International Council for the Exploration of the Sea

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Comparative Fishing Committee
No. 2 F

Standardization and Fishing Gear

by

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Standardization is one of the modern methods for the rationalization of industries. This does not only mean the specification of technical constructions and methods but also includes definitions and terms and methods of testing.

In the fishing field efforts for standardization did only begin some years ago. Fortunately, in many cases these efforts have not been restricted to national levels but have extended, with the help of international bodies, to the international level. In the following these international efforts are summarized as far as they are of interest for the work of the Comparative Fishing Committee.

(1) Terms and Definitions

With the assistance of different nations the ISO (International Organization for Standardization) in London, Technical Committee 38 (Textiles), established a special Subcommittee (Sc 9) for fishing gear in May 1962. It has been decided that this Subcommittee is named:" Textile Products for Fishing Nets".

The second meeting of Sc 9 was held in London, May 1963, in connection with the FAO Second World Fishing Gear Congress. The following countries had sent representatives:

Belgium,
Canada,
France,
Fed.Rep.of Germany,
The Netherlands,
Norway,
UK,
UdSSR and
Spain.

Moreover, observers have been sent by FAO and the International Group for Pelagic Fishing Methods and Gear (IF).

This subcommittee discussed different definitions e.g. for

Netting,
Netting twines,
Size of netting twine,
Notation of netting twine,
Mesh,
Mesh size and
Designation of netting.

The results from these discussions are summarized in Appendix 1. It has to be mentioned, that these definitions hitherto are proposals under consideration of the subcommittee (Sc 9).

It may be of interest to the Comparative Fishing Committee that all materials used for netmaking are summarized in the term "Netting twine", no matter whether these are yarns, twines or monofilaments.

It may also be very helpful that the size of the stretched mesh, measured in the inside of the mesh, is named "mesh opening". This is a very clear term and of interest for the reports dealing with the selectivity of trawls and seines.

(2) Numbering system for netting twines

It is wellknown that many numbering systems are used for netting twines. Even in the individual countries many systems are used for various materials or of the same material used for different types of gear. These systems are based on weights or diameters or even on quite arbitrary systems.

This confusing matter is very complicated for the comparison of results obtained by different authors, e.g. in connection with the selectivity of trawls. It would be a great success, if the different numbering systems could be replaced by one single international system used in all countries for all kinds of netting twines.

During the First International Fishing Gear Congress (1957) a working party was established to discuss the introduction of a universal numbering system for netting twines. The conclusion of the report of this working group (1960) was that the universal system may be either a conventional system, - and in this case preference would be for metric number, - or an entirely new one. In this case the so-called tex-system should be chosen.

The tex-system has been recommended by the ISO as a universal numbering system in 1956. This system is based on metric units. "The linear density (or number) of a yarn in tex expresses the mass in grams of yarn having a length of one thousand metres.' With other words, the tex number is identical with the weight of 1000 m of a yarn in grammes. The higher the tex value, the heavier the yarn. The numerical value is followed by the term "tex". The following table is confronting some wellknown numbers (underlined) with the tex-system:

Ne	Nm	Td	Tex
12	20	-	50
20	34	265	30
26	43	210	23
30	50	180	20
50	85	110	12

But for modern netmaking no yarns are used. All net materials twisted or plaited, are composed of many yarns. Therefore up to now the numbers for netting twines were composed of two values: first, the number of the yarn and second, the quantity of yarns combined in the netting twine. This system has also been adopted for the tex-system e.g.:

Ne 26/33 or Nm 43/33 or Td 210x33
or 23tex x 33.

As up to now, the composition of the netting twine can be written more in detail e.g.:

23tex x 33 or 23tex x 11x3

The netting twines can be twisted or braided in different manner, e.g. soft, medium or hard laid. This is of influence on the weights of the netting twines. Therefore there are great differences in the runnage, i.e. the weight for 1000 m for the same number of a netting twine. These differences can not be recognized from the tex number, but only if the tex number is not calculated for the single yarn, but for the final product: the netting twine. In this case the tex value is called "resultant tex". The capital R is set as a symbol before the number. Moreover, the direction of twist (S or Z) of the netting twine should be put at the end, e.g.

R 840 tex Z.

