ICS 77.080.20
CCS R 43

Professional Standard of the People's Republic of China

T/CIQA 28-2021

Inspection rules for pre-loading survey of steel products

钢材货物监装检验工作规范

(English Translation)

Note: The English translation conducted by Teamhead Marine Survey Co.,Ltd.is authorized by CIQA to publish.

Issue date:2021-12-27 Implementation date:2022-03-27

Issued by China Entry-Exit Inspection and Quarantine Association

Contents

Foreword

This document is drafted in accordance with the rules given in the GB/T 1.1—2020 *Directives for Standardization—Part* 1 Rules for the: *Structure and drafting of standardizing documents.*

This document was proposed and prepared by the Import and Export Commodity Inspection and Appraisal Institutions Branch of the China Entry-Exit Inspection and Quarantine Association.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. The issuing body of this document shall not be held responsible for identifying any or all such patent rights.

Inspection Rules for Pre-loading Survey of Steel Products

1 Scope

This document specifies the procedures and methods for steel cargo pre-loading survey.

It applies to surveyors representing relevant interests conducting pre-loading survey to steel cargo transported by ship.

This document provides guidelines for pre-loading survey to exported steel cargo for cargo underwriters, shipowners' Protection and Indemnity Clubs (P&I Clubs). It also provides a reference basis for maritime judgement and arbitration on relevant cargo damage claim.

The requirements proposed in this document cover several aspects of steel pre-loading survey, including pre-shipment survey, loading process survey, documentation work, and report writing.

2 Normative references

The following normative documents contain provisions which, through reference in this document, constitute indispensable provisions of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

SN/T 2466.1-2011 Rules for loading and discharging survey for import and export commodities Part 1: General rules

3 Terms and definitions

3.1 mate's receipt

a document, signed by the Chief Officer of a ship, given to the shipper as proof that the cargo has been loaded, confirms the receipt of the cargo and cargo has been loaded onboard, noting the quantity and condition, and may also record the shipper or consignee's name

3.2 shipping order

a document, issued by the shipping company to the shipper after accepting the shipment application

It is a mandate to the ship's Master to load the contracted cargo.The shipping order can be used as a basis for loading ships, and it is also one of the main documents for the shipper to handle export declaration procedures with the Customs. Therefore, the loading bill is also called a 'customs bill'. For the consignee, it is proof that the cargoes have been properly consigned.

3.3 stowage plan

a simplified ship diagram that illustrates the actual stowage position after the cargo is loaded onboard

Typically, on a graphic represented in the form of a longitudinal section of the ship, the final stowage position, quantity, and weight of the cargo in each cargo hold are marked. Various geometric shapes are often used to indicate the stowage position of the cargo within the hold, accompanied by text annotations indicating the cargo name, shipping order number, port of loading and discharging, quantity, and weight.

3.4 cargo loading list/cargo manifest

a shipping paper list or electronic data submitted or transmitted to Customs by the person in charge of

outbound vessels, aircraft, trains, road vehicles, and other transportation means, or their agents reflects true or accurate the cargoes and items carried by the transportation means

3.5 silver nitrate test

a test, to identify whether chloride ions are present on the surface of corroded or wet spots of the cargo with using a 0.1mol/L silver nitrate solution

Silver nitrate solution reacts with chlorides to form a white, flocculent precipitate. During the hold inspection process, it can also determine if chloride ions are present on the surface of the steel structure within the hold.

3.6 hose test

a method to survey the watertightness of a cargo hold

The hose test involves directing a column of water under certain pressure towards the ship's weld seams, portholes, hatch covers, watertight doors, and other joints to check for any leaks. The water column emitted from the nozzle should be at least at one atmospheric pressure, or fall from a height of no less than 10 meters. The diameter of the fire hose nozzle should be no less than 16 millimeters, the nozzle should be no more than 3 meters away from the tested area, and the water should be aimed as vertically as possible.

3.7 hatchcover ultra sonic test

a method to survey the watertightness of a cargo hold involves the use of a portable ultrasonic device, which consists of a transmitter and a probe

During the test, the transmitter is placed inside the hold, which should be sealed as if the ship is in its sea-going condition. The probe, handheld by the surveyor, is moved along various parts of the hatch cover. The sound emitted by the probe or the dB values displayed on the screen are used to determine any sealing deficiencies in the hatch cover. Before the test, to calculate the degree of ultrasonic leakage, an Open Hatch Value(OHV) should be set. Typically, the instrument is adjusted and records the maximum OHV value, generally displayed between 60-90. During the watertightness test, if the receiver displays a value less than 10%, the hold is considered watertight. Otherwise, it is deemed not watertight.

3.8 chalk test

a method to check the watertightness of a cargo hold, the chalk test, utilizes chalk to detect the watertightness of the sealing rubber packings

The method involves applying chalk to the compress bars around the hatch coaming and those connecting the hatch cover sections. Once the hatch cover is closed and sealed, it is then opened to inspect the sealing rubber packings for continuous chalk marks. If there are continuous marks, it indicates that the area is sealed when the hold is closed; if not, it indicates that there is a gap, suggesting a potential leak point.

