

1989 No. 300

**HEALTH AND SAFETY****Construction (Metrication) Regulations  
(Northern Ireland) 1989***Made* . . . . . 27th July 1989*Coming into operation* . . . . . 1st October 1989

The Department of Economic Development being the Department concerned(a), in exercise of the powers conferred by Articles 17(1) and (3), 45(1) and (2) and 55(2) of the Health and Safety at Work (Northern Ireland) Order 1978(b) and of every power enabling it in that behalf, after consultation in accordance with Article 46(1) of that Order with the Health and Safety Agency for Northern Ireland and such other bodies as appear to it to be appropriate, hereby makes the following Regulations:—

*Citation, commencement and interpretation*

1.—(1) These Regulations may be cited as the Construction (Metrication) Regulations (Northern Ireland) 1989 and shall come into operation on 1st October 1989.

(2) In these Regulations “the principal instruments” means the Regulations and Orders amended by these Regulations, that is to say—

the Work in Compressed Air Special Regulations (Northern Ireland) 1963(c);

the Construction (General Provisions) Regulations (Northern Ireland) 1963(d);

the Construction (Lifting Operations) Regulations (Northern Ireland) 1963(e);

the Construction (Lifting Operations) Reports Order (Northern Ireland) 1963(f);

the Construction (Lifting Operations) Certificates Order (Northern Ireland) 1963(g);

the Construction (Lifting Operations) Prescribed Particulars Order (Northern Ireland) 1963(h);

the Construction (Working Places) Regulations (Northern Ireland) 1967(i).

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(a) See Article 2(2) of S.I. 1978/1039 (N.I. 9)

(b) S.I. 1978/1039 (N.I. 9)

(c) S.R. & O. (N.I.) 1963 No. 85

(d) S.R. & O. (N.I.) 1963 No. 87

(e) S.R. & O. (N.I.) 1963 No. 86

(f) S.R. & O. (N.I.) 1963 No. 132

(g) S.R. & O. (N.I.) 1963 No. 131

(h) S.R. & O. (N.I.) 1963 No. 130

(i) S.R. & O. (N.I.) 1967 No. 175

*Substitution of metric measurements for imperial*

2. The provisions of the principal instruments specified in column 1. of Schedule 1 shall be amended by substituting for the measurements set out opposite thereto in column 3 the measurements set out in the corresponding entry in column 4.

*Additional amendments to the Work in Compressed Air Special Regulations (Northern Ireland) 1963*

3.—(1) For Table I (Decompression Table) annexed to the Schedule to the Work in Compressed Air Special Regulations (Northern Ireland) 1963 there shall be substituted the table in Part I of Schedule 2 and in that latter table “unit of pressure” means a pressure of 69 millibars.

(2) For Table III (Table for ascertaining deductions) annexed to the Schedule to the Work in Compressed Air Special Regulations (Northern Ireland) 1963 there shall be substituted the Table in Part II of Schedule 2.

*Application to existing premises or plant and premises or plant under construction*

4. Where any premises or plant in existence or under construction immediately before the coming into operation of these Regulations complied with the requirements of the principal instruments as then in force, those premises or that plant shall be deemed to comply with the principal instruments as amended by these Regulations.

Sealed with the Official Seal of the Department of Economic Development on 27th July 1989.

(L.S.)

*Suzanna Cooper*

Assistant Secretary

SCHEDULE 1

regulation 2 1624

Amendments to the Principal Instruments

1 <i>Provision to be amended</i>	2 <i>Subject matter of provision</i>	3 <i>Present measurement</i>	4 <i>Measurement to be substituted</i>
Work in Compressed Air Special Regulations (Northern Ireland) 1963			
Regulation 2(2)	Application of Regulations	two pounds per square inch	150 millibars
Regulation 3	Interpretation — “pressure”	pounds per square inch	millibars
Regulation 7	Air supply plant	ten cubic feet	0.3 cubic metres
Regulation 8(4)	Size and equipment of man-locks	eighteen pounds per square inch	1250 millibars
Regulation 9(3)	Use of man-locks	eighteen pounds per square inch	1250 millibars
Regulation 10(1)	Lock attendants and Rules as to compression or decompression	eighteen pounds per square inch	1250 millibars
Regulation 10(4)		fifty pounds per square inch	3450 millibars
Regulation 10(5)		eighteen pounds per square inch	1250 millibars

