Spar, ~~or Awning~~ Dk. ~~IRON OR~~ STEEL STEAMER.

No. 52025.

State if Report is also sent on the Machinery of the Vessel: Yes

Port of: Newcastle. Date of completion of Report: 8th December 1906. Received at London Office: MON. DEC 10 1906

Survey held at: Newcastle. Date, First Survey: 19th April 1906. Last Survey: 4th December 1906.

On the: S. S. "Lindenfels". Rig: Schooner

TONNAGE under Tonnage Deck	5259·54
Do. between Tonnage Dk. and 3rd, 4th, Spar or Awning Dk.	
Total under Upper Dk.	
Do. of Poop	41·34
Do. of Bridge House	
Do. of Forecastle	79·88
Do. of Houses on Deck	116·74
Do. of excess of Hatchways	33·44
Do. above Crown of Engine Room	✓
Gross Tonnage	5530·94
Less Crew Space	149·86
Less above Crown of Engine Room	
TONNAGE FOR FEES	5381·08
Less Engine Room	1769·90
Less Navigation Spaces	71·03
Register Tonnage as cut on Beam	3540·15

SPAR, ~~AWNING OR PART AWNING-DECKED~~ VESSEL, ~~or a Vessel having a continuous Shade Deck.~~

RETAIN

CLASS: +100 A1

	Feet.
Half Breadth (moulded)	27·5
Depth from upper part of keel to top of Main Deck Beams	24·37
Girth of Half Midship Frame (as per Rule)	47·68
1st Number	99·55
Length	419·7
2nd Number	41781
Proportions—Breadths to Length	7·63
Depths to Length—Main Deck to top of Keel	17·40
do —Spar " " "	12·99
Destined Voyage	

Master:

Year of Appointment: (1) As Master in service of owner of present vessel: —18 (2) As Master of this vessel 18

Built at: Walker on Tyne

When built: 1906. Launched: 1st Nov 1906.

By whom built: Messrs Swan Hunter & Wigham Richardson & Co Ltd

Owners: Deutsche Dampfschiffahrts Ges Hansa.

Managers: (Where necessary to be entered in Reg. Book.)

Residence: Bremen.

Port belonging to: Bremen.

Surveyed while Building, & Afloat, ~~or in Dry Dock~~

LENGTH on Deck as per Rule	Feet.	Inches.	BREADTH—Moulded	Feet.	Inches.	DEPTH, top of Floors to Spar ~~or Awn.~~ Dk. Beams / Do. do. Main Deck Beams	Feet.	Inches.	Power of Engines	Horse.		
	419	8½		55	0		28 / 20	6 / 4½			No. of Decks with flat laid	2
											No. of Tiers of Beams	2

Dimensions of Ship per Register, Length 421·9 breadth 55·3 depth 28·45 Spar or Awn. Dk. / Main Deck. Moulded depth, ft. 23 ins. 0 To Main Dk. Round up of Beam, Main Dk. 13½ ins.

FRAMING.

