

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	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 49.0		n (1916-	1) 92.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
14.7 16.0	78.0 76.4	80.1 79.8	12.1 11.8	12.9 12.6						
18.0 20.0 22.0	74.0 71.5 69.0	79.2 78.6 77.8	10.3 8.4 6.9	10.1 8.3 6.9						
24.0 26.0	66.5 63.9	77.0 76.0	5.7 4.7	5.8 4.8						
28.0 30.0 32.0	61.2 58.5 55.7	75.0 73.8 72.5	4.0 3.3 2.8	4.1 3.4 2.9						
34.0	52.8	71.0	2.3	2.4						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
21.4	73.0	78.7	8.2	8.3						
22.0	72.2	78.5	8.2	8.3						
24.0 26.0	69.7 67.2	77.8 77.0	7.1 5.9	7.1 6.0						
28.0	64.6	76.0	5.0	5.0						
30.0	62.0	75.0	4.2	4.3						
32.0	59.3	73.9	3.6	3.7						
34.0	56.5	72.6	3.0	3.1						
36.0	53.7	71.2	2.5	2.6						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
31.8	65.0	75.2		4.8						
32.0	64.7	75.2	4.7	4.8						
34.0	62.1	74.1	4.3	4.4						
36.0 38.0	59.4 56.6	73.0 71.7	3.6 3.1	3.7 3.2						
40.0	53.7	70.3	2.6	2.7						
42.0	50.7	68.7	2.2	2.7						
				ılo de plu	ıma prin	cipal 65 (	1°10			
43.9	55.0	68.9	,gc	2.7						
44.0	54.9	68.9	2.5	2.7						
46.0	52.0	67.5	2.4	2.5						
48.0	48.9	65.6		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]
		29.	0 m Plum Cabeza 49.0	de plumi	ín (2316-		n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	0 [°]			
14.7 16.0 18.0	78.0 76.5 74.0	80.1 79.8 79.3	15.1 15.1	22.6 22.6 18.8						
20.0	71.6 69.1	78.6 77.9	14.8 14.3	16.0 13.9						
24.0 26.0 28.0 30.0 32.0	66.6 64.0 61.3 58.6 55.8	77.0 76.1 75.0 73.8 72.5	11.9 9.1 7.0 5.0 3.2	11.5 9.2 7.4 5.3 3.3						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0 [°]			
21.4 22.0 24.0 26.0 28.0	73.0 72.3 69.8 67.3 64.7	78.7 78.5 77.8 77.0 76.1	15.1 14.8 13.2 11.3	15.9 15.9 14.6 12.7 11.0						
30.0 32.0 34.0 36.0 38.0	62.1 59.4 56.6 53.7 50.7	75.1 73.9 72.6 71.2 69.6	9.7 8.3 6.8 5.6 4.6	9.4 8.1 6.9 5.8 4.9						
40.0 42.0	47.6 44.3	67.9 65.9	3.5 2.5	3.7 2.7						
					uma prin	cipal 75.0	0 [°]			
31.8 32.0 34.0 36.0	65.0 64.8 62.1 59.4	75.2 75.2 74.2 73.0	9.2 7.8 6.5	7.1 7.0 5.8 4.8	-					
38.0 40.0 42.0 44.0	56.7 53.8 50.8 47.9	71.7 70.3 68.7 67.0	5.3 4.3 3.4 2.4	4.0 3.2 2.5						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

Valor de vuelco: 2 - Vía ancha

Lastre trasero [ t ]: 74.0

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]
		29.0	0 m Plun Cabeza 52.0	de plumi	ín (1916-	o de caro 1) 95.5 r nidfall (19	n Plumír	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
15.3 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 77.2 74.9 72.6 70.3 67.9 65.5 63.0 60.5 58.0	83.0 82.9 82.3 81.7 81.0 80.3 79.4 78.4 77.3 76.1	9.5 9.5 8.4 7.2 6.0 5.1 4.2 3.4 2.9 2.4	10.6 10.6 9.3 7.7 6.2 5.2 4.3 3.5 3.0 2.4						
32.0	30.0	70.1			ıma prin	cipal 83.0	0[°]			
22.2 24.0 26.0 28.0 30.0 32.0 34.0	73.0 71.0 68.6 66.2 63.8 61.3 58.7	81.5 81.0 80.2 79.4 78.4 77.3 76.2	6.4 5.3 4.4 3.6 3.1 2.5	6.9 6.5 5.4 4.5 3.8 3.2 2.6	-					
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
33.0 34.0 36.0	65.0 63.8 61.3	77.9 77.5 76.5	3.6 3.2	3.8 3.8 3.2						
38.0 40.0	58.8 56.1	75.3 74.0	2.6 2.1	2.7 2.2						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360°

Cabeza de pluma principal:

2 - Vía ancha Valor de vuelco: Lastre trasero [ t ]: 74.0 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]
		29.0	0 m Plum Cabeza 52.0		n (2316-	·1) 98.5 r̀	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
15.3 16.0 18.0 20.0 22.0	78.0 77.3 75.0 72.7 70.4	83.0 82.9 82.4 81.8 81.1	15.1 15.1 14.8 13.3	20.5 20.5 18.2 15.6 13.4	·	·				
24.0 26.0 28.0 30.0 32.0	68.0 65.6 63.1 60.6 58.0	80.3 79.4 78.4 77.3 76.1	12.0 9.2 6.9 5.2 3.7	11.6 9.1 7.2 5.7 4.0						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
22.3 24.0 26.0 28.0 30.0	73.0 71.0 68.7 66.3 63.8	81.6 81.0 80.2 79.4 78.4	14.9 12.6 10.9 9.3	14.4 14.1 12.2 10.7 9.3						
32.0 34.0 36.0 38.0 40.0	61.3 58.8 56.1 53.4 50.6 47.6	77.4 76.2 74.9 73.5 71.9	8.0 6.8 5.5 4.4 3.6	8.0 6.8 5.7 4.7 3.8						
42.0	47.0	70.1			ıma nrin	oinal 75 (	) [ ° 1			
33.1 34.0 36.0 38.0 40.0 42.0 44.0	65.0 63.9 61.4 58.8 56.2 53.5 50.9	77.9 77.5 76.5 75.3 74.0 72.6 71.0	7.4 6.2 5.0 4.0 3.2 2.3	6.2 5.7 4.7 3.8 3.0 2.3	лпа рпп	ыраг 75.	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]
			0 m Plum Cabeza 13.0	de plumí		1) 32.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]C			
7.3 8.0 9.0 10.0 11.0 12.0	78.0 74.7 70.0 65.2 60.1 54.7 48.9	47.9 47.7 47.3 46.9 46.3 45.6 44.8	15.1 15.1 15.1 15.1 14.4 12.2	30.1 30.1 22.3 16.9 13.6 11.3 9.6						
14.0	42.4	43.7	8.9 Ángu	8.3	ıma prin	cinal 83 (	1 ° 1			
11.2 12.0 13.0 14.0 16.0 18.0	73.0 69.3 64.4 59.3 47.9 33.5	47.2 46.9 46.5 45.9 44.3 41.9	15.1 15.1 14.0 10.3 7.3	26.4 21.0 16.1 13.1 9.3 7.1		Sipai 00.	5 [ ]			
10.0	00.0				ıma prin	cipal 75.0	1°10			
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	16.2 14.2 10.0 7.4	p	. ,,	- , 1			
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
24.5 26.0 28.0	55.0 46.4 31.3	42.2 41.0 38.4	8.9 6.7	11.1 8.9 6.8						
			Ángı	ılo de plu	ıma prin	cipal 45.	[°]			
36.7 38.0	35.0 21.7	32.0 29.8	6.2	7.0 6.0						



Nº de ident.: 9842523/95738/

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

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

	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		n (1916-	1) 35.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
7.9 8.0 9.0 10.0 11.0	78.0 77.7 73.9 70.1 66.2	50.8 50.8 50.5 50.1 49.7	15.1 15.1 15.1 15.1 15.1	30.1 30.1 29.6 22.9 18.5						
12.0 13.0 14.0 16.0 18.0	62.2 58.0 53.5 43.6 31.1	49.2 48.6 47.8 46.0 43.3	15.1 13.6 12.1 9.5 7.5	15.4 13.2 11.5 9.1 7.5						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]C			
12.1 13.0 14.0 16.0 18.0 20.0	73.0 69.5 65.6 57.3 48.0 36.8	50.1 49.8 49.3 48.2 46.5	15.1 15.1 15.1 13.3 10.6	26.6 21.9 17.8 12.8 10.0						
20.0	30.0	44.5	<del></del>	ılo de plu	ıma nrin	cinal 75 (	1 ° 1			
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	15.1 11.2 8.5 7.0	16.7 13.7 10.5 8.3 7.0	and pilli		~ [ ]			
			Ángı	ılo de plı	ıma prin	cipal 65.0	D [ ° ]			
26.3 28.0 30.0	55.0 46.7 35.3	44.6 43.2 40.8	10.0 7.8	11.6 9.6 7.7	-					
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
39.2 40.0 41.0	35.0 28.9 19.2	33.7 32.6 30.4	7.0 6.4	7.5 7.0 6.4						



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]
			0 m Plum Cabeza 16.0		n (2316-	1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.0 9.0 10.0 11.0 12.0	78.0 74.2 70.4 66.4 62.4	50.8 50.5 50.2 49.7 49.2	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 25.8 21.9	·	·				
13.0 14.0 16.0 18.0	58.2 53.7 43.8 31.4	48.6 47.9 46.0 43.3	15.1 15.1 13.2 10.9	18.6 16.0 12.6 10.3						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
12.1 13.0 14.0 16.0 18.0 20.0	73.0 69.7 65.8 57.5 48.2 37.1	50.1 49.8 49.4 48.2 46.6 44.3	15.1 15.1 15.1 14.2 11.7	30.1 29.6 25.5 18.0 13.8 11.0						
			Ángı	ılo de plu	ıma prin	cipal 75.0	l°1C			
18.7 20.0 22.0 24.0 26.0	65.0 59.4 50.4 39.9 25.6	48.2 47.5 46.0 43.9 40.7	15.1 15.1 15.1 12.2 10.0	23.6 19.1 14.5 11.4 9.6	·		-			
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
26.3 28.0 30.0	55.0 47.0 35.5	44.6 43.3 40.9	13.7 10.6	15.1 12.5 10.1						
			Ángu	ılo de plu	ıma prin	cipal 45.0	[°]			
39.2 40.0 41.0	35.0 29.2 19.6	33.7 32.7 30.5	7.0 6.4	5.9 5.5 5.0						



Nº de ident.: 9842523/95738/

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

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

	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			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
8.5	78.0	53.7		30.1						
9.0	76.5	53.6	15.1	30.1						
10.0	73.4	53.3	15.1	27.8						
11.0	70.2	53.0	15.1	22.7						
12.0	66.9	52.5	15.1	19.2						
13.0	63.6	52.1	15.1	16.4						
14.0	60.1	51.5	14.6	14.5						
16.0	52.7	50.1	12.5	11.4						
18.0	44.4	48.2	10.2	9.4						
20.0	34.4	45.7	8.1	7.9						
			Angu	ılo de plu	ıma prin	cipal 83.0	D[°]			
13.0	73.0	53.0	15.1	25.7						
14.0	69.7	52.6	15.1	21.9						
16.0	63.0	51.7	15.1	16.0						
18.0 20.0	55.9 48.0	50.4 48.8	13.4 11.3	12.5 10.2						
22.0	38.9	46.6	8.9	8.5						
24.0	27.2	43.4	7.4	7.2						
24.0	27.2	40.4			ıma prin	cinal 75 (	) [ ° ]			
40.0	05.0	50.0	Aligu	16.9		Jipai 13.	J [ ]			
19.9 20.0	65.0 64.6	50.9 50.9	15.1	16.9						
20.0	57.5	50.9 49.7	15.1	13.3						
24.0	49.9	48.2	11.2	10.7						
26.0	41.1	46.2	8.9	8.8						
28.0	30.2	43.3	7.4	7.5						
			Ánaı	ılo de plı	ıma prin	cipal 65.0	1°10			
28.0	55.0	47.1	J.	12.0						
30.0	47.0	45.5	10.1	10.0						
32.0	37.6	43.2	8.2	8.3						
34.0	25.4	39.9	6.9	7.1						
			Ángu	ılo de plu	ıma prin	cipal 45.0	0 [°]			
41.6	35.0	35.4	3-	7.4	P					
42.0	32.8	35.1	8.0	7.2						
44.0	17.4	30.9	6.8	6.3						



360°

# Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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]
		32.0	0 m Plum Cabeza 19.0	de plumi	oal, Punt ín (2316- osición m	1) 41.5 r	n Plumín	dfall		
			Ángı	ılo de plu	uma prin	cipal 88.0	[°]			
8.6 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 76.7 73.6 70.4 67.1 63.7 60.3 52.9 44.6 34.7	53.8 53.7 53.4 53.0 52.6 52.1 51.5 50.1 48.3 45.8	15.1 15.1 15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 30.1 26.5 22.5 19.7 15.3 12.4 10.1						
			Ángı	ılo de plı	ıma prin	cipal 83.0	[°]C			
13.0 14.0 16.0 18.0 20.0 22.0 24.0	73.0 69.9 63.2 56.1 48.2 39.1 27.4	53.0 52.6 51.7 50.5 48.8 46.6 43.5	15.1 15.1 15.1 14.0 11.3 9.3	30.1 29.2 22.1 16.9 13.5 11.0 9.1						
			Ánaı	ılo de plı	ıma prin	cipal 75.0	1°10			
19.9 20.0 22.0 24.0 26.0 28.0	65.0 64.7 57.7 50.1 41.3 30.5	50.9 50.9 49.8 48.2 46.2 43.4	15.1 15.1 15.1 12.5 10.4	23.2 23.2 17.9 14.2 11.6 9.7						
			Ángı	ılo de plı	ıma prin	cipal 65.0	D[°]			
28.0 30.0 32.0 34.0	55.0 47.2 37.9 25.6	47.1 45.5 43.2 39.9	14.2 11.2 9.2	15.2 12.6 10.3 8.7	,					
			Ángı	ılo de plu	ıma prin	cipal 4 <u>5</u> .0	[°]			
41.7 42.0 44.0	35.0 33.1 17.7	35.4 35.2 31.0	6.0 5.0	4.9 4.8 3.9						



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 ]: 74.0 Lastre central [ t ]: 0.0

Alcan- ce [ m ]	Ángu- ó de plumín [°]	Altura de rolda- nas [ m ]	1 Carga [t]	2 Carga	3 Carga	4	5	6	7	8
ce	o de plumín	de rolda- nas			Carga					
				[11]	[t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		32.0	0 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	[°]			
9.2	78.0	56.7	15.1	30.1						
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 18.0	58.5 52.1	53.8 52.3	13.3 10.5	12.0 9.8						
20.0	44.9	52.3 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						
24.0	20.1	11.0			ıma nrin	cipal 83.0	1 ° 1			
13.8	73.0	55.8	, «ige	22.3	IIIa piiii	l loc.	, j			
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	[°]C			
21.1	65.0	53.7		14.7						
22.0	62.5	53.2	15.0	13.8						
24.0	56.3	52.0	12.4	11.1						
26.0	49.6	50.4	9.8	9.3						
28.0	42.2	48.4	8.1	7.8						
30.0	33.3	45.8	6.8	6.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	] C			
29.7	55.0	49.5		10.4						
30.0	54.0	49.4	10.5	10.4						
32.0	47.1	47.7	8.5	8.7						
34.0	39.3	45.5	7.2	7.4						
36.0	29.6	42.5	6.2	6.4						
			Angı		ıma prin	cipal 45.0	) [°]			
44.1	35.0	37.2		6.5						
46.0	24.3	34.0	6.1	5.8						



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 ]: 74.0 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]
		32.0	0 m Plum Cabeza 22.0	de plumi	oal, Punt ín (2316- osición m	1) 44.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	] (°)			
9.2 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 75.9 73.2 70.4 67.6 64.7 58.7 52.2 45.1 36.9 26.3	56.7 56.5 56.2 55.8 55.4 54.9 53.8 52.4 50.5 48.2	15.1 15.1 15.1 15.1 15.1 14.8 14.1 11.9 9.5	30.1 30.1 29.2 27.0 23.8 20.5 16.2 13.2 10.9 9.1						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
13.9 14.0 16.0 18.0 20.0 22.0 24.0 26.0	73.0 72.7 67.1 61.3 55.0 48.2 40.5 31.2	55.8 55.8 55.0 54.0 52.7 51.1 48.9 46.1	15.1 15.1 15.1 13.9 12.2 9.8 8.2	30.1 30.1 23.3 17.9 14.3 11.8 9.8 8.4						
20.0	01.2				ıma prin	cinal 75 (	1°10			
21.2 22.0 24.0 26.0 28.0 30.0	65.0 62.6 56.5 49.8 42.3 33.5	53.7 53.3 52.0 50.5 48.5 45.8	15.1 14.5 12.9 10.4 8.6	20.2 18.9 15.0 12.4 10.3 8.8						
			Ángı	ılo de plı	ıma prin	cipal 65.0	[°]			
29.8 30.0 32.0 34.0 36.0	55.0 54.2 47.3 39.5 29.8	49.5 49.4 47.7 45.5 42.6	14.9 12.1 9.7 8.1	13.3 13.3 11.1 9.3 7.9	•	•	•			
			Ángı	ılo de plı	ıma prin	cipal 45.0	[°]			
44.1 46.0 47.0	35.0 24.5 16.3	37.1 34.1 31.4	4.5 4.1	4.3 3.6 3.2						

Source:a9841388



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 Plun Cabeza 25.0	na princip de plumí 0 [ m ] Po	n (1916-	1) 44.5 r	n Plumín			
			Ángi	ılo de plu	ıma prin	cipal 88 (	1°10			
9.8	78.0	59.6	15.1	28.3			, <u>, , , , , , , , , , , , , , , , , , </u>			
10.0 11.0 12.0 13.0	77.5 75.1 72.7 70.3	59.6 59.3 59.0 58.6	15.1 15.1 15.1 15.1	28.3 23.9 20.3 17.5						
14.0 16.0 18.0 20.0	67.8 62.7 57.3 51.6	58.2 57.3 56.0 54.6	14.7 13.5 11.1 8.9	15.5 12.4 10.2 8.6						
22.0 24.0 26.0	45.3 38.2 29.7	52.7 50.4 47.4	7.5 6.3 5.5	7.3 6.3 5.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
14.7 16.0 18.0 20.0	73.0 69.9 64.9 59.6	58.7 58.3 57.4 56.3	15.1 14.1 12.2	19.7 17.1 13.5 11.1						
22.0 24.0 26.0 28.0	54.1 48.0 41.3 33.5	54.9 53.3 51.2 48.5	9.7 8.1 6.8 5.9	9.2 7.9 6.7 5.9						
30.0	23.4	44.8	5.1	5.1						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
22.4 24.0 26.0 28.0 30.0 32.0 34.0	65.0 60.8 55.4 49.5 42.9 35.4 26.0	56.4 55.6 54.3 52.7 50.7 48.2 44.8	12.8 10.2 8.3 7.1 6.0 5.3	13.2 11.5 9.6 8.2 7.0 6.1 5.3						
34.0	20.0	44.0		ılo de plu	ıma nrin	cinal 65 (	) [ ° ]			
31.4 32.0 34.0 36.0 38.0 40.0	55.0 53.4 47.3 40.5 32.5 21.9	52.0 51.6 49.9 47.8 45.0 41.1	9.5 7.8 6.7 5.8 5.1	9.3 9.1 7.7 6.6 5.8 5.1	апіа ріпі	ыраг оол	7 [ ]			
. 5.5				ılo de plu	ıma prin	cipal 45 (	1°10			
46.5	35.0	38.9	,ig	5.8	p.1111	pao	]			
48.0 50.0	28.3 17.1	36.7 31.8	5.5 4.8	5.3						



N° de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [ t ]: 74.0 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]
		32.0	Cabeza	de plumí	oal, Punt ín (2316- osición m	1) 47.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
9.8	78.0	59.6	- · · · · · · · · · · · · · · · · · · ·	30.1						
10.0 11.0 12.0 13.0	77.6 75.2 72.8 70.4	59.6 59.3 59.0 58.7	15.1 15.1 15.1 15.1	30.1 30.1 27.8 24.3						
14.0 16.0 18.0 20.0	67.9 62.8 57.5 51.8	58.3 57.3 56.1 54.6	15.1 15.1 13.0 10.9	21.4 16.7 13.6 11.4						
22.0 24.0 26.0	45.5 38.4 29.9	52.8 50.5 47.5	9.1 7.6 6.5	9.6 8.1 6.9						
					ıma prin	cipal 83.0	1°10			
14.8 16.0 18.0	73.0 70.0 65.0	58.7 58.3 57.4	15.1 15.1 15.1	27.4 23.8 18.4						
20.0 22.0 24.0 26.0	59.8 54.2 48.2 41.5	56.3 55.0 53.3 51.2	14.3 12.1 10.3 8.6	14.8 12.2 10.3 8.7						
28.0 30.0	33.7 23.6	48.6 44.8	7.2 6.1	7.5 6.4						
30.0	20.0	74.0			ıma prin	cinal 75 (	1°1			
22.5 24.0 26.0	65.0 61.0 55.5	56.4 55.6 54.3	15.1 15.1 13.2	17.7 15.5 12.8						
28.0 30.0 32.0 34.0	49.6 43.1 35.6 26.2	52.7 50.7 48.2 44.8	9.0 7.5 6.5	9.1 7.8 6.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0[°]			
31.5 32.0	55.0 53.5	52.0 51.7	12.6	11.7 11.5						
34.0 36.0 38.0 40.0	47.4 40.6 32.6 22.1	50.0 47.8 45.1 41.2	10.2 8.4 7.1 6.1	9.7 8.2 7.1 6.1						
					ıma prin	cipal 45.0	[°]			
46.6	35.0	38.9		3.4						
48.0 50.0	28.5 15.2	36.8 31.9	3.7 3.0	3.0 2.3						

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

	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	Cabeza	de plumí	oal, Punt ín (1916- osición m	1) 47.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	) [°]			
10.4	78.0	62.5	15.1	30.1						
11.0	76.7	62.4	15.1	30.1						
12.0	74.6	62.1	15.1	30.1						
13.0 14.0	72.5 70.3	61.8 61.5	15.1 15.1	27.7 25.0						
16.0	65.9	60.6	15.1	20.5						
18.0	61.2	59.6	15.1	17.3						
20.0	56.4	58.3	14.3	14.8						
22.0	51.2	56.8	13.7	13.0						
24.0	45.7	55.0	12.2	11.6						
26.0	39.4	52.7	10.6	10.3						
28.0 30.0	32.2 22.9	49.9 46.1	9.5 8.5	9.4 8.6						
30.0	22.9	40.1			uma prin	cipal 83.0	1°1C			
15.6	73.0	61.6	,g.	27.8			· [ ]			
16.0	72.1	61.5	15.1	27.7						
18.0	67.7	60.7	15.1	22.4						
20.0	63.2	59.7	15.1	18.4						
22.0	58.5	58.6	14.4	15.7						
24.0 26.0	53.4 48.1	57.2 55.5	13.6 12.3	13.7 12.2						
28.0	42.1	53.4	10.8	10.9						
30.0	35.4	50.9	9.5	9.8						
32.0	27.2	47.6	8.7	9.0						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
23.7	65.0	59.1		19.0						
24.0	64.2	59.0	15.1	19.0						
26.0	59.6	57.9	15.1 14.2	16.2 14.1						
28.0 30.0	54.6 49.3	56.5 54.9	13.3	12.5						
32.0	43.5	52.9	11.6	11.1						
34.0	37.0	50.5	10.2	10.0						
36.0	29.3	47.4	9.2	9.2						
			Ángı		ıma prin	cipal 65.0	[°]			
33.1	55.0	54.4		13.9						
34.0	52.8	53.9	14.7	13.5						
36.0 38.0	47.4 41.4	52.2 50.1	12.7 11.1	12.0 10.7						
40.0	34.5	47.5	9.9	9.7						
42.0	26.0	44.0	8.9	8.9						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
49.0	35.0	40.6		5.0						
50.0	31.1	39.3	5.6	4.8						
53.0	16.1	32.2	4.7							



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]
			0 m Plum Cabeza 19.0	de plumi		1) 50.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.	0 [°]			
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	53.7 53.6 53.3 53.0 52.5 52.1 51.5 50.1 48.2 45.7	15.1 15.1 15.1 15.1 15.1 15.1 14.9 12.8 10.0	30.1 30.1 30.0 27.4 24.0 20.5 18.0 14.1 11.5 9.5						
			Ángu	ılo de plu	ıma prin	cipal 83.	0 [°]			
13.0 14.0 16.0 18.0 20.0 22.0 24.0	73.0 69.7 63.0 55.9 48.0 38.9 27.2	53.0 52.6 51.7 50.4 48.8 46.6 43.4	15.1 15.1 15.1 15.1 14.1 11.1 9.1	30.1 27.5 20.0 15.5 12.5 10.3 8.7						
24.0	21.2	70.7	•		ıma prin	cinal 75 i	1 ° 1 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	15.1 15.1 14.7 11.8 9.6	20.7 20.6 16.4 13.1 10.7 9.1						
					ıma prin	cipal 65.	1°10			
28.0 30.0 32.0 34.0	55.0 47.0 37.6 25.4	47.1 45.5 43.2 39.9	13.7 11.0 9.1	14.5 12.3 10.2 8.7	15.	, ,	- , 1			
			Ángı	ılo de plu	ıma prin	cipal 45.	0[°]			
41.6 42.0 44.0	35.0 32.8 17.4	35.4 35.1 30.9	6.6 5.6	5.1 4.9 4.0						



N° de ident.: 9842523/95738/

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

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

	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		1) 50.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.5	78.0	62.6	15.1	30.1						
11.0 12.0 13.0 14.0	76.9 74.7 72.6 70.4	62.4 62.2 61.8 61.5	15.1 15.1 15.1 15.1	30.1 30.1 29.6 29.0						
16.0 18.0 20.0 22.0 24.0	66.0 61.4 56.5 51.4 45.8	60.6 59.6 58.4 56.8 55.0	15.1 15.1 15.1 15.1 13.5	24.3 20.1 17.0 14.7 12.8						
26.0 28.0 30.0	39.6 32.4 23.1	52.8 50.0 46.1	11.7 10.3 9.0	11.3 10.0 9.0						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]0			
15.7 16.0 18.0	73.0 72.2 67.9	61.6 61.5 60.7	15.1 15.1 15.1	30.1 30.1 26.8						
20.0 22.0 24.0	63.3 58.6 53.6	59.8 58.6 57.2	15.1 15.1 15.1	21.6 18.2 15.5						
26.0 28.0 30.0 32.0	48.2 42.3 35.6 27.4	55.5 53.5 50.9 47.6	14.1 12.3 10.9 9.6	13.6 11.9 10.6 9.5						
			Ángı	ılo de plı	ıma prin	cipal 75.0	[°]			
23.7	65.0 64.4	59.1 59.0	15.1	22.4						
26.0 28.0 30.0 32.0 34.0	59.7 54.7 49.5 43.7 37.2	57.9 56.6 54.9 53.0 50.6	15.1 15.1 15.0 13.0 11.4	18.8 16.1 14.1 12.4 11.0						
36.0	29.4	47.5	10.1	9.9	ıma nriz	oinal GC (	) ) [ ° 1			
33.2	55.0	54.4	Angl	12.0	uma prin	upai 05.0	\ \	1	I	
34.0 36.0 38.0	52.9 47.5 41.5	53.9 52.2 50.1	13.6 12.3 11.1	11.4 10.1 8.9						
40.0 42.0	34.7 26.2	47.5 44.0	9.9 8.8	7.9 6.9						
					ıma prin	cipal 45.0	[°]			
49.0	35.0	40.6		2.7						
50.0 53.0	31.2 16.4	39.4 32.3	3.0 2.1	2.5						



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 ]: 74.0

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]
			0 m Plum Cabeza 22.0	de plumí		1) 53.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.2 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 75.7 73.0 70.2 67.4 64.5 58.5 52.1 44.9 36.7 26.1	56.7 56.5 56.2 55.8 55.4 54.9 53.8 52.3 50.5 48.1 44.8		24.7	uma princ	cipal 83.	0 [°]			
14.0 16.0 18.0	72.6 67.0 61.1	55.8 55.0 54.0	15.1 15.1 15.1	24.7 19.1 14.8						
20.0 22.0 24.0 26.0	54.8 48.0 40.3 31.0	52.7 51.0 48.9 46.0	12.5 10.4 8.4 6.9	11.8 9.7 8.0 6.8						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
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	15.1 14.0 11.0 8.8 7.3	16.3 15.6 12.3 10.2 8.4 7.1						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
29.7 30.0 32.0 34.0 36.0	55.0 54.0 47.1 39.3 29.6	49.5 49.4 47.7 45.5 42.5	12.5 10.2 8.3 7.0	11.4 11.4 9.5 8.0 6.9						
44.1	25.0	37.2	Angu	ılo de plu 4.3	ıma prin	cipal 45.0	<u>[ "]</u>			
44.1 46.0 47.0	35.0 24.3 16.0	37.2 34.0 31.3	4.9 4.5	3.6 3.3						



