

COPY.

Cloyd's Register of Shipping.



Port MAKODATE.

30th October, 1931.

This is to Certify that

H. Jasper Cox, A. McGlashan & M. Kamakura,

the undersigned Surveyors to this Society did at the request of

the Owners, survey the S.S. "LIVERPOOL MARU", 5864 tons gross, of Kobe, on the 14th September, 1931 and subsequently whilst the vessel lay in dry dock at Makodate, for the purpose of ascertaining the nature and extent of damage stated to have been caused by vessel stranding at Atoya Misaki, Kunajiri Island on passage from Shikuka, Karafuto to Nagoya, and during salvage operations.

For further particulars see Log Books.
The undersigned upon examination.

FOUND.

RECOMMENDED.

Shell plating. (Plates numbered from aft.)

Keel plates:-

Nos. 1 on P & S sides, Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 & 17 plates badly buckled or badly set in.

Nos. 1 on P & S sides, Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 16 & 17 plates to be renewed.
Nos. 8 & 15 plates to be removed, faired and refitted.
No. 13 plate to be faired in place.

Port side.

A strake:-

Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 & 17 plates badly buckled or cracked.

Nos. 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15, 16 & 17 plates to be renewed.
Nos. 1 & 12 plates to be faired in place.

B strake:-

Nos. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16 & 17 plates buckled.

Nos. 3, 4, 5, 7, 8, 9, 10, 13, 14 & 15 plates to be renewed.
Nos. 6, 11, 12 & 16 plates to be removed, faired & refitted.
No. 17 plate to be faired in place.

This Certificate is issued upon the terms of the Rules and Regulations of the Society, which provide that while the Committee use their best endeavours to ensure that the functions of the Society are properly executed, it is understood that neither the Committee nor the Society are under any circumstances whatever to be held responsible for accuracy in any report or certificate issued by the Society or its Surveyors, or in any entry in the Register Book or other publication of the Society, or for any error of judgment, default, or negligence of the Surveyors, or other Officers or Agents of the Society.

Continuation of damage report on the S.S. "LIVERPOOL MARU",
Hakodate, 30th October, 1931.

C strake:-

Nos. 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
& 15 plates buckled.

Nos. 4, 5, 7, 9, 10, 14 & 15
plates to be renewed.
Nos. 6, 11 & 13 plates to be
removed, faired and refitted.
Nos. 8 & 12 plates to be
faired in place.

D strake:-

Nos. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 &
13 plates buckled.

Nos. 4, 5, 8, 9, 11, 12 & 13 plates
to be renewed.
No. 10 plate to be removed,
faired and refitted.
Nos. 3, 6 & 7 plates to be
faired in place.

E strake:-

Nos. 4, 6, 7, 8, 9 & 10 plates
buckled.

Nos. 9 & 10 plates to be
renewed.
Nos. 4, 6, 7 & 8 plates to be
faired in place.

Starboard side.

A strake:-

Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11,
12, 13, 14, 15 & 16 plates badly
buckled.

Nos. 2, 3, 4, 5, 8, 9, 14, 15 & 16
plates to be renewed.
Nos. 1, 6, 7, 10 & 13 plates to
be removed, faired and
refitted.
Nos. 11 & 12 plates to be
faired in place.

B strake:-

Nos. 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13
14 & 15 plates buckled.

Nos. 4, 7, 8 & 15 plates to be
renewed.
Nos. 5, 6, 9, 10, 11, 12, 13 & 14
plates to be removed, faired
and refitted.
No. 3 plate to be faired in
place.

C strake:-

Nos. 5, 6, 7, 8, 9, 10, 11, 12, 13, 14
& 15 plates buckled.

Nos. 6, 9 & 11 plates to be
renewed.
Nos. 3, 7, 8, 10, 12, 13, 14 & 15
plates to be removed, faired
and refitted.

D strake:-

Nos. 4, 5, 6, 7, 8, 9, 10, 11, 12 & 13
plates buckled.

Nos. 6, 7, 8, 9, 10, 11 & 12 plates
to be renewed.
Nos. 4, 5, & 13 plates to be
removed, faired and refitted.

E strake:-

Nos. 4, 5, 6, 7, 8, 9 & 10 plates
buckled.

Nos. 6, 7, 8 & 9 plates to be
renewed.
Nos. 4, 5, & 10 plates to be
faired in place.

The bilge keel port and
starboard sides buckled.

To be repaired as necessary.

© (continued.)



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Continuation of damage report on the S.S. "LIVERPOOL MARU",
Hakodate, 30th October, 1931.

Floors etc.

