



Spare Parts, Instruction and Maintenance Manual for SPANCO[®] Model 301 Jib Cranes



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FORWARD

This manual contains important information to help you install, operate, maintain, and service your new jib crane. We recommend that you study its contents thoroughly before putting the jib into use. We also recommend that you obtain the latest issue of ANSI B30.11 Safety Standard for Monorails and Underhung Cranes and study its contents thoroughly. By practicing the recommended maintenance suggestions, with proper installation, and the application of correct operating procedures, you will be assured maximum service from your jib crane.

The jibs described in this manual are intended for indoor service. Jib cranes used for outdoor service require special consideration.

INSTALLATION

Before attempting to install your new jib crane, the following items must be understood:

1. It is the customer's responsibility to ensure that building columns or walls are adequate to support the crane and its rated load.
2. Jib cranes should not be hung from an existing building structure without first consulting a qualified architect or engineer for the purpose of determining the structure's adequacy.



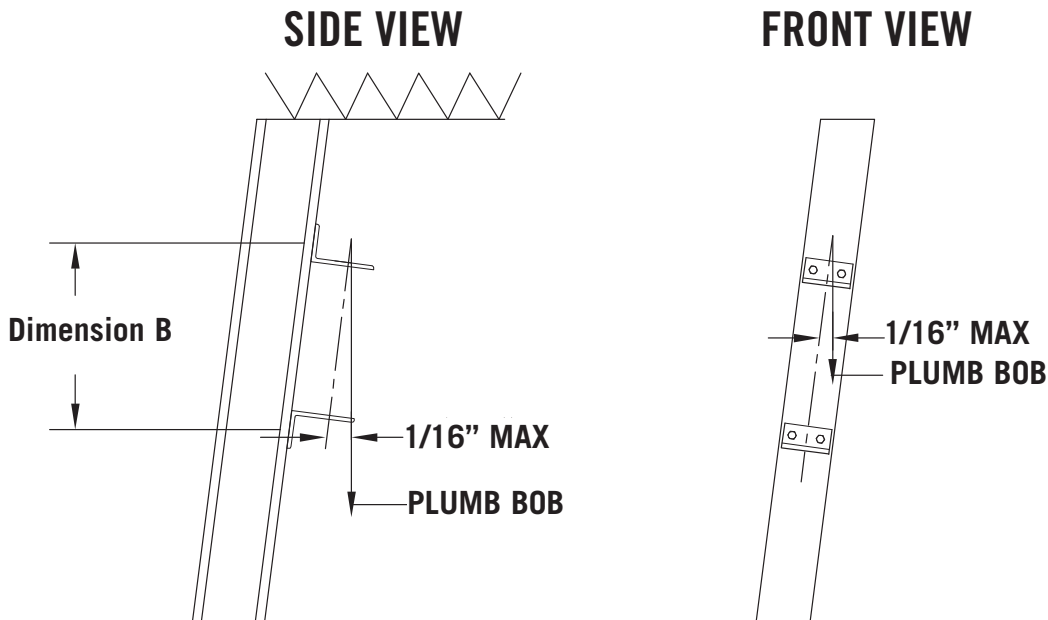
NOTE: DO NOT MOUNT THE JIB CRANE TO ANY STRUCTURE UNLESS YOU ARE SURE THE STRUCTURE CAN SAFELY SUPPORT THE LOADS IMPOSED UPON THE STRUCTURE. FAILURE TO CHECK THIS ITEM CAN RESULT IN SEVERE BODILY INJURY OR DEATH.

3. The installer is responsible for supplying the correct size, length, number, and type of bolts required to attach the jib crane brackets to the structure. SPANCO recommends that the bolts be ASTM A325 grade.
4. Plan the installation such that the proper clearance as outlined in ANSI B30.11 will be adhered to. In the design of jib crane systems, all factors that influence clearances, such as roof truss sag, and boom deflection shall be considered.

STRUCTURAL BOLT ONLY (NOT PIVOT BOLTS)	FASTENER SIZE	TORQUE FT-LBS
	1/4"	10 FT-LBS
	5/16"	19 FT-LBS
	3/8"	33 FT-LBS
	7/16"	54 FT-LBS
	1/2"	78 FT-LBS
	9/16"	114 FT-LBS
	5/8"	154 FT-LBS
	3/4"	257 FT-LBS
	7/8"	341 FT-LBS
	1"	514 FT-LBS
	1 1/4"	803 FT-LBS

After these points have been covered, you may begin the installation procedure as follows:

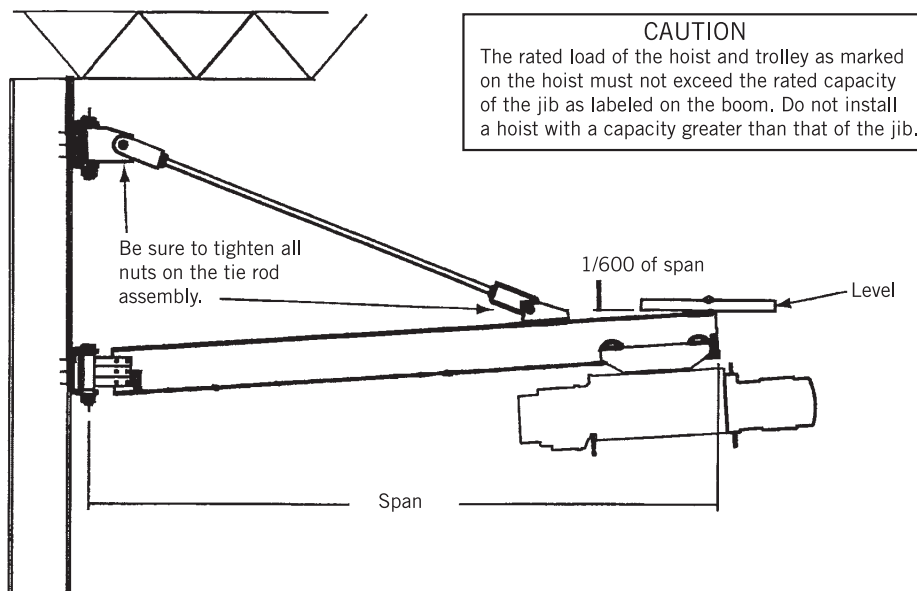
1. Refer to the appropriate table in this manual and locate the dimensions of the specific Model 301 jib crane to be installed.
2. Determine the elevation of the top wall bracket by adding the “Bracket Centers” dimension to the desired elevation of the bottom of the boom plus 1/2 the boom height.
3. Hold the top wall bracket against the supporting column in its proper location with a C-clamp or other supporting method.
4. Establish the correct distance from the top wall bracket to the bottom wall bracket from the charts (“Dimension B”). Hold the bottom wall bracket against the supporting column with a C-clamp or other supporting method.
5. Use a plumb bob to check the alignment of the bottom bracket with the top bracket in two planes. The alignment must be within 1/16 inches from top to bottom.



