Missing Shipping Mark Protocol

(Use of GS1 – Bar coding and eMessaging)

Issue Date: 4th December, 2014
Issue: 1
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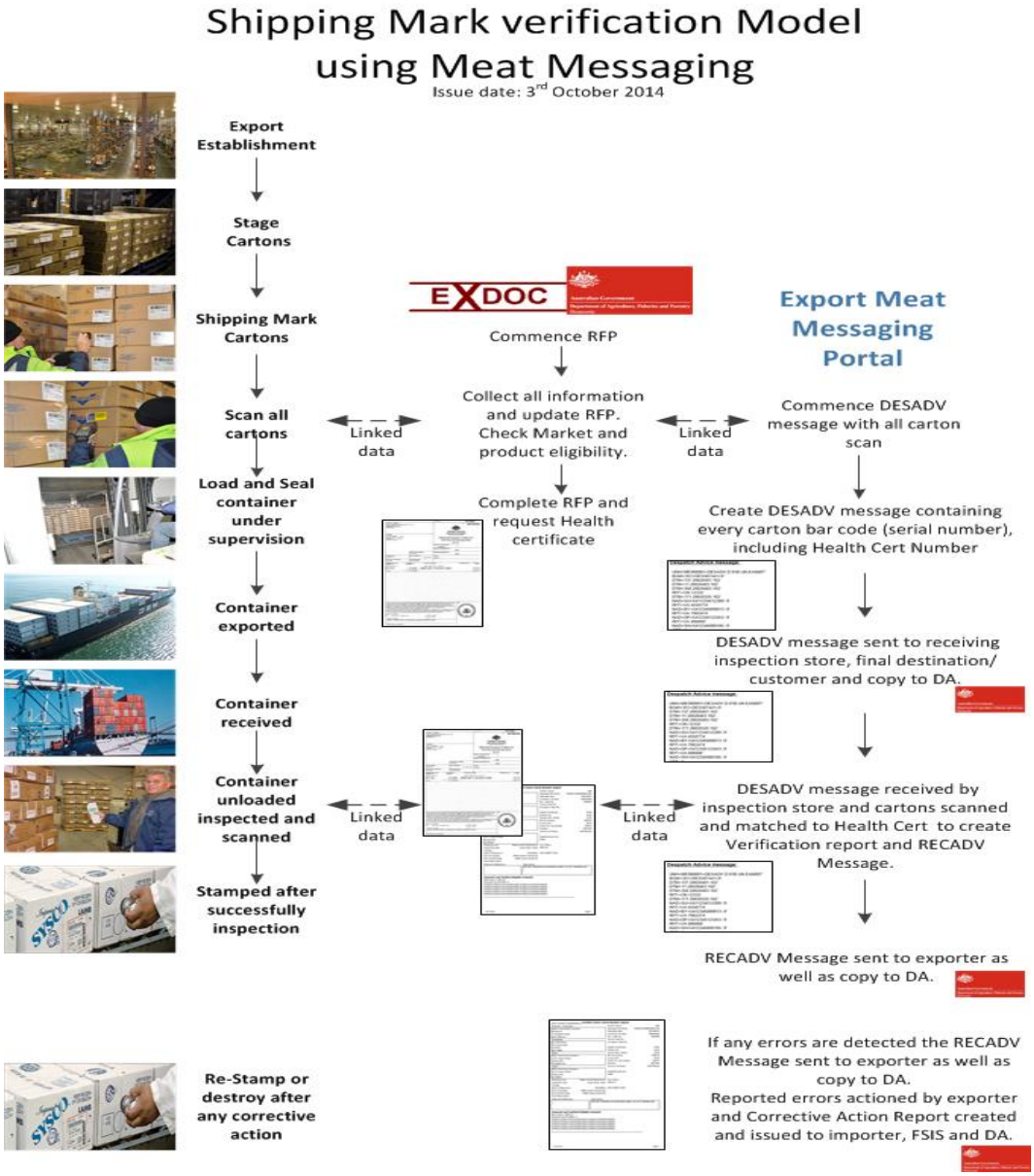
1. Overview

GS1 is a global voluntary standard for the identification of products using standard identifiers and transferring the information about consignments with a standardised electronic message. It is the most widely used supply chain standards throughout the world today with over 2 million member companies operating in 155 countries. GS1 standards are solution agnostic meaning that companies are not locked into having to use a specific solution company provider.

