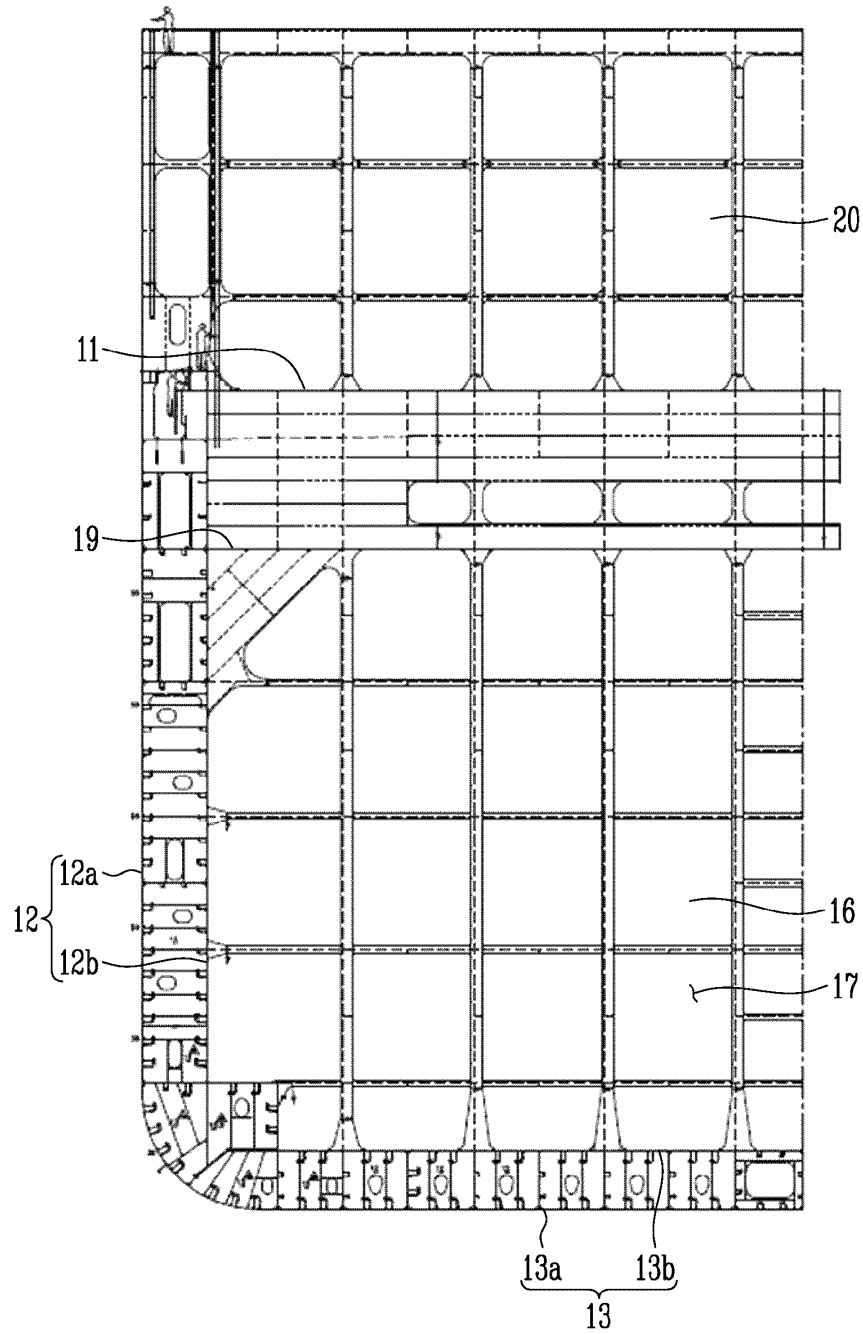
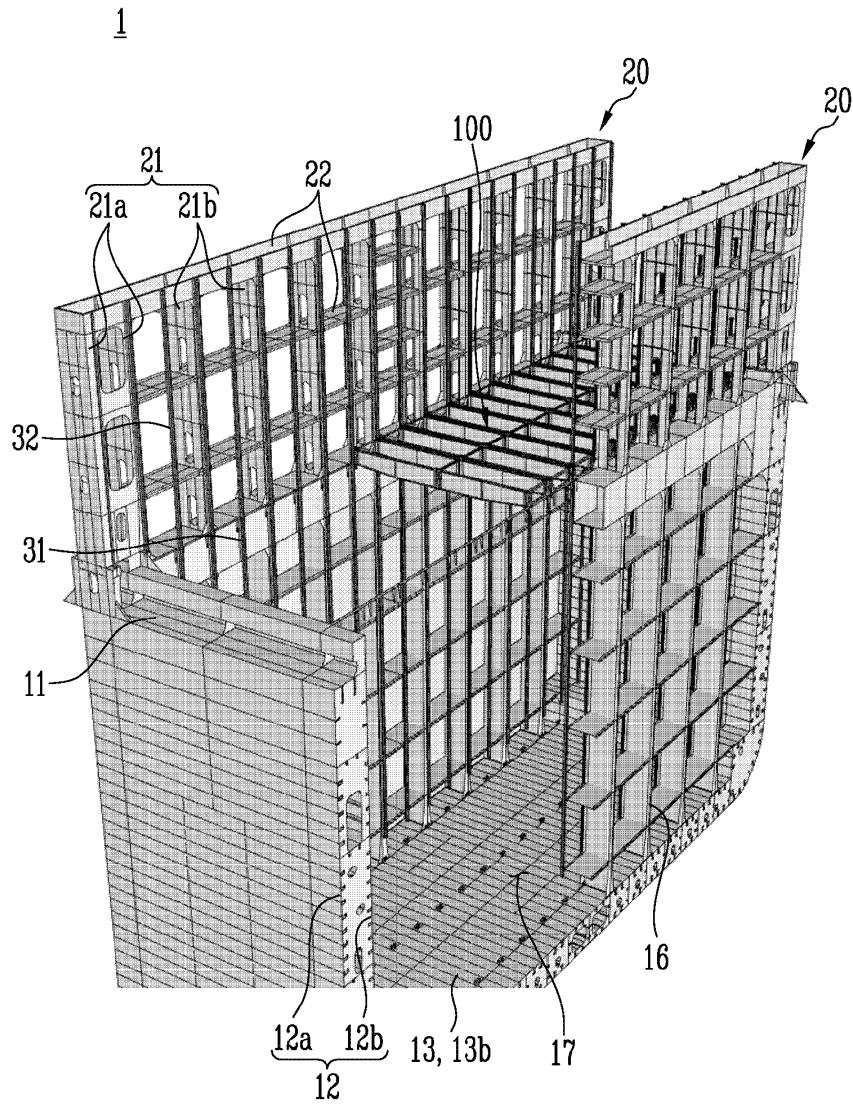


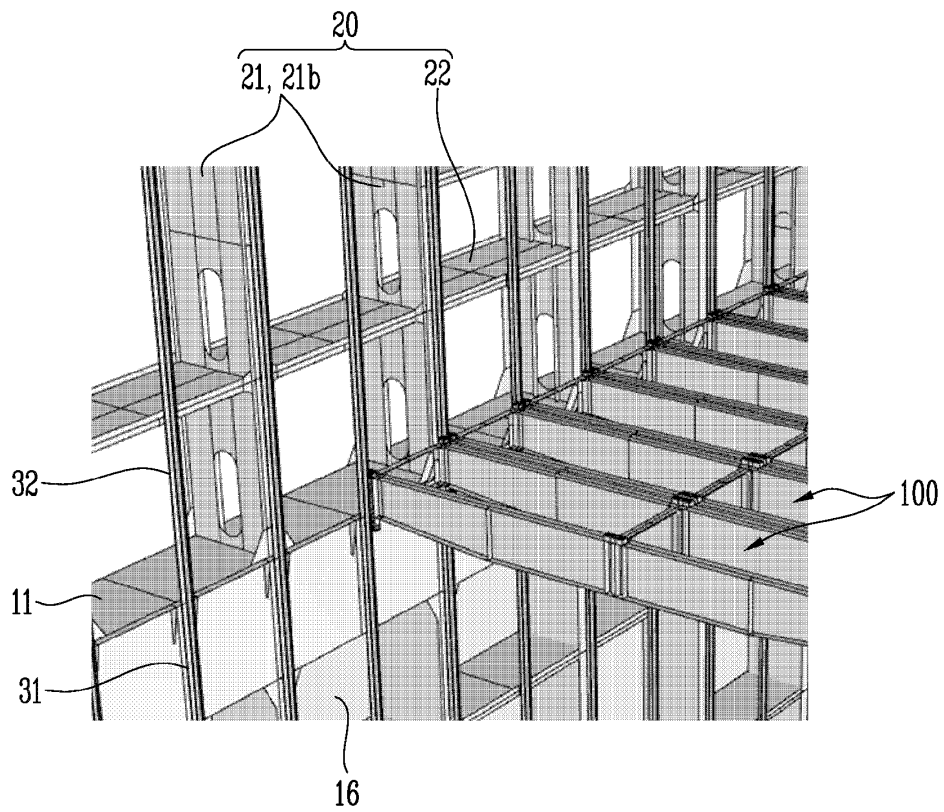
[도2]