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Regulation 12(1)	Temperature in working chamber	eighty degrees Fahrenheit	27 degrees Celsius
Regulation 14(3)	Medical supervision and certification	eighteen pounds per square inch	1250 millibars
Regulation 17	Health Facilities	forty pounds per square inch	2750 millibars
		eighteen pounds per square inch	1250 millibars
Regulation 18(1)	Medical Lock	eighteen pounds per square inch	1250 millibars
Regulation 18(2)		six feet	1.83 metres
		six feet	1.83 metres
Regulation 19	Supply of Labels	eighteen pounds per square inch	1250 millibars
Regulation 20	Notification to Hospitals	eighteen pounds per square inch	1250 millibars
Regulation 21	Supply of Hot Drinks	eighteen pounds per square inch	1250 millibars
The Schedule			
Part I	Rules as to Compression		
Rule 1		five pounds per square inch	350 millibars
Rule 3		ten pounds per square inch	700 millibars

Part II	Rules as to Décompression		
Rule 6 — proviso (b)		five pounds per square inch	350 millibars
Rule 7(1)		eighteen pounds per square inch	1250 millibars
Rule 7(2)		fifty pounds per square inch	3450 millibars
Construction (General Provisions) Regulations (Northern Ireland) 1963			
Regulation 8(1)(a)	Supply and use of timber	four feet	1.20 metres
Regulation 9(1)	Inspections and examinations of excavations, etc.	six feet six inches	2 metres
Regulation 9(4)(a)		four feet	1.20 metres
Regulation 13	Fencing of excavations, etc.	six feet six inches	2 metres
Regulation 27(1)	Clearance	twenty yards	20 metres
Regulation 27(3)		three feet six inches six feet six inches	1.10 metres 2 metres
Regulation 28	Gantries	six feet six inches three feet	2 metres 910 metres
Construction (Lifting Operations) Regulations (Northern Ireland) 1963			

Regulation 12	Precautions where lifting appliance has travelling or slewing motion	two feet	600 millimetres
Regulation 13(1)	Platforms for crane drivers and signallers	six feet six inches three feet eight inches	2 metres 910 millimetres 200 millimetres
Regulation 13(2)		twenty-seven inches	700 millimetres
Regulation 14(4)(c)	Cabins for Drivers	one ton	1 tonne
Regulation 17	Safe Means of Access	six feet six inches	2 metres
Regulation 28(1)	Testing and Examination of cranes, etc.	one ton	1 tonne
Regulation 28(2)		one ton	1 tonne
Regulation 29(1)(b)	Marking of safe working loads	one ton	1 tonne
Regulation 30(4)(c)	Indication of safe working load of jib cranes	one ton	1 tonne
Regulation 41(a)	Annealing of cranes and lifting gear	half-inch	13 millimetres
Regulation 42(1)	Safety of hoistways, platforms and cranes	six feet six inches three feet	2 metres 910 millimetres
Regulation 47(3)(c)(ii)	Carrying persons by means of lifting appliances	three feet	910 millimetres

Construction (Lifting  
Operations) Reports Order  
(Northern Ireland) 1963

The Schedule, Part II

Column 3	Tests applied — Load Imposed	tons	tonnes
	Tests applied — Radius of Jib	feet	metres
Column 4	Safe working loads as ballasted load	tons	tonnes

Part IV

Column 2	Maximum height of travel of the cage as tested	feet	metres
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The Construction (Lifting  
Operations) Certificates Order  
(Northern Ireland) 1963

The Schedule, Part I

Item 10, Columns (i) and (ii)	Length and radius of jib	feet	metres
Item 10, Columns (iii) and (iv)	Test load and safe working load	tons	tonnes
Item 11	Maximum working radius of jib	feet	metres