The resultant tex value for the same number of netting will be varied according to the degree of twisting. This can be seen or calculated from the twine number. Therefore the runnage has been added to the twine-number. In the same manner the resultant tex value can be written after the twine number e.g.

23tex x 11 x 3; R 840 tex Z

The first part is the unchangeable name of the netting twine in contrast to the Rtex-value changeable according to the degree of twist. The Rtex-value is the weight of the 1000 metres of the netting twine.

The resultant tex-value has to be used for all heavy twisted netting twines e.g. for bottom trawls. The resultant tex value has to be used also for plaited netting twines. In this case, of course, the direction of twist can not be mentioned.

(Ref.: KLUST, G.: Standardization of terminology and numbering systems for netting Twines. Sec.World Fishing Gear Congress, No. 13, 1963)

(3) Testing of net materials

It has been mentioned in previous contributions, that the differences of the selectivity of different materials may not be caused by the properties of the fibres but by the properties of the netting twines. The properties of the netting twines, even with the same number, show great variations according to the differences of manufacturing processes.

To measure the properties of netting twines or nettings accurate universal rules for testing methods are wanted. During the First Int. Fishing Gear Congress in Hamburg (1957) a special working party on testing methods has been established. The following countries have had representatives in this group:

Canada, Germany (Fed.Rep. and East)
Danmark, the Netherlands and
France, UdSSR.

This working party collected testing methods for netting twines and netting as far as used in fisheries in all parts of the world (1960). This report has been revised and submitted to the Second World Fishing Gear Congress in London (1963). (The contents of this paper can be seen in Appendix 2). This report is a proposal and it is quite sure that alterations and supplements will become necessary in future.

The ISO subcommittee 9 of TC 38 mentioned above has discussed this paper and decided that the following tests are most urgently needing attention:

Netting twines: Breaking strength, dry and wet
Tenacity, dry and wet,
Modulus and recovery, dry and wet,
Extension knot breakage, dry and wet.

Netting : Mesh size, dry and wet,
Mesh strength, dry and wet,
Dimension change in cold water, dry and wet

Suggestions for the testing of ropes have been added:

Ropes : Circumference, with and without pre-tension
Number (weight per unit length), with and without pre-tension
Turns per unit length, with and without pre-tension
Breaking strength, dry and wet, breaking length, dry and wet
Extension at break, dry and wet.

Concerning mesh size it seems to be quite clear that the rules of the Comparative Fishing Committee for mesh measuring in trawls with the so-called ICES-gauge must be respected. But it has to be mentioned that similar rules for other gear, e.g. gillnets, are needed very urgently.

The report on testing methods includes a special chapter dealing with biological tests. These tests are of no interest for the Comparative Fishing Committee for the time being. With a view to completing this report it has to be mentioned that the Plenary Group of Experts on the Biological Deterioration of Materials of OECD (Organisation for Economic Co-operation and Development) is discussing this problem. As can be seen till now, Spain and Germany are interested in this field.

(Ref.: V.BRANDT, A. and P.J.G. CARROTHERS: Test Methods for Fishing Gear Materials (Twines and Netting), Sec. World Fishing Gear Congress No. 12, 1963).

(4) Gear Classification

It is wellknown that the names for fishing gear are varying in the different countries. Therefore translations from one language into the other are sometimes difficult. This is the reason for many attempts to standardize terms and definitions for fishing gear. Very often these attempts have been combined with classifications. Most of these classifications have been limited to restricted areas. As far as I know, only the classification of BURDON for the tropical fisheries has been adopted by some authors (BURDON, T.W.: A consideration of the classification of fishing gear and methods. Proc.Indo-Pacific Fish.Council (1951) Sect.II, 1951).

There are many possibilities for a gear classification. For larger areas or the whole world minor details have to be neglected. In any case we have to agree with BURDON, that the method of operating must be the basis for the classification of fishing gear. But for my feeling it can not be avoided to accept compromises to some extent. (v.BRANDT, A.: Fischfanggeräte und Fangmethoden. Protokolle zur Fischereitechnik 5, 127-169, 1959).

