Container Gross Mass Verification (VGM)

PROJECT NAME:

Compass / EDI

Date created: 15th March 2016
Author: Gareth Aspinall/Helen Smith
Version: 2.0
## Document Version

<table>
<thead>
<tr>
<th>Version and Date</th>
<th>Author</th>
<th>Changes</th>
</tr>
</thead>
<tbody>
<tr>
<td>V1.0 15.03.2016</td>
<td>Gareth Aspinall</td>
<td></td>
</tr>
<tr>
<td>V1.1 22.03.2016</td>
<td>Gareth Aspinall/Helen Smith</td>
<td>Update Compass enhancement section</td>
</tr>
<tr>
<td>V2.0 13.04.2016</td>
<td>Gareth Aspinall</td>
<td>Update to COPARN section: How to nominate Forwarder Add reference number Confirm if VGM will be supplied or Terminal needs to weigh the container</td>
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**Introduction**

From the 1st July 2016 all loaded (FCL) containers must have a Verified Gross Mass (VGM) supplied to allow the container to be loaded to a vessel.

This document is to outline our proposed changes for CNS Compass; EDI mapping amendments (as per SMDG standard); new EDI messages (VERMAS) and processes to help lessen the impact to the Shipping Lines and their customers.

**Background**

To ensure the safety of the ship, the safety of workers both aboard and ashore, the safety of cargo and overall safety at sea, the International Convention for the Safety of Life at Sea (SOLAS) requires that loaded (FCL) containers have a VGM prior to it being loaded onto the vessel.

The shipper is responsible for providing the VGM of an FCL container regardless of who actually packs it; the shipper is also responsible for ensuring that the VGM is communicated within the shipping documents sufficiently in advance to be used by the ship’s master or his representative and the terminal representative in preparation of the vessels stowage plan.

In the absence of the shipper providing the VGM of the FCL container, the container should not be loaded to a vessel, unless the master or his representative and the terminal representative have obtained the VGM mass through other means.

Within the Marine Guidance note from the Maritime and Coastguard Agency notice MGN 534 (M+F) section 11, it states:

- 11.1 Under SOLAS no container without a verified gross mass may be loaded onto a ship. It is for individual carriers and port operators to devise operational procedures to ensure that this regulatory requirement is complied with on all occasions
- 11.2 Carriers and terminal operators should have sufficient documented procedures to demonstrate the manner in which they will be able to achieve this requirement
Legal Requirements

MCA Guidelines (MGN 534) for UK implementation of the mandatory amendments requiring the shipper (as named on the bill of lading, waybill or through bill) to verify and provide the container’s gross mass to the carrier and terminal representative prior to it being loaded onto a ship.

Methods of obtaining the VGM of an FCL container

- Method 1 (SM1) – weighing the container using calibrated and certified weighing equipment (COPARN definition EGW=Gross Weight (including transport unit)
- Method 2 (SM2) – weighing all packages, cargo items, pallets, dunnage and other securing material and adding the tare (COPARN definition Option G+T where G=Gross weight (excluding transport unit) and T=Tare weight (transport unit))

The use of SM2 is subject to the shipper using a certified method approved by the MCA or its authorised body. Approved companies will be registered on an MCA database accessible to shippers, carriers and terminal operators. SM2 is the preferred option unless the cargo items do not lend themselves to individual weighing.

The VGM – SM1 or SM2 – must be communicated by the shipper in a shipping document e.g. a declaration including a weight certificate produced by a weighing station (SM1) or in case of SM2, the shipper’s approval number.

If appropriate, EDI methods can also be used. Irrespective of the format, a duly authorised person must sign the VGM document; the signature may be electronic or may be replaced by the name in capitals of the authorised person.

The shipper can provide the VGM direct to the carrier or the terminal, other than having to be ‘submitted sufficiently in advance to be used in the preparation of the ship stowage plan’ there are no defined timescales in the guidelines for the provision of the VGM as this is not deemed a regulatory issue.
**Considerations**

CNS are still waiting for full confirmation from our TOS operated sites about how they wish to proceed with this new legal requirement.

It has been agreed DP World Southampton (SCT1) and DP World London Gateway (LGP1) will have the same processes as they are working together on a uniformed approach.

