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29A - MAST COMPOSITION

1. CRANE TOWERS

1. 1. FREE STANDING CRANES

- ☐ The mast compositions on pages 29A-0520-... are given for free standing heights IN SERVICE and OUT OF SERVICE and for the static and rail-mounted versions indicated in the data sheet .

The assembling order is that given in paragraph (29A-0520 -...) for reasons of strength. These documents deal with the optimum composition of the crane tower which is not allowed to be lower. But it is possible to fit stronger sections (*).

- (*) Strong sections: Example: 1 section with upright made up of boxed L150x18 is stronger (strength) than a section with upright made up of boxed L150x15.
- ☐ It is possible to replace 1 tower section of 10 m length by 2 mast sections of 5 m length or 3 mast sections of 3,33 m length.

1. 2. UNUSUAL CASES

IMPORTANT: The very high cranes are subjected to a downgrading of the load, see chapter (**).

(**) COMPULSORILY consult us

With rigid anchorages to the building

- ☐ The mast compositions and the loads applied on the frames are given in the chapter 29A specific to this operation.

1. 2. 1. WITH ANCHORAGE BY GUY ROPES ()**

1. 2. 2. WITH CLIMBING INSIDE THE BUILDING

- ☐ The mast compositions and the loads applied on the frames are given in the chapter 29A specific to this operation.

REDUCING THE FREE STANDING HEIGHT DUE TO THE TELESCOPIC CAGE.

If, for reasons of later increase in height, the telescopic cage is to be left at the top of the masts, it is absolutely necessary to reduce the free standing height "IN SERVICE" and "OUT OF SERVICE" by removing X mast sections (**).

(**) COMPULSORILY consult us

NOTE



2. A SET OF RECOMMENDED MAST SECTIONS

2. 1. SECTIONS OF 7,5 m LENGTH (✱)

- Cross section 2 x 2 m – length 7,5 m – Upright L 200x20 + R80 – Monoblock mast section – with lugs
– allows starting telescoping with mast sections of 3 m length – Lower fish joint D65 – upper fish joint D65.

2. 2. SECTIONS OF 7,5 m LENGTH (■)

- Cross section 2 x 2 m – length 7,5 m – Upright L 200x20 + R50 – Monoblock mast section – with lugs
– allows starting telescoping with mast sections of 3 m length – Lower fish joint D65 – upper fish joint D55.

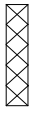
2. 3. SECTIONS OF 3 m LENGTH

- L68B2 Cross section 2 x 2 m – length 3 m – Upright L 200x20 – Mast section made up of panels
– with lugs – can be telescoped.
- L68B3 Cross section 2 x 2 m – length 3 m – Upright L 200x20 – Mast section made up of panels
– with lugs – can be telescoped.



3. MAST COMPOSITION

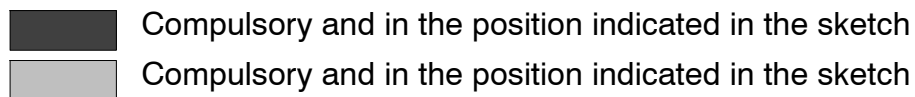
3. 1. MCR225A - P21A - FEM - 30m

			
H.A.F.	L68B2	 (L200+R50)	 (L200+R80)
56,4	13	1	1
53,4	12	1	1
50,4	11	1	1
47,4	10	1	1
44,4	9	1	1
41,4	8	1	1
38,4	7	1	1
35,4	6	1	1
32,4	5	1	1
29,4	4	1	1
26,4	3	1	1
23,4	2	1	1
20,4	1	1	1
17,4	0	1	1

* Reinforced basic mast (L200+R80)

 2nd reinforced basic mast (L200+R50)

H.A.F. = Height up to jib articulation axis.





