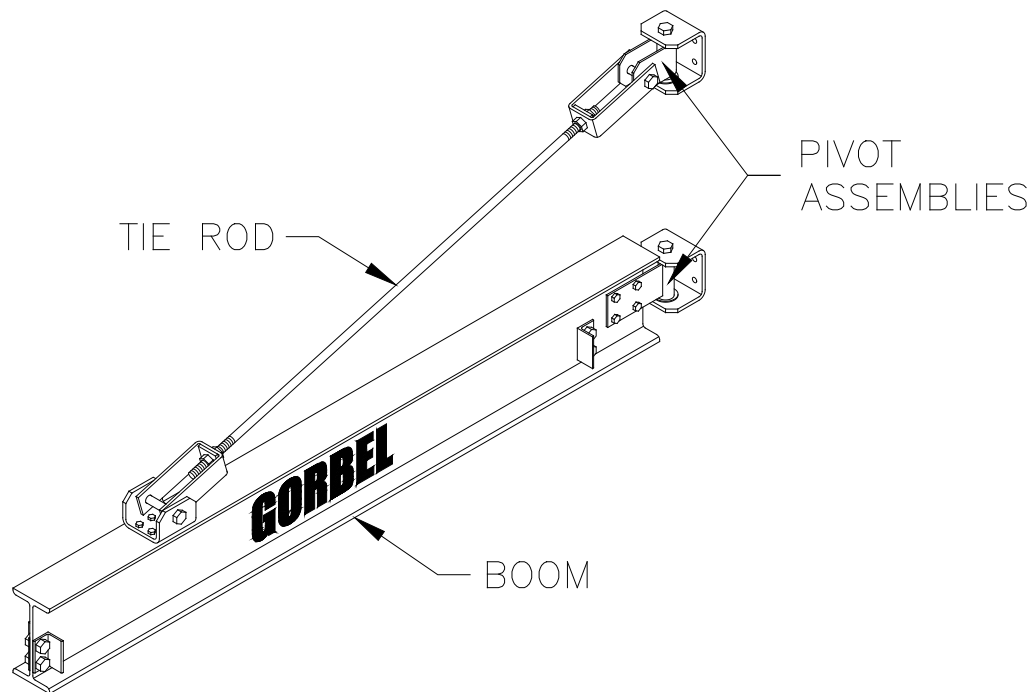


Installation, Operation, & Maintenance Manual



**IMPORTANT!
DO NOT DESTROY**

Wall Bracket Jib Crane

Gorbel® Customer Order No. / Serial No. _____

Gorbel® Dealer _____

Date _____
Month _____ Year _____

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Questions? Concerns? Comments? Please call (314) 869-7200.

INTRODUCTION

Thank you for choosing Gorbel® Jib Cranes to solve your material handling needs. The innovative design and heavy duty construction of Gorbel® Jib Cranes provide a superior quality product and offer years of long term value. The hoist and trolley weight allowance is 15% of the crane capacity (for example, a crane rated for 1000 pounds allows for a 1000-pound live load, plus 150 pounds for the weight of the hoist and trolley). There is also an allowance of 25% of the crane capacity for impact caused by use of the hoist. Gorbel® Jib Cranes will provide many years of dependable service by following the installation and maintenance procedures described herein.

Dimensions contained in this installation manual are for reference only and may differ for your particular application.

Normal safety precautions: These include, but are not limited to:

- Checking for obstructions in crane rotation
- Checking that all bolts are tight and have lockwashers
- Making sure that endstops are in place

For additional safety precautions see page 11.

WARNING

Only competent erection personnel familiar with standard fabrication practices should be employed to assemble these cranes because of the necessity of properly interpreting these instructions. Gorbel is not responsible for the quality of workmanship employed in the installation of a crane according to these instructions. Contact Gorbel, Inc., at 600 Fishers Run, P.O. Box 593, Fishers, New York 14453-0593, for additional information if necessary.

WARNING

Equipment described herein is not designed for, and should not be used for, lifting, supporting, or transporting humans. Failure to comply with any one of the limitations noted herein can result in serious bodily injury and/or property damage. Check Federal, State and Local regulations for any additional requirements.