More important than the classification may be an exact definition of terms for fishing gear (e.g. by drawings). A proposal has been submitted to the Int.Fishing Gear Congress (1957). This first proposal needs some corrections - at least in spelling. This has been the reason for my asking the Comparative Fishing Committee to establish a special working group for a revision or new arrangement of a gear classification. This has been discussed by this committee in 1961. It has been mentioned by the representatives of FAO that a revised classification will be printed in the second edition of "Modern Fishing Gear of the World". Therefore, the establishment of the working party has been postponed. The classification has been revised with the assistance of Mrs. de BOER-Netherland, JENSEN-Danmark, KURC-France, MARGETTS-UK and RASMUSSEN-Norway. Unfortunately, the intention for a second edition of Modern Fishing Gear of the World has been cancelled. Therefore the revised list is submitted to this Committee in appendix 3 for further discussion.

The submitted list includes the terms for fishing gear in German, English, French, Dutch, Norwegian and Danish. Moreover, the same lists are published in

Polish, Russian	Protokolle zur Fischereitechnik Vo.4, p.153-156, 1956
Polish (revised), Greece	dito. Vol.5, p. 341-346, 1959
Italian	" Vol.5, p. 347-351, 1959.

As mentioned before, these lists are proposals and it is quite possible that more detailed lists will be prepared if necessary (e.g. gear classifications for the Statistical Committee of ICES).

(Ref.: v.BRANDT, A.: Classification of fishing gear. Modern Fishing Gear of the World, p. 274-296, 1959).

Future Work

Besides the mentioned items others are under discussion. During the First Fishing Gear Congress Mr. DROST (Netherland) has made the proposal not only to standardize the terms for fishing gear, but also the terms for the different parts of a gear (e.g. trawl). This should not be forgotten for future work. As far As I know there is only one draft about trawls for inshore fisheries (TOET, W.: Trawlnet-Kustvisserij).

For netting twines and their properties KLUST has established a list in German, English, French, Polish and Russian (Protokoll zur Fischereitechnik 4, 94-117, 1960).

In the ISO-Subcommittee mentioned before the definitions for Shaping and Hanging are under discussion. Hanging has a great influence in the selectivity of gillnets as revealed by recent investigations.

Finally, it has to be mentioned that FAO is preparing a Fishing Gear Catalogue. For this work special agreements have been made for the drawings. It seems to be important, that the depth of each mesh equals the length of the stretched mesh or mesh opening

and that the width is equal to half the length or opening of the mesh. The scale is 1/100 or 1/200 and denoted by a scaled length, so that the drawing can be used for reduction. It would be desirable when this agreement would be adopted for the contributions of the Comparative Fishing Committee.

(Ref.: FAO: FAO fishing gear catalogue. Sec.World Fishing Gear Congress, No. 80, 1963.

VERHOEST, J.: Some standardization proposals for drawings of trawlers. I.F.-Meeting, London 24th May, 1963).

Appendix 1

ISO/TC 38/SC 9 (Secretariat 16) 38E
June 1963

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

Sub-committee 9 - Textile Products for Fishing Nets
(of ISO Technical Committee 38 - Textiles)

Basic Terms and Definitions for Textile Products for Fishing Nets

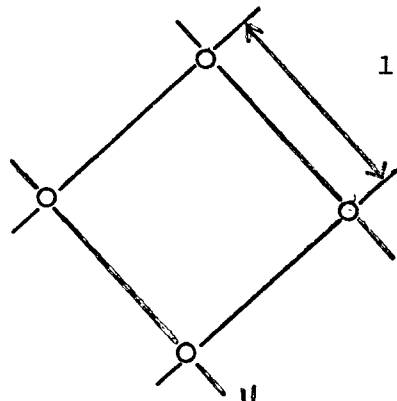
1. Netting	
1.1	Textiles consisting of one yarn or of one or more systems of yarns, which are crossed or joined so as to form meshes in the final product.
1.2	Meshed structures formed by other means, e.g. by stamping or cutting from sheet materials or by extrusion
2. Netting twine	General term for any kind of yarn or combination of yarns usable for the manufacture of netting
3. Size of netting twine	The traditional method of expressing size is by means of length per unit weight in conventional units (e.g. metres per gramme or yards per lb.). This is called "runnage". The technical method is by use of the internationally recognised tex system (see ISO/R 138) in which size is expressed as the weight in grammes per kilometre of yarn (known as "linear density"). The size of complex twines is expressed as "resultant linear density" (see document ISO/TC 38/N 362). The latter is the reciprocal of runnage.
4. Notation of netting twines	Two methods of notation are possible: The first commences with the linear density of the single yarn (notation from single-to-fold), the second commences with the linear density of the complex twine (notation fold-to-single). The resultant linear density is the mass per unit length of the final product of the operations of twisting, folding, cabling or plaiting. If it is affected by chemical or physical treatments this should be particularly mentioned. The notation should preferably be in the single-to-fold order. Notations may give details of the single yarns making up the product (e.g. 23 tex x 5 x 3" R 380 tex S) or where specially constructed twines are described, may be limited to the resultant count and final twist direction (e.g. R 380 tex S) or, when describing braided

