GB

Application for Consent to conduct
Marine Scientific Research

Date: 11.04.2019

1. General Information

1.1 Cruise name and/or number:WH III 432,02.12.2019 – 22.12.2019

1.2 Sponsoring Institution(s):	
Name:	Thünen Institute of Fisheries Ecology
Address:	Herwigstraße 31, 27572 Bremerhaven
Name of Director:	Prof.Dr. R. Hanel

1.3 Scientist in charge of the Project:	
Name:	Dr.Pedro Miguel Agostinho Nogueira
Country:	Germany
Affiliation:	
Address:	Herwigstraße31 27572Bremerhaven
Telephone:	+49 471 94460-410
Fax:	+49 471 94460-199
Email:	Pedro.nogueira@thuenen.de
Website (for CV and photo):	ww.thuenen.de

1.4 Entity(ies)/Participant(s) from coastal State involved in the planning of the project:	
Name:	
Affiliation:	
Address:	
Telephone:	
Fax:	
Email:	
Website (for CV and photo):	

2. Description of Project

2.1 Nature and objectives of the project:
Monitoring of the occurrence of fish diseases and biological effects of contaminants, OSPAR monitoring, Bottom trawling, sediment sampling, sea surface plankton sampling, hydrography, echo registration

2.2 If designated as part of a larger scale project, then provide the name of the project and the Organisation responsible for coordinating the project:

2.3 Relevant previous or future research projects:
Cruise No. 408, RV Walther Herwig III, 24.08.-13.09.2017

2.4 Previous publications relating to the project:

3. Geographical Areas

3,1 Indicate geographical areas in which the project is to be conducted (with reference in Latitude and longitude in decimal degrees, including coordinates of cruise/track/way points/sampling stations). Please provide coordinates in a separate excel spreadsheet.
52,766667 –58,4170 N / -2,166667 – 16,00000 E (Waters off England, Scotland and Wales) Locations of sampling areas in waters of the coastal State are shown on the map attached. Exact positions for trawling and hydrography within the sampling areas cannot be provided in advance because decisions on trawling positions are made flexibly based on echo sounder findings and weather conditions.

3.2 Attach chart(s) at an appropriate scale (1 page, high-resolution) showing the geographical Areas of the intended work and, as far as practicable, the location and depth of sampling Stations, the tracks of survey lines, and the locations of installations and equipment.

4 Methods and means to be used

4.1 Particulars of vessel:	
Name:	FRV Walther Herwig III
Type/Class:	
Nationality (FlagState):	German
Identification Number (IMO/Lloyds No.):	IMO 9048392
Owner:	Federal Republic of Germany
Operator:	Bundesanstalt für Landwirtschaft und Ernährung Referat 524, Haubachstr. 86, 22765 Hamburg, Niels Grube - Tel: +49 (0)228 6845 5534
Overall length (meters):	63,18 m
Maximum draught:	6,20 m
Displacement/Gross Tonnage:	2131
Propulsion:	Diesel / Diesel Electric
Cruising & maximum speed:	11,5 – 14,5 knots
Call sign:	D B F R
INMARSAT number and method and capability of communication (including emergency frequencies):	Phone +870 773 236 187 (Bridge) Fax +870 783 209 565 Email: Wherwig.kapitaen@fischereiforschung.eu
Name of Master:	Janßen, Hans-Otto
Number of Crew:	21
Number of Scientists on board:	12

4.2 Particulars of Aircraft:	
Name:	
Make/Model:	
Nationality (flag State):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall Length (meters):	
Propulsion:	
Cruising & Maximum speed:	
Registration No.:	
Call Sign:	
Method and capability of communication (including emergency frequencies):	

Name of Pilot:	
Number of crew:	
Number of scientists on board:	
Details of sensor packages:	
Other relevant information:	

4.3 Particulars of Autonomous Underwater Vehicle (AUV):	
Name:	
Manufacturer and make/model:	
Nationality (FlagState):	
Website for diagram & Specifications:	
Owner:	
Operator:	
Overall length (meters):	
Displacement/Gross tonnage:	
Cruising & Maximum speed:	
Range/Endurance:	
Method and capability of communication (including emergency frequencies):	
Details of sensor packages:	
Other relevant information:	

4.4 other craft in the project, including its use:

4.5 Particulars of methods,full description of scientific instrumentsto be used(for fishing gear specify type and dimension) and location			
Types of samples and Measurements:	Methods to be used:	Instruments to be used:	To be carried out within 12nm (yes or no):
Fish	Bottom Trawling	140’ bottom trawl (see attachment)	no
		GOV with rock hopper (see attachment)	no
Plankton	Sea surface plankton trawling	Towed Neuston plankton sampler	no
Sediment	Sediment grab	Van Veen graband Geminicorer	Yes
Hydrography	CTD Measurement	CTD	no
Echo registration	Hydro acoustics	SK60 Echosounder	no

4.6 Indicate nature and quantity of substances to be released into the marine environment:
none

4.7 Indicate whether drilling will be carried out. If yes, please specify:
no

4.8 Indicate whether explosives will be used. If yes, please specify type and trade name, Chemical content, depth of trade class and stowage, size, depth of detonation, frequency of Detonation, and position in latitude and longitude:
no

5 Installations and Equipment

Details of installations and equipment (including dates of laying, servicing, method and Anticipated timeframe for recover, as far as possible exact locations and depth, and Measurements):
none

6 Dates

6.1 Expected dates of first entry into and final departure from the research area by the research vessel and/or other platforms:
Although the sampling plan has to be made in a flexible way, e.g., depending on weather conditions and success of sampling, it is expected that WH III will enter waters of the coastal State in the second week of December and will depart 4 days later after having visited areas N22, N04 and N06.
6.2 Indicate if multiple entries are expected:
no

7 Port Calls

7.1 Dates and Names of intended ports of call:
none

7.2 Any special logistical requirements at ports of call:
no

7.3 Name/Address/Telephone of shipping agent (if available):
no

8 Participation of the representative of the coastal State

8.1 Modalities of the participation of the representative of the coastal State in the research Project:
Participation is not possible because accommodation is not available.

