

## *Faroese Flagship sets record on redfish*

*Skálaberg takes new 4096 metre pelagic trawl from Hampidjan*

Skálaberg, the flagship of the Faroese trawler fleet, has discharged a record landing at Hafnarfjörður in Iceland, docking on the 21st of July after 70 days at sea with 1010 tonnes of redfish on board, destined for the Japanese market and valued at 2,8 million Euros.

This is one of the largest and most valuable redfish cargoes ever landed in Iceland from a single trip. Skálaberg was fishing on the Reykjanes Ridge outside the Icelandic 200 mile limits, much of the time alongside 60 to 70 trawlers flying a variety of flags.

Skálaberg is the most powerful vessel of its kind fishing in North Atlantic waters, powered by a 10,877hp main engine. This makes light work of towing the 2560 metre self-spreading Gloria Helix pelagic trawl spread with a pair of 23 m<sup>2</sup> Poly-Ice FLS doors that the trawler began using on its first season on redfish in 2003.

Early on in this year's season, Skálaberg's owners

JFK took the decision to order larger fishing gear from Hampidjan and the result of discussions between owners, skipper and Hampidjan's gear design team is one of the largest Gloria trawls that the company has made so far.

Skálaberg took delivery of a trawl with a 4096 metre fishing circle while landing its record trip in Iceland, before heading back to the redfish grounds.

The bridles are configured so that up to 400 metres of bridle length can be used.

Skálaberg will continue to fish with the same Poly-Ice FLS trawl doors as before, as these were originally ordered with the intention that they could be used at a later date with a larger trawl, so they were made larger than usual.

In fact, at 23 m<sup>2</sup>, Skálaberg's pelagic doors are the largest in existence used for fishing, although the doors used by seismic survey vessels to square their gear are considerably larger at up to 50m<sup>2</sup>.

„Catch On“ sends Skálaberg's owners and crew congratulations on their success during the redfish

season this year and on their new Gloria Helix 4096 metre trawl.



SKÁLABERG KG-118 Loa: 74,50, Beam: 16,00, GRT: 3707.



The huge 23 m<sup>2</sup> Poly-Ice FLS Midwater trawldoors.



Discharging at Hafnarfjörður.



Front Part of Gloria Helix midwater Trawl at shipside.

# HiFlow breaks through in Alaska

## 25 - 100% better catches!

Hampidjan's HiFlow trawls have now been used for two A seasons and one B season in Alaska, says Hampidjan's Gudmundur Vigfússon, who has, alongside Magnús Gudlaugsson at Hampidjan USA, handled marketing these trawls, all of which have performed well from day one.

These trawls incorporate much of the new technology that the company has put its effort into developing in co-operation with Sherif Safwat, the originator of the self-spreading technology, including Helix self-spreading ropes and low-vibration Zebra netting.

Six US trawlers in the 1500 to 2000 hp power range are using 1100 Hi-Flow trawls, all of which are made up using clamped Helix ropes in the front sections and Zebra netting from the 400mm section and down to the codend. The reason for using this netting is that this contributes to reducing vibration or oscillation in the netting at the back of the belly. This eases the passage of the fish down to the codend, due to the lower resistance, which is also a factor in reducing fuel consumption, Gudmundur Vigfússon says. He adds that the success of the HiFlow trawls is made clear by the comments the company has received from skippers using these trawls.

**Captain Ray Haddon, Pacific Explorer:**

„The net fishes good. It outfishes everybody here.“

**Captain Craig Jenssen, Dominator:**

„My catch rate went up by 25% even up to 100% depending on fishing conditions and my fuel consumption went from 65 gallons/hour down to 52. I was amazed“

**Captain Jack Molan, Columbia:**

„I am filling up 30% faster with my new Highflow 1100“.

**Captain John Wood, American Eagle:**

„I'm really happy with the net. The catch ratio between me and the larger horsepower boats is a lot less than it used to be; they don't outfish me by as much.“



Jack Molan skipper on Columbia: „Looks like you have a winner here guys“.

## Lighter and easier codends with Dynex ropes

**Absolute genius!**

The extremely heavy codends used in the Alaska pollock fishery have been made much easier to handle with the use of different materials from Hampidjan, Gudmundur Vigfússon says.

These are four-panel codends made with selvages that are shorter than the stretched netting length, so the main tension is carried by the four heavy chains used as rib lines that take most of the strain when the codends are hauled up the ramps of stern trawlers. To counteract the weight of the chains, large 14 inch trawl floats are used, fixed inside the codends, increasing their bulk and weight.

These 'zipper' codends have been shown to work well and are gentle on the fish, as bruising of the Alaska pollock they catch is practically unknown when using this type of codend.

„We are not making any changes to the way they are made – just using the newest and best materials to make them easier to handle,“ Gudmundur Vigfússon says.

He adds that Dynex Dux rope from Hampidjan has performed very well in replacing the heavy ribline chains, which also eliminates the need for floats to counteract the weight of the chains.

The strength of the rope is similar to that of the chain, it does not stretch with use, because Dynex Dux is heated and pre-tensioned during the production process.

The use of Dynex netting has also increased alongside that of Dynex Dux rope in these zipper codends, which are often used to lift 150 – 250 tonne bags of fish up the ramp, where the fish is let out as the codend comes up, using the zipper fasteners. The Dynex nett-

ing gives a better flow of water through the gear, as only a single sheet of netting is needed instead of two sheets in a normal PE codend.

