

## DYNAMIC TRIM/LIST & DRAFT SYSTEM

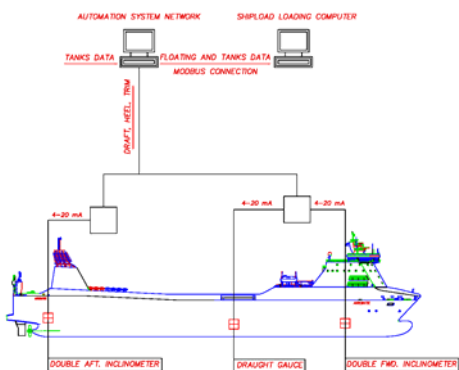
The Dynamic draft, trim and heel System developed and supplied by [AIMS srl – La Spezia](#) is designed to provide accurate static measurement of all draft values, as well as dynamic indication of trim and heel.

It is therefore possible for each draft to operate the vessel as close as possible to its optimum trim for highest fuel efficiency.

This possibility of dynamic monitoring of the trim is furthermore improving the safe operation of the vessel when operating in **shallow water or channels** when there is always a risk of onset of squat using too high engine power output.

Because the draft gauge is located amidship, far away from the fore and aft high pressure zones it will not be overstressed with very high renewal rates as usual for standard systems.

For even increased safety a remotely controlled valve directly operated from the screen page is fitted on the intake of the gauge



### System description

The system is composed by n.2 double inclinometer located one aft and one fore that can provide the indication of the inclination angles both on the longitudinal and transverse plans.

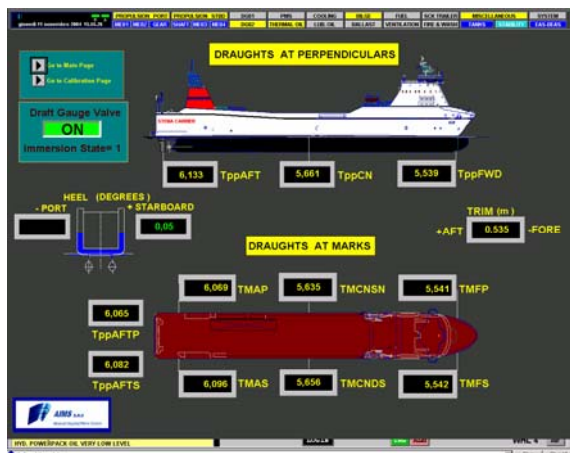
The output of these sensors is an analogic signal 4- 20 mA corresponding to  $-10^{\circ} + 10^{\circ}$  for the trim sensors and  $-30^{\circ} + 30^{\circ}$  for the heel sensors.

In addition a pressure sensor type draft gauge is located amidship to provide the indication of draft with an analogic output 4 –20 mA

The system can be integrated into every existing automation system

### Features

#### Static Mode



From the draft indication at all marks positions it is possible to carry out in harbour a very accurate draft survey that also takes into consideration the real deflection of the hull and for which a dedicated screen page can be defined.

#### Draft Survey Page

#### Dynamic Mode



Starting from the results of the draft survey it is possible to get from the online consumptions a continuous update of the displacement.

Based on the data from the towing tanks experiments the system can determine what is the best trim for fuel consumption optimization at such a displacement.

It will be then possible to ballast the vessel to match that trim. Obviously this operation can be automated for self adjustment at fixed time intervals.

#### Sailing Page