CATCH ON
HAMPIDJAN´S NEWSLETTER ABOUT FISHING AND FISHING TECHNOLOGY
OCTOBER 2008

450 days, 1700 hauls, 7000 hours

Dynex Warps perform well on Vestmannaey VE

It's now 18 months since skipper Birgir Thor Sverrisson took command of new trawler Vestmannaey VE-444. The boat has performed extremely well in every way and uses the best technology available. Their success is clear – as Vestmannaey has fished 2840 tonnes of fish valued at 3,5 million Euros in 2007. This would have been a great result over a whole year, but Vestmannaey´s crew have achieved this even with three months of last year that they were not fishing.

Birgir Thor Sverrisson is the first skipper in the North Atlantic region to start using Dynex Warps with bottom trawl gear, as steel wire warps have been used exclusively since bottom trawling began a century ago. According to Birgir Sverrisson, the boat's Dynex Warps deserve a share of the credit for the boat's success.
Catch On has been keeping a eye on Vestmannaey´s progress over the last 18 months;

- Over 18 months, Vestmannaey has fished for 450 days, taking 1700 hauls with a combined towing time of 7000 hours. The Dynex Warps have been used on most types of trawling grounds to be found in Iceland and have had much the same treatment as the wire warps that are normally used.

Skipper Birgir Thor Sverrisson of Vestmannaey VE - 444.

- The Dynex warps have been shortened by only 70 metres over 18 months. After six months of use, it was possible to see that the first 30 to 40 metres tend to have some occasional ground contact, particularly when towing over uneven ground as well as when fishing along steep banks.
- After a year it was decided to set a protective covering on the Dynex Warp ends closest to the doors and this has been worthwhile. After six months of hard use, the cover is as good as new and the warps have not needed to be shortened.
- The Dynex Warps have fished well, especially on grounds shallower than 20 to 100 fathoms. The trawl easily keeps its opening in the shallows, even at depths of only 20 fathoms, improving the trawl's efficiency at these depths.
- In deeper water there is a need for more Dynex Warp than would be required with conventional warps, and this difference increases with depth. With Dynex Warps, a normal depth to warp ratio is between 1:3 and 1:4, while with wire a ratio of between 1:2 and 1:2.50 would be normal. At a depth of 250 fathoms, Vestmannaey uses 900 fathoms of Dynex Warp, where 600 fathoms of wire would be enough.
- In deep water, the trawl can sit loose on the bottom, especially when taking a turn, as only the weight of the doors and the footrope keep the gear on the ground. Experience has shown that the doors need some additional weight and in order to sit well. What has been noticeable from Vestmannaey´s experience is that a trawl towed on Dynex Warps is as heavy to tow at 50 fathoms as it is at 250 fathoms. With wire, there is a considerable difference, as much more power is needed to tow and square 600 fathoms of wire than is needed for the much lighter Dynex warps.

CATCH ON
HAMPIDJAN'S NEWSLETTER ABOUT FISHING AND FISHING TECHNOLOGY
OCTOBER 2008

Light, powerful, steady
- and nine months with no repairs!
Viking Xstream demersal doors used by Otto N. Thorlaksson

Johannes Ellert Eiriksson, skipper of wetfish trawler Otto N. Thorlaksson, has been doing well with a pair of 7m² Viking Xstream doors, fishing on hard grounds south-west of Iceland.

Wetfish trawler Otto N. Thorlakson RE - 203 operated by HB Grandi in Reykjavik.

The doors went on board in December last year and he reports that this was an immediate improvement on the old Viking doors they had been using for some years. He says that once they were on board, he hasn't needed to worry about them, as the simple truth is that they work perfectly.

´This is something that is very important. With the short trips that wetfish trawlers spend at sea, there's no time to waste in adjusting the gear.´

He comments that he has been highly satisfied with the success of these doors and the trawler tows better with these.

I'm getting between 15 and 20% more spread between the doors on the ground. They are lighter to tow and haul and I can tow half a knot faster, which is a big help when we are chasing fast swimming fish such as saithe. That's when the doors show their worth, just as much on shallow grounds as in deep water such as on the Mountains. These doors spread the gear better and our gear damage is also much less than it had been,´ he says.

