

## 'The Sentinel Boom offers an economical solution for integrity booming'

### What are the key features and benefits of this system?

- A comprehensive range of materials and sizes are available to meet all needs.
- Quick and easy deployment.
- The high buoyancy to weight ratio gives excellent wave following capability and heave response.
- The large water plane area of the buoyancy chamber enables the boom to maintain a maximum freeboard at all times.
- The smooth, continuous boom profile inhibits the formation of vortices, thereby discouraging oil loss under the boom.
- The boom's continuous cylindrical shape, coupled with low air inflation pressure, enhances flexibility and produces a very responsive containment system.
- The interface between the boom material and marine grade aluminium connector plate is achieved without puncturing the material, thus ensuring boom integrity.

[www.vikoma.com](http://www.vikoma.com)



88 Place Road  
Cowes  
Isle of Wight  
PO31 7AE  
United Kingdom

**VIKOMA UK HQ:**  
**Tel:** +44 (0)1983 200560  
**Fax:** +44 (0)1983 200561  
**email:** [sales@vikoma.com](mailto:sales@vikoma.com)

**VIKOMA RUSSIA & FSU:**  
**Tel:** +7 495 741 4817  
**Fax:** +7 495 741 4818  
**email:** [moscow@vikoma.com](mailto:moscow@vikoma.com)

**VIKOMA MIDDLE EAST:**  
**Tel:** +971 508 214979  
**Fax:** +971 255 27818  
**email:** [emirates@vikoma.com](mailto:emirates@vikoma.com)

**VIKOMA NORDIC:**  
**Tel:** +46 (0)31 744 3554/55  
**Fax:** +46 (0)31 223 556  
**email:** [nordic@vikoma.com](mailto:nordic@vikoma.com)

**VIKOMA ASIA PACIFIC:**  
**Tel:** +65 8288 3014  
**email:** [asiapacific@vikoma.com](mailto:asiapacific@vikoma.com)

As Vikoma has an ongoing development program, we reserve the right to amend the information contained in this brochure without prior notice. All quoted dimensions and quantities are nominal. If equipment is required for operation in Zoned areas, please contact Vikoma International Ltd

SE/B/3.03



## THE SENTINEL BOOM SYSTEM

A simple, high performance and versatile range of booms



# Vikoma

Technology for a Cleaner Environment

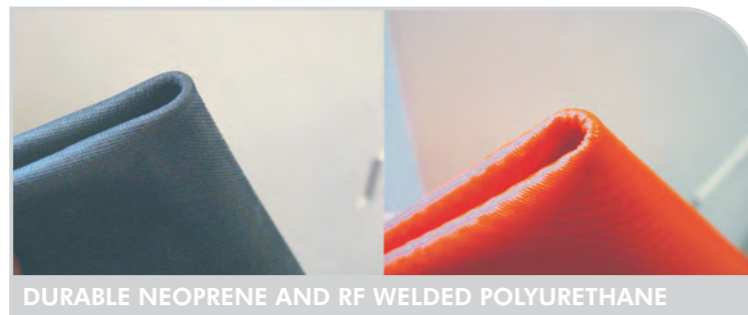
# THE SENTINEL BOOM SYSTEM

**What is it?** - The Sentinel boom system is a simple, high performance and versatile range of booms. It is the accepted alternative for customers who do not require the high integrity of a bulkhead design. The system complies with OPA90\* (boom) and with ASTM (Open Water). It comprises of between 250m and 300m of boom, depending on the size, a hydraulically driven boom reel, a portable air inflator and a weather protection cover.

**Where is it used?** - The Sentinel systems are designed for use in rivers, terminals and offshore environments.

## SENTINEL BOOM

**Material** - Sentinel boom is available in polyurethane and neoprene. The latter is increasingly the material of choice due to its abrasion resistance, high integrity, low life cycle costs and wide operational temperature range (-40°C to 90°C). All materials are very easy to clean, maintain and repair.



DURABLE NEOPRENE AND RF WELDED POLYURETHANE

**Design** - The boom is designed as a single tube of 25 metre section lengths (other lengths are available). The thermoplastic booms are Radio Frequency (RF) Welded and the neoprene booms are vulcanised (pressure and heat). Both of these manufacturing processes result in joints which are stronger than those produced by the inferior cold gluing process. The joints are also designed to eliminate failure by 'peel'. The boom skirt includes an enclosed ballast to maintain the continuous profile of the boom. This enclosure eliminates any possibility of snagging and hazards associated with exposed ballast. It also enhances the dual purpose of the ballast as both tension member and weight.