Fore Peak Tank.

6 floors badly buckled at F Nos. 173 to 178.

5 in No. to be renewed at F Nos. 174 to 178.
One in No. to be removed, faired and refitted at F No. 173.

6 frames on P side cracked or set in at F Nos. 173 to 178.

2 in No. to be part renewed at F Nos. 175 & 176.
4 in No. to be crop & part removed, faired and refitted at F Nos. 173, 174, 177 & 178.

6 frames on S side cracked or set in at F Nos. 173 to 178.

2 in No. to be renewed at F Nos. 176 & 178.
3 in No. to be crop & part removed faired and refitted at F Nos. 174, 175 & 177.
One in No. to be faired in place at F No. 173.

Centre girder in 3 frame spaces buckled together with bottom angles at F Nos. 172 to 175.

One frame space to be renewed.
2 frame spaces to be removed faired and refitted.
Bottom angles to be renewed.

Collision bulkhead bottom plate together with boundary angle buckled.

To be renewed.

2 shell lugs on S side stringer plate cracked.

To be renewed.

No. 1 Double Bottom Tank. (F No. 141 to 172.)

Port Side.

29 solid floor plates cracked or badly buckled at F Nos. 143 to 171.

20 in No. to be renewed at F Nos. 143 to 148, 156 to 159, 161 & 163 to 171.

7 in No. to be removed, faired and refitted at F Nos. 149 to 152, 155, 160 to 162.

2 in No. to be faired in place at F Nos. 153 & 154.

One skeleton floor at F No. 142, 2 brackets buckled.

To be removed, faired and refitted.

W T floor buckled at F No. 141 together with boundary angle.

Floor to be renewed and angle to be removed, faired and refitted.

27 frame angles set in at F Nos. 143 to 152 & 155 to 171. (frames at F Nos. 146 to 171 were fitted with double angles.)

6 in No. to be renewed at F Nos. 158, 165, 166, 169, 170 & 171.

3 in No. at F Nos. 146, 160 & 167, one side angles to be renewed and the other side angles to be removed, faired and refitted.

(continued.)

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Continuation of damage report on the U.S. "LIVERPOOL MARU",
Hakodate, 30th. October, 1931.

side bulb angle frame at
skeleton floor of P No. 142
at in.

18 in No. to be removed,
faired and refitted at P Nos.
143 to 145, 147 to 152, 155
to 157, 159, 161 to 164 & 168.

To be removed, faired and
refitted.

side girder (half girder from
Nos. 144 to 159), 20 frame
spaces buckled at P Nos. 144 to
152 & 155 to 167.

One frame space to be renewed.
19 frame spaces to be removed,
faired and refitted.

side girder, 16 frame spaces
buckled at P Nos. 141 to 152 &
155 to 160.

One frame space to be renewed.
15 frame spaces to be removed,
faired and refitted.

side girder, 7 frame spaces
buckled at P No. 141 to 148.

To be removed, faired and
refitted.

side girder (half girder),
frame spaces buckled at P
Nos. 145 to 152.

To be removed, faired and
refitted.

Starboard Side.

solid floor plates badly
buckled at P Nos. 143 to 171.

13 in No. to be renewed at
P Nos. 143, 144, 146, 147, 157,
158, 159, 161, 166, 167, 168, 169
& 170.

11 in No. to be removed, faired
and refitted at P Nos. 145, 148,
149, 155, 156, 159, 162 to 165 &
171.

5 in No. to be faired in place
at P Nos. 150 to 154.

skeleton floor at P No.
2, 2 brackets buckled.

To be removed, faired and
refitted.

F floor buckled at P No. 141
together with boundary angle.

To be part renewed.

frame angles bent in at P
Nos. 142 to 171. (frames at P
Nos. 146 to 171 were fitted
with double angles.)

2 in No. to be renewed at P
Nos. 166 & 168.
22 in No. to be removed, faired
and refitted at P Nos. 143 to
149, 155 to 165, 167 & 169 to
171.
5 in No. to be faired in place
at P Nos. 150 to 154.

side bulb angle frame at
skeleton floor of P No. 142
at in.

To be removed, faired and
refitted.

side girder (half girder from
Nos. 144 to 159), 19 frame spaces
buckled at P Nos. 144 to 150 &
155 to 167.

One frame space to be renewed.
18 frame spaces to be removed,
faired and refitted.

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Continuation of damage report on the S.S. "LIVERPOOL MARU",
Hakodate, 30th. October, 1931.

Side girder, 15 frame spaces
buckled at F Nos. 141 to 150 &
160.

