

Lifting Devices

Hoist Rings - Eye Bolts

**Snap Rings - Hoist Rings
Hoist Ring Accessories**



**SIDE LOAD
HOIST RINGS Pg K5**



**HOIST RING
CLIPS Pg K3**

**CLIP
RETAINERS
Pg K6**



**SWIVEL HOIST RINGS
Pg K2**



**FORGED SWIVEL
HOIST RINGS Pg K10**



**SWIVEL PIVOT HOIST
RINGS Pg K7**



SIDE PULL HOIST RINGS Pg K13



SWIVEL SNAP RINGS Pg K13



TURNBUCKLES Pg K18



**LOW PROFILE HOIST
RINGS Pg K13**



SS EYE BOLTS Pg K15



**SOCKET HEAD SCREW
REPLACEMENTS Pg K6**



**REPLACEMENT BUSHINGS
Pg K6**



**PIVOT LIFTING PLATES
Pg K8**



**SHOULDER EYE
BOLTS Pg K14**



**EYE NUTS
Pg K18**



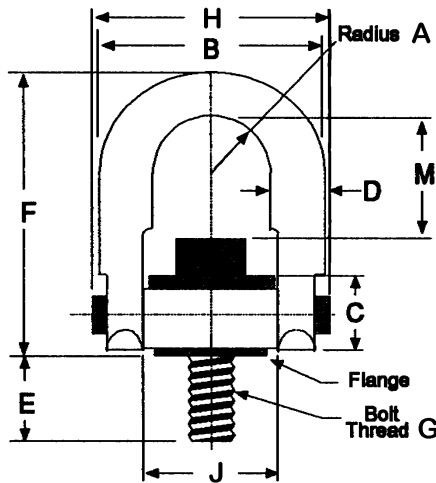
**LIFTING EYE
BOLTS Pg K18**



**STREET PLATE LIFTING RINGS
Pg K11**

Hoist Rings

Ultimate Swivel Hoist Rings



- ★ Engineered for Safety
- ★ 4140 Aircraft Grade Chrome Moly
- ★ Metallurgically Analyzed and Certified
- ★ Heat treated IAW MIL-H -6875
- ★ 100% Mag Part. Inspected ASME 5-7
- ★ Load Tested By Independent Lab
- ★ Black Oxided Per Mil Spec
- ★ Cadmium Plating Available
- ★ 300 Series Stainless Steel Available
- ★ 5:1 Safety Factor
- ★ All-Direction Lifting

SELECT THE SAFEST AND THE LARGEST RATING IN THE SIZE YOU REQUIRE! See Page K3.

ALL SIZES ARE AVAILABLE ON REQUEST IN 316 STAINLESS STEEL WITH 50% LOAD RATING.

UNITED PART NO.	RATED LD #S	THD G	A	B	C	D	E	F	H	J	M	TRQ FT/ #	WT. (LBS)
UDB-923051	800	5/16-18	7/16	1-5/8	45/64	3/8	9/32	2-5/8	1-27/32	1	1.27	7	0.3
UDB-923052	800	5/16-18	7/16	1-5/8	45/64	3/8	17/32	2-5/8	1-27/32	1	1.27	7	0.3
UDB-923053	1,000	3/8-16	7/16	1-5/8	45/64	3/8	17/32	2-5/8	1-27/32	1	1.21	12	0.3
UDB-923301	2,500	1/2-13	11/16	2-7/16	59/64	1/2	1-1/16	3-3/4	2-9/16	1-13/32	1.84	28	1.0
UDB-923004	2,500	1/2-13	7/8	3-1/4	1-7/32	3/4	3/4	4-3/4	3-1/2	2	2.31	28	2.6
UDB-923322*	2,500	1/2-13	7/8	3-1/4	1-7/32	3/4	3/4	6-3/4	3-1/2	2	4.25	28	2.6
UDB-923005	2,500	1/2-13	7/8	3-1/4	1-7/32	3/4	1	4-3/4	3-1/2	2	2.31	28	2.6
UDB-923323*	2,500	1/2-13	7/8	3-1/4	1-7/32	3/4	1	6-3/4	3-1/2	2	4.25	28	2.6
UDB-923006	2,500	1/2-13	7/8	3-1/4	1-7/32	3/4	1-1/4	4-3/4	3-1/2	2	2.31	28	2.6
UDB-923324*	2,500	1/2-13	7/8	3-1/4	1-7/32	3/4	1-1/4	6-3/4	3-1/2	2	4.25	28	2.6
UDB-923001	4,000	5/8-11	7/8	3-1/4	1-7/32	3/4	3/4	4-3/4	3-1/2	2	2.18	60	2.6
UDB-923002	4,000	5/8-11	7/8	3-1/4	1-7/32	3/4	1	4-3/4	3-1/2	2	2.18	60	2.6
UDB-923320*	4,000	5/8-11	7/8	3-1/4	1-7/32	3/4	1	6-3/4	3-1/2	2	4.12	60	2.6
UDB-923003	4,000	5/8-11	7/8	3-1/4	1-7/32	3/4	1-1/4	4-3/4	3-1/2	2	2.18	60	2.6
UDB-923321*	4,000	5/8-11	7/8	3-1/4	1-7/32	3/4	1-1/4	6-3/4	3-1/2	2	4.18	60	2.6
UDB-923007	5,000	3/4-10	7/8	3-1/4	1-7/32	3/4	1	4-3/4	3-1/2	2	2.06	100	3.0
UDB-923325*	5,000	3/4-10	7/8	3-1/4	1-7/32	3/4	1	6-3/4	3-1/2	2	4.00	100	3.0
UDB-923009	5,000	3/4-10	7/8	3-1/4	1-7/32	3/4	1-1/2	4-3/4	3-1/2	2	2.06	100	3.0
UDB-923327*	5,000	3/4-10	7/8	3-1/4	1-7/32	3/4	1-1/2	6-3/4	3-1/2	2	4.00	100	3.0
UDB-923102	7,000	3/4-10	1-13/32	4-13/16	1-11/16	1	1	6-1/2	5-9/16	3	3.06	100	7.0
UDB-923329*	7,000	3/4-10	1-13/32	4-13/16	1-11/16	1	1	8-7/64	5-9/16	3	4.65	100	7.0
UDB-923103	7,000	3/4-10	1-13/32	4-13/16	1-11/16	1	1-1/2	6-1/2	5-9/16	3	3.06	100	7.0
UDB-923330*	7,000	3/4-10	1-13/32	4-13/16	1-11/16	1	1-1/2	8-7/64	5-9/16	3	4.65	100	7.0
UDB-923101	8,000	7/8-9	1-13/32	4-13/16	1-11/16	1	1	6-1/2	5-9/16	3	2.93	160	7.0
UDB-923328*	8,000	7/8-9	1-13/32	4-13/16	1-11/16	1	1	8-7/64	5-9/16	3	4.52	160	7.0
UDB-923105	10,000	1-8	1-13/32	4-13/16	1-11/16	1	1-1/4	6-1/2	5-9/16	3	2.81	230	7.5
UDB-923331*	10,000	1-8	1-13/32	4-13/16	1-11/16	1	1-1/4	8-7/64	5-9/16	3	2.30	230	7.5
UDB-923106	10,000	1-8	1-13/32	4-13/16	1-11/16	1	1-1/2	6-1/2	5-9/16	3	2.81	230	7.5
UDB-923332*	10,000	1-8	1-13/32	4-13/16	1-11/16	1	1-1/2	8-7/64	5-9/16	3	4.40	230	7.5
UDB-923107	10,000	1-8	1-13/32	4-13/16	1-11/16	1	2-1/4	6-1/2	5-9/16	3	2.81	230	7.5
UDB-923333*	10,000	1-8	1-13/32	4-13/16	1-11/16	1	2-1/4	8-7/64	5-9/16	3	4.40	230	7.5
UDB-923401	15,000	1 1/2-7	1-3/4	6	2-7/64	1-1/4	2	8-3/4	6-1/2	3-3/4	4.12	470	14.0
UDB-923202HR	24,000	1 1/2-6	2-1/4	8	2-13/16	1-3/4	2-3/4	12-15/32	8-35/64	4-7/8	6.41	800	34.0
UDB-923200HR	30,000	2-4 1/2	2-1/4	8	2-13/16	1-3/4	3	12-15/32	8-35/64	4-7/8	5.41	800	36.0
UDB-923501	50,000	2 1/2-8	3	10-1/2	4-3/32	2-1/4	4	16-7/8	11-43/64	6-1/2	8.03	2100	88.0
UDB-923503	50,000	2 1/2-4	3	10-1/2	4-3/32	2-1/4	4	16-7/8	11-43/64	6-1/2	8.03	2100	88.0
UDB-923600	75,000	3-4	3-3/4	13	5-17/64	2-3/4	5-1/4	19-1/2	14-5/32	8-7/64	8.48	4300	166.0
UDB-923701	100,000	3 1/2-4	4	14	6-1/16	3-1/4	7	22-3/32	15-29/32	8-7/64	9.28	5100	265.0

* LONG BAR To specify replacement Bushing, Clip Retainer, Screw and Washer, add BCSW to Part No. Example: UDB-923701-BCSW

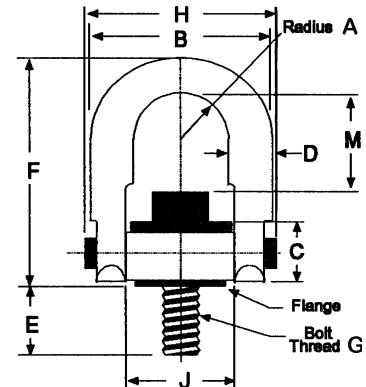
Metric Swivel Hoist Rings

Metric Hoist Rings

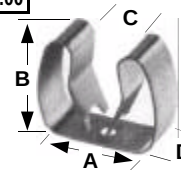
ALL SIZES ARE AVAILABLE ON REQUEST IN 316 STAINLESS STEEL.
For Replacement Set of Bushing, Clip Retainer, Screw and Washer, add BCSW to Part No. Ex: UDB-924008-BCSW

UNITED PART NO.	RATED LOAD (KG)	G THREAD	A	B	C	D	E	F	H	J	M	TORQ (KG)	WT. (KG)
UDB-924008	400	M8x1.25	10.9	41	18	9.7	12.5	68	47	25	32.1	0.86	0.17
UDB-924010	500	M10x1.50	10.9	41	18	9.7	17.5	68	47	25	30.2	1.50	0.17
UDB-924012**	1050	M12x1.75	22.4	83	30	19.0	19.0	121	89	51	59.4	3.70	1.08
UDB-923562	1050	M12x1.75	22.4	83	30	19.0	19.0	171	89	51	109.4	3.70	1.08
UDB-924016	1900	M16x2.00	22.4	83	30	19.0	29.0	121	89	51	55.4	8.40	1.12
UDB-923565	1900	M16x2.00	22.4	83	30	19.0	29.0	171	89	51	105.4	8.40	1.12
UDB-924020**	2150	M20x2.50	22.4	83	30	19.0	34.0	121	89	51	51.4	14.00	1.19
UDB-923563	2150	M20x2.50	22.4	83	30	19.0	34.0	171	89	51	101.4	14.00	1.19
UDB-924022**	3000	M20x2.50	35.6	122	43	25.4	32.0	166	131	76	77.0	14.00	3.03
UDB-923571	3000	M20x2.50	35.6	122	43	25.4	32.0	206	131	76	113.0	14.00	3.03
UDB-924024**	4200	M24x3.00	35.6	122	43	25.4	37.0	166	131	76	73.0	31.00	3.10
UDB-923574	4200	M24x3.00	35.6	122	43	25.4	37.0	206	131	76	78.0	31.00	3.10
UDB-924040	7000	M30x3.50	44.5	152	54	31.7	41.9	222	165	95	106.3	60.00	6.30
UDB-924042	7000	M30x3.50	44.5	152	54	31.7	61.7	222	165	95	106.3	60.00	6.40
UDB-924050	11000	M36x4.00	57.2	203	71	44.4	63.5	317	217	124	164.8	100.00	15.50
UDB-924052	12500	M42x4.50	57.2	203	71	44.4	82.4	317	217	124	158.8	100.00	16.00
UDB-924054	13500	M48x5.00	57.2	203	71	44.4	82.4	317	217	124	152.8	100.00	16.80
UDB-924060	22000	M64x6.00	76.2	266	104	57.2	101.0	428	296	165	165.6	273.00	39.00

** LONG BAR, SPECIFY.



HOIST RING CLIPS	UNITED PART NO.	FITS RING DIA:	A	B	C	D
	UDB-1-HRC	3/8, 7/16, 5/8	1-3/8	15/16	5/16	1/2
	UDB-2-HRC	3/4, 1-1/16	1-5/8	1-1/4	3/4	5/8



HOIST RING CLIPS

UNITED'S TEN COMMANDMENTS FOR HOIST RING SAFETY will prevent misuse and failure. Inspect for wear and for strict adherence to use and safety instructions.

1. Calculate the load on each hoist ring correctly. Unevenly distributed loads will produce greater forces at shallow lift angles. Use the formula below.
2. Never exceed the RATED load capacity.
3. Tighten mounting screws to recommended torque.
4. Check torque periodically because screws may loosen.
5. Lift gradually. Do not apply shock loads.
6. Repeat magnaflux testing if shock load occurs.
7. Do not use spacers between hoist ring and mounting surface.
8. Do not allow hoist rings to bind! Use spreader bars.
9. Mounting surface must be flat for smooth full ring contact. Never let the side of the ring contact anything!
10. Never lift with a hook or pin capable of deforming the ring.