Johannes Ellert Eiriksson says that the third backstrop is what makes the doors easy to release from a fastener, although there is little tension on it during a normal tow. The doors are steady to tow, keeping their balance well on both soft and hard ground, as well as staying upright while taking even a sharp turn.

He adds that the Viking Xstream doors perform brilliantly off a sharp bank and in deep water they keep the trawl square all the way down.

In conclusion, he says that the doors are well made, and it's unusual to have a pair of doors with practically no repair costs after nine months of rough use on some of the hardest grounds in Icelandic waters, but that is just what has been achieved with the Viking Xstream doors!

Hampidjan's Xstream demersal trawl doors.

HAMPIDJAN'S NEWSLETTER ABOUT FISHING AND FISHING TECHNOLOGY
OCTOBER 2008
CATCH ON

Xstream technology
Reduced turbulence

Over the last 18 months Hampidjan has been carrying out a great deal of development work on the company's Poly Ice trawl doors.

Ventilated slats reduce turbulence significantly.

As a trawl door is towed through water, a patch of turbulence forms behind it that pulls constantly against the direction of the tow and this turbulence forms a large part of a trawl door's drag. Our aim was to reduce drag, and after some extensive testing, the conclusion was that adding these ventilated slats, essentially forcing the turbulence into a constant flow behind the door.
This has improved lift, which we refer to normally as the door's squaring power, by as much as 20%, depending on the towing speed. The doors also have better stability with a more constant relationship between the warps, doors and the trawl while towing, as well as in shooting and hauling and when taking a turn.

Improved bracket

The brackets of the Viking Xstream bottom doors redesigned with five plates, each with three holes, to give a total of twelve possible towing positions – something of an improvement on the older design with a single bracket with three towing positions.
The Apollo Xstream pelagic door bracket on the other hand is designed to swivel up or down, forward and backward, to give a total of 20 possible towing positions.

"Saves plenty of fuel"
Bjarni Olafsson´s Apollo Xstream doors

According to skippers Gisli and Runolfur Hallfredsson on pelagic trawler Bjarni Olafsson, their new 9m² Apollo Xstream pelagic doors that they began fishing with this spring have performed well.
´We are very satisfied with the doors and saved a lot of fuel by using these on the blue whiting last winter,´ says skipper Gisli Hallfredsson.
´The doors square away well as soon as they hit the water and they are light to haul. They fit perfectly to the Gloria Helix 1792 trawl that we use on blue whiting and herring.´

Hampidjan's Apollo midwater trawl doors.

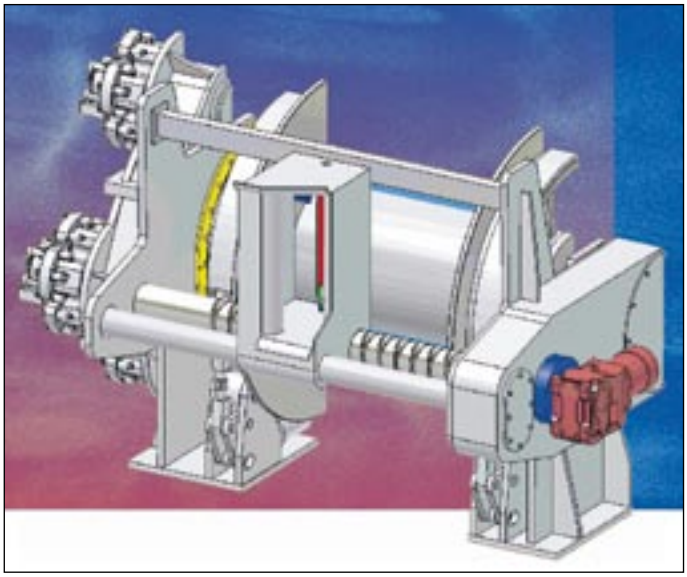
Stepless Dynex winding-on gear

Huginn VE - 55 has been fitted out with a new computer-controlled set of Rapp Hydema winding-on gear for Dynex Warps, which offer a much more precise way of spooling warp onto the winch drums.

This is the first time that this type of gear has been used on board a fishing vessel.