„The Dynex codends are much lighter and easier to work with, and one of these codends looks very small compared to one of the normal PE codends that they have been using for years in the Alaska pollock fishery,“ Gudmundur Vigfússon says.

Reference:  
Fishing News International.



Good bag of Alaska pollock in the Dynex codend.

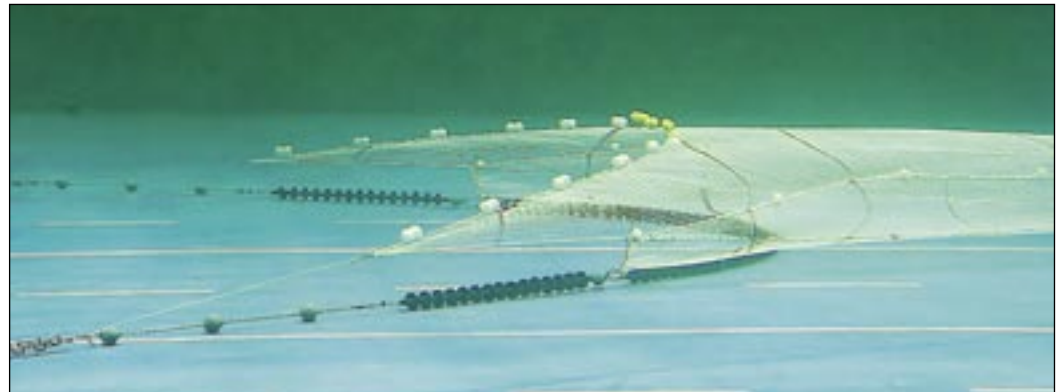
## *New "COSMOS 3000" WB ground fish trawl*

### *More horizontal spread and bottom coverage*

Due to the continuous difficulties on the world market for cold water shrimping, Danish shrimp trawl specialist Cosmos Trawl A/S is increasing it's efforts in introducing the companies new ground fish trawl named „Cosmos 3000”.

The new model is a four-panel wide body design, which incorporates some of the key elements of the companies famous shrimp trawl models. In addition to this the design also includes other new trends such as T90 netting being used in the aft part of the belly as well as in the intermediate section before the cod-end.

These new design aspects have resulted in a trawl which is giving far more horizontal spread and bottom coverage, an improved water flow down the trawl belly, minimum turbulence in the aft part of the belly and a much larger entrance area to the cod-end than other traditional ground



*The new „Cosmos 3000” model in the flume tank in Hirtshals.*

fish trawl designs presently available on the market.

So far the new „Cosmos 3000” model has proven efficient as single and twin rig on board the Canadian factory trawler „Newfoundland Lynx” (owned by Fishery Products International) for fishing Turbot (Greenland Halibut), and on board Portugal's new flagship „França Morte” (owned by Grupo Miradouro) also for fishing Greenland Halibut on NAFO as well as Cod fish in the Barents Sea.

Both vessels have been fitted with all-Hampidjan



*12 m<sup>2</sup>/4000 kg Viking doors on „França Morte's” stern in Aveiro Portugal.*

Group fishing gear, including Poly-Ice Viking botom trawl doors.

With these excellent refer-

ences, the objective for Cosmos is to transfer these results to other clients, markets and ground fish fisheries. Among others the comprehensive Cod fishery in Norway and Russia, the many Spanish vessels targeting Cod and Greenland Halibut as well as the South American fleet targeting Hake (Merluccius Hubbsi) are mentioned as some of the focus areas.

*Reference: Cosmos Trawl A/S  
Hirshals Denmark.*



*„Newfoundland Lynx's” Cosmos 3000 ready for delivery in trawl factory*

# Pair trawling

## *An old fishing method - but new for the Icelandic pelagic fleet.*

Last year the managers of Westmann Islands company Vinnslustöðin decided to try fishing for blue whiting and herring with a pelagic trawl towed between two of the company's trawlers, Sighvatur Bjarnason and Ísleifur. The reason for their interest was the highly successful trips that Faroese trawlers Christian í Grótinum and Júpiter had made fishing on herring in international waters in 2004.

### *The trawlers*

The two Vinnslustöðin trawlers are starting to show their age, built in 1975 and 1976, both originally as purse seiners, a role that both have served well throughout the years. The problem is that both of these vessels have low-powered main engines compared to modern pelagic

vessels and they are not well suited to single-boat pelagic trawling.

### *Bollard pull*

The important factor in pelagic trawling is the towing power that the vessel can muster. Most of the larger vessels in the Icelandic fleet have a bollard pull of between 40 and 90 tonnes, which is what is needed for towing pelagic gear. Sighvatur Bjarnason has a 38 tonne bollard pull and Ísleifur can muster 41 tonnes, which is roughly the minimum needed for handling pelagic gear these days. But by combining the bollard pull of the two vessels, or rather doubling the 38 tonne bollard pull of the least powerful one, Sighvatur Bjarnason, a bollard pull of 76 tonnes can be achieved. As trawl doors are also dispensed with, the overall drag of the gear can be expected to be reduced by a further 20%.

### *The gear*

Vinnslustöðin had a 1856 metre pelagic pair trawl to test from Vónin in the Faroes, where there is a long tradition of demersal pair trawling and more recently of pelagic pair trawling. Hampidjan was also invited to join the party and came along with a 1792 metre Gloria Helix pelagic trawl. Each of the trawlers had a trawl and these were alternated as conditions allowed. Previously these trawlers had been using 1408 and 1664 metre Gloria Helix trawls with some success, although not close to the results that the more powerful trawlers in the fleet had been achieving.