4 General Requirements

4.1 Survey Requirements

4.1.1 Survey and photograph the stacking situation and condition of the steel cargo planned for loading .

4.1.2 Review the stowage plan for the cargo.

4.1.3 Survey and photograph the intended ship's cargo hold.

4.1.4 Survey the entire transshipment and loading process, recording the methods, processes, and tools used

for transshipment and loading, and photograph them.

4.1.5 Survey the stowage location,dunnage, lashing, and reinforcement of the cargo, correct any improper methods, and photograph them.

4.1.6 Survey and record the condition of the cargo during transshipment and loading, check and record for any new damages. Photograph any damages.

4.1.7 Record the loading time and weather conditions.

4.1.8 After the cargo is loaded onto the ship, issue a cargo condition report based on its condition.

4.2 Safety Requirements

4.2.1 When entering the site for the survey, surveyors should wear neat flame-retardant work clothes, anti-slip, anti-static shoes, and safety helmets.

4.2.2 Strictly adhere to the safety regulations of the port and the ship.

4.2.3 In case of adverse weather conditions such as strong wind, heavy rain, heavy snow, or thunderstorms, the survey should be suspended.

4.3 Survey Instruments

4.3.1 Surveyor should prepare related survey tools, including laptops, cameras, steel measuring tapes, silver nitrate reagents, etc.

4.3.2 Steel measuring tape should be certified and validated by the national measurement department or a qualified appraisal department.

4.3.3 The silver nitrate reagent (0.1mol/L) should be stored in a sealed, dark, light-proof container and labeled with the reagent name or its English abbreviation (S-N).

4.3.4 The use of instruments should comply with the technical requirements of relevant survey standards and operational rules.

5 On-site Survey

5.1 Preliminary Work

5.1.1 Confirm Information

Upon receiving the assignment , surveyors should immediately make preliminary contact with relevant parties involved in the survey, including shipping agents and freight forwarder, to verify the ship name, cargo information, and confirm the subsequent survey date, location, contact person, and contact information.

5.1.2 Boarding Permit

Surveyors should prepare the relevant appointment letter and introduction letter to obtain a boarding permit for foreign vessels.

5.2 Pre-loading Cargo Survey

5.2.1 General Survey Content

a) Before loading, surveyor should arrive at the cargo stacking yard in advance to survey the cargo's condition, otherwise there might not be sufficient time for a detailed survey of the cargo loading commenced.

b) Upon arriving at the yard, surveyors can inquire about the exact location of the cargo to be surveyed from

the warehouse keeper or the freight forwarder.

c) If it's not possible to survey the cargo in advance due to time constraints, or if the cargo lots are limited in number, once the ship is berthed, the stevedore foremen or tallymen can be asked about the cargo's location, and then the surveyor can survey the cargo in the yard.

d) After arriving at the yard, according to the name or number of yard provided by warehouse keeper, the surveyor should check whether the cargo's tarp cover is labeled with the cargo's shipping order number or a special mark to further confirm if it's the cargo to be surveyed. If there's no tarp cover, check if the cargo's surface is marked with the shipping order number or a special mark.

e) Typically, cargo is surveyed per different shipping order or lot.. If a shipping order consists different types of steel, each type should be surveyed separately.

f) Pay attention to the yard's ground condition and how other cargo in the vicinity is stacked. The main concern is whether nearby cargo could potentially contaminate or otherwise adversely affect the cargo under survey. Record and report the yard or warehouse's condition, whether the ground is cement, brick, or soil, its cleanliness, any water accumulation, the warehouse's ventilation, any leaks or spillages, and the nature of cargo stored around the cargo under survey.

g) Check if the cargo under survey in the warehouse or yard is covered with a tarp, the tarping method, material, how the tarp is fixed or lashed, if there's any dunnage between the cargo and the ground, how many layers of the dunnage, and the dunnage material and size.

h) Check if there's any dunnage between the layers of the cargo under survey, how many layers of dunnage, and the dunnage material and size.

i) Check the cargo under survey stacking method, whether it's stacked in the same direction or crisscrossed, whether it's horizontal or sequential stacking, the number of layers, approximate height, and the quantity in each stack (often, the yard's warehouse keeper will mark each stack's quantity and tonnage).

j) Check if the cargo under survey has any external packaging, if so, record the packaging method, material, color, packaging condition (whether it's fully or partially packaged), and the distribution, number, and size of any lashings or steel wires. Also, check if there's any dunnage where the lashing or steel wire contacts the cargo body.

k) Check if the cargo under survey is affiliated with pre-loading slings.

l) Check if there are any labels on the cargo under survey external packaging and record their number.

m) Check if any markings have been painted on the exposed surface of the steel pipes under survey.

n) If any rust or moisture is found, including rain or snow, or if there's any unidentified dust on the cargo's surface, a silver nitrate test should be conducted on the cargo under survey.

o) Any mechanical damage to the cargo should be recorded, noting the location and extent of the damage. If the damage is severe, the cargo's number should be recorded.

