



# Lightweight 1.5T 1435 gauge trolley

HSL COMPATIBLE  
SNCF CERTIFICATION MTP18364

USER'S MANUAL

12111020



42111035 Rev00  
November, 6th, 2024

**Partners in excellence**



# Foreword

This user’s manual is applicable to following products:

12111020: Lightweight 1.5T 1435 gauge trolley

# Revisions historic

Version	Date	Author	Comments
00	06/11/24	FR	Document creation

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# 1. General informations

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This user's manual is a translation of the French version. The French version will be decisive in case of litigation.

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User or maintenance personnel must have read and understood these instructions for use.

The instructions must be always accessible and to all person concerned.

## 1.1 About the notice

This user's manual has been drawn up according to the technical data applicable at the time of printing. Minor changes may occur as part of product improvement.

Technical data is given as an approximation.

The photos are non-contractual (modification of the machine, optional accessory, etc.)

## 1.2 General requirements

Labor laws applicable in the areas of use and the instructions relating to safety must be respected. In the event of non-compliance, the operator will assume full responsibility.

In the event of a discrepancy between the regulations at the operator those of the machine manufacturer and its supplier, the most stringent regulations will apply.

The purchaser is responsible for providing all equipment, consumables, and resources necessary for commissioning the product and training staff. The manufacturer of the product having non influence of the conditions of use and training of personnel, declines all responsibility for the application of the instructions and training received.

However, our After-Sales Service is at your complete disposal to provide consulting, training, and other advisory services.

## 1.3 Receiver of the operating instructions

The instructions for use described in this user's manual enable the product to be used properly.

These instructions are written for the exclusive use of qualified personnel who have proven their ability to handle the product as well as product maintenance personnel.

## 1.4 Exclusion of liability

Any use of the product different from that indicated is non-compliant and endangers the life and health of personnel as well as the surrounding equipment.

PANDROL declines all liability in the event of bodily injury or material damage to the operator or third parties in the following cases:

- When the product is not used in accordance with instructions,

- If these instructions have not been read or understood by the user or the maintenance personnel or if the personnel are not sufficiently qualified.
- If the product has been used for an application other than that intended,
- If the product is used in condition outside the indicated limit values
- If the product is not maintained using original spare parts,
- If components and related elements of the product are modified arbitrarily.

## 1.5 Intellectual property

The technical characteristics and construction features of the product constitute the intellectual property of PANDROL.

The copyright on this user's manual belongs to PANDROL. Any reproduction, publication, or any other mode of exploitation for competitive purposes of this user's manual is prohibited. The purchaser and operator of the product is prohibited from communicating its content to person outside the company.

## 2. Safety labels explanation



Read carefully this user's manual instructions and make sure you understand it before using the machine



Warning ! the machine can be dangerous. Careless or incorrect use can result in injury to the operator.

### 3. General safety instructions

- Never start up the machine until you have read and understood the directions for use,
- User must always work with clean equipment,
- Never use the machine when you are tired or under influence of medicines, alcohol or substances which can alter your sight, dexterity, or appreciation capacity,
- Operator must respect the regulations, procedures, and particular applicable orders in effect yard,
- Use and maintenance interventions must be carried out by qualified personnel,
- The machine must be handled by 4 operators and be held with both hands to drive it with accuracy and safety, careless use can turn it into a dangerous tool,
- The operator must ensure that no one can affect his work (people, animals, flammable material, buried cables and wires). Sawing operation can start when the working area is free from any obstacle,
- Under no circumstances the original design and configuration should be modified without approval from PANDROL,
- To work safely the operator must have a firm foothold and a good balance,
- The personal protective equipment is mandatory (safety shoes, protective gloves).

## 4. Description

The trolley is designed for transporting equipment on 1435 mm gauge railways. Its load bearing capacity is 1500 kg when evenly distributed.

It is fitted with a “fail-safe” type immobilization system. A removable stem blocks the rotation of the two rollers, one for each railway track.

Push bar and brake control are reversible.

The trolley is electrically insulated at the rollers and can be used safely on the track.



