

#### Green Pin Tycan® Lashing Chain

# As strong as steel, a fraction of the weight





safer working

improved efficiency



Green Pin Tycan® has been created from the world's strongest man-made fibre, Dyneema®, and is a link chain that has all the performance and flexibility of steel chain but is a fraction of the weight. It is extremely safe to use, non-corrosive, non-conductive and completely waterproof. In fact, it even floats! The soft touch and light weight makes Green Pin Tycan® easy to use, allows quicker application and greatly reduces the potential of damage to cargo, a critical factor when handling objects with sensitive surfaces. By using Green Pin Tycan® companies achieve greater efficiency and a safer working environment for their staff.

#### Quality assurance

- Every chain length is tested at Lashing Capacity (LC).
- Visual inspection is carried out on each chain link to detect possible defects.
- A 5-link sample of every 1000 meters (0.62 miles) produced is tested to fracture to confirm the MBL.
- Green Pin Tycan® has a Technical Qualification Certificate DNV-GL.
- Declaration of conformity to the Machinery Directive 2006/42/ EC with relevant CE marking.

#### Where and how can Green Pin Tycan® Lashing Chain be used

- Green Pin Tycan® Lashing Chain is a general purpose lashing chain that can be used within the limits set in this user manual.
- Green Pin Tycan® Lashing Chain can be used in min/max environmental temperatures within human tolerance, but should not be in contact with objects or components with a temperature that is higher than +70°C (158°F).
- Green Pin Tycan® Lashing Chain is able to lash loads safely only up to the designated LC.
- Green Pin Tycan® Lashing Chain can be used on land, at sea and in a subsea environment.
- Green Pin Tycan® Lashing Chain should be used under static or near-static conditions.

Material: Made with 100% Dyneema®; layers of

webbing in a Mobius twist with stitching

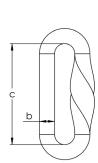
on each side

**Safety Factor:** MBL equals 2 x Lashing Capacity **Temperature Range:** -60°C (-76°F) up to +70°C (158°F)

Certification:

2.1 2.2 MTC b DNV-GLTQ CE

link size	lashing capacity	width link	thickness link	length inside	links per mtr	weight per mtr
mm	t	a mm	b mm	c mm		kg
15x25	10	25	15	100	10	0.58
inch	t	inch	inch	inch		lbs
19/32 x 1	10	1	19/32	4	10	1.28





**FCHLASH** 

#### Verification before first use

Before first use of Green Pin Tycan® Lashing Chain it should be ensured that:

- The chain meets the exact requirements specified in the order.
- The valid manufacturer certificate and CE declaration are at hand.
- ID tags are present and in accordance with certificates and local jurisdictions.
- The users of the sling have received appropriate instruction and training.

#### Verification before each use

- Check Green Pin Tycan® Lashing Chain for any damages, defects or missing ID tags prior to each use. Never attempt to use damaged equipment.
- Connect Green Pin Tycan® Lashing Chain to recommended components as mentioned below or to certified components with a minimum pin diameter of 16mm, a clevis width of 26 0/+5mm and a maximum surface roughness of 5 microns (should feel smooth to your fingers).
- Inspection of Green Pin Tycan® Lashing Chain is mandatory with respect to discard criteria, prior to use. See discard criteria further below in this manual.
- Ensure that Green Pin Tycan® Lashing Chain is rigged according to the load, the planned lashing operation and according to the boundary conditions set forth in the user manual.
- Assemble Green Pin Tycan® Lashing Chain only with a minimum number of 5 load bearing links per sling.



### Recommended products for use with Green Pin Tycan® Lashing Chain

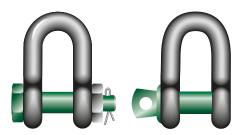
#### **Green Pin® Standard Shackles**

G-4153

Dee shackle with safety bolt GPGDMB19; WLL4.75t

#### G-4151

Dee shackle with screw collar pin GPGDBB19; WLL4.75t



Green Pin Tycan® Lashing Chain can be connected with the Dee shackle body and/or the Dee shackle pin.

**Always take into account;** the maximum load of the configuration is limited by the component with the lowest LC.

Green Pin® Turnbuckles Jaw – Jaw with safety bolt

#### G-6323

1"diameter thread; take up 12" and bigger



In case of contact between Green Pin Tycan® Lashing Chain and the load or operating material, protective sleeves SLEEVE152530 (30cm length) or SLEEVE152550 (50cm length) must be used when the surface edge is "sharper" than 6mm radius.



Edge radius more than 6mm: **No** protective sleeve required **but** recommended.



Edge radius less than 6mm: Protective sleeve **required.** 



No obvious edge radius or in doubt: Protective sleeve **required.** 

## Recommended products for use with Green Pin Tycan® Lashing Chain

#### EXCEL® Connecting link, grade 10

#### UMJ13; WLL6.8t

The recommended EXCEL® Green Pin® components in combination with Green Pin Tycan® Lashing Chain are approved to use up to LC10t.

**Always take into account;** the maximum load of the configuration is limited by the component with the lowest LC.

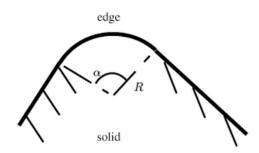


#### Hook for Green Pin Tycan®

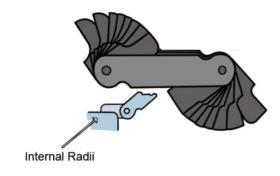
HKK20A050; LC10t



Edges that are in contact with the chain must be checked for sufficient radius. A radius gauge is a good way to check this. If in doubt, a protective sleeve should always be used to gain that radius.



