



OPERATIONS MANUAL PUSH & GEARED TROLLEY [DR.0.026 & DR.0.027 series]





DR.0.026 DR.0.027

 (ϵ)

NOTE:

All of the information reported herein is based on data available at the moment of printing. We reserve the right to modify our own products at any moment without notice. Please read the operating instructions carefully before using this product. Always keep a copy of this instruction manual at hand. Failure to read and comply with the contents of this manual can result in serious body injury or death, and property damage.



THIS IS THE SAFETY ALERT SYMBOL. WHEN YOU SEE THIS SYMBOL ON YOUR DELTA® PRODUCTS OR IN THIS MANUAL, BE ALERT FOR DANGEROUS SITUATIONS. FOLLOW RECOMMENDED AND SAFE OPERATING INSTRUCTIONS AT ALL TIMES.

If any doubt remains, please contact your supplier.

PRECAUTION – SAFETY WARNINGS

The user of the push and geared trolleys must always check if guidelines are followed, which you can find in this manual. Also he/she needs to understand the manual and user instructions completely for safety purposes. Please note that if not followed or understood correctly, potential risks are even greater and can lead to severe injuries or equipment damage. Therefore it is always recommended to save this manual correctly, accessible for the any person who is going to use it.



Never use or install push and geared trolleys before ready and understanding the user manual.



Push and geared trolleys may only be used by qualified personnel of age. Make sure that people who are using this for the first time are familiar with the correct operation instructions and have knowledge about the safety requirements. The user must have a good mental and physical condition.



Installation of push and geared trolleys may only be performed by professional and qualified persons who completely understand the user manual.



Never remove the nameplate, operating and warning labels. Do not use this product without.



Do not exceed the rated capacity, which you can find on the nameplate. If not, do not use.



Always make sure that the supporting structures and additional lifting equipment are rated equally or higher to support the rated capacity of push and geared trolleys.



Before installing, make sure that push and geared trolleys are visibly in good condition. After installing periodically inspect, to make sure that this is kept. If not, please contact your supplier or another professional.



The ambient temperature of push and geared trolleys hoist and load must be between -10 $^{\circ}$ C / + 60 degrees $^{\circ}$ C.



A technical study by a professional must be carried out before instalment to prevent any risks.



Never use the push and geared trolleys, supporting or transporting people.



Never lift / run loads over or in close proximity of people.



People may never walk under the suspended load or stand in close proximity when push and geared trolleys is used with lifting equipment. (Danger zone) Never let people stand near the load. Make it clear. Never lift load unattended.



Maintenance and repairs must be done by professionals and qualified companies. Always use original spare parts. Always make sure to keep a journal.



Push and geared trolleys must be regularly examined. depended on use at least once a year tested by a professional, if you have any questions, please contact your supplier.

If you have any questions, please contact your supplier.



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1. Introduction

Push and geared trolleys are designed for beams in a safe working environment. The user is responsible for correct operation and must always make sure that the load weight doesn't exceed the rated capacity.

Push and geared trolleys are in compliance with the safety factor and further safety requirements in conformity with the European Communities Machinery Directives 2006/42/EC.

Illustrations are for the general understanding and may differ from the actual versions

We reserve the right to change materials or design, if, in our opinion, such changes will improve our product. For the correct use of the push and geared trolleys, operation and maintenance instructions must be followed. Abuse, repair by an unauthorized person, or use of non original replacement parts voids the guarantee and could lead to dangerous operation.

Please read the instructions carefully before using this product. If any doubt remains, please contact your supplier.



