

N° de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal: 28

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 16.0	de plumí		1) 35.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
8.7 9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 77.1 73.3 69.5 65.6 61.5 57.3 48.0 36.8	74.8 74.7 74.4 74.1 73.6 73.1 72.4 70.8 68.5	15.1 15.1 15.1 15.1 15.1 13.0 9.9 7.7	30.1 30.1 27.1 21.2 17.3 14.6 12.6 9.8 7.9						
	•		Ánaı	ılo de plu	ıma prin	cipal 83.0	1°10			
15.0	73.0	73.9		24.7						
16.0 18.0 20.0 22.0 24.0	69.2 61.2 52.4 42.3 29.3	73.6 72.6 71.2 69.2 66.4	15.1 15.0 11.1 8.6 7.0	20.6 14.4 10.9 8.6 7.2						
			Ángu	ılo de plu	uma prin	cipal 75.0	] ° ]			
24.8 26.0 28.0 30.0 32.0	65.0 60.1 51.2 40.8 27.1	71.4 70.8 69.3 67.3 64.3	14.7 11.1 8.6 7.0	15.9 13.6 10.4 8.3 7.0						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
36.4 38.0 40.0	55.0 47.4 36.2	66.4 65.1 62.8	9.5 7.5	11.2 9.5 7.7						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
56.1 58.0	35.0 18.8	50.7 47.3	4.3	4.2 3.7						



2821-1

2821-1

 $N^{\circ}$  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 16.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
8.8 9.0 10.0 11.0 12.0 13.0 14.0 16.0	9.0     77.3     74.8     15.1     30.1       10.0     73.5     74.5     15.1     30.1       11.0     69.7     74.1     15.1     29.9       12.0     65.8     73.6     15.1     24.7       13.0     61.7     73.1     15.1     20.6       14.0     57.5     72.5     15.1     17.6       16.0     48.2     70.9     14.5     13.5									
			Ángı	ılo de plu	ıma prin	cipal 83.0	0 [°]			
15.1 16.0 18.0 20.0 22.0 24.0	73.0 69.4 61.4 52.6 42.5 29.6	73.9 73.6 72.6 71.2 69.3 66.4	15.1 15.1 15.1 15.1 12.6 10.4	30.1 28.6 20.2 15.0 11.9 9.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0 [°]			
24.9     65.0     71.4     22.2       26.0     60.3     70.8     15.1     19.1       28.0     51.4     69.4     15.1     14.4       30.0     41.1     67.4     12.3     11.4       32.0     27.4     64.3     9.9     9.5										
			Ángı	ılo de plu	ıma prin	cipal 65.0	0[°]			
36.5 38.0 40.0	55.0 47.7 36.4	66.4 65.2 62.8	13.6 10.5	13.5 12.3 10.0						
			Ángı	ılo de plu	ıma prin	cipal 45.0	0 [°]			
56.4	35.0	50.7	2.0							



N° de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	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]
		56.0	0 m Plum Cabeza 19.0	na princip de plumí ) [ m ] Po	n (1916-	1) 38.5 r	n Plumín	dfall I		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
9.4	78.0	77.7	15.1	30.1						
10.0	76.0	77.6	15.1	29.8						
11.0	72.9	77.3	15.1	25.7						
12.0	69.7	76.9	15.1	21.3						
13.0	66.4	76.5	15.1	18.1						
14.0 16.0	63.0 55.9	76.0 74.7	15.1 12.6	15.7 12.4						
18.0	48.0	74.7	10.3	10.1						
20.0	38.9	70.9	8.3	8.4						
22.0	27.2	67.7	7.0	7.2						
			Ángı	ılo de plu	ıma prin	cinal 83 (	1°10			
15.9	73.0	76.8	15.1	24.1	I III	l l	<u> </u>		l	
16.0	72.6	76.8	15.1	24.1						
18.0	66.1	76.0	15.1	17.8						
20.0	59.2	74.9	14.1	13.7						
22.0	51.7	73.4	11.3	11.1						
24.0	43.3	71.5	9.2	9.1						
26.0	33.1	68.9	7.5	7.7						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]C			
26.1	65.0	74.1		16.1						
28.0	58.3	73.1	14.3	13.3						
30.0	50.7	71.6	11.2	10.8						
32.0	42.1	69.6	9.0	8.9						
34.0	31.5	66.8	7.5	7.6			2.0.1		l	
			Angu	ılo de plu	ıma prin	cipai 65.0	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓		1	
38.1	55.0	68.8	40.0	11.6						
40.0 42.0	47.6 38.4	67.3 65.1	10.8 8.7	10.0 8.3						
44.0	26.4	61.9	7.3	7.2						
77.0	20.7	01.5		ılo de plu	ıma prin	cinal 45 (	1°1			
58.6	35.0	52.4	,gc	3.8	a p.iiii	J. Par 10.	~ . J		1	
60.0	26.1	50.2	4.0	3.4						
61.0	17.1	47.8	3.7	3.1						



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

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumí		1) 41.5 r	n Plumín			
			Ángu	ılo de plu	uma prin	cipal 88.0	[°]			
9.4	78.0	77.7		30.1						
10.0	76.2	77.6	15.1	30.1						
11.0	73.1	77.3	15.1	29.9						
12.0	69.9	76.9	15.1	29.1						
13.0	66.6	76.5	15.1	25.2						
14.0	63.2	76.0	15.1	21.6						
16.0	56.1	74.7	15.1	16.7						
18.0	48.2	73.1	14.5	13.5						
20.0	39.1	70.9	11.8	11.0						
22.0	27.4	67.8	9.7	9.2	<u> </u>					
			Angu		ıma prin	cipal 83.0	)[°]			
15.9	73.0	76.8		30.1						
16.0	72.8	76.8	15.1	30.1						
18.0	66.3	76.0	15.1	24.9						
20.0	59.4	74.9	15.1	18.7						
22.0	51.9	73.5	15.1 12.9	14.8						
24.0 26.0	43.5 33.3	71.6 68.9	12.9	12.0 10.0						
20.0	33.3	00.9			ıma prin	rinal 75 (	1 ° 1			
26.1	65.0	74.1	7 (119)	22.1		l l l	<u>ا ا</u>		1	
28.0	58.5	73.1	15.1	18.0						
30.0	50.9	71.6	15.1	14.3						
32.0	42.3	69.6	12.8	11.8						
34.0	31.8	66.9	10.6	9.9						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
38.2	55.0	68.8		12.2						
40.0	47.8	67.4	13.0	11.0						
42.0	38.6	65.2	10.6	9.8						
44.0	26.7	62.0	8.8	8.8						
45.0	17.9	59.6	8.0	8.1						



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]
		56.0	0 m Plum Cabeza 22.0	de plumí	oal, Punt n (1916- osición m	1) 41.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 75.3 72.6 69.8 67.0 61.1 54.8 48.0 40.3	80.7 80.4 80.1 79.7 79.3 78.3 77.0 75.3 73.2	15.1 15.1 15.1 15.1 14.7 13.6 10.6 8.7 7.3	29.7 26.0 21.8 18.6 16.2 12.9 10.5 8.8 7.4						
24.0	31.0	70.3	6.2	6.4						
					ıma prin	cipal 83.0	) [ ° ]			
16.8 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 69.6 63.8 57.8 51.3 44.0 35.6 24.6	79.7 79.2 78.3 77.1 75.7 73.8 71.3 67.8	15.1 15.1 14.9 12.7 10.1 8.3 6.9 6.0	20.9 18.3 14.1 11.5 9.5 8.1 6.9 6.0						
				ılo de plı	ıma prin	cipal 75 (	1°10			
27.3 28.0 30.0 32.0 34.0 36.0 38.0	65.0 63.1 57.0 50.4 43.0 34.3 22.8	76.8 76.5 75.3 73.8 71.8 69.3 65.6	15.1 12.4 9.8 8.1 6.8 5.9	14.1 13.7 11.2 9.3 7.9 6.8 5.9	·					
					ıma prin	cipal 65 (	) [ ° ]			
39.9 40.0 42.0 44.0 46.0	55.0 54.5 47.7 39.9 30.4	71.3 71.3 69.6 67.4 64.5	10.8 9.0 7.5 6.5	10.1 10.1 8.7 7.4 6.4	and pilli		·			
			Ángu	ılo de plu	ıma prin	cipal 45.0	) [°]			
61.0 64.0	35.0 15.7	54.1 48.2	2.9	3.1 2.3		,				



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 ]: 94.0 Lastre central [ t ]: 52.6

Lasile	ential [ t	J.		32.0						
	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]
		56.0	0 m Plum Cabeza 22.0	de plumí	n (2316-	o de caro 1) 44.5 r nidfall (23	n Plumír	dfall 1		
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 16.8 18.0 20.0 22.0 22.0 22.0 24.0	78.0 75.4 72.7 69.9 67.1 61.3 55.0 48.2 40.5 31.2 73.0 69.7 64.0 58.0 51.4 44.2 35.8	80.7 80.4 80.1 79.8 79.3 78.3 77.0 75.3 73.2 70.4	15.1 15.1 15.1 15.1 15.1 14.2 13.0 10.4 8.6 Ångu 15.1 14.0 12.5 10.3 8.5	30.1 30.1 28.6 25.8 22.6 17.5 14.2 11.8 9.8 8.4 Jlo de plt 29.1 15.5 12.8 10.7 9.0	uma prin	cipal 83.	0[°]			
30.0	24.8	67.9	7.2	7.7		-il 75 (	0.1.01			
27.4	65.0	76.8	Angu	19.2	лна рпп 	cipal 75.0	∪[ ] 		<u> </u>	
28.0 30.0 32.0 34.0 36.0 38.0	63.2 57.1 50.5 43.2 34.5 23.0	76.6 75.4 73.8 71.9 69.3 65.6	15.1 14.7 12.8 10.6 8.8 7.5	18.9 15.1 12.5 10.5 9.0 7.6						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
39.9 40.0 42.0 44.0	55.0 54.7 47.8 40.1	71.3 71.3 69.6 67.5	12.9 11.8 9.8	11.3 11.2 10.1 9.1		•	-			

46.0

48.0

30.6

16.5

64.6 60.0



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 - Vía ancha Lastre trasero [ t ]: 94.0 Lastre central [ t ]: 52.6

Lasile	entiai į t	1-		52.0						
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 25.0	de plumí	n (1916-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]0			
10.6 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.1 74.7 72.3 69.9 64.9 59.6 54.1 48.0 41.3 33.5	83.6 83.5 83.2 82.9 82.6 81.7 80.6 79.2 77.5 75.5	15.1 15.1 15.1 15.1 13.2 11.2 9.1 7.6 6.5	26.3 26.3 22.1 19.0 16.6 13.2 10.9 9.1 7.8 6.7						
28.0	23.4	69.1	4.9	5.1						
			Ángı	ılo de plu	ıma prin	cipal 83.	[°]			
17.6 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 72.1 67.2 62.1 56.7 50.9 44.5 37.3	82.5 82.4 81.6 80.6 79.4 77.9 76.0 73.6	15.1 14.9 12.9 10.4 8.5 7.2 6.2 5.4	18.5 18.5 14.6 11.9 9.8 8.4 7.2 6.2 5.5						
32.0	28.5	70.5			ıma prin	cipal 75.	) [ ° ]			
28.6 30.0 32.0 34.0 36.0 38.0 40.0	65.0 61.4 56.0 50.1 43.7 36.3 27.2	79.6 78.9 77.6 76.0 74.1 71.7 68.4	12.0 9.7 8.0 6.8 5.9 5.2	12.6 11.5 9.6 8.2 7.0 6.1 5.4	лпа рпп	Gipai 73.	Z [ ]			
			Ángu	ılo de plu	ıma prin	cipal 65.	[°]			
41.6 42.0 44.0 46.0 48.0 50.0	55.0 53.8 47.7 41.0 33.1 22.8	73.7 73.5 71.8 69.7 67.0 63.2	9.2 7.8 6.7 5.8 5.1	9.0 9.0 7.7 6.6 5.8 5.2						
00.5	05.0	55.0	Angu	ilo de plu	uma prin	cipal 45.	) [ · ]			

63.5

65.0 67.0 35.0

55.9

2.2



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1 Cabeza de pluma principal: 2821-1

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			Cabeza	de plumi	oal, Punt ín (2316- osición m	1) 47.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
10.7 11.0 12.0 13.0 14.0	78.0 77.2 74.9 72.5 70.0 65.0	83.6 83.5 83.3 82.9 82.6 81.7	15.1 15.1 15.1 15.1 15.1	30.1 30.1 29.6 26.7 23.1 18.0						
18.0 20.0 22.0 24.0 26.0 28.0	59.8 54.2 48.2 41.5 33.7 23.6	80.6 79.2 77.6 75.5 72.8 69.1	14.5 12.6 10.9 9.0 7.5 6.4	14.7 12.1 10.3 8.7 7.4 6.4						
			Ángı	ılo de plı	ıma prin	cipal 83.0	[°]			
17.7 18.0 20.0 22.0	73.0 72.3 67.3 62.2	82.5 82.5 81.7 80.7	15.1 15.1 15.1	25.7 25.6 20.1 16.0						
24.0 26.0 28.0 30.0	56.8 51.0 44.7 37.5	79.4 77.9 76.1 73.7	13.1 11.3 9.5 7.9	13.1 11.1 9.4 8.0						
32.0	28.7	70.6	6.8	6.9	<u> </u>					
00.7	05.0	70.0	Angu		ıma prin	cipal 75.0	[°]		I	
28.7 30.0 32.0 34.0 36.0	65.0 61.5 56.1 50.3 43.8	79.6 78.9 77.6 76.1 74.2	15.1 14.0 11.5 9.6	16.9 15.5 12.8 10.9 9.2						
38.0	36.5	71.7	8.0	8.0						
40.0	27.4	68.4	6.9 Ángi	lo de nli	ıma prin	rinal 65 (	1 ° 1			
41.6 42.0	55.0 53.9	73.7 73.5	11.4	10.1 9.9	IIIa piiii	oipai oo.	J[ ]			
44.0 46.0 48.0 50.0 51.0	47.9 41.1 33.3 23.0 15.3	71.9 69.8 67.1 63.3 60.5	10.2 8.5 7.2 6.2 5.8	8.9 8.1 7.2 6.3 5.8						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 28.0		n (1916-	1) 47.5 r	n Plumín			
				ılo de plu						
11.2	78.0	86.5	, uigo	30.1	I Pini	l loo.				
12.0	76.4	86.3	15.1	30.1						
13.0	74.3	86.1	15.1	29.4			İ			
14.0	72.1	85.7	15.1	26.6						
16.0	67.7	85.0	15.1	21.7						
18.0	63.2	84.0	15.1	18.0						
20.0	58.5	82.9	14.6	15.5						
22.0 24.0	53.4 48.1	81.5 79.8	13.8 12.8	13.5 12.0						
24.0 26.0	40.1	79.6 77.7	11.2	10.8						
28.0	35.4	75.2	9.9	9.7						
30.0	27.2	71.8	8.9	8.9						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0[°]			
18.5	73.0	85.4		26.2						
20.0	69.8	84.9	15.1	23.6						
22.0	65.3	84.0	15.1	19.4						
24.0	60.7	83.0	15.1	16.6						
26.0	55.8	81.7	14.2	14.3						
28.0 30.0	50.6 45.0	80.1 78.3	13.6 11.9	12.7 11.3						
32.0	38.7	76.0	10.4	10.2						
34.0	31.3	73.1	9.4	9.3						
36.0	21.6	69.0	8.5	8.5						
			Ángu	ılo de plu	ıma prin	cipal 75.0	0 [°]			
29.9	65.0	82.3		18.1						
30.0	64.7	82.3	15.1	18.1						
32.0	60.1	81.2	15.1	16.1						
34.0	55.1	79.9	14.3	14.1						
36.0 38.0	49.9 44.2	78.3 76.4	13.2 11.7	12.5 11.2						
40.0	37.8	74.0	10.3	10.1						
42.0	30.2	71.0	9.3	9.3						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
43.3	55.0	76.2		12.1						
44.0	53.2	75.8	13.2	11.7						
46.0	47.8	74.1	12.3	10.9						
48.0	41.8	72.0	11.1	10.1						
50.0	35.0	69.4	9.8	9.3						
				ılo de plu	ıma prin	cipal 45.	0 [°]	<u> </u>	<u> </u>	1
66.1 67.0	35.0	57.6 56.2	2.2 2.0							
07.0	31.7	50.2	2.0				<u> </u>			



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

360°

Cabeza de pluma principal:

2821-1

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

	nserción	)	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- 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 19.0	de plumí		1) 50.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
9.4	78.0	77.7	15.1	30.1						
10.0	76.0	77.6	15.1	30.1						
11.0	72.9	77.3	15.1	29.6						
12.0	69.7	76.9	15.1	26.2						
13.0	66.4	76.5	15.1	22.7						
14.0	63.0	76.0	15.1	19.6						
16.0	55.9	74.7	14.9	15.4						
18.0	48.0	73.1	14.1	12.5						
20.0	38.9	70.9	11.1	10.2						
22.0	27.2	67.7	9.0	8.6						
L			Angu	ilo de plu	ıma prin	cipal 83.0	) [°]			
15.9	73.0	76.8	15.1	29.1						
16.0	72.6	76.8	15.1	29.0						
18.0	66.1	76.0	15.1	22.4						
20.0 22.0	59.2 51.7	74.9 73.4	15.1 15.0	17.1 13.6						
24.0	43.3	71.5	12.4	11.2						
26.0	33.1	68.9	9.9	9.4						
					uma prin	cinal 75 (	1°10			
26.1	65.0	74.1	7 1190	19.7		l l	<u> </u>		1	1
28.0	58.3	73.1	15.1	16.5						
30.0	50.7	71.6	14.6	13.3						
32.0	42.1	69.6	12.1	11.0						
34.0	31.5	66.8	9.8	9.3						
			Ángu	ılo de plu	ıma prin	cipal 65.0	0 [°]			
38.1	55.0	68.8		12.4	<u> </u>					
40.0	47.6	67.3	12.9	11.1						
42.0	38.4	65.1	10.5	9.9						
44.0	26.4	61.9	8.8	8.8						
			Ángu	ılo de plu	uma prin	cipal 45.0	] [°]			
58.8	35.0	52.4	2.3		· ·					
59.0	33.8	52.1	2.3							



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

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

Lasile	ential [ t	]-		52.0						
	Inserciór	ו	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 28.0	de plumí	ín (2316-	o de caro 1) 50.5 r nidfall (23	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
11.3	78.0	86.5	15.1	30.1						
12.0	76.5	86.4	15.1	30.1						
13.0	74.4	86.1	15.1	30.1						
14.0	72.2	85.8	15.1	29.1						
16.0	67.9	85.0	15.1	25.9						
18.0	63.3	84.1	15.1	21.1						
20.0	58.6	82.9	15.1	18.0 15.4						
22.0 24.0	53.6 48.2	81.5 79.8	15.1 14.5	13.6						
26.0	42.3	77.8	12.5	11.9						
28.0	35.6	75.2	10.9	10.6						
30.0	27.4	71.9	9.6	9.5						
00.0		7 1.0			ıma nrin	cipal 83.	) [ ° ]			
40.0	700	05.4			ına pını I	ыраг оэ. Г	J [ ]		1	
18.6 20.0	73.0 69.9	85.4 84.9	15.1 15.1	30.1 28.4						
22.0	65.4	84.0	15.1	23.1						
24.0	60.8	83.0	15.1	19.3						
26.0	55.9	81.7	15.1	16.4						
28.0	50.7	80.2	15.1	14.4						
30.0	45.1	78.3	13.2	12.6						
32.0	38.8	76.0	11.6	11.2						
34.0 36.0	31.4 21.8	73.1 69.1	10.3 9.0	10.1 9.0						
30.0	21.0	09.1			ıma nrin	cipal 75.	1 ° 1			
29.9	65.0	82.3	,igc	21.3		J. Pai 7 0.	~ L J		l	
30.0	64.9	82.3	15.1	21.3						
32.0	60.2	81.2	15.1	18.8						
34.0	55.3	79.9	15.1	16.1						
36.0	50.0	78.3	15.0	14.1						
38.0	44.3	76.4	13.3	12.5						
40.0	37.9	74.1	11.5	11.1						
42.0	30.3	71.0	10.2	10.0						
			Ángı	ılo de plu	ıma prin	cipal 65.	[°]			
43.3	55.0	76.2		9.2						
44.0	53.3	75.8	10.1	8.9						
46.0	47.9	74.1	9.2	8.0						
48.0	42.0	72.0	8.4	7.2						

50.0

35.2

69.5



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 22.0	de plumí		1) 53.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.0 11.0 12.0 13.0 14.0	78.0 75.3 72.6 69.8 67.0	80.7 80.4 80.1 79.7 79.3	15.1 15.1 15.1 15.1 15.1	30.1 29.2 24.9 21.2 18.5						
16.0 18.0 20.0 22.0 24.0	61.1 54.8 48.0 40.3 31.0	78.3 77.0 75.3 73.2 70.3	15.1 12.4 10.4 8.3 6.9	14.5 11.7 9.7 8.0 6.8						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C			
16.8 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 69.6 63.8 57.8 51.3 44.0 35.6 24.6	79.7 79.2 78.3 77.1 75.7 73.8 71.3 67.8	15.1 15.1 15.1 13.7 11.3 9.3 7.5 6.4	23.3 20.9 16.0 12.8 10.5 8.8 7.4 6.3						
					ıma prin	cipal 75 (	1°10			
27.3 28.0 30.0 32.0 34.0 36.0 38.0	65.0 63.1 57.0 50.4 43.0 34.3 22.8	76.8 76.5 75.3 73.8 71.8 69.3 65.6	15.1 14.1 11.1 9.1 7.4 6.4	15.6 15.5 12.5 10.3 8.6 7.3 6.3			. ]			
			Ánaı	ılo de plı	ıma prin	cipal 65.0	1°10			
39.9 40.0 42.0 44.0 46.0	55.0 54.5 47.7 39.9 30.4 16.2	71.3 71.3 69.6 67.4 64.5 59.9	12.0 10.2 8.4 7.1 6.1	11.1 11.1 9.6 8.1 7.0		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 31.0	de plumí	pal, Punt n (2316- osición m	1) 53.5 r	n Plumín	dfall		
					uma prin					
11.9	78.0	89.5	,g.	30.1			- [ ]			
12.0	77.8	89.5	15.1	30.1						
13.0	75.9	89.2	15.1	30.1						
14.0	74.0	88.9	15.1	30.1						
16.0	70.1	88.2	15.1	24.5						
18.0	66.1	87.4	15.1	20.2						
20.0 22.0	62.0 57.6	86.4 85.2	15.1 13.8	17.0 14.6						
24.0	53.1	83.7	12.5	12.7						
26.0	48.2	82.1	11.3	11.3						
28.0	42.9	80.0	9.8	9.9						
30.0	37.0	77.6	8.5	8.8						
32.0	30.0	74.5	7.6	7.9						
34.0	21.0	70.3	6.8	7.1						
					ıma prin	cipal 83.0	[°]			
19.5	73.0	88.3	15.1	26.9						
20.0	71.9	88.1	15.1	26.8						
22.0	68.0	87.3	15.1	22.0						
24.0 26.0	63.9 59.7	86.4 85.3	15.1 14.7	18.2 15.7						
28.0	55.2	84.0	13.5	13.7						
30.0	50.5	82.4	12.5	11.9						
32.0	45.4	80.5	10.9	10.5						
34.0	39.8	78.3	9.4	9.3						
36.0	33.4	75.6	8.3	8.4						
38.0	25.6	72.0	7.4	7.6						
			Ángı		ıma prin	cipal 75.0	) [°]			
31.2	65.0	85.0		17.9						
32.0	63.4	84.6	15.1	17.9						
34.0 36.0	59.1 54.6	83.5 82.1	15.1 13.7	15.3 13.3						
38.0	49.9	80.5	12.3	11.8						
40.0	44.7	78.6	10.7	10.4						
42.0	39.0	76.4	9.3	9.3						
44.0	32.5	73.5	8.3	8.4						
46.0	24.4	69.8	7.4	7.5						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]C			
45.1	55.0	78.6		8.1						
46.0	52.8	78.0	8.8	7.8						
48.0	47.9	76.3	8.0	7.0						
50.0 55.0	42.6 25.5	74.3 66.8	7.3 5.7	6.3 4.8						
55.0 57.0	25.5 15.7	61.3	5. <i>1</i> 5.1	4.0						
01.0	10.7	01.0	0.1		ı				1	



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			) m Plum Cabeza 22.0	de plumí		1) 56.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]			
10.0	78.0	80.7		30.1						
11.0	75.4	80.4	15.1	30.1						
12.0	72.7	80.1	15.1	29.5						
13.0	69.9	79.8	15.1	27.3						
14.0	67.1	79.3	15.1	24.5						
16.0	61.3	78.3	15.1	19.0						
18.0	55.0	77.0	14.8	15.3						
20.0	48.2	75.3	14.1	12.7						
22.0	40.5	73.2	11.3	10.5						
24.0	31.2	70.4	9.2	8.9						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
16.8	73.0	79.7		30.1						
18.0	69.7	79.3	15.1	27.8						
20.0	64.0	78.3	15.1	21.1						
22.0	58.0	77.2	15.1	16.8						
24.0	51.4	75.7	15.0	13.8						
26.0	44.2	73.8	12.5	11.5						
28.0	35.8	71.3	10.1	9.7						
30.0	24.8	67.9	8.4	8.2						
			Ángı		ıma prin	cipal 75.0	[°]			
27.4	65.0	76.8		20.4						
28.0	63.2	76.6	15.1	19.6						
30.0	57.1	75.4	15.1	16.4						
32.0	50.5	73.8	13.7	13.4						
34.0	43.2	71.9	11.5	11.3						
36.0	34.5	69.3	9.5	9.6						
38.0	23.0	65.6	8.0	8.1		-11-05:	2.0.3			
	55.0	74.0	Angı		ıma prin	cipai 65.0	ַן װ <u>ַ</u>			
39.9	55.0	71.3	10.0	8.1						
40.0 42.0	54.7 47.8	71.3 69.6	10.0 8.7	8.1 6.9						
42.0 44.0	47.8 40.1	67.5	8.7 7.6	5.9						
44.0 46.0	30.6	64.6	6.6	5.9						
48.0	16.5	60.0	5.6	4.1						
40.0	10.5	00.0	5.0	4.1						



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]
		56.0	0 m Plum Cabeza 25.0	de plumí	oal, Punt ín (1916- osición m	1) 56.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.6 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.1 74.7 72.3 69.9 64.9 59.6 54.1 48.0 41.3	83.6 83.5 83.2 82.9 82.6 81.7 80.6 79.2 77.5 75.5	15.1 15.1 15.1 15.1 14.5 13.3 10.9 9.2 7.8	28.7 28.7 25.0 21.6 18.8 15.0 12.4 10.4 8.9 7.7						
26.0	33.5	72.8	6.7	6.7						
28.0	23.4	69.1	5.8	5.8		-iI 00 /	2			
47.0	70.0	20.5	Angu		ıma prin	cipai 83.	ן י			
17.6 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 72.1 67.2 62.1 56.7 50.9 44.5 37.3	82.5 82.4 81.6 80.6 79.4 77.9 76.0 73.6	15.1 15.1 14.1 11.9 10.0 8.4 7.2	20.6 20.5 16.6 13.5 11.2 9.6 8.2 7.1						
32.0	28.5	70.5	6.3	6.3						
			Ánaı	ılo de plu	ıma prin	cipal 75.0	1°10			
28.6 30.0 32.0 34.0 36.0 38.0 40.0	65.0 61.4 56.0 50.1 43.7 36.3 27.2	79.6 78.9 77.6 76.0 74.1 71.7 68.4	13.5 11.1 9.3 7.9 6.8 6.0	14.1 13.1 11.0 9.4 8.1 7.0 6.2						
.5.0		J J J J			ıma prin	cinal 65 (	1 0 1		'	
41.6 42.0 44.0	55.0 53.8 47.7	73.7 73.5 71.8	10.3	10.1 10.1 8.8	ania pilli	ыраі 03.1	7 L J			
46.0 48.0 50.0 51.0	41.0 33.1 22.8 15.1	69.7 67.0 63.2 60.3	7.7 6.7 5.9 5.5	7.7 6.8 6.0 5.6						



N° de ident.: 9842523/95738/ Pie

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

2 - Vía ancha

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 plumi		1) 59.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	] (°)			
10.7 11.0 12.0 13.0	78.0 77.2 74.9 72.5	83.6 83.5 83.3 82.9	15.1 15.1 15.1 15.1	30.1 30.1 30.1 28.5	·	•				
14.0 16.0 18.0 20.0 22.0	70.0 65.0 59.8 54.2 48.2	82.6 81.7 80.6 79.2 77.6	15.1 15.1 14.7 12.8 11.3	24.9 19.5 15.8 13.1 11.1						
24.0 26.0 28.0	41.5 33.7 23.6	75.5 72.8 69.1	9.3 7.7 6.4	9.4 8.0 6.8	ıma nrin	oinal 92	0.1.01			
17.7	73.0	82.5	Angu	27.0	uma prind	cipai 83.0	)			
18.0 20.0	72.3 67.3	82.5 81.7	15.1 15.1	26.9 21.8						
22.0 24.0 26.0 28.0 30.0	62.2 56.8 51.0 44.7 37.5	80.7 79.4 77.9 76.1 73.7	15.1 13.7 12.1 10.2 8.4	17.2 14.2 11.9 10.1 8.6						
32.0	28.7	70.6	7.2	7.4	<u> </u>					
			Angı		ıma prin	cipal 75.0	[°]		1	
28.7 30.0 32.0 34.0	65.0 61.5 56.1 50.3	79.6 78.9 77.6 76.1	15.1 14.4 11.9	17.9 16.9 13.9 11.7						
36.0 38.0 40.0	43.8 36.5 27.4	74.2 71.7 68.4	10.0 8.3 7.2	10.0 8.5 7.4						
			Angı	<u>_</u>	ıma prin	cipal 65.0	[°]			
41.6 42.0 44.0	55.0 53.9 47.9	73.7 73.5 71.9	8.5 7.4	7.1 6.9 5.9						
46.0 48.0 50.0 51.0	41.1 33.3 23.0 15.3	69.8 67.1 63.3 60.5	6.4 5.5 4.6 4.2	5.0 4.2 3.5 3.1						



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	l	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 28.0	de plumí		1) 59.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
11.2	78.0	86.5		26.4	<u>'</u>					
12.0	76.4	86.3	15.1	26.2						
13.0	74.3	86.1	15.1	22.5						
14.0	72.1	85.7	15.1	19.8						
16.0	67.7	85.0	14.7	15.8						
18.0	63.2	84.0	12.8	12.9						
20.0 22.0	58.5 53.4	82.9	10.9 8.9	10.8 9.1						
24.0	48.1	81.5 79.8	8.9 7.5	7.8						
26.0	42.1	77.7	6.5	6.7						
28.0	35.4	75.2	5.6	5.8						
30.0	27.2	71.8	4.9	5.1						
					ıma prin	cipal 83.0	1°10			
18.5	73.0	85.4		19.0						
20.0	69.8	84.9	15.1	17.3						
22.0	65.3	84.0	14.2	14.1						
24.0	60.7	83.0	12.7	11.8						
26.0	55.8	81.7	10.3	9.8						
28.0	50.6	80.1	8.5	8.4						
30.0	45.0	78.3	7.3	7.3						
32.0	38.7	76.0	6.2	6.3						
34.0	31.3	73.1	5.4	5.5						
36.0	21.6	69.0	4.7 Á	4.8		-in al 75 (	2		l	
00.0	05.0	00.0	Angı		ıma prin	upai /5.0	۱ ] ۱		ı	
29.9 30.0	65.0 64.7	82.3 82.3	14.1	12.9 12.9						
32.0	60.1	81.2	12.3	11.4						
34.0	55.1	79.9	10.1	9.7						
36.0	49.9	78.3	8.4	8.4						
38.0	44.2	76.4	7.2	7.2						
40.0	37.8	74.0	6.2	6.2						
42.0	30.2	71.0	5.5	5.5						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
43.3	55.0	76.2		9.1						
44.0	53.2	75.8	9.2	9.1						
46.0	47.8	74.1	7.9	7.9						
48.0	41.8	72.0	6.9	6.8						
50.0	35.0	69.4	5.9	6.0						
54.0	16.2	60.8	4.6							



