

BUCKNER

HEAVYLIFT CRANES

Contents	
Sheet	Description
001	Title Page
002	Build Sheet
003	Rod Plan
004	Counterweight Arrangement
005	Hook Block
006	Reeving Plan
007	Erection and Takedown
008	Load Chart

PROJECT:
LR1800 HSL3AF 102m+18m

LOCATION: -----
BUCKNER CONTACT: Dan Ives, PE
Dani@BucknerCompanies.com
LIFT PLAN BY: Dan Ives, PE
Dani@BucknerCompanies.com

DRAWING NOTES:
Title Page

FILE: C:\Users\Dan Ives\OneDrive - Buckner Heavylift
Cranes\Engineering\Drawings\BHL\Buckner\Build
Sheets\LR 1800\LR 1800 - HSL3AF 102m + 18m
CREATED: (335' H, 2024 7@10:10:30.dwg
EDITING TIME: 1h38m FILE SIZE: 2539.27Kb
PAPER SIZE: ANSI B (17.00 x 11.00 Inches)
SAVED: 11.27.2024 @ 10:19:50 AM
PLOTTED: 11.27.2024 @ 10:19:53 AM

Revisions

All Sheets Same Revision Level

Rev.	Date	Description
000	11.27.2024	Preliminary Planning & Initial Layout
001	----	----
002	----	----
003	----	----
004	----	----
005	----	----
006	----	----
007	----	----
008	----	----
009	----	----
010	----	----

SHEET: 001 OF 008



Pos. Item	Description		Page
1 96020714	PULL ROD	6M AS-1	
2 96019851	PULL ROD	12M AS-2	
3 96023996	DRAW SHACKLE	1M	
4 918642708	MEASURING PLATE	MESSSTELLE 1	119
5 919115008	MEASURING PLATE	MESSSTELLE 1	
6 96023995	PULL ROD	2.3M AD- 6	
7 96023994	PULL ROD	3M AS- 7	
8 96015639	ROD CPL.	2.3M AS- 8	
9 96021718	PULL ROD	5M AS-9	
10 96022238	PULL ROD	4M AS-10	
11 96021796	PULL ROD	3M AS-11	
12 96025233	PULL ROD	3.7M AS-12	
30 97114147	FIBRE TENSIONING ROPE	28X1.32M	
31 97102778	FIBRE TENSIONING ROPE	41X1.70M	
33 97102889	FIBRE TENSIONING ROPE	41X3.70M	
36 96024374	CONNECTING LUG BOTTOM	AS-36	
38 96024354	CROSS STRAP MIDDLE	AS-38	
39 96024351	CROSS STRAP TOP	AS-39	
40 96024345	GUY SHACKLE	AS-40	
42 96016930	GUY ROPE CPL.	55X5.35M	
43 96032066	GUY ROPE CPL.	55X23.5M	
50 96034520	BRACKET CPL.	0.29M AF-50	
51 96030924	ROTATING SHAFT	2.4M AF-51	
53 96029116	TENSION PLATE PRE-ASS.	0.3M AF-53	
1000 98047043	RODS/ PULL RODS LR 1800-1.0	HSL3AF	

Pos. Item	Description		Page
41 97089967	FIBRE TENSIONING ROPE	55X12.8M	
42 96016930	GUY ROPE CPL.	55X5.35M	
44 96032102	GUY ROPE CPL.	55X2.35M	
54 96030931	DRAW SHACKLE	0.4M AF-54	
55 96032540	DRAW SHACKLE	0.255M AF-55	
56 919115108	MEASURING PLATE	MESSSTELLE 11	
57 918655308	MEASURING PLATE	MESSSTELLE 11	90
58 96032537	DRAW SHACKLE	0.6M AF-58	
59 96034304	GUY ROPE CPL.	55X10.7M	
60 96036721	DRAW SHACKLE	1.055M AF-60	
68 96022640	GUY ROPE CPL.	55X2.675M	
1000 98042042	RODS/ PULL RODS LR 1800-1.0	F	

