

A. GENERAL

IS

1. Name of Research Ship FRV "WALTHER HERWIG III" Cruise No. 429
2. Dates of Cruise from 14.08.2019 to 03.09.2019
3. Operating Authority *Bundesanstalt für Landwirtschaft und Ernährung
(BLE) Ref. 524
Haubachstraße 86, 22765 (Germany)
Telephone +49 (0)228 6845 5534
e-Mail: fischereiforschung@ble.de*
4. Owner
(if different from para. 3) *Federal Republic of Germany*
5. Particulars of Ship
- | | |
|---|-------------------------------|
| Name | FRV "WALTHER HERWIG III" |
| Nationality | <i>German</i> |
| Overall Length (metres) | <i>63.18 m</i> |
| Maximum Draught (metres) | <i>6.20 m</i> |
| Net Tonnage | <i>639</i> |
| Method of propulsion | <i>Diesel/Diesel Electric</i> |
| Call Sign | <i>D B F R</i> |
| Registered port & number (if registered fishing vessel) | |
6. Crew
- | | |
|----------------|-------------------|
| Name of Master | Janßen, Hans-Otto |
| Number of Crew | 21 |
7. Scientific Personnel
- | | |
|---|---|
| Name and Address of Scientist-in-Charge | Dr. Thomas Lang
Thünen-Institut für Fischereiökologie
Herwigstraße 31,
27572 Bremerhaven (Germany) |
| Telephone | +49 (0)471 94460 -223 |
| Telefax | +49 (0)471 94460 -099 |
| Number of Scientists | 12 |
8. Geographical area in which ship will operate (with reference in latitude and longitude)
- 63° 30'N - 64° 00'N / 16° 10'W - 16° 40'W
63° 34'N - 63° 43'N / 14° 39'W - 15° 26'W
63° 00'N - 63° 45'N / 20° 45'W - 21° 15'W
64° 00'N - 64° 30'N / 22° 15'W - 22° 45'W
63° 45'N - 64° 30'N / 13° 45'W - 14° 45'W
65° 10'N - 65° 55'N / 12° 30'W - 13° 55'W
9. Brief description of purpose of cruise
Investigations on occurrence of fish diseases and biological effects of contaminants, OSPAR/HELCOM monitoring, Bottom trawling, Sea surface sampling (Neuston), Water sampling, Sediment sampling, Hydrography
10. Dates and names of intended ports of call
Helsinki, 1-3 nights in the period 21.-27.08.2019
11. Any special requirements at ports of call
none

B: DETAIL

1. Name of research ship FRV "WALTHER HERWIG III" Cruise No. 429

2. Dates of cruise 14.08.2019 to 03.09.2019

3. Purpose of research and general operational methods

Investigations on the occurrence of fish diseases and biological effects of contaminants, OSPAR/Helcom monitoring, Bottom trawling, Sea surface sampling (Neuston), water sampling, Sediment sampling, Hydrography

4. Please attach chart showing, at the appropriate scale, the geographical area of the intended work, the areas to be fished, positions of intended stations, tracks of survey lines, positions of moored/seabed equipment etc.

station list and chart attached as appendix

5a. Types of samples required e.g. geological/water/plankton/fish. If fishing gear is to be used please indicate what fish stocks will be worked, the maximum quantity required of each species/stock and the quantity of fish to be retained on board

fish, water, sediment, neuston

5b. Methods by which samples will be obtained (e.g. dredging/coring/drilling/fishing etc.)

Bottom trawl, Rosette water sampler, CTD measurement, Neuston sampler (plankton net), van Veen grab

6a. Details of moored equipment:

Dates: Laying Recovery Description Latitude Longitude

6b. Full description of ALL fishing gear to be used (e.g. bottom trawl, mesh size, attachments etc.)

