



# Bringing Plant Management and Maintenance Management together Using Maximo

### M.M.M.E. (Marc) Boer Manager Fleet Management Support



## **Introduction Boskalis**



# **OUR CLIENTS**

### ENERGY

 EPC Contractors, O&G companies, O&G construction companies, National Oil Companies

### PORTS

 Terminal operators, private and independent port authorities, Government owned port authorities, shipping companies & agents

### **INFRA**

Innovative government agencies, government owned project developers, traditional government agencies



## KEY FIGURES

| EUR mln          | 2012  | 2011  | 2010  | 2009  |
|------------------|-------|-------|-------|-------|
| Revenue          | 3,081 | 2,801 | 2,674 | 2,175 |
| Order book       | 4,106 | 3,489 | 3,248 | 2,875 |
| EBITDA           | 568   | 591   | 622   | 445   |
| EBIT             | 337   | 354   | 402   | 249   |
| Net profit       | 250   | 254   | 311   | 228   |
| Return on equity | 13.8% | 15.4% | 21.7% | 21.1% |
| Solvency         | 39.2% | 37.4% | 37.1% | 46.5% |



## OUR ACTIVITIES



















Boskalis Westminster

## HARBOUR TOWAGE

- Berthing & unberthing of seagoing vessels
- Assistance special objects
- Standby services
- Port services: Pilotage, Launches, Line handling, Fire fighting, Maintenance, Beaconing

### **CLIENTS & LOCATIONS**

- PORTS: International shipping companies, shipping agents
- Rotterdam, Belgium, Brazil, Liverpool, Canada, Panama, South Africa, Singapore, Malaysia



## TRANSPORT, HEAVY LIFT & SUBSEA

- Transport: AHTS/PSV fleet, transport heavy / unusual loads,
- Heavy lift: lifting, decommissioning, maritime projects, marine support
- Subsea: IRM with saturation & air diving and ROVs

### **CLIENTS & RECENT PROJECTS**

- Oil & gas industry, windfarms, civil construction companies, salvage projects
- Locations: Rotterdam, Vancouver, Cape Town, Singapore, Brazil



## SALVAGE

Boskalis

Westminster

- Emergency response, Wreck removal & Environmental protection
- Global coverage from Rotterdam, Houston, Cape Town & Singapore

### **CLIENTS & RECENT PROJECTS**

- Ship owners, governments and insurance companies (P&I Clubs)
- Recent high profile projects
  - Successful refloat in Mumbai (India 2010/11)
  - Vessel removal of Hyundai 105 (Indonesia 2010 ongoing)
  - Co-salvager for the Rena (New Zeeland 2011 ongoing)
  - Costa Concordia oil removal contract (Italy 2012)
  - Kulluk Shell Platform (USA, Alaska 2012)

# DREDGING

- Construction and maintenance of ports and waterways
- Land Reclamation
- Coastal defense and riverbank protection
- Offshore services for oil & gas industry
- Underwater rock fragmentation

### **RECENT AND CURRENT CLIENTS**

- PORTS: Port of Rotterdam; Port of Melbourne; Abu Dhabi Ports Company
- ENERGY: Chevron; SAIPEM; Qatar Petroleum
- INFRA: Dutch Ministry of Transport; Environmental agency

# A LARGE, VERSATILE FLEET

State of the art hoppers

A wide variety of cutters



Queen of the Netherlands

Phoenix - 15,800 kW

35,500 m3

# JOINT FLEET: >1,000 VESSELS

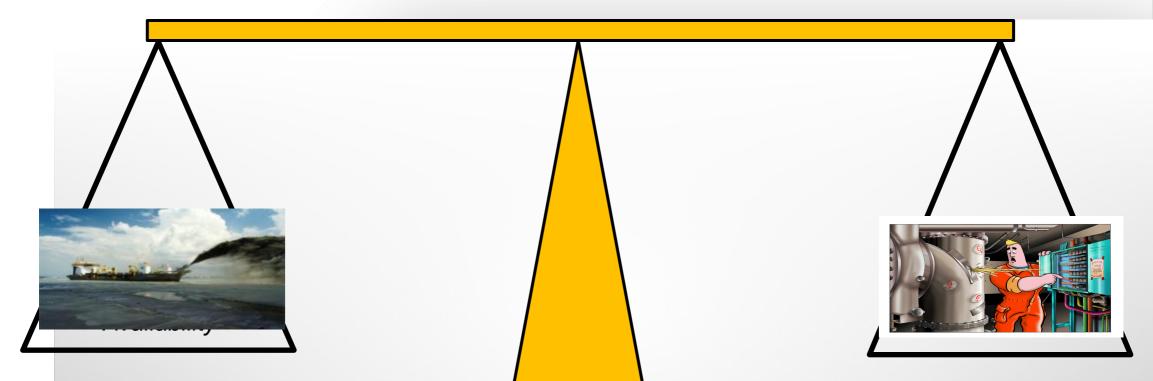
|   | Tugs                        | 237 |  |
|---|-----------------------------|-----|--|
| ٩ | Floating Sheerlegs          | 9   |  |
|   | Multiple support<br>vessels | 7   |  |
|   | Barges                      | 91  |  |
|   | Other                       | 64  |  |
|   |                             |     |  |
|   | Total                       | 408 |  |
|   |                             |     |  |

| Dredgers                         | 112 |        |
|----------------------------------|-----|--------|
| Rock dumping<br>vessels          | 4   |        |
| Dredge Support<br>Equipment      | 77  | 1 Carl |
| Barges                           | 156 |        |
| <b>Tugs</b> , launches and other | 286 |        |
| Workboats                        | 54  | je     |
| Total                            | 689 |        |

