

# Abnahmeprüfzeugnis

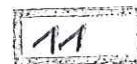
Inspection Certificate EN 10204:2004-3-2  
Certificat de Réception (EN 10204:1991-3.1C)  
Certificato Collaudo Materiali

Besteller - Customer - Acheteur - Committente:  
Linde AG  
Verfahrenstechnik und Anlagenbau  
Werk Schalchen, Carl Von Linde-strasse 15  
83342 Tacherting, Germany

Hersteller - Manufacturer - Fabricant - Produttore:  
B A Tubes  
Studley Road, Redditch  
Worcestershire, B98 7HN, England

Prüf-Nr. - Inspection No.: 9616-44-SW

Certificat No. - No di collaudo:



Teil - Part - Partie - Parte:

Blatt-Nr - Sheet No. - Page No. - Peg No.: 1 of 2

Bestell-Nr. - Order No.:

No de la commande - No dell'ordine:

15RL326 B. 1

Vom - dated - -  
date - in data :

30.08.04

Werks-Nr - Works No. - No usine - Commessa No.:

88754/1

Prüfgegenstand - Article - Produit - Prodotto: Seamless Aluminium Tube

Prüfgrundlagen/Anforderungen - Technical requirements/Demand - Spécifications techniques/Exigences - Norma di controllo/Requisiti:

AD 2000 - Merkblatt W6/1 (Einzelgutachten)

Werkstoff - Material - Matière - Materiale

entsprechend - according to suivant - secondo

Ausgabe Edition - Edizione:

EN AW-5083 -H112

EN573-3/764-2

1994/1997

SB 241 5083- H112

ASME

1996

Lieferzustand - State of delivery - Etat de livraison - Stato di fornitura: Soft Annealed

Erschmelzungsart - Melting process - Procédé d'élaboration - Procedimento di elaborazione: Electric.

Kennzeichnung - Marking - Marquage - Punzonatura:

Material: - ASME SB241 5083 - H112

EN AW 5083 -H112 Part no 769971, Cast No, Order No

Tube Nrs : 280017, 280019, 280021, 280023, 280025

280027.

Herstellerzeichen - Brand of the manufacturer - BAT

Marque du fabricant - Marchio del produttore:

Stempel des Sachverständigen - Inspectors stamp

Poinçon de l'expert - Punzone dell'ispettore.

T4Ü

Pos.- Nr./Item No. Poste-No No. pos	Stückzahl Number of Quote Numero pezzi	Gegenstand - Article Désignation du produit - Tipo di prodotto	Schmelze-Nr. Heat No. No Cuiée No Co'eta	Probe-Nr. Test No. No d'éprouvette No di prova
01	02	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K256	280017/018 (280017)
01	03	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K256	280019/020 (280019)
01	03	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K256	280021/022 (280021)
01	03	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K256	280023/024 (280023)
01	02	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K256	280025/026 (280026)
01	04	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K257	280027/028 (280027)

Zusätzliche Angaben - Additional remarks - Autres remarques - Osservazioni:

Die gestellten Anforderungen sind lt. Anlagen erfüllt.

The requirements are fulfilled as per annex  
Les conditions imposées sont satisfaites suivant annexes -  
I risultati sono conformi ai requisiti richiesti come da allegati.

Marking Code: EB147

(Ort - Location - Lieu - Località)

LONDON

(Datum - Date - Data)

20/12/04

Prüfstelle für Druckgeräte  
Notified Body for Pressure Equipment



## Abnahmeprüfzeugnis

Inspection Certificate

EN 10204:2004-3-2

Certificat de Réception

(EN 10204:1991-3.1C)

Certificato Collaudo Materiali

Besteller - Customer - Acheteur - Committente:

Linde AG

Verfahrenstechnik und Anlagenbau

Werk Schalchen, Carl Von Linde-strasse 15

83342 Tacherting, Germany

Hersteller - Manufacturer - Fabricant - Produttore:

B A Tubes

Studley Road, Redditch

Worcestershire, B98 7HN, England

Prüf-Nr. - Inspection No.:

9616-44-SW

Certificat No. - No di collaudo:

Teil - Part - Partie - Parte:

Blatt-Nr - Sheet No. - Page No. - Pag No.: 2 of 2

Bestell-Nr. - Order No.:

-5RL326

No de la commande - No dell'ordine:

Vom - dated -

30.08.04

date - in data:

Werks-Nr - Works No. - No usina - Commessa No.:

88754/1

Prüfgegenstand - Article - Produit - Prodotto: Seamless Aluminium Tube

Prüfgrundlagen/Anforderungen - Technical requirements/Demand - Spécifications techniques/Exigences - Norma di controllo/Requisiti:

AD 2000 - Merkblatt W6/1 (Einzelgutachten)

Werkstoff - Material - Matière - Materiale

entsprechend - according to suivant - secondo

Ausgabe - Edition - Edizione:

EN AW-5083 -H112

EN573-3/754-2

1994/1997

SB 241 5083- H112

ASME

1996

Lieferzustand - State of delivery - Etat de livraison - Stato di fornitura: Soft Annealed

Erschmelzungsart - Melting process - Procédé d'élaboration - Procedimento di elaborazione: Electric.

Kennzeichnung - Marking - Marquage - Punzonatura:

Material: - ASME SB241 5083 - H112

EN AW 5083 -H112 Part no 769971, Cast No, Order No

Tube Nrs : 280029, 280031, 280033, 280035, 280037

280039, 280041

Herstellerzeichen - Brand of the manufacturer - BAT

Marque du fabricant - Marchio del produttore:

Stempel des Sachverständigen - Inspectors stamp

Poinçon de l'expert - Punzone dell'ispettore.

T4Ü

Pos.- Nr./Item No. Poste-No No. pos	Stückzahl Number of Quota Numero pezzi	Gegenstand - Article Désignation du produit - Tipo di prodotto	Schmelz-Nr. Heat No. No Coulée No Coleta	Probe-Nr. Test No. No d'éprouvette No di prova
01	03	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K257	280029/030 (280029)
01	02	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K257	280031/032 (280031)
01	01	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K257	280033/034 (280033)
01	02	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K257	280035/036 (280035)
01	02	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K257	280037/038 (280037)
01	03	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K256	280039/040 (280039)
01	01	324,00mm O/D. x 16.0mm WT x 2,500 mtrs	1K256	280041/042 (280041)

Zusätzliche Angaben - Additional remarks - Autres remarques - Osservazioni:

Die gestellten Anforderungen sind lt. Anlagen erfüllt.

