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## **OPERATING INSTRUCTIONS**

1. Compliance with the stability criteria indicated does not ensure immunity against capsizing regardless of the circumstances, or absolves the master from his responsibilities. Masters should therefore exercise prudence and good seamanship having regard to the season of the year, weather forecasts and the navigational zone and should take the appropriate action as to the speed and course warranted by the prevailing circumstances.
2. Calculations performed show that the vessel meets the applicable U.S. Coast Guard requirements for stability when operated as shown in the Stability Conditions enclosed in this booklet.
3. There shall never be more than one pair of partially filled fuel or water tanks at any one time.
4. Cross-connections between all port and starboard wing tanks shall be kept closed at all times when underway.
5. Deck hatches and weather tight doors to the deck house, side storerooms, and machinery spaces shall be kept closed and fully secured at all times when underway, except when actually used for transit under safe conditions.
6. Deck freeing ports shall be maintained operable and completely unobstructed at all times.
7. Bilges shall be kept pumped to minimum contents at all times.
8. Trim should generally be minimized.
9. Cargo and equipment must be positively secured against shifting in a seaway prior to leaving protected waters.
10. No weights shall be added, removed, or relocated without determining the effect on the stability of the vessel.
11. The operator shall determine the cause of any list before taking corrective action
12. No watertight bulkheads shall be removed or altered without determining the effect on the stability of the vessel.
13. Excessive winter ice loading shall be avoided. Efforts shall be made to remove accumulated winter ice from all surfaces on the vessel.
14. The hydrostatic calculations and righting arm calculations accompanying the trim and stability conditions are accomplished using a free trimming computer program, which solves for the hydrostatic properties at the actual trim and heel of the vessel. Therefore, the hydrostatic properties presented will differ slightly from the Hydrostatic Curves of Form, and Cross Curves of Stability, which are plotted with an initial trim of zero.
15. All tons used in the calculations are long tons of 2240 pounds. Vertical centers of gravity are referenced to a point about the baseline. Longitudinal centers are referenced about midships. Trims shown in righting arm data are positive aft and negative forward.
16. Owner and crew reported loading conditions and amount of ice and fish. The captain should not load ship greater than load calculated.
17. All fishing gear was added in the inclining report. The fishing gear will be taken into account in the ship's lightship.
18. The outriggers will be kept in the down position at all times when outside the harbor.

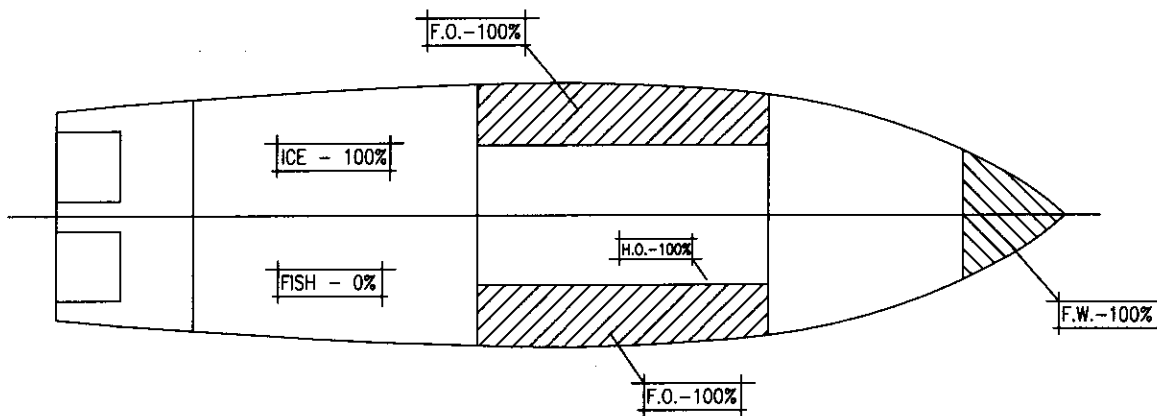
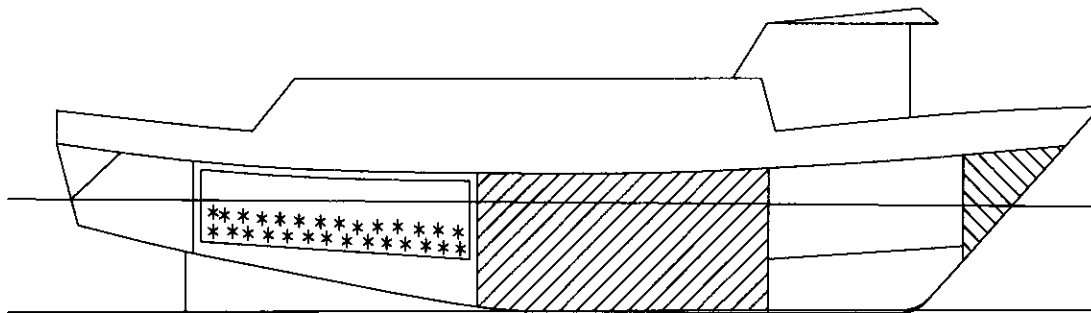
# INTACT STABILITY CONDITIONS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: READY FOR SEA

## LEGEND

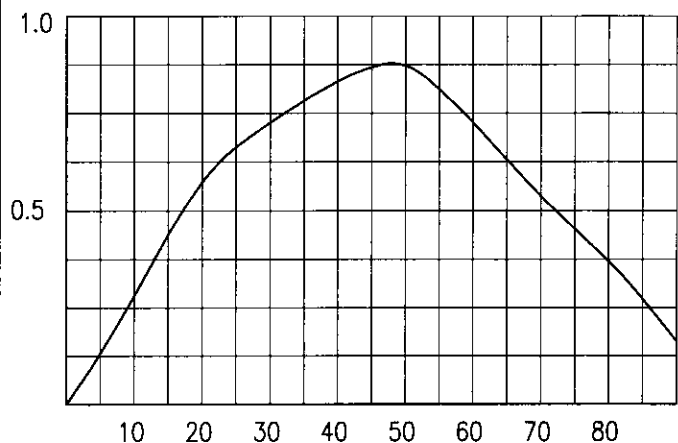
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	<u>250.93</u>	LONG TONS
VCG:	<u>9.67</u>	FT.
LCG (+AFT):	<u>-0.64</u>	FT.
TRIM (FT)	<u>0.782 AFT</u>	FT.
TRIM (IN):	<u>9.39 AFT</u>	IN.
MOLDED DRAFT FWD:	<u>8.831</u>	FT.
MOLDED DRAFT MIDSHIP:	<u>9.222</u>	FT.
MOLDED DRAFT AFT:	<u>9.613</u>	FT.
KEEL DRAFT FWD:	<u>9.081</u>	FT.
KEEL DRAFT AFT:	<u>9.863</u>	FT.
FREEBOARD MIDSHIPS:	<u>2.528</u>	FT.

GM:	<u>1.62</u>	FT.
FREE SURFACE:	<u>0.06</u>	FT.
GM CORRECTED:	<u>1.55</u>	FT.



## RIGHTING ENERGIES:

0° - 30°	<u>12.295</u>	FT.-DEG.
0° - 40°	<u>20.106</u>	FT.-DEG.
30° - 40°	<u>7.811</u>	FT.-DEG.
MAX GZ:	<u>0.877</u>	FT.-DEG.
ANGLE @ MAX GZ:	<u>48.0</u>	FT.-DEG.



\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

READY FOR SEA

DISPLACEMENT = 250.93 LONG TONS  
MOLDED DRAFT = 9.22 FEET AT MIDSHIPS  
KG = 9.67 FT. ABL  
LCG = .64 FT. FWD MIDSHIPS  
GMT CORR. = 1.56 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 64.61 DEGREES  
AREA 0 DEG. TO 30 DEG. = 12.29 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 20.10 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 7.81 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .877 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 48.0 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 26.95 FT.-DEG.  
RANGE OF STABILITY EXCEEDS 90 DEG. (60 REQ'D)

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1087.34 SQ. FT.  
WINDAGE ARM = 11.70 FT.

GUST WIND HEEL ARM = .27 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 9.8 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 84.9 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 16.37 FT.-DEG. 9.8 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.40 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.25 FT.-DEG. 9.8 DEG. TO -7.6 DEG.  
AREA ABOVE - AREA BELOW = 12.12 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*





WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET

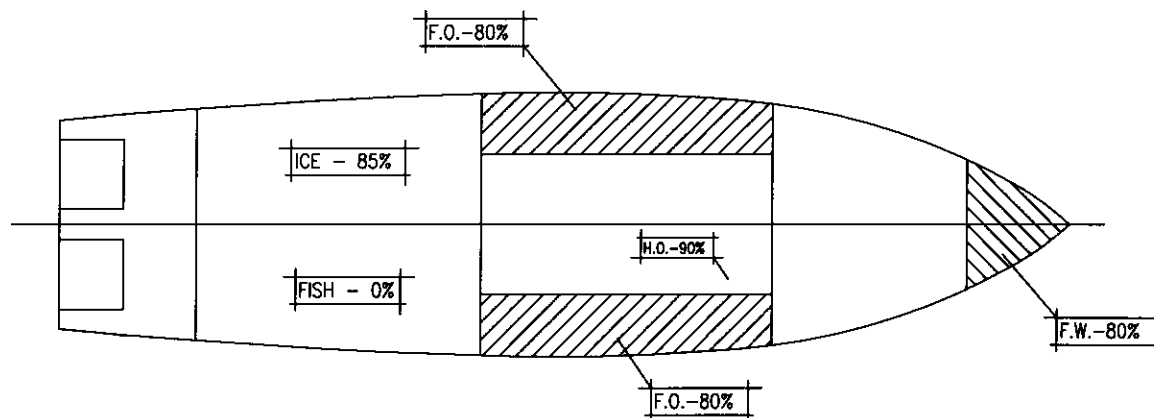
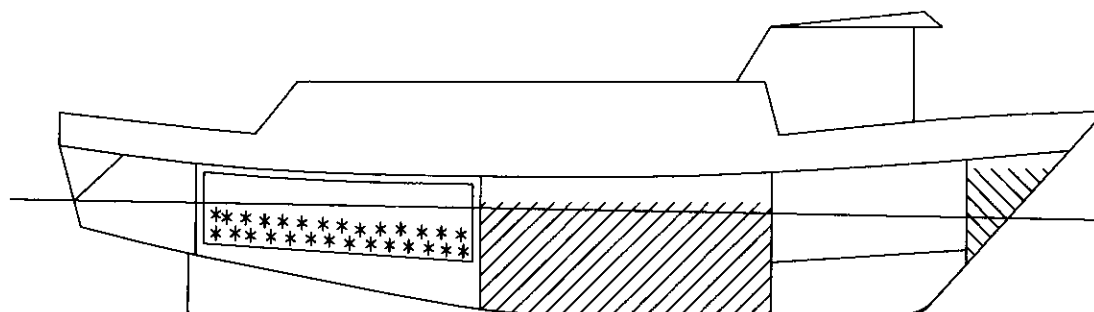
LOWER INTERCEPT ANGLE = 1.4 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 18.09 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: ARRIVAL AT FISHING GROUNDS

## LEGEND

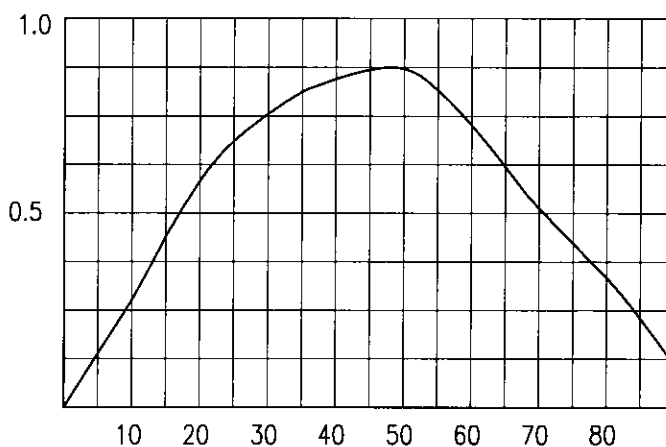
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	<u>241.66</u>	LONG TONS
VCG:	<u>9.68</u>	FT.
LCG (+AFT):	<u>-0.17</u>	FT.
TRIM (FT)	<u>1.373 AFT</u>	FT.
TRIM (IN):	<u>16.48 AFT</u>	IN.
MOLDED DRAFT FWD:	<u>8.293</u>	FT.
MOLDED DRAFT MIDSHIP:	<u>8.980</u>	FT.
MOLDED DRAFT AFT:	<u>9.660</u>	FT.
KEEL DRAFT FWD:	<u>8.543</u>	FT.
KEEL DRAFT AFT:	<u>9.916</u>	FT.
FREEBOARD MIDSHIPS:	<u>2.770</u>	FT.

GM:	<u>1.64</u>	FT.
FREE SURFACE:	<u>0.08</u>	FT.
GM CORRECTED:	<u>1.56</u>	FT.



## RIGHTING ENERGIES:

0° - 30°	<u>12.563</u>	FT.-DEG.
0° - 40°	<u>20.644</u>	FT.-DEG.
30° - 40°	<u>8.080</u>	FT.-DEG.
MAX GZ:	<u>0.878</u>	FT.-DEG.
ANGLE @ MAX GZ:	<u>47.6</u>	FT.-DEG.

C-116 79'-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02  
ARRIVAL AT FISHING GROUNDS

ITEM	TONS	VCG	VERT	FREE	LCG	FWD	LCG	FWD	AFT	MOM.	AFT
L.S. - INC 03/16	100 PCT	185.69	10.55	1958.77					1.48		274.82
F.W. TANK FWD PORT	80 PCT	4.72	10.29	48.63	38.51	181.92					
E.R. FUEL OIL TK P	80 PCT	17.85	6.44	115.04	7.42	132.45					
E.R. FUEL OIL TK S	80 PCT	17.85	6.44	115.04	7.42	132.45					
HYDRAULIC OIL-S	90 PCT	.52	7.85	4.11	.03				3.51		1.84
CONSUMABLE STORES	80 PCT	.40	14.93	5.97		6.90					
SHIP SPARES	100 PCT	1.25	8.50	10.63		28.13					
ICE IN HOLD	85 PCT	11.38	6.99	79.52					11.25		128.09
CATCH IN HOLD	NONE										
CATCH ON DECK	100 PCT	2.00	14.50	29.00					17.50		35.00
PARAVANES UP	100 PCT	-1.99	37.50	-74.47		-1.99					
PARAVANES DOWN	100 PCT	1.99	23.50	46.67		1.99					
WINTER ICE**	NONE										

TOTAL - 241.66 \* 9.68 \* 2338.91 \* 20.19 \* .17 \* 42.01 \*

RIGHTING ARM CURVE	HEEL	GZ	GZ CORR
TRIM/LBP			
.0170	5.0 DEGREES	.146 FEET	.138 FT. CORR.
.0172	10.0 DEGREES	.292 FEET	.277 FT. CORR.
.0173	15.0 DEGREES	.463 FEET	.441 FT. CORR.
.0177	20.0 DEGREES	.611 FEET	.583 FT. CORR.
.0193	25.0 DEGREES	.721 FEET	.686 FT. CORR.
.0220	30.0 DEGREES	.798 FEET	.756 FT. CORR.
.0255	35.0 DEGREES	.860 FEET	.812 FT. CORR.
.0303	40.0 DEGREES	.899 FEET	.845 FT. CORR.
.0446	50.0 DEGREES	.935 FEET	.871 FT. CORR.
.0556	60.0 DEGREES	.799 FEET	.727 FT. CORR.
.0646	70.0 DEGREES	.590 FEET	.512 FT. CORR.
.0750	80.0 DEGREES	.415 FEET	.333 FT. CORR.
.0863	90.0 DEGREES	.194 FEET	.110 FT. CORR.

RIGHTING ENERGIES  
0 - 30 DEG. = 12.563 FT-DEG.  
0 - 40 DEG. = 20.644 FT-DEG.  
30 - 40 DEG. = 8.080 FT-DEG.



\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

ARRIVAL AT FISHING GROUNDS

DISPLACEMENT = 241.66 LONG TONS  
MOLDED DRAFT = 8.98 FEET AT MIDSHIPS  
KG = 9.68 FT. ABL  
LCG = .17 FT. FWD MIDSHIPS  
GMT CORR. = 1.56 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 67.00 DEGREES  
AREA 0 DEG. TO 30 DEG. = 12.56 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 20.65 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 8.08 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .878 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 47.6 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 27.16 FT.-DEG.  
RANGE OF STABILITY EXCEEDS 90 DEG. (60 REQ'D)

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1106.89 SQ. FT.  
WINDAGE ARM = 11.70 FT.  
GUST WIND HEEL ARM = .29 FT.  
1ST GUST WIND HEEL ARM INTERCEPT = 10.5 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 82.0 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 16.23 FT.-DEG. 10.5 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.27 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.16 FT.-DEG. 10.5 DEG. TO -6.8 DEG.  
AREA ABOVE - AREA BELOW = 12.07 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*

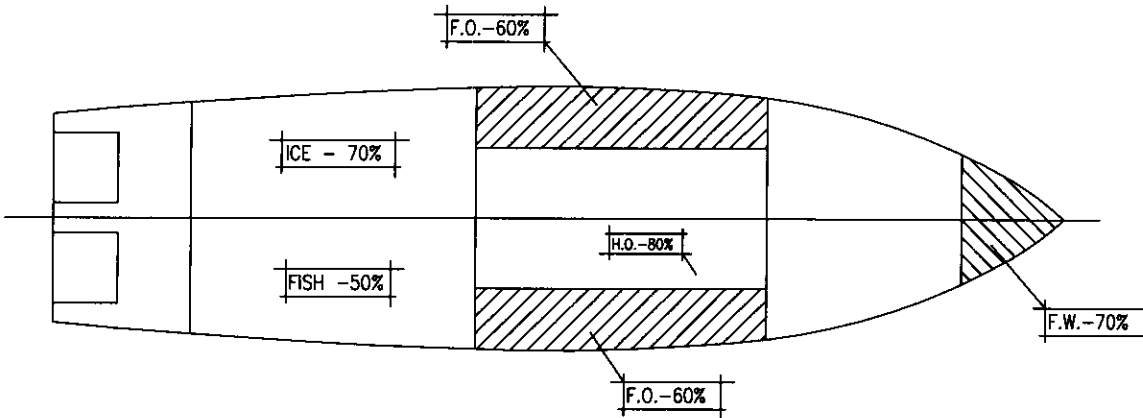
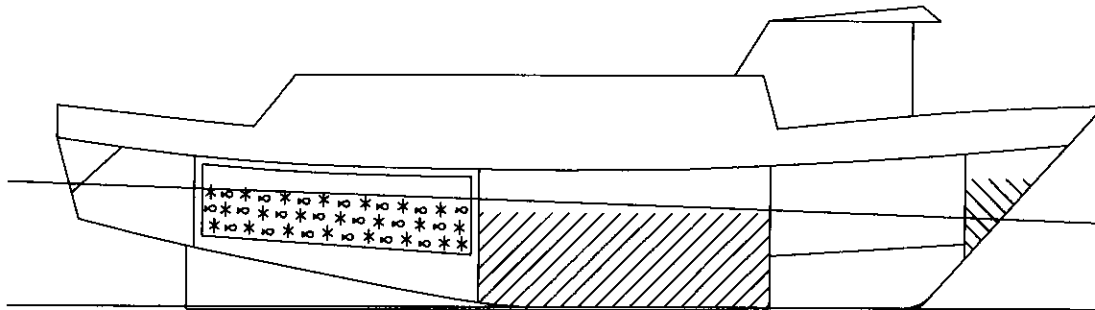
WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET  
LOWER INTERCEPT ANGLE = 1.3 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 18.54 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: AT FISHING GROUNDS - 50% CATCH

## LEGEND

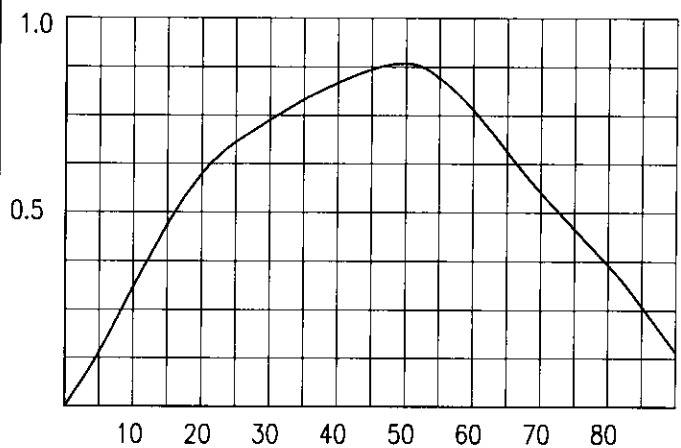
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	<u>247.85</u>	LONG TONS
VCG:	<u>9.54</u>	FT.
LCG (+AFT):	<u>1.05</u>	FT.
TRIM (FT)	<u>2.629 AFT</u>	FT.
TRIM (IN):	<u>31.55 AFT</u>	IN.
MOLDED DRAFT FWD:	<u>7.776</u>	FT.
MOLDED DRAFT MIDSHIP:	<u>9.090</u>	FT.
MOLDED DRAFT AFT:	<u>10.405</u>	FT.
KEEL DRAFT FWD:	<u>8.026</u>	FT.
KEEL DRAFT AFT:	<u>10.655</u>	FT.
FREEBOARD MIDSHIPS:	<u>2.66</u>	FT.