8.2 Proposed dates and ports for embarkation/disembarkation:
02.12.2019 Bremerhaven for embarkation, 22.12.2019 Bremerhaven for disembarkation

9 Access to Data, Samples and Research Results

9.1 Expected dates of submission to coastal State of preliminary report, which should include The expected dates of submission of the data and research results:
No preliminary reports issued

9.2 Anticipated dates of submission to the coastal State of the final report:
31.05.2020 at the latest

9.3 Proposed means for access by coastal State to data (including format) and samples:
Direct contact to scientist in charge

9.4 Proposed means to provide coastal State with assessment of data, samples and Research results:
Direct contact to scientist in charge

9.5 Proposed means to provide assistance in assessment or interpretation of data, samples And research results:
Direct contact to scientist in charge

9.6 Proposed means of making results internationally available:
Publication, submission of data to the ICES Data Centre

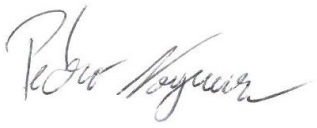
10. Other permits Submitted

10.1 Indicate other types of coastal state permits anticipated for this research (received or Pending):
none

11. List of Supporting Documentation

11.1 List of attachments, such as additional forms required by the coastal State, etc.:
Map Excel file with coordinates of sampling areas Gear specification forms

Signature:



Contact information of the focal point:

Name:	Dr. Pedro Miguel Agostinho Nogueira
Country:	Germany
Affiliation:	Thünen Institute of Fisheries Ecology
Address:	Herwigstraße31 27572 Bremerhaven
Telephone:	+49 471 94460-410
Fax:	+49 471 94460-199
Email:	pedro.nogueira@thuenen.de

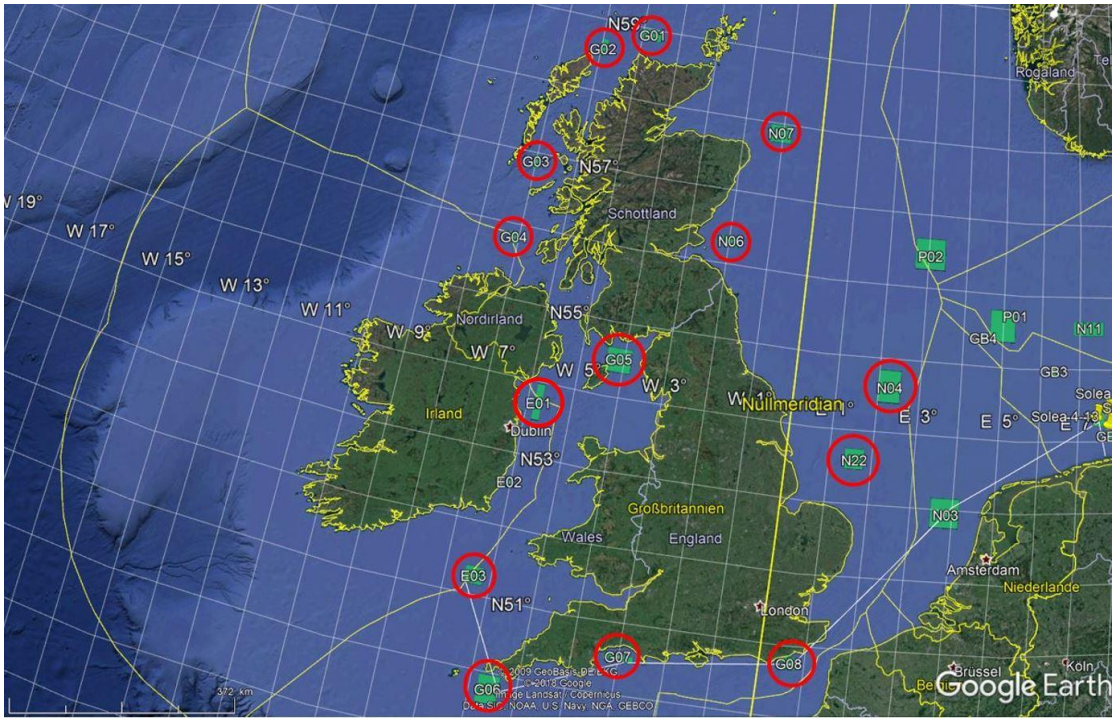
Table 1: Cruise 432FRV “Walther Herwig III”, 02.12. – 22.12.2019, Geographical coordinates, UK