## **POSITION FLEET MANAGEMENT BOSKALIS**

- FLEET MANAGEMENT DEPARTMENT → "SHIPPING COMPANY"
- BOSKALIS INTERNATIONAL (BKI) → CONTRACTOR.
- CHARTER AGREEMENT (SLA BETWEEN FLEET MANAGEMENT AND BKI)

# **POSITION FLEET MANAGEMENT BOSKALIS**



The core activity of Fleet Management is to make vessels and equipment available for the execution of projects of Boskalis. The goal is to make the vessels and equipment available on time and in the most effective, efficient and safe manner.

# **INTRODUCTION & BACKGROUND**

### 1999 – 2004: STANDARDIZE IT & PROCESSES

Implementation / Roll-out Maximo 4.1 / BaaN-ERP

### 2004 – 2007 : STANDARDIZE DATA & ORGANISATION

Item catalogue

Equipment / Location Structure "Esmeralda"

Preventive maintenance / Critical Equipment

### **2007 – 2011 : OPTIMIZE MAINTENANCE PERFORMANCE AND COST CONTROL**

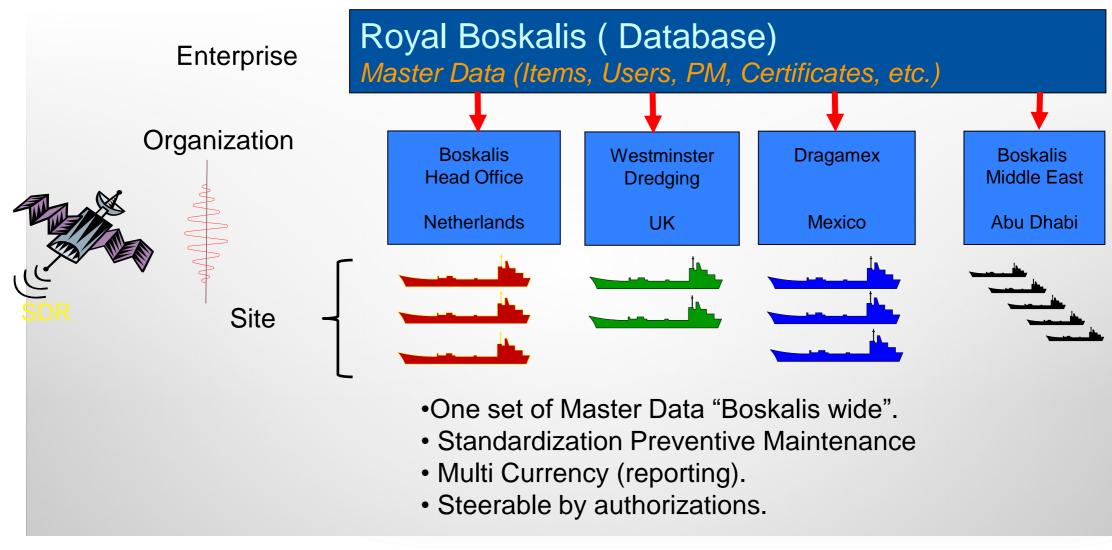
Pilot Measure performance 5 vessels MX4.

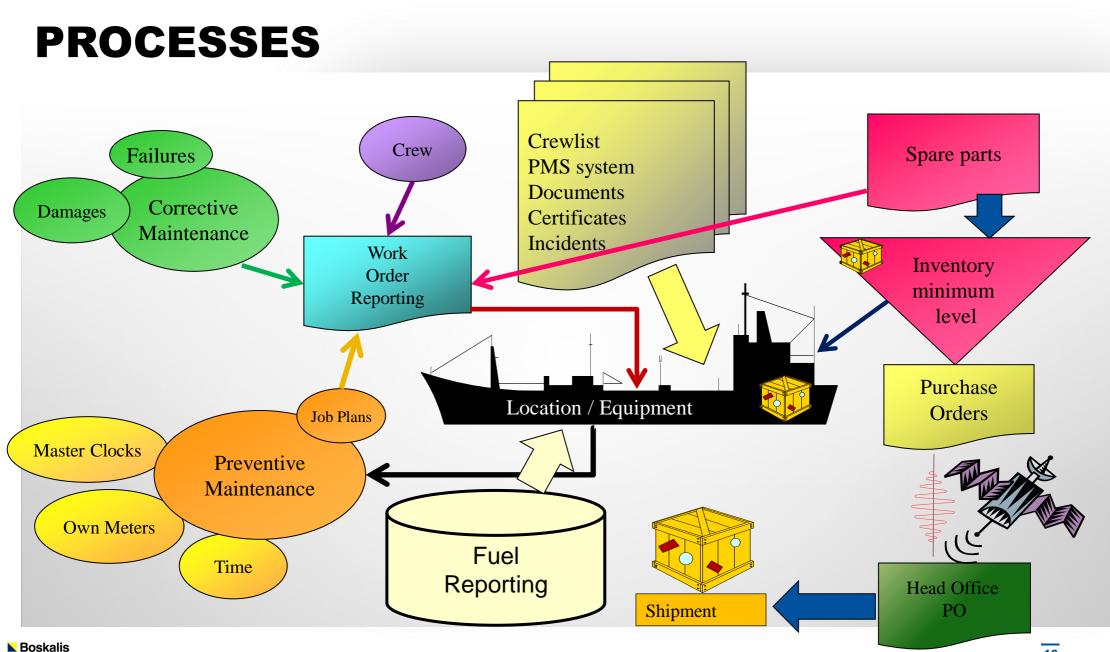
Upgrade Maximo 4.1.1  $\rightarrow$  7.1 (EAM) Multisite

