**TECHNICAL FACTOR IN MARITIME ACCIDENTS: AN INDEX FOR SYSTEMATIC FAILURE ANALYSIS**

In this table, all probable tehnical factors that cause maritime accidents are provided. The data are based on Maritime Accident Investigation Branch with the reference number F0013691.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Technical Factors** | | | **Frequency** | **Possibility** |
| **1. Cargo** | | |  |  |
|  | 01. Deterioration | |  |  |
|  |  | 001. Other | 2 | 3.30961E-05 |
|  |  | 002. Shore equipment failure | 1 | 1.65481E-05 |
|  | 02. Interaction | |  |  |
|  |  | 001. Cargo in unsafe/unstable condition Ro-ro | 1 | 1.65481E-05 |
|  |  | 002. Cargo shift | 1 | 1.65481E-05 |
|  |  | 003. Gas/oil/chemical valve fault | 1 | 1.65481E-05 |
|  |  | 004. Involving manoeuvring tugs/trailers/vehicles on ro-ro/lo-lo vehicle deck | 1 | 1.65481E-05 |
|  |  | 005. Lack of ventilation during working | 1 | 1.65481E-05 |
|  |  | 006. Operator error | 2 | 3.30961E-05 |
|  |  | 007. Other | 1 | 1.65481E-05 |
|  |  | 008. Separation/segregation failure | 1 | 1.65481E-05 |
|  | 03. Other | |  |  |
|  |  | 001. Cargo in unsafe/unstable condition Ro-ro | 1 | 1.65481E-05 |
|  |  | 002. Longitudinal strength exceeded | 2 | 3.30961E-05 |
|  |  | 003. Noxious liquid substances - MARPOL Annex II, less than 10 tonne | 1 | 1.65481E-05 |
|  | 04. Self Ignition | |  |  |
|  |  | 001. Cargo in unsafe/unstable condition Container | 2 | 3.30961E-05 |
|  |  | 002. Cargo in unsafe/unstable condition Packaged dangerous goods | 1 | 1.65481E-05 |
|  |  | 003. Cargo in unsafe/unstable condition Ro-ro | 3 | 4.96442E-05 |
|  |  | 004. Insulation failure | 1 | 1.65481E-05 |
|  |  | 005. Inter-reaction of cargo | 2 | 3.30961E-05 |
|  |  | 006. Other | 5 | 8.27404E-05 |
|  |  | 007. Other unsafe practice | 1 | 1.65481E-05 |
|  |  | 008. Other, less than 10 tonne | 1 | 1.65481E-05 |
| **2. Design & construction** | | |  |  |
|  | 01. Assembly defect | |  |  |
|  |  | 001. Auto-control system fault | 1 | 1.65481E-05 |
|  |  | 002. Backflooding through sea water systems/deck scuppers | 1 | 1.65481E-05 |
|  |  | 003. Battery supply failure | 1 | 1.65481E-05 |
|  |  | 004. Bearing failure | 1 | 1.65481E-05 |
|  |  | 005. Blocked fuel filter | 3 | 4.96442E-05 |
|  |  | 006. Blocked inlet on primary side | 1 | 1.65481E-05 |
|  |  | 007. Cable fault | 2 | 3.30961E-05 |
|  |  | 008. Component failure | 12 | 0.000198577 |
|  |  | 009. Connected equipment fault | 1 | 1.65481E-05 |
|  |  | 010. Connection failure | 3 | 4.96442E-05 |
|  |  | 011. Control equipment fault | 1 | 1.65481E-05 |
|  |  | 012. Control fault | 2 | 3.30961E-05 |
|  |  | 013. Control system fault | 1 | 1.65481E-05 |
|  |  | 014. Cooling system failure | 1 | 1.65481E-05 |
|  |  | 015. Crankcase explosion | 1 | 1.65481E-05 |
|  |  | 016. Davit failure | 1 | 1.65481E-05 |
|  |  | 017. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 018. Door/hatch unsecured or closing too quickly | 1 | 1.65481E-05 |
|  |  | 019. Electrical failure | 2 | 3.30961E-05 |
|  |  | 020. Electrical fault | 5 | 8.27404E-05 |
|  |  | 021. Enclosure failure | 1 | 1.65481E-05 |
|  |  | 022. Engine failure | 1 | 1.65481E-05 |
|  |  | 023. Equipment badly maintained | 1 | 1.65481E-05 |
|  |  | 024. Equipment failure | 1 | 1.65481E-05 |
|  |  | 025. Equipment/instrumentation poorly designed | 2 | 3.30961E-05 |
|  |  | 026. Fire | 1 | 1.65481E-05 |
|  |  | 027. Flooding | 1 | 1.65481E-05 |
|  |  | 028. Flooding undetected/detected too late | 2 | 3.30961E-05 |
|  |  | 029. Friction/debris | 1 | 1.65481E-05 |
|  |  | 030. Fuel pump fault | 1 | 1.65481E-05 |
|  |  | 031. FW cooling pump failure | 1 | 1.65481E-05 |
|  |  | 032. Gangway defective | 2 | 3.30961E-05 |
|  |  | 033. Gas/oil/chemical valve fault | 1 | 1.65481E-05 |
|  |  | 034. Gearbox/clutch failure | 1 | 1.65481E-05 |
|  |  | 035. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 036. Hydraulic failure | 1 | 1.65481E-05 |
|  |  | 037. Internal mechanism fault | 1 | 1.65481E-05 |
|  |  | 038. Lack of information/training | 1 | 1.65481E-05 |
|  |  | 039. Launch procedural failure | 1 | 1.65481E-05 |
|  |  | 040. Line parting | 1 | 1.65481E-05 |
|  |  | 041. Link/chain failure | 1 | 1.65481E-05 |
|  |  | 042. Loss or damage to blade | 1 | 1.65481E-05 |
|  |  | 043. Low level in system | 1 | 1.65481E-05 |
|  |  | 044. Lub oil pump failure | 2 | 3.30961E-05 |
|  |  | 045. Lubrication system failure | 1 | 1.65481E-05 |
|  |  | 046. Maintenance system inadequate or incomplete | 2 | 3.30961E-05 |
|  |  | 047. Mechanical failure | 2 | 3.30961E-05 |
|  |  | 048. Mechanical fault | 3 | 4.96442E-05 |
|  |  | 049. Mechanical looseness | 9 | 0.000148933 |
|  |  | 050. Non-compliance with policy, legislation, standards (national/international) | 1 | 1.65481E-05 |
|  |  | 051. Oil - MARPOL Annex I, less than 10 tonne | 2 | 3.30961E-05 |
|  |  | 052. Operator error | 1 | 1.65481E-05 |
|  |  | 053. Other | 19 | 0.000314413 |
|  |  | 054. Other - Poor working practice | 1 | 1.65481E-05 |
|  |  | 055. Other launch system failure | 3 | 4.96442E-05 |
|  |  | 056. Other unsafe practice | 3 | 4.96442E-05 |
|  |  | 057. Overheating | 1 | 1.65481E-05 |
|  |  | 058. Over-heating | 1 | 1.65481E-05 |
|  |  | 059. Pilot Access defective | 1 | 1.65481E-05 |
|  |  | 060. Pipe failure | 2 | 3.30961E-05 |
|  |  | 061. Piping/pumping systems failure | 2 | 3.30961E-05 |
|  |  | 062. Pressure pipe failure | 6 | 9.92884E-05 |
|  |  | 063. Release system failure | 1 | 1.65481E-05 |
|  |  | 064. Rigging failure | 2 | 3.30961E-05 |
|  |  | 065. Safety device failure | 2 | 3.30961E-05 |
|  |  | 066. Seal failure | 1 | 1.65481E-05 |
|  |  | 067. SW cooling pump failure | 1 | 1.65481E-05 |
|  |  | 068. System air locked | 1 | 1.65481E-05 |
|  |  | 069. System pipe failure | 4 | 6.61923E-05 |
|  |  | 070. System/item design fault | 1 | 1.65481E-05 |
|  |  | 071. Uptake fire | 1 | 1.65481E-05 |
|  |  | 072. Wave pressure loading on glass | 1 | 1.65481E-05 |
|  | 02. Characteristic defect | |  |  |
|  |  | 001. Ambient conditions exceeded | 1 | 1.65481E-05 |
|  |  | 002. Backflooding through sea water systems/deck scuppers | 1 | 1.65481E-05 |
|  |  | 003. Battery supply failure | 2 | 3.30961E-05 |
|  |  | 004. Blackout | 2 | 3.30961E-05 |
|  |  | 005. Black-out | 3 | 4.96442E-05 |
|  |  | 006. Blocked fuel filter | 7 | 0.000115837 |
|  |  | 007. Blocked inlet on primary side | 1 | 1.65481E-05 |
|  |  | 008. Buckets | 1 | 1.65481E-05 |
|  |  | 009. Cable fault | 1 | 1.65481E-05 |
|  |  | 010. Cargo in unsafe/unstable condition Fish | 1 | 1.65481E-05 |
|  |  | 011. Cargo shift | 3 | 4.96442E-05 |
|  |  | 012. Chart incorrect | 1 | 1.65481E-05 |
|  |  | 013. Collision | 1 | 1.65481E-05 |
|  |  | 014. Component failure | 26 | 0.00043025 |
|  |  | 015. Conditions had greater effect than expected | 1 | 1.65481E-05 |
|  |  | 016. Control fault | 3 | 4.96442E-05 |
|  |  | 017. Control fluid filter blocked | 1 | 1.65481E-05 |
|  |  | 018. Defective ladder/stairs | 1 | 1.65481E-05 |
|  |  | 019. Departmental organisation failure | 1 | 1.65481E-05 |
|  |  | 020. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 021. Distribution system failure | 1 | 1.65481E-05 |
|  |  | 022. Door/hatch unsecured or closing too quickly | 2 | 3.30961E-05 |
|  |  | 023. Due to vessel movement | 3 | 4.96442E-05 |
|  |  | 024. During launch or recovery | 1 | 1.65481E-05 |
|  |  | 025. Electrical failure | 3 | 4.96442E-05 |
|  |  | 026. Electrical fault | 5 | 8.27404E-05 |
|  |  | 027. Embarkation procedural failure | 1 | 1.65481E-05 |
|  |  | 028. Engine failure | 1 | 1.65481E-05 |
|  |  | 029. Environment - visibility from control position | 1 | 1.65481E-05 |
|  |  | 030. Equipment badly maintained | 1 | 1.65481E-05 |
|  |  | 031. Equipment/instrumentation poorly designed | 5 | 8.27404E-05 |
|  |  | 032. Failed - other | 1 | 1.65481E-05 |
|  |  | 033. Failure of protective equipment | 1 | 1.65481E-05 |
|  |  | 034. Failure of protective/safety cut out equipment | 1 | 1.65481E-05 |
|  |  | 035. Failure of transformer | 3 | 4.96442E-05 |
|  |  | 036. Features/functions/alarms not used or used incorrectly | 2 | 3.30961E-05 |
|  |  | 037. Fire door fault | 1 | 1.65481E-05 |
|  |  | 038. Flooding undetected/detected too late | 3 | 4.96442E-05 |
|  |  | 039. Fouled Propeller | 2 | 3.30961E-05 |
|  |  | 040. Friction/debris | 3 | 4.96442E-05 |
|  |  | 041. Fuel incompatibility | 1 | 1.65481E-05 |
|  |  | 042. Fuel pump fault | 3 | 4.96442E-05 |
|  |  | 043. Fuse failure/incorrect rating | 1 | 1.65481E-05 |
|  |  | 044. FW cooling pump failure | 3 | 4.96442E-05 |
|  |  | 045. Gangway defective | 2 | 3.30961E-05 |
|  |  | 046. Gangway not secured sufficiently | 1 | 1.65481E-05 |
|  |  | 047. Gangway other | 1 | 1.65481E-05 |
|  |  | 048. Gangway rigged incorrectly | 1 | 1.65481E-05 |
|  |  | 049. Gearbox/clutch failure | 1 | 1.65481E-05 |
|  |  | 050. Harmful substances - MARPOL Annex III, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 051. Hit by swinging/falling object | 1 | 1.65481E-05 |
|  |  | 052. Holds course | 1 | 1.65481E-05 |
|  |  | 053. HP pipe failure | 1 | 1.65481E-05 |
|  |  | 054. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 3 | 4.96442E-05 |
|  |  | 055. Hydraulic failure | 1 | 1.65481E-05 |
|  |  | 056. Improper or inadequate footwear/clothing/PPE | 5 | 8.27404E-05 |
|  |  | 057. Incorrect or insufficient action taken | 2 | 3.30961E-05 |
|  |  | 058. Individual takes inappropriate role | 1 | 1.65481E-05 |
|  |  | 059. Inlet/filter blocked | 1 | 1.65481E-05 |
|  |  | 060. Instrument fault | 2 | 3.30961E-05 |
|  |  | 061. Insufficient or unsuitable equipment/instrumentation | 1 | 1.65481E-05 |
|  |  | 062. Involving fork lift truck/other vehicle | 1 | 1.65481E-05 |
|  |  | 063. Involving negligence/carelessness | 4 | 6.61923E-05 |
|  |  | 064. Lack of fuel | 3 | 4.96442E-05 |
|  |  | 065. Lack of information/training | 1 | 1.65481E-05 |
|  |  | 066. Lack of ventilation during working | 1 | 1.65481E-05 |
|  |  | 067. Ladder inappropriate use for access | 1 | 1.65481E-05 |
|  |  | 068. Lashing system failure | 2 | 3.30961E-05 |
|  |  | 069. Late detection of ship/light/buoy/object | 1 | 1.65481E-05 |
|  |  | 070. Launch system failure | 1 | 1.65481E-05 |
|  |  | 071. Launching procedural failure | 1 | 1.65481E-05 |
|  |  | 072. Leak could not be stopped | 1 | 1.65481E-05 |
|  |  | 073. Limit switch failure | 1 | 1.65481E-05 |
|  |  | 074. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 1 | 1.65481E-05 |
|  |  | 075. Line or stopper parting | 1 | 1.65481E-05 |
|  |  | 076. Link/chain failure | 1 | 1.65481E-05 |
|  |  | 077. Loss of operating fluid | 1 | 1.65481E-05 |
|  |  | 078. Lub oil pump failure | 1 | 1.65481E-05 |
|  |  | 079. Mechanical fault | 5 | 8.27404E-05 |
|  |  | 080. Mechanical fault in starter assembly | 1 | 1.65481E-05 |
|  |  | 081. Mechanical linkage failure | 1 | 1.65481E-05 |
|  |  | 082. Mechanical looseness | 9 | 0.000148933 |
|  |  | 083. N/R valve fault | 2 | 3.30961E-05 |
|  |  | 084. No proper access provided | 1 | 1.65481E-05 |
|  |  | 085. No watertight subdivision | 3 | 4.96442E-05 |
|  |  | 086. Onboard management failure | 1 | 1.65481E-05 |
|  |  | 087. Opening/closing hatches | 1 | 1.65481E-05 |
|  |  | 088. Operation of safety device | 2 | 3.30961E-05 |
|  |  | 089. Operations manual not easily understood | 1 | 1.65481E-05 |
|  |  | 090. Operator error | 5 | 8.27404E-05 |
|  |  | 091. Other | 38 | 0.000628827 |
|  |  | 092. Other - transferring ship to boat or boat to quay | 2 | 3.30961E-05 |
|  |  | 093. Other unsafe practice | 2 | 3.30961E-05 |
|  |  | 094. Packaged goods, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 095. Perception of risk | 2 | 3.30961E-05 |
|  |  | 096. Pipe failure | 1 | 1.65481E-05 |
|  |  | 097. Piping/pumping systems failure | 3 | 4.96442E-05 |
|  |  | 098. Poor decision making/information use | 1 | 1.65481E-05 |
|  |  | 099. Poor load slinging | 1 | 1.65481E-05 |
|  |  | 100. Poor/slippery/uneven surface | 5 | 8.27404E-05 |
|  |  | 101. Pressure pipe failure | 5 | 8.27404E-05 |
|  |  | 102. Relay fault | 2 | 3.30961E-05 |
|  |  | 103. Rolling | 1 | 1.65481E-05 |
|  |  | 104. Rope/wire/drum end/winch handling error | 1 | 1.65481E-05 |
|  |  | 105. Safety valve fault | 1 | 1.65481E-05 |
|  |  | 106. Snagging | 1 | 1.65481E-05 |
|  |  | 107. Source of leak could not be found | 1 | 1.65481E-05 |
|  |  | 108. Speed - too fast for conditions | 1 | 1.65481E-05 |
|  |  | 109. Spilt hot liquid or fat | 1 | 1.65481E-05 |
|  |  | 110. Stern tube bearing failure | 2 | 3.30961E-05 |
|  |  | 111. Stopping distance | 1 | 1.65481E-05 |
|  |  | 112. Stowage location difficulty | 1 | 1.65481E-05 |
|  |  | 113. Stumbling/tripping over fixed door sill, step, obstruction | 4 | 6.61923E-05 |
|  |  | 114. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 115. SW cooling pump failure | 3 | 4.96442E-05 |
|  |  | 116. System air locked | 9 | 0.000148933 |
|  |  | 117. System error/failure-detected | 1 | 1.65481E-05 |
|  |  | 118. System pipe failure | 3 | 4.96442E-05 |
|  |  | 119. Towing | 1 | 1.65481E-05 |
|  |  | 120. Turning circle | 2 | 3.30961E-05 |
|  |  | 121. Unfenced opening | 1 | 1.65481E-05 |
|  |  | 122. Unknown | 1 | 1.65481E-05 |
|  |  | 123. Unsafe use of, or defective, portable ladder/steps | 1 | 1.65481E-05 |
|  |  | 124. Unstable load/load failure | 1 | 1.65481E-05 |
|  |  | 125. Valve failure | 1 | 1.65481E-05 |
|  |  | 126. Verbal order or instruction not understood/misinterpreted | 1 | 1.65481E-05 |
|  |  | 127. Visibility poor from control position | 2 | 3.30961E-05 |
|  |  | 128. Wave | 2 | 3.30961E-05 |
|  |  | 129. Wind gust | 1 | 1.65481E-05 |
|  |  | 130. Winding/conductor fault | 1 | 1.65481E-05 |
|  |  | 131. Wire/rope jamming, jumping or coming off sheave | 1 | 1.65481E-05 |