PROJECT:
LR1800 HSL3AF 102m+18m

LOCATION: -----
BUCKNER CONTACT: Dan Ives, PE
Dani@BucknerCompanies.com
LIFT PLAN BY: Dan Ives, PE
Dani@BucknerCompanies.com

DRAWING NOTES:
Rod Plan

FILE: C:\Users\Dan Ives\OneDrive - Buckner Heavylift
Cranes\Engineering\Drawings\BHL\Buckner\Build
Sheets\LR 1800\LR 1800 - HSL3AF 102m + 18m
CREATED: (335' H, 50' 2024 7@10:10:30.dwg
EDITING TIME: 1h38m FILE SIZE: 2539.27Kb
PAPER SIZE: ANSI B (17.00 x 11.00 Inches)
SAVED: 11.27.2024 @ 10:19:50 AM
PLOTTED: 11.27.2024 @ 10:19:54 AM

Revisions

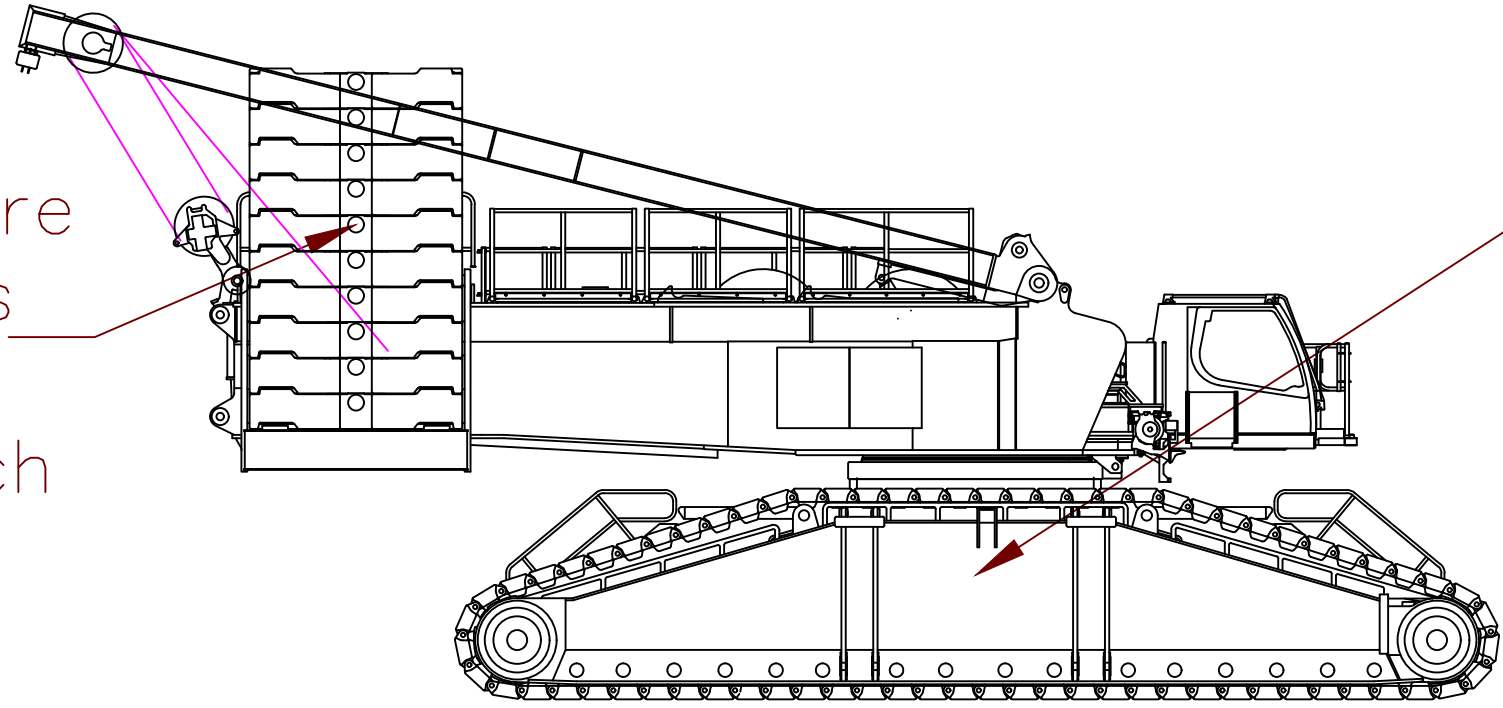
All Sheets Same Revision Level

Rev.	Date	Description
000	11.27.2024	Preliminary Planning & Initial Layout
001	----	----
002	----	----
003	----	----
004	----	----
005	----	----
006	----	----
007	----	----
008	----	----
009	----	----
010	----	----

SHEET: 003 OF 008



Superstructure
230 tonnes
20 slabs
10 tons each



Carbody
70 tonnes
6 slabs
10 tons each

PROJECT:
LR1800 HSL3AF 102m+18m

LOCATION: -----
BUCKNER CONTACT: Dan Ives, PE
Dani@BucknerCompanies.com

LIFT PLAN BY: Dan Ives, PE
Dani@BucknerCompanies.com

DRAWING NOTES:
Counterweight Arrangement

FILE: C:\Users\Dan Ives\OneDrive - Buckner Heavylift
Cranes\Engineering\Drawings\BHL\Buckner\Build
Sheets\LR 1800\LR 1800 - HSL3AF 102m + 18m
CREATED: (335' H, 2024 7@10:10:30.dwg
EDITING TIME: 1h38m FILE SIZE: 2539.27Kb
PAPER SIZE: ANSI B (17.00 x 11.00 Inches)
SAVED: 11.27.2024 @ 10:19:50 AM
PLOTTED: 11.27.2024 @ 10:19:54 AM

Revisions		
