

2821-1 2821-1

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

> 77.2 75.8

36.8

55.0

56.0

Jeniliai [t	1.		52.0						
Inserciór	1	1	2	3	4	5	6	7	8
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	n (2316-	1) 95.5 r	n Plumín			
		Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
78.0 77.2 74.8 72.4 69.9	98.1 97.9 97.4 96.8 96.1	15.1 15.1 14.8 13.6	21.5 21.5 19.3 16.5 14.2						
67.4 64.8 62.2 59.5 56.7	95.3 94.4 93.4 92.2 90.9	11.9 8.5 5.9 4.1 2.8	11.9 8.8 6.3 4.5 3.0						
		Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
73.0 72.5 70.1 67.5 65.0	96.6 96.5 95.7 94.9 94.0	15.1 15.0 13.0 11.2	15.3 15.3 14.5 12.6 10.9						
62.3 59.6 56.9 54.0 51.0	93.0 91.9 90.6 89.2 87.7	9.5 8.2 6.4 5.0 3.8	9.5 8.3 6.6 5.1 4.0						
47.9	85.9			ıma nrin	cipal 75 (\			
65.0 63.0 60.3 57.6 54.7 51.8 48.7 45.5	92.6 91.9 90.8 89.6 88.2 86.7 85.0 83.1	10.0 8.9 7.7 6.8 6.0 5.4	9.3 8.4 7.3 6.4 5.6 4.8 4.1	ania pilli	ыраг 73.	V]			
	78.0 77.0 77.2 74.8 69.9 67.4 64.8 62.2 59.5 56.7 73.0 72.5 70.1 67.5 65.0 62.3 59.6 56.9 54.0 51.0 47.9	Anguode Altura Altura O de roldanas m A7.0	Angu- o de plumín [°]	Angu- o de plumín [°]	Angu- o de plumín Carga	Angu- o de	Inserción	Inserción	Inserción



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]
		47.0	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	[°]			
15.9 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 77.9 75.6 73.3 71.0 68.7 66.3 63.8 61.3 58.8	101.0 101.0 100.5 99.9 99.3 98.5 97.7 96.7 95.6 94.5	8.4 8.0 7.2 6.0 5.2 4.3 3.5 2.9 2.4	9.6 9.6 9.1 7.9 6.4 5.3 4.4 3.7 3.1 2.5						
			Angu		ıma prin	cipal 83.0	֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		ı	
24.4 26.0 28.0 30.0 32.0 34.0 36.0	73.0 71.2 68.8 66.4 64.0 61.5 59.0	99.4 98.9 98.2 97.3 96.4 95.3 94.1	6.0 5.2 4.4 3.6 3.1 2.6	6.5 6.4 5.3 4.5 3.7 3.2 2.6						
	•	•	Ángı	ılo de plu	ıma prin	cipal 75.0	[°]		•	
37.7 38.0 40.0 42.0 44.0 45.0	65.0 64.6 62.1 59.6 57.0 55.7	95.3 95.2 94.2 93.1 91.8 91.1	3.5 3.2 2.7 2.3 2.0	3.6 3.6 3.4 2.8 2.4 2.1						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
) m Plum Cabeza 52.0		n (2316-	1) 98.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
16.0 18.0 20.0 22.0 24.0	78.0 75.7 73.4 71.1 68.7	101.0 100.5 100.0 99.3 98.5	15.1 15.1 15.1 13.1 11.2	19.5 18.6 15.9 13.5 11.7	·	•				
26.0 28.0 30.0 32.0	66.3 63.9 61.4 58.8	97.7 96.7 95.7 94.5	8.7 6.2 4.4 3.2	9.0 6.5 4.6 3.4						
			Ángι	ılo de plu	ıma prin	cipal 83.0	[°]C			
24.5 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0 42.0	73.0 71.3 68.9 66.5 64.1 61.6 59.0 56.4 53.7 50.9	99.4 98.9 98.2 97.3 96.4 95.3 94.2 92.9 91.5 89.9	14.4 12.5 10.8 9.1 7.8 6.6 5.1 3.9 2.9	13.9 13.8 12.1 10.7 9.2 8.1 6.8 5.3 4.1 3.0						
44.0	47.9	88.1	2.2	2.4		-i175/	2.0.1			
07.0	05.0	05.0		ılo de plu	ıma prin	cipai 75.0	ַן װ <u>ַ</u>		ı	
37.8 38.0 40.0 42.0 44.0 46.0 48.0 50.0 55.0 56.0	65.0 64.7 62.2 59.7 57.1 54.4 51.6 48.7 41.1 39.3	95.3 95.3 94.2 93.1 91.8 90.4 88.9 87.2 82.1 80.9	8.2 8.2 8.1 7.1 6.3 5.5 4.9 4.3 2.4 2.1	8.3 8.2 7.1 6.2 5.4 4.6 4.0 3.3						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza c 55.0		า (2์316-1	1) 101.5`	m Plumíı			
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]			
16.6 18.0 20.0 22.0 24.0	78.0 76.5 74.3 72.2 69.9	104.0 103.6 103.1 102.5 101.8	15.1 15.1 14.2 12.4 10.1	17.2 17.2 14.9 12.8 10.7	·	·				
26.0 28.0 30.0 32.0 34.0	67.7 65.4 63.1 60.7 58.3	101.0 100.1 99.1 98.0 96.8	8.3 6.1 4.3 3.0 2.2	8.9 6.5 4.6 3.2 2.4						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
25.4 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0 42.0	73.0 72.3 70.1 67.9 65.6 63.3 60.9 58.5 56.0 53.4	102.3 102.1 101.4 100.6 99.7 98.8 97.7 96.5 95.2 93.7	11.6 11.5 10.9 9.2 8.0 6.9 6.0 4.9 3.7 2.8	12.1 12.1 11.4 9.9 8.6 7.4 6.5 5.3 4.0 2.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
39.0 40.0 42.0 44.0 46.0 48.0 50.0 55.0	65.0 63.9 61.5 59.1 56.6 54.1 51.4 44.6	98.1 97.6 96.6 95.4 94.1 92.7 91.2 86.6	7.2 6.8 5.9 5.3 4.5 3.9 2.2	7.3 6.8 5.9 5.1 4.3 3.7 3.1						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza o 46.0	de plumír	า (2316-1		m Plumíı			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
14.7	78.0	95.2		21.9						
16.0	76.4	94.9	15.1	21.9						
18.0	73.8	94.3	15.1	18.9						
20.0	71.2	93.6	12.8	14.5						
22.0	68.5	92.9	9.1	9.8						
24.0	65.8	92.0	5.4	5.7			2 5 0 1			
			Angu	ılo de plu	ıma prin	cipal 83.0	֓֓֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓			
22.7	73.0	93.7		15.6						
24.0	71.3	93.3	15.0	15.5						
26.0	68.7	92.5	14.1	13.6						
28.0	66.0	91.7	12.0	11.4						
30.0	63.2	90.7	8.7	8.7						
32.0 34.0	60.3 57.4	89.6 88.3	6.4 4.3	6.8 4.5						
34.0	31.4	00.3			ıma nrin	cipal 75.0	1°1		I	I
35.2	65.0	89.9	Ange	7.0	ina pili	 	·			
35.2 36.0	63.9	89.9 89.6	8.9	6.5						
38.0	61.1	88.5	7.4	5.4						
40.0	58.2	87.3	6.2	4.4						
42.0	55.2	85.9	5.0	3.5						
44.0	52.0	84.4	4.0	2.8						
46.0	48.8	82.7	3.0	2.1		<u></u>				
48.0	45.6	80.8	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]
		47.	0 m Plum Cabeza c 49.0	de blumíi	n (2316-1	o de caro 1) 107.5 nidfall (23	m Plumí	dfall n		
			Ángı	ılo de plı	ıma prin	cipal 88.	0 [°]			
15.3 16.0 18.0 20.0 22.0 24.0 26.0 23.6 24.0 26.0 28.0 30.0 32.0	78.0 77.2 74.8 72.4 69.9 67.4 64.8 73.0 72.5 70.1 67.5 65.0 62.3	98.1 97.9 97.4 96.8 96.1 95.3 94.4 96.6 96.5 95.7 94.9 94.0 93.0	13.6 13.0 10.7 8.6 6.5	13.0 13.0 12.5 10.4 8.6 6.6	uma prin	cipal 83.	0[°]			
34.0 36.0	59.6 56.9	91.9 90.6	4.9 3.3	5.2 3.5						
			Ángu	ılo de plu	ıma prin	cipal 75.	0 [°]		•	
36.5 38.0 40.0 42.0 44.0 46.0	65.0 63.0 60.3 57.6 54.7	92.6 91.9 90.8 89.6 88.2	7.0 5.7 4.6 3.6	6.0 5.1 4.2 3.3 2.6						
46.0 47.0	52.0 50.5	86.7 85.8	2.7							



N° 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

	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]
		47.0 (0 m Plum Cabeza o 52.0	de plumír	า (2316-1	o de caro 1) 110.5 nidfall (23	m Plumíi	dfall n		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
16.0 18.0 20.0 22.0 24.0 26.0 24.5 26.0 28.0	78.0 75.7 73.4 71.1 68.7 66.3 73.0 71.3 68.9	101.0 100.5 100.0 99.3 98.5 97.7 99.4 98.9 98.2	15.1 15.1 14.1 10.2 5.9 3.7 Ángu	18.5 18.4 14.8 10.2 6.1 3.8 Jo de plu 12.1 11.9 10.4	uma prin	cipal 83.) [°]			
30.0 32.0 34.0 36.0 38.0	66.5 64.1 61.6 59.0 56.4	97.3 96.4 95.3 94.2 92.9	8.8 6.7 5.0 3.7 2.5	8.8 6.9 5.3 4.1 2.7						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
37.8 38.0 40.0 42.0 44.0 46.0	65.0 64.7 62.2 59.7 57.1 54.6	95.3 95.3 94.2 93.1 91.8 90.4 89.7	6.7 6.6 5.4 4.3 3.3 2.4	5.1 5.0 4.0 3.2 2.4						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

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

94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 13.0	de plumí		1) 32.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
7.9 8.0 9.0 10.0 11.0 12.0 13.0	78.0 77.6 73.0 68.3 63.3 58.2 52.6 46.6	65.9 65.9 65.5 65.1 64.6 64.0 63.3 62.4	15.1 15.1 15.1 15.1 13.5 11.4 9.8	30.1 30.1 26.5 19.4 15.1 12.4 10.4 9.0						
16.0	31.6	59.8	7.1	6.9		-iI 00 /	0.001			
13.4	73.0	65.1	Angu	25.0	ıma prin	cipai 83.i	U[]		I	l
14.0 16.0 18.0 20.0	70.2 60.3 49.1 35.1	64.9 63.9 62.4 60.0	15.1 14.5 10.4 7.4	21.5 13.4 9.5 7.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
22.0 24.0 26.0	65.0 54.4 42.1	62.9 61.7 59.8	12.3 8.5	15.6 10.8 8.0						
			Ángu	ılo de plu	ıma prin	cipal 65.0	0 [°]			
32.2 34.0 36.0	55.0 43.8 27.4	58.5 56.9 54.0	8.8 6.6	10.7 8.3 6.4						
49.4 50.0 51.0	35.0 29.9 17.4	44.7 44.1 41.8	Ángu 6.7 5.9	6.9 6.5 5.8	ıma prin	cipal 45.0	0 [°]			



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]
		50.0	0 m Plum Cabeza 16.0	de plumí	n (1916-		n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
8.5 9.0 10.0 11.0 12.0 13.0 14.0 16.0	78.0 76.3 72.5 68.7 64.7 60.6 56.3 46.9	68.8 68.7 68.4 68.0 67.5 67.0 66.3 64.6	15.1 15.1 15.1 14.8 14.1 12.0 9.1	30.1 30.1 25.9 20.5 16.7 14.2 12.3 9.6						
18.0	35.5	62.3	7.2	7.7						
44.0	70.0	00.0			ıma prin	cipal 83.0	[°]			
14.3 16.0 18.0 20.0 22.0	73.0 66.4 58.1 48.9 38.0	68.0 67.3 66.2 64.6 62.4	15.1 15.1 13.2 10.0 7.8	25.2 18.0 12.9 10.0 8.0						
			Ángı	ılo de plu	ıma prin	cipal 75.0	1°10			
23.3 24.0 26.0 28.0 30.0	65.0 62.0 53.3 43.3 30.7	65.6 65.2 63.9 62.0 59.3	15.1 15.1 12.0 9.1 7.3	16.1 14.8 11.1 8.8 7.3	, 					
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
33.9 34.0 36.0 38.0	55.0 54.4 44.7 32.6	60.9 60.9 59.1 56.5	11.4 8.9 7.1	11.3 11.3 9.0 7.4						
			Ángu		ıma prin	cipal 45.0	[°]			
51.9 54.0	35.0 15.4	46.4 42.3	6.2	6.4 5.6						



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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]
		50.0	0 m Plum Cabeza 16.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
8.6 9.0 10.0 11.0 12.0	78.0 76.5 72.8 68.9 65.0	68.8 68.7 68.4 68.0 67.5	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 29.3 23.8	-					
13.0 14.0 16.0 18.0	60.9 56.6 47.1 35.7	67.0 66.3 64.7 62.3	15.1 15.1 14.1 11.3	20.1 17.2 13.3 10.7						
			Ángı		ıma prin	cipal 83.0	[°]	T		
14.3 16.0 18.0 20.0 22.0	73.0 66.6 58.3 49.2 38.3	68.0 67.3 66.2 64.6 62.4	15.1 15.1 14.5 11.7	30.1 25.8 18.1 13.9 11.0						
			Ángı	ılo de plu	ıma prin	cipal 75.0	D[°]			
23.3 24.0 26.0 28.0 30.0	65.0 62.2 53.5 43.6 31.0	65.6 65.3 63.9 62.1 59.3	15.1 14.9 12.6 10.0	22.5 20.9 15.3 12.1 9.9	·		-			
			Ángı		ıma prin	cipal 65.0	[°]		1	1
33.9 34.0 36.0 38.0	55.0 54.7 44.9 32.8	60.9 60.9 59.2 56.6	12.8 10.0	14.7 14.7 11.8 9.6						
54.0	05.0	40.4	Ángu		ıma prin	cipal 45.0	[°]		I	I
51.9 54.0	35.0 15.8	46.4 42.4	4.2	4.2 3.4						



N° de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumi		1) 38.5 r	n Plumín			
			Ángu	ılo de plu	uma prin	cipal 88.	0 [°]			
9.2 10.0 11.0 12.0 13.0	78.0 75.4 72.2 69.0 65.7 62.3	71.7 71.5 71.2 70.8 70.4 69.8	15.1 15.1 15.1 15.1 15.1	30.1 29.1 24.9 20.8 17.7						
16.0 18.0 20.0 22.0	55.1 47.1 37.8 25.6	68.6 66.9 64.6 61.3	13.0 10.9 8.7 7.2	12.1 9.9 8.3 7.0						
					ıma prin	cipal 83.	0[°]			
15.2 16.0 18.0 20.0 22.0 24.0 26.0	73.0 70.3 63.7 56.6 48.8 39.8 28.5	70.8 70.5 69.6 68.4 66.8 64.7 61.7	15.1 15.1 15.1 13.5 11.4 9.1 7.5	24.6 22.1 16.2 12.7 10.4 8.6 7.3						
20.0	20.0	0			uma prin	cinal 75	0101			
24.5 26.0 28.0 30.0 32.0	65.0 59.9 52.5 44.2 34.2	68.3 67.5 66.1 64.3 61.7	14.6 11.7 9.4 7.7	16.3 14.0 11.3 9.3 7.9		ори то:				
			Ángı	ılo de plu	ıma prin	cipal 65.	0 [°]			
35.6 36.0 38.0 40.0	55.0 53.5 45.3 35.6	63.4 63.2 61.4 58.9	13.0 10.3 8.3	11.7 11.6 9.6 8.0			_			
			Ángu		ıma prin	cipal 45.	0 [°]			
54.3 55.0 57.0	35.0 31.2 17.0	48.2 47.4 42.7	6.6 6.0	5.9 5.7						

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]
		50.0	0 m Plum Cabeza 19.0	de plumí		1) 41.5 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	78.0 75.6 72.4 69.2 65.9 62.5 55.3 47.3	71.7 71.5 71.2 70.8 70.4 69.9 68.6 66.9	15.1 15.1 15.1 15.1 15.1 15.1 14.0	30.1 30.1 29.8 29.2 24.6 21.1 16.4 13.2						
20.0 22.0	38.0 25.9	64.7 61.4	11.1 9.0	10.7 9.0						
22.0	25.9	01.4			ıma prin	cinal 83 () [°]			
15.2	73.0	70.8	Angu	30.1	лна рин	lipai 63.	<u> </u>			
16.0 18.0 20.0 22.0 24.0 26.0	70.5 63.9 56.8 49.0 40.1 28.8	70.6 69.7 68.5 66.9 64.7 61.7	15.1 15.1 15.1 14.4 11.6 9.5	29.5 22.3 17.1 13.8 11.2 9.4						
20.0	20.0	01.7			ıma prin	cinal 75 (1 ° 1			
24.6 26.0 28.0 30.0 32.0	65.0 60.1 52.7 44.4 34.4	68.3 67.6 66.2 64.3 61.8	15.1 15.1 13.4 11.1	22.4 19.1 15.1 12.3 10.3	and pilli	ограг <i>т</i> о	~ []			
					ıma prin	cipal 65 (1°10			
35.6 36.0 38.0 40.0	55.0 53.7 45.5 35.8	63.4 63.2 61.4 59.0	15.1 13.7 10.8	14.8 14.8 12.1 10.0						
			Ángı		ıma prin	cipal 45.0	[°]			
54.4 55.0 57.0	35.0 31.4 17.5	48.1 47.5 42.8	3.8 3.1	3.3 3.1						



Nº de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8	
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
) m Plum Cabeza 22.0	de plumí		1) 41.5 r	n Plumín				
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]				
9.8 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	10.0 77.4 74.6 15.1 30.1 11.0 74.7 74.3 15.1 25.3 12.0 72.0 74.0 15.1 21.2 13.0 69.2 73.6 15.1 18.3 14.0 66.4 73.2 15.1 15.9 16.0 60.5 72.2 14.5 12.7 18.0 54.2 70.8 11.2 10.3 20.0 47.3 69.1 9.1 8.7 22.0 39.4 66.9 7.5 7.3 24.0 29.8 64.0 6.4 6.3 Ángulo de pluma principal 83.0 [°]										
16.0	73.0	73.7		21.3							
18.0	67.5	73.0	15.1	16.8							
20.0 22.0	61.7 55.5	72.0 70.7	14.1 11.1	13.2 10.7							
24.0	48.7	69.1	9.0	9.0							
26.0	41.1	67.0	7.5	7.6							
28.0	32.0	64.2	6.4	6.6							
			Ángu	ılo de plu	uma prin	cipal 75.0	[°]				
25.8	65.0	71.0		14.3							
26.0	64.4	71.0	15.1	14.3							
28.0 30.0	58.4 51.9	69.8 68.4	13.1 10.3	11.8 9.7							
32.0	44.7	66.5	8.5	8.2							
34.0	36.4	64.1	7.1	7.0							
36.0	25.8	60.8	6.1	6.1							
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]				
37.3	55.0	65.8		10.2							
38.0	52.7	65.4	10.7	9.9							
40.0	45.7	63.6	8.7	8.4							
42.0	37.6	61.3	7.2	7.1							
44.0	27.4	58.1	6.3	6.2							
			Angı		ıma prin	cipal 45.0	<u>[[]</u>		ı	1	
56.8 60.0	35.0 15.7	49.9 43.1	5.1	5.2							
00.0	10.1	43.1	J. I			1	1	1	1		

Source:a9841388



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 (2316-		n Plumín			
			Ánaı	ılo de plu	ıma prin	cipal 88.0	1°10			
9.8 10.0 11.0 12.0 13.0	78.0 77.6 74.9 72.1 69.4	74.7 74.7 74.4 74.1 73.7	15.1 15.1 15.1 15.1	30.1 30.1 30.1 28.0 25.7						
14.0 16.0 18.0 20.0 22.0	66.5 60.6 54.3 47.4 39.6	73.2 72.2 70.8 69.2 67.0	15.1 15.0 14.2 12.8 10.2	22.1 17.2 13.9 11.6 9.7						
24.0	30.0	64.0	8.4	8.2						
10.1	70.0	70.7	Angu		ıma prin	cipal 83.	[°]	ı	I	1
16.1 18.0 20.0 22.0 24.0 26.0 28.0	73.0 67.7 61.8 55.6 48.9 41.3 32.2	73.7 73.0 72.0 70.7 69.1 67.0 64.3	15.1 15.1 13.4 11.7 9.6 8.0	29.6 23.5 18.0 14.4 12.0 10.0 8.6						
					ıma prin	cipal 75.0	1°10		•	
25.8 26.0 28.0 30.0 32.0 34.0 36.0	65.0 64.6 58.5 52.1 44.9 36.6 26.0	71.0 71.0 69.9 68.4 66.6 64.2 60.8	15.1 15.1 13.2 11.1 9.1 7.7	19.5 19.5 16.0 13.0 10.9 9.3 7.9						
					ıma nrin	cipal 65.0	1 ° 1			
37.4 38.0 40.0 42.0 44.0	55.0 52.9 45.9 37.8 27.6	65.8 65.4 63.7 61.4 58.2	14.3 11.5 9.3 7.9	13.0 12.8 10.7 9.0 7.8	ли рин	о.раг 00.1	× []			
			Ángu	ılo de plu	ıma prin	cipal 45.0	[°]			
56.8 60.0	35.0 16.2	49.9 43.2	2.3	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]: 94.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0	0 m Plum Cabeza 25.0	de plumi	oal, Punt ín (1916- osición m	1) 44.5 r	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
10.4 11.0 12.0 13.0 14.0	78.0 76.6 74.2 71.8 69.4 64.3	77.6 77.5 77.2 76.8 76.5	15.1 15.1 15.1 15.1 15.1	26.8 25.8 21.7 18.6 16.4						
18.0 20.0 22.0 24.0 26.0	59.1 53.5 47.4 40.6	73.6 74.4 73.1 71.3 69.2 66.5	10.3 8.4 7.1 6.1	10.7 9.0 7.7 6.6						
28.0	22.1	62.6	4.7	5.0						
			Ángı		ıma prin	cipal 83.0	[°]			
16.9 18.0 20.0	73.0 70.4 65.4	76.6 76.2 75.3	15.1 14.0	18.8 17.1 13.5						
22.0 24.0 26.0 28.0 30.0	60.1 54.6 48.6 42.0 34.4	74.3 72.9 71.3 69.3 66.7	12.1 9.6 8.0 6.8 5.9	11.1 9.3 7.9 6.8 5.9						
32.0	24.6	63.1	5.1	5.2		-i175 /	2.0.1			
27.1 28.0 30.0 32.0 34.0 36.0	65.0 62.6 57.2 51.5 45.2 38.1	73.8 73.3 72.1 70.6 68.8 66.5	13.2 12.6 10.1 8.3 7.1 6.1	12.8 12.2 10.1 8.5 7.3 6.3	uma prin	сіраі 75.	0 [·]			
38.0	29.5	63.4	5.3	5.6	<u> </u>		2.5.2			
39.0	55.0	68.3	Angı	ilo de plu	uma prind	cipai 65.0	ַנין <u>ו</u>			
40.0 42.0 44.0 46.0	55.0 52.2 46.0 39.0 30.7	68.3 67.7 65.9 63.6 60.7	8.9 7.5 6.4 5.6	9.0 8.7 7.4 6.4 5.7						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
59.3 60.0	35.0 31.8	51.6 50.7	5.1	4.6 4.5						
40.0 42.0 44.0 46.0	52.2 46.0 39.0 30.7	67.7 65.9 63.6 60.7	7.5 6.4 5.6 Ángu	8.7 7.4 6.4 5.7 ulo de plu 4.6	uma prind	cipal 45.	D [°]			



N° 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]
		50.0	0 m Plum Cabeza 25.0	de plumí	n (2316-	o de caro 1) 47.5 r nidfall (23	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	D [°]			
10.5	78.0	77.6	15.1	30.1						
11.0 12.0	76.7 74.4	77.5 77.2	15.1 15.1	30.1 29.8						
13.0	74.4	77.2 76.9	15.1	29.6						
14.0	69.5	76.5	15.1	22.7						
16.0	64.5	75.6	15.1	17.7						
18.0	59.2	74.5	14.2	14.4						
20.0	53.6	73.1	12.4	11.9						
22.0	47.5	71.4	10.7	10.1						
24.0	40.8	69.3	8.8	8.5						
26.0	32.8	66.5	7.4	7.3						
28.0	22.3	62.6	6.3	6.3						
					ıma prin	cipal 83.0) [°]			
17.0	73.0	76.6	15.1	26.2						
18.0 20.0	70.5 65.5	76.2 75.4	15.1 15.1	24.0 18.5						
22.0	60.3	74.3	14.6	15.0						
24.0	54.8	73.0	12.3	12.3						
26.0	48.8	71.3	10.5	10.4						
28.0	42.2	69.3	8.8	8.9	İ					
30.0	34.5	66.7	7.4	7.6						
32.0	24.8	63.1	6.3	6.5						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
27.1	65.0	73.8		17.1						
28.0	62.7	73.4	15.1	16.4						
30.0	57.3	72.1	14.2	13.5						
32.0	51.6	70.7	11.5	11.3						
34.0	45.3	68.8	9.6	9.6 8.2						
36.0 38.0	38.2 29.6	66.5 63.5	8.0 6.9	7.2						
00.0	20.0	00.0			ıma prin	cipal 65.0	1°10			
39.1	55.0	68.3	, wigo	11.4			·			
40.0	52.4	67.7	11.4	11.0						
42.0	46.2	65.9	9.3	9.4						
44.0	39.2	63.7	7.8	8.0						
46.0	30.8	60.7	6.7	7.0						
			Áηgι	ılo de plu	ıma prin	cipal 45.0	[°]			
59.5	35.0	51.6	2.3							
60.0	32.9	50.8	2.2							



Nº de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 28.0	de plumí	n (1916-		n Plumín			
			,			cipal 88.0				
11.0	78.0	80.5		30.1						
12.0	76.0	80.3	15.1	30.1						
13.0	73.8	80.0	15.1	29.7						
14.0	71.7	79.7	15.1	26.2						
16.0 18.0	67.3 62.7	78.9 77.9	15.1 15.1	21.4 17.8						
20.0	57.9	76.7	14.5	15.3						
22.0	52.9	75.3	13.7	13.4						
24.0	47.5	73.6	12.6	11.9						
26.0	41.5	71.5	11.0	10.7						
28.0	34.6	68.9	9.7	9.7						
30.0	26.2	65.4	8.8 Á	8.9		-il 00 (2			
					ıma prin	cipal 83.0)[-]			
17.8	73.0	79.4	15.1	26.6						
18.0 20.0	72.5 68.2	79.4 78.6	15.1 15.1	26.5 22.2						
22.0	63.6	77.7	15.1	18.3						
24.0	58.9	76.6	14.7	15.8						
26.0	53.9	75.2	14.0	13.7						
28.0	48.6	73.5	13.0	12.2						
30.0 32.0	42.7 36.1	71.5 69.0	11.4 10.0	10.9 9.9						
34.0	28.1	65.8	9.1	9.1						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
28.3	65.0	76.5		18.3						
30.0	61.1	75.6	15.1	16.8						
32.0	56.3	74.4	14.6	14.6						
34.0 36.0	51.1 45.5	72.9 71.0	13.5 12.1	12.9 11.5						
38.0	39.3	68.8	10.6	10.3						
40.0	32.0	65.9	9.5	9.4						
42.0	22.7	62.0	8.6	8.7						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
40.8	55.0	70.8		13.6						
42.0	51.8	69.9	14.0	13.1						
44.0 46.0	46.2 40.1	68.1 65.9	12.3 10.8	11.7 10.5						
48.0	33.0	63.2	9.6	9.6						
50.0	24.0	59.4	8.7	8.8						
			Ángı	ılo de plı	ıma prin	cipal 45.0	[°]			
61.7	35.0	53.3		4.0			-			
65.0	19.6	47.2	3.8	3.2						

Source:a9841388



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]: 94.0 52.6 Lastre central [t]:

57.0

Laoue	ontial [t].	_	02.0						
	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]
		50.0	0 m Plum Cabeza 19.0	de plumi	ín (1916-		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 22.0	78.0 75.4 72.2 69.0 65.7 62.3 55.1 47.1 37.8 25.6	71.7 71.5 71.2 70.8 70.4 69.8 68.6 66.9 64.6 61.3	15.1 15.1 15.1 15.1 15.1 15.1 14.9 13.8 10.8 8.8	30.1 30.1 28.8 26.0 22.2 19.2 15.0 12.3 10.1 8.5						
					ıma prin	cipal 83.	1°10			
15.2 16.0 18.0 20.0 22.0 24.0 26.0	73.0 70.3 63.7 56.6 48.8 39.8 28.5	70.8 70.5 69.6 68.4 66.8 64.7 61.7	15.1 15.1 15.1 15.1 14.5 11.4 9.3	29.6 27.8 20.2 15.7 12.7 10.5 8.9						
			Ángı	ılo de plı	ıma prin	cipal 75.	0 [°]			
24.5 26.0 28.0 30.0 32.0	65.0 59.9 52.5 44.2 34.2	68.3 67.5 66.1 64.3 61.7	15.1 14.8 12.8 10.2	19.9 17.5 13.9 11.5 9.6						
			Ángı	ılo de plı	ıma prin	cipal 65.	0 [°]			
35.6 36.0 38.0 40.0	55.0 53.5 45.3 35.6	63.4 63.2 61.4 58.9	15.1 13.2 10.6	14.3 14.3 11.9 9.9						
540	05.0	40.0	Ángı		ıma prin	cipal 45.	0 [°]			1
54.3 55.0 57.0	35.0 31.2 17.0	48.2 47.4 42.7	4.7 4.0	4.0 3.7						

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]
		50.0	0 m Plum Cabeza 28.0	de plumi	oal, Punt ín (2316- osición m	1) 50.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
11.1 12.0 13.0 14.0	78.0 76.1 73.9 71.8	80.5 80.3 80.0 79.7	15.1 15.1 15.1 15.1	30.1 30.1 30.1 29.0						
16.0 18.0 20.0 22.0 24.0	67.4 62.8 58.1 53.0 47.6	78.9 77.9 76.8 75.3 73.6	15.1 15.1 15.0 14.9 13.9	25.5 20.9 17.7 15.2 13.4						
26.0 28.0 30.0	41.6 34.8 26.4	71.5 68.9 65.5	11.9 10.4 9.2 Ángi	11.8 10.5 9.4	uma prin	rinal 83 () [°]			
17.8	73.0	79.5	Aligo	30.1			J]			
18.0 20.0	72.7 68.3	79.4 78.7	15.1 15.1	30.1 26.5						
22.0 24.0 26.0 28.0 30.0	63.8 59.1 54.1 48.7 42.9	77.7 76.6 75.2 73.6 71.6	15.1 15.1 15.1 14.3 12.3	21.6 18.3 15.7 13.8 12.1						
32.0	36.3	69.1	10.7	10.8						
34.0	28.3	65.9	9.5 Ápgi	9.7	ıma prin	cinal 75 () [°]			
28.4	65.0	76.5	Aligo	21.6		lipai 75.	<u> </u>			
30.0 32.0	61.3 56.4	75.7 74.4	15.1 15.1	19.7 16.8						
34.0 36.0 38.0 40.0 42.0	51.2 45.7 39.4 32.2 22.8	72.9 71.1 68.8 66.0 62.1	15.1 13.7 11.9 10.5 9.3	14.6 12.9 11.4 10.3 9.2						
		-			uma prin	cipal 65.0	1°10		•	
40.8 42.0 44.0 46.0 48.0	55.0 51.9 46.4 40.3 33.2	70.8 69.9 68.1 66.0 63.2	12.8 11.8 10.8 9.7	11.8 11.1 10.1 9.2 8.4	15. [5.11]]			
50.0 51.0	24.2 18.1	59.5 57.0	8.7 8.2	7.6 7.2						



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0	0 m Plum Cabeza 22.0	de plumí	oal, Punt n (1916- osición m	1) 53.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0] (°)			
9.8 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 77.4 74.7 72.0 69.2 66.4 60.5 54.2	74.7 74.6 74.3 74.0 73.6 73.2 72.2 70.8	15.1 15.1 15.1 15.1 15.1 15.1 15.0 12.2	30.1 30.1 28.3 24.3 20.8 18.1 14.3 11.5						
20.0	47.3	69.1	10.2	9.5						
22.0	39.4	66.9	8.2	7.9						
24.0	29.8	64.0	6.8	6.7						
			Angu		ıma prin	cipal 83.0	D[°]			
16.0 18.0 20.0 22.0 24.0 26.0	73.0 67.5 61.7 55.5 48.7 41.1	73.7 73.0 72.0 70.7 69.1 67.0	15.1 15.1 12.3 10.1 8.2	23.6 19.1 14.9 11.9 9.9 8.2						
28.0	32.0	64.2	6.8	7.0						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]C			
25.8 26.0 28.0 30.0 32.0 34.0 36.0	65.0 64.4 58.4 51.9 44.7 36.4 25.8	71.0 71.0 69.8 68.4 66.5 64.1 60.8	15.1 14.6 11.7 9.5 7.7 6.6	15.8 15.8 13.2 10.7 9.0 7.6 6.5						
					ıma prin	cinal 65 (1 0 1			
37.3	55.0	65.8	Angu	11.2	лна рин	oipai 03.	- L J			
37.3 38.0 40.0 42.0 44.0	52.7 45.7 37.6 27.4	65.4 63.6 61.3 58.1	12.1 9.8 8.0 6.8	11.2 11.1 9.3 7.8 6.7						
			Ángu	ılo de plu	ıma prin	cipal 45.0	[°]			
56.8 60.0	35.0 15.7	49.9 43.1	3.2	3.3						
00.0	10.7	70.1	U. <u>L</u>	1	1		1	1	l	1

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

Alcance		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumín (2316-1) 53.5 m Plumín 31.0 [m] Posición midfall (2316) 11.7	ce	o de plumín	de rolda- nas								
11.7			50.0	Cabeza	de plumi	n (2316-	1) 53.5 r	n Plumín	dfall		
11.7				Ánaı	ılo de plu	ıma prin	cipal 88.0	1°1C			
13.0	11.7	78.0	83.5								
14.0 73.6 82.9 15.1 29.9		i i									
16.0 69.7 82.2 15.1 24.2				-							
18.0 65.7 81.3 15.1 19.9 20.0 61.5 80.3 15.1 16.8 22.0 57.2 79.0 13.7 14.5 24.0 52.6 77.6 12.5 12.6 26.0 47.7 75.9 11.2 11.1 28.0 42.3 73.8 9.7 9.8 30.0 36.3 71.3 8.4 8.7 32.0 29.2 68.1 7.5 7.9 **Magulo de pluma principal 83.0 [°]** **Angulo de pluma principal 83.0 [°]** 18.7 73.0 82.3 27.3 27.3 20.0 70.5 81.9 15.1 25.3 20.0 70.5 81.9 15.1 25.3 22.0 66.5 81.1 15.1 17.3 26.0 58.1 78.9 14.2 14.9 28.0 53.5 77.5 13.2 12.9 30.0 48.7 75.8 12.0 11.4 33.0 37.6 71.4 9.0 9.0 36.0 38.8 68.4 8.0 8.1 34.0 37.6 71.4 9.0 9.0 36.0 30.8 68.4 8.0 8.1 38.0 22.0 64.4 7.1 7.2 2 Angulo de pluma principal 75.0 [°]** **Angulo de pluma principal 75.0 [°]** 29.7 65.0 79.2 15.1 18.2 2 2 2 2 2 3 3 3											
20.0 61.5 80.3 15.1 16.8 22.0 57.2 79.0 13.7 14.5 26.0 77.6 12.5 12.6 26.0 47.7 75.9 11.2 11.1 28.0 47.3 73.8 9.7 9.8 30.0 36.3 71.3 8.4 8.7 32.0 29.2 68.1 7.5 7.9											
24.0 52.6 77.6 12.5 12.6 11.1 28.0 47.7 75.9 11.2 11.1 28.0 42.3 73.8 9.7 9.8 30.0 36.3 71.3 8.4 8.7 32.0 29.2 68.1 7.5 7.9 73.0 82.3 27.3 20.0 70.5 81.9 15.1 25.3 22.0 66.5 81.1 15.1 17.3 26.0 58.1 78.9 14.2 14.9 28.0 53.5 77.5 31.2 12.9 30.0 48.7 75.8 12.0 11.4 32.0 43.4 73.8 10.3 10.1 34.0 37.6 71.4 9.0 9.0 36.0 30.8 68.4 8.0 8.1 38.0 22.0 64.4 7.1 7.2 7.2 7.3 7.5		1									
26.0			79.0	-	-						
28.0											
30.0 36.3 71.3 8.4 8.7 7.9											
32.0 29.2 68.1 7.5 7.9											
18.7			_								
18.7				Ángu	ılo de plu	ıma prin	cipal 83.0	1°10			
22.0 66.5 81.1 15.1 20.7 24.0 62.4 80.1 15.1 17.3 26.0 58.1 78.9 14.2 14.9 28.0 53.5 77.5 13.2 12.9 30.0 48.7 75.8 12.0 11.4 32.0 43.4 73.8 10.3 10.1 34.0 37.6 71.4 9.0 9.0 38.0 30.8 68.4 8.0 8.1 38.0 22.0 64.4 7.1 7.2 Angulo de pluma principal 75.0 [°] 29.7 65.0 79.2 15.1 18.2 30.0 64.3 79.1 15.1 18.2 30.0 64.3 79.1 15.1 18.2 32.0 60.1 78.0 15.1 15.9 34.0 55.6 76.7 14.1 13.8 36.0 50.9 75.1 12.7 12.1 38.0 45.9 73.3 11.1 10.7 40.0 40.4 71.1 9.6 9.5 42.0 34.1 68.4 8.5 8.6 44.0 26.4 65.0 7.6 7.7 Angulo de pluma principal 65.0 [°] 42.5 55.0 73.2 11.4 9.9 46.0 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4	18.7	73.0	82.3	ı		·	·				
24.0 62.4 80.1 15.1 17.3 26.0 58.1 78.9 14.2 14.9 28.0 53.5 77.5 13.2 12.9 30.0 48.7 75.8 12.0 11.4 32.0 43.4 73.8 12.0 11.4 9.0 9.0 36.0 30.8 68.4 8.0 8.1 38.0 22.0 64.4 7.1 7.2	20.0	70.5	81.9	15.1	25.3						
26.0		i i			i						
28.0		1									
30.0 48.7 75.8 12.0 11.4 32.0 32.0 43.4 73.8 10.3 10.1 34.0 37.6 71.4 9.0 9.0 9.0 36.0 30.8 68.4 8.0 8.1 38.0 22.0 64.4 7.1 7.2					i						
32.0											
36.0 30.8 68.4 8.0 8.1 7.2				10.3	10.1						
38.0 22.0 64.4 7.1 7.2 Ángulo de pluma principal 75.0 [°] 29.7 65.0 79.2 15.1 18.2 30.0 64.3 79.1 15.1 18.2 32.0 60.1 78.0 15.1 15.9 34.0 55.6 76.7 14.1 13.8 36.0 50.9 75.1 12.7 12.1 38.0 45.9 73.3 11.1 10.7 40.0 40.4 71.1 9.6 9.5 42.0 34.1 68.4 8.5 8.6 44.0 26.4 65.0 7.6 7.7 Ángulo de pluma principal 65.0 [°] 42.5 55.0 73.2 11.4 9.9 46.0 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4											
Ángulo de pluma principal 75.0 [°] 29.7 65.0 79.2 15.1 18.2 30.0 64.3 79.1 15.1 18.2 32.0 60.1 78.0 15.1 15.9 34.0 55.6 76.7 14.1 13.8 36.0 50.9 75.1 12.7 12.1 38.0 45.9 73.3 11.1 10.7 40.0 40.4 71.1 9.6 9.5 42.0 34.1 68.4 8.5 8.6 44.0 26.4 65.0 7.6 7.7 Ángulo de pluma principal 65.0 [°] 42.5 55.0 73.2 11.4 9.9 44.0 51.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4											
29.7 65.0 79.2 15.1 18.2 30.0 64.3 79.1 15.1 18.2 32.0 60.1 78.0 15.1 15.9 34.0 55.6 76.7 14.1 13.8 36.0 50.9 75.1 12.7 12.1 38.0 45.9 73.3 11.1 10.7 40.0 40.4 71.1 9.6 9.5 42.0 34.1 68.4 8.5 8.6 44.0 26.4 65.0 7.6 7.7 **Magulo de pluma principal 65.0 [°]** **Angulo de pluma principal 65.0 [°]** 42.5 55.0 73.2 11.4 9.9 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4	38.0	22.0	64.4								
30.0 64.3 79.1 15.1 18.2 32.0 60.1 78.0 15.1 15.9 34.0 55.6 76.7 14.1 13.8 36.0 50.9 75.1 12.7 12.1 38.0 45.9 73.3 11.1 10.7 40.0 40.4 71.1 9.6 9.5 42.0 34.1 68.4 8.5 8.6 44.0 26.4 65.0 7.6 7.7 **Magulo de pluma principal 65.0 [°]** **Angulo de pluma principal 65.0 [°]** 42.5 55.0 73.2 11.4 9.9 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4	00.7	05.0	70.0			uma prind	cipal 75.0) [°]			
32.0 60.1 78.0 15.1 15.9 34.0 55.6 76.7 14.1 13.8 36.0 50.9 75.1 12.7 12.1 38.0 45.9 73.3 11.1 10.7 40.0 40.4 71.1 9.6 9.5 42.0 34.1 68.4 8.5 8.6 44.0 26.4 65.0 7.6 7.7 Angulo de pluma principal 65.0 [°] 42.5 55.0 73.2 11.4 9.9 44.0 51.6 72.2 11.4 9.9 46.0 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4											
34.0 55.6 76.7 14.1 13.8 36.0 50.9 75.1 12.7 12.1 38.0 45.9 73.3 11.1 10.7 40.0 40.4 71.1 9.6 9.5 42.0 34.1 68.4 8.5 8.6 44.0 26.4 65.0 7.6 7.7 Angulo de pluma principal 65.0 [°] 42.5 55.0 73.2 11.4 9.9 44.0 51.6 72.2 11.4 9.9 46.0 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4			_	-							
38.0					i						
40.0 40.4 71.1 9.6 9.5 42.0 34.1 68.4 8.5 8.6 7.7 Angulo de pluma principal 65.0 [°] 42.5 55.0 73.2 11.4 9.9 46.0 51.6 72.2 11.4 9.9 46.0 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4											
42.0 34.1 68.4 8.5 8.6 7.7 Angulo de pluma principal 65.0 [°] 42.5 55.0 73.2 11.4 9.9 44.0 51.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4											
44.0 26.4 65.0 7.6 7.7 Ángulo de pluma principal 65.0 [°] 42.5 55.0 73.2 10.6 44.0 51.6 72.2 11.4 9.9 46.0 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4		I .									
Ángulo de pluma principal 65.0 [°] 42.5 55.0 73.2 10.6 44.0 51.6 72.2 11.4 9.9 46.0 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4					i						
42.5 55.0 73.2 10.6 44.0 51.6 72.2 11.4 9.9 46.0 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4						uma prin	cipal 65.0] °]			
46.0 46.6 70.4 10.4 9.0 48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4					10.6						
48.0 41.1 68.2 9.1 8.2 50.0 34.9 65.6 8.0 7.4											
50.0 34.9 65.6 8.0 7.4			_								
		1			ı			<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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0) m Plum Cabeza 22.0	de plumí	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.8	78.0	74.7		30.1		·				
10.0	77.6	74.7	15.1	30.1						
11.0	74.9	74.4	15.1	30.1						
12.0	72.1	74.1	15.1	29.0						
13.0	69.4	73.7	15.1	27.3						
14.0	66.5	73.2	15.1	24.0						
16.0 18.0	60.6 54.3	72.2 70.8	15.1 14.8	18.6 15.0						
20.0	47.4	69.2	13.8	12.5						
22.0	39.6	67.0	11.0	10.4						
24.0	30.0	64.0	9.0	8.8						
			Ángi		ıma prin	cipal 83.0	1°10			
16.1	73.0	73.7	, ange	30.1	Ja p		, <u>, </u>			
18.0	67.7	73.0	15.1	25.4						
20.0	61.8	72.0	15.1	19.5						
22.0	55.6	70.7	15.1	15.6						
24.0	48.9	69.1	14.4	13.0						
26.0	41.3	67.0	11.6	10.8						
28.0	32.2	64.3	9.5	9.1						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
25.8	65.0	71.0		20.7						
26.0	64.6	71.0	15.1	20.7						
28.0	58.5	69.9	15.1	17.2						
30.0	52.1	68.4	14.7	14.0						
32.0 34.0	44.9 36.6	66.6 64.2	12.9 10.5	11.8 9.9						
36.0	26.0	60.8	8.7	8.5						
					ıma prin	cipal 65.0	1°10			
37.4	55.0	65.8	,gc	10.7						
38.0	52.9	65.4	12.9	10.7						
40.0	45.9	63.7	11.5	8.9						
42.0	37.8	61.4	10.2	7.7						
44.0	27.6	58.2	8.6	6.7						
45.0	20.7	55.9	7.8	6.2						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

360°

Cabeza de pluma principal:

2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 94.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0	Cabeza	de plumi	ín (1916-	o de carç 1) 56.5 r nidfall (19	n Plumín	dfall 1		
			Ánaı	ılo de plu	ıma prin	cipal 88.0	1°1			
10.4	78.0	77.6	15.1	29.3						
11.0	76.6	77.5	15.1	29.2						
12.0	74.2	77.2	15.1	24.6						
13.0	71.8	76.8	15.1	21.1						
14.0	69.4	76.5	15.1	18.5						
16.0	64.3	75.6	14.1	14.7						
18.0 20.0	59.1 53.5	74.4 73.1	12.6 10.3	12.2 10.2						
20.0	47.4	71.3	8.7	8.8						
24.0	40.6	69.2	7.4	7.6						
26.0	32.6	66.5	6.4	6.6						
28.0	22.1	62.6	5.6	5.8						
			Ángı	ılo de plı	ıma prin	cipal 83.0] (°]			
16.9	73.0	76.6		21.0						
18.0	70.4	76.2	15.1	19.6						
20.0	65.4	75.3	14.7	15.4						
22.0	60.1	74.3	13.6	12.7						
24.0	54.6	72.9	11.1	10.6						
26.0	48.6	71.3	9.4	9.1						
28.0 30.0	42.0 34.4	69.3 66.7	7.9 6.8	7.8 6.8						
32.0	24.6	63.1	6.0	6.0						
32.0	24.0	03.1			ıma nrin	cipal 75.0	1 ° 1	l	l	
27.1	65.0	73.8	14.5	14.3			7[]			
28.0	62.6	73.6	14.5	13.8						
30.0	57.2	73.3	11.6	11.5						
32.0	51.5	70.6	9.6	9.7						
34.0	45.2	68.8	8.2	8.4						
36.0	38.1	66.5	7.0	7.3						
38.0	29.5	63.4	6.2	6.4						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
39.0	55.0	68.3		10.2						
40.0	52.2	67.7	10.3	9.9						
42.0	46.0	65.9	8.6	8.6						
44.0 46.0	39.0 30.7	63.6 60.7	7.4 6.5	7.4 6.6						
40.0	30.7	OU. /			ıma nrin	cipal 45.0	1 0 1	l	l	
50.0	25.0	54.0	Aiigt		ina pilli I	ыраі 4 3.(י ו	l	l	l
59.3 60.0	35.0 31.8	51.6 50.7	3.3	2.7 2.4						
62.0	22.3	46.7	2.8	2.4						
02.0		70.1	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]
			0 m Plum Cabeza 25.0	de plumí		1) 59.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.5 11.0 12.0 13.0 14.0	78.0 76.7 74.4 71.9 69.5	77.6 77.5 77.2 76.9 76.5	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 27.6 24.4						
16.0 18.0 20.0 22.0 24.0	64.5 59.2 53.6 47.5 40.8	75.6 74.5 73.1 71.4 69.3	15.1 14.3 12.1 10.4 8.7	19.1 15.5 12.8 10.9 9.2						
26.0 28.0	32.8 22.3	66.5 62.6	7.3 6.2	7.8 6.7						
			Ángı	ılo de plu	ıma prin	cipal 83.0] (°)			
17.0 18.0 20.0	73.0 70.5 65.5	76.6 76.2 75.4	15.1 15.1 15.1	27.4 26.0 20.0	·					
22.0 24.0 26.0 28.0 30.0	60.3 54.8 48.8 42.2 34.5	74.3 73.0 71.3 69.3 66.7	15.0 13.0 11.4 9.4 7.8	16.2 13.3 11.3 9.5 8.2						
32.0	24.8	63.1	6.7	7.0						
			Angı		ıma prin	cipal 75.0	[°]		ı	
27.1 28.0 30.0 32.0 34.0	65.0 62.7 57.3 51.6 45.3	73.8 73.4 72.1 70.7 68.8	15.1 15.0 12.3 10.4	18.1 17.7 14.6 12.2 10.4						
36.0 38.0	38.2 29.6	66.5 63.5	8.6 7.4	8.8 7.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
39.1 40.0	55.0 52.4	68.3 67.7	11.2	9.5 9.0						
42.0 44.0 46.0	46.2 39.2 30.8	65.9 63.7 60.7	10.0 8.5 7.2	7.8 6.8 5.9						



Nº de ident.: 9842523/95738/

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

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

Alcance o de plumín [°] Altura de roldanas [m] Solo m Pluma principal, Punto de car Cabeza de plumín (1916-1) 59.5 28.0 [m] Posición midfall (1 Ángulo de pluma principal 88	m Plumír 916)		Carga [t]	Carga [t]
Cabeza de plumín (1916-1) 59.5 28.0 [m] Posición midfall (1 Ángulo de pluma principal 88 11.0 76.0 80.5 27.0 12.0 76.0 80.3 15.1 25.7 13.0 73.8 80.0 15.1 22.2 14.0 71.7 79.7 15.1 19.4	m Plumír 916)			
Ángulo de pluma principal 88 11.0 78.0 80.5 27.0 12.0 76.0 80.3 15.1 25.7 13.0 73.8 80.0 15.1 22.2 14.0 71.7 79.7 15.1 19.4				
11.0 78.0 80.5 27.0 12.0 76.0 80.3 15.1 25.7 13.0 73.8 80.0 15.1 22.2 14.0 71.7 79.7 15.1 19.4				
12.0 76.0 80.3 15.1 25.7 13.0 73.8 80.0 15.1 22.2 14.0 71.7 79.7 15.1 19.4				
14.0 71.7 79.7 15.1 19.4				
16.0 67.3 78.9 14.5 15.5				
18.0 62.7 77.9 12.8 12.7 20.0 57.9 76.7 10.9 10.7				
20.0 57.9 76.7 10.9 10.7 22.0 52.9 75.3 8.9 9.0				
24.0 47.5 73.6 7.5 7.7				
26.0 41.5 71.5 6.4 6.6				
28.0 34.6 68.9 5.5 5.7				
30.0 26.2 65.4 4.8 5.0				
Ángulo de pluma principal 83	0 [°]			
17.8 73.0 79.4 15.1 19.3				
18.0 72.5 79.4 15.1 19.2				
20.0 68.2 78.6 15.1 16.1				
22.0 63.6 77.7 13.6 13.2				
24.0 58.9 76.6 11.8 11.1 26.0 53.9 75.2 9.6 9.3				
28.0 48.6 73.5 8.1 8.0				
30.0 42.7 71.5 6.9 6.9				
32.0 36.1 69.0 5.9 6.0				
34.0 28.1 65.8 5.2 5.3				
Ángulo de pluma principal 75	0 [°]			
28.3 65.0 76.5 13.1				
30.0 61.1 75.6 12.4 12.0				
32.0 56.3 74.4 10.2 10.1 34.0 51.1 72.9 8.4 8.6				
36.0 45.5 71.0 7.2 7.4				
38.0 39.3 68.8 6.2 6.4				
40.0 32.0 65.9 5.5 5.6				
42.0 22.7 62.0 4.8 5.0				
Ángulo de pluma principal 65	0 [°]			
40.8 55.0 70.8 9.2				
42.0 51.8 69.9 9.0 8.9				
44.0 46.2 68.1 7.7 7.6				
46.0 40.1 65.9 6.6 6.6 48.0 33.0 63.2 5.7 5.8				
50.0 24.0 59.4 5.1 5.1				
Ángulo de pluma principal 45	0 [°]			
61.9 35.0 53.3 2.7		1	1	
64.0 26.3 49.6 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 Aingue Altura Carga Carga [t] Carga [t] Carga [t] Carga [t] Carga [t] Carga Ca		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumín (2316-1) 62.5 m Plumín 28.0 [m] Posición midfall (2316) Angulo de pluma principal 88.0 [°]	ce	o de plumín	de rolda- nas								
11.1			50.0	Cabeza	de plumí	ín (2316-	·1) 62.5 r̀	n Plumín	dfall I		
12.0				Ángı	ılo de plu	uma prin	cipal 88.0	l°1			
13.0	11.1	78.0	80.5			'	l				
14.0	12.0	76.1	80.3	15.1	30.1						
16.0			80.0								
18.0 62.8 77.9 14.8 14.9 12.9 12.4 22.0 58.1 76.8 12.9 12.4 10.3 224.0 47.6 73.6 8.7 8.8 72.4 11.6 71.5 73.7.5 7.5 28.0 34.8 68.9 6.2 6.4 30.0 26.4 65.5 5.3 5.5 5.5											
20.0 58.1 76.8 12.9 12.4 10.3 22.0 53.0 75.3 10.4 10.3 24.0 47.6 73.6 8.7 8.8 26.0 41.6 71.5 7.3 7.5 28.0 34.8 68.9 6.2 6.4 65.5 5.3 5.5											
22.0											
24.0											
26.0											
28.0 34.8 68.9 6.2 6.4 65.5 5.3 5.5 5.5 **Angulo de pluma principal 83.0 [°]** 17.8 73.0 79.5											
30.0 26.4 66.5 5.3 5.5											
Angulo de pluma principal 83.0 [°] 17.8											
17.8				Ángi	ılo de nlı	ıma nrin	cinal 83 (1°1			
18.0 72.7 79.4 15.1 23.3 23.3 22.0 68.3 78.7 15.1 19.2 22.0 63.8 77.7 15.1 15.4 24.0 59.1 76.6 13.9 12.9 26.0 54.1 75.2 11.3 10.7 28.0 48.7 73.6 9.4 9.2 30.0 42.9 71.6 7.9 7.8 32.0 36.3 69.1 6.6 6.7 34.0 28.3 65.9 5.7 5.7 34.0 28.3 65.9 5.7 5.7 32.0 56.4 74.4 12.7 11.7 32.0 56.4 74.4 12.7 11.7 32.0 56.4 74.4 12.7 11.7 34.0 51.2 72.9 10.3 9.9 36.0 45.7 71.1 8.6 8.5 38.0 39.4 68.8 7.3 7.2 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3 5.3 5.3 5.3 5.0 40.0 40.3 66.0 6.8 6.0 40.3 66.0 6.8 6.0 40.3 32.6 63.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5	17.0	73.0	70.5	7 (1190				, j			
20.0 68.3 78.7 15.1 19.2 22.0 63.8 77.7 15.1 15.4 24.0 59.1 76.6 13.9 12.9 26.0 54.1 75.2 11.3 10.7 28.0 48.7 73.6 9.4 9.2 30.0 42.9 71.6 7.9 7.8 32.0 36.3 69.1 6.6 6.7 34.0 28.3 65.9 5.7 5.7 Angulo de pluma principal 75.0 [°] 28.4 65.0 76.5 30.0 61.3 75.7 14.8 14.0 32.0 56.4 74.4 12.7 11.7 34.0 51.2 72.9 10.3 9.9 36.0 45.7 71.1 8.6 8.5 38.0 39.4 68.8 7.3 7.2 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3 Angulo de pluma principal 65.0 [°] 40.8 55.0 70.8 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3 Angulo de pluma principal 65.0 [°]				15 1							
22.0 63.8 77.7 15.1 15.4 24.0 59.1 76.6 13.9 12.9 26.0 54.1 75.2 11.3 10.7 28.0 48.7 73.6 9.4 9.2 30.0 42.9 71.6 7.9 7.8 32.0 36.3 69.1 6.6 6.7 34.0 28.3 65.9 5.7 5.7											
26.0 54.1 75.2 11.3 10.7 28.0 48.7 73.6 9.4 9.2 30.0 42.9 71.6 7.9 7.8 32.0 36.3 69.1 6.6 6.7 34.0 28.3 65.9 5.7 5.7											
28.0	24.0	59.1	76.6	13.9	12.9						
30.0	26.0	54.1	75.2	11.3	10.7						
32.0 36.3 69.1 6.6 6.7 34.0 28.3 65.9 5.7 5.7 Angulo de pluma principal 75.0 [°] 28.4 65.0 76.5 15.3 15.3 30.0 61.3 75.7 14.8 14.0 32.0 56.4 74.4 12.7 11.7 34.0 51.2 72.9 10.3 9.9 36.0 45.7 71.1 8.6 8.5 38.0 39.4 68.8 7.3 7.2 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3 Angulo de pluma principal 65.0 [°] 40.8 55.0 70.8 8.6 42.0 51.9 69.9 9.6 7.9 44.0 46.4 68.1 8.1 6.9 44.0 46.4 68.1 8.1 6.9 44.0 46.4 68.1 8.1 6.9 46.0 40.3 32.6 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5											
34.0 28.3 65.9 5.7 5.7 Angulo de pluma principal 75.0 [°] 28.4 65.0 76.5											
Ángulo de pluma principal 75.0 [°] 28.4 65.0 76.5 15.3 30.0 61.3 75.7 14.8 14.0 32.0 56.4 74.4 12.7 11.7 34.0 51.2 72.9 10.3 9.9 36.0 45.7 71.1 8.6 8.5 38.0 39.4 68.8 7.3 7.2 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3 Ángulo de pluma principal 65.0 [°] 40.8 55.0 70.8 8.6 42.0 51.9 69.9 9.6 7.9 44.0 46.4 68.1 8.1 6.9 44.0 46.4 68.1 8.1 6.9 46.0 40.3 66.0 6.8 6.0 48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5											
28.4 65.0 76.5 15.3 15.3 30.0 61.3 75.7 14.8 14.0 32.0 56.4 74.4 12.7 11.7 34.0 51.2 72.9 10.3 9.9 36.0 45.7 71.1 8.6 8.5 38.0 39.4 68.8 7.3 7.2 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3	34.0	20.3	05.9								
30.0 61.3 75.7 14.8 14.0 32.0 56.4 74.4 12.7 11.7 34.0 51.2 72.9 10.3 9.9 36.0 45.7 71.1 8.6 8.5 38.0 39.4 68.8 7.3 7.2 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3		05.0	70.5	Angu		uma prini	cipai 75.0	ו []		I	
32.0 56.4 74.4 12.7 11.7 34.0 51.2 72.9 10.3 9.9 36.0 45.7 71.1 8.6 8.5 38.0 39.4 68.8 7.3 7.2 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3 Angulo de pluma principal 65.0 [°] 40.8 55.0 70.8 8.6 42.0 51.9 69.9 9.6 7.9 44.0 46.4 68.1 8.1 6.9 46.0 40.3 66.0 6.8 6.0 48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5				140							
34.0 51.2 72.9 10.3 9.9 36.0 45.7 71.1 8.6 8.5 38.0 39.4 68.8 7.3 7.2 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3 Angulo de pluma principal 65.0 [°] 40.8 55.0 70.8 8.6 42.0 51.9 69.9 9.6 7.9 44.0 46.4 68.1 8.1 6.9 44.0 40.3 66.0 6.8 6.0 48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5	•										
36.0											
38.0 39.4 68.8 7.3 7.2 40.0 32.2 66.0 6.2 6.3 42.0 22.8 62.1 5.3 5.3 5.3											
42.0 22.8 62.1 5.3 5.3 Ángulo de pluma principal 65.0 [°] 40.8 55.0 70.8 8.6 42.0 51.9 69.9 9.6 7.9 44.0 46.4 68.1 8.1 6.9 46.0 40.3 66.0 6.8 6.0 48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5											
Ángulo de pluma principal 65.0 [°] 40.8 55.0 70.8 8.6 42.0 51.9 69.9 9.6 7.9 44.0 46.4 68.1 8.1 6.9 46.0 40.3 66.0 6.8 6.0 48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5											
40.8 55.0 70.8 8.6 42.0 51.9 69.9 9.6 7.9 44.0 46.4 68.1 8.1 6.9 46.0 40.3 66.0 6.8 6.0 48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5	42.0	22.8	62.1	5.3	5.3						
42.0 51.9 69.9 9.6 7.9 44.0 46.4 68.1 8.1 6.9 46.0 40.3 66.0 6.8 6.0 48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5				Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
44.0 46.4 68.1 8.1 6.9 46.0 40.3 66.0 6.8 6.0 48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5	40.8	55.0	70.8		8.6						
46.0 40.3 66.0 6.8 6.0 48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5											
48.0 33.2 63.2 5.9 5.2 50.0 24.2 59.5 5.1 4.5											
50.0 24.2 59.5 5.1 4.5											
	50.0 51.0	24.2 18.1	59.5 57.0	5.1 4.7	4.5 4.1						



