

# HERNIS CCTV at Norway's first Gas Fired Power Station



New Area Sales Manager for the Korean market



Retrofit of the Enco Rig 71

# New Contracts

## ONSHORE

### HERNIS 400

Buyer: Snamprogetti SpA  
Owner: Ruwais, Gasco  
Project: NGL Train 3 Project

Buyer: Siemens AG, Bereich Anlagentec  
Owner: Naturkraft AS  
Project: Kårstø, Gas Power Plant

Buyer: Saab Rosemount Marine Middle East  
FZC

Owner: Abu Dhabi Oil Refining Company  
Project: Inter Refineries Pipelines Takreer

Buyer: Western Advance Pty Ltd.  
Owner: Conoco Phillips (DLNG)  
Project: Darwin LNG Security - Expansion

Buyer: Punj Lloyd Limited, Singapore  
Owner: Tankstore Pte. Ltd  
Project: Tankstore Petroleum Storage, Expan.  
ph. 5

Buyer: Tecway Internat.  
Owner: Sinopec Zhenhai Refining and  
Chemical Company  
Project: Hydrocracker Unit, ZRCC New Area

Buyer: Aisha Trading Co.  
Owner: Shell Brunei Petroleum Co. SDN. BLD.  
Project: Tutong Sub Station

Buyer: Wesco Distribution International Inc.  
Owner: Shell Oil Products US  
Project: Shell Refinery LAR Flare

### HERNIS 400/500

Buyer: TransTel Engineering Pte Ltd  
Owner: Exxon Mobil  
Project: East Area Project (EAP) EPC3/Bonny  
River

## OFFSHORE

### HERNIS 400

Buyer: Samsung Heavy Ind. Co., Ltd.  
Owner: Mosvold Drilling  
Project: H1 657/H1 687, Drillship, Drilling CCTV

Buyer: CapRock Communications - US  
Owner: Chevron Texaco, SSI# Q2390501  
Project: Tombua Landana DDP Platform

Buyer: Daewoo Shipbuilding and Marine  
Owner: Transocean Offshore Deepwater. Ltd.  
Project: H-5903/H-3501, Drillship, Drilling  
CCTV

Buyer: Saipem (Portugal) Comercio Maritimo  
Owner: Saipem S.p.A. Norway  
Project: Scarabeo 6

Buyer: National Oilwell Varco  
Owner: Stena Drilling Ltd.  
Project: H-1650/H-1669 Drillmax, Drilling  
CCTV

Buyer: Prosafe Production Services Pte Ltd  
Owner: Devon Energy  
Project: POLVO FPSO CCTV System

Buyer: Prosafe Production Services Pte Ltd  
Owner: New Zealand Overseas Petroleum  
Ltd.  
Project: Tui FPSO CCTV System

Buyer: Samsung Heavy Ind. Co., Ltd.  
Owner: Stena Drilling Ltd.  
Project: H1 669, Drillmax, Drilling CCTV

Buyer: Transocean Offshore International  
Ventures  
Owner: Transocean Offshore International  
Ventures  
Project: SEDCO 714, Drilling CCTV (Retrofit)

Buyer: Radio Holland Singapore Pte Ltd  
Owner: Total  
Project: Moho Bilondo Project, FPU

Buyer: TransTel Engineering Pte Ltd  
Owner: Woodside Energy Ltd.  
Project: Angel Gas Project, Woodside

Buyer: Songa Offshore  
Owner: Songa Offshore  
Project: Songa Saturn, CCTV System

Buyer: National Oilwell Varco  
Owner: Offshore Rig Services (ORS)  
Project: Drilling Unit #1, Drilling Unit #2

Buyer: National Oilwell Varco  
Owner: Mosvold Drilling  
Project: H-1 657/H-1 687, Drillship, Drilling  
CCTV

Buyer: National Oilwell Varco  
Owner: Tankers Pacific  
Project: H-1 674, Drillship, Drilling CCTV