6. Using the wall brackets as a template, mark the established hole locations.
7. Drill the holes in the column for the wall brackets.
8. Mount the wall brackets and their shims (if used) to the column with bolts (ASTM A-325) supplied by the installer. Care should be taken to insure all bolts are properly tightened.
9. Lift the boom assembly with its brackets and tie rod assembly attached with a lift truck or other means into place. Insert the top pivot assembly and the bottom pivot assembly into its respective wall brackets. Insert the top and bottom bracket bolts into the bracket assemblies and properly tighten the nuts to the torque listed.

PIVOT BOLT TORQUE ONLY	CRANE CAPACITY	BOLT SIZE	TORQUE ON NUT
	1/4 - 1 TON	1"	40 FT-LBS
	1 1/2 - 2 TON	1 1/4"	75 FT-LBS
	3 TON	1 1/2"	70 FT-LBS
	4 - 5 TON	2 1/4"	57 FT-LBS

10. Remove the end stop angles from the boom tip and install the hoist and trolley onto the boom. Refer to the hoist manufacturer's manual for proper setting of the trolley wheels to match the boom beam. Remember to reinstall the end stop angles on the boom and properly tighten the nuts after installation of the hoist trolley on the jib.
11. Position the unloaded hoist and trolley at the extreme tip of the boom and adjust the tie rod assembly deflection, the boom tip should be adjusted to an elevation equal to boom length (inches) ÷ 600 above level.



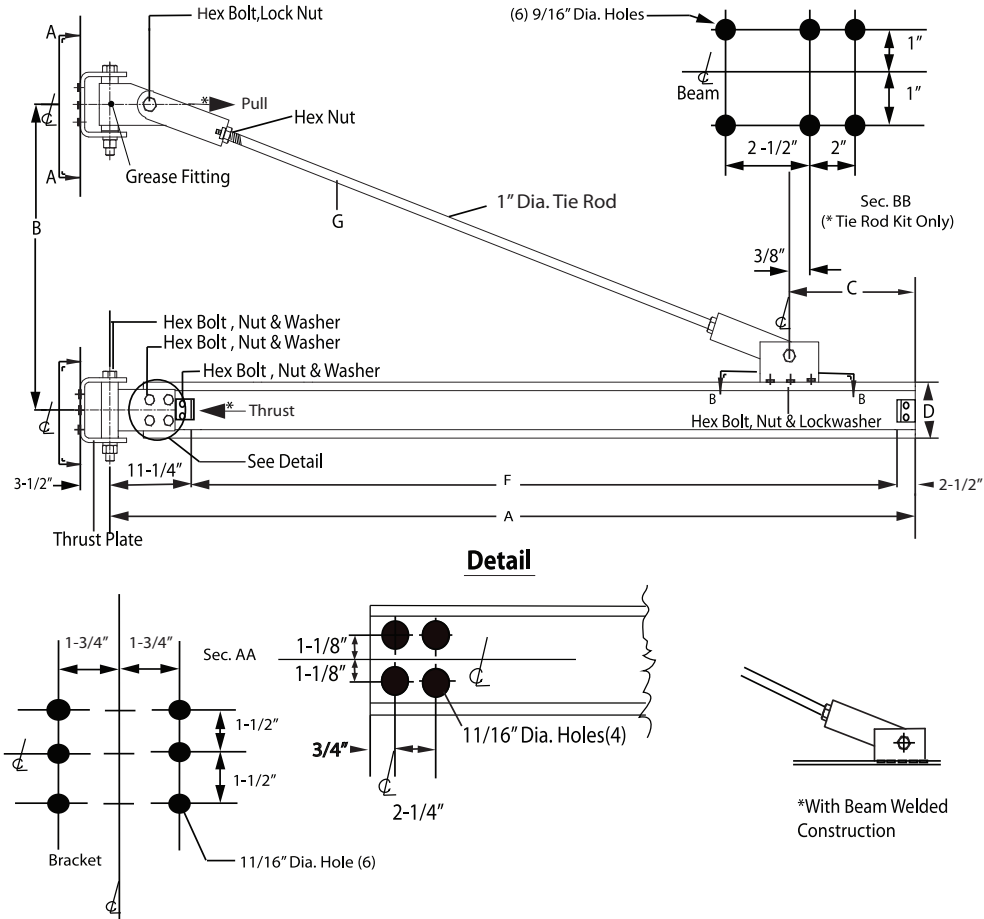
12. Connect the hoist to its source of power (either air or electric) if required, as per the hoist manufacturer's manual.
13. Now that the jib crane installation is complete, but before the unit is placed into service, it is important to review and follow procedures outlined in Chapter 11-2 of ANSI B30.11 regarding inspection, testing, and maintenance.

MAINTENANCE

By definition, the term “jib crane” includes the jib, the trolley, and the hoist, along with any attachment that may exist. The user should refer to the manual supplied with the hoist and trolley for a listing of maintenance points and their suggested frequency.

With regards to the SPANCO jib, the only maintenance item is that of the wall bracket lubrication. The sleeve bearings in those brackets are pre-lubricated at the factory. Field lubrication of those bearings is required based upon usage of the crane. SPANCO recommends that the bearings be lubricated at least once a year. The grease should be a lithium soap based grease, consistency No. NLGI 2.

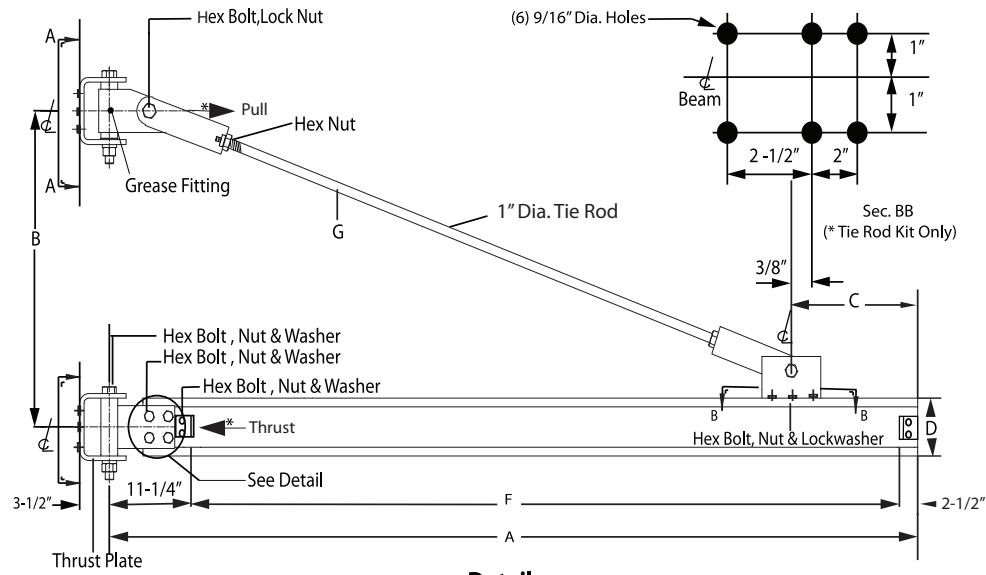
WALL BRACKET JIB CRANE 200° ROTATION MODEL 301 - 050 -