N° de ident.: 9842523/95738/

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

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

	Inserción	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 28.0	de plumí		1) 62.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
11.3 12.0	78.0 76.5	86.5 86.4	15.1 15.1	30.1 30.1		·				
13.0 14.0 16.0	74.4 72.2 67.9	86.1 85.8 85.0	15.1 15.1 15.0	27.2 23.9 18.8						
18.0 20.0 22.0	63.3 58.6 53.6	84.1 82.9 81.5	14.5 12.9 10.5	15.1 12.6 10.5						
24.0 26.0 28.0	48.2 42.3 35.6	79.8 77.8 75.2	8.7 7.4 6.2	9.0 7.6 6.5						
30.0	27.4	71.9	5.3	5.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
18.6 20.0 22.0	73.0 69.9 65.4	85.4 84.9 84.0	15.1 15.1 15.1	22.9 20.8 16.5						
24.0 26.0 28.0	60.8 55.9 50.7	83.0 81.7 80.2	15.1 12.1 10.0	13.7 11.4 9.7						
30.0 32.0 34.0	45.1 38.8 31.4	78.3 76.0 73.1	8.4 7.0 6.0	8.2 7.0 6.1						
36.0	21.8	69.1	5.1	5.1						
			Ángı		ıma prin	cipal 75.0	[°]			
29.9 30.0 32.0	65.0 64.9 60.2	82.3 82.3 81.2	15.1 14.3	15.1 15.1 13.3						
34.0 36.0 38.0	55.3 50.0 44.3	79.9 78.3 76.4	12.0 9.8 8.3	11.2 9.5 8.1						
40.0 42.0	37.9 30.3	74.1 71.0	7.0 6.0	7.0 6.0						
72.0	00.0	71.0			ıma prin	cipal 65.0	[°]			
43.3 44.0 46.0 48.0 50.0	55.0 53.3 47.9 42.0 35.2	76.2 75.8 74.1 72.0 69.5	7.3 6.3 5.4 4.6	6.2 5.9 5.1 4.3 3.6	-					
54.0	16.6	60.9	3.1	3.0						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1 2821-1 Cabeza de pluma principal:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plun Cabeza 31.0	de plumi		1) 62.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
11.9	78.0	89.5	15.1	24.0						
12.0	77.7	89.4	15.1	24.0						
13.0	75.8	89.2	15.1	22.9						
14.0	73.9	88.9	15.1	20.0						
16.0	70.0	88.2	15.1	16.0						
18.0 20.0	66.0 61.8	87.4 86.3	13.6 11.7	13.2 11.2						
20.0	57.5	85.1	9.8	9.4						
24.0	52.9	83.7	8.2	8.0						
26.0	48.1	82.0	7.0	7.0						
28.0	42.8	80.0	6.0	6.1						
30.0	36.8	77.5	5.2	5.3						
32.0	29.9	74.5	4.6	4.7						
34.0	20.8	70.2	4.0	4.1						
40.4	70.0	00.0	Angı		ıma prin	cipal 83.0	0[°]		ı	
19.4	73.0	88.3	15.1	17.3 17.2						
20.0 22.0	71.8 67.9	88.1 87.3	15.1 15.1	14.4						
24.0	63.8	86.4	12.8	11.9						
26.0	59.5	85.3	10.8	10.2						
28.0	55.1	83.9	8.9	8.7						
30.0	50.4	82.4	7.5	7.5						
32.0	45.3	80.5	6.5	6.5						
34.0 36.0	39.7 33.3	78.3 75.5	5.6 4.9	5.7 5.0						
38.0	25.4	71.9	4.9	4.4						
					ıma prin	cipal 75.0	1°1C			
31.2	65.0	85.0	11.8	11.7			. ,			
32.0	63.2	84.6	11.8	11.7						
34.0	59.0	83.5	9.8	10.0						
36.0	54.5	82.1	8.3	8.5						
38.0	49.7	80.5	7.2	7.5						
40.0	44.6	78.6	6.2	6.5						
42.0 44.0	38.9 32.4	76.3 73.5	5.4 4.8	5.6 5.0						
44.0 46.0	24.2	69.7	4.6	4.5						
					ıma prin	cipal 65.0	0[°]			
45.0	55.0	78.7	Ī	8.2						
46.0	52.7	78.0	8.1	8.2						
48.0	47.8	76.3	7.0	7.1						
50.0	42.5	74.3	6.1	6.2						
55.0 57.0	25.3	66.7	4.5	4.6						
57.0	15.4	61.1	3.9							



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0		de plumi	oal, Punt ín (2316- osición m	1) 65.5 ñ	n Plumín			
			Ángi	ılo de pli	ıma prin	cinal 88 (	1°10			
11.9	78.0	89.5	, ange	30.1		l l				
12.0	77.8	89.5	15.1	30.1						
13.0	75.9	89.2	15.1	30.1						
14.0	74.0	88.9	15.1	28.9						
16.0	70.1	88.2	15.1	23.7						
18.0	66.1	87.4	15.1	19.5						
20.0 22.0	62.0 57.6	86.4 85.2	15.1 13.7	16.4 14.0						
24.0	53.1	83.7	11.9	12.1						
26.0	48.2	82.1	10.4	10.4						
28.0	42.9	80.0	8.3	8.4						
30.0	37.0	77.6	6.5	6.8						
32.0	30.0	74.5	5.1	5.4						
34.0	21.0	70.3	3.8	3.9						
			Ángı	ılo de plı	ıma prin	cipal 83.0	[°]C			
19.5	73.0	88.3	15.1	25.5						
20.0	71.9	88.1	15.1	25.4						
22.0	68.0	87.3	15.1	21.2						
24.0	63.9	86.4	15.1	17.6						
26.0 28.0	59.7 55.2	85.3 84.0	14.7 12.8	15.2 13.0						
30.0	50.5	82.4	11.4	11.4						
32.0	45.4	80.5	9.9	10.0						
34.0	39.8	78.3	8.5	8.7						
36.0	33.4	75.6	7.3	7.7						
38.0	25.6	72.0	6.2	6.5						
<u> </u>			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
31.2	65.0	85.0		16.2						
32.0	63.4	84.6	15.1	15.5						
34.0	59.1	83.5	15.1	13.7						
36.0 38.0	54.6 49.9	82.1 80.5	13.6 11.7	12.2 10.9						
40.0	49.9	78.6	10.2	9.7						
42.0	39.0	76.4	8.8	8.6						
44.0	32.5	73.5	7.8	7.7						
46.0	24.4	69.8	6.9	6.8						
			Ángı	ılo de plu	uma prin	cipal 65.0	[°]C			
45.1	55.0	78.6		5.3						
46.0	52.8	78.0	6.0	4.9						
48.0	47.9	76.3	5.1	4.2						
50.0	42.6	74.3	4.3	3.5						
55.0 56.0	26.5 21.8	66.8 64.4	2.6 2.3							
50.0	<u> </u> 21.0	U <del>4</del> .4	۷.۵							



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 34.0	de plumí		1) 65.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°10			
12.5	78.0	92.4	15.1	21.8	a p	J.pu. 00.	- [ ]			
13.0 14.0 16.0 18.0	77.1 75.4 71.8 68.2	92.3 92.0 91.4 90.6	15.1 15.1 15.1 15.0	21.8 20.2 16.2 13.6						
20.0 22.0 24.0	64.5 60.7 56.7	89.7 88.7 87.4	12.1 10.1 8.5	11.3 9.7 8.3						
26.0 28.0 30.0	52.5 48.1 43.3	85.9 84.2 82.2	7.2 6.2 5.4	7.1 6.2 5.4						
32.0 34.0 36.0	38.0 31.9 24.5	79.9 77.0 73.2	4.7 4.1 3.6	4.7 4.2 3.7		-:	2.001			
00.0	70.0	04.4			ıma prin	cipai 83.	ן ן י		ı	
20.3 22.0 24.0 26.0 28.0	73.0 69.9 66.3 62.5 58.6	91.1 90.5 89.7 88.7 87.5	15.1 15.0 13.3 10.9 9.2	15.8 14.6 12.3 10.4 8.9						
30.0 32.0 34.0 36.0 38.0 40.0	54.5 50.2 45.6 40.5 34.9 28.2	86.2 84.6 82.7 80.6 77.9 74.6	7.7 6.7 5.8 5.0 4.4 3.9	7.7 6.7 5.9 5.1 4.5 4.0						
10.0	20.2	7 110			ıma prin	rinal 75 (	1 ° 1		ı	
32.4 34.0 36.0 38.0 40.0	65.0 62.0 58.1 54.0 49.6	87.7 86.9 85.7 84.4 82.7	10.7 8.9 7.6 6.6	10.7 10.2 8.8 7.6 6.7	and pilli		× L J			
42.0 44.0 46.0 48.0	44.9 39.8 34.1 27.2	80.9 78.6 75.9 72.5	5.8 5.0 4.4 4.0	5.8 5.1 4.5 4.0						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
46.7 48.0 50.0 55.0 59.0	55.0 52.3 47.8 34.8 19.3	81.1 80.2 78.5 72.7 64.9	7.3 6.3 4.5 3.6	7.4 7.3 6.3 4.6 3.7						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1 2821-1

Valor de vuelco:

360°

Cabeza de pluma principal:

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

	Inserciór	l	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 34.0	de plumí	oal, Punt ín (2316- osición m	1) 68.5 r	n Plumín	dfall		
			Ánaı	ılo de plu	ıma prin	cipal 88.0	1°10			
12.5	78.0	92.4	I	30.1						
13.0 14.0 16.0	77.2 75.5 71.9	92.3 92.1 91.4	15.1 15.1 15.1	30.1 28.3 22.5						
18.0	68.3	90.7	15.1	18.6						
20.0 22.0 24.0 26.0	64.6 60.8 56.8 52.6	89.8 88.7 87.4 86.0	14.3 13.8 11.6 9.9	15.5 13.4 11.5 10.0						
28.0	48.2	84.3	8.5	8.8						
30.0 32.0 34.0 36.0	43.4 38.1 32.1 24.7	82.3 79.9 77.0 73.3	7.1 6.0 4.9 3.8	7.4 6.3 5.2 3.9						
30.0	24.1	13.3	,			-:	2 6 9 1			
20.2	72.0	91.1	Angu	22.0	uma prine	cipai os.i	J [ ]		I	
20.3	73.0 70.0	90.6	15.1	20.2						
24.0 26.0	66.4 62.6 58.7	89.7 88.7 87.6	15.0 14.6 13.2	16.8 14.3						
28.0 30.0	54.6	86.2	11.1	12.4 10.7						
32.0 34.0 36.0	50.3 45.7 40.6	84.6 82.8 80.6	9.5 8.3 7.2	9.5 8.3 7.3						
38.0 40.0	35.0 28.3	78.0 74.7	6.3 5.6	6.5 5.7						
42.0	19.6	70.2	4.8	4.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
32.5 34.0 36.0 38.0	65.0 62.1 58.2 54.1	87.7 87.0 85.8 84.4	15.1 12.9 10.9	14.7 13.9 12.2 10.5						
40.0 42.0	49.7 45.0	82.8 80.9	9.4 8.2	9.3 8.2						
44.0 46.0 48.0	39.9 34.2 27.3	78.7 76.0 72.6	7.2 6.4 5.7	7.3 6.5 5.8						
					ıma prin	cinal 65 (	1°10			
46.8	55.0	81.1	Angu	4.6	Jilia Pilli	o.pa. 00.	~ L J			
48.0 50.0 55.0	52.4 48.0 34.9	80.3 78.6 72.8	5.1 4.3 2.6	4.2 3.5 2.1						
57.0	29.0	69.5	2.0							



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 37.0	de plumí		1) 68.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.1	78.0	95.3		21.3						
14.0	76.6	95.1	15.1	21.3						
16.0 18.0	73.4 70.1	94.6 93.9	15.1 14.7	17.4 14.4						
20.0	66.7	93.9	13.2	12.3						
22.0	63.3	92.1	10.9	10.5						
24.0	59.7	91.0	9.3	9.2						
26.0	56.1	89.7	8.0	7.9						
28.0	52.2	88.2	6.9	6.9						
30.0	48.1	86.5	6.1	6.2						
32.0 34.0	43.7 38.9	84.5 82.2	5.3 4.7	5.4 4.8						
36.0	33.5	79.4	4.7	4.6						
38.0	27.2	76.0	3.8	3.9						
			Ángi		ıma prin	rinal 83 (	1°1			
21.2	73.0	94.0	15.1	15.5	lina pini	sipui oo.	<u> </u>		l	I
22.0	71.6	93.7	15.1	15.4						
24.0	68.3	93.0	14.0	13.2						
26.0	64.9	92.1	11.9	11.3						
28.0	61.4	91.0	10.1	9.8						
30.0	57.8	89.8	8.6	8.5						
32.0	54.0	88.4	7.4	7.4						
34.0 36.0	50.0 45.8	86.8 85.0	6.5 5.7	6.6 5.8						
38.0	41.2	82.8	5.0	5.2						
40.0	36.1	80.3	4.5	4.6						
42.0	30.3	77.2	4.0	4.2						
44.0	23.1	73.2	3.6	3.7						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
33.7	65.0	90.4		10.5						
34.0	64.5	90.3	10.8	10.5						
36.0 38.0	60.9 57.3	89.3 88.0	9.9 8.5	9.7 8.5						
38.0 40.0	57.3	88.0 86.6	7.3	7.4						
42.0	49.5	85.0	6.5	6.6						
44.0	45.2	83.1	5.7	5.8						
46.0	40.6	80.9	5.0	5.1						
48.0	35.4	78.3	4.5	4.6						
50.0	29.5	75.1	4.1	4.2					l	l
			Angı		ıma prin	cipal 65.0	[°]			
48.5	55.0	83.6	7.0	7.3						
50.0 55.0	52.0 41.1	82.5 77.7	7.0 5.2	6.9 5.3						
60.0	26.9	70.1	4.0	4.1						
62.0	18.4	65.4	3.6	3.7						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

360° 2 - Vía ancha Valor de vuelco:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	Cabeza	de plumí	ín (2316-	o de carç 1) 71.5 n nidfall (23	n Plumín	dfall 1		
						cipal 88.0				
13.2	78.0	95.3	15.1	26.5			, <u>, , , , , , , , , , , , , , , , , , </u>			
14.0	76.7	95.2	15.1	26.5						
16.0	73.5	94.6	15.1	21.3						
18.0	70.2	93.9	15.1	17.3						
20.0	66.8 63.4	93.1 92.1	14.0 12.2	14.6 12.4						
24.0	59.8	91.0	10.8	10.8						
26.0	56.2	89.7	9.2	9.3						
28.0	52.3	88.2	7.8	8.1						
30.0	48.2	86.5	6.7	7.0						
32.0	43.8	84.5	5.6	5.9						
34.0 36.0	39.0 33.7	82.2 79.5	4.6 3.8	4.8 3.9						
38.0	27.3	76.0	2.8	2.9						
					ıma prin	cipal 83.0	1°10		•	
21.2	73.0	94.0		18.6	<u>'</u>					
22.0	71.7	93.8	15.1	18.5						
24.0	68.4	93.0	15.1	15.7						
26.0	65.0	92.1	13.7	13.3						
28.0 30.0	61.5 57.9	91.1 89.9	12.0 10.2	11.5 9.9						
32.0	54.1	88.5	8.7	8.6						
34.0	50.1	86.9	7.5	7.6						
36.0	45.9	85.0	6.5	6.6						
38.0	41.3	82.9	5.7	5.8						
40.0 42.0	36.2 30.4	80.3 77.3	4.9	5.0 4.4						
44.0	23.3	73.3	3.7	3.8						
		-			uma prin	cipal 75.0	[°]			
33.7	65.0	90.4		12.3						
34.0	64.6	90.4	12.4	12.3						
36.0	61.0	89.3	11.3	11.3						
38.0	57.4	88.1	9.6	9.8						
40.0 42.0	53.6 49.6	86.6 85.0	8.2 7.2	8.5 7.5						
44.0	45.3	83.1	6.3	6.6						
46.0	40.7	80.9	5.5	5.8						
48.0	35.5	78.4	4.9	5.1						
50.0	29.6	75.2	4.3	4.5	·	-!	0.03			
			Angı		ıma prin	cipal 65.0	ונ"]	ı	1	
48.5	55.0	83.6	4.0	3.8						
50.0 55.0	52.1 41.7	82.5 77.7	4.0 2.3	3.3						
56.0	39.2	76.5	2.0							



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 40.0	de plumí	oal, Punt ín (1916- osición m	1) 71.5 r	n Plumín	dfall 1		
			Ángı		ıma prin	cipal 88.	0 [°]			
13.7 14.0 16.0 18.0 20.0	78.0 77.6 74.7 71.6 68.6 65.5	98.3 98.2 97.7 97.1 96.3 95.4	15.1 15.1 14.9 14.5	21.2 21.2 19.3 16.6 14.4 12.3						
24.0 26.0 28.0 30.0	62.2 58.9 55.5 51.9 48.1	94.4 93.3 91.9 90.4 88.7	10.5 9.2 8.0 7.1 6.4	10.7 9.5 8.4 7.5						
34.0 36.0 38.0 40.0	44.1 39.7 34.8 29.3	86.8 84.5 81.8 78.6	5.7 5.1 4.6 4.3	6.1 5.5 4.9 4.5						
42.0	22.5	74.5			ıma prin	cipal 83	1°10			
22.0 24.0 26.0 28.0	73.0 70.0 66.9 63.7	96.9 96.2 95.4 94.4	14.9 13.6 11.6	16.4 15.3 13.2 11.4						
30.0 32.0 34.0 36.0 38.0	60.5 57.1 53.6 49.9 46.0	93.3 92.1 90.7 89.1 87.2	10.3 8.9 7.8 7.0 6.3	10.1 8.9 7.9 7.2 6.4						
40.0 42.0 44.0 46.0	41.8 37.2 32.0 25.9	85.1 82.6 79.7 76.0	5.6 5.1 4.6 4.2	5.8 5.2 4.8 4.4						
35.0	65.0	93.2	Angu 11.6	Ilo de plu	uma prind	cipal 75.	) [ ° ]			
36.0 38.0 40.0 42.0 44.0	63.3 60.0 56.6 53.1 49.4	93.2 92.7 91.6 90.3 88.9 87.2	11.6 10.2 8.9 7.8 7.0	11.3 11.2 10.0 8.9 7.9 7.1						
44.0 46.0 48.0 50.0 55.0	49.4 45.4 41.2 36.5 21.2	85.3 83.2 80.7 71.5	6.3 5.6 5.1 4.1	6.4 5.8 5.3 4.2						
			Ángı		ıma prin	cipal 65.	[°]			
50.2 55.0 60.0 65.0	55.0 45.9 34.6 17.7	86.0 82.0 76.0 65.8	6.3 4.9 3.8	6.7 5.3 4.1 3.0						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

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

	nserción	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 31.0	de plumí		1) 74.5 r	n Plumín			
			Ánaı	ılo de plı	ıma prin	cinal 88 (	0 [ ° ]			
11.9	78.0	89.5	15.1	19.9	a p	J. Par 55.	, ,			
12.0	77.7	89.4	15.1	19.9						
13.0	75.8	89.2	15.1	19.3						
14.0	73.9	88.9	15.1	16.9						
16.0	70.0	88.2	14.2	13.5						
18.0	66.0	87.4	11.9	10.9						
20.0 22.0	61.8 57.5	86.3 85.1	9.2 7.5	8.9 7.3						
24.0	52.9	83.7	6.1	6.0						
26.0	48.1	82.0	5.1	5.1						
28.0	42.8	80.0	4.3	4.3						
30.0	36.8	77.5	3.6	3.7						
32.0	29.9	74.5	3.0	3.0						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
19.4	73.0	88.3		14.4						
20.0	71.8	88.1	14.9	14.4						
22.0 24.0	67.9 63.8	87.3 86.4	12.2 9.6	11.9 9.6						
26.0	59.5	85.3	7.7	8.0						
28.0	55.1	83.9	6.4	6.6						
30.0	50.4	82.4	5.4	5.6						
32.0	45.3	80.5	4.6	4.8						
34.0	39.7	78.3	3.9	4.1						
36.0	33.3	75.5	3.4	3.5						
38.0	25.4	71.9	2.9	3.0						
					ıma prin	cipal 75.0	0[°]		1	
31.2	65.0	85.0	9.7	9.3						
32.0 34.0	63.2 59.0	84.6 83.5	9.6 8.0	9.3 7.8						
36.0	54.5	82.1	6.6	6.6						
38.0	49.7	80.5	5.6	5.6						
40.0	44.6	78.6	4.8	4.8						
42.0	38.9	76.3	4.1	4.1						
44.0	32.4	73.5	3.5	3.6						
46.0	24.2	69.7	3.1	3.1						
			Ángı		ıma prin	cipal 65.0	[°]			
45.0	55.0	78.7		6.3						
46.0	52.7	78.0	6.2	6.2						
48.0	47.8	76.3	5.3	5.3						
50.0 55.0	42.5 25.3	74.3 66.7	4.6 3.2	4.6 3.3						
57.0	15.4	61.1	2.8	0.0						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	Cabeza	de plumí	pal, Punt ín (2316- osición m	1) 74.5 r	n Plumín	dfall 1		
					ıma prin					
13.8	78.0	98.3	15.1	26.3			J [ ]			
14.0	77.7	98.2	15.1	26.3						
16.0	74.7	97.7	15.1	23.1						
18.0	71.7	97.1	15.1	19.2						
20.0	68.7	96.3	15.1	16.4						
22.0	65.5	95.5	13.6	14.0						
24.0	62.3	94.4	12.4	12.1						
26.0	59.0	93.3	10.9	10.6						
28.0	55.6	92.0	9.1	9.1						
30.0	52.0	90.5	7.6	7.9						
32.0	48.2	88.8	6.4	6.8						
34.0	44.2	86.8	5.1	5.4						
36.0	39.8	84.5	3.9	4.1						
38.0	35.0	81.9	2.9	3.1						
				ılo de plu	ıma prin	cipal 83.0	) [°]			
22.1	73.0	96.9	15.1	18.8						
24.0	70.1	96.2	15.1	17.5						
26.0	67.0	95.4	15.1	15.0						
28.0	63.8	94.5 93.4	13.2 11.9	12.9 11.4						
30.0 32.0	60.6 57.2	93.4	10.1	9.9						
34.0	53.7	90.7	8.7	8.7						
36.0	50.0	89.1	7.6	7.8						
38.0	46.1	87.3	6.7	6.9						
40.0	41.9	85.2	5.9	6.0	İ			İ		
42.0	37.3	82.7	5.1	5.3						
44.0	32.1	79.8	4.4	4.5						
46.0	26.0	76.1	3.5	3.6						
			Angı	ılo de plu	ıma prin	cipal 75.0	0[°]			
35.0	65.0	93.2		12.6						
36.0	63.4	92.7	12.6	12.1						
38.0	60.1	91.6	11.1	10.8						
40.0	56.7	90.3	9.7	9.7						
42.0	53.2	88.9	8.4	8.7						
44.0 46.0	49.5 45.5	87.3 85.4	7.4 6.6	7.8 6.9						
46.0 48.0	45.5 41.3	85.4 83.2	6.6 5.9	6.1						
50.0	36.6	80.7	5.3	5.4						
55.0	21.3	71.6	3.9	3.9						
					ıma prin	cinal 65 (	) [ ° ]			
50.2	55.0	86.0	L	3.1	IIII PIIII		, j			
50.2 55.0	46.3	82.1	2.2	J. I						
55.0	1 70.0	02.1	۷.۷							



2821-1

2821-1

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

Radio de descarga:  $$360\ ^{\circ}$$  Cabeza de pluma principal:

	Inserciór	า	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 34.0	na princip de plumí 0 [ m ] Po	n (1916-	1) 77.5 r	n Plumír	dfall 1		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
12.5 13.0 14.0 16.0 18.0	78.0 77.1 75.4 71.8 68.2	92.4 92.3 92.0 91.4 90.6	15.1 15.1 15.1 14.2 11.9	17.8 17.8 16.9 13.4 11.0						
20.0 22.0 24.0 26.0 28.0	64.5 60.7 56.7 52.5 48.1	89.7 88.7 87.4 85.9 84.2	9.3 7.4 6.1 5.1 4.3	8.8 7.3 6.1 5.1 4.3						
30.0 32.0 34.0	43.3 38.0 31.9	82.2 79.9 77.0	3.6 3.1 2.5	3.1 2.5						
				ılo de plu	ıma prin	cipal 83.0	D [ ° ]	ı	ı	
20.3 22.0 24.0 26.0 28.0 30.0	73.0 69.9 66.3 62.5 58.6 54.5	91.1 90.5 89.7 88.7 87.5 86.2	14.1 13.1 10.2 8.1 6.7 5.6	12.8 11.9 9.6 7.9 6.6 5.6						
32.0 34.0 36.0 38.0	50.2 45.6 40.5 34.9	84.6 82.7 80.6 77.9	4.7 4.0 3.4 2.9	4.8 4.1 3.4 2.9						
40.0	28.2	74.6	2.5	2.5						
			Angı	ılo de plu	ıma prin	cipal 75.0	0[°]	1	1	
32.4 34.0 36.0 38.0 40.0 42.0	65.0 62.0 58.1 54.0 49.6 44.9	87.7 86.9 85.7 84.4 82.7 80.9	7.6 6.4 5.4 4.6 3.9	8.2 7.8 6.6 5.6 4.8 4.1						
44.0 46.0 48.0	39.8 34.1 27.2	78.6 75.9 72.5	3.3 2.9 2.5	3.5 3.0 2.6						
46.7	55.0	81.1	Angı	ılo de plu	ıma prind	cipal 65.0	ַנֻין ט ו	I	I	
46.7 48.0 50.0 55.0 59.0	55.0 52.3 47.8 34.8 19.3	81.1 80.2 78.5 72.7 64.9	5.2 4.5 3.0 2.3	5.4 5.3 4.5 3.1 2.2						



Nº de ident.: 9842523/95738/

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

2821-1

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

Lastre o	entral [ t	]:		52.6						
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.	0 m Plun Cabeza 43.0	de plumi	oal, Punt ín (2316- osición m	1) 77.5 r	n Plumír	dfall 1		
			Ángı	ılo de plu	uma prin	cipal 88.	0 [°]			
14.4 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 75.8 73.1 70.2 67.4 64.4 61.4 58.3 55.1 51.7	101.2 100.8 100.2 99.6 98.8 97.8 96.8 95.6 94.2 92.7	15.1 15.1 15.1 14.5 12.8 11.6 9.8 8.1 6.7	26.1 24.9 20.8 17.5 15.3 13.2 11.7 10.0 8.3 7.0						
34.0 36.0 38.0 40.0	48.2 44.4 40.4 36.0	91.0 89.0 86.8 84.2	5.5 4.3 3.3 2.3	5.8 4.5 3.4 2.4						
23.0	73.0	99.8	4ngt	18.7	uma prin	cipai 83.i	0 [ ° ]			
24.0 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0 42.0 44.0 46.0	73.0 71.5 68.7 65.8 62.8 59.7 56.6 53.3 49.8 46.2 42.3 38.1 33.5 28.1	99.4 98.7 97.8 96.8 95.7 94.4 93.0 91.3 89.5 87.4 85.0 82.2 78.8	15.1 15.1 15.1 14.3 12.6 11.3 9.8 8.5 7.5 6.6 5.7 5.0 4.3 3.3	18.7 18.6 16.2 14.2 12.4 11.1 9.7 8.6 7.7 6.8 5.9 5.2 4.4 3.4						
			Ángı	ılo de plu	uma prin	cipal 75.	0 [°]			
36.3 38.0 40.0 42.0 44.0 46.0 48.0 50.0	65.0 62.4 59.3 56.2 52.9 49.4 45.7	95.9 95.0 93.9 92.6 91.1 89.5 87.6	12.7 11.1 9.8 8.5 7.6 6.8 6.1	11.6 10.5 9.4 8.5 7.6 6.8 6.0 5.3						
55.0	30.2	78.5	4.7	3.8						
	55.0	00.5	Ángı	ılo de plu	uma prin	cipal 65.	0 [°]			

51.9

54.0

55.0

88.5

87.0

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]
			) m Plum Cabeza 34.0	de plumí		1) 80.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
12.5	78.0	92.4		30.1	·	·				
13.0	77.2	92.3	15.1	30.1						
14.0	75.5	92.1	15.1	30.1						
16.0	71.9	91.4	15.1	25.2						
18.0	68.3	90.7	15.1	21.0						
20.0	64.6	89.8	13.2	16.0						
22.0	60.8	88.7	11.4	12.0						
24.0	56.8	87.4	8.0	8.2						
26.0	52.6	86.0	4.8	4.9						
28.0	48.2	84.3	2.8	2.9						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]C			
20.3	73.0	91.1		23.5						
22.0	70.0	90.6	15.1	22.7						
24.0	66.4	89.7	15.0	18.9						
26.0	62.6	88.7	14.2	15.6						
28.0	58.7	87.6	12.8	13.0						
30.0	54.6	86.2	9.9	10.3						
32.0	50.3	84.6	7.7	8.2						
34.0	45.7	82.8	5.4	5.7						
36.0	40.6	80.6	3.3	3.4						
			Angu		ıma prin	cipal 75.0	נ"ן ט			
32.5	65.0	87.7		11.5						
34.0	62.1	87.0	13.6	10.3						
36.0	58.2	85.8	12.0	8.9						
38.0	54.1	84.4	10.4	7.7						
40.0	49.7	82.8	9.0	6.6						
42.0	45.0	80.9	7.7	5.6						
44.0 46.0	39.9	78.7 76.0	6.6 5.5	4.7 3.9						
46.0 48.0	34.2 27.3	76.0 72.6	5.5 4.4	3.9						
40.0	21.0	12.0			ıma nrin	oinal 65 f	) [ ° ]	1		
L				no de pil	ıma prin	upai ob.i	ν[]			
46.9	55.0	81.1	2.5							
47.0	54.8	81.0	2.4							



Nº de ident.: 9842523/95738/

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

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

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

	Inserción	)	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 37.0		n (1916-	1) 80.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	0 [°]			
13.1	78.0	95.3		18.2						
14.0	76.6	95.1	15.1	18.2						
16.0	73.4	94.6	15.0	15.3						
18.0	70.1	93.9	12.6	12.4						
20.0 22.0	66.7 63.3	93.0 92.1	10.5 8.5	10.4 8.6						
24.0	59.7	91.0	7.1	7.4						
26.0	56.1	89.7	6.1	6.3						
28.0	52.2	88.2	5.2	5.4						
30.0	48.1	86.5	4.5	4.7						
32.0	43.7	84.5	3.8	4.0						
34.0	38.9	82.2	3.2	3.4						
36.0	33.5	79.4	2.7	2.8						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
21.2	73.0	94.0	13.3	13.2						
22.0	71.6	93.7	13.2	13.1						
24.0 26.0	68.3 64.9	93.0 92.1	11.5 9.5	11.0 9.3						
28.0	61.4	91.0	7.9	7.9						
30.0	57.8	89.8	6.8	6.8						
32.0	54.0	88.4	5.8	5.9						
34.0	50.0	86.8	5.1	5.2						
36.0	45.8	85.0	4.4	4.5						
38.0	41.2	82.8	3.8	3.9						
40.0	36.1	80.3	3.3	3.4						
42.0	30.3	77.2	2.9	3.0						
44.0	23.1	73.2	2.4	2.5		-i175 /	2.0.1			
			Angu	ılo de plu	uma prini	cipai 75.0	ַן די <u>ן</u>	1	1	
33.7	65.0	90.4	0.0	8.6						
34.0 36.0	64.5 60.9	90.3 89.3	8.6 7.9	8.6 7.9						
38.0	57.3	88.0	7.9 6.8	6.8						
40.0	53.5	86.6	5.8	5.9						
42.0	49.5	85.0	5.1	5.2						
44.0	45.2	83.1	4.5	4.6						
46.0	40.6	80.9	3.9	4.0						
48.0	35.4	78.3	3.5	3.6						
50.0	29.5	75.1	3.1	3.2						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
48.5	55.0	83.6		5.3						
50.0	52.0	82.5	5.6	4.8						
55.0	41.1	77.7	4.1	3.3						
60.0	26.9	70.1	2.8	2.1						
62.0	19.6	65.4	2.3							