**Operation** - The boom is inflated through low profile, robust marine valves located at each end of the floatation member. With the use of "air tube interconnectors" it is possible to inflate the entire boom system from one end.

## REEL AND POWERPACK

The hydraulically driven reel has an external diesel powerpack driven by a single cylinder, air cooled diesel engine with electric start. The engine is fitted with an exhaust spark arrestor and an automatic over speed protection device. Operation of the reel spool is controlled from a single lever. The precise and smooth control of the reel is achieved by an hydraulic pressure compensated flow control valve, which incorporates anti-cavitation shock valves. Tandem hydraulic pumps on the power pack allow maximum utilisation of available engine power across the full range of reel speeds during deployment and recovery of boom. The robust planetary gearbox has an integral hydraulic motor and provides drive via a specially designed coupling. The design of this coupling ensures exceptional service life and reliability of the main gearbox bearings. The reel is supplied with ISO block corners, fork lifting pockets and four lifting eyes.



POWERFUL HYDRAULIC REEL MOTOR

## AIRPACK INFLATOR

The portable air inflator is designed for efficient inflation of Sentinel boom. The petrol driven unit is highly portable and is supplied with a shoulder strap, which makes it easy to use by one person.



PU SENTINEL BOOM DURING DEPLOYMENT



SENTINEL BOOM INTERCONNECTING HOSE



SENTINEL BOOM DEPLOYED WITH SKIMMER



SENTINEL BOOMS DEPLOYED AT TERMINAL



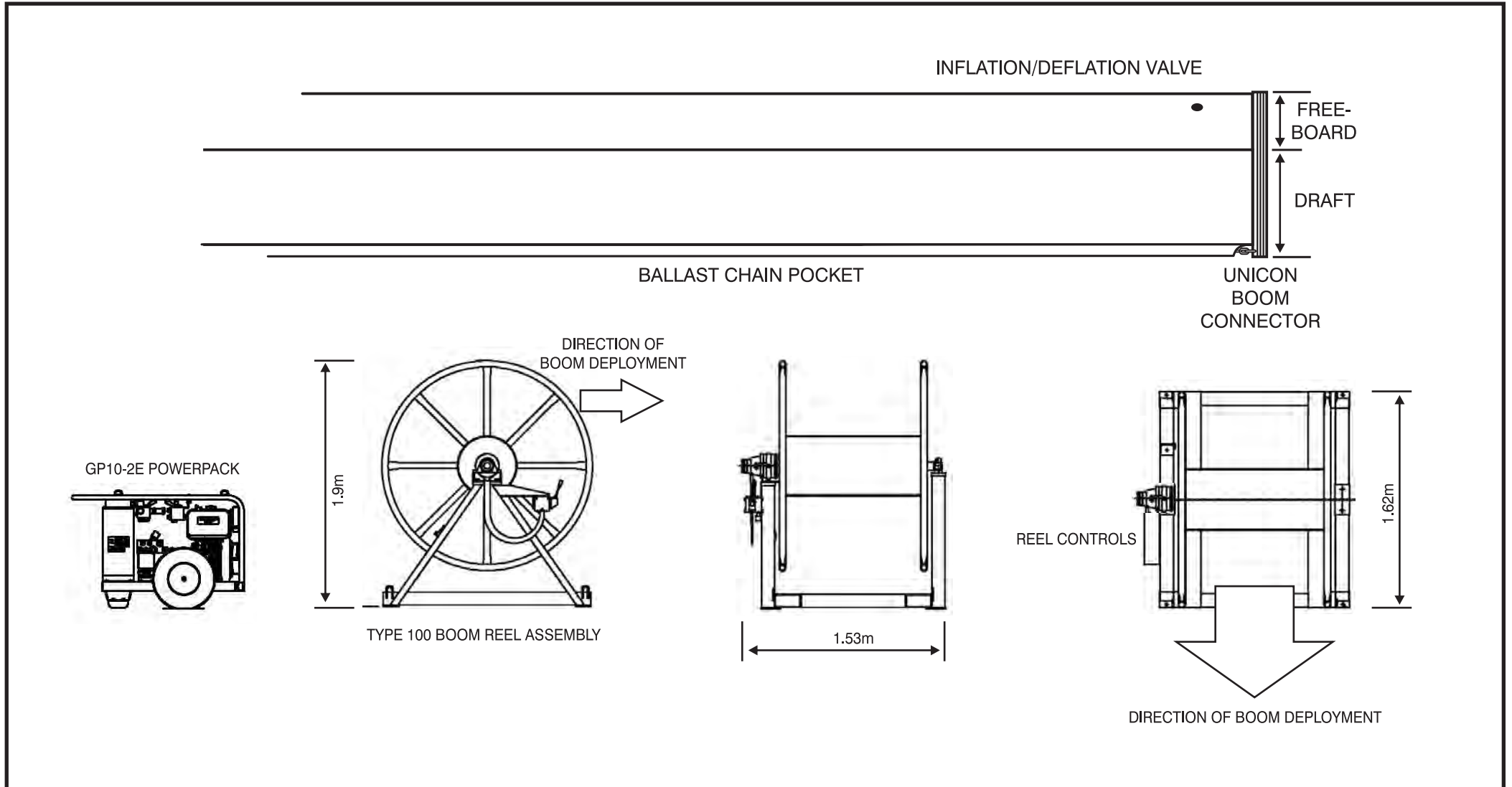
INFLATOR FOR SENTINEL BOOM

Technology for a Cleaner Environment

\* OPA 90 - Oil pollution Act of 1990  
\* ASTM - American Society for Testing and Materials