WARNING

Reference the American Institute of Steel Construction (AISC) Manual of Steel Construction (9th edition), Part 5, Specifications for Structural Joints using ASTM A325 or A490 Bolts (section 8.d.2) for proper procedures to follow when using any torque tightening method.

INSTALLATION

STEP 1 - PRE-ASSEMBLY

➡ **TIP:** Packing list can be found in plastic pocket inside hardware box.

- 1.1 Read entire manual **before** beginning installation of crane.
- 1.2 Check packing list to ensure no parts have been lost prior to initializing assembly of crane.
- 1.3 Tools and materials (by others) often needed to assemble crane are as follows:
 - Torque wrench
 - Hand tools
 - Steel shims
 - Leveling tools and plumb bob
 - Lifting device to lift heavy booms
 - Mounting hardware (by others, grade 5 bolts or better)
- 1.4 Determine:
 - Thrust and pull (**diagram 1A** and **chart 1A**, page 3)

WARNING

Consult a qualified structural engineer to determine if your support structure is adequate to support the loads generated by the thrust and pull of your crane.

- Bracket centers (**chart 1A**, page 3)
- Bolt pattern and dimensions (**diagrams 1B**, **1C**, and **chart 1B**, on page 4).

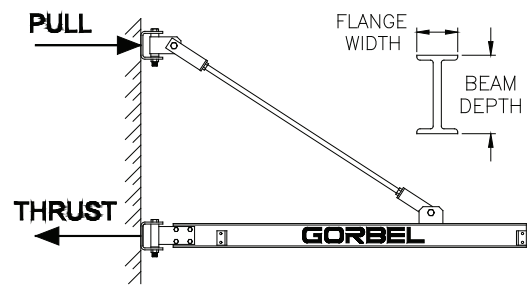


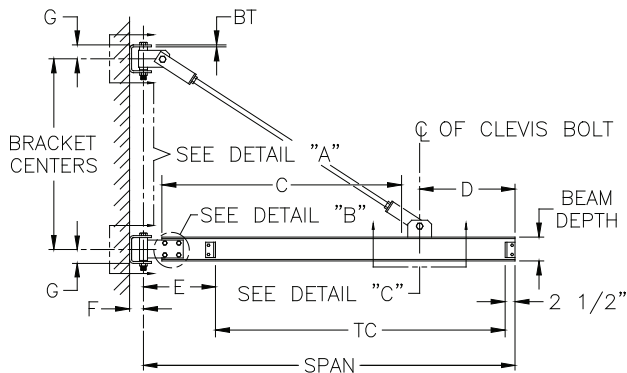
Diagram 1A. Thrust and pull definition.

STEP 1 - PRE-ASSEMBLY (CONTINUED)