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0	0 m Plum Cabeza 31.0	de plumí	oal, Punt n (1916- osición m	1) 62.5 r	n Plumín	dfall 1		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.7 12.0 13.0 14.0 16.0	78.0 77.3 75.4 73.5 69.6	83.5 83.4 83.1 82.8 82.1	15.1 15.1 15.1 15.1 15.1	24.5 24.5 22.5 19.9 15.8						
18.0 20.0 22.0 24.0 26.0	65.6 61.4 57.0 52.4 47.5	81.3 80.2 79.0 77.5 75.8	13.4 11.6 9.7 8.0 6.8	13.0 11.1 9.3 7.9 6.9						
28.0 30.0 32.0	42.2 36.2 29.1	73.8 71.3 68.1	5.9 5.1 4.5	6.0 5.2 4.6						
					ıma prin	cipal 83.0	D[°]			
18.7 20.0 22.0 24.0 26.0 28.0	73.0 70.4 66.4 62.2 57.9 53.4	82.3 81.9 81.0 80.0 78.8 77.4	15.1 15.1 14.5 12.0 10.1 8.3	17.5 16.5 13.5 11.3 9.6 8.2						
30.0 32.0 34.0 36.0 38.0	48.6 43.3 37.5 30.6 21.9	75.8 73.8 71.4 68.4 64.3	7.1 6.2 5.3 4.7 4.1	7.2 6.2 5.4 4.8 4.2						
			Ángu		ıma prin	cipal 75.0	[°]			
29.6 30.0 32.0 34.0 36.0 38.0 40.0 42.0	65.0 64.2 59.9 55.5 50.8 45.8 40.2 33.9	79.2 79.0 77.9 76.6 75.1 73.3 71.1 68.4	12.7 10.9 9.1 7.7 6.7 5.8 5.0	11.9 11.9 10.4 8.9 7.7 6.7 5.8 5.1						
44.0	26.3	64.9	4.5 Ápgu	4.6	ıma prin	oinal 65 f) 			
42.5 44.0 46.0 48.0	55.0 51.4 46.4 41.0	73.2 72.1 70.3 68.2	7.9 6.8 5.9	8.3 7.9 6.9 6.0	ıma prin	ыраі 65.	7[]			
50.0	34.8	65.6	5.2 Ángi	5.3 Ilo de pli	ıma prin	cinal 45 (1°10			
64.4	35.0	55.1	2.1	do pic	ina pilit		~ []			



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]: 94.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0	0 m Plum Cabeza 31.0	de plumí	oal, Punt ín (2316- osición m	1) 65.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cinal 88 (0 [°]			
11.7	78.0	83.5	,g.	30.1			, ,			
12.0	77.5	83.4	15.1	30.1						
13.0	75.5	83.2	15.1	30.0						
14.0	73.6	82.9	15.1	29.2						
16.0	69.7	82.2	15.1	23.4						
18.0	65.7	81.3	15.1	19.3						
20.0	61.5	80.3	15.1	16.3						
22.0 24.0	57.2 52.6	79.0 77.6	13.5 11.9	13.9 12.1						
26.0	47.7	75.9	10.4	10.4						
28.0	42.3	73.8	8.4	8.6						
30.0	36.3	71.3	6.8	7.2						
32.0	29.2	68.1	5.4	5.7						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
18.7	73.0	82.3		25.9						
20.0	70.5	81.9	15.1	24.6						
22.0	66.5	81.1	15.1	20.0						
24.0	62.4	80.1	15.1	16.7						
26.0 28.0	58.1 53.5	78.9 77.5	13.9 12.3	14.4 12.4						
30.0	48.7	75.8	11.0	11.0						
32.0	43.4	73.8	9.5	9.6						
34.0	37.6	71.4	8.2	8.4	İ					
36.0	30.8	68.4	7.1	7.4						
38.0	22.0	64.4	6.1	6.4						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
29.7	65.0	79.2	15.1	17.3						
30.0	64.3	79.1	15.1	17.3						
32.0	60.1	78.0	15.0	15.4						
34.0 36.0	55.6 50.9	76.7 75.1	13.7 11.7	13.3 11.6						
38.0	45.9	73.3	10.2	10.3						
40.0	40.4	71.1	8.9	9.1						
42.0	34.1	68.4	7.8	8.1						
44.0	26.4	65.0	7.0	7.3						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0[°]			
42.5	55.0	73.2		7.6			_			
44.0	51.6	72.2	8.4	6.8						
46.0	46.6	70.4	7.4	6.0						
48.0	41.1	68.2	6.5	5.2						
50.0 54.0	34.9	65.6	5.7	4.4 3.1						
54.0	17.1	57.4	4.1	J.T	<u> </u>	I		I	I	



2821-1

2821-1

Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco:

Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

Lasiie	entrar [t	1.		52.0						
	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]
		50.0	0 m Plum Cabeza 34.0	de plumí	'n (1916-	o de carç 1) 65.5 r nidfall (19	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]			
12.3	78.0	86.4	15.1	22.3						
13.0	76.8	86.2	15.1	22.3						
14.0	75.0	86.0	15.1	19.9						
16.0	71.5	85.3	15.1	16.0						
18.0 20.0	67.9 64.1	84.6 83.6	14.6 11.9	13.4 11.2						
22.0	60.3	82.5	10.0	9.6						
24.0	56.3	81.3	8.4	8.2						
26.0	52.1	79.8	7.1	7.0						
28.0	47.6	78.1	6.1	6.2						
30.0	42.8	76.0	5.3	5.4						
32.0	37.4	73.6	4.6	4.7						
34.0	31.2	70.6	4.1	4.1						
36.0	23.6	66.7	3.6	3.7						
40.5	70.0	05.0	Angu		ıma prin	cipal 83.0	D[°]		I	I
19.5 20.0	73.0 72.2	85.2 85.0	15.1	16.0 16.0						
20.0	68.6	84.3	14.5	13.7						
24.0	64.9	83.4	12.4	11.5						
26.0	61.1	82.3	10.3	9.9						
28.0	57.1	81.1	8.7	8.5						
30.0	52.9	79.7	7.3	7.3						
32.0	48.5	78.0	6.4	6.4						
34.0	43.8	76.0	5.5	5.6						
36.0 38.0	38.5 32.6	73.7 70.9	4.8 4.3	4.9 4.3						
40.0	25.3	67.2	3.8	3.9						
					ıma prin	cipal 75.0	1°10			
30.9	65.0	81.9	11.3	10.8	<u>'</u>	·				
32.0	62.9	81.4	11.3	10.7						
34.0	59.0	80.2	9.3	9.1						
36.0	54.9	78.9	7.9	7.9						
38.0	50.6	77.3	6.8	6.9						
40.0	46.0	75.5	6.0	6.0						
42.0 44.0	41.0 35.4	73.4 70.8	5.2 4.5	5.3 4.6						
46.0	28.9	67.5	4.5	4.0						
48.0	20.4	63.2	3.6	3.7						
					ıma prin	cipal 65.0	[°]			
44.2	55.0	75.7	l j	7.5	<u>'</u>					
46.0	51.1	74.4	7.0	7.1						
48.0	46.6	72.6	6.1	6.1						
50.0	41.7	70.5	5.3	5.4						
55.0	26.0	62.9	3.9	4.0						
57.0	16.1	57.8	3.5	3.6					l	l



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]
		50.0	0 m Plum Cabeza 34.0	de plumí	oal, Punt ín (2316- osición m	1) 68.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	0[°]			
12.3 13.0 14.0 16.0 18.0 20.0 22.0	78.0 76.8 75.1 71.6 68.0 64.2 60.4	86.4 86.3 86.0 85.4 84.6 83.7 82.6	15.1 15.1 15.1 15.0 14.4 13.7	30.1 30.1 27.9 22.2 18.4 15.4 13.3						
24.0 26.0 28.0 30.0	56.4 52.2 47.7 42.9	81.3 79.8 78.1 76.1	11.5 9.8 8.4 7.2	11.4 9.9 8.7 7.5						
32.0 34.0 36.0	37.5 31.4 23.8	73.7 70.7 66.8	6.1 5.1 3.9 Ángi	6.5 5.4 4.1	uma prin	rinal 83	0 [°]			
19.6	73.0	85.2	Aligo	22.4						
20.0 22.0 24.0 26.0 28.0	72.3 68.7 65.0 61.2 57.2	85.1 84.3 83.4 82.4 81.2	15.1 15.1 14.9 14.7 12.4	22.3 18.9 15.9 13.7 11.8						
30.0 32.0 34.0 36.0 38.0	53.1 48.6 43.9 38.6 32.7	79.7 78.0 76.1 73.8 70.9	10.5 9.1 7.9 6.9 6.1	10.2 9.1 8.0 7.0 6.2						
40.0	25.5	67.3	5.3	5.5						
20.0	65.0	01.0	Angu	ılo de plu 14.9	uma prind	cipal 75.	0 [°]			
30.9 32.0 34.0 36.0	65.0 63.0 59.1 55.0	81.9 81.4 80.3 78.9	15.1 12.9 11.0	14.7 12.6 10.9						
38.0 40.0 42.0 44.0 46.0	50.7 46.1 41.1 35.5 29.0	77.4 75.5 73.4 70.8 67.6	9.4 8.3 7.2 6.4 5.7	9.6 8.5 7.5 6.7 6.0						
48.0	20.6	63.3	5.1 Ángi	Jo de pli	ıma prin	cinal 65	1 ° 1			
44.2 46.0 48.0 50.0	55.0 51.3 46.7 41.8	75.7 74.4 72.6 70.5	7.4 6.5 5.7	6.8 6.0 5.3 4.5	IIII pilli		~ []			
55.0 57.0	26.2 16.3	63.0 57.9	3.9 3.2	3.0 2.4						



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

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

Radio de descarga: 360 °
Valor de vuelco: 2 - Vía ancha
Lastre trasero [t]: 94.0
Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0		de plumí	oal, Punt ín (1916- osición m	1) 68.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
12.9 13.0 14.0 16.0 18.0 20.0 22.0	78.0 77.8 76.3 73.0 69.7 66.4 62.9	89.3 89.3 89.1 88.5 87.8 87.0 86.0	15.1 15.1 15.1 15.1 14.9 13.1 10.8	21.7 21.7 21.3 17.2 14.3 12.2 10.4						
24.0 26.0 28.0	59.4 55.7 51.8	84.8 83.5 82.0	9.2 7.9 6.8	9.1 7.8 6.9						
30.0 32.0 34.0 36.0	47.6 43.2 38.4 32.9	80.3 78.3 75.9 73.1	6.0 5.3 4.7 4.1	6.1 5.4 4.8 4.3						
38.0	26.5	69.6	3.7 Ángi	3.8 	uma prin	cipal 83.0	1°10			
20.4 22.0 24.0 26.0 28.0	73.0 70.4 67.1 63.6 60.1	88.0 87.5 86.7 85.8 84.7	15.1 13.7 11.2 9.6	15.7 14.9 12.7 10.7 9.4	·	•				
30.0 32.0 34.0 36.0 38.0	56.4 52.6 48.5 44.1 39.4	83.4 81.9 80.2 78.3 76.0	8.2 7.1 6.2 5.5 4.8	8.1 7.1 6.3 5.6 4.9						
40.0 42.0 44.0	34.1 27.9 19.9	73.3 69.9 65.4	4.3 3.9 3.4	4.4 4.0 3.6						
			Ángı		ıma prin	cipal 75.0	[°]			
32.1 34.0 36.0 38.0 40.0	65.0 61.7 58.1 54.4 50.4	84.6 83.7 82.5 81.1 79.6	10.4 8.8 7.6 6.6	10.7 10.1 8.7 7.6 6.7						
42.0 44.0 46.0 48.0 50.0	46.2 41.6 36.6 30.9 23.9	77.7 75.6 73.1 70.1 66.2	5.9 5.2 4.6 4.2 3.7	6.0 5.3 4.7 4.3 3.8						
			Ángı		ıma prin	cipal 65.0	[°]			
45.9 46.0 48.0 50.0 55.0 60.0	55.0 54.8 50.9 46.7 34.6 15.4	78.1 78.1 76.6 74.8 68.9 58.2	7.2 6.8 6.0 4.5 3.4	7.4 7.4 6.9 6.1 4.6 3.5						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 37.0	de plumí		1) 71.5 r̀	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.0	78.0	89.4	15.1	27.0						
14.0	76.3	89.1	15.1	26.3						
16.0 18.0	73.1 69.8	88.5 87.8	15.1 15.1	21.0 17.1						
20.0	66.5	87.0	13.1	14.4						
22.0	63.0	86.0	12.1	12.3						
24.0	59.5	84.9	10.6	10.6						
26.0	55.8	83.6	9.0	9.2						
28.0	51.9	82.1	7.7	8.0						
30.0	47.7	80.3	6.7	7.0						
32.0	43.3	78.3	5.7	6.0						
34.0 36.0	38.5 33.0	76.0 73.1	4.8 4.1	5.1 4.3						
38.0	26.6	69.6	3.1	3.2						
					ıma prin	cinal 83 () [°]			
20.5	72.0	00.1				lipai 65.	J []		l	
20.5 22.0	73.0 70.5	88.1 87.5	15.1 15.1	19.0 17.9						
24.0	67.2	86.7	15.1	15.0						
26.0	63.7	85.8	13.0	12.6						
28.0	60.2	84.7	11.5	11.0						
30.0	56.5	83.4	9.7	9.5						
32.0	52.7	82.0	8.2	8.2						
34.0	48.6	80.3	7.1	7.3						
36.0	44.2	78.3	6.2	6.3						
38.0 40.0	39.5 34.2	76.1 73.3	5.4 4.7	5.5 4.9						
42.0	28.0	70.0	4.1	4.2						
44.0	20.1	65.5	3.5	3.6						
				ılo de plu	ıma prin	cipal 75.0	0 [°]			
32.2	65.0	84.6		12.5						
34.0	61.8	83.7	12.5	11.8						
36.0	58.2	82.6	10.5	10.2						
38.0	54.5	81.2	8.9	8.8						
40.0 42.0	50.5 46.3	79.6 77.8	7.7 6.7	7.7 6.8						
42.0 44.0	46.3 41.7	77.8 75.7	5.9	6.0						
46.0	36.7	73.2	5.1	5.3						
48.0	31.0	70.2	4.6	4.7						
50.0	24.0	66.3	4.0	4.1						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
46.0	55.0	78.1		5.9						
48.0	51.0	76.6	6.2	5.1						
50.0	46.8	74.9	5.4	4.4						
55.0	34.7	68.9	3.6	2.8						
60.0	17.1	58.3	2.1						<u> </u>	



N° de ident.: 9842523/95738/ Pieza d

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

Valor de vuelco: Lastre trasero [t]:

Lastre central [t]:

2 - Vía ancha 94.0 52.6 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

		Inserciór	1	1	2	3	4	5	6	7	8
50.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumin (1916-1) 71.5 m Plumín 40.0 [m] Posición midfall (1916)	ce	o de plumín	de rolda- nas								Carga [t]
Cabeza de plumín (1916-1) 71.5 m Plumín 40.0 [m] Posición midfall (1916) Angulo de pluma principal 88.0 [°]				0 m Dlum	o princi	al Dunt		2 Mi	dfall		
13.5			50.0	Cabeza	de plumí	n (1916-	1) 71.5 r	n Plumír	otali 1		
14.0				Ángı	ılo de plu	ıma prin	cipal 88.	0[°]			
16.0											
18.0											
20.0 68.3 90.2 14.5 14.3 12.2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2											
24.0 61.9 88.3 10.5 10.7 9.4 26.0 58.6 87.1 9.2 9.4 28.0 55.1 85.8 8.0 8.3 30.0 51.5 84.3 7.1 7.4 32.0 47.7 82.5 6.3 6.7 34.0 43.6 80.5 5.7 6.0 36.0 39.2 78.2 5.1 5.4 38.0 34.3 75.5 4.6 4.9 40.0 28.7 72.2 4.3 4.5 4.9 4.0 22.7 79.2 4.3 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5											
26.0											
28.0 55.1 85.8 8.0 8.3 7.1 7.4 7.4 7.4 7.5 82.5 6.3 6.7 32.0 47.7 82.5 6.3 6.7 34.0 43.6 80.5 5.7 6.0 36.0 39.2 78.2 5.1 5.4 4.6 4.9 40.0 28.7 72.2 4.3 4.5 4.5 4.0 42.0 21.7 67.9 3.9 4.1											
30.0 51.5 84.3 7.1 7.4 32.0 47.7 82.5 6.3 6.7 34.0 43.6 80.5 5.7 6.0 38.0 39.2 78.2 5.1 5.4 38.0 34.3 75.5 4.6 4.9 40.0 28.7 72.2 4.3 4.5 42.0 21.7 67.9 3.9 4.1											
32.0											<u> </u>
36.0 39.2 78.2 5.1 5.4 38.0 34.3 75.5 4.6 4.9 4.0 40.0 28.7 72.2 4.3 4.5 4.5 4.2	32.0	47.7	82.5	6.3	6.7						
38.0 34.3 75.5 4.6 4.9 4.5 4.5 4.5 4.5 4.5 4.1 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5 4.5											
40.0											
Ángulo de pluma principal 83.0 [°] 21.3 73.0 90.9 16.6 22.0 71.9 90.7 15.1 16.6 24.0 68.9 90.0 14.5 14.5 26.0 65.8 89.1 13.0 12.6 28.0 62.6 88.1 11.2 11.0 30.0 59.3 87.0 9.8 9.7 32.0 55.8 85.6 8.5 8.6 34.0 52.2 84.2 7.5 7.7 36.0 48.5 82.5 6.7 6.9 38.0 44.5 80.5 6.0 6.2 40.0 40.1 78.3 5.4 5.6 42.0 35.3 75.7 4.9 5.1 44.0 29.9 72.5 4.5 4.7 46.0 23.2 68.5 4.1 4.3 This is a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a standard and a											
21.3	42.0	21.7	67.9	3.9	4.1						
21.3				Ángı	ılo de plu	ıma prin	cipal 83.	[°]C			
24.0 68.9 90.0 14.5 14.5 26.0 65.8 89.1 13.0 12.6 28.0 62.6 88.1 11.2 11.0 30.0 59.3 87.0 9.8 9.7 32.0 55.8 85.6 8.5 8.6 34.0 52.2 84.2 7.5 7.7 36.0 44.5 80.5 6.0 6.2 40.0 40.1 78.3 5.4 5.6 40.0 29.9 72.5 4.5 4.7 44.0 29.9 72.5 4.5 4.1 4.3 44.0 29.9 72.5 4.5 4.1 4.3 46.0 23.2 68.5 4.1 11.8 11.4 36.0 64.0 87.1 11.8 11.4 36.0 60.8 86.0 10.6 10.3 38.0 57.4 84.8 9.2 9.2 40.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 4.9 Angulo de pluma principal 65.0 [°] Angulo de pluma principal 65.0 [°]	21.3	73.0	90.9	Ι							
26.0 65.8 89.1 13.0 12.6 28.0 62.6 88.1 11.2 11.0 30.0 59.3 87.0 9.8 9.7 32.0 55.8 85.6 8.5 8.6 34.0 52.2 84.2 7.5 7.7 36.0 48.5 82.5 6.7 6.9 38.0 44.5 80.5 6.0 6.2 40.0 40.1 78.3 5.4 5.6 42.0 35.3 75.7 4.9 5.1 44.0 29.9 72.5 4.5 4.7 4.9 46.0 23.2 68.5 4.1 4.3 4.3 4.0 64.0 87.1 11.8 11.4 33.0 60.8 86.0 10.6 10.3 38.0 57.4 84.8 9.2 9.2 40.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 42.0 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 5.0 50.0 32.5 72.6 4.8 4.9 4.9 \$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$\$\$\$\$\$\$\$Aigulo de pluma principal 65.0 [°]\$											
28.0 62.6 88.1 11.2 11.0 30.0 59.3 87.0 9.8 9.7 32.0 55.8 85.6 8.5 8.6 34.0 52.2 84.2 7.5 7.7 36.0 48.5 82.5 6.7 6.9 38.0 44.5 80.5 6.0 6.2 40.0 40.1 78.3 5.4 5.6 42.0 35.3 75.7 4.9 5.1 44.0 29.9 72.5 4.5 4.7 46.0 23.2 68.5 4.1 4.3											
30.0 59.3 87.0 9.8 9.7 32.0 55.8 85.6 8.5 8.6 34.0 52.2 84.2 7.5 7.7 36.0 48.5 82.5 6.7 6.9 38.0 44.5 80.5 6.0 6.2 40.0 40.1 78.3 5.4 5.6 42.0 35.3 75.7 4.9 5.1 44.0 29.9 72.5 4.5 4.7 46.0 23.2 68.5 4.1 4.3 \$\$\$Angulo de pluma principal 75.0 [°]\$\$\$3.4 65.0 87.4 11.8 11.4 34.0 64.0 87.1 11.8 11.4 36.0 60.8 86.0 10.6 10.3 38.0 57.4 84.8 9.2 9.2 40.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 40.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 \$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$Angulo de pluma principal 65.0 [°]											
34.0 52.2 84.2 7.5 7.7 6.9 38.0 44.5 80.5 6.0 6.2 40.0 40.1 78.3 5.4 5.6 42.0 35.3 75.7 4.9 5.1 44.0 29.9 72.5 4.5 4.7 46.0 23.2 68.5 4.1 4.3											
36.0											
38.0											
40.0											
44.0 29.9 72.5 4.5 4.7 46.0 23.2 68.5 4.1 4.3 Ángulo de pluma principal 75.0 [°] 33.4 65.0 87.4 11.4 34.0 64.0 87.1 11.8 11.4 36.0 60.8 86.0 10.6 10.3 38.0 57.4 84.8 9.2 9.2 40.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Angulo de pluma principal 65.0 [°]											
46.0 23.2 68.5 4.1 4.3 Ángulo de pluma principal 75.0 [°] 33.4 65.0 87.4 11.4 34.0 64.0 87.1 11.8 11.4 36.0 60.8 86.0 10.6 10.3 38.0 57.4 84.8 9.2 9.2 40.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Angulo de pluma principal 65.0 [°]											
Ángulo de pluma principal 75.0 [°] 33.4 65.0 87.4 11.4 34.0 64.0 87.1 11.8 11.4 36.0 60.8 86.0 10.6 10.3 38.0 57.4 84.8 9.2 9.2 40.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Angulo de pluma principal 65.0 [°]											
33.4 65.0 87.4 11.4 11.4 34.0 64.0 87.1 11.8 11.4 36.0 60.8 86.0 10.6 10.3 38.0 57.4 84.8 9.2 9.2 40.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Angulo de pluma principal 65.0 [°] 47.6 55.0 80.6 8.0	40.0	23.2	06.5			ıma nrin	cinal 75	1 ° 1			
34.0 64.0 87.1 11.8 11.4 36.0 60.8 86.0 10.6 10.3 38.0 57.4 84.8 9.2 9.2 40.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Angulo de pluma principal 65.0 [°] 47.6 55.0 80.6 8.0 8.0	33.4	65.0	87 4	Ang.		arna pinn	o.pai 73.	~ []			
36.0 60.8 86.0 10.6 10.3 38.0 57.4 84.8 9.2 9.2 42.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Ángulo de pluma principal 65.0 [°]				11.8							
40.0 53.9 83.4 8.0 8.1 42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Angulo de pluma principal 65.0 [°]	36.0	60.8	86.0	10.6	10.3						
42.0 50.2 81.8 7.2 7.3 44.0 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Ángulo de pluma principal 65.0 [°]											
44.0 46.3 80.0 6.4 6.6 46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Angulo de pluma principal 65.0 [°] 47.6 55.0 80.6 8.0											
46.0 42.2 77.9 5.8 5.9 48.0 37.6 75.5 5.2 5.4 50.0 32.5 72.6 4.8 4.9 Angulo de pluma principal 65.0 [°]											
50.0 32.5 72.6 4.8 4.9 Ángulo de pluma principal 65.0 [°] 47.6 55.0 80.6 8.0	46.0	42.2	77.9	5.8	5.9						
Ángulo de pluma principal 65.0 [°] 47.6 55.0 80.6 8.0											
47.6 55.0 80.6 8.0	50.0	32.5	72.6			ıma nrin	cinal 65	1 ° 1			l
	47.6	55.0	80.6	Angt		лна рип		√ []			
				7.8							
50.0 50.7 78.8 7.3 7.5		50.7	78.8		7.5						
55.0 40.5 73.9 5.6 5.8											
60.0 27.3 66.3 4.5 4.7 63.0 16.2 58.6 3.9					4.7						
00.0 10.2 00.0 0.0	03.0	10.2	30.0	3.3							