twines, may give the resultant count alone (e.g. R 380 tex).

5. Mesh — A designedly formed opening, surrounded by netting material

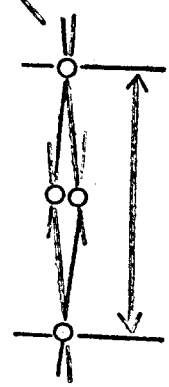
6. Size of mesh

6.1 Length of mesh siede — The distance between two sequential knots or joints, measured from centre to centre



length of mesh side

6.2 Length of mesh

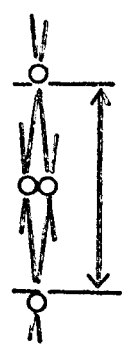


length of mesh

6.2.1 Knotted netting — The distance between the centres of two opposite knots in the same mesh when the mesh is fully extended at right angles to the continuing direction of the twines.

6.2.2 Knotless netting — The distance between the centres of two opposite joints in the same mesh when the mesh is fully extended parallel to the continuing direction of the twines

6.3 Opening of mesh



opening of mesh

6.3.1	Knotted netting	The inside distance between two opposite knots in the same mesh when the mesh is fully extended at right angles to the continuing direction of the twines
6.3.2	Knotless netting	The inside distance between two opposite joints in the same mesh when the mesh is fully extended parallel to the continuing direction of the twines
7	Designation of netting	Netting is designated by the number of meshes in each direction.

Test Methods for Fishing Gear Meterials *)

(Twines and Netting)

A. Testing of netting materials

(a) Physical tests

(1) Breaking strength
Strength testing machines
Wet breaking strength
Calculation for comparing results

(2) Extensibility
Extension at break
Load-elongation-curve
Elasticity

(3) Flexural stiffness

(4) Abrasion resistance
Abrasion against hard objects
Abrasion against itself

(5) Weight
Dry weight
Wet weight
Weight in water
Floating ability and sinking speed

(6) Diameter

(7) surface roughness

(8) Shrinking and lengthening

(9) Thermal reaction

(10) Weather resistance
Resistance to sunlight
Resistance in weathering machines

(b) Chemical tests

(11) Resistance to preservatives, oils, etc.

(c) Biological tests

(12) Rotting resistance
Test under natural conditions
Tank test in laboratories
Experimental procedure

*) accordihg paper No. 12 edited by A.v.BRANDT and revised by P.J.G. CARROTHERS, submitted to the Second World Fishing Gear Congress in London (1963).

(13) Resistance to micro-organisms

(14) Fouling resistance

(d) Tests for suitability

(15) Processability

(16) Dyeability and treatability

(17) Storability

B. Testing of netting

(18) Netting dimensions
Length and breadth
Meshsize

(19) Strength and extensibility
Mesh strength
Netting strength
Rending strength
Frictional strength in minnow netting

(20) Knot stability
Inversion resistance
Knot-slip-resistance
Loosening resistance

(21) Weight of netting
Dry weight of netting
Wet weight of netting
Weight in water

