## LIFT-IT<sup>°</sup>, THE TRUSTED LEADER FOR

A = RAIGGING HELICOP

PRODUCTS FOR DEMANDING LONGLINE and HUMAN EXTERNAL CARGO APPLICATIONS

# QUALITY AS9100 QUALITY MANAGEMENT SYSTEM

SERVICE MANY CLAIM 24-7-365 SERVICE, BUT FEW DELIVER. WE HAVE PROVEN TIME AFTER TIME, DAY OR NIGHT, WE'LL TURN ON THE LIGHTS AND KEEP YOU FLYING!

# INNOVATION

CARGO LINES | HEC LINES | Y-BRIDLES | A-FRAMES | CARABINERS WEIGHT BAGS | SWIVELS | GRAPPLES | REVERSE GRAPPLES | REMOTE HOOKS FIRE BUCKET LONGLINES | CUSTOM POWER CORD OFFERINGS | CUSTOM COVER OPTIONS EXTERNAL CARGO RIGGING TRAINING | LONGLINE INSPECTION TRAINING | CERTIFIED RIGGER









# Lift-It<sup>®</sup> Longlines

With experience that is measured in generations not years, Lift-It<sup>®</sup> fabrication experts produce the finest Longlines and HEC equipment with the same outstanding quality and service that has made Lift-It<sup>®</sup> an industry leader since 1979. Working closely with pilots, ground crew and management staff in the Rotorcraft industry we listen and continually improve our helicopter rigging products to meet the demanding and ever changing needs of critical missions. Lift-It<sup>®</sup> Longlines and Covers are fabricated and proof tested at our state of the art facility in Pomona, CA giving us the ability to ship custom orders in days, not weeks.



#### **Standard Lift-It® Longline and HEC-Line features:**

- Durable Longline Identification Tag and Cordura® Protection Wrap.
- Unique serial number and date of manufacture.
- Storage bag with matching Identification Tag.
- Proof tested to 200% and certified.
- Lock stitching and whipping.
- Cordura<sup>®</sup> tubular buffers at thimble/rope contact points.
- Reinforced, Stainless Steel Thimbles.
- 7:1 Design Factor for External Load and Line Pulling Operations.
- 10:1 Design Factor for Human External Cargo.
- User Manual and Inspection Log.
- Rope Sample for inspection.



# Longlines



HOW TO ORDER											
Material	Assembly Type	Top Fitting	Dia. (In.)	Bottom Fitting	Length (Ft.)	Color					
UHMPE =	LL =	<b>TRR</b> = Thimble/Round Ring	3/8	<b>TRR</b> = Thimble/Round Ring	25	$\mathbf{Y} = $ Yellow					
Ultra-High Modulus Polyethylene	Longline	<b>TML</b> = Thimble/Master Link	7/16	<b>TRR-HEC =</b> Thimble/Round Ring for HEC	50	<b>O</b> = Orange					
	HEC =	<b>ET</b> = Encapsulated Thimble	1/2	<b>TML</b> = Thimble/Master Link	75	<b>G</b> = Green					
Liquid Crystal Polymer	Human	<b>TPR</b> = Thimble/Pear Ring	5/8	<b>ET</b> = Encapsulated Thimble	100	<b>BL</b> = Blue					
	External	<b>SE</b> = Soft Eye	3/4	<b>TPR</b> = Thimble/Pear Ring	125	<b>OR</b> = Orange/Reflective					
LCP Inner / Aramid outer	Cargo	<b>HYDRO</b> = Tubular Thimble with	7/8	<b>SE</b> = Soft Eye	150	(Double Braid ONLY)					
DBUHMPE =	PL =	positioning holes for water lines.	1	<b>BL</b> = Blue Line Thimble	175	$\mathbf{B} = Black$					
Double Braid UHMPE	Pulling	<b>TT</b> = Tubular Thimble	1-1/4	<b>NYL</b> = Nylite Shackle/Thimble	200						
WR =	Line	<b>NYL</b> = Nylite Shackle/Thimble	1-1/2	<b>TLKBK</b> = Thimble/Gunnebo LKBK	250						
Wire Rope Anti-Rotational				<b>TBKLKWRIN</b> = Thimble/Gunnebo BKLK and WRIN handle	300						
	Stock Number										
UHMPE	LL	TRR	1/2	TRR	100	Y					

WORK LOAD LIMITS													
Matarial	Design Faster		Rope Diameter										
Wateria	Design Factor	3/8″	7/16″	1/2″	5/8″	3/4″	7/8″	1″	1-1/4″	1-1/2″			
UHMPE	(7:1) Work Load (Lbs.)	2,500	3,000	4,500	6,700	8,300	11,670	14,000	21,285	29,280			
UHMPE	(10:1) Work Load (Lbs.)	1,750	2, 100	3,150	4,690	5,810	8,170	9,800	14,900	20,500			
LCP	(10:1) Work Load (Lbs.)			1,500	2,500								
DBLCPTECH	(10:1) Work Load (Lbs.)			1,500	2,500								
DBUHMPE	(10:1) Work Load (Lbs.)			2,000	2,500								
WR	(7:1) Work Load (Lbs.)	2,000	2,600	3.400	5,400	8,000	10,800	14,000	21,400	30,000			
			LONG	GLINE WI	EIGHTS*	(LBS.)							
	50 FT.	5	6	8	11	14	19	24	41	57			
	100 FT.	8	10	13	19	24	33	40	64	88			
	150 FT.	12	14	18	26	32	44	53	84	116			

\*Weights shown are for Longlines with Encapsulated Thimbles and a single Primary Cover. Other configurations must have additional weight of attachments added.



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## LONGLINE IDENTIFICATION TAG

- Name or Trademark of the Manufacturer.
- Stock Number
- Rope Diameter
- Date of Manufacture
- Work Load Limit

- Unique Serial Number
- Length
- Warning Information
- Rope Material
- Provision for Inspection Dates denoting (Month and Year) for four (4) consecutive years.

#### LONGLINE IDENTIFICATION TAG WRAP PROTECTION



All thimbles feature a Keeper Ring to prevent inadvertent disengagement. Lift-It<sup>®</sup> uses oversized thimbles allowing the rope to fully seat within the thimble minimizing rope exposure. Each thimble is marked with:

- Rope Diameter
- Longline Length
- Unique serial number



**Cordura® Tag Wrap** is a unique way of protecting important information depicted on the identification tag. The tag wrap is conveniently located at the bottom of the line allowing a Qualified Person\* to quickly identify the inspection date requirements.



### WHIPPING AND LOCK STITCHING

Whipping and Lock stitching are critical for pre-use inspection, allowing a Qualified Person\* to identify broken lock stitch and/or whipping, which could indicate shock and/or overloading that may result in SEVERE INJURY or DEATH.

These processes are recommended by some rope manufactures and identify a professionally spliced Longline.

(Standard features on Lift-It® Longlines).

# **Longline Components**



### **TOP & BOTTOM FITTING OPTIONS**

Heavy-duty, reinforced, stainless steel thimbles provide a smooth contact surface and are standard for rope diameters from 3/8" to 1". For rope diameters from 1-1/4" and greater, thimbles are steel construction and feature zinc coating for corrosion resistance. Lift-It® thimbles feature a welded keeper ring that assists in preventing distortion and unplanned rope disengagement, while the smooth thimble surface increases the longevity of the Longline. Each thimble is engraved in a non-critical area with line diameter and length as well as a unique serial number for record keeping, traceability and easy identification. We offer a large variety of standard top and bottom connections, as well as the ability to offer custom fittings, such as our HYDRO/AIR thimble which accommodates the attachment of hoses.

TRR	TRR-HEC	TML	ET	TPR
HYDRO/AIR	TT	NYL	TLKBK	TBKLKWRIN

#### **CUSTOM HARDWARE ATTACHMENTS**





# **Longline Hooks**

#### **SELF LOCKING HOOKS**

OBK with Grip Latch (EYE TYPE)



SELF-LOCKING HOOKS - OBK WITH GRIP LATCH (EYE TYPE)											
Stock Number	Chain Size	Grade	Work Load Limit			Unit Weight					
	(ln.		(Lbs.)*	L	В	E	F	G	Н	(Lbs.)	
OBK-6-10	7/32	100	2,160	4.1	1	.87	.35	.55	.67	.88	
OBK-7/8-10	9/32	100	3,440	5.5	1.5	1.1	.39	.79	.87	1.8	
OBK-7/8-10	5/16	100	4,560	5.5	1.5	1.1	.39	.79	.87	1.8	
OBK-10-10	3/8	100	7,040	6.7	1.9	1.3	.51	.87	1.1	2.9	
OBK-13-10	1/2	100	12,000	8.1	2.1	1.7	.59	1.1	1.4	5.3	
OBK-16-10	5/8	100	8,080	9.8	2.7	2.2	.75	1.1	1.7	9.3	
OBK-18/20-8	3/4	80	22,640	11.5	2.9	2.4	.87	1.5	1.9	18.1	
OBK-22-8	7/8	80	27,360	13.2	3.4	2.8	.94	1.6	2.2	24.2	

- Proof tested and certified.
- Heat ID number for traceability.
- Latch is protected and may act as a gauge to signal bent hook or latch.
- Grip latch locks into point of hook.

*Work Load Limits based upon a 5 to 1 [	Design Factor when new.
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LKBK SW	LKBK SWIVEL EYE GRIP LATCH SELF LOCKING HOOK WITH BALL BEARINGS											
Stock	Chain Size	Work Load Limit		Dimensions (Inches)								
Number	(ln.)	(Lbs.)*	L	В	С	E	F	G	Н	(Lbs.)		
LKBK-7/8-10	5/16	4,560	6.9	1.5	1.1	1.5	.47	.79	.87	1.8		
LKBK-10-10	3/8	7,040	8.4	1.9	1.4	1.7	.59	.87	1.1	4.0		
LKBK-13-10	1/2	12,000	9.3	2.1	1.9	1.9	.75	1.10	1.4	8.4		



## LKBK Swivel Eye with Grip Latch

- Proof tested and certified.
- Heat ID number for traceability.
- Ball Bearing allows hook
   to swivel under load
- Grip latch locks into point of hook.

\*Work Load Limits based upon a 5 to 1 Design Factor when new.



	WRIN STR HANDLE SPECIFICATIONS										
Stock	Hook		Dimensio	ns (Inches)		Fits Hook Styles	Handle Weight				
Number	Size	В	G	Н	L	FILS HOOK Styles	(Lbs.)				
STRG13	1/2″	2.36	7.24	4.06	5.71	BK, BKG, BKL, BKLK	1.76				
STRG16	5/8″	3.15	10.04	5.51	7.17	BK, BKG, BKL, BKLK	4.08				
STRG20	3/4″	3.54	11.02	6.10	7.64	BK, BKG, BKL, BKLK	5.51				
STRG22	7/8″	3.54	11.81	6.46	7.99	BK, BKLK	5.62				

SELF-LOCKI	NG HOO	OKS – B	KLK WITH	H BA	LL B	EARI	NGS	(SW	IVEL	EYE	TYPE)	
STOCK	CHAIN	CHAIN SIZE GRADE LIANT			DIN (	/IENSI	ONS ;)			WEIGHT		
NUMBER	(Inches)	GRADE	LIMIT (Lbs.)*	L	В	С	E	F	G	Н	(Lbs.)	
BKLK-13-10	1/2	100	11,993	11	2.1	1.9	1.9	.75	1.2	1.5	8.4	
BKLK-16-10	5/8	100	18,166	13.5	2.4	2.6	2.4	.87	1.5	1.9	15.6	
BKLK-18/20-10	3/4	100	28,218	14.4	2.7	2.8	2.9	1.0	1.7	2.5	24.5	

\*Work Load Limits based upon a 5 to 1 Design Factor when new.



#### **BKLK Swivel Eye**

- Proof tested and certified.
- Heat ID number for traceability.
- Ball Bearing allows hook to swivel 360° under full Work Load Limit.
- Release trigger will only operate when hook is unloaded.