One frame spaces to be renewed.
14 frame spaces to be removed,
faired and refitted.

Side girder, 5 frame spaces
buckled at F Nos. 143 to 148.

To be removed, faired and
refitted.

Side girder, (half girder)
frame spaces buckled at F
Nos. 145 to 150.

To be removed, faired and
refitted.

2 Double Bottom Tank. (F.Nos. 91 to 141.)

Starboard Side.

Solid floor plates buckled
at F Nos. 93 to 95, 97 to 99,
103, 105, 107, 109, 111, 113, 115,
121, 125, 127, 129, 131, 133,
to 137 & 139.

3 in No. to be renewed at F
Nos. 97, 98 & 139.
7 in No. to be crop & part
renewed at F Nos. 111, 113, 115,
125, 129, 131 & 136.
5 in No. to be crop & part
renewed, and part removed,
faired & refitted at F Nos.
99, 101, 103, 105 & 117.
3 in No. to be crop & part
renewed, and part faired in
place at F Nos. 107, 119 & 127.
2 in No. to be crop & part
removed, faired & refitted at
F Nos. 133 & 137.
6 in No. to be faired in place
at F Nos. 93 to 95, 109, 121 & 135.

floor plate badly buckled
at No. 91 together with
boundary angle.

To be part renewed.

Skeleton floors at F Nos. 92
100, 102, 104, 106, 108, 110, 112,
116, 118, 122, 124, 126, 128, 130,
134 & 140, brackets buckled.

10 brackets to be renewed.
12 brackets to be removed,
faired and refitted.
4 brackets to be faired in
place.

Frame angles bent or set in
at F Nos. 93 to 95, 97 to 99, 101,
105, 107, 111, 113, 115, 117, 119,
125, 127, 129, 131, 133, 135 to
139 & 139.

One in No. to be renewed at
F No. 99.
One in No. to be crop & part
renewed, and part removed,
faired and refitted at F No.
105.
9 in No. to be removed, faired
and refitted at F Nos. 97, 98,
101, 103, 117, 119, 127, 137 & 139.
One in No. to be crop & part
removed, faired and refitted,
and part faired in place at
F No. 107.
8 in No. to be crop & part
removed, faired & refitted at
F Nos. 111, 113, 115, 125, 129, 131,
133 & 136.
5 in No. to be faired in place
at F Nos. 93 to 95, 121 & 135.

Continuation of damage report on the S.S. "LIVERPOOL MARU".
 Date, 30th. October, 1931.

19 bulb angle frames at skeleton
 floors at Nos. 92, 96, 100, 102, 104,
 106, 110, 112, 114, 116, 118, 124, 126,
 128, 130, 132, 134, 138 & 140 bent
 or set in.

side girder, 22 frame spaces
 buckled at Nos. 91 to 93, 95 to
 105, 113 to 119 & 137 to 141.

side girder, 25 frame spaces
 buckled at Nos. 95 to 99, 101 to
 105, 113 to 119, 125 to 127, 129 to
 131, 133 to 135 & 136 to 141.

Starboard Side.

27 solid floors buckled at Nos.
 93 to 95, 97 to 99, 101, 103,
 105, 107, 109, 111, 113, 115, 117,
 119, 121, 123, 125, 127, 129, 131,
 133, 135 to 137 & 139.

W T floor buckled at No. 91
 together with boundary angle.

21 skeleton floors at Nos.
 92, 96, 100, 102, 104, 106, 108, 110,
 112, 114, 116, 118, 120, 122, 124, 126,
 128, 132, 134, 136 & 140, brackets
 buckled.

16 frame angles bent or set in
 at Nos. 93, 94, 95, 97 to 99, 101,
 103, 105, 107, 109, 111, 113, 115, 119,
 121, 123, 125, 127, 129, 131, 133, 135
 & 137 & 139.

5 in No. to be renewed at Nos.
 96, 100, 102, 104 & 106.

11 in No. to be removed,
 faired & refitted at Nos.
 92, 114, 116, 118, 126, 128, 130,
 132, 134, 138 & 140.

One in No. to be crop & part
 removed, faired & refitted
 at No. 124.

2 in No. to be faired in place
 at Nos. 110 & 112.

3 frame spaces to be renewed.
 19 frame spaces to be removed,
 faired & refitted.

2 frame spaces to be renewed.
 23 frame spaces to be removed,
 faired & refitted.

6 in No. to be renewed at Nos.
 97 to 99, 101, 103 & 109.

3 in No. to be crop & part
 renewed at Nos. 129, 133 &
 137.