GM:	<u>1.72</u>	FT.
FREE SURFACE:	<u>.06</u>	FT.
GM CORRECTED:	<u>1.65</u>	FT.



## RIGHTING ENERGIES:

0° - 30°	<u>12.861</u>	FT.-DEG.
0° - 40°	<u>20.757</u>	FT.-DEG.
30° - 40°	<u>7.896</u>	FT.-DEG.
MAX GZ:	<u>0.886</u>	FT.-DEG.
ANGLE @ MAX GZ:	<u>48.7</u>	FT.-DEG.

C-116 79'-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02

HALF TRIP AT FISHING GROUNDS

ITEM	TONS	VCG	VERT	FREE	LCG	FWD	LCG	FWD	LCG	AFT
L.S. - INC 03/16	100 PCT	185.69	10.55	1958.77	*	*	*	*	1.48	274.82
F.W. TANK FWD PORT	70 PCT	4.13	9.97	41.21	7.46	38.39	158.71	*	*	*
E.R. FUEL OIL TK P	60 PCT	13.39	5.49	73.49	4.21	7.29	97.61	*	*	*
E.R. FUEL OIL TK S	60 PCT	13.39	5.49	73.49	4.21	7.29	97.61	*	*	*
HYDRAULIC OIL-S	80 PCT	.46	7.50	3.49	.03	*	*	3.51	1.63	*
CONSUMABLE STORES	60 PCT	.30	14.93	4.48	*	17.25	5.18	*	*	*
SHIP SPARES	100 PCT	1.25	8.50	10.63	*	22.50	28.13	*	*	*
ICE IN HOLD	70 PCT	9.38	6.99	65.49	*	*	*	11.25	105.49	*
CATCH IN HOLD	50 PCT	17.86	7.37	131.57	*	*	*	12.92	230.75	*
CATCH ON DECK	100 PCT	2.00	14.50	29.00	*	*	*	17.50	35.00	*
PARAVANES UP	100 PCT	-1.99	37.50	-74.47	*	1.00	-1.99	*	*	*
PARAVANES DOWN	100 PCT	1.99	23.50	46.67	*	1.00	1.99	*	*	*
**WINTER ICE**	NONE	*	*	*	*	*	*	*	*	*

TOTAL - 247.85 \* 9.54 \* 2363.82 \* 15.91 \* 1.05 \* 260.50 \*

DISPLACEMENT	247.85 TONS
KMT	= 11.25 FEET
KG	= 9.54 FEET
GMT UNCORR.	= 1.72 FEET
FREE SURFACE	= .06 FEET
GMT CORRECTED	= 1.65 FEET
RIGHTING ARM CURVE	
HEEL	GZ CORR
.0330	.146 FEET
.0325	.320 FEET
.0328	.486 FEET
.0342	.622 FEET
.0374	.708 FEET
.0424	.770 FEET
.0493	.828 FEET
.0569	.875 FEET
.0720	.933 FEET
.0855	.820 FEET
.0971	.611 FEET
.1109	.428 FEET
.1206	.205 FEET

LCB = 1.17 FEET AFT  
 LCG = 1.05 FEET AFT  
 KML = 77.64 FEET ABL  
 KB = 5.78 FEET ABL  
 GML = 68.04 FEET ABL  
 MTI = 17.57 FT. TONS  
 TONS/IN. = 3.47 LONG TONS  
 TRIM = 31.55 INCHES AFT  
 TRIM = 2.629 FEET AFT  
 LCF = 3.084 FEET AFT  
 MEAN DRAFT = 9.090 FEET ABL  
 LCF DRAFT = 9.192 FEET ABL  
 F.P. DRAFT = 7.776 FEET ABL  
 A.P. DRAFT = 10.405 FEET ABL

RIGHTING ENERGIES  
 0 - 30 DEG. = 12.861 FT-DEG.  
 0 - 40 DEG. = 20.757 FT-DEG.  
 30 - 40 DEG. = 7.896 FT-DEG.

\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

HALF TRIP AT FISHING GROUNDS

DISPLACEMENT = 247.85 LONG TONS  
MOLDED DRAFT = 9.09 FEET AT MIDSHIPS  
KG = 9.54 FT. ABL  
LCG = 1.05 FT. AFT MIDSHIPS  
GMT CORR. = 1.65 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 63.20 DEGREES  
AREA 0 DEG. TO 30 DEG. = 12.86 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 20.76 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 7.89 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .886 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 48.7 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 28.26 FT.-DEG.  
RANGE OF STABILITY EXCEEDS 90 DEG. (60 REQ'D)

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1098.01 SQ. FT.  
WINDAGE ARM = 11.70 FT.  
GUST WIND HEEL ARM = .28 FT.  
1ST GUST WIND HEEL ARM INTERCEPT = 9.2 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 83.9 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 16.70 FT.-DEG. 9.2 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.43 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.66 FT.-DEG. 9.2 DEG. TO -8.2 DEG.  
AREA ABOVE - AREA BELOW = 12.04 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*

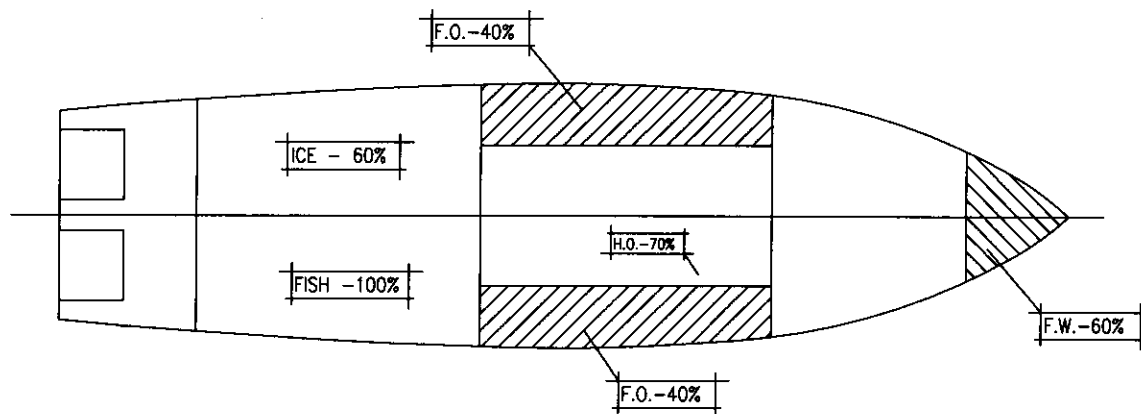
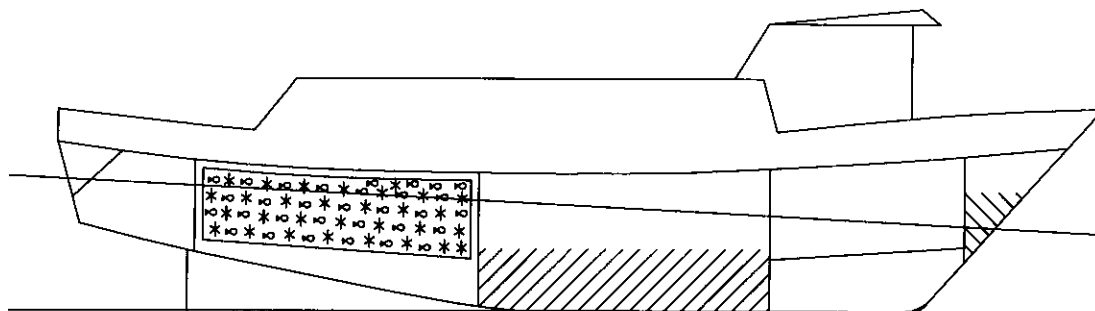
WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET  
LOWER INTERCEPT ANGLE = 1.4 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 18.75 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: LEAVING FISHING GROUNDS - 100% CATCH

## LEGEND

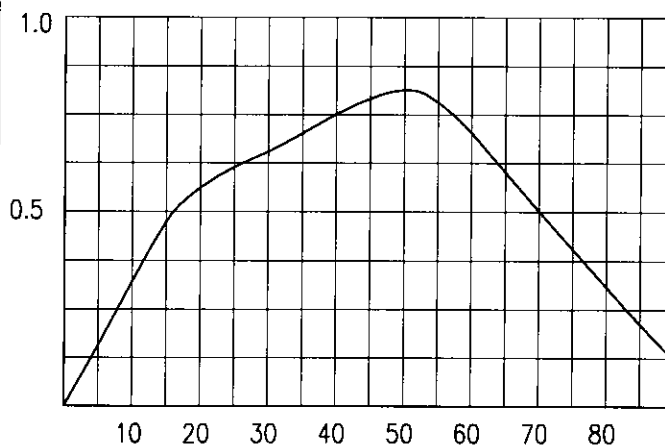
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	<u>254.70</u>	LONG TONS
VCG:	<u>9.46</u>	FT.
LCG (+AFT):	<u>2.23</u>	FT.
TRIM (FT)	<u>3.875 AFT</u>	FT.
TRIM (IN):	<u>46.51 AFT</u>	IN.
MOLDED DRAFT FWD:	<u>7.269</u>	FT.
MOLDED DRAFT MIDSHIP:	<u>9.207</u>	FT.
MOLDED DRAFT AFT:	<u>11.145</u>	FT.
KEEL DRAFT FWD:	<u>7.519</u>	FT.
KEEL DRAFT AFT:	<u>11.395</u>	FT.
FREEBOARD MIDSHIPS:	<u>2.543</u>	FT.

GM:	<u>1.73</u>	FT.
FREE SURFACE:	<u>0.05</u>	FT.
GM CORRECTED:	<u>1.68</u>	FT.



## RIGHTING ENERGIES:

0° - 30°	<u>12.351</u>	FT.-DEG.
0° - 40°	<u>19.377</u>	FT.-DEG.
30° - 40°	<u>7.026</u>	FT.-DEG.
MAX GZ:	<u>0.815</u>	FT.-DEG.
ANGLE @ MAX GZ:	<u>49.2</u>	FT.-DEG.

C-116 79'-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02  
 LEAVING FISHING GROUNDS - 100% CATCH

ITEM	TONS	VCG	VERT	FREE	LCG	FWD.	LCG	AFT
L.S. - INC 03/16	185.69	10.55	1958.77				1.48	274.82
100 PCT								
60 PCT	3.54	9.61	34.05	6.06	38.27	135.60		
F.W. TANK FWD PORT								
40 PCT	8.93	4.47	39.87	3.25	7.10	63.38		
E.R. FUEL OIL TK P								
40 PCT	8.93	4.47	39.87	3.25	7.10	63.38		
E.R. FUEL OIL TK S								
70 PCT	.41	7.15	2.91	.03			3.51	1.43
HYDRAULIC OIL-S								
40 PCT	.20	14.93	2.99		17.25	3.45		
CONSUMABLE STORES								
100 PCT	1.25	8.50	10.63		22.50	28.13		
SHIP SPARES								
60 PCT	8.04	6.99	56.13					
ICE IN HOLD								
100 PCT	35.71	7.37	263.14				11.25	90.42
CATCH IN HOLD								
100 PCT	2.00	14.50	29.00				12.92	461.50
CATCH ON DECK								
100 PCT	-1.99	37.50	-74.47		1.00	-1.99	17.50	35.00
PARAVANES UP								
100 PCT	1.99	23.50	46.67		1.00	1.99		
PARAVANES DOWN								
100 PCT								
**WINTER ICE**								
NONE								

TOTAL = 254.70 \* 9.46 \* 2409.56 \* 12.59 \* 2.23 \* 569.24

DISPLACEMENT = 254.70 TONS  
 KMT = 11.19 FEET  
 KG = 9.46 FEET  
 GMT UNCORR. = 1.73 FEET  
 FREE SURFACE = .05 FEET  
 GMT CORRECTED = 1.68 FEET

RIGHTING ARM CURVE  
 HEEL GZ GZ CORR  
 .0481 5.0 DEGREES = .163 FEET .158 FT.CORR.  
 .0484 10.0 DEGREES = .331 FEET .322 FT.CORR.  
 .0491 15.0 DEGREES = .487 FEET .474 FT.CORR.  
 .0520 20.0 DEGREES = .579 FEET .562 FT.CORR.  
 .0576 25.0 DEGREES = .636 FEET .615 FT.CORR.  
 .0651 30.0 DEGREES = .678 FEET .654 FT.CORR.  
 .0731 35.0 DEGREES = .731 FEET .703 FT.CORR.  
 .0823 40.0 DEGREES = .783 FEET .751 FT.CORR.  
 .1016 50.0 DEGREES = .851 FEET .814 FT.CORR.  
 .1183 60.0 DEGREES = .746 FEET .703 FT.CORR.  
 .1324 70.0 DEGREES = .547 FEET .501 FT.CORR.  
 .1459 80.0 DEGREES = .355 FEET .307 FT.CORR.  
 .1598 90.0 DEGREES = .171 FEET .121 FT.CORR.

RIGHTING ENERGIES  
 0 - 30 DEG. = 12.351 FT-DEG.  
 0 - 40 DEG. = 19.377 FT-DEG.  
 30 - 40 DEG. = 7.026 FT-DEG.

\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

LEAVING FISHING GROUNDS - 100% CATCH

DISPLACEMENT = 254.70 LONG TONS  
MOLDED DRAFT = 9.21 FEET AT MIDSHIPS  
KG = 9.46 FT. ABL  
LCG = 2.23 FT. AFT MIDSHIPS  
GMT CORR. = 1.68 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 59.47 DEGREES  
AREA 0 DEG. TO 30 DEG. = 12.35 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 19.38 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 7.03 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .815 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 49.2 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 26.58 FT.-DEG.  
RANGE OF STABILITY EXCEEDS 90 DEG. (60 REQ'D)

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1088.55 SQ. FT.  
WINDAGE ARM = 11.70 FT.  
GUST WIND HEEL ARM = .27 FT.  
1ST GUST WIND HEEL ARM INTERCEPT = 8.4 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 81.9 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 14.90 FT.-DEG. 8.4 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.60 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.98 FT.-DEG. 8.4 DEG. TO -9.2 DEG.  
AREA ABOVE - AREA BELOW = 9.92 FT.-DEG. POSITIVE REQ'D - PASS



\* LIFTING CRITERIA STABILITY ANALYSIS \*

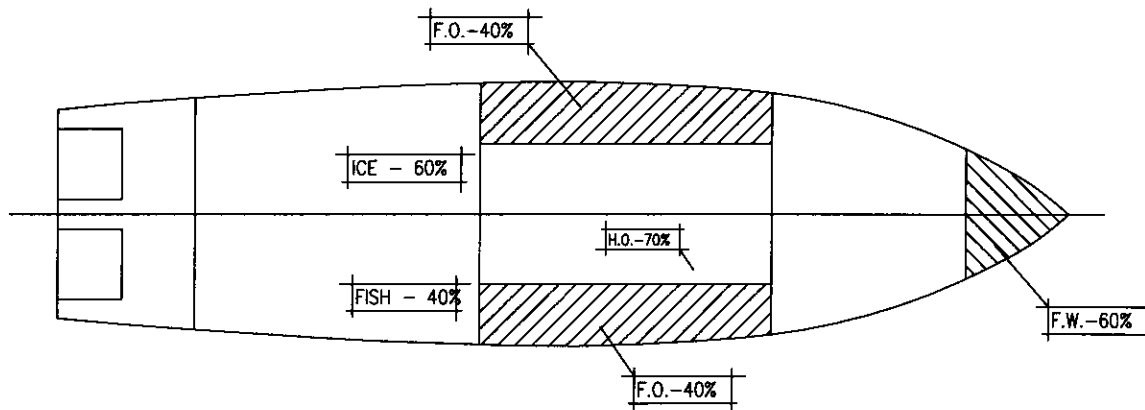
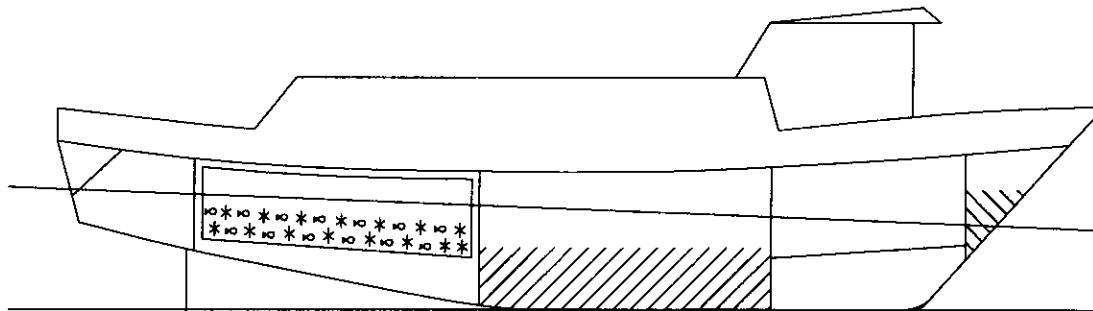
WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET  
LOWER INTERCEPT ANGLE = 1.1 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 17.38 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: LEAVING FISHING GROUNDS - 40% CATCH

## LEGEND

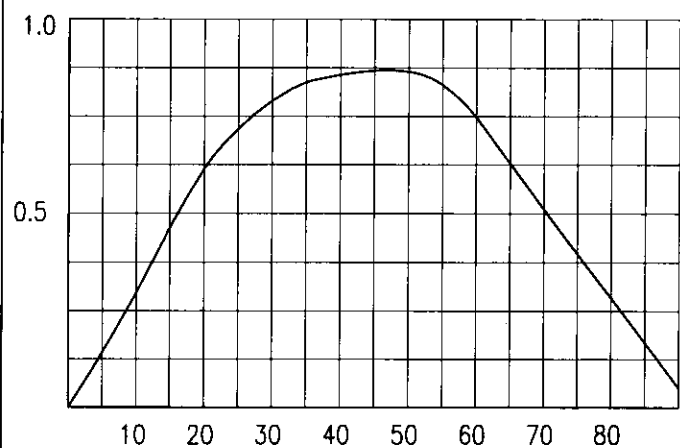
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	<u>233.28</u>	LONG TONS
VCG:	<u>9.65</u>	FT.
LCG (+AFT):	<u>1.25</u>	FT.
TRIM (FT)	<u>2.948 AFT</u>	FT.
TRIM (IN):	<u>35.38 AFT</u>	IN.
MOLDED DRAFT FWD:	<u>7.248</u>	FT.
MOLDED DRAFT MIDSHIP:	<u>8.722</u>	FT.
MOLDED DRAFT AFT:	<u>10.196</u>	FT.
KEEL DRAFT FWD:	<u>7.498</u>	FT.
KEEL DRAFT AFT:	<u>10.446</u>	FT.
FREEBOARD MIDSHIPS:	<u>3.028</u>	FT.

