

Nº de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 4	7.5 m Pl	eza de p umín	lumín				
14.6	78.0	93.4	43.7												
16.0	76.2	93.1	42.9												
18.0 20.0	73.7 71.2	92.5 91.8	37.5 32.2												
20.0	68.6	91.8	32.2 28.5												
22.5	00.0	91.1	20.3	73.0	91.9	38.6									
24.0	66.0	90.2	25.1	71.0	91.4	38.0									
26.0	63.3	89.2	22.4	68.4	90.6	35.4									
28.0	60.5	88.1	20.5	65.8	89.8	32.2									
30.0	57.7	86.9	18.9	63.1	88.8	28.8									
32.0	54.8	85.5	17.5	60.4	87.7	26.4									
34.0	51.7	84.0	16.4	57.5	86.4	24.0									
34.7							65.0	88.2	25.1						
36.0	48.6	82.3	15.4	54.6	85.1	21.9	63.3	87.5	25.0						
38.0	45.2	80.4	14.5	51.6	83.5	20.3	60.5	86.4	23.4						
40.0	41.7	78.2	13.6	48.4	81.8	18.9	57.7	85.2	22.3						
42.0	37.9	75.8	12.8	45.0	79.9	17.5	54.8	83.8	21.1						
44.0 46.0	33.7 28.9	72.9 69.5	12.2 11.6	41.5 37.6	77.7 75.2	16.3 15.3	51.7 48.5	82.3 80.6	20.1 19.2						
48.0	23.3	65.3	11.0	33.4	73.2 72.4	14.4	45.2	78.7	18.3						
49.0	20.0	00.0	11.0	33.4	12.7	17.7	43.Z	70.7	10.5	55.0	81.1	15.4			
50.0	15.9	59.5	10.4	28.6	68.9	13.6	41.6	76.5	17.5	53.7	80.5	16.3			
54.0				15.3	58.7	11.9									[[
55.0							31.3	69.6	15.8	45.7	76.1	14.7			i
60.0							15.8	57.7	14.3	36.3	70.2	13.3			
65.0										24.1	61.4	12.3			
67.0										17.0	55.9	11.9			
72.9													35.0	60.2	7.0
75.0													31.6	57.8	6.6
80.0													16.4	46.2	5.7

Source:a9841388



2821-1

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N° de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de orincipa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı	m Pluma Cab	eza de p	al, Punto dumín (2 n] Posici	316-1) 5	0.5 m Pl		lumín				
15.2	78.0	96.3	40.6												
16.0	77.1	96.1	40.6												
18.0	74.7	95.6	36.5							•					
20.0	72.3	95.0	31.9												
22.0	69.9	94.3	27.8												
23.3				73.0	94.8	36.3									
24.0	67.5	93.5	24.8	72.2	94.6	36.1									
26.0	65.0	92.6	22.3	69.8	93.9	34.7									
28.0	62.5	91.6	20.3	67.3	93.1	32.6									
30.0	59.8	90.4	18.7	64.9	92.1	29.1									
32.0	57.2	89.2	17.3	62.3	91.1	26.4									
34.0	54.4	87.8	16.1	59.7	90.0	24.2	05.0		00.5	ł					
35.9	51.5	06.0	15.2	57.0	88.7	22.1	65.0 65.0	90.9 90.9	23.5 24.0	ł					
36.0 38.0	48.6	86.3 84.5	14.3	57.0 54.2	87.3	20.3	62.4	89.9	23.5						
40.0	45.4	82.6	13.4	51.4	85.8	18.9	59.8	88.7	22.1						
42.0	42.1	80.5	12.6	48.4	84.0	17.6	57.1	87.5	21.1						
44.0	38.5	78.1	11.9	45.2	82.1	16.4	54.4	86.1	20.0	i					
46.0	34.7	75.3	11.3	41.9	80.0	15.3	51.5	84.5	19.1	i					
48.0	30.4	72.1	10.7	38.3	77.6	14.3	48.5	82.8	18.3						
50.0	25.4	68.2	10.2	34.4	74.8	13.5	45.4	80.9	17.4						
50.7										55.0	83.6	14.6			
53.0	15.4	59.9	9.4					İ	İ						
55.0				22.2	65.3	11.6	36.6	75.0	15.7	48.9	80.3	14.5			
57.0				16.3	60.3	10.2									
60.0							25.4	66.5	14.3	40.8	75.1	13.1			
63.0							15.3	58.1	13.5						
65.0										30.9	68.0	12.1			
70.0										16.4	56.3	11.2			
75.4													35.0	61.9	6.2
80.0													25.7	54.8	5.4
83.0													15.9	46.7	4.9



31.9

19.1

61.2

50.4

5.0 4.2 4.0

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N° de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipa			gulo de orincipa			gulo de orincipa		65° Án	gulo de orincipa	pluma I		gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0		eza de p	al, Punto dumín (2 n] Posici	316-1) 5	3.5 m Pl		lumín				
15.8	78.0	99.3	36.8												
16.0	77.8	99.2	36.8												
18.0	75.6	98.7	35.2	•											
20.0	73.4	98.2	31.5												
22.0	71.1	97.5	27.1												
24.0	68.8	96.7	24.1												
24.2				73.0	97.7	33.0									
26.0	66.5	95.9	21.7	71.0	97.1	32.5									
28.0	64.1	94.9	19.8	68.7	96.3	31.1									
30.0	61.7	93.9	18.3	66.4	95.5	29.2									
32.0	59.2	92.7	17.0	64.0	94.5	26.3									
34.0	56.7	91.5	15.8	61.6	93.5	24.2									
36.0	54.1	90.0	14.7	59.1	92.3	22.2									
37.2		00.5	40.0	50.5	04.0	00.0	65.0	93.6	22.7						
38.0	51.4	88.5	13.8	56.5	91.0	20.3	64.1	93.2	22.6						
40.0	48.5	86.8	13.0	53.9	89.6	18.7	61.7	92.2	21.8						
42.0 44.0	45.6 42.5	84.9 82.8	12.3 11.5	51.2 48.4	88.0 86.3	17.4 16.2	59.2 56.7	91.0 89.7	20.6 19.6						
46.0	39.1	80.4	10.9	46.4 45.4	84.4	15.1	54.0	88.3	18.7						
48.0	35.6	77.7	10.9	42.3	82.2	14.1	51.3	86.8	17.9						
50.0	31.6	74.6	9.8	38.9	79.9	13.2	48.5	85.1	17.1						
52.4	31.0	74.0	9.0	30.8	18.8	13.2	40.5	03.1	17.1	55.0	86.1	13.8			
55.0	18.7	63.7	8.7	29.2	72.3	11.5	40.8	79.9	15.3	51.7	84.2	14.2			
56.0	16.3	61.5	7.6	20.2	72.0	11.0	40.0	7 0.0	10.0	01	04.2	17.2			
60.0		""		15.8	60.7	9.1	31.6	72.9	13.9	44.4	79.6	12.9			
65.0				. 3.0			18.7	62.0	12.6	36.0	73.6	11.7			
66.0							16.2	59.7	11.9	23.0	. 5.0				
70.0				i						25.3	64.9	10.9			
73.0										15.9	56.7	10.1			
77.9	1												35.0	63.6	5.4

80.0

85.0

86.0



N° de ident.: 9842523/95738/ Pieza de articular Radio de descarga: 360 ° Cabeza de pluma

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eza de p	al, Punto dumín (2 n] Posici	316-1) 5	6.5 m Pl		lumín				
16.4 18.0 20.0 22.0 24.0	78.0 76.4 74.3 72.2 70.0	102.2 101.8 101.3 100.7 100.0	33.8 33.5 30.5 26.9 23.5			-									
25.1 26.0 28.0 30.0 32.0	67.8 65.6 63.3 61.0	99.2 98.3 97.3 96.2	21.3 19.5 18.0 16.8	73.0 72.0 69.9 67.7 65.5	100.5 100.2 99.5 98.7 97.8	30.5 30.3 29.5 28.8 26.4									
34.0 36.0 38.0 38.5 40.0	58.7 56.3 53.8	95.0 93.7 92.3	15.6 14.5 13.6	63.2 60.9 58.5	96.9 95.8 94.6	24.1 22.4 20.5	65.0 63.3	96.3 95.6	21.5 21.4						
42.0 44.0 46.0 48.0	48.5 45.7 42.8 39.7	89.0 87.1 85.0 82.7	12.1 11.4 10.7 10.1	53.6 51.0 48.4 45.5	91.8 90.3 88.5 86.6	17.4 16.2 15.2 14.2	61.0 58.7 56.2 53.7	94.5 93.3 92.0 90.6	20.3 19.3 18.4 17.5						
50.0 54.1 55.0 59.0 60.0	26.4 15.8	71.7 61.9	9.6 8.5 6.8	42.6 34.3 23.7	78.1 68.9	11.3	51.2 44.2 36.3	89.0 84.4 78.4	15.0 13.6	55.0 54.1 47.5	88.5 88.0 83.8	13.0 13.8 12.6			
63.0 65.0 69.0 70.0 75.0 76.0				15.3	61.1	8.2	26.4 15.7	70.0 60.1	12.4 10.8	40.1 31.2 19.0 15.5	78.5 71.4 60.4 57.1	11.4 10.5 9.6 9.3			
80.3 85.0 88.0										10.0	37.1	3.3	35.0 26.7 18.6	65.3 58.3 50.9	4.8 4.1 3.6



Nº de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

Altura Cer C			gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Cabeza de plumín (2316-1) 59.5 m Plumín 25.0 [m] Posición midfall (2316) 17.1 78.0 105.1 30.8 30.8 20.0 75.1 104.4 29.0 20.0 75.1 104.4 29.0 22.0 73.1 103.8 26.5 24.0 71.1 103.1 23.1 23.1 23.1 23.1 23.1 23.1 23.1 2	ce	o de plumín	de rolda- nas		o de plumín	de rolda- nas	Carga [t]	o de plumín	de rolda- nas	Carga [t]	o de plumín	de rolda- nas	Carga [t]	o de plumín	de rolda- nas	Carga [t]
18.0					44.0 ı		eza de p	lumín (2	316-1) 5	9.5 m Pli		lumín				
20.0	17.1		105.1													
22.0	18.0		104.9													
24.0 71.1 103.1 23.1 26.0 69.0 102.4 20.8 73.0 103.4 27.9 28.0 66.9 101.6 19.0 70.9 102.7 27.5 30.0 64.8 100.7 17.4 68.9 102.0 26.9 32.0 62.6 99.6 16.2 66.8 101.1 26.0 34.0 60.4 99.8 15.2 64.7 100.2 23.7 36.0 58.2 97.3 14.1 62.5 99.2 22.0 38.0 55.9 96.0 13.1 60.3 98.1 20.4 40.0 53.5 94.5 12.3 58.0 96.9 18.7 64.8 98.9 20.2 42.0 51.0 93.0 11.0 53.3 94.1 15.9 60.4 96.8 18.8 46.0 45.8 89.4 10.3 50.9 92.5 14.9 58.2 95.6 18.0			-													
26.0 69.0 102.4 20.8 73.0 103.4 27.9 27.5 27.5 30.0 64.8 100.7 17.4 68.9 102.0 26.9 32.0 62.6 99.6 16.2 66.8 101.1 26.0 34.0 60.4 98.5 15.2 64.7 100.2 23.7 36.0 58.2 97.3 14.1 62.5 99.2 22.0 38.0 55.9 96.0 13.1 60.3 98.1 20.4 65.0 99.0 19.9 40.0 53.5 94.5 12.3 58.0 96.9 18.7 64.8 98.9 20.2 42.0 40.0 53.5 94.5 12.3 58.0 96.9 18.7 64.8 98.9 20.2 42.0 44.0 48.5 91.2 11.0 53.3 94.1 15.9 60.4 96.8 18.8 46.0 45.8 89.4 10.3 59.9 92.5 14.9 58.2 95.6 18.0 48.0 48.0 48.0																
28.0 66.9 101.6 19.0 70.9 102.7 27.5 26.9 30.0 64.8 100.7 17.4 68.9 102.0 26.9 32.0 62.6 99.6 16.2 66.8 101.1 26.0 34.0 60.4 98.5 15.2 64.7 100.2 23.7 38.0 55.9 96.0 13.1 60.3 98.1 20.4 65.0 99.0 19.9 40.0 53.5 94.5 12.3 58.0 96.9 18.7 64.8 98.9 20.2 42.0 51.0 93.0 11.6 55.7 95.5 17.2 62.6 97.9 19.8 44.0 48.5 91.2 11.0 53.3 94.1 15.9 60.4 96.8 18.8 46.0 45.8 89.4 10.3 50.9 92.5 14.9 58.2 95.6 18.0 44.0 43.1 87.3 9.7 48.3 90.8 13.9 55.8 94.3 17.0 55.0 31.8 78.0 8.1 38.4 83.2 11.0 47.2 88.6 14.6 55.0 91.0 12.3 63.9 13.0 53.5 92.8 16.2 55.0 31.8 78.0 8.1 38.4 83.2 11.0 47.2 88.6 14.6 55.0 91.0 12.3 63.9 10.1 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 12.3 65.0 15.4 62.3 6.1 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 12.3 65.0 15.4 62.3 6.1 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 12.3 65.0 15.4 62.3 6.1 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 12.3 65.0 15.1 57.5 8.3 35.0 64.5 3.7 99.0 12.8 85.0 12.1 54.2 3.0																
30.0																
32.0 62.6 99.6 16.2 66.8 101.1 26.0 34.0 60.4 98.5 15.2 64.7 100.2 23.7 36.0 58.2 97.3 14.1 62.5 99.2 22.0 38.0 55.9 96.0 13.1 60.3 98.1 20.4 39.7 40.0 53.5 94.5 12.3 58.0 96.9 18.7 64.8 98.9 20.2 42.0 51.0 93.0 11.6 55.7 95.5 17.2 62.6 67.9 19.8 44.0 48.5 91.2 11.0 53.3 94.1 15.9 60.4 96.8 18.8 46.0 45.8 89.4 10.3 50.9 92.5 14.9 58.2 95.6 18.0 48.0 43.1 87.3 9.7 48.3 90.8 13.0 55.8 94.3 17.0 50.0 40.1 85.0 9.2 45.7 88.9 13.0 55.8 94.3 17.0 55.9 31.8 78.0<																
34.0 60.4 98.5 15.2 64.7 100.2 23.7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0																
36.0 58.2 97.3 14.1 62.5 99.2 22.0 38.0 55.9 96.0 13.1 60.3 98.1 20.4 65.0 99.0 19.9 40.0 53.5 94.5 12.3 58.0 96.9 18.7 64.8 98.9 20.2 42.0 51.0 93.0 11.6 55.7 95.5 17.2 62.6 97.9 19.8 44.0 48.5 91.2 11.0 53.3 94.1 15.9 60.4 96.8 18.8 46.0 45.8 89.4 10.3 50.9 92.5 14.9 58.2 95.6 18.0 48.0 43.1 87.3 9.7 48.3 90.8 13.9 55.8 94.3 17.0 50.0 40.1 85.0 9.2 45.7 88.9 13.0 53.5 92.8 16.2 55.0 31.8 78.0 8.1 38.4 83.2 11.0 47.2 88.6 14.6 55.9 60.0 20.7 67.6 7.1 29.7 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>																
38.0 55.9 96.0 13.1 60.3 98.1 20.4 39.7 40.0 53.5 94.5 12.3 58.0 96.9 18.7 64.8 98.9 20.2 42.0 51.0 93.0 11.6 55.7 95.5 17.2 62.6 97.9 19.8 44.0 48.5 91.2 11.0 53.3 94.1 15.9 60.4 96.8 18.8 46.0 45.8 89.4 10.3 50.9 92.5 14.9 58.2 95.6 18.0 48.0 43.1 87.3 9.7 48.3 90.8 13.9 55.8 94.3 17.0 50.0 40.1 85.0 9.2 45.7 88.9 13.0 53.5 92.8 16.2 55.9 31.8 78.0 8.1 38.4 83.2 11.0 47.2 88.6 14.6 55.9 60.0 20.7 67.6 7.1 29.7 75.7 9.6 40.1 83.3 13.2 50.1 87.8 12.2 62.0 15.4 62.3 6.1 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1																
39.7							-									
40.0 53.5 94.5 12.3 58.0 96.9 18.7 64.8 98.9 20.2 20.2 42.0 51.0 93.0 11.6 55.7 95.5 17.2 62.6 97.9 19.8 91.2 11.0 53.3 94.1 15.9 60.4 96.8 18.8 48.0 48.1 10.3 50.9 92.5 14.9 58.2 95.6 18.0 48.3 17.0 55.8 94.3 17.0 55.0 18.0 48.3 90.8 13.9 55.8 94.3 17.0 55.0 18.0 48.3 97.4 48.3 90.8 13.9 55.8 94.3 17.0 55.0 91.0 12.3 45.7 88.9 13.0 53.5 92.8 16.2 55.0 91.0 12.3 46.2 46.2 46.2 46.2 46.1 46.2 46.1 46.2 46.1 46.2 46.1 46.2 46.1 46.2 46.1 46.2 46.1 46.1 46.1 <td< td=""><td></td><td>55.9</td><td>96.0</td><td>13.1</td><td>60.3</td><td>96.1</td><td>20.4</td><td>65 N</td><td>00.0</td><td>10.0</td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		55.9	96.0	13.1	60.3	96.1	20.4	65 N	00.0	10.0						
42.0 51.0 93.0 11.6 55.7 95.5 17.2 62.6 97.9 19.8 44.0 48.5 91.2 11.0 53.3 94.1 15.9 60.4 96.8 18.8 46.0 45.8 89.4 10.3 50.9 92.5 14.9 58.2 95.6 18.0 48.3 90.8 13.9 55.8 94.3 17.0 55.0 17.0 48.3 90.8 13.9 55.8 94.3 17.0 47.2 88.6 14.6 47.2 88.6 14.6 47.2 88.6 14.6 47.2 47.2 88.6 14.6 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 47.2 <td< td=""><td></td><td>53.5</td><td>94.5</td><td>12.3</td><td>58 N</td><td>96.9</td><td>18.7</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>		53.5	94.5	12.3	58 N	96.9	18.7									
44.0 48.5 91.2 11.0 53.3 94.1 15.9 60.4 96.8 18.8 46.0 45.8 89.4 10.3 50.9 92.5 14.9 58.2 95.6 18.0 48.0 43.1 87.3 9.7 48.3 90.8 13.9 55.8 94.3 17.0 50.0 40.1 85.0 9.2 45.7 88.9 13.0 53.5 92.8 16.2 55.9 31.8 78.0 8.1 38.4 83.2 11.0 47.2 88.6 14.6 55.9 60.0 20.7 67.6 7.1 29.7 75.7 9.6 40.1 83.3 13.2 50.1 87.8 12.2 62.0 15.4 62.3 6.1 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 75.0 79.0 82.8 15.3 60.5 9.8 85.0 79.0 82.8 31.5 64.5 3.7 99.0 90.0 90.0							-			-						
46.0 45.8 89.4 10.3 50.9 92.5 14.9 58.2 95.6 18.0 48.0 43.1 87.3 9.7 48.3 90.8 13.9 55.8 94.3 17.0 50.0 40.1 85.0 9.2 45.7 88.9 13.0 53.5 92.8 16.2 55.0 31.8 78.0 8.1 38.4 83.2 11.0 47.2 88.6 14.6 55.0 91.0 12.3 60.0 20.7 67.6 7.1 29.7 75.7 9.6 40.1 83.3 13.2 50.1 87.8 12.2 62.0 15.4 62.3 6.1 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 75.0 75.0 75.0 9.8 26.3 68.4 9.2 79.0 82.8 85.0 9.8 15.1 57.5 8.3 85.0 90.0 48.5 3.7 40.4 40.4 40.4 40.4 <																
48.0 43.1 87.3 9.7 48.3 90.8 13.9 55.8 94.3 17.0 16.2 17.0 16.2 17.0 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2 16.2																
55.0 31.8 78.0 8.1 38.4 83.2 11.0 47.2 88.6 14.6 14.6 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.2 12.3 12.3 12.3 12.3	48.0	43.1	87.3	9.7	48.3	90.8	13.9	55.8	94.3	17.0						
55.9 60.0 20.7 67.6 7.1 29.7 75.7 9.6 40.1 83.3 13.2 50.1 87.8 12.2 62.0 15.4 62.3 6.1 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 72.0 75.0 79.0 82.8 15.1 57.5 8.3 82.8 85.0 90.0 32.0 64.5 3.7 90.0 20.7 67.1 57.5 30.0	50.0	40.1	85.0	9.2	45.7	88.9	13.0	53.5	92.8	16.2						
60.0 20.7 67.6 7.1 29.7 75.7 9.6 40.1 83.3 13.2 50.1 87.8 12.2 65.0 15.4 62.3 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 20.7 65.8 10.9 35.8 76.9 10.1 75.0 79.0 15.3 60.5 9.8 82.8 85.0 35.0 67.1 4.0 85.0 32.0 64.5 3.7 90.0 21.1 54.2 3.0	55.0	31.8	78.0	8.1	38.4	83.2	11.0	47.2	88.6	14.6						
62.0 15.4 62.3 6.1 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 72.0 75.0 75.0 79.0 82.8 85.0 90.0 10.1 15.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1 11.1	55.9										55.0	91.0	-			
65.0 17.3 63.9 8.2 31.8 76.2 12.0 43.4 83.0 11.1 70.0 15.3 60.5 9.8 75.0 26.3 68.4 9.2 79.0 15.1 57.5 8.3 82.8 32.0 64.5 3.7 90.0 21.1 54.2 3.0	60.0				29.7	75.7	9.6	40.1	83.3	13.2	50.1	87.8	12.2			
70.0 20.7 65.8 10.9 35.8 76.9 10.1 72.0 15.3 60.5 9.8 26.3 68.4 9.2 79.0 15.1 57.5 8.3 35.0 67.1 4.0 82.8 32.0 64.5 3.7 39.0 64.5 3.7 90.0 21.1 54.2 3.0 30.0 30.0 30.0		15.4	62.3	6.1												
72.0 75.0 79.0 82.8 85.0 90.0 15.3 60.5 9.8 26.3 68.4 9.2 15.1 57.5 8.3 35.0 67.1 4.0 32.0 64.5 3.7 90.0 21.1 54.2 3.0					17.3	63.9	8.2			-						
75.0 26.3 68.4 9.2 79.0 15.1 57.5 8.3 82.8 35.0 67.1 4.0 85.0 32.0 64.5 3.7 90.0 21.1 54.2 3.0											35.8	76.9	10.1			
79.0 15.1 57.5 8.3 82.8 35.0 67.1 4.0 85.0 32.0 64.5 3.7 90.0 21.1 54.2 3.0								15.3	60.5	9.8						
82.8 35.0 67.1 4.0 85.0 32.0 64.5 3.7 90.0 21.1 54.2 3.0																
85.0 32.0 64.5 3.7 90.0 21.1 54.2 3.0											15.1	57.5	8.3	25.0	07.4	4.0
90.0 21.1 54.2 3.0																-
91.0																



N° de ident.: 9842523/95738/ Pieza de articulación de Radio de descarga: 360 ° Cabeza de pluma princ

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ו	m Pluma Cab	eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 6	2.5 m Pl	eza de p umín	lumín		-		
17.7 18.0 20.0 22.0 24.0 26.0 26.8 28.0 30.0 32.0	78.0 77.7 75.8 73.9 72.0 70.1 68.1 66.1 62.0	108.1 108.0 107.5 107.0 106.3 105.6 104.8 104.0 103.0	28.6 28.6 28.0 25.8 23.0 20.5 18.7 17.2 15.9	73.0 71.9 69.9 68.0 66.0	106.3 105.9 105.2 104.4 103.5	26.1 25.9 25.5 25.0 23.6									
36.0 38.0 40.0 41.0 42.0	59.9 57.7 55.5	100.8 99.6 98.3 96.8	13.9 12.9 12.1	63.9 61.9 59.8	102.6 101.5 100.4 99.1	21.8 20.3 18.9	65.0 64.0	101.8 101.3	18.7 19.1						
44.0 46.0 48.0 50.0	50.9 48.5 46.0 43.3	95.2 93.5 91.6 89.5	10.7 10.1 9.5 9.0	55.4 53.1 50.8 48.3	97.8 96.3 94.7 93.0	16.0 14.8 13.8 12.9	62.0 59.9 57.7 55.5	100.3 99.1 97.9 96.5	18.5 17.5 16.8 15.9						
55.0 57.6 60.0 65.0 68.0	36.1 27.2 15.0	83.4 75.1 62.7	7.8 6.9 5.4	41.8 34.3 24.8 16.9	87.9 81.4 72.4 64.3	9.4 8.2 7.4	49.7 43.3 36.0	92.6 87.8 81.7	14.3 12.9 11.7	55.0 52.4 46.3	93.4 91.7 87.3	11.5 11.9 10.8			
70.0 74.0 75.0 80.0 82.0							27.2 17.2	73.4 63.3	10.7 9.8	39.5 31.5 20.1 15.9	74.7 63.5 59.1	9.8 9.0 7.8 7.1	35.0	68.8	3.3
90.0 94.0													27.4 17.6	61.7 51.8	2.7 2.2



Nº de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ו	m Pluma Cab	eza de p	al, Punto dumín (2 n] Posici	316-1) 6	5.5 m Pli	eza de p umín	lumín		_		
18.3 20.0 22.0 24.0 26.0	78.0 76.5 74.7 72.8 71.0	111.0 110.6 110.1 109.5 108.8	25.8 25.7 24.3 22.5 20.2												
27.7 28.0 30.0 32.0 34.0	69.1 67.2 65.3 63.4	108.1 107.2 106.3 105.4	18.5 17.0 15.6 14.5	73.0 72.7 70.9 69.0 67.1	109.1 109.1 108.4 107.6 106.8	23.6 23.5 23.3 22.8 22.3									
36.0 38.0 40.0 42.0 42.3	61.4 59.4 57.3 55.2	104.3 103.1 101.9 100.5	13.7 12.7 11.8 11.1	65.2 63.3 61.3 59.3	105.9 104.9 103.8 102.7	20.9 19.8 18.9 17.5	65.0	104.5	18.1						
44.0 46.0 48.0 50.0 55.0	53.0 50.8 48.5 46.1 39.6	99.0 97.4 95.7 93.8 88.4	10.4 9.8 9.3 8.7 7.5	57.2 55.1 52.9 50.6 44.7	101.4 100.0 98.6 97.0 92.3	16.1 14.8 13.8 12.9 10.9	63.4 61.4 59.4 57.3 51.9	103.7 102.6 101.4 100.2 96.5	18.1 17.2 16.4 15.7 14.0						
59.3 60.0 65.0 67.0 70.0	32.0 22.2 16.9	81.3 71.3 65.5	6.6 5.8 5.5	38.0 30.1 19.4	86.6 79.0 67.9	9.2 8.0 6.9	46.0 39.5	92.1 86.6 79.6	12.6 11.4	55.0 54.4 48.8 42.6	95.9 95.5 91.4 86.5	10.9 11.4 10.5			
71.0 75.0 77.0 80.0 85.0				16.5	64.7	6.6	22.2 16.8	69.6 63.8	9.4 9.0	35.6 26.5 15.5	80.2 71.3 59.5	8.6 7.5 6.5			
87.7 90.0 92.0										.0.0	00.0	0.0	35.0 32.2 28.7	70.5 67.8 64.3	2.6 2.3 2.1



N° de ident.: 9842523/95738/ Pieza de articular Radio de descarga: 360 ° Cabeza de pluma

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eza de p	al, Punto dumín (2 n] Posici	316-1) 6	8.5 m Pl	eza de p umín	lumín				
18.9 20.0	78.0 77.1	113.9 113.7	23.5 23.5												
20.0	77.1	113.7	23.5												
24.0	73.4	112.6	21.9				ł								
26.0	71.9	112.0	19.8												
28.0	70.1	111.3	18.1												
28.6				73.0	112.0	21.4									
30.0	68.3	110.5	16.8	71.8	111.6	21.3									
32.0	66.5	109.6	15.4	70.0	110.8	20.9									
34.0	64.6	108.7	14.3	68.2	110.1	20.4									
36.0	62.8	107.7	13.3	66.4	109.2	19.8									
38.0	60.9	106.6	12.5	64.5	108.3	19.0									
40.0	58.9	105.4	11.7	62.6	107.3	18.3									
42.0	56.9	104.2	10.9	60.7	106.2	17.8									
43.5							65.0	107.2	16.7						
44.0	54.9	102.8	10.2	58.8	105.0	16.3	64.6	107.0	17.2						
46.0	52.8	101.3	9.6	56.8	103.7	15.0	62.7	106.0	16.9						
48.0 50.0	50.7 48.5	99.7 98.0	9.1 8.6	54.8 52.7	102.3 100.8	13.9 12.9	60.8 58.9	104.9 103.7	16.1 15.4						
55.0	40.5	93.0	7.4	52.7 47.2	96.5	10.9	53.8	100.7	13.4						
60.0	35.9	86.7	6.4	41.1	91.3	9.2	48.4	96.2	12.4						
61.0	33.8	00.7	0.4	41.1	91.5	9.2	40.4	90.2	12.4	55.0	98.3	10.2			
65.0	27.8	78.5	5.6	34.2	84.7	7.9	42.5	91.2	11.2	50.9	95.4	10.2			
70.0	16.5	66.0	4.9	25.7	75.9	6.9	35.8	85.0	10.2	45.3	90.8	9.3			
74.0				16.1	65.2	6.0									
75.0							27.8	76.8	9.3	39.0	85.2	8.4			
80.0							16.4	64.2	8.4	31.3	77.6	7.3			
85.0										23.0	68.8	6.3			
88.0										15.1	59.9	5.7			
90.1													35.0	72.2	2.1
90.7													35.0	72.2	2.0



