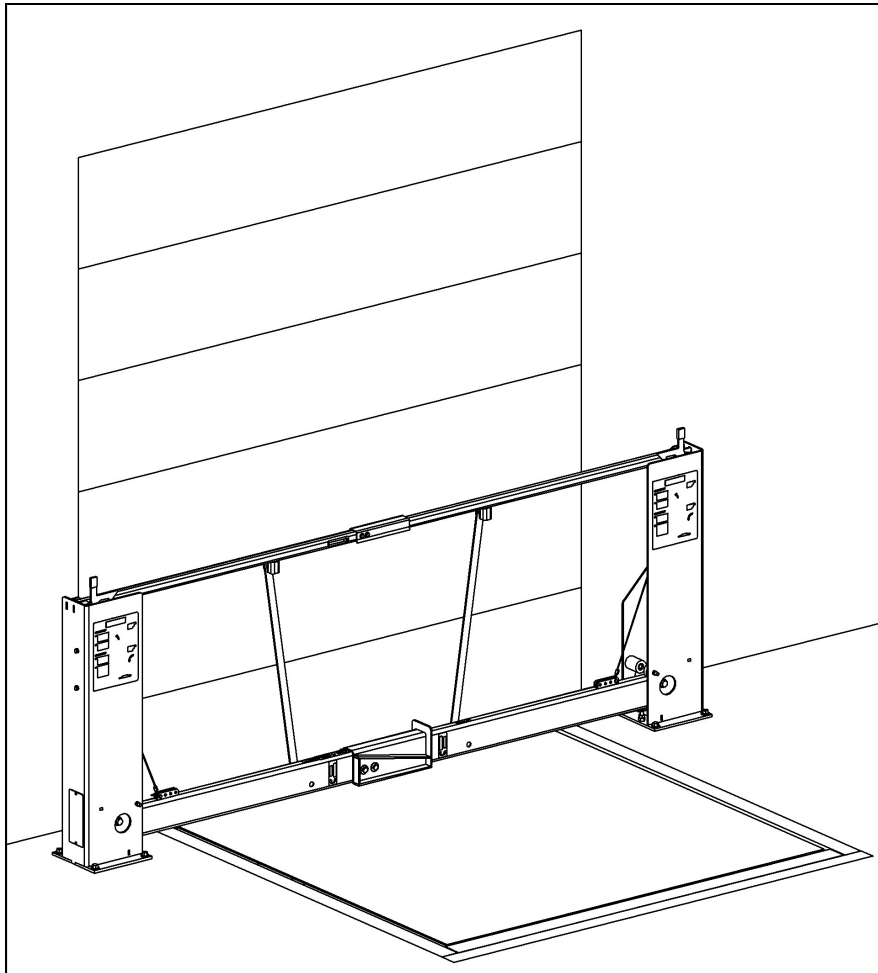


Dock **Sentinel**™

Safety Gate

Models DG-048-000, DG-108-000, DG-109-000

Installation Manual



MADE IN U.S.A.

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IMPORTANT

IMPORTANT is used to draw attention to a procedure that needs to be followed to prevent machine damage.



CAUTION

The statements used with this level of warning deal with a safe operating procedure. If the procedure is ignored the possibility of personal injury may exist.



WARNING

This is a statement of serious hazard. Failure to follow the listed instructions could place the individual at risk of serious injury or death.



DANGER

This is the highest level statement. Failure to follow the listed instructions will most likely result in severe injury or death.

NOVA reserves the right to make product changes without notice and as such this manual may not be an exact representation of product received.

PARTS IDENTIFICATION

IMPORTANT

Before starting installation, verify that all components and required tools are at hand.

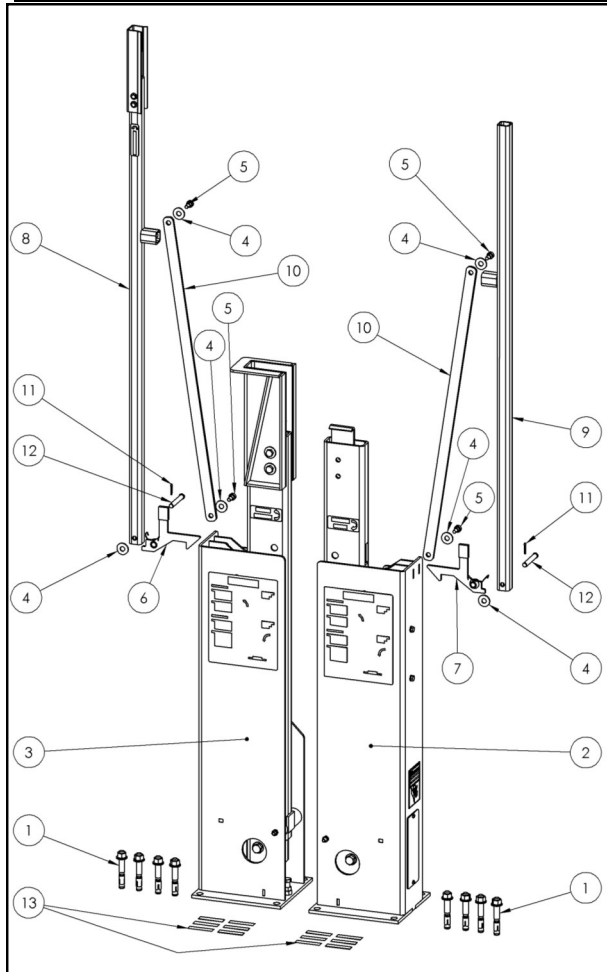


Figure 1: Parts Identification

INSTALLATION TOOLS REQUIRED

- Tape Measure
- Framing Square
- Marker
- Mason Drill
- 5/8" Mason Bit
- Compressed Air or Vacuum
- Torque Wrench (80 ft-lbs)
- 15/16" Socket / Wrench
- Long, large screwdriver or small pry bar
- Hammer
- Needle Nose Pliers
- 1/4" Allen Wrench
- Level
- Shims

ITEM NO.	DESCRIPTION	QTY.
1	ANCHOR BOLT	8
2	RIGHT SIDE UPRIGHT ASSEMBLY	1
3	LEFT SIDE UPRIGHT ASSEMBLY	1
4	WASHER	6
5	SHOULDER SCREW	4
6	LEFT LATCH ASSEMBLY	1
7	RIGHT LATCH ASSEMBLY	1
8	LEFT SIDE UPPER BARRIER	1
9	RIGHT SIDE UPPER BARRIER	1
10	TIE ROD	2
11	COTTER PIN	2
12	CLEVIS PIN	2
13	SHIM, FLAT	12

STEP 1: ALIGNING THE DOCK GATE

IMPORTANT

Read entire manual before installation.