Capacity (tons)	Span	Bracket Type	Bracket Centers	D	Beam Depth	Cap Channel Length	Tie Rod Diameter & Thread	Tie Rod Length	Beam Length	Thrust & Pull (lbs.)	
1/2	8'	WB-G1	2'-9"	1'-3"	6	18'-9"	1"-8UNC	5'-10 1/4"	7'-7 3/8"	3709	
	10'		3'-0"	1'-6"	6			7'-7 1/4"	9'-7 3/8"	4408	
	12'		3'-9"	1'-9"	6			9'-6"	11'-7 3/8"	4347	
	14'		4'-6"	2'-0"	6			11'-4 3/4"	13'-7 3/8"	4317	
	16'		5'-6"	2'-0"	6			13'-7 1/2"	15'-7 3/8"	4109	
	18'		6'-0"	2'-0"	W8			15'-8"	17'-7 3/8"	4463	
	20'		6'-6"	2'-3"	W8			17'-5 1/2"	19'-7 3/8"	4658	
	22'		7'-0"	2'-3"	W8c8			19'-6 1/4"	21'-7 3/8"	5042	
	24'		7'-6"	2'-6"	W8c8			21'-4"	23'-7 3/8"	5230	
	26'		8'-0"	2'-6"	10c6			22'-6"	25'-7 3/8"	5795	
	28'		9'-0"	3'-0"	10c6			24'-0"	27'-7 3/8"	5663	
30'	10'-0"	3'-6"	12c8	25'-6"	26'-10"	29'-7 3/8"	6009				
1	8'	WB-G1	2'-9"	1'-3"	6	18'-3"	1"-8UNC	5'-10 1/2"	7'-7 3/8"	7273	
	10'		3'-0"	1'-6"	6			7'-7 1/4"	9'-7 3/8"	8608	
	12'		3'-9"	1'-9"	6			9'-6"	11'-7 3/8"	8453	
	14'		4'-6"	2'-0"	W8			11'-4 3/4"	13'-7 3/8"	8490	
	16'		5'-6"	2'-3"	W8			13'-4 1/2"	15'-7 3/8"	8065	
	18'		6'-0"	2'-6"	W8			15'-2 1/4"	17'-7 3/8"	8430	
	20'		6'-6"	2'-6"	10			17'-2 1/2"	19'-7 3/8"	8966	
	22'		7'-0"	2'-9"	10c6			19'-1/4"	21'-7 3/8"	9562	
	24'		7'-6"	2'-9"	10c6			20'-3"	21'-1"	23'-7 3/8"	9877
	26'		8'-0"	3'-0"	10c6			22'-0"	22'-10 3/4"	25'-7 3/8"	10170
	28'		9'-0"	3'-6"	12c8			23'-6"	24'-7 1/4"	27'-7 3/8"	10286
30'	10'-0"	3'-6"	12c8	25'-6"	26'-10"	29'-7 3/8"	10069				
2	8'	WB-G2	2'-9"	1'-3"	W8	18'-6"	1 1/2"-6UNC	5'-11 1/4"	7'-7 1/4"	14469	
	10'		3'-0"	1'-6"	W8			7'-8 1/4"	9'-7 1/4"	17107	
	12'		3'-9"	1'-9"	W8			9'-7"	11'-7 1/4"	16780	
	14'		4'-6"	2'-0"	W8			11'-5 3/4"	13'-7 1/4"	16578	
	16'		5'-6"	2'-3"	10			13'-5"	15'-7 1/4"	15864	