N° de ident.: 9842523/95738/

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

Lastre central [ t ]:

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [ t ]: 74.0

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]
		32.0	0 m Plum Cabeza 31.0	de plumí	oal, Punt ín (2316- osición m	1) 53.5 r	n Plumín	dfall 1		
					uma prin					
11.1	78.0	65.5	15.1	30.1		l l	,			
12.0 13.0 14.0	76.3 74.3 72.4	65.3 65.0 64.7	15.1 15.1 15.1	30.1 30.1 27.8						
16.0 18.0	68.5 64.4	63.9 63.0	15.1 15.1	23.3						
20.0 22.0 24.0	60.2 55.7 51.1	61.9 60.6 59.1	14.7 13.6 12.7	16.2 13.9 12.2						
26.0 28.0	46.0 40.5 34.2	57.3 55.1	11.1 9.5	10.7 9.4 8.4						
30.0 32.0	26.6	52.4 49.0	8.3 7.4	7.5			2.0.3			
			Angl		ıma prin	cipai 83.	ן י	1	1	
16.5 18.0	73.0 70.1	64.5 64.0	15.1	28.5 25.4						
20.0 22.0 24.0	66.1 62.0 57.6	63.1 62.1 60.9	15.1 15.1 14.1	20.7 17.3 14.8						
26.0 28.0	53.1 48.2	59.5 57.8	13.3 11.9	12.8 11.3						
30.0 32.0 34.0	42.9 37.0 30.0	55.7 53.3 50.2	10.2 8.8 7.8	10.0 8.8 7.9						
36.0	21.0	46.0	6.9	7.1			2.0.1			
25.0	65.0	61.8	Angu	18.8	uma prind	cipai 75.	)			
26.0 28.0 30.0	62.9 58.6 54.1	61.3 60.2 58.8	15.1 15.1 13.6	18.0 15.5 13.3						
32.0 34.0	49.3 44.1	57.2 55.2	12.4 10.6	11.7 10.3						
36.0 38.0 40.0	38.4 31.7 23.4	52.9 50.0 46.1	9.2 8.2 7.3	9.2 8.3 7.4						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
34.9 36.0	55.0 52.5	56.9 56.2	11.9	10.7 10.1						
38.0 40.0 42.0	47.6 42.2 36.2	54.4 52.4 49.9	10.7 9.6 8.4	9.0 8.0 7.0						
44.0	29.1	46.7	7.5	6.2						
54.7	25.2	40.0		ilo de plu	ıma prin	cipal 45.0	["]			
51.7 52.0	35.0 34.0	42.3 41.8	2.3							



2821-1

2821-1

Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 74.0 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]
			0 m Plum Cabeza 22.0		ín (2316-	1) 56.5 r	n Plumír			
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
9.2 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 75.9 73.2 70.4 67.6 64.7 58.7 52.2 45.1	56.7 56.5 56.2 55.8 55.4 54.9 53.8 52.4 50.5	15.1 15.1 15.1 15.1 15.1 15.0 14.9	30.1 30.1 29.8 28.4 25.9 22.3 17.5 14.2 11.7						
22.0	36.9	48.2	10.2	9.7						
24.0	26.3	44.8	8.4	8.2	L .					
40.0	70.0	55.0	Angu	ılo de plu	ıma prin	cipal 83.	0[°]	I	I	1
13.9 14.0 16.0 18.0 20.0 22.0 24.0 26.0	73.0 72.7 67.1 61.3 55.0 48.2 40.5 31.2	55.8 55.8 55.0 54.0 52.7 51.1 48.9 46.1	15.1 15.1 15.1 15.1 14.0 11.3 9.2	30.1 30.1 25.3 19.4 15.4 12.7 10.5 8.9						
			Ángı	ılo de plu	uma prin	cipal 75.	1°10			
21.2 22.0 24.0 26.0 28.0 30.0	65.0 62.6 56.5 49.8 42.3 33.5	53.7 53.3 52.0 50.5 48.5 45.8	15.1 15.1 14.8 12.0 9.8	21.5 20.5 16.3 13.4 11.1 9.4						
Ángulo de pluma principal 65.0 [°]										
29.8 30.0 32.0 34.0 36.0	55.0 54.2 47.3 39.5 29.8	49.5 49.4 47.7 45.5 42.6	14.2 12.3 10.6 8.8	10.9 10.7 9.0 7.5 6.2	·	·				
			Angl	ılo de plu	uma prin	cipai 45.	νįj			

44.3 35.0 37.1



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 ]: 74.0 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]
			0 m Plum Cabeza 25.0		n (1916-	1) 56.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
9.8	78.0	59.6	15.1	30.1						
10.0 11.0 12.0 13.0	77.5 75.1 72.7 70.3	59.6 59.3 59.0 58.6	15.1 15.1 15.1 15.1	30.1 27.0 23.1 19.9						
14.0 16.0 18.0 20.0	67.8 62.7 57.3 51.6	58.2 57.3 56.0 54.6	15.0 14.7 12.5 10.3	17.6 14.1 11.7 9.9						
22.0 24.0 26.0	45.3 38.2 29.7	52.7 50.4 47.4	8.7 7.3 6.3	7.2 6.3						
			Ángı	ılo de plu	ıma prin	cipal 83.0	D[°]			
14.7 16.0 18.0 20.0	73.0 69.9 64.9 59.6	58.7 58.3 57.4 56.3	15.1 14.8 13.7	21.9 19.5 15.3 12.7						
22.0 24.0 26.0 28.0	54.1 48.0 41.3 33.5	54.9 53.3 51.2 48.5	11.1 9.4 7.9 6.7	10.6 9.1 7.7 6.7						
30.0	23.4	44.8	5.9	5.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
22.4 24.0 26.0 28.0 30.0 32.0 34.0	65.0 60.8 55.4 49.5 42.9 35.4 26.0	56.4 55.6 54.3 52.7 50.7 48.2 44.8	14.2 11.6 9.7 8.2 7.0 6.1	14.7 13.1 11.0 9.4 8.0 6.9 6.1						
00	20.0			ılo de plu	ıma prin	cipal 65 (	0 [ ° ]			
31.4 32.0 34.0 36.0 38.0 40.0	55.0 53.4 47.3 40.5 32.5 21.9	52.0 51.6 49.9 47.8 45.0 41.1	10.9 9.1 7.7 6.7 5.9	10.5 10.5 8.9 7.6 6.7 5.9	pill	pur 00.1	- [ ]			
				ılo de plu	ıma prin	cipal 45.0	1°10			
46.5	35.0	38.9		3.7	-	,	. ,			
48.0 50.0	28.3 17.1	36.7 31.8	4.3 3.6	3.3						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserción	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) 59.5 r	n Plumín			
			Ánaı	ılo de plu	uma prin	cipal 88.0	1°10			
9.8 10.0 11.0	78.0 77.6 75.2	59.6 59.6 59.3	15.1 15.1	30.1 30.1 30.1		'				
12.0 13.0 14.0	72.8 70.4 67.9	59.0 58.7 58.3	15.1 15.1 15.1	28.9 25.8 23.1						
16.0 18.0 20.0	62.8 57.5 51.8	57.3 56.1 54.6	15.1 15.1 14.0 12.7	18.0 14.7 12.2						
22.0 24.0 26.0	45.5 38.4 29.9	52.8 50.5 47.5	10.8 8.8 7.4	10.3 8.6 7.4						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
14.8 16.0 18.0	73.0 70.0 65.0	58.7 58.3 57.4	15.1 15.1 15.1	28.6 25.9 19.9						
20.0 22.0 24.0	59.8 54.2 48.2	56.3 55.0 53.3	14.6 12.4 10.7	16.0 13.1 11.1						
26.0 28.0 30.0	41.5 33.7 23.6	51.2 48.6 44.8	8.9 7.4 6.3	9.3 8.0 6.7						
					ıma prin	cipal 75.0	1°10			
22.5 24.0 26.0	65.0 61.0 55.5	56.4 55.6 54.3	15.1 15.1 14.1	18.7 16.8 13.8		•				
28.0 30.0 32.0 34.0	49.6 43.1 35.6 26.2	52.7 50.7 48.2 44.8	12.5 10.2 8.4 7.2	9.8 8.4 7.2						
34.0	20.2	77.0			uma prin	cinal 65 (	1°1			
31.5 32.0	55.0 53.5	52.0 51.7	12.1	9.6 9.2	IIII PIIII					
34.0 36.0 38.0 40.0	47.4 40.6 32.6 22.1	50.0 47.8 45.1 41.2	10.5 9.0 7.7 6.5	7.8 6.6 5.5 4.5						
41.0	16.4	38.2	5.9							



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]
		32.0	0 m Plum Cabeza 28.0	de plumí	oal, Punt ín (1916- osición m	1) 59.5 r	n Plumín	dfall I		
					ıma prin	cipal 88.	0[°]			
10.4 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 76.7 74.6 72.5 70.3 65.9 61.2 56.4	62.5 62.4 62.1 61.8 61.5 60.6 59.6 58.3	15.1 15.1 15.1 15.1 15.1 14.3 13.5 10.8	28.5 28.5 24.1 21.0 18.4 14.8 12.3 10.2						
22.0 24.0	51.2 45.7	56.8 55.0	8.7 7.4	8.6 7.3						
26.0 28.0 30.0	39.4 32.2 22.9	52.7 49.9 46.1	6.3 5.4 4.7	6.3 5.5 4.8						
			Ángı	ılo de plu	ıma prin	cipal 83.	0 [°]			
15.6 16.0 18.0 20.0 22.0 24.0	73.0 72.1 67.7 63.2 58.5 53.4	61.6 61.5 60.7 59.7 58.6 57.2	15.1 15.1 12.6 10.5 8.6	20.1 20.1 16.2 13.1 10.9 9.1						
26.0 28.0 30.0 32.0	48.1 42.1 35.4 27.2	55.5 53.4 50.9 47.6	7.3 6.3 5.4 4.8	7.9 6.7 5.8 5.1						
23.7	65.0	59.1	Angu	ılo de plu 13.5	ıma prin	cipal 75.	0[°]			
24.0 26.0 28.0 30.0 32.0 34.0	64.2 59.6 54.6 49.3 43.5 37.0	59.0 57.9 56.5 54.9 52.9 50.5	13.8 11.5 9.4 7.9 6.8 5.8	13.4 11.4 9.6 8.2 7.0 6.1						
36.0	29.3	47.4	5.1 Ángi	Jo de plu	ıma prin	cinal 65 i	1 ° 1 ∩			l
33.1 34.0 36.0 38.0 40.0 42.0	55.0 52.8 47.4 41.4 34.5 26.0	54.4 53.9 52.2 50.1 47.5 44.0	9.5 7.9 6.7 5.8 5.2	9.3 9.1 7.8 6.7 5.9 5.2	апта ріпп	ыраг оо.	V [ ]			
			Ángı		ıma prin	cipal 45.	0 [°]			
49.0 50.0 53.0	35.0 31.1 16.1	40.6 39.3 32.2	3.7 2.7	3.1 2.8						



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]
		32.0		de plumí	pal, Punt n (2316- osición m	1) 62.5 r	n Plumín			
					ıma prin					
10.5	78.0	62.6	15.1	30.1		l loo.	, j			
11.0 12.0 13.0	76.9 74.7 72.6	62.4 62.2 61.8	15.1 15.1 15.1	30.1 28.5 25.5						
14.0 16.0	70.4 66.0	61.5 60.6	15.1 14.6	22.1 17.5						
18.0 20.0 22.0	61.4 56.5 51.4	59.6 58.4 56.8	14.0 11.3 9.2	14.2 11.7 9.8						
24.0 26.0 28.0 30.0	45.8 39.6 32.4 23.1	55.0 52.8 50.0 46.1	7.8 6.6 5.6 4.7	8.3 7.0 6.0 5.0						
			Ángu	ılo de plu	uma prin	cipal 83.0	[°]C			
15.7 16.0	73.0 72.2	61.6 61.5	15.1 15.1	24.4 24.3						
18.0 20.0 22.0 24.0	67.9 63.3 58.6 53.6	60.7 59.8 58.6 57.2	15.1 15.1 13.5 11.1	19.3 15.4 12.7 10.6						
26.0 28.0 30.0 32.0	48.2 42.3 35.6 27.4	55.5 53.5 50.9 47.6	9.3 7.7 6.4 5.5	9.0 7.6 6.5 5.5						
			Angı		ıma prin	cipal 75.0	0[°]		I	
23.7 24.0 26.0	65.0 64.4 59.7	59.1 59.0 57.9	15.1 13.6	15.8 15.8 13.3						
28.0 30.0 32.0 34.0	54.7 49.5 43.7 37.2	56.6 54.9 53.0 50.6	11.2 9.3 7.8 6.6	11.1 9.5 8.0 6.8						
36.0	29.4	47.5	5.6	5.9						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
33.2 34.0 36.0 38.0	55.0 52.9 47.5 41.5	54.4 53.9 52.2 50.1	10.4 8.6 7.3	8.5 8.0 6.8 5.8						
40.0 42.0 44.0	34.7 26.2 15.4	47.5 44.0 38.6	6.2 5.3 4.4	4.8 4.0						



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 ]: 74.0 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]
		32.0		de plumi	ín (1916-	o de carç 1) 62.5 r nidfall (19	n Plumír			
						cipal 88.0				
11.0	78.0	65.5	, ange	25.9						
12.0 13.0 14.0 16.0	76.1 74.2 72.3 68.3	65.2 65.0 64.6 63.9	15.1 15.1 15.1 14.9	24.7 21.4 18.9 15.2						
18.0 20.0 22.0 24.0	64.3 60.0 55.6 50.9	63.0 61.9 60.6 59.0	12.9 11.3 9.2 7.6	12.5 10.5 8.8 7.6						
26.0 28.0 30.0 32.0	45.9 40.4 34.1 26.5	57.2 55.0 52.4 48.9	6.5 5.6 4.9 4.3	6.6 5.7 5.0 4.4						
32.0	20.5	40.9	,		ıma nrin	cipal 83.0	1 ° 1			
16.5 18.0 20.0 22.0 24.0 26.0	73.0 70.0 66.0 61.8 57.5 52.9	64.4 63.9 63.1 62.1 60.8 59.4	15.1 15.1 14.1 12.0 10.0 8.2	18.2 16.5 13.5 11.3 9.5 8.1						
28.0 30.0 32.0 34.0 36.0	48.1 42.8 36.8 29.9 20.8	57.7 55.7 53.3 50.2 45.9	7.0 6.1 5.3 4.6 4.0	7.0 6.1 5.3 4.7 4.1						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
24.9 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0	65.0 62.8 58.5 54.0 49.2 44.0 38.3 31.6 23.2	61.8 61.3 60.1 58.8 57.1 55.2 52.9 50.0 46.1	12.8 10.4 8.6 7.3 6.3 5.5 4.8	12.2 11.7 9.9 8.4 7.3 6.3 5.5 4.9						
40.0		1 <del>4</del> 0.1			ıma nrin	cipal 65.0	0 [ ° ]		1	
34.9 36.0 38.0 40.0 42.0 44.0	55.0 52.4 47.5 42.1 36.1 28.9	56.9 56.1 54.4 52.3 49.8 46.6	8.1 7.0 6.1 5.3 4.7	8.4 8.1 7.0 6.1 5.3 4.8	ania pilir	ыраг оол	V 1 J			
				ılo de plı	ıma prin	cipal 45.0	0 [°]			
51.4 55.0	35.0 21.4	42.3 35.8	2.4	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	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]
		32.0	Cabeza	de plumi	pal, Punt n (2316- osición m	1) 65.5 r	n Plumín	dfall		
			Ángı	ılo de plı	uma prin	cipal 88.0	1°10			
11.1	78.0	65.5	15.1	30.1						
12.0 13.0	76.3 74.3	65.3 65.0	15.1 15.1	30.1 30.1						
14.0 16.0	72.4 68.5	64.7 63.9	15.1 15.1	27.9 22.6						
18.0	64.4	63.0	15.1	18.5						
20.0	60.2	61.9	14.7	15.6						
22.0	55.7	60.6	12.9	13.3						
24.0	51.1	59.1	11.5	11.6						
26.0	46.0 40.5	57.3	10.0	10.2 8.9						
28.0 30.0	34.2	55.1 52.4	8.6 7.5	7.9						
32.0	26.6	49.0	5.9	6.2						
					ıma prin	cipal 83.0	1°10			
16.5	73.0	64.5	I	27.0			,			
18.0	70.1	64.0	15.1	24.6						
20.0	66.1	63.1	15.1	20.1						
22.0	62.0	62.1	15.1	16.7						
24.0	57.6	60.9	13.9	14.3						
26.0	53.1	59.5	12.6	12.3						
28.0 30.0	48.2 42.9	57.8 55.7	9.7	10.8 9.5						
32.0	37.0	53.7	8.3	8.4						
34.0	30.0	50.2	7.3	7.4						
36.0	21.0	46.0	6.3	6.5						
			Ángı	ılo de plı	ıma prin	cipal 75.0	0[°]			
25.0	65.0	61.8		17.0						
26.0	62.9	61.3	15.1	15.7						
28.0	58.6	60.2	15.1	13.6						
30.0	54.1	58.8	13.0	11.8						
32.0	49.3	57.2	11.3	10.3						
34.0 36.0	44.1 38.4	55.2 52.9	9.7 8.4	9.0 7.8						
38.0	31.7	50.0	7.4	6.8						
40.0	23.4	46.1	6.6	5.8						
			Ángı		uma prin	cipal 65.0	[°]			
34.9	55.0	56.9		7.4						
36.0	52.5	56.2	8.8	6.8						
38.0	47.6	54.4	7.5	5.8						
40.0	42.2	52.4	6.4	4.8						
42.0	36.2	49.9 46.7	5.4	4.0						
44.0 46.0	29.1 19.6	46.7 42.3	4.4 3.6	3.3 2.6						
-10.0	10.0	72.0	0.0	0						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [ t ]: 74.0 0.0 Lastre central [ t ]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín	Altura de rolda-	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	[°]	nas [ m ]								
		32.	m Plum	na princiņ	oal, Punt	o de caro	ga 3 - Mi	dfall		
			Cabeza 34.0	de plumi ) [ m ] Po	n (1916- osición m	1) 65.5 r nidfall (19	n Plumin 916)			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.7 12.0	78.0 77.4	68.4 68.3	15.1 15.1	23.5 23.5						
13.0	75.7	68.1	15.1	21.8						
14.0	73.9	67.8	15.1	19.2						
16.0	70.3	67.1	15.1	15.4						
18.0 20.0	66.7 62.9	66.3 65.3	13.6 11.3	12.8 10.7						
22.0	59.1	64.2	9.5	9.2						
24.0	55.0	62.8	7.9	7.8						
26.0	50.7	61.3	6.7	6.8						
28.0	46.1	59.5	5.8	5.9						
30.0 32.0	41.1 35.6	57.3 54.7	5.1 4.4	5.1 4.5						
34.0	29.1	51.5	3.9	4.0						
36.0	20.7	47.2	3.4	3.5						
			Ángu	ılo de plu	ıma prin	cipal 83.0	D[°]			
17.4	73.0	67.3	15.1	16.7						
18.0	71.8	67.1	15.1	16.6						
20.0	68.2	66.4	14.1	13.8						
22.0 24.0	64.5 60.7	65.4 64.4	11.7 9.7	11.5 9.8						
26.0	56.7	63.1	8.1	8.3						
28.0	52.5	61.7	6.9	7.2						
30.0	48.1	60.0	6.0	6.3						
32.0 34.0	43.3 38.0	58.0 55.6	5.3 4.6	5.5 4.8						
36.0	31.9	52.7	4.0	4.8						
38.0	24.5	48.9	3.6	3.8						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
26.2	65.0	64.5	10.7	11.1						
28.0 30.0	61.6 57.6	63.6 62.4	10.7 8.9	10.2 8.7						
32.0	53.5	61.0	7.5	7.5						
34.0	49.1	59.4	6.5	6.6						
36.0	44.4	57.5	5.7	5.7						
38.0	39.2	55.2	4.9	5.0						
40.0 42.0	33.4 26.4	52.4 48.9	4.3 3.9	4.4 3.9						
					ıma prin	cipal 65.0	[°]C			
36.6	55.0	59.4	9	7.6		, p. a				
38.0	52.0	58.4	7.2	7.2						
40.0	47.5	56.6	6.2	6.3						
42.0	42.7	54.6	5.4	5.5						
44.0 46.0	37.3 31.1	52.2 49.2	4.7 4.2	4.8 4.3						
48.0	23.5	45.3	3.8	3.9						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
53.9	35.0	44.0		2.1						
55.0	32.2	42.6	2.4							
56.0	28.8	40.9	2.1							



N° 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]
		32 (	0 m Plum	na princir	nal Punt	o de caro	na 3 - Mi	dfall		
			Cabeza	de plumí		1) 68.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.7	78.0	68.4		30.1						
12.0	77.5	68.4	15.1	30.1						
13.0 14.0	75.8 74.0	68.1 67.8	15.1 15.1	29.4 26.8						
16.0	70.4	67.1	15.1	21.3						
18.0	66.8	66.3	14.8	17.6						
20.0	63.1	65.4	14.4	14.8						
22.0 24.0	59.2	64.2	13.0	12.7 10.9						
26.0	55.1 50.8	62.9 61.3	10.9 9.3	9.6						
28.0	46.2	59.5	8.1	8.4						
30.0	41.3	57.4	7.0	7.3						
32.0	35.7	54.8	6.2	6.5						
34.0	29.2	51.6	5.2	5.4						
36.0	20.8	47.3	4.1	4.2		-:	2			
			Angu		ıma prin	cipai 83.0	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓	ı	ı	
17.4 18.0	73.0 71.9	67.3 67.1	15.1	23.4 23.4						
20.0	68.3	66.4	15.1	19.0						
22.0	64.6	65.5	15.1	15.9						
24.0	60.8	64.4	14.8	13.7						
26.0	56.8	63.2	12.4	11.7						
28.0 30.0	52.6 48.2	61.7 60.0	10.4 9.0	10.2 9.0						
32.0	43.4	58.0	7.8	7.8						
34.0	38.1	55.6	6.8	6.9						
36.0 38.0	32.1 24.7	52.7 49.0	6.0 5.3	6.1 5.4						
00.0		10.0			uma prin	cipal 75 (	1°10			
26.3	65.0	64.5	19	15.4		, p. a				
28.0	61.7	63.7	14.8	13.9	1					
30.0	57.7	62.5	13.0	12.1						
32.0	53.6	61.1	10.9	10.5						
34.0 36.0	49.2 44.5	59.4 57.5	9.4 8.2	9.2 8.0						
38.0	39.4	55.2	7.1	7.0						
40.0	33.5	52.5	6.3	6.1						
42.0	26.5	49.0	5.6	5.2						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
36.6	55.0	59.4		6.6						
38.0	52.1	58.4	7.5	5.9						
40.0 42.0	47.6 42.8	56.7 54.7	6.4 5.4	5.0 4.2						
44.0	37.4	52.2	4.5	3.4						
46.0	31.3	49.2	3.7	2.7						
48.0	23.6	45.4	2.9	2.1						
49.0	20.0	42.8	2.5							



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 ]: 74.0 0.0 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]
		32.0	0 m Plum Cabeza	de plumí	pal, Punt ín (1916- osición m	1) 68.5 r	n Plumín	dfall		
					ıma prin					
12.3	78.0	71.3	15.1	22.9		lipai oo.	J [ ]			
13.0	76.8	71.2	15.1	22.9						
14.0	75.2	70.9	15.1	20.5						
16.0 18.0	72.0 68.7	70.3 69.6	15.1 15.1	16.6 14.0						
20.0	65.3	68.7	12.4	11.7						
22.0	61.8	67.6	10.4	10.1						
24.0	58.2	66.5	8.9	8.7						
26.0 28.0	54.5 50.5	65.1 63.5	7.6 6.5	7.5 6.6						
30.0	46.3	61.7	5.8	5.9						
32.0	41.8	59.6	5.1	5.2						
34.0	36.7	57.1	4.5	4.6						
36.0	31.0	54.1	4.0	4.1						
38.0	24.1	50.2	3.6 Ángu	3.7	uma prin	cinal 83 (	1 0 1			
10.0	72.0	70.0	Angu		lina pini I	lipai 65.	J [ ]	ı	ı	
18.2 20.0	73.0 70.1	70.2 69.6	15.0	16.3 15.0						
22.0	66.7	68.8	13.7	12.6						
24.0	63.3	67.8	11.2	10.6						
26.0	59.7	66.7	9.5	9.2						
28.0 30.0	56.1 52.2	65.4 63.9	8.1 7.0	8.0 7.0						
32.0	48.1	62.2	6.1	6.2						
34.0	43.7	60.2	5.4	5.5						
36.0	38.9	57.9	4.8	4.9						
38.0 40.0	33.5 27.2	55.1 51.7	4.2 3.8	4.4 3.9						
					ıma prin	cipal 75.0	1°10			
27.5	65.0	67.2		10.9						
28.0	64.1	67.0	11.3	10.9						
30.0	60.6	65.9	9.8	9.6						
32.0 34.0	56.9 53.1	64.7 63.3	8.4 7.2	8.4 7.3						
36.0	49.0	61.6	6.4	6.5						
38.0	44.7	59.7	5.6	5.7						
40.0	40.0	57.5	4.9	5.1						
42.0 44.0	34.8 28.8	54.8 51.5	4.4 4.0	4.5 4.1						
46.0	21.1	47.2	3.5	3.6						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
38.3	55.0	61.8		7.5						
40.0 42.0	51.7 47.6	60.6 58.9	7.0 6.1	7.1 6.2						
42.0 44.0	47.6	58.9 56.9	5.4	5.5						
46.0	38.3	54.5	4.8	4.9						
48.0	32.8	51.7	4.3	4.4						
50.0 52.0	26.4 17.7	48.1 43.2	3.9	4.0 3.6						
32.0	11.1	<b>4</b> J.∠	3.5	3.0	1	1	1	I	I .	



