

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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 54.0 Lastre central [t]: 0.0 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		44.) m Plum Cabeza 22.0	de plumí	n (1916-	o de caro 1) 41.5 r nidfall (19	n Plumín	dfall		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
9.6	78.0	68.7	15.1	30.1						
10.0	76.9	68.6	15.1	29.8						
11.0	74.2	68.3	15.1	24.8						
12.0	71.4	67.9	15.1	20.6						
13.0	68.6	67.6	15.1	17.9						
14.0	65.8	67.1	15.1	15.6						
16.0	59.8	66.0	14.1	12.4 10.1						
18.0 20.0	53.5 46.5	64.7 62.9	11.0 9.0	8.5						
22.0	38.5	60.7	7.4	7.2						
24.0	28.6	57.6	6.3	6.3						
20	20.0	07.0			ıma nrin	cipal 83.0	1°1			
15.3	73.0	67.7	I	21.6			7[]			
16.0	71.1	67.5	15.1	20.4						
18.0	65.4	66.7	14.6	15.3						
20.0	59.5	65.6	12.9	12.3						
22.0	53.1	64.2	10.1	10.0						
24.0	46.1	62.4	8.4	8.5						
26.0	38.0	60.1	7.0	7.2						
28.0	28.0	57.0	6.0	6.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]C			
24.2	65.0	65.2		14.5						
26.0	59.8	64.3	13.7	12.3						
28.0	53.4	62.9	10.9	10.1						
30.0	46.4	61.2	8.9	8.5						
32.0	38.4	58.9	7.4 6.3	7.2 6.3						
34.0	28.5	55.8								
			Angı		ıma prin	cipal 65.0) [°]			
34.8	55.0	60.4		6.9						
36.0	50.9	59.5	7.4	6.3						
38.0 40.0	43.6 35.1	57.6 55.1	6.5 5.8	5.5 4.8						
40.0 42.0	23.9	55.1	5.8 5.1	4.8 4.2						
43.0	15.4	48.8	4.8	3.9						
				0.0			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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		44.0	0 m Plum Cabeza 25.0	de plumí	ín (1916-		n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
10.2	78.0	71.6	15.1	27.3						
11.0	76.1	71.4	15.1	25.2						
12.0	73.7	71.1	15.1	21.4						
13.0	71.3	70.8	15.1	18.2						
14.0	68.8	70.4	15.0	16.1						
16.0	63.8	69.5	12.8	12.8						
18.0 20.0	58.5 52.8	68.3 66.9	10.7 8.7	10.6 8.8						
20.0	32.6 46.7	65.1	7.3	7.6						
24.0	39.8	63.0	6.3	6.5						
26.0	31.7	60.1	5.4	5.7						
Ángulo de pluma principal 83.0 [°]										
16.2	73.0	70.6	15.1	19.1			, ,			
18.0	68.6	70.0	15.1	15.8						
20.0	63.5	69.0	13.5	12.6						
22.0	58.2	67.9	11.3	10.4						
24.0	52.5	66.4	9.1	8.8						
26.0	46.3	64.6	7.6	7.5						
28.0	39.4	62.4	6.5	6.5						
30.0	31.1	59.5	5.6	5.7						
			Angu		ıma prin	cipal 75.0	D[°]			
25.5	65.0	68.0		12.9						
26.0	63.7	67.8	14.4	12.8						
28.0	58.4	66.6	11.4	10.6						
30.0 32.0	52.8 46.6	65.2 63.4	9.1 7.7	8.8 7.6						
34.0	39.7	61.2	6.5	6.5						
36.0	31.6	58.4	5.7	5.7						
- 2.0	27.0				ıma prin	cipal 65.0	1°10			
36.5	55.0	62.9	,gc	6.1	piiii				l	
38.0	50.6	61.8	6.4	5.6						
40.0	44.2	59.9	5.7	4.9						
42.0	37.0	57.5	5.1	4.3						
44.0	28.0	54.3	4.4	3.7						
46.0	16.7	49.2	3.9							



N° de ident.: 9842523/95738/

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

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

Alcance Angu- o de Carga Carga		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumín (1916-1) 47.5 m Plumín 28.0 [m] Posición midfall (1916) Angulo de pluma principal 88.0 [°] 10.8 78.0 74.5	ce	o de plumín	de rolda- nas								
10.8				Cabeza	de plumí	n (1916-	1) 47.5 r	n Plumín			
10.8				Ángi	ılo de plı	ıma prin	cinal 88 (0 [°]			
11.0	10.8	78.0	74.5	,g.				, ,			
14.0 71.2 73.6 15.1 25.9	11.0 12.0	77.6 75.5	74.5 74.2	15.1	30.1 30.1						
16.0 66.8 72.8 15.1 21.1 17.6 18.0 62.2 71.8 15.1 17.6 17.6 12.0 57.4 70.6 14.4 15.2 22.0 52.3 69.1 13.7 13.3 24.0 46.9 67.4 12.5 11.8 18.0 62.8 65.3 10.9 10.6 28.0 33.8 62.6 9.7 9.6 30.0 25.2 59.0 8.7 8.8 26.0 17.1 73.0 73.5 15.1 27.0 18.0 71.0 73.2 15.1 27.0 18.0 71.0 73.2 15.1 27.0 18.0 71.0 73.2 15.1 27.0 18.0 71.0 73.2 15.1 27.0 18.0 71.0 73.2 15.1 27.0 18.0 71.0 73.2 15.1 22.0 61.9 71.3 15.1 17.4 20.8 22.0 61.9 71.3 15.1 17.4 20.8 22.0 68.5 66.9 12.4 11.8 30.0 46.5 66.9 12.4 11.8 30.0 40.4 64.7 10.9 10.5 32.0 33.4 62.0 9.7 9.6 34.0 24.5 58.4 8.7 8.8 3											
20.0 57.4 70.6 14.4 15.2 22.0 52.3 69.1 13.7 13.3 24.0 46.9 67.4 12.5 11.8 26.0 40.8 65.3 10.9 10.6 28.0 33.8 62.6 9.7 9.6 30.0 25.2 59.0 8.7 8.8											
26.0	20.0	57.4	70.6	14.4	15.2						
28.0 33.8 62.6 9.7 9.6 8.7 8.8	24.0	46.9	67.4	12.5	11.8						
Ángulo de pluma principal 83.0 [°] 17.1 73.0 73.5 15.1 27.0 18.0 71.0 73.2 15.1 25.7 20.0 66.5 72.4 15.1 20.8 22.0 61.9 71.3 15.1 17.4 24.0 57.1 70.1 14.5 15.0 26.0 52.0 68.7 13.9 13.2 28.0 46.5 66.9 12.4 11.8 30.0 40.4 64.7 10.9 10.5 32.0 33.4 62.0 9.7 9.6 34.0 24.5 58.4 8.7 8.8 Ángulo de pluma principal 75.0 [°] 26.8 65.0 70.7 13.9 28.0 62.2 70.1 14.8 12.9 30.0 57.4 68.9 13.4 11.5 32.0 52.3 67.4 12.1 10.3 34.0 46.8 65.7 11.0 9.3 36.0 40.7 63.5 10.0 8.3	28.0	33.8	62.6	9.7	9.6						
17.1	30.0	25.2	59.0								
18.0						ıma prin	cipal 83.0	o [°]			
20.0 66.5 72.4 15.1 20.8 22.0 61.9 71.3 15.1 17.4 24.0 57.1 70.1 14.5 15.0 26.0 52.0 68.7 13.9 13.2 28.0 46.5 66.9 12.4 11.8 30.0 40.4 64.7 10.9 10.5 32.0 33.4 62.0 9.7 9.6 34.0 24.5 58.4 8.7 8.8 Angulo de pluma principal 75.0 [°] 26.8 65.0 70.7 14.8 12.9 30.0 57.4 68.9 13.4 11.5 32.0 52.3 67.4 12.1 10.3 34.0 46.8 65.7 11.0 9.3 36.0 40.7 63.5 10.0 8.3 38.0 33.8 60.8 9.0 7.5 40.0 25.1 57.3 8.2 6.8 Angulo de pluma principal 65.0 [°] 38.2 55.0 65.3 6.8 40.0 50.3 64.0 5.5 4.8 42.0 44.7 62.1 4.8 4.2 44.0 38.3 59.8 4.2 3.6 46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7											
22.0 61.9 71.3 15.1 17.4 24.0 57.1 70.1 14.5 15.0 26.0 52.0 68.7 13.9 13.2 28.0 46.5 66.9 12.4 11.8 30.0 40.4 64.7 10.9 10.5 32.0 33.4 62.0 9.7 9.6 34.0 24.5 58.4 8.7 8.8 Angulo de pluma principal 75.0 [°] 26.8 65.0 70.7 14.8 12.9 30.0 57.4 68.9 13.4 11.5 32.0 52.3 67.4 12.1 10.3 34.0 46.8 65.7 11.0 9.3 36.0 40.7 63.5 10.0 8.3 38.0 33.8 60.8 9.0 7.5 40.0 25.1 57.3 8.2 6.8 Angulo de pluma principal 65.0 [°] 38.2 55.0 65.3 5.3 4.8 40.0 50.3 64.0 5.5 4.8 42.0 44.7 62.1 4.8 4.2 44.0 38.3 59.8 4.2 3.6 46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7											
26.0 52.0 68.7 13.9 13.2				-							
28.0	24.0	57.1	70.1	14.5	15.0						
30.0											
32.0 33.4 62.0 9.7 9.6 8.8 Angulo de pluma principal 75.0 [°] 26.8 65.0 70.7 14.8 12.9 30.0 57.4 68.9 13.4 11.5 32.0 52.3 67.4 12.1 10.3 34.0 46.8 65.7 11.0 9.3 36.0 40.7 63.5 10.0 8.3 38.0 33.8 60.8 9.0 7.5 40.0 25.1 57.3 8.2 6.8 Angulo de pluma principal 65.0 [°] 38.2 55.0 65.3 40.0 50.3 64.0 5.5 4.8 42.0 44.7 62.1 4.8 4.2 44.0 38.3 59.8 4.2 3.6 46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7											
34.0 24.5 58.4 8.7 8.8 Ángulo de pluma principal 75.0 [°] 26.8 65.0 70.7 13.9 28.0 62.2 70.1 14.8 12.9 30.0 57.4 68.9 13.4 11.5 32.0 52.3 67.4 12.1 10.3 34.0 46.8 65.7 11.0 9.3 36.0 40.7 63.5 10.0 8.3 38.0 33.8 60.8 9.0 7.5 40.0 25.1 57.3 8.2 6.8 Ángulo de pluma principal 65.0 [°] 38.2 55.0 65.3 5.3 40.0 50.3 64.0 5.5 4.8 42.0 44.7 62.1 4.8 4.2 44.0 38.3 59.8 4.2 3.6 46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7											
26.8 65.0 70.7 14.8 13.9 28.0 62.2 70.1 14.8 12.9 30.0 57.4 68.9 13.4 11.5 32.0 52.3 67.4 12.1 10.3 34.0 46.8 65.7 11.0 9.3 36.0 40.7 63.5 10.0 8.3 38.0 33.8 60.8 9.0 7.5 40.0 25.1 57.3 8.2 6.8											
26.8 65.0 70.7 14.8 13.9 28.0 62.2 70.1 14.8 12.9 30.0 57.4 68.9 13.4 11.5 32.0 52.3 67.4 12.1 10.3 34.0 46.8 65.7 11.0 9.3 36.0 40.7 63.5 10.0 8.3 38.0 33.8 60.8 9.0 7.5 40.0 25.1 57.3 8.2 6.8				Ánaı	ılo de plı	ıma prin	cipal 75.0	1°10			
30.0 57.4 68.9 13.4 11.5 32.0 52.3 67.4 12.1 10.3 34.0 46.8 65.7 11.0 9.3 36.0 40.7 63.5 10.0 8.3 38.0 33.8 60.8 9.0 7.5 40.0 25.1 57.3 8.2 6.8	26.8	65.0	70.7	I							
32.0 52.3 67.4 12.1 10.3 34.0 46.8 65.7 11.0 9.3 36.0 40.7 63.5 10.0 8.3 38.0 33.8 60.8 9.0 7.5 40.0 25.1 57.3 8.2 6.8	28.0	62.2	70.1	14.8	12.9						
34.0					I						
36.0			-								
38.0 33.8 60.8 9.0 7.5 40.0 25.1 57.3 8.2 6.8					i						
40.0 25.1 57.3 8.2 6.8 Ángulo de pluma principal 65.0 [°] 38.2 55.0 65.3 5.3 40.0 50.3 64.0 5.5 4.8 4.2 44.0 38.3 59.8 4.2 3.6 46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7					1						
38.2 55.0 65.3 5.3 40.0 50.3 64.0 5.5 4.8 42.0 44.7 62.1 4.8 4.2 44.0 38.3 59.8 4.2 3.6 46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7											
38.2 55.0 65.3 5.3 40.0 50.3 64.0 5.5 4.8 42.0 44.7 62.1 4.8 4.2 44.0 38.3 59.8 4.2 3.6 46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7				Ánaı	ılo de plu	ıma prin	cipal 65.0	1°10			
40.0 50.3 64.0 5.5 4.8 42.0 44.7 62.1 4.8 4.2 44.0 38.3 59.8 4.2 3.6 46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7	38.2	55.0	65.3	l							
44.0 38.3 59.8 4.2 3.6 46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7	40.0	50.3		5.5	4.8						
46.0 30.9 56.9 3.7 3.1 48.0 21.0 52.7 3.2 2.7					i						
48.0 21.0 52.7 3.2 2.7											
49.0 15.7 49.6 2.9					2.1						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 54.0 Lastre central [t]: 0.0

	Inserciór		1	2	3	4	5	6	7	8
					_		_	_	-	_
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
44.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 50.5 m Plumín 19.0 [m] Posición midfall (1916)										
			Ángı	ılo de plı	ıma prin	cipal 88.	0[°]			
9.0 10.0 11.0 12.0 13.0 14.0 16.0 20.0 22.0	78.0 74.7 71.6 68.3 65.0 61.6 54.3 46.2 36.7 24.0	65.7 65.5 65.1 64.7 64.3 63.7 62.4 60.7 58.3 54.9	15.1 15.1 15.1 15.1 15.1 15.1 15.0 13.5 10.6 8.7 Ángu	30.1 30.1 28.2 25.6 21.6 18.8 14.7 12.0 9.8 8.3 Jo de plu 30.0 24.8	uma prin	cipal 83.	0[°]			
18.0 20.0 22.0 24.0 26.0	61.1 53.8 45.7 36.1 23.0	63.3 61.9 60.2 57.8 54.2	15.1 15.1 15.1 13.2 10.5 8.6	18.6 14.5 11.9 9.8 8.3						
			Ángu	ılo de plu	ıma prin	cipal 75.	0 [°]			
23.0 24.0 26.0 28.0 30.0	65.0 61.5 54.2 46.1 36.6	62.5 62.0 60.7 59.0 56.6	15.1 14.9 13.0 10.7	14.5 13.2 11.2 9.5 8.0						
32.0	23.8	53.1	8.9 Á	6.8		oin al CE	0.001		l	
33.1	55.0	58.0	Angı	110 de pil	uma prin	cipal 65.	o [·]	l	1	
34.0 36.0	51.4 42.9	57.3 55.4	6.3 5.2	4.9 3.9						
38.0 40.0	32.5 16.8	52.7 48.4	4.2 3.3	3.1 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

		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumín (1916-1) 53.5 m Plumín 22.0 [m] Posición midfall (1916)	ce	o de plumín	de rolda- nas								Carga [t]
9.6			44.0	Cabeza	de plumí	n (1916-	1) 53.5 r	n Plumín	dfall I		
10.0 76.9 68.6 15.1 30.1 11.1 74.2 68.3 15.1 27.8 12.0 71.4 67.9 15.1 23.7 13.0 68.6 67.6 15.1 20.5 14.0 65.8 67.1 15.1 17.8 16.0 59.8 66.0 14.6 14.0 18.0 53.5 64.7 12.0 11.3 20.0 46.5 62.9 9.9 9.3 22.0 38.5 60.7 8.0 7.7 24.0 28.6 57.6 6.6 6.6 6.6				Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
16.0	10.0 11.0 12.0 13.0	76.9 74.2 71.4 68.6	68.6 68.3 67.9 67.6	15.1 15.1 15.1 15.1	30.1 27.8 23.7 20.5						
Ángulo de pluma principal 83.0 [°] 15.3 73.0 67.7 24.0 16.0 71.1 67.5 15.1 23.3 18.0 65.4 66.7 15.1 17.4 20.0 59.5 65.6 14.3 13.8 22.0 53.1 64.2 11.3 11.1 24.0 46.1 62.4 9.3 9.2 26.0 38.0 60.1 7.5 7.7 28.0 28.0 57.0 6.4 6.6 Ángulo de pluma principal 75.0 [°] 24.2 65.0 65.2 13.2 26.0 59.8 64.3 14.7 11.5 28.0 53.4 62.9 12.3 9.8 30.0 46.4 61.2 9.9 8.4 32.0 38.4 58.9 8.0 7.2 34.0 28.5 55.8 6.8 6.2	16.0 18.0 20.0 22.0	59.8 53.5 46.5 38.5	66.0 64.7 62.9 60.7	14.6 12.0 9.9 8.0	14.0 11.3 9.3 7.7						
15.3	24.0	20.0	57.0			ıma prin	cinal 83 () [°]			
16.0 71.1 67.5 15.1 23.3 18.0 65.4 66.7 15.1 17.4 17.4 18.0 65.4 66.7 15.1 17.4 17.4 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0	15.3	73.0	67.7	Angu		лна рин Г	lipai 65.) 			
24.0	16.0 18.0 20.0	71.1 65.4 59.5	67.5 66.7 65.6	15.1 14.3	23.3 17.4 13.8						
24.2 65.0 65.2 13.2 26.0 59.8 64.3 14.7 11.5 28.0 53.4 62.9 12.3 9.8 30.0 46.4 61.2 9.9 8.4 32.0 38.4 58.9 8.0 7.2 34.0 28.5 55.8 6.8 6.2	24.0 26.0	46.1 38.0	62.4 60.1	9.3 7.5	9.2 7.7						
24.2 65.0 65.2 13.2 26.0 59.8 64.3 14.7 11.5 28.0 53.4 62.9 12.3 9.8 30.0 46.4 61.2 9.9 8.4 32.0 38.4 58.9 8.0 7.2 34.0 28.5 55.8 6.8 6.2				Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
	26.0 28.0 30.0 32.0	59.8 53.4 46.4 38.4	64.3 62.9 61.2 58.9	14.7 12.3 9.9 8.0	13.2 11.5 9.8 8.4 7.2	-		-			
				Ánaı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
34.8 55.0 60.4 4.6 36.0 50.9 59.5 5.1 4.0 38.0 43.6 57.6 4.2 3.2 40.0 35.1 55.1 3.4 2.5 42.0 25.4 51.5 2.6 43.0 17.9 48.8 2.2	36.0 38.0 40.0 42.0	50.9 43.6 35.1 25.4	59.5 57.6 55.1 51.5	5.1 4.2 3.4 2.6	4.6 4.0 3.2						