	18'		6'-0"	2'-3"	12			15'-5 3/4"	17'-7 1/4"	16725	
	20'		6'-6"	2'-6"	12			17'-3 1/4"	19'-7 1/4"	17348	
	22'		7'-0"	2'-6"	12c8			19'-4"	21'-7 1/4"	18297	
	24'		7'-6"	3'-0"	12c8			20'-11"	23'-7 1/4"	18836	
	26'		8'-0"	3'-6"	12c8			21'-6"	22'-3"	25'-7 1/4"	19329
	28'		9'-0"	3'-6"	12c8			23'-6"	24'-5"	27'-7 1/4"	18686
30'	10'-0"	3'-0"	12c8	26'-0"	27'-4 3/4"	29'-7 1/4"	18189				
3	8'	WB-G3	2'-9"	1'-3"	W8	16'-6"	1 1/2"-6UNC	5'-11 1/2"	7'-6 5/8"	21596	
	10'		3'-3"	1'-6"	W8			7'-9 1/2"	9'-6 5/8"	23545	
	12'		4'-0"	1'-9"	10			9'-8"	11'-6 5/8"	23557	
	14'		4'-9"	2'-0"	10			11'-6 3/4"	13'-6 5/8"	23514	
	16'		5'-6"	2'-3"	12			13'-5 1/2"	15'-6 5/8"	23649	
	18'		6'-3"	2'-3"	12c8			15'-6 3/4"	17'-6 5/8"	23970	
	20'		7'-0"	2'-6"	12c8			17'-5 1/2"	19'-6 5/8"	24037	
	22'		7'-9"	2'-6"	12c8			18'-6"	19'-7 1/4"	21'-6 5/8"	24113
	24'		8'-6"	3'-0"	12c8			20'-0"	21'-3 1/4"	23'-6 5/8"	24197
	26'		9'-3"	3'-0"	12c8			22'-0"	23'-4 3/4"	25'-6 5/8"	24285
	28'		10'-0"	3'-0"	12c8			24'-0"	25'-6 1/2"	27'-6 5/8"	24377
30'	11'-0"	3'-0"	12c10	26'-0"	27'-9"	29'-6 5/8"	24072				
5	8'	WB-G5	3'-0"	1'-6"	12	15'-3"	2"-4 1/2UNC	5'-9 3/4"	7'-6 1/4"	33006	
	10'		3'-3"	1'-6"	12			7'-9 1/2"	9'-6 1/4"	39258	
	12'		4'-0"	1'-9"	12			9'-8 1/4"	11'-6 1/4"	39072	
	14'		4'-9"	2'-0"	12c8			11'-7"	13'-6 1/4"	39209	
	16'		5'-6"	2'-6"	16			13'-2 1/2"	15'-6 1/4"	39229	
	18'		6'-3"	3'-0"	16			14'-10 1/2"	17'-6 1/4"	39246	
	20'		7'-0"	3'-6"	16			16'-6 1/2"	19'-6 1/4"	39286	
	22'		7'-9"	3'-6"	16c12			17'-3"	18'-8"	21'-6 1/4"	39987
	24'		8'-6"	3'-6"	16c12			19'-3"	20'-9 3/4"	23'-6 1/4"	40108
	26'		9'-3"	3'-6"	16c12			21'-3"	22'-11 1/4"	25'-6 1/4"	40239
	28'		10'-0"	3'-6"	16c12			23'-3"	25'-1"	27'-6 1/4"	40375
30'	11'-0"	3'-6"	16c12	25'-3"	27'-3 3/4"	29'-6 1/4"	39597				