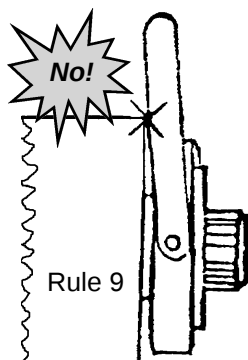
REMEMBER: The actual lifting strength on each hoist ring is significant and based on the relevant situation. More complex than the mere total weight divided by the number of hoist rings, the equation below illustrates angle and distribution factors and demonstrates the importance of safety precautions.

FORMULA: $I = \frac{w}{n \sin a}$

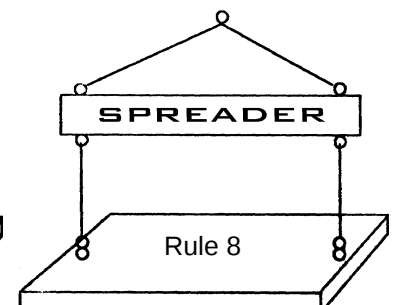
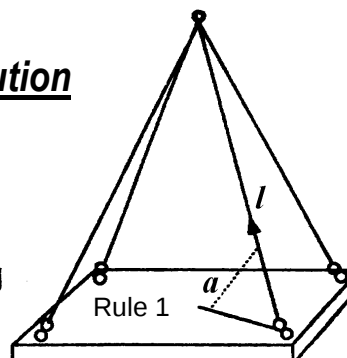
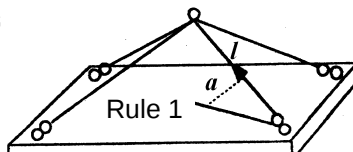
I = LIFT STRENGTH OF EACH HOIST RING
 w = WEIGHT TOTAL
 n = NUMBER OF HOIST RINGS
 a = ANGLE OF LIFT

EXAMPLE: $w = 2000$ LBS., $n = 4$, $a = 60^\circ$

$I = \frac{2000}{4 \sin 60} = 577$ LBS. EACH HOIST RING



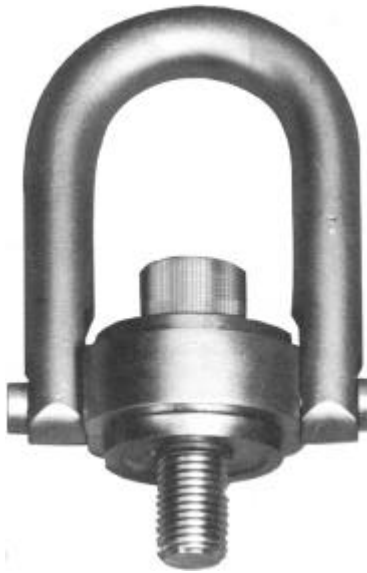
Safety Load Distribution



**Convert To UNITED's
Ultimate Hoist Rings!**

Hoist Ring Conversions

UNITED CALIFORNIA CORPORATION



METRIC CONVERSIONS

ADB	ALL AMER	CARR LANE	CROSBY	JERGENS	UNITED	THREAD SIZE	RATED LOAD
24008	474-00	CLM-800-SHR-2		23456	UDB-924008	M8x1.25	400
			1016602		UDB-923457	M8x1.25	400
24010	474-01	CLM-1000-SHR-1	1016613	23458	UDB-924010	M10x1.50	500
24012	474-02	CLM-2500-SHR-1	1016624	23462	UDB-924012	M12x1.75	1,050
				23562	UDB-923562	M12x1.75	1,050
**24016	474-03	CLM-4000-SHR-2	1016635	23465	UDB-924016	M16x2.00	1,900
				23565	UDB-923565	M16x2.00	1,900
24020	474-04		1016644	23468	UDB-924020	M20x2.50	2,150
				23568	UDB-923563	M20x2.50	2,150
24022	474-05		1016657	23471	UDB-924022	M20x2.50	3,000
23571				23571	UDB-923571	M20x2.50	3,000
24024	474-06		1016668	23474	UDB-924024	M24x3.00	4,200
23574				23574	UDB-923574	M24x3.00	4,200
24030					UDB-924030	M30x3.50	4,200
24040	474-07		1016679	23478	UDB-924040	M30x3.50	7,000
24042	474-08			23479	UDB-924042	M30x3.50	7,000
24050	474-09		1016690	23483	UDB-924050	M36x4.00	11,000
24052	474-10		1016701	23484	UDB-924052	M42x4.50	12,500
24054	474-11		1016712	23485	UDB-924054	M48x5.00	13,500
24060					UDB-924060	M64x6.00	22,000

USA CONVERSIONS

ADB	ALL AMER	BOEING	CARR LANE	CROSBY	JERGENS	UNITED	THREAD SIZE	THREAD LENGTH	RATED LOAD
23051			CL-800-SHR-1			UDB-923051	5/16-18	9/32	800
23052	472-00	UT-7141-0	CL-800-SHR-2	1016887	23406	UDB-923052	5/16-18	17/32	800
23053	472-02	UT-7141-1	CL-1000-SHR-1	1016898	23408	UDB-923053	3/8-16	17/32	1,000
23301	472-04				23410	UDB-923301	1/2-13	1-1/16	2,500
23004	472-06	UT-7141-2	CL-2500-SHR-1	1016909	23411	UDB-923004	1/2-13	3/4	2,500
23322	472-54				23511	UDB-923322	1/2-13		2,500
23005	472-08		CL-2500-SHR-2		23412	UDB-923005	1/2-13	1	2,500
23323	472-56				23512	UDB-923323	1/2-13		2,500
23006	472-10	UT-7141-2A	CL-2500-SHR-3	1016912	23413	UDB-923006	1/2-13	1-1/4	2,500
23324	472-58				23513	UDB-923324	1/2-13		2,500
23001	472-12		CL-4000-SHR-1	1016920		UDB-923001	5/8-11	3/4	4,000
23002		UT-7141-3	CL-4000-SHR-2		23414	UDB-923002	5/8-11	1	4,000
23320	472-60				23514	UDB-923320	5/8-11		4,000
23003	472-14	UT-7141-3A	CL-4000-SHR-3		23415	UDB-923003	5/8-11	1-1/4	4,000
23321	472-62				23515	UDB-923321	5/8-11		4,000
23007	472-16	UT-7141-4	CL-5000-SHR-1	1016931	23417	UDB-923007	3/4-10	1	5,000
23325	472-64				23517	UDB-923325	3/4-10		5,000
23009	472-18	UT-7141-4A	CL-5000-SHR-2	1016935	23418	UDB-923009	3/4-10	1-1/2	5,000
23327	472-66				23518	UDB-923327	3/4-10		5,000
23102	472-20	UT-7141-7	CL-7000-SHR-1	1016942	23420	UDB-923102	3/4-10	1	7,000
23329	472-68				23520	UDB-923329	3/4-10		7,000
23103	472-22	UT-7141-7A	CL-7000-SHR-2	1016946	23421	UDB-923103	3/4-10	1-1/2	7,000
23330	472-70				23521	UDB-923330	3/4-10		7,000
23101	472-24	UT-7141-8-1	CL-8000-SHR-1	1016953	23423	UDB-923101	7/8-9	1	8,000
23328	472-72				23523	UDB-923328	7/8-9		8,000
23104			CL-8000-SHR-2	1016957	23424	UDB-923104	7/8-9		8,000
23105	472-26		CL-10000-SHR-1	1016964	23425	UDB-923105	1-8	1-1/4	10,000
23331	472-74				23525	UDB-923331	1-8		10,000
23106	472-28	UT-7141-10	CL-10000-SHR-2		23426	UDB-923106	1-8	1-1/2	10,000
23332	472-76				23526	UDB-923332	1-8		10,000
23107	472-30	UT-7141-10A	CL-10000-SHR-3	1016969	23427	UDB-923107	1-8	2-1/4	10,000
23333	472-78				23527	UDB-923333	1-8		10,000
23401	472-32	UT-7141-15		1016975	23429	UDB-923401	1 1/4-7	2	15,000
23202	472-34	UT-7141-24		1016986	23433	UDB-923202HR	1 1/2-6	2-3/4	24,000
23200	472-36	UT-7141-30-1		1016997	23435	UDB-923200HR	2-4 1/2	3	30,000
23501	472-37					UDB-923501	2 1/2-8	4	50,000
23503	472-38	UT-7141-75				UDB-923503	2 1/2-4	4	50,000
23600	472-39					UDB-923600	3-4	5-1/4	75,000
23701						UDB-923701	3 1/2-4	7	100,000

* LONG BAR

** LONG BAR MODEL ALSO AVAILABLE

Side Load Hoist Rings

Certified Material Rated Loads

Side Load
Hoist Rings

**HOOK ON TO OUR EXTRA LARGE
DIAMETER QUALITY TESTED RINGS!**

**SMOOTH
SWIVELING 360°
PIVOTING 180°**

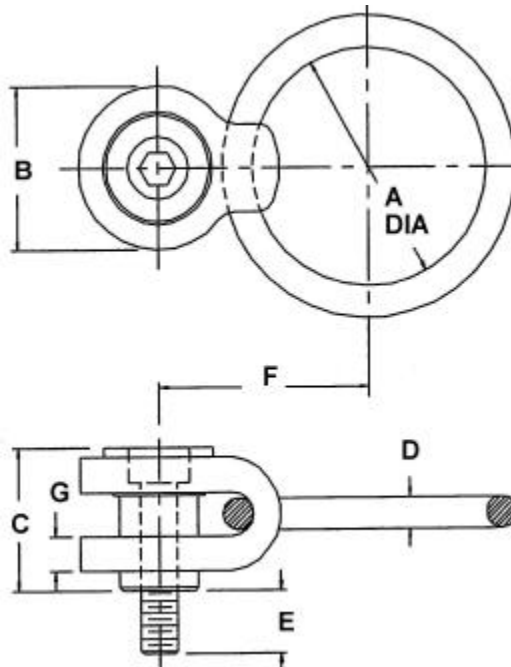
**USE THE STATED
TORQUE AND
THREAD LOADS
WHEN INSTALLING
THE HOIST RING.**

**ALLOWS YOU TO
FLIP AND TURN
PARTS WITHOUT
UNHOOKING.**

CONVENIENT!

**THREAD SIZES
5/16" TO 2"**

**SEE PAGE K3
FOR HOIST RING
CLIPS.**



**HEAT TREATED — PROOF TESTED — BLACK OXIDE FINISH.
RING, BUSHING AND BOLT ARE MAG PARTICLE INSPECTED.
MATERIAL IS 4140. SAFETY RATING FACTOR IS 5:1.**

STANDARD SIZES

UNITED PART NO.	RATED LOAD LBS.	THREAD SIZE	A	B	C	D	E	F	G	TORQUE FT./LBS.	WT. LBS.	REPLACEMENT SET OF BOLT, CLIPS & SCREW
UDB-943510	650	5/16 18	2"	1-1/2	1-7/16	3/8	5/8	1-15/16	3/8	3.5	1/4	UDB-943510-BCS
UDB-943515	800	3/8 16	2"	1-1/2	1-7/16	3/8	3/4	1-15/16	3/8	4.5	1/4	UDB-943515-BCS
UDB-943520	1800	1/2 13	3"	2-3/8	2-1/4	5/8	1"	3"	1/2	15	3-1/4	UDB-943520-BCS
UDB-943525	2500	5/8 11	3"	2-3/8	2-1/4	5/8	1-1/4	3"	1/2	25	3-1/4	UDB-943525-BCS
UDB-943530	4000	3/4 10	4"	3-3/4	3-3/8	1"	1-1/2	4-1/2	3/4	50	11-1/4	UDB-943530-BCS
UDB-943535	5500	7/8 9	4"	3-3/4	3-3/8	1"	2"	4-1/2	3/4	80	11-1/4	UDB-943535-BCS
UDB-943540	7000	1 8	4"	3-3/4	3-3/8	1"	2"	4-1/2	3/4	90	11-1/4	UDB-943540-BCS
UDB-943545	14000	1-1/4 7	6"	4-5/8	4-5/8	1-3/8	2"	6-1/4	1"	150	11-1/2	UDB-943545-BCS
UDB-943550	17000	1-1/2 6	6"	4-5/8	4-5/8	1-3/8	2-1/2	6-1/4	1"	250	27-3/4	UDB-943550-BCS
UDB-943555	29000	2 4-1/2	5-1/4 x 10-1/2	4-5/8	6-5/8	1-1/2	3-1/8	11-1/8	1"	300	31-1/2	UDB-943555-BCS