Most of the world's electronic commerce complies with the GS1 standard. The GS1 suite of eMessages are a subset of the international standard UNEDIFACT. ECert is also compliant with UNEDIFACT. The Australian meat industry has a near 100% capability in utilising the GS1 barcode to identify individual cartons and carcases and in using the eMessage when consigning product for export markets.

The objective is to use the GS1 barcode and eMessage as a backup to the traditional shipping mark when that mark is absent.



2. Process summary

The process that is proposed is that exporters have to indicate that they have used the GS1 barcode and eMessage on the health certificate to show that their consignment has been identified using the GS1 standard and that an electronic message containing the full consignment details has been sent to the consignee. This also means that as a routine the consignor would be scanning cartons/carcases at the point of despatch, using that information to generate the Health Certificate and the separate commercial eMessage, and that the consignee would also be scanning the cartons/carcases in that load on arrival in the US.

Those two pieces of information would be used to verify that the load as sent was the load received. In the GS1 system a verification message is sent back to the consignor, or in the event of a mismatch of information, an error message is sent to the consignee. There is a standard validation report that can be printed to show the acceptance of the load or the errors. In the event of an error there is an investigation to determine the cause of the error and to institute any possible rectification.

In the event that there is a missing shipping mark on one or more cartons, the bar code and the eMessage can be used to determine if the carton(s)/Carcase(s) were part of the load covered by the health certificate. If they were part of the certified load, then they would be remarked and highlighted to the FSIS inspector when the load is presented for re-inspection, along with a copy of the verification report. If the unmarked cartons were not part of the original load they would not be remarked. They would be presented to the FSIS inspector with the unmarked cartons highlighted, and a copy of the verification report and any follow-up information resulting from the investigation.