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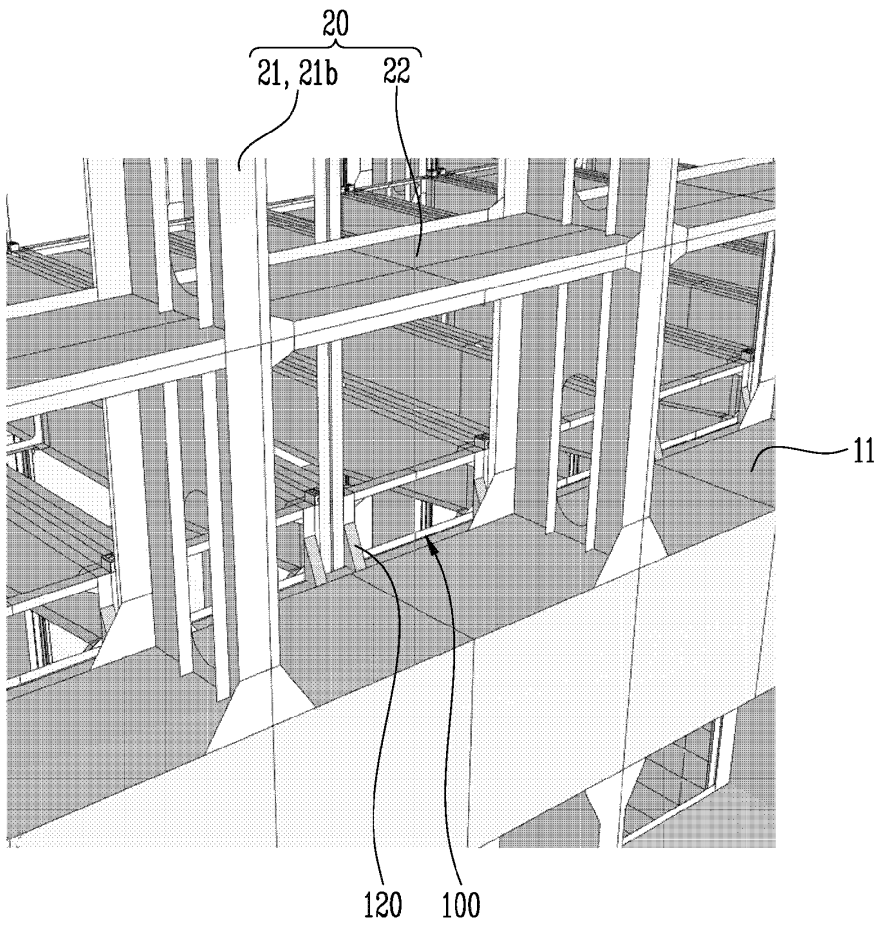
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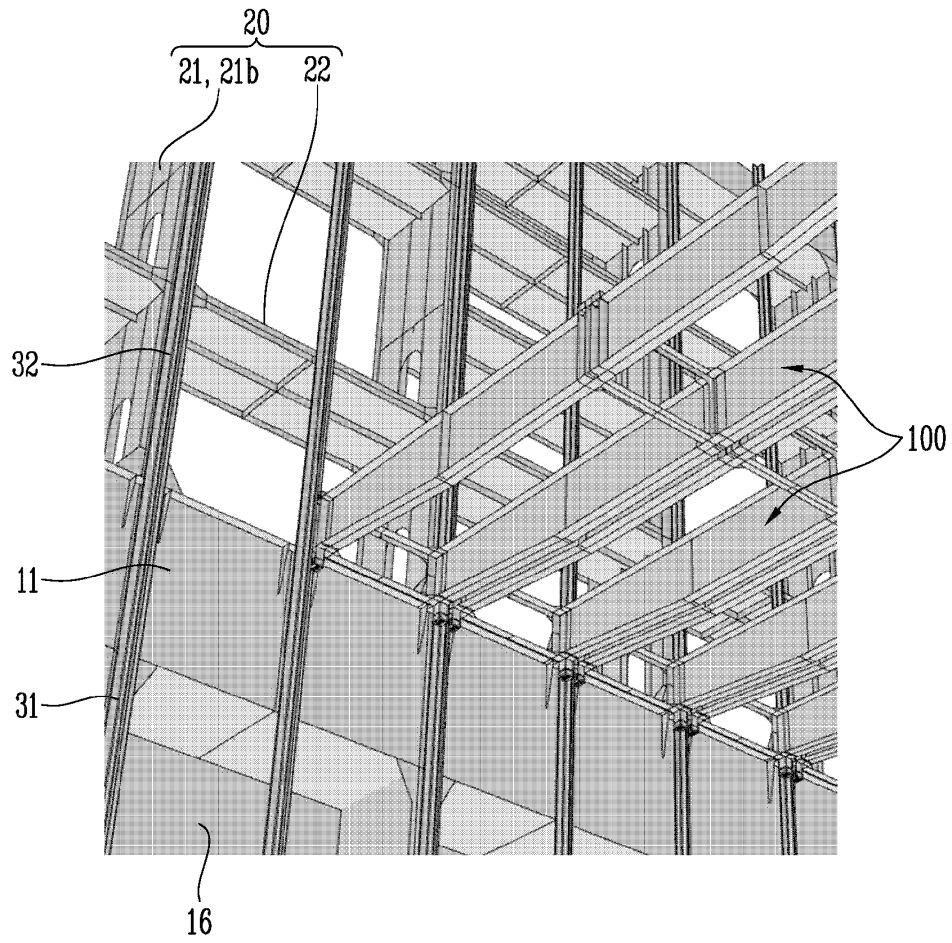
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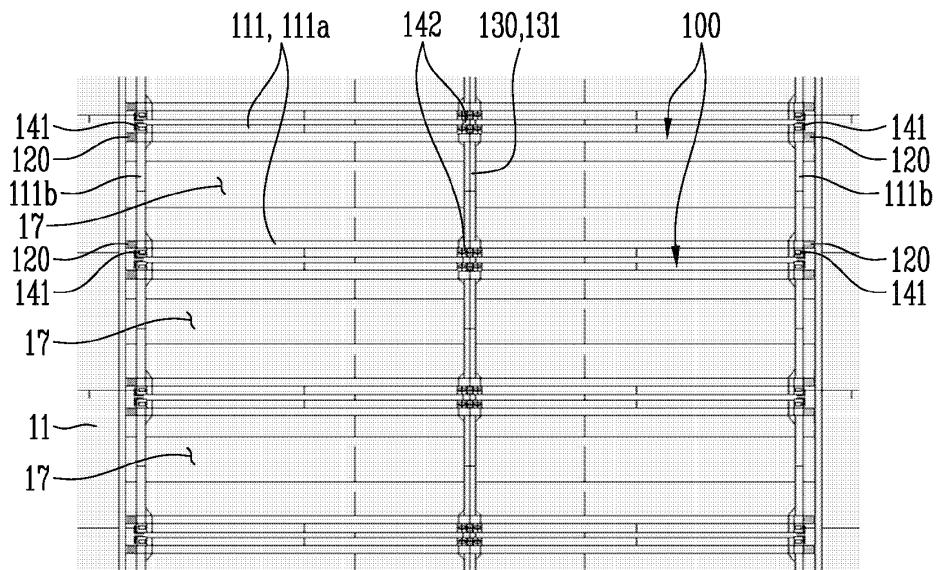
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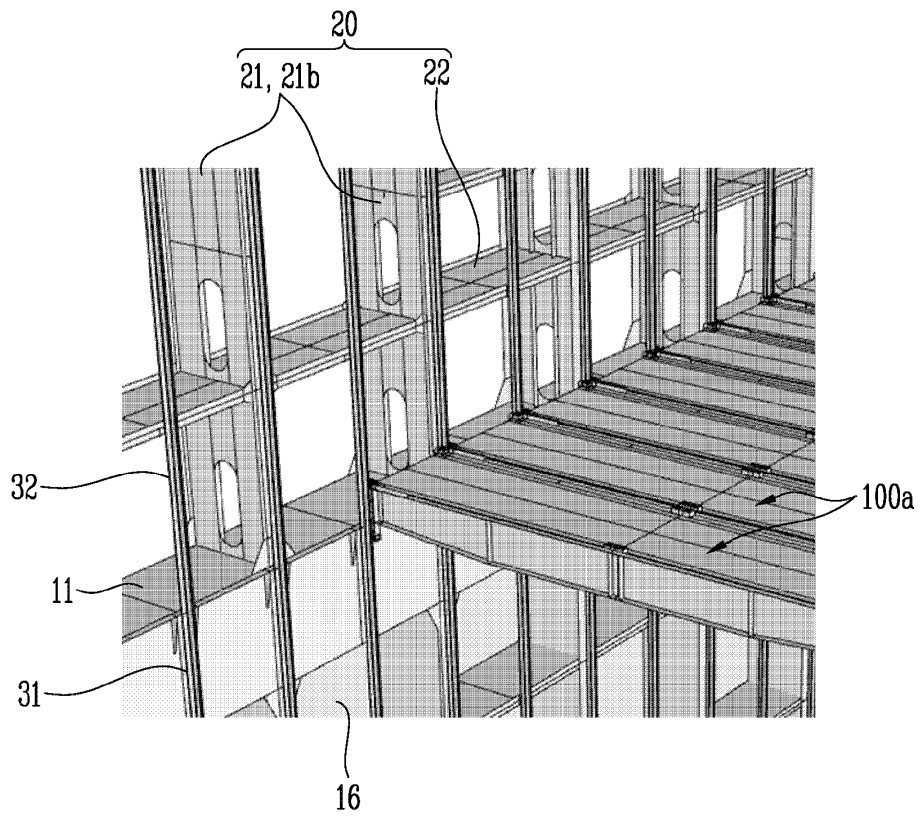
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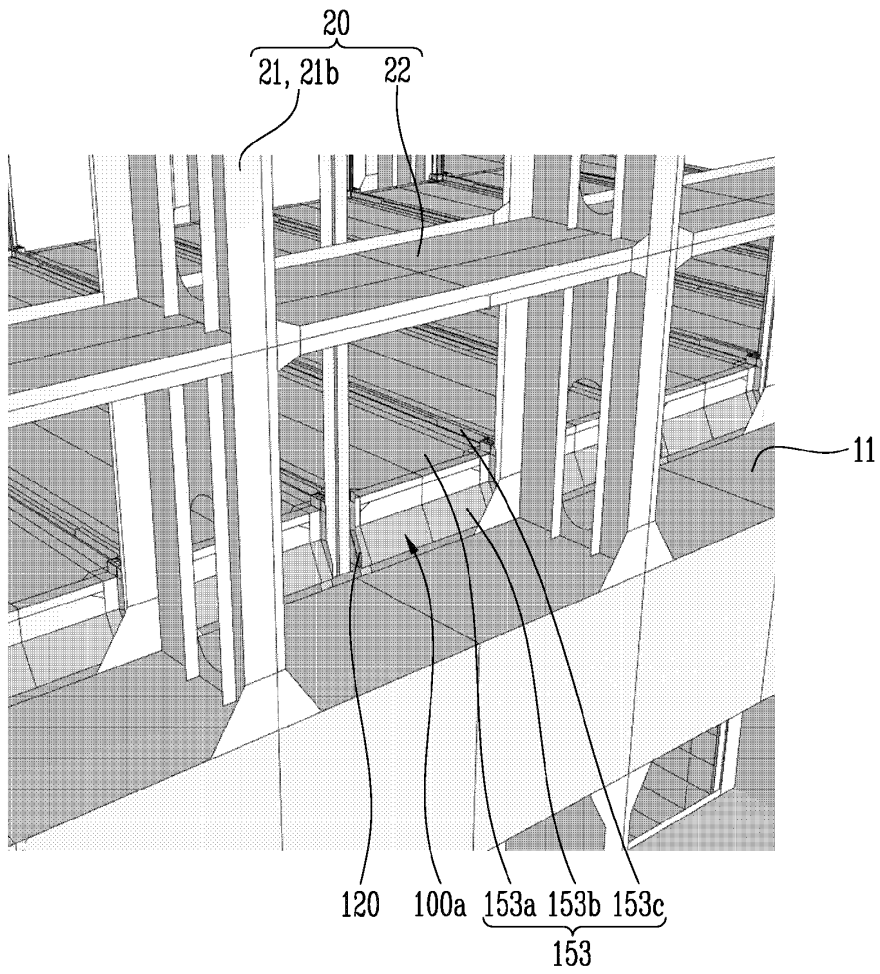
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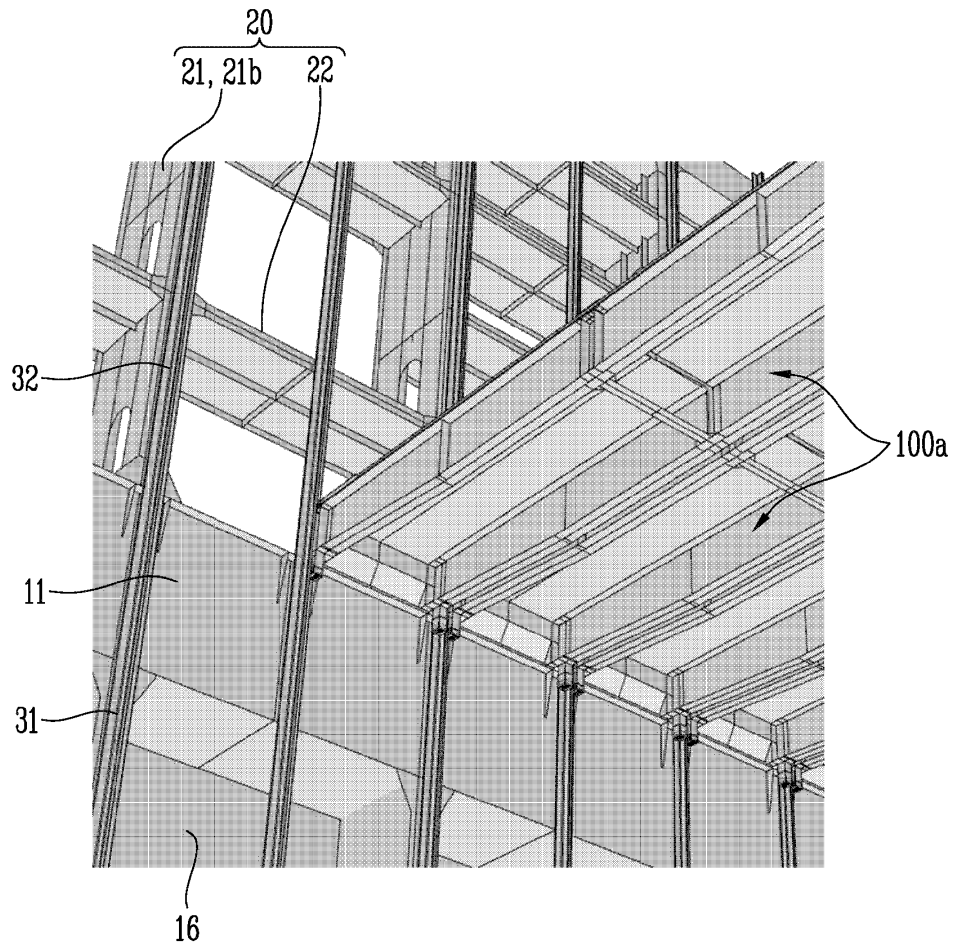
[도9]



