



WIS Airline Beam 1855

Shoring beams for airline lashing tracks
WIS Model 1855



Technical Documentation
Operation Manual

For additional information see www.airline-beam.de/en/

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1 Introduction

This document serves for the safe handling of the WIS AIRLINE BEAMS 1855. The WIS AIRLINE BEAM 1855 is mainly used on transporters, pickup trucks and car trailers. In addition, the WIS AIRLINE BEAMS 1855 are subjected to continuous product testing in our internal test laboratory.

Handling of this product requires exact knowledge and observation of this operation manual.

1.1 General

This operating manual provides the operator/user with practical information for the safe and proper handling of the WIS AIRLINE BEAM 1855. All information, data and notes concerning operation are state-of-the-art (at the time of printing) and based on our experiences and knowledge at the present time to the best of our abilities.

1.2 Warranty

Warranty claims must be submitted immediately after detection of the fault.

1.3 Explanation of terms

Operator/user: Hereafter called user. User is defined as the person using the WIS AIRLINE BEAM 1855 for the purpose of load securing according to its intended purpose.

WIS AIRLINE-BEAM 1855: Hereafter called AIRLINE BEAM. See section 3 "Product description".

1.4 Explanation of signs



General caution



Caution! Hand injuries



Caution! Danger of toppling

2 Safety notes

Please read the operation manual carefully. In case of questions, please contact the person in charge, the retailer or the service department of WISTRA GmbH Cargo Control at service@wistra.eu.

2.1 General safety specifications

Regarding general load securing, the user must have knowledge of the following directives, standards and regulations besides product-related knowledge

- DIN EN 12195-1:2004/2010
- VDI 2700 pp
- Country-specific accident prevention regulations (laws of the respective country/state)
- General safety regulations
- Procedures and/or specifications of the shippers and loaders

If defects are detected on the AIRLINE BEAM, this must be immediately excluded from the current load securing procedure.



Observe the notes to prevent accidents.

2.2 User

The user must have read and understood the operation manual.

2.3 Safety instructions for use

The product must be used in such a way that the users cannot injure themselves or others.



Carrier- and telescopic tube have no permanent connection.

Do not move the handle downward during transport or usage in order to prevent slipping out.

Do not use combinations of different carrier- and telescopic tubes!

The product label must be fully visible even when tube is retracted.

The factory setting for the distance between the handle and the carrier tube (label area) is 60 mm.

In principle, please note that the product with all its performance characteristics must always be regarded in direct context with the transport vehicle. The vehicle superstructure and/or the base of the transport vehicle must be able to compensate the forces introduced through load securing. For this purpose, please contact the superstructure/vehicle manufacturer or the vehicle equipper.

3 Product description

In connection with the parallel running airline lashing track in the vehicle, the trailer or other means of transport, the AIRLINE BEAM ensures form-locking load securing.

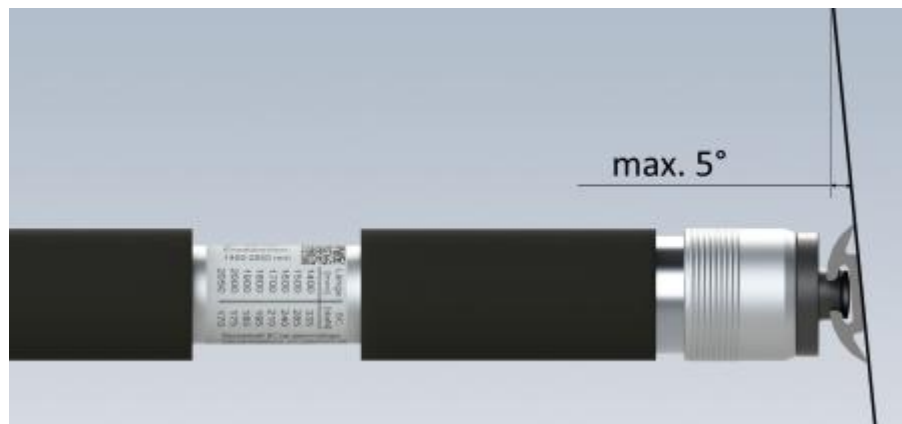
The AIRLINE BEAM can be used horizontally and vertically for load securing.

The automatic airline pins on both sides each engage in one hole pair of the airline lashing track.

3.1 Purpose

The AIRLINE BEAM is suited for securing the most varied loads on transporters, pickup trucks, car trailers as well as other transport vehicles with parallel running airline lashing tracks.

