

# Cargo Care Checklist: Grain

## ACTION TO BE TAKEN WHEN DEALING WITH **GRAIN** **CARGO**

This checklist should be used in conjunction with the ship operator's procedures and the IMO Grain Code.

It is suitable for use with all naturally occurring unprocessed seeds, beans and grains including soya bean.

### 01 HOLD PREPARATION

Grain clean unless otherwise stated in shipper's or charterers voyage instructions.

- Record of previous cargoes available .....
- Crew understand what standards are required .....
- Holds free of previous cargo and residues .....
- Holds free of loose rust and paint scale .....
- Holds free of other contaminants .....
- Holds free from odours .....
- Holds free of moisture .....
- Tank manhole lids leak checked and properly secured .....
- Bilges clean and dry - cover where required .....
- Planned maintenance on bilge non-return valves and up to date .....
- Time stamped photos taken showing hold preparation .....
- Maintain details of any hold cleaning agents used inc. MSDS .....
- Records of any recent hold maintenance available including hold paint specification .....
- Planned maintenance records for hatch covers checked and up to date .....
- Record of any recent hatch cover weather-tight testing available .....
- Planned maintenance records for cargo hold ventilation checked and up to date .....
- Accurate log timings maintained throughout preparations .....
- Records of any hold surveys maintained .....

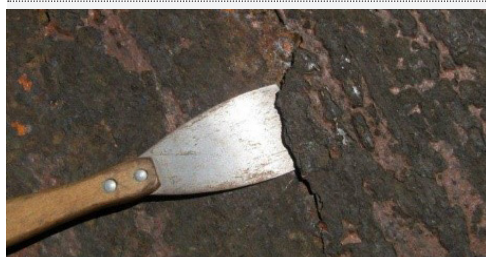
#### Note:

The National Cargo Bureau definition of grain clean is as follows:

Compartments are to be completely clean, dry, odour-free, and gas-free. All loose scale is to be removed.

Some loose scale / rust is allowable however the following would not be acceptable as Grain Clean:

- Scale or loose paint breaks when struck with fist or light pressure from knife.
- A single area of loose rust or paint is 2.5 m<sup>2</sup> or
- The total quantity area of loose rust or paint is more than 9m<sup>2</sup>



Example of loose scale



Example of oxidisation rust which would not affect the cargo

Planned maintenance records:

Should where possible include notes of the checks done, findings and any resolved issues.

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### 02 PRIOR TO LOADING

**△ In known claims hotspots such as Brazil for soya bean, consider appointing local surveyor.**

- Port tidal ranges and times known and posted .....
- Arrival draughts and tank conditions noted .....
- Cargo details including quantity provided .....
- Shippers instructions on cargo care received .....
- Fumigation requirements provided .....
- Cargo loading sequence discussed and agreed .....
- Average moisture content of cargo is provided in certificate of quality .....

(not a MAX moisture see below) record here:

#### Note:

**COMMODITY** : Brazilian Soybeans  
**PACKING** : In Bulk  
**QUANTITY** : 62,189.345 MT

\*\*\*\*\*  
 We certify as follows:

**SAMPLING:**  
 Sets of samples were collected uniformly and systematically, concurrently with loading, at the nearest practicable point to the vessel in accordance with the method laid down by FOSFA.

**QUALITY:**  
 One set of samples was then well mixed and reduced to average samples of the total shipped quantity. The results of analysis carried-out on this average samples are reported as follows:

Specifications:	Results:
Oil Content :	20.27 %
Protein :	35.42 %
Foreign Material :	0.41 %
Molsture :	11.24 %
Total Damage Kernel :	5.21 %
Heat Damage Kernel :	0.60 %
Splits :	7.91 %

Correct formatted cert of quality showing the actual average moisture content.

PROPERTY	SPECIFICATION
FAT	MIN. 18,00%
MOISTURE	MAX. 14,00%
TOTAL DAMAGED	MAX. 8,00%
HEAT DAMAGED	MAX. 4,00%
FOREIGN MATTERS	MAX. 1,00%
BROKEN BEANS	MAX. 30,00%

Incorrectly formatted cert of quality showing a maximum moisture content

- If average moisture content not available in correct format, LOP issued by Master .....
- Average moisture content not >14% (if yes, inform operations team) .....
- Soya bean average moisture content not >11.5% (if yes, inform operations team) .....
- Equipment for measuring the cargo temperature ready .....
- Weather report obtained and reviewed .....
- Consider use of radar to see approaching rain .....
- Camera ready with date and time set for evidence taking .....