GOV with rock hopper, 140' bottom trawl

7. Any hazardous materials (e.g. chemicals, explosives, gases, isotopes etc.)
(use separate sheet if necessary)

(a) Type and trade name	Formaldehyde	Ethanol	liquid nitrogen
(b) Chemical content (& formula)	4,5% CH₂O+H₂O	70% C₂H₅OH	Nitrogen N₂
(c) IMO IMDG code (reference & UN No.)	9/2209	3.2/1170	2/3a /1977
(d) Quantity (gross/net) and method of stowage on board	22 kg/20 litre laboratory container	11kg/10 litre laboratory glass-bottles	108,4/66,9 kg cold-storage -40° C pressure-container

(e) If explosives give date(s) of detonation

- Method of detonation
- Position of detonation
- Frequency of detonation
- Depth of detonation
- Place of detonation planned

8. Please set out details of:

(a) Any relevant previous/future cruises

Cruise No. 135, FRV WALTHER HERWIG III, 23.06.- 14.07.1993

Cruise No. 315, FRV WALTHER HERWIG III, 29.08 - 19.09.2008

(b) Any previously published research data relating to the proposed cruise

(Attach separate sheet if necessary)

in preparation

9. Names and addresses of scientists in coastal state with whom previous contact has been made

Jörundur Svavarsson, Sigurdur Helgason (University of Iceland, Reykjavik))

Jonbjörn Palsson (Marine Research Institute, Reykjavik)

10. State

(a) whether visits to the ship in port by coastal state scientists

will be acceptable,

YES

(b) whether it will be acceptable to carry on board an observer for
any part of the cruise

NO

(if YES please indicate possible dates and ports of embarkation/
disembarkation) No accommodation available

embarkation: 14.08.2019 Bremerhaven / disembarkation: 03.09.2019 Bremerhaven

(c) When research data from the intended cruise is likely to be made available to the coastal state authorities and by what means.

If the report will not be available within 12 months of the cruise, please set out an explanation for the delay indicating when the report will be available.

A cruise report will be published shortly after cruise. Data will be presented to the International Council for the Exploration of the Sea and will be available afterward

SCIENTIFIC EQUIPMENT

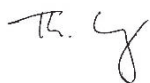
Coastal State *Island*

Complete the following table,
separate copy for each coastal state

Port call --

Indicate YES or NO other than for fishing gear when the total hours of fishing in each zone should indicated

LIST OF SCIENTIFIC WORK BY FUNCTION				DISTANCE	FROM	COAST
e.g. Magnetometry Gravity Diving Seismics Bathymetry Seabed sampling Trawling Echo sounding Water sampling U/W TV Moored instruments Towed instruments	Water column	Fisheries research within fishing limits	Research concerning continental shelf out to coastal state's margin	Within 3 NM	Between 3 – 12 NM	Between 12 and 200 NM
<i>Bottom trawling</i>	<i>bottom</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>YES</i>
<i>Pelagic trawl</i>	<i>pelagial</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>YES</i>
<i>Plankton sampling</i>	<i>Sea surface</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>
<i>Van Veen grab</i>	<i>bottom</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>
<i>Water sampling, CTD</i>	<i>between surface and bottom</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>	<i>YES</i>
<i>EK60 Echo sounder</i>	<i>between surface and bottom</i>	<i>YES</i>	<i>NO</i>	<i>NO</i>	<i>NO</i>	<i>YES</i>



Dated 2019-02-20

(Principal Scientist)

N.B. If any details are materially changed regarding dates/area of operation after this form has been submitted the coastal state authorities must be notified immediately

Table 1: Cruise 429 FRV "Walther Herwig III", 14.08. – 03.09.2019, Geographical coordinates

North Sea		
Area	Latitude	Longitude
GB1	54°03.00'N - 54°09.00'N	007°43.00'E - 007°55.00'E
GB3	54°55.00'N - 55°02.00'N	006°15.00'E - 006°24.00'E
GB4	55°22.00'N - 55°25.00'N	004°25.00'E - 004°34.00'E
N01	54°14.00'N - 54°26.00'N	007°22.00'E - 007°41.00'E
N04	54°25.00'N - 54°52.00'N	001°59.00'E - 002°32.00'E
N05	55°15.00'N - 55°30.00'N	000°25.00'W - 000°00.00'W
N06	56°15.00'N - 56°24.42'N	001°44.00'W - 002°10.00'W
N11	55°29.00'N - 55°41.00'N	006°49.00'E - 007°39.00'E
N22	53°29.00'N - 53°46.00'N	001°21.00'E - 001°49.00'E
P01	55°21.00'N - 55°48.00'N	004°40.00'E 005°19.00'E
P02	56°16.00'N - 56°42.00'N	002°39.00'E - 003°26.00'E
SK1	58°10.00'N - 58°25.00'N	009°15.00'E - 009°50.00'E
SK2	57°55.00'N - 58°15.00'N	10°30.00'E - 11°05.00'E