|  |  | 132. Wire/rope/net jamming, jumping slipping or coming off sheave | 1 | 1.65481E-05 |
|  |  | 133. Wire/rope/net parting | 1 | 1.65481E-05 |
|  | 03. Construction defect | |  |  |
|  |  | 001. Block failure | 1 | 1.65481E-05 |
|  |  | 002. Blocked fuel filter | 1 | 1.65481E-05 |
|  |  | 003. Cable fault | 2 | 3.30961E-05 |
|  |  | 004. Component failure | 11 | 0.000182029 |
|  |  | 005. Connection failure | 1 | 1.65481E-05 |
|  |  | 006. Control failure | 1 | 1.65481E-05 |
|  |  | 007. Control fault | 1 | 1.65481E-05 |
|  |  | 008. Cooling system failure | 2 | 3.30961E-05 |
|  |  | 009. Crankcase explosion | 1 | 1.65481E-05 |
|  |  | 010. Davit structure failure | 1 | 1.65481E-05 |
|  |  | 011. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 012. Distribution system failure | 1 | 1.65481E-05 |
|  |  | 013. Door/hatch unsecured or closing too quickly | 1 | 1.65481E-05 |
|  |  | 014. During launch or recovery | 1 | 1.65481E-05 |
|  |  | 015. Electrical failure | 1 | 1.65481E-05 |
|  |  | 016. Electrical fault | 3 | 4.96442E-05 |
|  |  | 017. Embarkation procedural failure | 1 | 1.65481E-05 |
|  |  | 018. Equipment failure | 2 | 3.30961E-05 |
|  |  | 019. Equipment/instrumentation not maintained | 1 | 1.65481E-05 |
|  |  | 020. Equipment/instrumentation poorly designed | 1 | 1.65481E-05 |
|  |  | 021. Failed to deploy | 1 | 1.65481E-05 |
|  |  | 022. Failure of protective equipment | 1 | 1.65481E-05 |
|  |  | 023. Failure of shore contractors | 1 | 1.65481E-05 |
|  |  | 024. Failure of transformer | 1 | 1.65481E-05 |
|  |  | 025. Faulty or badly designed equipment | 2 | 3.30961E-05 |
|  |  | 026. Fire | 1 | 1.65481E-05 |
|  |  | 027. Flooding | 1 | 1.65481E-05 |
|  |  | 028. Grounding | 1 | 1.65481E-05 |
|  |  | 029. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 2 | 3.30961E-05 |
|  |  | 030. Hydraulic failure | 1 | 1.65481E-05 |
|  |  | 031. Improper or inadequate footwear/clothing/PPE | 1 | 1.65481E-05 |
|  |  | 032. Inadequate ventilation | 1 | 1.65481E-05 |
|  |  | 033. Inadequately guarded | 1 | 1.65481E-05 |
|  |  | 034. Lack of circuit information | 1 | 1.65481E-05 |
|  |  | 035. Lifejacket equipment failure | 1 | 1.65481E-05 |
|  |  | 036. Lifting/carrying - poor manual handling | 1 | 1.65481E-05 |
|  |  | 037. Lub oil pump failure | 1 | 1.65481E-05 |
|  |  | 038. Mechanical fault | 3 | 4.96442E-05 |
|  |  | 039. Mechanical looseness | 4 | 6.61923E-05 |
|  |  | 040. Oil - MARPOL Annex I, less than 10 tonne | 4 | 6.61923E-05 |
|  |  | 041. Openings immersed which are normally above the waterline | 1 | 1.65481E-05 |
|  |  | 042. Operating device fault | 1 | 1.65481E-05 |
|  |  | 043. Other | 17 | 0.000281317 |
|  |  | 044. Overheating | 1 | 1.65481E-05 |
|  |  | 045. Piping/pumping systems failure | 1 | 1.65481E-05 |
|  |  | 046. Pressure pipe failure | 4 | 6.61923E-05 |
|  |  | 047. Rigging failure | 2 | 3.30961E-05 |
|  |  | 048. Safety management system failure | 1 | 1.65481E-05 |
|  |  | 049. Seals missing or ineffective | 1 | 1.65481E-05 |
|  |  | 050. Shear strength | 1 | 1.65481E-05 |
|  |  | 051. Spilt hot liquid or fat | 1 | 1.65481E-05 |
|  |  | 052. Sprung plank | 1 | 1.65481E-05 |
|  |  | 053. Stumbling/tripping over fixed door sill, step, obstruction | 1 | 1.65481E-05 |
|  |  | 054. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 055. System error/failure-detected | 1 | 1.65481E-05 |
|  |  | 056. System pipe failure | 4 | 6.61923E-05 |
|  |  | 057. System/item design fault | 1 | 1.65481E-05 |
|  |  | 058. Unfenced opening | 1 | 1.65481E-05 |
|  |  | 059. Vessel movement | 1 | 1.65481E-05 |
|  |  | 060. Wave pressure loading on glass | 4 | 6.61923E-05 |
|  |  | 061. Wind gust | 1 | 1.65481E-05 |
|  | 04. Design Inadequate | |  |  |
|  |  | 001. Alarm failure | 1 | 1.65481E-05 |
|  |  | 002. Backflooding through sea water systems/deck scuppers | 2 | 3.30961E-05 |
|  |  | 003. Battery supply failure | 1 | 1.65481E-05 |
|  |  | 004. Battery system faulty or charging | 1 | 1.65481E-05 |
|  |  | 005. Blackout | 2 | 3.30961E-05 |
|  |  | 006. Blocked inlet on primary side | 2 | 3.30961E-05 |
|  |  | 007. Cable fault | 1 | 1.65481E-05 |
|  |  | 008. Cable/wire failure | 2 | 3.30961E-05 |
|  |  | 009. Cable/wire fault | 1 | 1.65481E-05 |
|  |  | 010. Cargo in unsafe/unstable condition Liquid gas | 1 | 1.65481E-05 |
|  |  | 011. Cargo in unsafe/unstable condition Packaged dangerous goods | 1 | 1.65481E-05 |
|  |  | 012. Cargo in unsafe/unstable condition Ro-ro | 3 | 4.96442E-05 |
|  |  | 013. Cargo shift | 3 | 4.96442E-05 |
|  |  | 014. Cargo, shift | 1 | 1.65481E-05 |
|  |  | 015. Collision | 1 | 1.65481E-05 |
|  |  | 016. Collision regulations not applied or applied incorrectly | 2 | 3.30961E-05 |
|  |  | 017. Component failure | 18 | 0.000297865 |
|  |  | 018. Control air failure | 1 | 1.65481E-05 |
|  |  | 019. Control equipment fault | 3 | 4.96442E-05 |
|  |  | 020. Control failure | 1 | 1.65481E-05 |
|  |  | 021. Control fault | 7 | 0.000115837 |
|  |  | 022. Control system fault | 1 | 1.65481E-05 |
|  |  | 023. Crankcase explosion | 1 | 1.65481E-05 |
|  |  | 024. Damaged | 1 | 1.65481E-05 |
|  |  | 025. Davit failure | 1 | 1.65481E-05 |
|  |  | 026. Davit structure failure | 2 | 3.30961E-05 |
|  |  | 027. Defective ladder/stairs | 2 | 3.30961E-05 |
|  |  | 028. Defective machinery/tools/equipment not otherwise specified | 1 | 1.65481E-05 |
|  |  | 029. Departmental organisation failure | 1 | 1.65481E-05 |
|  |  | 030. Design fault | 1 | 1.65481E-05 |
|  |  | 031. Dirty fuel | 4 | 6.61923E-05 |
|  |  | 032. Distribution system failure | 1 | 1.65481E-05 |
|  |  | 033. Door/hatch unsecured or closing too quickly | 8 | 0.000132385 |
|  |  | 034. Due to vessel movement | 5 | 8.27404E-05 |
|  |  | 035. During launch or recovery | 2 | 3.30961E-05 |
|  |  | 036. Electrical failure | 1 | 1.65481E-05 |
|  |  | 037. Electrical fault | 5 | 8.27404E-05 |
|  |  | 038. Embarkation procedural failure | 1 | 1.65481E-05 |
|  |  | 039. Entrapped water on weather deck | 2 | 3.30961E-05 |
|  |  | 040. Environment - visibility from control position | 6 | 9.92884E-05 |
|  |  | 041. Equipment failure | 11 | 0.000182029 |
|  |  | 042. Equipment not available as needed | 3 | 4.96442E-05 |
|  |  | 043. Equipment/instrumentation not maintained | 1 | 1.65481E-05 |
|  |  | 044. Equipment/instrumentation poorly designed | 6 | 9.92884E-05 |
|  |  | 045. Extinguishing medium inadequate/insufficient | 3 | 4.96442E-05 |
|  |  | 046. Failed to deploy | 1 | 1.65481E-05 |
|  |  | 047. Failure of protective equipment | 5 | 8.27404E-05 |
|  |  | 048. Failure of protective/safety cut out equipment | 2 | 3.30961E-05 |
|  |  | 049. Failure of shore contractors | 3 | 4.96442E-05 |
|  |  | 050. Failure of transformer | 1 | 1.65481E-05 |
|  |  | 051. Fall wire failure | 1 | 1.65481E-05 |
|  |  | 052. Faulty or badly designed equipment | 3 | 4.96442E-05 |
|  |  | 053. Filter blocked | 1 | 1.65481E-05 |
|  |  | 054. Fire | 3 | 4.96442E-05 |
|  |  | 055. Fire hydrant fault | 1 | 1.65481E-05 |
|  |  | 056. Fire pump failure | 1 | 1.65481E-05 |
|  |  | 057. Flooding undetected/detected too late | 4 | 6.61923E-05 |
|  |  | 058. Floor plate missing or defective | 2 | 3.30961E-05 |
|  |  | 059. Friction/debris | 2 | 3.30961E-05 |
|  |  | 060. Gangway defective | 1 | 1.65481E-05 |
|  |  | 061. Gangway insufficient safety equipment | 1 | 1.65481E-05 |
|  |  | 062. Gangway not rigged | 1 | 1.65481E-05 |
|  |  | 063. Gangway other | 3 | 4.96442E-05 |
|  |  | 064. Gangway rigged incorrectly | 1 | 1.65481E-05 |
|  |  | 065. Gearbox/clutch failure | 1 | 1.65481E-05 |
|  |  | 066. Girting | 1 | 1.65481E-05 |
|  |  | 067. Guard rail missing or defective | 7 | 0.000115837 |
|  |  | 068. Harmful substances - MARPOL Annex III, 10 to 100 tonne | 1 | 1.65481E-05 |
|  |  | 069. Hit by swinging/falling gear | 2 | 3.30961E-05 |
|  |  | 070. Hit by swinging/falling object | 2 | 3.30961E-05 |
|  |  | 071. Hook mechanism failure | 3 | 4.96442E-05 |
|  |  | 072. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 5 | 8.27404E-05 |
|  |  | 073. Hydraulic failure | 4 | 6.61923E-05 |
|  |  | 074. Ignoring warning notice/safety colour coding | 1 | 1.65481E-05 |
|  |  | 075. Improper or inadequate footwear/clothing/PPE | 6 | 9.92884E-05 |
|  |  | 076. Inadequate deck drainage | 1 | 1.65481E-05 |
|  |  | 077. Inadequate or no warning notice/safety colour coding | 1 | 1.65481E-05 |
|  |  | 078. Inadequate organisation | 1 | 1.65481E-05 |
|  |  | 079. Inadequate passage planning | 1 | 1.65481E-05 |
|  |  | 080. Inadequately guarded | 4 | 6.61923E-05 |
|  |  | 081. Inappropriate use of VHF | 1 | 1.65481E-05 |
|  |  | 082. Incorrect or insufficient action taken | 2 | 3.30961E-05 |
|  |  | 083. Instrument not used | 1 | 1.65481E-05 |
|  |  | 084. Insufficient freeboard | 3 | 4.96442E-05 |
|  |  | 085. Insufficient or unsuitable equipment/instrumentation | 6 | 9.92884E-05 |
|  |  | 086. Involving hot surfaces | 2 | 3.30961E-05 |
|  |  | 087. Involving manoeuvring tugs/trailers/vehicles on ro-ro/lo-lo vehicle deck | 1 | 1.65481E-05 |
|  |  | 088. Involving negligence/carelessness | 6 | 9.92884E-05 |
|  |  | 089. Lack of circuit information | 1 | 1.65481E-05 |
|  |  | 090. Lack of fuel | 2 | 3.30961E-05 |
|  |  | 091. Lack of information/training | 1 | 1.65481E-05 |
|  |  | 092. Lack of ventilation during working | 1 | 1.65481E-05 |
|  |  | 093. Ladder inappropriate use for access | 3 | 4.96442E-05 |
|  |  | 094. Lashing system failure | 1 | 1.65481E-05 |
|  |  | 095. Late detection of ship/light/buoy/object | 3 | 4.96442E-05 |
|  |  | 096. Launch procedural failure | 1 | 1.65481E-05 |
|  |  | 097. Launch system failure | 3 | 4.96442E-05 |
|  |  | 098. Launching procedural failure | 1 | 1.65481E-05 |
|  |  | 099. Leak could not be stopped | 2 | 3.30961E-05 |
|  |  | 100. Lifting chain/link failure | 1 | 1.65481E-05 |
|  |  | 101. Lifting/carrying - poor manual handling | 1 | 1.65481E-05 |
|  |  | 102. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 5 | 8.27404E-05 |
|  |  | 103. Line parting | 2 | 3.30961E-05 |
|  |  | 104. Location of weathertight hatch(es) | 1 | 1.65481E-05 |
|  |  | 105. Longitudinal strength exceeded | 1 | 1.65481E-05 |
|  |  | 106. Lubrication contamination | 2 | 3.30961E-05 |
|  |  | 107. Lubrication system failure | 1 | 1.65481E-05 |
|  |  | 108. Maintenance system inadequate or incomplete | 1 | 1.65481E-05 |
|  |  | 109. Mechanical failure | 1 | 1.65481E-05 |
|  |  | 110. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 111. Mechanical looseness | 5 | 8.27404E-05 |
|  |  | 112. N/R valve fault | 2 | 3.30961E-05 |
|  |  | 113. No means of recovering person from water or means inadequate | 1 | 1.65481E-05 |
|  |  | 114. No proper access provided | 5 | 8.27404E-05 |
|  |  | 115. No watertight subdivision | 1 | 1.65481E-05 |
|  |  | 116. Noise | 1 | 1.65481E-05 |
|  |  | 117. Not approved type | 1 | 1.65481E-05 |
|  |  | 118. Onboard management failure | 1 | 1.65481E-05 |
|  |  | 119. Opening/closing hatches | 1 | 1.65481E-05 |
|  |  | 120. Openings immersed which are normally above the waterline | 3 | 4.96442E-05 |
|  |  | 121. Operation of safety device | 5 | 8.27404E-05 |
|  |  | 122. Operator error | 11 | 0.000182029 |
|  |  | 123. Other | 136 | 0.002250538 |
|  |  | 124. Other - transferring ship to boat or boat to quay | 2 | 3.30961E-05 |
|  |  | 125. Other launch system failure | 4 | 6.61923E-05 |
|  |  | 126. Other regulation, code or guidance not applied or applied incorrectly | 1 | 1.65481E-05 |
|  |  | 127. Other unsafe practice | 3 | 4.96442E-05 |
|  |  | 128. Other, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 129. Over-heating | 1 | 1.65481E-05 |
|  |  | 130. Overwhelmed by breaking wave | 1 | 1.65481E-05 |
|  |  | 131. Perception of risk | 2 | 3.30961E-05 |
|  |  | 132. Pilot Access defective | 1 | 1.65481E-05 |
|  |  | 133. Pilot Access other | 2 | 3.30961E-05 |
|  |  | 134. Pilot Access rigged incorrectly | 1 | 1.65481E-05 |
|  |  | 135. Pipe failure | 1 | 1.65481E-05 |
|  |  | 136. Piping/pumping systems failure | 7 | 0.000115837 |
|  |  | 137. Poor control position ergonomics | 4 | 6.61923E-05 |
|  |  | 138. Poor ergonomics | 3 | 4.96442E-05 |
|  |  | 139. Poor instrument ergonomics | 3 | 4.96442E-05 |
|  |  | 140. Poor lighting/screening | 2 | 3.30961E-05 |
|  |  | 141. Poor/slippery/uneven surface | 2 | 3.30961E-05 |
|  |  | 142. Position monitoring inaccurate | 1 | 1.65481E-05 |
|  |  | 143. Position monitoring not frequent enough | 2 | 3.30961E-05 |
|  |  | 144. Pressure pipe failure | 6 | 9.92884E-05 |
|  |  | 145. Pump - electrical failure | 1 | 1.65481E-05 |
|  |  | 146. Pump fault | 1 | 1.65481E-05 |
|  |  | 147. Rigging failure | 2 | 3.30961E-05 |
|  |  | 148. Rigging fault | 2 | 3.30961E-05 |
|  |  | 149. Rope/wire/drum end/winch handling error | 2 | 3.30961E-05 |
|  |  | 150. Rudder design | 1 | 1.65481E-05 |
|  |  | 151. Rudder post fracture | 1 | 1.65481E-05 |
|  |  | 152. Safety cut-off failing | 1 | 1.65481E-05 |
|  |  | 153. Safety device failure | 1 | 1.65481E-05 |
|  |  | 154. Safety management system failure | 4 | 6.61923E-05 |
|  |  | 155. Seals missing or ineffective | 1 | 1.65481E-05 |
|  |  | 156. Securement failure | 1 | 1.65481E-05 |
|  |  | 157. Securing device/s lost | 2 | 3.30961E-05 |
|  |  | 158. Ship side valves not closed | 1 | 1.65481E-05 |
|  |  | 159. Ship/light/buoy/object incorrectly identified/reported | 1 | 1.65481E-05 |
|  |  | 160. Ship/Light/buoy/object not detected/ reported | 2 | 3.30961E-05 |
|  |  | 161. Shore supply failure | 1 | 1.65481E-05 |
|  |  | 162. Signal/alarm fault | 1 | 1.65481E-05 |
|  |  | 163. Snagging | 3 | 4.96442E-05 |
|  |  | 164. Speed - too fast for conditions | 2 | 3.30961E-05 |
|  |  | 165. Spilt hot liquid or fat | 2 | 3.30961E-05 |
|  |  | 166. Stumbling/tripping over fixed door sill, step, obstruction | 9 | 0.000148933 |