5.2.2 Key Survey Points for Different Types of Cargo

5.2.2.1 Steel Pipes

a) Whether the steel pipes are packaged individually or bundled; number of pipes per bundle.

b) Whether cargo with different bill of lading numbers is packaged differently.

c) Whether different sizes of cargo or cargo with different bill of lading numbers have different color

markings.

d) Whether steel pipes have woven sheets packaging; if yes, describe the packaging.

e) Number/width/distribution of strapping bands on the cargo's packaging.

f) Whether there's dunnage between the strapping band and the cargo's packaging; if yes, provide a description.

g) Whether steel pipe ends have protective caps.

h) Whether steel pipes have paint markings/labels.

i) Whether steel pipes are affiliated with pre-installed lifting slings.

j) Rust conditions on the steel pipes and the strapping bands; if rust is found, the surveyor should conduct a silver nitrate test.

k) Whether the external packaging of the cargo is damaged and the extent of damage.

l) Whether unpackaged steel pipes or packaged steel pipes have oil stains.

m) Whether there are scratch marks on the steel pipes.

n) Whether any strapping bands are broken.

o) Whether there is any projecting in the longitudinal direction of the cargo.

p) Whether there are any bent or deformed pieces (full length, ends, middle).

q) Whether there are any loose bundles.

r) Whether any protective rings/caps are missing.

s) Whether there's moisture on the cargo; if so, the surveyor should conduct a silver nitrate test.

5.2.2.2 Steel Plates

a) Whether steel plates are single piece or group packed.

b) If grouped, the number of strapping bands used, their width, and the number of plates per group.

c) Whether the steel plates have spray-painted numbers or marks.

d) Rust conditions on the steel plates themselves or the strapping bands; if rust is found, the surveyor should conduct a silver nitrate test.

e) Whether there are scratch marks/nicks on the surface of the steel plates.

f) Whether there are any bent or deformed pieces and if it's due to elastic or natural deformation.

g) Whether there are oil stains on the surface of the steel plates.

h) Whether there's moisture on the cargo; if so, the surveyor should conduct a silver nitrate test.

5.2.2.3 Wire Rod in Coils

a) Whether the cargo has external packaging; if so, describe the packaging material, color, and whether there's any spray paint or marking.

b) If there's no external packaging, describe how many strapping wires/bands are used for each coil, and how they are distributed.

c) How many labels each coil has; record the content and take photos.

d) Rust conditions on the cargo itself or the strapping bands; if rust is found, the surveyor should conduct a silver nitrate test.

e) Whether there are any deformed cargos.

f) Whether there are any loose bundles.

g) Whether any of the coiled cargo has oil stains.

h) Whether there are scratch marks on the surface of the cargo.

i) Whether any strapping wires/bands are broken, and if so, how many.

j) Whether there's moisture on the cargo; if so, the surveyor should conduct a silver nitrate test.

5.2.2.4 Cold-rolled Coils(CRC), Galvanized Coils, and Prepainted Galvanized Steel Coils（PPGI）

a) Material and method of external packaging for the cargo.

b) Distribution and size of strapping bands.

c) Whether different sizes or cargo with different bill of lading numbers have different color markings.

d) Whether any strapping bands are broken.

e) Whether there are scratch marks on the external packaging of the cargo.

f) Whether the external packaging of the cargo has any dents.

g) Whether the protective rings are deformed.

h) Rust conditions on the external packaging; if rust is found, the surveyor should conduct a silver nitrate test.

i) Whether the external packaging is damaged and if so, whether the contents are exposed.

j) Whether the steel coil has overall deformation.

k) Whether there's moisture on the cargo; if so, the surveyor should conduct a silver nitrate test.

5.2.2.5 Hot-rolled Steel Coils

a) Size and distribution of strapping bands.

b) Whether different sizes or cargo with different bill of lading numbers have different color markings.

c) Whether any strapping bands are broken.

d) Whether there are scratch marks on the surface of the cargo.

e) Whether the cargo has an telescoped appearance.

f) Whether there are any bends along the edges of the steel plates.

g) Whether there's rust on the cargo; if so, the surveyor should conduct a silver nitrate test.

h) Whether the surface has any attached straw residual.

i) Whether there's moisture on the cargo; if so, the surveyor should conduct a silver nitrate test.

5.2.2.6 H-beams/I-beams, Angle steels, and Channel Steels

a) Whether the cargo is bundled or packaged individually.

b) Size and distribution of strapping bands.

c) Whether different sizes or cargo with different bill of lading numbers have different color markings.

d) Whether any strapping bands are broken.

e) Whether there are scratch marks on the surface of the cargo.

f) Whether there are projecting in the longitudinal direction of the cargo.

g) Whether there are any bent or deformed pieces.

h) Whether the edges of the cargo have any dents.

i) Whether there are any individual pieces of cargo that are bent or deformed.

j) Whether there's rust on the cargo; if so, the surveyor should conduct a silver nitrate test.

k) Whether there's moisture on the cargo; if so, the surveyor should conduct a silver nitrate test.