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]
		32.0	0 m Plum Cabeza 37.0	de plumí	oal, Punt ín (2316- osición m	1) 71.5 r̀	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	0[°]			
12.3 13.0 14.0 16.0 18.0	78.0 76.9 75.3 72.1 68.8	71.4 71.2 70.9 70.3 69.6	15.1 15.1 15.1 15.1	28.6 28.6 25.2 20.1 16.6						
20.0 22.0 24.0 26.0 28.0	65.4 61.9 58.3 54.6 50.6	68.7 67.7 66.5 65.1 63.6	13.5 12.4 10.6 8.9 7.6	13.9 11.9 10.2 8.8 7.7						
30.0 32.0 34.0 36.0 38.0	46.4 41.9 36.9 31.2 24.2	61.7 59.6 57.2 54.1 50.3	6.6 5.7 4.9 4.2 3.2	6.7 5.8 5.1 4.2 3.2						
					uma prin	cipal 83.0	[°]			
18.3 20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0	73.0 70.2 66.8 63.4 59.8 56.2 52.3 48.2 43.8 39.0	70.2 69.6 68.8 67.8 66.7 65.4 63.9 62.2 60.3 57.9	15.1 15.1 14.7 13.0 11.5 9.6 8.1 7.1 6.1 5.3	19.8 17.9 15.0 12.6 10.9 9.4 8.2 7.2 6.2 5.4						
38.0 40.0	33.7 27.3	55.2 51.7	4.7 4.1	4.8 4.2						
.5.5					ıma prin	cipal 75.0	[°]			
27.5 28.0 30.0 32.0 34.0 36.0 38.0 40.0	65.0 64.2 60.7 57.0 53.2 49.1 44.8 40.2	67.3 67.1 66.0 64.7 63.3 61.7 59.7 57.5	13.8 11.9 10.1 8.5 7.4 6.4 5.6	12.9 12.9 11.3 9.8 8.5 7.5 6.5 5.7			_			
42.0 44.0 46.0	34.9 28.9 21.3	54.9 51.6 47.3	4.9 4.3 3.7	5.0 4.4 3.8						
			Ángı		ıma prin	cipal 65.0	[°]			
38.4 40.0 42.0 44.0 46.0 48.0 50.0	55.0 51.8 47.7 43.3 38.4 32.9 27.3	61.8 60.7 58.9 56.9 54.5 51.7 48.2	6.1 5.2 4.3 3.5 2.7 2.0	5.6 4.9 4.0 3.3 2.7 2.0						



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

	nserción	1	1	2	3	4	5	6	7	8
Alcan-		Altura	-			-		_		
ce	Ángu- o de	de	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
[ m ]	plumín	rolda-	l ' '		' '					' '
<b>i</b>	[°]	nas								
		[ m ]								
		32.	0 m Plum							
			Cabeza 40.0		n (1916- osición m					
			Ángı	ılo de plu	uma prin	cipal 88.0	D[°]			
12.9	78.0	74.3	15.1	24.0						
13.0	77.9	74.3	15.1	24.0						
14.0 16.0	76.4 73.4	74.0 73.5	15.1 15.1	23.4 19.3						
18.0	70.4	72.8	15.1	16.1						
20.0	67.3	72.0	14.0	13.8						
22.0	64.1	71.0	12.1	11.8						
24.0 26.0	60.9 57.5	70.0 68.7	10.7 9.2	10.3 9.1						
28.0	54.0	67.3	8.0	8.0						
30.0	50.3	65.8	7.1	7.2						
32.0	46.4	63.9	6.3	6.5						
34.0	42.3	61.9	5.7	5.8						
36.0 38.0	37.7 32.6	59.4 56.6	5.1 4.6	5.2 4.8						
40.0	26.7	53.0	4.2	4.4						
42.0	19.0	48.3	3.8	3.9						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
19.1	73.0	73.0		17.4						
20.0	71.6	72.8	15.1	17.3						
22.0 24.0	68.6 65.5	72.0 71.1	15.1 13.3	14.6 12.5						
26.0	62.2	70.1	11.3	10.9						
28.0	58.9	69.0	9.8	9.6						
30.0	55.5	67.6	8.5	8.5						
32.0 34.0	51.9 48.1	66.1 64.4	7.5 6.7	7.6 6.8						
36.0	44.1	62.5	6.0	6.1						
38.0	39.7	60.2	5.4	5.5						
40.0	34.8	57.5	4.9	5.0						
42.0	29.3	54.3	4.4	4.6						
44.0	22.5	50.2	4.0 Ángi		ıma prin	cipal 75 (	1°10			
28.7	65.0	70.0	L	11.7		pa, 70.	- [ ]			
30.0	63.0	69.4	11.4	11.4						
32.0	59.7	68.3	9.8	9.9						
34.0 36.0	56.3 52.7	67.0 65.5	8.6 7.5	8.8 7.8						
38.0	49.0	63.8	6.8	7.0						
40.0	45.0	61.9	6.1	6.4						
42.0	40.7	59.8	5.4	5.7						
44.0 46.0	36.0	57.2	4.9 4.5	5.2 4.8						
48.0	30.6 24.2	54.1 50.2	4.5	4.6						
. 510					ıma prin	cipal 65.0	0[°]			
40.0	55.0	64.3		8.1	<u>'</u>					
42.0	51.4	62.9	7.5	7.3						
44.0	47.6	61.1	6.7	6.6						
46.0 48.0	43.5 39.1	59.1 56.8	6.0 5.4	5.9 5.2						
50.0	39.1	56.8 54.1	5.4 4.9	5.2 4.6						
55.0	17.0	43.6	3.9	3.3						



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 ]: 74.0

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]
			0 m Plum Cabeza 31.0	de plumí		1) 74.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.0	78.0	65.5		21.4						
12.0	76.1	65.2	15.1	20.8						
13.0	74.2	65.0	15.1	18.0						
14.0	72.3	64.6	15.0	15.9						
16.0	68.3	63.9	14.4	12.7						
18.0	64.3	63.0	10.9	10.1						
20.0 22.0	60.0 55.6	61.9 60.6	8.6 7.0	8.3 6.8						
24.0	50.9	59.0	5.7	5.7						
26.0	45.9	57.2	4.8	4.8						
28.0	40.4	55.0	4.0	4.0						
30.0	34.1	52.4	3.4	3.4						
32.0	26.5	48.9	2.9	3.0						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
16.5	73.0	64.4	15.1	15.1						
18.0	70.0	63.9	14.9	13.9						
20.0	66.0	63.1	12.1	11.0						
22.0	61.8	62.1	9.3	9.0						
24.0	57.5	60.8	7.6	7.4						
26.0	52.9	59.4	6.2	6.2						
28.0 30.0	48.1 42.8	57.7 55.7	5.2 4.4	5.2 4.4						
32.0	36.8	53.7	3.7	3.8						
34.0	29.9	50.2	3.2	3.2						
36.0	20.8	45.9	2.7	2.7						
			Ánaı	ılo de plu	ıma prin	cipal 75.0	1°1C			
24.9	65.0	61.8		9.6						
26.0	62.8	61.3	9.9	9.4						
28.0	58.5	60.1	7.9	7.8						
30.0	54.0	58.8	6.5	6.5						
32.0	49.2	57.1	5.5	5.5						
34.0	44.0	55.2	4.7	4.7						
36.0 38.0	38.3 31.6	52.9 50.0	3.9 3.4	4.0 3.5						
40.0	23.2	46.1	2.9	3.5						
40.0	20.2	70.1			ıma prin	rinal 65 (	) [ ° ]			
34.9	55.0	56.9	Angu	6.4	ana pili	J. Pai 00.1	- L J			
36.0	52.4	56.1	6.2	6.2						
38.0	47.5	54.4	5.3	5.3						
40.0	42.1	52.3	4.5	4.5						
42.0	36.1	49.8	3.8	3.9						
44.0	28.9	46.6	3.3	3.4						
46.0	19.5	42.2	2.9	2.9						



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 40.0	de plumí		1) 74.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]			
13.0 14.0 16.0 18.0 20.0	78.0 76.5 73.5 70.5 67.4	74.3 74.1 73.5 72.8 72.0	15.1 15.1 15.1 15.1 14.5	28.5 27.8 22.4 18.4 15.7						
22.0 24.0 26.0 28.0 30.0	64.2 61.0 57.6 54.1 50.4	71.1 70.0 68.8 67.4 65.8	13.2 12.3 10.5 9.0 7.8	13.4 11.7 10.2 8.9 7.9						
32.0 34.0 36.0 38.0 40.0	46.5 42.4 37.8 32.7 26.8	64.0 61.9 59.5 56.6 53.1	6.7 5.7 4.8 4.0 2.9	6.9 5.9 5.0 4.2 3.0						
40.0	20.0	00.1			ıma prin	cipal 83.0	1°1C			
19.2 20.0 22.0 24.0 26.0	73.0 71.7 68.7 65.5 62.3	73.1 72.8 72.0 71.2 70.2	15.1 15.1 15.1 14.1 12.8	19.9 19.9 16.7 14.3 12.4		•				
28.0 30.0 32.0 34.0 36.0	59.0 55.6 52.0 48.2 44.2	69.0 67.7 66.2 64.5 62.5	11.2 9.6 8.3 7.3 6.4	10.8 9.5 8.4 7.5 6.6						
38.0 40.0 42.0 44.0	39.8 35.0 29.4 22.6	60.2 57.6 54.4 50.2	5.7 5.0 4.2 3.4	5.8 5.2 4.4 3.6						
20.0	25.0	70.0	Ángı		ıma prin	cipal 75.0	[°]		I	
28.8 30.0 32.0 34.0 36.0 38.0	65.0 63.1 59.8 56.4 52.8 49.1	70.0 69.4 68.3 67.0 65.5 63.9	13.8 11.6 10.0 8.6 7.6	13.0 11.9 10.5 9.2 8.1 7.0						
40.0 42.0 44.0 46.0 48.0	45.1 40.8 36.1 30.8 24.3	62.0 59.8 57.2 54.2 50.3	6.7 5.9 5.3 4.7 4.2	6.1 5.2 4.5 3.8 3.2						
			Ángı		ıma prin	cipal 65.0	0 [°]			
40.1 42.0 44.0 46.0 48.0	55.0 51.5 47.7 43.6 39.2	64.3 62.9 61.2 59.2 56.9	5.0 4.1 3.3 2.6	4.8 4.0 3.3 2.6 2.0						
49.0	37.3	55.6	2.2		I				l	



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

	Inserciór	l	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 34.0	de plumí		1) 77.5 r̀	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.7	78.0	68.4	15.1	19.1						
12.0	77.4	68.3	15.1	19.1						
13.0 14.0	75.7 73.9	68.1 67.8	15.1 15.1	18.0 15.9						
16.0	70.3	67.1	13.1	12.6						
18.0	66.7	66.3	11.0	10.2						
20.0	62.9	65.3	8.6	8.3						
22.0	59.1	64.2	7.0	6.9						
24.0	55.0	62.8	5.7	5.7						
26.0	50.7	61.3	4.7	4.8						
28.0	46.1	59.5	4.0	4.1						
30.0	41.1	57.3	3.4	3.4						
32.0 34.0	35.6 29.1	54.7 51.5	2.8 2.3	2.9 2.4						
34.0	29.1	31.3			ıma nrin	oinal 02 (	) [ ° 1			
L					ıma prin	cipai 83.	ן ן		ı	
17.4	73.0	67.3	15.0	13.5						
18.0 20.0	71.8 68.2	67.1 66.4	15.0 12.0	13.4 11.0						
22.0	64.5	65.4	9.4	8.9						
24.0	60.7	64.4	7.5	7.4						
26.0	56.7	63.1	6.2	6.2						
28.0	52.5	61.7	5.2	5.2						
30.0	48.1	60.0	4.4	4.4						
32.0	43.3	58.0	3.7	3.8						
34.0	38.0	55.6	3.1	3.2						
36.0 38.0	31.9 24.5	52.7 48.9	2.7	2.7						
30.0	24.5	40.9				-! I 75 /	2			
			Angu		ıma prin	cipai 75.	ן י		ı	
26.2	65.0	64.5	7.0	8.4						
28.0 30.0	61.6 57.6	63.6 62.4	7.9 6.6	7.8 6.5						
32.0	53.5	61.0	5.5	5.5						
34.0	49.1	59.4	4.7	4.7						
36.0	44.4	57.5	3.9	4.0						
38.0	39.2	55.2	3.3	3.4						
40.0	33.4	52.4	2.8	2.9						
42.0	26.4	48.9	2.5	2.5						
			Angu		ıma prin	cipal 65.0	D[°]			
36.6	55.0	59.4		5.5						
38.0	52.0	58.4	5.2	5.3						
40.0	47.5	56.6	4.4	4.5						
42.0 44.0	42.7 37.3	54.6 52.2	3.8 3.2	3.8 3.3						
46.0	31.1	49.2	2.8	2.9						
48.0	23.5	45.3	2.4	2.5						
49.0	18.5	42.7	2.2	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]							
<u> </u>			0 m Plum	na nrincir	nal Punt	o de car	na 3 - Mi	dfall		
			Cabeza	de plumi		1) 77.5 r̀	n Plumín			
			,		ıma prin					
13.6	78.0	77.2	15.1	28.2		·				
14.0	77.4	77.1	15.1	28.2						
16.0	74.7	76.6	15.1	23.9						
18.0	71.9	76.0	15.1	20.0						
20.0 22.0	69.0 66.1	75.2 74.4	15.1 13.7	17.1 14.7						
24.0	63.2	73.4	12.4	12.8						
26.0	60.1	72.3	11.3	11.4						
28.0	57.0	71.0	9.8	10.0						
30.0	53.7	69.6	8.5	8.9						
32.0	50.3	68.0	7.5	8.0						
34.0	46.7 42.8	66.2 64.2	6.3	6.6 5.3						
36.0 38.0	38.6	61.8	5.0 3.9	4.1						
40.0	34.0	59.0	3.0	3.2						
					ıma prin	cipal 83.0	D[°]			
20.0	73.0	75.9		19.9						
22.0	70.2	75.3	15.1	18.2						
24.0	67.4	74.5	15.1	15.7						
26.0	64.4	73.5	13.5	13.6						
28.0	61.4	72.5	12.4	12.0						
30.0 32.0	58.3 55.1	71.3 69.9	10.8 9.4	10.6 9.4						
34.0	51.7	68.4	8.2	8.4						
36.0	48.2	66.7	7.3	7.5						
38.0	44.5	64.8	6.5	6.7						
40.0	40.4	62.5	5.8	6.0						
42.0	36.0	60.0	5.2	5.4						
44.0 46.0	31.1 25.3	56.9 53.1	4.3 3.2	4.4 3.3						
40.0	20.0	00.1			ıma prin	cipal 75.0	[°]C			
30.1	65.0	72.7		11.7	·					
32.0	62.1	71.7	12.9	10.3						
34.0	59.0	70.6	11.2	9.0						
36.0	55.8	69.3	9.8	7.9						
38.0	52.5	67.8	8.5	6.9						
40.0 42.0	49.0 45.3	66.1 64.2	7.6	6.0 5.2						
42.0 44.0	45.3 41.4	64.2 62.1	6.6 5.7	5.2 4.4						
46.0	37.1	59.6	4.8	3.7						
48.0	32.3	56.7	4.0	3.1						
50.0	26.7	53.1	3.3	2.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
41.8	55.0	66.7		3.9						
42.0	54.7	66.7	4.7	3.8						
44.0	51.3	65.1	3.8	3.1						
46.0 48.0	47.7	63.4	3.1	2.4						
48.0	44.3	61.4	2.3		I					I



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 34.0		ín (2316-	1) 80.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
11.7	78.0	68.4		30.1						
12.0	77.5	68.4	15.1	30.1						
13.0	75.8	68.1	15.1	30.1						
14.0	74.0	67.8	15.1	28.6						
16.0	70.4	67.1	15.1	24.0						
18.0	66.8	66.3	15.1	20.0						
20.0 22.0	63.1 59.2	65.4 64.2	15.1 13.9	16.5 13.3						
24.0	55.1	62.9	9.4	9.2						
26.0	50.8	61.3	5.9	6.0						
28.0	46.2	59.5	3.8	3.9						
			Ángı	ılo de plu	ıma prin	cipal 83 (	1°10		•	
17.4	73.0	67.3	, <u>g</u>	24.9			, ,			
18.0	71.9	67.1	15.1	24.9						
20.0	68.3	66.4	15.1	20.6						
22.0	64.6	65.5	15.1	17.2						
24.0	60.8	64.4	15.1	14.6						
26.0	56.8	63.2	12.9	12.4						
28.0	52.6	61.7	10.8	10.6						
30.0	48.2	60.0	8.6	8.6						
32.0 34.0	43.4 38.1	58.0 55.6	5.8 3.3	5.7 3.3						
34.0	30.1	55.6			ıma prin	oinal 75 (	) [ ° ]			
00.0	05.0	04.5	Angu	ılo de plu	ina pilli	upai / 5.1	ין ו			
26.3 28.0	65.0 61.7	64.5 63.7	14.1	11.6 10.0						
30.0	57.7	62.5	12.0	8.4						
32.0	53.6	61.1	10.1	7.1						
34.0	49.2	59.4	8.4	5.8						
36.0	44.5	57.5	6.9	4.7						
38.0	39.4	55.2	5.5	3.7						
40.0	33.5	52.5	4.3	2.9						
42.0	26.5	49.0	3.2	2.1						
<u></u>			Angı	ılo de plu	ıma prin	cipal 65.0	[°]			
36.6	55.0	59.4		3.6						
38.0 40.0	52.1	58.4	4.0	2.9 2.0						
40.0 41.0	47.6 45.6	56.7 55.7	2.9 2.3	2.0						
41.0	43.0	ບປ./	۷.১						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]
		32.0		de plumi	oal, Punt ín (1916- osición m	1) 80.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	0[°]			
12.3	78.0	71.3	15.1	19.8						
13.0	76.8	71.2	15.1	19.8						
14.0 16.0	75.2 72.0	70.9 70.3	15.1 14.3	17.9 14.5						
18.0	68.7	69.6	12.9	11.9						
20.0	65.3	68.7	10.3	9.8						
22.0	61.8	67.6	8.3	8.2						
24.0	58.2	66.5	7.0	7.0						
26.0 28.0	54.5 50.5	65.1 63.5	5.9 5.1	6.0 5.2						
30.0	46.3	61.7	4.4	4.5						
32.0	41.8	59.6	3.9	3.9						
34.0	36.7	57.1	3.4	3.4						
36.0	31.0	54.1	2.7	2.7						
			Angı		ıma prin	cipal 83.0	D[°]			
18.2	73.0	70.2		14.0						
20.0 22.0	70.1 66.7	69.6 68.8	14.0 11.2	12.8 10.6						
24.0	63.3	67.8	9.0	8.8						
26.0	59.7	66.7	7.5	7.5						
28.0	56.1	65.4	6.4	6.4						
30.0	52.2	63.9	5.5	5.6						
32.0 34.0	48.1 43.7	62.2 60.2	4.8 4.2	4.9 4.3						
36.0	38.9	57.9	3.6	3.7						
38.0	33.5	55.1	3.2	3.3						
40.0	27.2	51.7	2.8	2.9						
			Ángı	ılo de plı	uma prin	cipal 75.0	[°]C			
27.5	65.0	67.2		8.9						
28.0	64.1	67.0	9.0	8.9						
30.0 32.0	60.6 56.9	65.9 64.7	7.9 6.8	7.8 6.8						
34.0	53.1	63.3	5.8	5.8						
36.0	49.0	61.6	5.1	5.2						
38.0	44.7	59.7	4.4	4.5						
40.0 42.0	40.0 34.8	57.5 54.8	3.8 3.4	3.9 3.5						
44.0	28.8	54.8 51.5	3.4	3.5						
46.0	21.1	47.2	2.7	2.7						
			Ángı	ılo de plı	ıma prin	cipal 65.0	0 [°]			
38.3	55.0	61.8		6.0			_			
40.0	51.7	60.6	5.6	5.7						
42.0	47.6	58.9	4.9	4.9						
44.0 46.0	43.1 38.3	56.9 54.5	4.3 3.7	4.3 3.7						
48.0	32.8	51.7	3.3	3.1						
50.0	26.4	48.1	3.0	2.5						
52.0	17.7	43.2	2.6	2.0						



Nº de ident.: 9842523/95738/

Pieza de articulación de pluma principal:

2821-1

Radio de descarga:

360°

Cabeza de pluma principal:

2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [ t ]: 74.0 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]
			0 m Plum Cabeza 37.0	de plumi		1) 83.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	0 [°]			
12.3 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0	78.0 76.9 75.3 72.1 68.8 65.4 61.9 58.3 54.6 50.6	71.4 71.2 70.9 70.3 69.6 68.7 67.7 66.5 65.1 63.6	15.1 15.1 15.1 15.1 13.9 12.5 10.1 6.9 4.3	28.6 28.6 27.2 22.1 18.3 15.3 12.9 10.0 6.9 4.4						
30.0	46.4	61.7	2.8	3.0						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0 [°]			
18.3 20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0	73.0 70.2 66.8 63.4 59.8 56.2 52.3 48.2 43.8	70.2 69.6 68.8 67.8 66.7 65.4 63.9 62.2 60.3	15.1 15.1 15.1 13.7 12.5 10.3 8.5 6.7 4.4	20.7 19.8 16.5 13.8 11.8 9.9 8.5 6.7 4.3						
			Ángı	ılo de plu	ıma prin	cipal 75.0	1°10			
27.5 28.0 30.0 32.0 34.0 36.0 38.0 40.0 42.0	65.0 64.2 60.7 57.0 53.2 49.1 44.8 40.2 34.9	67.3 67.1 66.0 64.7 63.3 61.7 59.7 57.5 54.9	13.7 11.7 9.9 8.3 6.8 5.5 4.3 3.2	10.4 9.9 8.3 7.0 5.9 4.8 3.8 2.9 2.2						
42.0	J4.3	J <del>4</del> .3			ıma prin	cinal 65 (	1 ° 1			
38.4	55.0	61.8		2.7	ina pilli	oipai 00.	, j			
40.0 41.0	52.1 50.1	60.7 59.8	2.7 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

	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 40.0	de plumí		1) 83.5 r	n Plumín			
					ıma prin	cipal 88.0	[°]			
12.9 13.0 14.0 16.0 18.0 20.0	78.0 77.9 76.4 73.4 70.4 67.3	74.3 74.3 74.0 73.5 72.8 72.0	15.1 15.1 15.1 13.5 11.3 9.5	16.9 16.8 13.8 11.1 9.2						
22.0 24.0 26.0 28.0 30.0	64.1 60.9 57.5 54.0 50.3	71.0 70.0 68.7 67.3	7.7 6.4 5.4 4.6 3.9	7.6 6.4 5.4 4.6 4.0						
32.0 34.0 36.0	46.4 42.3 37.7	63.9 61.9 59.4	3.4 2.9 2.5	3.5 3.0 2.5						
19.1	73.0	73.0	Angı	10 de plu 11.8	ıma prin	cipal 83.0	[ ]			
20.0 22.0 24.0 26.0 28.0 30.0	71.6 68.6 65.5 62.2 58.9 55.5	72.8 72.0 71.1 70.1 69.0 67.6	11.8 10.0 8.3 6.9 5.8 5.0	11.8 9.8 8.2 6.9 5.9						
32.0 34.0 36.0 38.0 40.0	51.9 48.1 44.1 39.7 34.8	66.1 64.4 62.5 60.2 57.5	4.3 3.7 3.2 2.7 2.3	4.3 3.8 3.2 2.8 2.4						
			Ángu		ıma prin	cipal 75.0	[°]		1	
28.7 30.0 32.0 34.0 36.0	65.0 63.0 59.7 56.3	70.0 69.4 68.3 67.0	7.3 6.1 5.2 4.5	7.4 7.2 6.1 5.3 4.5						
38.0 40.0 42.0 44.0 46.0	49.0 45.0 40.7 36.0 30.6	63.8 61.9 59.8 57.2	3.9 3.3 2.9 2.5	4.5 4.0 3.4 3.0 2.6 2.2						
					ıma prin	cipal 65.0	0[°]			
40.0 42.0 44.0 46.0 48.0	55.0 51.4 47.6 43.5 39.1	64.3 62.9 61.1 59.1 56.8	4.3 3.7 3.3 2.8	4.7 4.4 3.8 3.3 2.9						
50.0 53.0	34.2 26.0	54.1 48.8	2.4 2.0	2.5						



N° 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 40.0	de plumí		1) 86.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0	78.0 76.5 73.5 70.5 67.4 64.2 61.0 57.6 54.1	74.3 74.1 73.5 72.8 72.0 71.1 70.0 68.8 67.4	15.1 15.1 15.1 15.1 14.5 12.4 11.0 7.9 5.2	26.8 26.8 21.6 17.8 15.1 12.8 11.2 8.0 5.3						
30.0	50.4	65.8	3.0	3.1						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
19.2 20.0 22.0 24.0 26.0	73.0 71.7 68.7 65.5 62.3	73.1 72.8 72.0 71.2 70.2	15.1 15.1 15.1 14.0 11.9	18.7 18.7 16.1 13.8 11.9						
28.0 30.0 32.0 34.0 36.0	59.0 55.6 52.0 48.2 44.2	69.0 67.7 66.2 64.5 62.5	10.3 8.7 7.5 5.9 3.8	10.4 8.9 7.8 6.0 3.9						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
28.8 30.0 32.0 34.0 36.0 38.0 40.0 42.0	65.0 63.1 59.8 56.4 52.8 49.1 45.1 40.8	70.0 69.4 68.3 67.0 65.5 63.9 62.0 59.8	11.4 9.6 8.1 6.8 5.5 4.3 3.2	9.2 8.3 7.0 5.8 4.9 3.9 3.0 2.2						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
40.2 41.0	55.0 53.6	64.3 63.7	2.6 2.2							



N° de ident.: 9842523/95738/

Radio de descarga: 360

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]
		32.0	0 m Plum Cabeza 43.0	na princip de plumí 0 [ m ] Po	n (1916-	1) 86.5 r	n Plumín	dfall		
				ılo de plu						
13.5	78.0	77.2	7 tilge	15.0	IIIa piiii	l location.	J ]			
14.0	77.3	77.1	15.1	15.0						
16.0	74.6	76.6	13.7	12.7		İ			İ	
18.0	71.8	76.0	10.9	10.3						
20.0	69.0	75.2	8.6	8.5						
22.0	66.1	74.4	7.0	7.0						
24.0	63.1	73.4	5.8	5.8						
26.0	60.0	72.3	4.9	4.9						
28.0	56.9	71.0	4.1	4.2						
30.0	53.6	69.6	3.5	3.5						
32.0 34.0	50.2 46.6	68.0 66.2	2.9 2.5	3.0 2.6						
34.0	40.0	00.2				-:	2 6 9 1			
				ılo de plu	ıma prini	cipai 83.	ן ן		ı	
20.0	73.0	75.9	10.4	10.1						
22.0 24.0	70.2 67.3	75.2 74.4	9.4 7.6	9.2 7.6						
26.0	64.3	73.5	6.3	6.3						
28.0	61.3	72.4	5.3	5.4						
30.0	58.2	71.3	4.5	4.6						
32.0	55.0	69.9	3.8	3.9						
34.0	51.6	68.4	3.2	3.3						
36.0	48.1	66.7	2.7	2.8						
38.0	44.4	64.7	2.3	2.4						
			Ángı	ılo de plu	ıma prin	cipal 75.	[°]			
30.0	65.0	72.7		6.1						
32.0	62.0	71.7	5.4	5.7						
34.0	58.9	70.5	4.6	4.8						
36.0	55.7	69.2	3.9	4.1						
38.0 40.0	52.4 48.9	67.8 66.1	3.3 2.9	3.5 3.0						
40.0 42.0	48.9 45.2	64.2	2.9	2.6						
72.0	+∪.∠	U-7.∠		ılo de plu	ıma nrin	cinal 65	) [ ° 1		1	
41.8	55.0	66.7	Ailgi	3.7	ina pilili		, j			
42.0	54.6	66.6	3.6	3.7						
44.0	51.2	65.1	3.3	3.4						
46.0	47.7	63.4	2.8	2.9						
48.0	43.9	61.4	2.4	2.5						
50.0	39.8	59.1	2.0	2.1						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 ° Cab

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 43.0	de plumí	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.6 14.0 16.0 18.0 20.0 22.0	78.0 77.4 74.7 71.9 69.0 66.1	77.2 77.1 76.6 76.0 75.2 74.4	15.1 15.1 15.1 15.1 15.1 12.9	27.6 27.6 24.5 20.6 17.5						
24.0 26.0 28.0 30.0	63.2 60.1 57.0 53.7	73.4 72.3 71.0 69.6	10.1 7.9 5.5 3.4	10.9 8.4 5.8 3.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0 38.0	73.0 70.2 67.4 64.4 61.4 58.3 55.1 51.7 48.2 44.5	75.9 75.3 74.5 73.5 72.5 71.3 69.9 68.4 66.7 64.8	15.1 15.1 13.8 12.5 10.6 8.4 6.7 5.1 3.5	19.7 17.5 14.8 12.6 10.8 9.2 7.9 6.8 5.3 3.6						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
30.1 32.0 34.0 36.0 38.0 40.0 42.0 44.0	65.0 62.1 59.0 55.8 52.5 49.0 45.3 41.7	72.7 71.7 70.6 69.3 67.8 66.1 64.2 62.1	9.2 7.7 6.5 5.3 4.1 3.1 2.1	8.1 6.8 5.7 4.7 3.8 3.0 2.2						



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 ]: 74.0 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]
		32.0	0 m Plum Cabeza 46.0		n (1916-	1) 89.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
14.1 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 75.6 73.0 70.4 67.7 65.0 62.2 59.3 56.3 53.3	80.1 79.7 79.1 78.4 77.6 76.7 75.7 74.6 73.3 71.8	14.0 10.9 8.6 7.0 5.8 4.8 4.1 3.4 2.9	14.0 12.9 10.4 8.5 7.1 5.9 4.9 4.2 3.5 3.0						
34.0	50.0	70.2	2.5	2.5						
				ılo de plu	ıma prin	cipal 83.0	[°]			
20.9 22.0 24.0 26.0 28.0 30.0 32.0 34.0	73.0 71.5 68.8 66.1 63.4 60.5 57.6 54.6	78.8 78.4 77.7 76.8 75.9 74.8 73.5 72.2	8.8 8.8 7.1 6.0 5.0 4.3 3.7	9.2 9.1 7.5 6.3 5.2 4.5 3.8 3.2						
36.0 38.0	51.4 48.1	70.6 68.9	2.6	2.8						
55.5		00.0		ılo de plu	ıma prin	cipal 75 (	1°10			
31.3	65.0	75.4	,gc	5.4	a piiii	J. Pai 70.				
32.0 34.0 36.0 38.0 40.0	64.0 61.2 58.3 55.3 52.1	75.1 74.0 72.8 71.5 70.0	5.3 4.7 4.0 3.4 2.9	5.4 4.8 4.1 3.5 2.9						
42.0	48.9	68.3	2.4	2.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
43.5	55.0	69.2	0.1	3.2						
44.0 46.0 48.0 50.0	54.2 51.0 47.7 44.2	68.9 67.3 65.6 63.5	2.8 2.3	3.2 2.8 2.4 2.0						



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 ]:

74.0 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]
			0 m Plum Cabeza 46.0	de plumí		1) 92.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
14.2 16.0 18.0 20.0 22.0	78.0 75.7 73.1 70.5 67.8	80.2 79.7 79.1 78.5 77.7	15.1 15.1 15.1 15.1 14.8	23.9 22.9 19.2 16.3 14.1						
24.0 26.0 28.0 30.0	65.1 62.3 59.4 56.4	76.8 75.7 74.6 73.3	11.3 8.7 6.5 4.4	11.2 9.0 6.9 4.6						
			Ángı		ıma prin	cipal 83.0	[°]		1	
20.9 22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0	73.0 71.6 68.9 66.2 63.4 60.6 57.7 54.6 51.5 48.2 44.7	78.8 78.5 77.7 76.9 75.9 74.8 73.6 72.2 70.7 68.9 67.0	15.1 14.8 13.8 11.7 10.2 8.5 7.0 5.7 4.5 3.2	16.9 16.9 14.9 12.7 10.8 9.3 7.9 6.8 5.8 4.8 3.3						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
31.3 32.0 34.0 36.0 38.0 40.0 42.0	65.0 64.1 61.2 58.3 55.3 52.2 49.0	75.4 75.1 74.1 72.9 71.5 70.0 68.4 66.5	9.0 7.6 6.3 5.2 4.2 3.1	7.2 6.8 5.6 4.6 3.8 3.0 2.3						



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 ]: 74.0 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]
			0 m Plum Cabeza 49.0	de plumí		1) 92.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
14.8 16.0 18.0 20.0	78.0 76.5 74.1 71.6	83.1 82.8 82.3 81.6	11.8 11.7 10.2 8.4	12.8 12.7 10.2 8.3						
22.0 24.0 26.0 28.0 30.0 32.0	69.2 66.6 64.0 61.4 58.7 55.9	80.9 80.0 79.1 78.0 76.9 75.5	6.9 5.7 4.7 4.0 3.4 2.8	6.9 5.8 4.8 4.1 3.5 2.9						
34.0	53.0	74.1	2.3	2.4						
			Ángı	ılo de plı	ıma prin	cipal 83 (	1°10			
21.7	73.0	81.7	, ange	8.2	I III	l l	, j			
22.0 24.0 26.0	72.7 70.2 67.7	81.6 80.9 80.1	7.8 7.0 5.9	8.2 7.4 6.2						
28.0 30.0 32.0 34.0 36.0 38.0	65.1 62.5 59.8 57.0 54.2 51.2	79.2 78.2 77.1 75.8 74.4 72.9	4.9 4.2 3.6 3.0 2.5	5.2 4.4 3.8 3.2 2.7						
00.0	02	12.0			ıma prin	cinal 75 (	1°10			
32.5 34.0 36.0 38.0 40.0	65.0 63.1 60.4 57.7 54.8	78.1 77.4 76.3 75.1 73.8	4.6 3.8 3.3 2.8	4.8 4.7 4.0 3.4 2.8			- L J			
42.0	51.9	72.2	2.3	2.4						
			Ángı		ıma prin	cipal 65.0	[°]			
45.2 46.0 48.0 49.0	55.0 53.8 50.8 49.3	71.6 71.1 69.6 68.7	2.5 2.2 2.0	2.6 2.6 2.3 2.1						



360°

## Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

Valor de vuelco: 2 - Vía ancha

Lastre trasero [ t ]:	74.0
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]
			0 m Plum Cabeza 49.0	de plumi	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
14.8 16.0 18.0 20.0 22.0 24.0 26.0	78.0 76.6 74.2 71.7 69.2 66.7 64.1	83.1 82.8 82.3 81.6 80.9 80.1 79.1	15.1 15.1 14.6 13.8 11.5 8.8	22.5 22.5 18.9 16.1 14.0 11.5 9.1						
28.0 30.0 32.0	61.5 58.7 55.9	78.1 76.9 75.6	6.8 4.9 3.1	7.2 5.2 3.3						
			Ángı	ılo de plı	ıma prin	cipal 83.0	[°]			
21.8 22.0 24.0 26.0 28.0 30.0 32.0	73.0 72.7 70.3 67.8 65.2 62.6 59.9	81.7 81.6 80.9 80.1 79.2 78.2 77.1	15.1 15.1 13.4 11.6 9.9 8.6	15.8 15.8 14.7 12.5 10.7 9.1 7.8						
34.0 36.0 38.0 40.0	57.1 54.3 51.3 48.2	75.8 74.5 72.9 71.2	7.0 5.7 4.6 3.6	6.7 5.7 4.8 3.9						
42.0	44.9	69.3	2.7 Á	2.8		-in al 75 (	2			
32.6 34.0 36.0 38.0 40.0 42.0 43.0	65.0 63.2 60.5 57.8 54.9 52.0 50.7	78.1 77.5 76.4 75.2 73.8 72.3 71.5	7.1 5.9 4.8 3.8 2.9 2.4	6.2 5.4 4.4 3.5 2.8 2.1	uma prind	cipal 75.	J [ ]			



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 ]: 74.0 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]
		32.0	0 m Plum Cabeza 52.0	de plumí	'n (1916-	o de carç 1) 95.5 r nidfall (19	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	] (° ]			
15.4 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 77.3 75.0 72.7 70.4 68.0 65.6 63.2 60.7 58.1	86.0 85.9 85.4 84.8 84.1 83.3 82.4 81.4 80.4 79.1	6.6	6.8 6.7	uma prin	cipal 83.0	D[°]			
26.0 28.0	69.0 66.6	83.3 82.5	5.4 4.6	5.5 4.7						
30.0 32.0 34.0	64.2 61.7 59.2	81.6 80.5 79.4	3.8 3.1 2.6	3.9 3.3 2.7						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
33.8 34.0 36.0 38.0	65.0 64.8 62.3 59.8	80.8 80.8 79.8 78.6	3.6 3.4 2.8	3.7 3.7 3.5 2.9						
40.0 41.0	57.2 55.8	77.4 76.7	2.3 2.1	2.4 2.2						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal: 2821-1

Cabeza de pluma principal:

2821-1

	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 52.0	de plumí	oal, Punt n (2316- osición m	1) 98.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
15.4 16.0 18.0 20.0 22.0	78.0 77.4 75.1 72.8 70.5	86.0 85.9 85.4 84.8 84.1	15.1 15.1 14.9 13.4	20.4 20.4 18.3 15.7 13.4						
24.0 26.0 28.0 30.0 32.0	68.1 65.7 63.2 60.7 58.2	83.3 82.5 81.5 80.4 79.2	12.2 9.3 6.9 5.2 3.7	11.7 9.2 7.1 5.5 3.9						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
22.7 24.0 26.0 28.0 30.0	73.0 71.5 69.1 66.7 64.3	84.5 84.1 83.4 82.5 81.6	15.1 15.1 13.0 11.2 9.5	14.3 14.3 12.4 10.6 9.0						
32.0 34.0 36.0 38.0 40.0	61.8 59.2 56.6 53.9 51.1 48.2	80.6 79.4 78.1 76.7 75.1	8.2 7.0 5.7 4.5 3.6	7.7 6.5 5.5 4.6 3.9						
12.0	.0.2				ıma prin	cinal 75 (	1°10			
33.9 34.0 36.0 38.0 40.0 42.0 43.0	65.0 64.8 62.4 59.8 57.2 54.7 53.3	80.8 80.8 79.8 78.7 77.4 76.0 75.3	6.8 5.5 4.4 3.5 2.6 2.2	5.3 5.2 4.2 3.4 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]
		35.0	0 m Plum Cabeza 13.0	de plumí	oal, Punt ín (1916- osición m	1) 32.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
7.4 8.0 9.0 10.0 11.0 12.0 13.0 14.0 16.0	78.0 75.2 70.5 65.7 60.7 55.3 49.5 43.1 26.4 73.0 71.0 66.2	50.9 50.7 50.4 49.9 49.4 48.7 47.9 46.8 43.9 50.2 50.1 49.6	15.1 15.1 15.1 15.1 14.6 12.4 10.8 9.1 6.8 Ángu 15.1 15.1	30.1 30.1 22.8 17.3 13.9 11.4 9.7 8.4 6.5 ulo de plu 26.2 23.6 17.6	uma prino	cipal 83.	0[°]			
14.0 16.0 18.0	61.2 50.1 36.5	49.1 47.6 45.4	14.9 11.0 7.7	14.1 9.9 7.4						
			Ángı	ılo de plu	ıma prin	cipal 75.	0 [°]			
18.1 20.0 22.0	65.0 55.1 42.9	48.4 47.3 45.4	12.9 8.9	16.1 11.2 8.3	·	-				
			Ángu	ılo de plu	ıma prin	cipal 65.	0 [°]			
25.8 26.0 28.0	55.0 54.0 41.5	44.9 44.8 42.9	10.4 7.5	11.0 10.9 8.0						
	05.0	04.4	Angı		ıma prin	cipal 45.	0[°]		I	
38.8 40.0	35.0 23.3	34.1 32.2	6.3	7.0 6.1						



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

	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		n (1916-	1) 35.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.0 9.0 10.0 11.0 12.0 13.0 14.0 16.0	78.0 74.3 70.5 66.6 62.6 58.4 54.0 44.2	53.8 53.5 53.2 52.8 52.2 51.6 50.9 49.1	15.1 15.1 15.1 15.1 13.7 12.2 9.6	30.1 30.1 23.3 18.8 15.6 13.4 11.6 9.2						
18.0	31.9	46.5	7.6	7.5						
				ılo de plu	ıma prin	cipal 83.0	[°]			
12.5 13.0	73.0 70.9	53.1 52.9	15.1 15.1	26.4 24.1						
14.0 16.0 18.0 20.0	67.0 58.8 49.8 39.1 24.4	52.5 51.4 49.9 47.7	15.1 15.1 13.9 11.1 8.5 7.0	19.1 13.5 10.4 8.3 6.9						
22.0	24.4	77.7				-i1 7 <i>C (</i>	2 6 9 1			
19.4 20.0 22.0 24.0 26.0	65.0 62.5 53.8 44.0 31.6	51.1 50.8 49.5 47.7 45.0	15.1 12.5 9.4 7.5	16.6 15.4 11.4 9.0 7.4	лпа рпп	Cipai 75.	J[]			
20.0	01.0	40.0		ılo de plu	ıma nrin	cipal 65 (	) [ ° ]			
27.5	55.0	47.3	Angu	11.6	лна рин	upai 05.1	<u> </u>			
27.5 28.0 30.0 32.0	55.0 52.9 42.8 30.1	47.3 47.1 45.2 42.4	12.1 9.1 7.3	11.6 11.2 8.8 7.2						
			Ángι	ılo de plu	ıma prin	cipal 45.0	[°]			
41.3 42.0 43.0	35.0 29.9 20.6	35.8 35.0 32.8	7.1 6.4	6.8 6.4 6.0						



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 ]: 74.0

		. 1.								
Lastre o	central [t	]:		0.0						
										-
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan-	Ángu-	Altura	Carga	Carga	Carga	Carga	Carga	Carga	Carga	Carga
ce	o de	de	[t]	[t]	[t]	[t]	[t]	[t]	[t]	[t]
[ m ]	plumín	rolda-								
	[°]	nas								
		[ m ]								
	-	35.0	0 m Plum	na princir	oal. Punt	o de car	na 3 - Mi	dfall		
			Cabeza	de plumi	n (2316-	1) 38.5 r	n Plumír	1		
			16.0	0 [ m ] Po	osición m	nidfall (23	316)			
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
8.1	78.0	53.8	15.1	30.1						
9.0	74.5	53.6	15.1	30.1						
10.0	70.8	53.2	15.1	30.1						
11.0	66.9	52.8	15.1	26.3						
12.0	62.8	52.3	15.1	22.1						
13.0	58.6	51.7	15.1	18.9						
14.0	54.2	51.0	15.1	16.2						
16.0	44.4	49.2	13.4	12.7						
18.0	32.1	46.5	11.0	10.4						
			Ángı	ılo de plu	ıma prin	cipal 83.	0[°]			
12.5	73.0	53.1		30.1						
13.0	71.1	52.9	15.1	30.1						
14.0	67.3	52.5	15.1	27.5						
16.0	59.1	51.4	15.1	19.0						
18.0	50.0	49.9	14.8	14.4						
20.0	39.3	47.8	12.0	11.4						
22.0	24.8	44.5	10.0	9.6						
			Ángu	ılo de plu	ıma prin	cipal 75.	0[°]			
19.4	65.0	51.1		23.4						
20.0	62.7	50.9	15.1	21.9						
22.0	54.1	49.5	15.1	15.8						
24.0	44.2	47.7	13.3	12.4						
26.0	31.9	45.1	10.7	10.2						
			Angu		ıma prin	cipal 65.	0[°]	1		
27.6	55.0	47.3		15.0						
28.0	53.1	47.1	15.1	14.6						
30.0	43.1	45.2	12.5	11.4						
32.0	30.3	42.4	9.8	9.4						
			Ángı	ılo de plu	ıma prin	cipal 45.	0[°]			
41.3	35.0	35.8		4.6						
42.0	30.2	35.0	5.4	4.3						
43 N	21 0	320	4 Q	3.8	l .	l .	1	l	1	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 ]: 74.0 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]
			0 m Plum Cabeza 19.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.6	78.0	56.7		30.1						
9.0	76.9	56.7	15.1	30.1						
10.0	73.7	56.4	15.1	28.4						
11.0	70.5	56.0	15.1	23.0						
12.0	67.3	55.6	15.1	19.5						
13.0	63.9	55.1	15.1	16.7						
14.0	60.4	54.5	14.7	14.7						
16.0 18.0	53.1 44.8	53.2 51.4	12.6 10.3	11.6 9.5						
20.0	35.0	48.9	8.2	7.9						
20.0	00.0	40.0			ıma prin	rinal 83 (	) [ ° ]			
40.0	70.0	550	Aligo		Ιπα μπι	Jipai 05.	J [ ]		ı	
13.3 14.0	73.0 70.9	55.9 55.7	15.1	25.6 23.5						
16.0	64.3	54.8	15.1	16.8						
18.0	57.2	53.7	13.7	13.1						
20.0	49.5	52.1	11.8	10.6						
22.0	40.7	50.0	9.3	8.7						
24.0	29.6	47.1	7.6	7.4						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
20.6	65.0	53.8		16.8						
22.0	60.3	53.1	15.1	14.5						
24.0	52.9	51.7	12.8	11.5						
26.0	44.7	49.9	10.3	9.5						
28.0	34.8	47.4	8.2	7.9						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
29.3	55.0	49.8		11.9						
30.0	52.1	49.3	10.9	11.3						
32.0	43.8	47.4	8.8	9.3						
34.0	33.7	44.9	7.3	7.9			2		l	
			Angı		ıma prin	cipal 45.0	ו "]			
43.7	35.0	37.6		6.1						
44.0	33.5	37.4	7.2	6.0						
46.0	18.7	33.4	6.4	5.3					l	



Nº de ident.: 9842523/95738/

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

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

ce [m] p	Ángu- o de olumín	Altura	Cargo							
	[°]	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			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
8.7 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 77.0 73.9 70.7 67.5 64.1 60.6 53.3 45.0	56.8 56.7 56.4 56.0 55.6 55.1 54.6 53.2 51.4	15.1 15.1 15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 30.1 27.0 22.9 20.0 15.5 12.5						
20.0	35.3	48.9	10.9	10.2						
					ıma prin	cipal 83.0	0 [°]			
13.4 14.0 16.0 18.0 20.0 22.0 24.0	73.0 71.0 64.4 57.4 49.7 40.9 29.9	56.0 55.8 54.9 53.7 52.1 50.1 47.2	15.1 15.1 15.1 15.1 14.7 12.2 10.1	30.1 30.0 23.3 17.7 14.1 11.4 9.5						
24.0	29.9	41.2			ıma nrin	oinal 7E (	) [ ° ]			
00.7	05.0	50.0	Angu		ıma prin	Jipai /5.	) [ ]			
20.7 22.0 24.0 26.0 28.0	65.0 60.5 53.1 44.9 35.1	53.8 53.2 51.8 50.0 47.5	15.1 15.1 13.5 11.2	23.1 19.7 15.4 12.5 10.4						
20.0	00	11.0			ıma prin	cinal 65 (	) [ ° ]			
29.3	55.0	49.8	Aigu	14.3	лна рин	51pai 00.1	- I			
30.0 32.0 34.0	52.3 44.0 33.9	49.8 49.3 47.5 44.9	15.1 13.2 10.4	13.6 11.7 9.7						
			Ánaı	ılo de plu	ıma prin	cipal 45.0	0 [°]			
43.8 44.0 46.0	35.0 33.8 19.0	37.5 37.5 33.4	4.5 3.6	3.7 3.6 2.9		,				



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	n (1916-		n Plumír			
			Ánaı	ılo de plu	ıma prin	cipal 88.0	1°10			
9.3 10.0 11.0	78.0 76.0 73.3	59.7 59.5 59.2	15.1 15.1 15.1	30.1 28.9 23.8	•	•				
12.0 13.0	70.5 67.7	58.8 58.4	15.1 15.1	19.9 17.3						
14.0 16.0 18.0 20.0 22.0	64.8 58.9 52.4 45.3 37.1	58.0 56.8 55.4 53.6 51.2	15.1 13.5 10.6 8.7 7.2	15.1 12.1 9.9 8.3 7.1						
24.0	26.8	48.0	6.1	6.1						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
14.2 16.0 18.0 20.0	73.0 68.0 62.2 56.0	58.8 58.2 57.2 55.9	15.1 15.1 12.1	22.1 17.5 13.6 11.0						
22.0 24.0 26.0	49.3 41.8 32.9	54.3 52.3 49.6	9.8 8.0 6.7	9.2 7.7 6.6						
20.0	02.0	10.0			ıma prin	cipal 75.0	1°10			
21.9	65.0	56.6		14.7		i				
22.0 24.0 26.0 28.0 30.0 32.0	58.7 52.3 45.2 37.0 26.6	56.6 55.4 54.0 52.2 49.8 46.5	15.1 13.6 10.6 8.7 7.2 6.2	14.7 12.1 9.9 8.3 7.1 6.1						
					ıma prin	cipal 65.0	1°10			
31.0 32.0 34.0 36.0 38.0	55.0 51.6 44.4 36.0 25.2	52.3 51.5 49.7 47.2 43.8	9.2 7.6 6.5 5.7	10.4 9.7 8.2 7.0 6.1						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
46.2 48.0 49.0	35.0 25.1 17.2	39.3 36.4 33.8	5.7 5.3	5.3 4.7 4.4						



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]
			0 m Plum Cabeza 22.0		ín (2316-	1) 44.5 r	n Plumín			
			Ángı	ılo de plı	uma prin	cipal 88.0	] (°)			
9.3 10.0 11.0 12.0 13.0 14.0 16.0 20.0 22.0 24.0	78.0 76.2 73.5 70.7 67.9 65.0 59.0 52.6 45.5 37.3 27.0	59.7 59.5 59.2 58.9 58.5 58.0 56.9 55.5 53.6 51.3 48.0	15.1 15.1 15.1 15.1 15.1 14.8 14.1 12.1 9.6 8.0	30.1 30.1 29.5 27.1 24.2 20.8 16.4 13.3 11.0 9.2 7.8 ulo de plu 30.1 24.6						
18.0 20.0 22.0 24.0	62.4 56.2 49.5 42.0	57.2 56.0 54.4 52.3	15.1 13.5 12.0 9.7	18.6 14.8 12.3 10.2						
26.0	33.1	49.7	8.1 Ángu	8.6	ıma nrin	oinal 75 (	) [ ° 1			
22.0	65.0	56.6	Angu	ılo de plu 20.1	лна рин І	cipai 75.	J [ ]	l		
24.0 26.0 28.0 30.0 32.0	58.9 52.5 45.4 37.2 26.8	55.5 54.0 52.2 49.9 46.6	15.1 12.8 10.7 8.8 7.5	16.4 13.3 11.1 9.3 8.0						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
31.0 32.0 34.0 36.0 38.0	55.0 51.8 44.6 36.2 25.5	52.2 51.6 49.7 47.3 43.9	14.0 11.2 9.0 7.7	13.1 12.3 10.4 8.7 7.5	,	•	•			
			Ángı	ılo de plı	ıma prin	cipal 4 <u>5.</u> 0	[°]			
46.2 48.0 49.0	35.0 25.3 17.5	39.3 36.5 33.9	3.2 2.8	3.1 2.5 2.2						



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]
		35.0	0 m Plum Cabeza 25.0	de plumi	oal, Punt ín (1916- osición m	1) 44.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
9.9 10.0 11.0 12.0 13.0	78.0 77.7 75.4 73.0 70.5 68.1	62.6 62.6 62.3 62.0 61.7	15.1 15.1 15.1 15.1 15.1	28.1 28.1 24.2 20.6 17.7						
16.0 18.0 20.0 22.0 24.0	63.0 57.6 51.9 45.7	60.3 59.1 57.7 55.8	13.5 11.2 8.9 7.5	12.5 10.3 8.7 7.4 6.4						
26.0	30.2	50.6	5.5	5.6						
	1				ıma prin	cipal 83.0	)[°]			
15.1 16.0 18.0	73.0 70.8 65.8	61.7 61.4 60.5	15.1 15.1 14.4	19.6 18.0 14.0						
20.0 22.0 24.0 26.0 28.0	60.6 55.1 49.2 42.6 35.1	59.5 58.2 56.6 54.6 52.0	12.7 10.1 8.3 7.0 6.0	11.5 9.5 8.1 6.9 6.0						
30.0	25.6	48.5	5.2	5.3		-i175/	2			
23.2 24.0 26.0 28.0 30.0 32.0	65.0 62.9 57.5 51.8 45.6 38.5	59.3 58.9 57.7 56.2 54.4 52.1	14.1 11.1 8.9 7.5 6.4	13.1 12.5 10.3 8.6 7.4 6.4	uma prin	cipai 75.	) [ · ]			
34.0	30.0	49.1	5.6 Ángu	5.6	ıma nrin	oinal CE (	) [ ° ]			
32.7	55.0	54.7	Angl	110 de pil	uma prind	cipai ob.i	ן ו			
34.0 36.0 38.0 40.0	51.2 44.9 37.7 29.0	53.8 51.9 49.6 46.5	8.8 7.4 6.3 5.5	8.5 7.3 6.3 5.6						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
48.7 50.0 52.0	35.0 28.9 16.1	41.0 39.1 34.3	5.1 4.5	4.7 4.3 3.8						



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 ]: 74.0 0.0 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]
		35.0	0 m Plum Cabeza 25.0	de plumí	oal, Punt n (2316- osición m	1) 47.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.9 10.0 11.0 12.0 13.0	78.0 77.9 75.5 73.1 70.7 68.2	62.6 62.6 62.4 62.1 61.7	15.1 15.1 15.1 15.1	30.1 30.1 30.1 28.3 24.5						
16.0 18.0 20.0 22.0 24.0	63.1 57.8 52.1 45.8 38.8	60.3 59.2 57.7 55.9	15.1 15.1 13.1 11.0 9.2 7.7	16.9 13.8 11.5 9.7						
26.0	30.4	50.7	6.5	7.0			2.5.2			
15.1	73.0	61.7	Angı	10 de plu 27.2	ıma prin	cipal 83.0	) [ ° ]			
15.1 16.0 18.0	70.9 65.9	61.4 60.6	15.1 15.1	25.2 19.2						
20.0 22.0 24.0 26.0 28.0 30.0	60.7 55.3 49.3 42.8 35.2 25.7	59.5 58.2 56.6 54.6 52.1 48.6	14.7 12.1 10.2 8.5 7.2 6.2	15.4 12.6 10.7 9.0 7.7 6.6						
30.0	25.7	40.0			ıma prin	rinal 75 (	1 ° 1			
23.2 24.0 26.0 28.0 30.0 32.0 34.0	65.0 63.0 57.7 52.0 45.7 38.7 30.2	59.3 58.9 57.7 56.3 54.5 52.2 49.2	15.1 13.6 11.0 9.2 7.8 6.7	17.6 16.9 13.8 11.4 9.7 8.3 7.2	тта ртт	ыраг <i>т</i> о	5[]			
					ıma prin	cipal 65.0	1°1			
32.7 34.0 36.0 38.0 40.0	55.0 51.3 45.0 37.9 29.2	54.7 53.8 52.0 49.6 46.6	11.6 9.5 7.9 6.8	11.7 10.8 9.1 7.8 6.8	P	- F 33.				
			Ángı	ılo de plu	ıma prin	cipal 45.0	0 [°]			
48.7 50.0 51.0	35.0 30.1 25.0	41.0 39.1 37.1	2.4 2.1	2.3						



N° de ident.: 9842523/95738/

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

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

	Inserciór	l	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) 47.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
10.5	78.0	65.5	15.1	30.1						
11.0 12.0 13.0	77.0 74.8 72.7	65.4 65.2 64.8	15.1 15.1 15.1	30.1 30.1 28.1						
14.0	70.5	64.5	15.1	25.2						
16.0 18.0 20.0 22.0	66.1 61.5 56.7 51.5	63.7 62.6 61.4 59.9	15.1 15.1 14.4 13.8	20.7 17.4 14.9 13.1						
24.0	46.0	58.1	12.3	11.6						
26.0 28.0 30.0	39.8 32.6 23.5	55.9 53.1 49.3	10.7 9.5 8.6	10.4 9.5 8.6						
			Ánaı	ılo de plu	ıma prin	cipal 83.0	1°10			
16.0	73.0	64.6	15.1	27.6						
18.0	68.6	63.8	15.1	23.0						
20.0 22.0 24.0	64.0 59.3 54.4	62.9 61.8 60.4	15.1 14.5 13.3	18.9 16.2 14.0						
26.0	49.1	58.8	12.1	12.4						
28.0	43.3	56.8	10.6	11.1						
30.0 32.0	36.7 28.9	54.4 51.2	9.4 8.6	10.0 9.1						
					ıma prin	cipal 75.0	[°]			
24.4	65.0	62.0		18.9						
26.0 28.0	61.4 56.6	61.2 60.0	15.1 14.6	17.2 14.9						
30.0	51.4	58.5	13.7	13.1						
32.0 34.0	45.9 39.7	56.7 54.4	12.2 10.7	11.7 10.4						
36.0	32.5	51.6	9.5	9.5						
38.0	23.3	47.8	8.6	8.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
34.4	55.0	57.2		13.2						
36.0	50.9	56.0	13.9 12.1	12.1						
38.0 40.0	45.3 39.0	54.2 51.9	12.1 10.6	10.9 9.9						
42.0	31.7	49.0	9.5	9.0						
44.0	22.2	45.1	8.6	8.1						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
51.1	35.0	42.7		4.0						
55.0	15.1	34.7	3.7	3.1						



Nº de ident.: 9842523/95738/

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

2 - Vía ancha Valor de vuelco: Lastre trasero [ t ]: 74.0 Lastre central [ t ]: 0.0

37.4

33.5

44.0

46.0

5.2

3.9

	, , , , , , , , , , , , , , , , , , ,	1.		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]
			0 m Plum Cabeza 19.0	de plumí	n (1916-		n Plumír			
			Ángı	ılo de plu	ıma prin	cipal 88.	0[°]			
8.6 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 76.9 73.7 70.5 67.3 63.9 60.4 53.1 44.8	56.7 56.7 56.4 56.0 55.6 55.1 54.5 53.2 51.4	15.1 15.1 15.1 15.1 15.1 15.1 15.0 13.0	30.1 30.1 30.1 27.5 24.4 20.8 18.2 14.3 11.6						
20.0	35.0	48.9	10.2	9.6						
			Ángı		ıma prin	cipal 83.	0[°]			
13.3 14.0 16.0 18.0 20.0 22.0 24.0	73.0 70.9 64.3 57.2 49.5 40.7 29.6	55.9 55.7 54.8 53.7 52.1 50.0 47.1	15.1 15.1 15.1 14.7 11.6 9.4	30.1 29.3 21.1 16.2 13.0 10.6 9.0						
			Ángı	ılo de plu	ıma prin	cipal 75.	0 [°]			
20.6 22.0 24.0 26.0 28.0	65.0 60.3 52.9 44.7 34.8	53.8 53.1 51.7 49.9 47.4	15.1 14.9 12.9 10.3	20.6 18.0 14.2 11.6 9.7						
			Ángı	ılo de plu	ıma prin	cipal 65.	0 [°]			
29.3 30.0 32.0 34.0	55.0 52.1 43.8 33.7	49.8 49.3 47.4 44.9	15.1 12.8 10.2	13.6 12.8 11.0 9.5						
			Ángu	ılo de plu	ıma prin	cipal 45.	0 [°]			
43.7	35.0	37.6	<i>5</i> 2	4.0						