GM:	<u>1.63</u>	FT.
FREE SURFACE:	<u>.05</u>	FT.
GM CORRECTED:	<u>1.58</u>	FT.



## RIGHTING ENERGIES:

0° - 30°	<u>13.193</u>	FT.-DEG.
0° - 40°	<u>21.524</u>	FT.-DEG.
30° - 40°	<u>8.331</u>	FT.-DEG.
MAX GZ:	<u>0.873</u>	FT.-DEG.
ANGLE @ MAX GZ:	<u>46.8</u>	FT.-DEG.



C-116 79/-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02  
 LEAVING FISHING GROUNDS - 40% CATCH

ITEM	TONS	VCG	VERT	FREE	LCG	FWD.	LCG	AFT
L.S. - INC 03/16	185.69	10.55	1958.77					274.82
60 PCT	3.54	9.61	34.05	6.06	38.27	135.60		
F.W. TANK FWD PORT	8.93	4.47	39.87	3.25	7.10	63.38		
E.R. FUEL OIL TK P	8.93	4.47	39.87	3.25	7.10	63.38		
E.R. FUEL OIL TK S	.41	7.15	2.91	.03				1.43
70 PCT	.20	14.93	2.99		17.25	3.45		
CONSUMABLE STORES	1.25	8.50	10.63		22.50	28.13		
SHIP SPARES	8.04	6.99	56.13					
ICE IN HOLD	14.29	7.37	105.26				11.25	90.42
CATCH IN HOLD	2.00	14.50	29.00				12.92	184.60
CATCH ON DECK	-1.99	37.50	-74.47		1.00	-1.99		35.00
PARAVANES UP	1.99	23.50	46.67		1.00	1.99		
PARAVANES DOWN	NONE							
**WINTER ICE**								

TOTAL = 233.28 \* 9.65 \* 2251.68 \* 12.59 \* 1.25 \* 292.34

DISPLACEMENT	TONS	LCB	LCG	KML	KB	GML	MTI	TONS/IN.	TRIM	LCF	MEAN DRAFT	LCF DRAFT	F.P. DRAFT	A.P. DRAFT
DISPLACEMENT	233.28													
KMT	11.28	1.40	1.25	80.44	5.58	70.73	17.19	3.43	35.38	2.948	8.722	8.846	7.248	10.196
KG	9.65													
GMT UNCORR.	1.63													
FREE SURFACE	.05													
GMT CORRECTED	1.58													
RIGHTING ARM CURVE														
HEEL	GZ	GZ CORR												
5.0 DEGREES	.148	.143												
10.0 DEGREES	.307	.297												
15.0 DEGREES	.478	.464												
20.0 DEGREES	.634	.615												
25.0 DEGREES	.741	.718												
30.0 DEGREES	.817	.790												
35.0 DEGREES	.869	.838												
40.0 DEGREES	.892	.857												
50.0 DEGREES	.906	.865												
60.0 DEGREES	.793	.747												
70.0 DEGREES	.560	.510												
80.0 DEGREES	.337	.284												
90.0 DEGREES	.103	.049												

RIGHTING ENERGIES

0 - 30 DEG. = 13.193 FT-DEG.  
 0 - 40 DEG. = 21.524 FT-DEG.  
 30 - 40 DEG. = 8.331 FT-DEG.

\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

LEAVING FISHING GROUNDS - 40% CATCH

DISPLACEMENT = 233.28 LONG TONS  
MOLDED DRAFT = 8.72 FEET AT MIDSHIPS  
KG = 9.65 FT. ABL  
LCG = 1.25 FT. AFT MIDSHIPS  
GMT CORR. = 1.58 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 67.50 DEGREES  
AREA 0 DEG. TO 30 DEG. = 13.19 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 21.53 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 8.33 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .873 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 46.8 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 27.38 FT.-DEG.  
RANGE OF STABILITY EXCEEDS 90 DEG. (60 REQ'D)

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1127.66 SQ. FT.  
WINDAGE ARM = 11.71 FT.  
GUST WIND HEEL ARM = .31 FT.  
1ST GUST WIND HEEL ARM INTERCEPT = 10.4 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 78.9 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 16.34 FT.-DEG. 10.4 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.00 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.32 FT.-DEG. 10.4 DEG. TO -6.6 DEG.  
AREA ABOVE - AREA BELOW = 12.02 FT.-DEG. POSITIVE REQ'D - PASS







\* LIFTING CRITERIA STABILITY ANALYSIS \*

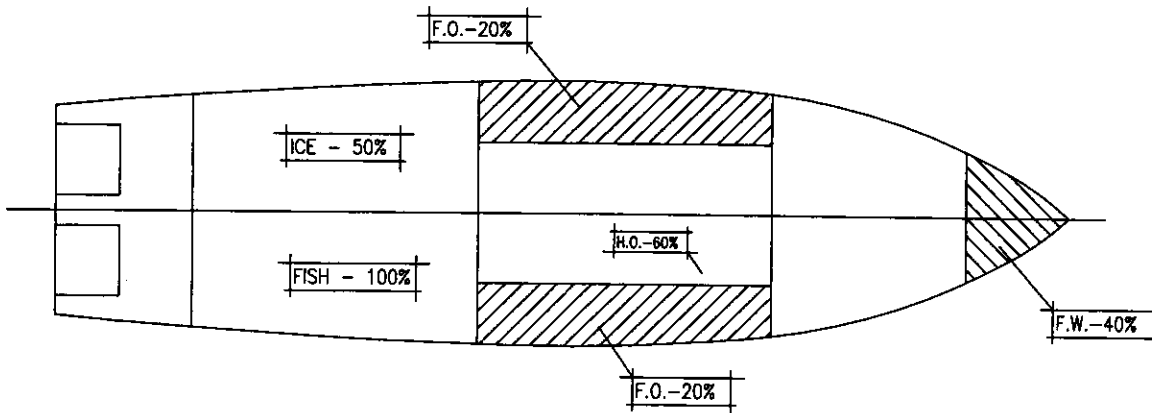
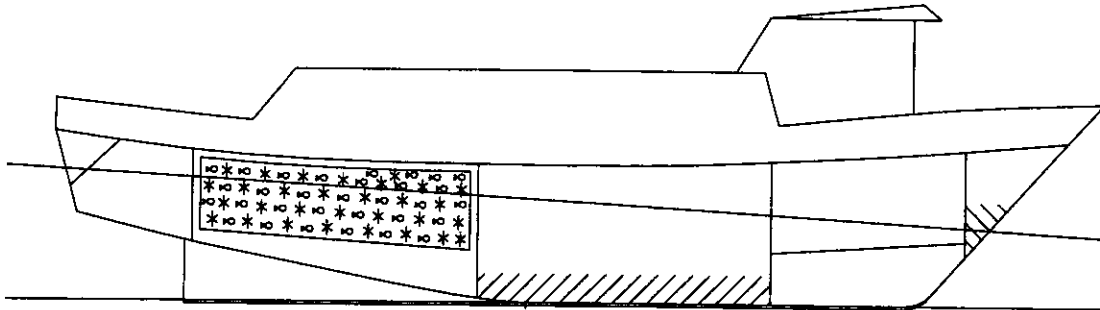
WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET  
LOWER INTERCEPT ANGLE = 1.3 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 19.38 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: ARRIVAL IN PORT - 100% CATCH

## LEGEND

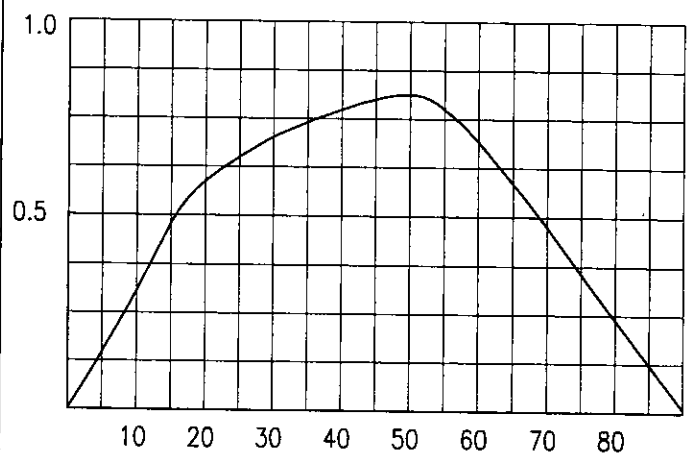
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	241.08	LONG TONS
VCG:	9.57	FT.
LCG (+AFT):	2.63	FT.
TRIM (FT)	4.388	AFT FT.
TRIM (IN):	52.66	AFT IN.
MOLDED DRAFT FWD:	6.663	FT.
MOLDED DRAFT MIDSHIP:	8.857	FT.
MOLDED DRAFT AFT:	11.051	FT.
KEEL DRAFT FWD:	6.913	FT.
KEEL DRAFT AFT:	11.301	FT.
FREEBOARD MIDSHIPS:	2.893	FT.

GM:	1.63	FT.
FREE SURFACE:	.03	FT.
GM CORRECTED:	1.59	FT.



## RIGHTING ENERGIES:

0° - 30°	12.667	FT.-DEG.
0° - 40°	20.061	FT.-DEG.
30° - 40°	7.395	FT.-DEG.
MAX GZ:	0.815	FT.-DEG.
ANGLE @ MAX GZ:	48.4	FT.-DEG.

\*\*\*\*\*  
 \* C-116 79'-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02  
 \* ARRIVAL IN PORT - 100% CATCH  
 \*\*\*\*\*

ITEM	TONS	VCG	VERT	FREE	LCG	FWD	LCG	FWD	LCG	AFT	MOM.
L.S. - INC 03/16	185.69	10.55	1958.77						1.48		274.82
F.W. TANK FWD PORT	2.36	8.75	20.66	3.47	38.04						89.85
E.R. FUEL OIL TK P	4.46	3.36	14.98	2.37	6.71						29.95
E.R. FUEL OIL TK S	4.46	3.36	14.98	2.37	6.71						29.95
HYDRAULIC OIL-S	.35	6.79	2.37	.03							1.22
CONSUMABLE STORES	.10	14.93	1.49		17.25					3.51	
SHIP SPARES	1.25	8.50	10.63		22.50						11.25
ICE IN HOLD	6.70	6.99	46.78								12.92
CATCH IN HOLD	35.71	7.37	263.14								75.35
CATCH ON DECK	NONE										461.50
PARAVANES UP	1.99	37.50	-74.47								
PARAVANES DOWN	1.99	23.50	46.67								
**WINTER ICE**	NONE										
TOTAL	241.08	9.57	2306.00	8.24						2.63	633.29

DISPLACEMENT	241.08 TONS
KMT	= 11.19 FEET
KG	= 9.57 FEET
GMT UNCORR.	= 1.63 FEET
FREE SURFACE	= .03 FEET
GMT CORRECTED	= 1.59 FEET
RIGHTING ARM CURVE	
HEEL	GZ CORR
.0552	.150 FEET
.0547	.307 FT.CORR.
.0551	.480 FT.CORR.
.0569	.588 FT.CORR.
.0620	.665 FT.CORR.
.0687	.719 FT.CORR.
.0761	.760 FT.CORR.
.0848	.795 FT.CORR.
.1035	.838 FT.CORR.
.1197	.722 FT.CORR.
.1345	.506 FT.CORR.
.1460	.271 FT.CORR.
.1592	.042 FT.CORR.
RIGHTING ENERGIES	
0 - 30 DEG.	= 12.667 FT-DEG.
0 - 40 DEG.	= 20.061 FT-DEG.
30 - 40 DEG.	= 7.395 FT-DEG.

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\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

ARRIVAL IN PORT - 100% CATCH

DISPLACEMENT = 241.08 LONG TONS  
MOLDED DRAFT = 8.86 FEET AT MIDSHIPS  
KG = 9.56 FT. ABL  
LCG = 2.63 FT. AFT MIDSHIPS  
GMT CORR. = 1.59 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 63.14 DEGREES  
AREA 0 DEG. TO 30 DEG. = 12.67 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 20.06 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 7.39 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .815 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 48.4 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 26.66 FT.-DEG.  
RANGE OF STABILITY EXCEEDS 90 DEG. (60 REQ'D)

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1116.80 SQ. FT.  
WINDAGE ARM = 11.70 FT.

GUST WIND HEEL ARM = .30 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 9.7 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 77.5 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 14.75 FT.-DEG. 9.7 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.18 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.52 FT.-DEG. 9.7 DEG. TO -7.5 DEG.  
AREA ABOVE - AREA BELOW = 10.23 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*







WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET

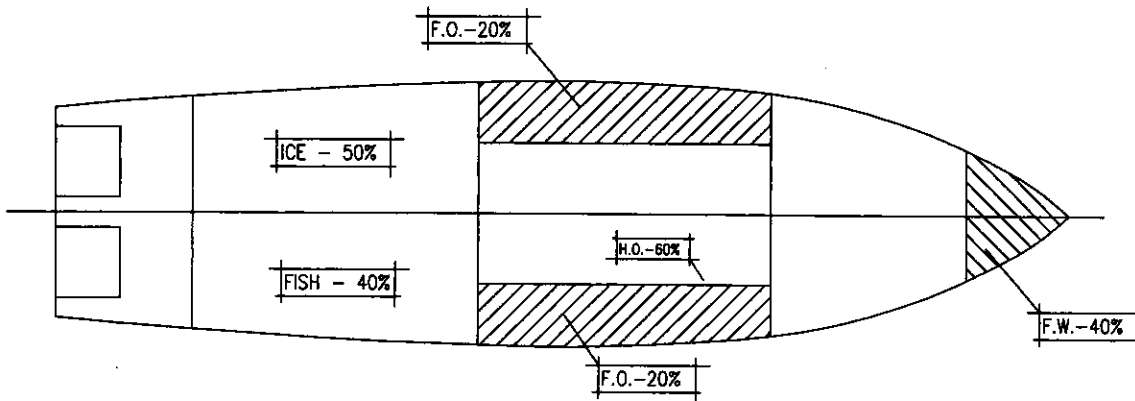
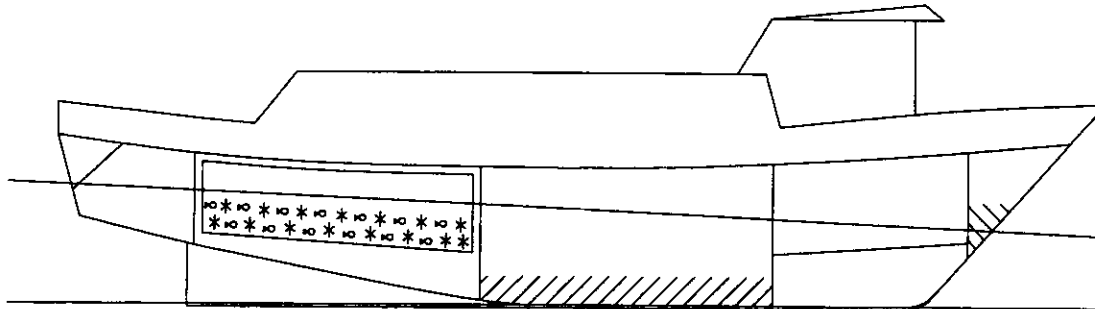
LOWER INTERCEPT ANGLE = 1.3 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 17.95 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: ARRIVAL IN PORT - 40% CATCH

## LEGEND

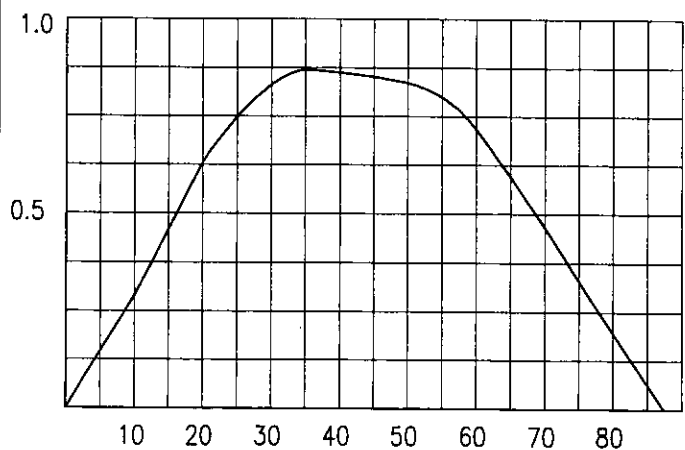
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	<u>219.66</u>	LONG TONS
VCG:	<u>9.78</u>	FT.
LCG (+AFT):	<u>1.62</u>	FT.
TRIM (FT)	<u>3.469 AFT</u>	FT.
TRIM (IN):	<u>41.63 AFT</u>	IN.
MOLDED DRAFT FWD:	<u>6.635</u>	FT.
MOLDED DRAFT MIDSHIP:	<u>8.370</u>	FT.
MOLDED DRAFT AFT:	<u>10.105</u>	FT.
KEEL DRAFT FWD:	<u>6.885</u>	FT.
KEEL DRAFT AFT:	<u>10.355</u>	FT.
FREEBOARD MIDSHIPS:	<u>3.380</u>	FT.

GM:	<u>1.54</u>	FT.
FREE SURFACE:	<u>.04</u>	FT.
GM CORRECTED:	<u>1.51</u>	FT.



## RIGHTING ENERGIES:

0° - 30°	<u>13.473</u>	FT.-DEG.
0° - 40°	<u>22.088</u>	FT.-DEG.
30° - 40°	<u>8.615</u>	FT.-DEG.
MAX GZ:	<u>0.871</u>	FT.-DEG.
ANGLE @ MAX GZ:	<u>36.2</u>	FT.-DEG.