Baltic Sea		
Area	Latitude	Longitude
B01	54°25.00'N - 54°45.00'N	10°07.00'E - 11°00.00'E
B10	54°34.00'N - 55°00.00'N	13°55.00'E - 14°20.00'E
B11	54°40.00'N - 54°55.00'N	13°00.00'E - 13°55.00'E
B12	54°12.00'N - 54°28.00'N	11°20.00'E - 11°52.00'E
BHB	55°30.00'N - 56°00.00'N	14°12.00'E - 15°40.00'E
B13	55°00.00'N - 55°30.00'N	15°15.00'E - 16°00.00'E
B14	55°55.00'N - 56°25.00'N	18°20.00'E - 19°30.00'E
B15	54°45.00'N - 55°10.00'N	19°00.00'E - 19°26.00'E
B09	55°04.00'N - 55°16.00'N	18°09.00'E - 18°35.00'E

English Channel		
Area	Latitude	Longitude
SE	49°30.00'N - 50°00.00'N	00°00.00'W - 01°30.00'W

North Atlantic		
Area	Latitude	Longitude
I16	63° 30'N - 64° 00'N	16° 10'W - 16° 40'W
I17	63° 34'N - 63° 43'N	14° 39'W - 15° 26'W
I19	63° 00'N - 63° 45'N	20° 45'W - 21° 15'W
I20	64° 00'N - 64° 30'N	22° 15'W - 22° 45'W
I23	63° 45'N - 64° 30'N	13° 45'W - 14° 45'W
I24	65° 10'N - 65° 55'N	12° 30'W - 13° 55'W

Fig. 1 Cruise 429 FRV “Walther Herwig III”, 14.08. – 03.09.2019, Geographical coordinates, Location of sampling sites, North Sea