N° 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]
			0 m Plun Cabeza 28.0	de plumí		1) 50.5 r	n Plumír			
			Ánaı	ılo de plu	ıma prin	cipal 88.0	1°10			
10.6	78.0	65.6	15.1	30.1			,			
11.0 12.0 13.0	77.1 75.0 72.8	65.5 65.2 64.9	15.1 15.1 15.1	30.1 30.1 29.7						
14.0 16.0 18.0 20.0	70.7 66.2 61.6 56.8	64.5 63.7 62.7 61.4	15.1 15.1 15.1 15.1	29.0 24.5 20.3 17.2						
22.0 24.0 26.0	51.7 46.1 39.9	59.9 58.1 55.9	15.1 13.6 11.8	14.8 13.0 11.4						
28.0 30.0	32.8 23.7	53.1 49.4	10.4 9.1	10.1 9.1						
			Ángı	ılo de plı	ıma prin	cipal 83.0	D[°]			
16.0 18.0	73.0 68.7	64.6 63.8	15.1	30.1 27.4						
20.0 22.0 24.0	64.2 59.5 54.5	62.9 61.8 60.5	15.1 15.1 15.1	22.3 18.8 16.0						
26.0 28.0 30.0	49.2 43.4 36.9	58.8 56.9 54.4	14.5 12.7 11.2	14.0 12.2 10.8						
32.0	29.0	51.3	9.9	9.7						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
24.5 26.0 28.0	65.0 61.5 56.7	62.0 61.2 60.0	15.1 15.1	21.3 19.4 17.1						
30.0 32.0 34.0 36.0	51.6 46.0 39.8 32.6	58.5 56.7 54.5 51.7	15.1 13.8 12.0 10.6	14.8 13.0 11.5 10.3						
38.0	23.5	47.9	9.3	9.2						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
34.5 36.0 38.0 40.0 42.0	55.0 51.0 45.4 39.1 31.8	57.2 56.1 54.2 52.0 49.1	11.5 10.3 9.2 8.3	10.6 9.7 8.6 7.6 6.7						
44.0 45.0	22.3 15.5	45.1 42.3	7.4 6.9	5.8 5.4						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [ t ]: 74.0 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]
			0 m Plum Cabeza 22.0	de plumi		1) 53.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.3 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 76.0 73.3 70.5 67.7 64.8 58.9 52.4 45.3 37.1 26.8	59.7 59.5 59.2 58.8 58.4 58.0 56.8 55.4 53.6 51.2 48.0	15.1 15.1 15.1 15.1 15.1 15.1 14.1 11.7 9.6 7.7 6.5	30.1 30.1 27.3 22.8 19.8 17.2 13.6 10.9 9.1 7.5 6.4	uma prin	cinal 83 (	0.1.0			
14.2	73.0	58.8	Angu	24.6	ıma prine	cipai 83.	7 ]			
16.0 18.0 20.0 22.0 24.0 26.0	68.0 62.2 56.0 49.3 41.8 32.9	58.2 57.2 55.9 54.3 52.3 49.6	15.1 15.1 12.9 10.9 8.7 7.2	20.0 15.4 12.2 10.1 8.3 7.1						
			Ángı	ılo de plı	ıma prin	cipal 75.0	1°10			
21.9 22.0 24.0 26.0 28.0 30.0 32.0	65.0 64.7 58.7 52.3 45.2 37.0 26.6	56.6 56.6 55.4 54.0 52.2 49.8 46.5	15.1 15.0 11.9 9.6 7.8 6.6	16.3 16.2 13.4 10.9 9.1 7.6 6.5	·					
					uma prin	cipal 65 (	1°10			
31.0 32.0 34.0 36.0 38.0	55.0 51.6 44.4 36.0 25.2	52.3 51.5 49.7 47.2 43.8	11.8 9.5 7.8 6.6	11.4 10.8 9.0 7.5 6.5	and pill	pur 00.1	~ [ ]			
			Ángι	ılo de plu	ıma prin	cipal 45.0	[°]			
46.2 48.0 49.0	35.0 25.1 17.2	39.3 36.4 33.8	3.7 3.3	3.3 2.7 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]
		35.0	Cabeza	de plumí	pal, Punt n (2316- osición m	1) 53.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88 (	1°10			
11.2	78.0	68.5	15.1	30.1		J. Par 55.	, ,			
12.0 13.0 14.0	76.5 74.5 72.6	68.3 68.0 67.7	15.1 15.1 15.1	30.1 30.1 28.0						
16.0	68.7	67.0	15.1	23.6						
18.0 20.0 22.0 24.0	64.6 60.4 56.0 51.3	66.1 65.0 63.7 62.2	15.1 14.8 13.7 12.8	19.2 16.3 14.0 12.3						
26.0	46.3	60.4	11.2	10.8						
28.0 30.0 32.0	40.8 34.6 27.1	58.2 55.6 52.2	9.6 8.3 7.5	9.5 8.4 7.6						
02.0	2	02.2			ıma prin	cipal 83 (	1°10			
16.9	73.0	67.4	, ange	28.4			, <u>,                                   </u>			
18.0	70.8	67.1	15.1	26.5						
20.0 22.0	66.8 62.7	66.3 65.3	15.1 15.1	21.4 17.8						
24.0 26.0	58.4 53.9	64.1 62.7	14.3 13.4	15.2 13.1						
28.0	49.1	61.1	12.2	11.6						
30.0 32.0	43.9 38.1	59.1 56.8	10.5 9.1	10.2 9.0						
34.0 36.0	31.4 22.9	53.8 49.9	8.0 7.1	8.1 7.3						
					ıma prin	cipal 75 (	0 [ ° ]			
25.8	65.0	64.7	, wigo	18.8	piili	J. Par 7 J.				
26.0	64.5	64.6	15.1	18.8						
28.0 30.0 32.0	60.3 55.9 51.2	63.6 62.3 60.7	15.1 14.2 12.8	16.2 14.0 12.3						
34.0 36.0	46.2 40.7	58.9 56.8	9.8	10.9 9.6						
38.0	34.5	54.1	8.6	8.6						
40.0	26.9	50.7	7.7	7.7						
			Ángı		ıma prin	cipal 65.0	[°]		ı	
36.2 38.0	55.0 50.7	59.6 58.3	9.9	9.4 8.4						
40.0	45.7	56.5	8.9	7.5						
42.0	40.1	54.2	8.0	6.6						
44.0 46.0	33.8 26.0	51.5 48.0	7.1 6.3	5.9 5.2						
46.0 48.0	16.6	46.0 42.7	5.6	J.Z						



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) 56.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.3	78.0	59.7		30.1						
10.0	76.2	59.5	15.1	30.1						
11.0	73.5	59.2	15.1	30.0						
12.0	70.7	58.9	15.1	28.5						
13.0	67.9	58.5	15.1	26.2						
14.0	65.0	58.0	15.1	22.6						
16.0	59.0	56.9	15.1	17.7						
18.0	52.6	55.5	14.9	14.3						
20.0	45.5	53.6	13.0	11.9						
22.0	37.3	51.3	10.4	9.8						
24.0	27.0	48.0	8.5	8.3						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
14.3	73.0	58.8	15.1	30.1						
16.0	68.2	58.2	15.1	26.5						
18.0	62.4	57.2	15.1	20.1						
20.0	56.2	56.0	15.1	16.0						
22.0	49.5	54.4	14.6	13.2						
24.0	42.0	52.3	11.8	10.9						
26.0	33.1	49.7	9.6	9.2						
			Ángu	ılo de plu	uma prin	cipal 75.0	[°]			
22.0	65.0	56.6		20.3						
24.0	58.9	55.5	15.1	17.1	<u> </u>					
26.0	52.5	54.0	14.9	14.3						
28.0	45.4	52.2	13.1	12.0						
30.0	37.2	49.9	10.6	10.0						
32.0	26.8	46.6	8.8	8.5						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
31.0	55.0	52.2		9.5						
32.0	51.8	51.6	11.5	8.7						
34.0	44.6	49.7	9.9	7.3						
36.0	36.2	47.3	8.4	6.1						
38.0	25.5	43.9	7.1	5.0						
39.0	17.7	41.4	6.5	4.5						



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 Plun Cabeza 25.0	de plumi		·1) 56.5 r̀	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.9 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 77.7 75.4 73.0 70.5 68.1 63.0 57.6 51.9 45.7 38.6	62.6 62.6 62.3 62.0 61.7 61.3 60.3 59.1 57.7 55.8	15.1 15.1 15.1 15.1 15.1 15.1 14.6 12.6 10.4 8.7	30.1 30.1 27.4 23.4 20.1 17.8 14.2 11.8 9.9 8.5						
26.0	30.2	50.6	6.4	6.4						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
15.1 16.0 18.0 20.0 22.0 24.0 26.0 28.0	73.0 70.8 65.8 60.6 55.1 49.2 42.6 35.1	61.7 61.4 60.5 59.5 58.2 56.6 54.6 52.0	15.1 15.1 14.9 14.2 11.5 9.7 8.1 6.9	21.8 20.6 16.0 13.1 10.9 9.3 8.0 6.9						
30.0	25.6	48.5	6.0	6.1						
			Ángı	ılo de plı	ıma prin	cipal 75.0	[°]			
23.2 24.0 26.0 28.0 30.0 32.0 34.0	65.0 62.9 57.5 51.8 45.6 38.5 30.0	59.3 58.9 57.7 56.2 54.4 52.1 49.1	15.1 12.6 10.3 8.8 7.4 6.5	14.7 14.2 11.8 9.9 8.5 7.3 6.4						
-					uma prin	cipal 65.0	1°10			
32.7 34.0 36.0 38.0 40.0	55.0 51.2 44.9 37.7 29.0	54.7 53.8 51.9 49.6 46.5	10.2 8.6 7.3 6.4	10.5 9.8 8.4 7.2 6.4						
	•				ıma prin	cipal 45.0	D[°]		•	
48.7	35.0	41.0		2.8						



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 25.0	de plumí		1) 59.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
9.9 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 77.9 75.5 73.1 70.7 68.2 63.1 57.8 52.1	62.6 62.6 62.4 62.1 61.7 61.3 60.3 59.2 57.7	15.1 15.1 15.1 15.1 15.1 15.1 14.1 12.8	30.1 30.1 30.1 29.4 26.0 23.5 18.2 14.9 12.3						
22.0	45.8	55.9	11.0	10.4						
24.0 26.0	38.8 30.4	53.6 50.7	9.0 7.5	8.7 7.5						
20.0	30.4	30.7			ıma prin	cinal 83 (	1°1		l	
15.1	73.0	61.7	7 tinge	28.5	I III PIIII		J ]			
16.0 18.0 20.0	70.9 65.9 60.7	61.4 60.6 59.5	15.1 15.1 15.0	27.2 20.8 16.7						
22.0 24.0 26.0 28.0 30.0	55.3 49.3 42.8 35.2	58.2 56.6 54.6 52.1 48.6	12.8 11.1 9.2 7.7 6.6	13.6 11.5 9.7 8.2						
00.0	20	10.0			ıma prin	rinal 75 (	1 ° 1			
23.2 24.0 26.0 28.0 30.0	65.0 63.0 57.7 52.0 45.7	59.3 58.9 57.7 56.3 54.5	15.1 15.0 13.0 11.1	18.6 17.5 14.9 12.4 10.5		o.pui 70.	~[]			
32.0 34.0	38.7 30.2	52.2 49.2	9.1 7.7	8.9 7.7						
04.0	00.2	70.2			ıma prin	cipal 65 (	1°1C			
32.7 34.0	55.0 51.3	54.7 53.8	9.7	8.3 7.4	ana pini	pur 00.1				
36.0 38.0 40.0 42.0	45.0 37.9 29.2 16.5	52.0 49.6 46.6 41.8	8.3 7.1 5.9 4.8	6.2 5.2 4.2 3.4						



360°

#### Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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]
		35.0	0 m Plum Cabeza 28.0	de plumi	ín (1916-	o de carç 1) 59.5 r nidfall (19	n Plumín	dfall		
			Ángu	ılo de plu	ıma prin	cipal 88.0	1°10			
10.5	78.0	65.5	15.1	28.3	<u>'</u>	l				
11.0	77.0	65.4	15.1	28.3						
12.0	74.8	65.2	15.1	24.4						
13.0	72.7	64.8	15.1	21.3						
14.0 16.0	70.5 66.1	64.5 63.7	15.1 14.4	18.6 15.0						
18.0	61.5	62.6	13.5	12.4						
20.0	56.7	61.4	10.9	10.3						
22.0	51.5	59.9	8.8	8.6						
24.0	46.0	58.1	7.5	7.4						
26.0	39.8	55.9	6.3	6.3						
28.0 30.0	32.6 23.5	53.1 49.3	5.5 4.8	5.5 4.8						
30.0	23.5	49.3			ıma nrin	cipal 83.0	1 ° 1			
16.0	73.0	64.6	15.1	20.0			J [ ]			
18.0	68.6	63.8	15.1	16.7						
20.0	64.0	62.9	13.0	13.6						
22.0	59.3	61.8	10.9	11.3						
24.0	54.4	60.4	8.9	9.4						
26.0	49.1	58.8	7.5	8.1						
28.0 30.0	43.3 36.7	56.8 54.4	6.5 5.6	7.0 6.0						
32.0	28.9	51.2	4.9	5.3						
			Ángı	ılo de plu	ıma prin	cipal 75.0	D[°]			
24.4	65.0	62.0		13.4						
26.0	61.4	61.2	11.9	12.2						
28.0	56.6	60.0	9.7	10.3						
30.0 32.0	51.4 45.9	58.5 56.7	8.1 7.0	8.7 7.5						
34.0	39.7	54.4	6.0	6.4						
36.0	32.5	51.6	5.3	5.7						
38.0	23.3	47.8	4.6	5.0						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
34.4	55.0	57.2		9.3						
36.0	50.9	56.0	8.8	8.6						
38.0 40.0	45.3 39.0	54.2 51.9	7.5 6.4	7.4 6.4						
40.0 42.0	39.0	49.0	5.6	5.7						
44.0	22.2	45.1	4.9	5.0						
		-			ıma prin	cipal 45.0	1°10			
51.1	35.0	42.7		2.2	, · · ·	<u> </u>				
53.0	28.2	39.8	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

	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]
		35.0	0 m Plum Cabeza 28.0	de plumi	ín (2316-	o de carç 1) 62.5 r nidfall (23	n Plumín	dfall		
			Ángı	ılo de plu	uma prin	cipal 88.0	[°]			
10.6 11.0	78.0 77.1	65.6 65.5	15.1 15.1	30.1 30.1						
12.0	75.0	65.2	15.1	28.7						
13.0	72.8	64.9	15.1	25.8						
14.0 16.0	70.7 66.2	64.5 63.7	15.1 14.6	22.4 17.7						
18.0	61.6	62.7	14.0	14.4						
20.0	56.8	61.4	11.5	11.8						
22.0	51.7	59.9	9.4	9.9						
24.0	46.1	58.1	7.9	8.4						
26.0 28.0	39.9 32.8	55.9 53.1	6.6 5.7	7.1 6.1						
30.0	23.7	49.4	4.8	5.1						
			Ángu	ılo de plu	uma prin	cipal 83.0	1°10			
16.0	73.0	64.6		24.2	<u> </u>					
18.0	68.7	63.8	15.1	20.0						
20.0	64.2	62.9	15.1	16.0						
22.0 24.0	59.5 54.5	61.8 60.5	14.0 11.5	13.2 10.9						
26.0	49.2	58.8	9.6	9.3						
28.0	43.4	56.9	8.0	7.9						
30.0	36.9	54.4	6.7	6.7						
32.0	29.0	51.3	5.7	5.7						
			Angı		uma prin	cipal 75.0	0[°]	1		
24.5 26.0	65.0 61.5	62.0 61.2	14.2	15.8 14.4						
28.0	56.7	60.0	11.6	11.9						
30.0	51.6	58.5	9.5	10.0						
32.0	46.0	56.7	8.0	8.6						
34.0	39.8	54.5	6.8	7.3						
36.0 38.0	32.6 23.5	51.7 47.9	5.9 5.0	6.3 5.3						
30.0	20.0	41.3			ıma nrin	cipal 65.0	1 ° 1			
34.5	55.0	57.2	Ange	7.3	I PIII		, j			
36.0	51.0	56.1	8.3	6.4						
38.0	45.4	54.2	7.0	5.3						
40.0 42.0	39.1	52.0	5.9 4.9	4.4 3.6						
44.0	31.8 22.3	49.1 45.1	4.9	2.9						
45.0	15.5	42.3	3.5	2.5						



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]
		35.0	0 m Plum Cabeza 31.0	na princip de plumí 0 [ m ] Po	ín (1916-	1) 62.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.1 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 76.3 74.4 72.5 68.5 64.5 60.3 55.9 51.2 46.2 40.7 34.4 26.9	68.5 68.3 68.0 67.7 66.9 66.0 64.9 63.7 62.1 60.3 58.2 55.5 52.1	15.1	25.7 24.9 21.5 19.1 15.4 12.6 10.6 8.9 7.6 6.6 5.7 5.0 4.4 ulo de plu	uma prind	cipal 83.0	D[°]			
20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0	66.7 62.6 58.3 53.8 49.0 43.8 38.0 31.3 22.8	66.2 65.2 64.1 62.7 61.0 59.1 56.7 53.8 49.8	14.6 12.3 10.3 8.5 7.2 6.3 5.4 4.8 4.2	14.0 11.6 9.8 8.3 7.2 6.3 5.5 4.8						
30.0	22.0	40.0		ılo de plu	ıma prin	cipal 75.0	[°]		ı	
25.7 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0	65.0 64.4 60.2 55.8 51.1 46.1 40.6 34.3 26.8	64.7 64.6 63.5 62.2 60.7 58.9 56.7 54.1 50.6	13.1 11.2 9.3 7.8 6.7 5.8 5.1 4.5	12.2 12.1 10.5 8.9 7.7 6.7 5.8 5.1 4.6						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
36.1 38.0 40.0 42.0 44.0 46.0	55.0 50.6 45.5 40.0 33.6 25.9	59.6 58.3 56.4 54.2 51.5 47.9	7.7 6.7 5.8 5.1 4.5	8.4 7.7 6.7 5.8 5.2 4.6	ıma prine	cinal 45	) [ ° 1			
53.8 54.0	35.0 34.2	44.4 44.1	2.2 2.1	io de più	ania pilii	Sipai <del>4</del> 3.	, ,			
D4.U	34.2	44.1	۷.٦							



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]
		35.0		de plumi	pal, Punt n (2316- osición m	1) 65.5 r	n Plumín	dfall		
			Ángi	ılo de plı	ıma prin	cipal 88 (	1°10			
11.2	78.0	68.5	15.1	30.1		J. Par 55.	, ,			
12.0 13.0 14.0	76.5 74.5 72.6	68.3 68.0 67.7	15.1 15.1 15.1	30.1 30.1 28.3						
16.0	68.7	67.7	15.1	20.3						
18.0 20.0	64.6 60.4	66.1 65.0	15.1 14.8	18.6 15.8						
22.0 24.0 26.0	56.0 51.3 46.3	63.7 62.2 60.4	12.8 11.2 9.8	13.5 11.7 10.3						
28.0 30.0	40.8 34.6	58.2 55.6	8.5 7.4	9.0 7.9						
32.0	27.1	52.2	5.9	6.3	<u> </u>		2 5 0 3			
			Angı		ıma prin	cipai 83.0	֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		1	
16.9 18.0	73.0 70.8	67.4 67.1	15.1	26.9 25.7						
20.0 22.0	66.8 62.7	66.3 65.3	15.1 15.1	20.8 17.2						
24.0	58.4 53.9	64.1	14.2 12.8	14.7						
26.0 28.0	49.1	62.7 61.1	12.8	12.7 11.1						
30.0 32.0	43.9 38.1	59.1 56.8	9.9 8.5	9.8 8.6						
34.0 36.0	31.4 22.9	53.8 49.9	7.5 6.5	7.7 6.7						
30.0	22.5	40.0			ıma prin	cinal 75 (	) [ ° ]		ı	
25.8	65.0	64.7	Ange	15.6	Jina pini	J. Par 7 J.	~ [ ]			
26.0	64.5	64.6	15.1	15.3						
28.0 30.0 32.0	60.3 55.9 51.2	63.6 62.3 60.7	14.8 13.3 11.4	13.2 11.5 10.0						
34.0	46.2	58.9	9.9	8.6						
36.0 38.0	40.7 34.5	56.8 54.1	8.6 7.6	7.5 6.4						
40.0	26.9	50.7	6.7	5.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
36.2 38.0	55.0 50.7	59.6 58.3	6.8	6.2 5.3						
40.0	45.7	56.5	5.7	4.4						
42.0 44.0	40.1 33.8	54.2 51.5	4.7 3.8	3.6 2.9						
46.0	26.0	48.0	3.0	2.2						
48.0	16.6	42.7	2.2							



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	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]
			0 m Plum Cabeza 34.0		n (1916-	1) 65.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.8 12.0 13.0	78.0 77.6 75.8	71.4 71.4 71.1	15.1 15.1 15.1	23.4 23.4 22.1						
14.0 16.0 18.0	74.1 70.5 66.9	70.8 70.2 69.3	15.1 15.1 13.7	19.3 15.5 12.9						
20.0 22.0 24.0 26.0	63.1 59.3 55.2 50.9	68.4 67.2 65.9 64.4	11.4 9.6 8.0 6.8	10.8 9.3 7.9 6.8						
28.0 30.0 32.0	46.4 41.4 35.9	62.6 60.4 57.9	5.9 5.1 4.4	6.0 5.2 4.5						
34.0 36.0	29.4 21.2	54.7 50.5	3.9 3.5	4.0 3.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
17.7 18.0 20.0	73.0 72.5 68.9	70.3 70.2 69.5	15.1 13.9	16.6 16.6 14.3						
22.0 24.0	65.2 61.4	68.6 67.6	11.5 9.5	11.9 10.1						
26.0 28.0 30.0 32.0	57.5 53.3 48.9 44.2	66.3 64.9 63.3 61.3	8.0 6.9 6.0 5.2	8.6 7.4 6.5 5.6						
34.0 36.0	39.0 33.1	59.0 56.2	4.6 4.1	4.9						
38.0	26.0	52.7	3.6 Ángu	l 3.9 Ilo de plu	ıma prin	cipal 75.0	1°1C			
27.0 28.0 30.0	65.0 63.1 59.2	67.4 67.0 65.8	11.5 9.4	11.1 10.9 9.2	- <b>,</b>					
32.0 34.0 36.0	55.1 50.9 46.3	64.5 62.9 61.1	8.0 6.9 6.0	7.9 6.9 6.1						
38.0 40.0 42.0	41.3 35.8 29.3	59.0 56.4 53.3	5.2 4.5 4.1	5.3 4.6 4.2						
44.0	21.0	49.0	3.6 Ápgi	Jo do plu	ıma prim	cinal SE	 			
37.9	55.0	62.1	Angl	ılo de plu 7.6	лна рип	upai 00.1	) [ ]			
38.0 40.0	54.7 50.4	62.1 60.5	7.5 6.8	7.6 6.9						
42.0 44.0 46.0 48.0	45.8 40.8 35.2 28.6	58.7 56.5 53.9 50.6	6.0 5.2 4.6 4.1	6.1 5.3 4.7 4.2						
50.0 51.0	20.0 15.5	46.2 43.0	3.6 3.4	3.7						



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 ]: 74.0 0.0 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]
		35.0	0 m Plum Cabeza 34.0		ín (2316-	·1) 68.5 r̀	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	] ° ] C			
11.8	78.0	71.4		30.1	<u> </u>	l				
12.0	77.7	71.4	15.1	30.1						
13.0 14.0	75.9 74.2	71.1 70.9	15.1 15.1	29.7 26.9						
16.0	70.6	70.2	15.1	21.5						
18.0	67.0	69.4	14.6	17.8						
20.0 22.0	63.3 59.4	68.4 67.3	13.9 12.5	14.9 12.9						
24.0	55.3	65.9	10.6	11.0						
26.0	51.0	64.4	9.0	9.7						
28.0	46.5	62.6	7.9	8.5						
30.0 32.0	41.5 36.0	60.5 57.9	6.9 6.1	7.4 6.5						
34.0	29.6	54.8	5.1	5.5						
36.0	21.3	50.6	4.0	4.3						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
17.8	73.0	70.3	15.1	23.3						
18.0	72.6	70.2	15.1	23.3						
20.0	69.0	69.5	15.1	19.6						
22.0 24.0	65.3 61.5	68.6 67.6	15.1 15.0	16.4 14.0						
26.0	57.6	66.4	12.8	12.0						
28.0	53.4	65.0	10.7	10.4						
30.0 32.0	49.0 44.3	63.3 61.4	9.3 8.1	9.2 8.1						
34.0	39.1	59.1	7.0	7.1						
36.0	33.2	56.3	6.2	6.3						
38.0	26.2	52.7	5.4 Ángu	5.5	ıma nrin	oinal 75 (	) [ ° 1			
27.0	65.0	67.4	Angu	ılo de plu 14.4	лна рпп 	∪ipai 75.0 	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1	I	I
28.0	63.2	67.4 67.0	15.1	13.4						
30.0	59.3	65.9	13.6	11.7						
32.0	55.2	64.5	11.7	10.2						
34.0 36.0	51.0 46.4	63.0 61.2	9.9 8.7	8.8 7.7						
38.0	41.4	59.0	7.5	6.7						
40.0	35.9	56.5	6.6	5.7						
42.0 44.0	29.4 21.2	53.3 49.1	5.9 5.1	4.9 4.2						
44.0	41.4	<b>≒</b> ∂.I		ılo de plu	ıma nrin	cipal 65 (	1°10		1	ı
37.9	55.0	62.1	9	5.5		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
38.0	54.8	62.1	6.8	5.4						
40.0	50.5	60.5	5.7	4.5						
42.0 44.0	45.9 40.9	58.7 56.5	4.8 3.9	3.7 3.0						
46.0	35.3	53.9	3.1	2.3						
48.0	29.5	50.7	2.3							



N° 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]
		35.0	0 m Plum Cabeza 37.0	de plumí	pal, Punt ín (1916- osición m	1) 68.5 r	n Plumín	dfall 1	•	
			Ángı	ılo de plu	ıma prin	cipal 88.0	0[°]			
12.4	78.0	74.3	15.1	22.7		·				
13.0 14.0	77.0 75.4	74.2 73.9	15.1 15.1	22.7 20.7						
16.0	72.2	73.3	15.1	16.7						
18.0	68.9	72.6	15.1	14.1						
20.0	65.5	71.7	12.5	11.8						
22.0 24.0	62.0 58.4	70.7 69.5	10.5 8.9	10.1 8.8						
26.0	54.7	68.2	7.6	7.6						
28.0	50.7	66.6	6.6	6.7						
30.0	46.5	64.8	5.8	5.9						
32.0 34.0	42.0 37.0	62.7 60.2	5.1 4.5	5.2 4.6						
36.0	31.4	57.3	4.0	4.1						
38.0	24.5	53.5	3.6	3.7						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
18.6	73.0	73.2	15.1	16.3						
20.0	70.7	72.7	15.1	15.5						
22.0 24.0	67.4 63.9	71.9 71.0	14.2 11.6	13.1 11.0						
26.0	60.4	69.9	9.8	9.5						
28.0	56.7	68.6	8.3	8.2						
30.0	52.9	67.2	7.2	7.2						
32.0 34.0	48.9 44.5	65.5 63.6	6.3 5.6	6.4 5.7						
36.0	39.8	61.3	4.9	5.0						
38.0	34.6	58.7	4.3	4.5						
40.0	28.5	55.4	3.9	4.0						
42.0	20.7	51.0	3.5	3.6		-i175/	2			
20.2	65.0	70.1		Ilo de plu	uma prind	cipai /5.0	\	I	1	I
28.3 30.0	65.0 61.9	70.1 69.3	11.3 10.6	10.9						
32.0	58.3	68.1	8.9	8.9						
34.0	54.6	66.7	7.7	7.7						
36.0 38.0	50.6 46.4	65.2 63.4	6.7 5.9	6.8 6.0						
40.0	41.9	61.3	5.9	5.3						
42.0	36.9	58.8	4.6	4.7						
44.0	31.3	55.8	4.2	4.3						
46.0	24.4	52.0	3.7	3.8	<u> </u>				l	l
20.0	FF ^	64.5	Angu		uma prin	cipal 65.0	ָנֻין ט ו	I	1	
39.6 40.0	55.0 54.2	64.5 64.3	7.3	7.5 7.5						
42.0	50.2	62.7	6.7	6.7						
44.0	46.0	60.9	5.9	6.0						
46.0 48.0	41.4 36.4	58.8 56.2	5.2 4.6	5.3 4.7						
50.0	30.4	53.2	4.0	4.7						
53.0	19.1	46.7	3.5	3.5						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 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]
35.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 71.5 m Plumín 37.0 [ m ] Posición midfall (2316)										
Ángulo de pluma principal 88.0 [ ° ]										
12.4 13.0 14.0 16.0 18.0	78.0 77.1 75.5 72.3 69.0	74.4 74.2 74.0 73.4 72.6	15.1 15.1 15.1 15.1	28.5 28.5 25.5 20.3 16.8						
20.0 22.0 24.0 26.0 28.0	65.6 62.1 58.5 54.8 50.8	71.8 70.7 69.6 68.2 66.6	13.6 12.4 10.7 9.0 7.7	14.0 12.0 10.3 8.9 7.7						
30.0 32.0 34.0 36.0 38.0	46.6 42.1 37.1 31.5 24.6	64.8 62.8 60.3 57.3 53.5	6.7 5.8 5.0 4.2 3.2	6.8 5.9 5.1 4.3 3.3						
Ángulo de pluma principal 83.0 [ ° ]										
18.6 20.0 22.0 24.0 26.0	73.0 70.8 67.5 64.0 60.5	73.2 72.7 71.9 71.0 69.9	15.1 15.1 13.3 11.9	19.7 18.7 15.5 13.0 11.3						
28.0 30.0 32.0 34.0	56.8 53.0 49.0 44.6	68.6 67.2 65.5 63.6	9.9 8.4 7.3 6.3	9.7 8.4 7.4 6.4						
36.0 38.0 40.0 42.0	39.9 34.7 28.6 20.9	61.4 58.7 55.4 51.1	5.5 4.8 4.2 3.6	5.6 4.9 4.3 3.7		ain al 75 (	0.00			
28.3	65.0	70.2	Angu	12.9	uma prind	cipai 75.	J [ ]			
30.0 32.0 34.0 36.0 38.0 40.0	62.0 58.4 54.7 50.7 46.5 42.0	69.3 68.1 66.8 65.2 63.4 61.3	12.9 10.7 9.1 7.8 6.8 5.9	11.6 10.1 8.8 7.7 6.6 5.7						
42.0 44.0 46.0	37.0 31.4 24.5	58.8 55.9 52.1	5.2 4.6 4.0	4.9 4.2 3.5						
Ángulo de pluma principal 65.0 [ ° ]										
39.6 40.0 42.0 44.0 46.0	55.0 54.3 50.3 46.1 41.5	64.5 64.4 62.8 60.9 58.8	5.4 4.5 3.6 2.9	4.5 4.4 3.6 2.9 2.2						
48.0	37.0	56.3	2.1							