The technical data of the AIRLINE BEAM as well as that of the transport vehicle must be observed at all times.



3.2 AIRLINE-BEAM

Designs:	Aluminium shoring beam
Pin:	Automatic airline pin
Cover:	PVC hose
Capacity	See item 4.1/4.2
Labelling:	WIS label

Design	Item no.	Telescoping range L1 – L2	Blocking force*)
Airline Beam 1855	221855-0800	800 – 950 mm	450 – 350 daN
Airline Beam 1855	221855-0900	900 – 1150 mm	350 – 300 daN
Airline Beam 1855	221855-1000	1000 – 1350 mm	350 – 250 daN
Airline Beam 1855	221855-1100	1100 – 1550 mm	300 – 200 daN
Airline Beam 1855	221855-1200	1200 – 1750 mm	300 – 200 daN
Airline Beam 1855	221855-1300	1300 – 1900 mm	300 – 150 daN
Airline Beam 1855	221855-1400	1400 – 2050 mm	300 – 150 daN
Airline Beam 1855	221855-1500	1500 – 2200 mm	300 – 150 daN
Airline Beam 1855	221855-1600	1600 – 2350 mm **)	300 – 150 daN
Airline Beam 1855	221855-1700	1700 – 2500 mm **)	300 – 100 daN
Airline Beam 1855	221855-1800	1800 – 2650 mm **)	300 – 100 daN
Airline Beam 1855	221855-1900	1900 – 2800 mm **)	300 – 100 daN

*) Blocking force with even surface load depending on extension length

***) In case of vertical application observe working height

3.3 Telescoping range – limit marking



The red label may NOT be visible during usage!

3.4 Label/marketing - example



4 Commissioning/utilization

4.1 Capacity blocking force BC in daN

The following values were determined under consideration of the valid test conditions in our internal test laboratory. The test was performed with the tractor/pusher TIRA TT 27100 M3.

	221855	221855	221855	221855	221855	221855	221855	221855	221855	221855	221855	221855
at	-800	-900	-1000	-1100	-1200	-1300	-1400	-1500	-1600	-1700	-1800	-1900
800 mm	450 daN											
850 mm	400 daN											
900 mm	350 daN	350 daN										
950 mm	350 daN	350 daN										
1000 mm		300 daN	350 daN									
1050 mm		300 daN	300 daN									
1100 mm		300 daN	300 daN	300 daN								
1150 mm		300 daN	300 daN	300 daN								
1200 mm			300 daN	300 daN	300 daN							
1300 mm			250 daN	250 daN	250 daN	300 daN						
1350 mm			250 daN	250 daN	250 daN	300 daN						
1400 mm				250 daN	250 daN	250 daN	300 daN					
1500 mm				200 daN	200 daN	250 daN	250 daN	300 daN				
1550 mm				200 daN	200 daN	200 daN	250 daN	300 daN				
1600 mm					200 daN	200 daN	200 daN	250 daN	300 daN			
1700 mm					200 daN	200 daN	200 daN	200 daN	250 daN	300 daN		
1750 mm					200 daN	150 daN	200 daN	200 daN	250 daN	300 daN		
1800 mm						150 daN	150 daN	200 daN	200 daN	250 daN	300 daN	
1900 mm						150 daN	150 daN	150 daN	200 daN	250 daN	250 daN	300 daN
1950 mm							150 daN	150 daN	150 daN	200 daN	250 daN	300 daN
2000 mm							150 daN	150 daN	150 daN	150 daN	200 daN	250 daN
2050 mm							150 daN	150 daN	150 daN	150 daN	200 daN	250 daN
2100 mm								150 daN	150 daN	150 daN	150 daN	200 daN
2200 mm								150 daN	150 daN	150 daN	150 daN	150 daN
2250 mm									150 daN	150 daN	150 daN	150 daN
2300 mm									150 daN	150 daN	150 daN	150 daN
2350 mm									150 daN	100 daN	150 daN	150 daN
2400 mm										100 daN	100 daN	100 daN
2500 mm										100 daN	100 daN	100 daN
2550 mm											100 daN	100 daN
2650 mm											100 daN	100 daN
2800 mm												100 daN

The blocking forces apply with even surface load of the Airline Beam.