4. MAST COMPOSITION

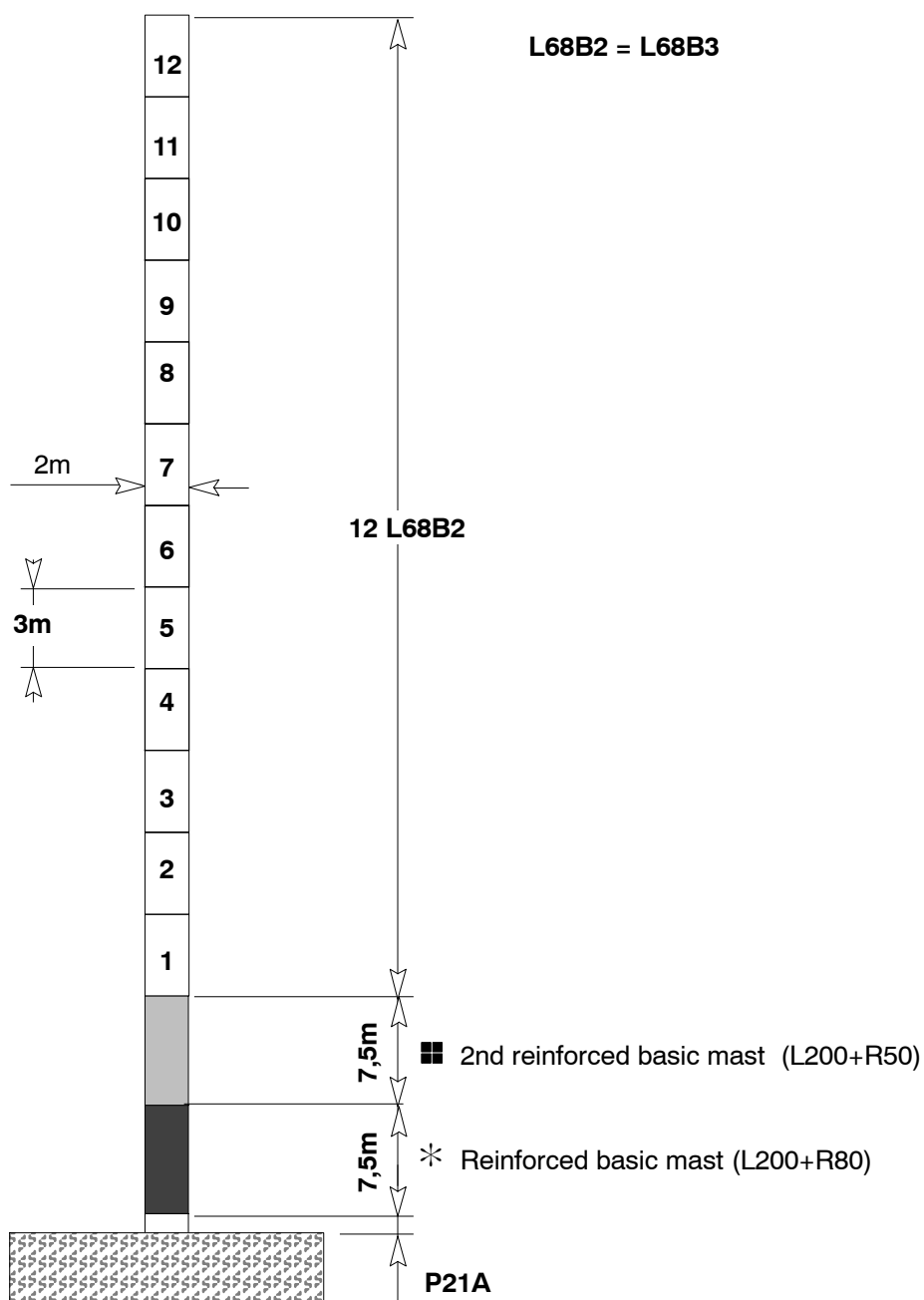
4. 1. MCR225A - P21A - FEM - 35m

 	 35 m 		
	H.A.F.	L68B2	 (L200+R50)  (L200+R80)
53,4	12	1	1
50,4	11	1	1
47,4	10	1	1
44,4	9	1	1
41,4	8	1	1
38,4	7	1	1
35,4	6	1	1
32,4	5	1	1
29,4	4	1	1
26,4	3	1	1
23,4	2	1	1
20,4	1	1	1
17,4	0	1	1

* Reinforced basic mast (L200+R80)

 2nd reinforced basic mast (L200+R50)

H.A.F. = Height up to jib articulation axis.



