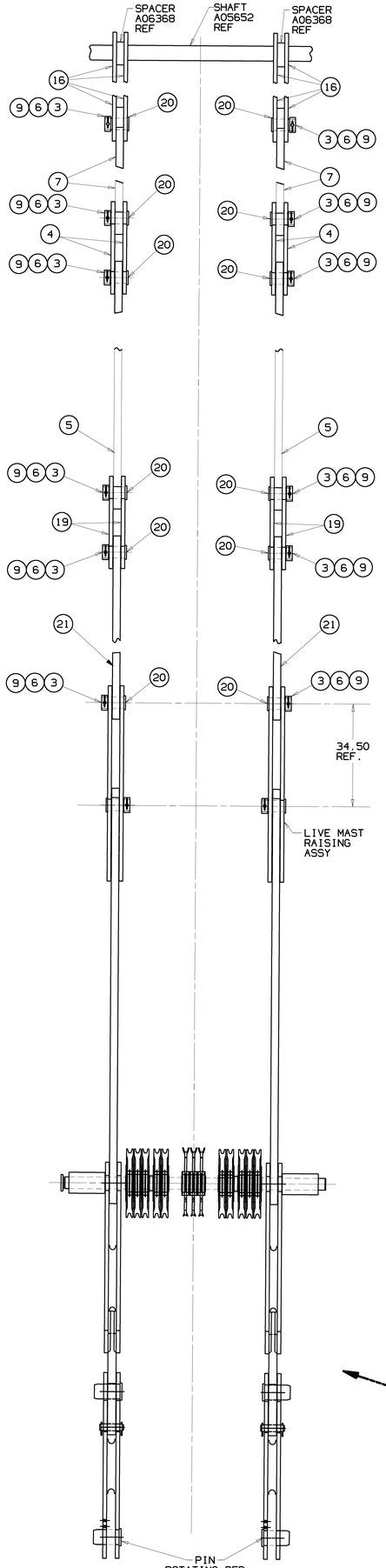
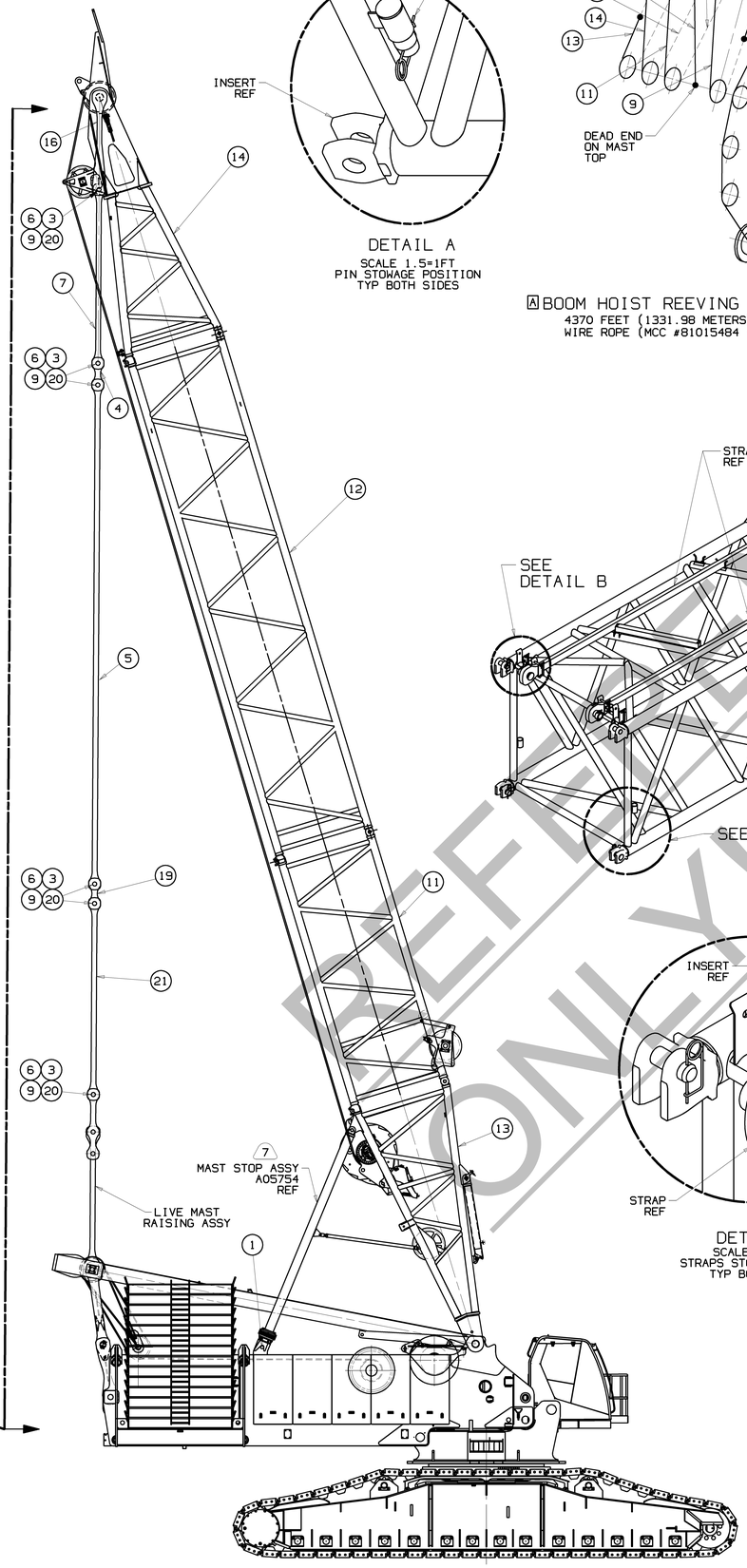
