

N° de ident.: 9842523/95738/ Pieza de

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

		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]
				29.0		eza de p	il, Punto llumín (19 n] Posici	916-1) 4	7.5 m Pli	eza de p umín	lumín				
14.0 16.0 18.0 20.0 20.6	78.0 75.6 73.1 70.5	78.4 77.9 77.3 76.7	25.3 24.1 22.5 21.2	73.0	77.0	21.6									
22.0 24.0 26.0 28.0 30.0	67.9 65.3 62.6 59.8 57.0	75.9 75.0 74.0 72.8 71.6	20.0 19.0 18.2 17.4 16.7	71.3 68.7 66.0 63.4 60.6	76.6 75.8 75.0 74.0 72.9	21.2 20.0 19.1 18.4 17.8									
30.8 32.0 34.0 36.0 38.0	54.0 50.9 47.7 44.3	70.2 68.6 66.8 64.9	16.1 15.6 14.9 14.1	57.8 54.9 51.8 48.7	71.7 70.3 68.8 67.1	17.1 16.6 16.1 15.4	65.0 63.4 60.7 57.8 54.9	73.7 73.1 72.0 70.8 69.4	18.8 18.6 18.0 17.4 16.8						
40.0 42.0 42.6 44.0 46.0	40.7 36.8 32.5 27.6	62.6 60.1 57.1 53.6	13.4 12.8 12.1 11.4	45.3 41.8 38.0 33.8	65.2 63.0 60.6 57.7	14.7 14.1 13.5 12.9	51.9 48.7 45.4 41.9	67.9 66.2 64.3 62.2	16.3 15.8 15.0 14.3	55.0 53.1 50.0	67.5 66.6 65.0	15.9 16.5 16.0			
48.0 49.0 50.0 52.0 55.0	21.6 17.9	49.0 46.2	10.6 10.3	29.1 23.5 16.1	54.4 50.2 44.4	12.1 11.3 10.4	38.1 33.9 20.3	59.7 56.9 46.8	13.7 13.1 11.4	46.8 43.3 33.5	63.2 61.1 54.7	15.6 14.8 13.2			
56.0 60.0 61.0 62.3 65.0							16.3	43.7	11.0	19.6 15.4	44.4 41.1	11.7 11.4	35.0 29.4 16.7	49.6 45.6 35.9	12.7 12.6 11.5



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 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]
				29.0		eza de p	al, Punto llumín (1 n] Posici	916-1) 5	0.5 m Plı		lumín				
14.7 16.0 18.0 20.0 21.5 22.0 24.0	78.0 76.5 74.1 71.7 69.3 66.8	81.3 81.0 80.5 79.8 79.1 78.3	23.1 22.7 21.5 20.3 19.5 18.7	73.0 72.4 70.0	79.9 79.8 79.0	20.1 20.1 19.3									
24.0 26.0 28.0 30.0 32.0 32.1	64.3 61.8 59.2 56.5	76.3 77.3 76.3 75.1 73.8	18.0 17.5 17.0	67.6 65.1 62.5 59.9	79.0 78.2 77.3 76.3 75.2	19.3 18.6 18.1 17.7	65.0	76.4	18.0						
34.0 36.0 38.0 40.0 42.0	53.7 50.8 47.7 44.6 41.2	72.4 70.8 69.1 67.1 64.9	16.2 15.8 15.1 14.3 13.6	57.2 54.5 51.6 48.6 45.5	74.0 72.6 71.0 69.3 67.4	16.9 16.6 16.3 15.7 15.0	62.6 60.0 57.3 54.5 51.7	75.4 74.3 73.1 71.7 70.1	17.8 17.3 17.0 16.7 16.4						
44.0 44.4 46.0 48.0	37.6 33.6 29.2	62.4 59.6 56.2	13.0 12.4 11.6	42.2 38.6 34.8	65.3 62.9 60.1	14.5 14.0 13.4	48.7 45.6 42.3	68.4 66.5 64.4	15.9 15.2 14.6	55.0 52.9 49.9	70.0 68.9 67.2	15.7 16.2 16.0			
50.0 52.0 55.0 59.0 60.0	24.0 17.4	52.1 46.6	10.8 9.9	30.5 15.6	56.9 44.8	12.5	38.7 28.3 15.8	62.0 54.3 44.1	14.0 12.4 10.9	46.9 38.4 28.6	65.4 59.9 52.6	15.8 13.9 12.6			
64.0 64.8 65.0 70.0 72.0										16.4	42.7	11.2	35.0 35.0 23.1 16.1	51.3 51.3 42.1 36.3	12.7 13.0 11.7 11.2



2821-1

2821-1

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

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

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]
				29.0 ו	m Pluma Cab	eza de p	ıl, Punto lumín (1: ı] Posici	916-1) 5	3.5 m Plı	eza de p umín	lumín				
15.3 16.0	78.0 77.2	84.3 84.1	20.8 20.8												
18.0	75.0	83.6	19.7												
20.0	72.8	83.0	18.7												
22.0	70.5	82.3	17.8												
22.4				73.0	82.8	18.1									
24.0	68.2	81.5	17.2	71.2	82.2	17.8									
26.0	65.9	80.7	16.6	68.9	81.5	17.1									
28.0	63.5	79.7	16.2	66.6	80.6	16.7									
30.0	61.1	78.6	15.8	64.2	79.7	16.3									
32.0	58.6	77.4	15.4	61.8	78.7	16.0									
33.3							65.0	79.1	15.7						
34.0	56.0	76.1	15.1	59.3	77.5	15.6	64.2	78.8	16.3						
36.0	53.4	74.7	14.8	56.8	76.2	15.3	61.8	77.8	16.0						
38.0	50.6 47.8	73.1 71.3	14.5	54.1 51.4	74.8 73.3	15.0	59.4 56.8	76.6 75.3	15.7						
40.0 42.0	47.8	69.4	13.8 13.2	51.4 48.6	73.3 71.6	14.8 14.3	56.8 54.2	75.3 73.9	15.4 15.1						
42.0 44.0	44.6	67.2	12.6	45.7	69.7	13.8	54.2 51.5	73.9 72.4	14.9						
46.0	38.2	64.7	12.0	42.5	67.5	13.3	48.7	70.7	14.5						
46.1	00.2	0		.2.0	01.0	10.0			1 1.0	55.0	72.5	14.2			
48.0	34.6	62.0	11.6	39.2	65.2	12.9	45.7	68.8	13.9	52.6	71.1	14.7			
50.0	30.5	58.8	10.9	35.7	62.5	12.5	42.6	66.7	13.4	49.8	69.5	14.5			
55.0	16.8	47.0	9.0	24.8	53.7	10.5	33.8	60.2	12.2	42.3	64.6	13.4			
58.0				15.1	45.2	9.3									
60.0							22.2	50.6	10.6	34.1	58.5	12.2			
62.0							15.3	44.5	10.0						
65.0										21.6	48.2	10.9			
67.0										15.9	43.1	10.1	05.0	50.0	44.7
67.2													35.0	53.0	11.7
70.0 75.0													29.9 15.7	49.0 36.7	11.4 10.2
75.0													10.7	30.1	10.2



Nº de ident.: 9842523/95738/

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

Valor de vuelco:

Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 114.0 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]
				29.0 i		eza de p	al, Punto dumín (1 n] Posici	916-1) 5	6.5 m Pl		lumín				
15.9	78.0	87.2	19.0												
16.0	77.9	87.2	19.0												
18.0	75.8	86.7	18.3												
20.0	73.7	86.1	17.4												
22.0	71.6	85.5	16.5												
23.3				73.0	85.6	16.4									
24.0	69.4	84.8	15.9	72.2	85.4	16.4									
26.0	67.2	83.9	15.4	70.1	84.7	15.9									
28.0	65.0	83.0	15.0	67.9	83.9	15.5									
30.0	62.7	82.0	14.7	65.7	83.0	15.1									
32.0	60.4	80.9	14.4	63.4	82.1	14.8									
34.0	58.1	79.7	14.1	61.1	81.0	14.5									
34.6							65.0	81.8	14.9						
36.0	55.6	78.4	13.8	58.7	79.8	14.2	63.5	81.2	14.9						
38.0	53.1	76.9	13.6	56.3	78.5	14.0	61.2	80.1	14.6						
40.0	50.5	75.3	13.4	53.8	77.1	13.8	58.8	78.9	14.3						
42.0	47.8	73.5	12.8	51.3	75.5	13.6	56.4	77.6	14.1						
44.0	45.0	71.6	12.3	48.6	73.8	13.1	53.9	76.2	13.8						
46.0	42.0	69.4	11.8	45.8	71.9	12.7	51.3	74.6	13.7						
47.8										55.0	74.9	13.0			
48.0	38.8	67.1	11.3	42.9	69.8	12.3	48.6	72.9	13.3	54.9	74.9	13.6			
50.0	35.4	64.4	10.9	39.8	67.5	12.0	45.9	71.0	12.8	52.4	73.4	13.5			
55.0	25.2	55.6	9.3	30.9	60.3	10.7	38.2	65.4	11.8	45.6	68.9	12.9			
58.0	16.4	47.5	8.3												
60.0				18.4	49.1	8.9	28.9	57.7	10.6	37.9	63.2	11.8			
61.0				16.0	46.8	8.1									
65.0							16.2	46.1	8.8	28.5	55.4	10.7			
69.7													35.0	54.7	10.8
70.0	1									15.5	43.5	9.3	34.9	54.6	11.0



2821-1

2821-1

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

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

Lastre trasero [t]: 114.0 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]
				29.0 ו	n Pluma Cab	eza de p	al, Punto dumín (19 n] Posici	916-1) 5	9.5 m Plı	eza de p umín	lumín				
16.6	78.0	90.1	16.5												
18.0	76.6	89.8	16.1												
20.0	74.6	89.3	15.2												
22.0	72.6	88.7	14.5												
24.0	70.5	88.0	13.9	70.0	00.5	444									
24.2	00.4	07.0	40.5	73.0	88.5	14.1									
26.0 28.0	68.4 66.3	87.2 86.3	13.5 13.1	71.1 69.0	87.9 87.1	13.9 13.5									
30.0	64.2	85.4	12.8	66.9	86.3	13.5									
32.0	62.0	84.3	12.6	64.8	85.4	12.9									
34.0	59.8	83.2	12.3	62.6	84.4	12.6									
35.9	00.0	00.2	.2.0	02.0	0	12.0	65.0	84.6	12.9						
36.0	57.5	81.9	12.0	60.4	83.2	12.4	64.8	84.5	12.9				i		
38.0	55.1	80.6	11.8	58.1	82.0	12.1	62.7	83.5	12.7						
40.0	52.7	79.1	11.6	55.8	80.7	11.9	60.5	82.4	12.4						
42.0	50.2	77.4	11.4	53.4	79.2	11.7	58.2	81.1	12.2						
44.0	47.6	75.6	11.0	50.9	77.6	11.6	55.9	79.8	12.0						
46.0	44.9	73.7	10.7	48.4	75.9	11.3	53.5	78.3	11.8						
48.0	42.0	71.5	10.3	45.7	74.0	11.0	51.0	76.7	11.7						
49.5										55.0	77.4	11.6			
50.0	39.0	69.1	10.0	42.9	71.9	10.8	48.4	75.0	11.4	54.4	77.0	11.6			
55.0	30.4 18.3	61.7 50.2	9.0 7.6	35.1 25.2	65.5 56.6	10.3 8.8	41.5	69.9 63.1	10.8 10.2	48.2 41.2	72.9 67.7	11.3 10.7			
60.0 61.0	17.1	49.0	6.8	25.2	0.00	8.8	33.4	63.1	10.2	41.2	67.7	10.7			
64.0	17.1	45.0	0.0	15.6	47.2	7.2									
65.0				10.0	71.4	1.2	22.9	53.5	8.9	33.0	60.9	10.2			
68.0							15.8	46.5	7.9	00.0	00.0	10.2			
70.0										22.4	51.1	9.1	i l		
72.2													35.0	56.5	9.9
73.0										15.0	43.9	8.3			
75.0													29.8	51.8	9.5
80.0													17.3	40.0	8.6
81.0													16.0	38.7	8.3



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]: 114.0 Lastre central [t]: 52.6

		gulo de orincipal			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]
			-	29.0 ו	n Pluma	principa	I, Punto	de carga	1 - Cab	ezą de p	lumín	-	=	-	
					Cab		lumín (19 1 Posici								
17.2	78.0	93.1	14.8						<u> </u>						
18.0	77.3	92.9	14.8						İ	İ			İ		
20.0	75.4	92.4	14.0												
22.0	73.4	91.8	13.4												
24.0	71.5	91.2	12.8												
25.0				73.0	91.4	12.9									
26.0	69.5	90.4	12.4	72.1	91.1	12.8									
28.0	67.5	89.6	12.0	70.1	90.4	12.5				•			<u> </u>		
30.0	65.5	88.7	11.7	68.1	89.6	12.2									
32.0	63.5	87.7	11.5	66.1	88.7	11.9									
34.0	61.4	86.7	11.3	64.1	87.7	11.6									
36.0	59.2	85.5	11.1	62.0	86.7	11.4									
37.1							65.0	87.3	11.7						
38.0	57.0	84.2	10.8	59.8	85.5	11.1	64.1	86.8	11.7						
40.0	54.8	82.8	10.6	57.7	84.3	10.9	62.0	85.8	11.4						
42.0	52.5	81.3	10.5	55.4	82.9	10.7	59.9	84.7	11.2						
44.0	50.1	79.7 77.9	10.3	53.2	81.5 79.9	10.6	57.7 55.5	83.4 82.1	11.0 10.8				ł		
46.0 48.0	47.6 45.1	77.9 75.9	10.0 9.8	50.8 48.3	79.9 78.1	10.4 10.2	55.5 53.2	80.6	10.8						
50.0	42.4	73.8	9.5	45.8	76.1	10.2	50.8	79.0	10.5						
51.2	42.4	7 3.0	9.0	45.0	10.2	10.0	30.0	79.0	10.5	55.0	79.8	10.5			
55.0	34.9	67.3	9.0	38.9	70.6	9.6	44.5	74.3	10.1	50.6	76.9	10.3			
60.0	25.5	58.5	7.8	30.7	63.2	8.8	37.4	68.4	9.8	44.3	72.2	10.0	i		
64.0	16.7	49.4	6.3			0.0	J		0.0	l			Ī		
65.0				19.6	52.2	7.5	28.9	60.5	8.9	37.1	66.2	9.7	ĺ		
67.0				15.2	47.6	6.6									
70.0							16.6	48.2	7.8	28.5	58.3	9.0			
71.0							15.4	46.9	7.2				ĺ		
74.6													35.0	58.2	9.2
75.0										16.0	45.6	8.1	34.4	57.6	9.2
80.0													24.9	48.6	8.4
84.0													15.6	39.1	7.5



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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
				29.0 ו	m Pluma Cab	eza de p	il, Punto llumín (1 n] Posici	916-1) 6	5.5 m Pl	eza de p umín	lumín				
17.8 18.0 20.0 22.0 24.0	78.0 77.9 76.1 74.2 72.4	96.0 96.0 95.5 94.9 94.3	13.5 13.5 13.0 12.4 11.9												
25.9 26.0 28.0 30.0 32.0	70.5 68.6 66.7 64.8	93.6 92.9 92.0 91.1	11.5 11.2 10.9 10.6	73.0 72.9 71.1 69.2 67.3	94.3 94.2 93.6 92.8 92.0	11.8 11.8 11.6 11.3 11.0									
34.0 36.0 38.0 38.4 40.0	62.8 60.8 58.7	90.1 89.0 87.8	10.4 10.2 9.9	65.3 63.4 61.4 59.3	91.1 90.1 89.0	10.7 10.5 10.3	65.0 63.4	90.0 89.2	10.7 10.6						
42.0 44.0 46.0 48.0 50.0	54.5 52.3 50.0 47.7 45.2	85.1 83.5 81.9 80.1 78.2	9.5 9.3 9.1 8.9 8.7	57.3 55.1 52.9 50.7 48.3	86.6 85.2 83.7 82.1 80.4	9.8 9.6 9.5 9.3 9.1	61.4 59.4 57.3 55.2 53.0	88.1 87.0 85.7 84.3 82.8	10.0 10.3 10.2 10.0 9.7 9.6						
53.0 55.0 60.0 65.0 67.0	38.5 30.7 20.2 16.3	72.4 65.0 54.2 49.9	8.1 7.5 6.5 5.7	42.1 34.9 26.1	75.3 68.8 60.1	8.6 8.2 7.3	47.2 40.8 33.4	78.5 73.2 66.5	9.2 8.7 8.3	55.0 52.8 47.0 40.5	82.3 80.8 76.4 71.1	9.5 9.4 9.1 8.7			
69.0 70.0 73.0 75.0 77.1				16.1	49.4	6.5	24.1 16.2	57.1 48.6	7.5 7.1	33.1 23.7	64.3 54.7	8.4 7.7	35.0	59.9	8.1
78.0 80.0 85.0 87.0										15.6	46.0	7.3	30.1 19.4 15.3	55.2 44.0 39.5	8.0 7.4 6.7



Nº de ident.: 9842523/95738/

Radio de descarga: 360°

2 - Vía ancha 114.0 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

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

		gulo de orincipal			gulo de orincipa			gulo de orincipa		65° Án I	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]
				29.0 ו	n Pluma	principa	ıl, Punto lumín (1	de carga	1 - Cab	eza de p	lumín		_		
					Cab		n] Posici								
18.5	78.0	98.9	12.4												
20.0	76.7	98.6	12.2												
22.0	74.9	98.1	11.6												
24.0	73.2	97.5	11.2												
26.0 26.8	71.4	96.8	10.8	73.0	97.1	10.9									
28.0	69.6	96.1	10.5	73.0	96.7	10.9				ł			ł		
30.0	67.8	95.3	10.5	71.9	96.0	10.9				i			i		
32.0	66.0	94.4	9.9	68.3	95.2	10.4				i			i		i i
34.0	64.1	93.4	9.7	66.5	94.4	10.1				i					
36.0	62.2	92.4	9.5	64.6	93.4	9.8									
38.0	60.3	91.3	9.3	62.8	92.4	9.6									
39.7							65.0	92.7	9.8						
40.0	58.3	90.1	9.0	60.8	91.3	9.4	64.7	92.5	9.8						
42.0	56.3	88.7	8.8	58.9	90.1	9.2	62.8	91.5	9.7						
44.0	54.2	87.3	8.6	56.9	88.8	8.9	60.9	90.4	9.5						
46.0	52.1	85.8	8.4	54.8	87.5	8.7	58.9	89.2	9.3						
48.0 50.0	49.9 47.7	84.1 82.3	8.2 8.0	52.7 50.6	86.0 84.3	8.6 8.4	56.9 54.9	88.0 86.6	9.1 8.9	ł			ł		1
50.0 54.7	47.7	02.3	6.0	50.6	04.3	0.4	54.9	00.0	0.9	55.0	84.7	8.7	i		
55.0	41.6	77.2	7.5	44.8	79.7	7.9	49.5	82.6	8.5	54.7	84.5	8.7			
60.0	34.7	70.7	7.0	38.4	73.9	7.4	43.7	77.8	8.0	49.3	80.5	8.4			
65.0	26.3	62.0	6.3	30.9	66.5	6.9	37.1	71.7	7.5	43.4	75.6	8.0	i		
70.0	15.9	50.3	5.2	21.2	56.0	6.3	29.3	63.9	7.1	36.8	69.6	7.6	İ		l i
72.0				15.7	49.8	6.0									
75.0							18.8	52.4	6.6	29.0	61.7	7.3			
76.0							15.9	49.1	6.5						
79.5													35.0	61.6	7.3
80.0										18.3	49.9	6.9	34.3	60.9	7.3
81.0										15.2	46.4	6.8	05.0	50.0	7.0
85.0													25.8	52.0	7.2
89.0													16.1	41.3	6.7



Nº de ident.: 9842523/95738/

360 ° Radio de descarga:

Valor de vuelco:	2 - Via ancha
Lastre trasero [t]:	114.0
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]
				29.0	m Pluma Cab	eza de p	il, Punto Ilumín (19 n] Posici	916-1) 7	1.5 m Pl	eza de p umín	lumín				
19.1 20.0	78.0 77.3	101.9 101.7	11.1 11.1												
22.0 24.0 26.0	75.6 73.9 72.2	101.2 100.6 100.0	10.6 10.2 9.8												
27.7 28.0 30.0	70.5 68.8	99.3 98.5	9.6 9.3	73.0 72.7 71.0	100.0 99.9 99.2	9.8 9.8 9.6									
32.0 34.0	67.0 65.3	97.7 96.8	9.1 8.9	69.3 67.5	98.5 97.6	9.4 9.2									
36.0 38.0 40.0	63.5 61.7 59.8	95.8 94.7 93.6	8.7 8.5 8.3	65.8 64.0 62.2	96.8 95.8 94.8	8.9 8.7 8.6									
40.9 42.0 44.0	57.9 56.0	92.3 91.0	8.1 7.9	60.3 58.5	93.6 92.4	8.4 8.2	65.0 64.0 62.2	95.4 94.9 93.9	8.8 8.8 8.6						
46.0 48.0	54.0 52.0	89.6 88.0	7.8 7.6	56.5 54.6	91.1 89.7	8.0 7.9	60.4 58.5	92.7 91.5	8.4 8.3						
50.0 55.0 56.4	49.9 44.3	86.4 81.6	7.5 7.1	52.5 47.2	88.2 83.9	7.7 7.4	56.6 51.6	90.2 86.5	8.1 7.8	55.0	87.2	7.8			
60.0 65.0 70.0	38.1 30.9 21.7	75.8 68.3 58.0	6.7 6.2 5.6	41.4 34.8 26.8	78.7 72.1 63.6	7.0 6.7 6.1	46.2 40.2 33.4	82.1 76.6 69.8	7.4 7.1 6.8	51.4 46.0 40.0	84.5 80.0 74.5	7.6 7.3 7.1			
73.0 75.0 79.0	15.5	50.7	4.7	15.4	50.2	5.5	25.0 15.5	60.6 49.5	6.4 6.0	33.1	67.6	6.9			
80.0 82.0							13.3	43.3	0.0	24.7	58.3	6.5	35.0	63.3	6.6
84.0 85.0 90.0 92.0										16.8	49.1	5.7	30.5 21.0 15.8	58.5 47.9 41.7	6.6 6.3 6.1



N° de ident.: 9842523/95738/

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

5738/ Pieza de articulación de pluma principal: 360 ° Cabeza de pluma principal:

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]
				29.0		eza de p	il, Punto lumín (19 n] Posicio	916-1) 7 ₋	4.5 m Pl	eza de p umín	lumín				
19.7	78.0	104.8	10.1												
20.0	77.8	104.8	10.1												
22.0	76.2	104.3	9.7												
24.0	74.6	103.7	9.3												
26.0	73.0	103.1	9.0												
28.0	71.3	102.5	8.8												
28.5				73.0	102.9	8.9									
30.0	69.7	101.7	8.6	71.8	102.4	8.9									
32.0	68.0	100.9	8.4	70.2	101.7	8.6									
34.0	66.3	100.1	8.2	68.5	100.9	8.4									
36.0	64.6	99.1	8.0	66.8	100.1	8.2									
38.0 40.0	62.9 61.1	98.1 97.0	7.8 7.7	65.1 63.4	99.1 98.1	8.0 7.9									
40.0	59.4	95.9	7.7	61.7	96.1	7.9									
42.0	39.4	95.9	1.5	01.7	97.1	1.1	65.0	98.2	8.0						
44.0	57.5	94.6	7.4	59.9	95.9	7.6	63.4	97.3	7.9						
46.0	55.7	93.3	7.2	58.1	94.7	7.4	61.7	96.2	7.7						
48.0	53.8	91.8	7.1	56.2	93.4	7.3	59.9	95.1	7.6						
50.0	51.8	90.3	7.0	54.3	92.0	7.2	58.1	93.8	7.5						
55.0	46.7	85.9	6.7	49.4	88.0	6.9	53.4	90.3	7.2						
58.1										55.0	89.7	7.0			
60.0	41.0	80.5	6.4	44.0	83.1	6.7	48.4	86.2	6.9	53.2	88.3	7.0			
65.0	34.7	74.0	6.2	38.1	77.3	6.5	42.9	81.2	6.8	48.2	84.1	6.8			
70.0	27.0	65.4	5.5	31.2	69.9	6.0	36.8	75.1	6.6	42.7	79.1	6.6			
75.0	16.3	52.4	4.9	22.4	59.7	5.4	29.7	67.3	6.2	36.6	72.9	6.5			
76.0	15.2	51.1	4.3												
78.0				15.0	50.6	5.1									
80.0							20.4	56.3	5.7	29.4	65.0	6.2			
82.0							15.2	49.8	5.5						
84.4													35.0	65.1	6.1
85.0										19.9	53.8	5.9	34.2	64.2	6.1
87.0										16.5	49.5	5.4	00.5		0.4
90.0													26.5	55.5 42.1	6.1
95.0	l												15.4	42.1	5.7



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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
				29.0 ו	m Pluma Cab	eza de p	il, Punto Ilumín (19 n] Posici	916-1) 7	7.5 m Plı	eza de p umín	lumín				
20.3 22.0 24.0 26.0 28.0	78.0 76.7 75.2 73.7 72.1	107.8 107.4 106.8 106.3 105.6	9.1 8.9 8.5 8.2 8.0												
29.4 30.0 32.0 34.0 36.0 38.0	70.5 68.9 67.3 65.7	104.9 104.2 103.4 102.5	7.8 7.6 7.4 7.2 7.0	73.0 72.5 71.0 69.4 67.8	105.7 105.5 104.9 104.1 103.3 102.4	8.0 8.0 7.8 7.6 7.4									
40.0 42.0 43.5 44.0 46.0	64.0 62.4 60.7 58.9 57.2	101.5 100.5 99.4 98.2 96.9	6.9 6.8 6.6 6.5	64.5 62.9 61.2 59.4	102.4 101.5 100.5 99.4 98.2	7.2 7.1 6.9 6.8 6.6	65.0 64.6 62.9	100.9 100.6 99.6	7.1 7.1 7.0						
48.0 50.0 55.0 59.9	55.4 53.5 48.7	95.5 94.1 90.0	6.3 6.2 6.0	57.7 55.9 51.3	97.0 95.7 91.9	6.5 6.4 6.1	61.2 59.5 55.0	98.5 97.3 94.1	6.8 6.7 6.4	55.0	92.1	6.2			
60.0 65.0 70.0 75.0 78.0	43.5 37.8 31.1 22.8 16.0	85.1 79.1 71.7 61.6 52.8	5.8 5.5 5.2 4.7 4.4	46.3 40.8 34.7 27.4	87.4 82.0 75.5 67.0	5.9 5.7 5.5 5.1	50.3 45.3 39.7 33.4	90.2 85.5 80.0 73.1	6.1 5.9 5.8 5.6	54.9 50.2 45.1 39.5	92.0 88.1 83.4 77.8	6.2 6.0 5.8 5.7			
80.0 81.0 85.0 86.9 90.0				17.5 16.5	54.5 53.3	4.7 4.2	25.8 16.6	64.1 52.5	5.3 4.6	33.2 25.5 16.1	70.9 61.8 49.9	5.5 5.4 4.8	35.0 30.7	66.8 61.9	5.3 5.2
95.0 98.0													22.2 15.1	51.6 42.4	5.2 5.1



N° de ident.: 9842523/95738/ Pieza d

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

360 ° Ca ? - Vía ancha

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

	ŗ	gulo de principal		l	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]
				29.0		eza de p	il, Punto lumín (1 i] Posici	916-1) 8	0.5 m Pl	eza de p umín	lumín				
21.0	78.0	110.7	8.2												
22.0	77.2	110.5	8.2												
24.0	75.8	110.0	7.8												
26.0	74.3	109.4	7.6												
28.0	72.8	108.8	7.3												
30.0	71.3	108.1	7.1	70.0	400.0	7.0									
30.3 32.0	69.8	107.4	6.9	73.0 71.7	108.6 108.0	7.2 7.2									
34.0	68.2	107.4	6.7	71.7	106.0	7.2							ł		
36.0	66.7	105.8	6.5	68.7	107.5	6.8									
38.0	65.1	104.8	6.4	67.1	105.7	6.6									
40.0	63.5	103.9	6.2	65.5	104.8	6.4									
42.0	61.9	102.8	6.1	64.0	103.9	6.3				i			İ		
44.0	60.2	101.7	6.0	62.3	102.8	6.2									
44.7							65.0	103.6	6.3						
46.0	58.6	100.5	5.9	60.7	101.7	6.0	64.0	103.0	6.3						
48.0	56.9	99.2	5.7	59.0	100.5	5.9	62.4	101.9	6.2						
50.0	55.1	97.8	5.6	57.4	99.3	5.8	60.7	100.8	6.0						
55.0	50.6	93.9	5.4	53.0	95.7	5.5	56.5	97.7	5.7						
60.0	45.8	89.4	5.2	48.3	91.5	5.3	52.1	94.1	5.5	55.0	040				
61.6	40.5	00.0	5 0	40.0	00.0	5 4	47.4	00.7	5 0	55.0	94.6	5.5 5.4			
65.0 70.0	40.5 34.6	83.9 77.3	5.0 4.9	43.3 37.7	86.6 80.6	5.1 4.9	47.4 42.3	89.7 84.6	5.3 5.1	51.9 47.2	92.0 87.6	5.4			
75.0	27.5	68.8	4.5	31.3	73.2	4.9	36.6	78.4	5.0	42.1	82.5	5.2	i		
80.0	18.2	56.6	4.0	23.5	63.3	4.4	30.0	70.6	4.8	36.4	76.2	4.9			
81.0	15.7	53.2	4.0				00.0								
84.0				16.2	53.7	3.8									
85.0							21.6	60.0	4.7	29.7	68.4	4.8			
88.0							16.3	52.9	4.2						
89.4													35.0	68.5	4.6
90.0										21.3	57.6	4.8	34.2	67.6	4.6
93.0										15.8	50.4	4.4			
95.0													27.1	58.9	4.6
100.0													17.5	46.4	4.6
101.0													16.5	45.1	4.1