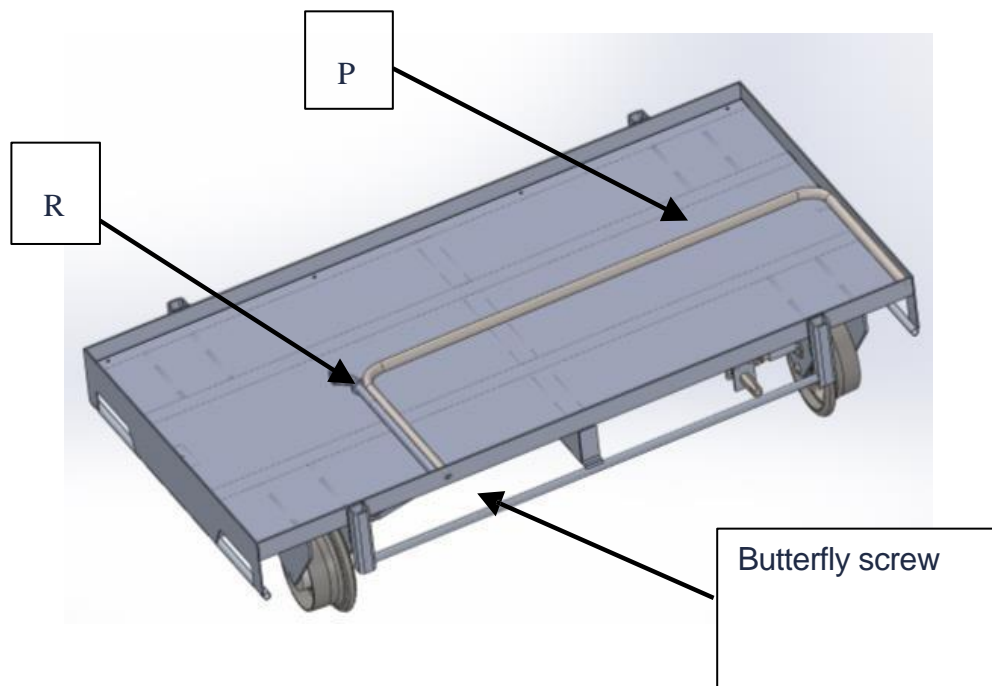
## 5. Use instructions

### 5.1 Storage

The trolley does not require any special storage conditions.

However, do not store loads on the trolley which exceeds its capacity.

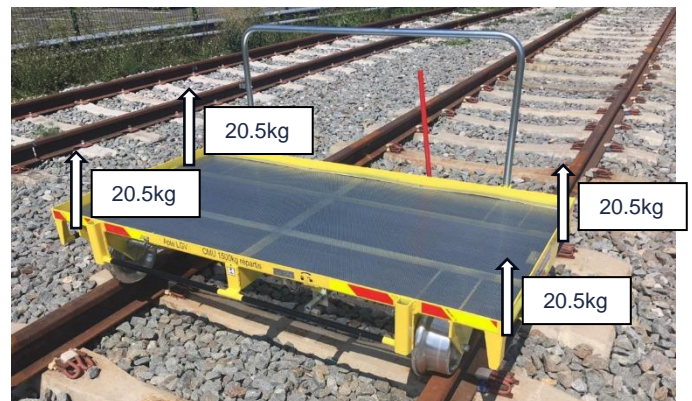
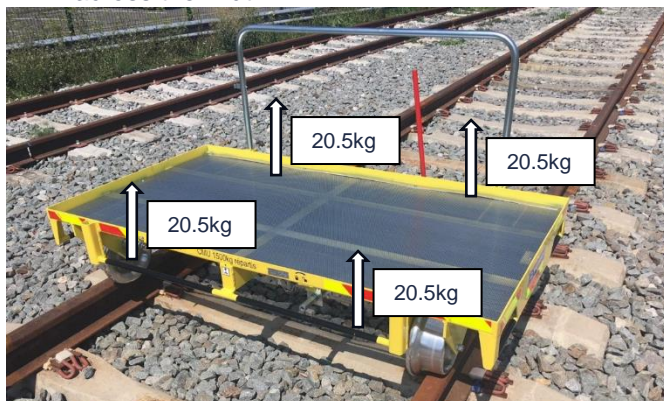
Push bar ( P ) and brake release lever ( R ) are stored on the platform.



### 5.2 Handling

The trolley is fitted with handles:

- 2 along the length
- 4 across the width



### 5.3 Safety measures to be taken before use



Before loading onto the rails, systematically check that the immobilization system works properly.

### 5.4 Use

After loading onto the railway, install the push bar, by :

