



Data production

 **Shipdex**TM
Setting the standard

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MacGregor (Member of Cargotec group)



Hiab supplies on-road load handling solutions

Kalmar provides solutions for container, trailer and other heavy material handling

MacGregor focuses on the design, delivery and servicing of marine cargo flow solutions



Hatch covers



Cranes



Off shore deck equipment



Securing



RoRo



Link spans



Bulk loaders



Services

Local service with global reach
Operations in more than 120 countries



Reasons for implementing Shipdex in our company

- Customer requirements
- A belief in the concept of SHIPDEXTM
- Need of a new efficient information system
- Minimum DTD (Document Type Definition) development costs when introducing a new information system
- Possibility to convert to other formats still remains

Why XML-system?

- Structured information in XML format increases production capacity for manuals with up to 50%
- Reuse of information resulting in less manual work and risk of errors
- Using ShipdexTM decreases the DTD development costs to a minimum.
- S1000D compatible, easy to adjust for other customers requiring S1000D

Old process

- Using FrameMaker and PageMaker for producing information
- Own developed tools/databases built on old software
- Performing many manual tasks to produce information
- Delivery of information in PDF and paper copies

Contract decisions to be made

Parts of the standard are optional and should be agreed in the contract between manufacturer and ship-owner before starting data production. Examples of such decisions are:

- What information sets to be supplied.
- Port/ship configuration data (serialnumber)
- Information object formats allowed (Illustrations/multimedia)
- Task description format (full embedded XML or link to external documents)
- Required resources (required tools, manpower, support equipments, spare parts)

Data production according to Shipdex

- Implementation of a new system for Technical Information, based on SHIPDEX
- Re-structuring the content in our manuals into data modules:
 - ❑ Descriptive (function, operation)
 - ❑ Procedural (maintenance procedures)
 - ❑ Illustrated Parts Data (Spare Part Catalogue)
- Creation of an SNS structure for our product
- Connecting our documentation system to the New Building PLM system thus getting the article structure of the product into the system.
- Delivery of information in data sets. No paper copies.

SHIPDEX delivery

➤ A shipdex delivery consists of the following:

➤ DATA_MODULES

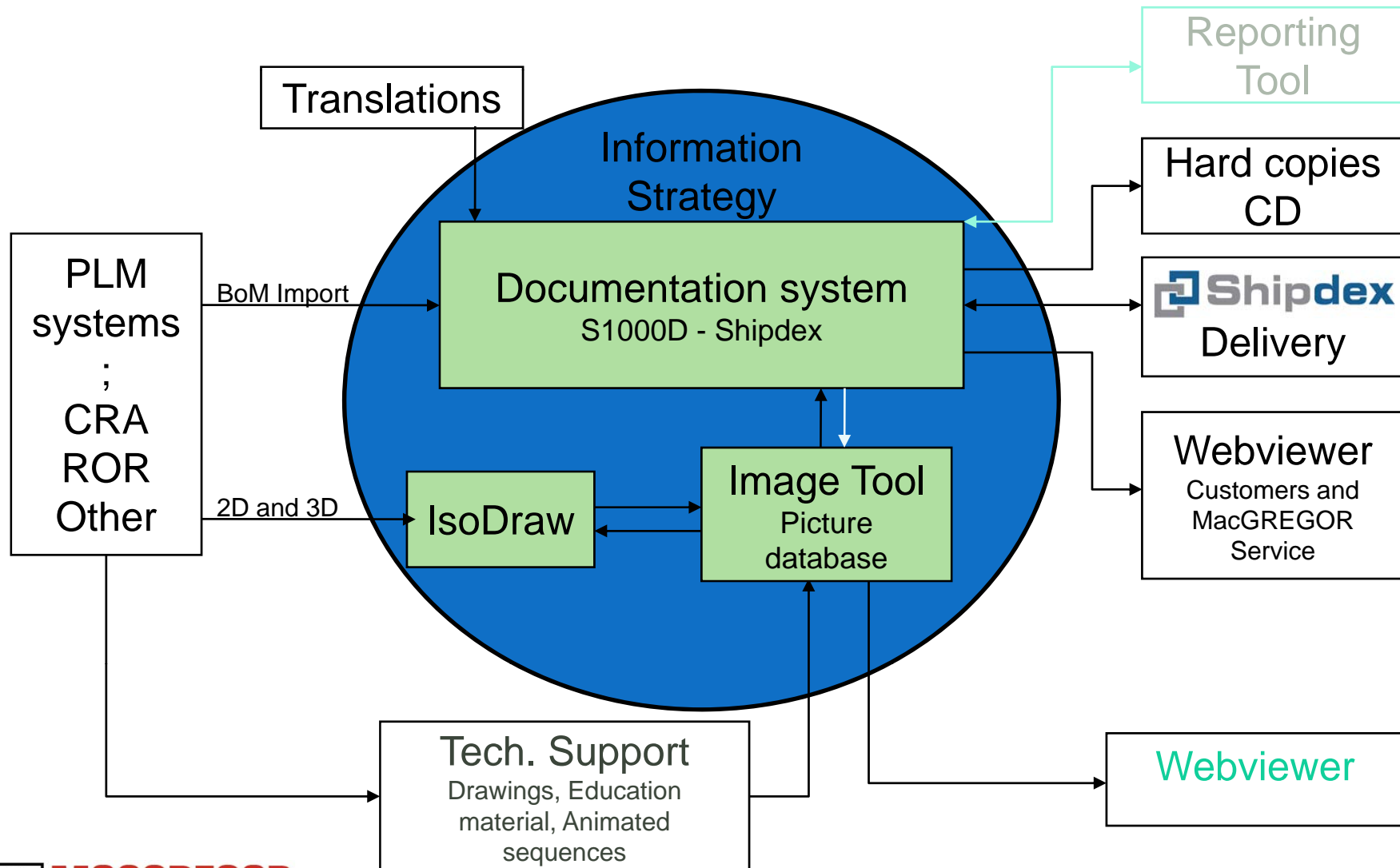
- INFOSET_DESCRIPTION_OPERATION
- INFOSET_IPD
- INFOSET_MAINTENANCE_PROCEDURE
- INFOSET_SERVICE_BULLETIN
- INFOSET_TROUBLESHOOTING

➤ DML (Data Module List)

➤ EXTERNAL_DOCUMENTS (PDF documents)



























➤ INFO_OBJECTS (illustrations)

Information strategy (Cranes & ROR)



Examples from our documentation: Vessels and publications

Drag a column header here to group by that column.

Issue
+  L9105982 (B170-3/3)
+  L9080998 (687)
+  L7516149 (027)
-  L9051624 (21001)
+  23806901 (Both) Accepted 001:00
+  23806902 (Both) Accepted 001:00
+  23806882 (Both) Finished 000:01
+  23806881 (Both) Planned 000:01
+  2380690 (Both) Planned 000:01
+  L9203538 (1308)
+  L9209104 (1312)
+  L9210074 (1316)
-  L9210098 (1318)
+  KR990262 (Both) Accepted 001:00
+  KR990261 (Both) Accepted 001:00
+  KR990264 (Both) Accepted 001:00
+  L9344667 (4004)
+  L9347255 (4008)
+  L9347267 (4009)
+  L9511820 (DY1302)
+  L9057161 (B186/03)
+  L9057173 (B186/35)
-  L9148659 (635)
+  LO960851 (Both) Accepted 001:00
+  LO960852 (Both) Accepted 001:00
+  L9149885 (B170/1/16)