|  |  | 167. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 168. SW cooling pump failure | 1 | 1.65481E-05 |
|  |  | 169. System air locked | 6 | 9.92884E-05 |
|  |  | 170. System design fault | 1 | 1.65481E-05 |
|  |  | 171. System error/failure - not detected | 1 | 1.65481E-05 |
|  |  | 172. System operated incorrectly | 1 | 1.65481E-05 |
|  |  | 173. System pipe failure | 6 | 9.92884E-05 |
|  |  | 174. System/item design fault | 3 | 4.96442E-05 |
|  |  | 175. Unfenced opening | 4 | 6.61923E-05 |
|  |  | 176. Unknown or other | 1 | 1.65481E-05 |
|  |  | 177. Unsafe use of, or defective, portable ladder/steps | 1 | 1.65481E-05 |
|  |  | 178. Unstable load/load failure | 1 | 1.65481E-05 |
|  |  | 179. Valve fault | 2 | 3.30961E-05 |
|  |  | 180. Venting fault | 1 | 1.65481E-05 |
|  |  | 181. Vessel movement | 2 | 3.30961E-05 |
|  |  | 182. Visibility affected by lights/back scatter | 1 | 1.65481E-05 |
|  |  | 183. Visibility poor from control position | 11 | 0.000182029 |
|  |  | 184. Wave deformation of surrounding structure | 1 | 1.65481E-05 |
|  |  | 185. Weathertight deck hatch(es) open/unsecured/leaking | 3 | 4.96442E-05 |
|  |  | 186. Weathertight door(s) open/unsecured/leaking | 1 | 1.65481E-05 |
|  |  | 187. While preparing/stowing/handling catch | 2 | 3.30961E-05 |
|  |  | 188. While working aloft or overside | 1 | 1.65481E-05 |
|  |  | 189. Winch/crane/derrick operator error | 1 | 1.65481E-05 |
|  |  | 190. Wind gust | 1 | 1.65481E-05 |
|  |  | 191. Wire/rope parting | 2 | 3.30961E-05 |
|  |  | 192. Wire/rope/net jamming, jumping slipping or coming off sheave | 1 | 1.65481E-05 |
|  |  | 193. Wire/rope/net parting | 1 | 1.65481E-05 |
|  | 05. Fluid select defect | |  |  |
|  |  | 001. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 002. Lubrication contamination | 1 | 1.65481E-05 |
|  |  | 003. Operator error | 1 | 1.65481E-05 |
|  |  | 004. Other | 1 | 1.65481E-05 |
|  |  | 005. Poor/slippery/uneven surface | 1 | 1.65481E-05 |
|  |  | 006. Safety device failure | 1 | 1.65481E-05 |
|  | 06. Material select defect | |  |  |
|  |  | 001. Bowsing gear failure | 1 | 1.65481E-05 |
|  |  | 002. Bulkhead cable/shaft/piping glands leaking | 1 | 1.65481E-05 |
|  |  | 003. Cable fault | 1 | 1.65481E-05 |
|  |  | 004. Cable/wire failure | 2 | 3.30961E-05 |
|  |  | 005. Collision regulations not applied or applied incorrectly | 1 | 1.65481E-05 |
|  |  | 006. Component failure | 9 | 0.000148933 |
|  |  | 007. Distribution system failure | 2 | 3.30961E-05 |
|  |  | 008. During launch or recovery | 1 | 1.65481E-05 |
|  |  | 009. Electrical fault | 1 | 1.65481E-05 |
|  |  | 010. Equipment badly maintained | 1 | 1.65481E-05 |
|  |  | 011. Equipment failure | 1 | 1.65481E-05 |
|  |  | 012. Equipment/instrumentation poorly designed | 3 | 4.96442E-05 |
|  |  | 013. Extinguishing medium inadequate/insufficient | 1 | 1.65481E-05 |
|  |  | 014. Failed to deploy | 1 | 1.65481E-05 |
|  |  | 015. Failure of protective equipment | 2 | 3.30961E-05 |
|  |  | 016. Failure of protective/safety cut out equipment | 1 | 1.65481E-05 |
|  |  | 017. Fall wire failure | 1 | 1.65481E-05 |
|  |  | 018. Faulty or badly designed equipment | 2 | 3.30961E-05 |
|  |  | 019. Fire | 1 | 1.65481E-05 |
|  |  | 020. Fitting failure | 1 | 1.65481E-05 |
|  |  | 021. Floor plate missing or defective | 1 | 1.65481E-05 |
|  |  | 022. Hit by swinging/falling object | 1 | 1.65481E-05 |
|  |  | 023. Insufficient or unsuitable equipment/instrumentation | 1 | 1.65481E-05 |
|  |  | 024. Ladder other | 1 | 1.65481E-05 |
|  |  | 025. Lashing system failure | 1 | 1.65481E-05 |
|  |  | 026. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 1 | 1.65481E-05 |
|  |  | 027. Line or stopper parting | 1 | 1.65481E-05 |
|  |  | 028. Line parting | 1 | 1.65481E-05 |
|  |  | 029. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 030. Mechanical looseness | 1 | 1.65481E-05 |
|  |  | 031. Openings immersed which are normally above the waterline | 1 | 1.65481E-05 |
|  |  | 032. Other | 16 | 0.000264769 |
|  |  | 033. Other launch system failure | 1 | 1.65481E-05 |
|  |  | 034. Pilot Access defective | 1 | 1.65481E-05 |
|  |  | 035. Piping/pumping systems failure | 3 | 4.96442E-05 |
|  |  | 036. Poor/slippery/uneven surface | 3 | 4.96442E-05 |
|  |  | 037. Portable equipment fault | 1 | 1.65481E-05 |
|  |  | 038. Pressure pipe failure | 1 | 1.65481E-05 |
|  |  | 039. Refractory failure | 1 | 1.65481E-05 |
|  |  | 040. Safety device failure | 1 | 1.65481E-05 |
|  |  | 041. Safety management system failure | 2 | 3.30961E-05 |
|  |  | 042. Seal failure | 1 | 1.65481E-05 |
|  |  | 043. Slack line in water | 1 | 1.65481E-05 |
|  |  | 044. SW cooling pump failure | 1 | 1.65481E-05 |
|  |  | 045. System pipe failure | 3 | 4.96442E-05 |
|  |  | 046. Using tool for purpose for which it wasn't designed | 1 | 1.65481E-05 |
|  |  | 047. Valve fault | 1 | 1.65481E-05 |
|  |  | 048. Wave pressure loading on glass | 1 | 1.65481E-05 |
|  |  | 049. Wire/rope parting | 1 | 1.65481E-05 |
|  | 07. Other | |  |  |
|  |  | 001. Bulkhead cable/shaft/piping glands leaking | 2 | 3.30961E-05 |
|  |  | 002. Cable fault | 2 | 3.30961E-05 |
|  |  | 003. Communications failure | 1 | 1.65481E-05 |
|  |  | 004. Component failure | 4 | 6.61923E-05 |
|  |  | 005. Defective ladder/stairs | 1 | 1.65481E-05 |
|  |  | 006. Defective machinery/tools/equipment not otherwise specified | 2 | 3.30961E-05 |
|  |  | 007. Door/hatch unsecured or closing too quickly | 2 | 3.30961E-05 |
|  |  | 008. During launch or recovery | 1 | 1.65481E-05 |
|  |  | 009. Electrical fault | 1 | 1.65481E-05 |
|  |  | 010. Environment - visibility from control position | 1 | 1.65481E-05 |
|  |  | 011. Extinguishing medium inadequate/insufficient | 1 | 1.65481E-05 |
|  |  | 012. Failed - other | 1 | 1.65481E-05 |
|  |  | 013. Failure of protective equipment | 1 | 1.65481E-05 |
|  |  | 014. Failure to isolate electrical supplies | 2 | 3.30961E-05 |
|  |  | 015. Gangway not secured sufficiently | 1 | 1.65481E-05 |
|  |  | 016. Hook mechanism failure | 2 | 3.30961E-05 |
|  |  | 017. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 018. Hydraulic failure | 1 | 1.65481E-05 |
|  |  | 019. Inadequate supervision | 1 | 1.65481E-05 |
|  |  | 020. Instrument fault | 2 | 3.30961E-05 |
|  |  | 021. Instrument not used | 1 | 1.65481E-05 |
|  |  | 022. Insufficient or unsuitable equipment/instrumentation | 1 | 1.65481E-05 |
|  |  | 023. Involving hot surfaces | 1 | 1.65481E-05 |
|  |  | 024. Late detection of ship/light/buoy/object | 1 | 1.65481E-05 |
|  |  | 025. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 1 | 1.65481E-05 |
|  |  | 026. Lub oil pump failure | 1 | 1.65481E-05 |
|  |  | 027. Other | 96 | 0.001588615 |
|  |  | 028. Other launch system failure | 1 | 1.65481E-05 |
|  |  | 029. Other unsafe practice | 1 | 1.65481E-05 |
|  |  | 030. Piping/pumping systems failure | 1 | 1.65481E-05 |
|  |  | 031. Poor/slippery/uneven surface | 4 | 6.61923E-05 |
|  |  | 032. Pressure pipe failure | 2 | 3.30961E-05 |
|  |  | 033. Rudder design | 1 | 1.65481E-05 |
|  |  | 034. Separation/segregation failure | 2 | 3.30961E-05 |
|  |  | 035. Ship/Light/buoy/object not detected/ reported | 1 | 1.65481E-05 |
|  |  | 036. Stumbling/tripping over fixed door sill, step, obstruction | 4 | 6.61923E-05 |
|  |  | 037. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 038. Turning circle | 1 | 1.65481E-05 |
|  |  | 039. Unfenced opening | 1 | 1.65481E-05 |
|  |  | 040. Visibility poor from control position | 2 | 3.30961E-05 |
|  |  | 041. Weight growth (increase in lightship weight) | 1 | 1.65481E-05 |
|  |  | 042. Winch failure | 1 | 1.65481E-05 |
|  |  | 043. Wire/rope jamming, jumping or coming off sheave | 1 | 1.65481E-05 |
|  | 08. Outside operational design limits | |  |  |
|  |  | 001. Auto-control system fault | 1 | 1.65481E-05 |
|  |  | 002. AVR fault | 1 | 1.65481E-05 |
|  |  | 003. Backflooding through sea water systems/deck scuppers | 1 | 1.65481E-05 |
|  |  | 004. Battery system discharged | 1 | 1.65481E-05 |
|  |  | 005. Blocked fuel filter | 1 | 1.65481E-05 |
|  |  | 006. Blocked inlet on primary side | 1 | 1.65481E-05 |
|  |  | 007. Cargo in unsafe/unstable condition Container | 1 | 1.65481E-05 |
|  |  | 008. Cargo shift | 1 | 1.65481E-05 |
|  |  | 009. Collision | 1 | 1.65481E-05 |
|  |  | 010. Component failure | 9 | 0.000148933 |
|  |  | 011. Conditions found to be worse than forecast | 1 | 1.65481E-05 |
|  |  | 012. Conditions had greater effect than expected | 2 | 3.30961E-05 |
|  |  | 013. Connected equipment fault | 2 | 3.30961E-05 |
|  |  | 014. Control system fault | 1 | 1.65481E-05 |
|  |  | 015. Crankcase explosion | 1 | 1.65481E-05 |
|  |  | 016. Dirty fuel | 2 | 3.30961E-05 |
|  |  | 017. Due to vessel movement | 1 | 1.65481E-05 |
|  |  | 018. Electrical fault | 2 | 3.30961E-05 |
|  |  | 019. Environment - visibility from control position | 1 | 1.65481E-05 |
|  |  | 020. Equipment failure | 2 | 3.30961E-05 |
|  |  | 021. Equipment not available as needed | 1 | 1.65481E-05 |
|  |  | 022. Equipment/instrumentation poorly designed | 1 | 1.65481E-05 |
|  |  | 023. Failure of preferential trips | 1 | 1.65481E-05 |
|  |  | 024. Failure of protective equipment | 1 | 1.65481E-05 |
|  |  | 025. Failure of protective/safety cut out equipment | 1 | 1.65481E-05 |
|  |  | 026. Fall wire failure | 1 | 1.65481E-05 |
|  |  | 027. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 028. Fouled Propeller | 1 | 1.65481E-05 |
|  |  | 029. Freeing snag | 2 | 3.30961E-05 |
|  |  | 030. Hit by swinging/falling gear | 1 | 1.65481E-05 |
|  |  | 031. Hit by swinging/falling object | 1 | 1.65481E-05 |
|  |  | 032. Hook mechanism failure | 1 | 1.65481E-05 |
|  |  | 033. Improper or inadequate footwear/clothing/PPE | 1 | 1.65481E-05 |
|  |  | 034. Inadequate lighting | 1 | 1.65481E-05 |
|  |  | 035. Insufficient or unsuitable equipment/instrumentation | 2 | 3.30961E-05 |
|  |  | 036. Insulation failure | 1 | 1.65481E-05 |
|  |  | 037. Lack of fuel | 1 | 1.65481E-05 |
|  |  | 038. Lack of watertight bulkheads | 1 | 1.65481E-05 |
|  |  | 039. Ladder other | 1 | 1.65481E-05 |
|  |  | 040. Lashing system failure | 1 | 1.65481E-05 |
|  |  | 041. Late detection of ship/light/buoy/object | 1 | 1.65481E-05 |
|  |  | 042. Leak could not be stopped | 2 | 3.30961E-05 |
|  |  | 043. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 1 | 1.65481E-05 |
|  |  | 044. Line or stopper parting | 2 | 3.30961E-05 |
|  |  | 045. Line parting | 4 | 6.61923E-05 |
|  |  | 046. Longitudinal strength exceeded | 1 | 1.65481E-05 |
|  |  | 047. Maintenance system inadequate or incomplete | 1 | 1.65481E-05 |
|  |  | 048. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 049. Mechanical looseness | 1 | 1.65481E-05 |
|  |  | 050. No means of recovering person from water or means inadequate | 1 | 1.65481E-05 |
|  |  | 051. No proper access provided | 1 | 1.65481E-05 |
|  |  | 052. No watertight subdivision | 2 | 3.30961E-05 |
|  |  | 053. Not enough anchor cable deployed | 1 | 1.65481E-05 |
|  |  | 054. Not secured/stowed safely | 1 | 1.65481E-05 |
|  |  | 055. Onboard management failure | 2 | 3.30961E-05 |
|  |  | 056. Openings immersed which are normally above the waterline | 1 | 1.65481E-05 |
|  |  | 057. Operator error | 1 | 1.65481E-05 |
|  |  | 058. Other | 26 | 0.00043025 |
|  |  | 059. Over loading | 2 | 3.30961E-05 |
|  |  | 060. Overload | 1 | 1.65481E-05 |
|  |  | 061. Overwhelmed by breaking wave | 4 | 6.61923E-05 |
|  |  | 062. Perception of risk | 1 | 1.65481E-05 |
|  |  | 063. Poor decision making/information use | 1 | 1.65481E-05 |
|  |  | 064. Poor load slinging | 1 | 1.65481E-05 |
|  |  | 065. Power to pumps lost | 1 | 1.65481E-05 |
|  |  | 066. Pressure pipe failure | 1 | 1.65481E-05 |
|  |  | 067. Rigging failure | 2 | 3.30961E-05 |
|  |  | 068. Rolling | 2 | 3.30961E-05 |
|  |  | 069. Securing device/s lost | 1 | 1.65481E-05 |
|  |  | 070. Ship/Light/buoy/object not detected/ reported | 1 | 1.65481E-05 |
|  |  | 071. Slamming | 1 | 1.65481E-05 |
|  |  | 072. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 073. System air locked | 2 | 3.30961E-05 |
|  |  | 074. System pipe failure | 1 | 1.65481E-05 |
|  |  | 075. System/item design fault | 1 | 1.65481E-05 |
|  |  | 076. Turning circle | 1 | 1.65481E-05 |
|  |  | 077. Unfenced opening | 1 | 1.65481E-05 |
|  |  | 078. Vessel movement | 1 | 1.65481E-05 |
|  |  | 079. Visibility poor from control position | 1 | 1.65481E-05 |
|  |  | 080. Wave | 1 | 1.65481E-05 |
|  |  | 081. Wave washing inboard | 1 | 1.65481E-05 |
|  |  | 082. Weathertight deck hatch(es) open/unsecured/leaking | 1 | 1.65481E-05 |
|  |  | 083. Wire/rope parting | 2 | 3.30961E-05 |
|  | 09. Stability below defined requirements | |  |  |
|  |  | 001. Broaching | 1 | 1.65481E-05 |
|  |  | 002. Control failure | 1 | 1.65481E-05 |
|  |  | 003. Control fault | 1 | 1.65481E-05 |
|  |  | 004. Other | 12 | 0.000198577 |
|  |  | 005. Over loading | 1 | 1.65481E-05 |
|  |  | 006. Overwhelmed by breaking wave | 1 | 1.65481E-05 |
|  |  | 007. Snagging | 1 | 1.65481E-05 |
|  |  | 008. Wind gust | 2 | 3.30961E-05 |
|  | 10. System defect | | 184 | 0.003044845 |
|  |  | 001. Blackout | 3 | 4.96442E-05 |
|  |  | 002. Black-out | 1 | 1.65481E-05 |
|  |  | 003. Bulkhead cable/shaft/piping glands leaking | 2 | 3.30961E-05 |
|  |  | 004. Cable fault | 2 | 3.30961E-05 |
|  |  | 005. Cargo in unsafe/unstable condition Liquid gas | 1 | 1.65481E-05 |
|  |  | 006. Chart incorrect | 1 | 1.65481E-05 |
|  |  | 007. Component failure | 13 | 0.000215125 |
|  |  | 008. Connected equipment fault | 1 | 1.65481E-05 |
|  |  | 009. Connection failure | 1 | 1.65481E-05 |
|  |  | 010. Contact failure | 1 | 1.65481E-05 |
|  |  | 011. Control equipment fault | 2 | 3.30961E-05 |
|  |  | 012. Control fault | 8 | 0.000132385 |
|  |  | 013. Control system | 1 | 1.65481E-05 |