\*\*\*\*\*  
 \* C-116 79'-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02  
 \* ARRIVAL IN PORT - 40% CATCH  
 \*\*\*\*\*

ITEM	TONS	VCG	VERT	FREE	LCG	FWD	LCG	FWD	LCG	AFT	MOM.	AFT
L.S. - INC 03/16	185.69	10.55	1958.77							1.48		274.82
F.W. TANK FWD PORT	2.36	8.75	20.66	3.47	38.04			89.85				
E.R. FUEL OIL TK P	4.46	3.36	14.98	2.37	6.71			29.95				
E.R. FUEL OIL TK S	4.46	3.36	14.98	2.37	6.71			29.95				
HYDRAULIC OIL-S	.35	6.79	2.37	.03						3.51		1.22
CONSUMABLE STORES	.10	14.93	1.49		17.25			1.73				
SHIP SPARES	1.25	8.50	10.63		22.50			28.13				
ICE IN HOLD	6.70	6.99	46.78							11.25		75.35
CATCH IN HOLD	14.29	7.37	105.26							12.92		184.60
CATCH ON DECK	NONE											
PARAVANES UP	-1.99	37.50	-74.47		1.00			-1.99				
PARAVANES DOWN	1.99	23.50	46.67		1.00			1.99				
**WINTER ICE**	NONE											
TOTAL -	219.66	9.78	2148.12	8.24						1.62		356.39

TRIM/LBP	HEEL	GZ	GZ CORR	LCB	LCG	KML	KB	GML	MTI	TONS/IN.	TRIM	TRIM	LCF	LCF	F.P.	A.P.	
.0431	5.0 DEGREES	.149 FEET	.146 FT. CORR.	= 1.81 FEET AFT	= 1.62 FEET AFT	= 83.23 FEET ABL	= 5.38 FEET ABL	= 73.42 FEET ABL	= 16.80 FT. TONS	= 3.40 LONG TONS	= 41.63 INCHES AFT	= 3.469 FEET AFT	= 3.635 FEET AFT	8.370 FEET ABL	8.528 FEET ABL	6.635 FEET ABL	10.105 FEET ABL
.0433	10.0 DEGREES	.297 FEET	.291 FT. CORR.														
.0430	15.0 DEGREES	.468 FEET	.459 FT. CORR.														
.0430	20.0 DEGREES	.643 FEET	.630 FT. CORR.														
.0444	25.0 DEGREES	.764 FEET	.748 FT. CORR.														
.0475	30.0 DEGREES	.849 FEET	.831 FT. CORR.														
.0519	35.0 DEGREES	.890 FEET	.869 FT. CORR.														
.0579	40.0 DEGREES	.887 FEET	.863 FT. CORR.														
.0723	50.0 DEGREES	.865 FEET	.836 FT. CORR.														
.0837	60.0 DEGREES	.750 FEET	.717 FT. CORR.														
.0931	70.0 DEGREES	.500 FEET	.465 FT. CORR.														
.1023	80.0 DEGREES	.231 FEET	.195 FT. CORR.														
.1146	90.0 DEGREES	-.033 FEET	-.070 FT. CORR.														

RIGHTING ENERGIES

0 - 30 DEG. = 13.473 FT-DEG.  
 0 - 40 DEG. = 22.088 FT-DEG.  
 30 - 40 DEG. = 8.615 FT-DEG.

\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

ARRIVAL IN PORT - 40% CATCH

DISPLACEMENT = 219.66 LONG TONS  
MOLDED DRAFT = 8.37 FEET AT MIDSHIPS  
KG = 9.78 FT. ABL  
LCG = 1.62 FT. AFT MIDSHIPS  
GMT CORR. = 1.51 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 71.53 DEGREES  
AREA 0 DEG. TO 30 DEG. = 13.48 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 22.10 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 8.62 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .871 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 36.2 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 18.82 FT.-DEG.  
RANGE OF STABILITY = 87.3 DEGREES 60.0 REQ'D - PASS

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1155.87 SQ. FT.  
WINDAGE ARM = 11.72 FT.

GUST WIND HEEL ARM = .34 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 11.5 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 74.7 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 15.61 FT.-DEG. 11.5 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 16.68 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.13 FT.-DEG. 11.5 DEG. TO -5.2 DEG.  
AREA ABOVE - AREA BELOW = 11.49 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*

WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET





LOWER INTERCEPT ANGLE = 1.4 DEGREES  
UPPER LIMIT ANGLE = 36.2 DEGREES  
AREA ABOVE HEELING CURVE = 16.80 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

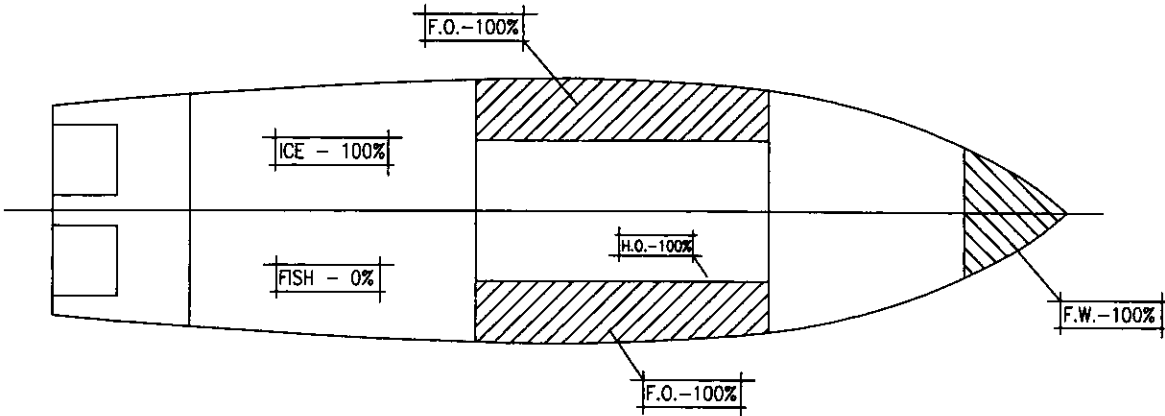
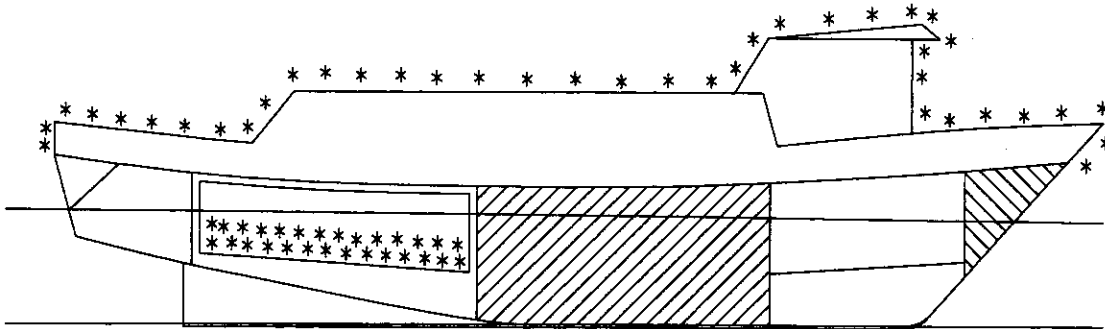


# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: READY FOR SEA \*\*WINTER ICE\*\*

## LEGEND

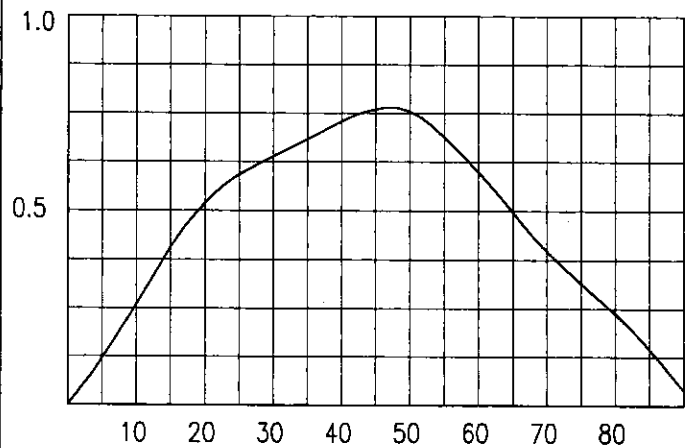
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	<u>255.53</u>	LONG TONS
VCG:	<u>9.79</u>	FT.
LCG (+AFT):	<u>-0.64</u>	FT.
TRIM (FT)	<u>0.726</u>	AFT FT.
TRIM (IN):	<u>8.71</u>	AFT IN.
MOLDED DRAFT FWD:	<u>8.969</u>	FT.
MOLDED DRAFT MIDSHIP:	<u>9.331</u>	FT.
MOLDED DRAFT AFT:	<u>9.694</u>	FT.
KEEL DRAFT FWD:	<u>9.219</u>	FT.
KEEL DRAFT AFT:	<u>9.944</u>	FT.
FREEBOARD MIDSHIPS:	<u>2.419</u>	FT.

GM:	<u>1.50</u>	FT.
FREE SURFACE:	<u>.06</u>	FT.
GM CORRECTED:	<u>1.44</u>	FT.



## RIGHTING ENERGIES:

0° - 30°	<u>11.124</u>	FT.-DEG.
0° - 40°	<u>17.960</u>	FT.-DEG.
30° - 40°	<u>6.836</u>	FT.-DEG.
MAX GZ:	<u>0.763</u>	FT.-DEG.
ANGLE @ MAX GZ:	<u>47.2</u>	FT.-DEG.

\*\*\*\*\*  
 \* C-116 79'-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02  
 \* READY FOR SEA \*\*WINTER ICE\*\*  
 \*\*\*\*\*

ITEM	TONS	VCG	VERT	FREE	LCG	FWD	MOM	LCG	AFT
L.S. - INC 03/16	185.69	10.55	1958.77					1.48	274.82
F.W. TANK FWD PORT	5.79	10.81	62.58	.78	38.75	224.26			
E.R. FUEL OIL TK P	21.87	7.26	158.70	7.52	7.50	164.00			
E.R. FUEL OIL TK S	21.87	7.26	158.70	7.52	7.50	164.00			
HYDRAULIC OIL-S	.57	8.14	4.63	.03				3.51	2.00
CONSUMABLE STORES	.50	14.93	7.46		17.25	8.63			
SHIP SPARES	1.25	8.50	10.63		22.50	28.13			
ICE IN HOLD	13.39	6.99	93.55					11.25	150.70
CATCH IN HOLD	NONE								
CATCH ON DECK	NONE								
PARAVANES UP	-1.99	37.50	-74.47		1.00	-1.99			
PARAVANES DOWN	1.99	23.50	46.67		1.00	1.99			
**WINTER ICE**	4.60	16.28	74.89		.55	2.53			
TOTAL -	255.53	9.79	2502.11	15.85	.64	163.94			

DISPLACEMENT	TONS	LCB	FWD
KMT	11.29 FEET	.61 FEET	
KG	9.79 FEET	.64 FEET	
GMT UNCORR.	1.50 FEET	78.26 FEET	ABL
FREE SURFACE	.06 FEET	5.89 FEET	ABL
GMT CORRECTED	1.44 FEET	68.40 FEET	ABL
RIGHTING ARM CURVE		MTI	18.21 FT. TONS
HEEL	GZ CORR	TONS/IN.	3.52 LONG TONS
5.0 DEGREES	.126 FEET	TRIM	8.71 INCHES AFT
10.0 DEGREES	.271 FEET	TRIM	.726 FEET AFT
15.0 DEGREES	.422 FEET	LCF	2.346 FEET AFT
20.0 DEGREES	.542 FEET	MEAN DRAFT	9.331 FEET ABL
25.0 DEGREES	.618 FEET	LCF DRAFT	9.353 FEET ABL
30.0 DEGREES	.670 FEET	F.P. DRAFT	8.969 FEET ABL
35.0 DEGREES	.719 FEET	A.P. DRAFT	9.694 FEET ABL
40.0 DEGREES	.769 FEET		
50.0 DEGREES	.802 FEET		
60.0 DEGREES	.652 FEET		
70.0 DEGREES	.454 FEET		
80.0 DEGREES	.299 FEET		
90.0 DEGREES	.100 FEET		

RIGHTING ENERGIES  
 0 - 30 DEG. = 11.124 FT-DEG.  
 0 - 40 DEG. = 17.960 FT-DEG.  
 30 - 40 DEG. = 6.836 FT-DEG.  
 \*\*\*\*\*

\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

READY FOR SEA \*\*WINTER ICE\*\*

DISPLACEMENT = 255.53 LONG TONS  
MOLDED DRAFT = 9.33 FEET AT MIDSHIPS  
KG = 9.79 FT. ABL  
LCG = .64 FT. FWD MIDSHIPS  
GMT CORR. = 1.44 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 63.21 DEGREES  
AREA 0 DEG. TO 30 DEG. = 11.12 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 17.96 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 6.83 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .763 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 47.2 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 23.36 FT.-DEG.  
RANGE OF STABILITY EXCEEDS 90 DEG. (60 REQ'D)

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1078.51 SQ. FT.  
WINDAGE ARM = 11.70 FT.

GUST WIND HEEL ARM = .27 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 10.2 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 78.2 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 13.57 FT.-DEG. 10.2 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.41 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 3.98 FT.-DEG. 10.2 DEG. TO -7.2 DEG.  
AREA ABOVE - AREA BELOW = 9.59 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*







WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET

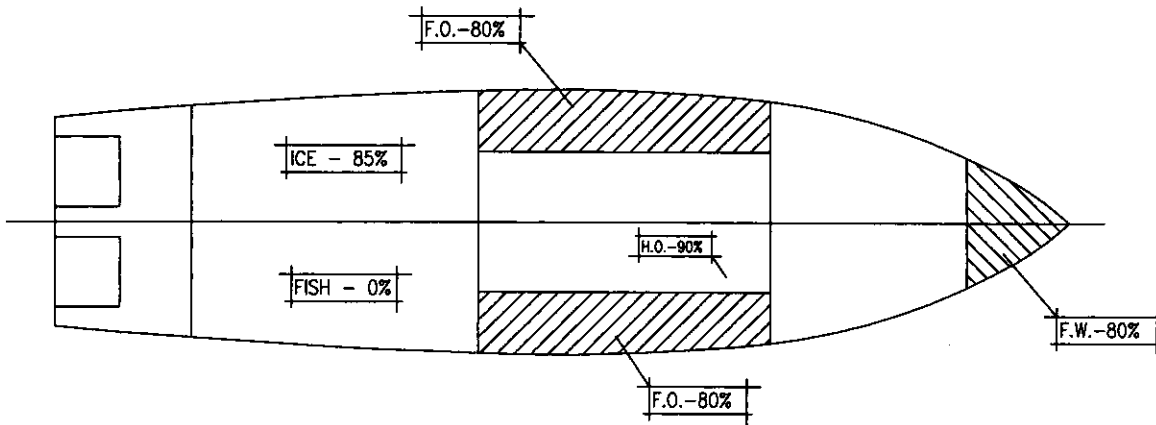
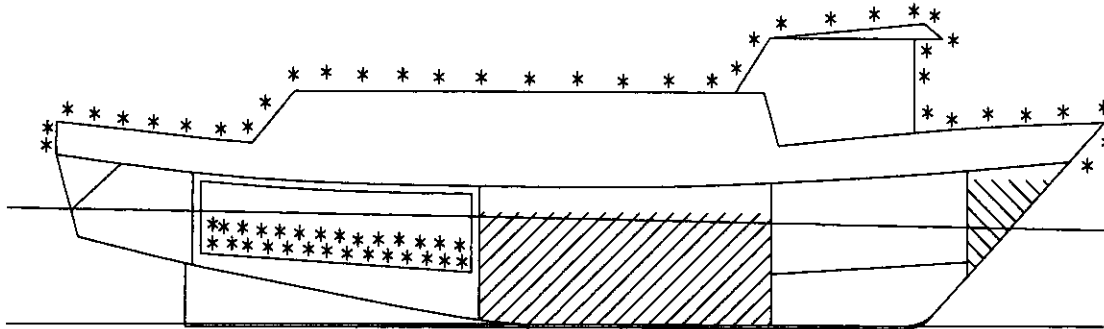
LOWER INTERCEPT ANGLE = 1.5 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 15.99 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: ARRIVAL AT FISHING GROUNDS \*\*WINTER ICE\*\*

## LEGEND

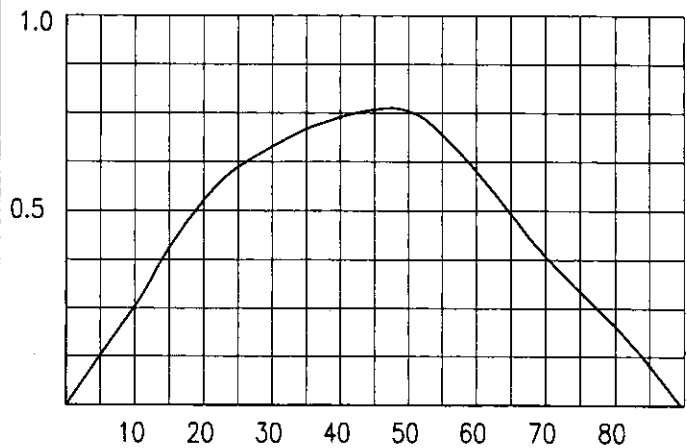
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	246.26	LONG TONS
VCG:	9.80	FT.
LCG (+AFT):	-0.18	FT.
TRIM (FT)	1.308	AFT FT.
TRIM (IN):	15.69	AFT IN.
MOLDED DRAFT FWD:	8.437	FT.
MOLDED DRAFT MIDSHIP:	9.091	FT.
MOLDED DRAFT AFT:	9.745	FT.
KEEL DRAFT FWD:	8.687	FT.
KEEL DRAFT AFT:	9.995	FT.
FREEBOARD MIDSHIPS:	2.659	FT.

GM:	1.50	FT.
FREE SURFACE:	0.08	FT.
GM CORRECTED:	1.42	FT.



## RIGHTING ENERGIES:

0° - 30°	11.356	FT.-DEG.
0° - 40°	18.424	FT.-DEG.
30° - 40°	7.068	FT.-DEG.
MAX GZ:	0.764	FT.-DEG.
ANGLE @ MAX GZ:	47.0	FT.-DEG.

\*\*\*\*\*  
 \* C-116 79'-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02  
 \* ARRIVAL AT FISHING GROUNDS \*\*WINTER ICE\*\*  
 \*\*\*\*\*

ITEM	TONS	VCG	VERT	FREE	LCG	FWD	LCG	AFT
L.S. - INC 03/16	185.69	10.55	1958.77				1.48	274.82
F.W. TANK FWD PORT	4.72	10.29	48.63	9.66	38.51	181.92		
E.R. FUEL OIL TK P	17.85	6.44	115.04	5.25	7.42	132.45		
E.R. FUEL OIL TK S	17.85	6.44	115.04	5.25	7.42	132.45		
HYDRAULIC OIL-S	.52	7.85	4.11	.03			3.51	1.84
CONSUMABLE STORES	.40	14.93	5.97		17.25	6.90		
SHIP SPARES	1.25	8.50	10.63		22.50	28.13		
ICE IN HOLD	11.38	6.99	79.52				11.25	128.09
CATCH IN HOLD	NONE							
CATCH ON DECK	2.00	14.50	29.00					35.00
PARAVANES UP	-1.99	37.50	-74.47		1.00	-1.99		
PARAVANES DOWN	1.99	23.50	46.67		1.00	1.99		
**WINTER ICE**	4.60	16.28	74.89		.55	2.53		
TOTAL -	246.26	9.80	2413.80	20.19	.18	44.53		

RIGHTING ARM CURVE	HEEL	GZ	GZ CORR	LCB	LCG	KML	KB	GML	MTI	TONS/IN.	TRIM	TRIM	LCF	MEAN DRAFT	LCF DRAFT	F.P. DRAFT	A.P. DRAFT	RIGHTING ENERGIES	
DISPLACEMENT		246.26 TONS																	
KMT		11.31 FEET																	
KG		9.80 FEET																	
GMT UNCORR.		1.50 FEET																	
FREE SURFACE		.08 FEET																	
GMT CORRECTED		1.42 FEET																	
RIGHTING ARM CURVE																			
HEEL																			
5.0 DEGREES		.135 FEET	.128 FT. CORR.																
10.0 DEGREES		.269 FEET	.255 FT. CORR.																
15.0 DEGREES		.427 FEET	.406 FT. CORR.																
20.0 DEGREES		.556 FEET	.528 FT. CORR.																
25.0 DEGREES		.646 FEET	.612 FT. CORR.																
30.0 DEGREES		.705 FEET	.664 FT. CORR.																
35.0 DEGREES		.756 FEET	.709 FT. CORR.																
40.0 DEGREES		.791 FEET	.739 FT. CORR.																
50.0 DEGREES		.816 FEET	.754 FT. CORR.																
60.0 DEGREES		.673 FEET	.602 FT. CORR.																
70.0 DEGREES		.460 FEET	.383 FT. CORR.																
80.0 DEGREES		.283 FEET	.203 FT. CORR.																
90.0 DEGREES		.071 FEET	-.011 FT. CORR.																

