

Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

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

74.0 Lastre central [ t ]: 0.0

	Inserción	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		[ m ]								
		44.0	0 m Plum	na princip	oal, Punt	o de caro	ga 3 - Mi	dfall		
					ín (1916- osición m			1		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
13.3	78.0	86.3		22.8						
14.0	77.0	86.1	15.1	22.8						
16.0 18.0	74.0 71.0	85.6 84.9	15.1 15.1	19.4 16.4						
20.0	67.9	84.1	14.5	14.1						
22.0	64.8	83.2	12.1	12.1						
24.0	61.6	82.2	10.4	10.6						
26.0	58.2	81.0	9.1	9.3						
28.0 30.0	54.7 51.1	79.6 78.1	7.9 7.0	8.2 7.4						
32.0	47.3	76.3	6.3	6.6						
34.0	43.2	74.3	5.6	6.0						
36.0	38.7	72.0	5.1	5.4						
38.0	33.8	69.2	4.6	4.9						
40.0 42.0	28.0 20.8	65.8 61.4	4.2 3.8	4.5 4.1						
42.0	20.0	01.4			ıma prin	cinal 83 (	1°1		l	
20.6	73.0	85.0	15.1	16.9		 	J [ ]			
20.0	70.8	84.5	15.1	16.2						
24.0	67.8	83.7	14.0	13.9						
26.0	64.6	82.8	12.0	12.0						
28.0	61.4	81.7	10.4	10.6						
30.0 32.0	58.0 54.5	80.5 79.2	9.1 7.9	9.3 8.2						
34.0	50.9	77.6	7.5	7.4						
36.0	47.0	75.8	6.3	6.7						
38.0	42.9	73.8	5.7	6.0						
40.0	38.4	71.4	5.1	5.4						
42.0 44.0	33.4 27.6	68.6 65.2	4.7 4.3	4.9 4.5						
46.0	20.3	60.7	3.9	4.1						
					ıma prin	cipal 75.0	0 [°]			
31.8	65.0	81.6		11.5	<u>'</u>					
32.0	64.8	81.5	11.9	11.5						
34.0	61.5	80.5	11.0	10.7						
36.0	58.2 54.7	79.3	9.5	9.5						
38.0 40.0	54.7 51.1	77.9 76.4	8.3 7.3	8.4 7.5						
42.0	47.2	74.6	6.6	6.8						
44.0	43.1	72.6	5.9	6.1						
46.0	38.7	70.2	5.3	5.5						
48.0 50.0	33.7 27.9	67.5 64.1	4.8	5.0 4.6						
30.0	21.3	U <del>-1</del> . I			ıma prin	cinal 65 (	) [ ° ]	1	1	
45.1	55.0	75.2	Ange	4.3	IIII PIIII	J.pui 00.	~ [ ]			
46.0	53.4	74.6	4.8	4.0						
48.0	49.7	73.0	4.2	3.5						
50.0	45.8	71.1	3.6	3.0						
55.0 56.0	34.9 32.2	65.1 63.5	2.3 2.1							
50.0	J2.2	00.0	4.1							



 $N^{o}$  de ident.: 9842523/95738/ Pieza de articulación de pluma principal:

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

360 ° Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8		
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]									
	44.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 74.5 m Plumín 31.0 [ m ] Posición midfall (1916) Ángulo de pluma principal 88.0 [ ° ]											
			Ángı	ılo de plı	ıma prin	cipal 88.0	1°10					
11.4	78.0	77.5	79	20.6		J. Par 55.	, ,					
12.0	76.9	77.3	15.1	20.6								
13.0	75.0	77.1	15.1	18.6								
14.0	73.1	76.8	15.1	16.5								
16.0	69.2	76.1	14.3	13.1								
18.0	65.1	75.2	11.4	10.5								
20.0 22.0	60.9 56.6	74.1 72.9	9.0 7.2	8.7 7.1								
24.0	52.0	71.4	5.9	5.9								
26.0	47.0	69.6	4.9	5.0								
28.0	41.6	67.5	4.2	4.2								
30.0	35.5	65.0	3.5	3.6								
32.0	28.2	61.7	2.9	3.0								
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]					
17.9	73.0	76.4		14.8								
18.0	72.9	76.4	15.1	14.8								
20.0	68.9	75.6	14.1	12.8								
22.0 24.0	64.9 60.7	74.7 73.7	11.1 8.7	10.3 8.5								
26.0	56.3	72.4	7.1	7.0								
28.0	51.7	70.9	5.9	5.9								
30.0	46.7	69.1	5.0	5.0								
32.0	41.3	67.0	4.2	4.3								
34.0	35.1	64.4	3.6	3.6								
36.0	27.7	61.1	3.1	3.1								
			Ángı		ıma prin	cipal 75.0	[°]					
28.0	65.0	73.4		9.5								
30.0	60.9	72.4	8.5	8.6								
32.0 34.0	56.5 51.9	71.1 69.7	7.0 5.9	7.2 6.0								
34.0 36.0	46.9	67.9	5.9	5.2								
38.0	41.5	65.8	4.3	4.4								
40.0	35.4	63.2	3.6	3.8								
42.0	28.1	60.0	3.2	3.3								
			Ángı	ılo de plı	ıma prin	cipal 65.0	[°]					
39.9	55.0	67.8		4.2								
40.0	54.9	67.7		4.1								
42.0	50.1	66.2	4.5	3.4								
44.0	45.0	64.4	3.6	2.7								
46.0 48.0	39.4 33.6	62.1 59.3	2.9 2.1	2.1								
+0.0	55.0	55.5	4.1									



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

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

2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 74.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8		
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]		
	44.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 74.5 m Plumín 40.0 [ m ] Posición midfall (2316)											
			Ánaı	ılo de plı	ıma prin	cipal 88.0	1°10					
13.4	78.0	86.3	15.1	27.4								
14.0 16.0 18.0 20.0	77.1 74.1 71.1 68.0	86.2 85.6 84.9 84.2	15.1 15.1 15.1 14.8	27.4 22.8 18.8 16.1								
22.0	64.9	83.3	13.4	13.7								
24.0 26.0 28.0 30.0	61.6 58.3 54.8 51.2	82.2 81.0 79.7 78.1	12.4 10.8 9.3 8.0	12.0 10.5 9.2 8.1								
32.0	47.4	76.4	6.9	7.0								
34.0 36.0 38.0 40.0	43.3 38.8 33.9 28.1	74.4 72.0 69.3 65.9	5.7 4.6 3.7 2.7	5.8 4.7 3.8 2.8								
10.0	20	00.0			ıma prin	cinal 83 (	0 [ 0 ]					
20.6	73.0	05.0	Angu	19.4	lina pini I	lipai 65.	o [ ]		l			
20.6 22.0 24.0 26.0 28.0	73.0 70.9 67.8 64.7 61.5	85.0 84.5 83.7 82.8 81.8	15.1 15.1 13.7 12.4	19.4 18.6 15.8 13.6 11.9								
30.0 32.0 34.0 36.0 38.0	58.1 54.6 51.0 47.1 43.0	80.6 79.2 77.7 75.9 73.8	10.7 9.2 8.0 7.1 6.2	10.4 9.1 8.1 7.2 6.4								
40.0 42.0 44.0 46.0	38.5 33.5 27.8 20.4	71.5 68.7 65.3 60.8	5.5 4.8 4.0 3.1	5.6 4.9 4.1 3.1								
			Ánaı	ılo de plı	ıma prin	cipal 75.0	0 [°]					
31.9	65.0	81.6	9	8.5		,	. ,					
32.0 34.0 36.0 38.0 40.0	64.8 61.6 58.3 54.8 51.2	81.6 80.5 79.3 78.0 76.4	10.4 9.1 7.9 6.8 5.7	8.5 7.3 6.3 5.4 4.6								
42.0 44.0 46.0 48.0 49.0	47.3 43.2 38.8 34.3 31.7	74.7 72.6 70.3 67.5 65.9	4.8 4.0 3.2 2.5 2.1	3.8 3.1 2.5								

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]
		44.0		de plumi	oal, Punt ín (1916- osición m	1) 77.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	1°10			
12.1	78.0	80.4	15.1	18.5						
13.0	76.4	80.2	15.1	18.5						
14.0	74.6	79.9	15.1	16.3						
16.0	71.1	79.3	13.7	13.0						
18.0 20.0	67.5 63.7	78.5 77.5	9.0	10.6 8.6						
20.0	59.9	77.5 76.4	7.2	7.1						
24.0	55.9	75.1	5.9	5.9						
26.0	51.6	73.6	4.9	4.9						
28.0	47.1	71.9	4.2	4.2						
30.0	42.2	69.8	3.5	3.6						
32.0	36.8	67.3 64.3	2.9 2.4	3.0 2.4						
34.0	30.5	04.3								
			Angı		ıma prin	cipal 83.0	)[°]			
18.8	73.0	79.2	40.4	13.2						
20.0 22.0	70.9 67.3	78.8 78.0	13.4 10.4	12.8 10.4						
24.0	63.5	76.0 77.1	8.2	8.3						
26.0	59.7	76.0	6.8	7.0						
28.0	55.6	74.7	5.6	5.8						
30.0	51.4	73.1	4.8	5.0						
32.0	46.8	71.4	4.1	4.3						
34.0	41.9	69.3	3.5	3.6						
36.0 38.0	36.4 30.1	66.8 63.7	2.9 2.5	3.1 2.6						
00.0	00.1	00.7			ıma prin	cipal 75 (	) [ ° ]			
29.3	65.0	76.1	Aligo	8.3			J ]			
30.0	63.7	75.8	8.4	8.3						
32.0	59.8	74.7	7.2	7.1						
34.0	55.8	73.4	6.0	6.0						
36.0	51.6	71.9	5.1	5.1						
38.0 40.0	47.1 42.2	70.1 68.1	4.3 3.7	4.4 3.7						
40.0 42.0	36.7	65.6	3.7	3.7						
44.0	30.7	62.5	2.7	2.8						
46.0	22.6	58.5	2.3	2.4						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
41.7	55.0	70.2		3.5						
42.0	54.3	70.1	4.3	3.3						
44.0	50.0	68.5	3.5	2.7						
46.0	45.3	66.6	2.8	2.1						
48.0	40.7	64.4	2.1	l	l					



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

360° 2 - Vía ancha Valor de vuelco: Lastre trasero [ t ]: 74.0

Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		44.0	0 m Plum Cabeza 43.0	de plumí	oal, Punt ín (2316- osición m	1) 77.5 r	n Plumín	dfall		
Ángulo de pluma principal 88.0 [ ° ]										
14.0 16.0 18.0 20.0	78.0 75.2 72.5 69.6	89.2 88.7 88.1 87.4	15.1 15.1 15.1 15.1	27.2 24.5 20.4 17.3						
22.0 24.0 26.0 28.0	66.8 63.8 60.8 57.6	86.6 85.6 84.5 83.3	14.0 12.6 11.6 9.9	15.0 13.1 11.6 10.1						
30.0 32.0 34.0 36.0 38.0	54.4 51.0 47.4 43.6 39.5	81.9 80.4 78.6 76.6 74.3	8.5 7.3 6.1 4.9 3.8	8.8 7.8 6.5 5.2 3.9						
40.0	35.0	71.7	2.8	2.9		-:	0.001			
21.5	73.0	87.8	Angl	19.3	uma prind	cipai 83.0	0 [ · ]			
22.0 24.0 26.0 28.0 30.0	72.3 69.5 66.6 63.6 60.6	87.7 87.0 86.1 85.2 84.1	15.1 15.1 14.7 13.1 11.9	19.3 17.1 14.9 13.0 11.6						
32.0 34.0 36.0 38.0 40.0	57.4 54.2 50.8 47.2 43.4	82.9 81.5 79.9 78.1 76.1	10.3 9.0 7.9 7.1 6.3	10.2 9.1 8.0 7.0 6.1						
42.0 44.0 46.0 48.0	39.3 34.8 29.6 23.5	73.8 71.1 67.9 63.9	5.6 5.0 4.0 2.9	5.3 4.6 3.9 3.0						
			Angı		uma prin	cipal 75.0	0[°]			
33.2 34.0 36.0 38.0 40.0 42.0	65.0 63.8 60.7 57.6 54.4 51.0	84.3 83.9 82.8 81.6 80.2 78.7	8.6 7.4 6.4 5.4 4.5	7.4 7.0 6.0 5.1 4.4 3.6						
44.0 46.0 48.0	47.4 43.6 39.9	76.9 74.9 72.6	3.7 2.9 2.2	2.9 2.3						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal: 360°

Cabeza de pluma principal:

2821-1 2821-1

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
44.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 80.5 m Plumín 34.0 [ m ] Posición midfall (2316)										
			Ángu	ılo de plu	ıma prin	cipal 88.	0 [°]			
12.1	78.0	80.4		30.1						
13.0 14.0 16.0	76.5 74.7 71.2	80.2 79.9 79.3	15.1 15.1 15.1	30.1 29.3 24.6						
18.0	67.6	78.5	15.1	20.7						
20.0 22.0 24.0 26.0 28.0	63.8 60.0 56.0 51.7 47.2	77.6 76.5 75.2 73.7 71.9	14.4 13.8 9.2 5.5 3.4	16.8 13.8 9.2 5.6 3.5						
			Ángı	ılo de plu	ıma prin	cipal 83.	0 [°]			
18.9 20.0 22.0 24.0 26.0	73.0 71.0 67.4 63.6 59.8	79.2 78.9 78.1 77.1 76.0	15.1 15.1 15.1 14.7 14.2	21.4 19.2 15.9 13.3 11.2						
28.0 30.0 32.0 34.0	55.7 51.5 46.9 42.0	74.7 73.2 71.4 69.3	11.7 9.7 7.4 4.8	9.5 8.1 6.8 4.9						
					ıma prin	cipal 75.	1°10			
29.4	65.0	76.1	,gc	7.2						
30.0 32.0 34.0 36.0	63.8 59.9 55.9 51.7	75.9 74.7 73.5 71.9	9.2 7.6 6.2 4.8	6.8 5.5 4.4 3.5						
38.0	47.2	71.9	3.6	2.5						
40.0	42.7	68.1	2.5							



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

360°

Cabeza de pluma principal:

2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		44.	0 m Plum Cabeza 37.0	de plumí		1) 80.5 r	n Plumín			
			Ánaı	ılo de plu	uma prin	cipal 88.0	1°10			
12.7	78.0	83.3	15.1	19.1						
13.0 14.0 16.0 18.0	77.5 75.9 72.7 69.4	83.3 83.0 82.4 81.7	15.1 15.1 14.8 12.9	19.1 18.4 15.0 12.2						
20.0 22.0 24.0	66.0 62.6 59.0	80.9 79.9 78.7	10.7 8.6 7.2	10.1 8.4 7.2						
26.0 28.0 30.0 32.0	55.3 51.3 47.2 42.7	77.4 75.9 74.1 72.1	6.1 5.3 4.6 4.0	6.2 5.3 4.7 4.1						
34.0 36.0	37.8 32.3	69.7 66.8	3.5 2.9	3.6 3.0	uma prine	cinal 93 (	) [ ° ]			
19.7	73.0	82.1	14.3	13.6			J [ ]			
20.0 22.0 24.0	72.5 69.2 65.8	82.0 81.3 80.4	14.3 12.7 10.4	13.6 11.9 9.9						
26.0 28.0 30.0	62.4 58.8 55.0	79.4 78.3 76.9	8.5 7.2 6.1	8.3 7.2 6.2						
32.0 34.0 36.0 38.0	51.1 46.9 42.5 37.5	75.4 73.6 71.5 69.1	5.3 4.7 4.1 3.5	5.4 4.7 4.1 3.6						
40.0 42.0	32.0 25.3	66.2 62.5	3.1 2.7	3.2 2.7						
42.0	20.0	02.3			ıma prin	rinal 75 (	1 ° 1	1	l	
30.6	65.0	78.8	Angu	8.8	,,,,,a bijili 	o.pa. 73.	- L J			
32.0 34.0	62.5 58.9	78.2 77.0	8.6 7.3	8.5 7.3						
36.0 38.0 40.0 42.0	55.2 51.3 47.2 42.7	75.7 74.1 72.4 70.3	6.3 5.4 4.8 4.2	6.3 5.5 4.9 4.3						
44.0 46.0 48.0	37.8 32.3 25.6	67.9 65.0 61.4	3.7 3.3 2.9	3.7 3.4 2.9						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
43.4 44.0 46.0	55.0 53.8 49.8	72.7 72.3 70.7	3.5 2.8	2.9 2.7 2.1						
48.0	45.9	68.9	2.1							



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8	
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
			0 m Plum Cabeza 40.0	de plumí	ín (1916-		n Plumín				
	Ángulo de pluma principal 88.0 [ ° ]										
13.3	78.0	86.3		16.1		ļ .					
14.0	77.0	86.1	15.1	16.1							
16.0	74.0	85.6	13.5	13.9							
18.0	71.0	84.9	11.1	11.4							
20.0	67.9	84.1	9.3	9.5							
22.0	64.8	83.2	7.6	7.8							
24.0	61.6	82.2	6.3	6.6							
26.0	58.2 54.7	81.0	5.4	5.6							
28.0 30.0	51.1	79.6 78.1	4.6 3.9	4.8 4.1							
32.0	47.3	76.1	3.4	3.6							
34.0	43.2	74.3	2.9	3.1							
36.0	38.7	72.0	2.5	2.6							
					ıma prin	cipal 83.0	1°10				
20.6	73.0	85.0	11.2	11.5			, I				
22.0	70.8	84.5	10.9	11.2							
24.0	67.8	83.7	9.2	9.2							
26.0	64.6	82.8	7.7	7.7							
28.0	61.4	81.7	6.5	6.6							
30.0	58.0	80.5	5.5	5.6							
32.0	54.5	79.2	4.7	4.8							
34.0	50.9	77.6	4.1	4.2							
36.0	47.0	75.8	3.5	3.6							
38.0	42.9	73.8	3.0	3.1							
40.0 42.0	38.4 33.4	71.4 68.6	2.6 2.3	2.7 2.3							
			Ángu	ılo de plu	ıma prin	cipal 75.0	1°1				
31.8	65.0	81.6		7.3	·						
32.0	64.8	81.5	7.2	7.2							
34.0	61.5	80.5	6.7	6.7							
36.0	58.2	79.3	5.7	5.8							
38.0	54.7	77.9	4.9	4.9							
40.0	51.1	76.4	4.2	4.3							
42.0	47.2	74.6	3.7	3.7							
44.0	43.1	72.6	3.2	3.2							
46.0 48.0	38.7 33.7	70.2 67.5	2.7 2.4	2.8 2.4							
46.0	J 33.1	07.5									
			Angı		ıma prin	cipal 65.0	) [°]				
45.1	55.0	75.2	0.0	2.3							
46.0 47.0	53.4 51.8	74.6 73.8	2.6 2.3	2.0							
47.0	J 01.0	13.0	۷.۵								



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

360°

2 - Vía ancha

Cabeza de pluma principal:

2821-1

valor de vuelco:	2 - via ancha
Lastre trasero [ t ]:	74.0
Lastre central [ t ]:	0.0

	Inserción			2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 43.0	de plumí		1) 86.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	] (°)			
13.9 14.0 16.0 18.0	78.0 77.9 75.2 72.4	89.2 89.2 88.7 88.1	15.1 14.4 11.4	14.5 14.5 13.1 10.7	·	•				
20.0 22.0 24.0 26.0 28.0 30.0	69.6 66.7 63.7 60.7 57.6 54.3	87.4 86.5 85.6 84.5 83.3 81.9	8.9 7.3 6.0 5.0 4.2 3.6	8.7 7.3 6.0 5.1 4.3 3.6						
32.0 34.0 36.0	50.9 47.3 43.5	80.3 78.6 76.6	3.0 2.6 2.2	3.1 2.6 2.2						
			Angu		ıma prin	cipal 83.0	[°]		I	ı
21.4 22.0 24.0	73.0 72.2 69.4	87.8 87.7 86.9	9.6 8.3	9.8 9.8 8.5						
26.0 28.0 30.0 32.0	66.5 63.5 60.5 57.4	86.1 85.1 84.1 82.8	6.9 5.7 4.9 4.2	7.1 5.9 5.1 4.3						
34.0 36.0 38.0 40.0	54.1 50.7 47.1 43.3	81.4 79.9 78.1 76.1	3.5 3.0 2.6 2.2	3.7 3.2 2.7 2.3						
40.0	40.0	70.1			ıma prin	cipal 75 (	1°10			
33.1	65.0	84.3		6.0	ania pilli	ipai 73.	, ,			
34.0 36.0 38.0 40.0 42.0	63.7 60.6 57.5 54.3 50.9	83.9 82.8 81.6 80.2 78.6	5.8 5.1 4.4 3.7 3.1	6.0 5.2 4.5 3.8 3.3						
44.0 46.0	47.3 43.5	76.9 74.8	2.7 2.3	2.8 2.4						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
46.9 47.0	55.0 54.9	77.6 77.6	2.3 2.3	·						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

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

Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		44.0	0 m Plum Cabeza 46.0	de plumi	oal, Punt ín (1916- osición m	1) 89.5 r	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
14.6 16.0	78.0 76.2	92.1 91.8	14.4 14.1	13.6 13.2						
18.0 20.0 22.0	73.6 70.9 68.3	91.2 90.6 89.8	11.1 8.8 7.2	10.7 8.6 7.3						
24.0 26.0	65.6 62.8	88.9 87.9	5.9 4.9	6.0 5.0						
28.0 30.0 32.0	59.9 57.0 53.9	86.8 85.6 84.1	4.2 3.5 3.0	4.3 3.6 3.1						
34.0 36.0	50.7 47.4	82.6 80.8	2.5 2.1	2.6 2.2						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
22.3 24.0 26.0	73.0 70.8 68.1	90.7 90.1 89.4	8.4 6.9	8.8 8.4 7.0						
28.0 30.0 32.0	65.4 62.6 59.7	88.5 87.5 86.4	5.8 4.9 4.3	5.9 5.0 4.3						
34.0 36.0 38.0	56.8 53.7 50.5	85.1 83.7 82.1	3.6 3.0 2.6	3.7 3.1 2.7						
40.0	47.2	80.3	2.2	2.3						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
34.4 36.0 38.0	65.0 62.7 59.9	87.0 86.2 85.1	5.1 4.3	5.3 5.2 4.4						
40.0 42.0 44.0	56.9 53.9 50.7	83.8 82.4 80.9	3.7 3.1 2.7	3.8 3.2 2.8						
46.0 47.0	47.4 45.6	79.1 78.1	2.3 2.1	2.4 2.2						



N° de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal: 2

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]
44.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 92.5 m Plumín 49.0 [ m ] Posición midfall (1916)										
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]			
15.2 16.0 18.0 20.0 22.0	78.0 77.0 74.6 72.2 69.7	95.1 94.9 94.4 93.7 93.0	11.0 11.0 9.9 8.5 6.9	12.1 12.1 10.3 8.5 7.0						
24.0 26.0 28.0 30.0 32.0	67.2 64.6 61.9 59.2 56.5	92.2 91.3 90.3 89.1 87.8	5.8 4.8 4.1 3.5 2.9	5.9 4.9 4.2 3.5 3.0						
34.0	53.6	86.4	2.9	2.5						
			Ánaı	ılo de plu	ıma prin	cipal 83.0	1°10			
23.2 24.0 26.0 28.0 30.0 32.0 34.0	73.0 72.0 69.5 67.0 64.4 61.8 59.1	93.6 93.3 92.6 91.8 90.9 89.8 88.7	7.8 6.8 5.8 4.8 4.1 3.5	7.9 7.9 6.8 5.8 4.9 4.2 3.6	- 1					
36.0	56.3	87.4	2.9	3.0						
38.0	53.4	85.9	2.4 Ápgu	2.5	ıma nrin	oinal 75 (	) [ ° ]			
35.7	65.0	89.7	4.5	4.6	ıma prin	upai /5.0	) 			
36.0 38.0 40.0 42.0	64.5 61.9 59.2 56.4	89.6 88.6 87.4 86.1	4.5 4.2 3.6 3.1 2.6	4.6 4.3 3.7 3.1 2.6						
44.0 46.0 47.0	50.5 50.5 49.0	84.7 83.1 82.2	2.6 2.2 2.0	2.6 2.2 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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		44.0	0 m Plum Cabeza 52.0	na princip de plumí 0 [ m ] Po	n (1916-	1) 95.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
15.8 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 77.8 75.5 73.2 70.9 68.5 66.1 63.7 61.2 58.6	98.0 98.0 97.5 96.9 96.2 95.5 94.6 93.7 92.6 91.4	8.6 8.1 7.2 6.0 5.2 4.3 3.5 2.9 2.4	9.7 9.7 9.2 7.9 6.3 5.3 4.4 3.6 3.1 2.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	D[°]			
24.1 26.0 28.0 30.0 32.0 34.0 36.0	73.0 70.8 68.4 66.0 63.6 61.0 58.5	96.4 95.8 95.0 94.2 93.2 92.1 90.9	6.2 6.0 5.1 4.3 3.5 3.0 2.5	6.5 6.2 5.2 4.4 3.6 3.1 2.6						
	23.0	23.0		ılo de plu	ıma prin	cipal 75.0	1°10			
36.9 38.0 40.0 42.0 44.0	65.0 63.7 61.2 58.6 56.0	92.4 91.9 90.9 89.7 88.4	3.5 3.0 2.5 2.1	3.6 3.6 3.2 2.6 2.2						

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

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

Lastre central [t]: 74.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.0	0 m Plum Cabeza 13.0	na princip de plumí 0 [ m ] Po	n (1916-	1) 32.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
7.8 8.0 9.0 10.0 11.0 12.0 13.0	78.0 77.1 72.5 67.8 62.8 57.6 52.0	62.9 62.8 62.5 62.1 61.6 61.0 60.2	15.1 15.1 15.1 15.1 15.1 13.2 11.3	30.1 30.1 25.7 19.0 14.9 12.2 10.3						
14.0 16.0	45.9 30.7	59.3 56.6	9.6 7.0	8.8 6.8						
10.0	00.7	00.0		ılo de plu	ıma prin	cipal 83 (	1°10		ı	
13.0	73.0	62.1	,gc	25.2	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5.pa. 55.	, ,			
14.0 16.0 18.0 20.0	68.4 58.4 46.8 32.0	61.8 60.7 59.0 56.5	15.1 13.6 9.8 7.1	19.6 12.5 9.0 6.9						
			Ángı	ılo de plı	ıma prin	cipal 75.0	D[°]			
21.2	65.0	60.0		15.7						
22.0 24.0 26.0	61.0 50.0 36.3	59.6 58.1 55.9	14.9 10.6 7.6	13.6 9.6 7.3						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
30.9 32.0 34.0	55.0 48.5 34.3	55.8 54.9 52.5	10.0 7.2	10.8 9.2 7.0						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
47.3 48.0 49.0	35.0 28.7 15.1	42.6 41.7 39.3	3.0 2.7	2.7 2.5 2.2	·					



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 74.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.0	0 m Plum Cabeza 16.0	na princip de plumí 0 [ m ] Po	n (1916-	1) 35.5 r	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	0 [°]			
8.4 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 75.9 72.1 68.3 64.3 60.2 55.9 46.4 34.8	65.8 65.7 65.3 64.9 64.5 63.9 63.2 61.5 59.1	15.1 15.1 15.1 14.9 14.0 11.8 9.0 7.2	30.1 29.9 25.3 20.2 16.5 14.1 12.1 9.5 7.7						
10.0	00	00.1		ılo de plu	ıma prin	cipal 83.0	0 [ ° ]			
13.9	73.0	65.0	,gc	25.4	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	5.pa. 55.				
14.0 16.0 18.0 20.0 22.0	72.7 64.9 56.5 47.1 35.7	65.0 64.1 62.9 61.3 58.9	15.1 15.1 12.9 10.1 7.8	25.4 16.8 12.3 9.6 7.8						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]0			
22.5 24.0 26.0 28.0	65.0 58.7 49.6 38.9	62.7 61.9 60.4 58.2	14.7 10.8 8.3	16.2 13.3 10.2 8.1			_			
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]		1	1
32.6 34.0 36.0	55.0 48.4 37.4	58.2 57.1 54.9	10.3 8.0	9.8 7.9						
			Ángı	ılo de plu	ıma prin	cipal 45.0	0[°]			ı
49.8 50.0 51.0	35.0 35.0 27.4	44.3 44.3 42.4	2.3 2.0	2.0						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.	0 m Plum Cabeza 16.0	de plumí	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.5 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 14.0 20.0	78.0 76.1 72.4 68.5 64.5 60.4 56.1 46.6 35.1 73.0 65.1 56.7 47.3	65.8 65.7 65.4 65.0 64.5 63.9 63.3 61.6 59.2 65.0 64.2 63.0 61.3	15.1 15.1 15.1 15.1 15.1 15.1 15.1 14.0 11.3 Ángu 15.1 15.1 14.0	30.1 30.1 30.1 28.6 23.4 19.9 17.0 13.1 10.6 ulo de plu 30.1 24.0 17.2 13.3	uma prind	cipal 83.	0[°]			
22.0	36.0	59.0	11.3	10.7		-i175/	2 6 9 1			
22.5	65.0	62.7	Angl	21.4	una prini	cipal 75.0	) [ ]		l	
24.0 26.0 28.0 30.0	58.9 49.9 39.2 24.5	62.7 61.9 60.4 58.3 54.9	15.1 13.9 10.8 8.9	18.4 14.0 11.1 9.3						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
32.7	55.0	58.2		9.3						
34.0 36.0 38.0	48.7 37.7 22.0	57.2 54.9 51.4	10.1 8.9 7.7	8.4 7.1 6.0						



