Operation and Service Manual
for HERMetic DIP2
all versions

Note:
before using the instrument please read this book.

This document is subject to changes without notice.
Check updates on www.tanksystem.com or contact us at tanksystem@honeywell.com
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2. Recommendation for safe use

The HERMetic DIP Type 2 is designed for checking that the bottom of closed and inerted tanks is dry and free of deposits after crude oil washing. It consists of a graduated brass/stainless steel weight attached to a graduated stainless steel tape wound up on reel and an adapter for connecting a HERMetic valve. The operation is carried out with reduced escape of gas from the tank to the atmosphere.

The I.M.O. requirements on Tanker Safety and Pollution Prevention, 1978 - resolution A.446 (XI) - § 4.4.4 :

"Means such as level gauges, hand dipping, and stripping system performance gauges as referred to in paragraph 4.4.8. shall be provided for checking that the bottom of cargo tanks are dry after the crude oil washing. Suitable arrangements for hand dipping must be provided at the aftermost portion of a cargo tank and in three other suitable locations."

This Operation and Service Manual is a guide in order to help the user to operate the instrument safely and correctly.

Nevertheless the maker disclaims all responsibility and liability for damage resulting from the use of the equipment regardless of the cause of the damage.

This product and his use is / may be related to international, national, local or company regulations or standards. It is the customer / user responsibility to ensure that the way to use the device complies with such applicable regulations or standards.

This device is a portable product. It must not be permanently installed on the tank and must be disconnected after use and stored in a safe and dry area.
3. General information

3.1 Disclaimer

This manual is designed and written to provide information with regard to the subject matter involved. Enraf Tanksystem SA makes no warranty, express or implied, that it is fit for any purpose whatsoever; or to the absolute sufficiency of the material presented.

Enraf Tanksystem SA assumes no responsibility for any inaccuracies in reproduction or errors in interpretation of any authority. Enraf Tanksystem SA reserves the right to modify or amend this manual, without prior notification, but Enraf Tanksystem SA assumes no responsibility to update or issue corrections.

3.2 Shipment note

The following parts should be included in the shipment:
- 1 instrument;
- 1 Operation and Service Manual.

3.3 Initial inspection

Check the contents of the shipment for completeness and note whether any damage has occurred during transport. Carry out the "Initial test before installing the instrument" to verify the good functioning. If the contents are incomplete, or if there is damage, do not use the device. A claim should be filled with the carrier immediately, and Enraf Tanksystem SA Sales or Service organization should be notified in order to facilitate the repair or replacement of the instrument.

3.4 Documentation discrepancies

The design of the instrument is subject to continuous development and improvement. Consequently, the instrument may incorporate minor changes in detail from the information contained in the manual.

3.5 Warranty

The Vendor undertakes to remedy any defect resulting from faulty design materials or workmanship. The Vendor’s obligation is limited to the repair or replacement of such defective parts by his own plant or one of his authorized service stations. The Purchaser shall bear the cost and risk of transportation of defective parts and repaired parts supplied in replacement of such defective parts.

This warranty does not apply to those items which by their nature are subject to deterioration or consumption in normal service, and which must be cleaned, or replaced on a routine basis.

When returned to Enraf Tanksystem SA equipment must be contamination-free. If it is determined that the Purchaser’s equipment is contaminated, it will be returned to the Purchaser at the Purchaser’s expense. Contaminated equipment will not be repaired, replaced, or covered under any warranty until such time that the Purchaser decontaminates the said equipment.

The Purchaser shall notify by fax, telex or in writing of any defect immediately upon discovery, specifying the nature of the defect and/or the extend of the damage caused thereby.

Where no other conditions have been negotiated between the Vendor and the Purchaser "General Conditions 188" of United Nations shall apply.

Unauthorized repair or component replacement by non original spare parts by the Purchaser will void this guarantee and may impair the good functioning of the instrument.

This warranty is expressly in lieu of any and all warranties and representations expressed or implied, and all other obligations or liabilities on the part of the Vendor (Enraf Tanksystem SA) including but not limited to, the warranty of merchantability or fitness for a particular purpose.

In no event shall Enraf Tanksystem SA be liable for indirect, incidental or consequential loss or damage or failure of any kind connected with the use if its products or failure of its products to function or operate properly.

