

HARRIS WALTON
CUSTOMISED LIFTING GEAR

The **UK's** No. 1 Manufacturer of Eyebolts & Associated Lifting Equipment



www.harriswaltonliftinggear.com

Two Woods Lane Brierley Hill, West Midlands, DY5 1RT Telephone: +44 (0)1384 74071 Fax: +44 (0)1304 74070

Eyebolts

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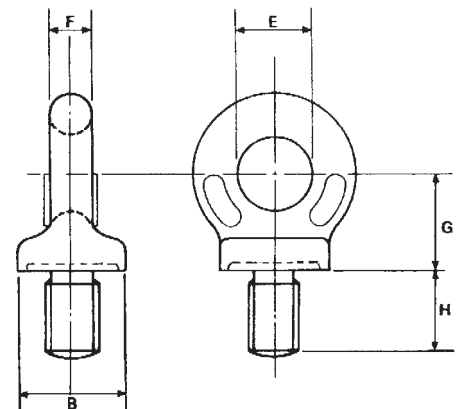
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COLLAR EYEBOLTS

BS 4278: TABLE 1 1984

HW 410 Coarse Threads

PART No.	SWL Tonnes	Thread Size	B mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW410/1	0.40	M12	22	15	9	20	18	0.07
HW410/2	0.80	M16	29	20	12	26	23	0.16
HW410/4	1.60	M20	40	27	16	36	32	0.44
HW410/6	2.50	M24	52	35	21	46	40	0.85
HW410/8	4.00	M30	65	44	26	58	51	1.66
HW410/10	6.30	M36	81	54	32	72	63	3.17
HW410/12A	10.00	M48	101	68	40	90	79	9.00
HW410/13	12.50	M52	115	76	46	102	89	9.00
HW410/14	16.00	M56	128	86	51	114	100	13.00
HW410/15	20.00	M64	144	96	58	128	112	17.50
HW410/16A	25.00	M72	162	108	65	144	126	31.00



**MATERIAL: AS SPECIFIED BY
BS 4278 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT**

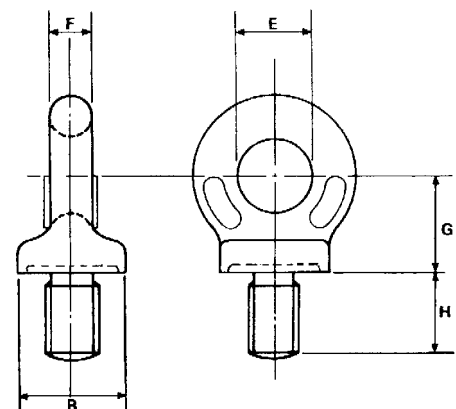
Other pitches available on application

STAINLESS STEEL GRADE 316 EYEBOLTS

BASED ON BS 4278 TABLE 1: 1984

HW 470 Coarse Pitch

PART No.	SWL Tonnes	Thread Size	B mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW470/0SS	0.15	M8	22	15	9	20	18	0.06
HW470/0ASS	0.25	M10	22	15	9	20	18	0.07
HW470/1SS	0.40	M12	22	15	9	20	18	0.07
HW470/2SS	0.80	M16	29	20	12	26	23	0.16
HW470/4SS	1.60	M20	52	35	21	46	40	0.75
HW470/5SS	1.60	M22	52	35	21	46	40	0.80
HW470/6SS	2.50	M24	52	35	21	46	40	0.84
HW470/8SS	4.00	M30	65	44	26	58	51	1.66
HW470/10SS	6.30	M36	81	54	32	72	63	3.17



Eyebolts under 12mm are not recommended for lifting.
Other diameters, thread forms and pitches available on application.

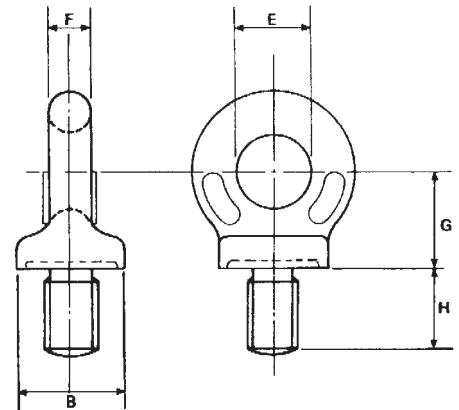
FOR LOADING AT ANGLES AND TRUNNION LIFTING SEE PAGE 6

COLLAR EYEBOLTS

BS 4278: TABLE 1 1968

HW 200 Coarse Threads

PART No.	SWL Tonnes	Thread Size	B mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW200/0*!	0.10	M6	22	15	9	20	18	0.06
HW200A/0*!	0.15	M8	22	15	9	20	18	0.06
HW200B/0A*!	0.25	M10	22	15	9	20	18	0.07
HW200/1A*	0.50	M14	29	20	12	26	23	0.15
HW200/3	1.00	M18	36	24	14	32	28	0.28
HW200/5	1.60	M22	45	30	18	40	35	0.56
HW200/7	2.50	M27	58	39	23	52	46	1.14
HW200/9	4.00	M33	72	48	29	64	56	2.24
HW200C/11§	6.30	M39	90	60	36	80	70	3.92
HW200H/11A*	8.00	M42	101	68	40	90	79	6.00
HW200/12	8.00	M45	101	68	40	90	79	6.00
HW200/16	20.00	M70	172	114	67	152	133	31.00
HW200/17	25.00	M76	172	114	67	152	133	31.00
HW200J/17A†	30.00	M80	172	114	67	152	133	31.00



**MATERIAL: AS SPECIFIED BY
BS 4278 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT.**

**SAFETY NOTE:
EYEBOLTS UNDER M12 ARE NOT
RECOMMENDED FOR LIFTING.**

Items marked * are non-standard thread sizes and are produced from the nearest larger size of BS 4278 Table 1 Forgings.

Items marked § are produced from BS 529 Part 1 1½" dia. Forgings.

Items marked † are produced from 76mm BS 4278 Table 1 Forgings.

Items marked ! are not recommended for lifting.

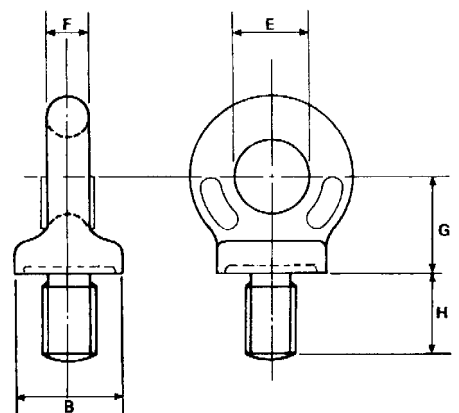
Other pitches are available on application.

COLLAR EYEBOLTS Produced from

BS 4278: TABLE 1 1984 FORGINGS

HW 99 BSP THREAD TO BS 2779: 1986

PART No.	SWL Tonnes	Thread Size	B mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW99/1	0.10	¼	29	20	12	26	23	0.14
HW99/2	0.25	⅜	36	24	14	32	28	0.38
HW99/3	0.50	½	45	30	18	40	35	0.60
HW99/4	1.40	¾	65	44	26	58	51	1.78
HW99/5	2.75	1	81	54	32	72	63	3.17



**MATERIAL: AS SPECIFIED BY
BS 4278 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT**

Larger and Intermediate sizes available on application

FOR LOADING AT ANGLES AND TRUNNION LIFTING SEE PAGE 6

Harris-Walton Lifting Gear Ltd.

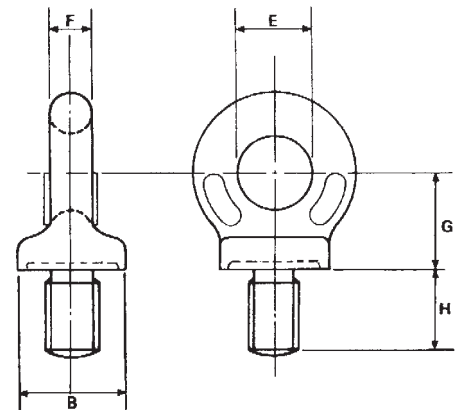
Two Woods Lane, Brierley Hill, West Midlands DY5 1TR. Telephone: 01384 74071 (10 Lines) Fax: 01384 74070

COLLAR EYEBOLTS (Imperial Threads)

BS 4278: 1984 Appendix 'A' TABLE 4

HW 440

PART No.	SWL Tonnes	Thread Size	B mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW440/1	0.25	$\frac{3}{8}$	22	15	9	20	18	0.08
HW440/2	0.50	$\frac{1}{2}$	29	20	12	26	23	0.14
HW440/3	0.90	$\frac{5}{8}$	36	24	14	32	28	0.38
HW440/4	1.40	$\frac{3}{4}$	45	30	18	40	35	0.60
HW440/5	2.00	$\frac{7}{8}$	52	35	21	46	40	0.78
HW440/6	2.75	1	58	39	23	52	46	1.67
HW440/7	3.50	$1\frac{1}{8}$	65	44	26	58	51	1.78
HW440/8	4.50	$1\frac{1}{4}$	72	48	29	64	56	2.24
HW440/9	6.50	$1\frac{1}{2}$	81	54	32	72	63	3.17
HW440/10	9.00	$1\frac{3}{4}$	101	68	40	90	79	6.00
HW440/11	12.00	2	115	76	46	102	89	9.00
HW440/12	15.00	$2\frac{1}{4}$	128	86	51	114	100	15.00
HW440/13	20.00	$2\frac{1}{2}$	144	96	58	128	112	18.20
HW440/14	30.00	3	172	114	67	153	133	30.40



**MATERIAL: AS SPECIFIED BY
BS 4278 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT**

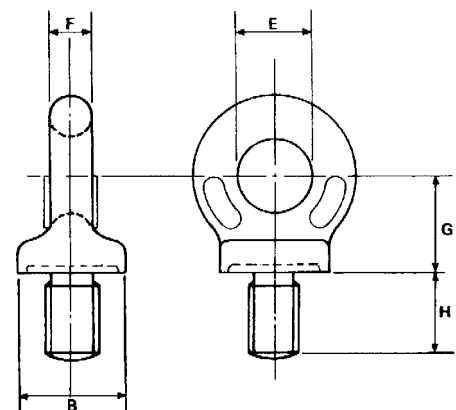
Supplied with Whitworth, UNC, BSF
and UNF Threads.

ALSO MANUFACTURED OUTSIDE BS 4278: 1984 Appendix 'A' TABLE 4

COLLAR EYEBOLTS

SWL Tonnes	Thread Size	B mm	E mm	F mm	G mm	H mm	Weight Each Kgs
0.10	$\frac{1}{4}$	22	15	9	20	18	0.06
0.15	$\frac{5}{16}$	22	15	9	20	18	0.06
0.375	$\frac{7}{16}$	29	20	12	26	23	0.07
0.70	$\frac{9}{16}$	36	24	14	32	28	0.15
1.00	$1\frac{1}{16}$	45	30	18	40	35	0.28

Manufactured in Whitworth, UNC, BSF and UNF Threads.



**MATERIAL: AS SPECIFIED BY
BS 4278 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT**

SAFETY NOTE:

**EYEBOLTS UNDER $\frac{3}{8}$ " DIA. ARE NOT RECOMMENDED FOR LIFTING.
FOR LOADING AT ANGLES AND TRUNNION LIFTING SEE PAGE 6**

EYEBOLTS WITH COLLARS

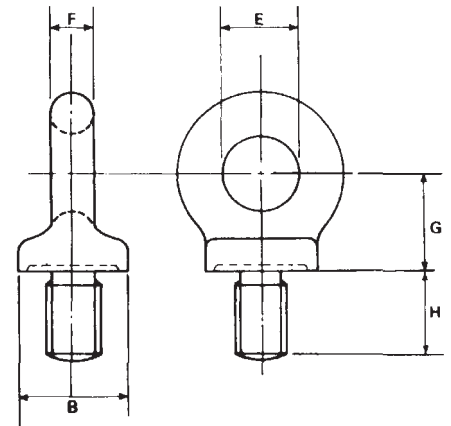
BS 529: PART 1 1944

HW 90

PART No.	SWL		Thread Dia.	B	E	F	G	H	Weight Each Kgs
	Tons	Cwts		ins	ins	ins	ins	ins	
HW90/4	1	8	$\frac{3}{4}$	$1\frac{11}{16}$	$1\frac{1}{8}$	$2\frac{1}{32}$	$1\frac{1}{2}$	$1\frac{5}{16}$	0.5
HW90/5	2	0	$\frac{7}{8}$	$1\frac{31}{32}$	$1\frac{5}{16}$	$2\frac{5}{32}$	$1\frac{3}{4}$	$1\frac{17}{32}$	0.6
HW90/6	2	15	1	$2\frac{1}{4}$	$1\frac{1}{2}$	$\frac{7}{8}$	2	$1\frac{3}{4}$	1.1

MATERIAL: AS SPECIFIED BY BS 529
HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL) ANGLE OF LIFT

Supplied with Whitworth Threads.
 UNC, BSF, UNF and special threads also available.

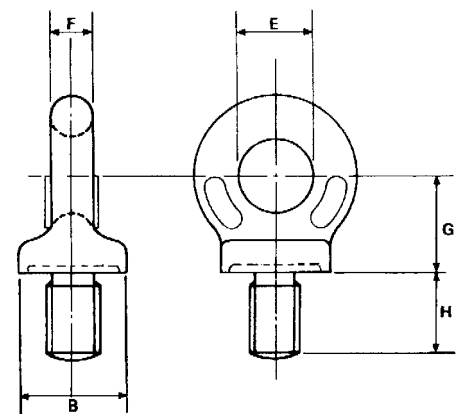


COLLAR EYEBOLTS 8UN Thread

Based on BS 4278 Table 4 Appendix 'A': 1984

PART No.	SWL	Thread Size	B	E	F	G	H	Weight Each Kgs
	Tonnes		mm	mm	mm	mm	mm	
HW90A/6UN	3.50	$1\frac{1}{8}$	65	44	26	58	51	1.78
HW90D/7UN	4.50	$1\frac{1}{4}$	72	48	29	64	56	2.24
HW90L/7AUN	5.50	$1\frac{3}{8}$	81	54	32	72	63	3.17
HW90J/8UN	5.00*	$1\frac{1}{2}$	81	54	32	72	63	3.17
HW90N/9UN	9.00	$1\frac{3}{4}$	101	68	40	90	79	6.00
HW90M/11UN	12.00	2	115	76	46	102	89	9.00

* SWL can be uprated to 6.5 tonne.
 Larger and Intermediate sizes available on application.



MATERIAL: AS SPECIFIED BY BS 4278 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL) ANGLE OF LIFT

FOR LOADING AT ANGLES AND TRUNNION LIFTING SEE PAGE 6

EYEBOLTS WITH COLLARS (Imperial Threads)

LONG SHANKS TO BS 529: PART 1 1944

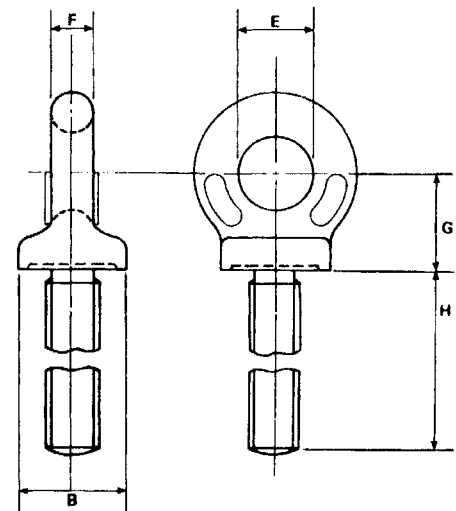
HW 91

PART No.	SWL	Thread Dia.	B ins	E ins	F ins	G ins	H ins	Weight Each Kgs
HW91/1*	250Kgs	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{9}{16}$	$\frac{3}{8}$	$\frac{3}{4}$	7	0.2
HW91/2	500Kgs	$\frac{1}{2}$	$1\frac{1}{8}$	$\frac{3}{4}$	$\frac{7}{16}$	1	7	0.2
HW91/3	900Kgs	$\frac{5}{8}$	$1\frac{13}{32}$	$\frac{15}{16}$	$\frac{9}{16}$	$1\frac{1}{4}$	7	0.5
HW91/4	1.4t	$\frac{3}{4}$	$1\frac{11}{16}$	$1\frac{1}{8}$	$\frac{21}{32}$	$1\frac{1}{2}$	7	0.8
HW91/5	2t	$\frac{7}{8}$	$1\frac{31}{32}$	$1\frac{5}{16}$	$\frac{25}{32}$	$1\frac{3}{4}$	7	1.0
HW91/6	2.75t	1	$2\frac{1}{4}$	$1\frac{1}{2}$	$\frac{7}{8}$	2	7	1.5
HW91/7	3.5t	$1\frac{1}{8}$	$2\frac{13}{16}$	$1\frac{7}{8}$	$1\frac{3}{32}$	$2\frac{1}{2}$	7	2.0
HW91/8	4.5t	$1\frac{1}{4}$	$2\frac{13}{16}$	$1\frac{7}{8}$	$1\frac{3}{32}$	$2\frac{1}{2}$	7	2.9

* Produced from 12mm Long Shank BS 4278 Table 1: 1984 Forgings.

Supplied in Whitworth or UNC Threads.

Also available with BSF and UNF Threads



**MATERIAL: AS SPECIFIED IN
BS 529 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT**

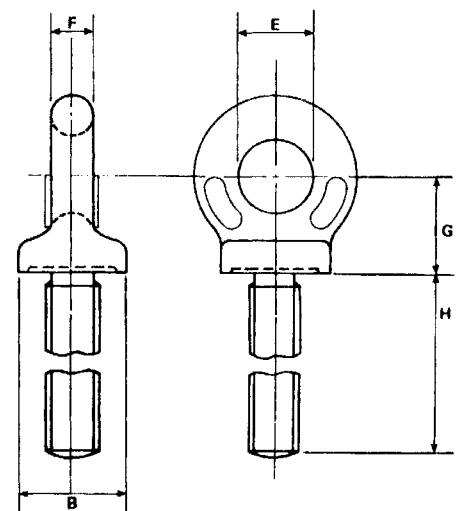
EYEBOLTS WITH COLLARS

LONG SHANKS PRODUCED FROM BS 529:

PART 1 1944 Forgings HW 91M

PART No.	SWL Tonnes	Thread Size	B mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW91M/1*	0.25	M10	22	15	9	20	178	0.2
HW91M/2	0.40	M12	28	19	11	25	178	0.2
HW91M/3A	0.50	M14	36	24	14	32	178	0.5
HW91M/3	0.80	M16	36	24	14	32	178	0.5
HW91M/4A	1.00	M18	43	29	17	38	178	0.8
HW91M/4	1.60	M20	43	29	17	38	178	0.8
HW91M/5	1.60	M22	50	33	20	44	178	1.0
HW91M/6	2.50	M24	57	38	22	51	178	1.5
HW91M/6A	2.50	M27	71	48	28	63	178	2.0
HW91M/7	4.00	M30	71	48	28	63	178	2.9

* Produced from 12mm Long Shank BS 4278 Table 1: 1984 Forgings



**MATERIAL: AS SPECIFIED IN
BS 529 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT**

SIZES UNDER 12mm except $\frac{3}{8}$ " ARE NOT RECOMMENDED FOR LIFTING.

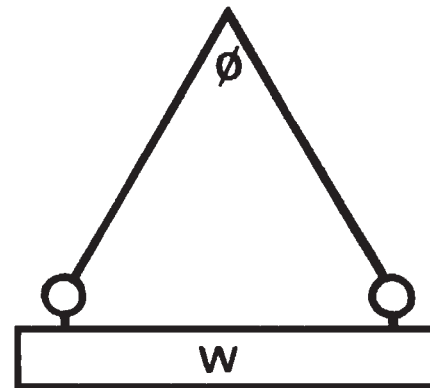
FOR LOADING AT ANGLES AND TRUNNION LIFTING SEE PAGE 6

HW 90, 91, 91M, 99, 200, 410, 440, 470



MAXIMUM RECOMMENDED WORKING LOADS FOR BRITISH STANDARD EYEBOLTS (IMPERIAL AND METRIC THREADS) WHEN USED IN PAIRS FOR INCLINED LOADING CONDITIONS.

SAFE WORKING LOAD FOR A SINGLE EYEBOLT IN VERTICAL LIFT	MAXIMUM LOAD 'W' TO BE LIFTED BY A PAIR OF EYEBOLTS WHEN THE ANGLE Ø BETWEEN THE LEGS IS		
	0°<Ø>30°	30°<Ø>60°	60°<Ø>90°
TONNES	TONNES	TONNES	TONNES
0.25	0.32	0.20	0.13
0.40	0.50	0.32	0.20
0.50	0.63	0.40	0.25
0.80	1.00	0.64	0.40
0.90	1.13	0.72	0.45
1.00	1.30	0.80	0.50
1.25	1.60	1.00	0.63
1.40	1.76	1.12	0.70
1.60	2.00	1.25	0.80
2.00	2.50	1.60	1.00
2.50	3.20	2.00	1.25
2.75	3.47	2.20	1.38
3.20	4.00	2.50	1.60
3.50	4.41	2.80	1.75
4.00	5.00	3.20	2.00
4.50	5.67	3.60	2.25
5.00	6.30	4.00	2.50
6.30	8.00	5.00	3.20
6.50	8.19	5.20	3.25
8.00	10.00	6.30	4.00
9.00	11.34	7.20	4.50
10.00	12.50	8.00	5.00
12.00	15.12	9.60	6.00
12.50	16.00	10.00	6.30
15.00	18.90	12.00	7.50
16.00	20.00	12.50	8.00
20.00	25.20	16.00	10.00
25.00	32.00	20.00	12.50
30.00	37.80	24.00	15.00



FOR TRUNNION LIFTING

The load taken by a single eyebolt should not exceed 25% of its marked SWL.

DYNAMO EYEBOLTS METRIC THREADS

GENERALLY TO BS 4278 TABLE 3 1968

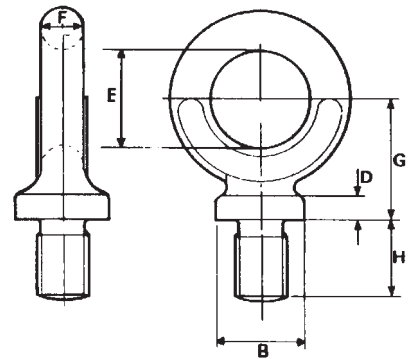
HW 203 Coarse Thread

PART No.	SWL Tonnes	Thread Size	B mm	D mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW203A/0*	0.10	M6	17	5	22	9	27	18	0.07
HW203B/0A*	0.15	M8	17	5	22	9	27	18	0.08
HW203C/0B*	0.25	M10	17	5	22	9	27	18	0.08
HW203/1	0.32	M12	17	5	22	9	27	18	0.08
HW203G/3 ¹	1.00	M18	32	9	40	15	47	32	0.40
HW203/5	1.60	M22	35	10	44	17	53	35	0.60
HW203/7 ²	2.50	M27	51	14	64	24	76	51	1.78
HW203/8	3.20	M30	51	14	64	24	76	51	1.78

* Outside BS Range produced from 12mm Forgings.

¹ Produced from 20mm Forgings.

² Produced from 30mm Forgings.



**MATERIAL: AS SPECIFIED BY
BS 4278 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT.**

**NOT TO BE USED FOR
INCLINED LIFT**

SIZES UNDER 12mm ARE NOT RECOMMENDED FOR LIFTING.



**BS EN ISO 9001:2000
Registration No. Q 05597**

DYNAMO EYEBOLTS IMPERIAL THREADS

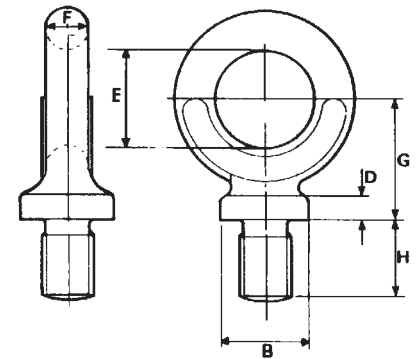
BS 4278 APPENDIX A TABLE 6 1984

HW 460

PART No.	SWL Tonnes	Thread Size	B mm	D mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW460/1	0.25	$\frac{3}{8}$	17	5	22	9	27	18	0.08
HW460/4	0.50	$\frac{1}{2}$	23	6	29	11	34	23	0.14
HW460/6	1.25	$\frac{3}{4}$	32	9	40	15	47	32	0.40
HW460/8	2.00	1	40	12	51	19	60	40	0.78
HW460/10	3.20	$1\frac{1}{4}$	51	14	64	24	75	51	1.78

Supplied with Whitworth Threads.

UNC Threads and other thread forms available on application.



**MATERIAL: AS SPECIFIED BY
BS 4278 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT.**

**NOT TO BE USED FOR
INCLINED LIFT**

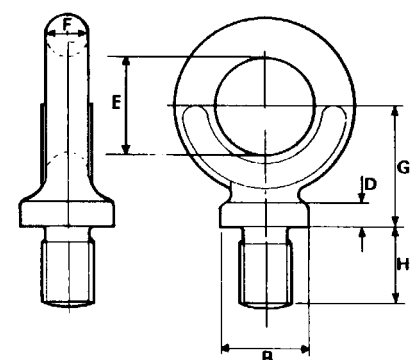
DYNAMO EYEBOLTS METRIC THREADS

BS 4278 TABLE 3 1984

HW 430 Coarse Thread

PART No.	SWL Tonnes	Thread Size	B mm	D mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW430/2	0.63	M16	23	6	29	11	34	23	0.14
HW430/4	1.25	M20	32	9	40	15	47	32	0.40
HW430/6	2.00	M24	40	12	51	19	60	40	0.78

Alternative pitches available on request.