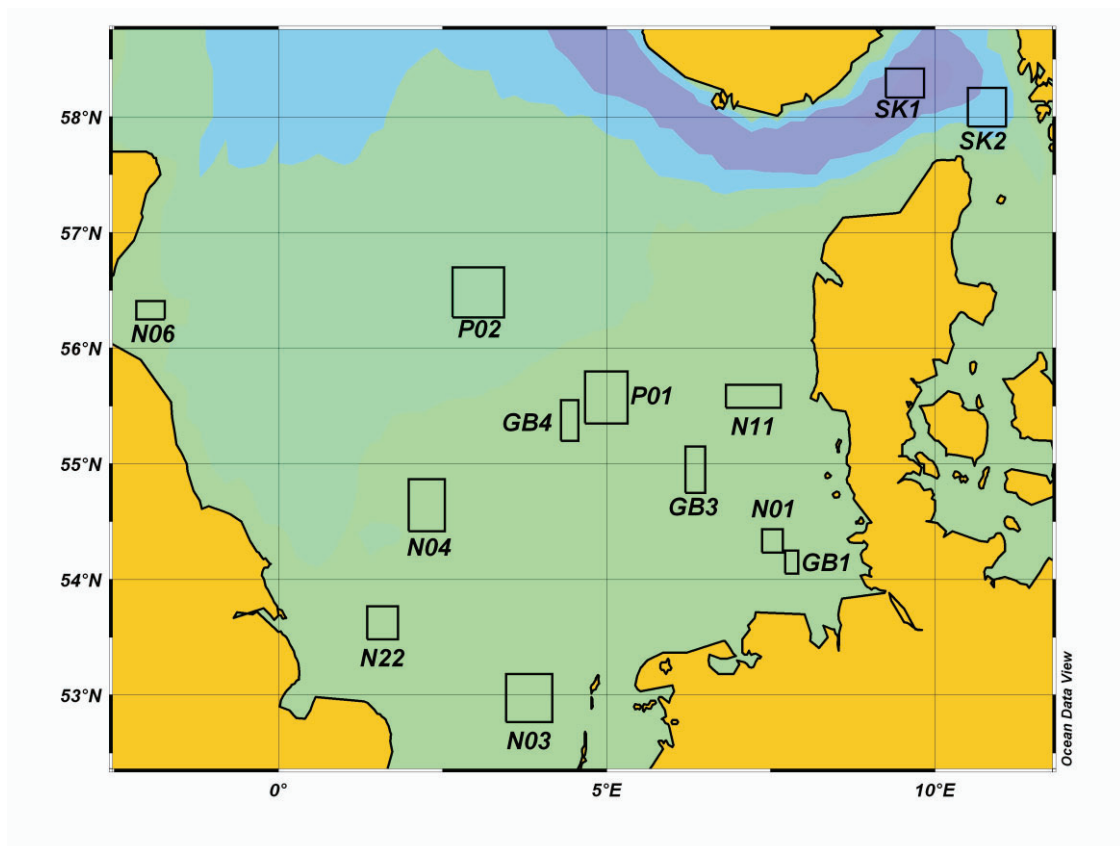


Fig 1a: Cruise 429 FRV “Walther Herwig III”, 14.08. – 03.09.2019, Geographical coordinates, Location of sampling sites, Baltic Sea

