New Edifact Message Type
VERMAS – Verification of Gross Mass

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Draft for new Edifact Message Type
VERMAS – Verification of Mass

In this presentation

• New SOLAS regulation + IMO guidelines
• Business requirements
• Existing Edifact messages
• New VERMAS message: Use cases
• New message: Final structure
• Time line – Next steps
IMO Guidelines Regarding The Verified Gross Mass of a Container Carrying Cargo (SOLAS chapter VI, part A, regulation 2)

The SOLAS Convention has been ratified by 162 contracting states. SOLAS represents 99% of the tonnage of the global merchant fleet.

The SOLAS Convention is Binding International Law even without extra National Legislation.

The SOLAS amendments become effective on 1 July 2016
1. The **Shipper is responsible** for providing a Verified Gross Mass (VGM) for each full container. He may decide between two methods: 1) to weigh the packed container or 2) to add the weight of all cargo items plus the weight of the packing material plus the tare weight of the container.

2. The VGM can only be ascertained for a completely **packed container**.

3. The shipper may **delegate** the actual procedure of ascertaining the VGM to a 3rd party, for example a weighing facility at an inland depot or at a terminal. This does not release the shipper from his responsibility according to 1 above.

4. The terminal **must not load** a packed container on a SOLAS ocean vessel as long as it is not in possession of its VGM.

5. The **vessel command** must not accept a packed container on board until they have been informed about its VGM.

6. The VGM is part of shipping documents. Besides the weight itself, the **name of the responsible person authorized by the Shipper** must be contained.

7. A container status may change from “VGM not available” to “VGM available”. An existing VGM may be revised by means of EDI messages.

8. EDI messages must be able to distinguish “VGM” and “gross mass without verification”.

9. The typical reporting chains is: Shipper ➔ Carrier ➔ Terminal ➔ Vessel but different variants are possible.

*Additional information can be found on:* [http://www.worldshipping.org/industry-issues/safety/cargo-weight](http://www.worldshipping.org/industry-issues/safety/cargo-weight)
Why are these guidelines needed? Example MSC NAPOLI

We remember as MSC, a BIG SHIP DISASTER...
Jan 17° 2007...
...on ENGLISH CHANNEL (named in Italian «La Manica»)...
...MSC NAPOLI had a BIG PROBLEM with Weather...
...On Jan 18°, she began to break hull.

“...around 660 containers stowed on deck, which had remained dry, were also weighed. Of these containers, 137 of them (that is, around 20%) weighed at least 3 tons more than their declared weight.
The largest difference was 20 tons, and the total weight of the 137 containers was 312 tons heavier than on the cargo manifest, according to the report into the investigation of the structural failure of the vessel by the UK Marine Accident Investigation Branch (MAIB)”
Why are these guidelines needed? Example MSC NAPOLI

Weight Difference Problem
- Container Overload – E.D.I. to approach SOLAS

© Copyright MSC Mediterranean Shipping Company S.A.
Stability incident at Bremerhaven

- container feeder HUSKY RACER at Bremerhaven on 2 Oct. 2009
- containers on deck had been unleashed upon arrival
- discharge started from holds upon ships request (repair intended)
- the consequence was a reduced stability
- heavy rolling of the ship occurred, when discharge from deck in outside position started
- 26 containers toppled, 18 containers were lost overboard
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Why are these guidelines needed? Example HUSKY RACER

Hansestadt Bremlisches Hafenamt
Business requirements resulting from the IMO Guidelines

**Standard reporting chain:**
Shipper ➔ Carrier ➔ Terminal ➔ Vessel

**Non-standard reporting chains possible:**
- Weighing facility ➔ Party ordering the weighing service
- Weighing facility ➔ Terminal (if so agreed by the business parties)
- Shipper ➔ Terminal ➔ Carrier (if the Shipper has a business relationship with the terminal)
- Terminal ➔ Carrier ➔ Shipper (if re-weighed)