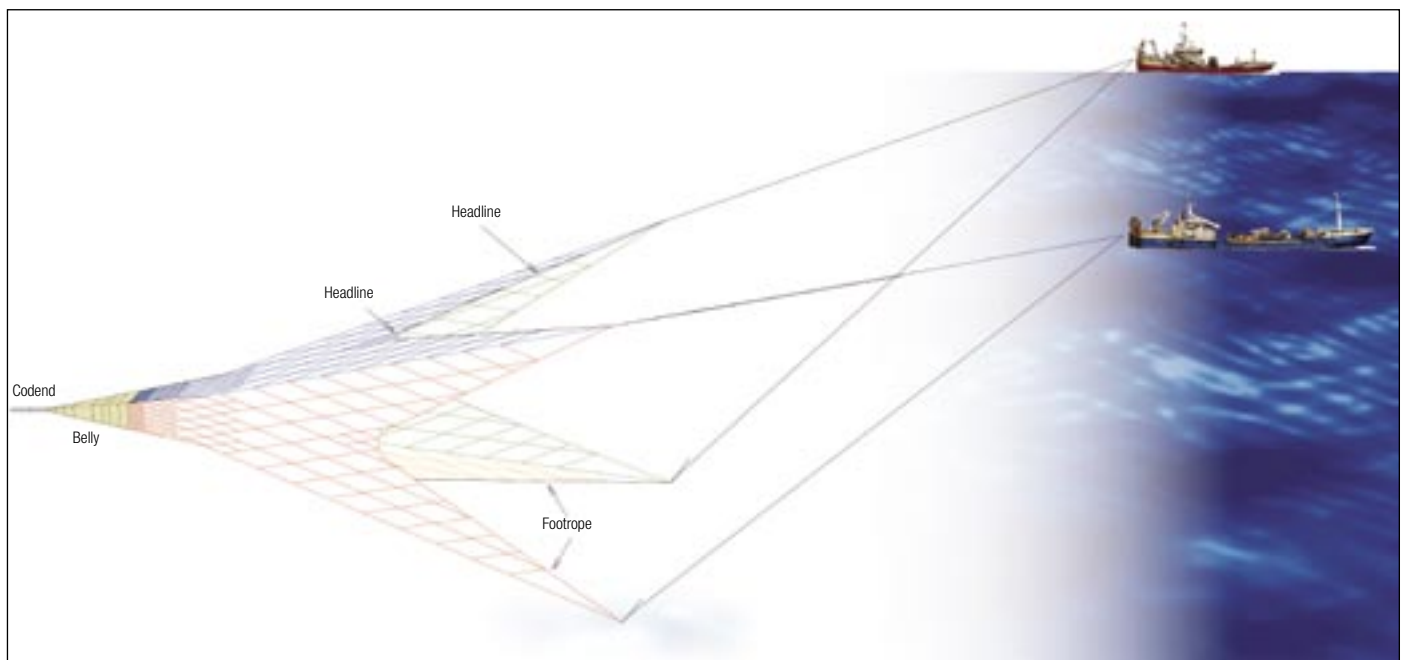
### *Stage one – 2005*

The first trip got underway in the middle of May 2005. In spite of a few early difficulties, the crew were quick to get to grips with the new techniques. It quickly became apparent

that this is a very effective fishing method for Atlanto-Scandian herring in the international zone and results compared very favourably with those of the trawlers operating singly with their trawls. However, the story was not repeated on blue whiting. This is a fishery in which the size of the gear is of prime importance, and this became increasingly clear as summer became autumn. Then the decision was taken to switch to a 2432 metre Gloria Helix trawl from Hampidjan, which brought catch levels back up to an acceptable level.

### *Stage two – 2006*

This year some changes were made in that Ísleifur was replaced by Gullberg to tow the trawl alongside Sighvatur Bjarnason. Gullberg is a newer vessel, built in Denmark in 1988 and with a 44 tonne bollard pull. She is also better suited to this kind of



*Panorama view on Pair Trawling.*



GULLBERG VE-292



SIGHVATUR BJARNASON VE-81



ÍSLEIFUR VE-63

fishing with a powerful net drum needed for working on blue whiting. The first trip began in late April on blue whiting grounds south of the Faroes. Gullberg had been fitted out with a 2432 metre Gloria Helix trawl and Sighvatur Bjarnason with a 2048 metre Gloria Helix trawl. Fishing for blue whiting went very well in comparison to the higher-powered trawlers towing their single gear on the same fishing grounds. There had been concerns that there could be problems with the codend hitting the surface at speed, as can happen during the spring fishery. This didn't happen, mainly because the two vessels' winches are not powerful enough to haul the gear by themselves. Instead they had to haul the gear gently while steaming slowly ahead, which was enough to take the pressure off the catch gradually. When the blue whiting, and particularly the herring, move into shallower water, the advantages of

pair trawling are especially clear. It is very easy for the trawlers to keep the gear at the surface without needing to rely on headline kites and with only 140 to 180 metres of warp out. On herring it is noticeable that the pair teams do better than single trawlers and there is a clear difference. It seems that the herring are less aware of approaching fishing gear when there are no doors and the fish are less alarmed by engine noise due to the distance between the trawlers.