**Vikoma**

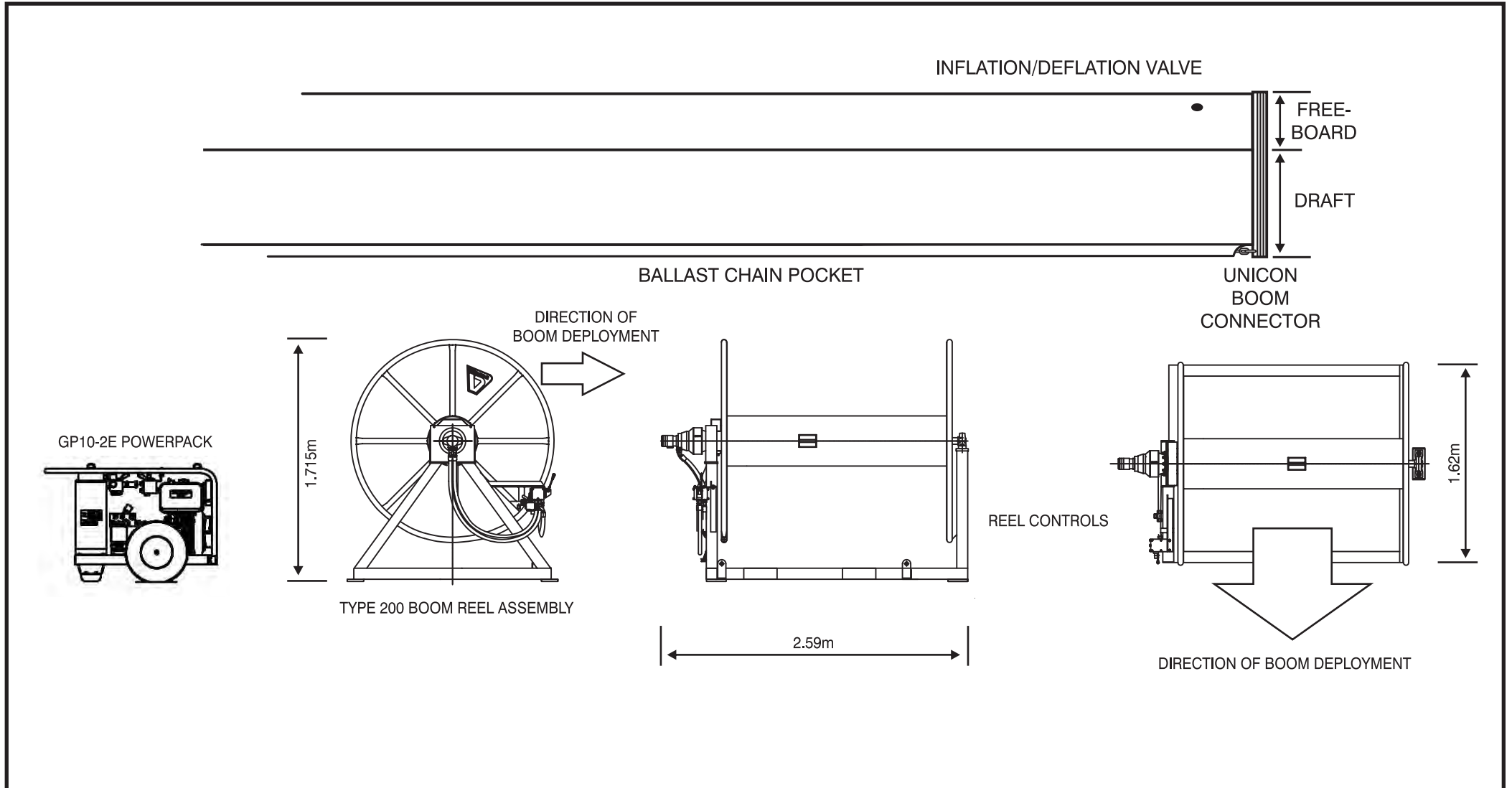
# SENTINEL 500 BOOM SYSTEM LAYOUT



<table border="1"> <tr> <td>ISSUE</td> <td>DATE</td> <td>CHANGE No.</td> </tr> <tr> <td>A</td> <td>13.06.06</td> <td>INTRODUCED</td> </tr> </table>			ISSUE	DATE	CHANGE No.	A	13.06.06	INTRODUCED	<p>CHANGE</p>	<p>DO NOT MODIFY MANUALLY</p>	<p>MATERIAL</p>	<p>SCALE</p> <p>DRAWN PK</p> <p>DATE 210307</p> <p>PRINT CHK'D NP</p>	<p>UNLESS OTHERWISE SPECIFIED</p> <p>ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SPECIFIED</p> <p>UNLESS OTHERWISE SPECIFIED</p>	<p>VIKOMA INTERNATIONAL LIMITED</p> <p>PROPERTY, DESIGN, CONSTRUCTION, AND ALL RIGHTS RESERVED. NO PARTS TO BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM.</p> <p>TITLE SENTINEL 500 BOOM SYSTEM LAYOUT</p>	<p>DRG. No. SE500/SL/3,01</p>
ISSUE	DATE	CHANGE No.													
A	13.06.06	INTRODUCED													

THIS DRAWING IS THE CONFIDENTIAL PROPERTY OF VIKOMA INTERNATIONAL LTD. AND MUST NOT BE REPRODUCED IN ANY MEDIA WITHOUT THE EXPRESS WRITTEN PERMISSION OF VIKOMA INTERNATIONAL LIMITED.

