NSL

ASCO PART OF ASCOWORLD

Lifting Equipment Legislation Matrix

Equipment and Initial Exam / Test

Group	No.	EQUIPMENT TYPE	MANUFACTURING CODES / STANDARDS	INITIAL EXAM / TEST: PRIOR TO FIRST USAGE	AFTER REPAIR / MODIFICATION	ANNUALLY	QUADRENNIALLY	EVERY 5 YEARS (see note: 4)
LIFTING EQUIPMENT – LIFTING APPLIANCES	1	CRANES (PEDESTAL / MOBILE) (UNDER 20t)	BS7121 / BS EN 13001	●	●		◇	
	2	CRANES (PEDESTAL / MOBILE) (20t-50t)	BS7121 / BS EN 13001	●	●		◇	
	3	CRANES (PEDESTAL / MOBILE) (OVER 50t)	BS7121 / BS EN 13001	●	●		◇	
	4	ELECTRIC OVERHEAD TRAVELLING CRANES	BS7121 / BS EN 13001	●	●			
	5	MARINE LIFEBOAT DAVITS	BS MA41 / 15516 : 2006	●	●			
	6	DAVIT BLOCKS & ASSOC. EQUIPMENT	BS MA41	●	●			
	7	FORKLIFT TRUCKS	BS.ISO 5057 / BS EN 1726-1/2	●	●			
	8	PALLET STACKERS	ISO 2295-4 / ISO 5766	●	●			
	9	PALLET TRUCKS	BS ISO 509 (1996)	△	△			
	10	PERSONNEL & GOODS LIFTS	BS2655 / BS5655 / BS5656	●	●			
	11	SUSPENDED CRADLES	BS2830 / 5974	●	●			
	12	POWERED HOISTS (ELECTRIC)	BS EN 13001	●	●			
	13	POWERED HOISTS (PNEUMATIC)	DIN F.E.M. 9.751	●	●			
	14	MANUAL HOISTS (CHAIN BLOCKS)	BS3243 / BS EN 13157 (see note 5)	●	●			
	15	LEVER HOISTS (PULLIFTS)	BS4898 / BS EN 13157 (see note 5)	●	●			
	16	WIRE ROPE HOISTS (“TIRFORS”)	BS EN 13157 (see note 5)	●	●			
	17	WIRE ROPES FOR ABOVE	BS EN 302 / BS EN 12385	●	●			
	18	BEAM TROLLEYS	BS EN 13157 (see note 5)	●	●			
	19	BEAM CLAMPS	BS EN 13157 (see note 5)	●	●			
	20	PLATE CLAMPS		●	●			
	21	SINGLE SHEAVE BLOCKS (UP TO 25t)	BS4536 / 4018 / BSEN13157 (note 5)	●	●			
	22	SINGLE SHEAVE BLOCKS (OVER 25t)	BS4536 / BS EN 13157 (see note 5)	●	●			
	23	MULTI-SHEAVE BLOCKS (UP TO 25t)	BS4536 / BS EN 13157 (see note 5)	●	●			
	24	MULTI-SHEAVE BLOCKS (OVER 25t)	BS4536 / BS EN 13157 (see note 5)	●	●			
	25	CRANE HOOK BLOCKS (UP TO 25t)	BS4536 / BS EN 13157 (see note 5)	●	●			
	26	CRANE HOOK BLOCKS (OVER 25t)	BS4536 / BS EN 13157 (see note 5)	●	●			
	27	WINCH (PNEUMATIC)	BS MA31 / ISO 3078	●	●			
	28	WINCH (MAN-RIDING)		●	●			
	29	WINCH (MANUAL)	BS3701 / BS EN 13157 (see note 6)	●	●			