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 7	1.5 m Pli	eza de p umín	lumín				
19.6	78.0	116.9	21.5												
20.0	77.6	116.8	21.5												
22.0	76.0	116.3	21.1												
24.0	74.3	115.7	20.3												
26.0	72.7	115.1	19.0												
28.0	71.0	114.5	17.4	70.0	444.0	19.7									
29.5 30.0	69.3	113.7	16.2	73.0 72.6	114.9 114.7	19.7									
32.0	67.5	112.9	14.9	70.9	114.7	19.7									
34.0	65.8	112.0	13.8	69.2	113.3	19.1									
36.0	64.0	111.1	12.8	67.4	112.5	18.7									
38.0	62.2	110.0	12.0	65.7	111.6	18.1									
40.0	60.4	108.9	11.2	63.9	110.6	17.5									
42.0	58.5	107.7	10.5	62.1	109.6	17.0									
44.0	56.6	106.4	9.8	60.2	108.5	16.3									
44.8							65.0	109.9	15.7						
46.0	54.6	105.0	9.2	58.4	107.3	15.0	64.0	109.4	16.1						
48.0	52.6	103.5	8.6	56.5	106.0	13.8	62.2	108.3	15.6						
50.0	50.6	101.9	8.1	54.5	104.6	12.7	60.3	107.2	14.9						
55.0	45.1	97.3	7.0	49.4	100.6	10.6	55.6	104.0	13.3						
60.0	39.1	91.7	6.0	43.8	95.8	9.0	50.5	100.2	11.9		400.0	0.0			
62.8	32.1	04.6	5.3	37.6	89.9	7.6	45.1	95.6	10.8	55.0 52.9	100.8 99.2	9.6 9.8			
65.0 70.0	23.4	84.6 74.9	4.6	37.6	89.9 82.4	6.6	45.1 39.1	95.6	9.8	52.9 47.6	99.2 95.0	9.8 8.9			
73.0	16.1	66.4	4.0	30.4	02.4	0.0	39.1	90.0	9.0	47.0	95.0	0.9			
75.0	10.1	00.4	4.2	21.0	71.7	5.6	32.1	82.9	8.9	41.9	89.9	8.1			
77.0				15.8	65.6	5.2	02.1	02.0	0.0	41.5	55.5	0.1			
80.0					00.0	- U. <u>-</u>	23.4	73.2	8.0	35.4	83.5	7.0			
83.0							16.1	64.6	7.5						
85.0										28.2	75.9	6.0			
90.0										17.7	63.8	5.1			



2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal:

Lastre trasero [t]: 124.0 52.6 Lastre central [t]:

Radio de descarga:	360 °	Cabeza de pluma principal:	2821-1
Valor de vuelco:	2 - Vía ancha		
Lastre trasero [t]:	124 0		

		gulo de principal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı	m Pluma Cab	eza de p	ıl, Punto llumín (2 ı] Posici	316-1) 7	4.5 m Plı	eza de p umín	lumín				
20.2	78.0	119.8	20.1												
22.0	76.6	119.4	20.0												
24.0	75.0	118.9	19.2												
26.0	73.4	118.3	18.6												
28.0	71.8	117.6	17.0												
30.0	70.1	116.9	15.7												
30.3				73.0	117.8	18.6									
32.0	68.5	116.2	14.7	71.7	117.2	18.5									
34.0	66.8	115.3	13.6	70.0	116.5	18.2									
36.0	65.1	114.4	12.5	68.4	115.7	17.9									
38.0	63.4	113.4	11.7	66.7	114.9	17.5									
40.0	61.7	112.4	11.0	65.0	114.0	16.9									
42.0	59.9	111.2	10.3	63.3	113.0	16.5									
44.0	58.1	110.0	9.6	61.6	111.9	16.1									
46.0	56.3	108.7	9.0	59.8	110.8	15.2	25.0	440.0	45.0						
46.1		407.0	0.4	50.0	400 5	40.0	65.0	112.6	15.2						
48.0	54.4 52.4	107.3	8.4 7.9	58.0	109.5	13.9	63.4	111.7	15.2						
50.0 55.0	52.4 47.4	105.8 101.5	7.9 6.8	56.1 51.4	108.2 104.5	12.8 10.5	61.6 57.2	110.7 107.7	14.6 13.0						
60.0	41.9	96.4	5.8	46.2	104.5	8.9	52.4	107.7	11.6						
64.5	41.9	90.4	3.6	40.2	100.1	0.9	32.4	104.1	11.0	55.0	103.3	9.0			
65.0	35.7	90.1	5.0	40.6	94.7	7.5	47.4	99.8	10.5	54.6	103.3	9.2			
70.0	28.3	81.9	4.4	34.2	88.0	6.4	41.9	94.6	9.5	49.7	99.0	8.6			
75.0	18.5	70.1	3.8	26.4	79.3	5.5	35.6	88.3	8.7	44.4	94.3	7.8			
76.0	15.8	66.8	3.6	20.7	70.0	0.0	00.0	00.0	0.1	77.7	04.0	7.0			
80.0	10.0	00.0	0.0	15.4	66.0	4.6	28.3	80.2	7.9	38.3	88.3	6.7			
85.0					00.0		18.4	68.4	7.0	32.3	81.9	5.7			
86.0							15.7	65.0	6.8	02.0	00	U			
90.0										24.0	72.4	4.8			
93.0										17.4	64.3	4.3			



Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360°

2821-1 Cabeza de pluma principal: 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

	88° Án	gulo de orincipa	pluma I	83° Án I	gulo de orincipa	pluma I		gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0		eza de p	II, Punto Ilumín (2 I Posici	316-1) 7	7.5 m Pli	eza de p umín	lumín		_		
20.8	78.0	122.7	18.4						(====)						
22.0	77.1	122.5	18.4												
24.0	75.6	122.0	17.8												
26.0	74.0	121.4	17.3												
28.0	72.5	120.8	16.3												
30.0	70.9	120.1	15.1												
31.2				73.0	120.6	17.0									
32.0	69.4	119.4	14.3	72.4	120.4	17.0									
34.0	67.8	118.6	13.3	70.8	119.7	16.8									
36.0	66.1	117.7	12.3	69.3	119.0	16.5									
38.0	64.5	116.8	11.4	67.7	118.1	16.2									
40.0	62.9	115.8	10.6	66.1	117.3	15.8									
42.0	61.2	114.7	10.0	64.4	116.3	15.4									
44.0	59.5	113.5	9.3	62.8	115.3	15.0									
46.0	57.7	112.3	8.7	61.1	114.2	14.7									
47.3							65.0	115.4	14.0						
48.0	56.0	111.0	8.1	59.4	113.1	13.7	64.5	115.1	14.4						
50.0 55.0	54.1 49.4	109.5 105.5	7.6 6.6	57.6 53.1	111.8 108.3	12.6 10.4	62.8 58.6	114.1 111.2	14.3 12.7						
60.0	49.4	105.5	5.6	48.3	108.3	8.8	58.6 54.1	107.8	11.3						
65.0	38.7	95.1	4.8	43.1	99.2	7.4	49.4	107.8	10.3						
66.2	30.1	95.1	4.0	43.1	99.2	7.4	49.4	103.6	10.3	55.0	105.7	8.4			
70.0	32.2	87.9	4.1	37.3	93.2	6.2	44.3	99.1	9.3	51.6	103.7	8.4			
75.0	24.3	78.5	3.5	30.6	85.7	5.3	38.7	93.3	8.4	46.5	98.4	7.4			
79.0	15.5	67.2	3.0	55.0	55.1	0.0	55.7	33.0	0.7	.5.0	33.4				
80.0			0.0	22.2	75.4	4.5	32.2	86.2	7.7	41.1	93.0	6.3			
83.0				15.1	66.4	4.0									
85.0							24.3	76.7	6.8	35.7	87.3	5.4			
89.0							15.4	65.4	6.1						
90.0										28.7	79.2	4.5			
95.0										19.4	67.8	3.7			
96.0										17.0	64.7	3.5			



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de principa			gulo de principa			gulo de principa			gulo de orincipa		45° Án	gulo de orincipa	pluma I
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0		eza de p	al, Punto olumín (2 n] Posici	316-1) 8	0.5 m Pl	eza de p umín	lumín				
21.4	78.0	125.7	17.0												
22.0	77.6	125.6	17.0												
24.0	76.1	125.1	16.6												
26.0	74.6	124.5	16.1												
28.0	73.2	123.9	15.5												
30.0	71.7	123.3	14.5												
32.0	70.2	122.6	13.8												
32.1				73.0	123.5	15.7									
34.0	68.6	121.8	13.1	71.6	122.9	15.6									
36.0	67.1	121.0	12.1	70.1	122.2	15.3									
38.0	65.5	120.1	11.1	68.5	121.4	15.0									
40.0	64.0	119.1	10.4	67.0	120.6	14.7									
42.0	62.4	118.1	9.7	65.4	119.7	14.4									
44.0	60.7	117.0	9.1	63.9	118.7	14.1									
46.0	59.1	115.8	8.5	62.3	117.7	13.8									
48.0	57.4	114.6	7.9	60.6	116.6	13.5									
48.6							65.0	118.1	13.2						
50.0	55.7	113.2	7.4	59.0	115.4	12.5	63.9	117.4	13.6						
55.0	51.2	109.5	6.3	54.7	112.1	10.3	59.9	114.7	12.4						
60.0	46.5	105.0	5.4	50.2	108.2	8.7	55.7	111.5	11.1						
65.0	41.3	99.8	4.6	45.4	103.6	7.3	51.2	107.8	9.9						
67.9										55.0	108.2	7.9			
70.0	35.5	93.4	3.9	40.1	98.1	6.1	46.5	103.3	9.0	53.3	106.7	8.1			
75.0	28.8	85.3	3.3	34.1	91.4	5.2	41.3	98.0	8.2	48.7	102.6	7.3			
80.0	20.0	74.0	2.8	27.0	82.8	4.4	35.5	91.6	7.5	43.5	97.5	6.2			
82.0	15.2	67.6	2.6												
85.0				17.5	70.3	3.6	28.7	83.6	6.7	38.6	92.3	5.3			
86.0				15.7	68.0	3.2	Į.								
90.0		l	1	I	1		19.9	72.3	5.9	32.4	85.2	4.4	I		1

24.9

3.6

75.9

95.0

99.0



Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360°

2821-1 Cabeza de pluma principal: 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipa			gulo de orincipa			gulo de orincipa		65° Án	gulo de orincipa	pluma I		gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 8	3.5 m Pli	eza de p umín	lumín				
22.1	78.0	128.6	15.1												
24.0	76.7	128.2	14.9												
26.0	75.2	127.7	14.5												
28.0	73.8	127.1	14.2												
30.0	72.4	126.5	13.4												
32.0	70.9	125.8	12.7	70.0	126.4	13.9									
33.0 34.0	69.4	125.0	12.2	73.0 72.3	126.4	13.9									
36.0	67.9	125.0	11.4	72.3	125.3	13.8									
38.0	66.4	123.4	10.6	69.3	123.5	13.5									
40.0	64.9	122.4	9.8	67.9	123.8	13.3									
42.0	63.4	121.5	9.1	66.4	122.9	13.0									
44.0	61.8	120.4	8.5	64.8	122.0	12.7							i		
46.0	60.2	119.3	8.0	63.3	121.0	12.4									
48.0	58.6	118.1	7.4	61.7	119.9	12.2									
49.9							65.0	120.8	12.3						
50.0	57.0	116.8	6.9	60.1	118.8	11.8	64.9	120.7	12.3						
55.0	52.8	113.2	5.8	56.1	115.6	9.8	61.0	118.1	11.7						
60.0	48.3	109.0	5.0	51.8	111.9	8.3	57.0	115.1	10.5						
65.0	43.4	104.0	4.2	47.2	107.6	7.0	52.7	111.5	9.4						
69.6										55.0	110.6	7.4			
70.0	38.1	98.1	3.5	42.3	102.4	5.8	48.2	107.3	8.6	54.7	110.4	7.4			
75.0	32.0	90.9	2.9	36.8	96.3	4.8	43.4	102.3	7.7	50.3	106.5	6.8			
80.0 85.0	24.7	81.4	2.4	30.5 22.7	88.6 78.4	4.1 3.3	38.1 32.0	96.4 89.1	7.0 6.3	46.1 41.1	102.4 97.0	5.8 4.9			
89.0				15.4	78.4 68.4	2.6	32.0	09.1	0.3	41.1	97.0	4.9			
90.0				15.4	00.4	2.0	24.6	79.6	5.5	35.5	90.6	4.0			
95.0							24.6 15.7	67.4	9.5 4.5	29.0	90.6 82.6	3.2			
100.0							10.7	07.4	7.0	20.8	71.6	2.5			
102.0										16.4	65.6	2.2			



Pieza de articulación de pluma principal: Nº de ident.: 9842523/95738/ 360° Radio de descarga:

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

Pieza de articulación de pluma principal:	2821-1
Cabeza de pluma principal:	2821-1

		gulo de orincipal		ŗ	gulo de orincipal	pluma		gulo de principa			gulo de principa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 r		eza de p	al, Punto dumín (2 n] Posici	316-1) 8	6.5 m Pl		lumín				
22.7	78.0	131.5	14.0												
24.0	77.1	131.3	14.0							İ					
26.0	75.8	130.8	13.6												
28.0	74.4	130.2	13.3												
30.0	73.0	129.6	12.9												
32.0	71.6	129.0	12.2												
33.9				73.0	129.2	13.1									
34.0	70.2	128.2	11.7	72.9	129.2	13.1									
36.0	68.8	127.5	11.2	71.5	128.5	13.0									
38.0	67.3	126.6	10.4	70.1	127.8	12.8									
40.0	65.9	125.8	9.6	68.7	127.0	12.5									
42.0	64.4	124.8	8.9	67.2	126.2	12.3									
44.0	62.9 61.4	123.8 122.7	8.3 7.8	65.8	125.3	12.0 11.8									
46.0 48.0	59.8	122.7	7.8 7.2	64.3 62.8	124.4 123.4	11.8									
50.0	58.3	121.6	6.7	61.3	123.4	11.4									
51.1	36.3	120.3	0.7	01.3	122.3	11.4	65.0	123.5	11.6	i					
55.0	54.3	116.9	5.6	57.4	119.2	9.7	62.1	121.6	11.4						
60.0	50.0	113.0	4.8	53.3	115.7	8.1	58.3	118.6	10.3	i					
65.0	45.5	108.4	4.0	49.0	111.6	6.9	54.3	115.2	9.2						
70.0	40.6	102.9	3.3	44.4	106.8	5.7	50.0	111.3	8.3						
71.4										55.0	113.1	6.8			
75.0	35.1	96.4	2.7	39.4	101.2	4.7	45.5	106.6	7.5	52.0	110.3	6.6			
80.0	28.8	88.2	2.2	33.8	94.3	3.9	40.6	101.2	6.8	48.0	106.5	5.5			
85.0				27.1	85.6	3.2	35.1	94.6	6.2	43.4	101.5	4.6			
90.0				18.4	73.4	2.6	28.7	86.4	5.4	38.3	95.7	3.8			
92.0				15.2	68.8	2.2									
95.0							20.6	75.3	4.7	32.5	88.5	3.0			
98.0							15.4	67.8	4.0						
100.0										25.6	79.4	2.3			<u> </u>
102.0										22.3	74.8	2.0			

Source:a9841388



N° de ident.: 9842523/95738/ Pieza d

Radio de descarga: 360° Valor de vuelco: 2 - Via ancha

Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 124.0 52.6 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eza de p	al, Punto dumín (2 n] Posici	316-1) 8	9.5 m Pli	eza de p umín	lumín				
23.4	78.0	134.5	12.7												
24.0	77.6	134.3	12.7												
26.0	76.3	133.9	12.6												
28.0	74.9	133.3	12.3												
30.0	73.6	132.7	12.1												
32.0	72.2	132.1	11.5												
34.0	70.9	131.4	11.0												
34.8				73.0	132.1	11.9									
36.0	69.5	130.7	10.7	72.2	131.7	11.9									
38.0	68.1	129.9	10.1	70.8	131.0	11.7									
40.0	66.7	129.0	9.3	69.4	130.3	11.5									
42.0	65.3	128.1	8.6	68.0	129.5	11.2									
44.0	63.9	127.2	8.0	66.6	128.6	11.0									
46.0	62.4	126.1	7.5	65.2	127.7	10.7									
48.0	61.0	125.0	7.0	63.8	126.7	10.5									
50.0	59.5	123.9	6.5	62.3	125.7	10.3									
52.4							65.0	126.2	10.5						
55.0	55.7	120.6	5.4	58.6	122.8	9.2	63.1	125.0	10.4						
60.0	51.6	116.9	4.5	54.8	119.5	7.8	59.5	122.2	9.7						
65.0	47.4	112.5	3.7	50.7	115.6	6.8	55.6	118.9	8.9						
70.0	42.8	107.5	3.0	46.4	111.1	5.6	51.6	115.2	8.0						
73.1										55.0	115.5	6.4			
75.0	37.8	101.5	2.5	41.7	105.8	4.6	47.4	110.8	7.3	53.5	114.1	6.3			
80.0				36.6	99.6	3.7	42.8	105.7	6.5	49.7	110.5	5.2			
85.0				30.7	91.9	3.0	37.8	99.7	5.9	45.4	105.9	4.3			
90.0				23.6	82.0	2.4	32.1	92.5	5.3	40.6	100.4	3.4			
95.0							25.3	83.1	4.5	35.4	94.0	2.6			
99.0										30.7	87.7	2.1			
100.0							16.1	69.6	3.7						
101.0							15.2	68.2	3.4						



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

360 ° 2 - Vía ancha

Pieza de articulación de pluma principal:	2821-1
Cabeza de pluma principal:	2821-1

		gulo de principal			gulo de orincipa			gulo de principa			gulo de principa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 r		eza de p	il, Punto lumín (2 n] Posici	316-1) 9:	2.5 m Pl	eza de p umín	lumín		_		
24.0	78.0	137.4	11.7												
26.0	76.7	136.9	11.6												
28.0	75.4	136.4	11.4												
30.0	74.1	135.9	11.1												
32.0	72.8	135.3	10.8												
34.0	71.5	134.6	10.4	70.0	405.0	40.0									
35.6 36.0	70.2	122.0	10.1	73.0 72.8	135.0 134.8	10.9 10.9				ł					
38.0	70.2 68.9	133.9 133.1	9.9	72.8 71.4	134.8	10.9				ł					
40.0	67.5	132.3	9.9	71.4	134.2	10.6				i					
42.0	66.2	131.4	8.4	68.8	132.7	10.4									
44.0	64.8	130.5	7.8	67.4	131.9	10.4									
46.0	63.4	129.5	7.2	66.1	131.0	9.9				i			i		
48.0	62.0	128.5	6.8	64.7	130.1	9.6				İ					
50.0	60.6	127.4	6.3	63.3	129.1	9.4				İ					
53.7							65.0	129.0	9.5						
55.0	56.9	124.3	5.2	59.8	126.3	8.7	64.1	128.3	9.5						
60.0	53.1	120.7	4.3	56.1	123.1	7.5	60.6	125.6	9.1						
65.0	49.1	116.6	3.6	52.2	119.4	6.5	56.9	122.5	8.5						
70.0	44.8	111.8	2.9	48.2	115.2	5.5	53.1	119.0	7.7						
74.8										55.0	118.0	5.9			
75.0	40.2	106.3	2.3	43.8	110.3	4.5	49.1	114.9	7.1	54.8	117.9	5.9			
80.0				39.1	104.5	3.6	44.8	110.1	6.3	51.3	114.4	5.0			
85.0				33.8	97.6	2.9	40.1	104.6	5.7	47.2	110.0	4.1			
90.0				27.6	89.0	2.3	35.0	97.9	5.2	42.8	105.0	3.2			
95.0							29.1	89.8	4.3	38.0	99.0	2.4			
98.0							00.7	000	0.5	34.8	94.9	2.0	1		
100.0 103.0							22.7 17.2	80.6 72.2	3.5 3.1	I					
103.0							17.2	12.2	J. T						



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360° Cabeza de pluma principal:

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de principa		83° Án I	gulo de orincipa	pluma I	75° Án I	gulo de principa	pluma I	65° Án	gulo de orincipa	pluma I	45° Án	gulo de orincipa	pluma I
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0	m Pluma Cab	eza de p	lumín (2:	316-1) 9	5.5 m Pl	eza de p umín	lumín				
			1			49.0[11	n] Posici	on midia	11 (2316)	•					ı
24.6	78.0	140.4	10.7												
26.0	77.1	140.0	10.7												
28.0	75.9	139.5	10.5												
30.0	74.7	139.0	10.3												
32.0	73.4	138.4	10.1												
34.0	72.1	137.8	9.7												
36.0	70.9	137.1	9.5												
36.5				73.0	137.8	9.9									
38.0	69.6	136.4	9.2	72.1	137.4	9.9									
40.0	68.3	135.6	8.8	70.8	136.7	9.8									
42.0	67.0	134.7	8.1	69.5	135.9	9.6									
44.0	65.6	133.8	7.5	68.2	135.1	9.4									
46.0	64.3	132.9	6.9	66.9	134.3	9.2									
48.0	63.0	131.9	6.4	65.6	133.4	8.9									
50.0	61.6	130.8	6.0	64.2	132.4	8.7									
55.0	58.1	127.8	5.0	60.8	129.8	8.3	65.0	131.7	8.7						
60.0	54.5	124.4	4.0	57.3	126.7	7.2	61.6	129.1	8.5						
65.0	50.6	120.5	3.3	53.6	123.2	6.2	58.1	126.1	8.1						
70.0	46.6	116.1	2.6	49.8	119.2	5.4	54.4	122.7	7.4						
75.0				45.7	114.6	4.4	50.6	118.8	6.7						
76.5										55.0	120.5	5.3			
80.0				41.3	109.2	3.4	46.6	114.3	6.1	52.7	118.2	4.7			
85.0				36.4	102.9	2.7	42.3	109.2	5.4	48.8	114.1	3.7			
90.0							37.5	103.1	4.9	44.7	109.3	2.9			
95.0							32.8	96.7	4.1	40.2	103.8	2.1			
100.0							26.7	87.8	3.3						
4050	1	I	1			1	40.0	75.0	~ -			1		1	1

18.9

75.8

2.5

105.0

106.0



Nº de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0		eza de p	al, Punto dumín (2 n] Posici	316-1) 9	8.5 m Pl		lumín				
25.2	78.0	143.3	9.9												
26.0	77.5	143.1	9.9												
28.0	76.3	142.6	9.8												
30.0	75.1	142.1	9.6												
32.0	73.9	141.5	9.4												
34.0	72.7	140.9	9.1												
36.0	71.5	140.3	8.9												
37.4				73.0	140.7	9.1				•			<u> </u>		
38.0	70.2	139.6	8.7	72.6	140.5	9.1									
40.0	69.0	138.8	8.5	71.4	139.8	9.1									
42.0	67.7	138.0	7.9	70.1	139.1	8.9									
44.0	66.4	137.1	7.3	68.9	138.4	8.7									
46.0	65.2	136.2	6.7	67.6	137.6	8.5									
48.0	63.9	135.2	6.2	66.4	136.7	8.3									
50.0	62.5	134.2	5.8	65.1	135.8	8.1									
55.0	59.2	131.4	4.8	61.8	133.2	7.8									
56.2							65.0	134.4	7.9						
60.0	55.7	128.1	3.8	58.4	130.3	6.9	62.5	132.5	7.9						
65.0	52.1	124.4	3.1	54.9	126.9	6.0	59.2	129.7	7.6						
70.0	48.2	120.2	2.5	51.2	123.1	5.2	55.7	126.4	7.0						
75.0				47.4	118.8	4.3	52.1	122.7	6.4						
78.2										55.0	122.9	4.7			
80.0				43.2	113.7	3.4	48.2	118.5	5.9	54.1	122.0	4.4			
85.0				38.7	107.9	2.6	44.2	113.6	5.2	50.4	118.0	3.4			
90.0							39.8	107.9	4.6	46.4	113.6	2.6			
93.0										44.0	110.5	2.1			
95.0							35.5	102.1	3.8						
100.0							30.1	94.2	3.0						
105.0							23.5	84.2	2.3						
107.0							20.4	79.1	2.0						



N° de ident.: 9842523/95738/ Pie

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		ża de pl	ıl, Punto umín (23 ı] Posici	316-1) 10	1.5 m P	eza de p lumín	lumín				
25.9	78.0	146.2	9.2												
26.0	77.9	146.2	9.2												
28.0	76.8	145.7	9.1												
30.0	75.6	145.2	8.9												
32.0	74.4	144.7	8.7												
34.0	73.2	144.1	8.6												
36.0	72.0	143.4	8.3												
38.0	70.8	142.7	8.1												
38.3				73.0	143.6	8.4									
40.0	69.6	142.0	7.9	72.0	143.0	8.4									
42.0	68.4	141.2	7.6	70.8	142.3	8.3									
44.0	67.2	140.4	7.0	69.6	141.6	8.1									
46.0	65.9	139.5	6.4	68.3	140.8	7.9									
48.0	64.7	138.6	5.9	67.1	140.0	7.8									
50.0	63.4	137.6	5.5	65.9	139.1	7.6									
55.0	60.2	134.9	4.5	62.7	136.6	7.2									
57.5							65.0	137.1	7.3						
60.0	56.9	131.7	3.6	59.5	133.8	6.6	63.4	135.9	7.3						
65.0	53.4	128.2	2.8	56.1	130.6	5.7	60.2	133.1	7.0						
70.0	49.8	124.2	2.2	52.6	127.0	4.9	56.8	130.0	6.7						
75.0				48.9	122.8	4.1	53.4	126.5	6.1						
80.0				45.0	118.1	3.2	49.7	122.5	5.6	55.0	125.4	4.0			
85.0				40.8	112.6	2.4	45.9	117.9	5.0	51.8	121.9	3.1	l		
87.0				39.0	110.2	2.1		440.0	4.0	40.0		0.0			
90.0							41.8	112.6	4.3	48.0	117.7	2.2			
91.0							07.0	407.4	0.5	47.3	116.7	2.1			
95.0							37.8	107.1	3.5						
100.0							32.9	100.0	2.7						
105.0							27.2	91.2	2.0						



Nº de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de principa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eża de pl	ıl, Punto umín (23 ı] Posici	316-1) ĬC	4.5 m P	eza de p lumín	lumín				
26.5	78.0	149.2	8.5												
28.0	77.1	148.8	8.5												
30.0	76.0	148.3	8.4												
32.0	74.9	147.8	8.2												
34.0	73.7	147.2	8.0												
36.0	72.6	146.6	7.8												
38.0	71.4	145.9	7.6												
39.1				73.0	146.4	7.8									
40.0	70.2 69.1	145.2 144.5	7.4	72.5 71.3	146.2	7.8									
42.0 44.0	69.1	144.5	7.3 6.8	71.3	145.5 144.8	7.7 7.6									
46.0	66.7	143.7	6.2	69.0	144.0	7.6									
48.0	65.5	141.9	5.7	67.8	144.0	7.4									
50.0	64.3	140.9	5.7	66.6	143.2	7.3							ł		
55.0	61.1	138.3	4.3	63.6	140.0	6.7									
58.8	01.1	130.3	7.0	03.0	140.0	0.7	65.0	139.8	6.7						
60.0	57.9	135.3	3.4	60.4	137.3	6.3	64.2	139.2	6.7						
65.0	54.6	131.9	2.6	57.2	134.2	5.4	61.1	136.6	6.5						
70.0				53.9	130.7	4.7	57.9	133.6	6.3			İ			
75.0				50.3	126.8	4.1	54.6	130.2	5.7						
80.0				46.7	122.3	3.2	51.1	126.4	5.3						
81.7										55.0	127.8	3.5			
85.0				42.7	117.2	2.3	47.5	122.0	4.8	53.0	125.7	2.9			
90.0							43.6	117.0	4.2	49.5	121.7	2.1			
95.0							39.9	112.0	3.4						
100.0							35.4	105.4	2.6						
104.0							31.3	99.2	2.0						



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

360 ° Cabeza de

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa		45° Án	gulo de orincipa	pluma
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eża de pl	il, Punto umín (23 i] Posici	316-1) ĬC	7.5 m P	eza de p lumín	lumín				
27.1	78.0	152.1	7.7												
28.0	77.5	151.9	7.7												
30.0	76.4	151.4	7.5												
32.0	75.3	150.9	7.4												
34.0	74.2	150.3	7.2												
36.0	73.1	149.7	7.0												
38.0	71.9	149.1	6.8												
40.0	70.8	148.4	6.7	73.0	149.3	6.9									
42.0	69.7	147.7	6.5	71.9	148.7	6.9									
44.0	68.5	146.9	6.3	70.8	148.0	6.8									
46.0	67.4	146.1	5.8	69.6	147.2	6.6									
48.0	66.2	145.2	5.3	68.5	146.5	6.5									
50.0	65.0	144.3	4.9	67.3	145.6	6.4									
55.0	62.0	141.7	4.0	64.4	143.3	6.0									
60.0	58.9	138.9	3.1	61.3	140.7	5.7	65.0	142.5	5.9						
65.0	55.8	135.6	2.3	58.2	137.8	5.0	62.0	140.0	5.8						
70.0				55.0	134.4	4.3	58.9	137.1	5.5						
75.0				51.7	130.7	3.8	55.7	133.9	5.2						
80.0				48.2	126.4	3.0	52.4	130.2	4.8		400.0	0.0			
83.4				44.4	404.5	0.0	40.0	100.1	4.5	55.0	130.3	2.8			
85.0				44.4	121.5	2.2	48.9	126.1	4.5	54.2	129.5	2.6			
88.0							45.0	404.0	0.0	52.2	127.2	2.0			
90.0							45.3 41.8	121.3 116.6	3.9 3.1						
95.0 100.0							41.8 37.6								
								110.5	2.3						
101.0							36.7	109.1	2.1						