Measure performance all MX7 vessels.

### 2012 - 2014: BACK TO BUSINESS (MAIN TOPICS)

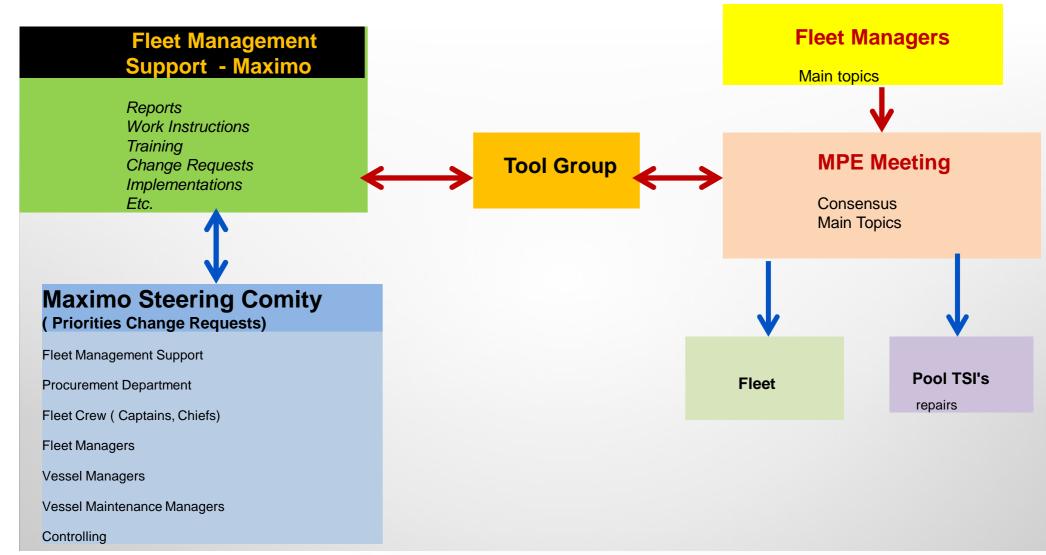
# **MAXIMO 7 MULTI SITE SOLUTION**





Westminster

## **RESPONSIBILITIES & COMMUNICATION LINES**



## BACK TO BUSINESS - ESSENCE FLEET MANAGEMENT

OWNERSHIP MAINTENANCE MANAGEMENT SYSTEM BACK TO BUSINESS

### CLEAR RESPONSIBILITIES AND COMMUNICATION LINES

MAIN TOPICS DETERMINED BY FLEET MANAGEMENT



## **ESSENCE FLEET MANAGEMENT**

### **MAIN TOPICS**

**1 : SAFETY PERFORMANCE / CULTURE.** 



2 : EFFICIENCY / TECHNICAL AVAILABILITY.

### 3: REPAIR / MAINTENANCE / COSTS.





## SAFETY PERFORMANCE ACCIDENT / INCIDENT REPORTING

ABOUT NINA

NINA 1 YEAR

NINA AT WORK

CONTACT

#### Safety at Boskalis

Our people are our most valuable assets, making safety a core value. Our goal is **NO INJURIES NO ACCIDENTS (NINA)**. This is embedded in our company's culture and supported through Values and Rules.

#### NINA Safety Program Movie



NO INJURIES



#### Experiences of NINA at work



TRAINING

Boskalis Westminster

# **SAFETY PERFORMANCE**



Our people are our most valuable assets, making safety a core value. Our goal is: No Injuries No Accidents. This is embedded in our company's culture and supported through Values and Rules. All employees, including our sub-contractors, are expected to take these values and rules to heart.