# **Rigging Hardware**



#### **CROSBY A-342 ALLOY MASTER LINKS**



A-342 / A-342W

- Alloy Steel, Quenched and Tempered.
- Individually Proof Tested to values shown, with certification. •



- Proof Tested with fixture sized to prevent localized point loading per ASTM A952. Consult Crosby for appropriate fixture size.
- · Crosby A-342 products meet or exceed all requirements of ASME B30.26 including identification, ductility, design factor, proof load and temperature requirements. Importantly, Crosby products meet other critical performance requirements including fatigue life, impact properties and material traceability not addressed by ASME B30.26.
- Sizes from 1/2" to 2" are drop forged and have a Product Identification Code (PIC) for material traceability, along with the size, Crosby and USA in raised lettering.
- Selected sizes designated with "W" in the size column have enlarged inside dimensions to allow additional room for sling hardware and crane hook.
- · Incorporates patented QUIC-CHECK° deformation indicators.

	A342 ALLOY MASTER LINK SPECIFICATIONS											
Si	ze	Stock	Work Test	Proof Load	Dim	ensions (Inc	hes)	Deformation	Unit Weight			
(ln.)	(MM)	Number	Limit (Lbs.)*	(Lbs.)**	А	В	С	Indicator	(Lbs.)			
1/2W	13W	1014266	7,400	17,200	.62	2.80	5	3.50	1.3			
5/8	16	1014280	9,000	18,000	.62	3	6	3.50	1.5			
3/4W	19W	1014285	12,300	28,400	.73	3.20	6	4	2			
7/8W	22W	3522213	15,200	35,200	.88	3.75	6.38	4.50	3.3			
1W	26W	3522214	26,000	60,000	1.10	4.30	7.50	5.50	6.1			
1-1/4W	32W	3522215	39,100	97,750	1.33	5.50	9.50	7.00	12.0			



\* Ultimate Load is 5 times Work Load Limit. Applications with wire rope and synthetic sling generally require a design factor of 5 to 1 when new. \*\* Proof Test Load equals or exceeds the requirement of ASTM A952(8.1) and ASME B30.9

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#### THIMBLES

Heavy duty 316 Stainless Steel construction for up to 1" rope

 Corrosion resistant plating on 1-1/4 & 1-1/2" rope Engraved with serial number



THIMBLE SPECIFICATIONS											
Longline	Dimensions (Inches)										
Diameter	А	В	С	D	E	F	W	(Lbs.)			
3/8"	1/2	1-1/2	2-3/4	.155	7/8	3-3/4	2-5/8	.50			
1/2"	5/8	1-5/8	3-1/4	.180	1-1/8	4-1/4	3	.72			
5/8"	3/4	1-7/8	3-3/8	.230	1-5/16	4-7/8	3-5/8	1.20			
3/4"	7/8	2-1/8	4	.24	1-7/16	5-1/2	4	1.46			
7/8"	1	2-1/4	4-3/8	.250	1-3/16	6-1/8	4-5/8	2.40			
1"	1-1/4	2-3/4	5-1/8	.250	1-15/16	7-1/4	5-1/2	4.20			
1-1/4" & 1-1/2"	1-1/2	3-1/2	6-1/4	.53	2-5/8	9	7-1/8	12.50			

#### **YOKE® SELF-LOCKING BALL BEARING SWIVEL HOOK**

- · Proof tested and certified.
- Ball bearing allows for 360° load rotation under • full Work Load Limit.
- Enhanced thumb operated trigger operates easily with gloves, keeping hands away from moving parts. · Handle forged into body for durability.

952N SELF-LOCKING SWIVEL HOOK WITH INTEGRAL GRIP												
Stock Number	WLL (Lbs.)*	А	В	D	Н	к	0	Р	Т	W	Weight (Lbs.)	
952N-10	7,055	1.61	1.38	0.63	1.22	8.90	1.93	2.80	1.06	5.39	5.29	
952N-13	11,817	1.81	1.73	0.83	1.54	11.14	2.52	3.15	1.34	6.85	11.46	
952N-16	17,637	2.40	1.97	0.91	1.85	13.66	3.07	4.49	1.54	8.35	18.51	
952N-20	28,219	2.91	3.23	0.98	2.17	17.05	3.62	5.00	2.13	9.88	31.96	



909.469.2251



# **Primary & Secondary Covers**

#### **PRIMARY COVER FEATURES:**

- YKK<sup>®</sup> No. 10c Heavy Duty Coil Zipper.
- Circumferential Wrap helps keep the cover securely attached, even if the zipper fails or is not properly closed.
- All covers feature tags, which include stock number and serial number for ease of identification and re-ordering.

#### **MATERIAL CHOICES:**

CHD = Cordura<sup>®</sup> Fabric - Heavy Duty, 1600D - 2100D **C** = Cordura<sup>®</sup> Fabric, 1000D Color options vary with material choice.

Skyline

ndicator

#### **SECONDARY COVER FEATURES:**

- Secondary Covers are made from heavy grade, Black 1680D Cordura®. The Secondary Cover material is more robust than 1000D materials. During use the lower portion of the line may become damaged from contact with the external objects, such as: loads, rigging and/or the ground. Secondary covers are a wise investment providing protection for the Primary Cover and Longline.
- Many heavy lift operators require additional 20 ft. lengths of power cord to be doubled back and housed within a larger Secondary Cover. This option must be requested at the time of order.

#### **COVER OPTIONS**

When using power cord for remote line applications the cord can become a nuisance during inspections.

Double Zipper (DZ) covers house the SO Cord separately from the Longline, dramatically reducing handling time during inspections and installation.

Zipper Pockets for internal SO Cord are also available.



Many operators require a "Skyline Indicator" (SI) at 10 to 12 feet from the top of the line. Skyline indicators are always made in a different color from the Primary Cover color. #nomoreducttape

We also offer Skyline Indicators is solid length sections, typically 12 Ft.

As rope diameters increase the thimble size also increases substantially. Flared Secondary Covers conceal the entire rope juncture and lower portion of the thimble, providing protection with increased performance and service life.

Secondary Covers for 7/8" and larger rope diameters are automatically flared.





			Н	OW TO O	RDER							
Assembly Type	Top / Bottom	Material	Rope Diameter (In.)	Rope Material (Req'd)	SO Cord* (If Req'd)	Length (Ft.)	Closure Method	Color	Skyline Indicator			
PC = PRIMARY COVER SC = SECONDARY COVER	<ul> <li>T = Top</li> <li>B = Bottom</li> <li>(Only needed when ordering secondary covers)</li> </ul>	<b>CHD</b> = Cordura <sup>®</sup> - 2100D Heavy Duty <b>C</b> = Cordura <sup>®</sup> 1000D	3/8 7/16 1/2 5/8 3/4 7/8 1 1-1/4 1-1/2	PL = Plasma® LCP = Liquid Crystal Polymer DB = Double Braid	SO SOVP = SO Cord Velcro Pocket SOZP = SO Cord Zipper Pocket *Must specify gauge and number of wires i.e., 14/3.	25 50 75 100 150 200 250	<ul> <li>Z = Zipper</li> <li>V = Velcro</li> <li>DZ = Double Zipper</li> <li>ZP = Zipper Protector</li> </ul>	<ul> <li>B - Black</li> <li>Y - Yellow</li> <li>O - Orange</li> <li>G - Green</li> <li>BL - Blue</li> <li>R - Red</li> <li>M - Maroon</li> </ul>	<b>SI</b> = Standard 2FT Skyline Indicator positioned at 10' - 12' from the Top <b>SI##</b> (i.e. SI12) = Specified length Skyline Indicator starting at the Top			
	Stock Number											
РС		СНД	5/8	PI	SO	100	7	0	SI			

# **Special Purpose**



#### **POWER CORD**

Many Longline operations utilize remote hooks, water buckets with multiple pumps requiring combinations of AWG welding wires, power cords and control wires.

We offer a wide range of power cords to meet your specific needs.

Power cords must be requested at the time of order to ensure covers fit properly.



AWG Size / No. of wires per cord	14/3	12/2	12/3	12/4	10/3	10/4	AWG#8	AWG#6	AWG#4	AWG#2	AWG#0
Weight / Ft. (Lbs.)*	.08	.09	.12	.15	.20	.26	.08	.11	.15	.24	.37
Outside Diameter (in.)*	.363	.410	.428	.468	.573	.628	.293	.303	.331	.413	.481

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\*Weights and outside diameters are approximate and may vary without notice.

#### WEIGHTED LINE COVERS

#### WEIGHTED LINE COVER FEATURES:

- Weighted Line Covers have become increasingly popular as they assist in stabilizing the Longline during operations in the working area.
- Weighted Line Covers are made from Heavy Duty, Cordura<sup>®</sup> 1680D fabric and feature Zipper Protectors and mid-body circumferential bands.
- Standard Length: 2 Ft. Custom lengths are available.
- Standard Weight: 25 Lbs. Custom weights are available.
- High Visibility Circumferential Wrap is another Lift-It<sup>®</sup> standard feature!



	HOW TO ORDER										
Assembly Type	Material	Rope Diameter	Length (Ft.)	Closure Method	Color	Weight (Lbs.)					
WEIGHTED LINE COVER	1680D Cordura®	Made to fit, PLEASE SPECIFY	PLEASE SPECIFY	Zipper with Protector	O - Orange	PLEASE SPECIFY					
		E	xample Stock Numb	pers:							
WLC	C	5/8	2	ZP	0	25LB					
WLC	С	5/8	3	ZP	0	35LB					



# **Grapple Hooks**

Grapple hooks can be used when multiple, repetitive loads need to be handled, making quick external load connection for ground crews and pilots. The original Lift-It<sup>®</sup> Grapple is narrower in design allowing for work in congested environments, while the wide mouth version allows for ease of attachment by ground crews. Reverse Grapple meets the needs of line-pulling operations when disengaging is necessary.

Lift-It<sup>®</sup> Grapple Hooks meet the requirements of ASME B30.10; including manufacturers identification and WLL. Welded - stainless steel construction coupled with florescent orange powder coat for high visibility, make for the most durable line of grapples known to mankind! Original and wide mouth models feature a stainless-steel chain assembly for securing the load over long flight durations.



			GRA	PPLE H	OOK S	PECIFIC	ATIONS				
Stock	Work Load	Limit* (Lbs.)	Overall	Overall	Tine	Throat	Sha	ckle	Hook	Weight as	
Number	Total for ALL TINES	Single Tine	Length (L)	Width (W)	Length (T)	Clearance (O)	Тор	Bottom	Weight (Lbs.)	shipped (Lbs.)	Dimensions
GH-5K-SS-WM	5,000	5,000	27-1/2"	23-3/8"	14"	9"	G-4161 3/4"	G-4161 3/4"	38	45	
GH-5K-SS	5,000	5,000	27"	15-1/4"	7"	5"	G-4161 3/4"	G-4161 3/4"	31	38	
RGH-2.8K-SS	2,800	2,800	43"	20"	9"	8"	G-4161 3/4"	Bottom Loop Dia. (D)	38	41	
	Line-Pull 2,800	) Lbs.						16"			

\*Work Load based upon a 5 to 1 Design Factor when new.

# **Angular Contact Bearing Swivels**





Miller angular contact ball bearing swivels provide an efficient way to handle the heavy thrust loads encountered in helicopter material handling applications.

The angular contact ball bearing swivel design results in highly reduced torque levels: 50% to 70% less than the torgue levels experienced when using traditional thrust bearing swivels.

Miller Y-Link Angular Contact Ball bearings are machined from high quality alloy steel and are zinc plated for corrosion protection. Working loads range from .45 to 1000 tons.

**CLEVIS TO CLEVIS - TYPE 111** 



Type 111 in sizes 1.5T thru 5T are supplied with Bolt Nut Cotter (BNC) pins for added security.



Stock Number	WLL (Tons)**	Rope Size	А	В	с	D	E	F	G	н	Weight (Lbs.)
BB-111	.75	1/4	1.31	3.5	4.38	.44	.31	.38	.22	.56	.93
3-111-BNC	1.5	3/8	1.63	4.06	5.44	.69	.5	.5	.31	.78	2
C-111-BNC	3	1/2	2	6.25	8.09	.94	.75	.75	.38	1.19	4.5
D-111-BNC	5	5/8	2.5	7.94	10.09	1.13	1	.88	.56	1.56	9.5
EE-111	8.5	3/4	2.88	9.63	12.31	1.34	1.56	1.19	.53	2.09	15.25
G-111	10	7/8	4	14	17.5	1.75	1.75	1.5	.81	3.5	40
GG-111	15	1	4	14	17.5	1.75	1.75	1.5	.81	3.5	40
WorkLoa	d bacad u	non a 5 to	1 Docign	Eactoria	hon now						

bad based upon a 5 to 1 Design Factor when new.