According to skipper Gudmundur Huginn Gudmundsson, the new gear has worked extremely well and the Dynex Warp is spooled very evenly onto the drums, even where the warp has been spliced. This is expected to result in the warp having a longer working life.

At present the winding-on gear is controlled from the wheelhouse, but the next step is expected to be able to control it using a remote control unit from the deck.



Stepless Dynex Winding-on Gear from Rapp Hydema.

CATCH ON
HAMPIDJAN´S NEWSLETTER ABOUT FISHING AND FISHING TECHNOLOGY
OCTOBER 2008

Dynex Warps
From idea to reality

It's around ten years since Hampidjan´s development team started looking at the idea of a replacement for conventional steel wire warps that finally became Dynex Warps.

Many vessels had already been using ordinary Dynex ropes for bridles, strops and other uses, so it was clear that Dynex had proved itself as a true super-rope with the strength of wire, but with the properties of ordinary rope. But at the same time, we could see that Dynex still didn't have all the properties needed to replace steel wire in trawl warps.

Requirements
Hampidjan looked first at the demands that would be made of a Dynex Warp. In particular these are:

- Dynex Warps would need to last at least three times as long as wire to cover the price differential against wire.
- Other advantages to the customer, such as lower fuel costs and better fishing, would be vital.
- Each warp would have to be made as a single unit, in that the core of the rope and the rope itself would need to remain separate even with long-term use and the rope would also need to be kept separate from the cover.


The Pioneer: La Geltru from northeast Spain.

- The rope would need to have minimal stretch.
- Dynex Warps would need to have a circular profile so that they would spool neatly onto a drum and would not tangle with use.
- They would need to sink, with a negative buoyancy.
- An extremely tough protective cover would be needed against abrasion.

Extensive testing and research gave us a solution that met all of these demands, in particular it was possible to meld together the core, rope and cover into a single entity, which highlighted the value of the equipment that Hampidjan´s high-tech Dynex division has at its disposal. The company has applied for all the necessary patents to protect its new product's manufacturing methods. Although to begin with the Dynex Warps were priced


Close-up wiev of Dynex Warp.

at roughly four times that of steel wire warps, but now with world steel prices rising, the price of Dynex Warps has fallen to less than three times that of their steel counterpart.

Pioneers
In 2002, Spanish trawler Geltru, fishing for demersal species from North-East Spain, was the first to fit Dynex Warps instead of the normal steel wire variety. 500 metres of 10mm Dynex Warp were spooled on top of the wire already on the drums. A year later, two more vessels from the same region of Mediterranean Spain had been rigged with 10mm Dynex Warp.

New Zealand next...
In 2004 skipper Rick Burch, owner of the Nancy Glen, put 250 metres of 11 metre Dynex rope on top the wire on his trawl drums before switching entirely to Dynex instead of wire warps and soon after that replacing every piece of wire on the boat and in his fishing gear with Dynex.
Since then, two other trawlers in New Zealand have switched from wire to Dynex Warps, with their owners reporting both improved fishing and reduced fuel consumption.

And so to Australia...
In 2006 the owners of the Australian trawler Riba II invested in 2 x 550 metres of 26mm overbraided Dynex Warp. This was used with great success until the boat was sold to Iceland, where it now fishes as the Gullberg VE.

Followed by the USA
That same year Charles ´Jack´ Bronson took 350 fathoms f 26mm Dynex Warp to fit on top of his wire warps for the early-year Alaska A-season. The result was that the relatively low-powered trawler was able to improve its towing speed as well as squaring the gear more effectively.

A big step forward in the Westmann Islands

It was in the Autumn of 2006 that pelagic trawler Huginn rigged with 400 fathoms of Dynex Warp on top of its wire warps. Skipper Gudmundur Huginn found straightaway that the low weight of his gear gave him an immediate advantage in fishing close to the surface, as well as which he found it easier to get the easily frightened herring into the gear. The company's experience with Dynex warps was enough to warrant switching entirely to full sets of Dynex Warp less than a year later.

In march 2007, fishing company Bergur Huginn took delivery of the first of its new trawlers from their builders in Poland and skipper Birgir Thor Sverrisson took the step of going straight to a full set of Dynex warps, as reported elsewhere in Catch On.

