

DIN SHANK HOOKS- TOLERANCES & OPTIONAL LONG SHANKS



DIN SHANK HOOKS- TOLERANCES AND OPTIONAL EXTENDED LENGTH SHANKS

METRIC DIMENSIONS

Single hooks per DIN 15401

Single Hook Number	Long Shank Add Value to L1 (mm)	Single Hook Number	Dimensional Tolerances (mm)								
			a1	a2	a3	b1	b2	d1	e3	h1	h2
2.5	62	1.6 and 2.5	+3 / -0								
4	100	4 and 5	+4 / -0								
5	92	6 and 8	+5 / -0								
6	50	10 to 16	+6 / -0								
8	102	20	+8 / -0								
10 to 20	150	25 and 32	+12 / -0	+/- 10	+16 / -0	+12 / -0	+/- 10	+20 / -0			
25 to 125	200	40 to 63	+16 / -0	+/- 12	+20 / -0	+16 / -0	+/- 12	+24 / -0			
160 and 200	Per Order	80 to 125	+20 / -0	+/- 16	+25 / -0	+20 / -0	+/- 16	+32 / -0			
		160 to 200	+25 / -0	+/- 20	+32 / -0	+25 / -0	+/- 20	+40 / -0			

Duplex hooks per DIN 15402

Duplex Hook Number	Long Shank Add Value to L1 (mm)	Duplex Hook Number	Dimensional Tolerances (mm)							
			a1	a2	a3	b1	d1	e	h	L1
6	115	6 and 8	+5 / -0							
8	120	10 to 16	+6 / -0							
10 and 12	110	20 and 25	+8 / -0							
16 and 20	N/A	32	+12 / -0	+/- 10	+16 / -0	+12 / -0	+5 / -0	+20 / -0		
25	150	40 to 63	+16 / -0	+/- 12	+20 / -0	+16 / -0	+6 / -0	+24 / -0		
32 to 160	200	80 to 125	+20 / -0	+/- 16	+25 / -0	+20 / -0	+8 / -0	+32 / -0		
200 and 250	Per Order	160 to 250	+25 / -0	+/- 20	+32 / -0	+25 / -0	+10 / -0	+40 / -0		

IMPERIAL DIMENSIONS

Single hooks per DIN 15401

Single Hook Number	Long Shank Add Value to L1 (in)	Single Hook Number	Dimensional Tolerances (inches)								
			a1	a2	a3	b1	b2	d1	e3	h1	h2
2.5	2.44	1.6 and 2.5	+.12 / -0								
4	3.94	4 and 5	+.16 / -0								
5	3.62	6 and 8	+.2 / -0								
6	1.97	10 to 16	+.24 / -0								
8	4.02	20	+.32 / -0								
10 to 20	5.91	25 and 32	+.47 / -0	+/- .39	+.63 / -0	+.47 / -0	+/- .39	+.79 / -0			
25 to 125	7.88	40 to 63	+.63 / -0	+/- .47	+.79 / -0	+.63 / -0	+/- .47	+.95 / -0			
160 and 200	Per Order	80 to 125	+.79 / -0	+/- .63	+.99 / -0	+.79 / -0	+/- .63	+1.26 / -0			
		160 to 200	+.99 / -0	+/- .79	+1.26 / -0	+.99 / -0	+/- .79	+1.58 / -0			

Duplex hooks per DIN 15402

Duplex Hook Number	Long Shank Add Value to L1 (in)	Duplex Hook Number	Dimensional Tolerances (inches)							
			a1	a2	a3	b1	d1	e	h	L1
6	4.53	6 and 8	+.2 / -0							
8	4.73	10 to 16	+.24 / -0							
10 and 12	4.33	20 and 25	+.32 / -0							
16 and 20	N/A	32	+.47 / -0	+/- .39	+.63 / -0	+.47 / -0	+.2 / -0	+.79 / -0		
25	5.91	40 to 63	+.63 / -0	+/- .47	+.79 / -0	+.63 / -0	+.24 / -0	+.95 / -0		
32 to 160	7.88	80 to 125	+.79 / -0	+/- .63	+.99 / -0	+.79 / -0	+.32 / -0	+1.26 / -0		
200 and 250	Per Order	160 to 250	+.99 / -0	+/- .79	+1.26 / -0	+.99 / -0	+.39 / -0	+1.58 / -0		