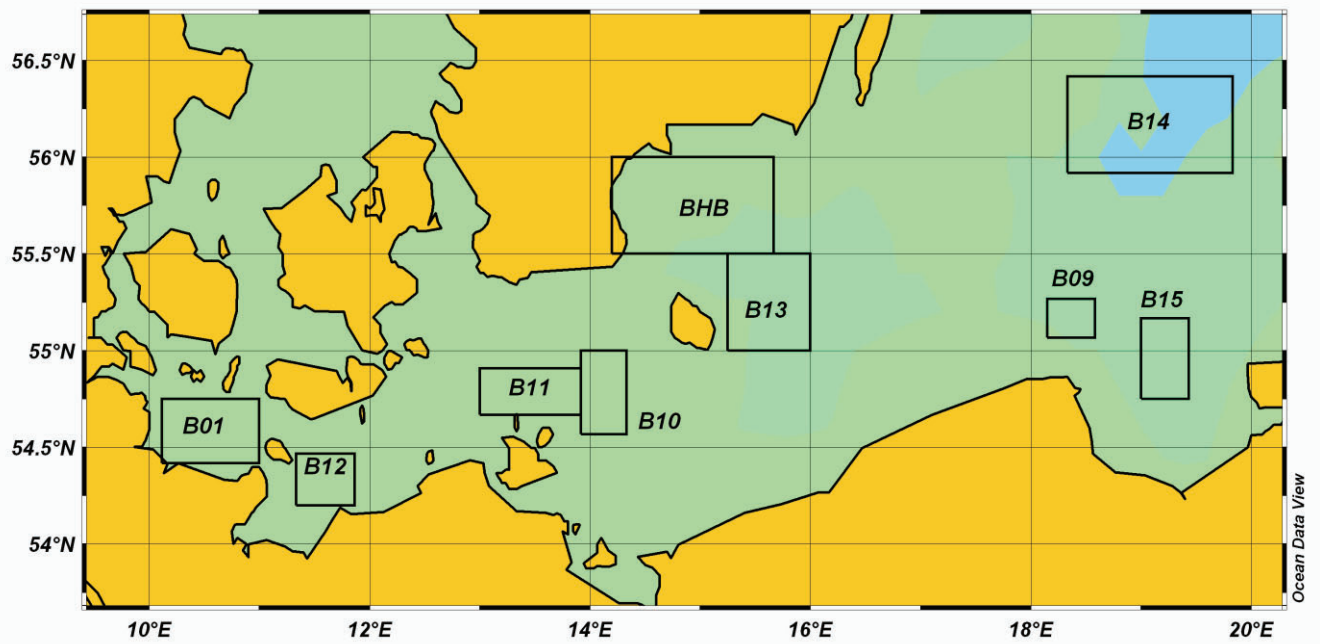
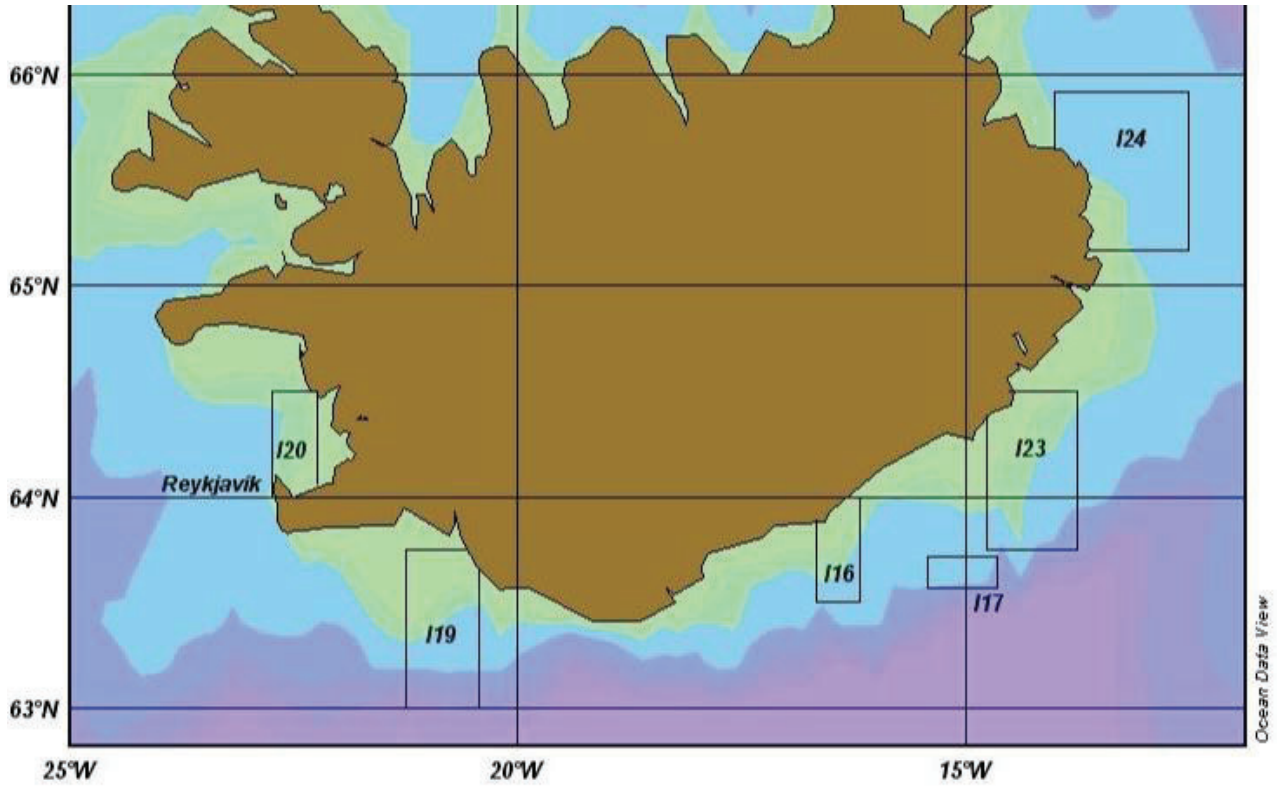


Fig 1b: Cruise 429 FRV "Walther Herwig III", 14.08. – 03.09.2019, Geographical coordinates, Location of sampling sites, North Atlantic



Oberblatt

Zuschmitt	Montage	Bo (m)	Bu (m)	n	Material
R		1,50m		15#	
AS		3,75m		30#	PA d=4mm 150mm
2N 1B		10,95m		78#	140mm dopp.
1H 4B		3,75m		30#	PA d=4mm 150mm
		28,95m		203#	
		27,90m		202#	
1N 4B		10,95m		78#	PA d=4mm 145mm
		13,35m		102#	
		13,35m		101#	
		7,35m		61#	
		7,00m		60#	
AN		7,00m		60#	PA d=4mm dopp. 140mm
		7,00m		60#	
		7,00m		60#	PA d=4mm dopp. 140mm
		7,00m		60#	

