

## Bulk Liquid Problems Question Tables

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BL-001

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	5229
7. #2 CARGO TANK	5193
8. #3 CARGO TANK	4229
9. #4 CARGO TANK	5116
10. BRIDGE CREW	3
11. BRIDGE STORES	12
12. BRIDGE F.W.	15
13. #5 CARGO TANK	2956
14. #6 BALLAST TANK	1628
15. #7 CARGO/BALLAST TANK	0
16. #8 CARGO/BALLAST TANK	0
17. #9 CARGO/BALLAST TANK	6012
18. #10 CARGO TANK	5417
19. #11 CARGO TANK	3257
20. AFT COFFERDAM	0
21. AFT BUNKERS	900
22. AFT SETTLERS	325
23. DISTILLED WATER	56
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	57
27. AFT PEAK	375

## Bulk Liquid Problems Question Tables

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BL-002

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	5229
7. #2 CARGO TANK	5193
8. #3 CARGO TANK	4229
9. #4 CARGO TANK	5116
10. BRIDGE CREW	3
11. BRIDGE STORES	12
12. BRIDGE F.W.	15
13. #5 CARGO TANK	2956
14. #6 BALLAST TANK	1628
15. #7 CARGO/BALLAST TANK	0
16. #8 CARGO/BALLAST TANK	0
17. #9 CARGO/BALLAST TANK	6012
18. #10 CARGO TANK	5417
19. #11 CARGO TANK	3257
20. AFT COFFERDAM	0
21. AFT BUNKERS	900
22. AFT SETTLERS	325
23. DISTILLED WATER	56
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	57
27. AFT PEAK	375

## Bulk Liquid Problems Question Tables

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BL-003

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	5229
7. #2 CARGO TANK	5193
8. #3 CARGO TANK	4229
9. #4 CARGO TANK	5116
10. BRIDGE CREW	3
11. BRIDGE STORES	12
12. BRIDGE F.W.	15
13. #5 CARGO TANK	3956
14. #6 BALLAST TANK	1628
15. #7 CARGO/BALLAST TANK	5929
16. #8 CARGO/BALLAST TANK	6012
17. #9 CARGO/BALLAST TANK	0
18. #10 CARGO TANK	5417
19. #11 CARGO TANK	3257
20. AFT COFFERDAM	0
21. AFT BUNKERS	900
22. AFT SETTLERS	325
23. DISTILLED WATER	56
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	57
27. AFT PEAK	375

## Bulk Liquid Problems Question Tables

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**BL-0004**

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	5229
7. #2 CARGO TANK	5193
8. #3 CARGO TANK	4229
9. #4 CARGO TANK	5116
10. BRIDGE CREW	3
11. BRIDGE STORES	12
12. BRIDGE F.W.	15
13. #5 CARGO TANK	3956
14. #6 BALLAST TANK	1628
15. #7 CARGO/BALLAST TANK	5929
16. #8 CARGO/BALLAST TANK	6012
17. #9 CARGO/BALLAST TANK	0
18. #10 CARGO TANK	5417
19. #11 CARGO TANK	3257
20. AFT COFFERDAM	0
21. AFT BUNKERS	900
22. AFT SETTLERS	325
23. DISTILLED WATER	56
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	57
27. AFT PEAK	375

**BL-0005**

#### FREEBOARD FROM DECK LINE

#### LOAD LINE

Tropical	74 inches (T)	7 inches above (S)
Summer	81 inches (S)	*
Winter	88 inches (W)	7 inches below (S)
Fresh water allowance	10 inches	

## Bulk Liquid Problems Question Tables

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### BL-0006

FREEBOARD FROM DECK LINE		LOAD LINE	
Tropical	75 inches	(T)	8 inches above (S)
Summer	83 inches	(S)	*
Winter	91 inches	(W)	8 inches below (S)
Fresh water allowance	7 inches		

### BL-0007

FREEBOARD FROM DECK LINE		LOAD LINE	
Tropical	81 inches	(T)	7 inches above (S)
Summer	88 inches	(S)	*
Winter	95 inches	(W)	7 inches below (S)
Fresh water allowance	6 inches		

### BL-0008

FREEBOARD FROM DECK LINE		LOAD LINE	
Tropical	71 inches	(T)	7 inches above (S)
Summer	78 inches	(S)	*
Winter	85 inches	(W)	7 inches below (S)
Fresh water allowance	6 inches		

## Bulk Liquid Problems Question Tables

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BL-009

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	4659
7. #2 CARGO TANK	5280
8. #3 CARGO TANK	5489
9. #4 CARGO TANK	0
10. BRIDGE CREW	3
11. BRIDGE STORES	12
12. BRIDGE F.W.	10
13. #5 CARGO TANK	5196
14. #6 BALLAST TANK	2400
15. #7 CARGO/BALLAST TANK	5319
16. #8 CARGO/BALLAST TANK	5400
17. #9 CARGO/BALLAST TANK	6000
18. #10 CARGO TANK	5361
19. #11 CARGO TANK	4952
20. AFT COFFERDAM	0
21. AFT BUNKERS	850
22. AFT SETTLERS	360
23. DISTILLED WATER	50
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	57
27. AFT PEAK	0