N° de ident.: 9842523/95738/

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

2 - Vía ancha

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

Valor de vuelco:	2 - Vía ancha
Lastre trasero [t]:	54.0
Lastre central [t]:	0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		44.	0 m Plum Cabeza 25.0	de plumí	n (1916-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.2 11.0 12.0 13.0 14.0	78.0 76.1 73.7 71.3 68.8	71.6 71.4 71.1 70.8 70.4	15.1 15.1 15.1 15.1 15.1	29.9 28.5 24.2 20.7 18.3						
16.0 18.0 20.0 22.0 24.0 26.0	63.8 58.5 52.8 46.7 39.8 31.7	69.5 68.3 66.9 65.1 63.0	14.0 12.2 10.0 8.5 7.2 6.3	14.5 12.1 10.1 8.7 7.5 6.5						
Ángulo de pluma principal 83.0 [°]										
16.2	73.0	70.6	15.1	21.2			J []			
18.0 20.0 22.0	68.6 63.5 58.2	70.0 69.0 67.9	15.1 14.4 12.7	17.9 14.3 11.9						
24.0 26.0 28.0 30.0	52.5 46.3 39.4 31.1	66.4 64.6 62.4 59.5	10.5 8.9 7.5 6.5	10.0 8.6 7.4 6.5						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
25.5 26.0	65.0 63.7	68.0 67.8	14.7 12.8	12.2						
28.0 30.0 32.0 34.0	58.4 52.8 46.6 39.7	66.6 65.2 63.4 61.2	10.5 8.9 7.6	10.1 8.7 7.5 6.5						
36.0	31.6	58.4	6.6	5.6	_					
L			Angı		ıma prin	cipal 65.0	[°]		ı	ı
36.5 38.0 40.0 42.0	55.0 50.6 44.2 37.0	62.9 61.8 59.9 57.5	4.2 3.5 2.7	3.9 3.4 2.7 2.1						
44.0	29.1	54.3	2.1							

Source:a9841388



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		44.0	0 m Plum Cabeza 31.0	de plumí	oal, Punt ín (1916- osición m	1) 62.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
11.4 12.0 13.0 14.0	78.0 76.9 75.0 73.1	77.5 77.3 77.1 76.8	15.1 15.1 15.1	25.0 25.0 22.1 19.6						
16.0 18.0 20.0 22.0	69.2 65.1 60.9 56.6	76.1 75.2 74.1 72.9	15.1 13.2 11.6 9.5	15.7 12.9 10.9 9.2						
24.0 26.0 28.0 30.0	52.0 47.0 41.6 35.5	71.4 69.6 67.5 65.0	7.9 6.7 5.8 5.1	7.8 6.8 5.9 5.1						
32.0	32.0 28.2 61.7 4.5 4.5									
17.9 18.0	73.0 72.9	76.4 76.4	15.1	17.8 17.8		 	J[]			
20.0 22.0 24.0 26.0	68.9 64.9 60.7 56.3	75.6 74.7 73.7 72.4	15.1 13.4 11.5 9.4	15.3 12.7 10.8 9.1						
28.0 30.0 32.0 34.0 36.0	51.7 46.7 41.3 35.1 27.7	70.9 69.1 67.0 64.4 61.1	7.9 6.8 5.8 5.1 4.5	7.8 6.8 5.9 5.2 4.6						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
28.0 30.0 32.0 34.0 36.0 38.0	65.0 60.9 56.5 51.9 46.9 41.5	73.4 72.4 71.1 69.7 67.9 65.8	11.1 9.6 8.0 6.9 5.9	10.3 9.0 7.8 6.8 5.9 5.1						
40.0 42.0	35.4 28.1	63.2 60.0	5.2 4.6	4.4 3.8						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
39.9 40.0 42.0	55.0 54.9 50.1	67.8 67.7 66.2	2.7	2.7 2.7 2.1						
44.0	45.4	64.4	2.0		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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 13.0	de plumí		1) 32.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
7.8 8.0 9.0 10.0 11.0 13.0 14.0 16.0	78.0 77.1 72.5 67.8 62.8 57.6 52.0 45.9 30.7	62.9 62.8 62.5 62.1 61.6 61.0 60.2 59.3 56.6	15.1 15.1 15.1 15.1 15.1 13.2 11.3 9.6 7.0 Ángu	30.1 30.1 25.7 19.0 14.9 12.2 10.3 8.8 6.8 ulo de plu 25.2 19.6 12.5	uma prind	cipal 83.0	o [°]			
18.0	46.8	59.0	9.8	9.0						
20.0	32.0	56.5	7.1 Ángi	Ilo de nli	ıma prin	rinal 75 (1 ° 1 C			
21.2 22.0 24.0 26.0	65.0 61.0 50.0 36.3	60.0 59.6 58.1 55.9	14.9 10.6 7.6	15.7 13.6 9.6 7.3	лпа рпп	oipai 73.	7 L J			
					ıma prin	cipal 65.0	D[°]			
30.9 32.0	55.0 48.5	55.8 54.9	8.9	8.2 7.5	•					
34.0 35.0	34.3 24.4	52.5 50.7	7.2 6.4	6.3 5.8						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 38.5 m Plumín 16.0 [m] Posición midfall (2316)										
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
7.5 8.0 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 76.3 72.6 68.7 64.8 60.7 56.4 51.8 41.5 28.1	38.8 38.7 38.4 38.0 37.5 37.0 36.3 35.6 33.6 30.6		30.1 30.1 30.1 28.9 24.4 21.1 17.9 15.5 12.3 10.2 Ilo de plu	uma prin	cipal 83.	0[°]			
10.7 11.0 12.0 13.0 14.0 16.0 18.0 20.0	73.0 71.8 67.9 63.9 59.8 50.8 40.3 26.3	38.2 38.1 37.7 37.2 36.6 35.2 33.1 30.0	15.1 15.1 15.1 15.1 15.1 15.0 12.5 10.6	30.1 30.1 27.2 23.7 20.2 15.1 12.0 10.0						
			Ángı	ılo de plı	ıma prin	cipal 75.0	D[°]			
15.5 16.0 18.0 20.0 22.0	65.0 63.2 54.6 44.8 32.7	36.6 36.4 35.1 33.4 30.8	15.1 14.8 12.8 10.2	17.6 16.6 13.1 10.4 8.2						
			Ángu	ılo de plu	ıma prin	cipal 65.0	0 [°]			
21.2 22.0 24.0 26.0 27.0	55.0 51.5 41.2 27.6 17.0	33.7 33.2 31.2 28.2 25.8	10.4 8.4 6.6 5.8	8.6 7.9 6.1 4.7 4.0						



Nº de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserción			2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 41.5 m Plumín 19.0 [m] Posición midfall (2316)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.2 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 75.4 72.2 69.0 65.7 62.3 58.8 51.2 42.7 32.2	41.8 41.6 41.2 40.8 40.4 39.9 39.3 37.8 35.8 33.1	15.1 15.1 15.1 15.1 15.1 15.1 14.7 13.9 11.1 8.8	30.1 30.1 30.1 29.3 24.5 21.0 18.3 14.3 11.5 9.4						
Ángulo de pluma principal 83.0 [°]										
11.6 12.0 13.0 14.0 16.0 18.0 20.0 22.0	73.0 71.6 68.3 65.0 58.0 50.4 41.7 31.0	41.1 40.9 40.5 40.1 38.9 37.4 35.4 32.6	15.1 15.1 15.1 15.1 14.7 13.9 10.9 8.8	29.7 28.0 24.5 21.7 17.3 14.0 11.3 9.3	·					
22.0	01.0	52.0			ıma prin	cipal 75.0	1°10			
16.8 18.0 20.0 22.0 24.0	65.0 60.9 53.6 45.4 35.7	39.3 38.7 37.4 35.6 33.2	15.1 14.6 12.1 10.0	15.5 13.6 10.9 8.8 7.2						
			Ángu	ılo de plu	ıma prin	cipal 65.0	0 [°]			
23.0 24.0 26.0 28.0 30.0	55.0 51.0 42.4 31.9 15.3	36.2 35.5 33.5 30.8 26.2	8.3 6.7 5.3 4.0	7.2 6.4 5.0 3.8 2.8						

Source:a9841388



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:

valor de vuelco.	Z - Via aliciia
Lastre trasero [t]:	0.0
Lastre central [t]:	52.6

	Inserciór	1	1	2	3	4	5	6	7	8		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]		
	20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 44.5 m Plumín 22.0 [m] Posición midfall (2316)											
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]					
8.8 9.0 10.0 11.0 12.0 13.0 14.0	78.0 77.4 74.7 72.0 69.2 66.4 63.5	44.7 44.7 44.4 44.1 43.7 43.2 42.7	15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 28.1 26.1 22.2 19.2								
16.0 18.0 20.0 22.0	57.4 50.8 43.5 34.9	41.5 40.0 38.1 35.6	14.4 13.7 11.0 8.7	15.2 12.4 10.2 8.4								
24.0	23.6	31.9	7.2	7.1								
			Angu	ılo de plu	ıma prin	cipal 83.0	D[°]					
12.4 13.0 14.0	73.0 71.4 68.6	43.9 43.8 43.4	15.1 15.1	27.0 25.2 22.3								
16.0 18.0 20.0 22.0 24.0 26.0	62.9 56.7 50.1 42.7 33.9 22.1	42.4 41.2 39.6 37.7 35.0 31.2	15.1 14.5 13.5 10.7 8.6 7.2	17.9 14.7 12.1 10.0 8.4 6.8								
20.0	22.1	31.2			ıma prin	rinal 75 (1 ° 1					
18.1 20.0 22.0 24.0 26.0 28.0	65.0 59.3 52.9 45.8 37.7 27.5	42.1 41.0 39.6 37.8 35.5 32.3	14.6 12.2 10.2 8.5 7.0	13.9 11.4 9.3 7.7 6.3 5.1	лпа рпп	ограг 7 3.1	~ []					
			Ángı		ıma prin	cipal 65.0	[°]					
24.7 26.0 28.0	55.0 50.6 43.3	38.6 37.7 35.8	6.8 5.5	6.2 5.3 4.2								
30.0 32.0 33.0	34.6 23.1 16.9	33.2 29.5 26.7	4.3 3.2 2.7	3.2 2.4								



N° de ident.: 9842523/95738/

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

360 ° Cabeza de pluma principal:

Pieza de articulación de pluma principal:

2821-1 2821-1

Valor de vuelco:	2 - Vía ancha
Lastre trasero [t]:	0.0
Lastre central [t]:	52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 25.0		n (2316-	1) 47.5 r	n Plumír			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.4 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 76.6 74.2 71.8 69.4 66.9 61.7 56.3 50.5	47.6 47.5 47.2 46.9 46.5 46.1 45.1 43.8 42.3	15.1 15.1 15.1 15.1 15.1 15.1 13.0 11.5	30.1 30.1 30.1 26.1 23.1 20.1 15.8 12.8 10.7						
22.0 24.0 26.0	36.8 27.8	40.4 37.9 34.7	9.3 7.6 6.4	7.5 6.4						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
13.3 14.0 16.0 18.0 20.0 22.0 24.0 26.0	73.0 71.3 66.4 61.2 55.7 49.9 43.4 36.0	46.8 46.6 45.8 44.7 43.4 41.9 39.9 37.4	15.1 15.1 15.0 12.9 11.3 9.2 7.5	24.4 22.5 18.2 14.9 12.4 10.3 8.6 7.2						
28.0	26.7	34.1	6.4 Ángu	6.0	ıma nrin	oinal 75 () [° 1			
19.4 20.0 22.0 24.0	65.0 63.3 58.0 52.3	44.8 44.5 43.3 41.9	15.0 14.3 11.9 10.0	12.2 11.5 9.4 7.8	лна рпп	ыраі 75.	7 []			
26.0 28.0 30.0	46.1 39.1 30.8	40.1 37.8 34.9	8.3 6.9 5.6	6.4 5.2 4.2			2.0.1			
26.4	55.0	44.4	Angı	ılo de plu	ıma prin	cipai 65.0	ן "ו		1	
26.4 28.0 30.0 32.0 34.0	55.0 50.3 43.9 36.5 28.6	41.1 39.9 38.0 35.6 32.3	5.3 4.1 3.1 2.2	5.1 4.2 3.2 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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		20.0	0 m Plum Cabeza 28.0	de plumí	pal, Punt n (2316- osición m	1) 50.5 r	n Plumín	dfall		
			Ánaı	ılo de plu	ıma prin	cipal 88.0	1°10			
10.0 11.0 12.0 13.0 14.0	78.0 76.0 73.8 71.7 69.5	50.6 50.3 50.0 49.7 49.3	15.1 15.1 15.1 15.1	30.1 30.1 29.0 25.8 23.2						
16.0 18.0 20.0 22.0	65.0 60.4 55.5 50.2	48.5 47.4 46.1 44.5	15.1 15.1 15.1 14.7	19.0 15.7 13.2 11.1						
24.0 26.0 28.0 30.0	44.6 38.2 30.7 20.7	42.6 40.3 37.3 33.1	12.6 10.8 9.2 7.8	9.4 8.0 6.8 5.7		-:	2.5.3			
440	70.0	10.7	Angu	110 de pil	ıma prin	cipai 83.0	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		1	
14.2 16.0 18.0 20.0 22.0	73.0 69.1 64.6 59.9 55.0	49.7 49.0 48.1 47.0 45.7	15.1 15.1 15.1 13.5	18.4 15.1 12.6 10.5						
24.0 26.0 28.0 30.0	49.7 43.9 37.5 29.8	44.1 42.2 39.8 36.7	11.5 9.8 8.3 7.0	8.8 7.4 6.2 5.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]C			
20.6 22.0 24.0	65.0 61.8 57.0	47.5 46.8 45.6	11.7 9.8	10.9 9.5 7.9						
26.0 28.0 30.0 32.0 34.0	51.9 46.3 40.2 33.1 24.1	44.1 42.3 40.1 37.4 33.7	8.2 6.8 5.6 4.5 3.6	6.5 5.3 4.3 3.5 2.7						
34.0	47.1	55.7			ıma prin	cinal 65 () [°]			
28.1 30.0 32.0 34.0	55.0 50.1 44.4 38.6	43.6 42.2 40.3 37.9	4.1 3.1 2.2	4.1 3.2 2.4	лпа рпп	ыраі 0 3 .	У L . J			



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]		
	20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 53.5 m Plumín 31.0 [m] Posición midfall (2316)											
			Ángu	ılo de plu	ıma prin	cipal 88.0	1°10					
10.7	78.0	53.5	15.1	30.1	<u>'</u>							
11.0 12.0 13.0 14.0	77.4 75.5 73.5 71.6	53.4 53.2 52.9 52.5	15.1 15.1 15.1 15.1	30.1 28.9 25.8 23.2								
16.0	67.6	51.8	15.1	19.0								
18.0 20.0 22.0 24.0	63.5 59.3 54.8 50.0	50.8 49.7 48.3 46.7	15.1 14.4 13.2 12.2	15.8 13.3 11.2 9.5								
26.0	44.9	44.9	10.4	8.1								
28.0 30.0 32.0	39.3 32.8 24.8	42.6 39.8 36.1	8.9 7.7 6.5	6.9 5.8 4.9								
32.0	24.0	30.1			ıma prin	oinal 92 () [°]					
45.4	70.0	50.5			ıma prin	Jipai os.i	J []					
15.1 16.0	73.0 71.2	52.5 52.2	15.1 15.1	20.1 18.3								
18.0	67.2	51.4	15.1	15.1								
20.0	63.1	50.5	15.1	12.6								
22.0	58.8	49.3	13.2	10.5								
24.0	54.3	48.0	11.2	8.9								
26.0	49.5	46.3	9.5	7.5								
28.0 30.0	44.4 38.6	44.4 42.1	8.1 6.8	6.3 5.2								
32.0	32.0	39.2	5.7	4.3								
34.0	23.8	35.4	4.7	3.5								
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]					
21.9	65.0	50.2		9.5								
22.0	64.8	50.2	11.4	9.4								
24.0	60.6	49.1	9.5	7.8								
26.0	56.2	47.9	7.9	6.4								
28.0	51.5	46.3 44.6	6.6 5.4	5.3 4.3								
30.0 32.0	46.5 41.1	44.6 42.4	5.4 4.4	3.4								
34.0	34.9	39.8	3.4	2.7								
36.0	28.3	36.4	2.6									
	-	-	Ángu	ılo de plu	ıma prin	cipal 65.0	D[°]	-	· · · · ·			
29.8	55.0	46.0		3.2								
30.0	54.7	46.0	3.8	3.1								
32.0	49.9	44.4	2.8	2.3								
34.0	45.2	42.5	2.0									