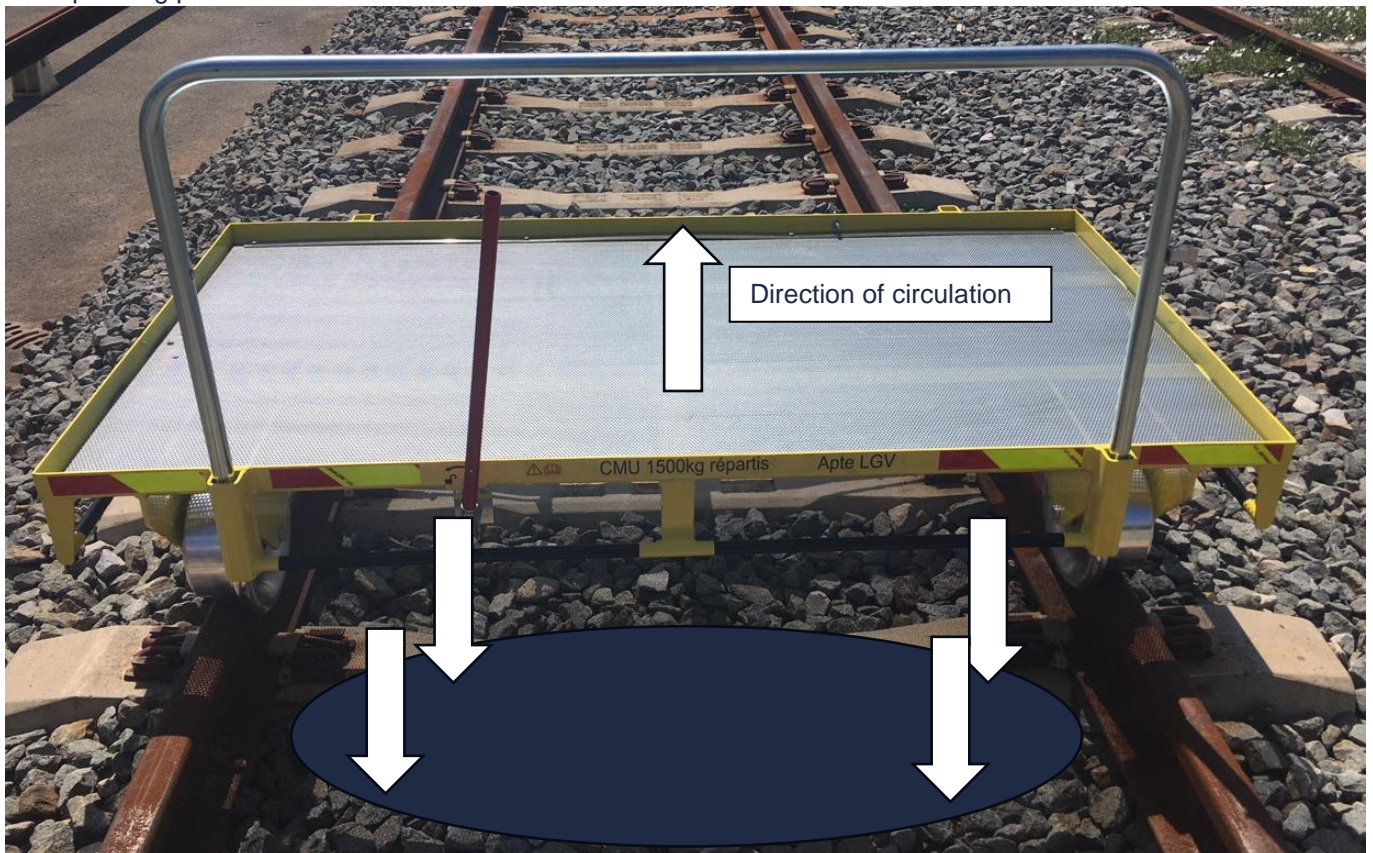
- Loosen the butterfly screws which hold the push bar in place
- Slide the push bar to the left by a few centimeters
- Slide the push bar into the square tubes on the relevant side.
- Disconnect the brake release lever from the push bar.
- Slide the Allen key of the brake release lever onto the hex pin of the trolley.

In order to be comfortable in use, the lever must be vertical.

- Grab the push bar and operate it in the direction shown by the arrow.

### 5.5 Work station

The operating position is marked in the blue area with 4 arrows.



## 6. Maintenance

### 6.1 Maintenance periodicity

Responsibility for maintenance is the responsibility of the owner of the equipment. Maintenance must be carried out at least once a year by a competent and qualified person.

OBJET	NATURE OF THE OPERATION	PERIODICITY					
		Before using	After using	50h of use	100h of use	Each year	Precense of wear signs or incorrect functioning
Complete machine	Inspection of the machine						
Complete machine	Clear the engine using a towel or comprimed air gun to remove the dirtiness						
Roller	Cleaning						
	Check clearance (adjust if necessary)						
Linkage device	Replace						
Immobilization system	Check the functioning						
	Check of wear						
	Replace						