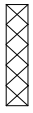
$$\text{H.A.F R21A} = \text{H.A.F. P21A} + 0,35 \text{ m}$$

- Compulsory and in the position indicated in the sketch
- Compulsory and in the position indicated in the sketch



5. MAST COMPOSITION

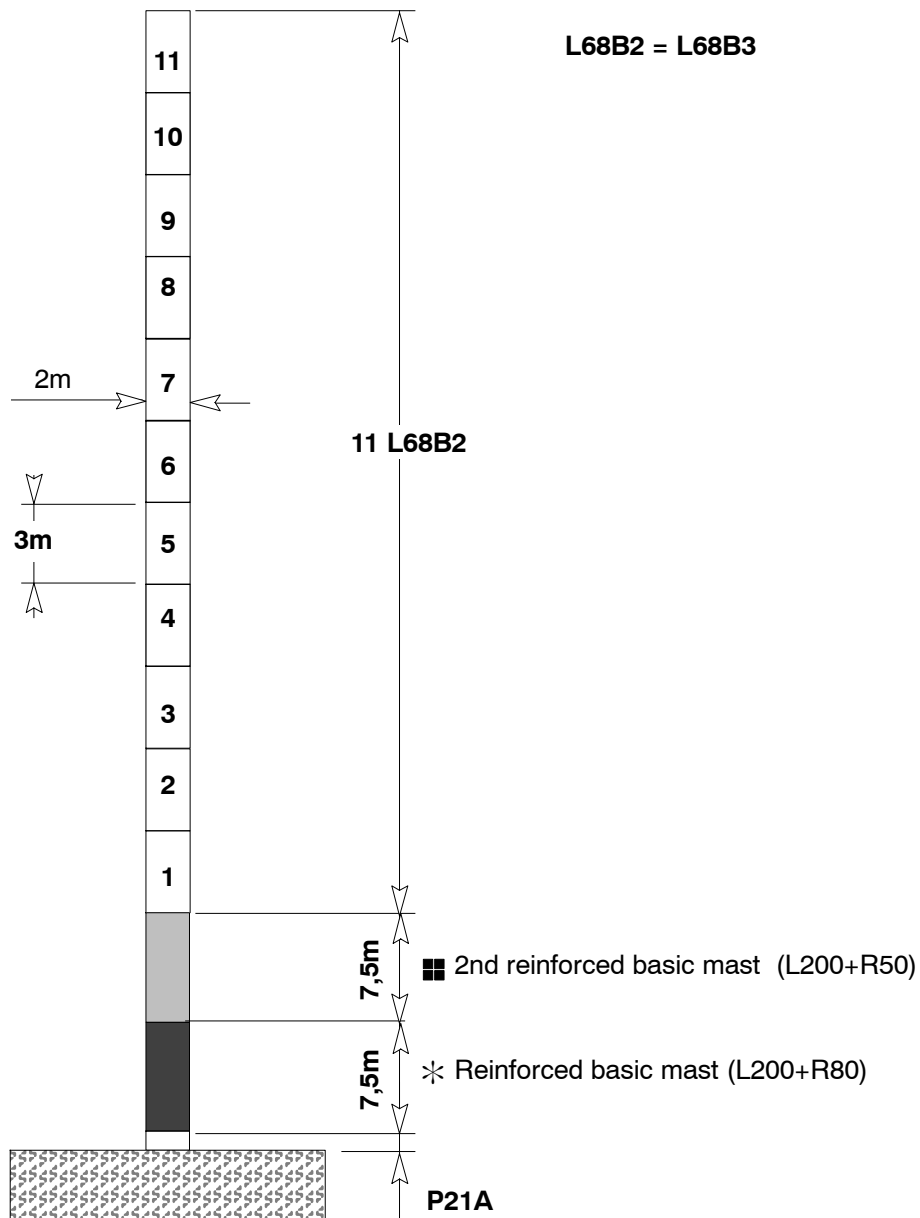
5. 1. MCR225A - P21A - FEM - 40m

			
			
H.A.F.	L68B2	 (L200+R50)	* (L200+R80)
50,4	11	1	1
47,4	10	1	1
44,4	9	1	1
41,4	8	1	1
38,4	7	1	1
35,4	6	1	1
32,4	5	1	1
29,4	4	1	1
26,4	3	1	1
23,4	2	1	1
20,4	1	1	1
17,4	0	1	1

* Reinforced basic mast (L200+R80)

 2nd reinforced basic mast (L200+R50)

H.A.F. = Height up to jib articulation axis.