2. Safety instruct	tions
	Improper operation of a push and geared trolleys can create a potentially dangerous situation which, if not avoided, could result in minor or moderate injury. Please read the safety instructions carefully.
CAUTION	Push and geared trolleys may only be used by qualified personnel of age. Make sure that people who are using this product are familiar with correct operation and know all the safety requirements. The user should be in a good mental and physical condition.
CAUTION	Any person using push and geared trolleys for the first time must check (under risk-free conditions) that he/she has perfectly understood all the safety requirements and methods for safe and efficient use.
CAUTION	For professional purposes, push and geared trolleys must be placed under the responsibility of a person who is familiar with the regulations applicable at the intervention location, and having the authority to enforce application of the regulations when the person in charge is not the operator.
CAUTION	The operator must wear and use the necessary personal protective gear when using the push & geared trolley.
CAUTION	Ensure that you are in compliance with all safety at working regulations governing installation, maintenance and use of the equipment.
CAUTION	Push and geared trolleys must only be installed under condition which ensure the safety of the installer in compliance with the regulations applicable to its category.
CAUTION	Make sure that push and geared trolleys is installed on a beam which has the necessary strength to support the maximum working load (W.L.L), which is indicated on the nameplate/label of the push and geared trolleys.
CAUTION	Only use Delta hoist equipment which has a rated capacity equal or less than the capacity of the push and geared trolleys. We advise to always use a Delta hoist equipment corresponding to the capacity of the beam and push and geared trolleys. Always make sure that the hoist equipment and load chain is in good condition, so they don't have any signs of wear cracks, corrosion or any other kind of damage.
CAUTION	Push and geared trolleys must have a nameplate indicating the W.L.L. If not, please put the push and geared trolleys out of service and contact your supplier.
CAUTION	Push and geared trolleys is designed for manual operation and may never be motorized.
CAUTION	Prior to use, ensure that inspection and maintenance has been carried out. Make sure that the push & geared trolley is in visible good condition. If not, contact your supplier.
CAUTION	The operator is not allowed to use the push and geared trolleys, when exceeding the rated capacity This is strictly forbidden, so always calculate the weight which is being applied.
CAUTION	During operation the user must check and observe the push and geared trolleys, beam and surroundings continuously to avoid any contact with obstacles.
CAUTION	Do not use the push & geared trolley to transport or lift people.
CAUTION	The user should never be distracted by its surrounding and be concentrated during operation process. Never lift/run load over people or let it make contact with obstacles.
CAUTION	It is strictly forbidden to allow people below or in the danger distance when being used. Do not walk under suspended load and lift load over people.



CAUTION	The operator may never leave the push and geared trolleys unattended during use, with suspended load.
CAUTION	Do not modify push and geared trolleys. Any disassembly or change is the sole responsibility of the user/owner.
CAUTION	Push and geared trolleys can be operated in ambient temperatures between - 10°C and 60°C. Brake systems should be checked for freezing at ambient temperatures below 0°C.
CAUTION	Push and geared trolleys is not suitable for use underwater, in humid environments or danger zone areas.
CAUTION	When push and geared trolleys are not used, it must be properly stored in a dry and clean location. Inaccessible to persons who are not authorized to use it. This mean it cannot be laying around causing potential dangerous situations.
CAUTION	If any defects are found, stop using push and geared trolleys immediately. Please contact your supplier.
CAUTION	Only use original spare parts. Any repair without contacting a qualified person is the sole
CAUTION	Any repair without contacting a qualified person is the sole responsibility of the owner/user. In the event of definitive removal of the push and geared trolleys, all environmental protections regulations applicable in the country of use must be observed.
CAUTION	Registration and documentation of inspections and maintenance services is the responsibility of the owner/user. This should be stored and available at all time.

3. PRE-check	
	Improper operation of a push and geared trolleys can create a potentially dangerous situation which, if not avoided, could result in minor or moderate injury. Please read the safety instructions carefully.
WARNING	Check push and geared trolleys for wear, cracks or any other kind of damage. If detected, please put trolley out of use and contact your supplier.
CAUTION	Never use a push and geared trolleys, which is damaged.
CAUTION	Make sure that all parts are in place.
CAUTION	Do not make any modifications on push and geared trolleys.
CAUTION	Make sure that the beam has the correct capacity and width.
CAUTION	Only use hoist equipment which has equal or less capacity than the push and geared trolleys.
CAUTION	Always calculate load weight before lifting
CAUTION	Always inform everyone when push and geared trolleys when working activities begin or stop.
CAUTION	During use, it is strictly forbidden to be in the danger zone. Do not stand, walk under suspended load. Also do no lift load over people. Always keep a safe distance.
I	f you have any questions, please contact your supplier.