We recommend the use of a radius gauge.







**Green Pin Tycan® Lashing Chain** 



# GREEN TO QUALITY

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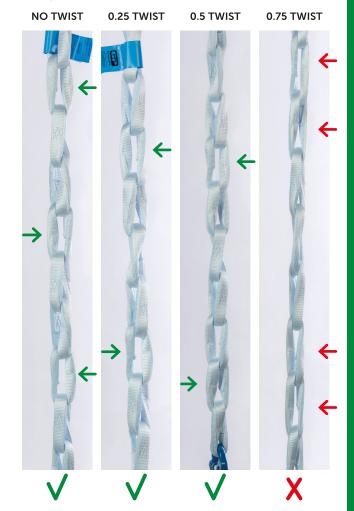
A VAN BEEST BRAND

#### **Limited twist**

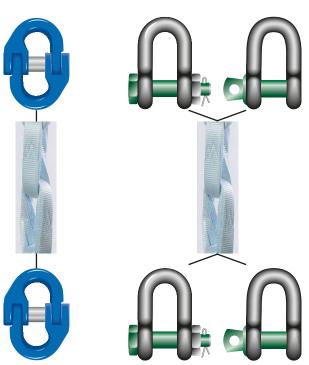
A limited twist of 0.5 turns per meter (per 3.28 feet) is allowed. When there is no twist in the chain, a clear open link can be seen on every  $3^{\rm rd}$  chain link. For every 0.25 twist this increases by one link, so for 0.5 twist per meter you will only see a clear open link every  $5^{\rm th}$  link. If the chain has obtained a twist of more than 0.5 turn per meter, the "open links" start to disappear and/or can be seen in pairs of two. The links itself will also start to get twisted beyond original shape. If these signs are present the chain should be untwisted before performing the lift, or if in doubt do not perform the lift.

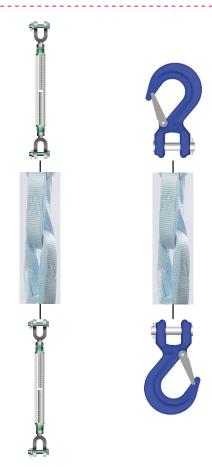
- Keep Green Pin Tycan® Lashing Chain away from sand, mud, ice or any sharp particles, in particular any particles of steel.
   If sharp particles of steel are present, the chain must be removed for inspection and if necessary such particles should be removed.
- Keep Green Pin Tycan® Lashing Chain away from oxidizing chemicals. It is resistant to any other type of chemicals.
- Green Pin Tycan® Lashing Chain should be kept away from direct heat sources; it will burn slowly if ignited but is self-extinguishing upon removal of the flame.
- Dyneema® fiber is nontoxic to humans and is not known to cause any skin or respiratory implications.
- In case a dynamic loading situation is to be expected, the load or LC should be adjusted accordingly.

Twist per meter

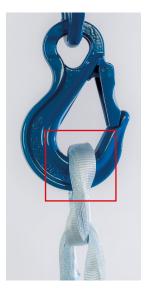


#### Configuration examples











Connecting Green Pin Tycan® Lashing Chain directly with the hook is not acceptable.

#### Maintenance

- Green Pin Tycan® Lashing Chain is designed to be maintenancefree. It is recommended to clean after use for improved service life.
   Green Pin Tycan® Lashing Chain can be washed in an industrial washing machine, limited to a maximum temperature of 90 degrees Celsius (194°F).
- There are no known limitations to the type of cleaning detergents that can be used.

#### Storage

- Storage area should be clean and away from sunlight, preferably dark.
- Storage temperature should be no more than +70 degrees Celsius (158°F) for short term storage (less than one week) and no more than +30 degrees Celsius (86°F) for long term storage.

#### Details wear/tear damage

If one or more layers of the link leg are torn, cut or abraded, the chain must be removed from service immediately and should be discarded.



If there are visible cuts or abrasion of more than 1 mm on the side of the link leg, Green Pin Tycan® Lashing Chain must be removed from service immediately and should be discarded.



#### Inspection and discard criteria

Inspect the chain thoroughly after each use for any wear, tear, cuts or other damage which might affect the performance of Green Pin Tycan® Lashing Chain.



These areas of the chain link are most likely to be affected by wear:

No wear/tear damage allowed in the armpit area.

No folding or spreading out of layers allowed in the armpit area. Minor damage allowed in interface area.

Moderate damage allowed on link leg.



If stitching is torn/abraded, and there is a risk the layers of webbing can unravel, the chain must be removed from service immediately and should be discarded.



If Green Pin Tycan® Lashing Chain has been exposed to temperatures over 110° C (230°F), the chain must be discarded. If Green Pin Tycan® Lashing Chain has been in contact with oxidizing chemicals, it must be discarded.

If Green Pin Tycan® Lashing Chain has met or has been exposed to the limits of the mentioned discard criteria, it should be discarded.

If the ID tag has been removed, lost or is no longer legible, Green Pin Tycan® Lashing Chain should be removed from service until proper ID marking has been verified and new ID tags have been added to the chain.