# VALUES

I AM RESPONSIBLE FOR MY OWN SAFETY I APPROACH OTHERS ABOUT WORKING SAFELY

I TAKE ACTION IN CASE OF UNSAFE OPERATIONS. IF NECESSARY, I WILL STOP THE WORK

I ACCEPT FEEDBACK ABOUT MY SAFETY BEHAVIOUR REGARDLESS OF RANK AND POSITION

I REPORT ALL INCIDENTS, INCLUDING NEAR-MISSES, TO INFORM OTHERS AND BUILD ON LESSONS LEARNED

# RULES

PREPARE A RISK ASSESSMENT FOR EACH PROJECT, VESSEL OR LOCATION

OBTAIN A PERMIT TO WORK FOR DEFINED HIGH-RISK ACTIVITIES

MAKE A JOB HAZARD ANALYSIS FOR HAZARDOUS NON-ROUTINE ACTIVITIES

BE INFORMED ABOUT RISK & CONTROL MEASURES

BE FIT FOR DUTY AND WEAR THE PPE REQUIRED

# **SAFETY PERFORMANCE**

## **INCIDENT, ACCIDENT & NEAR MISSES**

### **Corporate System**

| lear Miss  |  |  |                                |  | Buletins ( | 0) 🕈 Go To 🤐 Beports 🅈 Start Cent   | ler 🏝 Brofile 🏾 Sign Out 🤊 Help             |
|--|--|--|--------------------------------|--|------------|---|---|
| Find: Sei  | Service and Service  | ិភាខ 🔹 🗢 ជុំ 🗓   |                                |  |            |   |   |
| Event ID 1010007 Der<br>renumber 6 Ev<br>Svent type NEAR MISS P  | Log<br>cription = Grenade in Drag<br>ent date = 08/02/2013 20.0<br>ct rating 06: Moderate im | 6.26 👔   | Report D<br>Reported E-        | By P.A. ZEVENBER #<br>Nate 08/02/2013 20:05:55 10<br>mail<br>tion CAPTAIN  | م<br>م     | Changed I<br>Change<br>Attachm  | d By 150781                                 |
| Project<br>Site = 10120.0003<br>Crestway<br>Site type<br>Flag<br>abonal unt plant * Baggermij Boskats bv   |  | Captain / Skipper * P.A. ZEVENBER /<br>Chief Engineer * H.T.J. MEUER |                                | asvlakte 2<br>rman Benning   | م<br>•     | Project location * Rotterdam<br>Country * The Netherlands<br>Third Party<br>Third party involved?<br>Object * Bomb<br>Owner * Government<br>Contact details * - |   |
| ent: What could have happend? 1 - 2* Loss<br>hat could have been damaged? 1 - 2* Trailing pipe/Dra<br>Cause: How could it happen? 1 - 2* Unknown | ihead  | ア・Grenade in Draghead and Hoppe<br>ローレー<br>ア                         | Operational unit report  Hours | vere you doing = B1 Hopper dredgin<br>isible for event = Baggernij Boskalis<br>after start shift = 3.00<br>re did it happen = On water |            | Extent  Extent  Extent  Extent  Within Boskalis)  Withess   | Serious<br>Very many P<br>DED bomb removers |







### **Planned Maintenance System Attestation**

Issued within the scope of the Bureau Veritas Marine Branch General Conditions. Deliver dans le cadre des Conditions Generales de la Branche Maritime du Bureau Veritas

Manager: Boskalis Baggermaatschappij B.V.PMS system name : IBM MaximoVersion: 7.1.1.5

The undersigned , H.H. Spilker , Marine Manager to the Bureau Veritas at Rotterdam, acting within the scope of the General Conditions of the Bureau Veritas Marine Branch, which regulate the interventions of this society,

Herewith confirms,

That the Boskalis Baggermaatschappij B.V. Computerized Maintenance System IBM Maximo version 7.1.1.5 has been reviewed satisfactory according the requirements of Bureau Veritas Rules for the Classification of Steel Ships Part A, Chapter 2 Appendix 1 -.§ 2.1.1 and Rule Note NR 496 DTM R01E. The system is considered to be used on board the vessels with Bureau Veritas Class. The ISM certified vessels are subject to 2 ½ yearly check on the system with regard to preventive maintenance and the identification of critical equipment.

This attestation is valid for the mentioned computerized framework. For obtaining the PMS survey system for an individual ship a list of class affecting components and corresponding intervals is to be reviewed and an implementation survey of the Maintenance System is to be carried out in line with Bureau Veritas Rules for the Classification of steel ships Part A Chapter 2 Appendix 1 -.§ 5.

This attestation is valid until cancelled, in writing, by the Society or owners. Cancellation can be given by the society with immediate effect if the conditions of the review are no longer adhered to. Boskalis Westminster Dredging bv