4. Installation & op	perating instructions
4.1 Installation	
	Improper installation or operation of a push and geared trolleys and additional lifting equipment can create a potentially dangerous situation which, if not avoided, could result in minor or moderate injury. Please read the safety instructions carefully.
WARNING	Before installation, check the beam and push and geared trolleys on wear, cracks or any other kind of damage. Never use trolley, which is damaged.
CAUTION	Make sure that the beam has sufficient capacity to hold the trolley at its rated capacity. Make sure that the beam is properly marked, so it is recognizable for the user. Always use trolley that is equal to the beam strength.
CAUTION	Ensure that stops are securely installed at both end of the beam prior to installation of push and geared trolleys. If not installed, do not use push and geared trolleys.
CAUTION	Only use hoist equipment which has a rated capacity equal or less than the capacity of the trolley. We advise to always use a hoist equipment corresponding to the capacity of the beam and push and geared trolleys. Always make sure that the hoist equipment and load chain is in good condition, so they don't have any signs of wear cracks, corrosion or any other kind of damage.
CAUTION	Measure the actual width of the beam.
CAUTION	Assemble the trolley side plates to the required beam width, therefore turn the spindle / equalizer pin and make sure the eye is centred in the middle.
CAUTION	Suspend the maximum safe working load on the push and geared trolleys then run the unit slowly along the full length of the Runway to ensure satisfactory and safe operation.
CAUTION	The installation of push and geared trolleys may only be carried out by competent and professional person, whom understand the instructions as mentioned. If you have any questions, please contact your supplier

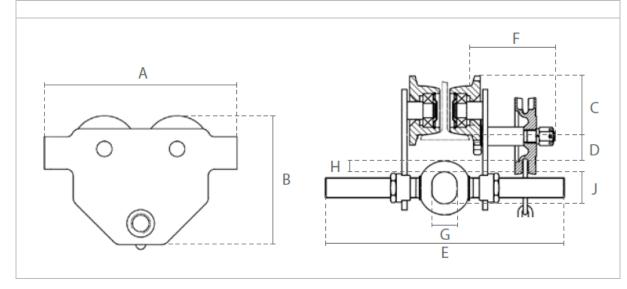


4.2 Operation	
CAUTION	After the correct installation the push and geared trolleys, it can be used. push and geared trolleys are operated by pulling the hand chain clockwise
CAUTION	Only operate a push and geared trolleys when the load is centred directly below. Do not apply any side pull.
CAUTION	Make sure that all people are away from the danger zone. It is strictly forbidden to lift load over people. The user must make sure that people always keep a safe distance.
CAUTION Only use hoist equipment which has a rated capacity equal or less the capacity of the trolley. We advise to always use a hoist equipment corresponding to the capacity of the beam and push and geared to the Always make sure that the hoist equipment and load chain is in condition, so they don't have any signs of wear cracks, corrosion of other kind of damage.	
CAUTION	It is strictly forbidden to walk or stand under suspended load.
CAUTION	Avoid collision or bumping push and geared trolleys to any obstacle during use.
CAUTION Never splice a hand chain by inserting a bolt between links.	
CAUTION	Do not swing a suspended load.
CAUTION	Do not make any modifications to the push and geared trolleys. This is strictly forbidden and will create dangerous situation when not followed.
<u>^</u>	Improper operation of a push and geared trolleys can create a potentially dangerous situation which, if not avoided, could result in minor or moderate injury. Please read the safety instructions carefully.
	Emergency procedure: In the event of a blocked chain or any other malfunction of push and geared trolleys or chain hoist. Immediately stop the maneuverer without attempting any further actions. Immediately set up a safety perimeter around the hoist and directly under the load to prevent access by any unauthorized persons. Call in the necessary personnel to remove the load and intervene on the hoist.