|  |  | 014. Control system fault | 3 | 4.96442E-05 |
|  |  | 015. Defective machinery/tools/equipment not otherwise specified | 1 | 1.65481E-05 |
|  |  | 016. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 017. Distribution system failure | 1 | 1.65481E-05 |
|  |  | 018. Door/hatch unsecured or closing too quickly | 4 | 6.61923E-05 |
|  |  | 019. During launch or recovery | 2 | 3.30961E-05 |
|  |  | 020. Electric failure | 1 | 1.65481E-05 |
|  |  | 021. Electrical failure | 3 | 4.96442E-05 |
|  |  | 022. Electrical fault | 13 | 0.000215125 |
|  |  | 023. Equipment failure | 2 | 3.30961E-05 |
|  |  | 024. Equipment not available as needed | 1 | 1.65481E-05 |
|  |  | 025. External wiring connection fault | 1 | 1.65481E-05 |
|  |  | 026. Failed - other | 1 | 1.65481E-05 |
|  |  | 027. Failure of protective equipment | 3 | 4.96442E-05 |
|  |  | 028. Failure of protective/safety cut out equipment | 1 | 1.65481E-05 |
|  |  | 029. Failure to isolate electrical supplies | 1 | 1.65481E-05 |
|  |  | 030. Fire | 3 | 4.96442E-05 |
|  |  | 031. Flooding | 1 | 1.65481E-05 |
|  |  | 032. Flooding undetected/detected too late | 2 | 3.30961E-05 |
|  |  | 033. Freeing snag | 1 | 1.65481E-05 |
|  |  | 034. Friction/debris | 5 | 8.27404E-05 |
|  |  | 035. Gas/Oil/Chemical overflow | 1 | 1.65481E-05 |
|  |  | 036. Hook mechanism failure | 3 | 4.96442E-05 |
|  |  | 037. HP pipe failure | 1 | 1.65481E-05 |
|  |  | 038. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 039. Inaccurate data input - automatic | 1 | 1.65481E-05 |
|  |  | 040. Inadequate lighting | 1 | 1.65481E-05 |
|  |  | 041. Inadequate organisation | 1 | 1.65481E-05 |
|  |  | 042. Inlet/filter blocked | 1 | 1.65481E-05 |
|  |  | 043. Instrument fault | 3 | 4.96442E-05 |
|  |  | 044. Insulation failure | 1 | 1.65481E-05 |
|  |  | 045. Involving fork lift truck/other vehicle | 1 | 1.65481E-05 |
|  |  | 046. Involving negligence/carelessness | 1 | 1.65481E-05 |
|  |  | 047. Lack of fuel | 4 | 6.61923E-05 |
|  |  | 048. Lashing system failure | 1 | 1.65481E-05 |
|  |  | 049. Limit switch failure | 1 | 1.65481E-05 |
|  |  | 050. Line or stopper parting | 1 | 1.65481E-05 |
|  |  | 051. Loss of operating fluid | 1 | 1.65481E-05 |
|  |  | 052. Lubrication system failure | 1 | 1.65481E-05 |
|  |  | 053. Main breaker failure | 2 | 3.30961E-05 |
|  |  | 054. Maintenance system inadequate or incomplete | 1 | 1.65481E-05 |
|  |  | 055. Mechanical failure | 1 | 1.65481E-05 |
|  |  | 056. Mechanical fault | 2 | 3.30961E-05 |
|  |  | 057. Mechanical looseness | 3 | 4.96442E-05 |
|  |  | 058. No passage planning | 1 | 1.65481E-05 |
|  |  | 059. No, or inadequate, company orders | 1 | 1.65481E-05 |
|  |  | 060. Not easily available | 1 | 1.65481E-05 |
|  |  | 061. Oil - MARPOL Annex I, less than 10 tonne | 2 | 3.30961E-05 |
|  |  | 062. Oil burner system fault | 1 | 1.65481E-05 |
|  |  | 063. Operation of safety device | 2 | 3.30961E-05 |
|  |  | 064. Operator error | 1 | 1.65481E-05 |
|  |  | 065. Other | 29 | 0.000479894 |
|  |  | 066. Perception of risk | 1 | 1.65481E-05 |
|  |  | 067. Piping/pumping systems failure | 2 | 3.30961E-05 |
|  |  | 068. Pressure pipe failure | 2 | 3.30961E-05 |
|  |  | 069. Retrieval systems | 1 | 1.65481E-05 |
|  |  | 070. Rope/wire/drum end/winch handling error | 1 | 1.65481E-05 |
|  |  | 071. Safety cut-off failing | 1 | 1.65481E-05 |
|  |  | 072. Safety device failure | 1 | 1.65481E-05 |
|  |  | 073. SW cooling pump failure | 2 | 3.30961E-05 |
|  |  | 074. System air locked | 1 | 1.65481E-05 |
|  |  | 075. System error/failure-detected | 3 | 4.96442E-05 |
|  |  | 076. System error/failure-not detected | 1 | 1.65481E-05 |
|  |  | 077. System failure | 2 | 3.30961E-05 |
|  |  | 078. System pipe failure | 1 | 1.65481E-05 |
|  |  | 079. Turbo-charger failure | 1 | 1.65481E-05 |
|  |  | 080. Unknown or other | 2 | 3.30961E-05 |
|  |  | 081. Valve fault | 1 | 1.65481E-05 |
|  |  | 082. Winding/conductor fault | 1 | 1.65481E-05 |
| **3. Environment** | | |  |  |
|  | 01. Abnormal Waves | |  |  |
|  |  | 001. Blocked fuel filter | 1 | 1.65481E-05 |
|  |  | 002. Broaching | 2 | 3.30961E-05 |
|  |  | 003. Cable/wire failure | 1 | 1.65481E-05 |
|  |  | 004. Cargo in unsafe/unstable condition Container | 1 | 1.65481E-05 |
|  |  | 005. Cargo in unsafe/unstable condition Ro-ro | 1 | 1.65481E-05 |
|  |  | 006. Cargo shift | 2 | 3.30961E-05 |
|  |  | 007. Conditions found to be worse than forecast | 1 | 1.65481E-05 |
|  |  | 008. Conditions had greater effect than expected | 5 | 8.27404E-05 |
|  |  | 009. Due to vessel movement | 6 | 9.92884E-05 |
|  |  | 010. Electrical fault | 1 | 1.65481E-05 |
|  |  | 011. Entrapped water on weather deck | 1 | 1.65481E-05 |
|  |  | 012. Environment | 1 | 1.65481E-05 |
|  |  | 013. Failure of protective equipment | 1 | 1.65481E-05 |
|  |  | 014. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 015. Inlet/filter blocked | 1 | 1.65481E-05 |
|  |  | 016. Insufficient freeboard | 1 | 1.65481E-05 |
|  |  | 017. Lashing system failure | 1 | 1.65481E-05 |
|  |  | 018. Line or stopper parting | 1 | 1.65481E-05 |
|  |  | 019. Other | 17 | 0.000281317 |
|  |  | 020. Other - transferring ship to boat or boat to quay | 2 | 3.30961E-05 |
|  |  | 021. Other unsafe practice | 3 | 4.96442E-05 |
|  |  | 022. Overwhelmed by breaking wave | 8 | 0.000132385 |
|  |  | 023. Perception of risk | 1 | 1.65481E-05 |
|  |  | 024. Poor boathandling | 1 | 1.65481E-05 |
|  |  | 025. Speed or heading not altered - risk not appreciated | 1 | 1.65481E-05 |
|  |  | 026. Spilt hot liquid or fat | 1 | 1.65481E-05 |
|  |  | 027. Stumbling/tripping over fixed door sill, step, obstruction | 1 | 1.65481E-05 |
|  |  | 028. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 029. Vessel movement | 2 | 3.30961E-05 |
|  |  | 030. Wave | 4 | 6.61923E-05 |
|  |  | 031. Wave effects | 4 | 6.61923E-05 |
|  |  | 032. Wave pressure loading on glass | 3 | 4.96442E-05 |
|  |  | 033. Wave washing inboard | 4 | 6.61923E-05 |
|  |  | 034. Wind gust | 1 | 1.65481E-05 |
|  | 02. Current | |  |  |
|  |  | 001. Broaching | 2 | 3.30961E-05 |
|  |  | 002. Conditions found to be worse than forecast | 1 | 1.65481E-05 |
|  |  | 003. Conditions had greater effect than expected | 42 | 0.000695019 |
|  |  | 004. Door/hatch unsecured or closing too quickly | 1 | 1.65481E-05 |
|  |  | 005. Entrapped water on weather deck | 1 | 1.65481E-05 |
|  |  | 006. Environment | 12 | 0.000198577 |
|  |  | 007. Fouled Propeller | 1 | 1.65481E-05 |
|  |  | 008. Holds course | 2 | 3.30961E-05 |
|  |  | 009. Improper or inadequate footwear/clothing/PPE | 1 | 1.65481E-05 |
|  |  | 010. Inadequate passage planning | 1 | 1.65481E-05 |
|  |  | 011. Incorrect or insufficient action taken | 10 | 0.000165481 |
|  |  | 012. Interaction | 1 | 1.65481E-05 |
|  |  | 013. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 1 | 1.65481E-05 |
|  |  | 014. Line or stopper parting | 1 | 1.65481E-05 |
|  |  | 015. No tidal height information gathered | 1 | 1.65481E-05 |
|  |  | 016. No watertight subdivision | 1 | 1.65481E-05 |
|  |  | 017. Operator error | 1 | 1.65481E-05 |
|  |  | 018. Other | 16 | 0.000264769 |
|  |  | 019. Other regulation, code or guidance not applied or applied incorrectly | 1 | 1.65481E-05 |
|  |  | 020. Position monitoring inaccurate | 1 | 1.65481E-05 |
|  |  | 021. Position monitoring not frequent enough | 1 | 1.65481E-05 |
|  |  | 022. Rudder design | 1 | 1.65481E-05 |
|  |  | 023. Safety management system failure | 1 | 1.65481E-05 |
|  |  | 024. Snagging | 1 | 1.65481E-05 |
|  |  | 025. Speed - too fast for conditions | 1 | 1.65481E-05 |
|  |  | 026. Speed or heading not altered - risk not appreciated | 13 | 0.000215125 |
|  |  | 027. Sudden tensioning of line | 9 | 0.000148933 |
|  |  | 028. Towing | 2 | 3.30961E-05 |
|  |  | 029. Turning circle | 1 | 1.65481E-05 |
|  |  | 030. Veers off course | 10 | 0.000165481 |
|  |  | 031. Vessel movement | 9 | 0.000148933 |
|  |  | 032. Wave effects | 2 | 3.30961E-05 |
|  |  | 033. Wave washing inboard | 1 | 1.65481E-05 |
|  | 03. Heavy Weather | |  |  |
|  |  | 001. Anchored in wrong position for conditions/sea bed | 1 | 1.65481E-05 |
|  |  | 002. Battery supply failure | 1 | 1.65481E-05 |
|  |  | 003. Blackout | 2 | 3.30961E-05 |
|  |  | 004. Blocked fuel filter | 5 | 8.27404E-05 |
|  |  | 005. Blocked inlet on primary side | 1 | 1.65481E-05 |
|  |  | 006. Broaching | 4 | 6.61923E-05 |
|  |  | 007. Bulkhead cable/shaft/piping glands leaking | 2 | 3.30961E-05 |
|  |  | 008. Cable/wire failure | 3 | 4.96442E-05 |
|  |  | 009. Cargo in unsafe/unstable condition Container | 16 | 0.000264769 |
|  |  | 010. Cargo in unsafe/unstable condition Dry bulk cargo | 2 | 3.30961E-05 |
|  |  | 011. Cargo in unsafe/unstable condition General | 2 | 3.30961E-05 |
|  |  | 012. Cargo in unsafe/unstable condition Ro-ro | 5 | 8.27404E-05 |
|  |  | 013. Cargo shift | 10 | 0.000165481 |
|  |  | 014. Cargo, shift (solid) | 1 | 1.65481E-05 |
|  |  | 015. Cargo/ballast, fluid overpressure (static) | 1 | 1.65481E-05 |
|  |  | 016. Collision | 1 | 1.65481E-05 |
|  |  | 017. Collision regulations not applied or applied incorrectly | 4 | 6.61923E-05 |
|  |  | 018. Component failure | 4 | 6.61923E-05 |
|  |  | 019. Conditions found to be worse than forecast | 11 | 0.000182029 |
|  |  | 020. Conditions had greater effect than expected | 34 | 0.000562634 |
|  |  | 021. Defective ventilators and air pipes | 2 | 3.30961E-05 |
|  |  | 022. Design fault | 1 | 1.65481E-05 |
|  |  | 023. Dirty cooler | 1 | 1.65481E-05 |
|  |  | 024. Dirty fuel | 5 | 8.27404E-05 |
|  |  | 025. Door/hatch unsecured or closing too quickly | 15 | 0.000248221 |
|  |  | 026. Due to vessel movement | 7 | 0.000115837 |
|  |  | 027. During launch or recovery | 4 | 6.61923E-05 |
|  |  | 028. Electrical fault | 2 | 3.30961E-05 |
|  |  | 029. Emergency/GMDSS radio did not work | 1 | 1.65481E-05 |
|  |  | 030. Entrapped water on weather deck | 2 | 3.30961E-05 |
|  |  | 031. Environment | 12 | 0.000198577 |
|  |  | 032. Equipment failure | 7 | 0.000115837 |
|  |  | 033. Failure of protective equipment | 1 | 1.65481E-05 |
|  |  | 034. Failure to use approved procedure protocol | 2 | 3.30961E-05 |
|  |  | 035. Fitting failure | 1 | 1.65481E-05 |
|  |  | 036. Flooding | 4 | 6.61923E-05 |
|  |  | 037. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 038. Fouled Propeller | 12 | 0.000198577 |
|  |  | 039. Gangway other | 2 | 3.30961E-05 |
|  |  | 040. Hit by swinging/falling gear | 3 | 4.96442E-05 |
|  |  | 041. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 14 | 0.000231673 |
|  |  | 042. Hydraulic failure | 2 | 3.30961E-05 |
|  |  | 043. Inadequate or no warning notice/safety colour coding | 1 | 1.65481E-05 |
|  |  | 044. Inadequately guarded | 1 | 1.65481E-05 |
|  |  | 045. Inclining test not carried out | 1 | 1.65481E-05 |
|  |  | 046. Incorrect or insufficient action taken | 14 | 0.000231673 |
|  |  | 047. Inlet/filter blocked | 1 | 1.65481E-05 |
|  |  | 048. Instrument not used | 1 | 1.65481E-05 |
|  |  | 049. Insufficient freeboard | 1 | 1.65481E-05 |
|  |  | 050. Insufficient or unsuitable equipment/instrumentation | 2 | 3.30961E-05 |
|  |  | 051. Insulation failure | 1 | 1.65481E-05 |
|  |  | 052. Involving illness | 1 | 1.65481E-05 |
|  |  | 053. Involving manoeuvring tugs/trailers/vehicles on ro-ro/lo-lo vehicle deck | 2 | 3.30961E-05 |
|  |  | 054. Involving negligence/carelessness | 1 | 1.65481E-05 |
|  |  | 055. Lack of fuel | 2 | 3.30961E-05 |
|  |  | 056. Lack of training/instruction | 2 | 3.30961E-05 |
|  |  | 057. Large scale structural failure | 3 | 4.96442E-05 |
|  |  | 058. Lashing system failure | 18 | 0.000297865 |
|  |  | 059. Late detection of ship/light/buoy/object | 1 | 1.65481E-05 |
|  |  | 060. Launching procedural failure | 1 | 1.65481E-05 |
|  |  | 061. Leak could not be stopped | 2 | 3.30961E-05 |
|  |  | 062. Lifting/carrying - poor manual handling | 3 | 4.96442E-05 |
|  |  | 063. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 3 | 4.96442E-05 |
|  |  | 064. Line or stopper parting | 14 | 0.000231673 |
|  |  | 065. Line parting | 3 | 4.96442E-05 |
|  |  | 066. Litter or object left around | 1 | 1.65481E-05 |
|  |  | 067. Loading arm failure | 1 | 1.65481E-05 |
|  |  | 068. Longitudinal strength exceeded | 2 | 3.30961E-05 |
|  |  | 069. None | 3 | 4.96442E-05 |
|  |  | 070. Not enough anchor cable deployed | 2 | 3.30961E-05 |
|  |  | 071. Not secured/stowed safely | 3 | 4.96442E-05 |
|  |  | 072. Oil - MARPOL Annex I, less than 10 tonne | 2 | 3.30961E-05 |
|  |  | 073. Onboard management failure | 1 | 1.65481E-05 |
|  |  | 074. Openings immersed which are normally above the waterline | 1 | 1.65481E-05 |
|  |  | 075. Operation of safety device | 6 | 9.92884E-05 |
|  |  | 076. Operator error | 7 | 0.000115837 |
|  |  | 077. Other | 745 | 0.012328314 |
|  |  | 078. Other - transferring ship to boat or boat to quay | 3 | 4.96442E-05 |
|  |  | 079. Other factors | 1 | 1.65481E-05 |
|  |  | 080. Other launch system failure | 2 | 3.30961E-05 |
|  |  | 081. Other unsafe practice | 7 | 0.000115837 |
|  |  | 082. Other, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 083. Overload | 1 | 1.65481E-05 |
|  |  | 084. Overwhelmed by breaking wave | 5 | 8.27404E-05 |
|  |  | 085. Perception of risk | 7 | 0.000115837 |
|  |  | 086. Pilot Access other | 2 | 3.30961E-05 |
|  |  | 087. Piping/pumping systems failure | 1 | 1.65481E-05 |
|  |  | 088. Plan not followed | 1 | 1.65481E-05 |
|  |  | 089. Poor boathandling | 1 | 1.65481E-05 |
|  |  | 090. Poor visibility in fog/mist/rain/snow etc | 1 | 1.65481E-05 |
|  |  | 091. Poor/slippery/uneven surface | 15 | 0.000248221 |
|  |  | 092. Position monitoring inaccurate | 1 | 1.65481E-05 |
|  |  | 093. Power to pumps lost | 1 | 1.65481E-05 |
|  |  | 094. Procedural failure | 1 | 1.65481E-05 |
|  |  | 095. Relay fault | 1 | 1.65481E-05 |