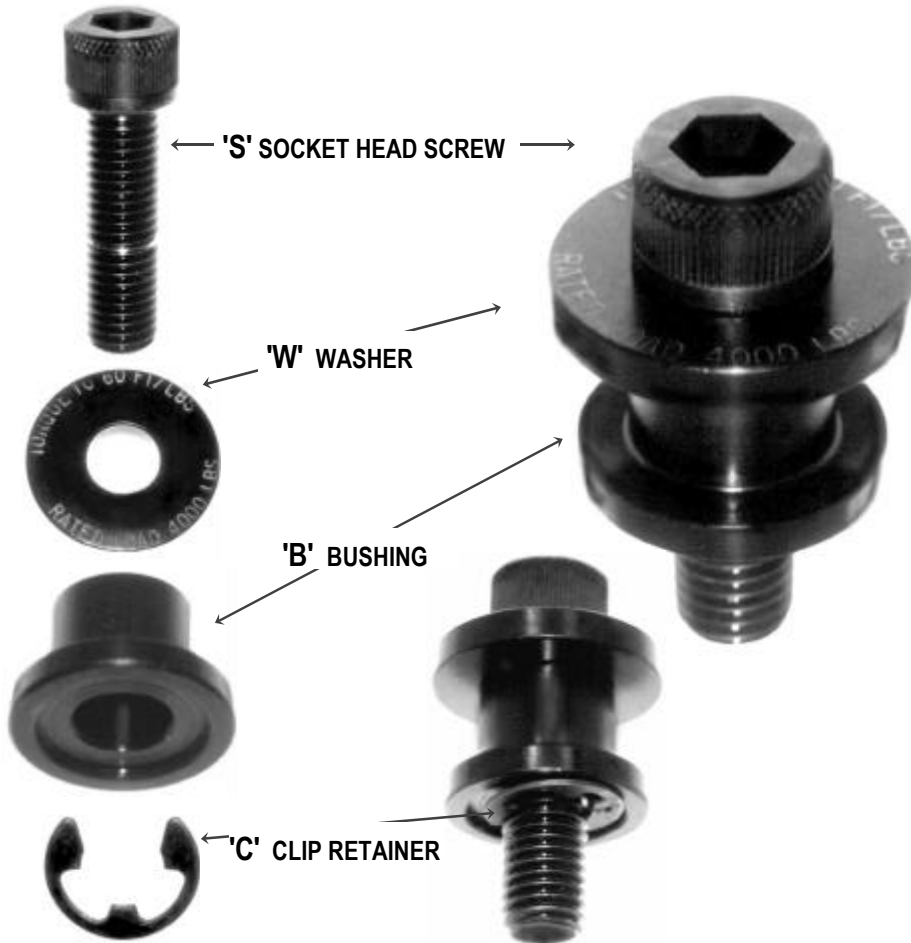
METRIC THREAD and LOAD SIZES

UNITED PART NO.	RATED LOAD KGS.	THREAD SIZE	A	B	C	D	E	F	G	TORQUE FT./LBS.	WT. LBS.	REPLACEMENT SET OF BOLT, CLIPS & SCREW
UDB-943560	325	M8 x 1.25	2	1-1/2	1-7/16	3/8	16	1-15/16	3/8	3.5	1/4	UDB-943560-BCS
UDB-943565	500	M10 x 1.50	2	1-1/2	1-7/16	3/8	20	1-15/16	3/8	4.5	1/4	UDB-943565-BCS
UDB-943570	725	M12 x 1.75	3	2-3/8	2-1/4	5/8	24	3"	1/2	15	3-1/4	UDB-943570-BCS
UDB-943575	1400	M16 x 2.00	3	2-3/8	2-1/4	5/8	31	3"	1/2	25	3-1/4	UDB-943575-BCS
UDB-943580	2290	M20 x 2.50	4	3-3/4	3-3/8	1"	40	4-1/2	3/4	50	11-1/4	UDB-943580-BCS
UDB-943585	3050	M24 x 3.00	4	3-3/4	3-3/8	1"	47	4-1/2	3/4	80	11-1/4	UDB-943585-BCS
UDB-943590	4850	M30 x 3.50	6	4-5/8	4-5/8	1-3/8	44	6-1/4	1"	150	27-3/4	UDB-943590-BCS

**Hoist Ring
Replacement Sets**

Replacement Bushings, Clips, Screws & Washers

REPLACEMENT SETS FOR HOIST RINGS



**KEEP YOUR
HOIST RING
RATINGS AT
FULL CAPACITY!**

**AVOID POSSIBLE
LOSS OF LOADS
DUE TO FATIGUE.**

**MAINTAIN
FULL SAFETY
CONDITIONS.**

**CHANGE YOUR BUSHINGS, CLIP RETAINERS, SCREWS AND WASHERS
AS REQUIRED BY YOUR LOAD, COMPANY OR OSHA STANDARDS.**

For individual parts, specify B, C, S or W after the UNITED Hoist Ring Part No.

Examples:

Individual parts: UDB-923051-**B** = BUSHING REPLACEMENT
 UDB-923051-**C** = CLIP RETAINER REPLACEMENT
 UDB-923051-**S** = SCREW REPLACEMENT
 UDB-923051-**W** = WASHER REPLACEMENT

Partial Sets: UDB-923051-**BC** = BUSHING and CLIP RETAINER REPLACEMENT
 UDB-923051-**SW** = SCREW and WASHER REPLACEMENT

Complete Set: UDB-923051-**BCSW** = COMPLETE SET REPLACEMENT

**All parts are Aircraft Quality Material 'Chrome Moly' AISI 4140.
Mag Particle inspected.
Heat Treated and fully inspected.**

Swivel-Pivot Hoist Rings With Round Base

Swivel-Pivot Round
Base Hoist Rings

SWIVEL-PIVOT HOIST RINGS

SWIVELS 360° AND PIVOTS 180°!



HIGH STRENGTH
ALLOY SCREWS
MUST BE USED
TO OBTAIN
MAXIMUM LOAD
CAPACITY!

STRONG!

THREAD SIZES
1/2" TO 1-12"

SEE PAGE K3
FOR HOIST RING
CLIPS.

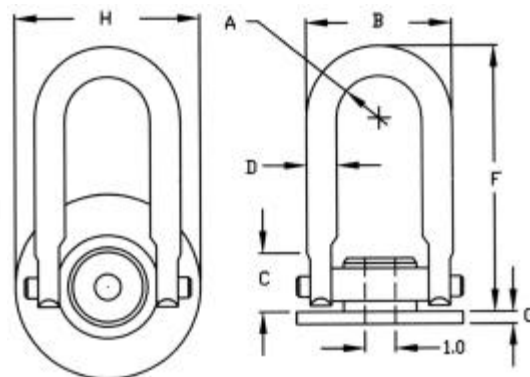
UNITED WILL BE
PLEASED TO
ASSIST IN YOUR
SCREW
SELECTION.



High Strength Alloy Screws must be used to obtain maximum rated load capacities. Material is 4140 Aircraft High Quality Steel heat treated and certified. All parts are magnetic particle inspected.

This Wide Round Base distributes shear loads. Loads are rated 2,500 thru 20,000 lbs. Swivel-Pivot Round Base Hoist Rings are ideal when used with an anchor or stud cast into concrete or equal

Mount the Hoist Ring and Plate. Lift correctly, smoothly and safely. Your thread engagement should be a minimum 1-1/2 times the diameter of equivalent Grade 8 Alloy steel screws.



SMOOTH SWIVELING 360° — PIVOTING 180°
USE THE STATED TORQUE AND THREAD
LOADS WHEN INSTALLING THE HOIST RING.

HEAT TREATED — PROOF TESTED — BLACK OXIDE FINISH PER MIL SPEC.
RING, BUSHING AND BOLT ARE MAG PARTICLE INSPECTED.
MATERIAL IS 4140 SAFETY RATING. SAFETY FACTOR IS 5:1.

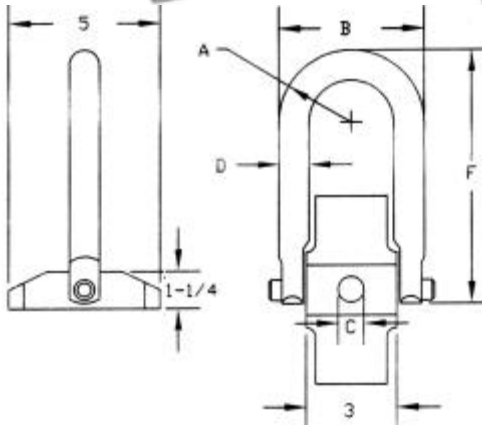
SWIVEL – PIVOT HOIST RINGS WITH ROUND BASE

UNITED PART NO.	RATED LOAD LBS.	A	B	C	D	H	F	G	I	THREAD SIZE	TORQUE FT/LBS.	REPLACEMENT SET OF BOLT, CLIPS & SCREW
UDB-944646	2500	0.88	3-1/4	1-7/64	3/4	3.5	6-3/4	1/4	1/2	1/2 13	28	UDB-944602-BCS
UDB-944642	4000	0.88	3-1/4	1-7/64	3/4	3.5	6-3/4	1/4	5/8	5/8 - 11	60	UDB-944604-BCS
UDB-944654	5000	0.88	3-1/4	1-7/64	3/4	3.5	6-3/4	1/4	3/4	3/4 10	100	UDB-944605-BCS
UDB-944660	7000	1.40	4-13/16	1-1/2	1"	5.0	8-7/64	13/32	3/4	3/4 10	100	UDB-944607-BCS
UDB-944656	8000	1.40	4-13/16	1-1/2	1"	5.0	8-7/64	13/32	7/8	7/8 9	160	UDB-944608-BCS
UDB-944666	10000	1.40	4-13/16	1-1/2	1"	5.0	8-7/64	13/32	1	1 8	230	UDB-944610-BCS
UDB-944802	15000	1.75	6"	1-7/8	1-1/4	7.0	8-3/4	1/2	1-1/4	1-1/4 7	470	UDB-944615-BCS
UDB-944704	20000	2.00	7-11/32	2"	1-1/2	7.0	10-7/64	1/2	1-1/2	1-1/2 6	800	UDB-944620-BCS

Pivot Lifting Plates

Pivot Lifting Plates

4140 Certified Aircraft High Quality Heat Treated Steel Material



Lifting capacity rated from 7,000 to 10,000 pounds.

Safety Factor 5:1

Loads are distributed in rectangular base.

Use Grade 8 high strength screws and 1-1/2 minimum thread engagement thru screw.

**HIGH
STRENGTH
ALLOY
SCREWS
MUST BE
USED FOR
MAXIMUM
LOADS.**

Large Bail Pivots 180°. This rugged tapered plate minimizes the shear force on high strength alloy screws.

Base Plate can be fastened or welded if you wish to eliminate screws.

Works for many original equipment applications.

Magnetic Particle Inspected.

Certified Heat Treated — Black Oxide per Mil Spec — Cadmium Plated available.

**Let us assist
you in
customizing
your specific
requirements.**

Call today.

UNITED PART NO.	RATED LOAD LBS.	A	B	C	D	F	THREAD SIZE	TORQUE FT/LBS.	REPLACEMENT SET OF BOLT, CLIPS & SCREW
UDB-944410	7000	1.40	4-13/16	3/4	6-1/2	4-13/16	3/4 10	100	UDB-944410-BCS
UDB-944610	7000	1.40	4-13/16	3/4	8-7/64	1-15/16	3/4 10	100	UDB-944610-BCS
UDB-944415	8000	1.40	4-13/16	7/8	6-1/2	3"	7/8 9	160	UDB-944415-BCS
UDB-944615	8000	1.40	4-13/16	7/8	8-7/64	3"	7/8 9	160	UDB-944615-BCS
UDB-944420	10000	1.40	4-13/16	1"	6-1/2	6-1/2	1 8	230	UDB-944420-BCS
UDB-944620	10000	1.40	4-13/16	1"	8-7/64	4-1/2	1 8	230	UDB-944620-BCS

Metric Forged Swivel Hoist Rings

**Metric Forged
Swivel Hoist Rings**

METRIC

METRIC FORGED SWIVEL HOIST RINGS

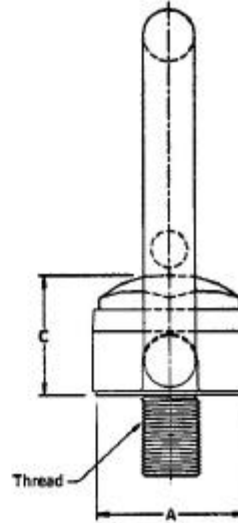
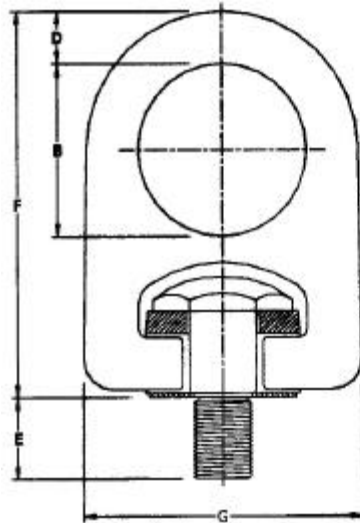
MATERIAL:
Alloy Certified Aircraft Quality

FINISH:
Phosphate per DOD-P-16232F
(Cadmium Plated Available)