**MATERIAL: AS SPECIFIED IN
BS 4278 HARDENED & TEMPERED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT.**

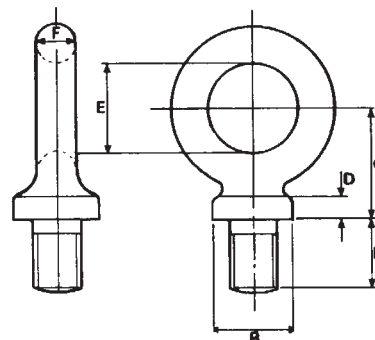
**NOT TO BE USED FOR
INCLINED LIFT**

DYNAMO EYEBOLTS SHORT SHANK (TESTED)

STANDARD COMMERCIAL PATTERN

HW 92T

PART No.	SWL	Thread Dia.	B	D	E	F	G	H	Weight Each Kgs
		ins	mm	mm	mm	mm	mm	mm	
HW92T/1	100Kgs	1/4	19	6	22	9	27	19	0.08
HW92T/2	150Kgs	5/16	19	6	22	9	27	19	0.08
HW92T/3	250Kgs	3/8	19	6	22	9	27	19	0.08
HW92T/4	500Kgs	1/2	25	8	28	9	35	25	0.14
HW92T/5	800Kgs	5/8	28	9	32	13	41	28	0.24
HW92T/6	1.2t	3/4	32	9	40	15	47	32	0.40
HW92T/7	1.6t	7/8	35	10	44	17	53	35	0.62
HW92T/8	2.2t	1	40	12	51	19	60	40	0.80
HW92T/9	2.8t	1 1/8	51	14	64	24	76	51	1.76
HW92T/10	3.5t	1 1/4	51	14	64	24	76	51	1.70
HW92T/11	4.5t	1 3/8	57	17	76	28	89	57	2.60
HW92T/12	5t	1 1/2	57	17	76	28	89	57	2.65

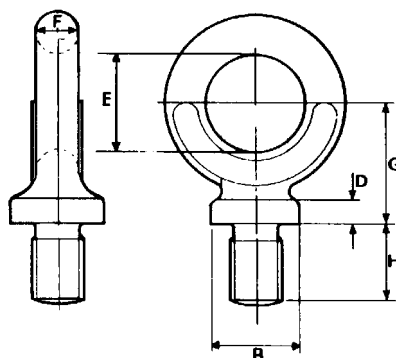


MATERIAL:
H.T. STEEL NORMALISED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT.
NOT TO BE USED FOR INCLINED
LIFT.

Supplied with Whitworth Threads.
UNC, BSF and UNF Threads also available.

HW 92MT and 203 METRIC Coarse Thread

PART No.	SWL	Thread Dia.	B	D	E	F	G	H	Weight Each Kgs
			mm	mm	mm	mm	mm	mm	
HW92MT/4	320Kgs	M12	25	8	28	9	35	25	0.14
HW203F/1A	500Kgs	M14	28.5	9.5	32	13	41	28.5	0.24
HW92MT/5	630Kgs	M16	28	9	32	13	41	28	0.24
HW203E/10	5t	M36	57	17	76	28.5	89	57	2.65



MATERIAL:
H.T. STEEL NORMALISED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT.
NOT TO BE USED FOR INCLINED
LIFT.

Other pitches available on application

AT OUR DISCRETION THESE MAY BE PRODUCED FROM BS 4278 TABLE 3 FORGINGS.

DYNAMO EYEBOLTS LONG SHANK (TESTED)

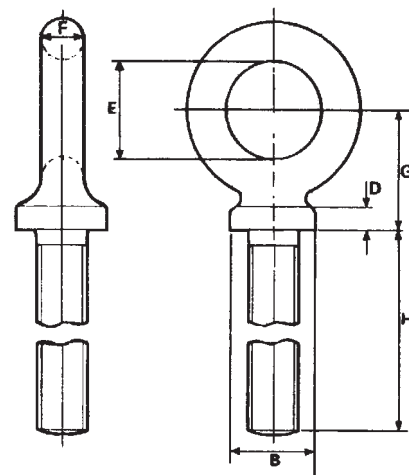
STANDARD COMMERCIAL PATTERN

HW 93T

PART No.	SWL	Thread Dia.	B ins	D ins	E ins	F ins	G ins	H ins	Weight Each Kgs
HW93T/3	250Kgs	$\frac{3}{8}$	$\frac{3}{4}$	$\frac{1}{4}$	$\frac{7}{8}$	$\frac{3}{8}$	$1\frac{1}{16}$	4	0.1
HW93T/4	500Kgs	$\frac{1}{2}$	1	$\frac{5}{16}$	$1\frac{1}{8}$	$\frac{3}{8}$	$1\frac{3}{8}$	4	0.3
HW93T/5	800Kgs	$\frac{5}{8}$	$1\frac{1}{8}$	$\frac{3}{8}$	$1\frac{1}{4}$	$\frac{1}{2}$	$1\frac{5}{8}$	$4\frac{1}{2}$	0.3
HW93T/6	1.2t	$\frac{3}{4}$	$1\frac{3}{8}$	$\frac{7}{16}$	$1\frac{5}{8}$	$\frac{5}{8}$	$2\frac{1}{8}$	5	0.7
HW93T/8	2.8t	1	$1\frac{5}{8}$	$\frac{1}{2}$	2	$\frac{3}{4}$	$2\frac{1}{2}$	5	1.1

Available in BSW and UNC Threads.

Other sizes and thread forms available on application.



MATERIAL:
H.T. STEEL NORMALISED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT.

**NOT TO BE USED FOR INCLINED
LIFT.**

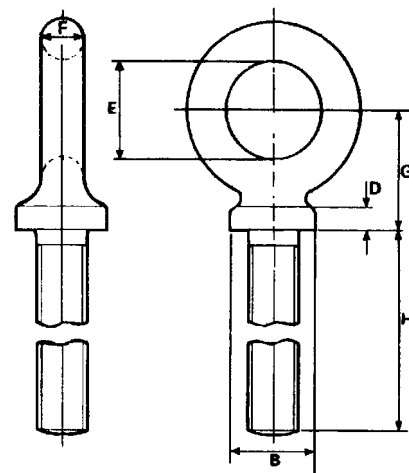
DYNAMO EYEBOLTS LONG SHANK (TESTED)

STANDARD COMMERCIAL PATTERN

HW 93MT

PART No.	SWL	Thread Dia.	B mm	D mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW93MT/3	250Kgs	M10	19	6	22	9.5	27	101	0.1
HW93MT/4	320Kgs	M12	25	8	28.5	9.5	35	101	0.3
HW93MT/5	630Kgs	M16	28.5	9.5	32	13	41	114	0.3
HW93MT/6	1.25t	M20	35	11	41	16	54	127	0.7
HW93MT/8	2t	M24	41	13	51	19	63.5	127	1.1

Other sizes available on application.



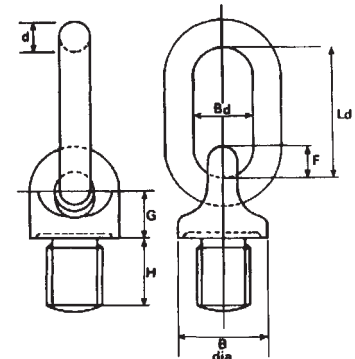
MATERIAL:
H.T. STEEL NORMALISED
S.W.L. SHOWN AT 0° (VERTICAL)
ANGLE OF LIFT

**NOT TO BE USED FOR INCLINED
LIFT.**

EYEBOLTS WITH LINK METRIC THREADS

Produced from BS 4278 Table 2 Forgings: 1984 c/w Link
HW 201 Coarse Thread

PART No.	SWL	Thread Size	B mm	F mm	G mm	H mm	LINK			Weight Each Kgs
							d	Bd	Ld	
HW201/0	100Kgs	M8	39	12	20	27	13	24	53	0.40
HW201A/0	150Kgs	M10	39	12	20	27	13	24	53	0.40
HW201B/1	200Kgs	M12	39	12	20	27	13	24	53	0.40
HW201G/3	300Kgs	M14	39	12	20	27	13	24	53	0.40
HW201C/2	400Kgs	M16	39	12	20	27	13	24	53	0.40
HW201E/4	700Kgs	M18	39	12	20	27	13	24	53	0.40
HW201F/5	1.3t	M22	47	14	23	32	15	29	63	0.80
HW201H/9	4.5t	M42	94	29	47	65	30	58	126	5.50
HW201D/7	5t	M45	94	29	47	65	30	58	126	5.50



**MATERIAL: AS SPECIFIED
BY BS 4278 HARDENED &
TEMPERED**

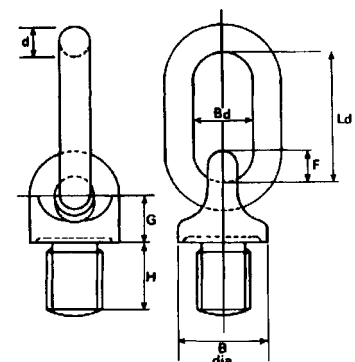
Other pitches available on request

PLEASE NOTE:
THREADS UNDER 12mm ARE NOT RECOMMENDED FOR LIFTING.

EYEBOLTS WITH LINK METRIC THREADS

BS 4278 Table 2 1984
HW 420 Coarse Thread

PART No.	SWL Tonnes	Thread Size	B mm	F mm	G mm	H mm	LINK			Weight Each Kgs
							d	Bd	Ld	
HW420/3	1.00	M20	39	12	20	27	13	24	53	0.50
HW420/4	1.60	M24	47	14	23	32	15	29	63	0.80
HW420/5	2.50	M30	60	18	30	41	19	37	80	1.50
HW420/6	4.00	M36	75	23	38	52	24	46	102	3.00
HW420/8	6.30	M48	94	29	47	65	30	58	126	5.50



**MATERIAL: AS SPECIFIED
BY BS 4278 HARDENED &
TEMPERED**

Other pitches available on request

FOR LOADING AT ANGLES AND TRUNNION LIFTING SEE PAGE 14

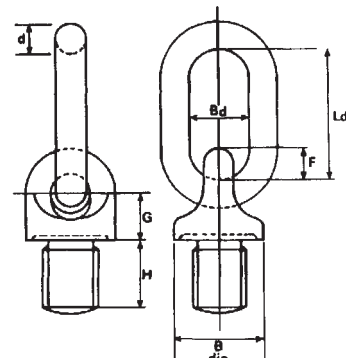
EYEBOLTS WITH LINK IMPERIAL THREADS

BS 4278 1984 APPENDIX 'A' TABLE 5

HW 450

PART No.	SWL Tonnes	Thread Size	B mm	F mm	G mm	H mm	LINK			Weight Each Kgs
							d	Bd	Ld	
HW450/1	0.25	$\frac{1}{2}$	39	12	20	27	13	24	53	0.40
HW450/2	0.50	$\frac{5}{8}$	39	12	20	27	13	24	53	0.40
HW450/3	1.00	$\frac{3}{4}$	39	12	20	27	13	24	53	0.40
HW450/4	1.60	1	47	14	23	32	15	29	63	0.80
HW450/5	2.50	$1\frac{1}{4}$	60	18	30	41	19	37	80	1.50
HW450/6	4.00	$1\frac{1}{2}$	75	23	38	52	24	46	102	3.00
HW450/8	6.30	$1\frac{3}{4}$	94	29	47	65	30	58	126	5.50

Available in BSW and UNC Threads.
Other thread forms and diameters available on request.



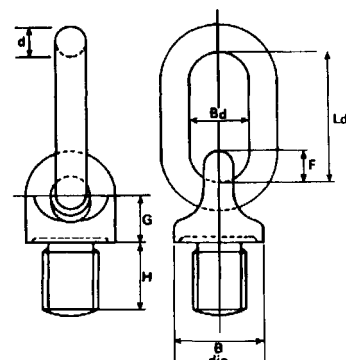
**MATERIAL: AS SPECIFIED
BY BS 4278 HARDENED &
TEMPERED**

EYEBOLTS WITH LINK METRIC THREADS

Based on BS 4278 TABLE 5 APPENDIX 'A': 1984

HW UN 8UN Thread

PART No.	SWL Tonnes	Thread Size	B mm	F mm	G mm	H mm	LINK			Weight Each Kgs
							d	Bd	Ld	
HWUN2A/5	2.50	$1\frac{1}{4}$	60	18	30	41	19	37	80	1.50
HWUN2B/6	4.00	$1\frac{1}{2}$	75	23	38	52	24	46	102	3.00
HWUN2C/7	6.30	$1\frac{3}{4}$	94	29	47	65	30	58	126	5.50



**MATERIAL: AS SPECIFIED
BY BS 4278 HARDENED &
TEMPERED**

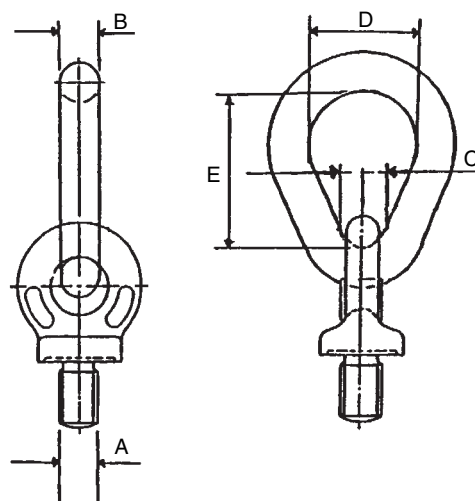
FOR LOADING AT ANGLES AND TRUNNION LIFTING SEE PAGE 14

COLLAR EYEBOLTS c/w NON-REEVABLE EGG LINKS

HW 419 Metric Coarse Thread

PART No.	SWL Tonnes	A Thread Size	B mm	C mm	D mm	E mm	Weight Each Kgs
HW419/0A	0.25	M10	11	13	28.5	41	0.2
HW419/1	0.40	M12	11	13	28.5	41	0.2
HW419/2	0.80	M16	16	16	41	60	0.6
HW419/4	1.60	M20	17	19	48	70	0.9
HW419/6	2.50	M24	25	28.5	60	92	2.1
HW419/8	4.00	M30	30	35	82.5	121	3.9
HW419/10	6.30	M36	36.5	41	102	152	7.7

Other pitches, thread forms and diameters available on request.



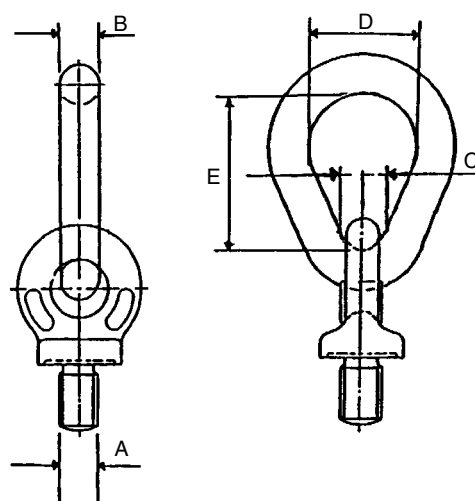
MATERIAL: H.T. STEEL

COLLAR EYEBOLTS c/w REEVABLE EGG LINKS

HW 418 Metric Coarse Thread

PART No.	SWL Tonnes	A Thread Size	B mm	C mm	D mm	E mm	Weight Each Kgs
HW418/0A	0.25	M10	11	16	35	70	0.22
HW418/1	0.40	M12	11	16	35	70	0.23
HW418/2	0.80	M16	16	22	50	100	0.62
HW418/4	1.60	M20	20	25	55	120	1.17
HW418/6	2.50	M24	25	35	76	152	2.00
HW418/8	4.00	M30	32	47	98	203	5.20

Other pitches, thread forms and diameters available on request.



MATERIAL: H.T. STEEL

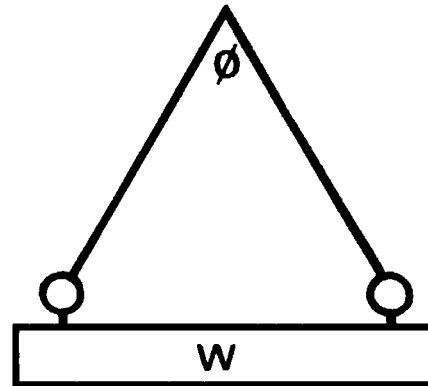
FOR LOADING AT ANGLES AND TRUNNION LIFTING SEE PAGE 14

HW 201, 420, 450, UN

MAXIMUM RECOMMENDED WORKING LOADS FOR BRITISH STANDARD COLLAR EYEBOLTS WITH LINKS WHEN USED IN PAIRS FOR INCLINED LOADING CONDITIONS

SAFE WORKING LOAD FOR A SINGLE EYEBOLT IN VERTICAL LIFT	MAXIMUM LOAD 'W' TO BE LIFTED BY A PAIR OF EYEBOLTS WHEN THE ANGLE Ø BETWEEN THE LEGS IS		
	0°<Ø>30°	30°<Ø>60°	60°<Ø>90°
TONNES	TONNES	TONNES	TONNES
1.00	2.0	1.6	1.25
1.25	2.5	2.0	1.6
1.60	3.2	2.5	2.0
2.00	4.0	3.2	2.5
2.50	5.0	4.0	3.2
3.20	6.3	5.0	4.0
4.00	8.0	6.3	5.0
5.00	10.0	8.0	6.3
6.30	12.6	10.0	8.0

NB. Dynamo Eyebolts are to be used for vertical lift only. If fitted in pairs or groups a spreader frame must always be used.



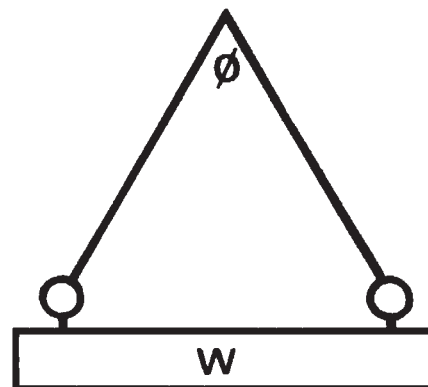
FOR TRUNNION LIFTING

The load taken by a single eyebolt should not exceed 63% of its marked SWL.

HW 418, 419

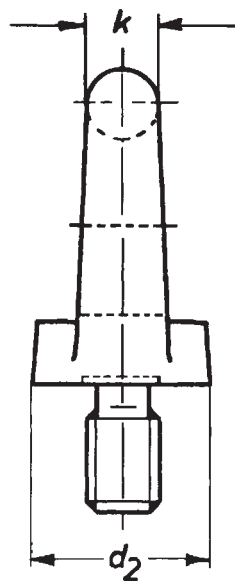
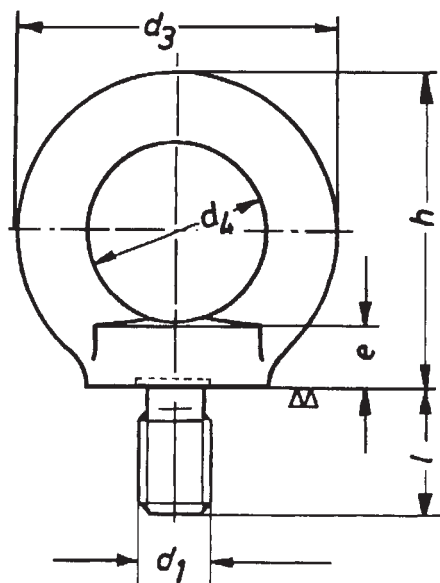
MAXIMUM RECOMMENDED WORKING LOADS FOR BRITISH STANDARD COLLAR EYEBOLTS WITH REEVABLE AND NON-REEVABLE EGG LINKS WHEN USED IN PAIRS FOR INCLINED LOADING CONDITIONS

SAFE WORKING LOAD FOR A SINGLE EYEBOLT IN VERTICAL LIFT	MAXIMUM LOAD 'W' TO BE LIFTED BY A PAIR OF EYEBOLTS WHEN THE ANGLE Ø BETWEEN THE LEGS IS		
	0°<Ø>30°	30°<Ø>60°	60°<Ø>90°
TONNES	TONNES	TONNES	TONNES
0.25	0.32	0.20	0.13
0.40	0.50	0.32	0.20
0.80	1.00	0.64	0.40
1.60	2.00	1.25	0.80
2.50	3.20	2.00	1.25
4.00	5.00	3.20	2.00
6.30	8.00	5.00	3.20



EYEBOLTS

DIN 580 Metric Coarse Thread



Measurements in mm								Weight per Kg 100off	Maximum Loads in Kg.		PART No.
d_1	d_2	d_3	d_4	e	h	k	l				
M8	20	36	20	6	36	8	13	6	140	95	580/0
M10	25	45	25	8	45	10	17	10	230	170	580/0A
M12	30	54	30	10	53	12	20,5	17,5	340	240	580/1
M16	35	63	35	12	62	14	27	28	700	500	580/2
M20	40	72	40	14	71	16	30	44	1200	830	580/3
M24	50	90	50	18	90	20	36	86	1800	1270	580/4
M30	65	108	60	22	109	24	45	160	3600	2600	580/5
M36	75	126	70	26	128	28	54	260	5100	3700	580/6
M42	85	144	80	30	147	32	63	400	7000	5000	580/7
M48	100	166	90	35	168	38	68	620	8600	6100	580/8
M56	110	184	100	38	187	42	78	880	11500	8300	580/9
M64	120	206	110	42	208	48	90	1240	16000	11000	580/10

DROP FORGED WELDLESS EYENUTS (BOWNUTS)

BS 3974: PART 1 1974 (TESTED)

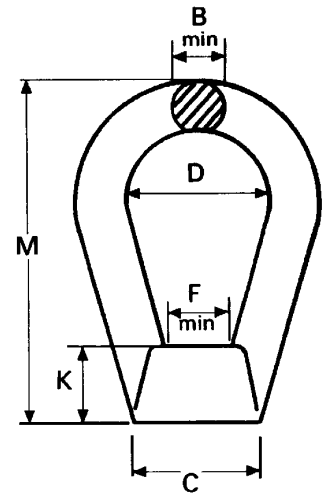
HW 96 / 97

PART No.	SWL Kgs	Thread Size	B min mm	C mm	F min mm	K mm	M mm	D mm	Weight Each Kgs
97MT/2	230	M8	6	32	12	16	64	25	0.2
97MT/3	360	M10	7	32	14	16	64	25	0.2
97MT/4	530	M12	9	38	16	18	73	30	0.3
97MT/5A*	600	M14	9	38	16	18	73	30	0.3
97MT/5	1010	M16	12	38	20	18	73	30	0.3
97MT/6A*	1000	M18	14	45	24	25	102	40	0.6
97MT/6	1580	M20	14	45	24	25	102	40	0.6
96MT/7*	1600	M22	14	45	24	25	102	40	0.6
97MT/8	2280	M24	17	50	28	28	124	50	0.9
97MT/9	3650	M30	21	70	34	38	146	75	2.4
97MT/10	5340	M36	26	70	40	38	146	75	2.4
97MT/11	7400	M42	30	80	46	45	180	100	4.0

Supplied with Metric Coarse threads, other pitches available on request.

Size marked * Outside BS.

For larger sizes we offer our Swivel Hook Bows.



**MATERIAL: AS SPECIFIED BY
BS 3974 NORMALISED.**

**NOT TO BE USED FOR
INCLINED LIFTING.**

STAINLESS STEEL GRADE 316 BOWNUTS

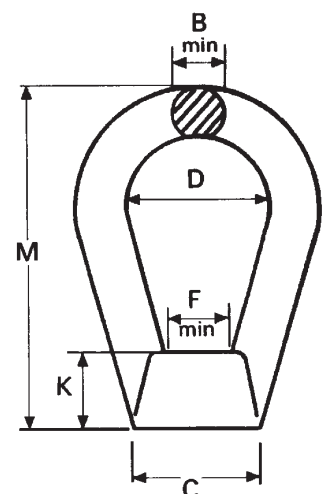
BASED ON BS 3974 PART 1: 1974

HW 97 Coarse Pitch

PART No.	SWL Kgs	Thread Size	B min mm	C mm	F min mm	K mm	M mm	D mm	Weight Each Kgs
HW97/3SS	360	M10	12	38	20	18	73	30	0.3
HW97A/4SS	530	M12	12	38	20	18	73	30	0.3
HW97B/5SS	1010	M16	12	38	20	18	73	30	0.3
HW97C/6SS	1580	M20	14	45	24	25	102	40	0.6
HW97D/7SS	2280	M24	17	50	28	28	124	50	0.9
HW97E/8SS	3650	M30	21	70	34	38	146	75	2.4
HW97F/9SS	5340	M36	26	70	40	38	146	75	2.4

Other diameters, thread forms and pitches available on application.

BOWNUTS ARE NOT TO BE USED FOR INCLINED LIFTING.



