Protocolo de produção   
DF-1751-22 CascaLP / RotorShellPF   
   
ENERCON Partner   
D03008495/0.0-pt / WT   
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1   
   
Data / Date \_\_\_\_\_\_\_\_\_\_   
2   
 Nº de material / Material No 1071970   
3   
 Casca da pá do rotor (lado de pressão) Nº /   
Rotor blade shell (pressure face) No. \_\_\_ \_\_\_\_\_\_/MN- \_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
4   
 O texto original está na língua inglesa. A tradução do texto é informativa e tem de ser revista antes da aplicação   
do protocolo. Em caso de dúvidas ou em caso de contrariedades aplica-se o texto original em inglês. / The   
English text is the original text. The translation of the text is informative and must be checked before using the   
protocol. In case of doubt or contradiction, the original English text shall prevail.   
5   
 Etapa de trabalho / Production step   
Assinatura / Signature   
6   
 Material de Gelcoat usado /   
Gelcoat material used   
\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
7   
 Lote n.º /   
Batch No.: A:   
\_\_\_\_\_\_\_\_\_\_\_\_\_ B:   
\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
8   
 Espessura da camada do solo /   
Wet thickness (nominal: 250-300 µm)   
9   
 Flange /   
Flange:   
\_\_\_\_\_\_\_\_\_\_µm \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
10   
 Centro /   
Centre:   
\_\_\_\_\_\_\_\_\_\_µm \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
11   
 Tip da pá /   
Blade tip:   
\_\_\_\_\_\_\_\_\_\_µm \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
12   
 Segmento 1 da pré-forma inspecionado e corretamente instalado /   
Segment 1 of the preform inspected and correctly installed no.:   
\_\_\_\_\_\_\_\_\_   
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
13   
 TE-UD-LP inspecionado e corretamente instalado /   
TE-UD part PS inspected and correctly installed no   
\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
14   
 Laminado externo completo e instalado de acordo com DC /   
Outer laminate and lightning protection are complete and installed in accordance with   
D02897138- \_\_\_\_\_\_\_\_   
15   
 N.º de série do blank de não-tecido (laminado externo) /   
Series No. of the non-woven fabric blank (outer laminate) no.:   
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
16   
 Segmento 2 da pré-forma inspecionado e corretamente instalado /   
Segment 2 of the preform inspected and correctly installed no.:   
\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CQ/QA   
17   
 Tipo e numero de Segmento 2 de preform / Type and number of preform segment 2:   
No. de parte de enrolamento / Winded part (acc. D02894273)   
\_\_\_\_\_\_\_\_\_\_   
No. de blank de não tecido / Layed-up part (acc. D02826681)   
\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CQ/QA   
18   
 Reforços externos locais introduzidos de acordo com DC /   
Local outer reinforcements inserted in accordance with   
D02905200- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
19   
 Longarina (lado de pressão) corretamente posicionada e instalada (início R3000, fim R87250) /   
Spar boom (pressure face) positioned and installed correctly (start R3000, end R87250) \_\_\_\_\_\_\_\_\_\_\_\_ CQ/QA   
20   
 Longarina (LP) /   
Spar boom (PF) no.:   
\_\_\_\_\_\_\_\_\_\_   
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CQ/QA   
21   
 Data de entrega/n.º de lote do kit de espuma/kit de madeira de balsa /   
Delivery date/Batch No. of the foam/balsa wood kit   
\_\_\_\_\_\_\_\_\_\_\_\_\_/  
\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
22   
 Realizadas 3 leituras da humidade da madeira de balsa (%) /   
3 readings of the humidity of the balsa wood taken (%)   
\_\_\_\_\_\_\_\_/  
\_\_\_\_\_\_\_\_/  
\_\_\_\_\_\_\_\_   
\_\_\_\_\_\_\_ CQ/QA   
23   
 Material de núcleo instalado de acordo com o DC /   
Core material installed in accordance with   
 D02909736-\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
24   
 Áreas sem material de núcleo inspecionado /   
Areas without core material inspected \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
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25   
 Etapa de trabalho / Production step   
Assinatura / Signature   
26   
 Reforços internos locais introduzidos de acordo com DC /   
Local inner reinforcements inserted in accordance with   
 D02903843-   
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
27   
 Laminado interno introduzido de acordo com DC /   
Inner laminate inserted in accordance with   
D02904945- \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
28   
 N.º de série do blank de não-tecido (laminado interno) /   
Series No. of the non-woven fabric blank (inner laminate):   
\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
29   
 Etiqueta de Identificação instalada /   
Label of serial number installed \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
30   
 Sistema de vácuo completo e verificações efetuadas na selagem /   
Vacuum system complete and checks carried out on the sealing \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
31   
 Aprovação para processo de infusão /   
Approval for infusion \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ CQ/QA   
32   
 Aquecimento do molde ativado /   
Mould heating activated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
33   
 Dados de processo preenchidos completamente, DF-175-rr DadosDeInfusão-InfusionData /   
Process data completely filled in the protocol DF-175-rr DadosDeInfusão-InfusionData   
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
34   
 Confirmação SAP enviada /   
SAP confirmation sent \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
35   
 No caso do registo eletrónico de dados de controlo (lote de controlo SAP), este protocolo termina aqui. /   
In the case of electronic inspection data recording (SAP inspection lot), this log ends here.   
   