5. Technical information

5.1 Push trolley

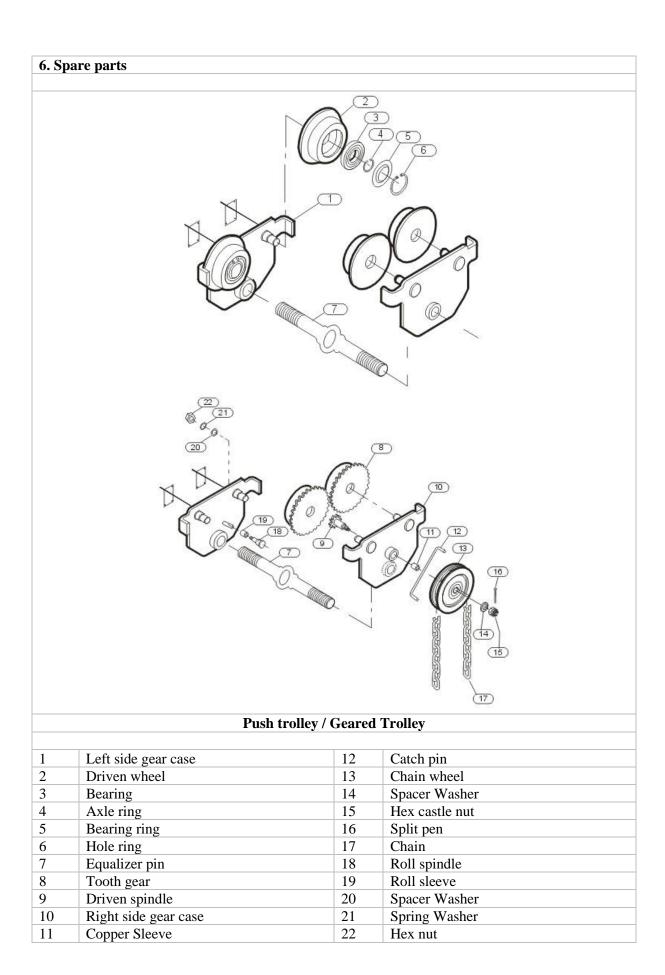


Capacity (t)		0.5	1	2	3	5
Test load (t)		0.625	1.25	2.5	3.75	6.25
Beam width (mm)		50-305	58-305	66-305	74-305	90-305
Dimensions	A	198	238	277	324	373
(mm)	В	158	183	208	249	296
	C	68	82	95	116	138
	D	40	31	31	31	40
	E	385	388	405	429	435
	G	25	29	36	46	52
	H	13	17	20	26	28
	J	28	37	48	56	65
Min. Radius (m)		0.5	0.7	0.9	1.2	1.0
Nett. Weight (kg)		5.4	9.3	14.8	24.1	41.1

5.2 Geared trolley

Capacity (t)		0.5	1	2	3	5
Test load (t)		0.625	1.25	2.5	3.75	6.25
Beam width (mm)		50-305	58-305	66-305	74-305	90-305
Dimensions	A	198	238	277	324	373
(mm)	В	158	183	208	249	296
	C	68	82	95	116	138
	D	40	31	31	31	40
	E	385	388	405	429	435
	F	103	103	103	136	140
	G	25	29	36	46	52
	H	13	17	20	26	28
	J	28	37	48	56	65
Min. Radius (m)		0.5	0.7	0.9	1.2	1
Nett. Weight (kg)		8.9	13	17.8	29.1	46.1







7. Maintenance						
7.1 Maintenance Push trolley						
CAUTION	The minimal maintenance requirements depends on the use of the product.					
CHUTTON	A check-up and examination by a professional is required on a yearly basis.					
CAUTION	Regularly inspect push and geared trolleys for wear, damage, distortion, cracks and any defects likely to cause a danger. Always before use					
CAUTION	If any of the above decontact your supplier.	fects are found remove t	rolley from	service and		
CAUTION	supplier.	e put the push trolley out	of use and c	ontact your		
CAUTION	Only use orignal spare p	arts.				
CAUTION	Please see standard perio	odic maintenance chart be	low:			
Part	Method Discard criteria Solution					
Side Plates	Check visually Check plates for any kind of damage. Replace					
	Mea	sure:	Capacity (T)	D (mm)		
				Replace		
Axle			0.5	≤11		
TIME			1	≤ 15		
			2	≤ 18		
			3	≤ 23		
	Check the axle for w	vear, tear, cracks and nation.	5	≤ 25		

			Capacity	C (mm)	
		. 1	(T)		
				Replace	
****			0.5	≤ 49.5	
Wheel		U	1	\leq 63,5	
			2	≤ 75	
			3	≤ 94	
		<u>' </u>	5	≤ 114	
		Measure			
Wheel	Check visually	Check the wheels for any kind damage or wear. It needs to run smooth	Replace		
CAUTION	The user / owner is responsible for correct administration / documentation of these tests, for example log.				
	Use only original supplied replacement spare parts.				