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı	m Pluma Cabe	eza de pl	ıl, Punto umín (23 ı] Posici	316-1) 11	0.5 m P	eza de p lumín	lumín				
27.7	78.0	155.0	6.9												
28.0	77.9	155.0	6.9												
30.0	76.8	154.5	6.9												
32.0	75.7	154.0	6.7												
34.0	74.6	153.5	6.5												
36.0	73.5	152.9	6.4												
38.0	72.5	152.2	6.2												
40.0	71.4	151.6	6.0												
40.9				73.0	152.2	6.2									
42.0	70.3	150.9	5.9	72.4	151.8	6.2									
44.0	69.1	150.1	5.8	71.3	151.2	6.1									
46.0	68.0	149.3	5.4	70.2	150.4	6.0									
48.0 50.0	66.9 65.8	148.5 147.6	4.9 4.5	69.1 68.0	149.7 148.9	5.8 5.7									
55.0	62.9	147.6	3.7	65.1	146.9	5.7									
60.0	59.9	143.1	2.9	62.2	144.2	5.3									
61.3	39.9	142.4	2.9	02.2	144.2	J. I	65.0	145.3	5.1						
65.0	56.8	139.2	2.1	59.2	141.3	4.6	62.8	143.4	5.1						
70.0	30.0	155.2	2.1	56.1	138.1	3.9	59.9	140.6	4.9						
75.0				52.9	134.5	3.5	56.8	137.5	4.6						
80.0				49.5	130.4	2.9	53.6	134.0	4.4						
85.0				10.0		2.0	50.3	130.0	4.1						
85.1							23.0			55.0	132.7	2.2			
86.0										54.7	132.4	2.1			
90.0							46.8	125.5	3.6						
95.0							43.5	121.0	2.8						
100.0							39.6	115.3	2.0						



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı	m Pluma Cab	principa eza de n	ıl, Punto lumín (1	de carga 916-1) 3	1 - Cab 2 5 m Pl	eza de p umín	lumín		-		
						13.0 [m] Posici	ón midfa	II (1916)						
11.5	78.0	78.7	41.2												
12.0	77.0	78.6	41.2												
13.0	75.2	78.3	39.6												
14.0	73.3	78.0	38.3												
16.0	69.6	77.3	35.4												
18.0	65.8	76.5	32.6												
18.1				73.0	77.6	35.9									
20.0	61.8	75.4	30.6	69.4	76.9	34.1									
22.0	57.7	74.2	28.0	65.5	76.0	31.8									
24.0	53.4	72.8	25.9	61.6	75.0	30.0									
26.0	48.8	71.1	24.1	57.4	73.8	28.3									
28.0	43.8	69.1	22.3	53.1	72.3	26.9									
28.3							65.0	74.6	29.0						
30.0	38.3	66.8	20.7	48.5	70.6	25.5	61.8	73.7	30.3						
32.0	32.0	63.8	19.5	43.5	68.6	24.1	57.6	72.5	29.0						
34.0	24.3	59.9	18.3	38.0	66.2	22.9	53.3	71.1	27.7						
36.0	15.2	55.0	15.1	31.6	63.2	21.5	48.7	69.4	26.6						
38.0 39.0				23.8 18.7	59.3 56.6	19.7 18.8	43.7	67.4	25.1	1					
				18.7	50.0	18.8	38.3	65.0	23.9	ł					
40.0 40.4							30.3	05.0	23.9	55.0	68.8	22.4			
40.4 42.0							32.0	62.1	22.6	55.0 51.7	67.7	22.4			
42.0 44.0							32.0 24.2	58.2	20.9	51.7 46.9	65.9	22.6			
44.0 46.0							15.0	53.2	15.1	41.8	63.8	20.7			
48.0							13.0	33.2	13.1	36.1	61.2	19.8			
50.0										29.4	58.0	19.0			
53.0										16.8	51.4	15.1			
60.6										10.0	31.4	10.1	35.0	51.6	12.4
65.0													18.1	43.0	12.0



 N° de ident.: 9842523/95738/ Pieza de articulación de pluma principal:

Radio de descarga: $$360\ ^{\circ}$$

360 ° Cabeza de pluma principal: Vía ancha

2821-1 2821-1

		gulo de principa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ו		eza de p	II, Punto Ilumín (19 Il Posici	916-1) 3	5.5 m Pl	eza de p umín	lumín				
12.1	78.0	81.7	36.4												
13.0	76.5	81.4	35.9												
14.0	74.8	81.2	34.5												
16.0	71.4	80.5	31.8												
18.0	67.9	79.7	29.6	70.0	20.5	04.0									
18.9		70.0	07.5	73.0	80.5	31.3									
20.0	64.4	78.8	27.5	71.2	80.1	30.8									
22.0 24.0	60.7 56.9	77.7 76.5	25.9 24.1	67.7 64.2	79.3 78.4	28.9 27.0									
26.0	52.9	75.0	24.1	60.5	76.4 77.3	25.7									
28.0	48.7	73.4	21.5	56.7	76.0	24.3									
29.6	40.7	75.4	21.5	30.7	70.0	24.5	65.0	77.3	27.0						
30.0	44.2	71.4	20.0	52.7	74.6	23.3	64.4	77.1	27.0						
32.0	39.2	69.1	18.8	48.4	72.9	22.2	60.7	76.0	26.1						
34.0	33.7	66.3	17.8	43.9	70.9	21.0	56.9	74.8	25.0						
36.0	27.1	62.8	16.8	38.9	68.5	19.9	52.9	73.3	24.0						
38.0	18.5	57.8	15.8	33.3	65.7	19.0	48.7	71.6	23.0						
40.0				26.7	62.1	17.8	44.1	69.7	21.8						
42.0				17.9	57.0	16.6	39.2	67.4	20.7						
42.1										55.0	71.3	20.9			
44.0							33.6	64.6	19.8	51.4	69.9	21.1			
46.0							27.1	61.0	18.7	47.0	68.1	20.2			
48.0							18.4	56.0	17.5	42.4	66.1	19.3			
50.0										37.2	63.6	18.5			
55.0										19.8	54.0	16.8			
56.0										16.1	51.8	15.1			
63.1													35.0	53.3	11.7
65.0													29.9	50.6	11.8
68.0													17.3	43.4	11.1



N° de ident.: 9842523/95738/ Pieza de ar

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0		eza de p	il, Punto llumín (19 n] Posici	916-1) 3	8.5 m Pli	eza de p umín	lumín				
12.7 13.0 14.0 16.0 18.0	78.0 77.5 76.0 72.9 69.8	84.6 84.5 84.3 83.7 83.0	32.7 32.7 31.7 29.4 27.4												
19.8 20.0 22.0 24.0 26.0	66.5 63.2 59.8 56.3	82.1 81.2 80.0 78.8	25.5 23.9 22.6 21.4	73.0 72.7 69.6 66.3 63.0	83.3 83.3 82.6 81.7 80.7	27.9 27.9 26.4 25.0 23.7									
28.0 30.0 30.9 32.0 34.0	52.6 48.7 44.5 40.0	77.3 75.6 73.6 71.4	20.4 19.4 18.3 17.3	59.6 56.0 52.3 48.4	79.6 78.3 76.8 75.1	22.6 21.6 20.8 19.8	65.0 63.2 59.8	80.0 79.5 78.3	24.2 24.1 23.1						
36.0 38.0 40.0 41.0	35.0 29.3 22.3 17.7	68.7 65.4 61.1 58.2	16.5 15.7 14.8 14.4	44.3 39.7 34.7	73.1 70.9 68.1	18.7 17.8 17.0	56.2 52.5 48.6	77.0 75.6 73.9	22.2 21.3 20.5						
42.0 43.8 44.0 45.0 46.0				28.9 21.8 17.1	64.8 60.4 57.5	15.3 14.9	44.5 40.0 35.0	71.9 69.7 67.0	19.4 18.4 17.7	55.0 54.9 51.1	73.8 73.7 72.2	19.6 20.4 19.8			
48.0 50.0 51.0 55.0 59.0							29.2 22.2 17.6	63.7 59.4 56.5	16.9 16.0 15.6	47.1 42.9 30.1 15.4	70.4 68.3 61.4 52.2	19.0 18.2 16.5 13.7	25.0	55.0	44.0
65.6 70.0 71.0													35.0 21.4 16.6	55.0 46.9 43.8	11.0 10.5 10.3



Pieza de articulación de nluma principal: Nº de ident.: 9842523/95738/ 360° Radio de descarga:

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 52.6 Lastre central [t]:

Pieza de articulación de pluma principai:	2821-1
Cabeza de pluma principal:	2821-1

		gulo de orincipa			gulo de orincipa			gulo de principa			gulo de principa		45° Án I	gulo de orincipa	pluma I
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı	m Pluma Cab	eza de p	il, Punto lumín (1 n] Posici	916-1) 4	1.5 m Pli	eza de p umín	lumín				
13.3 14.0 16.0 18.0 20.0	78.0 77.0 74.2 71.3 68.3	87.5 87.4 86.8 86.2 85.4	29.3 29.3 27.3 25.3 23.8												
20.7 22.0 24.0 26.0 28.0 30.0	65.3 62.2 59.0 55.7 52.3	84.5 83.5 82.3 81.0 79.5	22.1 20.9 19.8 18.7	73.0 71.1 68.1 65.1 62.0 58.8	86.2 85.8 85.0 84.1 83.1	25.0 24.6 23.1 21.9 20.9									
32.0 32.1 34.0 36.0	48.6 44.8 40.7	77.8 75.9 73.7	17.1 16.2 15.4	55.5 52.0 48.4	80.6 79.1 77.3	19.0 18.2 17.4	65.0 62.2 59.0	82.7 81.8 80.6	20.5 21.3 20.4						
38.0 40.0 42.0 44.0 45.5	36.1 31.0 25.0 17.0	71.1 68.0 64.1 58.7	14.6 14.0 13.2 12.5	44.6 40.4 35.9 30.7	75.4 73.1 70.5 67.4	16.5 15.7 15.0 14.3	55.7 52.2 48.6 44.7	79.3 77.8 76.1 74.2	19.5 18.7 18.0 17.1	55.0	76.2	17.5			
46.0 48.0 50.0 54.0 55.0				24.6 16.4	63.4 57.9	13.6 12.8	40.6 36.1 31.0 16.9	72.0 69.4 66.2 56.9	16.2 15.5 14.9 13.4	54.4 50.9 47.2 36.7	76.0 74.4 72.6 66.9	18.5 18.0 17.3			
60.0 61.0 68.0 70.0 74.0										22.3 18.2	57.8 55.0	14.0 13.7	35.0 30.4 15.9	56.7 53.9 44.2	10.3 10.2 9.3



Nº de ident.: 9842523/95738/ Radio de descarga: 360°

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 52.6 Lastre central [t]:

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa		65° Án	gulo de principa	pluma I		gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı	m Pluma Cab	eza de p	lumín (1	916-1) 4	4.5 m Pl		lumín		-		
<u> </u>						25.0 [m] Posici	ón midta	II (1916)	_			_		
13.9	78.0	90.5	26.6												
14.0	77.9	90.5	26.6												
16.0	75.3	90.0	25.3												
18.0	72.6	89.3	23.7												
20.0 21.6	69.9	88.6	22.2	73.0	89.1	22.7									
22.0	67.1	87.8	20.7	73.0	88.9	22.7				l					
24.0	64.2	86.9	19.4	69.7	88.2	21.5				i			i		
26.0	61.3	85.8	18.4	66.9	87.4	20.4				i			i		
28.0	58.3	84.6	17.4	64.1	86.4	19.4				i					
30.0	55.2	83.3	16.6	61.1	85.4	18.6									
32.0	52.0	81.8	15.9	58.1	84.2	17.7									
33.4							65.0	85.5	19.6						
34.0	48.6	80.1	15.2	55.0	82.8	16.8	64.2	85.2	19.6						
36.0	45.0	78.1	14.4	51.8	81.3	16.2	61.3	84.1	18.9						
38.0	41.2	76.0	13.7	48.4	79.6	15.4	58.3	82.9	18.2						
40.0	37.1	73.4	13.1	44.8	77.6	14.6	55.2	81.6	17.3						
42.0 44.0	32.5 27.2	70.5 66.9	12.6 11.9	41.0 36.8	75.4 72.9	14.0 13.4	51.9 48.6	80.1 78.4	16.6 15.9	ł			ł		
46.0	20.6	62.2	11.9	32.2	72.9 69.9	12.8	46.0 45.0	76.4 76.4	15.9						
47.0	16.4	59.1	11.0	32.2	09.9	12.0	45.0	70.4	13.1						
47.3	10.4	00.1	11.0							55.0	78.7	15.7	i		
48.0				26.8	66.3	12.1	41.2	74.2	14.4	54.0	78.2	16.9			
50.0	İ			20.2	61.5	11.5	37.0	71.7	13.8	50.7	76.6	16.4	İ		
51.0				15.8	58.3	11.1									
55.0							24.0	63.0	12.3	41.7	71.7	14.7			
57.0							16.3	57.3	11.6						
60.0										30.6	64.7	13.3			
64.0										17.6	55.4	12.1			
70.5													35.0	58.5	9.7
75.0													22.4	49.9	8.9
77.0													15.4	44.6	8.5



N° de ident.: 9842523/95738/ Pieza de articulación de descarga: 360 ° Cabeza de pluma prin

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı	n Pluma Cab	eza de p	al, Punto llumín (1 n] Posici	916-1) 4	7.5 m Pl	eza de p umín	lumín				
14.6	78.0	93.4	23.6												
16.0	76.2	93.1	23.1												
18.0	73.7	92.5	21.8												
20.0	71.2 68.6	91.8	20.5												
22.0 22.5	08.6	91.1	19.5	73.0	91.9	20.2									
24.0	66.0	90.2	18.5	71.0	91.9	19.9				i			i		
26.0	63.3	89.2	17.8	68.4	90.6	19.1									
28.0	60.5	88.1	17.1	65.8	89.8	18.4				i			i		i i
30.0	57.7	86.9	16.4	63.1	88.8	17.8				i			i		
32.0	54.8	85.5	15.8	60.4	87.7	17.3									
34.0	51.7	84.0	15.4	57.5	86.4	16.7									
34.7							65.0	88.2	18.1				•		
36.0	48.6	82.3	14.7	54.6	85.1	16.2	63.3	87.5	18.0						
38.0	45.2	80.4	13.9	51.6	83.5	15.8	60.5	86.4	17.4						
40.0	41.7	78.2	13.2	48.4	81.8	15.1	57.7	85.2	17.0						
42.0	37.9	75.8	12.5	45.0	79.9	14.5	54.8	83.8	16.5						
44.0 46.0	33.7 28.9	72.9 69.5	12.0 11.4	41.5 37.6	77.7 75.2	14.0 13.5	51.7 48.5	82.3 80.6	16.0 15.6				ł		
48.0	23.3	65.3	10.8	33.4	75.2 72.4	12.9	46.5 45.2	78.7	14.9						
49.0	23.3	05.5	10.6	33.4	72.4	12.9	43.2	10.1	14.9	55.0	81.1	15.4			
50.0	15.9	59.5	10.2	28.6	68.9	12.1	41.6	76.5	14.3	53.7	80.5	16.0			
54.0	10.0	00.0	10.2	15.3	58.7	10.6	41.0	70.0	14.0	00.7	00.0	10.0	i		i i
55.0						,,,,	31.3	69.6	12.9	45.7	76.1	14.9			
60.0							15.8	57.7	11.2	36.3	70.2	13.4			
65.0										24.1	61.4	12.2			
67.0										17.0	55.9	11.6			
72.9													35.0	60.2	9.1
75.0													30.2	56.8	8.6
80.0													16.4	46.2	7.7



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eza de p	il, Punto lumín (1: i] Posici	916-1) 5	0.5 m Pl	eza de p umín	lumín				
15.2	78.0	96.3	21.5												
16.0	77.1	96.1	21.5												
18.0	74.7	95.6	20.4												
20.0	72.3	95.0	19.4												
22.0	69.9	94.3	18.6												
23.3				73.0	94.8	18.7									
24.0	67.5	93.5	18.0	72.2	94.6	18.7									
26.0	65.0	92.6	17.4	69.8	93.9	18.2									
28.0	62.5	91.6	16.9	67.3	93.1	17.8									
30.0	59.8 57.2	90.4 89.2	16.5	64.9 62.3	92.1	17.4 17.0									
32.0			16.0		91.1	-									
34.0 35.9	54.4	87.8	15.6	59.7	90.0	16.7	65.0	90.9	16.7						
36.0	51.5	86.3	15.3	57.0	88.7	16.3	65.0	90.9	17.3						
38.0	48.6	84.5	14.7	54.2	87.3	16.0	62.4	89.9	17.3						
40.0	45.4	82.6	13.8	51.4	85.8	15.8	59.8	88.7	16.7						
42.0	42.1	80.5	13.0	48.4	84.0	15.3	57.1	87.5	16.5						
44.0	38.5	78.1	12.3	45.2	82.1	14.7	54.4	86.1	16.2						
46.0	34.7	75.3	11.7	41.9	80.0	14.2	51.5	84.5	15.9						
48.0	30.4	72.1	11.2	38.3	77.6	13.8	48.5	82.8	15.6						
50.0	25.4	68.2	10.7	34.4	74.8	13.3	45.4	80.9	15.0						
50.7										55.0	83.6	15.0			
53.0	15.4	59.9	9.9												
55.0				22.2	65.3	11.2	36.6	75.0	13.9	48.9	80.3	14.9			
57.0				16.3	60.3	9.9									
60.0							25.4	66.5	12.2	40.8	75.1	13.8			
63.0							15.3	58.1	11.1						
65.0										30.9	68.0	12.7			
70.0										16.4	56.3	11.5			
75.4													35.0	61.9	8.5
80.0													24.8	54.1	7.7
83.0													15.9	46.7	7.1



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa		45° Án	gulo de orincipa	pluma I
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ו		eza de p	ıl, Punto lumín (1: n] Posici	916-1) 5	3.5 m Pli	eza de p umín	lumín				
15.8 16.0 18.0 20.0 22.0 24.0 24.2 26.0 28.0 30.0 32.0 34.0 36.0 37.2 38.0 40.0 44.0	78.0 77.8 75.6 73.4 71.1 68.8 66.5 64.1 61.7 59.2 56.7 54.1 48.5 45.6 42.5	99.3 99.2 98.7 98.2 97.5 96.7 95.9 94.9 93.9 92.7 91.5 90.0 88.5 86.8 84.9 82.8	19.5 19.5 18.8 18.0 17.1 16.5 16.0 15.6 15.3 14.9 14.6 14.3 14.0 13.5 12.8 12.1	73.0 71.0 68.7 66.4 64.0 61.6 59.1 56.5 53.9 51.2 48.4	97.7 97.1 96.3 95.5 94.5 93.5 92.3 91.0 89.6 88.0 86.3	17.0 16.8 16.4 16.0 15.6 15.4 15.0 14.8 14.5 14.3 13.9	65.0 64.1 61.7 59.2 56.7	93.6 93.2 92.2 91.0 89.7	15.6 15.6 15.4 15.1 14.9						
46.0 48.0 50.0 52.4 55.0 56.0	39.1 35.6 31.6 18.7 16.3	80.4 77.7 74.6 63.7 61.5	11.5 10.9 10.5 9.2 7.9	45.4 42.3 38.9 29.2	84.4 82.2 79.9 72.3	13.5 13.1 12.7	54.0 51.3 48.5 40.8	88.3 86.8 85.1 79.9	14.7 14.5 14.2	55.0 51.7	86.1 84.2	13.6 14.0			
60.0 65.0 66.0 70.0 73.0 77.9	10.3	01.5	7.9	15.8	60.7	9.0	31.6 18.7 16.2	72.9 62.0 59.7	12.1 10.5 9.9	44.4 36.0 25.3 15.9	79.6 73.6 64.9 56.7	13.3 12.3 11.3 10.6	35.0 31.9	63.6 61.2	7.7
85.0 86.0													19.1 15.4	50.4 47.1	6.5 6.3



Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

al: 2821-1 2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ו	m Pluma Cab	eza de p	al, Punto dumín (1 n] Posici	916-1) 5	6.5 m Pli		lumín		-		
16.4 18.0 20.0 22.0 24.0	78.0 76.4 74.3 72.2 70.0	102.2 101.8 101.3 100.7 100.0	17.8 17.5 16.7 15.9 15.2												
25.1 26.0 28.0 30.0 32.0	67.8 65.6 63.3 61.0	99.2 98.3 97.3 96.2	14.8 14.4 14.1 13.9	73.0 72.0 69.9 67.7 65.5	100.5 100.2 99.5 98.7 97.8	15.5 15.5 15.2 14.9 14.5									
34.0 36.0 38.0 38.5 40.0	58.7 56.3 53.8	95.0 93.7 92.3	13.6 13.4 13.2	63.2 60.9 58.5	96.9 95.8 94.6	14.2 14.0 13.7	65.0 63.3	96.3 95.6	14.3 14.2						
42.0 44.0 46.0 48.0	48.5 45.7 42.8 39.7	89.0 87.1 85.0 82.7	12.5 11.9 11.3 10.8	53.6 51.0 48.4 45.5	91.8 90.3 88.5 86.6	13.3 13.1 12.8 12.5	61.0 58.7 56.2 53.7	94.5 93.3 92.0 90.6	14.0 13.8 13.6 13.4						
50.0 54.1 55.0 59.0 60.0 63.0	36.3 26.4 15.8	71.7 61.9	9.2 7.7	42.6 34.3 23.7 15.3	78.1 68.9 61.1	12.1 11.4 9.8 8.2	51.2 44.2 36.3	89.0 84.4 78.4	13.2 12.5 11.9	55.0 54.1 47.5	88.5 88.0 83.8	12.4 13.0 12.7			
65.0 69.0 70.0 75.0 76.0				15.3	01.1	0.2	26.4 15.7	70.0 60.1	10.6 9.0	40.1 31.2 19.0 15.5	78.5 71.4 60.4 57.1	11.9 11.1 10.0 9.8			
80.3 85.0 88.0										10.0	07.1	0.0	35.0 26.7 18.6	65.3 58.3 50.9	7.1 6.3 5.9



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı	m Pluma Cab	eza de p	al, Punto dumín (19 n] Posici	916-1) 5	9.5 m Pl		lumín				
17.1	78.0	105.1	15.5												
18.0	77.1	104.9	15.5												
20.0	75.1	104.4	14.6												
22.0	73.1	103.8	14.0												
24.0	71.1	103.1	13.4												
26.0	69.0	102.4	13.0	73.0	103.4	13.5									
28.0	66.9	101.6	12.7	70.9	102.7	13.3									
30.0	64.7	100.6	12.4	68.9	102.0	13.0									
32.0	62.6	99.6	12.1	66.8	101.1	12.7									
34.0	60.3	98.5	11.9	64.6	100.2	12.4									
36.0	58.1	97.3	11.7	62.4	99.2	12.2									
38.0	55.7	95.9	11.5	60.2	98.0	12.0	05.0		40.0	ł					
39.7	53.3	94.5	11.3	57.9	96.8	11.8	65.0 64.7	99.0 98.9	12.3 12.3	ł					
40.0 42.0	50.9	94.5 92.9	11.3	57.9 55.6	96.6 95.4	11.5	62.5	97.9	12.3						
44.0	48.3	91.1	10.7	53.2	94.0	11.5	60.3	96.8	12.0						
46.0	45.6	89.2	10.7	50.7	94.0	11.4	58.0	95.5	11.8						
48.0	42.8	87.1	9.9	48.1	90.6	11.0	55.7	94.2	11.6						
50.0	39.8	84.7	9.5	45.4	88.7	10.8	53.3	92.7	11.5	i					
55.0	31.4	77.6	8.7	38.1	82.9	10.4	46.9	88.4	11.1						
55.9			•							55.0	91.0	11.1			
60.0	19.9	66.8	7.7	29.2	75.2	9.4	39.8	83.0	10.7	49.9	87.7	11.0			
62.0	15.4	62.3	6.7	i '						1	-				
65.0				16.3	62.9	8.0	31.3	75.8	10.0	43.2	82.8	10.7			
70.0							19.9	65.0	8.8	35.4	76.6	10.3			
72.0							15.3	60.5	8.1						
75.0										25.7	67.8	9.5			
79.0										16.3	58.7	8.5			
82.8													35.0	67.1	6.4
85.0													32.0	64.5	6.1
90.0													21.1	54.2	5.3
91.0													18.1	51.3	5.1



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

	88° Ángulo de pluma principal				83° Ángulo de pluma principal			75° Ángulo de pluma principal			65° Ángulo de pluma principal			45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	
44.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 62.5 m Plumín 31.0 [m] Posición midfall (1916)																
17.7 18.0 20.0 22.0 24.0 26.9 28.0 30.0 32.0 34.0 36.0 38.0 40.0 41.0 42.0 44.0 45.0 55.0 57.6 60.0	78.0 77.8 75.9 73.9 72.0 70.0 68.1 66.0 64.0 61.9 59.8 57.6 55.4 53.1 50.7 48.3 45.7 43.1 35.7	108.1 108.0 107.5 107.0 106.3 105.6 104.8 103.0 101.9 100.8 99.5 98.2 96.7 95.1 93.3 91.4 89.3 83.1 74.6 62.7	14.0 14.0 13.5 12.9 12.4 12.0 11.7 11.4 11.1 10.9 10.7 10.5 10.3 10.2 10.0 9.7 9.4 9.1 8.4	73.0 71.9 69.9 65.9 63.9 61.8 59.7 57.5 55.3 53.0 50.6 48.1 41.5	106.3 105.9 105.2 104.4 103.5 102.5 101.5 100.3 99.1 97.7 96.2 94.6 92.8 87.7 81.0 71.8	12.3 12.3 11.7 11.7 11.4 11.2 11.0 10.8	65.0 64.0 61.9 59.8 57.6 55.4 49.5	101.8 101.3 100.2 99.1 97.8 96.5 92.5 87.6 81.4	11.2 11.2 11.0 10.8 10.6 10.5	55.0 52.2 46.1	93.4 91.6 87.2	10.0 10.0 9.7				
68.0 70.0 74.0 75.0 80.0 82.0 85.2 90.0 94.0				15.9	63.3	7.3	26.6 16.2	72.8 62.3	8.8 7.9	39.2 31.0 20.1 15.9	81.6 74.3 63.5 59.1	9.6 9.2 8.4 7.7	35.0 27.4 17.6	68.8 61.7 51.8	5.9 5.2 4.6	



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

	88° Ángulo de pluma principal			83° Ángulo de pluma principal			75° Ángulo de pluma principal				gulo de orincipa		45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
44.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 65.5 m Plumín 34.0 [m] Posición midfall (1916)															
18.4	78.0	111.0	12.8												
20.0	76.5	110.6	12.6												
22.0	74.7	110.1	12.0												
24.0	72.9	109.5	11.5												
26.0	71.0	108.8	11.1												
27.7				73.0	109.1	11.3									
28.0	69.1	108.1	10.9	72.8	109.1	11.3									
30.0	67.2	107.2	10.6	70.9	108.4	11.1									
32.0	65.3	106.3	10.3	69.0	107.6	10.8									
34.0	63.3	105.3	10.1	67.1	106.8	10.6									
36.0	61.3	104.3	9.9	65.2	105.9	10.3									
38.0	59.3	103.1	9.7	63.2	104.9	10.1									
40.0	57.2	101.8	9.5	61.2	103.8	10.0									
42.0	55.1	100.4	9.3	59.2	102.6	9.8	65.0	104.5	10.2						
42.3 44.0	52.9	98.9	9.1	57.1	101.3	9.6	65.0 63.3	104.5	10.2						
46.0	50.6	97.3	9.1	54.9	100.0	9.6	61.3	103.6	10.2				i		
48.0	48.3	97.3 95.6	8.7	52.7	98.5	9.4	59.3	102.5	9.8				i		
50.0	45.9	93.7	8.4	50.5	96.8	9.1	57.2	100.1	9.6	i					i i
55.0	39.3	88.1	7.9	44.5	92.1	8.6	51.7	96.4	9.2						
59.3										55.0	95.9	9.1			
60.0	31.6	80.9	7.3	37.7	86.3	8.3	45.8	91.9	8.9	54.2	95.4	9.1			
65.0	21.5	70.6	6.6	29.6	78.6	7.7	39.2	86.4	8.6	48.6	91.3	8.8	İ		l I
67.0	15.9	64.5	6.3												
70.0				18.6	67.0	6.8	31.5	79.2	8.2	42.3	86.2	8.6			
71.0				15.5	63.7	6.7									
75.0							21.5	68.8	7.5	35.2	79.9	8.4			
77.0							15.8	62.7	7.2						
80.0										26.5	71.3	7.9			
85.0										15.5	59.5	6.8			
87.7													35.0	70.5	5.2
90.0													32.2	67.8	4.9
95.0													22.5	57.9	4.2
97.0													17.2	52.2	4.0



Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360°

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 52.6 Lastre central [t]:

2821-1 Cabeza de pluma principal: 2821-1

88° Ángulo de pluma principal			83° Ángulo de pluma principal			75° Ángulo de pluma principal			65° Ángulo de pluma principal			45° Ángulo de pluma principal			
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
44.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 68.5 m Plumín 37.0 [m] Posición midfall (1916)															
19.0 20.0 22.0 24.0 26.0 28.0 28.6 30.0 32.0 34.0 36.0 40.0 42.0 43.5 44.0 50.0 55.0 60.0 61.0 65.0 70.0 75.0	78.0 77.1 75.4 73.6 71.9 70.1 68.3 66.4 64.6 62.7 60.8 58.8 56.8 54.8 52.7 50.5 48.3 42.3 35.5	113.9 113.7 113.2 112.6 112.0 111.3 110.5 109.6 108.7 107.7 106.6 105.4 104.1 102.7 101.2 99.6 97.8 92.7 86.4 78.0 64.9	11.7 11.7 11.2 10.8 10.4 10.1 9.9 9.6 9.4 9.2 9.0 8.8 8.6 8.4 7.9 7.4 7.0	73.0 71.8 70.0 68.2 66.3 64.5 62.6 60.7 58.7 56.7 54.7 52.5 47.0 40.9 33.8 25.2 15.2	112.0 111.6 110.8 110.1 109.2 108.2 107.2 106.1 104.9 103.6 102.2 100.7 96.4 91.1 84.4 75.3 64.1	10.4 10.4 10.1 9.9 9.7 9.5 9.3 9.1 8.9 8.7 8.5 8.4 7.9 7.5	65.0 64.6 62.7 60.8 58.8 53.7 48.3 42.3 35.5	107.2 107.0 106.0 104.9 103.7 100.2 96.1 91.0 84.7 76.3	9.4 9.4 9.3 9.1 9.0 8.6 8.2 7.8 7.5	55.0 50.8 45.1	98.3 95.3 90.6	8.3 8.2 7.9			
80.0 85.0 88.0 90.1 95.0 100.0							15.5	63.1	6.7	31.3 21.6 15.1	77.6 67.3 59.9	7.0 7.4 7.0 6.2	35.0 28.0 16.8	72.2 65.1 52.7	4.7 4.1 3.4