Kopfteil
Stahlrohr d=18mm, bzw. mit PP
2 x 12,80m + 6,90m
Gesamtlänge: 32,70m

Laschenständer
Herkules d=18mm
12,00m

Unterblatt

Grundtisch
Herkules d=24mm
3 x 6,30m
Gesamtlänge 19,1m

Fischleine
PA d=24mm
2,40m

Brüselleine
PA d=18mm
ca. 9m

Eckverstärkung, unten
PA d=24mm
ca. 15,7m

Eckverstärkung, oben
PA d=18mm
ca. 16,8m

Ansatzteil doppelt
bzw. folbig

Steert-
einlage 1
2 Blätter

Steert-
einlage 2
1 Blatt

Steert

Montage	Zuschmitt	Bo (m)	Bu (m)	n	Material
R		10,50m		220#	
AN		10,50m		220#	PA 210/246 dopp. 50mm

Zuschmitt	Montage	Bo (m)	Bu (m)	n	Material
R		7,90m	15,80m	79#	PA 210/18 20mm
AN		7,90m	15,80m	79#	PA 210/18 20mm

Montage	Zuschmitt	Bo (m)	Bu (m)	n	Material
R		3,75m		30#	PA d=4mm 150mm
AB		3,75m		30#	PA d=4mm 150mm
AB		3,75m		30#	PA d=4mm 150mm
AR		4,95m		31#	PA d=4mm 150mm
AN		6,25m		50#	140mm dopp.
		27,84m		202#	140mm dopp.
1N 4B		13,35m		102#	PA d=4mm 145mm
1N 4B		13,35m		101#	PA d=4mm dopp. 145mm
AN		7,00m		60#	PA d=4mm dopp. 140mm
AN		7,00m		60#	PA d=4mm dopp. 140mm
AN		7,00m		60#	PA d=4mm dopp. 140mm

Gesamtlänge, ohne Steert : 34,1m
Gesamter Umlauf : 386# x 0,15m = 57,9m

140kuzel skd

140-Fuß-Netz

1 : 400

Bestandteile für Fischerkabel

Blatt 1

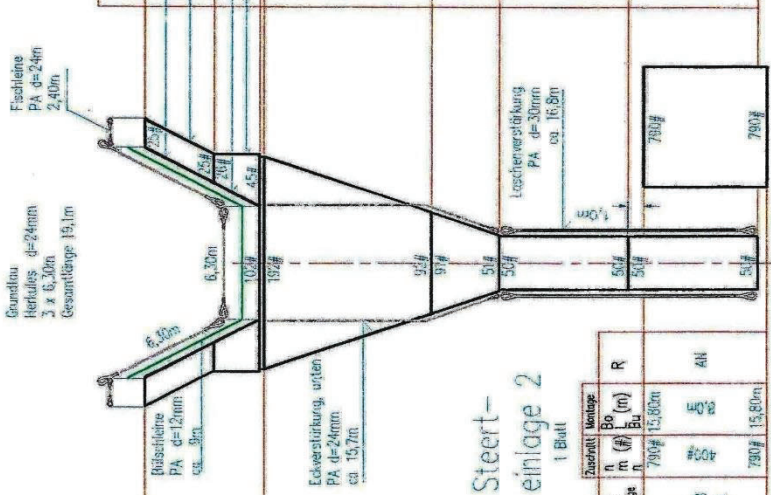
6 Bl.