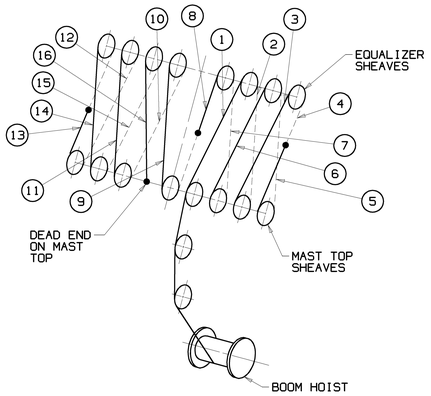
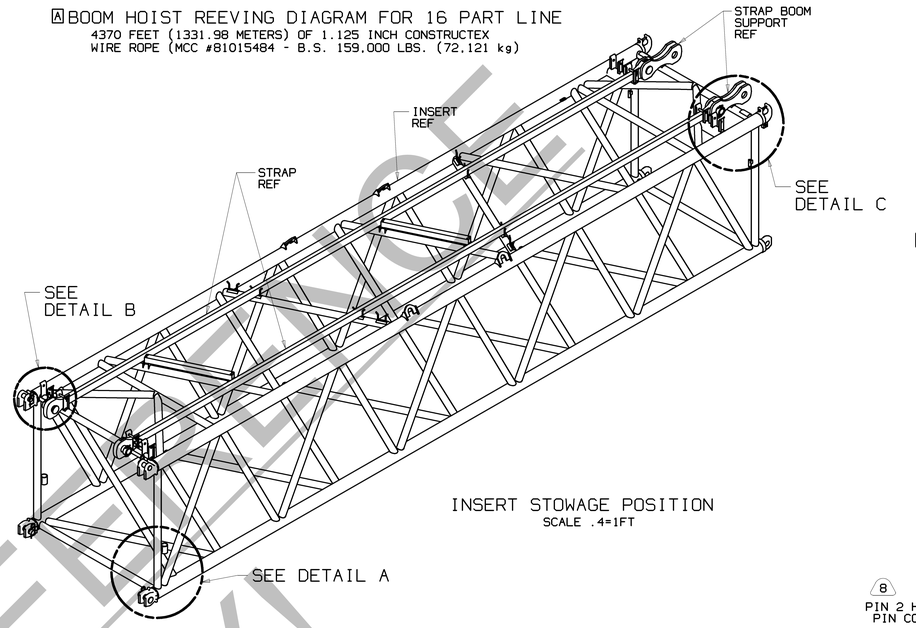