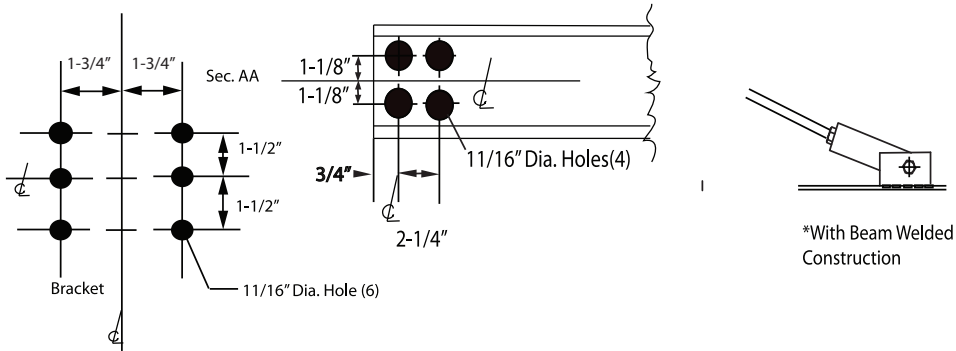
1/2 TON CAPACITY

301 SERIES WALL BRACKET													
1/2 TON													
A	SPAN	8	10	12	14	16	18	20	22	24	26	28	30
B	WALL BRACKET CENTER	2'-9"	3'-0"	3'-9"	4'-6"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
C	BEAM BRACKET CENTER	1'-3"	1'-6"	1'-9"	2'-0"	2'-0"	2'-0"	2'-3"	2'-3"	2'-6"	2'-6"	3'-0"	3'-6"
D	BEAM WGT/FT.	6	6	6	6	6	8	10	10	10	10	12	12
		12.5#	12.5#	12.5#	12.5#	12.5#	18.4#	25.4#	25.4#	25.4#	25.4#	31.8#	31.8#
E	CAP CHANNEL WGT/FT.								8	8	8	8	8
									11.5#	11.5#	11.5#	11.5#	11.5#
F	CLEAR SPAN	6'-9 3/4"	8'-9 3/4"	10'-9 3/4"	12'-9 3/4"	14'-9 3/4"	16'-9 3/4"	18'-9 3/4"	20'-9 3/4"	22'-9 3/4"	24'-9 3/4"	26'-9 3/4"	28'-9 3/4"
G	TIE ROD LENGTH	5'-7"	7'-4"	9'-5"	11'-2"	13'-4"	15'-5"	17'-2"	19'-3"	21'-1"	23'-1"	25'-1"	26'-7"
*	THRUST/PULL	3710	4790	4350	4320	4110	4380	4660	5120	5320	5800	5670	6010
**	WEIGHT	192#	222#	253#	283#	314#	449#	489#	619#	739#	914#	986#	1407#