#### **BULLET NOSE TO BULLET NOSE - TYPE 414**



Stock Number	WLL (Tons)**	Rope Size (In.)	А	В	С	D	E	F	G	Weight (Lbs.)
BB-414	.75	1/4	1.31	3.56	4.44	.44	.31	.38	.56	1.12
B-414	1.5	3/8	1.63	4.06	5.19	.56	.5	.44	.81	1.81
C-414	3	1/2	2	5.44	7.06	.81	.75	.63	.94	3.87
D-414	5	5/8	2.5	7.88	10.19	1.13	1	.88	1.56	8.06
EE-414	8.5	3/4	2.88	9.81	12.31	1.25	1.28	1	2.13	14.5
G-414	10	7/8	4	13.25	16.75	1.75	1.75	1.5	3.25	40
GG-414	15	1	4	13.25	16.75	1.75	1.75	1.5	3.25	40

\* Work Load based upon a 5 to 1 Design Factor when new.

### **CLEVIS TO HOOK - TYPE 115**



Stock Number	WLL (Tons)**	Rope Size (In.)	А	В	С	D	E	F	G	Н	J	К	Weight (Lbs.)
B-115	1.5	3/8	1.63	.5	.5	.69	.78	5.88	3.63	1	1.63	1	2.31
C-115	3	1/2	2	.75	.75	.94	1.19	8.56	4.88	1.34	2	1.38	5.94
D-115	5	5/8	2.5	.88	1	1.13	1.56	10.81	6.5	1.34	2.5	1.81	11.81
EE-115	8.5	3/4	2.88	1.19	1.56	1.34	2.09	13.75	8.69	2.25	3.25	2.59	24
G-115	10	7/8	4	1.5	1.75	1.75	3.5	17.88	11	3	3.25	3	53
GG-115	15	1	4	1.5	1.75	1.75	3.5	17.88	11	3	4.25	3	53
* Work Loa	Work Load based upon a 5 to 1 Design Faster when now												

Work Load based upon a 5 to 1 Design Factor when new.

#### **CLEVIS TO EYE - TYPE 112**



Stock Number	WLL (Tons)**	Rope Size (In)	А	В	С	D	E	F	G	Н	I	J	К	L	Weight (Lbs.)
BB-112	.75	1/4	1.31	3.56	4.44	.31	.22	.38	.44	.56	.31	.38	.44	.94	.94
B-112	1.5	3/8	1.63	4.13	5.38	.5	.31	.5	.69	.78	.5	.66	.63	1.34	1.94
C-112	3	1/2	2	6.19	8.13	.75	.38	.75	.94	1.19	.75	.91	1	1.94	4.25
D-112	5	5/8	2.5	7.88	10.19	1	.56	.88	1.13	1.56	1	1.28	1.19	2.5	8.94
EE-112	8.5	3/4	2.88	9.5	12.34	1.56	.53	1.19	1.34	2.19	1.25	1.41	1.5	3.13	15.25
G-112	10	7/8	4	13.94	17.5	1.75	.81	1.5	1.75	3.5	1.72	1.66	1.81	4.66	39
GG-112	15	1	4	13.63	17.5	1.75	.81	1.5	1.75	3.5	1.94	2.03	2.13	4.91	40

\* Work Load based upon a 5 to 1 Design Factor when new.



Many industries have used "fall protection" carabiners for load handling applications. Fall protection carabiners are not marked with a work load limit, which is a critical regulatory requirement, and should not be used for lifting and/or load handling. You are no longer forced to use non-compliant equipment. Lift-It® provides carabiners for lifting applications and also other styles of carabiners from industry leading fall protection/prevention manufacturers such as ISC Wales and Yoke-Niagara.

## LOAD HANDLING CARABINERS



Weights and dimensions are approximate and may vary without notice.

#### FALL PREVENTION CARABINERS



Weights and dimensions are approximate and may vary without notice.

# **Custom Assemblies**



### **A-FRAME LANYARDS**

Lift-It<sup>®</sup> A-Frame lanyards feature protection in critical wear areas and an enhanced zipper. "EL" and "SL" styles are available from stock in both 54 and 60 inch lengths. Custom lengths are available.



Lift-It<sup>®</sup> A-FRAME lanyards are made from abrasion resistant nylon Armor Jacket webbing. Nylon Armor Jacket webbing features an external, bulked nylon, outer cover that is four times more abrasion resistant than regular webbing.

![](_page_12_Picture_6.jpeg)

	DOUBLE LEG LANYARD INFORMATION										
Description	Leg Style	Cover Material	Closure Method	Cover Color	Length						
DLL-1 =	<b>SL</b> = Staggered	<b>CHD</b> = Cordura <sup>®</sup> -	<b>Z</b> = Zipper	<b>O</b> = Orange	54″						
LEG		2100D Heavy Duty	<b>V</b> = Velcro		60″						
LANYARD (1″WIDE)	<b>EL</b> = Equal length	<b>FLCBS</b> = Full Length Cordura <sup>®</sup> Body Sleeve	<b>ZP</b> = Zipper Protection	<b>B</b> = Black (FLCBS only)	CUSTOM LENGTHS AVAILABLE						
	Stock Number										
DLL-1	SL	CHD	Z	0	60						

\*Work Load based upon a 10 to 1 Design Factor when new.

Approximate Weights: DLL-EL-**CHD**-Z-O x 54" = 3.20 Lbs. DLL-EL-**FLCBS**-B x 54" = 3.05 Lbs.

![](_page_13_Picture_0.jpeg)

## Lift-It<sup>®</sup> FAA-PMA Approved HEC Equipment

# HEC Equipment

![](_page_13_Picture_3.jpeg)

# NOW WITH FAA-PMA APPROVAL

Lift-It<sup>®</sup> Manufacturing Co., Inc. is excited to announce that we now have design approval to manufacture FAA-PMA certified HEC products for use on Bell 206L, Bell 407, MD369D, MD500N and MD600N aircraft outfitted with Onboard<sup>®</sup> Systems dual cargo hooks.

For decades, Lift-It<sup>®</sup> has manufactured industry leading Longlines and accessories for rotorcraft external load missions. Our motto has always been "When only the best is good enough" and we strive to make good on that promise by offering the best quality materials and workmanship to meet the needs of the demanding rotorcraft industry. Through the years we have improved product features meeting the needs of our discerning customers, such as durable covers, YKK zipper closures, industry leading laser printed synthetic leather labels that include; Use & Safety information, inspection intervals and all required information, i.e., part number and Work Load Limits.

- Industry leading materials and craftsmanship
- Upper Y-Ropes and connection Carabiners
- 1/2" & 5/8" HEC Longlines available in lengths from 50 150 Ft.
- 1000D Zippered outer covers that protect key structural components
- A-Frame Lanyards
- Weighted Line Bag

– HIGH HEAT Resistant Cover Avail Abi F

MULTIPLE

LONGLINE

LENGTHS

AVAII ABI F

## Lift-It<sup>®</sup> FAA-PMA Approved HEC Equipment

![](_page_14_Picture_1.jpeg)

Our FAA approved HEC components are fabricated utilizing top quality materials and manufacturing processes. HEC Lines are fabricated with Liquid Crystal Polymer (LCP) rope providing exceptional strength with the added benefit of increased heat resistance over UHMPE ropes. Y-Ropes include color coded and clearly labeled covers to indicate "primary" and "secondary" hook placement.

Lift-It<sup>®</sup> provides industry leading FAA-PMA certified HEC Lines, Y-Ropes, Lanyards and Carabiners for use with Bell 206L-407 and MD369D - MD600N series rotorcraft that are hand-crafted in our Pomona, CA facility.

0 8	MD369D - MD600N	MD369D – MD600N Y-ROPE SPECIFICATIONS							
	Stock No.	LMC-490-014-00							
	Material	PROLINE12® UHMPE ROPE							
	Primary Cover	Green							
2	Secondary Cover	Orange							

50	BELL 206L - 407 Y-ROPE SPECIFICATIONS								
Ť	Stock No.	LMC-490-019-00							
	Material	PROLINE12® UHMPE ROPE							
	Primary Cover	Green							
	Secondary Cover	Orange							

	ŀ	IEC LONGL	INE SPECIFI	CATIONS			
		1 1 2	I and				O
Stock No. LMC-490-015-XXX-01			Material: 1	I/2″LCP with Zip	oper Cover		
Available Lengths	50 Ft.	60 Ft.	70 Ft.	80 Ft.	100 Ft.	120 Ft.	150 Ft.
				<b>1977) / 1977) / 19</b> 70			$\bigcirc$
Stock No. LMC-490-015-XXX-02		Mat	erial: 1/2" LCP w	ith "high heat" ۱	resistant Tube Co	over	
Available Lengths	50 Ft.	60 Ft.	70 Ft.	80 Ft.	100 Ft.	120 Ft.	150 Ft.
		La discontin		ale and the second			0
Stock No. LMC-490-015-XXX-03			Material: 5	5/8" LCP with Zip	oper Cover		
Available Lengths	50 Ft.	60 Ft.	70 Ft.	80 Ft.	100 Ft.	120 Ft.	150 Ft.

	A-FRAME LANYARD SPECIFICATIONS											
4	ZIPPER COVER	R - ORANGE	0	TUBE COVER	- BLACK							
	Stock No.	Leg Length(s)		Stock No.	Leg Length(s)							
	LMC-335-100-01	54″		LMC-335-100-05	54″							
	LMC-335-100-02	60″		LMC-335-100-06	60″							
23	LMC-335-100-03	46" / 54"		LMC-335-100-07	46" / 54"							
05	LMC-335-100-04	52"/60"	00	LMC-335-100-08	52"/60"							

CARABINER	0
Stock No. LMC-530-031-00	
70kN Rated	
Triple Locking	
WEIGHTED BAG	
Stock No. LMC-490-017-00	
25 Lbs.	
2100 Denier Orange Cover	
Zipper and Velcro <sup>®</sup> Closures	

![](_page_15_Picture_1.jpeg)

#### **A WARNING** REFER TO THE LONG LINE SAFETY BULLETIN (CURRENT REV) FOR IMPORTANT, ADDITIONAL INSPECTION CRITERIA. For slings and rigging hardware refer to OSHA, ASME and manufacturer's inspection and removal information.

The use of damaged Longlines, HEC Lines, slings, rigging hardware and/or sling protection may result in SEVERE INJURY or DEATH. The strength and performance of lines, rigging hardware and protection is affected by use, wear and damage. It is critically important that users employ a three stage, inspection procedure: Initial, Frequent and Periodic, performed by a Qualified Person\*.

If damage is identified during an inspection, damaged items must be **immediately** removed from service and not be returned until approved by a Qualified Person\*.

You may have encountered removal from service criteria for specific rope slings and rigging hardware permitting continued use at an acceptable level of wear and/or damage, provided it does not exceed specific limits. Quantifying an acceptable level of loss based on the original size may be difficult, especially in the field. Always consider the cost of failure and determine if the use of any item with "acceptable levels" of damage is worth the risk, given the potentially deadly consequences. Always ask yourself, "What's the cost of failure?"

Visual inspection cannot accurately determine the residual strength of Longlines, HEC Lines, slings, rigging hardware and/or Longline or sling protection. Contact your Lift-It<sup>®</sup> professional for more information on inspection training. A viable inspection program not only saves lives, but will enable personnel to make informed decisions that will enhance safety and Longline performance.

Read and understand all product and warning information provided in this brochure, included with all products, contained in our catalog, viewed at www.lift-it.com or scan this QR code to link to our product warnings page:

![](_page_15_Picture_8.jpeg)

## Always follow FAA, Aircraft Flight Manual Supplement, Instructions for Continued Airworthiness (ICA's) OSHA, ASME, federal, state, provincial, industry, association, corporate, job site specific, insurance and manufacturer warnings and guidelines.

\*Qualified Person: A person, who by possession of a recognized degree or certificate of professional standing in an applicable field, or who, by extensive knowledge, training and experience, has successfully demonstrated the ability to solve or resolve problems relating to the subject matter and work.