Nº de ident.: 9842523/95738/

Radio de descarga: 360°

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

Valor de vuelco: 2 - Vía ancha

Lastre trasero [t]:	124.0
Lastre central [t]:	52.6

	88° Ángulo de pluma principal			83° Ángulo de pluma principal			75° Ángulo de pluma principal				gulo de orincipa		45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
	44.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 71.5 m Plumín 40.0 [m] Posición midfall (1916)														
19.6	78.0	116.9	10.6												
20.0	77.7	116.8	10.6												
22.0	76.0	116.3	10.2												
24.0	74.4	115.8	9.8												
26.0 28.0	72.7 71.0	115.1 114.5	9.5 9.2	-											
29.5	/ 1.0	114.5	9.2	73.0	114.9	9.4									
30.0	69.2	113.7	9.0	72.6	114.7	9.4									
32.0	67.5	112.9	8.8	70.9	114.0	9.2				İ					
34.0	65.7	112.0	8.6	69.1	113.3	9.0				İ					
36.0	64.0	111.0	8.4	67.4	112.5	8.8									
38.0	62.1	110.0	8.3	65.6	111.6	8.6									
40.0	60.3	108.9	8.1	63.8	110.6	8.5									
42.0	58.4	107.7	7.9	62.0	109.6	8.3									
44.0 44.8	56.5	106.4	7.7	60.2	108.4	8.1	65.0	109.9	8.4						
44.6 46.0	54.5	104.9	7.6	58.3	107.2	8.0	63.9	109.9	8.4						
48.0	52.5	104.9	7.5	56.4	107.2	7.8	62.1	108.3	8.3						
50.0	50.4	101.8	7.3	54.4	104.5	7.7	60.3	107.2	8.1	i					
55.0	44.9	97.1	6.9	49.2	100.5	7.4	55.5	104.0	7.8						
60.0	38.8	91.4	6.6	43.6	95.6	7.1	50.4	100.1	7.5						
62.8										55.0	100.8	7.4			
65.0	31.8	84.2	6.2	37.3	89.6	6.8	44.9	95.4	7.2	52.7	99.1	7.4			
70.0	22.8	74.3	5.6	30.0	81.9	6.4	38.8	89.7	7.0	47.4	94.8	7.2			
73.0 75.0	15.2	65.3	5.2	20.3	71.0	5.8	31.7	82.5	6.7	41.6	89.6	7.0			
75.0 77.0				20.3 16.7	66.7	5.6	31.1	02.5	0.7	41.0	09.0	7.0			
80.0				10.7	00.7	J. 1	22.8	72.5	6.3	35.1	83.2	6.9			
83.0				i			15.1	63.5	6.1			0.0	ĺ		
85.0										27.2	74.7	6.6			
90.0										16.0	61.7	6.3			
92.6													35.0	73.9	4.1
95.0													32.3	71.1	3.8
100.0													23.6	61.5 53.1	3.2 2.8
103.0													16.5	53.1	2.8



N° de ident.: 9842523/95738/ Pie

Radio de descarga: $$360\ ^{\circ}$$

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 124.0

52.6

	F	gulo de orincipa		ı	gulo de orincipa		ı	gulo de orincipa			gulo de orincipa		1	gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eza de p	il, Punto lumín (19 n] Posici	916-1) 7	4.5 m Pli	eza de p umín	lumín				
20.2	78.0	119.8	9.6												
22.0	76.6	119.4	9.4												
24.0	75.0	118.9	9.0												
26.0	73.4	118.3	8.7												
28.0	71.8	117.6	8.5												
30.0	70.1	116.9	8.3												
30.4				73.0	117.8	8.5									
32.0	68.5	116.1	8.1	71.7	117.2	8.5									
34.0	66.8	115.3	7.9	70.0	116.5	8.3									
36.0	65.1	114.4	7.7	68.4	115.7	8.1									
38.0	63.4	113.4	7.6	66.7	114.9	7.9									
40.0	61.6	112.3	7.5	65.0	113.9	7.8									
42.0	59.8	111.2	7.3	63.3	112.9	7.6									
44.0	58.0	109.9	7.2	61.5	111.9	7.5									
46.0	56.2	108.6	7.0	59.7	110.7	7.3									
46.1							65.0	112.6	7.7						
48.0	54.3	107.2	6.9	57.9	109.5	7.2	63.3	111.7	7.6						
50.0	52.3 47.2	105.7 101.4	6.8 6.5	56.0 51.2	108.2 104.4	7.1 6.8	61.6 57.1	110.6 107.6	7.5 7.2						
55.0	41.6		6.2	51.2 46.0	99.9	6.6	_		6.9						
60.0 64.5	41.0	96.1	0.2	46.0	99.9	0.0	52.3	104.0	0.9	55.0	103.3	6.7			
65.0	35.4	89.7	6.0	40.3	94.4	6.4	47.2	99.6	6.7	54.5	103.3	6.7			
70.0	27.9	81.4	5.5	33.8	87.7	6.2	41.6	94.4	6.6	49.6	98.9	6.6			
75.0	17.7	69.2	4.9	25.9	78.8	5.7	35.3	88.0	6.4	44.2	94.1	6.4			
76.0	16.7	67.9	4.2	20.0	70.0	0.7	00.0	00.0	0.4		04.1	0.4			
80.0		<u> </u>		16.4	67.2	4.7	27.9	79.7	6.1	38.3	88.3	6.3			
85.0					<u>-</u>		17.7	67.4	5.7	31.5	80.9	6.2			
86.0							16.7	66.2	5.3	27.0	23.0				
90.0										22.8	70.9	6.0			
93.0										15.6	62.1	5.8			
95.1													35.0	75.7	3.7
100.0													28.5	68.5	3.1
105.0													18.7	56.8	2.6
106.0													16.1	53.5	2.5



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

Lastre o	central [t	:]:		52.6											
		gulo de principa			gulo de principa			gulo de principa			gulo de principa			gulo de orincipal	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0			al, Punto			eza de p	lumín				

	[°]	nas [m]		[°]	nas [m]		[°]	nas [m]		[°]	nas [m]		[°]	nas [m]	
				44.0	m Pluma	principa	al, Punto Jumín (1	de carga	1 - Cab	ezą de p	lumín				
					Cab	eza de p 34.0 [m	numin (1 1 Posici	916-1) <i>1</i> ón midfa	7.5 m Pli II (1916)	umin					
20.9	78.0	122.7	8.6												
22.0	77.1	122.5	8.6												
24.0	75.6	122.0	8.2												
26.0	74.1	121.4	7.9												
28.0	72.5	120.8	7.7												
30.0	70.9	120.1	7.5												
31.2				73.0	120.6	7.7									
32.0	69.3	119.4	7.4	72.4	120.4	7.7									
34.0	67.7	118.6	7.2	70.8	119.7	7.5									
36.0	66.1	117.7	7.0	69.3	118.9	7.3									
38.0	64.5	116.8	6.8	67.6	118.1	7.2									
40.0	62.8	115.7	6.7	66.0	117.3	7.0									
42.0	61.1	114.6	6.6	64.4	116.3	6.8									
44.0	59.4	113.5	6.4	62.7	115.3	6.7									
46.0	57.6	112.2	6.3	61.0	114.2	6.6									
47.3							65.0	115.4	6.8						
48.0	55.9	110.9	6.2	59.3	113.0	6.5	64.5	115.0	6.8						
50.0	54.0	109.5	6.1	57.5	111.8	6.3	62.8	114.0	6.7						
55.0	49.3	105.4	5.9	53.0	108.2	6.1	58.5	111.2	6.4						
60.0	44.1	100.6	5.6	48.1	104.0	5.9	54.0	107.7	6.1						
65.0	38.4	94.8	5.4	42.9	99.0	5.7	49.2	103.7	5.9						
66.2										55.0	105.7	5.9			
70.0	31.9	87.5	5.1	37.1	92.9	5.5	44.1	98.9	5.8	51.4	102.8	5.8			
75.0	23.8	77.9	4.6	30.3	85.3	5.2	38.4	93.1	5.6	46.5	98.4	5.7			
79.0	16.4	68.4	3.9												
80.0				21.6	74.7	4.9	31.9	85.8	5.5	41.1	93.0	5.6			
83.0				16.1	67.6	4.2									
85.0							23.8	76.1	5.3	35.0	86.5	5.5			
89.0							16.3	66.6	4.7						
90.0										27.7	78.1	5.4			
95.0										18.0	65.9	5.3			
96.0										15.3	62.5	5.3			
97.5													35.0	77.4	3.1
100.0													32.4	74.4	2.9
105.0													24.5	65.1	2.3
108.0													18.4	57.3	2.0



Nº de ident.: 9842523/95738/

Radio de descarga: 360°

Valor de vuelco:	2 - Vía ancha
Lastre trasero [t]:	124.0
Lastre central [t]:	52.6

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı		eza de p	ıl, Punto ılumín (19 ı] Posicio	916-1) 8	0.5 m Pl		lumín				
21.5	78.0	125.7	7.8												
22.0	77.6	125.6	7.8												
24.0	76.2	125.1	7.6												
26.0	74.7	124.5	7.3												
28.0	73.2 71.7	123.9 123.3	7.1 6.9												
30.0 32.0	71.7	123.3	6.7												
32.0	70.2	122.0	0.7	73.0	123.5	6.9									
34.0	68.6	121.8	6.6	71.6	122.9	6.9				i					
36.0	67.1	121.0	6.4	70.1	122.2	6.7									
38.0	65.5	120.1	6.2	68.5	121.4	6.5									
40.0	63.9	119.1	6.1	67.0	120.5	6.4									
42.0	62.3	118.1	6.0	65.4	119.6	6.2									
44.0	60.7	117.0	5.8	63.8	118.7	6.1									
46.0	59.0	115.8	5.7 5.6	62.2	117.6	6.0 5.9									
48.0 48.6	57.3	114.5	5.6	60.6	116.5	5.9	65.0	118.1	6.1						
50.0	55.6	113.1	5.5	58.9	115.3	5.7	63.9	117.4	6.1						
55.0	51.1	109.4	5.3	54.6	112.0	5.5	59.8	114.7	5.8	i					
60.0	46.3	104.9	5.1	50.1	108.0	5.2	55.6	111.4	5.5						
65.0	41.1	99.5	4.9	45.2	103.4	5.0	51.1	107.6	5.3						
67.9										55.0	108.2	5.2			
70.0	35.2	93.0	4.7	39.8	97.8	4.9	46.3	103.2	5.1	53.1	106.6	5.2			
75.0	28.4	84.8	4.4	33.8	91.0	4.7	41.1	97.8	5.0	48.5	102.5	5.1			
80.0	19.4	73.2	4.0	26.6	82.2	4.5	35.2	91.3	4.9	43.5	97.5	4.9			
82.0 85.0	16.1	68.8	3.5	16.7	69.3	4.3	28.3	83.1	4.8	38.0	91.6	4.8			
86.0				15.7	68.0	3.9	20.3	03.1	4.0	30.0	91.0	4.0			
90.0				10.7	00.0	0.0	19.3	71.5	4.7	31.6	84.3	4.8			
92.0							16.0	67.0	4.3						
95.0										23.8	74.5	4.8			
99.0										15.0	62.9	4.7			
100.0													35.0	79.1	2.7
105.0													28.9	71.8	2.1
106.0													27.4	69.9	2.0



Nº de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

	88° Án	gulo de orincipa	pluma I		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ו		eza de p	il, Punto lumín (1 il Posici	916-1) 8	3.5 m Pl	eza de p umín	lumín				
						40.0 [11	i j Posici	on midia	11 (1910)		1	ı		1	1
22.1 24.0	78.0 76.7	128.6 128.2	7.0 6.9												
26.0	75.2	120.2	6.7												
28.0	73.8	127.7	6.5												
30.0	72.4	126.5	6.3												
32.0	70.9	125.8	6.1												
33.0	1 0.0	120.0	0	73.0	126.4	6.3									
34.0	69.4	125.0	6.0	72.3	126.0	6.2									
36.0	67.9	124.2	5.8	70.8	125.3	6.1							İ		
38.0	66.4	123.4	5.7	69.3	124.6	6.0									
40.0	64.9	122.4	5.5	67.9	123.8	5.8									
42.0	63.4	121.5	5.4	66.4	122.9	5.7									
44.0	61.8	120.4	5.3	64.8	122.0	5.5									
46.0	60.2	119.3	5.2	63.3	121.0	5.4									
48.0	58.6	118.1	5.1	61.7	119.9	5.3									
49.9							65.0	120.8	5.4						
50.0	57.0	116.8	5.0	60.1	118.8	5.2	64.9	120.7	5.4						
55.0	52.8	113.2	4.7	56.1	115.6	4.9	61.0	118.1	5.2						
60.0 65.0	48.3 43.4	109.0 104.0	4.5 4.3	51.8 47.2	111.9 107.6	4.7 4.5	57.0 52.7	115.1 111.5	5.0 4.8						
69.6	43.4	104.0	4.3	47.2	107.6	4.5	52.7	111.5	4.0	55.0	110.6	4.7			
70.0	38.1	98.1	4.1	42.3	102.4	4.3	48.2	107.3	4.6	54.7	110.6	4.7			
75.0	32.0	90.9	3.9	36.8	96.3	4.2	43.4	107.3	4.4	50.3	106.5	4.7			
80.0	24.7	81.4	3.7	30.5	88.6	4.0	38.1	96.4	4.3	45.6	101.9	4.4	i		
85.0	15.8	69.2	3.0	22.7	78.4	3.8	32.0	89.1	4.2	40.6	96.4	4.3			
89.0				15.4	68.4	3.3									
90.0							24.6	79.6	4.1	34.9	89.8	4.2			
95.0							15.7	67.4	3.6	28.2	81.5	4.1			
100.0										19.5	69.9	4.1			
102.0										16.4	65.6	3.6			
102.4													35.0	80.8	2.1
103.0													35.0	80.8	2.1



 $\mbox{N}^{\rm o}$ de ident.: 9842523/95738/ Pieza de articulaci Radio de descarga: 360 $^{\circ}$ Cabeza de pluma

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de principa			gulo de orincipa			gulo de orincipa		65° Án I	gulo de orincipa	pluma I		gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ı	m Pluma	principa	I, Punto	de carga	1 - Cab	eza de p	lumín				
					Cab		lumín (1 1] Posici								
22.7	78.0	131.5	6.4												
24.0	77.1	131.3	6.4												
26.0	75.8	130.8	6.1												
28.0	74.4	130.2	5.9												
30.0	73.0	129.6	5.8												
32.0	71.6	129.0	5.6												
33.9				73.0	129.2	5.7									
34.0	70.2	128.2	5.5	72.9	129.2	5.7									
36.0	68.8	127.5	5.4	71.5	128.5	5.6									
38.0	67.3	126.6	5.2	70.1	127.8	5.5									
40.0	65.9	125.8	5.1	68.7	127.0	5.3									
42.0	64.4	124.8	5.0	67.2	126.2	5.2									
44.0	62.9	123.8	4.9	65.8	125.3	5.1									
46.0	61.4	122.7	4.8	64.3	124.4	5.0									
48.0	59.8	121.6 120.3	4.7 4.6	62.8 61.3	123.4	4.9 4.8									
50.0	58.3	120.3	4.6	61.3	122.3	4.8	05.0	400.5	4.0	ł					
51.1 55.0	54.3	116.9	4.4	57.4	119.2	4.5	65.0 62.1	123.5 121.6	4.9 4.8						
60.0	50.0	113.0	4.4	53.3	115.7	4.5	58.3	118.6	4.6	ł					
65.0	45.5	108.4	3.9	49.0	111.6	4.1	54.3	115.2	4.4						
70.0	40.6	102.9	3.7	44.4	106.8	3.9	50.0	111.3	4.2						
71.4	40.0	102.0	0.7		100.0	0.0	00.0	111.0	7.2	55.0	113.1	4.2			
75.0	35.1	96.4	3.5	39.4	101.2	3.8	45.5	106.6	4.0	52.0	110.3	4.1			
80.0	28.8	88.2	3.3	33.8	94.3	3.6	40.6	101.2	3.9	47.6	106.0	4.0			
85.0	20.7	77.1	3.1	27.1	85.6	3.4	35.1	94.6	3.7	42.9	101.0	3.9			
88.0	15.5	69.6	2.6												
90.0				18.4	73.4	3.3	28.7	86.4	3.6	37.7	95.0	3.7			
92.0				15.2	68.8	2.8									
95.0							20.6	75.3	3.5	31.8	87.6	3.7			
98.0							15.4	67.8	3.0						
100.0										24.6	78.1	3.6			
105.0										16.1	66.0	3.1			



2821-1

2821-1

N° de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de orincipa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ו	m Pluma Cab	eza de p	al, Punto Ilumín (1: n l Posici	916-1) 8	9.5 m Plı	eza de p umín	lumín		-		
23.4 24.0 26.0 28.0	78.0 77.6 76.3 74.9	134.5 134.3 133.9 133.3	5.6 5.6 5.5 5.3			40.0 [11	T T COICE		(1010)						
30.0 32.0 34.0 34.8	73.6 72.2 70.9	132.7 132.1 131.4	5.1 5.0 4.8	73.0	132.1	5.0									
36.0 38.0 40.0 42.0	69.5 68.1 66.7 65.3	130.7 129.9 129.0 128.1	4.7 4.6 4.4 4.3	72.2 70.8 69.4 68.0	131.7 131.0 130.3 129.5	5.0 4.8 4.7 4.6									
44.0 46.0 48.0 50.0	63.9 62.4 61.0 59.5	127.2 126.1 125.0 123.9	4.2 4.1 4.0 3.9	66.6 65.2 63.8 62.3	128.6 127.7 126.7 125.7	4.5 4.3 4.2 4.1									
52.4 55.0 60.0 65.0	55.7 51.6 47.4	120.6 116.9 112.5	3.7 3.5 3.4	58.6 54.8 50.7	122.8 119.5 115.6	3.9 3.7 3.5	65.0 63.1 59.5 55.6	126.2 125.0 122.2 118.9	4.2 4.2 3.9 3.7						
70.0 73.1 75.0 80.0 85.0	42.8 37.8 32.1 25.4	107.5 101.5 94.2 84.9	3.2 3.0 2.8 2.7	46.4 41.7 36.6 30.7	111.1 105.8 99.6 91.9	3.3 3.2 3.0 2.9	51.6 47.4 42.8 37.8	115.2 110.8 105.7 99.7	3.6 3.4 3.3 3.1	55.0 53.5 49.3 44.9	115.5 114.1 110.1 105.3	3.5 3.5 3.4 3.2			
90.0 91.0 94.0 95.0	16.1 15.2	71.4 70.0	2.5 2.1	23.6	82.0 70.5	2.8	32.1	99.7	3.0	40.1	99.8	3.1			
100.0 101.0 105.0 108.0							16.1 15.2	69.6 68.2	2.8	28.6 20.8 15.8	73.8 66.4	3.0 2.9 2.5			



N° de ident.: 9842523/95738/ Pieza de ar

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0 ו	m Pluma Cab	eza de p	ıl, Punto lumín (1 ı] Posici	916-1) 9:	2.5 m Pl	eza de p umín	lumín		-		
24.0	78.0	137.4	5.0												
26.0	76.7	136.9	4.9												
28.0	75.4	136.4	4.7												
30.0	74.1	135.9	4.6												
32.0	72.8	135.3	4.4												
34.0	71.5	134.6	4.3												
35.6				73.0	135.0	4.4									
36.0	70.2	133.9	4.2	72.8	134.8	4.4									
38.0	68.9	133.1	4.1	71.4	134.2	4.3									
40.0	67.5	132.3	3.9	70.1	133.5	4.2									
42.0	66.2	131.4	3.8	68.8	132.7	4.1									
44.0	64.8	130.5	3.7	67.4	131.9	3.9									
46.0	63.4	129.5	3.6	66.1	131.0	3.8									
48.0	62.0	128.5	3.5	64.7	130.1	3.7									
50.0	60.6	127.4	3.4	63.3	129.1	3.6									
53.7							65.0	129.0	3.6						
55.0	56.9	124.3	3.2	59.8	126.3	3.4	64.1	128.3	3.6						
60.0	53.1	120.7	3.0	56.1	123.1	3.2	60.6	125.6	3.4						
65.0	49.1	116.6	2.9	52.2	119.4	3.0	56.9	122.5	3.2						
70.0	44.8	111.8	2.7	48.2	115.2	2.9	53.1	119.0	3.1						
74.8										55.0	118.0	3.0			
75.0	40.2	106.3	2.6	43.8	110.3	2.7	49.1	114.9	2.9	54.8	117.9	3.0			
80.0	35.0	99.7	2.4	39.1	104.5	2.6	44.8	110.1	2.8	50.9	114.0	2.9			
85.0				33.8	97.6	2.5	40.1	104.6	2.7	46.8	109.6	2.8			
90.0				27.6	89.0	2.3	35.0	97.9	2.6	42.3	104.4	2.6			
95.0							29.1	89.8	2.4	37.4	98.3	2.6			
100.0							21.7	79.1	2.3	31.9	90.9	2.5			
105.0										25.3	81.6	2.4			
110.0										16.4	68.1	2.3			



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				44.0	m Pluma Cab	eza de p	ıl, Punto lumín (19 1] Posici	916-1) 9	5.5 m Plı		lumín		_		
24.6	78.0	140.4	4.6												
26.0	77.1	140.0	4.6												
28.0	75.9	139.5	4.4												
30.0	74.7	139.0 138.4	4.3 4.2												
32.0 34.0	73.4 72.1	138.4	4.2												
36.0	70.9	137.6	3.9												
36.5	70.5	137.1	3.9	73.0	137.8	4.0									
38.0	69.6	136.4	3.8	72.1	137.4	4.0							i		
40.0	68.3	135.6	3.7	70.8	136.7	3.9									
42.0	67.0	134.7	3.6	69.5	135.9	3.8									
44.0	65.6	133.8	3.5	68.2	135.1	3.7									
46.0	64.3	132.9	3.4	66.9	134.3	3.6									
48.0	63.0	131.9	3.3	65.6	133.4	3.5									
50.0	61.6	130.8	3.2	64.2	132.4	3.4									
55.0	58.1	127.8	3.0	60.8	129.8	3.2	65.0	131.7	3.3						
60.0	54.5	124.4	2.7	57.3	126.7	2.9	61.6	129.1	3.2						
65.0	50.6	120.5	2.6	53.6	123.2	2.7	58.1	126.1	3.0						
70.0	46.6	116.1	2.3	49.8	119.2	2.5	54.4	122.7	2.8						
75.0 76.5							50.6	118.8	2.6	55.0	120.5	2.7			
76.5 80.0							46.6	114.3	2.4	55.0 52.4	120.5	2.7			
85.0							40.0	114.3	2.4	48.5	117.9	2.6			



2821-1

2821-1

 N° de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 $^{\circ}$ Cabeza de pluma principal:

		gulo de orincipal			gulo de orincipa		75° Án	gulo de principa	pluma I		gulo de principa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 r		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 3	8.5 m Pli	eza de p umín	lumín				
12.8	78.0	87.6	53.3												
13.0	77.7	87.5	53.3												
14.0	76.2	87.3	51.8												
16.0	73.1	86.7	44.3												
18.0	69.9	86.0	38.1												
20.0	66.7	85.2	33.0	70.0	00.0	45.4									
20.2 22.0	63.4	84.2	28.7	73.0 70.1	86.3 85.7	45.1 43.2									
24.0	60.0	83.1	25.7	66.9	84.8	39.5									
26.0	56.5	81.8	23.2	63.6	83.9	34.6									
28.0	52.8	80.4	21.2	60.2	82.8	31.3									
30.0	48.9	78.7	19.7	56.7	81.5	28.2									
31.6							65.0	82.9	28.4						
32.0	44.7	76.8	18.3	53.0	80.1	25.8	64.5	82.8	29.0						
34.0	40.3	74.5	17.1	49.2	78.4	23.8	61.1	81.7	27.4						
36.0	35.3	71.9	16.1	45.0	76.5	22.0	57.6	80.5	26.0						
38.0	29.6	68.6	15.3	40.6	74.3	20.3	54.0	79.1	24.5						
40.0	22.7	64.4	14.5	35.7	71.7	19.0	50.2	77.5	23.4						
41.0	18.2	61.6	14.1												
42.0				30.1	68.5	17.8	46.1	75.6	22.2						
44.0				23.2	64.3	16.7	41.8	73.5	21.1		70.5	47.0			
45.1				45.4	50.0	12.9	07.0	74.0	00.4	55.0	76.5 75.9	17.8 18.8			
46.0 48.0				15.4	59.3	12.9	37.0 31.6	71.0 67.9	20.1 19.3	53.5 49.7	75.9	17.9			
50.0							25.1	64.1	18.5	45.6	72.4	17.9			
52.0							16.4	58.6	17.7	40.0	12.4	17.1			
55.0							10.4	30.0	17.7	33.7	66.2	15.7			
60.0										15.0	54.7	14.0			
67.7													35.0	57.1	8.4
70.0													30.0	54.3	7.9
73.0													18.9	47.4	7.2



Nº de ident.: 9842523/95738/ Pieza de articulación de

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de principa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
	v			47.0		eza de p	al, Punto Ilumín (2 n] Posici	316-1) 4	1.5 m Pl	eza de p umín	lumín				
40.4	78.0	00.5	40.0			19.0[11	I J F USICI	l	(2310)	I	l		I	l	1
13.4 14.0	78.0	90.5 90.4	49.3 49.3												
16.0	74.3	89.9	43.3										ł		
18.0	71.4	89.2	37.3												
20.0	68.5	88.5	32.7	i											
21.1				73.0	89.2	42.4									
22.0	65.5	87.6	28.3	71.6	88.9	42.1							İ		
24.0	62.4	86.6	25.1	68.7	88.1	38.8			İ				İ		
26.0	59.2	85.4	22.8	65.7	87.2	35.0									
28.0	55.9	84.1	20.9	62.6	86.2	31.2									
30.0	52.4	82.6	19.3	59.4	85.1	28.4									
32.0	48.8	80.9	18.0	56.1	83.8	25.8									
32.9							65.0	85.6	26.7						
34.0	45.0	79.0	16.8	52.7	82.3	23.7	63.4	85.1	27.1						
36.0	40.9	76.8	15.8	49.1	80.6	22.0	60.2	84.0	25.4						
38.0	36.4	74.2	14.8	45.3	78.7	20.3	57.0	82.7	24.1						
40.0	31.3	71.2	14.1	41.2	76.6	18.8	53.6	81.3	22.8						
42.0	25.4 17.5	67.3 62.0	13.4	36.7 31.7	74.0 71.0	17.6	50.0 46.3	79.7 77.9	21.8 20.7				ł		
44.0 46.0	17.5	62.0	12.6	25.8	67.2	16.6 15.6	46.3	77.9 75.8	19.7						
46.8				25.6	07.2	15.0	42.3	/5.6	19.7	55.0	78.9	16.7			
48.0				18.2	62.1	14.5	37.9	73.3	18.8	53.0	78.1	17.6			
50.0				10.2	02.1	14.5	33.1	70.4	18.1	49.6	76.1	16.8	ĺ		
55.0				i			15.8	59.0	16.3	39.6	71.3	15.1	i		
60.0										26.7	63.4	13.9			
63.0										16.2	56.3	12.0			
70.1													35.0	58.9	7.4
75.0				I									22.3	50.7	6.4
76.0													18.2	47.9	6.2



 N° de ident.: 9842523/95738/ Pieza de articulación de p Radio de descarga: 360 $^{\circ}$ Cabeza de pluma princip

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipa		ı	gulo de orincipa	i	ı	gulo de orincipa	ľ		gulo de principa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0		eza de p	il, Punto lumín (2 n] Posici	316-1) 4	4.5 m Pl		lumín				
14.1 16.0 18.0 20.0	78.0 75.4 72.7 70.0	93.5 93.0 92.4 91.7	46.1 42.9 37.1 32.1												
21.9 22.0 24.0	67.2 64.4	90.9 89.9	28.2 24.8	73.0 72.9 70.2	92.0 92.0 91.3	40.2 40.2 38.4									
26.0 28.0 30.0	61.5 58.5 55.4	88.9 87.7 86.4	22.3 20.5 19.0	67.4 64.6 61.7	90.5 89.6 88.6	35.6 31.5 28.6									
32.0 34.0 34.2	52.2 48.8	84.9 83.2	17.7 16.7	58.7 55.6	87.4 86.1	26.0 23.8	65.0	88.3	25.8						
36.0 38.0	45.2 41.4	81.2 79.1	15.6 14.6	52.4 49.0	84.6 82.9	22.0 20.4	62.4 59.5	87.4 86.3	25.2 23.7						
40.0 42.0 44.0	37.3 32.7 27.5	76.6 73.6 70.1	13.8 13.1 12.5	45.5 41.7 37.6	81.0 78.8 76.4	19.0 17.6 16.5	56.4 53.2 49.9	85.0 83.6 81.9	22.5 21.4 20.5						
46.0 47.0 48.0	21.0 16.9	65.5 62.5	11.8 11.5	33.1 27.9	73.5	15.5 14.6	46.4	78.0	19.5						
48.5 50.0 51.0				21.5 17.6	65.5 62.5	13.7 13.3	38.7	75.6	17.8	55.0 52.8	81.4 80.4	15.8 16.6			
55.0 58.0 60.0 65.0							26.5 15.2	67.6 59.4	16.2 15.2	33.7 18.7	75.8 69.5 59.0	14.9 13.5 12.5			
66.0 72.6										15.7	56.7	11.2	35.0	60.6	6.7
75.0 79.0													30.5 17.5	57.6 48.4	6.3 5.5