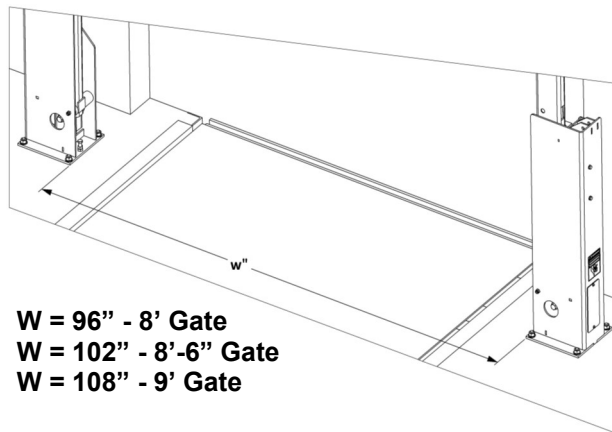
1. Ensure dock area is clear of materials and debris. Sweep floor clean within a 4 foot area on the door. Debris on floor could make aligning and mounting uprights difficult and may affect installation.



WARNING

Lower barriers are not secure in the uprights at this point in the installation process—they can be lowered which could cause the uprights to tip over unexpectedly. Until the uprights are fastened to the floor, secure the barriers into the uprights as necessary.

2. Place uprights on the inside of the dock just outside of the dock door opening as shown in Figures 2, 2.1 & 3. (**NOTE:** The uprights should be placed with decals facing inside the facility, away from the door. The back edge of the upright base plate should be a minimum of 2" from the face of the door.)



W = 96" - 8' Gate
W = 102" - 8'-6" Gate
W = 108" - 9' Gate

Figure 2: Mounting position for uprights

IMPORTANT

Be certain that the uprights are the indicated distance apart and parallel across the front. Poor measuring will result in poor alignment.

IMPORTANT

When you are laying out the positioning of the uprights, be sure to allow enough distance from the door tracks to prevent any interference when you drill holes to fasten the anchors to the floor.

3. Align the uprights so they are parallel across from each other and measure exactly W apart (make sure the front and back are both W apart and are square with each other). **NOTE:** The more accurate you are in this step the more accurate the installation will be. Be certain the uprights are centered on the dock door. See Figures 2 and 3.

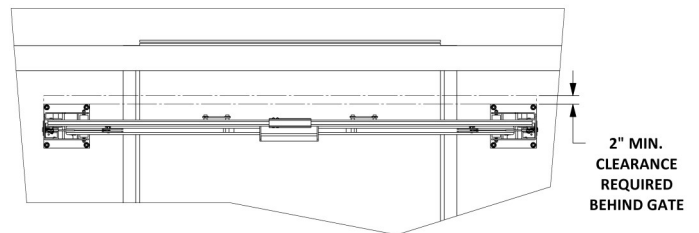
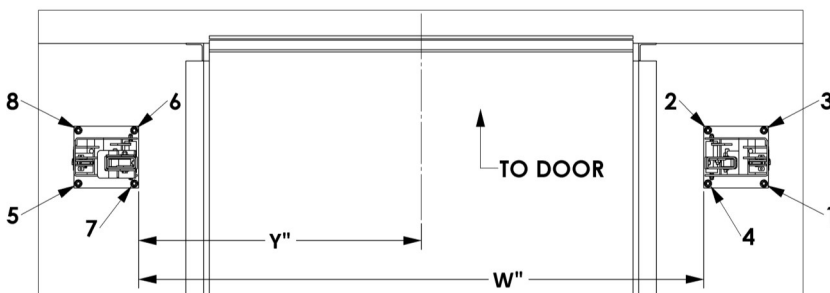


Figure 2.1: Mounting position for uprights



Y = 48" - 8' Gate
Y = 51" - 8'-6" Gate
Y = 54" - 9' Gate

Figure 3: Mounting position for uprights

STEP 2: BOLTING THE GATE TO THE FLOOR



WARNING

Safety glasses must be worn during this step.

1. Drill the first 5/8" hole for the anchor as noted in Figure 3 (right side upright, front & outside hole). Drill the hole into the concrete, minimum of 4 inches.
2. Remove dust and debris from the hole using a hand pump, compressed air or a vacuum.
3. Check plumb on front and back of upright with level and shim under the upright as required.
4. Position the washer on the anchor and thread on the nut. Drive the anchor through the hole on the upright to a minimum of 3-3/8" deep.
5. Align the right side upper barrier, (item 3, Figures 4 & 5), into the clevis as shown. Insert the clevis pin (item 1 below) through the clevis plates stopping at the second plate.
6. Align the latch assembly (item 4, Figures 4 & 5) with the clevis pin as shown. Verify spring is aligned as shown.
7. Push clevis pin fully through latch assembly. Add washer (item 5, Figures 4 & 5) and install cotter pin (item 2, Figures 4 & 5).