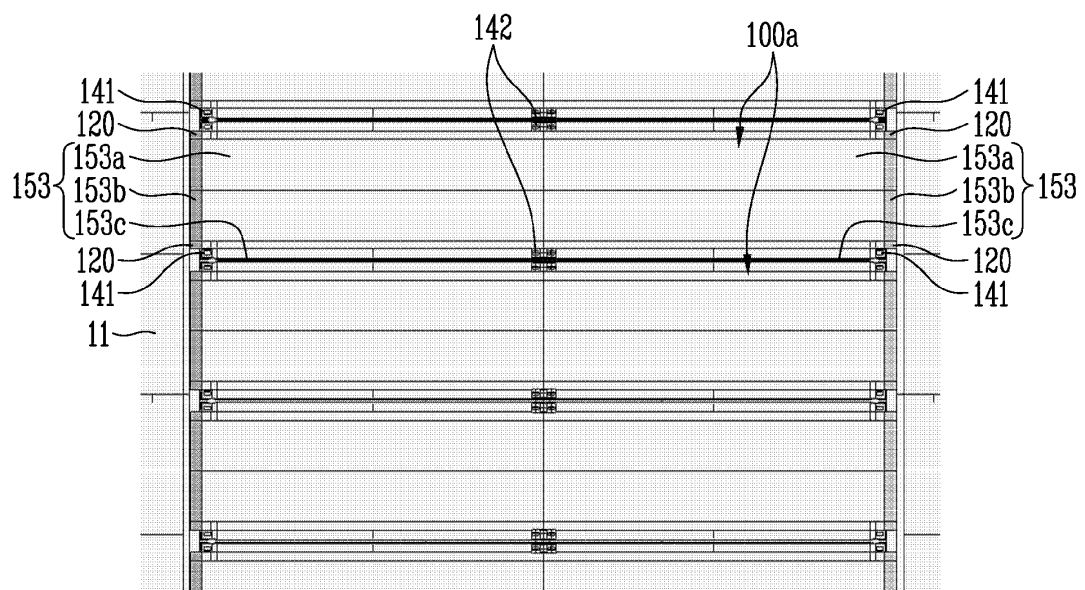
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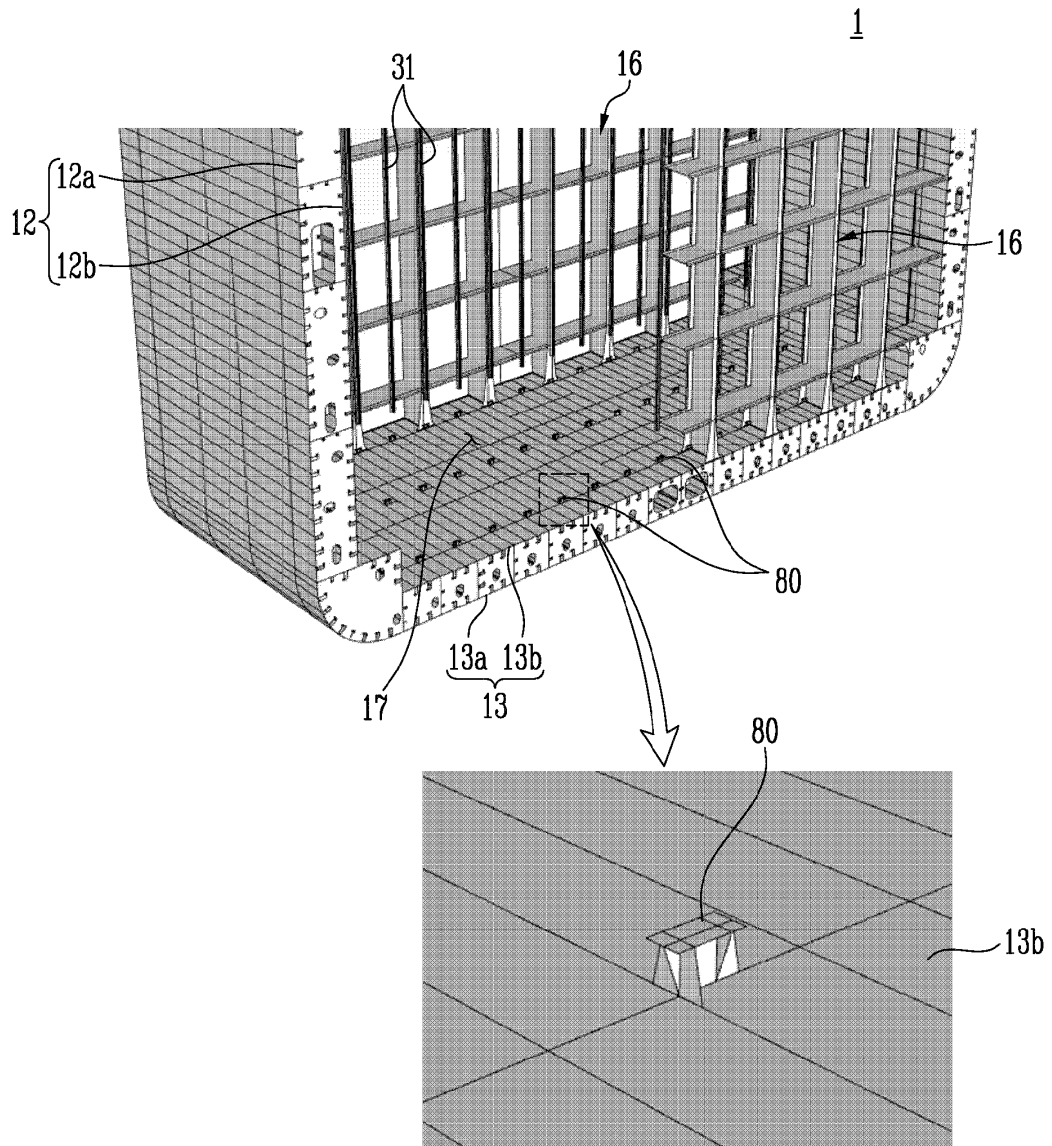
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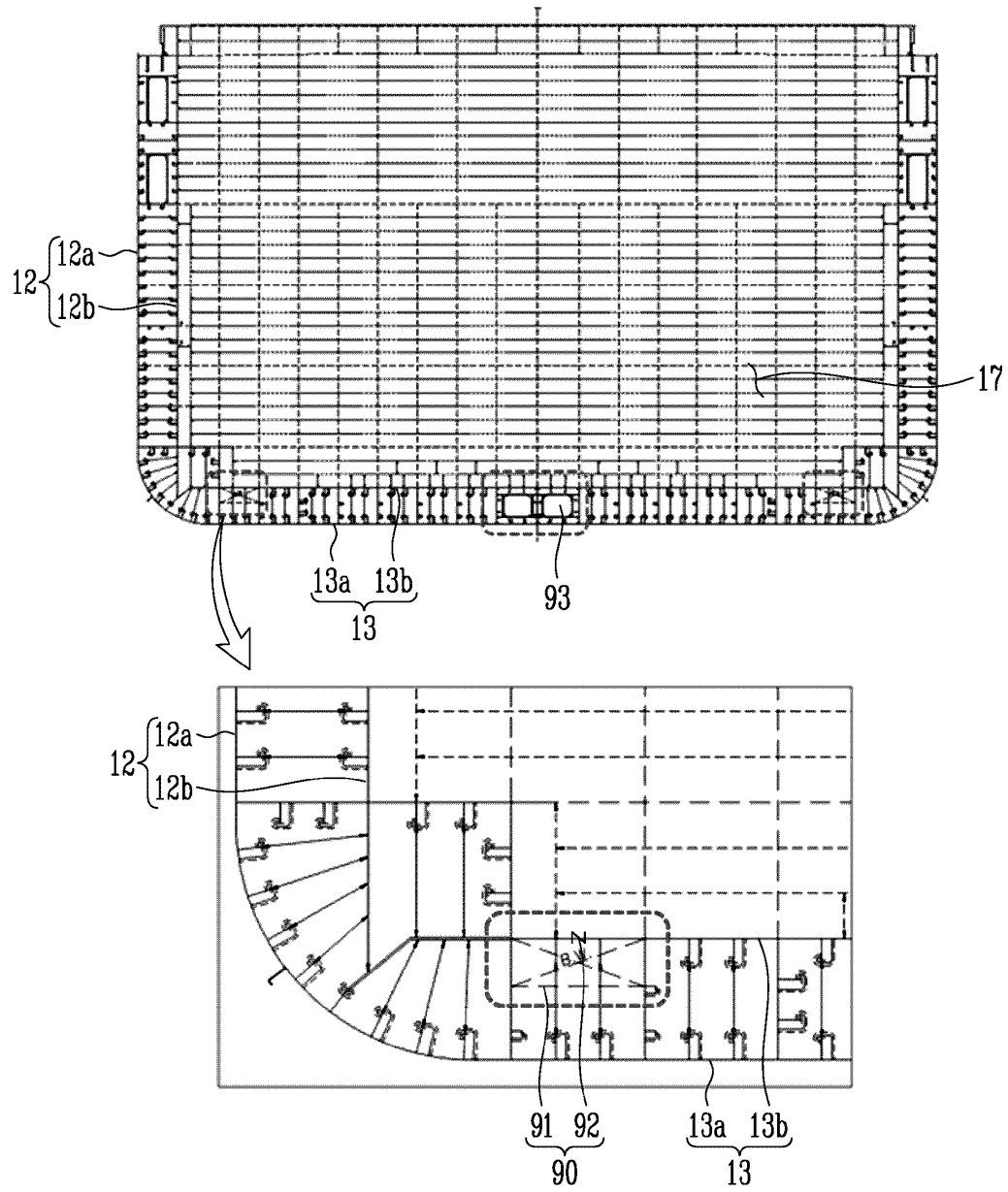
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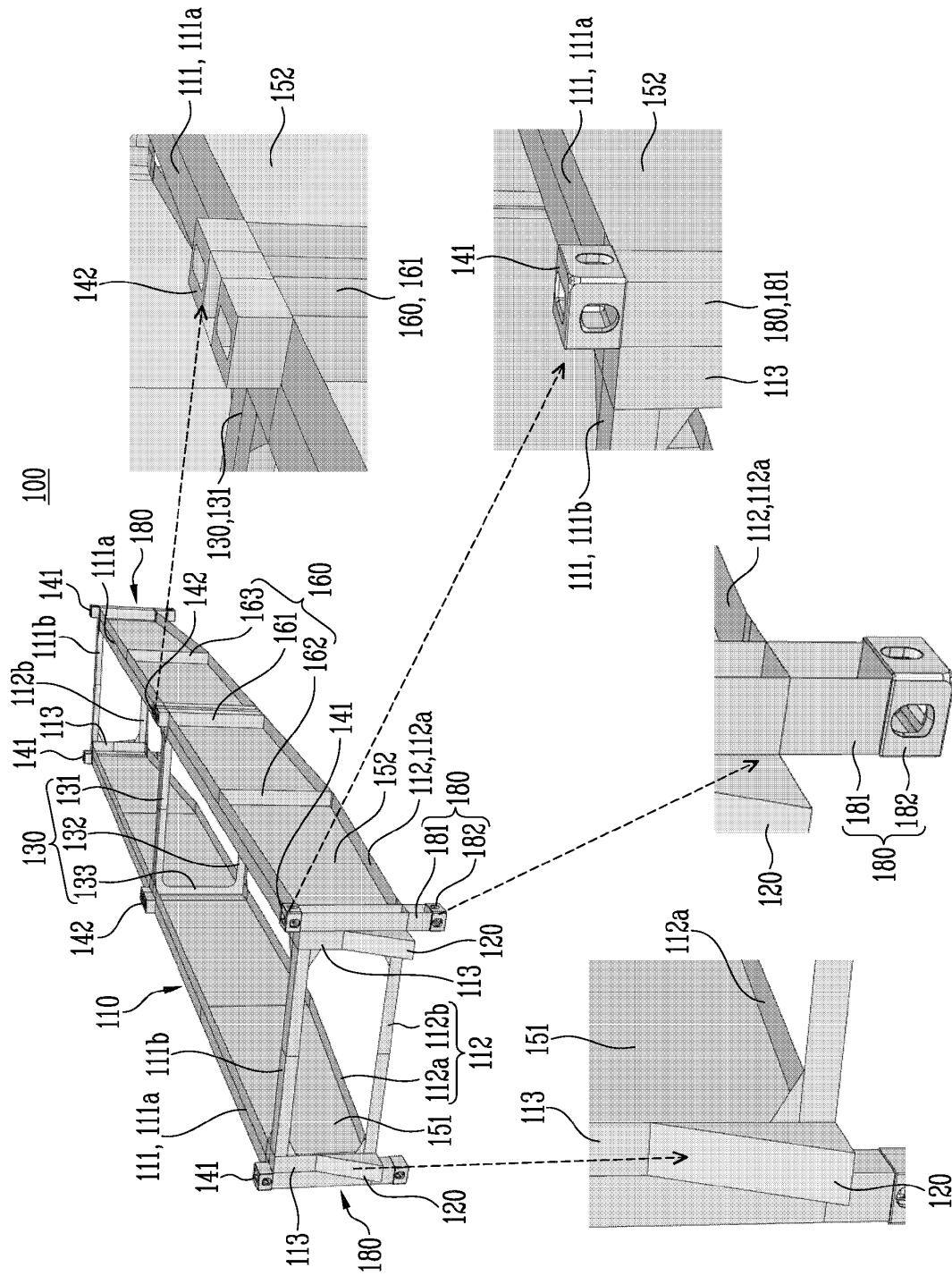
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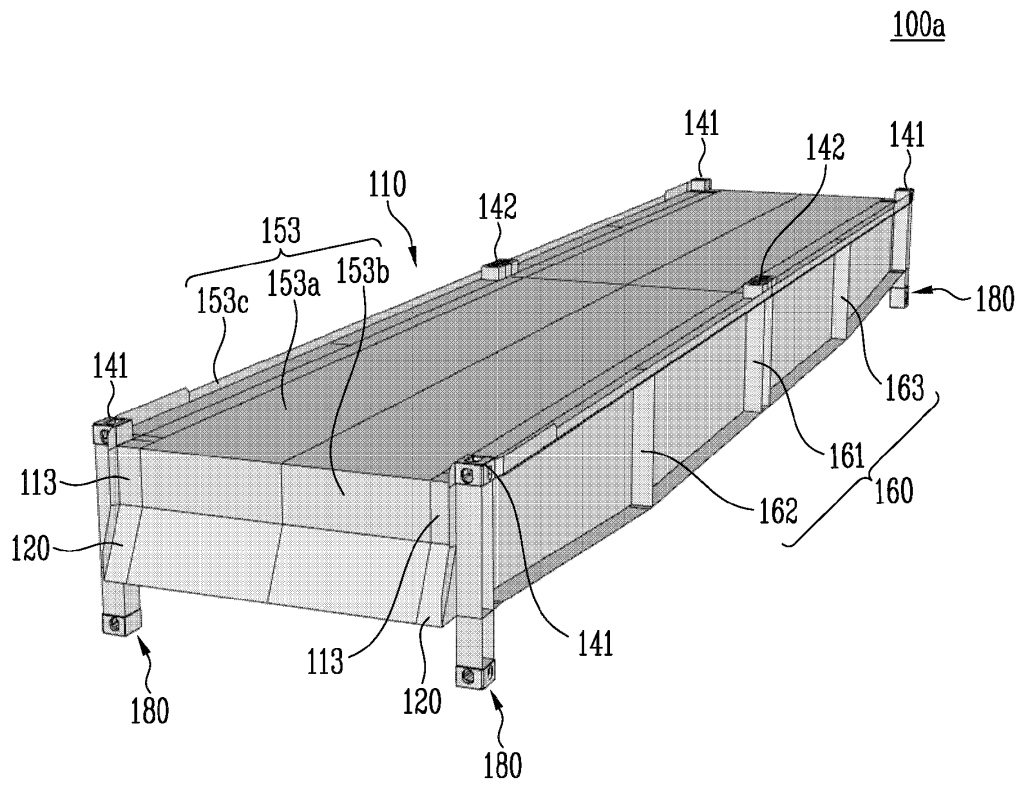
[도16]