Part II

Table	Test load applied and safe working load	tons	tonnes
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Part III

Item (2)(a)	Size of rope	inches	millimetres
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Item (3)	Tensile strength of wire	tons per square inch	newtons per square millimetre
Note at end of Part III Part V	Definition of ton	1 ton = 2240lbs	none
Item 6(a)	Test load applied	cwts	none
Item 6(b)	Safe working load	cwts	none
The Construction (Lifting Operations) Prescribed Particulars Order (Northern Ireland) 1963			
Article 2			
Paragraph 2(2)(a)(ii)	Cranes etc.	one ton	one tonne
Paragraph 2(2)(b)(ii)		one ton	one tonne
The Schedule, Part I			
Item 10, Columns (i) and (ii)	Length and radius of jib	feet	metres
Item 10, Columns (iii) and (iv)	Test load and safe working load	tons	tonnes
Item 11	Maximum working radius of jib	feet	metres
Part II			
Table	Test load applied and safe working load	tons	tonnes
The Construction (Working Places) Regulations (Northern Ireland) 1967			



Regulation 13(5)	Standards or uprights, ledgers and putlogs	3 feet 3 inches 1¼ inches 5 feet 1½ inches 8 feet 6 inches 2 inches	1 metre 32 millimetres 1.50 metres 38 millimetres 2.60 metres 50 millimetres
Regulation 15(4)	Stability of scaffolds	2 feet	600 millimetres
Regulation 19(13)(b)(i)	Suspended scaffolds (not powered operated)	25 inches	600 millimetres
Regulation 19(13)(b)(ii)		34 inches	800 millimetres
Regulation 19(13)		12 inches	300 millimetres
Regulation 19(14)		10 feet 6 inches	3.20 metres
Regulation 19(15)		17 inches	430 millimetres
Regulation 20(1)(g)	Boatswain's chairs, cages, skips, etc. (not power operated)	3 feet	910 millimetres
Regulation 21(2)(a)	Trestle scaffolds	15 feet	4.50 metres
Regulation 22(1)	Inspection of scaffolds, boatwain's chairs, etc.	6 feet 6 inches	2 metres
Regulation 24(1)	Construction of working platforms, gangways and runs	6 feet 6 inches	2 metres
Regulation 24(1)(a)		6 feet 6 inches	4000 square millimetres

Regulation 24(1)(b)		1 inch	25 millimetres
Regulation 24(3)(b)		4 inches	100 millimetres
Regulation 25(1)(b)	Boards and planks in working platform, gangways and runs	8 inches 2 inches 6 inches	200 millimetres 50 millimetres 150 millimetres
Regulation 25(5)		24 inches	600 millimetres
Regulation 26(1)	Widths of working platforms	6 feet 6 inches	2 metres
Regulation 26(1)(a)		25 inches	600 millimetres
Regulation 26(1)(b)		34 inches 17 inches	800 millimetres 430 millimetres
Regulation 26(1)(c)		25 inches	600 millimetres
Regulation 26(1)(d)		42 inches	1.05 metres
Regulation 26(1)(e)		51 inches	1.30 metres
Regulation 26(1)(f)		59 inches	1.50 metres
Regulation 26(2)		17 inches	430 millimetres
Regulation 26(2)(a)		25 or 34 inches	600 or 800 millimetres
Regulation 26(3)		12 inches	300 millimetres
Regulation 27(1)	Widths of gangways and runs	6 feet 6 inches	2 metres

