

## JOWA CLEANTOIL 2005

The JOWA CLEANTOIL 2005 Oil Discharge Monitor is approved in accordance with the test and performance requirements for "third generation" monitors, according to IMO resolution MEPC 108(49).

### The MARPOL Requirements

The requirements of the MARPOL Convention are that all oil tankers with a gross tonnage of 150 GRT and above must have an oil discharge monitoring and control system installed, incorporating an approved oil content meter, with a starting interlock and an automatic overboard valve control system.

### MAIN FEATURES

- Oil content meter is certified to meet the requirements of IMO and MEPC 108(49)
- The measuring range is 0-1000 ppm
- Easy to operate, a minimum of buttons to press, and self explanatory menus.
- Robust, easy to install and easy to maintain
- A unique self-cleaning feature, making manual cleaning virtually unnecessary
- A high quality product. The components are designed for a lifetime in a rough environment

### The JOWA Group

JOWA has for many decades been a reliable supplier to the shipping industry of environmentally related equipment. We have oily water treatment series such as Oily Water Separator, Emulsion Breaking Unit, ODMCS; the water equipment series include Fresh Water Generator, Filter, AgS/UV Sterilizer, Sewage Treatment Plant, etc. Services are provided for Installation, Maintenance, Supervision and Commissioning of JOWA equipment either by our own staff or by our trained representatives worldwide.

We reserve the right to make changes without prior notice.

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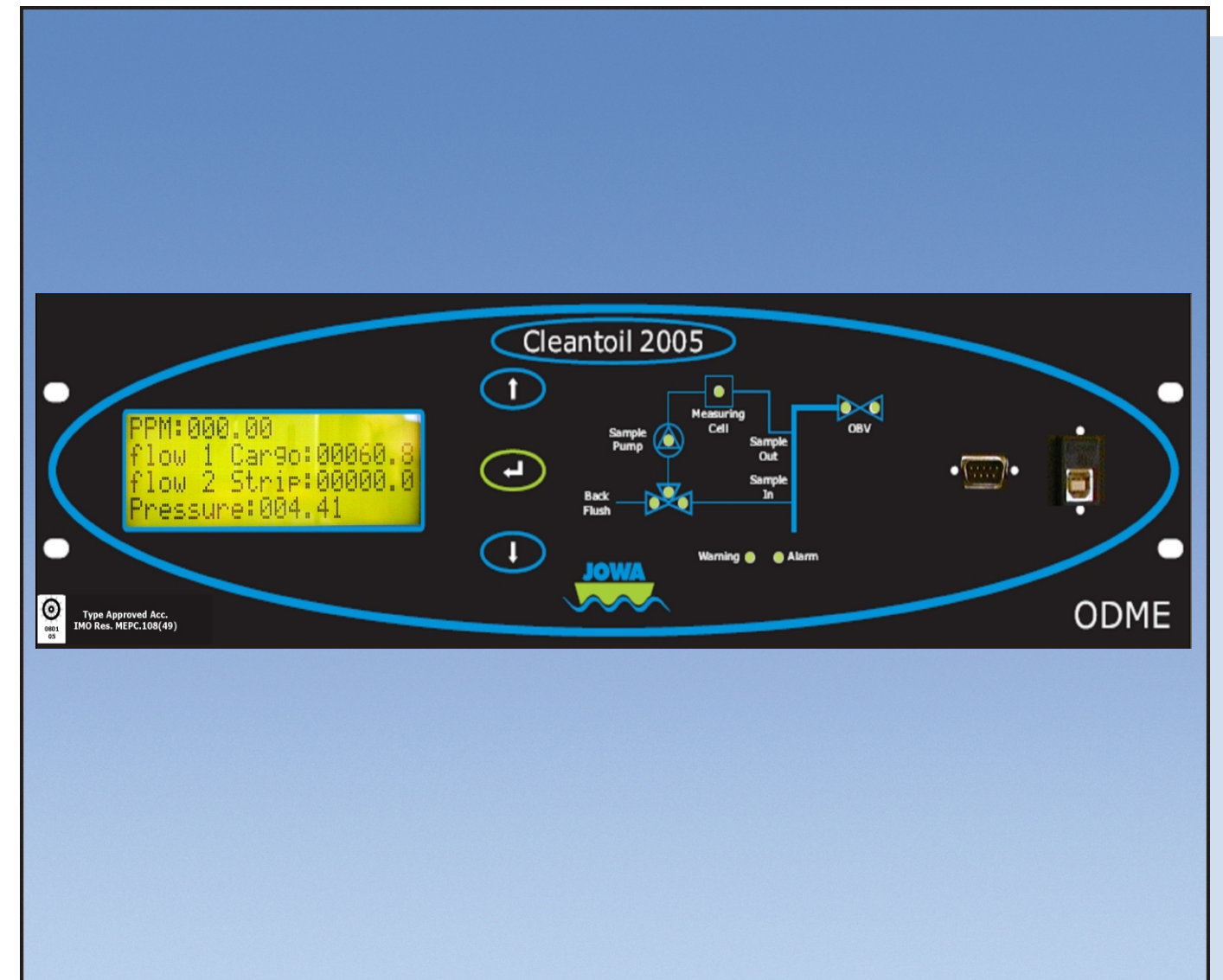
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# JOWA CLEANTOIL 2005 OIL DISCHARGE MONITORING AND CONTROL SYSTEM (ODMCS)



## Oil Discharge Monitoring and control System(ODMCS) consists of the following main parts:

**A computer unit** intended to be installed in the cargo control room or in an equivalent non-hazardous area. The computer unit controls and receives data from the other CLEANTOIL components. This data is stored in a flash memory, which could be displayed or printed out to an external computer or printer, according to the requirements of the IMO resolutions.

**A Zener barrier unit** intended to be installed in the engine room or equivalent safe area. The Zener barrier module converts electrical control signals from the computer unit to pneumatic or electrical supply signals for operation of the components that are a part of the CLEANTOIL 2005 equipment. The Zener barrier module contains electrical power supply and zener barriers for the analysing unit and for up to two 4-20mA loop powered flow meters.

**An Analysing unit** intended to be installed in the hazardous area. The analysing cabinet contains the oil content measuring unit, a sample feed pump of shear type, a fresh water valve for cleaning purposes and a pressure transmitter that monitors the sample flow through the measuring cell. This compact design makes it possible to install the unit close to the sampling point, which make the sampling pipes distance between the sampling probes and the analysing cabinet as short as possible.

## TYPE APPROVED ACCORDING TO IMO RESOLUTION MEPC108(49)

### Schematic Arrangements of System