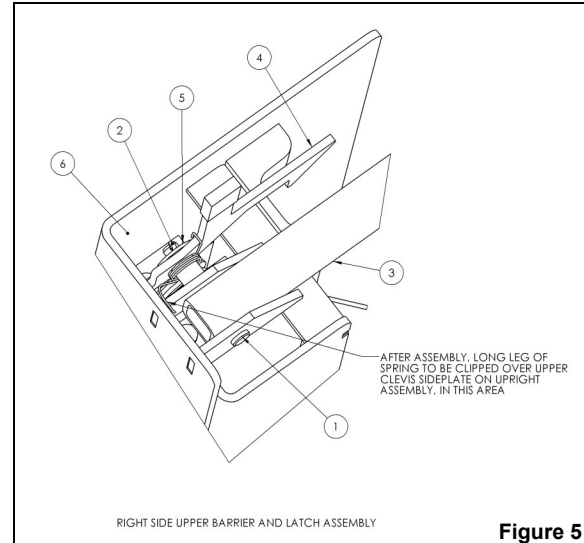
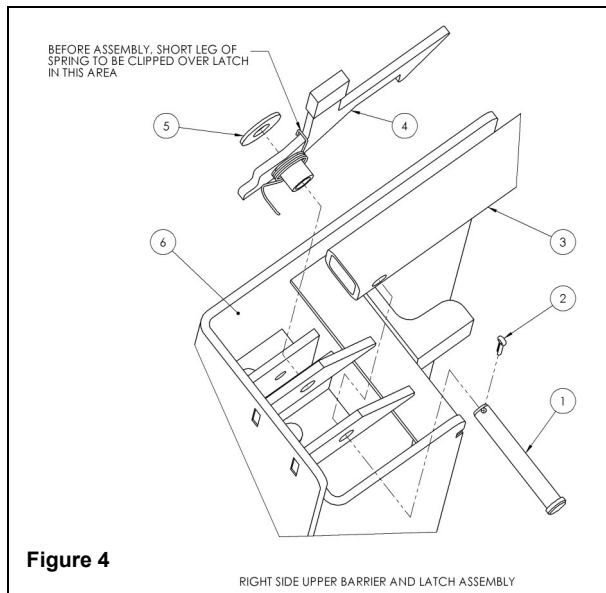
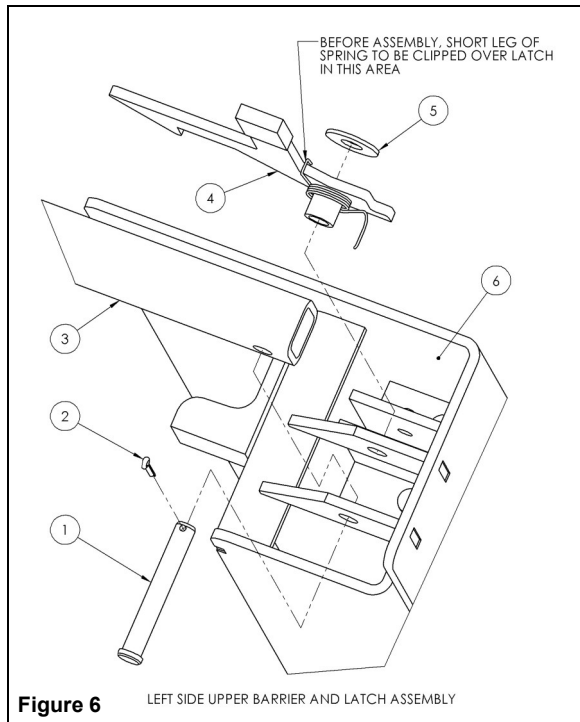


Figure 5

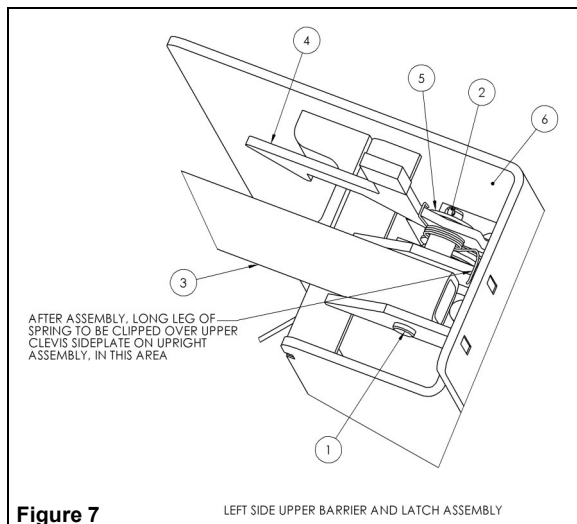
8. Lower gate and confirm barriers are parallel with door.
9. Drill and anchor holes 2-4 in order as shown in Figure 3 with the same steps as the first hole. **NOTE:** Confirm that the upright is plumb with level on the front and back and shim as required prior to securing anchors.
10. While supporting the left upright, lower the left barrier to confirm alignment and correct distance to the right hand lower barrier.
11. Drill the fifth 5/8" hole for the anchor as noted in Figure 3 (left side upright, front & outside hole and follow the same steps as the first hole.
12. Install the left side barrier and latch in the same manner as the right side. See Figures 6 & 7.

STEP 3: INSTALLING THE UPPER BARRIER



IMPORTANT

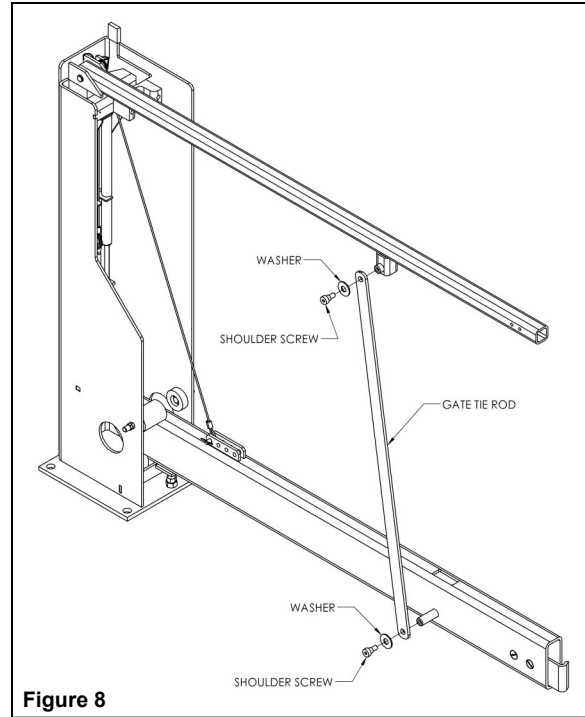
Confirm that the upright is plumb with level on the front and back and shim as required prior to securing anchors.



1. Confirm the alignment of the barriers and drill and anchor holes 6-8 as shown in the order shown in Figure 3 and using the same steps as before.

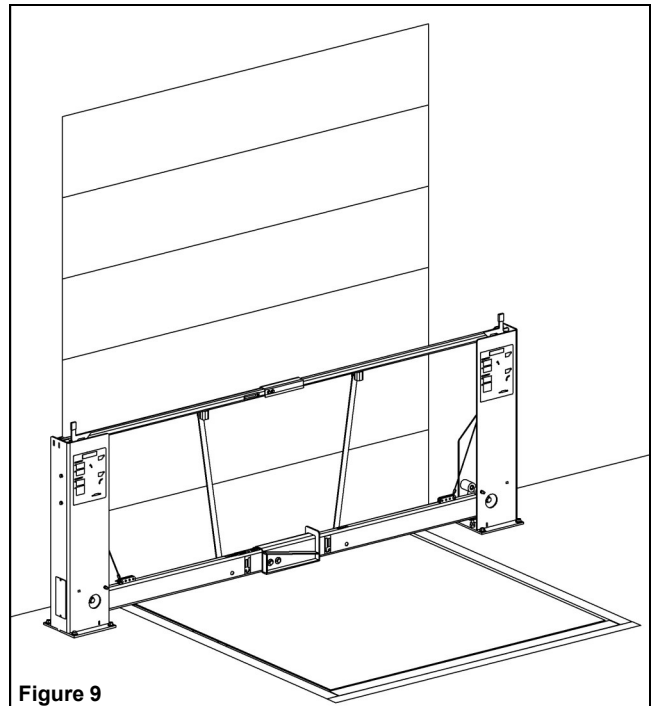
STEP 4: CONNECTING THE TIE RODS

Attach the gate tie rod with the shoulder bolts and washers as shown. Tighten the shoulder bolt with a 1/4" allen wrench.