\*\*\*\*\*  
 \* 0 - 30 DEG. = 11.356 FT-DEG.  
 \* 0 - 40 DEG. = 18.424 FT-DEG.  
 \* 30 - 40 DEG. = 7.068 FT-DEG.  
 \*\*\*\*\*

\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

ARRIVAL AT FISHING GROUNDS \*\*WINTER ICE\*\*

DISPLACEMENT = 246.26 LONG TONS  
MOLDED DRAFT = 9.09 FEET AT MIDSHIPS  
KG = 9.80 FT. ABL  
LCG = .18 FT. FWD MIDSHIPS  
GMT CORR. = 1.42 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 65.39 DEGREES  
AREA 0 DEG. TO 30 DEG. = 11.36 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 18.43 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 7.07 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .764 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 47.0 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 23.66 FT.-DEG.  
RANGE OF STABILITY = 89.5 DEGREES 60.0 REQ'D - PASS

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1097.93 SQ. FT.  
WINDAGE ARM = 11.70 FT.

GUST WIND HEEL ARM = .28 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 11.0 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 75.5 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 13.35 FT.-DEG. 11.0 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.26 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 3.85 FT.-DEG. 11.0 DEG. TO -6.3 DEG.  
AREA ABOVE - AREA BELOW = 9.49 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*



WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET

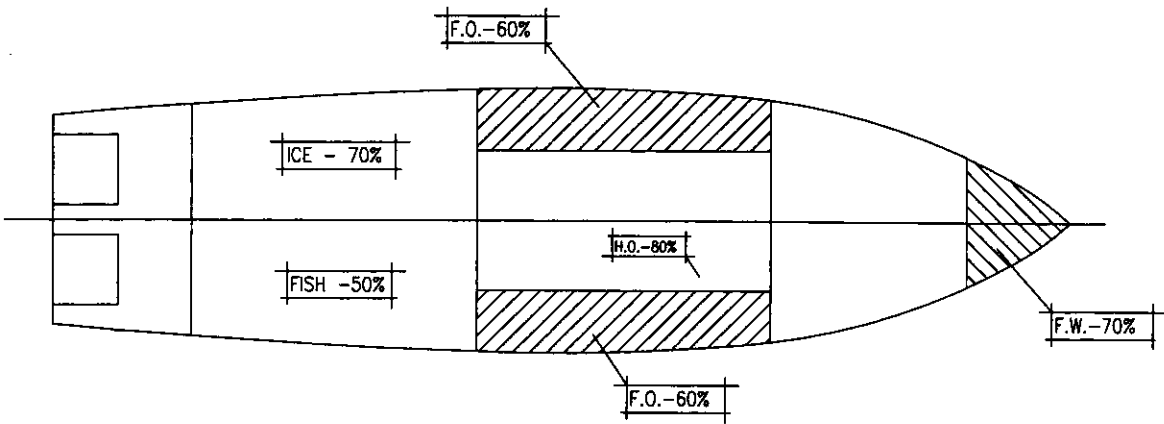
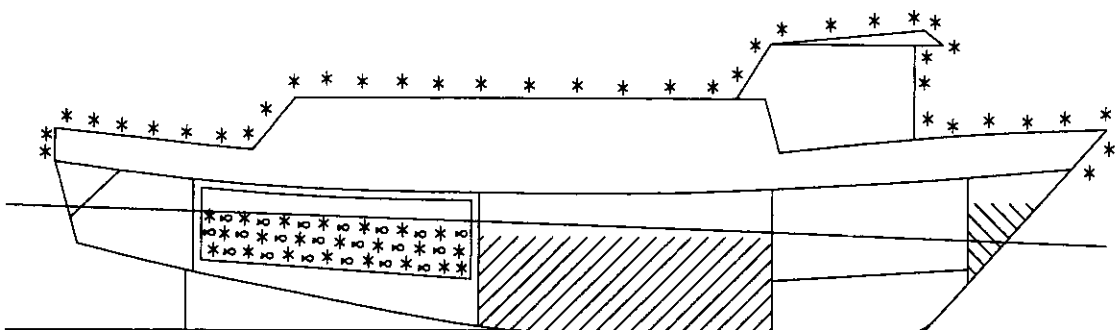
LOWER INTERCEPT ANGLE = 1.4 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 16.35 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: AT FISHING GROUNDS - 50% CATCH \*\*WINTER ICE\*\*

### LEGEND

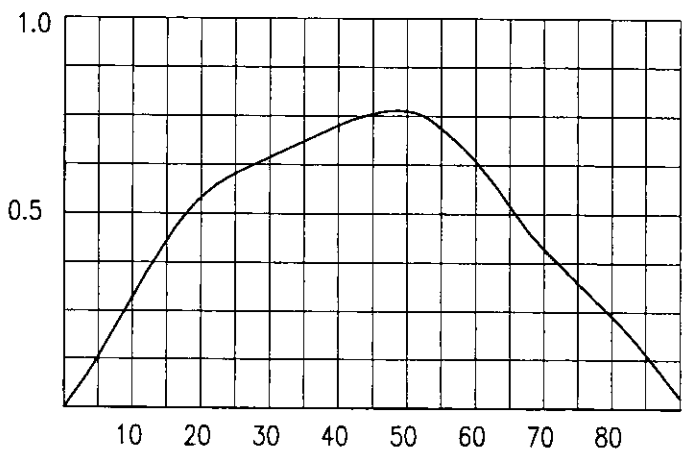
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



### VESSEL CHARACTERISTICS:

DISPLACEMENT:	<u>252.45</u>	LONG TONS
VCG:	<u>9.66</u>	FT.
LCG (+AFT):	<u>1.02</u>	FT.
TRIM (FT)	<u>2.549</u>	AFT FT.
TRIM (IN):	<u>30.59</u>	AFT IN.
MOLDED DRAFT FWD:	<u>7.927</u>	FT.
MOLDED DRAFT MIDSHIP:	<u>9.201</u>	FT.
MOLDED DRAFT AFT:	<u>10.476</u>	FT.
KEEL DRAFT FWD:	<u>8.177</u>	FT.
KEEL DRAFT AFT:	<u>10.726</u>	FT.
FREEBOARD MIDSHIPS:	<u>2.549</u>	FT.

GM:	<u>1.59</u>	FT.
FREE SURFACE:	<u>.06</u>	FT.
GM CORRECTED:	<u>1.52</u>	FT.



### RIGHTING ENERGIES:

0° - 30°	<u>11.588</u>	FT.-DEG.
0° - 40°	<u>18.437</u>	FT.-DEG.
30° - 40°	<u>6.849</u>	FT.-DEG.
MAX GZ:	<u>0.766</u>	FT.-DEG.
ANGLE @ MAX GZ:	<u>48.1</u>	FT.-DEG.

\*\*\*\*\*  
 \* C-116 79'-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02  
 \* HALF TRIP AT FISHING GROUNDS \*\*WINTER ICE\*\*  
 \*\*\*\*\*

ITEM	TONS	VCG	VERT	FREE	LCG	FWD	MOM.	LCG	AFT	MOM.
L.S. - INC 03/16	185.69	10.55	1958.77						1.48	274.82
F.W. TANK FWD PORT	4.13	9.97	41.21	7.46	38.39	158.71				
E.R. FUEL OIL TK P	13.39	5.49	73.49	4.21	7.29	97.61				
E.R. FUEL OIL TK S	13.39	5.49	73.49	4.21	7.29	97.61				
HYDRAULIC OIL-S	.46	7.50	3.49	.03				3.51		1.63
CONSUMABLE STORES	.30	14.93	4.48		17.25	5.18				
SHIP SPARES	1.25	8.50	10.63		22.50	28.13				
ICE IN HOLD	9.38	6.99	65.49					11.25		105.49
CATCH IN HOLD	17.86	7.37	131.57					12.92		230.75
CATCH ON DECK	2.00	14.50	29.00					17.50		35.00
PARAVANES UP	-1.99	37.50	-74.47		1.00	-1.99				
PARAVANES DOWN	1.99	23.50	46.67		1.00	1.99				
**WINTER ICE**	4.60	16.28	74.89		.55	2.53				
TOTAL -	252.45	9.66	2438.71	15.91				1.02		257.97

DISPLACEMENT	TONS	LCB	FEET
KMT	11.25	1.14	FEET AFT
KG	9.66	1.02	FEET AFT
GMT UNCORR.	1.59	76.73	FEET ABL
FREE SURFACE	.06	5.84	FEET ABL
GMT CORRECTED	1.52	67.01	FEET ABL
RIGHTING ARM CURVE		17.62	FT. TONS
HEEL		3.47	LONG TONS
5.0 DEGREES	.135	30.59	INCHES AFT
10.0 DEGREES	.297	2.549	FEET AFT
15.0 DEGREES	.447	2.997	FEET AFT
20.0 DEGREES	.563	9.201	FEET ABL
25.0 DEGREES	.629	9.297	FEET ABL
30.0 DEGREES	.676	7.927	FEET ABL
35.0 DEGREES	.721	10.476	FEET ABL
40.0 DEGREES	.766		
50.0 DEGREES	.811		
60.0 DEGREES	.689		
70.0 DEGREES	.469		
80.0 DEGREES	.300		
90.0 DEGREES	.089		

RIGHTING ENERGIES  
 0 - 30 DEG. = 11.588 FT-DEG.  
 0 - 40 DEG. = 18.437 FT-DEG.  
 30 - 40 DEG. = 6.849 FT-DEG.



\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

HALF TRIP AT FISHING GROUNDS \*\*WINTER ICE\*\*

DISPLACEMENT = 252.45 LONG TONS  
MOLDED DRAFT = 9.20 FEET AT MIDSHIPS  
KG = 9.66 FT. ABL  
LCG = 1.02 FT. AFT MIDSHIPS  
GMT CORR. = 1.52 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 61.75 DEGREES  
AREA 0 DEG. TO 30 DEG. = 11.59 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 18.44 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 6.85 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .766 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 48.1 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 24.50 FT.-DEG.  
RANGE OF STABILITY EXCEEDS 90 DEG. (60 REQ'D)

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1089.04 SQ. FT.  
WINDAGE ARM = 11.70 FT.

GUST WIND HEEL ARM = .27 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 9.6 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 78.0 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 13.66 FT.-DEG. 9.6 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.46 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.36 FT.-DEG. 9.6 DEG. TO -7.9 DEG.  
AREA ABOVE - AREA BELOW = 9.31 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*

WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET

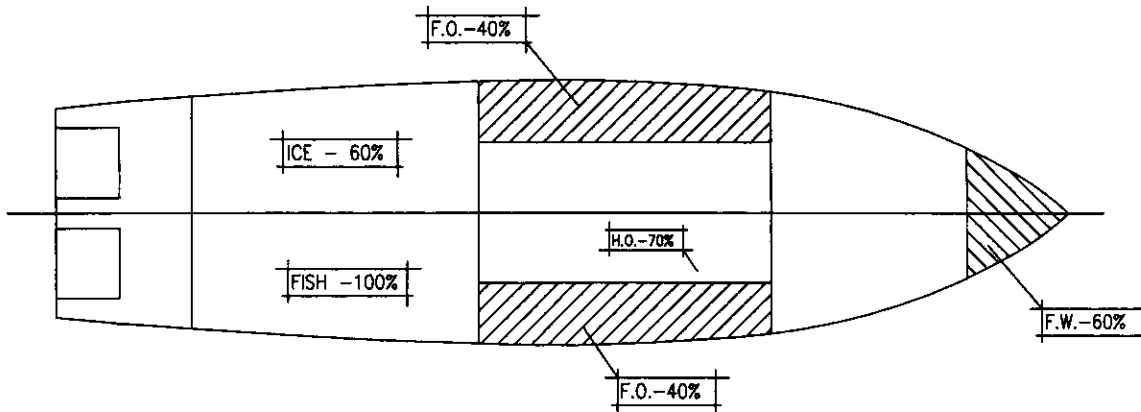
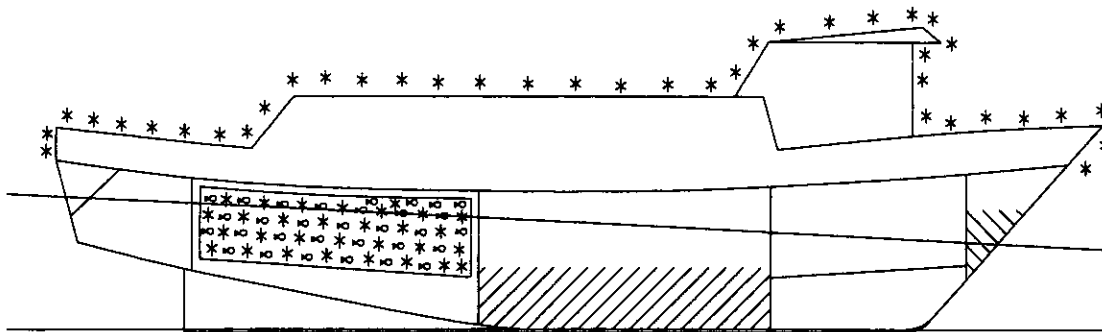
LOWER INTERCEPT ANGLE = 1.4 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 16.47 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: LEAVING FISHING GROUNDS - 100% CATCH \*\*WINTER ICE\*\*

## LEGEND

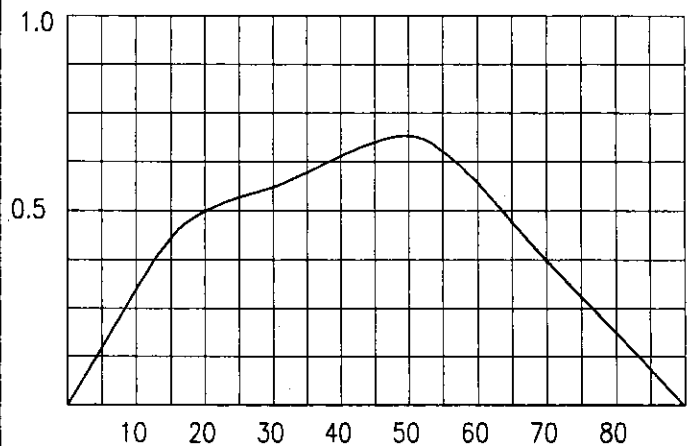
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	259.30	LONG TONS
VCG:	9.58	FT.
LCG (+AFT):	2.19	FT.
TRIM (FT)	3.794	AFT FT.
TRIM (IN):	45.53	AFT IN.
MOLDED DRAFT FWD:	7.421	FT.
MOLDED DRAFT MIDSHIP:	9.318	FT.
MOLDED DRAFT AFT:	11.215	FT.
KEEL DRAFT FWD:	7.671	FT.
KEEL DRAFT AFT:	11.465	FT.
FREEBOARD MIDSHIPS:	2.432	FT.

GM:	1.60	FT.
FREE SURFACE:	.05	FT.
GM CORRECTED:	1.55	FT.



## RIGHTING ENERGIES:

0° - 30°	11.015	FT.-DEG.
0° - 40°	17.001	FT.-DEG.
30° - 40°	5.986	FT.-DEG.
MAX GZ:	0.693	FT.-DEG.
ANGLE @ MAX GZ:	48.7	FT.-DEG.



\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

LEAVING FISHING GROUNDS - 100% CATCH \*\*WINTER ICE\*\*

DISPLACEMENT = 259.30 LONG TONS  
MOLDED DRAFT = 9.32 FEET AT MIDSHIPS  
KG = 9.58 FT. ABL  
LCG = 2.19 FT. AFT MIDSHIPS  
GMT CORR. = 1.55 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 58.13 DEGREES  
AREA 0 DEG. TO 30 DEG. = 11.02 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 17.01 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 5.99 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .693 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 48.7 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 22.81 FT.-DEG.  
RANGE OF STABILITY = 89.7 DEGREES 60.0 REQ'D - PASS

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1079.56 SQ. FT.  
WINDAGE ARM = 11.70 FT.