FRAMING.	Inches in Ship.	Inches in Ship.	16ths or 20ths in Ship.	Inches per Rule	Inches per Rule Or as Approved.	16ths or 20ths per Rule
FRAME, ~~Angles or~~ ~~Z, [~~ or [Bars, ~~for ½ length amidships~~ between Peak Bhds.	7½	3½	12	7½	3½	12
Do. for ¼ at each end			11			11
Do. in way of Double Bottoms at Solid Floors	3½	3½	10	3½	3½	10
" " at intermdt. Bkts.	✓					
Distance of Frames from moulding edge to moulding edge, all fore and aft		25"			25"	
REVERSED FRAME, Angles	7½	3	9	7½	3	9
DEEP FRAMING, depth of girder		11"			11"	
FLOORS, depth and thickness of Floor Plate at mid-line for ⅗ length amidships	✓					
" in way of Engines and Boilers			8 & 11			8 & 11
" thickness at the ends of vessel	✓					
" depth at ¾ the half-bdth. as per Rule	✓					
" height extended at the Bilges	✓					
FLOORS ~~& BRACKETS~~, in Cell Dble Bottoms			8			8
" " Distance apart		25"			25"	
CENTRE GIRDER, in Double bottom, depth and thickness		45	11		45	11
" " Angles, Top	3½	3½	23/40	3½	3½	23/40
" " " Bottom	4½	4½	12	4½	4½	12
SIDE GIRDERS, number and thickness Nos. 4 Four			8			8
" Angles	3½	3½	9	3½	3½	9
MARGIN PLATE, depth (exclusive of flange) and thickness		37	10		37	10
" Angles	4	4	10	4	4	10
INNER BOTTOM PLATING, breadth and thickness of Middle Line Strake		45	10		45	10
" " thickness in Engine and Boiler space			10 & 12			10 & 12
" " Remainder in Holds			9 & 8			9 & 8
BEAMS, Spar ~~or Awning~~ Deck, ~~Single Angle, Bulb Angle, Plate or Tee Bulb~~ Channels	7 × 3 × 3 × 9			7 × 3 × 3 × 9		
" Angles on upper edge	✓					
" Average space		25			25	
BEAMS, Main Deck, ~~Single Angle, Bulb Angle, Plate or Tee Bulb~~ Channels	8 × 3½ × 3½ × 10			8 × 3½ × 3½ × 10		
" Angles on upper edge	✓					
" Average space		25			25	
~~BEAMS, Lower Deck, Single Angle, Bulb~~ Angle, Plate or Tee Bulb						
" Angles on upper edge						
" Average space						
BEAMS, Hold, or Orlop, Plate or Tee Bulb						
" Angles on upper edge						
" ~~Average space~~						
BEAMS, Poop Deck, ~~Angle, Bulb Angle, Plate~~ or Tee Bulb	9	5½	19/40	9	5½	19/40
" Angles on upper edge	✓					
" Average space		50			50	
BEAMS, Bridge Deck, ~~Angle~~, Bulb Angle, ~~Plate or Tee Bulb~~	9½	3½	13	9½	3½	13
" Angles on upper edge	✓					
" Average space		50			50	
BEAMS, Forecastle Deck, ~~Angle~~, Bulb Angle, ~~Plate or Tee Bulb~~	9½	3½	13	9½	3½	13
" Angles on upper edge	✓					
" Average space		50			50	
PILLARS, In 'tween Deck, size and spacing	Hollow 9" & 7½" × 10			9" & 7½"		10
" Hold " "	Hollow 12" & 11½" × 12			12" & 11½"		12
" Quarter, 'tween Dks., " "	spaced as per profile					
" " in Hold " "						
WEB-FRAMES, In Fore Body, No. and spacing	Three panting			Three panting		
" " " brdth. & thicknss		22 ×	10		22 ×	10
" No. of Side Stringers " "	Three	15½	10	Three	15½	10
WEB FRAMES, In E. & B. Space, No. & spacing	Six @ 4 frames			Six @ 4 frames		
" " " brdth. & thickness		20	11		20	11
WEB FRAMES, In After Body, No. and spacing	✓					
" " " brdth. & thicknss	✓					
" No. of Side Stringers " "	Three	15½	10	Three	15½	10
" Size of Angles ~~or Tee Bars~~ to Web Frames	6½	4½	13	6½	4½	13
BRACKET PLATES to Stringers between Web Frames, depth and thickness	✓					

FORGINGS AND CASTINGS.

FORGINGS AND CASTINGS.	Inches in Ship.	Inches per Rule. Or as Approved.
KEEL, ~~Bar or Side Plates~~ Slab, depth and thickness	10 × 2½	10 × 2½
STEM, moulding and thickness	12 × 3	12 × 3
STERN-POST for Rudder do. do.	12½ × 7½	12½ × 7½
" " for Propeller	12½ × 7½	12½ × 7½
MAIN PIECE of Rudder, diameter at head	10½	10½
do. at heel	7½	7½

RUDDER, how constructed: Single Plate 22/20

Can the Rudder be unshipped afloat? Yes

KEELSONS AND STRINGERS.