Buyer: Western Advance Pty Ltd.  
Owner: Woodside Energy Ltd.  
Project: Angel Platform

Buyer: Oceanvision Pte Ltd.  
Owner: Frontier Drilling (ASIA) Pte Ltd  
Project: Frontier Discoverer

Buyer: A.P. Møller/Maersk Contractors DK  
Owner: Maersk Contractors Norge AS  
Project: Maersk Endeavour, upgrade

## OFFSHORE

### HERNIS 400 / Crane TV

Buyer: Jurong Shipyard Pte Ltd.  
Owner: PetroRig Pte. Ltd.  
Project: PetroRig I Semi-submersible, Project  
11-1087. PetroRig II Semi-submersible, Project  
11-1088

Buyer: Jurong Shipyard Pte Ltd.  
Owner: Seadrill Ltd.  
Project: Seadrill 8 Semi-sub, Project 11-1085  
Seadrill 9 Semi-sub, Project 11-1086

## OFFSHORE

### 8/1 System

Buyer: Isleburn Mackay & Mcleod Ltd.  
Owner: PSL Energy Services Ltd.  
Project: DONG FMU: Snubbing unit via PSL

## OFFSHORE

### 200 Switch

Buyer: SENSE Technology AS  
Project: Interwell

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## ONS – a success



The ONS 2006 exhibition exceeded all the organiser's expectations. Over 1 100 paying delegates - a new record - attended the conference, while the 1 251 exhibitors attracted roughly 34 000 visitors. This was a slight increase from 2004. Exhibiting several of our camera stations, including the EX286 and EX285, the HERNIS sales team experienced lively activity and developed important business relations during the 4 days in Stavanger.

## OFFSHORE

### Crane TV

Buyer: Resource Rig Supply, Inc.  
Owner: Global Santa Fe Corporation  
Project: Development Driller III

Buyer: ENSCO Offshore U.K. Limited  
Owner: ENSCO Offshore U.K. Limited  
Project: Ensco 71, Drilling CCTV System (retrofit)

Buyer: National Oilwell Varco  
Owner: Transocean Offshore Deepwater. Ltd.  
Project: Transoc. Clear Leader

Buyer: National Oilwell Varco  
Owner: A.P. Møller, Maersk Contractors  
Project: Crane TV system (T5291 and T5292)

Buyer: Talisman Energy Norge AS  
Owner: Talisman Energy Norge AS  
Project: Gyda, 2x Crane-TV

Buyer: National Oilwell Varco  
Owner: Dolphin Drilling Ltd.  
Project: Crane TV systems (T5920 / T5921)

Buyer: National Oilwell Varco  
Owner: Statoil ASA  
Project: Gullfaks A (T3993) / Gullfaks C (T3994)

Buyer: A.P. Møller/Maersk Contractors DK  
Owner: National Oilwell Varco  
Project: Tyra East

Buyer: Parker Drilling Management Services, Inc  
Owner: Exxon Neftegas Limited  
Project: ORLAN - Knuckle Boom Crane-TV

Buyer: OSM Offshore AS  
Owner: Anders Wilhelmsen & Co. AS  
Project: Flotel: Port Rival (SemiSub)

Buyer: National Oilwell Varco  
Owner: A.P. Møller/Maersk Contractors DK  
Project: Maersk Semisub

Buyer: Seadrill Offshore AS  
Owner: Seadrill Offshore AS  
Project: West Navigator

Buyer: National Oilwell Varco  
Owner: Stena Drilling Ltd.  
Project: Drillmax

Buyer: National Oilwell Varco  
Owner: Diamond Drilling  
Project: CCTV system T6465

### SHIPPING HERNIS 400

Buyer: CROON Elektrotechnik B.V.  
Owner: Subsea 7 - UK  
Project: Merwede Pipe-Lay NB 710

Buyer: Sojitz Kyushu Corporation  
Owner: NYK Line  
Project: MHI 2229, LNGC Sakhalin

Buyer: Sojitz Europe Plc (Nissho Iwai Deutschland)  
Owner: NYK Line  
Project: MHI 2230, LNGC Sakhalin