The requirements are fulfilled as per annex  
Les conditions imposées sont satisfaites suivant annexes -  
I risultati sono conformi ai requisiti richiesti come da allegati.

(Ort - Location - Lieu - Località)

LONDON

(Datum - Date - Data)

20/12/04

Prüfstelle für Druckgeräte  
Notified Body for Pressure Equipment

TÜV-UK DOC. No.:	FORM.: 0001	REV. No.:	3	DATE	04.11.04
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Ergebnis der Prüfungen  
Test Results  
Résultats des Essais  
Risultati delle Prove

Anlage - Annex - Annexe - Allegato: 1  
Blatt-Nr. 1 of 3  
Sheet-No.  
Page N°  
Pag N°

Prüf-Nr. 9616-44(SW)  
Inspection No.  
Certificat N°  
N° di collaudo

Teil  
Part  
Partie  
Parte

Mechanische Prüfungen - Mechanical tests - Essais mécaniques - Prove meccaniche

ZUGVERSUCH / TENSILE TEST											HARDNESS HB						
Prüfart - Test type - Type d'essai - Tipo di prova: Probenart - Specimen size Type de l'éprouvette Tipo di provetta: Probenzustand - Specimen condition - Etat d'éprouvette - Stato delle provette:																	
Probe-Nr. Test No. N° d'éprouvette N° di prova.	Probenabmessung Dim. of specimen Dim. de l'éprouvette Dim. della provetta		Probenentnahme Specimen Prélevement Prelevamento		Prüftemperatur Test Temperature Température d'essai Temperatura di prova		Streck-/Zugspannung Yield/Proof Stress Limite d'élasticité Lim. di snervamento		Zugfestigkeit Tensile strength Résistance à la traction Carico di rottura		Bruchdehnung Elongation Allongement Allungamento		Bruchverminderung Reduction of area Striction/Strizione		1 = [J] Schlagarbeit - Energy of impact Energie de rupture - Energia di rottura 2 = [J/cm²] Kerbschlagzähigkeit-Impact Strength Résilience - Resilienza 3 = [%] Krist Bruchanteil - Cryst. proportion Partie cristalline - Proporzione cristallina 4 = [mm10-2] Breitung - Expansion 5 = [%] Elargissement - Espansione 6 = Härte (Einheiten) - Hardness - Dureté - Durezza		
Schmelz-Nr. Heat No. N° Coulée Colata N°	Dicke Thickness Epaisseur Spessore	Breite, Ø Width, Ø Largeur, Ø Largh, Ø	Ort - Location Lieu - Zona	Richtung Direction - Senso Lage - Position Posizione	0.2 N/mm²		RM N/mm²		A Lo = 5.65 √s0 %		Z %		Werte - Values - Valeurs - Valori			Bemerkung Remarks Remarques Osservazioni	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
Reqs / Anforderungen Analysis % Max unless Stated S.i.0.40 Fe,0.40 Cu,0.10 Mn,0.40 to 1.00 Mg,4.0 to 4.9 Cr,0.05 to 0.25 Zn,0.25 Ti,0.15.			1	2	3	20	min 130	min 270	min 14		6	~ 65 HB					
280017 (1K256)	13,81 Ø		1	2L	3	20	148	323	19								
280018	12,75 Ø		1	2T	3*	20	179	324	18		6	81, 38	HB 40	40	39		
280019 (1K256)	13,65 Ø		1	2L	3	20	164	317	19		6	79	HB				
280020	11,39 Ø		1	2T	3	20	192	322	22		2	37	37	37	37		
280021 (1K256)	13,73 Ø		1	2L	3	20	151	323	19		6	82	HB				
280022	13,78 Ø		1	2T	3	20	197	327	22		2	40	40	38	39		
280023 (1K256)	13,73 Ø		1	2L	3	20	146	319	20		6	81	HB				
280024	12,44 Ø		1	2T	3	20	198	321	24		2	40	40	40	40		
280025 (1K256)	13,92 Ø		1	2L	3	20	146	318	17		6	81	HB				
280026	12,94 Ø		1	2T	3	20	196	318	20		2	35	35	34	34		
Notes			1) From tube end 2) L = Longitudinal / T = Transverse 3) Full Thickness 3" Mid Wall														
4) Besichtigung / Maßkontrolle / Visual and Dimensional check - ohne Beanstandung / Satisfactory																	
5) Chemische / Chemical Analysis: siehe Anlage 2 / See annex 2																	
6) Wärmebehandlung / Heat Treatment: Annealed at 400°C																	
7) Technological tests (ring tensile & macro) - ohne Beanstandung / Satisfactory																	
8) UST tested to SEP1915/1918 & ASTM B594 CLASS A siehe Anlage 2 / See annex 2:																	
9) Manufacturers 3.1.B certificate shows in house tests only.																	

Ort - Location - Lieu - Località)

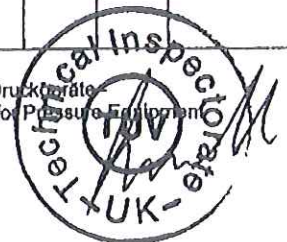
(Datum Date -Data)

LONDON

20/12/04

Prüfstelle für Druckgeräte  
Notified Body for Pressure Equipment  
S Worrall

TUV-UK DOC. No.:	FORM: 0001	REV. No.:	3	DATE:	05.11.04
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**Ergebnis der Prüfungen**  
**Test Results**  
**Résultats des Essais**  
**Risultati delle Prove**

Anlage - Annex - Annexe - Allegato: 1  
Blatt-Nr. 2 of 3  
Sheet-No.  
Page N°  
Pag N°

Prüf-Nr. 9616-44 (SW)