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]
				29.0 ו		eza de p	ıl, Punto lumín (1 ı] Posici	916-1) 8	3.5 m Pl	eza de p umín	lumín				
21.6 22.0 24.0 26.0 28.0	78.0 77.7 76.3 74.9 73.4	113.6 113.5 113.1 112.5 111.9	7.4 7.4 7.1 6.9 6.7												
30.0 31.2 32.0 34.0 36.0	72.0 70.5 69.0 67.6	111.3 110.6 109.8 109.0	6.5 6.3 6.1 6.0	73.0 72.4 70.9 69.5	111.5 111.2 110.5 109.8	6.5 6.5 6.4 6.2									
38.0 40.0 42.0 44.0 46.0	66.0 64.5 63.0 61.4 59.8	108.1 107.2 106.2 105.1 104.0	5.8 5.7 5.6 5.5 5.3	68.0 66.5 65.0 63.4 61.9	109.0 108.1 107.2 106.2 105.2	6.0 5.9 5.7 5.6 5.5	65.0	106.3	5.7						
48.0 50.0 55.0 60.0 63.3	58.2 56.6 52.3 47.8	102.7 101.4 97.8 93.5	5.2 5.1 4.9 4.6	60.3 58.7 54.5 50.1	104.0 102.8 99.5 95.5	5.4 5.2 5.0 4.8	63.5 61.9 57.9 53.7	105.3 104.3 101.3 97.8	5.6 5.5 5.2 5.0	55.0	97.0	4.9			
65.0 70.0 75.0 80.0 84.0	42.9 37.5 31.3 23.8 15.4	88.5 82.4 75.0 65.2 53.6	4.4 4.2 4.0 3.7 3.4	45.5 40.3 34.6 27.9	90.9 85.4 78.8 70.4	4.6 4.4 4.2 4.0	49.3 44.5 39.3 33.4	93.8 89.0 83.3 76.4	4.8 4.6 4.4 4.3	53.5 49.1 44.3 39.1	95.8 91.7 86.9 81.2	4.9 4.7 4.5 4.3			
85.0 87.0 90.0 91.0 91.8				19.1 15.9	58.6 54.1	3.7 3.2	26.4 16.9 16.0	67.5 54.7 53.4	4.1 4.0 3.5	33.2 26.1	74.2 65.2	4.2	35.0	70.2	4.0
95.0 96.0 100.0 104.0										16.5 15.5	52.1 50.8	4.1 3.6	30.9 23.2 16.2	65.2 55.2 45.6	4.0 4.0 3.5



Nº 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]
				29.0 ו		eza de p	al, Punto dumín (19 n] Posici	916-1) 8	6.5 m Pl		lumín				
22.2 24.0 26.0 28.0 30.0 32.0 34.0 36.0 42.0 44.0 47.3 48.0 50.0 55.0 60.0 75.0 80.0 75.0	78.0 76.8 75.4 74.0 72.6 71.2 69.8 68.4 66.5 64.0 62.5 61.0 59.4 57.9 53.8 49.6 45.0 40.0 34.5 28.0	116.6 116.1 115.6 115.1 114.5 113.8 113.1 112.3 111.4 110.5 109.6 108.5 107.4 106.3 105.0 101.6 97.5 92.8 87.3 80.6 72.2	6.7 6.6 6.3 6.2 6.0 5.8 5.7 5.5 5.4 5.2 5.1 5.0 4.9 4.8 4.7 4.5 4.3 4.0 3.8 3.6 3.4	73.0 71.6 70.2 68.8 67.4 65.9 64.4 62.9 61.4 59.9 55.9 51.8 47.4 42.7 37.4 31.5	114.3 113.7 113.7 113.2 111.4 110.5 109.6 108.6 107.5 106.3 103.1 99.4 95.1 90.0 83.9 76.5 66.9	5.9 5.9 5.7 5.5 5.4 5.3 5.1 5.0 4.8 4.6 4.4 4.1 3.9 3.7 3.6	65.0 64.5 63.0 59.1 55.2 51.0 46.5 41.7 36.4	109.0 108.7 107.7 104.8 101.6 97.7 93.3 88.0 81.7 74.0	5.1 5.1 5.1 4.8 4.5 4.4 4.2 4.0 3.8	55.0 50.8 46.3 41.5	99.5 95.6 91.2 85.9	4.4 4.3 4.1 3.9 3.8			
85.0 87.0 90.0 94.0 94.3 95.0 99.0 100.0 105.0 107.0	19.6 15.1	60.6 54.0	3.1	24.3 15.6	54.5	2.7	30.3 22.7 15.7	63.7 53.8	3.5	36.2 30.0 22.3 15.2	79.5 71.7 61.3 51.2	3.5 3.0	35.0 34.1 27.6 19.0 15.9	71.9 70.9 62.3 50.5 46.0	3.5 3.5 3.5 3.5 3.0



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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

		gulo de orincipa		ı	gulo de principa	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]
				29.0		eza de p	al, Punto dumín (19 n] Posici	916-1) 8	9.5 m Pl		lumín				
22.8	78.0	119.5	5.9												
24.0	77.2	119.2	5.9												
26.0	75.9	118.7	5.6												
28.0	74.6	118.2	5.5												
30.0	73.2	117.6	5.3												
32.0	71.9	117.0	5.1												
32.9				73.0	117.2	5.2									
34.0	70.5	116.3	5.0	72.3	116.9	5.2									
36.0	69.1	115.5	4.9	70.9	116.2	5.0									
38.0	67.8	114.7	4.7	69.5	115.4	4.9 4.8									
40.0 42.0	66.4 64.9	113.8 112.9	4.6 4.5	68.2 66.8	114.6 113.8	4.8 4.6									
42.0 44.0	63.5	111.9	4.5	65.3	112.9	4.6									
46.0	62.1	110.9	4.3	63.9	111.9	4.5									
48.0	60.6	109.7	4.2	62.5	110.9	4.4									
48.5	00.0	103.7	7.2	02.0	110.5	7.5	65.0	111.7	4.4						
50.0	59.1	108.6	4.0	61.0	109.8	4.2	64.0	111.0	4.4						
55.0	55.2	105.3	3.8	57.2	106.7	3.9	60.3	108.3	4.1	i			i		
60.0	51.2	101.5	3.6	53.3	103.2	3.7	56.5	105.2	3.9	i			i		i i
65.0	46.9	97.1	3.4	49.2	99.1	3.5	52.5	101.6	3.7						
66.7										55.0	101.9	3.7			
70.0	42.3	91.9	3.2	44.7	94.4	3.3	48.3	97.4	3.5	52.4	99.5	3.6			
75.0	37.2	85.8	3.0	39.9	88.8	3.2	43.8	92.5	3.4	48.2	95.3	3.5			
80.0	31.5	78.3	2.9	34.6	82.1	3.0	38.9	86.7	3.2	43.7	90.3	3.3			
85.0	24.5	68.7	2.7	28.3	73.8	2.8	33.4	79.7	3.1	38.7	84.5	3.2			
90.0	16.4	56.7	2.2	20.4	62.5	2.7	27.0	71.0	2.9	33.2	77.5	3.1			
93.0				15.3	54.9	2.2									
95.0							18.5	58.8	2.8	26.7	68.7	2.9			
96.7													35.0	73.7	2.9
97.0				-			15.4	54.2	2.3	40.4	50.0	0.0	24.4	00.5	0.0
100.0										18.1	56.3	2.8	31.1	68.5	2.9
101.0 105.0				l						15.9	52.9	2.8	24.1	58.8	2.8
1105.0				l									24.1 15.6	58.8 46.4	2.8
110.0													13.0	40.4	4.4



N° de ident.: 9842523/95738/ F

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

Valor de vuelco:

2 - Vía ancha 114.0

Lastre trasero [t]: 114.0 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]
				29.0 ו	m Pluma Cab	eza de p	ıl, Punto lumín (1 ı] Posici	916-1) 9	2.5 m Plı	eza de p umín	lumín				
23.5	78.0	122.4	5.3												
24.0	77.7	122.3	5.3												
26.0	76.4	121.8	5.1												
28.0	75.1	121.3	4.9												
30.0	73.8	120.7	4.7												
32.0	72.5	120.1	4.6	70.0	400.4	4.0									
33.8 34.0	71.2	119.4	4.4	73.0 72.9	120.1 120.0	4.6 4.6									
34.0 36.0	69.9	119.4	4.4	72.9 71.6	120.0	4.5									
38.0	68.5	117.9	4.3	71.0	118.6	4.3									
40.0	67.2	117.1	4.0	68.9	117.9	4.2									
42.0	65.8	116.2	3.9	67.6	117.1	4.1									
44.0	64.4	115.3	3.8	66.2	116.2	4.0									
46.0	63.0	114.3	3.7	64.8	115.3	3.8									
48.0	61.6	113.2	3.6	63.4	114.3	3.7									
49.8							65.0	114.5	3.8						
50.0	60.2	112.1	3.5	62.0	113.2	3.7	64.9	114.4	3.8						
55.0	56.5	108.9	3.3	58.4	110.3	3.4	61.4	111.8	3.6						
60.0	52.7	105.3	3.1	54.7	106.9	3.2	57.7	108.8	3.4						
65.0	48.7	101.1	2.9	50.8	103.1	3.0	54.0	105.3	3.2						
68.5										55.0	104.4	3.1			
70.0	44.3	96.3	2.8	46.6	98.6	2.9	50.0	101.4	3.0	53.8	103.3	3.1			
75.0	39.6	90.7	2.6	42.1	93.4	2.7	45.8	96.8	2.9	49.8	99.3	2.9			
80.0	34.4	83.9	2.5	37.2	87.3	2.6	41.2	91.4	2.7	45.6	94.7	2.8			
85.0	28.4	75.6	2.3	31.6	79.8	2.4	36.2	85.0	2.6	41.0	89.3	2.7			
90.0							30.5	77.3	2.5	36.0	82.9	2.6			
95.0							23.5	67.3	2.3	30.2	75.1	2.5	25.0	 .	0.4
99.2										22.2	64.0	2.4	35.0	75.4	2.4
100.0 105.0										23.2	64.9	2.4	34.1 28.0	74.2 65.7	2.4 2.3
105.0													20.0	00.7	2.3



N° de ident.: 9842523/95738/ Piez

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
				29.0 ו		eza de p	il, Punto lumín (1 i] Posici	916-1) 9	5.5 m Pl		lumín				
24.1	78.0	125.4	4.9												
26.0	76.8	124.9	4.8												
28.0	75.6	124.4	4.6												
30.0	74.3	123.9	4.5												
32.0	73.1	123.3	4.3												
34.0	71.8	122.6	4.1												
34.7				73.0	122.9	4.2									
36.0	70.5	121.9	4.0	72.2	122.5	4.2									
38.0	69.2	121.2	3.9	70.9	121.8	4.1									
40.0	67.9	120.4	3.8	69.6	121.1	3.9									
42.0	66.6	119.5	3.7	68.3	120.3	3.8									
44.0	65.3	118.6	3.6	67.0	119.5	3.7									
46.0	64.0	117.6	3.5	65.7	118.6	3.6									
48.0	62.6	116.6	3.4	64.3	117.6	3.5									
50.0	61.2	115.5	3.3	63.0	116.6	3.4	25.0	447.0	0.5						
51.1		440.5	0.0	50.5	440.0	0.0	65.0	117.2	3.5						
55.0	57.7	112.5	3.0	59.5	113.8	3.2	62.3	115.2	3.4						
60.0 65.0	54.1 50.2	109.1 105.1	2.8 2.6	56.0 52.2	110.6 106.9	2.9 2.7	58.9 55.3	112.3 109.0	3.2 2.9						
70.0	46.2	105.1	2.6	52.2 48.3	106.9	2.7	55.3 51.5	109.0	2.9						
70.0	40.2	100.6	2.3	46.3	102.7	2.5	51.5	105.3	2.1	55.0	106.9	2.8			
70.2 75.0							47.5	100.9	2.5	55.0 51.4	106.9	2.8			
75.0 80.0							47.5	100.9	2.5	51.4 47.4	98.8	2.7			
60.0										47.4	90.0	2.4	<u> </u>		



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]
				32.0 ı		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 3	8.5 m Pli	eza de p umín	lumín				
12.3	78.0	72.6	64.3												
13.0	76.9	72.4	64.3												
14.0	75.4	72.2	59.9												
16.0	72.3	71.6	50.9												
18.0	69.1	70.8	43.8												
18.4				73.0	71.4	53.7									
20.0	65.8	70.0	36.8	70.4	70.8 70.0	51.5									
22.0 24.0	62.5 59.1	69.0 67.8	31.7 28.2	67.2 63.9	70.0 69.1	46.4 40.3									
26.0	55.5	66.5	25.2	60.5	68.0	36.0									
27.8	33.3	00.5	23.2	00.5	00.0	30.0	65.0	68.4	37.1						
28.0	51.8	65.0	22.9	57.0	66.8	32.0	64.7	68.3	37.1						
30.0	47.8	63.2	21.2	53.4	65.3	28.8	61.3	67.3	35.1						
32.0	43.6	61.2	19.6	49.5	63.7	26.4	57.8	66.1	33.2				İ		
34.0	39.0	58.9	18.3	45.4	61.8	24.1	54.2	64.7	31.0				İ		
36.0	33.9	56.1	17.2	41.0	59.6	22.1	50.4	63.1	29.3						
38.0	28.0	52.6	16.3	36.1	57.0	20.5	46.4	61.2	27.6						
38.8										55.0	62.9	24.5			
40.0	20.5	48.0	15.3	30.6	53.9	19.2	42.0	59.1	26.1	52.9	62.0	25.2			
41.0	15.4	44.8	14.8												
42.0				23.9	49.9	17.8	37.3	56.6	24.8	49.0	60.4	23.7			
44.0				16.4	45.1	15.1	31.9	53.7	23.4	44.9	58.4	22.7			
46.0							25.6	49.9	21.8	40.4	56.2	21.6			
48.0							17.1	44.5	20.1	35.5	53.6	20.8			
50.0										29.9	50.4	20.0			
53.0										18.6	43.4	18.5	25.0	40.5	440
57.1 60.0													35.0 28.1	46.5 42.6	14.0 13.1
63.0													28.1 15.7	42.6 34.8	13.1



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

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 114.0 52.6 Lastre central [t]:

	88° Án	gulo de orincipal	pluma		gulo de orincipa			gulo de principa			gulo de orincipa		45° Án I	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]
				32.0 ו	m Pluma Cab	eza de p	al, Punto dumín (2 n] Posici	316-1) 4	1.5 m Pl	eza de p umín	lumín		-		
12.9 13.0	78.0 77.9	75.5 75.5	58.2 58.2												
14.0 16.0	76.4 73.6	75.3 74.7	57.3 50.7												
18.0	70.7	74.0	42.6												
19.2 20.0	67.7	73.2	36.7	73.0 71.9	74.3 74.0	49.3 49.2									
22.0 24.0	64.7 61.5	72.3 71.3	31.3 27.5	68.9 65.9	73.3 72.4	44.9 40.4									
26.0 28.0	58.3 55.0	70.1 68.7	24.8 22.6	62.9 59.7	71.4 70.3	36.0 32.5									
29.0 30.0	51.5	67.2	20.8	56.4	69.0	29.1	65.0 63.6	71.1 70.7	30.1 34.7						
32.0 34.0	47.8 44.0	65.5 63.5	19.3 18.0	53.0 49.4	67.6 65.9	26.4 24.2	60.4 57.2	69.6 68.3	32.3 30.5						
36.0 38.0	39.7 35.1	61.2 58.5	16.8 15.8	45.6 41.6	64.0 61.9	22.2 20.5	53.8 50.2	66.9 65.3	28.6 27.2						
40.0 40.5	29.9	55.3	15.0	37.1	59.4	18.9	46.5	63.5	25.7	55.0	65.3	23.0			
42.0	23.6	51.1	14.2	32.2	56.4	17.7	42.5	61.4	24.3	52.6	64.3	23.6			
44.0 46.0 47.0	16.6	46.4	12.6	26.4 19.0 15.7	52.7 47.7 45.5	16.6 15.4 14.1	38.2 33.4	59.0 56.1	23.2 22.0	49.0 45.1	62.6 60.7	22.2 21.2			
48.0 50.0				10.7	40.0	14.1	27.8 20.9	52.6 48.0	20.5 19.0	41.0 36.6	58.5 55.9	20.3 19.6			
51.0 55.0							16.4	45.0	18.3	22.1	46.8	17.3			
56.0 59.5										17.9	43.9	16.9	35.0	48.2	12.9
60.0													33.8	47.5	12.7
65.0 66.0													19.9 15.1	38.5 35.2	11.3 11.0



2821-1

2821-1

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

California Cal			gulo de principa			gulo de orincipa			gulo de principa			gulo de orincipa			gulo de orincipa	
Cabeza de plumín (2316-1) 44.5 m Plumín 22.0 [m] Posición midfall (2316) 13.5	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]
14.0 77.4 78.4 53.1 48.8 18.0 72.0 77.2 42.3 20.0 69.3 76.5 36.6 77.2 42.3 20.0 69.3 76.5 36.6 77.2 45.8 22.0 66.5 75.6 31.3 70.4 76.5 43.9 24.0 63.6 74.7 27.1 67.7 75.7 40.6 26.0 60.7 73.6 24.3 64.8 74.8 36.2 22.0 57.7 72.4 22.2 61.9 73.8 36.2 32.9 30.0 54.5 71.0 20.5 59.0 72.6 29.7 65.0 73.9 32.7 32.0 32.0 33.0 47.9 67.7 17.9 55.9 71.3 26.7 62.6 73.0 32.0 32.0 32.0 33.0 44.2 65.7 16.7 49.3 68.1 22.5 56.6 70.6 28.2 2 45.9 45.9 45.9 45.9 45.9 45.9 45.9 45.9 45.9 45.9 45.9 45.9 45.9 45.9 45.9 45.9 <t< td=""><td></td><td></td><td></td><td></td><td>32.0</td><td></td><td>eza de p</td><td>lumín (2</td><td>316-1) 4</td><td>4.5 m Pl</td><td>umín [']</td><td>lumín</td><td></td><td>_</td><td></td><td></td></t<>					32.0		eza de p	lumín (2	316-1) 4	4.5 m Pl	umín [']	lumín		_		
16.0 74.7 77.8 48.8 42.3 42.3 42.3 42.3 42.3 42.3 42.3 42.3 42.3 42.3 42.3 42.3 42.8 42.9 43.9 42.2 45.8 43.9 42.4 66.5 75.6 31.3 70.4 76.5 43.9 43.9 42.3 48.8 74.8 36.2 43.9	13.5	78.0	78.5	53.1												
18.0 72.0 77.2 42.3 36.6 36.6 36.6 36.6 36.6 77.2 45.8 45.9	14.0			53.1												
20.0 69.3 76.5 36.6 73.0 77.2 45.8 22.0 66.5 75.6 31.3 70.4 76.5 43.9 24.0 63.6 74.7 27.1 67.7 75.7 40.6 26.0 60.7 73.6 24.3 64.8 74.8 36.2 28.0 57.7 72.4 22.2 61.9 73.8 32.9 30.0 54.5 71.0 20.5 59.0 72.6 29.7 62.6 73.0 32.0 33.0 34.0 47.9 67.7 17.9 52.7 69.8 24.4 59.6 71.9 29.9 36.0 44.2 65.7 16.7 49.3 68.1 22.5 56.6 70.6 28.2 38.0 40.4 63.5 15.6 45.8 66.3 20.7 53.4 69.2 26.6 42.0 31.4 57.8 14.0 38.0 61.7 17.7 46.6 65.7 24.1 42.0 44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 41.4 60.8 19.1 55.0 55.0 59.0 59.0 59.0 59.0 59.0 59.0 59.0 59.0 59.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 59.0 12.0 65.0 65.0 65.0 65.0 66.0											•					
20.1 22.0 66.5 75.6 31.3 70.4 76.5 43.9 43.1 43.9 43.1 44.9 44.2 44.9 44.2 44.4 45.6 45.6 73.0 32.0 45.4 45.6 45.8 46.3 20.7 53.4 69.2 26.6 45.4 45.9 46.6 45.7 45.6 65.7 45.1 45.9 45.9 <td< td=""><td></td><td></td><td>ı</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<>			ı													
22.0 66.5 75.6 31.3 70.4 76.5 43.9 24.0 63.6 74.7 27.1 67.7 75.7 40.6 26.0 60.7 73.6 24.3 64.8 74.8 36.2 28.0 57.7 72.4 22.2 61.9 73.8 32.9 32.0 30.0 54.5 71.0 20.5 59.0 72.6 29.7 65.0 73.9 32.7 32.0 33.0 47.9 67.7 17.9 55.9 71.3 26.7 62.6 73.0 32.0 32.0 33.0 47.9 67.7 17.9 52.7 69.8 24.4 59.6 71.9 29.9 36.0 44.2 65.7 16.7 49.3 68.1 22.5 56.6 70.6 28.2 38.0 40.4 63.5 15.6 45.8 66.3 20.7 53.4 69.2 26.6 26.6 42.0 42.0 42.0 41.7 42.0 64.1 19.1 50.1 67.5 25.4 42.1 42.1 42.1 42.1 42.1 42.1 42.1 42.1		69.3	76.5	36.6												
24.0 63.6 74.7 27.1 67.7 75.7 40.6 36.2 80.7 73.6 24.3 64.8 74.8 36.2 9.7 36.0 72.4 22.2 61.9 73.8 32.9 32.9 32.7 32.0 51.3 69.4 19.1 55.9 71.3 26.7 62.6 73.0 32.0 32.0 34.0 47.9 67.7 17.9 52.7 69.8 24.4 59.6 71.9 29.9 36.0 44.2 65.7 16.7 49.3 68.1 22.5 56.6 70.6 28.2 28.2 38.0 40.4 63.5 15.6 45.8 66.3 20.7 53.4 69.2 26.6 40.0 36.1 60.9 14.7 42.0 64.1 19.1 50.1 67.5 25.4 42.4 42.0 64.1 19.1 55.0 67.5 24.1 42.2 44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 55.0 67.8 22.1 44.0 42.9 64.1 15.6 38.9																
26.0 60.7 73.6 24.3 64.8 74.8 36.2 32.9 32.9 30.0 54.5 71.0 20.5 59.0 72.6 29.7 65.0 73.9 32.7 32.0																
28.0 57.7 72.4 22.2 61.9 73.8 32.9 65.0 73.9 32.7 30.0 30.3 32.7 32.0 51.3 69.4 19.1 55.9 71.3 26.7 62.6 73.9 32.0 32.0 33.0 47.9 67.7 17.9 52.7 69.8 24.4 59.6 71.9 29.9 36.0 44.2 65.7 16.7 49.3 68.1 22.5 56.6 70.6 28.2 28.2 38.0 40.4 63.5 15.6 45.8 66.3 20.7 53.4 69.2 26.6 40.0 36.1 60.9 14.7 42.0 64.1 19.1 50.1 67.5 25.4 42.2 42.2 42.2 42.2 42.2 45.0 43.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 <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><td></td></td<>																
30.0 54.5 71.0 20.5 59.0 72.6 29.7 65.0 73.9 32.7 32.0 51.3 69.4 19.1 55.9 71.3 26.7 62.6 73.0 32.0 34.0 47.9 67.7 17.9 52.7 69.8 24.4 59.6 71.9 29.9 36.0 44.2 65.7 16.7 49.3 68.1 22.5 56.6 70.6 28.2 38.0 40.4 63.5 15.6 45.8 66.3 20.7 53.4 69.2 26.6 40.0 36.1 60.9 14.7 42.0 64.1 19.1 50.1 67.5 25.4 42.0 31.4 57.8 14.0 38.0 61.7 17.7 46.6 65.7 24.1 42.2 44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 46.8 11.4 48.0 55.0 55.0 55.0 55.0 55.0 55.0 55.0 5			ı													
30.3 32.0 51.3 69.4 19.1 55.9 71.3 26.7 62.6 73.0 32.0																
32.0 51.3 69.4 19.1 55.9 71.3 26.7 62.6 73.0 32.0 32.0 34.0 47.9 67.7 17.9 52.7 69.8 24.4 59.6 71.9 29.9 36.0 44.2 65.7 16.7 49.3 68.1 22.5 56.6 70.6 28.2 23.0 20.7 53.4 69.2 26.6 26.6 40.0 36.1 60.9 14.7 42.0 64.1 19.1 50.1 67.5 25.4 25.4 24.1 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 20.8 47.0 16.0 46.8 11.4 45.9 12.8 29.6 55.3 19.4 41.6 60.8 19.1 19.9 15.2 45.9 12.8 29.6 <td< td=""><td></td><td>34.5</td><td>71.0</td><td>20.5</td><td>59.0</td><td>12.0</td><td>29.1</td><td>65.0</td><td>73.0</td><td>32.7</td><td>i</td><td></td><td></td><td></td><td></td><td></td></td<>		34.5	71.0	20.5	59.0	12.0	29.1	65.0	73.0	32.7	i					
34.0 47.9 67.7 17.9 52.7 69.8 24.4 59.6 71.9 29.9 36.0 44.2 65.7 16.7 49.3 68.1 22.5 56.6 70.6 28.2 38.0 40.4 63.5 15.6 45.8 66.3 20.7 53.4 69.2 26.6 40.0 36.1 60.9 14.7 42.0 64.1 19.1 50.1 67.5 25.4 42.0 42.0 64.1 19.1 50.1 67.5 25.4 42.0 42.2 42.2 44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 47.0 16.0 46.8 11.4 22.2 51.0 14.6 34.5 58.5 20.7 45.4 62.9 19.9 50.0 55.0 59.0 15.2 45.9 12.8 29.6 55.3 19.4 <t< td=""><td></td><td>51.3</td><td>69.4</td><td>19 1</td><td>55.9</td><td>71.3</td><td>26.7</td><td></td><td></td><td>-</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>		51.3	69.4	19 1	55.9	71.3	26.7			-						
36.0 44.2 65.7 16.7 49.3 68.1 22.5 56.6 70.6 28.2 28.2 38.0 40.4 63.5 15.6 45.8 66.3 20.7 53.4 69.2 26.6 40.0 36.1 60.9 14.7 42.0 64.1 19.1 50.1 67.5 25.4 42.0 42.2 46.6 65.7 24.1 55.0 67.8 21.4 22.2 44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 47.0 16.0 46.8 11.4 34.5 58.5 20.7 45.4 62.9 19.9 50.0 55.0 55.0 55.3 19.4 41.6 60.8 19.1 55.0 59.0 55.0 55.3 15.8											i			i		
38.0 40.4 63.5 15.6 45.8 66.3 20.7 53.4 69.2 26.6 26.6 40.0 36.1 60.9 14.7 42.0 64.1 19.1 50.1 67.5 25.4 42.0 42.1 57.8 14.0 38.0 61.7 17.7 46.6 65.7 24.1 55.0 67.8 21.4 22.4 42.2 44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 22.1 46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 47.0 16.0 46.8 11.4 46.9 14.6 34.5 58.5 20.7 45.4 62.9 19.9 49.0 15.2 45.9 12.8 29.6 55.3 19.4 41.6 60.8 19.1 41.6 60.8 19.1 41.6 60.8 19.1 41.6 60.8 19.1 44.3 15.6 35.0 50.0 12.0 65.0 44.3																
42.0 31.4 57.8 14.0 38.0 61.7 17.7 46.6 65.7 24.1 55.0 67.8 21.4 42.2 44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 47.0 16.0 46.8 11.4 22.2 51.0 14.6 34.5 58.5 20.7 45.4 62.9 19.9 50.0 55.0 15.2 45.9 12.8 29.6 55.3 19.4 41.6 60.8 19.1 55.0 59.0 15.8 45.4 16.8 17.2 44.3 15.6 59.0 62.0 17.2 44.3 15.6 35.0 50.0 12.0 65.0 20.0 28.9 45.9 11.2																
42.2 44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 47.0 16.0 46.8 11.4 48.0 22.2 51.0 14.6 34.5 58.5 20.7 45.4 62.9 19.9 50.0 15.2 45.9 12.8 29.6 55.3 19.4 41.6 60.8 19.1 54.0 15.0 15.8 45.4 16.8 55.0 30.4 53.7 17.2 59.0 17.2 44.3 15.6 62.0 35.0 50.0 12.0 65.0 28.9 45.9 11.2	40.0	36.1	60.9	14.7	42.0	64.1	19.1	50.1	67.5	25.4						
44.0 25.9 54.0 13.2 33.5 58.8 16.6 42.9 63.7 22.8 52.3 66.5 22.1 46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 47.0 16.0 46.8 11.4 34.5 58.5 20.7 45.4 62.9 19.9 50.0 15.2 45.9 12.8 29.6 55.3 19.4 41.6 60.8 19.1 54.0 15.0 15.8 45.4 16.8 30.4 53.7 17.2 59.0 62.0 17.2 44.3 15.6 35.0 50.0 12.0 65.0 12.0 28.9 45.9 11.2 45.9 11.2	42.0	31.4	57.8	14.0	38.0	61.7	17.7	46.6	65.7	24.1						
46.0 19.0 49.0 12.5 28.4 55.4 15.6 38.9 61.3 21.7 48.9 64.8 20.8 48.0 48.0 46.8 11.4 22.2 51.0 14.6 34.5 58.5 20.7 45.4 62.9 19.9 50.0 55.0 15.0 15.8 45.4 16.8 16.8 55.0 59.0 30.4 53.7 17.2 62.0 17.2 17.2 44.3 15.6 65.0 35.0 50.0 12.0 65.0 28.9 45.9 11.2	42.2										55.0	67.8	21.4			
47.0 16.0 46.8 11.4 48.0 22.2 51.0 14.6 34.5 58.5 20.7 45.4 62.9 19.9 50.0 15.2 45.9 12.8 29.6 55.3 19.4 41.6 60.8 19.1 55.0 15.0 15.8 45.4 16.8 30.4 53.7 17.2 59.0 17.2 17.2 15.6 62.0 35.0 50.0 12.0 65.0 28.9 45.9 11.2	44.0	25.9	54.0	13.2	33.5	58.8	16.6	42.9	63.7	22.8	52.3	66.5				
48.0 22.2 51.0 14.6 34.5 58.5 20.7 45.4 62.9 19.9 50.0 15.2 45.9 12.8 29.6 55.3 19.4 41.6 60.8 19.1 55.0 15.0 15.8 45.4 16.8 30.4 53.7 17.2 59.0 17.2 44.3 15.6 35.0 50.0 12.0 62.0 65.0 28.9 45.9 11.2	46.0			-	28.4	55.4	15.6	38.9	61.3	21.7	48.9	64.8	20.8			
50.0 15.2 45.9 12.8 29.6 55.3 19.4 41.6 60.8 19.1 55.0 15.8 45.4 16.8 59.0 17.2 44.3 15.6 62.0 35.0 50.0 12.0 65.0 28.9 45.9 11.2		16.0	46.8	11.4												
54.0 15.8 45.4 16.8 55.0 30.4 53.7 17.2 59.0 17.2 44.3 15.6 62.0 35.0 50.0 12.0 65.0 28.9 45.9 11.2																
55.0 59.0 62.0 65.0 30.4 53.7 17.2 44.3 15.6 35.0 50.0 12.0 28.9 45.9 11.2					15.2	45.9	12.8			-	41.6	60.8	19.1			
59.0 62.0 65.0 17.2 44.3 35.0 50.0 12.0 28.9 45.9 11.2								15.8	45.4	16.8						
62.0 65.0 35.0 50.0 12.0 28.9 45.9 11.2																
65.0 28.9 45.9 11.2											17.2	44.3	15.6	25.0	50.0	40.0
					l						I					
 68.0																