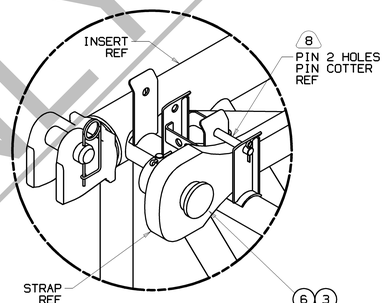
DETAIL A
SCALE 1.5=1FT
PIN STOWAGE POSITION
TYP BOTH SIDES



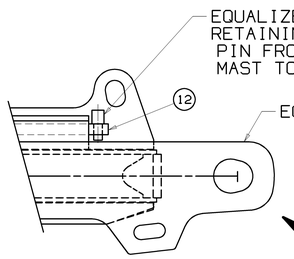
A BOOM HOIST REEVING DIAGRAM FOR 16 PART LINE
4370 FEET (1331.98 METERS) OF 1.125 INCH CONSTRUCTEX WIRE ROPE (MCC #81015484 - B.S. 159,000 LBS. (72,121 kg)

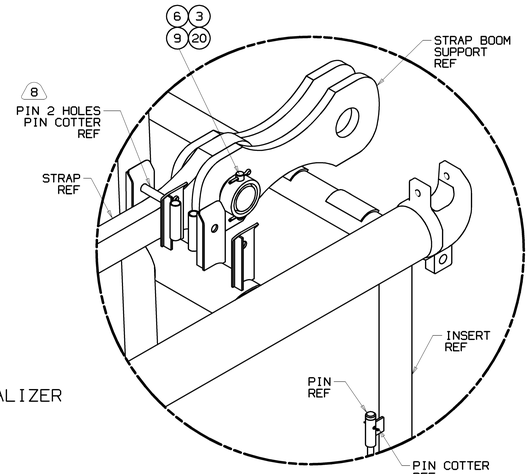


INSERT STOWAGE POSITION
SCALE .4=1FT

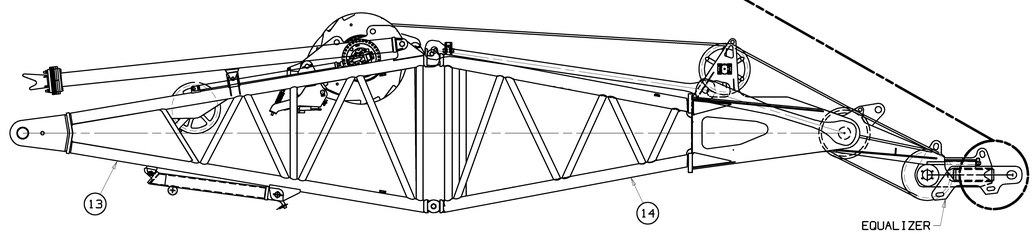


DETAIL B
SCALE 1.5=1FT
STRAPS STOWED POSITION
TYP BOTH SIDES





DETAIL C
SCALE 1.5=1FT
STRAPS STOWED POSITION
TYP BOTH SIDES



MAST TRANSPORTATION PACKAGE

1 TOP 20 FT I.D. TAG #A05458.
2 INSERT 40 FT I.D. TAG #A05457 OR 81010404.
3 INSERT 20 FT I.D. TAG #A05456 OR 81010405.
4 BUTT 20 FT I.D. TAG #A05455.
5 SEE SHEET 2 FOR MAST RAISING PROCEDURE WITH ANCHOR HOLDBACK
6 SEE SHEET 4 FOR MAST RAISING PROCEDURE WITH BOOM HOLDBACK
7 A05861 CAN BE USED IN PLACE OF A05754.
8 TOP 20 FT. USE ITEMS 2 & 10
INSERT 40 FT. USE ITEMS 2 & 8
INSERT 20 FT. USE ITEMS 25 & 8
C 9 OPTIONAL CAT WALK ASSEMBLY