KEELSONS AND STRINGERS.	Inches in Ship.	Inches in Ship.	16ths or 20ths in Ship.	Inches per Rule	Inches per Rule Or as Approved.	16ths or 20ths per Rule
~~CENTRE LINE KEELSON, Vertical Plate above~~ floors, Through Plate, or Intercostal Plate						
" Rider Plate						
" Bulb Plate to Intercostal Keelson						
" Horizontal Plates on Floors						
" Angles						
SIDE KEELSON, Angles						
" Bulb or Plate above floors, for lng.						
" Intercostal Plate, for length						
" Attached to outside plating with Angle						
BILGE KEELSON, Angles						
" Bulb or Plate above floors, for lng.						
" Intercostal Plate, for length						
" Attached to outside plating with Angle						
BILGE STRINGER Angles						
" Bulb Plate, for length						
" Intercostal Plate, for length						
" ~~Attached to outside plating with Angle~~						
(3) SIDE STRINGERS Angles One face	6½	4½	13	6½	4½	13
" ~~Bulb or~~ Intercostal Plate, for Full lng.			10			10
" Attached to outside plating with Angle	7	3½	10	7	3½	10
Spar, ~~or Awning~~ Deck Stringer Plates, breadth and thickness	65		11	65		11
" Angle on ditto	3½ × 3½		21/40	3½ × 3½		21/40
" Tie Plates, fore and aft, outside Hatchways	✓					
" Diagonal Tie Plates, No. of prs.	✓ 4 as per plan.					
" Deck.* ~~Iron or~~ Steel, for Full lng.			9			9
" Wood Deck. Material & thickness Teak where exposed			3"	as per plans 3"		
Main Deck Stringer Plate, breadth & thickness	65		11	65		11
" Angles on ditto, No.	3½ × 3½		21/40	3½ × 3½		21/40
" Tie Plates, outside Hatchways	✓					
" Diagonal Tie Plates, No. of prs.	✓					
" Deck.* ~~Iron or~~ Steel, for Full lng.			8			8
" Wood Deck. Material & thickness	✓					
~~Lower Deck Stringer Plates, br'dth & thickn's~~						
" Angles on ditto, No.						
" Tie Plates, outside Hatchways	✓					
" Deck.* Material and thickness						
Hold, or Orlop Stringer Plate, br'dth & thckn's						
" Angles on ditto, No.						
" Tie Plates, outside Hatchways						
" ~~Deck. Material and thickness~~						
Poop Deck Stringer Plate, breadth & thickness	40		8	40		8
" Angles on ditto	4 × 4		9	4 × 4		9
" Tie Plates	12		7	12		7
" Deck. Material and thickness Teak	3"		7	3"		7
Bridge Deck Stringer Plate, br'dth & thickness	42		11	42		11
" Angle on ditto	5 × 5		11	5 × 5		11
" Tie Plates						
" Deck. Material and thickness Steel 8/20 Teak 3" as per plan				Teak 3"		8
Forecastle Deck Stringer Plate, b'dth & th'kns	40		8	40		8
" Angle on ditto	4 × 4		9	4 × 4		9
" Tie Plates						
" Deck. Material and thickness [illegible] 2" and Stl.			6	Stl		6

* If Iron or Steel Deck, state if whole or part, and if wood deck is laid thereon.

BULKHEADS.

BULKHEADS.	Number In Vessel.	Number Per Rule.	Thickness. ~~16ths or~~ 20ths.	STIFFENERS. Horizontal. Inches.	STIFFENERS. Vertical. Inches.	STIFFENERS. Spacing Inches.	Single or Double Frames.	Height up.
W. T. BULKHEADS	6	7	8–7	✓	10 × 3½ × 11/20	30	Sgl.	Spar Dk.
PARTITION "								
LONGITUDINAL "	Centre division	in [illegible] tanks (two)				6 × 6 × 11/20		

Are the outside Plates doubled two spaces of Frames in length? Jogged Frames.

Form No. 1C.

W682-0275 (1/2)

PLATING. / RIVETING.