#### Removal from Service Criteria

The following removal criteria must be used when inspecting Lift-It<sup>®</sup> Longlines and HEC Lines. Immediately remove from service if any of these conditions are present:

- Missing or illegible Longline identification.
  - Longlines must be identified or labeled with the following information:
  - name or trademark of manufacturer, or if repaired, the entity performing repairs
  - manufacturer's code or stock number
  - rated load for at least one hitch type and the angle upon which it is based (straight-line / vertical)
  - type of fiber material used for Longline construction
- Cuts, gouges, areas of extensive fiber breakage along the length and abraded areas on the rope.
- Any damage that is estimated to have reduced the effective diameter of the rope. (What's the cost of failure?).
- Uniform fiber breakage along the major part of the length of the rope in the sling such that the entire rope appears covered with fuzz or whiskers.
- Inside the rope, fiber breakage, fused or melted fiber (observed by prying or twisting to open the strands) involving damage of the fiber in any strand or the rope as a whole. (What's the cost of failure?).
- Discoloration, brittle fibers and hard or stiff areas that may indicate chemical damage, ultraviolet damage or heat damage.
- Dirt and grit in the interior of the rope structure.
- Foreign matter that has permeated the rope and makes it difficult to handle and may attract and hold grit.
- Kinks or distortion in the rope structure, particularly if caused by forcibly pulling on loops (known as hockles).
- Melted, hard, or charred areas. (What's the cost of failure?).
- Poor condition of thimbles or other components manifested by corrosion, cracks, distortion, sharp edges, or localized wear.
- Modifications to any item done by someone other than the Original Equipment Manufacturer (OEM) shall not be done.
- Lockstitch Thread and/or Whipping Thread that is broken, cut or damaged.
- Damaged Eye Splices: Broken Strands at the leg juncture, surface wear in the back of the eye, flattening, and/or splice slippage.
- Longlines made from UHMPE or HMPE fiber shall be removed after six (6) years of service or 2,500 hours of use, irrespective of their condition.
- HEC Lines made from LCP (Liquid-Crystal Polymer) shall be removed from service after four (4) years of service or 2,000 hours of use irrespective of their condition.
- For hooks, removal criteria as stated in ASME B30.10.
- For rigging hardware, removal criteria as stated in ASME B30.26.
- For slings, removal criteria as stated in ASME B30.9.
- Other conditions including visible damage that cause doubt as to the continued use of the Longline / HEC Line.

# **Longline Inspection**

Cuts

![](_page_16_Picture_1.jpeg)

WARNING If you identify any of the following types of damage, IMMEDIATELY REMOVE LONGLINES FROM SERVICE, even if the damage you see is not as extensive as shown in the following pictures. These are extreme examples provided only for illustration purposes. Slings and rigging hardware must be inspected according to OSHA, ASME and manufacturer's information. Any damage detected in the Longline cover or sling protection may also indicate potential damage to the Longline and/or sling. Remember, any doubt, DON'T!

Any hazardous condition detected in slings, rigging hardware, sling protection, and/or sleeves during inspection must lead to further investigation, possible replacement and/or corrective action by a Qualified Person\* and/or Properly Informed and Trained Consumer.

![](_page_16_Picture_4.jpeg)

Internal abrasion may be determined by pulling one strand away from

![](_page_16_Picture_6.jpeg)

Like New External

**Excessive External Abrasion** 

![](_page_16_Picture_8.jpeg)

Like New Internal

**Excessive Internal Abrasion** 

![](_page_16_Picture_10.jpeg)

Illegible Tag

![](_page_16_Picture_12.jpeg)

**Excessive Wear & Abrasion** 

![](_page_16_Picture_14.jpeg)

![](_page_16_Picture_15.jpeg)

Fiber Breakage

**Excessive Dirt/Grit** 

Discoloration

![](_page_16_Picture_19.jpeg)

Cover Cuts - Exposed Core

![](_page_16_Picture_21.jpeg)

**Broken Lock Stitching** 

Damaged Whipping

Localized Abrasion - Exposed Core

Double-Braid: Snagged Strand on Cover

### Damaged Fittings / Attached Rigging Hardware Damage

![](_page_16_Picture_27.jpeg)

909.469.2251

![](_page_17_Picture_0.jpeg)

# **Mechanical Specialties Hooks**

The x01 Series of Remote Cargo Hooks from Mechanical Specialties are designed to work for you. Our hooks cover a wide range of load sizes and weight classes, so we likely have a hook that will meet your needs. Reliable, rugged and low maintenance, they are built the keep you out in the field.

Constructed of aircraft grade components and materials and wired with Cabtire electrical cable secured to the cargo hook guard, all of our hooks are pull-tested to twice their rated Work Load Limit to give you the peace of mind to know they can handle the load.

All hooks include a heavy-duty, powder-coated guard cage [standard (S-series) or extended (E-series)] with built in replaceable urethane bumper, overhaul manual and parts catalog.

### 3,000 LBS. CAPACITY HOOK

This 3,000 lb (1361kg.) capacity hook was designed for use with the smaller helicopters such as the Bell 206 & 407 Series; MD 500, 520 & 600; AS 350 & 315; Soloy 47 & 12E; EC 120 & 135, and all piston engine helicopters.

Uses include general construction, logging, USFS work, carousel, nubbing choker carrier, and many other lift jobs. Its rugged construction, low maintenance, and compact size make the Model 301 the ideal hook for the light, single engine helicopter.

> Stock Number 301-115E: W/Extended Guard Stock Number 301-115A: No Guard

![](_page_17_Picture_9.jpeg)

![](_page_17_Picture_10.jpeg)

Stock Number 301-115S

### 6,000 LBS. CAPACITY HOOK

The 601 is a 6,000 lb. capacity hook designed for general use with medium size helicopters such as the Bell 204, 205, 212, 412, Sikorsky S58T, BK-117, AS 315B, and many others.

Uses include general external load work, USFS work, etc. Although this hook is capable, it is not recommended for medium helicopter logging operations. The rugged construction and dependability of the Model 601 make it the ideal hook for your medium helicopter.

![](_page_17_Picture_16.jpeg)

Stock Number 601-87E: W/Extended Guard Stock Number 601-87A: No Guard

(Standard shown)

Stock Number 601-87S

Part #	Work Load Limit (Lbs./kg)	Height	Guard Diameter	Weight (Lbs./kg)	Voltage	Current	Pull Tested (Lbs./kg)
301-115s	3,000/1,361	10"	12"	15/7	25	10	15,000/6,804
601-87S	6,000/2,721	13"	14.5"	29/13	24-28	14	30,000/13,608
901-87S	9,000/4,082	13"	14.5"	38/17	24-28	14	45,000/20,412
1201-50S	12.000/5,442	16"	15"	52/23	24-28	14	60,000/27,216

# **Mechanical Specialties Hooks**

![](_page_18_Picture_1.jpeg)

The Model 901 hook uses the same internals as the 601, but we've beefed it up with steel vs. aluminum side plates and a special load bearing trunnion for repetitive lift use.

This hook is used with many different model helicopters including the Bell 204, 205, 212, 214, Sikorsky S58T, and the Kaman K-MAX. The rugged construction and dependability of the Model 901 hook make it the obvious choice for medium helicopter logging operations.

> Stock Number 901-875: W/Standard Guard Stock Number 901-87A: No Guard

![](_page_18_Picture_5.jpeg)

#### **12,000 LBS. CAPACITY HOOK**

The 12,000 lb. capacity hook was built for heavy lift helicopters. Uses include logging, construction and all other external, heavy load work. This hook is built with steel side plates for repetitive lift logging operations.

Helicopters that are using this hook include the Sikorsky S61, UH-60 Black Hawk, Mil MI-8, Kamov KA-32, American Eurocopter AS-332 plus others. This strong and dependable hook is ideal for your heavy lift helicopters.

> Stock Number 1201-50S: W/Standard Guard Stock Number 1201-50A: No Guard

![](_page_18_Picture_10.jpeg)

(Extended shown)

Stock Number 1201-50E

#### **REMOTE CARGO HOOK GUARD OPTIONS**

![](_page_18_Picture_14.jpeg)

![](_page_18_Picture_15.jpeg)

Remote Hook Model #	Standard Guard P/N	Extended Guard P/N
301-115A	301-050-200-002	301-050-300-002
601-87A	901-050-200-001	901-050-200-002
901-87A	901-050-200-001	901-050-200-002
1201-50A	120-050-200-001	120-050-200-002

# Onboard Systems Electric Swivels

Swivels provide important safety functionality for external load missions and assist in preventing damage to electrical cables while transporting loads.

Onboard's electric swivels have been redesigned to better meet the rigorous demands of helicopter load transport.

- Lightweight aluminum bodies provide corrosion resistance in various environments.
- Electrical cables are sheathed in a flexible rubber casing with built-in tensile strain relief for improved service life.
- Low torque is required to spin the remote release hook under load, even when using synthetic longlines.

Onboard swivels interface directly with TALON® Remote Cargo Hooks, eliminating the need for additional hardware.

If you are using a different brand of hook, Onboard swivels may be used by connecting the Onboard electric swivel assembly with shackles to your external load equipment.

For more information about Onboard's electric swivels, or to place an order, please visit our website at www.lift-it.com, call us at 800-377-5438 or email info@lift-it.com.

![](_page_19_Picture_9.jpeg)

Description	Stock Number	Work Load Limit	Electrical Rating	Unit Weight
2K Electric Swivel Kit	200-386-00	2,000 Lbs. (907 Kg.)	2-channel, 30 amp, 0-250 VDC	4 Lbs. (1.8 Kg.)
3.3K Electric Swivel Kit	200-434-00	3,300 Lbs. (1,500 Kg.)	3-channel, 30 amp, 0-250 VDC	5.6 Lbs. (2.6 Kg.)
6K Electric Swivel Kit	200-435-00	6,000 Lbs. (2,722 Kg.)	3-channel, 30 amp, 0-250 VDC	5.5 Lbs. (2.5 Kg.)
Electric Swivel Assembly*	210-305-30	6,000 Lbs. (2,722 Kg.)	3-channel, 30 amp, 0-250 VDC	4 Lbs. (1.8 Kg.)

\* For loads up to 6,000 lb. (2,722 kg) with non-TALON® Remote Cargo Hooks. Swivel only, no hardware included.

### **CREW-LOC® HOOK**

![](_page_19_Picture_13.jpeg)

Onboard's Crew-Loc<sup>®</sup> hook provides load security for transporting loads and features a ball-thrust bearing to enable smooth rotation of loads up to 6,000 Lbs. (2,722 kg). Crew-Loc Hooks are well-suited for use in non-repetitive longline lifts where security of the load is paramount and detachment of the load can be accomplished by ground crew.

Stock Number: 210-302-00

# Onboard Systems Remote Cargo Hooks

#### **TALON® REMOTE HOOK**

![](_page_20_Picture_2.jpeg)

Designed specifically for use with lighter helicopters, TALON<sup>®</sup> 2K Remote Hooks handle loads up to 2,000 lb. (907 kg). This versatile design is built around Onboard's latest generation TALON<sup>®</sup> 2K Carousel Hook. Using simple hand tools, you can separate the hook from the cage and use it on your favorite carousel system.

Onboard improved the TALON<sup>®</sup> 2K Remote Hook by redesigning the frame for greater stability and included the updated TALON<sup>®</sup> 2K Carousel Hook.

TALON<sup>®</sup> 3.3K Full-Cage Remote Cargo Hook offers even greater protection for your hook, while still providing a large access area in the front for loading. The size of the load beam saddle pocket on 3.3K & 6K Remote Hooks was increased to help keep the load ring from riding on the keeper (P/N 528-019-01 is pictured).

Stock Number: 210-303-00

![](_page_20_Picture_7.jpeg)

![](_page_20_Picture_8.jpeg)

![](_page_20_Picture_9.jpeg)

Onboard's TALON® Remote Cargo Hooks are designed for maximum utility and simplicity for your external cargo missions. The cargo hook is integrated with your choice of a half-cage or full-cage enclosure and a rugged brush guard to increase protection for the entire unit. With large throats, added safety features, and simplified design, these hooks have proven to be as popular with ground crews as they are with pilots.