The detailed business requirements and the possible VGM reporting chains are not clear yet, they might differ in various countries. But the VERMAS has to be made available now, in order to meet the deadline.
**SMDG Activities**

The structure of following messages is being enhanced by the SMDG in order to enable VGM reporting. New versions have been published. Details on [www.smdg.org](http://www.smdg.org)

<table>
<thead>
<tr>
<th>Message</th>
<th>Activity</th>
<th>Purpose</th>
<th>Sender-Receiver</th>
</tr>
</thead>
<tbody>
<tr>
<td>BAPLIE</td>
<td>Enhanced</td>
<td>Stowage Plan</td>
<td>Carrier &lt;&gt; Terminal</td>
</tr>
<tr>
<td>MOVINS</td>
<td>No change</td>
<td>Move Instructions</td>
<td>Carrier &gt; Terminal</td>
</tr>
<tr>
<td>COPARN</td>
<td>Enhanced</td>
<td>Pre-arrival notice</td>
<td>Carrier &gt; Terminal</td>
</tr>
<tr>
<td>COPRAR</td>
<td>Enhanced</td>
<td>Load List</td>
<td>Carrier &gt; Terminal</td>
</tr>
<tr>
<td>CODECO</td>
<td>Enhanced</td>
<td>Gate-In confirmation</td>
<td>Terminal &gt; Carrier</td>
</tr>
<tr>
<td>COARRI</td>
<td>Enhanced</td>
<td>Load/Discharge</td>
<td>Terminal &gt; Carrier</td>
</tr>
<tr>
<td>VERMAS</td>
<td>New development</td>
<td>VGM Reporting</td>
<td>Between various parties in the transport chain</td>
</tr>
</tbody>
</table>
Scope of the new message VERMAS
To transmit the verified gross mass (the weight) and all details of the related weighing certificate for a packed container including the name of the authorized person. It is a legal requirement that all parties along the transport chain are informed about the Verified Gross Mass of the container: Shipper, Carrier, Vessel Operator, Terminal and the vessel itself.

Different process steps
Unlike other EDIFACT messages, the VERMAS is not dedicated to a certain process step in the transport chain. It can be used by different parties at different times in the process chain.

Not to use as an order
The VERMAS purpose is only to report a weight that was determined earlier. It will not be used to order a service such as weighing a container. For the purpose of ordering services, for example the COHAOR should be used.
Why a completely new message?

1. New processes
There are new process steps that are not covered by existing message types. For example, reporting from a weighing station to the shipper, or the weight from the terminal to the carrier or from the carrier to the shipper.

2. Different timing for weight transmission in current messages
In many cases the existing messages are sent at a different time than the weight is known or is needed. The existing messages are sent too early or too late for transmission of the VGM.

3. One new message easier than changing many existing messages
Shippers, carriers and terminals need to change a large number of message versions on a fixed date. Many of them find it easier to implement one new message for this special purpose of VGM reporting than upgrading many existing message versions and test simultaneously with many EDI partners.

4. Message identification determines the purpose
The receiver can detect the purpose (VGM update) from the message identification VERMAS. He does not have to go into the message to detect the function.
Use cases for the new message
Just examples – detailed list in separate document

<table>
<thead>
<tr>
<th>Sender</th>
<th>Receiver</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Shipper</td>
<td>Carrier (Shipping Line)</td>
<td>• If the shipping instructions are sent too early, when the VGM is not yet known. • If the shipping instructions are sent too late, when the container is already at the terminal. ➔ In these cases the timing of existing messages is not suitable.</td>
</tr>
<tr>
<td>2 Carrier</td>
<td>Terminal</td>
<td>Update of an earlier transmitted gross mass, if received from the shipper after the load list was sent. ➔ Only the VGM for one container shall be transmitted.</td>
</tr>
<tr>
<td>3 Weighing station</td>
<td>Shipper</td>
<td>If the shipper ordered the weighing service. ➔ New process, not covered by existing messages.</td>
</tr>
<tr>
<td>4 Weighing station</td>
<td>Carrier</td>
<td>If the shipper has authorized the weighing station to transmit. ➔ New process, not covered by existing messages.</td>
</tr>
<tr>
<td>5 Terminal</td>
<td>Shipper or Carrier</td>
<td>If the terminal weighed the container upon arrival and determined a new VGM. ➔ New process, not covered by existing messages.</td>
</tr>
</tbody>
</table>
Sender and Receiver of the new message