STRAKES.	As in Ship: Amidship Breadth (Inches)	Amidship Thickness (16ths or 20ths)	Forward Thickness	Aft Thickness	Per Rule or as approved: Amidship Breadth (Inches)	Amidship Thickness	Edges: Single or Double	Breadth of Lap (Inches)	Rivets Diam. (Inches)	Rivets Spacing cr. to cr. (Inches)	Butts: Double or Treble and for what Length	Rivets Diam. (Inches)	Rivets Spacing cr. to cr. (Inches)	Straps Breadth (Inches)	Straps Thickness (Inches)	If Lapped Breadth (Inches)	For what Length (Feet)
Flat Plate Keel (If Bar Keel, state Riveting)	48	18	14	14	48	18	Dbl.	6	1	4 1/8	Quad in 1/2 L. treble	1	4	26	11/20 inside		1/2 Length
Garboard or ~~A Strake~~												Quad		26	13/20 outside		
B Strake	68	14	13	13	68	14	"	5 1/4	7/8	3 1/2	Quad	7/8	3 1/8				
C " (State actual thickness in way of Double Bottom.)		12	10	10		12	"	"	"	"	"	"	"				
D "		12	10	10		12	"	"	"	"	"	"	"			12	1/2 Length
E "		12	10	10		12	"	"	"	"	"	"	"			"	"
F "		13	10	10		13	"	"	"	"	"	"	"			"	"
G "		13	10	10		13	"	"	"	"	"	"	"			"	"
H "		13	10	10		13	"	"	"	"	"	"	"			"	"
J "		13	10	10		13	"	"	"	"	"	"	"			"	"
Main Shr. K "	72	+13	10	10		13	"	6	1	4 1/8	"	"	"			"	"
L "		#13	10	10		13	"	"	"	"	"	"	"			"	"
Spar Shr. M "	44	✕15	12	12	44	15	"	"	"	"	"	"	"			"	"
N "											"	1	4			14	"
O "	+ increased 3/20 to outside Bridge; # increased 4/20 to outside Bridge ✕ increased 3/20 outside Bridge																
P "																	
Q "																	
Doubling of Flat Plate Keel	Flat 10" × 2 1/2" in lieu of Keel doubling																
Length and thickness of Bilges	—																
Length and thickness of Sheerstrakes	Doubling for 24 ft at Bridge ends																
Length and thickness of Strake below	—																
Poop Sides			8														
Bridge Sides	14 & 13																
Forecastle Sides			9														

Manufacturer's name or trade mark of the Iron or Steel (state process of manufacture of Steel) used for Frames, Floors, Beams, Keelsons, Tie and Stringer Plates, Plating, &c.? Siemens Martin process. Lanarkshire Steel Co Ltd, Consett Iron Co, Bolckow Vaughan & Co, South Durham S & I Co, Spencer & Sons Ltd, Steel Company of Scotland, Palmers S B & I Co Ltd.

Spar ~~or Awning~~ Stringer Plate: Butts, ~~treble~~ quad riveted for 1/2 length amidship. Straps, ~~single, double or~~ overlapped for Full length amidship.
Main Stringer Plate: Butts, treble riveted for Full length amidship. ~~Straps, single, double or~~ overlapped for Full length amidship.
Butts of ~~Bilge &~~ Side Stringers and Tie Plates, treble or double riveted? —
Inner Bottom Plating, riveting of Edges Dbl. Sgle end Butts Dbl.
Centre Girder Butts, Treble riveted Keelson Butts, — riveted.
Frames, riveted through Plates with 1" & 7/8" in. Rivets, about 7 & 6 apart.
Rivets, state whether Iron or Steel Iron.

FRAMES extend in one length from Centre line to Bilge and Bilge to Gunwale.
REVERSED FRAMES on floors and frames extend from Centre line to Bilge and each side to Main Deck.

MASTS, SPARS, &c.

Lower Masts	Material	Total Length (Rule)	Diameter and Thickness: At Partners	Heel	Hounds	Head	No. of Plates in round	Angles: Number	Size	Riveting: Seams	Butts
Fore	Steel	88'	27 × 8/20	26 × 8/20	—	20 × 7/20	2	—	—	Sgl.	Treble & Dbl.
Main		88'	25 × 8/20	24 × 8/20	—	19 × 7/20	2			"	"
Mizen											

Bowsprit —
Topmasts, ~~Yards~~ and Remainder of Spars —
Rigging, Material and Size, Shrouds Galv. Stl. wire 4 3/4 & 3. Stays Galv. Stl. wire 4 3/4 & 3 3/4
Sails. Good Suit of One. Sails, and the following spare sails —

EQUIPMENT No. 51847 LETTER a+.

ANCHORS.

