

### T2 Block 2146, 2149, 2152

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**WARNING! Strictly follow all instructions to avoid an accident, damage to your vessel, personal injury or death. See [www.harken.com/manuals](http://www.harken.com/manuals) for additional safety information.**

#### Features

**Sheave spins on ball bearings:** low friction  
**No metal:** inside or out.  
**Versatile attachment:** block can be lashed or spliced.



#### Terms



#### Specifications

Part No.	Description	Sheave Ø	Max line Ø		Maximum working load		Breaking load	
			in	mm	lb	kg	lb	kg
2146	29 mm	29 mm	5/16	8	330	150	1000	454
2149	40 mm	40 mm	3/8	10	485	220	1200	544
2152	57 mm	57 mm	7/16	10	792	359	2380	1080

#### Replacement Line

Part No.	Description	Sheave Ø	Replacement Loops /Lines	Replacement line Ø		Line length before making loop		Line Type
				in	mm	ft	m	
2146	29 mm	29 mm	HCP1438	1/16	2	4	1.22	Maxibraid
2149	40 mm	40 mm	HCP1419	3/32	2.5	4	1.22	Maxibraid
2152	57 mm	57 mm	HCP392	1/8	3	4	1.22	Maxibraid

**Important information on choosing line, knots and splices.**  
 Go to [www.harken.com/knots](http://www.harken.com/knots)

#### Contents

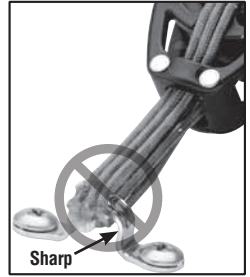
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## Planning Installation

1. Lash only to objects with rounded edges. Avoid sharp corners.



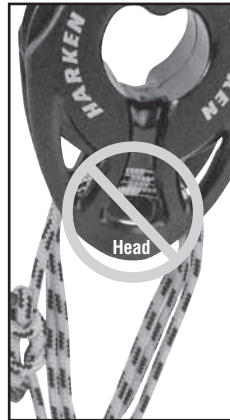
**WARNING!** Lashing to objects with sharp edges can cause line to chafe and break suddenly when load is applied.



2. Always lash to mouth of the block. Head is not strong enough to secure line.



**WARNING!** Lashing to head of block seriously weakens the block. This will cause the block to break suddenly when load is applied. Always lash to mouth.



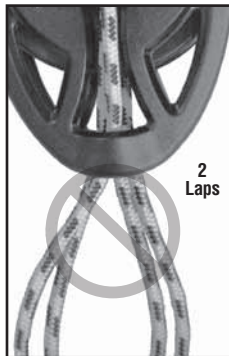
*Do not lash through block head.*

*Do not lash through block head.*

3. Use three laps of line to create six strands to match the maximum working load of the block.



**WARNING!** Using fewer laps will weaken block causing it to break suddenly when load is applied. Use three laps of line.

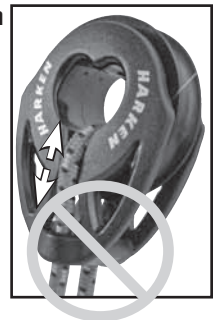


*Three laps, six strands are required for proper strength.*

*This block only has two laps, four strands of supplied line.*

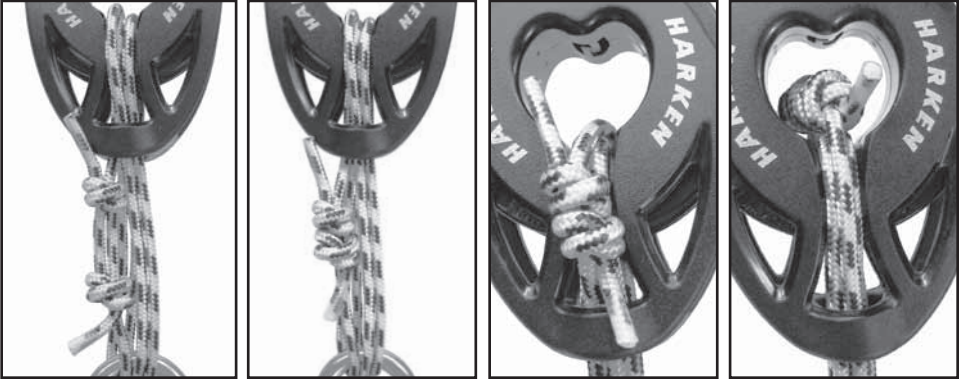
4. **Notice:** Do not use mouth as an adjustable block.