5.3 Cargo Hold Survey

5.3.1 Cargo Hold Cargoworthy Survey

Ensuring the cargo worthinesss of the cargo hold is a part of the carrier's responsibility for vessel management.

There should be no cargo residuals from the previous voyage inside the hold, and it should be free from substances containing chlorides. Typically, a silver nitrate solution is used to test for the presence of chlorides in the hold. The hold should also be free from standing water, condensation, and dampness.

5.3.2 Cargo Hold Watertightness Survey

Ensuring the watertightness of the cargo hold is part of the carrier's responsibility for ensuring vessel seaworthiness and their duty in vessel management.

Common methods to survey the watertightness of a cargo hold include visual inspection, hose test, ultrasonic test, and chalk test.

5.4 Information and Documents Collection

5.4.1 Gathering Information from the Vessel

5.4.1.1 Upon boarding the ship, the surveyor should record the boarding time, introduce themselves to the ship’s Master, hand over their business card or relevant authorization letter, take note of other relevant personnel who have boarded, and identify representatives from all involved parties.

5.4.1.2 Obtain berthing information from the Chief Officer or ship’s Master, including:

a) Time when the vessel arrived at the anchorage.

b) Time of Pilot boarding.

c) Time when all lines made fast ashore.

d) Time when entry formalities were cleared.

5.4.1.3 Obtain information about the last voyage or the last port from the Chief Officer or ship’s Master, including: name and unloading port of the cargo from the last voyage and discharge port; name of the previous port of call (if any) for this voyage; whether the last port was for loading or discharging, location and name of the cargo loaded in the last ports; whether the ship's cargo hold was cleaned, washed with seawater, and rinsed with freshwater. Also, whether a hose test was performed for the hatch covers at the last port.

5.4.2 Collect relevant documents from the vessel, include but not limited to:

a) Ship's particulars.

b) Pre-stowage plan.

c) Crew list.

d) Loadline certificate.

e) Cargo loading list/cargo manifest.

f) Final stowage plan from the last port.

5.4.3 Review the Pre-stowage Plan

Understand and verify the Pre-stowage plan and the cargo securing plan. If any irregularities in stowage and cargo securing are noted, notify relevant parties, recommend corrections, and record the corrective measures taken.

5.4.4 Others

5.4.4.1 Check with the tally Chief to verify the cargo name, quantity, and weight on the loading list. Inquire about the location of the cargo storage yard.

5.4.4.2 The cargo details as indicated in the documents including quantity and description of the cargo collected from the ship may differ from the final documents. The loading list (shipping orders) from the tally clerk should be taken as the reference.

5.4.4.3 Establish contact with the stevedore foremen (Chief foreman) to know the start time of loading and the number of work shifts. Record the use of ship's and or shore cranes.

5.5 Transfer and Loading Process Survey

5.5.1 Record the start time of loading and the weather conditions on the day of loading.

5.5.2 Survey the transfer conditions in the stacking yard and the tools used: the safety working load of the mobile crane, forklift (whether there are protective devices on the forks), type of hoisting equipment (steel ropes, iron chains, nylon slings, C-hooks), their dimensions and safety working load. Record the number of cargo hoisted each time and the hoisting method.

5.5.3 Record the tools for transferring cargo from the yard to the ship's side (trailer, truck, direct alongside ship by truck), the number of items transferred each time, whether there are dunnage and protective measures on the transfer vehicles. If there are dunnage, record the number, distribution, and dimensions of the dunnage. Especially when the tractor has a U-shaped groove, record and photograph whether there are dunnage where the cargo contacts the U-shaped groove of the trailer.

5.5.4 Pay special attention to and photograph any new cargo damage that occurs when the cargo is transferred to the ship's side by trailer.

5.5.5 Record the cargo hoisting equipment at the ship's side, type of hoisting tools, hoisting method, and whether new cargo damage is generated.

5.6 Cargo Stowage Survey

5.6.1 General Survey Content

a) Provide a detailed description of the cargo's stowage statues in the hold, including the direction, height, position, and distribution of stowage. Whether there are dunnage between the cargo and the tanktop, and between the cargo and the hopper tank and frames. Record the number and size of the dunnage. Whether there is new damage to the cargo during loading, the type, and quantity of damage.

b) Check if there is unreasonable stowage, such as heavy cargo compressing light cargo, large items compressing smaller items.

c) Check if there is a partition in the cargo hold and document how it's partitioned.

d) The stowage method in the hold, including direct drop, forklift-assisted stowage, and excavator-assisted stowage. Pay special attention to whether the forklift has protective measures and if it can damage or particularly scratched the cargo. If a forklift or excavator is working on top of the loaded cargo, there should be steel plates, rubber sheets or other dunnage on the cargo below. The focus is on whether the forklift or excavator working above might cause new damage to the cargo below.

e) Before loading, check whether there are dunnage or lashing materials pre-laid on the tanktop, hopper tank, frames and bulkheads, and how many dunnage wood and wires are arranged. Measure the

dimensions of the dunnage and lashing materials, whether they are new or used, and whether the dunnage have fumigation markings.

f) Whether there are dunnage between layers of cargo, and the number and size of these dunnage.

g) If you find unreasonable stowage, notify the relevant parties promptly and recommendfor rectification. Record the measures they took.