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

0.0

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 74.0

Lastre central [ t ]:

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]
			n Dlum	na princir	al Punt	o de car	na 3 - Mi	dfall		
		33.0	0 m Plum Cabeza 40.0		ín (1916-	1) 71.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.	0 [°]			
13.0	78.0	77.3	15.1	23.7						
14.0 16.0	76.5 73.6	77.0 76.5	15.1 15.1	23.4 19.4						
18.0	70.5	75.8	15.1	16.1						
20.0	67.4	75.0	14.2	13.9						
22.0	64.3	74.1	12.2	11.9						
24.0 26.0	61.0 57.7	73.0 71.8	10.7 9.3	10.4 9.2						
28.0	54.2	70.4	8.1	8.1						
30.0	50.5	68.8	7.1	7.3						
32.0	46.6	67.0	6.4	6.5						
34.0 36.0	42.5 38.0	65.0 62.6	5.7 5.1	5.9 5.3						
38.0	32.9	59.7	4.6	4.8						
40.0	27.0	56.2	4.2	4.4						
42.0	19.4	51.6	3.8	4.0						
				ılo de plu	ıma prin	cipal 83.	0[°]			
19.5	73.0	76.0	15.1	17.3						
20.0 22.0	72.2 69.2	75.9 75.1	15.1 15.0	17.2 15.0						
24.0	66.0	74.3	13.8	12.9						
26.0	62.8	73.3	11.6	11.2						
28.0	59.5	72.2	10.1	9.9						
30.0 32.0	56.1 52.6	70.9 69.4	8.7 7.7	8.7 7.8						
34.0	48.8	67.7	6.9	7.0						
36.0	44.8	65.8	6.1	6.3						
38.0	40.5	63.6	5.5	5.6						
40.0 42.0	35.8 30.4	61.0 57.9	5.0 4.5	5.1 4.7						
44.0	23.9	54.0	4.1	4.7						
			Ángı	ılo de plı	ıma prin	cipal 75.	[°]0			
29.5	65.0	72.9		11.6						
30.0	64.2	72.7	12.1	11.6						
32.0	61.0 57.6	71.6	10.7	10.5						
34.0 36.0	57.6 54.1	70.4 69.0	9.4 8.2	9.3 8.2						
38.0	50.5	67.4	7.2	7.4						
40.0	46.6	65.6	6.5	6.7						
42.0	42.4	63.5	5.8	6.0						
44.0 46.0	37.9 32.8	61.1 58.3	5.2 4.8	5.4 4.9						
48.0	26.9	54.8	4.4	4.5						
50.0	19.3	50.1	4.0	4.1						
			Ángı	ılo de plı	ıma prin	cipal 65.	0[°]			
41.3	55.0	67.0		7.1						
42.0	53.8	66.6	7.9	6.9						
44.0 46.0	50.1 46.2	65.0 63.1	7.2 6.5	6.1 5.5						
48.0	42.0	61.0	5.8	4.9						
50.0	37.4	58.6	5.2	4.3						
55.0	22.6	49.9	4.0	3.1						
56.0	18.3	47.2	3.7	2.9	I	<u> </u>	<u> </u>	<u> </u>	I	<u> </u>



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 ]: 74.0 0.0 Lastre central [ t ]:

Ce		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumin (1916-1) 74.5 m Plumín 31.0 [ m ] Posición midfall (1916)  Angulo de pluma principal 88.0 [ ° ]  11.1 78.0 68.5 21.2 12.0 76.3 68.3 15.1 21.0 13.0 74.4 68.0 15.1 18.2 14.0 72.5 67.7 15.0 16.1 16.0 68.5 66.9 14.4 12.9 18.0 64.5 66.0 11.1 10.2 20.0 60.3 64.9 8.7 8.4 22.0 55.9 63.7 7.0 6.9 24.0 51.2 62.1 5.8 5.7 26.0 46.2 60.3 4.8 4.8 28.0 40.7 58.2 4.1 4.1 30.0 34.4 55.5 3.4 3.5 32.0 26.9 52.1 2.9 3.0  Angulo de pluma principal 83.0 [ ° ]  16.8 73.0 67.4 18.0 70.7 67.0 15.1 14.5 20.0 66.7 66.2 12.7 11.5 20.0 66.7 66.2 12.7 11.5 20.0 66.7 66.2 12.7 11.5 20.0 66.7 66.2 12.7 11.5 20.0 66.7 66.2 12.7 11.5 20.0 66.7 66.2 12.7 11.5 20.0 66.7 66.2 12.7 15.5 22.0 62.6 65.2 9.7 9.3 24.0 53.8 64.1 7.9 7.7 26.0 53.8 62.7 6.4 6.4 28.0 49.0 61.0 5.4 5.4 30.0 34.8 35.1 4.6 4.6 28.0 49.0 61.0 5.4 5.4 30.0 38.0 56.7 3.8 3.9 34.0 31.3 35.8 3.3 3.4 36.0 22.8 49.8 2.8 2.9  Angulo de pluma principal 75.0 [ ° ]  25.7 65.0 64.7 9.6 28.0 60.2 63.5 8.6 8.3 30.0 55.8 62.2 7.1 7.0 32.0 51.1 60.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 38.0 34.3 54.1 3.6 3.7 38.0 34.3 54.1 3.6 3.7 38.0 34.3 54.1 3.6 3.7 38.0 34.3 54.1 3.6 3.7 38.0 34.3 54.1 3.6 3.7 38.0 34.3 54.1 3.6 3.7 38.0 50.6 58.3 5.9 5.9 5.9 40.0 45.5 56.4 5.0 5.0 42.0 40.0 45.5 56.4 5.0 5.0 42.0 40.0 45.5 56.4 5.0 5.0 42.0 40.0 54.2 4.3 4.3 44.0 33.6 51.5 3.6 3.7	ce	o de plumín	de rolda- nas	Carga [t]							Carga [t]
11.1   78.0   68.5   15.1   21.0   13.0   74.4   68.0   15.1   18.2   14.0   72.5   67.7   15.0   16.1   16.0   68.5   66.9   14.4   12.9   18.0   68.5   66.9   14.4   12.9   18.0   68.5   66.9   14.4   12.9   18.0   68.5   66.9   14.4   12.9   18.0   68.5   66.9   14.4   12.9   18.0   68.5   66.9   14.4   12.9   18.0   68.5   66.9   14.4   12.9   18.0   68.5   68.9   7.0   6.9   7.0   7			35.0	Cabeza	de plumi	ín (1916-	1) 74.5 r	n Plumín			
11.1   78.0   68.5   15.1   21.0   13.0   74.4   68.0   15.1   18.2   14.0   72.5   67.7   15.0   16.1   16.0   68.5   66.9   14.4   12.9   18.0   68.5   66.9   14.4   12.9   18.0   68.5   66.9   14.4   12.9   18.0   68.5   66.0   11.1   10.2   12.0   18.0   68.5   66.0   11.1   10.2   12.0   18.0   68.5   66.0   11.1   10.2   18.0   68.5   68.9   18.4   18.5   18				Ángı	ılo de plu	uma prin	cipal 88.0	1°10			
12.0 76.3 68.3 15.1 21.0 13.0 74.4 68.0 15.1 18.2 11.0 14.0 72.5 67.7 15.0 16.1 18.2 11.0 18.0 64.5 66.9 14.4 12.9 18.0 64.5 66.0 11.1 10.2 20.0 60.3 64.9 8.7 8.4 22.0 55.9 63.7 7.0 6.9 24.0 51.2 62.1 5.8 5.7 26.0 46.2 60.3 4.8 4.8 4.8 28.0 40.7 55.2 4.1 4.1 30.0 34.4 55.5 3.4 3.5 32.0 26.9 52.1 2.9 3.0 Angulo de pluma principal 83.0 [°]  16.8 73.0 67.4 15.1 14.5 20.0 66.7 66.2 12.7 11.5 22.0 62.6 65.2 9.7 9.3 24.0 58.3 64.1 7.9 7.7 26.0 53.8 62.7 6.4 6.4 28.0 49.0 61.0 5.4 5.4 33.0 38.0 38.0 38.0 56.7 3.8 3.9 34.0 34.0 31.3 53.8 3.3 3.4 33.0 32.0 38.0 56.7 3.8 3.9 34.0 34.0 31.3 53.8 3.3 3.4 33.0 32.0 36.9 55.8 66.2 2.7 1.7 0.9 6.9 3.0 3.0 34.0 46.1 58.9 5.0 5.0 30.0 55.8 62.2 7.1 7.0 32.0 32.0 55.8 62.2 7.1 7.0 32.0 32.0 55.8 62.2 7.1 7.0 32.0 32.0 55.8 62.2 7.1 7.0 32.0 32.0 55.8 62.2 7.1 7.0 32.0 32.0 55.8 62.2 7.1 7.0 32.0 32.0 55.1 65.0 64.7 9.6 63.3 3.3 3.4 33.0 32.0 33.0 35.5 8.6 8.3 3.9 34.0 34.1 58.9 5.0 5.0 30.0 55.8 62.2 7.1 7.0 32.0 32.0 55.1 65.0 64.7 9.6 63.3 6.0 32.0 55.1 60.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 33.0 32.0 55.1 50.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 33.0 32.0 55.1 50.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 33.0 32.0 55.1 50.7 5.9 5.9 5.9 34.0 46.1 58.9 5.0 5.0 33.0 33.0 34.3 35.1 3.2 Angulo de pluma principal 65.0 [°]  Angulo de pluma principal 65.0 [°]  36.1 55.0 59.6 58.3 5.9 5.9 5.9 5.9 34.0 45.0 45.5 56.4 50.0 55.0 42.0 40.0 56.2 43.3 43.3 44.3 44.0 33.6 51.5 3.6 3.7	11.1	78.0	68.5	ΓĞ		<u>'</u>	·				
14.0 72.5 67.7 15.0 16.1 16.1 16.0 68.5 66.9 14.4 16.9 18.0 64.5 66.0 11.1 10.2 20.0 60.3 64.9 8.7 8.4 22.0 55.9 63.7 7.0 6.9 22.0 55.9 63.7 7.0 6.9 22.0 55.9 63.7 7.0 6.9 22.0 55.9 63.7 7.0 6.9 22.0 55.9 63.7 3.8 3.5 32.0 26.9 52.1 2.9 3.0 Angulo de pluma principal 83.0 [°]				15.1							
16.0 68.5 66.9 14.4 12.9 18.0 64.5 66.0 11.1 10.2 20.0 60.3 64.9 8.7 8.4 22.0 55.9 63.7 7.0 6.9 24.0 51.2 62.1 5.8 5.7 26.0 46.2 60.3 4.8 4.8 28.0 28.0 40.7 58.2 4.1 4.1 3.5 32.0 26.9 52.1 2.9 3.0	13.0	74.4	68.0	15.1	18.2						
18.0											
20.0 60.3 64.9 8.7 8.4 22.0 55.9 63.7 7.0 6.9 24.0 51.2 62.1 5.8 5.7 26.0 46.2 60.3 4.8 4.8 4.8 28.0 40.7 58.2 4.1 4.1 4.1 3.0 3.0 34.4 55.5 3.4 3.5 32.0 26.9 52.1 2.9 3.0											
22.0		1									
24.0 51.2 62.1 5.8 5.7 26.0 46.2 60.3 4.8 4.8 4.8											
28.0					i e						
30.0 34.4 55.5 3.4 3.5 3.0	26.0	46.2	60.3	4.8	4.8						
32.0   26.9   52.1   2.9   3.0	28.0	40.7	58.2	4.1	4.1						
Ángulo de pluma principal 83.0 [°]         16.8       73.0       67.4       15.1       14.5         18.0       70.7       67.0       15.1       14.5         20.0       66.7       66.2       12.7       11.5         22.0       62.6       65.2       9.7       9.3         24.0       58.3       64.1       7.9       7.7         26.0       53.8       62.7       6.4       6.4         28.0       49.0       61.0       5.4       5.4         30.0       43.8       59.1       4.6       4.6         32.0       38.0       56.7       3.8       3.9         34.0       31.3       53.8       3.3       3.4         36.0       22.8       49.8       2.8       2.9         Angulo de pluma principal 75.0 [°]         25.7       65.0       64.7       9.6         28.0       60.2       63.5       8.6       8.3         30.0       55.8       62.2       7.1       7.0         32.0       51.1       60.7       5.9       5.9         34.0       46.1       58.9       5.0       5.0		i i									
16.8	32.0	26.9	52.1								
18.0 70.7 67.0 15.1 14.5 20.0 66.7 66.2 12.7 11.5 22.0 62.6 65.2 9.7 9.3 24.0 58.3 64.1 7.9 7.7 26.0 53.8 62.7 6.4 6.4 28.0 49.0 61.0 5.4 5.4 3.8 3.9 34.0 31.3 53.8 3.3 3.4 36.0 22.8 49.8 2.8 2.9    Angulo de pluma principal 75.0 [°]  25.7 65.0 64.7 9.6 8.6 8.3 30.0 55.8 62.2 7.1 7.0 32.0 55.8 62.2 7.1 7.0 32.0 51.1 60.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2    Angulo de pluma principal 65.0 [°]  36.1 55.0 59.6 38.3 5.9 5.9 5.9 40.0 45.5 56.4 5.0 5.0 40.0 44.0 44.0 33.6 51.5 3.6 3.7				Ángı	ılo de plı	uma prin	cipal 83.0	O[°]			
20.0 66.7 66.2 12.7 11.5 22.0 62.6 65.2 9.7 9.3 224.0 58.3 64.1 7.9 7.7 26.0 53.8 62.7 6.4 6.4 28.0 49.0 61.0 5.4 5.4 30.0 43.8 59.1 4.6 4.6 32.0 38.0 56.7 3.8 3.9 34.0 31.3 53.8 3.3 3.4 36.0 22.8 49.8 2.8 2.9    Angulo de pluma principal 75.0 [°]  25.7 65.0 64.7 9.6 22.8 49.8 2.8 2.9 2.9 2.8 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9 2.9	16.8	73.0	67.4		15.1						
22.0 62.6 65.2 9.7 9.3 24.0 58.3 64.1 7.9 7.7 26.0 53.8 62.7 6.4 6.4 28.0 49.0 61.0 5.4 5.4 30.0 43.8 59.1 4.6 4.6 32.0 38.0 56.7 3.8 3.9 34.0 31.3 53.8 2.8 2.9	18.0	70.7	67.0	15.1	14.5						
24.0 58.3 64.1 7.9 7.7 26.0 53.8 62.7 6.4 6.4 28.0 49.0 61.0 5.4 5.4 5.4 30.0 43.8 59.1 4.6 4.6 32.0 38.0 56.7 3.8 3.9 34.0 31.3 53.8 3.3 3.4 36.0 22.8 49.8 2.8 2.9   Angulo de pluma principal 75.0 [°]  25.7 65.0 64.7 9.6   26.0 64.4 64.6 10.0 9.6 28.0 60.2 63.5 8.6 8.3 30.0 55.8 62.2 7.1 7.0 32.0 55.8 62.2 7.1 7.0 32.0 55.8 62.2 7.1 7.0 32.0 51.1 60.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 36.0 40.6 56.7 4.2 4.3 38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2   Angulo de pluma principal 65.0 [°]  36.1 55.0 59.6 3.1 3.2   Angulo de pluma principal 65.0 [°]  36.1 55.0 59.6 3.1 3.2 4.3 4.3 4.3 4.4 44.0 33.6 51.5 3.6 3.7					i						
26.0		1 1									
28.0											
30.0											
32.0 38.0 56.7 3.8 3.9 3.9 34.0 31.3 53.8 3.9 3.4 36.0 22.8 49.8 2.8 2.9    Angulo de pluma principal 75.0 [°]  25.7 65.0 64.7 9.6    26.0 64.4 64.6 10.0 9.6 22.0 60.2 63.5 8.6 8.3 30.0 55.8 62.2 7.1 7.0 32.0 51.1 60.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 34.0 46.1 58.9 5.0 5.0 38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2    Angulo de pluma principal 65.0 [°]  36.1 55.0 59.6 3.1 3.2    Angulo de pluma principal 65.0 [°]  36.1 55.0 59.6 3.1 3.2    40.0 45.5 56.4 5.0 5.9 4.2 4.3 4.3 4.3 4.3 4.3 4.4 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0											
36.0 22.8 49.8 2.8 2.9 Ángulo de pluma principal 75.0 [°]  25.7 65.0 64.7 9.6  26.0 64.4 64.6 10.0 9.6 28.0 60.2 63.5 8.6 8.3 30.0 55.8 62.2 7.1 7.0 32.0 51.1 60.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 36.0 40.6 56.7 4.2 4.3 38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2  Ángulo de pluma principal 65.0 [°]  36.1 55.0 59.6 58.3 5.9 5.9 40.0 45.5 56.4 5.0 5.0 42.0 40.0 54.2 4.3 4.3 44.0 33.6 51.5 3.6 3.7		38.0			3.9						
Ángulo de pluma principal 75.0 [°]         25.7       65.0       64.7       9.6         9.6 </td <td>34.0</td> <td></td> <td></td> <td></td> <td>i</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	34.0				i						
25.7 65.0 64.7 9.6 26.0 64.4 64.6 10.0 9.6 28.0 60.2 63.5 8.6 8.3 30.0 55.8 62.2 7.1 7.0 32.0 51.1 60.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 36.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2 Ángulo de pluma principal 65.0 [°]  36.1 55.0 59.6 40.6 58.3 5.9 5.9 40.0 45.5 56.4 5.0 5.0 44.0 45.5 56.4 5.0 5.0 44.0 44.0 33.6 51.5 3.6 3.7	36.0	22.8	49.8								
26.0 64.4 64.6 10.0 9.6 28.0 60.2 63.5 8.6 8.3 30.0 55.8 62.2 7.1 7.0 32.0 51.1 60.7 5.9 5.9 34.0 46.1 58.9 5.0 5.0 36.0 40.6 56.7 4.2 4.3 38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2 \$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$36.1 55.0 59.6 38.0 50.6 58.3 5.9 5.9 40.0 45.5 56.4 5.0 5.0 40.0 445.5 56.4 5.0 5.0 42.0 44.0 33.6 51.5 3.6 3.7				Ángı	ılo de plı	ıma prin	cipal 75.0	[°]C			
28.0 60.2 63.5 8.6 8.3 30.0 55.8 62.2 7.1 7.0 32.0 51.1 60.7 5.9 5.9 5.9 34.0 46.1 58.9 5.0 5.0 36.0 40.6 56.7 4.2 4.3 38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2 Angulo de pluma principal 65.0 [°]  36.1 55.0 59.6 38.0 50.6 58.3 5.9 5.9 40.0 45.5 56.4 5.0 5.0 40.0 45.5 56.4 5.0 5.0 40.0 45.5 56.4 4.3 4.3 44.0 33.6 51.5 3.6 3.7	25.7	65.0	64.7		9.6						
30.0 55.8 62.2 7.1 7.0 32.0 51.1 60.7 5.9 5.9 5.9 34.0 46.1 58.9 5.0 5.0 5.0 36.0 40.6 56.7 4.2 4.3 38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2 \$\$\$Angulo de pluma principal 65.0 [°]\$\$\$36.1 55.0 59.6 58.3 6.4 38.0 50.6 58.3 5.9 5.9 40.0 45.5 56.4 5.0 5.0 42.0 40.0 54.2 4.3 4.3 4.3 4.3 44.0 33.6 51.5 3.6 3.7		1 -									
32.0 51.1 60.7 5.9 5.9 5.9 34.0 46.1 58.9 5.0 5.0 5.0 36.0 40.6 56.7 4.2 4.3 38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2 Ángulo de pluma principal 65.0 [°]  36.1 55.0 59.6 58.3 5.9 5.9 40.0 45.5 56.4 5.0 5.0 42.0 40.0 54.2 4.3 4.3 4.3 44.0 33.6 51.5 3.6 3.7					i						
34.0 46.1 58.9 5.0 5.0 36.0 36.0 40.6 56.7 4.2 4.3 38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2 Angulo de pluma principal 65.0 [°]  36.1 55.0 59.6 6.4 38.0 50.6 58.3 5.9 5.9 40.0 45.5 56.4 5.0 5.0 42.0 40.0 54.2 4.3 4.3 4.3 44.0 33.6 51.5 3.6 3.7		i i	i I		i						
36.0		I .									
38.0 34.3 54.1 3.6 3.7 40.0 26.8 50.6 3.1 3.2 Angulo de pluma principal 65.0 [°]  36.1 55.0 59.6 58.3 5.9 6.4 40.0 45.5 56.4 5.0 5.0 42.0 40.0 54.2 4.3 4.3 4.4 44.0 33.6 51.5 3.6 3.7											
40.0 26.8 50.6 3.1 3.2 Ángulo de pluma principal 65.0 [°]  36.1 55.0 59.6 6.4 6.4 38.0 50.6 58.3 5.9 5.9 5.9 40.0 45.5 56.4 5.0 5.0 42.0 40.0 54.2 4.3 4.3 4.3 44.0 33.6 51.5 3.6 3.7					-						
36.1 55.0 59.6 6.4 38.0 50.6 58.3 5.9 5.9 40.0 45.5 56.4 5.0 5.0 42.0 40.0 54.2 4.3 4.3 44.0 33.6 51.5 3.6 3.7											
38.0     50.6     58.3     5.9     5.9       40.0     45.5     56.4     5.0     5.0       42.0     40.0     54.2     4.3     4.3       44.0     33.6     51.5     3.6     3.7				Ángı	ılo de plı	ıma prin	cipal 65.0	[°]			
40.0     45.5     56.4     5.0     5.0       42.0     40.0     54.2     4.3     4.3       44.0     33.6     51.5     3.6     3.7											
42.0     40.0     54.2     4.3     4.3       44.0     33.6     51.5     3.6     3.7											
44.0 33.6 51.5 3.6 3.7					i						
				-	i						
■ 460   259   479 ■ 32   31	44.0 46.0	25.9	51.5 47.9	3.6	3.7						
48.0 16.3 42.6 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 ]: 74.0 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]
		35.0		de plumi	oal, Punt ín (2316- osición m	·1) 74.5 r̀	n Plumín			
			Ángı	ılo de plı	uma prin	cipal 88.0	) [°]			
13.1 14.0 16.0 18.0	78.0 76.6 73.6 70.6	77.3 77.1 76.5 75.8	15.1 15.1 15.1 15.1	28.3 28.0 22.6 18.5						
20.0 22.0	67.5 64.4	75.0 74.1	14.6 13.3	15.8 13.5						
24.0 26.0 28.0 30.0	61.1 57.8 54.3 50.6	73.1 71.8 70.5 68.9	12.3 10.6 9.1 7.9	11.8 10.3 9.0 8.0						
32.0 34.0 36.0 38.0	46.7 42.6 38.1 33.0	67.1 65.0 62.6 59.8	6.7 5.7 4.8 3.9	6.9 5.9 5.0 4.1						
40.0	27.1	56.3	2.9	3.0						
			Ángu	ılo de plu	uma prin	cipal 83.0	[°]			
19.5 20.0 22.0 24.0	73.0 72.3 69.2 66.1	76.0 75.9 75.2 74.3	15.1 15.1 14.4	19.8 19.8 17.1 14.7						
26.0	62.9	73.3	13.0	12.7						
28.0 30.0 32.0 34.0 36.0	59.6 56.2 52.7 48.9 44.9	72.2 70.9 69.4 67.8 65.9	11.6 9.9 8.5 7.5 6.6	11.1 9.7 8.6 7.6 6.8						
38.0 40.0 42.0 44.0	40.6 35.9 30.5 24.0	63.7 61.1 58.0 54.1	5.8 5.2 4.4 3.6	6.0 5.3 4.5 3.7						
			Ángu	ılo de plu	uma prin	cipal 75.0	[°]			
29.6 30.0	65.0 64.3	72.9 72.7	13.9	11.8 11.5						
32.0 34.0 36.0	61.1 57.7 54.2	71.6 70.4 69.0	12.4 10.7 9.1	10.0 8.8 7.7						
38.0 40.0 42.0 44.0	50.5 46.7 42.5 38.0	67.5 65.7 63.6 61.2	8.0 7.1 6.2 5.4	6.6 5.7 4.9 4.2						
46.0 48.0 50.0	32.9 27.0 19.4	58.3 54.8 50.2	4.6 3.8 3.1	3.5 2.9 2.3						
			Ángu		uma prin	cipal 65.0	) [°]			
41.4 42.0 44.0	55.0 53.8 50.2	67.0 66.6 65.0	4.3 3.5	3.7 3.5 2.8						
46.0 48.0	46.3 42.4	63.2 61.1	2.7	2.1						