All Sheets Same Revision Level		
Rev.	Date	Description
000	11.27.2024	Preliminary Planning & Initial Layout
001	----	----
002	----	----
003	----	----
004	----	----
005	----	----
006	----	----
007	----	----
008	----	----
009	----	----
010	----	----

SHEET: 004 OF 008



1 Crane operation with 1 hoist rope F = 200 kN and d = 1 1/6" (30 mm) (EST1)



Note
 ► The net weight of a hook block can be increased using auxiliary weights. The respective weight is indicated on the side of the auxiliary weights. Possible auxiliary weights are specified in the following table.

Auxiliary weights	
1000 kg	2205 lb

1.1 Load hook 25 E (SWL 25 t (55130 lb))

Load		Rope pulleys	Maximum reeving	Net weight without auxiliary weight	
20.2 t	44500 lb	0	1	1.5 t	3310 lb

1.2 Hook block 80 DM (SWL 80 t (176400 lb))

Load		Rope pulleys	Maximum reeving	Net weight without auxiliary weight	
59.9 t	132200 lb	1	3	2.5 t	5510 lb

Hook block with installed auxiliary weights		Net weight	
2 auxiliary weights		4.5 t	9920 lb

1.3 Hook block 160 DM (SWL 160 t (352800 lb))

Load		Rope pulleys	Maximum reeving	Net weight without auxiliary weight	
137.1 t	302300 lb	3	7	2.5 t	5510 lb

Hook block with installed auxiliary weights		Net weight	
2 auxiliary weights		4.5 t	9920 lb
4 auxiliary weights		6.5 t	14330 lb
6 auxiliary weights		8.5 t	18740 lb

1.4 Hook block 250 DM (SWL 250 t (551250 lb))

Load		Rope pulleys	Maximum reeving	Net weight without auxiliary weight	
211.2 t	465700 lb	5	11	3.0 t	6620 lb