4.2 Maximum load unit weights to be secured

Dynamic sliding friction coefficient = μD
 Acceleration coefficient = c
 calculated in accordance with DIN EN 12195-1:2004



BC	Maximum weight of the load unit(s)											
	c = 0.5 g						c = 0.8 g					
	μD 0.00	μD 0.20	μD 0.25	μD 0.30	μD 0.40	μD 0.60	μD 0.00	μD 0.20	μD 0.25	μD 0.30	μD 0.40	μD 0.60
100 daN	200 kg	330 kg	400 kg	500 kg	1000 kg	(1)*	120 kg	160 kg	180 kg	200 kg	250 kg	500 kg
150 daN	300 kg	500 kg	600 kg	750 kg	1500 kg	(1)*	180 kg	250 kg	270 kg	300 kg	370 kg	750 kg
200 daN	400 kg	660 kg	800 kg	1000 kg	2000 kg	(1)*	250 kg	330 kg	360 kg	400 kg	500 kg	1000 kg
250 daN	500 kg	830 kg	1000 kg	1250 kg	2500 kg	(1)*	310 kg	410 kg	450 kg	500 kg	620 kg	1250 kg
300 daN	600 kg	1000 kg	1200 kg	1500 kg	3000 kg	(1)*	370 kg	500 kg	540 kg	600 kg	750 kg	1500 kg
350 daN	700 kg	1160 kg	1400 kg	1750 kg	3500 kg	(1)*	430 kg	580 kg	630 kg	700 kg	870 kg	1750 kg
400 daN	800 kg	1330 kg	1600 kg	2000 kg	4000 kg	(1)*	500 kg	660 kg	720 kg	800 kg	1000 kg	2000 kg
450 daN	900 kg	1500 kg	1800 kg	2250 kg	4500 kg	(1)*	560 kg	750 kg	810 kg	900 kg	1120 kg	2250 kg

(1)* The maximum unit load weight is directly linked to the maximum payload and the admissible load distribution in the vehicle!

Form-locking load securing through direct attachment of the loading unit e.g. on the front wall, side walls, loading, locking and clamping beams, tight packing of load goods, filling of gaps with intermediate structures or other load securing aids as well as lateral/diagonal/horizontal lashing.

The unit load weights stated above apply for even load distribution.

In order to use the Airline Beam, the unit load must be able to withstand the loads and forces acting on it and it must be dimensionally stable.

Always observe the maximum payload and proper load distribution when loading.

4.3 Using the AIRLINE BEAM in vehicles



Danger through getting caught between the load and the Airline Beam

In order to use the Airline Beam, the unit load must be able to withstand the loads and forces acting on it and it must be dimensionally stable.

Always observe the maximum payload and proper load distribution when loading.

Figure 1

Pull locking ring back.
The automatic airline pin unlocks.

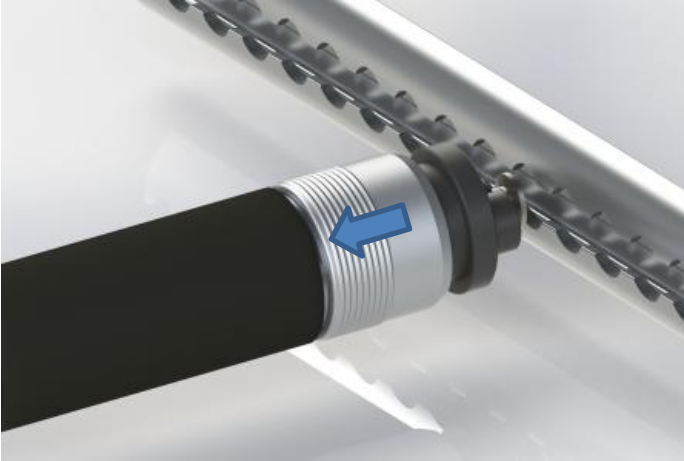


Figure 2

Insert automatic airline pin in the 20 mm boring of the airline lashing track.