Chart 1A.

STEP 1 - PRE-ASSEMBLY (CONTINUED)



C = Cap Channel Length

TC (trolley coverage
(distance between endstops)) =
Span - (E + 2 1/2")

Diagram 1B.

	E	F	G	J (Hole Dia.)	J (Bolt Dia.)	K (Hole Dia.)	K (Bolt Dia.)	BT (Brkt. Thk.)
WB-G1	14 1/8"	3 1/2"	3 1/2"	11/16"	5/8"	9/16"	1/2"	1/2"
WB-G2	13 3/4"	4"	4 1/8"	13/16"	3/4"	11/16"	5/8"	5/8"
WB-G3	14 1/8"	4"	4 5/8"	13/16"	3/4"	11/16"	5/8"	3/4"
WB-G5	15 3/8"	6"	7"	1 5/16"	1 1/4"	13/16"	3/4"	1"

Chart 1B.

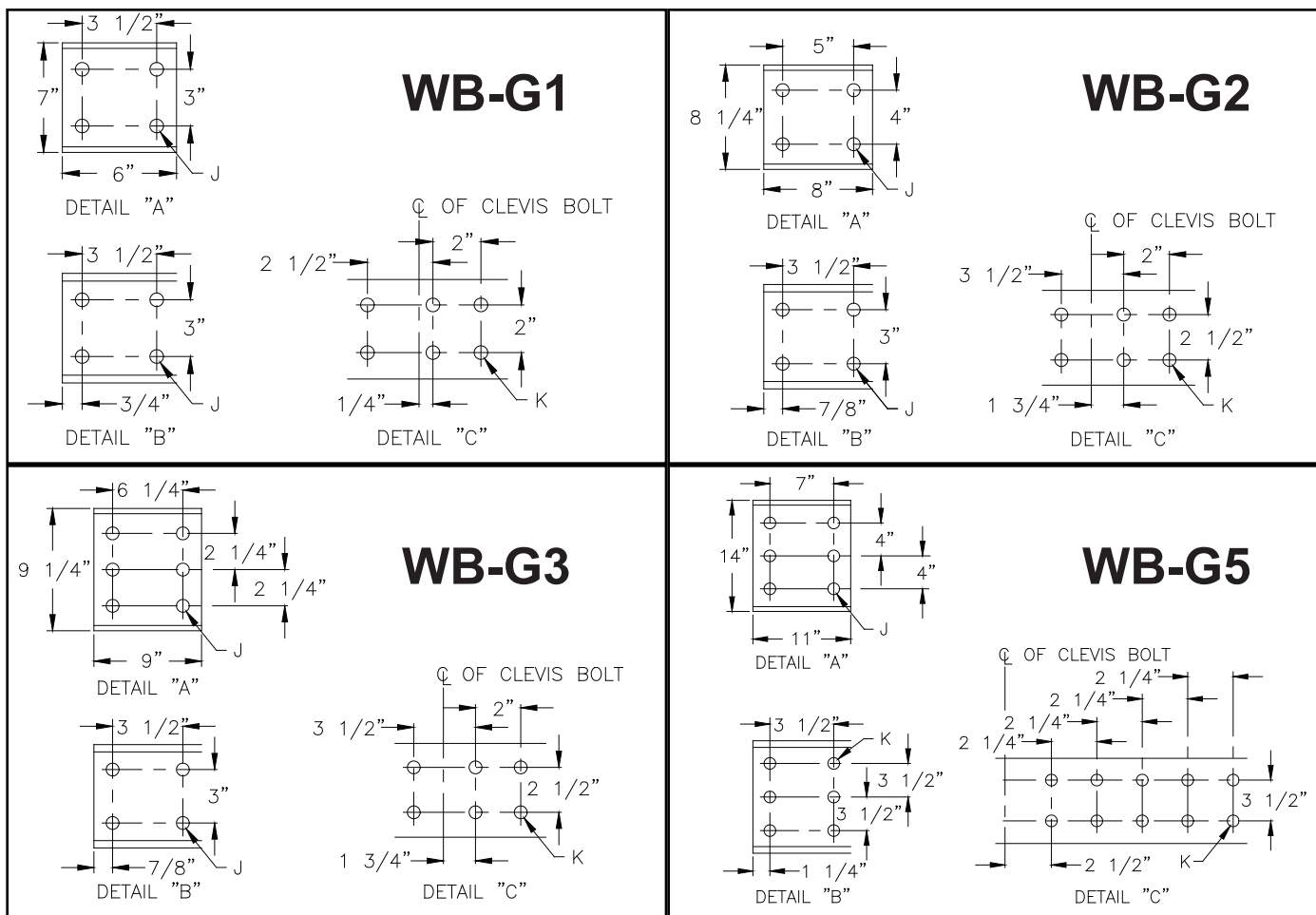
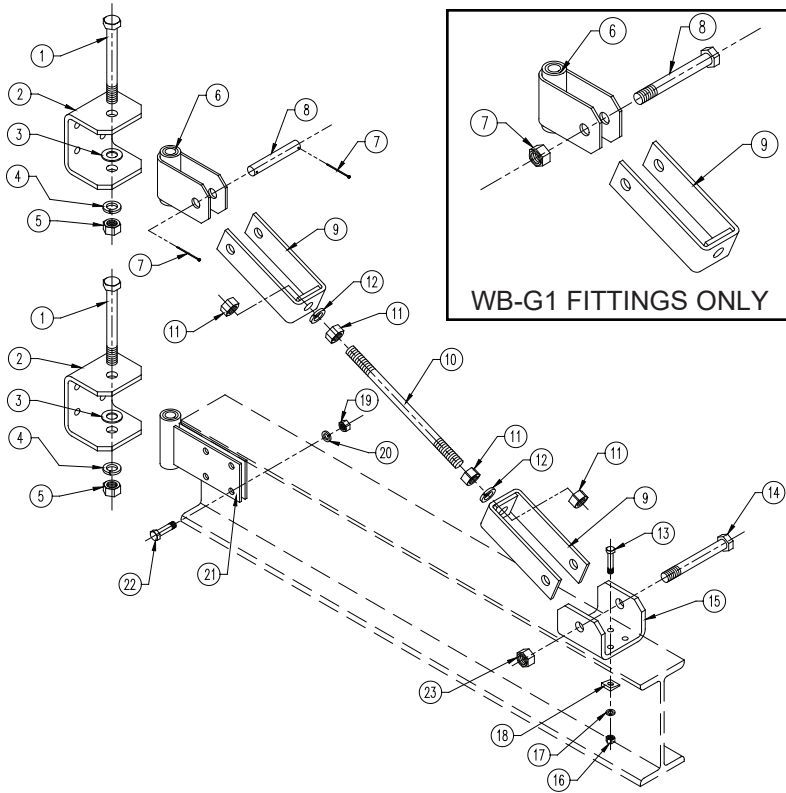


Diagram 1C.