WALL BRACKET JIB CRANE 200° ROTATION MODEL 301 - 100 -



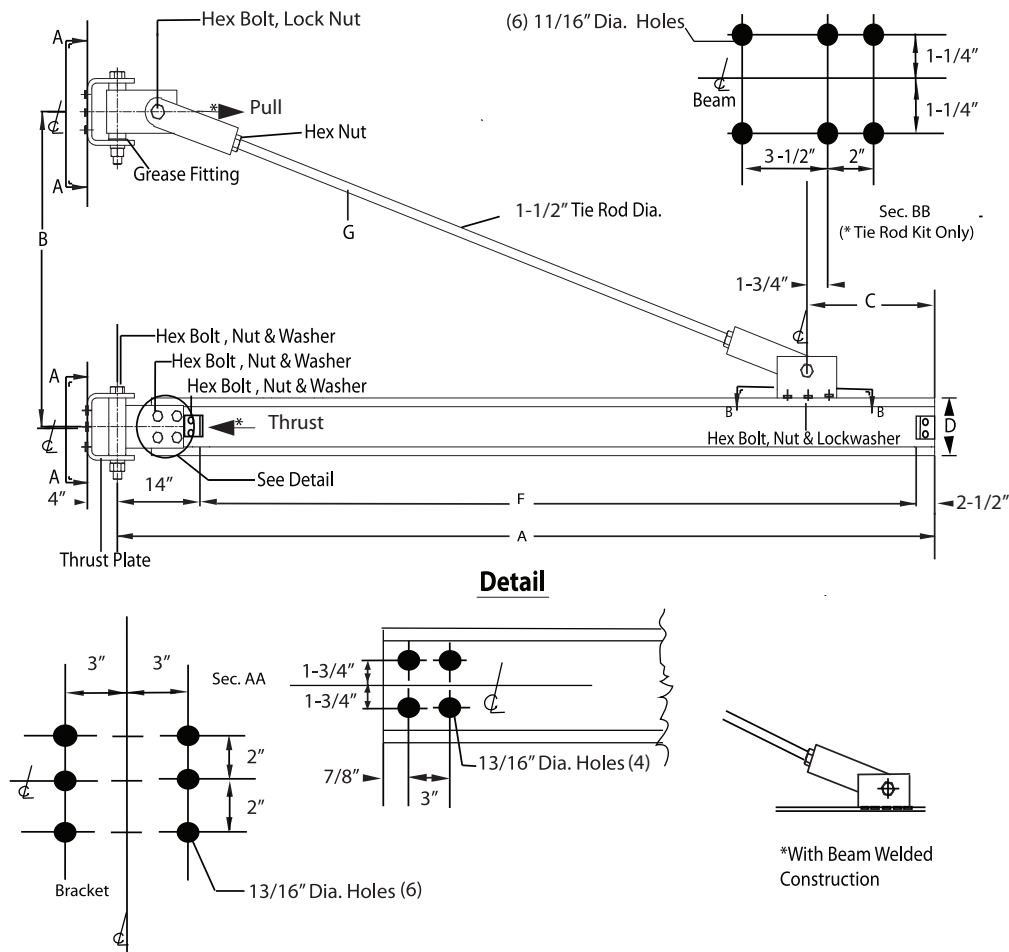
Detail



1 TON CAPACITY

301 SERIES WALL BRACKET 1 TON													
A	SPAN	8	10	12	14	16	18	20	22	24	26	28	30
B	WALL BRACKET CENTER	2'-9"	3'-0"	3'-9"	4'-6"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
C	BEAM BRACKET CENTER	1'-3"	1'-6"	1'-9"	2'-0"	2'-3"	2'-6"	2'-6"	2'-9"	3'-9"	3'-0"	3'-6"	3'-6"
D	BEAM WGT/FT.	6	6	6	8	8	8	10	10	10	10	12	12
E	CAP CHANNEL WGT/FT.	12.5#	12.5#	12.5#	18.4#	18.4#	18.4#	25.4#	25.4#	25.4#	25.4#	31.8#	31.8#
F	CLEAR SPAN	8	10	12	14	16	18	20	22	24	26	28	30
G	TIE ROD LENGTH	6'-10 3/4"	8'-10 3/4"	10'-10 3/4"	12'-10 3/4"	14'-10 3/4"	16'-10 3/4"	18'-10 3/4"	20'-10 3/4"	22'-10 3/4"	24'-10 3/4"	26'-10 3/4"	28'-10 3/4"
*	THRUST/PULL	5'-7"	7'-4"	9'-5"	11'-2"	13'-4"	14'-11"	16'-11"	19'-1"	20'	22'-7"	24'-4"	26'-7"
**	WEIGHT	7280	8610	8460	8430	8000	8430	8970	9570	9880	10,170	10,290	10,070
		192#	222#	253#	283#	406#	449#	627#	832#	902#	976#	1291#	1407#

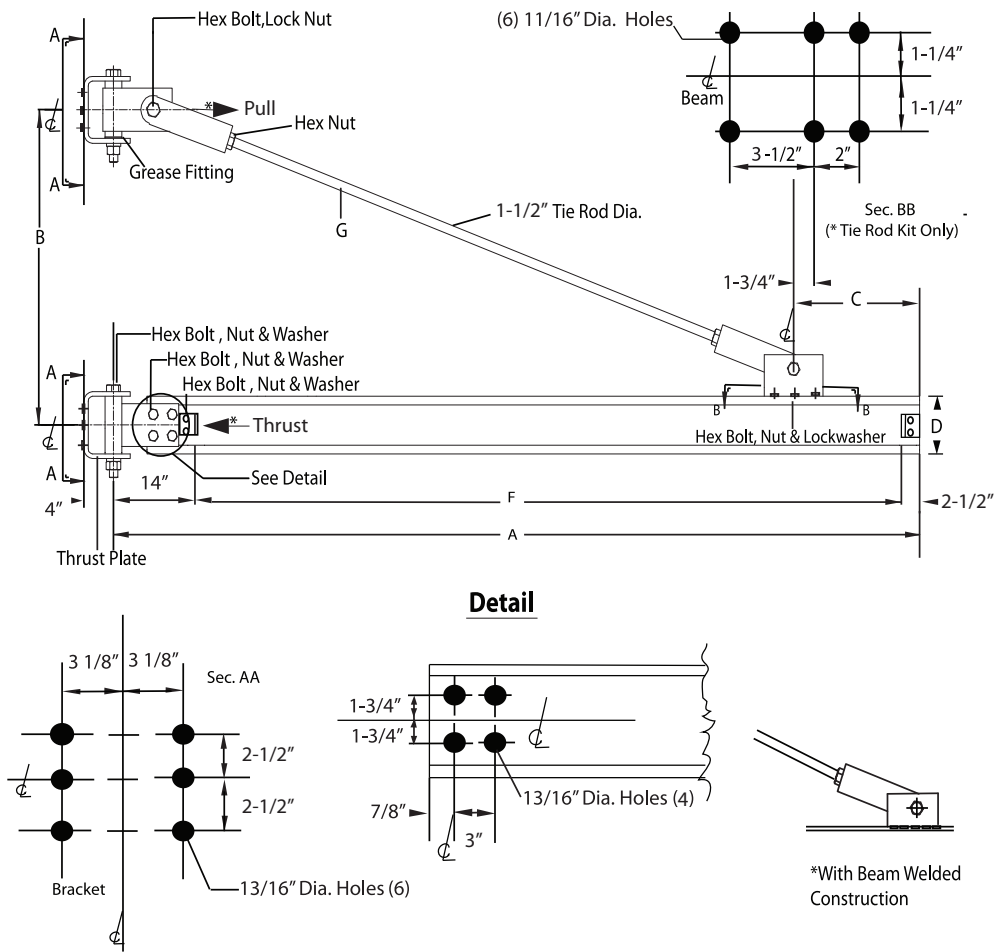
WALL BRACKET JIB CRANE 200° ROTATION MODEL 301 - 200 -



2 TON CAPACITY

301 SERIES WALL BRACKET 2 TON													
A	SPAN	8	10	12	14	16	18	20	22	24	26	28	30
B	WALL BRACKET CENTER	2'-9"	3'-0"	3'-9"	4'-6"	5'-6"	6'-0"	6'-6"	7'-0"	7'-6"	8'-0"	9'-0"	10'-0"
C	BEAM BRACKET CENTER	1'-3"	1'-6"	1'-9"	2'-0"	2'-3"	2'-3"	2'-6"	2'-6"	3'-6"	3'-6"	3'-6"	3'-0"
D	BEAM WGT/FT.	8 18.4#	8 18.4#	8 18.4#	8 18.4#	10 25.4#	10 25.4#	12 31.8#	12 31.8#	12 31.8#	12 31.8#	12 31.8#	12 31.8#
E	CAP CHANNEL WGT/FT.								8 11.5#	8 11.5#	8 11.5#	8 11.5#	8 11.5#
F	CLEAR SPAN	6'-7-1/2"	8'-7-1/2"	10'-7-1/2"	12'-7-1/2"	14'-7-1/2"	16'-7-1/2"	18'-7-1/2"	20'-7-1/2"	22'-7-1/2"	24'-7-1/2"	26'-7-1/2"	28'-7-1/2"
G	TIE ROD LENGTH	5'-11"	7'-8"	9'-6"	11'-5"	13'-4"	15'-5"	17'-2"	19'-3"	20'-0"	22'-7"	24'-10"	27'-4"
*	THRUST/PULL	14,470	17,110	16,780	16,580	15,870	16,560	17,350	18,300	18,840	19,330	18,690	18,190
**	WEIGHT	305#	352#	401#	449#	604#	667#	854#	1127#	1220#	1323#	1424#	1526#