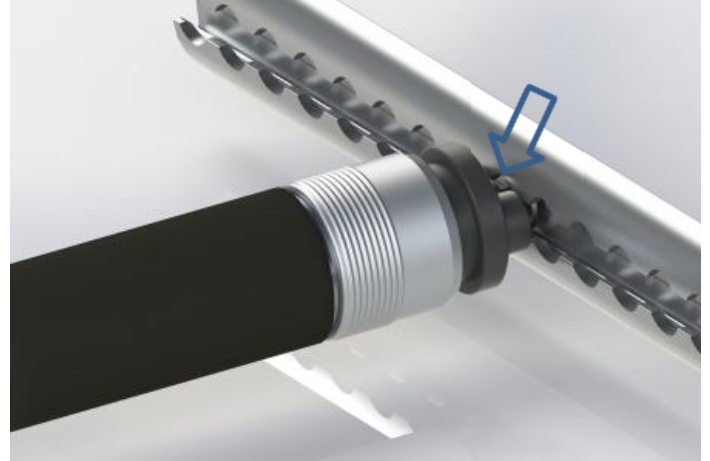


Figure 3

Move the AIRLINE BEAM to the left or right until the centring piece (black) fits into a hole pair in the airline lashing track.

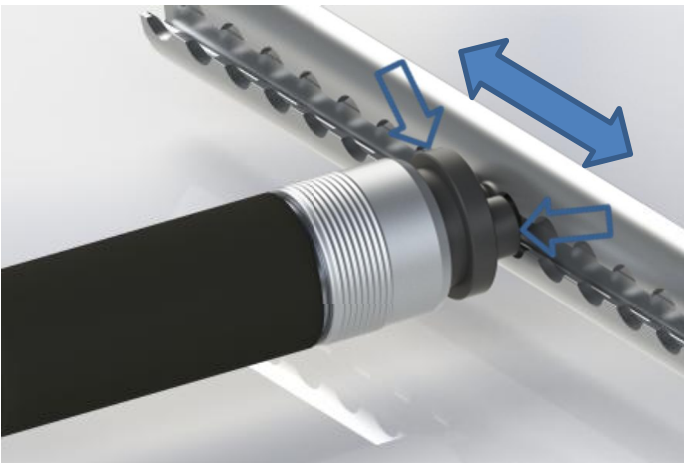
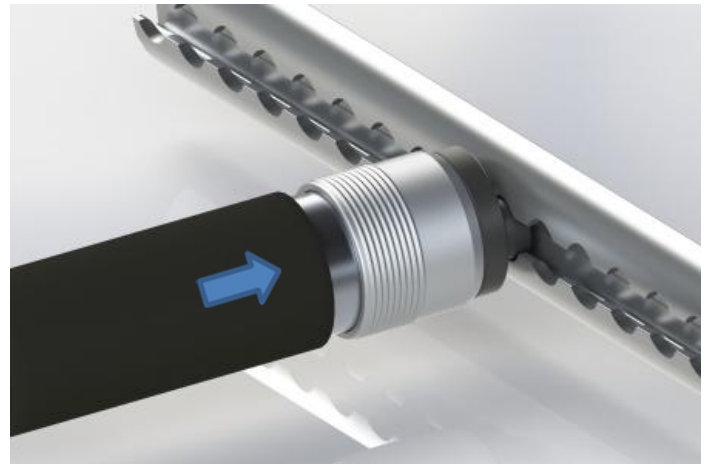


Figure 4

As soon as the automatic airline pin in the airline lashing track touches the bottom, the end piece locks automatically in the airline lashing track.



Always check the tight fit of the automatic airline pin in the airline lashing track.

Proceed in the same order on the opposite side!

4.4 Detaching the AIRLINE BEAM



Danger through getting caught between the load and the Airline Beam



Danger through toppling of load when detaching the AIRLINE BEAM.

Prior to detaching the AIRLINE BEAM, make sure that the load is inherently stable and cannot topple. First actuate the locking ring to open and remove the Airline Beam.

Figure 1
Pull locking ring back.

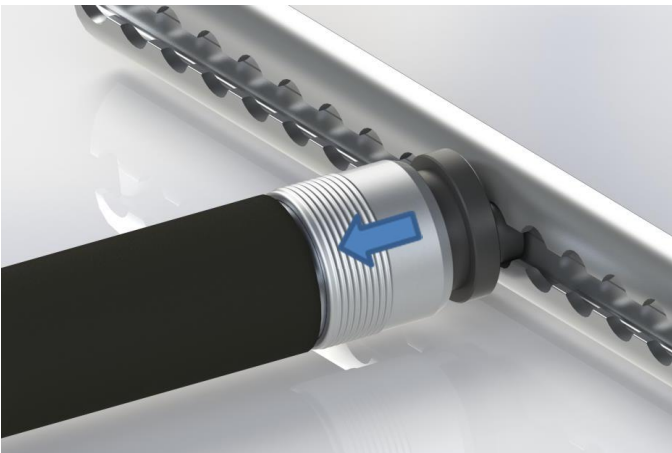


Figure 2
The automatic airline pin unlocks.
Move the AIRLINE BEAM to the left or the right.