#### *Fishing techniques*

As mentioned already, the crews were quick to grips with this method of fishing and they felt that this is an effective method for vessels of this size. In fact, it's fairly straightforward to rig out for this. More time is needed for handling the gear, but this does not detract from their having made some excellent catches. There are several sets of electronics on board for monitoring the gear, but the one that the skippers

have relied on most to keep trawlers and trawl on track is the Trawl Sonar, which shows the spread and opening of the gear while towing. For example, the 2048 Gloria Helix trawl averaged a vertical opening of around 90 metres with a horizontal spread of 165 metres and the vessels run to maintain this opening by adjusting warp lengths, distance between vessels or their speed. Autotrawls were not used at all, and with each trawler's warps running to the top and bottom wing ends, this was not possible. For this reason, the tensions on the warps were not as steady as they would have been with autotrawl control. The distance between the trawlers can vary depending on the depth of the gear. Trawling at 400 to 450 metres, a distance between trawlers of 600 to 700 metres and a warp length of 1500 metres is needed. Towing closer to the surface, the distance is closer to 350 to 400 metres

and a warp length of 140 to 180 metres is enough.

#### *Conclusions*

It is clear that pair trawling is a highly suitable method for fishing close to the surface on herring and also on blue whiting. This is a less noisy method of fishing than when using doors, making it easier to get to shoals of nervous fish. This method also works well in deep water, although there can be difficulties in manoeuvring in bad weather and in towing at depth in strong cross-currents.

Vinnslustödin's trials have shown that pelagic fishing can be carried out with good results using the lower-powered and smaller trawlers in the Icelandic fleet.

It should also be mentioned that a condition for this type of fishing is that there needs to be good co-operation between skippers as to who makes the decisions for each tow. There is little to be gained when one wants to go west and the other east and it is clear that a situation like this is not going to work out for long.

*Reference:*  
Helgi Geir Valdimarsson and Jón Eyfjörð Eiríksson, skippers on „Sighvatur Bjarnason“.



„SIGHVATUR BJARNASON“ left and „GULLBERG“ right, pairtrawling for herring.

# *Gloria Helix Self-spreading Trawls*

## *– a hot topic among Swedish fishermen!*

Continuous good results over the last seasons, with among others an increased catch efficiency and easier handling of the trawls, is making the Gloria Helix self-spreading trawls more and more popular.

As part of the Hampidjan Group, Danish fishing gear manufacturer Cosmos Trawl A/S holds a production licence for the self-spreading technology, and during the last years the company has been seeing increasing success with the Gloria Helix trawls, which recently have resulted in a handful of new orders for the coming season.

The new orders have been placed by five different pair teams catching elusive shoals of herring and mackerel in the North Sea, the Skagerak and the Norwegian Sea. All clients of Cosmos, whom previously have been using more regular trawl design, have noticed the numerous advantages of the patented technology from the other vessels already using the Gloria Helix self-spreading trawls

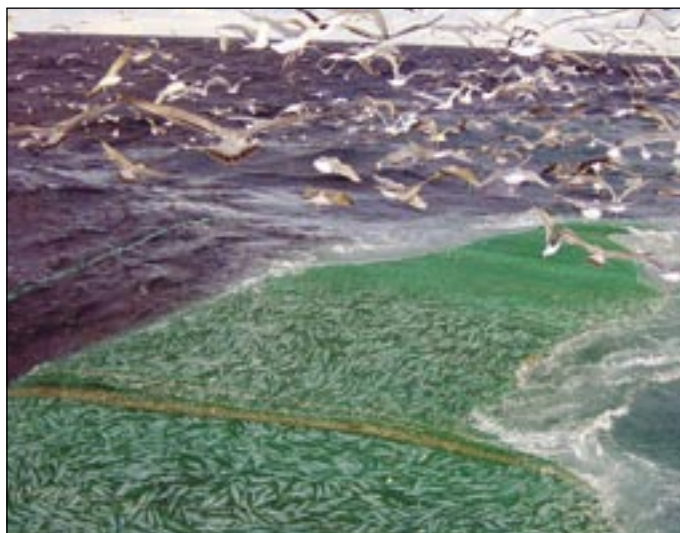
- Easy to shoot and haul (no twists etc., easy to work with for the crew) extra towing hours.

- Easy to tow (can tow one knot faster than traditional trawl of equal size, or save fuel)
- The trawl catches larger size mackerel with faster towing speed.
- Improved catch efficiency (not least when the fish are spread)
- Returns greater catches than other trawls in echograph comparison.

Trawls used for this particular fishery are in general relatively small with a trawl circumference normally ranging up to 1024 metres. Clamped Helix ropes are used in the bigger meshes, followed by conventional knotted Helix meshes, low-drag netting, Dynex or a combination of Dynex and Utzon nylon netting in the aft part of the belly (depending on customer preference).

Occasionally a special lower forepart panel with use of regular Danline ropes have also been used, since the trawls often are being close to the bottom.

Beside the type of Gloria Helix trawls sold in Scandinavia for herring and mackerel fisheries, Cosmos has also sold similar type of self-spreading trawl



*Bag of Herring being caught by one of the successful Gloria Helix trawls.*

designs for other species and export markets as far as Morocco for a Swedish pair team and for an Indian research vessel.

With this increased attention on the self-spreading trawls, Cosmos has high expectations for future sales all over Scandinavia to manifest the already leading position on the

market and possibly also to other export markets in collaboration with the two other main license holders within the Hampidjan Group.