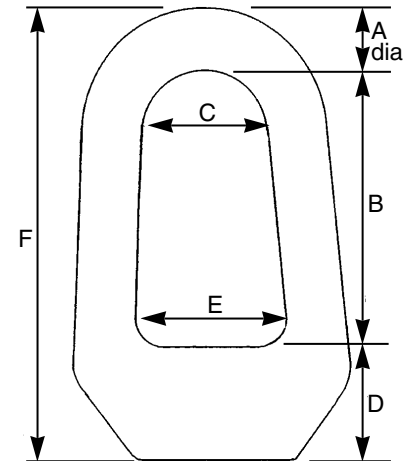
DROP FORGED BOWNUTS (TESTED)

PRODUCED FROM SWIVEL HOOK BOWS

Metric Coarse Thread

PART No.	SWL	Thread Size	A mm	B mm	C mm	D mm	E mm	F mm	Weight Each Kgs
HW96SB/12	10t	M48	33	152	67	52	94	237	6.5
HW96SB/13	16t	M56	38	160	82	70	95	268	10
HW96SB/14	20t	M64	48	205	98	82	122	335	19
HW96SB/15	25t	M72	48	205	98	82	122	335	19

Other pitches, diameters and thread forms available on application



**MATERIAL: H.T. STEEL
HARDENED & TEMPERED**

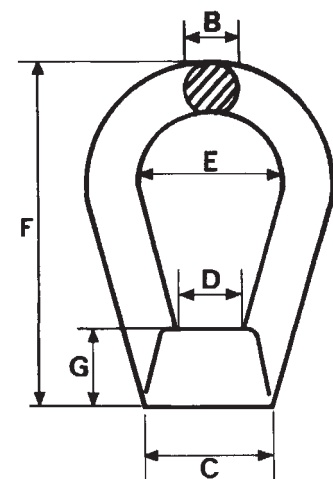
DROP FORGED STANDARD BOWNUTS (TESTED)

HW 96T Imperial Threads

PART No.	SWL	Thread Size	B ins	C ins	D ins	E ins	F ins	G ins	Weight Each Kgs
HW96T/3	250Kgs	$\frac{3}{8}$	$\frac{3}{8}$	$1\frac{1}{4}$	$\frac{9}{16}$	1	$2\frac{1}{2}$	$\frac{5}{8}$	0.2
HW96T/4	500Kgs	$\frac{1}{2}$	$\frac{1}{2}$	$1\frac{1}{2}$	$\frac{5}{8}$	$1\frac{3}{16}$	$2\frac{7}{8}$	$1\frac{1}{16}$	0.3
HW96T/5	800Kgs	$\frac{5}{8}$	$\frac{1}{2}$	$1\frac{1}{2}$	$\frac{5}{8}$	$1\frac{3}{16}$	$2\frac{7}{8}$	$1\frac{1}{16}$	0.3
HW96T/6	1.2t	$\frac{3}{4}$	$\frac{5}{8}$	$1\frac{3}{4}$	1	$1\frac{5}{8}$	4	1	0.6
HW96T/7	1.6t	$\frac{7}{8}$	$\frac{5}{8}$	$1\frac{3}{4}$	1	$1\frac{5}{8}$	4	1	0.6
HW96T/8	2.2t	1	$\frac{3}{4}$	2	1	2	$4\frac{7}{8}$	$1\frac{1}{8}$	0.9
HW96T/8A	2.2t	$1\frac{1}{8}$	$1\frac{1}{8}$	$2\frac{3}{4}$	$1\frac{3}{4}$	$2\frac{7}{8}$	$5\frac{7}{8}$	$1\frac{1}{2}$	2.4
HW96T/9	3.5t	$1\frac{1}{4}$	$1\frac{1}{8}$	$2\frac{3}{4}$	$1\frac{3}{4}$	$2\frac{7}{8}$	$5\frac{7}{8}$	$1\frac{1}{2}$	2.4
HW96T/10	4.75t	$1\frac{1}{2}$	$1\frac{1}{8}$	$2\frac{3}{4}$	$1\frac{3}{4}$	$2\frac{7}{8}$	$5\frac{7}{8}$	$1\frac{1}{2}$	2.4

Supplied with Whitworth and UNC threads, other thread forms and diameters available on request.

For larger sizes we offer our Swivel Hook Bows (see above for dimensions)



**MATERIAL:
H.T. STEEL NORMALISED.**

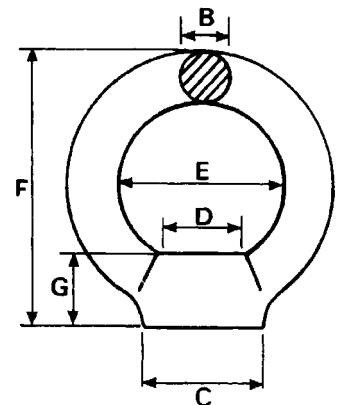
**NOT TO BE USED FOR
INCLINED LIFTING.**

DROP FORGED STANDARD EYENUTS (TESTED)

HW 95MT Metric Thread

PART No.	SWL Tonnes	Thread Size	B mm	C mm	D mm	E mm	F mm	G mm	Weight Each Kgs
HW95MT/2	0.20	M8	13	29	19	44	78	22	0.1
HW95MT/3	0.30	M10	13	29	19	44	78	22	0.1
HW95MT/4	0.50	M12	13	29	19	44	78	22	0.1
HW95MT/4A	0.50	M14	13	29	19	44	78	22	0.3
HW95MT/5	0.80	M16	13	29	19	44	78	22	0.3
HW95MT/5A	1.00	M18	16	38	29	48	86	26	0.4
HW95MT/6	1.20	M20	16	38	29	48	86	26	0.4
HW95MT/7	1.60	M22	16	38	29	48	86	26	0.4
HW95MT/8	2.20	M24	19	44	35	54	105	38	0.8

For larger sizes we offer our Patt. HW 96/97 Bownuts and Swivel Hook Bows.



MATERIAL: BS970 H.T. STEEL NORMALISED.

NOT TO BE USED FOR INCLINED LIFTING.

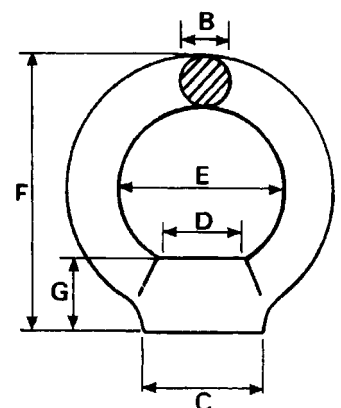
DROP FORGED STANDARD EYENUTS (TESTED)

HW 95T

PART No.	SWL Tons Cwts	Thread Size	B ins	C ins	D ins	E ins	F ins	G ins	Weight Each Kgs
HW95T/3	5	$\frac{3}{8}$	$\frac{1}{2}$	$1\frac{1}{8}$	$\frac{3}{4}$	$1\frac{3}{4}$	$3\frac{1}{16}$	$\frac{7}{8}$	0.3
HW95T/4	10	$\frac{1}{2}$	$\frac{1}{2}$	$1\frac{1}{8}$	$\frac{3}{4}$	$1\frac{3}{4}$	$3\frac{1}{16}$	$\frac{7}{8}$	0.3
HW95T/5	16	$\frac{5}{8}$	$\frac{1}{2}$	$1\frac{1}{8}$	$\frac{3}{4}$	$1\frac{3}{4}$	$3\frac{1}{16}$	$\frac{7}{8}$	0.3
HW95T/6	1 4	$\frac{3}{4}$	$\frac{5}{8}$	$1\frac{1}{2}$	$1\frac{1}{8}$	$1\frac{7}{8}$	$3\frac{3}{8}$	1	0.4
HW95T/7	1 12	$\frac{7}{8}$	$\frac{5}{8}$	$1\frac{1}{2}$	$1\frac{1}{8}$	$1\frac{7}{8}$	$3\frac{3}{8}$	1	0.4
HW95T/8	2 4	1	$\frac{3}{4}$	$1\frac{3}{4}$	$1\frac{3}{8}$	$2\frac{1}{8}$	$4\frac{1}{8}$	$1\frac{1}{2}$	0.8

BSW, UNC and other thread sizes and forms available on request.

For larger sizes we offer our Patt. HW 96 Bownuts and Swivel Hook Bows.

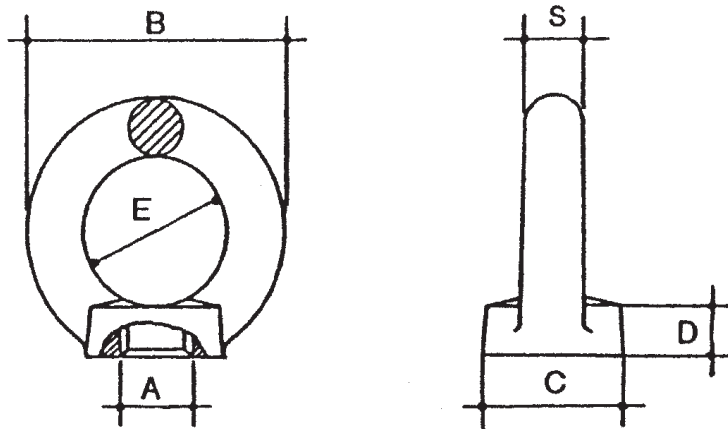


MATERIAL: BS970 H.T. STEEL NORMALISED.

NOT TO BE USED FOR INCLINED LIFTING.

EYENUTS TO DIN 582

HW 582 Metric Coarse Thread

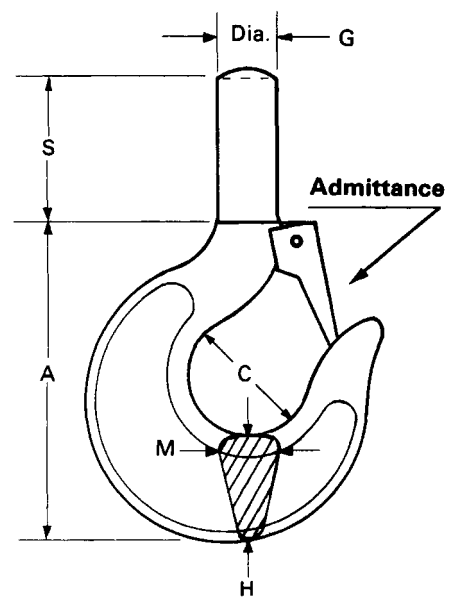
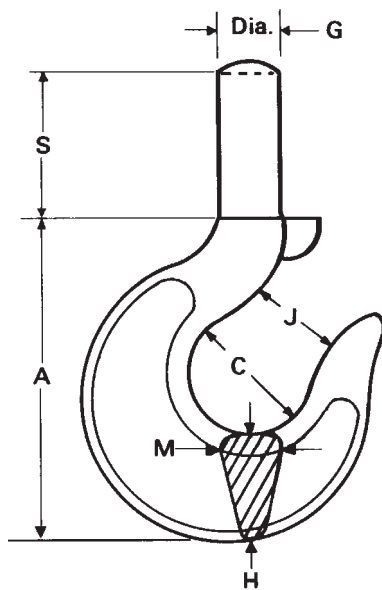


Measurements in mm						Weight per 100 off	Maximum Loads in Kg.		PART No.
Thread A	B	C	D	E	S				
M8	36	20	8.5	20	8	5Kg	140	95	HW582/0
M10	45	25	10	25	10	11Kg	230	170	HW582/0A
M12	54	30	11	30	12	16Kg	340	240	HW582/1
M16	63	35	13	35	14	25Kg	700	500	HW582/2
M20	72	40	16	40	16	34Kg	1200	830	HW582/3
M24	90	50	20	50	20	77Kg	1800	1270	HW582/4
M30	108	65	25	60	24	130Kg	3600	2600	HW582/5
M36	126	75	30	70	28	210Kg	5100	3700	HW582/6
M42	144	85	35	80	32	358Kg	7000	5000	HW582/7
M48	188	100	40	90	38	512Kg	8600	6100	HW582/8

SHANK HOOK FORGINGS ONLY - HW600 Series

SHANK HOOK FORGINGS c/w SAFETY CATCH

HW606 Series To BS2903 TABLE 1: 1980



FORGINGS PART No.	Catches to suit HW63	c/w Catch PART No.	SWL Tonnes	A mm	C mm	G Dia mm	H mm	M mm	S mm	J mm	Admit- tance mm	Weight Each Approx Kgs
HW600/1 ¹	63/1	HW606/1	0.35	77	28	17	22	16	48	23	16	0.3
HW600/2	63/2	HW606/2	0.80	82	32	20	25	16	50	25	19	0.3
HW600/3	63/2	HW606/3	1.25	100	40	27	33	22	71	28	22	0.9
HW600/4	63/3	HW606/4	1.60	115	44	27	39	25	100	30	25	1.3
HW600/5	63/4	HW606/5	2.50	145	56	29	46	29	92	46	35	2.0
HW600/6	63/5	HW606/6	3.20	167	67	34	52	33	94	55	37	2.9
HW600/7	63/5	HW606/7	5.00	183	67	40	62	39	110	48	38	5.2
HW600/8	63/5	HW606/8	5.00	190	64	45	67	40	240	45	38	6.7
HW600/9	63/6	HW606/9	6.30	200	73	46	71	47	250	58	48	8.5
HW600/10	63/7	HW606/10	8.00	245	82	53	80	52	300	60	44	16
HW600/11	63/7	HW606/11	10.00	257	92	58	86	60	160	69	51	15
HW600/12	63/8	HW606/12	12.50	283	103	65	95	62	345	77	51	25
HW600/13	63/9	HW606/13	16.00	330	115	78	118	76	450	78	64	40
HW600/14	63/10	HW606/14	20.00	375	133	82	127	88	457	95	70	53.7
HW600/15*	63/10	HW606/15	25.00	420	145	83	145	88	400 450 ^{&}	110	85	76.8

* Shank length 'S' can vary.

¹ Outside BS Range.

MATERIAL: As stated by BS 2903: 1980 Hardened & Tempered.

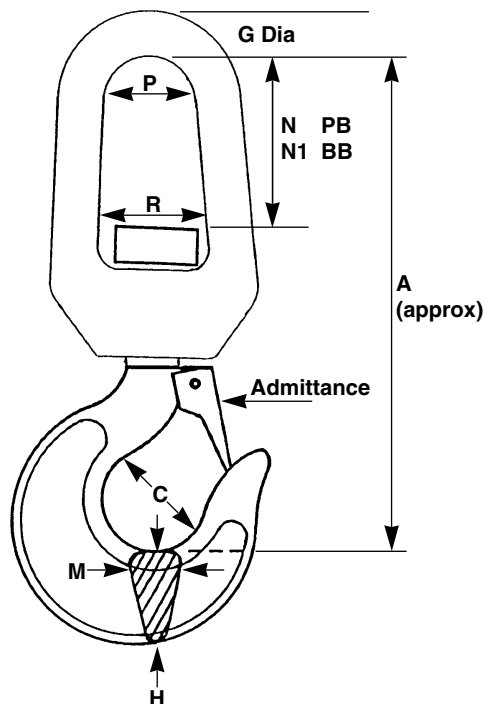
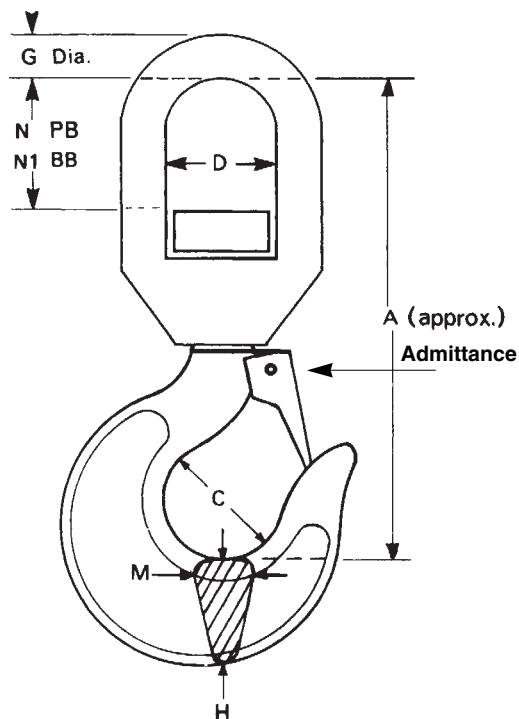
LARGER SIZES ON APPLICATION

PLAIN & BALL BEARING SAFETY SWIVEL HOOKS

HW 44 Plain Bearing

HW 45 Ball Bearing

**MATERIAL: AS SPECIFIED BY BS2903
HARDENED AND TEMPERED**

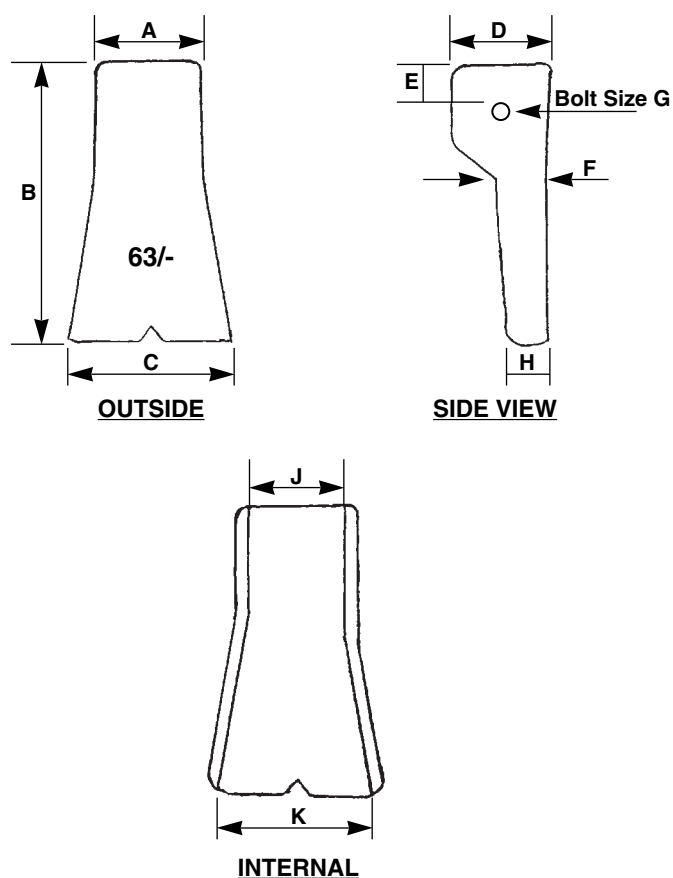


PART No.		SWL	A	C	D	G Dia.	H	M	P	R	N1 PB	N1 BB	Admittance	Weight Each
PB	BB	Tonnes	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kgs
HW44/1	45/1	0.35	125	28	30	10	22	16	N/A	N/A	30	23	16	0.6
HW44/2	45/2	0.80	140	32	36	13	25	16	N/A	N/A	40	33	19	0.8
HW44/3	45/3	1.25	175	40	43	13	33	22	N/A	N/A	45	33	22	1.6
HW44/4	45/4	1.60	200	44	46	17	39	25	N/A	N/A	60	48	25	2.2
HW44/5	45/5	2.50	230	56	46	17	46	29	N/A	N/A	60	48	35	2.8
HW44/6	45/6	3.20	245	67	52	20	52	33	N/A	N/A	55	40	37	4.1
HW44/7	45/7	5.00	270	67	53	26	62	39	N/A	N/A	70	60	38	6.7
HW44/8		6.30	285	73	60	26	71	47	N/A	N/A	75	N/A	48	8.9
	45/8	6.30	360	73	N/A	33	71	47	64	80	N/A	80	48	10.9
HW44/9	45/9	8.00	390	82	N/A	33	80	52	64	80	100	80	44	12.5
HW44/10	45/10	10.00	405	92	N/A	33	86	60	65	80	100	90	51	25.9
HW44/11	45/11	12.50	490	103	N/A	40	95	62	80	90	100	90	51	30.9
HW44/12	45/12	16.00	470	115	N/A	40	118	76	80	90	100	100	64	42.2
HW44/13	45/13	20.00	555	133	N/A	48	127	88	100	120	130	110	70	71.3
HW44/14	45/14	25.00	590	145	N/A	48	145	88	100	120	110	90	85	81.8

LARGER SIZES ON APPLICATION

SAFETY CATCH SETS

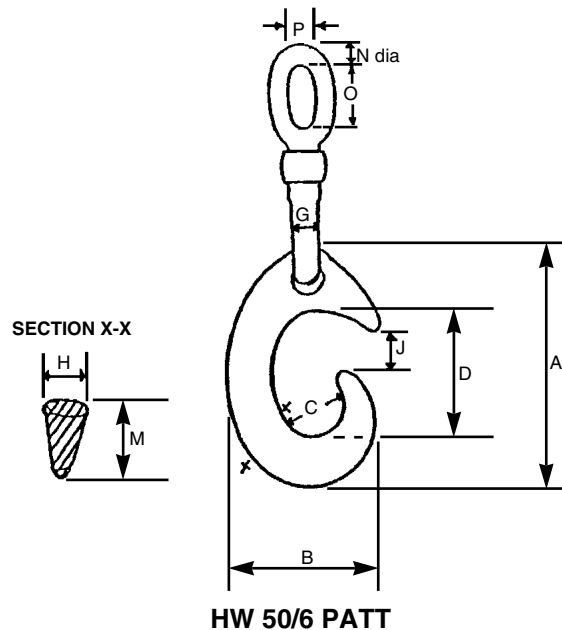
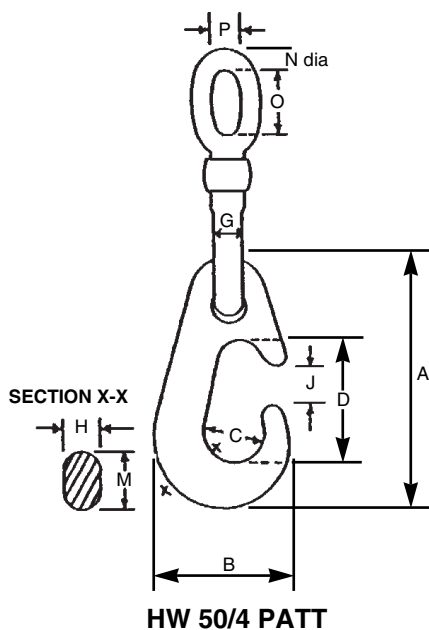
HW 63 c/w Bolt, Nut & Spring



SIZE	A mm	B mm	C mm	D mm	E mm	F mm	G mm	H mm	J mm	K mm
63/1	17.5	38	26	17	5	9	5	8	14	22
63/2	17.5	43	28	17	5	9.5	5	7	14	25
63/3	24	51	31	21	5.5	12	6	7.5	20	27
63/4	27.5	72	43	25	8.5	13	6	9.5	26.5	39
63/5	27.5	77	44	25	10	13	6	9.5	26.5	41
63/6	38	94	61	31	12	20	8	15	36	56
63/7	38	108	67	32	12	20	8	15	36	61
63/8	43	140	86	38	16	25	10	15	39	81
63/9	43	152	87	38	17	25	10	15	39	87
63/10	43	165	92	38	16	25	10	15	39	87

SINGLE SWIVEL CARGO HOOKS

Part No. HW 50



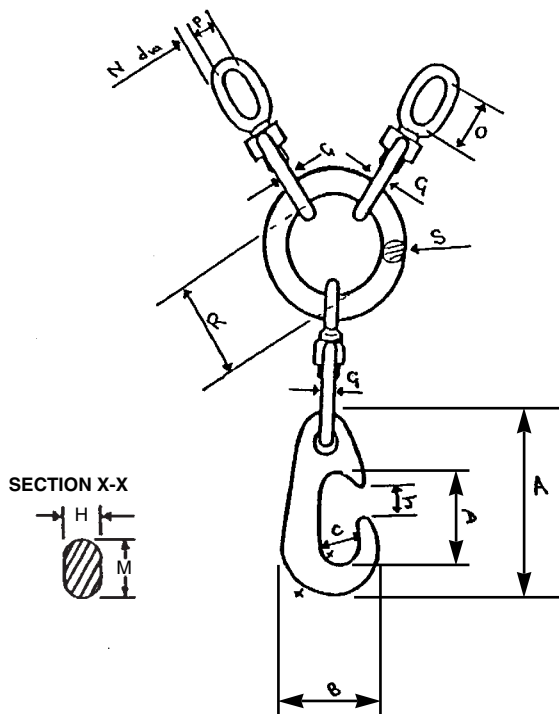
PART No.	SWL Tons	A mm	B mm	C mm	D mm	G mm	J mm	M mm	H mm	N mm	O mm	P mm
HW50/4	5	340	183	74	150	26	49	45	73	24	65	32
HW50/6	10	457	300	114	205	38	70	90	60	43	115	58

MATERIAL:
H.T. STEEL NORMALISED

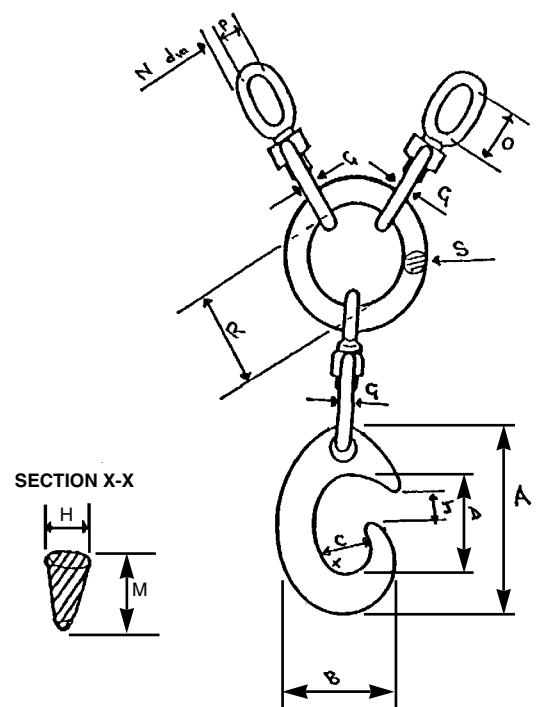
LARGER SIZES ON APPLICATION

TREBLE SWIVEL CARGO HOOKS

Part No. HW 51



HW 51/2 PATT



HW 51/3 PATT

PART No.	SWL Tons	A mm	B mm	C mm	D mm	G mm	J mm	M mm	H mm	N mm	O mm	P mm	S mm	R mm
HW51/2	5	340	183	74	150	26	49	45	73	24	65	32	35	121
HW51/3	10	457	300	114	205	38	70	90	60	43	115	58	51	178