BOOM SECTION ASSY	OPTIONAL CAT WALK ASSY
A05396	81016908
A05398	81016909
A05407	81016916

BILL OF MATERIAL

ITEM NO.	REQ. NO.	DESCRIPTION	LENGTH IN	MATERIAL	CODE NO. OR DWG. NO.	
MAST ASSEMBLY #56 MAST						
1	2	PIN 3 X 7.187			71092	
2	6	PIN COTTER 2 HOLE 1.00 OD X 6.98			77457	
3	12	COLLAR			192596	
4	4	STRAP BOOM SUPPORT			192597	
5	2	STRAP 40 FT			192599	
6	12	PIN COTTER 2 HOLE			192603	
7	2	STRAP 13FT - 4IN			193242	
8	16	PIN COTTER .312 X 2.00			562127	
9	24	PIN COTTER .375 X 2.50			562149	
10	4	PIN WIRE LOCK .250 DIA X 1.75 LG			563823	
11	1	INSERT 20 FT ASSEMBLY #56 MAST			A05396	3,9
12	1	INSERT 40 FT ASSEMBLY #56 MAST			A05398	2,9
13	1	BUTT 20 FT ASSEMBLY #56 MAST			A05405	4
14	1	TOP 20 FT ASSEMBLY			A05407	1,9
15						
16	4	STRAP 1.25 LIVE MAST			A05600	
17						
18						
19	4	STRAP BOOM SUPPORT			A06080	
20	12	PIN COTTER 1 HOLE W/HD 3.875 OD X 7.50			A06321	
21	2	STRAP - 14 FT 8			A06654	
22						
23						
24						
25	4	PIN 2 HOLE 1.00 DIA X 6.17 LG			A09075	
26						
27						
28						
29						
MAXER EQUIPPED						
30	2	MAST STOP ASSY #56 MAST			A05861	7
31						
OPTIONAL PARTS						
32	1	CAT WALK ASSY 20FT #56 MAST INSERT			81016908	9
33	1	CAT WALK ASSY 40FT #56 INSERT			81016909	9
34	1	CAT WALK ASSY 20FT #56 MAST TOP			81016916	9
35						

ASSEMBLIES USED ON
A04341
A05379
A06939
A07786
A08235
A08237

REVISIONS
01-26-11 MER
A] REVISED NOTE
09-06-11 JMG
B] ADDED
C] ADDED NOTE

SUPERSEDES A04342 SHT 1 OF 4 OF 09-14-09

TOLERANCE UNLESS OTHERWISE SPECIFIED

DECIMAL PLACES	FABRICATION ≤ 10 FEET	FABRICATION > 10 FEET	MACHINING	MACHINING TOLERANCE APPLIES TO THE DISTANCE BETWEEN ANY TWO SURFACES
(1) PLACE 0.0	±.12	±.18	±.03	
(2) PLACE 0.00	±.06	±.12	±.015	
(3) PLACE 0.000			±.005	
ANGLES	±1°30'		±0°30'	

SCALE .12=1FT
DR. KKM
CK. KKM
APP PMP
Manitowoc Cranes, Inc.
Manitowoc, Wisconsin
MODEL 18000
MAST ASSEMBLY
100 FT #56 MAST
DWG. NO. A04342
SHT 1 OF 4

PRIVATE LABELING REQUIREMENT TO CONFORM TO ENGINEERING SPECIFICATION 6829103794 FOR COMPONENTS LISTED IN GDS500-05-035
DATE 02-24-10
PATTERN NO.

DO NOT SCALE THIS DRAWING

BILL OF MATERIAL					
ITEM NO. / PROD NO.	REC-TION	DESCRIPTION	LENGTH IN.	MATERIAL	CODE NO. ON DWG. NO.

MAST RAISING: (ANCHOR HOLDBACK)

1) POSITION BOOM HOIST EQUALIZER AT 115 FT. FROM MAST HINGE PIN AND TIE OFF EQUALIZER TO SUPPORT THE FOLLOWING LOADS.

2) REFER TO ASSEMBLY GUIDE FOR MAST RAISING PROCEDURE.

MAST RAISING PROCEDURE

1. INSTALL MAST STOP AND WIRE ROPE GUIDE IN OPERATING POSITION AS SHOWN.
2. ANCHOR BOOM HOIST EQUALIZER AS INDICATED ABOVE.
3. RAISE MAST WITH MAST HOIST WHILE PAYING OUT BOOM HOIST LINE. (DO NOT ALLOW BOOM HOIST TO GO INTO TENSION AT THIS TIME) ADEQUATE SLACK MUST BE MAINTAINED TO PREVENT BOOM HOIST ROPE FROM BEARING UP AGAINST ROPE GUARD TUBE IN MAST POINT.
4. AS MAST APPROACHES VERTICAL, TAKE UP EXCESS SLACK IN BOOM HOIST AND EASE MAST OVER CENTER.
5. SUPPORTING MAST WITH BOOM HOIST, GUIDE BACKHITCH LINK TO HOLE IN ROTATING BED AND PIN. (WARNING - DO NOT OVER TENSION MAST HOIST).
6. LOWER MAST TO ENGAGE MAST STOPS.
7. CHECK SLACK IN MAST STRAPS AND SHIM AS REQUIRED TO REMOVE EXCESS SLACK. (WARNING - MAST HOIST ROPE MUST NOT BE IN TENSION DURING MACHINE OPERATION. ALLOW ADEQUATE SLACK.