Nº de ident.: 9842523/95738/

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

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

	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]
		35.0	0 m Plum Cabeza 34.0	de plumí		1) 77.5 r̀	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.8	78.0	71.4	15.1	19.0						
12.0 13.0	77.6 75.8	71.4 71.1	15.1 15.1	19.0 18.2						
14.0	74.1	70.8	15.1	16.2						
16.0	70.5	70.2	13.4	12.7						
18.0	66.9	69.3	11.2	10.3						
20.0 22.0	63.1 59.3	68.4 67.2	8.7 7.1	8.4 7.0						
24.0	55.2	65.9	5.8	5.8						
26.0	50.9	64.4	4.8	4.8						
28.0	46.4	62.6	4.0	4.1						
30.0	41.4	60.4	3.4	3.5						
32.0 34.0	35.9 29.4	57.9 54.7	2.8 2.3	2.9 2.4						
04.0	20.4	04.7			ıma prin	cipal 83 (	1°10			
17.7	73.0	70.3	79	13.4			, <u>, , , , , , , , , , , , , , , , , , </u>			
18.0	72.5	70.2	15.0	13.4						
20.0	68.9	69.5	12.5	11.4						
22.0 24.0	65.2	68.6	9.8	9.2 7.7						
26.0	61.4 57.5	67.6 66.3	7.8 6.4	6.4						
28.0	53.3	64.9	5.3	5.4						
30.0	48.9	63.3	4.5	4.6						
32.0	44.2	61.3	3.8	3.9						
34.0 36.0	39.0 33.1	59.0 56.2	3.2 2.8	3.3 2.8						
38.0	26.0	52.7	2.4	2.4						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
27.0	65.0	67.4		8.4						
28.0	63.1	67.0	8.5	8.4						
30.0 32.0	59.2 55.1	65.8 64.5	7.0 5.9	6.9 5.9						
34.0	50.9	62.9	4.9	5.0						
36.0	46.3	61.1	4.2	4.3						
38.0	41.3	59.0	3.6	3.6						
40.0 42.0	35.8 29.3	56.4 53.3	3.0 2.6	3.1 2.7						
44.0	21.0	49.0	2.2	2.3						
					ıma prin	cipal 65.0	1°10			
37.9	55.0	62.1		5.5						
38.0	54.7	62.1	5.4	5.5						
40.0	50.4	60.5	5.0	5.0						
42.0 44.0	45.8 40.8	58.7 56.5	4.2 3.6	4.3 3.6						
46.0	35.2	53.9	3.0	3.1						
48.0	28.6	50.6	2.7	2.6						
50.0	20.0	46.2	2.3	2.1						
51.0	15.5	43.0	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]
		35.0	0 m Plun Cabeza 43.0	de plumi		1) 77.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.7	78.0	80.2	15.1	28.1						
14.0	77.6	80.2	15.1	28.1						
16.0 18.0	74.8 72.0	79.6 79.0	15.1 15.1	24.1 20.1						
20.0	69.2	78.3	15.1	17.2						
22.0	66.3	77.4	13.6	14.8						
24.0	63.3	76.5	12.2	12.9						
26.0	60.3	75.4	11.0	11.5						
28.0	57.1	74.1	9.6	10.1						
30.0 32.0	53.9 50.4	72.7 71.1	8.4 7.4	9.0 8.0						
34.0	46.8	69.3	6.2	6.7						
36.0	43.0	67.3	5.0	5.4						
38.0	38.9	64.9	3.9	4.2						
40.0	34.3	62.2	3.0	3.2						
			Ángı	ılo de plu	uma prin	cipal 83.0	[°]C			
20.4	73.0	78.9		19.8						
22.0	70.8	78.4	15.1	18.7						
24.0	67.9	77.6	15.1	16.1						
26.0	65.0	76.7	13.8	13.9						
28.0 30.0	62.0 58.9	75.7 74.5	12.6 11.1	12.3 10.9						
32.0	55.7	73.2	9.6	9.6						
34.0	52.3	71.7	8.4	8.6						
36.0	48.9	70.0	7.5	7.7						
38.0	45.2	68.1	6.7	6.9						
40.0	41.2	65.9	5.9	6.1						
42.0 44.0	36.9 32.0	63.4 60.5	5.3	5.5						
44.0 46.0	26.4	56.9	4.5 3.4	4.6 3.5						
					ıma prin	cipal 75 (				
30.8	65.0	75.6	J9	10.6						
32.0	63.3	75.1	12.2	9.8						
34.0	60.2	73.9	10.7	8.5						
36.0	57.1	72.7	9.4	7.5						
38.0	53.8	71.3	8.2	6.5						
40.0 42.0	50.4 46.8	69.7 67.9	7.1 6.1	5.6 4.8						
44.0	40.6	65.8	5.2	4.0						
46.0	38.8	63.5	4.4	3.4						
48.0	34.2	60.7	3.6	2.8						
50.0	29.0	57.5	2.9	2.2						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
43.1	55.0	69.4		2.9						
44.0	53.5	68.9	3.2	2.6						
46.0	50.3	67.2	2.4							
47.0	48.5	66.4	2.1	l	l				l	



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 34.0	de plumí		1) 80.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.8 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0	78.0 77.7 75.9 74.2 70.6 67.0 63.3 59.4 55.3 51.0	71.4 71.4 71.1 70.9 70.2 69.4 68.4 67.3 65.9 64.4	15.1 15.1 15.1 15.1 15.1 15.1 14.2 9.5 5.9	30.1 30.1 30.1 28.7 24.2 20.2 16.7 13.6 9.4 6.1						
28.0	46.5	62.6			ıma prin	oinal 02 (	) [ ° 1			
17.8 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 72.6 69.0 65.3 61.5 57.6 53.4 49.0	70.3 70.2 69.5 68.6 67.6 66.4 65.0 63.3	15.1 15.1 15.1 15.1 15.1 15.1 13.5 11.4 9.6	24.9 24.6 20.3 16.9 14.3 12.1 10.4 8.8	, , , , , , , , , , , , , , , , , , ,	spar co.				
32.0	44.3	61.4	6.5	6.3						
34.0	39.1	59.1	3.8	3.7		== :	2			
	05.0	07.4	Angu		ıma prin	cipal /5.0	ַנֻין ט			
27.0 28.0 30.0 32.0	65.0 63.2 59.3 55.2	67.4 67.0 65.9 64.5	13.4 11.4 9.5	10.5 9.6 8.0 6.7						
34.0 36.0 38.0 40.0 42.0	51.0 46.4 41.4 35.9 30.2	63.0 61.2 59.0 56.5 53.3	7.9 6.4 5.1 3.9 2.8	5.5 4.4 3.5 2.6						
			Ángı	ılo de plu	ıma prin	cipal 65.0	D[°]			
37.9 38.0 40.0	55.0 54.8 50.8	62.1 62.1 60.5	3.4 2.3	2.5 2.5	-	-	-			



2821-1

2821-1

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

2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 74.0 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]
		35.0	0 m Plum Cabeza 37.0	de plumi	oal, Punt ín (1916- osición m	1) 80.5 r	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
12.4 13.0 14.0 16.0 18.0	78.0 77.0 75.4 72.2 68.9	74.3 74.2 73.9 73.3 72.6	15.1 15.1 15.1 14.4 12.9	19.6 19.6 18.1 14.6 12.0						
20.0 22.0 24.0 26.0	65.5 62.0 58.4 54.7	71.7 70.7 69.5 68.2	10.4 8.4 7.1 6.0	9.9 8.3 7.1 6.1						
28.0 30.0 32.0 34.0	50.7 46.5 42.0 37.0	66.6 64.8 62.7 60.2	5.1 4.5 3.9 3.4 2.8	5.2 4.6 4.0 3.5 2.8						
36.0	31.4	57.3			ıma prin	rinal 83 (	1°1			
18.6 20.0 22.0 24.0 26.0 28.0 30.0 32.0	73.0 70.7 67.4 63.9 60.4 56.7 52.9 48.9	73.2 72.7 71.9 71.0 69.9 68.6 67.2 65.5	15.0 14.5 11.6 9.3 7.8 6.6 5.7 5.0	13.9 13.2 10.9 9.0 7.7 6.6 5.7 5.0						
34.0 36.0 38.0 40.0 42.0	44.5 39.8 34.6 28.5 20.7	63.6 61.3 58.7 55.4 51.0	4.3 3.7 3.2 2.9 2.5	3.8 3.4 3.0 2.5						
					ıma prin	cipal 75.0	[°]			
28.3 30.0 32.0 34.0 36.0 38.0 40.0 42.0	65.0 61.9 58.3 54.6 50.6 46.4 41.9 36.9	70.1 69.3 68.1 66.7 65.2 63.4 61.3 58.8	9.0 8.5 7.2 6.1 5.3 4.7 4.1 3.6	8.9 8.4 7.2 6.2 5.4 4.8 4.2 3.7			-			
44.0 46.0	31.3 24.4	55.8 52.0	3.2 2.8	3.3 2.9						
					ıma prin	cipal 65.0	[°]			
39.6 40.0 42.0	55.0 54.2 50.2	64.5 64.3 62.7	5.8 5.3	5.6 5.5 4.7						
44.0 46.0 48.0 50.0 53.0	46.0 41.4 36.4 30.6 20.2	60.9 58.8 56.2 53.2 46.7	4.7 4.1 3.6 3.1 2.1	4.0 3.3 2.7 2.2						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [ t ]: 74.0 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]
		35.0	0 m Plum Cabeza 37.0	de plumí	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
12.4	78.0	74.4		28.5						
13.0	77.1	74.2	15.1	28.5						
14.0	75.5	74.0	15.1	27.3						
16.0	72.3	73.4	15.1	22.3						
18.0	69.0	72.6	15.1	18.4						
20.0	65.6	71.8	13.8	15.4						
22.0	62.1	70.7	12.2	13.0						
24.0	58.5	69.6	9.9	10.2						
26.0	54.8	68.2	6.8	7.0						
28.0	50.8	66.6	4.2	4.4						
30.0	46.6	64.8	2.8	3.0						
			Ángu	ılo de plu	uma prin	cipal 83.0	[°]C			
18.6	73.0	73.2		20.6						
20.0	70.8	72.7	15.1	20.4						
22.0	67.5	71.9	15.1	17.0						
24.0	64.0	71.0	13.9	14.2						
26.0	60.5	69.9	12.8	12.2						
28.0	56.8	68.6	10.7	10.3						
30.0	53.0	67.2	8.8	8.7						
32.0	49.0	65.5	7.2	7.2						
34.0	44.6	63.6	4.8	4.8						
L			Ángι	ılo de plu	uma prin	cipal 75.0	[°]C			
28.3	65.0	70.2		9.3						
30.0	62.0	69.3	11.0	7.9						
32.0	58.4	68.1	9.3	6.6						
34.0	54.7	66.8	7.7	5.5						
36.0	50.7	65.2	6.3	4.5						
38.0	46.5	63.4	5.0	3.5						
40.0	42.0	61.3	3.8	2.7						
42.0	37.5	58.8	2.8							
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
39.8	55.0	64.5	2.2							
40.0	54.5	64.4	2.1							



Nº de ident.: 9842523/95738/

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

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

	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	de plumí	oal, Punt in (1916- osición m	1) 83.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	0 [°]			
13.0	78.0	77.3	15.1	16.8						
14.0	76.5	77.0	15.1	16.8						
16.0	73.6	76.5	13.5	13.8						
18.0 20.0	70.5 67.4	75.8 75.0	11.4 9.6	11.2 9.3						
22.0	64.3	74.1	7.8	7.7						
24.0	61.0	73.0	6.5	6.5						
26.0	57.7	71.8	5.5	5.5						
28.0	54.2	70.4	4.6	4.7						
30.0	50.5	68.8	4.0	4.0						
32.0	46.6	67.0	3.4	3.5						
34.0 36.0	42.5 38.0	65.0 62.6	2.9 2.5	3.0 2.6						
00.0	00.0	02.0			ıma prin	cipal 83.0	1°10			
19.5	73.0	76.0	11.7	11.8		J.pu. 00.				
20.0	72.2	75.9	11.7	11.8						
22.0	69.2	75.1	10.3	10.1						
24.0	66.0	74.3	8.6	8.4						
26.0	62.8	73.3	7.1	7.1						
28.0	59.5	72.2	6.0	6.1						
30.0 32.0	56.1 52.6	70.9 69.4	5.1 4.4	5.2 4.5						
34.0	48.8	67.7	3.8	3.9						
36.0	44.8	65.8	3.3	3.3						
38.0	40.5	63.6	2.8	2.9						
40.0	35.8	61.0	2.4	2.5						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
29.5	65.0	72.9		7.4						
30.0	64.2	72.7	7.3	7.3						
32.0 34.0	61.0 57.6	71.6 70.4	6.5 5.6	6.6 5.7						
34.0 36.0	57.6	70.4 69.0	5.6 4.7	4.8						
38.0	50.5	67.4	4.1	4.2						
40.0	46.6	65.6	3.5	3.7						
42.0	42.4	63.5	3.1	3.2						
44.0	37.9	61.1	2.6	2.7						
46.0	32.8	58.3	2.3	2.4						
			Angı	ılo de plu	ıma prin	cipal 65.0	D[°]			
41.3	55.0	67.0		4.7						
42.0	53.8	66.6	4.6	4.6						
44.0 46.0	50.1 46.2	65.0 63.1	4.1 3.6	3.9 3.3						
48.0	42.0	61.0	3.1	2.7						
50.0	37.4	58.6	2.7	2.2						
53.0	30.0	54.0	2.0							



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]
		35.0	0 m Plum Cabeza 40.0	de plumi	oal, Punt n (2316- osición m	1) 86.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.1 14.0 16.0 18.0	78.0 76.6 73.6 70.6	77.3 77.1 76.5 75.8	15.1 15.1 15.1 15.1	26.6 26.6 21.7 17.9						
20.0 22.0 24.0	67.5 64.4 61.1	75.0 74.1 73.1	14.5 12.3 10.6	15.3 12.9 11.3						
26.0 28.0 30.0	57.8 54.3 50.6	71.8 70.5 68.9	7.7 5.1 3.0	8.2 5.3 3.1						
			Ángı	ılo de plı	ıma prin	cipal 83.0	[°]			
19.5 20.0 22.0 24.0 26.0	73.0 72.3 69.2 66.1 62.9	76.0 75.9 75.2 74.3 73.3	15.1 15.1 14.5 12.5	18.7 18.7 16.6 14.2 12.2						
28.0 30.0 32.0 34.0 36.0	59.6 56.2 52.7 48.9 44.9	72.2 70.9 69.4 67.8 65.9	11.0 9.3 7.9 6.4 4.3	10.5 9.0 7.7 6.5 4.2						
			Ángı	ılo de plı	ıma prin	cipal 75.0	] (° ]			
29.6 30.0 32.0 34.0 36.0 38.0 40.0	65.0 64.3 61.1 57.7 54.2 50.5 46.7	72.9 72.7 71.6 70.4 69.0 67.5 65.7	10.6 9.0 7.5 6.2 5.0 3.8	8.2 7.9 6.6 5.4 4.5 3.6 2.7						
42.0 43.0	42.9 40.7	63.6 62.4	2.8 2.3	2.1						



Nº de ident.: 9842523/95738/

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

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

Alcance   Angu- o de		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumin (1916-1) 86.5 m Plumín 43.0 [ m ] Posición midfall (1916)  Angulo de pluma principal 88.0 [ ° ]  13.6 78.0 80.2 14.9 14.9 15.1 14.9 16.0 77.5 80.1 15.1 14.9 16.0 74.7 78.6 13.9 12.8 18.0 71.9 79.0 11.1 10.4 20.0 69.1 78.3 8.7 8.6 22.0 66.2 77.4 7.1 7.1 7.1 24.0 63.2 76.4 5.8 5.9 26.0 60.2 75.3 4.9 5.0 28.0 57.0 74.1 4.1 4.2 2.30.0 53.8 72.7 3.5 3.6 3.0 3.1 34.0 46.8 69.3 2.5 2.6	ce	o ďe plumín	de rolda- nas								
13.6			35.0	Cabeza	de plumí	ín (1916-	1) 86.5 r	n Plumín			
13.6				Ángı	ılo de plu	uma prin	cipal 88.	[°]0			
16.0 74.7 79.6 13.9 12.8 11.1 10.4 20.0 69.1 78.3 8.7 8.6 22.0 66.2 77.4 7.1 7.1 7.1 24.0 63.2 76.4 5.8 5.9 26.0 60.2 75.3 4.9 5.0 28.0 57.0 74.1 4.1 4.2 30.0 53.8 72.7 3.5 3.6 3.6 32.0 70.7 78.3 9.8 9.5 22.0 70.7 78.3 9.8 9.5 22.0 70.7 78.3 9.8 9.5 24.0 67.8 77.6 7.8 7.8 7.8 26.0 64.9 75.6 5.4 5.5 5.3 3.4 33.0 3.1 34.0 46.8 69.3 2.5 2.6 34.0 52.3 71.7 3.3 3.4 34.0 52.3 71.7 3.3 3.4 34.0 52.3 71.7 3.3 3.4 3.4 3.5 3.6 33.0 45.1 68.1 2.4 2.5 3.6 32.0 63.2 75.0 5.6 6.1 32.0 63.2 75.0 72.7 4.1 4.4 4.4 3.3 3.0 45.1 68.1 2.4 2.5 3.0 32.0 50.3 69.7 3.0 3.2 4.0 67.9 73.9 4.7 5.1 3.0 3.2 4.0 60.1 73.9 4.7 5.1 3.4 3.7 40.0 50.3 69.7 3.0 3.2 4.0 60.1 73.9 4.7 5.1 3.4 3.7 40.0 50.3 69.7 3.0 3.2 2.3 42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3 40.0 42.4 63.3 65.4 2.7 2.7 48.0 48.3 70.0 42.4 66.8 3.6 3.7 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.8 2.2 2.3 44.0 42.8 65.4 2.7 2.7 42.4 44.0 42.8 65.4 2.7 2.7 42.4 44.0 42.8 65.4 2.7 2.7 42.7 44.0 42.8 65.4 2.7 2.7 42.7 44.0 42.8 65.4 2.7 2.7 42.7 44.0 42.8 65.4 2.7 2.7 42.7 44.0 42.8 65.4 2.7 2.7 42.7 44.0 42.8 65.4 2.7 2.7 42.7 43.0 44.0 44.0 44.0 44.0 44.0 44.0 44.0	13.6	78.0	80.2			·	·				
18.0 71.9 79.0 11.1 10.4 8.6	14.0	77.5	80.1		14.9						
20.0 69.1 78.3 8.7 8.6		1									
22.0   66.2   77.4   7.1   7.1   7.1   24.0   63.2   76.4   5.8   5.9   28.0   57.0   74.1   4.1   4.2   30.0   53.8   72.7   3.5   3.6   32.0   50.4   71.1   3.0   3.1   34.0   46.8   69.3   2.5   2.6   34.0   67.8   77.6   78.3   9.8   9.5   24.0   67.8   77.6   78.8   7.8   78.0   22.0   70.7   78.3   9.8   9.5   24.0   67.8   77.6   5.4   5.5   30.0   58.8   74.5   4.6   4.7   3.9   4.0   33.0   55.0   63.2   71.7   3.3   3.4   3.4   3.5   6.5   6.5   3.0   3.0   56.3   71.7   3.3   3.4   3.4   3.5   3.6   3.0   3.0   53.8   74.5   4.6   4.7   4.5   4.5   5.5   3.0   3.0   52.3   71.7   3.3   3.4   3.4   3.5   3.											
24.0 63.2 76.4 5.8 5.9 26.0 60.2 75.3 4.9 5.0 28.0 57.0 74.1 4.1 4.2 30.0 53.8 72.7 3.5 3.6 32.0 50.4 71.1 3.0 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1 3.1											
26.0											
28.0   57.0   74.1   4.1   4.2   3.5   3.6   3.2   3.0   50.4   71.1   3.0   3.1   3.4   46.8   69.3   2.5   2.6											
30.0				-							
A4.0       46.8       69.3       2.5       2.6         Ángulo de pluma principal 83.0 [°]         20.3       73.0       78.9       10.0         22.0       70.7       78.3       9.8       9.5         24.0       67.8       77.6       7.8       7.8         28.0       64.9       76.7       6.5       6.5         28.0       61.9       75.6       5.4       5.5         30.0       58.8       74.5       4.6       4.7         32.0       55.6       73.1       3.9       4.0         34.0       52.3       71.7       3.3       3.4         36.0       48.8       70.0       2.8       2.9         38.0       45.1       68.1       2.4       2.5         Ángulo de pluma principal 75.0 [°]         30.8       65.0       75.6       6.1         32.0       63.2       75.0       5.6       6.0         34.0       60.1       73.9       4.7       5.1         38.0       53.7       71.2       3.4       3.7         40.0       50.3       69.7       3.0       3.2		1									
Angulo de pluma principal 83.0 [°]  20.3	32.0	50.4	71.1	3.0	3.1						
20.3	34.0	46.8	69.3	2.5	2.6						
22.0 70.7 78.3 9.8 9.5 78.8 78.8 78.8 24.0 67.8 77.6 7.8 7.8 7.8 78.8 78.8 28.0 64.9 75.6 5.4 5.5 30.0 58.8 74.5 4.6 4.7 32.0 55.6 73.1 3.9 4.0 34.0 52.3 71.7 3.3 3.4 3.9 38.0 45.1 68.1 2.4 2.5 38.0 65.0 75.0 38.0 65.0 75.0 72.7 4.1 4.4 38.0 55.7 71.2 3.4 3.7 3.9 4.7 5.1 38.0 53.7 71.2 3.4 3.7 40.0 50.3 69.7 72.7 4.1 4.4 38.0 50.3 69.7 3.0 3.2 42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3 48.0 46.3 65.4 68.8 3.6 3.7 48.0 46.3 65.4 66.4 3.1 3.1 3.1 48.0 46.3 65.4 66.4 3.3 2.3 2.3 2.3				Ángı	ılo de plu	ıma prin	cipal 83.	0 [°]			
24.0 67.8 77.6 7.8 7.8 7.8	20.3	73.0	78.9		10.0						
26.0 64.9 76.7 6.5 6.5 6.5 28.0 61.9 75.6 5.4 5.5 30.0 58.8 74.5 4.6 4.7 32.0 55.6 73.1 3.9 4.0 34.0 52.3 71.7 3.3 3.4 34.0 36.0 48.8 70.0 2.8 2.9 38.0 45.1 68.1 2.4 2.5	22.0	70.7	78.3	9.8	9.5						
28.0 61.9 75.6 5.4 5.5 30.0 58.8 74.5 4.6 4.7 32.0 55.6 73.1 3.9 4.0 34.0 52.3 71.7 3.3 3.4 36.0 48.8 70.0 2.8 2.9 38.0 45.1 68.1 2.4 2.5	24.0	67.8	77.6		7.8						
30.0 58.8 74.5 4.6 4.7 32.0 55.6 73.1 3.9 4.0 33.4 3.4 3.3 3.4 3.4 3.5 3.6 45.1 68.1 2.4 2.5 3.8 2.9 38.0 45.1 68.1 2.4 2.5 3.1 3.9 4.7 5.1 3.8 65.0 57.0 72.7 4.1 4.4 3.3 60.0 50.3 69.7 71.2 3.4 3.7 40.0 50.3 69.7 3.0 3.2 42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3 \$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$44.0 53.4 68.8 3.6 3.7 44.0 53.4 68.8 3.6 3.7 44.0 53.4 68.8 3.6 3.7 44.0 53.4 68.8 3.6 3.7 44.0 53.4 68.8 3.6 3.7 44.0 53.4 68.8 3.6 3.7 55.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 44.0 44.0 53.4 68.8 3.6 3.7 55.0 55.0 55.0 55.0 55.0 55.0 55.0 55		i i									
32.0 55.6 73.1 3.9 4.0 3.4 3.4 3.6 3.0 45.1 68.8 3.6 6.0 57.0 72.7 4.1 4.4 38.0 53.7 71.2 3.4 3.7 40.0 50.3 69.7 3.0 3.2 42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3 Angulo de pluma principal 65.0 [°]				-							
34.0 52.3 71.7 3.3 3.4 3.4 3.6 3.6 3.7 71.7 3.3 3.4 2.5		i i									
36.0		i i									
38.0 45.1 68.1 2.4 2.5 Angulo de pluma principal 75.0 [°]  30.8 65.0 75.6 6.1 5.6 6.0 34.0 60.1 73.9 4.7 5.1 3.4 3.7 3.0 55.0 69.7 3.0 3.2 42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3  Angulo de pluma principal 65.0 [°]  Angulo de pluma principal 65.0 [°]											
Ángulo de pluma principal 75.0 [°]         30.8       65.0       75.6       6.1         32.0       63.2       75.0       5.6       6.0         34.0       60.1       73.9       4.7       5.1         36.0       57.0       72.7       4.1       4.4         38.0       53.7       71.2       3.4       3.7         40.0       50.3       69.7       3.0       3.2         42.0       46.7       67.9       2.5       2.7         44.0       42.8       65.8       2.2       2.3         Ángulo de pluma principal 65.0 [°]         43.0       55.0       69.5       3.7         44.0       53.4       68.8       3.6       3.7         44.0       49.9       67.2       3.1       3.1         48.0       46.3       65.4       2.7       2.7         50.0       42.4       63.3       2.3       2.3		i i									
30.8 65.0 75.6 6.1 6.1 32.0 63.2 75.0 5.6 6.0 34.0 60.1 73.9 4.7 5.1 38.0 53.7 71.2 3.4 3.7 40.0 50.3 69.7 3.0 3.2 42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3 \$\$\$Angulo de pluma principal 65.0 [ ° ]\$\$\$43.0 55.0 69.5 44.0 53.4 68.8 3.6 3.7 44.0 53.4 68.8 3.6 3.7 44.0 53.4 68.8 3.6 3.7 45.0 46.0 49.9 67.2 3.1 3.1 3.1 48.0 46.3 65.4 2.7 2.7 50.0 42.4 63.3 2.3 2.3 \$\$\$2.3 \$\$\$\$\$2.3 \$\$\$\$2.3 \$\$\$\$2.3 \$\$\$\$2.3 \$\$\$\$2.3 \$\$\$\$2.3 \$\$\$\$2.3 \$\$\$\$2.3 \$\$\$\$\$2.3 \$\$\$\$\$2.3 \$\$\$\$\$2.3 \$\$\$\$\$2.3 \$\$\$\$\$2.3 \$\$\$\$\$2.3 \$\$\$\$\$2.3 \$\$\$\$\$\$2.3 \$\$\$\$\$\$\$2.3 \$\$\$\$\$2.3 \$\$\$\$\$\$2.3 \$\$\$\$\$\$\$2.3 \$\$\$\$\$\$\$\$\$\$						ıma prin	cipal 75	01°1			
32.0 63.2 75.0 5.6 6.0 34.0 60.1 73.9 4.7 5.1 38.0 55.0 72.7 4.1 4.4 38.0 55.0 69.7 3.0 3.2 42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3 \$\$\$ Angulo de pluma principal 65.0 [ ° ]\$\$\$ 43.0 55.0 69.5 44.0 53.4 68.8 3.6 3.7 44.0 53.4 68.8 46.0 49.9 67.2 3.1 3.1 3.1 48.0 46.3 65.4 6.3 2.3 2.3 \$\$\$ 2.3 \$\$\$\$ 42.0 46.7 67.9 2.5 2.7 44.0 53.4 68.8 3.6 3.7 45.0 53.4 68.8 3.6 3.7 55.0 69.5 44.0 63.3 65.4 2.7 2.7 50.0 42.4 63.3 62.3 2.3 2.3 \$\$\$\$\$\$ 2.3 \$\$\$\$\$\$\$\$\$\$ 2.3 \$\$\$\$\$\$\$\$\$\$	30.8	65.0	75.6	Ig							
34.0 60.1 73.9 4.7 5.1 36.0 57.0 72.7 4.1 4.4 38.0 53.7 71.2 3.4 3.7 40.0 42.8 65.8 2.2 2.3 Angulo de pluma principal 65.0 [°]  43.0 55.0 69.5 3.6 3.7 44.0 53.4 68.8 3.6 3.7 46.0 49.9 67.2 3.1 3.1 48.0 46.3 65.4 2.7 2.7 50.0 42.4 63.3 2.3 2.3 2.3				5.6							
36.0 57.0 72.7 4.1 4.4 3.7 38.0 53.7 71.2 3.4 3.7 40.0 50.3 69.7 3.0 3.2 42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3     Angulo de pluma principal 65.0 [°]  43.0 55.0 69.5 3.7 44.0 53.4 68.8 3.6 3.7 46.0 49.9 67.2 3.1 3.1 48.0 46.3 65.4 2.7 2.7 50.0 42.4 63.3 2.3 2.3 2.3											
40.0 50.3 69.7 3.0 3.2 42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3 Angulo de pluma principal 65.0 [°]  43.0 55.0 69.5 3.4 68.8 3.6 3.7 44.0 53.4 68.8 65.4 2.7 2.7 50.0 42.4 63.3 65.4 2.7 2.7 50.0 42.4 63.3 2.3 2.3				4.1							
42.0 46.7 67.9 2.5 2.7 44.0 42.8 65.8 2.2 2.3 Angulo de pluma principal 65.0 [°]  43.0 55.0 69.5 3.7 44.0 53.4 68.8 3.6 3.7 46.0 49.9 67.2 3.1 3.1 48.0 46.3 65.4 2.7 2.7 50.0 42.4 63.3 2.3 2.3 2.3											
44.0 42.8 65.8 2.2 2.3 Ángulo de pluma principal 65.0 [°]  43.0 55.0 69.5 3.4 68.8 3.6 3.7 44.0 53.4 68.8 3.6 3.7 46.0 49.9 67.2 3.1 3.1 48.0 46.3 65.4 2.7 2.7 50.0 42.4 63.3 2.3 2.3 2.3											
Angulo de pluma principal 65.0 [°]  43.0 55.0 69.5 3.7 44.0 53.4 68.8 3.6 3.7 46.0 49.9 67.2 3.1 3.1 48.0 46.3 65.4 2.7 2.7 50.0 42.4 63.3 2.3 2.3		I .									
43.0     55.0     69.5     3.7       44.0     53.4     68.8     3.6     3.7       46.0     49.9     67.2     3.1     3.1       48.0     46.3     65.4     2.7     2.7       50.0     42.4     63.3     2.3     2.3	44.0	42.8	65.8	2.2	2.3						
44.0     53.4     68.8     3.6     3.7       46.0     49.9     67.2     3.1     3.1       48.0     46.3     65.4     2.7     2.7       50.0     42.4     63.3     2.3     2.3		,		Ángı	ılo de plu	ıma prin	cipal 65.	0[°]			
46.0     49.9     67.2     3.1     3.1       48.0     46.3     65.4     2.7     2.7       50.0     42.4     63.3     2.3     2.3											
48.0     46.3     65.4     2.7     2.7       50.0     42.4     63.3     2.3     2.3		i i									
50.0 42.4 63.3 2.3 2.3		I .									
	51.0	40.4	62.1	2.3	2.0						