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

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.0	0 m Plum Cabeza 19.0	de plumi	n (1916-	o de carç 1) 38.5 r nidfall (19	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	] (°)			
9.1 10.0 11.0 12.0 14.0 16.0 18.0 20.0 22.0	78.0 75.1 71.9 68.6 65.3 61.9 54.7 46.7 37.3 24.8	68.7 68.5 68.2 67.8 67.3 66.8 65.5 63.8 61.5 58.1	15.1 15.1 15.1 15.1 15.1 15.1 12.9 10.8 8.6 7.2	30.1 28.9 24.4 20.6 17.5 15.3 12.0 9.9 8.2 7.0	·	cipal 83.				
22.0	47.3	63.5	11.0	10.0						
24.0 26.0	38.0 25.9	61.3 58.0	8.7 7.3	8.3 7.1						
			Ángı	ılo de plı	ıma prin	cipal 75.0	[°]			
23.7 24.0 26.0 28.0 30.0	65.0 64.2 57.1 49.4 40.5	65.4 65.3 64.1 62.6 60.5	15.1 14.5 11.7 9.2	16.4 16.4 12.9 10.6 8.7			-			
32.0	29.5	57.6	7.6 Ángi	Ilo de nli	ıma nrin	cipal 65.0	1 ° 1 °		I	
34.3 36.0 38.0 40.0 41.0	55.0 48.4 39.4 27.8 19.7	60.7 59.4 57.2 54.1 51.9	11.2 9.0 7.5 6.9	11.0 10.0 8.5 7.3 6.7	лпа рпп	ыраг 03.1	7 [ ]			



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	0 m Plum Cabeza 19.0	de plumi	n (2316-	o de caro 1) 41.5 r nidfall (23	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.1 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 75.2 72.1 68.8 65.5 62.1 54.9 46.9 37.5 25.1	68.7 68.5 68.2 67.3 66.8 65.5 63.8 61.5 58.2	15.1 15.1 15.1 15.1 15.1 14.4 12.9 10.2 8.4 Ángu	30.1 30.1 29.9 28.8 24.2 20.9 16.2 13.1 10.6 8.9 ulo de plu 30.1 28.4 21.3 16.4	uma prind	cipal 83.	0[°]			
22.0 24.0	47.5 38.2	63.5 61.3	13.1 10.4	13.3 10.8						
26.0	26.2	58.1	8.6	9.1						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
23.8 24.0 26.0 28.0	65.0 64.3 57.3 49.6	65.4 65.4 64.2 62.6	15.1 15.1 15.1	19.6 19.3 16.7						
30.0 32.0	40.8 29.7	60.6 57.6	12.3 10.2	11.4						
32.0	29.7	0.10			ıma nrin	cipal 65.0	1 ° 1			
34.4 36.0 38.0 40.0 41.0	55.0 48.6 39.6 28.1 20.0	60.7 59.4 57.3 54.2 52.0	8.6 7.5 6.5 6.0	8.1 7.2 6.2 5.2 4.8	лпа рпп	ыраг о <u>э</u> .	7 [ ]			



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 22.0	de plumi		1) 41.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.7	78.0	71.7	15.1	30.1						
10.0	77.1	71.6	15.1	30.1						
11.0	74.4	71.3	15.1	25.1						
12.0	71.7	71.0	15.1	20.9						
13.0	68.9	70.6	15.1	18.1						
14.0	66.1	70.2	15.1	15.8						
16.0	60.1	69.1	14.3	12.6						
18.0	53.8	67.7	11.1	10.2						
20.0	46.9	66.0	9.1	8.6						
22.0	39.0	63.8	7.5	7.3						
24.0	29.2	60.8	6.3	6.3						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
15.7	73.0	70.7	15.1	21.5						
16.0	72.1	70.6	15.1	21.4						
18.0	66.5	69.8	14.6	16.0						
20.0	60.6	68.8	12.5	12.8						
22.0	54.3	67.4	9.9	10.4						
24.0	47.4	65.7	8.2	8.7						
26.0	39.6	63.6	6.9	7.4						
28.0	30.0	60.6	6.0	6.4						
			Ángı	ılo de plı	ıma prin	cipal 75.0	[°]			
25.0	65.0	68.1		14.4						
26.0	62.1	67.7	14.8	13.4						
28.0	55.9	66.4	11.9	10.9						
30.0	49.2	64.8	9.6	9.1						
32.0	41.7	62.8	7.9	7.7						
34.0	32.7	60.1	6.7	6.6						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
36.0	55.0	63.1		10.0						
38.0	48.4	61.6	9.3	8.9						
40.0	40.7	59.5	7.7	7.5						
42.0	31.5	56.7	6.6	6.6						
44.0	18.1	52.4	5.7	5.7						



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

2 - Vía ancha Valor de vuelco:

valor do vacios.	_	via ariona
Lastre trasero [ t ]:		74.0
Lastre central [ t ]:		0.0

Alcance   Angular   Carga		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumín (2316-1) 44.5 m Plumín 22.0 [ m ] Posición midfall (2316)  Angulo de pluma principal 88.0 [ ° ]  9.7 78.0 71.7 30.1 11.0 74.6 71.3 15.1 30.1 11.0 74.6 71.3 15.1 30.1 12.0 71.9 71.0 15.1 27.8 13.0 69.1 70.6 15.1 25.5 14.0 66.2 70.2 15.1 21.9 16.0 60.3 69.1 15.0 17.1 18.0 54.0 67.8 14.2 13.8 20.0 47.1 66.1 12.6 11.5 22.0 39.2 63.8 10.1 9.6 24.0 29.5 60.8 8.3 8.2  Angulo de pluma principal 83.0 [ ° ]  15.7 73.0 70.7 29.9 16.0 72.2 70.7 15.1 29.8 18.0 66.6 69.9 15.1 22.3 20.0 60.7 68.8 14.9 17.3 22.0 54.4 67.5 13.1 13.9 24.0 47.6 65.8 11.3 11.6 26.0 39.8 63.6 9.2 9.7 7 28.0 30.2 60.7 7.8 8.3  Angulo de pluma principal 75.0 [ ° ]  25.1 65.0 68.1 18.2 26.0 39.8 63.6 9.2 9.7 7 28.0 56.1 66.4 14.6 14.7 30.0 49.4 64.9 13.5 12.2 32.0 41.9 62.8 10.9 10.2 34.0 32.9 60.1 9.0 8.8  Angulo de pluma principal 65.0 [ ° ]  36.1 55.0 63.1 7.6 6.4 40.0 40.9 59.6 6.6 5.5 47.7 15.5 47.7	ce	o de plumín	de rolda- nas		Carga [t]						
9.7 78.0 71.7 30.1 1.1 30.1 1.1			47.	Cabeza	de plumí	n (2316-	1) 44.5 r	n Plumín			
10.0 77.3 71.6 15.1 30.1 11.0 74.6 71.3 15.1 30.1 11.0 74.6 71.3 15.1 30.1 12.0 71.9 71.0 15.1 27.8 13.0 69.1 70.6 15.1 25.5 14.0 66.2 70.2 15.1 21.9 16.0 60.3 69.1 15.0 17.1 18.0 54.0 67.8 14.2 13.8 20.0 47.1 66.1 12.6 11.5 22.0 39.2 63.8 10.1 9.6 24.0 29.5 60.8 8.3 8.2				Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
11.0	9.7	78.0	71.7		30.1	i i	· ·				
12.0 71.9 71.0 15.1 27.8 13.0 69.1 70.6 15.1 25.5 14.0 66.2 70.2 15.1 21.9 16.0 60.3 69.1 15.0 17.1 18.0 54.0 67.8 14.2 13.8 20.0 47.1 66.1 12.6 11.5 22.0 39.2 63.8 10.1 9.6 24.0 29.5 60.8 8.3 8.2	10.0	77.3	71.6	15.1	30.1						
13.0 69.1 70.6 15.1 25.5 1 14.0 66.2 70.2 15.1 21.9 1 16.0 60.3 69.1 15.0 17.1 1 18.0 54.0 67.8 14.2 13.8 20.0 47.1 66.1 12.6 11.5 22.0 39.2 63.8 10.1 9.6 24.0 29.5 60.8 8.3 8.2	11.0	74.6	71.3	15.1	30.1						
14.0 66.2 70.2 15.1 21.9 16.0 60.3 69.1 15.0 17.1 18.0 54.0 67.8 14.2 13.8 20.0 47.1 66.1 12.6 11.5 22.0 39.2 63.8 10.1 9.6 24.0 29.5 60.8 8.3 8.2	12.0	71.9	71.0	15.1	27.8						
16.0 60.3 69.1 15.0 17.1 18.0 54.0 67.8 14.2 13.8 20.0 47.1 66.1 12.6 11.5 22.0 39.2 63.8 10.1 9.6 24.0 29.5 60.8 8.3 8.2	13.0	69.1	70.6	15.1	25.5						
18.0	14.0	66.2	70.2	15.1	21.9						
20.0											
22.0 39.2 63.8 10.1 9.6 24.0 29.5 60.8 8.3 8.2											
24.0 29.5 60.8 8.3 8.2				-							
Ángulo de pluma principal 83.0 [°]  15.7											
15.7	24.0	29.5	60.8	8.3	8.2						
16.0 72.2 70.7 15.1 29.8 18.0 66.6 69.9 15.1 22.3 20.0 60.7 68.8 14.9 17.3 22.0 54.4 67.5 13.1 13.9 24.0 47.6 65.8 11.3 11.6 26.0 39.8 63.6 9.2 9.7 28.0 30.2 60.7 7.8 8.3				Ángu	ılo de plu	ıma prin	cipal 83.0	0 [°]			
18.0 66.6 69.9 15.1 22.3 20.0 60.7 68.8 14.9 17.3 22.0 54.4 67.5 13.1 13.9 24.0 47.6 65.8 11.3 11.6 26.0 39.8 63.6 9.2 9.7 28.0 30.2 60.7 7.8 8.3	15.7		70.7		29.9						
20.0 60.7 68.8 14.9 17.3  22.0 54.4 67.5 13.1 13.9  24.0 47.6 65.8 11.3 11.6  26.0 39.8 63.6 9.2 9.7  28.0 30.2 60.7 7.8 8.3  Angulo de pluma principal 75.0 [°]  25.1 65.0 68.1 18.2  26.0 62.3 67.7 15.1 17.1  28.0 56.1 66.4 14.6 14.7  30.0 49.4 64.9 13.5 12.2  32.0 41.9 62.8 10.9 10.2  34.0 32.9 60.1 9.0 8.8  Angulo de pluma principal 65.0 [°]  36.1 55.0 63.1 7.3  38.0 48.5 61.7 7.6 6.4  40.0 40.9 59.6 6.6 5.5  42.0 31.7 56.8 5.8 4.7											
22.0 54.4 67.5 13.1 13.9 24.0 47.6 65.8 11.3 11.6 26.0 39.8 63.6 9.2 9.7 28.0 30.2 60.7 7.8 8.3		i i			1						
24.0											
26.0 39.8 63.6 9.2 9.7 7.8 8.3    Angulo de pluma principal 75.0 [°]  25.1 65.0 68.1 18.2		-		_							
28.0 30.2 60.7 7.8 8.3		_		-	-						
Angulo de pluma principal 75.0 [°]  25.1 65.0 68.1 18.2  26.0 62.3 67.7 15.1 17.1  28.0 56.1 66.4 14.6 14.7  30.0 49.4 64.9 13.5 12.2  32.0 41.9 62.8 10.9 10.2  34.0 32.9 60.1 9.0 8.8  Angulo de pluma principal 65.0 [°]  36.1 55.0 63.1 7.3  38.0 48.5 61.7 7.6 6.4  40.0 40.9 59.6 6.6 5.5  42.0 31.7 56.8 5.8 4.7					1						
25.1 65.0 68.1 18.2 26.0 62.3 67.7 15.1 17.1 28.0 56.1 66.4 14.6 14.7 30.0 49.4 64.9 13.5 12.2 32.0 41.9 62.8 10.9 10.2 34.0 32.9 60.1 9.0 8.8  Angulo de pluma principal 65.0 [°]  36.1 55.0 63.1 7.3 38.0 48.5 61.7 7.6 6.4 40.0 40.9 59.6 6.6 5.5 42.0 31.7 56.8 5.8 4.7	26.0	3∪.∠	00.7				-:	2		l	
26.0 62.3 67.7 15.1 17.1 28.0 56.1 66.4 14.6 14.7 30.0 49.4 64.9 13.5 12.2 32.0 41.9 62.8 10.9 10.2 34.0 32.9 60.1 9.0				Angu		ıma prin	cipai 75.0	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓			
28.0				45.4							
30.0											
32.0 41.9 62.8 10.9 10.2 34.0 32.9 60.1 9.0 8.8 Ángulo de pluma principal 65.0 [°]  36.1 55.0 63.1 7.3 38.0 48.5 61.7 7.6 6.4 40.0 40.9 59.6 6.6 5.5 42.0 31.7 56.8 5.8 4.7											
34.0 32.9 60.1 9.0 8.8 Ángulo de pluma principal 65.0 [°]  36.1 55.0 63.1 7.3 38.0 48.5 61.7 7.6 6.4 40.0 40.9 59.6 6.6 5.5 42.0 31.7 56.8 5.8 4.7		i .									
Angulo de pluma principal 65.0 [°]  36.1 55.0 63.1 7.3 38.0 48.5 61.7 7.6 6.4 40.0 40.9 59.6 6.6 5.5 42.0 31.7 56.8 5.8 4.7					-						
36.1 55.0 63.1 7.3 38.0 48.5 61.7 7.6 6.4 40.0 40.9 59.6 6.6 5.5 42.0 31.7 56.8 5.8 4.7						ıma prin	cipal 65 (	1°10	•	•	
38.0	36.1	55.0	63.1	,gc							
40.0     40.9     59.6     6.6     5.5       42.0     31.7     56.8     5.8     4.7		i i		7.6	_						
42.0   31.7   56.8   5.8   4.7					-						
TT.0   T.01   T.0   T.0	44.0	18.4	52.5	4.9	3.9						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

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

Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 25.0	de plumi		1) 44.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	] (°)			
10.3 11.0 12.0 13.0	78.0 76.4 74.0 71.6	74.6 74.4 74.1 73.8	15.1 15.1 15.1 15.1	27.1 25.7 21.6 18.4	·	•				
14.0 16.0 18.0 20.0 22.0	69.1 64.1 58.8 53.1 47.0	73.4 72.5 71.4 70.0 68.2	15.1 12.3 10.2 8.3 7.1	16.3 12.9 10.7 8.9 7.6						
24.0 26.0 28.0	40.2 32.1 21.4	66.1 63.3 59.3	6.1 5.3 4.6	6.6 5.7 5.0						
			Angı		ıma prin	cipal 83.0	D[°]			
16.5 18.0 20.0	73.0 69.5 64.4	73.6 73.1 72.2	15.1 13.7	19.0 16.4 13.1						
22.0 24.0 26.0 28.0 30.0	59.2 53.6 47.5 40.7 32.8	71.1 69.7 68.0 65.9 63.1	11.7 9.3 7.8 6.7 5.8	10.8 9.0 7.7 6.6 5.8						
32.0	22.3	59.2	5.0	5.1						
			Ángı		ıma prin	cipal 75.0	D[°]			
26.3 28.0 30.0 32.0 34.0	65.0 60.5 55.0 49.1 42.5	70.9 70.0 68.7 67.1 65.1	12.4 9.9 8.2 6.9	12.8 11.2 9.4 8.0 6.9						
36.0 38.0	35.0 25.4	62.5 59.0	6.0 5.3	6.0 5.3						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
37.8 38.0 40.0	55.0 54.3 48.3	65.6 65.5 63.8	9.4 8.0	9.1 9.0 7.8						
40.0 42.0 44.0 46.0 47.0	48.3 41.7 33.9 24.0 16.9	63.8 61.8 59.1 55.5 52.8	6.8 5.9 5.2 4.8	7.8 6.8 5.9 5.2 4.9						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1 2821-1

360°

Cabeza de pluma principal:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.0	0 m Plum Cabeza 25.0	de plumí	oal, Punt ín (2316- osición m	1) 47.5 r	n Plumín	dfall 1		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.4 11.0 12.0 13.0	78.0 76.5 74.1 71.7	74.6 74.5 74.2 73.8	15.1 15.1 15.1 15.1	30.1 30.1 30.1 25.8						
14.0 16.0 18.0 20.0 22.0 24.0	69.2 64.2 58.9 53.3 47.2 40.4	73.5 72.6 71.4 70.0 68.3 66.1	15.1 15.1 14.1 12.3 10.6 8.7	22.6 17.5 14.3 11.8 10.1 8.5						
26.0 28.0	32.3 21.6	63.4 59.4	7.3 6.2	7.3 6.2						
20.0	21.0	39.4			uma prin	cinal 83 (	1°1	ı	ı	
16.6 18.0	73.0 69.6	73.6 73.1	15.1	26.4 22.8						
20.0 22.0 24.0 26.0 28.0 30.0	64.6 59.3 53.7 47.6 40.9 33.0	72.2 71.1 69.7 68.0 65.9 63.2	15.1 14.3 12.6 10.8 8.9 7.5	17.8 14.5 11.9 10.1 8.6 7.4						
32.0	22.5	59.3	6.4	6.3						
		-			ıma prin	cipal 75.0	D[°]			
26.3 28.0 30.0 32.0 34.0	65.0 60.7 55.2 49.2 42.7	70.9 70.0 68.7 67.1 65.1	14.5 12.2 10.2 8.5	16.6 15.0 12.5 10.6 9.0	-					
36.0 38.0	35.1 25.6	62.6 59.1	7.3 6.3	7.8 6.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
37.8 38.0 40.0	55.0 54.5 48.5	65.6 65.5 63.9	7.2 6.3	6.3 6.2 5.3			-			
42.0 44.0 46.0 47.0	41.8 34.1 24.2 17.1	61.8 59.2 55.6 52.9	5.5 4.7 4.0 3.6	4.6 3.9 3.2 2.9						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

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

Valor de vuelco: 2 - Vía ancha

Lastre trasero [ t ]: 74.0
Lastre central [ t ]: 0.0

Alcance   Aingun		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de jlumín (1916-1) 47.5 m Plumín 28.0 [ m ] Posición midfall (1916)  Angulo de pluma principal 88.0 [ ° ]  10.9 78.0 77.5	ce	o de plumín	de rolda- nas								
10.9				Cabeza	de plumi	ín (1916-	1) 47.5 ñ	n Plumín			
10.9				Ánaı	ılo de plu	ıma prin	cipal 88.0	1°1C			
11.0	10.9	78.0	77.5								
13.0				15.1	30.1						
14.0	12.0	75.7	77.3	15.1	30.1						
16.0											
18.0 62.5 74.9 15.1 17.7 20.0 57.7 73.7 14.5 15.3 22.0 52.6 72.2 13.7 13.3 24.0 47.2 70.5 12.6 11.9 26.0 41.1 68.4 11.0 10.6 28.0 34.2 65.7 9.7 9.6 30.0 25.7 62.2 8.8 8.8 8.8 25.7 18.0 71.8 76.3 15.1 26.7 18.0 71.8 76.3 15.1 26.7 18.0 71.8 76.3 15.1 17.9 24.0 62.8 74.5 15.1 17.9 24.0 58.0 73.3 14.6 15.4 26.0 53.0 41.6 68.1 11.1 10.7 32.0 34.8 65.5 9.8 9.7 33.0 41.6 68.1 11.1 10.7 32.0 34.8 65.5 9.8 9.7 34.0 26.4 62.1 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9 8.9											
20.0 57.7 73.7 14.5 15.3 13.3 24.0 47.2 70.5 12.6 11.9 26.0 41.1 68.4 11.0 10.6 28.0 34.2 65.7 9.7 9.6 30.0 25.7 62.2 8.8 8.8 2				-							
22.0   52.6   72.2   13.7   13.3   24.0   47.2   70.5   12.6   11.9   26.0   41.1   68.4   11.0   10.6   28.0   34.2   65.7   9.7   9.6   30.0   25.7   62.2   8.8   8.9     1.0.0     1.0.0											
24.0					i e						
26.0											
28.0 34.2 65.7 9.7 9.6 8.8 8.8 8.8    Angulo de pluma principal 83.0 [°]  17.4 73.0 76.5 26.8 26.8 20.0 67.4 75.5 15.1 26.7 20.0 62.8 74.5 15.1 17.9 24.0 58.0 73.3 14.6 15.4 26.0 53.0 71.9 14.0 13.5 28.0 47.6 70.2 12.7 12.0 28.0 47.6 65.5 9.8 9.7 34.0 26.4 62.1 8.9 8.9 8.9     27.6 65.0 73.4 15.1 17.7 27.6 65.0 68.0 69.3 13.2 12.4 36.0 49.0 69.3 11.5 11.0 38.0 36.6 64.9 10.1 10.0 38.0 36.6 64.9 10.1 10.0 38.0 36.6 64.9 10.1 10.0 38.0 36.6 64.9 10.1 10.0 38.0 40.0 28.7 61.7 9.2 9.2    Angulo de pluma principal 65.0 [°]  Angulo de pluma principal 65.0 [°]  27.6 65.0 73.6 15.1 15.9 32.0 54.3 70.9 14.2 13.9 34.0 49.0 69.3 13.2 12.4 36.0 43.2 67.3 11.5 11.0 38.0 36.6 64.9 10.1 10.0 40.0 28.7 61.7 9.2 9.2    Angulo de pluma principal 65.0 [°]											
30.0   25.7   62.2   8.8   8.8   8.8											
17.4											
18.0				Ángı	ılo de plı	ıma prin	cipal 83.0	D[°]			
20.0 67.4 75.5 15.1 21.5 22.0 62.8 74.5 15.1 17.9 24.0 58.0 73.3 14.6 15.4 26.0 53.0 71.9 14.0 13.5 28.0 47.6 70.2 12.7 12.0 30.0 41.6 68.1 11.1 10.7 32.0 34.8 65.5 9.8 9.7 34.0 26.4 62.1 8.9 8.9	17.4	73.0	76.5		26.8						
22.0 62.8 74.5 15.1 17.9 24.0 58.0 73.3 14.6 15.4 26.0 53.0 71.9 14.0 13.5 28.0 47.6 70.2 12.7 12.0 30.0 41.6 68.1 11.1 10.7 32.0 34.8 65.5 9.8 9.7 34.0 26.4 62.1 8.9 8.9  Angulo de pluma principal 75.0 [°]  27.6 65.0 73.6 15.1 18.1 28.0 64.0 73.4 15.1 17.7 30.0 59.3 72.3 15.1 15.9 32.0 54.3 70.9 14.2 13.9 34.0 49.0 69.3 13.2 12.4 36.0 43.2 67.3 11.5 11.0 38.0 36.6 64.9 10.1 10.0 40.0 28.7 61.7 9.2 9.2  Angulo de pluma principal 65.0 [°]  39.5 55.0 68.0 8.2 40.0 53.7 67.7 9.1 8.0 44.0 48.3 66.1 8.3 7.2 44.0 48.3 66.1 8.3 7.2 44.0 42.4 64.1 7.5 6.5 46.0 35.8 61.5 6.9 5.9 48.0 27.6 58.2 6.3 5.3	18.0	71.8	76.3	15.1	26.7						
24.0 58.0 73.3 14.6 15.4 26.0 53.0 71.9 14.0 13.5 28.0 47.6 70.2 12.7 12.0 30.0 41.6 68.1 11.1 10.7 32.0 34.8 65.5 9.8 9.7 34.0 26.4 62.1 8.9 8.9	20.0	67.4	75.5	15.1	21.5						
26.0											
28.0											
30.0					i						
32.0 34.8 65.5 9.8 9.7 34.0 26.4 62.1 8.9 8.9    Angulo de pluma principal 75.0 [°]  27.6 65.0 73.6 15.1 18.1 28.0 64.0 73.4 15.1 17.7 30.0 59.3 72.3 15.1 15.9 32.0 54.3 70.9 14.2 13.9 34.0 49.0 69.3 13.2 12.4 36.0 43.2 67.3 11.5 11.0 38.0 36.6 64.9 10.1 10.0 40.0 28.7 61.7 9.2 9.2 9.2    Angulo de pluma principal 65.0 [°]  39.5 55.0 68.0 8.2 40.0 53.7 67.7 9.1 8.0 42.4 48.3 66.1 8.3 7.2 44.0 42.4 64.1 7.5 6.5 48.0 48.0 27.6 58.2 6.3 5.3											
34.0 26.4 62.1 8.9 8.9    Ángulo de pluma principal 75.0 [°]  27.6 65.0 73.6 15.1 18.1   28.0 64.0 73.4 15.1 17.7    30.0 59.3 72.3 15.1 15.9   32.0 54.3 70.9 14.2 13.9   34.0 49.0 69.3 13.2 12.4   36.0 43.2 67.3 11.5 11.0   38.0 36.6 64.9 10.1 10.0   40.0 28.7 61.7 9.2 9.2     Ángulo de pluma principal 65.0 [°]  39.5 55.0 68.0 8.2   40.0 53.7 67.7 9.1 8.0   42.0 48.3 66.1 8.3 7.2   44.0 42.4 64.1 7.5 6.5   46.0 35.8 61.5 6.9 5.9   48.0 27.6 58.2 6.3 5.3											
Ángulo de pluma principal 75.0 [°]         27.6       65.0       73.6       15.1       18.1         28.0       64.0       73.4       15.1       17.7         30.0       59.3       72.3       15.1       15.9         32.0       54.3       70.9       14.2       13.9         34.0       49.0       69.3       13.2       12.4         36.0       43.2       67.3       11.5       11.0         38.0       36.6       64.9       10.1       10.0         40.0       28.7       61.7       9.2       9.2         Ángulo de pluma principal 65.0 [°]         39.5       55.0       68.0       8.2         40.0       53.7       67.7       9.1       8.0         42.0       48.3       66.1       8.3       7.2         44.0       42.4       64.1       7.5       6.5         46.0       35.8       61.5       6.9       5.9         48.0       27.6       58.2       6.3       5.3	•										
27.6 65.0 73.6 15.1 18.1 28.0 64.0 73.4 15.1 17.7 30.0 59.3 72.3 15.1 15.9 32.0 54.3 70.9 14.2 13.9 34.0 49.0 69.3 13.2 12.4 36.0 43.2 67.3 11.5 11.0 38.0 36.6 64.9 10.1 10.0 40.0 28.7 61.7 9.2 9.2 9.2	34.0	20.7	02.1				-i 1 7 <i>F (</i>	2 6 0 1			
28.0 64.0 73.4 15.1 17.7  30.0 59.3 72.3 15.1 15.9  32.0 54.3 70.9 14.2 13.9  34.0 49.0 69.3 13.2 12.4  36.0 43.2 67.3 11.5 11.0  38.0 36.6 64.9 10.1 10.0  40.0 28.7 61.7 9.2 9.2   Angulo de pluma principal 65.0 [°]  39.5 55.0 68.0 8.2  40.0 53.7 67.7 9.1 8.0  42.0 48.3 66.1 8.3 7.2  44.0 42.4 64.1 7.5 6.5  46.0 35.8 61.5 6.9 5.9  48.0 27.6 58.2 6.3 5.3	27.6	65.0	73.6			лна рпп 	upai /5.0	ו וי			
30.0 59.3 72.3 15.1 15.9 32.0 54.3 70.9 14.2 13.9 34.0 49.0 69.3 13.2 12.4 36.0 36.6 64.9 10.1 10.0 40.0 28.7 61.7 9.2 9.2					ı						
32.0 54.3 70.9 14.2 13.9 34.0 49.0 69.3 13.2 12.4 36.0 43.2 67.3 11.5 11.0 38.0 36.6 64.9 10.1 10.0 40.0 28.7 61.7 9.2 9.2											
36.0											
38.0 36.6 64.9 10.1 10.0 40.0 28.7 61.7 9.2 9.2											
40.0     28.7     61.7     9.2     9.2       Ángulo de pluma principal 65.0 [°]       39.5     55.0     68.0     8.2       40.0     53.7     67.7     9.1     8.0       42.0     48.3     66.1     8.3     7.2       44.0     42.4     64.1     7.5     6.5       46.0     35.8     61.5     6.9     5.9       48.0     27.6     58.2     6.3     5.3											
Ángulo de pluma principal 65.0 [°]       39.5     55.0     68.0     8.2       40.0     53.7     67.7     9.1     8.0       42.0     48.3     66.1     8.3     7.2       44.0     42.4     64.1     7.5     6.5       46.0     35.8     61.5     6.9     5.9       48.0     27.6     58.2     6.3     5.3											
39.5 55.0 68.0 8.2 40.0 53.7 67.7 9.1 8.0 42.0 48.3 66.1 8.3 7.2 44.0 42.4 64.1 7.5 6.5 46.0 35.8 61.5 6.9 5.9 48.0 27.6 58.2 6.3 5.3	40.0	28.7	61.7								
40.0     53.7     67.7     9.1     8.0       42.0     48.3     66.1     8.3     7.2       44.0     42.4     64.1     7.5     6.5       46.0     35.8     61.5     6.9     5.9       48.0     27.6     58.2     6.3     5.3				Ángı		ıma prin	cipal 65.0	[°]		1	
42.0     48.3     66.1     8.3     7.2       44.0     42.4     64.1     7.5     6.5       46.0     35.8     61.5     6.9     5.9       48.0     27.6     58.2     6.3     5.3											
44.0     42.4     64.1     7.5     6.5       46.0     35.8     61.5     6.9     5.9       48.0     27.6     58.2     6.3     5.3				-							
46.0     35.8     61.5     6.9     5.9       48.0     27.6     58.2     6.3     5.3					i						
48.0 27.6 58.2 6.3 5.3											
■ 00.0 1 10.8 1 03.3 ■ 0.7 1 4.0 1	50.0	15.9	53.3	5.7	4.8						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.	0 m Plum Cabeza 19.0		n (1916-	1) 50.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
9.1 10.0 11.0 12.0 13.0 14.0 16.0 20.0 22.0	78.0 75.1 71.9 68.6 65.3 61.9 54.7 46.7 37.3 24.8	68.7 68.5 68.2 67.8 67.3 66.8 65.5 63.8 61.5 58.1	15.1 15.1 15.1 15.1 15.1 15.1 14.9 13.7 10.7 8.7 Ángu	30.1 30.1 28.5 26.0 21.9 19.0 14.9 12.1 10.0 8.4 Ilo de plu 29.8 26.1	uma prind	cipal 83.	D [°]			
18.0 20.0 22.0 24.0	62.4 55.2 47.3 38.0	66.5 65.2 63.5 61.3	15.1 15.1 13.9 10.9	19.3 15.1 12.3 10.1						
26.0	25.9	58.0	9.0	8.6						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
23.7 24.0 26.0 28.0	65.0 64.2 57.1 49.4	65.4 65.3 64.1 62.6	15.1 15.1 14.6	19.0 18.6 15.9 13.0						
30.0 32.0	40.5 29.5	60.5 57.6	11.7 9.6	10.7 9.1						
				ılo de plu	ıma prin	cipal 65.0	D[°]			
34.3 36.0 38.0 40.0 41.0	55.0 48.4 39.4 27.8 19.7	60.7 59.4 57.2 54.1 51.9	9.4 8.3 7.2 6.7	8.4 7.4 6.3 5.3 4.9	·		-			