Regulation 27(1)(a)		17 inches	430 millimetres
Regulation 27(1)(b)		25 inches	600 millimetres
Regulation 28(1)	Guard-rails and toe-boards at working platforms and places	6 feet 6 inches 3 feet 3 feet 9 inches 6 inches	2 metres 910 millimetres 1.15 metres 150 millimetres
Regulation 28(3)		30 inches	765 millimetres
Regulation 28(5)(a)		27 inches	700 millimetres
Regulation 28(6)(c)(i)		34 inches	800 millimetres
Regulation 28(6)(f)		6 feet 6 inches	2 metres
Regulation 29(2)	Guard-rails, etc. for gangways, runs and stairs	6 feet 6 inches	2 metres
Regulation 29(2)(a)		3 feet 3 feet 9 inches	910 millimetres 1.15 metres
Regulation 29(2)(b)		6 inches 30 inches	150 millimetres 765 millimetres
Regulation 32(4)	Use of ladders and folding step-ladders	10 feet	3 metres
Regulation 32(5)(a)(i)		3 feet 6 inches	1.05 metres

Regulation 32(8)		30 feet 30 feet 6 feet 6 inches 3 feet 3 feet 9 inches 6 inches 30 inches	9 metres 9 metres 2 metres 910 millimetres 1.15 metres 150 millimetres 765 millimetres
Regulation 33(2)	Openings, corners, breaks, edges and open joisting	6 feet 6 inches	2 metres
Regulation 33(2)(a)		3 feet 3 feet 9 inches 6 inches 30 inches	910 millimetres 1.15 metres 150 millimetres 765 millimetres
Regulation 33(4)		6 feet 6 inches	2 metres
Regulation 35(4)(b)	Sloping roofs	17 inches	430 millimetres
Regulation 35(7)		6 feet 6 inches	2 metres
Regulation 36(1)	Work on or near fragile materials	6 feet 6 inches	2 metres

Part I

Table I

Decompression Table (Rule 8)

Section 1		Section 2		Section 3																	
<p><i>Fastest permissible reduction of pressure from figure in section 2 to zero.</i>  <i>Shortest permissible times (T) in minutes, and fastest permissible rates (R) in minutes per unit of pressure for the working periods in the different columns.</i></p>																					
<p>“Working period”: More than (c) but not more than (d) hours</p>																					
“Basic pressure” more than (a) to not		Lowest permissible pressure in first two		More than 4 hours		(c) (d) 3½-4		(c) (d) 3-3½		(c) (d) 2½-3		(c) (d) 2-2½		(c) (d) 1½-2		(c) (d) 1-1½		(c) (d) ½-1		(c) (d) 0-½	
more than (b) (millibars)		mins. after starting decompression (millibars)		T R		T R		T R		T R		T R		T R		T R		T R		T R	
(a) (b)				Mins Mins		Mins Mins		Mins Mins		Mins Mins		Mins Mins		Mins Mins		Mins Mins		Mins Mins		Mins Mins	
				per unit of pressure		per unit of pressure		per unit of pressure		per unit of pressure		per unit of pressure		per unit of pressure		per unit of pressure		per unit of pressure		per unit of pressure	
1250-1400		150		13 6½		6 3		5 2½		4 2		4 2		3 1½		2 1		2 1		1 ½	
1400-1500		200		24 8		14 4½		11 3½		10 3½		9 3		7 2½		6 2		4 1		2 ½	
1500-1650		300		35 9		22 5½		18 4½		16 4		14 3½		11 3		9 2		6 1½		3 1	
1650-1800		350		46 9		32 6½		28 5½		23 4½		19 4		16 3		12 2		8 1½		4 1	
1800-1950		400		56 9½		42 7		38 6½		31 5		25 4		22 3½		15 2½		11 2		5 1	
1950-2050		500		65 9½		52 7½		48 7		40 5½		32 4½		27 4		20 3		14 2		7 1	

2050-2200	550	74	9½	61	7½	57	7	50	6½	40	5	32	4	25	3	16	2	8	1
2200-2350	600	83	9	70	8	65	7	59	6½	49	5½	37	4	29	3	18	2	10	1
2350-2500	700	91	9	78	8	74	7½	68	7	58	6	43	4½	34	3½	21	2	11	1
2500-2650	750	98	9	87	8	82	7½	76	7	67	6	53	5	39	3½	26	2½	13	1
2650-2750	850	105	9	95	8	90	7½	84	7	75	6	62	5	44	3½	31	2½	16	1½
2750-2900	900	113	9	102	8	98	7½	92	7	83	6½	70	5½	49	4	35	2½	18	1½
2900-3050	950	120	8½	109	8	105	7½	99	7	91	6½	77	5½	55	4	39	3	20	1½
3050-3200	1050	127	8½	116	8	112	7½	107	7	99	6½	85	5½	63	4	44	3	22	1½
3200-3300	1100	133	8½	123	8	120	7½	115	7	106	6½	93	6	72	4½	48	3	24	1½
3300-3450	1150	139	8	130	8	126	7½	122	7	114	6½	101	6	80	4½	52	3	26	1½