SAFETY FACTOR:
5:1

INSPECTION:
Magnetic Particle Inspected

TREATMENT:
Certified Heat Treatment



Swivels 360 degrees — Pivots 180 degrees

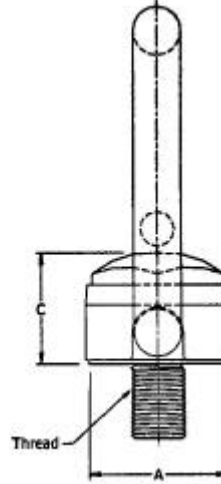
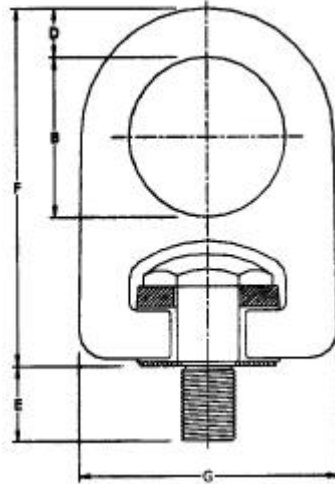
METRIC										
PART NO.	RATED LOAD	THREAD SIZE	A	B	C	D	E (MM)	F	G	TORQUE (Kgm)
UDB-956912	400	M8 x 1.25	1.23	1.40	1.16	0.44	15	3.29	2.38	0.86
UDB-956914	400	M8 x 1.25	1.23	1.40	1.16	0.44	20	3.29	2.38	0.86
UDB-956916	500	M10 x 1.50	1.23	1.40	1.16	0.44	15	3.29	2.38	1.5
UDB-956918	500	M10 x 1.50	1.23	1.40	1.16	0.44	25	3.29	2.38	1.5
UDB-956924	1,050	M12 x 1.75	2.10	2.40	1.97	0.75	25	5.60	4.05	3.7
UDB-956926	1,050	M12 x 1.75	2.10	2.40	1.97	0.75	35	5.60	4.05	3.7
UDB-956930	1,900	M16 x 2.00	2.10	2.40	1.97	0.75	25	5.60	4.05	8.4
UDB-956932	1,900	M16 x 2.00	2.10	2.40	1.97	0.75	35	5.60	4.05	8.4
UDB-956936	2,150	M20 x 2.50	2.10	2.40	1.97	0.75	25	5.60	4.05	14
UDB-956938	2,150	M20 x 2.50	2.10	2.40	1.97	0.75	40	5.60	4.05	14
UDB-956942	3,000	M20 x 2.50	2.80	3.20	2.62	1.00	30	7.48	5.40	14
UDB-956926	4,200	M24 x 3.00	2.80	3.20	2.62	1.00	30	7.48	5.40	34
UDB-956948	4,200	M24 x 3.00	2.80	3.20	2.62	1.00	40	7.48	5.40	34
UDB-956949	4,200	M30 x 3.50	2.80	3.20	2.62	1.00	40	7.48	5.40	60
UDB-956950	4,200	M30 x 3.50	2.80	3.20	2.62	1.00	50	7.48	5.40	60
UDB-956956	7,000	M30 x 3.50	3.50	4.00	3.28	1.25	50	9.35	6.75	60
UDB-956960	7,000	M33 x 3.50	3.50	4.00	3.28	1.25	55	9.35	6.75	80
UDB-956966	11,000	M36 x 4.00	3.50	4.00	3.28	1.25	65	9.35	6.75	100
UDB-956968	12,500	M42 x 4.50	3.50	4.00	3.28	1.25	85	9.35	6.75	100
UDB-956970	13,500	M48 x 5.00	3.50	4.00	3.28	1.25	85	9.35	6.75	100

Forged Swivel Hoist Rings

Forged Swivel Hoist Rings

FORGED SWIVEL HOIST RINGS

STANDARD



MATERIAL:
Alloy Certified Aircraft Quality

FINISH:
Phosphate per DOD-P-16232F
(Cadmium Plated Available)

SAFETY FACTOR:
5:1

INSPECTION:
Magnetic Particle Inspected

TREATMENT:
Certified Heat Treatment

Swivels 360 degrees — Pivots 180 degrees

STANDARD

PART NO.	RATED LOAD	THREAD SIZE	A	B	C	D	E	F	G	TORQUE Ft / Lbs
UDB-956100	600	1/4-20	1.23	1.40	1.16	0.44	0.50	3.29	2.38	5
UDB-956102	800	5/16-18	1.23	1.40	1.16	0.44	0.50	3.29	2.38	7
UDB-956104	800	5/16-18	1.23	1.40	1.16	0.44	1.00	3.29	2.38	7
UDB-956106	1,000	3/8-16	1.23	1.40	1.16	0.44	0.50	3.29	2.38	12
UDB-956107	1,000	3/8-16	1.23	1.40	1.16	0.44	1.00	3.29	2.38	12
UDB-956008	2,500	1/2-13	2.10	2.40	1.97	0.75	0.75	5.60	4.05	28
UDB-956010	2,500	1/2-13	2.10	2.40	1.97	0.75	1.00	5.60	4.05	28
UDB-956012	2,500	1/2-13	2.10	2.40	1.97	0.75	1.25	5.60	4.05	28
UDB-956002	4,000	5/8-11	2.10	2.40	1.97	0.75	0.75	5.60	4.05	60
UDB-956004	4,000	5/8-11	2.10	2.40	1.97	0.75	1.00	5.60	4.05	60
UDB-956006	4,000	5/8-11	2.10	2.40	1.97	0.75	1.25	5.60	4.05	60
UDB-956014	5,000	3/4-10	2.10	2.40	1.97	0.75	1.00	5.60	4.05	100
UDB-956018	5,000	3/4-10	2.10	2.40	1.97	0.75	1.50	5.60	4.05	100
UDB-956204	7,000	3/4-10	2.80	3.20	2.62	1.00	1.00	7.48	5.40	100
UDB-956203	7,000	3/4-10	2.80	3.20	2.62	1.00	1.25	7.48	5.40	100
UDB-956206	7,000	3/4-10	2.80	3.20	2.62	1.00	1.50	7.48	5.40	100
UDB-956202	8,000	7/8-9	2.80	3.20	2.62	1.00	1.50	7.48	5.40	160
UDB-956205	8,000	7/8-9	2.80	3.20	2.62	1.00	1.25	7.48	5.40	160
UDB-956210	10,000	1" -8	2.80	3.20	2.62	1.00	1.25	7.48	5.40	230
UDB-956212	10,000	1" -8	2.80	3.20	2.62	1.00	1.50	7.48	5.40	230
UDB-956214	10,000	1" -8	2.80	3.20	2.62	1.00	2.25	7.48	5.40	230
UDB-956802	15,000	1-1/4-7	3.50	3.50	4.00	3.28	2.00	9.35	6.75	470
UDB-956804	15,000	1-1/4-7	3.50	3.50	4.00	3.28	2.75	9.35	6.75	470
UDB-956702	20,000	1-3/8-6	3.50	3.50	4.00	3.28	2.75	9.35	6.75	540
UDB-956404	24,000	1-1/2-6	3.50	3.50	4.00	3.28	2.75	9.35	6.75	800
UDB-956400	30,000	2" -4-1/2	3.50	3.50	4.00	3.28	3.00	9.35	6.75	800

UNITED Street Plate Lifting System®

Street Plate Lifting System

STREET PLATE LIFTING RINGS

UNITED Street Plate Lifting Rings enable the fastest and safest handling of heavy steel plates commonly used to cover trenches and excavations in streets and roadways to facilitate traffic flow during construction or repair. Used by Utility and Construction Companies.

MATERIAL:
Alloy Material

FINISH:
Phosphate per DOD-P-16232F

Magnetic Particle Inspected

Certified Heat Treatment

200% Proof-Load Tested

Other Sizes Available

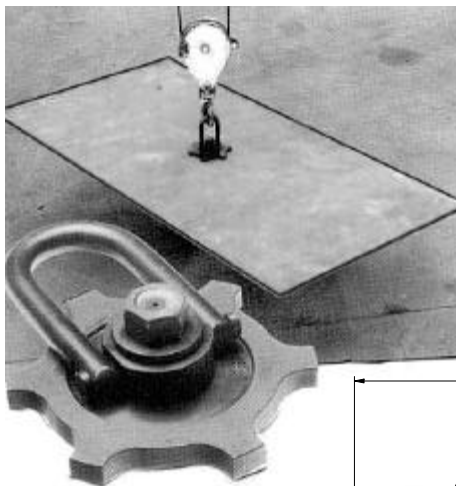
Swivels
360°

Pivots
180°

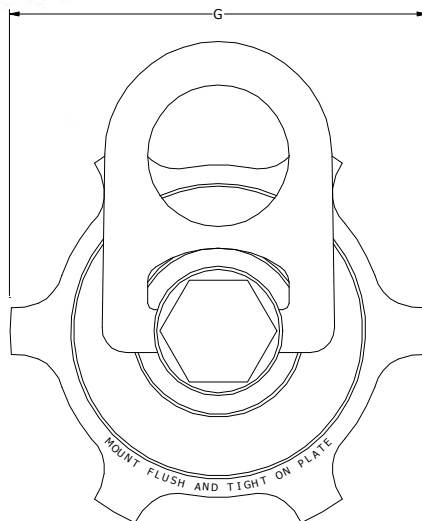


PATENT #6,161,883 & 6,161,884

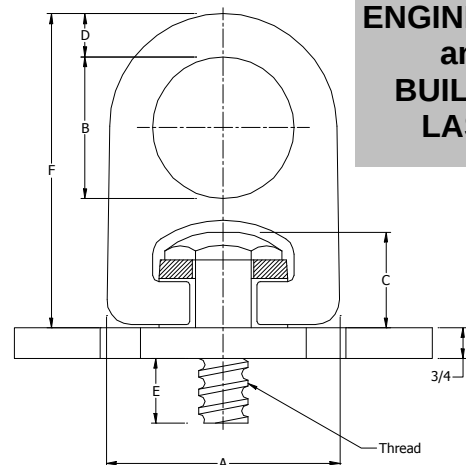
SAFETY FACTOR: 5:1



Forged Hoist Ring Kits
Available in most sizes.
Please call **UNITED**.



No tools required with Weld-In Nut!
Please see Page K12 for Plate Nuts and Accessories.



SAFETY ENGINEERED and BUILT TO LAST!



Part No.	Rated Load (lbs)	A	B	C	D	E	F	G	Thread Type	Thread Size	Torque Ft/Lbs
UDB-938215	10,000	5.40	3.20	2.62	1	1	7.48	7	Coil	1-1/4	230
UDB-938225	10,000	5.40	3.20	2.62	1	1-1/2	7.48	7	Coil	1-1/2	470
UDB-938865	15,000	6.75	4	3.28	1-1/4	1	9.35	9	Coil	1-1/4	230
UDB-938875	15,000	6.75	4	3.28	1-1/4	1-1/2	9.35	9	Coil	1-1/2	470

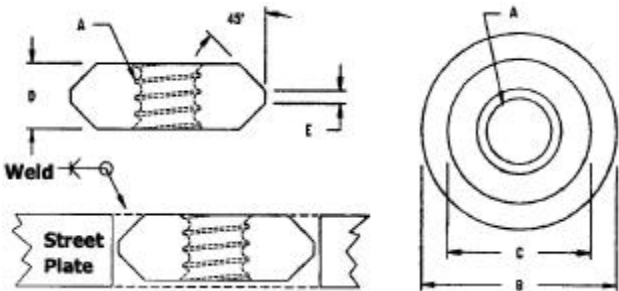
Street Plate Rings and Nuts

Street Plate Lifting Rings & Nuts

STREET PLATE NUTS



- Material: Alloy Material
- Finish: Phosphate per DOD-P-16232F
- Magnetic Particle Inspected
- Certified Heat Treatment
- Welding Rod-Alloy #7018



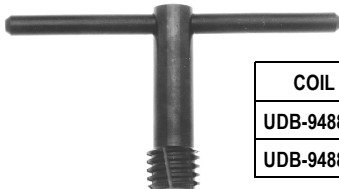
COIL THREADED ROD



- Used with nut for making special Coil, Acme, or UNC Bolts. 170,000 psi
- Available in any length up to 12' (4.0m) RC 38-42 Alloy Steel.

COIL	DIAMETER
UDB-948330	1/2 13mm
UDB-948340	3/4 19mm
UDB-948350	1" 25mm
UDB-948360	1-1/4 32mm
UDB-948370	1-1/2 38mm

THREAD CLEAN-OUT TOOL



COIL	DIAMETER
UDB-948842	1-1/4
UDB-948843	1-1/2

Used to clean out dirt or other foreign matter

WELDING FIXTURE



COIL	DIAMETER	LEG LEN.
UDB-948960	1-1/4	4-1/2"
UDB-948960-L	1-1/4 LONG	13"
UDB-948963	1-1/2	4-1/2"
UDB-948963-L	1-1/2 LONG	13"

Used to hold the nut in place (flush and perpendicular to the street plate surface) to ease in the tacking of the nut.

GO/NO GO GAUGE



COIL	DIAMETER
UDB-948956	1-1/4
UDB-948954	1-1/2

Used to determine when street plate nuts and studs need to be replaced.

WELDABLE PLATES



PART NO.	LENGTH	WIDTH	THICKNESS
UDB-948982A	12"	6"	1"

PART NO.	PLATE DIA.	I.D. DIA.	THICKNESS
UDB-948980	6-1/2"	3-1/8"	1"
UDB-948985	11"	3-1/8"	1"

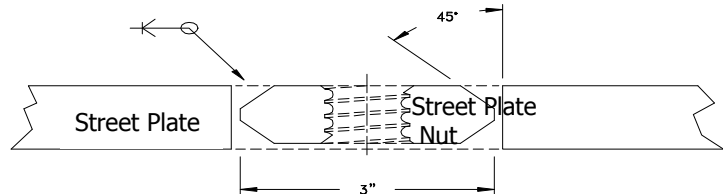
Used to replace the center section of street plates from prior usage (i.e. holes, slots, etc.) Eliminates the need to change the entire plate.

Part No.	Thread Type	Thread Size (A)	B	C	D
UDB-848801	Coil	1"-3.5	3	2-1/8	3/4
UDB-848802	Coil	1"-3.5	"	"	7/8
UDB-848803	Coil	1"-3.5	"	"	1
UDB-848812	Coil	1-1/4"-3.5	"	"	3/4
UDB-848815	Coil	1-1/4"-3.5	"	"	7/8
UDB-848822	Coil	1-1/4"-3.5	"	"	7/8
UDB-848816	Coil	1-1/4"-3.5	"	"	1-1/4
UDB-848817	Coil	1-1/4"-3.5	"	"	1-1/2
UDB-848804	Coil	1-1/2"-3.5	3-1/2	2-3/8	1
UDB-848806	Coil	1-1/2"-3.5	"	"	1-1/4
UDB-848856	Coil	1-1/2"-3.5	"	"	1-1/2

WELDING INSTRUCTION

- Street Plate Nut should have 1/8" clearance to trench plate (1/16" on each side).
- You may replace an old nut if all previous weld metal is removed.
- Use *UNITED* Welding Fixture to make sure threaded plate is flush and square with top surface of trench plate.
- Preheat the 12" to 14" diameter section of the plate around the hole to 450°-700°F. Do not preheat the nut.
- Weld using Lincoln Jet Weld #ED010558 LH 70 - E7018 or 7024 - 3/16 dia. rod or equivalent.
- Back-gouge root to sound metal.
- Weld second side.
- Grind weld on top surface flush.