Source:a9841388



360°

Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 56.5 m Plumín 22.0 [m] Posición midfall (2316)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.8 9.0 10.0 11.0	78.0 77.4 74.7 72.0	44.7 44.7 44.4 44.1	15.1 15.1 15.1 15.1	30.1 30.1 30.0 25.6						
12.0 13.0 14.0 16.0	69.2 66.4 63.5 57.4	43.7 43.2 42.7 41.5	15.1 15.1 15.1 14.1	22.0 19.1 16.7 12.9						
18.0 20.0 22.0 24.0	50.8 43.5 34.9 23.6	40.0 38.1 35.6 31.9	12.8 10.4 8.3 6.9	10.1 7.9 6.1 4.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	1°10			
12.4 13.0 14.0	73.0 71.4 68.6	43.9 43.8 43.4	15.1 15.1	21.4 19.7 17.1	·	•				
16.0 18.0 20.0 22.0 24.0	62.9 56.7 50.1 42.7 33.9	42.4 41.2 39.6 37.7 35.0	15.1 15.0 12.1 9.4 7.2	13.0 10.0 7.7 5.9 4.4						
26.0	22.1	31.2	5.2	3.1						
			Ángu	ılo de plu	ıma prin	cipal 7 <u>5</u> .0	[°]			
18.1 20.0 22.0 24.0 26.0	65.0 59.3 52.9 45.8 37.7	42.1 41.0 39.6 37.8 35.5	10.7 8.2 6.1 4.2	9.8 7.4 5.5 4.0 2.7						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
24.7 26.0 27.0	55.0 50.6 47.6	38.6 37.7 36.8	3.1 2.3	2.9 2.1						



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]: 0.0

41.1

2.7 2.3

26.5

27.0

55.0

53.7

Lastre o	entral [t]:		52.6							
Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]								
	20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 59.5 m Plumín										

20.0 m Pluma principal, Punto de carga 3 - Midfall
Cabeza de plumín (2316-1) 59.5 m Plumín
25.0 [m] Posición midfall (2316)

			Ángu	ılo de plu	ıma prin	cipal 88.	0 [°]		
9.4	78.0	47.6		30.1					
10.0	76.6	47.5	15.1	30.1					
11.0	74.2	47.2	15.1	26.3					
12.0	71.8	46.9	15.1	22.8					
13.0	69.4	46.5	15.1	19.9					
14.0	66.9	46.1	15.1	17.4					
16.0	61.7	45.1	15.1	13.6					
18.0	56.3	43.8	13.5	10.7					
20.0	50.5	42.3	12.1	8.4					
22.0	44.1	40.4	10.0	6.6					
24.0	36.8	37.9	8.1	5.1					
26.0	27.8	34.7	6.3	3.9					
			Ángı	ılo de plu	ıma prin	cipal 83.	0 [°]		
13.3	73.0	46.8		19.3					
14.0	71.3	46.6	15.1	17.6					
16.0	66.4	45.8	15.1	13.5					
18.0	61.2	44.7	15.1	10.5					
20.0	55.7	43.4	12.1	8.2					
22.0	49.9	41.9	9.6	6.3					
24.0	43.4	39.9	7.4	4.8					
26.0	36.0	37.4	5.5	3.5					
28.0	26.7	34.1	3.9	2.4					
			Ángu	ılo de plu	ıma prin	cipal 75.	0 [°]		
19.4	65.0	44.8	11.4	8.4					
20.0	63.3	44.5	10.6	7.7					
22.0	58.0	43.3	8.2	5.8					
24.0	52.3	41.9	6.1	4.2					
26.0	46.1	40.1	4.4	2.9					
28.0	39.8	37.8	2.9						

Ángulo de pluma principal 65.0 [°]



2821-1 2821-1

Nº de ident.: 9842523/95738/

Radio de descarga:

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 0.0

Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
	20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 62.5 m Plumín 28.0 [m] Posición midfall (2316)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]				
10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 76.0 73.8 71.7 69.5 65.0 60.4 55.5 50.2 44.6 38.2 30.7 20.7	50.6 50.3 50.0 49.7 49.3 48.5 47.4 46.1 44.5 42.6 40.3 37.3 33.1	15.1 15.1 15.1 15.1 15.1 15.1 14.5 11.6 9.4 7.8 6.4 5.0 3.5	30.1 26.9 23.3 20.4 18.0 14.1 11.2 8.9 7.0 5.5 4.2 3.2 2.2							
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]				
14.2 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 69.1 64.6 59.9 55.0 49.7 43.9 37.5 30.7	49.7 49.0 48.1 47.0 45.7 44.1 42.2 39.8 36.7	15.1 15.1 12.2 9.7 7.6 5.8 4.2 2.9	17.5 13.9 10.9 8.5 6.6 5.1 3.8 2.8							
Ángulo de pluma principal 75.0 [°]									-		
20.6 22.0 24.0 26.0 28.0 29.0	65.0 61.8 57.0 51.9 46.3 43.9	47.5 46.8 45.6 44.1 42.3 41.3	8.2 6.2 4.5 3.1 2.4	7.2 6.0 4.4 3.2 2.1							



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 65.5 m Plumín 31.0 [m] Posición midfall (2316)									
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.7 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.4 75.5 73.5 71.6 67.6 63.5 59.3 54.8 50.0	53.5 53.4 53.2 52.9 52.5 51.8 50.8 49.7 48.3 46.7	15.1 15.1 15.1 15.1 15.1 15.1 15.1 15.1	28.4 27.1 23.6 20.7 18.3 14.4 11.5 9.1 7.3						
26.0 28.0	44.9 39.3	44.9 42.6	6.6 5.0	4.5 3.4						
30.0	32.8	39.8	3.7 Ápgu	2.4 Ilo de plu	ıma prin	cinal 83 () [°]			
15.1	73.0	52.5	15.1	15.8	лна рин		<u> </u>			
16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	71.2 67.2 63.1 58.8 54.3 49.5 44.4 39.2	52.2 51.4 50.5 49.3 48.0 46.3 44.4 42.1	15.1 15.0 12.0 9.5 7.5 5.7 4.2 2.9	14.0 11.0 8.7 6.8 5.3 4.0 2.9						
00.0	00.2			ılo de plu	ıma prin	cipal 75.0	1°10			
21.9 22.0 24.0 26.0 28.0 29.0	65.0 64.8 60.6 56.2 51.5 49.4	50.2 50.2 49.1 47.9 46.3 45.5	8.0 6.1 4.4 3.0 2.4	6.0 6.0 4.5 3.2 2.1		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,]			



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal: 2821-1

Cabeza de pluma principal:

2821-1

	Inserciór	1	1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
	20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 68.5 m Plumín 34.0 [m] Posición midfall (2316)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]				
11.3 12.0 13.0 14.0 16.0 18.0 20.0	78.0 76.8 75.0 73.3 69.7 66.0 62.2	56.4 56.3 56.0 55.7 55.0 54.1 53.1	15.1 15.1 15.1 15.1 15.1 15.0 13.1	26.2 23.8 21.0 18.6 14.7 11.7 9.4							
22.0 24.0 26.0 28.0 30.0 32.0	58.3 54.2 49.9 45.2 40.1 35.0	52.0 50.6 49.0 47.1 44.9 42.2	10.6 8.5 6.7 5.2 3.9 2.7	7.6 6.0 4.7 3.6 2.6							
02.0	00.0	72.2		ılo de plu	ıma prin	cipal 83.0	[°]C				
15.9 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 72.9 69.3 65.6 61.9 57.9 53.8 49.4 44.7	55.4 55.4 54.7 53.8 52.8 51.6 50.2 48.6 46.7	15.1 14.9 11.9 9.6 7.5 5.8 4.4 3.1	14.3 14.2 11.1 8.8 7.0 5.5 4.2 3.1 2.1							
	Ángulo de pluma principal 75.0 [°]										
23.2 24.0 26.0 28.0	65.0 63.4 59.5 55.5	52.9 52.6 51.4 50.1	6.7 6.1 4.5 3.1	5.1 4.5 3.3 2.3							
29.0	53.7	49.4	2.5								



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	-		0 m Plum Cabeza 37.0	de plumí		1) 71.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
11.9 12.0 13.0 14.0 16.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 77.9 76.3 74.7 71.4 68.1 64.7 61.2 57.5 53.7 49.7 45.5 41.3	59.4 59.4 59.1 58.8 58.2 57.4 56.5 55.5 54.2 52.8 51.2 49.3 47.2	15.1 15.1 15.1 15.1 14.7 12.9 10.4 8.4 6.6 5.1 3.8 2.6	24.1 23.8 21.0 18.6 14.7 11.7 9.3 7.5 6.0 4.8 3.6 2.7						
32.0	41.3	47.2	-	ılo de nlı	ıma prin	rinal 83 () [°]			
16.8 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 71.1 67.7 64.3 60.8 57.2 53.3 49.3	58.3 57.9 57.1 56.2 55.1 53.9 52.4 50.8	14.5 11.7 9.3 7.4 5.7 4.2	12.7 11.0 8.7 6.8 5.4 4.2 3.1	ина рин	ыраг од. .	V 1			
					ıma prin	cipal 75.0	1°10			
24.4 26.0 28.0 29.0	65.0 62.3 58.7 57.0	55.7 54.9 53.7 53.1	4.2 2.9 2.3	4.1 3.2 2.2	p-1111	. ,,	- , ,			



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 16.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
7.7 8.0 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 76.7 73.0 69.1 65.2 61.1 56.8 52.3 42.1 29.0 73.0 69.4 65.4 61.3 52.5	41.8 41.7 41.4 41.1 40.6 40.0 39.4 38.6 36.7 33.8 41.2 40.8 40.4 39.8 38.4	15.1 15.1 15.1 15.1	30.1 26.8 23.3 20.5 15.7	uma prind	cipal 83.)[°]			
18.0 20.0	42.4 29.4	36.5 33.7	12.8 10.8	12.3 10.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
16.3 18.0 20.0 22.0	65.0 58.0 48.8 37.9	39.5 38.6 37.0 34.8	15.1 13.9 11.4	15.6 12.8 10.1 8.0						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
22.5 24.0 26.0 28.0	55.0 48.0 36.8 20.4	36.5 35.3 33.0 29.3	7.6 5.9 4.5	7.0 5.7 4.3 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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumí		1) 41.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.3 9.0 10.0 11.0 12.0 13.0 14.0	78.0 75.7 72.6 69.4 66.1 62.7 59.1	44.8 44.6 44.3 43.9 43.4 42.9 42.3	15.1 15.1 15.1 15.1 15.1 15.1 14.8	30.1 30.1 30.1 29.9 25.0 21.5 18.8						
16.0 18.0 20.0	51.6 43.2 32.9	40.9 39.0 36.3	14.1 11.5 9.1	14.6 11.8 9.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C			
11.9 12.0 13.0 14.0 16.0 18.0 20.0 22.0	73.0 72.8 69.5 66.2 59.3 51.9 43.4 33.2	44.0 44.0 43.7 43.2 42.1 40.7 38.8 36.2	15.1 15.1 15.1 15.1 15.1 12.6 10.5	27.7 27.4 24.0 21.2 16.9 13.7 11.2 9.2						
			Ánaı	ılo de plu	ıma prin	cipal 75.0	1°10			
17.6 18.0 20.0 22.0 24.0 26.0	65.0 63.6 56.5 48.7 39.7 28.3	42.2 42.1 40.9 39.3 37.1 34.1	15.1 13.8 11.4 9.4 7.6	13.7 13.1 10.5 8.5 6.8 5.4						
			Ángı	ılo de plu	ıma prin	cipal 65.0	D[°]			
24.2 26.0 28.0 30.0 31.0	55.0 48.0 38.9 27.1 21.0	38.9 37.5 35.3 32.2 29.8	5.9 4.5 3.3 2.8	5.7 4.5 3.4 2.4						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0) m Plum Cabeza 22.0	de plumí	oal, Punt ín (2316- osición m	1) 44.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
8.9 9.0 10.0 11.0 12.0 13.0 14.0	78.0 77.7 75.0 72.3 69.5 66.7 63.8	47.7 47.7 47.4 47.1 46.7 46.3 45.8	15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 28.4 26.7 22.7 19.6						
16.0 18.0 20.0 22.0	57.7 51.2 43.9 35.4	44.6 43.1 41.2 38.7	14.6 13.9 11.3 9.0	15.5 12.7 10.4 8.7						
24.0	24.3	35.2	7.4	7.3						
			Angı		ıma prin	cipal 83.	D[°]			
12.8 13.0 14.0	73.0 72.5 69.7	46.9 46.9 46.5	15.1 15.1	25.2 24.6 21.8						
16.0 18.0 20.0 22.0 24.0	63.9 57.9 51.4 44.1 35.7	45.6 44.4 42.9 41.0 38.6	15.1 13.9 12.4 10.1 8.2	17.5 14.3 11.8 9.8 8.1						
26.0	24.7	35.1	7.0	6.7						
			Angı	<u>.</u>	ıma prin	cipal 75.	[°]			
18.9 20.0 22.0 24.0 26.0	65.0 61.6 55.4 48.6 41.0	45.0 44.4 43.1 41.5 39.4	13.8 11.5 9.5 7.9	12.3 10.9 8.9 7.3 5.9						
28.0	31.8	36.6	6.4	4.8						
			Ángı		ıma prin	cipal 65.	[°]			
26.0 28.0 30.0	55.0 48.0 40.3	41.4 39.8 37.6	4.7 3.6	4.8 3.7 2.7						
32.0 33.0	32.0 26.5	34.8 32.9	2.6 2.1							



Nº de ident.: 9842523/95738/

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

738/ Pieza de articulación de pluma principal: 660 ° Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	0 m Plun Cabeza 25.0	na princip de plumí 0 [m] Po	n (2316-	1) 47.5 r	n Plumín	dfall 1		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.5 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 76.9 74.5 72.1 69.6 67.2 62.0 56.6 50.8 44.4	50.6 50.5 50.2 49.9 49.5 49.1 48.1 46.9 45.4 43.5	15.1 15.1 15.1 15.1 15.1 15.1 12.5 10.4 8.7	30.1 30.1 30.1 26.5 23.5 20.5 16.1 13.1 10.9 9.1						
24.0	37.2	41.1 37.9	7.2 6.1	7.7 6.6						
26.0	28.3	37.9		ılo de plu	ıma prin	cinal 83 () [°]			
13.7	73.0	49.8	15.1	22.8	лна рин		J []			
14.0 16.0	72.2 67.3	49.7 48.9	15.1 15.1	22.0 17.7						
18.0 20.0 22.0 24.0 26.0 28.0	62.2 56.8 51.0 44.6 37.4 28.6	47.9 46.7 45.2 43.3 40.9 37.8	15.1 12.6 10.5 8.8 7.3 6.3	14.5 12.0 10.0 8.4 7.0 5.8						
20.0	20.0	07.0		ılo de plu	ıma prin	cipal 75 (1°10			
20.1 22.0 24.0 26.0 28.0 30.0	65.0 60.1 54.6 48.6 42.0 34.2	47.7 46.7 45.4 43.7 41.7 39.1	11.2 9.3 7.7 6.3 5.1	10.8 9.0 7.3 6.0 4.9 3.9		- F 3]			
32.0	24.4	35.4	4.0	3.0		-in al 05 (0.001	l		
27.7	EE 0	42.0	Angı	ılo de plu	ıma prini	cipai 65.0	ן "ו	I	I	
27.7 28.0 30.0 32.0	55.0 54.1 48.0 42.0	43.8 43.7 42.0 39.9	4.5 3.4 2.5	3.8 3.6 2.7						
33.0	38.3	38.7	2.0							



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	0 m Plum Cabeza 28.0	de plumí	oal, Punt n (2316- osición m	1) 50.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.1 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0	78.0 76.2 74.1 71.9 69.7 65.3 60.6 55.7 50.5 44.9 38.5 31.1	53.6 53.4 53.1 52.7 52.4 51.5 50.4 49.1 47.6 45.7 43.4 40.5	15.1 15.1 15.1 15.1 15.1 15.1 15.1 14.4 12.3 10.5 9.0	30.1 30.1 28.3 25.3 22.7 18.6 15.4 12.9 10.9 9.2 7.8 6.6						
30.0	21.3	36.4	7.6	5.6						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
14.6 16.0 18.0 20.0 22.0 24.0	73.0 69.9 65.4 60.8 55.9 50.7	52.7 52.2 51.3 50.2 48.9 47.4	15.1 15.1 15.1 15.1 13.0 11.0	20.8 17.9 14.7 12.2 10.2 8.5						
26.0 28.0 30.0 32.0	45.0 38.7 31.3 21.6	45.5 43.2 40.3 36.3	9.3 7.9 6.6 5.5	7.2 6.0 5.0 4.1						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]0			
21.4 22.0 24.0 26.0 28.0 30.0 32.0 34.0	65.0 63.6 58.9 53.9 48.5 42.7 36.0 27.9	50.4 50.1 49.0 47.6 46.0 43.9 41.4 38.2	10.9 9.1 7.6 6.2 5.1 4.0 3.1	9.5 9.0 7.4 6.1 4.9 4.0 3.1 2.4						
			Ángu	ılo de plu	ıma prin	cipal 65.0	D[°]			
29.4 30.0 32.0	55.0 53.5 48.5	46.3 45.9 44.2	3.3 2.4	2.9 2.7		-				