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

		gulo de orincipal			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]
				32.0 ı	m Pluma	principa	I, Punto	de carga	1 - Cab	eza de p	lumín				
					Cab		olumín (2: n] Posici			umin					
14.2	78.0	81.4	48.5												
16.0	75.7	81.0	46.8												
18.0	73.2	80.4	42.1												
20.0	70.6	79.7	35.6												
21.0				73.0	80.0	42.3									
22.0	68.1	78.9	31.1	71.7	79.7	42.2									
24.0	65.4	78.0	27.1	69.1	78.9	38.9									
26.0	62.7 60.0	77.0	24.0	66.5	78.1 77.2	35.9									
28.0 30.0	57.1	75.9 74.6	21.9 20.1	63.9 61.1	77.2 76.1	32.5 30.1									
31.6	57.1	74.6	20.1	61.1	76.1	30.1	65.0	76.6	30.8						
32.0	54.2	73.2	18.6	58.3	74.9	27.0	64.5	76.6	30.8						
34.0	51.1	71.7	17.4	55.4	73.5	24.4	61.7	75.3	29.4						
36.0	47.9	69.9	16.3	52.4	72.1	22.4	59.0	74.2	27.7	i					
38.0	44.5	68.0	15.3	49.3	70.4	20.7	56.1	72.9	26.2						
40.0	40.9	65.7	14.3	45.9	68.5	19.1	53.1	71.4	24.8						
42.0	37.0	63.2	13.5	42.4	66.4	17.7	50.0	69.8	23.7						
43.9										55.0	70.3	20.2			
44.0	32.7	60.3	12.8	38.7	64.0	16.4	46.7	68.0	22.4	55.0	70.3	21.1			
46.0	27.8	56.8	12.1	34.6	61.3	15.4	43.3	65.9	21.3	52.0	68.8	20.6			
48.0	22.0	52.3	11.5	30.0	58.0	14.5	39.6	63.6	20.2	48.9	67.1	19.5			
50.0	15.4	47.2	10.0	24.6	54.0	13.6	35.5	60.9	19.3	45.5	65.2	18.7			
52.0				17.7	48.7	12.6									
55.0							22.9	51.7	16.4	36.2	59.3	16.9			
57.0							15.3	45.7	15.2	L					
60.0										23.9	50.4	15.0			
62.0										16.7	44.8	14.3	25.0	E4 7	11.0
64.5 65.0													35.0 35.0	51.7 51.7	11.0 10.9
70.0													22.1	42.3	9.7
71.0													18.5	39.5	9.4



Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga: 360°

Valor de vuelco:

Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 114.0

52.6

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

	88° Án	gulo de orincipa	pluma I	83° Án	gulo de orincipa	pluma	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]
				32.0 ו	m Pluma Cab	eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 5	0.5 m Pl		lumín				
14.8	78.0	84.3	44.9												
16.0	76.6	84.1	44.6												
18.0	74.2	83.5	41.0												
20.0	71.8	82.9	35.4												
21.9				73.0	82.9	39.6									
22.0	69.4	82.1	30.7	72.8	82.8	39.6									
24.0	67.0	81.3	27.0	70.4	82.2	38.2									
26.0 28.0	64.5 61.9	80.4 79.4	24.0 21.7	68.0 65.5	81.4 80.5	35.5 32.5									
30.0	59.3	79.4 78.2	20.0	63.0	79.5	29.8									
32.0	56.6	76.9	18.4	60.4	78.4	27.6									
32.8	30.0	70.9	10.4	00.4	70.4	21.0	65.0	79.3	28.6						
34.0	53.8	75.5	17.1	57.7	77.2	24.9	63.6	78.7	29.1						
36.0	50.9	73.9	16.1	55.0	75.8	22.6	61.0	77.7	27.2				i		
38.0	47.9	72.2	15.1	52.1	74.3	20.8	58.3	76.5	25.9						
40.0	44.7	70.2	14.1	49.2	72.6	19.3	55.6	75.1	24.4						
42.0	41.4	68.0	13.2	46.1	70.8	17.8	52.8	73.7	23.2						
44.0	37.8	65.6	12.5	42.8	68.7	16.5	49.9	72.0	22.2				i		
45.6				i .						55.0	72.7	18.9	İ		
46.0	33.8	62.7	11.8	39.3	66.3	15.4	46.8	70.2	21.1	54.7	72.5	19.8			
48.0	29.4	59.4	11.3	35.5	63.6	14.4	43.6	68.2	20.0	51.8	71.0	19.2			
50.0	24.3	55.3	10.7	31.3	60.5	13.6	40.1	65.9	19.0	48.8	69.3	18.3			
52.0	17.8	49.9	10.1												
55.0				17.1	49.1	11.5	30.1	58.6	16.7	40.7	64.2	16.5			
60.0							16.2	47.4	13.3	30.8	57.0	14.8			
65.0										16.1	45.2	13.1			
66.9													35.0	53.4	10.2
70.0													29.5	49.3	9.5
74.0													17.9	39.9	8.6

Source:a9841388



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 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]
				32.0 ı	m Pluma Cab	eza de p	al, Punto dumín (2 n] Posici	316-1) 5	3.5 m Pl		lumín				
15.4	78.0	87.3	40.7												
16.0	77.3	87.1	40.7												
18.0	75.1	86.6	38.7							•			<u> </u>		
20.0	72.9	86.0	35.1												
22.0	70.6	85.3	29.9												
22.7				73.0	85.8	36.1									
24.0	68.3	84.6	26.4	71.6	85.3	35.9									
26.0	66.0	83.7	23.6	69.3	84.6	33.8									
28.0	63.6	82.7	21.3	67.0	83.8	31.9									
30.0	61.2	81.7	19.6	64.6	82.9	29.3									
32.0	58.7	80.5	18.1	62.2	81.8	27.3									
34.0	56.1	79.2	16.8	59.8	80.7	25.1	05.0		07.5	ł					
34.1 36.0	53.5	77.7	15.6	57.2	79.4	22.7	65.0 62.8	82.0 81.1	27.5 26.9						
38.0	50.8	76.2	14.7	54.6	79.4 78.1	20.7	60.3	80.0	25.3						
40.0	47.9	74.4	13.8	51.9	76.5	19.0	57.8	78.7	24.1						
42.0	44.9	72.5	12.9	49.1	74.9	17.6	55.2	77.4	22.7						
44.0	41.8	70.3	12.1	46.2	73.0	16.3	52.6	75.9	21.6	i					
46.0	38.4	67.9	11.4	43.1	70.9	15.2	49.8	74.3	20.7	i			i		
47.4										55.0	75.2	17.8			
48.0	34.8	65.1	10.8	39.9	68.6	14.1	46.9	72.4	19.6	54.3	74.8	18.5			
50.0	30.8	61.9	10.3	36.3	66.0	13.2	43.8	70.4	18.6	51.6	73.3	18.0			
55.0	17.2	50.4	9.0	25.8	57.5	11.3	35.3	64.2	16.5	44.3	68.6	16.1			
58.0				16.6	49.5	10.2									
60.0							24.4	55.3	14.1	35.9	62.6	14.5			
63.0							15.8	47.8	12.1						
65.0										25.1	53.9	12.9			
68.0										15.7	45.6	12.0			
69.4													35.0	55.1	9.3
70.0													34.9	55.0	9.2
75.0													23.7	45.9	8.1
77.0													17.4	40.4	7.6



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			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]
				32.0 ı		eza de p	al, Punto dumín (2 n] Posici	316-1) 5	6.5 m Pl		lumín				
16.0	78.0	90.2	37.4												
18.0	75.9	89.7	36.7												
20.0	73.8	89.2	34.7												
22.0	71.7	88.5	29.7												
23.6				73.0	88.6	33.3									
24.0	69.5	87.8	25.9	72.6	88.5	33.2									
26.0	67.4	87.0	23.3	70.5	87.8	32.4									
28.0	65.1	86.1	21.1	68.3	87.0	31.1									
30.0	62.9	85.1	19.4	66.1	86.2	29.1									
32.0	60.5	84.0	18.0	63.8	85.2	27.0									
34.0	58.2	82.8	16.7	61.5	84.2	25.4	65.0	84.7	25.9						
35.4 36.0	55.7	81.4	15.5	59.2	83.0	23.1	64.3	84.7 84.4	25.9 25.9						
38.0	53.2	80.0	14.5	59.2 56.8	81.7	21.0	62.1	83.4	25.9 25.0						
40.0	50.6	78.4	13.6	54.3	80.3	19.2	59.7	82.3	23.6						
42.0	47.9	76.6	12.8	51.7	78.8	17.7	57.3	81.0	22.5						
44.0	45.1	74.7	12.0	49.1	77.1	16.4	54.9	79.7	21.3						
46.0	42.1	72.6	11.3	46.3	75.2	15.2	52.3	78.1	20.3				i		
48.0	39.0	70.2	10.7	43.4	73.2	14.2	49.7	76.5	19.5				i		
49.1										55.0	77.6	16.7			
50.0	35.6	67.5	10.1	40.3	70.9	13.2	47.0	74.7	18.4	54.0	77.0	17.4			
55.0	25.4	58.8	8.9	31.6	63.9	11.3	39.5	69.3	16.3	47.4	72.9	15.8			
58.0	16.8	50.8	8.2												
60.0				19.6	53.2	9.6	30.5	62.0	14.3	40.0	67.5	14.3			
61.0				16.2	50.0	9.3									
65.0							17.8	50.5	12.0	31.1	60.4	12.9			
66.0							15.3	48.2	11.1						
70.0										18.8	49.3	11.4			
71.0										15.2	46.0	11.2			
71.8													35.0	56.9	8.7
75.0													30.0	52.7	8.0
80.0													16.9	40.8	6.9



Nº de ident.: 9842523/95738/

Radio de descarga: 360°

2 - Vía ancha
114.0
52.6

	88° Án	gulo de orincipal	pluma I	83° Án	gulo de orincipa	pluma I		gulo de orincipa		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]
				32.0 ı	m Pluma Cab	eza de p	il, Punto Iumín (2 i] Posici	316-1) 5	9.5 m Plı	eza de p umín	lumín				
16.6 18.0 20.0 22.0 24.0	78.0 76.7 74.7 72.7 70.6	93.1 92.8 92.3 91.7 91.0	34.4 34.2 32.6 29.7 25.7												
24.5 26.0 28.0 30.0 32.0	68.6 66.5 64.3 62.2	90.2 89.4 88.5 87.4	23.0 20.9 19.1 17.7	73.0 71.5 69.4 67.3 65.2	91.5 91.0 90.3 89.5 88.6	30.8 30.6 29.6 28.6 26.6									
34.0 36.0 36.6 38.0	60.0 57.7 55.4	86.3 85.1 83.7	16.4 15.2 14.2	63.1 60.9 58.7	87.6 86.5 85.3	24.9 23.6 21.4	65.0 63.6	87.5 86.8	24.1 24.6						
40.0 42.0 44.0 46.0 48.0	53.0 50.5 48.0 45.3 42.5	82.2 80.6 78.9 76.9 74.8	13.3 12.5 11.8 11.0 10.4	56.4 54.0 51.6 49.0 46.4	84.0 82.6 81.0 79.3 77.5	19.4 17.8 16.4 15.3 14.2	61.4 59.2 56.9 54.5 52.1	85.7 84.6 83.3 81.9 80.4	23.3 22.1 21.0 19.9 19.0						
50.0 50.8 55.0 60.0 61.0	39.5 31.0 19.5 16.3	72.5 65.3 54.4 51.2	9.8 8.6 7.5 7.3	36.1 26.7	75.4 69.3 61.0	13.2 11.1 9.6	49.6 42.9 35.1	78.7 73.9 67.6	16.0 14.3	55.0 50.0 43.3	80.1 76.9 72.1	15.7 15.5 14.0			
64.0 65.0 68.0 70.0 74.0				15.7	50.4	8.4	25.4 17.3	58.8 50.9	12.2 10.9	35.7 26.1 16.0	65.9 57.4 47.6	12.6 11.2 9.6			
74.3 75.0 80.0 83.0													35.0 34.7 24.9 16.5	58.6 58.3 49.4 41.2	7.8 7.6 6.6 6.0



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		75° Án	gulo de orincipa	pluma		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]
				32.0 ı	m Pluma Cab	eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 6:	2.5 m Pl	eza de p umín	lumín				
17.3 18.0 20.0 22.0 24.0	78.0 77.3 75.4 73.5 71.6	96.1 95.9 95.4 94.8 94.2	31.7 31.7 30.8 29.5 25.6												
25.4 26.0 28.0 30.0 32.0	69.6 67.7 65.7 63.6	93.5 92.7 91.8 90.8	22.7 20.6 18.9 17.4	73.0 72.4 70.5 68.5 66.5	94.4 94.2 93.5 92.7 91.9	28.7 28.6 28.3 27.4 26.2									
34.0 36.0 37.9 38.0	61.5 59.4 57.3	89.7 88.6 87.3	16.3 15.1 14.0	64.5 62.4 60.3	90.9 89.9 88.8	24.6 23.3 21.9	65.0 64.9	90.2 90.1	23.3 23.3						
40.0 42.0 44.0 46.0 48.0	55.0 52.8 50.4 48.0 45.4	86.0 84.5 82.9 81.1 79.2	13.1 12.2 11.5 10.9 10.2	58.2 56.0 53.7 51.4 49.0	87.6 86.3 84.8 83.3 81.6	19.9 18.1 16.6 15.4 14.4	62.9 60.8 58.7 56.5 54.2	89.1 88.1 86.9 85.6 84.2	23.0 21.7 20.7 19.7 18.7						
50.0 52.5 55.0 60.0 64.0	35.4 26.3 15.9	77.1 70.8 62.3 51.7	9.6 8.3 7.4 6.6	39.7 31.8	79.7 74.3 67.2	13.4 11.2 9.6	51.9 45.8 38.9	78.2 72.6	17.9 15.9 14.1	55.0 52.3 46.2	82.5 80.8 76.4	14.7 15.2 13.8			
65.0 67.0 70.0 71.0 75.0				21.3 15.3	57.0 50.7	7.6	30.8 19.9 16.9	65.3 54.5 51.4	12.4 10.4 10.0	39.4 31.3 20.7	70.9 63.7 53.2	12.4 11.0 9.8			
76.7 77.0 80.0 85.0 86.0										15.6	48.0	8.8	35.0 30.4 19.2 16.1	56.0 44.9 41.7	6.9 6.3 5.4 5.2



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 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]
				32.0 ı	m Pluma Cab	eza de p	al, Punto lumín (2 n] Posici	316-1) 6	5.5 m Pl	eza de p umín	lumín				
17.9	78.0	99.0	28.2												
18.0	77.9	99.0	28.2												
20.0	76.1	98.5	27.7										<u> </u>		
22.0	74.3	98.0	26.5												
24.0	72.5	97.3	24.4												
26.0	70.6	96.7	22.0												
26.3				73.0	97.2	25.4									
28.0	68.7	95.9	20.3	71.4	96.7	25.3									
30.0	66.8	95.1	18.5	69.5	95.9	24.6									
32.0	64.9	94.2	17.0	67.6	95.1	24.0									
34.0	63.0	93.2	15.7	65.7	94.2	23.0									
36.0 38.0	61.0 58.9	92.1 90.9	14.7 13.6	63.8 61.8	93.3 92.2	22.1 21.4									
39.2	56.9	90.9	13.0	01.0	92.2	21.4	65.0	92.9	21.7						
40.0	56.9	89.6	12.7	59.8	91.1	19.9	64.2	92.5	21.7						
42.0	54.7	88.2	11.8	57.7	89.9	18.2	62.3	91.5	21.7						
44.0	52.6	86.7	11.1	55.6	88.5	16.6	60.3	90.4	20.1						
46.0	50.3	85.1	10.5	53.5	87.1	15.2	58.2	89.2	19.3				i		
48.0	48.0	83.3	9.9	51.3	85.5	14.1	56.1	87.8	18.3				İ		
50.0	45.6	81.4	9.3	49.0	83.8	13.2	54.0	86.4	17.5						
54.2										55.0	85.0	13.9			
55.0	39.0	75.8	8.0	42.8	78.9	11.0	48.3	82.3	15.7	54.3	84.5	14.5			
60.0	31.3	68.6	7.0	35.8	72.7	9.3	42.1	77.3	13.8	48.7	80.5	13.3			
65.0	21.2	58.3	6.1	27.4	64.4	8.0	35.0	70.9	12.3	42.5	75.5	12.1			
67.0	15.5	52.1	5.7												
70.0				16.1	52.4	6.1	26.3	62.3	10.5	35.5	69.2	10.7			
74.0							16.5	51.8	9.0						
75.0										26.9	60.8	9.5			
79.2										45.0		7.0	35.0	62.0	6.1
80.0										15.3	48.4	7.9	34.6	61.7	6.0
85.0													25.8	52.9	5.0
89.0													15.7	42.1	4.3



N° de ident.: 9842523/95738/ Pieza

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

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 114.0

52.6

		gulo de orincipal			gulo de orincipa			gulo de principa			gulo de orincipa		45° Án I	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]
				32.0 ı	m Pluma Cab	eza de p	al, Punto Jumín (2 n] Posici	316-1) 6	8.5 m Pl		lumín				
18.5 20.0 22.0 24.0 26.0 27.1	78.0 76.7 75.0 73.3 71.5	101.9 101.6 101.1 100.5 99.8	25.5 25.4 24.2 23.1 21.3	73.0	100.1	22.9									
28.0 30.0 32.0 34.0	69.7 67.9 66.1 64.2	99.1 98.3 97.5 96.5	19.9 18.4 16.9 15.5	72.2 70.5 68.7 66.9	99.8 99.1 98.4 97.5	22.9 22.5 22.0 21.5									
36.0 38.0 40.0 40.4 42.0	62.4 60.5 58.5 56.5	95.5 94.4 93.2 91.9	14.5 13.5 12.5	65.0 63.2 61.3 59.3	96.6 95.6 94.6	20.9 20.5 20.1	65.0 63.6	95.6 94.9	19.9 20.4						
44.0 46.0 48.0 50.0	54.5 52.4 50.2 48.0	90.5 89.0 87.3 85.6	10.9 10.2 9.7 9.1	57.3 55.3 53.3 51.1	92.1 90.8 89.3 87.7	16.9 15.5 14.2 13.2	61.7 59.8 57.8 55.8	93.8 92.7 91.4 90.1	19.8 18.8 18.1 17.2						
55.0 56.0 60.0 65.0 70.0 73.0	35.2 27.0 15.2	74.1 65.7 52.4	7.8 6.8 5.9 5.1	39.2 31.9 22.7 15.7	77.6 70.5 60.6 52.8	9.3 8.0 6.8 5.5	50.5 44.8 38.5 31.1	86.3 81.7 76.0 68.6	15.5 13.7 12.1 10.7	55.0 50.9 45.2 38.9	87.5 84.4 79.9 74.2	13.1 13.0 11.9 10.6			
75.0 75.0 77.0 80.0 81.7 82.0				15.7	52.0	5.5	21.4 16.1	58.3 52.2	9.0 8.3	31.5 22.1 16.1	67.0 57.0 50.1	9.4 8.3 7.8	35.0	63.7	5.4
85.0 90.0 92.0										10.1	30.1	1.0	30.6 20.8 15.3	59.3 48.8 42.5	4.9 4.0 3.7



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]
				32.0 ı		eza de p	II, Punto Iumín (2 1] Posici	316-1) 7	1.5 m Pli	eza de p umín	lumín				
19.1 20.0 22.0 24.0 26.0 28.0	78.0 77.3 75.6 74.0 72.3 70.6	104.9 104.7 104.2 103.6 103.0	23.3 23.3 22.5 21.7 20.3 19.0	73.0	103.0	21.1									
30.0 32.0 34.0 36.0 38.0	68.9 67.2 65.4 63.6 61.8	101.6 100.7 99.8 98.9 97.8	18.0 16.4 15.1 13.9 13.0	71.3 69.6 67.9 66.1 64.4	102.3 101.6 100.8 99.9 99.0	21.0 20.6 20.2 19.7 19.2									
40.0 41.7 42.0 44.0 46.0	58.1 56.2 54.2	96.7 95.5 94.1 92.7	12.1 11.3 10.5 9.8	62.6 60.7 58.9 57.0	98.0 96.9 95.7 94.4	18.8 18.3 16.7 15.3	65.0 64.8 63.0 61.2	98.3 98.2 97.2 96.1	19.0 19.0 18.9 18.2						
48.0 50.0 55.0 57.7 60.0	52.2 50.1 44.6	91.2 89.6 84.9	9.2 8.7 7.5	55.0 53.0 47.8	93.0 91.6 87.4	14.1 13.0 10.9	59.3 57.4 52.5	95.0 93.7 90.1	17.4 16.7 14.8	55.0 52.8	89.9 88.3	12.3 12.6			
65.0 70.0 73.0 75.0	31.5 22.5 15.9	71.9 61.9 54.1	5.6 4.8 4.0	35.6 27.9 17.3	76.0 67.8 55.5	7.7 6.6 5.5	41.4 34.9 27.0	80.7 74.2 65.7	11.7 10.5 8.9	47.5 41.8 35.0	84.1 78.9 72.2	11.4 10.3 9.1			
76.0 80.0 84.1 85.0 90.0				15.4	53.2	4.8	15.7	52.6	7.3	27.5 15.8	64.2 50.5	8.0 6.9	35.0 34.5 26.5	65.5 65.0 56.3 46.3	4.6 4.5 3.7 3.1



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 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]
				32.0		eza de p	il, Punto lumín (2: n] Posici	316-1) 7	4.5 m Pl	eza de p umín	lumín				
19.8	78.0	107.8	21.8												
20.0	77.8	107.8	21.8												
22.0	76.2	107.3	21.5												
24.0	74.6	106.8	20.7												
26.0 28.0	73.0 71.4	106.2 105.5	19.7 18.4												
28.9	7 1.4	105.5	10.4	73.0	105.8	20.0									
30.0	69.8	104.8	17.5	72.1	105.5	20.0									
32.0	68.1	104.0	16.3	70.5	104.8	19.8									
34.0	66.5	103.1	14.9	68.8	104.0	19.4									
36.0	64.8	102.2	13.8	67.2	103.2	19.0									
38.0	63.0	101.2	12.8	65.5	102.3	18.5									
40.0	61.3	100.1	12.0	63.8	101.3	18.1									
42.0 43.0	59.5	99.0	11.1	62.0	100.3	17.7	65.0	101.1	18.1						
44.0	57.7	97.7	10.4	60.3	99.2	16.9	64.2	100.6	18.1						
46.0	55.9	96.4	9.7	58.5	98.0	15.5	62.4	99.5	17.8						
48.0	54.0	95.0	9.0	56.6	96.7	14.2	60.7	98.4	17.0						
50.0	52.0	93.5	8.5	54.8	95.3	13.1	58.9	97.3	16.3						
55.0	46.9	89.1	7.3	49.9	91.4	10.9	54.3	93.9	14.6						
59.4										55.0	92.4	11.6			
60.0	41.4	83.9	6.2	44.6	86.7	9.1	49.3	89.9	13.2	54.5	92.0	12.0			
65.0 70.0	35.1 27.6	77.5 69.1	5.4 4.7	38.8 32.1	81.0 73.8	7.6 6.5	44.0 38.1	85.1 79.3	11.6 10.3	49.6 44.3	88.1 83.3	11.0 10.1			
70.0 75.0	17.4	56.8	4.7	23.7	64.2	5.5	31.3	79.3 72.0	9.0	38.2	63.3 77.3	8.9			
76.0	15.5	54.5	3.5	23.1	04.2	5.5	31.3	12.0	9.0	30.2	11.5	0.9			
79.0		0	0.0	15.0	53.6	4.3									
80.0							22.6	61.9	7.6	32.2	70.9	7.7			
83.0							15.4	53.0	6.7						
85.0										23.9	61.3	6.7			
86.6													35.0	67.2	3.9
88.0										17.2	53.2	6.1	20.0	00.7	0.4
90.0 95.0													30.9 22.1	62.7 52.5	3.4 2.7
95.0 97.0													17.5	52.5 46.8	2.7
31.0													17.5	70.0	۷.٦



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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
				32.0		eza de p	al, Punto dumín (2 n] Posici	316-1) 7	7.5 m Pl	eza de p umín	lumín				
20.4	78.0	110.8	20.0												
22.0	76.8	110.4	19.9												
24.0	75.3	109.9	19.1												
26.0	73.7	109.3	18.6												
28.0	72.2	108.7	17.5												
29.8				73.0	108.7	18.3									
30.0	70.6	108.0	16.7	72.8	108.6	18.3									
32.0 34.0	69.0 67.4	107.2 106.4	16.1 14.8	71.3 69.7	108.0 107.2	18.2 17.8									
36.0	65.8	105.5	13.6	68.1	107.2	17.5									
38.0	64.2	103.5	12.5	66.5	105.6	17.1									
40.0	62.5	103.6	11.7	64.9	104.7	16.6									
42.0	60.8	102.5	10.9	63.2	103.7	16.3									
44.0	59.1	101.3	10.1	61.5	102.6	16.0									
44.2							65.0	103.8	16.0						
46.0	57.4	100.0	9.4	59.8	101.5	15.0	63.6	102.9	16.5						
48.0	55.6	98.7	8.8	58.1	100.3	13.9	61.9	101.9	16.2						
50.0	53.8	97.2	8.2	56.3	99.0	12.8	60.2	100.8	15.6						
55.0	49.0	93.2	7.1	51.7	95.3	10.7	55.8	97.6	14.2						
60.0	43.9	88.4	6.0	46.8	90.9	9.0	51.2	93.8	12.8			10.0			
61.1	20.0	00.5	5.1	44.5	05.7	7.5	40.0	00.4	44.5	55.0	94.8	10.9 10.8			
65.0 70.0	38.2 31.7	82.5 75.3	4.4	41.5 35.5	85.7 79.3	7.5 6.3	46.3 40.9	89.4 84.1	11.5 10.1	51.5 46.6	92.0 87.6	9.8			
75.0	23.6	65.5	3.8	28.4	79.3	5.4	34.8	77.5	9.0	41.2	82.3	8.6			
79.0	15.2	54.9	3.0	20.4	/ 1.2	5.4	34.0	11.5	3.0	71.2	02.0	0.0			
80.0	.5.2	0 7.0	0.0	19.1	59.6	4.5	27.5	69.1	7.6	35.6	76.3	7.4			
81.0				16.6	56.4	4.3									
85.0							17.8	56.9	6.2	28.6	68.2	6.4			
86.0							15.1	53.4	5.9						
89.0													35.0	68.9	3.1
90.0										19.3	56.7	5.4	34.5	68.3	3.1
91.0				I						16.8	53.6	5.2			
95.0													27.1	59.8	2.3
97.0				L									23.6	55.5	2.1



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]
				32.0		eza de p	il, Punto lumín (2 n] Posici	316-1) 8	0.5 m Pl	eza de p umín	lumín				
21.0 22.0 24.0 26.0 28.0	78.0 77.3 75.8 74.3 72.9	113.7 113.5 113.0 112.4 111.8	18.5 18.5 17.8 17.2 16.6												
30.0 30.6 32.0 34.0 36.0	71.4 69.8 68.3 66.8	111.2 110.4 109.7 108.8	16.0 15.4 14.7 13.4	73.0 72.0 70.5 69.0	111.6 111.1 110.4 109.7	16.8 16.8 16.6 16.2									
38.0 40.0 42.0 44.0 45.5	65.2 63.6 62.0 60.4	107.9 106.9 105.9 104.8	12.4 11.4 10.7 10.0	67.4 65.9 64.3 62.7	108.9 108.0 107.0 106.0	15.9 15.5 15.1 14.8	65.0	106.5	14.5						
46.0 48.0 50.0 55.0 60.0	58.7 57.0 55.3 50.8 46.1	103.6 102.3 100.9 97.1 92.6	9.3 8.6 8.0 6.8 5.8	61.1 59.4 57.7 53.4 48.8	104.9 103.8 102.5 99.1 95.0	14.6 13.5 12.6 10.5 9.0	64.6 63.1 61.4 57.3 52.9	106.3 105.3 104.2 101.2 97.7	15.1 15.1 14.8 13.8 12.5						
62.8 65.0 70.0 75.0 80.0	40.8 35.0 28.1 19.1	87.3 80.8 72.5 60.8	4.9 4.2 3.6 3.0	43.9 38.4 32.2 24.6	90.1 84.3 77.2 67.8	7.5 6.2 5.3 4.4	48.3 43.3 37.8 31.4	93.5 88.6 82.6 75.3	11.4 10.1 8.9 7.8	55.0 53.2 48.6 43.6 37.9	97.3 95.8 91.7 86.8 80.6	10.3 10.6 9.5 8.5 7.3			
81.0 84.0 85.0 89.0 90.0	16.7	57.7	2.9	16.3	56.8	3.7	23.6 15.7	65.5 55.0	6.5 5.0	32.3 24.8	74.2 64.9	6.3			
91.5 94.0 95.0 96.0										16.5	54.0	4.6	35.0 31.1 29.7	70.6 66.0 64.3	2.7 2.2 2.1



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 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]
				32.0 ı		principa eza de p				eza de p umín	lumín		-		
							ı] Posici			-					
21.6	78.0	116.6	16.9												
22.0	77.7	116.5	16.9												
24.0	76.3	116.1	16.6												
26.0	74.9	115.5	16.1												
28.0 30.0	73.5 72.0	115.0 114.3	15.7 15.2												
31.5	/2.0	114.3	15.2	73.0	114.4	15.6							ł		
32.0	70.6	113.6	14.7	72.7	114.4	15.6							i		
34.0	69.1	112.9	14.4	71.2	113.6	15.4							İ		
36.0	67.7	112.1	13.3	69.7	112.9	15.1									
38.0	66.2	111.2	12.2	68.3	112.1	14.9									
40.0	64.6	110.3	11.2	66.8	111.3	14.6									
42.0	63.1	109.3	10.4	65.3	110.4	14.2									
44.0	61.6	108.2	9.8	63.8	109.4	13.9									
46.0	60.0	107.1	9.1	62.2	108.4	13.7	05.0	100.0	440						
46.8 48.0	58.4	105.9	8.4	60.6	107.3	13.3	65.0 64.1	109.2 108.6	14.0 14.0						
50.0	56.7	105.9	7.8	59.0	107.3	12.4	62.6	107.6	13.9				ł		
55.0	52.5	101.0	6.6	54.9	102.8	10.4	58.6	107.0	13.2						
60.0	48.0	96.8	5.6	50.6	98.9	8.9	54.5	101.4	12.1						
64.6										55.0	99.7	9.7			
65.0	43.2	91.8	4.7	46.0	94.4	7.4	50.1	97.5	11.1	54.7	99.5	10.0			
70.0	37.9	85.9	4.0	41.0	89.1	6.1	45.5	92.9	9.9	50.4	95.6	9.3			
75.0	31.8	78.6	3.4	35.4	82.6	5.1	40.4	87.4	8.7	45.6	90.9	8.1			
80.0	24.4	69.1	2.8	28.8	74.5	4.3	34.7	80.8	7.7	41.0	86.1	7.0			
84.0	16.4	58.1	2.3												
85.0				20.5	63.4 57.2	3.4 3.1	28.0	72.5	6.5	35.5	79.7	5.9			
87.0 90.0				16.0	57.2	3.1	19.3	60.9	5.2	28.9	71.6	5.0			
92.0							15.4	55.4	4.3	20.9	7 1.0	3.0			
95.0								55.4	0	20.6	60.6	4.2			
97.0										16.2	54.4	3.8			



