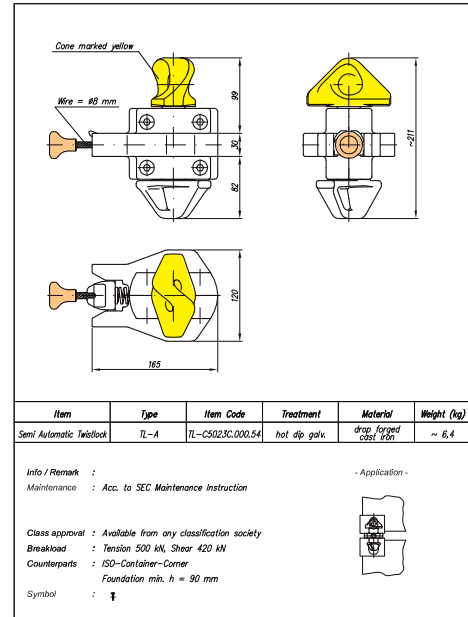


Available documentation

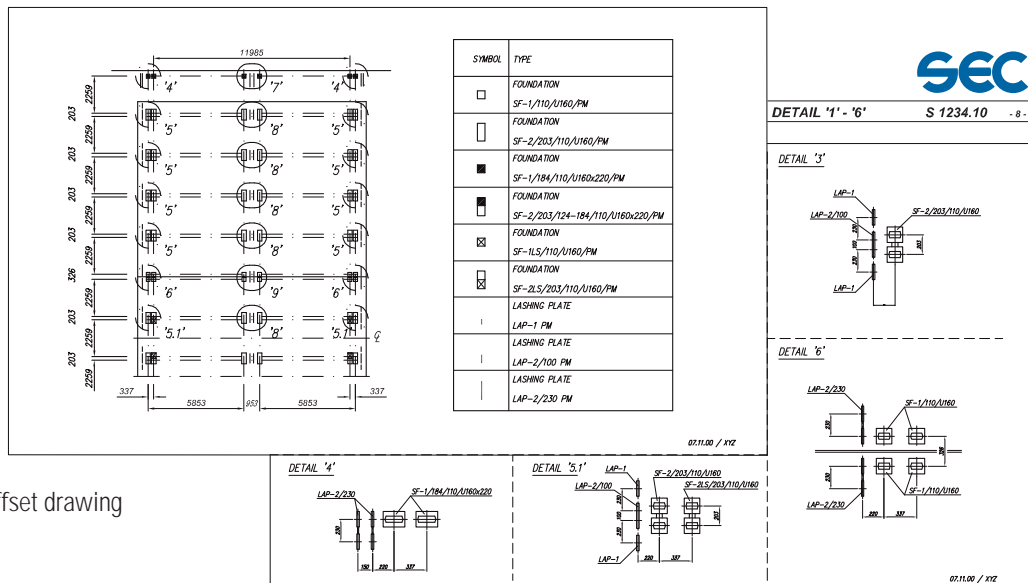
Together with our quotation a detailed specification describing the proposed securing solution will be provided. This also includes sketches showing typical lashing arrangement at midship section with preliminary weight distribution and item drawings for each fitting with all relevant dimensions. Item drawings can be transmitted by telefax or by e-mail (pdf-files).

When receiving an order for the delivery of fixed fittings we will always prepare offset drawings showing the arrangement of foundations, lashing plates etc. for all positions on board. In these drawings the foundations and lashing plates are measured in relation to each other but not in relation to the hull structure.

Offset drawings cannot be approved by classification societies. Their only purpose is to help ship designers to find the correct position for each type of fitting when preparing steel drawings for tank top with reinforcements underneath each fitting for example or for hatch cover designers when preparing outfitting drawings for hatch covers. Placing the order for delivery of loose fittings with us always includes that we will take responsibility for preparation of container securing manual and cargo securing manual.