*NOTE: After the nut has been welded to the plate, surfaces of the weld must be ground to the same surface level as the trench plate. This procedure allows the hoist ring to sit flush against the trench plate surface. Not doing so will cause the hoist ring not to sit properly and will lead to usage failure.

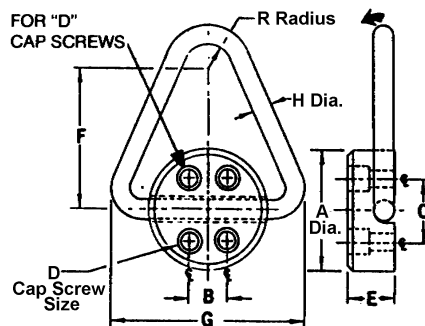


Maximum Safety

Hoist Rings and Swivel Snaps

LOW PROFILE HOIST RINGS

For proficient handling of tools. Provides maximum load capacity regardless of pull direction. Rings store flat using minimum space. Pivots 180° with two or four mounting holes. Does not swivel. Economical solid loop.

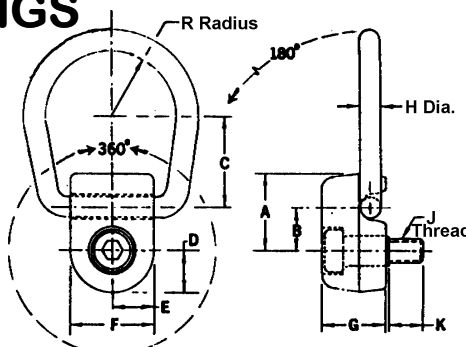


UNITED PART NO.	SAFE LOAD in Lbs.	A	B	C	CAP SCREW D	E	F	G	H	R	No. of MOUNT HOLES
UDB-20-HR	1600	1-3/4	-	1	5/16	3/4	2	2-1/2	5/16	1/2	2
UDB-25-HR	2000	2-1/4	-	1-1/8	3/8	7/8	2-1/2	3-3/16	3/8	5/8	2
UDB-50-HR	4000	2-5/8	-	1-1/2	1/2	1-1/8	3	3-7/8	1/2	3/4	2
UDB-120-HR	9600	3-1/8	1-1/4	1-5/8	1/2	1-3/8	4	5	3/4	7/8	4
UDB-200-HR	16000	3-5/8	1-1/4	2-1/16	5/8	1-7/8	5	6-3/16	1	1	4

4130 Black
MIL-C-13924A
Forged Assembly
Magnafluxed
See Page K3 for
Hoist Ring Clips.

SIDE PULL HOIST RINGS

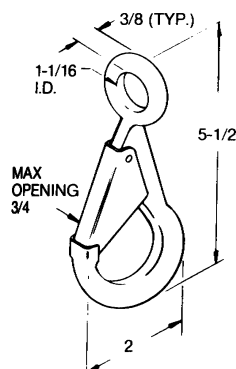
Rotates 360° and pivots 180° without unhooking. The large diameter solid construction ring allows use of most types of hooks. Base Block rotates in the direction of the applied load.



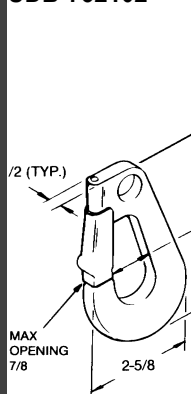
UNITED PART NO.	SAFE LOAD in Lbs.	A	B	C	CAP SCREW D	E	F	G	DIA. H	THD. J	K	R	INSTALLATION TORQUE FT-LBS.	REPLACEMENT SHOULDER SCREW
UDB-10-SHR	1000	1-1/8	5/8	1-1/2	5/8	5/8	1-1/4	13/16	5/16	3/8-16	5/8	13/16	7-10	UDB-10-SHRB
UDB-25-SHR	2500	1-5/8	7/8	1-7/8	7/8	7/8	1-3/4	1-1/4	7/16	5/8-11	7/8	1-1/8	42-50	UDB-25-SHRB
UDB-50-SHR	5000	2-3/16	1-1/8	2-3/4	1	1	2	1-11/16	5/8	3/4-10	1	1-3/8	70-80	UDB-50-SHRB
UDB-10M-SHR	1000	1-1/8	5/8	1-1/2	5/8	5/8	1-1/4	13/16	5/16	M10	.59	13/16	7-10	UDB-10M-SHRB
UDB-25M-SHR	2500	1-5/8	7/8	1-7/8	7/8	7/8	1-3/4	1-1/4	7/16	M16	.79	1-1/8	42-50	UDB-25M-SHRB
UDB-50M-SHR	5000	2-3/16	1-1/8	2-3/4	1	1	2	1-11/16	5/8	M20	.98	1-3/8	70-80	UDB-50M-SHRB

SWIVEL SNAPS

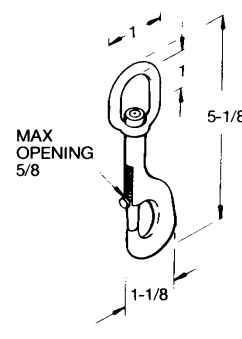
BALANCED SNAP
UDB-732104



TOUGH SNAP
UDB-732102



SWIVEL SNAP
UDB-732103



Eye Bolts Plain — Shoulder

Plain & Shoulder Eye Bolts

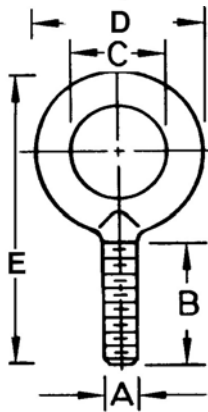
GRAIN SIZE: 5 OR FINER
YIELD: 30,000 PSI MIN
REDUCTION OF AREA: 60 % MIN

TENSILE: 65,000 PSI MIN
ELONGATION: 30% MIN

PLAIN EYE BOLTS



C-1030 to ASTM A489
ANSI / ASME B18.15



BENT TEST: NO VISIBLE RUPTURES IN UNTHREADED SECTION WHEN BENT TO 45° WITH COMPLETE THREAD ENGAGEMENT.

PLAIN STANDARD EYE BOLTS

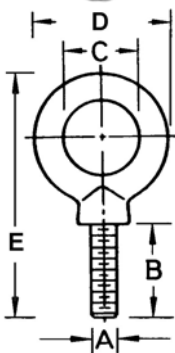
UNITED PART NO.	A THD UNC-2A	B SHANK LENGTH	C EYE I. D.	WT. (LB.) PER EA.	D O.D. EYE	E OAL	SAFE WORK LD.
UDB-702001	1/4 – 20	1"	3/4	0.06	1-3/16	2-1/4	500
UDB-702002	5/16 – 18	1-1/8	7/8	0.10	1-7/16	2-5/8	900
UDB-702003	3/8 – 16	1-1/4	1"	0.15	1-21/32	3"	1300
UDB-702004	7/16 – 14	1-3/8	1-1/16	0.21	1-27/32	1-11/16	1800
UDB-702005	1/2 – 13	1-1/2	1-3/16	0.30	2-1/16	3-9/16	2400
UDB-702006	9/16 – 12	1-5/8	1-9/32	0.55	2-9/32	4-1/16	3000
UDB-702007	5/8 – 11	1-3/4	1-3/8	0.61	2-1/2	4-1/4	4000
UDB-702008	3/4 – 10	2"	1-1/2	0.98	2-13/16	4-27/32	5000
UDB-702009	7/8 – 9	2-1/4	1-11/16	1.53	3-1/4	5-5/8	7000
UDB-702010	1 – 8	2-1/2	1-13/16	2.06	3-9/16	6-7/32	9000
UDB-702011	1-1/8 – 7	2-3/4	2"	2.96	4"	6-29/32	12000
UDB-702012	1-1/4 – 7	3"	2-3/16	4.11	4-7/16	7-9/16	15000
UDB-702014	1-1/2 – 6	3-1/2	2-9/16	6.73	5-3/16	8-7/8	21000

- ❶ Do not use Eye Bolts on angular lifts.
- ❷ Always apply Eye Bolt loads in the plane of the eye
- ❸ Seat Shoulder Eye Bolts firmly against material part.
- ❹ Do not exceed safe working load of rated capacity.
- ❺ Fit all Eye Bolts firmly and tightly in the hole and check them.
- ❻ Do not paint or coat Eye Bolts. Inspection is difficult.
- ❼ Engage full thread to obtain capacity rating.
- ❽ Add one half turn to align plane of Eye Bolt.

SHOULDER EYE BOLTS



C-1030 to ASTM A489
ANSI / ASME B18.15
MS 51937



THE ACTUAL LOAD A SINGLE EYE BOLT CAN LIFT IS REFERRED TO AS "RIGGERS LOAD."

ENGINEERS CAPACITY IS THE ALLOWABLE TENSION IN THE EYE OF THE LIFTING RIG AS IT IS APPLIED TO THE EYE BOLT. IT IS NECESSARY TO DETERMINE THE TENSION IN EACH RIG LEG BEFORE SIZING THE EYE BOLT.

SHOULDER EYE BOLTS

UNITED PART NO.	A THD UNC-2A	B SHANK LENGTH	C EYE I. D.	WT. (LB.) PER EA.	D O.D. EYE	E OAL	SAFE WORK LD.
UDB-702021	1/4 – 20	1"	3/4	0.06	1-3/16	2-1/2	500
UDB-702022	5/16 – 18	1-1/8	7/8	0.11	1-7/16	2-7/8	900
UDB-702023	3/8 – 16	1-1/4	1"	0.18	1-21/32	3-9/32	1300
UDB-702024	7/16 – 14	1-3/8	1-1/16	0.23	1-27/32	3-11/16	1800
UDB-702025	1/2 – 13	1-1/2	1-3/16	0.35	2-1/16	4-1/32	2400
UDB-702026	9/16 – 12	1-5/8	1-9/32	0.47	2-9/32	4-1/16	3000
UDB-702027	5/8 – 11	1-3/4	1-3/8	0.70	2-1/2	4-25/32	4000
UDB-702028	3/4 – 10	2"	1-1/2	1.10	2-13/16	5-3/8	5000
UDB-702029	7/8 – 9	2-1/4	1-11/16	1.70	3-1/4	6-1/8	7000
UDB-702030	1 – 8	2-1/2	1-13/16	2.36	3-9/16	6-13/16	9000
UDB-702031	1-1/8 – 7	2-3/4	2"	3.41	4"	7-9/16	12000
UDB-702032	1-1/4 – 7	3"	2-3/16	4.68	4-7/16	8-1/4	15000
UDB-702034	1-1/2 – 6	3-1/2	2-1/2	7.77	5-3/16	9-11/16	21000

Metric & Stainless Eye Bolts

Eye Bolts
Stainless — Metric

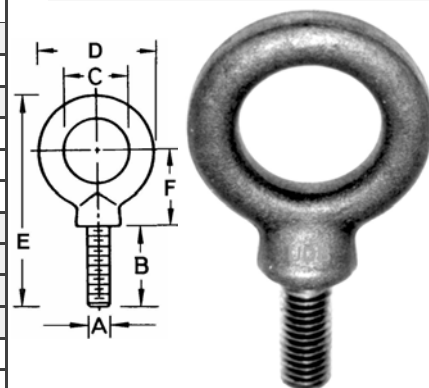
Forged – Carbon Steel – Self Colored – Shoulder Pattern
Metric – Dimensions in Millimeters – Weights in Kilograms

METRIC — FORGED CARBON STEEL SHOULDER EYE BOLTS

UNITED PART NO.	METRIC SIZE	INCH EQUIV.	A THD SIZE	B SHANK LENGTH	C I.D. EYE	D O.D. EYE	E OAL	F EYE CENTER TO SHOULDER	KG. WT. PER 100	RATED IN KGS.
UDB-714006M	M6	1/4	M6 x 1.0	25.4	19	30.0	60.3	18.5	4.7	210
UDB-714007M	M7	5/16	M7 x 1.0	28.5	22	36.5	71.4	23.2	9.0	370
UDB-714008M	M8	3/8	M8 x 1.25	31.7	25	43.0	82.5	27.8	15.2	500
UDB-714010M	M10	7/16	M10 x 1.5	35.0	27	46.0	90.5	30.9	23.0	740
UDB-714012M	M12	1/2	M12 x 1.75	38.0	30	54.0	100.8	34.0	33.0	1030
UDB-714014M	M14	9/16	M14 x 2.0	44.5	35	65.0	120.7	40.9	63.6	1600
UDB-714016M	M16	5/8	M16 x 2.0	44.5	35	65.0	120.7	40.9	67.0	1810
UDB-714018M	M18	3/4	M18 x 2.5	51.0	38	71.5	133.3	44.7	96.0	2140
UDB-714020M	M20	7/8	M20 x 2.5	57.0	41	81.0	152.4	52.5	155.0	2860
UDB-714024M	M24	1"	M24 x 3.0	63.5	44	90.4	168.3	57.1	211.0	3850
UDB-714027M	M27	1-1/8	M27 x 3.0	70.0	51	103.0	191.3	66.5	323.0	5200
UDB-714030M	M30	1-1/4	M30 x 3.5	76.0	55	112.7	208.8	72.7	422.0	6400