2.1 Common Health Certificate and eMessage content

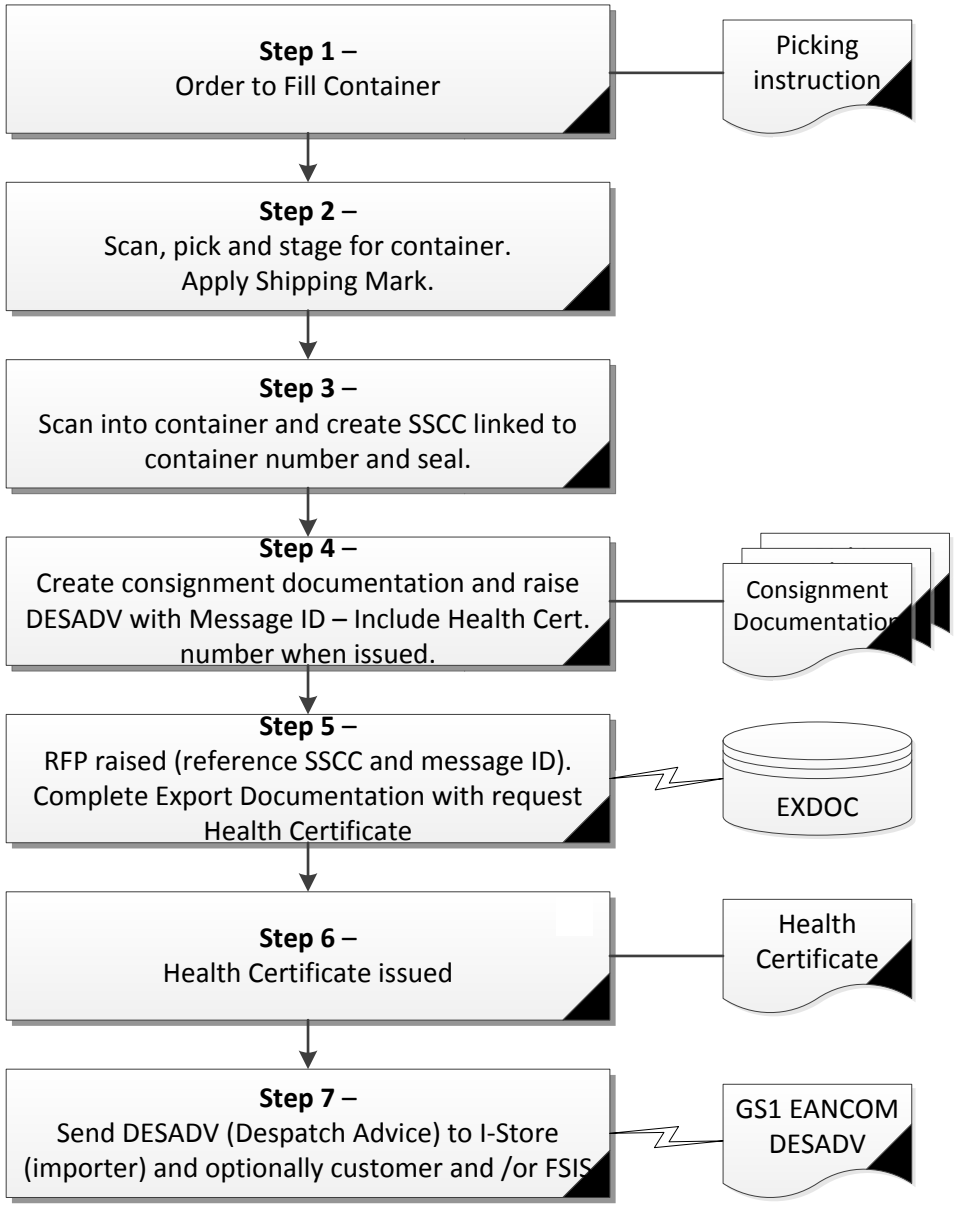
The reference information that relates to the shipment (as used in the Electronic Message and hard documents) include the following:

- Health Certificate,
- SSCC (Serial Shipping Container Code) for the shipment,
- DPI Seal Number,
- Container Number
- Shipment Reference (eg Invoice, etc)
- Establishment Number(s)
- Dates (loading, shipping, etc)
- Product Description
- Shipment Weights
- Number of Cartons
- Shipping Mark
- Exporter/ Consignor

- Consignee
- Carton GS1 (EAN) Numbers (unique for each carton)

2.2 Exporter / Consignor Dispatching Process

The process that is followed for the generation of the consignment documentation and the electronic file that represents the consignment is shown by the following flow chart:



The critical points on this process are the following:

- The use of an SSCC (Serial Shipping Container Code) and GS1 EANCOM DESADV (Despatch Advice) message id that identifies the consignment and links it to a Health Certificate, the physical shipping container and the individual carton serial numbers.
- Cartons included within that SSCC are identified with the shipping mark
- The transfer of the eCert to FSIS via the EXDCOC system
- The transfer via email (or other service – Meat Messaging portal) to the Consignee (importer, customer, I-Store, etc) of an Electronic message (GS1 EANCOM DESADV

Message) of the entire set of individual carton serial numbers, weights, production dates, establishment numbers and carton barcode numbers (GS1 with Application Identifiers).

This information can then be used by the Consignee to prepare evidence that a specific group of cartons match the details about a specific consignment/ health certificate.

The steps that the consignor performs are explained as follows:

Step 1 - Order to Fill Container.
The consignor instigates preparation of an order to fill a container with product through a picking instruction.

Step 2 – Scan, pick, and stage for container. Apply Shipping Mark
The consignor scan each of the carton bar codes to pick and validate carton is correct for order and then applies the shipping mark.