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 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]
				32.0		eza de p	ıl, Punto llumín (2 ı] Posici	316-1) 8	6.5 m Pli	eza de p umín	lumín				
22.3	78.0	119.6	15.7												
24.0	76.8	119.2	15.6												
26.0	75.5	118.6	15.2												
28.0	74.1	118.1	14.8												
30.0	72.7	117.5	14.4												
32.0	71.3	116.8	14.0												
32.4				73.0	117.3	14.5									
34.0	69.9	116.1	13.7	71.9	116.8	14.5									
36.0	68.5	115.3	13.2	70.5	116.1	14.2									
38.0	67.0	114.5	12.1	69.1	115.3	14.0									
40.0	65.6	113.6	11.1	67.6	114.5	13.8									
42.0	64.1	112.6	10.3	66.2	113.7	13.5									
44.0	62.6	111.6	9.6	64.7	112.7	13.2									
46.0	61.1	110.5	9.0	63.3	111.8	13.0	05.0	444.0	10.5						
48.0	59.6	109.4	8.3	61.8	110.7	12.8	65.0	111.9 111.0	12.5						
50.0	58.0	108.2	7.7	60.2	109.6	12.3	63.6	_	13.0						
55.0 60.0	54.0 49.8	104.7 100.8	6.4 5.4	56.3 52.2	106.4 102.8	10.3 8.8	59.8 55.9	108.3 105.1	12.6 11.8						
65.0	45.3	96.1	4.5	47.9	98.5	7.4	55.9 51.8	105.1	10.7						
66.3	40.0	90.1	4.5	47.9	90.5	7.4	31.0	101.4	10.7	55.0	102.2	9.1			
70.0	40.4	90.7	3.8	43.2	93.6	6.1	47.4	97.1	9.8	52.0	99.5	9.1			
70.0 75.0	34.9	84.1	3.0	43.2 38.1	93.6 87.7	4.9	47.4	97.1	9.6 8.6	52.0 47.5	99.5 95.1	7.8			
80.0	28.5	75.9	2.6	32.3	80.5	4.9	37.5	86.0	7.6	43.3	90.6	6.7			
85.0	20.5	75.5	2.0	25.3	71.3	3.4	31.6	78.6	6.6	38.2	84.7	5.7			
90.0				15.7	57.6	2.6	24.5	69.1	5.4	32.4	77.5	4.7			
95.0				10.7	07.0	2.0	15.1	55.8	3.8	25.5	68.4	3.9			
100.0								23.0		15.9	54.9	3.1			



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]: 114.0 Lastre central [t]: 52.6

		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]	
32.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (2316-1) 89.5 m Plumín 43.0 [m] Posición midfall (2316)																
22.9	78.0	122.5	13.8													
24.0	77.3	122.2	13.8													
26.0	76.0	121.8	13.4													
28.0	74.6	121.2	13.1													
30.0	73.3	120.6	12.8													
32.0	72.0	120.0	12.5													
33.3				73.0	120.2	12.7										
34.0	70.6	119.3	12.2	72.5	120.0	12.7										
36.0	69.2	118.5	11.9	71.2	119.3	12.6										
38.0	67.8	117.7	11.2	69.8	118.6	12.3										
40.0	66.4 65.0	116.9	10.3	68.4	117.8 116.9	12.0										
42.0 44.0	63.6	115.9 115.0	9.6 8.9	67.0 65.6	116.9 116.0	11.8 11.5										
46.0	62.1	113.0	8.3	64.2	115.1	11.3										
48.0	60.7	112.8	7.8	62.7	114.1	11.0										
49.3	00.7	112.0	7.0	02.1	114.1	11.0	65.0	114.6	11.2							
50.0	59.2	111.6	7.2	61.3	113.0	10.9	64.5	114.3	11.2							
55.0	55.3	108.3	5.9	57.5	110.0	9.4	60.9	111.7	10.9							
60.0	51.3	104.6	5.0	53.6	106.5	8.1	57.1	108.6	10.4							
65.0	47.0	100.2	4.1	49.5	102.4	7.1	53.2	105.1	9.6							
68.0										55.0	104.7	8.5				
70.0	42.4	95.0	3.4	45.1	97.7	5.8	49.0	101.0	9.0	53.4	103.2	8.5				
75.0	37.4	88.9	2.7	40.3	92.2	4.7	44.6	96.2	8.0	49.3	99.1	7.5				
80.0	31.6	81.5	2.3	35.0	85.6	3.8	39.7	90.6	7.0	45.3	94.9	6.4				
85.0				28.8	77.4	3.1	34.3	83.8	6.3	40.6	89.5	5.3				
90.0				21.1	66.4	2.4	28.1	75.4	5.2	35.3	83.0	4.4				
92.0				17.1	60.5	2.1										
95.0							20.1	64.0	4.1	29.3	75.0	3.6				
97.0							15.8	57.6	3.6							
100.0										21.7	64.3	2.8				
103.0										15.6	55.3	2.4				



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° 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]
32.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (2316-1) 92.5 m Plumín 46.0 [m] Posición midfall (2316)															
23.6	78.0	125.4	12.6												
24.0	77.7	125.3	12.6												
26.0	76.4	124.9	12.5												
28.0	75.2	124.3	12.1												
30.0	73.9	123.8	11.9												
32.0	72.6	123.1	11.6												
34.0	71.2	122.5	11.3												
34.2				73.0	123.1	11.7				•			<u> </u>		
36.0	69.9	121.8	11.1	71.8	122.5	11.7									
38.0	68.6	121.0	10.7	70.5	121.8	11.4									
40.0	67.2	120.1	9.9	69.2	121.0	11.1									
42.0	65.9	119.3	9.2	67.8	120.2	10.9									
44.0	64.5	118.3	8.6	66.5	119.3	10.6									
46.0	63.1	117.3	8.0	65.1	118.4	10.3									
48.0	61.7	116.2	7.6	63.7	117.4	10.1									
50.0	60.3	115.1	7.1	62.3	116.4	9.9									
50.6							65.0	117.4	10.1						
55.0	56.6	112.0	5.8	58.7	113.5	8.9	61.9	115.1	9.9						
60.0	52.8	108.4	4.8	55.0	110.2	7.8	58.3	112.2	9.4						
65.0	48.7	104.2	4.0	51.1	106.4	7.0	54.6	108.8	8.9						
69.7										55.0	107.1	7.9			
70.0	44.4	99.4	3.2	46.9	101.9	5.8	50.6	104.9	8.4	54.8	106.9	7.9			
75.0	39.8	93.8	2.6	42.5	96.8	4.6	46.4	100.4	7.7	50.9	103.1	7.3			
80.0				37.6	90.7	3.7	41.9	95.2	6.8	47.1	99.1	6.2			
85.0				32.1	83.4	3.0	37.0	89.0	6.1	42.7	94.0	5.1			
90.0				25.5	74.2	2.3	31.4	81.5	5.2	37.9	88.0	4.2			
95.0							24.7	72.0	4.2	32.5	80.9	3.4			
100.0							15.5	58.0	3.1	26.1	71.8	2.6			
104.0										19.6	62.1	2.1			



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 orincipa			gulo de principa			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]
				32.0	m Pluma Cab	eza de p	II, Punto Iumín (2 I Posici	316-1) 9	5.5 m Pl		lumín		-		
24.2	78.0	128.4	11.5												
26.0	76.9	127.9	11.5	l											
28.0	75.6	127.4	11.2	l											
30.0	74.4	126.9	10.9												
32.0	73.1	126.3	10.7												
34.0	71.9	125.6	10.4	l											
35.0				73.0	125.9	10.6									
36.0	70.6	124.9	10.2	72.4	125.6	10.6									
38.0	69.3	124.2	10.0	71.1	124.9	10.5									
40.0	68.0	123.4	9.4	69.8	124.2	10.2									
42.0	66.7	122.5	8.8	68.5	123.4	10.0									
44.0	65.4	121.6	8.2	67.2	122.6	9.8									
46.0	64.0	120.7	7.7	65.9	121.7	9.6									
48.0	62.7	119.7	7.2	64.6	120.8	9.3									
50.0	61.3	118.6	6.8	63.2	119.8	9.1									
51.8							65.0	120.1	9.2						
55.0	57.8	115.6	5.6	59.8	117.0	8.5	62.9	118.5	9.1						
60.0	54.1	112.1	4.5	56.2	113.8	7.4	59.4	115.7	8.7						
65.0	50.3	108.2	3.7	52.5	110.2	6.6	55.8	112.5	8.3						
70.0	46.3	103.7	3.0	48.6	106.0	5.6	52.1	108.8	8.0						
71.4										55.0	109.6	7.4			
75.0	41.9	98.4	2.3	44.4	101.2	4.5	48.1	104.5	7.5	52.3	106.9	6.9			
80.0				39.9	95.6	3.5	43.9	99.6	6.6	48.8	103.1	5.8			
85.0				34.9	88.9	2.7	39.4	93.9	5.8	44.6	98.4	4.8			
90.0				29.1	80.8	2.1	34.3	87.1	5.1	40.2	92.8	3.9			
95.0							28.5	78.8	4.1	35.2	86.3	3.1			
100.0							21.2	67.7	3.1	29.6	78.3	2.3			
102.0										27.0	74.5	2.0			
103.0	1	1	l	I	l	1	15.3	58 4	2.5			l	I	l	l



N° 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]: 114.0 Lastre central [t]: 52.6

		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]
				32.0 ı	m Pluma Cab	eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 9	8.5 m Pl	eza de p umín	lumín				
04.0	70.0	404.0	40.0			JZ.0 [11			11 (2310)			1			I
24.8 26.0	78.0 77.3	131.3 131.0	10.6 10.6												
28.0	76.1	130.5	10.4							i					
30.0	74.9	130.0	10.4							i			i		
32.0	73.7	129.4	9.9							Ī					
34.0	72.4	128.8	9.7												
35.9				73.0	128.8	9.7				i					
36.0	71.2	128.1	9.4	73.0	128.8	9.7			İ	İ		İ	İ		
38.0	70.0	127.4	9.3	71.7	128.1	9.7									
40.0	68.7	126.6	9.0	70.5	127.4	9.5									
42.0	67.4	125.8	8.4	69.2	126.7	9.2									
44.0	66.2	124.9	7.8	68.0	125.9	9.1									
46.0	64.9	124.0	7.3	66.7	125.0	8.9									
48.0	63.6	123.0	6.9	65.4	124.1	8.7									
50.0	62.3	122.0	6.5	64.1	123.1	8.5									
53.1							65.0	122.8	8.4						
55.0	58.9	119.1	5.4	60.8	120.5	8.1	63.8	121.9	8.4						
60.0	55.4 51.8	115.8 112.1	4.3 3.5	57.4 53.9	117.4 114.0	7.2 6.4	60.5 57.0	119.2 116.1	8.1 7.8						
65.0 70.0	47.9	107.8	2.8	53.9	114.0	5.6	57.0 53.5	116.1	7.8						
73.2	47.9	107.6	2.0	50.1	110.0	5.0	55.5	112.0	7.5	55.0	112.0	6.9			
75.2 75.0	43.8	102.9	2.1	46.2	105.4	4.5	49.7	108.5	7.3	53.7	112.0	6.7			
80.0	43.6	102.9	Z. I	40.2	100.4	3.5	49.7 45.7	103.9	6.5	50.3	107.1	5.6			
85.0				37.3	94.1	2.6	41.5	98.6	5.7	46.4	107.1	4.5			
90.0				00			36.8	92.3	5.0	42.2	97.4	3.6			
95.0							31.6	84.9	4.1	37.6	91.4	2.8			
100.0							25.4	75.5	3.2	32.5	84.2	2.1			
105.0							18.4	64.3	2.2						
106.0							16.4	61.1	2.0						

Source:a9841388



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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

		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]
				32.0 ı	m Pluma Cabe	principa eza de pl	ıl, Punto umín (23	de carga 316-1) 10	1 - Cab	eza de p lumín	lumín		_		
							ı] Posici								
25.4	78.0	134.2	9.8												
26.0	77.7	134.1	9.8												
28.0	76.5	133.6	9.7												
30.0	75.3	133.1	9.4												
32.0	74.2	132.6	9.2												
34.0 36.0	73.0 71.8	132.0 131.3	9.0 8.8												
36.8	/1.8	131.3	8.8	73.0	131.7	8.9									
38.0	70.6	130.6	8.6	72.3	131.7	8.9									
40.0	69.4	129.9	8.4	71.1	130.6	8.8									
42.0	68.2	129.1	8.0	69.9	129.9	8.6									
44.0	66.9	128.2	7.5	68.7	129.1	8.4									
46.0	65.7	127.3	7.0	67.4	128.3	8.3									
48.0	64.4	126.4	6.5	66.2	127.4	8.1									
50.0	63.2	125.4	6.1	65.0	126.5	7.9									
54.4							65.0	125.5	7.7						
55.0	59.9	122.6	5.2	61.8	123.9	7.5	64.6	125.2	7.7						
60.0	56.6	119.5	4.1	58.5	121.0	6.8	61.4	122.6	7.5						
65.0	53.1	115.9	3.2	55.1	117.7	6.0	58.1	119.7	7.2						
70.0 74.9	49.4	111.8	2.5	51.5	113.9	5.4	54.7	116.3	6.9	55.0	114.5	6.3			
74.9 75.0				47.8	109.6	4.4	51.1	112.5	6.7	55.0 54.9	114.5	6.3			
80.0				43.8	104.6	3.3	47.4	108.1	6.2	51.7	111.0	5.2			
85.0				40.0	99.6	2.4	43.4	103.1	5.4	48.0	106.7	4.2			
87.0				37.7	96.4	2.1									
90.0							39.0	97.3	4.7	44.0	101.8	3.3			
95.0							34.8	91.3	3.9	39.8	96.2	2.5			
98.0										37.1	92.4	2.0			
100.0							29.5	83.2	3.1						
105.0							22.1	71.4	2.3						
106.0							20.5	68.8	2.1						



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		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]
				32.0 ı		eża de pl	ıl, Punto umín (23 ı] Posici	316-1) ĬC)4.5 m P	eza de p lumín	lumín				
26.1 28.0 30.0 32.0	78.0 76.9 75.8 74.6	137.2 136.7 136.2 135.7	9.1 9.1 8.9 8.7												
34.0 36.0 37.7 38.0 40.0	73.5 72.3 71.2 70.0	135.1 134.5 133.8 133.1	8.5 8.3 8.1 7.9	73.0 72.8 71.7	134.5 134.4 133.8	8.3 8.3 8.3									
42.0 44.0 46.0 48.0	68.8 67.6 66.4 65.2	132.3 131.5 130.6 129.7	7.7 7.2 6.7 6.3	70.5 69.3 68.1 66.9	133.1 132.3 131.5 130.7	8.1 7.9 7.7 7.6									
50.0 55.0 55.6 60.0 65.0	64.0 60.9 57.7 54.3	128.7 126.1 123.1 119.6	5.9 5.0 4.0 3.1	65.7 62.7 59.5 56.2	129.8 127.3 124.5 121.3	7.4 7.0 6.5 5.7	65.0 62.3 59.2	128.2 126.0 123.2	7.1 7.0 6.7						
70.0 72.0 75.0 76.6	50.8 49.4	115.8 114.1	2.4	52.8	117.7	5.1	55.9	120.0	6.5	55.0	117.0	5.8			
80.0 85.0 87.0 90.0				45.9 41.5 39.8	109.4 103.6 101.2	3.3 2.4 2.1	48.9 45.1 41.0	112.1 107.4 102.0	6.0 5.3	53.0 53.0 49.5	117.0 114.8 110.7	5.0 5.1 4.1			
95.0 95.0 97.0 100.0 105.0							37.1 32.3 26.7	96.4 89.1 80.2	3.8 3.0 2.2	41.7 41.7 40.1	100.8 98.5	2.3 2.0			
106.0							25.4	78.1	2.1						



N° de ident.: 9842523/95738/ Pieza de articulación de pa

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

ce	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Ángu- o de	Altura								_	orincipa	
	-			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]
				32.0 ı		eża de pl	ıl, Punto umín (23 ı] Posicio	16-1) 10	7.5 m P	eza de p lumín	lumín				
26.7	78.0	140.1	8.2												
28.0	77.3	139.8	8.2												
30.0	76.2	139.3	8.0												
32.0	75.1	138.8	7.8												
34.0	74.0 72.8	138.2	7.6 7.4												
36.0 38.0	72.8	137.6 137.0	7.4 7.2												
38.6	/ 1./	137.0	1.2	73.0	137.4	7.4									
40.0	70.6	136.3	7.1	72.2	136.9	7.4									
42.0	69.4	135.5	6.9	71.1	136.3	7.2									
44.0	68.3	134.7	6.6	69.9	135.5	7.0									
46.0	67.1	133.9	6.2	68.8	134.8	6.9									
48.0	66.0	133.0	5.8	67.6	133.9	6.8									
50.0	64.8	132.1	5.4	66.4	133.1	6.6									
55.0	61.8	129.5	4.7	63.5	130.7	6.2									
56.9							65.0	131.0	6.2						
60.0	58.7	126.6	3.7	60.4	128.0	5.9	63.2	129.4	6.2						
65.0	55.5	123.3	2.8	57.3	124.9	5.2	60.1	126.7	5.9						
70.0				54.1	121.5	4.7	57.0	123.6	5.7						
75.0				50.7	117.6	4.3	53.7	120.1	5.4						
78.3										55.0	119.4	5.0			
80.0				47.1	113.1	3.2	50.3	116.1	5.3	53.9	118.2	4.7			
85.0 86.0				43.3 42.9	108.1 107.6	2.3 2.1	46.7	111.6	4.8	50.8	114.7	3.7			
90.0				42.9	107.6	2.1	42.0	106.5	4.1	47.3	110.3	2.8			
95.0							42.9 38.8	100.5	3.4	43.5	105.3	2.0			
100.0							36.6 34.8	94.6	2.7	43.0	105.5	2.0			
100.0							30.8	88.3	2.1						



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 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]
				32.0 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				
27.3	78.0	143.0	7.4												
28.0	77.6	142.9	7.4												
30.0	76.6	142.4	7.3												
32.0	75.5	141.9	7.1												
34.0	74.4	141.3	6.9												
36.0	73.3	140.8	6.7												
38.0	72.2	140.1	6.6												
39.4				73.0	140.3	6.6									
40.0	71.1	139.4	6.4	72.7	140.1	6.6									
42.0	70.0	138.7	6.3	71.6	139.4	6.5									
44.0	68.9	138.0	6.1	70.5	138.7	6.4									
46.0	67.8	137.2	5.7	69.4	138.0	6.2									
48.0	66.7	136.3	5.3	68.3	137.2	6.1									
50.0	65.5	135.4	5.0	67.1	136.4	5.9									
55.0	62.6	132.9	4.3	64.3	134.1	5.6									
58.2							65.0	133.7	5.5						
60.0	59.6	130.1	3.5	61.3	131.4	5.3	64.0	132.8	5.5						
65.0	56.6	127.0	2.6	58.3	128.5	4.8	61.0	130.1	5.3						
70.0				55.2	125.2	4.4	58.0	127.2	5.0						
75.0				51.9	121.4	4.0	54.8	123.8	4.8		101.0				
80.0				48.5	117.2	3.2	51.6	120.0	4.6	55.0	121.9	4.4			
85.0				44.9	112.4	2.3	48.2	115.7	4.3	52.1	118.5	3.5			
86.0 90.0				44.6	111.9	2.1	44.5	110.9	3.8	48.7	114.3	2.6			
90.0							44.5	110.9	3.8	48.7 46.6	114.3 111.6	2.6			
95.0							41.1	106.0	3.1	40.0	111.6	2.1			
100.0							36.9	99.7	2.4						
100.0							35.9 35.2	99.7 97.0	2.4						



N° de ident.: 9842523/95738/ Pi

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
				32.0 ו		eza de p	ıl, Punto lumín (19 ı] Posicio	916-1) 3:	2.5 m Pli	eza de p umín	lumín		-		
11.0 12.0	78.0 76.2	66.7 66.5	44.5 43.4												
13.0 14.0	74.4 72.6	66.2 65.9	41.3 39.3												
16.0	68.8	65.2	36.2												
16.6				73.0	65.7	38.1									
18.0	64.9	64.3	33.2	70.4	65.2	36.6									
20.0	61.0	63.2	31.0	66.6	64.4	33.9									
22.0	56.8	62.0	28.6	62.6	63.4	31.5									
24.0	52.4	60.5	26.7	58.6	62.2	29.5									
25.2							65.0	63.0	29.9						
26.0	47.7	58.7	25.0	54.3	60.8	27.7	63.6	62.6	31.8						
28.0	42.7	56.7	23.2	49.7	59.2	26.3	59.5	61.5	30.3						
30.0	37.1	54.2	21.7	44.9	57.3	24.7	55.3	60.2	28.7						
32.0	30.6	51.1	20.1	39.5	55.0	23.3	50.8	58.6	27.5						
34.0	22.4	46.9	18.4	33.4	52.2	22.0	46.0	56.8	25.9						
35.0	16.9	44.0	17.5												
35.3				00.4	40.0	00.4	40.0	540	04.4	55.0	58.0	26.6			
36.0				26.1	48.6	20.1	40.8	54.6	24.4	53.7	57.5	28.1			
38.0				15.8	43.1	18.1	34.9	51.9	23.1	49.2	55.9	26.6			
40.0							27.9	48.5	21.5	44.2	53.9	25.3			
42.0 44.0							18.7	43.6	19.8	38.8 32.6	51.6 48.7	24.0 22.9			
46.0										25.1	45.0	21.6			
48.0										16.4	40.3	15.1			
52.2										10.4	40.0	13.1	35.0	43.1	17.2
55.0													25.6	38.5	16.5
57.0													17.2	34.0	15.1



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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
				32.0 ı	m Pluma Cab	eza de p	al, Punto dumín (19 n] Posici	916-1) 3	5.5 m Pl	eza de p umín	lumín				
11.7	78.0	69.7	39.3												
12.0	77.4	69.6	39.3												
13.0	75.8	69.3	37.7												
14.0	74.1	69.0	36.3												
16.0	70.7	68.4	33.2												
17.5				73.0	68.5	33.7									
18.0	67.2	67.6	30.7	72.1	68.4	33.7									
20.0	63.6	66.6	28.4	68.7	67.6	31.2									
22.0 24.0	59.9 56.1	65.5 64.2	26.6 24.9	65.1 61.5	66.7 65.7	28.9 27.3									
26.0	52.1	62.7	23.5	57.7	64.5	25.6									
26.5	32.1	02.7	23.5	37.7	04.5	25.0	65.0	65.7	28.4						
28.0	47.8	61.0	22.1	53.8	63.1	24.3	62.3	65.0	27.8						
30.0	43.2	59.0	20.7	49.6	61.4	23.1	58.6	63.8	26.6				Ī		
32.0	38.1	56.6	19.5	45.2	59.5	21.8	54.7	62.4	25.2						
34.0	32.4	53.6	18.3	40.3	57.3	20.6	50.6	60.8	24.2						
36.0	25.6	49.9	17.0	34.9	54.6	19.6	46.2	59.0	22.8						
37.0										55.0	60.4	23.4			
38.0	16.1	44.4	15.7	28.6	51.3	18.3	41.5	56.9	21.5	53.3	59.8	24.9			
40.0				20.6	46.7	16.9	36.2	54.3	20.5	49.1	58.1	23.6			
41.0				15.1	43.5	16.2									
42.0							30.2	51.1	19.3	44.6	56.2	22.5			
44.0							22.7	46.9	18.1	39.7	53.9	21.3			
45.0							17.8	44.1	17.4						
46.0										34.2	51.2	20.4			
48.0										27.8	47.7	19.4			
50.0										19.4 15.6	42.9 40.7	18.3			
51.0 54.6										10.6	40.7	15.1	35.0	44.8	16.1
54.6 55.0													34.6	44.6	16.1
60.0													16.4	34.4	14.4



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			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]
				32.0 ı		eza de p	ll, Punto lumín (19 i] Posici	916-1) 3	8.5 m Pl	eza de p umín	lumín				
12.3	78.0	72.6	35.1												
13.0	76.9	72.4	34.8												
14.0	75.4	72.2	33.3												
16.0	72.3	71.6	30.7												
18.0	69.1	70.8	28.6												
18.4				73.0	71.4	30.0									
20.0	65.8	70.0	26.4	70.4	70.8	28.8									
22.0	62.5	69.0	24.7	67.2	70.0 69.1	26.9 25.1									
24.0 26.0	59.1 55.5	67.8 66.5	23.2 21.9	63.9 60.5	68.0	25.1									
26.0	55.5	00.5	21.9	60.5	68.0	23.8	65.0	68.4	25.4						
28.0	51.8	65.0	20.8	57.0	66.8	22.6	64.7	68.3	25.4	l					
30.0	47.8	63.2	19.7	53.4	65.3	21.6	61.3	67.3	24.5						
32.0	43.6	61.2	18.6	49.5	63.7	20.6	57.8	66.1	23.5	i					
34.0	39.0	58.9	17.6	45.4	61.8	19.4	54.2	64.7	22.3						
36.0	33.9	56.1	16.8	41.0	59.6	18.4	50.4	63.1	21.5						
38.0	28.0	52.6	15.7	36.1	57.0	17.5	46.4	61.2	20.3						
38.8								-		55.0	62.9	20.8			
40.0	20.5	48.0	14.7	30.6	53.9	16.6	42.0	59.1	19.1	52.9	62.0	22.2			
41.0	15.4	44.8	14.2												
42.0				23.9	49.9	15.6	37.3	56.6	18.2	49.0	60.4	21.2			
44.0				16.4	45.1	12.9	31.9	53.7	17.4	44.9	58.4	20.2			
46.0							25.6	49.9	16.5	40.4	56.2	19.2			
48.0							17.1	44.5	15.6	35.5	53.6	18.3			
50.0										29.9	50.4	17.5			
53.0										18.6	43.4	16.3			
57.1													35.0	46.5	14.9
60.0													27.0	41.9	14.4
63.0													15.7	34.8	13.2



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

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 114.0 52.6 Lastre central [t]:

		gulo de principal			gulo de orincipa			gulo de orincipa		65° Án I	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]
				32.0 ı	n Pluma	principa	ıl, Punto lumín (1	de carga	1 - Cab	eza de p	lumín		_		
					Cab		n] Posici								
12.9	78.0	75.5	31.0												
13.0	77.9	75.5	31.0												
14.0	76.4	75.3	30.4												
16.0	73.6	74.7	28.1												
18.0	70.7	74.0	25.9	73.0	74.3	26.5									
19.2 20.0	67.7	73.2	24.1	73.0 71.9	74.3 74.0	26.5									
20.0	64.7	73.2	24.1	68.9	74.0	26.3									
24.0	61.5	71.3	21.1	65.9	73.3	22.9				i			i		
26.0	58.3	70.1	19.9	62.9	71.4	21.6				i			i		
28.0	55.0	68.7	18.8	59.7	70.3	20.5									
29.0							65.0	71.1	21.1	İ					
30.0	51.5	67.2	17.9	56.4	69.0	19.5	63.6	70.7	22.2						
32.0	47.8	65.5	17.0	53.0	67.6	18.6	60.4	69.6	21.2						
34.0	44.0	63.5	16.1	49.4	65.9	17.7	57.2	68.3	20.2						
36.0	39.7	61.2	15.3	45.6	64.0	16.8	53.8	66.9	19.2						
38.0	35.1	58.5	14.6	41.6	61.9	15.9	50.2	65.3	18.5						
40.0	29.9	55.3	13.8	37.1	59.4	15.2	46.5	63.5	17.5				ł		
40.5			40.0	20.0	50.4		40.5		40.0	55.0	65.3	18.2			
42.0 44.0	23.6 16.6	51.1 46.4	13.0 10.5	32.2 26.4	56.4 52.7	14.4 13.7	42.5 38.2	61.4 59.0	16.6 15.8	52.6 49.0	64.3 62.6	19.2 18.2			
46.0	10.0	40.4	10.5	19.0	52.7 47.7	12.9	33.4	59.0 56.1	15.6	49.0 45.1	60.7	17.5			
47.0				15.7	45.5	10.8	33.4	30.1	15.1	40.1	00.7	17.5	i		
48.0				15.7	70.0	10.0	27.8	52.6	14.3	41.0	58.5	16.6	ĺ		
50.0							20.9	48.0	13.6	36.6	55.9	15.8			
51.0							16.4	45.0	13.2	1					
55.0										22.1	46.8	14.1			
56.0										17.9	43.9	13.7			
59.5													35.0	48.2	13.6
60.0													34.4	47.9	14.2
65.0													18.4	37.5	12.7
66.0													15.1	35.2	11.6



N° de ident.: 9842523/95738/

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

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 114.0

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]
				32.0		eza de p	al, Punto lumín (1 n l Posici	916-1) 4	4.5 m Pl	eza de p umín	lumín				
40.5	700	70.5	00.4			25.0 [11	Posici	on midia	11 (1910)						1
13.5	78.0 77.4	78.5 78.4	28.1 28.1												
14.0	1	-	-												
16.0	74.7 72.0	77.8 77.2	26.2 24.2	ł											
18.0 20.0	69.3	76.5	24.2												
20.0	09.3	70.5	22.1	73.0	77.2	24.0									
22.0	66.5	75.6	21.0	70.4	76.5	22.8									
24.0	63.6	74.7	19.6	67.7	75.7	21.4									
26.0	60.7	73.6	18.5	64.8	74.8	20.1							i		
28.0	57.7	72.4	17.5	61.9	73.8	19.2									
30.0	54.5	71.0	16.6	59.0	72.6	18.2									
30.3	04.0	7 1.0	10.0	00.0	72.0	10.2	65.0	73.9	20.2						
32.0	51.3	69.4	15.9	55.9	71.3	17.2	62.6	73.0	19.7				i		
34.0	47.9	67.7	15.1	52.7	69.8	16.5	59.6	71.9	18.8				i		
36.0	44.2	65.7	14.3	49.3	68.1	15.7	56.6	70.6	17.9						
38.0	40.4	63.5	13.6	45.8	66.3	14.9	53.4	69.2	17.0						
40.0	36.1	60.9	13.0	42.0	64.1	14.1	50.1	67.5	16.4						
42.0	31.4	57.8	12.4	38.0	61.7	13.5	46.6	65.7	15.5						
42.2										55.0	67.8	16.0			
44.0	25.9	54.0	11.7	33.5	58.8	12.9	42.9	63.7	14.7	52.3	66.5	17.0			
46.0	19.0	49.0	11.1	28.4	55.4	12.2	38.9	61.3	14.0	48.9	64.8	16.2			
47.0	16.0	46.8	9.0										<u> </u>		
48.0				22.2	51.0	11.5	34.5	58.5	13.4	45.4	62.9	15.5			
50.0				15.2	45.9	9.1	29.6	55.3	12.8	41.6	60.8	14.7			
54.0							15.8	45.4	11.5						
55.0										30.4	53.7	13.2			
59.0										17.2	44.3	11.9			
62.0													35.0	50.0	12.5
65.0													28.0	45.3	12.6
68.0	1	1	1	I				1	1			1	17.8	38.0	11.8