LWE/427201-03-02/en

Hook block with installed auxiliary weights	Net weight	
2 auxiliary weights	5.0 t	11030 lb
4 auxiliary weights	7.0 t	15440 lb
6 auxiliary weights	9.0 t	19850 lb
8 auxiliary weights	11.0 t	24260 lb

1.5 Double hook block 320 / 160 DM (SWL 160 t (352800 lb))

Load		Rope pulleys	Maximum reeving	Net weight without auxiliary weight	
137.1 t	302300 lb	3	7	3.4 t	7500 lb

Hook block with installed auxiliary weights		Net weight	
2 auxiliary weights		5.4 t	11910 lb
4 auxiliary weights		7.4 t	16320 lb
6 auxiliary weights		9.4 t	20730 lb
8 auxiliary weights		11.4 t	25140 lb

1.6 Double hook block 650 / 325 DMZ (SWL 325 t (716630 lb))

Load		Rope pulleys	Maximum reeving	Net weight without auxiliary weight	
282.5 t	622700 lb	7	15	10.0 t	22050 lb

Hook block with installed auxiliary weights		Net weight	
2 auxiliary weights		12.0 t	26460 lb
4 auxiliary weights		14.0 t	30870 lb
6 auxiliary weights		16.0 t	35280 lb
8 auxiliary weights		18.0 t	39690 lb

1.7 Double hook block 800 / 400 DMZ (SWL 400 t (882000 lb))

Load		Rope pulleys	Maximum reeving	Net weight without auxiliary weight	
350.9 t	622700 lb	9	19	12.0 t	26460 lb

LWE/427201-03-02/en

PROJECT:
 LR1800 HSL3AF 102m+18m

LOCATION: -----
 BUCKNER CONTACT: Dan Ives, PE
 Dani@BucknerHeavyLift.com
 LIFT PLAN BY: Dan Ives, PE
 Dani@BucknerHeavyLift.com

DRAWING NOTES:
 Hook Block

FILE: C:\Users\Dan Ives\OneDrive - Buckner HeavyLift\Cranes\Engineering\Drawings\BHL\Buckner\Build Sheets\LR 1800\LR 1800 - HSL3AF 102m + 18m
 CREATED: 11.27.2024 10:19:50 AM
 EDITING TIME: 1h38m FILE SIZE: 2539.27Kb
 PAPER SIZE: ANSI B (17.00 x 11.00 Inches)
 SAVED: 11.27.2024 10:19:50 AM
 PLOTTED: 11.27.2024 10:19:54 AM

Revisions

All Sheets Same Revision Level

Rev.	Date	Description
000	11.27.2024	Preliminary Planning & Initial Layout
001	----	----
002	----	----
003	----	----
004	----	----
005	----	----
006	----	----
007	----	----
008	----	----
009	----	----
010	----	----

SHEET: 005 OF 008



HSL3AF – operation, without auxiliary support
HSL3AF: F-connector head

aat_272_019_00001_01_000
 Page: 9 of 9

On crawlers 9.4m x 9m x 1.5m
 Ground slope: maximum 0.3°
 Without mechanical auxiliary support

System: H 3330.40/25
 S 2724.22
 L 2420.14
 F 2116.7

Wind speeds: maximum 13.4m/s

With a total boom length above 120m (highlighted in gray in the chart), erection / take-down is only permissible with wind from the front or from the rear on the boom. The permissible inflow angle range is ±25°.

Operation with boom nose: During operation with a boom nose, the value in the chart is the sum of the weights of the hook blocks on the main boom and the boom nose as well as the weight of the boom nose.