TO LOWER MAST

1. ANCHOR BOOM HOIST EQUALIZER AS INDICATED ABOVE.
2. REMOVE SLACK FROM MAST HOIST ROPE.
2. REMOVE PINS IN ROTATING BED.
3. MOVE MAST FORWARD WITH BOOM HOIST WHILE PAYING OUT MAST HOIST ROPE AND EASE MAST OVER CENTER. (CAUTION: MAINTAIN MINIMUM SLACK IN MAST HOIST)
5. LOWER MAST TO BLOCKING WITH MAST HOIST WHILE TAKING UP BOOM HOIST ROPE.

MAST RAISING/LOWERING

TOLERANCE UNLESS OTHERWISE SPECIFIED				
DECIMAL PLACES	FABRICATION		MACHINING	
	≤ 10 FEET	> 10 FEET		
(1) PLACE	0.0 ±.12	±.18	±.03	250 MACHINING FINISH UNLESS OTHERWISE SPECIFIED
(2) PLACE	0.00 ±.06	±.12	±.015	
(3) PLACE	0.000		±.005	DIRECTION OF SURFACE
ANGLES	±1°30'		±0°30'	

SCALE 12=1FT	Manitowoc Cranes, Inc. Manitowoc, Wisconsin	MAST ASSEMBLY	
DR. CRP		100 FT #56 MAST	
CK. TSC	MODEL 18000		
APP TSC			

ASSEMBLIES USED ON

REVISIONS

05-05-03 RJW DRG. TITLE CORRECTED

01-30-06 CDC
[A] WAS SHEET 2 OF 3

DWG. NO. A04342

SHT 2 OF 4

DATE 12-5-02

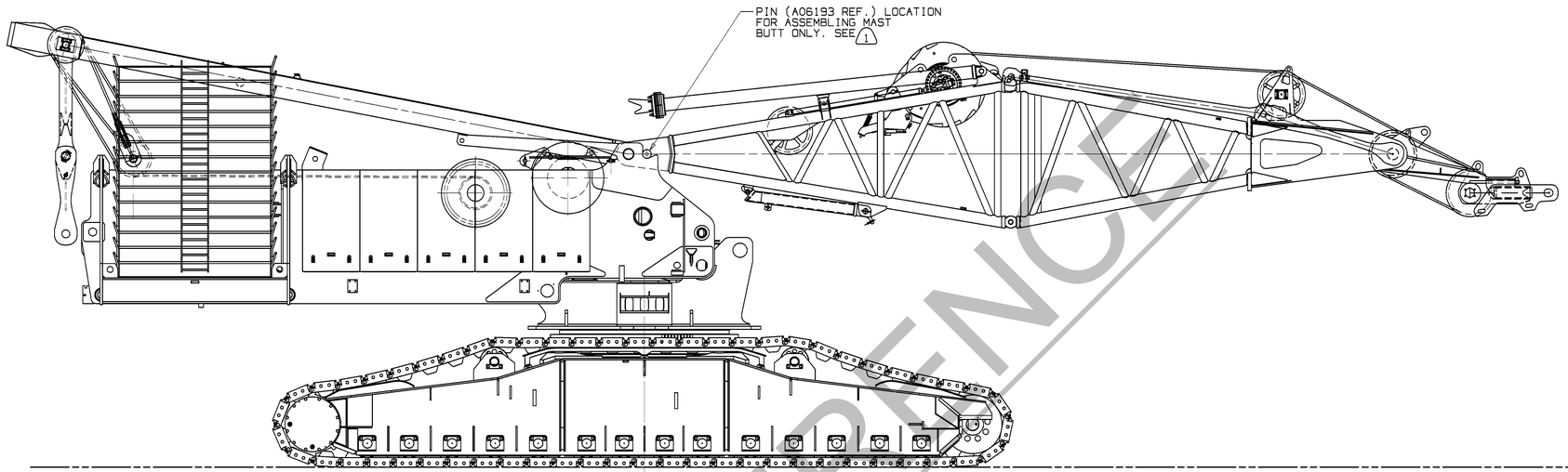
PATTERN NO.