Step 3 – Scan into container and create an SSCC linked to the container number and seal.
The consignor scans the cartons into the container to reconcile and creates an SSCC (Serial Shipping Container Code - 18 digit bar code) that is matched to the container number, container seal numbers and linked to each of the carton bar codes in the container.

Step 4 - Create consignment documentation and raise a DESADV with Message ID.
The consignor generates the necessary consignment documentation, which clearly links to the container, 18 digit SSCC number, DESADV message ID, shipping mark and individual carton bar codes.

Step 5 - RFP raised (including SSCC and DESADV Message ID) and issued to request Health certificate.
The consignor raises an RFP which includes the 18 digit SSCC number, DESADV message ID, shipping mark and sends this through EXDOC to request Health Certificate.

Step 6 - Health Certificate Issued
The RFP is validated when verified as correct. The eCert is sent to FSIS and the consignor is issued a Health Certificate extract, which includes the shipping mark and other relevant information.

Step 7 - Send DESADV (Despatch Advice) to I-Store (importer) and optionally customer and/or FSIS.
The consignor generates a DESADV (Despatch Advice Message) to the Import Clear Cold Store and optionally to the customer and/ or possibly to FSIS.

The DESADV (Despatch Advice Message) can be a text file attachment to an email or sent through direct data transfer methods (ass agreed with the trading partner). The format and content of the text file complies with the GS1 EANCOM rules for electronic messaging and specifically to the following document:

Australian Meat Industry
Message Implementation Guideline (MIG)

Based on the EANCOM 02 Guideline using
UN/EDIFACT UN/EDIFACT D01.B
Despatch Advice Message
DESADV
(with specific reference to International Trade)

Which is available from GS1 Australia

2.3 Bonded Warehouse / Consignee Receiving Process

Once a shipment is consigned to a Bonded Warehouse (I-store) / Consignee the various export, import and clearance Receiving Processes can commence.

Once the physical shipment and the Electronic Message have been received by the bonded warehouse the FSIS Form 9540-1 can be submitted.

The Electronic Message is a text file attachment within an Email. The format and content of the text file complies with the EANCOM rules for electronic messaging and specifically to the following document:

Australian Meat Industry
Message Implementation Guideline (MIG)
Based on the EANCOM 02 Guideline using
UN/EDIFACT UN/EDIFACT D01.B
Despatch Advice Message
(with specific reference to International Trade)

Which is available from GS1 Australia. www1.gs1au.org

The Electronic Message includes information about the shipment (date, consignee, consignor, Health Certificate, SSCC number, etc) and the individual cartons (product type, GS1-14 number, carton weight, carton serial number, Establishment number, production dates, etc).

The Electronic Message should be converted from the EANCOM DESADV format to a more simplistic format such as a simple flat text file (e.g. comma delimited, etc). The reason for conversion to the more simple formats is to allow for easy importing into the Bonded Warehouse (I-store) / Consignee's computer systems. There are third party software products available to convert between EANCOM messages and in-house computer systems.