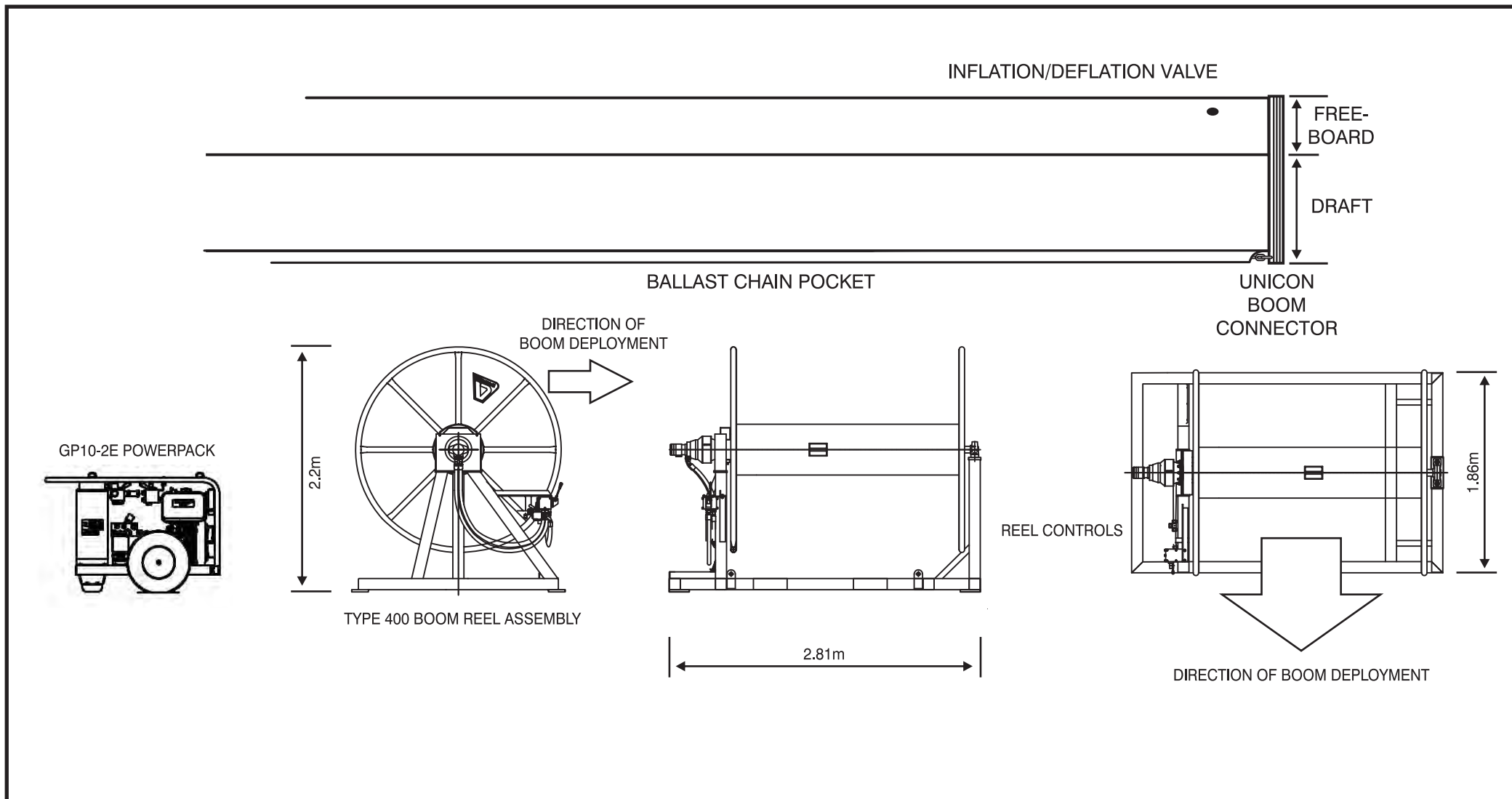
# SENTINEL 750 BOOM SYSTEM LAYOUT



<table border="1"> <tr> <td>ISSUE</td> <td>DATE</td> <td>CHANGE No.</td> </tr> <tr> <td>A</td> <td>13.06.06</td> <td>INTRODUCED</td> </tr> </table>			ISSUE	DATE	CHANGE No.	A	13.06.06	INTRODUCED	<p>CHANGE</p>	<p>DO NOT MODIFY MANUALLY</p>	<p>MATERIAL</p>	<p>SCALE</p> <p>DRAWN PK</p> <p>DATE 210307</p> <p>PRINT CHK'D NP</p>	<p>UNLESS OTHERWISE STATED</p> <p>PROPERTY OF VIKOMA INTERNATIONAL LIMITED</p> <p>ALL RIGHTS RESERVED</p> <p>NO PARTS TO BE REPRODUCED WITHOUT THE EXPRESS WRITTEN PERMISSION OF VIKOMA INTERNATIONAL LIMITED</p>	<p>VIKOMA INTERNATIONAL LIMITED</p> <p>PROPERTY OF VIKOMA INTERNATIONAL LIMITED</p> <p>TITLE SENTINEL 750 BOOM SYSTEM LAYOUT</p> <p>DRG. No. SE750/SL/3,01</p>
ISSUE	DATE	CHANGE No.												
A	13.06.06	INTRODUCED												

THIS DRAWING IS THE CONFIDENTIAL PROPERTY OF VIKOMA INTERNATIONAL LTD. AND MUST NOT BE REPRODUCED IN ANY MEDIA WITHOUT THE EXPRESS WRITTEN PERMISSION OF VIKOMA INTERNATIONAL LIMITED.