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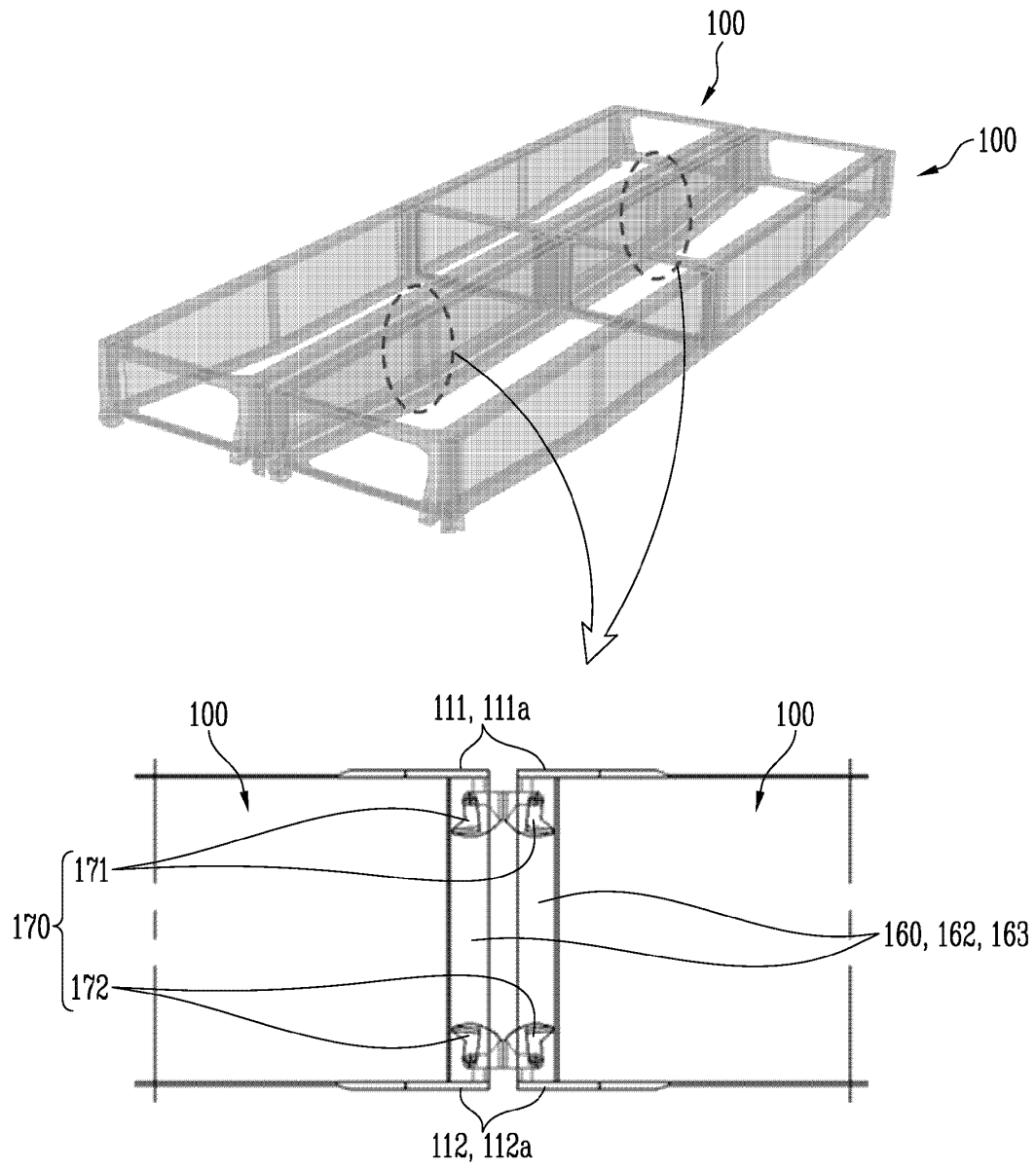
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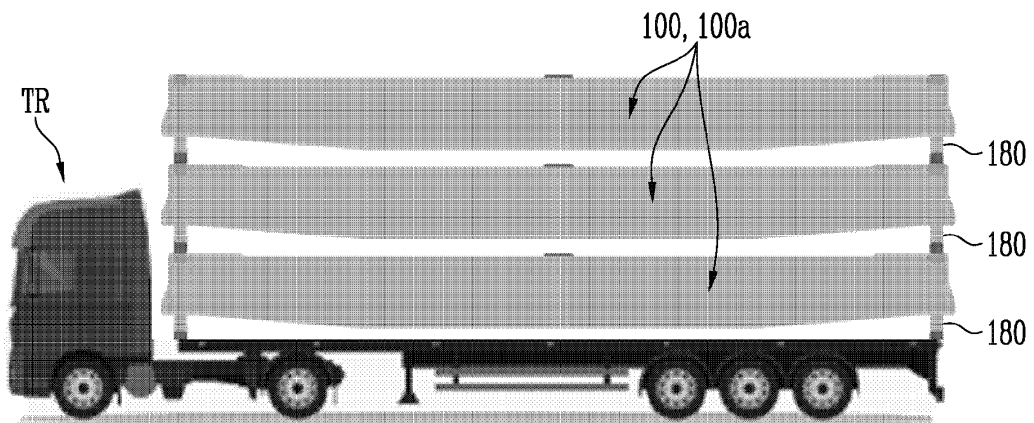
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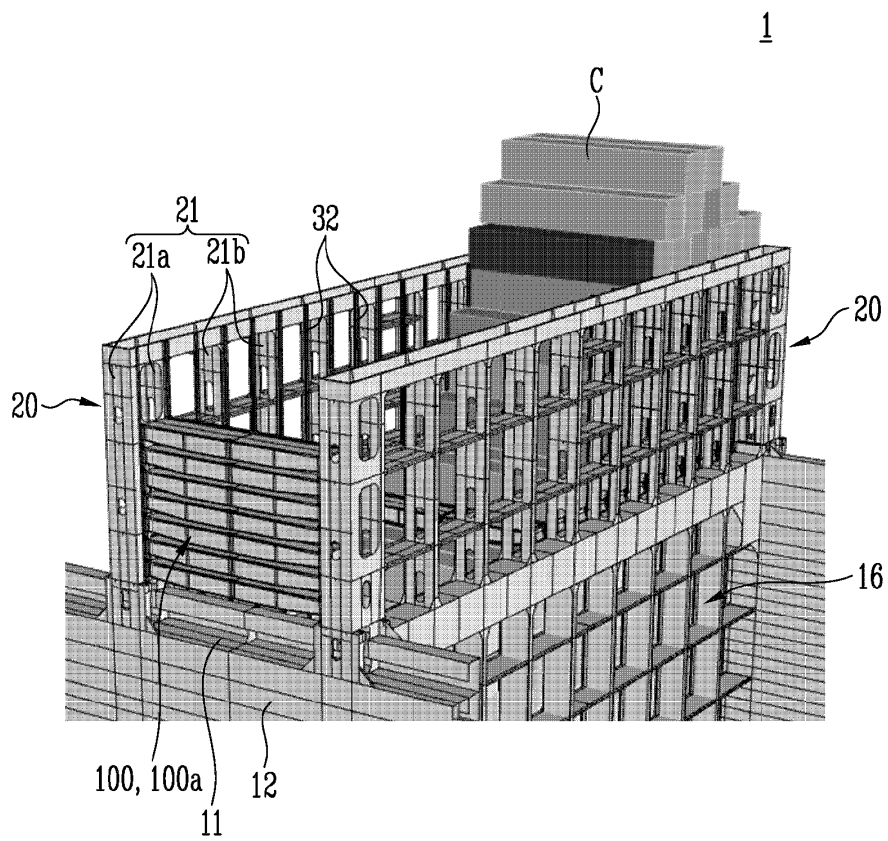
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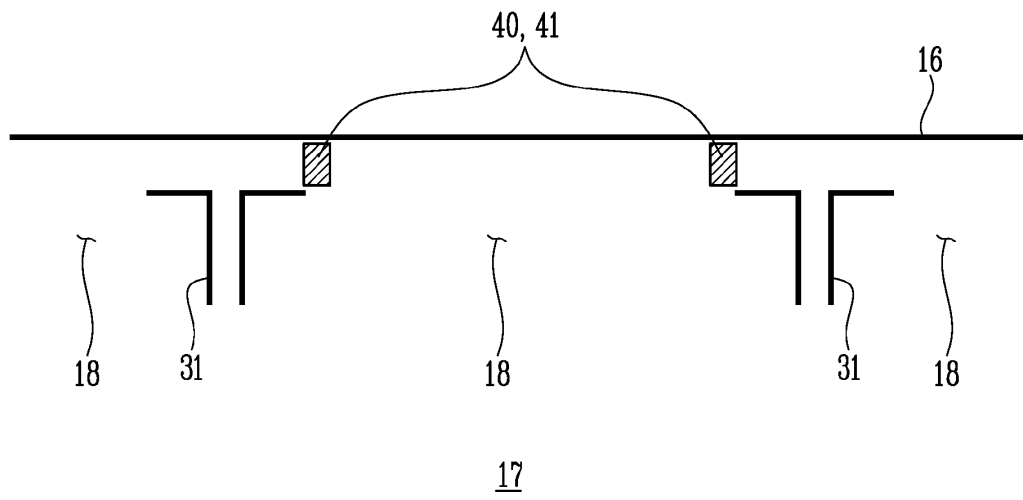
[도 20]