Buyer: Sojitz Europe Plc (Nissho Iwai Deutschland)  
Owner: K-Line  
Project: Koyo S.2260, LNGC

Buyer: Hyundai Heavy Industries Co.  
Owner: MOL  
Project: H-1876, LNG Carrier / S324 LNG Carrier

Buyer: Sojitz Europe Plc (Nissho Iwai Deutschland)  
Owner: Kawasaki Kisen Kaisha Ltd, (K-Line)  
Project: KHI 1587, LNGC

Buyer: Shell Int. Trading & Shipping Co Ltd (STASCo)  
Owner: Shell Int. Trading & Shipping Co Ltd (STASCo)  
Project: LNG Lagos, BGT (NLNG) Nigeria

Buyer: Aker Kvaerner Pusnes AS  
Owner: Teekay Marine Services AS  
Project: SHI 1557 Shuttle Tanker / Bergitta Shuttle Tanker

Buyer: IT-REM Sp. z.o.o./ Remontowa Gdansk  
Owner: Trinity House Lighthouse Service  
Project: Multi Funct. Buoy Laying Vsl, MFT-II HI 1453/II

Buyer: Shell Int. Trading & Shipping Co Ltd (STASCo)  
Owner: Shell Int. Trading & Shipping Co Ltd (STASCo)  
Project: LNG Port Harcourt, CCTV retro BGT (NLNG) Nigeria

Buyer: IT-REM Sp. z.o.o./ Remontowa Gdansk  
Owner: Northern Lighthouse Board  
Project: Multi Funct. Buoy Laying Vsl, MFT-I HI 1453/I

Buyer: Hyproc Shipping Company  
Owner: Hyproc Shipping Company  
Project: Hull 259 Rhourd El Adra, Hull 260 Rhourd El Hamra

Buyer: Dan Marine  
Owner: Sonatrach Petroleum Corporation (SPC)  
Project: NACKS, NE052 Motor Oil Tanker

Buyer: ST Marine (STM) Ltd  
Owner: Louis Dreyfus Armateurs  
Project: Seaplane Three (BO615) Ro-Ro Airbus Seaplane Two (BO616) Ro-Ro Airbus

### SHIPPING SWITCH

Buyer: Marininvest  
Owner: Marininvest  
Project: Brodosplit NB 448 / NB 449 / NB 450 / NB 451, Prod.Tkr

## HERNIS present at SMM – the leading international shipping fair

With 42,000 visitors from all over the world and 1,600 exhibitors, SMM Hamburg is without a doubt a leading international shipping trade fair. SMM 2006 presented a wide range of innovations to meet today's rising standards for more competitive ships, thus making the SMM exhibition an important arena for HERNIS to meet with existing and new customers and business partners.



Area Sales Managers Arvid Enggrav and Øystein Sandberg at the HERNIS booth during SMM 2006.

## HERNIS' eye on Norway's first Gas Fired Power Plant

When Naturkraft Group announced that they aimed to build a gas-fired power plant in Kårstø in Norway, a consortium existing of Siemens in Germany and Siemens in Norway were awarded as contractors. On behalf of Siemens in Germany, HERNIS were proud to be appointed complete CCTV supplier, and are in the process of producing the well known HERNIS 400 system due for delivery in 2007.


The gas power station will have an installed capacity of 420 MW and can produce close to 3.5 TWh power annually. Since the process consists of a gas turbine combined with a steam turbine, this type of plant is known as a Combined-Cycle Gas Turbine station (CCGT). The technology used is a so-called "dry low NOx power", which is the latest

within turbine technology. The main objective of the gas fired power station at Kårstø is to maximize the production of electricity, but it will also be prepared to extract and process steam.

The Norwegian Parliament has carried that the legislation of quota must apply as a climate

*Kårstø, Norway  
Photo: Øyvind Hagen, Statoil*





political policy instrument for this power station, equal to the remaining Norwegian continental industry with emission of CO<sub>2</sub>. This complies with the parliaments policy that the standards for Norwegian industry, including gas fired power plants, should not be stricter than those normally applied in other EEA states. Thus, the Norwegian quota system is very similar to the EC directive.