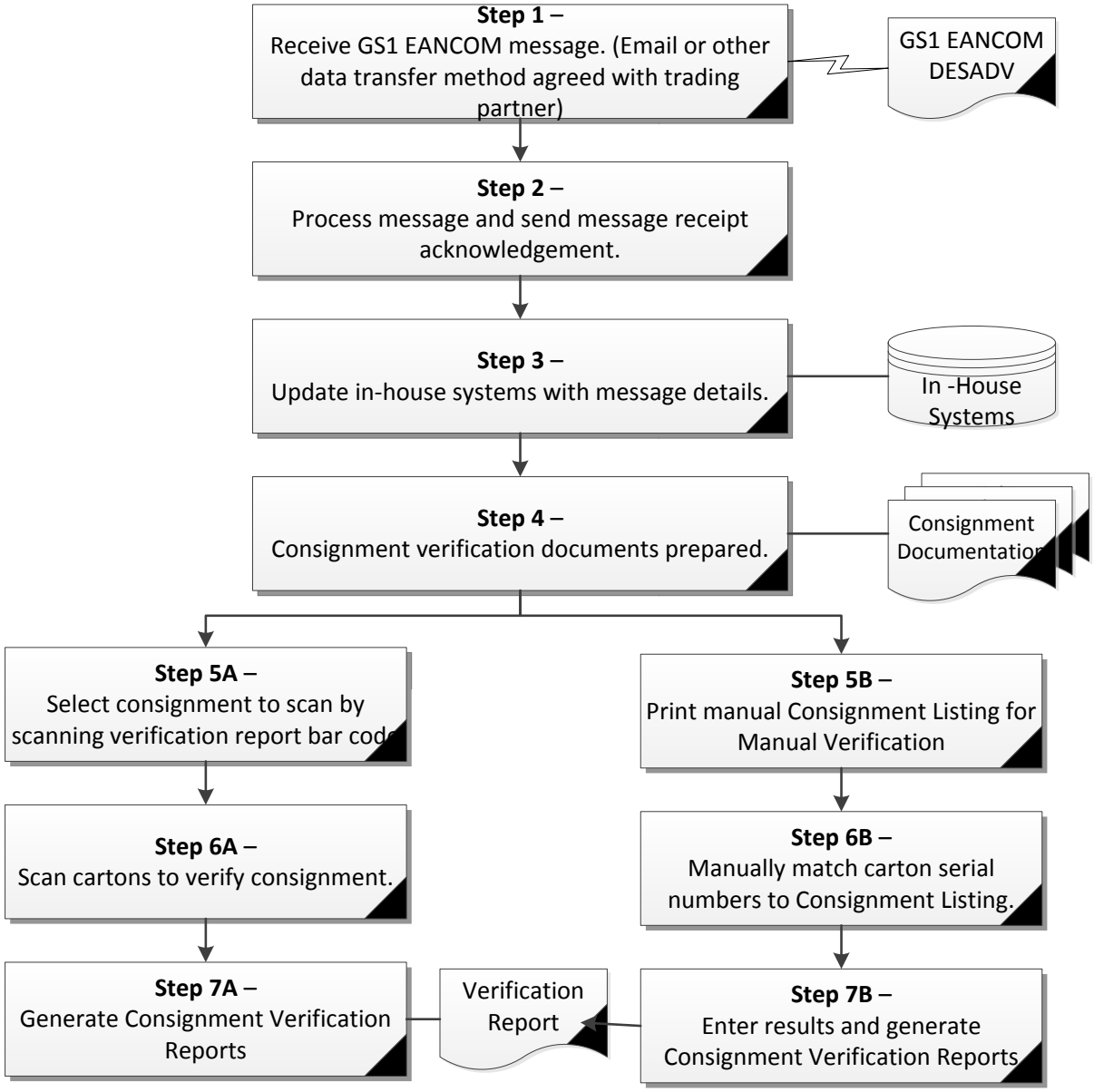
Once the information is in the Bonded Warehouse (I-store) / Consignee's computer systems the shipment and individual carton details can be extracted and used for verification purposes.

The process for verification can be either electronic or manual.

The electronic method occurs by uploading into a Portable Data Capture device (Scanner) the details of the shipment and scanning some or all of the cartons against the SSCC (or Health Certificate). The Scanner creates a record of which cartons were scanned and the information can be used to generate a verification report.

The manual method works by printing off a consignment listing with the SSCC (or Health Certificate) and individual carton barcode numbers, then manually checking off all of the carton serial numbers.

The following flowchart describes the suggested or possible process for verification of the shipment:



The steps that the consignee performs are explained as follows:

Step 1 - Receive GS1 EANCOM DESADV Message.

The Consignor will send the Bonded Warehouse (I-store) / Consignee an email or via other agreed methods the GS1 EANCOM DESADV electronic message.

Step 2 – Process message and send message receipt acknowledgement.

The Bonded Warehouse (I-store) / Consignee processes the GS1 EANCOM DESADV message for authentication and to send a message receipt acknowledgement.

Step 3 - Update in-house systems with message details.