*Reference: Cosmos Trawl A/S Hirsthals Denmark.*



*CARMONA*



*ODESKÅR*

*The five pair team boats that have purchased the Gloria Helix trawls.*



*DANÖ*



*SUNNANLAND*



*GINNETON*

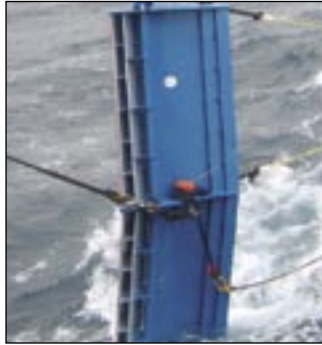
# Poly-Ice trawl doors

## *Strengthened OpeX doors with multi-option bracket*

The OpeX trawl doors that Hampidjan introduced at the last Icelandic Fisheries Exhibition in September are made from a specialised nylon material that has the strength and toughness of steel.

The method of production is completely new for this kind of equipment and with these doors Hampidjan has made possible a number of new features that increase their efficiency. Before their introduction at the Exhibition, trawlers Gullberg, Beitir and Svanur had tested them with excellent results and HB-Grandi was the first company to buy a new pair of OpeX doors.

As can be expected with any new product, there were a few problems to begin with. As these are closer to being 'wings' than trawl doors, it is vital that their setting are precisely adjusted and to make this adjustment easier, a swivelling bracket with seven adjustment options was fitted, allowing a greater range or towing points than is usual. The doors were also given additional protection in the centre with supporting plates and all of the welds were strengthened. These changes make OpeX doors straightforward to use and there is nothing to indicate that these are any less robust than conventional steel trawl doors.



*7 m<sup>2</sup> OpeX midwater trawl doors with three backstops.*

HB-Grandi's factory trawler Engey, now fishing on herring south of Svalbard, has been using 9m<sup>2</sup> OpeX doors to square a Gloria 2048 pelagic trawl. According to skipper Thorður Magnússon, the doors have worked extremely well, giving a better horizontal trawl opening and making it possible to keep the gear steady near the surface at speeds up to 2 knots more than with conventional steel doors. Engey has been fishing for herring mostly very close to the surface, but also down to 200 fathoms with good results.

## *Apollo pelagic doors*

Hampidjan's Apollo pelagic trawl doors have been shown to perform exceptionally well since they were introduced and these have now been supplied to most of the Icelandic pelagic fleet, to many of the



*Remoy Viking's 18 m<sup>2</sup> bottom trawldoors.*



*15 m<sup>2</sup> Apollo midwater trawldoor on Engey's stern.*

trawlers fishing for redfish in the Irminger Sea and to many trawlers working in west African waters.

Apollo doors have made it possible for skippers to reduce the size of the doors they use by as much as 15% on herring and blue whiting, while maintaining their gear spread, but with reduced fuel consumption, which has become an increasingly important requirement.

For the trawlers fishing off west Africa, a version of the Apollo design has been developed with a bracket that is more suitable to their needs. This is because these trawlers are fishing very close to the surface most of the time and it is of paramount importance that the doors remain upright all the way to the surface.

## *Viking with topplate*

Viking doors have been a stalwart on Hampidjan's sales list for a good many years. Originally they were made with a straight top edge, which has since been replaced with a curved top plate in a half-moon shape that gives them greater stability. A new demersal

trawl door design that we expect to be well received is due to be introduced this winter.

## *Competitive prices – in spite of steel price rises*

In spite of the massive world-wide increases in prices of raw steel, Hampidjan has been able to take measures to keep its trawl door prices at a highly competitive level.

All of our trawl door production now takes place outside Iceland, with Poly-Ice doors made mostly in Spain and Lithuania. By focusing production closer to our target markets, delivery times have been significantly reduced, although delivery times depend on production, demand and shipping schedules.

Hampidjan's trawl door division has a well-established and efficient quality control system in place which ensures that the production of Poly-Ice doors is maintained at the highest possible level and that the same high quality of workmanship can be expected at all times.

# Underwater observations

*Contract between Hampidjan and the Marine Research Institute.*

Hampidjan's managing director Jón Gudmann Pétursson recently handed over to Marine Research Institute director Jóhann Sigurjónsson a 54.000 Euros contribution towards the institute's purchase last year of highly sophisticated undersea filming equipment.

The new equipment initial cost was 237.000 euros and is today valued at 376.000 euros.

Originally the undersea filming equipment was intended solely for obtaining footage of towed gears, but a combined effort has made it possible to adapt the gear so that it can also be used to film static objects at sea.

## *Reasons for the purchase*

These are to bolster fishing gear research in Icelandic waters under realistic conditions, with the intention of studying both active and passive gears.

## *ROTV (Remotely Operated Towed Vehicle)*

The new equipment was taken into service last autumn. To begin with, there were early difficulties in getting it to work that lasted until the end of last year. Since then, there have been no problems. The basis of the undersea filming equipment is the same as that used by Netagerd

Vestfjarda in the past, but the layout is different, as well as being much more sophisticated, making full use of all the technological developments that have taken place in recent years.