SNS structure for Cranes

File Edit View Tools Window Help

Cranes

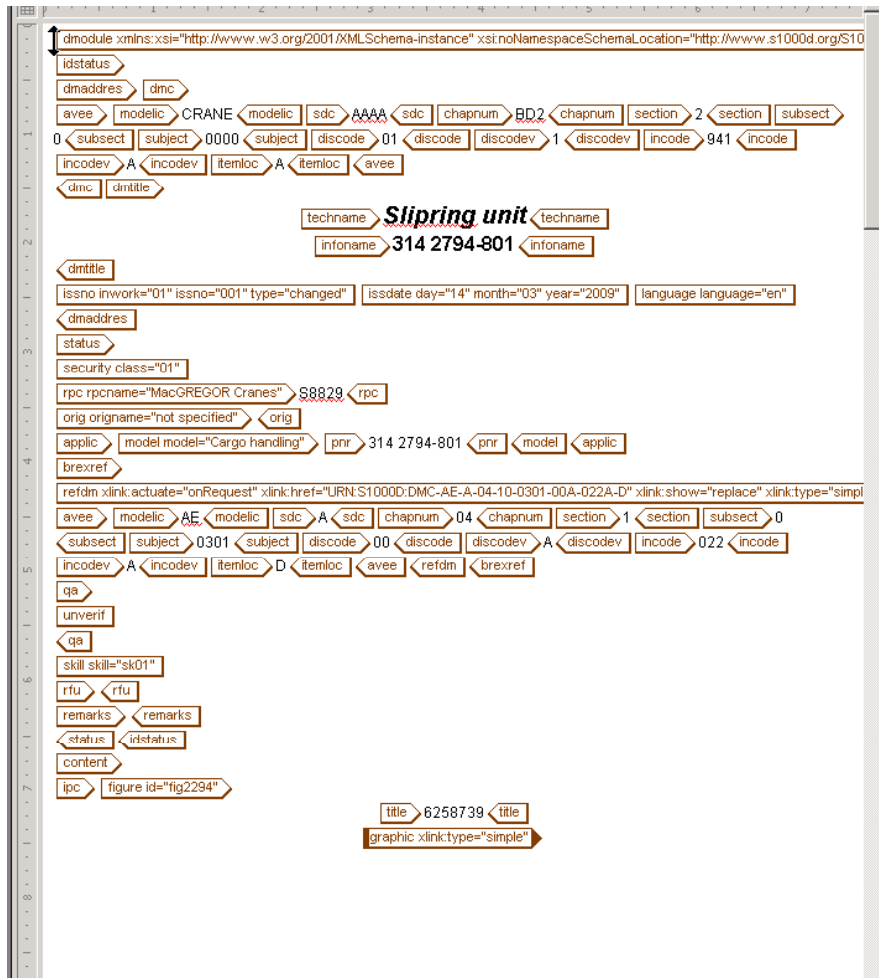
SNS Explorer

- Shipdex SNS Library
 - D Electrical system
 - J Ventilation and air condition
 - K Hydraulic systems
 - M Auxiliary
 - M4 Fuels and lubricants systems
 - M7 Machinery
 - M8 Cranes
 - M8-0 Cranes - General
 - M8-1 Crane house
 - M8-2 Jib
 - M8-3 Slewing
 - M8-30 Slewing - General
 - M8-31 Slewing bearing
 - M8-32 Slewing gear
 - M8-4 Platform
 - M8-5 Foundation
 - M8-6 Control system
 - M8-7 Lifting gear
 - M8-70 General
 - M8-71 Power swivel
 - M8-72 Hook
 - M8-73 Lifting block
 - M8-74 Lifting beam
 - M8-75 Grab
 - M8-76 Spreader
 - M8-8 Jib parking
 - M8-80 General
 - M8-81 Jib parking unit

Name	SNS	Status	Document Type
Slewing gear - 289 1546-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:4110
Slewing gear - 288 0867-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:8511
Slewing gear - 288 0867-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:S1000D IPD DTD XML Ship...
Slewing gear - 287 9304-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:10870
Slewing planetary gear box...	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:16494
Slewing gear - 287 8534-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:17736
Slewing gear - 289 1855-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:27737
Slewing gear - 287 8360-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:28558
Slewing gear - 287 8359-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:30393
Slewing gear - 288 0868-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:48965
Slewing gear - 288 2076-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:73824
Slewing gear - 289 5276-801	M8-32-0000	Accepted	S1000D IPD DTD XML Shipdex:108069