Inspection No.  
Certificat N°  
N° di collaudo

Teil  
Part  
Partie  
Parte

**Mechanische Prüfungen** - Mechanical tests - Essais mécaniques - Prove meccaniche

Prüfart - Test type - Type d'essai - Tipo di prova: Probenart - Specimen size Type de l'éprouvette Tipo di provetta: Probenzustand - Specimen condition - Etat d'éprouvette - Stato delle provette:			ZUGVERSUCH / TENSILE TEST								HARDNESS HB										
Probe-Nr. Test No. N° d'éprouvette N° di prova	Probenabmessung Dim. of specimen Dim. de l'éprouvette Dim. della provetta		Probenentnahme Specimen Prélèvement Prelevamento		Prüftemperatur Test Temperature Température d'essai Temperatura di prova		Streck-/Dehnversuch Yieldpoint/Proof Stress Limite d'élasticité Lim. di snervamento		Bruchdehnung Elongation Allongement Allungamento		Bruchreduktion Reduction of area Striction/Strizione		1 = [J] Schlagarbeit - Energy of impact Energie de rupture - Energia di rottura 2 = [J/cm²] Kerbschlagzähigkeit-Impact Strength Résilience - Resilienza 3 = [%] Krist.Bruchanteil - Cryst. proportion Partie cristalline - Proporzione cristallina 4 = [mm/10-2] Breitung - Expansion 5 = [%] Elargissement - Espansione 6 = Härte (Einheiten) - Hardness - Dureté - Durezza								
Schmelze-Nr. Heat No. N° Couloir Colata N°	Dicke Thickness Epaisseur Spessore	Breite, Ø Width, Ø Largeur, Ø Largh, Ø	Ort - Location Lieu - Zona	Richtung - Sense Direction - Senso Lage - Posizion Posizione	°C		0.2 N/mm²		RM N/mm²		A Lo= 5.65 √so %		Z %		Werte - Values - Valeurs - Valori 1 2 3 Σ/n						Bemerkung Remarks Remarques Osservazioni
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17					
Reqs / Anforderungen			1	2	3	20	min 130	min 270	min 14		6	≈ 65 HB									
Analysis																					
% Max unless Stated																					
S.I.0.40 Fe.0.40 Cu.0.10 Mn.0.40 to 1.00 Mg.4.0 to 4.9 Cr.0.05 to 0.25 Zn.0.25 Ti.0.15.																					
280027 (1K257)	13,94 Ø		1	2L	3	20	150	320	20		6	82	HB								
280028	13,81 Ø		1	2T	3	20	194	327	23		2	27	38	40	38						
280029 (1K257)	13,74 Ø		1	2L	3	20	155	320	19		6	81	HB								
280030	13,80 Ø		1	2T	3	20	174	320	22		2	37	37	37	37						
280031 (1K257)	13,81 Ø		1	2L	3	20	154	325	18		6	82	HB								
280032	14,17 Ø		1	2T	3	20	190	323	19		2	40	40	40	40						
280033 (1K257)	13,71 Ø		1	2L	3	20	158	329	20		6	84	HB								
280034	12,24 Ø		1	2T	3	20	203	330	22		2	35	35	37	36						
280035 (1K257)	13,77 Ø		1	2L	3	20	148	317	18		6	79	HB								
280036	13,56 Ø		1	2T	3	20	198	325	23		2	40	37	37	38						
Notes			1) From tube end 2) L = Longitudinal / T = Transverse 3) Full Thickness 3* Mid Wall																		
4) Besichtigung / Maßkontrolle / Visual and Dimensional check - ohne Beanstandung / Satisfactory																					
5) Chemische / Chemical Analysis: siehe Anlage 2 / See annex 2																					
6) Wärmebehandlung / Heat Treatment: Annealed at 400°C																					
7) Technological tests (ring tensile & macro) - ohne Beanstandung / Satisfactory																					
8) UST tested to SEP1915/1918 & ASTM B594 CLASS A siehe Anlage 2 / See annex 2:																					
9) Manufacturers 3.1.B certificate shows in house tests only.																					

Ort - Location - Lieu - Localita)

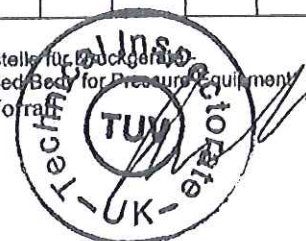
LONDON

(Datum Date -Data)

20/12/04

Prüfstelle für Druckgeräte  
Notified Body for Pressure Equipment  
S. Worrall

TUV-UK DOC. No.:	FORM.: 0001	REV. No.:	3	DATE:	05.11.04
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**Ergebnis der Prüfungen**  
Test Results  
Résultats des Essais  
Risultati delle Prove

Anlage - Annex - Annexo - Allegato: 1  
Blatt-Nr. 3 of 3  
Sheet No.  
Page N°  
Pag N°