$$\text{H.A.F R21A} = \text{H.A.F. P21A} + 0,35 \text{ m}$$



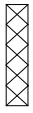
Compulsory and in the position indicated in the sketch

Compulsory and in the position indicated in the sketch



6. MAST COMPOSITION

6. 1. MCR225A - P21A - FEM - 45m

			
H.A.F.	L68B2	■ (L200+R50)	* (L200+R80)
47,4	10	1	1
44,4	9	1	1
41,4	8	1	1
38,4	7	1	1
35,4	6	1	1
32,4	5	1	1
29,4	4	1	1
26,4	3	1	1
23,4	2	1	1
20,4	1	1	1
17,4	0	1	1

* Reinforced basic mast (L200+R80)

■ 2nd reinforced basic mast (L200+R50)

H.A.F. = Height up to jib articulation axis.



353393-MCR225A



7. MAST COMPOSITION

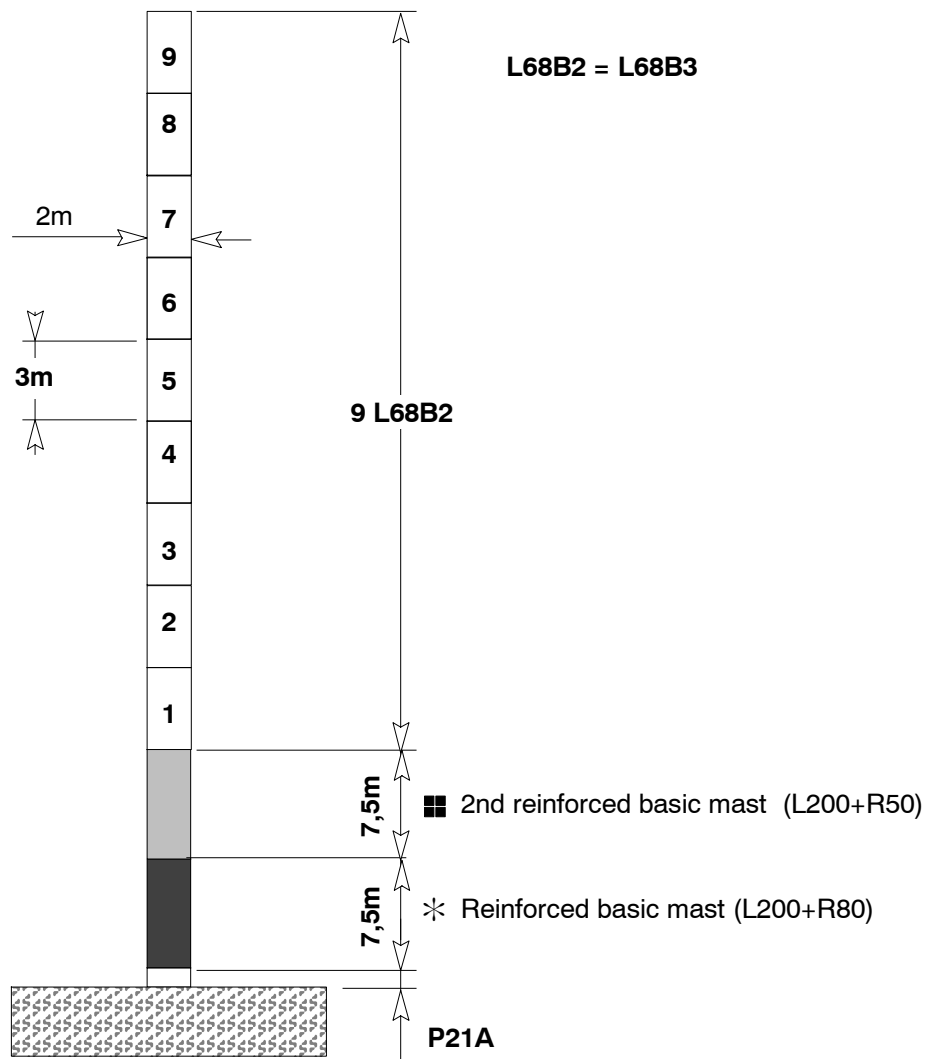
7. 1. MCR225A - P21A - FEM - 50m

 			
	H.A.F.	L68B2	 (L200+R50)  (L200+R80)
44,4	9	1	1
41,4	8	1	1
38,4	7	1	1
35,4	6	1	1
32,4	5	1	1
29,4	4	1	1
26,4	3	1	1
23,4	2	1	1
20,4	1	1	1
17,4	0	1	1