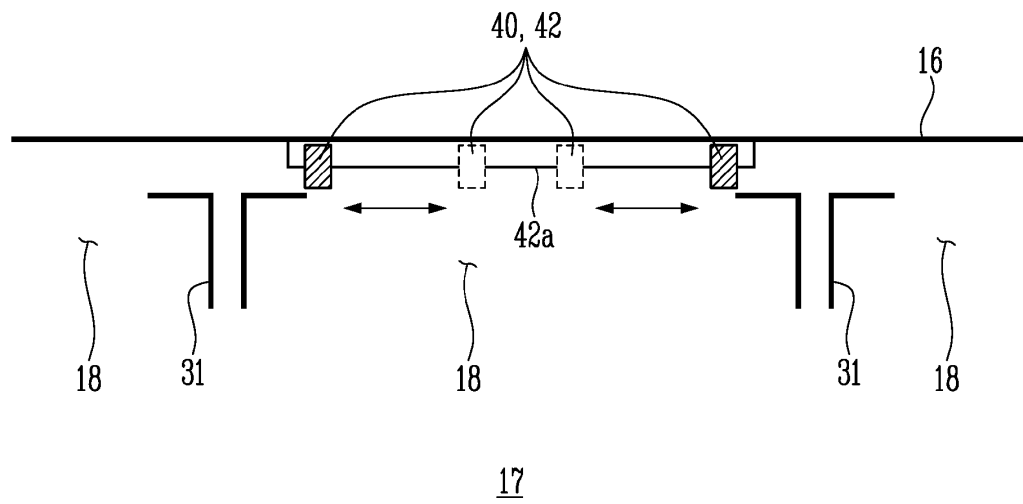
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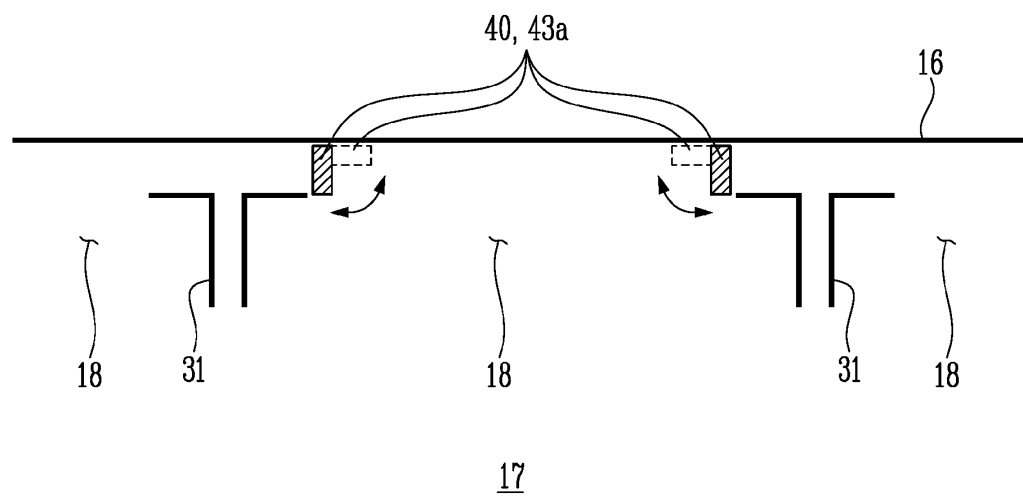
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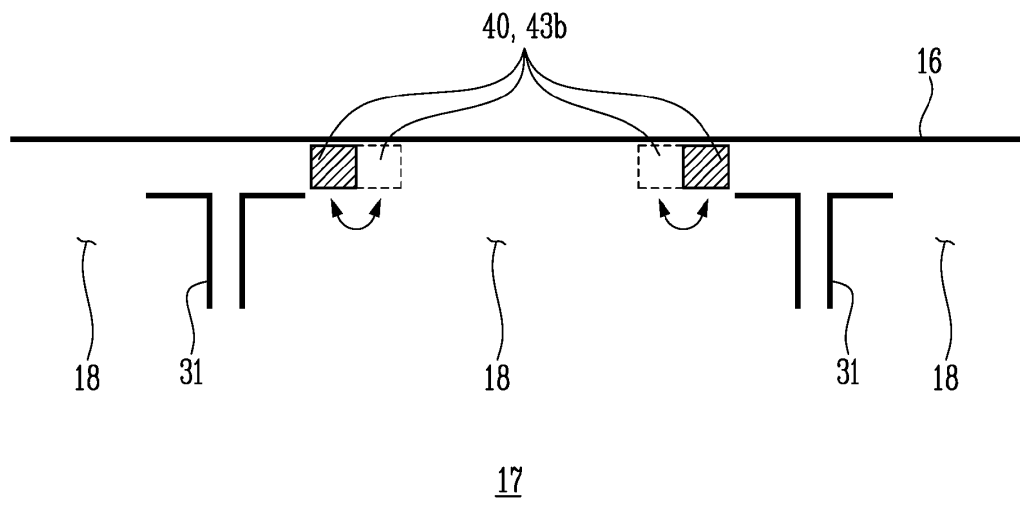
[도 23]



