



LASH FIRE GUIDELINES

Guidelines for Quick Manual Screening of Cargo Fire Hazards and Fire Patrols

DEVELOPED FOR SHIP OPERATORS

INTRODUCTION

The purpose of these guidelines is to support the manual screening of cargo fire hazards and fire patrols by improving the procedures utilized in these operations.

No explicit requirement for systematic cargo screening – with respect to fire safety – has been identified in the international regulations, except that any rolling cargo entering vehicle, ro-ro or special category spaces are assumed to be inspected for leakage. However, also other risks can be manually identified like hot areas, overheating of electrical equipment or faulty hand-made installations.

Early detection of fire and quick activation of the fire extinguishing means is key to successful fire management.

The guideline is valid for RoRo and RoPax vessels.



The project has received founding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 81497. The Agency (CINEA) and the members of the consortium of LASH FIRE are not responsible for any use that may be made of the information in this guideline.



Clothes and equipment for screening and fire patrols

Wear long sleeve jacket/shirt and long trousers in a material not easily combustible. Gloves and safety shoes should also be worn. Clothing shall be clean with no oil content. A radio for communication should always be carried.
Check point reader for automatic login of patrol round.
Light and robust safety torch with enough intensity to detect leaks or smoke under low visibility conditions.
Handheld IR camera with for hot spots detection (e.g. a smart-phone).
Press to talk buttons for the portable VHF/UHF radios

that leaves both hands free.



Screening and patroling instructions

- Cargo units and vehicles shall be screened for the following hazards:
 - Reefer units, substandard electrical connections, suspicious noise or smell, fuel leakage or generally poor status, hot spots or temperature drop identification
 - Portable fuel containers or added fuel tanks.
 - Handmade installations on RVs like Christmas trees or heaters.
- Stowaways' activities.
 - Presence of ignition sources (hot spot/surfaces)
 - Self-reactions with IMDG (e.g. pyrophoric and self-heating substances according to IMDG code)
 - Lashing arrangements failure (specifically with bad weather forecast)

Other obvious fire hazards (smoke, sparks)



Pre-screening of cargo fire hazards

- Manual screening of cargo fire hazards at port should begin preferably before the loading process.
- Screening should not be performed during dynamic situation because vehicles in movement represent a hazard.
- High visibility vest to be worn at time of pre-screening at terminal.
- The total identification of all fire hazards is not possible at this stage.
- Screening should not cause delays, but this time management must be up to the operator.



Fire patrols

The fire patrols frequency and procedures can vary significantly from one shipping operator procedure to another. IMO regulations regarding fire patrols are quite vague. SOLAS II-2 regulation 7 only states that "for ships carrying more than 36 passengers an efficient patrol shall be maintained and that each member shall be provided with a two-way portable apparatus".

Proposals for improvement are:

- **Familiarization with cargo with the highest potential fire hazards on the particular voyage**. This is done based on IMDG cargo plan, reefer unit locations and other identified risk units.
- **Identifying the location of additional hazards**. The crewmember notes additional fire hazards identified during voyage.
- **First fire patrol** to be executed preferably directly after departure, then every hour for a RoPax ship.
- **More frequent patrols** targeting **cargo** with top potential hazards