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

Valor de vuelco:

360°

2821-1 Cabeza de pluma principal:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.0	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	[°]			
11.0 12.0 13.0 14.0 16.0	78.0 75.9 73.7 71.6 67.2	77.5 77.3 77.0 76.7 75.9	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 28.9 25.3						
18.0 20.0 22.0 24.0 26.0	62.6 57.8 52.8 47.3 41.3	74.9 73.7 72.3 70.5 68.4	15.1 14.7 14.2 13.1 11.3	20.8 17.6 15.2 13.3 11.7						
28.0 30.0	34.4 25.9	65.8 62.3	9.9 8.8	10.4 9.3						
					ıma prin	cipal 83.0	D[°]		ı	
17.5 18.0 20.0	73.0 71.9 67.5	76.5 76.3 75.5	15.1 15.1 15.1	30.1 30.1 25.8						
22.0 24.0 26.0 28.0 30.0	62.9 58.2 53.1 47.7 41.7	74.6 73.4 72.0 70.3 68.2	15.1 14.8 14.4 13.2 11.4	21.0 17.8 15.3 13.5 11.8						
32.0 34.0	34.9 26.6	65.6 62.2	10.0	10.6 9.5						
34.0	20.0	02.2			ıma prin	cipal 75.0	[°]C		ı	
27.6 28.0 30.0	65.0 64.1 59.4	73.6 73.4 72.3	15.1 15.1	15.3 15.0 13.2		'				
32.0 34.0 36.0 38.0 40.0	54.4 49.1 43.3 36.8 28.9	71.0 69.3 67.4 64.9 61.8	14.0 12.6 11.3 10.2 9.2	11.8 10.5 9.3 8.3 7.4						
					ıma prin	cipal 65.0	1°10			
39.5 40.0 42.0 44.0 46.0 48.0	55.0 53.8 48.5 42.6 35.9 27.8	68.0 67.8 66.1 64.1 61.6 58.3	6.1 5.3 4.6 3.9	5.4 5.3 4.5 3.8 3.2 2.7	•					
50.0	16.1	53.4	2.6	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

	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) 53.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.7	78.0	71.7	15.1	30.1						
10.0	77.1	71.6	15.1	30.1						
11.0	74.4	71.3	15.1	28.0						
12.0	71.7	71.0	15.1	24.0						
13.0	68.9	70.6	15.1	20.7						
14.0	66.1	70.2	15.1	18.0						
16.0	60.1	69.1	14.8	14.2						
18.0	53.8	67.7	12.1	11.4						
20.0	46.9	66.0	10.1	9.5						
22.0	39.0	63.8	8.1	7.8						
24.0	29.2	60.8	6.7	6.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
15.7	73.0	70.7	15.1	23.9						
16.0	72.1	70.6	15.1	23.8						
18.0	66.5	69.8	15.0	18.2						
20.0	60.6	68.8	14.2	14.4						
22.0	54.3	67.4	11.1	11.5						
24.0	47.4	65.7	9.1	9.6						
26.0	39.6	63.6	7.5	8.0						
28.0	30.0	60.6	6.4	6.8						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
25.0	65.0	68.1		15.8						
26.0	62.1	67.7	15.1	15.2						
28.0	55.9	66.4	13.5	12.2						
30.0	49.2	64.8	10.8	10.1						
32.0	41.7	62.8	8.7	8.4						
34.0	32.7	60.1	7.2	7.2						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
36.0	55.0	63.1		7.5						
38.0	48.4	61.6	8.2	6.4						
40.0	40.7	59.5	7.2	5.5						
42.0	31.5	56.7	6.2	4.7						
44.0	18.1	52.4	5.4	4.0						



N° de ident.: 9842523/95738/

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

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.0	Cabeza	de plumí	oal, Punt ín (2316- osición m	1) 53.5 r	n Plumín	dfall		
			Ángi	ılo de plı	ıma prin	cinal 88 (	1°10			
11.6	78.0	80.5	, ange	30.1		l l				
12.0 13.0 14.0	77.3 75.3 73.4	80.4 80.1 79.8	15.1 15.1 15.1	30.1 30.1 29.5						
16.0	69.5	79.1	15.1	24.1						
18.0 20.0 22.0 24.0	65.5 61.3 56.9 52.3	78.3 77.2 76.0 74.5	15.1 15.1 13.3 11.9	19.8 16.8 14.4 12.5						
26.0	47.4	72.8	10.6	11.1						
28.0 30.0 32.0	42.0 36.0 28.8	70.7 68.2 65.0	9.2 8.1 7.3	9.8 8.7 7.8						
			Ángu	ılo de plu	uma prin	cipal 83.0	[°]			
18.4	73.0	79.3	15.1	27.5						
20.0 22.0	69.8 65.8	78.8 77.9	15.1 15.1	24.4						
24.0	61.6	76.9	15.1	17.0						
26.0	57.2	75.7	14.0	14.5						
28.0 30.0	52.7 47.8	74.2 72.5	13.0 11.6	12.7 11.2						
32.0	42.4	70.4	10.1	9.9						
34.0	36.4	68.0	8.7	8.8						
36.0 38.0	29.4 20.0	64.8 60.4	7.8 6.9	7.9 7.1						
30.0	20.0	00.4			ıma prin	oinal 75 (	) [ ° ]			
28.9	65.0	76.3	Angu	14.0		 	J [ ]			
30.0	62.7	75.8	15.1	13.1						
32.0	58.4	74.6	13.5	11.6						
34.0	53.8	73.2	12.2	10.3						
36.0 38.0	49.0 43.8	71.6 69.6	11.0 9.9	9.2 8.2						
40.0	38.0	67.2	8.9	7.3						
42.0	31.3	64.3	8.0	6.5						
44.0	22.8	60.3	7.1	5.8						
			Angı	<u>.</u>	ıma prin	cipal 65.0	D[°]			
41.3 42.0	55.0 53.3	70.5 70.0	4.9	4.5 4.3						
44.0	48.4	68.4	4.9	3.6						
46.0	43.2	66.4	3.5	3.0						
48.0	37.3	63.9	2.9	2.5						
50.0 51.0	31.2 27.3	60.9 59.0	2.4 2.1							
51.0	21.0	55.0	4.1							

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

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

74.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.0	0 m Plum Cabeza 22.0	de plumí	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.7 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.3 74.6 71.9 69.1 66.2 60.3 54.0 47.1 39.2 29.5	71.7 71.6 71.3 71.0 70.6 70.2 69.1 67.8 66.1 63.8 60.8	15.1 15.1 15.1 15.1 15.1 15.1 14.9 13.7 10.9 8.9 Ångu	30.1 30.1 30.1 28.8 27.3 23.7 18.5 14.9 12.4 10.3 8.7 ulo de plu 30.1	uma prind	cipal 83.	D [°]			
18.0 20.0 22.0 24.0 26.0 28.0	66.6 60.7 54.4 47.6 39.8 30.2	69.9 68.8 67.5 65.8 63.6 60.7	15.1 15.1 15.1 13.9 11.1 9.2	24.3 18.8 15.1 12.5 10.4 8.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	D[°]			
25.1 26.0 28.0 30.0 32.0 34.0	65.0 62.3 56.1 49.4 41.9 32.9	68.1 67.7 66.4 64.9 62.8 60.1	15.1 14.7 12.7 11.0 9.4	14.3 13.2 11.1 9.4 7.9 6.6	·					
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
36.1 38.0 40.0 42.0	55.0 48.5 40.9 32.7	63.1 61.7 59.6 56.8	4.4 3.4 2.4	4.3 3.4 2.5						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

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

Lastre central [t]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 25.0	de plumí		1) 56.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.3 11.0 12.0 13.0 14.0	78.0 76.4 74.0 71.6 69.1	74.6 74.4 74.1 73.8 73.4	15.1 15.1 15.1 15.1 15.1	29.6 28.8 24.4 20.9 18.4						
16.0 18.0 20.0 22.0 24.0	64.1 58.8 53.1 47.0 40.2	72.5 71.4 70.0 68.2 66.1	13.5 11.8 9.6 8.2 7.0	14.6 12.2 10.2 8.8 7.5						
26.0 28.0	32.1 21.4	63.3 59.3	6.1 5.3	6.6 5.7						
					ıma prin	cipal 83.0	1°10			
16.5 18.0 20.0 22.0 24.0	73.0 69.5 64.4 59.2 53.6	73.6 73.1 72.2 71.1 69.7	15.1 14.5 13.1 10.7	21.1 18.6 14.8 12.3 10.3						
26.0 28.0 30.0 32.0	47.5 40.7 32.8 22.3	68.0 65.9 63.1 59.2	9.1 7.7 6.6 5.8	8.9 7.6 6.7 5.8						
			Ángu	ılo de plu	ıma prin	cipal 75.0	] (°)			
26.3 28.0 30.0 32.0 34.0 36.0 38.0	65.0 60.5 55.0 49.1 42.5 35.0 25.4	70.9 70.0 68.7 67.1 65.1 62.5 59.0	13.7 11.3 9.5 8.0 6.9 6.1	14.3 12.8 10.8 9.2 7.9 6.9 6.1	-		_			
30.0	23.4	J9.0			ıma prin	cinal 65 (	) [ ° ]			
37.8 38.0 40.0 42.0 44.0 46.0 47.0	55.0 54.3 48.3 41.7 33.9 24.0 16.9	65.6 65.5 63.8 61.8 59.1 55.5 52.8	8.1 7.2 6.3 5.5 4.7 4.4	6.7 6.6 5.7 4.9 4.2 3.6 3.3	πιια μιτι	ыраг оз.	×[]			



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.0		de plumi	oal, Punt ín (1916- osición m	1) 59.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	D [ ° ]			
10.9	78.0	77.5		27.3						
11.0 12.0 13.0	77.8 75.7 73.6	77.5 77.3 77.0	15.1 15.1 15.1	27.3 25.5 22.1						
14.0 16.0	71.4 67.0	76.6 75.8	15.1 14.2	19.3 15.4						
18.0 20.0 22.0 24.0	62.5 57.7 52.6 47.2	73.6 74.9 73.7 72.2 70.5	14.2 12.1 10.1 8.3 7.1	12.7 10.6 8.9 7.7						
26.0	41.1	68.4	6.1	6.6						
28.0 30.0	34.2 25.7	65.7 62.2	5.3 4.7	5.7 5.0						
			Ángu	ılo de plu	uma prin	cipal 83.0	[°]			
17.4	73.0	76.5		19.4						
18.0	71.8	76.3	15.1	19.3						
20.0 22.0	67.4 62.8	75.5 74.5	15.1 13.4	15.7 12.8						
24.0	58.0	73.3	11.3	10.7						
26.0	53.0	71.9	9.2	9.0						
28.0	47.6	70.2	7.8	7.8						
30.0	41.6	68.1	6.7	6.7						
32.0	34.8	65.5	5.7	5.8						
34.0	26.4	62.1	5.0	5.1		-in al 75 (	2 6 9			
27.6	65.0	73.6	12.8	13.2	ıma prin	cipai 75.0	۱ ] ا			
28.0	64.0	73.4	12.6	13.2						
30.0	59.3	72.3	10.7	11.2						
32.0	54.3	70.9	8.9	9.5						
34.0	49.0	69.3	7.6	8.2						
36.0	43.2	67.3	6.5	7.0						
38.0 40.0	36.6 28.7	64.9 61.7	5.7 5.0	6.1 5.4						
70.0	20.1	01.7			uma prin	cinal 65 (	) [ ° ]			
39.5	55.0	68.0	Ailgi	5.9	 	 	יוי			
40.0	53.7	67.7	7.0	5.9						
42.0	48.3	66.1	6.1	4.9						
44.0	42.4	64.1	5.3	4.2						
46.0	35.8	61.5	4.6	3.6						
48.0 50.0	27.6 15.9	58.2 53.3	4.0 3.4	3.1 2.5						
50.0	10.8	ეე.ე	3.4	L.3	l					



360°

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

N° de ident.: 9842523/95738/

Radio de descarga:

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

	Inserciór	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 31.0	de plumí	oal, Punt n (1916- osición m	1) 62.5 r	n Plumín	dfall		
			Ánaı	ılo de plu	ıma prin	cipal 88.0	1°10			
11.6	78.0	80.5	15.1	24.8						
12.0 13.0 14.0 16.0	77.1 75.2 73.3 69.4	80.4 80.1 79.8 79.1	15.1 15.1 15.1 15.1	24.8 22.3 19.7 15.7						
18.0	65.3	78.2	13.3	13.0						
20.0 22.0 24.0 26.0	61.2 56.8 52.2 47.3	77.2 75.9 74.5 72.7	11.6 9.6 7.9 6.8	11.0 9.3 7.9 6.8						
28.0 30.0 32.0	41.9 35.8 28.7	70.6 68.1 64.9	5.9 5.1 4.5	5.9 5.2 4.6						
					ıma prin	cinal 83 (	1°1			
18.3	73.0	79.3	7 tinge	17.7	IIII piiii		J [ ]			
20.0	69.7	78.7	15.1	15.9						
22.0	65.6	77.9	13.9	13.1						
24.0 26.0	61.5 57.1	76.8 75.6	11.8 9.7	11.1 9.3						
28.0	52.5	74.2	8.1	8.0						
30.0	47.6	72.5	7.0	7.0						
32.0 34.0	42.3 36.3	70.4 67.9	6.0 5.2	6.1 5.3						
36.0	29.2	64.8	4.6	5.3 4.7						
			Ángı	ılo de plı	ıma prin	cipal 75 (	1°10			
28.8	65.0	76.3	90	12.0		. p.s 3				
30.0	62.5	75.7	12.4	11.6						
32.0	58.2	74.6	10.2	9.8						
34.0 36.0	53.7 48.9	73.2 71.5	8.5 7.3	8.4 7.3						
38.0	43.7	69.6	6.3	6.3						
40.0	37.9	67.2	5.5	5.5						
42.0	31.2	64.2	4.8	4.9						
44.0	22.6	60.3	4.3	4.3		-:	2.501			
44.2	FF 0	70.5	Angu		ıma prin	cipai 65.0	ַן רַ <u>ן</u>		Ι	
41.2 42.0	55.0 53.2	70.5 70.0	6.1	5.3 5.0						
44.0	48.3	68.3	5.4	4.4						
46.0	43.0	66.3	4.7	3.8						
48.0 50.0	37.1 30.3	63.9 60.8	4.0 3.4	3.2 2.7						
53.0	15.0	53.7	2.6	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 ]: 74.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 34.0	de plumi		·1) 65.5 r	n Plumín			
			Ángı	ılo de plı	uma prin	cipal 88.	0 [°]			
12.2	78.0	83.4	15.1	22.5						
13.0	76.6	83.2	15.1	22.5						
14.0	74.8	82.9	15.1	19.8						
16.0 18.0	71.3 67.7	82.3 81.5	15.1 14.4	15.9 13.3						
20.0	63.9	80.6	11.8	11.1						
22.0	60.1	79.5	9.9	9.6						
24.0	56.1	78.2	8.3	8.1						
26.0	51.8	76.7	7.0	7.0						
28.0	47.4	75.0	6.1	6.1						
30.0 32.0	42.5 37.1	72.9 70.5	5.3 4.6	5.4 4.7						
34.0	30.9	67.5	4.0	4.7						
36.0	23.2	63.5	3.6	3.7						
			Ángı	ılo de plı	ıma prin	cipal 83.	0 [°]			
19.2	73.0	82.2	15.1	16.2						
20.0	71.5	81.9	15.1	16.1						
22.0	67.9	81.2	14.4	13.4						
24.0	64.2	80.2 79.2	12.0	11.2						
26.0 28.0	60.4 56.4	79.2	10.0 8.4	9.6 8.2						
30.0	52.2	76.4	7.1	7.1						
32.0	47.7	74.7	6.2	6.3						
34.0	42.8	72.7	5.4	5.5						
36.0	37.5	70.2	4.7	4.8						
38.0 40.0	31.4 23.8	67.3 63.4	4.2 3.7	4.3 3.8						
40.0	23.0	03.4			uma prin	cinal 75	1°10		l.	I.
30.1	65.0	79.0	,gc	10.9						
32.0	61.4	78.1	10.5	10.3						
34.0	57.4	76.8	8.8	8.7						
36.0	53.3	75.4	7.5	7.4						
38.0	48.9	73.8	6.5	6.6						
40.0 42.0	44.1 38.9	71.8 69.5	5.6 4.9	5.7 5.0						
42.0 44.0	33.0	66.7	4.9	4.5						
46.0	25.9	63.1	3.9	4.0						
			Ángı	ılo de plu	uma prin	cipal 65.	0 [°]			
42.9	55.0	73.0		4.6						
44.0	52.7	72.2	5.2	4.3						
46.0	48.3	70.6	4.5	3.7						
48.0 50.0	43.5 38.3	68.6 66.2	3.9	3.1 2.6						
54.0	25.8	59.6	3.3 2.2	2.0						
07.0	20.0	00.0								



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	0 m Plum Cabeza 37.0	de plumí	oal, Punt ín (1916- osición m	1) 68.5 r	n Plumín	dfall I		
			Ángı		ıma prin	cipal 88.0	[°]			
12.8 13.0 14.0 16.0 18.0	78.0 77.7 76.1 72.9 69.6	86.3 86.3 86.0 85.5 84.8	15.1 15.1 15.1 15.1 14.9	21.9 21.9 21.2 17.1 14.3						
20.0 22.0 24.0 26.0 28.0	66.2 62.8 59.2 55.5 51.6	83.9 82.9 81.8 80.5 78.9	13.0 10.8 9.2 7.9 6.8	12.1 10.4 9.0 7.8 6.9						
30.0 32.0 34.0 36.0	47.4 43.0 38.1 32.6	77.2 75.2 72.8 69.9	6.0 5.3 4.6 4.1 3.7	6.1 5.4 4.7 4.2						
38.0	26.1	66.3		ılo de nlı	ıma prin	rinal 83 (	1°1			
20.1 22.0 24.0 26.0	73.0 69.8 66.5 63.0	85.1 84.4 83.6 82.6	15.1 14.9 13.2 10.9	15.9 14.5 12.3 10.5			, ,			
28.0 30.0 32.0 34.0 36.0	59.4 55.7 51.8 47.7 43.3	81.5 80.2 78.7 76.9 74.9	9.3 8.0 6.9 6.1 5.4	9.1 7.9 7.0 6.2 5.5						
38.0 40.0	38.5 33.0	72.6 69.7	4.7	4.8						
42.0	26.6	66.2	3.8 Ápgu	3.9	ıma prin	oinal 75 (	) [ ° ]			
31.4 32.0 34.0	65.0 63.9 60.4	81.7 81.5 80.4	11.1 11.1 9.7	10.7 10.7 9.5	uma prind	cipai 75.	<u> </u>			
36.0 38.0 40.0 42.0	56.7 52.8 48.8 44.5	79.1 77.7 76.0 74.1	8.3 7.2 6.4 5.6	8.3 7.3 6.5 5.7						
44.0 46.0 48.0 50.0	39.8 34.5 28.4 20.6	71.8 69.1 65.8 61.4	5.0 4.4 4.0 3.6	5.1 4.5 4.1 3.7						
			Ángı		ıma prin	cipal 65.0	[°]			
44.7 46.0 48.0 50.0	55.0 52.4 48.3 43.9	75.4 74.5 72.8 70.8	4.4 3.8 3.2	4.0 3.6 3.1 2.6						
54.0	34.3	65.8	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]
		47.0	0 m Plun Cabeza	de plumi	ín (1916-	·1) 71.5 r̀	n Plumír			
					osición m					
			Angu		ıma prin	cipai 88.	υ[ ]			
13.4	78.0	89.3		22.4						
14.0	77.1	89.1	15.1	22.4						
16.0 18.0	74.2 71.2	88.6 88.0	15.1 14.7	19.5 16.4						
20.0	68.1	87.2	14.7	14.2						
22.0	65.0	86.3	11.7	12.2						
24.0	61.7	85.2	10.1	10.6						
26.0	58.4	84.1	8.8	9.4						
28.0	54.9	82.7	7.7	8.3						
30.0	51.3	81.2	6.8	7.4						
32.0	47.5	79.4	6.2	6.7						
34.0	43.4	77.4	5.5	6.0						
36.0	39.0	75.1	5.0	5.4						
38.0	34.0	72.4	4.5	4.9						
40.0	28.3	69.0	4.2	4.5						
42.0	21.2	64.7	3.8	4.1						
			Ángı	ılo de plu	uma prin	cipal 83.	0 [°]			
20.9	73.0	87.9	l	16.8		l .				
22.0	71.4	87.6	15.1	16.7						
24.0	68.3	86.8	14.4	14.2						
26.0	65.2	85.9	12.7	12.3						
28.0	62.0	84.9	11.0	10.8						
30.0	58.6	83.7	9.6	9.5						
32.0	55.2	82.4	8.3	8.4						
34.0	51.6	80.9	7.4	7.5						
36.0 38.0	47.8 43.7	79.2 77.2	6.6 5.9	6.8						
40.0	39.3	74.9	5.9	5.5						
42.0	34.4	72.2	4.8	5.0						
44.0	28.8	68.9	4.4	4.6						
46.0	21.8	64.6	4.0	4.2						
			Ángı	ılo de plu	uma prin	cipal 75.	0 [°]			
32.6	65.0	84.5	I	11.2		<u> </u>	Ī			
34.0	62.8	83.8	11.7	10.4						
36.0	59.5	82.7	10.0	9.3						
38.0	56.1	81.4	8.8	8.3						
40.0	52.5	79.9	7.7	7.5						
42.0	48.8	78.2	6.9	6.7						
44.0	44.8	76.3	6.2	6.0						
46.0	40.4	74.1	5.6	5.4						
48.0 50.0	35.7 30.3	71.5 68.4	5.0 4.6	4.8 4.2						
50.0	J 30.3	U0.4		-		oinal CE	0 [ 0 ]	l	l	
16.1	55.0	77.0	Angl	· ·	uma prin	cipai 65.	υ[ ]			
46.4 48.0	55.0 52.1	77.9 76.7	3.5	3.4 2.9						
50.0	48.3	75.0	3.0	2.5						
	1 .5.0			1	i .	i .	i .	l .	i .	1



N° de ident.: 9842523/95738/

Radio de descarga:

360°

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	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 31.0	de plumí		1) 74.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	] (°)			
11.6 12.0 13.0	78.0 77.1 75.2	80.5 80.4 80.1	15.1 15.1 15.1	20.5 20.5 18.8		·				
14.0 16.0 18.0	73.3 69.4	79.8 79.1	15.1 14.2 11.6	16.6 13.2						
20.0 22.0 24.0	65.3 61.2 56.8 52.2	78.2 77.2 75.9 74.5	9.0 7.3 5.9	10.6 8.7 7.2 5.9						
26.0 28.0 30.0	47.3 41.9 35.8	72.7 70.6 68.1	5.0 4.2 3.6	5.0 4.2 3.6						
32.0	28.7	64.9	2.9	3.0	uma prin	cipal 83 (	1°10			
18.3	73.0	79.3	I	14.7						
20.0	69.7	78.7	14.7	13.4						
22.0 24.0	65.6 61.5	77.9 76.8	11.6	10.7						
26.0	57.1	76.8 75.6	9.0 7.4	8.7 7.2						
28.0	52.5	74.2	6.1	6.1						
30.0	47.6	72.5	5.2	5.2						
32.0	42.3	70.4	4.4	4.4						
34.0	36.3	67.9	3.7	3.7						
36.0	29.2	64.8	3.2 Ápgu	3.2	ıma aria	oinal 75 (	) [ ° ]			
28.8	65.0	76.3	Angu	9.5	uma prind	upai / 5.1	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \			
30.0	62.5	75.7	9.7	9.5						
32.0	58.2	74.6	7.8	7.6						
34.0	53.7	73.2	6.5	6.4						
36.0	48.9	71.5	5.5	5.5						
38.0	43.7	69.6	4.7	4.7						
40.0 42.0	37.9 31.2	67.2 64.2	4.0	4.0 3.5						
42.0 44.0	22.6	60.3	3.4 3.0	3.5						
					ıma prin	cipal 65.0	1°10			
41.2	55.0	70.5	9	3.2		. ,,				
42.0	53.2	70.0	3.8	2.9						
44.0	48.3	68.3	3.0	2.3						
46.0	43.5	66.3	2.3							



N° de ident.: 9842523/95738/ Piez

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

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

Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]								
47.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 77.5 m Plumín 34.0 [ m ] Posición midfall (1916)											
Ángulo de pluma principal 88.0 [ ° ]											
12.2	78.0	83.4	15.1	18.3		i i					
13.0	76.6	83.2	15.1	18.3							
14.0	74.8	82.9	15.1	16.4							
16.0	71.3	82.3	13.8	13.1							
18.0 20.0	67.7	81.5	9.0	10.7 8.7							
20.0	63.9 60.1	80.6 79.5	7.3	7.2							
24.0	56.1	78.2	6.0	6.0							
26.0	51.8	76.7	5.0	5.0							
28.0	47.4	75.0	4.2	4.2							
30.0	42.5	72.9	3.5	3.6							
32.0	37.1	70.5	3.0	3.0							
34.0	30.9	67.5	2.4	2.5							
Ángulo de pluma principal 83.0 [°]											
19.2	73.0	82.2	12.7	13.1							
20.0	71.5	81.9	12.6	13.0							
22.0	67.9	81.2	10.2	10.7							
24.0	64.2	80.2	8.1	8.6							
26.0	60.4	79.2	6.7	7.2							
28.0 30.0	56.4 52.2	77.9 76.4	5.6 4.8	6.0 5.1							
32.0	47.7	74.7	4.1	4.4							
34.0	42.8	72.7	3.5	3.7							
36.0	37.5	70.2	3.0	3.2							
38.0	31.4	67.3	2.5	2.7							
40.0	23.8	63.4	2.1	2.3							
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]				
30.1	65.0	79.0		8.3							
32.0	61.4	78.1	7.7	7.7							
34.0	57.4	76.8	6.5	6.5							
36.0	53.3	75.4	5.4	5.4							
38.0	48.9	73.8	4.6	4.7							
40.0	44.1	71.8	3.9	4.0							
42.0 44.0	38.9 33.0	69.5 66.7	3.3 2.8	3.4 2.9							
44.0 46.0	25.9	63.1	2.6	2.9							
Ángulo de pluma principal 65.0 [ ° ]											
42.9	55.0	73.0	0.0	2.6							
44.0 46.0	52.7 48.6	72.2 70.6	2.9 2.2	2.2							
40.0	46.b	70.6	۷.۷	I	L	I	I	I	L	l	



Nº de ident.: 9842523/95738/

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

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

Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]								
47.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 80.5 m Plumín 37.0 [ m ] Posición midfall (1916)											
Ángulo de pluma principal 88.0 [ ° ]											
12.8	78.0	86.3	15.1	19.0	- 1	1					
13.0	77.7	86.3	15.1	19.0							
14.0	76.1	86.0	15.1	18.5							
16.0	72.9	85.5	14.9	15.1							
18.0	69.6	84.8	13.0	12.3							
20.0	66.2	83.9	10.8	10.2							
22.0 24.0	62.8 59.2	82.9 81.8	8.7	8.5 7.3							
24.0 26.0	55.5	80.5	7.3 6.2	6.2							
28.0	51.6	78.9	5.3	5.4							
30.0	47.4	77.2	4.6	4.7							
32.0	43.0	75.2	4.0	4.1							
34.0	38.1	72.8	3.5	3.6							
36.0	32.6	69.9	3.0	3.0							
Ángulo de pluma principal 83.0 [ ° ]											
20.1	73.0	85.1	14.1	13.5							
22.0	69.8	84.4	13.2	12.3							
24.0	66.5	83.6	10.8	10.2							
26.0	63.0	82.6	8.7	8.6							
28.0 30.0	59.4	81.5 80.2	7.4 6.3	7.4							
32.0	55.7 51.8	78.7	5.4	6.3 5.5							
34.0	47.7	76.7	4.8	4.9							
36.0	43.3	74.9	4.2	4.2							
38.0	38.5	72.6	3.6	3.7							
40.0	33.0	69.7	3.2	3.3							
42.0	26.6	66.2	2.7	2.8							
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]				
31.4	65.0	81.7	8.8	8.8							
32.0	63.9	81.5	8.8	8.7							
34.0	60.4	80.4	7.7	7.7							
36.0	56.7	79.1	6.7	6.7							
38.0 40.0	52.8 48.8	77.7 76.0	5.7 5.1	5.8 5.1							
40.0 42.0	48.8 44.5	76.0	5.1 4.4	4.4							
44.0	39.8	71.8	3.9	3.7							
46.0	34.5	69.1	3.4	3.1							
48.0	28.4	65.8	3.1	2.6							
50.0	20.6	61.4	2.7	2.1							
Ángulo de pluma principal 65.0 [ ° ]											
44.7	55.0	75.4		2.1							
46.0	52.6	74.5	2.2								