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	0 m Plun Cabeza 31.0	de plumi	oal, Punt ín (2316- osición m	1) 53.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
10.8 11.0 12.0 13.0 14.0	78.0 77.6 75.7 73.7 71.8	56.5 56.5 56.2 55.9 55.6	15.1 15.1 15.1 15.1 15.1	30.1 30.1 28.3 25.3 22.7						
16.0 18.0 20.0 22.0 24.0	67.8 63.7 59.5 55.0 50.3	54.8 53.9 52.7 51.4 49.8	15.1 15.1 14.5 13.3 12.0	18.6 15.5 13.0 11.0 9.3						
26.0 28.0 30.0 32.0	45.2 39.6 33.1 25.2	48.0 45.7 42.9 39.3	10.3 8.8 7.5 6.3	7.9 6.7 5.7 4.7						
			Ángı	ılo de plı	ıma prin	cipal 83.0	[°]			
15.4 16.0 18.0 20.0 22.0 24.0	73.0 71.9 67.9 63.8 59.6 55.2	55.5 55.4 54.6 53.6 52.5 51.2	15.1 15.1 15.0 12.7 10.8	18.8 17.8 14.6 12.2 10.2 8.5						
26.0 28.0 30.0 32.0 34.0	50.4 45.4 39.7 33.3 25.5	49.6 47.8 45.5 42.8 39.2	9.1 7.7 6.4 5.3 4.4	7.2 6.0 5.0 4.1 3.3						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
22.7 24.0 26.0 28.0 30.0 32.0	65.0 62.2 57.9 53.4 48.5 43.2	53.1 52.5 51.3 49.9 48.2 46.2	8.8 7.3 6.0 4.8 3.8	8.3 7.3 6.0 4.8 3.9 3.0	-		-			
34.0	37.4	43.8	3.0 Ápgi	ılo de nlı	ıma prin	cinal 65 () [°]			
31.1 32.0	55.0 53.3	48.7 48.2	2.1	2.0	лна рин	oipai 05.	, i			



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0		n (2316-	1) 56.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.9 9.0 10.0 11.0 12.0	78.0 77.7 75.0 72.3 69.5	47.7 47.7 47.4 47.1 46.7	15.1 15.1 15.1 15.1 15.1	30.1 30.1 29.4 25.1 21.6	·					
13.0 14.0 16.0 18.0 20.0	66.7 63.8 57.7 51.2 43.9 35.4	46.3 45.8 44.6 43.1 41.2 38.7	15.1 15.1 14.9 14.7 12.1 9.6	18.8 16.4 12.7 9.9 7.7 5.9						
24.0 24.0	24.3	35.2	7.6	5.9 4.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
12.8 13.0 14.0 16.0 18.0	73.0 72.5 69.7 63.9 57.9	46.9 46.9 46.5 45.6 44.4	15.1 15.1 15.1 14.8	20.0 19.4 16.8 12.7 9.8						
20.0 22.0 24.0 26.0	51.4 44.1 35.7 24.7	42.9 41.0 38.6 35.1	11.6 9.0 6.8 4.9	7.5 5.7 4.2 3.0						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
18.9 20.0 22.0 24.0 26.0	65.0 61.6 55.4 48.6 41.0	45.0 44.4 43.1 41.5 39.4	10.0 7.6 5.5 3.8	8.4 7.1 5.2 3.7 2.4						
26.1	55.0	41.4	Ángı 2.4	ılo de plu	ıma prin	cipal 65.0	[°]			



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

Pieza de articulación de pluma principal:

2821-1 2821-1 Cabeza de pluma principal:

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 25.0	de plumí	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.5	78.0	50.6		30.1						
10.0	76.9	50.5	15.1	30.1						
11.0	74.5	50.2	15.1	25.8						
12.0	72.1	49.9	15.1	22.3						
13.0	69.6	49.5	15.1	19.5						
14.0	67.2	49.1	15.1	17.1						
16.0	62.0	48.1	15.1	13.3						
18.0	56.6	46.9	13.7	10.5						
20.0	50.8	45.4	12.3	8.2						
22.0	44.4	43.5	10.1	6.4						
24.0	37.2	41.1	7.9	5.0						
26.0	28.3	37.9	6.1	3.7						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0 [°]			
13.7	73.0	49.8	15.1	18.0						
14.0	72.2	49.7	15.1	17.2						
16.0	67.3	48.9	15.1	13.2						
18.0	62.2	47.9	14.7	10.2						
20.0	56.8	46.7	11.6	7.9						
22.0	51.0	45.2	9.1	6.1						
24.0	44.6	43.3	7.0	4.6						
26.0	37.4	40.9	5.2	3.3						
28.0	28.6	37.8	3.6	2.3						
			Ángι	ılo de plu	ıma prin	cipal 75.0	[°]			
20.1	65.0	47.7		7.2						
22.0	60.1	46.7	7.5	5.4						
24.0	54.6	45.4	5.6	3.9						
26.0	48.6	43.7	3.9	2.6						
28.0	42.6	41.7	2.4							



Nº de ident.: 9842523/95738/

Radio de descarga: 360° Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

Valor de vuelco:

2 - Vía ancha

Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	0 m Plum Cabeza 28.0	de plumí	oal, Punt n (2316- osición m	1) 62.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
10.1 11.0 12.0 13.0 14.0	78.0 76.2 74.1 71.9 69.7	53.6 53.4 53.1 52.7 52.4	15.1 15.1 15.1 15.1	29.9 26.3 22.8 20.0 17.6						
16.0 18.0 20.0 22.0 24.0	65.3 60.6 55.7 50.5 44.9	51.5 50.4 49.1 47.6 45.7	15.1 14.7 11.8 9.7 8.1	13.8 10.9 8.7 6.9 5.4						
26.0 28.0 30.0	38.5 31.1 21.3	43.4 40.5 36.4	6.3 4.7 3.4	4.1 3.0 2.1						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0 [°]			
14.6 16.0	73.0 69.9	52.7 52.2	15.1 15.1	16.3 13.5						
18.0 20.0 22.0 24.0 26.0	65.4 60.8 55.9 50.7 45.0	51.3 50.2 48.9 47.4 45.5	14.6 11.6 9.2 7.1 5.4	10.5 8.2 6.4 4.9 3.6						
28.0	38.7	43.2	3.9	2.6						
			Ángı		ıma prin	cipal 75.0	0[°]			
21.4 22.0 24.0 26.0 28.0	65.0 63.6 58.9 53.9 49.0	50.4 50.1 49.0 47.6 46.0	7.5 5.6 4.0 2.6	6.1 5.6 4.1 2.8						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

2 - Vía ancha Valor de vuelco:

Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 31.0	de plumi		·1) 65.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.	0 [°]			
10.8 11.0 12.0 13.0 14.0	78.0 77.6 75.7 73.7 71.8	56.5 56.5 56.2 55.9 55.6	15.1 15.1 15.1 15.1	27.4 26.5 23.1 20.2 17.9						
16.0 18.0 20.0 22.0 24.0	67.8 63.7 59.5 55.0 50.3	54.8 53.9 52.7 51.4 49.8	15.1 15.1 12.7 10.2 8.1	14.1 11.2 8.9 7.1 5.6						
26.0 28.0 30.0	45.2 39.6 33.1	48.0 45.7 42.9	6.4 4.8 3.5	4.3 3.2 2.3						
			Ángu	ılo de plu	ıma prin	cipal 83.	0 [°]			
15.4 16.0 18.0	73.0 71.9 67.9	55.5 55.4 54.6	15.1 14.3	14.6 13.6 10.6						
20.0 22.0 24.0 26.0	63.8 59.6 55.2 50.4	53.6 52.5 51.2 49.6	11.4 9.1 7.1 5.4	8.3 6.5 5.0 3.8						
28.0 30.0	45.4 40.3	47.8 45.5	3.9 2.6	2.7						
			Ángı	ılo de plı	ıma prin	cipal 75.	0 [°]			
22.7 24.0 26.0	65.0 62.2 57.9	53.1 52.5 51.3	5.4 3.8	5.0 4.1 2.8						
28.0	53.7	49.9	2.5							



360°

Cargas pluma principal + plumín abatible + midfall

N° de ident.: 9842523/95738/

Radio de descarga:

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	-	23.0	0 m Plum Cabeza 34.0	de plumí	oal, Punt ín (2316- osición m	1) 68.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]C			
11.4 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 76.9 75.2 73.4 69.9 66.2 62.5 58.5 54.4 50.1 45.5 40.4	59.4 59.3 59.0 58.7 58.0 57.2 56.2 55.0 53.7 52.1 50.2 48.0	15.1 15.1 15.1 15.1 15.1 15.1 12.7 10.3 8.2 6.5 5.0 3.7	25.3 23.3 20.5 18.1 14.4 11.4 9.1 7.4 5.8 4.5 3.4 2.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C			
16.3 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 70.0 66.3 62.6 58.6 54.6 50.2 46.0	58.4 57.8 57.0 56.0 54.8 53.5 51.9 50.0	14.2 11.4 9.1 7.1 5.5 4.0 2.8	13.3 10.8 8.4 6.7 5.2 3.9 2.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
23.9 24.0 26.0 28.0	65.0 64.9 61.1 57.3	55.8 55.8 54.8 53.6	5.4 3.9 2.6	4.1 4.1 2.9	·	•				

Source:a9841388



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

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

Valor de vuelco:

2 - Vía ancha

0.0

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	23.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 71.5 m Plumín 37.0 [m] Posición midfall (2316)									
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 76.4 74.8 71.6 68.3 64.9 61.4 57.7 53.9 50.0 45.7	62.4 62.1 61.9 61.2 60.5 59.6 58.5 57.3 55.9 54.3	15.1 15.1 15.1 14.7 12.5 10.1 8.1 6.4 4.9 3.6	23.2 20.5 18.2 14.4 11.4 9.1 7.3 5.9 4.6 3.5 2.5						
				ılo de plu	ıma prin	cipal 83.0	0[°]			
17.2 18.0 20.0 22.0 24.0 26.0	73.0 71.7 68.4 65.0 61.5 57.8	61.3 61.0 60.2 59.3 58.3 57.1	15.0 13.8 11.1 8.8 6.9 5.3	11.7 10.6 8.3 6.5 5.1 3.9						
28.0 30.0	54.1 50.4	55.7 54.1	3.9 2.7	2.8						
	Ángulo de pluma principal 75.0 [°]									
25.2 26.0	65.0 63.6	58.6 58.2	3.6	3.1 2.7						
28.0	60.3	56.2 57.1	2.4	2.1						



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]: 0.0 Lastre central [t]: 52.6

Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
	26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 38.5 m Plumín 16.0 [m] Posición midfall (2316)										
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]				
7.8 8.0 9.0 10.0 11.0	78.0 77.1 73.4 69.5 65.6	44.8 44.8 44.5 44.1 43.6 43.1	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 30.1 25.0							
13.0 14.0 16.0 18.0	57.3 52.8 42.7 29.8	42.5 41.7 39.8 37.0	15.1 15.1 12.7 10.3	18.2 15.7 12.4 10.2							
<u> </u>			Angı		ıma prin	cipal 83.0	D[°]				
11.4 12.0 13.0 14.0 16.0 18.0 20.0	73.0 70.8 66.9 62.8 54.2 44.4 32.2	44.2 44.0 43.5 43.0 41.7 39.9 37.3	15.1 15.1 15.1 15.1 13.2 11.1	28.7 26.3 22.9 20.1 15.8 12.6 10.2							
			Ángu	ılo de plu	uma prin	cipal 75.0	[°]C				
17.1 18.0 20.0 22.0 24.0	65.0 61.3 52.5 42.4 29.4	42.4 42.0 40.6 38.7 35.8	15.1 13.1 10.7 8.6	13.8 12.3 9.7 7.7 6.0							
	Ángulo de pluma principal 65.0 [°]										
23.8 24.0 26.0 28.0 29.0	55.0 54.0 44.2 31.8 23.3	39.2 39.1 37.3 34.6 32.7	6.7 5.1 3.7 3.1	5.4 5.2 3.8 2.7 2.2							



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

	Inserción			2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
	26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 41.5 m Plumín 19.0 [m] Posición midfall (2316)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]				
8.4 9.0 10.0 11.0 12.0	78.0 76.1 72.9 69.7 66.4 63.0	47.8 47.6 47.3 46.9 46.5 46.0	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 30.1 25.5 21.9							
14.0 16.0 18.0 20.0	59.5 52.1 43.6 33.5	45.4 44.0 42.1 39.5	15.1 15.1 12.5 9.9	19.1 14.9 12.0 9.8							
			Angı		ıma prin	cipal 83.0	D[°]				
12.3 13.0 14.0 16.0 18.0 20.0 22.0	73.0 70.7 67.5 60.6 53.3 45.1 35.3	47.0 46.8 46.4 45.3 44.0 42.1 39.7	15.1 15.1 15.1 15.1 12.8 10.3	25.8 23.5 20.8 16.5 13.3 10.9 8.9							
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]				
18.4 20.0 22.0 24.0 26.0	65.0 59.3 51.9 43.4 33.2	45.1 44.3 42.8 40.9 38.3	12.9 10.6 8.7 7.0	12.1 10.0 8.0 6.4 5.1							
			Ángı	ılo de plu	ıma prin	cipal 65.0	D[°]				
25.5 26.0 28.0 30.0	55.0 53.1 44.8 36.1	41.6 41.3 39.5 37.0	5.0 3.7 2.6	4.2 3.9 2.9							
31.0	30.3	35.4	2.1								



360°

Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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

	Inserción			2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]								
	26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 44.5 m Plumín 22.0 [m] Posición midfall (2316)										
	Ángulo de pluma principal 88.0 [°]										
9.0	78.0	50.7	15.1	30.1	i .	·					
10.0	75.3	50.4	15.1	30.1							
11.0	72.6	50.1	15.1	28.7	İ				İ		
12.0	69.8	49.8	15.1	26.8							
13.0	67.0	49.3	15.1	23.1							
14.0	64.1	48.8	15.1	20.0							
16.0	58.0	47.7	14.6	15.8							
18.0	51.5	46.2	14.0	12.8							
20.0	44.3	44.3	11.5	10.6							
22.0	35.9	41.9	9.1	8.8							
24.0	25.0	38.4	7.6	7.4							
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]				
13.2	73.0	49.9	15.1	23.5							
14.0	70.7	49.6	15.1	21.3							
16.0	65.0	48.7	15.1	17.1							
18.0	59.0	47.6	14.6	13.9							
20.0	52.6	46.2	13.6	11.5							
22.0	45.5	44.4	11.3	9.5							
24.0	37.3	42.0	9.1	7.9							
26.0	27.0	38.8	7.7	6.5							
			Angı		ıma prin	cipal 75.0	0 [°]		ı		
19.6	65.0	47.9		10.8							
20.0	63.9	47.7	12.9	10.4							
22.0	57.9	46.5	10.6	8.4							
24.0	51.4	45.1	8.8	6.8							
26.0	44.1	43.2	7.2	5.5							
28.0	35.7	40.7	5.8	4.4							
30.0	24.6	37.2	4.6	3.4	<u> </u>				1		
			Angı		ıma prin	cipal 65.0	[°]				
27.2	55.0	44.1		3.5							
28.0	52.4	43.6	3.9	3.1							
30.0	45.3	41.8	2.8 2.3	2.2							
31.0	42.1	40.7	2.3								



360°

Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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

	Inserción			2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]							
	26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 47.5 m Plumín 25.0 [m] Posición midfall (2316)									
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.6	78.0	53.6		30.1		·				
10.0	77.1	53.5	15.1	30.1						
11.0	74.7	53.3	15.1	30.1						
12.0	72.3	53.0	15.1	27.0						
13.0	69.9	52.6	15.1	23.8						
14.0	67.4	52.2	15.1	20.8						
16.0	62.3	51.2	15.1	16.3						
18.0	56.9	49.9	12.7	13.3						
20.0	51.1	48.4	10.6	11.1						
22.0	44.8	46.6	8.8	9.3						
24.0	37.6	44.2	7.3	7.8						
26.0	28.9	41.1	6.3	6.7						
			Angı	ılo de plu	ıma prin	cipal 83.0	D[°]			
14.0	73.0	52.8		21.3						
16.0	68.2	52.0	15.1	17.2						
18.0	63.1	51.1	15.1	14.1						
20.0	57.8	49.9	13.4	11.6						
22.0	52.1	48.4	11.6	9.7						
24.0	45.8	46.6	9.7	8.1						
26.0 28.0	38.8 30.4	44.4 41.4	8.0 6.8	6.7 5.6						
20.0	30.4	41.4			ıma prin	rinal 75 () [°]			
20.9	65.0	50.6	, wigo	9.4	piili	J.pui 10.	~ L J			
20.9	62.2	50.6	10.3	9.4 8.4						
24.0	56.8	48.8	8.5	6.8						
26.0	51.0	47.3	7.0	5.5						
28.0	44.6	45.4	5.7	4.4						
30.0	37.4	43.1	4.5	3.5						
32.0	28.6	39.9	3.5	2.6						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
28.9	55.0	46.5		2.5						
30.0	51.9	45.8	2.6	2.1						
31.0	49.3	45.0	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:

	Inserciór	1	1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
		26.0	0 m Plum Cabeza 28.0	de plumí	oal, Punt n (2316- osición m	1) 50.5 r	n Plumín	dfall			
Ángulo de pluma principal 88.0 [°]											
10.2	78.0	56.6	Ŭ	30.1	<u> </u>	·					
11.0 12.0 13.0	76.4 74.3 72.1	56.4 56.1 55.8	15.1 15.1 15.1	30.1 27.7 24.7							
14.0	70.0	55.4	15.1	22.2							
16.0 18.0 20.0	65.5 60.9 56.0	54.5 53.5 52.2	15.1 15.1 15.1	18.2 15.1 12.7							
22.0	50.8	50.7	14.0	10.7							
24.0	45.2	48.8	12.0	9.1							
26.0	38.9	46.5	10.2	7.7							
28.0	31.5	43.6	8.7	6.5							
30.0	21.9	39.6	7.4	5.4		-iI 00 /	2 6 9 1				
			Angu		ıma prin	cipai 83.	ן נין ט				
14.9	73.0	55.6	45.4	19.4							
16.0	70.7	55.3	15.1 15.1	17.3 14.2							
18.0 20.0	66.2 61.6	54.4 53.4	14.8	11.8							
22.0	56.8	52.2	12.5	9.8							
24.0	51.7	50.7	10.5	8.2							
26.0	46.1	48.9	8.9	6.9							
28.0	39.9	46.7	7.5	5.7							
30.0	32.8	43.9	6.2	4.7							
32.0	23.7	40.1	5.1	3.8							
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]C				
22.2	65.0	53.3		8.3							
24.0	60.8	52.4	8.4	6.9							
26.0	55.9	51.1	6.9	5.6							
28.0	50.7	49.5	5.6	4.5							
30.0	45.0	47.7	4.5	3.5							
32.0	38.7	45.4	3.5	2.7							
34.0	32.2	42.5	2.6								
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]				
30.8	55.0	49.0	2.1								



