

COA Cargo-Worthy

Criteria for cargo-worthy inspection and repair

1. Introduction

The criteria for Cargo-Worthy (CCW) describes the structural condition of an ISO Dry Freight General Purpose container when assessed to be acceptable for transport on a one-way trip as a shipper owned container (SOC).

Cargo-Worthy criteria is for the use of qualified container inspectors when assessing the container condition and, if found to be necessary, estimating the appropriate Cargo-Worthy repair.

The buyer (new owner) of a Cargo-Worthy container should, at the time of transfer of ownership, carry out a Convention for Safe Containers (CSC) periodic examination in accordance with the new owners approved procedure and display on the safety approval plate the next examination date (NED).

Cargo-Worthy does not take precedence over any contractual terms between parties or include any requirements of neutralisation or remarking.

The major shipping lines and lessors took part in the process to ensure the acceptability of CCW. Individual shipping lines might operate booking acceptance procedures for “SOC” shipper owned containers. These procedures might require actions in addition to Cargo-Worthy criteria. Shippers should contact the shipping line prior to use of the container to determine if any additional requirements.

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Cargo-Worthy criteria is intended for qualified operatives who have completed appropriate technical and health and safety training.

Shippers, operators, carriers, service providers and other users should nevertheless undertake their own risk assessment and ensure the container is fit for purpose, safe and reliable for transport and in accordance with the owners CSC approved procedure and other relevant regulations applicable in the region of use.

The COA and its members and personnel cannot and do not assume any liability for damage to persons or property or other consequences of any procedures referred to herein or of any omissions relating to practices and procedures.

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2. Cargo-Worthy inspection and repair criteria

Component	Damage Condition/Tolerance	Repairs
Top Side Rails	Dents in excess of 30mm	Straighten or Weld, or straighten and weld, or insert, or section, or renew
	Holed, Cut, torn, broken, cracked	
Bottom Side Rails	Holed, Cut, torn, broken, cracked	Straighten or Weld, or straighten and weld, or insert, or section, or renew
	<u>Web</u> : Dents in excess of 50mm, <u>Flanges</u> : no limit	
	<u>Flanges</u> : Crack or tears which extend into web radius	Weld or straighten and weld
Front & rear headers	Dents in excess of 40mm	Straighten or Weld, or straighten and weld, or insert, or section, or renew
	Holed, Cut, torn, broken, cracked	
	<u>Flanges</u> : Crack or tears which extend into web radius	Weld or straighten and weld
	<u>Rear header</u> : Gouge, dents or bent	Must not interfere with door operation.
Rain gutter	Cut / gouged / bent	Must not interfere with door operation.
Front & rear sill	Holed, Cut, torn, broken, cracked	Straighten or Weld, or straighten and weld, or insert, or section, or renew
	<u>Web</u> : Dents in excess of 50mm. <u>Flanges</u> : <u>no</u> limit.	
	<u>Flanges</u> : Crack or tears which extend into web radius	Weld or straighten and weld
Corner posts	Dents in excess of 25mm, unlimited number of dents. Holed, Cut, torn, broken, cracked	Straighten or weld, or weld and straighten, or insert, or renew
	<u>J-bar</u> : Gouge, dents or bent	Must not obstruct operation of door
Corner castings	Cracked, deformed, broken or preventing twist-lock operation	Replace
Fork-lift pockets members or strap and gooseneck tunnel assembly	Holed, Cut, torn, broken, cracked or missing	Straighten or weld, or straighten and weld, or insert, or renew
	<u>Top plate</u> : separation from floor in excess of 10mm or floor screws ineffective, pushed up in excess of 50mm.	
	<u>Web</u> : Cut or tear in excess of 600mm or extending into web radius.	Weld or straighten and weld
	<u>Lower flanges</u> : Crack or tears which extend into web radius	
Cross members,	<u>Web</u> : Dents in excess of 75mm. <u>Flanges</u> : no limit	Straighten or weld, or straighten and weld, or insert, or renew
	Holed, Cut, torn, broken, cracked	
	Bowed up to more than 50mm or below corner casting	Straighten or Renew
	Separation from floor more than 15mm	Straighten and refix or renew
Rails, sills, crossmembers	Corrosion	Holed – repair Use inspection hammer only when essential to investigate severe corrosion e.g. blisters to a structural component.