N° de ident.: 9842523/95738/ Piez

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]
				32.0 ı		eza de p	ıl, Punto lumín (1: ı] Posici	916-1) 4	7.5 m Pli	eza de p umín	lumín				
14.2 16.0 18.0 20.0 21.0	78.0 75.7 73.2 70.6	81.4 81.0 80.4 79.7	25.0 23.9 22.4 21.1	73.0	80.0	21.4									
22.0 24.0 26.0 28.0 30.0	68.1 65.4 62.7 60.0 57.1	78.9 78.0 77.0 75.9 74.6	20.0 18.9 18.1 17.4 16.7	71.7 69.1 66.5 63.9 61.1	79.7 78.9 78.1 77.2 76.1	21.1 20.0 19.2 18.4 17.8									
31.6 32.0 34.0 36.0 38.0	54.2 51.1 47.9 44.5	73.2 71.7 69.9 68.0	16.1 15.6 14.9 14.1	58.3 55.4 52.4 49.3	74.9 73.5 72.1 70.4	17.2 16.6 16.1 15.5	65.0 64.5 61.7 59.0 56.1	76.6 76.4 75.3 74.2 72.9	18.7 18.7 18.1 17.6 17.0						
40.0 42.0 43.9 44.0 46.0	40.9 37.0 32.7 27.8	65.7 63.2 60.3 56.8	13.4 12.8 12.1 11.4	45.9 42.4 38.7 34.6	68.5 66.4 64.0 61.3	14.8 14.2 13.6 13.1	53.1 50.0 46.7 43.3	71.4 69.8 68.0 65.9	16.4 16.0 15.3 14.6	55.0 55.0 52.0	70.3 70.3 68.8	15.8 16.5 16.2			
48.0 50.0 52.0 55.0 57.0	22.0 15.4	52.3 47.2	10.7 9.0	30.0 24.6 17.7	58.0 54.0 48.7	12.3 11.5 10.7	39.6 35.5 22.9 15.3	63.6 60.9 51.7 45.7	14.0 13.5 11.7 11.0	48.9 45.5 36.2	67.1 65.2 59.3	15.8 15.3 13.6			
60.0 62.0 64.5 65.0 70.0 71.0										23.9 16.7	50.4 44.8	12.1 11.5	35.0 34.3 21.0 17.2	51.7 51.2 41.4 38.4	12.1 12.4 11.1 10.9



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 114.0 52.6

	88° Án I	gulo de principa	pluma I		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]
				32.0	m Pluma Cab	eza de p	il, Punto lumín (1 il Posici	916-1) 5	0.5 m Pl	eza de p umín	lumín		_		
14.8	78.0	84.3	22.8	ı		10.0[11	1 1 00101		(1010)	I			I		1
16.0	76.6	84.1	22.4	i											
18.0	74.2	83.5	21.3	i						i					
20.0	71.8	82.9	20.1	i									İ		
21.9				73.0	82.9	19.8				İ			İ		
22.0	69.4	82.1	19.3	72.8	82.8	19.8									
24.0	67.0	81.3	18.5	70.4	82.2	19.2									
26.0	64.5	80.4	17.9	68.0	81.4	18.6									
28.0	61.9	79.4	17.4	65.5	80.5	18.0									
30.0	59.3	78.2	16.9	63.0	79.5	17.6									
32.0	56.6	76.9	16.5	60.4	78.4	17.2									
32.8							65.0	79.3	17.3						
34.0	53.8	75.5	16.1	57.7	77.2	16.8	63.6	78.7	17.8						
36.0	50.9	73.9	15.8	55.0	75.8	16.5	61.0	77.7	17.4						
38.0	47.9	72.2	15.1	52.1	74.3	16.2	58.3	76.5	17.1						
40.0	44.7	70.2	14.3	49.2	72.6	15.7	55.6	75.1	16.7						
42.0	41.4	68.0	13.5	46.1	70.8	15.1	52.8	73.7	16.4						
44.0	37.8	65.6	12.9	42.8	68.7	14.6	49.9	72.0	16.1						
45.6										55.0	72.7	15.6			
46.0	33.8	62.7	12.3	39.3	66.3	14.1	46.8	70.2	15.5	54.7	72.5	16.2			
48.0	29.4	59.4	11.5	35.5	63.6	13.6	43.6	68.2	14.8	51.8	71.0	16.0			
50.0	24.3	55.3	10.8	31.3	60.5	12.7	40.1	65.9	14.3	48.8	69.3	15.8			
52.0	17.8	49.9	10.0	4-4		40.5	00.4		40.0	40.7		44.4			
55.0				17.1	49.1	10.5	30.1	58.6	12.8	40.7	64.2	14.4			
60.0				-			16.2	47.4	10.8	31.5	57.6	13.1			
65.0										17.5	46.3	11.5	25.0	50.4	44.7
66.9 70.0													35.0 29.5	53.4 49.3	11.7 11.1
70.0 74.0													29.5 17.9	49.3 39.9	10.3



2821-1

2821-1

Nº de ident.: 9842523/95738/

Radio de descarga: 360°

Pieza de articulación de pluma principal: Cabeza de pluma principal:

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 114.0 52.6 Lastre central [t]:

		gulo de principal			gulo de orincipa			gulo de orincipa		65° Án I	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]
				32.0 ı	n Pluma	principa	ıl, Punto lumín (1	de carga	1 - Cab	eza de p	lumín				
					Cab		n] Posici								
15.4	78.0	87.3	20.6												
16.0	77.3	87.1	20.6												
18.0	75.1	86.6	19.5												
20.0 22.0	72.9 70.6	86.0 85.3	18.5 17.7												
22.0	70.6	65.3	17.7	73.0	85.8	17.8									
24.0	68.3	84.6	17.1	71.6	85.3	17.6									
26.0	66.0	83.7	16.5	69.3	84.6	17.1				i					
28.0	63.6	82.7	16.1	67.0	83.8	16.6									
30.0	61.2	81.7	15.7	64.6	82.9	16.2									
32.0	58.7	80.5	15.3	62.2	81.8	15.9									
34.0	56.1	79.2	15.0	59.8	80.7	15.6				ļ					
34.1							65.0	82.0	16.2						
36.0	53.5	77.7	14.7	57.2	79.4	15.2	62.8	81.1	16.0						
38.0	50.8	76.2	14.5	54.6	78.1	15.0	60.3	80.0	15.7						
40.0 42.0	47.9 44.9	74.4 72.5	13.8 13.1	51.9 49.1	76.5 74.9	14.8 14.3	57.8 55.2	78.7 77.4	15.4 15.1						
42.0 44.0	41.8	70.3	12.5	46.2	74.9	13.8	55.2 52.6	77.4 75.9	14.9	l					
46.0	38.4	67.9	12.0	43.1	70.9	13.4	49.8	74.3	14.7						
47.4	00.1	01.0	.2.0				10.0			55.0	75.2	14.1			
48.0	34.8	65.1	11.5	39.9	68.6	13.0	46.9	72.4	14.1	54.3	74.8	14.7			
50.0	30.8	61.9	10.8	36.3	66.0	12.6	43.8	70.4	13.6	51.6	73.3	14.5			
55.0	17.2	50.4	9.1	25.8	57.5	10.7	35.3	64.2	12.6	44.3	68.6	13.8			
58.0				16.6	49.5	9.5									
60.0							24.4	55.3	11.0	36.5	63.0	12.5			
63.0							15.8	47.8	9.7	l					
65.0										25.1 15.7	53.9 45.6	11.3 10.5			
68.0 69.4										15.7	45.0	10.5	35.0	55.1	10.9
70.0													33.8	54.2	10.9
75.0													23.7	45.9	9.9
77.0													17.4	40.4	9.5



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 principa			gulo de orincipa			gulo de orincipa		1	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]
				32.0		eza de p	al, Punto dumín (19 n] Posici	916-1) 5	6.5 m Pl	eza de p umín	lumín				
16.0	78.0	90.2	18.7												
18.0	75.9	89.7	18.1												
20.0	73.8	89.2	17.3												
22.0 23.6	71.7	88.5	16.4	73.0	88.6	16.2									
24.0	69.5	87.8	15.8	72.6	88.5	16.2									
26.0	67.4	87.0	15.3	70.5	87.8	15.8									
28.0	65.1	86.1	14.9	68.3	87.0	15.4									
30.0	62.9	85.1	14.6	66.1	86.2	15.1							İ		
32.0	60.5	84.0	14.3	63.8	85.2	14.7									
34.0	58.2	82.8	14.0	61.5	84.2	14.5									
35.4							65.0	84.7	14.8						
36.0	55.7	81.4	13.8	59.2	83.0	14.2	64.3	84.4	14.8						
38.0	53.2	80.0	13.5	56.8	81.7	13.9	62.1	83.4	14.6						
40.0	50.6 47.9	78.4	13.4	54.3 51.7	80.3 78.8	13.7	59.7	82.3	14.3						
42.0 44.0	47.9 45.1	76.6 74.7	12.8 12.2	49.1	78.8 77.1	13.5 13.2	57.3 54.9	81.0 79.7	14.1 13.8						
46.0	42.1	72.6	11.7	46.3	75.2	12.8	52.3	78.1	13.6						
48.0	39.0	70.2	11.2	43.4	73.2	12.4	49.7	76.5	13.5				i		
49.1										55.0	77.6	12.9			
50.0	35.6	67.5	10.7	40.3	70.9	12.1	47.0	74.7	13.0	54.0	77.0	13.4			
55.0	25.4	58.8	9.3	31.6	63.9	10.9	39.5	69.3	12.0	47.4	72.9	13.1			
58.0	16.8	50.8	8.4												
60.0				19.6	53.2	9.1	30.5	62.0	10.9	40.0	67.5	12.1			
61.0				16.2	50.0	8.8									
65.0							17.8	50.5	9.5	31.1	60.4	11.1			
66.0 70.0							15.3	48.2	8.8	18.8	49.3	9.9			
70.0 71.0										15.2	49.3 46.0	9.9			
71.8										10.2	40.0	0.1	35.0	56.9	10.2
75.0													28.7	51.6	9.7
80.0													15.7	39.7	8.8



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]
				32.0 r	m Pluma Cab	eza de p	il, Punto llumín (1 n] Posici	916-1) 5	9.5 m Pli	eza de p umín	lumín				
16.7 18.0 20.0 22.0 24.0	78.0 76.7 74.7 72.7 70.6	93.1 92.8 92.3 91.7 91.0	16.3 16.0 15.1 14.4 13.8												
24.5 26.0 28.0 30.0 32.0	68.5 66.4 64.3 62.1	90.2 89.4 88.4 87.4	13.4 13.0 12.7 12.5	73.0 71.5 69.4 67.3 65.2	91.5 91.0 90.3 89.4 88.5	14.0 13.9 13.5 13.2 12.9									
34.0 36.0 36.6 38.0	59.9 57.6 55.2	86.2 85.0 83.6	12.2 12.0 11.8	63.0 60.8 58.5	87.5 86.4 85.2	12.6 12.4 12.1	65.0 63.5	87.5 86.8	12.8 12.7						
40.0 42.0 44.0 46.0 48.0	52.8 50.3 47.7 45.0 42.2	82.1 80.5 78.7 76.8 74.6	11.6 11.4 11.0 10.6 10.3	56.2 53.8 51.4 48.8 46.2	83.9 82.5 80.9 79.2 77.3	11.9 11.7 11.6 11.3 11.1	61.3 59.1 56.8 54.4 52.0	85.7 84.5 83.2 81.8 80.3	12.4 12.2 12.0 11.8 11.6						
50.0 50.8 55.0 60.0	39.2 30.6 18.6	72.2 64.8 53.6	9.9 9.0 7.7	43.4 35.7 26.1	75.2 69.0 60.4	10.8 10.3 8.9	49.4 42.6 34.8	78.6 73.6 67.2	11.5 10.9 10.4	55.0 49.8 43.0	80.1 76.8 71.9	11.5 11.3 10.9			
61.0 64.0 65.0 68.0 70.0	15.2	50.1	7.4	16.9	51.5	7.4	24.8 16.3	58.2 49.9	9.2 8.4	35.3 25.5	65.6 56.8	10.4			
74.0 74.3 75.0 80.0 83.0										16.0	47.6	8.5	35.0 33.7 23.4 16.5	58.6 57.5 48.0 41.2	9.5 9.5 8.6 8.0



N° de ident.: 9842523/95738/

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

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 114.0 52.6

		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]
				32.0 ı	m Pluma Cab	eza de p	il, Punto Ilumín (1 i] Posici	916-1) 6:	2.5 m Pl	eza de p umín	lumín				
17.3 18.0 20.0 22.0 24.0	78.0 77.4 75.5 73.5 71.6	96.1 95.9 95.4 94.8 94.2	14.7 14.7 13.9 13.3 12.7			•									
25.4 26.0 28.0 30.0 32.0	69.6 67.6 65.6 63.6	93.5 92.7 91.8 90.8	12.3 12.0 11.7 11.4	73.0 72.4 70.5 68.5 66.5	94.4 94.2 93.5 92.7 91.8	12.7 12.7 12.4 12.1 11.8									
34.0 36.0 37.9 38.0	61.5 59.3 57.2	89.7 88.5 87.3	11.3 11.0	64.4 62.4 60.2	90.9 89.9 88.7	11.6 11.3	65.0 64.9	90.2 90.1	11.6 11.6						
40.0 42.0 44.0 46.0 48.0	54.9 52.6 50.2 47.8 45.2	85.9 84.4 82.7 81.0 79.0	10.6 10.4 10.3 10.0 9.7	58.1 55.9 53.6 51.2 48.8	87.5 86.2 84.7 83.1 81.4	10.9 10.7 10.5 10.4 10.2	62.8 60.7 58.6 56.4 54.1	89.1 88.0 86.8 85.5 84.1	11.4 11.2 11.0 10.8 10.6						
50.0 52.5 55.0 60.0 64.0	35.0 25.8 17.0	76.9 70.5 61.7 52.8	9.4 8.9 7.8 6.4	39.4 31.3	79.5 74.0 66.8	9.7 8.9	51.8 45.6 38.6	78.0 72.3	10.5 10.2 9.9	55.0 52.1 46.0	82.5 80.7 76.2	10.4 10.3 10.0			
65.0 67.0 70.0 71.0 75.0				20.6 16.5	56.2 51.9	7.7 6.7	30.3 19.0 15.9	53.6 50.3	9.1 8.0 7.8	39.1 30.9 19.9	70.6 63.3 52.4	9.8 9.3 8.4			
76.7 77.0 80.0 85.0 86.0										15.6	48.0	7.7	35.0 29.3 17.3 16.1	55.0 43.0 41.7	8.9 8.5 7.6 7.3



N° de ident.: 9842523/95738/ Pieza Radio de descarga: 360 ° Cabez

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

2821-1 2821-1

		gulo de orincipal		ŗ	gulo de orincipal			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]
				32.0 r	n Pluma Cab	eza de p	ıl, Punto lumín (1 n] Posici	916-1) 6	5.5 m Pl		lumín				
18.0 20.0 22.0 24.0 26.0	78.0 76.1 74.3 72.5 70.6	99.0 98.5 98.0 97.4 96.7	13.4 12.9 12.4 11.8 11.4												
26.3 28.0 30.0 32.0 34.0	68.7 66.8 64.9 62.9	95.9 95.1 94.1 93.1	11.1 10.8 10.6 10.4	73.0 71.4 69.5 67.6 65.7	97.2 96.7 95.9 95.1 94.2	11.7 11.6 11.3 11.0 10.7									
36.0 38.0 39.2 40.0 42.0	60.9 58.9 56.8 54.6	92.0 90.8 89.5 88.1	10.2 9.9 9.7 9.5	63.7 61.7 59.7 57.6	93.3 92.2 91.0 89.8	10.5 10.3 10.0 9.8	65.0 64.2 62.2	92.9 92.5 91.4	10.6 10.6 10.4						
44.0 46.0 48.0 50.0 54.2	52.4 50.1 47.8 45.3	86.6 85.0 83.2 81.3	9.3 9.1 8.9 8.6	55.5 53.3 51.1 48.8	88.4 87.0 85.4 83.7	9.6 9.4 9.3 9.1	60.2 58.1 56.0 53.8	90.3 89.1 87.8 86.3	10.2 10.0 9.8 9.6	55.0	85.0	9.4			
55.0 60.0 65.0 67.0 70.0	38.7 30.9 20.5 16.6	75.6 68.2 57.5 53.2	8.1 7.5 6.6 5.8	42.6 35.5 26.8	78.7 72.3 63.8	8.6 8.3 7.4 6.1	48.1 41.8 34.6	82.2 77.0 70.5	9.2 8.8 8.4	54.2 48.5 42.2 35.1	84.4 80.3 75.3 68.9	9.4 9.1 8.8			
74.0 75.0 79.2 80.0 85.0							15.5	50.7	7.1	26.4 15.3	60.3 48.4	7.9	35.0 33.7 24.5 15.7	62.0 60.8 51.6 42.1	8.0 8.0 7.4 6.7



 N° 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 orincipal			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]
				32.0 ı	m Pluma Cab	eza de p	al, Punto Jumín (1 n] Posici	916-1) 6	8.5 m Pl	eza de p umín	lumín				
18.6 20.0 22.0 24.0 26.0 27.1	78.0 76.8 75.0 73.3 71.5	101.9 101.6 101.1 100.5 99.8	12.3 12.1 11.5 11.1 10.7	73.0	100.1	10.8									
28.0 30.0 32.0 34.0	69.7 67.9 66.1 64.2	99.1 98.3 97.4 96.5	10.4 10.1 9.9 9.6	72.2 70.5 68.7 66.8	99.8 99.1 98.4 97.5	10.8 10.6 10.3 10.1									
36.0 38.0 40.0 40.4	62.3 60.4 58.4	95.5 94.3 93.1	9.5 9.2 9.0 8.7	65.0 63.1 61.2	96.6 95.6 94.5	9.8 9.6 9.4 9.2	65.0	95.6	9.7						
42.0 44.0 46.0 48.0 50.0	56.4 54.3 52.2 50.0 47.8	91.8 90.4 88.9 87.2 85.4	8.5 8.4 8.2 8.0	59.2 57.2 55.2 53.1 51.0	93.3 92.1 90.7 89.2 87.6	8.9 8.7 8.6 8.4	63.5 61.6 59.7 57.7 55.7	94.8 93.8 92.6 91.4 90.0	9.7 9.5 9.3 9.1 8.9						
55.0 56.0 60.0 65.0 70.0	34.9 26.5 16.2	73.8 65.2 53.7	7.5 7.1 6.4 5.3	38.9 31.5 22.0	77.4 70.1 59.9	7.9 7.5 7.0 6.4	50.4 44.6 38.2 30.6	86.2 81.5 75.7 68.2	8.5 8.0 7.6 7.2	55.0 50.7 45.0 38.6	87.5 84.3 79.7 74.0	8.6 8.4 8.1 7.7			
73.0 75.0 77.0 80.0 81.7				15.7	52.8	5.6	20.7 15.1	57.5 51.1	6.7 6.5	31.1 21.5	66.6 56.2	7.4	35.0	63.7	7.2
82.0 85.0 90.0 92.0										16.1	50.1	6.8	29.7 19.3 15.3	58.3 47.0 42.5	7.2 6.3 6.1



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 orincipal			gulo de orincipa		75° Án I	gulo de orincipa	pluma I		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]
				32.0 ı		eza de p	ıl, Punto lumín (1 ı] Posici	916-1) 7	1.5 m Pli	eza de p umín	lumín				
19.2	78.0	104.9	11.0												
20.0	77.3	104.7	11.0												
22.0	75.7	104.2	10.5												
24.0	74.0	103.6	10.1												
26.0	72.3	103.0	9.8												
28.0	70.6	102.3	9.5	73.0	103.0	9.7									
30.0	68.9	101.6	9.3	71.3	102.3	9.6									
32.0	67.1	100.7	9.0	69.6	101.6	9.4									
34.0	65.4	99.8	8.8	67.9	100.8	9.2									
36.0	63.6	98.8	8.6	66.1	99.9	8.9									
38.0	61.7	97.8	8.5	64.3	99.0	8.7									
40.0 41.7	59.9	96.6	8.3	62.5	97.9	8.6	05.0	98.3	8.7						
41.7 42.0	58.0	95.4	8.1	60.7	96.8	8.4	65.0 64.7	98.3 98.2	8.7						
44.0	56.1	94.1	7.9	58.8	95.6	8.2	62.9	97.2	8.6						
46.0	54.1	92.6	7.7	56.9	94.3	8.0	61.1	96.1	8.5						
48.0	52.1	91.1	7.6	54.9	93.0	7.9	59.2	94.9	8.3						
50.0	50.0	89.5	7.5	52.9	91.5	7.7	57.3	93.6	8.1						
55.0	44.4	84.7	7.1	47.6	87.2	7.4	52.4	90.0	7.8						
57.7		•								55.0	89.9	7.7			
60.0	38.3	78.9	6.7	41.9	82.1	7.1	47.0	85.7	7.5	52.7	88.2	7.7			
65.0	31.1	71.5	6.3	35.3	75.7	6.8	41.2	80.4	7.2	47.4	83.9	7.4			
70.0	21.9	61.2	5.6	27.5	67.3	6.2	34.5	73.9	6.9	41.6	78.7	7.1			
73.0	15.9	54.1	4.8												
75.0				16.5	54.5	5.6	26.5	65.2	6.5	35.0	72.2	6.9			
76.0				15.4	53.2	5.1									
80.0							16.7	53.8	5.5	27.0	63.7	6.6			
84.1													35.0	65.5	6.5
85.0										15.8	50.5	6.3	33.7	64.1	6.5
90.0													25.4	55.1	6.1
94.0													17.9	46.3	5.5



Nº de ident.: 9842523/95738/

360°

Pieza de articulación de pluma principal: 2821-1

Radio de descarga:

Cabeza de pluma principal: 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

		gulo de principa		ı	gulo de orincipa		ı	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]
				32.0 ı	m Pluma Cab	eza de p	al, Punto dumín (1 n] Posici	916-1) 7	4.5 m Pl	eza de p umín	lumín				
19.8	78.0	107.8	10.0												
20.0	77.9	107.8	10.0												
22.0	76.3	107.3	9.7												
24.0	74.7	106.8	9.2												
26.0	73.1	106.2	9.0												
28.0	71.4	105.5	8.7				ł								
28.9		4040	0.5	73.0	105.8	8.8									
30.0	69.8 68.1	104.8	8.5 8.3	72.1 70.5	105.5	8.8 8.6	l								
32.0 34.0	66.4	104.0 103.1	8.3	68.8	104.8 104.0	8.4									
36.0	64.7	103.1	7.9	67.1	104.0	8.4									
38.0	63.0	102.2	7.9	65.4	103.2	8.0									
40.0	61.2	100.1	7.6	63.7	102.3	7.8	l								
42.0	59.4	98.9	7.5	62.0	101.3	7.7				i					
43.0	00.4	00.0	7.0	02.0	100.0		65.0	101.1	7.9	i					
44.0	57.6	97.7	7.3	60.2	99.1	7.6	64.1	100.5	7.9						
46.0	55.8	96.3	7.2	58.4	97.9	7.4	62.4	99.5	7.8						
48.0	53.9	94.9	7.1	56.5	96.6	7.3	60.6	98.4	7.6	İ					
50.0	51.9	93.4	7.0	54.7	95.2	7.2	58.8	97.2	7.5						
55.0	46.8	89.0	6.7	49.7	91.2	6.9	54.1	93.8	7.2						
59.4										55.0	92.4	7.0			
60.0	41.1	83.7	6.4	44.4	86.5	6.7	49.2	89.8	6.9	54.4	91.9	7.0			
65.0	34.8	77.1	6.2	38.5	80.7	6.5	43.8	84.9	6.7	49.5	87.9	6.8			
70.0	27.2	68.6	5.6	31.7	73.4	6.1	37.8	79.0	6.6	44.1	83.2	6.6			
75.0	16.6	55.8	4.9	23.2	63.6	5.5	30.9	71.5	6.3	38.2	77.3	6.5			
76.0	15.5	54.5	4.4												
79.0				15.0	53.6	4.7									
80.0							22.1	61.2	5.8	31.3	69.9	6.3			
83.0							16.4	54.2	5.2	22.7	50.0	6.0			
85.0										22.7	59.9	6.0	25.0	67.2	6.0
86.6 88.0										15.4	50.9	5.8	35.0	67.2	6.0
90.0										15.4	50.9	0.0	30.0	61.7	6.0
95.0							ĺ						22.1	52.5	5.3
97.0													17.5	46.8	5.1



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		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]
				32.0		eza de p	il, Punto llumín (19 n] Posici	916-1) 7	7.5 m Pl		lumín				
20.4	78.0	110.8	9.0												
22.0	76.8	110.4	8.9												
24.0	75.3	109.9	8.4												
26.0	73.7	109.3	8.2												
28.0	72.2	108.7	7.9												
29.8				73.0	108.7	7.9									
30.0	70.6	108.0	7.7	72.8	108.6	7.9									
32.0 34.0	69.0 67.4	107.2 106.4	7.5 7.3	71.3 69.7	108.0 107.2	7.8 7.6				ł					
36.0	65.8	105.5	7.3	68.1	107.2	7.6				i					
38.0	64.1	103.5	7.0	66.5	105.6	7.4									
40.0	62.5	103.5	6.9	64.8	104.7	7.1				i					
42.0	60.8	102.4	6.7	63.2	103.7	6.9									
44.0	59.0	101.2	6.6	61.5	102.6	6.8			İ	İ		İ	İ		
44.2							65.0	103.8	7.0						
46.0	57.3	100.0	6.4	59.8	101.4	6.6	63.5	102.9	7.0						
48.0	55.5	98.6	6.3	58.0	100.2	6.5	61.9	101.8	6.8						
50.0	53.6	97.1	6.2	56.2	98.9	6.4	60.2	100.7	6.7						
55.0	48.8	93.0	6.0	51.6	95.2	6.1	55.7	97.5	6.4						
60.0	43.7	88.2	5.7	46.7	90.7	5.9	51.1	93.7	6.1						
61.1	07.0			44.0	05.5		40.4	20.0		55.0	94.8	6.1			
65.0 70.0	37.9 31.3	82.2 74.8	5.5 5.2	41.3 35.2	85.5 79.0	5.7 5.5	46.1 40.6	89.2 83.8	5.9 5.8	51.4 46.4	91.9 87.4	6.0 5.8			
75.0	23.0	64.9	4.7	28.0	79.0	5.5	34.5	77.2	5.6	41.0	82.1	5.7			
79.0	15.2	54.9	3.9	20.0	70.7	5.1	34.5	11.2	3.0	41.0	02.1	3.7			
80.0	10.2	04.0	0.0	18.4	58.7	4.7	27.1	68.6	5.4	34.9	75.5	5.5			
81.0				15.8	55.3	4.6				1					
85.0							17.0	55.9	5.1	27.6	67.1	5.4			
86.0							16.0	54.6	4.7						
89.0													35.0	68.9	5.2
90.0										17.8	54.8	5.3	33.7	67.4	5.2
91.0				I						15.1	51.3	5.3			
95.0													26.1	58.6	5.1
100.0				L									17.2	47.2	4.4



Nº de ident.: 9842523/95738/

Radio de descarga: 360°

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 114.0 52.6 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

	l	gulo de orincipa	pluma l	l	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]
				32.0	m Pluma Cab	eza de p	al, Punto lumín (1 n] Posici	916-1) 8	0.5 m Pl	eza de p umín	lumín				
21.1	78.0	113.7	8.2												
22.0	77.3	113.5	8.2												
24.0	75.8	113.0	7.8												
26.0	74.4	112.4	7.5												
28.0	72.9	111.8	7.2												
30.0	71.4	111.2	7.0												
30.7				73.0	111.6	7.2									
32.0	69.8	110.4	6.9	72.0	111.1	7.1									
34.0	68.3	109.6	6.7	70.5	110.4	7.0									
36.0	66.7	108.8	6.5	68.9	109.7	6.8									
38.0	65.2	107.9	6.3	67.4	108.9	6.6									
40.0	63.6	106.9	6.2	65.8	108.0	6.4									
42.0 44.0	62.0 60.3	105.9 104.7	6.1 5.9	64.2 62.6	107.0 106.0	6.3 6.1									
44.0 45.5	00.3	104.7	5.9	02.0	106.0	0.1	65.0	106.5	6.3						
46.0	58.7	103.5	5.8	61.0	104.9	6.0	64.6	106.3	6.3						
48.0	57.0	103.3	5.7	59.4	104.9	5.9	63.0	105.2	6.2						
50.0	55.2	102.2	5.6	57.7	103.7	5.8	61.4	103.2	6.1						
55.0	50.7	97.0	5.4	53.3	99.0	5.5	57.2	101.1	5.8				i		
60.0	45.9	92.5	5.1	48.7	94.8	5.3	52.8	97.6	5.5						
62.8										55.0	97.3	5.4			
65.0	40.6	87.0	5.0	43.7	89.9	5.1	48.1	93.4	5.3	53.1	95.7	5.4			
70.0	34.7	80.4	4.8	38.2	84.1	4.9	43.1	88.4	5.1	48.4	91.5	5.2			
75.0	27.7	72.0	4.5	31.9	76.8	4.7	37.5	82.3	5.0	43.4	86.6	5.0			
80.0	18.4	60.0	4.1	24.1	67.1	4.5	31.1	74.9	4.8	37.9	80.6	4.9			
81.0	15.9	56.6	4.0												
84.0				15.5	55.7	4.2									
85.0							23.1	64.9	4.7	31.5	73.3	4.8			
89.0							15.7	55.0	4.3						
90.0										23.7	63.5	4.8			
91.5													35.0	70.6	4.5
94.0										16.5	54.0	4.3		05.0	
95.0													30.3	65.0	4.5 4.2
100.0													22.0	54.6	4.2