The Bonded Warehouse (I-store) / Consignee imports the authenticated message into their in-house computer system with the information on the consignment which include the SSCC, message ID, shipping mark, health certificate, individual carton details as well as other consignment information.

Step 4 - Consignment Verification Documents prepared.

The Bonded Warehouse (I-store) / Consignee should generate documents that relate to the consignment. These can be used to identify the load and the related consignment information.

Step 5A – Select consignment to scan by scanning verification report bar code.

If the Bonded Warehouse (I-store) / Consignee are using suitable scanning technology, the consignment to scan can be select by scanning the bar code on the top of the Verification Report.

Step 6A - Scan cartons to verify consignment.

The Bonded Warehouse (I-store) / Consignee scans all of the carton bar codes for the load to verify that the specific cartons by serial match that of the stated consignment and verifies that the shipping mark is present.

Step 7A - Generate Consignment Verification Reports.

The Bonded Warehouse (I-store) / Consignee can generate reports that show every carton serial number and which cartons were scanned and matched to the consignment information.

Step 5B - Print Manual Consignment Listing for Manual Verification.

If the Bonded Warehouse (I-store) / Consignee are using manual methods, a Consignment Listing details report of the consignment details including each and every carton bar code number can be generated. This can be used for manually matching cartons to the consignment details.

Step 6B - Manually match Carton Serial Numbers to Consignment Listing.

The Bonded Warehouse (I-store) / Consignee can manually match and record which carton bar code number (serial numbers) and shipping mark are checked to the printed consignment listing.

Step 7B – Enter results and generate Consignment Verification Reports

The Bonded Warehouse (I-store) / Consignee can prepare verification reports showing which carton bar code numbers where matched to the consignment records.

2.4 Information to be Sent by Electronic Message (EDI)

The information about the shipment that is to be sent from the Exporter/ Consignor to the Bonded Warehouse/ Consignee included the following:

Message Information [Header], [Footer]	Shipment/ Consignment Information (for each container/ shipment)	Shipment/ Consignment Details For each carton)
Message Date, Message Number (ID), Etc (as required for EDI [EANCOM])	SSCC Number, Consignor, Consignee, Vessel/ Aircraft Sea/ air port of loading, Date of departure Sea/ air port of discharge Shipping Mark(s) Container Number Health Certificate No. Species Establishment No.(s) Country of Origin (Container) DPI Seal Shipment Reference Description Total Net Weight Kill date(s) Number of Cartons	Product Code EAN/UCC 14 Carton net Weight (AI3xxx) Production Date (AI11) Serial Number (AI21) (if applicable individual carton SSCC)

3. Missing/illegible Shipping Marks

If cartons are identified by the warehouse that are missing a shipping mark, the warehouse tries to identify that carton's barcode (unique serial number) against the eMessage. If it can be identified it is re-marked by the warehouse, highlighted by an acceptable method (e.g. red sticker) and identified on the eMessage printout. It will then be highlighted to the FSIS inspector when the shipment is presented for re-inspection.

4. Other Errors

Where other discrepancies that relate to the accuracy of certification are detected, the offending cartons will be identified, segregated and will be brought to the attention of the FSIS inspector. For example, cartons that should not be in the load as they weren't in the eMessage. The other issue is cartons that are missing from the load, this should be notified back to the certifying authority.

5. Process

The process is done through an integrated IT solution within the establishment (processor and/or warehouse) or through a third party on-line information service provider.

6. Appendix A - Sample Forms

The following are examples of the types of reports that can be produced to support this proposal

- Consignment Summary report (Appendix 6A)
  This report contains a summary of all the management and regulatory information pertaining to the load that was scanned out (this is what the incoming scan should produce)
- All carton serial number report. (Appendix 6B)
  This report contains the detailed information of all the management and regulatory information pertaining to the load that was scanned out including all the carton serial numbers (this is what the incoming scan should produce). (Note: Not all 700 cartons are listed for space purposes)
- Verified carton report (Appendix 6C)
  This report lists all the cartons that have been scanned and reports the 6 possible scenarios including carton serial numbers)
    - Eligible (part of the certified load (no serial numbers reported))
    - Missing mark (individual serial numbers reported
    - Illegible mark (individual numbers reported)
    - Missing carton (individual serial numbers reported
    - Correct carton (incorrect shipping mark)
    - Extra carton (not part of the certified load – individual serial numbers reported)

