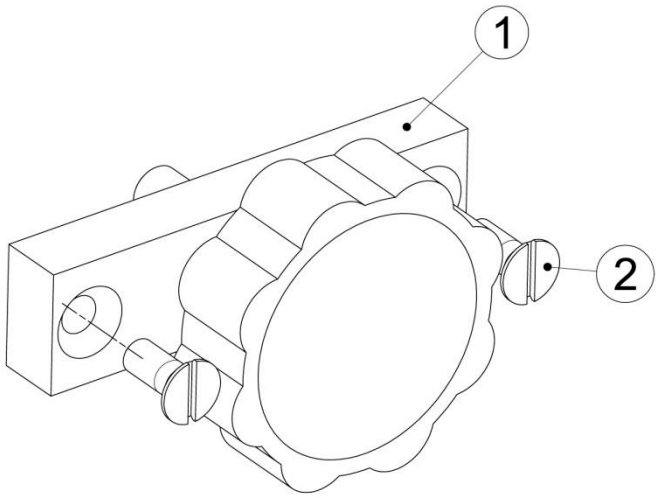


N°	Description	Quantity	Reference
1	Superelevation rule	1	*See (1)*
2	TF2.2x6.5 CZ sheet bolt	2	LNA
3	Slider block	1	N02528
4	Control rod	1	N02531
5	CS 2.2x6.5 sheet bolt	2	LMZ

(1) Choice of superelevation rule

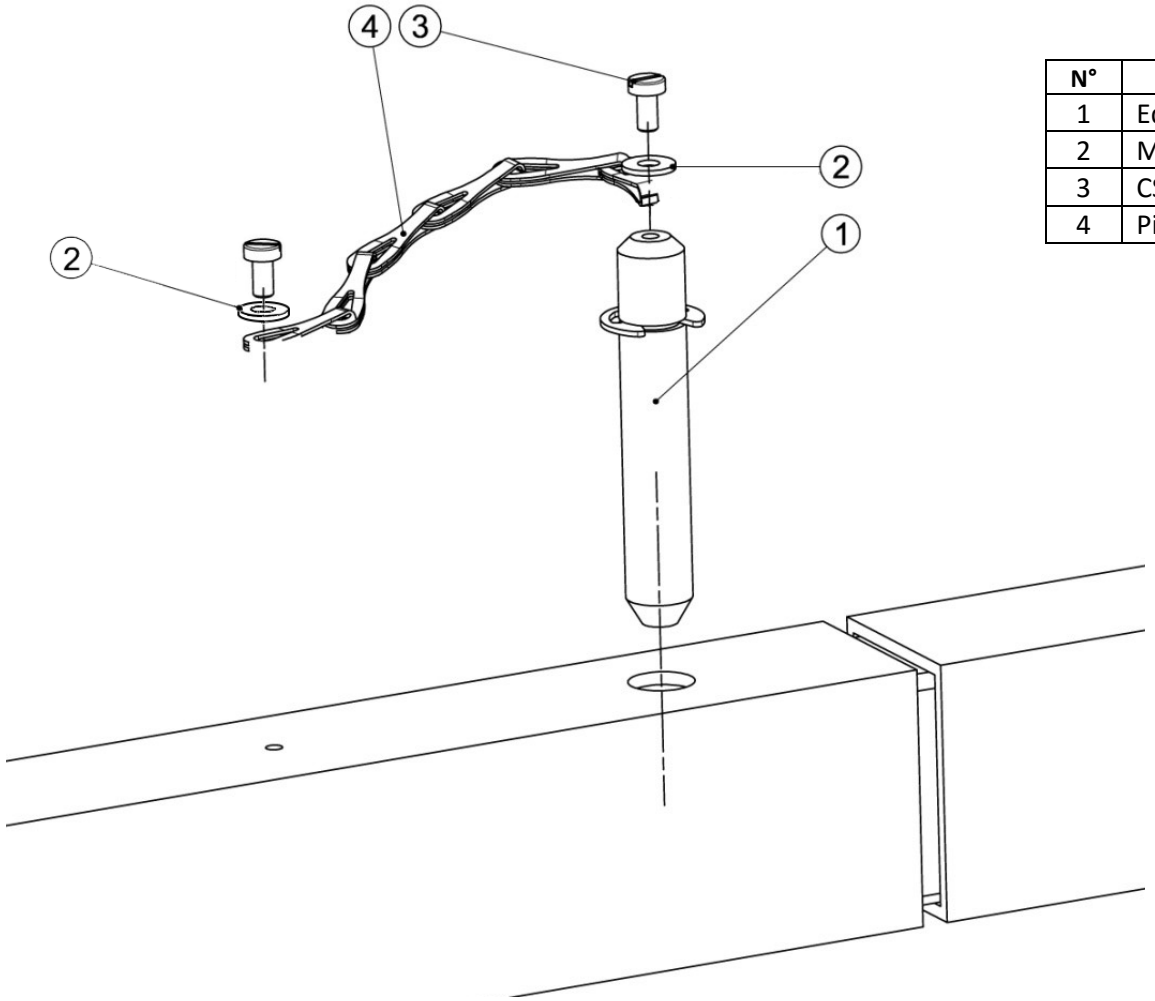
Reference	Description
N02599	Scale mm
N02530	Scale inches

N°	**G**
Blocking knob	
07/2010	



N°	Description	Quantity	Reference
1	Blocking knob	1	N02463
2	TF 4x6 bolt	2	MT

N°	J
Separation option (-T)	
09/2016	



N°	Description	Quantity	Reference
1	Equipped pin	1	H28265
2	M3 washer	2	DBS
3	CS 3x6 ZG bolt	2	LMU
4	Pin chain	1	H79230

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