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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

		gulo de orincipa		ı	gulo de orincipa		ı	gulo de orincipa	ĺ		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]
				32.0	m Pluma Cab	eza de p	al, Punto dumín (1 n] Posici	916-1) 8	3.5 m Pl		lumín				
21.7 22.0 24.0 26.0 30.0 31.5 32.0 34.0 36.0 40.0 42.0 44.0 46.8 48.0 50.0 64.6 65.0	78.0 77.8 76.4 74.9 73.5 72.1 70.6 69.1 67.6 66.1 64.6 63.1 61.5 59.9 58.3 56.6 52.4 47.9	116.6 116.6 116.1 115.5 115.0 114.3 113.6 112.9 112.1 111.2 110.3 109.2 108.2 107.0 105.8 104.5 100.9 96.6	7.3 7.1 6.8 6.6 6.4 6.3 6.1 5.9 5.8 5.7 5.5 5.4 5.3 5.2 5.1 4.8 4.6	73.0 72.7 71.2 69.7 68.3 66.8 65.2 63.7 62.2 60.6 59.0 54.8 50.5	114.4 114.3 113.6 112.1 111.3 110.4 109.4 108.3 107.2 106.0 102.7 98.8	6.5 6.5 6.4 6.2 6.0 5.9 5.7 5.6 5.5 5.4 5.2 5.0 4.8	65.0 64.1 62.5 58.5 54.4 50.0	109.2 108.6 107.6 104.7 101.3	5.6 5.6 5.5 5.2 5.0	55.0 54.6	99.7 99.4	4.8			
70.0 75.0 80.0 84.0	37.6 31.5 23.9 15.6	85.6 78.2 68.4 57.0	4.2 4.0 3.7 3.5	40.7 35.1 28.4	88.8 82.3 74.0	4.4 4.2 4.0	45.3 40.2 34.4	92.7 87.2 80.5	4.6 4.4 4.3	50.3 45.6 40.5	95.5 90.9 85.5	4.7 4.5 4.4			
85.0 87.0 90.0 92.0				19.9 15.2	62.6 56.1	3.8 3.7	27.6 18.7 15.4	72.0 60.0 55.4	4.1 4.0 3.5	34.8 28.1	78.8 70.5	4.2			
93.9 95.0 97.0 100.0 105.0										19.4 16.2	58.8 54.4	4.1 3.6	35.0 33.7 26.8 18.8	72.3 70.8 62.0 51.3 48.1	4.0 4.0 3.9 3.4 3.3



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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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 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]
				32.0 ı		eza de p	il, Punto lumín (1: i] Posici	916-1) 8	6.5 m Pli	eza de p umín	lumín				
22.3	78.0	119.6	6.7												
24.0	76.9	119.2	6.5												
26.0	75.5	118.7	6.3												
28.0	74.1	118.1	6.1												
30.0	72.7	117.5	5.9												
32.0	71.3	116.8	5.8												
32.4				73.0	117.3	5.9									
34.0	69.9	116.1	5.6	71.9	116.8	5.8									
36.0	68.5	115.3	5.5	70.5	116.1	5.7									
38.0	67.0	114.5	5.3	69.1	115.3	5.5									
40.0	65.6	113.6	5.2	67.6	114.5	5.4									
42.0	64.1	112.6	5.1	66.2	113.7	5.3									
44.0	62.6	111.6	5.0	64.7	112.7	5.1									
46.0	61.1	110.5	4.9	63.2	111.7	5.0									
48.0	59.5	109.3	4.8	61.7	110.7	4.9	65.0	111.9	5.1						
50.0	58.0	108.1	4.7	60.2	109.5	4.8	63.5	111.0	5.1						
55.0	53.9	104.6	4.4	56.2	106.4	4.6	59.8	108.2	4.8						
60.0	49.7	100.6	4.2 4.0	52.1	102.7 98.4	4.4 4.1	55.8	105.0	4.6						
65.0 66.3	45.1	96.0	4.0	47.7	98.4	4.1	51.6	101.3	4.4	55.0	102.2	4.3			
70.0	40.2	90.4	3.8	43.0	93.4	3.9	47.2	96.9	4.2	51.9	99.4	4.3			
75.0	34.6	83.8	3.6	37.8	93.4 87.4	3.9	42.5	90.9	4.2	47.5	95.4	4.3			
80.0	28.2	75.4	3.4	32.0	80.1	3.6	37.2	85.7	3.8	42.8	90.0	3.9			
85.0	19.8	63.9	3.2	24.9	70.7	3.4	31.3	78.2	3.7	37.6	84.0	3.8			
87.0	15.4	57.4	3.1	2-7.5	7 3.7	0.4	01.0	7 3.2	0.7	07.0	0-7.0	0.0			
90.0	10.4	07.4	0.1	16.5	58.8	2.8	24.0	68.4	3.5	31.7	76.6	3.7			
95.0				10.0	00.0	2.0	15.1	55.8	2.9	24.5	67.0	3.6			
96.4							10.1	00.0	2.0	2-7.0	07.0	0.0	35.0	74.1	3.5
100.0										15.9	54.9	3.0	30.5	68.4	3.4
105.0													23.0	58.2	3.2
109.0													16.2	48.5	2.8

Source:a9841388



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 orincipa		ı	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]
				32.0	m Pluma Cab	eza de p	ıl, Punto lumín (1: n] Posici	916-1) 8	9.5 m Pl	eza de p umín	lumín		-		
22.9 24.0 26.0 28.0	78.0 77.3 76.0 74.6	122.5 122.2 121.8 121.2	5.9 5.8 5.6 5.4			_									
30.0 32.0 33.3 34.0 36.0	73.3 72.0 70.6 69.2	120.6 120.0 119.3 118.5	5.3 5.1 4.9 4.8	73.0 72.5 71.2	120.2 120.0 119.3	5.2 5.2 5.0									
38.0 40.0 42.0	67.8 66.4 65.0	117.7 116.9 115.9	4.7 4.5 4.4	69.8 68.4 67.0	118.6 117.8 116.9	4.9 4.8 4.6									
44.0 46.0 48.0 49.3	63.6 62.1 60.7	115.0 113.9 112.8	4.3 4.2 4.1	65.6 64.2 62.7	116.0 115.1 114.1	4.5 4.4 4.3	65.0	114.6	4.4						
50.0 55.0 60.0 65.0	59.2 55.3 51.3 47.0	111.6 108.3 104.6 100.2	4.0 3.8 3.6 3.4	61.3 57.5 53.6 49.5	113.0 110.0 106.5 102.4	4.2 3.9 3.7 3.5	64.5 60.9 57.1 53.2	114.3 111.7 108.6 105.1	4.4 4.1 3.9 3.7						
68.0 70.0 75.0 80.0	42.4 37.4 31.6	95.0 88.9 81.5	3.2 3.0 2.9	45.1 40.3 35.0	97.7 92.2 85.6	3.3 3.2 3.0	49.0 44.6 39.7	101.0 96.2 90.6	3.5 3.4 3.2	55.0 53.4 49.3 44.8	104.7 103.2 99.1 94.4	3.7 3.6 3.5 3.3			
85.0 90.0 93.0	24.7 15.1	72.0 57.8	2.7	28.8 21.1 16.2	66.4 59.2	2.9 2.7 2.2	34.3 28.1	83.8 75.4	3.1 2.9	40.0 34.7	88.8 82.2	3.2 3.1			
95.0 97.0 98.9 100.0							20.1 15.8	64.0 57.6	2.8 2.7	28.5	73.9	2.9	35.0 33.7	75.8 74.1	2.9 2.9
103.0 105.0 110.0										15.6	55.3	2.4	27.3 20.1	65.4 55.2	2.8 2.4



N° de ident.: 9842523/95738/ Pie

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
				32.0 ı	m Pluma Cab	eza de p	II, Punto Ilumín (1 1] Posici	916-1) 9	2.5 m Plı	eza de p umín	lumín				
23.6 24.0 26.0 28.0 30.0 32.0	78.0 77.7 76.4 75.2 73.9 72.6	125.4 125.3 124.9 124.3 123.8	5.2 5.2 5.0 4.9 4.7												
34.0 34.2 36.0 38.0 40.0	71.2 69.9 68.6 67.2	122.5 121.8 121.0 120.1	4.4 4.3 4.2 4.0	73.0 71.8 70.5 69.2	123.1 122.5 121.8 121.0	4.5 4.5 4.3 4.2									
42.0 44.0 46.0 48.0	65.9 64.5 63.1 61.7	119.3 118.3 117.3 116.2	3.9 3.8 3.7 3.6	67.8 66.5 65.1 63.7	120.2 119.3 118.4 117.4	4.1 4.0 3.8 3.7									
50.0 50.6 55.0 60.0 65.0	60.3 56.6 52.8 48.7	115.1 112.0 108.4 104.2	3.5 3.3 3.1 2.9	62.3 58.7 55.0 51.1	116.4 113.5 110.2 106.4	3.7 3.4 3.2 3.0	65.0 61.9 58.3 54.6	117.4 115.1 112.2 108.8	3.8 3.6 3.4 3.2						
69.7 70.0 75.0 80.0 85.0	44.4 39.8 34.6	99.4 93.8 87.1	2.7 2.6 2.5	46.9 42.5 37.6 32.1	101.9 96.8 90.7 83.4	2.9 2.7 2.6 2.4	50.6 46.4 41.9 37.0	104.9 100.4 95.2 89.0	3.0 2.9 2.7 2.6	55.0 54.8 50.9 46.7 42.2	107.1 106.9 103.1 98.6 93.4	3.1 3.1 3.0 2.8 2.7			
90.0 95.0 100.0 101.3 105.0							31.4 24.7	81.5 72.0	2.5 2.3	37.3 31.8 25.2	87.3 79.9 70.5	2.6 2.5 2.4	35.0 30.7	77.5 71.7	2.4 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 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]
				32.0 ו	m Pluma Cab	eza de p	ıl, Punto llumín (19 n] Posici	916-1) 9	5.5 m Plı	eza de p umín	lumín				
24.2	78.0	128.4	4.8												
26.0	76.9	127.9	4.7												
28.0	75.6	127.4	4.5												
30.0	74.4 73.1	126.9 126.3	4.4 4.3												
32.0 34.0	73.1	125.6	4.3												
35.0	71.9	125.0	4.1	73.0	125.9	4.2									
36.0	70.6	124.9	4.0	73.0 72.4	125.6	4.2									
38.0	69.3	124.2	3.9	71.1	124.9	4.0									
40.0	68.0	123.4	3.8	69.8	124.2	3.9									
42.0	66.7	122.5	3.6	68.5	123.4	3.8									
44.0	65.4	121.6	3.5	67.2	122.6	3.7									
46.0	64.0	120.7	3.4	65.9	121.7	3.6									
48.0	62.7	119.7	3.4	64.6	120.8	3.5									
50.0	61.3	118.6	3.3	63.2	119.8	3.4									
51.8							65.0	120.1	3.5						
55.0	57.8	115.6	3.0	59.8	117.0	3.2	62.9	118.5	3.4						
60.0	54.1	112.1	2.8	56.2	113.8	2.9	59.4	115.7	3.2						
65.0	50.3	108.2	2.6	52.5	110.2	2.7	55.8	112.5	2.9						
70.0 71.4	46.3	103.7	2.3	48.6	106.0	2.5	52.1	108.8	2.7	55.0	109.6	2.8			
71.4 75.0							48.1	104.5	2.5	55.0 52.3	109.6 106.9	2.8			
75.0 80.0							40.1	104.5	2.5	52.3 48.4	106.9	2.7			



N° de ident.: 9842523/95738/

360 °

Pieza de articulación de pluma principal: 2821-1

Radio de descarga: Valor de vuelco:

Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha

114.0 52.6 Cabeza de pluma principal: 2821-1

		gulo de principa			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]
				35.0		eza de p	al, Punto dumín (2 n] Posici	316-1) 3	8.5 m Pl	eza de p umín	lumín				
12.4	78.0	75.6	64.0												
13.0	77.1	75.5	64.0												
14.0	75.5	75.2	60.0												
16.0	72.4	74.6	50.3												
18.0	69.2	73.9	42.9												
18.7				73.0	74.4	53.5									
20.0	66.0	73.0	36.2	71.0	74.0	52.3									
22.0	62.7	72.0	31.3	67.8	73.2	47.8									
24.0	59.3	70.9	27.9	64.5	72.3	41.1									
26.0	55.7	69.5	25.0	61.2 57.7	71.2 70.0	36.2									
28.0 28.5	52.0	68.0	22.7	57.7	70.0	32.2	65.0	71.3	30.1						
30.0	48.0	66.3	21.0	54.0	68.6	29.0	62.6	70.6	34.5						
30.0	43.8	64.3	19.5	54.0 50.2	67.0	26.5	59.2	69.4	34.5						
34.0	39.3	62.0	18.2	46.2	65.1	24.3	55.6	68.1	30.4						
36.0	34.2	59.2	17.1	41.8	63.0	22.3	51.9	66.6	28.7						
38.0	28.3	55.8	16.2	37.1	60.5	20.6	48.0	64.9	27.2						
40.0	20.9	51.3	15.2	31.7	57.5	19.3	43.8	62.9	25.6	55.0	65.6	23.2			
41.0	16.0	48.2	14.8	· · · · ·	00	10.0	10.0	02.0	20.0	00.0	00.0	20.2			
42.0				25.3	53.7	18.0	39.2	60.6	24.3	51.5	64.2	23.3			
44.0				16.6	48.2	16.7	34.1	57.8	23.2	47.5	62.4	22.2			
46.0							28.2	54.4	22.0	43.3	60.4	21.1			
48.0							20.8	49.8	20.8	38.7	58.0	20.2			
49.0							15.8	46.6	20.2						
50.0										33.5	55.2	19.4			
55.0										16.5	44.8	15.1			
59.2													35.0	48.6	12.6
60.0				l									34.4	48.3	12.4
65.0													16.4	37.4	11.0



2821-1

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

Radio de descarga: $$360\ ^{\circ}$$ Valor de vuelco: $$2\ \text{-}$$ Vía ancha

360 ° Cabeza de pluma principal: 2821-1 ancha

		igulo 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]
				35.0	m Pluma Cab	eza de p	al, Punto olumín (2 n] Posici	316-1) 4	1.5 m Pli	eza de p umín	lumín				
13.0 14.0 16.0 18.0	78.0 76.6 73.7 70.8	78.5 78.3 77.7 77.1	57.3 56.9 49.8 41.7												
19.6 20.0	67.9	76.3	36.0	73.0 72.4	77.3 77.1	48.8 48.7									
22.0 24.0 26.0	64.8 61.7 58.5	75.4 74.3 73.2	30.8 27.1 24.5	69.5 66.5 63.4	76.4 75.6 74.6	45.8 41.5 36.2									
28.0 29.8 30.0	55.2 51.7	71.8	22.3	60.3 57.0	73.5 72.2	32.5	65.0 64.8	74.0 74.0	33.2 33.2						
32.0 34.0 36.0	48.0 44.2 40.0	68.6 66.6 64.3	19.2 17.8 16.7	53.6 50.1 46.3	70.8 69.2 67.4	26.4 24.3 22.3	61.6 58.4 55.1	72.9 71.7 70.4	31.7 29.9 28.0						
38.0 40.0	35.4 30.2	61.6 58.4	15.7 14.9	42.3 38.0	65.3 62.8	20.6	51.6 48.0	68.9 67.1	26.5 25.2	55.0	00.4	04.0			
41.7 42.0 44.0	23.9 15.4	54.4 48.6	14.1 13.2	33.1 27.5	60.0 56.4	17.9 16.7	44.1 39.9	65.1 62.9	23.8 22.7	55.0 54.8 51.3	68.1 68.0 66.4	21.6 22.7 21.7			
46.0 47.0 48.0				20.5 15.9	51.8 48.6	15.6 15.0	35.3 30.1	60.2 57.0	21.7	47.6 43.7	64.7 62.6	20.6			
50.0 52.0							23.8 15.2	52.9 47.0	19.5 18.3	39.4	60.3	19.0			
58.0 61.7 65.0										15.9	45.2	15.0	35.0 27.4	50.4 45.6	11.6 10.7 10.0
48.0 50.0 52.0 55.0 58.0 61.7				15.9	46.0	15.0	23.8	52.9	19.5	39.4 26.5	60.3 52.4	19.0 16.9		4	



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]
				35.0 ı		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 4	4.5 m Pli	eza de p umín	lumín				
13.6	78.0	81.5	52.0												
14.0	77.5	81.4	52.0												
16.0	74.9	80.9	48.0												
18.0	72.2	80.2	41.6												
20.0	69.4	79.5	35.9												
20.5		-0-	00.0	73.0	80.1	45.2									
22.0	66.6 63.8	78.7 77.7	30.9 26.8	70.9 68.2	79.6 78.8	44.3 41.3									
24.0 26.0	60.9	76.7	26.8	65.4	78.8 78.0	36.9									
28.0	57.8	75.4	22.0	62.5	76.9	32.9									
30.0	54.7	74.1	20.3	59.5	75.8	29.7									
31.1	04.7	7-1.1	20.0	00.0	70.0	20.7	65.0	76.8	31.3						
32.0	51.5	72.5	18.9	56.4	74.5	26.8	63.7	76.3	31.3						
34.0	48.1	70.8	17.7	53.3	73.1	24.4	60.8	75.2	29.4			İ	İ		
36.0	44.4	68.8	16.5	49.9	71.4	22.6	57.8	74.0	27.8						
38.0	40.6	66.6	15.5	46.5	69.6	20.8	54.7	72.6	26.2						
40.0	36.4	64.0	14.6	42.7	67.5	19.2	51.4	71.1	24.9						
42.0	31.7	61.0	13.9	38.7	65.2	17.9	48.0	69.4	23.7						
43.5										55.0	70.5	20.3			
44.0	26.2	57.2	13.1	34.3	62.4	16.7	44.4	67.4	22.5	54.3	70.2	21.5			
46.0	19.4	52.3	12.4	29.4	59.1	15.7	40.5	65.1	21.4	51.1	68.7	20.5			
47.0	16.5	50.2	11.3	00.4	540	447	00.0	00.0	00.5	47.0	00.0	40.4			
48.0 50.0				23.4 15.4	54.9 49.0	14.7 13.7	36.3 31.6	62.6 59.5	20.5 19.5	47.6 44.0	66.9 64.9	19.4 18.7			
55.0				15.4	49.0	13.7	16.3	59.5 48.6	15.1	33.5	58.5	16.8			
60.0							10.3	40.0	10.1	18.4	47.9	14.8			
61.0										15.3	47.9	14.0			
64.1										10.0	70.0	17.1	35.0	52.1	10.8
65.0													34.3	51.6	10.6
70.0													19.7	41.5	9.4
71.0													15.2	38.1	9.2



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 principa			gulo de orincipal			gulo de principal			gulo de orincipa	.*		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]
				35.0 ו	Cab	eza de p	lumín (2	de carga 316-1) 47 ón midfal	7.5 m Pl	umín .	lumín				

[]	[°]	nas [m]		[°]	nas [m]		[°]	nas [m]		[°]	nas [m]		[°]	nas [m]	
				35.0 i	m Pluma Cab	eza de p	II, Punto Ilumín (23 Il Posicio	316-1) 4 [·]	7.5 m Pl	eza de p umín	lumín				
14.3	78.0	84.4	47.4												
16.0	75.8	84.0	46.0												
18.0	73.3	83.4	41.3							<u> </u>					
20.0	70.8	82.7	34.8												
21.4				73.0	83.0	41.8									
22.0	68.2	82.0	30.5	72.2	82.8	41.7									
24.0	65.6	81.1	26.6	69.6	82.1	39.6									
26.0	62.9	80.1	23.6	67.0	81.2	36.9									
28.0	60.1	79.0	21.6	64.4	80.3	32.8									
30.0	57.3	77.7	19.9	61.6	79.3	29.9									
32.0	54.3	76.3	18.4	58.8	78.1	27.0									
32.3							65.0	79.5	28.9						
34.0	51.3	74.8	17.2	55.9	76.8	24.5	62.8	78.7	28.8						
36.0	48.1	73.0	16.1	53.0	75.3	22.4	60.0	77.5	27.0						
38.0	44.7	71.1	15.1	49.8	73.7	20.7	57.2	76.3	25.6						
40.0	41.1	68.9	14.1	46.6	71.8	19.2	54.3	74.9	24.2						
42.0	37.2	66.4	13.3	43.1	69.8	17.8	51.2	73.3	23.1						
44.0	33.0	63.4	12.6	39.4	67.5	16.5	48.0	71.6	22.0						
45.2										55.0	73.0	19.0			
46.0	28.1	60.0	12.0	35.4	64.8	15.5	44.6	69.6	21.0	54.0	72.5	20.0			
48.0	22.3	55.6	11.4	30.9	61.6	14.6	41.0	67.4	20.0	50.9	70.9	19.0			
50.0	15.9	50.6	10.0	25.7	57.8	13.7	37.2	64.9	19.2	47.7	69.1	18.1			
53.0				16.4	50.6	11.7									
55.0							25.3	56.4	16.8	38.7	63.7	16.4			
58.0							15.8	49.0	14.7						
60.0										27.5	55.8	14.6			
63.0										17.8	48.4	13.6			
66.6													35.0	53.8	9.8
70.0													28.3	49.0	9.1
73.0													19.0	42.0	8.5



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 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]
				35.0 ı	m Pluma Cab	eza de p	il, Punto llumín (2 n] Posici	316-1) 5	0.5 m Pl	eza de p umín	lumín				
14.9 16.0 18.0 20.0 22.0	78.0 76.7 74.3 72.0 69.6	87.3 87.1 86.5 85.9 85.2	44.0 43.9 40.0 34.7 30.0												
22.2 24.0 26.0 28.0 30.0	67.1 64.6 62.1 59.4	84.4 83.4 82.4 81.3	26.5 23.6 21.4 19.7	73.0 70.9 68.5 66.0 63.5	85.9 85.3 84.5 83.6 82.7	39.3 38.7 36.2 33.2 30.0									
32.0 33.6 34.0 36.0	56.7 54.0 51.1	80.0 78.6 77.0	18.2 16.9 15.9	60.9 58.2 55.5	81.6 80.4 79.0	27.6 24.9 22.7	65.0 64.6 62.0	82.2 82.0 81.0	27.9 27.9 26.8						
38.0 40.0 42.0	48.1 44.9 41.6	75.3 73.3 71.1	14.9 13.9 13.1	52.7 49.7 46.7	77.6 75.9 74.1	20.8 19.3 17.9	59.4 56.7 53.9	79.8 78.6 77.1	25.3 24.0 22.7						
44.0 46.0 46.9 48.0	38.0 34.0 29.7	68.7 65.9 62.6	12.3 11.7	43.4 40.0 36.2	72.0 69.8 67.1	16.6 15.5 14.5	51.0 48.0 44.8	75.6 73.8 71.9	21.7 20.8 19.8	55.0 53.6	75.4 74.7	17.9 18.8			
50.0 53.0 55.0 56.0	24.6 15.4	58.6 51.0	10.5 8.9	32.1 18.5 15.9	64.1 53.3 51.0	13.7 11.7 10.6	41.5 31.8	69.7 62.8	18.9	50.7 42.9	73.1 68.3	17.8			
60.0 61.0 65.0 66.0							18.0 15.3	51.8 49.4	14.6 13.5	33.5 20.8 17.2	61.8 51.8 48.8	14.4 12.8 12.5			
69.0 70.0 75.0 76.0													35.0 34.2 21.8 18.4	55.5 54.9 45.3 42.4	9.1 8.9 7.8 7.6



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		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]
				35.0 r		eza de p	I, Punto Iumín (2 i] Posici	316-1) 5	3.5 m Pli	eza de p umín	lumín				
15.5 16.0 18.0	78.0 77.5 75.2	90.3 90.2 89.7	39.7 39.7 37.8												
20.0 22.0	73.0 70.8	89.1 88.4	34.3 29.2												
23.1 24.0 26.0	68.5 66.1	87.6 86.8	25.9 23.2	73.0 72.0 69.7	88.7 88.4 87.7	35.5 35.4 34.1									
28.0 30.0	63.8 61.3	85.8 84.7	21.0 19.3	67.4 65.1	86.9 86.0	32.8 29.7									
32.0 34.0 34.9	58.8 56.3	83.6 82.3	17.8 16.5	62.7 60.2	85.0 83.9	27.2 25.1	65.0	84.9	26.2						
36.0 38.0 40.0	53.6 50.9 48.1	80.8 79.2 77.5	15.4 14.5 13.6	57.7 55.1 52.4	82.7 81.3 79.8	22.7 20.7 19.0	63.7 61.3 58.8	84.4 83.3 82.1	26.2 24.7 23.5						
42.0 44.0	45.1 42.0	75.6 73.4	12.8 12.0	49.7 46.8	78.2 76.3	17.7 16.4	56.2 53.6	80.8 79.4	22.2 21.1						
46.0 48.0 48.6	38.6 35.0	71.0 68.3	11.3 10.7	43.7 40.5	74.3 72.0	15.2 14.2	50.9 48.0	77.8 76.1	20.2 19.3	55.0	77.9	16.7			
50.0 55.0 59.0	31.0 17.6	65.1 53.7	10.2 8.9	37.0 26.7 15.4	69.5 61.3 51.4	13.3 11.5 9.3	45.0 36.8	74.1 68.2	18.4 16.6	53.3 46.2	77.0 72.6	17.4 15.7			
60.0 63.0 65.0						0.0	26.3 17.5	59.9 52.2	14.5 13.2	38.2 28.2	67.0 59.2	14.1 12.5			
69.0 71.5										28.2 15.5	48.2	11.4	35.0	57.3	8.2
75.0 79.0													28.9 17.9	52.4 42.9	7.4 6.6



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]
35.0 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)															
16.1	78.0	93.2	36.6												
18.0	76.0	92.8	36.1												
20.0	73.9	92.2	33.8												
22.0	71.8	91.6	29.2												
24.0	69.7	90.8	25.4	73.0	91.6	32.7									
26.0	67.5	90.0	22.9	70.8	90.9	32.2									
28.0	65.2 63.0	89.1	20.8	68.7	90.2	31.3 29.7									
30.0 32.0	60.7	88.1 87.0	19.1 17.7	66.5 64.2	89.3 88.4	29.7									
34.0	58.3	85.8	16.4	61.9	87.3	25.2									
36.0	55.9	84.5	15.3	59.6	86.2	23.1									
36.1	33.3	04.5	10.0	33.0	00.2	20.1	65.0	87.6	24.5						
38.0	53.4	83.1	14.3	57.2	84.9	21.0	62.9	86.7	24.5						
40.0	50.8	81.5	13.4	54.8	83.6	19.2	60.6	85.6	23.1						
42.0	48.1	79.7	12.6	52.2	82.0	17.7	58.3	84.4	22.1						
44.0	45.3	77.8	11.9	49.6	80.4	16.4	55.8	83.1	20.9						
46.0	42.3	75.7	11.2	46.8	78.6	15.3	53.3	81.6	19.8						
48.0	39.2	73.3	10.5	44.0	76.6	14.2	50.7	80.1	19.0						
50.0	35.8	70.6	9.9	40.9	74.3	13.3	48.0	78.3	18.2						
50.3									100	55.0	80.4	15.7			
55.0	25.7	62.1	8.8	32.3	67.5	11.4	40.7	73.1	16.3	49.1	76.7	15.4			
58.0 60.0	17.1	54.2	8.1	20.7	57.2	9.7	32.0	66.2	14.6	41.9	71.7	13.9			
61.0				17.5	54.2	9.7	32.0	00.2	14.0	41.9	71.7	13.9			
65.0				17.5	34.2	3.4	20.3	55.7	12.5	33.5	65.1	12.5			
66.0							17.0	52.7	12.1	00.0	00.1	12.0			
70.0							'''			21.8	54.8	11.1			
72.0							İ			15.1	48.6	10.6			
73.9													35.0	59.0	7.5
75.0													34.1	58.2	7.3
80.0													23.3	48.9	6.3
82.0													17.4	43.3	5.9



N° de ident.: 9842523/95738/ Pi

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

	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]
35.0 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)															
16.8 18.0 20.0 22.0 24.0	78.0 76.8 74.8 72.8 70.7	96.1 95.9 95.3 94.7 94.0	33.6 33.5 31.9 29.2 25.2												
24.9 26.0 28.0 30.0 32.0	68.7 66.6 64.5 62.3	93.3 92.4 91.5 90.5	22.5 20.5 18.7 17.4	73.0 71.9 69.8 67.7 65.6	94.5 94.1 93.4 92.6 91.7	30.2 30.1 29.5 28.9 26.9									
34.0 36.0 37.4 38.0 40.0	60.1 57.8 55.5 53.1	89.4 88.1 86.8 85.3	16.1 15.0 13.9 13.0	63.5 61.3 59.1 56.8	89.7 88.5 87.2	24.9 23.5 21.4 19.5	65.0 64.4 62.2	90.4 90.1 89.1	23.1 23.5 22.8						
42.0 44.0 46.0 48.0 50.0	50.6 48.1 45.4 42.6 39.7	83.7 82.0 80.1 77.9 75.6	12.3 11.6 10.9 10.2 9.6	54.4 52.0 49.5 46.9 44.2	85.8 84.3 82.6 80.8 78.8	17.8 16.4 15.3 14.2 13.3	60.0 57.8 55.5 53.1 50.6	87.9 86.7 85.4 83.9 82.3	21.5 20.6 19.5 18.5 17.8						
52.1 55.0 60.0 61.0 64.0	31.2 19.8 16.7	68.5 57.7 54.6	8.5 7.4 7.2	36.7 27.4 17.0	72.8 64.7 54.6	11.2 9.7 8.5	44.0 36.4	77.6 71.6	15.9 14.5	55.0 51.6 45.1	82.8 80.7 76.1	14.7 15.1 13.6			
65.0 69.0 70.0 75.0 76.4							27.2 16.6	63.3 53.1	12.6 11.0	37.7 28.3 15.8	70.4 62.1 50.1	12.2 10.8 9.6	35.0	60.7	6.6
80.0 85.0													29.4 16.9	55.8 43.8	5.9 5.0



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 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]
				35.0 ı	m Pluma Cab	eza de p	lumín (2	de carga 316-1) 6: ón midfa	2.5 m Pl	eza de p umín	lumín				
17.4 18.0 20.0 22.0 24.0 25.7	78.0 77.4 75.5 73.6 71.7	99.1 98.9 98.4 97.9 97.2	31.1 31.1 30.3 29.1 25.2	73.0	97.3	28.2									
26.0 28.0 30.0 32.0	69.7 67.8 65.8 63.7	96.5 95.7 94.8 93.9	22.3 20.3 18.5 17.1	72.8 70.8 68.9 66.9	97.3 96.6 95.8 95.0	28.2 28.2 27.9 27.4 26.6									
34.0 36.0 38.0 38.7	61.7 59.5 57.4	92.8 91.7 90.4	16.0 14.9 13.8	64.9 62.8 60.7	94.1 93.1 92.0	24.7 23.2 22.0	65.0	93.1	22.5 22.4						
40.0 42.0 44.0 46.0 48.0	55.2 52.9 50.5 48.1 45.6	89.0 87.6 86.0 84.2 82.3	12.9 12.1 11.4 10.7 10.1	58.6 56.4 54.1 51.8 49.4	90.8 89.5 88.1 86.5 84.9	20.0 18.2 16.7 15.5 14.4	63.7 61.6 59.5 57.3 55.1	92.4 91.4 90.2 89.0 87.6	21.3 20.2 19.3 18.3						
50.0 53.8 55.0 60.0 64.0	35.6 26.6 16.3	74.0 65.5 55.0	9.5 8.2 7.3 6.5	47.0 40.3 32.4	77.7 70.8	13.4 11.2 9.6	52.8 46.8 40.1	86.1 81.8 76.5	17.5 15.8 14.2	55.0 53.8 47.8	85.3 84.5 80.3	13.9 14.7 13.4			
65.0 67.0 70.0 72.0 75.0				22.2 16.6	60.9 55.0	7.7	32.2 21.9 16.1	69.5 59.5 53.5	10.9 10.2	33.5 23.8	75.1 68.5 59.1	12.0 10.6 9.5			
78.0 78.9 80.0 85.0 88.0										16.5	51.7	8.8	35.0 34.1 24.5 16.5	62.4 61.6 52.5 44.2	5.8 5.7 4.8 4.3