MATERIAL:
H.T. STEEL NORMALISED

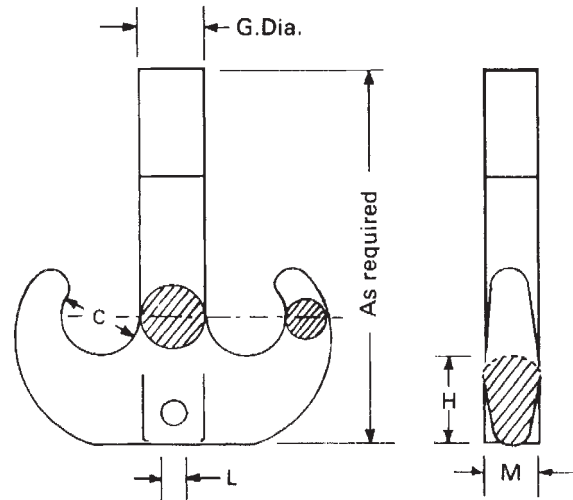
LARGER SIZES ON APPLICATION

RAMSHORN HOOKS & SHACKLES

BS 3017

HW 98

PART No.	SWL Tons	C ins	G Dia ins	H ins	L ins	M ins
HW98/1	20	4 ³ / ₄	4	4 ⁵ / ₈	1 ¹³ / ₁₆	3
HW98/2	25	5 ¹ / ₄	4 ¹ / ₂	5 ³ / ₁₆	1 ¹³ / ₁₆	3 ³ / ₈
HW98/3	30	5 ³ / ₄	4 ³ / ₄	5 ¹¹ / ₁₆	2 ³ / ₁₆	3 ¹¹ / ₁₆
HW98/4	35	6	5	6 ¹ / ₈	2 ³ / ₁₆	3 ¹⁵ / ₁₆
HW98/5	40	6 ³ / ₈	5 ¹ / ₄	6 ³ / ₈	2 ⁵ / ₁₆	4 ¹ / ₄
HW98/6	45	6 ³ / ₄	5 ¹ / ₂	6 ⁷ / ₈	2 ⁵ / ₁₆	4 ¹ / ₂
HW98/7	50	7	5 ³ / ₄	7 ¹ / ₈	2 ⁹ / ₁₆	4 ⁵ / ₈
HW98/8	60	7 ¹ / ₂	6	7 ⁷ / ₈	2 ⁹ / ₁₆	5 ¹ / ₈
HW98/9	70	8	6 ¹ / ₄	8 ¹ / ₄	2 ¹⁵ / ₁₆	5 ³ / ₈
HW98/10	80	8 ³ / ₈	6 ¹ / ₂	8 ⁷ / ₈	2 ¹⁵ / ₁₆	5 ³ / ₄
HW98/11	100	9	7	9 ⁷ / ₈	3 ⁵ / ₁₆	6 ³ / ₈
HW98/12	120	9 ¹ / ₂	7 ¹ / ₂	10 ³ / ₄	3 ⁹ / ₁₆	7
HW98/13	140	10	8	11 ³ / ₈	3 ¹³ / ₁₆	7 ³ / ₈
HW98/14	160	10 ¹ / ₂	8 ¹ / ₂	12 ¹ / ₈	4 ³ / ₁₆	7 ⁷ / ₈
HW98/15	180	11	9	12 ⁷ / ₈	4 ⁷ / ₁₆	8 ³ / ₈
HW98/16	200	11 ¹ / ₂	9 ¹ / ₂	13 ⁵ / ₈	4 ⁹ / ₁₆	8 ⁷ / ₈



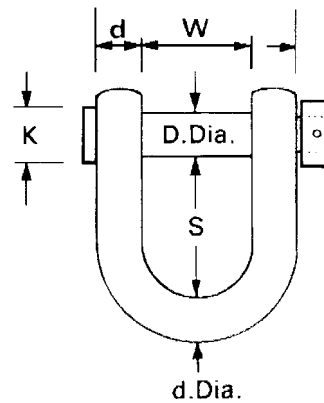
HW 98 RAMSHORN HOOK

MATERIAL: H.T.S. NORMALISED
Forgings only or fully machined, fitted
with Nut and Crosshead
Tested and Certified

LARGER SIZES ON APPLICATION

HW 98S

PART No.	SWL of Ramshorn Hook Tons	SWL of Shackle Tons	d ins	D Dia ins	W ins	s ins	K (Square) ins
HW98S/1	20	7	1 ³ / ₄	1 ³ / ₄	4 ¹ / ₄	6 ¹ / ₂	2 ¹ / ₈
HW98S/2	25	7	1 ³ / ₄	1 ³ / ₄	4 ³ / ₄	6 ¹ / ₂	2 ¹ / ₈
HW98S/3	30	10	2 ¹ / ₈	2 ¹ / ₈	5	7	2 ¹ / ₂
HW98S/4	35	10	2 ¹ / ₈	2 ¹ / ₈	5 ¹ / ₄	7	2 ¹ / ₂
HW98S/5	40	12	2 ¹ / ₄	2 ¹ / ₄	5 ¹ / ₂	7 ³ / ₈	2 ³ / ₄
HW98S/6	45	12	2 ¹ / ₄	2 ¹ / ₄	5 ³ / ₄	7 ³ / ₈	2 ³ / ₄
HW98S/7	50	15	2 ¹ / ₂	2 ¹ / ₂	6	8 ¹ / ₄	3
HW98S/8	60	15	2 ¹ / ₂	2 ¹ / ₂	6 ¹ / ₄	8 ¹ / ₄	3
HW98S/9	70	20	2 ⁷ / ₈	2 ⁷ / ₈	6 ⁵ / ₈	9 ¹ / ₂	3 ¹ / ₂
HW98S/10	80	20	2 ⁷ / ₈	2 ⁷ / ₈	6 ⁷ / ₈	9 ¹ / ₂	3 ¹ / ₂
HW98S/11	100	25	3 ¹ / ₈	3 ¹ / ₄	7 ³ / ₈	10 ³ / ₄	3 ³ / ₄
HW98S/12	120	30	3 ¹ / ₂	3 ¹ / ₂	7 ⁷ / ₈	11 ¹ / ₂	4
HW98S/13	140	35	3 ³ / ₄	3 ³ / ₄	8 ¹ / ₂	12 ¹ / ₂	4 ¹ / ₂
HW98S/14	160	40	4	4 ¹ / ₈	9	13 ¹ / ₂	4 ¹ / ₂
HW98S/15	180	45	4 ¹ / ₈	4 ³ / ₈	9 ¹ / ₂	14 ¹ / ₂	5
HW98S/16	200	50	4 ³ / ₈	4 ¹ / ₂	10	14 ³ / ₄	5



HW 98S SHACKLE
(For use with Ramshorn Hooks)

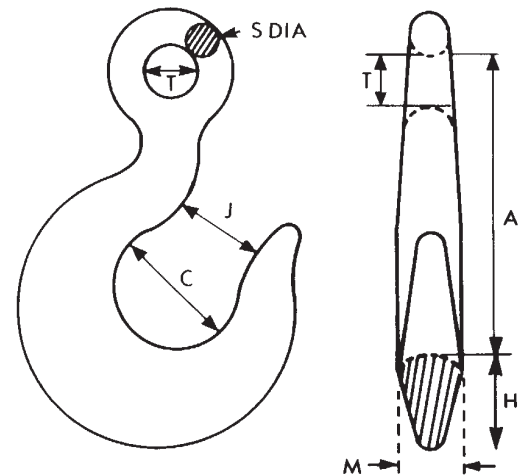
EYE HOOKS FOR CHAIN

BS 2903: 1957 TABLE 3

HW 40

PART No.	SWL BS2903 1957 T3 tonnes	For Chain Dia ins	A ins	C ins	H ins	J ins	M ins	S ins	T ins	Weight Each Kgs
HW40/1	0.50	$\frac{1}{4}$	$2\frac{3}{4}$	$1\frac{1}{8}$	$\frac{7}{8}$	$\frac{7}{8}$	$\frac{5}{8}$	$\frac{3}{8}$	$\frac{7}{16}$	0.5
HW40/2	0.75	$\frac{5}{16}$	$3\frac{1}{16}$	$1\frac{7}{16}$	$1\frac{1}{8}$	$1\frac{1}{16}$	$\frac{3}{4}$	$\frac{1}{2}$	$\frac{9}{16}$	0.6
HW40/3	1.10	$\frac{3}{8}$	$4\frac{1}{16}$	$1\frac{11}{16}$	$1\frac{5}{16}$	$1\frac{1}{4}$	$\frac{7}{8}$	$\frac{9}{16}$	$1\frac{1}{16}$	0.8
HW40/4	1.50	$\frac{7}{16}$	$4\frac{3}{4}$	2	$1\frac{9}{16}$	$1\frac{1}{2}$	1	$1\frac{1}{16}$	$\frac{3}{4}$	1.4
HW40/5	2.00	$\frac{1}{2}$	$5\frac{7}{16}$	$2\frac{1}{4}$	$1\frac{3}{4}$	$1\frac{11}{16}$	$1\frac{1}{8}$	$\frac{3}{4}$	$\frac{7}{8}$	1.8
HW40/7	3.10	$\frac{5}{8}$	$6\frac{13}{16}$	$2\frac{13}{16}$	$2\frac{3}{16}$	$2\frac{1}{8}$	$1\frac{7}{16}$	$\frac{15}{16}$	$1\frac{1}{8}$	3.8

Larger sizes on application.
Please advise if required tested or untested.



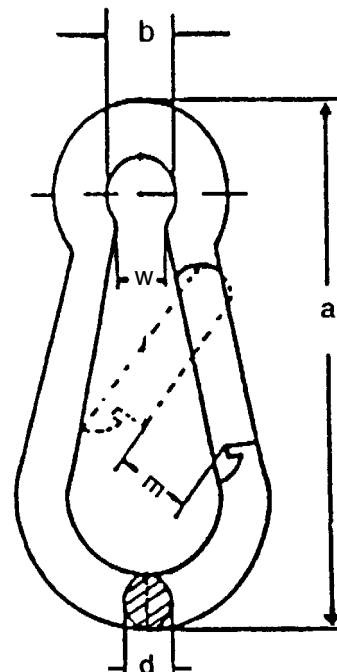
**MATERIAL: AS SPECIFIED BY
BS 2903: 1957 NORMALISED**

CARBINE HOOKS ZINC PLATED

Part No. 226

PART No.	d mm	a mm	b mm	w mm	m mm	Weight per 100 pcs Kgs
226/1	5	50	7	4	8	1.6
226/2	6	60	8	5	9	2.8
226/3	7	70	8	8	9	4.5
226/4	8	80	9	8	9	6.6
226/5	9	90	10	9	9	9.5
226/6	10	100	11	10	12	13.0
226/7	11	120	16	11	16	14.8
226/8	12	140	19	13	19	27.0
226/9	13	160	21	15	28	36.0

**THESE ARE COMMERCIAL ITEMS
NOT RECOMMENDED FOR LIFTING**

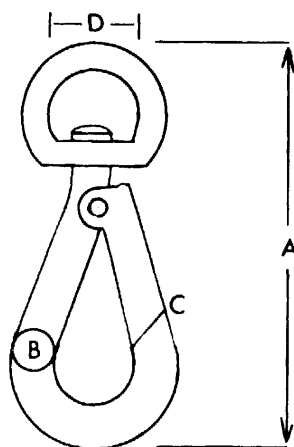


STEEL SWIVEL SPRINGHOOKS

ZINC PLATED

Part No. 223

PART No.	A mm	B mm	C mm	D mm	Weight per 100 pcs Kgs
223/1	50	5	5	15	2.4
223/2	63	6	6	15	3.0
223/3	75	7	7	17	5.7
223/4	88	8	9	19	7.6
223/5	100	9	10	24	14.8
223/6	128	10	15	27	26.7
223/7	150	13	19	32	44.1



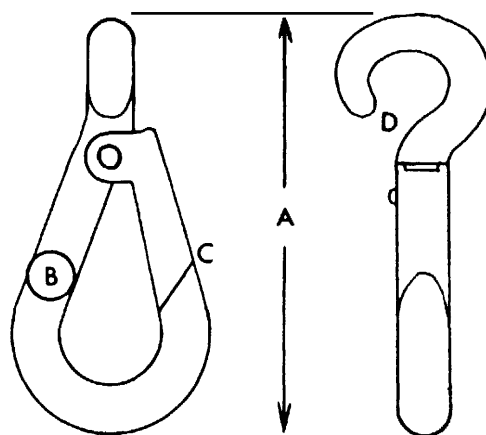
THESE ARE COMMERCIAL ITEMS
NOT RECOMMENDED FOR LIFTING

STEEL SPRINGHOOKS TO CRUE

ZINC PLATED

Part No. 222

PART No.	A mm	B mm	C mm	D mm	Weight per 100 pcs Kgs
222/1	50	5	5	4	1.2
222/2	63	7	7	5	2.7
222/3	75	8	9	6	4.5
222/4	88	9	10	7	6.2
222/5	102	10	13	8	12.9
222/6	128	13	19	9	22.0
222/7	140	13	25	9	33.6



THESE ARE COMMERCIAL ITEMS
NOT RECOMMENDED FOR LIFTING

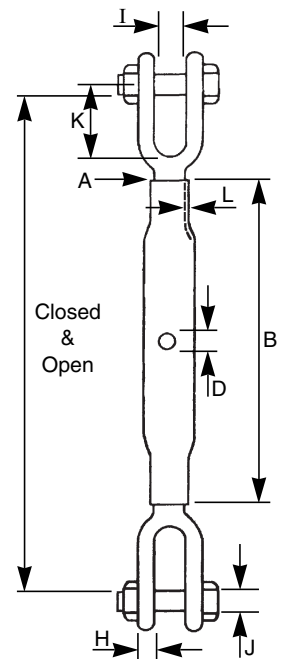
RIGGING SCREWS

PATT HW 71 JAW AND JAW

Supplied Tested and Untested, Self Colour and Galvanised Finish (Threads cut after galv). Can also be supplied Spun Galvanised to order.

A = SCREW THREAD
P = PROOF LOAD
S = SAFE WORKING LOAD

PART No.	A	B	C	D	H	I	J	K	L	P	S	Weight each Kgs
HW71/0B*	M10	153	22	8	8	12	8	27	3.6	762Kg	381Kg	0.47
HW71/1	1/2"	229	26.9	10	10	14	10	33	3.2	1.0t	0.5t	0.99
HW71/2	5/8"	229	26.9	11	10	22	12.7	48	3.6	1.5t	0.75t	1.41
HW71/3	3/4"	229	33.7	11	12	23	16	50	4.5	2.4t	1.2t	2.30
HW71/4	7/8"	305	38.1	13	12	28	19	58	5	3.4t	1.7t	3.44
HW71/5	1"	356	42.4	13	14	32	22	60	5	4.4t	2.2t	4.43
HW71/6	1 1/8"	356	42.4	13	15	32	22	75	5	5.5t	2.75t	5.30
HW71/7	1 1/4"	380	51	14	18	37	25.4	80	6.3	7.6t	3.8t	8.34
HW71/9	1 1/2"	405	60.3	16	21	49	33	85	6.3	10.4t	5.2t	12.8
HW71/11	1 3/4"	405	63.5	17	26	49	36	110	6.3	14.2t	7.1t	18.5
HW71/13	2"	405	76.1	19	30	58	42	125	8	19t	9.5t	23.8
HW71/15*	2 1/4"	405	101.6	22	25	70	48	140	12.5	23t	11.5t	43
HW71/17*	2 1/2"	420	101.6	25	29	70	51	135	12.5	30.48t	15.24t	53



OPEN AND CLOSED DIMENSIONS BEARING POINTS

	M10	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"
Closed	240	340	370	375	465	535	555	590	650	705	745	780	765
Open	348	530	540	535	673	773	773	828	908	913	973	977	975

* Supplied galvanised only threads cut after galv.

RIGGING SCREWS

PATT HW 73 OVAL EYE EACH END

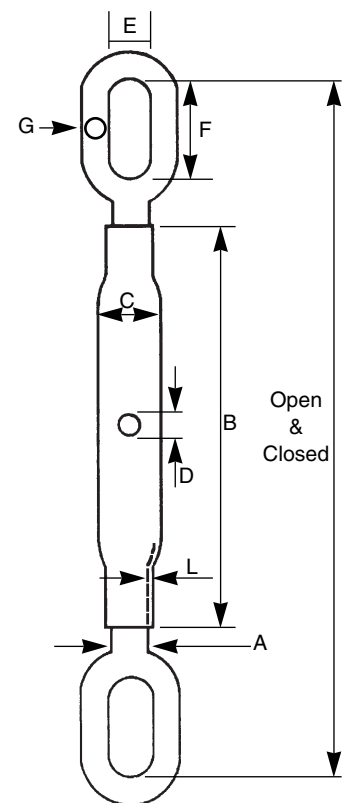
Supplied Tested and Untested, Self Colour and Galvanised Finish (Threads cut after galv). Can also be supplied Spun Galvanised to order.

A = SCREW THREAD

P = PROOF LOAD

S = SAFE WORKING LOAD

PART No.	A	B	C	D	E	F	G	L	P	S	Weight each Kgs
HW73/0B*	M10	153	22	8	11	25	8	3.6	762Kg	381Kg	0.35
HW73/1	1/2"	229	26.9	10	13	33	10	3.2	1.0t	0.5t	0.84
HW73/2	5/8"	229	26.9	11	18	39	14	3.6	1.5t	0.75t	1.16
HW73/3	3/4"	229	33.7	11	22	48	16	4.5	2.4t	1.2t	1.83
HW73/4	7/8"	305	38.1	13	24	47	17	5	3.4t	1.7t	2.73
HW73/5	1"	356	42.4	13	24	49	20	5	4.4t	2.2t	3.55
HW73/6	1 1/8"	356	42.4	13	28	56	19	5	5.5t	2.75t	4.80
HW73/7	1 1/4"	380	51	14	34	68	23	6.3	7.6t	3.8t	6.36
HW73/9	1 1/2"	405	60.3	16	39	75	26	6.3	10.4t	5.2t	8.10
HW73/11	1 3/4"	405	63.5	17	40	85	30	6.3	14.2t	7.1t	11.4
HW73/13	2"	405	76.1	19	45	100	35	8	19t	9.5t	17.2
HW73/15*	2 1/4"	405	101.6	22	58	115	43	12.5	23t	11.5t	29
HW73/17*	2 1/2"	420	101.6	25	60	120	48	12.5	30.48t	15.24t	36



OPEN AND CLOSED DIMENSIONS BEARING POINTS

	M10	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"
Closed	245	355	370	405	495	560	580	640	680	715	760	800	800
Open	353	515	540	555	708	798	828	878	918	933	998	987	1000

* Supplied galvanised only threads cut after galv.

RIGGING SCREWS PATT HW 74

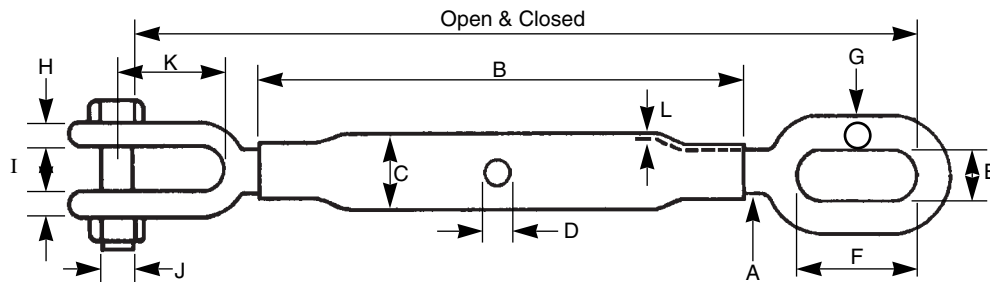
OVAL EYE ONE END JAW THE OTHER

Supplied Tested and Untested, Self Colour and Galvanised Finish (Threads cut after galv). Can also be supplied Spun Galvanised to order.

A = SCREW THREAD

P = PROOF LOAD

S = SAFE WORKING LOAD



PART No.	A	B	C	D	E	F	G	H	I	J	K	L	P	S	Weight Each Kgs
HW74/0B*	M10	153	22	8	11	25	8	8	12	8	27	3.6	762Kg	381Kg	0.43
HW74/1	1/2"	229	26.9	10	13	33	10	10	14	10	33	3.2	1.0t	0.5t	0.92
HW74/2	5/8"	229	26.9	11	18	39	14	10	22	12.7	48	3.6	1.5t	0.75t	1.24
HW74/3	3/4"	229	33.7	11	22	48	16	12	23	16	50	4.5	2.4t	1.2t	1.97
HW74/4	7/8"	305	38.1	13	24	47	17	12	28	19	58	5	3.4t	1.7t	3.04
HW74/5	1"	356	42.4	13	24	49	20	14	32	22	60	5	4.4t	2.2t	4.30
HW74/6	1 1/8"	356	42.4	13	28	56	19	15	32	22	75	5	5.5t	2.75t	5.00
HW74/7	1 1/4"	380	51	14	34	68	23	18	37	25.4	80	6.3	7.6t	3.8t	7.39
HW74/9	1 1/2"	405	60.3	16	39	75	26	21	49	33	85	6.3	10.4t	5.2t	10.80
HW74/11	1 3/4"	405	63.5	17	40	85	30	26	49	36	110	6.3	14.2t	7.1t	14.40
HW74/13	2"	405	76.1	19	45	100	35	30	58	42	125	8	19.0t	9.5t	22.20
HW74/15*	2 1/4"	405	101.6	22	58	115	43	25	70	48	140	12.5	23.0t	11.5t	36
HW74/17*	2 1/2"	420	101.6	25	60	120	48	29	70	51	135	12.5	30.48t	15.24t	44.5

OPEN AND CLOSED DIMENSIONS BEARING POINTS

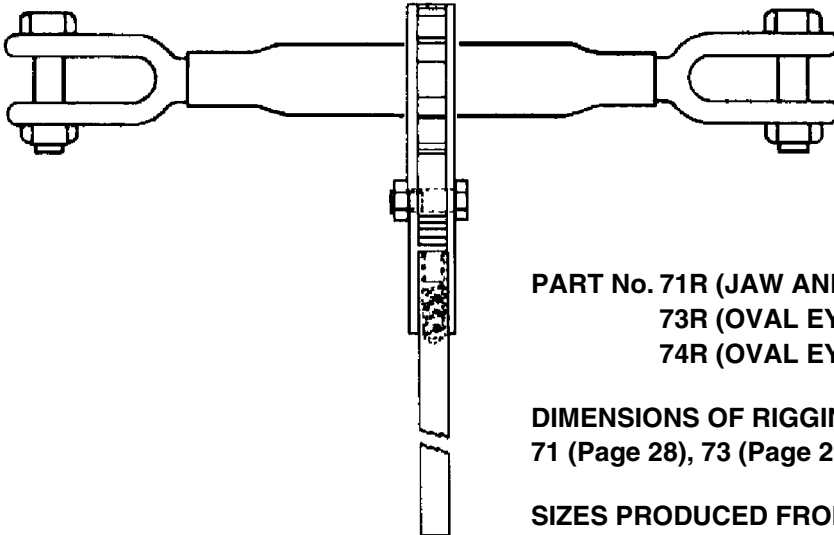
	M10	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"	1 3/4"	2"	2 1/4"	2 1/2"
Closed	240	355	375	395	470	550	560	625	670	700	755	800	810
Open	350	530	545	545	683	788	793	863	918	913	988	998	980

* Supplied galvanised only threads cut after galv.

RATCHET RIGGING SCREWS

Self Colour. Galvanised (threads cut after galv) and Spun Galvanised can also be supplied to order. Supplied Tested or Untested.

DOUBLE ACTION RATCHET



PART No. 71R (JAW AND JAW) AS SHOWN
73R (OVAL EYE EACH END)
74R (OVAL EYE ONE END, JAW THE OTHER)

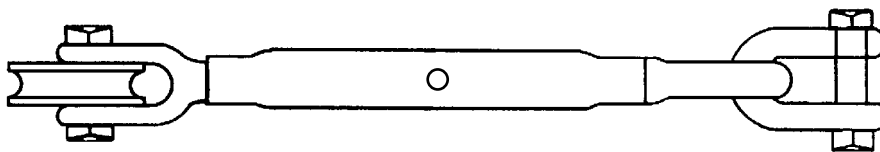
DIMENSIONS OF RIGGING SCREWS AS PATTERN Nos.
71 (Page 28), 73 (Page 29) and 74 (Page 30)

SIZES PRODUCED FROM $\frac{3}{4}$ " dia. UP TO 2" dia.

COMPLETE PATTERN RIGGING SCREWS

HW 70

Galvanised (threads cut after galv). Can be supplied spun galvanised to order.



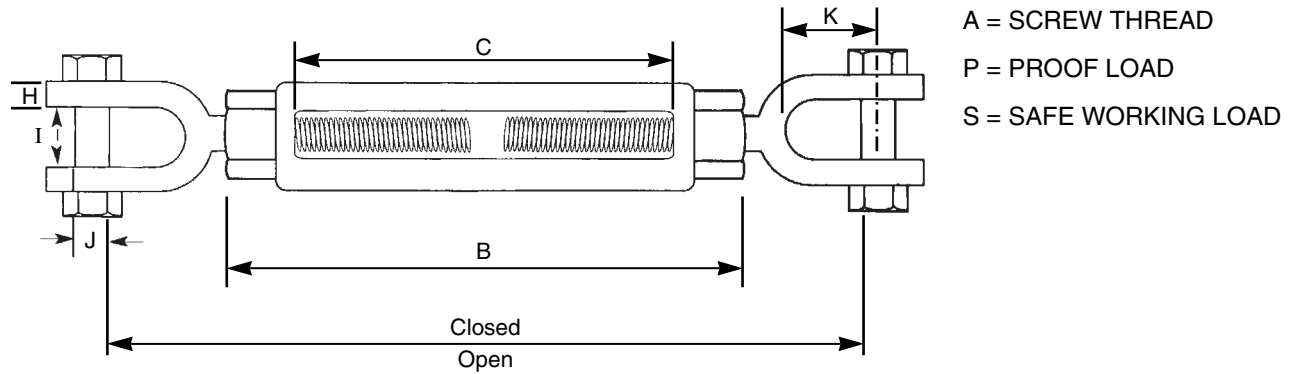
SIZES PRODUCED FROM $\frac{1}{2}$ " dia. UP TO $1\frac{1}{2}$ " dia.
OTHER SIZES SUBJECT TO AVAILABILITY OF COMPONENTS.

SCREW SIZES AS OUR PATTERN No. 74 (Page 30)

STRAINING SCREWS

PATT HW 82 JAW EACH END

Supplied Tested and Untested, Self Colour and Galvanised Finish (Threads cut after galv). Can also be supplied Spun Galvanised to order.