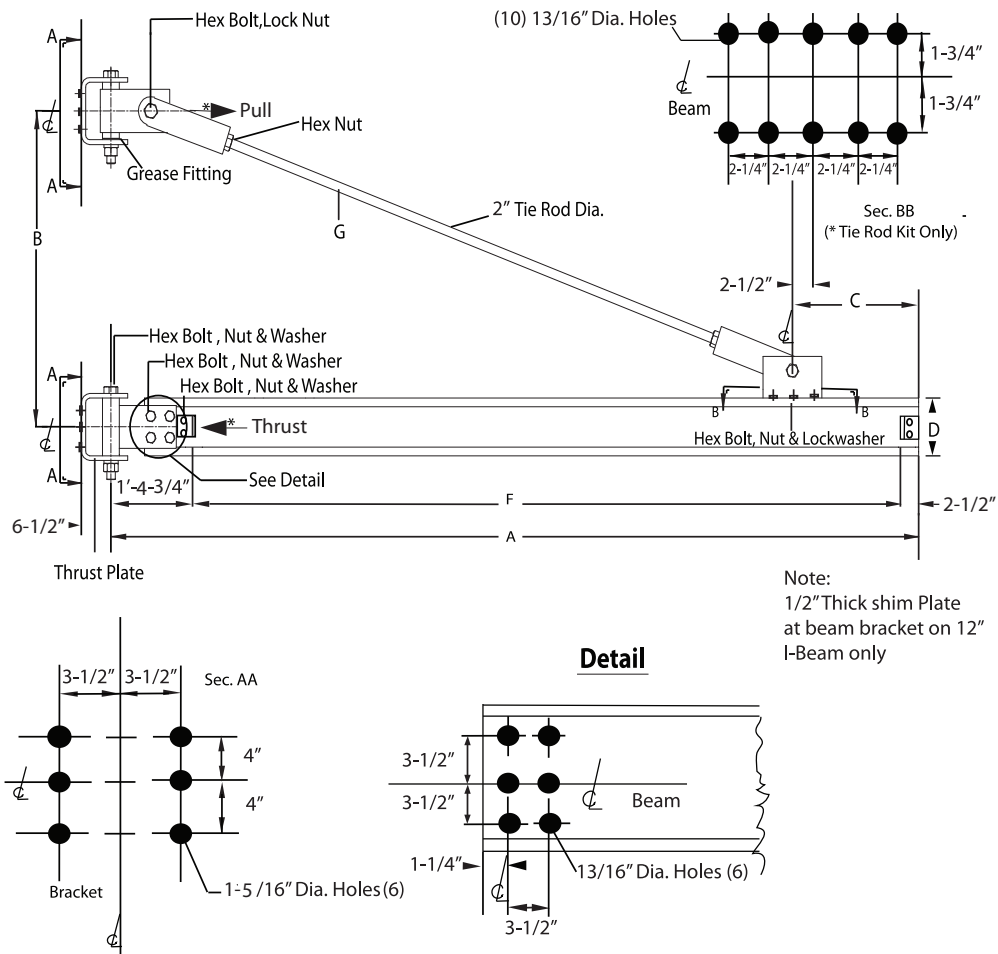
WALL BRACKET JIB CRANE 200° ROTATION MODEL 301 - 300 -



3 TON CAPACITY

301 SERIES WALL BRACKET 3 TON													
A	SPAN	8	10	12	14	16	18	20	22	24	26	28	30
B	WALL BRACKET CENTER	2'-9"	3'-3"	4'-0"	4'-9"	5'-6"	6'-3"	7'-0"	7'-9"	8'-6"	9'-3"	10'-0"	11'-0"
C	BEAM BRACKET CENTER	1'-3"	1'-6"	1'-9"	2'-0"	2'-3"	2'-3"	2'-6"	2'-6"	3'-6"	3'-0"	3'-0"	3'-0"
D	BEAM WGT./FT.	8 18.4#	8 18.4#	10 25.4#	10 25.4#	10 25.4#	12 31.8#	12 31.8#	12 31.8#	12 31.8#	12 31.8#	12 31.8#	12 31.8#
E	CAP CHANNEL WGT./FT.							8 11.5#	8 11.5#	8 11.5#	8 11.5#	8 11.5#	8 11.5#
F	CLEAR SPAN	6'-8"	8'-8"	10'-8"	12'-8"	14'-8"	16'-8"	18'-8"	20'-8"	22'-8"	24'-8"	26'-8"	28'-8"
G	TIE ROD LENGTH	5'-2"	7'-0"	8'-10"	10'-9"	12'-7"	14'-9"	16'-8"	18'-9"	20'-0"	22'-6"	24'-8"	26'-11"
*	THRUST/PULL	21,600	23,550	23,560	23,520	23,500	23,680	24,040	24,120	24,200	24,290	24,380	23,920
**	WEIGHT	395#	444#	572#	635#	701#	689#	1147#	1246#	1341#	1443#	1542#	1643#