Source:a9841388



Nº de ident.: 9842523/95738/

Radio de descarga:

360°

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

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

94.0 Lastre central [ t ]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 37.0	de plumí	oal, Punt ín (2316- osición m	1) 83.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.2 14.0 16.0 18.0 20.0	78.0 76.7 73.5 70.2 66.8 63.4	95.3 95.2 94.6 93.9 93.1 92.1	15.1 15.1 15.1 15.1 14.3 10.9	26.7 26.7 23.1 19.3 16.0	·					
24.0 26.0 28.0	59.8 56.2 52.3	91.0 89.7 88.2	8.5 5.6 3.4	9.1 6.0 3.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
21.2	73.0	94.0		19.5						
22.0 24.0 26.0 28.0 30.0 32.0 34.0	71.7 68.4 65.0 61.5 57.9 54.1 50.1	93.8 93.0 92.1 91.1 89.9 88.5 86.9	15.1 15.1 14.0 11.8 9.8 7.9 6.4	19.4 17.2 14.5 12.2 10.3 8.3 6.9						
36.0	45.9	85.0	4.5	4.7		-i175 /	2.0.1			
33.7 34.0	65.0 64.6	90.4 90.4	Angı 13.1	10.3 10.1	ıma prin	cipal /5.0	ַנ״ן 			
36.0 38.0 40.0 42.0 44.0	61.0 57.4 53.6 49.6 45.3	89.3 88.1 86.6 85.0 83.1	11.5 10.1 8.8 7.6 6.4	8.7 7.6 6.6 5.6 4.7						
46.0 48.0 50.0 52.0	40.7 35.5 29.6 23.2	80.9 78.4 75.2 71.0	5.4 4.4 3.5 2.0	3.9 3.2 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]
		56.0	0 m Plum Cabeza 40.0	de plumí	oal, Punt ín (1916- osición m	1) 83.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.	0[°]			
13.7	78.0	98.3		15.1						
14.0 16.0 18.0	77.6 74.7 71.6	98.2 97.7 97.1	14.8 13.5 11.1	15.1 13.8 11.6						
20.0 22.0	68.6 65.5	96.3 95.4	9.0 7.4	9.7 8.0						
24.0 26.0 28.0	62.2 58.9 55.5	94.4 93.3 91.9	6.2 5.3 4.5	6.7 5.7 4.9						
30.0	51.9	90.4	3.9	4.2						
32.0 34.0 36.0	48.1 44.1 39.7	88.7 86.8 84.5	3.3 2.8 2.3	3.6 3.0 2.4						
			Ángu	ılo de plu	ıma prin	cipal 83.	0 [°]			
22.0	73.0	96.9		11.1						
24.0	70.0	96.2	9.8	10.3						
26.0 28.0	66.9 63.7	95.4 94.4	8.4 7.1	8.6 7.2						
30.0	60.5	93.3	6.1	6.2						
32.0	57.1	92.1	5.2	5.3						
34.0	53.6	90.7	4.5	4.6						
36.0 38.0	49.9 46.0	89.1 87.2	3.9 3.4	4.0 3.4						
40.0	41.8	85.1	2.9	3.0						
42.0	37.2	82.6	2.4	2.5						
			Ángı	ılo de plu	ıma prin	cipal 75.	0[°]			
35.0	65.0	93.2	7.0	7.1						
36.0 38.0	63.3 60.0	92.7 91.6	6.9 6.1	7.0 6.2						
40.0	56.6	90.3	5.3	5.4						
42.0	53.1	88.9	4.5	4.6						
44.0	49.4	87.2	3.9	4.0						
46.0 48.0	45.4 41.2	85.3 83.2	3.4 3.0	3.5 3.0						
50.0	36.5	80.7	2.6	2.6						
			Ángı	ılo de plu	ıma prin	cipal 65.	0 [°]			
50.2	55.0	86.0		4.6	<u> </u>		_ ·			
55.0	45.9	82.0	3.5	3.3						
60.0 62.0	34.6 29.6	76.0 72.8	2.5 2.2	2.1						
02.0	29.0	12.0	۷.۷		I	I	I		I	



 $N^{\circ}$  de ident.: 9842523/95738/ Pieza de articu

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.	0 m Plum Cabeza 43.0	de plumí	n (1916-	o de caro 1) 86.5 r nidfall (19	n Plumín	dfall		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C			
14.4 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 75.8 73.0 70.2 67.3 64.3 61.3 58.2 55.0	101.2 100.8 100.2 99.5 98.7 97.8 96.7 95.5 94.2	14.4 13.8 11.0 8.7 7.1 5.9 4.9 4.2 3.5	14.0 13.5 10.9 8.9 7.4 6.1 5.2 4.4 3.7						
32.0 34.0	51.6 48.1	92.7 91.0	3.0 2.6	3.2 2.7						
34.0	40.1	91.0			ıma prin	cipal 83.0	1 0 1			
22.9	73.0	99.7	Angu	9.4	лна рип	cipai os.i	JIJ		I	
24.0 26.0 28.0	71.5 68.6 65.7	99.4 98.6 97.8	9.1 7.6 6.4	9.3 7.8 6.7						
30.0 32.0 34.0 36.0 38.0	62.7 59.7 56.5 53.2 49.8	96.8 95.6 94.4 92.9 91.3	5.4 4.6 3.9 3.3 2.9	5.6 4.8 4.1 3.5 3.0						
40.0	46.1	89.5	2.4	2.6						
			Angı		ıma prin	cipal 75.0	[°]			
36.2 38.0 40.0 42.0	65.0 62.3 59.3 56.1	95.9 95.0 93.9 92.6	5.5 4.7 4.0	5.8 5.6 4.8 4.1						
44.0 46.0 48.0 50.0	52.8 49.3 45.6 41.7	91.1 89.5 87.6 85.5	3.4 2.9 2.5 2.1	3.5 3.0 2.6 2.2						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
51.9 55.0 60.0	55.0 49.7 40.1	88.5 86.1 81.0	3.0 2.1	3.5 3.1 2.1	•					



2821-1

2821-1

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 46.0	de plumí	oal, Punt n (1916- osición m	1) 89.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	0 [°]			
15.0 16.0 18.0 20.0	78.0 76.7 74.1 71.5	104.1 103.9 103.4 102.7	12.5 12.5 10.6 8.6	13.0 13.0 10.7 8.8		•				
22.0 24.0 26.0 28.0 30.0 32.0	68.8 66.1 63.4 60.5 57.6 54.6	102.0 101.1 100.1 99.0 97.8 96.4	7.0 5.8 4.9 4.1 3.5 2.9	7.3 6.1 5.1 4.4 3.7 3.1						
34.0	51.4	94.9	2.5	2.6						
			Ángı	ılo de plı	ıma prin	cipal 83.0	1°10			
23.8	73.0	102.6	8.4	8.5	III PIII	oipai oo.				
24.0 26.0 28.0	72.7 70.1 67.4	102.6 101.9 101.1	8.3 7.8 6.5	8.5 7.8 6.6						
30.0 32.0 34.0 36.0 38.0 40.0	64.7 61.8 59.0 56.0 52.9 49.7	100.1 99.1 97.9 96.6 95.2 93.5	5.4 4.6 4.0 3.3 2.8	5.6 4.8 4.1 3.5 2.9						
40.0	40.7	00.0			ıma prin	cinal 75 (	1°10			
37.5 38.0 40.0 42.0 44.0	65.0 64.3 61.5 58.6 55.6	98.6 98.4 97.3 96.1 94.8	5.0 4.6 3.9 3.4	5.2 5.2 4.7 4.0 3.5	and pill	pai 10.1	~[]			
46.0	52.5	93.3	2.9 2.5	3.0						
48.0	49.2	91.7		ılo de nlı	ıma prin	rinal 65 (	0 [ ° ]			
53.6 55.0 60.0	55.0 52.8 44.4	90.9 90.0 85.4	2.9	3.0 3.0 2.0	ina pini		~ [ ]			



N° de ident.: 9842523/95738/ Pieza de

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

Valor de vuelco: Lastre trasero [ t ]:

Lastre central [ t ]:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- 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	ín (1916-		n Plumín			
			Ángu	ılo de plu	uma prin	cipal 88.0	[°]			
15.6 16.0 18.0 20.0	78.0 77.5 75.1 72.7	107.1 107.0 106.5 105.9	10.2 10.2 9.4 8.0	11.1 11.1 10.2 8.6						
22.0 24.0 26.0 28.0 30.0 32.0	70.2 67.7 65.1 62.5 59.8 57.0	105.2 104.4 103.5 102.5 101.4 100.1	6.7 5.7 4.7 4.0 3.4 2.8	7.1 6.0 5.0 4.2 3.6 3.0						
34.0	54.2	98.7	2.4	2.5	L .					
					ıma prin	cipal 83.0	[°]			
24.7 26.0 28.0 30.0 32.0	73.0 71.3 68.9 66.3 63.7	105.5 105.0 104.3 103.5 102.5	7.3 7.3 6.2 5.3 4.5	7.5 7.5 6.3 5.4 4.6						
34.0 36.0 38.0 40.0	61.1 58.3 55.5 52.6	101.4 100.2 98.9 97.4	3.8 3.3 2.7 2.3	4.0 3.4 2.8 2.4						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
38.8 40.0 42.0 44.0 46.0 48.0	65.0 63.4 60.7 58.0 55.1	101.3 100.7 99.6 98.4 97.1	4.3 4.3 3.8 3.3 2.8 2.3	4.5 4.5 3.9 3.4 2.8						
					uma prin	cipal 65.0	[°]			
55.3 59.0	55.0 49.5	93.4 90.5		2.5 2.1	·		-			



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

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

Lastre trasero [ t ]:

Lastre central [ t ]:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		56.0	0 m Plum Cabeza 52.0	de plumí	ín (1916-	o de carç 1) 95.5 r nidfall (19	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
16.2 18.0 20.0 24.0 26.0 28.0 30.0 32.0 25.5 26.0 28.0 30.0 32.0 34.0 36.0	78.0 76.0 73.7 71.4 69.0 66.6 64.2 61.7 59.2 73.0 72.5 70.1 67.8 65.3 62.9 60.4	110.0 109.6 109.0 108.4 107.6 106.8 105.9 104.8 103.7	5.7 5.5 4.7 3.9 3.3 2.8	6.2 6.2 5.7 4.8 4.0 3.4 2.9	uma prin	cipal 83.	0[°]			
38.0	57.8	102.5	2.3 Ángi	ulo de niu	ıma nrin	cipal 75.	1 ° 1 0			
40.0 42.0 44.0	65.0 62.6 60.0 57.4	104.0 103.1 102.0 100.7	3.2 2.7	3.4 3.4 2.8 2.4	ana pilir	5.pui 7 5.	~ [ ]			
46.0 47.0	57.4 56.1	100.7	2.3 2.0	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 ]:

94.0

Lastre central [ t ]: 52.6

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0	0 m Plum Cabeza 13.0	de plumí	oal, Punt n (1916- osición m	1) 32.5 r	n Plumín	dfall I		
			Ángu	ılo de plu	ıma prin	cipal 88.0	0 [°]			
8.2 9.0 10.0 11.0 12.0 13.0 14.0 16.0 14.5 16.0	78.0 74.5 69.8 64.9 59.8 54.4 48.5 34.4 73.0 65.8	74.9 74.6 74.3 73.8 73.2 72.5 71.7 69.3 74.0 73.4 72.2 70.4	15.1 12.3	30.1 28.5 20.8 16.0 13.1 10.9 9.3 7.1 ulo de plu 24.3 16.6 11.2 8.2	uma prind	cipal 83.	0 [°]			
20.0 22.0	43.3 26.7	70.4 67.4	8.8 6.7	8.2 6.5						
			Ángu	ılo de plu	ıma prin	cipal 75.0	0 [°]			
24.3 26.0 28.0 30.0	65.0 56.3 44.3 28.3	71.6 70.6 68.8 66.0	13.1 9.0 6.7	15.3 11.4 8.4 6.6	•	•				
	<u> </u>		Ángu	ılo de plu	ıma prin	cipal 65.0	0[°]			<u> </u>
36.0 38.0	55.0 42.5	66.6 64.8	8.4	10.6 8.0						
			Ángu		ıma prin	cipal 45.0	0[°]			
55.8 57.0	35.0 22.9	51.1 49.2	4.0	3.8 3.4						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.	0 m Plum Cabeza 16.0	de plumí		1) 35.5 r	n Plumín			
			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	78.0 77.4 73.7 69.9 66.0 61.9 57.7 48.5	77.8 77.8 77.5 77.1 76.7 76.1 75.5 73.9	15.1 15.1 15.1 15.1 15.1 15.1 13.4 10.5	30.1 30.1 27.8 21.5 17.5 14.8 12.7 9.9						
18.0	37.5	71.7	8.1	8.0			2 5 0 3			
15.4	73.0	76.9	4ngu 15.1	110 de pil	ıma prin	cipai 83.0	)[°]		I	
15.4 16.0 18.0 20.0 22.0 24.0	70.6 62.7 54.1 44.3 32.0	76.9 76.7 75.8 74.4 72.6 70.0	15.1 15.1 15.1 12.1 9.4 7.4	22.4 15.1 11.3 9.0 7.4						
			Ángu	ılo de plu	ıma prin	cipal 75.0	] ° ]			
25.6 26.0 28.0 30.0 32.0	65.0 63.3 54.8 45.1 33.1	74.3 74.1 72.8 71.1 68.5	15.1 12.5 9.5 7.5	15.8 15.4 11.5 9.1 7.4	·					
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
37.7 38.0 40.0 42.0	55.0 53.5 43.6 31.1	69.1 68.9 67.1 64.4	11.8 9.0 7.2	11.1 11.1 8.7 7.2						
			Ángı	ılo de plu	ıma prin	cipal 45.	[°]			
58.3 60.0	35.0 20.3	52.8 49.7	3.1	3.1 2.5						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

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

	ontrar [ t	1.		02.0								
	Inserciór	ì	1	2	3	4	5	6	7	8		
Alcan- ce [ m ]	ce o de de [t] [t] [t] [t] [t] [t] [t] [t] [t] [t]											
	59.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 38.5 m Plumín 16.0 [ m ] Posición midfall (2316)											

			Ángι	ılo de plu	ıma prin	cipal 88.0	[°]C						
8.9	78.0	77.8		30.1									
9.0	77.7	77.8	15.1	30.1									
10.0	73.9	77.5	15.1	30.1									
11.0	70.1	77.1	15.1	29.8									
12.0													
13.0													
14.0	57.9	75.6	15.1	17.8									
16.0	48.7	74.0	14.7	13.7									
18.0	18.0 37.7 71.7 11.7 11.0												
	Ángulo de pluma principal 83.0 [ ° ]												

10.0	10.7	1 7.0	1-7.7	10.7									
18.0	37.7	71.7	11.7	11.0									
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]						
15.4	73.0	76.9		30.1									
16.0	70.8	76.7	15.1	30.0									
18.0	62.9	75.8	15.1	21.3									
20.0	54.3	74.5	15.1	15.7									
22.0	44.5	72.7	13.1	12.4									
24.0	32.3	70.1	10.7	10.2									
	Ángulo de pluma principal 75.0 [ ° ]												
25.6													
26.0	63.6	74.2	15.1	21.9									
28.0	55.0	72.9	15.1	15.9									
30.0	30.0   45.3   71.1   13.6   12.5												
32.0	32.0 33.4 68.6 10.7 10.2												
	Ángulo de pluma principal 65.0 [ ° ]												

12.0

11.8 10.4

9.2

37.7

38.0

40.0

42.0

55.0

53.8

43.9

31.4

69.1

69.0 67.1

64.4

13.7 12.4

9.7



Nº de ident.: 9842523/95738/

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

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

	Inserciór	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]
		59.	0 m Plum Cabeza 19.0	de plumí		1) 38.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.5 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 76.4 73.2 70.0 66.7 63.4 56.2 48.4 39.4	80.7 80.6 80.3 79.9 79.5 79.0 77.8 76.2 74.0	15.1 15.1 15.1 15.1 15.0 14.8 12.2 9.7 8.0	30.1 30.1 26.1 21.5 18.4 15.9 12.5 10.2 8.5						
22.0	27.9	70.9	6.7	7.2						
			Ángu	ılo de plu	ıma prin	cipal 83.0	[°]			
16.3 18.0 20.0 22.0 24.0 26.0	73.0 67.3 60.5 53.2 44.9	79.8 79.1 78.1 76.7 74.9	15.1 15.1 14.2 11.0 8.9	23.8 18.7 14.3 11.4 9.4 7.9						
20.0	J 33.2	12.4			ıma prin	cinal 75 (	) [ ° ]			
26.9 28.0 30.0 32.0 34.0 36.0	65.0 61.1 53.8 45.6 36.0 22.9	77.0 76.4 75.1 73.3 70.9 67.3	15.1 15.1 12.8 10.2 8.2 7.0	16.0 14.5 11.6 9.6 8.0 6.9	ania pilir	ыраг 73.	~ [ ]			
			Ánaı	ılo de plu	ıma prin	cipal 65.0	1°10			
39.4 40.0 42.0 44.0	55.0 52.7 44.4 34.5	71.5 71.2 69.3 66.8	12.7 10.0 8.1	11.5 11.3 9.3 7.9	·					
			Ángu		ıma prin	cipal 45.0	[°]			
60.7 63.0	35.0 20.7	54.5 50.2	2.6	2.6						



Nº de ident.: 9842523/95738/

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

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

Valor de vuelco: 2 - Vía ancha

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan-	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]
[	[°]	nas								
		[ m ]								
		59.	0 m Plum	na princip	oal, Punt	o de caro	ga 3 - Mi	dfall		
			Cabeza 19.0	ae piumi ) [ m ] Po	n (2316- osición m	1) 41.5 r nidfall (23	n Plumir 316)	1		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
9.5	78.0	80.7		30.1						
10.0	76.5	80.6	15.1 15.1	30.1						
11.0 12.0	73.4 70.2	80.3 80.0	15.1	30.0 29.0						
13.0	66.9	79.5	15.1	25.6						
14.0	63.5	79.0	15.1	21.8						
16.0	56.4	77.8	15.1	16.9						
18.0	48.6	76.2	14.6	13.6						
20.0	39.6	74.1	11.9	11.1						
22.0	28.1	71.0	9.8	9.2						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C			
16.3	73.0	79.8		30.1						
18.0	67.5	79.1	15.1	26.4						
20.0	60.7	78.1	15.1	19.6						
22.0 24.0	53.4 45.2	76.7 74.9	15.1 13.3	15.3						
26.0	35.4	74.9	11.1	12.5 10.3						
20.0	33.4	72.5		ılo de plu	ıma nrinı	cinal 75 (	1 ° 1	l		
26.9	65.0	77.0	7 (119)	21.9	IIIIa piiii	l l	, j			
28.0	61.3	76.5	15.1	19.8						
30.0	54.0	75.1	15.1	15.5				İ		
32.0	45.8	73.4	13.9	12.7						
34.0	36.2	71.0	11.4	10.5						
36.0	23.1	67.4	9.3	8.8						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
39.4	55.0	71.5		10.8						
40.0	52.9	71.2	12.1	10.4						
42.0	44.6	69.4	11.0	9.3						
44.0	34.7	66.9	9.3	8.3						
46.0	20.7	63.0	7.8	7.3				l		



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

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.	0 m Plum Cabeza 22.0	na princip de plumí ) [ m ] Po	n (1916-	1) 41.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.1 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 75.6 72.9 70.1 67.3 61.4 55.2 48.4 40.7 31.5	83.7 83.4 83.1 82.8 82.3 81.3 80.0 78.4 76.3	15.1 15.1 15.1 15.1 14.4 12.7 10.0 8.3 7.0 6.0	29.5 26.4 22.1 18.8 16.4 13.0 10.6 8.9 7.5 6.5						
24.0	31.5	73.5		ılo de plu	ıma nrin	rinal 83 (	) [ ° ]			
17.1	73.0	82.6	Aligo	20.8			J [ ]			
18.0 20.0 22.0 24.0 26.0 28.0 30.0	70.6 64.9 58.9 52.5 45.4 37.2 26.9	82.3 81.5 80.4 78.9 77.1 74.8 71.5	15.1 14.8 13.2 10.4 8.5 7.1 6.1	19.3 14.7 11.9 9.8 8.3 7.1 6.1						
30.0	20.9	71.5		ılo de plu	ıma nrinı	cinal 75 (	1°1			
28.1 30.0 32.0 34.0 36.0 38.0	65.0 59.4 53.0 46.0 37.9 27.8	79.7 78.7 77.3 75.6 73.3 70.1	13.5 10.7 8.7 7.3 6.3	14.0 12.0 9.9 8.4 7.1 6.2						
		70.1		ılo de plu	ıma prin	cipal 65.0	[°]C			
41.1	55.0	74.0		10.1	- 1					
42.0 44.0 46.0 48.0	52.1 44.9 36.7 26.2	73.4 71.6 69.2 65.9	10.4 8.4 7.1 6.2	9.7 8.2 7.0 6.1						
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
63.4 64.0	35.0	56.3 55.2	2.3							
04.0	31.8	35.∠	2.2							

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
Cabeza de plumín (2316-1) 44.5 m Plumín 22.0 [ m ] Posición midfall (2316)  Angulo de pluma principal 88.0 [ ° ]  10.2 78.0 83.7 15.1 30.1 12.0 75.7 83.5 15.1 30.1 12.0 73.0 83.2 15.1 29.0 13.0 70.2 82.8 15.1 29.0 14.0 67.4 82.4 15.1 22.9 16.0 61.6 81.4 15.1 17.7 18.0 55.3 80.1 14.2 14.3 20.0 48.6 78.4 13.1 11.9 22.0 40.9 76.3 10.6 9.9 24.0 31.7 73.6 8.6 8.4  Angulo de pluma principal 83.0 [ ° ]  17.2 73.0 82.6 28.8 15.1 20.3 22.0 65.1 81.5 15.1 20.3 22.0 65.1 81.5 15.1 20.3 22.0 59.1 80.4 14.4 16.1 24.0 52.7 79.0 12.7 13.2 26.0 45.6 77.2 10.7 11.0 28.0 37.4 74.8 8.8 9.3 30.0 27.1 71.6 7.5 8.0 Angulo de pluma principal 75.0 [ ° ]  28.2 65.0 79.7 Angulo de pluma principal 75.0 [ ° ]  Angulo de pluma principal 65.0 [ ° ]  Angulo de pluma principal 65.0 [ ° ]	ce	o de plumín	de rolda- nas					Carga [t]			Carga [t]
10.2 78.0 83.7 15.1 30.1 12.0 73.0 83.5 15.1 30.1 12.0 73.0 83.2 15.1 29.0 13.0 70.2 82.8 15.1 26.0 14.0 67.4 82.4 15.1 22.9 16.0 61.6 81.4 15.1 17.7 18.0 55.3 80.1 14.2 14.3 22.0 44.9 76.3 10.6 9.9 24.0 31.7 73.6 8.6 8.4				Cabeza	de plumí	n (2316-	1) 44.5 r	n Plumín			
11.0				Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
12.0	10.2	78.0	83.7	15.1	30.1						
13.0	11.0	75.7	83.5	15.1	30.1						
14.0 67.4 82.4 15.1 22.9  16.0 61.6 81.4 15.1 17.7  18.0 55.3 80.1 14.2 14.3 20.0 48.6 78.4 13.1 11.9 22.0 40.9 76.3 10.6 9.9 24.0 31.7 73.6 8.6 8.4	12.0	73.0	83.2	15.1	29.0						
16.0 61.6 81.4 15.1 17.7 18.0 55.3 80.1 14.2 14.3 20.0 48.6 78.4 13.1 11.9 22.0 40.9 76.3 10.6 9.9 24.0 31.7 73.6 8.6 8.4	13.0	70.2		15.1							
18.0											
20.0				-							
22.0											
24.0 31.7 73.6 8.6 8.4    Angulo de pluma principal 83.0 [°]  17.2 73.0 82.6   18.0 70.8 82.4 15.1 27.2   20.0 65.1 81.5 15.1 20.3   22.0 59.1 80.4 14.4 16.1   24.0 52.7 79.0 12.7 13.2   26.0 45.6 77.2 10.7 11.0   28.0 37.4 74.8 8.8 9.3   30.0 27.1 71.6 7.5 8.0    Angulo de pluma principal 75.0 [°]  28.2 65.0 79.7   30.0 59.6 78.8 15.1 16.3   32.0 53.2 77.4 13.9 13.3   34.0 46.2 75.6 12.1 11.2   36.0 38.1 73.3 9.8 9.5   38.0 28.0 70.2 8.3 8.2    Angulo de pluma principal 65.0 [°]											
Ángulo de pluma principal 83.0 [°]         17.2       73.0       82.6       28.8   <											
17.2	24.0	31.7	73.0					2.503			
18.0 70.8 82.4 15.1 27.2 20.3 22.0 65.1 81.5 15.1 20.3 22.0 59.1 80.4 14.4 16.1 24.0 52.7 79.0 12.7 13.2 26.0 45.6 77.2 10.7 11.0 28.0 37.4 74.8 8.8 9.3 30.0 27.1 71.6 7.5 8.0				Angı		ıma prin	cipai 83.0	֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓			
20.0 65.1 81.5 15.1 20.3 22.0 59.1 80.4 14.4 16.1 24.0 52.7 79.0 12.7 13.2 26.0 45.6 77.2 10.7 11.0 28.0 37.4 74.8 8.8 9.3 30.0 27.1 71.6 7.5 8.0 Angulo de pluma principal 75.0 [°]  28.2 65.0 79.7 19.1 19.1 30.0 59.6 78.8 15.1 16.3 32.0 53.2 77.4 13.9 13.3 34.0 46.2 75.6 12.1 11.2 36.0 38.1 73.3 9.8 9.5 38.0 28.0 70.2 8.3 8.2 Angulo de pluma principal 65.0 [°]  Angulo de pluma principal 65.0 [°]											
22.0											
24.0 52.7 79.0 12.7 13.2 26.0 45.6 77.2 10.7 11.0 28.0 37.4 74.8 8.8 9.3 30.0 27.1 71.6 7.5 8.0											
26.0											
28.0 37.4 74.8 8.8 9.3 30.0 27.1 71.6 7.5 8.0 Angulo de pluma principal 75.0 [°]  28.2 65.0 79.7 19.1 19.1 30.0 59.6 78.8 15.1 16.3 32.0 53.2 77.4 13.9 13.3 34.0 46.2 75.6 12.1 11.2 36.0 38.1 73.3 9.8 9.5 38.0 28.0 70.2 8.3 8.2 Angulo de pluma principal 65.0 [°]  41.2 55.0 74.0 9.9											
30.0 27.1 71.6 7.5 8.0 Ángulo de pluma principal 75.0 [°]  28.2 65.0 79.7 19.1 30.0 59.6 78.8 15.1 16.3 32.0 53.2 77.4 13.9 13.3 34.0 46.2 75.6 12.1 11.2 36.0 38.1 73.3 9.8 9.5 38.0 28.0 70.2 8.3 8.2 Ángulo de pluma principal 65.0 [°]  41.2 55.0 74.0 9.9											
28.2 65.0 79.7 19.1 19.1 30.0 59.6 78.8 15.1 16.3 32.0 53.2 77.4 13.9 13.3 34.0 46.2 75.6 12.1 11.2 36.0 38.1 73.3 9.8 9.5 38.0 28.0 70.2 8.3 8.2 Ángulo de pluma principal 65.0 [°]											
30.0 59.6 78.8 15.1 16.3 32.0 53.2 77.4 13.9 13.3 34.0 46.2 75.6 12.1 11.2 36.0 38.1 73.3 9.8 9.5 38.0 28.0 70.2 8.3 8.2  Ángulo de pluma principal 65.0 [°]				Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
32.0 53.2 77.4 13.9 13.3 34.0 46.2 75.6 12.1 11.2 36.0 38.1 73.3 9.8 9.5 38.0 28.0 70.2 8.3 8.2 Ángulo de pluma principal 65.0 [°]	28.2	65.0	79.7		19.1						
34.0 46.2 75.6 12.1 11.2 36.0 38.1 73.3 9.8 9.5 38.0 28.0 70.2 8.3 8.2 Ángulo de pluma principal 65.0 [°]	30.0	59.6	78.8	15.1	16.3						
36.0 38.1 73.3 9.8 9.5 8.3 8.2 Angulo de pluma principal 65.0 [°]  41.2 55.0 74.0 9.9	32.0	53.2		13.9	13.3						
38.0     28.0     70.2     8.3     8.2       Ángulo de pluma principal 65.0 [°]       41.2     55.0     74.0     9.9											
Ángulo de pluma principal 65.0 [ ° ] 41.2 55.0 74.0 9.9											
41.2 55.0 74.0 9.9	38.0	28.0	70.2								
				Ángı		ıma prin	cipal 65.0	[°]		1	1
<b>■</b> 42.0   52.3   73.4 <b>■</b> 10.9   9.5											
44.0   45.1   71.6   9.9   8.5				i e	i .						
46.0 36.9 69.2 9.0 7.6											
48.0   26.4   65.9   7.8   6.8				-							



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.	0 m Plum Cabeza 25.0	de plumí	oal, Punt ín (1916- osición m	1) 44.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
10.7 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 77.3 75.0 72.6 70.1 65.1 59.9 54.4	86.6 86.5 86.3 86.0 85.6 84.7 83.6 82.3	15.1 15.1 15.1 15.1 13.8 12.1 9.6	26.0 26.0 22.3 19.2 16.8 13.3 11.0 9.1						
22.0 24.0	48.4 41.7	80.6 78.6	8.0 6.8	7.8 6.7						
26.0 28.0	34.0 24.0	75.9 72.3	5.8 5.1	5.8 5.1						
			Ángı	ılo de plu	ıma prin	cipal 83.	[°]			
18.0 20.0 22.0 24.0 26.0	73.0 68.1 63.0 57.7 52.0	85.5 84.8 83.8 82.6 81.2	15.1 13.2 10.9 8.8	18.4 15.2 12.2 10.1 8.6						
28.0 30.0 32.0	45.8 38.7 30.3	79.4 77.1 74.1	7.5 6.4 5.6	7.4 6.4 5.6						
			Ángı	ılo de plu	ıma prin	cipal 75.	[°]C			
29.4 30.0 32.0 34.0 36.0 38.0 40.0	65.0 63.4 58.1 52.4 46.3 39.3 31.0	82.5 82.2 81.0 79.6 77.8 75.6 72.7	13.8 11.1 8.9 7.5 6.4 5.6	12.5 12.4 10.3 8.6 7.4 6.4 5.7						
70.0	J 51.0	14.1			ıma prin	cipal 65	1°10			
42.8 44.0 46.0 48.0 50.0	55.0 51.6 45.4 38.3 29.7	76.5 75.6 73.8 71.5 68.5	8.7 7.4 6.3 5.6	8.9 8.5 7.3 6.3 5.6	- 12- F-111	- p.s 201	- , ,			
52.0	17.5	63.9	4.9	4.9						



