

## Section 1: General Information

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### 0. Identification of the type

0.1 0.2 0.4 Type ID:	73-031-0002-3-001-001
0.3 Date of record:	2020-11-19

### 1. General Information

1.1 Type name:	Kgmns
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1.2 Alternative type name:	
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#### 1.3 Manufacturer:

##### 1.3.1 Manufacturer identification data:

1.3.1.1 Name of organisation:	SRT S.r.l
1.3.1.2 Registered business number:	12611061008
1.3.1.3 Organisation code:	

##### 1.3.2 Manufacturer contact data:

1.3.2.1 Address of organisation, street and number:	Via di Pietralata, 140
1.3.2.2 Town:	Roma
1.3.2.3 Country code:	IT
1.3.2.4 Post code:	00158
1.3.2.5 E-mail address:	srtfano@pec.it

Registration Method:	New Type
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Registered Vehicle Type:	
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1.4 Category:	Special Vehicles
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1.5 Subcategory:	Hauled special vehicle
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1.6 Platform:	Kgmns
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## Section 2: Conformity with TSI

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### 2.1 Conformity with TSI and Sections not complied with:

1435mm / None (for hauled passenger vehicles and special vehicles)	
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**Not conform to any TSI**

### 2.3 Applicable specific cases (specific cases conformity with which has been assessed)

### 2.2 Reference of 'EC type examination certificates'

Reference of 'EC type examination certificates' - if module SB applied - and/or 'design verification certificate' - if module SH1 applied	EC type examination certificate n. IT/02/2013/1/SB/2020/RST/IT/032 issued on April 20th, 2020
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## Section 3: Authorisations

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## Italy

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3.0 Area Of Use:	IT(Italy, Rete Ferroviaria Italiana (RFI))
3.1.1 Member state of authorisation:	Italy(IT)
3.1.2.1 Status:	Valid
3.1.2.2 Validity of Authorisation (until):	
3.1.2.3 Coded conditions for use and other restrictions:	<b>1435mm / None (for hauled passenger vehicles and special vehicles)</b> 1 Technical restriction related to construction 1.1 Minimum curve radius in meters: 75 1.3 Speed restrictions in Km/h: 100 2 Geographical restriction 2.1 Kinematic gauge (coding WAG TSI): UIC505-1 2.2 Wheelset gauge: 2.2.4 Gauge 1435 2.3 No CCS on board: True
3.1.2.4 Non-coded conditions for use and other restrictions:	1435mm / None (for hauled passenger vehicles and special vehicles) a) Circolazione sull'infrastruttura ferroviaria in concessione a Rete Ferroviaria Italiana S.p.A.; b) Divieto di manovra a spinta e gravità; c) Divieto di circolazione sulle selle di lancio, sui freni posti su binario o altri dispositivi di manovra e di arresto in posizione attiva; d) Velocità massima pari a 100 km/h e insufficienza di sopraelevazione massima pari a 92 mm (rango A, anc= 0,6 m/s <sup>2</sup> ); e) Riprofilatura delle ruote ad intervalli di percorrenza non superiori a 50.000 km; f) Massa frenata massima del freno di servizio pari a 29,5 t; g) Divieto di passaggio su navi traghetto
3.1.3.1.1 Date of the original authorisation:	2020-11-19
3.1.3.1.2 Authorisation holder:	
3.1.3.1.2.1 Authorisation holder identification data:	
3.1.3.1.2.1.1 Name of organisation:	SRT S.r.l
3.1.3.1.2.1.2 Registered business number:	12611061008
3.1.3.1.2.1.3 Organisation code:	

#### 3.1.3.1.2.2 Authorisation holder contact data:

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3.1.3.1.2.2.1 Address of organisation, street and number:	Via di Pietralata, 140
3.1.3.1.2.2.2 Town:	Roma
3.1.3.1.2.2.3 Country code:	IT
3.1.3.1.2.2.4 Post code:	00158
3.1.3.1.2.2.5 E-mail address:	lorenzo.peroni@srtfano.com

3.1.3.1.3 Authorisation document reference:	IT8020200013
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3.1.3.1.4 Certificate of verification : Reference of type examination or design examination type:

IT/02/2013/6  
/VN/2020/RST  
/IT/034

3.1.3.1.5 Parameters for which conformity to applicable national rules has been assessed:

1435mm / None (for hauled passenger vehicles and special vehicles)

- 1 General documentation
- 2 Structure and mechanical parts
- 3 Track interaction and gauging
- 4 Braking
- 6 Environmental conditions and aerodynamic effects
- 11 Servicing
- 13 Specific operational requirements

3.1.3.1.6 Comments:

3.1.3.1.7 Reference to the written declaration by the proposer referred to in Article 3(11) of Regulation (EU) 402/2013:

Dichiarazione di SRT S.r.l. del 26.10.2020 a firma Lorenzo Peroni

#### 3.1.3.1 Initial Registration

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3.1.2.3 Coded conditions for use and other restrictions:

**1435mm / None (for hauled passenger vehicles and special vehicles)**

- 1 Technical restriction related to construction
  - 1.1 Minimum curve radius in meters: 75
  - 1.3 Speed restrictions in Km/h: 100
- 2 Geographical restriction
  - 2.1 Kinematic gauge (coding WAG TSI): UIC505-1
  - 2.2 Wheelset gauge: 2.2.4 Gauge 1435

2.3 No CCS on board: True

3.1.2.4 Non-coded conditions for use and other restrictions:

1435mm / None (for hauled passenger vehicles and special vehicles)

a) Circolazione sull'infrastruttura ferroviaria in concessione a Rete Ferroviaria Italiana S.p.A.;

b) Divieto di manovra a spinta e gravità;

c) Divieto di circolazione sulle selle di lancio, sui freni posti su binario o altri dispositivi di manovra e di arresto in posizione attiva;

d) Velocità massima pari a 100 km/h e insufficienza di sopraelevazione massima pari a 92 mm (rango A,  $a_{nc} = 0,6 \text{ m/s}^2$ );

e) Riprofilatura delle ruote ad intervalli di percorrenza non superiori a 50.000 km;

f) Massa frenata massima del freno di servizio pari a 29,5 t;

g) Divieto di passaggio su navi traghetto

3.1.3.1.1 Date of the original authorisation:

2020-11-19

3.1.3.1.2 Authorisation holder:

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3.1.3.1.2.1 Authorisation holder identification data:

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3.1.3.1.2.1.1 Name of organisation:

SRT S.r.l

3.1.3.1.2.1.2 Registered business number:

12611061008

3.1.3.1.2.1.3 Organisation code:

3.1.3.1.2.2 Authorisation holder contact data:

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3.1.3.1.2.2.1 Address of organisation, street and number:

Via di Pietralata, 140

3.1.3.1.2.2.2 Town:

Roma

3.1.3.1.2.2.3 Country code:

IT

3.1.3.1.2.2.4 Post code:

00158

3.1.3.1.2.2.5 E-mail address:

lorenzo.peroni@srtfano.com

3.1.3.1.3 Authorisation document reference:

IT8020200013

3.1.3.1.4 Certificate of verification : Reference of type examination or design examination type:

IT/02/2013/6  
/VN/2020/RST  
/IT/034

3.1.3.1.5 Parameters for which conformity to applicable national rules has been assessed:

1435mm / None (for hauled passenger vehicles and special vehicles)

1 General documentation

2 Structure and mechanical parts

3 Track interaction and gauging

4 Braking

6 Environmental conditions and aerodynamic effects

11 Servicing

13 Specific operational requirements

3.1.3.1.7 Reference to the written declaration by the proposer referred to in Article 3(11) of Regulation (EU) 402/2013:

Dichiarazione di SRT S.r.l. del 26.10.2020 a firma Lorenzo Peroni

#### Section 4: Technical Characteristics

4.1.3 Wheel set gauge RC		1435	mm
4.1.12 Number of vehicles composing the fixed formation (for fixed formation only)		1	
4.10.1 Energy supply system (voltage and frequency) RC		None (for hauled passenger vehicles and special vehicles)	
4.1.2 Speed			
4.1.2.1 Maximum design speed	1435mm / None (for hauled passenger vehicles and special vehicles)	100	km/h
4.2.1 Reference profile RC		UIC 505-1 G1 G2	
4.3.1 Temperature range		T1 (-25 to +40)	
4.3.3 Snow, ice and hail conditions		Nominal	
4.4.1 Fire safety category RC		OTM	
4.5.2 Design mass			
4.5.2.1 Design mass in working order RC		11500	kg
4.5.2.2 Design mass under normal payload RC		45000	kg