Carbo surface will wear or wear the line if used as a 2:1 adjustable block under load.



## Lashing to Bail Using Harken-Supplied Line

Use three laps to create six strands. Tie ends using double fisherman's knot or other secure knot. Knot can also be located on side of block or inside the mouth. Photos are not intended to teach this knot. See [www.harken.com/knots](http://www.harken.com/knots) or consult a knot tying book. **Important: If you are not comfortable tying this or another secure knot, get help from professional rigger.**

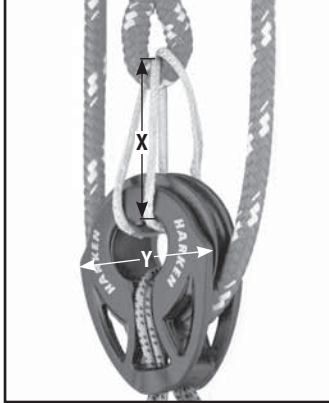


### Lashing 90°

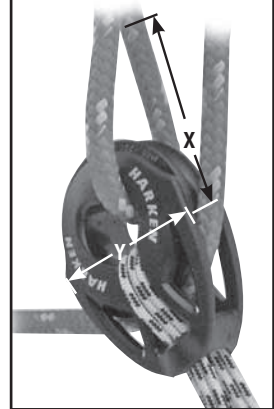


*To lash block at 90° cross lines each pass similar to lashing to boom.*

### Becket Options



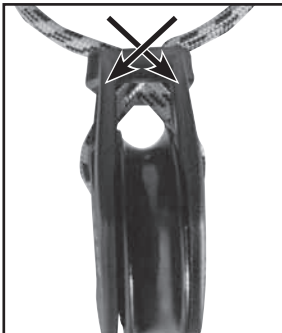
*Use a spliced or tied loop (not supplied) to create a becket or splice directly to mouth.*



*Make loop or eye splice long enough so "X" is longer than sheave diameter "Y". A short loop can cause sideplate to bind against sheave.*

## Lashing to Boom

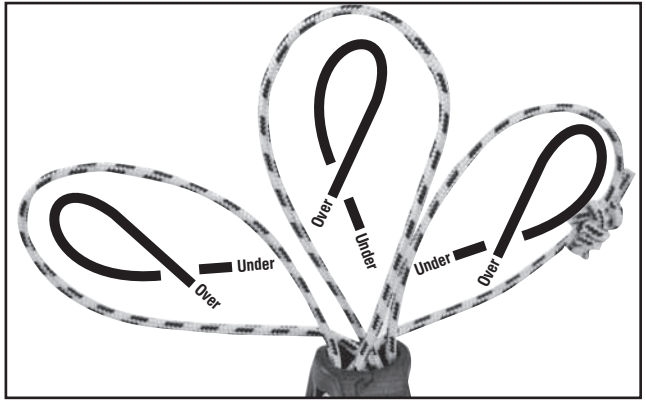
When lashing to a large object such as a boom, cross each line to prevent pushing out on sides of head. See next page.



*Lines can pull head apart.*

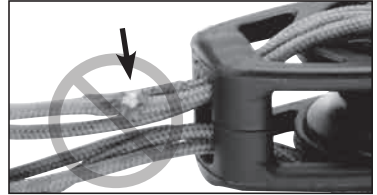
## Lashing to Boom (Continued)

If you have access to end of boom, twist each lap. Secure using double fisherman's knot or other secure knot. See "Lashing to Bail Using Harken-Supplied Line" on page 3.