London Container Terminal (JWQ1), at present, will be holding all the relevant VGM details within MACH and have the necessary controls in place to ensure non-VGM declared containers are not loaded. VGM holds for JWQ1 will not be required but we do need to allow the option to request Shipping Lines to weigh containers.

MMD (POR1) are still discussing their requirements. It is possible they may not accept containers to their site without a VGM requested but this will need to be discussed at a commercial level.

For our non-TOS operated sites, we have kept them informed of the relevant enhancements to CNS Compass so they know where to check to ensure VGM has been supplied. Non-TOS sites have been contacted but most already have provisions in place.

The SOLAS provisions do not apply to containers being loaded on a chassis or trailer on a ro-ro ship that is engaged on short sea voyages.

No changes are required for processing of import consignments as the VGM will have been declared at the original port of origin/loading.

This document is for the use of all Shipping Lines using any of our Ports. As the Terminals have their own regulations in place some data and fields mentioned are not required. These should be marked clearly within this document.

**Timescales**

Compass enhancements and EDI will be ready for testing by the end of April.

Manual SSR for DPWS/LGP (if required) and reports will be ready by the end of May.

We believe this will all be implemented into Production by the 1st June 2016 to enable units to be exec’d to the quay in preparation of the 1st July 2016. This should also allow us to eliminate any issues which may arise during the interim.
CNS Compass Enhancement

Compass screens are to be enhanced in a number of ways to allow Shipping Lines, or a nominated Forwarder, to update the VGM details manually and of course display any details that have been updated either by EDI or a Terminal message. It is envisaged this information will need to be made available to the Maritime Coastguard Agency (MCA) for auditing purposes.

Export Unit details – VGM Details

A new screen called ‘VGM details’ will be available – selecting this button will open a new pop up screen.

- This new pop up screen will be displayed for all terminal sites accessed from the Export Unit Details screen.
- Forwarder Organisation, as specified on the Export Unit details screen, will be given access to this new VGM Details panel
- The new pop up screen will display all the new VGM fields as follows:

  - **VGM** – User Interface (UI) action until Unit Arrival or until if a Terminal VGM (TLVGM) supplied
    - If VGM is blank on Unit Arrival a VGM can be entered but then will become read only straight away – **no restriction at JWQ1**
    - **Date and Time of VGM supplied will auto complete if entered by UI or displayed if completed by COPARN or (Terminal Message (TOS) update/message**
  - **Authorised person** - Authorised official of person signing for VGM
  - **Responsible party** – SOLAS packed container verified Gross mass responsible party
  - **Reference** – Verified Gross mass reference
  - **Order Reference** – Instruction from Shipping line for terminal to weigh the container
  - **SOLOS weighing method SM1 or SM2** – Ascertained by Weighing or calculation
  - **Certification** – Department or person responsible for obtaining a transport equipment VGM
  - **Weighing party** -
  - **Weighing party address** -
  - **Terminal VGM** – *supplied to Compass by TOS message where appropriate*
  - **Date and Time of VGM - auto completed**
  - **Select options** for Loader/Shipping line Agent and/or Forwarder to select and indicate if they will be providing a VGM (at some point – could be before or after arrival) or if they want the Terminal to weigh the Unit and provide the VGM instead. The options are mutually exclusive and can be updated by UI action in this panel or will be completed based on detail from the COPARN.
    - **Option 1** – VGM will be provided –
    - **Option 2** – Terminal to Weigh and provide VGM -
  - **Full audit button will be available for all fields within the new panel including Date/time**
**Export Unit details**
This screen will display **two new read only fields** next to the existing gross mass field. (The Gross mass field will remain as it is)

- **VGM** – as supplied by the Shipping line or Forwarder via UI or COPARN or VERMAS
- **Terminal VGM** - as supplied by the Terminal
- **Gross Mass field will become read only once a VGM has been supplied** (any kind of VGM i.e. from Loader or Terminal)

**Manage Visit**
- New **VGM Cut Off** date will be provided by SCT1 and LGP1. This is not required for JWQ1 or POR1.

**Export Voyage Details**
- VGM Cut-off date will be displayed in the Export Voyage Details screen

**Export Unit details screen – Forwarder field**
Forwarder as specified on the Export Unit details screen will be the chargeable party for VGM fees; this must be a known CNS organisation.