Prüf-Nr. 9616-44 (SW)  
Inspection No.  
Certificat N°  
N° di collaudo

Teil  
Part  
Partie  
Parte

**Mechanische Prüfungen** - Mechanical tests - Essais mécaniques - Prove meccaniche

Prüfart - Test type - Type d'essai - Tipo di prova: Probenart - Specimen size Type de l'éprouvette Tipo di provetta: Probenzustand - Specimen condition - Etat d'éprouvette - Stato delle provette:			ZUGVERSUCH / TENSILE TEST								HARDNESS HB								
Probe-Nr. Test No. N° d'éprouvette N° di prova.	Probenabmessung Dim. of specimen Dim. de l'éprouvette Dim. della provetta		Probenentnahme Specimen Prélevement Prelevamento		Prüf-Temperatur Test Temperature Température d'essai Temperatura di prova		Streck-/Dehngrenze Yield strength Limite d'élasticité Lim. di snervamento		Zugfestheit Tensile strength Résistance à la traction Carico di rottura		Bruchdehnung Elongation Allongement Allungamento		Bruchreduzierung Reduction of area Striction/Strizione		1 = [J] Schlagarbeit - Energy of impact Energie de rupture - Energia di rottura 2 = [J/cm²] Kerbschlagzähigkeit - Impact Strength Résilience - Resilienza 3 = [%] Krist.Bruchanteil - Cryst. proportion Partie cristalline - Proporzione cristallina 4 = [mm10 <sup>-2</sup> ] Breitung - Expansion 5 = [%] Elargissement - Espansione 6 = Härte (Einheiten) - Hardness - Durezza				
Schmelze-Nr. Heat No. N° Coulée Colata N°	Dicke Thickness Epaisseur Spessore	Breite, Ø Width, Ø Largeur, Ø Largh, Ø	Ort - Location Lieu - Lieu	Richtung - Senso Direction - Posizione		°C	0.2 N/mm²		RM N/mm²	A Lo 5.65 180 %	Z %	Werte - Values - Valeurs - Valori				Bemerkung Remarks Remarques Osservazioni			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17			
Reg'ls / Anforderungen Analysis			1	2	3	20	min 130	min 270	min 14		6	~ 65 HB							
% Max unless Stated S.i 0,40 Fe, 0,40 Cu, 0,10 Mn, 0,40 to 1,00 Mg, 4,0 to 4,9 Cr, 0,05 to 0,25 Zn, 0,25 Ti, 0,15.																			
280037 (1K257)	13,71 Ø		1	2L	3	20	152	331	18										
280038	13,62 Ø		1	2T	3	20	177	289	22		6	81 38	HB 41	38	39				
280039 (1K256)	13,70 Ø		1	2L	3	20	156	319	17										
280040	13,72 Ø		1	2T	3	20	192	322	23		6	82 35	HB 35	37	38				
280041 (1K256)	13,76 Ø		1	2T	3	20	191	321	22										
280042	13,76 Ø		1	2L	3	20	156	320	20		6	80 35	HB 35	35	35				
Notes			1) From tube end 2) L = Longitudinal / T = Transverse 3) Full Thickness 3" Mid Wall																
4) Besichtigung / Maßkontrolle / Visual and Dimensional check - ohne Beanstandung / Satisfactory																			
5) Chemische / Chemical Analysis: siehe Anlage 2 / See annex 2																			
6) Wärmebehandlung / Heat Treatment: Annealed at 400°C																			
7) Technological tests (ring tensile & macro) - ohne Beanstandung / Satisfactory																			
8) UST tested to SEP1915/1918 & ASTM B594 CLASS A siehe Anlage 2 / See annex 2:																			
9) Manufacturers 3.1.B certificate shows in house tests only.																			

Ort - Location - Lieu - Localita)

LONDON

(Datum Date - Data)

20/12/04

Prüfstelle für Druckgeräte -  
Notified Body for Pressure Equipment  
S Worrall

TUV-UK DOC. No.:	FORM: 0001	REV. No.:	3	DATE:	05.11.04
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# BA TUBES LIMITED

Studley Road, Redditch, Worcester B98 7HN, England  
Telephone (01527) 484500, Facsimile (01527) 484501



## Inspection Certificate

Customer Copy No. 100881/1

### Customer

LINDE AG  
WERKSGRUPPE VERFAHRENSTECHNIK UND  
ANLAGENBAU, WERK SCHALCHEN  
CARL VON LINDE-STRASSE 15  
83342 TACHERTING, GERMANY

Your Order No : 5RL326  
Your Part No : 769971  
Our Order No : 88754/1  
Packing Note No : 133027  
Date : 17 Dec 2004  
Packages : 1 CASE

### Other Tests Passed

ULTRASONIC TEST  
NOTCH IMPACT TEST  
RING TENSILE TEST

### Size / Description

SEAMLESS DRAWN TUBE 324.00MM O/D 16.00MM W/T 5083 Alloy  
Length - 2500.00 mm

### Specification

5083 H112  
ADW6/1 ASMESB241M EN573-3

No of Pieces	Nett Weight	Tensile Test					Brinell Hardness	Heat or Cast No.	Chemical Analysis %										H cc/ 100gm
		Test No.	0.2% Proof Stress N/mm2	Tensile Strength N/mm2	% Elongation 5.65x SO				Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Na	Ti	
1	104	280027 L T	151 195	321 327	20 23	83	1K257	.11	.26	.02	.66	4.61	.14	.01	<0.0001	.02	.12		
1	104	280029 L T	155 195	321 321	19 22	81	1K257	.11	.26	.02	.66	4.61	.14	.01	<0.0001	.02	.12		
1	104	280031 L T	154 190	326 324	18 19	83	1K257	.11	.26	.02	.66	4.61	.14	.01	<0.0001	.02	.12		

Analysis by 17/12/04  
Purity 99.96% - 44 (Sb)

Remarks TUV TEST CERTS TO EN 10204 3.1C. CUT TO MAX LENGTHS  
SODIUM LESS THAN 10PPM. HYDROGEN LESS THAN 0.2ML/100GMS

Reviewed  
Signature

17/12/04  
[Signature]

For and on behalf of BA Tubes Limited 17/12/04

( THIS CERTIFICATE CONFORMS TO THE REQUIREMENTS OF EN 10204 3.1 Edition 2004 )

Registered in England No. 3981395  
Registered Office: Victoria House,  
150-152 The Quay, Salford, M50 3SP, England.  
VAT Registration No. GB 668 2142 26



# BA TUBES LIMITED

Studley Road, Redditch, Worcester B98 7HN, England  
Telephone (01527) 484500, Facsimile (01527) 484501



## Inspection Certificate

Customer Copy No. 100880/1

### Customer

LINDE AG  
WERKSGRUPPE VERFAHRENTSCHNIK UND  
ANLAGENBAU, WERK SCHALCHEN  
CARL VON LINDE-STRASSE 15  
83342 TACHERTING, GERMANY

Your Order No : 5RL326  
Your Part No : 769971  
Our Order No : 88754/1  
Packing Note No : 133028  
Date : 17 Dec 2004  
Packages : 1 CASE

Other Tests Passed  
ULTRASONIC TEST  
NOTCH IMPACT TEST  
RING TENSILE TEST

### Size / Description

SEAMLESS DRAWN TUBE 324.00MM O/D 16.00MM W/T 5083 Alloy  
Length - 2500.00 mm

### Specification

5083 H112  
ADW6/1 ASMESB241M EN573-3

No of Pieces	Nett Weight	Test No.	Tensile Test			Brinell Hardness	Heat or Cast No.	Chemical Analysis %										H cc/ 100gm
			0.2% Proof Stress N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>	% Elongation 5.65v SO			Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Na	Ti	
1	104	280031 L T	154 190	326 324	18 19	83	1K257	.11	.26	.02	.66	4.61	.14		.01	<0.0001	.02	.12
1	104	280033 L T	158 203	329 330	20 22	85	1K257	.11	.26	.02	.66	4.61	.14		.01	<0.0001	.02	.12
1	104	280039 L T	156 192	319 322	17 23	83	1K256	.15	.25	.02	.69	4.50	.14		.01	<0.0001	.01	.12
1	104	280035 L T	149 199	317 326	18 23	80	1K257	.11	.26	.02	.66	4.61	.14		.01	<0.0001	.02	.12