Iceland, the Faroe Islands and South America

The demand for Dynex Warps really took off in 2007, by which time all of HB Grandi´s pelagic vessels, Faxi, Ingunn and Lundey had been fitted with Dynex Warps. Samherji´s Margret and Finnur Fridi from Gota in the Faroe Islands soon followed and since then Dynex Warps have been ordered for Klaksvik pelagic vessels Christian i Grotinum and the new Nordborg, while fishing companies in China and Argentina have also taken advantage of the possibilities offered by this new technology.

Nordborg the new Faroese pelagic fishing factory vessel is the next trawler that will start with Dynex Warps within a few months.

Dynex Warps.

More to come...

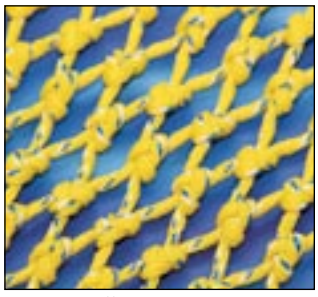
It's been heard that the stone age didn't come to an end because there was a shortage of stones, so maybe we can keep this idea in mind and say the same about trawling and steel-wire. New ideas keep on coming.

MagNet Yellow

Codend netting

Netting and twine need to be developed specially for the tasks they are expected to perform so as to make the most of each material's properties.

This is particularly true of material used for codends. In some fishing areas, such as in African waters, netting needs to be thick, with fairly small meshes and with a high abrasion resistance. There has also been increasing interest in heavier netting in the Icelandic market, in both single and double versions. To meet this growing demand, Hampidjan decided to develop a new version of its MagNet range – MagNet Yellow – alongside the well-known MagNet Green and Grey nettings.



MagNet Yellow.

MagNet Yellow has a relatively heavy core, although the bulk of the twine is still the overbraided cover. This gives a smaller diameter, a greater rigidity and a good knot stability that is suitable for heavy, smaller mesh netting. The netting is braided with a special method so that all of the knots are on the same side, so the cross-bar of each knot is always on the same side, giving each sheet of netting a rough and a smooth side, so the smooth side is put inside the codend so there is less chance of damage to the fish.

MagNet Yellow is available in 4,6mm, 5,6mm and 6,2mm twine sizes, in mesh sizes from 70mm in single and 127mm in double twines.

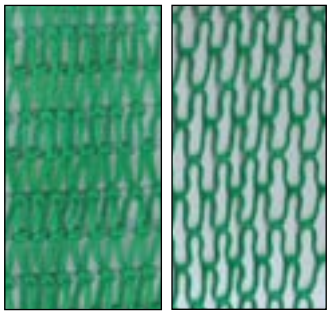
Skipper Kristinn Gestsson of Þerney VE - 101 has been using a codend made out of MagNet Yellow nettings this year. Feedback from him is very positive. He says the netting is strong, has good abrasion resistance, and the meshsize is steady, providing him with a strong and robust codend, that can easily withstand the heavy loads put on it during fishing operations.

CATCH ON
HAMPIDJAN´S NEWSLETTER ABOUT FISHING AND FISHING TECHNOLOGY
OCTOBER 2008

Common Sense Codends!

Sveinn Hjálmarsson, skipper of Kaldbakur EA, died earlier this year after a long illness, at the age of sixty. He is badly missed and was highly respected as one of the most successful and experienced skippers in Iceland, as well as a man who was always prepared to share his knowledge and experience with those who sought out his advice. He was a successful skipper for many years and spent his whole career with Utgerdarfélag Akureyringa, which later became Brim. Sveinn Hjálmarsson began his career at sea on side trawlers, starting on Hardbakur before switching to Kaldbakur, then one of the first stern trawlers in the fleet. He took over as skipper in 1982 and stayed on board until a few years ago.

He took a keen interest in developments in fishing gear and was always keen to get the best from his ship, crew and the company. Several years ago Hampidjan was introducing new gear in Akureyri and the idea of using netting in a T90 configuration was discussed. Sveinn Hjálmarsson and fleet manager Sæmundur Fridriksson both showed an interest in this and asked Hermann Gudmundsson of Fjardanet in Akureyri for advice. He made up a T90 codend for Kaldbakur.