PART No.	A	B	C	H	I	J	K	P	S	Weight Each Kgs
HW82/2	M10	184	150	8	12	8	27	762Kg	381Kg	0.4
HW82/3	1/2"	190	150	10	14	10	33	1.0t	0.5t	1
HW82/6	5/8"	202	150	10	22	12.7	48	1.5t	0.75t	1.5
HW82/11	3/4"	214	150	12	23	16	50	2.4t	1.2t	2.4
HW82/15	7/8"	228	150	12	28	19	58	3.4t	1.7t	3.8
HW82/19	1"	228	150	14	32	22	60	4.4t	2.2t	4.8
HW82/24	1 1/8"	256	150	15	32	22	75	5.5t	2.75t	6
HW82/26	1 1/4"	256	150	18	37	25.4	80	7.6t	3.8t	10
HW82/29	1 1/2"	266	150	21	49	33	85	10.4t	5.2t	14

OPEN AND CLOSED DIMENSIONS

	M10	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"*
Closed	260	300	365	370	380	400	450	470	520
Open	360	452	517	522	530	552	602	622	670

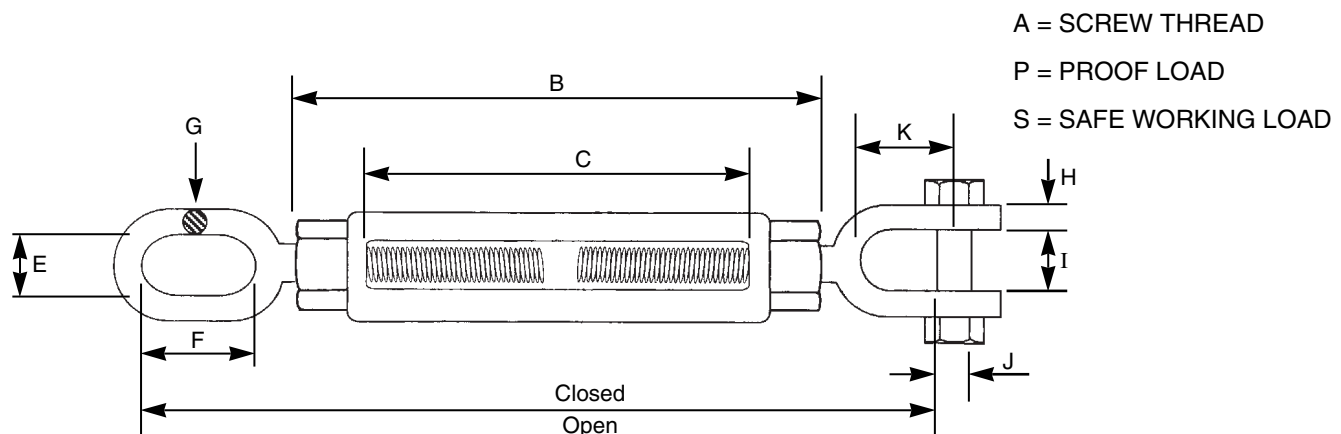
* Self Colour Only.

Due to customer demand 1 1/2" galv screws: Open Dimension 760mm
Closed Dimension 610mm

STRAINING SCREWS PATT HW 85

OVAL EYE ONE END - JAW THE OTHER

Supplied Tested and Untested, Self Colour and Galvanised Finish (Threads cut after galv). Can also be supplied Spun Galvanised to order.



PART No.	A	B	C	E	F	G	H	I	J	K	P	S	Weight Kgs
HW85/2	M10	184	150	11	25	8	8	12	8	27	762Kg	381Kg	0.4
HW85/3	1/2"	190	150	13	33	10	10	14	10	33	1.0t	0.5t	1
HW85/6	5/8"	202	150	18	39	14	10	22	12.7	48	1.5t	0.75t	1.4
HW85/11	3/4"	214	150	22	48	16	12	23	16	50	2.4t	1.2t	2
HW85/15	7/8"	228	150	24	47	17	12	28	19	58	3.4t	1.7t	3.4
HW85/19	1"	228	150	24	49	20	14	32	22	60	4.4t	2.2t	4.4
HW85/24	1 1/8"	256	150	28	56	19	15	32	22	75	5.5t	2.75t	5.5
HW85/26	1 1/4"	256	150	34	68	23	18	37	25.4	80	7.6t	3.8t	8
HW85/29	1 1/2"	266	150	39	75	26	21	49	33	85	10.4t	5.2t	12

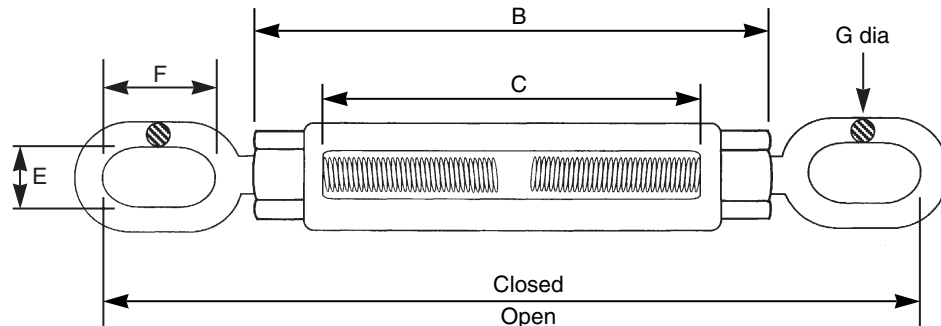
OPEN AND CLOSED DIMENSIONS

	M10	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"*
Closed	265	335	370	377	400	410	450	485	535
Open	375	487	522	529	500	562	600	637	685

STRAINING SCREWS

PATT HW 86 OVAL EYE EACH END

Supplied Tested and Untested, Self Colour and Galvanised Finish (Threads cut after galv). Can also be supplied Spun Galvanised to order.



A = SCREW THREAD
P = PROOF LOAD
S = SAFE WORKING LOAD

PART No.	A	B	C	E	F	G	P	S	Weight Each Kgs
HW86/2	M10	184	150	11	25	8	762Kg	381Kg	0.4
HW86/3	1/2"	190	150	13	33	10	1.0t	0.5t	0.9
HW86/6	5/8"	202	150	18	39	14	1.5t	0.75t	1.3
HW86/11	3/4"	214	150	22	48	16	2.4t	1.2t	1.9
HW86/15	7/8"	228	150	24	47	17	3.4t	1.7t	3
HW86/19	1"	228	150	24	49	20	4.4t	2.2t	4
HW86/24	1 1/8"	256	150	28	56	19	5.5t	2.75t	5.4
HW86/26	1 1/4"	256	150	34	68	23	7.6t	3.8t	7
HW86/29	1 1/2"	266	150	39	75	26	10.4t	5.2t	10

OPEN AND CLOSED DIMENSIONS

	M10	1/2"	5/8"	3/4"	7/8"	1"	1 1/8"	1 1/4"	1 1/2"
Closed	270	335	370	385	415	430	450	520	550
Open	380	487	522	537	567	582	600	672	702

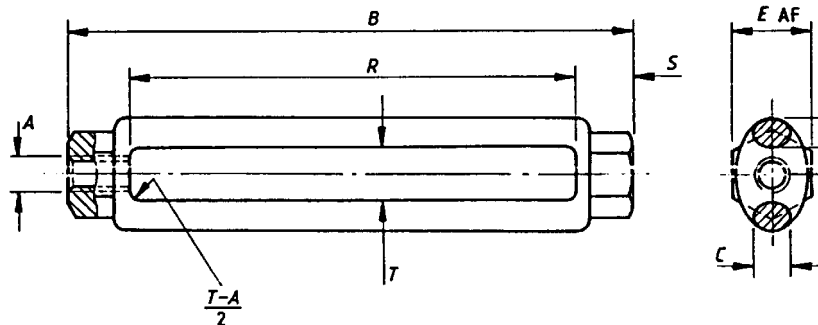
HEXAGON ENDED TURNBUCKLES

TO BS 4429

HW Part No. 79

Available Self Colour, Galvanised. Imperial Sizes and Metric Threads. Over 36mm Tapped Normal.

Metric Sizes Galvanised, Tapped 15^{Thou} (0.381mm) Oversize from M10 to M36



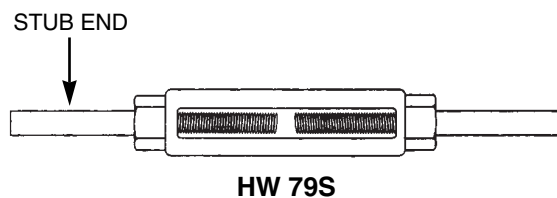
Thread Size 'A' Metric	Thread Size 'A' Imperial	B	C Min	D Min	F A/F Min	R	S	T Min	Weight Kgs	Pt. No. Suffix
10	N/A	184	10	8	16.7	150	17	12	0.2	/0
12	1/2"	190	12	8	18.7	150	20	15	0.3	/2
16	5/8"	202	16	11	23.7	150	26	19	0.6	/3
20	3/4"	214	20	13	29.7	150	32	23	0.75	/4
24	1"	228	24	15	35.4	150	39	29	1.25	/6
30	1 1/4"	256	30	16	45.4	150	53	35	3	/8
36*	1 1/2"	276	39	20	59.3	150	63	45	5	/10
42*	N/A	276	39	20	59.3	150	63	45	3	/11

* Produced from 39mm Forgings.

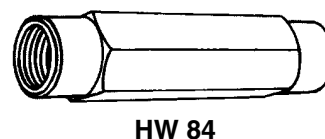
Part No.

HW79 Self Colour. Right Hand/Left Hand Imperial Thread
 HW79M Self Colour. Right Hand/Left Hand Metric Thread
 HW79MG Galvanised. Right Hand/Left Hand Metric Thread
 HW79MRR Self Colour. Right Hand/Right Hand Metric Thread
 Other Variations and Sizes available on application.

Also available to your order requirements
 HW 79S Turnbuckles (dimensions as above)
 with Stub Ends.
 Self Colour Only. Stub Ends suitable for
 welding, and Hexagon Coupling Boxes HW 84



COUPLING BOXES



SMALL 'D' SHACKLES

BS 3032 TABLE 1

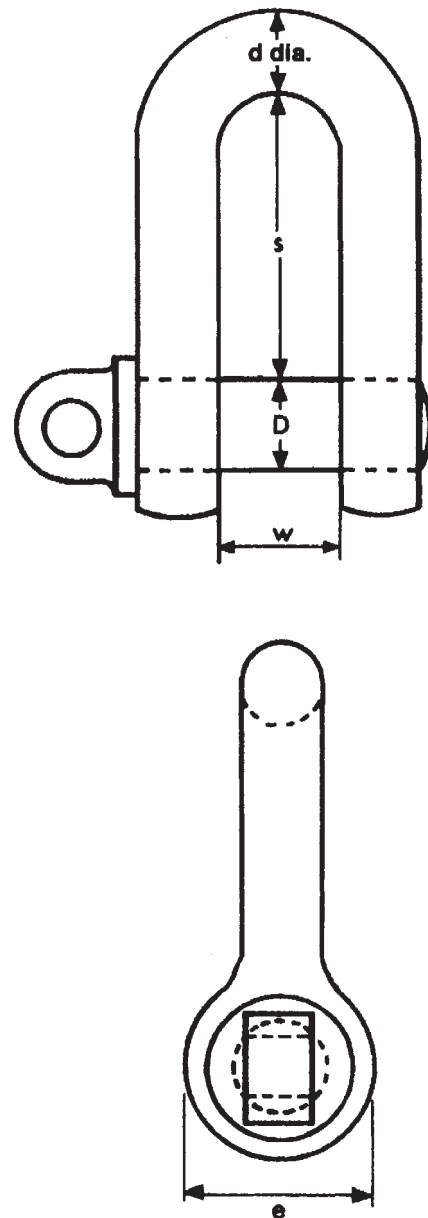
HW 181

ILLUSTRATED WITH TYPE 'A' PIN

ALSO AVAILABLE WITH C, D, E AND F TYPE PINS

PART No.	SWL		d	D	w	s	e	Weight Each Kgs
	Tons	Cwts	in mm	in mm	in mm	in mm	in mm	
HW181/2		12	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$1\frac{3}{8}$	1	0.1
			10	13	16	35	25	
HW181/3	1	0	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{7}{8}$	$1\frac{7}{8}$	$1\frac{1}{4}$	0.3
			13	16	22	48	32	
HW181/4	1	15	$\frac{5}{8}$	$\frac{3}{4}$	1	$2\frac{1}{4}$	$1\frac{1}{2}$	0.6
			16	19	25	57	38	
HW181/5	2	10	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{4}$	$2\frac{3}{4}$	$1\frac{3}{4}$	1.0
			19	22	32	70	44	
HW181/6	3	10	$\frac{7}{8}$	1	$1\frac{3}{8}$	$3\frac{1}{4}$	2	1.5
			22	25	35	83	50	
HW181/7	4	10	1	$1\frac{1}{8}$	$1\frac{1}{2}$	$3\frac{5}{8}$	$2\frac{1}{4}$	2.3
			25	29	38	92	57	
HW181/8	5	10	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{3}{4}$	$4\frac{1}{8}$	$2\frac{1}{2}$	3.3
			29	32	44	105	64	
HW181/9	7	0	$1\frac{1}{4}$	$1\frac{3}{8}$	$1\frac{7}{8}$	$4\frac{1}{2}$	$2\frac{3}{4}$	4.5
			32	35	48	114	70	
HW181/10	8	0	$1\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{1}{8}$	5	3	6.0
			35	38	54	127	76	
HW181/11	10	15	$1\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{3}{8}$	$5\frac{1}{2}$	$3\frac{1}{2}$	8.6
			38	44	60	140	89	
HW181/12	13	0	$1\frac{5}{8}$	$1\frac{7}{8}$	$2\frac{1}{2}$	$5\frac{7}{8}$	$3\frac{3}{4}$	9.5
			41	48	64	149	95	
HW181/13	14	15	$1\frac{3}{4}$	2	$2\frac{3}{4}$	$6\frac{3}{8}$	4	12.5
			44	50	70	162	102	
HW181/14	16	15	$1\frac{7}{8}$	$2\frac{1}{8}$	$2\frac{7}{8}$	$6\frac{3}{4}$	$4\frac{1}{4}$	15.3
			48	54	73	171	108	
HW181/15	19	0	2	$2\frac{1}{4}$	3	$7\frac{1}{4}$	$4\frac{1}{2}$	18.4
			50	57	76	184	114	
HW181/16	20	0	$2\frac{1}{8}$	$2\frac{3}{8}$	$3\frac{1}{4}$	$7\frac{3}{4}$	$4\frac{3}{4}$	22.3
			54	60	83	197	121	
HW181/17	25	0	$2\frac{3}{8}$	$2\frac{3}{4}$	$3\frac{5}{8}$	$8\frac{5}{8}$	$5\frac{1}{2}$	30.9
			60	70	92	219	140	
HW181/18	30	0	$2\frac{1}{2}$	$2\frac{7}{8}$	$3\frac{7}{8}$	9	$5\frac{3}{4}$	35.9
			64	73	98	229	146	
HW181/19	35	0	$2\frac{3}{4}$	$3\frac{1}{8}$	$4\frac{1}{4}$	10	$6\frac{1}{4}$	48.1
			70	80	108	254	159	
HW181/20	40	0	$2\frac{7}{8}$	$3\frac{1}{4}$	$4\frac{3}{8}$	$10\frac{3}{8}$	$6\frac{1}{2}$	54.9
			73	83	111	264	165	
HW181/21	50	0	$3\frac{1}{4}$	$3\frac{3}{4}$	5	$11\frac{3}{4}$	$7\frac{1}{2}$	79.0
			83	95	127	298	191	
HW181/22	65	0	$3\frac{5}{8}$	$4\frac{1}{4}$	$5\frac{1}{2}$	$13\frac{1}{8}$	$8\frac{1}{2}$	109.9
			92	108	140	334	216	
HW181/23	80	0	4	$4\frac{5}{8}$	$6\frac{1}{8}$	$14\frac{1}{2}$	$9\frac{1}{4}$	147.6
			102	117	156	368	235	

Metric dimensions are approximate values only



SHACKLES ALSO MANUFACTURED
TO ORDER TO BS 6994 AND TO
CUSTOMER SPECIFICATION IN
H.T. STEEL AND STAINLESS STEEL.

LARGE 'D' SHACKLES

BS 3032 TABLE 2

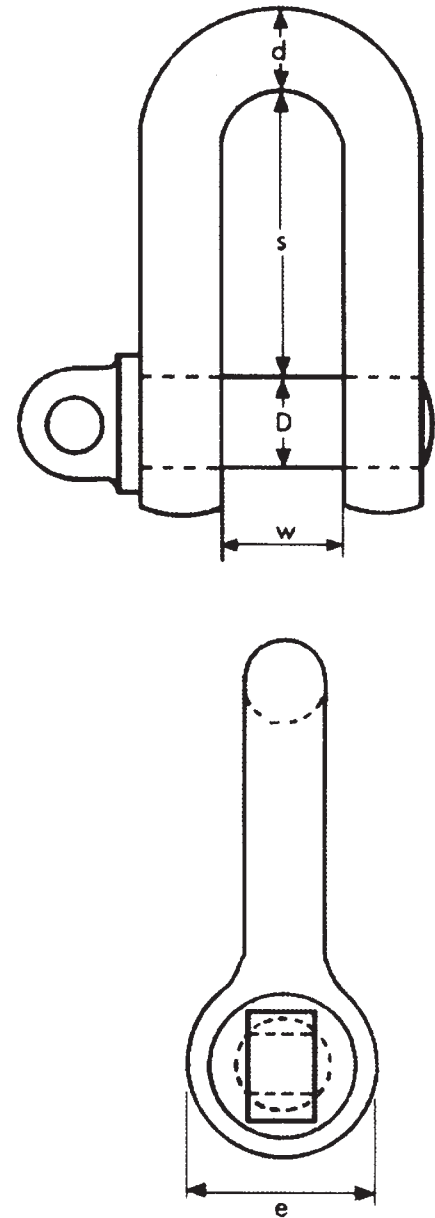
HW 180

ILLUSTRATED WITH TYPE 'A' PIN

ALSO AVAILABLE WITH C, D, E AND F TYPE PINS

PART No.	SWL		d	D	w	s	e	Weight Each Kgs
	Tons	Cwts	in mm	in mm	in mm	in mm	in mm	
HW180/2	10		$\frac{3}{8}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{2}$	1	0.1
			10	13	19	38	25	
HW180/3	15		$\frac{1}{2}$	$\frac{5}{8}$	$1\frac{1}{8}$	$2\frac{1}{8}$	$1\frac{1}{4}$	0.3
			13	16	29	54	32	
HW180/4	1	10	$\frac{5}{8}$	$\frac{3}{4}$	$1\frac{1}{4}$	$2\frac{1}{2}$	$1\frac{1}{2}$	0.6
			16	19	32	64	38	
HW180/5	2	0	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{2}$	$2\frac{7}{8}$	$1\frac{3}{4}$	0.9
			19	22	38	73	44	
HW180/6	3	0	$\frac{7}{8}$	1	$1\frac{3}{4}$	$3\frac{1}{4}$	2	1.6
			22	25	44	83	50	
HW180/7	3	15	1	$1\frac{1}{8}$	2	$3\frac{3}{4}$	$2\frac{1}{4}$	2.3
			25	28	50	95	57	
HW180/8	5	0	$1\frac{1}{8}$	$1\frac{1}{4}$	$2\frac{1}{8}$	$4\frac{1}{8}$	$2\frac{1}{2}$	3.2
			29	32	54	105	64	
HW180/9	6	0	$1\frac{1}{4}$	$1\frac{3}{8}$	$2\frac{3}{8}$	$4\frac{1}{2}$	$2\frac{3}{4}$	4.5
			32	35	60	114	70	
HW180/10	7	0	$1\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{5}{8}$	5	3	6.1
			35	38	67	127	76	
HW180/11	9	10	$1\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{3}{4}$	$5\frac{3}{8}$	$3\frac{1}{2}$	8.7
			38	44	70	137	89	
HW180/12	11	5	$1\frac{5}{8}$	$1\frac{7}{8}$	3	$5\frac{3}{4}$	$3\frac{3}{4}$	10.0
			41	48	76	143	95	
HW180/13	13	0	$1\frac{3}{4}$	2	$3\frac{1}{4}$	$6\frac{1}{8}$	4	12.5
			44	50	83	156	102	
HW180/14	14	5	$1\frac{7}{8}$	$2\frac{1}{8}$	$3\frac{5}{8}$	7	$4\frac{1}{4}$	15.2
			48	54	92	178	108	
HW180/15	16	5	2	$2\frac{1}{4}$	$3\frac{7}{8}$	$7\frac{3}{8}$	$4\frac{1}{2}$	18.5
			50	57	98	187	114	
HW180/16	18	0	$2\frac{1}{8}$	$2\frac{3}{8}$	$4\frac{1}{8}$	$7\frac{3}{4}$	$4\frac{3}{4}$	18.5
			54	60	105	197	121	
HW180/17	20	0	$2\frac{1}{4}$	$2\frac{1}{2}$	$4\frac{1}{4}$	$8\frac{1}{4}$	5	22.3
			57	64	108	210	127	
HW180/18	25	0	$2\frac{1}{2}$	$2\frac{7}{8}$	$4\frac{3}{4}$	$9\frac{1}{4}$	$5\frac{3}{4}$	26.3
			62	73	121	235	146	
HW180/19	30	0	$2\frac{3}{4}$	$3\frac{1}{8}$	$5\frac{1}{4}$	$10\frac{1}{4}$	$6\frac{1}{4}$	31.1
			70	79	133	260	159	
HW180/20	35	0	3	$3\frac{3}{8}$	$5\frac{3}{4}$	11	$6\frac{3}{4}$	62.7
			76	86	146	279	171	
HW180/21	40	0	$3\frac{1}{8}$	$3\frac{1}{2}$	$5\frac{7}{8}$	$11\frac{1}{2}$	7	70.8
			79	89	149	292	178	
HW180/22	50	0	$3\frac{1}{2}$	4	$6\frac{3}{4}$	13	8	99.4
			89	102	171	330	203	
HW180/23	65	0	4	$4\frac{1}{2}$	$7\frac{1}{2}$	$14\frac{3}{4}$	9	148.5
			102	114	191	375	229	
HW180/24	80	0	$4\frac{1}{2}$	5	$8\frac{5}{8}$	$16\frac{1}{2}$	10	211.6
			114	127	219	419	254	

Metric dimensions are approximate values only



**SHACKLES ALSO MANUFACTURED
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H.T. STEEL AND STAINLESS STEEL.**

LARGE BOW SHACKLES

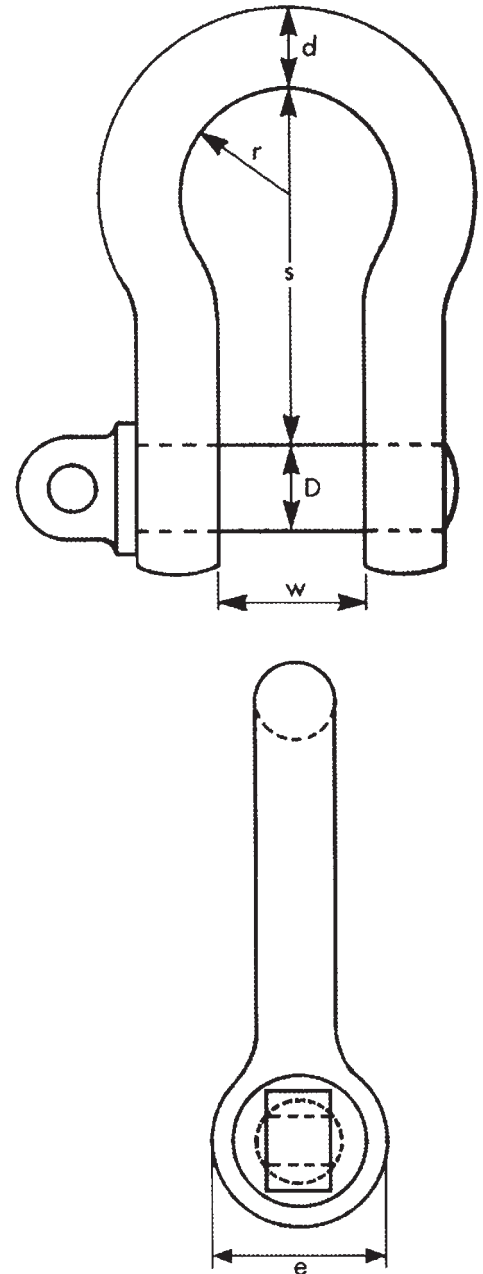
BS 3032 TABLE 3

HW 182

ILLUSTRATED WITH TYPE 'A' PIN
ALSO AVAILABLE WITH C, D, E AND F TYPE PINS

PART No.	SWL		d	D	w	2r	s	e	Weight Each Kgs
	Tons	Cwts	in mm	in mm	in mm	in mm	in mm	in mm	
HW182/2		9	$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	1	$1\frac{5}{8}$	1	0.1
			10	13	16	25	41	25	
HW182/3		15	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{7}{8}$	$1\frac{1}{4}$	$2\frac{1}{8}$	$1\frac{1}{4}$	0.3
			13	16	22	32	54	32	
HW182/4	1	5	$\frac{5}{8}$	$\frac{3}{4}$	$1\frac{1}{8}$	$1\frac{5}{8}$	$2\frac{3}{4}$	$1\frac{1}{2}$	0.6
			16	19	29	41	70	38	
HW182/5	2	0	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{3}{8}$	2	$3\frac{3}{8}$	$1\frac{3}{4}$	1.0
			19	22	35	50	86	44	
HW182/6	2	15	$\frac{7}{8}$	1	$1\frac{5}{8}$	$2\frac{1}{4}$	$3\frac{7}{8}$	2	1.6
			22	25	41	57	98	50	
HW182/7	3	15	1	$1\frac{1}{8}$	$1\frac{3}{4}$	$2\frac{1}{2}$	$4\frac{1}{4}$	$2\frac{1}{4}$	2.4
			25	29	44	64	108	57	
HW182/8	4	15	$1\frac{1}{8}$	$1\frac{1}{4}$	2	$2\frac{7}{8}$	$4\frac{7}{8}$	$2\frac{1}{2}$	3.4
			29	32	50	73	124	64	
HW182/9	5	15	$1\frac{1}{4}$	$1\frac{3}{8}$	$2\frac{1}{4}$	$3\frac{1}{4}$	$5\frac{3}{8}$	$2\frac{3}{4}$	4.8
			32	35	57	83	137	70	
HW182/10	7	5	$1\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{1}{2}$	$3\frac{1}{2}$	6	3	6.2
			35	38	64	89	152	76	
HW182/11	8	10	$1\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{3}{4}$	$3\frac{7}{8}$	$6\frac{5}{8}$	$3\frac{1}{2}$	9.1
			38	44	70	98	168	89	
HW182/12	9	10	$1\frac{5}{8}$	$1\frac{7}{8}$	3	$4\frac{3}{8}$	$7\frac{3}{8}$	$3\frac{3}{4}$	10.4
			41	48	76	111	187	95	
HW182/13	11	10	$1\frac{3}{4}$	2	$3\frac{3}{8}$	$4\frac{3}{4}$	$8\frac{1}{8}$	4	13.1
			44	50	86	121	206	102	
HW182/14	13	0	$1\frac{7}{8}$	$2\frac{1}{8}$	$3\frac{5}{8}$	$5\frac{1}{8}$	$8\frac{3}{4}$	$4\frac{1}{4}$	15.9
			48	54	92	130	222	108	
HW182/15	15	0	2	$2\frac{1}{4}$	$3\frac{7}{8}$	$5\frac{1}{2}$	$9\frac{3}{8}$	$4\frac{1}{2}$	19.5
			50	57	98	140	238	114	
HW182/16	18	10	$2\frac{1}{4}$	$2\frac{1}{2}$	$4\frac{1}{8}$	6	$10\frac{1}{8}$	5	27.7
			57	64	105	152	257	127	
HW182/17	20	0	$2\frac{3}{8}$	$2\frac{5}{8}$	$4\frac{3}{8}$	$6\frac{3}{8}$	$10\frac{3}{4}$	$5\frac{1}{4}$	32.7
			60	67	111	162	273	133	
HW182/18	25	0	$2\frac{5}{8}$	$2\frac{7}{8}$	$4\frac{3}{4}$	7	$11\frac{7}{8}$	$5\frac{3}{4}$	44.0
			67	73	121	178	302	146	
HW182/19	30	0	$2\frac{7}{8}$	$3\frac{1}{8}$	$5\frac{1}{4}$	$7\frac{3}{4}$	13	$6\frac{1}{4}$	57.7
			73	79	133	197	330	159	
HW182/20	35	0	$3\frac{1}{8}$	$3\frac{3}{8}$	$5\frac{3}{4}$	$8\frac{3}{8}$	$14\frac{1}{8}$	$6\frac{3}{4}$	74.0
			79	86	146	213	359	171	
HW182/21	40	0	$3\frac{3}{8}$	$3\frac{5}{8}$	$6\frac{1}{4}$	9	$15\frac{1}{4}$	$7\frac{1}{4}$	93.1
			86	92	159	229	388	184	
HW182/22	50	0	$3\frac{3}{4}$	4	$6\frac{3}{4}$	10	$16\frac{7}{8}$	8	128.0
			95	114	171	254	429	203	
HW182/23	65	0	$4\frac{1}{4}$	$4\frac{5}{8}$	$7\frac{3}{4}$	$11\frac{3}{4}$	19	$9\frac{1}{4}$	186.1
			108	117	197	286	483	235	
HW182/24	80	0	$4\frac{5}{8}$	5	$8\frac{1}{2}$	$12\frac{1}{8}$	21	10	239.7
			117	127	216	308	534	254	

Metric dimensions are approximate values only



SHACKLES ALSO MANUFACTURED
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CUSTOMER SPECIFICATION IN
H.T. STEEL AND STAINLESS STEEL.