* Reinforced basic mast (L200+R80)

 2nd reinforced basic mast (L200+R50)

H.A.F. = Height up to jib articulation axis.



$$H.A.F R21A = H.A.F. P21A + 0,35 \text{ m}$$

-  Compulsory and in the position indicated in the sketch
-  Compulsory and in the position indicated in the sketch



8. MAST COMPOSITION

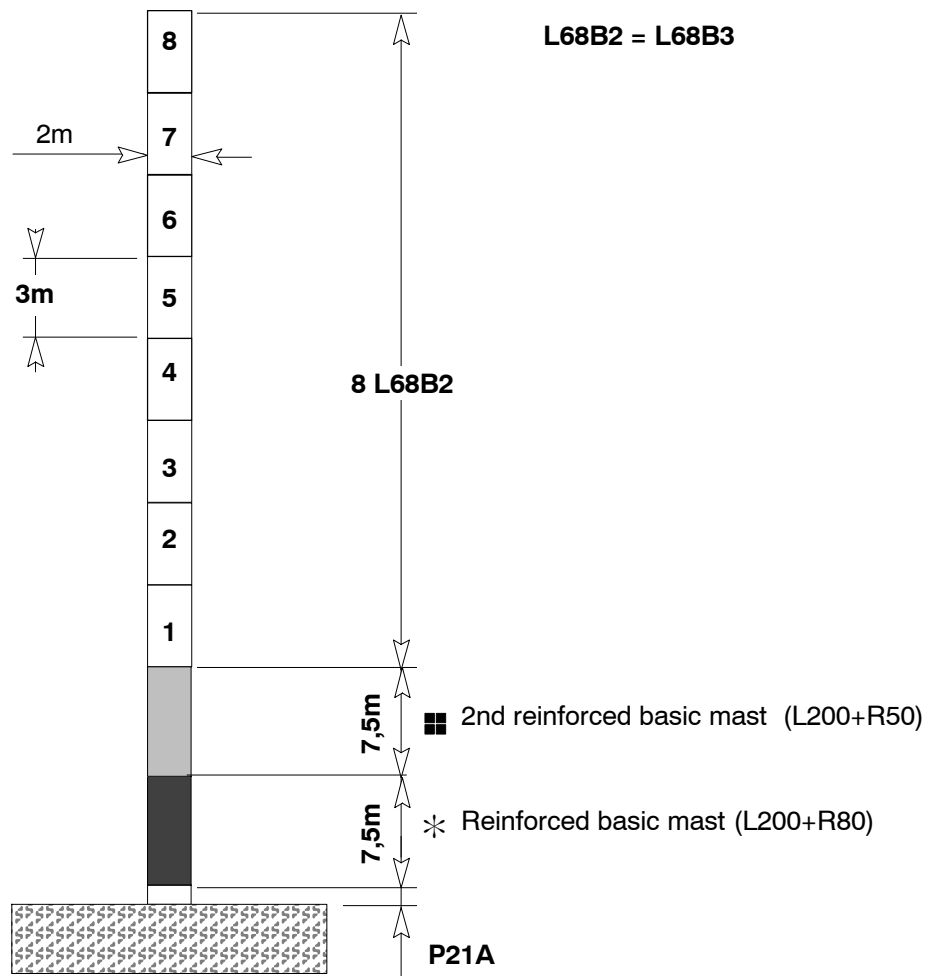
8. 1. MCR225A - P21A - FEM - 55m

			
			
H.A.F.	L68B2	■ (L200+R50)	* (L200+R80)
41,4	8	1	1
38,4	7	1	1
35,4	6	1	1
32,4	5	1	1
29,4	4	1	1
26,4	3	1	1
23,4	2	1	1
20,4	1	1	1
17,4	0	1	1

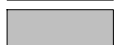
* Reinforced basic mast (L200+R80)

■ 2nd reinforced basic mast (L200+R50)

H.A.F. = Height up to jib articulation axis.



$$\text{H.A.F R21A} = \text{H.A.F. P21A} + 0,35 \text{ m}$$

-  Compulsory and in the position indicated in the sketch
-  Compulsory and in the position indicated in the sketch