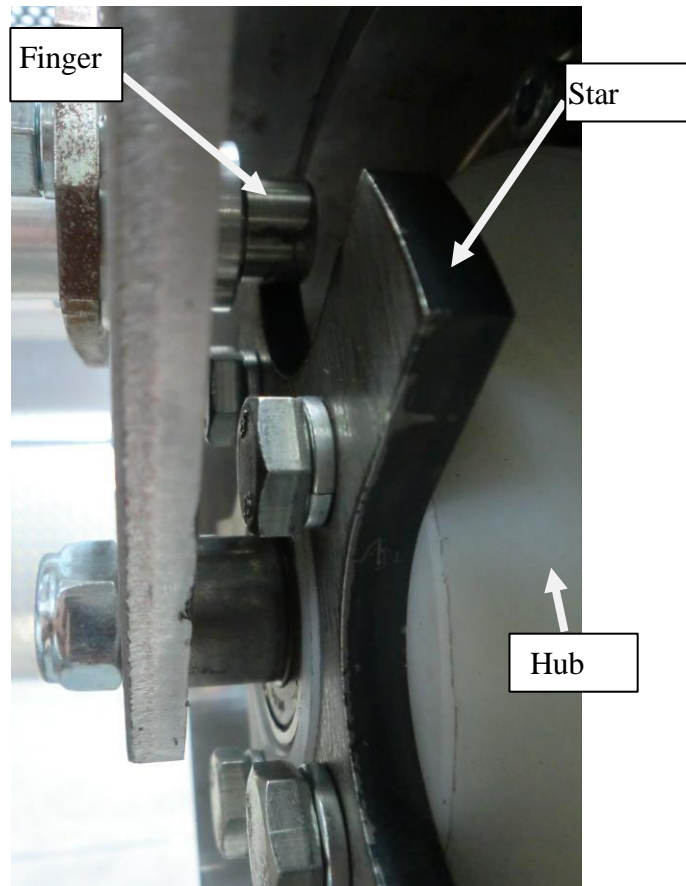


## 6.2 Specific point

### 6.2.1 Immobilization system

Four elements must be checked on an annual basis:

- The two immobilization stars, which are fastened to the wheel: the branches of the star may be caulked, but the irregularities must not exceed 1 millimeter. The inspection is conducted off the track. Operate the brake lever and turn the wheel by hand in order to rotate the five branches of the star
- The two locking fingers fastened to the frame: Disconnect the finger of the connecting rod. Remove the two screws which hold the bearing of the arm in place and remove the entire assembly. The end of the arm, which protrudes from the bearing must not have irregularities which exceed 1mm.



### 6.2.2 Reflective strip

In case of damage to the reflective strips, please change them using our kit: Ref: 22111024



### 6.3 After-Sales Service

For all requests for repairs or spare parts, please contact our After-Sales Service at the following email address:

**[contact.sav@pandrol.com](mailto:contact.sav@pandrol.com)**

When making your request, please specify the machine reference, as well as its serial number and year of manufacture.

### 6.4 Environmental protection

For all works carried out with or on the machine, comply with legal obligations to limit and avoid waste. The management of this waste must be done in comply with the environmental protection regulations in force in the country of use.

During repair and maintenance work, materials that may contaminate water such as lubricants and oils, should not contaminate the ground or be poured into pipes.

### 6.5 Elimination

Elimination of the machine and its components or fluids must comply with local disposal regulations.

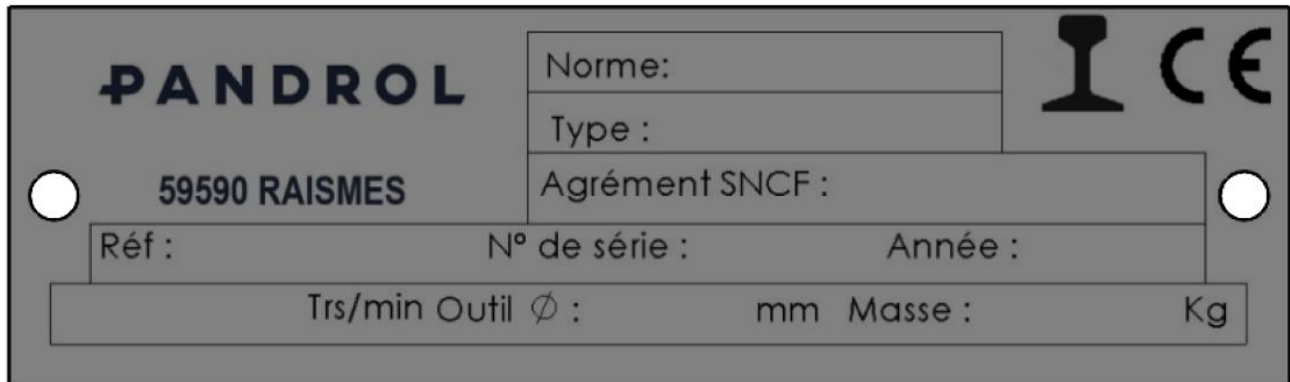
Due to risk of pollution for the environment, call on a specialized company to dismantle the machine.