METRIC

SHOULDER EYE BOLTS

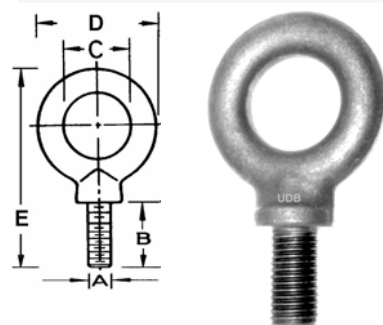


304 Stainless Steel Forged Eye Bolts – ANSI / ASME B 18.15

304 STAINLESS STEEL SHOULDER EYE BOLTS

UNITED PART NO.	A THD UNC-2A	B SHANK LENGTH	C I.D. EYE	D O.D. EYE	E OAL	WT. EA.	RATED IN LBS.
UDB-702023S	3/8 – 16	1.25	1.00	1-21/32	3-9/32	0.20	1160
UDB-702025S	1/2 – 13	1.50	1.18	2-1/16	4-1/32	0.42	2150
UDB-702027S	5/8 – 11	1.75	1.37	2-1/2	4-25/32	0.70	3440
UDB-702028S	3/4 – 10	2.00	1.50	2-13/16	5-3/8	1.08	5140
UDB-702030S	1 – 8	2.50	1.81	3-9/16	6-13/16	2.46	9370
UDB-702032S	1-1/4 – 7	3.00	2.18	4-7/16	8-1/4	4.87	14500

STAINLESS EYE BOLTS



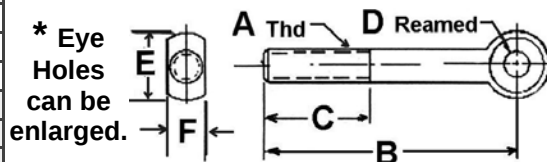
300 Series – Fully Machined Close Tolerances for Assembly

STAINLESS STEEL EYE BOLTS

PART NO.	A THD	B	C	D	E	F
UDB-832241	5/16 – 18	1.5	7/8	* 5/16	11/16	5/16
UDB-832243	3/8 – 16	3"	1-1/2	3/8	3/4	3/8
UDB-832244	3/8 – 16	4"	1-1/2	3/8	3/4	3/8
UDB-832324	1/2 – 13	4"	1-1/2	* 3/8	1"	1/2
UDB-832325	1/2 – 13	5"	1-1/2	* 3/8	1"	1/2
UDB-832326	1/2 – 13	6"	1-1/2	* 3/8	1"	1/2
UDB-832405	5/8 – 11	5"	1-3/4	5/8	1-1/4	5/8
UDB-832406	5/8 – 11	6"	1-3/4	5/8	1-1/4	5/8
UDB-832407	5/8 – 11	7"	1-3/4	5/8	1-1/4	5/8
UDB-832408	5/8 – 11	8"	1-3/4	5/8	1-1/4	5/8
UDB-832485	3/4 – 10	5"	1-3/4	3/4	1-1/2	3/4
UDB-832486	3/4 – 10	6"	1-3/4	3/4	1-1/2	3/4
UDB-832487	3/4 – 10	7"	1-3/4	3/4	1-1/2	3/4
UDB-832488	3/4 – 10	8"	1-3/4	3/4	1-1/2	3/4

STAINLESS STEEL FULL THREAD EYE BOLTS

PART NO.	A THD	B	C	D	E	F
UDB-832016	1/4 – 20	3"	2-1/4	1/4	1-3/16	1/4
UDB-832020	5/16 – 18	4"	3-1/4	5/16	1-7/16	5/16
UDB-832024	3/8 – 16	5"	4-1/4	3/8	3/4	3/8
UDB-832032	1/2 – 13	5"	4"	1/2	1"	1/2
UDB-832040	5/8 – 11	6"	5-1/4	5/8	1-1/4	5/8
UDB-832048	3/4 – 10	6"	5-1/8	3/4	1-1/2	3/4

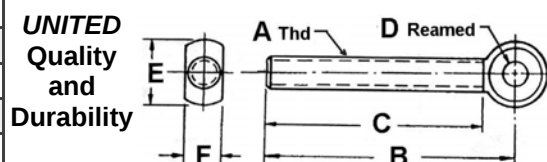


Extended thread length allows shortening
STAINLESS FULL THREAD LENGTH EYE BOLTS

Ideal for most applications



Can be shortened

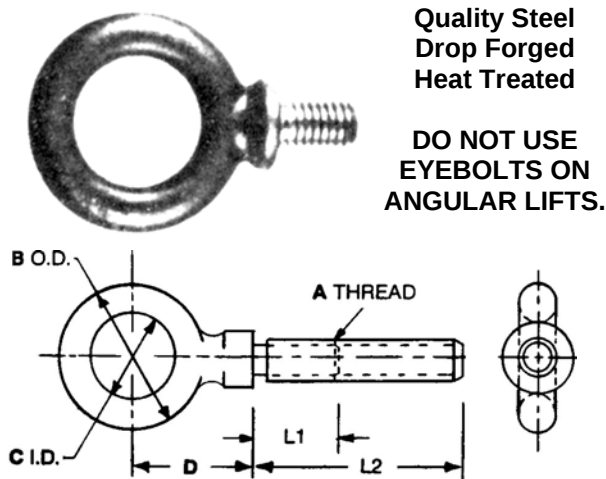


UNITED
Quality
and
Durability

Eye Bolts With Shoulder, Nut or Blank

Shoulder Eye Bolts With Shoulder, Nut and Blanks

SHOULDER EYE BOLTS



Quality Steel
Drop Forged
Heat Treated

**DO NOT USE
EYEBOLTS ON
ANGULAR LIFTS.**

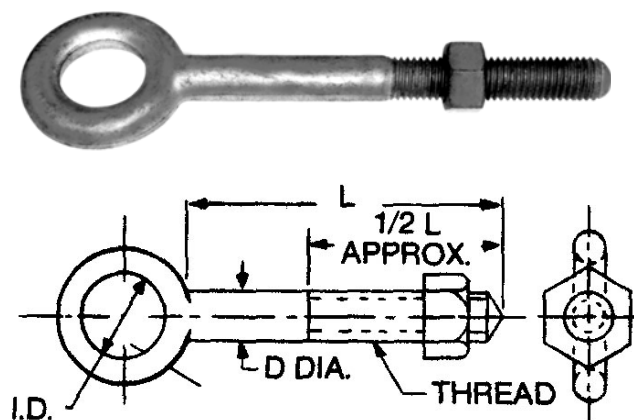
Do not grind, machine or undercut. Seat properly.
Do not exceed capacity of bolt or hole.
If elongated or damaged, replace immediately.

UNIFIED NATIONAL COARSE THREAD

SHOULDER EYE BOLTS						
UNITED PART NO.	A THD	B O.D.	C EYE I. D.	D	SHANK LENGTH	
					L1	L2
UDB-713405AS	5/16 – 18	1-7/16	7/8	1"	1-3/4	—
UDB-713406XS	3/8 – 16	1-21/32	1"	1-1/16	9/16	—
UDB-713406YS					—	15/16
UDB-713408XS	1/2 – 13	2-1/16	1-3/16	1-3/8	3/4	—
UDB-713408YS					—	1-1/4
UDB-713410XS	5/8 – 11	2-1/2	1-3/8	1-11/16	15/16	—
UDB-713410YS					—	1-9/16
UDB-713412XS	3/4 – 10	2-13/16	1-1/2	1-15/16	1-1/8	—
UDB-713412YS					—	1-7/8
UDB-713414XS	7/8 – 9	3-1/4	1-11/16	2-3/16	1-5/16	—
UDB-713414YS					—	2-3/16
UDB-713416XS	1 – 8	3-9/16	1-13/16	2-5/16	1-1/2	—
UDB-713416YS					—	2-1/2
UDB-713420XS	1-1/4 – 7	4-7/16	2-3/16	2-7/8	1-7/8	—
UDB-713420YS					—	3"

LARGE EYE BOLTS WITH NUT

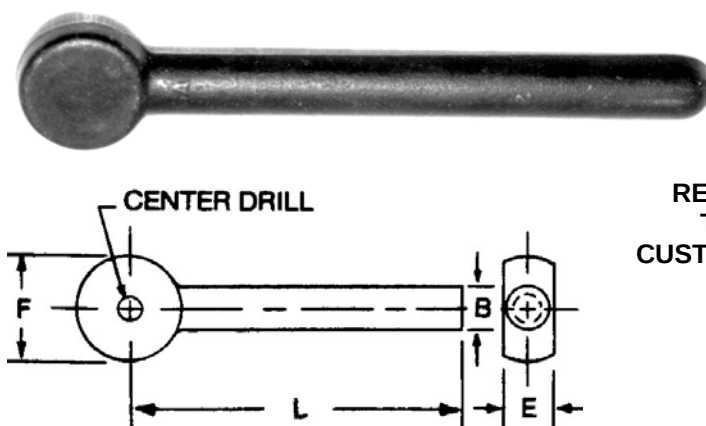
REGULAR and EXTRA LENGTH STYLES



LARGE EYE BOLTS WITH NUT						
UNITED PART NO.	D SHANK DIA	I.D.	THD NC-2	L REGULAR LENGTH	L EXTRA LENGTH	MAX SAFE WORK LOAD
UDB-713104	1/4	1/2	1/4 – 20	2	4	300
UDB-713105	5/16	5/8	5/16 – 18	2-1/4	4-1/4	500
UDB-713106	3/8	3/4	3/8 – 16	2-1/2	4-1/2	700
UDB-713108	1/2	1	1/2 – 13	3-1/4	6	1200
UDB-713110	5/8	1-1/4	5/8 – 11	4	6	2000
UDB-713112	3/4	1-1/2	3/4 – 10	4-1/2	6	2800
UDB-713114	7/8	1-3/4	7/8 – 9	5	8	3800
UDB-713116	1	2	1 – 8	6	9	5000

Add 'L' to Part Number for Extra Length Eyebolt.

EYE BOLT BLANKS



**READY
TO
CUSTOMIZE!**

EYE BOLT BLANKS				
UNITED PART NO.	B SHANK DIA.	E	F	L
UDB-713463	1/4	5/16	3/4	3-15/16
UDB-713489	1/4	5/16	3/4	5-9/16
UDB-713512	5/16	3/8	29/32	6
UDB-713563	5/16	3/8	29/32	3-15/16
UDB-713589	5/16	3/8	29/32	5-9/16
UDB-713612	3/8	7/16	31/32	6
UDB-713663	3/8	7/16	31/32	3-15/16
UDB-713689	3/8	7/16	31/32	5-9/16
UDB-713812	1/2	9/16	1-1/4	10
UDB-713863	1/2	9/16	1-1/4	3-15/16
UDB-713889	1/2	9/16	1-1/4	5-9/16

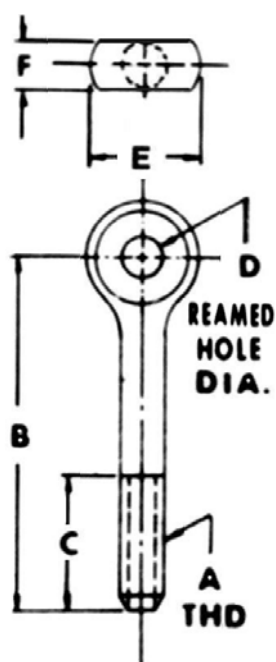
Plain & Metric Eye Bolts

Eye Bolts and Blank Rod Ends

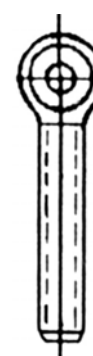
PART NO.	A	B	C	D	E	F
UDB-932400	1/4-20	2"	3/4	3/16	1/2	1/4
UDB-932402		3	1-1/4	3/16	1/2	1/4
UDB-932403		3	* FULL THD	3/16	1/2	1/4
UDB-932403A		4	3/4	3/16	1/2	1/4
UDB-932404	5/16-18	3	1-1/2	1/4	5/8	5/16
UDB-932406		4	2	1/4	5/8	5/16
UDB-932408		3	1-1/2	5/16	5/8	5/16
UDB-932410		4	2	5/16	5/8	5/16
UDB-932411	3/8-16	4	* FULL THD	5/16	5/8	5/16
UDB-932412		3	1-1/2	5/16	3/4	3/8
UDB-932414		5	2-1/2	5/16	3/4	3/8
UDB-932416		3	1-1/2	3/8	3/4	3/8
UDB-932416A	1/2-13	4	1-1/2	3/8	3/4	3/8
UDB-932417		3-3/4	2	3/8	3/4	3/8
UDB-932418		5	2-1/2	3/8	3/4	3/8
UDB-932419		5	* FULL THD	3/8	3/4	3/8
UDB-932420	5/8-11	3-3/4	1-1/2	3/8	1"	1/2
UDB-932422		5	2-1/2	3/8	1"	1/2
UDB-932424		3-3/4	1-1/2	3/8	1"	1/2
UDB-932426		5	2	3/8	1"	1/2
UDB-932427	3/4-10	5	* FULL THD	3/8	1"	1/2
UDB-932427A		6	1-1/2	3/8	1"	1/2
UDB-932428		4-1/2	2	5/8	1-1/4	5/8
UDB-932430		6	2-1/2	5/8	1-1/4	5/8
UDB-932431	1"-8	6	* FULL THD	5/8	1-1/4	5/8
UDB-932431A		7	1-3/4	5/8	1-1/4	5/8
UDB-932431B		8	1-3/4	5/8	1-1/4	5/8
UDB-932432		4-1/2	2	3/4	1-1/2	3/4
UDB-932434	1"-8	6	2-1/2	3/4	1-1/2	3/4
UDB-932435		6	* FULL THD	3/4	1-1/2	3/4
UDB-932436		7	1-3/4	5/8	1-1/2	3/4
UDB-932437		8	1-3/4	5/8	1-1/2	3/4
UDB-932438	1"-8	10"	* FULL THD	5/8	2"	1"
METRIC	A	B	C	D	E	F
UDB-932440	M6	50MM	40MM	6MM	12MM	6MM
UDB-932445	M6	75MM	66MM	6MM	12MM	6MM
UDB-932450	M8	75MM	65MM	8MM	16MM	8MM
UDB-932455	M8	100MM	90MM	8MM	16MM	8MM
UDB-932460	M10	75MM	60MM	10MM	20MM	10MM
UDB-932465	M10	100MM	85MM	10MM	20MM	10MM
UDB-932470	M10	125MM	110MM	10MM	20MM	10MM
UDB-932475	M12	100MM	85MM	12MM	24MM	12MM
UDB-932480	M12	125MM	110MM	12MM	24MM	12MM
UDB-932485	M16	115MM	95MM	16MM	32MM	16MM
UDB-932490	M16	150MM	130MM	16MM	32MM	16MM
UDB-932495	M20	150MM	125MM	20MM	40MM	20MM

For Safe and Sure Lifting

PLAIN EYE BOLTS



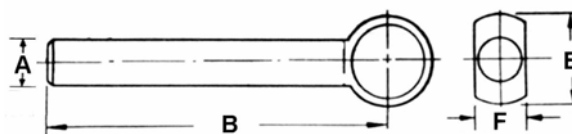
* With our Special Full Thread Length Eye Bolts, you can shorten the length without sacrificing adequate thread for your job.