SMALL BOW SHACKLES

BS 3032 TABLE 4

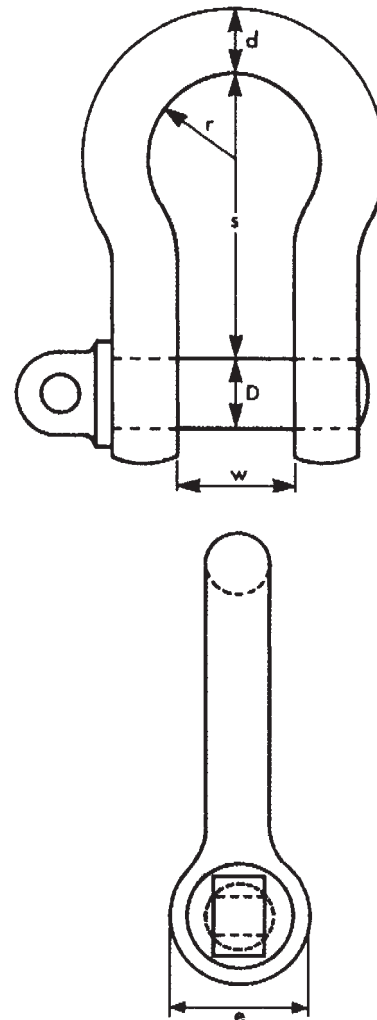
HW 183

ILLUSTRATED WITH TYPE 'A' PIN

ALSO AVAILABLE WITH C, D, E AND F TYPE PINS

PART No.	SWL		d	D	w	2r	s	e	Weight Each Kgs
	Tons	Cwts	in mm	in mm	in mm	in mm	in mm	in mm	
HW183/2	10		$\frac{3}{8}$	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{7}{8}$	$1\frac{1}{2}$	1	0.1
			10	13	16	22	38	25	
HW183/3	1	0	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{7}{8}$	$1\frac{1}{8}$	2	$1\frac{1}{4}$	0.3
			13	16	22	29	50	32	
HW183/4	1	10	$\frac{5}{8}$	$\frac{3}{4}$	$1\frac{1}{8}$	$1\frac{1}{2}$	$2\frac{1}{2}$	$1\frac{1}{2}$	0.7
			16	19	29	38	64	38	
HW183/5	2	0	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{3}{8}$	$1\frac{3}{4}$	3	$1\frac{3}{4}$	1.0
			19	22	35	44	76	44	
HW183/6	3	0	$\frac{7}{8}$	1	$1\frac{1}{2}$	2	$3\frac{1}{2}$	2	1.6
			22	25	38	50	89	50	
HW183/7	4	0	1	$1\frac{1}{8}$	$1\frac{3}{4}$	$2\frac{3}{8}$	4	$2\frac{1}{4}$	2.4
			25	29	44	60	102	57	
HW183/8	5	0	$1\frac{1}{8}$	$1\frac{1}{4}$	2	$2\frac{5}{8}$	$4\frac{1}{2}$	$2\frac{1}{2}$	3.3
			29	32	50	67	114	64	
HW183/9	6	5	$1\frac{1}{4}$	$1\frac{3}{8}$	$2\frac{1}{4}$	3	5	$2\frac{3}{4}$	4.6
			32	35	57	76	127	70	
HW183/10	7	10	$1\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{3}{8}$	$3\frac{1}{4}$	$5\frac{1}{2}$	3	6.3
			35	38	60	83	140	76	
HW183/11	9	5	$1\frac{1}{2}$	$1\frac{3}{4}$	$2\frac{5}{8}$	$3\frac{1}{2}$	6	$3\frac{1}{2}$	8.8
			38	44	67	89	152	89	
HW183/12	10	10	$1\frac{5}{8}$	$1\frac{7}{8}$	$2\frac{7}{8}$	$3\frac{7}{8}$	$6\frac{1}{2}$	$3\frac{3}{4}$	10.1
			41	48	73	98	165	95	
HW183/13	12	10	$1\frac{3}{4}$	2	$3\frac{1}{8}$	$4\frac{1}{8}$	7	4	13.0
			44	50	79	105	178	102	
HW183/14	14	5	$1\frac{7}{8}$	$2\frac{1}{8}$	$3\frac{3}{8}$	$4\frac{1}{2}$	$7\frac{1}{2}$	$4\frac{1}{4}$	15.4
			48	54	86	114	191	108	
HW183/15	16	10	2	$2\frac{1}{4}$	$3\frac{5}{8}$	$4\frac{3}{4}$	8	$4\frac{1}{2}$	18.8
			50	57	92	121	203	114	
HW183/16	18	10	$2\frac{1}{8}$	$2\frac{3}{8}$	$3\frac{3}{4}$	5	$8\frac{1}{2}$	$4\frac{3}{4}$	22.7
			54	60	95	127	216	121	
HW183/17	20	0	$2\frac{1}{4}$	$2\frac{1}{2}$	$4\frac{1}{8}$	$5\frac{3}{8}$	9	5	26.8
			57	64	105	137	229	127	
HW183/18	25	0	$2\frac{1}{2}$	$2\frac{3}{4}$	$4\frac{1}{2}$	6	10	$5\frac{1}{2}$	36.7
			64	70	114	152	254	140	
HW183/19	30	0	$2\frac{3}{4}$	$3\frac{1}{8}$	5	$6\frac{5}{8}$	11	$6\frac{1}{4}$	49.0
			70	79	127	168	279	159	
HW183/20	35	0	3	$3\frac{3}{8}$	$5\frac{5}{8}$	$7\frac{1}{4}$	12	$6\frac{3}{4}$	63.6
			76	86	137	184	305	171	
HW183/21	40	0	$3\frac{1}{8}$	$3\frac{1}{2}$	$5\frac{5}{8}$	$7\frac{1}{2}$	$12\frac{1}{2}$	7	71.7
			79	89	143	191	318	178	
HW183/22	50	0	$3\frac{1}{2}$	$3\frac{7}{8}$	$6\frac{1}{4}$	$8\frac{3}{8}$	14	8	101.2
			89	98	159	213	356	203	
HW183/23	65	0	4	$4\frac{1}{2}$	$7\frac{1}{4}$	$9\frac{5}{8}$	16	9	150.7
			102	114	184	244	407	229	
HW183/24	80	0	$4\frac{1}{2}$	5	$8\frac{1}{8}$	$10\frac{3}{4}$	18	10	214.7
			114	127	206	273	457	254	

Metric dimensions are approximate values only



**SHACKLES ALSO MANUFACTURED
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H.T. STEEL AND STAINLESS STEEL.**

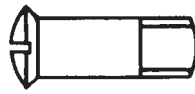
ALTERNATIVE SHACKLE PINS for BS 3032 SHACKLES

MAX RECOMMENDED DIA 2 1/2"

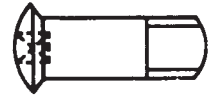
MAX RECOMMENDED DIA 2 1/2"



TYPE A SCREWED PIN WITH EYE COLLAR



TYPE C COUNTERSUNK SCREWED PIN WITH SLOTTED HEAD



TYPE D COUNTERSUNK SCREWED PIN WITH SUNK SQUARE SOCKET



TYPE F PLAIN CYLINDRICAL PIN WITH CIRCULAR HEAD AND FORELOCK



TYPE E BOLT WITH HEXAGON HEAD, HEXAGON NUT AND SPLIT COLLAR PIN
MAX RECOMMENDED DIA 3 1/2"

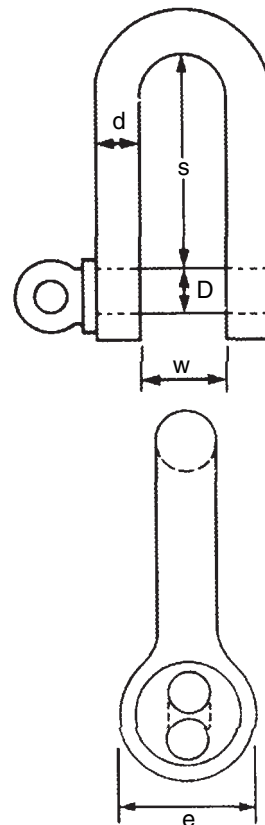
WE WELCOME YOUR ENQUIRIES FOR
SHACKLES TO BS 6994 - 1988

COMMERCIAL 'D' SHACKLES (Bright Zinc Plated)

HW 104

NOT RECOMMENDED FOR LIFTING PURPOSES.
PRODUCED FROM COMMERCIAL QUALITY MILD STEEL.

PART No.	d mm	D mm	w mm	s mm	e mm	Weight per 100 off Kgs
HW104/1	5	5	10	20	12	1.8
HW104/2	6	6	12	24	16	2.8
HW104/3	8	8	16	32	17	6.4
HW104/4	10	10	20	40	22	10.9
HW104/5	11	11	22	44	25	15.4
HW104/6	12	12	24	48	29	21.4
HW104/7	16	16	32	64	44	55
HW104/8	20	20	40	80	48	110
HW104/9	22	22	44	88	57	123
HW104/10	25	25	48	96	64	197

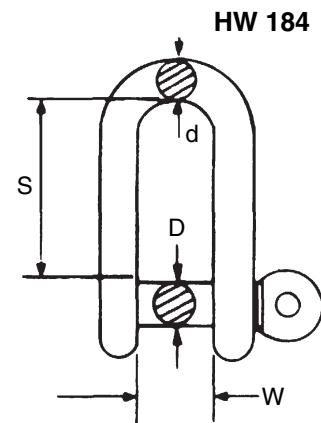


GREEN PIN DEE SHACKLES

Meets Performance Requirements of U.S. Federal Specification
RR-C-271D Screw Pin - Class 2 - Tested and Certified

HW 184

PART No.	SWL Tons	d ins	D ins	W ins	S ins	Weight each Kgs
HW184/0	0.50	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{1}{2}$	$\frac{15}{16}$	0.04
HW184/0A	0.75	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$1\frac{1}{16}$	0.08
HW184/0B	1.00	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{5}{8}$	$1\frac{1}{4}$	0.13
HW184/1	1.50	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{23}{32}$	$1\frac{7}{16}$	0.19
HW184/2	2.00	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{13}{16}$	$1\frac{11}{16}$	0.33
HW184/3	3.25	$\frac{5}{8}$	$\frac{3}{4}$	$1\frac{1}{16}$	2	0.70
HW184/4	4.75	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{4}$	$2\frac{3}{8}$	0.87
HW184/5	6.50	$\frac{7}{8}$	1	$1\frac{7}{16}$	$2\frac{13}{16}$	1.34
HW184/6	8.50	1	$1\frac{1}{8}$	$1\frac{11}{16}$	$3\frac{3}{16}$	2.00
HW184/7	9.50	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{13}{16}$	$3\frac{9}{16}$	2.80
HW184/8	12.00	$1\frac{1}{4}$	$1\frac{3}{8}$	$2\frac{1}{32}$	$3\frac{15}{16}$	3.80
HW184/9	13.50	$1\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$4\frac{7}{16}$	5.13
HW184/10	17.0	$1\frac{1}{2}$	$1\frac{5}{8}$	$2\frac{3}{8}$	$4\frac{7}{8}$	7.53
HW184/11	25.0	$1\frac{3}{4}$	2	$2\frac{7}{8}$	$5\frac{3}{4}$	12.70
HW184/12	35.0	2	$2\frac{1}{4}$	$3\frac{1}{4}$	$6\frac{3}{4}$	18.33
HW184/13	55.0	$2\frac{1}{2}$	$2\frac{3}{4}$	$4\frac{1}{8}$	8	37.90

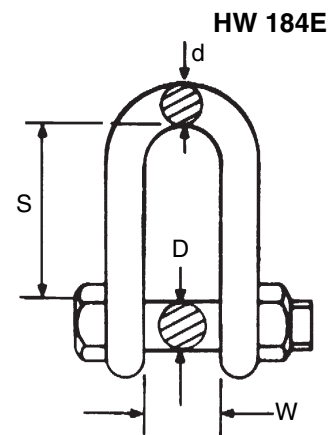


GREEN PIN DEE SHACKLES

Meets Performance Requirements of U.S. Federal Specification
RR-C-271D (Safety) Bolt & Nut Pin - Class 3 - Tested and Certified

HW 184E

PART No.	SWL Tons	d ins	D ins	W ins	S ins	Weight each Kgs
HW184E/2	2.00	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{13}{16}$	$1\frac{5}{8}$	0.40
HW184E/3	3.25	$\frac{5}{8}$	$\frac{3}{4}$	$1\frac{1}{16}$	2	0.80
HW184E/4	4.75	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{4}$	$2\frac{3}{8}$	1.30
HW184E/5	6.50	$\frac{7}{8}$	1	$1\frac{7}{16}$	$2\frac{13}{16}$	1.95
HW184E/6	8.50	1	$1\frac{1}{8}$	$1\frac{11}{16}$	$3\frac{3}{16}$	2.83
HW184E/7	9.50	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{13}{16}$	$3\frac{9}{16}$	3.91
HW184E/8	12.00	$1\frac{1}{4}$	$1\frac{3}{8}$	$2\frac{1}{32}$	$3\frac{15}{16}$	5.33
HW184E/9	13.50	$1\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$4\frac{7}{16}$	6.95
HW184E/10	17.0	$1\frac{1}{2}$	$1\frac{5}{8}$	$2\frac{3}{8}$	$4\frac{7}{8}$	8.80
HW184E/11	25.0	$1\frac{3}{4}$	2	$2\frac{7}{8}$	$5\frac{3}{4}$	14.90
HW184E/12	35.0	2	$2\frac{1}{4}$	$3\frac{1}{4}$	$6\frac{3}{4}$	20.60
HW184E/13	55.0	$2\frac{1}{2}$	$2\frac{3}{4}$	$4\frac{1}{8}$	8	41.40
HW184E/14	85.0	3	$3\frac{1}{4}$	5	9	62.30
HW184E/15	120.0	$3\frac{1}{2}$	$3\frac{3}{4}$	$5\frac{3}{4}$	$10\frac{1}{2}$	110.00

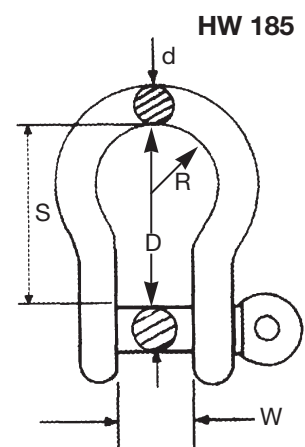


GREEN PIN BOW SHACKLES

Meets Performance Requirements of U.S. Federal Specification
RR-C-271D Screw Pin - Class 2 - Tested and Certified

HW 185

PART No.	SWL Tons	d ins	D ins	W ins	S ins	2R ins	Weight each Kgs
HW185/00	0.33	$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{7}{8}$	$\frac{5}{8}$	0.02
HW185/0	0.50	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{1}{2}$	$1\frac{1}{8}$	$\frac{3}{4}$	0.05
HW185/0A	0.75	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$1\frac{1}{4}$	$\frac{13}{16}$	0.10
HW185/0B	1.00	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{5}{8}$	$1\frac{7}{16}$	1	0.14
HW185/1	1.50	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{23}{32}$	$1\frac{11}{16}$	$1\frac{1}{8}$	0.19
HW185/2	2.00	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{13}{16}$	$1\frac{7}{8}$	$1\frac{1}{4}$	0.35
HW185/3	3.25	$\frac{5}{8}$	$\frac{3}{4}$	$1\frac{1}{16}$	$2\frac{13}{32}$	$1\frac{11}{16}$	0.60
HW185/4	4.75	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{4}$	$2\frac{27}{32}$	2	0.97
HW185/5	6.50	$\frac{7}{8}$	1	$1\frac{7}{16}$	$3\frac{5}{16}$	$2\frac{1}{4}$	1.45
HW185/6	8.50	1	$1\frac{1}{8}$	$1\frac{11}{16}$	$3\frac{3}{4}$	$2\frac{21}{32}$	2.10
HW185/7	9.50	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{13}{16}$	$4\frac{1}{4}$	3	3.00
HW185/8	12.00	$1\frac{1}{4}$	$1\frac{3}{8}$	$2\frac{1}{32}$	$4\frac{11}{16}$	$3\frac{1}{4}$	4.10
HW186/9	13.50	$1\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$5\frac{1}{4}$	$3\frac{5}{8}$	5.93
HW185/10	17.0	$1\frac{1}{2}$	$1\frac{5}{8}$	$2\frac{3}{8}$	$5\frac{3}{4}$	$3\frac{3}{8}$	7.53
HW185/11	25.0	$1\frac{3}{4}$	2	$2\frac{7}{8}$	7	5	12.30
HW185/12	35.0	2	$2\frac{1}{4}$	$3\frac{1}{4}$	$7\frac{3}{4}$	$5\frac{7}{16}$	18.33
HW185/13	55.0	$2\frac{1}{2}$	$2\frac{3}{4}$	$4\frac{1}{8}$	$10\frac{1}{2}$	7	37.90

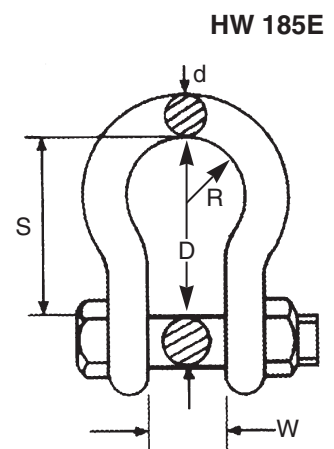


GREEN PIN BOW SHACKLES

Meets Performance Requirements of U.S. Federal Specification
RR-C-271D (Safety) Bolt & Nut Pin - Class 3 - Tested and Certified

HW 185E

PART No.	SWL Tons	d ins	D ins	W ins	S ins	2R ins	Weight each Kgs
HW185E/0A	0.75	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{2}$	$1\frac{1}{4}$	$\frac{13}{16}$	0.10
HW185E/0B	1.00	$\frac{3}{8}$	$\frac{7}{16}$	$\frac{5}{8}$	$1\frac{7}{16}$	1	0.16
HW185E/1	1.50	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{23}{32}$	$1\frac{11}{16}$	$1\frac{1}{8}$	0.22
HW185E/2	2.00	$\frac{1}{2}$	$\frac{5}{8}$	$\frac{13}{16}$	$1\frac{7}{8}$	$1\frac{1}{4}$	0.42
HW185E/3	3.25	$\frac{5}{8}$	$\frac{3}{4}$	$1\frac{1}{16}$	$2\frac{13}{32}$	$1\frac{11}{16}$	0.71
HW185E/4	4.75	$\frac{3}{4}$	$\frac{7}{8}$	$1\frac{1}{4}$	$2\frac{27}{32}$	2	1.16
HW185E/5	6.50	$\frac{7}{8}$	1	$1\frac{7}{16}$	$3\frac{5}{16}$	$2\frac{1}{4}$	1.78
HW185E/6	8.50	1	$1\frac{1}{8}$	$1\frac{11}{16}$	$3\frac{3}{4}$	$2\frac{21}{32}$	2.61
HW185E/7	9.50	$1\frac{1}{8}$	$1\frac{1}{4}$	$1\frac{13}{16}$	$4\frac{1}{4}$	3	3.70
HW185E/8	12.00	$1\frac{1}{4}$	$1\frac{3}{8}$	$2\frac{1}{32}$	$4\frac{11}{16}$	$3\frac{3}{4}$	4.90
HW185E/9	13.50	$1\frac{3}{8}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$5\frac{1}{4}$	$3\frac{5}{8}$	6.90
HW185E/10	17.0	$1\frac{1}{2}$	$1\frac{5}{8}$	$2\frac{3}{8}$	$5\frac{3}{4}$	$3\frac{7}{8}$	8.80
HW185E/11	25.0	$1\frac{3}{4}$	2	$2\frac{7}{8}$	7	5	14.90
HW185E/12	35.0	2	$2\frac{1}{4}$	$3\frac{1}{4}$	$7\frac{3}{4}$	$5\frac{7}{16}$	20.60
HW185E/13	55.0	$2\frac{1}{2}$	$2\frac{3}{4}$	$4\frac{1}{8}$	$10\frac{1}{2}$	7	41.40
HW185E/14	85.0	3	$3\frac{1}{4}$	5	13	$7\frac{15}{32}$	62.3
HW185E/15	120.0	$3\frac{1}{2}$	$3\frac{3}{4}$	$5\frac{3}{4}$	15	$9\frac{3}{8}$	110

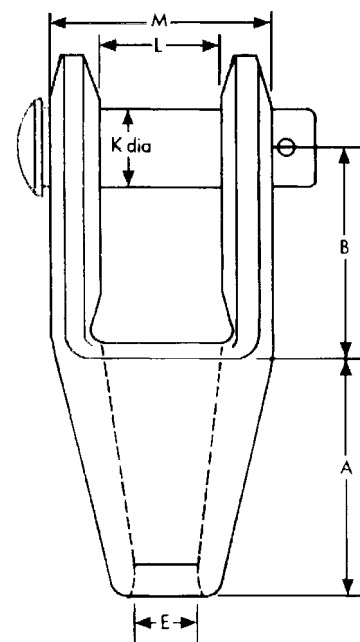
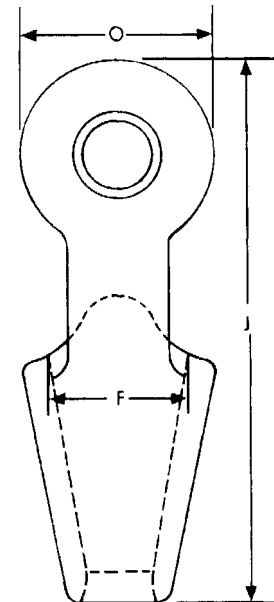