2821-1

2821-1

N° de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de principa			gulo de orincipa										
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0	m Pluma Cab	eza de p	lumín (2	316-1) 4	7.5 m Plı	eza de p umín	lumín				
						25.0 [m	n] Posici	ón midfa	II (2316)						
14.7	78.0	96.4	42.5												
16.0	76.4	96.1	41.6												
18.0	73.9	95.5	36.2												
20.0	71.3 68.7	94.9 94.1	31.2 27.7												
22.0 22.8	00.7	94.1	21.1	73.0	94.9	37.4									
24.0	66.1	93.3	24.5	71.5	94.9	37.4									
26.0	63.4	92.3	21.9	68.9	93.8	34.6									
28.0	60.7	91.2	20.1	66.3	92.9	31.7									
30.0	57.9	90.0	18.6	63.6	92.0	28.4									
32.0	54.9	88.6	17.2	60.9	90.9	26.0									
34.0	51.9	87.1	16.1	58.1	89.7	23.7									
35.4							65.0	91.1	23.7						
36.0	48.7	85.4	15.2	55.2	88.3	21.7	64.3	90.8	24.3						
38.0	45.4	83.5	14.2	52.1	86.8	20.1	61.6	89.8	23.2						
40.0	41.9	81.3	13.4	49.0	85.1	18.8	58.8	88.6	22.0						
42.0	38.1	78.9	12.6	45.7	83.2	17.4	55.9	87.3	20.8						
44.0	33.9	76.1	12.0	42.1	81.1	16.2	52.9	85.8	19.8						
46.0	29.2	72.7	11.4	38.3	78.7	15.2	49.8	84.2	19.0						
48.0	23.6 16.3	68.6	10.8	34.2 29.5	75.9	14.3	46.5	82.3	18.1						
50.0 50.3	16.3	62.9	10.3	29.5	72.6	13.5	43.1	80.3	17.3	55.0	83.9	14.7			
54.0				17.0	63.0	11.9				55.0	03.9	14.7			
55.0				17.0	03.0	11.9	33.1	73.7	15.7	47.8	80.1	14.4			
60.0							19.0	63.2	14.2	38.9	74.6	13.0			
61.0							16.3	61.0	13.4	00.0					
65.0										27.7	66.8	12.0			
69.0										15.1	57.1	10.2			
75.1													35.0	62.3	5.8
80.0													24.0	54.3	5.0
82.0	1												16.9	48.8	4.6



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו	m Pluma Cab	eza de p	al, Punto Ilumín (2 n] Posici	316-1) 5	0.5 m Pl		lumín				
15.3 16.0 18.0 20.0 22.0	78.0 77.2 74.8 72.5 70.1	99.3 99.2 98.6 98.0 97.3	39.6 39.6 35.5 31.0 27.1			_									
23.7 24.0 26.0 28.0 30.0	67.6 65.1 62.6 60.0	96.5 95.6 94.6 93.5	24.3 21.8 19.9 18.4	73.0 72.6 70.2 67.8 65.3	97.8 97.7 97.0 96.2 95.3	35.4 35.3 34.3 31.8 28.8									
32.0 34.0 36.0 36.7 38.0	57.3 54.6 51.7	92.3 90.9 89.3	17.0 15.9 14.9	62.8 60.2 57.5	94.3 93.2 91.9	26.0 24.0 21.9	65.0 63.4	93.8 93.2	22.5 22.9						
40.0 42.0 44.0 46.0	45.6 42.3 38.7 34.9	85.7 83.6 81.2 78.5	13.2 12.4 11.7 11.1	51.9 48.9 45.8 42.5	89.0 87.4 85.5 83.4	18.7 17.5 16.3 15.2	60.8 58.2 55.5 52.6	92.1 90.9 89.5 88.1	21.7 20.7 19.5 18.6						
48.0 50.0 52.0 53.0 55.0 57.0	30.6 25.7 15.8	75.3 71.5 63.3	10.6 10.1 9.3	39.0 35.2 23.3 16.4	81.0 78.3 69.1 63.4	14.2 13.4 11.6 10.9	49.7 46.6 38.1	86.4 84.6 79.0	17.9 17.0	55.0 50.8	86.3 84.1	13.8			
60.0 64.0 65.0 70.0 71.0				16.4	03.4	10.9	27.4 15.7	71.0 61.4	14.0 12.4	43.0 33.7 21.1 17.5	79.3 72.8 62.9 59.9	12.8 11.7 10.8 10.5			
77.5 80.0 85.0													35.0 30.9 16.4	64.0 61.0 49.2	5.1 4.7 3.9



N° de ident.: 9842523/95738/ Pi

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de principa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו		eza de p	al, Punto dumín (2 n] Posici	316-1) 5	3.5 m Pl		lumín				
15.9 16.0 18.0 20.0 22.0	78.0 77.9 75.7 73.5 71.2	102.3 102.2 101.8 101.2 100.5	35.8 35.8 34.4 30.5 26.3												
24.0 24.6 26.0 28.0 30.0	68.9 66.6 64.3 61.8	99.8 98.9 98.0 97.0	23.5 21.2 19.4 17.9	73.0 71.4 69.1 66.8	100.6 100.2 99.4 98.6	32.2 31.9 30.4 28.8									
32.0 34.0 36.0 38.0 40.0	59.4 56.8 54.2 51.5 48.7	95.8 94.5 93.1 91.6 89.9	16.6 15.4 14.4 13.6 12.8	64.4 62.0 59.5 57.0 54.4	97.7 96.6 95.5 94.2 92.8	25.9 23.7 21.9 20.0 18.5	65.0 62.6	96.5 95.5	21.6 21.2						
42.0 44.0 46.0 48.0 50.0	45.7 42.6 39.3 35.8 31.8	88.0 85.9 83.5 80.9 77.8	12.0 11.3 10.7 10.1 9.7	51.7 48.9 45.9 42.9 39.6	91.3 89.6 87.7 85.6 83.3	17.2 16.1 15.0 14.0 13.1	60.2 57.7 55.1 52.4 49.6	94.4 93.2 91.8 90.3 88.6	20.0 19.1 18.1 17.3 16.6						
53.7 55.0 56.0 60.0 65.0	19.1 15.4	67.0 63.7	8.5 8.3	30.0 15.9	75.9 63.8	9.7	42.1 33.2 21.2	83.7 77.1 67.1	14.8 13.5 12.4	55.0 53.4 46.4 38.3	88.8 87.9 83.6 78.0	13.0 13.7 12.4 11.3			
67.0 70.0 74.0 80.0 85.0 88.0							15.3	61.8	11.3	28.4 17.0	70.2 60.4	10.4 9.4	35.0 25.3 15.9	65.7 57.9 49.6	4.2 3.5 3.0



N° de ident.: 9842523/95738/ Pi

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de principa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0	m Pluma Cab	eza de p	il, Punto lumín (2 n] Posici	316-1) 5	6.5 m Pl	eza de p umín	lumín				
16.5 18.0 20.0 22.0 24.0 25.5	78.0 76.5 74.4 72.3 70.1	105.2 104.9 104.3 103.7 103.0	32.9 32.8 29.7 26.2 23.0	73.0	103.5	29.8									
26.0 28.0 30.0 32.0 34.0	67.9 65.7 63.5 61.2 58.8	102.2 101.3 100.4 99.3 98.1	20.8 19.0 17.6 16.5 15.3	72.4 70.3 68.1 65.9 63.6	103.3 102.6 101.9 101.0 100.0	29.7 29.0 28.2 26.3 23.8									
36.0 38.0 39.2 40.0	56.4 53.9 51.3	96.8 95.4 93.8	13.3 14.3 13.3	61.3 59.0 56.6	99.0 97.8 96.5	22.1 20.3	65.0 64.2	99.2 98.9	20.1 20.5						
42.0 44.0 46.0 48.0 50.0	48.7 45.9 42.9 39.8 36.5	92.1 90.2 88.1 85.8 83.2	11.9 11.2 10.5 9.9 9.4	54.1 51.5 48.8 46.1 43.2	95.1 93.5 91.8 90.0 87.9	17.2 16.1 15.0 14.1 13.2	61.9 59.6 57.2 54.7 52.2	97.8 96.7 95.4 94.1 92.5	19.9 18.8 18.0 17.0 16.3						
55.0 55.4 59.0 60.0 63.0	26.7	74.9 65.3	8.4	35.0 24.6 15.5	81.6 72.7 64.2	9.8 8.9	45.4 37.6	88.1	14.7	55.0 49.2	91.2 87.7	12.3			
65.0 69.0 70.0 75.0 77.0				.3.0		3.0	28.1 17.4	74.4 64.6	12.2 11.3	42.0 33.7 22.7 15.4	82.7 76.1 66.6 59.7	11.0 10.2 9.1 8.6			
82.4 85.0 90.0 91.0										-			35.0 31.2 19.0 15.4	67.5 64.3 53.4 50.0	3.8 3.4 2.7 2.6



N° de ident.: 9842523/95738/ Pieza de ar

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipa		83° Án I	gulo de orincipa	pluma I		gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0		eza de p	al, Punto Jumín (2 n] Posici	316-1) 5	9.5 m Pl		lumín				
17.2	78.0	108.1	30.0												
18.0	77.2	107.9	30.0												
20.0	75.2	107.4	28.3							<u> </u>					
22.0	73.2	106.8	25.7												
24.0	71.2	106.2	22.5												
26.0	69.1	105.4	20.3												
26.3				73.0	106.4	27.2									
28.0	67.0	104.6	18.5	71.3	105.8	27.0									
30.0	64.9	103.7	17.1	69.3	105.1	26.3									
32.0	62.7	102.7	15.9	67.2	104.3	25.8									
34.0 36.0	60.5 58.3	101.6 100.4	14.9 13.8	65.1 62.9	103.4 102.4	23.5 21.6									
38.0	58.3 56.0	99.1	13.8	62.9	102.4	20.1									
40.0	53.6	97.6	12.9	58.5	101.3	18.5									
40.5	33.0	37.0	12.1	30.3	100.1	10.5	65.0	101.9	18.9						
42.0	51.2	96.1	11.4	56.2	98.8	17.0	63.5	101.2	19.2						
44.0	48.6	94.3	10.8	53.8	97.3	15.7	61.3	100.2	18.2						
46.0	46.0	92.5	10.2	51.3	95.8	14.7	59.0	99.0	17.4	i			i		
48.0	43.2	90.4	9.6	48.8	94.1	13.8	56.7	97.7	16.6	i			i		
50.0	40.3	88.1	9.0	46.2	92.2	12.9	54.4	96.3	15.8						
55.0	32.0	81.1	7.9	39.0	86.7	11.0	48.2	92.2	14.2						
57.1										55.0	93.7	11.5			
60.0	21.0	70.9	7.0	30.4	79.3	9.5	41.3	87.1	12.8	51.7	91.6	11.7			
62.0	15.8	65.7	6.0												
65.0				18.5	68.0	8.2	33.2	80.4	11.7	45.2	87.1	10.7			
66.0				15.1	64.6	7.9									
70.0							22.7	70.8	10.7	37.8	81.3	9.7			
72.0							16.9	65.0	10.3						
75.0										29.0	73.6	8.8			
80.0				-						16.1	61.2	7.6	25.0	00.0	0.0
84.9													35.0	69.2	3.0
85.0 90.0				l									34.8 26.3	69.0 61.3	3.0 2.3
90.0 92.0				l									20.3	56.7	2.3
32.0													41.4	30.7	4.1



Nº de ident.: 9842523/95738/ Radio de descarga:

360°

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

2 - Vía ancha Valor de vuelco:

Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de principal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו	m Pluma Cab	eza de p	al, Punto dumín (2: n] Posici	316-1) 6	2.5 m Pl	eza de p umín	lumín				
17.8	78.0	111.1	27.9												
18.0	77.8	111.0	27.9												
20.0	75.9	110.5	27.6												
22.0	74.0	110.0	25.0												
24.0	72.1	109.4	22.3												
26.0	70.2	108.7	20.0												
27.2				73.0	109.3	25.5									
28.0	68.2	107.9	18.3	72.2	109.0	25.4									
30.0	66.2	107.0	16.8	70.3	108.3	25.0									
32.0	64.2	106.1	15.6	68.3	107.5	24.5									
34.0	62.1	105.0	14.6	66.3	106.7	23.5									
36.0	60.0	103.9	13.6	64.3	105.7	21.5									
38.0	57.8	102.7	12.7	62.2	104.7	20.0				•			<u> </u>		
40.0	55.6	101.3	11.9	60.1	103.6	18.7									
41.8							65.0	104.7	18.3						
42.0	53.4	99.9	11.2	58.0	102.4	17.2	64.8	104.6	18.3						
44.0	51.0	98.3	10.5	55.8	101.0	15.8	62.8	103.6	18.0						
46.0	48.6	96.6	10.0	53.5	99.6	14.7	60.7	102.5	17.1						
48.0	46.1	94.7	9.4	51.2	98.0	13.8	58.5	101.3	16.3						
50.0	43.5	92.6	8.8	48.8	96.3	12.9	56.4	100.0	15.6						
55.0	36.2	86.6	7.7	42.3	91.3	10.9	50.6	96.2	14.0						
58.9										55.0	96.1	10.8			
60.0	27.4	78.3	6.8	34.9	84.9	9.4	44.3	91.5	12.6	53.8	95.4	11.3			
65.0	15.4	66.1	5.4	25.6	76.2	8.2	37.2	85.6	11.4	47.9	91.3	10.4			
69.0				15.9	66.2	6.5									
70.0							28.7	77.8	10.5	41.3	86.1	9.5			
75.0							16.5	65.5	9.6	33.7	79.4	8.5			
80.0										24.0	70.2	7.4			
83.0										16.8	62.8	6.7			
87.3													35.0	70.9	2.3



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı	m Pluma	principa	I, Punto	de carga	1 - Cab	eza de p	lumín				
					Cab		lumín (2: 1] Posici			umin					
18.4	78.0	114.0	25.2												
20.0	76.6	113.6	25.1												
22.0	74.8	113.1	23.7												
24.0	72.9	112.5	22.0												
26.0	71.1	111.8	19.7												
28.0	69.2	111.1	18.0												
28.1				73.0	112.1	23.1									
30.0	67.3	110.3	16.5	71.2	111.5	22.8									
32.0	65.4	109.4	15.3	69.4	110.8	22.3									
34.0	63.5	108.4	14.2	67.5	109.9	21.9									
36.0	61.5	107.4	13.3	65.6	109.1	20.6									
38.0	59.5	106.2	12.4	63.6	108.1	19.4									
40.0	57.4	104.9	11.6	61.6	107.0	18.4									
42.0	55.3	103.6	10.9	59.6	105.9	17.2									
43.0							65.0	107.4	16.8						
44.0	53.1	102.1	10.2	57.6	104.6	15.9	64.1	106.9	17.2						
46.0	50.9	100.5	9.7	55.5	103.3	14.6	62.2	105.9	16.8						
48.0	48.6	98.8	9.1	53.3	101.8	13.6	60.1	104.8	15.9						
50.0	46.2	96.9	8.6	51.1	100.2	12.7	58.1	103.6	15.2						
55.0	39.7	91.5	7.4	45.1	95.7	10.8	52.7	100.1	13.6						
60.0	32.2	84.5	6.5	38.5	90.0	9.2	47.0	95.8	12.3						
60.6										55.0	98.6	10.2			
65.0	22.5	74.6	5.7	30.7	82.6	8.0	40.6	90.5	11.1	50.2	95.3	10.1			
68.0	15.0	66.5	4.7												
70.0				20.4	71.9	6.9	33.2	83.7	10.2	44.2	90.5	9.2			
72.0				15.5	66.6	5.8									
75.0							23.9	74.3	9.3	37.5	84.7	8.1			
78.0							16.1	65.9	8.8						
80.0										28.9	76.5	7.0			
85.0										19.3	66.4	6.1			
86.0										16.4	63.2	5.9			



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 6	8.5 m Pl	eza de p umín	lumín				
19.0	78.0	116.9	23.0												
20.0	77.2	116.7	23.0												
22.0	75.5	116.2	22.4												
24.0	73.7	115.6	21.4												
26.0	72.0	115.0	19.4												
28.0	70.2	114.3	17.7												
29.0				73.0	115.0	21.0									
30.0	68.4	113.5	16.4	72.1	114.7	20.9									
32.0	66.6	112.7	15.1	70.3	114.0	20.7									
34.0 36.0	64.7 62.9	111.8 110.8	14.0 13.1	68.5 66.7	113.2 112.3	20.1 19.6									
38.0	61.0	10.8	12.3	64.9	111.3	18.7									
40.0	59.0	109.7	11.5	63.0	110.4	17.9									
42.0	57.0	100.3	10.7	61.1	109.3	17.3									
44.0	55.0	105.8	10.0	59.2	108.2	16.1									
44.3	00.0	100.0	10.0	00.2	100.2	10.1	65.0	110.1	15.9						
46.0	52.9	104.4	9.4	57.2	106.9	14.8	63.5	109.3	16.4						
48.0	50.8	102.8	8.9	55.2	105.5	13.7	61.6	108.2	15.7				i		
50.0	48.6	101.0	8.4	53.1	104.1	12.7	59.7	107.1	14.9				İ		
55.0	42.7	96.1	7.3	47.6	99.9	10.8	54.6	103.8	13.3						
60.0	36.0	89.9	6.3	41.6	94.7	9.2	49.3	99.8	12.1						
62.3										55.0	101.1	9.6			
65.0	28.0	81.7	5.6	34.8	88.2	7.9	43.5	95.0	10.9	52.3	99.1	9.9			
70.0	16.8	69.3	4.8	26.4	79.6	6.9	36.9	89.0	9.9	46.8	94.8	8.9			
75.0				15.1	67.0	5.3	29.2	81.2	9.1	40.7	89.5	7.9			
80.0							18.6	69.6	8.4	33.3	82.4	6.8			
81.0							15.7	66.3	8.2						
85.0										25.6	74.4	5.9			
89.0										16.0	63.6	5.2			



N° de ident.: 9842523/95738/ P

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

	88° Án	gulo de orincipa	pluma I	83° Án	gulo de orincipa	pluma I		gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
	V			47.0 ı		eza de p	II, Punto Ilumín (2 I Posici	316-1) 7	1.5 m Pli	eza de p umín	lumín		_		
L						37.0[11	i j Fusici	I	11 (2310)						
19.7	78.0 77.7	119.9 119.8	21.0 21.0												
20.0 22.0	76.1	119.8	20.7												
24.0	74.4	118.8	19.9												
26.0	72.7	118.2	18.7												
28.0	71.1	117.5	17.0												
29.8	''	117.5	17.0	73.0	117.9	19.4									
30.0	69.3	116.8	15.7	72.9	117.8	19.3									
32.0	67.6	116.0	14.5	71.2	117.1	19.1							i		
34.0	65.9	115.1	13.4	69.5	116.4	18.7							İ		
36.0	64.1	114.1	12.5	67.7	115.6	18.4									
38.0	62.3	113.1	11.7	66.0	114.7	17.7									
40.0	60.5	112.0	11.0	64.2	113.8	17.1									
42.0	58.6	110.8	10.2	62.4	112.8	16.5									
44.0	56.7	109.5	9.6	60.6	111.7	15.9									
45.6							65.0	112.8	15.3						
46.0	54.7	108.1	9.0	58.7	110.5	14.7	64.7	112.6	15.3						
48.0	52.7	106.6	8.4	56.8	109.2	13.5	62.9	111.6	15.1						
50.0	50.7	105.0	8.0	54.9	107.8	12.4	61.1	110.6	14.4						
55.0	45.2	100.4	6.9	49.8	103.9	10.5	56.3	107.5	12.9						
60.0	39.2	94.8	5.9	44.3	99.1	8.9	51.4	103.7	11.5		400 5				
64.0	32.3	87.8	5.1	38.1	93.3	7.5	46.0	99.3	10.4	55.0	103.5 102.9	9.0 9.2			
65.0 70.0	23.6	78.2	4.5	38.1	93.3 86.0	6.5	46.0 40.1	99.3	9.4	54.1 49.0	98.9	9.2 8.5			
73.0	16.4	69.7	4.5	31.0	00.0	0.0	40.1	93.0	9.4	49.0	90.9	0.0			
75.0	10.4	09.7	4.1	21.8	75.7	5.6	33.3	87.0	8.7	43.4	94.0	7.6			
77.0				16.8	69.8	5.2	55.5	07.0	0.1	75.7	34.0	7.0			
80.0				10.0	00.0	0.2	24.9	77.9	7.9	36.8	87.7	6.5			
84.0							15.4	66.7	7.3	00.0	0	0.0			
85.0										30.3	80.9	5.5			
90.0										20.9	70.2	4.7			
92.0										15.7	64.0	4.3			



N° de ident.: 9842523/95738/ Pieza de

Radio de descarga: $$360\ ^{\circ}$$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 7	4.5 m Pli	eza de p umín	lumín				
20.3 22.0 24.0 26.0 28.0	78.0 76.7 75.1 73.5 71.8	122.8 122.4 121.9 121.3 120.7	19.7 19.6 18.9 18.3 16.7												
30.0 30.7 32.0 34.0 36.0	70.2 68.6 66.9 65.2	120.0 119.2 118.4 117.5	15.4 14.4 13.2 12.3	73.0 72.0 70.3 68.7	120.7 120.3 119.6 118.8	18.3 18.2 17.9 17.6									
38.0 40.0 42.0 44.0 46.0	63.5 61.8 60.0 58.2 56.4	116.5 115.4 114.3 113.1 111.8	11.4 10.7 10.1 9.4 8.8	67.0 65.3 63.6 61.9 60.1	118.0 117.1 116.1 115.1 114.0	17.3 16.6 16.0 15.5 14.8									
46.9 48.0 50.0 55.0 60.0	54.5 52.6 47.5 42.0	110.4 108.9 104.6 99.5	8.2 7.7 6.7 5.7	58.3 56.5 51.7 46.6	112.8 111.5 107.8 103.4	13.6 12.5 10.4 8.8	65.0 64.1 62.3 57.9 53.2	115.5 115.0 114.0 111.1 107.6	14.5 14.5 14.2 12.7 11.3						
65.0 65.7 70.0 75.0 76.0	35.8 28.5 18.7 16.1	93.2 85.1 73.4 70.2	4.9 4.3 3.7 3.6	41.0 34.7 27.1	98.1 91.6 83.0	7.5 6.4 5.5	48.2 42.7 36.7	98.4 92.3	9.2 8.4	55.0 51.0 45.6	106.0 102.8 98.1	8.4 8.3 7.3			
80.0 85.0 87.0 90.0 95.0				16.5	70.3	4.6	29.5 20.3 15.1	84.5 73.5 67.1	7.7 7.0 6.7	39.9 34.1 26.4 15.3	92.6 86.6 77.8 64.4	6.2 5.3 4.4 3.6			



Nº de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipal			gulo de orincipa		75° Án I	gulo de orincipa	pluma I	65° Án	gulo de orincipa	pluma I		gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו	m Pluma Cab	eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 7	7.5 m Plı	eza de p umín	lumín				
20.9	78.0	125.7	18.0												
22.0	77.2	125.5	18.0												
24.0	75.7	125.0	17.5												
26.0	74.1	124.4	17.0												
28.0	72.6	123.8	16.0												
30.0	71.0	123.2	14.8												
31.6				73.0	123.6	16.7									
32.0	69.4	122.4	13.9	72.7	123.5	16.6									
34.0	67.8	121.6	12.9	71.1	122.8	16.5									
36.0	66.2	120.8	11.9	69.5	122.1	16.2									
38.0	64.6 62.9	119.8	11.1	68.0	121.3 120.4	15.9									
40.0 42.0	61.3	118.8 117.7	10.4 9.8	66.3 64.7	120.4	15.5 15.0									
44.0	59.6	117.7	9.6	63.1	118.5	14.7									
46.0	57.8	115.4	8.5	61.4	117.4	14.7									
48.0	56.1	114.0	7.9	59.7	116.3	13.5									
48.1	30.1	114.0	1.5	55.1	110.5	15.5	65.0	118.3	13.3						
50.0	54.2	112.6	7.4	57.9	115.0	12.5	63.5	117.4	13.6						
55.0	49.5	108.6	6.4	53.5	111.6	10.3	59.3	114.6	12.3						
60.0	44.4	103.9	5.5	48.7	107.5	8.7	54.8	111.3	11.0						
65.0	38.8	98.2	4.7	43.5	102.6	7.3	50.1	107.4	9.9						
67.5										55.0	108.4	7.8			
70.0	32.4	91.1	4.0	37.8	96.7	6.2	45.1	102.8	9.0	52.8	106.6	8.0			
75.0	24.5	81.7	3.5	31.2	89.3	5.3	39.6	97.2	8.1	47.8	102.3	6.9			
79.0	15.8	70.6	3.0												
80.0				22.9	79.3	4.5	33.3	90.3	7.4	43.1	97.8	5.9			
83.0				16.2	70.7	4.0									
85.0							25.7	81.3	6.8	37.3	91.8	4.9			
90.0							15.7	68.7	5.6	30.6	84.2	4.1			
95.0										22.1	73.9	3.3			
98.0										15.0	64.8	2.8			



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı		eza de p	lumín (2	de carga 316-1) 8 ón midfa	0.5 m Pli	eza de p umín	lumín				
21.5	78.0	128.7	16.7												
22.0	77.7	128.6	16.7												
24.0	76.2	128.1	16.3												
26.0	74.7	127.6	15.8												
28.0	73.2	127.0	15.3												
30.0	71.7	126.3	14.3												
32.0	70.2	125.6	13.4	70.0	400 5	45.4									
32.5	68.7	404.0	12.8	73.0 71.9	126.5 126.0	15.4 15.3									
34.0 36.0	67.2	124.9 124.0	12.8	71.9	125.3	15.3									
38.0	65.6	123.1	10.9	68.8	125.5	14.8									
40.0	64.0	123.1	10.9	67.3	124.5	14.5									
42.0	62.4	121.2	9.5	65.7	123.7	14.2									
44.0	60.8	120.1	8.9	64.2	121.9	13.9									
46.0	59.2	118.9	8.3	62.6	120.8	13.6									
48.0	57.5	117.6	7.8	60.9	119.7	13.4									
49.4							65.0	121.0	13.0						
50.0	55.8	116.3	7.2	59.3	118.6	12.5	64.6	120.7	13.0						
55.0	51.3	112.6	6.2	55.0	115.3	10.2	60.5	118.1	12.0						
60.0	46.6	108.1	5.3	50.5	111.4	8.6	56.3	114.9	10.8						
65.0	41.4	102.9	4.5	45.7	106.9	7.3	51.9	111.3	9.7						
69.2										55.0	110.9	7.4			
70.0	35.6	96.5	3.8	40.5	101.5	6.1	47.2	107.0	8.8	54.4	110.4	7.6			
75.0	28.9	88.5	3.3	34.6	94.9	5.2	42.1	101.8	7.9	49.7	106.3	6.8			
80.0	20.2	77.3	2.7	27.6	86.5	4.4	36.4	95.6	7.2	45.3	102.1	5.7			
82.0	15.5	71.0	2.5	40.0	74.4	0.7	00.0	07.0	0.0	40.0	00.0	4.0			
85.0 86.0				18.3 15.8	74.4 71.1	3.7 3.5	29.9	87.9	6.6	40.0	96.6	4.8			
90.0				15.8	7 1.1	ა.5	21.5	77.3	6.0	34.1	89.9	3.9			
93.0							15.4	69.1	5.1	34.1	09.9	3.9			
95.0							13.4	09.1	J. I	27.0	81.3	3.2			
100.0										17.4	68.8	2.5			



N° de ident.: 9842523/95738/ Pieza de

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı			ıl, Punto lumín (2:			eza de p	lumín				
					Oab		Posici								
22.2	78.0	131.6	14.7												
24.0	76.7	131.2	14.6												
26.0	75.3	130.7	14.2												
28.0	73.9	130.1	13.9												
30.0	72.4	129.5	13.2												
32.0	71.0	128.8	12.4												
33.4				73.0	129.3	13.7									
34.0	69.5	128.1	11.8	72.5	129.1	13.7									
36.0	68.0	127.3	11.1	71.1	128.5	13.5									
38.0	66.5	126.4	10.2	69.6	127.7	13.3									
40.0	65.0 63.5	125.5 124.5	9.5 8.8	68.1 66.6	126.9 126.1	13.1 12.8									
42.0 44.0	61.9	124.5	8.8	65.1	125.1	12.8									
46.0	60.3	123.3	7.8	63.6	123.2	12.3									
48.0	58.7	121.1	7.0	62.0	123.1	12.2									
50.0	57.1	119.8	6.7	60.4	122.0	11.7									
50.7	07.1	110.0	0.7	00.4	122.0		65.0	123.7	11.9						
55.0	52.8	116.3	5.7	56.4	118.9	9.7	61.6	121.5	11.4						
60.0	48.4	112.1	4.8	52.1	115.2	8.1	57.6	118.5	10.2						
65.0	43.5	107.2	4.1	47.6	110.9	6.9	53.4	115.0	9.1						
70.0	38.2	101.3	3.4	42.7	105.8	5.7	49.0	110.9	8.3						
70.9										55.0	113.3	6.8			
75.0	32.2	94.0	2.9	37.2	99.7	4.8	44.2	106.0	7.4	51.5	110.2	6.4			
80.0	24.8	84.6	2.4	31.0	92.2	4.0	38.9	100.3	6.7	47.3	106.3	5.4			
85.0				23.4	82.3	3.3	33.0	93.3	6.1	42.4	101.2	4.4			
89.0				16.4	72.7	2.7									
90.0							25.9	84.2	5.5	37.0	95.1	3.6			
95.0							16.1	70.9	4.8	30.8	87.6	2.8			
96.0							15.1	69.5	4.4						
100.0										23.1	77.6	2.1			
101.0										21.3	75.1	2.0			