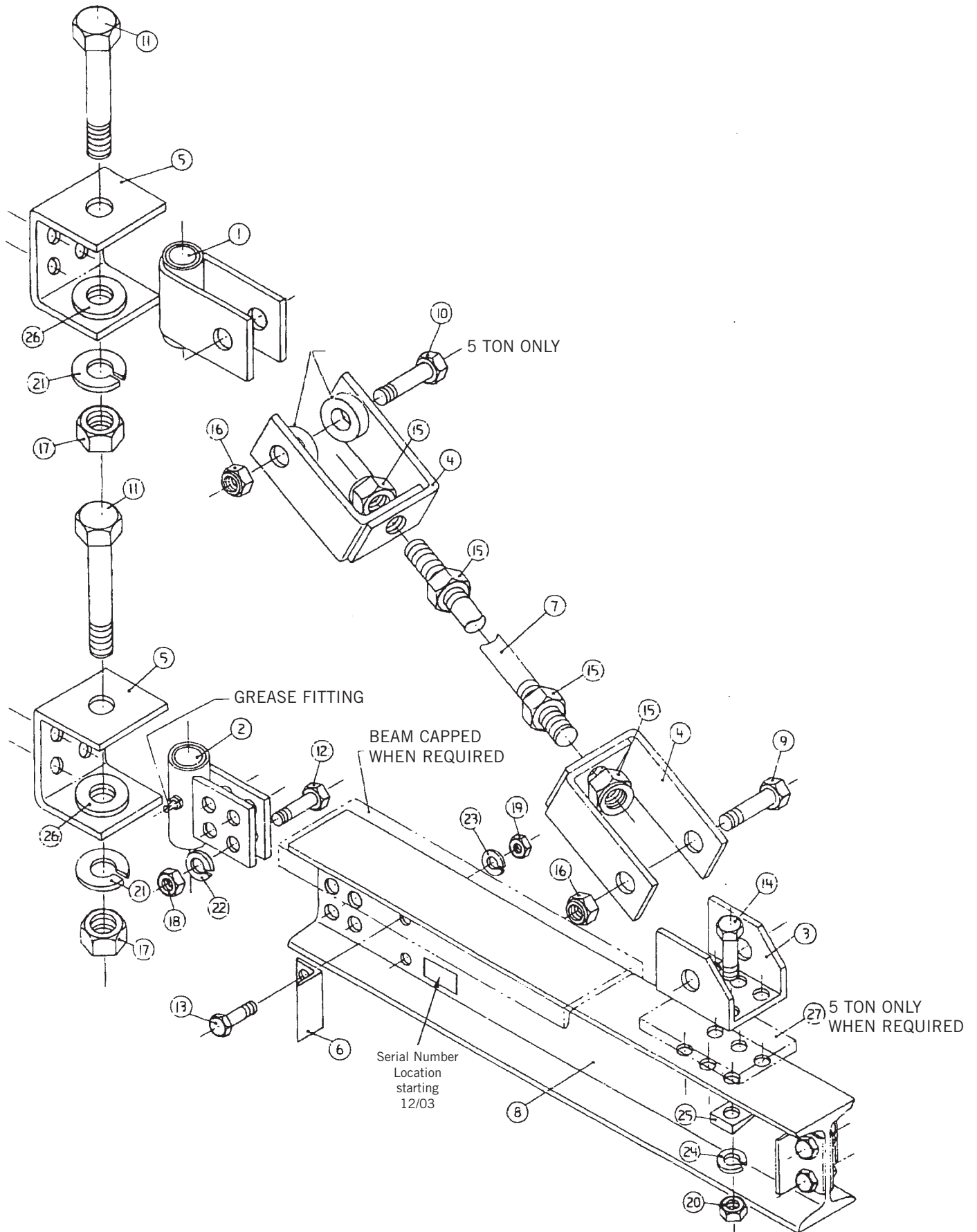
WALL BRACKET JIB CRANE 200° ROTATION MODEL 301 - 500 -



5 TON CAPACITY

301 SERIES WALL BRACKET 5 TON												
A SPAN	8	10	12	14	16	18	20	22	24	26	28	30
B WALL BRACKET CENTER	3'-0"	3'-3"	4'-0"	4'-9"	5'-6"	6'-3"	7'-0"	7'-9"	8'-6"	9'-3"	10'-0"	11'-0"
C BEAM BRACKET CENTER	1'-6"	1'-6"	1'-9"	2'-0"	2'-6"	3'-0"	3'-6"	3'-6"	3'-6"	3'-6"	3'-6"	3'-6"
D BEAM WGT/FT.	12 31.8#	12 31.8#	12 31.8#	12 31.8#	15 42.9#	15 42.9#	15 42.9#	15 42.9#	15 42.9#	15 42.9#	15 42.9#	15 42.9#
E CAP CHANNEL WGT/FT.							10 15.3#	10 15.3#	10 15.3#	10 15.3#	10 15.3#	10 15.3#
F CLEAR SPAN	6'-4 3/4"	8'-4 3/4"	10'-4 3/4"	12'-4 3/4"	14'-4 1/4"	16'-4 1/4"	18'-4 1/4"	20'-4 1/4"	22'-4 1/4"	24'-4 1/4"	26'-4 1/4"	28'-4 1/4"
G TIE ROD LENGTH	4'-6"	6'-5"	8'-4"	10'-3"	11'-10"	13'-6"	15'-2"	17'-4"	19'-6"	21'-7"	23'-9"	25'-11"
* THRUST/PULL	33,010	39,260	39,070	38,980	39,180	39,190	39,670	39,760	38,960	39,970	40,080	39,290
** WEIGHT	972#	1058#	1144#	1230#	1478#	1582#	1951#	2089#	2227#	2365#	2503#	2641#

WALL BRACKET MODEL 301-050 to 500 Exploded View



BILL OF MATERIALS
WALL BRACKET (TIE ROD) JIB CRANE
MODEL 301 (050/100)

ITEM	DESCRIPTION	PART NO.	QTY.
1	TOP PIVOT ASSY.	06-0465	1
2	BOTTOM PIVOT ASSY.	06-0469	1
3	BEAM BRACKET	06-0051	1
4	ROD CLEVIS	06-0530	2
5	WALL BRACKET	06-0521	2
6	END STOP (6", 8" BEAM)	06-0310	4
6	END STOP (10", 12" BEAM)	06-0311	4
7	TIE ROD		1
8	BEAM		1
9	HEX BOLT	10-0504	1
10	HEX BOLT	06-3132	1
11	HEX BOLT	10-0604	2
12	HEX BOLT	10-0301	4
13	HEX BOLT (6", 8" BEAM)	10-0202	4
13	HEX BOLT (10", 12" BEAM)	10-0203	6
14	HEX NUT	11-0080	4
15	LOCK NUT	13-0020	2
16	HEX NUT	11-0080	2
17	HEX NUT	11-0040	4
18	HEX NUT	11-0030	4
19	HEX NUT	11-0030	6
20	LOCK WASHER	14-0007	2
21	LOCK WASHER	14-0004	4
22	LOCK WASHER	14-0003	4
23	LOCK WASHER	14-0003	6
24	BEVEL WASHER	16-0001	6
25	THRUST PLATE	36-0008	2

Ordering Repair Parts

When ordering repair parts from this manual, be sure to state the model and serial number of the unit. This information can be found on the small metal plate attached to the jib crane. The hardware kits are determined by the capacity of the jib crane.