Anlage 2 Page 2 of 12  
Prüf Nr. 9616-44 (S2)

Remarks  
TUV TEST CERTS TO EN 10204 3.1C. CUT TO MAX LENGTHS  
SODIUM LESS THAN 10PPM. HYDROGEN LESS THAN 0.2ML/100GMS

17/12/04  
[Signature]

Registered in England No. 3881395  
Registered Office: Victoria House,  
150-182 The Quays, Salford, M50 3SP, England.  
VAT Registration No. GB 986 2142 28

( THIS CERTIFICATE CONFORMS TO THE REQUIREMENTS OF EN 10204 3.1 Edition 2004 )

For and on behalf of BA Tubes Limited 17/12/04

# BA TUBES LIMITED

Studley Road, Redditch, Worcester B98 7HN, England  
Telephone (01527) 484500, Facsimile (01527) 484501



## Inspection Certificate

### Customer

LINDE AG  
WERKSGRUPPE VERFAHRENSTECHNIK UND  
ANLAGENBAU, WERK SCHALCHEN  
CARL VON LINDE-STRASSE 15  
83342 TACHERTING, GERMANY

Customer Copy No. 100591/1

### Other Tests Passed

ULTRASONIC TEST  
NOTCH IMPACT TEST  
RING TENSILE TEST

Your Order No : 5RL326  
Your Part No : 769971  
Our Order No : 88754/1  
Packing Note No : 132613  
Date : 30 Nov 2004  
Packages : 1 CASE

### Size / Description

SEAMLESS DRAWN TUBE 324.000MM O/D 16.000MM W/T 5083 Alloy  
Length - 2500.00 mm

### Specification

5083 H112  
ADW6/1 ASMESEB241M EN573-3

No of Pieces	Nett Weight	Tensile Test				Brinell Hardness	Heat or Cast No.	Chemical Analysis %										H cc/ 100gm
		Test No.	0.2% Proof Stress N/mm2	Tensile Strength N/mm2	% Elongation 5.65v SO			Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Na	Ti	
3	314	280019 L T	164 193	318 323	19 22	82	1K256	.15	.25	.02	.69	4.50	.14		.01	<0.0001	.01	.12
1	104	280035 L T	149 199	317 326	18 23	80	1K257	.11	.26	.02	.66	4.61	.14		.01	<0.0001	.02	.12

Anlage 2 Page 3 of 12  
Print 9616-44 (S)

Remarks  
TUV TEST CERTS TO EN 10204 3.1C. CUT TO MAX LENGTHS  
SODIUM LESS THAN 10PPM. HYDROGEN LESS THAN 0.2ML/100GMS  
CASE NO. B1655

TUV UK Ltd

Inspected Date 7/12/04

Signature Date  
[Signature] 7/12/04

Registered in England No. 3881385  
Registered Office: Victoria House,  
130-132 The Quay, Salford, M50 3SP, England  
VAT Registration No. GB 812 514 514

For and on behalf of BA Tubes Limited 30/11/04

( THIS CERTIFICATE CONFORMS TO THE REQUIREMENTS OF EN 10204 3.1 Edition 2004 )



# BA TUBES LIMITED

Studley Road, Fleditch, Worcester B98 7HN, England  
Telephone (01527) 484500, Facsimile (01527) 484501



## Inspection Certificate

Customer Copy No. 100590/1

### Customer

LINDE AG  
WERKSGRUPPE VERFAHRENSTECHNIK UND  
ANLAGENBAU, WERK SCHALCHEN  
CARL VON LINDE-STRASSE 15  
83342 TACHERTING, GERMANY

Your Order No : 5RL326  
Your Part No : 769971  
Our Order No : 88754/1  
Packing Note No : 132612  
Date : 30 Nov 2004  
Packages : 1 CASE

Other Tests Passed  
ULTRASONIC TEST  
RING TENSILE TEST  
NOTCH IMPACT TEST

### Size / Description

SEAMLESS DRAWN TUBE 324.000MM O/D 16.000MM W/T 5083 Alloy  
Length - 2500.00 mm

### Specification

5083 H112  
ADW6/1 ASMESE241M EN573-3

No of Pieces	Nett Weight	Tensile Test				Brinell Hardness	Heat or Cast No.	Chemical Analysis %										H cc/ 100gm
		Test No.	0.2% Proof Stress N/mm2	Tensile Strength N/mm2	% Elongation 5.65v SO			Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Na	Ti	
2	209	280017 L T	148 197	323 324	19 18	82	1K256	.15	.25	.02	.69	4.50	.14		.01	<0.0001	.01	.12
2	209	280025 L T	146 196	318 318	17 20	82	1K256	.15	.25	.02	.69	4.50	.14		.01	<0.0001	.01	.12

### Remarks

TUV TEST CERTS TO EN 10204 3.1C. CUT TO MAX LENGTHS  
SODIUM LESS THAN 10PPM. HYDROGEN LESS THAN 0.2ML/100GMS  
CASE NO. B1656

TUV UK Ltd

Inspected Date 7/12/04  
Reviewed Date 7/12/04  
Signature [Signature]

Attachment 2 Page 4 of 12  
Prüf Nr. 9616-44 (53)

Registered in England No. 3881385  
Registered Office: Victoria House,  
130-132 The Quay, Salford, M50 3SP, England.  
VAT No. 950 050 014

For and on behalf of BA Tubes Limited 30/11/04

( THIS CERTIFICATE CONFORMS TO THE REQUIREMENTS OF EN 10204 3.1 Edition 2004 )

# BA TUBES LIMITED

Studley Road, Redditch, Worcester B98 7HN, England  
Telephone (01527) 484500. Facsimile (01527) 484501



## Inspection Certificate

Customer Copy No. 100589/1

### Customer

LINDE AG  
WERKSGRUPPE VERFAHRENSTECHNIK UND  
ANLAGENBAU, WERK SCHALCHEN  
CARL VON LINDE-STRASSE 15  
83342 TACHERTING, GERMANY

