

Industry Standardization of Cargo Screening and Targeted Inspections







Introduction

Ken Rohlmann



Hapag-Lloyd AG

Ferdinandstrasse 28-30 20095 Hamburg Germany

Tel: +49(40) 3001- 3644 ken.rohlmann@hlag.com www.hapag-lloyd.com

Senior Director

#IUMI2024

- Global Dangerous Goods Safety Advisor
- Executive Board Member IVODGA
- Coordinator Safety and Security Council of the World Shipping Council

Ian Lennard



President NCBCEO NCB

NCB

180 Maiden Lane, Suite 903 New York, NY 10038

Tel: (212) 785-8300 lennard@natcargo.org www.natcargo.org www.hazcheck.com NCBEE

SAFETY OF LIFE AND CARGO AT SEA





#IUMI2024

- NCB established in 1952 as a not for profit with a mission of "Safety of Life and Cargo at Sea"
- Created to render assistance to the USCG in discharging its responsibilities under SOLAS 48
- Catalyst for 1948 SOLAS Convention was a series of maritime disasters that demonstrated the need for uniform standards
- SOLAS 48 addressed the Carriage of Dangerous Goods and Grain Cargos for the first time
- Offices in most major ports in the US
- Surveying Staff consists primarily of licensed ex-mariners
- > 2018 EXIS Acquisition rounds out DG service capabilities



Dangerous Goods – evaluating the evolving risks

- Dangerous Goods are subject to a very strict surveillance
- Adherence to all international, national and local legal requirements needs to be guaranteed
- Legal compliance is followed by a comprehensive risk assessment for each DG commodity
- Physical container inspection before loading to eliminate 3rd party risks
- Stowage precautions on board in order to further enhance safety
- Constructive emergency response based on cargo properties

Mitigate

Conclusion

Known Dangerous Goods transports are well planned, checked and executed by experts. The real risk we are exposed to, is the risk we can't see:

Dangerous Goods or other sensitive commodities that are not properly declared to shipping lines.



IUMIBERLIN2024

Actions Following Maersk Honam Fire



- Maersk approached National Cargo Bureau to begin a pilot program in the US to inspect 100 inbound containers to help identify unsafe cargoes including mis-declared and undeclared.
- Maersk issued an RFP for the creation of a digital cargo screening tool to flag mis and undeclared DG.





Extending the Safety Initiative to the Industry



#IUMI2024

National Cargo Bureau inspects 30,000 containers per annum however, the vast majority of these units are export from the US. As an organization we had very little data concerning the regulatory compliance of import containers to the US.

- To ensure we obtained more meaningful data the Container Inspection Safety Initiative was extended to the industry.
- A total of 500 container inspections were conducted free of charge.

Inspection Results

Grand total	Failed	Failure rate	Failed Securing
500	274	55%	217 (43%)

DG	Total	Failed	Failure rate	Failed Sec uring	Failed placar ds/mks	Failed Docs/ Misdecl ared
DG Imports	158	109	69%	69 (44%)	61 (39%)	12 (8%)
DG Exports	105	40	38%	26 (25%)	16 (15%)	5 (5%)

Non DG	Total	Failed Securing	Failure rat e
Non DG Imports	187	96	51%
Non DG Exports	50	29	58%





Urgency is the Mother of Invention







#IUMI2024

- The total capacity or the world's cellular containership fleet is in excess of 28.5 Million TEU, 8% more than a year ago. It is expected to increase 10% this year.
- Container Lines are placing orders for 24,000+ TEU ships.
- From a technical standpoint, there is not any limit on the size a container ship can be. There are predictions that 50,000 TEU vessels will come in the coming decades.
- Estimates of nearly one billion TEU in transit by 2027.
- The demand for lithium-ion batteries is estimated to grow 30% a year through 2030. The demand for calcium hypochlorite is estimated to grow over 11% a year through 2031.
- All these staggering numbers suggest that the risk of misdeclared, undeclared and container ship fires may be worse in the future than it is today.



Cargo Safety Program

- > The Cargo Safety Program a digital solution to standardize the cargo screening and inspections at a global level.
 - o a Common Cargo Screening Tool
 - a Verified Shipper Database
 - o a Database of approved Container Inspection Companies
- The core functionality of the system will be to screen booking information against a comprehensive keyword library and risk algorithms. High-risk bookings will be flagged for further investigation and/or inspection, and the outcomes will be used to continuously improve the screening tool.
- The emphasis is on identifying and correcting dangerous conditions before containers with dangerous cargoes are introduced into the supply chain.
- NCB selected as the provider to deliver the digital solution and the various components of the Cargo Safety Program