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In Service Inspection & Maintenance of DIN 15401 & 15402 Forged Hooks

Inspection Prior to Install:

- Hooks shall be visually checked for applicable markings and conformance with supplied hook certificate.
- Measure hook opening, dimension **y**, for hooks with frame sizes 6 and larger. See Table A.

Hook Deformation:

- Hooks shall be inspected for deformation at least once per year.
- For hook models up to frame size #5 (e.g. Miller GS5x or GD5x designations) a visual examination is sufficient.
- Hooks frame sizes #6 (e.g., Miller GS6x/GD6x) and up are to be inspected to the **y** dimension per the marking on the hook. Replace the hook if **y** dimension deformation is greater than 10%
- If deformation of less than 10% is detected, the hook must be inspected by NDE for cracks, or the hook must be replaced. Cracks may be ground away as long as the resulting surfaces are smooth (no notches), crack free, and within wear limit criteria below.

Wear:

- Replace hook if wear exceeds 5% of DIN 15401 (single hook) dimension **h2**. See Table A.
- Replace hook if wear exceeds 5% of DIN 15402 (duplex hook) dimensions **h**. See Table A.
- Notches and other superficial imperfections shall be ground smooth.
- For all other dimensions, a maximum not greater than 10% deviation from original dimensions is permitted.
- No welds of any kind to compensate for wear are permitted

Certificates/Documentation:

- Testing/Examination results and measurements to remedy defects shall be recorded.
- It is recommended that all applicable documentation be kept on file for the life of the hook.

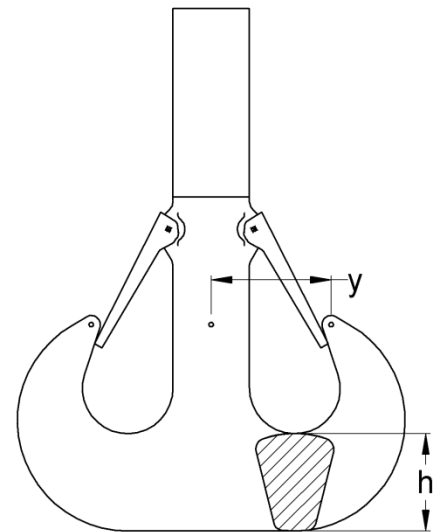
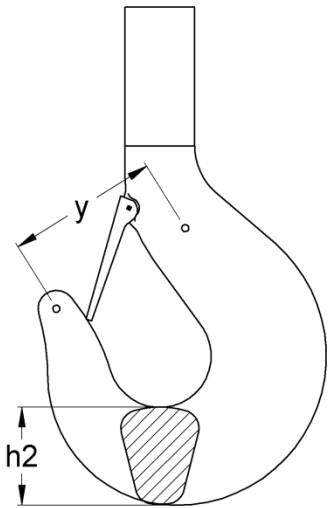


Table A:

Hook No.	1.6	2.5	4	5	6	8	10	12	16	20	25	32	40	50	63	80	
DIN 15401 (Single)	h2	48	58	67	75	85	95	106	118	132	150	170	190	212	236	265	300
	y					130	145	160	180	200	225	255	290	320	355	400	450
DIN 15402 (Duplex)	h					75	85	95	106	118	132	150	170	190	212	236	265
	y					93	104.5	117.5	132.5	148.5	165.5	185	207	233	265	297	331

Note: Actual **y** dimension may differ from Table A due to forging tolerances. Always follow **y** dimension as marked on the hook.