Your Order No : SRL326  
Your Part No : 769971  
Our Order No : 88754/I  
Packing Note No : 132611  
Date : 30 Nov 2004  
Packages : 1 CASE

### Other Tests Passed

ULTRASONIC TEST  
NOTCH IMPACT TEST  
RING TENSILE TEST

### Size / Description

SEAMLESS DRAWN TUBE 324.000MM O/D 16.000MM W/T 5083 Alloy  
Length - 2500.00 mm

### Specification

5083 H112  
ADW6/I ASMESE241M EN573-3

No of Pieces	Nett Weight	Tensile Test					Brinell Hardness	Chemical Analysis %										H cc/ 100gm	
		Test No.	0.2% Proof Stress N/mm2	Tensile Strength N/mm2	% Elongation 5.65v SO			Heat or Cast No.	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Na		
1	104	280029 L T	155 195	321 321	19 22	81	1K257	.11	.26	.02	.66	4.61	.14		.01	<0.0001		.02	.12
3	314	280021 L T	152 198	324 327	19 22	82	1K256	.15	.25	.02	.69	4.50	.14		.01	<0.0001		.01	.12

Appendix 2 Page 5 of 12

Anlage 2 Page 5 of 12  
Part No. 9616-44 (Sw)

Remarks TUV TEST CERTS TO EN 10204 3.1C. CUT TO MAX LENGTHS  
SODIUM LESS THAN 10PPM. HYDROGEN LESS THAN 0.2ML/100GMS  
CASE NO. B1659

Date 11-12-04  
Date 11-12-04

Registered in England No. 3981365  
Registered Office: Victoria House,  
150-182 The Quay/S. Salford, M50 3SP, England.

( THIS CERTIFICATE CONFORMS TO THE REQUIREMENTS OF EN 10204 3.1 Edition 2004 )

For use on behalf of BA Tubes Limited 30/11/04



# BA TUBES LIMITED

Studley Road, Redditch, Worcester B98 7HN, England  
Telephone (01527) 484500, Facsimile (01527) 484501



## Inspection Certificate

Customer Copy No. 100588/1

### Customer

LINDE AG  
WERKSGRUPPE VERFAHRENTCHNIK UND  
ANLAGENBAU, WERK SCHALCHEN  
CARL VON LINDE-STRASSE 15  
83342 TACHERTING, GERMANY

Your Order No : 5RL326  
Your Part No : 769971  
Our Order No : 88754/1  
Packing Note No : 132610  
Date : 30 Nov 2004  
Packages : 1 CASE

### Other Tests Passed

ULTRASONIC TEST  
NOTCH IMPACT TEST  
RING TENSILE TEST

### Size / Description

SEAMLESS DRAWN TUBE 324.000MM O/D 16.000MM W/T 5083 Alloy  
Length - 2500.00 mm

### Specification

5083 H112  
ADW6/1 ASMESB241M EN573-3

No of Pieces	Net Weight	Tensile Test				Brinell Hardness	Heat or Cast No.	Chemical Analysis %										H cc/100gm
		Test No.	0.2% Proof Stress N/mm <sup>2</sup>	Tensile Strength N/mm <sup>2</sup>	% Elongation 5.65v SO			Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Na	Ti	
3	314	280027 L T	151 195	321 327	20 23	83	1K257	.11	.26	.02	.66	4.61	.14		.01	<0.0001	.02	.12
1	104	280029 L T	155 195	321 321	19 22	81	1K257	.11	.26	.02	.66	4.61	.14		.01	<0.0001	.02	.12

Attachment Page 6 of 12  
Page 9616-44 (Sw)

Remarks TUV TEST CERTS TO EN 10204 3.1C. CUT TO MAX LENGTHS  
SODIUM LESS THAN 10PPM. HYDROGEN LESS THAN 0.2ML/100GMS  
CASE NO. B1660

10/12/04  
[Signature]

[Signature]

Registered in England No. 3881385  
Registered Office: Victoria House,  
130-132 The Quays, Salford, M60 3SP, England.  
Tel: 0161 275 2222 Fax: 0161 275 2223

For and on behalf of BA Tubes Limited 30/11/04

( THIS CERTIFICATE CONFORMS TO THE REQUIREMENTS OF EN 10204 3.1 Edition 2004 )

# BA TUBES LIMITED

Studley Road, Redditch, Worcester B98 7HN, England  
Telephone (01527) 484500, Facsimile (01527) 484501



## Inspection Certificate

Customer Copy No. 100587/1

### Customer

LINDE AG  
WERKSRUPPE VERFAHRENSTECHNIK UND  
ANLAGENBAU, WERK SCHALCHEN  
CARL VON LINDE-STRASSE 15  
83342 TACHERTING, GERMANY

Your Order No : 5RL326  
Your Part No : 769971  
Our Order No : 88754/1  
Packing Note No : 132608  
Date : 30 Nov 2004  
Packages : 1 CASE

Other Tests Passed  
ULTRASONIC TEST  
NOTCH IMPACT TEST  
RING TENSILE TEST

### Size / Description

SEAMLESS DRAWN TUBE 324.000MM O/D 16.000MM W/T 5083 Alloy  
Length - 2500.00 mm

### Specification

5083 H112  
ADW6/1 ASMESB241M EN573-3

No of Pieces	Nett Weight	Tensile Test					Brinell Hardness	Heat or Cast No.	Chemical Analysis %										H cc/ 100gm
		Test No.	0.2% Proof Stress N/mm2	Tensile Strength N/mm2	% Elongation 5.65v SO				Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Na		
3	313	280023 L I	146 199	319 321	20 24	82	1K256	.15	.25	.02	.69	4.50	.14		.01	<0.0001		.01	.12
1	105	280041 T L	192 156	321 321	22 20	83	1K256	.15	.25	.02	.69	4.50	.14		.01	<0.0001		.01	.12
										Anlage 2 Page 7 of 12									

Anlage 2 Page 7 of 12  
Page 26/16-44 (S)

Remarks TUV TEST CERTS TO EN 10204 3.1C. CUT TO MAX LENGTHS  
SODIUM LESS THAN 10PPM. HYDROGEN LESS THAN 0.2ML/100GMS  
CASE NO. B1654

Inspected / Date 27/12/04  
Reviewed / Date  
Signature

For and on behalf of BA Tubes Limited 30/11/04

Registered in England No. 3561365  
Registered Office: Victoria House,  
120-122 The Quays, Salford, M50 6SP, England.  
M&S Engineering No. 25 555 2142 24

