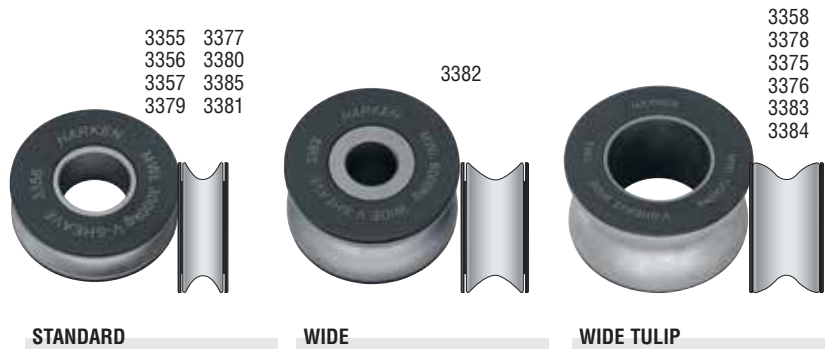


## Sheave Profile



## General Maintenance

Harken equipment requires minimal maintenance, but some maintenance is required to give the best service and to comply with Harken's limited warranty.

It is important to keep equipment clean by frequent flushing with fresh water. In corrosive atmospheres, stainless parts can show discoloration around holes, rivets, and screws. This is not serious and can be removed with a fine abrasive. Flush blocks thoroughly with fresh water. Periodically, disassemble the blocks and clean with detergent and 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; [www.harken.com/manuals](http://www.harken.com/manuals) or the Harken catalog.

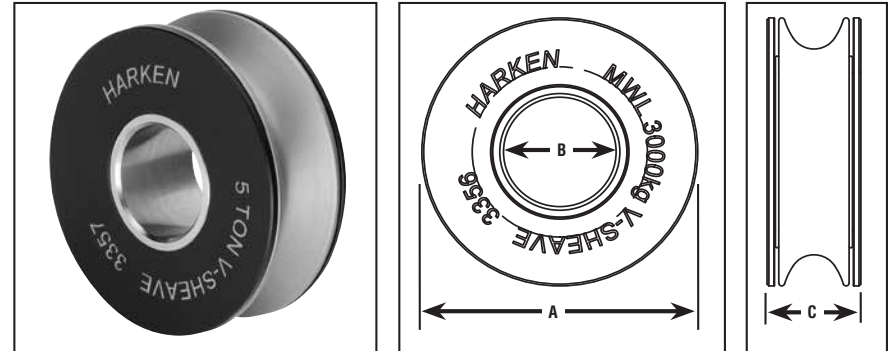
## INSTRUCTIONS

### V™ Sheaves

**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.

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High-load titanium V sheaves feature angled titanium rollers. Snap fit Delrin® side covers require no tools to disassemble for maintenance. V sheaves mount into spar or deck sheave boxes. The bearing system combines axial and thrust bearings into a single bearing set of angled titanium rollers. Use the wide sheave for two-sheet peels. Use the wide-tulip sheaves to handle a single line with line-entry range of deflecting angles.



## Specifications

Part No.	Name	A - Sheave Ø		B - Center Ø		C - Sheave Width		Max line Ø		Maximum working load		Breaking load	
		mm	in	mm	in	mm	in	mm	in	kg	lb	kg	lb
3355	1.5T	47	1.85	15.9	0.626	18.8	0.74	9	11/32	1500	3300	3000	6600
3384	1.5T Wide	47	1.85	15.9	0.626	27.4	1.08	2X 9	2X 11/32	1500	3300	3000	6600
3356	3T	56	2.20	22.86	0.900	19	0.75	11	7/16	3000	6600	6000	13200
3358	3T Wide Tulip	56	2.20	15.9	0.626	30	1.18	2X 11	2X 7/16	3000	6600	6000	13200
3357	5T	62	2.44	22.86	0.900	23.9	0.94	13	1/2	5000	11000	10000	22000
3382	5T Wide	62	2.44	22.86	0.900	32.3	1.27	2X 13	2X 1/2	5000	11000	10000	22000
3378	5T Wide Tulip	62	2.44	22.86	0.900	35.3	1.39	2X 13	2X 1/2	5000	11000	10000	22000
3379	6.5T	82	3.23	33	1.299	29.1	1.48	16	5/8	6500	14300	13000	28600
3375	6.5T Wide Tulip	82	3.23	33	1.299	45.7	1.80	2X 16	2X 5/8	6500	14300	13000	28600
3377	8T	104	4.09	45	1.77	32.4	1.27	18	11/32	8000	17600	16000	35200
3376	8T Wide Tulip	104	4.09	45	1.77	51.2	2.02	2X 18	2X 11/32	8000	17600	16000	35200
3380	12T	120	4.72	65	2.56	33.6	1.32	22	7/8	12000	26400	24000	52800
3383	12T Wide Tulip	120	4.72	65	2.56	65.5	2.58	2X 18	2X 11/32	12000	26400	24000	52800
3385	16 T	135	5.32	75	2.95	38.7	1.52	26	1 1/16	16000	35200	32000	70400
3381	20 T	155	6.10	75	2.95	40.4	1.59	30	1 3/16	20000	44000	40000	88000

## Sizing Sheave and Center Pin

Do not exceed maximum working loads. Loads increase when the line turns at a greater angle. Example: Sheave loads double when the line turns 180 degrees. Refer to block loading formulas in Harken catalog. Center pin not included.