5.6.2 Basic Dunnage Requirements for Steel Cargo

5.6.2.1 Steel Pipes

Wooden dunnage should be placed on the tanktop depending on the length of the steel pipes. Generally, a dunnage is applied in every 1m-2m interval, with the dunnagesize not less than 5cm×5cm. Between the steel pipes and hopper tanks, no less than two lines of dunnage should be placed. Upon completion, the steel pipes should be lashed with steel wire ropes, with a diameter not less than 16mm. For every 6m, no less than two lines of steel wire ropes should be used for lashing. Lashing can be done for the entire batch of steel pipes or only for the top few layers. Dunnage made of rubber sheets or cloth bundles should be placed between the steel wire ropes and the cargo. Moreover, each steel wire rope should have at least 1-2 turnbuckles and three pieces of wire clips, with the U-shaped bottom edge of the wire clips on the free end of the wire.

5.6.2.2 Steel Plates

Based on the size of the steel plates, wooden dunnage should be placed between the tanktop and the steel plates. Typically, a dunnage is applied in every 1m-1.5m interval. Dunnage of the same size should be placed between layers, and the placement should be in line vertically, meaning the dunnagebetween layers should align vertically with those between the plates and the tanktop. The dunnage size should not be less than 5cm×5cm. Between the steel plates and the hopper tanks, and between the plates and the frames, no less than two lines of dunange should be applied. For every 2m interval between the steel plates and the bulkhead, one line of dunnage should be placed. Upon completion, the steel plates should be lashed with steel wire ropes with a diameter not less than 16mm. For every batch, no fewer than three lines of steel wire ropes should be used for lashing. Lashing can encompass the entire batch of steel plates or only the top few layers. Dunnage made of rubber sheet or cloth bundles should be placed between the steel wire ropes and the cargo. Each steel wire rope should have at least 1-2 pieces of turnbuckles and three pieces of wire clips, with the U-shaped bottom edge of the wire clipson the free end of the wire. Additionally, shoring and chocking should be applied to the gaps between steel plates and the ship sides, as well as between each batch of steel plates.

5.6.2.3 Wire Rod in Coils (WRIC)

Wire rod in Coils should be dunnaged with 2-3 lines of wooden blocks between WRIC and the tanktop. Two lines of wooden blocks should be used for dunnage between the pipes and the hopper tanks as well as between the WRIC and the frames. All WRIC s should be stowed with their "eyes" facing longitude (Eye To Fore & Aft Direction). The stowage height for WRICteel in each hold should not exceed 9 layers, with a maximum of 10 layers. Thin ROD of WRIC should be loaded first followed by thicker ones, otherwise, the WRICat the bottom might get deformed. Upon completion, the top layer of WRIC should be lashed. Typically, steel wire ropes or Manila Ropes are used for lashing, employing the Olympic lashing method. If steel wire ropes are used for lashing, dunnage made of rubber sheets or cloth bundles should be placed where the wire rope contacts the wire rod in coil.

5.6.2.4 Steel Sheets in Coil

Depending on the tanktop strength of the hold, 2-3 lines of wooden blocks or planks should be used for dunnage between the steel sheets in coils and the tanktop. Two lines of wooden blocks should be placed for dunnagebetween the steel sheets in coils and the hopper tank as well as between the steel sheets in coil and the frames. All steel sheets in coils should be stowed with their "eyes" facing the longitudinal direction (eye to forward and afterward). Depending on the strength of the tanktop, the stowage height for steel sheets in coils in each hold should not exceed 3 tiers. If it's cold-rolled or galvanized steel sheets in coils, depending on the thickness of the steel sheet, a maximum of 2 tiers might be applied. Thick steel sheets should be loaded first, followed by thinner ones, to avoid loading heavier cargo on top of lighter ones. Otherwise, the coils at the bottom might get deformed. Upon completion, the steel sheets in coil stowage on wingsides and the top tier should be lashed. Typically, steel wire ropes or steel bands are used for lashing, employing the triangular lashing method on the wingsand a corrugated style for the top tier. If steel wire ropes are used for lashing, dunnage made of rubber sheets or cloth bundles should be placed where the wire rope contacts the steel sheets. For cold-rolled and galvanized steel, soft cloth or rubber should be placed between each tier. Single tier or single row stowage is not allowed, and there should be at least one key coil(locking coil)for each row.

5.7 Lashing and Securing Survey

5.7.1 Steel Wire Lashing Method. Check if steel wires and other lashing materials have certifications, the total number of steel wire lines, the use of turnbuckles, the number of wire rope clips used for wire fasten, the distribution and orientation of the wire rope clips, whether the steel wire is pre-tensioned, whether the turnbuckle screw is at its maximum position. Determine if the steel wire is taut, whether dunnage is placed between the steel wire and the cargo, and take note of the free tail length of the steel wire should be min one foot in length.