N° de ident.: 9842523/95738/

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

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

l	nserción	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			
			Ánaı	ılo de plu	uma prin	cipal 88.0	1°10			
11.7	78.0	83.5	15.1	20.3			- 1			
12.0 13.0 14.0	77.3 75.4 73.5	83.4 83.1 82.8	15.1 15.1 15.1	20.3 19.0 16.7						
16.0	69.6	82.1	14.2	13.3						
18.0 20.0 22.0 24.0	65.6 61.4 57.0 52.4	81.3 80.2 79.0 77.5	11.7 9.1 7.4 6.0	10.7 8.8 7.2 6.0						
26.0	47.5	75.8	5.0	5.0						
28.0 30.0 32.0	42.2 36.2 29.1	73.8 71.3 68.1	4.2 3.6 2.9	4.3 3.6 3.0						
			Ánaı	ılo de plu	ıma prin	cipal 83.0	1°10			
18.7	73.0	82.3	15.1	14.6						
20.0	70.4	81.9	15.0	13.9						
22.0 24.0	66.4 62.2	81.0 80.0	12.1 9.4	11.1 9.0						
26.0	57.9	78.8	7.6	7.5						
28.0 30.0	53.4 48.6	77.4 75.8	6.3 5.3	6.2 5.3						
32.0	43.3	73.8	4.5	4.5						
34.0	37.5	71.4	3.8	3.9						
36.0 38.0	30.6 21.9	68.4 64.3	3.3 2.8	3.3 2.8						
30.0	21.9	04.3			uma prin	cinal 75 (\		l	
29.6	65.0	79.2	Aligo	9.4		lipai 75.	<u> </u>			
30.0	64.2	79.0	9.8	9.4						
32.0	59.9	77.9	8.4	8.2						
34.0 36.0	55.5 50.8	76.6 75.1	7.0 5.8	6.9 5.8						
38.0	45.8	73.3	5.0	5.0						
40.0	40.2	71.1	4.2	4.3						
42.0 44.0	33.9 26.3	68.4 64.9	3.6 3.2	3.7 3.2						
- 1					uma prin	cipal 65.0	[°]			
42.5 44.0	55.0 51.4	73.2 72.1	6.0	6.3 6.0						
46.0	46.4	70.3	5.1	5.1						
48.0 50.0	41.0 34.8	68.2 65.6	4.4 3.8	4.4 3.8						
54.0	17.0	57.3	2.9	2.9						



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]: 94.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0	0 m Plum Cabeza 40.0	de plumi		1) 74.5 r	n Plumír			
1			,		ıma prin	`				
13.6	78.0	92.3	15.1	26.9						
14.0	77.4	92.2	15.1	26.9						
16.0	74.4	91.7	15.1	23.0						
18.0 20.0	71.4 68.3	91.0 90.3	15.1 15.1	19.0 16.3						
22.0	65.2	89.4	13.5	13.8						
24.0	62.0	88.3	12.4	12.1						
26.0	58.7	87.2	10.9	10.6						
28.0	55.2	85.8	9.3	9.3						
30.0 32.0	51.6 47.8	84.3 82.6	7.9 6.7	8.2 7.0						
34.0	43.7	80.6	5.5	5.7						
36.0	39.3	78.3	4.3	4.5						
38.0	34.4	75.6	3.3	3.5						
40.0	28.8	72.3	2.4	2.5						
			Ángı	ılo de plı	ıma prin	cipal 83.0	0 [°]			
21.4	73.0	90.9	15.1	19.1						
22.0	72.0	90.7	15.1	19.0						
24.0 26.0	69.0 65.9	90.0 89.1	15.1 14.3	16.5 14.3						
28.0	62.6	88.1	12.7	12.3						
30.0	59.3	87.0	11.3	10.9						
32.0	55.9	85.7	9.7	9.5						
34.0	52.3	84.2	8.3	8.4						
36.0 38.0	48.6 44.6	82.5 80.6	7.4 6.5	7.5 6.6						
40.0	40.2	78.3	5.7	5.8						
42.0	35.4	75.7	5.0	5.2						
44.0	30.0	72.6	4.2	4.3						
46.0	23.4	68.6	3.3	3.3	L	L			L	L
					ıma prin	cipal 75.0	D[°]			
33.5	65.0	87.4	12.3	12.7						
34.0 36.0	64.1 60.9	87.1 86.1	12.3 11.1	12.7 11.5						
38.0	57.5	84.8	9.7	10.2						
40.0	54.0	83.4	8.4	8.9						
42.0	50.3	81.8	7.4	8.0						
44.0	46.4	80.0	6.6	7.1						
46.0 48.0	42.3 37.7	77.9 75.5	5.9 5.3	6.3 5.7						
50.0	32.6	72.6	4.8	5.7						
					ıma prin	cipal 65.0] C C			
47.7	55.0	80.6		5.1						
48.0	54.5	80.5	6.0	5.0						
50.0	50.8	78.9	5.2	4.3						
55.0	40.6	73.9	3.4 2.2	2.8						
59.0	31.1	68.2	2.2	l	l				l	l



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 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]
		50.0	0 m Plum Cabeza 34.0	de plumi	oal, Punt ín (1916- osición m	·1) 77.5 r̀	n Plumín	dfall 1		
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
12.3	78.0	86.4	15.1	18.1						
13.0	76.8	86.2	15.1	18.1						
14.0	75.0	86.0	15.1	16.6						
16.0 18.0	71.5 67.9	85.3 84.6	13.9 11.7	13.2 10.8						
20.0	64.1	83.6	9.1	8.7						
22.0	60.3	82.5	7.3	7.2						
24.0	56.3	81.3	6.0	6.0						
26.0	52.1	79.8	5.0	5.0						
28.0	47.6	78.1	4.2	4.3						
30.0	42.8	76.0	3.6	3.6						
32.0 34.0	37.4 31.2	73.6 70.6	3.0 2.5	3.1 2.5						
34.0	31.2	70.0			uma prin	cinal 83 (1°10			
19.5	73.0	85.2	, ange	13.0	Ja p		, j		1	
20.0	72.2	85.0	13.5	13.0						
22.0	68.6	84.3	11.3	11.0						
24.0	64.9	83.4	9.0	9.0						
26.0	61.1	82.3	7.3	7.4						
28.0	57.1	81.1	6.1	6.2						
30.0	52.9	79.7	5.1	5.3						
32.0 34.0	48.5 43.8	78.0 76.0	4.4 3.7	4.5 3.8						
36.0	38.5	73.7	3.1	3.2						
38.0	32.6	70.9	2.7	2.8						
40.0	25.3	67.2	2.3	2.3						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
30.9	65.0	81.9	7.9	8.3						
32.0	62.9	81.4	7.9	8.2						
34.0	59.0	80.2	6.6	6.8						
36.0 38.0	54.9 50.6	78.9 77.3	5.6 4.7	5.8 4.9						
40.0	46.0	75.5	4.7	4.9						
42.0	41.0	73.4	3.4	3.6						
44.0	35.4	70.8	2.9	3.1						
46.0	28.9	67.5	2.6	2.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
44.2	55.0	75.7		5.4						
46.0	51.1	74.4	5.1	5.1						
48.0	46.6	72.6	4.3	4.4						
50.0 55.0	41.7 26.0	70.5 62.9	3.7 2.6	3.8						
55.0 57.0	16.1	57.8	2.0	2.7						
07.0	10.1	07.0	L.L	2.0		1		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]
	!	50.0	0 m Plum Cabeza 43.0	de plumí	pal, Punt n (2316- osición m	1) 77.5 r	n Plumín	dfall		
			,		ıma prin					
14.2 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 75.5 72.8 69.9 67.1 64.1 61.1 58.0 54.7	95.2 94.8 94.2 93.5 92.7 91.7 90.7 89.4 88.1	15.1 15.1 15.1 14.3 12.8 11.7 9.9 8.3	26.7 24.7 20.6 17.4 15.1 13.2 11.7 10.0 8.6						
32.0 34.0 36.0 38.0 40.0	51.4 47.8 44.0 40.0 35.5	86.5 84.8 82.8 80.6 78.0	7.0 5.8 4.6 3.5 2.6	7.4 6.2 4.9 3.7 2.7						
40.0	33.3	76.0			ıma prin	cipal 83.0	[°]C			
22.2	73.0	93.8		19.0						
24.0 26.0 28.0 30.0 32.0	70.5 67.6 64.7 61.7 58.6	93.2 92.4 91.5 90.5 89.3	15.1 15.1 13.6 12.3 10.8	18.0 15.6 13.5 12.0 10.6						
34.0 36.0 38.0 40.0 42.0	55.4 52.1 48.5 44.8 40.8	87.9 86.4 84.7 82.8 80.6	9.4 8.2 7.3 6.4 5.7	9.4 8.4 7.5 6.7 5.9						
44.0 46.0 48.0	36.5 31.6 25.9	78.1 75.1 71.4	5.0 4.2 3.2	5.3 4.4 3.3						
			Angı		ıma prin	cipal 75.0	0[°]			ı
34.7 36.0 38.0 40.0 42.0	65.0 63.1 60.0 56.9 53.6	90.1 89.5 88.4 87.1 85.7	13.2 11.5 10.1 8.8	12.8 12.7 11.2 10.1 8.9						
44.0 46.0 48.0 50.0 55.0	50.2 46.6 42.7 38.5 25.6	84.1 82.3 80.2 77.8 69.8	7.8 7.0 6.3 5.7 4.4	8.1 7.3 6.5 5.9 4.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
49.4 50.0 55.0 58.0	55.0 54.0 45.1 39.5	83.0 82.7 78.4 75.0	4.8 3.1 2.2	4.2 4.0 2.5						



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]: 94.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.	0 m Plum Cabeza 34.0	de plumí	oal, Punt n (2316- osición m	1) 80.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
12.3 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0	78.0 76.8 75.1 71.6 68.0 64.2 60.4 56.4 52.2 47.7	86.4 86.3 86.0 85.4 84.6 83.7 82.6 81.3 79.8 78.1	15.1 15.1 15.1 15.1 13.7 12.6 8.6 5.2 3.1	30.1 30.1 30.1 24.9 20.9 16.3 13.0 8.8 5.3 3.3						
			Ángu	ılo de plu	ıma prin	cipal 83.0	1°10			
19.6 20.0 22.0 24.0 26.0 28.0 30.0	73.0 72.3 68.7 65.0 61.2 57.2 53.1	85.2 85.1 84.3 83.4 82.4 81.2 79.7	15.1 15.1 14.8 14.2 12.2 9.9	23.9 23.9 21.4 17.8 15.0 12.5						
32.0 34.0 36.0	48.6 43.9 38.6	78.0 76.1 73.8	8.0 5.4 3.1	8.4 5.6 3.1						
			Ángı		ıma prin	cipal 75.0	[°]			
30.9 32.0 34.0 36.0 38.0	65.0 63.0 59.1 55.0 50.7	81.9 81.4 80.3 78.9 77.4	15.1 14.1 12.2 10.3	13.8 12.8 11.1 9.7 8.5						
40.0 42.0 44.0 46.0	46.1 41.1 35.5 29.0	75.5 73.4 70.8 67.6	8.8 7.4 6.3 4.8	7.3 6.3 5.3 4.5						
	55.5	75-	Ángı		ıma prin	cipal 65.	[°]			
44.2 46.0 48.0 50.0	55.0 51.3 46.7 42.2	75.7 74.4 72.6 70.5	4.2 3.2 2.4	3.9 3.2 2.4						



N° de ident.: 9842523/95738/ Pieza

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 94.0 Lastre central [t]: 52.6 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

I	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]
		50.0	0 m Plum Cabeza 37.0	de plumí	oal, Punt n (1916- osición m	1) 80.5 r	n Plumín	dfall		
					ıma prin	cipal 88.0	0 [°]			
12.9	78.0	89.3	15.1	18.7						
13.0 14.0	77.8 76.3	89.3 89.1	15.1 15.1	18.7 18.6						
16.0	73.0	88.5	15.1	15.2						
18.0	69.7	87.8	12.4	12.3						
20.0	66.4	87.0	10.3	10.3						
22.0	62.9	86.0	8.3	8.5						
24.0	59.4	84.8	7.0	7.3						
26.0 28.0	55.7 51.8	83.5 82.0	6.0 5.1	6.2 5.4						
30.0	47.6	80.3	4.5	4.7						
32.0	43.2	78.3	3.9	4.1						
34.0	38.4	75.9	3.3	3.5						
36.0	32.9	73.1	2.9	3.0						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
20.4	73.0	88.0		13.4						
22.0	70.4	87.5	13.3	12.7						
24.0	67.1	86.7	11.1	10.5						
26.0	63.6	85.8	9.0	8.8						
28.0 30.0	60.1 56.4	84.7 83.4	7.5 6.4	7.6 6.5						
32.0	52.6	81.9	5.5	5.6						
34.0	48.5	80.2	4.9	5.0						
36.0	44.1	78.3	4.2	4.3						
38.0	39.4	76.0	3.7	3.8						
40.0	34.1	73.3	3.2	3.3						
42.0	27.9	69.9	2.8	2.9	<u> </u>		2 5 0 3		I	
00.4	25.0	04.0	Angu		ıma prin	cipai 75.0	֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓			
32.1 34.0	65.0 61.7	84.6 83.7	8.2	8.7 8.2						
36.0	58.1	82.5	7.0	7.1						
38.0	54.4	81.1	6.1	6.1						
40.0	50.4	79.6	5.3	5.4						
42.0	46.2	77.7	4.6	4.7						
44.0 46.0	41.6 36.6	75.6 73.1	4.1 3.6	4.1 3.7						
46.0 48.0	30.6	73.1	3.6	3.7						
50.0	23.9	66.2	2.8	2.9						
					ıma prin	cipal 65.0	[°]			
45.9	55.0	78.1	l	5.9						
46.0	54.8	78.1	5.7	5.9						
48.0	50.9	76.6	5.4	5.5						
50.0	46.7	74.8	4.7	4.8						
55.0 60.0	34.6 15.4	68.9 58.2	3.5 2.6	3.6 2.7						
00.0	10.4	JU.2	2.0	L.1		1			1	



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 37.0	de plumí		1) 83.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	0 [°]			
13.0	78.0	89.4	15.1	27.3						
14.0	76.3	89.1	15.1	27.3						
16.0	73.1	88.5	15.1	23.0						
18.0	69.8	87.8	15.1	19.2						
20.0	66.5	87.0	14.1	15.9						
22.0	63.0	86.0	11.4	12.5						
24.0	59.5	84.9	9.2	9.8						
26.0	55.8	83.6	6.2	6.5						
28.0	51.9	82.1	3.7	3.8						
			Ángu		ıma prin	cipal 83.0	0 [°]			
20.5	73.0	88.1	15.1	19.9						
22.0	70.5	87.5	15.1	19.7						
24.0	67.2	86.7	15.1	16.4						
26.0	63.7	85.8	13.2	13.8						
28.0 30.0	60.2 56.5	84.7 83.4	11.4 9.4	11.9 9.9						
32.0	52.7	82.0	7.8	8.2						
34.0	48.6	80.3	6.3	6.7						
36.0	44.2	78.3	4.2	4.3						
					ıma prin	cinal 75 (1°10			
32.2	65.0	84.6	,gc	12.5		pa o				
34.0	61.8	83.7	13.3	11.0						
36.0	58.2	82.6	11.0	9.6						
38.0	54.5	81.2	9.3	8.4						
40.0	50.5	79.6	7.9	7.4						
42.0	46.3	77.8	6.8	6.3						
44.0	41.7	75.7	5.7	5.4						
46.0	36.7	73.2	4.8	4.6						
48.0	31.0	70.2	3.8	3.8						
			Ángu	ılo de plu	ıma prin	cipal 65.0	0 [°]			
46.0	55.0	78.1		3.1						
48.0	51.0	76.6	3.0	2.3						
50.0	47.2	74.9	2.2							



Nº de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 40.0	de plumí		1) 83.5 r	n Plumín			
			Ángu	ılo de plı	ıma prin	cipal 88.	0 [°]			
13.5	78.0	92.3		15.6						
14.0	77.3	92.2	15.1	15.6						
16.0 18.0	74.3 71.3	91.6	13.7 11.1	14.0						
20.0	68.3	91.0 90.2	9.0	11.6 9.6						
22.0	65.1	89.3	7.3	7.9						
24.0	61.9	88.3	6.1	6.6						
26.0	58.6	87.1	5.2	5.7						
28.0	55.1	85.8	4.5	4.8						
30.0	51.5	84.3	3.8	4.2						
32.0	47.7	82.5	3.3	3.6						
34.0 36.0	43.6 39.2	80.5 78.2	2.8 2.4	3.1 2.6						
30.0	JJ.2	70.2	,		ıma prin	cipal 83.	[°]0			
21.3	73.0	90.9		11.4			·			
22.0	71.9	90.7	10.7	11.3						
24.0	68.9	90.0	9.5	9.7						
26.0	65.8	89.1	8.1	8.1						
28.0	62.6	88.1	6.8	6.9						
30.0 32.0	59.3 55.8	87.0 85.6	5.8 5.0	5.9 5.1						
34.0	52.2	84.2	4.3	4.4						
36.0	48.5	82.5	3.7	3.8						
38.0	44.5	80.5	3.2	3.3						
40.0	40.1	78.3	2.7	2.8						
42.0	35.3	75.7	2.3	2.4						
			Ángı		ıma prin	cipal 75.	0[°]			
33.4	65.0	87.4	7.4	7.2						
34.0 36.0	64.0 60.8	87.1 86.0	7.1 6.4	7.2 6.5						
36.0	57.4	86.0 84.8	5.5	5.6						
40.0	53.9	83.4	4.7	4.8						
42.0	50.2	81.8	4.1	4.2						
44.0	46.3	80.0	3.5	3.6						
46.0	42.2	77.9	3.1	3.1						
48.0	37.6	75.5	2.6	2.7						
50.0	32.5	72.6	2.3 Ángu	lo de plu	ıma prin	cinal 65	1 ° 1			
47.6	55.0	80.6	Angu	4.6	ina pilli	lipai 03.	∨ []			
48.0	55.0 54.4	80.4	4.5	4.6						
50.0	50.7	78.8	4.2	4.3						
55.0	40.5	73.9	3.0	3.0						
60.0	27.3	66.3	2.2	2.2						
61.0	23.9	64.2	2.0	2.1						

Source:a9841388



Nº de ident.: 9842523/95738/

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

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

ce [m] plu ['	ďe mín ro °]		Carga [t] O m Plum Cabeza (40.0		Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	0.0		Cabeza							
	00			de plumi) [m] Po		1) 86.5 ñ	n Plumín			
	00		Ángu	ılo de plu	ıma prind	cipal 88.0	[°]C			
14.0 77	8.0	92.3	15.1	25.3						
■ 17.0 //	7.4	92.2	15.1	25.3						
16.0 74	4.4	91.7	15.1	22.2						
18.0 71	1.4	91.0	15.1	18.4						
20.0 68	8.3	90.3	15.1	15.7						
22.0 65	5.2	89.4	11.6	12.0						
		88.3	8.6	9.3						
		87.2	6.2	6.7						
28.0 55	5.2	85.8	4.0	4.3						
			Ángu	ılo de plu	ıma prind	cipal 83.0	[°]C			
21.4 73	3.0	90.9	15.1	18.0						
22.0 72	2.0	90.7	15.1	18.0						
24.0 69	9.0	90.0	15.1	16.1						
		89.1	14.3	13.7						
	i i	88.1	12.0	11.7						
		87.0	10.3	10.1						
		85.7	8.2	8.3						
		84.2	6.6	6.9						
		82.5	5.1 3.4	5.4						
38.0 44	4.6	80.6		3.6						
					ıma prind	cipal 75.0) [°]			
		87.4	12.5	11.4						
	I	87.1	12.5	11.0						
	i i	86.1	11.6	9.6						
	i i	84.8	9.8	8.4						
		83.4 81.8	8.4 7.3	7.4 6.4						
		80.0	6.4	5.5						
		77.9	5.5	5.5 4.6						
		77.9 75.5	5.5 4.8	3.9						
		72.6	4.0	3.2						
1	-				ıma prind	cinal 65 (1°10			
47.7 55	5.0	80.6	,gc	2.4	a piiil	J.pa. 00.	- L J			
		80.5	2.9	2.4						
		78.9	2.9	2.3						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
) m Plum Cabeza 43.0	de plumí		1) 86.5 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	78.0 75.5 72.7 69.9 67.0 64.0 61.0 57.9 54.6	95.2 94.8 94.2 93.4 92.6 91.7 90.6 89.4 88.0	14.6 11.5 9.0 7.3 6.0 5.1 4.3 3.6	14.3 13.3 10.8 8.8 7.3 6.1 5.1 4.3 3.7						
32.0	51.3	86.5	3.1	3.1						
34.0 36.0	47.7 44.0	84.8 82.8	2.6 2.2	2.7 2.2						
30.0	44.0	02.0			ıma prin	rinal 83 (1°1			
22.2	73.0	93.8	9.4	9.6		oipai oo.				
24.0 26.0	70.4 67.6 64.6	93.2 92.4 91.5	8.8 7.2 6.0	9.0 7.5						
28.0 30.0 32.0 34.0 36.0 38.0	61.6 58.5 55.3 52.0 48.5	90.4 89.2 87.9 86.4 84.7	5.1 4.4 3.7 3.2 2.7	6.3 5.4 4.6 3.9 3.3 2.9						
40.0	44.7	82.8	2.3	2.4		-! I 7 F /	2			
	05.0		Angu		ıma prin	cipai 75.0	ַן <u>'</u>			
34.7 36.0 38.0	65.0 63.0 60.0	90.1 89.4 88.3	5.7 4.9	5.9 5.9 5.0						
40.0 42.0 44.0 46.0 48.0	56.8 53.5 50.1 46.5 42.6	87.1 85.6 84.0 82.2 80.2	4.2 3.5 3.0 2.6 2.2	4.3 3.7 3.1 2.7 2.3						
			Ánaı	ılo de plı	ıma prin	cipal 65.0	1°10			
49.4 50.0 55.0 58.0	55.0 53.9 45.1 39.0	83.0 82.7 78.3 74.7	3.4 2.5	3.6 3.6 2.6 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]
		50.0	0 m Plum Cabeza 43.0	de plumí	oal, Punt n (2316- osición m	1) 89.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
14.2 16.0 18.0 20.0 22.0 24.0	78.0 75.5 72.8 69.9 67.1	95.2 94.8 94.2 93.5 92.7	15.1 15.1 15.1 13.8	26.1 25.2 21.2 17.6 14.4	·					
26.0	61.1	90.7	6.7	7.1 4.7						
28.0	58.0	89.4	4.5 Ángi		ıma prin	rinal 83 (1°1			
22.2	73.0	93.8	7 (1190	18.9	lina pini	l loc.	<u>د ا</u>			
24.0	70.5	93.2	15.1	18.6						
26.0 28.0 30.0 32.0 34.0	67.6 64.7 61.7 58.6 55.4	92.4 91.5 90.5 89.3 87.9	15.1 13.6 11.7 9.8 7.4	15.9 13.7 11.9 9.9 7.6						
36.0 38.0	52.1 48.5	86.4 84.7	5.5 4.0	5.7 4.3						
40.0	44.8	82.8	2.8	3.0						
			Ángı	ılo de plı	ıma prin	cipal 75.0	D[°]			
34.7	65.0	90.1		10.2						
36.0	63.1	89.5	12.1	9.4						
38.0 40.0 42.0 44.0 46.0	60.0 56.9 53.6 50.2 46.6	88.4 87.1 85.7 84.1 82.3	10.7 9.4 8.3 7.2 6.1	8.2 7.1 6.2 5.4 4.6						
48.0 50.0 55.0	42.7 38.5 26.3	80.2 77.8 69.8	5.1 4.2 2.3	3.8 3.1						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0	0 m Plum Cabeza 46.0	na princip de plumí D [m] Po	n (1916-	1) 89.5 r	n Plumín	dfall I		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
14.8 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 76.4 73.8 71.2 68.6 65.8 63.1 60.2 57.3	98.1 97.9 97.3 96.6 95.9 95.0 94.0 92.9 91.7	13.3 13.3 10.6 8.5 7.0 5.8 4.8 4.1 3.5	13.3 13.3 10.7 8.7 7.3 6.1 5.1 4.3 3.7						
32.0	54.2	90.3	2.9	3.1						
34.0	51.1	88.7	2.5	2.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
23.1 24.0 26.0 28.0	73.0 71.8 69.1 66.4	96.7 96.4 95.6 94.8	8.6 8.5 7.3 6.2	8.6 8.6 7.4 6.3						
30.0 32.0 34.0 36.0 38.0	63.6 60.8 57.9 54.9 51.7	93.8 92.7 91.5 90.2 88.6	5.2 4.5 3.8 3.2 2.7	5.3 4.6 3.9 3.3 2.8						
40.0	48.4	86.9	2.3	2.4						
L			Angı	ılo de plu	ıma prin	cipal 75.0	[°]			
35.9 36.0 38.0 40.0 42.0	65.0 64.9 62.1 59.2 56.3	92.8 92.8 91.8 90.6 89.3	5.1 4.9 4.1 3.5	5.3 5.3 5.0 4.2 3.6						
44.0 46.0 48.0	53.2 50.0 46.6	87.9 86.3 84.5	3.0 2.6 2.2	3.1 2.7 2.3						
<u> </u>			Angı	ılo de plu	ıma prin	cipal 65.0	D[°]	1	1	
51.1 55.0 57.0	55.0 48.7 45.3	85.5 82.5 80.6	2.4 2.1	3.1 2.5 2.2						



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 46.0	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 22.0	78.0 76.5 73.9 71.3 68.6	98.2 97.9 97.3 96.7 95.9	15.1 15.1 14.7 13.9	22.7 22.7 19.5 16.6 14.3						
24.0 26.0 28.0 30.0	65.9 63.1 60.3 57.4	95.9 95.1 94.1 93.0 91.7	10.9 7.7 5.3 3.6	14.3 11.0 7.9 5.6 3.7						
			Ángu	ılo de plu	uma prin	cipal 83.0	[°]			
23.1	73.0	96.7		16.3						
24.0 26.0 28.0 30.0 32.0	71.8 69.2 66.5 63.7 60.9	96.4 95.7 94.8 93.9 92.8	15.1 14.7 12.6 10.7 9.2	16.2 14.9 13.0 11.1 9.8						
34.0 36.0 38.0 40.0 42.0	58.0 54.9 51.8 48.5 45.1	91.6 90.2 88.7 87.0 85.1	7.6 6.0 4.7 3.6 2.6	8.1 6.4 5.0 3.9 2.8						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
36.0 38.0 40.0 42.0 44.0 46.0 48.0 50.0 55.0	65.0 62.2 59.3 56.3 53.3 50.0 46.7 43.1 33.2	92.8 91.8 90.7 89.4 87.9 86.3 84.5 82.5 75.9	10.5 9.2 8.1 7.1 6.1 5.1 4.2 2.3	9.3 8.1 7.1 6.2 5.4 4.6 3.9 3.2			-			