DWG. NO. A04342

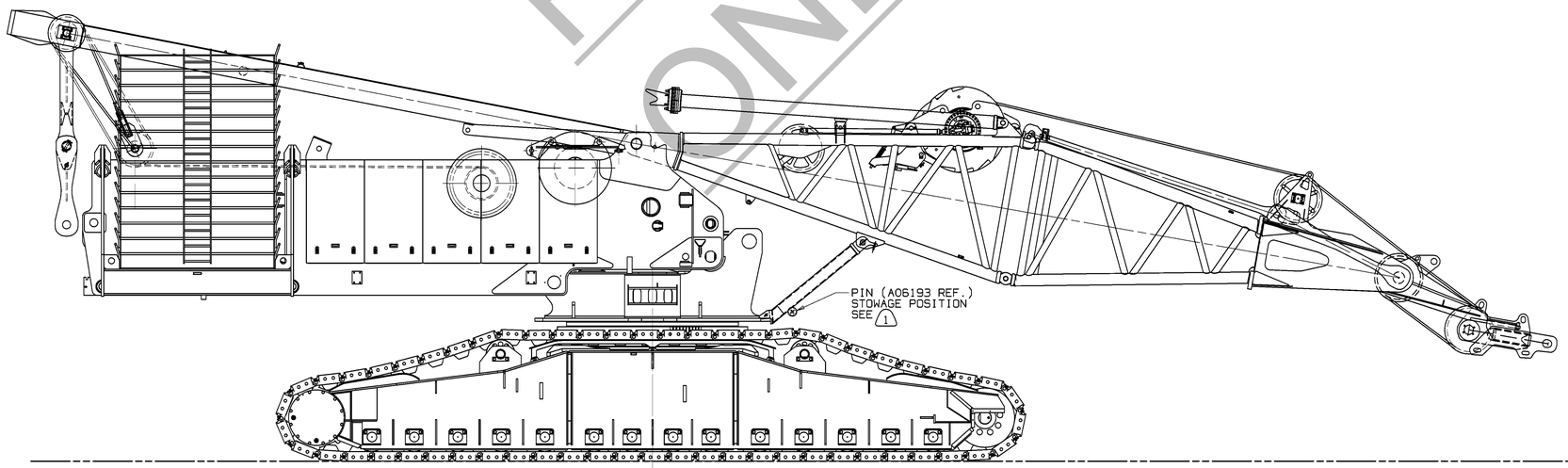
BILL OF MATERIAL					
ITEM NO. / NO. PIECES	REQ'D	DESCRIPTION	LENGTH IN	MATERIAL	CODE NO. OR DWG. NO.

ASSEMBLIES USED ON

(1) PINS (A06193 REF) USED FOR MAST BUTT INSTALLATION ONLY. ONCE MAST HINGE PINS ARE ENGAGED, PINS MUST BE RETURNED TO STOWAGE POSITION ON STRUT ASSEMBLY BEFORE ASSEMBLING REST OF MAST.



MAST TRANSPORTATION PACKAGE INSTALLATION



MAST TRANSPORTATION PACKAGE SELF SUPPORTED

REVISIONS

05-05-03 RJW
DRG. TITLE CORRECTED

01-30-06 CDC
(A) WAS SHEET 3 OF 3

DWG. NO. A04342
SHT 3 OF 4

TOLERANCE UNLESS OTHERWISE SPECIFIED			
DECIMAL PLACES	FABRICATION		MACHINING
	≤ 10 FEET	> 10 FEET	
(1) PLACE 0.0	±.12	±.18	±.03
(2) PLACE 0.00	±.06	±.12	±.015
(3) PLACE 0.000			±.005
ANGLES	±1°30'		±0°30'

MACHINING TOLERANCE APPLIES TO SPECIFIED DIMENSION AND/OR SURFACE

SCALE .12=1FT

DR. CRP

CK. TSC

APP TSC

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin

MODEL 18000

MAST ASSEMBLY
100 FT #56 MAST

DATE 12-5-02

PATTERN NO.