[도 24]

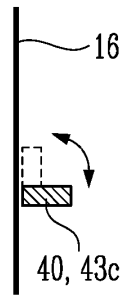


[도 25]

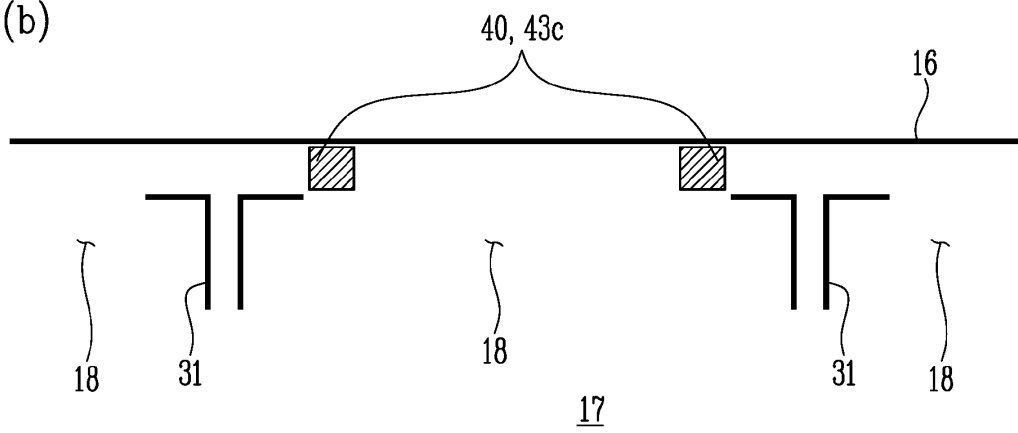


[도 26]

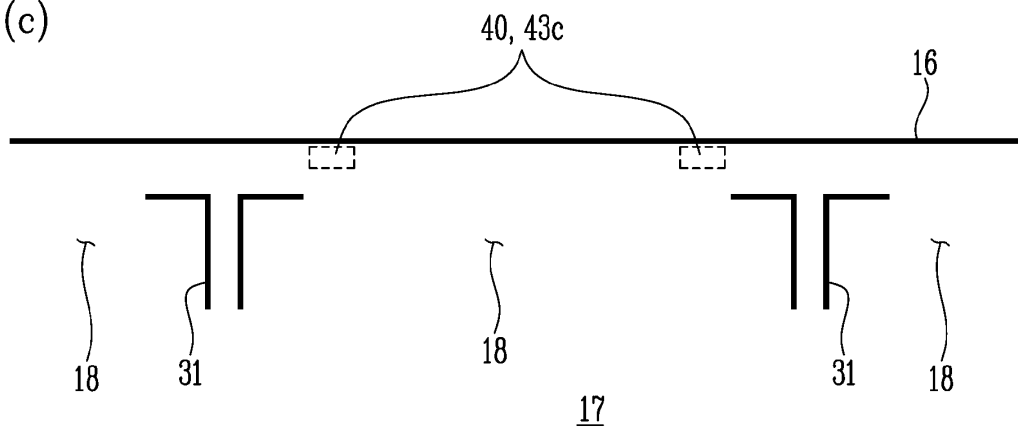
(a)



(b)

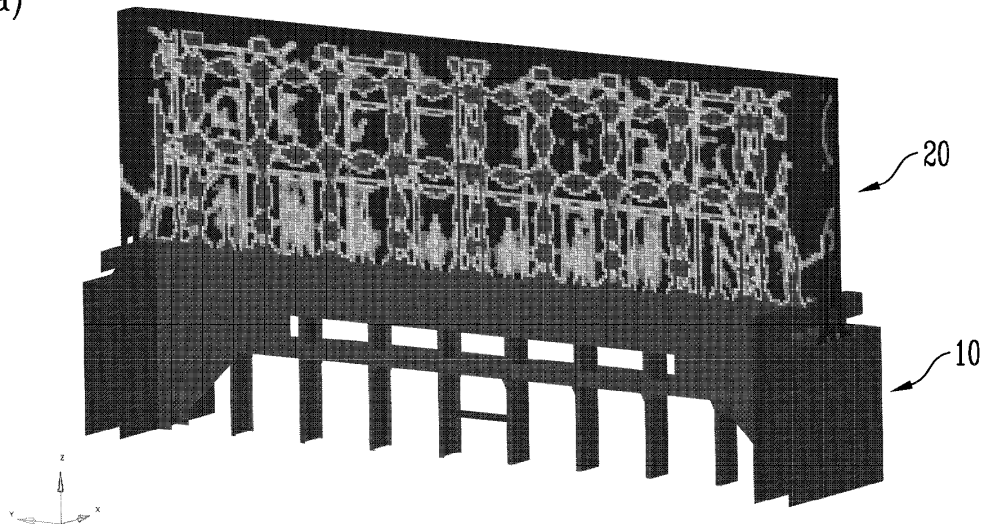


(c)

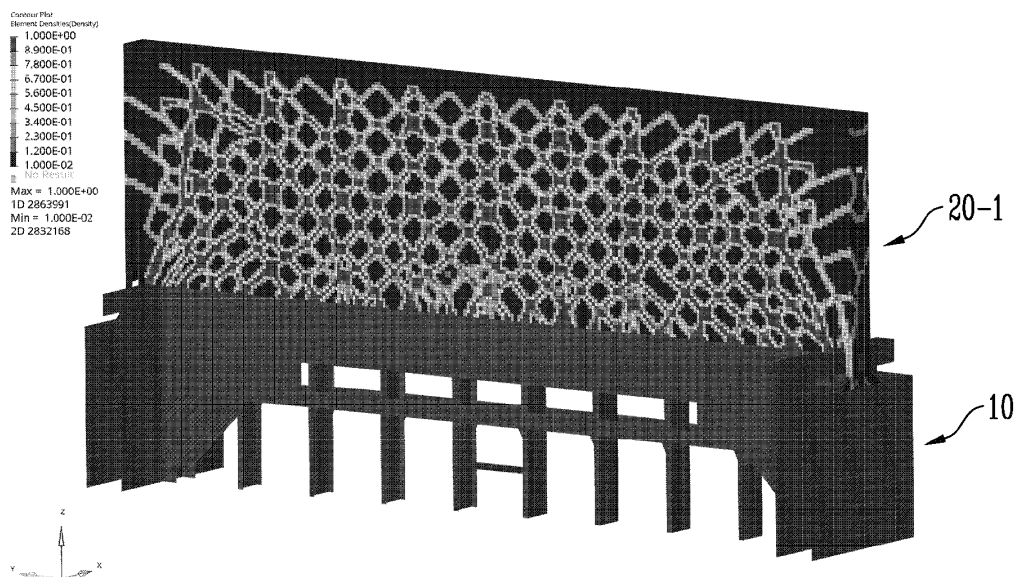


[도 27]