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 49.0		n (1916-	1) 92.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0[°]			
15.4 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 77.3 74.9 72.4 69.9 67.4 64.8 62.2 59.5	101.1 100.9 100.4 99.8 99.1 98.3 97.4 96.4 95.2	10.8 10.8 9.7 8.2 6.7 5.7 4.7	11.6 11.6 10.3 8.6 7.0 5.9 5.0 4.2 3.6						
32.0	56.7	95.2 94.0	3.4 2.8	3.0						
34.0	53.9	92.6	2.4	2.5						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]0			
23.9 24.0 26.0 28.0	73.0 72.9 70.4 67.9	99.5 99.5 98.8 98.0	7.6 7.1 5.9	7.7 7.7 7.2 6.1						
30.0 32.0 34.0 36.0 38.0	65.4 62.8 60.1 57.3 54.5	97.2 96.2 95.0 93.8 92.4 90.9	5.0 4.3 3.7 3.1 2.6	5.2 4.4 3.8 3.2 2.7 2.3						
40.0	51.5	90.9				-in-al 75 (0.001			
07.0	05.0	05.5	Angı	ılo de plu	uma prini	cipai 75.0	ַ <u>ן</u>			
37.2 38.0 40.0 42.0 44.0 46.0	65.0 64.0 61.3 58.6 55.8 52.9	95.5 95.2 94.1 92.9 91.6 90.1	4.4 4.0 3.4 2.9 2.4	4.6 4.5 4.1 3.5 3.0 2.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0[°]			
52.8 55.0 56.0	55.0 51.8 50.2	88.0 86.4 85.6	2.3 2.1	2.5 2.4 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 49.0	de plumí		1) 95.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
15.5 16.0 18.0 20.0 22.0 24.0	78.0 77.3 74.9 72.5 70.0 67.5	101.1 101.0 100.5 99.8 99.1 98.3	15.1 15.1 15.1 14.9 13.1 11.2	21.3 21.3 19.4 16.5 13.8 11.5						
26.0 28.0 30.0 32.0	64.9 62.3 59.6 56.8	97.4 96.4 95.3 94.0	8.1 5.6 3.9 2.7	8.4 6.0 4.3 2.9						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
24.0 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0	73.0 70.5 68.0 65.4 62.8 60.1 57.4 54.5 51.6	99.5 98.9 98.1 97.2 96.2 95.1 93.8 92.5 90.9	15.1 15.0 13.3 11.4 9.6 8.4 6.6 5.0 3.7	15.2 14.7 12.8 11.1 9.6 8.5 6.7 5.1 3.8						
42.0	48.5	89.2	2.8	2.9						
37.3 38.0 40.0 42.0 44.0	65.0 64.0 61.4 58.7 55.9	95.5 95.2 94.1 93.0 91.6 90.2	9.9 9.9 8.7 7.6 6.6 5.7	8.3 7.8 6.8 5.9 5.1 4.4	ıma prin	cipal 75.	0[°]			
48.0 50.0 55.0	49.9 46.8 38.3	88.6 86.7 81.2	4.9 4.0 2.1	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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0) m Plum Cabeza 52.0	na princip de plumí) [m] Po	oal, Punt n (1916- osición m	o de carç 1) 95.5 r nidfall (19	ga 3 - Mi n Plumín 916)	dfall I		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
16.0 18.0 20.0 22.0 24.0 26.0 30.0 32.0 24.8 26.0 28.0 30.0 32.0	78.0 75.8 73.5 71.1 68.8 66.4 64.0 61.5 58.9 73.0 71.6 69.3 66.9 64.5	104.0 103.5 103.0 102.3 101.5 100.7 99.8 98.7 97.5	7.9 7.0 5.9 5.1 4.3 3.5 2.9 2.4 Ángu	9.3 9.0 7.8 6.4 5.3 4.4 3.6 3.1 2.5 slo de plu 6.4 6.4 4.6 3.8	uma prind	cipal 83.0)[°]			
34.0 36.0	62.0 59.4	99.5 98.5 97.3	3.7 3.1 2.6	3.8 3.2 2.7						
30.0	1 33.4	31.3			ıma prin	cipal 75.0	[°]	1	<u> </u>	1
38.5 40.0 42.0 44.0 46.0	65.0 63.1 60.6 58.0 55.4	98.2 97.5 96.4 95.2 93.8	3.3 2.8 2.4	3.5 3.5 3.0 2.5 2.0	·					



N° de ident.: 9842523/95738/

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

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

	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]
		50.0	0 m Plum Cabeza 52.0	de plumí		1) 98.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
16.1 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 75.8 73.5 71.2 68.9 66.5 64.0 61.5 59.0	104.0 103.6 103.0 102.3 101.6 100.7 99.8 98.7 97.6	15.1 15.1 15.1 12.9 10.5 8.1 5.8 4.1 3.0 Ángu	19.3 18.6 15.9 13.3 11.1 8.6 6.2 4.3 3.1 Ilo de plu	uma prin	cipal 83.	D [°]			
26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0 42.0	71.7 69.3 66.9 64.5 62.0 59.5 56.9 54.2 51.4	102.0 101.3 100.5 99.6 98.5 97.4 96.1 94.7 93.2	14.2 12.7 10.9 9.3 7.9 6.8 5.2 3.9 2.8	13.7 12.3 10.8 9.3 8.1 7.0 5.4 4.0 2.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
38.5 40.0 42.0 44.0 46.0 48.0 50.0 54.0	65.0 63.2 60.7 58.1 55.4 52.7 49.8 44.0	98.2 97.5 96.5 95.2 93.9 92.4 90.8 87.0	8.3 7.3 6.3 5.4 4.6 3.9 2.3	7.3 6.6 5.7 4.9 4.2 3.5 3.0						



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]
		50.0	0 m Plum Cabeza c 55.0	le plumír	oal, Punt n (2316-1 osición m	1) 101.5	m Plumíi	dfall n		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
16.7 18.0 20.0 22.0 24.0 26.0 28.0	78.0 76.6 74.5 72.3 70.1 67.8 65.5	107.0 106.7 106.1 105.5 104.8 104.0 103.1	15.1 15.1 14.5 12.9 9.9 7.8 5.7	17.0 17.0 15.0 12.8 10.3 8.4 6.1						
30.0 32.0	63.2 60.8	102.1 101.0	4.0 2.7	4.3 2.9						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
25.7 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0 42.0	73.0 72.7 70.5 68.3 66.0 63.7 61.3 58.9 56.4 53.9	105.3 105.2 104.5 103.7 102.9 101.9 100.9 99.7 98.4 97.0	11.9 11.5 9.7 8.4 7.2 6.2 5.2 3.9 2.8	12.0 12.0 11.6 10.0 8.7 7.5 6.6 5.4 4.1 2.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
39.8 40.0 42.0 44.0 46.0 48.0 50.0 54.0	65.0 64.8 62.4 60.0 57.6 55.1 52.4 47.1	101.0 100.9 99.9 98.8 97.5 96.2 94.7 91.2	7.2 6.8 5.8 4.9 4.1 3.4 2.1	6.4 6.3 5.4 4.6 3.9 3.2 2.7						



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza c 46.0	de plumíi	า (2์316-1		m Plumíı			
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
14.8 16.0 18.0 20.0 22.0 24.0 23.1 24.0 26.0 28.0 30.0 32.0	78.0 76.5 73.9 71.3 68.6 65.9 73.0 71.8 69.2 66.5 63.7 60.9	98.2 97.9 97.3 96.7 95.9 95.1 96.7 96.4 95.7 94.8 93.9 92.8	15.1 15.1 12.7 8.6 5.1 Ángu 15.0 14.5 12.1 8.9 6.2	21.6 21.6 18.6 14.0 9.2 5.4 Ilo de plu 15.4 15.3 13.8 11.6 8.8 6.5	uma prin	cipal 83.	D [°]			
34.0	58.0	91.6	4.3	4.5						
			Ángı		ıma prin	cipal 75.	[°]			
36.0 38.0 40.0 42.0 44.0 46.0 47.0	65.0 62.2 59.3 56.3 53.3 50.3 48.6	92.8 91.8 90.7 89.4 87.9 86.3 85.4	6.7 5.5 4.4 3.4 2.5 2.0	6.0 4.9 4.0 3.1 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	า	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]
		50.0	0 m Plum Cabeza o 49.0	de plumíi	n (2316-	o de caro 1) 107.5 nidfall (23	m Plumí	dfall n		
			Ángı	ılo de plu	uma prin	cipal 88.0	[°]			
15.5 16.0 18.0 20.0 22.0 24.0 26.0 24.0 26.0 30.0 32.0 34.0	78.0 77.3 74.9 72.5 70.0 67.5 64.9 73.0 70.5 68.0 65.4 62.8 60.1	101.1 101.0 100.5 99.8 99.1 98.3 97.4 99.5 98.9 98.1 97.2 96.2 95.1	15.1 15.1 15.1 13.4 8.5 5.3 3.0	18.1 18.1 17.2 13.8 8.8 5.6 3.2		cipal 83.				
36.0	57.4	93.8	3.2	3.4	<u> </u>		2			
	05.0	05.5			urna prin	cipal 75.0	ון _[]	I	I	I
37.3 38.0	65.0 64.0	95.5 95.2	6.7 6.3	5.0 4.7						
40.0	61.4	94.1	5.0	3.7						
42.0	58.7	93.0	4.0	2.9						
44.0	55.9 53.2	91.6	3.0	2.1						
46.0	J 53.2	90.2	2.1	l .	1	I	1	l .	l .	I



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza o 52.0	de plumíi	า (2316-		m Plumí			
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
16.1 18.0 20.0 22.0 24.0 26.0 24.9 26.0 28.0 30.0 32.0 34.0 36.0	78.0 75.8 73.5 71.2 68.9 66.5 73.0 71.7 69.3 66.9 64.5 62.0 59.5	104.0 103.6 103.0 102.3 101.6 100.7 102.4 102.0 101.3 100.5 99.6 98.5 97.4	15.1 15.1 13.4 9.4 5.4 3.4	18.1 18.1 14.1 9.7 5.7 3.6		cipal 83.				
38.0	59.5 56.9	97.4 96.1	3.5 2.5	2.6						
			Ángı	ılo de plu	ıma prin	cipal 75.	0 [°]			
38.5 40.0 42.0	65.0 63.2 60.7	98.2 97.5 96.5	4.7 3.6	4.2 3.5 2.7						
42.0 44.0 45.0	58.2 56.9	96.5 95.2 94.6	2.7 2.2	2.1						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

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

94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 13.0	de plumí		1) 32.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
8.0 9.0 10.0 11.0 12.0	78.0 73.5 68.8 63.9 58.7	68.9 68.6 68.2 67.7 67.1	15.1 15.1 15.1 13.7	30.1 27.4 19.9 15.4 12.6						
13.0 14.0 16.0	53.2 47.2 32.6	66.4 65.5 63.0	11.6 9.9 7.2	10.6 9.1 7.0						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0[°]			
13.8 14.0 16.0 18.0 20.0	73.0 71.9 62.2 51.3 38.0	68.1 68.0 67.1 65.7 63.5	15.1 15.1 15.1 11.1 7.8	24.8 24.2 14.3 10.0 7.5						
20.0	30.0	00.0			ıma prin	cinal 75 (0 [°]		ı	
22.8 24.0 26.0 28.0	65.0 58.7 47.2 32.5	65.8 65.1 63.5 61.0	15.1 14.5 9.7 7.1	15.5 12.5 9.0 6.9			- []			
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
33.4 34.0 36.0	55.0 51.7 38.6	61.2 60.8 58.7	11.1 7.8	10.7 10.0 7.4						
			Ángı		ıma prin	cipal 45.0	0[°]		1	
51.6 53.0	35.0 19.5	46.8 44.3	6.0	6.1 5.5						



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]
			0 m Plum Cabeza 16.0	de plumí	n (1916-		n Plumín			
			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 14.6 16.0 18.0	78.0 76.7 72.9 69.1 65.2 61.1 56.8 47.4 36.2 73.0 67.8 59.7	71.8 71.7 71.4 71.0 70.6 70.0 69.4 67.7 65.4 70.9 70.4 69.4	15.1 15.1 15.1 14.8 14.3 12.2 9.2 7.3 Ángu	30.1 30.1 26.5 20.9 17.0 14.4 12.4 9.7 7.8 ulo de plu 25.0 19.3 13.6	uma prind	cipal 83.0	D [°]			
20.0 22.0 24.0	50.7 40.2 26.2	67.9 65.8 62.7	10.0 7.8 6.5	10.5 8.3 7.0						
				-	ıma prin	cipal 75.0	1°10			
24.0 26.0 28.0 30.0	65.0 56.8 47.4 36.1	68.5 67.4 65.7 63.4	13.5 10.0 7.8	16.0 12.3 9.6 7.8	·					
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
35.1 36.0 38.0 40.0	55.0 51.0 40.6 26.9	63.7 63.1 61.0 57.9	10.0 7.8 6.5	11.2 10.4 8.3 6.9		oinal 45	0.1.0.1			
54.0 55.0 56.0	35.0 27.7 17.2	48.6 47.2 44.8	5.9 5.5	5.3 5.0 4.7	ima prin	cipal 45.0	J []			



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

Valor de vuelco:

Lastre trasero [t]:

360°

2 - Vía ancha 94.0 Cabeza de pluma principal:

2821-1

	central [t	•		52.6						
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 16.0		n (2316-	1) 38.5 r	n Plumín			
			Ángı	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 14.7 16.0 18.0 20.0 22.0	78.0 76.9 73.1 69.3 65.4 61.3 57.0 47.7 36.4 73.0 68.0 59.9 50.9 40.5	71.8 71.7 71.4 71.1 70.6 70.1 69.4 67.8 65.5 71.0 70.5 69.4 67.9 65.9	15.1 15.1 15.1 15.1 15.1 15.1 15.1 14.3 11.4 Ángu	30.1 30.1 30.1 30.1 24.3 20.4 17.4 13.4 10.8 ulo de plu 30.1 27.7 19.2 14.5 11.5	ıma prine	cipal 83.	0[°]			
24.0	26.5	62.8	10.0	9.6						
24.1	65.0	68.5	Angu	ılo de plu 22.4	ıma prin	cipai /5.0	֓֞֝֞֞֞֝֞֞֓֓֓֓֞֓֓֓֓֓֞֓֓֓֓֓֞֝֓֓֓֓֞֓֓֓֓֓֓֞֝֓֓֓֡֝֞֝֓֡֓֓֡֝֝֝֡֓֡֝֝			
26.0 28.0 30.0	57.0 47.6 36.4	67.4 65.8 63.5	15.1 14.4 11.2	17.1 13.2 10.5						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
35.2 36.0 38.0 40.0	55.0 51.3 40.9 27.2	63.6 63.1 61.1 58.0	15.1 11.6 9.3	14.6 13.6 10.8 9.0						
			Ángu	ılo de plu	ıma prin	cipal 45.0	[°]			
54.1 55.0 56.0	35.0 28.0 17.6	48.5 47.2 44.9	3.3 2.9	3.0 2.6 2.2						



Nº de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha

Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.3 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 75.7 72.6 69.3 66.0 62.6 55.5 47.6 38.4 26.4	74.7 74.5 74.2 73.9 73.4 72.9 71.6 70.0 67.7 64.5	15.1 15.1 15.1 15.1 15.1 15.1 13.1 11.0 8.8 7.3 Ángu	30.1 29.4 25.3 21.1 17.9 15.6 12.3 10.0 8.3 7.1 Ilo de plu	uma prind	cipal 83.	D [°]			
16.5 16.0 18.0 20.0 22.0 24.0 26.0	73.0 71.5 64.9 57.9 50.3 41.6 30.9	73.8 73.7 72.8 71.6 70.1 68.1 65.3	15.1 15.1 13.9 11.9 9.4 7.7	24.4 23.6 16.9 13.2 10.7 8.9 7.5						
			Ángı	ılo de plı	ıma prin	cipal 75.0	1°10			
25.3 26.0 28.0 30.0 32.0 34.0	65.0 62.6 55.4 47.5 38.3 26.4	71.2 70.9 69.6 68.0 65.7 62.5	15.1 11.9 9.6 7.8 6.7	16.2 15.5 12.2 10.0 8.3 7.2						
			Ánaı	ılo de plı	ıma prin	cipal 65.0	1°10			
36.9 38.0 40.0 42.0	55.0 50.6 41.9 31.3	66.1 65.3 63.3 60.5	11.8 9.4 7.7	11.6 10.7 8.9 7.6	- p	,				
			Ángu	ılo de plu	ıma prin	cipal 45.0	[°]			
56.5 59.0	35.0 15.6	50.3 45.2	4.9	4.9 4.2						



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]
		53.0	0 m Plum Cabeza 19.0	de plumí	n (2316-	o de carç 1) 41.5 r nidfall (23	n Plumín	dfall I		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
9.3	78.0	74.7		30.1						
10.0	75.9	74.6	15.1	30.1						
11.0	72.7	74.3	15.1	29.9						
12.0	69.5 66.2	73.9	15.1	29.3						
13.0 14.0	62.8	73.4 72.9	15.1 15.1	24.9						
16.0	55.7	71.7	15.1	16.6						
18.0	47.8	70.0	14.3	13.4						
20.0	38.6	67.8	11.7	10.9						
22.0	26.7	64.6	9.6	9.1						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
15.6	73.0	73.8	15.1	30.1						
16.0	71.7	73.7	15.1	30.1						
18.0	65.1	72.8	15.1	23.5						
20.0	58.1	71.7	15.1	17.9						
22.0 24.0	50.5 41.8	70.2 68.2	15.0 12.4	14.3 11.6						
26.0	31.1	65.4	10.4	9.7						
20.0	0	00			ıma prin	cipal 75.0	1°10			
25.4	65.0	71.2	15.1	22.3			, j			
26.0	62.8	70.9	15.1	21.4						
28.0	55.6	69.7	15.1	16.4						
30.0	47.7	68.0	14.5	13.4						
32.0	38.5	65.8	11.9	11.0						
34.0	26.6	62.6	9.8	9.3						
			Ángı		ıma prin	cipal 65.0	[°]			
36.9	55.0	66.1		13.7						
38.0	50.8	65.3	15.0	12.9						
40.0 42.0	42.2 31.6	63.3 60.6	12.5 10.0	11.2 9.4						
42.0	31.0	00.0				-11-45	2			1
			Angı		ıma prin	cipal 45.0	ען "] ין ר			
56.5	35.0	50.3		2.1						
58.0	27.1	47.9	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]
			0 m Plum Cabeza 22.0	de plumi		1) 41.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
9.9 10.0 11.0 12.0 13.0 14.0 16.0	78.0 77.7 75.0 72.3 69.5 66.7 60.8	77.7 77.6 77.4 77.1 76.7 76.3 75.2	15.1 15.1 15.1 15.1 15.1 15.1 14.7	30.1 30.1 25.7 21.5 18.4 16.1 12.8						
18.0 20.0 22.0 24.0	54.5 47.6 39.9 30.4	73.9 72.2 70.1 67.1	11.3 9.2 7.6 6.5	10.4 8.7 7.4 6.4						
24.0	30.4	07.1			ıma prin	rinal 83 (1 ° 1			
16.4 18.0 20.0 22.0 24.0 26.0 28.0	73.0 68.6 62.8 56.6 50.0 42.6 33.8	76.7 76.1 75.1 73.9 72.4 70.4 67.8	15.1 15.1 12.3 9.8 8.1 6.8	21.2 17.5 13.7 11.1 9.3 7.8 6.7		ыраг оо	5 []			
30.0	22.0	64.0	5.9 Ápgu	5.8	ıma prin	oinal 75 (\			
26.6 28.0 30.0 32.0 34.0 36.0	65.0 60.8 54.5 47.6 39.8 30.4	73.9 73.2 71.9 70.2 68.0 65.1	14.2 11.3 9.2 7.6 6.5	14.2 12.6 10.3 8.7 7.4 6.4	лпа рпп	ыраг 75.	J []			
			Ángı	ılo de plı	ıma prin	cipal 65.0	[°]			
38.6 40.0 42.0 44.0 46.0	55.0 50.3 42.9 34.2 22.5	68.6 67.5 65.6 63.0 59.2	9.8 8.1 6.8 6.0	10.2 9.3 7.9 6.8 5.9	·	•				
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
58.9 60.0 62.0	35.0 29.5 16.9	52.0 50.5 45.7	4.5 4.0	4.2 3.9						



Nº de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0	de plumí		1) 44.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	0 [°]			
9.9	78.0	77.7		30.1						
10.0	77.9	77.7	15.1	30.1						
11.0	75.2	77.4	15.1	30.1						
12.0	72.4	77.1	15.1	28.3						
13.0	69.7	76.7	15.1	25.8						
14.0	66.8	76.3	15.1	22.4						
16.0	60.9	75.2	15.1	17.4						
18.0	54.7	73.9	14.2	14.0						
20.0	47.8	72.2	12.9	11.7						
22.0	40.1	70.1	10.3	9.8						
24.0	30.6	67.2	8.5	8.3						
			Ángu	ılo de plu	ıma prin	cipal 83.0	0 [°]			
16.5	73.0	76.7	15.1	29.4						
18.0	68.7	76.1	15.1	24.5						
20.0	62.9	75.2	15.1	18.7						
22.0	56.8	74.0	13.7	15.0						
24.0	50.2	72.4	12.1	12.4						
26.0	42.8	70.4	9.9	10.4						
28.0	34.0	67.8	8.2	8.8						
30.0	22.2	64.0	7.0	7.5						
			Angu		ıma prin	cipal 75.0	0 [°]			
26.6	65.0	73.9		19.4						
28.0	60.9	73.2	15.1	17.2						
30.0	54.6	71.9	13.5	14.0						
32.0	47.8	70.2	11.3	11.7						
34.0	40.0	68.1	9.3	9.8						
36.0	30.6	65.2	7.9	8.5			l		l	
			Angu	ılo de plu	ıma prin	cipal 65.0	0 [°]			
38.6	55.0	68.6		12.7						
40.0	50.4	67.6	13.1	11.8						
42.0	43.1	65.6	10.6	10.0						
44.0	34.4	63.0	8.7	8.5						
46.0	22.8	59.3	7.4	7.3						
47.0	16.4	56.4	6.8							

Source:a9841388



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]: 94.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	0 m Plum Cabeza 25.0	de plumi	ín (1916-		n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
10.5	78.0	80.6		26.6		·				
11.0 12.0 13.0 14.0	76.9 74.5 72.1 69.6	80.5 80.2 79.9 79.5	15.1 15.1 15.1 15.1	26.2 21.9 18.8 16.5						
16.0	64.6	78.6	12.5	13.1						
18.0 20.0 22.0	59.3 53.8 47.7	77.5 76.1 74.4	10.3 8.5 7.2	10.8 9.0 7.7						
24.0 26.0	41.0 33.1	72.3 69.6	6.2 5.4	6.6 5.8						
28.0	22.7	65.8	4.7	5.1						
			Ánaı	ılo de pli	ıma prin	cipal 83.0	1°1			
17.3	73.0	79.5	15.1	18.7			- <u> </u>			
18.0	71.3	79.3	15.1	17.9						
20.0	66.3	78.5	14.4	14.1						
22.0	61.1	77.5	12.6	11.5						
24.0 26.0	55.7 49.8	76.2 74.6	10.0 8.2	9.5 8.2						
28.0	43.3	72.6	7.0	7.0						
30.0	35.9	70.2	6.0	6.1						
32.0	26.6	66.8	5.3	5.4						
			Ángu	ılo de plu	uma prin	cipal 75.0	[°]			
27.8	65.0	76.7		12.7						
28.0	64.6	76.6	12.3	12.7						
30.0	59.3	75.5	10.3	10.7						
32.0 34.0	53.7 47.7	74.1 72.4	8.4 7.2	9.0 7.7						
36.0	40.9	70.3	6.2	6.6						
38.0	33.1	67.6	5.4	5.8						
40.0	22.7	63.8	4.8	5.1						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]C			
40.3	55.0	71.0		9.0						
42.0	50.0	69.8	8.3	8.1						
44.0	43.6	67.8	7.0	7.0						
46.0 48.0	36.2 27.0	65.4 62.1	6.1 5.4	6.1 5.4						
40.0	21.0	02.1			.ma ==:-	oinal 45 f) [° 1	ı	ı	1
04.4	25.0	50.7	Angl		uma prin	cipal 45.	۱ ا ۱	I		
61.4 65.0	35.0 15.8	53.7 46.0	3.4	3.7						
ບວ.ບ	10.0	40.0	ა.4							



N° de ident.: 9842523/95738/

Radio de descarga: 36

Pieza de articulación de pluma principal: 2821-1 360 ° 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]
		53.0		de plumí	oal, Punt ín (2316- osición m	1) 47.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.6 11.0 12.0 13.0 14.0	78.0 77.0 74.6 72.2 69.8	80.6 80.5 80.2 79.9 79.5	15.1 15.1 15.1 15.1 15.1	30.1 30.1 29.7 26.4 22.9						
16.0 18.0 20.0 22.0 24.0	64.7 59.5 53.9 47.9 41.1	78.7 77.5 76.2 74.5 72.4	15.1 14.4 12.5 10.8 8.9	17.8 14.5 12.0 10.2 8.6						
26.0 28.0	33.2 22.9	69.7 65.9	7.4 6.3	7.4 6.3						
			Ángı	ılo de plı	ıma prin	cipal 83.0	D[°]			
17.3 18.0 20.0	73.0 71.4 66.4	79.6 79.3 78.5	15.1 15.1	26.0 25.1 19.3	·					
22.0 24.0 26.0 28.0 30.0	61.3 55.8 49.9 43.5 36.0	77.5 76.2 74.6 72.7 70.2	15.1 12.3 10.3 8.7 7.3	15.5 12.7 10.8 9.1 7.8						
32.0	26.8	66.9	6.3	6.8						
			Angı		ıma prin	cipal 75.0	0[°]			
27.9 28.0 30.0 32.0	65.0 64.7 59.5 53.9	76.7 76.7 75.5 74.2	15.1 15.1 12.8	17.1 17.0 14.4 12.0						
34.0 36.0 38.0 40.0	47.8 41.1 33.2 22.9	72.5 70.4 67.7 63.9	10.8 8.9 7.5 6.5	10.2 8.7 7.6 6.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]0			
40.4 42.0 44.0 46.0 48.0	55.0 50.2 43.7 36.3 27.2	71.0 69.8 67.9 65.4 62.1	11.1 9.1 7.6 6.6	11.4 10.3 8.8 7.6 6.6						
50.0	15.3	56.7	5.6							



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]: 94.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	0 m Plum Cabeza 28.0	de plumí	oal, Punt n (1916- osición m	1) 47.5 r	n Plumín	dfall 1		
			Ánaı	ılo de plu	ıma prin	cipal 88.0	1°10			
11.1	78.0	83.5		30.1						
12.0	76.2	83.3	15.1	30.1						
13.0	74.1	83.0	15.1	29.5						
14.0	71.9	82.7	15.1	26.4						
16.0	67.5	81.9	15.1	21.5						
18.0	63.0 58.2	81.0 79.8	15.1 14.5	17.9 15.4						
20.0 22.0	53.2	79.6 78.4	13.8	13.4						
24.0	47.8	76.7	12.7	12.0						
26.0	41.8	74.6	11.1	10.7						
28.0	35.0	72.0	9.8	9.7						
30.0	26.7	68.6	8.9	8.9						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
18.2	73.0	82.4	15.1	26.4						
20.0	69.0	81.8	15.1	22.8						
22.0	64.5	80.9	15.1	18.9						
24.0 26.0	59.8 54.9	79.8 78.4	14.9 14.1	16.2 14.0						
28.0	49.6	76. 4 76.8	13.3	12.5						
30.0	43.9	74.9	11.6	11.1						
32.0	37.4	72.5	10.2	10.0						
34.0	29.7	69.4	9.2	9.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
29.1	65.0	79.4		18.2						
30.0	62.9	79.0	15.1	17.8						
32.0	58.2	77.8	15.1	15.4						
34.0 36.0	53.2 47.7	76.4 74.7	13.9 12.7	13.4 12.0						
38.0	41.8	74.7 72.6	12.7	10.7						
40.0	35.0	70.0	9.9	9.7						
42.0	26.7	66.6	9.0	9.0						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
42.0	55.0	73.5		13.4						
44.0	49.8	72.0	13.3	12.4						
46.0	44.1	70.1	11.7	11.2						
48.0	37.7	67.7	10.3	10.1						
50.0	30.0	64.7	9.3	9.3	<u> </u>		2.5.2	l	l	
L			Angı		ıma prin	cipai 45.0	ו []			
63.8	35.0	55.5		3.0						
65.0	30.4	53.9	3.3	2.7						
67.0	20.4	49.7	2.8	2.2						