|  |  | 096. Release system failure | 1 | 1.65481E-05 |
|  |  | 097. Rolling | 1 | 1.65481E-05 |
|  |  | 098. Rope/wire/drum end/winch handling error | 2 | 3.30961E-05 |
|  |  | 099. Rudder post fracture | 1 | 1.65481E-05 |
|  |  | 100. Safety management system failure | 3 | 4.96442E-05 |
|  |  | 101. Securement failure | 1 | 1.65481E-05 |
|  |  | 102. Ship/Light/buoy/object not detected/ reported | 1 | 1.65481E-05 |
|  |  | 103. Source of leak could not be found | 1 | 1.65481E-05 |
|  |  | 104. Speed - too fast for conditions | 1 | 1.65481E-05 |
|  |  | 105. Speed or heading not altered - risk not appreciated | 2 | 3.30961E-05 |
|  |  | 106. Spilt hot liquid or fat | 4 | 6.61923E-05 |
|  |  | 107. Stumbling/tripping over fixed door sill, step, obstruction | 24 | 0.000397154 |
|  |  | 108. Sudden tensioning of line | 14 | 0.000231673 |
|  |  | 109. System air locked | 2 | 3.30961E-05 |
|  |  | 110. Unknown | 2 | 3.30961E-05 |
|  |  | 111. Veers off course | 3 | 4.96442E-05 |
|  |  | 112. Vessel movement | 41 | 0.000678471 |
|  |  | 113. Visibility poor from control position | 1 | 1.65481E-05 |
|  |  | 114. Wave | 6 | 9.92884E-05 |
|  |  | 115. Wave effects | 11 | 0.000182029 |
|  |  | 116. Wave pressure loading on glass | 8 | 0.000132385 |
|  |  | 117. Wave washing inboard | 3 | 4.96442E-05 |
|  |  | 118. Weather/visibility conditions | 1 | 1.65481E-05 |
|  |  | 119. Weathertight deck hatch(es) open/unsecured/leaking | 1 | 1.65481E-05 |
|  |  | 120. While preparing/stowing/handling catch | 1 | 1.65481E-05 |
|  |  | 121. Wind gust | 5 | 8.27404E-05 |
|  |  | 122. Wind/sea/visibility conditions | 3 | 4.96442E-05 |
|  |  | 123. Wire/rope/net jamming, jumping slipping or coming off sheave | 2 | 3.30961E-05 |
|  |  | 124. Wire/rope/net parting | 1 | 1.65481E-05 |
|  | 04. Ice | |  |  |
|  |  | 1. Blocked inlet on primary side | 1 | 1.65481E-05 |
|  |  | 126. Cargo/ballast, fluid overpressure (static) | 1 | 1.65481E-05 |
|  |  | 127. Environment | 1 | 1.65481E-05 |
|  |  | 128. Friction/debris | 1 | 1.65481E-05 |
|  |  | 129. Gangway defective | 1 | 1.65481E-05 |
|  |  | 130. Gangway other | 1 | 1.65481E-05 |
|  |  | 131. Involving fork lift truck/other vehicle | 1 | 1.65481E-05 |
|  |  | 132. No proper access provided | 1 | 1.65481E-05 |
|  |  | 133. Other | 2 | 3.30961E-05 |
|  |  | 134. Perception of risk | 1 | 1.65481E-05 |
|  |  | 135. Piping/pumping systems failure | 1 | 1.65481E-05 |
|  |  | 136. Poor/slippery/uneven surface | 9 | 0.000148933 |
|  |  | 137. Speed or heading not altered - risk not appreciated | 1 | 1.65481E-05 |
|  | 05. Lightning | |  |  |
|  |  | 001. Conditions had greater effect than expected | 1 | 1.65481E-05 |
|  |  | 002. Other | 1 | 1.65481E-05 |
|  | 06. Other | |  |  |
|  |  | 001. Cargo shift | 1 | 1.65481E-05 |
|  |  | 002. Conditions found to be worse than forecast | 3 | 4.96442E-05 |
|  |  | 003. Conditions had greater effect than expected | 5 | 8.27404E-05 |
|  |  | 004. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 005. Door/hatch unsecured or closing too quickly | 3 | 4.96442E-05 |
|  |  | 006. Due to vessel movement | 1 | 1.65481E-05 |
|  |  | 007. During launch or recovery | 1 | 1.65481E-05 |
|  |  | 008. Environment | 1 | 1.65481E-05 |
|  |  | 009. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 010. Gangway defective | 1 | 1.65481E-05 |
|  |  | 011. Holds course | 1 | 1.65481E-05 |
|  |  | 012. Inadequate or no warning notice/safety colour coding | 1 | 1.65481E-05 |
|  |  | 013. Incorrect or insufficient action taken | 5 | 8.27404E-05 |
|  |  | 014. Interaction | 1 | 1.65481E-05 |
|  |  | 015. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 016. Operation of safety device | 1 | 1.65481E-05 |
|  |  | 017. Other | 13 | 0.000215125 |
|  |  | 018. Perception of risk | 1 | 1.65481E-05 |
|  |  | 019. Poor boathandling | 1 | 1.65481E-05 |
|  |  | 020. Poor/slippery/uneven surface | 7 | 0.000115837 |
|  |  | 021. Safety management system failure | 1 | 1.65481E-05 |
|  |  | 022. Separation/segregation failure | 1 | 1.65481E-05 |
|  |  | 023. Ship/Light/buoy/object not detected/ reported | 1 | 1.65481E-05 |
|  |  | 024. Speed - too fast for conditions | 1 | 1.65481E-05 |
|  |  | 025. Stumbling/tripping over fixed door sill, step, obstruction | 2 | 3.30961E-05 |
|  |  | 026. Towing | 1 | 1.65481E-05 |
|  |  | 027. Veers off course | 1 | 1.65481E-05 |
|  |  | 028. Vessel movement | 4 | 6.61923E-05 |
|  |  | 029. Visibility affected by lights/back scatter | 1 | 1.65481E-05 |
|  | 07. Temperature | |  |  |
|  |  | 001. Ambient conditions exceeded | 1 | 1.65481E-05 |
|  |  | 002. Blocked fuel filter | 1 | 1.65481E-05 |
|  |  | 003. Control fault | 1 | 1.65481E-05 |
|  |  | 004. Electrical fault | 1 | 1.65481E-05 |
|  |  | 005. Heat/Ventilation | 1 | 1.65481E-05 |
|  |  | 006. Hit by swinging/falling object | 1 | 1.65481E-05 |
|  |  | 007. Improper or inadequate footwear/clothing/PPE | 1 | 1.65481E-05 |
|  |  | 008. Involving fatigue/tension | 1 | 1.65481E-05 |
|  |  | 009. Involving fork lift truck/other vehicle | 1 | 1.65481E-05 |
|  |  | 010. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 011. Other | 5 | 8.27404E-05 |
|  |  | 012. Perception of risk | 1 | 1.65481E-05 |
|  |  | 013. Turbo-charger failure | 1 | 1.65481E-05 |
|  | 08. Visibility | |  |  |
|  |  | 001. Collision regulations not applied or applied incorrectly | 1 | 1.65481E-05 |
|  |  | 002. Conditions found to be worse than forecast | 1 | 1.65481E-05 |
|  |  | 003. Conditions had greater effect than expected | 2 | 3.30961E-05 |
|  |  | 004. Fouled Propeller | 1 | 1.65481E-05 |
|  |  | 005. Gangway other | 1 | 1.65481E-05 |
|  |  | 006. Improper or inadequate footwear/clothing/PPE | 1 | 1.65481E-05 |
|  |  | 007. Incorrect or insufficient action taken | 2 | 3.30961E-05 |
|  |  | 008. Instrument not used | 1 | 1.65481E-05 |
|  |  | 009. Lack of role monitoring | 1 | 1.65481E-05 |
|  |  | 010. Late detection of ship/light/buoy/object | 6 | 9.92884E-05 |
|  |  | 011. No means of recovering person from water or means inadequate | 1 | 1.65481E-05 |
|  |  | 012. Operator error | 1 | 1.65481E-05 |
|  |  | 013. Other | 11 | 0.000182029 |
|  |  | 014. Plan not followed | 2 | 3.30961E-05 |
|  |  | 015. Poor visibility in fog/mist/rain/snow etc | 10 | 0.000165481 |
|  |  | 016. Position monitoring inaccurate | 7 | 0.000115837 |
|  |  | 017. Ship/light/buoy/object incorrectly identified/reported | 1 | 1.65481E-05 |
|  |  | 018. Ship/Light/buoy/object not detected/ reported | 5 | 8.27404E-05 |
|  |  | 019. Snagging | 1 | 1.65481E-05 |
|  |  | 020. Speed - too fast for conditions | 2 | 3.30961E-05 |
|  |  | 021. Speed or heading not altered - risk not appreciated | 2 | 3.30961E-05 |
|  |  | 022. Stumbling/tripping over fixed door sill, step, obstruction | 1 | 1.65481E-05 |
|  |  | 023. Visibility affected by lights/back scatter | 2 | 3.30961E-05 |
|  |  | 024. Weather/visibility conditions | 1 | 1.65481E-05 |
| **4. External Causes** | | |  |  |
|  | 01. Floating Objects | |  |  |
|  |  | 001. Blackout | 1 | 1.65481E-05 |
|  |  | 002. Blocked inlet on primary side | 21 | 0.00034751 |
|  |  | 003. Component failure | 13 | 0.000215125 |
|  |  | 004. Control fault | 1 | 1.65481E-05 |
|  |  | 005. Damage exceeds limits of subdivision | 1 | 1.65481E-05 |
|  |  | 006. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 007. Fouled Propeller | 29 | 0.000479894 |
|  |  | 008. Friction/debris | 10 | 0.000165481 |
|  |  | 009. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 8 | 0.000132385 |
|  |  | 010. Hydraulic failure | 1 | 1.65481E-05 |
|  |  | 011. Inadequate passage planning | 1 | 1.65481E-05 |
|  |  | 012. Incorrect or insufficient action taken | 1 | 1.65481E-05 |
|  |  | 013. Inlet/filter blocked | 2 | 3.30961E-05 |
|  |  | 014. Large scale structural failure | 1 | 1.65481E-05 |
|  |  | 015. Late detection of ship/light/buoy/object | 1 | 1.65481E-05 |
|  |  | 016. Loss or damage to blade | 11 | 0.000182029 |
|  |  | 017. Lubrication system failure | 2 | 3.30961E-05 |
|  |  | 018. Mechanical failure | 27 | 0.000446798 |
|  |  | 019. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 020. Mechanical looseness | 1 | 1.65481E-05 |
|  |  | 021. No watertight subdivision | 1 | 1.65481E-05 |
|  |  | 022. Onboard management failure | 11 | 0.000182029 |
|  |  | 023. Operator error | 13 | 0.000215125 |
|  |  | 024. Other | 34 | 0.000562634 |
|  |  | 025. Securing device/s lost | 1 | 1.65481E-05 |
|  |  | 026. Ship/Light/buoy/object not detected/ reported | 3 | 4.96442E-05 |
|  |  | 027. Source of leak could not be found | 2 | 3.30961E-05 |
|  |  | 028. Speed or heading not altered - risk not appreciated | 1 | 1.65481E-05 |
|  |  | 029. SW cooling pump failure | 3 | 4.96442E-05 |
|  |  | 030. System pipe failure | 1 | 1.65481E-05 |
|  |  | 031. Wire/rope/net parting | 1 | 1.65481E-05 |
|  | 02. Flying Object | |  |  |
|  |  | 001. Control fault | 1 | 1.65481E-05 |
|  |  | 002. Cooling system failure | 1 | 1.65481E-05 |
|  |  | 003. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 004. Inadequately guarded | 1 | 1.65481E-05 |
|  |  | 005. Involving personal violence | 1 | 1.65481E-05 |
|  |  | 006. Loss or damage to blade | 1 | 1.65481E-05 |
|  |  | 007. Other unsafe practice | 1 | 1.65481E-05 |
|  |  | 008. System pipe failure | 1 | 1.65481E-05 |
|  |  | 009. Wire/rope/net jamming, jumping slipping or coming off sheave | 1 | 1.65481E-05 |
|  | 03. Natural Disaster | |  |  |
|  |  | 001. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 002. Other | 1 | 1.65481E-05 |
|  | 04. Other | |  |  |
|  |  | 001. Blocked fuel filter | 1 | 1.65481E-05 |
|  |  | 002. Blocked inlet on primary side | 3 | 4.96442E-05 |
|  |  | 003. Cargo in unsafe/unstable condition Ro-ro | 1 | 1.65481E-05 |
|  |  | 004. Connected equipment fault | 1 | 1.65481E-05 |
|  |  | 005. Davit structure failure | 1 | 1.65481E-05 |
|  |  | 006. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 007. Electrical failure | 1 | 1.65481E-05 |
|  |  | 008. Equipment failure | 1 | 1.65481E-05 |
|  |  | 009. Fire | 1 | 1.65481E-05 |
|  |  | 010. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 011. Fouled Propeller | 2 | 3.30961E-05 |
|  |  | 012. Friction/debris | 1 | 1.65481E-05 |
|  |  | 013. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 014. Inaccurate data input - automatic | 1 | 1.65481E-05 |
|  |  | 015. Mechanical failure | 3 | 4.96442E-05 |
|  |  | 016. Motor/engine fault | 1 | 1.65481E-05 |
|  |  | 017. Openings immersed which are normally above the waterline | 1 | 1.65481E-05 |
|  |  | 018. Operator error | 1 | 1.65481E-05 |
|  |  | 019. Other | 11 | 0.000182029 |
|  |  | 020. Poor/slippery/uneven surface | 1 | 1.65481E-05 |
|  |  | 021. Pump failure | 1 | 1.65481E-05 |
|  |  | 022. Rolling | 1 | 1.65481E-05 |
|  |  | 023. Rope/wire/drum end/winch handling error | 1 | 1.65481E-05 |
|  |  | 024. Single-handed operation | 1 | 1.65481E-05 |
|  |  | 025. Snagging | 1 | 1.65481E-05 |
|  |  | 026. Speed or heading not altered - risk not appreciated | 1 | 1.65481E-05 |
|  |  | 027. Sudden tensioning of line | 3 | 4.96442E-05 |
|  |  | 028. System error/failure-detected | 1 | 1.65481E-05 |
|  |  | 029. System pipe failure | 1 | 1.65481E-05 |
|  |  | 030. Towing | 1 | 1.65481E-05 |
|  |  | 031. Vessel movement | 1 | 1.65481E-05 |
|  |  | 032. Wire/rope parting | 1 | 1.65481E-05 |
|  | 05. Other Vessel | |  |  |
|  |  | 001. Broaching | 1 | 1.65481E-05 |
|  |  | 002. Collision | 1 | 1.65481E-05 |
|  |  | 003. Collision regulations not applied or applied incorrectly | 12 | 0.000198577 |
|  |  | 004. Communication (2-way) not encouraged | 1 | 1.65481E-05 |
|  |  | 005. Communication failure, master/pilot | 3 | 4.96442E-05 |
|  |  | 006. Conditions found to be worse than forecast | 1 | 1.65481E-05 |
|  |  | 007. Conditions had greater effect than expected | 13 | 0.000215125 |
|  |  | 008. Due to vessel movement | 2 | 3.30961E-05 |
|  |  | 009. Environment | 2 | 3.30961E-05 |
|  |  | 010. Fouled Propeller | 1 | 1.65481E-05 |
|  |  | 011. Freeing snag | 1 | 1.65481E-05 |
|  |  | 012. Gangway not secured sufficiently | 1 | 1.65481E-05 |
|  |  | 013. Gangway other | 2 | 3.30961E-05 |
|  |  | 014. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 015. Improper or inadequate footwear/clothing/PPE | 1 | 1.65481E-05 |
|  |  | 016. Inadequate passage planning | 2 | 3.30961E-05 |
|  |  | 017. Inappropriate use of VHF | 1 | 1.65481E-05 |
|  |  | 018. Incorrect or insufficient action taken | 16 | 0.000264769 |
|  |  | 019. Interaction | 1 | 1.65481E-05 |
|  |  | 020. Ladder other | 2 | 3.30961E-05 |
|  |  | 021. Late detection of ship/light/buoy/object | 9 | 0.000148933 |
|  |  | 022. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 2 | 3.30961E-05 |
|  |  | 023. Line or stopper parting | 2 | 3.30961E-05 |
|  |  | 024. Line parting | 4 | 6.61923E-05 |
|  |  | 025. Other | 29 | 0.000479894 |
|  |  | 026. Other - transferring ship to boat or boat to quay | 1 | 1.65481E-05 |
|  |  | 027. Other regulation, code or guidance not applied or applied incorrectly | 1 | 1.65481E-05 |
|  |  | 028. Other unsafe practice | 2 | 3.30961E-05 |
|  |  | 029. Perception of risk | 2 | 3.30961E-05 |
|  |  | 030. Plan not followed | 3 | 4.96442E-05 |
|  |  | 031. Poor visibility in fog/mist/rain/snow etc | 1 | 1.65481E-05 |
|  |  | 032. Position monitoring not frequent enough | 1 | 1.65481E-05 |
|  |  | 033. Ship/light/buoy/object incorrectly identified/reported | 2 | 3.30961E-05 |
|  |  | 034. Ship/Light/buoy/object not detected/ reported | 3 | 4.96442E-05 |
|  |  | 035. Snagging | 1 | 1.65481E-05 |
|  |  | 036. Speed - too fast for conditions | 3 | 4.96442E-05 |
|  |  | 037. Speed or heading not altered - risk not appreciated | 8 | 0.000132385 |
|  |  | 038. Stumbling/tripping over fixed door sill, step, obstruction | 1 | 1.65481E-05 |