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal: 360°

2821-1 Cabeza de pluma principal: 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 53.5 m Plumín 31.0 [m] Posición midfall (2316)											
			Ángu	ılo de plu	ıma prin	cipal 88.	1°10				
10.9 11.0 12.0 13.0 14.0	78.0 77.8 75.9 73.9 72.0 68.0	59.5 59.5 59.2 58.9 58.6	15.1 15.1 15.1 15.1 15.1	30.1 30.1 27.6 24.7 22.2 18.2							
18.0 20.0 22.0 24.0 26.0 28.0	63.9 59.7 55.3 50.6 45.5 39.9	56.9 55.8 54.5 52.9 51.1 48.8	15.1 14.6 13.4 11.7 10.0 8.5	15.2 12.7 10.8 9.1 7.7 6.5							
30.0 32.0	33.5 25.7	46.1 42.5	7.3 6.1	5.5 4.6							
			Ángı	ılo de plu	ıma prin	cipal 83.	0[°]				
15.8 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0	73.0 72.6 68.7 64.6 60.4 56.0 51.3 46.3 40.8 34.6 27.1	58.5 58.5 57.7 56.8 55.7 54.4 52.9 51.1 49.0 46.3 42.9	15.1 15.1 14.4 12.1 10.3 8.7 7.3 6.1 5.0 4.0	17.6 17.2 14.1 11.7 9.8 8.2 6.9 5.7 4.7 3.9 3.1							
			Ángu	ılo de plu	ıma prin	cipal 75.	0 [°]				
23.4 24.0 26.0 28.0 30.0	65.0 63.8 59.6 55.2 50.4	56.0 55.8 54.7 53.3 51.8	8.0 6.6 5.3 4.2	7.1 6.7 5.4 4.3 3.4	-						
32.0 34.0	45.3 40.3	49.9 47.7	3.3 2.4	2.6							



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

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

Valor de vuelco:	2 - Vía ancha
Lastre trasero [t]:	0.0
Lastre central [t]:	52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]							
26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 56.5 m Plumín 22.0 [m] Posición midfall (2316)										
			Ángu	ılo de plu	ıma prin	cipal 88.	0 [°]			
9.0	78.0	50.7	15.1	30.1						
10.0	75.3	50.4	15.1	28.9						
11.0	72.6	50.1	15.1	24.6						
12.0	69.8	49.8	15.1	21.2						
13.0	67.0	49.3	15.1	18.4						
14.0 16.0	64.1 58.0	48.8 47.7	15.1 15.0	16.1 12.4						
18.0	51.5	46.2	14.8	9.7						
20.0	44.3	44.3	12.3	7.5						
22.0	35.9	41.9	9.6	5.8						
24.0	25.0	38.4	7.4	4.4						
			Ángı	ılo de plı	ıma prin	cipal 83.	0 [°]			
13.2	73.0	49.9	15.1	18.5						
14.0	70.7	49.6	15.1	16.4						
16.0	65.0	48.7	15.1	12.4		İ				
18.0	59.0	47.6	14.1	9.5						
20.0	52.6	46.2	11.1	7.2						
22.0	45.5	44.4	8.5	5.5						
24.0	37.3	42.0	6.4	4.0						
26.0	27.0	38.8	4.6	2.8						
			Ángı	ılo de plu	ıma prin	cipal 75.	0 [°]			
19.6	65.0	47.9		7.1						
20.0	63.9	47.7	9.3	6.7						
22.0	57.9	46.5	6.9	4.9						
24.0	51.4	45.1	4.9	3.4						
26.0	44.1	43.2	3.2	2.1						
27.0	40.8	42.0	2.5							



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1 2821-1 Cabeza de pluma principal:

360° 2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		26.	o de carç 1) 59.5 r nidfall (23	n Plumín	dfall					
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
9.6 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 77.1 74.7 72.3 69.9 67.4 62.3 56.9 51.1 44.8	53.6 53.5 53.3 53.0 52.6 52.2 51.2 49.9 48.4 46.6	15.1 15.1 15.1 15.1 15.1 15.1 13.8 12.4 9.8	30.1 29.5 25.3 21.9 19.1 16.7 13.0 10.2 8.1 6.3						
26.0	28.9	41.1	5.8 Á ngi	Ilo de nli	ıma prin	rinal 83 (1°1			
14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0	73.0 68.2 63.1 57.8 52.1 45.8 38.8 30.4	52.8 52.0 51.1 49.9 48.4 46.6 44.4 41.4	15.1 14.1 11.1 8.6 6.6 4.8 3.3	16.7 12.8 9.9 7.6 5.8 4.4 3.1 2.1	ania pilli	ырагоз.	, i			
20.9 22.0 24.0	65.0 62.2 56.8	50.6 50.1 48.8	Ángu 6.8 4.9	6.0 5.0 3.5	ıma prin	cipal 75.0	[°]			
26.0 27.0	51.0 48.4	47.3 46.4	3.3 2.6	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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 62.5 m Plumín 28.0 [m] Posición midfall (2316)										
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
10.2										
30.0	23.3	39.6	3.2 Ángi	ılo de nlı	ıma prin	cinal 83 (1 ° 1		l	
14.9 16.0 18.0 20.0 22.0 24.0 26.0 28.0	73.0 70.7 66.2 61.6 56.8 51.7 46.1 39.9	55.6 55.3 54.4 53.4 52.2 50.7 48.9 46.7	15.1 14.0 11.1 8.7 6.7 5.0 3.5	15.1 13.1 10.2 7.9 6.1 4.6 3.4 2.4	ти ріш	Spai 00.1	~ []			
					ıma prin	cipal 75.0	1°10			
22.2 24.0 26.0 28.0	65.0 60.8 55.9 51.1	53.3 52.4 51.1 49.5	4.9 3.4 2.0	5.0 3.6 2.4	- -	,				



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

360° 2 - Vía ancha Valor de vuelco: Lastre trasero [t]:

0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			Cabeza		n (2316-	1) 65.5 r	ga 3 - Mi n Plumín 316)			
·			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
10.9 11.0 12.0 13.0 14.0	78.0 77.8 75.9 73.9 72.0	59.5 59.5 59.2 58.9 58.6	15.1 15.1 15.1 15.1 15.1	26.3 25.9 22.6 19.8 17.5						
16.0 18.0 20.0 22.0	68.0 63.9 59.7 55.3	57.8 56.9 55.8 54.5	15.1 15.1 12.3 9.9	13.8 10.9 8.7 6.9						
24.0 26.0 28.0 30.0	50.6 45.5 39.9 33.5	52.9 51.1 48.8 46.1	7.9 6.1 4.6 3.3	5.4 4.2 3.1 2.2						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0[°]			
15.8 16.0 18.0	73.0 72.6 68.7	58.5 58.5 57.7	15.1 13.7	13.5 13.2 10.2						
20.0 22.0 24.0 26.0	64.6 60.4 56.0 51.3	56.8 55.7 54.4 52.9	10.9 8.6 6.6 5.0	8.0 6.2 4.7 3.5						
28.0	46.3	51.1	3.5	2.5						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0[°]			
23.4 24.0 26.0	65.0 63.8 59.6	56.0 55.8 54.7	4.7 3.2	3.9 3.6 2.4						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 68.5 m Plumín 34.0 [m] Posición midfall (2316)										
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
11.5 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 77.1 75.4 73.6 70.1 66.4 62.7 58.7 54.7 50.3 45.7 40.7	62.4 62.3 62.1 61.8 61.1 60.2 59.2 58.1 56.7 55.1 53.3 51.1	15.1 15.1 15.1 15.1 15.1 15.1 12.3 10.0 7.9 6.2 4.8 3.5	24.3 22.8 20.0 17.7 14.0 11.2 8.9 7.2 5.7 4.4 3.3 2.4						
00.0	10.7	01.1			ıma prin	cipal 83.0	1°1			ı
16.7 18.0 20.0 22.0 24.0 26.0 28.0	73.0 70.6 67.0 63.3 59.4 55.3 51.0	61.4 60.9 60.1 59.1 58.0 56.7 55.2	15.1 13.5 10.8 8.6 6.7 5.1 3.7	12.2 10.3 8.1 6.3 4.9 3.7 2.6]			
			Ángı	ılo de plu	ıma prin	cipal 75.	[°]			
24.7 26.0 27.0	65.0 62.6 60.8	58.7 58.1 57.6	3.2 2.6	3.1 2.4						



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]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 71.5 m Plumín 37.0 [m] Posición midfall (2316)										
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
12.1 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 76.6 75.0 71.8 68.4 65.0 61.6 57.9 54.2 50.2	65.4 65.2 64.9 64.3 63.5 62.6 61.6 60.4 59.0 57.4	15.1 15.1 15.1 14.9 12.1 9.8 7.8 6.1 4.7	22.4 20.0 17.7 14.0 11.1 8.8 7.1 5.7 4.4 3.3						
			Ángı	ılo de plı	ıma prin	cipal 83.0	D[°]			
17.6 18.0 20.0 22.0 24.0 26.0 28.0	73.0 72.3 69.0 65.6 62.1 58.5 54.8	64.2 64.1 63.4 62.5 61.5 60.3 58.9	13.7 13.2 10.5 8.3 6.5 4.9 3.5	10.7 10.1 7.9 6.1 4.7 3.6 2.6			•			
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
26.0 27.0	65.0 63.4	61.5 61.0	2.2	2.2						



Nº de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha

Lastre trasero [t]: 0.0

Lastre central [t]: 52.6

	Inserciór	ı	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
29.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 32.5 m Plumín 13.0 [m] Posición midfall (1916)										
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°] 0			
7.2 8.0 9.0 10.0 11.0 12.0 13.0	78.0 74.2 69.5 64.7 59.6 54.1 48.3	44.9 44.6 44.3 43.8 43.2 42.5 41.7	15.1 15.1 15.1 15.1 14.1 12.1 10.5	30.1 29.9 21.8 16.6 13.4 11.1 9.5						
14.0	41.7	40.6	8.8	8.2						
			Ángı	ılo de plu	ıma prin	cipal 83.	0 [°]			
10.8 11.0 12.0 13.0 14.0 16.0 18.0	73.0 72.3 67.5 62.5 57.3 45.6 30.2	44.3 44.2 43.8 43.3 42.7 41.0 38.3	15.1 15.1 15.1 13.2 9.7 7.1	26.7 26.3 19.2 15.0 12.3 8.9 6.8						
			Ángı	ılo de plı	ıma prin	cipal 75.	0 [°]			
16.6 18.0 20.0 22.0	65.0 57.6 45.9 30.6	42.6 41.8 40.1 37.4	15.1 12.1 8.4 6.4	16.3 12.3 8.9 6.9			- ,]			
			Ángu	ılo de plu	ıma prin	cipal 65.	0 [°]			
23.3 24.0 26.0 28.0	55.0 50.9 37.5 15.2	39.4 38.9 36.8 32.8	8.6 7.1 5.7	7.4 6.8 5.4 4.2						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
29.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 35.5 m Plumín 16.0 [m] Posición midfall (1916)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
7.8 8.0 9.0 10.0 11.0	78.0 77.3 73.5 69.7 65.8	47.8 47.8 47.5 47.1 46.7	15.1 15.1 15.1 15.1 15.1	30.1 30.1 28.7 22.7 18.3						
12.0 13.0 14.0 16.0 18.0	61.7 57.5 53.0 43.0 30.3	46.1 45.5 44.8 42.9 40.1	15.1 13.4 12.1 9.5 7.5	15.3 13.1 11.4 9.0 7.4						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
11.7 12.0 13.0 14.0 16.0 18.0 20.0	73.0 71.9 68.1 64.1 55.6 46.1 34.4	47.1 47.0 46.6 46.2 44.9 43.2 40.8	15.1 15.1 15.1 12.8 10.1 7.8	26.8 26.0 20.5 16.7 12.2 9.6 7.8						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
17.8 18.0 20.0 22.0 24.0	65.0 64.3 55.8 46.3 34.7	45.3 45.3 44.0 42.3 39.9	15.1 13.5 10.1 7.8	14.6 14.3 11.7 9.6 7.8						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
25.0 26.0 28.0	55.0 50.3 39.8	41.9 41.2 39.1	7.0 5.8	6.3 5.7 4.6						
30.0 31.0	25.6 17.2	35.9 33.2	4.7 4.2	3.6						



Nº de ident.: 9842523/95738/

360°

Radio de descarga:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		29.0	0 m Plum Cabeza 16.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
7.9 8.0 9.0 10.0 11.0	78.0 77.5 73.8 69.9 66.0	47.8 47.8 47.5 47.1 46.7	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 30.1 25.3						
12.0 13.0 14.0 16.0 18.0	62.0 57.7 53.3 43.3 30.6	46.2 45.5 44.8 42.9 40.2	15.1 15.1 15.1 13.1 10.8	21.7 18.4 15.8 12.5 10.3						
			Ángı	ılo de plı	ıma prin	cipal 83.0	D[°]			
11.8 12.0 13.0 14.0 16.0 18.0 20.0	73.0 72.2 68.3 64.3 55.9 46.3 34.7	47.1 47.1 46.7 46.2 45.0 43.3 40.8	15.1 15.1 15.1 15.1 15.1 13.7 11.4	26.7 25.9 22.5 19.8 15.5 12.4 9.9						
20.0	34.7	40.0			ıma prin	cinal 75 (1°1		l	
17.9 18.0 20.0 22.0 24.0	65.0 64.5 56.1 46.6 35.0	45.3 45.3 44.1 42.4 40.0	15.1 12.3 10.0 8.0	12.2 12.0 9.4 7.4 5.8	and pilli		~ []			
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
25.0 26.0 28.0 29.0	55.0 50.6 40.1 35.1	41.9 41.2 39.1 37.8	4.4 3.1 2.5	4.0 3.4 2.3			-			



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco:

Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.4 9.0 10.0 11.0 12.0 13.0	78.0 76.2 73.1 69.9 66.6 63.2 59.7	50.7 50.6 50.3 49.9 49.5 49.0	15.1 15.1 15.1 15.1 15.1	30.1 30.0 27.2 22.4 18.9 16.2 14.3						
16.0 18.0 20.0	52.3 43.9 33.9	47.0 45.1 42.6	12.4 10.0 8.0	11.3 9.3 7.8						
			Ángı	ılo de plı	ıma prin	cipal 83.0	D[°]			
12.6 13.0 14.0 16.0 18.0 20.0 22.0 24.0	73.0 71.7 68.5 61.7 54.5 46.4 37.0 24.4	50.0 49.9 49.5 48.5 47.2 45.5 43.1 39.7	15.1 15.1 15.1 13.1 10.8 8.5 7.1	25.9 25.0 20.8 15.4 12.0 9.9 8.2 6.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	D[°]			
19.1 20.0 22.0 24.0 26.0 28.0	65.0 61.9 54.7 46.6 37.2 24.8	48.0 47.6 46.3 44.6 42.3 38.9	14.7 11.8 9.4 7.7 6.6	13.2 12.1 10.2 8.6 7.2 6.1						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
26.7 28.0 30.0 32.0 34.0	55.0 50.0 41.3 30.4 15.6	44.4 43.4 41.4 38.5 33.6	6.0 5.0 4.1 3.2	5.5 4.9 4.0 3.2						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

360°

Cabeza de pluma principal:

2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumí		1) 41.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]			
8.5 9.0 10.0 11.0 12.0	78.0 76.4 73.2 70.0 66.8	50.8 50.6 50.3 50.0 49.5	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 29.5 25.9						
13.0 14.0 16.0 18.0 20.0	63.4 59.9 52.5 44.1 34.1	49.0 48.5 47.0 45.2 42.6	15.1 15.1 15.1 15.1 13.0 10.7	22.2 19.4 15.1 12.2 9.9						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
12.7 13.0 14.0 16.0 18.0 20.0 22.0 24.0	73.0 71.9 68.7 61.9 54.7 46.6 37.2 24.7	50.0 49.9 49.5 48.5 47.2 45.5 43.2 39.8	15.1 15.1 15.1 15.1 14.7 12.8 10.2 8.4	24.1 23.0 20.3 16.1 13.0 10.6 8.6 7.0						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
19.1 20.0 22.0 24.0 26.0 28.0	65.0 62.1 54.8 46.8 37.5 25.0	48.0 47.6 46.3 44.6 42.3 39.0	12.1 9.9 8.0 6.4 5.0	10.6 9.6 7.6 6.1 4.7 3.6			-			
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
26.8 28.0 29.0	55.0 50.2 46.7	44.3 43.5 42.5	3.0 2.5	3.0 2.4						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		29.0	0 m Plum Cabeza 22.0	de plumi	ín (1916-		n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.	[°]			
9.1 10.0 11.0 12.0 13.0 14.0 16.0 20.0 22.0 24.0	78.0 75.4 72.7 70.0 67.1 64.2 58.2 51.7 44.5 36.2 25.5	53.7 53.4 53.1 52.8 52.3 51.9 50.7 49.2 47.4 45.0 41.6	15.1 15.1 15.1 15.1 15.1 15.1 13.1 10.4 8.5 7.0 6.0 Ángu 15.1 15.1 15.1 14.1	30.1 27.6 23.1 19.5 16.9 14.8 11.8 9.7 8.2 6.9 6.0 ulo de plu 22.4 21.5 15.9	uma prin	cipal 83.	D[°]			
20.0 22.0 24.0 26.0	53.6 46.7 38.8 29.0	49.4 47.7 45.5 42.4	14.1 11.1 9.1 7.5 6.4	10.3 8.6 7.3 6.3						
			Ángı	ılo de plu	ıma prin	cipal 75.	[°]			
20.4 22.0 24.0 26.0 28.0 30.0	65.0 60.1 53.8 46.8 38.9 29.2	50.8 49.9 48.5 46.8 44.6 41.6	14.0 12.4 10.7 9.1 7.5 6.4	11.8 10.3 8.7 7.4 6.3 5.3	-					
			Ángu	ılo de plı	ıma prin	cipal 65.	[°]			
28.4 30.0 32.0 34.0 36.0	55.0 49.8 42.3 33.5 23.1	46.8 45.6 43.7 41.0 37.1	4.8 4.0 3.2 2.5	4.7 4.0 3.2 2.6	-					