N° de ident.: 9842523/95738/

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

Valor de vuelco:

Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 114.0

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]
	•	•		35.0	m Pluma	principa	I, Punto	de carga	1 - Cab	eza de p	lumín	•			
					Cab		olumín (2 n] Posici								
18.0	78.0	102.0	27.6				ſ		<u> </u>						
20.0	76.2	101.5	27.3												
22.0	74.4	101.0	26.1												
24.0	72.6	100.4	24.1												
26.0	70.7	99.7	21.6												
26.6				73.0	100.2	25.0									
28.0	68.8	98.9	19.9	71.7	99.8	24.9									
30.0	66.9	98.1	18.1	69.9	99.0	24.4									
32.0	65.0	97.2	16.7	68.0	98.3	23.9									
34.0	63.1	96.2	15.4	66.1	97.4	23.0									
36.0	61.1	95.1	14.5	64.1	96.4	22.1									
38.0	59.1	93.9	13.4	62.2	95.4	21.3									
39.9							65.0	95.8	20.6						
40.0	57.0	92.7	12.5	60.2	94.3	20.1	65.0	95.8	20.9						
42.0	54.9	91.3	11.7	58.1	93.1	18.3	63.0	94.8	20.7						
44.0	52.7	89.8	10.9	56.0	91.7	16.7	61.0	93.7	19.7						
46.0	50.4	88.2	10.4	53.9	90.3	15.3	59.0	92.5	18.7						
48.0	48.1	86.4	9.7	51.7	88.8	14.1	56.9	91.3	17.9						
50.0	45.7	84.5	9.2	49.4	87.1	13.2	54.8	89.9	17.0						
55.0	39.1	79.0	7.9	43.3	82.2	11.1	49.2	85.9	15.4						
55.5										55.0	87.7	13.1			
60.0	31.5	71.8	6.9	36.4	76.1	9.3	43.1	81.0	13.8	50.1	84.3	12.9			
65.0	21.5	61.5	6.0	28.1	68.1	8.1	36.2	74.9	12.5	44.1	79.6	11.7			
67.0	15.9	55.4	5.7												
70.0				16.2	55.5	6.8	27.8	66.7	10.9	37.4	73.7	10.4			
75.0							15.7	53.9	9.1	28.8	65.5	9.2			
80.0										19.1	55.3	8.1			
81.0										16.2	52.1	7.9	25.0		5.0
81.3													35.0	64.1	5.0
85.0				-									29.8	59.1	4.4
90.0	1	I	1		1	1		I	ı		1	ı	19.1	47.9	3.6



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 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]
				35.0 ı		eza de p	al, Punto Jumín (2 n] Posici	316-1) 6	8.5 m Pl		lumín				
18.6 20.0 22.0 24.0 26.0	78.0 76.8 75.1 73.3 71.6	104.9 104.6 104.1 103.5 102.9	25.1 25.0 23.9 22.9 20.9												
27.5 28.0 30.0 32.0 34.0	69.8 68.0 66.2 64.3	102.2 101.4 100.5 99.6	19.5 18.1 16.6 15.3	73.0 72.6 70.8 69.0 67.2	103.1 102.9 102.2 101.5 100.7	22.6 22.6 22.3 21.8 21.4									
36.0 38.0 40.0 41.2	62.5 60.6 58.6	98.5 97.4 96.2	14.2 13.3 12.4	65.4 63.5 61.6	99.8 98.8 97.7	20.9 20.4 20.1	65.0	98.5 98.2	19.5 19.9						
42.0 44.0 46.0 48.0 50.0	56.6 54.6 52.5 50.3 48.1	94.9 93.6 92.1 90.4 88.7	10.8 10.1 9.6 9.0	59.7 57.7 55.7 53.6 51.5	96.6 95.3 94.0 92.6 91.0	17.1 15.6 14.3 13.2	64.3 62.4 60.5 58.6 56.6	97.1 96.0 94.8 93.5	19.4 18.5 17.7 16.8						
55.0 57.2 60.0 65.0 70.0 73.0	35.4 27.2 15.5	77.3 68.9 55.8	7.7 6.7 5.9 5.1	39.7 32.5 23.5 15.8	86.6 81.1 74.1 64.5 55.9	9.3 8.0 6.9 6.1	51.4 45.8 39.5 32.3	89.8 85.3 79.8 72.8	13.6 12.3 11.1	55.0 52.2 46.7 40.6	90.2 88.2 83.8 78.5	12.4 12.7 11.5 10.2			
75.0 78.0 80.0 83.8 84.0				13.0	33.3	0.1	23.2 15.4	63.1 54.3	9.4 8.4	33.5 25.5 15.8	71.8 63.4 52.5	9.1 7.9 7.1	35.0	65.9	4.4
85.0 90.0 94.0													34.0 25.4 15.7	64.9 56.0 45.0	4.2 3.4 2.8



Nº de ident.: 9842523/95738/

Radio de descarga: 360°

Valor de vuelco:

2 - Vía ancha Lastre trasero [t]: 114.0 52.6 Lastre central [t]:

		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]
				35.0 ı	m Pluma Cab	eza de p	ıl, Punto ılumín (2: ı] Posici	316-1) 7	1.5 m Pl	eza de p umín	lumín				
19.2	78.0	107.9	22.9												
20.0	77.4	107.7	22.9												
22.0	75.7	107.2	22.2												
24.0	74.1 72.4	106.7	21.4 20.0												
26.0 28.0	70.7	106.0 105.4	18.6												
28.4	70.7	103.4	10.0	73.0	105.9	20.8									
30.0	69.0	104.6	17.5	71.6	105.4	20.7				i					
32.0	67.3	103.8	16.0	69.9	104.7	20.3				i					İ
34.0	65.5	102.9	14.7	68.2	103.9	19.9									
36.0	63.7	101.9	13.6	66.5	103.1	19.5									
38.0	61.9	100.9	12.7	64.7	102.1	19.1									
40.0	60.1	99.7	11.9	62.9	101.1	18.7									
42.0 42.5	58.2	98.5	11.1	61.1	100.1	18.4	65.0	101.2	18.5						
44.0	56.3	97.2	10.3	59.2	98.9	16.9	63.7	101.2	18.5						
46.0	54.3	95.8	9.7	57.3	97.6	15.5	61.9	99.5	17.9						
48.0	52.3	94.3	9.1	55.4	96.3	14.2	60.0	98.3	17.0	i					i
50.0	50.2	92.7	8.6	53.4	94.8	13.0	58.2	97.1	16.3	İ					
55.0	44.8	88.0	7.4	48.2	90.7	10.9	53.3	93.6	14.4						
58.9										55.0	92.6	11.6			
60.0	38.7	82.3	6.3	42.5	85.7	9.1	48.1	89.5	13.1	54.1	92.0	12.0			
65.0	31.6	75.1	5.5	36.2	79.5	7.7	42.4	84.4	11.8	48.9	87.9	10.9			
70.0 73.0	22.7 15.2	65.2 56.2	4.8 4.3	28.6	71.4	6.6	36.0	78.2	10.8	43.3	83.0	9.9			
75.0	15.2	30.2	4.3	18.3	59.7	5.5	28.3	70.1	9.3	36.7	76.7	8.7			
76.0				15.5	56.3	5.3	20.0	70.1	0.0	30.7	70.7	0.1			
80.0					00.0	0.0	17.9	58.2	7.8	30.2	69.9	7.6			
81.0							15.0	54.7	7.4						
85.0										20.7	59.2	6.5			
86.2													35.0	67.6	3.6
87.0										15.4	52.9	6.1			
90.0													30.2	62.5 51.7	3.1 2.4
95.0 97.0													20.7 15.4	51.7 45.4	2.4
91.0													10.4	40.4	۷.۱



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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

		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]
				35.0 ı	m Pluma Cab	eza de p	II, Punto Ilumín (2: In] Posici	316-1) 7	4.5 m Pl		lumín				
19.9 20.0 22.0 24.0 26.0	78.0 77.9 76.3 74.7 73.1	110.8 110.8 110.3 109.8 109.2	21.5 21.5 21.2 20.4 19.5			-									
28.0 29.3 30.0 32.0 34.0	71.5 69.9 68.2 66.5	108.5 107.8 107.0 106.2	18.1 17.0 15.9 14.6	73.0 72.4 70.8 69.1	108.8 108.6 107.9 107.1	19.7 19.7 19.5 19.1									
36.0 38.0 40.0 42.0 43.7	64.9 63.1 61.4 59.6	105.3 104.3 103.2 102.0	13.5 12.5 11.7 10.9	67.5 65.8 64.1 62.4	106.3 105.5 104.5 103.5	18.8 18.4 18.0 17.7	65.0	103.9	17.4						
44.0 46.0 48.0 50.0 55.0	57.8 56.0 54.1 52.1 47.1	100.8 99.5 98.1 96.5 92.2	10.2 9.5 8.9 8.3 7.2	60.6 58.8 57.0 55.1 50.3	102.4 101.2 99.9 98.5 94.7	17.2 15.7 14.4 13.2 10.9	64.8 63.1 61.4 59.6 55.0	103.8 102.9 101.8 100.6 97.4	17.6 17.6 16.7 16.0 14.3						
60.0 60.7 65.0 70.0 75.0	41.5 35.3 27.8 17.7	87.0 80.6 72.3 60.1	6.1 5.3 4.6 3.9	39.2 32.6 24.4	90.0 84.4 77.4 68.0	9.1 7.6 6.5 5.5	50.1 44.9 39.1 32.4	93.5 88.8 83.2 76.1	12.9 11.6 10.5 9.4	55.0 50.9 45.7 40.0	95.1 91.9 87.3 81.9	11.0 10.7 9.7 8.5			
76.0 79.0 80.0 84.0 85.0	15.8	57.8	3.4	15.1	56.7	4.7	24.2 15.7	66.7 56.3	8.0 6.3	34.0	75.6 66.8	7.3			
88.7 90.0 95.0										15.1	53.3	5.3	35.0 34.0 26.2	69.3 68.2 59.4	2.9 2.8 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 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]
				35.0 ı	m Pluma Cab	eza de p	al, Punto Ilumín (2 n] Posici	316-1) 7	7.5 m Pl		lumín				
20.5 22.0 24.0 26.0 28.0	78.0 76.9 75.3 73.8 72.2	113.7 113.4 112.9 112.3 111.7	19.7 19.6 18.8 18.3 17.2												
30.0 30.1 32.0 34.0 36.0	70.7 69.1 67.5 65.9	111.0 110.3 109.5 108.6	16.3 15.6 14.4 13.2	73.0 71.5 70.0 68.4	111.7 111.1 110.4 109.6	18.0 17.9 17.6 17.3									
38.0 40.0 42.0 44.0 45.0	64.3 62.6 60.9 59.2	107.6 106.6 105.5 104.3	12.2 11.4 10.7 9.9	66.8 65.2 63.5 61.8	108.7 107.8 106.9 105.8	16.9 16.5 16.2 15.9	65.0	106.7	15.7						
46.0 48.0 50.0 55.0 60.0	57.5 55.7 53.9 49.1 44.0	103.1 101.8 100.3 96.3 91.5	9.2 8.6 8.0 6.9 5.9	60.1 58.4 56.7 52.1 47.2	104.7 103.5 102.2 98.5 94.2	15.2 14.0 12.9 10.7 9.0	64.2 62.6 60.9 56.5 52.0	106.2 105.2 104.1 101.0 97.4	16.1 15.9 15.4 14.0 12.5						
62.4 65.0 70.0 75.0 79.0	38.3 31.8 23.8 15.5	85.7 78.4 68.8 58.2	5.0 4.3 3.7 2.9	41.9 36.0 29.0	89.1 82.8 74.8	7.5 6.3 5.4	47.1 41.7 35.8	93.0 87.9 81.5	11.3 10.2 9.4	55.0 52.7 47.9 42.4	97.6 95.7 91.5 86.2	10.3 10.4 9.4 8.1			
80.0 82.0 85.0 87.0 90.0				19.9 15.8	63.6 58.3	4.5 3.7	28.8 19.6 15.4	73.5 62.1 56.7	8.1 6.6 5.6	37.2 30.5 22.0	80.8 73.2 62.9	7.0 6.0 5.0			
91.1 92.0 93.0										17.5	57.2	4.7	35.0 33.3	71.0 69.1	2.2



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]: 114.0 Lastre central [t]: 52.6

		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]
				35.0 ı		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 8	0.5 m Pl	eza de p umín	lumín				
21.1	78.0	116.7	18.2												
22.0	77.4	116.5	18.2												
24.0	75.9	116.0	17.6												
26.0	74.4	115.5	17.0												
28.0	72.9	114.8	16.4												
30.0	71.4	114.2	15.6												
31.0				73.0	114.6	16.6									
32.0	69.9	113.5	15.0	72.3	114.2	16.6									
34.0	68.4	112.7	14.3	70.8	113.6	16.4									
36.0	66.8	111.9	13.1	69.2	112.8	16.1									
38.0	65.3	111.0	12.1	67.7	112.0	15.8									
40.0	63.7	110.0	11.2	66.1	111.1	15.4									
42.0	62.1	108.9	10.5	64.6	110.2	15.0									
44.0	60.5	107.8	9.8	63.0	109.2	14.7									
46.0	58.8	106.6	9.1	61.4	108.1	14.4									
46.3							65.0	109.4	15.0						
48.0	57.1	105.4	8.5	59.7	107.0	13.6	63.7	108.6	15.0						
50.0	55.4	104.0	7.9	58.1	105.8	12.6	62.1	107.5	14.8						
55.0	50.9	100.2	6.7	53.7	102.3	10.6	57.9	104.6	13.7						
60.0	46.2	95.7	5.7	49.2	98.3	9.0	53.6	101.1	12.2						
64.1										55.0	100.0	9.7			
65.0	41.0	90.4	4.8	44.2	93.5	7.5	49.0	97.1	11.1	54.3	99.5	10.0			
70.0	35.1	83.9	4.1	38.8	87.8	6.3	44.1	92.3	10.1	49.8	95.5	9.2			
75.0	28.3	75.7	3.5	32.7	80.7	5.3	38.7	86.5	9.2	44.7	90.6	8.0			
80.0	19.3	64.2	3.0	25.2	71.5	4.4	32.5	79.4	8.2	39.9	85.7	6.9			
82.0	15.2	58.6	2.5												
85.0				15.5	58.7	3.3	25.0	70.2	6.9	34.0	78.9	5.9			
90.0							15.1	57.1	5.1	26.9	70.3	4.9			
95.0										17.2	57.6	4.1			



N° de ident.: 9842523/95738/

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

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 114.0 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]
				35.0	m Pluma Cab	eza de p	al, Punto dumín (2 n] Posici	316-1) 8	3.5 m Pl	eza de p umín	lumín				
21.7	78.0	119.6	16.7												
22.0	77.8	119.6	16.7												
24.0	76.4	119.1	16.4												
26.0	75.0	118.6	15.9												
28.0	73.6	118.0	15.5												
30.0	72.1	117.4	14.9												
31.9				73.0	117.4	15.3									
32.0	70.7	116.7	14.3	72.9	117.4	15.3									
34.0	69.2	115.9	13.9	71.5	116.7	15.3									
36.0	67.7	115.1	12.9	70.0	116.0	15.0									
38.0	66.2	114.3	11.9	68.5	115.2	14.7									
40.0	64.7	113.3	11.0	67.1	114.4	14.4									
42.0	63.2 61.6	112.3 111.3	10.2 9.5	65.6 64.0	113.5 112.6	14.1 13.8									
44.0 46.0	60.1	111.3	9.5 8.9	62.5	112.6	13.8									
47.6	60.1	110.1	0.9	02.5	111.5	13.5	65.0	112.1	13.8						
48.0	58.5	108.9	8.2	60.9	110.4	13.3	64.7	111.9	13.8						
50.0	56.8	106.9	7.7	59.3	109.3	12.4	63.2	110.9	13.8						
55.0	52.6	107.0	6.4	55.2	109.5	10.4	59.2	108.1	13.1						
60.0	48.1	99.9	5.5	50.9	102.2	8.9	55.1	104.9	11.9						
65.0	43.3	94.9	4.6	46.3	97.8	7.4	50.8	101.0	10.8						
65.8	10.0	0		10.0	01.0		00.0		10.0	55.0	102.5	9.1			
70.0	38.0	89.0	3.8	41.3	92.5	6.1	46.2	96.5	9.8	51.5	99.4	8.9			
75.0	31.9	81.8	3.3	35.8	86.1	5.0	41.2	91.2	8.8	46.8	94.9	7.6			
80.0	24.6	72.3	2.7	29.3	78.2	4.2	35.6	84.9	8.1	42.4	90.2	6.5			
84.0	16.7	61.5	2.3												
85.0				21.2	67.4	3.5	29.2	76.9	6.9	36.9	84.1	5.5			
88.0				15.2	59.1	2.7									
90.0							20.9	66.0	5.6	30.7	76.6	4.6			
92.0							16.6	59.9	5.1						
95.0										23.0	66.5	3.8			
98.0										16.9	58.1	3.3			



N° de ident.: 9842523/95738/

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
				35.0 ı		eza de p	al, Punto dumín (2 n] Posici	316-1) 8	6.5 m Pl	eza de p umín	lumín				
22.4	78.0	122.6	15.4												
24.0	76.9	122.2	15.4												
26.0	75.5	121.7	14.9												
28.0	74.1	121.1	14.6												
30.0	72.8	120.5	14.2												
32.0	71.4	119.8	13.7												
32.8				73.0	120.3	14.3									
34.0	70.0	119.1	13.3	72.1	119.9	14.3							<u> </u>		
36.0	68.5	118.4	12.8	70.7	119.2	14.1									
38.0	67.1	117.5	11.8	69.3	118.5	13.8									
40.0	65.7	116.6	10.8	67.9	117.7	13.6									
42.0	64.2	115.7	10.0	66.5	116.8	13.3									
44.0	62.7	114.7	9.3	65.0	115.9	13.1									
46.0	61.2	113.6	8.8	63.5	114.9	12.8									
48.0	59.7	112.4	8.1	62.0	113.9	12.6									
48.8							65.0	114.8	12.3						
50.0	58.1	111.2	7.5	60.5	112.8	12.3	64.2	114.3	12.8						
55.0	54.1	107.8	6.3	56.6	109.7	10.3	60.4	111.6	12.5						
60.0	49.9	103.9	5.3	52.5	106.1	8.8	56.5	108.5	11.7						
65.0	45.4	99.2	4.4	48.2	101.9	7.5	52.4	104.9	10.5						
67.6										55.0	104.9	8.6			
70.0	40.5	93.8	3.7	43.6	96.9	6.1	48.1	100.7	9.6	53.1	103.2	8.7			
75.0	35.0	87.2	3.0	38.5	91.1	4.9	43.4	95.7	8.7	48.7	99.0	7.4			
80.0	28.7	79.1	2.5	32.7	84.1	4.1	38.3	89.9	7.9	44.5	94.6	6.3			
85.0				25.5	74.4	3.3	32.6	82.8	6.9	39.5	89.0	5.3			
90.0				16.6	61.9	2.6	25.7	73.7	5.8	33.9	82.2	4.4			
95.0							16.3	60.4	4.5	27.4	73.7	3.5			
100.0										18.8	61.7	2.8			
101.0										16.6	58.5	2.6			



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		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]
				35.0		eza de p	al, Punto olumín (2: n] Posici	316-1) 8	9.5 m Pl	eza de p umín	lumín		_		
23.0	78.0	125.5	13.5												
24.0	77.4	125.3	13.5												
26.0	76.0	124.8	13.2												
28.0	74.7	124.2	12.9												
30.0	73.4	123.7	12.7												
32.0	72.0	123.0	12.3				!								
33.7				73.0	123.2	12.5									
34.0	70.7	122.3	12.0	72.8	123.1	12.5									
36.0	69.3	121.6	11.7	71.4	122.4	12.4									
38.0	67.9	120.8	11.0	70.0	121.7	12.2									
40.0	66.5	119.9	10.1	68.7	120.9	11.9									
42.0	65.1	119.0	9.3	67.3	120.1	11.7									
44.0	63.7	118.0	8.7	65.9	119.2	11.4									
46.0	62.2	117.0	8.1	64.4	118.2	11.2									
48.0	60.7	115.9	7.6	63.0	117.2	10.9									
50.0	59.2	114.7	7.0	61.5	116.2	10.8									
50.1							65.0	117.5	11.1						
55.0	55.4	111.4	5.8	57.8	113.2	9.4	61.4	115.0	10.8						
60.0	51.4	107.6	4.8	53.9	109.7	8.1	57.7	112.0	10.4						
65.0	47.1	103.2	4.0	49.8	105.7	7.1	53.8	108.5	9.5						
69.3										55.0	107.4	7.9			
70.0	42.5	98.1	3.3	45.4	101.1	5.8	49.7	104.5	8.9	54.4	106.9	7.9			
75.0	37.5	92.1	2.7	40.7	95.6	4.7	45.3	99.9	8.1	50.3	102.9	7.0			
80.0	31.7	84.7	2.2	35.4	89.1	3.8	40.5	94.4	7.4	46.4	98.9	5.9			
85.0				29.3	81.1	3.1	35.2	87.8	6.5	41.8	93.7	4.9			
90.0				21.7	70.4	2.4	29.1	79.7	5.5	36.7	87.5	4.0			
92.0				17.9	64.7	2.1	0.4.5			00.0	70.0				
95.0							21.5	68.9	4.4	30.9	79.9	3.2			
98.0 100.0							15.3	59.7	3.7	23.0	70.1	2.5			
	1							I		23.4		1 75			



2821-1

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

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

Radio de descarga:	360 °	Cabeza de pluma principal:	2821-1
Valor de vuelco:	2 - Vía ancha		
Lastra trasaro [t]:	114.0		

		gulo de orincipa			gulo de orincipa		l	gulo de orincipa	pluma I	65° Án	gulo de orincipa	pluma 	1	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]
				35.0 ו		eza de p	II, Punto Iumín (2: 1] Posici	316-1) 9:	2.5 m Pl	eza de p umín	lumín				
23.7	78.0	128.4	12.4												
24.0	77.8	128.3	12.4												
26.0	76.5	127.9	12.3												
28.0	75.2 73.9	127.4 126.8	12.0												
30.0 32.0	73.9	126.8	11.8 11.5												
34.0	71.3	125.5	11.5												
34.5	71.3	120.0	11.2	73.0	126.0	11.5									
36.0	70.0	124.8	11.0	72.0	125.6	11.5									
38.0	68.7	124.0	10.7	70.7	124.9	11.3									
40.0	67.3	123.2	9.9	69.4	124.1	11.0									
42.0	66.0	122.3	9.1	68.1	123.3	10.8									
44.0	64.6	121.4	8.4	66.7	122.5	10.6									
46.0	63.2	120.4	7.9	65.3	121.6	10.3									
48.0	61.8	119.3	7.4	64.0	120.6	10.0									
50.0	60.4	118.2	6.9	62.6	119.6	9.8									
51.4							65.0	120.3	10.0						
55.0	56.7	115.1	5.6	59.0	116.7	8.9	62.5	118.4	9.9						
60.0	52.9	111.5	4.7	55.3	113.4	7.8	58.9	115.6	9.4						
65.0	48.8	107.3	3.9	51.4	109.6	7.0	55.2	112.3	8.9						
70.0 71.0	44.5	102.5	3.1	47.2	105.3	5.8	51.2	108.5	8.5	55.0	109.8	7.5			
71.0 75.0	39.9	96.9	2.5	42.8	100.2	4.6	47.1	104.1	7.9	55.0 51.9	109.8	7.5 6.8			
80.0	39.9	96.9	2.5	42.6 38.0	94.2	3.7	47.1	99.0	7.9	48.2	108.8	5.7			
85.0				32.5	87.0	3.0	37.8	92.9	6.3	43.9	98.1	4.7			
90.0				26.1	77.9	2.3	33.0	86.6	5.4	39.2	92.4	3.8			
95.0				20.1	,,,,	2.0	26.7	77.8	4.4	33.9	85.5	3.0			
100.0				i			17.3	63.6	3.4	27.8	77.1	2.3			
101.0				ĺ			16.5	62.4	3.1						
102.0										25.0	73.0	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]
				35.0 ו	m Pluma Cab	eza de p	ıl, Punto lumín (2: ı] Posici	316-1) 9	5.5 m Pl	eza de p umín	lumín				
						49.0 [11	i j Posici	on midia	11 (2310)						
24.3 26.0	78.0 76.9	131.4 131.0	11.3 11.3												
	75.7	131.0	11.3							ł					
28.0 30.0	74.5	129.9	10.8							ł					
32.0	73.2	129.9	10.6							ł					
34.0	71.9	128.7	10.3												
35.4	71.5	120.7	10.5	73.0	128.9	10.4									
36.0	70.7	128.0	10.1	73.6	128.7	10.4				i					
38.0	69.4	127.2	9.9	71.4	128.0	10.4				i			i		
40.0	68.1	126.4	9.4	70.1	127.3	10.1									
42.0	66.8	125.6	8.7	68.8	126.6	9.9									
44.0	65.4	124.7	8.1	67.5	125.7	9.7				İ			İ		
46.0	64.1	123.7	7.5	66.2	124.9	9.5		İ	İ	İ		İ	İ		
48.0	62.7	122.7	7.0	64.8	123.9	9.2									
50.0	61.4	121.6	6.6	63.5	123.0	9.1									
52.6							65.0	123.0	9.1						
55.0	57.9	118.6	5.4	60.1	120.2	8.5	63.4	121.8	9.1						
60.0	54.2	115.2	4.4	56.5	117.1	7.4	60.0	119.1	8.7						
65.0	50.4	111.3	3.6	52.8	113.5	6.6	56.4	115.9	8.3						
70.0	46.3	106.8	2.9	48.9	109.3	5.7	52.7	112.3	7.9						
72.7										55.0	112.3	6.9			
75.0	42.0	101.5	2.2	44.7	104.5	4.6	48.8	108.1	7.6	53.3	110.6	6.4			
80.0				40.2	99.0	3.5	44.6	103.3	6.9	49.8	107.0	5.4			
85.0				35.3	92.4	2.7	40.1	97.8	6.0	45.7	102.4	4.4			
90.0				29.6	84.4	2.1	35.7	92.0	5.1	41.3	97.0	3.5			
95.0							30.1	84.1	4.2	36.5	90.8	2.7			
99.0									0.4	32.2	84.9	2.1			
100.0							23.4	74.1	3.4						
104.0							16.2	62.8	2.6						



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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
				35.0 ו		eza de p	ıl, Punto lumín (2 ı] Posici	316-1) 9	8.5 m Pli	eza de p umín	lumín				
24.9	78.0	134.3	10.4												
26.0	77.4	134.0	10.4												
28.0	76.2	133.6	10.3												
30.0	74.9	133.0	10.0												
32.0	73.7	132.5	9.9												
34.0	72.5	131.8	9.6												
36.0	71.3	131.2	9.4												
36.3				73.0	131.8	9.6									
38.0	70.0	130.4	9.2	71.9	131.2	9.5									
40.0	68.8	129.7	9.0	70.7	130.5	9.4									
42.0	67.5	128.9	8.3	69.5	129.8	9.2									
44.0	66.2	128.0	7.7	68.2	129.0	9.0									
46.0	65.0	127.1	7.2	66.9	128.1	8.8									
48.0	63.7	126.1	6.8	65.7	127.3	8.6									
50.0	62.3	125.0	6.4	64.4	126.3	8.4									
53.9							65.0	125.7	8.3						
55.0	59.0	122.2	5.3	61.1	123.7	8.1	64.3	125.2	8.3						
60.0	55.5 51.8	118.9 115.2	4.2 3.4	57.7 54.1	120.7 117.2	7.2 6.4	61.0 57.6	122.5 119.5	8.1 7.8						
65.0	48.0	115.2	2.7	54.1	117.2	5.7		119.5	7.8						
70.0 74.4	48.0	110.9	2.1	50.4	113.3	5.7	54.0	116.0	7.5	55.0	114.8	6.3			
74.4 75.0				46 F	100.0	4.6	50.2	112.1	7.3	55.0 54.6	114.8	6.2			
75.0 80.0				46.5 42.3	108.8 103.6	3.5	50.3 46.4	112.1	6.7	54.6	114.3	5.1			
85.0				42.3 37.7	97.5	2.6	40.4	107.6	5.8	47.4	106.5	4.1			
90.0				31.1	97.5	2.0	38.1	97.0	4.9	47.4	100.5	3.2			
95.0							33.1	89.9	4.9	38.8	95.7	2.4			
95.0							33.1	09.9	4.0	36.9	93.7	2.4			
100.0							27.2	81.2	3.2	30.9	93.1	2.1			
105.0							19.8	69.5	2.4						
107.0							15.9	63.2	2.1						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

Pieza de articulación de pluma principal: Cabeza de pluma principal:

2821-1 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 114.0 52.6 Lastre central [t]:

		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]
				35.0		eża de pl	ıl, Punto umín (23 ı] Posici	316-1) ĬC	1.5 m P	eza de p lumín	lumín		_		
25.5	78.0	137.2	9.6												
26.0	77.7	137.1	9.6												
28.0	76.6	136.7	9.5							•			<u> </u>		
30.0	75.4	136.1	9.3												
32.0	74.2	135.6	9.1												
34.0	73.0	135.0	8.9												
36.0	71.8	134.3	8.7												
37.2				73.0	134.6	8.8				•			<u> </u>		
38.0	70.6	133.6	8.5	72.5	134.4	8.8									
40.0	69.4	132.9	8.3	71.3	133.7	8.7									
42.0	68.2	132.1	8.0	70.1	133.0	8.5									
44.0	67.0	131.3	7.4	68.9	132.2	8.3									
46.0	65.7	130.4	6.9	67.7	131.4	8.2				•					
48.0	64.5	129.4	6.4	66.4	130.5	8.0									
50.0	63.2	128.4	6.0	65.2	129.6	7.8									
55.0	60.0	125.7	5.0	62.0	127.1	7.5									
55.2							65.0	128.4	7.6						
60.0	56.6	122.5	4.0	58.7	124.2	6.8	61.9	126.0	7.5						
65.0	53.2	119.0	3.2	55.3	120.9	6.0	58.6	123.1	7.2						
70.0	49.5	114.9	2.5	51.8	117.2	5.4	55.3	119.7	6.9						
75.0				48.1	112.9	4.5	51.7	116.0	6.7						
76.2										55.0	117.2	5.5			
80.0				44.1	108.0	3.4	48.0	111.7	6.3	52.6	114.7	4.8			
85.0				39.9	102.4	2.5	44.0	106.8	5.5	49.0	110.6	3.8			
87.0				38.0	99.9	2.2									
90.0							40.2	101.8	4.5	45.1	105.9	2.9			
95.0							35.6	95.3	3.7	40.9	100.4	2.1			
100.0							30.4	87.5	2.9						
105.0							24.1	77.6	2.1						