5.7.2 If steel sheets in coil is secured with steel bands, describe whether the steel bands have certifications, the dimensions of the bands, and the tightening and lashing methods used.

5.7.3 Check if there are wooden blocks chocking the gaps between cargo and cargo and between the cargo and bulkheads. Record the chocking materials, methods, and the strength of the chocking.

5.7.4 If any improer lashing or securing are found, relevant parties should be notified promptly to make corrections and the measures they take should be recorded.

6 Cargo Condition Report

6.1 General Requirements

After the completion of cargo loading, based on the defects found and summarized during the survey process, including the degree of rust on the cargo, the quantity of cargo affected by rust, the extent of mechanical damage, and the quantity of cargo with mechanical damage, the surveyor should compile a cargo condition report and append this report to the pre-loading survey report.

If the principal is the shipowner or a P&I Club for the shipowner, the cargo condition report drafted by the surveyor as a third party should be provided to the ship after completion of loading to assist the ship’s Master or Chief Officer inserting all defects of cargoes into the mate's receipt and bill of lading. The report on the loading survey and the loading process is the basis for the cargo condition report and is a document attesting

to the authenticity, reliability, and impartiality of the cargo condition report. The cargo condition report is the ultimate goal of the steel cargo preloading survey assigned by the shipowner and P&I Clubs.

If the principal is the consignee or the cargo underwriters, the cargo condition report compiled by the surveyor should be appended to the pre-loading survey report. Reports from surveyors representing the shipowners' P&I Clubs should also be collected. Discrepancies in severity and quantity should be highlighted in the report, explaining the reasons for their damages and if possible, provide necessary evidence, including tally reports, photos, and records from the warehouse keeper .

6.2 Language Requirements

Considering that this document mainly serves as a guide for providing service to cargo underwriters and shipowners' P&I Clubs, the "Cargo Condition Report" for the export of steel cargo preloading survey should be issued in English or as per the principal requirement.

6.3 Annex A: Format requirements

6.4 Annex B: Example of Cargo Condition Report

6.5 Annex C: Common Remarks

7 Collection of document upon completion

7.1 Upon completion of survey, promptly collect the following documents(see 7.2), attach scanned copies to the final report, and send them to the principals. Keep the original documents in file for timely retrieval.

7.2 The documents include cargo daily tally reports from the tally company, the final stowage plan, copies of the mate's receipt,cargo condition reports, tally certificates, the ship's Masters authorization for issuing bills of lading, full style of agent, statement of fact, and other relevant documents.

7.3 Inquire about the departure time and the next port of call.

8 Preparation of the Formal Report

8.1 Language Requirement

Considering that this document primarily serves as a service guide for providing service to cargo underwriters and shipowners' P&I Clubs, the final formal report for steel cargo preloading survey report should be in English or as per the principals requirement.

8.2 Refer to Annex D for the preparation of the formal report.

Annex A
(Annex Normative)
TEMPLATE FOR CARGO CONDITION REPORT

A.1 The first part of the "Cargo Condition Report" should briefly describe:

We, the Undersigned Surveyor, acting for and on behalf of XXX Party, carried out the Pre-Loading Survey on the cargo of STEEL PRODUCTS on board MV "XXX". Voy.No.: XXX, from XX(Date) to XX(Date) at Port of XXX.

A.2 The last part of the "Cargo Condition Report" should have a fixed description: We recommended the Master and Chief Officer to insert remarks on the Mate's Receipt reflecting above condition of the cargo and clause the same on the Bills of Lading.

A.3 The "Cargo Condition Report" should be signed and stamped by the ship's Master or Chief Officer at the end. The Surveyor, representing the Shipowner or P&I Clubs, should indicate the party represented and sign. For other parties' interests, simply indicating "Surveyor" is acceptable for signature. The ship's Master or Chief Officer's signature and stamp constitute the final step of the loading survey, serving as both the ship's acknowledgment and confirmation of the survey work and an official document for potential future claims and litigation.

A.4 The "Cargo Condition Report" should briefly include the cargo shipping order number, cargo name, and the hold in which the cargo was loaded.

A.5 It is generally not recommended to transcribe the quantity declared by the shipper or the quantity stated in the tally certificate in the "Cargo Condition Report" because such transcription may raise suspicions of endorsing the shipper's declared quantity or corroborating the tally quantity, posing potential risks to the actual shipowner under chartering . With this consideration in mind, a general caution should be included in the "Cargo Condition Report": "Cargo quantity as per XXX Tally Company and Quality & Weight as declared by Shippers."