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1

360° 2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0

Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		29.0	0 m Plum Cabeza 22.0	na princip de plumí 0 [m] Po	n (2316-	1) 44.5 r	n Plumín	dfall I		
Ángulo de pluma principal 88.0 [°]										
9.1 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 24.0 13.5 14.0 16.0 18.0	78.0 75.6 72.9 70.1 67.3 64.4 58.4 51.9 44.7 36.4 25.7	53.7 53.5 53.2 52.8 51.9 50.7 49.3 47.4 45.0 41.6	15.1 15.1 15.0	30.1 30.1 28.9 26.6 23.5 20.3 16.0 13.0 10.8 9.0 7.6 ulo de plu 22.0 20.8 16.6 13.5	uma prind	cipal 83.	D[°]			
20.0 22.0 24.0 26.0	53.8 46.9 38.9 29.2	49.5 47.7 45.5 42.5	14.5 12.3 10.0 8.3	11.1 9.2 7.6 6.3						
				ılo de plu	ıma prin	cipal 75.0	1°10			
20.4	65.0	50.8		9.5	- 1					
22.0 24.0 26.0 28.0 30.0	60.3 54.0 47.0 39.1 29.4	49.9 48.6 46.9 44.6 41.6	9.9 8.1 6.6 5.3 4.1	8.0 6.4 5.1 4.0 3.1						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
28.5 30.0	55.0 50.4	46.8 45.7	2.1	2.3						

Source:a9841388



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

Valor de vuelco:

2 - Vía ancha

0.0

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 25.0		n (1916-	1) 44.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.7 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 77.2 74.9 72.5 70.0 67.5 62.4 57.0 51.3 45.0	56.6 56.5 56.3 56.0 55.6 55.2 54.2 53.0 51.5 49.6	15.1 15.1 15.1 15.1 15.1 14.6 13.5 10.9 8.8 7.4 6.3	28.6 28.6 23.6 20.1 17.4 15.3 12.3 10.1 8.5 7.3						
26.0	29.2	44.2	5.4	5.4						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]C			
14.4	73.0	55.7	15.1	19.8						
16.0 18.0	69.0 63.9	55.1 54.2	15.1 13.9	16.4 13.0						
20.0 22.0 24.0 26.0 28.0	58.6 53.0 46.9 40.0 31.9	53.1 51.7 49.9 47.8 44.9	11.7 9.3 7.8 6.6 5.7	10.7 8.9 7.6 6.5 5.7						
			Ángı	ılo de plu	ıma prin	cipal 75.0] °]			
21.6 22.0 24.0 26.0 28.0	65.0 64.0 58.8 53.1 47.0	53.5 53.3 52.2 50.8 49.1	12.3 10.6 9.2 7.8	10.7 10.4 8.8 7.5 6.4	·					
30.0 32.0 34.0	40.2 32.1 21.3	46.9 44.1 40.1	6.6 5.8 5.0	5.5 4.7 4.0						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
30.2 32.0 34.0	55.0 49.6 43.1	49.3 47.9 45.9	3.9	4.0 3.3 2.6	-		_			
36.0 37.0	35.6 32.1	43.4 41.9	2.5 2.2	2.1						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

Valor de vuelco: 2 - Vía ancha

Lastre trasero [t]: 0.0
Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		29.0	0 m Plum Cabeza 25.0	na princip de plumí 0 [m] Po	n (2316-	1) 47.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0] (°]			
9.7 10.0 11.0 12.0 13.0 14.0 16.0	78.0 77.4 75.0 72.6 70.2 67.7 62.6	56.6 56.6 56.3 56.0 55.6 55.2 54.2	15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 26.9 24.0 21.2 16.6						
18.0 20.0 22.0 24.0 26.0	57.2 51.4 45.1 38.0 29.4	53.0 51.5 49.7 47.4 44.3	12.9 10.8 9.0 7.5 6.4	13.5 11.3 9.5 8.0 6.9						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]C			
14.4 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 69.1 64.1 58.8 53.1 47.0 40.2 32.1 21.2	55.7 55.2 54.3 53.1 51.7 50.0 47.8 45.0	15.1 15.1 14.1 12.1 10.2 8.6 7.1 5.9	19.9 16.7 13.7 11.3 9.3 7.8 6.4 5.3						
00.0				ılo de plu	ıma prin	cinal 75 (1°10			
21.7 22.0 24.0 26.0 28.0 30.0 32.0 34.0	65.0 64.2 58.9 53.3 47.2 40.3 32.3 23.1	53.5 53.4 52.2 50.8 49.1 46.9 44.2 40.2	9.6 7.9 6.4 5.1 4.0 3.0 2.1	8.2 7.9 6.4 5.1 4.0 3.1 2.3	,					



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

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

0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		29.0	0 m Plum Cabeza 28.0	de plumí	oal, Punt n (1916- osición m	1) 47.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
10.3 11.0 12.0 13.0	78.0 76.5 74.4 72.3	59.5 59.4 59.1 58.8	15.1 15.1 15.1 15.1	30.1 30.1 29.4 26.5	•	•				
14.0 16.0 18.0 20.0 22.0	70.1 65.6 61.0 56.1 51.0	58.4 57.6 56.5 55.2 53.7	15.1 15.1 15.0 14.3 13.7	24.1 20.1 17.1 14.7 12.7						
24.0 26.0 28.0 30.0	45.3 39.1 31.8 22.3	51.9 49.6 46.8 42.8	10.7 12.1 10.5 9.4 8.4	9.8 8.6 7.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
15.2 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 71.3 66.9 62.3 57.6 52.5 47.0 41.0 34.0	58.6 58.4 57.5 56.6 55.4 53.9 52.2 50.0 47.4	15.1 15.1 15.1 14.4 12.6 11.1 9.7 8.6	20.6 19.2 16.1 13.7 11.8 10.2 8.9 7.8 6.8						
32.0	25.4	47.4	7.5	5.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	1°10			
22.9 24.0 26.0 28.0 30.0 32.0 34.0	65.0 62.5 57.7 52.6 47.1 41.1 34.2	56.2 55.7 54.5 53.0 51.3 49.2 46.5	10.3 8.9 7.7 6.7 5.7 4.9	9.6 8.8 7.5 6.4 5.5 4.7 4.0		- p 3.				
36.0	25.6	43.0	4.2	3.4						
31.9 32.0 34.0	55.0 54.7 49.4	51.7 51.7 50.1	3.7 3.0	3.2 3.1 2.5	ıma prind	cipal 65.	O [°]			
36.0 37.0	44.1 41.0	48.2 47.0	2.4							



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumí		1) 50.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.4 9.0 10.0 11.0 12.0	78.0 76.2 73.1 69.9 66.6	50.7 50.6 50.3 49.9 49.5	15.1 15.1 15.1 15.1	30.1 30.1 29.7 25.9 22.6						
13.0 14.0 16.0 18.0 20.0	63.2 59.7 52.3 43.9 33.9	49.0 48.4 47.0 45.1 42.6	15.1 15.1 14.9 12.6 9.9	19.9 17.6 13.9 11.4 9.3						
			Ángu	ılo de plu	uma prin	cipal 83.0	[°]			
12.6 13.0 14.0 16.0 18.0 20.0 22.0 24.0	73.0 71.7 68.5 61.7 54.5 46.4 37.0 24.4	50.0 49.9 49.5 48.5 47.2 45.5 43.1 39.7	15.1 15.1 15.1 15.1 13.4 10.6 8.7	22.1 20.9 18.3 14.3 11.4 9.2 7.4 5.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
19.1 20.0 22.0 24.0 26.0 28.0	65.0 61.9 54.7 46.6 37.2 24.8	48.0 47.6 46.3 44.6 42.3 38.9	12.2 9.9 8.0 6.4 5.0	10.0 8.9 7.0 5.5 4.3 3.2			-			
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			-
26.7 28.0 30.0	55.0 50.0 42.0	44.4 43.4 41.4	3.4 2.3	3.1 2.5						



360°

Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 28.0	de plumí		1) 50.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.4 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0	78.0 76.6 74.5 72.4 70.2 65.7 61.1 56.3 51.1 45.5 39.2 31.9	59.6 59.4 59.1 58.8 58.5 57.6 56.5 55.3 53.8 51.9 49.7 46.8	15.1 15.1 15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 27.0 24.2 21.7 17.8 14.8 12.4 10.4 8.8 7.5 6.3						
30.0	22.5	40.6	6.5 7.2	5.3						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C			
15.3 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 71.5 67.0 62.5 57.7 52.6 47.2 41.1 34.2	58.6 58.4 57.6 56.6 55.4 53.9 52.2 50.1 47.4	15.1 15.1 15.1 14.1 11.9 10.1 8.5 7.1 5.9	18.1 16.8 13.8 11.4 9.5 7.9 6.6 5.5 4.5						
32.0	25.6	43.9	4.8	3.6						
20.0	05.0	50.0	Angı		ıma prin	cipal 75.0	[°]			
22.9 24.0 26.0 28.0 30.0 32.0 34.0	65.0 62.6 57.8 52.7 47.3 41.3 35.1	56.2 55.7 54.5 53.1 51.3 49.2 46.6	7.7 6.2 5.0 3.9 3.0 2.2	7.1 6.4 5.1 4.0 3.1 2.3						



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

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

2 - Vía ancha Valor de vuelco:

valoi de vuelco.	Z - Via aliciia
Lastre trasero [t]:	0.0
Lastre central [t]:	52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		29.0	0 m Plum Cabeza 22.0	de plumí	oal, Punt ín (1916- osición m	1) 53.5 r	n Plumín	dfall I		
Ángulo de pluma principal 88.0 [°]										
9.1 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 24.0 13.5 14.0 16.0 18.0	78.0 75.4 72.7 70.0 67.1 64.2 58.2 51.7 44.5 36.2 25.5	53.7 53.4 53.1 52.8 52.3 51.9 50.7 49.2 47.4 45.0 41.6	15.1 15.1 15.1 14.6	20.1 18.8 14.9 12.0	uma prine	cipal 83.	0[°]			
20.0 22.0 24.0 26.0	53.6 46.7 38.8 29.0	49.4 47.7 45.5 42.4	12.0 10.0 8.0 6.7	9.7 7.9 6.5 5.3						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
20.4 22.0 24.0 26.0 28.0 30.0	65.0 60.1 53.8 46.8 38.9 29.2	50.8 49.9 48.5 46.8 44.6 41.6	11.5 9.9 8.0 6.5 5.1 4.0	8.8 7.3 5.8 4.6 3.5 2.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
28.4 30.0	55.0 50.2	46.8 45.6	2.3	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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
29.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 53.5 m Plumín 31.0 [m] Posición midfall (2316)										
			Ángı	ılo de plu	ıma prin	cipal 88.0] (°)			
11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0	78.0 76.1 74.1 72.2 68.2 64.2 59.9 55.5 50.8 45.8	62.5 62.2 62.0 61.6 60.9 60.0 58.9 57.5 56.0 54.2	15.1 15.1 15.1 15.1 15.1 15.1 14.7 13.3 11.4 9.7 8.3	30.1 26.9 24.1 21.7 17.8 14.8 12.4 10.5 8.9 7.5						
30.0 32.0	33.9 26.2	49.3 45.7	7.0 5.9	5.3 4.5						
02.0	20.2	40.7		ılo de plu	ıma prin	cipal 83.0	1°10			
16.2	73.0	61.5	15.1	16.4						
18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0	69.4 65.4 61.2 56.8 52.2 47.3 41.9 35.8 28.6	60.8 60.0 58.9 57.7 56.2 54.4 52.4 49.8 46.6	15.1 13.8 11.6 9.8 8.2 6.9 5.7 4.7 3.7	13.7 11.3 9.4 7.9 6.6 5.4 4.5 3.6 2.9						
34.0	20.0	40.0		ılo de plu	ıma nrin	cinal 75 (1 ° 1		l	
24.2 26.0 28.0 30.0 32.0 33.0	65.0 61.3 56.9 52.3 47.4 45.2	58.9 58.0 56.8 55.3 53.6 52.6	5.9 4.7 3.7 2.8 2.4	6.0 4.9 3.9 3.0 2.2	μπα ριπι	ωραι <i>1</i> 3.	V 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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0	de plumí	n (2316-		n Plumín			
Ángulo de pluma principal 88.0 [°]										
9.1 10.0 11.0 12.0 13.0 14.0 16.0 20.0	78.0 75.6 72.9 70.1 67.3 64.4 58.4 51.9 44.7	53.7 53.5 53.2 52.8 52.4 51.9 50.7 49.3 47.4	15.1 15.1 15.1 15.1 15.1 15.0 14.8 11.9	30.1 28.2 24.1 20.8 18.0 15.8 12.2 9.5 7.3						
22.0 24.0	36.4 25.7	45.0 41.6	9.3 7.1	5.6 4.2						
24.0	20.7	41.0			ıma prin	cipal 83.0	1°10			
13.5 14.0 16.0 18.0 20.0 22.0 24.0 26.0	73.0 71.7 66.1 60.1 53.8 46.9 38.9 29.2	52.9 52.7 51.9 50.8 49.5 47.7 45.5 42.5	15.1 15.1 13.5 10.6 8.1 6.0 4.2	17.2 16.1 12.1 9.2 7.0 5.2 3.8 2.6						
20.0	25.2	42.3			ıma prin	oinal 75 () [°]			
20.4 22.0 24.0 26.0 27.0	65.0 60.3 54.0 47.6 43.9	50.8 49.9 48.6 46.9 45.8	6.3 4.4 2.8 2.0	6.0 4.5 3.1	лпа рпп	cipal 75.	7[]			



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 25.0		n (1916-	1) 56.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
9.7 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0	78.0 77.2 74.9 72.5 70.0 67.5 62.4 57.0 51.3 45.0 37.8 29.2	56.6 56.5 56.3 56.0 55.6 55.2 54.2 53.0 51.5 49.6 47.3 44.2	15.1 15.1 15.1 15.1 15.1 15.0 14.7 12.5 10.2 8.6 7.2 6.2	30.1 30.1 26.7 22.8 19.7 17.5 14.0 11.6 9.8 8.4 7.2 6.2						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0[°]			
14.4 16.0 18.0 20.0 22.0 24.0 26.0 28.0	73.0 69.0 63.9 58.6 53.0 46.9 40.0 31.9	55.7 55.1 54.2 53.1 51.7 49.9 47.8 44.9	15.1 15.1 14.8 13.2 10.8 9.1 7.6 6.6	18.5 15.4 12.4 10.2 8.4 6.9 5.7 4.7						
			Ángı	ılo de plı	ıma prin	cipal 75.0	0 [°]			
21.6 22.0 24.0 26.0 28.0 30.0 32.0	65.0 64.0 58.8 53.1 47.0 40.2 32.1	53.5 53.3 52.2 50.8 49.1 46.9 44.1	9.9 8.1 6.6 5.3 4.2 3.1	7.9 7.6 6.1 4.8 3.8 2.9 2.2						
20.0	55.0	40.0		ılo de plu	ıma prin	cipal 65.0	0 [°]			
30.3	55.0	49.3	2.3							