## *Árni Friðriksson*

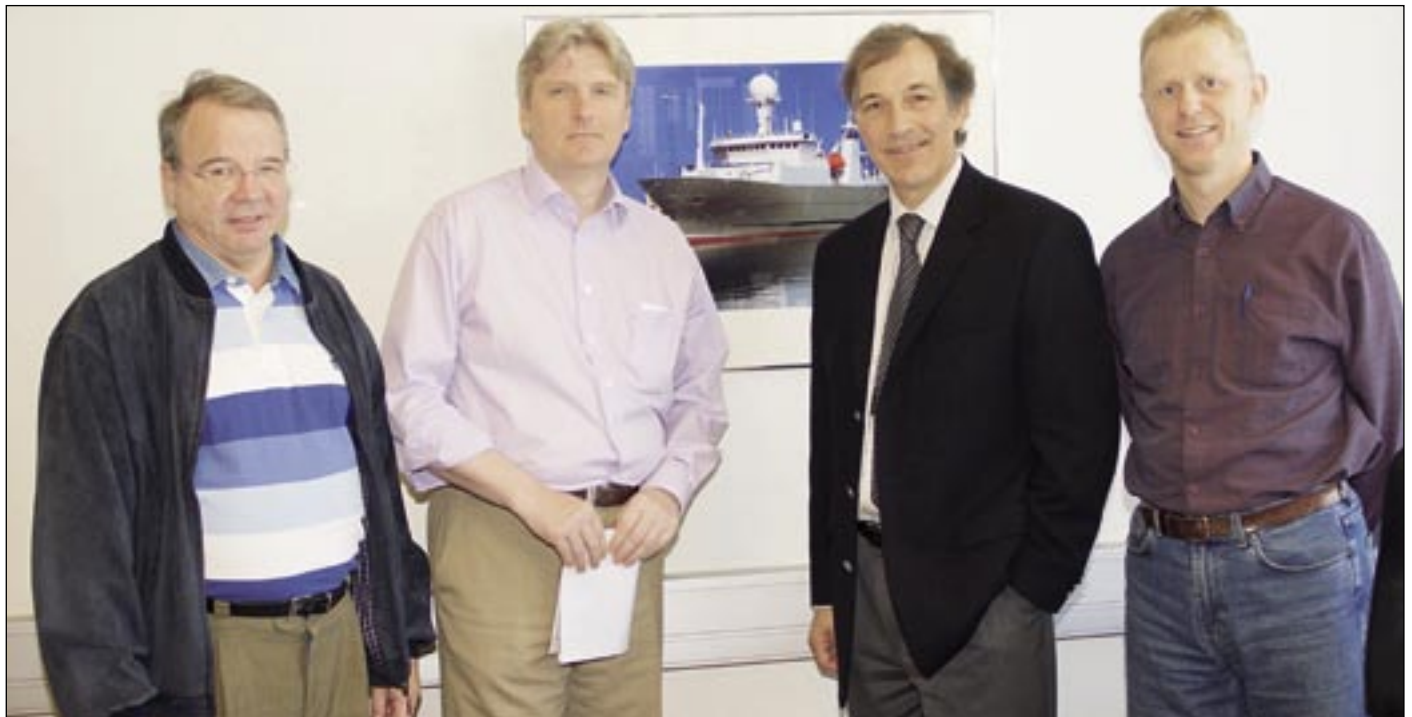
### *RE-200*

The undersea equipment has been installed on board research vessel Árni Friðriksson, where it fits in perfectly with the range of other equipment already on board one of the most advanced research vessels in the world.

Conditions on board are excellent and there are no difficulties in handling the ROTV. A great deal of

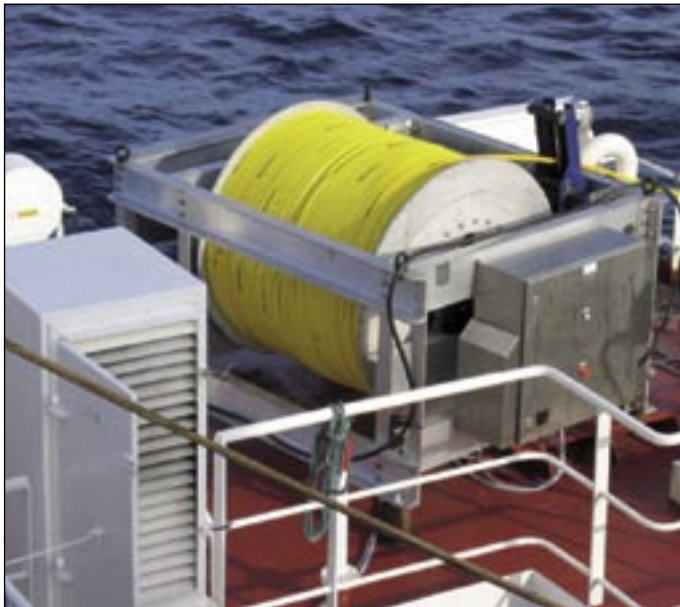
anticipation preceded the commencement of filming last autumn, as it is ten years since the old ROTV equipment was used in Iceland.

They say that seeing is believing, and imaging equipment that allows a 1900 metre Gloria HiFlow trawl to be filmed at a depth of 200 metres, as this was in February this year off the west of Iceland, exceeds all expectations. This is certainly the first time ever that a full-scale trawl of this size has been filmed at sea under normal fishing conditions.

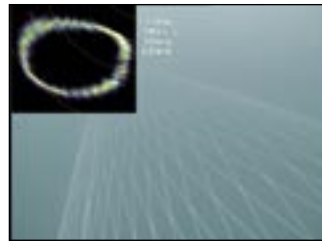


*Hampidjan presents its contribution to The Marine Institute Of Iceland, from left: Gudmundur Gunnarsson and Jón Gudmann Pétursson from Hampidjan and Jóhann Sigurjónsson and Haraldur Einarsson from The Marine Intitute.*





The ROTV's cable winch with 1500 metres of cable.