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

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 114.0 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]
				35.0 ı			ıl, Punto umín (23			eza de p lumín	lumín				
						46.0 [m	ı] Posici	ón mídfa	II (2316)						
26.2	78.0	140.2	9.0												
28.0	77.0	139.7	9.0												
30.0	75.8	139.2	8.7												
32.0	74.7	138.7	8.5												
34.0	73.5	138.1	8.4												
36.0	72.4	137.5	8.2												
38.0	71.2	136.8	8.0	73.0	137.5	8.2									
40.0	70.1	136.1	7.8	71.9	136.9	8.2									
42.0	68.9	135.3	7.7	70.7	136.2	8.0									
44.0	67.7	134.5	7.1	69.5	135.4	7.8									
46.0	66.5	133.7	6.6	68.3	134.7	7.7									
48.0	65.3	132.8	6.2	67.2	133.8	7.5									
50.0	64.1	131.8	5.8	65.9	132.9	7.3				<u> </u>			<u> </u>		
55.0	60.9	129.1	4.9	62.9	130.5	7.0									
56.4							65.0	131.1	7.0						
60.0	57.7	126.1	3.9	59.7	127.7	6.5	62.8	129.4	7.0						
65.0	54.4	122.7	3.0	56.5	124.6	5.7	59.7	126.6	6.7						
70.0	50.9	118.8	2.3	53.1	121.0	5.1	56.4	123.4	6.4						
75.0				49.6	116.9	4.4	53.0	119.8	6.2						
77.9										55.0	119.7	5.0			
80.0				45.8	112.3	3.4	49.5	115.7	6.0	53.9	118.5	4.6			
85.0				41.8	107.0	2.5	45.7	111.1	5.3	50.4	114.5	3.6			
87.0				40.6	105.3	2.1									
90.0							42.1	106.4	4.4	46.7	110.1	2.7			
94.0										43.6	106.0	2.1			
95.0							37.8	100.3	3.5						
100.0							33.1	93.2	2.7						
105.0							27.6	84.6	2.0						



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 114.0 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]
				35.0		eża de pl	ıl, Punto umín (23 ı] Posici	316-1) 10	7.5 m P	eza de p lumín	lumín		-		
26.8	78.0	143.1	8.1			_									
28.0	77.3	142.8	8.1												
30.0	76.2	142.3	7.9												
32.0	75.1	141.8	7.7												
34.0	74.0	141.2	7.5												
36.0	72.9	140.6	7.3												
38.0	71.8	140.0	7.1												
38.9				73.0	140.4	7.3									
40.0	70.6	139.3	7.0	72.4	140.0	7.3									
42.0	69.5	138.6	6.9	71.3	139.4	7.2									
44.0	68.3	137.8	6.6	70.1	138.6	7.0									
46.0	67.2	136.9	6.1	69.0	137.9	6.8									
48.0	66.0	136.1	5.7	67.8	137.1	6.7									
50.0	64.8	135.1	5.3	66.7	136.2	6.5									
55.0	61.8	132.6	4.5	63.7	133.9	6.2									
57.7							65.0	133.9	6.1						
60.0	58.7	129.7	3.6	60.7	131.2	5.9	63.6	132.7	6.1						
65.0	55.5	126.4	2.7	57.5	128.1	5.3	60.6	130.0	5.9						
70.0				54.3	124.7	4.8	57.5	127.0	5.7						
75.0				50.9	120.8	4.4	54.2	123.5	5.4						
79.6										55.0	122.1	4.3			
80.0				47.4	116.4	3.3	50.8	119.6	5.3	55.0	122.1	4.3			
85.0				43.6	111.5	2.4	47.3	115.2	4.9	51.7	118.4	3.3			
90.0							43.9	110.8	4.0	48.2	114.2	2.4			
92.0										46.7	112.3	2.1			
95.0							39.9	105.1	3.2						
100.0							35.5	98.6	2.4						
102.0	1						33.6	95.7	2.1						



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		83° Án I	gulo de orincipa	pluma	75° Án I	gulo de orincipa	pluma	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]
				35.0	m Pluma Cabe	ża de pl	ıl, Punto umín (23 ı] Posici	316-1) 11	0.5 m P	eza de p lumín	lumín				
27.4	78.0	146.0	7.3												
28.0	77.7	145.9	7.3												
30.0	76.6	145.4	7.2												
32.0	75.5	144.9	7.0												
34.0	74.5	144.4	6.8												
36.0	73.4	143.8	6.7												
38.0	72.3	143.2	6.5												
39.8				73.0	143.2	6.5									
40.0	71.2	142.5	6.3	72.9	143.2	6.5									
42.0	70.1	141.8	6.2	71.8	142.5	6.5									
44.0	69.0	141.0	6.1	70.7	141.8	6.3									
46.0	67.8	140.2	5.7	69.6	141.1	6.2									
48.0	66.7	139.3	5.3	68.5	140.3	6.0									
50.0	65.6 62.7	138.4 136.0	4.9 4.2	67.3	139.5 137.2	5.9 5.5									
55.0	62.7	136.0	4.2	64.5	137.2	5.5	05.0	136.6	5.4						
59.0	59.7	400.0	3.4	61.5	124.6	5.3	65.0 64.4	136.6	5.4						
60.0 65.0	59.7 56.6	133.2 130.0	2.5	58.5	134.6 131.7	4.8	61.5	136.1	5.4						
70.0	30.0	130.0	2.5	55.4	128.4	4.6	58.5	130.5	5.0						
75.0				52.2	124.7	4.1	55.3	127.2	4.8						
80.0				48.8	120.5	3.4	52.1	123.5	4.6						
81.3				70.0	120.5	5.4	32.1	123.3	7.0	55.0	124.6	3.7			
85.0				45.2	115.8	2.4	48.7	119.3	4.4	52.9	122.2	3.0			
90.0				10.2	1 10.0	2.7	45.1	114.6	3.8	49.6	118.2	2.1			
95.0							41.7	109.8	3.0	.5.0					
100.0							37.6	103.7	2.2						
101.0							36.8	102.3	2.0						



Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

Cargas pluma principal + plumín abatible + midfall

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

360°

2 - Vía ancha 114.0

52.6

		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]
				35.0 ı		eza de p	ıl, Punto lumín (1: ı] Posici	916-1) 3:	2.5 m Pli	eza de p umín	lumín				
11.1	78.0	69.7	43.9												
12.0	76.4	69.5	43.4												
13.0	74.6	69.2	41.1												
14.0	72.8	68.9	39.2												
16.0	69.0	68.2	36.2	72.0	68.7	37.7									
17.0 18.0	65.2	67.3	33.2	73.0 71.1	68.3	37.7									
20.0	61.2	66.3	31.0	67.3	67.5	34.2									
22.0	57.0	65.0	28.6	63.4	66.5	31.7							i		
24.0	52.6	63.6	26.7	59.3	65.4	29.7									
26.0	48.0	61.8	25.0	55.1	64.1	28.0	65.0	65.9	31.8						
28.0	43.0	59.8	23.1	50.6	62.5	26.6	61.1	64.8	30.7				İ		
30.0	37.4	57.4	21.5	45.8	60.6	25.0	56.9	63.6	29.3						
32.0	31.0	54.3	20.1	40.5	58.4	23.6	52.6	62.1	27.9						
34.0	22.9	50.2	18.5	34.6	55.7	22.3	47.9	60.4	26.6						
35.0	17.5	47.3	17.7												
36.0				27.6	52.3	20.5	42.9	58.4	25.0						
36.6										55.0	60.7	26.5			
38.0				18.1	47.3	18.6	37.3	55.9	23.7	52.1	59.7	27.2			
40.0							30.8	52.8 48.7	22.2	47.4	57.9	25.7			
42.0 43.0							22.7 17.3	48.7 45.8	20.5 19.7	42.3	55.9	24.4			
44.0							17.3	45.6	19.7	36.7	53.4	23.3			
46.0										30.1	50.2	22.2			
48.0										21.7	45.9	21.1			
49.0										16.0	42.8	20.5			
54.3													35.0	45.2	16.0
55.0													32.6	44.1	15.8
59.0													17.9	36.5	14.4



N° 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]: 114.0 Lastre central [t]: 52.6

		gulo de principa			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]
				35.0 ı		eza de p	al, Punto llumín (1 n] Posici	916-1) 3	5.5 m Pli	eza de p umín	lumín				
11.8 12.0 13.0 14.0 16.0	78.0 77.6 75.9 74.3 70.9	72.7 72.6 72.4 72.1 71.4	38.8 38.8 37.6 36.0 33.1												
17.8 18.0 20.0 22.0 24.0	67.4 63.8 60.1 56.3	70.6 69.7 68.6 67.3	30.6 28.4 26.6 24.9	73.0 72.7 69.3 65.8 62.2	71.5 71.5 70.8 69.9 68.9	33.3 33.3 31.3 29.1 27.4									
26.0 27.3 28.0 30.0 32.0	52.3 48.0 43.4 38.4	65.8 64.1 62.1 59.7	23.5 22.1 20.7 19.5	58.4 54.5 50.4 46.0	67.7 66.3 64.7 62.9	25.8 24.5 23.4 22.0	65.0 63.8 60.1 56.2	68.6 68.3 67.2 65.9	28.2 28.2 26.9 25.7						
34.0 36.0 38.0 38.3 40.0	32.7 26.0 16.7	56.8 53.1 47.8	18.4 17.1 15.9	41.2 36.0 29.9 22.3	60.7 58.1 54.9 50.7	20.9 19.9 18.6	52.2 47.9 43.4 38.3	64.4 62.6 60.6 58.2	24.5 23.4 22.0 20.9	55.0 51.8	63.1 61.9	23.4 24.2			
41.0 42.0 44.0 46.0 48.0				17.3	47.8	16.6	32.6 25.8 16.5	55.3 51.6 46.2	19.9 18.7 17.4	47.5 42.9 37.8 32.0	60.2 58.1 55.7 52.7	23.0 21.9 20.9 20.0			
50.0 52.0 56.7 60.0 62.0										25.0 15.2	48.9 43.2	19.0 18.0	35.0 26.2 17.1	46.9 42.2 36.9	14.8 13.9 13.3

Source:a9841388



Nº de ident.: 9842523/95738/

360°

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

Radio de descarga:

2 - Vía ancha

2821-1

Valor de vuelco: Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

		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]
				35.0 ı		eza de p	ıl, Punto lumín (19 n] Posici	916-1) 3	8.5 m Pl	eza de p umín	lumín				
12.4	78.0	75.6	34.7												
13.0	77.1	75.5	34.6												
14.0	75.5	75.2	33.1												
16.0	72.4	74.6	30.6												
18.0	69.2	73.9	28.6												
18.7				73.0	74.4	29.7									
20.0	66.0	73.0	26.4	71.0	74.0	29.0									
22.0	62.7	72.0	24.7	67.8	73.2	27.1									
24.0	59.3	70.9	23.2	64.5	72.3	25.3									
26.0	55.7	69.5	21.9	61.2	71.2	24.0									
28.0	52.0	68.0	20.8	57.7	70.0	22.8	05.0	71.3	00.0						
28.5 30.0	48.0	66.3	19.8	54.0	68.6	21.7	65.0 62.6	71.3 70.6	23.6 24.9						
30.0	48.0	64.3	19.8	54.0 50.2	67.0	20.8	59.2	70.6 69.4	24.9						
34.0	39.3	62.0	17.7	46.2	65.1	19.6	59.2 55.6	68.1	23.6						
36.0	34.2	59.2	16.9	41.8	63.0	18.6	51.9	66.6	21.8						
38.0	28.3	55.8	15.9	37.1	60.5	17.7	48.0	64.9	20.8						
40.0	20.9	51.3	14.9	31.7	57.5	16.8	43.8	62.9	19.6	55.0	65.6	20.8			
41.0	16.0	48.2	14.4	31.7	37.3	10.0	40.0	02.3	13.0	33.0	05.0	20.0			
42.0	10.0	40.2	1-11	25.3	53.7	15.9	39.2	60.6	18.6	51.5	64.2	21.9			
44.0				16.6	48.2	15.0	34.1	57.8	17.8	47.5	62.4	20.9			
46.0						10.0	28.2	54.4	16.9	43.3	60.4	19.9			
48.0							20.8	49.8	16.0	38.7	58.0	18.9			
49.0							15.8	46.6	15.6						
50.0										33.5	55.2	18.1			
55.0										16.5	44.8	14.5			
59.2													35.0	48.6	13.8
60.0													34.4	48.3	13.8
65.0													16.4	37.4	12.4



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]: 114.0 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]
				35.0 ו		eza de p	ıl, Punto lumín (19 n] Posici	916-1) 4	1.5 m Pli		lumín				
13.0	78.0	78.5	30.6												
14.0	76.6	78.3	30.2												
16.0	73.7	77.7	28.0												
18.0	70.8	77.1	25.8												
19.6				73.0	77.3	26.2									
20.0	67.9	76.3	24.1	72.4	77.1	26.2									
22.0	64.8	75.4	22.4	69.5	76.4	24.5									
24.0	61.7	74.3	21.1	66.5	75.6	23.0									
26.0	58.5	73.2	19.9	63.4	74.6	21.7									
28.0	55.2	71.8	18.8	60.3	73.5	20.7									
29.8							65.0	74.0	22.2						
30.0	51.7	70.3	18.0	57.0	72.2	19.6	64.8	74.0	22.2						
32.0	48.0	68.6	17.1	53.6	70.8	18.8	61.6	72.9	21.5						
34.0	44.2	66.6	16.2	50.1	69.2	18.0	58.4	71.7	20.7						
36.0	40.0	64.3	15.3	46.3	67.4	17.0	55.1	70.4	19.6						
38.0	35.4	61.6	14.7	42.3	65.3	16.1	51.6	68.9	18.8						
40.0	30.2	58.4	13.9	38.0	62.8	15.3	48.0	67.1	17.9						
41.7										55.0	68.1	18.1			
42.0	23.9	54.4	13.1	33.1	60.0	14.6	44.1	65.1	16.9	54.8	68.0	19.4			
44.0	15.4	48.6	12.4	27.5	56.4	13.9	39.9	62.9	16.1	51.3	66.4	18.8			
46.0				20.5	51.8	13.1	35.3	60.2	15.4	47.6	64.7	18.0			
47.0				15.9	48.6	12.7	00.4		447	40.7	20.0	47.4			
48.0							30.1	57.0	14.7	43.7	62.6	17.1			
50.0							23.8	52.9	13.9	39.4	60.3	16.3			
52.0							15.2	47.0	13.2	26.5	E0.4	11.6			
55.0										26.5 15.9	52.4 45.2	14.6 12.0			
58.0 61.7										15.9	45.∠	12.0	25.0	50.4	13.0
65.0													35.0 25.5	50.4 44.4	13.0
68.0													15.8	37.8	11.3



N° de ident.: 9842523/95738/ Pieza

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

		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]
				35.0 ı		eza de p	ll, Punto lumín (1 n] Posici	916-1) 4	4.5 m Pli		lumín				
13.6 14.0 16.0 18.0 20.0 20.5 22.0 24.0 26.0 28.0 30.0 31.1	78.0 77.5 74.9 72.2 69.4 66.6 63.8 60.9 57.8 54.7	81.5 81.4 80.9 80.2 79.5 78.7 77.7 76.7 75.4 74.1	27.8 27.8 26.1 24.2 22.7 21.0 19.6 18.6 17.5	73.0 70.9 68.2 65.4 62.5 59.5	80.1 79.6 78.8 78.0 76.9 75.8	23.7 23.0 21.5 20.3 19.3	65.0	76.8	20.1						
32.0 34.0 36.0 38.0 40.0 42.0	51.5 48.1 44.4 40.6 36.4 31.7	72.5 70.8 68.8 66.6 64.0 61.0	15.9 15.2 14.4 13.7 13.0 12.4	56.4 53.3 49.9 46.5 42.7 38.7	74.5 73.1 71.4 69.6 67.5 65.2	17.4 16.7 15.9 15.1 14.3 13.6	63.7 60.8 57.8 54.7 51.4 48.0	76.3 75.2 74.0 72.6 71.1 69.4	20.0 19.1 18.3 17.4 16.7 15.9						
43.5 44.0 46.0 47.0 48.0 50.0 55.0	26.2 19.4 16.5	57.2 52.3 50.2	11.8 11.1 9.1	34.3 29.4 23.4 15.4	62.4 59.1 54.9 49.0	13.0 12.4 11.7 11.1	44.4 40.5 36.3 31.6 16.3	67.4 65.1 62.6 59.5 48.6	15.0 14.3 13.7 13.1 10.3	55.0 54.3 51.1 47.6 44.0 33.5	70.5 70.2 68.7 66.9 64.9 58.5	16.0 17.3 16.7 16.0 15.2 13.6			
60.0 61.0 64.1 65.0 70.0										18.4 15.3	47.9 45.6	12.1 9.9	35.0 32.9 17.0 15.2	52.1 50.7 39.5 38.1	12.2 12.0 10.8 10.3



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

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 114.0 52.6 Lastre central [t]:

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

	88° Ángulo de pluma principal			83° Ángulo de pluma principal				gulo de principa			gulo de principa		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]
	35.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 47.5 m Plumín 28.0 [m] Posición midfall (1916)														
14.3	78.0	84.4	24.6												
16.0	75.8	84.0	23.7												
18.0	73.3	83.4	22.3												
20.0	70.8	82.7	20.9												
21.4				73.0	83.0	21.1									
22.0	68.2	82.0	19.9	72.2	82.8	21.1									
24.0	65.6 62.9	81.1	18.8	69.6	82.1	20.0									
26.0 28.0	60.1	80.1 79.0	18.0 17.3	67.0 64.4	81.2 80.3	19.2 18.4									
30.0	57.3	77.7	16.7	61.6	79.3	17.9									
32.0	54.3	76.3	16.1	58.8	78.1	17.2									
32.3	0	7 0.0		00.0			65.0	79.5	18.0						
34.0	51.3	74.8	15.6	55.9	76.8	16.6	62.8	78.7	18.3						
36.0	48.1	73.0	14.9	53.0	75.3	16.2	60.0	77.5	17.7						
38.0	44.7	71.1	14.1	49.8	73.7	15.6	57.2	76.3	17.2						
40.0	41.1	68.9	13.4	46.6	71.8	14.9	54.3	74.9	16.6						
42.0	37.2	66.4	12.7	43.1	69.8	14.3	51.2	73.3	16.2						
44.0	33.0	63.4	12.1	39.4	67.5	13.8	48.0	71.6	15.6						
45.2										55.0	73.0	15.7			
46.0	28.1 22.3	60.0 55.6	11.5	35.4 30.9	64.8	13.3	44.6 41.0	69.6 67.4	14.9	54.0 50.9	72.5 70.9	16.4 16.0			
48.0 50.0	15.9	50.6	10.8 9.3	30.9 25.7	61.6 57.8	12.5 11.7	37.2	64.9	14.3 13.7	50.9 47.7	69.1	15.7			
53.0	15.9	50.6	9.3	25.7 16.4	50.6	9.7	31.2	04.9	13.7	47.7	09.1	13.7			
55.0				10.4	30.0	3.1	25.3	56.4	12.1	38.7	63.7	14.0			
58.0							15.8	49.0	10.5	· · · · · ·					
60.0										27.5	55.8	12.6			
63.0										17.8	48.4	11.7			
66.6													35.0	53.8	11.4
70.0													28.3	49.0	10.6
73.0													19.0	42.0	10.0



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		83° Ángulo de pluma principal				gulo de principa			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]
	35.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 50.5 m Plumín 19.0 [m] Posición midfall (1916)														
14.9 16.0 18.0 20.0 22.0 22.2 24.0	78.0 76.7 74.3 72.0 69.6	87.3 87.1 86.5 85.9 85.2	22.5 22.2 21.1 20.0 19.2	73.0 70.9	85.9 85.3	19.6 19.1									
26.0 28.0 30.0	67.1 64.6 62.1 59.4 56.7	83.4 82.4 81.3	17.8 17.3 16.9	68.5 66.0 63.5 60.9	84.5 83.6 82.7	19.1 18.5 18.0 17.6									
32.0 33.6 34.0 36.0 38.0	54.0 51.1 48.1	78.6 77.0 75.3	16.4 16.1 15.8 15.1	58.2 55.5 52.7	81.6 80.4 79.0 77.6	16.8 16.5 16.2	65.0 64.6 62.0 59.4	82.2 82.0 81.0 79.8	17.7 17.7 17.4 17.1						
40.0 42.0 44.0 46.0	44.9 41.6 38.0 34.0	73.3 71.1 68.7 65.9	14.2 13.5 12.8 12.2	49.7 46.7 43.4 40.0	75.9 74.1 72.0 69.8	15.8 15.2 14.6 14.1	56.7 53.9 51.0 48.0	78.6 77.1 75.6 73.8	16.7 16.4 16.2 15.7	55.0	75.4	15.5			
46.9 48.0 50.0 53.0 55.0	29.7 24.6 15.4	62.6 58.6 51.0	11.5 10.8 9.3	36.2 32.1 18.5	67.1 64.1 53.3	13.7 12.9 10.7	44.8 41.5 31.8	71.9 69.7 62.8	15.1 14.5 13.2	53.6 50.7 42.9	74.7 73.1 68.3	16.1 15.9 14.9			
56.0 60.0 61.0 65.0 66.0				15.9	51.0	10.0	18.0 15.3	51.8 49.4	11.3 10.7	34.2 21.9 18.5	62.3 52.7 49.9	13.6 12.0 11.7			
69.0 70.0 75.0 76.0													35.0 34.2 21.8 18.4	55.5 54.9 45.3 42.4	10.8 10.6 9.6 9.4



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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 Lastre central [t]: 52.6

		gulo de orincipal			gulo de orincipa		75° Án I	gulo de orincipa	pluma I		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]
35.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 53.5 m Plumín 22.0 [m] Posición midfall (1916)															
15.5	78.0	90.3	20.3												
16.0	77.5	90.2	20.3												
18.0	75.2	89.7	19.3												
20.0	73.0	89.1	18.4												
22.0	70.8	88.4	17.6												
23.1	00.5	07.0	40.0	73.0	88.7	17.6									
24.0 26.0	68.5 66.1	87.6 86.8	16.9 16.4	72.0 69.7	88.4 87.7	17.6 17.0									
28.0	63.8	85.8	16.4	67.4	86.9	16.6									
30.0	61.3	84.7	15.6	65.1	86.0	16.2									
32.0	58.8	83.6	15.2	62.7	85.0	15.9									
34.0	56.3	82.3	14.9	60.2	83.9	15.6									
34.9				***			65.0	84.9	16.1						
36.0	53.6	80.8	14.6	57.7	82.7	15.2	63.7	84.4	16.0						
38.0	50.9	79.2	14.4	55.1	81.3	15.0	61.3	83.3	15.7						
40.0	48.1	77.5	13.8	52.4	79.8	14.7	58.8	82.1	15.4						
42.0	45.1	75.6	13.1	49.7	78.2	14.4	56.2	80.8	15.1						
44.0	42.0	73.4	12.4	46.8	76.3	13.9	53.6	79.4	14.9						
46.0	38.6	71.0	11.9	43.7	74.3	13.4	50.9	77.8	14.7						
48.0	35.0	68.3	11.4	40.5	72.0	13.0	48.0	76.1	14.3						
48.6										55.0	77.9	14.0			
50.0	31.0	65.1	10.8	37.0	69.5	12.7	45.0	74.1	13.8	53.3	77.0	14.5			
55.0	17.6	53.7	9.2	26.7	61.3	10.9	36.8	68.2	12.8	46.2	72.6	14.2			
59.0				15.4	51.4	9.0	00.0	50.0	44.0	00.0	07.0	40.0			
60.0 63.0							26.3 17.5	59.9 52.2	11.3 10.3	38.2	67.0	12.9			
65.0							17.5	52.2	10.3	29.0	59.8	11.7			
69.0										29.0 16.7	49.2	10.6			
71.5										10.7	70.2	10.0	35.0	57.3	10.0
75.0													28.9	52.4	9.4
79.0													17.9	42.9	8.6



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		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]
	35.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 56.5 m Plumín 25.0 [m] Posición midfall (1916)														
16.1	78.0	93.2	18.5												
18.0	76.0	92.8	18.0												
20.0	73.9	92.2	17.2												
22.0	71.8	91.6	16.3												
24.0	69.7	90.8	15.7	73.0	91.6	16.0									
26.0	67.5	90.0	15.2	70.8	90.9	15.8									
28.0	65.2	89.1	14.8	68.7	90.2 89.3	15.4									
30.0 32.0	63.0 60.7	88.1 87.0	14.5 14.2	66.5 64.2	89.3 88.4	15.0 14.7									
34.0	58.3	85.8	13.9	61.9	87.3	14.7									
36.0	55.9	84.5	13.7	59.6	86.2	14.3									
36.1	33.9	04.5	13.7	39.0	00.2	14.2	65.0	87.6	14.1	i					
38.0	53.4	83.1	13.5	57.2	84.9	13.9	62.9	86.7	14.6	i					
40.0	50.8	81.5	13.3	54.8	83.6	13.7	60.6	85.6	14.3						
42.0	48.1	79.7	12.8	52.2	82.0	13.5	58.3	84.4	14.1	i					
44.0	45.3	77.8	12.2	49.6	80.4	13.2	55.8	83.1	13.9						
46.0	42.3	75.7	11.6	46.8	78.6	12.8	53.3	81.6	13.6						
48.0	39.2	73.3	11.1	44.0	76.6	12.5	50.7	80.1	13.5						
50.0	35.8	70.6	10.7	40.9	74.3	12.1	48.0	78.3	13.2						
50.3										55.0	80.4	12.9			
55.0	25.7	62.1	9.3	32.3	67.5	11.1	40.7	73.1	12.2	49.1	76.7	13.1			
58.0	17.1	54.2	8.5												
60.0				20.7	57.2	9.3	32.0	66.2	11.3	41.9	71.7	12.3			
61.0				17.5	54.2	9.0				00.5	05.4	44.5			
65.0							20.3 17.0	55.7 52.7	9.8 9.5	33.5	65.1	11.5			
66.0							17.0	52.7	9.5	22.5	55.5	10.3			
70.0 72.0										22.5 16.2	55.5 49.7	9.8			
73.9										10.2	49.7	9.0	35.0	59.0	9.4
75.9													34.1	58.2	9.2
80.0													23.3	48.9	8.3
82.0													17.4	43.3	8.0



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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 114.0 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]
35.0 m Pluma principal, Punto de carga 1 - Cabeza de plumín Cabeza de plumín (1916-1) 59.5 m Plumín 28.0 [m] Posición midfall (1916)															
16.8 18.0 20.0 22.0 24.0	78.0 76.8 74.8 72.8 70.7	96.1 95.9 95.3 94.7 94.0	16.1 15.9 15.0 14.3 13.7												
24.9 26.0 28.0 30.0 32.0	68.7 66.5 64.4 62.2	93.3 92.4 91.5 90.4	13.3 12.9 12.7 12.4	73.0 71.9 69.8 67.7 65.6	94.5 94.1 93.4 92.6 91.7	13.9 13.8 13.4 13.2 12.8									
34.0 36.0 37.4 38.0 40.0	60.0 57.7 55.4 53.0	89.3 88.1 86.7 85.2	12.2 11.9 11.7 11.5	63.4 61.2 59.0 56.7	90.7 89.6 88.4 87.1	12.6 12.4 12.1 11.9	65.0 64.4 62.2	90.4 90.1 89.0	12.7 12.7 12.5						
42.0 44.0 46.0 48.0 50.0	50.5 47.9 45.2 42.3 39.3	83.6 81.8 79.9 77.7 75.3	11.3 10.9 10.6 10.2 9.9	54.3 51.8 49.3 46.7 43.9	85.7 84.2 82.5 80.6 78.6	11.7 11.5 11.3 11.1 10.8	59.9 57.7 55.3 52.9 50.4	87.9 86.6 85.3 83.8 82.2	12.2 12.0 11.8 11.7 11.5						
52.1 55.0 60.0 61.0 64.0	30.8 19.0 15.6	68.0 56.9 53.5	9.0 7.7 7.5	36.3 26.9 16.0	72.5 64.1 53.6	10.4 9.1 7.9	43.7 36.1	77.4 71.2	11.0 10.6	55.0 51.4 44.8	82.8 80.6 76.0	11.4 11.3 11.0			
65.0 69.0 70.0 75.0 76.4							26.6 15.5	62.8 52.0	9.4 8.4	37.4 28.3 17.0	70.1 62.1 51.2	9.8 8.6	35.0	60.7	8.7
80.0 85.0													29.4 16.9	55.8 43.8	8.1 7.2



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

	88° Ángulo de pluma principal			83° Ángulo de pluma principal				gulo de principa			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]
	35.0 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)														
17.4	78.0	99.1	14.5												
18.0	77.5	98.9	14.5												
20.0	75.6	98.4	13.8												
22.0	73.6	97.9	13.2												
24.0	71.7	97.2	12.7												
25.8				73.0	97.3	12.6									
26.0	69.7	96.5	12.2	72.8	97.3	12.6									
28.0	67.7	95.7	11.9	70.8	96.6	12.4									
30.0	65.7	94.8	11.6	68.8	95.8	12.1									
32.0	63.7	93.8	11.4	66.8	95.0	11.8									
34.0	61.6	92.8	11.2	64.8	94.1	11.5									
36.0	59.5	91.6	11.0	62.7	93.0	11.3									
38.0	57.3	90.3	10.8	60.6	91.9	11.1	05.0	00.4	44.5						
38.7 40.0	55.0	89.0	10.5	58.5	90.7	10.9	65.0 63.6	93.1 92.4	11.5 11.4						
42.0	52.7	87.5	10.5	56.3	89.4	10.9	61.5	91.3	11.4						
44.0	50.4	85.8	10.4	54.0	88.0	10.7	59.4	90.2	11.0						
46.0	47.9	84.1	9.9	51.7	86.4	10.3	57.2	88.9	10.8						
48.0	45.3	82.1	9.6	49.3	84.7	10.2	55.0	87.5	10.6	i			i		
50.0	42.6	80.0	9.4	46.7	82.9	10.0	52.7	86.0	10.5						
53.8										55.0	85.3	10.3			
55.0	35.2	73.6	8.8	40.0	77.4	9.7	46.6	81.7	10.2	53.6	84.4	10.3			
60.0	26.0	64.9	7.8	32.0	70.4	9.0	39.8	76.2	9.9	47.6	80.2	10.0			
64.0	15.2	53.9	6.9	1											
65.0				21.5	60.2	7.8	31.7	69.1	9.3	40.9	74.9	9.8			
67.0				15.6	54.0	7.3							I		
70.0				I			21.2	58.7	8.2	33.1	68.1	9.6			
72.0							15.1	52.4	7.8						
75.0										23.2	58.5	8.6			
78.0										16.5	51.7	7.8	L		
78.9													35.0	62.4	8.2
80.0													34.1	61.6	8.0
85.0													24.5	52.5 44.2	7.1 6.6
88.0													16.5	44.2	0.0