(22) Pollution of nets

(23) Visibility

(24) Hydrodynamic resistance of netting

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	German	English	French	Dutch	Norwegian	Danish
1	Fischfang ohne Gerät	Fishing without gear	Pêche sans instrument	Visserij sonder vistuig	Fiske uten redskap	Fiskefangst uden redskab
1.1	Handfang	by hand	A la main	Vangen met de hand	tumming	med hånden
1.2	Taucher	diver	Par plongeur	Duiker	dykker	dykker
1.3	Tiere	hunting animals	Animaux pêcheurs	Dieren	jaktdyr	dyr
1.31	Kormorane	cormorant	Cormoran	Aalscholvers	skarv	kormoran
1.32	Saugfische	sucker-fish	Remora	Zuigvissen	sugefisk	sugefisk
1.33	Fischotter	otters	Loutre	Visotters	fiskeodder	fiskeodder
1.34	Hunde	dogs	Chien	Honden	hund	hund
2	Verwundende Geräte	Wounding gear	Pêche par blessure	Verwondend vistuig	Redskap som sarer	Sårende redskaber
2.1	Stangengeräte	(hand instruments)	Instruments à manches	Handvistuig	stange(støte)-redskaper	stangredskaber
2.11	Speere ohne Widerhaken	lances	Lance sans barbelure	Speren zonder weerhaken	spyd uten mothaker	spyd uden modhager
2.12	Speere mit Widerhaken	spears	Lance barbelée	Speren mit weerhaken	spyd med mothaker	spyd med modhager
2.13	Klemmen	clamps	Pinces	Klemmen	klyper	klemmer
2.14	Harken	rakes	Rateau	Harken	raker	harke
2.15	Zangen	tongs	Tenailles	Tangen	tenger	taenger
2.2	Pfeile	bow and arrow	Arc	Pijlen	piler	pile
2.3	Harpunen	harpoons	Harpon	Harpoenen	harpuner	harpuner
2.31	Handharpune	hand-harpoons	Harpon à main	Handharpoenen	handharpun	hånd-harpuner
2.32	Gewehrharpune	rifle-harpoons	Harpon lancé au fusil	Geweerharpoenen	gjevaerharpun	gevaer-harpuner
2.33	Kanonenharpune	gun-harpoons	Harpon lancé au canon	Kanonharpoenen	kanonharpun	kanon-harpuner
2.4	Gewehre	rifles	Fusil	Geweren	gjevaer	rifler
2.5	Blasrohre	blow-pipes	Sarbacane	Blaasroeren	blaserör	blaeserør

Appendix 3

	Deutsch	English	French	Dutch	Norwegian	Danish
3	Betäubende Methode	Stupefying methods	Méthodes de Pêche par commotion et intoxication	Methoden waarbij de vis bedwelmd wordt	Bedövende metoder	Bedovende metoder
3.1	Schlaggeräte	striking gears	Instruments contondants	Slagvistuig	slagsredskaper	slagsredskaber
3.11	Keulen	clubs	Gourdin	Knuppels	kölle	köller
3.12	Wurfhölzer	thrown missiles	Projectiles	Werphouten	kastetre	kastetrae
3.2	Giftfischerei	poisons	Pêche par poisons, par intoxication	Giftvisserij	bruk av gift	giftfiskeri
3.3	Elektrofischerei	electrical fishing	Pêche électrique	Electrische visserij	elektrisk fiske	elektrofiskeri
3.4	Explosivstoffe	explosives	Explosifs	Explosieve stoffen	bruk av sprengstoff	fiskeri med spraengstof
3.41	Fischschiessen	fish-shooting	Tir.déflagration	Visschieten	skyting	skydning
3.42	Handgranaten	hand grenade	Grenade à main	Handgranaten	Handgranater	handgranater
3.43	Dynamit	dynamite	Dynamite	Dynamiet	Dynamitt	explosion under vandet

4	Angelfischerei	Fishing with line	Pêche a ligne	Visserij met haken en beuglijnen	Fiske med snöre of line	Fiskeri med kroge eller snöre
4.1	ohne Haken	without hooks, bobbing	Sans hameçon	Zonder haken	uten angel	uden kroge, tatni
4.2	mit Haken	with hooks	A l'hameçon	Met haken	med angel	med kroge
4.21	Knebel	gorge	Aiguille, hameçon droit	Knevelhaken	tverrtre	tvaerpinde
4.22	Bogenhaken	curved hooks	Hameçon courbe	Ronde haken	buet angel	buede kroge
4.221	bewachte Angeln	watched lines	au coup	Bewaakte lijnen	papasset	under stadigt til
4.2211	Handangel	handangling	Ligne à main	Hengel	snörefiske	håndliner etc.
4.22111	Leinen	handline	Ligne	Lijnen	handsnöre, juksa	håndliner
4.22112	Ruten	rod	Canne	Roeden	stang	stang og line, kastestang