- The Forwarder field can be completed by Self nomination action by the relevant Forwarder
- Or the Forwarder field can be completed based on information supplied in the COPARN

**New Export Hold**
A new Export Hold will be provided for **SCT1 and LGP1 sites only**. This will allow Shipping Lines to identify containers that do not have a VGM declared. This Hold will stop units from being loaded inadvertently.

- Hold type will be called ‘VGM’
- The Hold will be automatically applied to any/every FCL Export Unit that does not have a VGM supplied (either VGM from SL/FWD or from Terminal)
- The Hold will automatically be removed from FCL Export Unit once a VGM has been supplied (either VGM from SL/FWD or from Terminal) and the unit has arrived.

**Reports**
All the existing Export reports will include the new VGM and Terminal VGM details.
EDIFACT messaging and requirements
CNS Compass will be updated to accept the new versions of COPARN (95B and 00B), COARRI (95B), CODECO (95B), COPRAR (00B) and VERMAS. Please find the relevant message below and the specification of each message. For clarification on how this will be implemented into each message, please check the necessary SMDG documents, which are available on their website.

Please be advised the specification of these messages can change at any time. Testing for these messages will be available by the end of April within our UAT environment.

COPARN
CNS Compass will be updated to accept the new versions of COPARN (95B and 00B) as per the SMDG specifications, which were updated at the end of 2015.

Specification (95B)
EQD group segments additions:

- MEA - Measurements
  - D \([VGM]\) – Verified Gross Mass (weight)

- NAD – Name and Address
  - D \(AM\) – Authorized official: name in capitals of person signing for VGM = EDI Signature
  - O \([SPC]\) – SOLAS Packed Container Verified Gross Mass Responsible party

- DTM – Date/Time
  - O \([WAT]\) - Ascertainment of verified gross mass date/time - Date/Time when a gross mass (weight) of a packed container was obtained according to SOLAS chapter VI, regulation 2, paragraphs 4-6
  - ‘Ascertain’ To discover with certainty, as through examination or experimentation

- FTX – Free text (ABS) container condition
  - O \([SM1]\) – SOLAS Method 1 – Verified Gross Mass ascertained by weighing
  - O \([SM2]\) – SOLAS Method 2 – Verified Gross Mass ascertained by calculation

- RFF References
  - O \([VGR]\) – Verified Gross Mass Reference – link to VGM information
  - D Dependency: Required if VGM is known

In case of instruction to weigh container on terminal:\(^1\)

EQD group

- RFF References
  - O \([VOR]\)\(^1\) – Verified Gross Mass Order Reference – embedded instruction for VGM ascertainment

- HAN – Handling instruction
  - O \([SM1]\) – SOLAS Method 1 – To ascertain Verified Gross Mass by weighing

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Specification (00B)

EQD group segments additions:

MEA - Measurements  
D [VGM] – Verified Gross Mass (weight)

NAD – Name and Address  
D AM – Authorized official: name in capitals of person signing for VGM = EDI Signature

O [SPC] – SOLAS Packed Container Verified Gross Mass Responsible party

DTM – Date/Time  
O [WAT] - Ascertainment of verified gross mass date/time - Date/Time when a gross mass (weight) of a packed container was obtained according to SOLAS chapter VI, regulation 2, paragraphs 4-6
  - ‘Ascertain’ To discover with certainty, as through examination or experimentation

FTX – Free text (ABS) container condition  
O [SM1] – SOLAS Method 1 – Verified Gross Mass ascertained by weighing

RFF References  
O [VGR] – Verified Gross Mass Reference – link to VGM information  
  - D Dependency: Required if VGM is known

In case of instruction to weigh container on terminal:¹

EQD group

RFF References  
O [VOR]¹ – Verified Gross Mass Order Reference – embedded instruction for VGM ascertainment

HAN – Handling instruction  
O [SM1] – SOLAS Method 1 – To ascertain Verified Gross Mass by weighing
O [SM2] – SOLAS Method 2 – To ascertain Verified Gross Mass by calculation

¹The SMDG specification allows Shipping Lines to request a container to be weighed by the Terminal using the Verified Gross Mass Order Reference (VOR) for use in the COPARN EQD segment.