Regular netting. *T90 netting.*

T-90

The idea behind the T90 configuration is to turn the netting through 90 degrees to give a better mesh opening and as much as a 50% improved water flow through the netting. Fish in a T90 codend have more room to move in the better water flow, instead of having to live with the ´washing machine effect´ of a normal codend, with a clear passage down to the codend through the trawl's tunnel section instead of the narrow opening that conventional netting leaves to the codend.

At this time, Brim's shore production was asking for cod of 2,5 to 3,5 kg in weight and it was hoped that the T90 codend would be able to filter out smaller grades of cod before they reached the codends. The new codends was made in 145mm Green Mag-Net netting and Kaldbakur first used the new codends at the beginning of 2005.

Fishing on the Hvalbakur grounds off the east of Iceland, it was clear straightaway that the T90 codends performed as expected.

To begin with, Sveinn Hjálmarsson expected that his hauls would be smaller than those of other trawlers fishing the same grounds as he expected to be losing most of the smaller fish, but it soon became apparent that he was catching the same volumes as other trawlers, the difference being that his fish was better and larger than the others were fishing. Undersized and smaller grades of cod were no longer to be seen, and there was also very little haddock, which was not a surprise considering the mesh size used.

Kaldbakur´s crew were very positive towards the new way of working, as this also made their work in handling the catch considerably easier – and they came up with the new name of the ´Common Sense Codend´ for the T90 codends on board.

The conclusion to be made is that the T90 codends fish more effectively due to the improved water flow through the gear. This means that fish are not trying to escape through the meshes in the belly, but instead tend to find their way more easily back to the tunnel and codend, where the larger fish keep moving until the gear is hauled, while the smaller fish are able to escape easily through the open meshes.

But the position today is that there is not a single trawler using T90 codends in Iceland, and the reason is simply that too much marketable haddock is lost through the 135mm meshes when the netting is in a T90 configuration.

It could well be time to re-examine mesh sizes, with some research needing to be done into the possibility of using 120mm netting in T90 to see how this compares to conventional netting.

The „common Sense Codend" (CSC)) hauled up Kaldbakur's sternramp.

HAMPIDJAN'S NEWSLETTER ABOUT FISHING AND FISHING TECHNOLOGY
CATCH ON
OCTOBER 2008

Hampidjan set to move to new headquarters

Hampidjan's new headquartes at Skarfabakki in Reykjavik's Sundahöfn Harbour.

Hampidjan is preparing to consolidate all of its operations in new, purpose-built premises on the Skarfabakki quayside at Reykjavik's Sundahöfn harbour. The net loft and stores are scheduled to be taken into use later this month (October) and the office team will move in at the end of the year.

As well as the company's offices, Hampidjan will have a large area for stores and a world-class fishing gear production facility.
The area as a whole covers 15,000 square metres with plenty of outside space, and has a quayside location with a 12 metre depth of water on a big tide, allowing any Icelandic fishing vessel access to transfer fishing gear.
The net loft itself covers 4000 square metres, with four production lanes.
The intention is for two of these to be used for pelagic trawl gear, one for cod ends and one for purse seine gear. The purse seine section is also made with storage pits at each end, making both production of new gear and repair of existing purse seines easier and quicker.
The net loft has a ceiling height of more than 8 metres, making it a lot easier to handle large fishing gears. A separate area has also been fitted out for handling wire, setting up footropes and working on bottom trawls.
The net loft is also fitted out with the best equipment available, so that we have optimum working conditions and can also provide the best service to our customers that can be obtained anywhere.
The southern end of the building houses a 1000 square metres storage area capable of holding more than 2500 pallets.
The store also has three access points for containers and plenty of space for receiving and dispatching gear.
The office complex will be situated on a floor of it's own at the north end of the building, where the management and sales divisions will be located.

Huginn VE

Fishes for 5,3 million Euros this summer!

Gudmundur Huginn Gudmundsson skipper of Huginn VE - 55.

Skipper Gudmundur Huginn Gudmundsson his crew on Huginn VE-55 have had a fantastic summer on mackerel and herring.