United Kingdom		
Area	Latitude	Longitude
G01	58°50.00'N - 59°00.00'N	05°00.00'W - 04°30.00'W
G02	58°30.00'N - 58°45.00'N	06°00.00'W - 05°50.00'W
G03	56°48.00'N - 56°60.00'N	06°55.00'W - 07°05.00'W
G04	55°45.00'N - 55°55.00'N	07°00.00'W - 07°15.00'W
G05	54°20.00'N - 54°40.00'N	04°25.00'W - 03°50.00'W
G06	49°35.00'N - 50°00.00'N	05°50.00'W - 05°22.00'W
G07	50°30.00'N - 50°35.00'N	03°20.00'W - 02°80.00'W
G08	50°40.00'N - 50°51.00'N	00°50.00'E - 00°30.00'E
N04	54°25.00'N - 54°52.00'N	01°59.00'E - 02°32.00'E
N06	56°15.00'N - 56°24.42'N	01°44.00'W - 02°10.00'W
N07	57°45.00'N - 58°00.00'N	01°20.00'E - 00°46.00'E
N22	53°29.00'N - 53°46.00'N	01°21.00'E - 01°49.00'E
E03	51°10.00'N - 51°25.00'N	06°35.00'W - 06°10.00'W

Table 2: Cruise 432FRV “Walther Herwig III”, 02.12. – 22.12.2019, Geographical coordinates from sediment sampling in the Irish Sea, UK

sample	Station	Lat DD.MMmm	Lon DD.MMmm	water	sediment Gemini
1	50	54,1700	-05,0500		x
2	62A	54,3500	-03,4000		x
3	62B	54,3216	-03,3993		x
4	64A	54,2800	-03,4400		x
5	64B	54,2410	-03,4590		x
6	64D	54,2500	-03,3700		x
7	64E	54,2494	-03,3380		x
8	67A	54,2190	-03,3311		x
9	67B	54,2000	-03,4200		x
10	70A	54,1000	-03,4500		x

Fig. 1: Cruise 432FRV “Walther Herwig III”, 02.12.2019 -22.12.2019,
Location of sampling sites, UK



Area N22, N04, G08, G07, G06 and E01 waters off England.
Area N06, N07, G01, G02, G03, G04 waters off Scotland.
Area G05 waters off England and Scotland.
Area E03 waters off Wales.

Fig. 1a: Cruise 432FRV “Walther Herwig III”, 02.12.2019 -22.12.2019,
Location of sampling sites, UK

Area G08, G07 and G06 waters off England.
Area E03 waters off Wales.

Fig. 2: Cruise 432FRV “Walther Herwig III”, 02.12. – 22.12.2019, Geographical coordinates from sediment sampling in the Irish Sea, UK