A.6 The focus of the "Cargo Condition Report" is on describing the defects in the cargo. These descriptions should be based on the actual findings during the survey and should provide a comprehensive overview of the cargo defects within a fair and reasonable scope. When it comes to the quantity of defective cargo, it should be accurately identified. The extent of defects in cargo should strictly adhere to the descriptions in the loading survey report. Using uncertain quantity descriptions such as "partial" or "some" should be prohibited, and instead, precise numbers or "all" should be used. The format for descriptions should be as follows:

a) Cargoes were stowed in the stacking yard with/without coverage or in a warehouse before shipment.

b) Packing and cargo condition inside package unknown

c) Dust stained on the packing surface, affecting all/XXX pieces.

d) Rust/grease oil/water trace (indicating the extent) was found on the packing, affecting all/XXX pieces.

e) Scratched/dented/nicked/deformed/crimpled/torn (indicating the extent) on the packing, affecting all/XXX pieces.

f) Scratched/dented/nicked/deformed/crimpled/torn (indicating the extent) on the packing of the bare cargo, affecting all/XXX pieces.

g) Packing was severely torn/Cargo was severely deformed, affecting XXX pieces and Product No. XXX.

h) Strapping band/wire was broken/loose, affecting all/XXX pieces.

Or

a) Cargoes were stowed in the open yard with/without coverage or in a warehouse before shipment.

b) Dust stained on the cargo surface, affecting all/XXX pieces.

c) Rust/grease oil/water trace (indicating the extent) was found on the cargo surface, affecting all/XXX pieces.

d) Scratched/dented/nicked/deformed (indicating the extent) on the cargo surface, affecting all/XXX pieces.

e) Cargo was severely torn/deformed, affecting XXX pieces and Product No. XXX.

f) Strapping band/wire was broken/loose, affecting all/XXX pieces.

Annex B
(Annex Informative)
CARGO CONDITION REPORT

We, the Undersigned Surveyor, acting for and on behalf of vessel’s Owner and her P&I Club,carried out the Pre-Loading Survey on the cargo of STEEL PRODUCTS on board MV “SFL YUKON”. Voy.No.: SFYKV065, at Port of CAO FEI DIAN,China.

Cargo’s quantity as per CHINA UNITED TALLY CO,.LTD TANGSHAN, and quality & weight as declared by shippers.

The defects of the cargo loaded on board were found as follows:

S/O NO：HDGLCAOANR173101		**IN HOLD NO.4**
PRIME HOT ROLLED STEEL SHEET IN COIL		
1）	All cargo stowed in the open yard with tarpaulin covering before shipment	
2）	Dust-stained on the surface, affeted all coils	
3）	Partly rust-stained on the surface & securing bands, affected all coils	
4）	Partly scratched on the surface, affected all coils	
5）	Partly nicked/dented at the edge, affected 6 coils	
6）	One line of securing bands broken, affected 2 coils	
7）	1-2 circles telescoped out in axial direction, affected 4 coils	
S/O NO：HDGLCAOANR173102		**IN HOLD NO.1,4&5**
PRIME HOT DIPPED GALVANIZED STEEL IN COILS		
1）	All cargo stowed in the warehouse without covering before shipment	
2）	Dust-stained on the outer packing, affeted all coils	
3）	Partly scratched on the outer packing, affected all coils	
4）	Partly bucked at edge protector, affected all coils	
5）	Slightly dented on the outer packing, affected all coils	
6）	Partly crumpled on the outer packing, affected 20 coils	
S/O NO：HDGLCAOSET173104		**IN HOLD NO.1&5**
HPOT DIPPED GALVANIZED COILS		
1）	All cargo stowed in the warehouse without covering before shipment	
2）	Dust-stained on the outer packing, affeted all coils	
3）	Partly scratched on the outer packing, affected all coils	
4）	Partly bucked at edge protector, affected all coils	
5）	Slightly dented on the outer packing, affected all coils	
6）	Partly crumpled on the outer packing, affected 2 coils	

S/O NO:HDGLCAOSET173105	IN HOLD NO.1&5
HOT DIPPED GALVANIZED COILS	
1)	All cargo stowed in the warehouse without covering before shipment
2)	Dust-stained on the outer packing, affected all coils
3)	Partly stratched on the outer packing, affected all coils
4)	Partly bucked at edge protector, affected all coils
5)	Slightly dented on the outer packing, affected all coils
6)	Partly crumpled on the outer packing, affected 21 coils

We recommended the Master and Chief Officer to insert remarks on the Mate's Receipt reflecting above condition of the cargo and clause the same on the Bills of Lading.

Master/Chief Officer

As Surveyor

xxxx.xx.xx

Annex C
(Annex Informative)
COMMON REMARKS

common remarks, see Table D.1

Table D.1 COMMON REMARKS

Examples
covered with snow/ice
galvanizing affected by white oxidation marks
galvanizing affected by white rust
galvanizing dull
grease spots and oil patches apparent on number units
stained extent by an unidentifiable color powder
streaky rust indicates previous contact with water
surface areas reacting to silver nitrate solution tests
wet before shipment
rust spots apparent
rust spotting
rust stained
rust with pitting
rusty
partly rust stained
partly rusty

Annex D

Annex Normative

PREPARATION OF FORMAL REPORT

E.1 Report Content

a) Title includes: vessel name, voyage number, survey type, location, and time.