#### **Overview Certificates Survey Status**

#### site: 10072.0003 - Coastway

| Certif   | icate Id                  | Rev.         | Description   | Issued By    | Last Surve       | ey Date | Next Survey Date | Start Surv. Range | End Surv. Date | Due Workorder |
|----------|---------------------------|--------------|---|--------------|------------------|---------|------------------|-------------------|----------------|---------------|
| 4152 (   | (0900.011)                | 0            | Disposable Hydrostatic Release Unit HAMMAR H20 (6x)                   |              |                  |         |                  |                   |                |               |
|          |                           | Surveys:     | Renewal Hydrostatic Release Unit (50229)                              |              | 0:               | 1-04-12 | 01-04-14         | 01-01-14          | 01-04-14       |               |
| 4153 (   | (0900.019)                | 0            | Disposable Hydrostatic Release Unit HAMMAR H20 No.<br>M056370 (EPIRB) |              |                  |         |                  |                   |                |               |
|          |                           | Surveys:     | Renewal Hydrostatic Release Unit (50268)                              |              |                  |         | 31-03-13         | 31-12-12          | 31-03-13       |               |
| 4154 (   | (0900.021)                | 0            | EC Certificate Conformity Rescue Boat FASSMER No. 00/2/2551           | FASSMER & CO |                  |         |                  |                   |                |               |
| Rev.     | Descript                  | ion          | Issued By   |              | Last Survey Date | Next S  | iurvey Date Sta  | rt Surv. Range    | End Surv. Date | Due Workorder |
| 0        | Cert. of Ir<br>B1         | nspection R  | lescue boat Davit SEC-DAVITS No. 00105-                               |              |                  |         |                  |                   |                |               |
| Surveys: | Five-yea                  | rly Inspect  | ion Rescue boat Davit System (50679)                                  |              | 01-04-12         |         | 01-04-17         | 01-01-17          | 01-04-17       |               |
|          | Annual I                  | inspection l | Lifeboat & Launching Appliance (50759)                                |              | 31-03-11         |         | 20-04-12         | 21-01-12          | 20-04-12       | 30541         |
|          |                           | Surveys.     | Annual Inspection Rescue boat & Launching Appliance (50893)           |              | 0.               | 04-12   | 20-04-12         | 21-01-12          | 20-04-12       | <u>30543</u>  |
| 4157 (   | (0900.031)                | 0            | Certificate of (Re-)Inspection Fire Extinguishers                     |              |                  |         |                  |                   |                |               |
|          |                           | Surveys:     | Annual Inspection Fire Extinguishers (50331)                          |              | 2                | 7-04-12 | 27-04-13         | 27-01-13          | 27-04-13       |               |
| 4158 (   | (0900.033)                | o            | Certificate of (Re-)Inspection CO <sup>2</sup> Installation           |              | C                | 6       |                  |                   |                |               |
|          |                           | Surveys:     | Annual Inspection CO <sup>2</sup> Installation (50332)                |              | 2                | 7-07-11 | 27-07-12         | 28-04-12          | 27-07-12       | 30716         |
| 4159     | (0900.037)                | 0            | Certificate of (Re-)Inspection Breathing Apparatus                    |              |                  |         |                  |                   |                |               |
|          |                           | Surveys:     | Annual Inspection Breathing Apparatus (50334)                         |              | 2                | 7-04-12 | 27-04-13         | 27-01-13          | 27-04-13       |               |
| 4160 (   | (0900.041)                | 0            | Certificate of (Re-)Inspection Medical Outfit                         |              |                  |         |                  |                   |                |               |
|          |                           | Surveys:     | Annual Inspection Medical Outfit (50335)                              |              | 1                | 7-05-11 | <u>17-05-12</u>  | 17-02-12          | 17-05-12       | 29228         |
|          | 2012 3:30:<br>Certific-01 | 11 PM GMT+   | -02:00  |              | 9                |         |                  |                   |                | / 11          |

# SAFETY PERFORMANCE

- JOB HAZARDOUS ANALYSES
- QUALITY OF SAFETY DRILLS
- PERMITS TO WORK.

| 1. Identify hazards and consequences | 2.<br>Implement<br>Standard control |   | 3. Rate Risk with Standard measures<br>(Risk = Likelyhood x Impact) |           |   |           |   |             |  |  |
|--------------------------------------|-------------------------------------|---|---|-----------|---|-----------|---|-------------|--|--|
| consequences                         | reduction                           |   | Pers  | Personnel |   | Equipment |   | Environment |  |  |
|                                      | measures                            | L | I   | R         | T | R         | Т | R           |  |  |
| Fire and/or explosion                |                                     | 2 | 4   | 8         | 4 | 8         | 3 | 6           |  |  |
| Poisoning gasses/fumes               |                                     | 1 | 3   | 3         | 1 | 1         | 1 | 1           |  |  |
| Lack of visibility                   |                                     | 1 | 3   | 3         | 1 | 1         | 1 | 1           |  |  |
| Electrocution                        |                                     | 1 | 3   | 3         | 1 | 1         | 1 | 1           |  |  |
| Other hazards                        |                                     | 0 | 0   | 0         | 0 | 0         | 0 | 0           |  |  |
| Other hazards                        |                                     | 0 | 0   | 0         | 0 | 0         | 0 | 0           |  |  |
| Other hazards                        |                                     | 0 | 0   | 0         | 0 | 0         | 0 | 0           |  |  |