UNITED Blank Rod Ends are fully machined to close dimension. They are not heat treated.

5140 ALLOY CARBON STEEL BLANK ROD ENDS

PART NO.	A	B	E	F
UDB-932500	1/4	3"	1/2	1/4
UDB-932502	1/4	5-1/4	1/2	1/4
UDB-932504	5/16	3	5/8	5/16
UDB-932506	5/16	6	5/8	5/16
UDB-932508	3/8	2-1/2	3/4	5/16
UDB-932510	3/8	4	3/4	5/16
UDB-932512	1/2	2-1/2	1"	3/8
UDB-932514	1/2	6	1"	3/8
UDB-932516	5/8	3	1-1/4	3/8
UDB-932518	5/8	6-1/2	1-1/4	3/8
UDB-932520	3/4	4-1/2	1-1/2	1/2
UDB-932522	3/4	5	1-1/2	1/2
UDB-932524	1"	4-1/2	2"	1/2



Center drilled on head for easy modification. Shank diameter is centerless ground.

302 STAINLESS STEEL BLANK ROD ENDS

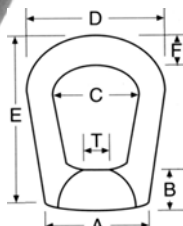
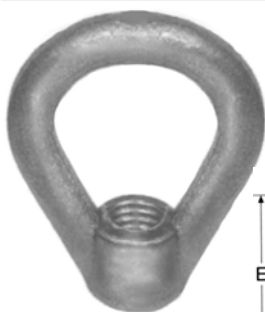
PART NO.	A	B	E	F
UDB-932530	3/8	3"	3/4	3/8
UDB-932532	1/2	6	1"	1/2
UDB-932534	5/8	6	1-1/4	5/8
UDB-932536	3/4	3-1/2	1-1/2	3/4
UDB-932538	3/4	6	1-1/2	3/4
UDB-932540	7/8	6	1-3/4	7/8
UDB-932542	1"	10	2"	1"



Eye Nuts, Lifting Bolts & Turnbuckles

Eye Nuts – Lifting Eye Bolts and Turnbuckles

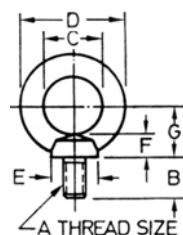
EYE NUTS



Heavy Duty Eye Nuts are self-colored and made of Forged Carbon Steel and heat treated. Hot galvanized is available on request.

PART NO.	T THD	A BELL	B THD LEN	C EYE INSIDE	D EYE OUTSIDE	E OAL LEN	F BALL	Wt. Per 100 Pcs	RATED
UDB-716037	3/8-16	7/8	5/8	1-1/4	2	2-1/2	3/8	22.0	2700
UDB-716050	1/2-13	7/8	5/8	1-1/4	2	2-1/2	3/8	19.5	2700
UDB-716062	5/8-11	1-3/8	3/4	1-1/2	2-1/2	3	1/2	60.0	5000
UDB-716075	3/4-10	1-3/8	3/4	1-1/2	2-1/2	3	1/2	56.0	5000
UDB-716087	7/8-9	1-9/16	1	2-1/4	4	5	7/8	174.1	10000
UDB-716100	1-8	1-9/16	1	2-1/4	4	5	7/8	167.2	10000

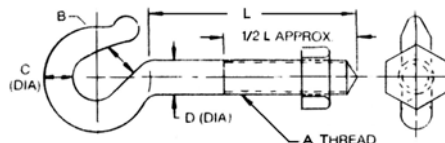
LIFTING EYE BOLTS



Universally used — Large shoulder for low line strength.

PART NO.	A	B	C	D	E	F	G	RATED
UDB-828000	1/4-20	9/16	7/8	1-1/4	9/16	5/16	11/16	100
UDB-828005	M8x1.25	9/16	7/8	1-1/4	9/16	5/16	11/16	100
UDB-828010	3/8-16	3/4	3/4	1-1/2	13/16	3/8	7/8	400
UDB-828015	M10x1.5	3/4	3/4	1-1/2	13/16	3/8	7/8	400
UDB-828020	1/2-13	7/8	1-3/16	2	1	7/16	1-1/8	1180
UDB-828025	M12x1.75	7/8	1-3/16	2	1	7/16	1-1/8	1180
UDB-828030	5/8-11	1-1/16	1-3/8	2-3/8	1-1/8	9/16	1-1/4	2800
UDB-828035	M16x2	1-1/16	1-3/8	2-3/8	1-1/8	9/16	1-1/4	2800
UDB-828040	3/4-10	1-3/16	1-1/2	2-5/8	1-3/8	3/4	1-5/16	5100
UDB-828045	M20x2.5	1-3/16	1-1/2	2-5/8	1-3/8	3/4	1-5/16	5100

HOOK BOLT WITH NUT



Excellent Support and Tension Hold Hook
ZINC PLATED – HOT ELECTRO-GALVANIZED FOR LINE ADJUSTMENT

C1030 THREADS UNC 2A AND 2B FORGED STEEL NORMALIZED – ASTM A688 LA 553

PART NO.	A THD NC-2	B	C DIA	D DIA	REGULAR LENGTH HOOK	EXTRA LENGTH HOOK ADD 'L' to Part No.
UDB-783204	1/4 – 20	7/16	9/32	1/4	2	—
UDB-783205	5/16 – 18	1/2	3/8	5/16	2-3/4	—
UDB-783206	3/8 – 16	9/16	7/16	3/8	2-1/2	4-1/2
UDB-783208	1/2 – 13	21/32	19/32	1/2	3-1/2	5-1/2

TURNBUCKLES

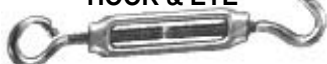
STANDARD PACK – 10 PIECES ELECTRO-GALVANIZED

MEETS FEDERAL SPECIFICATIONS
FF-T-791b, TYPE 1, FORM 1
Turnbuckles C1035 – Throat C1030
Thread UNC 2A & 2B – All Normalized
ASTM A668 CLASS 3

EYE & EYE



HOOK & EYE



HOOK & HOOK



CAST ALUMINUM	CAST IRON MALLEABLE	CAST ALUMINUM	CAST IRON MALLEABLE	CAST ALUMINUM	CAST IRON MALLEABLE	THREAD DIA.	DIM (IN.) OVERALL LENGTH CLOSED OPEN	
UDB-851149	UDB-851378	UDB-852146	UDB-852375	UDB-853143	UDB-853372	1/4-20	5-1/2	7-5/8
UDB-851170	UDB-851408	UDB-852177	UDB-852405	UDB-853174	UDB-853402	5/16-18	6-3/4	9-1/4
UDB-851200	UDB-851439	UDB-852207	UDB-852436	UDB-853204	UDB-853433	3/8-16	7-1/2	10-1/2
UDB-851231	UDB-851460	UDB-852238	UDB-852467	UDB-853235	UDB-853464	3/8-16	11-3/8	17-3/8

Metric & Std. Double Swivel Eye Bolts

Double Swivel Eye Bolts

DOUBLE SWIVEL EYE BOLTS



Smooth
Ball Bearing
Action!



Large Ring
for most all
hook sizes.



Optional STAR LUG

No wrenches required!
Spin the base down
flush and tap one of the
lugs to tighten.

Quick and Easy!

The MOLD HANDLER®
for Mold Handling the Safe and Simple Way!

Handle and position injection molds quickly and simply
with UNITED's answer — Mold Handler Double Swivel Eye Bolts
with ball bearings to provide smooth swiveling
and safer pivoting action.

Injection Molding positioning and handling
made faster, better and safer!

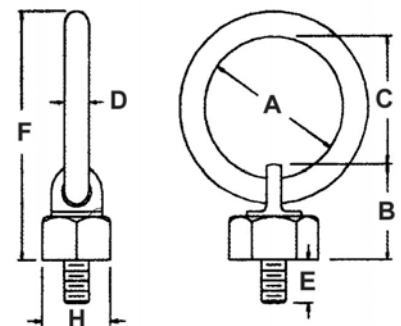
USA STANDARD INCH									
PART NO.	A	B	C	D	E	F	H	THD SIZE	RATED LOAD
UDB-942620EB	2	1.48	1.75	3/8	1/2	3.60	1	5/16 - 18	800 LBS.
UDB-942630EB	2	1.48	1.75	3/8	5/8	3.60	1	3/8 - 16	1,000 LBS.
UDB-942640EB	3	2.682	2.57	5/8	3/4	5.87	1-3/4	1/2 - 13	2,500 LBS.
UDB-942650EB	3	2.682	2.57	5/8	1	5.87	1-3/4	5/8 - 11	4,000 LBS.
UDB-942660EB	4	4.25	3.31	1	1-1/4	8.56	2-3/4	3/4 - 10	7,000 LBS.
UDB-942670EB	4	4.25	3.31	1	1-1/2	8.56	2-3/4	1 - 8	10,000 LBS.

The MOLD HANDLER® yields to the slightest touch.

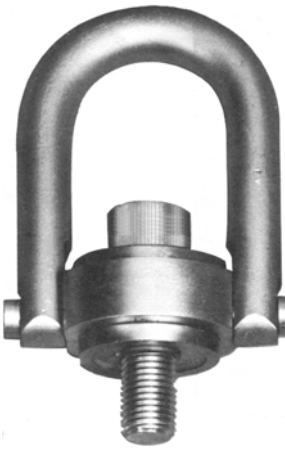
Full range 360° rotation provides accurate positioning.

Pivoting 180° allows easier access when laying down molds or rolling
them over to work on.

Large Ring for many sizes of hooks.
Rated to 10,000 lbs. in Standard and 4,200 lbs. in Metric sizes.



METRIC									
PART NO.	A	B	C	D	E	F	H	THD SIZE	RATED LOAD
UDB-942920EB	2	1.48	1.75	3/8	1/2	3.60	1	M8x1.25	400 LBS.
UDB-942930EB	2	1.48	1.75	3/8	5/8	3.60	1	M10x1.50	500 LBS.
UDB-942940EB	3	2.68	2.57	5/8	3/4	5.87	1-3/4	M12x1.75	1,050 LBS.
UDB-942950EB	3	2.68	2.57	5/8	1	5.87	1-3/4	M16x2.00	1,900 LBS.
UDB-942960EB	4	4.25	3.31	1	1-1/4	8.56	2-3/4	M20x2.50	2,150 LBS.
UDB-942970EB	4	4.25	3.31	1	1-1/2	8.56	2-3/4	M24x3.00	4,200 LBS.



United
United California Corporation
United Drill Bushing Corporation
United Screw Products Company

12200 Woodruff Ave. - Downey, CA 90241-5608
P.O. Box 4250 - Downey, CA 90241-1250
Ph: 562-803-1521 800-421-3466 in CA - 800-486-3466
Fax: 562-803-6898 - 800-486-3465
Email: united@ucc-udb.com Web: www.ucc-udb.com

Refer
to
Section K
In our
UNITED
CATALOG

Refer
to
Section K
On our
Website
www.ucc-udb.com



HOIST RING LIFTING DEVICES — SAFETY INFORMATION

United products are intended for use only by trained, qualified and experienced workmen. Misuse of any UDB product or lack of supervision and inspection can lead to serious accidents including death. United always stresses that safety is of utmost importance!

Prior to any use of United products evaluation of the product application, safety precautions, safe working load, and control of all field conditions are mandatory. Eliminate applications that exceed the safe working load or any other product misuse. United advises that all safety factors shown are approximate. Do not exceed safe working loads under any circumstances.

If you have any questions about the proper use or installation of any United product, please contact our office directly at **UNITED 12200 Woodruff Avenue, Downey, CA 90241 Phone: 1-800-486-3466 Email: united@ucc-udb.com**

Safety Notes:

United ensures that all materials used on all our products meet or exceed the safety requirements for lifting. The safe working loads listed are based upon a new or "as new" products. A safe working load is considered to be maximum allowable load that may be applied to an item at any time.

Inspection & Maintenance:

In order to ensure the safest lifting, all United products must be used and maintained in the proper manner provided. Hoist rings are subject to wear, corrosion, deformation, overloading, and other limiting factors which will affect the safe working load. Prior to use of any United product, the product should be regularly inspected to determine if it may be used or whether it should be removed from service. It is your responsibility to inspect all lifting units for signs of wear and to discard any parts showing visible signs of wear. Every user should establish a safety inspection program for routine visual inspection of all products to determine whether signs of wear (e.g. cracks, corrosion, deformation) are present. The product inspection schedule should be established based upon factors such as frequency of use, period of use and environment.