2821-1 2821-1

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 40.0	de plumi		1) 83.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.4 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0 36.0	78.0 77.1 74.2 71.2 68.1 65.0 61.7 58.4 54.9 51.3 47.5 43.4 39.0	89.3 89.1 88.6 88.0 87.2 86.3 85.2 84.1 82.7 81.2 79.4 77.4	15.1 13.7 11.0 8.9 7.3 6.1 5.2 4.5 3.8 3.3 2.9 2.5	15.9 15.9 14.0 11.5 9.6 7.9 6.6 5.7 4.8 4.2 3.6 3.1 2.7						
					uma prin	cinal 83 (	1°10			
20.9 22.0 24.0 26.0 28.0 30.0 32.0	73.0 71.4 68.3 65.2 62.0 58.6 55.2	87.9 87.6 86.8 85.9 84.9 83.7 82.4	10.9 9.4 7.9 6.7 5.7 4.8	11.5 11.4 9.4 7.9 6.7 5.8 4.9						
34.0 36.0 38.0 40.0 42.0	51.6 47.8 43.7 39.3 34.4	80.9 79.2 77.2 74.9 72.2	4.6 4.1 3.6 3.1 2.7 2.3	4.3 3.7 3.2 2.8 2.4						
			Ángı		ıma prin	cipal 75.0	[°]			
32.6 34.0 36.0 38.0 40.0	65.0 62.8 59.5 56.1 52.5	84.5 83.8 82.7 81.4 79.9	7.1 6.0 5.2 4.4	7.2 7.1 6.1 5.3 4.5						
42.0 44.0 46.0 48.0 50.0 51.0	48.8 44.8 40.4 35.7 30.3 27.9	78.2 76.3 74.1 71.5 68.4 66.6	3.9 3.4 2.9 2.5 2.2 2.1	4.0 3.4 2.9 2.5 2.1						



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 ]: 74.0 0.0 Lastre central [ t ]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		47.	0 m Plum Cabeza 43.0	de plumí	n (1916-	o de caro 1) 86.5 r nidfall (19	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]C			
14.0	78.0	92.2		14.4						
16.0	75.3	91.7	14.5	13.3						
18.0	72.5	91.1	11.5	10.8						
20.0	69.7	90.4	8.9	8.8						
22.0	66.8	89.6	7.3	7.3						
24.0	63.9	88.6	6.0	6.0						
26.0	60.8	87.6	5.0	5.1						
28.0	57.7	86.3	4.3	4.3						
30.0	54.5	85.0	3.6	3.7						
32.0	51.1	83.4	3.0	3.1						
34.0 36.0	47.5 43.7	81.7 79.7	2.6 2.2	2.7 2.2						
			Ángu	ılo de plu	ıma prin	cipal 83.0	1°10			
21.8	73.0	90.8		9.7	·	·				
22.0	72.7	90.8	9.9	9.7						
24.0	69.9	90.1	9.0	8.8						
26.0	67.0	89.2	7.3	7.3						
28.0	64.1	88.3	6.1	6.1						
30.0	61.1	87.2	5.2	5.3						
32.0	57.9	86.0	4.4	4.5						
34.0	54.7	84.7	3.7	3.8						
36.0	51.3	83.1 81.4	3.2	3.3						
38.0 40.0	47.8 44.0	81.4 79.4	2.7 2.3	2.8 2.4						
40.0	77.0	10.7			ıma prin	cipal 75.0	1°1C			
33.9	65.0	87.2		6.0		. ,,				
34.0	64.8	87.2	5.8	6.0						
36.0	61.8	86.1	5.5	5.6						
38.0	58.7	85.0	4.6	4.7						
40.0	55.5	83.6	3.9	4.1						
42.0	52.2	82.1	3.3	3.5						
44.0	48.7	80.5	2.9	3.0						
46.0	45.0	78.6	2.5	2.6						
48.0	41.0	76.4	2.1	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

	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 plumi	ín (1916-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
14.7 16.0 18.0 20.0	78.0 76.3 73.7 71.1	95.1 94.8 94.3 93.6	14.1 14.0 11.2 8.9	13.4 13.3 10.7 8.7						
22.0 24.0 26.0	68.4 65.7 62.9	92.8 92.0 91.0	7.2 6.0 5.0	7.3 6.0 5.0						
28.0 30.0 32.0	60.1 57.1 54.1	89.9 88.6 87.2	4.2 3.6 3.0	4.3 3.6 3.1						
34.0 36.0	50.9 47.6	85.7 83.9	2.5 2.1	2.6 2.2						
			Ángı	ılo de plı	ıma prin	cipal 83.0	[°]			
22.7 24.0 26.0	73.0 71.3 68.6	93.7 93.3 92.5	8.8 8.7 7.1	8.7 8.7 7.2						
28.0 30.0 32.0	65.9 63.1 60.3	91.6 90.7 89.6	6.0 5.1 4.4	6.1 5.2 4.5						
34.0 36.0 38.0	57.3 54.3 51.1	88.3 86.9 85.4 83.6	3.7 3.1 2.7 2.3	3.8 3.2 2.7 2.3						
40.0	47.8	83.6			ıma nrin	cipal 75.0	) [ ° ]			
35.2 36.0 38.0 40.0	65.0 63.8 61.0 58.1	89.9 89.5 88.5 87.2	5.2 5.2 4.6 3.9	5.3 5.3 4.7 4.0		oipai 70.	7 J			
40.0 42.0 44.0 46.0 48.0	55.1 55.0 48.7 45.2	85.9 84.4 82.7 80.8	3.9 3.3 2.8 2.4 2.1	3.4 2.9 2.5 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 ]: 74.0 Lastre central [ t ]: 0.0

	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]
			0 m Plum Cabeza 49.0	de plumí		1) 92.5 r	n Plumír			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
15.3 16.0 18.0 20.0 22.0	78.0 77.2 74.7 72.3 69.8	98.1 97.9 97.4 96.8 96.1	10.7 10.7 9.8 8.4 6.9	11.9 11.9 10.4 8.6 7.0						
24.0 26.0 28.0 30.0 32.0	67.3 64.7 62.1 59.4 56.6	95.3 94.3 93.3 92.2 90.9	5.9 4.9 4.1 3.5 2.9	5.9 5.0 4.2 3.6 3.0						
34.0	53.7	89.5	2.4	2.5						
			<u> </u>		ıma prin	cipal 83.0	0 [°]			
23.6 24.0 26.0 28.0	73.0 72.5 70.0 67.5	96.5 96.4 95.7 94.9	7.7 7.7 7.0 5.9	7.8 7.8 7.0 6.0						
30.0 32.0 34.0 36.0 38.0	64.9 62.3 59.6 56.8 53.9	94.0 93.0 91.9 90.6 89.2	5.0 4.2 3.6 3.0 2.5	5.0 4.3 3.7 3.1 2.6						
40.0	51.0	87.6	2.1	2.2						
			Ángu	ılo de plu	ıma prin	cipal 75.0	0 [°]			
36.4 38.0 40.0 42.0	65.0 62.9 60.3 57.5	92.6 91.9 90.8 89.5	4.5 3.8 3.3	4.6 4.5 3.9 3.4						
44.0 46.0	54.7 51.7	88.2 86.6	2.7 2.3	2.8						

48.0



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

0.0

Pieza de articulación de pluma principal:

2821-1 Cabeza de pluma principal:

Valor de vuelco: Lastre trasero [ t ]:

Lastre central [ t ]:

2 - Vía ancha 74.0

2821-1

			_							
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plun Cabeza 52.0	de plumi	ín (1916-		n Plumín			
			Ángı	ılo de plı	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 Ángu	9.6 9.6 9.1 7.9 6.4 5.3 4.4 3.7 3.1 2.5 Uo de plu 6.5 6.4	ıma prin	cipal 83.0	D [°]			
28.0 30.0 32.0 34.0 36.0	68.8 66.4 64.0 61.5 59.0	98.2 97.3 96.4 95.3 94.1	5.2 4.4 3.6 3.1 2.6	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	65.0 64.6 62.1 59.6 57.0	95.3 95.2 94.2 93.1 91.8	3.5 3.2 2.7 2.3	3.6 3.6 3.4 2.8 2.4						
45.0	55.7	91.1	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

	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 13.0	de plumí	oal, Punt n (1916- osición m	1) 32.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
7.9 8.0 9.0 10.0 11.0 12.0 13.0 14.0 16.0	78.0 77.6 73.0 68.3 63.3 58.2 52.6 46.6 31.6 73.0 70.2 60.3 49.1	65.9 65.9 65.5 65.1 64.6 64.0 63.3 62.4 59.8 65.1 64.9 63.9 62.4	15.1 14.5 10.4	25.0 21.5 13.4 9.5	uma prind	cipal 83.0	D[°]			
20.0	35.1	60.0	7.4 Ángi	Ilo de nli	ıma prin	rinal 75 (	1 ° 1			
22.0	65.0	62.9	Aligo	15.6	ina pini	lipai 75.	, j			
24.0 26.0	54.4 42.1	61.7 59.8	12.3 8.5	10.8 8.0						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
32.2 34.0 36.0 37.0	55.0 43.8 27.4 17.4	58.5 56.9 54.0 51.4	8.8 6.6 5.8	10.7 8.3 6.4						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 74.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 16.0	de plumi		·1) 35.5 r̀	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.	0 [°]			
8.5 9.0 10.0 11.0 12.0	78.0 76.3 72.5 68.7 64.7	68.8 68.7 68.4 68.0 67.5	15.1 15.1 15.1 14.8	30.1 30.1 25.9 20.5 16.7						
13.0 14.0 16.0 18.0	60.6 56.3 46.9 35.5	67.0 66.3 64.6 62.3	14.1 12.0 9.1 7.2	14.2 12.3 9.6 7.7						
			Ángı	ılo de plı	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 plı	ıma prin	cipal 75.	0 [°]			
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	- 1					
			Ángı		ıma prin	cipal 65.	0[°]			
33.9 34.0 36.0 38.0 40.0	55.0 54.4 44.7 32.6 15.4	60.9 60.9 59.1 56.5 51.7	11.4 8.9 7.1 5.9	10.4 10.3 9.0 7.4						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

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

Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
9.2 10.0 11.0 12.0 13.0	78.0 75.4 72.2 69.0 65.7	71.7 71.5 71.2 70.8 70.4	15.1 15.1 15.1 15.1 15.1	30.1 29.1 24.9 20.8 17.7	·					
14.0 16.0 18.0 20.0 22.0	62.3 55.1 47.1 37.8 25.6	69.8 68.6 66.9 64.6 61.3	15.1 13.0 10.9 8.7 7.2	15.4 12.1 9.9 8.3 7.0						
			Ángı	ılo de plu	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						
			Ángı	ılo de plu	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	14.6 11.7 9.4 7.7	16.3 14.0 11.3 9.3 7.9	-		_ <b>-</b>			
			Ángı	ılo de plu	ıma prin	cipal 65.0	D[°]			
35.6 36.0 38.0 40.0	55.0 53.5 45.3 35.6	63.4 63.2 61.4 58.9	10.8 9.8 8.3	9.6 9.4 8.4 7.5						
42.0	22.2	55.3	7.0	6.6						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0	de plumí	n (1916-		n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
9.8 10.0 11.0 12.0 13.0	78.0 77.4 74.7 72.0 69.2 66.4	74.7 74.6 74.3 74.0 73.6 73.2	15.1 15.1 15.1 15.1 15.1	30.1 30.1 25.3 21.2 18.3						
16.0 18.0 20.0 22.0 24.0	60.5 54.2 47.3 39.4 29.8	72.2 70.8 69.1 66.9 64.0	14.5 11.2 9.1 7.5 6.4	12.7 10.3 8.7 7.3 6.3						
					ıma prin	cipal 83.0	1°10		•	
16.0	73.0	73.7	79	21.3			<u> </u>			
18.0 20.0 22.0	67.5 61.7 55.5	73.0 72.0 70.7	15.1 14.1 11.1	16.8 13.2 10.7						
24.0 26.0 28.0	48.7 41.1 32.0	69.1 67.0 64.2	9.0 7.5 6.4	9.0 7.6 6.6						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
25.8 26.0 28.0 30.0 32.0	65.0 64.4 58.4 51.9 44.7	71.0 71.0 69.8 68.4 66.5	15.1 13.1 10.3 8.5	14.3 14.3 11.8 9.7 8.2						
34.0 36.0	36.4 25.8	64.1 60.8	7.1 6.1	7.0 6.1						
			Ángı	ılo de plu	ıma prin	cipal 65.0	D[°]			
37.3 38.0 40.0 42.0 44.0	55.0 52.7 45.7 37.6 27.4	65.8 65.4 63.6 61.3 58.1	9.5 8.6 7.2 6.3	8.6 8.3 7.4 6.7 6.0	•					
45.0	20.5	55.8	5.8	5.6		<u> </u>			<u> </u>	



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	Ì	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 plumi		1) 44.5 r	n Plumín			
			Ángı	ılo de plı	uma 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 12.4	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 32.6	74.4 73.1 71.3 69.2 66.5	10.3 8.4 7.1 6.1 5.4	10.7 9.0 7.7 6.6 5.8						
28.0	22.1	62.6	4.7	5.0	<u> </u>		0.00			
			Angu		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 32.0	60.1 54.6 48.6 42.0 34.4 24.6	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	24.0	03.1			uma prin	cinal 75 i	1 ° 1 0		l	
27.1 28.0 30.0 32.0	65.0 62.6 57.2 51.5	73.8 73.3 72.1 70.6	13.2 12.6 10.1 8.3	12.8 12.2 10.1 8.5	лна рин	oipai 73.	V [ ]			
34.0 36.0 38.0	45.2 38.1 29.5	68.8 66.5 63.4	7.1 6.1 5.3	7.3 6.3 5.6						
			Ángı	<del></del>	ıma prin	cipal 65.	0[°]			
39.0 40.0 42.0	55.0 52.2 46.0	68.3 67.7 65.9	8.5 7.5	7.9 7.5 6.7						
44.0 46.0 48.0	39.0 30.7 19.1	63.6 60.7 56.4	6.4 5.6 4.9	6.0 5.4 4.8						



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]
			0 m Plum Cabeza 28.0	de plumi		1) 47.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	0[°]			
11.0 12.0	78.0 76.0	80.5 80.3	15.1	30.1 30.1						
13.0 14.0 16.0	73.8 71.7 67.3	80.0 79.7 78.9	15.1 15.1 15.1	29.7 26.2 21.4						
18.0 20.0	62.7 57.9	77.9 76.7	15.1 15.1 14.5	17.8 15.3						
22.0 24.0 26.0	52.9 47.5	75.3 73.6	13.7 12.6	13.4 11.9						
28.0 30.0	41.5 34.6 26.2	71.5 68.9 65.4	9.7 8.8	9.7 8.9						
			Ángı	ılo de plı	ıma prin	cipal 83.0	0[°]			
17.8 18.0 20.0	73.0 72.5 68.2	79.4 79.4 78.6	15.1 15.1 15.1	26.6 26.5 22.2						
22.0 24.0	63.6 58.9	77.7 76.6	15.1 14.7	18.3 15.8						
26.0 28.0 30.0	53.9 48.6 42.7	75.2 73.5 71.5	14.0 13.0 11.4	13.7 12.2 10.9						
32.0 34.0	36.1 28.1	69.0 65.8	10.0 9.1	9.9 9.1						
			Ángı		ıma prin	cipal 75.0	[°]			
28.3 30.0 32.0	65.0 61.1 56.3	76.5 75.6 74.4	15.1 14.6	16.8 15.4 13.9						
34.0 36.0	51.1 45.5	72.9 71.0	13.5 12.1	12.6 11.5						
38.0 40.0 42.0	39.3 32.0 22.7	68.8 65.9 62.0	10.6 9.5 8.6	10.3 9.4 8.7						
			Ángı	ılo de plı	ıma prin	cipal 65.0	0 [°]			
40.8 42.0 44.0 46.0 48.0	55.0 51.8 46.2 40.1	70.8 69.9 68.1 65.9 63.2	7.5 6.8 6.1	7.0 6.6 5.9 5.3 4.8						
50.0 51.0	33.0 24.0 17.9	59.4 56.9	5.5 5.0 4.7	4.8 4.2 4.0						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

Valor de vuelco:

360°

Cabeza de pluma principal:

2821-1

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumi		1) 50.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
9.2 10.0 11.0 12.0 13.0 14.0	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 30.1 28.8 26.0 22.2 19.2						
16.0 18.0 20.0 22.0	55.1 47.1 37.8 25.6	68.6 66.9 64.6 61.3	14.9 13.8 10.8 8.8	15.0 12.3 10.1 8.5	ıma nrin	oinal 92	0.001			
15.2	73.0	70.8	Angl 15.1	110 de pil	ıma prin	cipai 83.0	ַן װַ <u>.</u>			
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 plu	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	17.5 15.6 13.5 11.5 9.6						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
35.6 36.0 38.0 40.0 42.0	55.0 53.5 45.3 35.6 22.2	63.4 63.2 61.4 58.9 55.3	8.6 7.5 6.5 5.6	7.1 6.9 5.8 4.9 4.1						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0	de plumí	n (1916-		n Plumín			
			Ángu	ılo de plu	uma prin	cipal 88.0	[°]C			
9.8	78.0	74.7	15.1	30.1						
10.0	77.4	74.6	15.1	30.1						
11.0	74.7	74.3	15.1	28.3						
12.0	72.0	74.0	15.1	24.3						
13.0	69.2	73.6	15.1	20.8						
14.0	66.4	73.2	15.1	18.1						
16.0 18.0	60.5 54.2	72.2 70.8	15.0 12.2	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						
			Ángı	ılo de plı	ıma prin	cipal 83.0	1°10			
16.0	73.0	73.7	,g.	23.6			- <u> </u>			
18.0	67.5	73.0	15.1	19.1						
20.0	61.7	72.0	15.1	14.9						
22.0	55.5	70.7	12.3	11.9						
24.0	48.7	69.1	10.1	9.9						
26.0	41.1	67.0	8.2	8.2						
28.0	32.0	64.2	6.8	7.0						
			Ángı		ıma prin	cipal 75.0	[°]			
25.8	65.0	71.0		15.8						
26.0	64.4	71.0	15.1	15.8					-	
28.0	58.4	69.8	14.6	13.2						
30.0 32.0	51.9 44.7	68.4 66.5	11.7 9.5	10.7 9.0						
32.0 34.0	36.4	64.1	9.5 7.7	9.0 7.6						
36.0	25.8	60.8	6.6	6.5						
					ıma nrin	cipal 65.0	) [ ° ]			
37.3	55.0	65.8	Ange	6.3	Jilia Pilli	oipai oo.	- L J			
38.0	52.7	65.4	7.4	5.9						
40.0	45.7	63.6	6.4	5.1						
42.0	37.6	61.3	5.5	4.3						
44.0	27.4	58.1	4.7	3.6						
45.0	20.5	55.8	4.3	3.2						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal: 360°

Cabeza de pluma principal:

2821-1 2821-1

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
	ļ.	50.0	Cabeza	de plumí	pal, Punt ín (1916- osición m	1) 56.5 r	n Plumín	dfall 1	!	
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
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 14.1	29.3 29.2 24.6 21.1 18.5 14.7	·					
18.0 20.0 22.0 24.0 26.0 28.0	59.1 53.5 47.4 40.6 32.6 22.1	74.4 73.1 71.3 69.2 66.5 62.6	12.6 10.3 8.7 7.4 6.4 5.6	12.2 10.2 8.8 7.6 6.6 5.8						
20.0	22.1	02.0			ıma prin	cinal 83 (	1°1	ı	ı	
16.9 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	73.0 70.4 65.4 60.1 54.6 48.6 42.0 34.4 24.6	76.6 76.2 75.3 74.3 72.9 71.3 69.3 66.7	15.1 14.7 13.6 11.1 9.4 7.9 6.8 6.0	21.0 19.6 15.4 12.7 10.6 9.1 7.8 6.8		spar co.				
32.0	24.0	03.1			uma prin	cinal 75 (	1 ° 1	l	l	
27.1 28.0 30.0 32.0	65.0 62.6 57.2 51.5	73.8 73.3 72.1 70.6	14.5 14.2 11.6 9.6	14.3 13.8 11.5 9.7	and pilli	o.pui 7 0.1	×			
34.0 36.0 38.0	45.2 38.1 29.5	68.8 66.5 63.4	8.2 7.0 6.2	8.4 7.3 6.4						
			Ángı	ılo de plı	ıma prin	cipal 65.0	[°]			
39.0 40.0 42.0	55.0 52.2 46.0	68.3 67.7 65.9	6.4 5.6	5.6 5.2 4.4						
44.0 46.0 48.0	39.0 30.7 19.1	63.6 60.7 56.4	4.8 4.1 3.4	3.8 3.1 2.6						



N° de ident.: 9842523/95738/

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

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		50.0	0 m Plum Cabeza 28.0	de plumí	oal, Punt ín (1916- osición m	1) 59.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	0[°]			
11.0 12.0 13.0 14.0 16.0	78.0 76.0 73.8 71.7 67.3	80.5 80.3 80.0 79.7 78.9	15.1 15.1 15.1 14.5	27.0 25.7 22.2 19.4 15.5						
18.0 20.0 22.0 24.0 26.0	62.7 57.9 52.9 47.5 41.5	77.9 76.7 75.3 73.6 71.5	12.8 10.9 8.9 7.5 6.4	12.7 10.7 9.0 7.7 6.6						
28.0 30.0	34.6 26.2	68.9 65.4	5.5 4.8	5.7 5.0						
					uma prin	cipal 83.	[°]			
17.8 18.0 20.0	73.0 72.5 68.2	79.4 79.4 78.6	15.1 15.1 15.1	19.3 19.2 16.1						
22.0 24.0 26.0 28.0 30.0	63.6 58.9 53.9 48.6 42.7	77.7 76.6 75.2 73.5 71.5	13.6 11.8 9.6 8.1 6.9	13.2 11.1 9.3 8.0 6.9						
32.0 34.0	36.1 28.1	69.0 65.8	5.9 5.2	6.0 5.3						
					ıma prin	cipal 75.	[°]			
28.3 30.0 32.0	65.0 61.1 56.3	76.5 75.6 74.4	12.4 10.2	13.1 12.0 10.1						
34.0 36.0 38.0 40.0 42.0	51.1 45.5 39.3 32.0 22.7	72.9 71.0 68.8 65.9 62.0	8.4 7.2 6.2 5.5 4.8	8.6 7.4 6.4 5.6 5.0						
			Ángu	ılo de plu	ıma prin	cipal 65.	0 [°]			
40.8 42.0 44.0 46.0 48.0	55.0 51.8 46.2 40.1 33.0	70.8 69.9 68.1 65.9 63.2	5.4 4.6 3.9 3.3	4.8 4.4 3.7 3.1 2.6	-		_			
50.0 51.0	24.0 19.5	59.4 56.9	2.7 2.4	2.1						

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 ]: 74.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 31.0	de plumí		1) 62.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
11.7	78.0	83.5	15.1	24.5						
12.0	77.3	83.4	15.1	24.5						
13.0	75.4	83.1	15.1	22.5						
14.0 16.0	73.5 69.6	82.8 82.1	15.1 15.1	19.9 15.8						
18.0	65.6	81.3	13.4	13.0						
20.0	61.4	80.2	11.6	11.1						
22.0	57.0	79.0	9.7	9.3						
24.0	52.4	77.5	8.0	7.9						
26.0 28.0	47.5 42.2	75.8 73.8	6.8 5.9	6.9 6.0						
30.0	36.2	71.3	5.1	5.2						
32.0	29.1	68.1	4.5	4.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
18.7	73.0	82.3	15.1	17.5						
20.0	70.4	81.9	15.1	16.5						
22.0 24.0	66.4 62.2	81.0 80.0	14.5 12.0	13.5 11.3						
26.0	57.9	78.8	10.1	9.6						
28.0	53.4	77.4	8.3	8.2						
30.0	48.6	75.8	7.1	7.2						
32.0 34.0	43.3 37.5	73.8 71.4	6.2 5.3	6.2 5.4						
34.0 36.0	30.6	68.4	4.7	4.8						
38.0	21.9	64.3	4.1	4.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
29.6	65.0	79.2		11.9						
30.0	64.2	79.0	12.7	11.9						
32.0	59.9	77.9	10.9	10.4						
34.0 36.0	55.5 50.8	76.6 75.1	9.1 7.7	8.9 7.7						
38.0	45.8	73.3	6.7	6.7						
40.0	40.2	71.1	5.8	5.8						
42.0	33.9	68.4	5.0	5.1						
44.0	26.3	64.9	4.5 Ángu	do do plu	ıma pris	cinal SE	) [ ° 1		l	
42.5	55.0	73.2	Angu	4.3	uma prin	upai 05.	,			
42.5 44.0	51.4	73.2	4.7	3.8						
46.0	46.4	70.3	4.0	3.2						
48.0	41.0	68.2	3.4	2.7						
50.0 53.0	34.8 23.8	65.6 60.1	2.8 2.0	2.2						
55.0	23.0	00.1	2.0		I				I	



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	Cabeza	de plumi	oal, Punt ín (1916- osición m	1) 65.5 n	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	) [°]			
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						
20.0	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						
			Angı	ılo de plı	ıma prin	cipal 83.0	D [ ° ]			
19.5	73.0	85.2		16.0						
20.0	72.2	85.0	15.1	16.0						
22.0	68.6	84.3	14.5	13.7						
24.0 26.0	64.9 61.1	83.4 82.3	12.4 10.3	11.5 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	38.5	73.7	4.8	4.9						
38.0	32.6	70.9	4.3	4.3						
40.0	25.3	67.2	3.8 Ápgi	3.9	ıma prin	cinal 75 (	) [ ° ]			
20.0	65.0	04.0			uma prind	ωμαι <i>τ</i> 3.0	י ו		l	
30.9 32.0	65.0 62.9	81.9 81.4	11.3 11.3	10.8 10.7						
34.0	59.0	80.2	9.3	9.1						
36.0	54.9	78.9	7.9	7.9			<u></u>			
38.0	50.6	77.3	6.8	6.9						
40.0	46.0	75.5	6.0	6.0						
42.0	41.0	73.4	5.2	5.3						
44.0	35.4	70.8	4.5	4.6						
46.0 48.0	28.9 20.4	67.5 63.2	4.1 3.6	4.2 3.7						
40.0	20.4	00.2			uma prin	cinal 65 (	) [ ° ]			
44.2	EE 0	75.7	Angl	3.6	ina pilli	oipai 00.0	· [ ]	1	I	
44.2 46.0	55.0 51.1	75.7 74.4	3.8	3.6						
48.0	46.6	72.6	3.6	2.6						
50.0	41.7	70.5	2.6	2.1						
52.0	36.7	68.0	2.1							



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

74.0

0.0

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	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	na princip de plumí 0 [ m ] Po	n (1916-	1) 68.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
12.9 13.0 14.0 16.0	78.0 77.8 76.3 73.0	89.3 89.3 89.1 88.5	15.1 15.1 15.1 15.1	21.7 21.7 21.3 17.2						
20.0 22.0 24.0 26.0	69.7 66.4 62.9 59.4 55.7	87.8 87.0 86.0 84.8 83.5	14.9 13.1 10.8 9.2 7.9	14.3 12.2 10.4 9.1 7.8						
28.0 30.0 32.0 34.0	51.8 47.6 43.2 38.4	82.0 80.3 78.3 75.9	6.8 6.0 5.3 4.7	6.9 6.1 5.4 4.8						
36.0 38.0	32.9 26.5	73.1 69.6	4.1 3.7	4.3 3.8						
				ılo de plu	ıma prin	cipal 83.0	[°]			
20.4 22.0 24.0 26.0	73.0 70.4 67.1 63.6	88.0 87.5 86.7 85.8	15.1 13.7 11.2	15.7 14.9 12.7 10.7						
28.0 30.0 32.0	60.1 56.4 52.6	84.7 83.4 81.9	9.6 8.2 7.1	9.4 8.1 7.1						
34.0 36.0 38.0 40.0	48.5 44.1 39.4 34.1	80.2 78.3 76.0 73.3	6.2 5.5 4.8 4.3	6.3 5.6 4.9 4.4						
42.0 44.0	27.9 19.9	69.9 65.4	3.9 3.4	4.0 3.6						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
32.1 34.0	65.0 61.7	84.6 83.7	10.4	10.7 10.0						
36.0 38.0 40.0 42.0	58.1 54.4 50.4 46.2	82.5 81.1 79.6 77.7	8.8 7.6 6.6 5.9	8.7 7.6 6.7 6.0						
44.0 46.0 48.0 50.0	41.6 36.6 30.9 23.9	75.6 73.1 70.1 66.2	5.2 4.6 4.2 3.7	5.3 4.7 4.3 3.8						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
45.9 46.0	55.0 54.8	78.1 78.1	3.6	3.1 3.1						
48.0 50.0 52.0	50.9 46.7 42.6	76.6 74.8 72.7	3.1 2.5 2.0	2.6 2.1						



N° de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	0 m Plum Cabeza 13.0	de plumí	n (1916-	o de caro 1) 32.5 r nidfall (19	n Plumín	dfall I		
	Ángulo de pluma principal 88.0 [ ° ]									
8.0 9.0 10.0 11.0 12.0 13.0 14.0	78.0 73.5 68.8 63.9 58.7 53.2 47.2	68.9 68.6 68.2 67.7 67.1 66.4 65.5	15.1 15.1 15.1 13.7 11.6 9.9	30.1 27.4 19.9 15.4 12.6 10.6 9.1						
16.0	32.6	63.0	7.2	7.0	_					
					ıma prin	cipal 83.0	D[°]			
13.8 14.0	73.0 71.9	68.1 68.0	15.1 15.1	24.8 24.2						
16.0 18.0 20.0	62.2 51.3 38.0	67.1 65.7 63.5	15.1 11.1 7.8	14.3 10.0 7.5						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
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	1°10			
33.4 34.0 36.0 38.0	55.0 51.7 38.6 17.9	61.2 60.8 58.7 55.0	11.1 7.8 6.0	10.1 9.7 7.4 5.9		, , , , , , , , , , , , , , , , , , ,				



