

# IUMI



## TRENDS AND RISKS ASSOCIATED WITH VESSEL LAY-UPS AND REACTIVATION

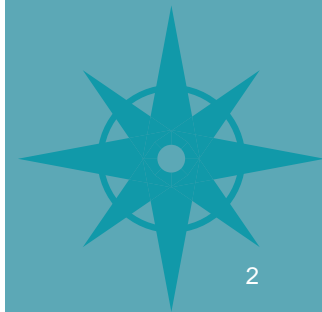
Paul Hill, Chief Surveyor, Braemar SA

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Incorporating **THE SALVAGE  
ASSOCIATION**

**Genova**  
18-21 September 2016

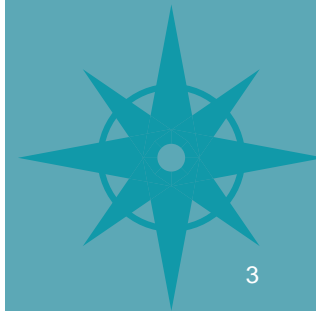
# AGENDA

- Layup – Definition
- Trends
- Terminology
- Notification
- Documentation
- Practical Layup
- Risks
- Reactivation
- Safeguarding Risk
- Conclusion



# LAY UP – DEFINITION & REASONS

- To stop using a vessel for a certain period.
- Berthed, moored or anchored in appropriate waters.
- Deactivate the vessel due to over-capacities with the intention of activating it again later.
- To wait for a better scrap prices
- Periods can be as short as a few weeks and as long as five years or more.





# TRENDS

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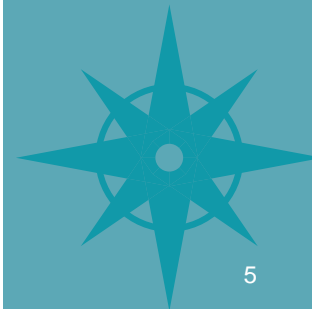
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# TRENDS

Increasing trend for vessel lay up and scrapping in the current shipping climate;

- Offshore vessels due to weak oil market
- Containerships due to low freight rates
- Bulker carriers due to world economy slowdown



# OFFSHORE VESSELS

The Norwegian Shipowners' Association reports that in February 2016, 101 of its members' offshore vessels were in lay-up – a statistic which is expected to rise.



# CONTAINER SHIPS

The same is true of container ships. In late February this year a reported 346 ships were idle. (source Alphaliner)



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# BULK CARRIERS

55 Bulk carriers officially laid up in September 2016, with many more idle. (source Lloyds List Intelligence)







# TERMINOLOGY

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# TERMINOLOGY

There is no real statutory requirements governing the terms, definitions and indeed absolute requirement of a lay up.

Commonly you will hear:



Idle



Warm/ Hot Lay Up

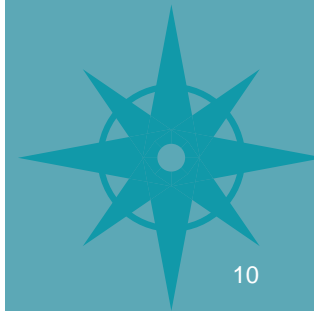


Cold Lay Up



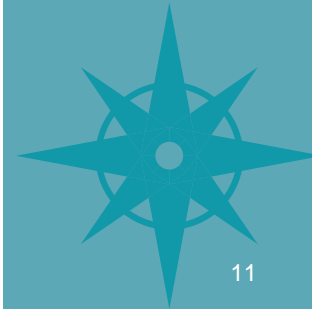
Long Term Lay Up

The offshore industry uses the term STACKED for warm and cold lay up of rigs and support vessels.



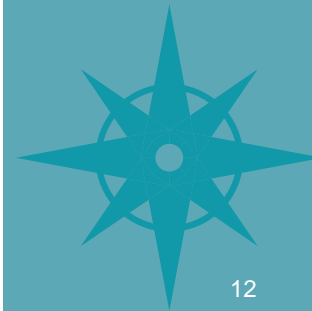
# IDLE

- Vessel taken out of service
- Actually fully operational, i.e. can be put in service without any special preparations.
- Full crew onboard.
- Usually at anchorage, or layby berth
- Duration between a few days up to 3 months
- Applied, when ship is waiting for an undefined time for the next trade.