Enraf Tanksystem SA do not assume the indemnification for any accident or damage caused by the operation of its product and the warranty is limited to the replacement of parts or complete goods.
3.6 **Spare parts**

When ordering spares identify the spare part by TS number and description. Refer to section “Drawings”.

Some spares might be repairable; in this case send part to any authorized service center or to the factory.

In case of urgency replacement units can be available while stocks last.

3.7 **Service and Repair**

The customer should take care of the freight and customs clearance charges. If units are sent on “freight collect” the charges will be invoiced to the customer.

When returning units or parts for repair to the factory please fill out a service request form (see next page).

When returned to Enraf Tanksystem SA equipment must be contamination-free. If it is determined that the customers equipment is contaminated, it will be returned to the customer at the customers expense. Contaminated equipment will not be repaired until such time that the customer decontaminates the said equipment.
<table>
<thead>
<tr>
<th><strong>Service Request</strong></th>
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<td><strong>Customer's address:</strong> .................................................................</td>
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</tr>
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</tr>
<tr>
<td><strong>Fax:</strong> ...............................................................................................</td>
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<td><strong>Type of unit or part:</strong> .................................................................</td>
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<tr>
<td>........................................................................................................</td>
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<tr>
<td><strong>Short description of defective unit or part:</strong> .................................</td>
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<tr>
<td>........................................................................................................</td>
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<tr>
<td><strong>Do you want a quotation before repair is started:</strong> yes / no ..........</td>
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<td><strong>Repaired unit has to be returned to the following address:</strong> ..........</td>
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<tr>
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4. Worldwide Service Stations network

The updated list can be found on our website www.tanksystem.com

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<thead>
<tr>
<th>COUNTRY</th>
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</tr>
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<tbody>
<tr>
<td>SWITZERLAND</td>
<td>ENRAF TANKSYSTEM SA</td>
<td>Tel : +41-26-91 91 500</td>
</tr>
<tr>
<td></td>
<td>2, rue de l'Industrie</td>
<td>Fax : +41-26-91 91 505</td>
</tr>
<tr>
<td></td>
<td>CH-1630 BULLE</td>
<td><a href="mailto:Tanksystem@honeywell.com">Tanksystem@honeywell.com</a></td>
</tr>
<tr>
<td>CANADA</td>
<td>PYLON ATLANTIC</td>
<td>Tel : +1-902-4683344</td>
</tr>
<tr>
<td></td>
<td>A Div. Of Pylon Electronics Inc.</td>
<td>Fax : +1-902-4681203</td>
</tr>
<tr>
<td></td>
<td>31 Trider Crescent., DARTMOUTH, N.S. B3B 1V6</td>
<td><a href="mailto:halifax_csr@pylonelectronics.com">halifax_csr@pylonelectronics.com</a></td>
</tr>
<tr>
<td>CHINA</td>
<td>HUA HAI EQUIPMENT &amp; ENGINEERING CO LTD</td>
<td>Tel : +86-21-68183183</td>
</tr>
<tr>
<td></td>
<td>Factory 7, Lane 1365, East Kang Qiao Road Kang Qiao Industrial Zone, Pu Dong SHANGHAI, P.C. 201315</td>
<td>Fax : +86-21-68183115</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:huahaish@huahaiee.com">huahaish@huahaiee.com</a></td>
</tr>
<tr>
<td>GREECE</td>
<td>SPANMARIN</td>
<td>Tel : +30-210-4294498</td>
</tr>
<tr>
<td></td>
<td>86, Filonos Street</td>
<td>Fax : +30-210-4294495</td>
</tr>
<tr>
<td></td>
<td>GR-185 36 PIRAEUS</td>
<td><a href="mailto:spanmarin@ath.forthnet.gr">spanmarin@ath.forthnet.gr</a></td>
</tr>
<tr>
<td>JAPAN</td>
<td>DAIWA HANBAI CORPORATION LTD</td>
<td>Tel : +81-6-64714701</td>
</tr>
<tr>
<td></td>
<td>2-10-31, Mitejima, Nishiyodogawa-ku OSAKA 555-0012</td>
<td>Fax : +81-6-64729008</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:daiwa471@silver.ocn.ne.jp">daiwa471@silver.ocn.ne.jp</a></td>
</tr>
<tr>
<td>KOREA</td>
<td>World Ocean CO., LTD</td>
<td>Tel : +82-51-462-2554/5</td>
</tr>
<tr>
<td></td>
<td>Rm1001, Hae-deok Bldg., 1212-11</td>
<td>Fax : +82-51-462-0468</td>
</tr>
<tr>
<td></td>
<td>Choryang-dong Dong-Gu BUSAN</td>
<td><a href="mailto:marine@worldocean.co.kr">marine@worldocean.co.kr</a></td>
</tr>
<tr>
<td>MEXICO</td>
<td>URBAN DEL GOLFO S.A. DE C.V.</td>
<td>Tel : +52-833-2170190</td>
</tr>
<tr>
<td></td>
<td>Ave. Ejército Mexicano 1902 Col. Loma del Gallo 89460 CD. MADERO, TAMPS. MEXICO</td>
<td>Fax : +52-833-2170190</td>
</tr>
<tr>
<td></td>
<td></td>
<td><a href="mailto:urbansa@prodigy.net.mx">urbansa@prodigy.net.mx</a></td>
</tr>
<tr>
<td>NETHERLANDS</td>
<td>B.V. TECHNISCH BUREAU</td>
<td>Tel : +31-10-4114614</td>
</tr>
<tr>
<td></td>
<td>UITTENBOGAART</td>
<td>Fax : +31-10-4141004</td>
</tr>
<tr>
<td></td>
<td>Brugwachter 13</td>
<td><a href="mailto:info@tbu.nl">info@tbu.nl</a></td>
</tr>
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</table>
The updated list can be found on our website www.tanksystem.com