	30	WINCH (DAVIT)	BS EN 13157 (see note 5)	●	●			
	31	STABBING BOARDS		●	●			
	32	RUNWAY BEAMS	BS2853 (see note 1)	●	●			
	33	LIFTING BEAMS (UP TO & INC. 3t)	BS EN 13001 (see note 1)	●	●			
	34	LIFTING BEAMS (OVER 3 UP TO & INC. 6t)	BS EN 13001 (see note 1)	●	●			
	35	LIFTING BEAMS (OVER 6t UP TO & INC. 20t)	BS EN 13001 (see note 1)	●	●			
	36	LIFTING BEAMS (OVER 20 UP TO & INC. 40t)	BS EN 13001 (see note 1)	●	●			
	37	LIFTING BEAMS (OVER 40t)	BS EN 13001 (see note 1)	●	●			
	38	HYDRAULIC RAMS & JACKS	BS EN 1494	△	△			
	39	MANUAL JACKS	BS EN 1494	△	△			
	40	TRANSIT CONTAINERS	BS EN 12079 - 1999 / 2006	●	●			◇
	41	TRANSIT CONTAINERS	SI 1984 No. 1890, BS EN 12079 : 2006	●	●			
	42	MOBILE WORK PLATFORMS	BS 7171 / BS EN 280 - 2001	●	●			
	43	FABRICATED PADEYES & CLAMPS	BS EN 13001 (see note 1)	●	●			
LOAD IND.	44	DYNAMOMETERS / CRANE WEIGHERS	BS EN ISO 7500-1	●	●			
	45	LOADS CELLS	BS EN ISO 7500-1	●	●			
	46	SAFE LOAD INDICATORS / RCIs	BS7262 (1990) (see note 2)					
LIFTING ACCESSORIES	47	WIRE ROPE	BS EN 302 / BS EN 12385	●				
	48	WIRE ROPE (ON PASSENGER LIFTS)	BS EN 302 / BS EN 12385	●				
	49	WIRE ROPE (DIVING OPERATIONS)	BS EN 302 / BS EN 12385	●				
	50	WIRE ROPE (MAN-RIDING WINCHES)	BS EN 302 / BS EN 12385	●				
	51	WIRE ROPE SLINGS	BS EN 13414 / 1-3	●	●			
	52	WIRE ROPE SLINGS (MULTI-LEG)	BS EN 13414 / 1-3	●	●			
	53	CHAIN SLINGS-GRADE 80	BS EN 818-1 / ISO 3076	●	●			
	54	CHAIN HOOKS & FITTINGS - GRADE 80	ISO 8539	●	●			
	55	POLYESTER SLINGS	BS EN 1492 PT 1, 2 & 4	●				
	56	SHACKLES - ALLOY (UP TO 20t)	RR-C 27 1D TYPE IV, 13889 : 2003	●	●			
	57	SHACKLES - ALLOY (OVER 25t)	RR-C 27 1D TYPE IV, 13889 : 2003	●	●			
	58	SHACKLES - HIGHER TENSILE (UP TO 25t)	ISO 2415	●	●			
	59	SHACKLES - HIGHER TENSILE (OVER 25t)	ISO 2415	●	●			
	60	EYEBOLTS (BRITISH)	BS4278 / BS EN ISO 3266	●	●			
	61	EYEBOLTS (U.S.)		●	●			
	62	RIGGING SCREWS (BRITISH)	BS4429	●	●			
	63	RIGGING SCREWS (TURNBUCKLES) (U.S.)	FF-T-791-TYPE 1 FORM 1	●	●			
	64	OPEN WEDGE SOCKETS (BRITISH)	BS7166 / BS EN 13411-6	●	●			
	65	OPEN WEDGE SOCKETS (U.S.)	RR-S-550D TYPE C	●	●			