- Work Load Limit Increase Onboard recently increased the rated load of the TALON® 3K Remote Cargo Hook series from 3,000 lb. to 3,300 lb. / 1,500 kg through a re-qualification effort. Please request Service Bulletin 159-042-00 for additional information.
- Locked Indicator Window For added safety, a Locked Indicator Window on the side of the hook gives the ground crew an easy visual signal that the hook is locked.
- Large Throat for Easy Loading Large throat makes loading quick and easy for ground crew.
- Durable, High-Visibility Finish
- Rugged Hook Guard Your choice of a half-cage or full-cage hook guard enclosure to increase the protection of the entire unit.
- Easy Maintenance & Overhaul Onboard cargo hooks can be overhauled in the field, at the factory, or by a qualified repair facility using simple hand tools. Quick parts availability minimizes downtime!

Description	Stock Number	Work Load Limit	Minimum Release Load	Unit Weight
TALON® 2K Full-Cage Keeperless Remote Cargo Hook, Gen 2	210-303-00	2,000 Lbs. (907 Kg.)	0 Lbs. (0 Kg.)	15.2 Lbs. (6.9 Kg.)
TALON® 3.3K Half-Cage Remote Cargo Hook	528-018-03	3,300 Lbs. (1,500 Kg.)	0 Lbs. (0 Kg.)	27 Lbs. (12.2 Kg.)
TALON® 3.3K Full-Cage Remote Cargo Hook	528-018-06	3,300 Lbs. (1,500 Kg.)	0 Lbs. (0 Kg.)	27 Lbs. (12.2 Kg.)
TALON® 6K Half-Cage Remote Cargo Hook	528-019-01	6,000 Lbs. (2,722 Kg.)	2 Lbs. (.9 Kg.)	37 Lbs. (16.8 Kg.)
TALON® 6K Full-Cage Remote Cargo Hook	528-019-05	6,000 Lbs. (2,722 Kg.)	2 Lbs. (.9 Kg.)	38 Lbs. (17.3 Kg.)
Crew-Loc <sup>®</sup> Full Cage Hook	210-302-00	6,000 Lbs. (2,722 Kg.)	N/A	15 Lbs. (6.8 Kg.)

![](_page_21_Picture_0.jpeg)

## **ANCHOR PLATES**

The original CMC design that has lead the industry for decades, "Bearpaw" Anchor Plates are a convenient way to connect multiple A-Frames or rescue lines into a single collection point. The 7/8" lower connecting holes provide a positive engagement for hooks or carabiners. The 2" diameter top hole provides a secure attachment to the Longline with minimal components.

![](_page_21_Figure_4.jpeg)

#### **PRUSIKS**

Sewn-Loop Prusiks offer strength that is equivalent to a tied Prusik loop, without the cumbersome knot.

Made from 8mm Prusik cord, a durable clear shrink tubing covers the Secure-Stitch<sup>™</sup> splice, allowing for visual inspection.

- Available in: 18 inch (Red)
   25 inch (Green)
- 20 Kn (4,496 Lbs.) Designed Breaking Load

![](_page_21_Picture_10.jpeg)

## **MULTI-LOOP STRAPS**

- Made from 1 inch tubular webbing per MIL-W-5625 .
- Provides the ability to adjust the length of the tie off into an anchor.
- Available in: 24 inch (Red)
  - 36 inch (Yellow) 66 inch (Orange).
- 16.9 Kn (3,800 Lbs.) Designed Breaking Load

![](_page_21_Figure_17.jpeg)

# Harnesses

![](_page_22_Picture_1.jpeg)

#### **YATES FLIGHT HARNESSES**

![](_page_22_Picture_3.jpeg)

#### Stock Number 390RTR

- Designed for helicopter external load work.
- Sizes: S / M / L / XL

![](_page_22_Picture_7.jpeg)

#### Stock Number 360 Stabo

- Designed to meet FAA TSO requirements for use as a short haul harness.
- Sizes: S / M / L / XL

#### **CMC HARNESSES**

Optimized for wilderness and back-country rescue, the RANGER HARNESS<sup>™</sup> offers the lightness of a climbing harness with the utility features of a rescue harness.

- Waist sizes from 26 inches to 44 inches.
- Breathable fabric on waistbelt and leg loops.
- · Aluminum D-ring for carabiner attachment.
- Ranger Quick Harness<sup>™</sup> features AustriAlpin COBRA<sup>™</sup> quick release buckles that are designed to only open when unloaded on the front leg loops for easy donning and doffing.

![](_page_22_Picture_17.jpeg)

![](_page_22_Picture_18.jpeg)

Front

Back

Stock Number	202382	202384	202385	202392	202394	202395
Description	Ranger	Ranger	Ranger	Ranger Quick	Ranger Quick	Ranger Quick
Size	Small	Medium	Large	Small	Medium	Large
Waist	26 - 32 In.	32 - 42 ln.	42 - 48 ln.	26 - 32 ln.	32 - 42 ln.	42 - 48 ln.
Unit Weight	1-3/4 Lbs.	1-3/4 Lbs.	1-3/4 Lbs.	2 Lbs.	2 Lbs.	2 Lbs.

#### **HELIX<sup>™</sup> SIT HARNESS**

![](_page_22_Picture_23.jpeg)

The Helix<sup>™</sup> Sit Harness offers performance and all-day comfort for rescue and work positioning applications while suspended.

- Available in Small (26-32 inch), Medium (32-42 inch) and Large (42-48 inch).
- Product weight: 3-1/2 Lbs. (1.56 Kg)
- AustriAlpin COBRA<sup>™</sup> buckles that are designed to only open when unloaded. • Breathable semi-rigid waist belt and leg loops.
- Aluminum D-ring for carabiner attachment.

Front	
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Stock Number	202182	202184	202185
Description	Helix™ Sit	Helix <sup>™</sup> Sit	Helix™ Sit
Size	Small	Medium	Large
Waist	26 - 32 In.	32 - 42 In.	42 - 48 ln.
Unit Weight	3-1/2 Lbs.	3-1/2 Lbs.	3-1/2 Lbs.

![](_page_23_Picture_0.jpeg)

# Screw Pin Anchor Shackles - Van Beest

![](_page_23_Picture_2.jpeg)

G-4161

![](_page_23_Picture_4.jpeg)

- Material: Bow and pin: High tensile steel, Grade 6, quenched and tempered.
- Design Factor: 6:1 when new.
- Standards: U.S. Federal Specification RR-C-271 IVA, Class 2, Grade A, ASME B30.26 and EN 13889
- Finish: Hot dip galvanized
- Temperature Range: -40° F (-40° C) to 392° F (200° C)
- Certification: manufacturer, material, proof test and CE declaration of conformity available at no additional charge.
- Additional dimensional, tolerance information and CAD drawings are available on request.

## SCREW PIN ANCHOR SHACKLE SPECIFICATIONS

Work Load Limit (Metric Tons)	Bow Diameter (In.) a	Pin Diameter (In.) b	Eye Diameter (In.) c	Eye Width (ln.) d	Inside Width (In.) e	Inside Length (In.) f	Bow Width (In.) g	Overall Length (ln.) h	Bolt Length (ln.) i	Overall Width (ln.) j	Weight (Lbs.)
.50	1/4	5/16	21/32	9/32	15/32	1-5/32	25/32	1-29/32	1-1/2	1-11/32	.11
.75	5/16	3/8	25/32	11/32	17/32	1-1/4	7/8	2-7/32	1-27/32	1-9/16	.22
1	3/8	7/16	7/8	13/32	21/32	1-7/16	1-1/32	2-1/2	2-1/8	1-13/16	.30
1.5	7/16	1/2	1-1/32	7/16	3/4	1-11/16	1-5/32	2-29/32	2-11/32	2	.42
2	1/2	5/8	1-11/32	1/2	7/8	2	1-1/4	3-1/2	2-7/8	2-9/32	.79
3.25	5/8	3/4	1-9/16	5/8	1-1/16	2-17/32	1-11/16	4-11/32	3-1/2	2-15/16	1.38
4.75	3/4	7/8	1-13/16	3/4	1-7/32	3	2	5-3/32	4-1/16	3-1/2	2.22
6.5	7/8	1	2-1/16	7/8	1-13/32	3-9/32	2-9/32	5-21/32	4-11/16	4-1/32	3.31
8.5	1	1-1/8	2-5/16	31/32	1-11/16	3-3/4	2-11/16	6-15/32	5-13/32	4-21/32	4.86
9.5	1-1/8	1-1/4	2-19/32	1-3/32	1-27/32	4-1/4	2-15/16	7-9/32	6-1/32	5-5/32	6.97
12	1-1/4	1-3/8	2-27/32	1-1/4	2	4-17/32	3-9/32	7-29/32	6-11/16	5-25/32	9.49
13.5	1-3/8	1-1/2	3-5/32	1-3/8	2-1/4	5-1/4	3-5/8	8-15/16	7-5/16	6-3/8	12.24
17	1-1/2	1-5/8	3-15/32	1-1/2	2-3/8	5-3/4	3-29/32	9-13/16	8	6-7/8	16.37
25	1-3/4	2	4-1/16	1-25/32	2-29/32	7	4-31/32	11-13/16	9-9/16	8-1/2	28.31
35	2	2-1/4	4-3/8	1-31/32	3-9/32	7-3/4	5-7/16	13-1/32	10-23/32	9-3/8	40.01
42.5	2-1/4	2-9/16	5-1/8	2-1/4	3-3/4	8-3/4	6-5/16	14-27/32	12-7/32	10-25/32	57.96
55	2-1/2	2-3/4	5-23/32	2-9/16	4-1/8	10-1/4	7-3/32	17-1/16	13-17/32	12-7/32	82.89

![](_page_23_Figure_14.jpeg)

## **Bolt Anchor Shackles - Van Beest**

![](_page_24_Picture_1.jpeg)

![](_page_24_Picture_2.jpeg)

G-4163

![](_page_24_Picture_4.jpeg)

- Material: Bow and pin: High tensile steel, Grade 6, quenched and tempered
- Design Factor: 6:1 when new.
- Standards: U.S. Federal Specification RR-C-271 IVA, Class 2, Grade A, ASME B30.26 and EN 13889
- Finish: Hot dip galvanized
- Temperature Range: -40° F (-40° C) to 392° F (200° C)
- Certification: manufacturer, material, proof test and CE declaration of conformity available at no additional charge.
- Additional dimensional, tolerance information and CAD drawings are available on request.

## **BOLT ANCHOR SHACKLE SPECIFICATIONS**

Work Load Limit (Metric Tons)	Bow Diameter (In.) a	Pin Diameter (In.) b	Eye Diameter (In.) c	Eye Width (ln.) d	Inside Width (In.) e	Inside Length (In.) f	Bow Width (In.) g	Overall Length (In.) h	Bolt Length (In.) i	Overall Width (In.) j	Nut Thickness (In.) k	Weight (Lbs.)	- 1 -
.50	1/4	5/16	21/32	9/32	15/32	1-5/32	25/32	1-29/32	1-21/32	1-11/32	5/32	.13	Yan
.75	5/16	3/8	25/32	11/32	17/32	1-1/4	7/8	2-7/32	1-31/32	1-9/16	3/16	.25	
1	3/8	7/16	7/8	13/32	21/32	1-7/16	1-1/32	2-1/2	2-3/8	1-13/16	5/16	.34	( [ ] ]
1.5	7/16	1/2	1-1/32	7/16	3/4	1-11/16	1-5/32	2-29/32	2-5/8	2	7/16	.48	216
2	1/2	5/8	1-11/32	1/2	7/8	2	1-1/4	3-1/2	3-7/32	2-9/32	1/2	.92	b
3.25	5/8	3/4	1-9/16	5/8	1-1/16	2-17/32	1-11/16	4-11/32	3-27/32	2-15/16	21/32	1.62	
4.75	3/4	7/8	1-13/16	3/4	1-7/32	3	2	5-3/32	4-1/2	3-1/2	3/4	2.59	
6.5	7/8	1	2-1/16	7/8	1-13/32	3-9/32	2-9/32	5-21/32	5-1/8	4-1/32	7/8	3.90	
8.5	1	1-1/8	2-5/16	31/32	1-11/16	3-3/4	2-11/16	6-15/32	5-29/32	4-21/32	31/32	5.69	
9.5	1-1/8	1-1/4	2-19/32	1-3/32	1-27/32	4-1/4	2-15/16	7-9/32	6-17/32	5-5/32	1-1/16	8.06	$\bigcirc$
12	1-1/4	1-3/8	2-27/32	1-1/4	2	4-17/32	3-9/32	7-29/32	7	5-25/32	1-3/16	10.81	100
13.5	1-3/8	1-1/2	3-5/32	1-3/8	2-1/4	5-1/4	3-5/8	8-15/16	7-3/4	6-3/8	1-5/16	14.42	
17	1-1/2	1-5/8	3-15/32	1-1/2	2-3/8	5-3/4	3-29/32	9-13/16	7-15/16	6-7/8	3/4	18.06	
25	1-3/4	2	4-1/16	1-25/32	2-29/32	7	4-31/32	11-13/16	9-13/16	8-1/2	29/32	31.34	
35	2	2-1/4	4-3/8	1-31/32	3-9/32	7-3/4	5-7/16	13-1/32	10-19/32	9-3/8	1-1/32	43.77	$(\bigcirc)$
42.5	2-1/4	2-9/16	5-1/8	2-1/4	3-3/4	8-3/4	6-5/16	14-27/32	11-27/32	10-23/32	1-5/32	62.46	
55	2-1/2	2-3/4	5-23/32	2-9/16	4-1/8	10-1/4	7-3/32	17-1/16	13	12-7/32	1-1/4	87.27	
85	3	3-1/4	6-3/8	2-7/8	5	12-15/16	7-15/32	20-3/4	14-31/32	13-3/8	1-17/32	136.69	

![](_page_25_Picture_0.jpeg)

## LIFT-IT<sup>®</sup> WEB CARGO NETS

Web Cargo Nets are considerably more flexible, lightweight and compact than wire or synthetic rope nets. Military Specification Cargo Nets are manufactured to: Department of Defense specification MIL-S-18313G and have a mesh opening size of approximately 6.25 inch square. Commercially produced Cargo Nets and non-standard sized nets are also readily available.