## Bulk Liquid Problems Question Tables

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### BL-0010

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	76 inches	(T)	7 inches above (S)
Summer	83 inches	(S)	*
Winter	90 inches	(W)	7 inches below (S)
Fresh water allowance	10 inches		

### BL-0011

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	81 inches	(T)	7 inches above (S)
Summer	88 inches	(S)	*
Winter	95 inches	(W)	7 inches below (S)
Fresh water allowance	6 inches		

### BL-0012

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	61 inches	(T)	5 inches above (S)
Summer	66 inches	(S)	*
Winter	71 inches	(W)	5 inches below (S)
Fresh water allowance	5 inches		

### BL-0013

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	72 inches	(T)	5 inches above (S)
Summer	77 inches	(S)	*
Winter	82 inches	(W)	5 inches below (S)
Fresh water allowance	4 inches		

## Bulk Liquid Problems Question Tables

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**BL-0014**

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	4659
7. #2 CARGO TANK	5280
8. #3 CARGO TANK	5489
9. #4 CARGO TANK	0
10. BRIDGE CREW	3
11. BRIDGE STORES	12
12. BRIDGE F.W.	10
13. #5 CARGO TANK	5196
14. #6 BALLAST TANK	2400
15. #7 CARGO/BALLAST TANK	5319
16. #8 CARGO/BALLAST TANK	5400
17. #9 CARGO/BALLAST TANK	6000
18. #10 CARGO TANK	5361
19. #11 CARGO TANK	4952
20. AFT COFFERDAM	0
21. AFT BUNKERS	850
22. AFT	360
23. DISTILLED WATER	50
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	57
27. AFT PEAK	0

**BL-0015**

#### FREEBOARD FROM DECK LINE

#### LOAD LINE

Tropical	66 inches (T)	6 inches above (S)
Summer	72 inches (S)	*
Winter	78 inches (W)	6 inches below (S)
Fresh water allowance	6 inches	



## Bulk Liquid Problems Question Tables

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### BL-0016

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	75 inches	(T)	8 inches above (S)
Summer	83 inches	(S)	*
Winter	91 inches	(W)	8 inches below (S)
Fresh water allowance	9 inches		

### BL-0017

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	73 inches	(T)	6 inches above (S)
Summer	79 inches	(S)	*
Winter	85 inches	(W)	6 inches below (S)
Fresh water allowance	6 inches		

### BL-0018

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	68 inches	(T)	6 inches above (S)
Summer	74 inches	(S)	*
Winter	80 inches	(W)	6 inches below (S)
Fresh water allowance	6 inches		

### BL-0019

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	43 inches	(T)	6 inches above (S)
Summer	49 inches	(S)	*
Winter	54 inches	(W)	6 inches below (S)
Fresh water allowance	5 inches		

### BL-0020

FREEBOARD FROM DECK LINE			LOAD LINE
Tropical	72 inches	(T)	7 inches above (S)
Summer	79 inches	(S)	*
Winter	86 inches	(W)	7 inches below (S)
Fresh water allowance	6 inches		

## Bulk Liquid Problems Question Tables

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### BL-0021

FREEBOARD FROM DECK LINE		LOAD LINE	
Tropical	69 inches	(T)	7 inches above (S)
Summer	76 inches	(S)	*
Winter	83 inches	(W)	7 inches below (S)
Fresh water allowance	6 inches		

### BL-0022

FREEBOARD FROM DECK LINE		LOAD LINE	
Tropical	77 inches	(T)	7 inches above (S)
Summer	84 inches	(S)	*
Winter	91 inches	(W)	7 inches below (S)
Fresh water allowance	8 inches		

## Bulk Liquid Problems Question Tables

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BL-0023

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	749
2. DEEP TANK P/S	1747
3. FWD STORES	6
4. FWD BUNKERS	2867
5. FWD COFFERDAM	338
6. #1 CARGO TANK	0
7. #2 CARGO TANK	0
8. #3 CARGO TANK	0
9. #4 CARGO TANK	0
10. BRIDGE CREW	3
11. BRIDGE STORES	10
12. BRIDGE F.W.	10
13. #5 CARGO TANK	0
14. #6 BALLAST TANK	2595
15. #7 CARGO/BALLAST TANK	3315
16. #8 CARGO/BALLAST TANK	2595
17. #9 CARGO/BALLAST TANK	2595
18. #10 CARGO TANK	0
19. #11 CARGO TANK	0
20. AFT COFFERDAM	239
21. AFT BUNKERS	859
22. AFT SETTLERS	360
23. DISTILLED WATER	60
24. AFT STORES	80
25. AFT CREW	7
26. F.W. AFT	71
27. AFT PEAK	394