HSL3AF Without auxiliary support			Permissible weight of the hook block [t] on the F-boom																					
			For turntable / central ballast [t]																					
			150 / 30	170 / 30	170 / 50	190 / 50	210 / 50	210 / 70	230 / 70	230 / 90	230 / 130													
HSL3AF [m]	102	F [m]	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
			15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
HSL3AF [m]	105	F [m]	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
			15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- Hook block weight up to 15t permissible
- Erection not permissible

It may be necessary to use a greater hook block weight than is indicated here. See the load chart manual: Determination of hoist rope reeving and hook block. This heavier hook block must be carried along on the ground during erection / take-down, or the auxiliary weights must be attached after erection and removed before take down.

LWE/17250-03-02/en

HSL3AF – operation, with auxiliary support
HSL3AF: F-connector head

aat_272_019_00002_01_001
 Page: 9 of 9

On crawlers 9.4m x 9m x 1.5m
 Ground slope: maximum 0.3°
 With mechanical auxiliary support

System: H 3330.40/25
 S 2724.22
 L 2420.14
 F 2116.7

Wind speeds: maximum 13.4m/s

With a total boom length above 120m (highlighted in gray in the chart), erection / take-down is only permissible with wind from the front or from the rear on the boom. The permissible inflow angle range is ±25°.

Operation with boom nose: During operation with a boom nose, the value in the chart is the sum of the weights of the hook blocks on the main boom and the boom nose as well as the weight of the boom nose.

HSL3AF With auxiliary support			Permissible weight of the hook block [t] on the F-boom																							
			For turntable / central ballast [t]																							
			150 / 30	170 / 30	170 / 50	190 / 50	210 / 50	210 / 70	230 / 70	230 / 90	230 / 130															
HSL3AF [m]	102	F [m]	12	-	-	-	-	-	1.9	1.9	2.8	2.8	2.8	-	-	-	-	-	-	-	-					
			15	-	-	-	-	-	1.1	1.1	2.1	2.1	2.1	2.1	-	-	-	-	-	-	-	-				
			18	-	-	-	-	-	-	-	1.5	1.5	1.5	1.5	-	-	-	-	-	-	-	-				
			21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
			24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
			27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
HSL3AF [m]	105	F [m]	12	-	-	-	-	-	-	-	-	-	1.8	1.8	1.8	-	-	-	-	-	-	-				
			15	-	-	-	-	-	-	-	-	-	1	1	1	-	-	-	-	-	-	-	-			
			18	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
			27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			33	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
			36	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			39	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

- Hook block weight up to 15t permissible
- Erection not permissible

It may be necessary to use a greater hook block weight than is indicated here. See the load chart manual: Determination of hoist rope reeving and hook block. This heavier hook block must be carried along on the ground during erection / take-down, or the auxiliary weights must be attached after erection and removed before take down.

LWE/17250-03-02/en

PROJECT:
 LR1800 HSL3AF 102m+18m

LOCATION: -----
 BUCKNER CONTACT: Dan Ives, PE
 Dani@BucknerCompanies.com
 LIFT PLAN BY: Dan Ives, PE
 Dani@BucknerCompanies.com

DRAWING NOTES:
 Erection and Takedown

FILE: C:\Users\Dan Ives\OneDrive – Buckner Heavylift
 Cranes\Engineering\Drawings\BHL\Buckner\Build
 Sheets\LR 1800\LR 1800 – HSL3AF 102m + 18m
 CREATED: (335' H, 2024 7@10:10:30.dwg)
 EDITING TIME: 1h38m FILE SIZE: 2539.27Kb
 PAPER SIZE: ANSI B (17.00 x 11.00 Inches)
 SAVED: 11.27.2024 @ 10:19:50 AM
 PLOTTED: 11.27.2024 @ 10:19:57 AM

Revisions		
All Sheets Same Revision Level		
Rev.	Date	Description
000	11.27.2024	Preliminary Planning & Initial Layout
001	----	----
002	----	----
003	----	----
004	----	----
005	----	----
006	----	----
007	----	----
008	----	----
009	----	----
010	----	----

SHEET: 007 OF 008