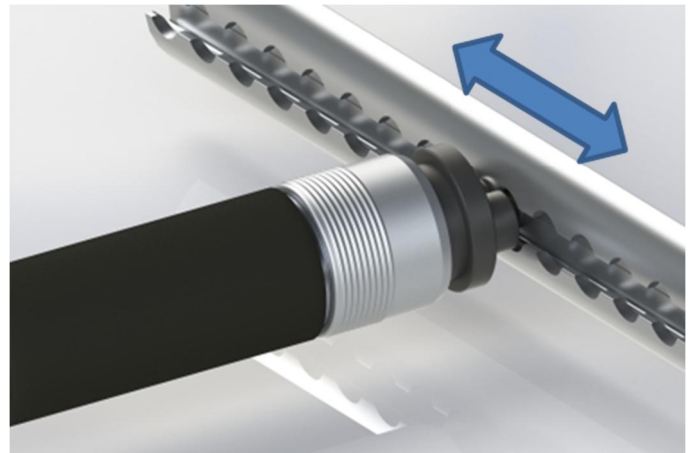


Figure 3
Pull the automatic airline pin out of the 20 mm boring of the airline lashing track.

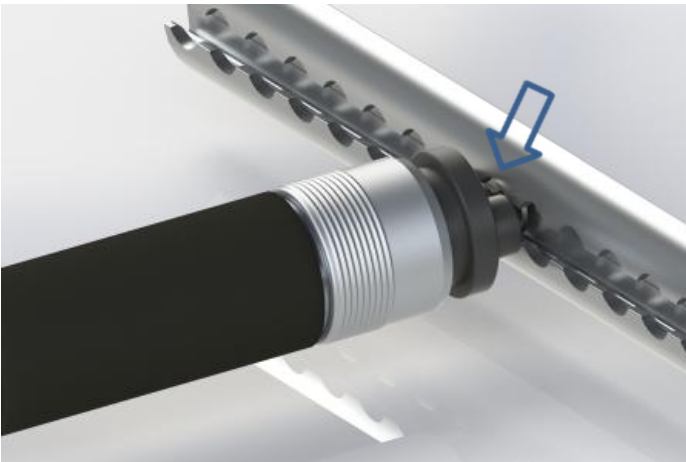


Figure 4
Slide the Airline Beam together!



Proceed in the same order on the opposite side!

4.5 Storing the AIRLINE BEAM



Make sure that the AIRLINE BEAM is stored in such a way that it does not pose the risk of tripping over it and so that the AIRLINE-BEAM is not exposed to unusual mechanical, thermal and chemical stress. The load including the load securing devices as well as the loading equipment must be stored and secured so that they cannot slide out of place, topple, roll back and forth, fall down or cause unnecessary noise even in case of an emergency stop or sudden swerving motions. In doing so, observe the generally accepted standards of technology

If these specifications are not observed, proper utilization cannot be guaranteed!

5 Testing and maintenance

5.1 Testing

Based on the generally accepted standards of technology:

In accordance with the directive VDI 2700, all securing devices used for load securing must be tested once a year by a qualified and authorized person.

Test points are:

- Complete functioning of the automatic airline pin
- Telescopic adjustment
- No deformations on the carrier and telescopic tube

If one of the listed points is not OK, the Airline Beam has reached the end of its service life and may no longer be used. The test must be documented.

5.2. Maintenance

Regular and correct maintenance performed by a qualified person prolongs the service life of the product.

This especially includes cleaning the product and ensuring the smooth operation of movable parts (e.g. by oiling them lightly).

Repairs or changes of length are not allowed.

5.3 Replacement parts

Name	WIS item number	Unit
Sliding piece	221855991140	Unit
Locking pin 6x35 Niro	900463500030	Unit
Sticker "Stop"	220024	Unit
Slip band	220025	Unit

6 Disposal time

If the test shows that the product has reached the end of its service life, it must be removed it may not be used any longer.

7. Disposal

Disassemble the components and dispose of them in accordance with the current environmental directives.

8 Customer service

For technical information about our products please contact the corresponding retailers or the service department of WISTRA GmbH at service@wistra.eu .

9 Accessories



Name	WIS item number	Unit
Storage rail for two Airline Beams along the side Black colour	215110010	Set (= 2 pieces)