Oberblatt

Material Wandstärke	Zuerst		Menge		R
	n	m	Bo (m)	Bu (m)	
PA d=4mm 130mm	13#	1,20m	10,95m	37,80m	AB
PA d=4mm 130mm	78#	2,60m	10,95m	37,80m	2N 1B
PA d=4mm 130mm	203#	28,95m	27,84m		II 4B
PA d=4mm 145mm	203#	28,95m	27,84m		IN 4B
PA d=4mm 145mm	102#	13,34m	13,34m		IN 4B
PA d=4mm 145mm	61#	7,35m	7,35m		IN 4B
PA d=4mm 140mm	60#	7,00m	7,00m		AN
PA d=4mm 140mm	60#	7,00m	7,00m		AN
PA d=4mm 140mm	60#	7,00m	7,00m		AN

Kopfteil
Schubdraht d=18mm, bzw. mit PP
2 x 12,80m + 6,90m
Gesamtlänge 32,70m

Unterblatt



Steert- einlage 1

Material Wandstärke	Zuerst		Menge		R
	n	m	Bo (m)	Bu (m)	
PA 210/18 20mm	790#	15,80m	15,80m		AN

Steert- einlage 2

Material Wandstärke	Zuerst		Menge		R
	n	m	Bo (m)	Bu (m)	
PA 210/18 20mm	790#	15,80m	15,80m		AN

Steert

Material Wandstärke	Zuerst		Menge		R
	n	m	Bo (m)	Bu (m)	
PA d=4mm 130mm	13#	1,20m	10,95m	37,80m	AB
PA d=4mm 130mm	78#	2,60m	10,95m	37,80m	2N 1B
PA d=4mm 130mm	203#	28,95m	27,84m		II 4B
PA d=4mm 145mm	203#	28,95m	27,84m		IN 4B
PA d=4mm 145mm	102#	13,34m	13,34m		IN 4B
PA d=4mm 145mm	61#	7,35m	7,35m		IN 4B
PA d=4mm 140mm	60#	7,00m	7,00m		AN
PA d=4mm 140mm	60#	7,00m	7,00m		AN
PA d=4mm 140mm	60#	7,00m	7,00m		AN

Gesamtlänge, ohne Steert : 34,1m
Gesamter Umlauf : 366# x 0,15m = 54,9m

140Fuß-Net

140-Fuß-Netz

1 : 400

Datum	Menge
Bearb.: 08.01.02	Menge
Gepr.:	
Berechnungswert für Flächent	
Wert für Flächent	