7.2 Maintenance Gea	red trolley					
12 Manitenance Gea	7 Mantenance Gearcu troney					
CAUTION		ance requirements depends		•		
		nation by a professional is a				
CAUTION		h and geared trolleys for values likely to cause a danger. A				
CAUTION	contact your supplier.	defects are found remove	<u> </u>			
CAUTION	In case of doubts, ple supplier.	ase put the push trolley ou	t of use and o	contact your		
CAUTION	Only use original spar	e parts.				
CAUTION	Only use hand chain					
CAUTION	Please see standard pe	riodic maintenance chart be	elow:			
Part	Method	Discard criteria	Solution			
Side Plates	Check visually	Check visually Check plates for any kind of damage.				
				D (mm)		
	M		Replace			
		0.5	≤11			
Axle		1	≤ 15			
		2	≤ 18			
	Check the axle for	3	≤ 23			
	dero	ormation.	5	≤ 25		
			Capacity (T)	C (mm)		
			0.5	≤ 49.5		
Wheel				≤ 63,5		
			2	≤ 75		
		Measure	3	≤ 94		
			5	≤ 114		
Wheel	Check visually	Replace				



Hand chain	A A				**************************************		Replace
	Size	A (mm)	B (mm)				
		Discard	Discard				
	5 X 23.7	≤ 2 5	≤ 4.5				
CAUTION		The user / owner is responsible for correct administration / documentation of these tests, for example log.					
<u> </u>	Use only original supplied replacement spare parts.						



8. Trouble shooting		
TROUBLE	CAUSE AND EXPLANATION	SOLUTION
Push and geared trolleys wheels do no move.	 Lack of grease (bearing). Bearing is damaged. 	 Open the bearing cover and grease the components. Change bearing
Push and geared trolleys trolley runs tilt.	 Wheel are out of position. Beam is uneven. 	1. Adjust the wheels and make sure that the wheel flanges are correctly positioned on to the beam by covering enough beam edge surface. 2. Check the beam surface.
Hand chain is fixed or pulling force is heavier than usual.	 Driven shaft is rusted Hand wheel or catch pin is jammed Bearing is damaged Overload Beam is uneven 	 Remove rust Try to get catch pin to right position and loosen hand wheel. Replace bearing Check if the trolley is overloaded Check the beam surface.
Hand chain climbed	 Serious hand wheel wear Hand chain is deformed 	 Replace the hand wheel Replace the hand chain.
The DELTA YELLOW push and geared trolleys deviates when used.	 Side plate deformation. Bearing damaged. Beam is uneven 	 Replace the side plate Replace the bearing Check the beam surface.



9. Derived certificate of test & Declaration of conformity



EG CONFORMITEITSVERKLARING AFGELEID TEST CERTIFICAAT

EC DECLARATION OF CONFORMITY DERIVED TEST CERTIFICATE

Machinerichtlijn 2006/42/EG Bijlage II 1 A

Machinery Directives 2006/42/EC Appendix II 1 A

Hiermee verklaart de fabrikant:

DELTA Hijswerktuigen Uiterdijk 6, 1505 GW, Zaandam, Nederland

dat het volgende product voldoet aan alle toepasselijke bepalingen van de machine richtlijn 2006/42/EG.

Bovendien is dit product grondig geïnspecteerd en getest. De gegevens zijn in overeenstemming met de technische vereisten die zijn opgenomen in onze documentatie.

Hereby the manufacturer:

DELTA Hoisting Equipment Uiterdijk 6, 1505 GW, Zaandam, Netherlands

declares that this product complies with all applicable provisions of the machinery directive 2006/42/EC.

Additionally, this product has been thoroughly inspected and tested. The data is in compliance with the technical requirements, which is gathered in our documentation.

Omschrijving:

:Description

Artikelnummer:

:Article number

Serienummer:

:Serial number

Maximale last (W.L.L.)

:Working Load Limit (W.L.L.)

Minimum breeklast (M.B.L.):

:Minimum Break Load (M.B.L.)

De volgende geharmoniseerde normen zijn toegepast:

The following harmonized standards have been applied

Gemachtigde / Authorized person:

Naam / Name: M.F. Stam Datum / Date:

11-09-2024

Functie / Position:

Directeur / Director

Factuur nr. / Invoice no.: INV/186039

Plaats / Place:

DELTA Hoisting Equipment

Uiterdijk 6 1505 GW Zaandam

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Phone: +31206266666 E-mail: sales@deltahoist.com Website: www.deltahoist.com

Handtekening / Signature:



DELTA® is a registered trademark, property of DELTA Hoisting Equipment, Ulterdijk 6, 1505 GW Zaandam, The Netherlands.





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