N° de ident.: 9842523/95738/ Pie

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 25.0	de plumí	n (2316-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.8 11.0 12.0 13.0 14.0	78.0 77.5 75.1 72.7 70.3 65.3	86.6 86.6 86.3 86.0 85.6 84.8	15.1 15.1 15.1 15.1 15.1	30.1 30.1 29.6 27.1 23.4 18.2						
18.0 20.0 22.0 24.0 26.0	60.0 54.5 48.5 41.9 34.2	83.7 82.3 80.7 78.6 76.0	14.6 12.7 11.1 9.1 7.5	14.8 12.2 10.4 8.8 7.5						
28.0	24.2	72.4	6.5	6.4						
					ıma prin	cipal 83.0	0[°]			
18.1 20.0 22.0	73.0 68.3 63.2	85.5 84.8 83.9	15.1 15.1 15.1	25.4 20.9 16.5						
24.0 26.0 28.0 30.0 32.0	57.8 52.1 45.9 38.9 30.5	82.7 81.2 79.4 77.2 74.2	13.8 12.1 10.2 8.4 7.2	13.6 11.4 9.7 8.2 7.1						
			Ángı	ılo de plu	ıma prin	cipal 75.0	1°10			
29.4 30.0 32.0 34.0 36.0 38.0	65.0 63.6 58.3 52.6 46.4 39.5	82.5 82.2 81.1 79.6 77.8	15.1 15.0 12.4 10.4 8.6	16.8 16.8 13.8 11.5 9.8						
40.0	31.2	72.7	7.3	7.3						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
42.9 44.0 46.0 48.0	55.0 51.8 45.5 38.4	76.5 75.7 73.9 71.6	9.5 8.7 7.9	8.8 8.3 7.5 6.7						
50.0 52.0	29.9 17.7	68.6 64.0	6.9 5.9	6.0 5.3						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.		de plumi	oal, Punt ín (1916- osición m	1) 47.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	] (°)			
11.3 12.0	78.0 76.6	89.5 89.4	15.1	30.1 30.1						
13.0 14.0	74.5 72.4	89.1 88.8	15.1 15.1	29.3 26.9						
16.0 18.0	68.0 63.4	88.0 87.1	15.1 15.1	21.8 18.1						
20.0 22.0 24.0	58.7 53.7 48.3	85.9 84.5 82.9	14.6 13.8 12.8	15.6 13.6 12.1						
26.0 28.0 30.0	42.5 35.8 27.7	80.8 78.3 75.0	9.9 9.0	9.8 9.0						
			Ángı	ılo de plı	ıma prin	cipal 83.0	D[°]			
18.9 20.0 22.0	73.0 70.6 66.1	88.4 88.0 87.2	15.1 15.1 15.1	26.0 24.6 20.0						
24.0 26.0	61.5 56.7	86.1 84.9	15.1 14.3	17.0 14.7						
28.0 30.0 32.0	51.6 46.0 39.9	83.4 81.6 79.4	13.6 12.2 10.7	13.0 11.6 10.4						
34.0 36.0	32.7 23.6	76.6 72.9	9.6 8.6	9.5 8.7						
					ıma prin	cipal 75.0	[°]			
30.7 32.0 34.0	65.0 61.9 57.1	85.2 84.5 83.3	15.1 15.1 14.9	18.0 17.1 14.8						
36.0 38.0 40.0	52.0 46.5 40.4	81.8 80.0 77.9	13.6 12.3 10.8	13.0 11.7 10.4						
40.0 42.0 44.0	33.3 24.4	77.9 75.2 71.5	9.6 8.7	9.5 8.8						
			Ángı	ılo de plı	ıma prin	cipal 65.0	[°]			
44.6 46.0 48.0	55.0 51.3 45.7	78.9 77.9 76.1	11.5 10.7	10.8 10.2 9.5						
50.0 55.0	39.5 16.4	73.8 64.4	10.0 8.2	8.8 7.2						



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									8
Alcan- ce [ m ]	Ángu- 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		n (1916-	1) 50.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
9.5 10.0 11.0 12.0 13.0	78.0 76.4 73.2 70.0 66.7	80.7 80.6 80.3 79.9 79.5	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 26.4 23.0	·					
16.0 18.0 20.0 22.0	56.2 48.4 39.4 27.9	77.8 76.2 74.0 70.9	14.9 14.3 11.2 9.1	15.5 12.6 10.4 8.7						
				ılo de plu	ıma prin	cipal 83.0	0[°]			
16.3 18.0 20.0 22.0 24.0 26.0	73.0 67.3 60.5 53.2 44.9 35.2	79.8 79.1 78.1 76.7 74.9 72.4	15.1 15.1 15.1 15.0 13.0 10.3	28.9 23.6 17.8 14.1 11.6 9.7						
			Ángı	ılo de plı	ıma prin	cipal 75.0	D[°]			
26.9 28.0 30.0 32.0 34.0 36.0	65.0 61.1 53.8 45.6 36.0 22.9	77.0 76.4 75.1 73.3 70.9 67.3	15.1 15.1 14.8 13.2 10.6 8.8	19.5 18.1 14.4 11.9 9.9 8.4	-					
				ılo de plu	ıma prin	cipal 65.0	1°10			
39.4 40.0 42.0 44.0 46.0	55.0 52.7 44.4 34.5 20.4	71.5 71.2 69.3 66.8 62.9	13.1 11.3 9.3 7.9	11.1 10.7 9.5 8.4 7.5		,				



Nº de ident.: 9842523/95738/

360°

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

2821-1 2821-1

Radio de descarga: Valor de vuelco: 2 - Vía ancha

Lastre trasero [ t ]:		94.0
Lastre central [ t ]:		52.6
Inserción	1	2

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 28.0	de plumi		1) 50.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
11.4 12.0 13.0 14.0	78.0 76.7 74.6 72.5	89.5 89.4 89.1 88.8	15.1 15.1 15.1 15.1	30.1 30.1 30.1 29.2						
16.0 18.0 20.0 22.0 24.0	68.1 63.6 58.8 53.8 48.5	88.0 87.1 86.0 84.6 82.9	15.1 15.1 15.1 15.1 14.6	26.1 21.3 18.1 15.5 13.6						
26.0 28.0 30.0	42.6 35.9 27.9	80.9 78.4 75.1	12.6 11.0 9.7	12.0 10.6 9.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
18.9 20.0 22.0	73.0 70.7 66.3	88.4 88.0 87.2	15.1 15.1	30.1 29.4 23.9						
24.0 26.0 28.0 30.0 32.0 34.0	61.7 56.8 51.7 46.2 40.0 32.9	86.2 84.9 83.4 81.6 79.5 76.7	15.1 15.1 15.1 13.6 11.9	19.9 16.9 14.7 12.9 11.4						
36.0	23.8	76.7	9.3	9.2						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
30.7 32.0 34.0	65.0 62.0 57.2 52.1	85.2 84.5 83.3	15.1 15.1	19.9 18.7 16.9						
36.0 38.0 40.0 42.0 44.0	52.1 46.6 40.5 33.5 24.6	81.9 80.1 77.9 75.2 71.6	15.0 14.0 12.1 10.7 9.5	14.8 13.1 11.6 10.4 9.4						
77.0	7.0	7 1.0			uma prin	cipal 65.0	[°]C			
44.6 46.0 48.0 50.0 55.0	55.0 51.4 45.8 39.6 16.7	78.9 77.9 76.1 73.9 64.5	8.4 7.6 6.9 5.3	7.9 7.4 6.6 5.9 4.4		,				

Source:a9841388



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0	0 m Plum Cabeza 22.0	de plumí		1) 53.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.1 11.0 12.0	78.0 75.6 72.9	83.7 83.4 83.1	15.1 15.1 15.1	30.1 29.8 25.3	·	·				
13.0 14.0 16.0	70.1 67.3 61.4	82.8 82.3 81.3	15.1 15.1 15.1	21.4 18.7 14.7						
18.0 20.0 22.0 24.0	55.2 48.4 40.7 31.5	80.0 78.4 76.3 73.5	12.6 10.5 8.4 6.9	11.8 9.8 8.1 6.8						
			Ángu	ılo de plu	ıma prin	cipal 83.0	1°10			
17.1 18.0 20.0 22.0 24.0	73.0 70.6 64.9 58.9 52.5	82.6 82.3 81.5 80.4 78.9	15.1 15.1 14.3 11.7	23.1 22.0 16.7 13.4 10.9						
26.0 28.0 30.0	45.4 37.2 26.9	77.1 74.8 71.5	9.6 7.8 6.6	9.1 7.6 6.5						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
28.1 30.0 32.0	65.0 59.4 53.0	79.7 78.7 77.3	14.6 12.1	15.5 13.5 11.0						
34.0 36.0 38.0	46.0 37.9 27.8	75.6 73.3 70.1	9.8 8.0 6.8	9.3 7.8 6.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
41.1 42.0 44.0 46.0 48.0 49.0	55.0 52.1 44.9 36.7 26.2 18.8	74.0 73.4 71.6 69.2 65.9 63.5	11.7 9.5 7.9 6.7 6.2	10.1 9.6 8.6 7.7 6.7 6.1						



2821-1

2821-1

Nº de ident.: 9842523/95738/

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0	0 m Plum Cabeza 31.0	de plumí	oal, Punt n (2316- osición m	1) 53.5 r̀	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	0[°]			
12.0 13.0 14.0 16.0	78.0 76.1 74.2 70.3	92.5 92.2 92.0 91.3	15.1 15.1 15.1	30.1 30.1 30.0 24.6						
18.0 20.0 22.0 24.0 26.0	66.3 62.2 57.9 53.3 48.5	90.4 89.4 88.2 86.8 85.1	15.1 15.1 13.7 12.2 10.9	20.3 17.1 14.7 12.8 11.3						
28.0 30.0 32.0 34.0	43.2 37.3 30.4 21.6	83.1 80.7 77.7 73.6	9.5 8.3 7.4 6.7	10.0 8.9 8.0 7.2						
			Ángı		ıma prin	cipal 83.0	0[°]			
19.8 20.0	73.0 72.6	91.3 91.2	15.1	26.7 26.7						
22.0 24.0 26.0 28.0 30.0	68.7 64.6 60.4 56.0 51.4	90.5 89.6 88.5 87.2 85.7	15.1 15.1 14.9 13.6 12.6	22.6 18.8 16.1 13.8 12.2						
32.0 34.0 36.0 38.0	46.4 40.9 34.7 27.2	83.9 81.7 79.1 75.7	11.1 9.6 8.4 7.6	10.8 9.5 8.6 7.7						
			Ángı	ılo de plu	ıma prin	cipal 75.0	0[°]			
32.0 34.0 36.0 38.0 40.0 42.0	65.0 60.8 56.4 51.7 46.8 41.3	87.9 86.9 85.6 84.1 82.3 80.2	15.1 14.4 12.8 11.3 9.8	17.8 16.1 14.0 12.2 10.9 9.7						
44.0 46.0	35.2 27.8	77.6 74.3	8.6 7.8	8.7 7.9						
			Ángu	ılo de plu	ıma prin	cipal 65.0	0 [ ° ]			
46.3 48.0 50.0	55.0 51.1 46.0	81.4 80.2 78.3	7.2 6.5	7.0 6.4 5.7						
55.0 58.0	30.7 15.7	71.9 64.9	5.0 4.1	4.2 3.5						



N° de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0	de plumí		1) 56.5 r	n Plumín			
			Ángı	ılo de plu	uma prin	cipal 88.0	[°]C			
10.2	78.0	83.7	15.1	30.1						
11.0	75.7	83.5	15.1	30.1						
12.0	73.0	83.2	15.1	29.8						
13.0	70.2	82.8	15.1	27.4						
14.0	67.4	82.4	15.1	24.8						
16.0	61.6	81.4	15.1	19.1						
18.0	55.3	80.1	14.8	15.4						
20.0	48.6	78.4	14.2	12.8						
22.0	40.9	76.3	11.4	10.6						
24.0	31.7	73.6	9.3	9.0						
			Ángı	ılo de plu	uma prin	cipal 83.0	[°]C			
17.2	73.0	82.6		30.1						
18.0	70.8	82.4	15.1	29.1						
20.0	65.1	81.5	15.1	22.1						
22.0	59.1	80.4	15.1	17.5						
24.0	52.7	79.0	15.0	14.2						
26.0	45.6	77.2	13.1	11.9						
28.0	37.4	74.8	10.5	10.0						
30.0	27.1	71.6	8.7	8.5						
			Ángu	ılo de plu	uma prin	cipal 75.0	[°]			
28.2	65.0	79.7		19.0						
30.0	59.6	78.8	15.1	16.7						
32.0	53.2	77.4	13.7	14.4						
34.0	46.2	75.6	11.8	12.1						
36.0	38.1	73.3	9.7	10.2						
38.0	28.0	70.2	8.2	8.7						
			Ángu	ılo de plu	uma prin	cipal 65.0	[°]			
41.2	55.0	74.0		6.9						
42.0	52.3	73.4	8.0	6.4						
44.0	45.1	71.6	6.9	5.4						
46.0	36.9	69.2	5.9	4.5						
48.0	26.4	65.9	4.9	3.7						
49.0	19.0	63.5	4.5	3.3						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0	0 m Plum Cabeza 25.0	de plumí	oal, Punt ín (1916- osición m	1) 56.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.7 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 77.3 75.0 72.6 70.1 65.1 59.9 54.4	86.6 86.5 86.3 86.0 85.6 84.7 83.6 82.3	15.1 15.1 15.1 15.1 14.5 13.5	28.4 28.4 25.3 21.9 19.0 15.1 12.5 10.5						
22.0 24.0 26.0	48.4 41.7 34.0	80.6 78.6 75.9	9.3 7.9 6.7	9.0 7.7 6.7						
28.0	24.0	72.3	5.9	5.9						
			Ángı		ıma prin	cipal 83.0	D[°]			
18.0 20.0 22.0	73.0 68.1 63.0	85.5 84.8 83.8	15.1 14.2	20.5 17.2 13.9						
24.0 26.0 28.0 30.0 32.0	57.7 52.0 45.8 38.7 30.3	82.6 81.2 79.4 77.1 74.1	12.3 10.2 8.7 7.4 6.4	11.6 9.8 8.5 7.3 6.5						
			Ángı	ılo de plu	uma prin	cipal 75.0	1°10		•	
29.4 30.0 32.0 34.0 36.0 38.0 40.0	65.0 63.4 58.1 52.4 46.3 39.3 31.0	82.5 82.2 81.0 79.6 77.8 75.6 72.7	14.8 12.4 10.3 8.8 7.5 6.5	14.0 13.9 11.8 9.9 8.6 7.4 6.5						
40.0	01.0	14.1			ıma prin	cipal 65 (	1°10		1	
42.8 44.0 46.0 48.0	55.0 51.6 45.4 38.3	76.5 75.6 73.8 71.5	10.0 8.5 7.3	9.4 8.8 7.9 7.1	print					
50.0 52.0	29.7 17.5	68.5 63.9	6.4 5.6	6.4 5.7						



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

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

10.8 78 11.0 77 12.0 75 13.0 72 14.0 70 16.0 65 18.0 60 20.0 54 22.0 48 24.0 41 26.0 34	8.0 86.6	[t] .0 m Plun Cabeza	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
11.0 77 12.0 75 13.0 72 14.0 70 16.0 65 18.0 60 20.0 54 22.0 48 24.0 41 26.0 34	8.0 86.6	Cabeza	na princip	-					
11.0 77 12.0 75 13.0 72 14.0 70 16.0 65 18.0 60 20.0 54 22.0 48 24.0 41 26.0 34			de plumi 0 [ m ] Po	n (2316-	1) 59.5 n	n Plumín	dfall		
11.0 77 12.0 75 13.0 72 14.0 70 16.0 65 18.0 60 20.0 54 22.0 48 24.0 41 26.0 34		Ángı	ulo de plu	ıma prind	cipal 88.0	[°]C			
28.0 24	7.5 86.6 5.1 86.3 2.7 86.0 0.3 85.6 5.3 84.8 0.0 83.7 4.5 82.3 80.7 1.9 78.6 4.2 76.0 4.2 72.4	15.1 15.1 15.1 15.1 15.1 15.1 14.9 13.3 11.9 9.8 8.1 6.6	30.1 30.1 30.1 29.1 25.3 19.8 16.0 13.2 11.2 9.5 8.1 6.8						
		Ángı	ulo de plu	ıma prind	cipal 83.0	[°]C			
20.0 68 22.0 63 24.0 57 26.0 52 28.0 45	3.0 85.5 8.3 84.8 3.2 83.9 7.8 82.7 2.1 81.2 5.9 79.4 8.9 77.2	15.1 15.1 15.1 14.3 12.9 11.0 9.1	26.8 22.6 17.8 14.7 12.3 10.4 8.9						
	0.5 74.2	7.6	7.6						
		Ángı	ulo de plu	ıma prin	cipal 75.0	[°]			
30.0 63 32.0 58 34.0 52 36.0 46 38.0 39	5.0 82.5 3.6 82.2 8.3 81.1 2.6 79.6 6.4 77.8 9.5 75.6 1.2 72.7	15.1 15.1 13.1 11.2 9.3 7.9	17.5 16.9 14.8 12.4 10.6 9.0 7.8						
	,		ulo de plu	ıma prind	cipal 65 (	1°1			
42.9 55 44.0 51 46.0 45 48.0 38 50.0 29 52.0 17	5.0 76.5 1.8 75.7	6.6	5.9 5.4		- pa. 00.				



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

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

	ontrain [ t									
	Inserciór	า	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0	0 m Plum Cabeza 28.0	de plumí	'n (1916-	o de caro 1) 59.5 r nidfall (19	n Plumín	dfall 1		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.3 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0 26.0	78.0 76.6 74.5 72.4 68.0 63.4 58.7 53.7 48.3 42.5	89.5 89.4 89.1 88.8 88.0 87.1 85.9 84.5 82.9 80.8	15.1 15.1 15.1 14.8 12.4 10.5 8.6 7.3 6.3	26.2 26.2 22.6 20.0 15.9 13.0 10.9 9.2 7.9 6.8						
30.0	27.7	75.0	4.8	5.1						
					ıma prin	cipal 83.0	D[°]			
18.9 20.0 22.0 24.0 26.0 28.0 30.0 32.0 34.0	73.0 70.6 66.1 61.5 56.7 51.6 46.0 39.9	88.4 88.0 87.2 86.1 84.9 83.4 81.6 79.4 76.6	15.1 15.1 14.6 12.8 10.6 8.7 7.4 6.4	18.8 18.0 14.6 12.1 10.2 8.7 7.5 6.4 5.6						
36.0	23.6	72.9	4.8	4.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
30.7 32.0 34.0 36.0 38.0 40.0 42.0 44.0	65.0 61.9 57.1 52.0 46.5 40.4 33.3 24.4	85.2 84.5 83.3 81.8 80.0 77.9 75.2 71.5	14.0 13.4 11.0 9.0 7.7 6.6 5.7 5.0	12.8 12.3 10.3 8.8 7.6 6.6 5.8 5.1						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
44.6 46.0 48.0 50.0 55.0	55.0 51.3 45.7 39.5 16.4	78.9 77.9 76.1 73.8 64.4	8.8 7.5 6.5 4.7	8.5 7.9 7.1 6.4 4.7	•	•	•			



Nº de ident.: 9842523/95738/

Pieza de articulación de pluma principal:

2821-1

Radio de descarga:

360°

Cabeza de pluma principal:

2821-1

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

Alcance   Angu o de   Carga		Inserción 1 2 3 4 5 6 7 8									
Cabeza de plumín (2316-1) 62.5 m Plumín 28.0 [ m ] Posición midfall (2316)    11.4	ce	o de plumín	de rolda- nas			Carga [t]			Carga [t]		
11.4			59.0	Cabeza	de plumí	n (2316-	1) 62.5 r	n Plumín	dfall		
11.4				Ángı	ılo de plı	ıma prin	cipal 88	1°10			
12.0 76.7 89.4 15.1 30.1 15.1 27.5 14.0 72.5 88.8 15.1 24.2 16.0 68.1 88.0 15.0 18.9 18.0 63.6 87.1 13.9 15.2 2.7 22.0 58.8 86.0 12.3 12.7 22.0 58.8 84.6 10.1 10.6 24.0 48.5 82.9 8.4 9.0 26.0 42.6 80.9 7.2 7.7 28.0 35.9 78.4 6.1 6.5 30.0 27.9 75.1 5.2 5.5 5.5	11.4	78.0	89.5				l los	, ,			
14.0	12.0	76.7		15.1	30.1						
16.0											
18.0 63.6 87.1 13.9 15.2 20.0 58.8 86.0 12.3 12.7 22.0 53.8 84.6 10.1 10.6 24.0 48.5 82.9 8.4 9.0 26.0 42.6 80.9 7.2 7.7 28.0 35.9 78.4 6.1 6.5 30.0 27.9 75.1 5.2 5.5				-							
20.0 58.8 86.0 12.3 12.7 22.0 53.8 84.6 10.1 10.6 22.0 48.5 82.9 84.4 9.0 26.0 42.6 80.9 7.2 7.7 28.0 35.9 78.4 6.1 6.5 30.0 27.9 75.1 5.2 5.5 30.0 27.9 75.1 5.2 5.5 30.0 27.9 75.1 5.2 2.7 20.0 70.7 88.0 15.1 21.7 22.0 66.3 87.2 15.1 17.2 22.0 66.3 87.2 15.1 17.2 24.0 61.7 86.2 15.0 14.1 26.0 56.8 84.9 12.5 11.7 28.0 51.7 83.4 10.2 9.9 30.0 46.2 81.6 8.6 8.5 32.0 40.0 79.5 7.2 7.2 7.2 34.0 32.9 76.7 6.1 6.2 32.0 40.0 79.5 7.2 7.2 7.2 34.0 32.9 76.7 6.1 6.2 32.0 40.0 79.5 7.2 7.2 7.2 34.0 32.9 76.7 6.1 6.2 36.0 23.8 72.9 5.2 5.3 3 13.0 12.0 36.0 52.1 81.9 10.5 10.0 38.0 46.6 80.1 8.8 8.6 40.0 40.5 77.9 8.3 13.0 12.0 38.0 46.6 80.1 8.8 8.6 40.0 40.5 77.9 7.4 7.4 42.0 33.5 75.2 6.4 6.4 44.0 24.6 71.6 5.5 5.5 5.5 \$  Angulo de pluma principal 65.0 [°]  44.6 55.0 78.9 5.6 4.5 4.5 44.0 24.6 71.6 5.5 5.5 5.5											
22.0											
24.0											
26.0											
28.0 35.9 78.4 6.1 6.5 5.5    Angulo de pluma principal 83.0 [°]  18.9 73.0 88.4 22.7   20.0 70.7 88.0 15.1 21.7   22.0 66.3 87.2 15.1 17.2    24.0 61.7 86.2 15.0 14.1   26.0 56.8 84.9 12.5 11.7   28.0 51.7 83.4 10.2 9.9   30.0 46.2 81.6 8.6 8.5   32.0 40.0 79.5 7.2 7.2   34.0 32.9 76.7 6.1 6.2   36.0 23.8 72.9 5.2 5.3     Angulo de pluma principal 75.0 [°]  30.7 65.0 85.2   32.0 62.0 84.5 15.1 14.3   34.0 57.2 83.3 13.0 12.0   36.0 52.1 81.9 10.5 10.0   38.0 46.6 80.1 8.8 8.6   40.0 40.5 77.9 7.4 7.4   42.0 33.5 75.2 6.4 6.4 6.4   44.0 24.6 71.6 5.5 5.5    Angulo de pluma principal 65.0 [°]  44.6 55.0 78.9   Angulo de pluma principal 65.0 [°]											
30.0 27.9 75.1 5.2 5.5    Angulo de pluma principal 83.0 [°]  18.9 73.0 88.4 22.7   20.0 70.7 88.0 15.1 21.7   22.0 66.3 87.2 15.1 17.2   24.0 61.7 86.2 15.0 14.1   26.0 56.8 84.9 12.5 11.7   28.0 51.7 83.4 10.2 9.9   30.0 46.2 81.6 8.6 8.5   32.0 40.0 79.5 7.2 7.2 7.2   34.0 32.9 76.7 6.1 6.2   36.0 23.8 72.9 5.2 5.3    Angulo de pluma principal 75.0 [°]  30.7 65.0 85.2 15.1 14.3   34.0 57.2 83.3 13.0 12.0   36.0 52.1 81.9 10.5 10.0   38.0 46.6 80.1 8.8 8.6   40.0 40.5 77.9 7.4 7.4   42.0 33.5 75.2 6.4 6.4   44.0 24.6 71.6 5.5 5.5    Angulo de pluma principal 65.0 [°]  44.6 55.0 78.9   46.0 51.4 77.9 5.6 4.5   46.0 51.4 77.9 5.6 4.5   48.0 45.8 76.1 4.7 3.8   50.0 39.6 73.9 3.9 3.1											
18.9											
20.0 70.7 88.0 15.1 21.7 22.0 66.3 87.2 15.1 17.2 24.0 61.7 86.2 15.0 14.1 26.0 56.8 84.9 12.5 11.7 28.0 51.7 83.4 10.2 9.9 30.0 46.2 81.6 8.6 8.5 32.0 40.0 79.5 7.2 7.2 7.2 34.0 32.9 76.7 6.1 6.2 36.0 23.8 72.9 5.2 5.3				Ángı	ılo de plu	ıma prin	cipal 83.	[°]			
20.0 70.7 88.0 15.1 21.7 22.0 66.3 87.2 15.1 17.2 24.0 61.7 86.2 15.0 14.1 26.0 56.8 84.9 12.5 11.7 28.0 51.7 83.4 10.2 9.9 30.0 46.2 81.6 8.6 8.5 32.0 40.0 79.5 7.2 7.2 7.2 34.0 32.9 76.7 6.1 6.2 36.0 23.8 72.9 5.2 5.3	18.9	73.0	88.4		22.7						
24.0 61.7 86.2 15.0 14.1 26.0 56.8 84.9 12.5 11.7 28.0 56.8 84.9 12.5 11.7 28.0 51.7 83.4 10.2 9.9 30.0 46.2 81.6 8.6 8.5 32.0 40.0 79.5 7.2 7.2 34.0 32.9 76.7 6.1 6.2 36.0 23.8 72.9 5.2 5.3				15.1	i						
26.0	22.0	66.3	87.2	15.1	17.2						
28.0 51.7 83.4 10.2 9.9 30.0 46.2 81.6 8.6 8.5 32.0 40.0 79.5 7.2 7.2 34.0 32.9 76.7 6.1 6.2 36.0 23.8 72.9 5.2 5.3											
30.0											
32.0											
34.0 32.9 76.7 6.1 6.2 5.3    Angulo de pluma principal 75.0 [°]  30.7 65.0 85.2 15.0 15.0 14.3 13.0 12.0 15.0 15.1 14.3 15.0 15.2 15.1 14.3 15.0 15.0 15.0 15.0 15.0 15.0 15.0 15.0					i						
36.0 23.8 72.9 5.2 5.3 Ángulo de pluma principal 75.0 [°]  30.7 65.0 85.2 15.0 15.0 32.0 62.0 84.5 15.1 14.3 34.0 57.2 83.3 13.0 12.0 38.0 46.6 80.1 81.9 10.5 10.0 38.0 46.6 80.1 8.8 8.6 40.0 40.5 77.9 7.4 7.4 42.0 33.5 75.2 6.4 6.4 6.4 44.0 24.6 71.6 5.5 5.5 5.5  Ángulo de pluma principal 65.0 [°]  44.6 55.0 78.9 5.1 4.7 7.9 5.6 4.5 4.5 48.0 45.8 76.1 4.7 3.8 50.0 39.6 73.9 3.9 3.1											
Ángulo de pluma principal 75.0 [°]       30.7     65.0     85.2     15.0     15.0       32.0     62.0     84.5     15.1     14.3       34.0     57.2     83.3     13.0     12.0       36.0     52.1     81.9     10.5     10.0       38.0     46.6     80.1     8.8     8.6       40.0     40.5     77.9     7.4     7.4       42.0     33.5     75.2     6.4     6.4       44.0     24.6     71.6     5.5     5.5       Ángulo de pluma principal 65.0 [°]       44.6     55.0     78.9     5.1       46.0     51.4     77.9     5.6     4.5       48.0     45.8     76.1     4.7     3.8       50.0     39.6     73.9     3.9     3.1											
30.7 65.0 85.2 15.0 15.0 32.0 62.0 84.5 15.1 14.3 34.0 57.2 83.3 13.0 12.0 38.0 46.6 80.1 88.8 8.6 40.0 40.5 77.9 7.4 7.4 42.0 33.5 75.2 6.4 6.4 44.0 24.6 71.6 5.5 5.5 5.5						uma prin	cipal 75.	1°10	•		
32.0 62.0 84.5 15.1 14.3 34.0 57.2 83.3 13.0 12.0 36.0 52.1 81.9 10.5 10.0 38.0 46.6 80.1 8.8 8.6 40.0 40.5 77.9 7.4 7.4 42.0 33.5 75.2 6.4 6.4 44.0 24.6 71.6 5.5 5.5 5.5     Angulo de pluma principal 65.0 [°]  44.6 55.0 78.9 5.6 4.5 4.5 48.0 45.8 76.1 4.7 3.8 50.0 39.6 73.9 3.9 3.1	30.7	65.0	85.2			<u> </u>	<u> </u>				
34.0 57.2 83.3 13.0 12.0  36.0 52.1 81.9 10.5 10.0  38.0 46.6 80.1 8.8 8.6  40.0 40.5 77.9 7.4 7.4  42.0 33.5 75.2 6.4 6.4  44.0 24.6 71.6 5.5 5.5   Angulo de pluma principal 65.0 [°]   44.6 55.0 78.9 5.6 4.5  46.0 51.4 77.9 5.6 4.5  48.0 45.8 76.1 4.7 3.8  50.0 39.6 73.9 3.9 3.1				15.1							
38.0											
40.0 40.5 77.9 7.4 7.4 42.0 33.5 75.2 6.4 6.4 44.0 24.6 71.6 5.5 5.5 5.5											
42.0 33.5 75.2 6.4 6.4 6.4 44.0 24.6 71.6 5.5 5.5 5.5					i						
44.0 24.6 71.6 5.5 5.5											
Ángulo de pluma principal 65.0 [°]  44.6 55.0 78.9 5.1 46.0 51.4 77.9 5.6 4.5 48.0 45.8 76.1 4.7 3.8 50.0 39.6 73.9 3.9 3.1											
44.6     55.0     78.9     5.1       46.0     51.4     77.9     5.6     4.5       48.0     45.8     76.1     4.7     3.8       50.0     39.6     73.9     3.9     3.1	44.0	24.0	/1.6			ıma nrin	oinal 65 i	) [ ° ]		l	
46.0     51.4     77.9     5.6     4.5       48.0     45.8     76.1     4.7     3.8       50.0     39.6     73.9     3.9     3.1		55.0	70.0	Angt	<del></del>	ına pini	ыраі 00.і І	ν[]		1	
48.0     45.8     76.1     4.7     3.8       50.0     39.6     73.9     3.9     3.1				E 6							
50.0 39.6 73.9 3.9 3.1					i						
					l						
00.0   10.0   07.0   2.1	55.0	18.5	64.5	2.1							



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

Inserción 1 2 3 4								6	7	8
Alcan- ce [ m ]	Ángu- 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		ín (1916-	1) 62.5 r	n Plumín			
			Ángi	ılo de plu	ıma prin	cinal 88 (	1°10			
12.0	78.0	92.5	15.1	23.8			, ,			
13.0	76.0	92.2	15.1	23.0						
14.0	74.1	91.9	15.1	20.1						
16.0	70.2	91.2	15.1	16.1						
18.0	66.2	90.4	13.7	13.3						
20.0	62.1	89.4	11.8	11.2						
22.0 24.0	57.7 53.2	88.2 86.8	9.9 8.2	9.5 8.1						
26.0	48.3	85.1	7.0	7.0						
28.0	43.1	83.1	6.1	6.1						
30.0	37.2	80.7	5.2	5.3						
32.0	30.3	77.6	4.6	4.7						
34.0	21.4	73.5	4.1	4.1						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
19.8	73.0	91.2	15.1	17.1						
20.0	72.5	91.2	15.1	17.1						
22.0	68.6	90.4	15.1	14.8						
24.0	64.5	89.5	13.2	12.3						
26.0 28.0	60.3 55.9	88.5 87.2	11.1 9.2	10.5 8.9						
30.0	55.9 51.3	85.6	9.2 7.7	7.7						
32.0	46.2	83.8	6.7	6.7						
34.0	40.8	81.7	5.8	5.8						
36.0	34.5	79.0	5.0	5.1						
38.0	27.0	75.6	4.5	4.5						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
31.9	65.0	87.9		11.7						
32.0	64.8	87.9	11.2	11.7						
34.0	60.7	86.8	10.1	10.6						
36.0	56.3	85.6	8.5	9.1						
38.0 40.0	51.6 46.6	84.1 82.3	7.3 6.4	7.8 6.8						
40.0	41.2	82.3	5.5	5.9						
42.0 44.0	35.0	77.6	5.5 4.9	5.9						
46.0	27.7	74.2	4.3	4.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [ ° ]			
46.3	55.0	81.4		7.9		i i				
48.0	51.0	80.1	7.7	7.2						
50.0	45.9	78.3	6.7	6.5						
55.0	30.5	71.8	4.8	4.9						
58.0	15.6	64.8	4.0	4.1						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