ITEM NO.	WB-G1		
	Part No.	Qty.	Description
1	03339	2	1"-8 x 9" LG HHCS
2	23327A	2	Wall Channel
3	03341	2	1/8" Thk. Bronze Washer
4	03340	2	1" Lockwasher
5	03302	2	1"-8 Hexnut
6 - 9	53337B	1	Upper Pivot Assembly
7	01022	2	1"-8 Nylock Nut
8	02788	1	1"-8 x 5 1/2" LG HHCS
9	53327A	2	Clevis
10	----	1	1" Dia. Tie Rod
11	03302	4	1"-8 Hexnut
12	03340	2	1" Lockwasher
13	02279	6	1/2"-13 x 2 1/2" LG HHCS
14	01227	1	1"-8 x 7" LG HHCS
15	23328A	1	End of Beam Bracket
16	03289	6	1/2"-13 Hexnut
17	03291	6	1/2" Lockwasher
18	03290	6	1/2" Bevel Washer
19	01463	4	5/8"-11 Hexnut
20	03286	4	5/8" Lockwasher
21	53336A	1	Lower Pivot Assembly
22	03346	4	5/8"-11 x 1 3/4" LG HHCS
23	01022	1	1"-8 Nylock Nut

ITEM NO.	WB-G2			WB-G3			WB-G5		
	Part No.	Qty.	Description	Part No.	Qty.	Description	Part No.	Qty.	Description
1	05568	2	1 1/4"-7 x 11" LG HHCS	03392	2	1 1/2"-6 x 11 1/2" LG HHCS	03418	2	1 3/4"-5 x 16" LG HHCS
2	23353A	2	Wall Channel	23390A	2	Wall Channel	20366A	2	Wall Channel
3	03365	2	1/8" Thk. Bronze Washer	03395	2	1/8" Thk. Bronze Washer	03421	2	1/8" Thk. Bronze Washer
4	03364	2	1 1/4" Lockwasher	03394	2	1 1/2" Lockwasher	03420	2	1 3/4" Lockwasher
5	03363	2	1 1/4"-7 Hexnut	03393	2	1 1/2"-6 Hexnut	03419	2	1 3/4"-5 Hexnut
6 - 9	53360C	1	Upper Pivot Assembly	53386C	1	Upper Pivot Assembly	53423A	1	Upper Pivot Assembly
7	05794	2	1/4" Cotter Pin x 3" LG	05794	2	1/4" Cotter Pin x 3" LG	05794	2	1/4" Cotter Pin x 3" LG
8	25190	1	1 1/4" Dia. Clevis Pin x 6 3/8" LG	25191	1	1 1/4" Dia. Clevis Pin x 6 3/8" LG	25189	1	1 3/4" Dia. Clevis Pin x 7" LG
9	53390A	2	Clevis	53390A	2	Clevis	53409A	2	Clevis
10	----	1	1 1/2" Dia. Tie Rod	----	1	1 1/2" Dia. Tie Rod	----	1	2" Dia. Tie Rod
11	03393	4	1 1/2"-6 Hexnut	03393	4	1 1/2"-6 Hexnut	03426	4	2"-4 1/2 Hexnut
12	03394	2	1 1/2" Lockwasher	03394	2	1 1/2" Lockwasher	03427	2	2" Lockwasher
13	05744	6	5/8"-11 x 2 1/2" LG HHCS	01109	6	5/8"-11 x 3" LG HHCS	01037	10	3/4"-10 x 3" LG HHCS
14	03345	1	1 1/4"-7 x 9" LG HHCS	03345	1	1 1/4"-7 x 9" LG HHCS	03425	1	1 3/4"-5 x 11 1/2" LG HHCS
15	23380A	1	End of Beam Bracket	23380A	1	End of Beam Bracket	53041A	1	End of Beam Bracket
16	01463	6	5/8"-11 Hexnut	01463	6	5/8"-11 Hexnut	03300	10	3/4"-10 Hexnut
17	03286	6	5/8" Lockwasher	03286	6	5/8" Lockwasher	03373	10	3/4" Lockwasher
18	03375	6	5/8" Bevel Washer	03375	6	5/8" Bevel Washer	03428	10	3/4" Bevel Washer
19	03300	4	3/4"-10 Hexnut	03300	4	3/4"-10 Hexnut	03300	6	3/4"-10 Hexnut
20	03373	4	3/4" Lockwasher	03373	4	3/4" Lockwasher	03373	6	3/4" Lockwasher
21	53359D	1	Lower Pivot Assembly	53391C	1	Lower Pivot Assembly	53410	1	Lower Pivot Assembly
22	03372	4	3/4"-10 x 2 3/4" LG HHCS	03372	4	3/4"-10 x 2 3/4" LG HHCS	01037	6	3/4"-10 x 3" LG HHCS
23	05569	1	1 1/4"-7 Nylock Nut	05569	1	1 1/4"-7 Nylock Nut	05566	1	1 3/4"-5 Nylock Nut