3 in No. to be crop & part
 renewed, and part removed,
 faired & refitted at Nos.
 105, 111 & 121.

11 in No. to be crop & part
 renewed, and part faired in
 place at Nos. 93 to 95, 107,
 113, 115, 123, 125, 127, 131 & 139.

4 in No. to be faired in place
 at Nos. 117, 119, 135 & 136.

Floor plate to be crop & part
 renewed, and faired in place.
 Angle to be crop & part renewed.

6 brackets to be renewed.
 20 brackets to be removed,
 faired & refitted.

4 brackets to be faired in
 place.

One in No. to be renewed at
 No. 99.

2 in No. to be crop & part
 renewed at Nos. 123 & 137.

3 in No. to be crop & part
 renewed, and part faired in
 place at Nos. 93, 94 & 133.

8 in No. to be removed,
 faired & refitted at Nos.

97, 98, 101, 103, 105, 109, 111 & 113.

7 in No. to be crop & part
 removed, faired & refitted at
 Nos. 107, 121, 125, 127, 129, 131
 & 139.

(continued.)

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Continuation of damage report on the S.S. "LIVERPOOL MARU".
Hakodate, 30th. October, 1931.

One in No. to be crop & part removed, faired and refitted at F No. 95.
4 in No. to be faired in place at F Nos. 115, 119, 135 & 136.

bulb angle frames at skeleton floors of F Nos. 92, 96, 100, 102, 104, 106, 108, 110, 112, 114, 116, 118, 120, 122, 124, 126, 128, 130, 132, 134, 138 & 140 bent or set in.

21 in No. to be removed, faired and refitted at F Nos. 92, 96, 100, 102, 104, 106, 108, 110, 112, 114, 118, 120, 122, 124, 126, 128, 130, 132, 134, 138 & 140.
One in No. to be faired in place at F No. 116

bank top reverse frame bent & set up. at F No 100. *mk*

To be faired in place.

side girder, 17 frame spaces buckled at F Nos. 91 to 93, 95 to 100, 109 to 113, 119 to 120 & 122 to 124.

4 frame spaces to be renewed.
8 frame spaces to be removed, faired & refitted.
5 in No. to be faired in place.

side girder, 23 frame spaces buckled at F Nos. 91 to 97, 99 to 105, 111 to 117, 124 to 126, 134 to 135 & 137 to 139.

5 frame spaces to be renewed.
15 frame spaces to be removed, faired & refitted.
3 frame spaces to be faired in place.

Fresh Water Double Bottom Tank. (F Nos. 70 to 91.)

Port Side.

solid floor plates buckled at F Nos. 73 to 82, 84, 86, 87 & 89.

2 in No. to be renewed at F Nos. 84 & 86.
One in No. to be crop & part renewed, and part removed, faired & refitted, at F No. 87.
8 in No. to be crop & part renewed, and part faired in place at F Nos. 75 to 79, 81, 82 & 89.
2 in No. to be crop & part renewed at F Nos. 74 & 80.
One in No. to be faired in place at F No. 73.

skeleton floors at F Nos. 83, 85, 86 & 90, brackets buckled.

One bracket to be renewed.
3 brackets to be removed, faired & refitted.

frame angles bent or set in at F Nos. 73 to 82, 84, 86, 87 & 89.

3 in No. to be renewed at F Nos. 81, 82 & 86.
4 in No. to be crop & part renewed at F Nos. 77 to 80.
2 in No. to be removed, faired & refitted at F Nos. 84 & 87.
4 in No. to be crop & part removed, faired & refitted at F Nos. 74 to 76 & 85.
One in No. to be faired in place at F No. 84.

continued.

Continuation of damage report on the S.S. "LIVERPOOL MARU".
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bulb angle frames bent or
 set in at F Nos. 83, 85, 88
 & 90.

top reverse frame bent
 set up at F No. 85.

side girder, 9 frame spaces
 buckled at F Nos. 73 to 82.

side girder, 18 frame spaces
 buckled at F Nos. 73 to 91.

side girder, 12 frame spaces
 buckled at F Nos. 78 to 90.

Starboard Side.

6 solid floor plates buckled
 at F Nos. 71 to 82, 84, 86, 87 &
 89.

skeleton floors at F Nos. 83,
 85, 88 & 90, brackets buckled.

6 frame angles bent or set in
 at F Nos. 71 to 82, 84, 86, 87 & 89.

bulb angle frames set in at
 Nos. 83, 85, 88 & 90.

5 tank top reverse frames bent
 at F Nos. 86, 88 & 90.