( THIS CERTIFICATE CONFORMS TO THE REQUIREMENTS OF EN 10204 3.1 Edition 2004 )



# BA TUBES LIMITED

Studley Road, Redditch, Worcester B98 7HN, England  
Telephone (01527) 484500, Facsimile (01527) 484501



## Inspection Certificate

Customer Copy No. 100586/1

### Customer

LINDE AG  
WERKSGRUPPE VERFAHRENSTECHNIK UND  
ANLAGENBAU, WERK SCHALCHEN  
CARL VON LINDE-STRASSE 15  
83342 TACHERTING, GERMANY

Your Order No : 5RL326  
Your Part No : 769971  
Our Order No : 88754/1  
Packing Note No : 132607  
Date : 30 Nov 2004  
Packages : 1 CASE

Other Tests Passed  
ULTRASONIC TEST  
NOTCH IMPACT TEST  
RING TENSILE TEST

### Size / Description

SEAMLESS DRAWN TUBE 324.000MM O/D 16.000MM W/T 5083 Alloy  
Length - 2500.00 mm

### Specification

5083 H112  
ADW6/1 ASMESB241M EN573-3

No of Pieces	Nett Weight	Tensile Test					Brinell Hardness	Chemical Analysis %										H cc/ 100gm	
		Test No.	0.2% Proof Stress N/mm2	Tensile Strength N/mm2	% Elongation 5.65v SO			Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Na			Ti
2	209	280037 L T	152 178	332 289	18 22	84	1K257	.11	.26	.02	.66	4.61	.14		.01	<0.0001		.02	.12
2	209	280039 L T	156 192	319 322	17 23	83	1K256	.15	.25	.02	.69	4.50	.14		.01	<0.0001		.01	.12

Anlage 2 Page 8 of 12

Anlage 2 Page 8 of 12  
Print No. 9616-44 (SW)

Remarks TUV TEST CERTS TO EN 10204 3.1C. CUT TO MAX LENGTHS  
SODIUM LESS THAN 10PPM. HYDROGEN LESS THAN 0.2ML/100GMS  
CASE NO. B1653

TUV UK Ltd  
Witnessed Date 7/12/04  
Reviewed Date 7/12/04  
[Signature]



# Morgan-Ward

(NON-DESTRUCTIVE TESTING) LTD  
DALE ROAD - NEW MILLS - HIGH PEAK - DERBYSHIRE - SK22 4NW  
Tel: 01663 747081 Fax: 01663 746037 Email: m.ward@talk21.com

Our Mission: Accuracy  
Data Available: Available  
From: 1991 to 2004  
1992  
1993  
1994  
1995  
1996  
1997  
1998  
1999  
2000  
2001  
2002  
2003  
2004



## ULTRASONIC TEST REPORT

Page 1 of 2

CLIENT <b>BATHURS</b>		REPORT No: <b>6045/VLT</b>	
		DATE OF TEST: <b>Completed 19-11-04</b>	
		JOB No:	
		ORDER No: <b>990206</b>	
COMPONENT / AREA TESTED <b>Contact testing of 28 off 324mm Ø x 16mm W/T x 2.5m Long tubes</b>			
BATCH N° <b>DB756-1-2 A,B,C+D</b>			
1-3 A,B,C+D			
1-4 A,B,C+D			
1-5 A,B,C+D			
1-7 A,B,C+D			
1-10 A,B,C+D			
1-11 A,B+C			
1-13 A			
MATERIAL <b>5083</b>	SURFACE CONDITION <b>As Drawn</b>	PROCEDURE / STANDARD <b>SEN 715/1918 ASTM B594</b>	Issue No. / Date <b>2/3 2004</b>
EQUIPMENT <b>K.K. USA 12</b>		ACCEPTANCE CRITERIA <b>SEN 715/1918 ASTM B594</b>	Issue No. / Date <b>2/3 2004</b>
SERIAL No. <b>UT101</b>	CALIBRATION DATE <b>6.6.03</b>	TEST SENSITIVITY (COMP'D)	
COUPLANT <b>WATER</b>	TEST / REFERENCE BLOCKS <b>SEN 715/1918 B574/2</b>	SCANNING PATTERN <b>50% Probe overlap</b>	
PROBES USED	<b>0°</b>	<b>45°</b>	<b>10°</b>
MAKE & TYPE	<b>SONATA S/T/C</b>	<b>Phasmax S/C</b>	<b>Phasmax S/C</b>
FREQUENCY	<b>5 MHz</b>	<b>4 MHz</b>	<b>4 MHz</b>
SIZE	<b>10 mm Dia</b>	<b>10 mm Dia</b>	<b>10 mm Dia</b>
PROBE SERIAL No.	<b>335/17</b>	<b>A2442/A2443</b>	<b>A2442/A2441</b>
SENSITIVITY SETTING	<b>76 dB</b>	<b>48 dB</b>	<b>48 dB</b>
ATTENUATION / TRANSMISSION LOSS	<b>0 dB</b>		
TEST DETAILS & RESULTS:			
<b>SEE PAGE 2</b>			
Anlage 2 Page..... <b>9</b> .....of..... <b>12</b> .....			
Prüf Nr..... <b>9616-44 (Sw)</b> .....			
TEST LOCATION <b>MW</b>			
OPERATOR <b>JK CN</b>			
QUALIFICATION <b>PCN LC</b>			
CERTIFICATE No. <b>113163</b>	SIGNED ..... AUTHORISED SIGNATORY FOR MORGAN WARD (NOT LIMITED) NAME: DATE:		





# Morgan-Ward

(NON-DESTRUCTIVE TESTING) LTD

DALE ROAD - NEW MILLS - HIGH PEAK - DERBYSHIRE - SK22 4NW  
Tel: 01663 747081 Fax: 01663 749227 E-mail: mward@talk21.com

Calibration Authority  
ISO 9001:2000  
UKAS  
Non-destructive  
Testing  
MOD  
HAF/116



## TEST REPORT

Page 2 of 2

### CLIENT

BA WEBS

REPORT No:

60415/VH

DATE OF TEST:

Completed 17.11.04

JOB No:

ORDER No:

990206

### TEST RESULTS

88754-1-3 B, REJECT 2 AREAS, 1 x 60mm long, 325mm from IDENT END  
1 x 52mm long, 782mm from IDENT END

88754-1-4 A, REJECT 2 AREAS, 1 x 5mm 918mm from IDENT END  
1 x 5mm 1164mm from IDENT END

88754-1-5 C, REJECT 1 AREA, 1 x 20mm long, 2355mm from IDENT END

88754-1-5 D, REJECT 1 x 5mm, 400mm from IDENT END

88754-1-10 A, REJECT A 38x15mm AREA, 38mm from IDENT END

88754-1-10 B, REJECT 110mm LENGTH 1180mm from IDENT END  
REJECT 210mm, 2250mm from IDENT END

88754-1-11 A, REJECT 1 x 5mm, 1685mm from IDENT END

88754-1-2 B, REJECT 100mm, 580mm from IDENT END.