   
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36   
 Controle de qualidade / Quality assurance   
ok / nok   
37   
 Material de núcleo (bordo de ataque) Início: R5000, fim: R66760 /   
Core material (leading edge) Start: R5000, End: R66760 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
38   
 Diferenças na espessura do material de núcleo (bordo de ataque)   
R30000 (40 a 25,4), R35400 (25,4 a 12,7), R55400 (12,7 a 9,52) /   
Differences in the thickness of the core material (leading edge)   
R30000 (40 to 25,4), R35400 (25,4 to 12,7), R55400 (12,7 to 9,52) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
39   
 Bordo sem material de núcleo no bordo de ataque /   
Rim without core material on the leading edge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
   
R04:120   
R05:120   
R06:120   
R07:120   
R08:120   
R09:120   
R10:120   
R11:120   
R12:120   
R13:120   
R14:120   
R15:120   
R16:120   
R17:120   
R18:120   
R19:120   
R20:120   
R21:120   
R22:120   
R23:120   
R24:120   
R25:120   
R26:120   
R27:120   
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R29:120   
R30:120   
R31:120   
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R36:120   
R37:120   
R38:120   
R39:120   
R40:120   
R41:120   
R42:120   
R43:120   
R44:120   
R55:120   
R46:120   
R47:120   
R48:120   
R49:120   
R50:120   
R51:120   
R52:120   
R53:120   
R54:120   
R55:120   
R56:120   
R57:120   
R58:120   
R59:120   
R60:120   
R61:120   
R62:120   
R63:120   
R64:120   
R65:120   
R66:120   
R66760:153   
   
40   
 Posição dos segmentos de espuma entre a longarina e o bordo de ataque (reta, alinhada, sem arestas ou   
fendas) /   
Position of the foam segments between the spar boom and the leading edge (straight, flush, without edges or   
gaps) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
41   
 Material de núcleo (bordo de fuga) início: R5700, fim: R82500 /   
Core material (trailing edge) Start: R5700, End: R82500   
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
42   
 Diferenças na espessura do material de núcleo (bordo de fuga)   
R11416 (25,5 a 40/38,1), R40400 (40/38,1 a 30/25,4), R55200 (30/25,4 a 25/19), R70200 (25/19 a 20), R80400   
(20 a 10) /   
Differences in the thickness of the core material (trailing edge)   
R11416 (25,5 to 40/38,1), R40400 (40/38,1 to 30/25,4), R55200 (30/25,4 to 25/19), R70200 (25/19 to 20),   
R80400 (20 to 10) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
43   
 Bordo sem material de núcleo no bordo de fuga /   
Rim without core material on the trailing edge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
   
R05:210   
R06:210   
R07:135   
R08:135   
R09:135   
R10:135   
R11:135   
R12:135   
R13:135   
R14:135   
R15:135   
R16:135   
R17:135   
R18:135   
R19:135   
R20:135   
R21:135   
R22:135   
R23:135   
R24:135   
R25:135   
R26:000   
R27:000   
R28:000   
R29:000   
R30:000   
R31:000   
R32:000   
R33:000   
R34:000   
R35:000   
R36:000   
R37:000   
R38:000   
R39:000   
R40:350   
R41:350   
R42:350   
R43:350   
R44:350   
R45:350   
R46:350   
R47:350   
R48:350   
R49:350   
R50:350   
R51:350   
R52:350   
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R56:300   
R57:300   
R58:300   
R59:300   
R60:300   
R61:300   
R62:300   
R63:300   
R64:300   
R65:300   
R66:300   
R67:300   
R68:300   
R69:300   
R70:270   
R71:263   
R72:253   
R73:244   
R74:235   
R75:226   
R76:217   
R77:208   
R78:198   
R79:189   
R80:180   
R81:180   
R82:180   
R83:180   
R84:180   
   
44   
 Posição dos segmentos de espuma entre a longarina e o bordo de fuga (reta, alinhada, sem arestas ou fendas)   
/   
Position of the foam segments between the spar boom and the trailing edge (straight, flush, without edges or   
gaps))   
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
   
   
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45   
 Controle de qualidade / Quality assurance   
ok / nok   
46   
 Execução do laminado interno entre a longarina e o bordo de ataque /   
Execution of the inner laminate between the spar boom and the leading edge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
   
R01   
R02   
R03   
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R80   
R81   
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R84   
R85   
R86   
R87   
   
47   
 Execução do laminado interno sobre a longarina /   
Execution of the inner laminate over the spar boom \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
   
R01   
R02   
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R86   
R87   
   
48   
 Execução do laminado interno entre a longarina e o bordo de fuga /   
Execution of the inner laminate between the spar boom and the trailing edge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
   
R01   
R02   
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49   
 Casca da pá do rotor (LP) sem danos /   
Rotor blade shell (PF) undamaged \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
   
50   
 Casca da pá do rotor (LP) rejeitada /   
Rotor blade shell (PF) rejected   
 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
51   
 Aprovada sob reserva /   
Provisionally approved   
 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
52   
 Aprovada /   
Approved   
\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
53   
 Inspetor (assinatura e data) /   
Inspector (signature and date) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_   
   
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