3 in No. to be renewed at
 F Nos. 83, 85 & 88.
 One in No. to be removed,
 faired & refitted at F No. 90.

To be removed, faired and
 refitted.

5 frame spaces to be renewed.
 4 frame spaces to be removed,
 faired & refitted.

6 frame spaces to be renewed.
 12 frame spaces to be removed,
 faired & refitted.

4 frame spaces to be renewed.
 3 frame spaces to be removed,
 faired & refitted.
 5 frame spaces to be faired
 in place.

2 in No. to be renewed at F
 Nos. 84 & 87.

8 in No. to be crop & part
 renewed, and part removed,
 faired & refitted at F Nos.
 71 to 74, 81, 82, 86 & 89.

3 in No. to be crop & part
 renewed, and part faired in
 place at F Nos. 78 to 80.

3 in No. to be removed,
 faired & refitted at F Nos.
 75 to 77.

3 brackets to be renewed.
 4 brackets to be removed,
 faired & refitted.

One in No. to be crop & part
 renewed at F No. 78.

One in No. to be crop & part
 renewed, and part removed,
 faired & refitted at F No. 72.

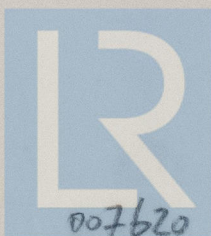
12 in No. to be removed,
 faired & refitted at F Nos.
 71, 73 to 77, 81, 82, 84, 86, 87 &
 89.

2 in No. to be crop & part
 removed, faired and refitted
 at F Nos. 79 & 80.

To be removed, faired and
 refitted.

To be faired in place.

(continued.)



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Continuation of damage report on the S.S. "LIVERPOOL MARU".
 Dated, 30th. October, 1931.

Side girder, 9 frame spaces
 buckled at F Nos. 73 to 82.

One frame space to be renewed.
 8 frame spaces to be removed,
 faired & refitted.

Side girder, 19 frame spaces
 buckled at F Nos. 72 to 91.

5 frame spaces to be renewed.
 14 frame spaces to be removed,
 faired & refitted.

Side girder, 18 frame spaces
 buckled at F Nos. 73 to 91.

5 frame spaces to be renewed.
 13 frame spaces to be removed,
 faired & refitted.

Double Bottom Tank. (F Nos. 41 to 69.)
Port Side.

Solid floor plates cracked or
 buckled at F Nos. 42, 44, 46, 48, 49,
 52, 54, 56, 58, 60, 62, 64, 66 & 68.

5 in No. to be renewed at F
 Nos. 42, 44, 46, 58, & 60.

One in No. to be crop & part
 renewed, and part removed,
 faired & refitted at F No. 62.

5 in No. to be crop & part
 renewed, and part faired in
 place at F Nos. 48, 50, 64, 66 &
 68.

One in No. to be crop & part
 removed, faired & refitted
 at F No. 49.

3 in No. to be faired in place
 at F Nos. 52, 54 & 56.

Floor buckled at F No. 41
 together with boundary angle.

Floor plate to be removed,
 faired & refitted.

Boundary angle to be crop &
 renewed, and part removed,
 faired & refitted.

Floor buckled at F No. 69
 together with boundary angle

To be crop & part renewed, and
 part faired in place.

Skeleton floors at F Nos. 43, 45,
 57, 59, 61, 63, 65 & 69, brackets
 cracked or buckled.

5 brackets to be renewed.

4 brackets to be removed,
 faired & refitted.

2 brackets to be faired in
 place.

Frame angles set in at F Nos.
 44, 46, 48, 49, 50, 52, 54, 56, 58,
 62, 64, 66 & 68.

One in No. to be crop & part
 renewed, and part removed,
 faired & refitted at F No. 48.

5 in No. to be removed, faired
 & refitted at F Nos. 42, 44, 46,
 58 & 60.

7 in No. to be crop & part
 removed, faired & refitted at
 F Nos. 49, 54, 56, 62, 64, 66 & 68.

2 in No. to be faired in place
 at F Nos. 50 & 52.

Bulb angle frames at skeleton
 floors of F Nos. 43, 45, 47, 51, 53,
 57, 59, 61, 63, 65 & 67 bent or
 in.

10 in No. to be removed, faired
 & refitted at F Nos. 43, 45, 47,
 53, 55, 57, 59, 61, 63 & 65.

(continued.)

Continuation of damage report on the S.S. LIVERPOOL MARU.
 Dated, 30th. October, 1931.

One in No. to be crop & part removed, faired & refitted at F No. 57.

One in No. to be faired in place at F No. 51.