# WARM/ HOT LAY UP

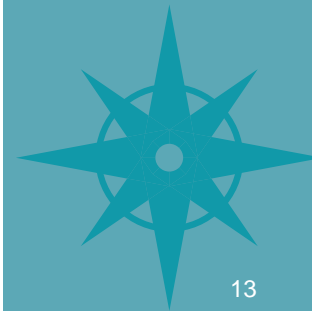
- Vessel not in operation.
- Systems left running as per normal.
- Manned 24 hours a day (number of crew can be reduced).
- Usually located near potential future work.





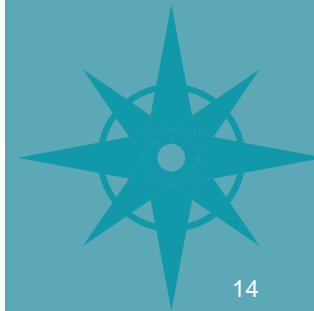
# COLD LAY UP

- Vessel not in operation
- Machinery taken out of service and with the exception of emergency power, considered electrically dead
- Manning in line with emergency and preservation requirements only
- Suitable for lay up periods of between 12 months and 5 years



# LONG TERM LAY UP

- Vessel not in operation for more than 5 years
- Machinery taken out of service
- Manning in line with emergency and preservation requirements only
- Extensive pre lay up work required. Usually including equipment vendor participation.
- Popular to raft long term vessels to further reducing manning preservation costs





# NOTIFICATION

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# WHO SHOULD THE OWNER NOTIFY?



Classification Society



Insurers



P&I Club

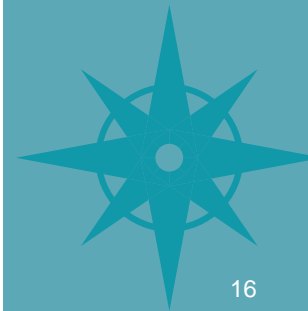


Local Port Authorities



Flag State

WHY?.....







# DOCUMENTATION CERTIFICATION MANNING

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# DOCUMENTATION & CERTIFICATION

Some Class Societies will issue a “Lay Up Declaration”

With DNV GL, this is for 6 months, subsequent declarations are for 12 months

Class will change the vessels official recorded notation.

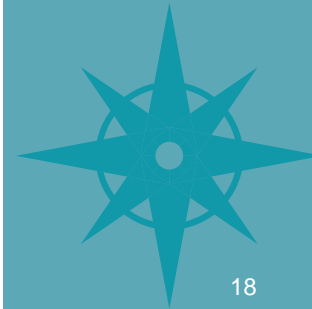
Class assume for issuing that:

Safe Mooring Condition

Navigation Lights, fire and bilge system alarms operational

FFE and bilge systems operable at short notice.

Safety arrangements for persons on-board are in place.



# DOCUMENTATION & CERTIFICATION

## Effects on the vessels mandatory certification:

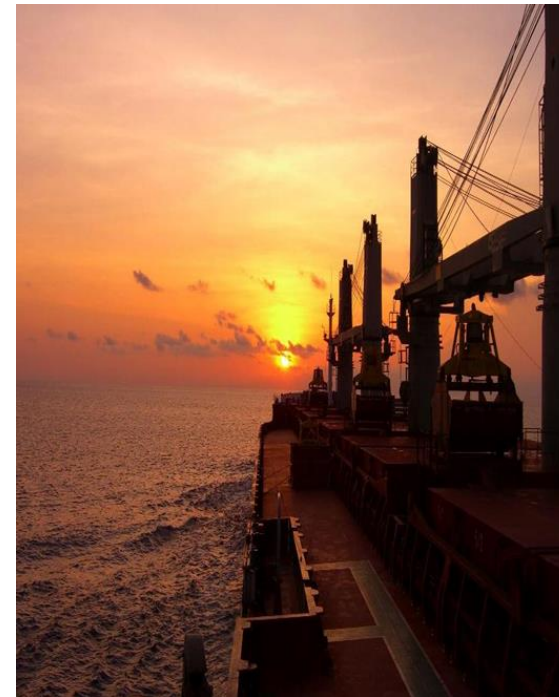
Depending on the Class Society in question, the following certificates will require revalidating if the vessel is laid up from 3 to 6 months:

### ISM

- ABS – 3 months
- DNV GL – 6 Months
- Lloyds Register – 6 Months

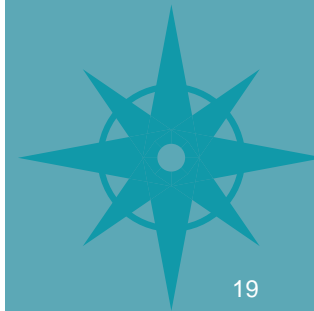
### ISPS

- ABS – 3 months
- DNV GL – 6 Months
- Lloyds Register – 6 Months



**Safety Construction, Safety Equipment, Safety Radio, Load line, Oil and Air Pollution certs.**

**These will have renewal surveys conducted as required by the date.**



# MANNING

Manning levels can be reduced from those stated in the minimum manning cert.

Owners must have flag state approval for this.

Risk assessment conducted taking into account:

Fire

Flooding

Severe weather

Security

Technical attendance

Port Authority Levels

Insurers / P&I?



## SAFETY MANAGEMENT CERTIFICATE

No CTG0/MSL/2013062417 p.m.

Issued under the provisions of the INTERNATIONAL CONVENTION FOR THE SAFETY OF LIFE AT SEA, 1974, as amended, under the authority of the Government of

ANTIGUA AND BARBUDA

By BUREAU VERITAS

Name of Ship BV No: 36Y339	Distinctive number or letters	Port of Registry	Gross Tonnage	IMO Number
SUZIE Q	V2ZK4	ST. JOHN'S	1980	8205204

Name of Company (Identification Number : 5007443)	Ship Type
AMAZON SHIPPING LTD. 9 ST. MARY'S STREET ST. JOHN'S ANTIGUA AND BARBUDA	Other cargo ship

### THIS IS TO CERTIFY THAT :

The safety management system of the ship has been audited and that it complies with the requirements of the International Management Code for the Safe Operation of Ships and for Pollution Prevention (ISM Code), following verification that the Document of Compliance for the Company is applicable to this type of ship.

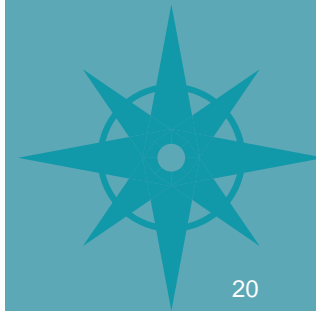
This Safety Management Certificate is valid until **14 July 2018**, subject to periodical verification and the Document of Compliance remaining valid.

Completion date of the audit on which this certificate is based : 24/06/ 2013

Issued at **Cartagena, Colombia**, on the **24 June 2013**



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# PRACTICAL LAY UP

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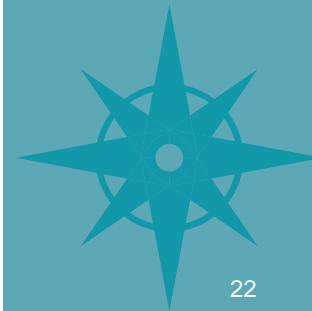
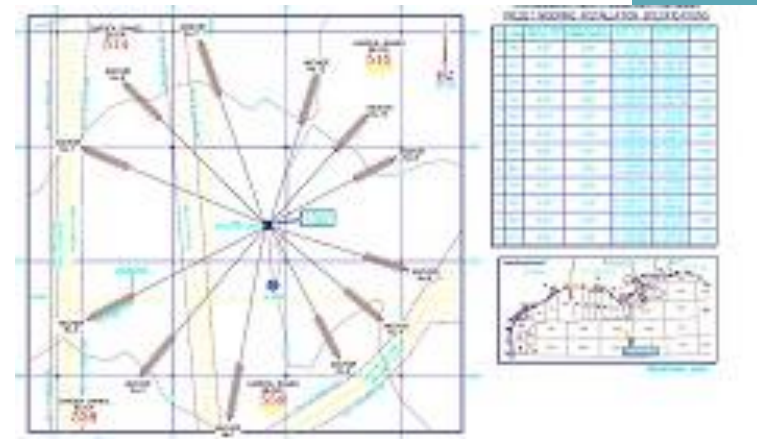
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# PLANNING