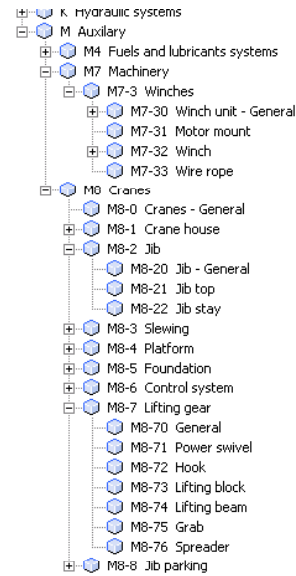
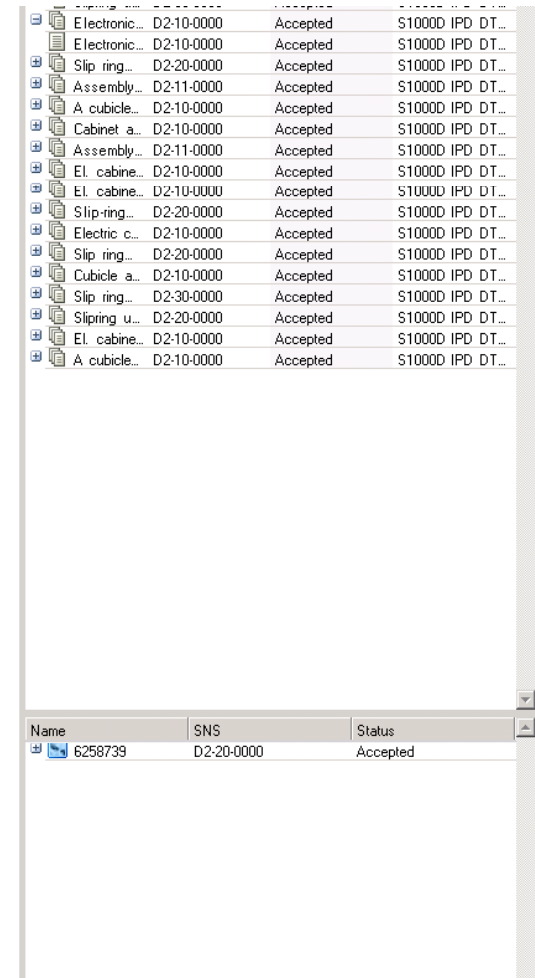
Name	SNS	Status
6253255033	M8-32-0000	Accepted

Data module in XML editor



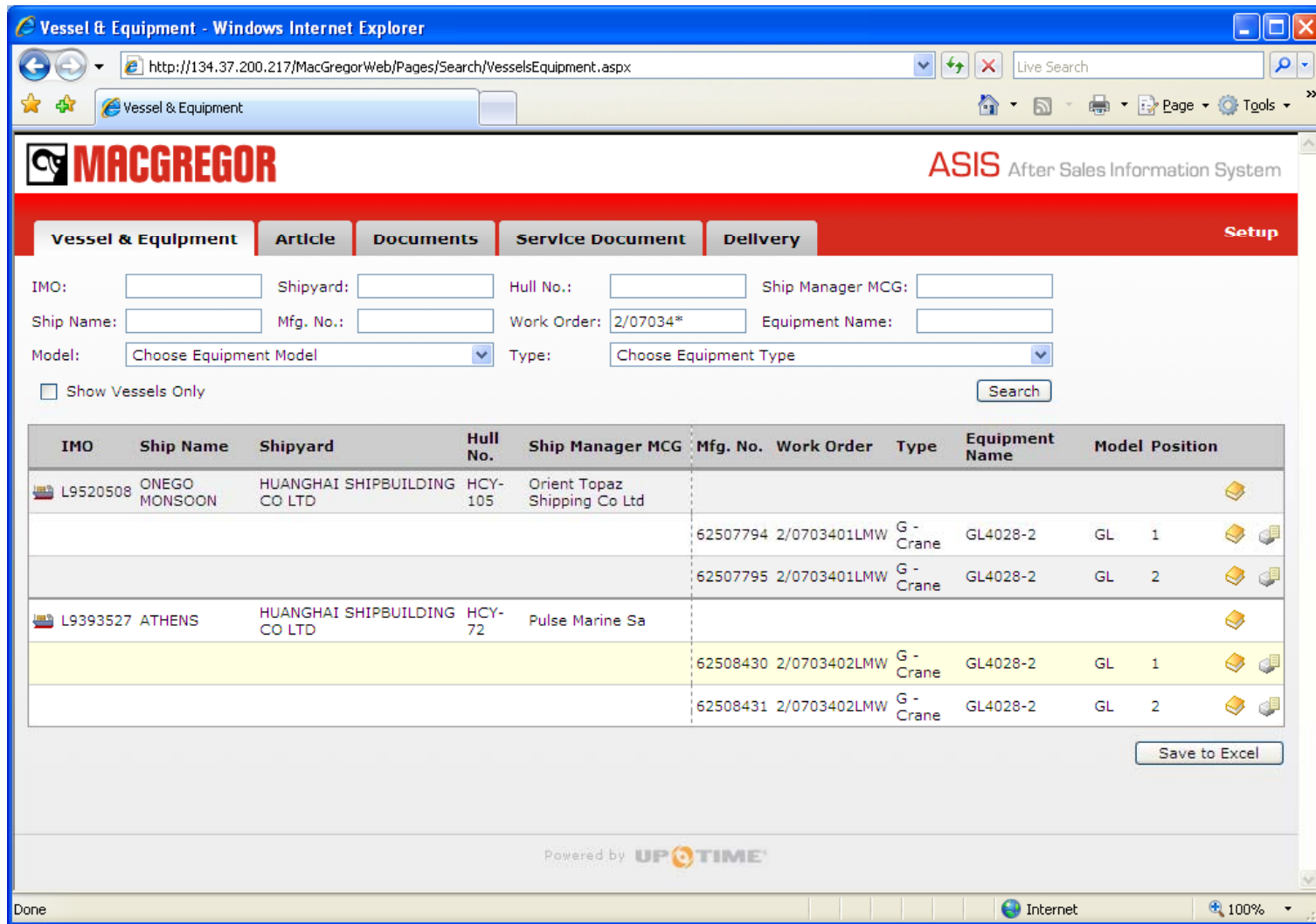
XML editor view of a data module. The structure includes:

- `dmaddress` containing `dmcode` (CRANE), `modelic` (AAAA), `sdcode` (BD2), `chapnum` (2), `section` (2), `subsect` (0), `subject` (0000), `discode` (01), `discodev` (1), `incode` (941), `incodev` (A), `itemloc` (A), `avee`.
- `dmtitle` containing `techname` (Slipring unit), `infoname` (314 2794-801).
- `dmaddress` containing `status`, `security class` (01), `rpc` (MacGREGOR Cranes), `orig` (not specified), `applic` (Cargo handling), `pnr` (314 2794-801), `model`, `brexref`.
- `refdm` containing `avee` (AE), `sdcode` (A), `chapnum` (04), `section` (1), `subsect` (0), `subject` (0301), `discode` (00), `discodev` (A), `incode` (022), `incodev` (A), `itemloc` (D), `avee`, `refdm`, `brexref`.
- `qa`, `unverif`, `qa`, `skill` (sk01), `rfu`, `remarks`, `status`, `idstatus`, `content`, `ipc` (figure id="fig2294").
- `title` (6258739), `graphic` (xlink:type="simple").

Name	SNS	Status
Electronic...	D2:10-0000	Accepted
Electronic...	D2:10-0000	Accepted
Slip ring...	D2:20-0000	Accepted
Assembly...	D2:11-0000	Accepted
A cubicle...	D2:10-0000	Accepted
Cabinet a...	D2:10-0000	Accepted
Assembly...	D2:11-0000	Accepted
El. cabine...	D2:10-0000	Accepted
El. cabine...	D2:10-0000	Accepted
Slip-ring...	D2:20-0000	Accepted
Electric c...	D2:10-0000	Accepted
Slip ring...	D2:20-0000	Accepted
Cubicle a...	D2:10-0000	Accepted
Slip ring...	D2:30-0000	Accepted
Slipring u...	D2:20-0000	Accepted
El. cabine...	D2:10-0000	Accepted
A cubicle...	D2:10-0000	Accepted

ASIS (After Sales Information System)



The screenshot shows a web browser window titled "Vessel & Equipment - Windows Internet Explorer". The address bar shows the URL: <http://134.37.200.217/MacGregorWeb/Pages/Search/VesselsEquipment.aspx>. The page header features the MacGregor logo and the text "ASIS After Sales Information System".

Below the header is a navigation bar with tabs: "Vessel & Equipment", "Article", "Documents", "Service Document", "Delivery", and "Setup".