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumí	n (1916-		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	78.0 75.7 72.6 69.3 66.0 62.6 55.5 47.6	74.7 74.5 74.2 73.9 73.4 72.9 71.6 70.0	15.1 15.1 15.1 15.1 15.1 15.1 14.9 13.9	30.1 30.1 29.1 26.1 22.4 19.4 15.2 12.4						
20.0 22.0	38.4 26.4	67.7 64.5	10.9 8.9	10.2 8.6						
22.0	20.4	04.5			ıma prin	cipal 83.0) [°]			
15.5	73.0	73.8	Angu	29.3	лпа рпп	cipai 65.	<u> </u>			
16.0 18.0 20.0 22.0 24.0 26.0	71.5 64.9 57.9 50.3 41.6 30.9	73.7 72.8 71.6 70.1 68.1 65.3	15.1 15.1 15.1 15.1 11.9 9.6	29.1 29.1 21.2 16.4 13.2 10.8 9.1						
20.0	00.0	00.0			ıma nrin	cipal 75.0	1 ° 1			
25.3 26.0 28.0 30.0 32.0 34.0	65.0 62.6 55.4 47.5 38.3 26.4	71.2 70.9 69.6 68.0 65.7 62.5	15.1 15.0 14.0 11.1 9.2	19.8 19.3 15.2 12.4 10.2 8.8		o.pui 70.	~!]			
					ıma prin	cipal 65.0				
36.9 38.0 40.0 42.0	55.0 50.6 41.9 31.3	66.1 65.3 63.3 60.5	15.0 12.1 9.9	13.8 12.9 11.1 9.4	The print		- 1			
			Ángu	ılo de plu	ıma prin	cipal 45.0	D [°]			
56.5 59.0	35.0 18.3	50.3 45.2	3.0	2.9						



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]: 94.0 52.6 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]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 28.0		ín (2316-	1) 50.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
11.2 12.0 13.0 14.0	78.0 76.3 74.2 72.0	83.5 83.4 83.1 82.7	15.1 15.1 15.1 15.1	30.1 30.1 30.1 29.0	·	•				
16.0 18.0 20.0 22.0 24.0 26.0	67.6 63.1 58.3 53.3 47.9 42.0	82.0 81.0 79.8 78.4 76.7 74.7	15.1 15.1 15.1 15.1 14.3 12.4	25.7 21.0 17.9 15.3 13.5 11.9						
28.0 30.0	35.2 26.9	72.1 68.7	10.8 9.6	10.5 9.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
18.2 20.0 22.0	73.0 69.1 64.6	82.4 81.8 80.9	15.1 15.1	30.1 27.4 22.3						
24.0 26.0 28.0 30.0 32.0	59.9 55.0 49.7 44.0 37.5	79.8 78.5 76.9 74.9 72.6	15.1 15.1 14.8 12.9 11.3	18.8 16.0 14.1 12.4 11.0						
34.0	29.9	69.5	10.1	9.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	D[°]			
29.2 30.0 32.0 34.0	65.0 63.1 58.3 53.3	79.4 79.0 77.8 76.4	15.1 15.1 15.1	21.5 21.1 17.8 15.3						
36.0 38.0 40.0 42.0	47.9 41.9 35.2 26.8	74.7 72.7 70.1 66.7	14.5 12.6 11.0 9.8	13.5 11.9 10.7 9.6						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
42.1 44.0 46.0 48.0 50.0 52.0	55.0 49.9 44.2 37.8 30.2 19.9	73.5 72.0 70.1 67.8 64.7 60.4	11.0 10.1 9.2 8.4 7.7	10.5 9.5 8.6 7.8 7.1 6.4	-		-			



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.	0 m Plum Cabeza 22.0	de plumí	oal, Punt ín (1916- osición m	1) 53.5 r	n Plumín	dfall		
			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 75.0 72.3 69.5 66.7 60.8 54.5 47.6 39.9	77.7 77.6 77.4 77.1 76.7 76.3 75.2 73.9 72.2 70.1	15.1 15.1 15.1 15.1 15.1 15.1 15.1 12.3 10.3 8.3	30.1 30.1 28.7 24.6 21.0 18.3 14.4 11.6 9.6 8.0						
24.0	30.4	67.1	6.8	6.7						
			Ánaı	ılo de plu	ıma prin	cipal 83.0	1°10			
16.4 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 68.6 62.8 56.6 50.0 42.6 33.8 22.0	76.7 76.1 75.1 73.9 72.4 70.4 67.8 64.0	15.1 15.1 13.2 11.0 8.9 7.3 6.2	23.5 19.9 15.4 12.4 10.2 8.5 7.2 6.1						
			Ángı	ılo de plu	ıma prin	cipal 75.0	1°10			
26.6 28.0 30.0 32.0 34.0 36.0	65.0 60.8 54.5 47.6 39.8 30.4	73.9 73.2 71.9 70.2 68.0 65.1	15.0 12.8 10.3 8.4 7.0	15.7 14.3 11.6 9.7 8.1 6.9	·		-			
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
38.6 40.0 42.0 44.0 46.0	55.0 50.3 42.9 34.2 22.5	68.6 67.5 65.6 63.0 59.2	11.2 9.1 7.5 6.5	11.2 10.3 8.7 7.4 6.4	·		. ·			
<u></u>			Ángu	ılo de plu	ıma prin	cipal 45.0	[<u>°</u>] C			
58.9 60.0 62.0	35.0 30.6 16.9	52.0 50.5 45.7	2.6 2.0	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]: 94.0 52.6 Lastre central [t]:

Alcance		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumín (2316-1) 53.5 m̃ Plumín 31.0 [m] Posición midfall (2316) Angulo de pluma principal 88.0 [°] 11.8 78.0 86.5 15.1 30.1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	ce	o de plumín	de rolda- nas								
11.8			53.0	Cabeza	de plumi	n (2316-	·1) 53.5 r	n Plumín	dfall 1		
11.8				Ángı	ılo de plu	ıma prin	cipal 88.	1°10			
12.0	11.8	78.0	86.5	ΓĞ		<u>'</u>	·				
14.0 73.8 85.9 15.1 30.1 16.0 69.9 85.2 15.1 24.3 18.0 65.9 84.3 15.1 20.1 20.0 61.7 83.3 15.1 16.9 22.0 57.4 82.1 14.0 14.5 14.5 12.7 26.0 47.9 79.0 11.7 11.2 28.0 42.6 76.9 10.1 9.9 30.0 36.6 74.5 8.7 8.8 32.0 29.6 71.3 7.8 7.9 34.0 20.4 67.0 6.9 7.0 27.1 20.0 71.2 85.0 15.1 26.2 22.0 67.2 84.2 15.1 21.4 22.4 63.1 83.2 15.1 17.8 26.0 58.9 82.1 14.5 15.3 28.0 54.4 80.7 13.4 13.2 30.0 49.6 79.1 12.3 11.7 32.0 44.4 77.2 10.6 10.3 34.0 38.7 74.9 9.2 9.2 36.0 32.1 72.0 82.2 8.3 38.0 23.9 68.2 7.3 7.4				15.1	30.1						
16.0					i						
18.0 65.9 84.3 15.1 20.1 20.1 20.0 61.7 83.3 15.1 16.9 22.0 57.4 82.1 14.0 14.5 24.0 52.8 80.7 12.9 12.7 26.0 47.9 79.0 11.7 11.2 28.0 42.6 76.9 10.1 9.9 30.0 36.6 74.5 8.7 8.8 32.0 29.6 71.3 7.8 7.9 34.0 20.4 67.0 6.9 7.0		1		-							
20.0 61.7 83.3 15.1 16.9 22.0 57.4 82.1 14.0 14.5 22.0 57.4 82.1 14.0 14.5 22.0 26.0 47.9 79.0 11.7 11.2 28.0 42.6 76.9 10.1 9.9 30.0 36.6 74.5 8.7 8.8 32.0 29.6 71.3 7.8 7.9 34.0 20.4 67.0 6.9 7.0											
22.0 57.4 82.1 14.0 14.5 12.9 12.7 26.0 47.9 79.0 11.7 11.2 28.0 42.6 76.9 10.1 9.9 30.0 36.6 74.5 8.7 8.8 32.0 29.6 71.3 7.8 7.9 34.0 20.4 67.0 6.9 7.0		1									
24.0				-							
28.0					i e						
30.0 36.6 74.5 8.7 8.8 7.9 34.0 20.4 67.0 6.9 7.0 Angulo de pluma principal 83.0 [°] 19.1 73.0 85.3 27.1 26.2 22.0 67.2 84.2 15.1 26.2 22.0 67.2 84.2 15.1 21.4 24.0 63.1 83.2 15.1 17.8 26.0 58.9 82.1 14.5 15.3 28.0 54.4 80.7 13.4 13.2 30.0 49.6 79.1 12.3 11.7 32.0 44.4 77.2 10.6 10.3 34.0 38.7 74.9 9.2 9.2 36.0 32.1 72.0 8.2 8.3 8.0 23.9 68.2 7.3 7.4 Angulo de pluma principal 75.0 [°] Angulo de pluma principal 75.0 [°] 30.4 65.0 82.1 32.1 16.9 33.4 34.0 57.4 80.1 14.8 14.6 36.0 52.8 78.7 13.1 12.7 38.0 47.9 77.0 11.8 11.2 40.0 42.6 74.9 10.2 10.0 42.0 36.6 72.4 8.9 8.9 44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2 Angulo de pluma principal 65.0 [°] 43.8 55.0 75.9 9.4 9.4 44.0 54.5 75.9 10.6 9.3 44.0 44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2 48.8 7.6 50.0 38.9 70.1 8.1 6.9	26.0	47.9	79.0	11.7	11.2						
32.0	28.0	42.6	76.9	10.1	9.9						
34.0 20.4 67.0 6.9 7.0											
Ángulo de pluma principal 83.0 [°] 19.1 73.0 85.3 27.1 20.0 71.2 85.0 15.1 26.2 22.0 67.2 84.2 15.1 21.4 24.0 63.1 83.2 15.1 17.8 26.0 58.9 82.1 14.5 15.3 28.0 54.4 80.7 13.4 13.2 30.0 49.6 79.1 12.3 11.7 32.0 44.4 77.2 10.6 10.3 34.0 38.7 74.9 9.2 9.2 36.0 32.1 72.0 8.2 8.3 38.0 23.9 68.2 7.3 7.4 Ángulo de pluma principal 75.0 [°] Ángulo de pluma principal 75.0 [°] 30.4 65.0 82.1 18.1 32.0 61.7 81.3 15.1 16.9 34.0 57.4 80.1 14.6 36.0 52.8 78.7 13.1 12.7 38.0 47.9 77.0				-							
19.1 73.0 85.3 27.1 20.0 71.2 85.0 15.1 26.2 22.0 67.2 84.2 15.1 21.4 24.0 63.1 83.2 15.1 17.8 26.0 58.9 82.1 14.5 15.3 28.0 54.4 80.7 13.4 13.2 30.0 49.6 79.1 12.3 11.7 32.0 44.4 77.2 10.6 10.3 34.0 38.7 74.9 9.2 9.2 36.0 32.1 72.0 8.2 8.3 38.0 23.9 68.2 7.3 7.4	34.0	20.4	67.0								
20.0 71.2 85.0 15.1 26.2 22.0 67.2 84.2 15.1 21.4 24.0 63.1 83.2 15.1 17.8 26.0 58.9 82.1 14.5 15.3 28.0 54.4 80.7 13.4 13.2 30.0 49.6 79.1 12.3 11.7 32.0 44.4 77.2 10.6 10.3 34.0 38.7 74.9 9.2 9.2 36.0 32.1 72.0 8.2 8.3 38.0 23.9 68.2 7.3 7.4	40.4	70.0	05.0	Angı		ıma prin	cipal 83.	0[°]	I	I	
22.0 67.2 84.2 15.1 21.4 24.0 63.1 83.2 15.1 17.8 26.0 58.9 82.1 14.5 15.3 28.0 54.4 80.7 13.4 13.2 30.0 49.6 79.1 12.3 11.7 32.0 44.4 77.2 10.6 10.3 34.0 38.7 74.9 9.2 9.2 36.0 32.1 72.0 8.2 8.3 38.0 23.9 68.2 7.3 7.4 ***Angulo de pluma principal 75.0 [°]** ***Angulo de pluma	1			15.1							
24.0 63.1 83.2 15.1 17.8 26.0 58.9 82.1 14.5 15.3 28.0 54.4 80.7 13.4 13.2 30.0 49.6 79.1 12.3 11.7 32.0 44.4 77.2 10.6 10.3 34.0 38.7 74.9 9.2 9.2 36.0 32.1 72.0 8.2 8.3 38.0 23.9 68.2 7.3 7.4											
26.0				-							
30.0	26.0	58.9		14.5	15.3						
32.0	28.0	54.4	80.7								
34.0 38.7 74.9 9.2 9.2 3.6 32.1 72.0 8.2 8.3 38.0 23.9 68.2 7.3 7.4 **Magulo de pluma principal 75.0 [°]** 30.4 65.0 82.1 18.1 32.0 61.7 81.3 15.1 16.9 34.0 57.4 80.1 14.8 14.6 36.0 52.8 78.7 13.1 12.7 38.0 47.9 77.0 11.8 11.2 40.0 42.6 74.9 10.2 10.0 42.0 36.6 72.4 8.9 8.9 44.0 29.6 69.3 8.0 8.1 44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2 **Angulo de pluma principal 65.0 [°]** **Angulo de pluma principal 65.0 [°]** 43.8 55.0 75.9 9.4 44.0 54.5 75.9 10.6 9.3 46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9				-							
36.0 32.1 72.0 8.2 8.3 7.4 Angulo de pluma principal 75.0 [°] 30.4 65.0 82.1 18.1 32.0 61.7 81.3 15.1 16.9 34.0 57.4 80.1 14.8 14.6 36.0 52.8 78.7 13.1 12.7 38.0 47.9 77.0 11.8 11.2 40.0 42.6 74.9 10.2 10.0 42.0 36.6 72.4 8.9 8.9 8.9 44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2 Angulo de pluma principal 65.0 [°] 43.8 55.0 75.9 9.4 44.0 54.5 75.9 10.6 9.3 46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9		1									
38.0 23.9 68.2 7.3 7.4 Ángulo de pluma principal 75.0 [°] 30.4 65.0 82.1 18.1 32.0 61.7 81.3 15.1 16.9 34.0 57.4 80.1 14.8 14.6 36.0 52.8 78.7 13.1 12.7 38.0 47.9 77.0 11.8 11.2 40.0 42.6 74.9 10.2 10.0 42.0 36.6 72.4 8.9 8.9 8.9 44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2 Ángulo de pluma principal 65.0 [°] 43.8 55.0 75.9 9.4 9.4 9.4 9.3 44.0 54.5 75.9 10.6 9.3 46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9											
Ángulo de pluma principal 75.0 [°] 30.4 65.0 82.1 18.1 32.0 61.7 81.3 15.1 16.9 34.0 57.4 80.1 14.8 14.6 36.0 52.8 78.7 13.1 12.7 38.0 47.9 77.0 11.8 11.2 40.0 42.6 74.9 10.2 10.0 42.0 36.6 72.4 8.9 8.9 44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2 Ángulo de pluma principal 65.0 [°] 43.8 55.0 75.9 9.4 44.0 54.5 75.9 10.6 9.3 46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9											
30.4 65.0 82.1 18.1 32.0 61.7 81.3 15.1 16.9 34.0 57.4 80.1 14.8 14.6 36.0 52.8 78.7 13.1 12.7 38.0 47.9 77.0 11.8 11.2 40.0 42.6 74.9 10.2 10.0 42.0 36.6 72.4 8.9 8.9 44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2 Angulo de pluma principal 65.0 [°] 43.8 55.0 75.9 9.4 9.4 44.0 54.5 75.9 10.6 9.3 46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9				Ángı	ılo de plu	ıma prin	cipal 75.	1°10		•	
32.0 61.7 81.3 15.1 16.9 34.0 57.4 80.1 14.8 14.6 36.0 52.8 78.7 13.1 12.7 38.0 47.9 77.0 11.8 11.2 40.0 42.6 74.9 10.2 10.0 42.0 36.6 72.4 8.9 8.9 44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2	30.4	65.0	82.1				<u> </u>				
36.0 52.8 78.7 13.1 12.7 38.0 47.9 77.0 11.8 11.2 40.0 42.6 74.9 10.2 10.0 42.0 36.6 72.4 8.9 8.9 44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2	32.0			15.1	16.9						
38.0					i						
40.0 42.6 74.9 10.2 10.0 42.0 36.6 72.4 8.9 8.9 4.4.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2 Angulo de pluma principal 65.0 [°] 43.8 55.0 75.9 9.4 9.4 9.3 9.4 9.3 9.4 9.3 9.7 8.4 9.4 9.8 74.3 9.7 8.4 9.7 8.4 9.7 8.4 9.7 8.4 9.7 8.4 9.7 8.4 9.7 8.4 9.7 8.4 9.8 74.3 9.7 8.4 9.8 74.3 9.7 8.4 9.8 9.8 9.8 9.8 9.9 9.7 8.4 9.8 9.8 9.8 9.9 9.7 8.4 9.8 9.8 9.8 9.9 9.7 8.4 9.8 9.8 9.8 9.9 9.9		I .									
42.0 36.6 72.4 8.9 8.9 8.9 44.0 29.6 69.3 8.0 8.1 7.1 7.2											
44.0 29.6 69.3 8.0 8.1 46.0 20.4 65.0 7.1 7.2 Angulo de pluma principal 65.0 [°] 43.8 55.0 75.9 44.0 54.5 75.9 10.6 9.3 46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9 8.1 6.9 9.3 9.7 9.7 9.8 9.8 9.8 9.8 9.8 9.8				-							
46.0 20.4 65.0 7.1 7.2 Ángulo de pluma principal 65.0 [°] 43.8 55.0 75.9 9.4 44.0 54.5 75.9 10.6 9.3 46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9											
43.8 55.0 75.9 9.4 44.0 54.5 75.9 10.6 9.3 46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9	46.0				7.2						
44.0 54.5 75.9 10.6 9.3 46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9				Ángı	ılo de plı	ıma prin	cipal 65.	[°]			
46.0 49.8 74.3 9.7 8.4 48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9	43.8	55.0	75.9		9.4						
48.0 44.6 72.4 8.8 7.6 50.0 38.9 70.1 8.1 6.9											
50.0 38.9 70.1 8.1 6.9											
		1			I						
■ 55.0 18.9 61.0 ■ 6.4 5.3	55.0	18.9	61.0	6.4	5.3						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0) m Plum Cabeza 22.0	de plumí	n (2316-	o de caro 1) 56.5 r nidfall (23	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
9.9	78.0	77.7		30.1						
10.0	77.9	77.7	15.1	30.1						
11.0	75.2	77.4	15.1	30.1						
12.0	72.4	77.1	15.1	29.2						
13.0	69.7	76.7	15.1	27.3						
14.0	66.8 60.9	76.3	15.1 15.1	24.3						
16.0 18.0	54.7	75.2 73.9	14.8	18.8 15.1						
20.0	47.8	72.2	13.9	12.6						
22.0	40.1	70.1	11.2	10.5						
24.0	30.6	67.2	9.1	8.9						
			Ánaı	ılo de plı	ıma prin	cipal 83.0	1°10			
16.5	73.0	76.7	15.1	30.1						
18.0	68.7	76.1	15.1	26.5						
20.0	62.9	75.2	15.1	20.2						
22.0	56.8	74.0	15.1	16.2						
24.0	50.2	72.4	14.9	13.4						
26.0	42.8	70.4	12.1	11.1						
28.0 30.0	34.0 22.2	67.8 64.0	9.8 8.1	9.4 7.9						
30.0	22.2	04.0				-in-al 75 () [° 1			
	05.0	700	Angl		лна рпп	cipal 75.0	۱ ا ۱		ı	
26.6	65.0	73.9	15.1	20.6						
28.0 30.0	60.9 54.6	73.2 71.9	15.1 14.8	18.7 15.1						
30.0	54.6 47.8	71.9	14.8	15.1						
34.0	40.0	68.1	11.3	10.6						
36.0	30.6	65.2	9.4	9.1						
			Ánaı	ılo de plı	ıma prin	cipal 65.0	1°10			
38.6	55.0	68.6		9.4		. ,,				
40.0	50.4	67.6	10.8	8.5						
42.0	43.1	65.6	9.5	7.4						
44.0	34.4	63.0	8.3	6.3						
46.0	22.8	59.3	7.3	5.4						
47.0	16.4	56.4	6.7							



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]: 94.0 52.6 Lastre central [t]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	0 m Plum Cabeza 25.0	de plumí		1) 56.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.5 11.0 12.0 13.0 14.0	78.0 76.9 74.5 72.1 69.6	80.6 80.5 80.2 79.9 79.5	15.1 15.1 15.1 15.1	29.0 29.0 24.8 21.4 18.7						
16.0 18.0 20.0 22.0 24.0	64.6 59.3 53.8 47.7 41.0	78.6 77.5 76.1 74.4 72.3	14.5 13.2 10.8 9.2 7.7	14.9 12.4 10.3 8.9 7.6						
26.0 28.0	33.1 22.7	69.6 65.8	6.6 5.8	6.7 5.8						
					ıma prin	cipal 83.0	1°10			
17.3 18.0 20.0	73.0 71.3 66.3	79.5 79.3 78.5	15.1 15.1 14.9	20.8 20.4 16.0						
22.0 24.0 26.0 28.0 30.0	61.1 55.7 49.8 43.3 35.9	77.5 76.2 74.6 72.6 70.2	14.0 11.5 9.7 8.2 7.0	13.1 10.9 9.3 8.0 7.0						
32.0	26.6	66.8	6.1	6.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
27.8 28.0 30.0 32.0	65.0 64.6 59.3 53.7	76.7 76.6 75.5 74.1	13.9 11.9 9.8	14.2 14.2 12.2 10.3						
34.0 36.0 38.0 40.0	47.7 40.9 33.1 22.7	72.4 70.3 67.6 63.8	8.3 7.2 6.3 5.6	8.9 7.7 6.8 5.9						
Ángulo de pluma principal 65.0 [°]										
40.3 42.0 44.0 46.0 48.0	55.0 50.0 43.6 36.2 27.0	71.0 69.8 67.8 65.4 62.1	9.6 8.1 7.0 6.2	9.4 8.1 7.1 6.3						
			Ángı	ılo de plı	ıma prin	cipal 45.0	[°]			
61.6	35.0	53.7	2.3							
62.0	33.2	53.1	2.2							



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]: Lastre central [t]: 94.0 52.6

	ontial	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]
		53.0	0 m Plum Cabeza 25.0	de plumi	oal, Punt ín (2316- osición m	·1) 59.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
10.6 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.0 74.6 72.2 69.8 64.7 59.5 53.9 47.9 41.1	80.6 80.5 80.2 79.9 79.5 78.7 77.5 76.2 74.5 72.4	15.1 15.1 15.1 15.1 15.1 15.1 14.5 12.2 10.5 8.8	30.1 30.1 30.1 28.0 24.5 19.2 15.7 12.9 10.9 9.2						
26.0 28.0	33.2 22.9	69.7 65.9	7.4 6.3	7.9 6.7						
					ıma prin	cipal 83.	1°10			
17.3	73.0	79.6		27.2						
18.0 20.0 22.0	71.4 66.4 61.3	79.3 78.5 77.5	15.1 15.1 15.1	27.1 20.9 16.7						
24.0 26.0 28.0 30.0 32.0	55.8 49.9 43.5 36.0	77.5 76.2 74.6 72.7 70.2 66.9	13.0 11.2 9.4 7.8 6.7	13.7 11.6 9.8 8.4						
					uma prin	cipal 75.	1°10		'	
27.9 28.0 30.0 32.0 34.0 36.0 38.0	65.0 64.7 59.5 53.9 47.8 41.1 33.2	76.7 76.7 75.5 74.2 72.5 70.4 67.7	15.1 14.7 12.7 10.6 8.9 7.5	18.0 18.0 15.6 13.0 11.1 9.4 8.1						
40.0	22.9	63.9	6.5	6.9						
			Angu		ıma prin	cipal 65.	[°]	1		
40.4 42.0 44.0	55.0 50.2 43.7	71.0 69.8 67.9	9.3 8.2	8.3 7.4 6.4						
46.0 48.0 50.0	36.3 27.2 15.3	65.4 62.1 56.7	7.1 6.2 5.3	5.5 4.7						



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]: 94.0 Lastre central [t]: 52.6

Alcan- Ángu- Altura ce o de plumín [°] nas [m]	Cabeza 28.0	Carga [t] na princip de plumí	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
53.0	Cabeza 28.0	de plumí	nal Punt					
	Á) [m] Po	n (1916- osición m	1) 59.5 n	n Plumín	dfall		
	Angu	ılo de plu	ıma prind	cipal 88.0	[°]			
11.1 78.0 83.5		26.7						
12.0 76.2 83.3	15.1	25.9						
13.0 74.1 83.0	15.1	22.4						
14.0 71.9 82.7	15.1	19.6						
16.0 67.5 81.9	14.8	15.7						
18.0 63.0 81.0	13.4	12.8						
20.0 58.2 79.8	11.5	10.8						
22.0 53.2 78.4 24.0 47.8 76.7	9.3 7.8	9.0 7.8						
26.0 41.8 74.6	6.7	6.6						
28.0 35.0 72.0	5.7	5.7						
30.0 26.7 68.6	5.0	5.0						
00.0 20.1			ıma prind	rinal 83 (1 ° 1			
10.0 70.0 00.4				sipai oo.	, []			
18.2 73.0 82.4 20.0 69.0 81.8	15.1 15.1	19.1 16.7						
22.0 64.5 80.9	14.0	13.6						
24.0 59.8 79.8	12.3	11.4						
26.0 54.9 78.4	10.0	9.6						
28.0 49.6 76.8	8.3	8.2						
30.0 43.9 74.9	7.1	7.1						
32.0 37.4 72.5	6.1	6.1						
34.0 29.7 69.4	5.3	5.4						
	Ángu	ılo de plu	ıma prind	cipal 75.0) [°]			
29.1 65.0 79.4		13.0						
30.0 62.9 79.0	14.1	12.9						
32.0 58.2 77.8	11.5	10.8						
34.0 53.2 76.4	9.4	9.1						
36.0 47.7 74.7	8.0	7.9						
38.0 41.8 72.6	6.8	6.8						
40.0 35.0 70.0 42.0 26.7 66.6	5.9 5.2	5.9 5.2						
42.0 20.1 00.0			ıma prind	sinal 65 (1 0 1			
40.0 55.0 70.5	Angu		μπα μππ	Jipai 05.0	, r]			
42.0 55.0 73.5	0.5	9.2						
44.0 49.8 72.0 46.0 44.1 70.1	8.5 7.3	8.3 7.3						
48.0 37.7 67.7	6.2	6.3						
50.0 30.0 64.7	5.5	5.6						
52.0 19.8 60.3	4.8	4.9						