DWG. NO. A04342

SHT 3 OF 4

DO NOT SCALE THIS DRAWING

BILL OF MATERIAL						
ITEM NO. / NO. REQD	SEC-TION	DESCRIPTION	LENGTH IN	MATERIAL	CODE NO. OR DWG. NO	

ASSEMBLIES USED ON

REVISIONS

MAST RAISING: (BOOM HOLDBACK)

1. REFER TO ASSEMBLY GUIDE FOR MAST RAISING PROCEDURE.

MAST RAISING PROCEDURE

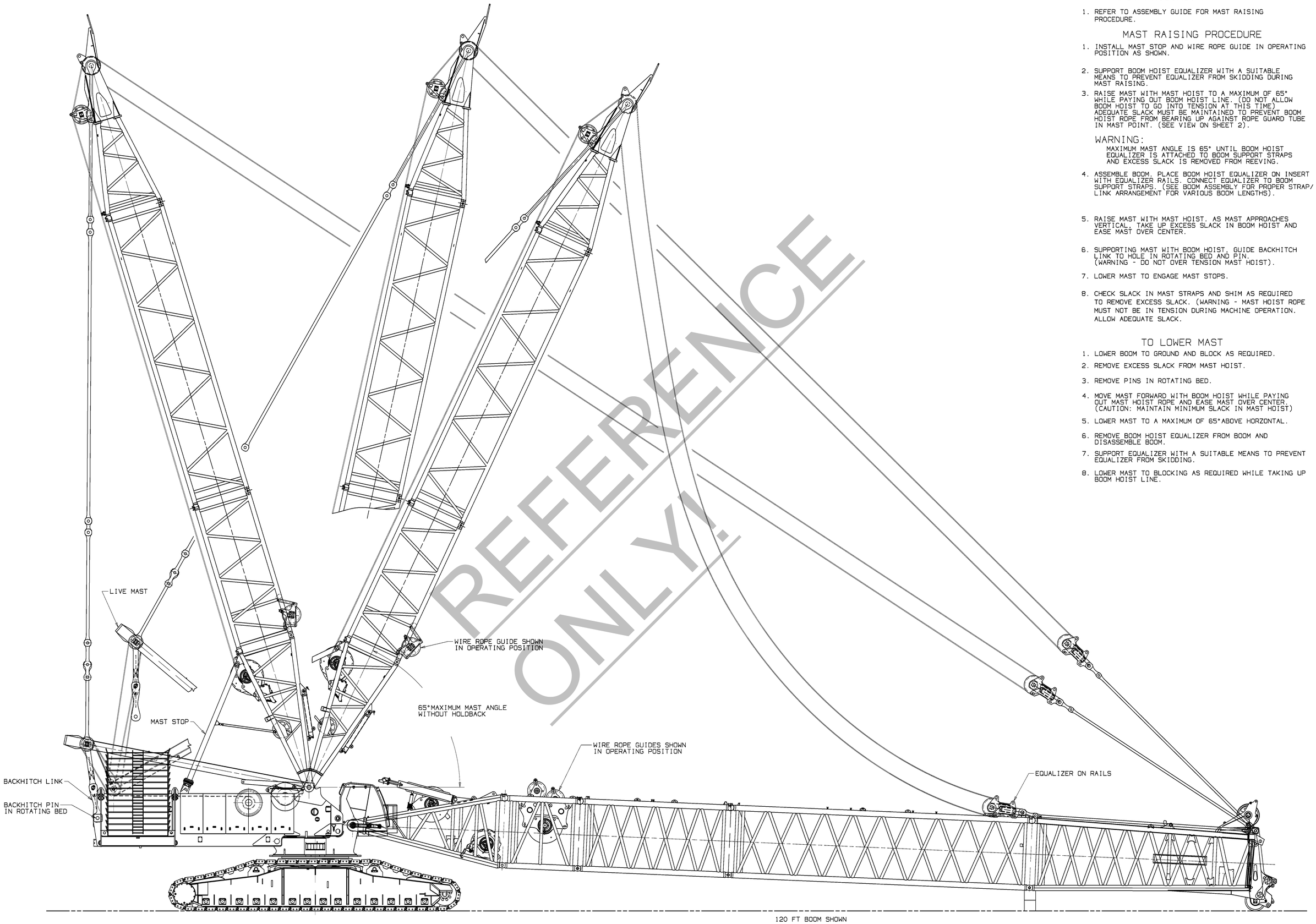
1. INSTALL MAST STOP AND WIRE ROPE GUIDE IN OPERATING POSITION AS SHOWN.
2. SUPPORT BOOM HOIST EQUALIZER WITH A SUITABLE MEANS TO PREVENT EQUALIZER FROM SKIDDING DURING MAST RAISING.
3. RAISE MAST WITH MAST HOIST TO A MAXIMUM OF 65° WHILE PAYING OUT BOOM HOIST LINE. (DO NOT ALLOW BOOM HOIST TO GO INTO TENSION AT THIS TIME) ADEQUATE SLACK MUST BE MAINTAINED TO PREVENT BOOM HOIST ROPE FROM BEARING UP AGAINST ROPE GUARD TUBE IN MAST POINT. (SEE VIEW ON SHEET 2).