# EFFICIENCY / TECHNICAL AVAILABILITY

- TECHNICAL DELAY REPORTING
  - PER ASSET
  - PROJECT
  - ROUTE CAUSE



# EFFICIENCY / TECHNICAL AVAILABILITY

## **GENERIC - MAINTENANCE**

| 🔍 🖳 View Work Details |                     |                 |                     |                     |   |                  | □ : ? : ⊠      |
|-----------------------|---------------------|-----------------|---------------------|---------------------|---|------------------|----------------|
|                       |                     |                 |                     |                     |   |                  |                |
|                       |                     |                 |                     |                     |   |                  |                |
|                       | Asset               | 101059          | Main Engine, PS     |                     |   |                  |                |
|                       | Include Children?   |                 |                     |                     |   |                  |                |
|                       | Include Ancestors?  | $\checkmark$    |                     |                     |   |                  |                |
|                       |                     |                 |                     |                     |   |                  | Refresh        |
| Work Pre              | ventive Maintenance | Routes          | Collections         |                     |   |                  |                |
| Work   🛩 Filter >     | afta 💷 🛧 🤞 🔶        | 1 - 10 of 228 🧼 |                     |                     |   | Dov              | wnload   ?   🗖 |
| Record                | Class               | <u>Status</u>   | Reported Date       | Target Start Date   | Description   | Priority History | ls Task        |
|                       | 1                   |                 |                     |                     |   |                  | P P            |
| 1685                  | MORKORDER           | CLOSE           | 25/03/2010 00:06:27 | 25/03/2010 00:00:00 | ENGR:3000 Run.Hr.Maint. PS W38                                |                  |                |
| 1043                  | WORKORDER           | CLOSE           | 04/03/2010 15:10:36 | 03/03/2010 15:25:58 | ER submitt a seperate foundation for<br>WECS cabinet SB M.ENG | V                |                |
| 1700                  | WORKORDER           | CLOSE           | 25/03/2010 00:06:38 | 25/03/2010 00:00:00 | ENGR:6000 Run.Hr.Maint. PS W38                                |                  |                |
| 1708                  | WORKORDER           | GCLOSE          | 25/03/2010 00:06:45 | 25/03/2010 00:00:00 | ENGR:12000 Run.Hr.Maint. (Top) PS W38                         | V                |                |
| 1718                  | WORKORDER           | CLOSE           | 25/03/2010 00:06:53 | 25/03/2010 00:00:00 | ENGR:18000 Run.Hr.Maint. PS W38                               | $\checkmark$     |                |
| 1214                  | WORKORDER           | CLOSE           | 17/03/2010 05:39:40 |                     | ER: replace waste gate & air filter<br>reducer ME PS          | V                |                |
| <u>1290</u>           | WORKORDER           | CLOSE           | 21/03/2010 20:50:06 |                     | ER: Change charge air cooler A-bank ME<br>PS                  | V                |                |
| 1297                  | WORKORDER           | CLOSE           | 21/03/2010 21:49:39 |                     | ER: Change charge air cooler B-bank ME<br>PS                  | V                |                |
| ☐ 1304                | WORKORDER           | CLOSE           | 22/03/2010 01:20:26 |                     | ER: replace o-rings of cw pipe HT pump<br>ME PS               |                  |                |
| 1306                  | WORKORDER           | CLOSE           | 22/03/2010 01:50:40 |                     | ER: replace o-rings of cw pipe LT pump<br>ME PS               | V                |                |

ок

# **Boskalis Westminster Dredging bv**

### **Purchase Order List**

Site: 10074.0003 - Oranje

Open Purchase Orders (Status=PRINT and Receipts complete = N)

| РО    | (Prio) | Line | Vendoi | Item<br>number | Item Description                                   | SENT     | PRINT    | Requided<br>Date | Order<br>PPD | Exp. Rec.<br>PPD | Receipt<br>PPD | Exp. Rec.<br>Vessel | Receipt<br>Vessel | Ord.<br>Qty. | Rec.<br>Qty. | Transp<br>date | Transp<br>code |
|-------|--------|------|--------|----------------|--|----------|----------|------------------|--------------|------------------|----------------|---------------------|-------------------|--------------|--------------|----------------|----------------|
| 25035 | (0)    | 90   | V0003  | 6.700.498      | SI006, Dredgeline,L=1480mm Fedur90                 | 23-04-10 | 27-05-10 | 11-11-11         | 01-06-10     | 14-09-10         | 12-07-10       | 27-07-10            |                   | 1.00         | 0.00         |                | H3661          |
| 25035 | (0)    | 100  | V0003  | 6.700.500      | SI008, Bend appr.46°, R=2000, Fedur90              | 23-04-10 | 27-05-10 | 11-11-11         | 01-06-10     | 14-09-10         | 13-07-10       | 05-10-11            |                   | 1.00         | 0.00         | 27-09-11       | 41856          |
| 25035 | (0)    | 110  | V0003  | 6.700.502      | SI010, Branch Pipe, Fitpipe, Fedur90               | 23-04-10 | 27-05-10 | 11-11-11         | 01-06-10     | 23-07-11         |                | 27-07-10            |                   | 1.00         | 0.00         |                | H3661          |
| 25035 | (0)    | 120  | V0003  | 6.700.504      | SI012, Branch Pipe, Fedur90                        | 23-04-10 | 27-05-10 | 11-11-11         | 01-06-10     | 14-09-10         | 06-09-10       | 27-07-10            |                   | 1.00         | 0.00         |                | H3661          |
| 25037 | (0)    | 160  | V0003  | 6.700.530      | D011, Dredgeline, Fitpipe, Fedur90                 | 23-04-10 | 27-05-10 | 11-11-11         | 01-06-10     | 23-07-11         |                | 27-07-10            |                   | 1.00         | 0.00         |                | H3661          |
| 25037 | (0)    | 170  | V0003  | 6.700.532      | D017, Dredgeline,L=1150mm Fedur90                  | 23-04-10 | 27-05-10 | 11-11-11         | 01-06-10     | 14-09-10         | 18-06-10       | 27-07-10            |                   | 1.00         | 0.00         |                | H3661          |
| 25037 | (0)    | 180  | V0003  | 6.700.534      | D019, Bend 90° R=1500, Deck Penetration, Fedur90   | 23-04-10 | 27-05-10 | 11-11-11         | 01-06-10     | 14-09-10         | 20-09-10       | 01-10-10            |                   | 1.00         | 0.00         | 01-10-10       | H3692          |
| 25037 | (0)    | 190  | V0003  | 6.700.536      | D021, Dredgeline,L=1000mm Fedur90                  | 23-04-10 | 27-05-10 | 11-11-11         | 01-06-10     | 14-09-10         | 30-06-10       | 27-07-10            |                   | 1.00         | 0.00         |                | H3661          |
| 25101 | (0)    | 10   | V0003  | 6.108.803      | Radio Active Density Transmitter With Fedur Liner, | 02-06-10 | 08-06-10 |                  | 15-06-10     | 14-09-10         | 13-07-10       |                     |                   | 2.00         | 0.00         |                |                |
| 25156 | (0)    | 10   | V0003  | 6.999.999      | For Purchase Orders from Baan with unknown item    | 12-07-10 | 24-08-10 |                  | 02-09-10     | 01-10-10         |                |                     |                   | 1.00         | 0.00         |                |                |
| 25156 | (0)    | 20   | V0003  | 0.950.700      | General return for repair                          | 12-07-10 | 24-08-10 |                  | 02-09-10     | 24-09-10         |                |                     |                   | -1.00        | 0.00         |                |                |
| 25229 | (0)    | 10   | V0003  | 6.400.640      | Impeller, 4 Bids, Hard, ø2220/2220, CCW, P634043,  | 11-09-10 | 30-09-10 |                  |              |                  |                | 26-10-10            |                   | 2.00         | 0.00         | 26-10-10       | H3702          |