OPEN SOCKETS FOR WIRE ROPE

BS 463 1958 PART 1

HW 20

PART No.	Nom Size in mm	A in mm	B in mm	E in mm	F in mm	J in mm	K in mm	L in mm	M in mm	O in mm	Proof Load Tons	Weight Each Kgs
HW20/1	$\frac{1}{4}$	$1\frac{11}{16}$	$1\frac{1}{4}$	$\frac{5}{16}$	$\frac{1}{2}$	$3\frac{1}{2}$	$\frac{1}{2}$	$\frac{5}{8}$	$1\frac{1}{4}$	$1\frac{1}{8}$	1	0.3
	6	43	32	8	13	89	13	16	32	29		
HW20/2	$\frac{5}{16}$	$1\frac{11}{16}$	$1\frac{1}{4}$	$\frac{3}{8}$	$\frac{5}{8}$	$3\frac{1}{2}$	$\frac{1}{2}$	$\frac{5}{8}$	$1\frac{1}{4}$	$1\frac{1}{8}$	$1\frac{1}{2}$	0.3
	8	43	32	10	16	89	13	16	32	29		
HW20/3	$\frac{3}{8}$	2	$1\frac{11}{16}$	$\frac{15}{32}$	$\frac{3}{4}$	$4\frac{7}{16}$	$\frac{5}{8}$	$\frac{7}{8}$	$1\frac{11}{16}$	$1\frac{1}{2}$	2	0.6
	10	50	43	12	19	113	16	22	43	38		
HW20/4	$\frac{7}{16}$	2	$1\frac{11}{16}$	$\frac{17}{32}$	$\frac{7}{8}$	$4\frac{7}{16}$	$\frac{5}{8}$	$\frac{7}{8}$	$1\frac{11}{16}$	$1\frac{1}{2}$	$2\frac{1}{2}$	0.6
	11	50	43	13	22	113	16	22	43	38		
HW20/5	$\frac{1}{2}$	$2\frac{3}{8}$	$2\frac{1}{16}$	$\frac{19}{32}$	1	$5\frac{5}{16}$	$\frac{13}{16}$	$1\frac{1}{8}$	$1\frac{7}{8}$	$1\frac{3}{4}$	4	0.8
	13	60	52	15	25	135	21	29	48	44		
HW20/6	$\frac{9}{16}$	$2\frac{3}{8}$	$2\frac{1}{16}$	$\frac{21}{32}$	$1\frac{1}{8}$	$5\frac{5}{16}$	$\frac{13}{16}$	$1\frac{1}{8}$	$1\frac{7}{8}$	$1\frac{3}{4}$	$4\frac{1}{2}$	0.8
	14	60	52	17	29	135	21	29	48	44		
HW20/7	$\frac{5}{8}$	$2\frac{3}{4}$	$2\frac{1}{2}$	$\frac{23}{32}$	$1\frac{1}{4}$	$6\frac{1}{4}$	$\frac{15}{16}$	$1\frac{1}{4}$	$2\frac{5}{16}$	2	6	1.1
	16	70	64	18	32	159	24	32	59	50		
HW20/8	$\frac{3}{4}$	3	$2\frac{5}{8}$	$\frac{27}{32}$	$1\frac{1}{2}$	$6\frac{7}{8}$	$1\frac{1}{8}$	$1\frac{1}{2}$	$2\frac{3}{4}$	$2\frac{1}{2}$	$8\frac{1}{2}$	1.9
	19	76	67	21	38	175	29	38	70	64		
HW20/9	$\frac{7}{8}$	$3\frac{3}{8}$	3	1	$1\frac{3}{4}$	$7\frac{3}{4}$	$1\frac{1}{4}$	$1\frac{11}{16}$	$3\frac{1}{16}$	$2\frac{3}{4}$	11	2.7
	22	86	76	25	44	197	32	43	78	70		
HW20/10	1	$4\frac{1}{8}$	$3\frac{1}{2}$	$1\frac{1}{8}$	2	$9\frac{5}{16}$	$1\frac{1}{2}$	$1\frac{7}{8}$	$3\frac{1}{2}$	$3\frac{3}{8}$	15	4.8
	25	105	89	29	50	237	38	48	89	86		
HW20/11	$1\frac{1}{8}$	$4\frac{1}{2}$	4	$1\frac{1}{4}$	$2\frac{1}{4}$	$10\frac{5}{16}$	$1\frac{5}{8}$	2	$3\frac{11}{16}$	$3\frac{5}{8}$	19	6.8
	29	114	102	32	57	262	41	50	94	92		
HW20/12	$1\frac{1}{4}$	$5\frac{1}{4}$	$4\frac{3}{8}$	$1\frac{3}{8}$	$2\frac{1}{2}$	$11\frac{11}{16}$	$1\frac{7}{8}$	$2\frac{1}{8}$	$4\frac{3}{8}$	$4\frac{1}{8}$	23	10.0
	32	133	111	35	64	297	48	54	111	105		
HW20/13	$1\frac{3}{8}$	6	$4\frac{1}{2}$	$1\frac{9}{16}$	3	13	$2\frac{1}{4}$	$2\frac{9}{16}$	$5\frac{5}{16}$	5	28	15.2
	35	152	114	40	76	330	57	65	135	127		
HW20/14	$1\frac{1}{2}$	6	$4\frac{1}{2}$	$1\frac{11}{16}$	3	13	$2\frac{1}{4}$	$2\frac{9}{16}$	$5\frac{5}{16}$	5	33	15.2
	38	152	114	43	76	330	57	65	135	127		
HW20/15	$1\frac{5}{8}$	6	$4\frac{1}{2}$	$1\frac{13}{16}$	3	13	$2\frac{1}{4}$	$2\frac{9}{16}$	$5\frac{5}{16}$	5	38	15.2
	41	152	114	46	76	330	57	65	135	127		
*HW20/16	2	$7\frac{11}{16}$	$6\frac{1}{2}$	$2\frac{13}{16}$	4	$17\frac{5}{8}$	$2\frac{3}{4}$	$3\frac{1}{8}$	$7\frac{1}{4}$	$6\frac{7}{8}$	50	45.4
	50	195	165	56	102	448	70	79	184	175		
*HW20/17	$2\frac{1}{4}$	9	$7\frac{1}{2}$	$2\frac{1}{2}$	$4\frac{1}{2}$	$20\frac{1}{4}$	$3\frac{1}{2}$	$3\frac{3}{4}$	8	$7\frac{1}{2}$	76	72.5
	57	229	191	64	114	515	89	95	203	191		



LARGER SIZES ON APPLICATION.

IMPERIAL SIZES APPLY.

(METRIC SIZES INDICATE APPROXIMATE EQUIVALENTS).

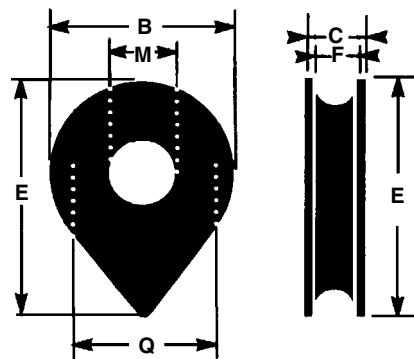
* These items are beyond the sizes covered by B.S.S.

CLOSED SOCKETS AVAILABLE TO ORDER.

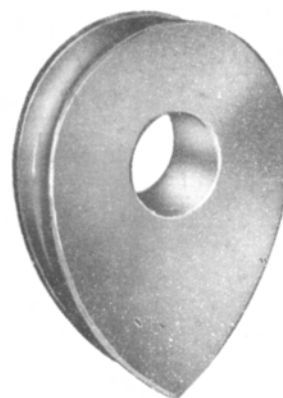
SOLID THIMBLES

No. 12 BS 464 / 1958 / Table 3

PART No.	Approx. dia. of Rope in mm	B in mm	C in mm	E in mm	F (min) in mm	M (max) in mm	Q in mm
HW12/1	$\frac{5}{16}$	$1\frac{3}{8}$	$\frac{7}{16}$	$1\frac{7}{8}$	$\frac{5}{16}$	$\frac{1}{2}$	1
	8	35	11	48	8	13	25
HW12/2	$\frac{3}{8}$	$1\frac{3}{4}$	$\frac{9}{16}$	$2\frac{1}{4}$	$\frac{7}{16}$	$\frac{5}{8}$	$1\frac{1}{4}$
	10	44	14	57	11	16	32
HW12/3	$\frac{7}{16}$	$2\frac{1}{16}$	$\frac{11}{16}$	$2\frac{3}{4}$	$\frac{1}{2}$	$\frac{3}{4}$	$1\frac{1}{2}$
	11	52	17	70	13	19	38
HW12/4	$\frac{9}{16}$	$2\frac{3}{8}$	$\frac{13}{16}$	$3\frac{1}{4}$	$\frac{9}{16}$	$\frac{7}{8}$	$1\frac{3}{4}$
	14	60	21	83	14	22	44
HW12/5	$\frac{5}{8}$	$2\frac{3}{4}$	$\frac{7}{8}$	$3\frac{3}{4}$	$\frac{5}{8}$	1	2
	16	70	22	95	16	25	50
HW12/6	$\frac{11}{16}$	$3\frac{1}{8}$	1	$4\frac{1}{8}$	$\frac{3}{4}$	$1\frac{1}{8}$	$2\frac{1}{4}$
	18	79	25	105	19	29	57
HW12/7	$\frac{13}{16}$	$3\frac{3}{8}$	$1\frac{1}{8}$	$4\frac{5}{8}$	$\frac{7}{8}$	$1\frac{1}{4}$	$2\frac{1}{2}$
	21	86	29	117	22	32	64
HW12/8	$\frac{7}{8}$	$3\frac{3}{4}$	$1\frac{1}{4}$	5	$\frac{15}{16}$	$1\frac{3}{8}$	$2\frac{3}{4}$
	22	95	32	127	24	35	70
HW12/9	$\frac{15}{16}$	$4\frac{1}{8}$	$1\frac{5}{16}$	$5\frac{1}{2}$	1	$1\frac{1}{2}$	3
	24	105	33	140	25	38	76
HW12/10	1	$4\frac{1}{2}$	$1\frac{7}{16}$	6	$1\frac{1}{16}$	$1\frac{5}{8}$	$3\frac{1}{4}$
	26	114	37	152	27	41	83
HW12/11	$1\frac{1}{8}$	$4\frac{7}{8}$	$1\frac{9}{16}$	$6\frac{1}{2}$	$1\frac{3}{16}$	$1\frac{3}{4}$	$3\frac{1}{2}$
	29	124	40	165	30	44	89
HW12/12	$1\frac{1}{4}$	$5\frac{1}{2}$	$1\frac{3}{4}$	$7\frac{1}{2}$	$1\frac{5}{16}$	2	4
	32	140	44	191	33	51	102
HW12/13	$1\frac{3}{8}$	$6\frac{1}{8}$	2	$8\frac{1}{4}$	$1\frac{1}{2}$	$2\frac{1}{4}$	$4\frac{1}{2}$
	35	156	50	210	38	57	114
HW12/14	$1\frac{1}{2}$	$6\frac{3}{4}$	$2\frac{1}{4}$	$9\frac{1}{4}$	$1\frac{5}{8}$	$2\frac{1}{2}$	5
	38	171	57	235	41	64	127



* Dimension M is the standard pin hole and the largest recommended for each thimble. Should a smaller hole be required the diameter of this should be stated in the enquiry and order.



MATERIAL: MALLEABLE IRON

BLANKS SUPPLIED IF REQUIRED

IMPERIAL SIZES APPLY (METRIC SIZES INDICATE APPROXIMATE EQUIVALENTS)

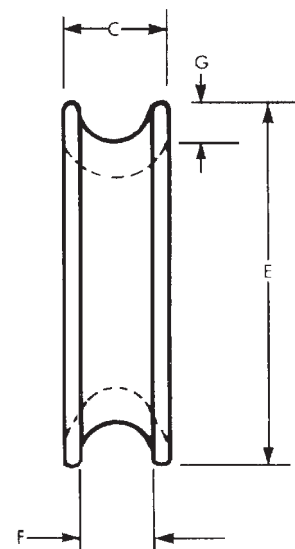
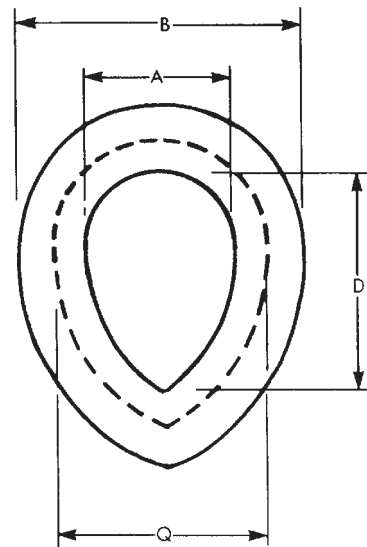
CERTAIN SIZES SUBJECT TO AVAILABILITY

ORDINARY THIMBLES

BS 464 1958 TABLE 1

HW 11

PART No.	Approx. dia of rope in mm	A in mm	B in mm	C Min in mm	D in mm	E in mm	F Min in mm	G in mm	Q in mm	Average Weight per 10 Kgs
HW11/1	$\frac{5}{16}$	$\frac{7}{8}$	$1\frac{1}{2}$	$\frac{1}{2}$	$1\frac{5}{16}$	$2\frac{1}{8}$	$\frac{5}{16}$	$\frac{5}{32}$	$1\frac{3}{16}$	0.6
	8	22	38	13	33	54	8	4	30	
HW11/2	$\frac{3}{8}$	1	$1\frac{7}{8}$	$\frac{9}{16}$	$1\frac{1}{2}$	$2\frac{1}{2}$	$\frac{13}{32}$	$\frac{1}{4}$	$1\frac{3}{8}$	0.8
	10	25	48	14	38	64	10	6	35	
HW11/3	$\frac{7}{16}$	$1\frac{1}{8}$	$2\frac{1}{8}$	$\frac{11}{16}$	$1\frac{5}{8}$	$2\frac{7}{8}$	$\frac{1}{2}$	$\frac{5}{16}$	$1\frac{1}{2}$	1.4
	11	29	54	17	41	73	13	8	38	
HW11/4	$\frac{1}{2}$	$1\frac{1}{4}$	$2\frac{5}{16}$	$\frac{13}{16}$	$1\frac{3}{4}$	$3\frac{1}{8}$	$\frac{9}{16}$	$\frac{5}{16}$	$1\frac{11}{16}$	1.9
	12	32	59	21	44	79	14	8	43	
HW11/5	$\frac{9}{16}$	$1\frac{1}{4}$	$2\frac{5}{16}$	$\frac{13}{16}$	$1\frac{3}{4}$	$3\frac{1}{8}$	$\frac{9}{16}$	$\frac{5}{16}$	$1\frac{11}{16}$	1.9
	14	32	59	21	44	79	14	8	43	
HW11/6	$\frac{5}{8}$	$1\frac{5}{8}$	$2\frac{15}{16}$	$\frac{7}{8}$	$2\frac{5}{16}$	$3\frac{7}{8}$	$\frac{5}{8}$	$\frac{11}{32}$	$2\frac{1}{4}$	3.4
	16	41	75	22	59	98	16	9	57	
HW11/7	$\frac{11}{16}$	$1\frac{3}{4}$	$3\frac{1}{8}$	$1\frac{1}{8}$	$2\frac{5}{8}$	$4\frac{1}{4}$	$\frac{3}{4}$	$\frac{3}{8}$	$2\frac{3}{8}$	4.0
	18	44	79	29	67	108	19	10	60	
HW11/8	$\frac{3}{4}$	2	$3\frac{5}{8}$	$1\frac{1}{8}$	$2\frac{7}{8}$	$4\frac{7}{8}$	$\frac{13}{16}$	$\frac{7}{16}$	$2\frac{3}{4}$	6.2
	19	51	92	29	73	124	21	11	70	
HW11/9	$\frac{13}{16}$	2	$3\frac{5}{8}$	$1\frac{1}{8}$	$2\frac{7}{8}$	$4\frac{7}{8}$	$\frac{13}{16}$	$\frac{7}{16}$	$2\frac{3}{4}$	6.2
	21	51	92	29	73	124	21	11	70	
HW11/10	$\frac{7}{8}$	$2\frac{1}{4}$	4	$1\frac{1}{4}$	$3\frac{1}{4}$	$5\frac{1}{4}$	$\frac{7}{8}$	$\frac{1}{2}$	3	7.6
	22	57	102	32	83	134	22	13	76	
HW11/11	$\frac{15}{16}$	$2\frac{1}{2}$	$4\frac{5}{16}$	$1\frac{5}{16}$	$3\frac{5}{8}$	$5\frac{3}{4}$	1	$\frac{1}{2}$	$3\frac{5}{16}$	10.6
	24	64	110	33	92	146	25	13	84	
HW11/12	1	$2\frac{3}{4}$	$4\frac{11}{16}$	$1\frac{3}{8}$	$4\frac{1}{4}$	$6\frac{3}{8}$	$1\frac{1}{16}$	$\frac{9}{16}$	$3\frac{9}{16}$	12.5
	25	70	119	35	108	162	27	14	90	
HW11/13	$1\frac{1}{8}$	3	$5\frac{1}{4}$	$1\frac{1}{2}$	$4\frac{3}{8}$	7	$1\frac{1}{8}$	$\frac{5}{8}$	4	15.1
	28	76	134	38	111	178	29	16	102	
HW11/14	$1\frac{1}{4}$	$3\frac{3}{4}$	6	$1\frac{5}{8}$	$5\frac{1}{4}$	$7\frac{3}{4}$	$1\frac{5}{16}$	$\frac{5}{8}$	$4\frac{3}{4}$	20.4
	31	95	152	41	134	197	33	16	121	
HW11/15	$1\frac{3}{8}$	$4\frac{1}{8}$	$6\frac{7}{8}$	$1\frac{7}{8}$	6	9	$1\frac{1}{2}$	$\frac{3}{4}$	$5\frac{3}{8}$	31.8
	35	105	175	48	152	229	38	19	137	
HW11/16	$1\frac{1}{2}$	$4\frac{1}{2}$	$7\frac{3}{4}$	$2\frac{1}{8}$	$6\frac{1}{2}$	10	$1\frac{5}{8}$	$\frac{15}{16}$	$5\frac{7}{8}$	48.8
	38	114	197	54	165	254	41	24	149	
HW11/17	$1\frac{5}{8}$	$4\frac{1}{2}$	$7\frac{3}{4}$	$2\frac{3}{16}$	$6\frac{1}{2}$	10	$1\frac{11}{16}$	$\frac{15}{16}$	$5\frac{7}{8}$	49.9
	41	114	197	56	165	254	43	24	149	
HW11/18	$1\frac{3}{4}$	5	9	$2\frac{1}{4}$	7	$11\frac{1}{4}$	2	1	7	55.6
	44	127	229	57	178	286	51	25	178	
HW11/19	$1\frac{7}{8}$	$5\frac{1}{4}$	$9\frac{3}{4}$	$2\frac{5}{8}$	$7\frac{1}{2}$	$12\frac{1}{2}$	$2\frac{3}{8}$	$1\frac{1}{8}$	$7\frac{1}{2}$	-
	48	134	248	67	191	317	60	29	191	
HW11/20	2	$5\frac{1}{2}$	$10\frac{1}{8}$	$2\frac{3}{4}$	8	13	$2\frac{1}{2}$	$1\frac{3}{16}$	$7\frac{3}{4}$	-
	51	140	257	70	203	330	64	30	197	

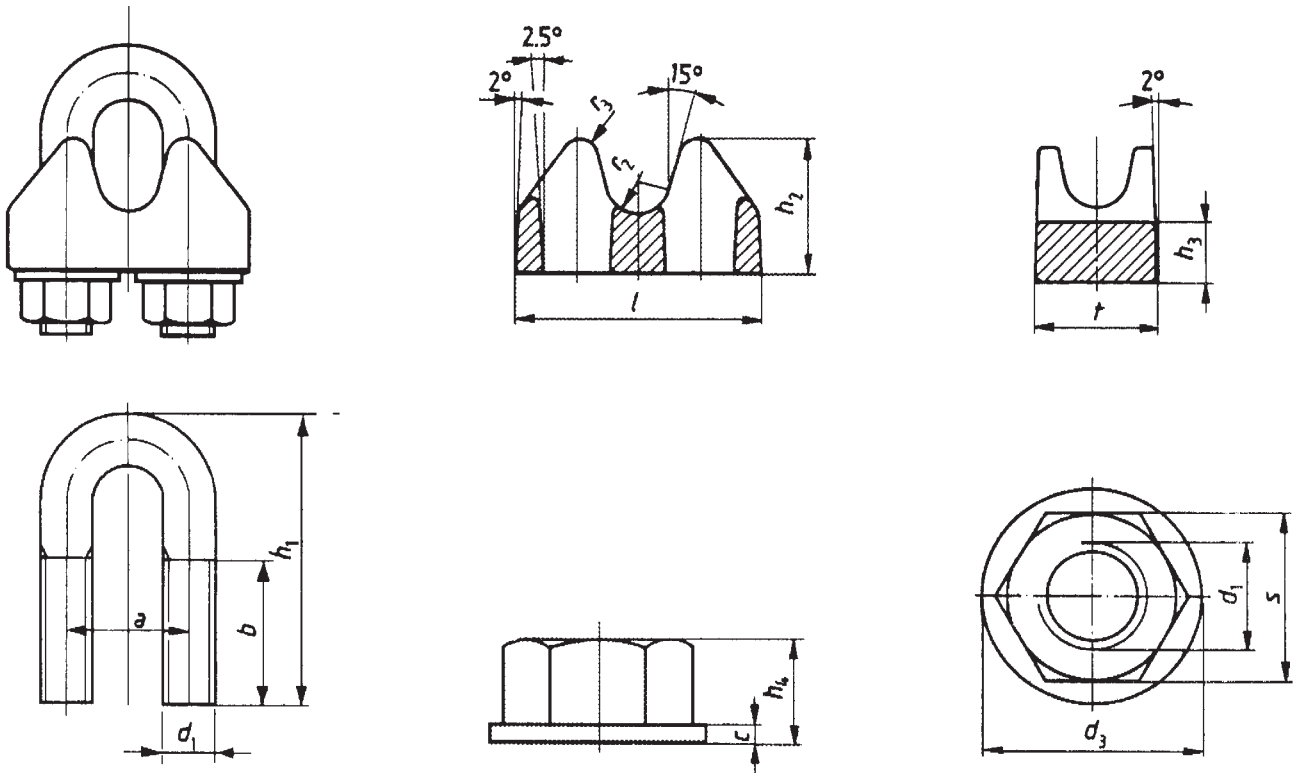


Metric dimensions are approximate

CERTAIN SIZES SUBJECT TO AVAILABILITY

WIRE ROPE GRIPS

DIN 1142



Nominal size ¹ = maximum nominal diameter of rope	U-bolt SA				Bridge SB ³						Collar Nut SC					Weight of wire rope grips per 1000 Kg =
	a	b	d ¹	h ¹	h ²	h ³	l	r ²	r ³	t	c	d ¹	d ²	h ⁴	s	
5	12	13	M5	25	13	5	25	2.5	2	13	1	M5	10	5	8	20.8
6.5	14	17	M6	32	14	6	30	3.5	2	16	1.6	M6	12.5	6	10	40
8	18	20	M8	41	18	8.5	39	4	3	20	1.6	M8	17	8	13	82
10	20	24	M8	46	21	9	40	5	3	20	1.6	M8	17	8	13	92
13	27	30	M12	64	29	13	55	6.5	4	28	2.5	M12	24	12.5	19	275
16	32	35	M14	76	35	16	64	8	4	32	2.5	M14	28	13.5	22	430
19	36	36	M14	83	40	17	68	9.5	4	32	2.5	M14	28	13.5	22	490
22	40	40	M16	96	44	20	74	11	4	34	3	M16	30	16	24	680
26	46	50	M20	111	51	22	84	12	5	38	5	M20	37	24	32	1170
30	54	55	M20	127	59	27	95	15	5	41	5	M20	37	24	32	1400
34	60	60	M22	141	67	30	105	17	5	45	7	M22	45	30	36	2130
40	68	65	M24	159	77	33	117	20	5	49	7	M24	45	30	36	2680

FIELD OF APPLICATION

Wire rope grips accordance with this standard are intended for producing temporary rope terminations, where these are subject to safety requirements, i.e. where failure of the rope termination could endanger persons or property (see Explanations).

Wire rope grips according to this standard must not be used as hoist ropes in mines, in rope drives for cranes in steel works and rolling mills or for permanent fastening of rope in other rope drives, designed in accordance with DIN 15 020 Part 1. Nor must they be used for rope terminations for load suspension devices in the operation of lifting appliances, except in the case of lifting tackles where these are produced for a special application and are not re-used.