Component	Damage Condition/Tolerance	Repairs
Floor boards, panels, planks	Broken or missing	Overlay or Section or Renew
	Gouged greater than 15mm deep and 150mm wide	
	Height mismatch greater than 10mm	Resecure or Refasten
	Delamination if structural integrity severely weakened	Repair
Floor screws	If 3 or more adjacent loose, broken missing fasteners	Refasten or renew
	Protruding	Refasten
Doors	Not operational and light tight	Repair
	Holed, Cut, torn, broken, cracked	Straighten and weld or patch or insert, or renew
Gaskets	Loose or not light tight or impedes door operation	Repair
Door hardware	Missing, Broken or not operational	Refasten, or welds, or renew
Data plates	Loose, missing	Refasten or renew
Sides, Ends and Roof panels including Header plates	Dents into cube by more than 50mm on Sides/Ends, and by more than 70mm from roof inner corrugation to floor top surface	Straighten
	Dents out of the ISO corner castings face corner +40mm on Sides or Ends, and +50mm on Roof	
	Holed, Cut, torn, broken, cracked	Straighten and weld or patch
	Corrosion	Holed – weld or patch Only use inspection hammer to investigate heavy corrosion to a structural component.
Air vents	Missing/Broken	Renew
Lashing rings	Missing/Broken	Reweld or Renew
Frame & base structural members	Dents out of the ISO corner castings face +10mm on the side or lower face or +5mm on the ends	Straighten
	Crossmember: deformation below corner casting	
Cleaning	Contamination impedes loading of cargo or transferable	Remove or sweep or jet wash.
	Hazard marks	Remove
	Offensive graffiti	Remove or paint over
	Dangerous goods cargo residue	Clean in accordance with safe procedures
	Nails	No action unless impedes cargo loading
	Foreign Lashing material that impedes securing of cargo	Remove
	Glue or tape	Remove if it impedes loading cargo

Component	Damage Condition/Tolerance	Repairs
Improper previous repairs	Not to IICL but structurally safe	No Action
	Structurally unsafe or structural integrity severely weakened	Rework to structurally sound
Markings	ISO decals and data plate(S) : missing or illegible	Renew
	Non-ISO decals	No Action
	CSC examination NED	Examination according to owners approved procedure

3. Cargo-Worthy repair guidance

When a component is identified by the container inspector as unacceptable condition and requiring repair, the basic principle is to select the most economical method to repair the container to within Cargo-Worthy Inspection criteria. Repairs shall be structurally sound in compliance to CSC approved procedures.

Component:	Repairs
General	Minimum repair to achieve structural integrity appropriate to the container rating and owners CSC approved procedure, light tightness and full operational use. Materials required for repairs may be previously used (cannibalised) components providing the material specification and thickness is equal to the container original specification and rating. Welded repairs only, do not use bitumen or tape. Cosmetic repairs not required
Corrosion holes	Spot weld panel small holes where practical. Do not grind flush. Over patch panel holes if too large for spot weld. It is not required to cut-away corroded material.
Straightening	Straighten to within the Cargo-Worthy criteria. Repairing precisely to the original profile is not required.
Cuts and cracks	Weld as necessary
Paint	Paint welded repairs only. No paint required to under structure repairs. No cosmetic painting of corrosion or scratches.
Side, end, and roof panels	Straighten and weld whenever possible to within the acceptable criteria. Spot weld panel small holes where practical. Do not grind smooth / flush. Over patch panel holes without removing corroded material.
Floors	Broken floors should be repaired by overlaying a 4 mm thick (minimum) steel plate covering a minimum of 2 crossmembers and screwed through the floor to the top flange of the crossmember. The distance between floor screws attaching the plate to crossmembers should not exceed 150mm. The damaged area should be overlapped by at least 150mm on its sides and screwed to the floor. Screws should be no more than 150mm apart. If a floor section is required it may be supported by only 2 crossmembers. Sealant repair water-light leaks from nail or peg holes. Surface delamination - remove loose veneers or secure by nailing.