Cargo Nets must be square to function properly. Rectangular nets will not properly encapsulate and/or distribute the load over vertical and horizontal net body strength members.

Size Ft. x Ft.	Military Stock No.	Commercial Stock No.	Unit Weight (Lbs.)
4 x 4	CN4500-4-MIL	CN4500-4	14
6 x 6	CN4500-6-MIL	CN4500-6	17
8 x 8	CN4500-8-MIL	CN4500-8	22
10 x 10	CN4500-10-MIL	CN4500-10	30
12 x 12	CN4500-12-MIL	CN4500-12	40
14 x 14	CN4500-14-MIL	CN4500-14	48
16 x 16	CN4500-16-MIL	CN4500-16	57
18 x 18	CN4500-18-MIL	CN4500-18	73
20 x 20	CN4500-20-MIL	CN4500-20	88

![](_page_25_Picture_6.jpeg)

\*Work Load based upon a 5 to 1 Design Factor when new.

### LIFT-IT® ROPE CARGO NETS

#### Part No. RN4800-12

- Work Load Limit: 4,800 Lbs.\*
- Square, 12 ft. x 12 ft.
- Material: Polypropylene

#### Part No. RN4000-20

- Work Load Limit: 4,000 Lbs.\*
- Square, 20 ft. x 20 ft.
- Material: Polypropylene

\*Work Load based upon a 5 to 1 Design Factor when new.

#### Part No. RN300-CBR-12

- Work Load Limit: 300 Lbs.\*
- Round, 12 ft. x 12 ft.
- Material: Polypropylene / Nylon
- Cinching Rope Border encapsulates load

![](_page_25_Picture_22.jpeg)

\*Work Load based upon a 5 to 1 Design Factor when new.

## LIFT-IT<sup>®</sup> TRANSFORMER BRIDLE

Lift-It<sup>®</sup> Transformer Bridles were specifically designed for use when handling pole mount transformers.

Bridle legs are made with durable polyester webbing with forged round rings making connection to the hog ears on the transformer. Each bridle features a horizontal tightening strap to secure the rings in place before lifting. The "-3" assembly includes a secondary securement leg made of wire rope with a BNC shackle and doublelocking load rated carabiner.

Lift-It<sup>®</sup> Transformer Bridles allow rotorcraft operators to handle pole mount transformers with confidence.

#### **WARNING**

Web cross band must be tightened and secondary securement leg (-3 assy.) must be attached before load handling activity begins.

Stock Number	Work Load* (Lbs.)
LMC-100355-1085-3	1,400 @ 60° Horizontal
LMC-100355-1085-4 (Excludes wire rope sling)	1,400 @ 60° Horizontal

\*Work Load based upon a 5 to 1 Design Factor when new.

![](_page_25_Picture_32.jpeg)

# Special Purpose Load Handling

#### **DRUM HANDLING SLINGS**

#### **BOTTOM SUPPORT**

Lift-It<sup>\*</sup> Bottom Support Drum Slings handle both metal and non-metallic drums, as well as drums that cannot be transported at a minimum height.

Bottom Support Drum Slings feature a top bridle assembly and a bottom support. The top bridle assembly includes a (1"Diameter) Masterlink with Subassemblies and is permanently attached to the circumferential tightening bands. Stable control and secure handling are achieved by connecting the top bridle assembly to the bottom support at four points around the drum perimeter.

Bottom Support Drum Slings are designed for handling 55 gallon drums (22 inch dia. X 34 inch tall). Ask about custom sizes.

#### **WARNING**

Extra consideration must be given when handling partially filled drums to ensure load control.

Stock Number	Work Load* (Lbs.)				
DS-BS	2,000				
*Work Load based upon a 5 to 1					

Design Factor when new.

![](_page_26_Picture_10.jpeg)

Lift-It<sup>®</sup> Vinyl Drum Bags were specifically designed for use in handling 55 gallon, plastic drums.

Made with polyester webbing and PVC vinyl. Lift-It<sup>®</sup> Vinyl Drum Bags fully encapsulate 55 gallon, plastic drums.

#### **WARNING**

Extra consideration must be given when handling partially filled drums to ensure load control.

![](_page_26_Picture_15.jpeg)

Stock Number	Work Load* (Lbs.)
LMC-100355-1070	550

\*Work Load based upon a 5 to 1 Design Factor when new.

#### **BULK BAGS**

Lift-It<sup>®</sup> Bulk Bags were specifically designed for use in flight operations.

Lift-It<sup>®</sup> Bulk Bags measure 35"(W) x 35"(T) x 35"(D) and feature 36 inch webbing lifting loops, eliminating the need for bridle assemblies and allow users to connect bulk bags directly to the load handling equipment.

Lift-It<sup>®</sup> Bulk Bags can be customized to meet your requirements as other sizes and capacities are readily available.

Stock Number	Work Load (Lbs.)*
BLB-35X35X35-PB-DT*-2200-36	2,205

\*DT = Duffle Top in stock

OT = Open Top available

\*Work Load based upon a 5 to 1 Design Factor when new.

![](_page_26_Picture_26.jpeg)

![](_page_26_Picture_27.jpeg)

![](_page_27_Picture_0.jpeg)

# Eye & Eye Slings

## **LIFT-IT® SLING PROTECTION**

![](_page_27_Figure_3.jpeg)

Slings must always be protected from cutting, abrasion and other types of damage by materials of sufficient strength, thickness and construction.

This mandatory requirement is enforced by OSHA, stated in many consensus sling safety standards and is also mentioned multiple times in the Lift-It® Manufacturing Co., Inc. warnings. Read and understand all product and warning information provided in this guide, included with all products, contained in our catalog, or view at www.lift-it.com and always follow OSHA, ASME, federal, state, provincial, industry, association, corporate, jobsite specific, insurance and manufacturer warnings and guidelines.

## **EYE & EYE SLINGS**

![](_page_27_Picture_7.jpeg)

Eye and Eye slings can be used in choker, vertical and basket hitches. Slings with Half Twist (Type 4) eyes are furnished unless Flat (Type 3) eyes are specified. Sling eyes will be wrapped at the bearing point unless otherwise specified.

Tapered eyes are automatically furnished on slings over 2 inches wide to provide for a proper relationship between the sling and the lifting hardware. Eyes with no taper are available.

Flat Tapered Code FT

![](_page_27_Picture_11.jpeg)

The bearing points of Half Twist (Type 4) eyes are oriented 90° to the sling body. The perpendicular relationship between the eye and body in Half Twist, Type 4 eyes results in a comparatively advantageous choke hitch, when compared to Flat (Type 3) eyes. Half Twist eyes perform equally well in vertical or basket hitches.

For Half Twist Eyes with Taper, specify "HTT" (EE1-902 HTT) Eye Width-1" For Half Twist Eyes with no taper, specify "HT" (EE1-902 HT) Eye Width-2" For Flat Eyes with Taper, specify "FT" (EE1-902 FT) Eye Width-1" For Flat Eyes with no taper, specify "FE" (EE1-902 FE) Eye Width-2"

![](_page_27_Picture_14.jpeg)

Half Twist

No Taper

Eyes depicted feature standard eye protection. Other eye treatments are available. \*Work Load Limits based upon a 5 to 1 Design Factor when new.

Flat No Taper

Code F	E				WOF	RK LOAD LIMIT			Code HT		
				Choker	Vertical						
Width	Stock	Eye Dimensions 90° 60° (Inches)		Eye Dimensions (Inches)		45°	Sling Wei	ght (Lbs.)	Minimum Sling Length		
(Inches)	Number	Width	Length	D	b		$\square$		Base 8 Ft.	Adder / Ft.	(Ft.)
1″	EE1-901	1″	9″	1,200	1,600	3,200	2,770	2,260	.67	.05	4
1″	EE2-901	1″	9″	2,500	3,200	6,400	5,540	4,520	1.00	.11	3
1″	EE4-901	1″	12″	5,000	6,400	12,800	11,080	9,050	2.07	.22	4
1-1/2″	EE1-915	1-1/2″	9″	1,800	2,300	4,600	3,980	3,250	1.11	.09	4
1-1/2"	EE2-915	1-1/2″	9″	3,600	4,600	9,200	7,960	6,500	1.67	.19	3
1-1/2″	EE4-915	1-1/2″	12″	7,200	9,200	18,400	15,930	13,000	3.44	.37	4
2″	EE1-902	2″	12″	2,500	3,200	6,400	5,540	4,520	1.34	.11	4
2″	EE2-902	2″	12″	5,000	6,400	12,800	11,080	9,050	2.02	.22	4
2″	EE4-902	2″	12″	9,000	11,400	22,800	19,740	16,120	4.14	.40	4
3″	EE1-903	1-1/2″	12″	3,800	4,800	9,600	8,310	6,780	2.29	.18	4
3″	EE2-903	1-1/2″	12″	7,000	8,860	17,720	15,340	12,530	3.24	.35	4
3″	EE4-903	1-1/2″	18″	13,000	17,000	34,000	29,440	24,040	6.60	.70	5
4″	EE1-904	1-1/2″	14″	5,000	6,400	12,800	11,080	9,050	2.86	.22	5
4″	EE2-904	1-1/2″	14″	9,000	11,400	22,800	19,740	16,120	3.96	.44	5
	EE4-904	2″	18″	18,000	22,800	45,600	39,480	32,240	8.36	.88	6

909.469.2251

# **Roundsling Specifications**

![](_page_28_Picture_1.jpeg)

## LIFT-IT<sup>®</sup> ROUNDSLING CONSTRUCTION AND FEATURES

Lift-It<sup>\*</sup> Polyester Roundslings are made of polyester core yarn covered by a seamless, tubular cover. The seamless construction and tubular design of the cover helps to eliminate the premature rupturing of covers, characteristic of seamed roundslings.

All Lift-It<sup>®</sup> Polyester Roundslings feature a double polyester cover with an internal contrasting colored cover.

Since the core yarns are not directly in contact with the load there is no loss of strength from abrasion to the sling cover.

Endless configurations enable the user to rotate hook and load contact points, resulting in increased sling longevity. Because the sling body is soft and pliable, it will not choke lock, hindering removal.

\*Work Load Limits based upon a 5 to 1 Design Factor when new.