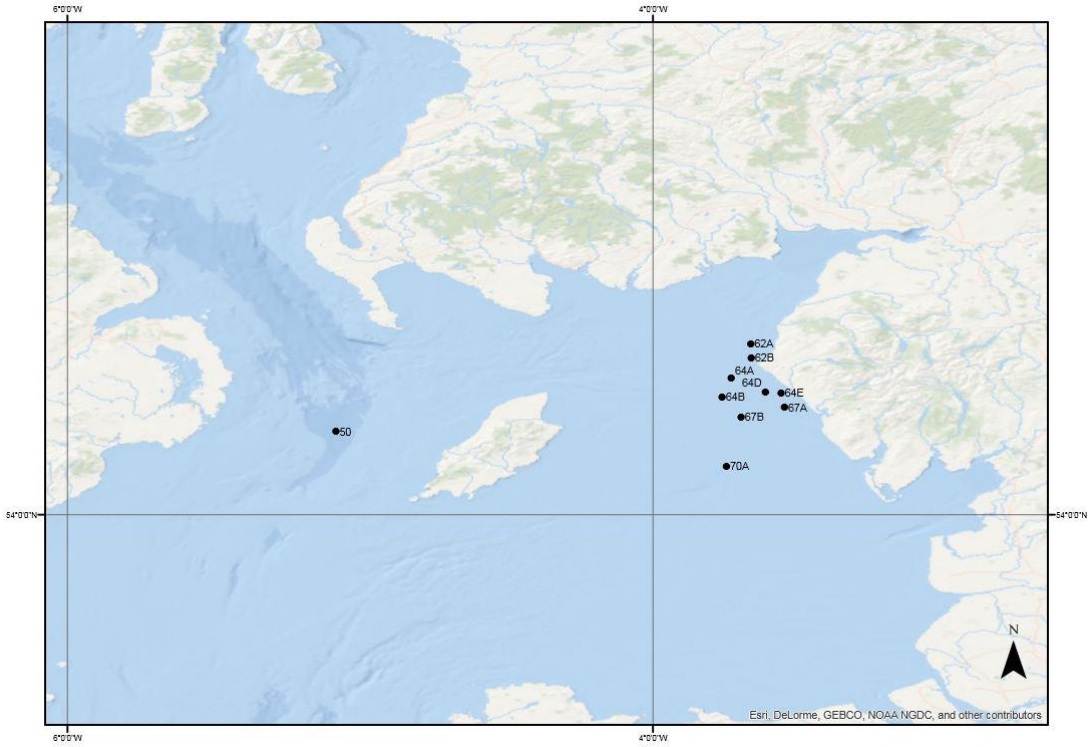
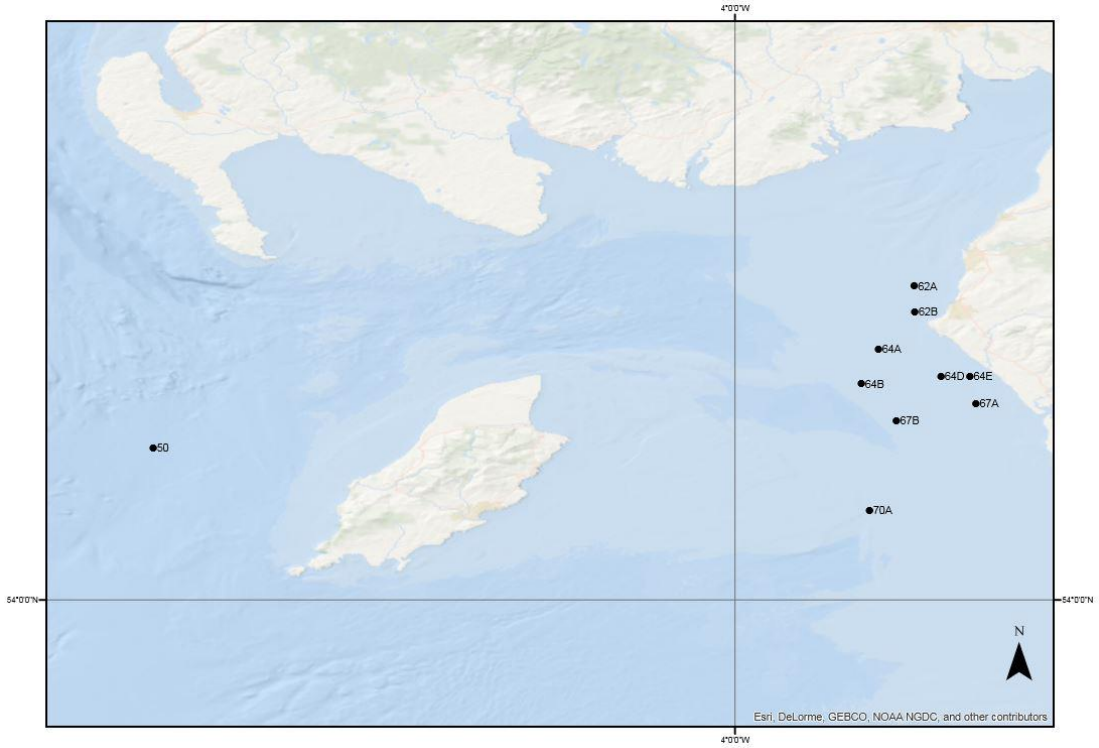
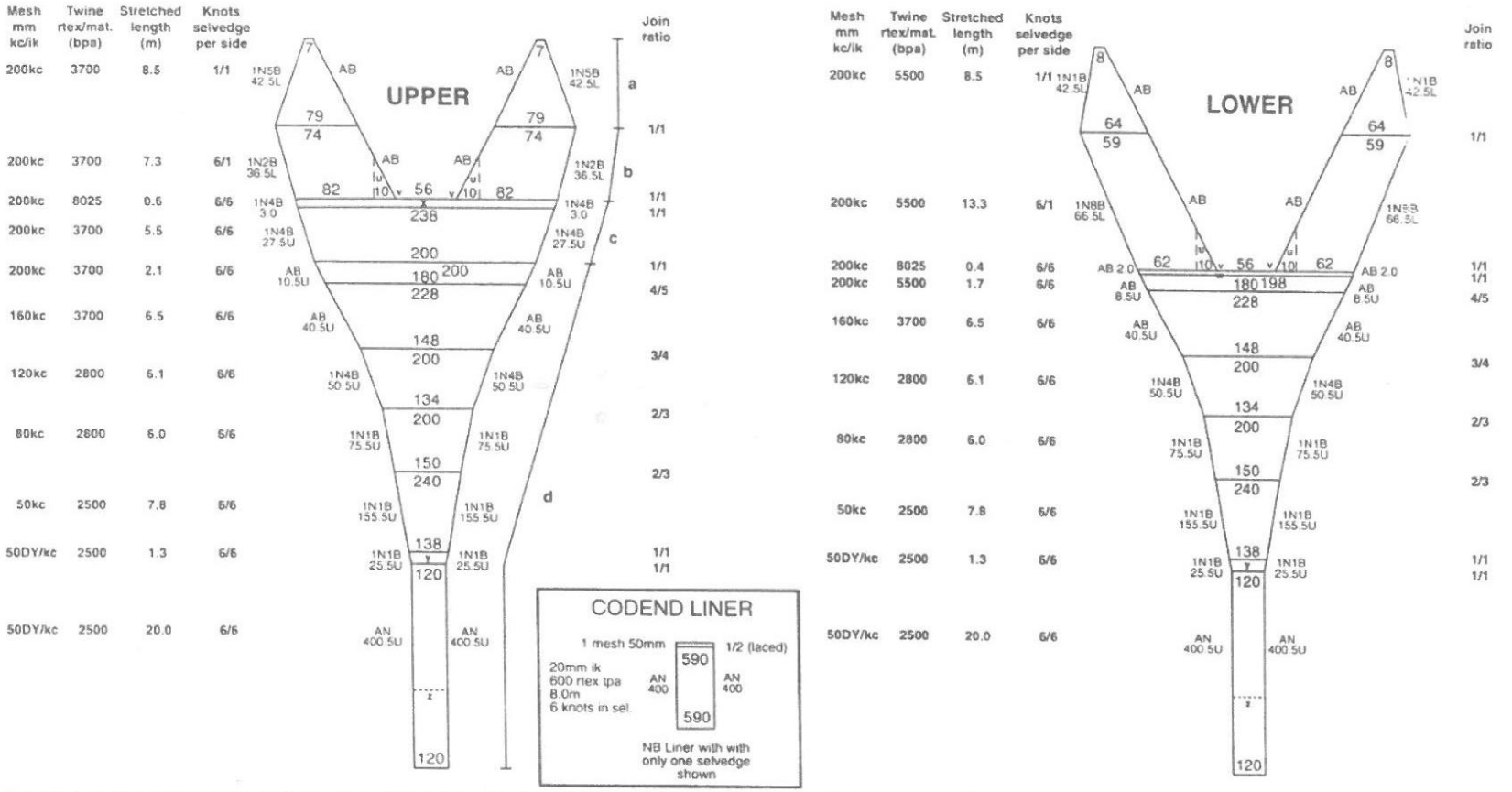