GUST WIND HEEL ARM = .26 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 8.8 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 75.8 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 11.75 FT.-DEG. 8.8 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.64 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.68 FT.-DEG. 8.8 DEG. TO -8.9 DEG.  
AREA ABOVE - AREA BELOW = 7.07 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*







WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET

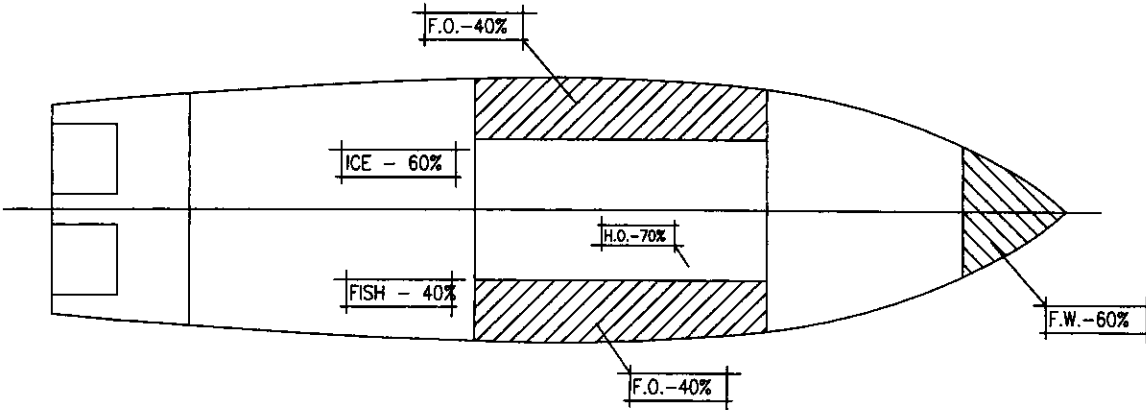
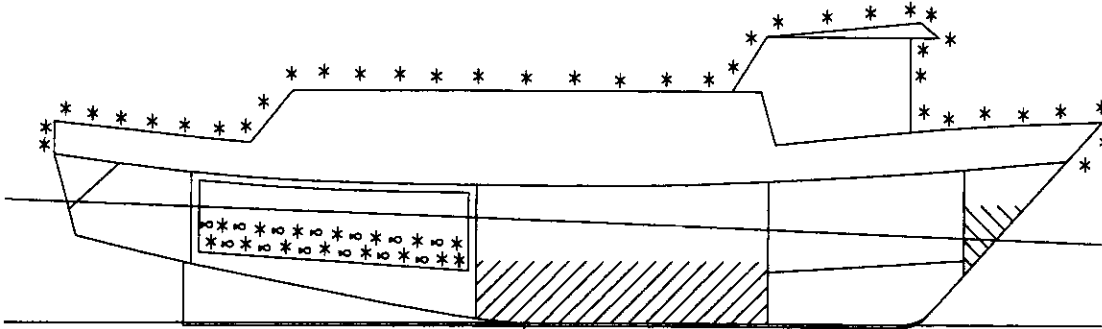
LOWER INTERCEPT ANGLE = 1.2 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 15.04 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: LEAVING FISHING GROUNDS - 40% CATCH \*\*WINTER ICE\*\*

## LEGEND

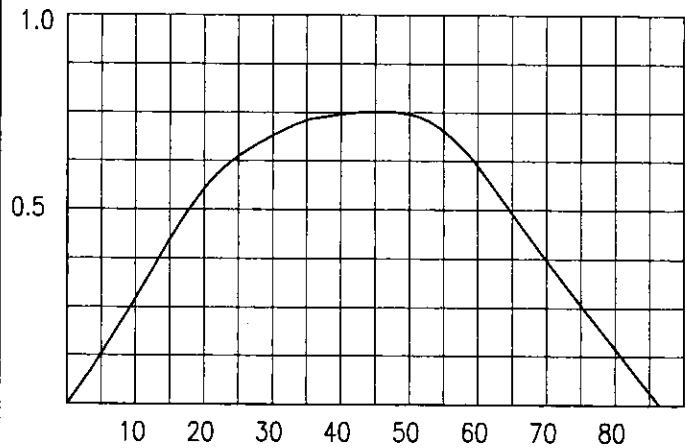
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	237.88	LONG TONS
VCG:	9.78	FT.
LCG (+AFT):	1.22	FT.
TRIM (FT)	2.873	AFT FT.
TRIM (IN):	34.47	AFT IN.
MOLDED DRAFT FWD:	7.400	FT.
MOLDED DRAFT MIDSHIP:	8.836	FT.
MOLDED DRAFT AFT:	10.273	FT.
KEEL DRAFT FWD:	7.650	FT.
KEEL DRAFT AFT:	10.523	FT.
FREEBOARD MIDSHIPS:	2.914	FT.

GM:	1.49	FT.
FREE SURFACE:	0.05	FT.
GM CORRECTED:	1.44	FT.



## RIGHTING ENERGIES:

0° - 30°	11.828	FT.-DEG.
0° - 40°	19.086	FT.-DEG.
30° - 40°	7.258	FT.-DEG.
MAX GZ:	0.757	FT.-DEG.
ANGLE @ MAX GZ:	46.1	FT.-DEG.

C-116 79' -11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02  
 LEAVING FISHING GROUNDS - 40% CATCH \*\*WINTER ICE\*\*

ITEM	TONS	VCG	VERT	FREE	LCG	FWD	LCG	AFT
L.S. ~ INC 03/16	185.69	10.55	1958.77				1.48	274.82
F.W. TANK FWD PORT	3.54	9.61	34.05	6.06	38.27		135.60	
E.R. FUEL OIL TK P	8.93	4.47	39.87	3.25	7.10		63.38	
E.R. FUEL OIL TK S	8.93	4.47	39.87	3.25	7.10		63.38	
HYDRAULIC OIL-S	.41	7.15	2.91	.03			3.51	1.43
CONSUMABLE STORES	.20	14.93	2.99		17.25		3.45	
SHIP SPARES	1.25	8.50	10.63		22.50		28.13	
ICE IN HOLD	8.04	6.99	56.13				11.25	90.42
CATCH IN HOLD	14.29	7.37	105.26				12.92	184.60
CATCH ON DECK	2.00	14.50	29.00				17.50	35.00
PARAVANES UP	-1.99	37.50	-74.47		1.00		-1.99	
PARAVANES DOWN	1.99	23.50	46.67		1.00		1.99	
**WINTER ICE**	4.60	16.28	74.89		.55		2.53	
TOTAL	237.88	9.78	2326.57	12.59			1.22	289.81

DISPLACEMENT	237.88 TONS
KMT	11.27 FEET
KG	9.78 FEET
GMT UNCORR.	1.49 FEET
FREE SURFACE	.05 FEET
GMT CORRECTED	1.44 FEET
RIGHTING ARM CURVE	
HEEL	GZ CORR
5.0 DEGREES	.132 FEET
10.0 DEGREES	.282 FEET
15.0 DEGREES	.437 FEET
20.0 DEGREES	.573 FEET
25.0 DEGREES	.659 FEET
30.0 DEGREES	.717 FEET
35.0 DEGREES	.760 FEET
40.0 DEGREES	.779 FEET
50.0 DEGREES	.786 FEET
60.0 DEGREES	.658 FEET
70.0 DEGREES	.420 FEET
80.0 DEGREES	.195 FEET
90.0 DEGREES	-.027 FEET
LCB	1.37 FEET AFT
LCG	1.22 FEET AFT
KML	79.45 FEET ABL
KB	5.64 FEET ABL
GML	69.61 FEET ABL
MTI	17.25 FT. TONS
TONS/IN.	3.44 LONG TONS
TRIM	34.47 INCHES AFT
TRIM	2.873 FEET AFT
LCF	3.278 FEET AFT
MEAN DRAFT	8.836 FEET ABL
LCF DRAFT	8.954 FEET ABL
F.P. DRAFT	7.400 FEET ABL
A.P. DRAFT	10.273 FEET ABL
RIGHTING ENERGIES	
0 - 30 DEG.	11.828 FT-DEG.
0 - 40 DEG.	19.086 FT-DEG.
30 - 40 DEG.	7.258 FT-DEG.

\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

LEAVING FISHING GROUNDS - 40% CATCH \*\*WINTER ICE\*\*

DISPLACEMENT = 237.88 LONG TONS  
MOLDED DRAFT = 8.84 FEET AT MIDSHIPS  
KG = 9.78 FT. ABL  
LCG = 1.22 FT. AFT MIDSHIPS  
GMT CORR. = 1.44 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 66.09 DEGREES  
AREA 0 DEG. TO 30 DEG. = 11.84 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 19.10 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 7.26 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .757 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 46.1 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 23.66 FT.-DEG.  
RANGE OF STABILITY = 86.4 DEGREES 60.0 REQ'D - PASS

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1118.49 SQ. FT.

WINDAGE ARM = 11.71 FT.

GUST WIND HEEL ARM = .30 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 10.9 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 73.0 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 13.27 FT.-DEG. 10.9 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 16.98 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.00 FT.-DEG. 10.9 DEG. TO -6.1 DEG.  
AREA ABOVE - AREA BELOW = 9.27 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*





WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET

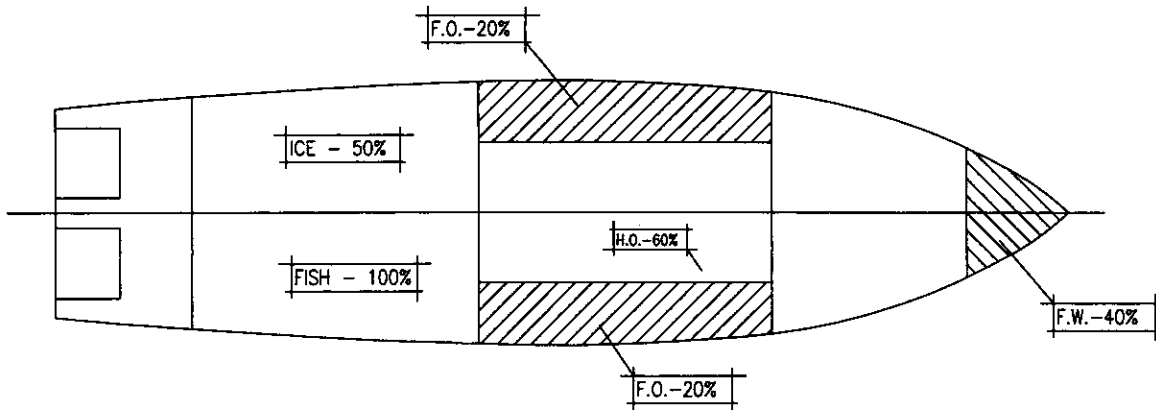
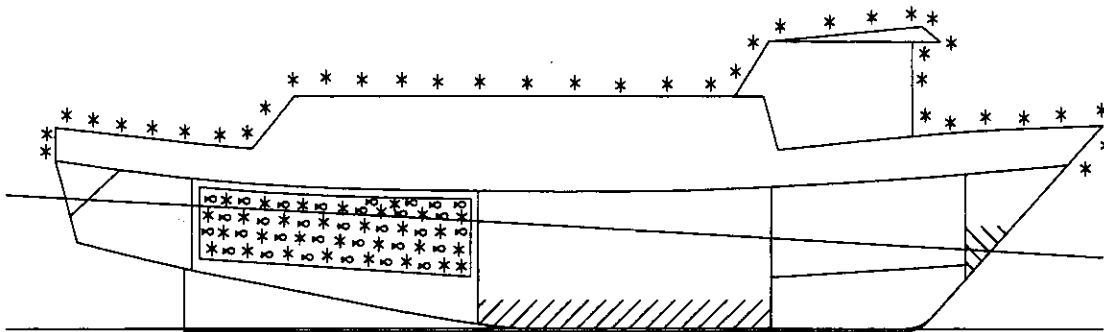
LOWER INTERCEPT ANGLE = 1.5 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 16.99 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: ARRIVAL IN PORT - 100% CATCH \*\*WINTER ICE\*\*

## LEGEND

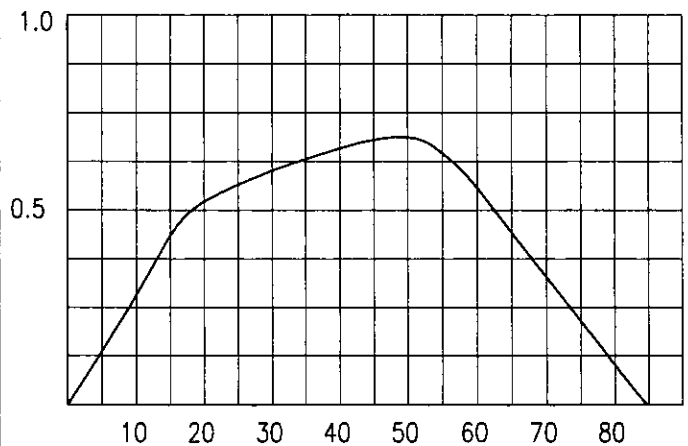
-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	<u>245.68</u>	LONG TONS
VCG:	<u>9.69</u>	FT.
LCG (+AFT):	<u>2.57</u>	FT.
TRIM (FT)	<u>4.301</u>	AFT FT.
TRIM (IN):	<u>51.61</u>	AFT IN.
MOLDED DRAFT FWD:	<u>6.821</u>	FT.
MOLDED DRAFT MIDSHIP:	<u>8.971</u>	FT.
MOLDED DRAFT AFT:	<u>11.122</u>	FT.
KEEL DRAFT FWD:	<u>7.071</u>	FT.
KEEL DRAFT AFT:	<u>11.372</u>	FT.
FREEBOARD MIDSHIPS:	<u>2.779</u>	FT.

GM:	<u>1.49</u>	FT.
FREE SURFACE:	<u>0.03</u>	FT.
GM CORRECTED:	<u>1.46</u>	FT.



## RIGHTING ENERGIES:

0° - 30°	<u>11.286</u>	FT.-DEG.
0° - 40°	<u>17.598</u>	FT.-DEG.
30° - 40°	<u>6.312</u>	FT.-DEG.
MAX GZ:	<u>0.692</u>	FT.-DEG.
ANGLE @ MAX GZ:	<u>47.9</u>	FT.-DEG.





\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

ARRIVAL IN PORT - 100% CATCH \*\*WINTER ICE\*\*

DISPLACEMENT = 245.68 LONG TONS  
MOLDED DRAFT = 8.97 FEET AT MIDSHIPS  
KG = 9.69 FT. ABL  
LCG = 2.57 FT. AFT MIDSHIPS  
GMT CORR. = 1.46 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 61.80 DEGREES  
AREA 0 DEG. TO 30 DEG. = 11.28 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 17.59 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 6.31 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .692 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 47.9 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 22.87 FT.-DEG.  
RANGE OF STABILITY = 84.6 DEGREES 60.0 REQ'D - PASS

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1107.62 SQ. FT.

WINDAGE ARM = 11.70 FT.

GUST WIND HEEL ARM = .29 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 10.1 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 71.7 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 11.52 FT.-DEG. 10.1 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 17.17 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 4.18 FT.-DEG. 10.1 DEG. TO -7.0 DEG.  
AREA ABOVE - AREA BELOW = 7.34 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*

WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET

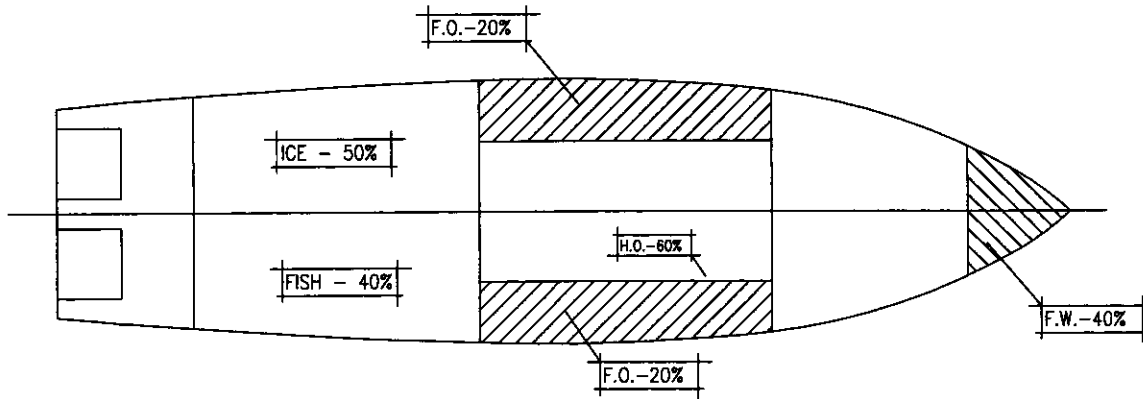
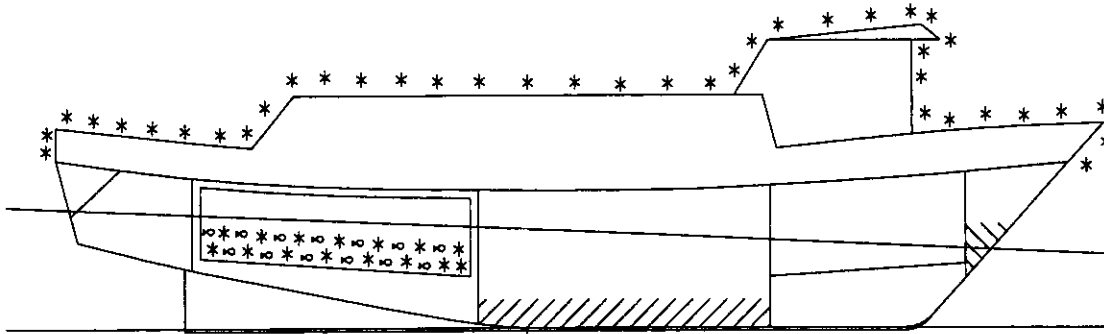
LOWER INTERCEPT ANGLE = 1.3 DEGREES  
UPPER LIMIT ANGLE = 40.0 DEGREES  
AREA ABOVE HEELING CURVE = 15.52 FT.-DEG. 15.00 FT-DEGS REQ'D - PASS

# TITLE: F/V "SASHA-LEE" STABILITY CHARACTERISTICS

CONDITION: ARRIVAL IN PORT - 40% CATCH \*\*WINTER ICE\*\*

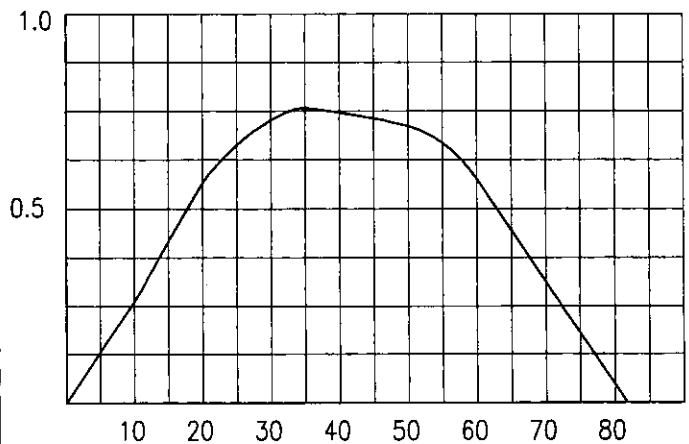
## LEGEND

-  - FRESH WATER
-  - FUEL OIL
-  - HYD./LUBE OIL
-  - S.W. BALLAST
-  - FISH
-  - ICE
-  - DIRTY OIL



## VESSEL CHARACTERISTICS:

DISPLACEMENT:	224.26	LONG TONS
VCG:	9.91	FT.
LCG (+AFT):	1.58	FT.
TRIM (FT)	3.387	AFT FT.
TRIM (IN):	40.64	AFT IN.
MOLDED DRAFT FWD:	6.792	FT.
MOLDED DRAFT MIDSHIP:	8.486	FT.
MOLDED DRAFT AFT:	10.179	FT.
KEEL DRAFT FWD:	7.042	FT.
KEEL DRAFT AFT:	10.423	FT.
FREEBOARD MIDSHIPS:	3.264	FT.



## RIGHTING ENERGIES:

0° - 30°	12.050	FT.-DEG.
0° - 40°	19.550	FT.-DEG.
30° - 40°	7.500	FT.-DEG.
MAX GZ:	0.758	FT.-DEG.
ANGLE @ MAX GZ:	35.7	FT.-DEG.

GM:	1.39	FT.
FREE SURFACE:	0.04	FT.
GM CORRECTED:	1.35	FT.