## 7. Signalization

### 7.1 ID Plate

Our machine is manufactured under a traceability process and identified by a unique serial number.



### 7.2 EN 13977 Label



### 7.3 HSL compatible label



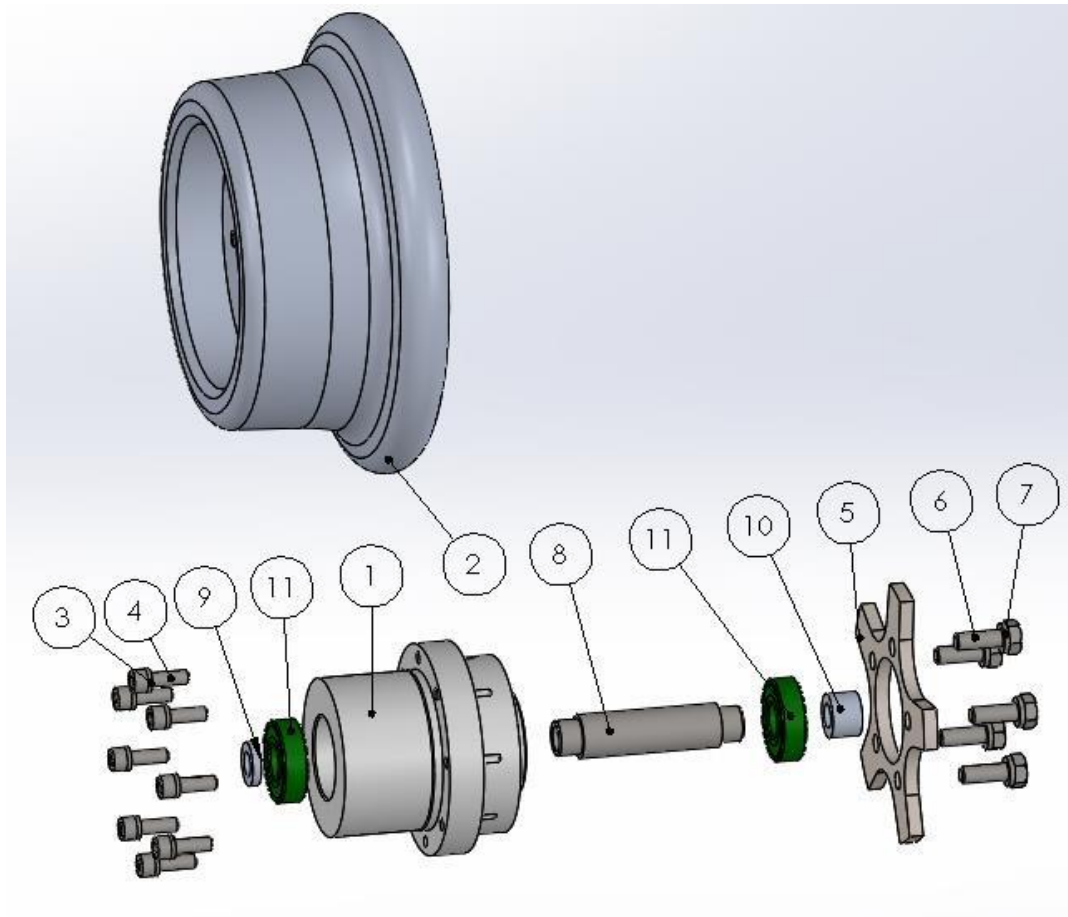
## 8. Technical characteristics

- Weight:
  - 82 kg in working condition
- Dimensions:
  - Length: 1910 mm
  - Width: 1090 mm
  - Height: 360 mm
- Usable surface of the platform:
  - Length: 1900 mm
  - Width: 990 mm
  - Platform height / wheel tread: 315 mm
- Payload
  - Max load: 1500 kg evenly distributed