# SENTINEL 1100 BOOM SYSTEM LAYOUT



<table border="1"> <tr> <td>ISSUE</td> <td>DATE</td> <td>CHANGE No.</td> </tr> <tr> <td>A</td> <td>13.06.06</td> <td>INTRODUCED</td> </tr> </table>			ISSUE	DATE	CHANGE No.	A	13.06.06	INTRODUCED	<p>CHANGE</p>	<p>DO NOT MODIFY MANUALLY</p>	<p>MATERIAL</p>	<p>SCALE</p> <p>DRAWN PK</p> <p>DATE 210307</p> <p>PRINT CHK'D NP</p>	<p>UNLESS OTHERWISE STATED</p> <p>PROPERTY OF VIKOMA INTERNATIONAL LIMITED</p>	<p>VIKOMA INTERNATIONAL LIMITED</p> <p>PROPERTY OF VIKOMA INTERNATIONAL LIMITED</p> <p>TITLE SENTINEL 1100 BOOM SYSTEM LAYOUT</p>	<p>DRG. No. SE1100/SL/3.01</p>
ISSUE	DATE	CHANGE No.													
A	13.06.06	INTRODUCED													

THIS DRAWING IS THE CONFIDENTIAL PROPERTY OF VIKOMA INTERNATIONAL LTD. AND MUST NOT BE REPRODUCED IN ANY MEDIA WITHOUT THE EXPRESS WRITTEN PERMISSION OF VIKOMA INTERNATIONAL LIMITED.