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]: 0.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
) m Plum Cabeza 28.0	de plumí		1) 59.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.3 11.0 12.0 13.0 14.0	78.0 76.5 74.4 72.3 70.1 65.6	59.5 59.4 59.1 58.8 58.4 57.6	15.1 15.1 15.1 15.1 15.1 14.3	28.7 27.9 23.9 20.8 18.3						
18.0 20.0 22.0 24.0 26.0	61.0 56.1 51.0 45.3 39.1	56.5 55.2 53.7 51.9 49.6	13.4 10.7 8.6 7.3 6.2	12.2 10.1 8.5 7.3 6.2						
28.0 30.0	31.8 22.3	46.8 42.8	5.4 4.7	5.4 4.6						
					ıma prin	cinal 83 (1°10			
15.2 16.0 18.0 20.0 22.0 24.0 26.0	73.0 71.3 66.9 62.3 57.6 52.5 47.0	58.6 58.4 57.5 56.6 55.4 53.9 52.2 50.0	15.1 14.8 12.3 10.1 8.3 7.1 6.1	16.9 15.6 12.7 10.4 8.6 7.2 5.9 4.9	and print	spar co.				
30.0 32.0	34.0 25.4	47.4 43.8	5.3 4.7	4.0 3.2						
52.5		.0.0			ıma prin	cipal 75 (1°10			
22.9 24.0 26.0 28.0 30.0 32.0 34.0	65.0 62.5 57.7 52.6 47.1 41.1 34.9	56.2 55.7 54.5 53.0 51.3 49.2 46.5	7.9 6.5 5.2 4.1 3.2 2.3	6.9 6.1 4.9 3.9 3.0 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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		29.0	0 m Plum Cabeza 31.0	de plumí	oal, Punt n (1916- osición m	1) 62.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.9	78.0	62.5		26.1	i i	i i				
11.0	77.9	62.5	15.1	26.1						
12.0	75.9	62.2	15.1	24.5						
13.0	74.0	61.9	15.1	21.2						
14.0	72.1	61.6	15.1	18.7						
16.0	68.1	60.8	14.8	15.1						
18.0	64.1	59.9	12.8	12.4						
20.0	59.8	58.8	11.1	10.5						
22.0	55.4	57.5	9.1	8.8						
24.0	50.7	56.0	7.5	7.5						
26.0	45.6	54.1	6.5	6.5						
28.0 30.0	40.1 33.7	51.9 49.2	5.6 4.8	5.6 4.8						
32.0	26.0	45.7	4.8	4.0						
02.0	20.0	40.7			ıma prin	cipal 83.0	1°1			
16.1	73.0	61.5	I	15.6						
18.0	69.3	60.8	15.1	12.9						
20.0	65.2	59.9	13.7	10.7						
22.0	61.1	58.9	11.8	8.9						
24.0	56.7	57.6	9.6	7.4						
26.0	52.1	56.1	7.9	6.2						
28.0	47.1	54.4	6.8	5.1						
30.0	41.7	52.3	5.9	4.2						
32.0	35.7	49.8	4.8	3.4						
34.0	28.5	46.5	3.9	2.7						
			Áηgι	ılo de plu	ıma prin	cipal 7 <u>5</u> .0	[°]			
24.2	65.0	58.9	7.7	6.2						
26.0	61.2	58.0	6.5	5.1						
28.0	56.8	56.7	5.3	4.1						
30.0	52.2	55.3	4.2	3.2						
32.0	47.2	53.5	3.3	2.4						
34.0	42.3	51.5	2.4							
35.0	39.5	50.3	2.0							



Nº de ident.: 9842523/95738/

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

360 ° Cabeza de pluma principal:

Pieza de articulación de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 34.0	de plumí		1) 65.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.5	78.0	65.4		23.7						
12.0	77.2	65.3	15.1	23.7						
13.0	75.5	65.1	15.1	21.5						
14.0	73.7	64.8	15.1	19.2						
16.0	70.2	64.1	15.1	15.3						
18.0	66.5	63.2	13.4	12.7						
20.0	62.7	62.3	11.2	10.7						
22.0	58.8	61.1	9.4	9.1						
24.0	54.8	59.8	7.9	7.7						
26.0	50.5	58.2	6.7	6.7						
28.0	45.9	56.4	5.8	5.8						
30.0	40.9	54.2	5.0	5.0						
32.0	35.3	51.6	4.4	4.2						
34.0	28.7	48.4	3.9	3.5						
36.0	20.1	43.9	3.4	2.8						
			Ángι	ılo de plu	ıma prin	cipal 83.0	[°]C			
17.0	73.0	64.3	15.1	14.3						
18.0	71.2	64.0	15.1	13.0						
20.0	67.6	63.2	13.7	10.7						
22.0	63.8	62.3	11.6	8.9						
24.0	60.0	61.2	9.8	7.5						
26.0	56.0	59.9	8.2	6.2						
28.0	51.7	58.4	6.9	5.2						
30.0	47.2	56.6	5.8	4.3						
32.0	42.4	54.6	4.8	3.5						
34.0	36.9	52.1	3.9	2.8						
36.0	30.7	49.1	3.1	2.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
25.4	65.0	61.6		5.3						
26.0	63.9	61.4	6.3	5.0						
28.0	60.1	60.3	5.1	4.0						
30.0	56.1	59.0	4.1	3.2						
32.0	51.8	57.5	3.2	2.4						
34.0	47.7	55.8	2.3							



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 37.0		n (1916-	1) 68.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
12.2	78.0	68.3	15.1	23.1						
13.0	76.7	68.2	15.1	22.4						
14.0	75.1	67.9	15.1	20.2						
16.0	71.8	67.3	15.1	16.5						
18.0	68.5	66.5	15.0	13.8						
20.0	65.1	65.6	12.3	11.6						
22.0	61.6	64.6	10.3	9.8						
24.0	58.0	63.4	8.8	8.4						
26.0	54.3	62.0	7.5	7.1						
28.0	50.3	60.4	6.5	6.0						
30.0	46.1	58.6	5.7	5.1						
32.0	41.5	56.5	5.0	4.3						
34.0	36.5	54.0	4.4	3.6						
36.0	30.7	50.9	4.0	2.9						
38.0	23.7	47.0	3.3	2.4						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
17.9	73.0	67.2	15.1	13.2						
18.0	72.8	67.2	15.1	13.0						
20.0	69.5	66.5	13.5	10.8						
22.0	66.1	65.6	11.4	9.0						
24.0	62.7	64.6	9.7	7.6						
26.0	59.1	63.5	8.2	6.3						
28.0	55.4	62.2	6.9	5.3						
30.0	51.5	60.6	5.8	4.4						
32.0	47.3	58.9	4.8	3.6						
34.0	42.9	56.8	3.9	2.9						
36.0 38.0	38.0 33.0	54.5 51.6	3.1 2.4	2.3						
36.0	33.0	31.0		ılo de plu	ıma prin	oinal 75 () [°]			
26.7	65.0	64.4	Ailgi		ina pilli	ωμαι <i>τ</i> 3.ι	ν. J			
26.7 28.0	65.0 62.7	64.4 63.7	5.0	4.7 4.0						
30.0	59.2	62.6	5.0 4.0	3.2						
32.0	55.4	61.3	3.1	2.4						
34.0	51.8	59.8	2.3	2.7						



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

2 - Vía ancha Valor de vuelco:

valor do vacios.	_	via arioria
Lastre trasero [t]:		0.0
Lastre central [t]:		52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		29.0	0 m Plum Cabeza 40.0	de plumí	ín (1916-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0] (°)			
12.8 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0	78.0 77.7 76.2 73.2 70.2 67.1 64.0 60.7 57.3 53.8 50.1 46.2 42.0 37.5	71.3 71.2 71.0 70.4 69.7 68.9 68.0 66.9 65.7 64.3 62.7 60.8 58.7 56.3	15.1 15.1 15.1 15.1 15.1 13.9 12.0 10.6 9.2 8.0 6.8 5.7 4.8 4.0	22.8 22.3 20.1 16.6 13.9 11.7 9.9 8.4 7.1 6.1 5.1 4.3 3.6 2.9						
38.0 40.0	32.3 27.0	53.4 49.8	3.2 2.5	2.4						
40.0	27.0	1 43.0		ılo de nlı	ıma nrin	cipal 83.0	1°1			
18.7	73.0	70.1	, ange	12.1			, j			
20.0 22.0 24.0	71.1 68.0 64.9	69.7 68.9 68.0	13.2 11.2 9.5	10.7 9.0 7.5						
26.0 28.0 30.0 32.0 34.0 36.0	61.6 58.3 54.8 51.2 47.4 43.3	66.9 65.8 64.4 62.9 61.1 59.1	8.0 6.7 5.6 4.6 3.8	6.3 5.2 4.3 3.6 2.9						
30.0	1 40.0	J J J J J J J			ıma nrin	cipal 75.0	1 ° 1			1
28.0 30.0 32.0	65.0 61.7 58.4	67.1 66.1 64.9	4.8 3.8 2.9	3.9 3.1 2.3	πια μιπ	ограг <i>т</i> Э.	7 L J			
32.0 34.0	58.4 55.1	64.9 63.5	2.9 2.2	2.3						



Nº de ident.: 9842523/95738/

Radio de descarga: 360° Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal:

2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		29.0	Cabeza	de plumí	oal, Punt ín (1916- osición m	1) 74.5 r	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	0 [°]			
10.9 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0	78.0 77.9 75.9 74.0 72.1 68.1 64.1 59.8 55.4 50.7 45.6 40.1	62.5 62.5 62.2 61.9 61.6 60.8 59.9 58.8 57.5 56.0 54.1 51.9	15.1 15.1 15.1 14.9 14.2 10.8 8.5 6.9 5.6 4.7 4.0	21.6 21.6 20.6 17.8 15.7 12.6 10.0 8.2 6.5 5.2 4.1 3.1						
30.0	33.7	49.2	3.3	2.3						
32.0	26.9	45.7	2.6							
			Ángı		ıma prin	cipal 83.0	0 [°]			
16.1 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 69.3 65.2 61.1 56.7 52.1 47.1 42.2	61.5 60.8 59.9 58.9 57.6 56.1 54.4 52.3	13.9 11.2 8.9 7.0 5.4 4.0 2.8	12.5 9.9 7.8 6.1 4.7 3.6 2.6						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
24.2 26.0	65.0 61.2	58.9 58.0	5.2 3.9	3.8 2.8		•				



Nº de ident.: 9842523/95738/

Radio de descarga: 360° Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

Carga [t]

2 - Vía ancha Valor de vuelco:

Lastre trasero [t]:

Lasue lia	ເຣຍເບ [ເ	.] -		0.0					
Lastre ce	ntral [t]:		52.6					
In	serción	1	1	2	3	4	5	6	7
ce	Ángu- o de olumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Car [t

29.0 m Pluma principal, Punto de carga 3 - Midfall

			Cabeza 34.0	de plumí) [m] Po	ín (1916- osición m	1) 77.5 i nidfall (1	n Plumír 916)	ı		
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
11.5	78.0	65.4		19.3						
12.0	77.2	65.3	15.1	19.3						
13.0	75.5	65.1	15.1	17.8						
14.0	73.7	64.8	15.1	15.8						
16.0	70.2	64.1	13.1	12.5						
18.0	66.5	63.2	10.8	10.1						
20.0	62.7	62.3	8.5	8.2						
22.0	58.8	61.1	6.9	6.8						
24.0	54.8	59.8	5.7	5.4						
26.0	50.5	58.2	4.7	4.3						
28.0	45.9	56.4	4.0	3.3						
30.0	40.9	54.2	3.3	2.5						
32.0	35.8	51.6	2.7							
			Ángu	ılo de plu	uma prin	cipal 83.	0 [°]			
17.0	73.0	64.3	15.1	11.3						
18.0	71.2	64.0	13.7	10.1						
20.0	67.6	63.2	11.0	7.9						
22.0	63.8	62.3	8.9	6.3						
24.0	60.0	61.2	7.0	4.9						
26.0	56.0	59.9	5.4	3.7						
28.0	51.7	58.4	4.1	2.8						
30.0	47.6	56.6	2.9							
			Ángu	ılo de plu	ıma prin	cipal 75.	0 [°]			
25.4	65.0	61.6		3.1						
26.0	63.9	61.4	3.8	2.8						
				1	I	1	I	1	1	I



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	-		0 m Plum Cabeza 37.0	de plumí		1) 80.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
Angulo de pluma principal 88.0 [°] 12.2 78.0 68.3 15.1 19.9 13.0 76.7 68.2 15.1 18.8 14.0 75.1 67.9 15.1 16.7 16.0 71.8 67.3 14.2 13.3 18.0 68.5 66.5 12.8 10.7 20.0 65.1 65.6 10.2 8.7 22.0 61.6 64.6 8.3 7.0 24.0 58.0 63.4 7.0 5.6 26.0 54.3 62.0 5.9 4.5 28.0 50.3 60.4 5.1 3.5 30.0 46.1 58.6 4.0 2.6										
32.0	41.9	56.5	2.9				2.5.2			
17.9 18.0 20.0 22.0 24.0	73.0 72.8 69.5 66.1 62.7	67.2 67.2 66.5 65.6 64.6	13.6 13.5 11.0 8.8 7.0	10.4 10.2 8.1 6.4 5.0	uma prin	сіраі 83.	ַנֻי <u></u>			
26.0 28.0 30.0	59.1 55.4 51.5	63.5 62.2 60.6	5.5 4.2 3.0	3.9 2.9 2.1						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
26.7 28.0 29.0	65.0 62.9 61.1	64.4 63.7 63.2	2.6 2.0	2.5						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal: 2

Cabeza de pluma principal:

2821-1 2821-1

	Inserción			2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	29.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 83.5 m Plumín 40.0 [m] Posición midfall (1916)									
			Ángu	ılo de plu	uma prin	cipal 88.0	[°]			
12.8 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0	78.0 77.7 76.2 73.2 70.2 67.1 64.0 60.7 57.3 53.8 50.1	71.3 71.2 71.0 70.4 69.7 68.9 68.0 66.9 65.7 64.3	15.1 15.1 15.1 13.6 11.3 9.4 7.6 6.3 5.4 4.5	17.1 17.1 16.8 13.4 10.9 8.8 7.1 5.8 4.6 3.6						
32.0	46.5	60.8	2.9 Ángu	ılo do plı	ıma prin	cipal 83.0) [°]			
18.7 20.0 22.0 24.0 26.0 28.0 30.0	73.0 71.1 68.0 64.9 61.6 58.3 54.8	70.1 69.7 68.9 68.0 66.9 65.8 64.4	10.7 8.7 6.9 5.4 4.1 3.0	9.4 8.1 6.4 5.1 3.9 2.9 2.1						
28.0	65.0	67.1	Angu 2.4	ilo de plu	uma prin	cipal 75.0	[°]			



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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 0.0 Lastre central [t]: 52.6 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
32.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 32.5 m Plumín 13.0 [m] Posición midfall (1916)											
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]				
7.3 8.0 9.0 10.0 11.0 12.0 13.0 14.0 11.2 12.0 13.0 14.0	78.0 74.7 70.0 65.2 60.1 54.7 48.9 42.4 73.0 69.3 64.4 59.3 47.9	47.9 47.7 47.3 46.9 46.3 45.6 44.8 43.7 47.2 46.9 46.5 45.9 44.3	15.1 15.1 15.1 15.1 14.4 12.2 10.6 8.9 Ångu 15.1 15.1 14.0 10.3	30.1 30.1 22.3 16.9 13.6 11.3 9.6 8.3 Ulo de plu 26.4 21.0 16.1 13.1 9.3	uma prind	cipal 83.	D [°]				
18.0	33.5	41.9	7.3	7.1							
			Ángı	ılo de plu	ıma prin	cipal 75.	[°]				
17.3 18.0 20.0 22.0	65.0 61.6 50.7 37.2	45.5 45.2 43.7 41.5	14.7 10.3 7.4	14.5 13.4 10.0 7.4	'	,					
	Ángulo de pluma principal 65.0 [°]										
24.5 26.0 28.0 29.0	55.0 46.4 31.3 19.9	42.2 41.0 38.4 36.3	6.2 5.0 4.4	5.9 4.9 3.8 3.3							

Source:a9841388



Nº de ident.: 9842523/95738/

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

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

Inserción			1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	32.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 35.5 m Plumín 16.0 [m] Posición midfall (1916)									
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
7.9 8.0 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 77.7 73.9 70.1 66.2 62.2 58.0 53.5 43.6 31.1	50.8 50.8 50.5 50.1 49.2 48.6 47.8 46.0 43.3	15.1 15.1 15.1 15.1 15.1 15.1 13.6 12.1 9.5 7.5 Ángu 15.1 15.1	30.1 30.1 29.6 22.9 18.5 15.4 13.2 11.5 9.1 7.5 ulo de plu 26.6 21.9 17.8	uma prind	cipal 83.0	0 [°]			
16.0 18.0	57.3 48.0	48.2 46.5	13.3 10.6	12.8 10.0						
20.0	36.8	44.3	8.1	8.0						
	Ángulo de pluma principal 75.0 [°]									
18.6 20.0 22.0 24.0 26.0	65.0 59.2 50.2 39.6 25.3	48.2 47.5 46.0 43.9 40.6	13.9 11.2 8.5 7.0	12.9 11.2 9.2 7.6 6.3						
Ángulo de pluma principal 65.0 [°]										
26.3 28.0 30.0 32.0	55.0 46.7 35.3 17.6	44.6 43.2 40.8 36.8	5.0 4.0 3.0	4.9 4.0 3.1 2.3	·		- 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

Inserción			1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		32.0	0 m Plum Cabeza 19.0	o de carç 1) 38.5 r nidfall (19	n Plumín	dfall I				
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
8.5 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 76.5 73.4 70.2 66.9 63.6 60.1 52.7 44.4 34.4 73.0 69.7 63.0 55.9	53.7 53.6 53.3 53.0 52.5 52.1 51.5 50.1 48.2 45.7 53.0 52.6 51.7 50.4	15.1 15.1 15.1 13.4	25.1 21.9 16.0 12.5	uma princ	cipal 83.0)[°]			
20.0 22.0	48.0 38.9	48.8 46.6	11.3 8.9	10.2 8.5						
24.0	27.2	43.4	7.4 Á	7.2		-in al 75 (0.00			
40.0	05.0	50.0	Angu	110 de pil	uma prin	cipai 75.0	ַן <u>י</u> ן			
19.9 20.0 22.0	65.0 64.6 57.5	50.9 50.9 49.7	13.9 11.8	11.6 9.7						
24.0 26.0 28.0	49.9 41.1 30.2	48.2 46.2 43.3	10.1 8.7 7.4	8.1 6.8 5.7						
Ángulo de pluma principal 65.0 [°]										
28.0 30.0 32.0 34.0 35.0	55.0 47.0 37.6 26.9 18.6	47.1 45.5 43.2 39.9 37.3	4.1 3.3 2.5 2.2	4.3 3.4 2.6						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0	de plumí		1) 41.5 r	n Plumín			
Ángulo de pluma principal 88.0 [°]										
9.2	78.0	56.7	15.1	30.1	i i	i i				
10.0	75.7	56.5	15.1	28.2						
11.0	73.0	56.2	15.1	23.4						
12.0	70.2	55.8	15.1	19.7						
13.0	67.4	55.4	15.1	17.1						
14.0	64.5	54.9	15.1	15.0						
16.0	58.5	53.8	13.3	12.0						
18.0	52.1	52.3	10.5	9.8						
20.0	44.9	50.5	8.6	8.2						
22.0	36.7	48.1	7.1	7.0						
24.0	26.1	44.8	6.1	6.0						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0 [°]			
13.8	73.0	55.8		22.3						
14.0	72.6	55.8	15.1	22.3						
16.0	67.0	55.0	15.1	16.7						
18.0	61.1	54.0	14.8	13.1						
20.0	54.8	52.7	11.6	10.6						
22.0	48.0	51.0	9.4	8.9						
24.0	40.3	48.9	7.7	7.5						
26.0	31.0	46.0	6.5	6.5						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
21.1	65.0	53.7		10.5						
22.0	62.5	53.2	11.6	9.7						
24.0	56.3	52.0	9.9	8.2						
26.0	49.6	50.4	8.5	6.9						
28.0	42.2	48.4	7.3	5.9						
30.0 33.3 45.8 6.3 4.9										
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
29.7	55.0	49.5		3.4						
30.0	54.0	49.4	4.0	3.3						
32.0	47.1	47.7	3.2	2.6						
34.0	40.0	45.5	2.5							
35.0	35.6	44.1	2.1							