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

	central [ t	-		52.6						
	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.	0 m Plum Cabeza 34.0	de plumí	ín (1916-	o de carç 1) 65.5 r nidfall (19	n Plumír	dfall 1		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
12.6 13.0 14.0 16.0 18.0	78.0 77.3 75.6 72.0 68.4	95.4 95.3 95.0 94.4 93.7	15.1 15.1 15.1 15.1 15.0	21.5 21.5 20.4 16.3 13.6						
20.0 22.0 24.0 26.0	64.7 60.9 56.9 52.8	92.8 91.7 90.5 89.0	12.2 10.2 8.5 7.2	11.4 9.8 8.3 7.1						
28.0 30.0 32.0 34.0 36.0	48.3 43.5 38.3 32.3 25.0	87.3 85.4 83.0 80.1 76.4	6.2 5.4 4.7 4.1 3.7	6.3 5.5 4.8 4.2 3.8						
			Ángı	ılo de plu	ıma prin	cipal 83.0	l°1C			
20.6	73.0 70.6	94.1	15.1	15.7 15.1						
24.0 26.0 28.0 30.0	66.9 63.2 59.3 55.3	92.8 91.9 90.7 89.4	13.8 11.2 9.5 8.0	12.7 10.6 9.2 7.9						
32.0 34.0 36.0	51.0 46.4 41.5	87.9 86.1 84.0	6.8 6.0 5.2	6.9 6.0 5.3						
38.0 40.0	35.9 29.5	81.4 78.3	4.5 4.0	4.6 4.1						
42.0	21.3	74.0	3.6	3.6						
	05.5	00.5	Angı		ıma prin	cipal 75.0	) [ ° ]	1	1	
33.2 34.0 36.0 38.0	65.0 63.5 59.6 55.6	90.6 90.2 89.1 87.8	11.0 9.5 8.1	10.6 10.6 9.3 8.0						
40.0 42.0 44.0	51.3 46.8 41.9	86.3 84.5 82.4	6.9 6.1 5.3	7.0 6.2 5.4						
46.0 48.0 50.0	36.4 30.0 22.0	79.9 76.8 72.7	4.6 4.1 3.7	4.7 4.2 3.8						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
48.0 50.0 55.0	55.0 50.7 38.5	83.8 82.4 77.2	6.9 4.9	7.1 6.4 4.9			- <del>-</del>			
60.0 61.0	20.7 16.4	68.3 65.3	3.7	3.7						



N° de ident.: 9842523/95738/

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

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

	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]
		59.0		de plumí	oal, Punt n (1916- osición m	1) 68.5 r	n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	D[°]			
13.2	78.0	98.3		21.0						
14.0	76.8	98.2	15.1	21.0						
16.0	73.5	97.6	15.1	17.4						
18.0	70.3	96.9	14.6	14.5						
20.0 22.0	66.9 63.5	96.1 95.1	13.3 11.0	12.4 10.6						
24.0	59.9	95.1	9.4	9.2						
26.0	56.3	92.7	8.0	8.0						
28.0	52.4	91.3	6.9	7.0						
30.0	48.3	89.6	6.1	6.2						
32.0	43.9	87.6	5.4	5.5						
34.0	39.2	85.3	4.7	4.8						
36.0	33.8	82.6	4.2	4.3						
38.0	27.6	79.2	3.8	3.9						
40.0	19.5	74.6	3.4	3.5						
			Angı	ılo de plu	ıma prin	cipal 83.0	D[°]			
21.5	73.0	97.0		15.4						
22.0	72.2	96.8	15.1	15.3						
24.0	68.9 65.5	96.1 95.2	14.3 12.3	13.5 11.6						
26.0 28.0	62.1	95.2	10.3	10.0						
30.0	58.5	93.0	8.9	8.7						
32.0	54.7	91.7	7.6	7.6						
34.0	50.8	90.1	6.6	6.7						
36.0	46.6	88.3	5.9	5.9						
38.0	42.1	86.2	5.2	5.3						
40.0	37.1	83.8	4.6	4.7						
42.0 44.0	31.4	80.8 77.0	4.1 3.7	4.2 3.8						
44.0	24.6	77.0								
					ıma prin	cipai /5.0	ונ"]			
34.5	65.0	93.3	10.8	10.5						
36.0	62.3	92.6	10.5	10.2						
38.0 40.0	58.7 55.0	91.4 90.1	8.9 7.7	8.9 7.8						
40.0	51.1	90.1 88.5	6.7	6.8						
44.0	46.9	86.8	6.0	6.1						
46.0	42.4	84.7	5.3	5.4						
48.0	37.5	82.3	4.7	4.8						
50.0	31.9	79.3	4.2	4.3						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
49.7	55.0	86.3		6.5						
50.0	54.5	86.2	7.1	6.4						
55.0	44.1	81.8	5.5	4.9						
60.0	31.1	75.2	4.2	3.7						
64.0	15.7	65.6	3.4							



N° de ident.: 9842523/95738/

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

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

ce	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga	Carga	Carga	Carga	Carga
					. ,	[t]	[t]	[t]	[t]	[t]
		59.0	0 m Plum Cabeza 40.0	de plumí	oal, Punt n (1916- osición m	1) 71.5 r	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
13.8	78.0	101.3		20.8						
14.0	77.8	101.2	15.1	20.8						
16.0	74.8	100.7	15.1 14.7	19.3 16.7						
18.0 20.0	71.8 68.7	100.1 99.3	14.7	14.4						
22.0	65.6	98.5	11.9	12.4						
24.0	62.4	97.5	10.2	10.8						
26.0	59.1	96.3	8.9	9.5						
28.0	55.7	95.0	7.8	8.4						
30.0	52.1	93.5	6.9	7.5						
32.0	48.3	91.8	6.3	6.8						
34.0 36.0	44.3 39.9	89.9 87.6	5.6 5.1	6.1 5.5						
38.0	35.1	85.0	4.6	5.0						
40.0	29.6	81.8	4.2	4.6						
42.0	22.9	77.7	3.9	4.2						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C			
22.4	73.0	99.8		16.4						
24.0	70.6	99.3	14.8	15.7						
26.0 28.0	67.5 64.3	98.5 97.6	13.6 11.8	13.5 11.7						
30.0	61.1	96.5	10.4	10.3						
32.0	57.7	95.3	9.1	9.1						
34.0	54.2	93.9	8.0	8.1						
36.0	50.6	92.4	7.1	7.3						
38.0	46.7	90.6	6.4	6.6						
40.0	42.5	88.5	5.7	5.9						
42.0 44.0	38.0 33.0	86.1 83.3	5.1 4.7	5.3 4.8						
46.0	27.1	79.8	4.7	4.4						
48.0	19.5	75.1	3.9	4.0						
			Ángı	ılo de plı	ıma prin	cipal 75.0	D[°]			
35.7	65.0	96.0		11.2						
36.0	64.6	96.0	11.5	11.2						
38.0	61.3	94.9	10.8	10.5						
40.0	58.0	93.7	9.3	9.3						
42.0 44.0	54.5 50.9	92.3 90.8	8.2 7.3	8.2 7.4						
46.0	47.0	90.8 89.0	6.5	6.7						
48.0	42.9	87.0	5.9	6.0						
50.0	38.4	84.6	5.3	5.4						
55.0	24.2	76.3	4.3	4.4						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
51.4	55.0	88.7		5.8						
55.0	48.4	86.0	5.6	4.8						
60.0	37.7	80.5 71.0	4.3	3.6						
65.0 67.0	23.2 15.1	71.9 66.0	3.2 2.8	2.6						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

360°

2821-1 Cabeza de pluma principal:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0	0 m Plum Cabeza 31.0	de plumi	oal, Punt ín (1916- osición m	1) 74.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
12.0 13.0 14.0 16.0	78.0 76.0 74.1 70.2	92.5 92.2 91.9 91.2	15.1 15.1 15.1 14.1	19.8 19.5 17.0 13.6						
20.0 22.0 24.0 26.0	66.2 62.1 57.7 53.2 48.3	90.4 89.4 88.2 86.8 85.1	9.3 7.5 6.1 5.1	11.0 8.9 7.4 6.1 5.2						
28.0 30.0 32.0	43.1 37.2 30.3	83.1 80.7 77.6	3.7 3.0 Ápqu	3.7 3.0	uma prin	cinal 83 (	) [ ° ]			
19.8	73.0	91.2	14.0	14.3	лна рин	lipai os.i	J[]			
20.0 22.0	72.5 68.6	91.2 90.4	14.0 12.0	14.3 12.3						
24.0 26.0 28.0 30.0 32.0	64.5 60.3 55.9 51.3 46.2	89.5 88.5 87.2 85.6 83.8	9.5 7.7 6.4 5.4 4.6	9.9 8.2 6.8 5.8 4.9						
34.0 36.0 38.0	40.8 34.5 27.0	81.7 79.0 75.6	3.9 3.4 2.9	4.2 3.6 3.1						
			Ángı		ıma prin	cipal 75.0	[°]			
31.9 32.0 34.0	65.0 64.8 60.7	87.9 87.9 86.8	9.6 8.6	9.3 9.3 8.4						
36.0 38.0 40.0 42.0	56.3 51.6 46.6 41.2	85.6 84.1 82.3 80.2	7.1 5.9 5.1 4.3	7.1 5.9 5.1 4.4						
44.0 46.0	35.0 27.7	77.6 74.2	3.7 3.2	3.8 3.3						
			Ángı		ıma prin	cipal 65.0	[°]			
46.3 48.0 50.0	55.0 51.0 45.9	81.4 80.1 78.3	5.9 5.0	5.7 5.0 4.3						
55.0 58.0	30.5 15.6	71.8 64.8	3.5 2.8	2.9 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]
		59.0		de plumí	oal, Punt ín (1916- osición m	1) 77.5 r	n Plumín	dfall		
			Ángı	ılo de plı	ıma prin	cipal 88.0	1°10			
12.6	78.0	95.4	15.1	17.7						
13.0 14.0 16.0	77.3 75.6 72.0	95.3 95.0 94.4	15.1 15.1 14.4	17.7 17.0 13.5						
18.0	68.4	93.7	11.9	11.1						
20.0 22.0 24.0 26.0	64.7 60.9 56.9 52.8	92.8 91.7 90.5 89.0	9.4 7.5 6.2 5.1	8.9 7.4 6.1 5.1						
28.0	48.3	87.3	4.3	4.4						
30.0 32.0 34.0	43.5 38.3 32.3	85.4 83.0 80.1	3.6 3.1 2.6	3.7 3.1 2.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
20.6	73.0	94.1		12.7						
22.0	70.6	93.7	13.6	12.3						
24.0 26.0	66.9 63.2	92.8 91.9	10.6 8.4	10.0 8.1						
28.0	59.3	90.7	6.9	6.9						
30.0	55.3	89.4	5.7	5.7						
32.0 34.0	51.0 46.4	87.9 86.1	4.8 4.1	4.9 4.2						
36.0	41.5	84.0	3.5	3.6						
38.0	35.9	81.4	3.0	3.0						
40.0	29.5	78.3	2.5	2.6						
22.2	05.0	00.0	Angı		ıma prin	cipal 75.0	֓֓֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓			
33.2 34.0	65.0 63.5	90.6 90.2	8.1	8.1 8.1						
36.0	59.6	89.1	7.1	7.0						
38.0	55.6	87.8	5.9	5.9						
40.0 42.0	51.3 46.8	86.3 84.5	5.0 4.3	5.0 4.3						
44.0	41.9	82.4	3.7	3.7						
46.0	36.4	79.9	3.1	3.2						
48.0 50.0	30.0 22.0	76.8 72.7	2.7 2.3	2.8 2.4						
30.0	_ <u>_</u>	14.1			ıma prin	cinal 65 f	) [ ° ]			
48.0	55.0	83.8	Angu	5.0	лна рпп 	upai 05.0	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	1	1	
50.0	55.0 50.7	83.8	5.0	4.3						
55.0	38.5	77.2	3.4	2.9						
60.0	21.8	68.3	2.3							
61.0	16.4	65.3	2.0	l	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 ]: 94.0 52.6 Lastre central [ t ]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0		de plumi	oal, Punt ín (1916- osición m	1) 80.5 n	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	1°1			
13.2	78.0	98.3	ΙŬ	18.0	<u>'</u>					
14.0	76.8	98.2	15.1	18.0						
16.0	73.5	97.6	15.0	15.3						
18.0	70.3	96.9	13.0	12.5						
20.0 22.0	66.9 63.5	96.1 95.1	11.1 8.9	10.4 8.6						
22.0 24.0	59.9	95.1	7.4	7.4						
26.0	56.3	92.7	6.3	6.3						
28.0	52.4	91.3	5.4	5.5						
30.0	48.3	89.6	4.7	4.7						
32.0	43.9	87.6	3.9	4.0						
34.0	39.2	85.3	3.1	3.3						
36.0	33.8	82.6	2.6	2.7						
			Angı	ılo de plı	ıma prin	cipal 83.0	) [°]			
21.5	73.0	97.0		13.1						
22.0	72.2	96.8	13.1	13.0						
24.0 26.0	68.9 65.5	96.1 95.2	11.8 9.9	11.3						
26.0 28.0	62.1	95.2 94.2	9.9 8.2	9.5 8.1						
30.0	58.5	93.0	7.0	7.0						
32.0	54.7	91.7	6.0	6.0						
34.0	50.8	90.1	5.2	5.3						
36.0	46.6	88.3	4.5	4.6						
38.0	42.1	86.2	3.9	4.0						
40.0	37.1	83.8	3.4	3.5						
42.0 44.0	31.4 24.6	80.8 77.0	2.9	3.0 2.5						
77.0	24.0	77.0			uma prin	cinal 75 (	) [ ° ]	1	<u> </u>	
24.5	65.0	02.2	8.5	8.6	,,,,a p,,,,,	ωμαι <i>1</i> 3.0	٠L ]			
34.5 36.0	65.0 62.3	93.3 92.6	8.5 8.4	8.6						
38.0	58.7	91.4	7.1	7.2						
40.0	55.0	90.1	6.2	6.2						
42.0	51.1	88.5	5.3	5.4						
44.0	46.9	86.8	4.7	4.8						
46.0	42.4	84.7	4.1	4.2						
48.0 50.0	37.5 31.9	82.3 79.3	3.6 3.2	3.7 3.3						
50.0	31.8	18.3			ıma ssiss	oinal GE (	) [ ° 1			
40.7	FF 0	06.0	Angl	<del>.</del>	uma prin	บเหลา ช่ว.( 	۱ ا ۱			
49.7 50.0	55.0 54.5	86.3 86.2	5.4	4.4 4.3						
55.0	44.1	81.8	3.7	2.9						
60.0	31.7	75.2	2.3							
61.0	28.5	73.4	2.0							



2821-1 2821-1

Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal: 360°

Cabeza de pluma principal:

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

Alcance		Inserciór	1	1	2	3	4	5	6	7	8
Cabeza de plumín (1916-1) 83.5 m Plumín 40.0 [ m ] Posición midfall (1916)  Angulo de pluma principal 88.0 [ ° ]  13.8 78.0 101.3 14.8 10.0 77.8 101.2 14.5 14.8 16.0 74.8 100.7 13.4 13.7 13.4 13.7 18.0 71.8 100.1 11.1 11.6 20.0 68.7 99.3 9.0 9.7 22.0 65.6 98.5 7.4 8.0 22.0 65.6 98.5 7.4 8.0 22.0 65.6 98.5 7.4 8.0 22.0 65.6 98.5 7.4 9.9 30.0 52.1 93.5 3.9 4.2 32.0 48.3 91.8 3.4 3.6 34.0 44.3 89.9 2.8 3.0 36.0 39.9 87.6 2.2 2.4 4.0 4.1 38.9 9.8 10.6 22.0 2.4 4.3 89.9 3.8 10.6 22.0 2.4 4.3 89.9 3.8 10.6 26.0 67.5 98.5 8.5 8.8 28.0 64.3 97.6 7.2 7.4 30.0 61.1 96.5 6.2 6.4 32.0 57.7 95.3 5.4 5.5 4.9 33.0 61.1 96.5 6.2 6.4 32.0 57.7 95.3 5.4 5.5 4.9 33.0 42.0 38.0 86.1 2.5 2.6 4.0 33.0 83.3 2.1 2.2 2.4 4.0 38.0 86.1 2.5 2.6 4.0 33.0 83.3 2.1 2.2 2.4 4.0 38.0 86.1 3.9 9.6 5.6 6.2 6.4 4.0 4.1 38.0 46.7 90.6 34.4 3.5 4.0 42.5 88.5 2.9 3.0 42.0 38.0 86.1 2.5 2.6 4.0 33.0 83.3 2.1 2.2 2.4 4.0 38.0 86.1 3.9 9.9 6.5 6.6 6.9 7.0 38.0 61.3 94.9 6.5 6.6 6.9 7.0 6.9	ce	o de plumín	de rolda- nas		Carga [t]	Carga [t]					
13.8			59.0	Cabeza	de plumi	ín (1916-	1) 83.5 r	n Plumín	dfall I		
14.0 77.8 101.2 14.5 14.8 16.0 74.8 100.7 13.4 13.7 18.0 71.8 100.1 11.1 11.6 20.0 68.7 99.3 9.0 9.7 22.0 65.6 98.5 7.4 8.0 24.0 62.4 97.5 62.2 6.7 26.0 59.1 96.3 5.3 5.7 28.0 55.7 95.0 4.5 4.9 3.0 30.0 52.1 93.5 3.9 4.2 32.0 44.3 89.9 2.8 3.0 36.0 39.9 87.6 2.2 2.4 2.4 73.0 99.8 10.6 22 2.4 73.0 99.8 7.6 2.2 2.4 73.0 99.8 10.6 22.0 2.4 73.0 99.8 10.6 22.0 2.4 73.0 99.8 10.6 22.0 67.5 98.5 8.8 28.0 64.3 97.6 7.2 7.4 30.0 61.1 96.5 6.2 6.4 4.7 33.0 99.3 5.4 5.5 33.0 33.0 57.7 95.3 5.4 5.5 33.0 33.0 33.0 57.7 95.3 5.4 5.5 33.0 33.0 33.0 33.0 33.0 33.0 33.0				Ángı	ılo de plı	ıma prin	cipal 88.0	) [°]			
16.0 74.8 100.7 13.4 13.7 18.0 71.8 100.7 11.1 11.6 11.6 20.0 68.7 99.3 9.0 9.7 22.0 65.6 98.5 7.4 8.0 62.4 97.5 6.2 6.7 6.2 6.7 26.0 59.1 96.3 5.3 5.7 28.0 55.7 95.0 4.5 4.9 30.0 52.1 93.5 3.9 4.2 32.0 48.3 91.8 3.4 3.6 34.0 44.3 89.9 2.8 3.0 36.0 39.9 87.6 2.2 2.4     ***Angulo de pluma principal 83.0 [°]**  22.4 73.0 99.8 11.0 22.4 73.0 99.8 10.6 22.0 2.4 2.4 2.3 2.0 2.4 2.3 2.4 2.3 2.4 2.3 2.4 2.3 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4 2.4	13.8	78.0	101.3								
18.0 71.8 100.1 11.1 11.6 20.0 68.7 99.3 9.0 9.7 99.7 22.0 68.6 98.5 7.4 8.0 22.0 65.6 98.5 7.4 8.0 28.0 55.7 95.0 4.5 4.9 30.0 52.1 93.5 3.9 4.2 32.0 48.3 91.8 3.4 3.6 34.0 44.3 88.9 2.8 3.0 36.0 39.9 87.6 2.2 2.4     **Angulo de pluma principal 83.0 [°]**  22.4 73.0 99.8 11.0 99.3 9.8 10.6 22.0 2.4 99.3 9.8 10.6 99.3 99.8 10.6 99.3 99.3 99.8 10.6 99.3 99.3 99.8 10.6 99.3 99.3 99.8 10.6 99.3 99.3 99.8 10.6 99.3 99.3 99.8 10.6 99.3 99.3 99.8 10.6 99.3 99.3 99.8 10.6 99.3 99.3 99.8 10.6 99.3 99.3 99.8 10.0 99.3 99.3 99.8 10.0 99.3 99.3 99.3 99.3 99.3 99.3 99.3 9	14.0	77.8	101.2	14.5	14.8						
20.0 68.7 99.3 9.0 9.7 22.0 65.6 98.5 7.4 8.0 24.0 62.4 97.5 6.2 6.7 26.0 59.1 96.3 5.3 5.7 28.0 55.7 95.0 4.5 4.9 30.0 52.1 93.5 3.9 4.2 32.0 48.3 91.8 3.4 3.6 34.0 44.3 89.9 2.8 3.0 36.0 39.9 87.6 2.2 2.4	16.0	74.8	100.7	13.4	13.7						
22.0 65.6 98.5 7.4 8.0 24.0 62.4 97.5 6.2 6.7 26.0 59.1 96.3 5.3 5.7 28.0 55.7 95.0 4.5 4.9 30.0 52.1 93.5 3.9 4.2 32.0 48.3 91.8 3.4 3.6 34.0 44.3 89.9 2.8 3.0 36.0 39.9 87.6 2.2 2.4 73.0 29.8 10.6 24.0 70.6 99.3 9.8 10.6 26.0 67.5 98.5 8.5 8.8 28.0 64.3 97.6 7.2 7.4 30.0 61.1 96.5 6.2 6.4 32.0 57.7 95.3 5.4 5.5 34.0 54.2 93.9 4.6 4.7 36.0 50.6 92.4 4.0 4.1 38.0 46.7 90.6 3.4 3.5 42.0 38.0 86.1 2.5 2.6 44.0 33.0 83.3 2.1 2.2 \$\$\$\$Angulo de pluma principal 75.0 [°]\$\$\$\$\$3.5 7 65.0 98.5 98.5 6.6 6.6 4.0 58.0 93.7 5.6 5.6 6.6 4.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.5 92.3 4.8 4.9 44.0 50.9 90.8 4.1 4.2 4.0 40.0 42.9 87.0 31.1 3.2 50.0 38.4 84.6 2.7 2.8 \$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$5.0 88.7 \$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$5.0 88.7 \$\$\$\$3.8 \$\$\$\$\$5.0 88.7 \$\$\$\$3.8 \$\$\$\$\$\$\$\$\$\$5.0 88.7 \$\$\$\$\$\$3.8 \$	18.0	71.8	100.1	11.1	11.6						
22.0 65.6 98.5 7.4 8.0 24.0 62.4 97.5 6.2 6.7 26.0 59.1 96.3 5.3 5.7 28.0 55.7 95.0 4.5 4.9 30.0 52.1 93.5 3.9 4.2 32.0 48.3 91.8 3.4 3.6 34.0 44.3 89.9 2.8 3.0 36.0 39.9 87.6 2.2 2.4 73.0 29.8 10.6 24.0 70.6 99.3 9.8 10.6 26.0 67.5 98.5 8.5 8.8 28.0 64.3 97.6 7.2 7.4 30.0 61.1 96.5 6.2 6.4 32.0 57.7 95.3 5.4 5.5 34.0 54.2 93.9 4.6 4.7 36.0 50.6 92.4 4.0 4.1 38.0 46.7 90.6 3.4 3.5 42.0 38.0 86.1 2.5 2.6 44.0 33.0 83.3 2.1 2.2 \$\$\$\$Angulo de pluma principal 75.0 [°]\$\$\$\$\$3.5 7 65.0 98.5 98.5 6.6 6.6 4.0 58.0 93.7 5.6 5.6 6.6 4.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.0 58.0 93.7 5.6 5.6 5.6 42.0 54.5 92.3 4.8 4.9 44.0 50.9 90.8 4.1 4.2 4.0 40.0 42.9 87.0 31.1 3.2 50.0 38.4 84.6 2.7 2.8 \$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$5.0 88.7 \$\$\$\$Angulo de pluma principal 65.0 [°]\$\$\$\$5.0 88.7 \$\$\$\$3.8 \$\$\$\$\$5.0 88.7 \$\$\$\$3.8 \$\$\$\$\$\$\$\$\$\$5.0 88.7 \$\$\$\$\$\$3.8 \$	20.0	68.7	99.3	9.0	9.7						
26.0		65.6	98.5	7.4							
28.0   55.7   95.0   4.5   4.9   3.0   3.9   4.2   3.0   3.9   4.2   3.0   3.9   3.4   3.6   3.0   3.9   3.6   3.9   3.6   3.9   3.6   3.0   3.0   3.9   3.6   3.0   3.0   3.0   3.0   3.9   3.6   3.0	24.0	62.4	97.5	6.2	6.7						
30.0	26.0	59.1	96.3	5.3	5.7						
32.0	28.0	55.7	95.0	4.5	4.9						
34.0	30.0	52.1	93.5	3.9	4.2						
Ángulo de pluma principal 83.0 [°]       22.4     73.0     99.8     11.0       24.0     70.6     99.3     9.8     10.6       26.0     67.5     98.5     8.5     8.8       28.0     64.3     97.6     7.2     7.4       30.0     61.1     96.5     6.2     6.4       32.0     57.7     95.3     5.4     5.5       34.0     54.2     93.9     4.6     4.7       38.0     46.7     90.6     3.4     3.5       40.0     42.5     88.5     2.9     3.0       42.0     38.0     86.1     2.5     2.6       44.0     33.0     83.3     2.1     2.2       Ángulo de pluma principal 75.0 [°]       35.7     65.0     96.0     6.9     7.0       38.0     61.3     94.9     6.5     6.6       40.0     58.0     93.7     5.6     5.6       42.0     54.5     92.3     4.8     4.9       44.0     50.9     90.8     4.1     4.2       46.0     47.0     89.0     3.6     3.7       48.0     42.9     87.0     3.1     3.2       50.0 <t< td=""><td>32.0</td><td>48.3</td><td>91.8</td><td>3.4</td><td>3.6</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	32.0	48.3	91.8	3.4	3.6						
Ángulo de pluma principal 83.0 [°]         22.4       73.0       99.8       11.0         24.0       70.6       99.3       9.8       10.6         26.0       67.5       98.5       8.5       8.8         28.0       64.3       97.6       7.2       7.4         30.0       61.1       96.5       6.2       6.4         32.0       57.7       95.3       5.4       5.5         34.0       54.2       93.9       4.6       4.7         38.0       46.7       90.6       3.4       3.5         40.0       42.5       88.5       2.9       3.0         42.0       38.0       86.1       2.5       2.6         44.0       33.0       83.3       2.1       2.2      Angulo de pluma principal 75.0 [°]   35.7     65.0       96.0       96.0       96.9       7.0       36.0       64.6       96.0       6.9       7.0       36.0       64.6       96.0       6.9       7.0       36.0       64.6       96.0       6.5       6.6       40.0       58.0       93.7       5.6       5.6       5.6       42.0       54.5       92.3       4.8       4.9 <t< td=""><td>34.0</td><td>44.3</td><td>89.9</td><td>2.8</td><td>3.0</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	34.0	44.3	89.9	2.8	3.0						
22.4	36.0	39.9	87.6	2.2	2.4						
24.0 70.6 99.3 9.8 10.6  26.0 67.5 98.5 8.5 8.8  28.0 64.3 97.6 7.2 7.4  30.0 61.1 96.5 6.2 6.4  32.0 57.7 95.3 5.4 5.5  34.0 54.2 93.9 4.6 4.7  36.0 50.6 92.4 4.0 4.1  38.0 46.7 90.6 3.4 3.5  40.0 42.5 88.5 2.9 3.0  42.0 38.0 86.1 2.5 2.6  44.0 33.0 83.3 2.1 2.2   Angulo de pluma principal 75.0 [°]  35.7 65.0 96.0 6.9 7.0  36.0 64.6 96.0 6.9 7.0  38.0 61.3 94.9 6.5 6.6  40.0 58.0 93.7 5.6 5.6  42.0 54.5 92.3 4.8 4.9  44.0 50.9 90.8 4.1 4.2  46.0 47.0 89.0 3.6 3.7  48.0 42.9 87.0 3.1 3.2  50.0 38.4 84.6 2.7 2.8   Angulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8  55.0 48.4 86.0 3.5 2.8				Ángı	ılo de plı	ıma prin	cipal 83.0	[°]			
24.0 70.6 99.3 9.8 10.6  26.0 67.5 98.5 8.5 8.8  28.0 64.3 97.6 7.2 7.4  30.0 61.1 96.5 6.2 6.4  32.0 57.7 95.3 5.4 5.5  34.0 54.2 93.9 4.6 4.7  36.0 50.6 92.4 4.0 4.1  38.0 46.7 90.6 3.4 3.5  40.0 42.5 88.5 2.9 3.0  42.0 38.0 86.1 2.5 2.6  44.0 33.0 83.3 2.1 2.2   Angulo de pluma principal 75.0 [°]  35.7 65.0 96.0 6.9 7.0  36.0 64.6 96.0 6.9 7.0  38.0 61.3 94.9 6.5 6.6  40.0 58.0 93.7 5.6 5.6  42.0 54.5 92.3 4.8 4.9  44.0 50.9 90.8 4.1 4.2  46.0 47.0 89.0 3.6 3.7  48.0 42.9 87.0 3.1 3.2  50.0 38.4 84.6 2.7 2.8   Angulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8  55.0 48.4 86.0 3.5 2.8	22.4	73.0	99.8	_	11.0						
28.0 64.3 97.6 7.2 7.4 30.0 61.1 96.5 6.2 6.4 32.0 57.7 95.3 5.4 5.5 34.0 54.2 93.9 4.6 4.7 36.0 50.6 92.4 4.0 4.1 38.0 46.7 90.6 3.4 3.5 40.0 42.5 88.5 2.9 3.0 42.0 38.0 86.1 2.5 2.6 44.0 33.0 83.3 2.1 2.2   Angulo de pluma principal 75.0 [°]  35.7 65.0 96.0 7.0 36.0 64.6 96.0 6.9 7.0 38.0 61.3 94.9 6.5 6.6 40.0 58.0 93.7 5.6 5.6 42.0 54.5 92.3 4.8 4.9 44.0 50.9 90.8 4.1 4.2 44.0 50.9 90.8 4.1 4.2 44.0 50.9 90.8 4.1 4.2 46.0 47.0 89.0 3.6 3.7 48.0 42.9 87.0 3.1 3.2 50.0 38.4 84.6 2.7 2.8   Angulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8  55.0 48.4 86.0 3.5 2.8	24.0	70.6	99.3	9.8	10.6						
30.0 61.1 96.5 6.2 6.4 32.0 57.7 95.3 5.4 5.5 34.0 54.2 93.9 4.6 4.7 36.0 50.6 92.4 4.0 4.1 38.0 46.7 90.6 3.4 3.5 40.0 42.5 88.5 2.9 3.0 42.0 38.0 86.1 2.5 2.6 44.0 33.0 83.3 2.1 2.2 \$\$\$ Angulo de pluma principal 75.0 [ ° ]\$\$\$ 35.7 65.0 96.0 6.9 7.0 38.0 64.6 96.0 6.9 7.0 38.0 64.6 96.0 6.9 7.0 38.0 93.7 5.6 6.6 40.0 58.0 93.7 5.6 5.6 42.0 54.5 92.3 4.8 4.9 44.0 50.9 90.8 4.1 4.2 44.0 50.9 90.8 4.1 4.2 44.0 50.9 90.8 4.1 4.2 44.0 50.9 90.8 4.1 4.2 44.0 50.9 38.4 84.6 2.7 2.8 \$\$\$\$\$Angulo de pluma principal 65.0 [ ° ]\$\$\$\$\$\$ \$	26.0	67.5	98.5	8.5	8.8						
32.0 57.7 95.3 5.4 5.5 34.0 54.2 93.9 4.6 4.7 33.0 54.2 93.9 4.6 4.7 35.0 46.7 90.6 3.4 3.5 40.0 42.5 88.5 2.9 3.0 42.0 38.0 86.1 2.5 2.6 44.0 33.0 83.3 2.1 2.2 \$\$\$\$ Angulo de pluma principal 75.0 [°]\$\$\$\$\$ \$\$\$\$ \$\$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$	28.0	64.3	97.6	7.2	7.4						
34.0 54.2 93.9 4.6 4.7 36.0 50.6 92.4 4.0 4.1 38.0 46.7 90.6 3.4 3.5 40.0 42.5 88.5 2.9 3.0 42.0 38.0 86.1 2.5 2.6 44.0 33.0 83.3 2.1 2.2	30.0	61.1	96.5	6.2	6.4						
36.0	32.0	57.7	95.3	5.4	5.5						
38.0	34.0	54.2	93.9	4.6	4.7						
40.0 42.5 88.5 2.9 3.0 42.0 38.0 86.1 2.5 2.6 44.0 33.0 83.3 2.1 2.2	36.0	50.6	92.4	4.0	4.1						
42.0 38.0 86.1 2.5 2.6 44.0 33.0 88.3 2.1 2.2 Angulo de pluma principal 75.0 [°]  35.7 65.0 96.0 7.0 36.0 64.6 96.0 6.9 7.0 38.0 61.3 94.9 6.5 6.6 40.0 58.0 93.7 5.6 5.6 42.0 54.5 92.3 4.8 4.9 44.0 50.9 90.8 4.1 4.2 44.0 50.9 90.8 4.1 4.2 46.0 47.0 89.0 3.6 3.7 48.0 42.9 87.0 3.1 3.2 50.0 38.4 84.6 2.7 2.8 Angulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8 Angulo de pluma principal 65.0 [°]	38.0	46.7	90.6	3.4	3.5						
44.0     33.0     83.3     2.1     2.2       Ángulo de pluma principal 75.0 [°]       35.7     65.0     96.0     7.0       36.0     64.6     96.0     6.9     7.0       38.0     61.3     94.9     6.5     6.6       40.0     58.0     93.7     5.6     5.6       42.0     54.5     92.3     4.8     4.9       44.0     50.9     90.8     4.1     4.2       46.0     47.0     89.0     3.6     3.7       48.0     42.9     87.0     3.1     3.2       50.0     38.4     84.6     2.7     2.8       Ángulo de pluma principal 65.0 [°]       51.4     55.0     88.7     3.8       55.0     48.4     86.0     3.5     2.8	40.0	42.5	88.5	2.9	3.0						
Ángulo de pluma principal 75.0 [°]  35.7   65.0   96.0   7.0   7.0   36.0   64.6   96.0   6.9   7.0   38.0   61.3   94.9   6.5   6.6   40.0   58.0   93.7   5.6   5.6   42.0   54.5   92.3   4.8   4.9   44.0   50.9   90.8   4.1   4.2   46.0   47.0   89.0   3.6   3.7   48.0   42.9   87.0   3.1   3.2   50.0   38.4   84.6   2.7   2.8    Ángulo de pluma principal 65.0 [°]  51.4   55.0   88.7   3.8     55.0			86.1								
35.7 65.0 96.0 7.0 36.0 64.6 96.0 6.9 7.0 38.0 61.3 94.9 6.5 6.6 40.0 58.0 93.7 5.6 5.6 42.0 54.5 92.3 4.8 4.9 44.0 50.9 90.8 4.1 4.2 44.0 47.0 89.0 3.6 3.7 48.0 42.9 87.0 3.1 3.2 50.0 38.4 84.6 2.7 2.8   Angulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8 55.0 48.4 86.0 3.5 2.8	44.0	33.0	83.3	2.1	2.2						
36.0 64.6 96.0 6.9 7.0 38.0 61.3 94.9 6.5 6.6 40.0 58.0 93.7 5.6 5.6 42.0 54.5 92.3 4.8 4.9 44.0 50.9 90.8 4.1 4.2 46.0 47.0 89.0 3.6 3.7 48.0 42.9 87.0 3.1 3.2 50.0 38.4 84.6 2.7 2.8 Angulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8 55.0 48.4 86.0 3.5 2.8				Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
38.0 61.3 94.9 6.5 6.6 40.0 58.0 93.7 5.6 5.6 42.0 54.5 92.3 4.8 4.9 44.0 50.9 90.8 4.1 4.2 46.0 47.0 89.0 3.6 3.7 48.0 42.9 87.0 3.1 3.2 50.0 38.4 84.6 2.7 2.8 Angulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8 55.0 48.4 86.0 3.5 2.8	35.7	65.0	96.0		7.0						
38.0 61.3 94.9 6.5 6.6 40.0 58.0 93.7 5.6 5.6 42.0 54.5 92.3 4.8 4.9 44.0 50.9 90.8 4.1 4.2 46.0 47.0 89.0 3.6 3.7 48.0 42.9 87.0 3.1 3.2 50.0 38.4 84.6 2.7 2.8 Angulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8 55.0 48.4 86.0 3.5 2.8				6.9							
40.0 58.0 93.7 5.6 5.6 42.0 54.5 92.3 4.8 4.9 4.9 44.0 50.9 90.8 4.1 4.2 46.0 47.0 89.0 3.6 3.7 48.0 42.9 87.0 3.1 3.2 50.0 38.4 84.6 2.7 2.8 Ángulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8 55.0 48.4 86.0 3.5 2.8					-						
44.0     50.9     90.8     4.1     4.2       46.0     47.0     89.0     3.6     3.7       48.0     42.9     87.0     3.1     3.2       50.0     38.4     84.6     2.7     2.8       Ángulo de pluma principal 65.0 [°]       51.4     55.0     88.7     3.8       55.0     48.4     86.0     3.5     2.8		58.0		5.6	5.6						
44.0     50.9     90.8     4.1     4.2       46.0     47.0     89.0     3.6     3.7       48.0     42.9     87.0     3.1     3.2       50.0     38.4     84.6     2.7     2.8       Ángulo de pluma principal 65.0 [°]       51.4     55.0     88.7     3.8       55.0     48.4     86.0     3.5     2.8	42.0	54.5	92.3	4.8	4.9						
48.0 42.9 87.0 3.1 3.2 50.0 38.4 84.6 2.7 2.8 Angulo de pluma principal 65.0 [°]  51.4 55.0 88.7 3.8 55.0 48.4 86.0 3.5 2.8		50.9	90.8	4.1	4.2						
50.0     38.4     84.6     2.7     2.8       Ángulo de pluma principal 65.0 [°]       51.4     55.0     88.7     3.8                 55.0     48.4     86.0     3.5     2.8	46.0	47.0	89.0	3.6	3.7						
Ángulo de pluma principal 65.0 [°]       51.4     55.0     88.7     3.8	48.0	42.9	87.0	3.1	3.2						
51.4     55.0     88.7     3.8       55.0     48.4     86.0     3.5     2.8	50.0	38.4	84.6	2.7	2.8						
55.0 48.4 86.0 3.5 2.8				Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
55.0 48.4 86.0 3.5 2.8	51.4	55.0	88.7		3.8						
				3.5							
	60.0	38.2	80.5	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 ]: 94.0 52.6 Lastre central [ t ]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0	0 m Plum Cabeza 43.0	de plumi		1) 86.5 r	n Plumín			
			Ángı	ılo de plı	uma prin	cipal 88.0	] (°)			
14.5 16.0 18.0 20.0 22.0 24.0 26.0 28.0 30.0	78.0 75.9 73.1 70.3 67.4 64.5 61.5 58.4 55.2	104.2 103.8 103.2 102.6 101.8 100.8 99.8 98.6 97.3	13.5 13.2 10.4 8.3 6.9 5.7 4.8 4.1 3.5	13.9 13.5 11.0 8.9 7.5 6.2 5.2 4.4 3.7						
32.0	51.8	95.8	2.9	3.2						
34.0	48.3	94.0	2.5	2.7						
					ıma prin	cipal 83.0	0[°]			
23.3 24.0 26.0 28.0	73.0 72.0 69.1 66.2	102.7 102.5 101.8 100.9	9.4 9.4 8.0 6.8	9.3 9.3 8.0 6.9						
30.0 32.0 34.0 36.0 38.0	63.3 60.2 57.1 53.8 50.4	99.9 98.8 97.6 96.2 94.6	5.6 4.8 4.1 3.5 3.0	5.8 5.0 4.2 3.6 3.1						
40.0 42.0	46.8 43.0	92.8 90.8	2.5 2.1	2.6 2.2						
72.0	10.0	00.0			ıma prin	rinal 75 (	1 ° 1			1
37.0	65.0	98.8	Ailgi	5.8	ama pilii		, j			
38.0 40.0	63.5 60.5	98.3 97.2	5.6 5.0	5.7 5.1						
42.0 44.0 46.0 48.0 50.0	57.3 54.1 50.7 47.1 43.3	96.0 94.6 93.0 91.2 89.2	4.3 3.6 3.1 2.7 2.3	4.4 3.7 3.2 2.8 2.4						
			Ángu	ılo de plı	uma prin	cipal 65.0	] [°]			
53.2 55.0 60.0	55.0 51.9 43.0	91.2 89.9 85.2	3.3	3.3 2.8						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0	0 m Plum Cabeza 46.0	de plumí	n (1916-	o de caro 1) 89.5 r nidfall (19	n Plumín	dfall 1		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
15.1 16.0 18.0 20.0	78.0 76.8 74.3 71.6	107.1 106.9 106.4 105.7	12.3 12.3 10.9 9.0	12.8 12.8 10.7 8.8						
22.0 24.0 26.0 28.0	69.0 66.3 63.5 60.7	105.0 104.2 103.2 102.1	7.3 6.0 5.0 4.2	7.3 6.1 5.1 4.4						
30.0 32.0 34.0	57.7 54.7 51.6	100.9 99.5 98.0	3.6 3.0 2.6	3.7 3.1 2.7						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C			
24.1 26.0 28.0 30.0	73.0 70.6 67.9 65.2	105.6 105.0 104.2 103.3	7.9 6.6 5.6	8.4 8.0 6.7 5.7						
32.0 34.0 36.0 38.0 40.0	62.4 59.5 56.5 53.5 50.3	102.3 101.1 99.9 98.4 96.8	4.7 4.1 3.5 2.9 2.5	4.9 4.2 3.5 3.0 2.6						
					ıma prin	cipal 75.0	1°10			
38.3 40.0 42.0 44.0 46.0	65.0 62.6 59.7 56.8 53.7	101.5 100.6 99.5 98.3 96.8 95.3	5.0 4.9 4.1 3.6 3.0	5.1 5.0 4.2 3.7 3.1		3.pai 70.	- [ ]			
50.0	47.2	93.5	2.0	2.7						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
54.9 55.0 59.0	55.0 54.8 48.6	93.7 93.7 90.4	2.9 2.2	2.7 2.7						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.	0 m Plum Cabeza 49.0	de plumí	ín (1916-		n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
15.7 16.0 18.0 20.0 22.0 24.0 26.0	78.0 77.7 75.2 72.8 70.3 67.8 65.3	110.1 110.0 109.5 108.9 108.2 107.4 106.5	9.7 9.1 8.1 6.8 5.8 4.8	10.8 10.8 10.1 8.7 7.1 6.0 5.0						
28.0 30.0 32.0 34.0	62.6 60.0 57.2 54.3	105.5 104.4 103.2 101.8	4.1 3.4 2.9 2.4	4.2 3.6 3.0 2.5						
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]			
25.0 26.0 28.0 30.0 32.0 34.0 36.0 38.0 40.0	73.0 71.8 69.3 66.8 64.2 61.6 58.8 56.0 53.1	108.5 108.2 107.4 106.6 105.7 104.6 103.4 102.1	7.2 6.4 5.5 4.6 3.9 3.3 2.8 2.4	7.4 7.4 6.5 5.6 4.7 4.0 3.5 2.9 2.4						
40.0	53.1	100.7			ıma prin	cipal 75.0	) [ ° ]			
39.5 40.0 42.0 44.0 46.0 48.0	65.0 64.4 61.8 59.0 56.3	104.2 104.0 103.0 101.8 100.5	4.3 4.0 3.4 2.9	4.4 4.4 4.2 3.5 3.0 2.5	лпа рпп	ыраг <i>1</i> 5.	7 [ ]			
					uma prin	cipal 65.0	[°]			
56.6 59.0	55.0 51.7	96.1 94.4	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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		59.0	) m Plum Cabeza 52.0	de plumí	'n (1916-	o de carç 1) 95.5 r nidfall (19	n Plumín	dfall I		
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
16.3 18.0 20.0 22.0 24.0 26.0 28.0 30.0 32.0	78.0 76.1 73.8 71.5 69.2 66.8 64.3 61.9 59.3	113.0 112.6 112.1 111.4 110.7 109.8 108.9 107.9 106.7	7.5 6.6 5.7 5.0 4.3 3.5 2.9 2.5	8.7 8.5 7.5 6.3 5.3 4.4 3.6 3.1 2.5						
			Angı		ıma prin	cipal 83.0	0[°]			
25.9 26.0 28.0 30.0 32.0 34.0 36.0 38.0	73.0 72.9 70.6 68.2 65.8 63.3 60.8 58.3	111.3 111.3 110.6 109.9 109.0 108.0 106.9 105.7	5.6 5.4 4.7 4.0 3.4 2.8 2.3	6.2 6.2 5.9 4.9 4.1 3.4 2.9 2.4						
			Ángu	ılo de plu	ıma prin	cipal 75.0	[°]			
40.8 42.0 44.0 46.0 48.0	65.0 63.5 61.0 58.5 55.8	106.9 106.4 105.3 104.1 102.8	3.3 2.9 2.4 2.0	3.4 3.4 3.0 2.5 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 13.0	de plumí		1) 32.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
8.3 9.0 10.0 11.0 12.0 14.0 16.0 14.9 16.0 18.0 20.0	78.0 74.9 70.3 65.4 60.4 55.0 49.2 35.3 73.0 67.6 57.4 45.7	77.9 77.7 77.3 76.9 76.3 75.6 74.8 72.5 77.0 76.6 75.4 73.7	15.1 15.1 15.1 14.5 12.1 10.4 7.4 Ángu 15.1 15.1 13.1 9.4	24.0 18.2 11.9 8.7	uma prind	cipal 83.	D [°]			
22.0	30.4	71.1	6.9 Ápgu	6.7	l uma prin	oinal 75 (	) [ ° ]			
25.1 26.0 28.0 30.0	65.0 60.4 49.2 35.3	74.5 74.0 72.5 70.2	14.6 10.2 7.4	15.1 13.1 9.3 7.1	лна рин	ыраі <i>1</i> 3.0				
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
37.2 38.0 40.0	55.0 50.5 37.1	69.3 68.8 66.6	10.5 7.5	10.5 9.6 7.2	-		. =			
			Ángı	ılo de plu	ıma prin	cipal 45.0	[°]			
57.9 59.0	35.0 24.4	53.2 51.5	2.7	2.5 2.2						