STEP 5: FINAL CHECK

1. Check all connections to be certain they are secure.
2. Open and close the gate per the Operating Instructions on page 8 and verify proper operation.
3. Use paint provided to touch up any nicks or scratches incurred during installation process (if needed).



OPERATING INSTRUCTIONS

TO OPEN GATE

1. Lift the left side gate barrier until it is vertical and the latch engages.
2. Lift the right side gate barrier until it is vertical and the latch engages.

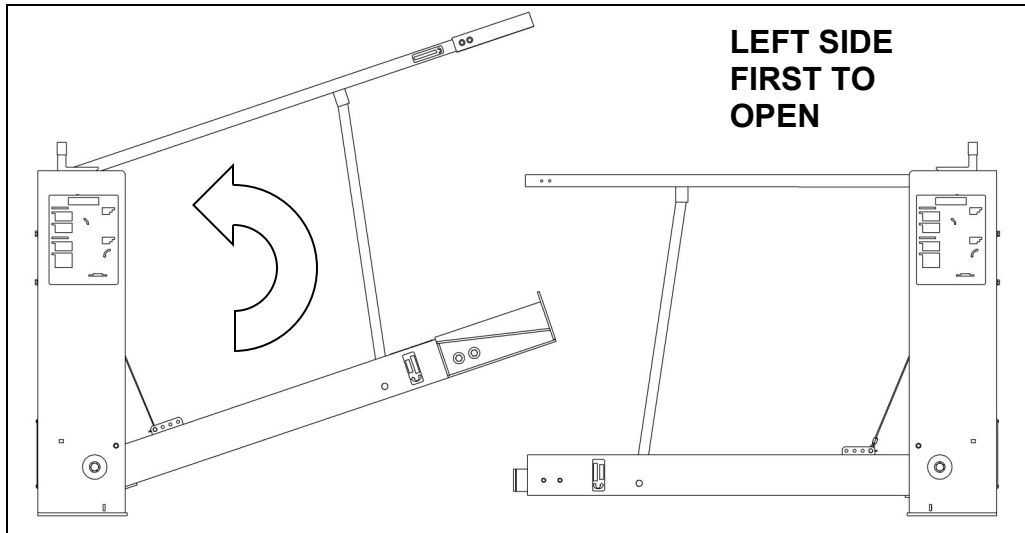


Figure 10—Opening Gate

TO CLOSE GATE

1. Release the latch on the right side gate barrier and lower until it is horizontal.
2. Release the latch on the left side gate barrier and lower until it is horizontal and engaged with the right side barrier.

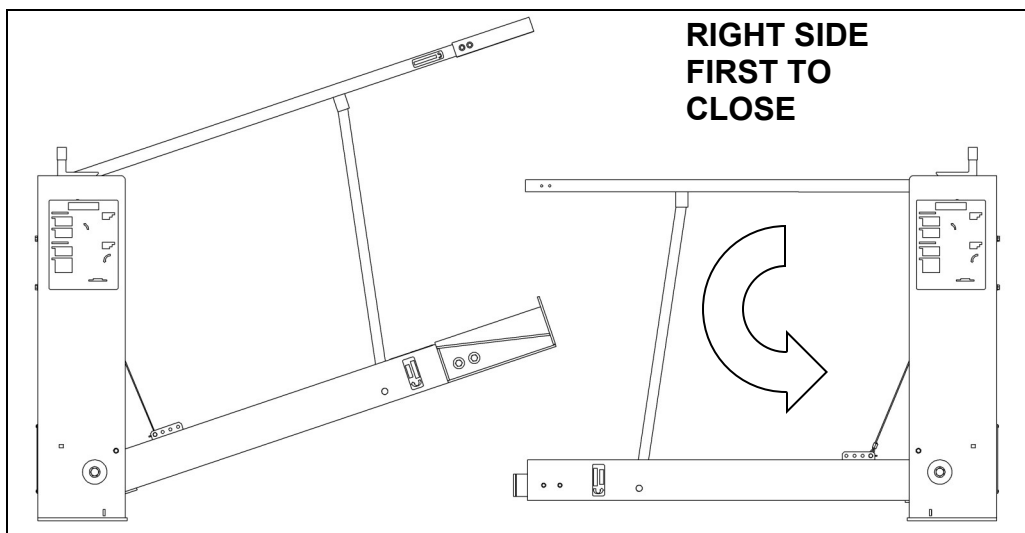


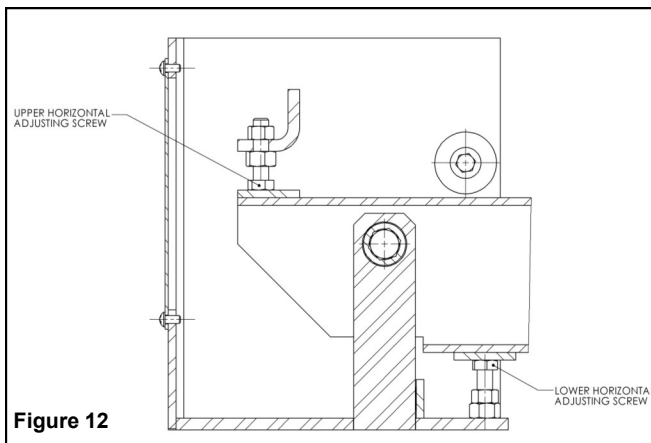
Figure 11—Closing Gate

GATE ADJUSTMENTS

NOTE: All DOCK SENTINEL™ dock gates come pre-adjusted from the factory and should not require readjustment after installation. Please follow these procedures in the event that adjustments become necessary.

LOWER BARRIER LEVEL ADJUSTMENT

The level on the lower barrier is controlled with two adjusting screws as shown in Figure 12. To adjust, loosen nuts and adjust screws up or down as required. Retighten nuts when complete.



LIFTING FORCE ADJUSTMENT



CAUTION

Do not adjust the lifting force on the gate so that the barriers rise without any assistance from the person operating the gate.

The lifting force required to open the gate can be adjusted based on the location of the wire rope in the clevis plate as shown in Figure 13. Moving the cable towards the center of the gate decreases the opening force while moving the cable away from the center increases the opening force.

1. Loosen the jam nuts that connect the cable to the gas spring tie bar as shown in Figure 13. Loosen fully, but do not remove the lower jam nut.