To ensure that the proposed lay up is safe, and risk is mitigated, good planning is required. The plan should include details of;

- Mooring plan including seabed analysis
- Manning arrangements
- Precautions against fire and flooding
- Power arrangements
- Emergency contingency plan
- Preservation and maintenance procedure for machinery
- Preservation and maintenance procedure for all safety equipment
- Preservation of hull
- Statistical weather analysis
- Anti pollution measures



# PRESERVATION & MAINTENANCE

## ■ Lay Up Plan

- *The plan that outlines the preservation and maintenance routines*

## ■ Lay Up Log

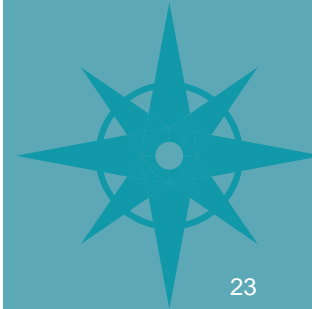
- *A record of all preservation activities. Should include the actions required upon re commissioning. This log can reduce the scope and time of re commissioning*

## ■ Lay Up Environment

- *Ensure that the environmental conditions are considered*

## ■ Reactivation

- *The means of re commissioning and safely re starting the equipment after periods of lay up. Taking into account the preservation of all equipment over the lay up period.*



# PRESERVATION & MAINTENANCE

## Hull – above the waterline

- *Clean clear decks*
- *Scuppers open*
- *Hatches and doors examined and closed*
- *Non required ventilation closed*
- *Portholes and deadlights closed*
- *Funnel closing to make watertight*
- *Paint and coating in adequate condition*



## Hull – below the waterline

- *Coating and anti fouling adequate*
- *Consider additional protection such as anodes. If longer than 12 months consider anode additions anyway*
- *Propeller boss anode fitted?*
- *Consider the appropriate use of impressed current systems*
- *Over side valves locked if not required*
- *Over side valves required need anodes or biocides inserting*



# PRESERVATION & MAINTENANCE

## Tanks & Holds

- *Clean and dry chain lockers*
- *Ballast Tanks – full or empty and dry*
- *Protect tanks and holds that are full with anodes or good coating*
- *Empty tanks can be filled with dry inert gas*
- *In use sludge or bilge tanks have inhibitor if not clean and dry*
- *HFO bunker tanks inhibitor added*

## Deck Machinery

- *Clean and greased / oiled*
- *Protection and draining of cylinders*
- *Windlass ready for operation*
- *Wires and blocks on cargo cranes dismantled left well greased in dry storage*
- *Rollers and leads protected with oil and grease*
- *Consider one crane if required during the lay up for lifts of required equipment such as fuel for the deck generators*



# PRESERVATION & MAINTENANCE

## Machinery Spaces

- *Pre lay up condition should be acceptable*
- *Lube oil thoroughly purified – Analysis*
- *Area temperature and humidity controlled*
- *Moveable items such as valves greased*
- *Fuel analysis prior to lay up – minimal water content*
- *Stern tube checked and sealed*
- *Drain unrequired sea water systems*
- *Apply inhibitor to fresh water systems*
- *Start air either empty or full – one should remain full*
- *Hydraulic Systems – full at all times drain off all water and air*



## Electrical & Instrumentation

- *Pre lay up condition and testing up to date and acceptable.*
- *De humidifiers – No moisture*
- *Space heaters and heating elements in use*
- *Consider automatic charging batteries or charging regularly*
- *Sensitive instrumentation and computers should be kept in line with OEM recommendations*