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

Valor de vuelco: 2 - Vía ancha

valor ac vacioo.	_	via arioria
Lastre trasero [ t ]:		74.0
Lastre central [ t ]:		0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 16.0	de plumí		1) 35.5 r	n Plumín			
	Ángulo de pluma principal 88.0 [ ° ]									
8.6 9.0 10.0 11.0 12.0	78.0 76.7 72.9 69.1 65.2 61.1	71.8 71.7 71.4 71.0 70.6	15.1 15.1 15.1 14.8	30.1 30.1 26.5 20.9 17.0						
14.0 16.0 18.0	56.8 47.4 36.2	69.4 67.7 65.4	12.2 9.2 7.3	12.4 9.7 7.8						
			Ángı		ıma prin	cipal 83.	[°]			
14.6 16.0 18.0 20.0 22.0 24.0	73.0 67.8 59.7 50.7 40.2 26.2	70.9 70.4 69.4 67.9 65.8 62.7	15.1 13.5 10.0 7.8 6.5	25.0 19.3 13.6 10.5 8.3 7.0						
			Ángı	ılo de plu	ıma prin	cipal 75.	[°]			
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	-					
05.4	55.0	00.7	Angı		ıma prin	cipal 65.	[°]			
35.1 36.0 38.0 40.0 41.0	55.0 51.0 40.6 26.9 15.8	63.7 63.1 61.0 57.9 55.4	10.0 7.8 6.5 5.9	9.1 8.6 7.6 6.6 6.2						



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]
		53.0	0 m Plum Cabeza 19.0	de plumí	oal, Punt n (1916- osición m	1) 38.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.3										
24.0 26.0	41.6 30.9	68.1 65.3	9.4 7.7	8.9 7.5						
		00.0			ıma prin	cipal 75.0	[°]C			
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						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
36.9 38.0 40.0 42.0 44.0	55.0 50.6 41.9 31.3 17.3	66.1 65.3 63.3 60.5 55.9	9.0 8.1 7.3 6.5	8.4 7.8 6.9 6.2	-					



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

360° 2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 74.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0	de plumí		1) 41.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
9.9 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.7 75.0 72.3 69.5 66.7 60.8 54.5 47.6 39.9 30.4	77.7 77.6 77.4 77.1 76.7 76.3 75.2 73.9 72.2 70.1 67.1	15.1 15.1 15.1 15.1 15.1 15.1 14.7 11.3 9.2 7.6 6.5 Ángu	30.1 30.1 25.7 21.5 18.4 16.1 12.8 10.4 8.7 7.4 6.4 21.0 de plu 21.2 17.5	uma prind	cipal 83.0	D[°]			
22.0 24.0 26.0 28.0 30.0	56.6 50.0 42.6 33.8 22.0	73.9 72.4 70.4 67.8 64.0	9.8 8.1 6.8 5.9	11.1 9.3 7.8 6.7 5.8						
			Angu		ıma prin	cipal 75.0	ַנין ט			
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						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
38.6 40.0 42.0 44.0 46.0 47.0	55.0 50.3 42.9 34.2 22.5	68.6 67.5 65.6 63.0 59.2	7.9 7.1 6.4 5.8	7.5 6.9 6.1 5.5 4.8	·		-			



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

Inserción 1 2 3 4 5 6									7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		53.0	Cabeza	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	[°]			
10.5	78.0	80.6	Ī	26.6	<u>'</u>	·				
11.0	76.9	80.5	15.1	26.2						
12.0	74.5	80.2	15.1	21.9						
13.0	72.1	79.9	15.1	18.8						
14.0	69.6	79.5	15.1	16.5						
16.0	64.6	78.6	12.5	13.1						
18.0	59.3	77.5	10.3	10.8						
20.0	53.8	76.1	8.5	9.0						
22.0	47.7	74.4 72.3	7.2	7.7						
24.0 26.0	41.0 33.1	69.6	6.2 5.4	6.6 5.8						
28.0	22.7	65.8	4.7	5.0						
20.0	22.7	00.0			ıma prin	cinal 83 (	) [ ° ]			
					лна рин	cipai os.i	7[]			
17.3	73.0	79.5	15.1	18.7						
18.0 20.0	71.3 66.3	79.3 78.5	15.1 14.4	17.9 14.1						
22.0	61.1	77.5	12.6	11.5						
24.0	55.7	76.2	10.0	9.5						
26.0	49.8	74.6	8.2	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						
			Ángı	ılo de plı	ıma prin	cipal 75.0	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	53.7	74.1	8.4	9.0						
34.0	47.7	72.4	7.2	7.7						
36.0	40.9	70.3	6.2	6.6						
38.0 40.0	33.1	67.6	5.4 4.8	5.8 5.1						
40.0	22.7	63.8			ıma nriz	oinal 65 (	1 ° 1		l	
40.0	55.0	74.0	Arigi		uma prin	cipai 65.0	) 		I	
40.3	55.0	71.0		6.8						
42.0	50.0	69.8	7.0	6.2						
44.0 46.0	43.6 36.2	67.8 65.4	6.3 5.7	5.5 4.9						
48.0	27.0	62.1	5. <i>1</i> 5.1	4.9						
49.0	21.0	59.8	4.8	4.1						



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]
			0 m Plum Cabeza 16.0	de plumí		1) 38.5 r	n Plumín			
Ángulo de pluma principal 88.0 [ ° ]										
7.5 8.0 9.0 10.0 11.0 12.0 13.0	78.0 76.3 72.6 68.7 64.8 60.7 56.4	38.8 38.7 38.4 38.0 37.5 37.0 36.3	15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 28.9 24.4 21.1 17.9						
14.0 16.0 18.0	51.8 41.5 28.1	35.6 33.6 30.6	15.1 12.9 10.8	15.5 12.3 10.2						
			Ángu	ılo de plu	ıma prin	cipal 83.	0 [°]			
10.7 11.0 12.0 13.0 14.0 16.0	73.0 71.8 67.9 63.9 59.8 50.8 40.3	38.2 38.1 37.7 37.2 36.6 35.2 33.1 30.0	15.1 15.1 15.1 15.1 15.1 15.0 12.5	30.1 30.1 29.5 23.9 20.2 15.1 12.0						
20.0	26.3	30.0	10.6 Ápgu	10.0	ıma prin	cinal 75 i	1 ° 1			
15.5 16.0 18.0 20.0 22.0	65.0 63.2 54.6 44.8 32.7	36.6 36.4 35.1 33.4 30.8	15.1 14.8 12.8 10.2	24.4 23.1 16.6 13.0 10.6	ania pilii	ограг 7 0.	V 1			
			Ángu	ılo de plu	ıma prin	cipal 65.	0 [°]			
21.2 22.0 24.0 26.0	55.0 51.5 41.2 27.6	33.7 33.2 31.2 28.2	15.0 12.3 9.8	15.6 14.3 11.3 9.4						
			Ángu	ılo de plu	ıma prin	cipal 45.	0[°]			
30.7 32.0 33.0	35.0 25.0 16.5	25.2 23.2 20.4	9.1 8.2	8.2 7.3						



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

Radio de descarga: 360 °

- Vía ancha

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

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

	Inserciór	1	1	2	3	4	5	6	7	8		
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]		
			0 m Plum Cabeza 19.0	de plumi		1) 41.5 r	n Plumín					
	Ángulo de pluma principal 88.0 [ ° ]											
8.2 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 75.4 72.2 69.0 65.7 62.3 58.8 51.2 42.7 32.2	41.8 41.6 41.2 40.8 40.4 39.9 39.3 37.8 35.8 33.1	15.1 15.1 15.1 15.1 15.1 15.1 14.7 13.9 11.1 8.8	30.1 30.1 30.1 29.3 24.5 21.0 18.3 14.3 11.5 9.4								
20.0	02.2	00.1			ıma prin	cinal 83 (	) [ ° ]					
11.6 12.0 13.0 14.0 16.0 18.0 20.0 22.0	73.0 71.6 68.3 65.0 58.0 50.4 41.7 31.0	41.1 40.9 40.5 40.1 38.9 37.4 35.4 32.6	15.1 15.1 15.1 15.1 14.7 13.9 10.9 8.8	30.1 30.1 28.4 23.8 17.8 14.0 11.3 9.3		sipul co.						
			Ángı	ılo de plı	ıma prin	cipal 75.0	1°10					
16.8 18.0 20.0 22.0 24.0	65.0 60.9 53.6 45.4 35.7	39.3 38.7 37.4 35.6 33.2	15.1 15.1 13.5 11.0	23.2 19.9 15.4 12.4 10.2		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,						
			Ángu	ılo de plı	ıma prin	cipal 65.0	[°]					
23.0 24.0 26.0 28.0	55.0 51.0 42.4 31.9	36.2 35.5 33.5 30.8	14.8 12.3 9.7	15.1 13.7 11.0 9.1								
			Ángu	ılo de plı	ıma prin	cipal 45.0	[°]					
33.2 34.0 35.0	35.0 30.1 22.7	26.9 25.9 23.9	8.6 7.9	7.0 6.5 5.9								

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]
		20.0	0 m Plum Cabeza 22.0	de plumí	oal, Punt ín (2316- osición m	1) 44.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
8.8 9.0 10.0 11.0 12.0	78.0 77.4 74.7 72.0 69.2	44.7 44.7 44.4 44.1 43.7	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 28.1 26.1						
13.0 14.0 16.0 18.0 20.0	66.4 63.5 57.4 50.8 43.5	43.2 42.7 41.5 40.0 38.1	15.1 15.1 14.4 13.7 11.0	22.2 19.2 15.2 12.4 10.2						
22.0 24.0	34.9 23.6	35.6 31.9	8.7 7.2	8.4 7.1						
					uma prin	cipal 83.	1°10			
12.4 13.0 14.0	73.0 71.4 68.6	43.9 43.8 43.4	15.1 15.1	30.1 29.7 25.2						
16.0 18.0 20.0 22.0 24.0	62.9 56.7 50.1 42.7 33.9	42.4 41.2 39.6 37.7 35.0	15.1 14.5 13.5 10.7 8.6	18.8 14.8 12.1 10.0 8.4						
26.0	22.1	31.2	7.2	7.0	<u> </u>		0.00			
18.1 20.0 22.0 24.0 26.0 28.0	65.0 59.3 52.9 45.8 37.7 27.5	42.1 41.0 39.6 37.8 35.5 32.3	15.1 14.0 11.9 9.5 7.9	20.2 16.4 13.2 10.9 9.1 7.7	uma prind	cipai 75.	0 [ - ]			
				ılo de plu	ıma prin	cipal 65.	0[°]			
24.7 26.0 28.0 30.0 32.0	55.0 50.6 43.3 34.6 23.1	38.6 37.7 35.8 33.2 29.5	13.2 10.5 8.5 7.1	13.2 11.8 9.8 8.3 7.0	•		-			
			Ángı	ılo de plu	ıma prin	cipal 45.	0 [°]			
35.6 36.0 38.0	35.0 33.2 21.0	28.6 28.4 24.4	7.6 6.5	6.1 5.9 4.9						



N° de ident.: 9842523/95738/

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

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

	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) 47.5 r	n Plumín			
			Ángı	ılo de plu	uma prin	cipal 88.0	] (°)			
9.4	78.0	47.6		30.1	<u>'</u>					
10.0 11.0 12.0 13.0	76.6 74.2 71.8 69.4	47.5 47.2 46.9 46.5	15.1 15.1 15.1 15.1	30.1 30.1 26.1 23.1						
14.0	66.9	46.1	15.1	20.1						
16.0 18.0 20.0 22.0	61.7 56.3 50.5 44.1	45.1 43.8 42.3 40.4	15.1 13.0 11.5 9.3	15.8 12.8 10.7 8.9						
24.0	36.8	37.9	7.6	7.5						
26.0	27.8	34.7	6.4	6.4						
			Ángı	ılo de plu	uma prin	cipal 83.0	[°]			
13.3	73.0	46.8		27.6						
14.0	71.3	46.6	15.1	26.1						
16.0 18.0	66.4 61.2	45.8 44.7	15.1 15.0	19.5 15.5						
20.0	55.7	43.4	12.9	12.5						
22.0	49.9	41.9	11.3	10.5						
24.0	43.4	39.9	9.2	8.8						
26.0	36.0	37.4	7.5	7.4						
28.0	26.7	34.1	6.4	6.3						
			Angı	ılo de plı	ıma prin	cipal 75.0	0[°]			
19.4	65.0	44.8	15.1	17.7						
20.0	63.3	44.5 43.3	15.1 14.8	17.0 13.8						
22.0 24.0	58.0 52.3	43.3 41.9	14.8	13.8						
26.0	46.1	40.1	10.1	9.6						
28.0	39.1	37.8	8.3	8.1						
30.0	30.8	34.9	7.0	6.9						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
26.4	55.0	41.1		11.6						
28.0	50.3	39.9	11.0	10.2						
30.0 32.0	43.9 36.5	38.0 35.6	9.0 7.4	8.7 7.3						
34.0	27.5	32.3	6.4	6.3						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
38.1	35.0	30.4		5.1						
40.0	25.9	27.4	5.5	4.3						
41.0	19.5	25.0	5.0	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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		20.0	0 m Plum Cabeza 28.0	de plumi	oal, Punt ín (2316- osición m	1) 50.5 r	n Plumín	dfall		
Ángulo de pluma principal 88.0 [ ° ]										
10.0	78.0	50.6		30.1						
11.0	76.0	50.3	15.1	30.1						
12.0	73.8	50.0	15.1	30.1						
13.0 14.0	71.7 69.5	49.7 49.3	15.1 15.1	29.3 28.8						
16.0	65.0	48.5	15.1	23.0						
18.0	60.4	47.4	15.1	19.1						
20.0	55.5	46.1	15.1	16.1						
22.0	50.2	44.5	15.1	14.0						
24.0	44.6	42.6	12.9	12.2						
26.0 28.0	38.2 30.7	40.3 37.3	11.0 9.6	10.6 9.5						
30.0	20.7	37.3	9.6 8.4	9.5 8.4						
00.0	20	00.1			ıma prin	cipal 83.0	1°1			ı
14.2	73.0	49.7	I	30.1						
16.0	69.1	49.0	15.1	27.7						
18.0	64.6	48.1	15.1	22.6						
20.0	59.9	47.0	15.1	18.9						
22.0 24.0	55.0 49.7	45.7 44.1	15.1 14.5	15.9 13.8						
26.0	43.9	42.2	12.5	12.0						
28.0	37.5	39.8	10.9	10.6						
30.0	29.8	36.7	9.6	9.5						
			Ángı	ılo de plı	ıma prin	cipal 75.0	[°]			
20.6	65.0	47.5		22.5						
22.0	61.8	46.8	15.1	20.3						
24.0 26.0	57.0 51.9	45.6 44.1	15.1 15.1	17.1 14.7						
28.0	46.3	44.1	13.7	12.8						
30.0	40.2	40.1	11.8	11.2						
32.0	33.1	37.4	10.3	10.1						
34.0	24.1	33.7	9.0	8.9						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
28.1	55.0	43.6		12.8						
30.0	50.1	42.2	14.2	11.2						
32.0 34.0	44.4 38.0	40.3 37.9	12.5 10.7	9.8 8.5						
36.0	30.4	34.9	9.4	7.4						
			Ángı	ılo de plu	ıma prin	cipal 45.0	0 [°]			
40.5	35.0	32.1		4.3						
42.0	29.2	30.0	4.7	3.7						
44.0	18.3	25.5	3.9	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

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

			1	2	3	4	5	6	7	8
Alcan- ce [ m ]	,	Altura de rolda- nas	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		[ m ]								
		20.0	) m Plum	na princip	oal, Punt n (2316-	o de caro	ga 3 - Mio	dfall		
					osición m			l		
			Ángı	ılo de plu	ıma prin	cipal 88.0	) [°]			
10.7 11.0	78.0 77.4	53.5 53.4	15.1 15.1	30.1 30.1						
12.0	77.4 75.5	53.4	15.1	30.1						
13.0	73.5	52.9	15.1	29.4						
14.0 16.0	71.6 67.6	52.5 51.8	15.1 15.1	26.6 22.2						
18.0	63.5	50.8	15.1	18.1						
20.0	59.3	49.7	14.4	15.4						
22.0 24.0	54.8	48.3	13.2	13.2 11.6						
26.0	50.0 44.9	46.7 44.9	12.2 10.4	10.1						
28.0	39.3	42.6	8.9	8.8						
30.0	32.8	39.8	7.8	7.9						
32.0	24.8	36.1	6.9	7.0		-:	2 6 9			
15.1	72.0	F0 F			ıma prin	cipai 83.0	ן ן י			
15.1 16.0	73.0 71.2	52.5 52.2	15.1 15.1	28.8 27.3						
18.0	67.2	51.4	15.1	21.8						
20.0	63.1	50.5	15.1	17.9						
22.0 24.0	58.8 54.3	49.3 48.0	14.3 13.2	15.2 13.0						
26.0	49.5	46.3	12.1	11.4						
28.0	44.4	44.4	10.3	10.0						
30.0 32.0	38.6 32.0	42.1 39.2	8.8 7.8	8.8 7.9						
34.0	23.8	35.4	6.9	7.9						
			Ángı	ılo de plı	ıma prin	cipal 75.0	D [ ° ]			
21.9	65.0	50.2		18.9						
22.0	64.8	50.2	15.1	18.9						
24.0 26.0	60.6 56.2	49.1 47.9	15.1 14.2	16.3 14.0						
28.0	51.5	46.3	12.7	12.1						
30.0	46.5	44.6	11.1	10.7						
32.0 34.0	41.1 34.9	42.4 39.8	9.5 8.3	9.4 8.4						
36.0	27.4	36.4	7.4	7.5						
			Ángu	ılo de plu	uma prin	cipal 65.0	[°]			
29.8	55.0	46.0		11.5						
30.0	54.7	46.0	13.4	11.4						
32.0 34.0	49.9 44.8	44.4 42.5	11.7 10.1	9.9 8.7						
36.0	39.1	40.2	8.7	7.6						
38.0	32.6	37.4	7.6	6.6						
40.0	24.5	33.7	6.8 Ápgu	5.7	ıma aria	sinal 45 (	1 0 1			
43.0	35.0	33.0	Angl		uma prin	Jipai 45.0	۱ ] د			
43.0 44.0	35.0 31.5	33.8 32.6	3.8	3.4 3.1						
46.0	23.1	28.6	3.1	2.5						
47.0	17.4	26.0	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]
		20.0	0 m Plun Cabeza 22.0	de plumi	oal, Punt ín (2316- osición m	1) 56.5 r	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
8.8 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 77.4 74.7 72.0 69.2 66.4 63.5 57.4 50.8 43.5	44.7 44.4 44.1 43.7 43.2 42.7 41.5 40.0 38.1	15.1 15.1 15.1 15.1 15.1 15.1 15.1 14.1 12.8 10.4	30.1 30.1 30.1 29.1 27.9 24.0 20.7 16.3 13.2						
22.0	34.9	35.6	8.3	8.9						
24.0	23.6	31.9	6.9	7.4	<u> </u>					
12.4	73.0	43.9	Angı	10 de plu 30.1	ıma prin	cipal 83.0	) [ ° ]		I	
13.0 14.0 16.0 18.0	71.4 68.6 62.9 56.7	43.8 43.4 42.4 41.2	15.1 15.1 15.1 15.0	30.1 30.1 26.9 20.3 16.0						
20.0 22.0 24.0 26.0	50.1 42.7 33.9 22.1	39.6 37.7 35.0	14.6 11.5 9.2 7.5	13.0 10.7 8.9 7.3						
20.0		02			uma prin	cipal 75.0	1°10			
18.1 20.0 22.0 24.0 26.0 28.0	65.0 59.3 52.9 45.8 37.7 27.5	42.1 41.0 39.6 37.8 35.5 32.3	15.1 14.6 12.9 10.2 8.4	21.5 17.7 14.2 11.7 9.7 8.2	- 1					
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
24.7 26.0 28.0 30.0 32.0	55.0 50.6 43.3 34.6 23.1	38.6 37.7 35.8 33.2 29.5	14.4 11.4 9.1 7.6	11.8 10.3 8.4 6.9 5.5						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
35.6 36.0 38.0	35.0 33.2 21.0	28.6 28.4 24.4	4.4 3.2	3.2 3.0 2.1						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

Valor de vuelco: 2 - Vía ancha

Lastre trasero [ t ]: 54.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan-		Altura							-	_
ce	Ángu- o de	de	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
[m]	plumín	rolda-	[,]	[ [,]	[ [,]	[,]	[ [,]	[ [,]	[ [,]	[,]
` '	[°]	nas								
		[ m ]								
			0 m Plum						-	
			Cabeza 25.0	de plumí ) [ m ] Po	n (2316- osición m	1) 59.5 r nidfall (23	n Plumín 316)	l		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
9.4	78.0	47.6		30.1						
10.0	76.6	47.5	15.1	30.1						
11.0	74.2	47.2	15.1	30.1						
12.0 13.0	71.8 69.4	46.9 46.5	15.1 15.1	27.3 24.6						
14.0	66.9	46.1	15.1	21.6						
16.0	61.7	45.1	15.1	16.9						
18.0	56.3	43.8	13.5	13.7						
20.0	50.5	42.3	12.1	11.3						
22.0	44.1	40.4	10.0	9.5						
24.0	36.8	37.9	8.1	7.9						
26.0	27.8	34.7	6.7	6.7			2 5 0 3			
13.3	73.0	46.8	Angı	110 de pil	ıma prin	cipai 83.0	ا ر ا			
14.0	71.3	46.6	15.1	28.0						
16.0	66.4	45.8	15.1	21.1						
18.0	61.2	44.7	15.1	16.7						
20.0	55.7	43.4	13.5	13.5						
22.0	49.9	41.9	12.2	11.3						
24.0	43.4	39.9	9.8	9.4						
26.0	36.0	37.4	8.0	7.9						
28.0	26.7	34.1	6.7	6.7			2.5.2			
					ıma prin	cipal 75.0	)[°]			
19.4	65.0	44.8	15.1	18.7						
20.0 22.0	63.3 58.0	44.5 43.3	15.1 15.1	18.4 14.9						
24.0	52.3	41.9	12.9	12.2						
26.0	46.1	40.1	10.9	10.2						
28.0	39.1	37.8	8.8	8.6						
30.0	30.8	34.9	7.4	7.3						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
26.4	55.0	41.1		10.5						
28.0	50.3	39.9	12.0	9.0						
30.0	43.9	38.0	9.7	7.4						
32.0 34.0	36.5 27.5	35.6 32.3	7.9 6.7	6.1 4.9						
J-4.U	3.12	32.3			ıma prin	rinal 45 f	) [ ° 1			
38.1	35.0	30.4	Angu	2.3	лна рип 	Jipai 43.1	, I			
40.0	27.1	27.4	2.4	2.3						
70.0		27.7	2.7							



360°

## Cargas pluma principal + plumín abatible + midfall

N° de ident.: 9842523/95738/

Radio de descarga:

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

Alcance   Angu- o de		Inserciór	ı	1	2	3	4	5	6	7	8	
Cabeza de plumín (2316-1) 62.5 m Plumín 28.0 [ m ] Posición midfall (2316)    10.0	ce	o ďe plumín	de rolda- nas									
10.0			20.0	Cabeza	de plumí	ín (2316-	1) 62.5 r	n Plumín	dfall			
10.0				Ánaı	ılo de plu	ıma prin	cipal 88.0	1°1C				
12.0 73.8 50.0 15.1 27.9 15.1 32.8 14.0 69.5 49.3 15.1 20.9 16.0 65.0 48.5 15.1 16.4 18.0 60.4 47.4 14.5 13.3 20.0 55.5 46.1 11.6 10.9 22.0 50.2 44.5 9.4 9.1 24.0 44.6 42.6 7.8 7.7 26.0 38.2 40.3 6.4 6.4 28.0 30.7 37.3 5.4 5.4 5.4 30.0 20.7 33.1 4.4 4.4 4.4 30.0 20.7 33.1 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4	10.0	78.0	50.6									
13.0 71.7 49.7 15.1 23.8 29.8 16.0 69.5 49.3 15.1 20.9 16.0 65.0 48.5 15.1 16.4 18.0 60.4 47.4 14.5 13.3 20.0 55.5 46.1 11.6 10.9 22.0 50.2 44.5 9.4 9.1 24.0 44.6 42.6 7.8 7.7 26.0 38.2 40.3 6.4 6.4 28.0 30.7 37.3 5.4 5.4 30.0 20.7 33.1 4.4 4.4 4.4 4.4 2.7 3.0 49.7 16.0 69.1 49.0 15.1 20.3 18.0 64.6 48.1 15.1 16.0 20.0 59.9 47.0 14.2 13.2 22.0 55.0 45.7 11.4 10.8 24.0 49.7 44.1 9.4 9.1 26.0 43.9 42.2 7.8 7.6 28.0 37.5 39.8 6.4 6.4 30.0 29.8 36.7 5.4 5.4 5.4 30.0 29.8 36.7 5.4 5.4 30.0 29.8 36.7 5.4 5.4 30.0 29.8 36.7 5.4 5.4 30.0 29.8 36.7 5.4 5.4 30.0 29.8 36.7 5.0 5.0 30.0 30.0 30.0 30.0 30.0 30.0 3	11.0	76.0	50.3	15.1	29.8							
14.0 69.5 49.3 15.1 20.9												
16.0   65.0   48.5   15.1   16.4   13.3   20.0   55.5   46.1   11.6   10.9   22.0   50.2   44.5   9.4   9.1   24.0   44.6   42.6   7.8   7.7   26.0   38.2   40.3   6.4   6.4   28.0   30.7   37.3   5.4   5.4   30.0   20.7   33.1   4.4   4.5		1										
18.0   60.4   47.4   14.5   13.3   10.9   22.0   55.5   46.1   11.6   10.9   22.0   55.5   46.1   11.6   10.9   22.0   50.2   44.5   9.4   9.1   24.0   44.6   42.6   7.8   7.7   26.0   38.2   40.3   6.4   6.4   30.0   20.7   33.1   4.4   4.												
20.0   55.5   46.1   11.6   10.9												
24.0			46.1		10.9							
26.0 38.2 40.3 6.4 6.4 6.4 30.7 37.3 37.3 5.4 5.4 5.4 30.0 20.7 33.1 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4												
28.0 30.7 37.3 5.4 5.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4 4.4												
30.0   20.7   33.1   4.4   4.4   4.4												
Ángulo de pluma principal 83.0 [°]         14.2       73.0       49.7       24.5         16.0       69.1       49.0       15.1       20.3         18.0       64.6       48.1       15.1       16.0         20.0       59.9       47.0       14.2       13.2         22.0       55.0       45.7       11.4       10.8         24.0       49.7       44.1       9.4       9.1         26.0       43.9       42.2       7.8       7.6         28.0       37.5       39.8       6.4       6.4         30.0       29.8       36.7       5.4       5.4         Ángulo de pluma principal 75.0 [°]         20.6       65.0       47.5       15.7         22.0       61.8       46.8       14.9       14.4         24.0       57.0       45.6       12.9       11.8         28.0       46.3       42.3       8.5       8.3         30.0       40.2       40.1       7.0       7.0         32.0       33.1       37.4       5.9       5.9         34.0       24.1       33.7       5.0       5.0 <td colsp<="" td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td>	<td></td>											
14.2				Ángı	ılo de plı	ıma prin	cipal 83.0	) [ ° ]				
18.0 64.6 48.1 15.1 16.0 20.0 59.9 47.0 14.2 13.2 22.0 55.0 45.7 11.4 10.8 24.0 49.7 44.1 9.4 9.1 26.0 43.9 42.2 7.8 7.6 28.0 37.5 39.8 6.4 6.4 30.0 29.8 36.7 5.4 5.4 5.4 24.0 49.7 44.1 10.3 9.8 24.0 57.0 45.6 12.9 11.8 26.0 51.9 44.1 10.3 9.8 28.0 46.3 42.3 8.5 8.3 30.0 40.2 40.1 7.0 7.0 7.0 32.0 33.1 37.4 5.9 5.9 34.0 24.1 33.7 5.0 5.0 5.0 \$\$\$Angulo de pluma principal 65.0 [°]\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$Angulo de pluma principal 45.0 [°]\$\$\$\$\$Angulo de pluma principal 45.0 [°]\$\$\$\$\$\$Angulo de pluma principal 45.0 [°]\$\$\$\$\$\$\$Angulo de pluma principal 45.0 [°]\$\$\$\$\$\$Angulo de pluma principal 45.0 [°]\$\$\$\$\$\$\$Angulo de p			-		24.5							
20.0												
22.0												
24.0		1										
28.0 37.5 39.8 36.7 5.4 5.4 5.4  Angulo de pluma principal 75.0 [°]  20.6 65.0 47.5 15.7 22.0 61.8 46.8 14.9 14.4 24.0 57.0 45.6 12.9 11.8 28.0 46.3 42.3 8.5 8.3 30.0 40.2 40.1 7.0 7.0 7.0 32.0 33.1 37.4 5.9 5.9 34.0 24.1 33.7 5.0 5.0  Angulo de pluma principal 65.0 [°]  28.1 55.0 43.6 9.4 30.0 50.1 42.2 9.2 7.9 32.0 44.4 40.3 37.6 6.5 34.0 38.0 37.9 6.4 5.3 36.0 30.4 34.9 5.4 4.3  Angulo de pluma principal 45.0 [°]  40.7 35.0 32.1 2.3		i i										
30.0 29.8 36.7 5.4 5.4    Angulo de pluma principal 75.0 [°]  20.6 65.0 47.5												
Ángulo de pluma principal 75.0 [°]         20.6       65.0       47.5       15.7         22.0       61.8       46.8       14.9       14.4         24.0       57.0       45.6       12.9       11.8         26.0       51.9       44.1       10.3       9.8         28.0       46.3       42.3       8.5       8.3         30.0       40.2       40.1       7.0       7.0         32.0       33.1       37.4       5.9       5.9         34.0       24.1       33.7       5.0       5.0         Ángulo de pluma principal 65.0 [°]         28.1       55.0       43.6       9.4         30.0       50.1       42.2       9.2       7.9         32.0       44.4       40.3       7.6       6.5         34.0       38.0       37.9       6.4       5.3         36.0       30.4       34.9       5.4       4.3     Angulo de pluma principal 45.0 [°]           40.7       35.0       32.1       2.3				-								
20.6 65.0 47.5 15.7 22.0 61.8 46.8 14.9 14.4 24.0 57.0 45.6 12.9 11.8 28.0 46.3 42.3 3.0 40.2 40.1 7.0 7.0 32.0 33.1 37.4 5.9 5.9 34.0 24.1 33.7 5.0 5.0 5.0	30.0	29.8	36.7			ıma nrin	oinal 75 (	) [ ° ]				
22.0 61.8 46.8 14.9 14.4 24.0 57.0 45.6 12.9 11.8 26.0 51.9 44.1 10.3 9.8 28.0 46.3 42.3 8.5 8.3 30.0 40.2 40.1 7.0 7.0 32.0 33.1 37.4 5.9 5.9 34.0 24.1 33.7 5.0 5.0 \$\$\$ \$\$\$ \$\$\$ \$\$\$ \$\$\$ \$\$\$ \$\$\$ \$\$\$ \$\$\$ \$	00.0	05.0	47.5	Angu		лпа рпп Г	cipai 75.	ן ו				
24.0 57.0 45.6 12.9 11.8 26.0 51.9 44.1 10.3 9.8 28.0 46.3 42.3 8.5 8.3 30.0 40.2 40.1 7.0 7.0 32.0 33.1 37.4 5.9 5.9 34.0 24.1 33.7 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0				1/1 0								
26.0 51.9 44.1 10.3 9.8 28.0 46.3 42.3 8.5 8.3 30.0 40.2 40.1 7.0 7.0 32.0 33.1 37.4 5.9 5.9 34.0 24.1 33.7 5.0 5.0 5.0				-								
30.0												
32.0 33.1 37.4 5.9 5.9 5.0    **Magulo de pluma principal 65.0 [°]**			_									
34.0 24.1 33.7 5.0 5.0		1 -	_									
Angulo de pluma principal 65.0 [°]  28.1			_									
28.1 55.0 43.6 9.4 30.0 50.1 42.2 9.2 7.9 32.0 44.4 40.3 7.6 6.5 34.0 38.0 37.9 6.4 5.3 36.0 30.4 34.9 5.4 4.3   Ángulo de pluma principal 45.0 [°]	- · · · ·					ıma prin	cipal 65 (	1°1C				
30.0 50.1 42.2 9.2 7.9 32.0 44.4 40.3 7.6 6.5 34.0 38.0 37.9 6.4 5.3 36.0 30.4 34.9 5.4 4.3	28.1	55.0	43.6	9			. ,,					
34.0 38.0 37.9 6.4 5.3 36.0 30.4 34.9 5.4 4.3 Angulo de pluma principal 45.0 [°]  40.7 35.0 32.1 2.3				9.2								
36.0 30.4 34.9 5.4 4.3 Ángulo de pluma principal 45.0 [°] 40.7 35.0 32.1 2.3		I .		-								
Ángulo de pluma principal 45.0 [ ° ] 40.7   35.0   32.1   2.3												
40.7   35.0   32.1   2.3	36.0	30.4	34.9				-in-al-45 (	2				
	40.7	35.0	32.1		no ae pil	uma prini	cipai 45.0	۱ ] د				