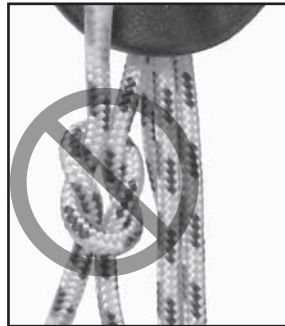
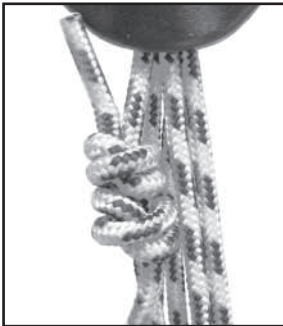
## Inspect Line Every Time You Sail

Inspect lashing line for chafe or UV-damage every time you sail. **Replace damaged line immediately. Replace line with no visible damage every two-years.** Use Harken replacement line, but if using own line, see "Using Alternate Line, Knots and Splices" and chart on page 4 for important information to help you select the correct line.



**WARNING!** Failure to inspect and replace UV-damaged, worn, or frayed line can cause the line to break suddenly when load is applied.

Check knots or splices before sailing. Use a double fisherman's knot or other secure knot.



**WARNING!** Failure to inspect and correct knots can cause the line to slip suddenly when load is applied.

## Replacement Line

Part No.	Description	Sheave Ø	Replacement Loops /Lines	Replacement line Ø		Line length before making loop		Line Type
				in	mm	ft	m	
2146	29 mm	29 mm	HCP1438	1/16	2	4	1.22	Maxibraid
2149	40 mm	40 mm	HCP1419	3/32	2.5	4	1.22	Maxibraid
2152	57 mm	57 mm	HCP392	1/8	3	4	1.22	Maxibraid

## Using Alternate Line, Knots and Splices

Harken is not liable or responsible for use of line used to secure blocks. Go to Harken Limited Warranty at [www.harken.com/manuals](http://www.harken.com/manuals) for complete details. It is your responsibility to choose the correct line for the block. **When choosing line, use a breaking load that is at least double the block's breaking load to account for strength loss from:**

1. Knots slipping or breaking much lower than line breaking load. Spectra® or Dyneema®-type lines require specialized knots.
2. Splices slipping or failing due to the incorrect type or execution.
3. UV damage increasing with each passing year.
4. Chafing seriously reducing strength.

If you are not comfortable choosing line, work with a qualified rigger. Go to [www.harken.com/manuals](http://www.harken.com/manuals) for additional information.



**Lashing Line Minimum Breaking Load**

Part No.	2146 (29 mm)		2149 (40mm)		2152 (57mm)	
Strands	lbs	kg	lbs	kg	lbs	kg
1	2000	907	2400	1088	4760	2159
2	1000	454	1200	544	2380	1079
3	667	302	800	363	1587	720
4	500	227	600	272	1190	540
5	400	181	480	218	952	432
6	333	151	400	181	793	360
7	286	130	343	155	680	308
8	250	113	300	136	595	270
9	222	101	267	121	529	240
10	200	91	240	109	476	216

**Important information on choosing line, knots and splices.**

Go to [www.harken.com/knots](http://www.harken.com/knots)



**WARNING!** Failure to account for loss of strength due to chafe or UV damage when choosing line can result in line breaking suddenly when load is applied.



**WARNING!** Improper knots or splices can weaken the block installation causing it to break suddenly when load is applied.

## Maintenance

Harken® equipment is designed for minimal maintenance. However, some upkeep is required to give the best service and comply with the Harken® limited warranty.

Keep your equipment clean and free-running by frequently flushing with fresh water. Periodically clean with mild detergent and water solution. Spin sheaves to distribute soap solution evenly. Flush with fresh water.

**Important:** Exposure to some teak cleaners and other caustic solutions can result in discoloration of part and is not covered under the Harken warranty.

## Warranty

For additional safety, maintenance and warranty information see [www.harken.com/manuals](http://www.harken.com/manuals) or the Harken® catalog.