Fig. 2a: Cruise 432FRV “Walther Herwig III”, 02.12. – 22.12.2019, Geographical coordinates from sediment sampling in the Irish Sea, UK



All Areas from Sediment Sampling are in the Irish Sea

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 (f/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)

u - Gussets 8025rtex
v - 4 meshes gathered at quarters

w - 200 198
x - 240 238
y - 138 120

z - Joining position for Liner

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.

NOTE TO NETMAKERS

The numbers of meshes shown for netting panel widths do NOT include selvedge meshes. Five meshes (six knots) per selvedge 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)

GOV standard fishing gear (trawl construction)

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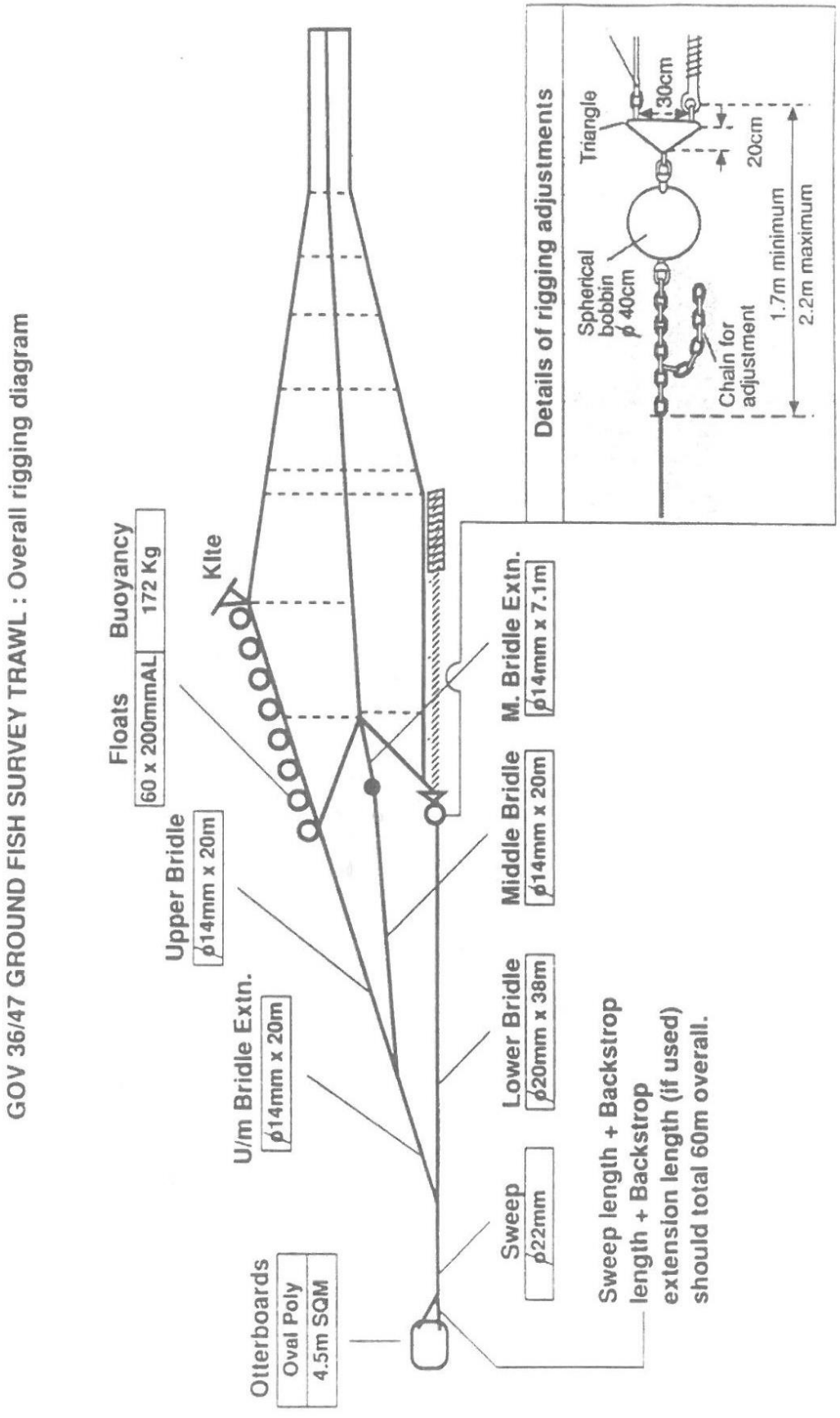
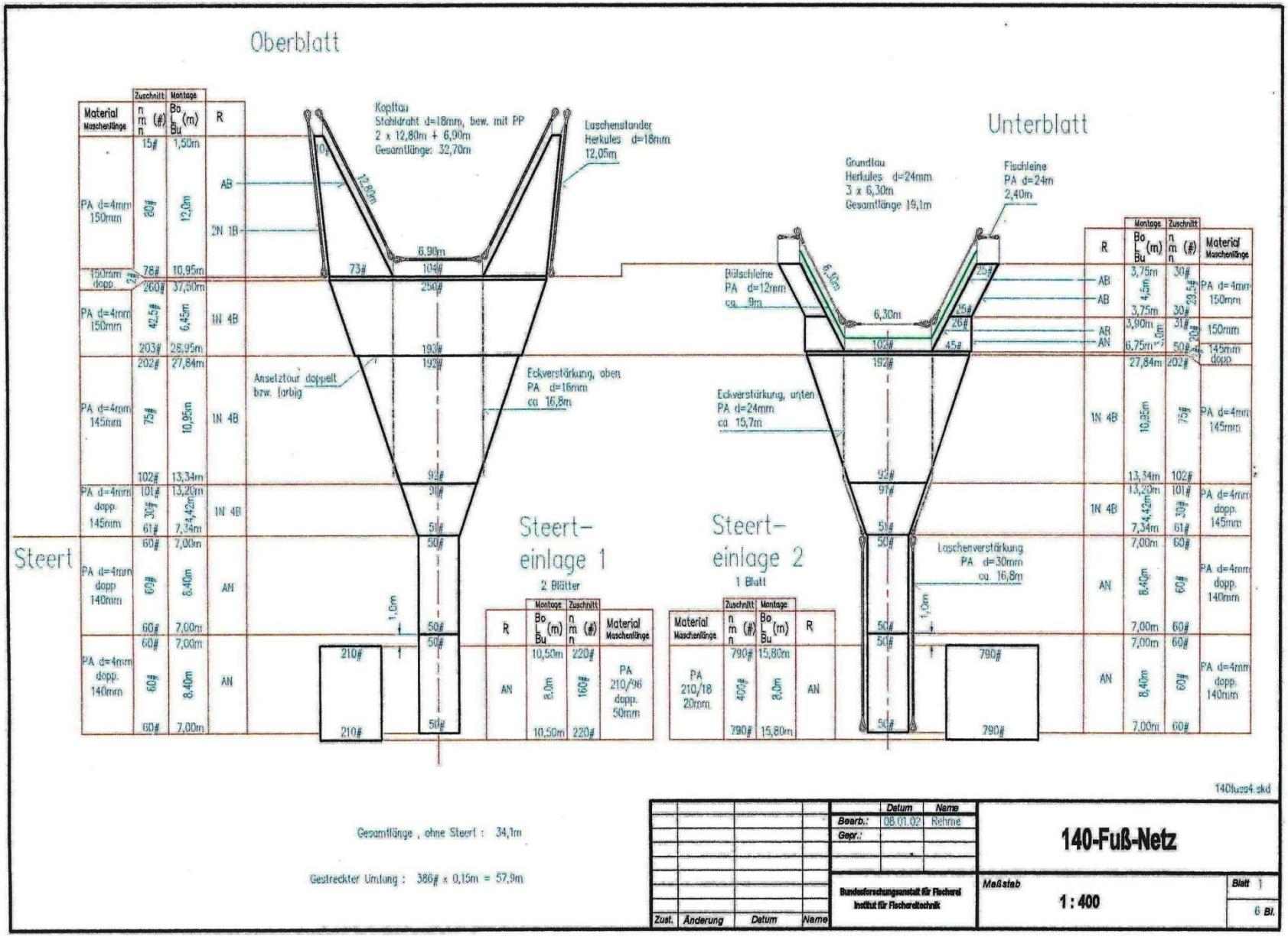
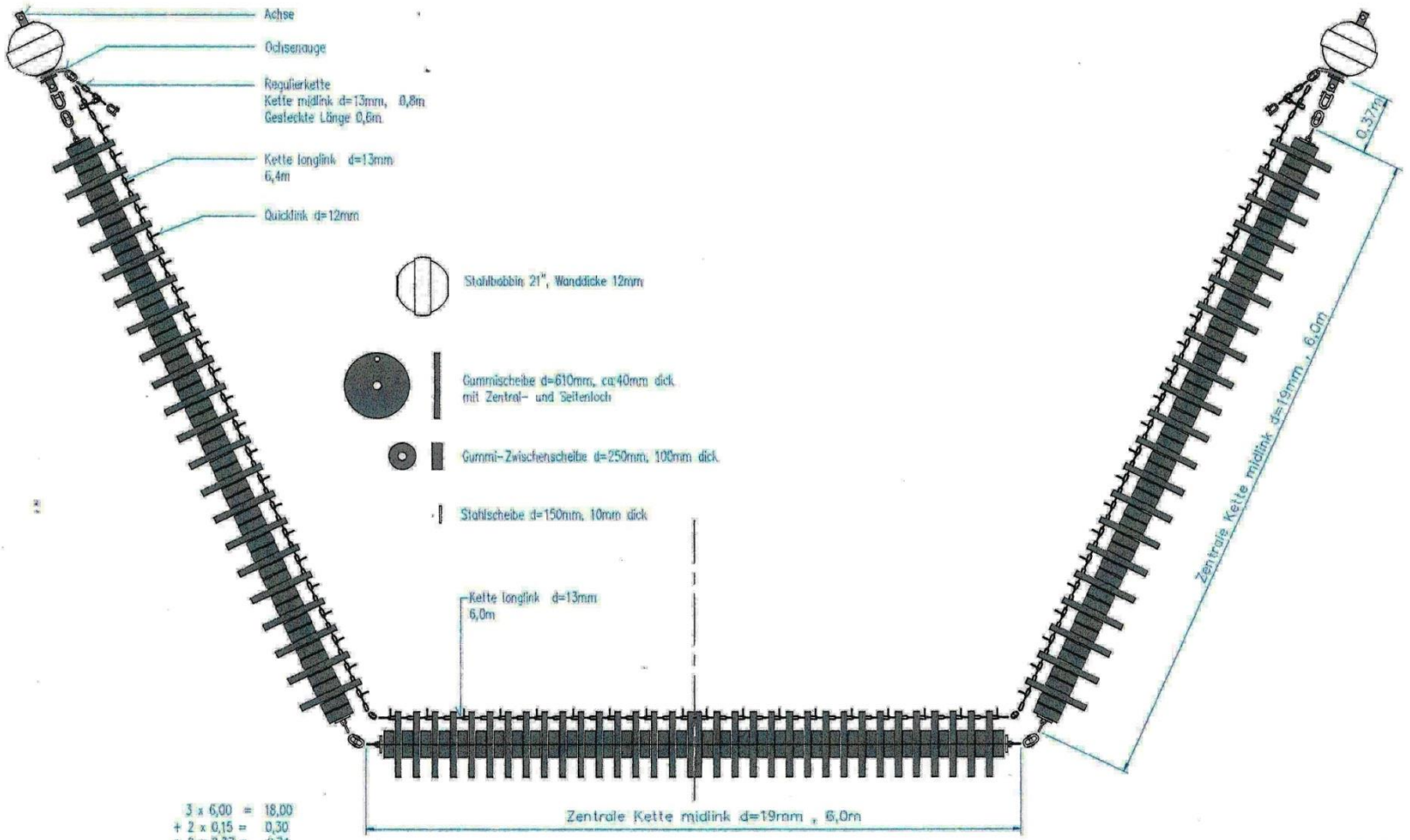
GOV standard fishing gear (rigging)