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 ]: 54.0 0.0 Lastre central [ t ]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 31.0	de plumí		1) 65.5 ñ	n Plumín			
			Ángı	ılo de plu	ıma prind	cipal 88.0	[°]			
10.7	78.0	53.5	15.1	30.1						
11.0	77.4	53.4	15.1	30.1						
12.0 13.0	75.5 73.5	53.2 52.9	15.1 15.1	30.1 29.9						
14.0	73.5	52.9 52.5	15.1	29.9						
16.0	67.6	51.8	15.1	21.4						
18.0	63.5	50.8	15.1	17.5						
20.0	59.3	49.7	14.3	14.8						
22.0	54.8	48.3	12.6	12.6						
24.0	50.0	46.7	11.4	10.9						
26.0	44.9	44.9	9.3	9.1						
28.0	39.3	42.6	7.5	7.4						
30.0	32.8	39.8	6.0	6.0						
32.0	24.8	36.1	4.4	4.4						
i			Ángı	ılo de plu	ıma prind	cipal 83.0	[°]C			
15.1	73.0	52.5	15.1	27.2						
16.0	71.2	52.2	15.1	26.2						
18.0	67.2	51.4	15.1	21.1						
20.0	63.1	50.5	15.1	17.2						
22.0	58.8	49.3	14.2	14.6						
24.0	54.3	48.0	12.7	12.5						
26.0 28.0	49.5 44.4	46.3 44.4	11.4 9.7	10.9 9.5						
30.0	38.6	44.4 42.1	9.7 8.3	9.5 8.2						
32.0	32.0	39.2	6.9	6.8						
34.0	23.8	35.4	5.0	5.0						
					ıma prind	cipal 75.0	[°]		_	
21.9	65.0	50.2		16.7						
22.0	64.8	50.2	15.1	16.5						
24.0	60.6	49.1	15.1	14.0						
26.0	56.2	47.9	14.1	12.0						
28.0	51.5	46.3	12.1	10.2						
30.0	46.5	44.6	10.5	8.6						
32.0	41.1	42.4	9.0	7.2						
34.0 36.0	34.9 27.4	39.8 36.4	7.7 6.2	6.1 5.0						
30.0	21.7	30.4			ıma prind	cinal 65 (	) [ ° ]			
00.0	55.0	40.0	Angt		лна рип	Upai 05.0	۱ ا ۱		ı	
29.8	55.0	46.0	10.0	8.2						
30.0 32.0	54.7 49.9	46.0 44.4	10.8 9.2	8.1 6.8						
34.0	49.9	42.5	9.2 7.7	5.6						
36.0	39.1	40.2	6.4	4.6						
38.0	32.6	37.4	5.3	3.7						
40.0	24.5	33.7	4.1	2.8						
41.0	19.2	31.2	3.2	2.5						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 54.0 0.0 Lastre central [ t ]:

						_	_			
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan-	Ángu-	Altura	Carga	Carga	Carga	Carga	Carga	Carga	Carga	Carga
ce [m]	o de plumín	de rolda-	[t]	[t]	[t]	[t]	[t]	[t]	[t]	[t]
l ',	[°]	nas								
		[ m ]								
		20.	0 m Plum							
					ín (2316- osición m			l		
11.3	78.0	56.4	15.1	30.1	uma prind	lipai 00.	) 			
12.0	76.8	56.3	15.1	30.1						
13.0	75.0	56.0	15.1	28.1						
14.0	73.3	55.7	15.1	25.6						
16.0 18.0	69.7 66.0	55.0 54.1	15.1 15.0	20.4 16.8						
20.0	62.2	53.1	14.8	14.1						
22.0	58.3	52.0	12.9	12.0						
24.0	54.2	50.6	10.7	10.3						
26.0	49.9	49.0	9.0	8.9						
28.0	45.2	47.1	7.5	7.4						
30.0 32.0	40.1 34.4	44.9 42.2	6.1 4.9	6.1 5.0						
34.0	27.6	38.8	3.7	3.7						
			Ángı	ılo de plu	ıma prin	cipal 83.0	1°10			
15.9	73.0	55.4	ı	23.5	<u> </u>	·				
16.0	72.9	55.4	15.1	23.5						
18.0	69.3	54.7	15.1	19.9						
20.0	65.6	53.8	15.1	16.4						
22.0 24.0	61.9 57.9	52.8	14.9 12.7	14.0 11.9						
26.0	53.8	51.6 50.2	10.6	10.2						
28.0	49.4	48.6	9.1	9.0						
30.0	44.7	46.7	7.8	7.8						
32.0	39.6	44.4	6.7	6.8						
34.0	33.8	41.7	5.7	5.8						
36.0	26.9	38.2	4.3	4.3		-in-al 75 (	) [ ° 1			
00.0	05.0	50.0	15.1	15.3	ıma prin	cipai 75.	J[]			
23.2 24.0	65.0 63.4	52.9 52.6	15.1	14.2						
26.0	59.5	51.4	12.4	12.2						
28.0	55.5	50.1	10.5	10.5						
30.0	51.2	48.6	8.9	9.0						
32.0	46.7	46.8	7.8	7.7						
34.0 36.0	41.7 36.2	44.7 42.2	6.8 6.0	6.5 5.4						
38.0	29.8	39.1	4.9	4.5						
40.0	21.7	34.9	3.7	3.6						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
31.6	55.0	48.5		7.2						
32.0	54.1	48.3	9.2	7.0						
34.0	49.8	46.6	7.8	5.8						
36.0 38.0	45.1 40.0	44.8 42.5	6.5 5.4	4.8						
40.0	34.2	39.8	4.4	3.2						
42.0	27.4	36.4	3.4	2.4						
43.0	23.3	34.3	2.7	2.1						



Nº de ident.: 9842523/95738/

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

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

Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 71.5 m Plumín 37.0 [ m ] Posición midfall (2316)											
Ángulo de pluma principal 88.0 [ ° ]											
11.9 12.0 13.0 14.0 16.0	78.0 77.9 76.3 74.7 71.4	59.4 59.4 59.1 58.8 58.2	15.1 15.1 15.1 15.1	28.9 28.9 27.4 24.0 19.1							
18.0 20.0 22.0 24.0	68.1 64.7 61.2 57.5	57.4 56.5 55.5 54.2	14.7 13.1 11.9 9.9	15.8 13.2 11.3 9.6							
26.0 28.0 30.0 32.0 34.0	53.7 49.7 45.5 40.9 35.7	52.8 51.2 49.3 47.2 44.6	8.3 7.1 5.8 4.7 3.7	8.2 7.1 5.9 4.7 3.8							
36.0											
16.8	73.0	58.3	Angu	19.9		Cipai 65.					
18.0 20.0 22.0 24.0	71.1 67.7 64.3 60.8	57.9 57.1 56.2 55.1	15.1 15.1 13.3 11.8	18.9 15.6 13.0 11.2							
26.0 28.0 30.0 32.0	57.2 53.3 49.3 45.0	53.9 52.4 50.8 48.9	9.8 8.2 7.1 6.1	9.5 8.2 7.1 6.2							
34.0 36.0 38.0	40.4 35.2 29.2	46.7 44.1 40.8	5.2 4.5 3.3	5.3 4.6 3.3							
			Ángı		uma prin	cipal 75.	0 [°]	ı			
24.4 26.0 28.0 30.0	65.0 62.3 58.7 54.9	55.7 54.9 53.7 52.4	12.9 10.6 8.9	12.9 12.0 10.3 8.8							
32.0 34.0 36.0	51.0 46.8 42.3	50.8 49.0 47.0	7.6 6.6 5.7	7.6 6.6 5.6							
38.0 40.0 42.0	37.4 31.7 25.0	44.5 41.6 37.8	4.9 4.0 3.0	4.7 3.8 2.9							
Ángulo de pluma principal 65.0 [ ° ]  33.3   55.0   50.9     6.2											
34.0 36.0	53.6 49.6	50.9 50.5 48.9	7.5 6.3	5.8 4.8							
38.0 40.0 42.0 44.0 45.0	45.3 40.7 35.6 30.3 27.0	47.0 44.8 42.2 39.1 37.1	5.2 4.2 3.3 2.5 2.1	3.9 3.1 2.4							



N° de ident.: 9842523/95738/

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

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

Inserción			1	2	3	4	5	6	7	8	
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	
20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 74.5 m Plumín 40.0 [ m ] Posición midfall (2316)											
Ángulo de pluma principal 88.0 [ ° ]											
12.5 13.0 14.0 16.0 18.0	78.0 77.3 75.8 72.9 69.8	62.3 62.2 62.0 61.4 60.7	15.1 15.1 15.1 15.1	28.8 28.8 26.6 21.4 17.6							
20.0 22.0 24.0 26.0 28.0	66.7 63.5 60.3 56.9 53.3	59.8 58.9 57.8 56.5 55.1	14.1 12.8 11.5 9.5 7.8	14.9 12.7 11.0 9.2 7.8							
30.0 32.0 34.0 36.0	49.6 45.7 41.5 36.8	53.4 51.6 49.4 46.9	6.5 5.1 3.9 2.8	6.6 5.2 3.9 2.8							
Ángulo de pluma principal 83.0 [ ° ]											
17.7 18.0 20.0 22.0	73.0 72.5 69.5 66.4	61.2 61.1 60.4 59.5	15.1 15.1 14.5	20.0 20.0 17.3 14.7							
24.0 26.0 28.0 30.0	63.2 59.9 56.5 53.0	58.5 57.4 56.1 54.7	12.9 11.5 9.7 8.3	12.6 11.0 9.5 8.4							
32.0 34.0 36.0 38.0 40.0	49.2 45.3 41.0 36.3 31.0	53.0 51.2 49.0 46.4 43.4	7.1 5.7 4.5 3.4 2.6	7.2 5.8 4.6 3.5 2.6							
40.0	31.0	43.4			ıma prin	cipal 75 (	1°10				
25.7 26.0 28.0	65.0 64.5 61.3	58.4 58.3 57.2	12.6 11.3	12.4 12.1 10.4							
30.0 32.0 34.0 36.0	57.9 54.4 50.8 46.9	56.0 54.6 53.1 51.3	9.7 8.3 7.3 6.4	9.0 7.7 6.6 5.6							
38.0 40.0 42.0 44.0	42.8 38.3 33.2 27.4	49.2 46.8 44.0 40.6	5.5 4.8 4.0 2.8	4.7 3.9 3.2 2.5							
Ángulo de pluma principal 65.0 [ ° ]											
35.0 36.0 38.0 40.0 42.0	55.0 53.2 49.5 45.6 41.3	53.4 52.8 51.1 49.2 47.1	6.2 5.1 4.1 3.2	5.3 4.8 3.9 3.1 2.4							
44.0 45.0	37.1 34.7	44.6 43.2	2.4 2.0	2.4							



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

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

Alcance   Angua ode   Carga		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumín (2316-1) 77.5 m Plumín 43.0 [ m ] Posición midfall (2316)    13.2	ce	o de plumín	de rolda- nas								
13.2			20.0	Cabeza	de plumi	n (2316-	1) 77.5 n	n Plumín	dfall		
13.2				Ánaı	ılo de plı	ıma prin	cipal 88.0	1°10			
16.0 74.1 64.5 15.1 23.1 19.1 20.0 68.4 63.1 14.9 16.4 22.0 65.5 62.2 13.0 14.0 22.0 65.5 62.2 13.0 14.0 22.0 65.5 60.1 9.9 10.3 28.0 56.3 58.8 7.8 8.2 30.0 53.0 57.3 6.1 6.5 30.0 30.0 53.0 57.3 6.1 6.5 30.0 30.0 30.0 30.0 30.0 30.0 30.0 30	13.2	78.0	65.2								
18.0 71.3 63.8 15.1 19.1 19.1 22.0 65.5 62.2 13.0 14.0 22.0 65.5 62.2 13.0 14.0 22.0 65.5 62.2 2 13.0 14.0 22.0 26.0 59.5 60.1 9.9 10.3 28.0 56.3 58.8 7.8 8.2 30.0 53.0 57.3 6.1 6.5 53.3 3.7 3.9 36.0 42.0 51.7 2.7 2.8 54.0 20.0 71.0 63.6 15.1 19.0 22.0 88.1 62.8 15.1 19.0 22.0 88.1 62.2 61.9 13.8 13.9 26.0 62.2 60.9 12.4 12.1 28.0 59.1 59.7 10.8 10.5 30.0 56.0 58.4 9.0 8.8 32.0 56.0 58.4 9.0 8.8 32.0 56.0 56.0 58.4 9.0 8.8 32.0 56.0 56.0 56.0 56.0 56.0 56.0 56.0 56	14.0	76.8	65.0	15.1	28.5						
20.0 68.4 63.1 14.9 16.4 22.0 65.5 62.2 13.0 14.0 22.0 65.5 62.2 13.0 14.0 22.0 65.5 60.1 9.9 10.3 28.0 56.3 58.8 7.8 8.2 30.0 55.3 58.8 7.8 8.2 30.0 55.0 57.3 6.1 6.5 32.0 49.5 55.7 4.8 5.1 34.0 45.9 53.8 3.7 3.9 36.0 42.0 51.7 2.7 2.8 32.0 71.0 63.6 15.1 19.9 22.0 68.1 62.8 15.1 19.0 22.0 68.1 62.8 15.1 19.0 22.0 68.1 62.8 15.1 19.0 22.0 68.1 62.8 15.1 19.0 22.0 68.1 62.8 15.1 19.0 30.0 56.0 59.7 10.8 10.5 30.0 56.0 58.4 9.0 8.8 32.0 59.1 59.7 10.8 10.5 30.0 56.0 58.4 9.0 8.8 32.0 32.0 49.2 55.3 6.2 6.3 36.0 45.5 53.4 4.9 4.9 4.9 38.0 49.2 55.3 6.2 6.3 36.0 45.5 53.4 4.9 4.9 4.9 38.0 41.5 51.3 3.6 3.6 3.6 3.0 37.3 48.8 2.6 2.6 33.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 37.3 48.8 2.6 2.6 33.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.6 3.6 3.6 3.0 30.0 60.4 59.5 51.3 3.9 3.0 30.0 60.4 59.5 51.5 51.3 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.2 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.2 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.2 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.2 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.2 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.2 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.2 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.2 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.5 46.4 3.2 2.5 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.5 46.4 3.2 2.5 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.5 46.4 3.2 2.5 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.5 46.4 3.2 2.5 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.5 46.4 3.2 2.5 51.5 51.1 3.9 42.0 39.0 49.2 4.1 3.1 4.7 40.0 43.5 46.4 3.2 2.5 51.5 51.1 3.9 42.0 44.0 43.5 46.4 3.2 2.5 51.5 51.1 3.9 42.0 44.0 44.0 44.5 34.5 39.3 30.0 44.0 44.0 44.5 34.5 39.	16.0	74.1	64.5	15.1	23.1						
22.0 65.5 62.2 13.0 14.0 12.2 26.0 59.5 60.1 9.9 10.3 28.0 56.3 58.8 7.8 8.2 30.0 53.0 57.3 6.1 6.5 34.0 42.0 51.7 2.7 2.8				-							
24.0 62.5 61.2 11.6 12.2 2											
26.0											
28.0		i i									
32.0											
\$\frac{34.0}{36.0}	30.0	53.0	57.3	6.1	6.5						
Ángulo de pluma principal 83.0 [°]         18.6       73.0       64.0       15.1       19.9         20.0       71.0       63.6       15.1       19.9         22.0       68.1       62.8       15.1       19.0         24.0       65.2       61.9       13.8       13.9         26.0       62.2       60.9       12.4       12.1         28.0       59.1       59.7       10.8       10.5         30.0       56.0       58.4       9.0       8.8         32.0       52.6       56.9       7.5       7.6         34.0       49.2       55.3       6.2       6.3         36.0       45.5       53.4       4.9       4.9         40.0       37.3       48.8       2.6       2.6         Ángulo de pluma principal 75.0 [°]      27.0           65.0       61.1       13.7       11.1         28.0       63.4       60.6       13.2       10.3         30.0       60.4       59.5       11.4       8.8         32.0       57.3       58.3       9.9       7.6         34.0       43.0       43.0       <	32.0	49.5	55.7	4.8	5.1						
Ángulo de pluma principal 83.0 [°]         18.6       73.0       64.0       15.1       19.9         20.0       71.0       63.6       15.1       19.0         22.0       68.1       62.8       15.1       19.0         24.0       65.2       61.9       13.8       13.9         26.0       62.2       60.9       12.4       12.1         28.0       59.1       59.7       10.8       10.5         30.0       56.0       58.4       9.0       8.8         32.0       52.6       56.9       7.5       7.6         34.0       49.2       55.3       6.2       6.3         36.0       45.5       53.4       4.9       4.9         38.0       41.5       51.3       3.6       3.6         40.0       37.3       48.8       2.6       2.6      **Angulo de pluma principal 75.0 [°]   27.0         28.0       63.4       60.6       13.2       10.3         30.0       60.4       59.5       11.4       8.8         32.0       57.3       58.3       9.9       7.6         34.0       45.0       56.9       8.5       6.5<											
18.6	36.0	42.0	51.7								
20.0 71.0 63.6 15.1 19.0 22.0 68.1 62.8 15.1 16.1 24.0 65.2 61.9 13.8 13.9 26.0 62.2 60.9 12.4 12.1 28.0 59.1 59.7 10.8 10.5 30.0 56.0 58.4 9.0 8.8 32.0 52.6 56.9 7.5 7.6 34.0 49.2 55.3 6.2 6.3 36.0 45.5 53.4 4.9 4.9 4.9 38.0 41.5 51.3 3.6 3.6 40.0 37.3 48.8 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6				Ángı	ılo de plı	uma prin	cipal 83.0	O[°]			
22.0 68.1 62.8 15.1 16.1 24.0 65.2 61.9 13.8 13.9 26.0 62.2 60.9 12.4 12.1 28.0 59.1 59.7 10.8 10.5 30.0 56.0 58.4 9.0 8.8 32.0 52.6 56.9 7.5 7.6 34.0 49.2 55.3 6.2 6.3 36.0 45.5 53.4 4.9 4.9 4.9 38.0 41.5 51.3 3.6 3.6 40.0 37.3 48.8 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6	18.6	73.0	64.0	15.1	19.9						
24.0 65.2 61.9 13.8 13.9 26.0 62.2 60.9 12.4 12.1 2.1 2.1 30.0 56.0 58.4 9.0 8.8 32.0 52.6 56.9 7.5 7.6 34.0 49.2 55.3 6.2 6.3 36.0 45.5 53.4 4.9 4.9 4.9 37.3 48.8 2.6 2.6 34.0 37.3 48.8 2.6 2.6 34.0 37.3 58.3 9.9 7.6 33.0 60.4 59.5 11.4 8.8 32.0 57.3 58.3 9.9 7.6 33.0 50.0 50.6 55.3 7.2 5.6 33.0 47.0 50.5 6.9 8.5 6.5 38.0 47.0 50.5 6.9 8.5 6.5 38.0 47.0 50.5 6.1 4.7 40.0 43.2 51.5 5.1 3.9 42.0 39.0 49.2 4.1 3.1 44.0 34.5 46.4 3.2 2.5 5.0 \$\$\$Angulo de pluma principal 65.0 [°]\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$	20.0	71.0	63.6	15.1	19.0						
26.0 62.2 60.9 12.4 12.1 2.1 2.3 30.0 56.0 59.1 59.7 10.8 10.5 30.0 56.0 58.4 9.0 8.8 32.0 52.6 56.9 7.5 7.6 34.0 49.2 55.3 6.2 6.3 36.0 45.5 53.4 4.9 4.9 4.9 38.0 41.5 51.3 3.6 3.6 2.6 2.6 3.3 36.0 45.5 53.4 4.8 2.6 2.6 3.3 30.0 56.0 63.4 60.6 13.2 10.3 30.0 60.4 59.5 11.4 8.8 32.0 57.3 58.3 9.9 7.6 34.0 54.0 56.9 8.5 6.5 32.0 57.3 58.3 9.9 7.6 34.0 54.0 56.9 8.5 6.5 38.0 47.0 53.5 6.1 4.7 40.0 43.2 51.5 5.1 3.9 42.0 39.0 49.2 4.1 3.1 44.0 34.5 46.4 3.2 2.5 \$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$\$\$\$\$\$\$Angulo de pluma principal 65.0 [°]\$		i i		-							
28.0 59.1 59.7 10.8 10.5 30.0 56.0 58.4 9.0 8.8 32.0 52.6 56.9 7.5 7.6 34.0 49.2 55.3 6.2 6.3 36.0 45.5 53.4 4.9 4.9 38.0 41.5 51.3 3.6 3.6 40.0 37.3 48.8 2.6 2.6 2.6											
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32.0 52.6 56.9 7.5 7.6 34.0 49.2 55.3 6.2 6.3 38.0 41.5 51.3 3.6 3.6 40.0 37.3 48.8 2.6 2.6     **Magulo de pluma principal 75.0 [ ° ]**  **The color of the colo											
34.0 49.2 55.3 6.2 6.3 36.0 45.5 53.4 4.9 4.9 3.8 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6											
38.0 41.5 51.3 3.6 3.6 2.6 2.6		49.2				İ					
40.0 37.3 48.8 2.6 2.6	36.0	45.5	53.4	4.9	4.9						
Angulo de pluma principal 75.0 [°]  27.0   65.0   61.1   13.7   11.1   28.0   63.4   60.6   13.2   10.3   30.0   60.4   59.5   11.4   8.8   32.0   57.3   58.3   9.9   7.6   34.0   54.0   56.9   8.5   6.5   36.0   50.6   55.3   7.2   5.6   38.0   47.0   53.5   6.1   4.7   40.0   43.2   51.5   5.1   3.9   42.0   39.0   49.2   4.1   3.1   44.0   34.5   46.4   3.2   2.5    Angulo de pluma principal 65.0 [°]  36.7   55.0   55.9   4.8   3.8   40.0   49.4   53.4   3.9   3.0   42.0   45.8   51.5   3.0   2.3											
27.0 65.0 61.1 13.7 11.1 28.0 63.4 60.6 13.2 10.3 30.0 60.4 59.5 11.4 8.8 32.0 57.3 58.3 9.9 7.6 34.0 54.0 56.9 8.5 6.5 36.0 50.6 55.3 7.2 5.6 38.0 47.0 53.5 6.1 4.7 40.0 43.2 51.5 5.1 3.9 42.0 39.0 49.2 4.1 3.1 44.0 34.5 46.4 3.2 2.5     Angulo de pluma principal 65.0 [°]  36.7 55.0 55.9 4.8 3.8 3.8 40.0 49.4 53.4 3.9 3.0 42.0 45.8 51.5 3.0 2.3	40.0	37.3	48.8	2.6	2.6						
28.0 63.4 60.6 13.2 10.3 30.0 60.4 59.5 11.4 8.8 32.0 57.3 58.3 9.9 7.6 34.0 54.0 56.9 8.5 6.5 36.0 50.6 55.3 7.2 5.6 38.0 47.0 53.5 6.1 4.7 40.0 43.2 51.5 5.1 3.9 42.0 39.0 49.2 4.1 3.1 44.0 34.5 46.4 3.2 2.5     Angulo de pluma principal 65.0 [°]  36.7 55.0 55.9 4.8 3.8 38 40.0 49.4 53.4 3.9 3.0 42.0 45.8 51.5 3.0 2.3				Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
30.0 60.4 59.5 11.4 8.8 32.0 57.3 58.3 9.9 7.6 32.0 57.3 58.3 9.9 7.6 36.0 50.6 55.3 7.2 5.6 38.0 47.0 53.5 6.1 4.7 40.0 43.2 51.5 5.1 3.9 42.0 39.0 49.2 4.1 3.1 44.0 34.5 46.4 3.2 2.5      Angulo de pluma principal 65.0 [°]  36.7 55.0 55.9 4.8 3.8 38.0 52.9 55.0 4.8 3.8 40.0 49.4 53.4 3.9 3.0 42.0 45.8 51.5 3.0 2.3		I .			1						
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36.0 50.6 55.3 7.2 5.6 38.0 47.0 53.5 6.1 4.7 40.0 43.2 51.5 5.1 3.9 42.0 39.0 49.2 4.1 3.1 44.0 34.5 46.4 3.2 2.5     Angulo de pluma principal 65.0 [°]  36.7 55.0 55.9 4.3 3.8 38.0 52.9 55.0 4.8 3.8 40.0 49.4 53.4 3.9 3.0 42.0 45.8 51.5 3.0 2.3					l						
38.0 47.0 53.5 6.1 4.7 40.0 43.2 51.5 5.1 3.9 42.0 39.0 49.2 4.1 3.1 44.0 34.5 46.4 3.2 2.5     Angulo de pluma principal 65.0 [ ° ]  36.7 55.0 55.9 4.8 3.8 40.0 49.4 53.4 3.9 3.0 42.0 45.8 51.5 3.0 2.3											
40.0 43.2 51.5 5.1 3.9 42.0 39.0 49.2 4.1 3.1 44.0 34.5 46.4 3.2 2.5 Angulo de pluma principal 65.0 [°]  36.7 55.0 55.9 4.8 3.8 40.0 49.4 53.4 3.9 3.0 42.0 45.8 51.5 3.0 2.3		I .			I						
44.0 34.5 46.4 3.2 2.5 Angulo de pluma principal 65.0 [°]  36.7 55.0 55.9 4.3 38.0 52.9 55.0 4.8 3.8 40.0 49.4 53.4 3.9 3.0 42.0 45.8 51.5 3.0 2.3		43.2			3.9						
Angulo de pluma principal 65.0 [ ° ]  36.7 55.0 55.9 4.3 38.0 52.9 55.0 4.8 3.8 40.0 49.4 53.4 3.9 3.0 42.0 45.8 51.5 3.0 2.3		I .	_								
36.7 55.0 55.9 4.3 38.0 52.9 55.0 4.8 3.8 40.0 49.4 53.4 3.9 3.0 42.0 45.8 51.5 3.0 2.3	44.0	34.5	46.4	3.2	2.5						
38.0     52.9     55.0     4.8     3.8       40.0     49.4     53.4     3.9     3.0       42.0     45.8     51.5     3.0     2.3		,		Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
40.0     49.4     53.4     3.9     3.0       42.0     45.8     51.5     3.0     2.3					i						
42.0 45.8 51.5 3.0 2.3											
					l						
	44.0	42.2	49.4	2.2	2.0						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		20.0	0 m Plum Cabeza 34.0	de plumí	oal, Punt ín (2316- osición m	1) 80.5 r	n Plumín	dfall I		
l			Ángu	ılo de plu	uma prin	cipal 88.0	0 [°]			
11.3 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 76.8 75.0 73.3 69.7 66.0 62.2 58.3 54.2	56.4 56.3 56.0 55.7 55.0 54.1 53.1 52.0 50.6 49.0	15.1 15.1 15.1 15.1 15.1 15.0 14.9 12.2 7.7 4.2	30.1 30.1 29.6 27.9 22.7 18.5 14.9 11.1 7.1						
26.0 28.0	49.9 45.2	49.0	2.7	4.1 2.7						
20.0					uma prin	cipal 83 (	01°1			
15.9 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 72.9 69.3 65.6 61.9 57.9 53.8 49.4 44.7	55.4 55.4 54.7 53.8 52.8 51.6 50.2 48.6 46.7	15.1 15.1 15.1 15.1 12.5 8.6 5.9 3.7	23.7 23.6 18.9 15.4 12.7 10.5 8.3 5.8 3.5						
00.0					ıma prin	cinal 75 (	0 1 0		ı	ı
23.2 24.0 26.0 28.0 30.0 32.0 34.0	65.0 63.4 59.5 55.5 51.2 46.7 41.7	52.9 52.6 51.4 50.1 48.6 46.8 44.7	15.1 14.9 12.3 10.2 8.2 6.5 4.6	11.1 10.2 8.3 6.8 5.5 4.3 3.2		ыраг <i>т</i> э.ч	V [ ]			
			Ánaı	ılo de plu	ıma prin	cipal 65.0	1°10			
31.6 32.0 34.0 36.0	55.0 54.1 49.8 45.5	48.5 48.3 46.6 44.8	5.4 4.0 2.7	4.0 3.8 2.7		,				
37.0	43.0	43.7	2.1							