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de principa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 8	6.5 m Pli	eza de p umín	lumín				
22.8	78.0	134.5	13.7												
24.0	77.2	134.3	13.7												
26.0	75.8	133.8	13.4												
28.0	74.5	133.2	13.1												
30.0	73.1	132.6	12.7												
32.0	71.7	132.0	12.0												
34.0	70.3	131.3	11.4												
34.2				73.0	132.2	12.9									
36.0	68.8	130.5	10.9	71.8	131.6	12.8									
38.0	67.4	129.7	10.1	70.4	130.9	12.6									
40.0	65.9	128.8	9.3	68.9	130.2	12.4									
42.0	64.5	127.9	8.7	67.5	129.3	12.2									
44.0	63.0	126.9	8.1	66.0	128.5	11.9									
46.0	61.5	125.8	7.6	64.6	127.5	11.6									
48.0	59.9	124.6	7.1	63.1	126.5	11.4									
50.0	58.4	123.4	6.6	61.6	125.5	11.2	05.0	126.4	11.3						
51.9 55.0	54.4	120.0	5.5	57.7	122.5	9.6	65.0 62.7	126.4 124.9	11.3						
60.0	50.1	116.1	4.7	53.6	119.0	8.0	58.9	124.9	9.9						
65.0	45.6	111.5	3.9	49.4	114.9	6.8	54.9	118.7	8.9						
70.0	40.7	106.0	3.2	44.8	110.2	5.7	50.7	114.8	8.0						
70.6	40.7	100.0	5.2	44.0	110.2	5.1	30.7	114.0	0.0	55.0	115.8	6.3			
75.0	35.2	99.5	2.7	39.8	104.6	4.7	46.2	110.3	7.2	53.0	114.0	6.1			
80.0	28.9	91.4	2.2	34.2	97.8	3.9	41.4	105.0	6.5	49.1	110.3	5.1			
85.0		"		27.7	89.3	3.2	36.0	98.6	5.9	44.6	105.6	4.2			
90.0				19.2	77.5	2.6	29.8	90.8	5.3	39.6	100.0	3.3			
92.0				16.1	73.1	2.2		00.0	0.0	00.0		0.0			
95.0				. 3			22.1	80.2	4.6	34.0	93.2	2.6			
98.0							15.8	71.3	4.1						
99.0										28.9	86.6	2.0			



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de orincipa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı			ıl, Punto lumín (2:			eza de p	lumín				
					Oub] Posici								
23.5	78.0	137.5	12.4												
24.0	77.6	137.4	12.4												
26.0	76.3	136.9	12.3							•					
28.0	75.0	136.4	12.0												
30.0	73.7	135.8	11.8												
32.0	72.3	135.1	11.3												
34.0	70.9	134.5	10.7												
35.1				73.0	135.1	11.7									
36.0	69.6	133.7	10.3	72.4	134.8	11.6									
38.0	68.2	132.9	9.8	71.0	134.1	11.5									
40.0	66.8	132.1	9.0	69.7	133.4	11.3									
42.0	65.4	131.2	8.4	68.3	132.6	11.1									
44.0 46.0	64.0 62.5	130.2 129.2	7.8 7.2	66.9 65.5	131.8 130.8	10.9 10.6				ł					
48.0	61.0	129.2	6.8	64.1	129.9	10.6									
50.0	59.6	126.1	6.3	62.6	128.9	10.3									
53.2	39.0	120.9	0.5	02.0	120.9	10.1	65.0	129.1	10.2	i					
55.0	55.7	123.7	5.2	58.9	126.0	9.1	63.7	128.2	10.2	i					
60.0	51.7	120.0	4.4	55.1	122.7	7.7	60.0	125.5	9.5	i			i		
65.0	47.5	115.6	3.6	51.0	118.9	6.6	56.2	122.4	8.6						
70.0	42.9	110.6	3.0	46.7	114.4	5.5	52.3	118.7	7.7						
74.3										55.0	118.3	5.8	i		
75.0	37.9	104.6	2.4	42.1	109.2	4.5	48.0	114.4	7.0	54.5	117.8	5.7	İ		
80.0				37.0	103.1	3.7	43.5	109.5	6.3	50.8	114.3	4.7			
85.0				31.2	95.5	3.0	38.6	103.6	5.6	46.5	109.8	3.8			
90.0				24.2	85.8	2.4	33.0	96.6	5.1	41.9	104.6	3.0			
95.0							26.5	87.7	4.3	36.8	98.4	2.2			
96.0										35.7	97.0	2.1			
100.0							19.1	77.0	3.5						
101.0							17.0	73.9	3.4						



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de orincipa			gulo de orincipa			gulo de orincipa		65° Án	gulo de orincipa	pluma	45° Án	gulo de orincipa	pluma I
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0		eza de p	ıl, Punto ılumín (2: ı] Posici	316-1) 9:	2.5 m Pl	eza de p umín	lumín				
24.1	78.0	140.4	11.4												
26.0	76.8	140.0	11.4												
28.0	75.5	139.5	11.2												
30.0	74.2	138.9	11.0												
32.0	72.9	138.3	10.6												
34.0	71.6	137.6	10.2												
36.0	70.3	136.9	9.8	73.0	137.9	10.7									
38.0	68.9	136.2	9.6	71.7	137.3	10.7									
40.0 42.0	67.6 66.2	135.4 134.5	8.9 8.2	70.4 69.0	136.6 135.8	10.5 10.2									
44.0	64.9	133.6	7.6	67.7	135.0	10.2									
46.0	63.5	132.6	7.0	66.3	134.1	9.8									
48.0	62.1	131.5	6.6	65.0	133.2	9.5									
50.0	60.7	130.4	6.2	63.6	132.2	9.3									
54.5	00	100	0.2	00.0	.02.2	0.0	65.0	131.9	9.3						
55.0	57.0	127.3	5.1	60.0	129.5	8.7	64.6	131.6	9.3						
60.0	53.2	123.8	4.2	56.4	126.3	7.4	61.1	129.0	9.1						
65.0	49.2	119.7	3.5	52.5	122.7	6.4	57.5	126.0	8.4						
70.0	44.9	114.9	2.8	48.5	118.5	5.5	53.7	122.5	7.5						
75.0	40.3	109.4	2.2	44.1	113.7	4.4	49.7	118.5	6.8						
76.1										55.0	120.7	5.3			
80.0				39.4	108.0	3.6	45.5	113.8	6.1	52.3	118.1	4.5			
85.0				34.2	101.2	2.9	40.9	108.4	5.5	48.3	113.9	3.6			
90.0				28.1	92.7	2.3	35.8	102.0	4.9	43.9	109.0	2.8			
95.0							30.8	95.1	4.1	39.2	103.3	2.0			
100.0							24.0	85.3	3.3						
104.0							16.7	74.3	2.7						



Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360°

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 52.6 Lastre central [t]:

2821-1 Cabeza de pluma principal: 2821-1

		gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0		eza de p	al, Punto dumín (2 n] Posici	316-1) 9	5.5 m Pl	eza de p umín	lumín		-		
24.7	78.0	143.3	10.5												
26.0	77.2	143.1	10.5												
28.0	76.0	142.6	10.3												
30.0	74.7	142.0	10.1	1											
32.0	73.5	141.4	9.9												
34.0	72.2	140.8	9.5												
36.0	70.9	140.1	9.2												
36.9				73.0	140.8	9.7									
38.0	69.6	139.4	9.0	72.3	140.4	9.7									
40.0	68.3	138.6	8.6	71.0	139.8	9.6									
42.0	67.0	137.8	7.9	69.7	139.0	9.4									
44.0	65.7	136.9	7.3	68.4	138.3	9.2									
46.0	64.4	135.9	6.7	67.1	137.4	9.0									
48.0	63.0	134.9	6.2	65.8	136.5	8.8									
50.0	61.7	133.8	5.8	64.5	135.6	8.6									
55.0	58.2	130.9	4.8	61.1	133.0	8.2									
55.7				!			65.0	134.6	8.5						
60.0	54.5	127.5	3.9	57.6	129.9	7.1	62.1	132.4	8.4						
65.0	50.7	123.6	3.2	53.9	126.5	6.1	58.6	129.5	7.9						
70.0	46.7	119.2	2.6	50.1	122.5	5.3	55.0	126.2	7.2						
75.0				46.0	117.9	4.3	51.2	122.4	6.5						
77.8										55.0	123.2	4.5			
80.0				41.6	112.6	3.4	47.2	118.0	5.8	53.7	121.9	4.1			
85.0				36.8	106.4	2.7	42.9	112.9	5.2	49.9	117.9	3.2			
90.0				-			38.3	107.0	4.6	45.8	113.3	2.4			
92.0										44.1	111.3	2.1			
95.0							33.7	100.8	3.8						
100.0							27.8	92.3	3.0						
105.0							20.3	80.9	2.3						
107.0							16.4	74.7	2.0						



N° de ident.: 9842523/95738/ Pieza de articu

Radio de descarga: 360 °

2 - Vía ancha

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו	n Pluma	principa	I, Punto	de carga	1 - Cab	eza de p	lumín				
					Cab	52.0 [m	lumín (2: 1] Posici	ón midfa	6.5 III PI II (2316)	umm					
25.3	78.0	146.3	9.7												
26.0	77.6	146.1	9.7												
28.0	76.4	145.7	9.6												
30.0	75.2	145.1	9.4												
32.0	74.0	144.6	9.3												
34.0	72.8	144.0	9.0												
36.0	71.5	143.3	8.7												
37.7				73.0	143.7	9.0									
38.0	70.3	142.6	8.5	72.8	143.6	9.0									
40.0	69.0	141.8	8.3	71.6	142.9	9.0									
42.0	67.8	141.0	7.7	70.4	142.2	8.8									
44.0	66.5	140.2	7.1	69.1	141.5	8.6									
46.0	65.2	139.3	6.5	67.9	140.7	8.4									
48.0	63.9	138.3	6.0	66.6	139.8	8.2									
50.0	62.6	137.3	5.6	65.3	138.9	8.0									
55.0	59.3	134.4	4.6	62.0	136.4	7.7									
57.0							65.0	137.3	7.8						
60.0	55.8	131.2	3.7	58.7	133.5	6.8	63.0	135.8	7.8						
65.0	52.2	127.5	3.0	55.2	130.2	5.9	59.7	133.0	7.5						
70.0	48.3	123.3	2.4	51.5	126.4	5.1	56.2	129.8	7.0						
75.0				47.7	122.1	4.2	52.6	126.2	6.3						
79.5										55.0	125.6	3.9			
80.0				43.5	117.1	3.3	48.8	122.0	5.7	55.0	125.6	3.9			
85.0				39.1	111.3	2.5	44.8	117.3	5.0	51.3	121.8	2.9			
90.0							40.5	111.8	4.4	47.5	117.5	2.1			
95.0							36.3	106.1	3.6						
100.0							31.0	98.4	2.8						
105.0							24.6	88.8	2.1						



 N° de ident.: 9842523/95738/ Pieza de a Radio de descarga: 360 $^{\circ}$ Cabeza de

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0		eża de pl	umín (23	de carga 316-1) 10 ón midfa	1.5 m P		lumín				
26.0	78.0	149.2	9.0												
28.0	76.8	148.7	9.0							İ					
30.0	75.6	148.2	8.8							İ					
32.0	74.5	147.7	8.6												
34.0	73.3	147.1	8.4												
36.0	72.1	146.5	8.1												
38.0	70.9	145.8	7.9												
38.6				73.0	146.5	8.2									
40.0	69.7	145.0	7.7	72.2	146.1	8.2									
42.0	68.5	144.3	7.4	71.0	145.4	8.1									
44.0	67.2	143.4	6.8	69.8	144.7	8.0									
46.0	66.0	142.6	6.2	68.6	143.9	7.8									
48.0	64.8	141.6	5.7	67.3	143.1	7.7									
50.0	63.5	140.6	5.3	66.1	142.2	7.5									
55.0	60.3	137.9	4.3	62.9	139.8	7.1									
58.3							65.0	140.0	7.2						
60.0	56.9	134.8	3.4	59.7	137.0	6.5	63.9	139.2	7.2						
65.0	53.5	131.3	2.7	56.3	133.8	5.6	60.7	136.5	6.9						
70.0				52.9	130.2	4.8	57.4	133.4	6.7						
75.0				49.2	126.1	4.0	53.9	130.0	5.9						
80.0				45.3	121.4	3.2	50.3	126.0	5.3						
81.2										55.0	128.1	3.2			
85.0				41.1	116.0	2.4	46.5	121.5	4.8	52.7	125.6	2.6			
88.0										50.5	123.2	2.1			
90.0							42.9	116.9	4.0						
95.0							38.5	111.0	3.3						
100.0							33.7	104.1	2.5						
103.0							30.5	99.3	2.0						



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

95738/ Pieza de articulación de pluma principal: 2821-1 360 ° Cabeza de pluma principal: 2821-1

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı	m Pluma Cabe	eza de pl	ıl, Punto umín (23 ı] Posici	316-1) 10)4.5 m P		lumín				
26.6	78.0	152.2	8.4												
28.0	77.2	151.8	8.4												
30.0	76.1	151.3	8.2												
32.0	74.9	150.8	8.0												
34.0	73.8	150.2	7.9												
36.0	72.6	149.6	7.7												
38.0	71.5	149.0	7.4												
39.5				73.0	149.4	7.7							<u> </u>		
40.0	70.3	148.2	7.2	72.7	149.3	7.7									
42.0	69.1	147.5	7.1	71.6	148.6	7.6									
44.0	67.9	146.7	6.6	70.4	147.9	7.5									
46.0	66.7	145.8	6.0	69.2	147.1	7.3									
48.0	65.5	144.9	5.5	68.0	146.3	7.2									
50.0	64.3	144.0	5.1	66.8	145.5	7.0									
55.0	61.2	141.4	4.1	63.8	143.2	6.6									
59.5							65.0	142.7	6.6						
60.0	58.0	138.4	3.3	60.7	140.5	6.3	64.7	142.5	6.6						
65.0	54.7	135.0	2.5	57.4	137.4	5.3	61.6	139.9	6.5						
70.0				54.1	134.0	4.5	58.4	137.0	6.3						
75.0				50.6	130.1	3.9	55.1	133.7	5.7						
80.0				46.9	125.6	3.1	51.7	129.9	5.1						
82.9										55.0	130.5	2.7			
85.0				43.0	120.5	2.3	48.1	125.6	4.6	53.9	129.4	2.4			
86.0				42.2	119.4	2.1									
87.0										52.5	127.9	2.1			
90.0							44.2	120.7	3.9						
95.0							40.6	115.8	3.1						
100.0							36.1	109.4	2.3						
102.0							34.2	106.5	2.0						



Nº de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de principa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı		eża de pl	al, Punto lumín (23 n] Posici	316-1) ĬC	7.5 m P	eza de p lumín	lumín				
27.2	78.0	155.1	7.5												
28.0	77.6	154.9	7.5												
30.0	76.5	154.4	7.4												
32.0	75.4	153.9	7.2												
34.0	74.3	153.4	7.1												
36.0	73.1	152.8	6.9												
38.0	72.0	152.1	6.7												
40.0	70.9	151.4	6.5												
40.4		450.7	0.4	73.0	152.3	6.8									
42.0 44.0	69.7 68.6	150.7 149.9	6.4 6.2	72.1 71.0	151.8 151.1	6.8 6.7									
46.0	67.4	149.9	5.7	69.8	151.1	6.5									
48.0	66.3	149.1	5.7	68.7	149.6	6.4									
50.0	65.1	147.3	4.7	67.5	148.8	6.3									
55.0	62.1	144.8	3.8	64.6	146.5	5.9									
60.0	59.0	141.9	3.0	61.6	143.9	5.6									
60.8	00.0	131.0	0.0	01.0	140.0	0.0	65.0	145.4	5.8						
65.0	55.8	138.7	2.2	58.5	141.0	4.9	62.5	143.3	5.7						
70.0				55.3	137.7	4.1	59.4	140.5	5.5						
75.0				51.9	133.9	3.6	56.2	137.3	5.1						
80.0				48.4	129.7	2.9	52.9	133.7	4.6						
84.7										55.0	133.0	2.1			
85.0							49.5	129.6	4.3	54.8	132.8	2.0			
85.1										55.0	133.0	2.0			
90.0							46.2	125.5	3.6						
95.0							42.4	120.3	2.8						
100.0							38.3	114.4	2.0						



N° de ident.: 9842523/95738/ Pieza de articulación Radio de descarga: 360 ° Cabeza de pluma pri

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0		eża de pl	ıl, Punto umín (23 ı] Posici	316-1) 11	0.5 m P	eza de p lumín	lumín				
27.8	78.0	158.0	6.8												
28.0	77.9	158.0	6.8												
30.0	76.8	157.5	6.8												
32.0	75.8	157.0	6.6												
34.0	74.7	156.5	6.4												
36.0	73.6	155.9	6.3												
38.0	72.5	155.3	6.1												
40.0	71.4	154.6	5.9												
41.3				73.0	155.2	6.1									
42.0	70.3	153.9	5.8	72.6	154.9	6.1									
44.0	69.2	153.2	5.7	71.5	154.3	6.0									
46.0	68.1	152.4	5.3	70.4	153.6	5.9									
48.0	67.0	151.5	4.9	69.3	152.8	5.8									
50.0	65.8	150.6	4.4	68.2	152.0	5.6									
55.0	62.9	148.2	3.5	65.3	149.8	5.3									
60.0	59.9	145.4	2.8	62.4	147.3	5.0	05.0	440.0	- 4	l					
62.1				50.4	444.5	4.5	65.0	148.2 146.7	5.1						
65.0 70.0				59.4 56.3	144.5 141.3	4.5 3.8	63.3 60.3	146.7	5.1 4.9						
•				53.1	137.7				4.9						
75.0 80.0				49.8	137.7	3.3 2.8	57.3 54.1	140.9 137.5	4.6						
85.0				49.0	133.7	2.0	50.8	133.6	4.3						
90.0							47.7	129.6	3.4						
95.0							44.1	129.0	2.5	i					
98.0							41.8	121.5	2.3						



Nº de ident.: 9842523/95738/ Radio de descarga:

360°

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 52.6 Lastre central [t]:

		gulo de principa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו	m Pluma Cab	eza de p	II, Punto Iumín (1 I Posici	916-1) 3:	2.5 m Pl	eza de p umín	lumín				
11.6	78.0	81.7	40.4												
12.0	77.2	81.6	40.4												
13.0	75.4	81.4	39.1												
14.0	73.5	81.1	38.0												
16.0	69.8	80.4	35.1												
18.0	66.0	79.5	32.4												
18.4				73.0	80.6	35.3									
20.0	62.0 57.9	78.5 77.3	30.4	70.1 66.2	80.0 79.2	34.2									
22.0	57.9	77.3 75.9	27.8	62.3	79.2 78.2	31.9 29.9									
24.0 26.0	49.0	75.9	25.6 23.8	58.2	77.0	29.9									
28.0	49.0	72.3	23.6	53.9	77.0 75.6	26.9									
29.1	44.1	12.3	22.0	55.9	75.0	20.9	65.0	77.5	30.6						
30.0	38.6	69.9	20.4	49.3	73.9	25.7	63.3	77.0	30.5						
32.0	32.4	67.0	19.2	44.4	72.0	24.2	59.3	75.9	29.3						
34.0	24.8	63.2	18.1	39.0	69.7	23.0	55.0	74.6	28.0						
36.0	15.9	58.4	15.1	32.9	66.8	21.7	50.5	73.0	27.0						
38.0				25.4	63.1	20.0	45.7	71.1	25.6						
40.0		İ		16.8	58.5	14.6	40.5	68.9	24.3						
41.6										55.0	71.6	21.2			
42.0							34.5	66.2	23.2	54.5	71.4	21.7			
44.0							27.5	62.8	21.6	50.0	69.8	21.0			
46.0							18.0	57.8	20.0	45.1	67.9	20.2			
48.0										39.8	65.6	19.4			
50.0										33.8	62.9	18.7			
54.0										16.5	53.9	17.2			
62.8													35.0	53.7	11.5
65.0													28.1	50.3	11.4
67.0													18.9	45.5	10.9



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

	88° Ángulo de pluma principal			83° Ángulo de pluma principal			75° Ángulo de pluma principal			65° Ángulo de pluma principal			45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
	47.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 35.5 m Plumín														
16.0 [m] Posición midfall (1916)															
12.2	78.0	84.7	35.7												
13.0	76.6	84.5	35.3												
14.0	75.0	84.2	34.0												
16.0	71.6	83.6	31.5												
18.0	68.1	82.8	29.4												
19.3			07.0	73.0	83.4	30.7									
20.0 22.0	64.6	81.9 80.8	27.3 25.8	71.8 68.4	83.2 82.4	30.7 28.7									
24.0	60.9 57.1	79.6	25.8	64.8	82.4 81.5	28.7									
26.0	53.1	78.1	22.5	61.2	80.5	25.7									
28.0	48.9	76.5	21.3	57.4	79.3	24.4									
30.0	44.4	74.5	19.8	53.4	77.8	23.3									
30.4			10.0	00		20.0	65.0	80.2	26.7						
32.0	39.5	72.2	18.6	49.2	76.2	22.3	62.1	79.4	26.3						
34.0	34.0	69.4	17.6	44.8	74.3	21.1	58.4	78.2	25.3						
36.0	27.5	66.0	16.6	39.9	72.0	20.0	54.5	76.8	24.2						
38.0	19.0	61.1	15.6	34.4	69.3	19.1	50.3	75.2	23.4						
39.0	15.2	58.8	13.0												
40.0				28.0	65.8	18.0	45.9	73.4	22.2						
42.0				19.8	61.1	16.8	41.2	71.2	21.1						
43.0				16.1	58.9	13.5									
43.4							25.0	00.0	00.4	55.0	74.0	19.9			
44.0 46.0				l			35.9 29.8	68.6 65.4	20.1 19.1	54.0 49.8	73.6 72.0	20.3 19.6			
46.0							29.8	61.1	19.1	49.8 45.4	72.0 70.1	18.8			
49.0							17.1	58.2	17.4	40.4	70.1	10.0			
50.0							17.1	30.2	17.4	40.6	67.9	18.0			
55.0				Ī						25.3	59.9	16.4			
57.0				i			Ī			15.7	54.3	15.8			
65.2	<u></u>	<u></u>		L		<u> </u>							35.0	55.4	10.8
70.0													18.0	45.9	9.9



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

360 ° Cabeza de pluma principal:

Pieza de articulación de pluma principal:

2821-1 2821-1

	88° Ángulo de pluma principal			83° Ángulo de pluma principal			75° Ángulo de pluma principal			65° Ángulo de pluma principal			45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
47.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 38.5 m Plumín 19.0 [m] Posición midfall (1916)															
12.8 13.0 14.0	78.0 77.7 76.2	87.6 87.5 87.3	32.1 32.1 31.4												
16.0 18.0	73.1 69.9	86.7 86.0	29.1 27.2												
20.0 20.2 22.0	66.7 63.4	85.2 84.2	25.3	73.0 70.1	86.3 85.7	27.5 26.5									
24.0 26.0	60.0 56.5 52.8	83.1 81.8 80.4	22.5	66.9 63.6 60.2	84.8 83.9 82.8	25.0 23.7 22.7									
28.0 30.0 31.6	48.9	78.7	20.3 19.4	56.7	82.8	21.7	65.0	82.9	22.8						
32.0 34.0	44.7 40.3 35.3	76.8 74.5 71.9	18.2 17.2	53.0 49.2	80.1 78.4 76.5	20.8 19.9	64.5 61.1 57.6	82.8 81.7 80.5	24.0						
36.0 38.0 40.0 41.0	29.6 22.7 18.2	68.6 64.4 61.6	16.3 15.5 14.7 14.2	45.0 40.6 35.7	76.5 74.3 71.7	18.9 17.9 17.1	54.0 50.2	79.1 77.5	22.5 21.5 20.8						
42.0 44.0	10.2	01.0	14.2	30.1 23.2	68.5 64.3	16.3 15.5	46.1 41.8	75.6 73.5	19.8 18.8						
45.1 46.0 48.0				15.4	59.3	12.5	37.0 31.6	71.0 67.9	17.9 17.2	55.0 53.5 49.7	76.5 75.9 74.3	18.8 19.4 18.5			
50.0 52.0 55.0							25.1 16.4	64.1 58.6	16.4 15.5	45.6 33.7	72.4 66.2	17.7			
60.0 67.7 70.0										15.0	54.7	14.8	35.0 28.2	57.1 53.2	10.2 9.8
73.0													15.6	45.3	9.1



N° de ident.: 9842523/95738/ Pieza de articula

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו		eza de p	ıl, Punto lumín (19 n] Posici	916-1) 4	1.5 m Pl		lumín		_		
13.4	78.0	90.5	28.8												
14.0	77.2	90.4	28.8												
16.0	74.3	89.9	27.0												
18.0	71.4	89.2	25.1												
20.0 21.1	68.5	88.5	23.6	72.0	89.2	24.7									
21.1	65.5	87.6	22.0	73.0 71.6	89.2 88.9	24.7									
24.0	62.4	86.6	20.8	68.7	88.1	23.1				ł					
26.0	59.2	85.4	19.7	65.7	87.2	21.9							i		
28.0	55.9	84.1	18.7	62.6	86.2	20.9				i					
30.0	52.4	82.6	17.9	59.4	85.1	20.0									
32.0	48.8	80.9	17.1	56.1	83.8	19.1				i					
32.9							65.0	85.6	20.3	ĺ		İ	İ		
34.0	45.0	79.0	16.1	52.7	82.3	18.3	63.4	85.1	21.4						
36.0	40.9	76.8	15.3	49.1	80.6	17.5	60.2	84.0	20.6						
38.0	36.4	74.2	14.6	45.3	78.7	16.6	57.0	82.7	19.8						
40.0	31.3	71.2	13.9	41.2	76.6	15.8	53.6	81.3	18.9						
42.0	25.4	67.3	13.2	36.7	74.0	15.1	50.0	79.7	18.3						
44.0	17.5	62.0	12.5	31.7	71.0	14.4	46.3	77.9	17.4						
46.0				25.8	67.2	13.7	42.3	75.8	16.5						
46.8										55.0	78.9	17.1			
48.0				18.2	62.1	13.0	37.9	73.3	15.8	53.2	78.1	17.9			
50.0 55.0							33.1 15.8	70.4 59.0	15.1 13.4	49.6 39.6	76.5 71.3	17.2 15.5			
60.0							15.6	59.0	13.4	39.6 26.7	63.4	15.5			
63.0										16.2	56.3	11.7			
70.1										10.2	50.5	11.7	35.0	58.9	9.5
75.0													22.3	50.7	8.4
76.0										ĺ			18.2	47.9	8.2



N° de ident.: 9842523/95738/ Pieza d

Radio de descarga: $$360\ ^{\circ}$$

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 124.0

52.6

		gulo de principal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0	m Pluma Cab	eza de p	al, Punto lumín (1 n] Posici	916-1) 4	4.5 m Pl	eza de p umín	lumín				
14.1	78.0	93.5	26.2												
16.0	75.4	93.0	25.1												
18.0	72.7	92.4	23.5												
20.0	70.0	91.7	22.1	70.0	00.0	22.4				ł					
21.9 22.0	67.2	90.9	20.7	73.0 72.9	92.0 92.0	22.4									
24.0	64.4	89.9	19.4	70.2	91.3	21.5									
26.0	61.5	88.9	18.4	67.4	90.5	20.5									
28.0	58.5	87.7	17.4	64.6	89.6	19.4									
30.0	55.4	86.4	16.6	61.7	88.6	18.7				İ			İ		
32.0	52.2	84.9	15.9	58.7	87.4	17.8									
34.0	48.8	83.2	15.2	55.6	86.1	16.9									
34.2							65.0	88.3	19.5						
36.0	45.2	81.2	14.4	52.4	84.6	16.3	62.4	87.4	19.2						
38.0	41.4	79.1	13.7	49.0	82.9	15.5	59.5	86.3	18.3						
40.0	37.3	76.6	13.1	45.5	81.0	14.8	56.4	85.0	17.6						
42.0	32.7	73.6	12.6	41.7	78.8	14.1	53.2	83.6	16.8						
44.0 46.0	27.5 21.0	70.1 65.5	12.0 11.3	37.6 33.1	76.4 73.5	13.5 12.9	49.9 46.4	81.9 80.1	16.2 15.4	l					
46.0	16.9	62.5	11.0	33.1	73.5	12.9	40.4	00.1	15.4	1					
48.0	10.9	02.5	11.0	27.9	70.0	12.3	42.7	78.0	14.7						
48.5				27.5	70.0	12.5	72.7	70.0	14.7	55.0	81.4	15.6			
50.0				21.5	65.5	11.6	38.7	75.6	14.0	52.8	80.4	16.7	i		
51.0				17.6	62.5	11.3							i		
55.0							26.5	67.6	12.6	44.1	75.8	15.2			
58.0							15.2	59.4	11.6						
60.0										33.7	69.5	13.7			
65.0										18.7	59.0	12.2			
66.0										15.7	56.7	10.1			
72.6	-												35.0	60.6	8.7
75.0													30.5 17.5	57.6 48.4	8.2
79.0	1	1	1		1	1		l .	1	I	l	1	17.5	48.4	7.5