Oberblatt
Unterblatt
Steert
Kopftau
Stahldraht d=18mm, bew. mit PP
2 x 12,80m + 6,90m
Gesamtlänge: 32,70m
Laschenstander
Herkules d=18mm
12,05m
Grundtau
Herkules d=24mm
3 x 6,30m
Gesamtlänge 19,1m
Fischleine
PA d=24mm
2,40m
Bülschleine
PA d=12mm
ca. 9m
Ansetztour doppelt
bzw. farbig
Eckverstärkung, oben
PA d=16mm
ca. 16,8m
Eckverstärkung, unten
PA d=24mm
ca. 15,7m
Laschenverstärkung
PA d=30mm
ca. 16,8m
Steert-
einlage 1
2 Blätter
Steert-
einlage 2
1 Blatt
Material
Maschenlänge
Zuschnitt
Montage
R
PA d=4mm
150mm
PA d=4mm
145mm
PA d=4mm
dopp.
145mm
PA d=4mm
dopp
140mm
PA d=4mm
dopp.
140mm
150mm
dopp.
PA d=4mm
dopp.
50mm
PA
210/96
dopp.
50mm
PA
210/18
20mm
AB
2N 1B
1N 4B
AN
Gesamtlänge, ohne Steert: 34,1m
Gestreckter Umfang: 386# x 0,15m = 57,9m
140fuss4.skd
Bearb.: 08.01.02 Rehme
Gepr.:
Zust. Änderung Datum Name
Bundesforschungsanstalt für Fischerei
Institut für Fischereitechnik
140-Fuß-Netz
Maßstab 1 : 400
Blatt 1
6 Bl.

GB



3 x 6,00 = 18,00
+ 2 x 0,15 = 0,30
+ 2 x 0,37 = 0,74

19,04 m = Länge des Footropes

Regulierkette + halbes Grundtau = 0,6 + 19,1 / 2 = 10,15
halbes Footrope = 19,04 / 2 = - 9,52

0,63 m = Lose des Grundtaus gegenüber dem Footrope

140fuss6.skd

Zust.	Änderung	Datum	Name		Datum	Name
				Bearb.:	08.01.02	Rehme
				Gepr.:		

140-Fuß-Netz
Footrope 2:
Rockhopper

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Institut für Fischereitechnik

Maßstab: o.M.

Blatt 6
6 Bl.