DECK OR EYE PLATES

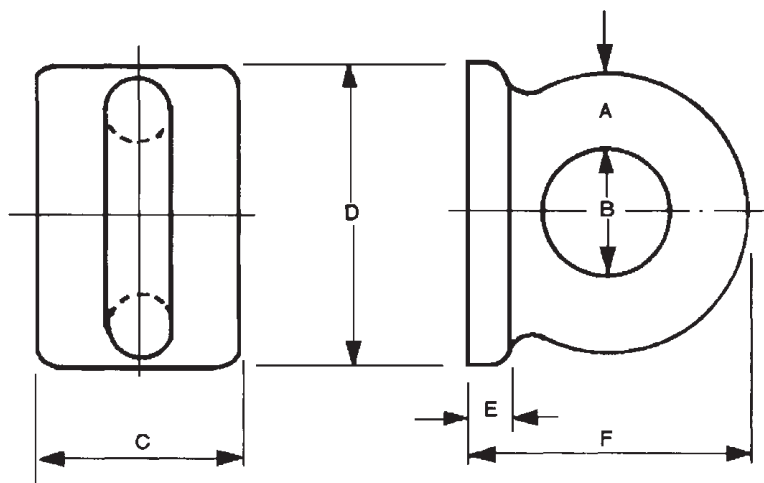
HW 13 Rectangular Base

ADMIRALTY PATTERN

MATERIAL: BS970 - 150M19

NORMALISED

ALSO AVAILABLE IN OTHER MATERIALS AND STAINLESS STEEL TO ORDER



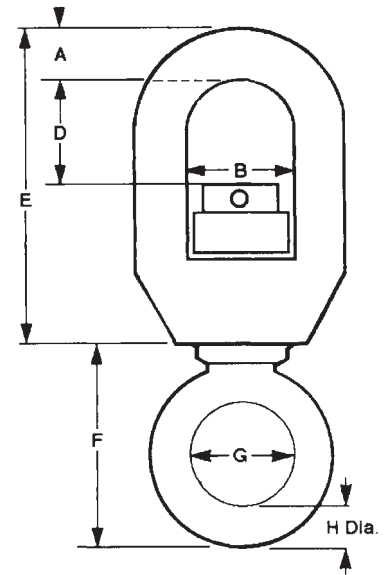
PART No.	DIA OF MATERIAL IN EYE A mm	DIA OF EYE B mm	BASE PLATES			TOTAL HEIGHT F mm	PROOF LOAD Tonnes	N.A.T.O. No.	OLD A.P. No.	WEIGHT EACH Kgs
			C mm	D mm	E mm					
HW13/1	10	20	25	45	6	38	2.0	5140	4014	0.14
HW13/2	12.5	25	35	60	8	50	3.5	5141	4015	0.31
HW13/3	16	32	45	70	10	64	5.5	5142	4016	0.45
HW13/4	19	38	50	85	12	76	7.5	5143	4017	0.79
HW13/5	22	44	60	100	12.5	89	9.7		4018	1.36
HW13/6	25	50	70	115	16	100	13.0	5144	4019	1.82
HW13/7	28	57	75	130	17	114	16.0		4020	2.95
HW13/8	32	64	85	145	19	128	20.0	5145	4021	3.86
HW13/9	35	69	95	158	21	140	24.0		4022	5.11
HW13/10	38	76	100	170	22	152	29.0	5146	4023	6.58
HW13/12	50	100	140	230	30	203	50.0	5148	4027	14.98

BALL BEARING SWIVELS

HW 113

PART No.	SWL Tonnes	A mm	B mm	D mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW113/1	0.5	13	36	30	90	70	30	13	0.40
HW113/2	1.0	16	46	46	135	110	50	20	1.60
HW113/3	2.0	20	52	52	140	120	62	24	2.60

Other sizes on application

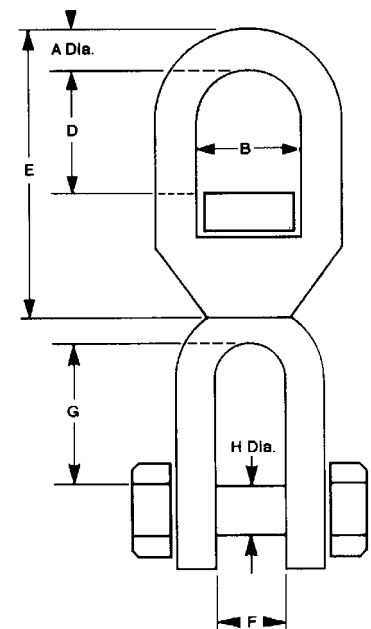


SWIVEL SHACKLES

HW 116

PART No.	SWL Tonnes	A mm	B mm	D mm	E mm	F mm	G mm	H mm	Weight Each Kgs
HW116/1	0.5	13	36	40	90	25	42	16	0.90
HW116/2	1.0	16	46	60	135	31	50	22	2.25
HW116/3	2.0	20	52	55	140	38	70	25	3.50
HW116/4	3.0	26	60	70	170	50	750	32	5.90

Other sizes on application



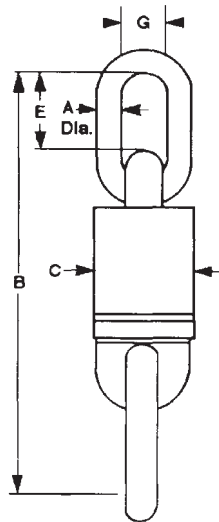
TOTALLY ENCLOSED SWIVELS

HW 27

TOTALLY ENCLOSED BALL BEARING SWIVEL
MATERIAL: BS970 - 080A27 (EN5A)

PART No.	SWL Tonnes	A mm	B mm	C mm	E mm	G mm
HW27/3	3	22	304	76	58	38
HW27/4	4	29	375	88	70	57
HW27/5	6.5	32	431	112	83	57

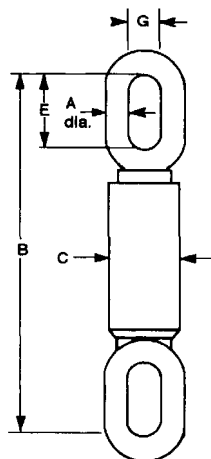
FOR SMALLER LOADING WE OFFER 3 TON DERATED



HW 27A

PART No.	SWL Tonnes	A mm	B mm	C mm	E mm	G mm
HW27A/6	10	38	557	142	110	44
HW27A/7	12.5	48	635	150	120	60
HW27A/8	20	58	786	215	150	75
HW27A/9	25	64	940	228	203	95
HW27A/10	32	70	1115	254	229	114
HW27A/11	40	70	1200	324	229	114

LARGER SIZES ON APPLICATION



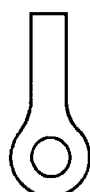
ALTERNATIVE END FITTING FOR HW27A SERIES



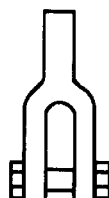
OVAL EYE



ROUND EYE



PALM EYE
DRILLED
HOLE



JAW



INTEGRAL JAW



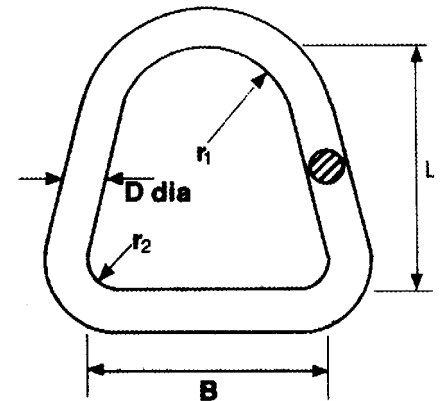
HOOK

TRIANGULAR LINKS

BS 2837 1970 TABLE 1

HW 306A

PART No.	Class	Nominal Size of Link D mm	Internal Breadth B mm	Internal Length L mm	Internal Radius of top r ₁ mm	Internal Radius of bottom r ₂ mm	Safe Working Load Tonnes
HW306A/1	A	10	67	67	25	8	0.32
HW306A/2	B	12	67	67	25	8	0.5
HW306A/3	C	14	67	67	25	8	0.8
HW306A/4	D	19	93	115	38	14	1.25
HW306A/5	E	22	93	115	38	14	2.0
HW306A/6	F	26	93	115	38	14	3.2
HW306A/7	G	34	118	140	50	21	5.0
HW306A/8	H	40	118	140	50	21	8.0



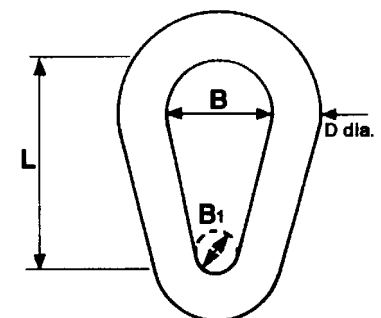
MATERIAL: BS970 - 080A27 (EN5A)

REEVABLE EGG LINKS

BS 2902 1957 TABLE 3

HW 173

PART No.	Suitable for Short Link Chain Dia.	Proof Load Tons	D inches	B ₁ inches	B inches	L inches
HW173/1	1/4	1	7/16	5/8	1 3/8	2 3/4
HW173/2	5/16	1 1/2	9/16	3/4	1 5/8	3 3/8
HW173/3	3/8	2 1/4	5/8	7/8	2	4
HW173/4	7/16	3	3/4	1	2 1/4	4 3/4
HW173/5	1/2	4	7/8	1 1/8	2 5/8	5 3/8
HW173/6	9/16	5	15/16	1 3/8	3	6
HW173/7	5/8	6 1/4	1 1/16	1 1/2	3 1/4	6 3/4
HW173/8	11/16	7 1/2	1 1/8	1 5/8	3 1/2	7 3/8
HW173/9	3/4	9	1 1/4	1 3/4	3 7/8	8
HW173/10	7/8	12 1/4	1 7/16	2	4 1/2	9 5/8



**MATERIAL: BS970 - 080A27 (EN5A)
NORMALISED**

Larger or intermediate sizes electric resistance flash butt welded.

FORGED RINGS

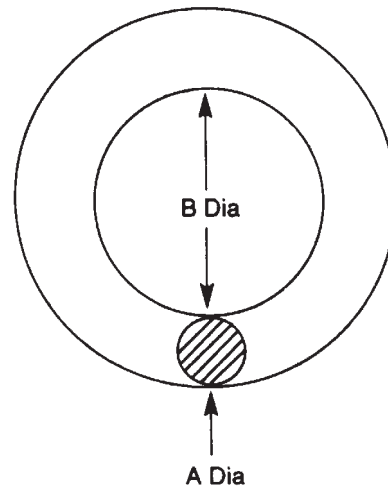
HW 28

MATERIAL: BS970 - 080A27 (EN5A) NORMALISED

**CONSTRUCTION - DROP FORGED OR FORGED AND WELDED.
(SUBJECT TO QUANTITY AND AVAILABILITY)**

**OTHER SPECIAL SIZES / MATERIALS CAN BE PRODUCED
ON REQUEST, INCLUDING STAINLESS STEEL.**

PART No.	A Dia. Material		B Inside Dia.		SWL Tonnes	Approx Weight Each Kgs
	mm	ins	mm	ins		
HW28/0	13	1/2	50	2	0.5	0.2
HW28/4	16	5/8	64	2 1/2	0.8	0.42
HW28/5	19	3/4	76	3	1.2	0.72
HW28/8	22	7/8	89	3 1/2	1.7	1.14
HW28/11	25	1	102	4	2.2	1.75
HW28WT/19	38	1 1/2	152	6	5.1	6.0



BS EN ISO 9001:2000
Registration No. Q 05597

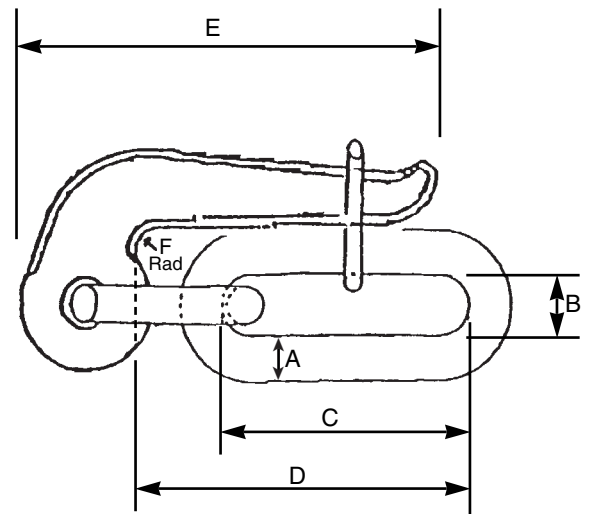
SENHOUSE SLIPS GALVANISED

Proof Loaded

HW 107G

PART No.	A ins	B ins	C ins	D ins	E ins	F Rad ins	Proof Load Kgs
HW107G/1	$\frac{3}{8}$	$\frac{5}{8}$	$3\frac{1}{2}$	$4\frac{1}{2}$	$4\frac{1}{2}$	$\frac{3}{16}$	750

Other sizes available as specials



WEBBING SLINGS

HW 912

THE SAFE RELIABLE AND EFFECTIVE METHOD OF LIFTING LOADS.

THE OUTSTANDING FLEXIBILITY RESULTS IN A HIGH SHOCK LOAD RESISTANCY.

SLING MANUFACTURED IN LENGTHS TO SUIT CUSTOMERS REQUIREMENTS.

Sling lengths are taken from B/B to suit your requirements, can be supplied with wear sleeves if required.

Metal 'D' and 'DP' links as optional fittings available.

Loading Based on 6:1 safety factor.

Width of Webbing (inch)	Webbing Flat Slings Soft Becket Eye Kgs	Choker Hitch Kgs	Basket Legs Vertical Kgs
1	500	400	1000
2	1000	800	2000
3	1500	1200	3000
4	2000	1600	4000
6	3000	2400	6000
8	4000	3200	8000
10	5000	4000	10000
12	6000	4800	12000

Double above loadings for endless and double sewn slings.



D-DP Plates
HW 912/1



Twisted Eye
HW 912/2



Endless
HW 912/3



Flat Eye
HW 912/4

STANDARD WIRE ROPE SHEAVE CASTINGS ONLY

Can be supplied as Castings Only or Machined and Fitted with Bearings

HW 175mm SERIES	SIZE	A	B	C	D
	mm	175	214	34	10

SERIAL No.	E mm	F mm	G mm	H mm	ROPE DIA.
HW 175-040-40-50	4.0	40	50	80	8mm
HW 175-040-50-50	"	50	"	90	
HW 175-040-60-50	"	60	"	100	
HW 175-040-70-50	"	70	"	110	
HW 175-040-80-50	"	80	"	120	

HW 175-045-40-50	4.5	40	50	80	9mm
HW 175-045-50-50	"	50	"	90	
HW 175-045-60-50	"	60	"	100	
HW 175-045-70-50	"	70	"	110	
HW 175-045-80-50	"	80	"	120	

HW 175-055-40-50	5.5	40	50	80	11mm
HW 175-055-50-50	"	50	"	90	
HW 175-055-60-50	"	60	"	100	
HW 175-055-70-50	"	70	"	110	
HW 175-055-80-50	"	80	"	120	

HW 200mm SERIES	SIZE	A	B	C	D
	mm	200	244	38	10

SERIAL No.	E mm	F mm	G mm	H mm	ROPE DIA.
HW 200-045-40-50	4.5	40	50	80	9mm
HW 200-045-50-50	"	50	"	90	
HW 200-045-60-50	"	60	"	100	
HW 200-045-70-50	"	70	"	110	
HW 200-045-80-50	"	80	"	120	

HW 200-055-40-50	5.5	40	50	80	11mm
HW 200-055-50-50	"	50	"	90	
HW 200-055-60-50	"	60	"	100	
HW 200-055-70-50	"	70	"	110	
HW 200-055-80-50	"	80	"	120	

HW 200-065-40-50	6.5	40	50	80	13mm
HW 200-065-50-50	"	50	"	90	
HW 200-065-60-50	"	60	"	100	
HW 200-065-70-50	"	70	"	110	
HW 200-065-80-50	"	80	"	120	

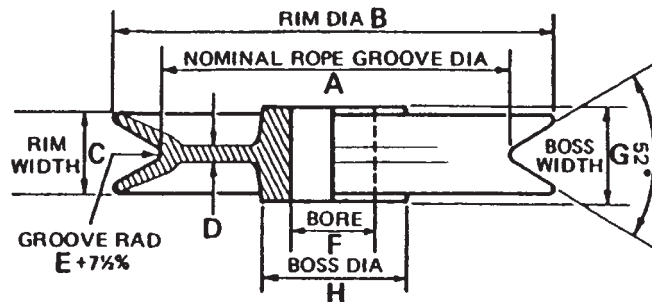
HW 250mm SERIES	SIZE	A	B	C	D
	mm	250	300	43	10

SERIAL No.	E mm	F mm	G mm	H mm	ROPE DIA.
HW 250-045-40-50	4.5	40	50	80	9mm
HW 250-045-50-50	"	50	"	90	
HW 250-045-60-50	"	60	"	100	
HW 250-045-70-50	"	70	"	110	
HW 250-045-80-50	"	80	"	120	

HW 250-065-40-50	6.5	40	50	80	13mm
HW 250-065-50-50	"	50	"	90	
HW 250-065-60-50	"	60	"	100	
HW 250-065-70-50	"	70	"	110	
HW 250-065-80-50	"	80	"	120	

HW 250-070-40-50	7.0	40	50	80	14mm
HW 250-070-50-50	"	50	"	90	
HW 250-070-60-50	"	60	"	100	
HW 250-070-70-50	"	70	"	110	
HW 250-070-80-50	"	80	"	120	

RANGE: 175mm to 275mm



MATERIAL:
SG IRON TO BS 2789 GRADE 420/12

HW 225mm SERIES	SIZE	A	B	C	D
	mm	225	273	41	10

SERIAL No.	E mm	F mm	G mm	H mm	ROPE DIA.
HW 225-045-40-50	4.5	40	50	80	9mm
HW 225-045-50-50	"	50	"	90	
HW 225-045-60-50	"	60	"	100	
HW 225-045-70-50	"	70	"	110	
HW 225-045-80-50	"	80	"	120	

HW 225-055-40-50	5.5	40	50	80	11mm
HW 225-055-50-50	"	50	"	90	
HW 225-055-60-50	"	60	"	100	
HW 225-055-70-50	"	70	"	110	
HW 225-055-80-50	"	80	"	120	

HW 225-065-40-50	6.5	40	50	80	13mm
HW 225-065-50-50	"	50	"	90	
HW 225-065-60-50	"	60	"	100	
HW 225-065-70-50	"	70	"	110	
HW 225-065-80-50	"	80	"	120	

HW 275mm SERIES	SIZE	A	B	C	D
	mm	275	333	47	10

SERIAL No.	E mm	F mm	G mm	H mm	ROPE DIA.
HW 275-065-50-70	6.5	50	70	90	13mm
HW 275-065-60-70	"	60	"	100	
HW 275-065-70-70	"	70	"	110	
HW 275-065-80-70	"	80	"	120	
HW 275-065-90-70	"	90	"	140	
HW 275-065-100-70	"	100	"	150	
HW 275-065-110-70	"	110	"	160	
HW 275-065-120-70	"	120	"	170	

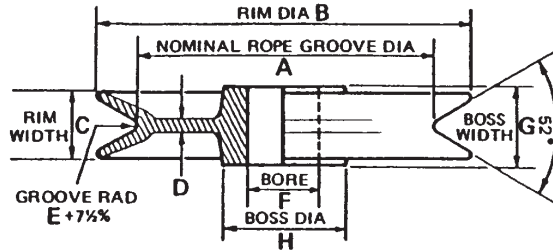
HW 275-070-50-70	7.0	50	70	90	14mm
HW 275-070-60-70	"	60	"	100	
HW 275-070-70-70	"	70	"	110	
HW 275-070-80-70	"	80	"	120	
HW 275-070-90-70	"	90	"	140	
HW 275-070-100-70	"	100	"	150	
HW 275-070-110-70	"	110	"	160	
HW 275-070-120-70	"	120	"	170	

HW 275-080-50-70	8.0	50	70	90	16mm
HW 275-080-60-70	"	60	"	100	
HW 275-080-70-70	"	70	"	110	
HW 275-080-80-70	"	80	"	120	
HW 275-080-90-70	"	90	"	140	
HW 275-080-100-70	"	100	"	150	
HW 275-080-110-70	"	110	"	160	
HW 275-080-120-70	"	120	"	170	

Dimensions G and F refer to cast size only and an allowance for machining should be made when specifying any particular size.

STANDARD WIRE ROPE SHEAVE CASTINGS ONLY

Can be supplied as Castings Only or Machined and Fitted with Bearings



MATERIAL:
SG IRON TO BS 2789 GRADE 420/12

HW 350mm SERIES

SIZE mm	A	B	C	D	G
350	420	35	15	75	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 350-080-50-75	8.0	50	90	16mm
HW 350-080-60-75	"	60	100	
HW 350-080-70-75	"	70	110	
HW 350-080-80-75	"	80	120	
HW 350-080-90-75	"	90	140	
HW 350-080-100-75	"	100	150	
HW 350-080-110-75	"	110	160	
HW 350-080-120-75	"	120	170	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 350-095-50-75	9.5	50	90	19mm
HW 350-095-60-75	"	60	100	
HW 350-095-70-75	"	70	110	
HW 350-095-80-75	"	80	120	
HW 350-095-90-75	"	90	140	
HW 350-095-100-75	"	100	150	
HW 350-095-110-75	"	110	160	
HW 350-095-120-75	"	120	170	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 350-110-50-75	11.0	50	90	22mm
HW 350-110-60-75	"	60	100	
HW 350-110-70-75	"	70	110	
HW 350-110-80-75	"	80	120	
HW 350-110-90-75	"	90	140	
HW 350-110-100-75	"	100	150	
HW 350-110-110-75	"	110	160	
HW 350-110-120-75	"	120	170	

HW 400mm SERIES

SIZE mm	A	B	C	D	G
400	475	58	15	75	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 400-080-50-75	8.0	50	90	16mm
HW 400-080-60-75	"	60	100	
HW 400-080-70-75	"	70	110	
HW 400-080-80-75	"	80	120	
HW 400-080-90-75	"	90	140	
HW 400-080-100-75	"	100	150	
HW 400-080-110-75	"	110	160	
HW 400-080-120-75	"	120	170	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 400-095-50-75	9.5	50	90	19mm
HW 400-095-60-75	"	60	100	
HW 400-095-70-75	"	70	110	
HW 400-095-80-75	"	80	120	
HW 400-095-90-75	"	90	140	
HW 400-095-100-75	"	100	150	
HW 400-095-110-75	"	110	160	
HW 400-095-120-75	"	120	170	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 400-110-50-75	11.0	50	90	22mm
HW 400-110-60-75	"	60	100	
HW 400-110-70-75	"	70	110	
HW 400-110-80-75	"	80	120	
HW 400-110-90-75	"	90	140	
HW 400-110-100-75	"	100	150	
HW 400-110-110-75	"	110	160	
HW 400-110-120-75	"	120	170	

HW 450mm SERIES

SIZE mm	A	B	C	D	G
450	530	62	15	85	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 450-090-70-85	9.0	70	120	18mm
HW 450-090-80-85	"	80	130	
HW 450-090-90-85	"	90	140	
HW 450-090-100-85	"	100	150	
HW 450-090-110-85	"	110	160	
HW 450-090-120-85	"	120	180	
HW 450-090-130-85	"	130	190	
HW 450-090-140-85	"	140	200	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 450-110-70-85	11.0	70	120	22mm
HW 450-110-80-85	"	80	130	
HW 450-110-90-85	"	90	140	
HW 450-110-100-85	"	100	150	
HW 450-110-110-85	"	110	160	
HW 450-110-120-85	"	120	180	
HW 450-110-130-85	"	130	190	
HW 450-110-140-85	"	140	200	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 450-130-70-85	13.0	70	120	26mm
HW 450-130-80-85	"	80	130	
HW 450-130-90-85	"	90	140	
HW 450-130-100-85	"	100	150	
HW 450-130-110-85	"	110	160	
HW 450-130-120-85	"	120	180	
HW 450-130-130-85	"	130	190	
HW 450-130-140-85	"	140	200	

HW 500mm SERIES

SIZE mm	A	B	C	D	G
500	585	66	15	85	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 500-100-70-85	10.0	70	120	20mm
HW 500-100-80-85	"	80	130	
HW 500-100-90-85	"	90	140	
HW 500-100-100-85	"	100	150	
HW 500-100-110-85	"	110	160	
HW 500-100-120-85	"	120	180	
HW 500-100-130-85	"	130	190	
HW 500-100-140-85	"	140	200	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 500-110-70-85	11.0	70	120	22mm
HW 500-110-80-85	"	80	130	
HW 500-110-90-85	"	90	140	
HW 500-110-100-85	"	100	150	
HW 500-110-110-85	"	110	160	
HW 500-110-120-85	"	120	180	
HW 500-110-130-85	"	130	190	
HW 500-110-140-85	"	140	200	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 500-140-70-85	14.0	70	120	28mm
HW 500-140-80-85	"	80	130	
HW 500-140-90-85	"	90	140	
HW 500-140-100-85	"	100	150	
HW 500-140-110-85	"	110	160	
HW 500-140-120-85	"	120	180	
HW 500-140-130-85	"	130	190	
HW 500-140-140-85	"	140	200	

HW 550mm SERIES

SIZE mm	A	B	C	D	G
550	640	70	20	90	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 550-110-70-90	11.0	70	120	22mm
HW 550-110-80-90	"	80	130	
HW 550-110-90-90	"	90	140	
HW 550-110-100-90	"	100	150	
HW 550-110-110-90	"	110	160	
HW 550-110-120-90	"	120	180	
HW 550-110-130-90	"	130	190	
HW 550-110-140-90	"	140	200	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 550-130-70-90	13.0	70	120	26mm
HW 550-130-80-90	"	80	130	
HW 550-130-90-90	"	90	140	
HW 550-130-100-90	"	100	150	
HW 550-130-110-90	"	110	160	
HW 550-130-120-90	"	120	180	
HW 550-130-130-90	"	130	190	
HW 550-130-140-90	"	140	200	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 550-140-70-90	14.0	70	120	28mm
HW 550-140-80-90	"	80	130	
HW 550-140-90-90	"	90	140	
HW 550-140-100-90	"	100	150	
HW 550-140-110-90	"	110	160	
HW 550-140-120-90	"	120	180	
HW 550-140-130-90	"	130	190	
HW 550-140-140-90	"	140	200	

HW 600mm SERIES

SIZE mm	A	B	C	D	G
600	695	75	20	90	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 600-110-80-90	12.0	80	130	24mm
HW 600-110-90-90	"	90	140	
HW 600-110-100-90	"	100	150	
HW 600-110-110-90	"	110	160	
HW 600-110-120-90	"	120	180	
HW 600-110-130-90	"	130	190	
HW 600-110-140-90	"	140	200	
HW 600-110-150-90	"	150	210	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 600-130-80-90	13.0	80	130	26mm
HW 600-130-90-90	"	90	140	
HW 600-130-100-90	"	100	150	
HW 600-130-110-90	"	110	160	
HW 600-130-120-90	"	120	180	
HW 600-130-130-90	"	130	190	
HW 600-130-140-90	"	140	200	
HW 600-130-150-90	"	150	210	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 600-160-80-90	16.0	80	130	32mm
HW 600-160-90-90	"	90	140	
HW 600-160-100-90	"	100	150	
HW 600-160-110-90	"	110	160	
HW 600-160-120-90	"	120	180	
HW 600-160-130-90	"	130	190	
HW 600-160-140-90	"	140	200	
HW 600-160-150-90	"	150	210	

HW 650mm SERIES

SIZE mm	A	B	C	D	G
650	750	80	20	90	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 650-120-80-90	12.0	80	130	24mm
HW 650-120-90-90	"	90	140	
HW 650-120-100-90	"	100	150	
HW 650-120-110-90	"	110	160	
HW 650-120-120-90	"	120	180	
HW 650-120-130-90	"	130	190	
HW 650-120-140-90	"	140	200	
HW 650-120-150-90	"	150	210	

SERIAL No.	E mm	F mm	H mm	ROPE DIA.
HW 650-140-80-90	14.0	80	130	28mm
HW 650-140-90-90	"	90	140	
HW 650-140-100-90	"	100	150	
HW 650-140-110-90	"	110	160	
HW 650-140-120-90	"	120	180	
HW 650-140-130-90	"	130	190	
HW 650-140-140-90	"	140	200	
HW 650-140-150-90	"	150	210	

HW 650-175-80-90	17.5	80	130	35mm
HW 650-175-90-90	"	90	140	
HW 650-175-100-90	"	100	150	
HW 650-175-110-90	"	110	160	
HW 650-175-120-90	"	120	180	
HW 650-175-130-90	"	130	190	
HW 650-175-140-90	"	140	200	
HW 650-175-150-90	"	150	210	

MISCELLANEOUS PRODUCTS



SINGLE AND MULTIPLE SHEAVE WIRE ROPE BLOCKS



TIMBER DOGS



WIRE ROPE SLINGS



LOAD BINDERS

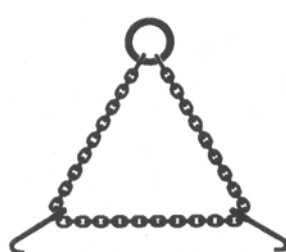


**DOUBLE LEG
CHAIN SLINGS**



**FOUR LEG
CHAIN SLINGS**

H.T. STEEL or ALLOY STEEL



**BARREL (OR CAN)
SLINGS**



BEAM SLINGS

ALL MANUFACTURED TO CUSTOMERS REQUIREMENTS