	German	English	French	Dutch	Norwegian	Danish
4.22113	Schleppangel	troll line	Ligne trainante	Drapen	dorg	dorg
4.222	unbewachte Angeln	unwatched lines	Dormante	Unbewaakte	uten tilsyn	uden stadigt tilsyn
4.2221	Treibangel	floated line, drift-longline	Ligne flottante	Drijflijn	flöytline	drivliner, driv-snöre
4.2222	verankert	anchored	Ancrée	Verankerd	forankret line	forankrede liner
4.22221	Stellangel	standing line	Ligne dormante	Stellijnen	snikline	fœnkrede flydekr
4.22222	Reihenangel	longline, set longline	Palangre, corde	Beuglijnen	line, bakke	langliner, bakker
4.3	Reissangeln	rip hooks	Turlutte à la faux	Rukhaken	krøkredskap, Pilk	pilke
4.4	Gaffs	gaffs	Croc	Knoeken	klepper	hugkroge

5	Fischfallen	Fish traps	Pièges à poisson	Visvallen	Fiskefeller	Fiskefaelder
5.1	Fanghauten	barriers	Barrages	Barrieren, Vangstkeerschutten	sperringer	spaerringer
5.11	Fischzäune	fish-hedges	Claies	Schutwand	fiskejerr,stöd	vinkelgarn, vinke spaerringer ved tidevandskyster
5.12	Selbstfänge	box traps	Trappe à poissons	Kamers	fangkasser	fangstkasser
5.2	Labyrinthbauten	fish corral, fish weir	Bordigues	Doolhoven,weren	bunngarn	labyrint-redskabe
5.3	Fallen im eigentlichen Sinn	true traps	Piègs propement dits	Echte vallen	egentlige feller	egentlige faelder
5.31	Schwerkraftfallen	gravity traps	Trappe à contre-poids	Zwaartekracht vallen	loddfeller	Faelder, der lukk med fjeder eller tyngdekraft
5.32	Schlingen	snares	Collets, noeuds coulants	Lussen	snarer	snarer
5.321	Drahtschlingen	wire-snares	Collet en fil métallique	Draadlussen	av ståltråd	af ståltråd
5.322	Tauschlingen	rope-snares	Collet en corde	Touwlussen	av tau	rendeløkker of snöre
5.323	Stockschlingen	stock-snares	Collet sur perche	Stoklussen	av kjepper	af bambusrör med snöre

	German	English	French	Dutch	Norwegian	Danish
5.33	Schwippgalgen-fallen	whippy bough trap	Piège à tension	Zwiepgalgvallen	vippegrenfeller	vippegren-faelder
5.34	Torsionsfallen	torsion shutter trap	Piège à torsion		torsjonsfeller	ridningslukke-faelder
5.4	Reusen	baskets	Casiers	Fuiken en Kubben	Teiner og ruser	ruse-agtige reds-kaber
5.41	Bodenreusen	ground baskets	Casiers de fond	Grondkubben	satt pa bunnen	bundsatte ruser
5.411	Korbreusen	fish pots	Nasses	Kubben van tenen	kurvteiner	Kurve af flet-waerk
5.412	Drahtreusen	wire baskets	Casiers métallique	Kreeftenkorfjes, Ijzeren	ruser av stål-tråd netting	ståltrådsruser
5.413	Garnreusen	fyke net	Verveux	Fuiken	ruser	garnruser
5.4131	Spannsäcke	braced bag	Verveux rigide	Spanzakken	böyleruser	garnruser
5.4132	Bügelreusen	fyke net with rings	Casiers en filet	Hangers, Glooiing fuikjes	tønnebåndruser	bøjleruser
5.414	Käfigreusen	creels	Hotte á poisson	Kooifuiken	fastående ruser	garnkurve
5.415	Grossreusen	trap net, pound traps	Pêcheries fixes	Grote fuiken, zeefuiken	stor-ruser	stor ruser, bund-garn
5.4151	Bügelreusen	trap nets with rings	Verveux à aile	Beugelfuiken	böyleruser	bøyljeruser
5.4152	Kastenreusen	box nets	Parcs à poisson	Kastfuiken	bunngarn, kilenøter	kasseformede ruser, bundgarn
5.41521	Pfahlreusen	stake nets	Hauts-parcs et bas-parcs	Paalfuiken, bothargen	peleruser, bunngarn	faestet til paele
5.41522	Ankerreusen	fixed nets	Madrague	Verankerde fuiken	forankrete ruser	forankrede
5.42	Schwimmreusen	buoyed trap	Parcs flottante	Drijffuiken	kilenøter, verp, flytende fiske-feller	flydende rusereds kaber
6	Sprungfisch-fischerei	Aerial traps, jumping fish traps	Installations pour capturer le poisson sautant hors de l'eau	Visserij op springende vis	Feller for hop-pende fisk	Redskaber til fan af springende fis
6.1	Verandanetze	verandah net	Sautade	Veranda netten	verandanett	veranda-net
6.2	Mattenfischerei	raft trap	Pêche à la natte-canna	Visserij met matten	flåtefeller	flåde-flaeder