N° de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	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]
		20.0	0 m Plum Cabeza 37.0	na princip de plumí ) [ m ] Po	oal, Punt n (2316- osición m	o de carç 1) 83.5 r nidfall (23	ga 3 - Mi n Plumín 316)	dfall 1		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
11.9 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0	78.0 77.9 76.3 74.7 71.4 68.1 64.7 61.2 57.5 53.7	59.4 59.4 59.1 58.8 58.2 57.4 56.5 55.5 54.2 52.8	15.1 15.1 15.1 15.1 15.1 15.1 13.1 11.5 8.4 5.1	28.8 28.8 28.8 25.8 21.0 17.4 13.8 11.2 7.9 4.8						
28.0	49.7	51.2	2.6	2.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
16.8	73.0	58.3		20.6		i i				
18.0 20.0 22.0	71.1 67.7 64.3	57.9 57.1 56.2	15.1 15.1 13.9	19.1 15.6 12.8						
24.0 26.0 28.0 30.0 32.0	60.8 57.2 53.3 49.3 45.0	55.1 53.9 52.4 50.8 48.9	12.5 9.3 6.3 4.1 2.8	10.6 8.8 6.1 4.2 2.8						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
24.4 26.0 28.0 30.0 32.0 34.0	65.0 62.3 58.7 54.9 51.0 46.8	55.7 54.9 53.7 52.4 50.8 49.0	12.0 9.9 8.1 6.5	9.8 8.3 6.8 5.5 4.4	•					
36.0	42.3	47.0	3.3	2.4						
			Ángı	ılo de plu	ıma prin	cipal 65.0	D[°]			
33.3 34.0 36.0 37.0	55.0 53.6 49.9 47.8	50.9 50.5 48.9 48.0	3.9 2.6 2.0	3.1 2.7						



N° de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 40.0	de plumí	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
12.5 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.3 75.8 72.9 69.8 66.7 63.5 60.3	62.3 62.2 62.0 61.4 60.7 59.8 58.9 57.8	15.1 15.1 15.1 15.1 13.4 10.6 8.5	27.0 27.0 25.7 20.7 16.9 13.7 10.7 8.2						
26.0	56.9	56.5	5.5	5.4						
28.0	53.3	55.1	3.1	3.0						
47.7	70.0	24.0	Angu		ıma prin	cipal 83.0	֓֓֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		1	
17.7 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 72.5 69.5 66.4 63.2 59.9 56.5 53.0	61.2 61.1 60.4 59.5 58.5 57.4 56.1 54.7	15.1 15.1 14.6 12.4 10.5 7.2 4.6	18.8 18.8 15.8 13.0 10.8 8.9 6.9 4.5						
32.0	49.2	53.0	3.0	3.0						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
25.7 26.0 28.0 30.0 32.0 34.0 36.0	65.0 64.5 61.3 57.9 54.4 50.8 46.9	58.4 58.3 57.2 56.0 54.6 53.1 51.3	11.8 9.7 7.9 6.4 5.0 3.7	8.6 8.4 6.8 5.5 4.4 3.5 2.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
35.0 36.0 37.0	55.0 53.5 51.7	53.4 52.8 52.0	2.6 2.0	2.3						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 43.0		n (2316-	1) 89.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	] (°)			
13.2 14.0 16.0 18.0 20.0 22.0 24.0 26.0	78.0 76.8 74.1 71.3 68.4 65.5 62.5 59.5	65.2 65.0 64.5 63.8 63.1 62.2 61.2 60.1	15.1 15.1 15.1 15.1 15.1 11.4 8.1 5.7	27.7 27.7 23.5 19.5 16.0 12.1 8.3 5.6						
28.0	56.3	58.8	3.5	3.4	L .					
				ılo de plu	ıma prin	cipal 83.0	[°]	1	ı	
18.6 20.0 22.0 24.0 26.0 28.0 30.0 32.0	73.0 71.0 68.1 65.2 62.2 59.1 56.0 52.6	64.0 63.6 62.8 61.9 60.9 59.7 58.4 56.9	15.1 15.1 15.1 13.2 10.3 7.8 5.1 3.0	18.2 15.8 13.0 10.7 8.9 7.4 5.0 2.9						
				ılo de plu	ıma prin	cinal 75 (	1°10			
27.0 28.0 30.0 32.0 34.0 36.0 38.0	65.0 63.4 60.4 57.3 54.0 50.6 47.3	61.1 60.6 59.5 58.3 56.9 55.3 53.5	10.2 9.3 7.6 6.1 4.8 3.6 2.4	7.5 6.7 5.4 4.3 3.4 2.5		, , , , , , , , , , , , , , , , , , ,	- L			



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 54.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		20.0	0 m Plum Cabeza 46.0	na princip de plumí D [ m ] Po	oal, Punt ín (2316- osición m	o de caro 1) 92.5 r nidfall (23	ga 3 - Mi n Plumín 316)	dfall I		
			Ángı	ılo de plu	uma prin	cipal 88.0	] (°)			
13.8 14.0 16.0 18.0 20.0 22.0 24.0 26.0 28.0	78.0 77.7 75.2 72.6 69.9 67.2 64.5 61.7 58.8	68.2 68.1 67.6 67.0 66.3 65.5 64.6 63.5 62.4	15.1 15.1 15.1 15.1 15.1 13.6 9.3 6.1 4.2	24.0 24.0 22.0 18.4 15.5 12.7 8.9 6.0 4.1						
			Ángı	ılo de plu	ıma prin	cipal 83.0	l°1C			
19.5	73.0	66.9	15.1	16.7						
20.0 22.0 24.0 26.0 28.0 30.0	72.3 69.6 66.9 64.2 61.4 58.5	66.7 66.0 65.2 64.2 63.2	15.1 15.0 14.2 10.8 8.1 5.8	15.8 13.0 10.8 9.0 7.4 5.7						
32.0	55.5	60.7	3.6	3.5						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
28.2 30.0 32.0 34.0	65.0 62.5 59.7 56.7	63.8 63.0 61.8 60.6	7.4 5.9 4.7	6.5 5.4 4.3 3.3						
36.0 38.0	53.6 50.7	59.1 57.5	3.6 2.5	2.5						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 16.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
7.7 8.0 9.0 10.0 11.0 12.0 13.0	78.0 76.7 73.0 69.1 65.2 61.1 56.8	41.8 41.7 41.4 41.1 40.6 40.0 39.4	15.1 15.1 15.1 15.1 15.1 15.1 14.9	30.1 30.1 30.1 29.5 24.6 21.2 18.0						
14.0 16.0 18.0	52.3 42.1 29.0	38.6 36.7 33.8	14.8 12.1 9.7	15.5 12.3 10.2						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0[°]			
11.0 12.0 13.0 14.0 16.0 18.0 20.0	73.0 69.4 65.4 61.3 52.5 42.4 29.4	41.2 40.8 40.4 39.8 38.4 36.5 33.7	15.1 15.1 15.1 15.1 12.8 10.8	30.1 30.0 25.5 21.3 15.7 12.3 10.2						
					ıma prin	cipal 75 (	01°1			
16.3 18.0 20.0 22.0	65.0 58.0 48.8 37.9	39.5 38.6 37.0 34.8	15.1 14.8 11.9	24.2 18.5 14.1 11.2	15.	. ,,	- , ]			
			Ángu	ılo de plu	ıma prin	cipal 65.0	0 [°]			
22.5 24.0 26.0	55.0 48.0 36.8	36.5 35.3 33.0	12.8 9.9	15.4 13.0 10.4						
			Angı		ıma prin	cipal 45.0	0[°]		ı	
32.8 34.0 35.0	35.0 26.1 18.1	27.3 25.6 23.0	7.9 7.2	6.6 5.9						



2821-1 2821-1

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

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

Lastre trasero [ t ]: 54.0 Lastre central [ t ]: 0.0

Lasire	entrar[t	].	_	0.0						
	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]
		23.0	0 m Plum Cabeza 19.0	de plumi	ín (2316-	o de carç 1) 41.5 r nidfall (23	n Plumír	dfall 1		
			Ángı	ılo de plu	uma prin	cipal 88.	0[°]			
8.3 9.0 10.0 11.0 12.0	78.0 75.7 72.6 69.4 66.1 62.7	44.8 44.6 44.3 43.9 43.4 42.9	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 29.9 25.0 21.5						
14.0 16.0 18.0 20.0	59.1 51.6 43.2 32.9	42.3 40.9 39.0 36.3	14.8 14.1 11.5 9.1	18.8 14.6 11.8 9.6						
			Angı		uma prin	cipal 83.	0 [°]	ı		
11.9 12.0 13.0 14.0 16.0 18.0 20.0 22.0	73.0 72.8 69.5 66.2 59.3 51.9 43.4 33.2	44.0 44.0 43.7 43.2 42.1 40.7 38.8 36.2	15.1 15.1 15.1 15.1 15.1 12.6 10.5	30.1 30.1 29.1 25.5 18.9 14.7 11.9 9.8						
22.0	55.2	30.2	_		ıma prin	cipal 75.	1°10	ı		
17.6 18.0 20.0 22.0 24.0 26.0	65.0 63.6 56.5 48.7 39.7 28.3	42.2 42.1 40.9 39.3 37.1 34.1	15.1 15.1 14.7 12.0 9.8	23.4 22.7 17.1 13.7 11.1 9.2						
			Angı		uma prin	cipal 65.	[°]	1		
24.2 26.0 28.0 30.0	55.0 48.0 38.9 27.1	38.9 37.5 35.3 32.2	14.3 11.4 9.2	15.2 12.8 10.4 8.7						
			Ángı		uma prin	cipal 45.	0[°]	1		
35.3	35.0	29.0	I	5.5	1	I	I	I	1	1

36.0

38.0

30.9

28.2



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]
		23.	0 m Plun Cabeza 22.0	de plumi	oal, Punt ín (2316- osición m	1) 44.5 r	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
8.9 9.0 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 63.8 57.7 51.2 43.9	47.7 47.4 47.1 46.7 46.3 45.8 44.6 43.1 41.2 38.7	15.1 15.1 15.1 15.1 15.1 15.1 15.1 14.6 13.9 11.3	30.1 30.1 30.1 28.4 26.7 22.7 19.6 15.5 12.7 10.4						
24.0	24.3	35.2	7.4	7.3						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
12.8 13.0 14.0 16.0 18.0 20.0	73.0 72.5 69.7 63.9 57.9 51.4	46.9 46.5 45.6 44.4 42.9	15.1 15.1 15.1 13.9 12.4	30.1 30.1 26.7 19.8 15.6 12.7						
22.0 24.0	44.1 35.7	41.0 38.6	10.1 8.2	10.5 8.8						
26.0	24.7	35.1	7.0	7.4						
			Ángı	ılo de plu	uma prin	cipal 75.0	[°]			
18.9 20.0 22.0 24.0 26.0 28.0	65.0 61.6 55.4 48.6 41.0 31.8	45.0 44.4 43.1 41.5 39.4 36.6	15.1 14.5 13.2 10.6 8.7	20.3 18.1 14.4 11.9 9.9 8.4						
					ıma prin	cipal 65.0	1°10			
26.0 28.0 30.0 32.0	55.0 48.0 40.3 30.9	41.4 39.8 37.6 34.8	12.3 9.8 8.1	13.3 11.2 9.3 7.9		- F = 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3 - 3	- , ]			
			Ángı	<del></del>	ıma prin	cipal 45.0	[°]			
37.8 38.0 40.0 41.0	35.0 33.8 21.9 15.2	30.8 30.8 26.9 23.7	6.0 5.0 4.5	4.8 4.7 3.8						



N° de ident.: 9842523/95738/

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

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

Alcance		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de jumín (2316-1) 47.5 m Plumín 25.0 [ m ] Posición midáll (2316)     9.5	ce	o de plumín	de rolda- nas								
9.5			23.0	Cabeza	de plumí	n (2316-	1) 47.5 r	n Plumín			
9.5				Ángi	ılo de nlı	ıma nrin	rinal 88 (	) [ ° ]			
10.0 76.9 50.5 15.1 30.1 12.0 72.1 49.9 15.1 26.5 13.1 20.5 14.0 67.2 49.1 15.1 20.5 14.0 67.2 49.1 15.1 20.5 14.0 67.2 49.1 15.1 20.5 14.0 67.2 49.1 15.1 20.5 14.0 67.2 49.1 15.1 20.5 14.0 67.2 49.1 15.1 20.5 14.0 67.2 49.1 15.1 20.5 14.0 18.0 56.6 46.9 12.5 13.1 20.0 50.8 45.4 10.4 10.9 22.0 44.4 43.5 8.7 9.1 22.0 44.4 43.5 8.7 9.1 22.0 44.4 43.5 8.7 9.1 22.0 44.4 43.5 8.7 9.1 22.0 6.0 28.3 37.9 6.1 6.6 6 20.7 22.0 49.7 15.1 27.7 14.0 72.2 49.7 15.1 27.7 14.0 67.3 48.9 15.1 20.7 18.0 62.2 47.9 15.1 16.2 20.0 56.8 46.7 12.6 13.1 22.0 51.0 45.2 10.5 11.0 22.0 55.8 46.7 12.6 13.1 22.0 51.0 45.2 10.5 11.0 22.0 51.0 45.2 10.5 11.0 22.0 37.4 40.9 7.3 7.8 22.0 28.6 37.8 6.3 6.7 28.0 28.6 37.8 6.3 6.7 28.0 28.6 48.6 43.7 11.1 10.4 28.0 48.6 43.7 11.1 10.4 28.0 48.6 43.7 11.1 10.4 28.0 42.0 41.7 9.1 8.7 30.0 34.2 39.1 7.5 7.5 32.0 24.4 35.4 6.4 6.4 6.4 6.4 54.3 39.9 7.5 7.5 32.0 24.4 35.4 6.4 6.4 6.4 54.3 39.9 31.7 7.5 7.5 32.0 24.4 35.4 6.4 6.4 6.4 6.4 33.9 9.7 32.0 34.0 33.5 37.2 7.1 7.1 30.0 48.0 42.0 10.3 9.7 37.8 8.2 32.0 24.4 35.4 6.4 6.4 6.4 6.4 54.3 39.9 8.5 8.2 34.0 33.5 37.2 7.1 7.1 30.0 48.0 42.0 10.3 9.7 32.0 41.3 39.9 8.5 8.2 34.0 33.5 37.2 7.1 7.1 36.0 23.5 42.0 26.6 29.7 4.1 3.2 54.0 56.0 26.6 29.7 4.1 3.2 54.0 56.0 26.6 29.7 4.1 3.2 54.0 56.0 26.6 29.7 4.1 3.2 54.0 56.0 26.6 29.7 4.1 3.2 54.0 56.0 26.6 29.7 4.1 3.2 54.0 56.0 26.6 29.7 4.1 3.2 54.0 56.0 26.6 29.7 4.1 3.2 54.0 56.0 26.0 26.0 26.0 23.3 33.5 6.1 6.1 6.1 6.1	9.5	78.0	50.6	7 1190		I Pini	l loo.	, j			
12.0				15.1							
13.0	11.0	74.5	50.2	15.1	30.1					İ	
14.0	12.0	72.1	49.9	15.1	26.5						
16.0											
18.0											
20.0   50.8   45.4   10.4   10.9   22.0   44.4   43.5   8.7   9.1			-								
22.0											
24.0				-							
Ángulo de pluma principal 83.0 [°]         13.7       73.0       49.8       15.1       27.7         14.0       72.2       49.7       15.1       27.7         16.0       67.3       48.9       15.1       20.7         18.0       62.2       47.9       15.1       16.2         20.0       56.8       46.7       12.6       13.1         22.0       51.0       45.2       10.5       11.0         24.0       44.6       43.3       8.8       9.2         26.0       37.4       40.9       7.3       7.8         28.0       28.6       37.8       6.3       6.7         Angulo de pluma principal 75.0 [°]         20.1       65.0       47.7       17.8         22.0       60.1       46.7       15.1       15.0         24.0       54.6       45.4       13.1       12.3         26.0       48.6       43.7       11.1       10.4         28.0       42.0       41.7       9.1       8.7         30.0       34.2       39.1       7.5       7.5         32.0       24.4       35.4       6.4       6.4											
13.7	26.0	28.3	37.9	6.1	6.6						
14.0 72.2 49.7 15.1 27.7 16.0 67.3 48.9 15.1 20.7 18.0 62.2 47.9 15.1 16.2 20.0 56.8 46.7 12.6 13.1 22.0 51.0 45.2 10.5 11.0 224.0 44.6 43.3 8.8 9.2 26.0 37.4 40.9 7.3 7.8 28.0 28.6 37.8 6.3 6.7				Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
16.0 67.3 48.9 15.1 20.7  18.0 62.2 47.9 15.1 16.2 20.0 56.8 46.7 12.6 13.1 22.0 51.0 45.2 10.5 11.0 24.0 44.6 43.3 8.8 9.2 26.0 37.4 40.9 7.3 7.8  28.0 28.6 37.8 6.3 6.7   Angulo de pluma principal 75.0 [°]  20.1 65.0 47.7 15.1 15.0 24.0 54.6 45.4 13.1 12.3 26.0 48.6 43.7 11.1 10.4 28.0 42.0 41.7 9.1 8.7 30.0 34.2 39.1 7.5 7.5 32.0 24.4 35.4 6.4 6.4  Angulo de pluma principal 65.0 [°]  27.7 55.0 43.8 11.7 28.0 54.1 43.7 12.7 11.7 30.0 48.0 42.0 10.3 9.7 32.0 41.3 39.9 8.5 8.2 34.0 33.5 37.2 7.1 7.1 36.0 23.3 33.5 6.1 6.1  Angulo de pluma principal 45.0 [°]  40.2 35.0 32.5 3.9  40.2 35.0 32.5 3.9  40.2 35.0 32.5 3.9	13.7	73.0	49.8	15.1	27.7						
18.0 62.2 47.9 15.1 16.2 20.0 56.8 46.7 12.6 13.1 22.0 51.0 45.2 10.5 11.0 24.0 44.6 43.3 8.8 9.2 26.0 37.4 40.9 7.3 7.8 28.0 28.6 37.8 6.3 6.7			_								
20.0											
22.0 51.0 45.2 10.5 11.0 24.0 44.6 43.3 8.8 9.2 26.0 37.4 40.9 7.3 7.8 28.0 28.6 37.8 6.3 6.7											
24.0											
26.0 37.4 40.9 7.3 7.8 28.0 28.6 37.8 6.3 6.7											
Angulo de pluma principal 75.0 [°]  20.1 65.0 47.7 17.8 17.8 22.0 60.1 46.7 15.1 15.0 15.0 15.0 15.0 15.1 15.0 15.0											
20.1 65.0 47.7 17.8 17.8 22.0 60.1 46.7 15.1 15.0 24.0 54.6 45.4 13.1 12.3 26.0 48.6 43.7 11.1 10.4 28.0 42.0 41.7 9.1 8.7 30.0 34.2 39.1 7.5 7.5 32.0 24.4 35.4 6.4 6.4 6.4	28.0	28.6	37.8	6.3	6.7						
22.0 60.1 46.7 15.1 15.0 24.0 54.6 45.4 13.1 12.3 26.0 48.6 43.7 11.1 10.4 28.0 42.0 41.7 9.1 8.7 30.0 34.2 39.1 7.5 7.5 32.0 24.4 35.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6.4 6				Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
24.0 54.6 45.4 13.1 12.3 28.0 42.0 41.7 9.1 8.7 30.0 34.2 39.1 7.5 7.5 32.0 24.4 35.4 6.4 6.4 6.4	20.1	65.0	47.7		17.8						
26.0											
28.0											
30.0 34.2 39.1 7.5 7.5 32.0 24.4 35.4 6.4 6.4 6.4    Angulo de pluma principal 65.0 [°]  27.7 55.0 43.8 11.7 28.0 54.1 43.7 12.7 11.7 30.0 48.0 42.0 10.3 9.7 32.0 41.3 39.9 8.5 8.2 34.0 33.5 37.2 7.1 7.1 36.0 23.3 33.5 6.1 6.1 6.1  Angulo de pluma principal 45.0 [°]  40.2 35.0 32.5 3.9    42.0 26.6 29.7 4.1 3.2											
32.0 24.4 35.4 6.4 6.4				-	-						
27.7 55.0 43.8 11.7 28.0 54.1 43.7 12.7 11.7 30.0 48.0 42.0 10.3 9.7 32.0 41.3 39.9 8.5 8.2 34.0 33.5 37.2 7.1 7.1 36.0 23.3 33.5 6.1 6.1 6.1     Ángulo de pluma principal 45.0 [°]  40.2 35.0 32.5 3.9 42.0 26.6 29.7 4.1 3.2											
28.0 54.1 43.7 12.7 11.7 30.0 48.0 42.0 10.3 9.7 32.0 41.3 39.9 8.5 8.2 34.0 33.5 37.2 7.1 7.1 36.0 23.3 33.5 6.1 6.1   Ángulo de pluma principal 45.0 [°]  40.2 35.0 32.5 3.9  42.0 26.6 29.7 4.1 3.2				Ángı	ılo de plu	ıma prin	cipal 65.0	D[°]			
30.0	27.7	55.0	43.8		11.7						
32.0 41.3 39.9 8.5 8.2 34.0 33.5 37.2 7.1 7.1 36.0 23.3 33.5 6.1 6.1	28.0	54.1		12.7							
34.0 33.5 37.2 7.1 7.1 36.0 23.3 33.5 6.1 6.1 6.1 Ángulo de pluma principal 45.0 [°]  40.2 35.0 32.5 3.9 42.0 26.6 29.7 4.1 3.2											
36.0 23.3 33.5 6.1 6.1 6.1 Ángulo de pluma principal 45.0 [°]  40.2 35.0 32.5 3.9 42.0 26.6 29.7 4.1 3.2											
Ángulo de pluma principal 45.0 [°]       40.2     35.0     32.5     3.9       42.0     26.6     29.7     4.1     3.2			_								
40.2     35.0     32.5     3.9       42.0     26.6     29.7     4.1     3.2	30.0	23.3	33.3				-in-al 45 1	2 [ 0 ]	ı	ı	1
42.0 26.6 29.7 4.1 3.2	46.5	05.5	05 -	Angı		uria prin	upai 45.0	۱ ] ۱	1	ı	
	-			4.1							
	42.0 43.0	26.6	29.7 27.4	4.1 3.7	2.9						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	0 m Plum Cabeza 28.0	de plumí		1) 50.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.1	78.0	53.6		30.1						
11.0	76.2	53.4	15.1	30.1						
12.0 13.0	74.1 71.9	53.1 52.7	15.1 15.1	30.1 29.5						
14.0	69.7	52.4	15.1	29.0						
16.0	65.3	51.5	15.1	23.5						
18.0	60.6	50.4	15.1	19.5						
20.0	55.7	49.1	15.1	16.5						
22.0	50.5	47.6	15.1	14.2						
24.0	44.9	45.7	13.1	12.4						
26.0 28.0	38.5 31.1	43.4 40.5	11.2 9.8	10.9 9.7						
30.0	21.3	36.4	8.6	8.6						
					ıma prin	cipal 83.0	1°1			
14.6	73.0	52.7	15.1	30.1						
16.0	69.9	52.2	15.1	28.6						
18.0	65.4	51.3	15.1	23.6						
20.0	60.8	50.2	15.1	19.7						
22.0 24.0	55.9 50.7	48.9 47.4	15.1 14.9	16.5 14.3						
26.0	45.0	45.5	13.0	12.5						
28.0	38.7	43.2	11.3	11.0						
30.0	31.3	40.3	10.0	9.8						
32.0	21.6	36.3	8.7	8.7						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
21.4	65.0	50.4		21.5						
22.0	63.6	50.1	15.1	20.6						
24.0 26.0	58.9 53.9	49.0 47.6	15.1 15.1	17.9 15.6						
28.0	48.5	46.0	14.6	13.5						
30.0	42.7	43.9	12.6	11.8						
32.0	36.0	41.4	11.0	10.3						
34.0	27.9	38.2	9.7	9.0						
			Ángı		ıma prin	cipal 65.0	[°]			T
29.4	55.0	46.3		11.5						
30.0	53.5	45.9	13.7	11.0						
32.0 34.0	48.1 42.1	44.2 42.2	12.0 10.5	9.6 8.3						
36.0	35.4	39.6	9.2	7.2						
38.0	27.1	36.3	8.0	6.2						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]0			
42.7	35.0	34.2		3.1						
44.0	29.7	32.4	3.4	2.7						
46.0	19.2	28.0	2.7	2.1						



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

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 31.0		n (2316-	1) 53.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.8 11.0 12.0 13.0	78.0 77.6 75.7 73.7	56.5 56.5 56.2 55.9	15.1 15.1 15.1 15.1	30.1 30.1 30.1 29.7						
14.0 16.0 18.0 20.0 22.0	71.8 67.8 63.7 59.5 55.0	55.6 54.8 53.9 52.7 51.4	15.1 15.1 15.1 14.5 13.3	26.9 22.6 18.5 15.7 13.5						
24.0 26.0 28.0 30.0 32.0	50.3 45.2 39.6 33.1 25.2	49.8 48.0 45.7 42.9 39.3	12.5 10.7 9.2 7.9 7.1	11.8 10.3 9.1 8.1 7.2						
				ılo de plu	ıma prin	cipal 83.0	[°]			
15.4	73.0	55.5		28.9						
16.0 18.0 20.0 22.0 24.0	71.9 67.9 63.8 59.6 55.2	55.4 54.6 53.6 52.5 51.2	15.1 15.1 15.1 14.6 13.5	28.5 22.8 18.6 15.8 13.5						
26.0 28.0 30.0 32.0	50.4 45.4 39.7 33.3	49.6 47.8 45.5 42.8	12.6 10.8 9.2 8.1	11.9 10.4 9.2 8.2						
34.0	25.5	39.2	7.2 Ápgu	l 7.3 Ilo de plu	ıma prin	cipal 75 (	) [ ° ]			
22.7	65.0	53.1	Angu	19.0	inia pilli	ωραι <i>τ</i> 3.	, j			
24.0 26.0 28.0 30.0 32.0 34.0 36.0	62.2 57.9 53.4 48.5 43.2 37.4 30.5	52.5 51.3 49.9 48.2 46.2 43.8 40.8	15.1 14.9 13.3 12.0 10.3 8.9 7.9	17.5 15.0 12.9 11.4 10.0 8.9 8.0						
38.0	21.7	36.6	7.0	7.1		-:	2			
31.1	55.0	48.7	Angı I	ulo de plu 10.3	uma prini	cipai 65.0	ון <u>'</u>			
32.0 34.0 36.0 38.0 40.0	53.0 48.1 42.8 36.8 29.9 20.7	48.7 48.2 46.5 44.5 42.0 38.9 34.6	11.8 10.2 8.9 7.8 7.0 6.0	9.7 8.4 7.3 6.4 5.5						
42.0	20.1	J.4.U		ılo de plu	ıma prin	cipal 45 (	1°10			
45.1 46.0 47.0	35.0 32.0 29.0	35.9 34.9 33.1	2.6 2.3	2.3 2.1	and pilli		~ L J			

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]
		23.0	0 m Plum Cabeza 22.0	de plumí		1) 56.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
8.9 9.0 10.0	78.0 77.7 75.0	47.7 47.7 47.4	15.1 15.1 15.1	30.1 30.1 30.1	·	·				
11.0 12.0	72.3 69.5	47.1 46.7	15.1 15.1	29.3 28.2						
13.0 14.0 16.0 18.0	66.7 63.8 57.7 51.2	46.3 45.8 44.6 43.1	15.1 15.1 14.9 14.7	24.6 21.3 16.8 13.6						
20.0 22.0	43.9 35.4	41.2 38.7	12.1 9.6	11.2 9.2						
24.0	24.3	35.2	7.8 Ángu	7.7	ıma nrin	oinal 02 (	0 [ 0 ]			
12.8	73.0	46.9	Angu	30.1	ıma prin	cipai 65.	U[]			
13.0 14.0	72.5 69.7	46.9 46.5	15.1 15.1	30.1 28.3						
16.0 18.0 20.0	63.9 57.9 51.4	45.6 44.4 42.9	15.1 15.1 15.1	21.5 16.9 13.7						
22.0 24.0	44.1 35.7	41.0 38.6	12.3 9.8	11.3 9.4						
26.0	24.7	35.1	8.0 Ángu	Jo de plu	ıma prin	cinal 75 (	1 ° 1 ∩			
18.9	65.0	45.0	Aligo	20.5		lipai 75.				
20.0 22.0 24.0	61.6 55.4 48.6	44.4 43.1 41.5	15.1 15.0 14.3	18.3 15.1 12.4						
26.0 28.0	41.0 31.8	39.4 36.6	11.4 9.3	10.3 8.4						
			Ángu	ılo de plu	ıma prin	cipal 65.0	0[°]			
26.0 28.0 30.0	55.0 48.0 40.3	41.4 39.8 37.6	12.3 10.3	10.5 8.5 6.9						
32.0	30.9	34.8	8.5	5.5						
			Ángu	ılo de plu	ıma prin	cipal 45.0	0 [°]			
37.8 38.0	35.0 35.0	30.8 30.8	2.9	2.1						
39.0	29.7	29.0	2.3							