<table>
<thead>
<tr>
<th>COUNTRY</th>
<th>ADDRESS</th>
<th>TELEPHONE/FAX/E-MAIL</th>
</tr>
</thead>
</table>
| PORTUGAL          | CONTROLIS                                                                | Tel : +351-21-2740606  
Rua Conceiçao Sameiro Antunes, 26E  
2800-379 COVA DA PIEDADE | Fax : +351-21-2740897  
controlis@netc.pt |
| RUSSIA            | NPP "GERDA"                                                              | Tel : +7-495-7558845  
Vilisa Latsisa str. 17  
Building 1  
125480 MOSCOW | Fax : +7-495-7558846  
info@gerda.ru |
| SINGAPORE         | HUBBELL INT'L (1976) PTE LTD                                             | Tel : +65-6-2557281  
322 Thomson Road  
SINGAPORE 307665 | Tel : +65-6-2550464  
Fax : +65-6-2532098  
hubbell@mbox2.singnet.com.sg |
| SPAIN             | E.N.I.                                                                  | Tel : +34-94-4746263  
Electronica y Neumatica Industrial, S.A.  
C/Jon Arrospide, 20 (Int.)  
48014 BILBAO | Fax : +34-94-4745868  
eni.tecnica@eni.es |
| SWEDEN            | INSTRUMENTKONTROLL                                                       | Tel : +46-31-240510  
Lars Petersson AB  
Varholmsgatan 1  
414 74 GÖTEBORG | Tel : +46-31-240525  
Fax : +46-31-243710  
Info@instrumentkontroll.se |
| TURKEY            | YEDI DENIZ                                                               | Tel : +90.212.251 64 10 / 3 lines  
Setustu, Izzetpasa Yok.1  
TR 34427 Kabatas ISTANBUL | Fax : +90.212.251 05 75  
servicestation@yedideniz.net |
| UNITED ARAB        | MARITRONICS TRADING L.L.C.                                               | Tel : +971-4-3247500  
P.O. Box 6488  
Shed # 72, Jadaf Ship Docking Yard  
DUBAI | Fax : +971-4-3242500  
service@maritronics.com |
| KINGDOM           | ENERGY MARINE (INTERNATIONAL) LTD.                                      | Tel : +44-1525-851234  
12 Clipstone Brook Industrial Estate  
Cherry court Way  
LEIGHTON BUZZARD, BEDS LU7 4TX | Fax : +44-1525-852345  
info@engmar.com |
| U.S.A / TEXAS      | HONEYWELL HERMETIC                                                      | Tel : +1-281-930 1777  
4522 Center Street  
DEER PARK, TX 77536 | Fax : +1-281-930 1222  
Toll free call in the USA:  
1-800-900 1778  
hermetic@honeywell.com |
5. Operation

1. install the HERMetic DIP2 on the HERMetic valve via the quick coupling device.