![](_page_28_Picture_8.jpeg)

Internal load bearing yarns with contrasting covers

STOCK NUMBER	RS30	RS50	RS60	RS90	RS120	RS150	RS180	RS240			
COLOR CODE	PURPLE	BLACK	GREEN	YELLOW	TAN	RED	WHITE	BLUE			
CHOKER (WLL - LBS.)*	2,120	3,200	4,240	6,720	8,500	10,560	13,400	17,000			
VERTICAL (WLL - LBS.)*	2,650	4,000	5,300	8,400	10,600	13,200	16,800	21,200			
BASKET (WLL - LBS.) AT 90°*	5,300	8,000	10,600	16,800	21,200	26,400	33,600	42,400			
BASKET (WLL - LBS.) AT 60°*	4,500	6,900	9,100	14,500	18,300	22,800	29,000	36,700			
BASKET (WLL - LBS.) AT 45°*	3,600	5,600	7,400	11,800	14,900	18,600	23,750	29,900			
MINIMUM LENGTH	18″	18″	18″	3 Ft.							
MINIMUM CONNECTION DIA. CHOKER or VERTICAL (Inches)	.50	.50	.62	.75	.87	1.00	1.00	1.38			
MINIMUM CONNECTION DIAMETER BASKET (Inches)	.62	.62	.88	1.00	1.25	1.38	1.62	1.75			
WEIGHT-LBS PER FOOT (BEARING to BEARING) (Inches)	.21	.30	.32	.45	.55	.60	.75	.90			
BODY DIAMETER (RELAXED) (Inches)	1.04	1.11	1.11	1.27	1.32	1.43	1.59	1.75			
THICKNESS WHEN LOADED (Inches)	.20	.25	.25	.30	.38	.38	.40	.50			
WIDTH WHEN LOADED (Inches)	2.00	2.00	2.00	2.75	3.00	3.00	3.00	4.00			

ENDIECC CONFICUENTION

#### HIGH PERFORMANCE YARN ROUNDSLINGS

High Performance Yarn Roundslings are made from Ultra High Modulus Polyethylene (UHMPE) fibers encapsulated in a durable, double layer cover. UHMPE fiber is significantly lighter than equivalent strength polyester roundslings or wire rope, allowing for fewer riggers to perform the job in less time.

These strong, lightweight & economical slings are built to order, proof Tested to 200%, and shipped from our Pomona, California facility in days, not weeks, with 24-7-365 fabrication available to satisfy customers emergency needs.

Polvester	Choker	Vertical	l	Basket Hitches	5	Approvir	mata
Cover	Ω	$\cap$	90°	60°	45°	Approxir	nate
Stock Number	Ø		$\bigcup$	$\bigcirc$	$\bigcirc$	Weight (Lbs. / Ft.) (Bearing-Bearing)	Body Width (Inches)
RSHP-1000	8,000	10,000	20,000	17,320	14,140	.38	2
RSHP-1500	12,000	15,000	30,000	25,980	21,210	.48	2
RSHP-2000	16,000	20,000	40,000	34,640	28,280	.55	2
RSHP-2500	20,000	25,000	50,000	43,300	35,350	.63	3
RSHP-3000	24,000	30,000	60,000	51,960	42,420	.75	3
RSHP-4000	32,000	40,000	80,000	69,280	56,560	.88	3

\*Work Load Limits based upon a 5 to 1 Design Factor when new.

![](_page_29_Picture_0.jpeg)

# **Bridle Assemblies**

Lift-It® Bridle Assemblies feature combinations of links, fabric eyes and web hooks for the efficient handling of loads with fixed lifting points. Synthetic Bridle Assemblies are lightweight and easy to handle when compared to wire and chain bridles.

Lift-It\* Bridle Assemblies feature hardware that is substantially larger than provided by other manufacturers. We take into account not only the strength requirements, but the spatial relationship between sling attachment points and interfacing hardware.

Lift-It\* Bridle Assembly capacities are lower than our competitors. (MLB3)Three Leg Bridle Assembly capacities are based upon 2-1/2 legs for the assigned capacity. (MLB4) Four Leg Bridle Assembly capacities are based on three legs for the assigned capacity. Lower capacities and more expensive, larger hardware will never allow us to be the successful, low bidder. Our conservative approach is respected by conscientious users and appreciated by sophisticated purchasers.

Masterlinks are welded. Forged (non-welded) masterlinks are available upon request. All hooks are supplied with latches. Bottom fittings are placed in the same plane as the top lifting fixture, unless otherwise specified. All fittings are alloy steel and other types of materials and attachments are available.

Endless bridle slings allow for sling rotation. Do not place load carrying splices in contact points with bridle masterlinks or fittings.

![](_page_29_Figure_7.jpeg)

\*t = Metric ton \*\*Bottom attachment weight must be added to base weight for total sling weight. Base (8ft) assembly weights and minimum lengths are based upon Masterlin Weights and minimum lengths for Master Sub-Assemblies must be calculated. \*\*\*Work Load Limits based upon a 5 to 1 Design Factor when new. N/A = Not Available

Available in either nylon or polyester webbing.

Polyester webbing is available in (9) heavy web class only.

For Polyester Max Edge<sup>™</sup> webbing add letters "PME" to Stock Number. (Example: MLB2-EE2902-PME-WW)

**WARNING** DO NOT EXCEED WORK LOAD LIMITS

🛦 WARNING

To avoid SEVERE INJURY or DEATH from

equipment failure:

- Users MUST BE TRAINED on proper selection/use. • NEVER damage, misuse or overload - observe and
- NEVER EXCEED the Work Load Limit (WLL).

• Properly maintain and inspect before use.

![](_page_29_Picture_20.jpeg)

# **Bridle Assemblies**

![](_page_30_Figure_1.jpeg)

4" \*t = Metric ton and N/A = Not Available

MLB4-EE2904

\*\*Bottom attachment weight must be added to base weight for total sling weight. Base (8ft) assembly weights and minimum lengths are based upon masterlinks. Weights and minimum lengths for Master Sub-Assemblies must be calculated.

1-1/2"

1-1/2" X 14"

24,100

2″

**A WARNING** Work Load Limits for Multi-Leg Bridle

2

29,600

Assemblies are based on the following conditions:

1. Even load weight distribution on all legs.

FF

- 2. Bridle legs being same length. If the legs are not sharing the load equally, the assembly design factor is reduced.
- 3. All bridle legs used at the same horizontal angle. If the conditions of the lift vary from those above, Work Load Limits must be recalculated.
- 4. All bridle legs attached at the same level.

\*\*\*Work Load Limits based upon a 5 to 1 Design Factor when new.

Lift-It° Bridle Sling fittings are substantially larger than those offered by our competitors. Larger fittings provide for a proper, spatial relationship, minimizing crowding and bunching at sling connection points. Consider using Master Links with Subassemblies (MSA) for Bridles with more than two legs.

![](_page_30_Figure_12.jpeg)

3/4"

N/A

54.00

1.76

8

![](_page_31_Picture_0.jpeg)

# Wire Rope Slings

![](_page_31_Figure_2.jpeg)

Single Body Wire Rope Slings feature either a 6 x 19 or 6 x 37 Construction, Extra Improved Plow Steel (EIPS) wire rope with an Independent Wire Rope Core (IWRC).

Single Body, Flemish Eye/Mechanical Splice, Wire Rope Slings provide additional security, superior to return loop slings should the swage sleeve become damaged during use.

Thimbles improve sling longevity by protecting the rope at connection points.

Stainless Steel Slings, Fiber Core Slings with reduced Work Load Limits, Cable Laid Slings with galvanized finish and larger diameter slings are also available.

#### SINGLE BODY SLING TYPES

Type 1- Eye & Eye

Type 8- Thimble & Thimble

Please Note:

Heavy duty, galvanized thimbles are standard. Eye Hooks and Sliding Choker Hooks will be supplied with latches.

(D/d) Considerations

![](_page_31_Picture_13.jpeg)

When wire rope is bent around a load, or diameter, the rope strength is decreased. The D/d ratio is diameter of the object around which the rope is bent (D), divided by the diameter (d) of the rope. D/d affects slings used in basket hitches and must be taken into consideration. When the diameter of the load is 4 times the diameter of the wire rope sling the D/d ratio is 4/1 and the sling efficiency is 75% of the Basket WLL.

D/d RATIO	Wire Rope Sling Strength Efficiencies
25/1	100%
20/1	92%
15/1	88%
10/1	86%
8/1	84%
6/1	80%
4/1	75%
2/1	65%
1/1	50%

#### SINGLE BODY WIRE ROPE SPECIFICATIONS Work Load Limits (Tons)\* Min. Sling Standard Thimbled Slip-Thru Rope Eve Crescent Slidina D/d = 25/1 Lenath **Eve Size** Eve Size Hook Thimble Thimble Choke Dia Ton = 2000 Lbs. (ln.) (Type I) (Inches) (Inches) WLL Eye Size Eye Size Hook WXL WXL (Tons) (Inches) (Inches) (Inches) WXL WXL 90° Basket Choker Vertical 1/448 65 1.3 18" 2 X 4 7/8 X 1-5/8 1 2 X 4 2-1/8 X 4-1/8 3/8 5/16 .74 1.0 2.0 21″ 2-1/2 X 5 1-1/16 X 1-7/8 1 2 X 4 2-1/8 X 4-1/8 3/8 24' 1-1/8 X 2-1/8 2 X 4 2-1/8 X 4-1/8 3/8 1.1 1.4 2.9 3 X 6 1 - 1/23/8 2 X 5 3-1/2 X 7 1.4 1.9 3.9 27″ 1-1/4 X 2-1/4 7/16 2 2-3/8 X 4-3/8 1/2 1/2 1.9 2.5 5.1 30″ 4 X 8 1-1/2 X 2-1/4 3 2-1/4 X 6 2-3/8 X 4-3/8 1/2 9/16 2.4 3.2 6.4 33″ 4-1/2 X 9 1-1/2 X 2-3/4 5 2-1/4 X 7 2-3/8 X 4-3/8 5/8 5/8 2.9 3.9 7.8 3 ft. 5 X 10 1-3/4 X 3-1/4 5 2-3/4 X 7 3-3/8 X 6-5/8 5/8 3-1/4 X 8-1/2 3/4 4.1 5.6 11 3 ft.-6 in. 6 X 12 2 X 3-3/4 3-3/8 X 6-5/8 3/4 7 5.6 7.6 15 4 ft. 2-1/4 X 4-1/4 4-1/2 X 10 7/8 7/8 7 X 14 11 3-3/4 X 7-1/8 1 7.2 9.8 20 4 ft.-6 in. 8 X 16 2-1/2 X 4-1/2 11 4-1/2 X 11-1/2 3-3/4 X 7-1/8 1 1-1/8 9.1 12 24 5 ft. 9 X 18 2-7/8 X 5-1/8 15 4-7/8 X 13 4-3/8 X 8-3/8 1-1/8 1-1/4 11 15 30 10 X 20 3-1/2 X 6-1/2 15 5-1/2 X 14-1/2 4-3/8 X 8-3/8 1-1/4 5 ft.-6 in. 1-3/8 13 18 36 6 ft. 11 X 22 3-1/2 X 6-1/4 22 6 X 16 5 X 9-1/2 1-3/8 21 42 1-1/2 16 7 ft. 12 X 24 3-1/2 X 6-1/4 22 6 X 17-1/2 5 X 9-1/2 1-1/2 1-3/4 21 28 57 8 ft. 14 X 28 4-1/2 X 9 37 7 X 20 6-3/4 X 11-3/4 9 ft. 2 28 37 73 16 X 32 6 X 12 45 7 X 23-1/2 8 X 14-1/2 2-1/4 44 10 ft. 7 X 14 8-1/2 X 26 8 X 15-1/2 35 89 18 X 36 45 \_ 2-1/2 42 54 109 11 ft. 20 X 40 60 8-1/2 X 29-1/2

\*Work Load Limits based upon a 5 to 1 Design Factor when new.

#### **SLING TAG REQUIREMENTS**

Identification Requirements - ASME B30-9, Section 9-2.7.1 states: Each sling shall be marked to show:

- 1) Name or trademark of manufacturer.
- 2) Rated load for at least one hitch and the angle upon which it is based.
- 3) Diameter or size.
- 4) Number of legs, if more than one.

![](_page_31_Picture_24.jpeg)

Sling identification should be maintained during the life of the sling by the sling user.