|  |  | 039. Sudden tensioning of line | 6 | 9.92884E-05 |
|  |  | 040. Towing | 2 | 3.30961E-05 |
|  |  | 041. Veers off course | 1 | 1.65481E-05 |
|  |  | 042. Verbal order or instruction not understood/misinterpreted | 2 | 3.30961E-05 |
|  |  | 043. Vessel movement | 12 | 0.000198577 |
|  |  | 044. Visibility affected by lights/back scatter | 1 | 1.65481E-05 |
|  |  | 045. Visibility poor from control position | 1 | 1.65481E-05 |
|  |  | 046. Wave effects | 1 | 1.65481E-05 |
|  | 06. Rope/Net (not vessel's - or source unknown) | |  |  |
|  |  | 001. Component failure | 12 | 0.000198577 |
|  |  | 002. Control fault | 1 | 1.65481E-05 |
|  |  | 003. Fouled Propeller | 202 | 0.003342711 |
|  |  | 004. Friction/debris | 4 | 6.61923E-05 |
|  |  | 005. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 006. Lack of information/training | 1 | 1.65481E-05 |
|  |  | 007. Late detection of ship/light/buoy/object | 1 | 1.65481E-05 |
|  |  | 008. Loss or damage to blade | 7 | 0.000115837 |
|  |  | 009. Mechanical failure | 41 | 0.000678471 |
|  |  | 010. Mechanical fault | 4 | 6.61923E-05 |
|  |  | 011. Onboard management failure | 2 | 3.30961E-05 |
|  |  | 012. Operator error | 4 | 6.61923E-05 |
|  |  | 013. Other | 42 | 0.000695019 |
|  |  | 014. Other factors | 1 | 1.65481E-05 |
|  |  | 015. Rolling | 1 | 1.65481E-05 |
|  |  | 016. Rope/wire/drum end/winch handling error | 1 | 1.65481E-05 |
|  |  | 017. Seized impellor | 1 | 1.65481E-05 |
|  |  | 018. Single-handed operation | 1 | 1.65481E-05 |
|  |  | 019. Slack line in water | 1 | 1.65481E-05 |
|  |  | 020. Stern tube bearing failure | 1 | 1.65481E-05 |
|  |  | 021. While preparing/stowing/handling catch | 1 | 1.65481E-05 |
|  |  | 022. While working aloft or overside | 1 | 1.65481E-05 |
|  |  | 023. Wire/rope/net jamming, jumping slipping or coming off sheave | 1 | 1.65481E-05 |
|  | 07. Rope/Net (own vessel's) | |  |  |
|  |  | 001. Anchored in wrong position for conditions/sea bed | 1 | 1.65481E-05 |
|  |  | 002. Communications failure, master/watchkeeper/rating | 1 | 1.65481E-05 |
|  |  | 003. Component failure | 2 | 3.30961E-05 |
|  |  | 004. Electrical fault | 1 | 1.65481E-05 |
|  |  | 005. Fouled Propeller | 144 | 0.002382922 |
|  |  | 006. Friction/debris | 3 | 4.96442E-05 |
|  |  | 007. Hit by swinging/falling gear | 1 | 1.65481E-05 |
|  |  | 008. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 009. Incorrect or insufficient action taken | 1 | 1.65481E-05 |
|  |  | 010. Ladder other | 1 | 1.65481E-05 |
|  |  | 011. No watertight subdivision | 1 | 1.65481E-05 |
|  |  | 012. Operator error | 1 | 1.65481E-05 |
|  |  | 013. Other | 2 | 3.30961E-05 |
|  |  | 014. Poor/slippery/uneven surface | 1 | 1.65481E-05 |
|  |  | 015. Rope/wire/drum end/winch handling error | 3 | 4.96442E-05 |
|  |  | 016. Slack line in water | 2 | 3.30961E-05 |
|  |  | 017. Sudden tensioning of line | 2 | 3.30961E-05 |
|  |  | 018. Towing | 1 | 1.65481E-05 |
|  |  | 019. Vessel movement | 2 | 3.30961E-05 |
|  |  | 020. While preparing/stowing/handling catch | 2 | 3.30961E-05 |
|  |  | 021. Wire/rope/net jamming, jumping slipping or coming off sheave | 4 | 6.61923E-05 |
|  | 08. Uncharted underwater Obstruction | |  |  |
|  |  | 001. Chart incorrect | 13 | 0.000215125 |
|  |  | 002. Conditions found to be worse than forecast | 4 | 6.61923E-05 |
|  |  | 003. Conditions had greater effect than expected | 9 | 0.000148933 |
|  |  | 004. Environment | 1 | 1.65481E-05 |
|  |  | 005. Equipment failure | 1 | 1.65481E-05 |
|  |  | 006. Failure of shore contractors | 2 | 3.30961E-05 |
|  |  | 007. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 008. Freeing snag | 1 | 1.65481E-05 |
|  |  | 009. Friction/debris | 1 | 1.65481E-05 |
|  |  | 010. Girting | 1 | 1.65481E-05 |
|  |  | 011. Grounding | 1 | 1.65481E-05 |
|  |  | 012. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 10 | 0.000165481 |
|  |  | 013. Inadequate passage planning | 1 | 1.65481E-05 |
|  |  | 014. Interaction | 1 | 1.65481E-05 |
|  |  | 015. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 1 | 1.65481E-05 |
|  |  | 016. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 017. No passage planning | 1 | 1.65481E-05 |
|  |  | 018. No tidal height information gathered | 1 | 1.65481E-05 |
|  |  | 019. Oil - MARPOL Annex I, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 020. Other | 19 | 0.000314413 |
|  |  | 021. Overload | 2 | 3.30961E-05 |
|  |  | 022. Perception of risk | 1 | 1.65481E-05 |
|  |  | 023. Position monitoring not frequent enough | 1 | 1.65481E-05 |
|  |  | 024. Positions not checked by another method or person | 1 | 1.65481E-05 |
|  |  | 025. Safety management system failure | 1 | 1.65481E-05 |
|  |  | 026. Ship/light/buoy/object incorrectly identified/reported | 1 | 1.65481E-05 |
|  |  | 027. Ship/Light/buoy/object not detected/ reported | 1 | 1.65481E-05 |
|  |  | 028. Snagging | 10 | 0.000165481 |
|  |  | 029. Sudden tensioning of line | 5 | 8.27404E-05 |
|  |  | 030. Towing | 1 | 1.65481E-05 |
|  |  | 031. Unable to release load | 1 | 1.65481E-05 |
|  |  | 032. Veers off course | 1 | 1.65481E-05 |
|  |  | 033. Wire/rope/net jamming, jumping slipping or coming off sheave | 4 | 6.61923E-05 |
|  |  | 034. Wire/rope/net parting | 4 | 6.61923E-05 |
| **5. Material/mechanical defect** | | |  |  |
|  | 01. Brittle fracture | |  |  |
|  |  | 001. Component failure | 13 | 0.000215125 |
|  |  | 002. Control equipment fault | 1 | 1.65481E-05 |
|  |  | 003. Equipment failure | 1 | 1.65481E-05 |
|  |  | 004. Fitting failure | 1 | 1.65481E-05 |
|  |  | 005. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 006. FW cooling pump failure | 1 | 1.65481E-05 |
|  |  | 007. Lack of fuel | 1 | 1.65481E-05 |
|  |  | 008. LP pipe failure | 1 | 1.65481E-05 |
|  |  | 009. Lubrication system failure | 1 | 1.65481E-05 |
|  |  | 010. Maintenance system inadequate or incomplete | 1 | 1.65481E-05 |
|  |  | 011. Mechanical failure | 1 | 1.65481E-05 |
|  |  | 012. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 013. Mechanical looseness | 1 | 1.65481E-05 |
|  |  | 014. Other | 4 | 6.61923E-05 |
|  |  | 015. Other, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 016. Pipe failure | 1 | 1.65481E-05 |
|  |  | 017. Piping/pumping systems failure | 2 | 3.30961E-05 |
|  |  | 018. Portable extinguisher defective/empty | 1 | 1.65481E-05 |
|  |  | 019. Pressure pipe failure | 7 | 0.000115837 |
|  |  | 020. Rigging failure | 1 | 1.65481E-05 |
|  |  | 021. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 022. System pipe failure | 2 | 3.30961E-05 |
|  | 02. Casting | |  |  |
|  |  | 001. Component failure | 4 | 6.61923E-05 |
|  |  | 002. During launch or recovery | 1 | 1.65481E-05 |
|  |  | 003. Equipment badly maintained | 1 | 1.65481E-05 |
|  |  | 004. Fuel pump fault | 1 | 1.65481E-05 |
|  |  | 005. FW cooling pump failure | 1 | 1.65481E-05 |
|  |  | 006. Incorrect or insufficient action taken | 1 | 1.65481E-05 |
|  |  | 007. Lack of fuel | 1 | 1.65481E-05 |
|  |  | 008. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 009. Other | 3 | 4.96442E-05 |
|  |  | 010. Refractory failure | 1 | 1.65481E-05 |
|  |  | 011. System air locked | 1 | 1.65481E-05 |
|  | 03. Corrosion | |  |  |
|  |  | 001. Auto-control system fault | 1 | 1.65481E-05 |
|  |  | 002. Blocked fuel filter | 1 | 1.65481E-05 |
|  |  | 003. Bulkhead cable/shaft/piping glands leaking | 1 | 1.65481E-05 |
|  |  | 004. Cable fault | 1 | 1.65481E-05 |
|  |  | 005. Cable/wire failure | 2 | 3.30961E-05 |
|  |  | 006. Cable/wire fault | 3 | 4.96442E-05 |
|  |  | 007. Cargo shift | 1 | 1.65481E-05 |
|  |  | 008. Component failure | 17 | 0.000281317 |
|  |  | 009. Contaminated feed water | 1 | 1.65481E-05 |
|  |  | 010. Control fault | 1 | 1.65481E-05 |
|  |  | 011. Davit failure | 1 | 1.65481E-05 |
|  |  | 012. Davit structure failure | 1 | 1.65481E-05 |
|  |  | 013. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 014. Electrical fault | 4 | 6.61923E-05 |
|  |  | 015. Engine failure | 1 | 1.65481E-05 |
|  |  | 016. Equipment badly maintained | 2 | 3.30961E-05 |
|  |  | 017. External wiring connection fault | 1 | 1.65481E-05 |
|  |  | 018. Fall wire failure | 3 | 4.96442E-05 |
|  |  | 019. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 020. Fouled Propeller | 1 | 1.65481E-05 |
|  |  | 021. Friction/debris | 2 | 3.30961E-05 |
|  |  | 022. Gas/Oil/Chemical cargo/bunkers | 1 | 1.65481E-05 |
|  |  | 023. Holds course | 1 | 1.65481E-05 |
|  |  | 024. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 18 | 0.000297865 |
|  |  | 025. Improper or inadequate footwear/clothing/PPE | 1 | 1.65481E-05 |
|  |  | 026. Insulation failure | 2 | 3.30961E-05 |
|  |  | 027. Involving negligence/carelessness | 1 | 1.65481E-05 |
|  |  | 028. Lack of fuel | 1 | 1.65481E-05 |
|  |  | 029. Link/chain failure | 2 | 3.30961E-05 |
|  |  | 030. Longitudinal strength exceeded | 1 | 1.65481E-05 |
|  |  | 031. Loss or damage to blade | 1 | 1.65481E-05 |
|  |  | 032. Motor/engine fault | 1 | 1.65481E-05 |
|  |  | 033. Oil - MARPOL Annex I, less than 10 tonne | 3 | 4.96442E-05 |
|  |  | 034. Onboard management failure | 1 | 1.65481E-05 |
|  |  | 035. Other | 38 | 0.000628827 |
|  |  | 036. Other launch system failure | 1 | 1.65481E-05 |
|  |  | 037. Other unsafe practice | 1 | 1.65481E-05 |
|  |  | 038. Pilot Access defective | 1 | 1.65481E-05 |
|  |  | 039. Pipe failure | 6 | 9.92884E-05 |
|  |  | 040. Piping/pumping systems failure | 12 | 0.000198577 |
|  |  | 041. Pressure part failure | 1 | 1.65481E-05 |
|  |  | 042. Pressure pipe failure | 1 | 1.65481E-05 |
|  |  | 043. Rope/wire/drum end/winch handling error | 1 | 1.65481E-05 |
|  |  | 044. Rudder post fracture | 1 | 1.65481E-05 |
|  |  | 045. Safety device failure | 2 | 3.30961E-05 |
|  |  | 046. Ship side valve fault | 1 | 1.65481E-05 |
|  |  | 047. Slamming | 1 | 1.65481E-05 |
|  |  | 048. Speed - too fast for conditions | 1 | 1.65481E-05 |
|  |  | 049. Structure failure | 1 | 1.65481E-05 |
|  |  | 050. Stumbling/tripping over fixed door sill, step, obstruction | 1 | 1.65481E-05 |
|  |  | 051. SW cooling pump failure | 3 | 4.96442E-05 |
|  |  | 052. System pipe failure | 12 | 0.000198577 |
|  |  | 053. Wire/rope parting | 2 | 3.30961E-05 |
|  |  | 054. Wire/rope/net jamming, jumping slipping or coming off sheave | 1 | 1.65481E-05 |
|  | 04. Erosion/cavitation damage | |  |  |
|  |  | 001. Component failure | 1 | 1.65481E-05 |
|  |  | 002. Cooling system failure | 1 | 1.65481E-05 |
|  |  | 003. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 2 | 3.30961E-05 |
|  |  | 004. Hydraulic failure | 1 | 1.65481E-05 |
|  |  | 005. Loss or damage to blade | 1 | 1.65481E-05 |
|  |  | 006. LP pipe failure | 1 | 1.65481E-05 |
|  |  | 007. Lubrication contamination | 2 | 3.30961E-05 |
|  |  | 008. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 009. Oil - MARPOL Annex I, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 010. Other | 3 | 4.96442E-05 |
|  |  | 011. Pipe failure | 1 | 1.65481E-05 |
|  |  | 012. Pressure pipe failure | 4 | 6.61923E-05 |
|  |  | 013. System pipe failure | 3 | 4.96442E-05 |
|  |  | 014. Turbo-charger failure | 1 | 1.65481E-05 |
|  |  | 015. Valve fault | 1 | 1.65481E-05 |
|  | 05. Fatigue | |  |  |
|  |  | 001. Battery system discharged | 1 | 1.65481E-05 |
|  |  | 002. Bearing failure | 1 | 1.65481E-05 |
|  |  | 003. Cable fault | 4 | 6.61923E-05 |
|  |  | 004. Cable/wire failure | 1 | 1.65481E-05 |
|  |  | 005. Component failure | 88 | 0.00145623 |
|  |  | 006. Connection failure | 1 | 1.65481E-05 |
|  |  | 007. Control air failure | 1 | 1.65481E-05 |
|  |  | 008. Control fault | 1 | 1.65481E-05 |
|  |  | 009. Control system fault | 1 | 1.65481E-05 |
|  |  | 010. Cooling water contamination | 2 | 3.30961E-05 |
|  |  | 011. Crankcase explosion | 2 | 3.30961E-05 |
|  |  | 012. Davit failure | 1 | 1.65481E-05 |
|  |  | 013. Dirty fuel | 2 | 3.30961E-05 |
|  |  | 014. Electrical fault | 7 | 0.000115837 |
|  |  | 015. Equipment badly maintained | 1 | 1.65481E-05 |
|  |  | 016. Equipment failure | 3 | 4.96442E-05 |
|  |  | 017. Excitation failure | 1 | 1.65481E-05 |
|  |  | 018. External wiring connection fault | 1 | 1.65481E-05 |
|  |  | 019. Faulty or badly designed equipment | 1 | 1.65481E-05 |
|  |  | 020. Fire | 2 | 3.30961E-05 |
|  |  | 021. Friction/debris | 2 | 3.30961E-05 |
|  |  | 022. Fuel pump fault | 6 | 9.92884E-05 |
|  |  | 023. FW cooling pump failure | 8 | 0.000132385 |
|  |  | 024. Guard rail missing or defective | 1 | 1.65481E-05 |
|  |  | 025. HP pipe failure | 2 | 3.30961E-05 |
|  |  | 026. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 8 | 0.000132385 |
|  |  | 027. Hydraulic failure | 6 | 9.92884E-05 |
|  |  | 028. Line parting | 2 | 3.30961E-05 |
|  |  | 029. Link/chain failure | 2 | 3.30961E-05 |
|  |  | 030. Longitudinal strength exceeded | 1 | 1.65481E-05 |
|  |  | 031. Loss or damage to blade | 1 | 1.65481E-05 |
|  |  | 032. LP pipe failure | 3 | 4.96442E-05 |
|  |  | 033. Lub oil pump failure | 2 | 3.30961E-05 |
|  |  | 034. Lubrication contamination | 2 | 3.30961E-05 |
|  |  | 035. Lubrication system failure | 2 | 3.30961E-05 |
|  |  | 036. Main breaker failure | 1 | 1.65481E-05 |
|  |  | 037. Maintenance system inadequate or incomplete | 2 | 3.30961E-05 |
|  |  | 038. Mechanical failure | 6 | 9.92884E-05 |
|  |  | 039. Mechanical fault | 5 | 8.27404E-05 |
|  |  | 040. Mechanical linkage failure | 1 | 1.65481E-05 |
|  |  | 041. Mechanical looseness | 7 | 0.000115837 |
|  |  | 042. Oil - MARPOL Annex I, less than 10 tonne | 2 | 3.30961E-05 |
|  |  | 043. On board stores/equipment defect | 1 | 1.65481E-05 |
|  |  | 044. Other | 28 | 0.000463346 |
|  |  | 045. Other, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 046. Pilot Access defective | 1 | 1.65481E-05 |
|  |  | 047. Pipe failure | 2 | 3.30961E-05 |
|  |  | 048. Piping/pumping systems failure | 4 | 6.61923E-05 |