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

360°

2821-1 2821-1 Cabeza de pluma principal:

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 0.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
			0 m Plum Cabeza 25.0	de plumí		1) 44.5 r	n Plumín				
Ángulo de pluma principal 88.0 [°]											
9.8											
10.0	77.5	59.6	15.1	28.3							
11.0	75.1	59.3	15.1	23.9							
12.0	72.7	59.0	15.1	20.3							
13.0	70.3	58.6	15.1	17.5							
14.0	67.8	58.2	14.7	15.5							
16.0	62.7	57.3	13.5	12.4							
18.0	57.3	56.0	11.1	10.2							
20.0	51.6	54.6	8.9	8.6							
22.0	45.3	52.7	7.5	7.3							
24.0	38.2	50.4	6.3	6.3							
26.0	29.7	47.4	5.5	5.5							
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C				
14.7	73.0	58.7		19.7							
16.0	69.9	58.3	15.1	17.1							
18.0	64.9	57.4	14.1	13.5							
20.0	59.6	56.3	12.2	11.1							
22.0	54.1	54.9	9.7	9.2							
24.0	48.0	53.3	8.1	7.9							
26.0	41.3	51.2	6.8	6.7							
28.0	33.5	48.5	5.9	5.9							
30.0	23.4	44.8	5.1	5.1							
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]C				
22.4	65.0	56.4		9.5							
24.0	60.8	55.6	9.8	8.3							
26.0	55.4	54.3	8.5	7.0							
28.0	49.5	52.7	7.3	6.0							
30.0	42.9	50.7	6.3	5.1							
32.0	35.4	48.2	5.4	4.3							
34.0	26.0	44.8	4.5	3.6							
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]				
31.4	55.0	52.0		2.8							
32.0	53.4	51.6	3.1	2.6							
34.0	47.3	49.9	2.4	2.0							
35.0	44.5	48.9	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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		32.0	0 m Plum Cabeza 28.0	de plumi	oal, Punt ín (1916- osición m	1) 47.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
10.4 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 76.7 74.6 72.5 70.3 65.9 61.2 56.4 51.2 45.7 39.4	62.5 62.4 62.1 61.8 61.5 60.6 59.6 58.3 56.8 55.0	15.1 15.1 15.1 15.1 15.1 15.1 15.1 14.3 13.7 12.2	30.1 30.1 28.8 26.0 23.6 19.7 16.8 14.4 12.5 10.9 9.6						
28.0	32.2	49.9	9.5	8.4						
30.0	22.9	46.1	8.5 Ángu	7.4	ıma nrin	oinal 02	0 [0]			
15.6	73.0	61.6	Angu	19.3	uma prin	cipai os.i	U[]			
16.0 18.0 20.0 22.0 24.0 26.0	72.1 67.7 63.2 58.5 53.4 48.1	61.5 60.7 59.7 58.6 57.2 55.5	15.1 15.1 15.1 13.9 12.1 10.6	18.6 15.6 13.3 11.4 9.9 8.6						
28.0	42.1	53.4	9.3	7.5						
30.0	35.4	50.9	8.2	6.5						
32.0	27.2	47.6	7.2	5.7		-!175:	0.001			
00.7	05.0	50.4	Angu		ıma prin	cipai 75.	ַנין <u>ו</u>			
23.7 24.0 26.0	65.0 64.2 59.6	59.1 59.0 57.9	9.5 8.2	8.4 8.2 7.0						
26.0 59.6 57.9 8.2 7.0 28.0 54.6 56.5 7.1 5.9 30.0 49.3 54.9 6.1 5.0 32.0 43.5 52.9 5.2 4.3 34.0 37.0 50.5 4.4 3.6 36.0 29.3 47.4 3.7 3.0										
					uma prin	cipal 65.	1°10	•		
33.1 34.0	55.0 53.1	54.4 53.9	2.2	2.1	- 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

	Inserciór	1	1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
32.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 50.5 m Plumín 19.0 [m] Posición midfall (1916)											
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]				
8.5 9.0 10.0 11.0 12.0 13.0 14.0 16.0 20.0 13.0 14.0 16.0 12.0 20.0	78.0 76.5 73.4 70.2 66.9 63.6 60.1 52.7 44.4 34.4 73.0 69.7 63.0 55.9 48.0 38.9	53.7 53.6 53.3 53.0 52.5 52.1 51.5 50.1 48.2 45.7 53.0 52.6 51.7 50.4 48.8	15.1 15.1 15.1 15.1 15.1 15.1 12.8 10.0 Ángu 15.1 15.1 15.1 15.1 15.1 15.1 11.1	30.1 30.1 29.5 25.5 22.2 19.6 17.3 13.8 11.2 9.1 20.6 18.0 14.0 11.1 8.9 7.2	uma prind	cipal 83.	0[°]				
24.0	27.2	43.4	9.1	5.8							
			Ángı		ıma prin	cipal 75.0	0[°]				
19.9 20.0 22.0 24.0 26.0 28.0	65.0 64.6 57.5 49.9 41.1 30.2	50.9 50.9 49.7 48.2 46.2 43.3	11.4 9.2 7.4 5.8 4.4	8.7 8.6 6.7 5.2 4.0 2.9							
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]				
28.1 29.0	55.0 51.6	47.1 46.4	2.6 2.1								



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0	de plumí		1) 53.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
9.2 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 75.7 73.0 70.2 67.4 64.5 58.5 52.1 44.9	56.7 56.5 56.2 55.8 55.4 54.9 53.8 52.3 50.5	15.1 15.1 15.1 15.1 15.1 15.1 15.1 13.7 11.0 9.0	30.1 29.8 26.4 22.5 19.5 17.0 13.4 10.8 8.9						
22.0	36.7	48.1	7.3	7.4						
24.0	26.1	44.8	6.2 Ángi	Ilo de nli	ıma prin	cinal 83 i	1 ° 1			
13.8	73.0	55.8	Aligo	18.8		Cipai 65.	J []			
14.0 16.0 18.0 20.0 22.0 24.0	72.6 67.0 61.1 54.8 48.0 40.3	55.8 55.0 54.0 52.7 51.0 48.9	15.1 15.1 15.1 12.5 10.4 8.4	18.5 14.6 11.7 9.5 7.7 6.3						
26.0	31.0	46.0	6.9	5.1						
			Ángı	ılo de plu	uma prin	cipal 75.	[°]			
21.1 22.0 24.0 26.0 28.0 30.0	65.0 62.5 56.3 49.6 42.2 33.3	53.7 53.2 52.0 50.4 48.4 45.8	9.1 7.4 5.9 4.6 3.4	7.7 6.9 5.4 4.2 3.2 2.4						
32.0	22.9	41.9	2.4	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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
32.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 56.5 m Plumín 25.0 [m] Posición midfall (1916)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]			
9.8 10.0 11.0 12.0 13.0	78.0 77.5 75.1 72.7 70.3	59.6 59.6 59.3 59.0 58.6	15.1 15.1 15.1 15.1 15.1	30.1 30.1 27.0 23.1 19.9						
14.0 16.0 18.0 20.0 22.0	67.8 62.7 57.3 51.6 45.3	58.2 57.3 56.0 54.6 52.7	15.0 14.7 12.5 10.3 8.7	17.6 14.1 11.7 9.9 8.4						
24.0 26.0	38.2 29.7	50.4 47.4	7.3 6.3	7.2 6.1						
20.0	25.7	77.7			ıma prin	cipal 83.0	[°10			
14.7 16.0 18.0	73.0 69.9 64.9	58.7 58.3 57.4	15.1 14.8	17.3 15.0 12.1	·	•				
20.0 22.0 24.0 26.0 28.0	59.6 54.1 48.0 41.3 33.5	56.3 54.9 53.3 51.2 48.5	13.6 11.1 9.4 7.9 6.6	9.9 8.1 6.7 5.5 4.5						
30.0	23.4	44.8	5.4	3.6						
22.4 24.0 26.0 28.0	65.0 60.8 55.4 49.5	56.4 55.6 54.3 52.7	Ángu 7.4 6.0 4.7	6.8 5.7 4.5 3.5	ıma prind	cipal 75.	[°]			
30.0 32.0 33.0	42.9 36.2 32.0	50.7 48.2 46.6	3.6 2.7 2.2	2.6						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]		
	20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 38.5 m Plumín 16.0 [m] Posición midfall (2316)											
Ángulo de pluma principal 88.0 [°]												
7.5 8.0 9.0 10.0 11.0	78.0 76.3 72.6 68.7 64.8	38.8 38.7 38.4 38.0 37.5	15.1 15.1 15.1 15.1	30.1 30.1 25.0 20.8 17.6								
12.0 13.0 14.0 16.0 18.0	60.7 56.4 51.8 41.5 28.1	37.0 36.3 35.6 33.6 30.6	15.1 15.1 15.1 12.9 9.9	15.0 12.8 11.1 8.3 6.2								
			Ángu	ılo de plu	ıma prin	cipal 83.0	D[°]					
10.7 11.0 12.0 13.0 14.0 16.0 18.0 20.0	73.0 71.8 67.9 63.9 59.8 50.8 40.3 26.3	38.2 38.1 37.7 37.2 36.6 35.2 33.1 30.0	15.1 15.1 15.1 15.1 15.1 15.1 11.7 8.8 6.4	18.8 17.8 15.0 12.7 10.8 8.0 5.8 4.1								
			Ángu	ılo de plı	ıma prin	cipal 75.0	D[°]					
15.5 16.0 18.0 20.0 22.0	65.0 63.2 54.6 44.8 32.7	36.6 36.4 35.1 33.4 30.8	9.7 7.1 5.0 3.2	7.9 7.3 5.1 3.5 2.1								
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]					
21.4	55.0	33.7	2.1									



9842523/95738/ Nº de ident.:

Radio de descarga: 360 ° Pieza de articulación de pluma principal: 2821-1 2821-1 Cabeza de pluma principal:

2 - Vía ancha

Valor de vuelco:	2 - Via ancha
Lastre trasero [t]:	0.0
Lastre central [t]:	0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 41.5 m Plumín 19.0 [m] Posición midfall (2316)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.2 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 75.4 72.2 69.0 65.7 62.3 58.8 51.2 42.7 32.2	41.8 41.6 41.2 40.8 40.4 39.9 39.3 37.8 35.8 33.1	15.1 15.1 15.1 15.1 15.1 15.1 14.7 13.0 10.1 7.8	30.1 25.7 21.6 18.3 15.7 13.6 11.8 9.0 6.8 5.1						
44.0	70.0			ılo de plu	ıma prin	cipai 83.0	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	1		
11.6 12.0 13.0 14.0 16.0 18.0 20.0 22.0	73.0 71.6 68.3 65.0 58.0 50.4 41.7 31.0	41.1 40.9 40.5 40.1 38.9 37.4 35.4 32.6	15.1 15.1 15.1 15.1 11.6 8.9 6.7 4.9	16.5 15.4 13.2 11.3 8.4 6.3 4.6 3.3						
	Ángulo de pluma principal 75.0 [°]									
16.8 18.0 20.0 22.0 23.0	65.0 60.9 53.6 45.4 41.7	39.3 38.7 37.4 35.6 34.5	7.0 5.0 3.4 2.6	6.5 5.3 3.7 2.4	-		-			



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

Valor de vuelco:

360°

Cabeza de pluma principal:

2821-1

2 - Vía ancha Lastre trasero [t]: 0.0 Lastre central [t]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 44.5 m Plumín 22.0 [m] Posición midfall (2316)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
Angulo de pluma principal 88.0 [°] 8.8 78.0 44.7 15.1 27.2 9.0 77.4 44.7 15.1 26.2 10.0 74.7 44.4 15.1 22.1 11.0 72.0 44.1 15.1 18.9 12.0 69.2 43.7 15.1 16.3 13.0 66.4 43.2 15.1 14.2 14.0 63.5 42.7 15.1 12.4 16.0 57.4 41.5 13.2 9.6 18.0 50.8 40.0 10.4 7.4 20.0 43.5 38.1 8.1 5.7 22.0 34.9 35.6 6.3 4.3 24.0 23.6 31.9 4.7 3.2										
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
12.4 13.0 14.0 16.0 18.0 20.0 22.0 24.0	73.0 71.4 68.6 62.9 56.7 50.1 42.7 33.9	43.9 43.8 43.4 42.4 41.2 39.6 37.7 35.0	15.1 15.1 11.7 9.1 7.0 5.2 3.7	14.8 13.6 11.7 8.9 6.7 5.1 3.7 2.6						
			Ángı	ılo de plu	ıma prin	cipal 75.0	D [°]	·		
18.1 20.0 22.0 24.0	65.0 59.3 52.9 46.4	42.1 41.0 39.6 37.8	5.2 3.6 2.3	5.5 4.0 2.7	•	•				

Source:a9841388



9842523/95738/ Nº de ident.:

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

Radio de descarga:

360 ° 2 - Vía ancha

valor de vuelco:	2 - VI	a ancha
Lastre trasero [t]:		0.0
Lastre central [t]:		0.0
Inserción	1	2

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 47.5 m Plumín 25.0 [m] Posición midfall (2316)										
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
Angulo de pluma principal 88.0 [°] 9.4 78.0 47.6 24.4 10.0 76.6 47.5 15.1 22.2 11.0 74.2 47.2 15.1 19.1 12.0 71.8 46.9 15.1 16.5 13.0 69.4 46.5 15.1 14.4 14.0 66.9 46.1 15.1 12.6 16.0 61.7 45.1 12.9 9.8 18.0 56.3 43.8 10.2 7.6 20.0 50.5 42.3 8.0 5.9 22.0 44.1 40.4 6.3 4.5 24.0 36.8 37.9 4.7 3.4										
26.0	27.8	34.7	3.4 Ángu	2.4	ıma nrin	cipal 83.0	\ \			
13.3 14.0 16.0 18.0 20.0 22.0 24.0	73.0 71.3 66.4 61.2 55.7 49.9 43.4	46.8 46.6 45.8 44.7 43.4 41.9 39.9	14.7 11.4 8.9 6.8 5.1 3.7	13.0 11.8 9.0 6.8 5.2 3.8 2.7	ania pilli	ыраг оо.ч	, j			
	Ángulo de pluma principal 75.0 [°]									
19.4 20.0 22.0 24.0	65.0 63.3 58.0 52.7	44.8 44.5 43.3 41.9	5.4 4.9 3.4 2.2	4.4 3.9 2.7	·					



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal: 2821-1

Cabeza de pluma principal:

2821-1

Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 50.5 m Plumín 28.0 [m] Posición midfall (2316)											
Ángulo de pluma principal 88.0 [°]											
10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 76.0 73.8 71.7 69.5 65.0 60.4 55.5 50.2 44.6	50.6 50.3 50.0 49.7 49.3 48.5 47.4 46.1 44.5 42.6	15.1 15.1 15.1 15.1 12.7 10.1 8.0 6.2 4.8	22.1 19.1 16.6 14.5 12.7 9.9 7.8 6.1 4.7 3.5							
26.0	38.2	40.3	3.5 Ápgi	2.6	ıma prin	cipal 83.) [°]				
14.2 16.0 18.0 20.0 22.0 24.0 26.0	73.0 69.1 64.6 59.9 55.0 49.7 44.4	49.7 49.0 48.1 47.0 45.7 44.1 42.2	11.2 8.7 6.7 5.1 3.7 2.6	11.5 9.0 6.9 5.3 3.9 2.8	лпа рпп	ыраг өз.	J []				
Ángulo de pluma principal 75.0 [°]											
20.6 22.0 24.0	65.0 61.8 57.3	47.5 46.8 45.6	3.3 2.1	3.5 2.7							



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco:

Lastre trasero [t]: 0.0 Lastre central [t]: 0.0

Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 53.5 m Plumín 31.0 [m] Posición midfall (2316)											
Ángulo de pluma principal 88.0 [°]											
10.7 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.4 75.5 73.5 71.6 67.6 63.5 59.3 54.8 50.0	53.5 53.4 53.2 52.9 52.5 51.8 50.8 49.7 48.3 46.7	15.1 15.1 15.1 15.1 15.1 12.4 9.8 7.8 6.1 4.6	19.9 19.0 16.5 14.4 12.7 9.9 7.8 6.1 4.7 3.5							
			Ángı	ılo de plı	uma prin	cipal 83.	0 [°]				
15.1 16.0 18.0 20.0 22.0 24.0	73.0 71.2 67.2 63.1 58.8 54.3	52.5 52.2 51.4 50.5 49.3 48.0	12.0 10.8 8.4 6.5 4.9 3.5	10.1 8.9 6.8 5.2 3.9 2.8			-				
Ángulo de pluma principal 75.0 [°]											
21.9 22.0 23.0	65.0 64.8 62.9	50.2 50.2 49.7	3.0 2.4	2.5 2.5							