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 ]: 94.0 52.6 Lastre central [ t ]:

Inserción			1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
62.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 35.5 m Plumín 16.0 [ m ] Posición midfall (1916)										
Ángulo de pluma principal 88.0 [ ° ]										
9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 74.1 70.3 66.4 62.4 58.2 49.0 38.1	80.8 80.5 80.1 79.7 79.2 78.6 77.0 74.8	15.1 15.1 15.1 15.1 15.1 13.6 10.6 8.2	30.1 28.2 21.8 17.8 14.9 12.9 10.0 8.0						
16.0	30.1	74.0			ıma prin	oinal 92 (	) [ ° ]			
15.7	73.0	79.9	Angu	24.2	лпа рпп	cipal 83.	) ]	l	l	
16.0 18.0 20.0 22.0 24.0	73.0 72.0 64.2 55.7 46.2 34.6	79.9 79.8 78.9 77.7 76.0 73.5	15.1 15.1 12.6 9.8 7.6	24.2 24.1 15.9 11.8 9.3 7.6						
			Ángı	ılo de plu	ıma prin	cipal 75.0	1°10			
26.4	65.0	77.2	15.1	15.7	- 1					
28.0 30.0 32.0	58.2 49.0 38.2	76.3 74.7 72.5	14.1 10.4 8.1	12.8 9.9 7.9						
Ángulo de pluma principal 65.0 [ ° ]										
38.9 40.0 42.0 44.0	55.0 50.1 39.5 25.1	71.8 71.0 68.9 65.7	10.6 8.2 6.8	11.1 10.0 8.0 6.7						
	Ángulo de pluma principal 45.0 [ ° ]									

2.2

60.6

35.0

54.9



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

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

Inserción			1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
62.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 38.5 m Plumín 16.0 [ m ] Posición midfall (2316)										
Ángulo de pluma principal 88.0 [ ° ]										
9.0 10.0 11.0 12.0 13.0 14.0 16.0 18.0	78.0 74.3 70.5 66.6 62.6 58.4 49.2 38.4	80.8 80.5 80.2 79.7 79.2 78.6 77.1 74.9	15.1 15.1 15.1 15.1 15.1 14.9 11.8 Ángu	30.1 30.1 29.6 25.5 21.1 18.0 13.8 11.0 Ilo de plu	uma prino	cipal 83.0	D [°]			
16.0 18.0 20.0 22.0 24.0	72.2 64.4 56.0 46.5 34.9	79.8 79.0 77.7 76.0 73.6	15.1 15.1 15.1 13.7 11.0	30.1 22.6 16.5 12.9 10.4						
Ángulo de pluma principal 75.0 [ ° ]										
26.4 28.0 30.0 32.0	65.0 58.4 49.3 38.4	77.2 76.3 74.8 72.6	15.1 14.3 11.0	21.8 17.7 13.6 10.8						
39.0 40.0 42.0 44.0 45.0	55.0 50.3 39.7 25.4 17.1	71.8 71.1 69.0 65.8 63.0	11.5 10.4 9.0 8.1	10.5 9.9 8.7 7.6	uma prind	cipal 65.	0[°]			



Nº de ident.: 9842523/95738/

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

2821-1

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

Inserción			1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
62.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 38.5 m Plumín 19.0 [ m ] Posición midfall (1916)										
			Ángı	ılo de plu	ıma prin	cipal 88.	0 [°]			
9.6 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 76.7 73.6 70.4 67.1 63.7 56.6 48.9 39.9 28.6	83.7 83.6 83.3 83.0 82.6 82.1 80.8 79.3 77.1 74.1	15.1 15.1 15.1 15.1 15.1 15.1 13.0 10.6 8.6 7.2 Ángu	30.1 30.1 26.5 21.8 18.6 16.0 12.6 10.3 8.5 7.3 ulo de plu 23.7 19.7	uma prin	cipal 83.	0[°]			
22.0 24.0	54.6 46.5	79.9 78.2	11.5 9.3	11.8						
26.0 28.0	37.1 24.6	75.9 72.5	7.7 6.5	8.2 7.0						
				ılo de plu	ıma prin	cipal 75.	1°10			
27.6 28.0 30.0 32.0	65.0 63.8 56.7 48.9	79.9 79.8 78.6 77.0	15.1 13.2 10.4	15.9 15.9 12.5 10.3	•					
34.0 36.0	40.0 28.7	74.8 71.8	8.4 7.1	8.5 7.3						
Ángulo de pluma principal 65.0 [°]										
40.7 42.0 44.0 46.0 47.0	55.0 49.8 41.0 30.1 22.8	74.3 73.3 71.2 68.4 66.3	11.4 9.1 7.6 7.0	11.5 10.4 8.7 7.5 6.9						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 19.0	de plumí		1) 41.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.6 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 76.9 73.7 70.5 67.3 63.9 56.8 49.1 40.1 28.9	83.7 83.7 83.4 83.0 82.6 82.1 80.9 79.3 77.2 74.2	15.1 15.1 15.1 15.1 15.1 15.1 14.8 12.0 9.9	30.1 30.1 30.1 28.9 25.9 22.1 17.1 13.7 11.2 9.3						
					ıma prin	cipal 83.0	[°]			
16.7 18.0 20.0 22.0 24.0 26.0 28.0	73.0 68.7 62.0 54.8 46.7 37.3 24.9	82.8 82.3 81.3 80.0 78.3 76.0 72.6	15.1 15.1 15.1 15.1 13.8 11.4 9.4	30.1 27.4 20.4 15.9 12.9 10.6 8.9						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
27.7 28.0 30.0	65.0 63.9 56.9	79.9 79.8 78.6	15.1 15.1	21.7 21.6 17.0	-					
32.0 34.0 36.0	49.1 40.2 28.9	77.0 74.9 71.9	15.1 12.2 10.1	13.7 11.3 9.5						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
40.7 42.0 44.0 46.0 48.0	55.0 50.0 41.2 30.3 15.5	74.3 73.3 71.3 68.4 63.4	10.1 9.1 8.2 7.3	9.4 8.7 7.7 6.8						



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 22.0	de plumí		1) 41.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.2 11.0 12.0 13.0 14.0	78.0 75.9 73.1 70.4 67.6 61.7	86.7 86.5 86.2 85.8 85.4 84.4	15.1 15.1 15.1 15.1 14.8 13.9	29.1 26.8 22.4 18.9 16.6						
18.0 20.0 22.0 24.0	55.5 48.8 41.2 32.1	83.1 81.5 79.4 76.7	11.0 8.9 7.4 6.3	10.6 8.9 7.6 6.5						
			Angu		ıma prin	cipal 83.0	0[°]			
17.5 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 71.6 66.0 60.0 53.7 46.8 38.8 29.1	85.6 85.5 84.6 83.6 82.2 80.5 78.2 75.2	15.1 14.9 13.9 10.8 8.9 7.4 6.3	20.6 20.3 15.4 12.3 10.1 8.5 7.2 6.3						
			Ánaı	ılo de plu	ıma prin	cipal 75.0	1°10			
28.9 30.0 32.0 34.0 36.0 38.0	65.0 61.8 55.5 48.8 41.2 32.1	82.6 82.1 80.8 79.2 77.1 74.4	14.9 11.6 9.4 7.8 6.6	13.9 13.0 10.6 8.9 7.5 6.6						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
42.4 44.0 46.0 48.0 50.0	55.0 49.6 42.1 33.2 21.0	76.7 75.5 73.5 70.8 66.9	9.5 7.9 6.7 5.8	10.0 9.0 7.7 6.6 5.8			-			



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]
		62.0	0 m Plum Cabeza 22.0	de plumi	oal, Punt ín (2316- osición m	1) 44.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
10.3 11.0 12.0 13.0 14.0	78.0 76.0 73.3 70.5 67.7 61.9	86.7 86.5 86.2 85.8 85.4	15.1 15.1 15.1 15.1 15.1	30.1 30.1 29.5 26.1 23.1						
18.0 20.0 22.0 24.0	55.7 48.9 41.4 32.3	83.1 81.5 79.5 76.7	14.2 13.2 10.7 8.7	14.4 12.0 10.0 8.5						
					ıma prin	cipal 83.0	[°]			
17.6 18.0 20.0 22.0 24.0 26.0 28.0 30.0	73.0 71.8 66.1 60.2 53.9 46.9 39.0 29.3	85.6 85.5 84.7 83.6 82.2 80.5 78.3 75.3	15.1 15.1 15.1 14.8 12.9 11.0 9.1 7.7	28.6 28.4 21.3 16.7 13.6 11.4 9.6 8.2						
			Ángı	ılo de plu	ıma prin	cipal 75.0	1°10			
29.0 30.0 32.0 34.0 36.0 38.0	65.0 61.9 55.7 49.0 41.4 32.3	82.6 82.1 80.9 79.2 77.2 74.4	15.1 15.1 14.4 13.0 10.6 8.8	18.9 17.7 14.3 12.0 10.1 8.6						
			Ángu	ılo de plu	ıma prin	cipal 65.0	[°]			
42.4 44.0 46.0 48.0 50.0	55.0 49.7 42.3 33.4 21.3	76.7 75.6 73.5 70.9 67.0	9.1 8.2 7.4 6.6	8.6 7.8 7.0 6.2 5.5			-			



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 25.0	de plumí		1) 44.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	0 [°]			
10.8 11.0 12.0 13.0 14.0	78.0 77.6 75.2 72.8 70.4 65.4	89.6 89.6 89.3 89.0 88.6 87.8	15.1 15.1 15.1 15.1 13.8	25.7 25.7 22.6 19.4 16.9						
18.0 20.0 22.0 24.0 26.0	60.2 54.7 48.7 42.1 34.4	86.7 85.4 83.7 81.7 79.1	12.1 9.7 8.0 6.8 5.9	11.1 9.2 7.9 6.8 5.9						
28.0	24.7	75.5	5.2	5.2						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0[°]			
18.4 20.0 22.0	73.0 69.0 64.0	88.5 87.9 87.0	15.1 15.1 13.5	18.2 15.7 12.6						
24.0 26.0 28.0 30.0 32.0	58.7 53.1 46.9 40.1 32.0	85.8 84.4 82.7 80.5 77.7	11.4 9.1 7.7 6.6 5.7	10.5 8.8 7.6 6.5 5.7						
34.0	21.2	73.7	5.0	5.0						
			Angı		ıma prin	cipal 75.0	U [ ° ]			
30.2 32.0 34.0 36.0 38.0	65.0 60.2 54.7 48.7 42.1	85.4 84.4 83.1 81.4 79.4	11.2 9.1 7.7 6.5	12.4 10.9 9.2 7.9 6.8						
40.0 42.0	34.5 24.7	76.8 73.2	5.7 5.0	5.9 5.2						
			Ángı		ıma prin	cipal 65.0	0[°]			
44.1 46.0 48.0	55.0 49.4 42.9	79.2 77.7 75.8	8.1 6.9	8.9 7.9 6.9						
50.0 53.0	35.4 19.6	73.2 67.4	6.0 4.9	6.0 5.0						



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 ]:

94.0 Lastre central [ t ]: 52.6

Alcan-   Angu-   Altura   Carga   Carga   [t]   Carga   [t]   Carga   [t]   Carga		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 [ ° ]  11.5 78.0 92.5 15.1 30.1 12.0 78.8 92.4 15.1 30.1 13.0 74.7 92.1 15.1 29.3 14.0 72.6 91.8 15.1 27.1 16.0 68.2 91.1 15.1 21.9 18.0 68.2 91.1 15.1 18.2 20.0 59.0 89.0 14.5 15.6 22.0 59.0 89.0 14.5 15.6 22.0 59.0 89.0 14.5 15.6 22.0 59.0 89.0 14.5 15.6 22.0 59.0 89.0 14.5 15.6 22.0 59.0 87.6 13.3 13.6 24.0 48.6 86.0 12.3 12.2 26.0 42.8 84.0 10.8 10.9 28.0 30.2 82.2 78.2 8.7 9.0  Angulo de pluma principal 83.0 [ ° ]  19.3 73.0 91.3 15.1 25.6 25.6 20.0 71.4 91.1 15.1 25.3 22.0 67.0 90.3 15.1 20.7 24.0 62.4 89.3 15.1 17.3 22.0 67.0 90.3 15.1 20.7 24.0 62.4 89.3 15.1 17.3 22.0 67.0 90.3 15.1 20.7 24.0 62.4 89.3 15.1 17.3 28.0 52.5 86.7 13.6 13.2 30.0 47.1 84.9 12.3 11.8 32.0 41.1 82.8 10.8 10.6 34.0 34.1 80.2 9.7 9.6 36.0 25.5 76.6 8.8 18.8 1.8 10.8 10.6 34.0 34.1 80.2 9.7 9.6 36.0 25.5 76.6 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8 8.8	ce	o ďe plumín	de rolda- nas								
11.5			62.0	Cabeza	de plumi	n (1916-	1) 47.5 r	n Plumín	dfall I		
12.0				Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
13.0	11.5	78.0	92.5		30.1						
14.0			-								
16.0											
18.0		1									
20.0 59.0 89.0 14.5 15.6 22.0 54.0 87.6 13.3 13.6 24.0 48.6 86.0 12.3 12.2 26.0 42.8 84.0 10.8 10.9 28.0 36.2 81.5 9.5 9.8 30.0 28.2 78.2 8.7 9.0											
22.0 54.0 87.6 13.3 13.6 24.0 48.6 86.0 12.3 12.2 26.0 42.8 84.0 10.8 10.9 28.0 36.2 81.5 9.5 9.8 30.0 28.2 78.2 8.7 9.0					-						
24.0											
28.0 36.2 81.5 9.5 9.8 8.7 9.0  Angulo de pluma principal 83.0 [°]  19.3 73.0 91.3 15.1 25.6 20.0 71.4 91.1 15.1 25.3 20.0 67.0 90.3 15.1 20.7 24.0 62.4 89.3 15.1 17.3 26.0 57.6 88.1 14.4 15.0 28.0 52.5 86.7 13.6 13.2 30.0 47.1 84.9 12.3 11.8 32.0 41.1 82.8 10.8 10.6 34.0 34.1 80.2 9.7 9.6 88 8.8 8.8  Angulo de pluma principal 75.0 [°]  31.4 65.0 88.1 17.9 17.9 17.8 34.0 59.0 86.7 15.1 15.5 36.0 59.0 86.7 15.1 15.5 36.0 38.0 48.7 87.8 15.1 17.8 34.0 59.0 86.7 15.1 15.5 36.0 54.0 85.3 14.0 13.6 38.0 48.7 83.7 12.9 12.1 40.0 42.8 81.7 11.3 10.9 42.0 36.2 79.2 10.0 9.8 44.0 28.2 76.0 9.1 9.1  Angulo de pluma principal 65.0 [°]  Angulo de pluma principal 65.0 [°]  Angulo de pluma principal 65.0 [°]	24.0	48.6	86.0	12.3	12.2						
Angulo de pluma principal 83.0 [°]  19.3 73.0 91.3 15.1 25.6 20.0 71.4 91.1 15.1 25.3 22.0 67.0 90.3 15.1 20.7 24.0 62.4 89.3 15.1 17.3 26.0 57.6 88.1 14.4 15.0 28.0 52.5 86.7 13.6 13.2 30.0 47.1 84.9 12.3 11.8 32.0 41.1 82.8 10.8 10.6 34.0 34.1 80.2 9.7 9.6 36.0 25.5 76.6 8.8 18.8 8.8  Angulo de pluma principal 75.0 [°]  31.4 65.0 88.1 17.1 17.8 32.0 63.7 87.8 15.1 17.8 34.0 59.0 86.7 15.1 15.5 36.0 54.0 85.3 14.0 13.6 38.0 48.7 83.7 12.9 12.1 40.0 42.8 81.7 11.3 10.9 42.0 36.2 79.2 10.0 9.8 42.0 36.2 79.2 10.0 9.8 44.0 28.2 76.0 9.1 9.1  Angulo de pluma principal 65.0 [°]  45.8 55.0 81.6 10.6 9.6 48.0 49.3 80.0 9.9 8.8 55.0 24.4 70.5 7.7 6.6	26.0	42.8	84.0	10.8	10.9						
Ángulo de pluma principal 83.0 [°]         19.3       73.0       91.3       15.1       25.6         20.0       71.4       91.1       15.1       25.3         22.0       67.0       90.3       15.1       20.7         24.0       62.4       89.3       15.1       17.3         26.0       57.6       88.1       14.4       15.0         28.0       52.5       86.7       13.6       13.2         30.0       47.1       84.9       12.3       11.8         32.0       41.1       82.8       10.8       10.6         34.0       34.1       80.2       9.7       9.6         36.0       25.5       76.6       8.8       8.8         Angulo de pluma principal 75.0 [°]         31.4       65.0       88.1       17.9         32.0       63.7       87.8       15.1       17.8         34.0       59.0       86.7       15.1       15.5         36.0       54.0       85.3       14.0       13.6         38.0       48.7       83.7       12.9       12.1         40.0       42.8       81.7       11.3											
19.3	30.0	28.2	78.2	8.7	9.0						
20.0 71.4 91.1 15.1 25.3 20.7 24.0 67.0 90.3 15.1 20.7 24.0 62.4 89.3 15.1 17.3 26.0 57.6 88.1 14.4 15.0 28.0 52.5 86.7 13.6 13.2 30.0 47.1 84.9 12.3 11.8 32.0 41.1 82.8 10.8 10.6 34.0 34.1 80.2 9.7 9.6 36.0 25.5 76.6 8.8 8.8 8.8				Ángı	ılo de plı	uma prin	cipal 83.0	[°]			
22.0 67.0 90.3 15.1 20.7  24.0 62.4 89.3 15.1 17.3 26.0 57.6 88.1 14.4 15.0 28.0 52.5 86.7 13.6 13.2 30.0 47.1 84.9 12.3 11.8 32.0 41.1 82.8 10.8 10.6  34.0 34.1 80.2 9.7 9.6 36.0 25.5 76.6 8.8 8.8   Angulo de pluma principal 75.0 [°]  31.4 65.0 88.1 17.9 32.0 63.7 87.8 15.1 17.9 32.0 63.7 87.8 15.1 17.8 34.0 59.0 86.7 15.1 15.5 36.0 54.0 85.3 14.0 13.6 38.0 48.7 83.7 12.9 12.1 40.0 42.8 81.7 11.3 10.9 42.0 36.2 79.2 10.0 9.8 44.0 28.2 76.0 9.1 9.1  Angulo de pluma principal 65.0 [°]  45.8 55.0 81.6 9.6 46.0 54.6 81.6 10.6 9.6 48.0 49.3 80.0 9.9 8.8 50.0 43.5 78.0 9.2 8.1 55.0 24.4 70.5 7.7 6.6	19.3	73.0	91.3	15.1	25.6						
24.0 62.4 89.3 15.1 17.3 26.0 57.6 88.1 14.4 15.0 28.0 52.5 86.7 13.6 13.2 30.0 47.1 84.9 12.3 11.8 32.0 41.1 82.8 10.8 10.6 34.0 34.1 80.2 9.7 9.6 8.8 8.8 8.8		i i			i						
26.0 57.6 88.1 14.4 15.0 28.0 52.5 86.7 13.6 13.2 30.0 47.1 84.9 12.3 11.8 32.0 41.1 82.8 10.8 10.6 34.0 25.5 76.6 8.8 8.8 8.8											
28.0 52.5 86.7 13.6 13.2 30.0 47.1 84.9 12.3 11.8 32.0 41.1 82.8 10.8 10.6 34.0 34.1 80.2 9.7 9.6 8.8 8.8		i i			i						
30.0		1 1									
32.0 41.1 82.8 10.8 10.6 34.0 34.1 80.2 9.7 9.6 8.8 8.8     **Magulo de pluma principal 75.0 [ ° ]**  31.4 65.0 88.1 15.1 17.9 32.0 63.7 87.8 15.1 17.8 32.0 63.7 87.8 15.1 15.5 36.0 54.0 86.7 15.1 15.5 38.0 48.7 83.7 12.9 12.1 40.0 42.8 81.7 11.3 10.9 42.0 36.2 79.2 10.0 9.8 44.0 28.2 76.0 9.1 9.1     **Magulo de pluma principal 65.0 [ ° ]**  **Angulo de pluma principal 65.0 [ ° ]**  **Angulo de pluma principal 65.0 [ ° ]**  45.8 55.0 81.6 9.6 46.0 54.6 81.6 10.6 9.6 48.0 49.3 80.0 9.9 8.8 50.0 43.5 78.0 9.2 8.1 55.0 24.4 70.5 7.7 6.6											
34.0 34.1 80.2 9.7 9.6 8.8 8.8    Angulo de pluma principal 75.0 [°]  31.4 65.0 88.1 17.9 17.8 15.1 17.8 15.1 15.5 15.5 15.1 15.5 15.5 15.1 15.5 15.5 15.5 15.1 15.5 1											
36.0 25.5 76.6 8.8 8.8 8.8    Ángulo de pluma principal 75.0 [°]  31.4 65.0 88.1 17.9 17.8 15.1 17.8 15.1 15.5 15.5 15.1 15.5 15.5 15.1 15.5 15.5 15.1 15.5 15.5 15.1 15.5 15.5 15.1 15.5 15.5 15.1 15.5 15.5 15.1 15.5 15.5 15.5 15.1 15.5 15.5 15.5 15.1 15.5 15.5 15.5 15.1 15.5 15.5 15.5 15.1 15.5 15.5 15.5 15.1 15.5											
Ángulo de pluma principal 75.0 [°]  31.4 65.0 88.1 17.9 32.0 63.7 87.8 15.1 17.8 34.0 59.0 86.7 15.1 15.5 36.0 54.0 85.3 14.0 13.6 38.0 48.7 83.7 12.9 12.1 40.0 42.8 81.7 11.3 10.9 42.0 36.2 79.2 10.0 9.8 44.0 28.2 76.0 9.1 9.1   Ángulo de pluma principal 65.0 [°]   45.8 55.0 81.6 9.6 46.0 54.6 81.6 10.6 9.6 48.0 49.3 80.0 9.9 8.8 55.0 43.5 78.0 9.2 8.1 55.0 24.4 70.5 7.7 6.6		i i			i						
31.4 65.0 88.1 17.9 32.0 63.7 87.8 15.1 17.8 34.0 59.0 86.7 15.1 15.5 36.0 54.0 85.3 14.0 13.6 38.0 48.7 83.7 12.9 12.1 40.0 42.8 81.7 11.3 10.9 42.0 36.2 79.2 10.0 9.8 44.0 28.2 76.0 9.1 9.1    Angulo de pluma principal 65.0 [°]  45.8 55.0 81.6 9.6 46.0 54.6 81.6 10.6 9.6 48.0 49.3 80.0 9.9 8.8 50.0 43.5 78.0 9.2 8.1 55.0 24.4 70.5 7.7 6.6						ıma prin	cipal 75.0	1°10		-	
34.0 59.0 86.7 15.1 15.5 36.0 54.0 85.3 14.0 13.6 38.0 48.7 83.7 12.9 12.1 40.0 42.8 81.7 11.3 10.9 42.0 36.2 79.2 10.0 9.8 44.0 28.2 76.0 9.1 9.1 \$\$\$ Angulo de pluma principal 65.0 [°]\$\$\$ 45.8 55.0 81.6 46.0 54.6 81.6 10.6 9.6 48.0 49.3 80.0 9.9 8.8 50.0 43.5 78.0 9.2 8.1 55.0 24.4 70.5 7.7 6.6	31.4	65.0	88.1								
36.0 54.0 85.3 14.0 13.6 38.0 48.7 83.7 12.9 12.1 40.0 42.8 81.7 11.3 10.9 42.0 36.2 79.2 10.0 9.8 44.0 28.2 76.0 9.1 9.1 \$\$\$\$\$\$ \$55.0 81.6 46.0 54.6 81.6 10.6 9.6 48.0 49.3 80.0 9.9 8.8 50.0 43.5 78.0 9.2 8.1 55.0 24.4 70.5 7.7 6.6 \$				-							
38.0											
40.0 42.8 81.7 11.3 10.9 42.0 36.2 79.2 10.0 9.8 44.0 28.2 76.0 9.1 9.1		I .									
42.0 36.2 79.2 10.0 9.8 9.1 44.0 28.2 76.0 9.1 9.1					i						
44.0     28.2     76.0     9.1     9.1       Ángulo de pluma principal 65.0 [°]       45.8     55.0     81.6     9.6       46.0     54.6     81.6     10.6     9.6       48.0     49.3     80.0     9.9     8.8       50.0     43.5     78.0     9.2     8.1       55.0     24.4     70.5     7.7     6.6											
Ángulo de pluma principal 65.0 [°]       45.8     55.0     81.6     9.6       46.0     54.6     81.6     10.6     9.6       48.0     49.3     80.0     9.9     8.8       50.0     43.5     78.0     9.2     8.1       55.0     24.4     70.5     7.7     6.6											
45.8     55.0     81.6     9.6       46.0     54.6     81.6     10.6     9.6       48.0     49.3     80.0     9.9     8.8       50.0     43.5     78.0     9.2     8.1       55.0     24.4     70.5     7.7     6.6	44.0	20.2	10.0	<del></del>		ıma nrin	cinal 65 (	) [ ° ]			
46.0     54.6     81.6     10.6     9.6       48.0     49.3     80.0     9.9     8.8       50.0     43.5     78.0     9.2     8.1       55.0     24.4     70.5     7.7     6.6	45.0	55.0	04.6	Angu	<del></del>	iiia pilli	υραι υ <u>υ.</u>	ν <sub>[</sub> ]			
48.0     49.3     80.0     9.9     8.8       50.0     43.5     78.0     9.2     8.1       55.0     24.4     70.5     7.7     6.6				10.6	i						
50.0     43.5     78.0     9.2     8.1       55.0     24.4     70.5     7.7     6.6					i						
55.0 24.4 70.5 7.7 6.6		I .									
					i						



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		62.0	0 m Plum Cabeza 19.0		n (1916-	1) 50.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.6 10.0 11.0 12.0 13.0 14.0 16.0 20.0 22.0	78.0 76.7 73.6 70.4 67.1 63.7 56.6 48.9 39.9 28.6	83.7 83.6 83.3 83.0 82.6 82.1 80.8 79.3 77.1 74.1	15.1 15.1 15.1 15.1 15.1 15.1 14.9 14.4 11.3 9.2 Ángu	30.1 30.1 30.1 26.6 23.3 20.0 15.7 12.8 10.4 8.8	uma princ	cipal 83.	D [°]			
18.0 20.0 22.0 24.0 26.0 28.0	68.6 61.8 54.6 46.5 37.1 24.6	82.2 81.3 79.9 78.2 75.9 72.5	15.1 15.1 14.3 12.6 10.0 8.4	24.7 18.5 14.6 12.0 9.9 8.5						
			Ángı	ılo de plı	ıma prin	cipal 75.0	D[°]			
27.6 28.0 30.0 32.0 34.0 36.0	65.0 63.8 56.7 48.9 40.0 28.7	79.9 79.8 78.6 77.0 74.8 71.8	15.1 15.0 14.2 11.3 9.4	19.4 19.3 15.6 12.8 10.5 9.0						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
40.7 42.0 44.0 46.0 47.0	55.0 49.8 41.0 30.1 22.8	74.3 73.3 71.2 68.4 66.3	11.1 10.1 9.1 8.6	9.8 9.0 8.0 7.1 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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 22.0	de plumi		1) 53.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.	[°]			
10.2 11.0 12.0 13.0 14.0 16.0 18.0 20.0	78.0 75.9 73.1 70.4 67.6 61.7 55.5 48.8	86.7 86.5 86.2 85.8 85.4 84.4 83.1 81.5	15.1 15.1 15.1 15.1 15.1 15.1 12.3 9.9	30.1 30.1 25.6 21.6 18.9 14.7 11.9 9.9						
22.0 24.0	41.2 32.1	79.4 76.7	8.1 6.7	8.2 6.9						
20	02.1				uma prin	cinal 83	1°10			
17.5	73.0	85.6	7 tilge	22.9		l loc.	J [ ]			
18.0 20.0 22.0 24.0 26.0 28.0 30.0	71.6 66.0 60.0 53.7 46.8 38.8 29.1	85.5 84.6 83.6 82.2 80.5 78.2 75.2	15.1 15.1 14.9 12.0 9.9 8.0 6.7	22.7 17.4 13.9 11.2 9.4 7.8 6.7						
00.0	20.1				uma prin	cipal 75	1°10			
28.9 30.0 32.0 34.0 36.0 38.0	65.0 61.8 55.5 48.8 41.2 32.1	82.6 82.1 80.8 79.2 77.1 74.4	15.1 13.2 10.6 8.6 7.2	15.4 14.7 11.9 9.9 8.3 7.1			. ]			
			Ángı	ılo de plı	ıma prin	cipal 65.	D[°]			
42.4 44.0 46.0 48.0 50.0	55.0 49.6 42.1 33.2 21.0	76.7 75.5 73.5 70.8 66.9	9.9 8.8 7.4 6.4	8.9 8.1 7.2 6.4 5.7	, 					



N° de ident.: 9842523/95738/

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

Pieza de articulación de pluma principal: 2
Cabeza de pluma principal: 2

2821-1 2821-1

Valor de vuelco: 2 - Vía

2 - Vía ancha 94.0

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

		1	2	3	4	5	6	7	8
Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		Cabeza	de plumí	n (1916-	1) 56.5 r	n Plumín			
		Ángu	ılo de plu	ıma prind	cipal 88.0	[°]C			
78.0 77.6 75.2 72.8 70.4 65.4 60.2 54.7 42.1 34.4 24.7 73.0 69.0 64.0 58.7 53.1 46.9	89.6 89.6 89.3 89.0 88.6 87.8 86.7 85.4 83.7 79.1 75.5	15.1 15.1 14.2 12.6 10.4	20.3 17.8 14.3 11.9 10.0	uma prino	cipal 83.0	D[°]			
40.1 32.0	80.5 77.7	7.5 6.5	7.5 6.6						
21.2	73.7	5.7	5.8						
		Ángu	ılo de plu	ıma prind	cipal 75.0	[°]			
65.0 60.2 54.7 48.7 42.1 34.5 24.7	85.4 84.4 83.1 81.4 79.4 76.8 73.2	12.7 10.5 8.8 7.6 6.6 5.8	13.9 12.5 10.5 9.1 7.8 6.8 6.0						
		Ángu	ılo de plu	ıma prind	cipal 65.0	[°]			
55.0 49.4 42.9 35.4	79.2 77.7 75.8 73.2	8.9 7.9 6.9	8.2 7.4 6.6 5.9						
	78.0 77.6 75.2 72.8 70.4 65.4 60.2 54.7 48.7 42.1 34.4 24.7 73.0 69.0 64.0 58.7 53.1 46.9 40.1 32.0 21.2 65.0 60.2 54.7 48.7 42.1 34.5 24.7	Plumín [°] rolda- nas [m]  62.4  78.0 89.6 77.6 89.6 75.2 89.3 72.8 89.0 70.4 88.6 65.4 87.8 60.2 86.7 54.7 85.4 48.7 83.7 42.1 81.7 34.4 79.1 24.7 75.5  73.0 88.5 69.0 87.9 64.0 87.0 58.7 85.8 53.1 84.4 46.9 82.7 40.1 80.5 32.0 77.7 21.2 73.7  65.0 85.4 60.2 84.4 54.7 83.1 48.7 83.1 48.7 83.1 48.7 83.1 48.7 83.1 48.7 83.1 48.7 83.1 48.7 83.1 48.7 79.4 34.5 76.8 24.7 77.7 42.9 75.8 35.4 73.2	Plumín [°] roldanas [m]   62.0 m Plum Cabeza 25.0	Plumín	Plumín	Plumín	Plumín	Polyment   Foldanas	Post



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

360°

Cabeza de pluma principal:

2821-1

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

	Inserción		1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 28.0	de plumí		1) 59.5 r	n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	0 [°]			
11.5	78.0	92.5	15.1	25.9						
12.0 13.0 14.0	76.8 74.7 72.6	92.4 92.1 91.8	15.1 15.1 15.1	25.9 22.9 20.1						
16.0 18.0	68.2 63.7	91.1 90.1	15.0 13.0	16.0 13.1						
20.0 22.0 24.0	59.0 54.0 48.6	89.0 87.6 86.0	11.2 9.2 7.7	11.0 9.2 7.9						
26.0 28.0	42.8 36.2	84.0 81.5	6.6 5.7	6.8 5.9						
30.0	28.2	78.2	5.7 5.0	5.9						
			Ángu	ılo de plu	ıma prin	cipal 83.0	1°10			
19.3	73.0	91.3	15.1	18.7		i i				
20.0	71.4	91.1	15.1	18.5						
22.0	67.0 62.4	90.3	15.0	15.1 12.4						
24.0 26.0	57.6	89.3 88.1	13.1 11.0	10.5						
28.0	52.5	86.7	9.0	8.9						
30.0	47.1	84.9	7.7	7.7						
32.0	41.1	82.8	6.6	6.6						
34.0 36.0	34.1 25.5	80.2 76.6	5.7 5.0	5.7 5.1						
30.0	20.0	70.0			uma prin	cinal 75 (	1°1			
31.4	65.0	88.1	, uige	12.8			·			
32.0	63.7	87.8	13.0	12.7						
34.0	59.0	86.7	11.0	10.9						
36.0 38.0	54.0 48.7	85.3 83.7	9.2 7.8	9.3 8.1						
40.0	42.8	81.7	6.7	6.9						
42.0	36.2	79.2	5.8	6.0						
44.0	28.2	76.0	5.1	5.4						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]C			
45.8	55.0	81.6		7.4						
46.0	54.6	81.6	8.7	7.3						
48.0 50.0	49.3 43.5	80.0 78.0	7.9 7.1	6.5 5.9						
55.0	24.4	70.5	5.1	4.4						
56.0	18.4	67.9	4.8	4.1						

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]
		62.0	0 m Plum Cabeza 31.0	de plumi	oal, Punt ín (1916- osición m	1) 62.5 r	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
12.1	78.0	95.5	15.1	23.6						
13.0	76.2	95.2	15.1	23.2						
14.0	74.3	95.0	15.1	20.2						
16.0 18.0	70.4 66.4	94.3 93.5	15.1 13.9	16.1 13.4						
20.0	62.3	92.5	11.8	11.2						
22.0	58.0	91.3	10.0	9.6						
24.0	53.4	89.9	8.3	8.1						
26.0	48.6	88.2	7.0	7.1						
28.0	43.3	86.2	6.1	6.1						
30.0	37.5	83.8	5.3	5.3						
32.0	30.7	80.8	4.6	4.7						
34.0	22.0	76.7	4.1	4.1						
			Angı	ılo de plı	ıma prin	cipal 83.0	D[°]			
20.1	73.0	94.2		17.0						
22.0	69.3	93.6	15.1	15.2						
24.0 26.0	65.3	92.7	13.7 11.4	12.7						
28.0	61.1 56.7	91.6 90.4	9.5	10.8 9.1						
30.0	52.1	88.9	7.9	7.9						
32.0	47.2	87.2	6.9	6.9						
34.0	41.8	85.1	5.9	6.0						
36.0	35.7	82.6	5.1	5.2						
38.0	28.5	79.3	4.6	4.6						
			Ángı	ılo de plu	ıma prin	cipal 7 <u>5</u> .0	[°]			
32.7	65.0	90.8		11.6						
34.0	62.3	90.2	10.8	11.2						
36.0	58.0	89.0	9.0	9.6						
38.0 40.0	53.5 48.6	87.6 85.9	7.7 6.7	8.2 7.2						
40.0	43.4	83.9	5.8	6.3						
44.0	37.5	81.5	5.1	5.5						
46.0	30.7	78.5	4.5	4.9						
48.0	22.0	74.5	4.0	4.3						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
47.5	55.0	84.1		6.8		-				
48.0	54.0	83.8	7.9	6.7						
50.0	49.2	82.2	7.1	6.0						
55.0	35.0	76.6	5.2	4.5						
59.0	17.4	68.4	4.1	3.5						



Nº de ident.: 9842523/95738/

Radio de descarga:

360 °

Pieza de articulación de pluma principal:

Cabeza de pluma principal:

2821-1 2821-1

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		62.0	0 m Plum Cabeza 34.0	de plumi	ín (1916-		n Plumín			
			Ángı	ılo de plı	ıma prin	cipal 88.0	1°10			
12.7	78.0	98.4	15.1	21.3						
13.0	77.5	98.3	15.1	21.3						
14.0	75.7	98.1	15.1	20.5						
16.0	72.2	97.5	15.1	16.4						
18.0	68.6	96.7	14.9	13.7						
20.0	64.9	95.8	12.3	11.4						
22.0	61.1	94.8	10.2	9.8						
24.0	57.1	93.5	8.6	8.4						
26.0	53.0	92.1	7.2	7.2						
28.0	48.6	90.4	6.2	6.3						
30.0 32.0	43.8 38.6	88.5	5.4 4.7	5.5 4.8						
32.0 34.0	38.6	86.1 83.3	4.7 4.1	4.8						
36.0	25.4	79.7	3.7	3.8						
30.0	25.4	15.1			ıma nrin	oinal 02 (	) [ ° ]			
24.0	72.0	07.4	Angu	15.6	лпа рпп І	cipal 83.0	J [ ]	I	I	
21.0 22.0	73.0 71.2	97.1 96.8	15.1	15.4						
24.0	67.6	96.0	13.1	12.9						
26.0	63.9	95.0	11.6	10.9						
28.0	60.0	93.9	9.8	9.4						
30.0	56.0	92.7	8.2	8.1	İ	İ		İ		
32.0	51.8	91.2	7.0	7.0						
34.0	47.3	89.4	6.1	6.2						
36.0	42.4	87.4	5.3	5.4						
38.0	37.0	84.9	4.6	4.7						
40.0	30.8	81.9	4.1	4.2						
42.0	23.0	77.9	3.6	3.7						
			Angı	ılo de plı	ıma prin	cipal 75.0	D[°]			
34.0	65.0	93.5		10.6						
36.0	61.1	92.5	9.7	9.8						
38.0	57.2	91.2	8.2	8.5						
40.0	53.0	89.8	7.0	7.3						
42.0 44.0	48.6	88.1	6.2 5.4	6.5 5.6						
44.0 46.0	43.8 38.6	86.2 83.9	5.4 4.7	4.9						
48.0	32.6	81.0	4.7	4.9						
50.0	25.4	77.4	3.8	3.9						
					ıma prin	cipal 65.0	1°10			
49.3	55.0	86.6	/ wigo	6.1	ZING PINI	J.pa. 00.	- [ ]			
50.0	53.5	86.1	6.9	5.8						
55.0	41.8	81.4	5.2	4.4						
60.0	26.3	73.9	3.9	3.3						
62.0	16.6	68.9	3.4	2.8						



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

360°

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
			-			· ·			-	
Alcan- ce	Ángu- o de	Altura de	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
[m]	plumín	rolda-	[1]	[ [,]	[ [1]	[1]	[1]	[ [1]	[ [1]	[1]
[ ]	[°]	nas								
	` '	[ m ]								
		62	0 m Plum	o princir	ool Dunt	o do cor	no 2 Mi	dfall		
		02.			in (1916-					
			37.0	0 [ m ] P	osición n	nidfall (19	916)			
			,		uma prin					
13.3	78.0	101.3	71190	20.7		l loo.	, j		1	
14.0	76.9	101.3	15.1	20.7						
16.0	73.7	100.6	15.1	17.4						
18.0	70.4	99.9	14.6	14.5						
20.0	67.1	99.1	13.4	12.4						
22.0	63.7	98.2	11.0	10.6						
24.0	60.1	97.1	9.4	9.3						
26.0	56.4	95.8	8.1	8.0						
28.0	52.6	94.4	7.0	7.0						
30.0	48.5	92.7	6.1	6.2						
32.0 34.0	44.2 39.4	90.7 88.4	5.4 4.7	5.5 4.9						
36.0	34.1	85.7	4.7	4.3						
38.0	27.9	82.4	3.8	3.9						
40.0	20.0	77.9	3.4	3.5						
			Ángı	ılo de plı	uma prin	cipal 83.0	[°]			
21.9	73.0	100.0	15.1	15.3						
22.0	72.8	99.9	15.1	15.2						
24.0	69.5	99.2	14.4	13.9						
26.0	66.2	98.4	12.7	11.9						
28.0	62.7	97.4	10.6	10.2						
30.0	59.1	96.2	9.1	8.9						
32.0 34.0	55.4 51.5	94.9 93.4	7.8 6.8	7.7						
36.0	47.4	93.4 91.7	6.0	6.8 6.1						
38.0	42.9	89.6	5.3	5.4						
40.0	38.0	87.2	4.7	4.8						
42.0	32.5	84.4	4.2	4.3						
44.0	26.0	80.8	3.8	3.9						
			Ángı	ılo de plu	uma prin	cipal 75.0	[°]			
35.2	65.0	96.2		10.4						
36.0	63.7	95.9	10.6	10.3						
38.0	60.1	94.8	9.4	9.3						
40.0	56.5	93.5	8.1	8.2						
42.0	52.6	92.1	7.1	7.1						
44.0	48.6	90.4	6.3	6.4						
46.0 48.0	44.2 39.5	88.4 86.2	5.5 4.9	5.6 5.0						
50.0	39.5	83.4	4.9	4.5						
55.5		JJ.7			uma prin	cipal 65 (	1°10			1
51.0	55.0	89.0	, unge	5.5	a piiii	J.pu. 00.	- L J		I	
55.0	46.9	85.8	5.2	5.5 4.4						
60.0	34.8	79.9	3.9	3.2						
65.0	15.8	69.3	2.8	2.3						



Nº de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		62.0	0 m Plum Cabeza 40.0	de plumí		1) 71.5 r̀	n Plumín			
			Ángı	ılo de plu	uma prin	cipal 88.0	[°]			
13.9	78.0	104.3		20.3						
14.0	77.9	104.3	15.1	20.3						
16.0	75.0	103.7	15.1	19.0						
18.0	72.0	103.1	14.7	16.6						
20.0	68.9	102.4	13.9	14.4						
22.0	65.8	101.5	12.0	12.4						
24.0 26.0	62.6 59.3	100.5 99.4	10.2 9.0	10.8 9.6						
26.0 28.0	59.3 55.9	99.4 98.1	9.0 7.9	9.6 8.4						
30.0	52.3	96.6	7.9	7.5						
32.0	48.5	94.9	6.3	6.8						
34.0	44.5	93.0	5.7	6.1						
36.0	40.2	90.7	5.1	5.5						
38.0	35.4	88.1	4.6	5.0						
40.0	29.9	85.0	4.2	4.6						
42.0	23.3	80.9	3.9	4.2						
			Ánai	ılo de nlı	ıma prin	cinal 83 (	l ° l			
22.8	73.0	102.8	14.9	16.0		l l	, j		l	1
24.0	71.1	102.6	14.8	15.9						
26.0	68.1	101.7	13.6	13.7						
28.0	64.9	100.8	12.0	11.9						
30.0	61.7	99.7	10.5	10.5						
32.0	58.3	98.5	9.3	9.3						
34.0	54.9	97.2	8.1	8.2						
36.0	51.3	95.6	7.2	7.4						
38.0	47.4	93.9	6.5	6.7						
40.0	43.3	91.9	5.8	6.0						
42.0	38.9	89.5	5.2	5.4						
44.0 46.0	34.0 28.2	86.8 83.4	4.7 4.3	4.9 4.5						
46.0 48.0	28.2	83.4 79.1	3.9	4.5						
75.0	21.1	70.1			.ma ==!=	oinal 75 f	0101			
00.5	05.0	00.0	Angu		ıma prin	upai /5.0	١ ] ١		I	
36.5	65.0	98.9	44.0	11.1						
38.0 40.0	62.6 59.3	98.2 97.1	11.3 9.7	11.0 9.7						
40.0 42.0	59.3 55.9	97.1 95.8	9.7 8.5	9.7 8.6						
44.0	52.3	94.3	7.5	7.7						
46.0	48.5	92.6	6.8	6.9						
48.0	44.5	90.7	6.1	6.3						
50.0	40.2	88.4	5.5	5.6						
55.0	26.8	80.8	4.4	4.5						
			Ánaı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
52.7	55.0	91.5	I	4.8	<u> </u>	· ·				
55.0	50.8	89.8	4.9	4.2						
60.0	40.7	84.8	3.7	3.1						
65.0	27.6	77.3	2.6	2.2						
68.0	16.5	69.7	2.0							



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1

360° 2 - Vía ancha Valor de vuelco:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
			0 m Plum Cabeza 31.0	de plumí		1) 74.5 r	n Plumír			
			Ángı	ılo de plu	ıma prin	cipal 88.	0[°]			
12.1 13.0 14.0 16.0	78.0 76.2 74.3 70.4	95.5 95.2 95.0 94.3	15.1 15.1 15.1 13.6	19.5 19.5 17.1 13.6						
18.0 20.0 22.0 24.0	66.4 62.3 58.0 53.4	93.5 92.5 91.3 89.9	11.3 8.8 7.2 5.9	9.0 7.4 6.1						
26.0 28.0 30.0 32.0	48.6 43.3 37.5 30.7	88.2 86.2 83.8 80.8	5.0 4.2 3.6 2.9	5.2 4.4 3.7 3.0						
			Ángu	ılo de plu	ıma prin	cipal 83.	0 [°]			
20.1 22.0 24.0 26.0 28.0	73.0 69.3 65.3 61.1 56.7	94.2 93.6 92.7 91.6 90.4	13.4 10.4 8.3 6.8	14.2 12.7 10.3 8.4 7.0						
30.0 32.0 34.0 36.0 38.0	52.1 47.2 41.8 35.7 28.5	88.9 87.2 85.1 82.6 79.3	5.7 4.9 4.2 3.5 3.0	5.9 5.1 4.3 3.7 3.1						
			Ángı	ılo de plu	ıma prin	cipal 75.	0 [°]			
32.7 34.0 36.0	65.0 62.3 58.0	90.8 90.2 89.0	8.9 7.2	9.2 9.0 7.5						
38.0 40.0 42.0 44.0 46.0	53.5 48.6 43.4 37.5 30.7	87.6 85.9 83.9 81.5 78.5	6.1 5.2 4.4 3.8 3.3	6.3 5.4 4.6 4.0 3.5						
48.0	22.0	74.5	2.9	3.0						
L	55.0		Angı •		ıma prin	cipal 65.	D [°]		ı	1
47.5 48.0 50.0 55.0	55.0 54.0 49.2 35.0	84.1 83.8 82.2 76.6	5.7 4.9 3.2	4.7 4.6 3.9 2.4						
59.0	18.9	68.4	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]
		62.0	0 m Plum Cabeza 34.0	de plumí		1) 77.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.	0[°]			
12.7 13.0 14.0 16.0 18.0	78.0 77.5 75.7 72.2 68.6	98.4 98.3 98.1 97.5 96.7	15.1 15.1 15.1 14.2 11.2	17.5 17.5 17.0 13.6 11.1						
20.0 22.0 24.0 26.0 28.0	64.9 61.1 57.1 53.0 48.6	95.8 94.8 93.5 92.1 90.4	8.9 7.1 5.9 4.9 4.2	9.0 7.4 6.2 5.1 4.4						
30.0 32.0 34.0	43.8 38.6 32.6	88.5 86.1 83.3	3.5 3.0 2.5	3.7 3.1 2.6						
			Ángı		ıma prin	cipal 83.	0[°]			
21.0 22.0 24.0	73.0 71.2 67.6	97.1 96.8 96.0	13.6 10.8	12.6 12.5 10.2						
26.0 28.0 30.0 32.0	63.9 60.0 56.0 51.8	95.0 93.9 92.7 91.2	8.6 7.1 5.9 4.9	8.4 7.0 5.9 5.0						
34.0 36.0 38.0 40.0	47.3 42.4 37.0 30.8	89.4 87.4 84.9 81.9	4.2 3.6 3.0 2.6	4.3 3.6 3.1 2.6						
					uma prin	cipal 75.	0[°]			
34.0	65.0	93.5		8.1	·					
36.0 38.0 40.0 42.0	61.1 57.2 53.0 48.6	92.5 91.2 89.8 88.1	7.3 6.1 5.1 4.4	7.5 6.3 5.3 4.6						
44.0 46.0 48.0 50.0	43.8 38.6 32.6 25.4	86.2 83.9 81.0 77.4	3.8 3.2 2.8 2.4	3.9 3.3 2.9 2.5						
49.3 50.0	55.0 53.5	86.6 86.1	Ángı 4.7	4.0 3.8	uma prin	cipal 65.	0[°]			
55.0 58.0	41.8 33.9	81.4 77.5	3.1 2.2	2.4						



Nº de ident.: 9842523/95738/

Radio de descarga:

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

2821-1 2821-1

	Inserciór	า	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		65.0	0 m Plum Cabeza 13.0	de plumí	ín (1916-	o de carç 1) 32.5 r nidfall (19	n Plumín	dfall		
			Ángı	ılo de plu	ıma prin	cipal 88.0	D[°]			
8.4 9.0 10.0 11.0 12.0 13.0 14.0 16.0 15.2 16.0 18.0 20.0	78.0 75.4 70.8 65.9 60.9 55.6 49.8 36.1 73.0 69.4 59.4 48.0	80.8 80.7 80.4 79.9 79.4 78.7 77.9 75.6 80.0 79.7 78.7 77.1	15.1 14.1 10.0	23.8 19.8 12.7 9.1	uma prin	cipal 83.	D [°]			
22.0	33.7	74.7	7.2 Ángi	ılo de pli	ıma prin	cipal 75.0	1°10			
25.9 26.0 28.0 30.0	65.0 64.4 53.8 41.3	77.4 77.4 76.1 74.1	15.1 11.8 8.3	15.0 15.0 15.0 10.5 7.8	этта рит	o.pa. 7 0	~ [ ]			
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]0			
38.5 40.0 42.0 43.0	55.0 46.0 30.8	72.1 70.8 68.2	9.1 6.8 6.1	10.5 8.6 6.6						