# PRESERVATION & MAINTENANCE

## Routines & Checking

Preservation Activity Procedure, Diesel Engine							
Description					Frequency	8 weeks	
Tag No			Serial No				
<ol style="list-style-type: none"> <li>1. The grease and lubricate should be applied to the required point.</li> <li>2. The equipment in engine must be protected from dust and rust.</li> <li>3. Check that painted and machined surfaces, which shall be coated with a rust preventive wax or oil is maintained.</li> <li>4. It should be checked if there is the physical damage.</li> <li>5. The crankshaft should be turned by 2 to 3 revolutions after filling system oil.</li> <li>6. The pre-lubrication oil pump should be run for min. 10 minutes after filling system oil.</li> <li>7. The anti-condensation heater must be activated, if it is installed for any equipment.</li> <li>8. <i>During storage, the equipment is kept as long as possible in the original package and it is open just before installation. If the package needs to be stored outdoors, it has to be provided with a big enough cover that protect.</i></li> <li>9. <i>The vendor procedure is used for preservation activities, but unless it is provided relevant procedure is Z-006 may be used instead.</i></li> </ol>							
No.	Check Date	Result	Checked by				
			Dep't	Tel	Name	Signature	Remark
1							
2							
3							
4							





# RISKS

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# WHAT ARE THE RISKS?

- **Mooring failure**
- **Loss of watertight integrity**
- **Piracy**
- **Personal injury**
- **Fire**
- **Major machinery failure when reactivated**
- **Cargo system issues**