3 frame spaces to be renewed.
 17 frame spaces to be removed, faired & refitted.
 One frame space to be faired in place.

One frame space to be renewed.
 8 frame spaces to be removed, faired & refitted.

side girder, 21 frame spaces buckled at F Nos. 41 to 43, 51 to 52 & 56 to 59.

side girder, 9 frame spaces buckled at F Nos. 41 to 43, 44 to 45, 46 to 47, 48 to 49 & 56 to 59.

Starboard Side.

1. Solid floor plates cracked or buckled at F Nos. 42, 44, 46, 48, 49, 50, 52, 54, 56, 58, 60, 62, 64, 66 & 68.

One in No. to be renewed, at F No. 58.

2 in No. to be crop & part renewed, and part removed, faired & refitted at F Nos. 60 & 68.

3 in No. to be crop & part renewed, and part faired in place at F Nos. 50, 52 & 54.

7 in No. to be removed, faired and refitted at F Nos. 42, 44, 46, 48, 62, 64 & 66.

One in No. to be crop & part removed, faired & refitted at F No. 49.

One in No. to be faired in place at F No. 56.

Floor to be crop & part renewed, and remainder to be faired in place.
 Boundary angle to be crop & part removed, faired & refitted.

To be faired in place.

5 brackets to be renewed.
 9 brackets to be removed, faired & refitted.
 3 brackets to be faired in place.

10 in No. to be removed, faired and refitted at F Nos. 42, 44, 46, 48, 58, 60, 62, 64, 66 & 68.

4 in No. to be crop & part removed, faired & refitted at F Nos. 49, 50, 52 & 54.

One in No. to be faired in place at F No. 56.

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Continuation of damage report on the S.S. "LIVERPOOL HARBOR".
 Dated, 30th. October, 1931.

Angle frames at skeleton
 of P Nos. 43, 45, 47, 51, 53,
 57, 59, 61, 63, 65 & 67 bent or
 in.

10 in No. to be removed,
 faired & refitted at P Nos.
 43, 45, 47, 53, 57, 59, 61, 63, 65
 & 67.

2 in No. to be crop & part
 removed, faired & refitted
 at P Nos. 51 & 55.

Side girder, 20 frame spaces
 buckled at P Nos. 41 to 50 & 58
 69.

2 frame spaces to be renewed.
 16 frame spaces to be removed,
 faired & refitted.
 2 frame spaces to be faired
 in place.

Side girder, 19 frame spaces
 buckled at P Nos. 41 to 49 & 58
 69.

To be removed, faired and
 refitted.

Alge at aft end of Engine Room. (P Nos. 69 to 70.)

Side girders on P & S sides
 badly buckled.

To be renewed.

o. 4 Double Bottom Tank. (P Nos. 14 to 41.)

Port Side.

16 solid floor plates cracked
 or buckled at P Nos. 15 to 40.

22 in No. to be renewed at P
 Nos. 15 to 36.

3 in No. to be crop & part
 renewed, and part removed,
 faired & refitted at P Nos.
 37, 38 & 40.

One in No. to be removed,
 faired & refitted at P No. 38.

1 floor cracked & buckled at
 P No. 14 together with boundary
 angle.

To be renewed.

26 frame angles bent or set in
 at P Nos. 15 to 40.

11 in No. to be renewed at P
 Nos. 15, 16, 17, 19, 20, 21, 22, 23,
 24, 30 & 35.

15 in No. to be removed,
 faired & refitted at P Nos. 18,
 25, 26, 27, 28, 29, 31, 32, 33, 34, 36,
 37, 38, 39 & 40.

Side girder, 11 frame spaces
 buckled at P Nos. 30 to 41.

4 frame spaces to be renewed.
 7 frame spaces to be removed,
 faired & refitted.

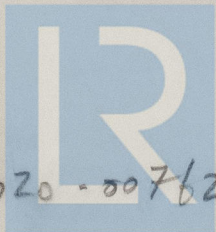
Starboard Side.

26 solid floor plates cracked
 or badly buckled at P Nos. 15
 to 40.

10 in No. to be renewed at P
 Nos. 16 to 24 & 31.

8 in No. to be crop & part
 renewed, and part removed,
 faired & refitted at P Nos.
 30, 32, 33 & 35 to 39.

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Continuation of damage report on the S.S. "LIVERPOOL MARU".
Hakodate, 30th. October, 1931.

floor buckled at F No.14
together with boundary angle.

frame angles bent or set in
F Nos.15 to 40.

side girder, 11 frame spaces
buckled at F Nos.30 to 41.