N° de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 74.0

Lastre central [t]: 74.0

	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]
		35.0	0 m Plum Cabeza 43.0	na princip de plumí 0 [ m ] Po	n (2316-	1) 89.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]			
13.7 14.0 16.0 18.0 20.0	78.0 77.6 74.8 72.0 69.2	80.2 80.2 79.6 79.0 78.3	15.1 15.1 15.1 15.1 15.1	27.4 27.4 24.7 20.7 17.6	-					
22.0 24.0 26.0 28.0 30.0	66.3 63.3 60.3 57.1 53.9	77.4 76.5 75.4 74.1 72.7	13.0 10.0 7.8 5.4 3.4	14.2 10.9 8.3 5.7 3.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	D[°]			
20.4 22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0 38.0	73.0 70.8 67.9 65.0 62.0 58.9 55.7 52.3 48.9 45.2	78.9 78.4 77.6 76.7 75.7 74.5 73.2 71.7 70.0 68.1	15.1 15.1 14.1 12.7 11.0 8.7 6.9 5.3 3.7	19.6 17.1 14.4 12.3 10.5 8.9 7.6 6.5 5.5 3.8						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
30.8 32.0 34.0 36.0 38.0 40.0 42.0 43.0	65.0 63.3 60.2 57.1 53.8 50.4 47.1 45.2	75.6 75.1 73.9 72.7 71.3 69.7 67.9 66.9	8.5 7.1 5.9 4.8 3.7 2.6 2.2	7.1 6.4 5.2 4.3 3.4 2.7						



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 ]: 74.0 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]
		35.0	0 m Plum Cabeza 46.0	de plumí	oal, Punt n (1916- osición m	1) 89.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
14.3	78.0	83.1	15.1	13.9	· ·					
16.0	75.8	82.7	14.1	13.0						
18.0	73.2	82.1	11.1	10.5						
20.0	70.5	81.5	8.7	8.5						
22.0	67.9	80.7	7.1	7.1						
24.0	65.1	79.8	5.8	5.9						
26.0	62.3	78.8	4.9	5.0						
28.0	59.5	77.6	4.1	4.2						
30.0	56.5	76.4	3.5	3.6						
32.0	53.4	74.9	2.9	3.0						
34.0	50.2	73.3	2.5	2.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C			
21.2	73.0	81.8		9.1						
22.0	72.0	81.5	8.4	9.1						
24.0	69.3	80.8	7.1	7.7						
26.0	66.6	80.0	6.0	6.5						
28.0	63.9	79.0	5.0	5.4						
30.0	61.0	77.9	4.3	4.7						
32.0 34.0	58.1 55.1	76.7 75.4	3.7 3.1	4.0 3.4						
34.0 36.0	52.0	73.4	2.7	2.9						
38.0	48.7	72.2	2.3	2.4						
30.0	1 40.7	12.2			ıma prin	cinal 75 (	) [ ° ]			
00.4	05.0	70.0			лна рин	σιραι <i>τ</i> 5.	ין י		l	
32.1	65.0	78.3	5.3	5.4						
34.0 36.0	62.3 59.4	77.4 76.2	5.0 4.2	5.1 4.3						
38.0	56.4 56.4	76.2	3.6	4.3 3.7						
40.0	53.4	73.5	3.0	3.1						
42.0	50.2	71.9	2.6	2.7						
					ıma prin	cinal 65 (	1°10			
44.7	55.0	71.9	,gc	3.2	a p.iiii	J. Pai 00.	~ L J		1	
46.0	53.0	71.9	3.0	3.2						
48.0	49.8	69.4	2.6	2.7						
50.0	46.4	67.6	2.2	2.2						
51.0	44.9	66.6	2.0							



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 ]: 74.0 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]
		35.0	0 m Plum Cabeza 46.0	de plumí	n (2316-	o de caro 1) 92.5 r nidfall (23	n Plumín	dfall I		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
14.3 16.0 18.0 20.0 22.0	78.0 75.8 73.2 70.6 67.9	83.2 82.8 82.2 81.5 80.7	15.1 15.1 15.1 15.0	23.7 23.1 19.3 16.3 14.2						
24.0 26.0 28.0 30.0	65.2 62.4 59.5 56.6	79.8 78.8 77.7 76.4	11.4 8.6 6.4 4.3	11.2 8.9 6.8 4.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
21.3 22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0 38.0	73.0 72.1 69.4 66.7 64.0 61.1 58.2 55.2 52.1 48.8	81.8 81.6 80.8 80.0 79.1 78.0 76.8 75.4 73.9 72.2	15.1 15.1 15.0 14.2 12.0 10.4 8.8 7.2 5.9 4.7	16.9 16.8 14.5 12.3 10.5 9.0 7.7 6.5 5.6 4.7						
40.0	45.4	70.4	3.4	3.6						
32.1 34.0 36.0 38.0 40.0 42.0 43.0	65.0 62.4 59.5 56.5 53.4 50.5 48.8	78.3 77.4 76.2 75.0 73.5 71.9 71.1	6.9 5.7 4.6 3.6 2.7 2.2	6.3 5.2 4.2 3.4 2.6	ıma prine	cipal 75.	0[*]			



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 ]: 74.0

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]
			) m Plum Cabeza 49.0	de plumí		1) 92.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
14.9 16.0 18.0 20.0 22.0	78.0 76.6 74.2 71.8 69.3	86.1 85.8 85.3 84.6 83.9	11.7 11.7 10.2 8.5 6.9	12.7 12.7 10.2 8.4 7.0						
24.0 26.0 28.0 30.0 32.0 34.0	66.7 64.2 61.5 58.8 56.0 53.1	83.1 82.1 81.1 79.9 78.6 77.2	5.7 4.8 4.0 3.4 2.9	5.8 4.9 4.1 3.5 2.9						
					ıma prin	cinal 83 (	01°1			
22.1 24.0 26.0 28.0 30.0 32.0 34.0 36.0 38.0	73.0 70.7 68.1 65.6 63.0 60.3 57.6 54.7 51.8	84.6 84.0 83.2 82.4 81.4 80.3 79.0 77.7 76.1	7.0 5.8 5.0 4.2 3.6 3.1 2.6 2.2	8.2 7.6 6.3 5.4 4.5 3.9 3.3 2.8 2.3						
30.0	01.0	70.1			ıma prin	sinal 75 (	0 [ 0 ]			
33.3 34.0 36.0 38.0 40.0 42.0	65.0 64.1 61.5 58.8 56.0 53.1	81.0 80.7 79.7 78.5 77.2 75.7	4.6 4.1 3.5 3.0 2.5	4.8 4.8 4.2 3.6 3.1 2.5	uma prin	ыраі 75.				
46.5 48.0 50.0	55.0 52.8 49.7	74.4 73.3 71.7	Ángu 2.5 2.1	2.6 2.6 2.2	ıma prin	cipal 65.0	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 ]: 74.0

Lastre central [t]: 74.0

	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]
		35.0	0 m Plum Cabeza 49.0	de plumí	oal, Punt n (2316- osición m	1) 95.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
14.9 16.0 18.0 20.0 22.0	78.0 76.7 74.3 71.8 69.4 66.8	86.1 85.9 85.3 84.7 83.9	15.1 15.1 14.4 13.4	22.3 22.3 19.0 16.2 14.0						
26.0 28.0 30.0 32.0	64.2 61.6 58.9 56.1	82.2 81.1 80.0 78.7	8.6 6.6 4.8 3.1	9.0 7.1 5.1 3.3						
			Ángı	ılo de plu	ıma prin	cipal 83.	0[°]			
22.2 24.0 26.0 28.0 30.0	73.0 70.7 68.2 65.7 63.1	84.6 84.0 83.3 82.4 81.4	15.1 15.1 13.7 11.9 10.2	15.8 14.3 12.1 10.3 8.8						
32.0 34.0 36.0 38.0 40.0	60.4 57.6 54.8 51.8 48.8 45.5	80.3 79.1 77.7 76.2 74.5	8.9 7.3 5.9 4.8 3.8	7.5 6.4 5.4 4.5 3.8						
			Ángı	ılo de plu	ıma prin	cipal 75.	0[°]			
33.4 34.0 36.0 38.0 40.0 42.0	65.0 64.2 61.5 58.8 56.0 53.3	81.0 80.8 79.7 78.5 77.2 75.8	6.4 5.2 4.2 3.2 2.4	5.3 4.9 4.0 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

Valor de vuelco: 2 - \

2 - Vía ancha

Lastre trasero [ t ]: 74.0

Lastre central [ t ]: 0.0

Lasiic	Cittai [ t	1.		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]
		35.0	0 m Plum Cabeza 52.0	de plumi	n (1916-	o de carç 1) 95.5 r nidfall (19	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
15.5	78.0	89.0	9.2	10.4						
16.0	77.4	88.9	9.2	10.4						
18.0	75.2	88.4	8.3	9.3						
20.0	72.9	87.8	7.3	7.8						
22.0	70.5	87.1	6.0	6.2						
24.0	68.2	86.3	5.2	5.2						
26.0 28.0	65.8 63.3	85.5 84.5	4.2 3.5	4.3 3.6						
30.0	60.8	83.4	2.9	3.0						
32.0	58.2	82.2	2.4	2.5						
			Ángı	ılo de plı	ıma prin	cipal 83.	D[°]			
23.0	73.0	87.5	6.6	6.8						
24.0	71.8	87.2	6.6	6.7						
26.0	69.5	86.5	5.6	5.7						
28.0	67.1	85.6	4.7	4.8						
30.0	64.7	84.7	3.9	4.0						
32.0	62.2	83.7	3.2	3.4						

Ángulo de pluma principal 75.0 [ ° ]

34.0

34.6

36.0

38.0

40.0

42.0

59.6

65.0

60.8

58.2

82.6

83.7

83.1

82.0 80.8 79.5 2.7

3.0

2.5 2.0 3.1 2.6



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal: 28

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 52.0	de plumí		1) 98.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
15.6 16.0 18.0 20.0 22.0	78.0 77.5 75.2 72.9 70.6	89.0 88.9 88.4 87.8 87.2	15.1 15.1 15.1 15.0 13.5	20.2 20.2 18.4 15.8 13.5						
24.0 26.0 28.0 30.0 32.0	68.2 65.8 63.4 60.9 58.3	86.4 85.5 84.5 83.4 82.2	12.4 9.4 7.0 5.1 3.7	11.9 9.2 7.1 5.5 3.9						
					ıma prin	cipal 83.	1°10			
23.0 24.0 26.0 28.0 30.0	73.0 71.9 69.5 67.2 64.7	87.5 87.2 86.5 85.7 84.8	15.0 13.3 11.5 9.8	14.3 14.2 12.0 10.2 8.7						
32.0 34.0 36.0 38.0 40.0 42.0	62.3 59.7 57.1 54.4 51.6 48.7	83.7 82.6 81.3 80.0 78.4 76.7	8.4 7.2 5.9 4.7 3.7	7.4 6.2 5.2 4.4 3.6 2.9						
.2.0					ıma prin	cipal 75.	l°10			
34.6 36.0 38.0 40.0 42.0	65.0 63.3 60.8 58.2 55.8	83.7 83.1 82.0 80.8 79.5	4.9 3.8 2.9 2.1	4.4 3.8 2.9 2.2						



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 ]: 74.0 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]
			0 m Plum Cabeza 13.0	de plumí		1) 32.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
7.5 8.0 9.0 10.0 11.0 12.0 13.0 14.0 16.0	78.0 75.7 71.0 66.2 55.9 50.2 43.8 27.5 73.0 72.7 68.0 63.0 52.3	53.9 53.7 53.4 53.0 52.4 51.8 51.0 50.0 47.1 53.2 53.2 52.8 52.3 50.9	15.1 15.1 15.1 15.1 14.9 12.6 10.9 9.2 6.8 Ångu	30.1 30.1 23.4 17.7 14.1 11.6 9.9 8.5 6.6 ulo de plu 25.9 25.9 19.4 15.1 10.4	uma prind	cipal 83.0	)[°]			
18.0	39.3	48.9	8.2	7.7						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
18.9 20.0 22.0 24.0	65.0 59.3 47.9 33.6	51.3 50.7 49.1 46.7	14.9 10.1 7.3	16.0 13.0 9.2 7.1						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
27.1 28.0 30.0	55.0 49.7 35.9	47.6 46.9 44.7	9.1 6.8	11.0 9.5 7.2						
			Ángu	ılo de plu	ıma prin	cipal 45.0	[°]			
40.9 42.0	35.0 24.7	36.2 34.6	6.3	6.3 5.8						



360°

### Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [ t ]: 74.0

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]
		38.	0 m Plum Cabeza 16.0	de plumí	oal, Punt n (1916- osición m	1) 35.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
8.1 9.0 10.0 11.0 12.0 13.0 14.0	78.0 74.7 70.9 67.1 63.0 58.9 54.5 44.7	56.8 56.6 56.2 55.8 55.3 54.7 54.0 52.2	15.1 15.1 15.1 15.1 13.9 12.3 9.7	30.1 30.1 23.8 19.2 15.8 13.5 11.7 9.3						
18.0	32.6	49.6	7.6	7.5		-:	2			
40.0	700	50.4	Angu		ıma prin	cipai 83.i	ן י		ı	1
12.8 13.0 14.0 16.0 18.0 20.0	73.0 72.3 68.5 60.4 51.5 41.2	56.1 56.0 55.6 54.6 53.2 51.2	15.1 15.1 14.6 11.6 8.9	26.1 26.1 20.5 14.2 10.8 8.6						
22.0	27.7	48.2	7.2	7.1						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
20.2 22.0 24.0 26.0	65.0 57.3 48.0 36.9	54.0 53.0 51.4 49.1	15.1 14.2 10.4 8.0	16.5 12.7 9.9 7.9						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0[°]			
28.8 30.0 32.0	55.0 49.4 38.6	50.1 49.2 47.0	10.7	11.5 10.1 8.1						
43.4	35.0	38.0		5.5	ıma prin	cipal 45.0	0 [°]			
44.0 45.0	30.8 22.0	37.3 35.3	6.3 5.9	5.2 4.8						



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 ]: 74.0

Lastre trasero [ t ]: 74.0

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]
			0 m Plum Cabeza 16.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
8.2 9.0 10.0 11.0 12.0 13.0 14.0 16.0	78.0 74.9 71.2 67.3 63.3 59.1 54.7 45.0	56.8 56.6 56.3 55.8 55.3 54.7 54.0 52.3 49.7	15.1 15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 26.8 22.4 19.1 16.3 12.8						
18.0	32.9	49.7	11.0 Ápgi	10.4	uma prin	cinal 83 (	1 ° 1			l
12.9	73.0	56.1	15.1	30.1						
13.0 14.0 16.0 18.0 20.0	72.5 68.7 60.6 51.7 41.5	56.0 55.7 54.6 53.2 51.2 48.2	15.1 15.1 15.1 15.1 15.1 12.4	30.1 29.0 20.1 15.0 11.8						
			Ángı	ılo de plı	ıma prin	cipal 75.0	0 [°]			
20.2 22.0 24.0 26.0	65.0 57.5 48.2 37.1	54.0 53.0 51.4 49.1	15.1 14.3 10.9	23.3 17.7 13.6 10.8			-			
			Ángı		ıma prin	cipal 65.0	0[°]		1	
28.9 30.0 32.0	55.0 49.6 38.9	50.0 49.2 47.1	14.3 11.2	14.1 12.9 10.5						
			Ángu	ılo de plu	ıma prin	cipal 45.0	0 [°]			
43.4 44.0 45.0	35.0 31.1 22.3	37.9 37.4 35.3	3.9 3.4	3.3 3.1 2.7						



360°

### Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 74.0 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]
			0 m Plum Cabeza 19.0	de plumi		1) 38.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
8.7 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 77.2 74.1 70.9 67.6 64.3 60.8 53.5 45.3 35.6	59.7 59.7 59.4 59.0 58.6 58.2 57.6 56.2 54.5 52.0	15.1 15.1 15.1 15.1 15.1 14.9 12.6 10.4 8.3	30.1 30.1 28.9 23.3 19.7 16.9 14.8 11.7 9.6 8.0						
			Ángı	ılo de plı	ıma prin	cipal 83.0	[°]C			
13.7 14.0 16.0 18.0 20.0 22.0 24.0	73.0 72.0 65.5 58.5 51.0 42.4 31.9	58.9 58.8 58.0 56.9 55.4 53.4 50.7	15.1 15.1 13.8 11.4 9.1 7.5	25.3 25.2 17.7 13.6 11.0 9.0 7.6						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
21.4 22.0 24.0 26.0 28.0 30.0	65.0 63.0 55.9 48.0 38.9 27.2	56.7 56.5 55.2 53.6 51.4 48.3	15.1 13.9 11.2 8.9 7.4	16.7 16.0 12.5 10.2 8.5 7.2			-			
			Ángı	ılo de plu	ıma prin	cipal 65.0	1°10			
30.5 32.0 34.0 36.0	55.0 49.2 40.3 29.2	52.5 51.4 49.3 46.3	10.8 8.7 7.3	11.9 10.4 8.7 7.4	15.	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	- , ,			
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]C			
45.9 46.0 48.0	35.0 34.2 20.0	39.7 39.7 35.8	5.8 5.1	4.9 4.9 4.2						



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 ]: 74.0 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]
		38.0	0 m Plum Cabeza 19.0	de plumí	n (2316-	o de caro 1) 41.5 r nidfall (23	n Plumín	dfall		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
8.8 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 77.4 74.2 71.1 67.8 64.5 61.0 53.7 45.5 35.8	59.8 59.7 59.4 59.1 58.7 58.2 57.6 56.3 54.5 52.1	15.1 15.1 15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 30.1 27.5 23.2 20.2 15.7 12.7 10.3						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]C			
13.8 14.0 16.0 18.0 20.0 22.0 24.0	73.0 72.2 65.7 58.7 51.2 42.6 32.2	58.9 58.9 58.0 56.9 55.4 53.5 50.8	15.1 15.1 15.1 15.1 15.1 12.6 10.5	30.1 30.1 24.6 18.5 14.6 11.9 9.8						
			Ángı	ılo de plu	ıma prin	cipal 75.0	l°1			
21.5 22.0 24.0 26.0 28.0 30.0	65.0 63.2 56.1 48.2 39.1 27.5	56.7 56.5 55.3 53.6 51.5 48.3	15.1 15.1 14.6 12.0 9.9	22.9 22.1 16.9 13.6 11.1 9.3			- <b>-</b>			
				0.0	ıma prin	cipal 65.0	1°1			
30.6 32.0 34.0 36.0	55.0 49.4 40.5 29.4	52.5 51.4 49.4 46.4	13.9 11.2 9.2	12.6 11.4 10.0 8.6	The print		~ [ ]			
			Ángı	ılo de plı	ıma prin	cipal 45.0	[°]			
45.9 46.0 48.0	35.0 34.5 22.5	39.7 39.5 35.9	2.2	2.4 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]
			0 m Plum Cabeza 22.0	de plumí	n (1916-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
9.4 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 76.3 73.6 70.8 68.0 65.2 59.2 52.8 45.7	62.7 62.5 62.2 61.9 61.5 61.0 59.9 58.5 56.7	15.1 15.1 15.1 15.1 15.1 15.1 13.7 10.7 8.8	30.1 29.5 24.2 20.2 17.5 15.3 12.2 10.0 8.4						
22.0	37.6	54.4	7.3	7.1						
24.0	27.4	51.2	6.2	6.2						
ļ			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
14.6 16.0 18.0 20.0 22.0 24.0 26.0 28.0	73.0 69.0 63.3 57.2 50.6 43.3 34.7 23.2	61.8 61.3 60.3 59.1 57.6 55.7 53.1 49.5	15.1 15.1 15.1 12.6 10.1 8.3 6.9 5.9	22.0 18.3 14.1 11.4 9.5 8.0 6.8 5.9						
					ıma nrin	cipal 75.0	1 0 1			
22.7 24.0 26.0 28.0 30.0 32.0	65.0 61.1 54.9 48.0 40.3 31.0	59.5 58.8 57.5 55.8 53.7 50.8	14.4 11.6 9.4 7.7 6.6	14.6 13.0 10.6 8.9 7.5 6.5	ana pilli	σιραί 7 σ.·	, j			
			Ángi	ılo de nlı	ıma prin	cipal 65.0	0 [ ° ]			
32.2 34.0 36.0 38.0	55.0 49.1 41.5 32.5	55.0 53.6 51.6 48.9	9.0 7.5 6.5	10.4 9.1 7.7 6.6						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
48.3 50.0 51.0	35.0 25.9 18.4	41.4 38.8 36.3	4.4 4.1	4.2 3.7 3.4						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 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]	
	38.0 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 [ ° ]										
9.4 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 76.4 73.7 71.0 68.2 65.3 59.3 52.9 45.9 37.8	62.7 62.5 62.3 61.9 61.5 61.0 59.9 58.5 56.7 54.4	15.1 15.1 15.1 15.1 15.1 14.8 14.1 12.2 9.7	30.1 30.1 29.8 27.2 24.5 21.1 16.5 13.4 11.2 9.3							
24.0	27.6	51.3	8.1	7.9							
			Ángu	ılo de plu	uma prin	cipal 83.	0 [°]				
14.6 16.0 18.0 20.0 22.0 24.0 26.0 28.0	73.0 69.2 63.4 57.3 50.8 43.4 34.8 23.5	61.8 61.3 60.4 59.2 57.7 55.7 53.2 49.6	15.1 15.1 14.3 13.4 10.8 8.8 7.4	30.1 25.7 19.3 15.4 12.7 10.5 8.9 7.5							
20.0	25.5	49.0			ıma prin	oinal 75 i	0 [ 0 ]				
22.7	65.0	59.5	Ailgi	20.0	лна рин 	ωμαι <i>τ</i> 3.	∪ [ ]				
24.0 26.0 28.0 30.0 32.0	61.3 55.0 48.2 40.5 31.2	59.5 58.8 57.5 55.9 53.7 50.9	15.1 13.7 11.5 9.4 8.0	17.7 14.3 11.9 9.9 8.5							
Ángulo de pluma principal 65.0 [ ° ]											
32.3 34.0 36.0 38.0	55.0 49.2 41.7 32.7	55.0 53.7 51.6 48.9	12.4 10.3 8.5	11.5 10.3 9.1 7.9		, ,	- , ]				
	Ángulo de pluma principal 45.0 [ ° ]										
48.6 49.0	35.0 32.9	41.4 40.7	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

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]		
	38.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 44.5 m Plumín 25.0 [ m ] Posición midfall (1916)											
	Ángulo de pluma principal 88.0 [ ° ]											
10.0	78.0	65.6	15.1	27.8	<u>'</u>	·	· ·					
11.0 12.0 13.0	75.6 73.2 70.8	65.4 65.1 64.7	15.1 15.1 15.1	24.5 20.8 17.9								
14.0 16.0	68.3 63.2	64.3 63.4	14.9 13.6	15.8 12.6								
18.0 20.0 22.0 24.0	57.9 52.2 46.0 39.0	62.2 60.7 58.9 56.7	11.3 9.0 7.6 6.4	10.4 8.7 7.5 6.4								
26.0	39.0	53.8	5.6	5.6								
Ángulo de pluma principal 83.0 [ ° ]												
15.5	73.0	64.7	15.1	19.4			, <u>, , , , , , , , , , , , , , , , , , </u>					
16.0	71.7	64.5	15.1	18.8								
18.0 20.0	66.7 61.6	63.7 62.7	14.7 13.3	14.6 11.9								
22.0	56.1	61.4	10.5	9.8								
24.0	50.3	59.9	8.6	8.3								
26.0	43.9	57.9	7.2	7.1								
28.0 30.0	36.6 27.5	55.5 52.3	6.2 5.4	6.2 5.4								
00.0	21.0	02.0		ılo de plı	ıma nrin	cinal 75 (	) [ ° ]		ı			
24.0	65.0	62.2	14.6	13.0		l l l l l l l l l l l l l l l l l l l	,					
26.0	59.6	61.1	12.0	11.0								
28.0	54.1	59.7	9.6	9.2								
30.0 32.0	48.1 41.4	58.1 56.0	8.0 6.8	7.9 6.7								
34.0	33.6	53.3	5.9	5.9								
36.0	23.4	49.6	5.1	5.2								
Ángulo de pluma principal 65.0 [ ° ]												
34.0	55.0	57.4		9.2								
36.0 38.0	49.0 42.4	55.9 53.9	8.2 6.9	8.0								
40.0	34.8	51.3	6.0	6.9								
42.0	25.1	47.8	5.3	5.3								
			Ángu	ılo de plu	ıma prin	cipal 45.0	[°]					
50.8	35.0	43.1		3.6								
54.0	17.1	36.8	3.4	2.9								



N° de ident.: 9842523/95738/

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

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

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]
			0 m Plum Cabeza 25.0	de plumí		1) 47.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 75.7 73.4 70.9 68.5 63.4 58.1 52.4 46.2 39.2	65.6 65.4 65.1 64.7 64.3 63.4 62.2 60.8 59.0 56.8	15.1 15.1 15.1 15.1 15.1 13.3 11.0 9.3 7.7	30.1 30.1 28.8 24.8 21.9 17.0 13.9 11.6 9.8 8.2						
26.0	30.9	53.8	6.6	7.1		-iI 00 /	2			
15.5 16.0 18.0 20.0 22.0 24.0 26.0 28.0	73.0 71.8 66.9 61.7 56.3 50.5 44.1 36.7	64.7 64.5 63.7 62.7 61.4 59.9 58.0 55.6	15.1 15.1 15.1 12.9 11.2 9.3 7.7	27.0 26.5 20.1 16.0 13.0 11.0 9.3 7.9	uma prin	сіраі 83.	J [ ]			
30.0	27.7	52.3	6.6	6.8						
<u> </u>			Ángı		ıma prin	cipal 75.0	[°]			
24.0 26.0 28.0 30.0 32.0 34.0 36.0	65.0 59.8 54.2 48.2 41.5 33.7 23.6	62.2 61.1 59.8 58.1 56.0 53.4 49.7	15.1 12.7 10.5 8.7 7.4 6.3	17.5 14.8 12.2 10.4 8.8 7.6 6.5						
Ángulo de pluma principal 65.0 [°]										
34.0 36.0 38.0 40.0 42.0 43.0	55.0 49.1 42.5 34.9 25.3 18.7	57.4 55.9 53.9 51.3 47.8 45.4	10.7 8.9 7.4 6.4 5.9	10.2 9.0 8.0 7.0 6.2 5.7						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

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

74.0 0.0 Lastre central [ t ]:

Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]								
38.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 47.5 m Plumín 28.0 [ m ] Posición midfall (1916)											
Ángulo de pluma principal 88.0 [ ° ]											
10.6	78.0	68.5		30.1							
11.0	77.2	68.5	15.1	30.1							
12.0	75.1	68.2	15.1	30.1							
13.0	72.9	67.9	15.1	28.5							
14.0 16.0	70.8 66.3	67.5 66.7	15.1 15.1	25.4 20.8							
18.0	61.7	65.7	15.1	17.5							
20.0	56.9	64.5	14.4	15.0							
22.0	51.8	63.0	13.8	13.1							
24.0	46.3	61.2	12.4	11.7							
26.0 28.0	40.1 33.0	59.0 56.3	10.8 9.6	10.5 9.5							
30.0	24.1	52.5	8.6	9.5 8.7							
					ıma prin	cipal 83.0	) [°]				
16.3	73.0	67.5		27.4							
18.0	69.4	66.9	15.1	23.8							
20.0	64.9	66.1	15.1	19.5							
22.0	60.2 55.3	65.0	14.9 13.9	16.6							
24.0 26.0	50.1	63.7 62.1	13.9	14.3 12.7							
28.0	44.4	60.2	11.4	11.3							
30.0	38.0	57.9	10.0	10.1							
32.0	30.4	54.9	9.0	9.3							
<u> </u>			Ángı		ıma prin	cipal 75.0	[°]			1	
25.2	65.0	64.9	15.1	18.8							
26.0 28.0	63.2 58.5	64.5 63.4	15.1 15.1	18.3 15.8							
30.0	53.5	62.0	14.0	13.6							
32.0	48.1	60.3	12.9	12.2							
34.0	42.2	58.3	11.2	10.9							
36.0	35.4	55.7	9.9	9.8							
38.0	27.2	52.4	9.0 Ángu	9.0	ıma nrin	cipal 65.0	101				
25.7	EE ^	E0.0	Angt		лна рип 	upai 00.0	۱ ] د				
35.7 36.0	55.0 54.2	59.9 59.7	13.5	11.9 11.7							
38.0	48.9	58.1	12.4	10.6							
40.0	43.0	56.1	11.4	9.6							
42.0	36.5	53.7	10.2	8.7							
44.0	28.5	50.5	9.2	7.8	<u> </u>						
	Ángulo de pluma principal 45.0 [ ° ]										
53.2	35.0	44.8		3.0							
55.0 57.0	27.8 16.1	42.2 37.3	3.1 2.6	2.6 2.2							
37.0	10.1	31.3	۷.0	۷.۷	I.		1		I.		