Nº de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

	88° Án	gulo de principa	pluma I		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı		eza de p	ıl, Punto lumín (1: ı] Posici	916-1) 4	7.5 m Pl	eza de p umín	lumín				
14.7	78.0	96.4	23.2												
16.0	76.4	96.1	22.8												
18.0	73.9	95.5	21.6												
20.0	71.3	94.9	20.3												
22.0	68.7	94.1	19.4			10.0									
22.8				73.0	94.9	19.9									
24.0	66.1 63.4	93.3	18.4 17.6	71.5	94.5 93.8	19.8									
26.0 28.0	60.7	92.3 91.2	17.6	68.9 66.3	93.8 92.9	19.0 18.4									
30.0	57.9	90.0	16.3	63.6	92.9	17.8									
32.0	54.9	88.6	15.7	60.9	90.9	17.3									
34.0	51.9	87.1	15.7	58.1	89.7	16.7									
35.4	31.3	07.1	15.2	30.1	03.7	10.7	65.0	91.1	17.3						
36.0	48.7	85.4	14.6	55.2	88.3	16.2	64.3	90.8	17.9						
38.0	45.4	83.5	13.8	52.1	86.8	15.7	61.6	89.8	17.5						
40.0	41.9	81.3	13.1	49.0	85.1	15.2	58.8	88.6	17.1						
42.0	38.1	78.9	12.4	45.7	83.2	14.6	55.9	87.3	16.6						
44.0	33.9	76.1	11.9	42.1	81.1	14.0	52.9	85.8	16.1						
46.0	29.2	72.7	11.3	38.3	78.7	13.5	49.8	84.2	15.7						
48.0	23.6	68.6	10.8	34.2	75.9	13.0	46.5	82.3	15.1						
50.0	16.3	62.9	10.2	29.5	72.6	12.3	43.1	80.3	14.5						
50.3										55.0	83.9	15.2			
54.0				17.0	63.0	10.8									
55.0							33.1	73.7	13.2	47.8	80.1	14.8			
60.0							19.0	63.2	11.5	38.9	74.6	13.4			
61.0							16.3	61.0	10.4						
65.0										27.7	66.8	12.3			
69.0 75.1										15.1	57.1	10.4	35.0	62.3	7.9
80.0													24.0	54.3	7.9
82.0													16.9	48.8	6.6



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı	m Pluma Cab	eza de p	al, Punto lumín (1 n] Posici	916-1) 5	0.5 m Pl	eza de p umín	lumín				
15.3 16.0 18.0 20.0 22.0 23.7 24.0 26.0 28.0 30.0	78.0 77.2 74.8 72.5 70.1 67.6 65.1 62.6 60.0	99.3 99.2 98.6 98.0 97.3 96.5 95.6 94.6 93.5	21.2 21.2 20.2 19.3 18.5 17.8 17.3 16.8 16.3	73.0 72.6 70.2 67.8 65.3	97.8 97.7 97.0 96.2 95.3	18.4 18.4 18.1 17.7 17.3			(1010)						
32.0 34.0 36.0 36.7 38.0 40.0 42.0 44.0	57.3 54.6 51.7 48.7 45.6 42.3 38.7	92.3 90.9 89.3 87.6 85.7 83.6 81.2	15.8 15.4 15.0 14.4 13.6 12.8 12.2	62.8 60.2 57.5 54.8 51.9 48.9 45.8	94.3 93.2 91.9 90.6 89.0 87.4 85.5	16.9 16.6 16.2 15.9 15.7 15.2 14.7	65.0 63.4 60.8 58.2 55.5	93.8 93.2 92.1 90.9 89.5	16.6 17.1 16.8 16.5 16.2						
46.0 48.0 50.0 52.0 53.0 55.0 57.0	34.9 30.6 25.7 15.8	78.5 75.3 71.5 63.3	11.6 11.1 10.6 9.8	42.5 39.0 35.2 23.3 16.4	83.4 81.0 78.3 69.1 63.4	14.2 13.8 13.4 11.4 10.6	52.6 49.7 46.6 38.1	88.1 86.4 84.6 79.0	15.9 15.7 15.2	55.0 50.8	86.3 84.1	14.9 14.9			
60.0 64.0 65.0 70.0 71.0 77.5 80.0 85.0							27.4 15.7	71.0 61.4	12.5 10.9	43.0 33.7 21.1 17.5	79.3 72.8 62.9 59.9	13.6 12.5 11.6 11.5	35.0 30.9 16.4	64.0 61.0 49.2	7.4 7.0 6.2



Nº de ident.: 9842523/95738/ Radio de descarga: 360°

Pieza de articulación de pluma principal:	2821-1
Cabeza de pluma principal:	2821-1

ce c [m] plu	ingu- o de lumín [°]	Altura de rolda- nas	Carga [t]	Ángu-	Altura										
		[m]		o de plumín [°]	de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı	m Pluma Cab	eza de p	il, Punto lumín (19 n] Posicio	916-1) 5	3.5 m Plı	eza de p umín	lumín				
15.9	78.0	102.3	19.3												
	77.9	102.2	19.3												
	75.7	101.8	18.6												
	73.5	101.2	17.8												
	71.2	100.5	17.0												
	68.9	99.8	16.4												
24.6				73.0	100.6	16.8									
	66.6 64.3	98.9 98.0	15.9 15.5	71.4 69.1	100.2 99.4	16.6 16.3									
	61.8	98.0	15.5	66.8	99.4 98.6	15.9									
	59.4	97.0	14.8	64.4	96.6	15.5									
	56.8	94.5	14.6	62.0	96.6	15.3									
	54.2	93.1	14.1	59.5	95.5	15.0									
	51.5	91.6	13.8	57.0	94.2	14.7	65.0	96.5	15.5						
	48.7	89.9	13.4	54.4	92.8	14.4	62.6	95.5	15.4						
42.0	45.7	88.0	12.6	51.7	91.3	14.2	60.2	94.4	15.1						
44.0	42.6	85.9	11.9	48.9	89.6	13.9	57.7	93.2	14.9						
46.0	39.3	83.5	11.3	45.9	87.7	13.5	55.1	91.8	14.6						
48.0	35.8	80.9	10.8	42.9	85.6	13.1	52.4	90.3	14.4						
50.0	31.8	77.8	10.3	39.6	83.3	12.7	49.6	88.6	14.3						
53.7										55.0	88.8	13.5			
	19.1	67.0	9.2	30.0	75.9	11.5	42.1	83.7	13.3	53.4	87.9	14.0			
	15.4	63.7	8.9												
60.0				15.9	63.8	9.6	33.2	77.1	12.3	46.4	83.6	13.3			
65.0	-						21.2	67.1	10.8	38.3	78.0	12.2			
67.0							15.3	61.8	9.8	00.4	70.0	44.0			
70.0 74.0										28.4 17.0	70.2 60.4	11.3 10.6			
74.0 80.0										17.0	00.4	10.6	35.0	65.7	6.7
85.0													25.3	57.9	5.9
88.0	- +												15.9	49.6	5.4



Nº de ident.: 9842523/95738/ Pieza de articulación Radio de descarga: 360 ° Cabeza de pluma pr

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de principa			gulo de principa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0		eza de p	il, Punto llumín (1 n] Posici	916-1) 5	6.5 m PI		lumín				
16.5 18.0 20.0 22.0 24.0	78.0 76.5 74.4 72.3 70.1	105.2 104.9 104.3 103.7 103.0	17.6 17.4 16.5 15.8 15.1												
25.5 26.0 28.0 30.0 32.0	67.9 65.7 63.5 61.2	102.2 101.3 100.4 99.3	14.7 14.3 14.0 13.8	73.0 72.4 70.3 68.1 65.9	103.5 103.3 102.6 101.9 101.0	15.4 15.4 15.1 14.8 14.4									
34.0 36.0 38.0 39.2 40.0	58.8 56.4 53.9 51.3	98.1 96.8 95.4 93.8	13.5 13.3 13.1	63.6 61.3 59.0 56.6	100.0 99.0 97.8 96.5	14.2 13.9 13.7	65.0 64.2	99.2 98.9	13.6 14.2						
42.0 44.0 46.0 48.0 50.0	48.7 45.9 42.9 39.8 36.5	92.1 90.2 88.1 85.8 83.2	12.5 11.8 11.2 10.7 10.2	54.1 51.5 48.8 46.1 43.2	95.1 93.5 91.8 90.0 87.9	13.2 13.1 12.8 12.4 12.1	61.9 59.6 57.2 54.7 52.2	97.8 96.7 95.4 94.1 92.5	14.0 13.8 13.6 13.4 13.2						
55.0 55.4 59.0 60.0 63.0	26.7 16.2	74.9 65.3	9.1	35.0 24.6 15.5	81.6 72.7 64.2	9.9 8.9	45.4 37.6	88.1	12.6	55.0 49.2	91.2 87.7	12.3			
65.0 69.0 70.0 75.0 77.0				10.0	VT.2	0.0	28.1 17.4	74.4 64.6	10.8 9.6	42.0 33.7 22.7 16.5	82.7 76.1 66.6 60.8	12.0 11.1 10.2 9.8			
82.4 85.0 90.0 91.0										.330	23.0		35.0 31.2 19.0 15.4	67.5 64.3 53.4 50.0	6.1 5.7 5.0 4.8



Nº de ident.: 9842523/95738/ 360° Radio de descarga:

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 52.6 Lastre central [t]:

Pieza de articulación de pluma principal:	2821-1
Cabeza de pluma principal:	2821-1

		gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa		45° Án	gulo de principa	pluma I
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0	m Pluma Cab	eza de p	il, Punto llumín (1 n] Posici	916-1) 5	9.5 m Pl	eza de p umín	lumín				
17.2	78.0	108.1	15.3												
18.0	77.2	108.0	15.3												
20.0	75.2	107.4	14.5												
22.0	73.2	106.9	13.9												
24.0	71.2	106.2	13.3												
26.0	69.1	105.4	12.9												
26.3				73.0	106.4	13.3									
28.0	67.0	104.6	12.5	71.3	105.8	13.2									
30.0	64.9	103.7	12.3	69.2	105.1	12.9									
32.0	62.7	102.7	12.0	67.1	104.3	12.7									
34.0	60.5	101.5	11.8	65.0	103.3	12.4									
36.0	58.2	100.3	11.6	62.8	102.3	12.1									
38.0	55.9 53.5	99.0	11.4	60.6 58.4	101.2 100.0	11.9 11.7				ł			ł		
40.0 40.5	53.5	97.5	11.2	56.4	100.0	11.7	65.0	101.9	12.2	l					
42.0	51.0	95.9	11.1	56.0	98.7	11.5	63.4	101.9	12.2						
44.0	48.4	94.2	10.7	53.6	97.2	11.3	61.2	101.2	12.2				i		
46.0	45.8	92.3	10.7	51.2	95.7	11.2	58.9	98.9	11.8						
48.0	42.9	90.2	9.8	48.6	93.9	11.0	56.6	97.6	11.6	i			i		
50.0	40.0	87.9	9.4	45.9	92.0	10.8	54.3	96.2	11.4						
55.0	31.6	80.7	8.5	38.7	86.4	10.3	48.0	92.1	11.1						
57.1				1						55.0	93.7	11.0			
60.0	20.2	70.1	7.6	29.9	78.8	9.4	41.0	86.8	10.7	51.5	91.5	11.0			
62.0	15.8	65.7	6.5												
65.0				17.6	67.1	8.1	32.8	80.0	10.2	44.9	86.9	10.7			
66.0				16.3	65.8	7.2				I					
70.0							22.0	70.0	9.0	37.5	81.0	10.2			
72.0							15.9	64.0	8.5						
75.0										28.4	73.1	9.6			
80.0				-						17.2	62.3	8.5	25.0		
84.9													35.0	69.2	5.4
85.0 90.0													34.8	69.0	5.4
90.0 94.0													26.3 15.0	61.3 50.4	4.7 4.1
94.0	I	l	l					l	l				10.0	30.4	4.1



Nº de ident.: 9842523/95738/ Radio de descarga:

360°

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו		eza de p	al, Punto dumín (19 n] Posici	916-1) 6	2.5 m Pli	eza de p umín	lumín				
17.9 18.0 20.0 22.0 24.0 26.0 27.2 28.0 30.0 32.0 34.0 36.0	78.0 77.9 76.0 74.0 72.1 70.1 68.2 66.2 64.1 62.0 59.9	111.1 111.0 110.5 110.0 109.4 108.6 107.9 107.0 106.0 105.0 103.8	13.9 13.9 13.4 12.8 12.3 11.9 11.6 11.3 11.1 10.9 10.7	73.0 72.2 70.3 68.3 66.3 64.3	109.3 109.0 108.3 107.5 106.7 105.7	12.2 12.2 11.9 11.7 11.4									
38.0 40.0 41.8 42.0 44.0	57.7 55.5 53.2 50.9	102.6 101.2 99.8 98.2	10.5 10.3 10.1 10.0	62.2 60.1 57.9 55.7	104.7 103.5 102.3 100.9	11.0 10.8 10.5 10.4	65.0 64.8 62.7	104.7 104.6 103.5	11.1 11.1 11.0						
46.0 48.0 50.0 55.0	48.4 45.9 43.2 35.9	96.2 96.4 94.5 92.4 86.2	9.7 9.3 9.0 8.3	53.7 53.4 51.0 48.6 42.0	99.5 97.9 96.2 91.1	10.4 10.2 10.1 9.9 9.6	60.6 58.4 56.2 50.4	103.5 102.4 101.2 99.9 96.1	10.8 10.6 10.5 10.1						
58.9 60.0 65.0 69.0	26.9 15.4	77.8 66.1	7.5 5.7	34.5 25.0 15.9	84.6 75.6 66.2	9.3 8.1 6.4	44.1 36.9	91.3 85.3	9.9 9.7	55.0 53.7 47.7	96.1 95.3 91.1	9.9 9.9 9.7			
70.0 75.0 80.0 83.0 87.3							28.2 15.5	77.3 64.4	8.9 7.9	41.0 33.3 23.3 16.8	85.9 79.1 69.5 62.8	9.6 9.4 8.6 7.8	35.0	70.9	4.9
90.0 95.0 96.0													31.4 20.8 18.0	67.6 57.2 54.3	4.6 3.9 3.8



N° de ident.: 9842523/95738/ Pieza de articul Radio de descarga: 360 ° Cabeza de plu

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa		ı	gulo de orincipa		ı	gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0	m Pluma Cab	eza de p	al, Punto dumín (19 n] Posici	916-1) 6	5.5 m Pl	eza de p umín	lumín				
18.5	78.0	114.0	12.6												
20.0	76.6	113.6	12.4												
22.0	74.8	113.1	11.9												
24.0 26.0	73.0 71.1	112.5 111.8	11.4 11.0												
28.0	69.2	111.0	10.8												
28.1	09.2	111.1	10.0	73.0	112.1	11.2									
30.0	67.3	110.3	10.5	71.2	111.5	11.1				i					
32.0	65.4	109.4	10.2	69.4	110.7	10.8				i					
34.0	63.4	108.4	10.0	67.5	109.9	10.6									
36.0	61.4	107.3	9.9	65.5	109.0	10.3									
38.0	59.4	106.1	9.6	63.6	108.1	10.1									
40.0	57.3	104.9	9.4	61.6	107.0	10.0									
42.0 43.0	55.2	103.5	9.2	59.5	105.8	9.7	65.0	107.4	10.1						
44.0	53.0	102.0	9.1	57.5	104.6	9.5	64.1	107.4	10.1						
46.0	50.7	102.0	8.9	55.3	104.0	9.3	62.1	105.9	10.1						
48.0	48.4	98.7	8.7	53.1	101.7	9.2	60.1	104.7	9.8	i					
50.0	46.0	96.8	8.4	50.9	100.1	9.1	58.0	103.5	9.7	İ					
55.0	39.4	91.2	7.8	44.9	95.5	8.6	52.6	100.0	9.2						
60.0	31.8	84.1	7.2	38.2	89.7	8.3	46.8	95.6	8.9						
60.6										55.0	98.6	9.0			
65.0	21.8	73.9	6.5	30.3	82.2	7.7	40.3	90.2	8.6	50.1	95.1	8.8			
68.0 70.0	15.0	66.5	5.4	19.6	71.1	6.9	32.8	83.3	8.3	44.0	90.4	8.6			
72.0				15.5	66.6	5.9	32.0	03.3	0.3	44.0	90.4	0.0			
75.0				15.5	00.0	0.0	23.3	73.7	7.6	37.1	84.4	8.4			
78.0							15.1	64.8	7.2	J	0	U			
80.0										28.9	76.5	8.1			
85.0										17.5	64.5	7.5			
86.0										16.4	63.2	6.8			
89.8													35.0	72.6	4.3
90.0 95.0													34.7 27.0	72.3 64.8	4.3 3.6
95.0													27.0 17.6	54.8	3.6
99.0													17.0	J 4 .0	J.Z



N° de ident.: 9842523/95738/ Pieza de art

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı	m Pluma Cab	eza de p	il, Punto llumín (19 n] Posici	916-1) 6	8.5 m Pl	eza de p umín	lumín				
19.1 20.0 22.0 24.0 26.0 28.0 29.0 30.0 32.0 34.0 36.0 38.0 40.0 44.0	78.0 77.2 75.5 73.7 72.0 70.2 68.4 66.5 64.7 62.8 60.9 56.9 56.9	116.9 116.7 116.2 115.7 115.0 114.3 113.5 112.7 111.7 109.6 108.4 107.2 105.8	11.6 11.6 11.1 10.7 10.3 10.1 9.9 9.6 9.4 9.2 9.0 8.7 8.5 8.3	73.0 72.1 70.3 68.5 66.7 64.8 62.9 61.0 59.1	115.0 114.7 114.0 113.2 112.3 111.4 110.4 109.3 108.1	10.3 10.3 10.1 9.9 9.7 9.4 9.3 9.1 8.9		on midde	(1010)						
44.3 46.0 48.0 50.0 55.0 60.0 62.3 65.0 70.0 75.0 80.0 81.0 85.0 89.0	52.8 50.6 48.4 42.4 35.7 27.5 15.9	104.3 102.7 100.9 95.9 89.6 81.2 68.3	8.2 8.0 7.8 7.4 7.0 6.4 5.7	57.1 55.0 52.9 47.4 41.3 34.4 25.9 15.1	106.8 105.5 104.0 99.7 94.5 87.9 79.1 67.0	8.7 8.5 8.4 7.9 7.5 7.1 6.6 5.5	65.0 63.4 61.5 59.6 54.5 49.1 43.2 36.6 28.7 17.8 16.7	110.1 109.3 108.2 107.0 103.7 99.7 94.8 88.7 80.7 68.7 67.5	9.3 9.3 9.1 9.0 8.6 8.2 7.8 7.5 7.2 6.8 6.0	55.0 52.2 46.6 40.4 33.3 24.4 16.0	101.1 99.0 94.6 89.2 82.4 73.1 63.6	8.2 8.2 7.9 7.7 7.4 7.1 6.2			
92.3 95.0 100.0 102.0													35.0 31.6 22.3 17.2	74.3 71.0 60.9 55.2	3.8 3.5 2.9 2.7



N° de ident.: 9842523/95738/ Pieza

Radio de descarga: $$360\ ^{\circ}$$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de principa		ı	gulo de orincipa			gulo de principa			gulo de orincipa		45° Án	gulo de orincipa	pluma I
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0	m Pluma Cab	eza de p	il, Punto lumín (1 n] Posici	916-1) 7	1.5 m Pl		lumín				
19.7 20.0 22.0 24.0 26.0 28.0 29.9 30.0 32.0 34.0	78.0 77.8 76.1 74.4 72.8 71.1 69.3 67.6 65.8	119.9 119.8 119.3 118.8 118.2 117.5 116.8 115.9 115.1	10.4 10.4 10.1 9.7 9.4 9.2 9.0 8.8 8.5	73.0 72.9 71.2 69.5	117.9 117.8 117.1 116.4	9.3 9.3 9.2 9.0									
36.0 38.0 40.0 42.0 44.0 45.6 46.0 48.0	64.0 62.2 60.4 58.5 56.6 54.6 52.6	114.1 113.1 111.9 110.7 109.4 108.0 106.5	8.4 8.2 8.0 7.9 7.7 7.5	67.7 66.0 64.2 62.4 60.5 58.6 56.7	115.6 114.7 113.8 112.7 111.6	8.8 8.6 8.4 8.3 8.1	65.0 64.6 62.8	112.8 112.6 111.6	8.4 8.4 8.3						
50.0 55.0 60.0 64.0 65.0 70.0 73.0	50.5 45.0 39.0 31.9 23.0 15.5	104.9 100.3 94.6 87.4 77.5 68.7	7.3 6.9 6.5 6.1 5.5 5.1	54.8 49.6 44.0 37.8 30.6	107.7 103.8 99.0 93.1 85.5	7.7 7.4 7.0 6.8 6.4	61.0 56.2 51.2 45.8 39.8	110.5 107.4 103.6 99.1 93.6	8.1 7.8 7.5 7.3 7.0	55.0 54.0 48.8	103.5 102.8 98.7	7.3 7.3 7.2			
75.0 77.0 80.0 84.0 85.0 90.0 92.0				21.2 16.0	74.9 68.8	5.9 5.7	32.9 24.4 16.4	86.6 77.2 67.9	6.8 6.4 5.6	43.2 36.8 29.4 19.4 15.7	93.8 87.7 79.8 68.5 64.0	7.0 6.9 6.7 6.4 5.8			
94.7 95.0 100.0 105.0													35.0 34.6 27.6 16.8	76.1 75.6 68.2 55.6	3.2 3.2 2.6 2.1



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 124.0 52.6

		gulo de orincipa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı	m Pluma Cab	eza de p	il, Punto llumín (19 n] Posici	916-1) 7	4.5 m Plı	eza de p umín	lumín				
20.3 22.0 24.0 26.0 28.0	78.0 76.7 75.1 73.5 71.9	122.8 122.4 121.9 121.3 120.7	9.5 9.3 8.9 8.6 8.4												
30.0 30.7 32.0 34.0 36.0	70.2 68.6 66.9 65.2	120.0 119.2 118.3 117.4	8.2 8.1 7.9 7.7	73.0 72.0 70.3 68.7	120.7 120.3 119.6 118.8	8.5 8.5 8.3 8.1									
38.0 40.0 42.0 44.0 46.0	63.4 61.7 59.9 58.1 56.3	116.4 115.4 114.2 113.0 111.7	7.6 7.4 7.3 7.1 7.0	67.0 65.3 63.6 61.8 60.0	118.0 117.1 116.1 115.1 113.9	7.9 7.7 7.6 7.5 7.3									
46.9 48.0 50.0 55.0 60.0	54.4 52.4 47.3 41.8	110.3 108.8 104.5 99.3	6.9 6.8 6.5 6.2	58.2 56.4 51.6 46.4	112.7 111.4 107.7 103.2	7.2 7.1 6.8 6.6	65.0 64.0 62.3 57.8 53.1	115.5 115.0 113.9 111.0 107.5	7.6 7.6 7.5 7.2 6.9						
65.0 65.7 70.0 75.0 76.0	35.5 28.1 18.0 15.2	92.9 84.6 72.5 69.1	5.9 5.4 4.8 4.7	40.8 34.3 26.6	97.9 91.2 82.5	6.4 6.2 5.7	48.0 42.5 36.4	103.3 98.2 92.0	6.7 6.6 6.4	55.0 50.8 45.6	106.0 102.7 98.1	6.7 6.6 6.4			
80.0 85.0 87.0 90.0 95.0				15.6	69.2	5.2	29.1 19.6 16.0	84.0 72.7 68.3	6.1 5.8 5.3	39.9 33.3 25.3 15.3	92.6 85.7 76.6 64.4	6.3 6.3 6.0 5.4			
97.2 100.0 105.0										.5.5	· · · ·	3.,	35.0 31.8 23.4	77.8 74.3 64.6	2.8 2.6 2.0



N° de ident.: 9842523/95738/

Radio de descarga: 360 $^{\circ}$

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa		45° Án I	gulo de orincipa	pluma I
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0		eza de p	il, Punto Ilumín (19 n] Posici	916-1) 7	7.5 m Pl		lumín				
21.0 22.0 24.0 26.0 28.0	78.0 77.2 75.7 74.1 72.6	125.7 125.5 125.0 124.4 123.8	8.5 8.5 8.2 7.9 7.6												
30.0 31.6 32.0 34.0 36.0	71.0 69.4 67.8 66.2	123.2 122.4 121.6 120.7	7.4 7.3 7.1 6.9	73.0 72.7 71.1 69.5	123.6 123.5 122.8 122.1	7.6 7.6 7.5 7.3									
38.0 40.0 42.0 44.0 46.0	64.6 62.9 61.2 59.5 57.7	119.8 118.8 117.7 116.5 115.3	6.8 6.7 6.5 6.4 6.3	67.9 66.3 64.7 63.0 61.3	121.3 120.4 119.5 118.5 117.4	7.2 7.0 6.8 6.7 6.6									
48.0 48.1 50.0 55.0 60.0	56.0 54.1 49.4 44.2	114.0 112.5 108.5 103.7	6.2 6.1 5.8 5.6	59.6 57.9 53.3 48.5	116.2 115.0 111.5 107.3	6.4 6.3 6.0 5.8	65.0 63.4 59.2 54.7	118.3 117.3 114.5 111.2	6.7 6.7 6.4 6.1						
65.0 67.5 70.0 75.0 79.0	38.6 32.0 24.0 16.7	97.9 90.7 81.1 71.7	5.3 5.1 4.6 3.7	43.3 37.5 30.8	102.4 96.4 88.9	5.7 5.5 5.3	50.0 44.9 39.3	107.3 102.6 96.9	5.9 5.8 5.6	55.0 52.6 47.8	108.4 106.5 102.3	5.8 5.8 5.7			
80.0 83.0 85.0 90.0 95.0				22.4 15.3	78.6 69.6	4.9 4.7	33.0 25.2 15.7	90.0 80.8 68.7	5.5 5.3 4.7	42.5 36.6 29.7 20.9	97.2 91.0 83.2 72.4	5.5 5.5 5.4 5.3			
98.0 99.6 100.0 102.0										15.0	64.8	4.8	35.0 34.5 32.6	79.5 79.0 76.8	2.3 2.3 2.1



Nº de ident.: 9842523/95738/

Radio de descarga: 360°

2 - Vía ancha

Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

Valor de vuelco: Lastre trasero [t]: 124.0 52.6 Lastre central [t]:

		gulo de orincipa			gulo de orincipa		75° Án I	gulo de orincipa	pluma I		gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı		eza de p	il, Punto Ilumín (19 n] Posici	916-1) 8	0.5 m Pli	eza de p umín	lumín				
21.6 22.0 24.0 26.0 28.0	78.0 77.7 76.2 74.7 73.3	128.7 128.6 128.1 127.6 127.0	7.8 7.8 7.5 7.2 7.0												
30.0 32.0 32.5 34.0	71.8 70.2 68.7	126.3 125.6 124.9	6.8 6.7 6.5	73.0 71.9	126.5 126.0	6.9 6.9									
36.0 38.0 40.0 42.0	67.2 65.6 64.0 62.4	124.0 123.1 122.2 121.1	6.3 6.2 6.0 5.9	70.3 68.8 67.3 65.7	125.3 124.5 123.7 122.8	6.7 6.5 6.4 6.2									
44.0 46.0 48.0	60.8 59.1 57.4	120.0 118.8 117.6	5.8 5.7 5.6	64.1 62.5 60.9	121.8 120.8 119.7	6.1 6.0 5.9	65.0	121.0	6.0						
49.4 50.0 55.0 60.0	55.7 51.2 46.4	116.2 112.4 108.0	5.5 5.2 5.0	59.2 54.9 50.4	118.5 115.2 111.3	5.7 5.4 5.2	65.0 64.5 60.5 56.2	120.7 118.0 114.9	6.0 5.8 5.5						
65.0 69.2 70.0 75.0 80.0	41.2 35.4 28.5 19.6	96.2 88.0 76.5	4.9 4.7 4.3 3.9	45.5 40.2 34.3 27.2	106.7 101.2 94.5 85.9	5.0 4.9 4.7 4.6	51.8 47.0 41.9 36.2	111.2 106.8 101.6 95.3	5.3 5.1 5.0 4.9	55.0 54.3 49.7 44.8	110.9 110.3 106.3 101.6	5.2 5.2 5.1 4.9			
82.0 85.0 86.0 90.0	16.3	72.2	3.5	17.6 15.0	73.5 70.0	4.4 4.3	29.5	87.4 76.5	4.8	39.4	96.0 89.0	4.8			
93.0 95.0 100.0							15.4	69.1	4.3	26.0 15.8	80.1 66.6	4.7 4.7			



N° de ident.: 9842523/95738/ Pieza de artic

Radio de descarga: $$360\ ^{\circ}$$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו	m Pluma Cab	eza de p	ıl, Punto lumín (1: ı] Posici	916-1) 8	3.5 m Plı	eza de p umín	lumín		-		
22.2	78.0	131.6	7.0				1 00.0.		. ()						1
24.0	76.0	131.0	6.9												
26.0	75.3	130.7	6.6												
28.0	73.9	130.1	6.4												
30.0	72.4	129.5	6.2												
32.0	71.0	128.8	6.1												
33.4				73.0	129.3	6.2									
34.0	69.5	128.1	5.9	72.5	129.1	6.2									
36.0	68.0	127.3	5.8	71.1	128.5	6.1									
38.0	66.5	126.4	5.6	69.6	127.7	5.9									
40.0	65.0	125.5	5.5	68.1	126.9	5.8									
42.0	63.5	124.5	5.4	66.6	126.1	5.7									
44.0	61.9	123.5	5.3	65.1	125.2	5.5									
46.0	60.3	122.3	5.2	63.6	124.2	5.4									
48.0	58.7	121.1	5.1	62.0	123.1	5.3									
50.0	57.1	119.8	4.9	60.4	122.0	5.2									
50.7							65.0	123.7	5.4						
55.0	52.8	116.3	4.7	56.4	118.9	4.9	61.6	121.5	5.3						
60.0	48.4	112.1	4.5	52.1	115.2	4.7	57.6	118.5	5.0						
65.0	43.5	107.2	4.3	47.6	110.9	4.5	53.4	115.0	4.8						
70.0 70.9	38.2	101.3	4.1	42.7	105.8	4.3	49.0	110.9	4.6	55.0	113.3	4.6			
70.9 75.0	32.2	94.0	3.9	37.2	99.7	4.2	44.2	106.0	4.5	55.0 51.5	110.2	4.5			
75.0 80.0	24.8	94.0 84.6	3.6	31.0	99.7	4.2	38.9	100.0	4.3	46.9	105.8	4.5			
85.0	16.0	72.6	3.0	23.4	82.3	3.9	33.0	93.3	4.3	41.9	100.6	4.4			
89.0	10.0	12.0	3.0	16.4	72.7	3.3	33.0	33.3	4.4	41.5	100.0	4.0			
90.0				10.7	12.1	0.0	25.9	84.2	4.1	36.4	94.3	4.2			
95.0							16.1	70.9	4.0	30.4	86.5	4.1			
96.0							15.1	69.5	3.6	00.0	00.0				
100.0										22.0	76.1	4.1			
103.0										15.5	67.0	4.1			