The main content area contains search filters:

- IMO:
- Shipyard:
- Hull No.:
- Ship Manager MCG:
- Ship Name:
- Mfg. No.:
- Work Order:
- Equipment Name:
- Model:
- Type:

There is a checkbox for "Show Vessels Only" and a "Search" button.

The search results are displayed in a table:

IMO	Ship Name	Shipyard	Hull No.	Ship Manager MCG	Mfg. No.	Work Order	Type	Equipment Name	Model	Position
L9520508	ONEGO MONSOON	HUANGHAI SHIPBUILDING CO LTD	HCY-105	Orient Topaz Shipping Co Ltd	62507794	2/0703401LMW	G - Crane	GL4028-2	GL	1
					62507795	2/0703401LMW	G - Crane	GL4028-2	GL	2
L9393527	ATHENS	HUANGHAI SHIPBUILDING CO LTD	HCY-72	Pulse Marine Sa	62508430	2/0703402LMW	G - Crane	GL4028-2	GL	1
					62508431	2/0703402LMW	G - Crane	GL4028-2	GL	2

At the bottom right of the table area is a "Save to Excel" button. The footer of the page says "Powered by UP TIME".

Legacy Publication

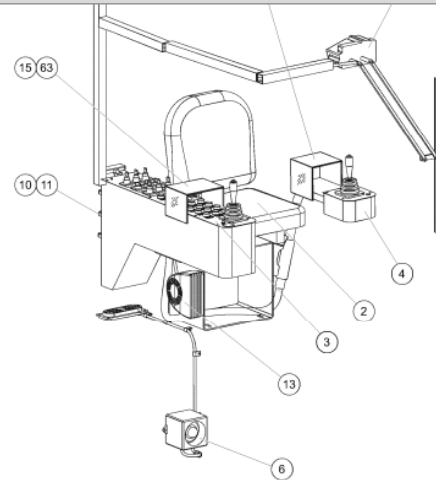
Publication - Windows Internet Explorer
 http://134.37.200.217/MacGregorWeb/Pages/Search/Publication.aspx?PubId=1616302&ProId=572

Publication Print Download as PDF

Applicability

Model Version Mfg. No. View

- 2/0703401LMW
 - 1 GENERAL
 - 2 TECHNICAL DESCRIPTION
 - 2.007.80 E TECHNICAL DESCRIPTION
 - 3 FUNCTION
 - 3.110.79 E HYDRAULIC FUNCTION
 - 3.131.22 E START AND STOP. ELECTRIC
 - 3.142.17 E CRANE CONTROL SYSTEM CC
 - 3.155.3 E THERMOSTATIC CONTROLLED
 - 4 OPERATION
 - 5 MAINTENANCE
 - 6 SERVICE
 - 9 SPARE PARTS
 - 9.0 HOW TO ORDER SPARE PARTS
 - 9.1 MACHINERY
 - 9.2 PUMP UNIT OIL COOLER
 - 9.3 MECHANICAL EQUIPMENT
 - 9.4 HYDRAULIC COMPONENTS
 - 9.5 ELECTRICAL COMPONENTS
 - Power supply - 324 0440-801, IPD
 - Driver's desk - 124 0722-801, IPD**
 - El.inst.jib light - 124 0620-801, IPD
 - El.inst.jib light (packing) - 124 0621-801, IPD
 - Controller. hoisting - 314 2005-802, IPD
 - Controller. luffing/slewing - 314 2006-801, IPD
 - Controller - 414 6792-801, IPD
 - Control panel right (ct3) - 224 0380-801, IPD
 - El. cabinet (ct1/ct2) - 224 0403-801, IPD
 - Assembly ct2-plate - 324 0925-801, IPD
 - Slipping unit - 314 3481-801, IPD
 - El.inst.cable connection - 324 1376, IPD
 - Electrical system - 324 1778, Diagram



124 0722-801
625-8563.044

Figure 1. 6258563044

Item	Qty	Unit	Part number	Description
000	1	pc	124 0722-801	Driver's desk
002	1	pc	488 6922-001	Driver's seat
003	1	pc	224 0380-801	Control panel right (ct3) SEE FIG. 625-8597.033
004	1	pc	414 6792-801	Controller SEE FIG. 625-8596
006	1	pc	314 3980-801	Siren
007	1	pc	5915 4262-002	Armature