The emission from the gas fired power plant at Kårstø will be approx 1,2 mill tons CO<sub>2</sub>. It will be equipped with a full SCR purification plant for NO<sub>x</sub>, to keep the effluent down to a maximum of 5 ppm, making it the purest of its kind in Europe.

Key figures for the gas fired power plant at Kårstø:

- Capacity: approx 420 MW
- Annual power production: approx 3,5 TWh (equal to approx 3% of the total annual power production in Norway)
- Annual gas consumption: 0,6 BCM (equal to approx 0,5% of the total gas export in Norway per year)
- Power efficiency: 58 - 60%
- Capital expenditure: approx NOK 2 billion
- Employment: approx 450 during the construction phase, 25 – 30 when operational



## Norwegian Grand Prix – Images provided by HERNIS

This year the Norwegian Grand Prix (Offshore World Championship) was finally back in Arendal, and with thousands of visitors crowding the city, it became a splendid week-end. Sponsoring this great arrangement, HERNIS proudly took on the task of recording the race, and with several camera-stations placed strategically along the track, images of the entire race were transmitted and displayed on a 50 m<sup>2</sup> LED monitor placed in the centre of Arendal.

This was round 6 of the 2006 UIM Class 1 world powerboat championship and the local team Ugland Offshore Racing with Jørn Tandberg and Christian

Zaborowski won the race. Runners-up were Steve Curtis and Bjørn Rune Gjelsten in *Spirit of Norway*.



Jan Kenneth Henriksen and Are Andersen from HERNIS are operating the camera station while the images are transmitted to the LED Monitor in the centre of Arendal

# Retrofit of Ensko Rig 71



*Ensko 71 of the Hitachi K1032N design. It was constructed in 1982 and modified in 1995. The rig location is in the North Sea, Denmark at a current water depth of 142 ft.*

For the pending retrofit of the Ensko Rig 71, HERNIS will supply a state of the art integrated CCTV system capable of fulfilling the current and future requirements of the platform for the rest of its life. The system can be expanded to meet future operational requirements and will be supported by HERNIS on a world wide basis.

Area Sales Manager Gaute Mørland at HERNIS and UK Agent Barry Rising of Silver Fox & Associates are both very pleased with the opportunity to work on another ENSCO platform. They look forward to pursuing the great working relationship that is evolving, both on existing and new building projects.

ENSCO is a Premier Global Offshore Oil and Gas Drilling Contractor, a service which is essential to oil companies in their worldwide exploration and development efforts.

The Company's fleet of 50 rigs (including four rigs under construction) is strategically located in the most prolific domestic and international oil and gas



markets and is managed through three major business units including: North & South America, Europe & Africa, and Asia & Pacific Rim.

# HERNIS taste of the world

## Thai-Norwegian Fish Soup

*By Termjit & Svein Gundersen, HERNIS, Singapore*



The Thai-Norwegian Fish Soup was created by HERNIS Singapore Managing Director and his wife Termjit. It is a rich and tasteful soup that will definitely make you feel warm and comfortable.

Main course 6 portions

### Ingredients:

1,2 Litre	Fish stock
250 g	Batang fish filet (Or any other white fish)
400 g	Salmon filet
500 g	Prawns (OK, scrimps will do too)
250 g	Scallops
1	Large Onion – sliced
100 g	Butter
2	Red spicy chilli – minced
150 g	Celery
100 g	Red & Yellow Bell Pepper – sliced
100 g	Carrots
3 tbsp.	Flour
1 tsp	Oregano
1 tsp	Parsley
1 pinch	Saffron
1/2 tsp.	Thyme leaves
1/2 tsp.	Dill leaf
3	Laurel leaves
1/2 tsp	Basil
2 pinches	Garlic
1 dash	White Wine
1 tsp	Salt and Black Pepper
200 ml	Whipping Cream