# Wire Rope Slings

![](_page_32_Picture_1.jpeg)

#### **MULTIPLE LEG BRIDLE ASSEMBLIES**

• SINGLE P	ART BODY		DO	UBLE-LEG BR	IDLE	TR	IPLE-LEG BRIC	DLE	QUAD-LEG BRIDLE			
• THIMBLE	S PROTECT SL	.ING		R			R			R		
• 6 X 19 OR ROPE CO	6 X 19 OR 6 X 37 ROPE CONSTRUCTION				10							
• IWRC RES	JISTS CRUSHIN	NG			ngth	Je starter and a	111	2				
OTHER FI	TTINGS AVAII	ABLE	ď		8	<u> </u>	5	37	0	50	01	
DO NOT EXC	NING CEED WORK LO	OAD LIMITS	WO Tr	RK LOAD LIM ons = 2,000 Lk	ITS* os.	WO Tr	RK LOAD LIM ons = 2,000 Lk	ITS* os.	WO To	RK LOAD LIM ons = 2,000 Lk	ITS* ps.	
		8			0			0			0	
ROPE DIAMETER (INCHES)	MIN. SLING LENGTH	EYE HOOK CAP. (TONS)	60°	45°	LINK STOCK DIA.	60°	45°	LINK STOCK DIA.	60°	45°	LINK STOCK DIA.	
1/4	15″	1	1.1	.91	1/2	1.7	1.4	1/2	2.2	1.8	5/8	
5/16	18″	1	1.7	1.4	1/2	2.6	2.1	1/2	3.5	2.8	3/4	
3/8	20″	1-1/2	2.5	2.0	1/2	3.7	3.0	3/4	5.0	4.1	3/4	
7/16	22″	2	3.4	2.7	3/4	5.0	4.1	3/4	6.7	5.5	1	
1/2	24″	3	4.4	3.6	3/4	6.6	5.4	1	8.8	7.1	1	
9/16	26″	5	5.5	4.5	3/4	8.3	6.8	1	11	9	1-1/4	
5/8	28″	5	6.8	5.5	1	10	8.3	1-1/4	14	11	1-1/4	
3/4	33″	7	9.7	7.9	1-1/4	15	12	1-1/2	19	16	1-3/4	

\*Work Load Limits based upon a 5 to 1 Design Factor when new.

Length tolerance for single body slings is +/- two rope diameters or +/- .5% of the sling length, whichever is greater. Bridle or matched slings are +/- one rope diameter.

	WARNING Even if you take into account all of the factors/issues involved in flight operations and rigging, things can still go wrong. Therefore all personnel must be alert to potential risks associated with the use of longlines and rigging.								
NEVER ON	NEVER UNDER	NEVER IN-LINE	Make Sure All Personnel are Clear of Loads and Alert to Risks, Especially in the "Danger Zone". The "Danger Zone" is any area where the load could fall onto or swing into, or anywhere an						
Ŷ	Vo	* Y	<ul> <li>unplanned release of tension could produce deadly recoil force. Therefore:</li> <li>All personnel must stand clear of lifted loads and never be under, on, or near suspended loads.</li> <li>Personnel must not stand in-line with or next to rigging under tension. An unplanned release of tension could strike personnel with deadly recoil force.</li> <li>Personnel must be alert to the potential for the sling and/or load to become snagged or hung-up.</li> <li>Once load handling activities begin, sling users must NEVER place any part of the body between the sling or sling protection device and the load, or between the sling and hook/shackle/ connection point and/or load handling device.</li> </ul>						

Read and understand all product and warning information provided in this guide, included with all products, contained in our catalog, or view at www.lift-it.com and always follow OSHA, ASME, federal, state, provincial, industry, association, corporate, jobsite specific, insurance and manufacturer warnings and guidelines.

![](_page_33_Picture_0.jpeg)

# Radiolink plus Dynamometer

![](_page_33_Picture_2.jpeg)

### **Features and Benefits:**

- Proprietary 2.4 GHz wireless signal
- Industry leading wireless range of 3,280 Ft. / 1,000 m
- Superior data transmission
- Environmentally sealed to IP67 / NEMA6
- 90db Audible overload alarm
- Unmatched battery life of 1200 hours
- Internal antennas on Radiolink & Handheld plus
- Handheld plus reads up to four Radiolink wireless load cells simultaneously
- Compact size
- Remote on-off
- Lightweight aluminum
- Hardened bushings at shackle connections
- 100 Hz Peak hold
- Push button tare
- Design validated by F.E.A.

### **Three Versions Available**

- Long range (3,280 Ft. / 1,000 m) connects to SW-HHP Handheld or software applications
- Bluetooth (3,280 Ft. / 1,000 m) connects to any iOS or Android device running the free HHP app
- ATEX/IECEx (1,640 Ft. / 500 m) connects to SW-HHP Handheld

Capable of both weighing and dynamic load monitoring, the Radiolink plus is constructed of high-quality aircraft grade aluminum and features an advanced internal design structure. This internal design structure not only provides Radiolink plus with an unrivalled strength to weight ratio, but also allows the use of a separate internal sealed enclosure providing the load cell's electronic components with IP67/NEMA6 environmental protection, making this industry leading dynamometer even more suitable for use in harsh environments.

Featuring industry leading wireless technology and range of 3,280 Ft. / 1,000 m, the versatile Radiolink plus is supplied with an update rate of 3Hz and can be easily configured to run at speeds of up to 200Hz. Data is transmitted wirelessly utilizing the latest in IEEE 802.15.4 (2.4 GHz) technology providing safe, high integrity transmission of both static weight and dynamic loading to a wireless handheld controller. Bluetooth enabled and wired units are also available.

The Radiolink plus can also be used in combination with Straightpoint's INSIGHT high speed wireless data logging software allowing for simultaneous control, display and real time data logging of up to 126 Straightpoint wireless load cells. The Radiolink plus may also be used with Straightpoint's Proof Test plus software package allowing the operator to perform load tests at a safe distance and generate real time test certificates on site. The Radiolink plus utilizes AA alkaline batteries and features advanced circuitry designed to protect the unit from damage associated with incorrectly installed batteries. This advanced circuitry extends battery life and the use of alkaline batteries eliminates issues associated with rechargeable battery pack charging, failure and replacement.

ATEX/IECEx models are designed for use in hazardous, flammable and/or explosive environments.

A full array of wireless accessories are also available including LED wireless scoreboards, overload alarm module, and base stations with analog (4-20mA, 0-10v, 0-5v) or digital (2 relay outputs, CANbus 2.0A or2.0B, and RS485 ASCII serial communications protocol) outputs.

It is easy to see why the Radiolink plus is the number one choice for weighing and dynamic load monitoring for lift planning and load handling applications.

# Radiolink plus Dynamometer

![](_page_34_Picture_1.jpeg)

![](_page_34_Picture_2.jpeg)

![](_page_34_Figure_3.jpeg)

#### **RADIOLINK PLUS SPECIFICATIONS**

STOCK NUMBER	RLP1T	RLP2T5	RLP2T5 RLP6T5						
Capacity - Metric Tons	1	2.5	12						
Capacity - Lbs.	2,200	5,500	14,300	26,000					
Decelution	.5 Kgs.	.001 mt	.001 mt	.002 mt					
Resolution	1 Lbs.	2 Lbs.	2 Lbs.	5 Lbs.					
Linit Woight	1.5 Kgs.	1.5 Kgs.	2.4 Kgs.	3.7 Kgs.					
Onit weight	3.3 Lbs.	3.3 Lbs.	5.3 Lbs.	8.2 Lbs.					
Design Factor	12:1	7:1	7:1	7:1					
Battery Type	Handheld: 2 x AA / Load cell: 4 x AA (Alkaline)								
Battery Life	Handheld: 40 hours / Load cell: 1,200 hours continuous								
Display Type	240 x 128 pixel Multi-Line dot matrix with backlight								
Operating Temp	14° F (-10° C) to 122° F (50° C)								
Accuracy	± 0.1% of Full Scale								
Frequency	2.4 GHz	2.4 GHz							
System Range	3,280 feet / 1,000 r	neters (328 feet / 100 meters f	or Bluetooth and 1,640 feet / 5	00 meters for ATEX/IECEx)					
Data Rate	3 Hz - up to 200 Hz	can be ordered for dynamic lo	ad monitoring applications						
Protection	IP67 / NEMA 6								
Dimension A	8.03″	8.03″	9.80″	12.01″					
Dimension B	1.69″	1.69″	1.69″	1.85″					
Dimension C	4.09″	4.09″	4.45″	4.45″					
Dimension D	5.75″	5.75″	6.50″	7.60″					
Dimension ØE	.96″	.96″	1.50″	1.87″					
Dimension F	1.89″	1.89″	2.60″	Not applicable for					
Dimension G	.75″	.75″	1.26″	this capacity					
Shackle Pin Diameter	3/4″	3/4″	1″	1 - 3/8″					

![](_page_35_Picture_0.jpeg)

# Lifting & Spreader Beams

From mild to wild, Lift-It<sup>®</sup> can provide all your lift & spreader beam needs. With direct access to the most recognized manufacturer's in the industry, such as Caldwell, Modulift, M&W and Tandemloc we can provide the components to ensure your loads are handled efficiently. Provided with required hooks and/or shackles.

## **MODULIFT ADJUSTABLE SPREADER BEAMS**

![](_page_35_Picture_4.jpeg)

FIXED AND ADJUSTABLE BAIL LIFTING BEAMS

![](_page_35_Figure_6.jpeg)

# **Material Baskets**

![](_page_36_Picture_1.jpeg)

![](_page_36_Picture_2.jpeg)

- ASME B30.20 and OSHA compliant.
- Powder coated.
- All material baskets individually proof loaded per OSHA requirements.
- All material baskets shipped with proof load certification.
- Durable construction ideally suited for job site or warehouse use.
- Made in U.S.A.
- Custom designs available.
- NOT INTENDED FOR PERSONNEL LIFTING.

## FIXED SIDE MATERIAL BASKETS

![](_page_36_Figure_12.jpeg)

SPECIFICATIONS									
Stock Nun	nber	Work Load*	Dimensions (Inches)					Weight	
Standard	Casters	(Lbs.)	Α	В	С	D	Е	(LDS.)	
11827	23954	2,500	36	24	4	6	36	320	
11829	23955	2,500	48	24	4	8	48	360	
16006	23956	2,500	60	24	4	8	60	450	

\*45° MINIMUM Angle of Loading (AOL)

![](_page_36_Figure_15.jpeg)

**DROP SIDE MATERIAL BASKETS** 

![](_page_36_Picture_17.jpeg)

Shown	with	optional	casters.

SPECIFICATIONS							
Stock Number		Work Load*	Dimensions (Inches)			Weight	
Standard	Casters	(Lbs.)	Α	В	С	D	(LDS.)
12902	23957	2,500	48	28	3.6	7.6	410
17594	23958	2,500	36	28	3.6	7.6	400

![](_page_36_Figure_20.jpeg)

\*45° MINIMUM Angle of Loading (AOL)

#### FIXED SIDE MATERIAL BASKETS – SLOPED END

![](_page_36_Picture_22.jpeg)

SPECIFICATIONS						
Stock Number		23963	23669			
Work Load* (Lbs.)		6,000	6,000			
Dimensions (Inches)	Α	96	120			
	В	72	96			
	С	48	48			
	D	24	24			
	E	67	91			
Weight (Lbs.)		1,210	1,500			

![](_page_36_Figure_24.jpeg)

![](_page_37_Picture_0.jpeg)

# **Custom Products**

![](_page_37_Picture_2.jpeg)

![](_page_38_Picture_0.jpeg)

![](_page_38_Picture_1.jpeg)

## **CUSTOM DESIGN & FABRICATION SERVICES**

![](_page_38_Picture_3.jpeg)

![](_page_39_Picture_0.jpeg)

**A-Frame Lanyards Anchor Plates Bridle Assemblies** Bulk Bags **Carabiners Cargo Nets Custom Products Drum Handling Slings Electric Swivels Grapple Hooks HEC Lines** Harnesses Inspection Longlines **Multi-Loop Straps Primary Covers Prusiks Pulling Lines Radiolink Dynamometers Remote Hooks Rescue Lines Rigging Hardware Roundslings Secondary Covers Shackles Swivels Synthetic Rope Training** Web Slings **Weighted Line Covers** Wire Rope Slings **Zippered Covers** 

![](_page_39_Picture_2.jpeg)

![](_page_39_Picture_3.jpeg)

"When Only the Best is Good Enough"

![](_page_39_Picture_5.jpeg)

Michael J. Gelskey, Jr. President

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![](_page_39_Picture_9.jpeg)

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![](_page_39_Picture_11.jpeg)