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa		45° Án I	gulo de orincipa	pluma I
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו	m Pluma Cab	eza de p	al, Punto dumín (19 n] Posici	916-1) 8	6.5 m Pl		lumín		-		
22.8 24.0 26.0 28.0 30.0	78.0 77.2 75.8 74.5 73.1	134.5 134.3 133.8 133.2 132.6	6.4 6.3 6.1 5.9 5.7												
32.0 34.0 34.2 36.0 38.0	71.7 70.3 68.8 67.4	132.0 131.3 130.5 129.7	5.6 5.4 5.3 5.2	73.0 71.8 70.4	132.2 131.6 130.9	5.7 5.6 5.5									
40.0 42.0 44.0 46.0 48.0	65.9 64.5 63.0 61.5 59.9	128.8 127.9 126.9 125.8 124.6	5.1 4.9 4.8 4.8 4.7	68.9 67.5 66.0 64.6 63.1	130.2 129.3 128.5 127.5 126.5	5.3 5.2 5.1 5.0 4.9									
50.0 51.9 55.0 60.0 65.0	58.4 54.4 50.1 45.6	123.4 120.0 116.1 111.5	4.5 4.3 4.2 3.9	61.6 57.7 53.6 49.4	125.5 125.5 122.5 119.0 114.9	4.8 4.5 4.3 4.1	65.0 62.7 58.9 54.9	126.4 124.9 122.0 118.7	4.9 4.8 4.6 4.4						
70.0 72.6 75.0 80.0 85.0	40.7 35.2 28.9 20.9	106.0 99.5 91.4 80.3	3.5 3.5 3.3 3.1	44.8 39.8 34.2 27.7	110.2 104.6 97.8 89.3	3.9 3.8 3.6 3.4	50.7 46.2 41.4 36.0	114.8 110.3 105.0 98.6	4.2 4.0 3.9 3.7	55.0 53.0 48.7 44.1	115.8 114.0 109.9 105.1	4.1 4.1 4.0 3.9			
88.0 90.0 92.0 95.0 98.0	15.7	73.0	2.6	19.2 16.1	77.5 73.1	3.3 2.8	29.8 22.1 15.8	90.8 80.2 71.3	3.6 3.5 3.4	39.0 33.3	99.3	3.7			
100.0 105.0 106.0							10.0	71.5	- 0.4	26.6 17.6 15.2	83.5 70.9 67.4	3.6 3.5 3.5			



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı	m Pluma Cab	eza de p	al, Punto llumín (1 n] Posici	916-1) 8	9.5 m Pl	eza de p umín	lumín				
23.5	78.0	137.5	5.6												
24.0	77.6	137.4	5.6												
26.0	76.3	136.9	5.4												
28.0	75.0	136.4	5.2												
30.0	73.7	135.8	5.1												
32.0	72.3	135.1	4.9												
34.0	70.9	134.5	4.8												
35.1				73.0	135.1	4.9									
36.0	69.6	133.7	4.7	72.4	134.8	4.9									
38.0	68.2	132.9	4.6	71.0	134.1	4.8									
40.0	66.8	132.1	4.4	69.7	133.4	4.7									
42.0 44.0	65.4 64.0	131.2 130.2	4.3 4.2	68.3 66.9	132.6 131.8	4.6 4.5									
44.0 46.0	62.5	129.2	4.2	65.5	130.8	4.3									
48.0	61.0	128.1	4.0	64.1	129.9	4.3									
50.0	59.6	126.1	3.9	62.6	128.9	4.1									
53.2	33.0	120.5	0.0	02.0	120.5	7.1	65.0	129.1	4.2						
55.0	55.7	123.7	3.7	58.9	126.0	3.9	63.7	128.2	4.2						
60.0	51.7	120.0	3.5	55.1	122.7	3.7	60.0	125.5	3.9						
65.0	47.5	115.6	3.3	51.0	118.9	3.5	56.2	122.4	3.7						
70.0	42.9	110.6	3.1	46.7	114.4	3.4	52.3	118.7	3.6						
74.3										55.0	118.3	3.5			
75.0	37.9	104.6	3.0	42.1	109.2	3.2	48.0	114.4	3.4	54.5	117.8	3.5			
80.0	32.3	97.4	2.8	37.0	103.1	3.0	43.5	109.5	3.3	50.4	113.9	3.4			
85.0	25.5	88.1	2.6	31.2	95.5	2.9	38.6	103.6	3.1	46.1	109.3	3.2			
90.0	16.4	74.7	2.4	24.2	85.8	2.8	33.0	96.6	3.0	41.4	104.0	3.1			
91.0	15.5	73.4	2.1												
95.0				15.8	73.5	2.3	26.5	87.7	2.9	36.2	97.7	3.1			
100.0							17.8	75.1	2.8	30.3	89.9	3.0			
101.0							15.5	71.7	2.8						
105.0										23.0	79.7	2.9			
109.0										16.4	70.1	2.5			



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ı		eza de p	ıl, Punto lumín (1 ı] Posici	916-1) 9:	2.5 m Pl	eza de p umín	lumín				
24.1	78.0	140.4	5.0												
26.0	76.8	140.0	4.9												
28.0	75.5	139.5	4.7												
30.0	74.2	138.9	4.6												
32.0	72.9	138.3	4.4												
34.0	71.6	137.6	4.3												
36.0	70.3	136.9	4.2	73.0	137.9	4.4									
38.0	68.9	136.2	4.0	71.7	137.3	4.3									
40.0	67.6	135.4	3.9	70.4	136.6	4.2									
42.0	66.2	134.5	3.8	69.0	135.8	4.1									
44.0	64.9	133.6	3.7	67.7	135.0	4.0									
46.0	63.5	132.6	3.6	66.3	134.1	3.8									
48.0	62.1	131.5	3.5	65.0	133.2	3.7									
50.0	60.7	130.4	3.4	63.6	132.2	3.6									
54.5							65.0	131.9	3.6						
55.0	57.0	127.3	3.2	60.0	129.5	3.4	64.6	131.6	3.6						
60.0	53.2	123.8	3.0	56.4	126.3	3.2	61.1	129.0	3.4						
65.0	49.2	119.7	2.9	52.5	122.7	3.0	57.5	126.0	3.2						
70.0	44.9	114.9	2.7	48.5	118.5	2.9	53.7	122.5	3.1						
75.0	40.3	109.4	2.5	44.1	113.7	2.7	49.7	118.5	2.9						
76.1										55.0	120.7	2.9			
80.0	35.1	102.8	2.4	39.4	108.0	2.6	45.5	113.8	2.8	51.9	117.7	2.9			
85.0				34.2	101.2	2.5	40.9	108.4	2.7	47.8	113.5	2.7			
90.0				28.1	92.7	2.3	35.8	102.0	2.6	43.5	108.5	2.7			
95.0							30.1	94.1	2.5	38.7	102.7	2.6			
100.0							23.0	83.9	2.3	33.4	95.7	2.5			
105.0										27.1	86.9	2.4			
110.0										19.0	74.9	2.3			
112.0										16.2	70.5	2.0			



N° de ident.: 9842523/95738/ Pie

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		gulo de principa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				47.0 ו		eza de p	al, Punto Ilumín (1: n] Posici	916-1) 9	5.5 m Pl	eza de p umín	lumín		_		
24.7	78.0	143.3	4.6												
26.0	77.2	143.1	4.6												
28.0	76.0	142.6	4.4												
30.0	74.7	142.0	4.3												
32.0	73.5	141.4	4.1												
34.0	72.2	140.8	4.0												
36.0	70.9	140.1	3.9												
36.9				73.0	140.8	4.0									
38.0	69.6	139.4	3.8	72.3	140.4	4.0									
40.0	68.3	138.6	3.7	71.0	139.8	3.9									
42.0	67.0	137.8	3.6	69.7	139.0	3.8									
44.0	65.7	136.9	3.5	68.4	138.3	3.7									
46.0	64.4	135.9	3.4	67.1	137.4	3.6							<u> </u>		
48.0	63.0	134.9	3.3	65.8	136.5	3.5									
50.0	61.7	133.8	3.2	64.5	135.6	3.4									
55.0	58.2	130.9	2.9	61.1	133.0	3.2									
55.7							65.0	134.6	3.3						
60.0	54.5	127.5	2.7	57.6	129.9	2.9	62.1	132.4	3.2						
65.0	50.7	123.6	2.5	53.9	126.5	2.7	58.6	129.5	3.0						
70.0	46.7	119.2	2.3	50.1	122.5	2.5	55.0	126.2	2.8						
75.0				46.0	117.9	2.3	51.2	122.4	2.6						
77.8										55.0	123.2	2.6			
80.0							47.2	118.0	2.4	53.3	121.5	2.6			
85.0										49.5	117.5	2.4			

Source:a9841388



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de principa			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				50.0 ו		eza de p	ıl, Punto lumín (2: ı l Posici	316-1) 3	8.5 m Pl	eza de p umín	lumín		_		
12.9	78.0	90.6	50.6						(===;						
13.0	77.9	90.6	50.6												
14.0	76.3	90.3	49.5												
16.0	73.2	89.8	42.8												
18.0	70.1	89.1	36.8												
20.0	66.9	88.2	32.0												
20.6				73.0	89.3	43.1									
22.0	63.6	87.3	27.9	70.7	88.8	42.0									
24.0	60.2	86.2	25.1	67.5	88.0	38.6									
26.0	56.6	84.9	22.7	64.2	87.1	34.0									
28.0	53.0	83.4	20.8	60.9	86.0	30.8									
30.0	49.1	81.8	19.3	57.4	84.7	27.8									
32.0	45.0	79.9	18.0	53.7	83.3	25.4									
32.4							65.0	85.8	26.7						
34.0	40.5	77.6	16.8	49.9	81.7	23.5	62.4	85.0	26.8						
36.0	35.6	75.0	15.8	45.8	79.8	21.7	59.0	83.9	25.1						
38.0	30.0	71.8	15.0	41.4	77.7	20.1	55.4	82.5	23.7						
40.0	23.1	67.6	14.2	36.6	75.1	18.8	51.7	81.0	22.6						
42.0	15.2	62.6	12.6	31.2	72.1	17.7	47.7	79.3	21.5						
44.0				24.6	68.2	16.6	43.5	77.2	20.4						
46.0				15.6	62.5	15.4	38.9	74.9	19.5						
46.4										55.0	79.2	16.6			
48.0							33.8	72.1	18.7	52.2	78.0	17.3			
50.0							27.8	68.6	18.0	48.2	76.3	16.4			
53.0							15.1	60.7	16.9						
55.0										37.1	70.7	15.0			
60.0										21.4	61.5	13.6			
61.0										16.6	58.4	13.3	25.0	50.0	7.0
69.8													35.0	59.3	7.0
70.0													34.5	59.0	7.0
75.0													19.5	49.9	6.0



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de orincipal		83° Án	gulo de orincipa	pluma I		gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				50.0 ו		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 4	1.5 m Pli	eza de p umín	lumín				
13.5 14.0 16.0	78.0 77.3 74.5	93.5 93.4 92.9	47.1 47.1 41.8												
18.0 20.0	71.6 68.6	92.2 91.5	36.1 31.9												
21.4 22.0 24.0	65.6 62.5	90.6 89.6	27.7 24.6	73.0 72.2 69.2	92.1 92.0 91.2	40.4 40.3 37.7									
26.0 28.0 30.0	59.3 56.1 52.6	88.5 87.2 85.7	22.3 20.5 18.9	66.2 63.2 60.0	90.4 89.4 88.3	34.5 30.7 28.0									
32.0 33.7	49.0	84.0	17.7	56.7	87.0	25.4	65.0	88.5	25.9						
34.0 36.0 38.0	45.2 41.1 36.6	82.1 79.9 77.4	16.5 15.5 14.6	53.3 49.8 46.0	85.6 83.9 82.1	23.4 21.7 20.1	64.6 61.5 58.2	88.4 87.3 86.1	25.9 24.8 23.5						
40.0 42.0 44.0	31.6 25.7 18.0	74.3 70.6 65.4	13.9 13.2 12.5	42.0 37.6 32.7	80.0 77.5 74.6	18.7 17.4 16.4	54.9 51.4 47.8	84.8 83.2 81.5	22.2 21.1 20.2						
46.0 48.0	16.0	65.4	12.5	27.0 19.8	71.0 66.2	15.5 14.5	47.8 43.9 39.6	79.5 77.2	19.2 18.3						
48.1 49.0 50.0				15.0	62.8	14.0	35.0	74.5	17.6	55.0 51.9	81.7 80.3	15.6 16.3			
55.0 56.0							19.5 16.3	64.5 62.3	15.9 14.8	42.3	75.5	14.6			
60.0 64.0 72.3										30.4 15.9	68.5 58.8	13.4 12.4	35.0	61.0	6.1
75.0 78.0													29.2 18.7	57.4 50.4	5.6 5.0



 N° de ident.: 9842523/95738/ Pieza de articulación de p Radio de descarga: 360 $^{\circ}$ Cabeza de pluma princip

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

		gulo de orincipal			gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
				50.0 ו	m Pluma Cab	eza de p	al, Punto dumín (2: n] Posici	316-1) 4	4.5 m Pl		lumín		-		
14.2 16.0 18.0 20.0 22.0 22.3 24.0 26.0 28.0 30.0 32.0 34.0 35.0 36.0 38.0 40.0 42.0 44.0	78.0 75.6 72.9 70.1 67.4 64.5 61.6 58.6 55.5 52.3 49.0 45.4 41.6 37.5 33.0 27.8	96.5 96.0 95.4 94.7 93.9 93.0 91.9 90.8 89.4 87.9 86.3 84.4 82.2 79.7 76.8 73.3	43.8 41.1 35.8 31.1 27.5 24.2 21.8 20.1 18.6 17.4 16.3 15.3 14.4 13.5 12.9 12.3	73.0 70.7 67.9 65.1 62.2 59.2 56.2 53.0 49.7 46.1 42.4 38.4	95.0 94.4 93.7 92.8 91.7 90.6 89.3 87.8 86.2 84.3 82.2 79.8	37.9 36.8 34.3 30.9 28.0 25.6 23.4 21.6 20.1 18.7 17.4 16.3	65.0 63.6 60.6 57.6 54.5 51.2	91.2 90.7 89.7 88.4 87.0 85.5	24.5 24.5 23.0 21.9 20.7 19.7						
46.0 47.0 48.0 49.8 50.0 52.0 55.0	21.4 17.4	68.8 65.8	11.7 11.3	28.9 22.8 16.1	77.0 73.6 69.4 64.5	15.4 14.5 13.6 11.4	47.8 44.2 40.3 28.7	83.7 81.8 79.5 72.0	18.9 18.0 17.2 15.7	55.0 54.9 46.5	84.1 84.1 79.9	14.7 15.7			
59.0 60.0 65.0 67.0 74.7 75.0 80.0 81.0							15.7	62.7	13.8	36.6 23.4 15.4	74.1 65.2 59.2	12.9 11.9 11.5	35.0 34.4 21.9 18.0	62.7 62.3 53.7 50.9	5.5 5.4 4.6 4.4



2821-1

2821-1

Nº de ident.: 9842523/95738/

Radio de descarga: 36

25738/ Pieza de articulación de pluma principal: 360 ° Cabeza de pluma principal:

	88° Ángulo de pluma principal			83° Ángulo de pluma principal				gulo de orincipa			gulo de orincipa		45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
50.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (2316-1) 47.5 m Plumín 25.0 [m] Posición midfall (2316)															
14.8	78.0	99.4	40.6												
16.0	76.5	99.1	40.1												
18.0	74.0	98.6	35.0												
20.0	71.5	97.9	30.3												
22.0	68.9	97.2	27.0												
23.2				73.0	97.9	35.4									
24.0	66.3	96.3	23.9	72.0	97.6	35.2									
26.0	63.6	95.3	21.5	69.4	96.9	33.4 31.2									
28.0 30.0	60.8 58.0	94.3 93.0	19.7 18.2	66.8 64.1	96.1 95.1	27.9									
32.0	55.1	93.0	16.9	61.4	95.1	25.5									
34.0	52.1	90.2	15.8	58.6	92.9	23.3				i			i		
36.0	48.9	88.5	14.9	55.7	91.5	21.4				i			i		
36.2	40.5	00.5	14.5	55.7	31.5	21.7	65.0	94.0	22.5	i			i		i i
38.0	45.6	86.6	14.0	52.7	90.1	19.8	62.7	93.1	22.6						
40.0	42.1	84.5	13.2	49.6	88.4	18.5	59.9	92.0	21.3						
42.0	38.3	82.0	12.4	46.3	86.6	17.2	57.0	90.7	20.3	l					
44.0	34.1	79.2	11.8	42.8	84.5	16.1	54.1	89.3	19.2	İ			İ		l I
46.0	29.5	75.9	11.2	39.1	82.1	15.0	51.0	87.7	18.4						
48.0	24.0	71.8	10.7	35.0	79.4	14.2	47.8	86.0	17.6						
50.0	16.8	66.3	10.1	30.4	76.2	13.4	44.4	84.0	16.8						
51.5										55.0	86.6	13.8			
55.0				15.6	64.9	10.2	34.8	77.8	15.2	49.8	83.9	13.9			
60.0							21.8	68.3	13.9	41.3	78.9	12.6			
62.0							15.2	63.1	12.7						
65.0										30.9	71.9	11.5			
70.0										16.4	60.8	9.6			
77.2													35.0	64.4	4.6
80.0													29.8	60.8	4.2
84.0													17.4	51.3	3.5



2821-1

2821-1

Nº de ident.: 9842523/95738/ Pieza de articulación de pluma principal: Radio de descarga: 360 ° Cabeza de pluma principal:

		gulo de orincipa			gulo de orincipa			gulo de orincipa			gulo de orincipa		45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
	50.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (2316-1) 50.5 m Plumín 28.0 [m] Posición midfall (2316)														
15.4 16.0 18.0 20.0 22.0 24.0 24.1 26.0 28.0 30.0 32.0 34.0 36.0 37.5 38.0 40.0 44.0 44.0 46.0 48.0 50.0 53.0 53.2 55.0 60.0 64.0	78.0 77.3 75.0 72.6 70.2 67.7 65.3 62.7 60.1 57.5 54.7 51.8 48.9 45.8 42.5 38.9 35.1 30.9 26.0 16.3	102.3 102.2 101.7 101.1 100.4 99.6 98.7 97.7 96.6 95.3 93.9 92.4 90.7 88.8 86.7 84.4 81.6 78.5 74.7 66.7	37.8 37.8 34.1 30.0 26.2 23.6 21.2 19.4 18.0 16.7 15.5 14.6 12.9 12.2 11.5 10.9 10.4 9.9 9.2	73.0 70.7 68.2 65.8 63.2 60.7 58.0 55.3 52.4 49.5 46.4 43.1 39.7 35.9	100.8 100.1 99.3 98.4 97.5 96.4 95.2 93.8 92.3 90.7 88.8 86.7 84.4 81.8	33.1 32.4 30.6 28.1 25.5 23.5 21.5 19.8 18.4 17.2 16.1 15.0 14.1 13.3	65.0 64.4 61.9 59.2 56.5 53.7 50.9 47.8	96.7 96.5 95.4 94.3 93.0 91.5 90.0 88.2	21.8 21.8 21.0 19.9 18.0 17.2 16.5	55.0 52.7 45.1	89.0 87.8 83.3	12.9 13.6			
65.0 70.0 73.0 79.6 80.0							17.0	05.9	12.0	36.2 24.8 15.9	77.4 68.7 61.2	11.1 10.3 8.8	35.0 34.7	66.1 65.9	3.9 3.9
85.0 87.0													23.6 16.9	57.4 51.8	3.1 2.8



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de orincipal		83° Ángulo de pluma principal				gulo de orincipa			gulo de orincipa		45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
	50.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (2316-1) 53.5 m Plumín 31.0 [m] Posición midfall (2316)														
16.0	78.0	105.3	34.6												
18.0	75.8	104.8	33.4												
20.0	73.6	104.2	29.6												
22.0	71.3	103.6	25.6												
24.0	69.1	102.8	22.8	70.0	100.0	00.7									
24.9	00.7	400.0	00.7	73.0 71.8	103.6 103.3	30.7									
26.0 28.0	66.7 64.4	102.0 101.0	20.7 18.9	69.5	103.3	30.5 29.3									
30.0	62.0	101.0	17.5	67.2	102.6	29.3									
32.0	59.5	98.9	16.3	64.9	101.7	25.4									
34.0	57.0	97.6	15.2	62.5	99.8	23.2									
36.0	54.3	96.2	14.2	60.0	98.7	21.5									
38.0	51.6	94.7	13.3	57.5	97.4	19.7							i		
38.8							65.0	99.4	20.5						
40.0	48.8	93.0	12.6	54.9	96.1	18.2	63.6	98.8	20.4						
42.0	45.9	91.1	11.8	52.2	94.6	16.9	61.1	97.7	19.5						
44.0	42.8	89.0	11.2	49.4	92.9	15.9	58.6	96.5	18.6						
46.0	39.5	86.7	10.5	46.5	91.0	14.8	56.1	95.2	17.6						
48.0	36.0	84.0	10.0	43.4	89.0	13.9	53.4	93.8	16.8						
50.0	32.1	81.0	9.5	40.2	86.7	13.0	50.7	92.2	16.1						
55.0	19.4	70.3	8.4	30.8	79.6	11.3	43.3	87.4	14.4	55.0	91.5	12.2			
56.0 60.0	15.8	67.1	8.2	17.4	68.1	9.7	34.7	81.1	13.1	48.2	87.5	11.9			
65.0				17.4	68.1	9.7	23.4	71.9	13.1	48.2 40.5	87.5 82.3	10.8			
67.0							17.1	66.3	11.6	40.5	02.3	10.6			
70.0							17.1	00.0	11.0	31.2	75.2	9.9			
75.0										16.9	63.0	8.6			
76.0										15.4	61.6	8.0			
82.1													35.0	67.9	3.1
85.0													30.3	64.1	2.7
90.0													16.4	52.2	2.0



N° de ident.: 9842523/95738/ Pieza

Radio de descarga: 360 $^{\circ}$

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 124.0 52.6

	88° Ángulo de pluma principal				83° Ángulo de pluma principal			75° Ángulo de pluma principal			gulo de orincipa		45° Ángulo de plum principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
	50.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (2316-1) 56.5 m Plumín 22.0 [m] Posición midfall (2316)														
16.7 18.0 20.0 22.0 24.0	78.0 76.6 74.5 72.4 70.2	108.2 107.9 107.3 106.7 106.0	31.9 31.8 28.6 25.3 22.2												
25.8 26.0 28.0 30.0 32.0	68.0 65.8 63.6 61.3	105.2 104.4 103.4 102.3	20.2 18.5 17.1 16.1	73.0 72.8 70.7 68.5 66.3	106.5 106.4 105.8 105.0 104.1	28.6 28.6 28.0 27.0 25.5									
34.0 36.0 38.0 40.0 42.0	58.9 56.5 54.0 51.5 48.8	101.2 99.9 98.5 96.9 95.2	15.0 13.9 13.1 12.3 11.7	64.0 61.7 59.4 57.0 54.5	103.2 102.1 101.0 99.7 98.3	23.2 21.4 19.8 18.2 16.9	65.0 62.8	102.1 101.2	19.0 19.1						
44.0 46.0 48.0 50.0 55.0	46.0 43.1 40.0 36.7 26.9	93.3 91.2 88.9 86.4 78.1	11.0 10.3 9.8 9.3 8.2	52.0 49.3 46.6 43.7 35.7	96.8 95.1 93.3 91.3 85.1	15.8 14.8 13.9 13.0 11.1	60.5 58.1 55.7 53.2 46.5	100.0 98.8 97.5 96.0 91.7	18.2 17.4 16.5 15.7 14.2						
56.7 59.0 60.0 63.0 65.0	15.3	67.5	7.4	25.5 16.9	76.5 68.5	9.7 8.9	38.9 29.8	86.2 78.7	12.8 11.8	55.0 50.9 44.0	93.9 91.5 86.8	11.5 11.7 10.6			
70.0 75.0 78.0 84.6 85.0							16.6	66.7	10.7	36.0 25.9 16.4	80.7 72.2 63.4	9.7 8.6 7.9	35.0 34.2 27.2	69.6 68.9 63.0	2.7 2.6 2.1



N° de ident.:9842523/95738/Pieza de articulación de pluma principal:2821-1Radio de descarga:360 °Cabeza de pluma principal:2821-1

		gulo de orincipal		83° Ángulo de pluma principal				gulo de orincipa			gulo de orincipa		45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
	50.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (2316-1) 59.5 m Plumín 25.0 [m] Posición midfall (2316)														
17.3	78.0	111.1	29.2												
18.0	77.3	111.0	29.2												
20.0	75.3	110.5	27.6												
22.0	73.3	109.9	24.9												
24.0	71.3	109.2	21.8												
26.0	69.2	108.5	19.7												
26.7				73.0	109.4	26.4									
28.0	67.1	107.7	18.0	71.7	108.9	26.2									
30.0	65.0	106.7	16.6	69.6	108.2	25.5									
32.0	62.9	105.7	15.5	67.6	107.4	24.8									
34.0	60.7	104.6	14.5	65.4	106.5	22.9									
36.0	58.4	103.4	13.5	63.3	105.5	21.1									
38.0	56.1	102.1	12.6	61.1	104.5	19.7									
40.0	53.7	100.7	11.8	58.9	103.3	18.1									
41.3							65.0	104.8	18.3						
42.0	51.3	99.1	11.2	56.6	102.0	16.7	64.3	104.5	18.3						
44.0	48.8	97.4	10.6	54.2	100.6	15.5	62.1	103.5	17.8						
46.0	46.1	95.6	9.9	51.8	99.0	14.5	59.9	102.4	16.8						
48.0	43.4	93.5	9.4	49.3	97.4	13.6	57.6	101.1	16.1						
50.0	40.5	91.2	8.9	46.7	95.5	12.7	55.3	99.8	15.3						
55.0	32.2	84.3	7.8	39.6	90.1	10.8	49.2	95.8	13.8	55.0	96.4	10.8			
58.4 60.0	21.3	74.2	6.9	31.1	82.9	9.4	42.4	90.9	12.4	55.0 53.2	96.4 95.3	10.8			
62.0	16.2	74.2 69.1	5.9	31.1	02.9	9.4	42.4	90.9	12.4	55.2	95.3	11.2			
65.0	10.2	09.1	5.8	19.6	72.1	8.1	34.6	84.5	11.3	46.9	91.0	10.2			
66.0				16.4	68.9	7.9	34.0	04.0	11.3	40.9	91.0	10.2			
70.0				10.4	00.9	1.9	24.6	75.5	10.4	39.8	85.7	9.3			
73.0							16.1	67.2	9.8	39.0	00.1	9.3			
75.0 75.0							10.1	01.2	9.0	31.0	78.1	8.2			
80.0										19.3	67.1	7.1			
81.0										16.0	63.8	6.9			



 N° de ident.: 9842523/95738/ Pieza de articulación de Radio de descarga: 360 $^{\circ}$ Cabeza de pluma princip

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 124.0 Lastre central [t]: 52.6

	88° Ángulo de pluma principal				gulo de orincipa			gulo de orincipa			gulo de orincipa		45° Ángulo de pluma principal		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]
50.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (2316-1) 62.5 m Plumín 28.0 [m] Posición midfall (2316)															
17.9	78.0	114.1	27.1												
18.0	77.9	114.0	27.1												
20.0	76.0	113.6	26.9												
22.0	74.1	113.0	24.1												
24.0	72.2	112.4	21.6												
26.0	70.3	111.7	19.4												
27.6				73.0	112.2	24.8									
28.0	68.3	110.9	17.8	72.6	112.1	24.7									
30.0	66.3	110.1	16.4	70.6	111.4	24.3									
32.0	64.3	109.1	15.2	68.7	110.6	23.6									
34.0	62.2	108.1	14.2	66.7	109.8	22.8									
36.0	60.1	107.0	13.3	64.7	108.9	20.9									
38.0	58.0	105.7	12.4	62.6	107.9	19.4									
40.0	55.7	104.4	11.6	60.5	106.8	18.2									
42.0	53.5	103.0	10.9	58.4	105.6	16.8	25.0	407.0	47.0						
42.6	54.0	404.4	40.0	50.0	404.0	45.5	65.0	107.6	17.3						
44.0	51.2 48.7	101.4	10.3	56.2	104.3 102.8	15.5	63.6	106.9 105.8	17.3						
46.0 48.0	46.7	99.7 97.8	9.8 9.2	53.9 51.6	102.8	14.4 13.5	61.5 59.4	105.6	16.5 15.7						
50.0	43.6	95.8	8.7	49.2	99.6	12.7	59.4 57.2	104.7	15.7						
55.0	36.4	89.7	7.5	42.8	94.7	10.8	51.5	99.7	13.4						
60.0	27.6	81.5	6.7	35.5	88.4	9.3	45.4	95.2	12.2						
60.1	27.0	01.5	0.7	55.5	00.4	3.5	40.4	33.2	12.2	55.0	98.9	10.1			
65.0	15.8	69.5	5.3	26.4	79.9	8.1	38.4	89.6	11.0	49.4	95.1	9.9			
69.0		55.5	0.0	16.0	69.3	7.1		00.0			00	0.0			
70.0				. 5.0	13.0		30.2	82.1	10.1	43.0	90.2	9.0			
75.0							18.9	70.9	9.2	35.7	84.0	8.0			
76.0							15.7	67.6	9.0						
80.0										26.8	75.6	6.9			
84.0										17.6	66.4	6.1			