Appendix 6A - Consignment Summary report

SSCC 93310790000000153

Exporter/Consignor
9331079 9 MY MEAT COMPANY
PTY LTD 1 SLAUGHTER ROAD
BRISBANE QUEENSLAND 4000 AU

Consignee
9 MY COLDSTORE COMPANY
PTY LTD 100 RIVERSIDE PLACE
MORNINGSIDE QUEENSLAND 4170 AU

Buyer
9 MY COLDSTORE COMPANY
PTY LTD 100 RIVERSIDE PLACE
MORNINGSIDE QUEENSLAND 4170 AU
JOHN ANDREW SMITH

Notify
9 MY COLDSTORE COMPANY
PTY LTD 100 RIVERSIDE PLACE
MORNINGSIDE QUEENSLAND 4170 AU
JOHN ANDREW SMITH

Carton Count	700
Message File Name	PHL-T67135-1.dsv
Message Date	20021104
Container Number	OCLU2481207
Gov. Seal No.	
Carrier Seal No.	
Consignor Seal No.	
Custom Seal No.	385000
Health Certificate	3897262
EXDOC No.	580722
Goods Decl. (ECN)	3B023021328HOC
Bill of Lading	
Invoice No.	195379
Order No. (purchase)	3769.01
Species	BOVINE
Country of Origin	AU

Shipping Line	P & O NEDLLOYD
Vessel/Aircraft	MELBOURNE STAR
Voyage	26
Date of Departure	20021031
Port of Loading	BRISBANE AU
Port of Discharge	MORNINGSIDE AU
Final Destination	AUSTRALIA

Establishment No.
EST 9999

Shipping Marks
AMH/6713501

Net Total Weight

Shipment Reference

Description
FROZEN BONELESS BEEF
C-TRMG 80CL HAM 2560 *C-TRMG* 80CL HAM 2560

Appendix 6B - All carton serial number report

SSCC 93310790000000153

Exporter/Consignor
9331079 9 MY MEAT COMPANY
PTY LTD 1 SLAUGHTER ROAD
BRISBANE QUEENSLAND 4000 AU

Consignee
9 MY COLDSTORE COMPANY
PTY LTD 100 RIVERSIDE PLACE
MORNINGSIDE QUEENSLAND 4170 AU

Buyer
9 MY COLDSTORE COMPANY
PTY LTD 100 RIVERSIDE PLACE
MORNINGSIDE QUEENSLAND 4170 AU
JOHN ANDREW SMITH

Notify
9 MY COLDSTORE COMPANY
PTY LTD 100 RIVERSIDE PLACE
MORNINGSIDE QUEENSLAND 4170 AU
JOHN ANDREW SMITH

Carton Count	700
Message File Name	PHL-T67135-1.dsv
Message Date	20021104
Container Number	OCLU2481207
Gov. Seal No.	
Carrier Seal No.	
Consignor Seal No.	
Custom Seal No.	385000
Health Certificate	3897262
EXDOC No.	580722
Goods Decl. (ECN)	3B023021328HOC
Bill of Lading	
Invoice No.	195379
Order No. (purchase)	3769.01
Species	BOVINE
Country of Origin	AU

Shipping Line	P & O NEDLLOYD
Vessel/Aircraft	MELBOURNE STAR
Voyage	26
Date of departure	20021031
Port of Loading	BRISBANE AU
Port of DischargeHL	MORNINGSIDE AU
Final Destination	AUSTRALIA