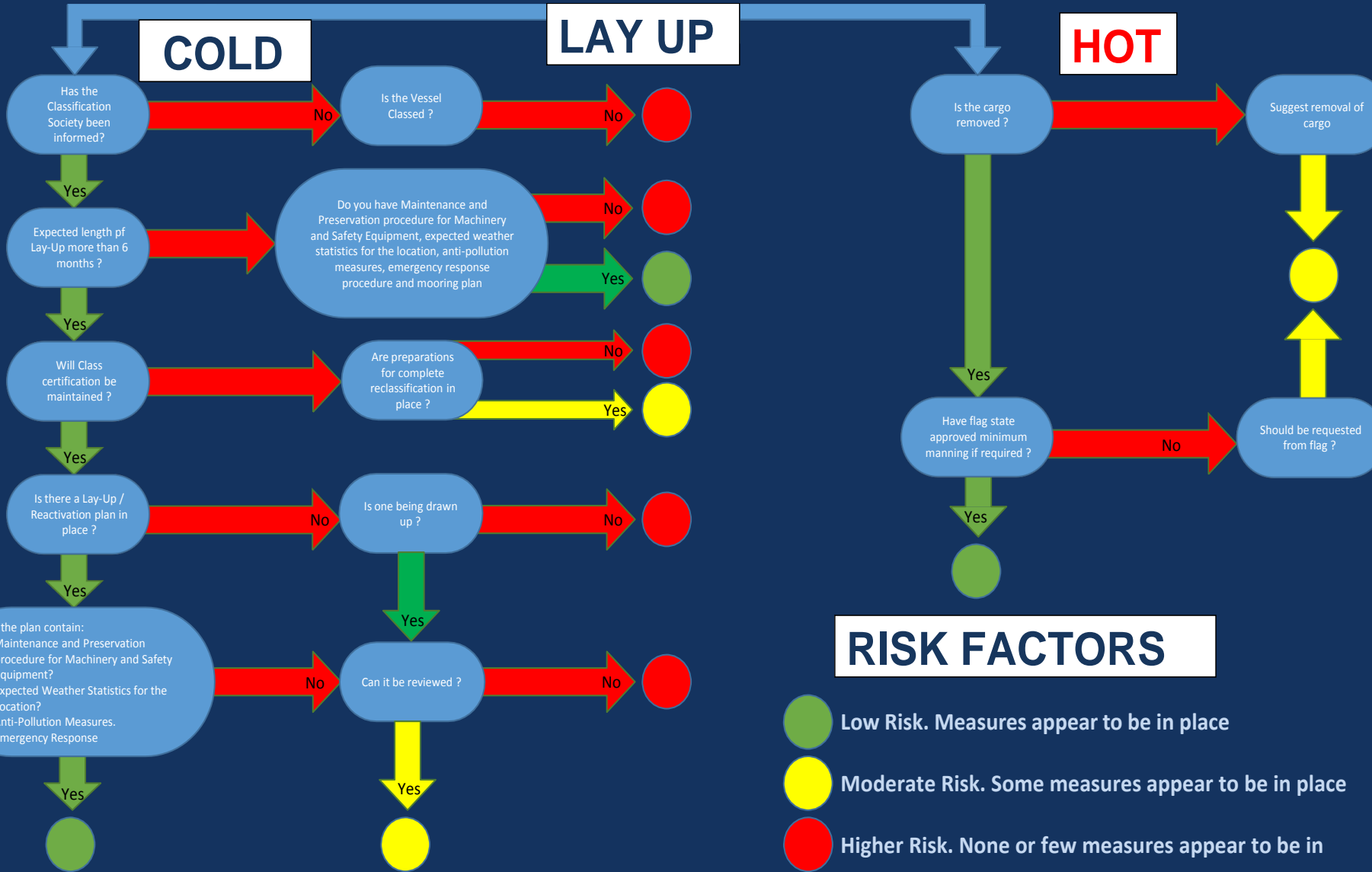


# RISK FLOWCHART

## COLD

## LAY UP

## HOT





# REACTIVATION

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# REACTIVATION

## Checks & Planning

- *Pre planning for commissioning submitted to class?*
- *Certificate status at time of re activation*
- *After individual equipment testing – Sea Trial.*
- *Hull inspection by divers? – Hull cleaning?*
- *Tanks returned to original status – remove anodes, ventilate, gas free, test heating coils.*
- *Cargo systems tested*
- *Ballast and Bilge Systems?*
- *Cargo systems tested*
- *Safety Equipment re tested*
- *Bridge equipment tested*
- *Oil / fuel samples analysed*
- *Engine cylinder inspection*
- *Safety & alarm systems tested*
- *OEM advice followed*







# SAFEGUARDING RISK

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JH 2009/ 003



## Joint Hull Committee

Suite 358, Lloyd's, One Lime Street  
London EC3M 7DQ  
Tel: (+44) 020 7327 3333 Fax: (+44) 020 7327 4443

JH 2009/003  
May 22<sup>nd</sup> 2009

### Lay up Location and Survey Requirement

As a condition precedent to the liability of the Underwriters hereon, the vessel shall not be laid up, unless:

1. the port or place to be used for the purpose of lay-up shall have been agreed in writing by the Underwriters;
2. such port or place and the arrangements for the lay-up shall have been or be surveyed by a surveyor agreed in writing by the Underwriters, such survey to be carried out within 14 days of the date specified by Underwriters;
3. all recommendations made by the surveyor shall be complied with within the timescales set down by the surveyor or continuously complied with throughout the period of this insurance in the case of recommendations said by the surveyor to require continuing compliance.

#### Cost of Survey

All survey costs to be borne by the assured.

#### Returns of Premium

Where the insurance provides for lay up returns of premium, such returns will not be made until the surveyor's recommendations are complied with.



# JH 2009/ 002



## Joint Hull Committee

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**JH2009/002**  
22nd May 2009

## Reactivation Warranty

As a condition precedent to the liability of the Underwriters, the vessel shall not leave her lay-up berth under her own power or under tow following a lay-up period of more than 180 consecutive days or any period in cold lay up, unless both the vessel's classification society and a surveyor approved by the Underwriters have examined the vessel and all repairs and other works required by the classification society and such surveyor have been carried out prior to the vessel leaving her lay- up berth.





# CONCLUSION

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## CONCLUSION

- Assess Lay Up Risk – Survey
- Owners Plans – Ascertain
- Monitor
- Reactivation – Survey



# THANK YOU

Braemar (incorporating  
**The Salvage Association**)

London, USA, UAE, Singapore, Australia,  
China, Japan, South Korea, Philippines,  
Malaysia, South Africa, Ghana, Greece,  
Portugal, Spain, Holland, Germany,  
Panama, Bulgaria, Turkey

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