Water Girder.

plating cracked or buckled
about F Nos.8 to 49, 60 to
61 to 67, 96 to 116, 141 to 152
to 172, and bottom angles
and way of same bent or set in.

Star Side Margine Plates etc.

1 Hold:

side:-One margine plate
buckled at about F Nos.167 to
together with bottom angle.

Star side brackets badly
buckled.

Star side brackets buckled.

side:-One margine plate
badly buckled together with
bottom angles.

8 in No. to be removed,
faired & refitted at F Nos.
15, 25 to 29, 34 & 40.

To be released & faired in
place.

2 in No. to be renewed at F
Nos.16 & 24.

23 in No. to be removed,
faired & refitted at F Nos.
17 to 23, & 25 to 40.

One in No. to be faired in
place at F No.15

To be removed, faired & refitted.

9 C G plates to be renewed
at about F Nos.8 to 17, 17 to
26, 26 to 37, 37 to 49, 60 to
69, 81 to 87, 96 to 108, 108 to
116 & 167 to 172.

One plate to be crop & part
renewed, and part faired in
place at about F Nos. 141 to
152.

One C G plate to be removed,
faired & refitted at about
F Nos.158 to 167.

Bottom angles (port side) to
be renewed at about F Nos.8
to 15, 15 to 24 & 80 to 89, &
removed, faired & refitted at
about F Nos.24 to 33, 33 to
46, 57 to 70, 93 to 106, 106 to
118, 141 to 160 & 160 to 172.
Bottom angles (star. side)
to be renewed at about F Nos.
8 to 18, 18 to 27 & 79 to 88,
& removed, faired & refitted
at about F Nos.27 to 39, 39 to
51, 62 to 67, 96 to 111, 111 to
117, 138 to 157 & 157 to 172.

Margine plate to be crop &
part removed, faired & refitted.
Bottom angle to be crop & part
renewed.

To be renewed.

To be removed, faired and
refitted.

To be faired in place.

Continuation of damage report on the S.S. "LIVERPOOL MARU",
Nakodate, 30th October, 1931.

No.2 Hold.

P side:- One margin plate buckled at about F Nos.117 to 121 together with bottom angles.

To be crop & part renewed.

One margin plate buckled at about F Nos.124 to 133 together bottom angle.

Margin plate to be faired in place and bottom angle to be removed, faired and refitted.

3 tank side brackets buckled.

To be removed, faired and refitted.

S side:- 2 margin plates buckled at about F Nos.89 to 110 together with bottom angle.

One margin plate to be crop & part renewed, and one part faired in place. Bottom angle to be removed, faired and refitted.

Side Bunker.

S side:- One margin plate buckled at about F Nos.79 to 89 together with bottom angle.

Margin plate to be crop & part renewed, and part faired in place. Bottom angle to be removed, faired & refitted.

6 tank side brackets buckled.

To be removed, faired & refitted.

No.3 Hold.

P side:- Margin plate bottom angle buckled at about F Nos. 41 to 47.

To be removed, faired and refitted.

No.4 Hold.

P side:- One margin plate buckled at about F Nos.14 to 24.

To be renewed.

2 margin plates buckled at about F Nos.28 to 35.

To be crop & part removed, faired and refitted.

Margin plate bottom angles distorted at F Nos.14 to 41.

To be crop & part renewed, & part removed, faired and refitted.

One tank side bracket badly buckled.

To be renewed.

3 tank side brackets buckled.

To be removed, faired and refitted.

After Peak Tank.

One frame cracked at F No.5 on P side.

To be doubled,

Three frames bent or set in at F Nos.5,6 & 7 on S side.

To be faired in place.

Three stiffeners on wash plate cracked.

To be renewed.

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Continuation of damage report on the S.S. "LIVERPOOL MARU".
 Dated, 30th. October, 1931.

Center girder buckled at F Nos. 8 & 9 together with bottom angles. Center girder to be faired in place, and bottom angles to be removed, faired and refitted.

Manuel Recess.

Side:-5 floors buckled at F Nos. 9 to 13.

2 in No. to be renewed at F Nos. 12 & 13.

2 in No. to be removed, faired & refitted at F Nos. 10 & 11. One in No. to be faired in place at F No. 9.

Frames set in at F Nos. 9 to 13.

2 in No. to be renewed at F Nos. 12 & 13.

2 in No. to be removed, faired and refitted at F Nos. 10 & 11. One in No. to be faired in place at F No. 9.

Side:-5 floors buckled at F Nos. 9 to 13.

To be removed, faired and refitted.

Frames set in at F Nos. 9 to 13.