BILL OF MATERIALS
WALL BRACKET (TIE ROD) JIB CRANE
MODEL 301 (200)

ITEM	DESCRIPTION	PART NO.	QTY.
1	TOP PIVOT ASSY.	06-0466	1
2	BOTTOM PIVOT ASSY.	06-0478	1
3	BEAM BRACKET	06-0552 WLD	1
4	ROD CLEVIS	06-0585	2
5	WALL BRACKET	06-0522	2
6	END STOP (6", 8" BEAM)	06-0310	4
6	END STOP (10", 12" BEAM)	06-0311	4
7	TIE ROD		1
8	BEAM		1
9	HEX BOLT	06-3157	1
10	HEX BOLT	10-0707	1
11	HEX BOLT	10-0806	2
12	HEX BOLT	10-0402	4
13	HEX BOLT (6", 8" BEAM)	10-0203	4
13	HEX BOLT (10", 12" BEAM)	10-0302	6
14	HEX NUT	11-0102	4
15	LOCK NUT	13-0040	2
16	HEX NUT	11-0090	2
17	HEX NUT	11-0060	4
18	HEX NUT	11-0030	4
19	HEX NUT	11-0040	6
20	LOCK WASHER	14-0009	2
21	LOCK WASHER	14-0005	4
22	LOCK WASHER	14-0003	4
23	LOCK WASHER	14-0004	6
24	BEVEL WASHER	16-0002	6
25	THRUST PLATE	36-0009	2

Ordering Repair Parts

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Hardware

Model 301 (200)

2 Ton Capacity

BILL OF MATERIALS
WALL BRACKET (TIE ROD) JIB CRANE
MODEL 301 (300)

ITEM	DESCRIPTION	PART NO.	QTY.
1	TOP PIVOT ASSY.	06-0467	1
2	BOTTOM PIVOT ASSY.	06-0471	1
3	BEAM BRACKET	06-0053 WLD	1
4	ROD CLEVIS	06-0531	2
5	WALL BRACKET	06-0523	2
6	END STOP (6", 8" BEAM)	06-0310	4
6	END STOP (10", 12" BEAM)	06-0311	4
7	TIE ROD		1
8	BEAM		1
9	HEX BOLT	10-0905-301	1
10	HEX BOLT	10-0901	2
11	HEX BOLT	10-1001	2
12	HEX BOLT	10-0402	4
13	HEX BOLT (6", 8" BEAM)	10-0203	4
13	HEX BOLT (10", 12" BEAM)	10-0303	6
14	HEX NUT	11-0102	4
15	LOCK NUT	13-0060	2
16	HEX NUT	11-0102	2
17	HEX NUT	11-0060	4
18	HEX NUT	11-0030	4
19	HEX NUT	11-0040	6
20	LOCK WASHER	14-0010	2
21	LOCK WASHER	14-0005	4
22	LOCK WASHER	14-0003	4
23	LOCK WASHER	14-0004	6
24	BEVEL WASHER	16-0002	6
25	THRUST PLATE	36-0010	2

Ordering Repair Parts

When ordering repair parts from this manual, be sure to state the model and serial number of the unit. This information can be found on the small metal plate attached to the jib crane. The hardware kits are determined by the capacity of the jib crane.

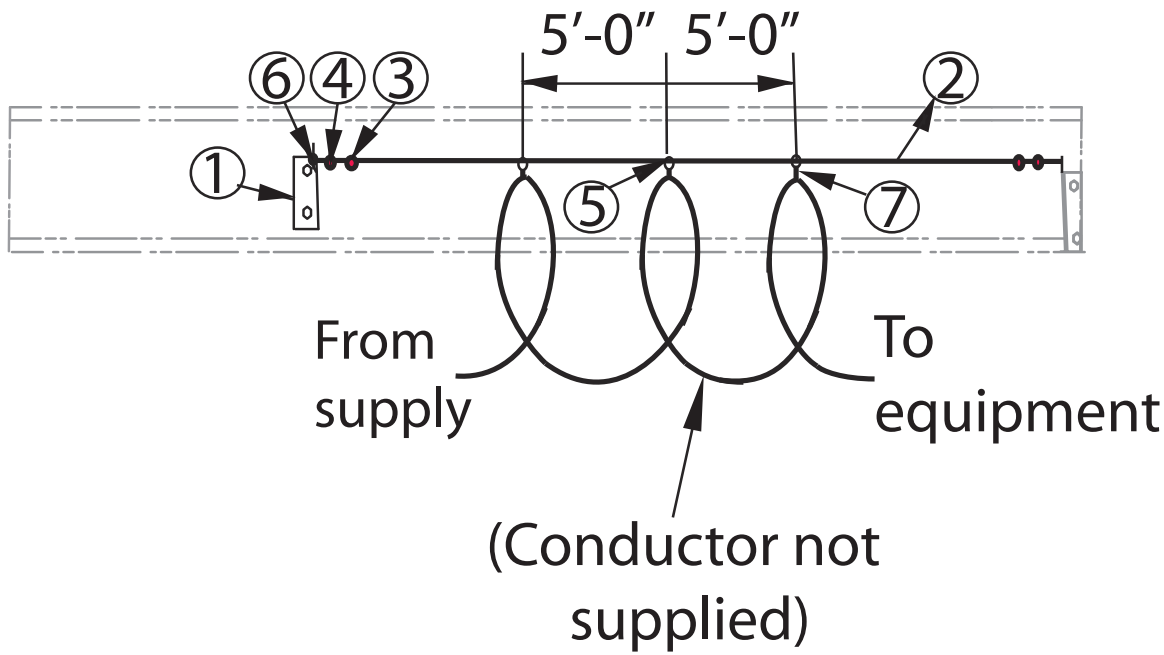
BILL OF MATERIALS
WALL BRACKET (TIE ROD) JIB CRANE
MODEL 301 (500)

ITEM	DESCRIPTION	PART NO.	QTY.
1	TOP PIVOT ASSY.	06-0468	1
2	BOTTOM PIVOT ASSY.	06-0472	1
3	BEAM BRACKET	06-0541	1
4	ROD CLEVIS	06-0532	2
5	WALL BRACKET	06-0527	2
6	END STOP (6", 8" BEAM)	06-0311	4
7	TIE ROD		1
8	BEAM		1
9	HEX BOLT	10-2001	1
10	HEX BOLT	10-2001	1
11	HEX BOLT	10-4001	2
12	HEX BOLT	10-0416	6
13	HEX BOLT (6", 8" BEAM)	10-0203	4
13	HEX BOLT (10", 12" BEAM)	10-0404	10
14	HEX NUT	11-0105	4
15	LOCK NUT	13-0080	2
16	HEX NUT	11-0101	2
17	HEX NUT	11-0060	6
18	HEX NUT	11-0030	4
19	HEX NUT	11-0060	10
20	LOCK WASHER	14-0011	2
21	LOCK WASHER	14-0005	6
22	LOCK WASHER	14-0003	4
23	LOCK WASHER	14-0005	10
24	BEVEL WASHER	16-0002	10
25	THRUST PLATE	06-0508	2
26*	SHIM PLATE	06-3159	1