In addition to the regular safety inspection, the following *TEN SAFETY DIRECTIVES ARE MANDATORY!*

1. Prior to use, always inspect hoist rings for possible wear or damage. Do not use hoist rings that show any sign of wear or damage.
2. Do not use hoist rings if the bail is bent or elongated.
3. Prior to use, threads must be clean, undamaged, and must fit properly.
4. Always install hoist rings using the listed torque values. Periodically check torque and prevent loosening during extended service.
5. Bent bolts should be discarded. All bent bolts must be replaced. Failing to do so may lead to serious injuries or death.
6. Never use washers or any spacers between bushing and mounting surface.
7. Always make sure the hoist ring pivots and rotates in all directions freely before using.
8. Never use hoist rings near corrosive materials.
9. If hoist rings are exposed to extreme temperatures, please contact our engineering department for consultation and directions.
10. Never exceed any safe working loads.

If there are questions regarding the replacement or repair of worn United products, please contact our engineering department.

We repair and refurbish hoist rings. Advise us of your requirements.

Phone: 1-800-486-3466 Fax: 562-803-6898 Email: united@ucc-udb.com
Visit our *United* Website for details and complete Catalog at www.ucc-udb.com



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United Drill Bushing Corporation
United Screw Products Company

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Refer
to
Section K
In our
UNITED
CATALOG



Refer
to
Section K
On our
Website
www.ucc-udb.com



SIDE PULL HOIST RINGS — SAFETY PRECAUTIONS

**WARNING: PLEASE READ THE FOLLOWING
FOR HOIST RING PROPER INSTALLATION PRIOR TO USE.**

Regular inspection for wear and strict adherence to instructions is essential to prevent misuse failure.

CAUTION: Rated capacity is for STRAIGHT LIFTS. Angle lifts should be avoided. Load limits are reduced by as much as 75% on angle lifts!

Despite the 5:1 safety factor, **NEVER EXCEED THE RATED LOAD CAPACITY.** This safety margin is needed in case of misuse which could drastically lower load capacity.

Tighten mounting screws to torques recommended. Periodically check torque because screws could loosen in extended service.

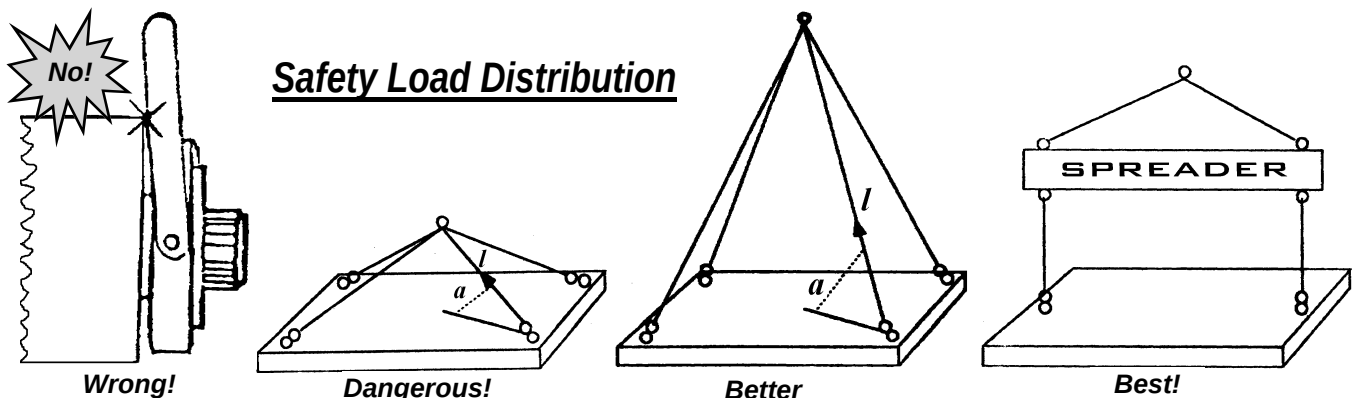
Tensile strength of parent material should be above 80,000 PSI to achieve full load rating. For weaker material, consider through-hole mounting with a nut and washer on the other side.

DO NOT APPLY SHOCK LOADS.

Always lift gradually. Repeat magnaflux testing if shock loading ever occurs.

CAUTION: Rated capacity is for STRAIGHT LIFTS. Angle lifts should be avoided. Load limits are reduced by as much as 75% on angle lifts!

Be safe and check to see that hoist ring pivots and rotates in all directions freely.



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FORGED SWIVEL HOIST RINGS — SAFETY PRECAUTIONS

WARNING: BEFORE USING ANY UNITED HOIST RINGS, PLEASE READ THE FOLLOWING FOR PROPER INSTALLATION AND USAGE.

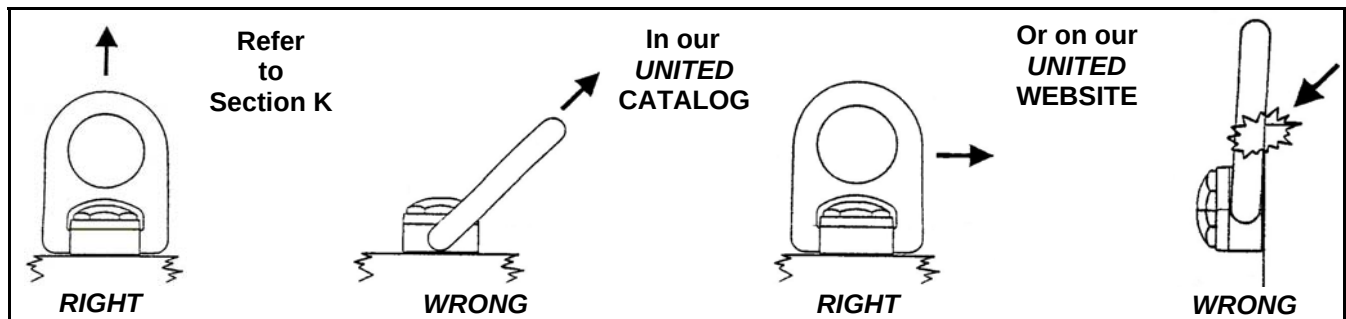
Regular inspection for wear and strict adherence to use instructions are necessary to prevent misuse failure and accidents.

Despite the 5:1 safety factor, **NEVER EXCEED THE RATED LOAD CAPACITY.** This safety margin is needed in case of misuse, which could drastically lower load capacity.

Tensile strength of parent material should be above 80,000 PSI to achieve full load rating. For weaker material, consider through-hole mounting with a nut and washer on the other side.

Tighten mounting screws to torque recommended. Periodically check torque because screws could loosen in extended service.

DO NOT APPLY SHOCK LOADS. Always lift gradually. Repeat magnaflux testing if shock loading ever occurs.



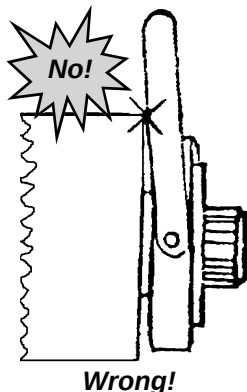
Important: The load on each hoist ring may not be the total weight divided by the number of hoist rings. The resultant forces can be significantly greater at shallow lift angles and with unevenly distributed loads. See examples A and B below.

FORMULA:
$$I = \frac{w}{n \sin a}$$

I = LIFT STRENGTH OF EACH HOIST RING
 w = WEIGHT TOTAL
 n = NUMBER OF HOIST RINGS
 a = ANGLE OF LIFT

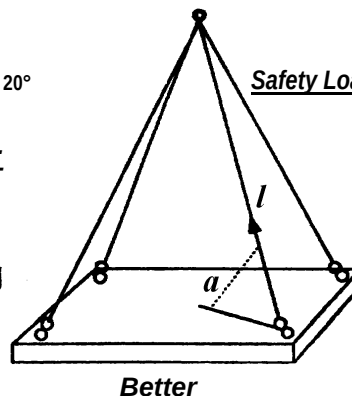
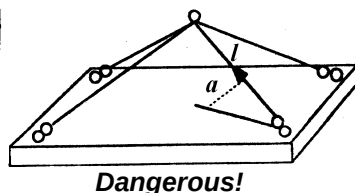
EXAMPLE B: $w = 2000 \text{ LBS.}, n = 4, a = 60^\circ$

$$I = \frac{2000}{4 \sin 60} = 577 \text{ LBS. EACH HOIST}$$

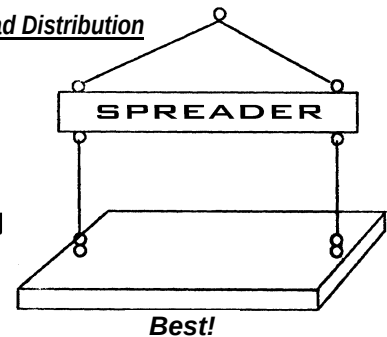


EXAMPLE A: $w = 2000 \text{ LBS.}, n = 4, a = 20^\circ$

$$I = \frac{2000}{4 \sin 20} = 1462 \text{ LBS. EACH HOIST}$$



Safety Load Distribution



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FORGED SWIVEL HOIST RINGS — SAFETY PRECAUTIONS

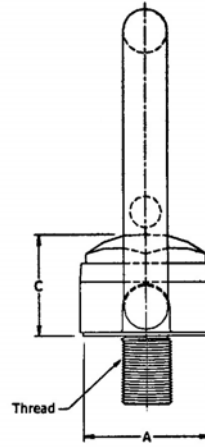
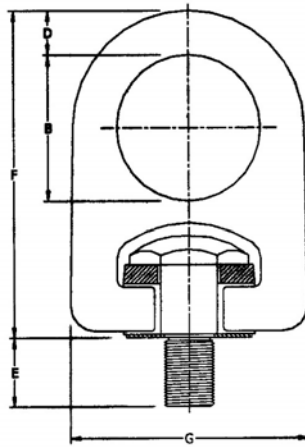
MATERIAL:
Alloy Certified Aircraft Quality

FINISH:
Phosphate per DOD-P-16232F
(Cadmium Plated Available)

SAFETY FACTOR:
5:1

INSPECTION:
Magnetic Particle Inspected

TREATMENT:
Certified Heat Treatment



**STANDARD
and
METRIC
SIZES AVAILABLE**

Swivels 360 degrees — Pivots 180 degrees

STANDARD SIZES

(For METRIC SIZES, see UNITED Catalog or Website page K9.)

PART NO.	RATED LOAD	THREAD SIZE	A	B	C	D	E	F	G	TORQUE Ft / Lbs
UDB-956100	600	1/4-20	1.23	1.40	1.16	0.44	0.50	3.29	2.38	5
UDB-956102	800	5/16-18	1.23	1.40	1.16	0.44	0.50	3.29	2.38	7
UDB-956104	800	5/16-18	1.23	1.40	1.16	0.44	1.00	3.29	2.38	7
UDB-956106	1,000	3/8-16	1.23	1.40	1.16	0.44	0.50	3.29	2.38	12
UDB-956107	1,000	3/8-16	1.23	1.40	1.16	0.44	1.00	3.29	2.38	12
UDB-956008	2,500	1/2-13	2.10	2.40	1.97	0.75	0.75	5.60	4.05	28
UDB-956010	2,500	1/2-13	2.10	2.40	1.97	0.75	1.00	5.60	4.05	28
UDB-956012	2,500	1/2-13	2.10	2.40	1.97	0.75	1.25	5.60	4.05	28
UDB-956002	4,000	5/8-11	2.10	2.40	1.97	0.75	0.75	5.60	4.05	60
UDB-956004	4,000	5/8-11	2.10	2.40	1.97	0.75	1.00	5.60	4.05	60
UDB-956006	4,000	3/4-10	2.10	2.40	1.97	0.75	1.25	5.60	4.05	60
UDB-956014	5,000	3/4-10	2.10	2.40	1.97	0.75	1.00	5.60	4.05	100
UDB-956018	5,000	3/4-10	2.10	2.40	1.97	0.75	1.50	5.60	4.05	100
UDB-956204	7,000	3/4-10	2.80	3.20	2.62	1.00	1.00	7.48	5.40	100
UDB-956203	7,000	3/4-10	2.80	3.20	2.62	1.00	1.25	7.48	5.40	100
UDB-956206	7,000	3/4-10	2.80	3.20	2.62	1.00	1.50	7.48	5.40	100
UDB-956202	8,000	7/8-9	2.80	3.20	2.62	1.00	1.50	7.48	5.40	160
UDB-956205	8,000	7/8-9	2.80	3.20	2.62	1.00	1.25	7.48	5.40	160
UDB-956210	10,000	1" -8	2.80	3.20	2.62	1.00	1.25	7.48	5.40	230
UDB-956212	10,000	1" -8	2.80	3.20	2.62	1.00	1.50	7.48	5.40	230
UDB-956214	10,000	1" -8	2.80	3.20	2.62	1.00	2.25	7.48	5.40	230
UDB-956802	15,000	1-1/4-7	3.50	3.50	4.00	3.28	2.00	9.35	6.75	470
UDB-956804	15,000	1-1/4-7	3.50	3.50	4.00	3.28	2.75	9.35	6.75	470
UDB-956702	20,000	1-3/8-6	3.50	3.50	4.00	3.28	2.75	9.35	6.75	540
UDB-956404	24,000	1-1/2-6	3.50	3.50	4.00	3.28	2.75	9.35	6.75	800
UDB-956400	30,000	2" -4-1/2	3.50	3.50	4.00	3.28	3.00	9.35	6.75	800

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