As part of the process for our terminals, specifically for admin charges, we need to clearly define whether a VGM will be supplied by the Shipping Line/Shipper or if they would like the Terminal to weigh.
Therefore, we propose the VOR element code is used in the following format –

\[ \text{CNS\_ORGANISATION\_CODE}^2\text{\_PO\_NUMBER}\text{\_TL/SL} \]

<table>
<thead>
<tr>
<th>CNS_ORGANISATION_CODE</th>
<th>CNS Compass Organisation Code$^2$</th>
</tr>
</thead>
<tbody>
<tr>
<td>PO_NUMBER</td>
<td>Purchase Order or Customer Reference</td>
</tr>
</tbody>
</table>
| TL/SL                    | TL – Request for terminal to Weigh container  
                          | SL – VGM will be provided by Carrier/Forwarder |

Example for terminal to weigh - RFF\_VOR\_FORWARDER\_V00012345\_TL

Example for VGM to be provided - RFF\_VOR\_FORWARDER\_V00012345\_SL

$^2$A downloadable .csv file will be available on our website with a full list of these codes – please go to https://www.cnsonline.net/web/portal/downloads.jsp for details.
COARRI
CNS Compass will be updated to issue the new version of COARRI (95B) as per the SMDG specifications, which were updated at the end of 2015.

Specification (95B)
EQD group segments additions:

MEA - Measurements
  O [VGM] – Verified Gross Mass (weight)

NAD – Name and Address
  O AM – Authorized official: name in capitals of person signing for VGM = EDI Signature
  O [SPC] – SOLAS Packed Container Verified Gross Mass Responsible party

DTM – Date/Time
  O [WAT] - Ascertainment of verified gross mass date/time - Date/Time when a gross mass (weight) of a packed container was obtained according to SOLAS chapter VI, regulation 2, paragraphs 4-6
    - ‘Ascertain’ To discover with certainty, as through examination or experimentation

FTX – Free text (ABS) container condition
  O [SM1] – SOLAS Method 1 – Verified Gross Mass ascertained by weighing

RFF References
  O [VGR] – Verified Gross Mass Reference – link to VGM information
CODECO
CNS Compass will be updated to issue the new version of CODECO (95B) as per the SMDG specifications, which were updated at the end of 2015.

Specification (95B)
EQD group segments additions:

- MEA - Measurements
  - D [VGM] – Verified Gross Mass (weight)

- NAD – Name and Address
  - D AM – Authorized official: name in capitals of person signing for VGM = EDI Signature
  - O [SPC] – SOLAS Packed Container Verified Gross Mass Responsible party

- DTM – Date/Time
  - O [WAT] - Ascertainment of verified gross mass date/time - Date/Time when a gross mass (weight) of a packed container was obtained according to SOLAS chapter VI, regulation 2, paragraphs 4-6 - ‘Ascertain’ To discover with certainty, as through examination or experimentation

- FTX – Free text (ABS) container condition
  - O [SM1] – SOLAS Method 1 – Verified Gross Mass ascertained by weighing

- RFF References
  - O [VGR] – Verified Gross Mass Reference – link to VGM information

Additional In case of reporting of Terminal/Depot or Weighing Facility weighing:

Header

- BGM – Beginning of message
  - D [VGD] – Verified Gross Mass Declaration – Document type code In case container accurate gross mass was obtained for verification separately from a Gate in Move (e.g. response to a COHAOR – gross mass verification order)

- NAD – Name and Address
  - D WPA – Weighing party - Party designated (legally accepted) to ascertain the weight

- CTA – Contact
  - O BN – Certification Contact - Department/Person responsible for obtaining a Transport equipment verified gross mass (weight) (in case of BN)
    - D Dependency: Required if VGM is obtained by sender
COPRAR
CNS Compass will be updated to issue the new version of COPRAR (00B) as per the SMDG specifications, which were updated at the end of 2015.