88754-1-7 B, REJECT 5mm, 690mm from IDENT END.

ALL REMAINING AREAS / WBIS ACCEPTABLE  
TO SPECIFICATION

Attachment Page 10 of 12  
Print No. 9616-44 (S.M.)

TEST LOCATION:

HW

OPERATOR

J GN

QUALIFICATION

PCN LP

CERTIFICATE No.

113163

SIGNED

DATE

FOR AND ON BEHALF OF MORGAN WARD NDT LIMITED



B. Cell  
**Morgan-Ward**

(NON-DESTRUCTIVE TESTING) LTD  
DALE ROAD - NEW MILLS - HIGH PEAK - DERBYSHIRE - SK22 4NW  
Tel: 01663 747061 Fax: 01663 746937 E-mail: mwnr@talk21.com

PAGE 03/

APPROVAL

ONE PERSONNEL AUTHORITY  
Joint Health and Safety  
F.A.S. (Conf No 1000000000)  
U.K.A. 2  
Nuclear, Aerospace  
Marine, County  
M.D.  
H.A.F.L.D.



**ULTRASONIC TEST REPORT**

Page 1 of 2

CLIENT <b>BA TRCS</b>	REPORT No: <b>60419 / UT</b>
	DATE OF TEST: <b>UNPLEATED 22.11.04</b>
	JOB No:
	ORDER No: <b>990206</b>

COMPONENT / AREA TESTED **CONTACT TESTING OF 19 OF 324mm O/D X 16mm HT X 2.5m LONG TUBES**  
**BATCH N° 88754-1 - 1 A, B, C + D**  
**- 1 - 6 A, B, C + D**  
**- 1 - 8 A, B, C + D**  
**- 1 - 9 A, B + C**  
**- 1 - 12 A, B, C + D**

**Pls 6144**

MATERIAL <b>8083</b>	SURFACE CONDITION <b>As drawn</b>	PROCEDURE / STANDARD <b>201915 / 1918 ASTM B594</b>	Issue No. / Date <b>2/3 2004</b>
EQUIPMENT <b>K.K. USA12</b>		ACCEPTANCE CRITERIA <b>201915 / 1918 ASTM B594 CLASS A</b>	Issue No. / Date <b>2/3 2004</b>
SERIAL No. <b>UT 101</b>	CALIBRATION DATE <b>6.6.05</b>	TEST SENSITIVITY (COMP'N)	

COUPLANT <b>WATER</b>	TEST / REFERENCE BLOCKS <b>3011512 / 6 B594 / 2</b>		SCANNING PATTERN <b>50% PROBES INCLINED</b>	
PROBES USED	<b>0°</b>	<b>45°</b>	<b>45°</b>	<b>70°</b>
MAKE & TYPE	<b>SONATEST T/C</b>	<b>PHOENIX S/C</b>	<b>PHOENIX S/C</b>	
FREQUENCY	<b>5MHz</b>	<b>4MHz</b>	<b>4MHz</b>	
SIZE	<b>10mm Dia</b>	<b>10mm Dia</b>	<b>10mm Dia</b>	
PROBE SERIAL No.	<b>339 / 12</b>	<b>A2442 / A2443</b>	<b>A2442 / A2444</b>	
SENSITIVITY SETTING	<b>76 dB</b>	<b>48 dB</b>	<b>49 dB</b>	
ATTENUATION / TRANSFER LOSS	<b>0/B</b>			

**TEST DETAILS & RESULTS:**

**SEE PAGE 2**

Anlage 2 Page.....11.....of.....12.....  
Prüf Nr.....9616-4.4.....(5m.1)

TEST LOCATION <b>MAJ</b>	SIGNED ..... AUTHORISED SIGNATORY FOR MORGAN WARD NOT LIMITED NAME: DATE:
OPERATOR <b>CH</b>	
QUALIFICATION <b>PCN LE</b>	
CERTIFICATE No. <b>11111</b>	





# Morgan-Ward

(NON-DESTRUCTIVE TESTING) LTD

DALE ROAD · NEW MILLS · HIGH PEAK - DERBYSHIRE - SK22 4NW  
Tel: 01663 747051 Fax: 01663 745837 E-mail: mwndi@talk21.com

APPROVAL  
Joint NDT Society  
UKAS NDT  
DNV  
BSI  
VOP  
NATL



## TEST REPORT

Page 2 of 2

CLIENT  BA TUBES	REPORT No: 60419 / VAF
	DATE OF TEST: (COMPLETED) 22.11.04
	JOB No:
	ORDER No: 990206

### TEST RESULTS

88754-1-1 A, REJECT 1100mm, MULTIPLE INDICATIONS ✓  
88754-1-1 C, REJECT 5mm ✓  
88754-1-8 B, REJECT 1160mm  
88754-1-8 D, REJECT FULL LENGTH OF TUBE, MULTIPLE INDICATIONS  
88754-1-9 A, REJECT 300mm.  
88754-1-12 D, REJECT 3mm, 1 @ 60mm, 1x 400mm, 1x 80mm - LONG.

REMAINING AREAS / TUBES ACCEPTABLE  
TO SPECIFICATION

Attachment 2 Page 12 of 12

Print No: 9616-44 (Sm)

TEST LOCATION: MW	SIGNED ..... DATE ..... FOR AND ON BEHALF OF MORGAN WARD NDT LIMITED
OPERATOR GN	
QUALIFICATION PLN 12	
CERTIFICATE No	