Establishment No.
EST 9999

Shipping Marks
AMH/6713501

Net Total Weight

Shipment Reference

Descriptio
FROZEN BONELESS BEEF
C-TRMG 80CL HAM 2560 *C-TRMG* 80CL HAM 2560

Carton Bar Code Numbers

01993310790041513101000272130210262120415799 4156
01993310790041513101000272130210262120415799 4161
01993310790041513101000272130210262120415799 4163
01993310790041513101000272130210262120415799 4174
01993310790041513101000272130210262120415799 4176
01993310790041513101000272130210242120415797 4392
01993310790041513101000272130210242120415797 4406

01993310790041513101000272130210242l204157974411
01993310790041513101000272130210242l204157974415
01993310790041513101000272130210242l204157974418
01993310790041513101000272130210242l204157974422
01993310790041513101000272130210252l204157985172
01993310790041513101000272130210252l204157985175
01993310790041513101000272130210252l204157985227
01993310790041513101000272130210252l204157985230
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01993310790041513101000272130210242l204157975085
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01993310790041513101000272130210242l204157975741
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01993107900415131010002721302102421204157975123
01993107900415131010002721302102421204157975124

Appendix 6C – Verified Carton Report

SSCC 93310790000000153

Exporter/Consignor
9331079 9 MY MEAT COMPANY
PTY LTD 1 SLAUGHTER ROAD
BRISBANE QUEENSLAND 4000 AU

Consignee
9 MY COLDSTORE COMPANY
PTY LTD 100 RIVERSIDE PLACE
MORNINGSIDE QUEENSLAND 4170 AU

Buyer
9 MY COLDSTORE COMPANY
PTY LTD 100 RIVERSIDE PLACE
MORNINGSIDE QUEENSLAND 4170 AU
JOHN ANDREW SMITH

Notify
9 MY COLDSTORE COMPANY
PTY LTD 100 RIVERSIDE PLACE
MORNINGSIDE QUEENSLAND 4170 AU
JOHN ANDREW SMITH

Shipping Line	P & O NEDLLOYD
Vessel/Aircraft	MELBOURNE STAR
Voyage	26
Date of departure	20021031
Port of Loading	BRISBANE AU
Port of Discharge	MORNINGSIDE AU
Final Destination	AUSTRALIA

Carton Count	700
Message File Name	PHL-T67135-1.dsv
Message Date	20021104
Container Number	OCLU2481207
Gov. Seal No.	
Carrier Seal No.	
Consignor Seal No.	
Custom Seal No.	385000
Health Certificate	3897262
EXDOC No.	580722
Goods Decl. (ECN)	3B023021328HOC
Bill of Lading	
Invoice No.	195379
Order No. (purchase)	3769.01
Species	BOVINE
Country of Origin	AU

Establishment No.
EST 9999

Shipping Marks
AMH/6713501

Net Total Weight

Shipment Reference

Descriptio
FROZEN BONELESS BEEF
C-TRMG 80CL HAM 2560 *C-TRMG* 80CL HAM 2560

Scanned and verified (Eligible product)

Description: C-TRMG* 80CL HAM 2560

Scanned and Verified carton count: **693**

Scanned and Missing Mark

Description: C-TRMG* 80CL HAM 2560

Scanned and Missing Mark: **4**

01993107900415131010002721302102421204157974390
01993107900415131010002721302102421204157975738
01993107900415131010002721302102421204157975742
01993107900415131010002721302102421204157975722

Scanned and Illegible Mark

Description: C-TRMG* 80CL HAM 2560

Scanned and Illegible Mark: **2**

01993107900415131010002721302102421204157975148
01993107900415131010002721302102421204157975147

Carton(s) Not in shipment but included in message

Description: C-TRMG* 80CL HAM 2560

Missing Carton(s) (not found in consignment): **1**

01993107900415131010002721302102421204157975107

Carton(s) Scanned in Shipment but Incorrectly Marked

Nil

Extra Cartons (Scanned and found in consignment) – but should not have been in consignment

Description: C-TRMG* 80CL HAM 2560

Incorrect Carton(s) Scanned in consignment: **3**

01993107900415131010002721302102421204157432123
01993107900415131010002721302102421204157175614