# **EFFICIENCY / SPARE PARTS DATA**

| ि Item Master        |   | 🤨 Bulletins: (0) 🎓 <u>G</u> o To 🛛 Lat <u>R</u> eports H | * Start <u>C</u> enter よ Profile * Sign Out ? Help 正論 |
|----------------------|---|--|---|
| BOKALOGUS Find:      | n 🙀 🤝 Select Action 💽 🚺 🥥   |  |   |
| List Item Storerooms | Vendors Specifications  |  |   |
| ltem 6.000.336       | Adhesive, nutlock 243 50ml  |  | Click to see image in its actual size                 |
| Item S               | ://portal.boskalis.net/tearn/T000480/Document%20Library/ATTACHMENTS/general/h                     |  |   |
|                      | ↓ 1 / 6 💌 💌 120% - 🔚 🔛 [Find  | •  |   |
| Lot Ty               |   |  | A0C7777<br>243  |
| Order U              |   |  | Topati<br>Marine<br>Marine                            |
|                      | Hankal  |  |   |
| Details from BAAN    | Henkel  |  |   |
| N                    |   |  |   |
| St                   | Safety Data Sheet according to (EC)   | No 1907/2006 - ISO 11014-1<br>Page 1 of                  | 6   |
| General Drawing N    |   | sds no. : 1534   |   |
| Alternate Items      | Loctite 243 (Old)   | V003<br>Revision: 17.05.201                              | .0  |
| ltem D               |   | printing date: 24.08.201                                 |   |
|                      |   |  | New Row   |
|                      |   |  |   |
|                      | 1. Identification of the substance/p  | reparation and of the company/undertaking                |   |
|                      | Trade name:<br>Loctite 243 (Old)  |  |   |
|                      | Intended use:<br>Adhesive   |  |   |
| -                    | Company name:<br>Henkel Limited<br>2 Bishop Square Business Park<br>AL109EY Herfordshire Hatfield |  |   |

Boskalis Westminster

# **REPAIR / MAINTENANCE / COSTS**

# STANDARDIZATION – BENCHMARK ESMERALDA

#### 🗄 📕 0000:Oranje

- 1000:Health, Safety and Environment (HSE)
- ± 2000:Casco and Superstructure
- 3000:Production Support Systems
- 4000:Technical Support Systems
- ± 5000:Propulsion and Rudder
- E 6000:Electrical, Navigation and Communication Equipment
- 7000:ISM, Routine and Adjustment Jobs
- S YARD: Yard Top Equipment

€smeralda

## **REPAIR / MAINTENANCE / COSTS EQUIPMENT HIERARCHY**

#### 5200 Propulsion and Rudder SB

5210.000 Propeller SB (139959) 5210.010 Hub Propeller SB (139960) 5210.020 Blades Propeller SB (139961) 5220,000 CPP Installation, SB (139962) 5220.100 CPP Hydraulic Pumps, SB (139963) 5220.101 Pump 1, CPP Installation SB (139964) 4400.201 Coupling, Pump 1, CPP Installation SB (139966) 6115.000 E - Motor, Pump 1, CPP Installation SB (139968) 5220.101 Pump 2, CPP Installation SB (139965) 4400.201 Coupling, Pump 2, CPP Installation SB (139967) 6115.000 E - Motor, Pump 2, CPP Installation SB (139969) 5220.700 Filters CPP Installation SB (139970) 4400.701 Filter, CPP Installation PS (139971) 5220.800 Pipes, Valves & Appendages CPP Installation SB (139972) 4400.810 Pipes CPP Installation SB (139973) 4400.820 Valves CPP Installation SB (139974) 4400.830 Fittings and Appendages CPP Installation SB (139975) 5230.000 Propeller Shaft, SB (139976) 5230.010 Seal, Inner, Propeller Shaft SB (139977) 5230.020 Seal. Outer. Propeller Shaft SB (139978)