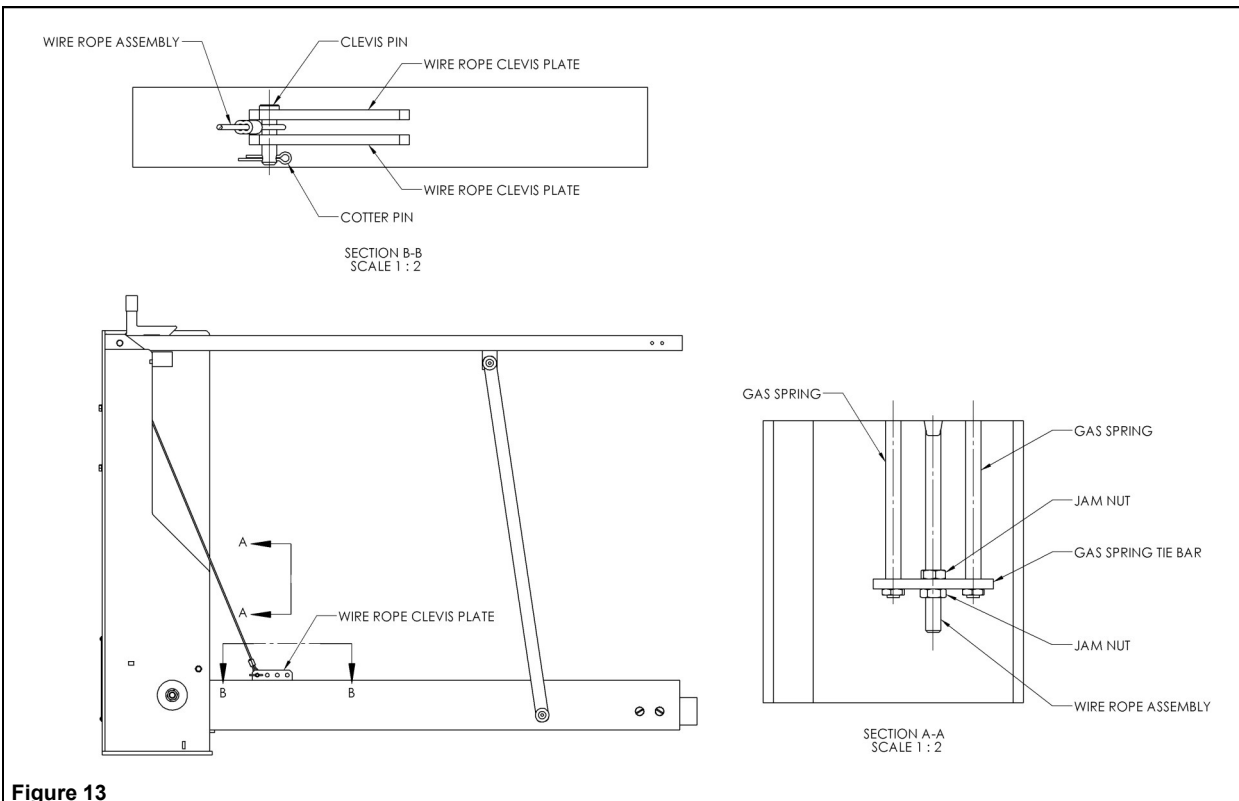
WARNING

The lower barrier will fall when cable is disconnected if not supported. Take adequate precautions to prevent the barrier from falling as it will cause damage or injury to anything in its path.

2. Raise the lower barrier until cable becomes slack. Disconnect cable from wire rope clevis plate and reconnect in appropriate hole.
3. Tighten lower jam nut until there is no slack in the cable system throughout the open and closing of the gate. Tighten upper jam nut to lock system.

IMPORTANT

When loosening the jam nuts, do not allow the wire rope assembly to rotate with the nut.