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 28.0	de plumí		1) 62.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.2 12.0 13.0 14.0 16.0	78.0 76.3 74.2 72.0 67.6	83.5 83.4 83.1 82.7 82.0	15.1 15.1 15.1 15.1 15.1	30.1 30.1 27.1 23.7 18.6						
18.0 20.0 22.0 24.0 26.0	63.1 58.3 53.3 47.9 42.0	81.0 79.8 78.4 76.7 74.7	15.1 15.1 13.5 10.9 9.1 7.6	15.0 12.5 10.4 8.9 7.5						
28.0 30.0	35.2 26.9	72.1 68.7	6.4 5.5	6.4 5.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	D[°]			
18.2 20.0 22.0	73.0 69.1 64.6	82.4 81.8 80.9	15.1 15.1	23.2 20.0 16.0						
24.0 26.0 28.0 30.0 32.0	59.9 55.0 49.7 44.0 37.5	79.8 78.5 76.9 74.9 72.6	14.5 11.7 9.8 8.2 6.9	13.3 11.1 9.4 8.0 6.8						
34.0	29.9	69.5	5.9	5.9		-!175/	2.0.1			
29.2 30.0 32.0	65.0 63.1 58.3	79.4 79.0 77.8	15.1 13.5	15.2 15.1 12.5	uma prind	сіраі 75.I				
34.0 36.0 38.0 40.0 42.0	53.3 47.9 41.9 35.2 26.8	76.4 74.7 72.7 70.1 66.7	9.2 7.8 6.6 5.7	9.0 7.7 6.6 5.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
42.1 44.0 46.0 48.0 50.0 52.0	55.0 49.9 44.2 37.8 30.2 19.9	73.5 72.0 70.1 67.8 64.7 60.4	8.1 7.1 6.1 5.3 4.5	7.4 6.5 5.6 4.8 4.1 3.4						



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]
		53.0		de plumi	pal, Punt n (1916- osición m	1) 62.5 r	n Plumín			
					uma prin					
11.8	78.0	86.5	15.1	24.3		l l				
12.0	77.5	86.4	15.1	24.3						
13.0	75.6	86.2	15.1	22.7						
14.0	73.7	85.9	15.1	20.0						
16.0	69.8	85.2	15.1	15.9						
18.0	65.8	84.3	13.5	13.1						
20.0	61.6	83.3	11.7	11.1						
22.0 24.0	57.3 52.7	82.1 80.6	9.8 8.1	9.4 8.0						
26.0	47.8	78.9	6.9	6.9						
28.0	42.5	76.9	6.0	6.0						
30.0	36.5	74.4	5.2	5.2						
32.0	29.5	71.3	4.6	4.6	İ				İ	
34.0	20.3	66.9	4.0	4.1						
			Ángı	ılo de plı	ıma prin	cipal 83.0	[°]			
19.0	73.0	85.3		17.4						
20.0	71.1	85.0	15.1	17.0						
22.0	67.1	84.2	15.0	14.0						
24.0 26.0	63.0 58.7	83.2	12.4 10.4	11.6 9.9						
28.0	54.2	82.0 80.7	8.6	8.4						
30.0	49.5	79.1	7.3	7.3						
32.0	44.3	77.2	6.3	6.4						
34.0	38.6	74.8	5.5	5.5						
36.0	32.0	72.0	4.8	4.9						
38.0	23.7	68.1	4.3	4.3						
			Ángı		ıma prin	cipal 75.0	[°]			
30.4	65.0	82.1		11.8						
32.0	61.6	81.3	11.8	11.1						
34.0	57.3	80.1	9.8 8.2	9.5						
36.0 38.0	52.7 47.8	78.6 76.9	8.2 7.1	8.1 7.1						
40.0	42.5	74.9	6.1	6.1						
42.0	36.5	72.4	5.3	5.4						
44.0	29.5	69.3	4.7	4.8						
46.0	20.2	64.9	4.1	4.2						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
43.7	55.0	75.9		8.3						
44.0	54.4	75.8	8.2	8.3						
46.0	49.6	74.2	7.4	7.5						
48.0 50.0	44.5 38.8	72.3 70.0	6.5 5.6	6.5 5.7						
50.0 55.0	18.7	70.0 60.9	5.6 4.2	5.7 4.2						
55.0	10.1	00.8	7.2	7.2						



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 31.0		n (2316-	1) 65.5 r	n Plumír			
				ılo de plu						
11.8	78.0	86.5		30.1						
12.0	77.7	86.4	15.1	30.1						
13.0	75.7	86.2	15.1	30.1						
14.0	73.8	85.9	15.1	29.1						
16.0	69.9	85.2	15.1	23.5						
18.0	65.9	84.3	15.1	19.4						
20.0	61.7	83.3	15.1	16.3						
22.0	57.4	82.1	13.8	14.0						
24.0	52.8	80.7	12.3	12.1						
26.0 28.0	47.9 42.6	79.0 76.9	10.8	10.5 8.6						
30.0	36.6	76.9	8.6 6.8	7.0						
32.0	29.6	74.3	5.3	5.6						
34.0	20.4	67.0	3.9	4.0						
00	20.1	07.0		ılo de plu	ıma prin	cipal 83.0	1°10			
19.1	73.0	85.3	ı	25.7		·				
20.0	71.2	85.0	15.1	25.5						
22.0	67.2	84.2	15.1	20.7					İ	
24.0	63.1	83.2	15.1	17.2						
26.0	58.9	82.1	14.4	14.8						
28.0	54.4	80.7	12.9	12.7						
30.0	49.6	79.1	11.7	11.2						
32.0	44.4	77.2	10.0	9.8						
34.0	38.7	74.9	8.6	8.6						
36.0 38.0	32.1 23.9	72.0 68.2	7.4 6.4	7.6 6.6						
36.0	25.5	00.2	•	ılo de plu	ıma nrin	cinal 75 () [°]			<u> </u>
30.4	65.0	82.1	Ange	17.2	IIII PIIII	o.pai 70.	, j			
32.0	61.7	81.3	15.1	16.0						
34.0	57.4	80.1	15.0	14.1	1					
36.0	52.8	78.7	12.8	12.2						
38.0	47.9	77.0	11.2	10.8						
40.0	42.6	74.9	9.7	9.5						
42.0	36.6	72.4	8.4	8.4						
44.0	29.6	69.3	7.5	7.6						
46.0	20.4	65.0	6.6	6.7						
<u> </u>			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]	1	1	
43.8	55.0	75.9		6.4						
44.0	54.5	75.9	7.7	6.3						
46.0	49.8	74.3	6.8	5.5						
48.0	44.6	72.4	5.9	4.7						
50.0 55.0	38.9 18.9	70.1 61.0	5.1 3.2	4.0 2.5						
55.0	10.8	01.0	J.Z	۵.۵	l			l	I	



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal: 2821-1

360°

Cabeza de pluma principal:

2821-1

Valor de vuelco:	2 - Vía ancha
Lastre trasero [t]:	94.0
Lastre central [t]:	52.6

	Inserciór	1	1	2	3	4	5	6	6 7		
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]	
		53.0	0 m Plum Cabeza 34.0	de plumí	oal, Punt ín (1916- osición m	1) 65.5 r	n Plumín	dfall 1			
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]				
12.4	78.0	89.4	15.1	22.2							
13.0	76.9	89.3	15.1	22.2							
14.0	75.2	89.0	15.1	20.1							
16.0 18.0	71.7 68.0	88.4 87.6	15.1 14.8	16.1 13.5							
20.0	64.3	86.7	12.0	11.3							
22.0	60.5	85.6	10.1	9.7							
24.0	56.5	84.3	8.4	8.2							
26.0	52.3	82.9	7.1	7.1							
28.0	47.8	81.2	6.1	6.2							
30.0 32.0	43.0 37.7	79.1 76.7	5.3 4.6	5.4 4.7							
34.0	31.6	73.8	4.0	4.7							
36.0	24.1	70.0	3.6	3.7							
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]				
19.9	73.0	88.2		15.9							
20.0	72.8	88.2	15.1	15.9							
22.0	69.3	87.4	14.8	14.2							
24.0	65.6	86.6	12.9	11.9							
26.0 28.0	61.8 57.9	85.5 84.3	10.6 8.9	10.1 8.7							
30.0	53.7	82.9	7.5	7.5							
32.0	49.4	81.3	6.5	6.6							
34.0	44.7	79.4	5.7	5.7							
36.0	39.5	77.1	4.9	5.0							
38.0	33.7	74.4	4.3	4.4							
40.0	26.8	70.9	3.9	3.9							
24.0	05.0	04.0	Angu		ıma prin	cipal 75.0) [°]	ı	1		
31.6 32.0	65.0 64.3	84.8 84.7	11.3	10.8 10.8							
34.0	60.5	83.6	10.0	9.6							
36.0	56.5	82.3	8.4	8.4							
38.0	52.3	80.9	7.2	7.2							
40.0	47.8	79.1	6.3	6.4							
42.0 44.0	43.0 37.7	77.1 74.7	5.5 4.8	5.5 4.9							
46.0	31.6	71.8	4.6	4.9							
48.0	24.1	68.0	3.8	3.9							
	-				ıma prin	cipal 65.0	0 [°]	•	•		
45.5	55.0	78.4		7.5							
46.0	53.9	78.1	7.3	7.5							
48.0	49.5	76.5	6.6	6.7							
50.0	44.8	74.6	5.8	5.9							
55.0 58.0	30.7 17.8	68.0 61.4	4.3 3.6	4.4 3.6							
30.0	17.0	01.7	0.0	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

	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	na princip de plumí 0 [m] Po	n (2316-	1) 68.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]C			
12.4	78.0	89.4		30.1						
13.0	77.0	89.3	15.1	30.1						
14.0	75.3	89.0	15.1	28.1						
16.0 18.0	71.8 68.1	88.4 87.6	15.1 15.1	22.4 18.5						
20.0	64.4	86.7	14.8	15.5						
22.0	60.6	85.6	14.5	13.4						
24.0	56.6	84.4	12.1	11.5						
26.0	52.4	82.9	10.3	10.0						
28.0	48.0	81.2	8.8	8.8						
30.0	43.1	79.2	7.4	7.5						
32.0	37.8	76.8	6.2	6.5						
34.0 36.0	31.7 24.2	73.9 70.1	5.2 4.0	5.4 4.1						
30.0	24.2	70.1					2.50.1			
				ılo de plu	ıma prin	cipai 83.0	ו י] י			
20.0	73.0	88.2	15.1	22.2						
22.0	69.4	87.5	15.1	19.5						
24.0 26.0	65.7 61.9	86.6 85.6	15.0 14.7	16.3 14.0						
28.0	58.0	84.4	12.9	12.1						
30.0	53.8	83.0	10.8	10.5						
32.0	49.5	81.3	9.4	9.3						
34.0	44.8	79.4	8.2	8.1						
36.0	39.6	77.2	7.1	7.2						
38.0 40.0	33.9 26.9	74.5 71.0	6.2 5.5	6.4 5.6						
40.0	20.9	71.0								
			Angı	ılo de plu	ıma prin	cipal /5.0)[°]			
31.7	65.0	84.8	45.4	14.8						
32.0 34.0	64.4 60.6	84.7 83.6	15.1 14.3	14.8 13.3						
34.0 36.0	56.6	82.4	12.2	11.6						
38.0	52.4	80.9	10.3	10.0						
40.0	47.9	79.2	9.0	8.9						
42.0	43.1	77.2	7.8	7.9						
44.0	37.8	74.8	6.9	7.0						
46.0	31.7	71.8	6.1 5.4	6.3 5.6						
48.0	24.2	68.0			ıma nriz	oinal CT () [° 1			
45		70:	Angl	ılo de plu	uma prine	cipai ob.i	۱ ا ۱			
45.5 46.0	55.0 54.0	78.4 78.1	6.7	5.7 5.5						
48.0	49.6	76.1 76.5	6.7 5.8	4.8						
50.0	45.0	74.6	5.0	4.1						
55.0	30.8	68.1	3.3	2.6						
58.0	19.4	61.4	2.3							



2821-1 2821-1

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

Valor de vuelco: 2 - Vía ancha Lastre trasero [t]: 94.0

Lastre trasero [t]: 94.0
Lastre central [t]: 52.6

Lastic Central [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]
		53.0	0 m Plum Cabeza 37.0	de plumí	oal, Punt ín (1916- osición m	1) 68.5 r	n Plumír	dfall 1		
			Ángı	ılo de plı	ıma prin	cipal 88 (1°10			
13.0	78.0	92.3	15.1	21.6		5.pa. 55.	, ,			
14.0 16.0 18.0	76.4 73.2 69.9	92.1 91.5 90.8	15.1 15.1 14.8	21.6 17.3 14.4						
20.0	66.6 63.1	90.0 89.0	13.2	12.3 10.5						
24.0 26.0 28.0 30.0	59.6 55.9 52.0 47.9	87.9 86.6 85.1 83.4	9.3 8.0 6.9 6.0	9.1 7.9 6.9 6.1						
32.0 34.0 36.0	43.5 38.6 33.2	81.4 79.1 76.3	5.3 4.7 4.2	5.4 4.8 4.3						
38.0	26.8	72.8	3.8	3.9						
					ıma prin	cipal 83.0	0[°]			
20.8 22.0 24.0	73.0 71.0 67.7	91.0 90.6 89.8	15.1 15.1 13.8	15.6 15.3 12.9						
26.0 28.0 30.0	64.3 60.8 57.1	88.9 87.8 86.6	11.6 9.8 8.4	11.0 9.6 8.3						
32.0 34.0 36.0	53.3 49.3 45.0	85.2 83.5 81.6	7.2 6.4 5.6	7.3 6.5 5.7						
38.0 40.0 42.0	40.3 35.1 29.1	79.4 76.8 73.6	4.9 4.3 3.9	5.1 4.5 4.1						
44.0	21.6	69.3	3.5	3.6						
			Angı		ıma prin	cipal 75.0	0[°]			
32.9 34.0 36.0	65.0 63.1 59.5	87.5 87.0 85.9	10.9 9.3	10.6 10.6 9.2						
38.0 40.0 42.0	55.8 52.0 47.9	84.6 83.1 81.4	8.0 7.0 6.2	8.0 7.0 6.3						
44.0 46.0 48.0	43.4 38.6 33.2	79.4 77.0 74.2	5.4 4.8 4.3	5.6 4.9 4.4						
50.0	26.8	70.7	3.9	4.0			2.5.2			
47.0	EE 0	90.0	Angu		ıma prin	cipal 65.0	ט[֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֖֓֓֓	Ι	Ι	
47.2 48.0 50.0	55.0 53.4 49.4	80.9 80.3 78.7	7.2 6.5	7.4 7.3 6.6						
55.0 60.0 61.0	38.0 21.9 17.0	73.4 64.6 61.8	4.8 3.7 3.5	4.9 3.8 3.6						



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]: 94.0 52.6 Lastre central [t]:

	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]
		53.0		na princip de plumí 0 [m] Po	n (2316-	1) 71.5 r	n Plumín			
				ılo de plu	ıma prin	cipal 88.0	[°]			
13.1	78.0	92.3	15.1	26.8						
14.0	76.5	92.1	15.1	26.5						
16.0	73.3	91.6	15.1	21.2						
18.0 20.0	70.0 66.7	90.9 90.0	15.1 13.7	17.2 14.5						
22.0	63.2	89.1	11.7	12.3						
24.0	59.7	87.9	10.2	10.7						
26.0	56.0	86.6	8.7	9.2						
28.0	52.1	85.1	7.5	8.0						
30.0	48.0	83.4	6.5	7.0						
32.0	43.6	81.4	5.5	5.9						
34.0	38.8	79.1	4.7	5.0						
36.0	33.4	76.3	3.9	4.2						
38.0	27.0	72.8	2.9	3.1						
			Ángı	ılo de plu	uma prin	cipal 83.0	[°]			
20.8	73.0	91.0		18.8						
22.0	71.1	90.7	15.1	18.4						
24.0	67.8	89.9	15.1	15.4						
26.0	64.4	89.0	13.3	13.0						
28.0	60.8	87.9	11.8	11.3						
30.0	57.2	86.6	9.9	9.7						
32.0	53.4	85.2	8.4	8.4						
34.0	49.4	83.6	7.3 6.4	7.4						
36.0 38.0	45.1 40.4	81.7 79.5	5.5	6.5 5.7						
40.0	35.2	76.9	4.8	5.0						
42.0	29.2	73.6	4.2	4.3						
44.0	21.7	69.4	3.6	3.7						
			Ángı	ılo de plu	ıma prin	cipal 75.0	D[°]			
33.0	65.0	87.5		12.5						
34.0	63.2	87.1	13.1	12.4						
36.0	59.6	85.9	11.1	10.7						
38.0	55.9	84.6	9.5	9.3						
40.0	52.1	83.1	8.1	8.1						
42.0	48.0	81.4 79.4	7.1	7.2						
44.0 46.0	43.6 38.7	79.4 77.1	6.2 5.4	6.3 5.5						
48.0	33.3	74.3	4.8	4.9						
50.0	27.0	70.8	4.0	4.3						
- 3.0	•			ılo de plu	uma prin	cipal 65 (1°10	•		
47.2	55.0	80.8		4.8			. ,			
48.0	53.5	80.4	5.5	4.6						
50.0	49.5	78.7	4.7	3.9						
55.0	38.1	73.4	3.0	2.4						
58.0	30.2	68.9	2.1							



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	0 m Plun Cabeza 40.0	de plumí	oal, Punt n (1916- osición m	1) 71.5 r	n Plumín	dfall 1		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]0			
13.6 14.0 16.0 18.0 20.0	78.0 77.5 74.5 71.5 68.4	95.3 95.2 94.7 94.0 93.3	15.1 15.1 15.1 15.0	21.7 21.7 19.4 16.5 14.3						
22.0 24.0 26.0 28.0 30.0	65.3 62.1 58.7 55.3 51.7	92.4 91.4 90.2 88.9 87.3	12.7 11.0 9.6 8.3 7.3	12.3 10.7 9.5 8.4 7.5						
32.0 34.0 36.0 38.0 40.0	47.9 43.8 39.4 34.6 29.0	85.6 83.6 81.4 78.7 75.4	6.5 5.8 5.2 4.7 4.3	6.7 6.1 5.4 4.9 4.5						
42.0	22.1	71.2	4.0	4.1			2			
21.7 22.0	73.0 72.5	93.9 93.8	15.1 15.1	16.5 16.5	ıma prin	cipal 83.0) [°]			
24.0 26.0	69.4 66.3	93.1 92.2	14.7 13.4	14.9 12.9						
28.0 30.0 32.0 34.0 36.0	63.2 59.9 56.5 52.9 49.2	91.3 90.2 88.9 87.4 85.8	11.5 10.1 8.8 7.7 6.9	11.2 10.0 8.8 7.8 7.0						
38.0 40.0 42.0 44.0	45.2 40.9 36.3 30.9	83.9 81.7 79.2 76.1	6.2 5.5 5.0 4.6	6.3 5.7 5.2 4.7						
46.0	24.6	72.3	4.2	4.3			2.5.2			
34.2	65.0	90.3		11.4	ıma prin	cipai 75.0) [·]			
36.0 38.0 40.0 42.0	62.1 58.7 55.3 51.7	89.4 88.2 86.9 85.3	11.2 9.6 8.5 7.5	10.9 9.6 8.5 7.6						
44.0 46.0 48.0 50.0	47.9 43.8 39.4 34.6	83.6 81.6 79.4 76.7	6.7 6.0 5.4 4.9	6.9 6.2 5.6 5.1						
					ıma prin	cipal 65.0	[°]			
48.9 50.0 55.0 60.0	55.0 53.0 43.3 31.2	83.3 82.6 78.0 71.3	7.7 6.0 4.7	7.7 7.3 5.8 4.6	•					
64.0	16.3	62.3	4.0	3.7						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0		de plumí	oal, Punt ín (1916- osición m	1) 74.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	uma prin	cipal 88.0] (°)			
11.8	78.0	86.5	15.1	20.1	'					
12.0	77.5	86.4	15.1	20.1						
13.0	75.6	86.2	15.1	19.2						
14.0	73.7	85.9	15.1	16.8						
16.0 18.0	69.8 65.8	85.2 84.3	14.2 11.8	13.4 10.9						
20.0	61.6	83.3	9.2	8.8						
22.0	57.3	82.1	7.4	7.3						
24.0	52.7	80.6	6.1	6.0						
26.0	47.8	78.9	5.1	5.1						
28.0	42.5	76.9	4.3	4.3						
30.0 32.0	36.5 29.5	74.4 71.3	3.6 3.0	3.7 3.0						
32.0	25.5	71.0			ıma prin	cinal 83 () [°]			
19.0	73.0	85.3	Angu	14.5	лна рин І	lipai 65.	J []			
20.0	71.1	85.0	15.1	14.5						
22.0	67.1	84.2	12.6	11.5						
24.0	63.0	83.2	9.7	9.3						
26.0	58.7	82.0	7.9	7.7						
28.0 30.0	54.2 49.5	80.7 79.1	6.5 5.5	6.4 5.5						
32.0	44.3	77.2	4.7	4.7						
34.0	38.6	74.8	3.9	4.0						
36.0	32.0	72.0	3.4	3.4						
38.0	23.7	68.1	2.9	2.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]C			
30.4	65.0	82.1		9.4						
32.0	61.6	81.3	9.2	8.9						
34.0 36.0	57.3 52.7	80.1 78.6	7.5 6.2	7.4 6.2						
38.0	47.8	76.9	5.3	5.3						
40.0	42.5	74.9	4.5	4.5						
42.0	36.5	72.4	3.8	3.9						
44.0	29.5	69.3	3.3	3.4						
46.0	20.2	64.9	2.9	2.9	L					
			Angı		ıma prin	cipal 65.0	D[°]			
43.7 44.0	55.0 54.4	75.9 75.8	6.3	6.3 6.3						
46.0	49.6	74.2	5.7	5.7						
48.0	44.5	72.3	4.9	4.9						
50.0	38.8	70.0	4.1	4.2						
55.0	18.7	60.9	2.9	3.0						



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]: 94.0 Lastre central [t]: 52.6

	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]
		53.0	0 m Plum Cabeza 40.0	de plumi	oal, Punt ín (2316- osición m	1) 74.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
13.7	78.0	95.3	15.1	26.7						
14.0	77.5	95.2	15.1	26.7						
16.0	74.6	94.7	15.1	23.0						
18.0	71.6	94.1	15.1	19.1						
20.0 22.0	68.5 65.4	93.3 92.4	15.1 13.6	16.4 13.9						
24.0	62.2	92.4 91.4	12.4	12.1						
26.0	58.8	90.2	10.9	10.6						
28.0	55.4	88.9	9.2	9.3						
30.0	51.8	87.4	7.9	8.2						
32.0	48.0	85.7	6.6	7.1						
34.0	43.9	83.7	5.3	5.6						
36.0	39.5	81.4	4.1	4.4						
38.0	34.7	78.7	3.1	3.3						
			Ángu	ılo de plı	ıma prin	cipal 83.0	0[°]			
21.7	73.0	93.9		18.9						
22.0	72.6	93.8	15.1	18.9						
24.0	69.5	93.1	15.1	17.0						
26.0 28.0	66.4 63.2	92.3 91.3	14.7 12.9	14.6 12.6						
30.0	60.0	90.2	11.6	11.1						
32.0	56.6	88.9	9.9	9.7						
34.0	53.0	87.5	8.5	8.6						
36.0	49.3	85.8	7.5	7.7						
38.0	45.3	83.9	6.6	6.8						
40.0	41.0	81.8	5.8	6.0						
42.0	36.4	79.2	5.1	5.3						
44.0 46.0	31.1 24.7	76.2 72.4	4.3 3.4	4.4 3.4						
70.0	27.1	12.7			ıma prin	cinal 75 () [° 1	1	1	
34.2	65.0	90.3	Ailgi	12.7	лна рин 	ыраі <i>і</i> Э.і	٠ _[]			
36.0	62.2	90.3 89.4	11.8	12.7						
38.0	58.8	88.2	10.1	10.6						
40.0	55.4	86.9	8.8	9.4						
42.0	51.8	85.4	7.7	8.3						
44.0	48.0	83.7	6.9	7.5						
46.0	43.9	81.7	6.2	6.6						
48.0	39.5	79.4	5.5	5.9						
50.0	34.7	76.7	4.9	5.3		-11-05:	2.0.3			
			Angı	<u>-</u>	ıma prin	cipai 65.0	ו ["]			
49.0	55.0	83.3		4.1						
50.0	53.1	82.6	4.5	3.8						
55.0 57.0	43.4 39.4	78.1 75.7	2.8	2.3						
31.0	J3. 4	13.1	۷.۷							



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]
		53.0	0 m Plum Cabeza 34.0	de plumí	n (1916-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]0			
12.4 13.0	78.0 76.9	89.4 89.3	15.1 15.1	18.0 18.0						
14.0 16.0 18.0	75.2 71.7 68.0	89.0 88.4 87.6	15.1 14.1 11.9	16.7 13.3 10.9						
20.0 22.0	64.3 60.5	86.7 85.6	9.2 7.4	8.8 7.3						
24.0 26.0 28.0	56.5 52.3 47.8	84.3 82.9 81.2	6.1 5.0 4.3	6.0 5.0 4.3						
30.0 32.0 34.0	43.0 37.7 31.6	79.1 76.7 73.8	3.6 3.0	3.7 3.1 2.5						
34.0	31.0	13.0	2.5 Ángu		ıma prin	cipal 83.0	1°10			
19.9 20.0	73.0 72.8	88.2 88.2	14.2	12.9 12.9	- 1					
22.0 24.0	69.3 65.6	87.4 86.6	12.5 9.8	11.4 9.3						
26.0 28.0 30.0	61.8 57.9 53.7	85.5 84.3 82.9	7.8 6.5 5.4	7.7 6.4 5.4						
32.0 34.0	49.4 44.7	81.3 79.4	4.6 3.9	4.6 4.0						
36.0 38.0 40.0	39.5 33.7 26.8	77.1 74.4 70.9	3.3 2.8 2.4	3.4 2.9 2.4						
					ıma prin	cipal 75.0	D[°]			
31.6 32.0	65.0 64.3	84.8 84.7	7.6	8.2 8.2						
34.0 36.0 38.0	60.5 56.5 52.3	83.6 82.3 80.9	6.8 5.8 4.9	7.3 6.2 5.2						
40.0 42.0	47.8 43.0	79.1 77.1	4.2 3.6	4.5 3.8						
44.0 46.0 48.0	37.7 31.6 24.1	74.7 71.8 68.0	3.1 2.7 2.3	3.3 2.8 2.5						
					ıma prin	cipal 65.0	[°]			
45.5 46.0 48.0	55.0 53.9 49.5	78.4 78.1 76.5	5.3 4.8	5.4 5.4 4.8						
50.0 55.0	44.8 30.7	74.6 68.0	4.1 2.8	4.2 2.9						
58.0	17.8	61.4	2.3	2.3						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	0 m Plum Cabeza 43.0	de plumi	oal, Punt ín (2316- osición m	1) 77.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.	0 [°]			
14.3	78.0	98.2		26.5						
16.0	75.7	97.8	15.1	24.9						
18.0	72.9	97.2	15.1	20.8						
20.0	70.1	96.5	15.1	17.5						
22.0	67.2	95.7	14.4	15.2						
24.0	64.3	94.8	13.1	13.2						
26.0 28.0	61.2 58.1	93.7 92.5	12.1 10.2	11.8 10.0						
30.0	54.9	92.5	8.4	8.5						
32.0	51.5	89.6	6.9	7.2						
34.0	48.0	87.9	5.7	6.0						
36.0	44.2	85.9	4.5	4.7						
38.0	40.2	83.7	3.4	3.6						
40.0	35.8	81.1	2.5	2.6						
			Ángı	ılo de plı	ıma prin	cipal 83.	0 [°]			
22.6	73.0	96.8		18.9						
24.0	71.0	96.3	15.1	18.5						
26.0	68.2	95.5	15.1	15.9						
28.0	65.3	94.7	13.9	13.9						
30.0	62.3	93.6	12.5	12.2						
32.0	59.2	92.5	11.1	10.9						
34.0	56.0 52.7	91.2 89.7	9.6 8.4	9.6						
36.0 38.0	49.2	88.1	7.4	8.5 7.7						
40.0	45.5	86.2	6.5	6.8						
42.0	41.6	84.0	5.7	6.0						
44.0	37.3	81.6	5.0	5.4						
46.0	32.5	78.7	4.3	4.6	İ		İ			
48.0	27.0	75.1	3.3	3.5						
			Ángu	ılo de plu	ıma prin	cipal 75.	0[°]			
35.5	65.0	93.0		12.7						
36.0	64.3	92.8	13.2	12.3						
38.0	61.2	91.7	12.2	11.1						
40.0	58.1	90.5	10.6	10.0						
42.0	54.9	89.2	9.3	9.0						
44.0	51.5	87.6	8.2	8.1						
46.0	48.0	85.9	7.4	7.2						
48.0 50.0	44.2 40.2	83.9 81.7	6.6 5.9	6.4 5.7						
50.0 55.0	28.0	74.2	5.9 4.6	5.7 4.1						
55.0	20.0	17.4				-11-05	0.03		1	
50.7	- F - 0	05.0	Angı		ıma prin	cipai 65.	ν[⁻]		1	
50.7 55.0	55.0 47.5	85.8 82.3	2.5	3.3 2.1						
		81.3	2.5	Z.1						
56.0	46.0	01.3	۷.۷							