## 9. Spare parts and consumables

### 9.1 Restrained roller isolated assembly

2 assemblies per trolley

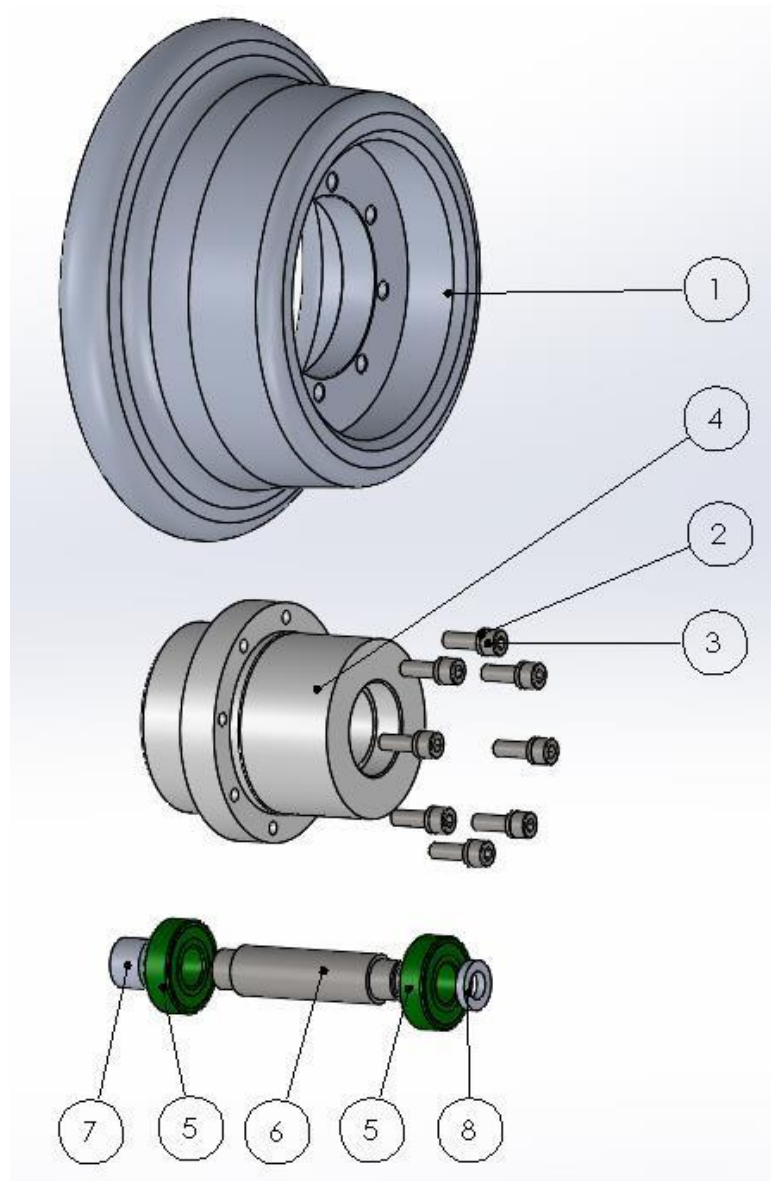


Rep.	Réf.	Qté	Désignation	Description
1	31270034	1	Moyeu côté frein	Brake side hub
2	31230102	1	Galet usiné Ø260	Roller Ø 260
3	41108004	8	Rondelle W8	W8 washer
4	41008017	8	Vis CHc M8 x 40	M8 x 40 HSHC screws
5	31210476	1	Etoile d'immobilisation	Immobilisation star
6	41010006	5	Vis H M10 x 30	H M10 x 30 screw
7	41110002	5	Rondelle W10	W10 washer
8	31210473	1	Entretoise de galet	Roller spacer
9	31210474	1	Entretoise extérieur voie	Outside track spacer
10	31210475	1	Entretoise intérieur voie	Inside track spacer
11	44010033	2	Roulement 6204 2RS	6204-2RS bearing