   WARNING:
   MAXIMUM MAST ANGLE IS 65° UNTIL BOOM HOIST EQUALIZER IS ATTACHED TO BOOM SUPPORT STRAPS AND EXCESS SLACK IS REMOVED FROM REEVING.

4. ASSEMBLE BOOM. PLACE BOOM HOIST EQUALIZER ON INSERT WITH EQUALIZER RAILS. CONNECT EQUALIZER TO BOOM SUPPORT STRAPS. (SEE BOOM ASSEMBLY FOR PROPER STRAP/LINK ARRANGEMENT FOR VARIOUS BOOM LENGTHS).
5. RAISE MAST WITH MAST HOIST. AS MAST APPROACHES VERTICAL, TAKE UP EXCESS SLACK IN BOOM HOIST AND EASE MAST OVER CENTER.
6. SUPPORTING MAST WITH BOOM HOIST, GUIDE BACKHITCH LINK TO HOLE IN ROTATING BED AND PIN. (WARNING - DO NOT OVER TENSION MAST HOIST).
7. LOWER MAST TO ENGAGE MAST STOPS.
8. CHECK SLACK IN MAST STRAPS AND SHIM AS REQUIRED TO REMOVE EXCESS SLACK. (WARNING - MAST HOIST ROPE MUST NOT BE IN TENSION DURING MACHINE OPERATION. ALLOW ADEQUATE SLACK.

TO LOWER MAST

1. LOWER BOOM TO GROUND AND BLOCK AS REQUIRED.
2. REMOVE EXCESS SLACK FROM MAST HOIST.
3. REMOVE PINS IN ROTATING BED.
4. MOVE MAST FORWARD WITH BOOM HOIST WHILE PAYING OUT MAST HOIST ROPE AND EASE MAST OVER CENTER. (CAUTION: MAINTAIN MINIMUM SLACK IN MAST HOIST)
5. LOWER MAST TO A MAXIMUM OF 65°ABOVE HORZONTAL.
6. REMOVE BOOM HOIST EQUALIZER FROM BOOM AND DISASSEMBLE BOOM.
7. SUPPORT EQUALIZER WITH A SUITABLE MEANS TO PREVENT EQUALIZER FROM SKIDDING.
8. LOWER MAST TO BLOCKING AS REQUIRED WHILE TAKING UP BOOM HOIST LINE.



120 FT BOOM SHOWN

TOLERANCE UNLESS OTHERWISE SPECIFIED				
DECIMAL PLACES	FABRICATION		MACHINING	
	≤ 10 FEET	> 10 FEET		MACHINING TOLERANCE APPLIES TO SIZE DIMENSION ONLY OF SURFACE
(1) PLACE 0.0	±.12	±.18	±.03	
(2) PLACE 0.00	±.06	±.12	±.015	
(3) PLACE 0.000			±.005	
ANGLES	±1°30'		±0°30'	

SCALE .12=1FT | DR. CRP | CK. TSC | APP TSC

Manitowoc Cranes, Inc.
Manitowoc, Wisconsin

MODEL 18000

MAST ASSEMBLY
100 FT #56 MAST

DWG. NO. A04342

SHT 4 OF 4

DATE 01-30-06

PATTERN NO.

DWG. NO. A04342

SHT 4 OF 4

DO NOT SCALE THIS DRAWING