Number of Certificate	Anchors	Weight, Ex. Stock: Cwts.	qrs.	lbs.	Weight of Stock: Cwts.	qrs.	lbs.	Test, per Certificate: Tons	cwts.	qrs.	lbs.	Weight ~~Req. by Rule~~ Approved (per Mid. Sec.): Cwts.	qrs.	lbs.	Description of Anchor	If Patent, state Name of Patentee. Makers	Where and when tested and Superintendent
8660	1st Bower	65	2	0	Stockless			51	5	0	0	65	0	0	Stockless	—	Sndld. 12/10/06 W. Paul
8844	2nd "	65	0	21	"			51	2	2	0	64	3	0	"	—	" 10/10/06 "
8698	3rd "	64	0	0	"			50	10	0	0	64	3	0	"	—	" 20/10/06 "
	Collective weight	194	2	21								194	2	0			
58034	~~Stream~~ Kedge	8	0	2	2	0	9	10	5	0	0	8	0	0	Ordinary	G. Hastelow & Co	Netherton 15/10/06 H. Green
58063	~~Kedge~~ Stream	19	1	25	5	0	3	20	6	1	0	19	0	0	"	"	" " "
	2nd Kedge																

CHAIN CABLES.

Number of Certificate	Fathoms	Size	Test per Certificate Tons	Weight of Chain Cable: Supplied	Per Rule	Fathoms and Size Per Rule	Description	Makers of Cables	When and where tested, and Superintendent
40478	270	25/16	134 3/4 - 96 1/2	741-1-21	720-3-4	270	25/16	G. Hastelow & Co	15/10/06, Netherton, H. Green
~~Iron~~ Stream ~~Chain~~ ~~or~~ Steel Wire	101	4 1/2	59 (Flexible)			90	5 (Ord.)		

HAWSERS AND WARPS.

	Material	Fathoms	Size	Breaking Test of Steel Wire Towline	Fathoms and Size Per Rule
Towline	Steel	120	4 3/4	(Flex) 65.5	120 × 5 3/4 (ord.)
Hawser	"	(2) 101	3	(Flex) 26.2	(2) 90 × 8 manilla
Warp		(4) 100	7 1/2 manilla		(2) 90 × 7 "

Boats 6 & Good
Pumps, Number One Downton & one Hand Pump Diameter of Barrel and Tail Pipe 6" & 3 1/2" and 3" & 2" tail.
Windlass is Patent Steam – Clarke Chapman Capstan —
Engine Room Skylights.—How constructed? Steel plates & angles; steel top.
What arrangements for deadlights in bad weather? Strong glass bulls eyes.
Coal Bunker Openings.—How constructed? Steel Coamings & angles How are lids secured Batten & Tarpaulin Height above deck? 3 1/2
Number of Scuppers, and number and dimensions of Freeing Ports, &c. 7 Scuppers each side & one Freeing Port forward, open rail.
Ceiling in Holds, thickness and material under hatches (only) 2 1/2 Elm, spars 2 wood Ceiling 'tween Decks, thickness and material 2" wood. [illegible]
Cargo Hatchways.—How formed? Steel Coamings and angles Hatches, If strong and efficient? Yes.
State size No. 1 Hatch (Forward) 16-8 × 14-0 No. 2 Hatch 29-2 × 14-0 No. 3 Hatch 10-5 × 12-0 No. 4 Hatch 22-11 × 14-0. No. 5 20-10 × 14-0. No. 6 14-7 × 12-0.
Number of Web Plates, Shifting Beams and Fore and Afters to each Hatch No. 1 - one web, Nos 3 & 6 one shifting beam, Nos 4 & 5 - 2 webs, No. 2 - 3 webs, & all 3 Fore & afters. No. of Breasthooks 7 No. of Crutches 3 & deep floors
Bulwarks, height above deck and description 48" × 5/20 plating, open at hatchways Main Rail, material and size Tyzack's No. 2 section.

The above is a correct description.

SWAN, HUNTER, & WIGHAM RICHARDSON, LTD.

Builder's Signature (here only.) J. Denham Christie
DIRECTOR

Surveyor's Signature B. Claws. J. McNeil
Surveyor to Lloyd's Register of British & Foreign Shipping.

Form No. 1C.

MON. DEC 10 1906

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Correspondence.—State dates and initials of letters respecting this case (Reference should be made to any correspondence connected with this case)
M. 5th & 18th/4/06. 15th/5/06 30th/7/06.