b) The time format includes: month, day, year, and the location is the port name followed by CHINA.

c) Assignment includes: a photo of ship’s bow in half-width, the full name of the principal with Messrs., survey date, location, the name of the ship (IMO number), survey type, and scope.

d) Ship particular includes: vessel name, call sign, port of registry (or flag port), ship type, classification society, name of shipowner, operating company (management company), gross tonnage, net tonnage, length overall, breadth and depth mould,, summer displacement, number of cargo holds, and number of ship's gears.

e) Cargoes under survey includes: shipping order number, cargoes description, quantity, weight, name of shipper, loading port, discharge port, and, if available, name of consignee and notify party , information may be copied from shipping orders or mate’s receipts .

f) Basic Information collected after boarding includes: time of arrival at anchorage, pilot boarding, berthing, end of joint formality, berth number at the terminal, name of terminal, issue and annual survey date of International Load Line Certificate date Previous port and cargoes loaded (in which hold), whether hold swepted and washed and if fresh water rinsed, cargo holds for loading at this port, crew list, representatives met in the office, the name of supercargo, and the English name of his company, and the ship's signed stowage plan for this port.

g) Visual Watertight Survey. The report includes photos and descriptions of the condition of facilities such as hatch covers inside and out plates, hatchcoaming

inside and external, manholes, hatch cover rubber gaskets and compress bar, manhole gaskets, hatch quickly acting cleats, non-return valves, drainage channel, and ventilators.

h) Silver Nitrate Test Inside the Holds. The report shows areas reacting to silver nitrate solution tests.

i) Stowage Conditions and Cargo Damage in the Warehouse Before Loading includes: the name of the warehouse/yard where each lot is stacked, tarpaulin cover and sedimentation conditions, surrounding cargo stacking conditions, cargo packaging, and color coding, the condition of the cargo, which requires photographic evidence.

j) Survey During the Loading Process. Start time of loading to the cargo for the ship and cargo under survey.The transfer process of each type of cargo, including overviews of lifting in the warehouse and at the ship's side, close-ups and descriptions of the lifting equipment in contact with the cargo, tranfer vehicles, the number of transfer each time, close-ups of the equipment in contact with the cargo, including dunnage scratches, and impact, close-ups and descriptions of lifting equipment during lifting, and the number of lifts each time.Description of the stowage in each hold, including assisting stowage tools inside the hold, descriptions of equipment in contact with the cargo, the number, size, and fumigation markings of dunnage, and the condition of the cargo stowage.

k) The daily stowage status in the cargo hold at 8 o’clock am every morning, the tally figures of the cargo on the morning of the day, and estimated time of completion..

l) Upon arrival at the survey site or boarding the ship, the surveyor should promptly record the time of berthing, boarding, disembarking, departure, commencement, completion, stoppage due to rain, and stoppage for special reasons and compile it in the daily report.

m) Special damage phenomena found during loading survey and other matters that need

to be reported to the principal. If it involves damaged cargo, corresponding panoramic and close-up photos should be attached.

n) If there is no significant change in subsequent stowage and shifting, the subsequent daily report should focus on reporting cargoes survey, especially the condition of cargoes in different warehouses and stacks, descriptions of cargo stowage in holds, issues related to stowage, dunnage, and cargo securing, and recommendations to the principal.

o) Completion time of loading and completion time of cargo securing.

p) Stowage and lashing conditions of each hold after completion.

E.2 Attached Photos

a) ship’s Bow photos

b) Cargo hold watertightness survey photos, including photos of the silver nitrate test on the structure inside cargo hold.

c) Photos of cargo under survey photos.

d) Transfer of cargo photos.

e) Overall photos of the transportation vehicle.

f) The condition of dunnage or other protective measures for the transportation vehicle.

g) Panoramic photos of the ship's side loading equipment and rigging.

h) Photos of the cargo loading method inside the hold.

i) Photos inside the hold before loading, including photos of the dunnage materials laid in advance and the condition of wire. Photos of cargo stowage in the previous port's hold (if available).

j) Photos of the dimensions of dunnage, fumigation markings.

k) Photos of the condition of dunnage inside the hold.

l) Photos of the separation of cargoes.

m) Daily photos of cargo stowage inside the hold.

n) Partial and overall photos after completion of cargo.

o) Partial and overall photos of cargo securing.

p) Photos of the dunnage between lashing materials and cargoes.

q) Overall photos of the ship's hatches closing before departure.

r) Photos of any other special situations related to the cargo (such as damaged cargo or ship's body, carefully surveyed and photographed for recording).

Bibliography

[1] China Shipowners Mutual Assurance Association. LP 023/2017 Steel cargo pre-loading survey and remarks on documentation (gang cai zhuang qian jian yan ji dui you guan yun shu dan zheng de pi zhu)

[2] Gard P&I Club.The carriage of steel preloading survey of steel products

[3] HansJorgensen.Carriage of steel cargoes—Guidelines for members, masters and surveyors

[4] Standard club.A guide to the carriage of steel cargo

[5] Skuld.Steel cargo pre-shipment survey