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal:

2821-1

360°

2821-1 Cabeza de pluma principal:

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		65.0	0 m Plum Cabeza 16.0	de plumí	n (1916-	o de caro 1) 35.5 r nidfall (19	n Plumín	dfall 1		
			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	78.0 74.5 70.7 66.8 62.8 58.6 49.5 38.8	83.8 83.5 83.2 82.8 82.2 81.6 80.1 78.0	15.1 15.1 15.1 15.1 15.1 15.1 13.8 10.7 8.3 Ángu	30.1 28.3 22.3 18.1 15.1 13.1 10.1 8.1 Ilo de plu	uma prino	cipal 83.	D[°]			
16.1	73.0	82.9		24.0						
20.0 22.0 24.0	65.7 57.3 48.1 37.0	82.1 80.9 79.3 77.0	15.1 13.2 10.3 7.9	17.0 12.4 9.7 7.8						
			Ángı	ılo de plu	ıma prin	cipal 75.0	[°]			
27.1 28.0 30.0 32.0	65.0 61.5 52.7 42.7	80.1 79.7 78.3 76.4	15.0 11.6 8.9	15.6 14.2 10.7 8.6						
34.0	29.8	73.6	7.2	7.2						
40.0	55.0	74.5	Angu		ıma prin	cipal 65.0	ַנֻין ט	I	1	
40.2 42.0	55.0 46.4	74.5 73.1	9.6	11.0 9.2						
44.0 46.0	34.9 16.8	70.7 66.5	7.5 6.3	7.5 6.3						



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 ]: 94.0 52.6 Lastre central [ t ]:

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
65.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (1916-1) 38.5 m Plumín 19.0 [ m ] Posición midfall (1916)										
			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 17.0 18.0 20.0 22.0	78.0 77.0 73.9 70.7 67.4 64.1 57.0 49.3 40.4 29.3 73.0 69.7 63.1 55.9 48.1	86.7 86.6 86.4 86.0 85.6 85.1 83.9 82.4 80.3 77.3	15.1 15.1 15.1 15.1 15.1 15.1 13.5 11.5 9.2 7.6 Ángu 15.1 14.6 12.0 9.7	30.1 30.1 26.9 22.0 18.8 16.2 12.7 10.4 8.6 7.3 ulo de plu 23.5 20.9 15.5 12.3 10.1	uma prind	cipal 83.0	0[°]			
26.0 28.0	39.0 27.3	79.4 76.2	8.0 6.8	8.4 7.2						
20.0	20			ılo de plu	ıma prin	cipal 75.0	1°10			
28.4 30.0 32.0 34.0 36.0	65.0 59.5 52.0 43.6 33.5	82.8 82.0 80.5 78.6 76.1	13.4 10.5 8.6 7.2	15.8 13.6 11.0 9.1 7.8		,				
55.5	, 00.0			ılo de plu	ıma prin	cipal 65.0	1°10			
41.9 42.0 44.0 46.0 48.0 49.0	55.0 54.7 46.7 37.4 25.0 15.2	77.0 77.0 75.3 73.0 69.6 67.0	12.4 10.4 8.4 7.2 6.6	11.1 11.0 9.7 8.2 7.1 6.5			~ [ ]			



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 22.0	de plumí	n (1916-		n Plumín			
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]			
10.3	78.0	89.7	15.1	28.8						
11.0	76.1	89.5	15.1	27.3						
12.0	73.4	89.2	15.1	22.7						
13.0	70.7	88.8	15.1	19.1						
14.0	67.9	88.4	15.1	16.7						
16.0	62.0	87.4	14.8	13.2						
18.0	55.9	86.2	11.8	10.7						
20.0	49.1	84.6	9.5	9.0						
22.0	41.6	82.5	7.9	7.6						
24.0	32.6	79.8	6.6	6.6						
			Ángı	ılo de plu	ıma prin	cipal 83.0	0 [°]			
17.9	73.0	88.6	15.1	20.4						
18.0	72.6	88.6	15.1	20.4						
20.0	67.0	87.8	15.1	16.1						
22.0	61.2	86.7	14.6	12.8						
24.0	54.9	85.4	11.4	10.4						
26.0	48.1	83.8	9.3	8.8						
28.0	40.4	81.7	7.7	7.4						
30.0	31.1	78.8	6.5	6.5						
			Ángu	ılo de plu	ıma prin	cipal 75.0	0 [°]			
29.7	65.0	85.5		13.9						
30.0	64.1	85.4	15.1	13.8						
32.0	58.0	84.2	12.8	11.5						
34.0	51.5	82.8	10.1	9.5						
36.0	44.3	80.9	8.3	8.0						
38.0	35.9	78.5 75.0	7.0 6.1	6.9 6.0						
40.0	25.0	75.0								
L			Angu		ıma prin	cipal 65.0	D[°]			
43.7	55.0	79.4		9.9						
44.0	53.9	79.3	10.6	9.9						
46.0	46.9	77.6	8.8	8.5						
48.0	39.1	75.3	7.4	7.2						
50.0	29.3	72.3	6.4 5.5	6.3						
52.0	16.7	67.4	5.5						I	



Nº de ident.: 9842523/95738/

Radio de descarga:

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		65.0	0 m Plum Cabeza 25.0	de plumi	oal, Punt ín (1916- osición m	1) 44.5 r	n Plumín	dfall I		
			Ángı	ılo de plı	ıma prin	cipal 88.0	[°]			
10.9 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0 24.0	78.0 77.8 75.5 73.1 70.7 65.7 60.5 55.0 49.0 42.5	92.6 92.6 92.3 92.0 91.7 90.8 89.8 88.4 86.8 84.8	15.1 15.1 15.1 15.1 13.9 12.2 9.8 8.0 6.9	25.5 25.5 22.8 19.6 17.0 13.6 11.2 9.3 7.9 6.8						
26.0	34.9	82.3	5.9	5.9						
28.0	25.3	78.7	5.2	5.2		-iI 00 /	2			
18.7	73.0	91.5	Angu	18.1	ıma prin	cipai 83.0	)			
20.0 22.0 24.0	69.9 64.9 59.7	91.0 90.1 89.0	15.1 13.8 11.8	16.4 13.0 10.8						
26.0 28.0 30.0 32.0	54.1 48.1 41.4 33.6	87.7 86.0 84.0 81.3	9.4 7.9 6.7 5.8	9.0 7.8 6.7 5.9						
34.0	23.5	77.6	5.1 Ángu	5.1	ıma nrin	oinal 75 (	) [ ° 1			
30.9	65.0	88.2	Angu	12.4	uma prind	upai /5.0	) 			
32.0 34.0 36.0 38.0 40.0	62.3 56.9 51.1 44.8 37.6	87.7 86.5 85.0 83.1 80.8	11.5 9.3 7.8 6.7 5.8	11.8 9.8 8.3 7.2 6.2						
42.0	28.9	77.7	5.1	5.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	[°]			
45.4	55.0	81.9	0.0	8.8						
46.0 48.0 50.0 55.0	53.2 47.1 40.3 15.6	81.5 79.8 77.6 67.8	8.9 7.5 6.5 4.7	7.5 6.5						



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]
		65.0	0 m Plum Cabeza 28.0	de plumí	oal, Punt ín (1916- osición m	1) 47.5 r	n Plumín	dfall I		
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
11.6 12.0 13.0 14.0 16.0	78.0 77.1 74.9 72.8 68.4	95.5 95.4 95.2 94.8 94.1	15.1 15.1 15.1 15.1 15.1	30.1 30.1 29.3 27.3 22.1						
18.0 20.0 22.0 24.0 26.0	63.9 59.2 54.3 48.9 43.1	93.2 92.0 90.7 89.1 87.1	15.1 14.5 13.0 11.8 10.4	18.3 15.7 13.7 12.2 10.9						
28.0 30.0	36.5 28.6	84.6 81.4	9.3 8.4	9.9 9.1						
00.0	20.0	0			uma prin	cipal 83.0	1°10			
19.6 20.0 22.0	73.0 72.2 67.8	94.3 94.2 93.4	15.1 15.1	25.4 25.3 21.3						
24.0 26.0 28.0 30.0 32.0 34.0	63.3 58.5 53.5 48.1 42.2 35.5	92.5 91.3 89.9 88.3 86.2 83.7	15.1 14.6 13.6 12.5 11.0 9.8	17.8 15.4 13.4 12.0 10.8 9.8						
36.0	27.3	80.4	8.9	9.0						
32.2 34.0	65.0 60.8	91.0 90.1	Angu	17.8 16.4	uma prind	cipal 75.0	0[°]			
36.0 38.0 40.0 42.0 44.0 46.0	56.0 50.8 45.2 38.9 31.5 22.0	88.8 87.2 85.4 83.1 80.2 76.2	14.5 13.3 11.8 10.4 9.4 8.5	14.3 12.6 11.3 10.2 9.4 8.6						
					ıma prin	cipal 65.0	D[°]			
47.1 48.0 50.0 55.0 57.0	55.0 52.7 47.2 30.3 20.2	84.4 83.8 82.0 75.7 71.4	9.1 8.5 7.0 6.5	8.5 8.2 7.6 6.1 5.6	·	·				



Nº de ident.: 9842523/95738/ 360°

Radio de descarga:

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

2821-1 2821-1

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		65.0	0 m Plum Cabeza 19.0		n (1916-	1) 50.5 r	n Plumín			
			Ángı	ılo de plu	ıma prin	cipal 88.0	[°]			
9.7 10.0 11.0 12.0 13.0 14.0 16.0 18.0 20.0 22.0	78.0 77.0 73.9 70.7 67.4 64.1 57.0 49.3 40.4 29.3	86.7 86.6 86.4 86.0 85.6 85.1 83.9 82.4 80.3 77.3	15.1 15.1	30.1 30.1 30.1 26.8 23.6 20.2 15.8 12.9 10.5 8.8 Illo de plu 28.4 26.2	uma princ	cipal 83.0	D[°]			
20.0 22.0	63.1 55.9	84.4 83.2	15.1 14.0	19.3 15.2						
24.0 26.0 28.0	48.1 39.0 27.3	81.6 79.4 76.2	9.9 8.3	12.5 10.3 8.7						
				ılo de plu	ıma prin	cipal 75.0	[°]			
28.4 30.0 32.0 34.0 36.0	65.0 59.5 52.0 43.6 33.5	82.8 82.0 80.5 78.6 76.1	15.1 14.3 12.2 9.9	19.2 16.9 13.6 11.3 9.5						
			Ángı	ılo de plu	ıma prin	cipal 65.0	0 [°]			
41.9 42.0 44.0 46.0 48.0 49.0	55.0 54.7 46.7 37.4 25.0 15.2	77.0 77.0 75.3 73.0 69.6 67.0	10.4 9.4 8.4 7.5 7.1	8.7 8.6 7.6 6.7 5.8 5.4	·		_			



N° de ident.: 9842523/95738/

Radio de descarga:

360 ° Cabe

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

Cabeza de plu 22.0 [ m ]	] [t] [t] [t] [t] [t] [t] [t] [t] [t] [t
Cabeza de plu 22.0 [ m ]	umín (1916-1) 53.5 m Plumín ] Posición midfall (1916) e pluma principal 88.0 [°]
10.3         78.0         89.7         15.1         30.1           11.0         76.1         89.5         15.1         30.1           12.0         73.4         89.2         15.1         25.8           13.0         70.7         88.8         15.1         21.8           14.0         67.9         88.4         15.0         19.1           16.0         62.0         87.4         14.2         14.8           18.0         55.9         86.2         11.6         12.0           20.0         49.1         84.6         9.4         10.0           22.0         41.6         82.5         7.7         8.2	1 1
11.0     76.1     89.5     15.1     30.1       12.0     73.4     89.2     15.1     25.8       13.0     70.7     88.8     15.1     21.8       14.0     67.9     88.4     15.0     19.1       16.0     62.0     87.4     14.2     14.8       18.0     55.9     86.2     11.6     12.0       20.0     49.1     84.6     9.4     10.0       22.0     41.6     82.5     7.7     8.2	.1
24.0   32.6   79.8   6.5   6.9	.8
	e pluma principal 83.0 [ ° ]
17.9         73.0         88.6         15.1         22.7           18.0         72.6         88.6         15.1         22.6           20.0         67.0         87.8         15.1         18.2           22.0         61.2         86.7         15.0         14.4           24.0         54.9         85.4         12.3         11.6           26.0         48.1         83.8         10.1         9.7           28.0         40.4         81.7         8.2         8.1           30.0         31.1         78.8         6.9         6.9	.6 2 4 6 6 6 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
	e pluma principal 75.0 [°]
29.7 65.0 85.5 15.3	
30.0 64.1 85.4 15.1 15.3 32.0 58.0 84.2 14.2 12.8 34.0 51.5 82.8 11.4 10.5 36.0 44.3 80.9 9.3 8.9 38.0 35.9 78.5 7.6 7.5 40.0 25.0 75.0 6.5 6.5	.3 .8 .5 .9 .5
	e pluma principal 65.0 [°]
43.7     55.0     79.4     7.8       44.0     53.9     79.3     9.2     7.6       46.0     46.9     77.6     8.3     6.8       48.0     39.1     75.3     7.4     6.0       50.0     29.3     72.3     6.7     5.3       52.0     16.7     67.4     5.9	8



N° de ident.: 9842523/95738/

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

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

	Inserciór	1	1	2	3	4	5	6	7	8
Alcan- ce [ m ]	Ángu- o de plumín [°]	Altura de rolda- nas [ m ]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]	Carga [t]
		20.0	0 m Plum Cabeza 16.0	de plumí	oal, Punt ín (2316- osición m	1) 38.5 r	n Plumín	dfall I		
			Ángu	ılo de plu	uma prin	cipal 88.0	0 [°]			
7.5 8.0 9.0 10.0 11.0 12.0 13.0 14.0 16.0	78.0 76.3 72.6 68.7 64.8 60.7 56.4 51.8 41.5 28.1	38.8 38.7 38.4 38.0 37.5 37.0 36.3 35.6 33.6 30.6	15.1 15.1 15.1 15.1 15.1 15.1 15.1 12.9 10.8	30.1 30.1 30.1 28.9 24.4 21.1 17.9 15.5 12.3						
10.0	20.1	30.0			uma prin	oinal 92 (	0 [ 0 ]			
10.7 11.0 12.0 13.0 14.0 16.0 18.0 20.0	73.0 71.8 67.9 63.9 59.8 50.8 40.3 26.3	38.2 38.1 37.7 37.2 36.6 35.2 33.1 30.0	15.1 15.1 15.1 15.1 15.1 15.0 12.5 10.6	30.1 30.1 29.5 23.9 20.2 15.1 12.0 10.0		cipai oo.				
20.0	20.3	30.0			ıma prin	cinal 75 (	0 1 0			
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	лпа рпп	ыраі 73.				
			Ángu	ılo de plu	ıma prin	cipal 65.0	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	-					
			Ángı	ılo de plu	ıma prin	cipal 45.0	0[°]			
30.7 32.0 33.0	35.0 25.0 16.5	25.2 23.2 20.4	9.1 8.2	9.9 8.9	-		_			



Nº de ident.: 9842523/95738/

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

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

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) 41.5 m Plumín 19.0 [ m ] Posición midfall (2316)										
			Ángu	ılo de plu	ıma prin	cipal 88.0	[°]C				
8.2 9.0 10.0 11.0 12.0	78.0 75.4 72.2 69.0 65.7	41.8 41.6 41.2 40.8 40.4 39.9	15.1 15.1 15.1 15.1 15.1	30.1 30.1 30.1 29.3 24.5							
14.0 16.0 18.0 20.0	58.8 51.2 42.7 32.2	39.3 37.8 35.8 33.1	14.7 13.9 11.1 8.8	18.3 14.3 11.5 9.4							
			Ángı	ılo de plu	ıma prin	cipal 83.0	[°]C				
11.6 12.0 13.0 14.0 16.0 18.0 20.0	73.0 71.6 68.3 65.0 58.0 50.4 41.7	41.1 40.9 40.5 40.1 38.9 37.4 35.4	15.1 15.1 15.1 15.1 14.7 13.9	30.1 30.1 28.4 23.8 17.8 14.0 11.3 9.3							
22.0	31.0	32.6	8.8 Ápgu		ıma prin	cipal 75.0	) [ ° ]				
16.8 18.0	65.0 60.9	39.3 38.7	15.1	23.2 19.9	ina pilli		, i ]				
20.0 22.0 24.0	53.6 45.4 35.7	37.4 35.6 33.2	15.1 13.5 11.0	15.4 12.4 10.2							
	Ángulo de pluma principal 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							
	Ángulo de pluma principal 45.0 [ ° ]										
33.2 34.0 35.0	35.0 30.1 22.7	26.9 25.9 23.9	9.6 8.6	9.7 9.0 8.2							



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]	
	20.0 m Pluma principal, Punto de carga 3 - Midfall Cabeza de plumín (2316-1) 44.5 m Plumín 22.0 [ m ] Posición midfall (2316)										
			Ángı	ılo de plu	ıma prin	cipal 88.	0[°]				
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.	0 [°]				
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		-!! 75	0.001				
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	сіраі 75.	0[]				
	Ángulo de pluma principal 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	•		-				
Ángulo de pluma principal 45.0 [ ° ]											
35.6 36.0 38.0	35.0 33.2 21.0	28.6 28.4 24.4	8.5 7.1	8.4 8.3 7.0							



N° de ident.: 9842523/95738/

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

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

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) 47.5 m Plumín 25.0 [ m ] Posición midfall (2316)											
			Ángı	ılo de plu	ıma prin	cipal 88.0	0[°]				
9.4 10.0 11.0 12.0 13.0	78.0 76.6 74.2 71.8 69.4 66.9	47.6 47.5 47.2 46.9 46.5	15.1 15.1 15.1 15.1	30.1 30.1 30.1 26.1 23.1							
16.0 18.0 20.0 22.0 24.0	66.9 61.7 56.3 50.5 44.1 36.8	45.1 43.8 42.3 40.4 37.9	15.1 15.1 13.0 11.5 9.3 7.6	15.8 12.8 10.7 8.9							
26.0	27.8	34.7	6.4	6.4							
			Angı		ıma prin	cipal 83.0	0[°]				
13.3 14.0 16.0	73.0 71.3 66.4	46.8 46.6 45.8	15.1 15.1	27.6 26.1 19.5							
18.0 20.0 22.0 24.0 26.0	61.2 55.7 49.9 43.4 36.0	44.7 43.4 41.9 39.9 37.4	15.0 12.9 11.3 9.2 7.5	15.5 12.5 10.5 8.8 7.4							
28.0	26.7	34.1	6.4 Ápgi	6.3	ıma prin	cipal 75 (	) [ ° ]				
19.4 20.0 22.0 24.0 26.0 28.0	65.0 63.3 58.0 52.3 46.1 39.1	44.8 44.5 43.3 41.9 40.1 37.8	15.1 15.1 14.8 12.1 10.1 8.3	17.7 17.0 13.8 11.3 9.6 8.1	лпа рпп	ыраг 75.	J [ ]				
30.0	30.8	34.9	7.0	6.9							
26.4	Ángulo de pluma principal 65.0 [°]										
26.4 28.0 30.0 32.0 34.0	55.0 50.3 43.9 36.5 27.5	41.1 39.9 38.0 35.6 32.3	11.0 9.0 7.4 6.4	11.6 10.2 8.7 7.3 6.3							
Ángulo de pluma principal 45.0 [ ° ]											
38.1 40.0 41.0	35.0 25.9 19.5	30.4 27.4 25.0	6.4 5.8	7.2 6.3 5.8							



Nº de ident.: 9842523/95738/

Radio de descarga:

Pieza de articulación de pluma principal: 360°

Cabeza de pluma principal:

2821-1 2821-1

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

Alcan	Inserción			1	2	3	4	5	6	7	8		
Cabeza de plumín (2316-1) 50.5 m Plumín 28.0 [ m ] Posición midfall (2316)  Angulo de pluma principal 88.0 [ ° ]  10.0 78.0 50.6 30.1 51.1 30.1 12.0 71.7 49.7 15.1 29.3 14.0 69.5 49.3 15.1 29.3 18.0 60.4 47.4 15.1 19.1 20.0 55.5 46.1 15.1 14.0 22.0 55.2 44.5 15.1 14.0 22.0 55.2 44.5 15.1 14.0 22.0 30.2 20.0 30.7 33.3 8.4 8.4 8.4  Angulo de pluma principal 83.0 [ ° ]  14.2 73.0 49.7 15.1 22.7 18.0 18.0 18.0 18.0 18.0 18.0 18.0 18.0	се	o de plumín	de rolda- nas	Carga [t]									
10.0		Cabeza de plumín (2316-1) 50.5 m Plumín											
110	Ángulo de pluma principal 88.0 [ ° ]												
12.0 73.8 50.0 15.1 30.1 15.1 29.3 14.0 69.5 49.3 15.1 28.8 16.0 66.0 48.5 15.1 28.8 16.0 66.0 48.5 15.1 12.0 20.0 55.5 46.1 15.1 16.1 22.0 50.2 44.5 15.1 14.0 22.0 50.2 44.5 15.1 14.0 22.0 50.2 24.5 15.1 14.0 22.0 26.0 38.2 40.3 11.0 10.6 28.0 30.7 37.3 9.6 9.5 30.0 20.7 33.1 8.4 8.4 8.4	10.0	78.0	50.6		30.1								
13.0 71.7 49.7 15.1 29.3													
14.0 69.5 49.3 15.1 28.8		i											
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 19.1 22.0 50.2 44.5 15.1 14.0 24.0 44.6 42.6 12.9 12.2 22.0 30.2 44.5 15.1 14.0 10.6 28.0 30.7 37.3 9.6 9.5 30.0 20.7 33.1 8.4 8.4 8.4		ı											
18.0 60.4 47.4 15.1 19.1 16.1 22.0 55.5 46.1 17.1 16.1 16.1 22.0 50.2 44.5 15.1 14.0 24.0 44.6 42.6 12.9 12.2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2													
22.0   50.2   44.5   15.1   14.0		l											
24.0		i											
26.0 38.2 40.3 11.0 10.6 9.5 30.0 20.7 33.1 11.0 10.6 9.5 9.5 9.6 9.5		i											
28.0   30.7   37.3   9.6   9.5   8.4   8.4													
Angulo de pluma principal 83.0 [ ° ]													
Ángulo de pluma principal 83.0 [°]         14.2       73.0       49.7       30.1       9.1       30.1       9.1       9.9       9.1       49.0       15.1       27.7       9.0       9.0       9.9       47.0       15.1       18.9       22.0       59.9       47.0       15.1       18.9       22.0       55.0       45.7       15.1       15.9       24.0       49.7       44.1       14.5       13.8       24.0       49.7       44.1       14.5       13.8       22.0       28.0       37.5       39.8       10.9       10.6       30.0       29.8       36.7       9.6       9.5       9.0       9.5       9.0       9.5       9.0       9.5       9.0       9.0       9.0       9.0       9.0       9.0		i											
16.0 69.1 49.0 15.1 27.7 18.0 18.0 64.6 48.1 15.1 22.6 20.0 59.9 47.0 15.1 18.9 22.0 55.0 45.7 15.1 15.9 24.0 49.7 44.1 14.5 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 36.0 45.6 15.1 17.1 20.3 22.5 22.0 61.8 46.8 15.1 20.3 24.0 57.0 45.6 15.1 17.1 28.0 40.2 40.1 11.8 11.2 32.0 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				Ángı	ılo de plı	ıma prin	cipal 83.	D[°]					
18.0 64.6 48.1 15.1 22.6 20.0 59.9 47.0 15.1 18.9 22.0 55.0 45.7 15.1 18.9 22.0 22.0 55.0 45.7 15.1 15.9 24.0 49.7 44.1 14.5 13.8 26.0 43.9 42.2 12.5 12.0 28.0 37.5 39.8 36.7 9.6 9.5 22.0 61.8 46.8 46.8 15.1 20.3 22.0 61.8 46.8 46.8 15.1 17.1 26.0 51.9 44.1 15.1 14.7 28.0 46.3 42.3 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      Angulo de pluma principal 65.0 [°]  28.1 55.0 43.6 30.0 50.1 42.2 14.3 13.4 34.0 38.0 30.4 44.4 40.3 32.0 34.0 38.0 37.9 10.7 10.3 36.0 30.4 34.9 9.4 9.3     Angulo de pluma principal 45.0 [°]  40.5 35.0 35.0 32.1 40.0 8.6 6.8     Angulo de pluma principal 45.0 [°]	14.2	73.0	49.7		30.1								
20.0	16.0				27.7								
22.0 55.0 45.7 15.1 15.9 13.8 26.0 43.9 42.2 12.5 12.0 29.8 37.5 39.8 30.7 9.6 9.5 20.0 61.8 46.8 15.1 20.3 24.0 57.0 45.6 15.1 17.1 28.0 46.3 42.3 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     Angulo de pluma principal 65.0 [°]  Angulo de pluma principal 65.0 [°]  Angulo de pluma principal 65.0 [°]  Angulo de pluma principal 45.0 [°]  Angulo de pluma principal 45.0 [°]		i											
24.0		I											
26.0		i											
30.0 29.8 36.7 9.6 9.5 Angulo de pluma principal 75.0 [°]  20.6 65.0 47.5 22.5 22.0 61.8 46.8 15.1 20.3 24.0 57.0 45.6 15.1 17.1 20.3 28.0 46.3 42.3 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  Angulo de pluma principal 65.0 [°]  28.1 55.0 43.6 30.0 50.1 42.2 14.3 13.4 32.0 32.0 44.4 40.3 12.5 11.8 34.0 32.0 33.4 37.9 9.0 8.9  Angulo de pluma principal 45.0 [°]  Angulo de pluma principal 45.0 [°]	i	i											
Angulo de pluma principal 75.0 [°]  20.6   65.0   47.5   22.5   22.0   61.8   46.8   15.1   20.3   24.0   57.0   45.6   15.1   17.1   26.0   51.9   44.1   15.1   14.7   28.0   46.3   42.3   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    Angulo de pluma principal 65.0 [°]  28.1   55.0   43.6   15.0   30.0   50.1   42.2   14.3   13.4   32.0   44.4   40.3   12.5   11.8   34.0   38.0   37.9   10.7   10.3   36.0   30.4   34.9   9.4   9.3    Angulo de pluma principal 45.0 [°]  40.5   35.0   32.1   40.5   35.0   32.1   40.5   29.2   30.0   8.6   6.8													
20.6 65.0 47.5 22.5 22.0 61.8 46.8 15.1 20.3 24.0 57.0 45.6 15.1 17.1 26.0 51.9 44.1 15.1 14.7 28.0 46.3 42.3 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    Angulo de pluma principal 65.0 [°]  28.1 55.0 43.6 30.0 50.1 42.2 14.3 13.4 32.0 32.0 44.4 40.3 12.5 11.8 34.0 32.0 33.4 37.9 9.0 8.9    Angulo de pluma principal 45.0 [°]  Angulo de pluma principal 45.0 [°]	30.0	29.8	36.7			ıma prin	cipal 75 i	) [ ° ]					
22.0 61.8 46.8 15.1 20.3 24.0 57.0 45.6 15.1 17.1 26.0 51.9 44.1 15.1 14.7 28.0 46.3 42.3 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    Angulo de pluma principal 65.0 [°]  28.1 55.0 43.6 15.0 142.2 14.3 13.4 33.0 50.1 42.2 14.3 13.4 32.0 34.0 38.0 37.9 10.7 10.3 36.0 30.4 34.9 9.4 9.3   Angulo de pluma principal 45.0 [°]  Angulo de pluma principal 45.0 [°]	20.6	65.0	47.5	Angu				<u> </u>					
26.0 51.9 44.1 15.1 14.7 28.0 46.3 42.3 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 Angulo de pluma principal 65.0 [°]  28.1 55.0 43.6 15.0 15.0 30.0 50.1 42.2 14.3 13.4 32.0 44.4 40.3 12.5 11.8 34.0 38.0 37.9 10.7 10.3 36.0 30.4 34.9 9.4 9.3 Angulo de pluma principal 45.0 [°]  Angulo de pluma principal 45.0 [°]  40.5 35.0 32.1 4.0 9.4 9.3 4.0 4.0 9.4 9.3 9.4 9.3 4.0 9.4 9.3 4.0 9.4 9.3 4.0 9.4 9.3 4.0 9.4 9.3 9.3 4.0 9.4 9.3 9.4 9.3 9.4 9.3 9.4 9.3 9.4 9.3 9.3 9.4 9.3 9.4 9.3 9.4 9.3 9.4 9.3 9.4 9.3 9.4 9.3 9.3 9.4 9.3 9.4 9.3 9.4 9.3 9.3 9.4 9.3 9.4 9.3 9.4 9.3 9.4 9.3 9.3 9.4 9.3 9.4 9.3 9.3 9.4 9.3 9.3 9.4 9.3 9.3 9.4 9.3 9.3 9.4 9.3 9.3 9.4 9.3 9.3 9.4 9.3 9.3 9.4 9.3 9.3 9.3 9.4 9.3 9.3 9.4 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3 9.3		i		15.1									
28.0	24.0	57.0	45.6										
30.0		I											
32.0 33.1 37.4 10.3 10.1 34.0 24.1 33.7 9.0 8.9 Angulo de pluma principal 65.0 [°]  28.1 55.0 43.6 15.0 15.0 14.2 14.3 13.4 13.4 13.4 12.5 11.8 13.4 13.4 12.5 11.8 13.4 13.4 13.4 13.4 13.4 13.4 13.4 13.4		i											
34.0 24.1 33.7 9.0 8.9 Ángulo de pluma principal 65.0 [°]  28.1 55.0 43.6 30.0 50.1 42.2 14.3 13.4 32.0 44.4 40.3 12.5 11.8 34.0 38.0 37.9 10.7 10.3 36.0 30.4 34.9 9.4 9.3  Angulo de pluma principal 45.0 [°]  40.5 35.0 32.1 6.8 7.5 42.0 29.2 30.0 8.6 6.8		i											
Angulo de pluma principal 65.0 [°]  28.1		ı											
28.1 55.0 43.6 15.0 15.0 30.0 50.1 42.2 14.3 13.4 13.4 32.0 44.4 40.3 12.5 11.8 34.0 38.0 37.9 10.7 10.3 36.0 30.4 34.9 9.4 9.3 9.4 9.3 9.4 9.3    Angulo de pluma principal 45.0 [°]  40.5 35.0 32.1 7.5 6.8													
30.0 50.1 42.2 14.3 13.4 32.0 44.4 40.3 12.5 11.8 34.0 38.0 37.9 10.7 10.3 36.0 30.4 34.9 9.4 9.3 Angulo de pluma principal 45.0 [°]  40.5 35.0 32.1 6.8 7.5 42.0 29.2 30.0 8.6 6.8	28.1	55.0	43.6										
34.0 38.0 37.9 10.7 10.3 9.3 Angulo de pluma principal 45.0 [°]  40.5 35.0 32.1 42.0 29.2 30.0 8.6 6.8		i		14.3									
36.0 30.4 34.9 9.4 9.3 Angulo de pluma principal 45.0 [°]  40.5 35.0 32.1 7.5 42.0 29.2 30.0 8.6 6.8		l											
Ángulo de pluma principal 45.0 [°]  40.5   35.0   32.1   7.5	i	i											
40.5 35.0 32.1 7.5 42.0 29.2 30.0 8.6 6.8	,												
42.0 29.2 30.0 8.6 6.8	40.5	35.0	32.1	I		,,,,a p,,,,,	 	, ,		l			
		i		8.6	i e								
		l	25.5	7.5									