Item drawing

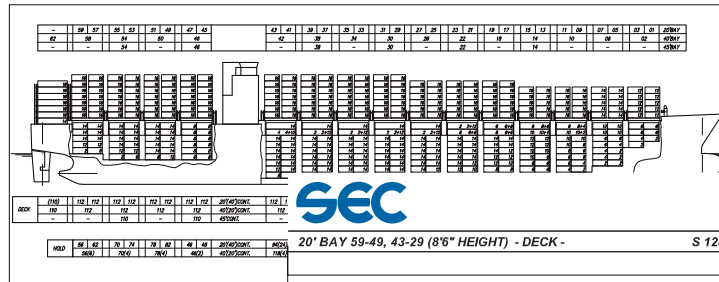


Offset drawing

Available documentation



CONTAINER STOWAGE PLAN - DECK AND HOLD - S 1234.00 - 1. - Technical alterations reserved 10

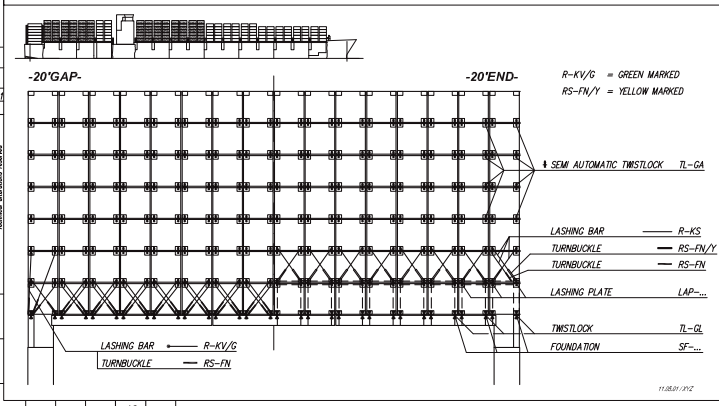


LOOSE MATERIAL LIST acc. to a.m. CONTAINER - DECK - STOWAG

ITEM TYPE	SYMBOL	62	59	57	55	53	51	49	47	45	43	41	39	37	35	33	31	29	27	25	23	21	19	17	15
TWISTLOCK TL-GL		-	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128	128
SEM AUTOMATIC TWISTLOCK TL-GA		-	768	768	768	768	768	768	768	768	768	768	768	768	768	768	768	640	640	640	640	640	640	640	640
TURNBUCKLE RS-FN		-	196	196	196	260	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196	196
LASHING BAR R-KS L = 2400		-	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248	248
LASHING BAR R-KS L = 4780		-	8	8	8	4	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8	8
LASHING BAR R-KV/G L = 4400		-	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
OPERATING ROD OR-A/10370		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
STORAGE BIN 1075x1075x780		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BIN RACK PL-20x8/10		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-



20' BAY 59-49, 43-29 (8'6" HEIGHT) - DECK - S 1234.00 - 10. - Technical alterations reserved 10



Container Securing Manual

The container securing manual is a booklet showing the application of loose lashing gear and maximum weight distribution for a certain GM case. Approval of container securing manual is in the responsibility of the corresponding classification society. The cargo securing manual (CSM) according IMO is a booklet which contains all kinds of useful information about securing of cargo on board such as:

- A material list with all fixed and loose securing fittings on board specifying safe working load, proof load, breaking load, material grade, name of maker etc.
- Item drawings for all loose and fixed securing fittings on board
- Handling and maintenance instructions
- A copy of the approved container securing manual
- Acceleration factors and example calculations for securing of non-standardized cargo
- Example calculations for container lashing
- Approval certificates for all fixed and loose securing fittings on board
- ...

Approval of cargo securing manual is in the responsibility of national authorities depending on flag of the vessel. For the reason that most countries do not have their own approval office for cargo securing manuals instead they will be approved by classification societies.