Ordering Repair Parts

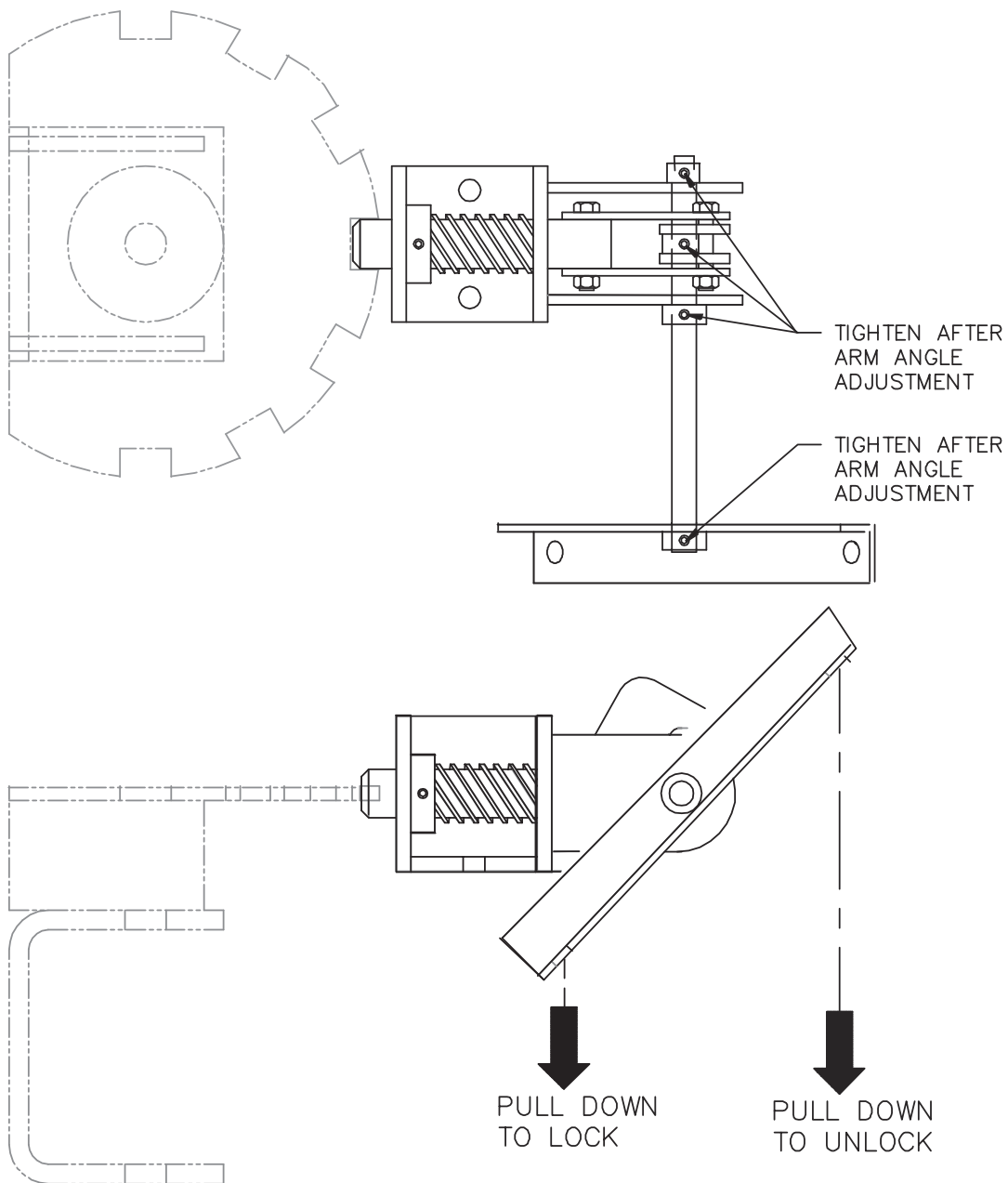
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TAG LINE SUPPORT SYSTEM



Bill of Material		
ITEM	DESCRIPTION	QTY.
7	CABLE TIES	*
6	HEX NUTS	4
5	PULLEYS	5
4	EYE BOLTS	2
3	CABLE CLAMPS	2
2	TAGLINE CABLE	1
1	TROLLEY STOPS	2
*QTY VARIES PER SPAN		

SINGLE POSITION BOOM LOCK



NOTE:

1. Rope length must be specified to fit each crane. To determine rope length use: 2 X floor to height under boom minus 7'-0". This will place rope approximately 3'-6" from floor.
2. Thread roped ends through holes and tie knots at rope ends.
3. To adjust swing-arm, all set screws and collers should be loose to return components to the proper position. Push main locking pin against bottom of slot and make sure lever arm is horizontal. Tighen all set screws to anchor set screws in shaft.

TEN-YEAR SPANCO WARRANTY

Products covered under the Ten-Year Warranty:

- Manual Steel Freestanding, Ceiling Mounted Workstation Bridge Cranes, and Monorails
- Manual Aluminum (Alu-Track®) Workstation Bridge Cranes and Monorails
- Manual Jib Cranes (I-Beam, Articulating, and Workstation Jib Cranes)
- Manual Gantry Cranes and Tripods

What the Ten-Year Warranty covers:

- Defects in Equipment material and workmanship
- Wearable parts (end truck and hoist trolley wheels only)

Spanco, Inc. warrants its manual workstation bridge crane products, jib crane products, and gantry crane products to be free from defects in material and workmanship for a period of ten (10) years or 20,000 hours, commencing on the date of shipment to the first retail purchaser. This warranty extends to non-wearable parts only, with the exception of the wheels supplied on manually operated workstation end trucks and hoist trolleys. This warranty does not cover defective equipment or system failure caused by misuse, negligence, improper installation or maintenance, or equipment that has been used in excess of its rated capacity or beyond its service factors. It does not apply to equipment that has been altered without Spanco's written authorization.

Written notice of any claimed system defect must be given to Spanco within thirty days of discovery. Spanco's obligation under this warranty is limited to the replacement or repair of Spanco's products at the factory or separate location approved by Spanco. The purchaser is responsible for all freight and transportation costs relating to equipment repair or replacement. **Other than the abovementioned warranty, Spanco will not honor any other warranties—whether express, implied, or statutory—and disclaims any warranties of merchantability or fitness for a particular purpose. Spanco is not liable—under any circumstances—for any indirect, incidental, or consequential damages including but not limited to lost profits, increased operating costs, or loss of production.**

This warranty does not extend to components or accessories not manufactured by Spanco. The purchaser's remedy for such components and accessories will be determined by the terms and conditions of any the warranty provided by the manufacturer of such components and accessories.

NOTE: *All motorized Spanco products come with a One-Year Warranty on drive components.*