# HERNIS Agent Seminar



*Termjit & Svein  
Gundersen*

## Procedure:

Start by heating the fish stock (ready-made stock or home-made stock made from fish heads, bones etc, chilled overnight). Add the butter and the flour while whisking the soup to prevent the flour from lumping. Add the chopped chilli. (If you enjoy spice, add another chilli paddy. Dried chilli paddies from Termjit and Svein's farm are especially recommended. Anyhow, use the small red chillies, about 3-4cm long - the kind you do not want to eat raw!!). Add the sliced carrots and the oregano along with the sliced onion and the red and yellow bell peppers. If necessary, add water to fill up the pot. If you like you can add a dash of late picked white wine at this point. Add salt and pepper, stir well. Bring the soup to a simmer and wait for a little while, (typically while enjoying a pint, or a glass or two of white wine), then add the whipping cream while stirring. Now, it is time for the fish to be added to the soup. (Careful with the stirring now, as the fish fillets may disintegrate). Go on by adding the scallops, and lastly the prawns. The prawns should be heated for no more than 3 minutes... Through the whole process, make sure the soup is not boiling, but simmering just below boiling point.

**Suggestions:** You can always add blue shells/clams – this will be a good add-on!

**Warning:** We are not to be held responsible for chilli damaged eyes...



*Agents and HERNIS staff in  
front of Torungen Lighthouse  
in the skerries of Arendal*

The goal of the seminar was to update our agents on the HERNIS products and to establish a common work practice aiming to improve our activities both internally and towards our customers world wide.

The Agent Seminar at HERNIS' premises in Arendal on 21-23 august 2006 was a great success. This year we set a record with 22 attendees, from 15 countries!

In attending the program, both agents and HERNIS' area sales managers gain from each others field experience and utilize their close relations to discuss future projects and strategies.

HERNIS is aiming to meet the challenges of the future as a family team!

According to tradition, the evening's activities included boat trips, shrimp trawling and clay pigeon shooting.



*Shrimp trawling is a great  
success*

## Introduction: New Area Sales Manager for the Korean market



Arvid Enggrav has a background as Telecom Engineer. He started his career at HERNIS in 1998 as a Service Engineer. A couple of years later, he changed position and became a Project Engineer.

His experience and practice from both the service and technical departments at HERNIS made him a distinct candidate when the position for an Area Sales Manager opened this year. With the

confidence in his advanced knowledge of the HERNIS systems and products, Arvid is prepared to meet the challenges ahead as Sales Manager for the South Korean market.

Privately, Arvid is a dedicated motorcycle enthusiast and runs a custom-built Harley Davidson and a BUELL. During the seasons, he also hunts for moose and roe deer in the forests.



*Former Marketing Director at HERNIS, Tom Cantero*

## Marketing Director at HERNIS

Tom Cantero has been the Marketing Director at HERNIS since 2001, but has now chosen to leave the company for a position as Managing Director with Hägglunds in Norway.

Hägglunds is a Swedish company, which manufactures complete hydraulic drive systems including a wide range of hydraulic motors, accessories, power units and control systems.

We congratulate Tom Cantero on his new position and wish him good luck.

Meanwhile, the process of appointing a new Marketing Director at HERNIS is ongoing at full speed. We are very excited to see who will fit the profile, and will announce the successor as soon as possible.

## HERNIS Activity plan 2006–2007

5 <sup>th</sup> – 8 <sup>th</sup> December	OSEA, Singapore
18 <sup>th</sup> – 21 <sup>st</sup> March	Agent Seminar Asia
21 <sup>st</sup> – 23 <sup>rd</sup> February	Australia Oil & Gas, Perth
30 <sup>th</sup> April – 3 <sup>rd</sup> may	OTC, Houston
4 <sup>th</sup> May	Agent Seminar US
8 <sup>th</sup> June	Norwegian Offshore Customer Seminar, Arendal
12 <sup>th</sup> – 15 <sup>th</sup> June	Norshipping, Oslo
18 <sup>th</sup> – 20 <sup>th</sup> June	Agent Seminar, Arendal
24 <sup>th</sup> – 27 <sup>th</sup> October	Kormarine, Korea
27 <sup>th</sup> – 30 <sup>th</sup> November	Marintec China
4 <sup>th</sup> – 7 <sup>th</sup> December	OSEA, Singapore