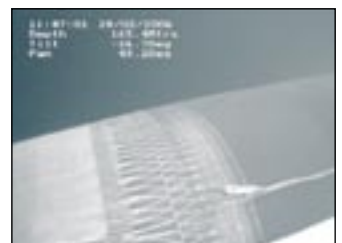
Sonar scanning view of the midwater trawl in left tophand corner, right above the camera.



Capelin codend with a good deal of slack in chafing cylinder.



Superb view, way down the belly towards the codend



Zipper connection between belly and codend.



A bag of capelin.



T90 section in codend.



The ROTV's cable winch with 1500 metres of cable.



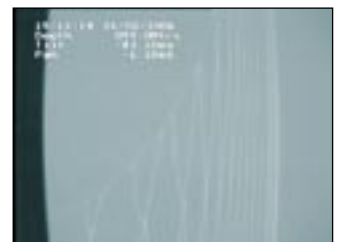
Top wing view of the Gloria Hiflow midwater trawl.



Headline transducer.



Propeller and rudder of Árni Friðriksson and the towing warp on left side.



The headline quarter corner.

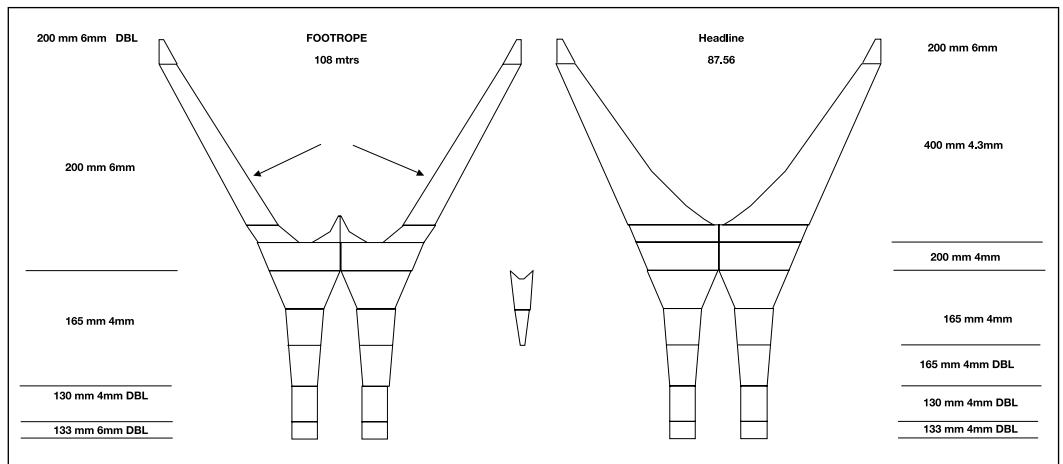
# TWIN-BELLY Viking Monkfishtrawl From Hampidjan Namibia

The namibian monkfish fleet of 20 trawlers (400-1200 hp), has been catching this very special fish since 1981 when the fleet caught 1.500 tons up to 10.000 tons TAC for this year.

The Monkfish is one of the highest priced fishes in European fish markets, due to its delicate taste and firm flesh, similar to lobster. It is certainly not the best looking fish and are caught in bottom trawls and gillnets in the world oceans. In some countries it is called Angler devil-fish probably because of its ugly look. The total world catch of Monkfish in 2004 was 116.000 metric tons.

Monkfish are relatively slow growing and long-lived fish, maturing when they are 3 to 4 years old. The largest recorded length of monkfish caught in Namibian waters is just over 1,15m. Aging studies on Namibian monkfish have so far only measured very few ages of fish but indications are that monkfish can reach ages of over 20 years.

Monkfish are typical sit in and wait feeders, in other words, instead of actively hunting they will wait for their prey to come close enough to be caught. Monkfish will lie still on the sea bottom, camouflaged by



their brown colour and lure the prey closer, using their illicium like a fishing rod. They wave the illicium through the water with the

esca acting as bait. Once the prey is close enough, there is no return back from the big mouth with it's needle-sharp backwards

inclined teeth. Monkfish thus feed on various bottom-living fish, including other commercially important fish like hake and sole.



*Shooting away the Viking twin belly trawl.*

When catching Monkfish it is important to have as wide spread as possible between doors and to be able to cover as large area as possible during towing. Headline height is less important because the bigger monkfish stay tight on the bottom.

Few years ago most trawlers were using trawls with very long wings. Today most Monkfish skippers use the Viking twin belly trawl with better catch results and better economy in the times of ever increasing fuel cost all over the world.

Hampidjan Namibia has for the past three years been involved in trawl gear developments in the Namibian Monkfish (*Lophius vomerinus*) fishery with multiple belly trawls. The trials were done in co-operation with Kristjan Justinussen, a Faeroese captain that has been catching Monkfish in Namibian waters for several years. Initially a full scale trawl was tried on *ARTHUR M.*

with very good fishing results. Later a scaled model was tested in SINTEF's flume tank in Hirtshals, Denmark to compare and adjust the design if needed.

The trawl differs from other twin-belly designs. It has a center support attached to the large bosom of the footrope. The support is connected with bridles to the footrope wingends and acts like an adjustment for the configuration of the footrope.