Proof Load Testing

PROOF LOADS

No.	% ABOVE SWL 10	25	50	100	300	EXCESS LOAD (t) 3	5	10	SWL x 1.22 + 20	SWL x 2.2	SWL x 2.5	DNV 2.22 & I.L.O. PAMPHLET 188	OTHER
1		●											
2							●						
3	●												
4		●											
5	●									▲			
6											●		
7	●												
8	●												
9													
10		●											
11		●											
12		●											
13		●											
14			●										
15			●										
16			●										
17				●									
18			●										
19			●										
20				●									
21					●								
22											●		
23				●									
24											●		
25				●								●	
26				●					●			●	
27		●											
28													▽
29			●										
30			●										◆
31		●											
32		●											
33				●									
34													
35			●										
36								●					
37		●											
38													
39													
40											●		○
41			■										
42		●											
43			●										
44				●									□
45				●									□
46													
47													★
48													★
49													★
50													★
51				●									
52				●									
53				●									
54				●									
55													★
56				●									
57												●	
58				●									
59												●	
60				●									
61				●									
62				●									
63				●									
64				●									
65				●									

Periodic Exam. Req. and Documentation Requirements

No.	PERIODIC: LOLER SI 1998 No 2307 / LOLER SI 2006 No 2184 – MTHS 6	MTHS 12	BS EN 12079 1999 – M 12	S.I. 1890 – M 30	DOCUMENTATION: CERT. OF CONFORMITY / TEST	DESTRUCTION SAMPLE CERT.	CALIBRATION CERTIFICATE	STRESS CALCULATIONS	FULL FABRICATION PACKAGE	OTHER
1	❇	●			●					
2	❇	●			●					
3	❇	●			●					
4	❇	●			●					
5	●				●					
6	●				●					
7	❇	●			●					
8	❇	●			●					
9	❇	●			●					
10	●				●					
11	●				●					
12	❇	●			●					
13	❇	●			●					
14	❇	●			●					
15	❇	●			●					
16	❇	●			●					
17	●				●					
18	❇	●			●					
19	❇	●			●					
20	❇	●			●					
21	❇	●			●					
22	❇	●			●					
23	❇	●			●					
24	❇	●			●					
25	❇	●			●					
26	❇	●			●					
27	❇	●			●					
28	●				●					
29	❇	●			●					
30	●				●					
31	●				●					
32		●			●			●	●	
33		●			●			●	●	
34		●			●			●	●	
35		●			●			●	●	
36		●			●			●	●	
37		●			●			●	●	
38	❇	●			●					
39	❇	●			●					
40		●	●		✯					
41	❇	●		●	●					
42	●				●					
43		●						●	●	
44	❇	●			●		●			
45	❇	●			●		●			
46	❇	●					●			
47	●					●				
48	●					●				
49	●					●				
50	●					●				
51	●				●					
52	●				●					
53	●				●					
54	●				●					
55	●					●				
56	●				●					
57	●				●					
58	●				●					
59	●				●					
60	●				●					
61	●				●					
62	●				●					
63	●				●					
64	●				✯					
65	●				✯					

Factors of Safety

THESE MAY VARY SLIGHTLY DEPENDANT ON MANUFACTURERS

No.	10:1	8:1	7:1	6:1	5:1	4.5:1	4:1	3.5:1	OTHER
1									○
2									○
3									○
4									○
5						●			
6				●					
7									○
8									○
9									○
10									○
11									○
12					●				
13					●				
14					●				
15					●				
16					●				
17					●				
18					●				
19					●				
20					●				
21					●		▼		
22					●		▼		
23					●		▼		
24					●		▼		
25					●		▼		
26					●		▼		
27								●	
28	●								
29									○
30									○
31									○
32									○
33									○
34									○
35									○
36									○
37									○
38									○
39									○
40									○
41									○
42									○
43									○
44					●				
45					●				
46									
47					●				
48									☆
49	●								
50	●								
51					●				
52					●				
53							●		
54							●		
55			●						
56				●					
57				●					
58					●				
59					●				
60					●				
61							●		
62					●				
63							●		
64					●				
65							●		

2014 Edition

LEGEND

Symbol	Meaning
●	STATUTORY REQUIREMENTS
❇	COMPANY POLICY INCLUDES LIFTING MACHINES IN 6-MONTHLYS
○	REFER TO SPECIFIC DESIGN CODES
▲	INITIAL FACTORY TEST
△	FUCTION TEST ONLY
▼	AMERICAN PATTERN BLOCKS
▽	REFER TO L.R.O.S. / D.N.V. PROCEDURE
◆	DESCENT RATE MUST ALSO FALL BETWEEN 90-180 FT / MIN
◇	AT THE DISCRETION OF THE INSPECTION BODY
■	ACCEPTED PRACTICE
□	MUST BE CALIBRATED ANNUALLY
★	SAMPLE TO BE DESTRUCTED TO VERIFY MATERIALS
☆	F.O.S. VARIES - REFER TO BS5655 / PD 6500
✷	METAL END FITTINGS ONLY
✯	PLUS N.D.T. REPORT

NOTE 1 Lifting support steelwork such as runway beams, lifting frames, padeyes, etc. with no moving parts can have their periodicity extended to 12 months as long as:

1) They are not used for supporting personnel.
2) Their use is infrequent to the extent that wear is not an adverse factor and...
3) They are adequetely coated / protected so that corrosion is not an adverse factor.

NOTE 2 In addition to the annual examination, safe load indicators must be function checked on a daily basis and checked for calibration weekly.

NOTE 3 Hand spliced terminations must not be subjected to proof-load testing as excessive loading can damage and weaken the splice.

NOTE 4 Si 2006 no 2184 (marine version of loler) requires that all ship's lifting equipment must be tested by a competent person every 5 years.

NOTE 5 Although British Standards are for guidance only and as such, compliance is not mandatory, we usually recommend that the guidance contained within these standards followed, as this will usually help you comply with your duties under health and safety legislation. However, some standards have been “revised / rewritten” by European technical committees and unfortunately now lack the quality technical information and safety advice of the previous standards. For that reason we will continue to quote the previous “withdrawn standards” where it is deemed appropriate.

NOTE 6 S.I. 1998 No. 2307 sates, “Equipment used for the lifting of people should have a safety coefficient relating to its strength of at least twice that required for general lifting operations”. A common design safety coefficient for lifting of equipment is 5:1, (resulting in the 10:1 figure shown in the matrix). Where equipment has a different factor of safety from 5:1, the “doubling” of the safety coefficient will take precedence.

NSL, 42 Queen’s Road, Aberdeen, AB15 4YE
+44 (0)1224 208988 nsl@ascoworld.com nsl.ascoworld.com

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