Workmanship. Are the butts of plating planed ~~or otherwise fitted~~? Yes.
Is the riveted work properly closed? Yes.
Are the liners between the frames and plates solid single pieces? Joggled Frames. Do the holes for riveting plate to frames, butt straps, or plate to plate, &c., conform well to each other? Yes. Are the rivet holes well and sufficiently countersunk in the plate and punched from the faying surfaces? Yes. Do any rivets break into or through the seams or butts of plating? a few.
Are the butts of Plating, Stringers, &c., properly shifted and strapped? Yes.

General Remarks (State quality of workmanship, &c.) This Steel Vessel has been built in accordance with the approved plan herewith enclosed, with the Secretary's letter, and generally in conformity with the Rules for the 100A Class and the material & workmanship throughout are good.
This Vessel – as regards dimensions – is similar to the Same Builders S & R No 760 "Bramford" Nucle Rpt No 51423 but has been built with Deep Frames in lieu of Web Frames as in the latter case.
Kindly return the approved plan for dealing with the Sister Vessel – Same Builders No 770.

The Surveyor should state the Number of Report and Name of any Sister Vessel. See above.

PARTICULARS FOR RECORD in the REGISTER BOOK.—Length of Poop 60.5 ft., R.Q.D. or Break — ft., Bridge Dk 123.0 ft., F'castle 45.5 ft. (in feet and tenths). When the Poop is joined to the B.D., this should be distinctly stated —

No. and Material of Decks (if Iron or Steel) and whether wholly or partially covered with wood, and No. of tiers of Beams (this information is to be given as it should appear in the Register Book) 1 Dk Steel & Spar Dk (Steel – part Teak Sheathed) & Deep Framing to Main Dk in Holds; Web Frames in E & B Space.
Official No. ; Signal Letters
How are the surfaces preserved from oxidation? Inside Cement & Paint Outside Paint. Mr Cornish approved of this being omitted from R.B. C.H.J.

PARTICULARS OF WATER BALLAST.—State whether the Double bottom is constructed on the cellular system Yes.

Where fitted.	Length (Feet)	Water Capacity (Tons)	Where fitted.	Length (Feet)	Water Capacity (Tons)
Double bottom, aft,	137.5	380	Fore peak tank,		65
Double bottom, forward,	185.5	620	After peak tank,		
Double bottom, under Engines and Boilers,	—		~~Midship deep tank,~~ Tween Dk Tank Ford	42	480
Double bottom, if under Engines only,	25	100	Other tanks, if fitted, " " " Aft	46	470
Double bottom, if under Boilers only,	—	1100	(If necessary, furnish further information by sketch.)		

State whether the above have been tested as required by the Rules Yes.

Order for Special Survey No. 3132 Date 22.3.06
Order for Ordinary Survey No. Date
No. 768 in builder's yard.

Dates of Surveys held while building as per Section 18.
1st. On the several parts of the frame, when in place, and before the plating was wrought 1906. Apl 19.26. May 3.9.10.15.18.23. June 8.13.15.16. July 5.6.17.19.20.24.25.30.
2nd. On the plating during the process of riveting 31. Aug 2.7.9.16.20.22.23.24.27.29.30.31. Sep 4.6.10.11.14.17.19.21.25. Oct 1.3.4.5.8.11.15.17.
3rd. When the beams were in and fastened, and before the decks were laid 22.23.24.25.26.29.30. Nov 1.2.5.6.7.8.9.12.14.15.21.23.26.27.28.29.30. Dec 4
4th. When the ship was complete, and before the plating was finally coated or cemented
5th. After the ship was launched and equipped
Total No. of Visits 75.

The amount of Entry Fee £ 5 : : Special Survey Fee £ 159 : 10 : 6 Travelling Expenses, if any £ : :
Fees applied for, - 8 DEC 1906 Received by me, 11.12.1906 [initials] 12.12.06
Certificate to be sent to Newcastle-on-Tyne.

I am of opinion this Vessel should be Classed 100A1 "Spar Deck" 6 BH only.
With, or without Freeboard, as condition of Class without
B. Claws. J. McNeil
Surveyor to Lloyd's Register of British and Foreign Shipping.

The Surveyors are requested not to write on or below the Committee's Minute.

Committee's Minute
Character assigned

TUES. DEC 11 1906

100A1
Spar dk

Lloyd's a + C.P.

+ LMC 12.06
F.D. Elec. light

Certificate Sent 12/12/06.

W682-0275 (2/2)