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### 03 LOADING

- Deck officers briefed and on deck monitoring operations .....
  - Time stamp photographic evidence taken throughout .....
  - Monitor weather at all times in case of rain .....
  - Maintain accurate records of cargo operations .....
  - Colour of cargo in apparent good condition .....
  - Colour of cargo the same throughout .....
  - No unusual smells from cargo .....
  - Samples of cargo taken during loading and properly bagged .....
  - No caking or lumping of cargo noted .....
  - No excess dust noted .....
  - No foreign matter noted .....
  - On hold completion, cargo temperature accurately noted .....
- Note cargo temperature on loading and average moisture here:

Hold No	Cargo Temp on Loading	Reported Average Moisture content
1		
2		
3		
4		
5		
6		
7		

#### Note:

Approximate storage time in days that soya bean cargoes can be stored before high risk of mould growth:

Average moisture content	Cargo temperature on loading		
	16°C	21°C	27°C
12%	240 days	125 days	70 days
14%	75 days	45 days	20 days
16%	35 days	20 days	10 days

- Fumigator onboard and instructions received and understood by Master and crew .....
- Fumigant type: .....
- Instructions for fumigation as per IMO recommendations .....

#### Note:

If Master is concerned about following unusual fumigation instructions from the charterers appointed fumigator (for example: fumigate for the entire voyage), written confirmation from the charterer should be requested.

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- Holds sealed where required and seal numbers noted and agreed .....
- Draught survey results to be confirmed as accurate and agreed by all parties .....

**Note:**

Ships crew should be present and conduct their own draught survey with all surveyors present. Figures and results should be agreed.

See North's draught survey guide for more details on conducting and agreeing a draught survey.

### 04 ON PASSAGE

- Passage plan attempts to avoid adverse weather .....
- 3 Degree rule used to calculate ventilation and accurate records maintained .....
- Maintain accurate weather records for the passage .....
- Maintain accurate record of all hatch or hold operations and explain reasons .....
- Fuel heating and transfers carefully monitored and recorded to prevent heat damage to adjacent holds .....
- Any ballasting operations carefully monitored and recorded .....
- Any operations that use the bilge system recorded .....
- Accurate tank and bilge soundings for all maintained .....

**Note:**

3 Degree Rule : Ventilate the cargo when the outside air temperature is at least 3 degrees below the temperature of the cargo taken on loading.

It is extremely important that accurate records of ventilation are maintained throughout the voyage including reasons why ventilation was stopped if at all.

Please refer to North's guide to Cargo Ventilation for more details.

Use 3° rule unless advised otherwise by shipper's or charterers instructions.

### 05 DISCHARGE

**△ Consider appointing a local surveyor. In particular for claims hotspots such as China.**

- Camera ready with date and time set for evidence taking (continuous photographic record to be taken) .....
- Arrival times noted including notice of readiness tendered .....
- Vessel condition known including draughts .....
- Maintain all charterers' and agents' instructions .....
- Any certificates required for permitting discharge received and maintained .....
- Weather forecast received - no operations in the rain .....
- Discharge sequence agreed by Master .....
- Removal of seals witnessed by interested parties and recorded .....
- Deck officers briefed and on deck monitoring operations .....
- Time stamp photographic evidence taken throughout .....
- Monitor weather at all times in case of rain .....
- Consider use of radar to see approaching rain .....
- Maintain accurate records of cargo operations at all times .....

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- No signs of self-heating .....
- No signs of mould growth .....
- No colour changes to the cargo .....
- No unusual odours .....
- No signs of infestation .....
- Cargo temperature recorded on discharge .....
- Monitor any tally operations .....
- Draught survey results to be confirmed as accurate and agreed by all parties .....
- Received copies of any 3rd party surveyor reports .....
- Ensure on completion an empty hold certificate is issued .....
- Ensure an out turn report / certificate is agreed .....

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