|  |  | 049. Poor/slippery/uneven surface | 1 | 1.65481E-05 |
|  |  | 050. Pressure pipe failure | 22 | 0.000364058 |
|  |  | 051. Pump failure | 1 | 1.65481E-05 |
|  |  | 052. Raising/lowering vehicle decks | 3 | 4.96442E-05 |
|  |  | 053. Rigging failure | 1 | 1.65481E-05 |
|  |  | 054. Rudder post fracture | 2 | 3.30961E-05 |
|  |  | 055. Safety device failure | 1 | 1.65481E-05 |
|  |  | 056. Securing device/s lost | 2 | 3.30961E-05 |
|  |  | 057. Slamming | 1 | 1.65481E-05 |
|  |  | 058. Stern tube bearing failure | 1 | 1.65481E-05 |
|  |  | 059. SW cooling pump failure | 3 | 4.96442E-05 |
|  |  | 060. System air locked | 1 | 1.65481E-05 |
|  |  | 061. System pipe failure | 25 | 0.000413702 |
|  |  | 062. Turbo-charger failure | 12 | 0.000198577 |
|  |  | 063. Unsafe use of, or defective, portable ladder/steps | 1 | 1.65481E-05 |
|  |  | 064. Valve fault | 1 | 1.65481E-05 |
|  |  | 065. Wire/rope parting | 2 | 3.30961E-05 |
|  | 06. Gross plastic deformation | |  |  |
|  |  | 001. Component failure | 4 | 6.61923E-05 |
|  |  | 002. During launch or recovery | 1 | 1.65481E-05 |
|  |  | 003. Equipment failure | 1 | 1.65481E-05 |
|  |  | 004. Friction/debris | 1 | 1.65481E-05 |
|  |  | 005. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 006. Other | 1 | 1.65481E-05 |
|  |  | 007. Unsafe use of, or defective, portable ladder/steps | 1 | 1.65481E-05 |
|  | 07. Other | |  |  |
|  |  | 001. Alarm fault | 1 | 1.65481E-05 |
|  |  | 002. Ambient conditions exceeded | 1 | 1.65481E-05 |
|  |  | 003. Auto-synch failure | 1 | 1.65481E-05 |
|  |  | 004. AVR fault | 1 | 1.65481E-05 |
|  |  | 005. Battery supply failure | 1 | 1.65481E-05 |
|  |  | 006. Battery system faulty or charging | 1 | 1.65481E-05 |
|  |  | 007. Bearing failure | 1 | 1.65481E-05 |
|  |  | 008. Bowsing gear failure | 1 | 1.65481E-05 |
|  |  | 009. Buckets | 1 | 1.65481E-05 |
|  |  | 010. Bulkhead cable/shaft/piping glands leaking | 1 | 1.65481E-05 |
|  |  | 011. Cable fault | 2 | 3.30961E-05 |
|  |  | 012. Cargo in unsafe/unstable condition Ro-ro | 2 | 3.30961E-05 |
|  |  | 013. Component failure | 40 | 0.000661923 |
|  |  | 014. Conditions had greater effect than expected | 1 | 1.65481E-05 |
|  |  | 015. Connection failure | 1 | 1.65481E-05 |
|  |  | 016. Contact failure | 1 | 1.65481E-05 |
|  |  | 017. Control air failure | 1 | 1.65481E-05 |
|  |  | 018. Control failure | 1 | 1.65481E-05 |
|  |  | 019. Control fault | 5 | 8.27404E-05 |
|  |  | 020. Control system | 1 | 1.65481E-05 |
|  |  | 021. Control system fault | 1 | 1.65481E-05 |
|  |  | 022. Cooling system failure | 2 | 3.30961E-05 |
|  |  | 023. Crankcase explosion | 1 | 1.65481E-05 |
|  |  | 024. Defective machinery/tools/equipment not otherwise specified | 2 | 3.30961E-05 |
|  |  | 025. Dirty cooler | 1 | 1.65481E-05 |
|  |  | 026. Dirty fuel | 3 | 4.96442E-05 |
|  |  | 027. Door/hatch unsecured or closing too quickly | 3 | 4.96442E-05 |
|  |  | 028. Electrical failure | 5 | 8.27404E-05 |
|  |  | 029. Electrical fault | 7 | 0.000115837 |
|  |  | 030. Equipment badly maintained | 1 | 1.65481E-05 |
|  |  | 031. Equipment failure | 4 | 6.61923E-05 |
|  |  | 032. Equipment not available as needed | 1 | 1.65481E-05 |
|  |  | 033. Equipment/instrumentation not maintained | 2 | 3.30961E-05 |
|  |  | 034. Failure of protective equipment | 1 | 1.65481E-05 |
|  |  | 035. Failure of protective/safety cut out equipment | 1 | 1.65481E-05 |
|  |  | 036. Failure of transformer | 1 | 1.65481E-05 |
|  |  | 037. Faulty or badly designed equipment | 2 | 3.30961E-05 |
|  |  | 038. Fire | 2 | 3.30961E-05 |
|  |  | 039. Flooding | 1 | 1.65481E-05 |
|  |  | 040. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 041. Fouled Propeller | 1 | 1.65481E-05 |
|  |  | 042. Friction/debris | 1 | 1.65481E-05 |
|  |  | 043. Fuel pump fault | 4 | 6.61923E-05 |
|  |  | 044. FW cooling pump failure | 2 | 3.30961E-05 |
|  |  | 045. Gas/oil/chemical vent/inert system fault | 1 | 1.65481E-05 |
|  |  | 046. Gearbox/clutch failure | 1 | 1.65481E-05 |
|  |  | 047. Hook mechanism failure | 1 | 1.65481E-05 |
|  |  | 048. HP pipe failure | 1 | 1.65481E-05 |
|  |  | 049. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 3 | 4.96442E-05 |
|  |  | 050. Improper or inadequate footwear/clothing/PPE | 1 | 1.65481E-05 |
|  |  | 051. Incorrect or insufficient action taken | 1 | 1.65481E-05 |
|  |  | 052. Instrument fault | 1 | 1.65481E-05 |
|  |  | 053. Internal mechanism fault | 1 | 1.65481E-05 |
|  |  | 054. Involving fork lift truck/other vehicle | 1 | 1.65481E-05 |
|  |  | 055. Leak could not be stopped | 1 | 1.65481E-05 |
|  |  | 056. Line or stopper parting | 1 | 1.65481E-05 |
|  |  | 057. Low level in system | 1 | 1.65481E-05 |
|  |  | 058. Lub oil pump failure | 1 | 1.65481E-05 |
|  |  | 059. Lubrication system failure | 2 | 3.30961E-05 |
|  |  | 060. Main breaker failure | 1 | 1.65481E-05 |
|  |  | 061. Mechanical failure | 3 | 4.96442E-05 |
|  |  | 062. Mechanical fault | 11 | 0.000182029 |
|  |  | 063. Mechanical looseness | 1 | 1.65481E-05 |
|  |  | 064. Motor/engine fault | 2 | 3.30961E-05 |
|  |  | 065. Noxious liquid substances - MARPOL Annex II, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 066. Oil - MARPOL Annex I, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 067. Operator error | 2 | 3.30961E-05 |
|  |  | 068. Other | 297 | 0.004914777 |
|  |  | 069. Other launch system failure | 4 | 6.61923E-05 |
|  |  | 070. Other unsafe practice | 1 | 1.65481E-05 |
|  |  | 071. Other, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 072. Overheating oil or fat | 1 | 1.65481E-05 |
|  |  | 073. Pilot Access defective | 1 | 1.65481E-05 |
|  |  | 074. Pilot Access incorrectly used | 1 | 1.65481E-05 |
|  |  | 075. Piping/pumping systems failure | 4 | 6.61923E-05 |
|  |  | 076. Poor/slippery/uneven surface | 2 | 3.30961E-05 |
|  |  | 077. Position monitoring not frequent enough | 1 | 1.65481E-05 |
|  |  | 078. Positions not checked by another method or person | 1 | 1.65481E-05 |
|  |  | 079. Pressure pipe failure | 3 | 4.96442E-05 |
|  |  | 080. Rigging fault | 1 | 1.65481E-05 |
|  |  | 081. Rope/wire/drum end/winch handling error | 1 | 1.65481E-05 |
|  |  | 082. Safety device failure | 4 | 6.61923E-05 |
|  |  | 083. Shore equipment failure | 1 | 1.65481E-05 |
|  |  | 084. Slack line in water | 1 | 1.65481E-05 |
|  |  | 085. Source of leak could not be found | 1 | 1.65481E-05 |
|  |  | 086. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 087. SW cooling pump failure | 4 | 6.61923E-05 |
|  |  | 088. System error/failure-detected | 2 | 3.30961E-05 |
|  |  | 089. System error/failure-not detected | 2 | 3.30961E-05 |
|  |  | 090. System pipe failure | 3 | 4.96442E-05 |
|  |  | 091. Turbo-charger failure | 5 | 8.27404E-05 |
|  |  | 092. Valve failure | 1 | 1.65481E-05 |
|  |  | 093. Valve fault | 1 | 1.65481E-05 |
|  |  | 094. Wave pressure loading on glass | 1 | 1.65481E-05 |
|  |  | 095. While working aloft or overside | 1 | 1.65481E-05 |
|  |  | 096. Winding/conductor fault | 1 | 1.65481E-05 |
|  |  | 097. Wire/rope/net jamming, jumping slipping or coming off sheave | 1 | 1.65481E-05 |
|  |  | 098. Wire/rope/net parting | 1 | 1.65481E-05 |
|  | 08. Seal/gasket | |  |  |
|  |  | 001. Blackout | 1 | 1.65481E-05 |
|  |  | 002. Blocked filters | 1 | 1.65481E-05 |
|  |  | 003. Blocked fuel filter | 1 | 1.65481E-05 |
|  |  | 004. Bulkhead cable/shaft/piping glands leaking | 1 | 1.65481E-05 |
|  |  | 005. Component failure | 23 | 0.000380606 |
|  |  | 006. Control air failure | 1 | 1.65481E-05 |
|  |  | 007. Control fault | 3 | 4.96442E-05 |
|  |  | 008. Control system | 1 | 1.65481E-05 |
|  |  | 009. Cooling system failure | 1 | 1.65481E-05 |
|  |  | 010. Cooling water contamination | 1 | 1.65481E-05 |
|  |  | 011. Crankcase explosion | 1 | 1.65481E-05 |
|  |  | 012. Defective machinery/tools/equipment not otherwise specified | 1 | 1.65481E-05 |
|  |  | 013. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 014. Equipment/instrumentation poorly designed | 1 | 1.65481E-05 |
|  |  | 015. Fire | 1 | 1.65481E-05 |
|  |  | 016. Flooding | 1 | 1.65481E-05 |
|  |  | 017. Flooding undetected/detected too late | 2 | 3.30961E-05 |
|  |  | 018. Fuel pump fault | 2 | 3.30961E-05 |
|  |  | 019. FW cooling pump failure | 6 | 9.92884E-05 |
|  |  | 020. Gas/oil/chemical pump electrical fault | 1 | 1.65481E-05 |
|  |  | 021. Gas/oil/chemical valve fault | 1 | 1.65481E-05 |
|  |  | 022. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 3 | 4.96442E-05 |
|  |  | 023. Hydraulic failure | 9 | 0.000148933 |
|  |  | 024. Lack of fuel | 2 | 3.30961E-05 |
|  |  | 025. Leak could not be stopped | 1 | 1.65481E-05 |
|  |  | 026. Limit switch failure | 1 | 1.65481E-05 |
|  |  | 027. Low level in system | 1 | 1.65481E-05 |
|  |  | 028. Lub oil pump failure | 4 | 6.61923E-05 |
|  |  | 029. Lubrication contamination | 1 | 1.65481E-05 |
|  |  | 030. Lubrication system failure | 5 | 8.27404E-05 |
|  |  | 031. Mechanical fault | 7 | 0.000115837 |
|  |  | 032. Mechanical looseness | 8 | 0.000132385 |
|  |  | 033. Oil - MARPOL Annex I, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 034. Oil burner system fault | 3 | 4.96442E-05 |
|  |  | 035. Onboard management failure | 1 | 1.65481E-05 |
|  |  | 036. Operation of safety device | 1 | 1.65481E-05 |
|  |  | 037. Operator error | 1 | 1.65481E-05 |
|  |  | 038. Other | 35 | 0.000579183 |
|  |  | 039. Other unsafe practice | 1 | 1.65481E-05 |
|  |  | 040. Perception of risk | 1 | 1.65481E-05 |
|  |  | 041. Piping/pumping systems failure | 4 | 6.61923E-05 |
|  |  | 042. Poor/slippery/uneven surface | 2 | 3.30961E-05 |
|  |  | 043. Pressure pipe failure | 1 | 1.65481E-05 |
|  |  | 044. Pump failure | 1 | 1.65481E-05 |
|  |  | 045. Safety device failure | 1 | 1.65481E-05 |
|  |  | 046. Seal failure | 2 | 3.30961E-05 |
|  |  | 047. Ship side valves not closed | 1 | 1.65481E-05 |
|  |  | 048. Stern gland/seal | 1 | 1.65481E-05 |
|  |  | 049. Stern tube bearing failure | 4 | 6.61923E-05 |
|  |  | 050. SW cooling pump failure | 1 | 1.65481E-05 |
|  |  | 051. System air locked | 5 | 8.27404E-05 |
|  |  | 052. System pipe failure | 11 | 0.000182029 |
|  |  | 053. System/item design fault | 1 | 1.65481E-05 |
|  |  | 054. Turbo-charger failure | 2 | 3.30961E-05 |
|  |  | 055. Unknown or other | 1 | 1.65481E-05 |
|  |  | 056. Valve fault | 1 | 1.65481E-05 |
|  |  | 057. Weathertight deck hatch(es) open/unsecured/leaking | 2 | 3.30961E-05 |
|  | 09. Stress corrosion cracking | |  |  |
|  |  | 001. Cable/wire failure | 1 | 1.65481E-05 |
|  |  | 002. Component failure | 7 | 0.000115837 |
|  |  | 003. Conditions had greater effect than expected | 1 | 1.65481E-05 |
|  |  | 004. Fitting failure | 1 | 1.65481E-05 |
|  |  | 005. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 006. Loss of operating fluid | 1 | 1.65481E-05 |
|  |  | 007. LP pipe failure | 1 | 1.65481E-05 |
|  |  | 008. Mechanical fault | 1 | 1.65481E-05 |
|  |  | 009. Mechanical looseness | 1 | 1.65481E-05 |
|  |  | 010. Oil - MARPOL Annex I, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 011. Other | 2 | 3.30961E-05 |
|  |  | 012. Pressure pipe failure | 1 | 1.65481E-05 |
|  |  | 013. Rudder post fracture | 1 | 1.65481E-05 |
|  |  | 014. System pipe failure | 1 | 1.65481E-05 |
|  |  | 015. Uptake fire | 1 | 1.65481E-05 |
|  | 10. U.V./chemical deterioration | |  |  |
|  |  | 001. Component failure | 2 | 3.30961E-05 |
|  |  | 002. Equipment/instrumentation not maintained | 2 | 3.30961E-05 |
|  |  | 003. Ladder other | 1 | 1.65481E-05 |
|  |  | 004. Other - transferring ship to boat or boat to quay | 1 | 1.65481E-05 |
|  |  | 005. Slamming | 1 | 1.65481E-05 |
|  |  | 006. Unsafe use of, or defective, portable ladder/steps | 1 | 1.65481E-05 |
|  | 11. Ultimate tensile stress exceeded | |  |  |
|  |  | 001. Cable/wire failure | 1 | 1.65481E-05 |
|  |  | 002. Component failure | 11 | 0.000182029 |
|  |  | 003. Crankcase explosion | 1 | 1.65481E-05 |
|  |  | 004. Distribution system failure | 1 | 1.65481E-05 |
|  |  | 005. During launch or recovery | 1 | 1.65481E-05 |
|  |  | 006. Electrical failure | 1 | 1.65481E-05 |
|  |  | 007. Embarkation procedural failure | 1 | 1.65481E-05 |
|  |  | 008. Equipment badly maintained | 1 | 1.65481E-05 |
|  |  | 009. Equipment failure | 4 | 6.61923E-05 |
|  |  | 010. Fall wire failure | 2 | 3.30961E-05 |
|  |  | 011. Fitting failure | 1 | 1.65481E-05 |
|  |  | 012. Floor plate missing or defective | 1 | 1.65481E-05 |
|  |  | 013. Friction/debris | 1 | 1.65481E-05 |
|  |  | 014. Fuel pump fault | 1 | 1.65481E-05 |
|  |  | 015. Gearbox/clutch failure | 1 | 1.65481E-05 |
|  |  | 016. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 017. Hydraulic failure | 1 | 1.65481E-05 |
|  |  | 018. Lashing system failure | 2 | 3.30961E-05 |
|  |  | 019. Line or stopper parting | 2 | 3.30961E-05 |
|  |  | 020. Line parting | 2 | 3.30961E-05 |
|  |  | 021. Link/chain failure | 1 | 1.65481E-05 |
|  |  | 022. Mechanical failure | 1 | 1.65481E-05 |
|  |  | 023. Mechanical fault | 2 | 3.30961E-05 |
|  |  | 024. Mechanical linkage failure | 1 | 1.65481E-05 |
|  |  | 025. Mechanical looseness | 1 | 1.65481E-05 |
|  |  | 026. On board stores/equipment defect | 1 | 1.65481E-05 |
|  |  | 027. Other | 11 | 0.000182029 |
|  |  | 028. Pressure pipe failure | 2 | 3.30961E-05 |
|  |  | 029. Rigging failure | 1 | 1.65481E-05 |
|  |  | 030. Rope/wire/drum end/winch handling error | 1 | 1.65481E-05 |
|  |  | 031. System air locked | 1 | 1.65481E-05 |
|  |  | 032. System pipe failure | 1 | 1.65481E-05 |
|  |  | 033. Wire/rope parting | 1 | 1.65481E-05 |
|  |  | 034. Wire/rope/net parting | 1 | 1.65481E-05 |
|  | 12. Weld defect | |  |  |
|  |  | 001. Component failure | 7 | 0.000115837 |
|  |  | 002. Equipment failure | 1 | 1.65481E-05 |
|  |  | 003. Failed - other | 1 | 1.65481E-05 |