**Sender**
The party who has knowledge about the verified gross mass. This can be for example:

a) The shipper who has stuffed the container and verified the gross weight.
b) The operator of a weighing facility who has weighed the packed container.
c) The vessel operator or the terminal who forwards the verified gross weight to another party in the transport chain.

**Receiver**
The party who requires the verified gross mass. This can be for example:

a) The party who has ordered the service of weighing the packed container.
b) The vessel operator, or the terminal, or the vessel itself.

*The VERMAS message is an offer to the maritime industry and its usage is left to agreements between the trading partners.*
Who should use the new message?

The VERMAS message is an offer to the maritime industry and its usage is left to agreements between the trading partners.

It is by no means mandatory to use the VERMAS. If the trading partners are happy to use the enhanced versions of IFTMIN, COPRAR, CODECO etc for VGM transmission they may of course do so. Only if that is not suitable, they may decide to exchange the VERMAS in addition.
Who supports the development of the new message?

The VERMAS development is strongly supported by all shipping lines and container terminals that are participating in the SMDG, namely:

- CMA CGM
- DP World
- ECT Rotterdam
- Eurogate terminals
- Hamburg Süd
- Hapag-Lloyd
- HHLA Hamburg
- Maersk Lines
- MSC Mediterranean Shipping Company
- INTTRA

In addition the WSC World Shipping Council looks forward to the progression of the VERMAS message development. The shippers and booking portals are not members of the SMDG but they are going to welcome the new message to cover the legal requirements.
For each container, the message can hold:

• The unique **container ID** (e.g. HLXU1234567) and its size/type.
• The **Verified Gross Mass** in kilogram or lbs.
• All **details** that a paper **certificate** would show: date and place of weighing, the responsible company, method used (1 or 2 according to SOLAS), reference number etc.
• The name of the **authorized person** in capital letters, as electronic equivalent of the signature.
• Reference to a particular **transport order or purchase order**, by means of booking number, B/L number, seal number, port of loading, port of discharge, vessel name, voyage number etc.
• Related **transport parties**: Shipper, carrier, terminal, weighing facility.

_Only the container ID and the VGM itself are mandatory._
_All other data elements are optional, depending on the business context._
Draft for new Edifact Message Type
VERMAS – Verification of Mass

**Content of the message page 1/2.** One message may contain *multiple* containers.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Data element</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Message sender</td>
<td>Indicating the party function of the sender</td>
<td></td>
</tr>
<tr>
<td>Shipper</td>
<td>Company name, address and contact</td>
<td>Party responsible to provide the VGM as per SOLAS</td>
</tr>
<tr>
<td>Authorized person at the Shipper</td>
<td>Responsible person at the Shipper, with contact details</td>
<td>Name in capitals</td>
</tr>
<tr>
<td>Weighing station</td>
<td>The party that has actually ascertained the weight, with address and contact details</td>
<td>E.g. the weighing station in case of method 1 or the party that has performed the VGM calculation in case of method 2</td>
</tr>
<tr>
<td>Generic reference to VGM documentation</td>
<td>Company holding the VGM documentation</td>
<td>In case the actual shipper shall not be disclosed, the company holding the VGM documentation can be e.g. the carrier’s agent</td>
</tr>
<tr>
<td>Shipper identification</td>
<td>DUNS Number issued by Dun &amp; Bradstreet (D&amp;B)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AEO number Authorized Economic Operator</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Tax ID and Tax Authority</td>
<td></td>
</tr>
<tr>
<td></td>
<td>INTTRA Company ID</td>
<td></td>
</tr>
<tr>
<td></td>
<td>EORI number Economic Operators Registration and Identification</td>
<td></td>
</tr>
<tr>
<td>Container Reference</td>
<td>Container ID</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Size Type</td>
<td></td>
</tr>
</tbody>
</table>
Content of the message page 2/2. One message may contain *multiple* containers.