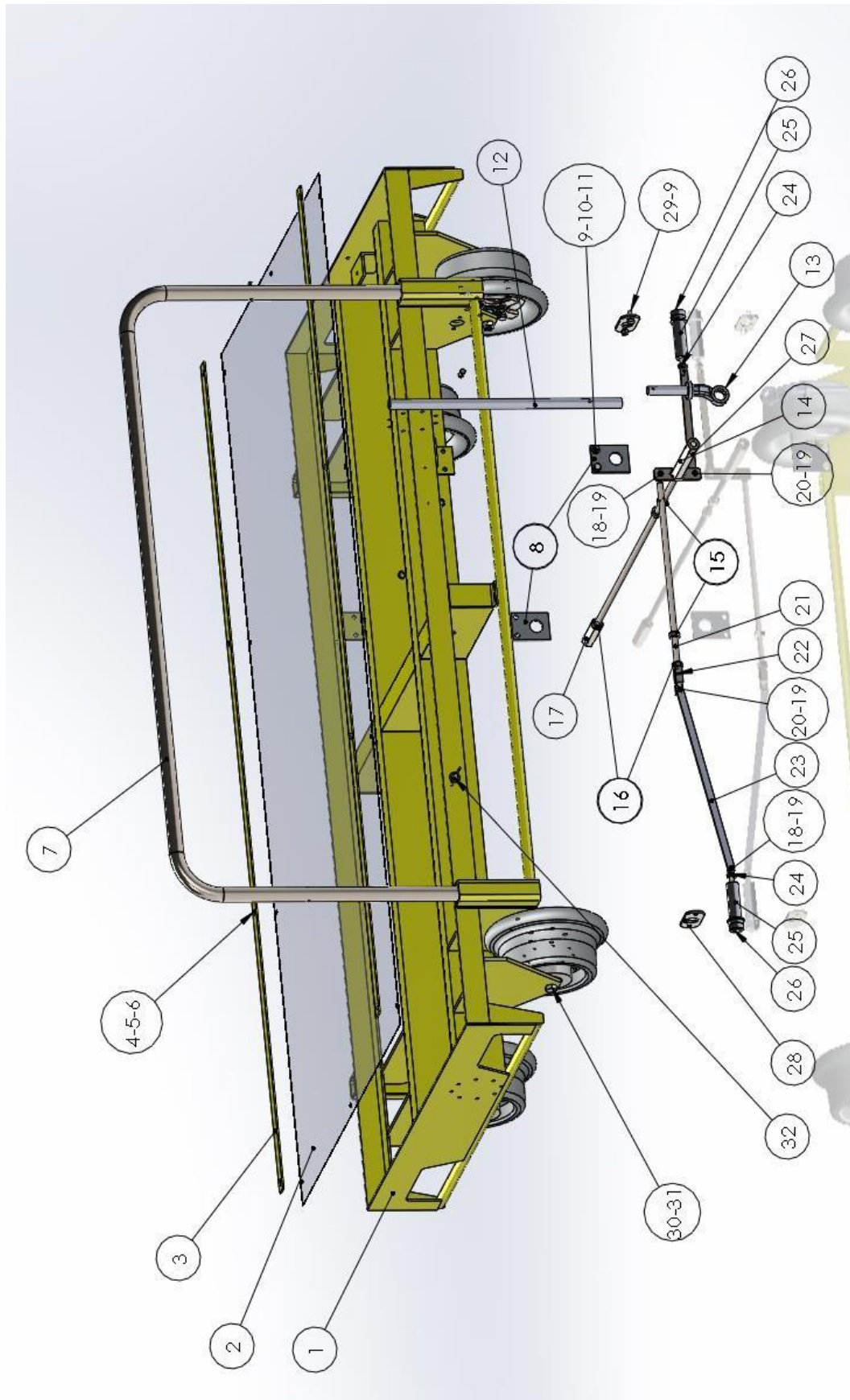
## 9.2 Idleroller isolated assembly

2 assemblies per trolley



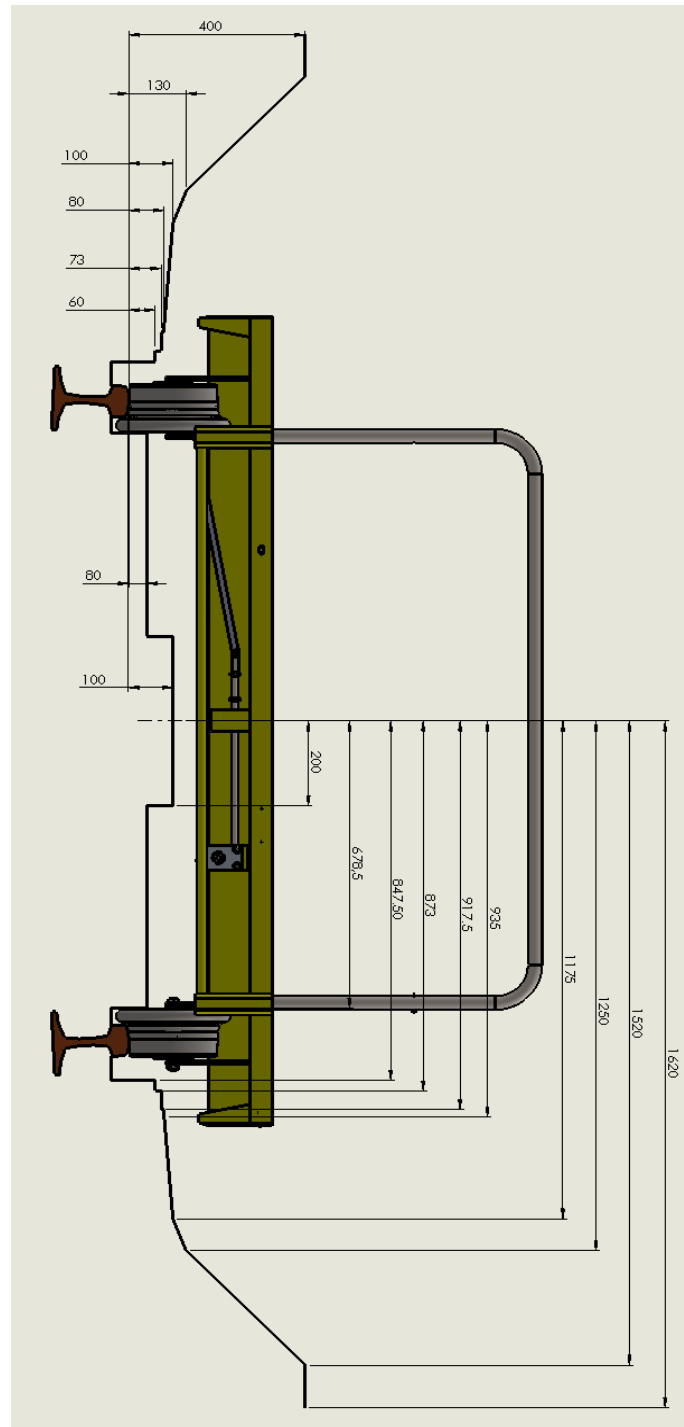
Rep.	Réf.	Qté	Désignation	Description
1	31230102	1	Galet usiné Ø260	Roller Ø 260
2	41108004	8	Rondelle W8	W8 washer
3	41008017	8	Vis CHc M8x40	M8x40 CHc screws
4	31270035	1	Moyeu de galet fou	Idler wheel hub
5	44010033	2	Roulement 6204 2RS	6204-2RS bearing
6	31210473	1	Entretoise de galet	Roller spacer
7	31210475	1	Entretoise intérieur voie	Inside track spacer
8	31210474	1	Entretoise extérieur voie	Outside track spacer