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Table III

Table for Ascertaining Deductions

1 Pressure Difference	2 Allowable Deductions																						
	Zones																						
More Than	Not More Than	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
<i>Millibars</i>																							
150	300	50	50	50	50	50	50	50	50	50	50	50	50	50	50	50	0	0	0	0	0	0	0
300	400	200	200	200	200	200	200	200	150	150	150	150	150	150	150	150	50	50	50	50	50	50	50
400	550	350	350	350	350	300	300	300	300	300	300	200	200	200	200	200	150	150	150	150	50	50	50
550	700	500	500	500	400	400	400	400	350	350	350	350	300	300	300	300	200	200	200	150	150	150	50
700	850	600	600	550	550	550	500	500	500	500	400	400	400	350	350	350	300	300	300	200	150	150	150
850	950	750	700	700	700	600	600	600	600	550	550	500	500	400	400	400	350	350	300	300	200	200	150
950	1100	900	850	850	750	750	700	700	600	600	600	550	550	500	500	400	400	350	300	300	300	200	200
1100	1250	1050	950	950	900	850	850	750	750	700	700	600	600	550	550	500	500	400	400	350	300	300	200
1250	1400	1100	1100	1050	1050	950	950	900	900	850	850	750	750	700	700	600	550	550	500	400	350	300	300
1400	1500	1250	1250	1150	1150	1100	1050	1050	950	950	900	850	850	750	750	700	600	550	550	500	350	350	300
1500	1650	1400	1400	1300	1250	1250	1150	1100	1100	1050	950	950	900	850	850	750	700	600	600	500	400	350	350
1650	1800	1500	1450	1450	1400	1300	1300	1250	1150	1100	1100	1050	950	950	900	850	750	700	600	550	500	400	350
1800	1950	1650	1600	1500	1500	1450	1400	1300	1300	1250	1150	1100	1100	1050	950	900	850	750	700	600	500	400	400
1950	2050	1800	1700	1650	1600	1500	1500	1450	1400	1300	1250	1150	1100	1050	950	900	850	750	600	550	500	400	400
2050	2200	1950	1850	1800	1700	1650	1600	1500	1500	1450	1400	1300	1250	1150	1100	1050	950	900	850	700	550	500	500
2200	2350	2050	2000	1950	1850	1800	1700	1650	1600	1500	1450	1400	1300	1250	1150	1100	1050	950	900	750	600	550	500

*(This note is not part of the Regulations.)*

These Regulations amend the following instruments—

the Work in Compressed Air Special Regulations (Northern Ireland) 1963;

the Construction (General Provisions) Regulations (Northern Ireland) 1963;

the Construction (Lifting Operations) Regulations (Northern Ireland) 1963;

the Construction (Lifting Operations) Reports Order (Northern Ireland) 1963;

the Construction (Lifting Operations) Certificates Order (Northern Ireland) 1963;

the Construction (Lifting Operations) Prescribed Particulars Order (Northern Ireland) 1963; and

the Construction (Working Places) Regulations (Northern Ireland) 1967, by substituting amounts or quantities expressed in metric units for amounts or quantities not so expressed. The substituted amounts preserve the effect of the original provisions except to the extent necessary to obtain amounts expressed in convenient and suitable terms taking into account the changes consequent upon the metrication of timber sizes.

Regulation 4 provides that the amendments do not relate to premises or plant in existence or under construction immediately before the coming into operation of these Regulations if those premises or that plant complied with the then existing requirements.