5240.000 Rudder, SB (139979)

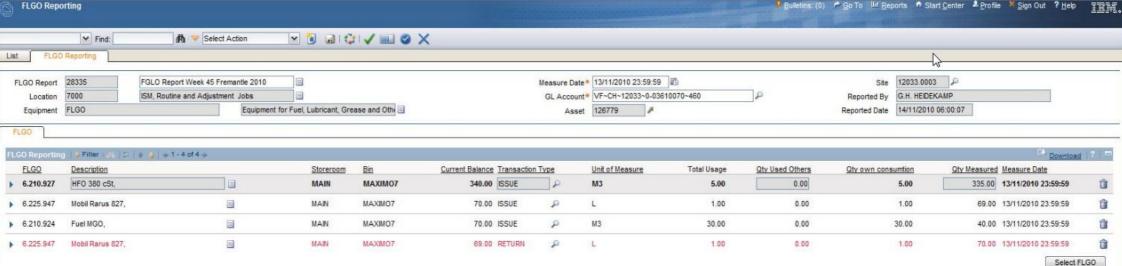
5250.000 Rudder Stock, SB (139980)

# **REPAIR / MAINTENANCE / COSTS**

### CONSUMPTION OF FUEL, LUBRICANTS, GREASE & OIL (FLGO).

# Charging to the Project (JV) CSR

## CO2 Emission reporting





Select FLC

Boskalis Westminster

## **Boskalis Westminster Dredging bv** FLGO CSR Consumption Report

Site: 12122.0003 - Orion

Period from : 01-03-2013 00:00:00

To: 01-04-2013 23:59:59.999

**Remark :** 

| Item          | Description        |            | Unit        | Current<br>Balance | Qty<br>Received | Used<br>Vessel | Used Other | Stock<br>Adjustm. | Used on<br>WO's | Qty End<br>Period |
|---------------|--------------------|------------|-------------|--------------------|-----------------|----------------|------------|-------------------|-----------------|-------------------|
| 6.195.219     | Mobilarma 798      |            | L           | 79.0               | 0.0             | 0.0            | 0.0        | 0.0               | 0.0             | 79.0              |
| 6.210.923     | Potable/I<br>Water | Drinkable  | МЗ          | 17.0               | 0.0             | 41.0           | 0.0        | 37.0              | 0.0             | 13.0              |
| Used Vessel:  |                    | Entered by | Wo Num      |                    |                 | Quantity       |            |                   |                 |                   |
| 02-03-2013 23 | :59:59.627         | 105670     | 32042       |                    |                 | 12.0           |            |                   |                 |                   |
| 09-03-2013 23 | :59:59.860         | 105670     | 32101       |                    |                 | 11.0           |            |                   |                 |                   |
| 16-03-2013 23 | :59:59.620         | 105670     | 32156       |                    |                 | 6.0            |            |                   |                 |                   |
| 30-03-2013 23 | :29:29.023         | 101720     | 32399       |                    |                 | 12.0           |            |                   |                 |                   |
| Adjustments:  |                    | Entered by | Transaction |                    |                 |                |            | Quantity          | I               |                   |
| 01-03-2013 11 | :30:45.517         | 105670     | CURBALADJ   |                    |                 |                |            | 15.0              |                 |                   |
| 01-03-2013 13 | :25:51.253         | 105670     | CURBALADJ   |                    |                 |                |            | 2.0               |                 |                   |
| 13-03-2013 11 | :10:52.277         | 105670     | CURBALADJ   |                    |                 |                |            | 10.0              |                 |                   |
| 13-03-2013 22 | :10:28.700         | 105670     | CURBALADJ   |                    |                 |                |            | 2.0               |                 |                   |
| 23-03-2013 20 | :23:21.077         | 101720     | CURBALADJ   |                    |                 |                |            | -16.0             |                 |                   |
| 23-03-2013 20 | :24:08.483         | 101720     | CURBALADJ   |                    |                 |                |            | 24.0              |                 |                   |

## **KPI'S & STATUS REPORTS**



Boskalis Westminster

# **WEEKLY STATUS REPORT VESSELS**

- RUNNING HOURS
- TECHNICAL DELAY REPORTING
- WO'S CREATED
- PM STATUS
- **CERTIFICATES ( DUE & OVERDUE )**
- INCIDENTS / ACCIDENT / DAMAGES
- FLGO USE
- INVENTORY USE
- *PO'S*
- CREW CHANGES

# **NEXT STEPS**

- •UPGRADE 7.5
- HSE MODULE ?
- STORAGE AREAS





- EQUIPMENT MANAGEMENT SYSTEM
  SUBSEA / SURVEY
- DOCKWISE VESSELS?





# **THANKS FOR YOUR ATTENTION / Q&A**