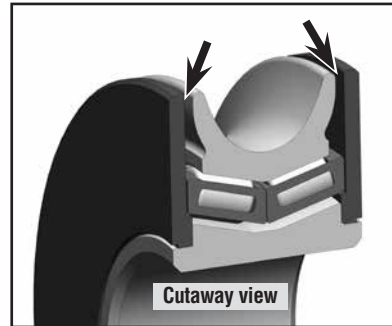
## Sheave Box Dimensions

The supporting sides of the sheave box (A) should be: .75mm larger than (B) the sheave width +/- .25mm.



## Short Term Maintenance

Flush sheave bearings with detergent and fresh water. Flush areas shown while rotating sheave.



## Annual Inspection and Maintenance

Disassemble sheave to inspect and service. Gently pry off plastic sideplates. Refer to exploded view below for disassembly. **IMPORTANT!** Do not force bearing cage. Remove rollers for cleaning or replacement by pushing outward. Install from outside pushing in.

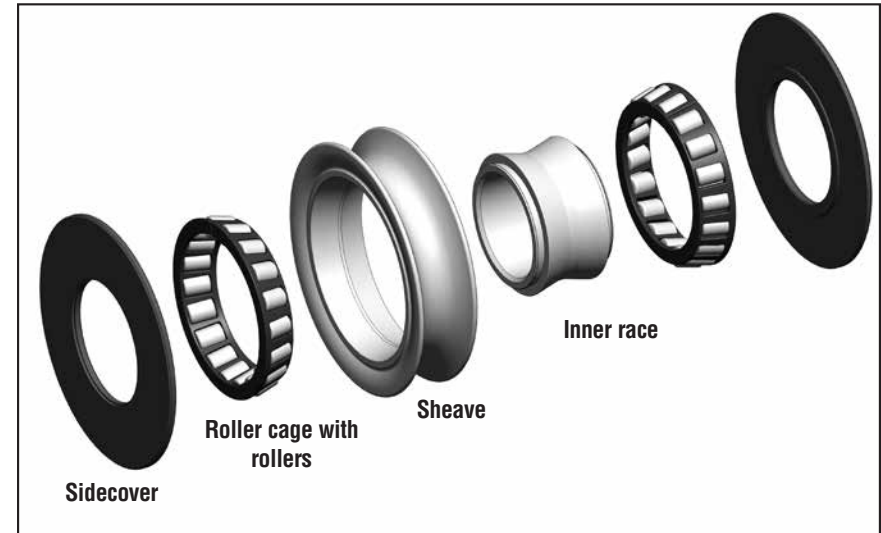


Flush parts with detergent and fresh water. Clean and remove grease using solvent. Lightly grease inner ring of sheave as shown at right.



## Assembly Notes and Reorder Parts

Gently pry sidecovers off with fingers or screwdriver. Use palm or arbor press to press sideplates in place after servicing.



## V-Sheave Replacement Part Numbers

Part No.	Description.	Side cover	Qty	Roller	Qty	Roller cage	Sheave	Inner race
3355	1.5T	H-77970	2	MS-525	30	H-73941	MS-524	MS-556
3384	1.5T Wide	H-77970	2	MS-525	30	H-73941	H-79261	H-79262
3356	3T	H-77965	2	MS-525	36	H-73780	MS-531	MS-557
3358	3T Wide Tulip	H-77965	2	MS-525	36	H-73780	MS-544	MS-558
3357	5T	H-77652	2	MS-535	38	H-73939	MS-528	MS-559
3382	5T Wide	H-77652	2	MS-535	38	H-73939	MS-550	H-82256
3378	5T Wide Tulip	H-77652	2	MS-535	38	H-73939	H-81894	H-81895
3379	6.5T	H-81290	2	MS-536	40	H-73977	MS-534	H-81289
3375	6.5T Wide Tulip	H-81290	2	MS-536	40	H-73977	H-81573	H-81572
3377	8T	H-81615	2	MS-554	46	H-74985	MS-553	H-81709
3376	8T Wide Tulip	H-81615	2	MS-554	46	H-74985	H-81614	H-81616
3380	12T	H-81309	2	MS-554	54	H-81308	H-81306	H-81307
3383	12T Wide Tulip	H-81309	2	MS-554	54	H-81308	H-82265	H-82264
3385	16T	H-81765	2	MS-554	64	H-81767	H-81765	H-82411
3381	20T	H-81061	2	H-81062	66	H-81064	H-81061	H-81063