Specification (00B)
EQD group segments additions:

- MEA - Measurements
  - D [VGM] – Verified Gross Mass (weight)

- NAD – Name and Address
  - D AM – Authorized official: name in capitals of person signing for VGM = EDI Signature
  - O [SPC] – SOLAS Packed Container Verified Gross Mass Responsible party

- DTM – Date/Time
  - O [WAT] - Ascertainment of verified gross mass date/time - Date/Time when a gross mass (weight) of a packed container was obtained according to SOLAS chapter VI, regulation 2, paragraphs 4-6
    - ‘Ascertain’ To discover with certainty, as through examination or experimentation

- FTX – Free text (ABS) container condition
  - O [SM1] – SOLAS Method 1 – Verified Gross Mass ascertained by weighing

- RFF References
  - O [VGR] – Verified Gross Mass Reference – link to VGM information
    - D Dependency: Required if VGM is known
VERMAS
CNS Compass will be updated to accept (from Shipping Line) and issue (when VGM received from Terminal*) this new EDI message which has been developed by SMDG.

*VERMAS message will be required to be sent via EDI and/or Email to the Loader and Forwarder of the Unit where a Terminal VGM is supplied to Compass.

- **Terminal VGM** may be supplied for a variety of reasons – whenever Compass receive a Terminal VGM is should be recorded in the new VGM Panel along with the date/time and a VERMAS message triggered to the Loader and Forwarder of the Unit.
- **Compass will need to output the Unit details and VGM for the VERMAS message to the Loader and Forwarder for EDI to pick up and process.**

**Message Structure**

For each container one **EQD group 4** is transmitted:
Currently 4 kinds of VGM documentation are distinguished:

- **DRF** — reference to container’s VGM documentation
  (Documentation is not transmitted in this message, but is available at the party specified in this DOC-group.)
- **SHP** — documentation related to the party responsible to obtain SOLAS VGM
- **SM1** — documentation about SOLAS Method 1
- **SM2** — documentation about SOLAS Method 2

Information about VGM documentation of any kind is transmitted in DOC group 7 elements.

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EQD</td>
<td>container description by size-type and ID</td>
</tr>
<tr>
<td>RFF</td>
<td>booking reference(s)</td>
</tr>
<tr>
<td>LOC</td>
<td>locations in container’s transport chain</td>
</tr>
<tr>
<td>SEL</td>
<td>seal number(s)</td>
</tr>
<tr>
<td>MEA 5</td>
<td>gross mass, whether it is verified or not and optionally date/time when VGM was obtained</td>
</tr>
<tr>
<td>TDT 6</td>
<td>optional vessel/voyage information</td>
</tr>
<tr>
<td>DOC 7</td>
<td>VGM documentation of various kind distinguished by DOC segment’s qualifier</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOC</td>
<td>documentation function and ID</td>
</tr>
<tr>
<td>DTM</td>
<td>date/time when VGM was obtained or when documentation was issued</td>
</tr>
<tr>
<td>NAD 8</td>
<td>Name/address of party or responsible person</td>
</tr>
<tr>
<td>CTA 9</td>
<td>contact information or signature</td>
</tr>
</tbody>
</table>
**Billing**

SCT1 and LGP1 are offering a joint approach to weigh every laden export container that arrives on the terminal with a view to be loaded after the 1st July 2016. This will assist them with their own requirements in regards to the new legislation plus offering the opportunity to Shipping Lines/Shippers to have non-VGM declared units, weighed and the VGM supplied to them.

JWQ1 are still in discussions about how they are to handle this function but will be weighing containers, if requested by the Shipping Line/Shipper.

CNS will raise the invoices as we provide this service for other functions and have the relevant information in place for invoicing the specified Forwarders that are contracted CNS organisations.

It will be the Shipping Line’s responsibility to confirm who the charge should go to either by updating Compass via UI or specifying the Forwarder (CNS Compass organisation code) within their COPARN message (The Forwarder or Shipper must be a contracted customer of CNS). Alternatively the Forwarder will be able to self-nominate the unit themselves, which will allow them to update VGM details.

Any charges relating to the VGM will default to the Shipping line/Carrier where a Forwarder has not been specified.