BARRIER STABILIZER ADJUSTMENT

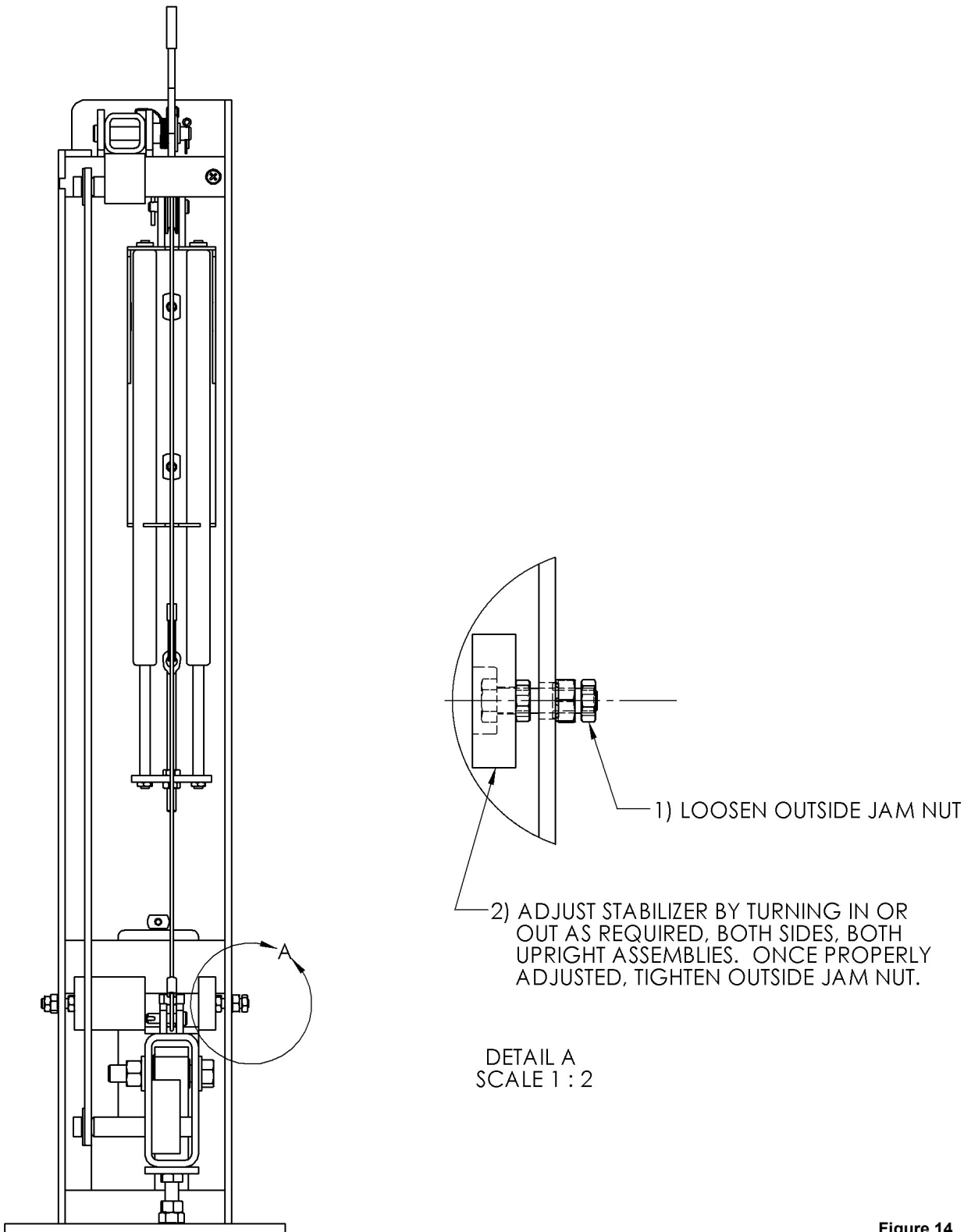


Figure 14

PARTS LISTS

LEFT SIDE MAIN ASSEMBLY

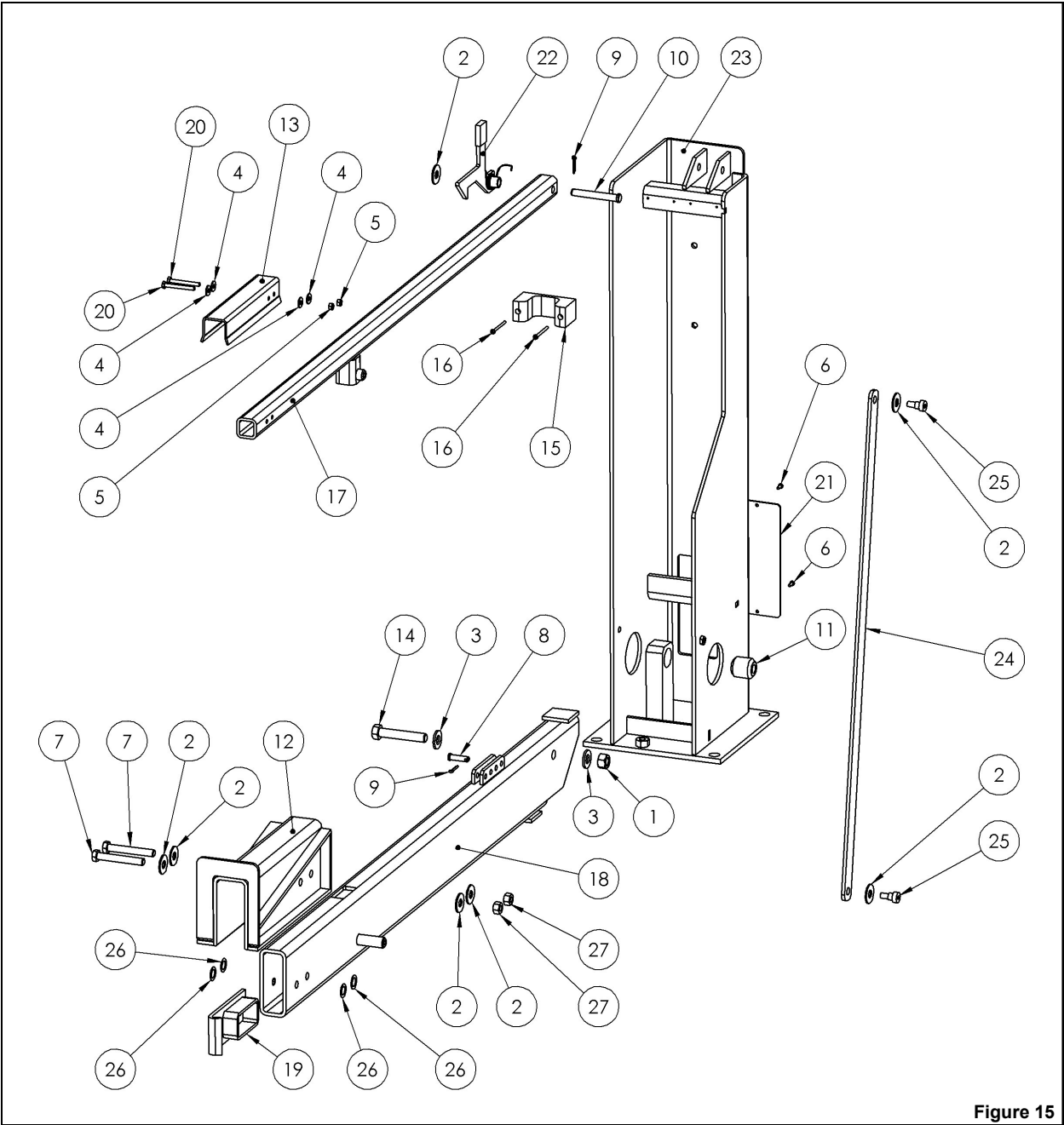


Figure 15

LEFT SIDE MAIN ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DG-068-000	5/8-11 HEX NYLOCK NUT	1
2	DG-069-000	1/2" FLAT WASHER PLATED	7
3	DG-070-000	5/8" FLAT WASHER PLATED	2
4	DG-071-000	1/4" FLAT WASHER	4
5	DG-072-000	1/4"-20 ELASTIC HEX NUT	2
6	DG-089-000	1/4" - 20 x 1/2" ROUND HEAD PHILLIPS SCREW	2
7	DG-074-000	1/2"-13 x 3-1/2" HH CAP SCREW	2
8	DG-075-000	3/8"DIA X 1 3/8" CLEVIS PIN	1
9	DG-076-000	COTTER PIN	2
10	DG-077-000	1/2" X 3 1/2" CLEVIS PIN	1
11	DG-001-001A2.2	BUSHING	1
12	DG-006-000	LOWER SADDLE	1
13	DG-008-000	TOP ALIGNMENT	1
14	DG-012-002A1	5/8"-11 X 3-1/2" HH CAP SCREW	1
15	DG-015-007	LOWER BAR RUBBER STOP	1
16	DG-088-000	1/4" - 20 x 1-1/2" ROUND HEAD PHILLIPS SCREW	2
17	DG-017-000	LEFT SIDE UPPER BARRIER	1
18	DG-019-000	LEFT SIDE LOWER BARRIER	1
19	DG-024-000	GLAD HAND W/SPACER	1
20	DG-029-000	1/4"-20 X 2-1/4"HH CAP SCREW	2
21	DG-039-000	UPRIGHT ACCESS COVER	1
22	DG-044-000	LEFT LATCH ASSEMBLY	1
23	DG-049-001	LEFT SIDE UPRIGHT WELDMENT	1
24	DG-050-000	TIE ROD, GATE	1
25	DG-053-000	3/8"-16 SHOULDER SCREW	2
26	DG-060-000	SHIM, SADDLE	4
27	DG-078-000	1/2"-13 NYLOCK NUT PLATED	2