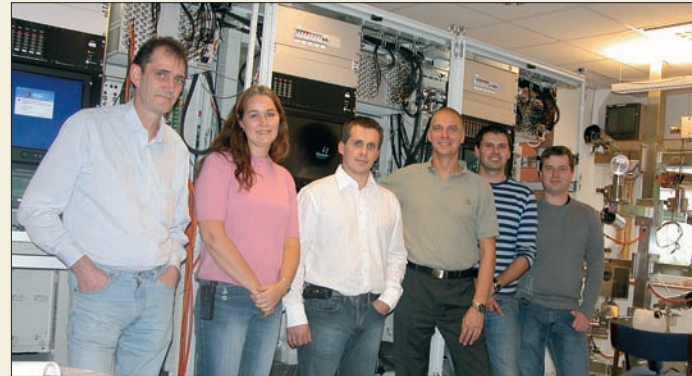
# CCTV – Full Scale Test



Our last News Letter held an article about a project with National Oilwell Varco for the Maersk Ultra Deep Semi Sub # 1 and # 2.

A successful Factory Acceptance Test (FAT) was conducted at HERNIS premises on 19th October 2006 with attendances from National Oilwell Varco and Maersk.

The complete CCTV System will be reconnected and a full scale test will be conducted at National Oilwell in Stavanger later on. During this test the drilling will simulate drilling operation based only on live information from cameras. For the Marine System a Fiber Rig, connected to a Gigabit Network will be used for viewing and to control the cameras located in this area.



From left: Allan McCou (Maersk), Anita Flataker (HSS), Mikal Thormodsen (NOV), Henrik Rasmussen (Maersk), Håkon Vidar Straume (NOV), Rune Sørensen (NOV)

## TECHNICAL CORNER

### GAS GROUPING

The International Electrotechnical Commission (IEC) recognises two main Gas Groups:

- Group I**      **Mining**
- Group II**     **Surface Industry** (includes shipping and offshore installations)

Group II is subdivided into three sub groups, according to the minimum ignition energy of the hazard as follows:

- Group IIC**    most easily ignitable:      typically hydrogen
- Group IIB**    less easily ignitable:        typically ethylene
- Group IIA**    less easily ignitable:        typically propane

Thus hazards allocated to Gas Group IIC are the most severe hazards, Group IIB hazards less so, but more hazardous than those of Gas Group IIA.

Apparatus which is suitable for Gas Group IIC is also acceptable for Gas Groups IIB and IIA. Apparatus which is suitable for Gas Group IIB is also suitable for Gas Group IIA, but not for Gas Group IIC.

Although North America (USA and Canada) recognise the IEC terminology and definitions, the system of hazard classes is still in common use. There are three classes:

- Class I**        Gases and Vapours
- Class II**       Dusts
- Class III**      Fibres

These classes are subdivided as follows:

- Class I**        Group A:                      typically acetylene
- Group B:                      typically hydrogen
- Group C:                      typically ethylene
- Group D:                      typically propane and methane
- Class II**        Group E
- Group F
- Group G
- Class III**        No sub groups

It is important not to confuse the two systems, since it will be seen that the sub group letters of the North American system and the IEC system are opposite in severity! The table below compares the two systems.

Typical Gas	IEC System	North American System
Methane	Group I	Class I group D
Propane	Group IIA	
Ethylene	Group IIB	Class I Group C
Hydrogen	Group IIC	Class I Group B
Acetylene		Class I Group A

# Extreme conditions call for extreme equipment!



The HERNIS Camera Station PT9

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*Part of the Vislink Plc.*

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