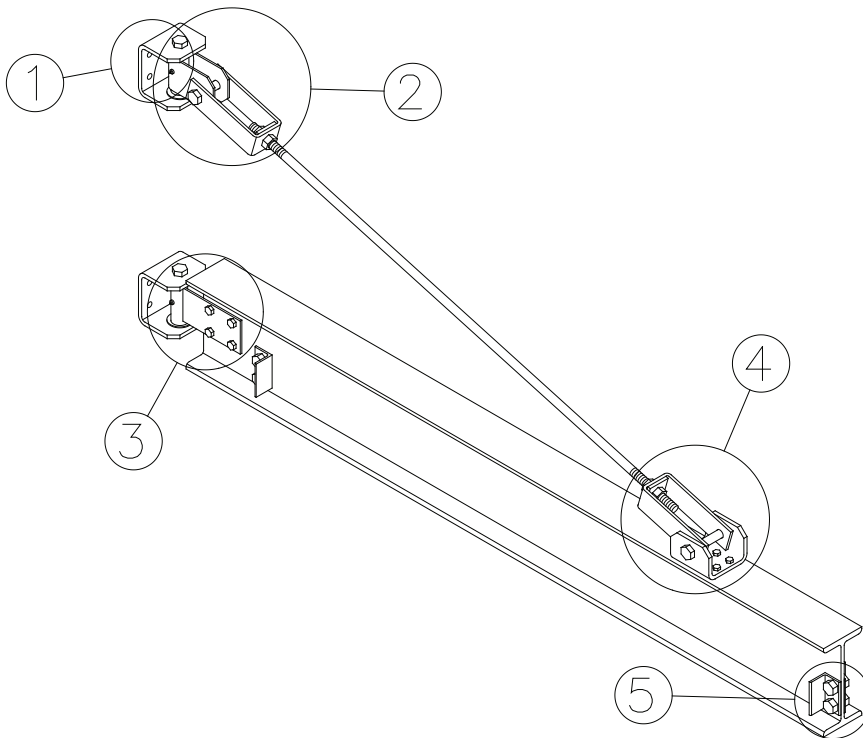
INSPECTION AND MAINTENANCE

GORBEL® WALL BRACKET JIB CRANE INSPECTION AND MAINTENANCE SCHEDULE			
ITEM	COMPONENT	MAINTENANCE	FREQUENCY*
1	Mounting Bolts	Check that lockwashers are compressed and nuts tightened to manufacturer's specifications.	Every 500 hours or 3 months
2	Upper Pivot Assembly	Check that lockwashers are compressed and nylock nut is tight. Check for wear on thrust washer. Grease fitting (use Lubriplate #630-AA or equivalent).	Every 1000 hours or 6 months
3	Lower Pivot Assembly	Check that lockwashers are compressed. Check for wear on thrust washer. Grease fitting (use Lubriplate #630-AA or equivalent). Check that nuts on bolts through I-beam web are tightened to torque specifications (chart 2A, page 5).	Every 1000 hours or 6 months
4	End of Beam Bracket	Check that lockwashers are compressed. Check that nuts on bolts through I-beam flange are tightened to torque specifications (chart 2A, page 5).	Every 500 hours or 3 months
5	Endstops or Tagline Assemblies	Check that lockwashers are compressed and nuts are tightened to torque specifications (chart 2A, page 5).	Every 1000 hours or 6 months
6	Accessory Items	Conduct a general inspection of all accessory items.	Every 1000 hours or 6 months
7	Gorbel® Crane	Conduct a visual inspection of wall bracket jib crane.	Every 1000 hours or 6 months

*Federal, state and local codes may require inspection and maintenance checks more often. Please check the federal, state and local code manuals in your area.

WARNING

Any changes in rolling effort or unusual noises must be immediately identified and corrected.



! WARNING

This product can expose you to chemicals, including acrylonitrile, which are known to the State of California to cause cancer. For more information go to:
www.P65Warnings.ca.gov

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 A CLASS ABOVE
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