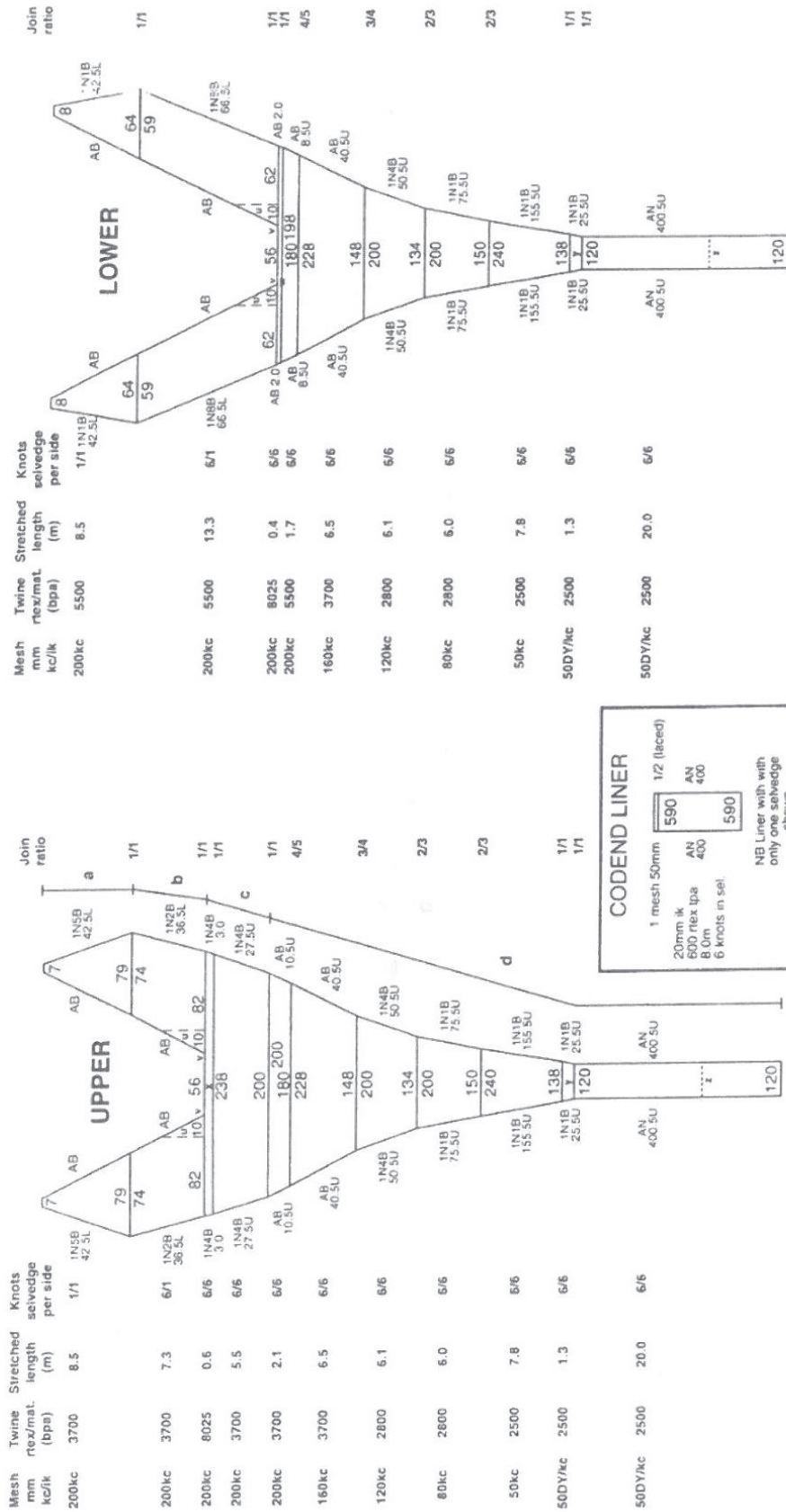
Zust.	Änderung	Datum	Name

Blatt

6 Bl.

GOV standard fishing gear (trawl construction)

Construction of the 36/47 GOV trawl (adapted from drawings of the Institute des Peches Maritimes, Boulogne/Mer)



Headline : 36m (15.50 + 5.00 + 15.50) x 14mm ϕ wire (1/c) served (6/19 - 12/6/1 65.8kg/100m).
Fishingline : 47.20m (21.10 + 5.00 + 21.10) x 22mm ϕ combination wire 6 strand/steel core 54.6kg/100m).
Winglines : Upper 8.2m, Lower 8.2m x 20mm ϕ combination wire (6 strand/steel core 54.6kg/100m)

a - 7.1m x 14mm ϕ wire (6/19 - 12/6/1 - 65.8kg/100m)
 b - 6.7m x 20mm ϕ combination wire (6 strand/steel core - 54.4kg/100m)
 c - 5.55m x 20mm ϕ combination wire (6 strand/steel core - 54.4kg/100m)
 d - length for length x 22mm ϕ nylon (3 strand - 26kg/100m)

NOTE TO NETMAKERS
 The numbers of meshes shown for netting panel widths do NOT include selwedge meshes. Five meshes (six knots) per selwedge must be added where indicated. Conversely to obtain panel depths one row (1/2 mesh) must be subtracted from each panel as the joining row is included in the number of meshes deep. The total numbers of meshes (width and depth) for each individual panel are set out in GOV 36/47 Groundfish Survey Trawl Checklist. (Page 2 of 5)

Legend:
 kc = knot centre to knot centre
 ik = inside knot: measurement
 tpa = polyamide twine/twisted
 bpa = polyamide twine/braided
 dy = double yarn

Method of join used, sewing
 Type of knot, weavers knot.

u - Gussets 8025rtex
v - 4 meshes gathered at quarters
w - 200 198
x - 240 238
y - 138 120
z - Joining position for Liner

GOV standard fishing gear (rigging)

GOV 36/47 GROUND FISH SURVEY TRAWL : Overall rigging diagram