LEFT SIDE SECONDARY ASSEMBLY

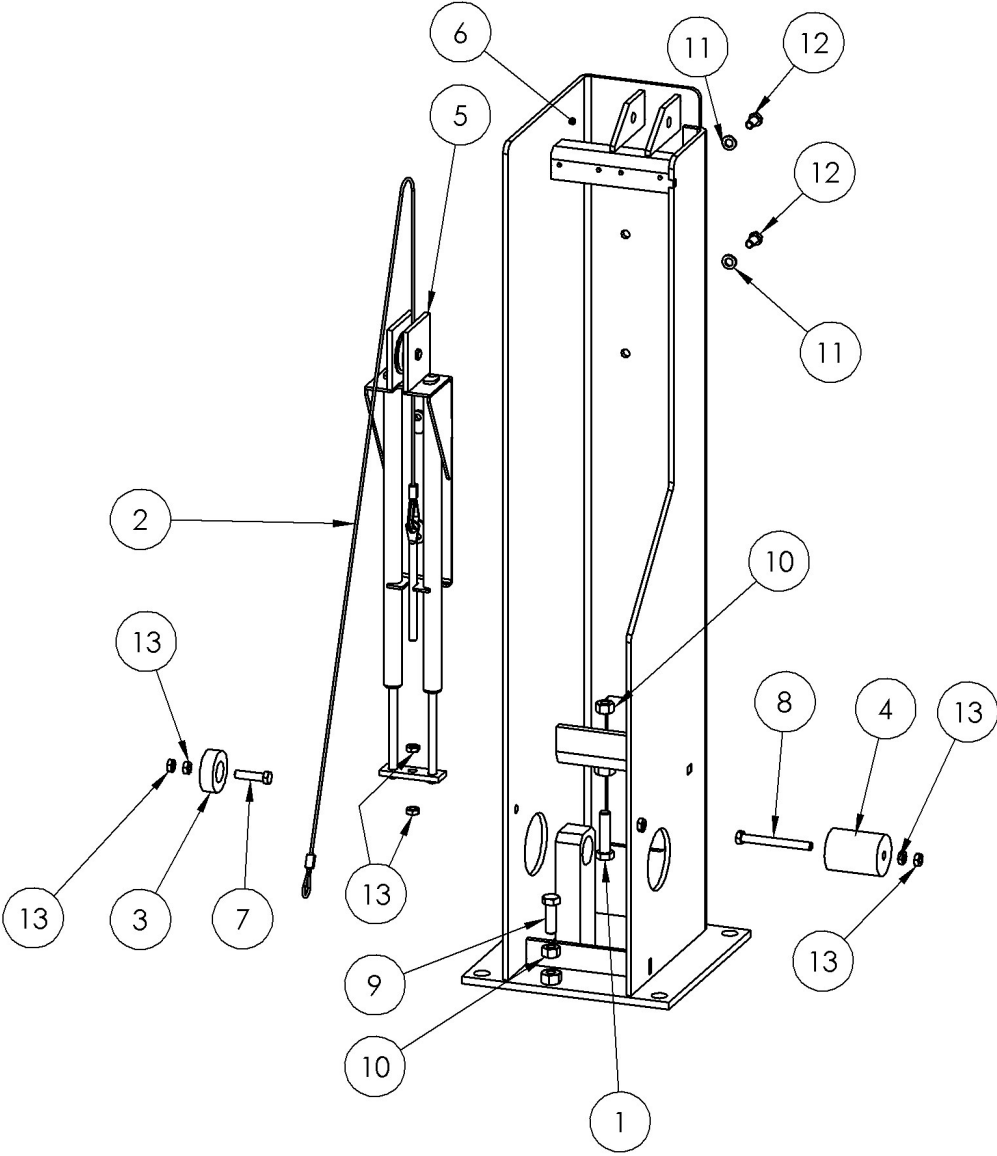
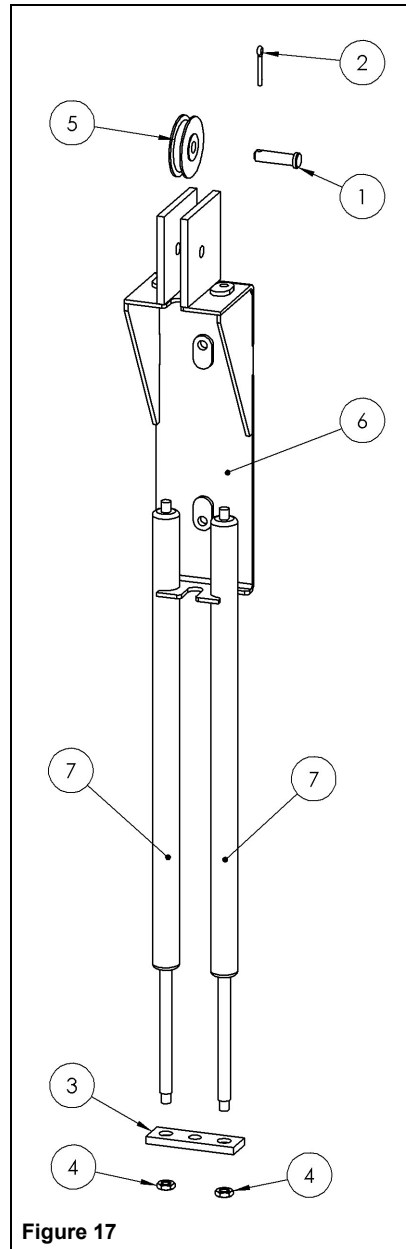


Figure 16

LEFT SIDE SECONDARY ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DG-015-010	1/2"-13 X 2" HH CAP SCREW	1
2	DG-033-000	WIRE ROPE ASSEMBLY	1
3	DG-034-000	SHORT STABILIZER	1
4	DG-035-000	TALL STABILIZER	1
5	DG-038-000	PULLEY/GAS SPRING MOUNTING ASSEMBLY (100# GAS SPRING)	1
6	DG-049-001	LEFT SIDE UPRIGHT WELDMENT	1
7	DG-064-000	3/8"-16 X 1 1/2" HH CAP SCREW	1
8	DG-065-000	3/8"-16 x 3 1/2" HH CAP SCREW	1
9	DG-079-000	1/2"-13 x 1-1/2"HH CAP SCREW	1
10	DG-080-000	1/2"-13 HEX NUT PLATED	2
11	DG-082-000	3/8" LOCK WASHER PLATED	2
12	DG-083-000	3/8"-16 X 3/4" HH SCREW	2
13	DG-084-000	3/8" JAM NUT	6