C-116 79'-11" FISHING VESSEL F/V 'SASHA-LEE' 03/16/02

ARRIVAL IN PORT - 40% CATCH \*\*WINTER ICE\*\*

ITEM	TONS	VCG	VERT	FREE	LCG	FWD	LCG	AFT
L.S. - INC 03/16	185.69	10.55	1958.77				1.48	274.82
F.W. TANK FWD PORT	2.36	8.75	20.66	3.47	38.04		89.85	
E.R. FUEL OIL TK P	4.46	3.36	14.98	2.37	6.71		29.95	
E.R. FUEL OIL TK S	4.46	3.36	14.98	2.37	6.71		29.95	
HYDRAULIC OIL-S	.35	6.79	2.37	.03			3.51	1.22
CONSUMABLE STORES	1.10	14.93	1.49		17.25		1.73	
SHIP SPARES	1.25	8.50	10.63		22.50		11.25	75.35
ICE IN HOLD	6.70	6.99	46.78				12.92	184.60
CATCH IN HOLD	14.29	7.37	105.26					
CATCH ON DECK	NONE							
PARAVANES UP	-1.99	37.50	-74.47		1.00		-1.99	
PARAVANES DOWN	1.99	23.50	46.67		1.00		1.99	
**WINTER ICE**	4.60	16.28	74.89		.55		2.53	
TOTAL -	224.26	9.91	2223.01	8.24			1.58	353.86

DISPLACEMENT	= 224.26 TONS
KMT	= 11.30 FEET
KG	= 9.91 FEET
GMT UNCORR.	= 1.39 FEET
FREE SURFACE	= .04 FEET
GMT CORRECTED	= 1.35 FEET

RIGHTING ARM CURVE

HEEL	GZ	GZ CORR
5.0 DEGREES	.134 FEET	.130 FT. CORR.
10.0 DEGREES	.270 FEET	.263 FT. CORR.
15.0 DEGREES	.427 FEET	.418 FT. CORR.
20.0 DEGREES	.579 FEET	.566 FT. CORR.
25.0 DEGREES	.678 FEET	.663 FT. CORR.
30.0 DEGREES	.746 FEET	.727 FT. CORR.
35.0 DEGREES	.778 FEET	.757 FT. CORR.
40.0 DEGREES	.770 FEET	.746 FT. CORR.
50.0 DEGREES	.739 FEET	.711 FT. CORR.
60.0 DEGREES	.608 FEET	.576 FT. CORR.
70.0 DEGREES	.346 FEET	.312 FT. CORR.
80.0 DEGREES	.082 FEET	.046 FT. CORR.
90.0 DEGREES	-.166 FEET	-.203 FT. CORR.

RIGHTING ENERGIES

0 - 30 DEG.	= 12.050 FT-DEG.
0 - 40 DEG.	= 19.550 FT-DEG.
30 - 40 DEG.	= 7.500 FT-DEG.

LCB	= 1.76 FEET AFT
LCG	= 1.58 FEET AFT
KML	= 81.94 FEET ABL
KB	= 5.45 FEET ABL
GML	= 71.99 FEET ABL
MTI	= 16.82 FT. TONS
TONS/IN.	= 3.40 LONG TONS
TRIM	= 40.64 INCHES AFT
TRIM	= 3.387 FEET AFT
LCF	= 3.548 FEET AFT
MEAN DRAFT	8.486 FEET ABL
LCF DRAFT	8.636 FEET ABL
F.P. DRAFT	6.792 FEET ABL
A.P. DRAFT	10.179 FEET ABL

\* FISHING VESSEL STABILITY ANALYSIS \*

NOTE - REQUIREMENTS APPLY ONLY TO VESSELS OVER 79 FT REGISTERED LENGTH

C-116 79.0 FT FISHING VESSEL F/V 'SASHA-LEE' 03/13/01

ARRIVAL IN PORT - 40% CATCH \*\*WINTER ICE\*\*

DISPLACEMENT = 224.26 LONG TONS  
MOLDED DRAFT = 8.49 FEET AT MIDSHIPS  
KG = 9.91 FT. ABL  
LCG = 1.58 FT. AFT MIDSHIPS  
GMT CORR. = 1.35 FEET 1.15 REQ'D - PASS

\* RIGHTING ARM CURVE CHARACTERISTICS \*

ANGLE TO DOWNFLOODING = 70.13 DEGREES  
AREA 0 DEG. TO 30 DEG. = 12.05 FT.-DEG. 10.3 REQ'D - PASS  
AREA 0 DEG. TO 40 DEG. = 19.55 FT.-DEG. 16.9 REQ'D - PASS  
AREA 30 DEG TO 40 DEG. = 7.50 FT.-DEG. 5.6 REQ'D - PASS  
MAXIMUM GZ = .758 FEET 0.66 REQ'D - PASS  
ANGLE OF MAX GZ = 35.7 DEGREES 25.0 REQ'D - PASS  
AREA 0 TO MAX GZ ANGLE = 16.32 FT.-DEG.  
RANGE OF STABILITY = 81.8 DEGREES 60.0 REQ'D - PASS

\* IMO SEVERE WIND AND ROLLING CRITERIA \*

WINDAGE AREA = 1146.59 SQ. FT.  
WINDAGE ARM = 11.71 FT.

GUST WIND HEEL ARM = .33 FT.

1ST GUST WIND HEEL ARM INTERCEPT = 12.2 DEGREES 14.0 MAX REQ'D - PASS  
2ND GUST WIND HEEL ARM INTERCEPT = 69.3 DEGREES  
RIGHTING ENERGY ABOVE WIND HEEL ARM = 12.47 FT.-DEG. 12.2 DEG. TO 50.0 DEG.  
WINDWARD WAVE ROLL ANGLE = 16.55 DEG. (FROM GUST WIND ARM INTERCEPT)  
AREA BELOW WIND HEEL ARM = 3.75 FT.-DEG. 12.2 DEG. TO -4.4 DEG.  
AREA ABOVE - AREA BELOW = 8.72 FT.-DEG. POSITIVE REQ'D - PASS

\* LIFTING CRITERIA STABILITY ANALYSIS \*

WEIGHT LIFTED = 1.600 TONS  
VERTICAL LIFT = 10.00 FEET  
HORIZONTAL LIFT = 5.00 FEET

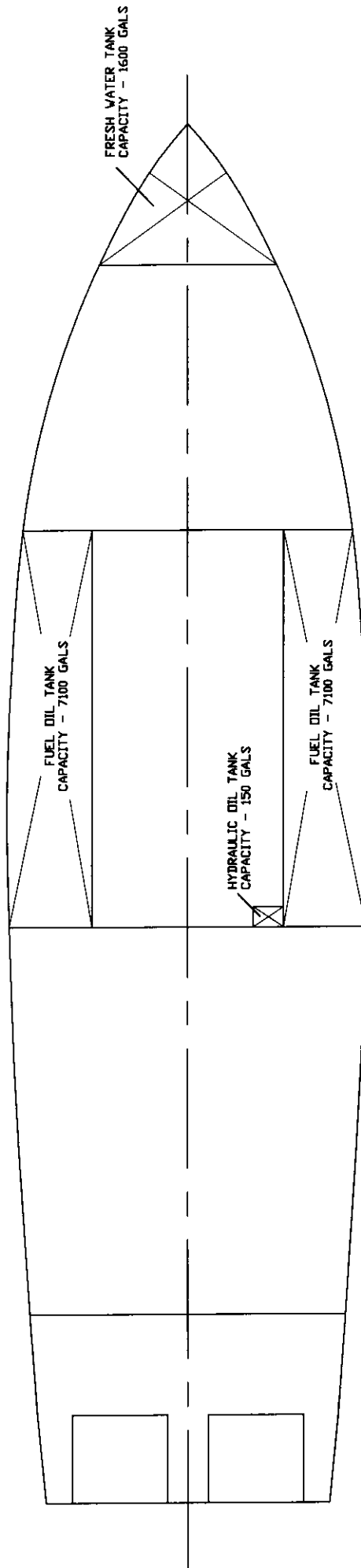
LOWER INTERCEPT ANGLE = 1.5 DEGREES  
UPPER LIMIT ANGLE = 35.7 DEGREES  
AREA ABOVE HEELING CURVE = 14.38 FT.-DEG. - NON LIFTING CONDITION

**HYDROSTATIC PROPERTIES**  
**TANK PLAN**  
**TANK CAPACITIES**

C-116 86'-8" FISHING VESSEL F/V 'SASHA-LEE' 3/12/02

LWL = 79.00 FEET				TRIM/LBP = .01156 AFT				WATER DENSITY = 35.000 CU. FT. PER TON					
TONS	TONS	DRAFT	KB	LCB	LCF	BMT	BML	TPI	MTI	CB	CP	CM	CWP
DISP	DISP	FEET	FT.	FT.	FT.	FT.	FT.		FT.				
MLD.	CORR	ABL	ABL	AFT	AFT	ABL	ABL		TONS				
38.10	38.10	3.250	2.252	-6.362	-4.495	16.828	126.393	2.075	5.080	.267	.421	.633	.566
44.50	44.50	3.500	2.413	-6.069	-3.956	15.847	124.005	2.195	5.821	.288	.438	.657	.596
51.20	51.20	3.750	2.572	-5.781	-3.443	14.846	121.251	2.301	6.549	.308	.455	.676	.622
58.14	58.14	4.000	2.727	-5.506	-3.008	13.733	117.645	2.388	7.215	.326	.470	.694	.642
65.34	65.34	4.250	2.880	-5.236	-2.607	12.635	113.953	2.460	7.854	.343	.484	.708	.659
72.83	72.83	4.500	3.034	-4.949	-2.114	11.780	111.404	2.540	8.559	.359	.498	.721	.677
80.61	80.61	4.750	3.187	-4.646	-1.512	11.096	109.824	2.627	9.339	.375	.512	.733	.697
88.63	88.63	5.000	3.340	-4.340	-.960	10.488	107.811	2.707	10.079	.390	.525	.743	.715
96.89	96.89	5.250	3.494	-4.036	-.589	9.912	104.405	2.770	10.671	.404	.538	.752	.728
105.36	105.36	5.500	3.647	-3.738	-.291	9.386	100.912	2.824	11.215	.418	.550	.759	.739
113.90	113.90	5.750	3.797	-3.458	.097	8.921	98.970	2.886	11.891	.430	.561	.766	.751
122.50	122.50	6.000	3.943	-3.201	.556	8.495	98.136	2.953	12.681	.441	.571	.773	.765
131.34	131.34	6.250	4.090	-2.940	1.040	8.143	97.599	3.024	13.522	.452	.581	.778	.780
140.55	140.55	6.500	4.239	-2.659	1.578	7.910	97.483	3.102	14.452	.463	.591	.783	.797
150.01	150.01	6.750	4.388	-2.373	2.103	7.717	97.236	3.179	15.386	.474	.601	.788	.813
159.62	159.62	7.000	4.538	-2.100	2.423	7.448	95.465	3.236	16.074	.484	.611	.792	.824
169.40	169.40	7.250	4.687	-1.836	2.538	7.116	92.433	3.272	16.517	.493	.620	.796	.829
179.31	179.31	7.500	4.836	-1.591	2.582	6.813	89.316	3.304	16.894	.503	.629	.799	.834
189.33	189.33	7.750	4.982	-1.366	2.602	6.570	86.505	3.336	17.276	.511	.638	.802	.838
199.45	199.45	8.000	5.126	-1.162	2.573	6.351	83.713	3.365	17.612	.520	.646	.805	.841
209.62	209.62	8.250	5.271	-.984	2.500	6.135	80.815	3.389	17.870	.527	.653	.807	.844
219.85	219.85	8.500	5.417	-.831	2.370	5.923	77.773	3.408	18.037	.534	.660	.809	.845
230.14	230.14	8.750	5.562	-.688	2.288	5.735	75.287	3.431	18.277	.541	.667	.811	.847
240.43	240.43	9.000	5.705	-.547	2.329	5.578	73.752	3.464	18.705	.547	.673	.813	.851
250.79	250.79	9.250	5.847	-.414	2.397	5.437	72.490	3.501	19.177	.553	.679	.815	.857
261.31	261.31	9.500	5.989	-.296	2.369	5.295	70.757	3.529	19.504	.558	.684	.816	.860
271.98	271.98	9.750	6.130	-.194	2.260	5.154	68.694	3.550	19.708	.564	.690	.817	.861
282.72	282.72	10.000	6.271	-.103	2.142	5.023	66.752	3.571	19.907	.569	.695	.818	.863
293.50	293.50	10.250	6.412	-.024	2.075	4.906	65.267	3.597	20.206	.574	.700	.819	.865
304.34	304.34	10.500	6.554	.045	1.968	4.795	63.690	3.619	20.446	.579	.705	.820	.867
315.26	315.26	10.750	6.695	.108	1.683	4.695	61.246	3.627	20.367	.583	.710	.821	.865
326.27	326.27	11.000	6.837	.165	1.242	4.615	58.107	3.625	19.999	.587	.714	.822	.861
337.15	337.15	11.250	6.977	.203	.773	4.415	55.447	3.596	19.720	.591	.718	.822	.851
348.13	348.13	11.500	7.117	.233	.730	4.084	54.680	3.625	20.080	.594	.722	.823	.854
358.66	358.66	11.750	7.251	.229	.189	3.643	52.940	3.532	20.029	.599	.728	.823	.832
367.88	367.88	12.000	7.367	.171	-1.753	3.079	47.775	3.093	18.540	.602	.747	.806	.729

DISPLACEMENT CORRECTED FOR .000 INCH THICK SHELL PLATE



TANK CAPACITY PLAN



C-116 FRESH WATER TANK - FOREPEAK

SPECIFIC DENSITY OF LIQUID = 35.990 FT-CU/TON  
 LOW POINT OF THE TANK IS 2.628 FT.ABL  
 HIGH POINT OF THE TANK IS 14.047 FT.ABL

SOUNDING TUBE LOCATION 37.50 FT. FWD MIDSHPIS, BTM 5.50 FT. ABL., TOP 14.00 FT. ABL., RAKE= .00 DEG.

WATERLINE ABL	SOUNDING FEET	VOLUME FT. CU.	CAPACITY		KG. ABL	LCG AFT	TCG PORT	FREE SURFACE	
			GALLONS	TONS				FT**4	FT-TONS
2.628	.000	.000	.000	.000	2.628	-36.300	.000	.000	.000
5.500	.000	4.294	32.123	.119	4.542	-36.300	.000	3.043	.083
6.000	.500	5.892	44.079	.164	4.874	-36.322	.000	4.756	.130
6.500	1.000	8.536	63.859	.237	5.303	-36.547	.000	7.214	.196
6.750	1.250	10.326	77.249	.287	5.539	-36.702	.000	8.912	.243
7.000	1.500	12.442	93.077	.346	5.764	-36.848	.000	11.053	.301
7.250	1.750	14.882	111.336	.414	5.990	-36.990	.000	13.571	.370
7.500	2.000	17.648	132.028	.490	6.207	-37.111	.000	16.429	.447
7.750	2.250	20.740	155.157	.576	6.416	-37.216	.000	19.752	.538
8.000	2.500	24.152	180.682	.671	6.625	-37.311	.000	23.642	.644
8.250	2.750	27.896	208.689	.775	6.824	-37.390	.000	28.199	.768
8.500	3.000	31.983	239.261	.889	7.024	-37.466	.000	33.755	.919
8.750	3.250	36.414	272.414	1.012	7.218	-37.534	.000	40.400	1.100
9.000	3.500	41.299	308.959	1.148	7.415	-37.603	.000	47.763	1.301
9.250	3.750	46.641	348.918	1.296	7.611	-37.674	.000	55.734	1.518
9.500	4.000	52.435	392.263	1.457	7.807	-37.744	.000	64.823	1.765
9.750	4.250	58.686	439.027	1.631	8.001	-37.810	.000	75.400	2.053
10.000	4.500	65.391	489.192	1.817	8.192	-37.874	.000	87.424	2.381
10.250	4.750	72.552	542.759	2.016	8.384	-37.934	.000	100.968	2.749
10.500	5.000	80.166	599.725	2.227	8.573	-37.989	.000	116.140	3.162
10.750	5.250	88.226	660.021	2.451	8.761	-38.041	.000	132.747	3.615
11.000	5.500	96.724	723.592	2.688	8.946	-38.088	.000	150.919	4.109
11.250	5.750	105.762	791.204	2.939	9.133	-38.136	.000	170.743	4.649
11.500	6.000	115.309	862.630	3.204	9.318	-38.185	.000	192.202	5.234
11.750	6.250	125.523	939.037	3.488	9.506	-38.238	.000	215.711	5.874
12.000	6.500	136.529	1021.370	3.794	9.697	-38.299	.000	241.590	6.578
12.250	6.750	148.275	1109.244	4.120	9.889	-38.366	.000	269.901	7.349
12.500	7.000	160.893	1203.639	4.470	10.085	-38.434	.000	312.476	8.509
12.750	7.250	174.308	1303.997	4.843	10.280	-38.503	.000	364.078	9.914
13.000	7.500	187.888	1405.588	5.221	10.468	-38.565	.000	322.988	8.795
13.250	7.750	202.489	1514.823	5.626	10.656	-38.597	.000	151.880	4.136
13.500	8.000	213.414	1596.553	5.930	10.797	-38.726	.000	38.448	1.047
13.750	8.250	218.680	1635.947	6.076	10.866	-38.841	.000	2.218	.060
14.000	8.500	219.402	1641.346	6.096	10.876	-38.858	.000	-2.333	-.064
14.047	8.500	219.030	1638.563	6.086	10.871	-38.849	.000	.000	.000

NOTE \*\*\*  
 TANK PERMEABILITY = .9800  
 VOLUMES AND CAPACITIES ARE CORRECTED FOR PERMEABILITY

C-116 FUEL OIL WING TANKS - ENGINE ROOM - P/S

SPECIFIC DENSITY OF LIQUID = 41.330 FT-CU/TON  
 LOW POINT OF THE TANK IS 1.576 FT.ABL  
 HIGH POINT OF THE TANK IS 12.144 FT.ABL  
 SOUNDING TUBE LOCATION .00 FT. AFT MIDSHIPS, BTM 1.25 FT. ABL., TOP 12.00 FT. ABL., RAKE= .00 DEG.

WATERLINE ABL	SOUNDING FEET	VOLUME FT.CU.	CAPACITY		KG. ABL	LCG AFT	TCG PORT	FREE SURFACE	
			GALLONS	TONS				FT**4	FT-TONS
1.576	.326	.000	.000	.000	1.576	-2.104	6.001	.000	.000
2.500	1.250	27.711	207.306	.670	2.266	-4.568	7.297	58.036	1.376
3.000	1.750	63.765	477.028	1.543	2.532	-5.574	7.463	82.135	1.948
3.500	2.250	103.894	777.231	2.514	2.808	-6.211	7.543	87.644	2.078
4.000	2.750	145.406	1087.786	3.518	3.077	-6.518	7.596	94.577	2.243
4.500	3.250	188.112	1407.263	4.551	3.343	-6.704	7.638	102.736	2.436
5.000	3.750	232.118	1736.478	5.616	3.610	-6.836	7.674	111.255	2.638
5.250	4.000	254.638	1904.944	6.161	3.745	-6.889	7.691	115.553	2.740
5.500	4.250	277.482	2075.844	6.714	3.879	-6.937	7.708	120.189	2.850
5.750	4.500	300.645	2249.126	7.274	4.013	-6.980	7.725	124.992	2.964
6.000	4.750	324.094	2424.547	7.842	4.148	-7.020	7.740	129.684	3.075
6.250	5.000	347.850	2602.268	8.416	4.283	-7.056	7.756	134.395	3.187
6.500	5.250	371.970	2782.707	9.000	4.418	-7.089	7.772	139.422	3.306
6.750	5.500	396.440	2965.764	9.592	4.555	-7.120	7.787	144.689	3.431
7.000	5.750	421.230	3151.224	10.192	4.692	-7.149	7.803	149.893	3.554
7.250	6.000	446.344	3339.101	10.800	4.828	-7.176	7.818	155.058	3.677
7.500	6.250	471.752	3529.173	11.414	4.965	-7.203	7.833	160.457	3.805
7.750	6.500	497.447	3721.402	12.036	5.103	-7.227	7.848	166.103	3.939
8.000	6.750	523.493	3916.255	12.666	5.241	-7.251	7.863	171.985	4.078
8.250	7.000	549.904	4113.833	13.305	5.380	-7.273	7.878	178.152	4.224
8.500	7.250	576.642	4313.857	13.952	5.519	-7.295	7.892	184.350	4.371
8.750	7.500	603.703	4516.305	14.607	5.658	-7.316	7.908	190.443	4.516
9.000	7.750	631.071	4721.042	15.269	5.797	-7.336	7.923	196.691	4.664
9.250	8.000	658.720	4927.883	15.938	5.937	-7.355	7.937	203.206	4.818
9.500	8.250	686.696	5137.172	16.615	6.077	-7.374	7.952	209.945	4.978
9.750	8.500	715.038	5349.199	17.301	6.218	-7.392	7.967	216.919	5.143
10.000	8.750	743.719	5563.759	17.995	6.359	-7.409	7.982	224.121	5.314
10.250	9.000	772.724	5780.745	18.696	6.500	-7.426	7.997	231.595	5.491
10.500	9.250	802.047	6000.115	19.406	6.642	-7.443	8.012	239.238	5.673
10.750	9.500	831.656	6221.615	20.122	6.784	-7.459	8.027	246.768	5.851
11.000	9.750	861.569	6445.399	20.846	6.926	-7.475	8.042	254.311	6.030
11.250	10.000	893.534	6684.527	21.619	7.076	-7.477	8.058	331.986	7.872
11.500	10.250	925.886	6926.555	22.402	7.227	-7.485	8.073	380.122	9.013
11.750	10.500	945.182	7070.910	22.869	7.317	-7.544	8.082	135.801	3.220
12.000	10.750	952.354	7124.557	23.043	7.350	-7.575	8.084	-5.901	-1.140
12.144	10.750	951.413	7117.524	23.020	7.346	-7.571	8.084	14.000	.332

NOTE \*\*\*  
 TANK PERMEABILITY = .9800  
 VOLUMES AND CAPACITIES ARE CORRECTED FOR PERMEABILITY

C-116 HYDRAULIC OIL TANK

SPECIFIC DENSITY OF LIQUID = 38.000 FT-CU/TON  
 LOW POINT OF THE TANK IS 4.667 FT.ABL  
 HIGH POINT OF THE TANK IS 11.750 FT.ABL

SOUNDING TUBE LOCATION 2.50 FT. AFT MDSHIPS, BTM 5.00 FT. ABL., TOP 11.75 FT. ABL., RAKE= .00 DEG.