<table>
<thead>
<tr>
<th>Reference</th>
<th>Data element</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight reference</td>
<td>Verified gross mass of the container incl. unit of measurement</td>
<td>in KGM or LBS</td>
</tr>
<tr>
<td>Weighing reference</td>
<td>Date+time when the container was weighed or the weight was ascertained</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Date+time when the weight certificate was issued</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Place where the container was weighed or the weight was ascertained</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Country of verification</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SOLAS Method of weight verification</td>
<td>1 or 2 as per IMO rules</td>
</tr>
<tr>
<td></td>
<td>Weight Certificate reference</td>
<td>unique reference for a single container weighing instance</td>
</tr>
<tr>
<td>Transport Order Reference</td>
<td>Booking Number</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bill of Lading Number</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Seal Number</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shipper's internal reference</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Port of Loading</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Port of Discharge</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Final Destination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vessel Name</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Voyage Number</td>
<td></td>
</tr>
</tbody>
</table>
The development of the VERMAS structure follows the KISS principle:

**Keep it short and simple**

The VERMAS is made for a dedicated purpose and contains only data elements that are clearly needed. The message content is based on the best assessment of the business requirements (as per September 2015) depending on the IMO guidelines.

It shall not be overloaded with data elements that could be *potential* candidates or that *might* perhaps be required in future. Additional requirements resulting from national legislation of all seafaring countries will not be available before mid of next year.

The VERMAS is likely to be implemented by a large number of parties in a short time. Acceptance of the message will be much higher if the structure is kept simple.

**Message Structure on next slide:**
Draft for new Edifact Message Type
VERMAS – Verification of Mass

To be submitted to UN/CEFACT
Draft for new Edifact Message Type
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SG4
EQD – Container ID and Sizetype
RFF - Booking No OR Bill of Lading OR Shipper’s reference
LOC – POL OR POD OR Final Destination etc.
SEL – Seal number
SG5 MEA – Verified Gross Mass and Unit
DTM - Date of Verification or Weighing
SG6 – Vessel Names / Voyage Numbers for this cntr.

SG7
DOC – Method of verification and Certificate ID/reference
DTM – Dates referring to the weighing document,
e.g. issue date of the weighing certificate

SG8/SG9
NAD – Party that has verified the weight and issued the certificate.
CTA, COM
- Name of the Responsible Person, belonging to that party.
  – Contact information
VERMAS working group in the SMDG

- Michael Schröder  Hapag-Lloyd (chair)
- Jost Müller  Müller&Blanck Software
- Paul Wauters  PSA Antwerp
- Stefano Ottonello  MSC Le Navi
- Yoshi Kito  EDI Expert
General approval obtained from T&L group for development of a new message

Message structure finalized and agreed

DMRs for Codes submitted

Approve final VERMAS structure, agree on SMDG Newsletter

Submit Boiler Plate (DMR for the message)

Develop BRS and submit to T&L

Develop 1st MIG for VERMAS 0.1

Approve DMRs, Boiler Plate and BRS

Final VERMAS Approval

Publish VERMAS in D.16A directory

SMDG Meeting 30.9.2015

Jost and Sue

Michael

Michael, Jost and workinggroup

CEFACT Meeting Marseille 4.11.2015

CEFACT Forum Geneva 18.3.2016