|  |  | 004. Fittings failure | 1 | 1.65481E-05 |
|  |  | 005. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 2 | 3.30961E-05 |
|  |  | 006. Maintenance system inadequate or incomplete | 1 | 1.65481E-05 |
|  |  | 007. Oil - MARPOL Annex I, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 008. Other | 3 | 4.96442E-05 |
|  |  | 009. Other - Poor working practice | 1 | 1.65481E-05 |
|  |  | 010. Pipe failure | 1 | 1.65481E-05 |
|  |  | 011. Repair fault | 1 | 1.65481E-05 |
|  |  | 012. Rigging failure | 1 | 1.65481E-05 |
|  |  | 013. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 014. System pipe failure | 1 | 1.65481E-05 |
|  | 13. Worn out | |  |  |
|  |  | 001. Auto-control system fault | 5 | 8.27404E-05 |
|  |  | 002. Auto-synch failure | 1 | 1.65481E-05 |
|  |  | 003. AVR fault | 1 | 1.65481E-05 |
|  |  | 004. Backflooding through sea water systems/deck scuppers | 1 | 1.65481E-05 |
|  |  | 005. Battery supply failure | 7 | 0.000115837 |
|  |  | 006. Battery system discharged | 1 | 1.65481E-05 |
|  |  | 007. Battery system faulty or charging | 2 | 3.30961E-05 |
|  |  | 008. Bearing failure | 2 | 3.30961E-05 |
|  |  | 009. Blackout | 1 | 1.65481E-05 |
|  |  | 010. Black-out | 2 | 3.30961E-05 |
|  |  | 011. Blocked filters | 1 | 1.65481E-05 |
|  |  | 012. Blocked fuel filter | 1 | 1.65481E-05 |
|  |  | 013. Bulkhead cable/shaft/piping glands leaking | 2 | 3.30961E-05 |
|  |  | 014. Buoyant superstructure volume lost by open weathertight doors/hatches | 1 | 1.65481E-05 |
|  |  | 015. Cable fault | 6 | 9.92884E-05 |
|  |  | 016. Cable/wire fault | 1 | 1.65481E-05 |
|  |  | 017. Cargo in unsafe/unstable condition Ro-ro | 1 | 1.65481E-05 |
|  |  | 018. Collision | 1 | 1.65481E-05 |
|  |  | 019. Collision regulations not applied or applied incorrectly | 1 | 1.65481E-05 |
|  |  | 020. Communications failure | 1 | 1.65481E-05 |
|  |  | 021. Component failure | 135 | 0.00223399 |
|  |  | 022. Contact failure | 3 | 4.96442E-05 |
|  |  | 023. Control air failure | 3 | 4.96442E-05 |
|  |  | 024. Control equipment fault | 1 | 1.65481E-05 |
|  |  | 025. Control fault | 6 | 9.92884E-05 |
|  |  | 026. Control system | 2 | 3.30961E-05 |
|  |  | 027. Control system failure | 1 | 1.65481E-05 |
|  |  | 028. Control system fault | 2 | 3.30961E-05 |
|  |  | 029. Cooling system failure | 3 | 4.96442E-05 |
|  |  | 030. Cooling water contamination | 2 | 3.30961E-05 |
|  |  | 031. Crankcase explosion | 3 | 4.96442E-05 |
|  |  | 032. Davit structure failure | 1 | 1.65481E-05 |
|  |  | 033. Defective machinery/tools/equipment not otherwise specified | 2 | 3.30961E-05 |
|  |  | 034. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 035. Door/hatch unsecured or closing too quickly | 2 | 3.30961E-05 |
|  |  | 036. Electrical failure | 3 | 4.96442E-05 |
|  |  | 037. Electrical fault | 20 | 0.000330961 |
|  |  | 038. Engine failure | 1 | 1.65481E-05 |
|  |  | 039. Equipment badly maintained | 2 | 3.30961E-05 |
|  |  | 040. Equipment failure | 3 | 4.96442E-05 |
|  |  | 041. Equipment/instrumentation not maintained | 3 | 4.96442E-05 |
|  |  | 042. Excitation failure | 1 | 1.65481E-05 |
|  |  | 043. Failure of preferential trips | 1 | 1.65481E-05 |
|  |  | 044. Failure of transformer | 1 | 1.65481E-05 |
|  |  | 045. Fall wire failure | 3 | 4.96442E-05 |
|  |  | 046. Faulty or badly designed equipment | 5 | 8.27404E-05 |
|  |  | 047. Fire pump failure | 2 | 3.30961E-05 |
|  |  | 048. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 049. Friction/debris | 3 | 4.96442E-05 |
|  |  | 050. Fuel pump fault | 27 | 0.000446798 |
|  |  | 051. FW cooling pump failure | 18 | 0.000297865 |
|  |  | 052. Gangway defective | 2 | 3.30961E-05 |
|  |  | 053. Gas/liquid leak | 2 | 3.30961E-05 |
|  |  | 054. Gearbox/clutch failure | 1 | 1.65481E-05 |
|  |  | 055. Guard rail missing or defective | 2 | 3.30961E-05 |
|  |  | 056. HP pipe failure | 1 | 1.65481E-05 |
|  |  | 057. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 12 | 0.000198577 |
|  |  | 058. Hydraulic failure | 5 | 8.27404E-05 |
|  |  | 059. Improper or inadequate footwear/clothing/PPE | 2 | 3.30961E-05 |
|  |  | 060. Instrument fault | 2 | 3.30961E-05 |
|  |  | 061. Insulation failure | 4 | 6.61923E-05 |
|  |  | 062. Internal circuit fault | 1 | 1.65481E-05 |
|  |  | 063. Involving negligence/carelessness | 2 | 3.30961E-05 |
|  |  | 064. Lack of fuel | 4 | 6.61923E-05 |
|  |  | 065. Ladder other | 1 | 1.65481E-05 |
|  |  | 066. Lashing system failure | 2 | 3.30961E-05 |
|  |  | 067. Leak could not be stopped | 1 | 1.65481E-05 |
|  |  | 068. Limit switch failure | 1 | 1.65481E-05 |
|  |  | 069. Line or stopper parting | 4 | 6.61923E-05 |
|  |  | 070. Line parting | 4 | 6.61923E-05 |
|  |  | 071. Link/chain failure | 2 | 3.30961E-05 |
|  |  | 072. Loss of caulking | 1 | 1.65481E-05 |
|  |  | 073. Loss of operating fluid | 2 | 3.30961E-05 |
|  |  | 074. Loss or damage to blade | 1 | 1.65481E-05 |
|  |  | 075. Low level in system | 1 | 1.65481E-05 |
|  |  | 076. LP pipe failure | 1 | 1.65481E-05 |
|  |  | 077. Lub oil pump failure | 3 | 4.96442E-05 |
|  |  | 078. Lubrication system failure | 4 | 6.61923E-05 |
|  |  | 079. Main breaker failure | 3 | 4.96442E-05 |
|  |  | 080. Maintenance system inadequate or incomplete | 4 | 6.61923E-05 |
|  |  | 081. MCB failure | 1 | 1.65481E-05 |
|  |  | 082. Mechanical failure | 3 | 4.96442E-05 |
|  |  | 083. Mechanical fault | 16 | 0.000264769 |
|  |  | 084. Mechanical looseness | 17 | 0.000281317 |
|  |  | 085. Motor/engine fault | 1 | 1.65481E-05 |
|  |  | 086. N/R valve fault | 1 | 1.65481E-05 |
|  |  | 087. Oil - MARPOL Annex I, less than 10 tonne | 5 | 8.27404E-05 |
|  |  | 088. Operation of safety device | 4 | 6.61923E-05 |
|  |  | 089. Other | 43 | 0.000711567 |
|  |  | 090. Other - transferring ship to boat or boat to quay | 2 | 3.30961E-05 |
|  |  | 091. Other launch system failure | 1 | 1.65481E-05 |
|  |  | 092. Other, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 093. Overheating | 1 | 1.65481E-05 |
|  |  | 094. Pilot Access defective | 4 | 6.61923E-05 |
|  |  | 095. Pipe failure | 3 | 4.96442E-05 |
|  |  | 096. Piping/pumping systems failure | 6 | 9.92884E-05 |
|  |  | 097. Poor/slippery/uneven surface | 2 | 3.30961E-05 |
|  |  | 098. Portable equipment fault | 1 | 1.65481E-05 |
|  |  | 099. Pressure pipe failure | 11 | 0.000182029 |
|  |  | 100. Pump failure | 6 | 9.92884E-05 |
|  |  | 101. Raising/lowering vehicle decks | 1 | 1.65481E-05 |
|  |  | 102. Relay fault | 2 | 3.30961E-05 |
|  |  | 103. Rope/wire/drum end/winch handling error | 1 | 1.65481E-05 |
|  |  | 104. Rotor fault | 2 | 3.30961E-05 |
|  |  | 105. Safety management system failure | 1 | 1.65481E-05 |
|  |  | 106. Seal failure | 1 | 1.65481E-05 |
|  |  | 107. Slamming | 2 | 3.30961E-05 |
|  |  | 108. Sprung/fractured plank | 1 | 1.65481E-05 |
|  |  | 109. Stator fault | 3 | 4.96442E-05 |
|  |  | 110. Stern tube bearing failure | 2 | 3.30961E-05 |
|  |  | 111. Stowage location difficulty | 1 | 1.65481E-05 |
|  |  | 112. SW cooling pump failure | 23 | 0.000380606 |
|  |  | 113. System air locked | 3 | 4.96442E-05 |
|  |  | 114. System error/failure - not detected | 1 | 1.65481E-05 |
|  |  | 115. System error/failure-detected | 1 | 1.65481E-05 |
|  |  | 116. System error/failure-not detected | 1 | 1.65481E-05 |
|  |  | 117. System operated incorrectly | 1 | 1.65481E-05 |
|  |  | 118. System pipe failure | 17 | 0.000281317 |
|  |  | 119. Turbo-charger failure | 5 | 8.27404E-05 |
|  |  | 120. Unknown or other | 1 | 1.65481E-05 |
|  |  | 121. Unsafe use of, or defective, portable ladder/steps | 1 | 1.65481E-05 |
|  |  | 122. Valve failure | 2 | 3.30961E-05 |
|  |  | 123. Veers off course | 1 | 1.65481E-05 |
|  |  | 124. Wave pressure loading on glass | 1 | 1.65481E-05 |
|  |  | 125. While preparing/stowing/handling catch | 1 | 1.65481E-05 |
|  |  | 126. Wire/rope parting | 4 | 6.61923E-05 |
|  |  | 127. Wire/rope/net jamming, jumping slipping or coming off sheave | 1 | 1.65481E-05 |
|  |  | 128. Wire/rope/net parting | 1 | 1.65481E-05 |
| **6. Other** | | |  |  |
|  | 01. Other | |  |  |
|  |  | 001. Ambient conditions exceeded | 1 | 1.65481E-05 |
|  |  | 002. Backflooding through sea water systems/deck scuppers | 2 | 3.30961E-05 |
|  |  | 003. Battery system discharged | 1 | 1.65481E-05 |
|  |  | 004. Blackout | 1 | 1.65481E-05 |
|  |  | 005. Blocked fuel filter | 2 | 3.30961E-05 |
|  |  | 006. Broaching | 1 | 1.65481E-05 |
|  |  | 007. Bulkhead cable/shaft/piping glands leaking | 1 | 1.65481E-05 |
|  |  | 008. Cable/wire fault | 1 | 1.65481E-05 |
|  |  | 009. Cargo in unsafe/unstable condition Fish | 1 | 1.65481E-05 |
|  |  | 010. Cargo in unsafe/unstable condition Ro-ro | 1 | 1.65481E-05 |
|  |  | 011. Chart incorrect | 3 | 4.96442E-05 |
|  |  | 012. Collision regulations not applied or applied incorrectly | 2 | 3.30961E-05 |
|  |  | 013. Component failure | 20 | 0.000330961 |
|  |  | 014. Conditions found to be worse than forecast | 1 | 1.65481E-05 |
|  |  | 015. Conditions had greater effect than expected | 3 | 4.96442E-05 |
|  |  | 016. Connected equipment fault | 1 | 1.65481E-05 |
|  |  | 017. Control equipment fault | 1 | 1.65481E-05 |
|  |  | 018. Control failure | 2 | 3.30961E-05 |
|  |  | 019. Control fault | 4 | 6.61923E-05 |
|  |  | 020. Control system fault | 1 | 1.65481E-05 |
|  |  | 021. Dirty fuel | 1 | 1.65481E-05 |
|  |  | 022. Door/hatch unsecured or closing too quickly | 5 | 8.27404E-05 |
|  |  | 023. During launch or recovery | 1 | 1.65481E-05 |
|  |  | 024. Electric failure | 1 | 1.65481E-05 |
|  |  | 025. Electrical failure | 4 | 6.61923E-05 |
|  |  | 026. Electrical fault | 9 | 0.000148933 |
|  |  | 027. Emergency/GMDSS radio did not work | 1 | 1.65481E-05 |
|  |  | 028. Entrapped water on weather deck | 1 | 1.65481E-05 |
|  |  | 029. Equipment/instrumentation not maintained | 1 | 1.65481E-05 |
|  |  | 030. Equipment/instrumentation poorly designed | 1 | 1.65481E-05 |
|  |  | 031. Failure of protective equipment | 1 | 1.65481E-05 |
|  |  | 032. Failure to isolate electrical supplies | 1 | 1.65481E-05 |
|  |  | 033. Fall wire failure | 1 | 1.65481E-05 |
|  |  | 034. Fan fault | 1 | 1.65481E-05 |
|  |  | 035. Faulty or badly designed equipment | 1 | 1.65481E-05 |
|  |  | 036. Flooding | 1 | 1.65481E-05 |
|  |  | 037. Flooding undetected/detected too late | 1 | 1.65481E-05 |
|  |  | 038. Fouled Propeller | 8 | 0.000132385 |
|  |  | 039. Fuel pump fault | 3 | 4.96442E-05 |
|  |  | 040. FW cooling pump failure | 1 | 1.65481E-05 |
|  |  | 041. Gangway other | 1 | 1.65481E-05 |
|  |  | 042. Guard rail missing or defective | 1 | 1.65481E-05 |
|  |  | 043. Hit by swinging/falling object | 1 | 1.65481E-05 |
|  |  | 044. Hook mechanism failure | 1 | 1.65481E-05 |
|  |  | 045. Hull failure - hull, decks, bulkheads, hatches, doors, windows, etc | 1 | 1.65481E-05 |
|  |  | 046. Hydraulic failure | 3 | 4.96442E-05 |
|  |  | 047. Ignoring warning notice/safety colour coding | 1 | 1.65481E-05 |
|  |  | 048. Inadequate or no warning notice/safety colour coding | 1 | 1.65481E-05 |
|  |  | 049. Incorrect or insufficient action taken | 1 | 1.65481E-05 |
|  |  | 050. Instrument fault | 1 | 1.65481E-05 |
|  |  | 051. Lack of fuel | 1 | 1.65481E-05 |
|  |  | 052. Late detection of ship/light/buoy/object | 1 | 1.65481E-05 |
|  |  | 053. Launching procedural failure | 1 | 1.65481E-05 |
|  |  | 054. Lifting/carrying - poor manual handling | 2 | 3.30961E-05 |
|  |  | 055. Limit switch failure | 1 | 1.65481E-05 |
|  |  | 056. Line jamming, jumping, slipping or coming off sheave, fairlead or bitts | 3 | 4.96442E-05 |
|  |  | 057. Line or stopper parting | 1 | 1.65481E-05 |
|  |  | 058. Lubrication system failure | 2 | 3.30961E-05 |
|  |  | 059. Mechanical failure | 2 | 3.30961E-05 |
|  |  | 060. Mechanical fault | 3 | 4.96442E-05 |
|  |  | 061. Mechanical looseness | 3 | 4.96442E-05 |
|  |  | 062. Noise | 1 | 1.65481E-05 |
|  |  | 063. Not secured/stowed safely | 2 | 3.30961E-05 |
|  |  | 064. Noxious liquid substances - MARPOL Annex II, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 065. Other | 28 | 0.000463346 |
|  |  | 066. Other - transferring ship to boat or boat to quay | 1 | 1.65481E-05 |
|  |  | 067. Other unsafe practice | 1 | 1.65481E-05 |
|  |  | 068. Other, less than 10 tonne | 1 | 1.65481E-05 |
|  |  | 069. Pipe failure | 1 | 1.65481E-05 |
|  |  | 070. Piping/pumping systems failure | 3 | 4.96442E-05 |
|  |  | 071. Poor/slippery/uneven surface | 6 | 9.92884E-05 |
|  |  | 072. Pressure pipe failure | 4 | 6.61923E-05 |
|  |  | 073. Pump failure | 1 | 1.65481E-05 |
|  |  | 074. Release system failure | 2 | 3.30961E-05 |
|  |  | 075. Rigging failure | 2 | 3.30961E-05 |
|  |  | 076. Safety device failure | 2 | 3.30961E-05 |
|  |  | 077. Ship/light/buoy/object incorrectly identified/reported | 1 | 1.65481E-05 |
|  |  | 078. Signal/alarm fault | 1 | 1.65481E-05 |
|  |  | 079. Slack line in water | 1 | 1.65481E-05 |
|  |  | 080. Sole watchkeeper | 1 | 1.65481E-05 |
|  |  | 081. Speed or heading not altered - risk not appreciated | 1 | 1.65481E-05 |
|  |  | 082. Stumbling/tripping over fixed door sill, step, obstruction | 2 | 3.30961E-05 |
|  |  | 083. Sudden tensioning of line | 1 | 1.65481E-05 |
|  |  | 084. SW cooling pump failure | 1 | 1.65481E-05 |
|  |  | 085. System air locked | 1 | 1.65481E-05 |
|  |  | 086. System pipe failure | 3 | 4.96442E-05 |
|  |  | 087. Turbo-charger failure | 4 | 6.61923E-05 |
|  |  | 088. Unknown or other | 1 | 1.65481E-05 |
|  |  | 089. Vessel movement | 1 | 1.65481E-05 |
|  |  | 090. Wave | 1 | 1.65481E-05 |
|  |  | 091. Wave deformation of surrounding structure | 1 | 1.65481E-05 |
|  |  | 092. Weathertight deck hatch(es) open/unsecured/leaking | 2 | 3.30961E-05 |
|  |  | 093. Weight growth (increase in lightship weight) | 1 | 1.65481E-05 |
|  |  | 094. Wind/sea/visibility conditions | 1 | 1.65481E-05 |