2. Open the valve.

3. Lower the dipping rod into the tank down to reaching the bottom. Looking to the tape graduation and feeling the weight dropping off the hand line will allow the operator to evaluate when the level indicating rod is reaching the tank bottom.

4. Once the rod is touching the bottom of the tank, the presence of deposits can be determined by giving out slightly more tape.

5. If the dip remains in the vertical position, that means it has penetrated deposits.

6. If it tilts on the side, no deposits are present, providing they are not too hard for the dip to penetrate in or not too soft for the dip to remain standing up.

7. After this check rewind the dipping rod into its storage tube.

8. Close the valve.

9. Disconnect the DIP2.

10. Clean the DIP 2 before the next check.
6. Maintenance

6.1 Care

For long service life, maintain the HERMetic DIP 2 clean and well lubricated and, when not in use, store it in a dry and protected location.

The spring loaded coupling and mating Valve quick-connect nipple must be kept free of corrosion.

If grease is used for this purpose, it must be one which contains graphite.

When ordering spare parts, always state the drawing and the item number.
# 7. Drawings

<table>
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<tr>
<th>ND</th>
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<tr>
<td>20194</td>
<td>10035</td>
<td>Dip 2 30 meters</td>
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<td>Dip 2 40 meters</td>
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<tr>
<td>30866</td>
<td>19019</td>
<td>Frame assy tape 30 m</td>
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<td>19506</td>
<td>Dipping rod assy</td>
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<tr>
<td>41039</td>
<td>22564</td>
<td>Adaptor 1”/2”</td>
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</table>
Frame assy tape 30 m

This drawing is our property and must not without our permission be copied or made available to others. The receiver is responsible for every misuse.
Bande coupée à 529 mm
Tape cut at 529 mm

COUPE A-A

<table>
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<td>2</td>
<td>1</td>
<td>1.4</td>
<td>Clasp for swivel hook</td>
<td>1.4305</td>
<td>20555</td>
<td>41363</td>
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<tr>
<td>3</td>
<td>2</td>
<td>0.1</td>
<td>Rivet ø 2 x 2.1</td>
<td>A2</td>
<td>-</td>
<td>41367</td>
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TOLERANCES UNLESS OTHERWISE SPECIFIED

Weight: 644.9 Eff.

MPSA 1000

Issue: 2 : 17.7.2008

Removal of burrs and sharp edges

1:1

Enraf Tanksystem SA
RUE DE L’INDUSTRIE 2 CH-1630 BULLE
Tel. +41 26 91 91 500 - Fax +41 26 91 91 505

This drawing is our property and must not without our permission be copied or made available to others. The receiver is responsible for every misuse.
**Coupe A-A**

- **Bande coupée à 529 mm**
  - Tape cut at 529 mm

**Table:**

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<th>Material</th>
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<td>Clasp for swivel hook</td>
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**TOLERANCES UNLESS OTHERWISE SPECIFIED**

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**Dimensions:**

- **6 mm**
- **Ø 4.2 mm**

**Notes:**

- **REMOVE ALL BURRS AND SHARP EDGES**
- **Hermetic Dip 2**
- **Tape Assy 40 m**

**Permission:**

- This drawing is our property and must not without our permission be copied or made available to others.
- The receiver is responsible for every misuse.

**Enraf Tanksystem SA**

**Address:**

- Rue de l'Industrie 2 CH-1630 Bulle

**Contact:**

- Tel. +41 26 91 91 500 - Fax +41 26 91 91 505
### HERMetic Dip 2

**Frame with crank assy**

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<td>7</td>
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<td>Flat small head socket screw M 6x10</td>
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**TOLERANCES UNLESS OTHERWISE SPECIFIED**

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**Weight:** 286.2 Eff.

**REMOVED ALL BURRS AND SHARP EDGES**

**Issue 1: 17.7.2008**

**Control:**

**Drawn:** CPI 18.07.2008

**Enraf Tansystem SA**

RUE DE L'INDUSTRIE 2 CH-1630 BULLE

Tel. +41 26 91 91 500 - Fax +41 26 91 91 505
Meulé après montage

Grinded after assembly

COTE DE CONTROLE 100

DÉTAIL B
ECHELLE 2 : 1

Hermetic Dip 2
Dipping rod assy

This drawing is our property and must not without our permission be copied or made available to others. The receiver is responsible for every misuse.