To be removed, faired and refitted.

Manuel.

The plumber block seat buckled.

To be faired in place.

Auxiliary Boiler Recess.

The plate at fore end bulkhead buckled.

To be faired in place. Wood sheathing to be removed for examination together with wood sheathing on bulkhead at fore end of Boiler room at F No. 93.

Deck Bunkers.

Side:-One plate at aft end bulkhead & one plate at side bulkhead buckled.

To be crop & part renewed.

Side:-4 plates at side bulkhead buckled.

To be crop & part renewed.

Stiffeners (channel) on deck bulkhead bent.

One stiffener to be renewed, & one stiffener to be crop & part renewed.

Green Bulkhead at aft end of No. 2 Hold at F No. 113.

Plates on S side slightly buckled.

To be faired in place.

Foundation angles bent.

To be released & faired in place.

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(continued.)

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Continuation of damage report on the S.S. "LIVERPOOL MARU",
Hakodate, 30th October, 1931.

Tank Top Plating.

Aft part of No.2 hold and
cross bunker hold tank top
plating generally set up.

To be faired in place.

Stern Frame broken.

To be renewed.

Rudder Main Piece & Plate broken.

To be renewed.

Rudder Stock bent & twisted.

To be renewed.

Hand Steering Gear Screw Shaft
bent & broken.

To be renewed, and cross
head & link plate to be
removed, aligned & refitted.

Steering quadrant, a few rivets
slacked.

Steering quadrant to be
removed for unshipping stock
and slack rivets to be renewed.

Quadrant stopper ^{broken} ~~bracket~~ _{m.k.} and
bracket bent.

Quadrant stopper to be renewed
and bracket to be removed,
faired & refitted.

Stem, lower half bent and
twisted.

To be renewed.

Steering Chains & Rods.

To be removed & annealed.

Chain Cables.

To be ranged & examined.

Windlass, Steering Engine and
all Winches.

To be opened up & examined.

It was further recommended as follows:-

All double bottom tanks and fore & after peak tanks to be
tested on completion of the repairs.

All ceiling to be lifted in holds and bunkers and refitted
with part new as required.

The lower holds and tunnel to be cleaned and painted.

All broken and damaged bilge, ballast, air and sounding
pipes to be renewed.

The electric wiring in tunnel to be repaired and tested.

The bottom of the vessel to be recoated and draft marks
cut in and painted on stem and stern frame.

The riveting in double bottom tanks and fore & after peak
tanks etc. to be hammer tested and renewed where found defective.

All removals necessary to effect the damage repairs to be
refitted as before.

Compasses to be adjusted.

The cement in bottom and bilges to be renewed where broken.

Inside of double bottom to be cement washed.

(continued.)



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Continuation of damage report on the S.S. "LIVERPOOL MARU",
Hakodate, 30th October, 1931.

MACHINERY.

All cylinders of main engine to be opened up for examination.

Crank shaft & intermediate shafting to be aligned.

Tail shaft to be drawn in for examination & tried in lathe.

Stern tube to be refitted to new stern frame.

Propeller, 3 bronze blades badly bent to be renewed.
One bronze blade bent to be removed, faired
and refitted.

Pumps (feeds, ballast & general service pumps) to be
opened up for examination.

Condenser cover to be removed for examination.

Sea connections to be opened up for examination.

All boilers (2main & one auxiliary) to be cleaned and
examined.

Main steam pipe to be examined, for this purpose lagging
to be removed and afterwards refitted.

Engine & thrust bed plates, holding down bolts to be
examined and renewed or tightened up as necessary.

General service pump seat buckled to be faired in place.

One auxiliary steam pipe cross piece broken to be renewed.

One auxiliary exhaust steam pipe broken to be renewed.

One steam pipe for steering engine broken to be renewed.

The above recommendations were made in order that the vessel
might be placed in as good condition as previous to sustaining
the damage and these repairs have now been effected to our
satisfaction. The original stream line rudder has been replaced
by a new rudder of reaction type with a stern frame to suit.

The following minor repairs and renewals of lost or damaged
gear, fittings, etc, were recommended to make good damage stated
to have been caused during salvage operations and have now been
satisfactorily effected.

A. McShaskan,

for H. Jasper Cox, N. Kamakura & self.

Fee.....Yen 1,700.00

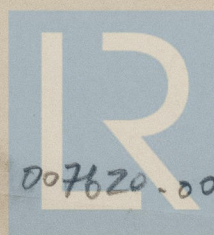
Expenses etc

~~511.22~~

471.22

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Surveyors to Lloyd's Register.



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