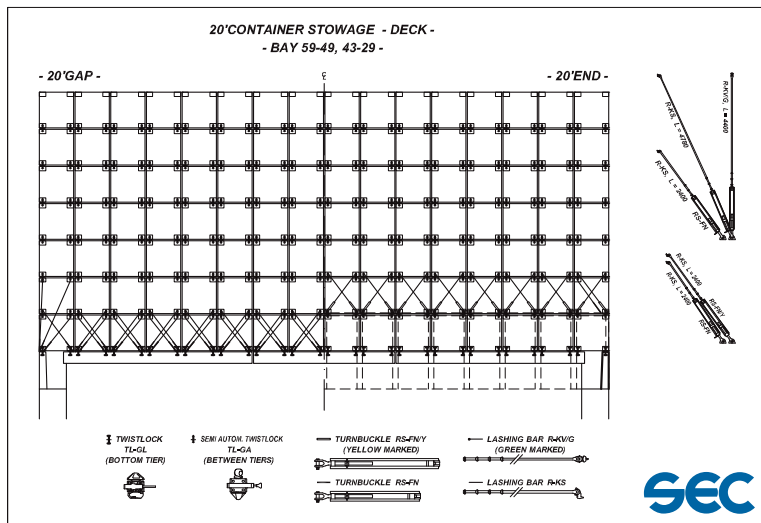
Available documentation



In each harbour the stevedore gang has to be informed how to install the lashings. For this purpose we are offering instruction boards showing the application of lashings and twistlocks. These instruction boards in DIN A 3 size are made of plastic with self-gluing back for easy installation at the longitudinal hatch coaming or other suitable positions.

which is also available on CD ROM on request. Most components of a twistlock, turnbuckle, bridge fitting etc. can be delivered separately. On request we will provide an individual spare parts catalogue for each newbuilding. This spare parts catalogue is listing each securing element with separate article number and drawing of all components. When using this catalogue spare parts can be ordered easily and wrong deliveries will belong to the past.

Even the best securing equipment needs some maintenance from time to time. In order to explain each movement for assembly/disassembly we have prepared a "Maintenance & Repair Video" for our main equipment

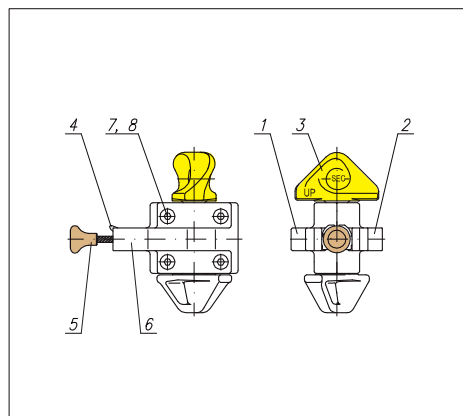


Instruction board



Semi Automatic Twistlock

Technical alterations reserved 10



Item	Type	Item Code	Treatment	Material	Weight (kg)
Semi Automatic Twistlock	TL-A	TL-C5023C.000.54	hot dip galv.	drop forged cast iron	~ 6,4
Left half	Pos. 1	TL-C5019A.000.50	hot dip galv.	cast iron	~ 1,80
Right half	Pos. 2	TL-C5020B.000.50	hot dip galv.	cast iron	~ 1,80
Cone with spring	Pos. 3	TL-C7075B.000.54	hot dip galv.	high tensile steel	~ 2,30
Locking device	Pos. 4	TL-C5003B.000.50	hot dip galv.	cast steel	~ 0,15
Traction rope	Pos. 5	TL-C7086C.000.00		wire	~ 0,10
Spring	Pos. 6	TL-C7037.000.00		spring steel	~ 0,02
Hex. sock. head cap screw	Pos. 7	TL-C7026.000.51	electrolytical galv.	high tensile steel	~ 0,15
Nut	Pos. 8	TL-C7030.000.51	electrolytical galv.	high tensile steel	~ 0,05

Spare parts catalogue