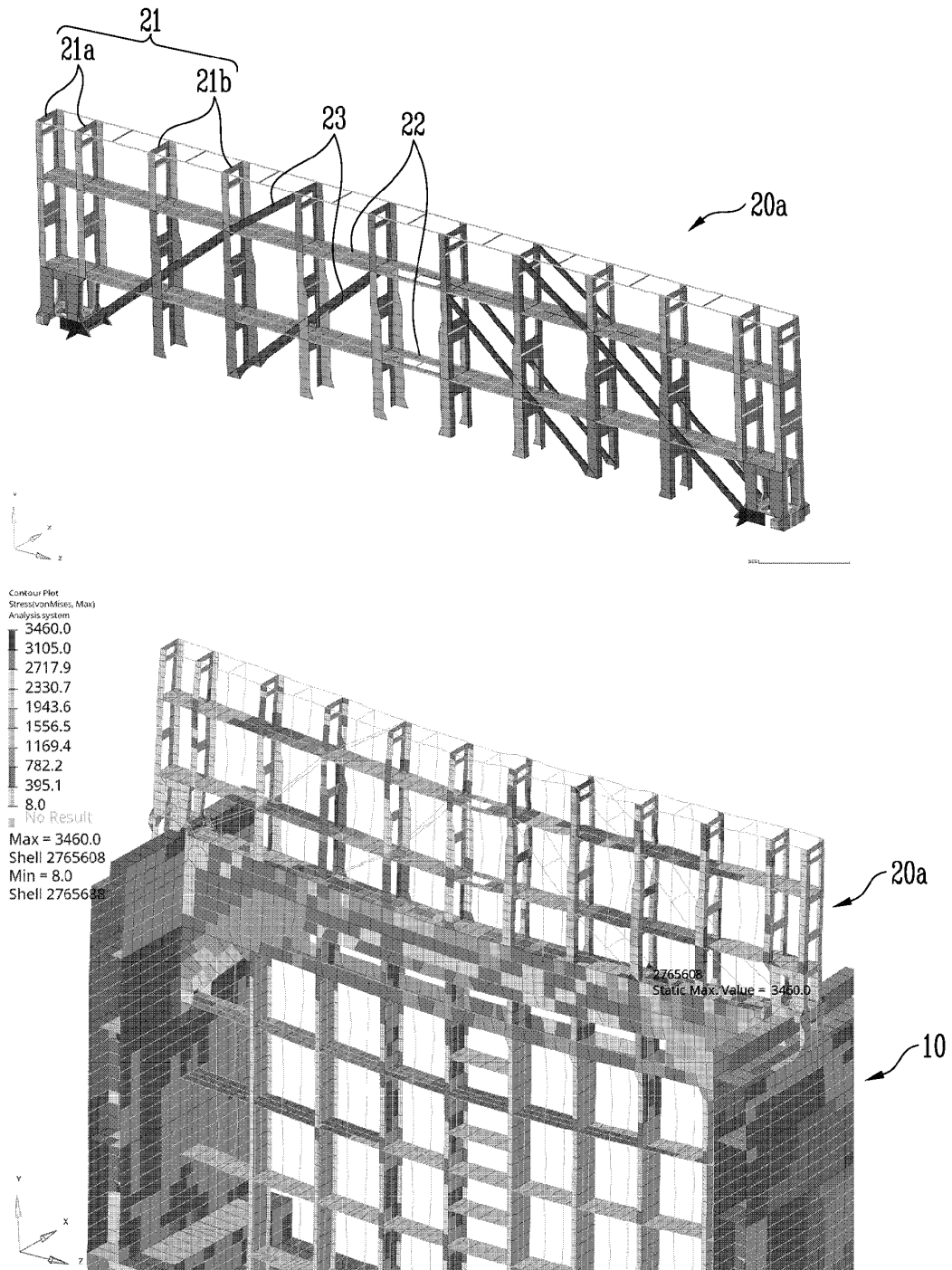
(a)



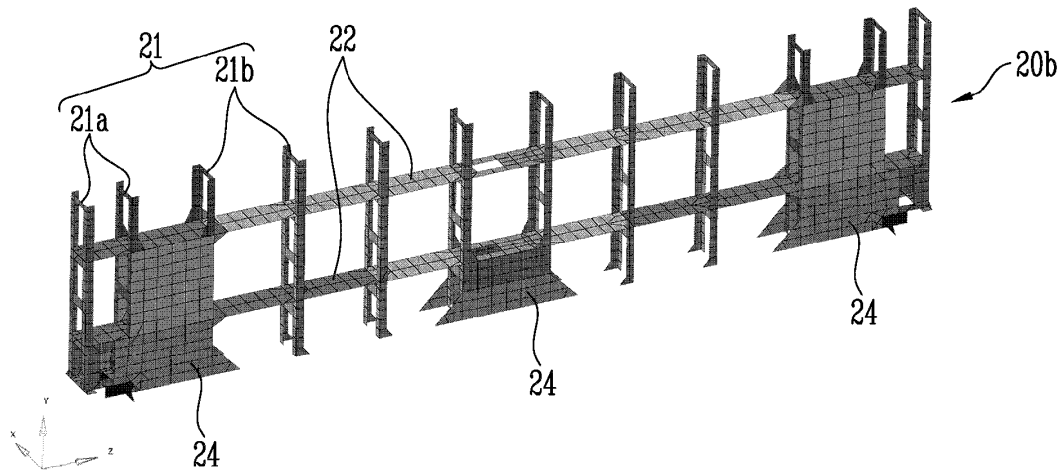
(b)



[도 28]



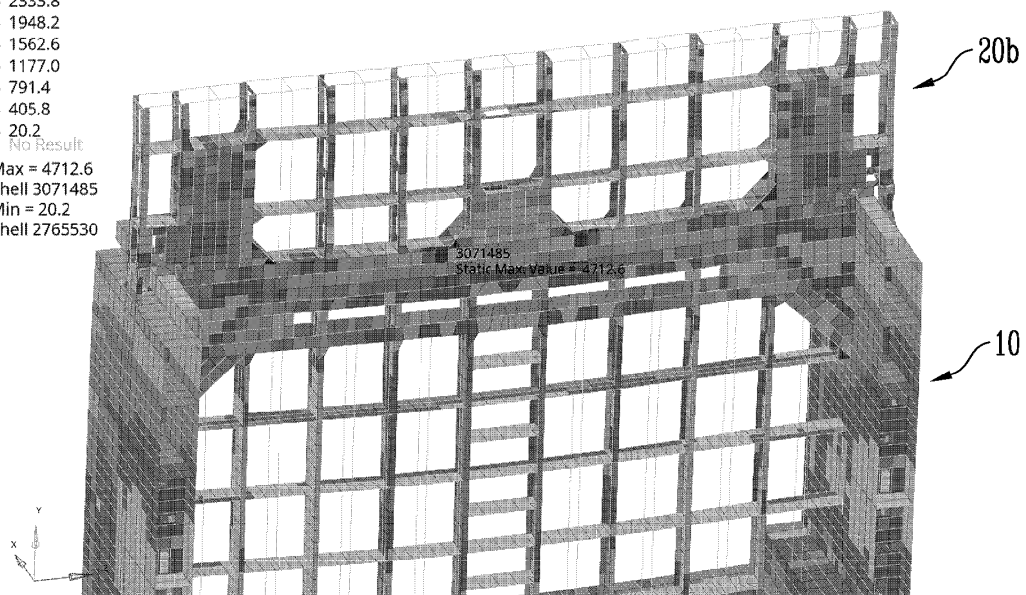
[도 29]



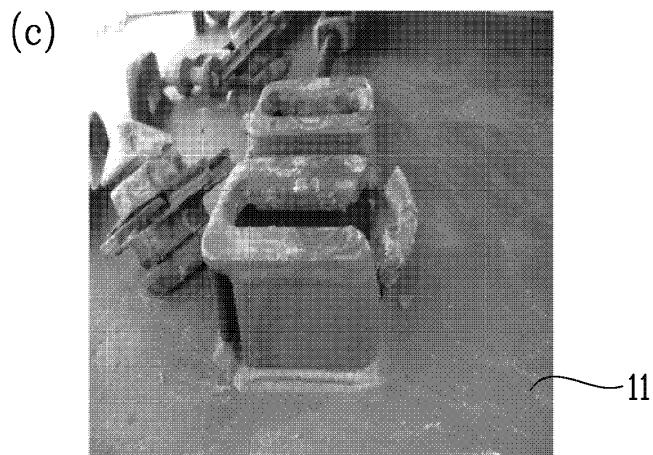
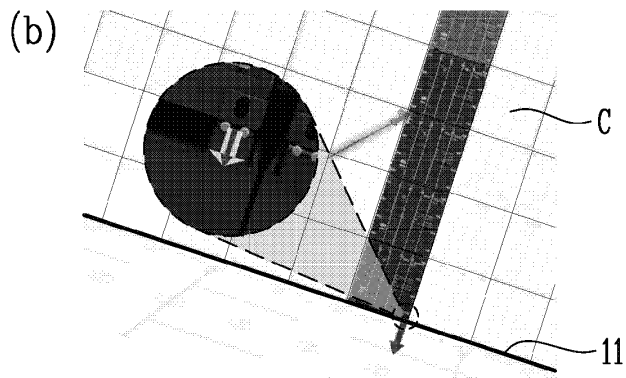
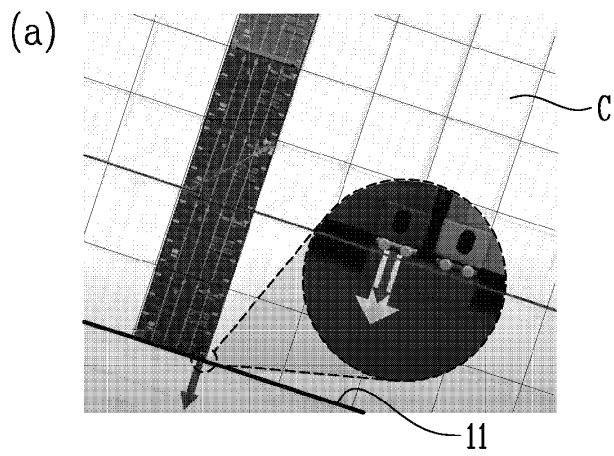
Contour Plot
Stress(vonMises, Max)
Analysis system

4712.6
3105.0
2719.4
2333.8
1948.2
1562.6
1177.0
791.4
405.8
20.2
No Result

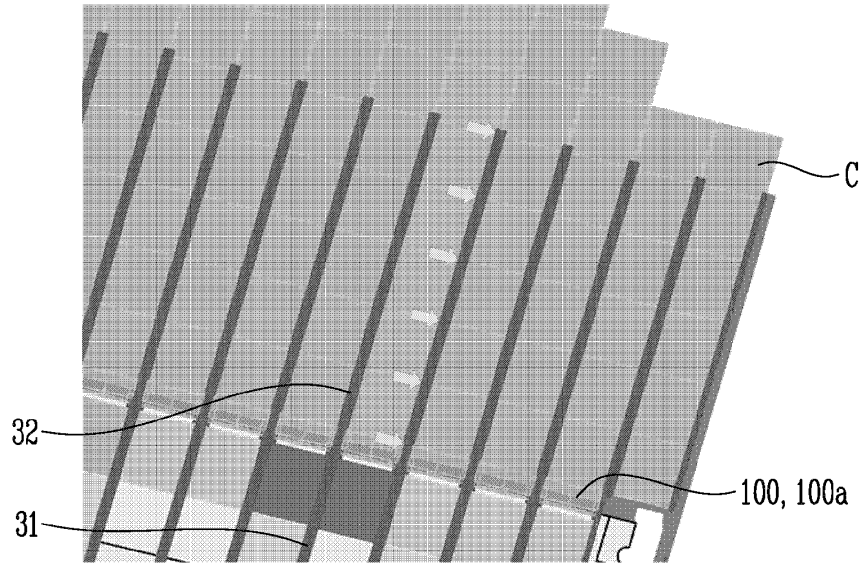
Max = 4712.6
Shell 3071485
Min = 20.2
Shell 2765530