Created on over 240 million Real Cargo Bookings



Continuously Train Al Models



Identifies risks in Cargo bookings



Verifies the confidence of Dangerous Cargo



Probability of inspection failure









Calendar Range		Select	Select Top Rule Pe		Policies		(Blank) (Blank) Latest
6/1/2023 🗇 1/25/2024		0		All		\sim	
							Text Matches
Day Range		\smile					ENVIRONMENTALLY HAZARDOUS SUBSTAI PROTED CREATE SOARD CHLORING CHLORING CHLORING SUB-
Last \checkmark 1 Y	ears 🗸	URL	Rule	•	Total Hits	%	
□ 1/26/2023 - 1/25/2024		->	BATTERIES		2860	4.08%	DISPLETIVE CHARCOAL SCRAP HIS BURNESS
	->	CATALYST		1695	2.42%	STORE RADAR CALCULATION AND ETHER PALITICAL CONTRACTOR	
82.41K	46K	->	AUTOMOBILE		1665	2.37%	RODENTICES DE LE CONTRACT ACETAL LEAD HULL ALCOHOLIC B RODENTICOSS ACETATE DROME CAUSON MERCURY ARMY
Count of CaseId No. of Hits	No. of Hits	->	CHARCOAL		1280	1.82%	DEVENDENCE AND AND COZCARBON WATER BATTEI
		->	ISRI (WASTE)		1004	1.43%	CATALYST PANET DIS CONCERNMENT DISPLAY AND A CATALYST POWDER BATTERYS
Screenings 60K	->	MILITARY		1004	1.43%	LAUNCHER LITHUM METAL ALITOMOBILE INSECTIONS	
	->	MOD		980	1.40%	SULFONIC ACID CENTRIFUGE PROPANE Harmonized Code ADHESIVE	
50К		->	SODIUM		953	1.36%	MALE ERRO SULCION ALCOHOLIC ENVERSES SOLITON DISCOMMUNE PRINTED CIRCLET EDURES FUNDES UTHUM ION BATTERY TUTHUDM ION BATTERY
		->	CARBON		917	1.31%	
בוני אין אונו ג'יי אוני איי	ի հերդերին է	->	WASTE		917	1.31%	
2		->	UN Number Rule		830	1.18%	Field - No []
40K ·····		->	МК		752	1.07%	\$.sailings.stages.port.name
		->	LITHIUM		723	1.03%	\$.sailings.stages.location.code
30К чине стали стали и стали		->	SELF HEATING SOLID INORGA	NIC N	711	1.01%	\$.sailings.stages.country.code
40K ·····		->	ALCOHOL		645	0.92%	\$.parties.shipper.code
20K 20K		->	COTTON, RAW		618	0.88%	\$.parties.mr.code
		->	FUEL		617	0.88%	\$.parties.customer.code
10K		->	CALCIUM		557	0.79%	\$.internalReference
		->	ALCOHOLIC BEVERAGES		534	0.76%	\$.customerReference
		->	SOYBEAN (SEED CAKE)		521	0.74%	\$.cargo-transport-units.cargo.technical-name
0K Dec 2023	Jan 2024	->	SOYBEAN (SEED CAKE)		518	0.74%	\$.cargo-transport-units.cargo.proper-shipping-
	ate	Total			70181	100.00%	name

#IUMI2024

Digital cargo screening tool

Previous

278

228

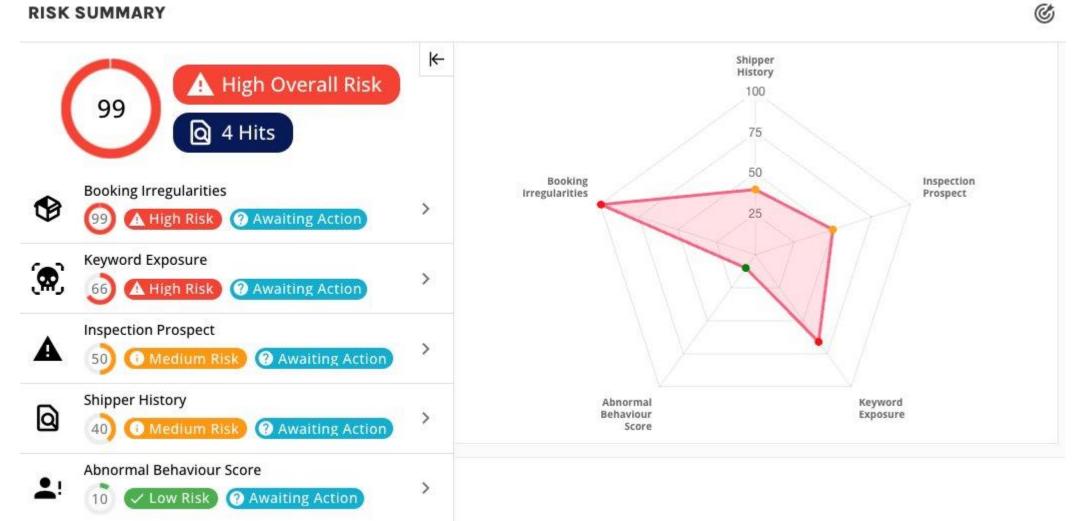
727

- Screens booking data for "key words" or "phrases"
- Flags potential mis or undeclared cargoes
- Designed to be interactive and utilized at any stage
- Returns results in seconds giving lines the ability to investigate prior to accepting the cargo
- Can be used for Trafficking and other purposes





RISK SUMMARY





Verified misdeclared/Undeclared cases <u>per week</u>:

2023 2024

>Q1:161 >Q1:328

≻Q2: 457

▶Q3: 293
▶Q3 (qtd): 520
▶Q4: 257



▶Q2: 238

NCB HazCheck Detect at a glance