## Bulk Liquid Problems Question Tables

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BL-0024

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	4759
7. #2 CARGO TANK	5288
8. #3 CARGO TANK	5463
9. #4 CARGO TANK	0
10. BRIDGE CREW	3
11. BRIDGE STORES	10
12. BRIDGE F.W.	10
13. #5 CARGO TANK	5486
14. #6 BALLAST TANK	2408
15. #7 CARGO/BALLAST TANK	5446
16. #8 CARGO/BALLAST TANK	2410
17. #9 CARGO/BALLAST TANK	5454
18. #10 CARGO TANK	5349
19. #11 CARGO TANK	5026
20. AFT COFFERDAM	0
21. AFT BUNKERS	800
22. AFT SETTLERS	360
23. DISTILLED WATER	50
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	65
27. AFT PEAK	0

## Bulk Liquid Problems Question Tables

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BL-0025

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	2867
5. FWD COFFERDAM	0
6. #1 CARGO TANK	3596
7. #2 CARGO TANK	3996
8. #3 CARGO TANK	4128
9. #4 CARGO TANK	4146
10. BRIDGE CREW	0
11. BRIDGE STORES	0
12. BRIDGE F.W.	0
13. #5 CARGO TANK	0
14. #6 BALLAST TANK	0
15. #7 CARGO/BALLAST TANK	1821
16. #8 CARGO/BALLAST TANK	2328
17. #9 CARGO/BALLAST TANK	2303
18. #10 CARGO TANK	4042
19. #11 CARGO TANK	3798
20. AFT COFFERDAM	0
21. AFT BUNKERS	850
22. AFT SETTLERS	340
23. DISTILLED WATER	60
24. AFT STORES	80
25. AFT CREW	7
26. F.W. AFT	70
27. AFT PEAK	0

## Bulk Liquid Problems Question Tables

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BL-0026

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	1600
5. FWD COFFERDAM	0
6. #1 CARGO TANK	4759
7. #2 CARGO TANK	5288
8. #3 CARGO TANK	5463
9. #4 CARGO TANK	0
10. BRIDGE CREW	3
11. BRIDGE STORES	10
12. BRIDGE F.W.	10
13. #5 CARGO TANK	5486
14. #6 BALLAST TANK	2408
15. #7 CARGO/BALLAST TANK	5446
16. #8 CARGO/BALLAST TANK	2410
17. #9 CARGO/BALLAST TANK	5454
18. #10 CARGO TANK	5349
19. #11 CARGO TANK	5026
20. AFT COFFERDAM	0
21. AFT BUNKERS	800
22. AFT SETTLERS	360
23. DISTILLED WATER	50
24. AFT STORES	75
25. AFT CREW	7
26. F.W. AFT	65
27. AFT PEAK	0

## Bulk Liquid Problems Question Tables

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BL-0027

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	749
2. DEEP TANK P/S	1747
3. FWD STORES	6
4. FWD BUNKERS	2867
5. FWD COFFERDAM	338
6. #1 CARGO TANK	0
7. #2 CARGO TANK	0
8. #3 CARGO TANK	0
9. #4 CARGO TANK	0
10. BRIDGE CREW	3
11. BRIDGE STORES	10
12. BRIDGE F.W.	10
13. #5 CARGO TANK	0
14. #6 BALLAST TANK	2595
15. #7 CARGO/BALLAST TANK	3315
16. #8 CARGO/BALLAST TANK	2595
17. #9 CARGO/BALLAST TANK	2595
18. #10 CARGO TANK	0
19. #11 CARGO TANK	0
20. AFT COFFERDAM	239
21. AFT BUNKERS	859
22. AFT SETTLERS	360
23. DISTILLED WATER	60
24. AFT STORES	80
25. AFT CREW	7
26. F.W. AFT	71
27. AFT PEAK	394

## Bulk Liquid Problems Question Tables

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BL-0028

### LONGITUDINAL BENDING STRESSES (PSI)

#### DESCRIPTION

1. FORE PEAK	0
2. DEEP TANK P/S	0
3. FWD STORES	6
4. FWD BUNKERS	2867
5. FWD COFFERDAM	0
6. #1 CARGO TANK	3596
7. #2 CARGO TANK	3996
8. #3 CARGO TANK	4128
9. #4 CARGO TANK	4146
10. BRIDGE CREW	0
11. BRIDGE STORES	0
12. BRIDGE F.W.	0
13. #5 CARGO TANK	0
14. #6 BALLAST TANK	0
15. #7 CARGO/BALLAST TANK	1821
16. #8 CARGO/BALLAST TANK	2328
17. #9 CARGO/BALLAST TANK	2303
18. #10 CARGO TANK	4042
19. #11 CARGO TANK	3798
20. AFT COFFERDAM	0
21. AFT BUNKERS	850
22. AFT SETTLERS	340
23. DISTILLED WATER	60
24. AFT STORES	80
25. AFT CREW	7
26. F.W. AFT	70
27. AFT PEAK	0