4.5.2.3 Design mass under exceptional payload RC		45000	kg		
4.5.3 Static axle load					
4.5.3.1 Static axle load in working order RC		5750	kg		
4.5.3.2 Static axle load under normal payload RC		22500	kg		
4.5.3.3 Static axle load under exceptional payload RC		22500	kg		
4.5.3.4 Position of the axles along the unit (axle spacing) : a: Distance between axles b: Distance from end axle to the end of the nearest coupling plane c: distance between two inside axles RC	1435mm / None (for hauled passenger vehicles and special vehicles)	a: 0007,10 b: 0002,27 c: 0007,10	m		
4.5.5 Total vehicle mass (for each vehicle of the unit) RC	1435mm / None (for hauled passenger vehicles and special vehicles)	45000	kg		
4.5.6 Mass per wheel RC	1435mm / None (for hauled passenger vehicles and special vehicles)	11250	kg		
4.6.4 Combination of maximum speed and maximum cant deficiency for which the vehicle was assessed RC	1435mm / None (for hauled passenger vehicles and special vehicles)	0100,00	km/h	0092,00	mm
4.6.5 Rail inclination RC	1435mm / None (for hauled passenger vehicles and special vehicles)	1/20			
4.7.1 Maximum average deceleration		0.607	m/s <sup>2</sup>		
4.7.2.1 Brake performance on steep gradients with normal payload					
4.7.2.1.1 Reference case of TSI		Reference case (70 km/h, 21‰ (mm/m), 40 km)			
4.7.3 Parking brake					

4.7.3.3 Maximum gradient on which the unit is kept immobilized by the parking brake alone (if the vehicle is fitted with it)	43	‰ (mm/m)			
4.7.4.1 Eddy current brake					
4.7.4.1.1 Eddy current track brake fitted RC	False				
4.7.4.2 Magnetic brake					
4.7.4.2.1 Magnetic track brake fitted RC	False				
4.7.4.3 Regenerative brake (only for vehicles with electrical traction)					
4.7.4.3.1 Regenerative brake fitted RC	False				
4.7.5 Emergency brake : Stopping distance and deceleration profile for each load condition per design maximum speed a: Load condition: working order b: Load condition: normal payload c: Load condition: exceptional payload	1435mm / None (for hauled passenger vehicles and special vehicles)	a: 0691,00	m	0000,61	m/s <sup>2</sup>
		b: 0691,00	m	0000,61	m/s <sup>2</sup>
		c: 0691,00	m	0000,61	m/s <sup>2</sup>
4.7.6 For general operation : Brake weight percentage (lambda) or Braked mass	1435mm / None (for hauled passenger vehicles and special vehicles)	,	(%) or	00029,70	tonnes
4.7.7 Service brake: At maximum service brake: Stopping distance, Maximum deceleration, for the load condition 'design mass under normal payload' at the design maximum speed.	1435mm / None (for hauled passenger vehicles and special vehicles)	0691,00	m	0000,61	m/s <sup>2</sup>
4.7.8 Wheel slide protection system	1435mm / None (for hauled passenger vehicles and special vehicles)	False			
4.8.1 Vehicle length	11.64	m			
4.8.2 Minimum in-service wheel diameter RC	840	mm			

4.8.4 Minimum horizontal curve radius capability RC		75	m
4.8.5 Minimum vertical convex curve radius capability		100	m
4.8.6 Minimum vertical concave curve radius capability		100	m
4.9.1 Type of end coupling	<b>Manual</b>		
	Tensile force	0000.1000	kN
	Compressive force	0000.1200	kN
4.9.2 Axle bearing condition monitoring (hot axles box detection) RC		Detectable by line side	
4.14.1 Type of train detection systems for which the vehicle has been designed and assessed RC		Track circuits Axle counters	