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.	0 m Plun Cabeza 34.0	de plumí		1) 80.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
12.4 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.0 75.3 71.8 68.1 64.4 60.6 56.6 52.4	89.4 89.3 89.0 88.4 87.6 86.7 85.6 84.4 82.9	15.1 15.1 15.1 15.1 15.1 13.5 12.1 8.3 5.1	30.1 30.1 30.1 25.1 21.0 16.1 12.6 8.5 5.2						
28.0	48.0	81.2	3.0 Ápgu	3.1	ıma prin	oinal 92) [°]			
20.0	73.0	88.2	15.1	23.8	лна рин Г	lipai 63.) 			
22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0	69.4 65.7 61.9 58.0 53.8 49.5 44.8 39.6	87.5 86.6 85.6 84.4 83.0 81.3 79.4 77.2	15.1 14.9 14.2 12.6 10.0 8.2 5.6 3.3	22.2 18.4 15.3 12.8 10.5 8.6 5.8 3.4						
30.0	39.0	11.2			ıma prin	cinal 75 i	1 ° 1			
31.7	65.0	84.8	Angl	12.6	arna prim	o.pa. 75.	~ L J			
32.0 34.0 36.0 38.0 40.0	64.4 60.6 56.6 52.4 47.9	84.7 83.6 82.4 80.9 79.2	15.1 14.4 12.6 10.5 9.0	12.4 10.7 9.4 8.2 7.0						
42.0 44.0 46.0 48.0	43.1 37.8 31.7 24.2	77.2 74.8 71.8 68.0	7.6 6.5 5.4 3.5	6.0 5.0 4.2 3.5						
			Ángı	ılo de plu	ıma prin	cipal 65.	[°]			
45.5 46.0 48.0 49.0	55.0 54.0 49.6 47.7	78.4 78.1 76.5 75.6	3.6 2.7 2.2	3.0 2.8 2.0						



N° de ident.: 9842523/95738/

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

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

	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 37.0	de plumí		1) 80.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.0	78.0	92.3	15.1	18.6						
14.0	76.4	92.1	15.1	18.6						
16.0 18.0	73.2 69.9	91.5 90.8	15.0 12.0	15.3 12.4						
20.0	66.6	90.0	9.8	10.3						
22.0	63.1	89.0	8.0	8.6						
24.0	59.6	87.9	6.8	7.4						
26.0	55.9	86.6	5.8	6.3						
28.0	52.0	85.1	5.0	5.4						
30.0	47.9	83.4	4.4	4.7						
32.0	43.5	81.4	3.8	4.1						
34.0 36.0	38.6 33.2	79.1 76.3	3.2 2.8	3.5 3.0						
30.0	33.2	70.3			ıma prin	cinal 83 (1 ° 1		l	
20.8	73.0	91.0	13.5	13.3	 	l loc.	<u> </u>			
22.0	71.0	90.6	13.4	13.1						
24.0	67.7	89.8	11.2	10.8						
26.0	64.3	88.9	9.2	9.0						
28.0	60.8	87.8	7.7	7.8						
30.0	57.1	86.6	6.6	6.7						
32.0	53.3	85.2	5.7	5.8						
34.0	49.3	83.5	5.0	5.1						
36.0 38.0	45.0 40.3	81.6 79.4	4.3	4.4						
40.0	40.3 35.1	79.4 76.8	3.8 3.3	3.9 3.4						
42.0	29.1	73.6	2.8	3.0						
44.0	21.6	69.3	2.3	2.5						
			Ángu	ılo de plu	ıma prin	cipal 75.0	1°10			
32.9	65.0	87.5		8.7						
34.0	63.1	87.0	8.6	8.6						
36.0	59.5	85.9	7.4	7.4						
38.0	55.8	84.6	6.4	6.5						
40.0	52.0	83.1	5.5	5.6						
42.0 44.0	47.9 43.4	81.4 79.4	4.9 4.3	5.0 4.4						
46.0	38.6	79.4	3.7	3.8						
48.0	33.2	74.2	3.3	3.4						
50.0	26.8	70.7	3.0	3.1						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
47.2	55.0	80.9		5.8						
48.0	53.4	80.3	5.7	5.8						
50.0	49.4	78.7	5.2	5.2						
55.0	38.0	73.4	3.8	3.8						
60.0 61.0	21.9 17.0	64.6 61.8	2.9 2.7	2.5 2.2						
01.0	17.0	01.0	2.1	2.2	l				l	



Nº de ident.: 9842523/95738/

Pieza de articulación de pluma principal:

Radio de descarga:

360°

94.0 52.6

Cabeza de pluma principal:

2821-1 2821-1

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 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]	
53.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 83.5 m Plumín 37.0 [m] Posición midfall (2316)											
Ángulo de pluma principal 88.0 [°]											
13.1 14.0 16.0 18.0 20.0	78.0 76.5 73.3 70.0 66.7	92.3 92.1 91.6 90.9 90.0 89.1	15.1 15.1 15.1 15.1 14.2 11.0	27.1 27.1 23.3 19.5 16.2 12.4							
24.0 26.0 28.0	59.7 56.0 52.1	87.9 86.6 85.1	8.7 5.8 3.5	9.5 6.2 3.6							
			Ángı	ılo de plu	ıma prin	cipal 83.0	0 [°]				
20.8 22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0	73.0 71.1 67.8 64.4 60.8 57.2 53.4 49.4 45.1	91.0 90.7 89.9 89.0 87.9 86.6 85.2 83.6 81.7	15.1 15.1 13.6 11.6 9.7 7.9 6.6 4.4	19.7 19.6 16.8 14.2 12.1 10.1 8.4 7.0 4.6							
30.0	75.1	01.7			ıma prin	cinal 75 (1 ° 1 0		ı	ı	
33.0 34.0 36.0 38.0 40.0 42.0 44.0 46.0 48.0 50.0	65.0 63.2 59.6 55.9 52.1 48.0 43.6 38.7 33.3 27.0	87.5 87.1 85.9 84.6 83.1 81.4 79.4 77.1 74.3 70.8	12.8 11.4 9.6 8.1 7.0 5.9 5.0 4.2 2.9	11.4 10.6 9.2 8.0 7.0 6.0 5.1 4.2 3.5 2.8	and pill		- []				
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]		1	1	

47.2

55.0

80.8



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	0 m Plum Cabeza 40.0	de plumi	oal, Punt ín (1916- osición m	1) 83.5 r	n Plumín	dfall		
			Ánaı	ılo de plı	ıma prin	cipal 88.0	1°1			
13.6	78.0	95.3	I	15.4			- []			
14.0	77.5	95.2	15.1	15.4						
16.0	74.5	94.7	13.6	13.9						
18.0	71.5	94.0	11.2	11.7						
20.0	68.4	93.3	9.0	9.7						
22.0	65.3	92.4	7.4	8.0						
24.0 26.0	62.1 58.7	91.4 90.2	6.2 5.3	6.7 5.7						
28.0	55.3	90.2 88.9	5.3 4.5	4.9						
30.0	51.7	87.3	3.9	4.2						
32.0	47.9	85.6	3.3	3.6						
34.0	43.8	83.6	2.8	3.0						
36.0	39.4	81.4	2.3	2.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
21.7	73.0	93.9	10.5	11.3						
22.0	72.5	93.8	10.5	11.2						
24.0 26.0	69.4 66.3	93.1 92.2	9.6 8.3	10.0 8.4						
28.0	63.2	91.3	6.9	7.0						
30.0	59.9	90.2	6.0	6.1						
32.0	56.5	88.9	5.1	5.2						
34.0	52.9	87.4	4.4	4.5						
36.0	49.2	85.8	3.8	3.9						
38.0	45.2	83.9	3.3	3.4						
40.0 42.0	40.9 36.3	81.7 79.2	2.8 2.4	2.9 2.5						
42.0	30.3	19.2			ıma prin	oinal 75 () [°]			
34.2	65.0	90.3	Ang.	7.1	uma prind	ωμαι <i>1</i> 3.0	ין י			
34.2 36.0	62.1	90.3 89.4	6.8	6.9						
38.0	58.7	88.2	5.8	5.9						
40.0	55.3	86.9	5.0	5.1						
42.0	51.7	85.3	4.3	4.4						
44.0	47.9	83.6	3.8	3.8						
46.0	43.8	81.6	3.2	3.3						
48.0 50.0	39.4 34.6	79.4 76.7	2.8 2.4	2.8 2.5						
00.0	04.0	10.1			ıma prin	cipal 65 (1°1C			
48.9	55.0	83.3	L	4.6			- L J			
50.0	53.0	82.6	4.5	4.6						
55.0	43.3	78.0	3.3	3.3						
60.0	31.2	71.3	2.3	2.4						
62.0	25.6	67.5	2.1							



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8		
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]		
	53.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 86.5 m Plumín 40.0 [m] Posición midfall (2316)											
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]					
13.7 14.0 16.0 18.0	78.0 77.5 74.6 71.6	95.3 95.2 94.7 94.1	15.1 15.1 15.1 15.1	25.1 25.1 22.4 18.5								
20.0 22.0 24.0 26.0 28.0	68.5 65.4 62.2 58.8 55.4	93.3 92.4 91.4 90.2 88.9	15.1 11.6 8.3 5.9 3.7	15.7 11.9 8.8 6.3 3.9								
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]					
21.7	73.0	93.9		17.9								
22.0 24.0 26.0 28.0 30.0	72.6 69.5 66.4 63.2 60.0 56.6	93.8 93.1 92.3 91.3 90.2 88.9	15.1 15.1 14.8 12.3 10.6 8.5	17.9 16.5 14.1 11.9 10.3 8.5								
34.0 36.0 38.0	53.0 49.3 45.3	87.5 85.8 83.9	6.8 5.4 3.7	7.0 5.7 3.8								
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]					
34.2 36.0 38.0 40.0 42.0 44.0	65.0 62.2 58.8 55.4 51.8 48.0	90.3 89.4 88.2 86.9 85.4 83.7	11.9 10.4 8.9 7.7 6.7	10.3 9.1 8.0 6.9 6.0 5.1	•							
46.0 48.0 50.0 53.0	43.9 39.5 34.7 26.6	81.7 79.4 76.7 71.5	5.8 4.9 4.0 2.6	4.3 3.6 2.9								



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

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

Valor de vuelco:	2 - Vía ancha
Lastre trasero [t]:	94.0
Lastre central [t]:	52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	0 m Plum Cabeza 43.0		n (1916-	1) 86.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
14.3 16.0 18.0 20.0 22.0 24.0	78.0 75.6 72.8 70.0 67.1 64.2	98.2 97.8 97.2 96.5 95.7 94.7	15.1 14.7 11.6 9.1 7.4 6.1	14.2 13.5 10.9 8.8 7.4 6.1						
26.0 28.0 30.0 32.0 34.0	61.2 58.0 54.8 51.5 47.9	93.7 92.5 91.1 89.6 87.9	5.1 4.3 3.6 3.1 2.6	5.1 4.4 3.7 3.2 2.7						
36.0	44.2	85.9	2.2	2.3						
			Ángı	ılo de plu	ıma prin	cipal 83.	[°]C			
22.5 24.0 26.0	73.0 70.9 68.1	96.8 96.3 95.5	8.7 7.1	9.5 9.3 7.7						
28.0 30.0 32.0 34.0 36.0	65.2 62.2 59.1 55.9 52.6	94.6 93.6 92.4 91.1 89.7	6.0 5.1 4.4 3.7 3.2	6.5 5.5 4.7 4.0 3.4						
38.0	49.1	88.0	2.7	2.9						
40.0	45.4	86.1	2.3	2.5		-in al 75 :	2			
25.4	65.0	02.0	Angu	ılo de plu	uma prin	cıpai 75.	ַן <u>י</u> ן ט		I	
35.4 36.0 38.0	65.0 64.2 61.2	93.0 92.7 91.7	5.7 5.2	5.9 5.9 5.3						
40.0 42.0 44.0 46.0 48.0	58.0 54.8 51.4 47.9 44.1	90.5 89.1 87.6 85.9 83.9	4.4 3.8 3.2 2.8 2.4	4.5 3.9 3.3 2.9 2.5						
				ılo de plu	ıma prin	cipal 65	1°10			
50.6 55.0 59.0	55.0 47.4 39.6	85.8 82.3 78.0	2.8 2.0	3.6 2.8 2.1	and pill	c.pu/ 00.	~ []			



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]
53.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 89.5 m Plumín 43.0 [m] Posición midfall (2316)										
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
14.3 16.0 18.0 20.0 22.0 24.0 26.0	78.0 75.7 72.9 70.1 67.2 64.3 61.2	98.2 97.8 97.2 96.5 95.7 94.8 93.7	15.1 15.1 15.1 13.9 9.7 6.6	25.9 25.3 21.2 17.5 14.2 10.0 6.8						
28.0	58.1	92.5	4.4	4.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C			
22.6 24.0 26.0 28.0 30.0 32.0	73.0 71.0 68.2 65.3 62.3 59.2	96.8 96.3 95.5 94.7 93.6 92.5	15.1 15.1 13.8 11.6 9.8	18.8 18.6 16.3 14.0 12.0 10.2						
34.0	56.0	91.2	7.4	7.7						
36.0 38.0 40.0	52.7 49.2 45.5	89.7 88.1 86.2	5.4 3.9 2.8	5.6 4.1 2.9						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
35.5 36.0 38.0 40.0 42.0 44.0 46.0	65.0 64.3 61.2 58.1 54.9 51.5 48.0	93.0 92.8 91.7 90.5 89.2 87.6 85.9	11.4 10.0 8.8 7.7 6.7 5.6	9.2 8.9 7.7 6.7 5.8 5.0 4.2	·		•			
48.0 50.0 54.0	44.2 40.2 31.4	83.9 81.7 76.0	4.7 3.8 2.2	3.5 2.8						



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	0 m Plum Cabeza 46.0	de plumí	oal, Punt n (1916- osición m	1) 89.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
14.9 16.0 18.0 20.0	78.0 76.6 74.0 71.4	101.1 100.9 100.3 99.7	12.7 12.7 10.1 8.2	13.1 13.1 10.7 8.8						
22.0 24.0 26.0 28.0 30.0	68.7 66.0 63.2 60.4 57.4	98.9 98.1 97.1 96.0 94.8	6.8 5.6 4.7 4.0 3.4	7.3 6.1 5.1 4.3 3.7						
32.0	54.4	93.4	2.9	3.1						
34.0	51.2	91.8	2.4	2.6		-:	0.001			
00.4	70.0	00.0	Angu	110 de pil	ıma prin	cipai 83.	0 [·]			
23.4 24.0 26.0 28.0	73.0 72.2 69.6 66.9	99.6 99.5 98.7 97.9	8.4 7.5 6.3	8.5 7.6 6.5						
30.0 32.0 34.0 36.0 38.0 40.0	64.1 61.3 58.4 55.4 52.3 49.0	97.0 95.9 94.7 93.4 91.9	5.3 4.5 3.9 3.2 2.7 2.3	5.4 4.7 4.0 3.4 2.9						
40.0	45.0	30.2			ıma prin	rinal 75 (1°10			
36.7 38.0 40.0 42.0 44.0	65.0 63.2 60.4 57.4 54.4	95.7 95.1 94.0 92.8 91.4	5.0 4.4 3.8 3.2	5.2 5.2 4.5 3.9 3.3	лна рин	ыраі <i>1</i> О.	V 1			
46.0 48.0	51.2 47.9	89.8 88.1	2.7 2.3	2.8 2.4						
.5.5		55.1			ıma prin	cipal 65.0	0 [°]			'
52.3 55.0 59.0	55.0 50.8 44.0	88.2 86.3 82.4	2.7	3.0 2.8 2.0	- 1					



Nº de ident.: 9842523/95738/

Radio de descarga:

44.5 37.1

86.2

3.8

2.8

50.0

54.0

360°

94.0

52.6

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

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

		-							-	
	Inserciór	า	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		n (2316-	·1) 92.5 r	n Plumír			
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
14.9 16.0 18.0 20.0 22.0	78.0 76.6 74.1 71.4 68.8	101.2 100.9 100.4 99.7 99.0	15.1 15.1 14.6 13.6	22.4 22.4 19.6 16.6 14.2						
24.0 26.0 28.0 30.0	66.1 63.3 60.4 57.5	98.1 97.1 96.0 94.8	10.8 7.6 5.2 3.6	11.0 7.9 5.6 3.8						
			Ángı	ılo de plu	ıma prin	cipal 83.	0 [°]			
23.5 24.0 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0	73.0 72.3 69.7 67.0 64.2 61.4 58.5 55.5 52.4 49.1	99.6 99.5 98.8 98.0 97.0 96.0 94.8 93.4 92.0 90.3	15.1 15.1 14.9 12.8 10.9 9.3 7.8 6.1 4.7 3.6	16.2 16.1 15.3 13.2 11.4 9.9 8.3 6.5 5.0 3.8						
42.0	45.7	88.4	2.6	2.8						
			Ángı	ılo de plı	ıma prin	cipal 75.	0 [°]			
36.8 38.0 40.0 42.0 44.0 46.0 48.0	65.0 63.3 60.4 57.5 54.5 51.3 48.0	95.7 95.1 94.0 92.8 91.4 89.9 88.1	9.8 8.6 7.5 6.5 5.6 4.7	8.4 7.7 6.6 5.7 5.0 4.3 3.5						
40.0 50.0	40.0	00.1	4.7	3.5						



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [m]	Ángu- o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0) m Plum Cabeza 49.0	de plumí	oal, Punt n (1916- osición m	1) 92.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
15.5 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0	78.0 77.4 75.0 72.5 70.1 67.6 65.0 62.4 59.7 56.9 54.0	104.1 104.0 103.5 102.8 102.1 101.3 100.4 99.4 98.3 97.0	10.8 10.8 9.7 8.0 6.5 5.5 4.6 3.9 3.3 2.8 2.3	11.4 11.4 10.3 8.6 7.1 6.0 5.0 4.2 3.6 3.0 2.5	uma prin	cinal 83 (0.10			
24.3	73.0	102.5	Angu	7.6	лпа рпп	cipai os.i	J []		l	
26.0 28.0 30.0	70.9 68.4 65.8	101.9 101.2 100.3	7.2 6.0 5.2	7.4 6.2 5.3						
32.0 34.0 36.0 38.0 40.0	63.2 60.6 57.8 55.0 52.1	99.3 98.2 97.0 95.7 94.2	4.4 3.8 3.2 2.7 2.2	4.5 3.9 3.3 2.8 2.3						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
38.0 40.0 42.0 44.0 46.0 48.0	65.0 62.4 59.7 56.9 54.0 51.0	98.4 97.4 96.3 95.0 93.6 92.1	4.2 3.6 3.1 2.6 2.2	4.6 4.4 3.7 3.2 2.7	·		- -			
54.1 55.0 58.0	55.0 53.6 49.1	90.7 90.1 87.5	Ángı 2.4	2.5 2.5 2.0	ıma prind	cipal 65.0	[°]			

Source:a9841388



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				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]	
	53.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 95.5 m Plumín 49.0 [m] Posición midfall (2316)										
			Ángı	ılo de plı	ıma prin	cipal 88.	0[°]				
15.6 16.0 18.0 20.0 22.0	78.0 77.5 75.1 72.6 70.1	104.1 104.0 103.5 102.9 102.2	15.1 15.1 15.1 15.0 12.7	21.1 21.1 19.5 16.6 13.5	·	•					
24.0 26.0 28.0 30.0 32.0	67.6 65.1 62.4 59.7 57.0	101.4 100.5 99.5 98.3 97.1	10.7 7.7 5.3 3.7 2.6	11.2 8.1 5.8 4.1 2.8							
			Ángı	ılo de plı	ıma prin	cipal 83.	0 [°]				
24.4 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0 42.0	73.0 71.0 68.5 65.9 63.3 60.6 57.9 55.1 52.1 49.1	102.5 102.0 101.2 100.3 99.4 98.3 97.1 95.7 94.2 92.5	15.1 15.0 13.5 11.6 9.8 8.4 6.7 5.1 3.7 2.8	15.1 14.9 13.0 11.3 9.8 8.6 6.8 5.1 3.8 2.8	·						
	Ángulo de pluma principal 75.0 [°]										
38.0 40.0 42.0 44.0 46.0	65.0 62.4 59.7 57.0 54.1	98.4 97.5 96.3 95.1 93.7	8.1 7.0 6.0 5.2 4.4	7.3 6.3 5.4 4.7 4.0							
50.0 54.0	48.0 41.6	90.4 86.3	3.5 2.0	2.7							



Nº de ident.: 9842523/95738/

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

2 - Vía ancha Valor de vuelco: Lastre trasero [t]: 94.0

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]
53.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 95.5 m Plumín 52.0 [m] Posición midfall (1916)										
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
16.1 18.0 20.0 22.0 24.0	78.0 75.9 73.6 71.3 68.9	107.0 106.6 106.0 105.3 104.6	7.7 6.9 5.9 5.1	9.2 8.8 7.8 6.4 5.3						
26.0 28.0 30.0 32.0	66.5 64.1 61.6 59.0	103.7 102.8 101.8 100.6	4.3 3.5 3.0 2.5	4.4 3.6 3.1 2.5						
			Ángı	ılo de plu	ıma prin	cipal 83.	[°]			
25.2 26.0 28.0 30.0 32.0 34.0 36.0	73.0 72.0 69.7 67.3 64.9 62.4 59.9	105.4 105.1 104.4 103.6 102.7 101.7	5.9 5.9 5.4 4.6 3.8 3.2 2.7	6.3 6.3 5.6 4.7 3.9 3.3						
38.0	59.9 57.3	99.3	2.7	2.8						
			Ángı	ılo de plu	ıma prin	cipal 75.	[°]			
39.2 40.0 42.0 44.0	65.0 64.1 61.6 59.0	101.1 100.8 99.8 98.6	3.2 3.0 2.5	3.5 3.5 3.2 2.6						

52.6



N° de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

Alcan- ce [m]	Ángu-				3	4	5	6 7			
[""]	o de plumín [°]	Altura de rolda- nas [m]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
53.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 98.5 m Plumín 52.0 [m] Posición midfall (2316)											
Ángulo de pluma principal 88.0 [°]											
16.2 18.0 20.0 22.0 24.0	78.0 75.9 73.7 71.3 69.0	107.0 106.6 106.0 105.4 104.6	15.1 15.1 15.1 12.8 10.0	19.1 18.7 16.0 13.1 10.7							
26.0 28.0 30.0 32.0	66.6 64.2 61.7 59.1	103.8 102.8 101.8 100.6	7.7 5.5 3.9 2.8	8.2 5.9 4.1 3.0							
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]C				
25.2 26.0 28.0 30.0 32.0 34.0	73.0 72.1 69.8 67.4 65.0 62.5	105.4 105.1 104.4 103.6 102.7 101.7	14.1 13.1 11.0 9.4 8.1	13.7 13.6 12.6 10.9 9.5 8.2							
36.0 38.0 40.0 42.0	60.0 57.4 54.7 51.9	100.6 99.3 98.0 96.4	7.0 5.4 4.0 2.8	7.2 5.5 4.1 2.9							
Ángulo de pluma principal 75.0 [°]											
39.3 40.0 42.0 44.0 46.0 48.0 50.0	65.0 64.1 61.7 59.1 56.5 53.8 51.0	101.1 100.8 99.8 98.6 97.3 95.9 94.3	7.7 6.6 5.7 4.8 4.0	6.4 6.1 5.2 4.4 3.7 3.1							



360°

Cargas pluma principal + plumín abatible + midfall

Nº de ident.: 9842523/95738/

Radio de descarga:

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]
53.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 101.5 m Plumín 55.0 [m] Posición midfall (2316)										
			Ángı	ılo de plı	ıma prin	cipal 88.	D[°]			
16.8 18.0 20.0 22.0 24.0 26.0	78.0 76.7 74.6 72.4 70.2 67.9	110.0 109.7 109.1 108.5 107.8	15.1 14.8 13.4 9.9 7.5	16.9 16.9 15.0 12.8 10.0 7.9						
28.0 30.0 32.0	65.7 63.3 61.0	106.2 105.2 104.1	5.4 3.8 2.5	5.8 4.0 2.7						
			Ángı	ılo de plu	ıma prin	cipal 83.	[°]			
26.1	73.0	108.2		12.0						
28.0 30.0 32.0 34.0 36.0	70.9 68.7 66.4 64.1 61.8	107.6 106.9 106.0 105.1 104.0	12.0 10.2 8.7 7.4 6.4	11.8 10.2 8.9 7.6 6.6						
38.0 40.0 42.0	59.4 56.9 54.3	102.9 101.6 100.2	5.5 4.1 2.8	5.6 4.2 3.0						
			Ángı	ılo de plu	uma prin	cipal 75.	[°]			
40.6 42.0 44.0	65.0 63.3 61.0	103.9 103.2 102.1	6.1 5.2	5.5 4.9 4.1						
46.0 48.0 50.0	58.5 56.0 53.5	100.9 99.6 98.2	4.3 3.6 2.9	3.4 2.8 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]	
	53.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 104.5 m Plumín 46.0 [m] Posición midfall (2316)										
			Ángu	ılo de plu	ıma prin	cipal 88.	[°]				
14.9 16.0 18.0 20.0 22.0 24.0 23.5 24.0 26.0 28.0 30.0 32.0 34.0	78.0 76.6 74.1 71.4 68.8 66.1 73.0 72.3 69.7 67.0 64.2 61.4 58.5	101.2 100.9 100.4 99.7 99.0 98.1 99.6 99.5 98.8 98.0 97.0 96.0 94.8	15.1 15.1 12.7 8.2 4.9	21.4 21.4 18.5 13.6 8.8 5.2		cipal 83.					
	Ángulo de pluma principal 75.0 [°]										
36.8 38.0 40.0 42.0 44.0 45.0	65.0 63.3 60.4 57.5 54.7 53.1	95.7 95.1 94.0 92.8 91.4 90.7	6.1 4.9 3.8 2.8 2.4	5.1 4.5 3.5 2.7							



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]: 94.0 Lastre central [t]: 52.6

	Inserciór	1	1	2	3	4	4 5 6 7				
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]	
	56.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 32.5 m Plumín 13.0 [m] Posición midfall (1916)										
	Ángulo de pluma principal 88.0 [°]										
8.1 9.0 10.0 11.0 12.0 13.0 14.0	78.0 74.0 69.3 64.4 59.3 53.8 47.9	71.9 71.6 71.2 70.8 70.2 69.5 68.6	15.1 15.1 15.1 14.0 11.7 10.1	30.1 28.3 20.4 15.7 12.8 10.7 9.2							
16.0	33.5	66.2	7.3	7.0							
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]				
14.1 16.0 18.0 20.0	73.0 64.0 53.4 40.7	71.0 70.3 68.9 67.0	15.1 11.6 8.3	24.5 15.3 10.5 7.8							
			Ángu	ılo de plı	ıma prin	cipal 75.0	1°10				
23.5 24.0 26.0 28.0	65.0 62.7 51.9 38.9	68.7 68.5 67.1 65.0	15.1 11.1 7.9	15.3 14.5 10.0 7.5	F-1111	. ,,	- , ,				
	Ángulo de pluma principal 65.0 [°]										
34.7 36.0 38.0	55.0 47.3 32.6	63.9 62.9 60.4	9.5 7.0	10.6 8.9 6.8							
			Ángu		ıma prin	cipal 45.0	[°]				
53.7 55.0	35.0 21.2	49.0 46.7	5.2	4.9 4.4							