WATERLINE ABL	SOUNDING FEET	VOLUME FT. CU.	CAPACITY		KG. ABL	LCG AFT	TCG PORT	FREE SURFACE	
			GALLONS	TONS				FT**4	FT-TONS
4.667	.000	.000	.000	.000	4.667	3.512	4.792	1.000	.026
5.000	.000	.984	7.358	.026	4.834	3.512	4.792	1.000	.026
5.250	.250	1.724	12.896	.045	4.959	3.512	4.792	1.000	.026
5.500	.500	2.465	18.437	.065	5.084	3.512	4.792	1.000	.026
5.750	.750	3.205	23.977	.084	5.209	3.512	4.792	1.000	.026
6.000	1.000	3.946	29.517	.104	5.334	3.512	4.792	1.000	.026
6.250	1.250	4.686	35.057	.123	5.459	3.512	4.792	1.000	.026
6.500	1.500	5.427	40.597	.143	5.584	3.512	4.792	1.000	.026
6.750	1.750	6.167	46.137	.162	5.709	3.512	4.792	1.000	.026
7.000	2.000	6.908	51.677	.182	5.834	3.512	4.792	1.000	.026
7.250	2.250	7.648	57.217	.201	5.959	3.512	4.792	1.000	.026
7.500	2.500	8.389	62.757	.221	6.084	3.512	4.792	1.000	.026
7.750	2.750	9.130	68.298	.240	6.209	3.512	4.791	1.000	.026
8.000	3.000	9.869	73.828	.260	6.334	3.512	4.791	1.000	.026
8.250	3.250	10.607	79.353	.279	6.458	3.512	4.791	1.000	.026
8.500	3.500	11.348	84.894	.299	6.583	3.512	4.791	1.000	.026
8.750	3.750	12.089	90.434	.318	6.708	3.512	4.791	1.000	.026
9.000	4.000	12.829	95.974	.338	6.833	3.512	4.791	1.000	.026
9.250	4.250	13.570	101.514	.357	6.958	3.512	4.791	1.000	.026
9.500	4.500	14.310	107.054	.377	7.083	3.512	4.791	1.000	.026
9.750	4.750	15.051	112.594	.396	7.208	3.512	4.791	1.000	.026
10.000	5.000	15.791	118.134	.416	7.333	3.512	4.791	1.000	.026
10.250	5.250	16.532	123.674	.435	7.458	3.512	4.792	1.000	.026
10.500	5.500	17.272	129.214	.455	7.583	3.512	4.792	1.000	.026
10.750	5.750	18.013	134.754	.474	7.708	3.512	4.792	1.000	.026
11.000	6.000	18.753	140.294	.494	7.833	3.512	4.792	1.000	.026
11.250	6.250	19.494	145.835	.513	7.958	3.512	4.792	1.000	.026
11.500	6.500	20.234	151.369	.532	8.084	3.512	4.792	1.000	.026
11.750	6.750	20.972	156.892	.552	8.209	3.512	4.792	1.000	.026

NOTE \*\*\*  
 TANK PERMEABILITY = .9800  
 VOLUMES AND CAPACITIES ARE CORRECTED FOR PERMEABILITY

**INCLINING REPORT  
LIGHTSHIP DETERMINATION**

UNITED STATES COAST GUARD

STABILITY TEST DATA

F/V 'SASHA-LEE'

Official Number: 522950

Gross Tons: 159

Description of vessel: Offshore Fishing Vessel

Type: Fishing Trawler

Builder: New Iberia, LA (Tommy Nguyen Shipyard)

Hull No. 10

Hull Steel Hull - Single Hard Chine

Machinery

Single Screw

Owner: Sasha Lee Inc

Owner's Address New Bedford, MA

Vessel inclined at Homers Wharf, New Bedford, MA

Date: 3/16/02

Test requested by: Owner

Plans furnished by: N/A

Offsets measured by: Garrett Norton

Curves of form computed by: Thomas M Farrell Naval Architects

Classed By: N/A  Inspected  Safety Certificate  Load Line

Route: Ocean  Coastwise  Great Lakes  Bay  Lakes

Specify Route, if limited \_\_\_\_\_

Test conducted by Thomas M Farrell Navel Architects

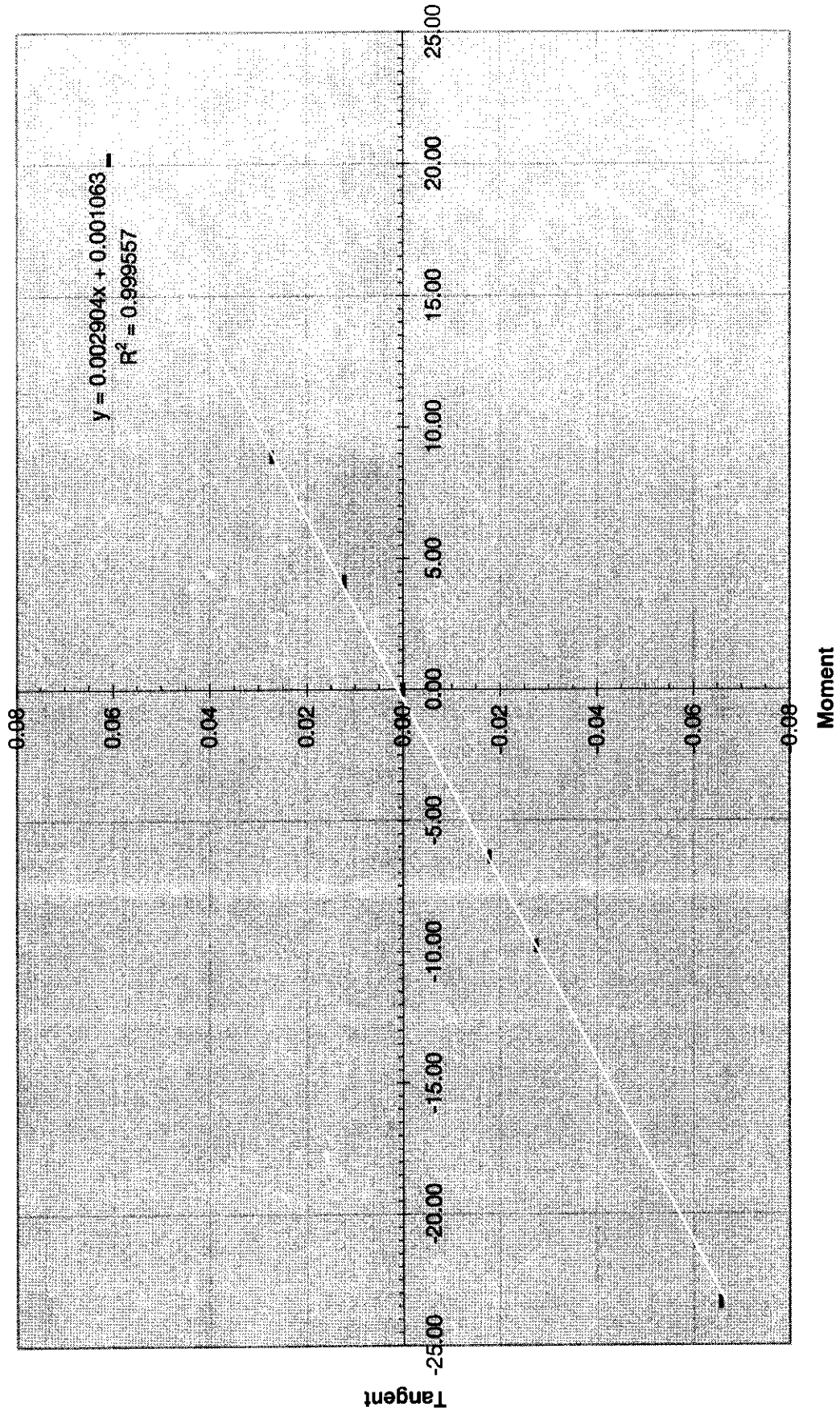
Stability calculations made by TMFNA

Duplicate vessels: N/A





# Moment vs. Tangent Plot





**FREEBOARDS -79.9' LBP Fishing Vessel - F/V 'Sasha-Lee'**  
**C-116**  
**16-Mar-02**

Position	Freeboards				Draft
	Length	Port	Stbd	Ave	
Stern	40.333	5.021	5.063	5.042	13.853
10' Fwd	30.333	4.250	4.323	4.286	13.021
20' Fwd	20.333	3.458	3.563	3.510	12.201
30' Fwd	10.333	3.250	3.271	3.260	11.845
40' Fwd	0.333	3.208	3.271	3.240	11.720
50' Fwd	-9.666	3.458	3.583	3.521	11.729
60' Fwd	-19.666	4.042	3.958	4.000	12.075
70' Fwd	-39.666	4.583	4.750	4.667	12.654

**LWL = 79.000 Ft**  
**BEAM = 22.500 Ft**  
**DECK PLT = 0.313 In.**  
**DRAFT = 8.425 Ft**  
**TRIM = 0.914 Ft (- FWD, + AFT)**  
**HEEL = -0.053 Degs. (+ PORT, - STBD)**

**SUMMARY OUTPUT**

Regression Statistics	
Multiple R	0.975087819
R Square	0.950796255
Adjusted R Square	0.942595631
Standard Error	0.075847586
Observations	8

ANOVA					
	df	SS	MS	F	Significance F
Regression	1	0.666997301	0.666997301	115.9419374	3.79337E-05
Residual	6	0.034517138	0.005752856		
Total	7	0.701514439			

	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	8.399272515	0.027172418	309.1102327	7.79663E-14	8.332783954	8.465761075	8.332783954	8.465761075
X Variable 1	0.011564521	0.001074008	10.76763379	3.79337E-05	0.008936517	0.014192525	0.008936517	0.014192525

**INCLINING EXPERIMENT      F/V 'SASHA-LEE'**

**SHIP AT TIME OF INCLINING EXPERIMENT - CONDITION 0**

From Independent Calculations

Corrected displacement ..... 216.280 tons

Mean virtual metacentric height obtained from plot of  
 Inclining moments versus tangents of angles of heel .....  $\frac{\text{moment}}{\text{displacement} \times \text{tangent}}$  ..... Slope = 0.002904 ..... 1.592 feet

Correction for free surface ..... Tank ft-ton = 10.625 ..... 0.049 feet\*\*

Mean metacentric height GM = ..... 1.641 feet

Transverse metacenter above center of buoyancy BM ..... 5.985 feet

BG = BM - GM ..... 4.344 feet

C.G. above baseline = BG cos $\theta$  + KB ..... 9.716 feet

BG sin $\theta$  = ..... 0.050 feet

L.C.B., Fwd of midships, which is ..... of frame ..... 0.875 feet

C. G. Fwd of midships (L.C.G. - BG sin $\theta$ ) ..... 0.825 feet

Period of complete roll ..... n/a ..... seconds

Apparent radius of gyration of vessel ..... n/a ..... feet

Rolling constant = ..... C = T(GM)<sup>1/2</sup>/B ..... n/a

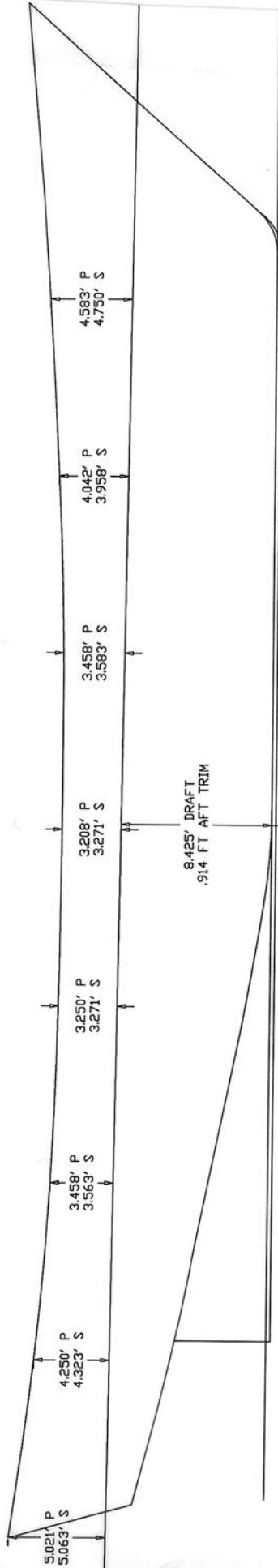
\*\* Water in bilges. The bilges should be entirely free of water, but should this be impossible, correction should be made in the derived GM. The details of this should form part of this report.

**STABILITY TEST**

F/V 'SASHA-LEE'

All tons used in this calculation are of 2240 pounds

**SHIP AT TIME OF STABILITY TEST - CONDITION 0**



Forward	.....	.....	n/a	.....	8.425	feet	
Aft	.....	.....	n/a	.....	0.000	feet	
Amidships	.....	.....	n/a	.....	0.913	feet	
Port	.....	.....	n/a	.....	.....	.....	
Starboard	.....	.....	n/a	.....	.....	.....	
Distance between "curves of form" perpendicular	.....	.....	79.000	.....	.....	feet	
Bottom of keel below base line	.....	.....	0.000	.....	.....	feet	
Molded Keel	drafts corrected to curves of form perpendiculars for use in calculations	Forward	.....	7.968	.....	feet	
	Aft	.....	8.882	.....	.....	feet	
	Midships	.....	8.425	.....	.....	feet	
Total displacement at above draft S.W.					.....	216.774	tons
Specific gravity of water 1.0249 equals					.....	35.080	cu. Ft/ton
Total displacement corrected for density					.....	216.280	tons



**INCLINING EXPERIMENT F/V 'SASHA-LEE'**

**SHIP AT TIME OF INCLINING EXPERIMENT**

Data For Tanks		ITEMS	Weight	C.G. Above Base			C.G. From M.P.		
Liquid	Sounding			Inertia Feet <sup>3</sup> Ton	Lever	Vertical Moments	Feet For'd	Forward Moments	Feet Aft
		Fresh Water	6.086	10.871	66.161	38.849	236.435		
		Fuel Oil - E.R. Port	14.958	5.732	85.739	7.327	109.597		
		Fuel Oil - E.R. Stbd	15.780	5.904	93.165	7.351	115.999		
		Inclining Weight #1	1.763	14.336	25.274			28.550	50.334
		Inclining Weight #2	1.763	14.156	24.957			24.305	42.850
		Oily Water in Bilge (Engine Room)	0.500	1.500	0.750	2.500	1.250		
		Inclining Personnel (3 Person & Gear)	0.335	10.000	3.348			2.500	0.837
		Galley/Mess - Trash	0.134	13.760	1.843	17.500	2.344		
		Berths - Trash	0.089	13.750	1.224	12.500	1.113		
		Welding Equipment/Supplies on Main Deck	0.335	14.250	4.774			19.833	6.644
		<b>TOTALS FOR DEDUCTION</b>	<b>41.743</b>	<b>7.360</b>	<b>307.235</b>	<b>8.770</b>	<b>366.073</b>		<b>0.000</b>

WEIGHTS TO DEDUCT



**STABILITY TEST**

F/V 'SASHA-LEE'

**SHIP IN CONDITION 1 "LIGHTSHIP"**

DESCRIPTION OF CONDITION	ITEMS	Displacement Weight	C.G. Above Base		C.G. From M.P.			
			Lever	Vertical Moments	Feet For'd	Forward Moments	Feet Aft	After Moments
	Ship in Condition 0 (As inclined)	216.280	9.716	2101.468	0.825	178.386	0.000	
	Weights to Relocate	0.000	0.000		1.763	0.748	0.000	
	Weights to Deduct	-41.743	7.360	-307.235	8.770	-366.073	0.000	
	Weights to Complete	11.149	14.758	164.534	0.000		7.882	87.876
Slack Tanks								
	<b>Total Lightship</b>	<b>185.686</b>	<b>10.549</b>	<b>1958.767</b>		<b>-186.939</b>	<b>1.480</b>	<b>87.876</b>

Molded Keel draft at longitudinal center of floatation corresponding to the above displacement for water \_\_\_\_\_ feet

Transverse metacenter above base at L.C.F. draft, uncorrected for trim \_\_\_\_\_ feet

Transverse metacenter above base correct for trim \_\_\_\_\_ feet

C.G. above base \_\_\_\_\_ feet

Metacentric height, uncorrected for free surface, corrected for trim G.M. \_\_\_\_\_ feet

Metacentric height, corrected for free surface, corrected for trim G.M. \_\_\_\_\_ feet

Correction for Free Surface \_\_\_\_\_

Longitudinal metacenter above C.G. at L.C.F. d \_\_\_\_\_ feet

Moment to alter trim 1 foot at L.C.F. draft Longl GM XΔ \_\_\_\_\_ ft.-tons.

C.B. of ship on even keel at L.C.F. draft aft forward of midship \_\_\_\_\_ feet

C.G. aft forward of midships \_\_\_\_\_ feet

Trimming lever \_\_\_\_\_ feet

Trim, aft forward, Displacement X Lever / Moment to Tri \_\_\_\_\_ feet

Longitudinal center of floatation, aft forward of midships \_\_\_\_\_ feet

Difference between L.C.F. and midships dra \_\_\_\_\_ feet

Molded draft amidships \_\_\_\_\_ feet

Draft on draft marks forward \_\_\_\_\_ feet

Draft on draft marks aft \_\_\_\_\_ feet