Huginn has landed catches worth more than 5,0 million Euros during June, July and August, with 2,5 million Euros worth of catches landed in July alone – something that is more than likely to be a record for a factory vessel.
Gudmundur Huginn Gudmundsson says that for much of the summer they concentrated on mackerel and took herring as a by-catch.
´We are very happy with our summer's fishing and we have done well on mackerel despite fishing alone while the rest of the pelagic fleet has been pair trawling. I don't agree when people say you can only catch mackerel with a pair team. As far as fuel consumption is concerned, there isn't a big difference between us and the other factory vessels. What has really helped is the Dynex Warps that we have been using now for more than a year and this makes a big difference when we're fishing on the surface. If we'd been using normal trawl warps, we'd never have managed what we have been able to achieve.´

A catch of mackerel.

He says that wire is much harder to keep high in the water and turns are much more difficult than with the much lighter Dynex Warps.
´We can easily take a turn to keep the trawl out of the propeller water, which helps us get the mackerel into the gear. What we have also seen is that with the Dynex Warps leading straight back from the blocks to the doors, there's nothing there to frighten the fish away, as we are sure happens with wire warps that lie deeper than the gear in the water when towing.´
´We saw on the blue whiting fishery that the fish are much less easily frightened off with Dynex warps than with wire, because the Dynex Warps lead straight upwards instead of in a loop ahead of the gear,´ says Gudmundur Huginn Gudmundsson.

CATCH ON
HAMPIDJAN'S NEWSLETTER ABOUT FISHING AND FISHING TECHNOLOGY
OCTOBER 2008

Arngrimur Björnsson, skipper of pelagic trawler Margret EA, comments on Dynex Warp

Catch On caught up with Arngrimur Björnsson, skipper of Samherji's pelagic trawler Margret to quiz him on the Dynex Warps that he has been fishing with since the beginning of this year.

Skipper Arngrimur Brynjolfsson of Margrét EA - 710.

What's your experience of using Dynex warps?
´Our experience with these has been fine. We did well on the capelin and our fishing on blue whiting around Rockall was good as well. With lighter fishing gear we needed to add some weight to the doors and rig them to work downwards, but we had no problem catching blue whiting down to 300 fathoms.´

And then you switched to pair trawling?
´That's right. We haven't pushed the Dynex Warp too hard this summer, as we're fishing right on the surface with only 150 to 200 metres of warp out. If we needed to, we had no difficulty fishing down to 120 fathoms when we were pair trawling with Börkur, which is fitted out with 36 mm wire warps. We thought there might be a problem, with one of us using wire and the other one using Dynex, but when we got down to it, everything worked fine.´

Margret EA - 710 operated by Samherji in Akureyri.

Does the ship handle better?
´It's clear that the ship is lighter than it was with wire on board, as we took 25 tonnes off the boat when we switched over to Dynex Warps. The ship is stiffer, which is what you´d expect with the centre of gravity lower down now that we have taken so much weight off the trawl deck.´

How do the warps look after a year of use?

2000 metres of 40 mm Dynex Warps ready for use on one of Margret's winch drum.

´They look fine. The rope itself, the core and the sleeve have all held together well and there isn´t much wear to be seen.´

And in conclusion?
'It would be interesting to try out the Dynex headline sounder cable that I´ve heard you´ve been working on. The problem is that the normal wire sounder cable can catch on the Dynex Warp in a tight turn, which is something that a Dynex sounder cable wouldn´t do.´

Rust-free trawl block sheaves

With the introduction of Dynex Warps, there was an immediate need for block and fairleads in stainless steel.

Danish company Brödrene Markussen recently manufactured the first pair of trawl blocks with rust-free sheaves.

These are due to be fitted with factory trawler Tai An, which is operated from Argentina and is owned by Sanford Argentina. The skipper is Sigurgeir Petursson, who has also spent many year sin New Zealand.

The K600-2A trawl blocks have 600mm sheaves with a breaking strength of 30 tonnes. Half of the inside diameter of the sheaves is made up of conventional steel, while the outer section is in stainless steel.

Hampidjan's Newsletter is published by: Hampidjan, Flatahraun 3, 220 Hafnarfjördur, Iceland. Phone: +354 530 3300 • Fax: +354 530 3309
www.hampidjan.com. Editors: Jón Gudmann Pétursson and Gudmundur Gunnarsson. Design: Ottó Advertising • Printing: Oddi