## 9.3 Base frame and connecting rod system



Rep.	Réf.	Qté	Désignation	Description
1	35930009	1	Chassis	Chassis
2	31910076	1	Tôle de couverture	Covering Sheet
3	34930004	2	Plat de fixation de la tôle de couverture	Fastening plate for the sheet
4	41006015	10	Vis H, M6 x 20	H M6 x 20 Screw
5	41106004	10	Rondelle M6N	M6N Washer
6	40906006	10	Ecrou Nylstop M6	M6 Nylstop nut
7	34910137	1	Barre de pousée	Push bar
8	31930044	2	Plat de protection	Protection plate
9	41008020	8	Vis H, M8 x 20	H M8 x 20 screw
10	41108001	12	Rondelle M8N	M8N Washer
11	40908001	4	Ecrou Nylstop M8	M8 Nylstop nut
12	31210478	1	Manche pour clé	Handle for ring spanner
13	48401210	1	Clé de 24 polygonale	Ring spanner 21/flat
14	35910475	1	Levier de défreinage	Brake release lever
15	45501005	3	Bague d'arrêt inox	Stop ring
16	40912002	2	Ecrou HM12	HM12 nut
17	31210477	1	Six pans de commande	Six screw control
18	41006048	4	Vis H, M6 x 25	H M6 x 25 screw
19	40906006	5	Ecrou Nylstop M6	M6 Nylstop nut
20	41006015	2	Vis H, M6 x 20	H M6 x 20 Screw
21	31110429	1	Tringle de renvoie	Return connecting rod
22	31910075	1	Chape tige de renvoie	Return connecting rod joint
23	31910073	1	Bielette de deuxième blocage	Second locking connecting rod
24	31210481	2	Ecrou du doigt	Brake nut
25	31230096	2	Palier du doigt anti-dérive	Bearing of the anti-slippage finger
26	31110428	2	Doigt anti-dérive	Anti-slippage finger
27	31910074	1	Bielette du premier doigt	First locking connecting rod
28	31910072	2	Contre bride du guide	Flange
29	41108004	4	Rondelle W8	W8 washer
30	41014018	4	Vis H, M14 x 170	H M14 x170 screw
31	40914001	4	Ecrou Nylstop M14	M14 Nylstop nut
32	22111015	1	Ensemble vis à oreille	wing screw assembly

## 10. Plan of control following EN13977





# 11.CE Certificate of conformity

## CERTIFICATE OF CONFORMITY

Le constructeur soussigné (*The undersigned manufacturer*) :

**PANDROL SAS**  
Z.I. DU BAS PRE  
59590 RAISMES

Certifie que le matériel neuf désigné ci-après (*Certify that the under described products*) :

**LORRY 1.5 T**

**1.5 T TROLLEY**

**Voie 1435 – Apte LGV**  
**Frein positif**

**1435 gauge track – HSL COMPATIBLE**  
**Positive break**

REF 12111020	N° de série / Serial no.
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Est conforme à (*comply with*) :

- Norme Européenne (*European Norm*) : NF EN 13977
- Directive machine (*Machine directive*) : 2006/42/CE
- Procédure d'auto-certification (*self-certification procedure*) : Article R4313-20

La société **PANDROL SAS** est le détenteur du dossier technique.

Petite-Forêt, November 2024

Thibaut Descamps

Directeur BU EMEA / EMEA BU Director

# PANDROL

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