	German	English	French	Dutch	Norwegian	Danish
6.3	Bootsfallen	boat trap	Capture au saut dans le bateau	Bootsvallen	båtfeller	bådformede faelde:
6.4	Fangkästen	box traps	Caisse (ou vivier) de capture	Kasnèrs	fangkasser	fangst-kasser
7	Hamen	Bag nets with fixed mouth	Filets à armature	Kuilen	Håver	Hamen, ketsjere
7.1	Kleinhamen	scoop, dydle	Haveneaux	Kuiltjes	småhåver	ketsjere
7.11	Bügelhamen	landing net	Epuisette	Beugelkuilen	skafthåver	bøle-ketsjere
7.12	Scherenhamen	skimming net	Bout de quievre ou grand haveneau	Gebbe	saksehåver	sakse-ketsjere
7.13	Schiebehamen	push net	Trouble, haveneau	Schuifhamen	skyvehåver	glib, rejehor
7.14	Schlepphamen	dragged bag nets with fixed mouth	Haveneau remorqué	Sleepsaaiings-korren	slepehåver	slaebe-ketsjere
7.2	Grosshamen	gape nets	Diables	Grote kuilen	storhåver	hamen
7.21	Pfahlhamen	swing nets (stow-nets) on stakes	Diable	Staande kuilen	fortöyde håver	fortøjet til pael
7.22	Ankerhamen	swing nets (stow-nets) on anchors	Chalut à l'étalage	Ankerkuilen	forankrete håver	forankrede
7.23	Scherbretthamen	otter-board stow-net	Diable à un panneau divergent	Bordenkuilen	flöythav med oterbord	forankret og med en skool
8	Schleppgeräte	Dragged gear	Arts trainants	Sleepvistuig	Sleperedkaper	Slaberedskaber
8.1	Dredgen	dredge	Dragues	Dreggen	skraper	skrabere
8.2	geschleppte Netzwände	sweep nets	Dreige ou drège	Sleepnetten	sleping av åpen not	slaebte net-redskaber
8.21	einwandig	single walled	A une seule nappe	eenwandig	med en notvegg	med en vaeg
8.22	dreiwandig	triple walled	A trois nappes	driewandig	met tre notwegger	med tre vaegge
8.3	geschleppte Netzsäcke	trawl	Chaluts	Gesleepte kuilen-korren	Slept notpose	trawl
8.31	Grundschleppnetze	bottom trawl	Chalut de fonds	Bodemtrawl	bunnslepenot, trål	bundtrawl og bund-vod
8.311	Baumkurre	beam trawl	Chalut à perche	Boomkor	bomtrål	bomtrawl, ålevad