2821-1

2821-1

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	0 m Plum Cabeza 25.0	de plumi	n (2316-		n Plumír			
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
9.5	78.0	50.6		30.1						
10.0 11.0 12.0	76.9 74.5 72.1	50.5 50.2 49.9	15.1 15.1 15.1	30.1 30.1 27.8						
13.0	69.6	49.5	15.1	25.1						
14.0 16.0 18.0 20.0 22.0 24.0 26.0 13.7 14.0 16.0 18.0 20.0 22.0 24.0	67.2 62.0 56.6 50.8 44.4 37.2 28.3 73.0 72.2 67.3 62.2 56.8 51.0	49.1 48.1 46.9 45.4 43.5 41.1 37.9 49.8 49.7 48.9 47.9 46.7 45.2 43.3	15.1 15.1 13.7 12.3 10.3 8.3 6.9 Ángt 15.1 15.1 15.1 15.1 14.4 9.5	22.1 17.3 14.1 11.6 9.8 8.2 6.9 29.0 29.0 22.5 17.5 14.2 11.8 9.9	uma prin	cipal 83.	0[°]			
26.0	37.4	40.9	7.8	8.3						
28.0	28.6	37.8	6.6	7.1						
			Ángı	<del></del>	ıma prin	cipal 75.	0[°]			ı
20.1 22.0 24.0 26.0	65.0 60.1 54.6 48.6	47.7 46.7 45.4 43.7	15.1 13.7 12.0	18.6 15.7 13.1 11.0						
28.0 30.0 32.0	42.0 34.2 24.4	41.7 39.1 35.4	9.7 8.0 6.8	9.1 7.6 6.2						

Ángulo de pluma principal 65.0 [°]

8.9

7.4 6.0

4.8

3.8

10.3 8.6 7.2

5.7

27.7

28.0

30.0

32.0

34.0

36.0

55.0

54.1

48.0

41.3

33.5

23.3

43.8

43.7

42.0 39.9

37.2

33.5



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]
		23.0	0 m Plum Cabeza 28.0	na princip de plumí 0 [ m ] Po	n (2316-	1) 62.5 r	n Plumín	dfall 1		
			Ángi	ılo de plu	ıma prin	cinal 88 (	1°10			
10.1	78.0	53.6	79	30.1		J. Par 55.	, ,			
11.0	76.2	53.4	15.1	30.1						
12.0	74.1	53.1	15.1	28.2						
13.0	71.9	52.7	15.1	24.4						
14.0	69.7	52.4	15.1	21.3						
16.0	65.3	51.5	15.1	16.8						
18.0	60.6	50.4	14.7	13.7						
20.0	55.7	49.1	11.8	11.2						
22.0 24.0	50.5 44.9	47.6 45.7	9.7 8.1	9.4 7.9						
26.0	38.5	43.4	6.7	6.6						
28.0	31.1	40.5	5.6	5.6						
30.0	21.3	36.4	4.7	4.7						
				ılo de plı	ıma prin	cipal 83.0	1°10			
14.6	73.0	52.7	15.1	24.6	·	·				
16.0	69.9	52.2	15.1	21.5						
18.0	65.4	51.3	15.1	16.9						
20.0	60.8	50.2	14.8	13.8						
22.0	55.9	48.9	12.0	11.3						
24.0	50.7	47.4	9.9	9.6						
26.0	45.0	45.5	8.2	8.0						
28.0	38.7	43.2	6.8	6.8						
30.0	31.3	40.3	5.7	5.8						
32.0	21.6	36.3	4.8	4.8						
	05.0	50.4	Angı	ılo de plu	ıma prin	cipal 75.0	D[°]	ı	ı	
21.4 22.0	65.0 63.6	50.4 50.1	15.1	15.9 15.8						
24.0	58.9	49.0	14.0	12.9						
26.0	53.9	49.0	11.4	10.7						
28.0	48.5	46.0	9.4	9.1						
30.0	42.7	43.9	7.8	7.6						
32.0	36.0	41.4	6.5	6.5						
34.0	27.9	38.2	5.5	5.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	D[°]			
29.4	55.0	46.3		8.1						
30.0	53.5	45.9	10.3	7.6						
32.0	48.1	44.2	8.7	6.3						
34.0	42.1	42.2	7.2	5.2						
36.0	35.4	39.6	5.9	4.2						
38.0	27.1	36.3	4.8	3.3						
40.0	17.0	31.2	3.7	l	l			l	l	



2821-1

2821-1

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

	,						-	-	_	•
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	) m Plum Cabeza		oal, Punt n (2316-					
					osición m					
			Ángι	ılo de plu	ıma prin	cipal 88.0	[°]C			
10.8	78.0	56.5	15.1	30.1						
11.0	77.6	56.5	15.1	30.1						
12.0	75.7	56.2	15.1	30.1						
13.0 14.0	73.7 71.8	55.9 55.6	15.1 15.1	30.1 26.8						
16.0	67.8	54.8	15.1	21.9						
18.0	63.7	53.9	15.1	17.9						
20.0	59.5	52.7	14.5	15.1						
22.0	55.0	51.4	12.8	12.9						
24.0	50.3	49.8	11.6	11.2						
26.0	45.2	48.0	10.0	9.8						
28.0	39.6	45.7	8.6	8.5						
30.0	33.1	42.9	7.4	7.5						
32.0	25.2	39.3	6.4	6.4						
			Angı		ıma prin	cipal 83.0	)[°]			
15.4	73.0	55.5		27.3						
16.0	71.9	55.4	15.1	27.3						
18.0	67.9	54.6	15.1	22.0						
20.0 22.0	63.8 59.6	53.6 52.5	15.1 14.5	18.0 15.3						
24.0	55.2	51.2	13.0	13.0						
26.0	50.4	49.6	11.9	11.4						
28.0	45.4	47.8	10.2	9.9						
30.0	39.7	45.5	8.7	8.7						
32.0	33.3	42.8	7.5	7.6						
34.0	25.5	39.2	6.7	6.4						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
22.7	65.0	53.1		15.3						
24.0	62.2	52.5	15.1	13.7						
26.0	57.9	51.3	15.1	11.6						
28.0 30.0	53.4 48.5	49.9 48.2	12.9 11.4	9.9 8.4						
32.0	43.2	46.2	9.7	7.1						
34.0	37.4	43.8	8.4	6.0						
36.0	30.5	40.8	7.2	5.0						
38.0	21.7	36.6	6.0	4.0						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]0			
31.1	55.0	48.7		6.9						
32.0	53.0	48.2	8.5	6.4						
34.0	48.1	46.5	7.1	5.3						
36.0	42.8	44.5	5.8	4.3						
38.0 40.0	36.8 29.9	42.0 38.9	4.7 3.7	3.4 2.6						
42.0	29.9	34.6	2.8	2.0						
43.0	16.1	31.6	2.3							



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 34.0	de plumi		1) 68.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	) [°]			
11.4	78.0	59.4	15.1	30.1						
12.0	76.9	59.3	15.1	30.1						
13.0 14.0	75.2 73.4	59.0 58.7	15.1 15.1	28.4 26.1						
16.0	69.9	58.0	15.1	20.7						
18.0	66.2	57.2	15.1	17.1						
20.0	62.5	56.2	15.0	14.4						
22.0	58.5	55.0	13.2	12.3						
24.0	54.4	53.7	11.0	10.5						
26.0	50.1	52.1	9.3	9.2						
28.0 30.0	45.5 40.4	50.2 48.0	8.1 7.0	8.0 7.0						
32.0	34.7	45.4	6.0	6.2						
34.0	28.0	42.0	5.2	5.4						
				ılo de nlı	ıma prin	cinal 83 (	1 ° 1			
16.3	73.0	58.4	Aligo	23.6			7[]			
18.0	70.0	57.8	15.1	20.9						
20.0	66.3	57.0	14.7	17.2						
22.0	62.6	56.0	13.8	14.5						
24.0	58.6	54.8	12.1	12.4						
26.0	54.6	53.5	10.1	10.7						
28.0 30.0	50.2 45.6	51.9 50.0	8.8 7.6	9.4 8.2						
32.0	40.6	47.8	6.6	7.1						
34.0	34.9	45.2	5.8	6.3						
36.0	28.2	41.9	5.1	5.5						
			Ángı	ılo de plı	ıma prin	cipal 75.0	[°]			
23.9	65.0	55.8		14.0	·					
24.0	64.9	55.8	15.1	13.9						
26.0	61.1	54.8	14.4	11.8						
28.0	57.1	53.6	12.6	10.1						
30.0 32.0	52.9 48.5	52.1 50.4	10.5 9.1	8.7 7.4						
34.0	43.7	48.5	7.8	6.3						
36.0	38.5	46.1	6.8	5.3						
38.0	32.5	43.3	6.0	4.4						
40.0	25.2	39.6	5.1	3.6						
<u></u>			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
32.8	55.0	51.2		6.1						
34.0	52.5	50.4	7.1	5.4						
36.0	48.1	48.7	5.9	4.4						
38.0 40.0	43.3 38.0	46.7 44.3	4.8 3.8	3.6 2.8						
42.0	31.9	41.4	2.9	2.0						
44.0	25.4	37.6	2.1							



N° de ident.: 9842523/95738/ Pieza de

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

Valor de vuelco: Lastre trasero [ t ]:

Lastre central [ t ]:

2 - Vía ancha 54.0 0.0 Pieza de articulación de pluma principal: 2821-1 Cabeza de pluma principal: 2821-1

				1 -	ı .	1		_	1	
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plun Cabeza 37 (	de plumi		1) 71.5 r	n Plumín			
					ıma prin					
12.0	78.0	62.4		29.1						
13.0	76.4	62.1	15.1	27.8						
14.0 16.0	74.8 71.6	61.9 61.2	15.1 15.1	24.4 19.5						
18.0	68.3	60.5	14.7	16.1						
20.0	64.9	59.6	12.5	13.4						
22.0	61.4	58.5	11.0	11.5						
24.0	57.7	57.3	9.3	9.8						
26.0	53.9	55.9	7.9	8.4						
28.0	50.0	54.3	6.8	7.4						
30.0 32.0	45.7 41.1	52.4 50.3	5.9 5.1	6.4 5.5						
34.0	36.0	47.7	4.5	4.8						
36.0	30.2	44.6	3.8	4.1						
38.0	23.0	40.6	3.2	3.4						
			Ángı	ılo de plu	uma prin	cipal 83.0	[°]C			
17.2	73.0	61.3	15.1	20.0						
18.0	71.7	61.0	15.1	19.8						
20.0	68.4	60.2	15.1	16.2						
22.0	65.0	59.3	13.6	13.5						
24.0 26.0	61.5 57.8	58.3 57.1	12.3 10.3	9.9						
28.0	54.1	55.7	8.6	8.5						
30.0	50.1	54.1	7.4	7.5						
32.0	45.8	52.3	6.4	6.5						
34.0	41.2	50.1	5.5	5.6						
36.0	36.2	47.6	4.8	4.9						
38.0 40.0	30.3 23.2	44.5 40.5	4.2 3.6	4.3 3.7						
10.0	20.2	.0.0			uma prin	cipal 75.0	[°]			
25.2	65.0	58.6		12.5						
26.0	63.6	58.2	13.9	11.8						
28.0	60.1	57.1	11.5	10.1						
30.0 32.0	56.4 52.5	55.8 54.4	9.7 8.2	8.6 7.4						
34.0	48.5	52.7	7.1	6.3						
36.0	44.1	50.7	6.1	5.3						
38.0	39.3	48.4	5.3	4.4						
40.0	34.0	45.7	4.7	3.6						
42.0	27.8	42.3	4.0 3.2	2.9 2.2						
44.0	19.7	37.7					2			<u> </u>
			Angı		ıma prin	cipai 65.0	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		ı	ı
34.6	55.0	53.7		5.1						
36.0 38.0	52.2 48.1	52.7 50.9	5.7 4.6	4.4 3.5						
40.0	43.7	49.0	3.6	2.7						
42.0	38.9	46.6	2.7	2.0						
43.0	36.8	45.3	2.3							

Source:a9841388



Nº de ident.: 9842523/95738/

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

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

				_				_		
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	0 m Plum Cabeza 40.0	de plumi	pal, Punt n (2316- osición m	1) 74.5 r	n Plumín	dfall	!	
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
12.6	78.0	65.3		28.9						
13.0	77.5	65.2	15.1	28.9						
14.0 16.0	76.0 73.0	65.0 64.4	15.1 15.1	27.1 21.8						
18.0	70.0	63.7	15.1	17.9						
20.0	66.9	62.9	13.9	15.2						
22.0	63.7	61.9	12.2	13.0						
24.0	60.4	60.8	10.9	11.4						
26.0	57.1	59.6	9.3	9.8						
28.0	53.5	58.2	8.1	8.6						
30.0 32.0	49.8 45.9	56.5 54.7	7.0 6.2	7.6 6.7						
34.0	41.7	52.6	5.4	5.8						
36.0	37.1	50.1	4.7	5.0						
38.0	31.9	47.1	4.0	4.2						
40.0	25.7	43.4	3.0	3.1						
			Ángu	ılo de plu	uma prin	cipal 83.0	[°]C			
18.1	73.0	64.1	15.1	20.1						
20.0	70.1	63.5	15.1	18.1						
22.0	67.0	62.7	14.7	15.4						
24.0	63.8	61.7	12.5 11.0	13.1 11.5						
26.0 28.0	60.5 57.1	60.6 59.4	9.4	9.9						
30.0	53.6	58.0	8.1	8.7						
32.0	49.9	56.3	7.2	7.7						
34.0	46.0	54.5	6.3	6.8						
36.0	41.8	52.4	5.6	6.0						
38.0 40.0	37.2 32.0	49.9 47.0	4.9 4.2	5.2 4.4						
42.0	25.9	43.3	3.3	3.5						
					ıma prin	cipal 75.0	1°10			
26.5	65.0	61.3	9	11.3		. ,				
28.0	62.5	60.5	12.9	10.0						
30.0	59.2	59.4	11.2	8.6						
32.0	55.8	58.1	9.6	7.4						
34.0	52.2	56.6	8.2	6.3						
36.0 38.0	48.4 44.4	54.9 53.0	7.0 5.9	5.3 4.4						
40.0	44.4	50.7	5.9 4.9	3.6						
42.0	35.3	48.1	3.9	2.9						
44.0	29.8	44.9	3.1	2.3						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
36.3	55.0	56.1		4.2						
38.0	51.9	54.9	4.5	3.5						
40.0	48.1	53.2	3.5	2.7						
42.0	44.1	51.2	2.6	2.0						
43.0	42.3	50.1	2.2		l				l	



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 ]: 54.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	0 m Plum Cabeza 43.0	de plumí	oal, Punt ín (2316- osición m	1) 77.5 r	n Plumín	dfall I		
			<u>_</u>		ıma prin	cipal 88.0	0 [°]			
13.3 14.0 16.0 18.0 20.0	78.0 77.0 74.2 71.4 68.6	68.2 68.1 67.5 66.9 66.1	15.1 15.1 15.1 15.1 15.0	28.6 28.6 23.4 19.4 16.7						
22.0 24.0 26.0 28.0 30.0	65.7 62.7 59.6 56.5 53.2	65.3 64.3 63.1 61.8 60.4	13.6 12.6 11.3 9.8 8.5	14.3 12.5 11.0 9.7 8.6						
32.0 34.0 36.0 38.0 40.0	49.7 46.1 42.2 38.0 33.3	58.8 56.9 54.8 52.4 49.6	7.4 6.2 5.1 4.1 3.2	7.6 6.4 5.2 4.2 3.3						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
18.9 20.0 22.0 24.0 26.0	73.0 71.5 68.7 65.8 62.8	67.0 66.7 65.9 65.0 64.0	15.1 15.1 14.1 12.8	20.0 19.7 16.7 14.4 12.5						
28.0 30.0 32.0 34.0 36.0	59.7 56.5 53.3 49.8 46.2	62.9 61.6 60.2 58.6 56.7	11.5 9.9 8.6 7.6 6.6	10.8 9.4 8.2 7.1 6.1						
38.0 40.0 42.0 44.0	42.3 38.1 33.4 28.0	54.6 52.2 49.4 46.0	5.8 5.1 4.4 3.3	5.2 4.4 3.6 3.0						
			Ángı		ıma prin	cipal 75.0	[°]			
27.7 28.0 30.0 32.0 34.0 36.0	65.0 64.6 61.6 58.5 55.3 51.9	64.0 63.9 62.9 61.7 60.3 58.8	12.5 10.8 9.3 8.0 6.7	10.0 9.8 8.4 7.2 6.2 5.2						
38.0 40.0 42.0 44.0	48.4 44.7 40.7 36.3	57.1 55.2 53.0 50.4	5.6 4.7 3.8 2.9	4.3 3.6 2.8 2.2						
20.0	EE ^	E0.6	Angu	ılo de plu 3.3	uma prin	cipal 65.0	[°]		I	
38.0 40.0 42.0 43.0	55.0 51.6 48.4 46.6	58.6 57.1 55.4 54.5	3.3 2.4 2.0	2.6						



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 ]: 54.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.	0 m Plum Cabeza 34.0	de plumi	pal, Punt n (2316- osición m	1) 80.5 r	n Plumín	dfall		
			Ángu	ılo de plu	uma prin	cipal 88.0	[°]C			
11.4 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 76.9 75.2 73.4 69.9 66.2 62.5 58.5	59.4 59.3 59.0 58.7 58.0 57.2 56.2 55.0	15.1 15.1 15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 29.9 28.2 22.8 18.5 15.2 12.6						
24.0	54.4	53.7	10.1	9.9						
26.0	50.1	52.1	7.5	7.5						
28.0	45.5	50.2	5.0	4.9			2			
			Angu		ıma prin	cipai 83.0	<u>[ " ]</u>		ı	
16.3 18.0 20.0 22.0	73.0 70.0 66.3 62.6	58.4 57.8 57.0 56.0	15.1 15.1 15.1	22.5 18.6 15.1 12.4						
24.0 26.0 28.0 30.0 32.0	58.6 54.6 50.2 45.6 40.6	54.8 53.5 51.9 50.0 47.8	14.1 11.8 10.1 7.5 5.0	10.3 8.5 7.1 5.7 4.5						
34.0	34.9	45.2	3.0	3.0						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
23.9 24.0 26.0 28.0	65.0 64.9 61.1 57.1	55.8 55.8 54.8 53.6	14.2 11.7 9.6	9.9 9.9 8.0 6.5			-			
30.0 32.0 34.0 36.0	52.9 48.5 43.7 38.5	52.1 50.4 48.5 46.1	7.7 6.0 4.5 3.2	5.2 4.0 3.0 2.1						
			Ángı	ılo de plı	ıma prin	cipal 65.0	[°]			
32.8 34.0 36.0	55.0 52.5 48.4	51.2 50.4 48.7	3.4 2.1	3.0 2.4						



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

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

Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 37.0	de plumí		1) 83.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0[°]			
12.0	78.0	62.4		29.0						
13.0	76.4	62.1	15.1	29.0						
14.0	74.8	61.9	15.1	26.3						
16.0	71.6	61.2	15.1	21.4						
18.0	68.3	60.5	15.1	17.8						
20.0	64.9	59.6	13.8	14.7						
22.0	61.4	58.5	12.8	12.4						
24.0	57.7	57.3	10.4	9.8						
26.0	53.9	55.9	7.7	7.4						
28.0	50.0	54.3	5.6	5.5						
30.0	45.7	52.4	3.9	3.8						
			Ángu	ılo de plu	ıma prin	cipal 83.0	0 [°]			
17.2	73.0	61.3	15.1	20.6						
18.0	71.7	61.0	15.1	18.8						
20.0	68.4	60.2	15.1	15.3						
22.0	65.0	59.3	13.9	12.6						
24.0	61.5	58.3	11.9	10.4						
26.0	57.8	57.1	10.1	8.6						
28.0	54.1	55.7	8.4	7.1						
30.0	50.1	54.1	7.1	5.9						
32.0	45.8	52.3	5.2	4.7						
34.0	41.2	50.1	3.4	3.5						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
25.2	65.0	58.6		8.7						
26.0	63.6	58.2	11.4	8.0						
28.0	60.1	57.1	9.3	6.5						
30.0	56.4	55.8	7.6	5.2						
32.0	52.5	54.4	6.0	4.1						
34.0	48.5	52.7	4.5	3.1						
36.0	44.1	50.7	3.2	2.2						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
34.6	55.0	53.7		2.1						
36.0	52.5	52.7	2.1							



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 40.0	de plumí	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
12.6 13.0 14.0 16.0 18.0	78.0 77.5 76.0 73.0 70.0	65.3 65.2 65.0 64.4 63.7	15.1 15.1 15.1 15.1	27.1 27.1 26.1 21.1 17.3						
20.0 22.0 24.0 26.0 28.0	66.9 63.7 60.4 57.1 53.5	62.9 61.9 60.8 59.6 58.2	14.2 12.5 11.2 8.3 5.9	14.7 12.4 10.7 8.0 5.8						
30.0 32.0	49.8 45.9	56.5 54.7	4.1 2.9	4.1 2.9						
02.0	10.0	0			ıma prin	cipal 83.0	1°10			
18.1 20.0 22.0	73.0 70.1 67.0	64.1 63.5 62.7	15.1 15.1 15.1	18.8 15.4 12.7						
24.0 26.0 28.0 30.0 32.0	63.8 60.5 57.1 53.6 49.9	61.7 60.6 59.4 58.0 56.3	12.9 11.4 9.5 7.9 6.6	10.5 8.7 7.2 5.9 4.9						
34.0	46.0	54.5	4.5	3.8						
26.5 28.0 30.0 32.0 34.0	65.0 62.5 59.2 55.8 52.2	61.3 60.5 59.4 58.1 56.6	9.1 7.4 5.9 4.5	7.6 6.5 5.2 4.1 3.2	ıma prin	cipal 75.	0[°]			
36.0 38.0	48.4 44.8	54.9 53.0	3.3 2.1	2.3						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco:

Lastre trasero [ t ]: 54.0 Lastre central [ t ]: 0.0

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		23.0	0 m Plum Cabeza 43.0	de plumí	n (2316-		n Plumír			
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
13.3 14.0 16.0 18.0	78.0 77.0 74.2 71.4	68.2 68.1 67.5 66.9	15.1 15.1 15.1 15.1	27.9 27.9 23.6 19.1						
20.0 22.0 24.0 26.0 28.0 30.0	68.6 65.7 62.7 59.6 56.5 53.2	66.1 65.3 64.3 63.1 61.8 60.4	15.1 13.2 11.3 9.5 6.7 4.4	15.7 13.1 10.9 9.1 6.6 4.4						
32.0	49.7	58.8	2.7	2.7						
			Ángı	<del></del>	ıma prin	cipal 83.	0[°]			
18.9 20.0 22.0 24.0	73.0 71.5 68.7 65.8	67.0 66.7 65.9 65.0	15.1 15.1 14.5	17.2 15.4 12.6 10.4						
26.0 28.0 30.0 32.0 34.0	62.8 59.7 56.5 53.3 49.8	64.0 62.9 61.6 60.2 58.6	12.4 10.3 8.5 6.6 4.9	8.6 7.1 5.9 4.8 3.9						
36.0	46.2	56.7	3.5	2.9						
07.7	05.0	04.0	Angı	<del></del>	ıma prin	cipal 75.	0 [°]		1	I
27.7 28.0 30.0 32.0	65.0 64.6 61.6 58.5	64.0 63.9 62.9 61.7	8.7 7.0 5.5	6.5 6.3 5.0 4.0						
34.0 36.0 38.0	55.3 51.9 48.7	60.3 58.8 57.1	4.3 3.2 2.0	3.0 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

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]
	23.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 92.5 m Plumín 46.0 [ m ] Posición midfall (2316)									
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.9 14.0 16.0 18.0 20.0	78.0 77.9 75.3 72.7 70.1	71.2 71.2 70.7 70.0 69.3	15.1 15.1 15.1 15.1 15.1	24.1 24.1 22.4 18.7 15.8						
22.0 24.0 26.0 28.0 30.0	67.4 64.6 61.8 58.9 55.9	68.5 67.6 66.6 65.4 64.1	14.3 11.4 9.3 7.2 4.9	13.2 11.0 9.2 7.2 5.0						
32.0	52.8	62.6	3.0	3.1						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
19.8 20.0 22.0 24.0	73.0 72.8 70.1 67.4	69.9 69.8 69.1 68.3	15.1 15.1 14.4	15.8 15.5 12.7 10.5						
26.0 28.0 30.0 32.0 34.0 36.0	64.7 61.9 59.0 56.0 52.9 49.7	67.4 66.4 65.2 63.9 62.4 60.8	12.1 10.1 8.4 6.8 5.2 3.9	8.7 7.2 5.9 4.8 3.9						
38.0	46.3	59.0	2.9	2.2						
	Ángulo de pluma principal 75.0 [ ° ]									
29.0 30.0 32.0 34.0	65.0 63.6 60.8 57.9	66.7 66.3 65.2 64.0	6.8 5.4 4.1	5.6 5.0 3.9 3.0						
36.0 38.0	54.8 51.9	62.6 61.1	3.1 2.1	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

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 16.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.	0[°]			
7.8 8.0 9.0 10.0	78.0 77.1 73.4 69.5	44.8 44.8 44.5 44.1	15.1 15.1 15.1 15.1	30.1 30.1 30.1 30.1						
11.0 12.0 13.0 14.0 16.0 18.0	65.6 61.5 57.3 52.8 42.7 29.8	43.6 43.1 42.5 41.7 39.8 37.0	15.1 15.1 15.1 15.1 12.7 10.3	25.0 21.4 18.2 15.7 12.4 10.2						
10.0	20.0	01.0			ıma prin	cinal 83	1°10			
11.4 12.0 13.0 14.0 16.0	73.0 70.8 66.9 62.8 54.2 44.4	44.2 44.0 43.5 43.0 41.7 39.9	15.1 15.1 15.1 15.1 13.2	30.1 30.0 27.4 22.4 16.3		ырат оо. -				
20.0	32.2	37.3	11.1	10.5		-in al 75 i	0.001			
17.1 18.0 20.0 22.0 24.0	65.0 61.3 52.5 42.4 29.4	42.4 42.0 40.6 38.7 35.8	15.1 15.1 12.8 10.5	24.0 20.8 15.4 12.1 10.0	uma prin	ират 75.	V [ ]			
Ángulo de pluma principal 65.0 [ ° ]										
23.8 24.0 26.0 28.0	55.0 54.0 44.2 31.8	39.2 39.1 37.3 34.6	15.1 12.3 9.7	15.3 15.2 11.9 9.7			_			
Ángulo de pluma principal 45.0 [ ° ]										
35.0 36.0 37.0	35.0 27.2 16.3	29.4 28.0 25.5	6.0 5.4	5.1 4.6 4.0						



Nº de ident.: 9842523/95738/

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

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

Inserción			1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		26.	0 m Plum Cabeza 19.0	de plumí	n (2316-		n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
8.4 9.0 10.0 11.0 12.0 13.0 14.0	78.0 76.1 72.9 69.7 66.4 63.0 59.5 52.1	47.8 47.6 47.3 46.9 46.5 46.0 45.4 44.0	15.1 15.1 15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 30.1 25.5 21.9 19.1 14.9						
18.0 20.0	43.6 33.5	42.1 39.5	12.5 9.9	12.0 9.8						
20.0	00.0	00.0			ıma nrin	cipal 83.0	1 ° 1			
12.3 13.0 14.0	73.0 70.7 67.5	47.0 46.8 46.4	15.1 15.1	30.1 29.7 27.3			, ,			
16.0 18.0 20.0	60.6 53.3 45.1	45.3 44.0 42.1	15.1 15.1 12.8	20.0 15.4 12.4						
22.0	35.3	39.7	10.3	10.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]C			
18.4 20.0 22.0 24.0 26.0	65.0 59.3 51.9 43.4 33.2	45.1 44.3 42.8 40.9 38.3	15.1 15.1 13.0 10.8	23.3 19.0 14.8 12.0 10.0						
20.0	<sub>1</sub> JJ.Z	JU.J			ıma prin	cinal 65 f	1 0 1			
25.5	Ángulo de pluma principal 65.0 [ ° ]  25.5   55.0   41.6									
26.0 28.0 30.0	53.1 44.8	41.3 39.5 37.0	15.1 13.4 10.5	13.4 11.3 9.6						
30.0	35.0	31.0			ıma prin	cipal 45.0	1 0 1			
37.4 38.0	35.0 31.6	31.2 30.6	5.0	4.2 3.9	ania piili	ωμαι 40.1	, ,			
40.0	17.8	25.9	4.0							



N° de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

Inserción			1	2	3	4	5	6	7	8			
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]			
	26.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 44.5 m Plumín 22.0 [ m ] Posición midfall (2316)												
Ángulo de pluma principal 88.0 [ ° ]													
9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 75.3 72.6 69.8 67.0 64.1 58.0 51.5 44.3 35.9 25.0	50.7 50.4 50.1 49.8 49.3 48.8 47.7 46.2 44.3 41.9 38.4	15.1 15.1 15.1 15.1 15.1 15.1 14.6 14.0 11.5 9.1 7.6 Ángu	30.1 30.1 28.7 26.8 23.1 20.0 15.8 12.8 10.6 8.8 7.4 ulo de plu 30.1 28.4 20.9	uma prind	cipal 83.0	D[°]						
18.0 20.0 22.0 24.0 26.0	59.0 52.6 45.5 37.3 27.0	48.7 47.6 46.2 44.4 42.0 38.8	14.6 13.6 11.3 9.1 7.7	16.4 13.2 11.0 9.2 7.8									
			Ángı		ıma prin	cipal 75.0	[°]						
19.6 20.0 22.0 24.0 26.0 28.0 30.0	65.0 63.9 57.9 51.4 44.1 35.7 24.6	47.9 47.7 46.5 45.1 43.2 40.7 37.2	15.1 15.0 14.0 11.6 9.4 7.8	20.3 20.1 15.8 12.8 10.7 9.0 7.6									
			Ángu	ılo de plu	uma prin	cipal 65.0	[°]						
27.2 28.0 30.0 32.0 34.0	55.0 52.4 45.3 37.1 26.7	44.1 43.6 41.8 39.4 36.1	14.3 11.4 9.1 7.7	12.7 11.9 10.2 8.8 7.5	-		_						
Ángulo de pluma principal 45.0 [ ° ]													
39.9 40.0 42.0 43.0	35.0 34.4 22.8 16.5	32.9 32.7 29.3 26.3	3.5 3.0	3.5 3.4 2.7									