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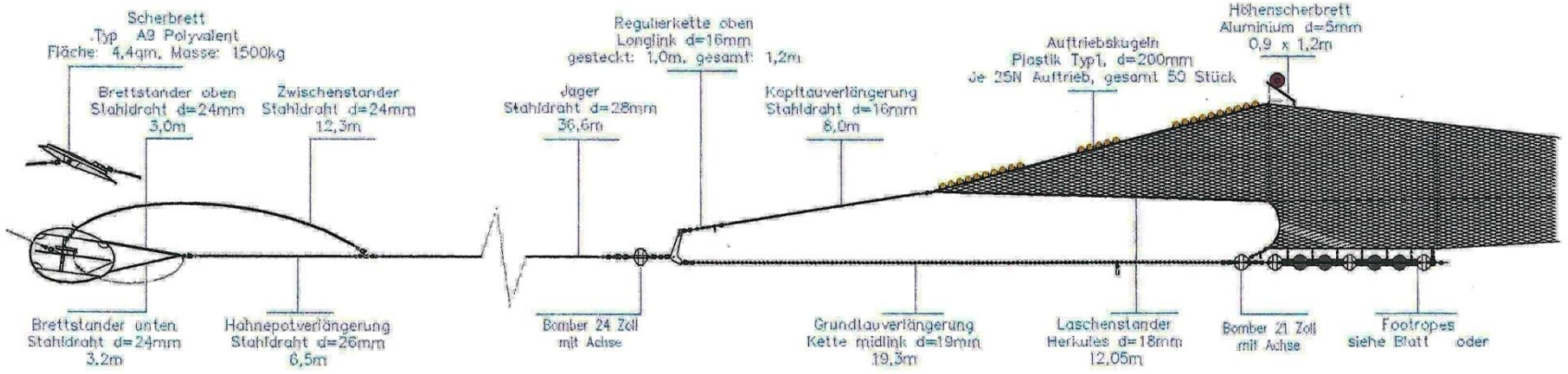
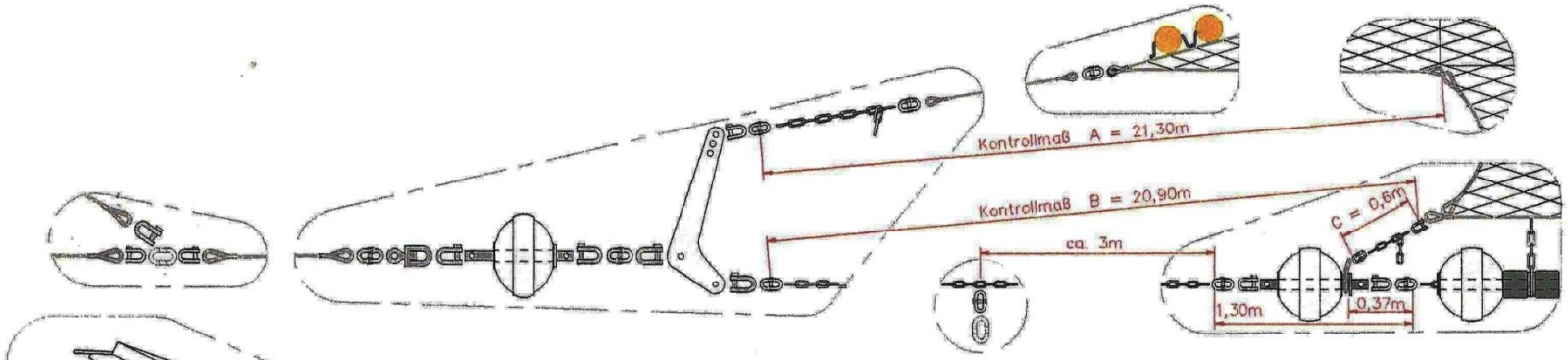
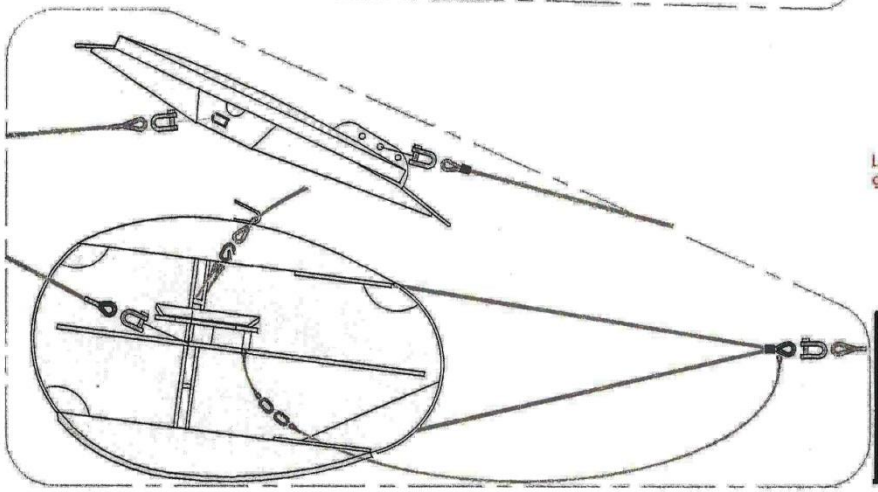
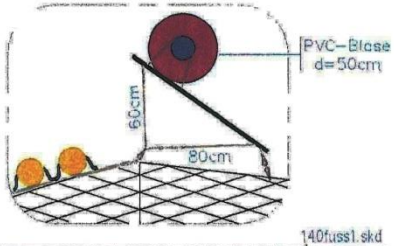






A = 21,30
– B = 20,90
Lose der Lasche gegenüber dem Grundtau = 0,40m



140fuss1.skd

Zust.	Änderung	Datum	Name

	Datum	Name
Bearb.:	08.01.02	Rehme
Gepr.:		

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Institut für Fischereitechnik

140-Fuß-Netz
Vorgeschirr und Bestückung
Variante mit Joch

Maßstab: o.M.

Blatt 5
6 Bl.

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