The design can be best described as two trawls in one with with two wings instead of four. Headline high of the trawl is 1.5 mtr. The horizontal width between wingends for a trawl with 66 meter footrope is 40-50 metres.

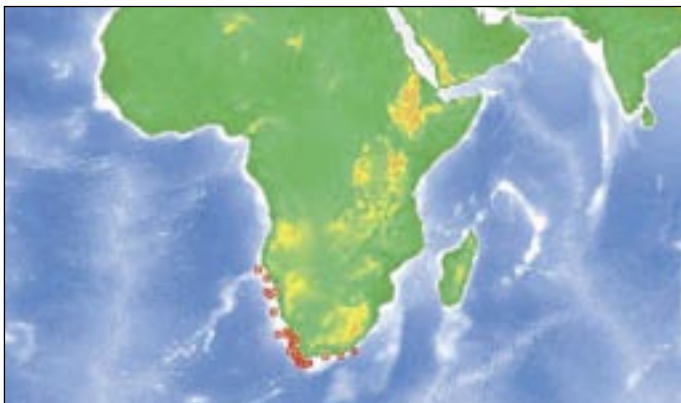
In order to maintain such a wide opening, the trawl required the new Viking super-spreading bottom trawl doors from Poly-Ice. The center support and the tickler chain attached to the footrope, scares the

Hake up and away from the bottom and the trawl.

The Monkfish is not the fastest swimmer and flows easily back into the codend. Monk and Hake are not a good combination to catch together, because the Monkfish and mud from the muddy bottom damage the Hake. The Viking trawl with its very low headline opening and big spread is excellent for Sole and Monkfish fishing, resulting in 25-50% increase in catch rates, compared with older trawl designs.

Currently, Hampidjan Namibia offers four different Viking trawl sizes, with footrope lengths of 108 mtr, 88mtr, 66mtr and a 77mtr footrope trawl is soon to be tested at sea. The largest trawl with 108mtr footrope is towed by vessels with 800 - 1200 hp engines, using Viking B trawl doors 3.1m<sup>2</sup>/800 kg – 3.5m<sup>2</sup>/1000 kg – The 66mtr trawl is towed by 500 hp vessels with Viking B 1m<sup>2</sup>/400 kg doors.

Reference:  
Ásmundur Björnsson Hampidjan Namibia.  
Fridjof Nansen.  
<http://www.namibianmonk.com>  
FAO Fishery statistics 2004.



Distribution of monkfish in southern part of Africa



Monkfish (*Lophius Vomerinus*)

# *Hemmer T90 – new bottom trawl from Fjardanet*

„This trawl has performed very well in tests and now we are preparing to show our market what we have here,“ says netmaker and trawl designer Hermann Gudmundsson, who is also Fjardanet's in Akureyri, Iceland.

He has developed a revolutionary new demersal trawl that has a construction different to demersal trawls already on the market. Fjardanet has always worked on developing new ideas and has put a great deal of effort into these developments in cooperation with Hampidjan and the Marine Research Institute.

He comments that idea arose when he was working on the development of a sorting grid for blue whiting. This involved working with netting in a T90 configuration and this needed to be cut and mounted in completely different ways to those we are used to. In tank tests, this was shown to work extremely well – better than had been expected.

„What we found was that by using the T90 configuration, less netting is needed in the trawl, which gives better water flow through the gear and therefore less resistance. This is

certainly an innovation and as far as I know, using T90 netting in a complete trawl hasn't been done before, either here or abroad,“ Herman says, adding that: „We took this to the flume tank in Hirtshals, Denmark to test a model. These tests came out so well that we decided to set up a full-size trawl to test on board research vessel ÁRNI FRIDRIKSSON on a research trip off the western fjords. We were able to film the trawl in use with the Marine Research Institute's new underwater cameras and this confirmed all the positive points about this trawl that we had expected, not least the unusual way of using the netting.“

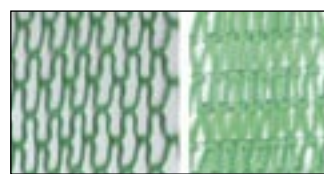
More recently the trawl has also been undergoing more tests on a commercial trawler and Hermann says that the experience has been positive, with the skipper certain that catches are better in this trawl than in conventional gear of the same size.

„This trawler's owners have now gone ahead and bought one of these T90 trawls,“ he says.

„I think this is also unique in this business that we were able to design a trawl, test it at full size, film the trials and then



*Hemmer T90 trawl model in Sintef's flume tank i Hirtshals Danmark.*



*T90 netting. Regular netting.*



*Underwater photos of Hemmer T90.*



hand a skipper a disk of the film. 'There you go, that's what you trawl looks like in the water.' This shows exactly how important for the Marine Research Institute and for future fishing gear development the acquisition of this equipment was.“

## *We'll call it a Hemmer T90!*

Hermann Gudmundsson says that there were a few teething difficulties with the new trawl that appeared during the trial trip, but these bugs will all be ironed out for the commercial trawls that are now being prepared. But what shall we call Fjardanet's new trawl?

The name came to Hampidjan's Gudmundur Gunnarsson at a Hummer exhibition in Reykjavik. Hemmer T90 – almost a double christening – referring both to the creator, Hermann Gudmundsson and the T90 netting configuration that gives the gear its particular properties.



*Hermann Gudmundsson Netmaker and Trawl Designer.*