[도30]



[도31]



[도32]

Tier	TwistLock Force		Corner Post Force		Racking Force	Lashing Rod Tension			
	(PS)	(SB)	(PS)	(SB)		A	B	C	D
12	-12.5	-7.2	0	0	2.3	0	0	0	0
11	-39.8	-13.7	-12.5	-7.2	9	0	0	0	0
10	-85.8	-15.6	-39.8	-13.7	19.2	0	0	0	0
9	-151	-6.7	-85.8	-15.6	32.1	0	0	0	0
8	-232.3	18.3	-151	-6.7	46	0	0	0	0
7	-329.4	59.1	-232.3	18.3	59.8	0	0	0	0
6	-442.2	115.6	-329.4	59.1	73.4	0	0	0	0
5	-570.5	91.6	-442.2	115.6	86.8	0	146.7	0	0
4	-597.8	-31.5	-570.5	23.8	-69.1	69.1	77	0	0
3	-725	-174.6	-597.8	-31.5	-6.9	0	0	0	0
2	-927.5	-242.5	-725	-174.6	58.3	0	0	0	0
1	-1206.2	-234	-927.5	-242.5	124.5	0	0	0	0

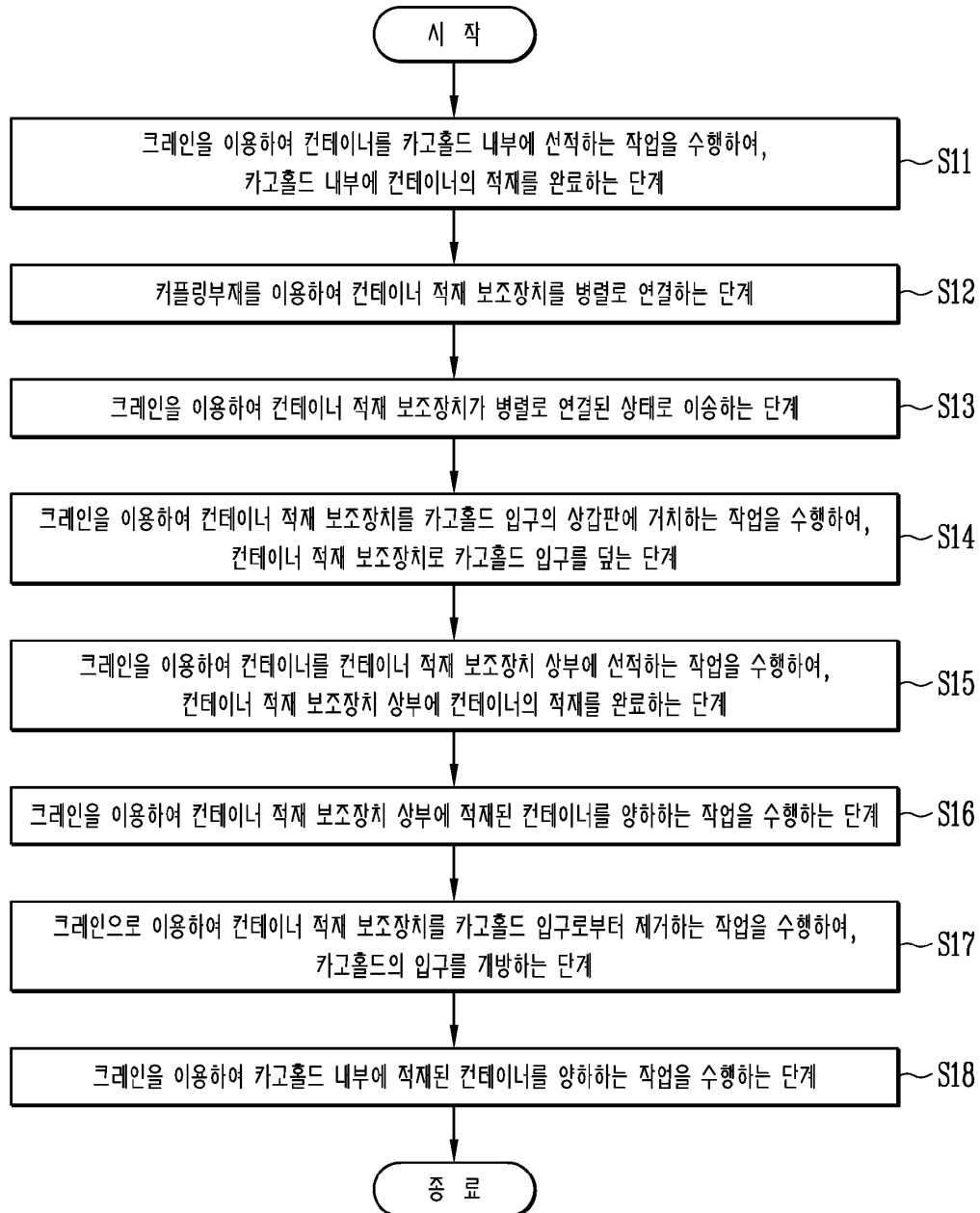
[533]

Tier	TwistLock Force		Corner Post Force		Racking Force	Lashing Rod Tension			
	(PS)	(SB)	(PS)	(SB)		A	B	C	D
12	12	-12.5	-7.2	0	0	2.3	0	0	0
11	11	-39.8	-13.7	-12.5	-7.2	9	0	0	0
10	10	-85.8	-15.6	-39.8	-13.7	19.2	0	0	0
9	9	-151	-6.7	-85.8	-15.6	32.1	0	0	0
8	8	-232.3	18.3	-151	-6.7	46	0	0	0
7	7	-329.4	59.1	-232.3	18.3	59.8	0	0	0
6	6	-442.2	115.6	-329.4	59.1	73.4	0	0	0
5	5	-570.5	187.6	-442.2	115.6	86.8	0	0	0
4	Cell Guide								
3									
2									
1									
				-805.7					

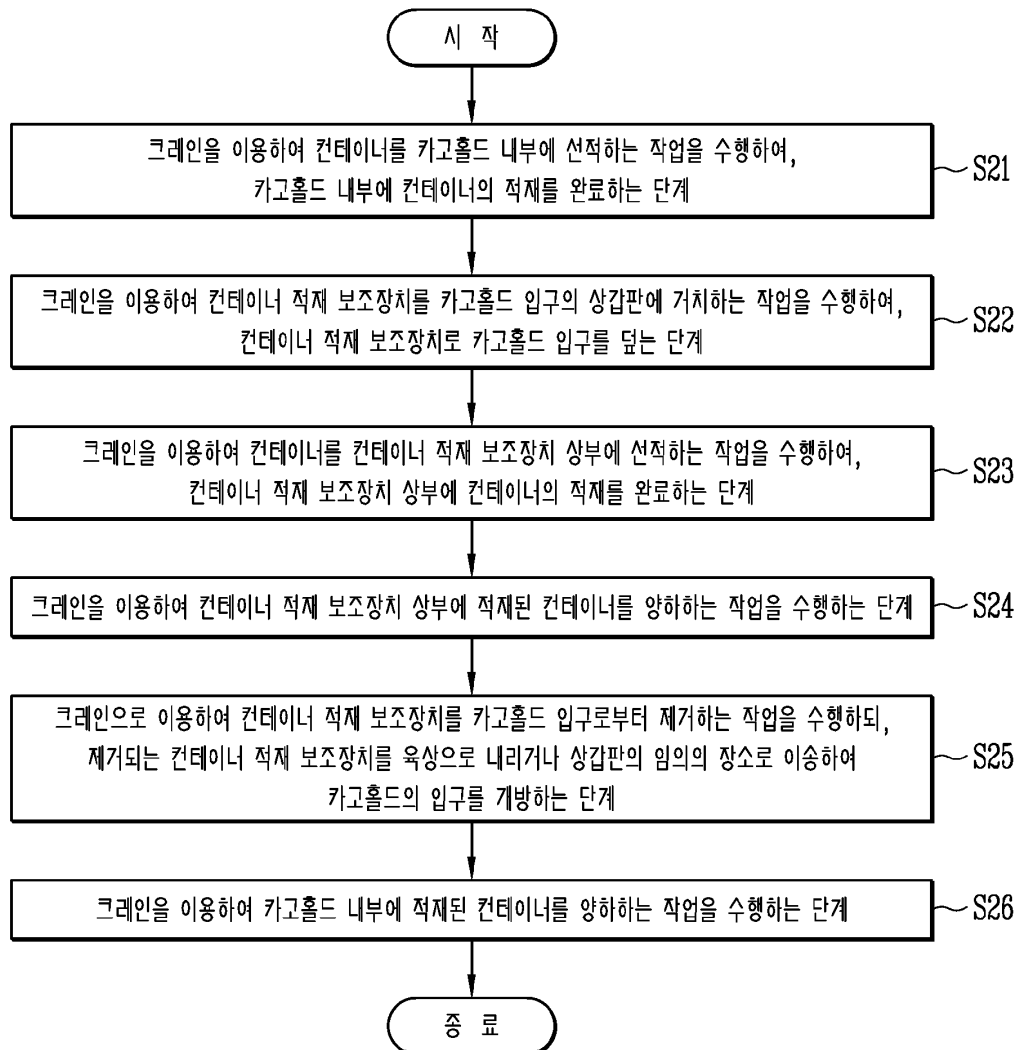
[534]

Loads	Criteria	Lashing system 3-tier lashing bridge**	Cell guide system 4-tier
Racking force(kN)	150	124.5	86.8
Post force(kN) (Compression)	848	927.5	805.7 (442.2+363.5***)
Twistlock force(kN) (Tension)	250(500*)	115.6	187.6
Remarks	* Min. breaking load (tension) of twistlock	**External lashing, lashing at bottom/top of 4th tier & bottom of 5th tier	*** (18+48+48) x 9.81 x 1.3(g) ÷ 4 = 363.5 kN

[도36]



[도37]



[도 39]