	German	English	French	Dutch	Norwegian	Danish
8.312	Scherbrettnetz	ottertrawl	Chalut à panneaux	Ottertrawl	otertrål	skovlvod og trawl
8.313	Gespann-Netz	pareja	Chalut boeuf, gangui	Wonderkuil, haring-kuil, spankuil	partrål	dobbeltspand, par-fiskeri med trawl
8.32	pelagische Schleppnetze	floating trawl	Chalut pélagique	Pelagische trawl	flytetråler	flydetrawler
8.321	an der Oberfläche	surface floating trawl	Chalut de surface	aan de oppervlakte	overflate-tråler	ved overfladen
8.322	in beliebiger Tiefe	mid-water floating trawl	Chalut à évolution variable	op willekeurige diepte	midtvannstråler	i vilkårlig dybde, flydetrawl

9	Zugnetze	Seine	Sennes	Zegens	Vad.dragnöter	Vodredskaber
9.1	sacklose Zug-netze	without bag	Senne sans poche	Zegens zonder zak	uten fiskepose	vod uden pose
9.2	Zugsäcke	with bag	Senne avec poche(eissauge)	Zakzegens	med fiskepose	vod med pose
9.21	Strandwaden	beach seine	Senne halée à terre	Strandzegens	strandnot, land-not	landvod
9.22	Bootswaden	boat seine	Senne halée à bord	Bootzegens, galg-zegens	snurrevad	vod fra fartoj

10	Umschliessungs-netze	Surrounding nets, encircling nets	Filets tournants	Omsluitingsnetten	Innesperrings-nöter	Net der laegges om en fiskestime
10.1	Sperrnetze	barrier nets	Filets tournants non coulissant	Schutwand	sperrenöter	spaerrenot
10.2	Spiralnetze	spiral nets	Filets spirales (thonaire)	Haringhorten	slyegarn, jage-garn	noter, sat i spiral
10.3	Ringwaden	ring nets, purse seine	Filets coulissant	Ringzegens	snurpenöter	ringnot, snurpenot

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11	Senk- oder Hebe-netze	Dip nets, lift nets	Carrelets, échiquiers	Zink- of optil-netten	Synke- og lofte-nöter	Synkenet, løftenet
11.1	Handsenknetze	hand lift nets, hoop nets	Balance	Totebellen	gliper	håndløftenet, (hummerkranie)
11.2	Standsenknetze	stationed lift nets	Carrelet séden-taire	Slaande zink-netten	storglip	faststående synke-net, dyppenet
11.3	Senktücher	boat lift nets	Carrelet sur bateau	Zinknetten	søkkenot	synkenet
11.4	Wasserräder	water-wheels	Tourniquet	Waterraderen	vannhjul	vandhjul
12	Greifnetze	Falling nets	Filets lancés	Vallende netten	Dekknöter, Fall-nøter	Faldnet, kastener
12.1	Stülpgeräte	lantern nets, cover pots	Nasse à main	Stolpnetten	klokketeine	faldnet med fast ramme
12.2	Wurfnetze	cast nets	Epervier	Werpnetten	hievenett	kastenet
12.21	Handwurfnetze	hand cast nets	Epervier à main	Handwerpnetten	kastet med hand	hånd-kastenet
12.22	Standwurfnetze	cast nets from gallows or sheer-legs	Epervier dor-mant	Grote werp-netten	kastet med spill	saenket fra galge
12.23	Schleifgarne	cast nets from boats	Grand épervier	Geel, epervier	kastet fra bat	kastet fra fartoj
13	Setznetze	Gillnets, tangle nets	Filets calés	Staande netten	Garn	Hildingsgarn
13.1	Dreiwandnetze	trammel nets	Tramail	Ladderingnetten vlouwen	trollgarn	trevaeggede, tovaegge-de togger, grimegarn
13.2	einwandige Netze	gillnets	Filets maillants	eenwandige netten	garn	garn
13.21	Stellnetze	set gillnets	Folle	Stelnetten	settegarn	saettegarn, bundsatte

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13.22	Schwebnetze	floating gillnets	Filet droit	Zweefnetten	flöytgarn	forankret ved overfladen eller noget dybere
13.23	Treibnetze	drift nets	Filet dérivant	Drijfnetten	drivgarn	drivgarn
13.3	Verwickelnde Netze	Tangle nets	Ret, filet embrozillant	Vlouwen, laddernetten	Viklegaren	indfiltringsnet

(The last group 13 should be devided into two groups: 13, gillnets and 14, tangle nets including trammel nets).