



TECHNICAL CHARACTERISTICS OF THE EQUIPMENT L120

Superstructure main characteristics :

-Span length: variable from : 35.052 m (115') to 55.089 m (180' 8- $\frac{3}{4}$ ") erected fully Span by Span;  
60.96 m (200') to 62.484 m (205') erected partially Span by Span in eccentric way toward front side (with rear Cantilever erected before, with progressive method)

-Maximum span weight : 1621 metric ton (15893 kN)  
-Maximum segment weight : 143.17 metric ton (1404 kN)  
-Max longitudinal slope : 4 %  
-Max Transversal slope of the deck : 2.5 %  
-Transversal slope of the support runways : 0 %  
-Minimum viaduct horizontal radius : R = 3276.6 m (10750')

FEM Classes :

-Equipment Structure : A1  
-Main Lifting Mechanism : M5  
-Winch Gantry Structure : A2  
-Other mechanisms : M4 on Winch Gantry, M3 on Main Movement System

Equipment self weights :

-Total equipment weight : 1328.6 ton (13029 kN) in Self Launching Configuration (including Erection Supports (Front and Rear) in 2 Elements Configuration (One Bound Configuration), Spreader Beam in 69' configuration but without Stressing Platform, Segment Hanging Beams, Main Girder lifting accessories and Hurricane out of service accessories.

-Winch gantry :  
-Main Lifting capacity at Spreader Beam type 69' + 58'/70' : 144.3 ton (1415 kN)  
-Main Lifting capacity at Spreader Beam type 39' : not defined yet  
-Longitudinal travelling speed (loaded) : 0  $\pm$  4 m/min  
-Longitudinal travelling speed (unloaded) : 0  $\pm$  8 m/min  
-Main Lifting speed (loaded) : 0  $\pm$  1.5 m/min (step less control speed on external 5th rope ply)  
-Main Lifting speed (unloaded) : 0  $\pm$  3 m/min (step less control speed on external 5th rope ply)  
-Main Lifting Stroke approx : 72.6 m (55.0 m under Viaduct  $\phi$  Deck Level for 6.0 m distance between Viaduct  $\phi$  Deck and main girders bottom rail level)

-Auxiliary Lifting Stroke approx : 25 m (5.62 m under Viaduct  $\phi$  Deck level for 6.0 m distance between Viaduct  $\phi$  Deck and main girders bottom rail level)  
-Auxiliary Lifting capacity : 3.06 ton (30 kN)  
-Auxiliary Lifting speed : 0.6 / 3.3 m/min  
-Auxiliary Traversing speed : 7 / 22 m/min

Other movements :

-Main Girder Self launching speed : 0  $\pm$  2.4 m/min (step less control)  
-Supports relocation speed : 0  $\pm$  4.8 m/min (step less control);  
[valid for AS, RS, FS; (FL is fixed to MG)]  
-Traversing speed for Main Girders/Winch Gantry Span Change approx : 9.8 mm/s (mediate);  
with both cylinders working (to be executed step by step, to precision of positioning of all parts : Main Girder, Winch Gantry leg, Winch Gantry pulleys frame).  
-Traversing speed of Main Girders approx : 15.65 mm/s (mediate); to be executed step by step  
-Traversing speed of Erection Supports approx (in suspended config) : 15.65 mm/s (mediate);  
to be executed step by step

-Hook block traversing stroke :  $\pm$ 700 mm  
(To be used a minimum amount inside Erection Supports for span erection with high radius curve; centered hook block outside Erection Supports is required to load in same way the two lips)

-Hook block traversing speed approx : 0.42 m/min (mediate)  
-Hook block rotation :  $\pm$ 135' with respect to 0' represented by Spreader Beam main beam oriented in longitudinal direction, as viaduct  
-Hook block rotation speed approx : 0.25 rpm

NOTE:

WEIGHTS WITHOUT:  
- ELE. GENERATOR  
- PT STRESSING JACKS

TOTAL WEIGHT = ~1458080 Kg  
NUMBER OF UNITS = 1  
WEIGHT FOR ONE UNIT = ~1458080 Kg

POS.	QTY	DESCRIPTION	MARK	DRAWING N°	UNIT	WEIGHT	COLOR/NOTES
10	1	STRESSING PLATFORM - GEN. ARRANGEMENT	-	L120DUGDP001	9860	9860	
9	1	SPREADER BEAM 58'70"-69' - GEN. AR.	-	L120DUGDM001	16490	16490	
8	1	FRONT LEG - GENERAL ARRANGEMENT	-	L120DUGDO001	52855	52855	
7	1	MAIN MOV. SYSTEM - GEN. ARRANGEMENT	-	L120DUGDG001	21783	21783	
6	1	WINCH GANTRY - ASSEMBLY	-	L120DUGDE001	55900	55900	
5	1	HANGING SYSTEM - GENERAL ARRANGEMENT	-	L120DUGDH001	99500	99500	
4	1	AUXILIARY SUP. - GEN. ARRANGEMENT	-	L120DUGDC003	51290	51290	
3	1	FRONT ERECTION SUP. - GEN. ARRANGEMENT	-	L120DUGDC002	143155	143155	
2	1	REAR ERECTION SUP. - GEN. ARRANGEMENT	-	L120DUGDC001	143155	143155	
1	1	MAIN GIRDER - GENERAL ARRANGEMENT	-	L120DUGDA001	864092	864092	

FOR HURRICANE OUT OF SERVICE OF MAIN GIRDER SEE DWG L120DUADA013

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REFERENCE:		LAUNCHING GIRDER L120 - LG 1600/55	
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TITLE:		---	
Substitutes for: ---		Scale: 1:150	Sheet 1 Of 10
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