POWER PACK ASSEMBLIES (LEFT AND RIGHT)

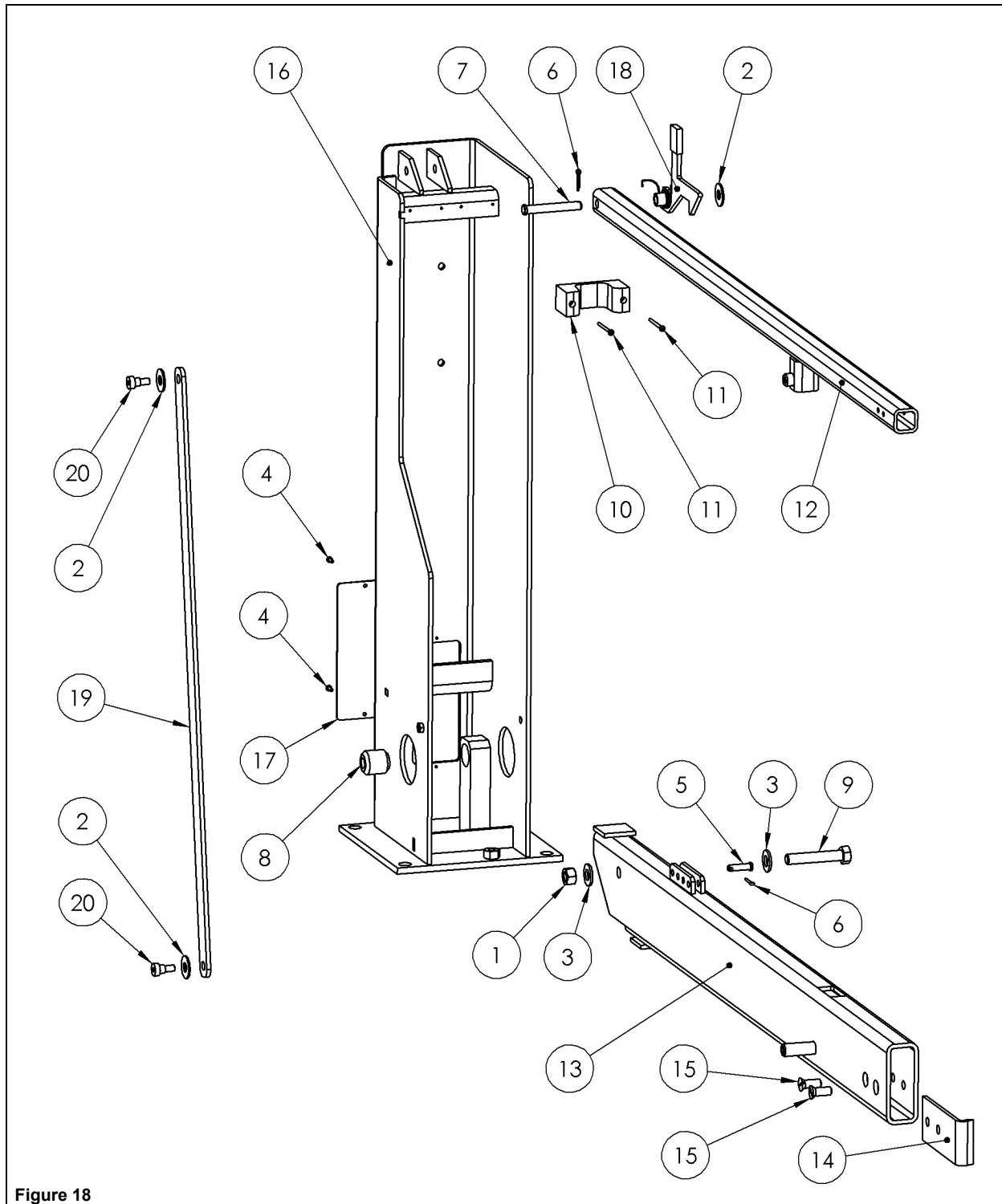


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DG-075-000	3/8"DIA X 1 3/8" CLEVIS PIN	1
2	DG-076-000	COTTER PIN	1
3	DG-015-003	GAS SPRING TIE BAR	1
4	DG-015-004	M8 X 1.25 NUT	2
5	DG-015-005	PULLEY	1
6	DG-038-001	PULLEY/GAS SPRING MOUNTING WELDMENT	1
7	DG-047-000	GAS SPRING (100#)	2
7	DG-036-000	GAS SPRING (75#)	2

NOTES

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RIGHT SIDE MAIN ASSEMBLY



RIGHT SIDE MAIN ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DG-068-000	5/8-11 HEX NYLOCK NUT	1
2	DG-069-000	1/2" FLAT WASHER PLATED	3
3	DG-070-000	5/8" FLAT WASHER PLATED	2
4	DG-089-000	1/4" - 20 x 1/2" ROUND HEAD PHILLIPS SCREW	2
5	DG-075-000	3/8"DIA X 1 3/8" CLEVIS PIN	1
6	DG-076-000	COTTER PIN	2
7	DG-077-000	1/2" X 3 1/2" CLEVIS PIN	1
8	DG-001-001A2.2	BUSHING	1
9	DG-012-002A1	5/8"-11 X 3-1/2" HH CAP SCREW	1
10	DG-015-007	LOWER BAR RUBBER STOP	1
11	DG-088-000	1/4" - 20 x 1-1/2" ROUND HEAD PHILLIPS SCREW	2
12	DG-018-000	RIGHT SIDE UPPER BARRIER 8'	1
12	DG-119-000	RIGHT SIDE UPPER BARRIER 8'-6"	1
12	DG-105-000	RIGHT SIDE UPPER BARRIER 9'	1
13	DG-020-000	RIGHT SIDE LOWER BARRIER 8'	1
13	DG-106-000	RIGHT SIDE LOWER BARRIER 9'	1
13	DG-120-000	RIGHT SIDE LOWER BARRIER 8'-6"	1
14	DG-110-000	GLAD HAND W/NUTS	1
15	DG-032-000	1/2"-13 X 1-1/4" FLAT HEAD SCREW	2
16	DG-037-001	RIGHT SIDE UPRIGHT WELDMENT	1
17	DG-039-000	UPRIGHT ACCESS COVER	1
18	DG-045-000	RIGHT LATCH ASSEMBLY	1
19	DG-050-000	TIE ROD, GATE	1
20	DG-053-000	3/8"-16 SHOULDER SCREW	2

RIGHT SIDE SECONDARY ASSEMBLY

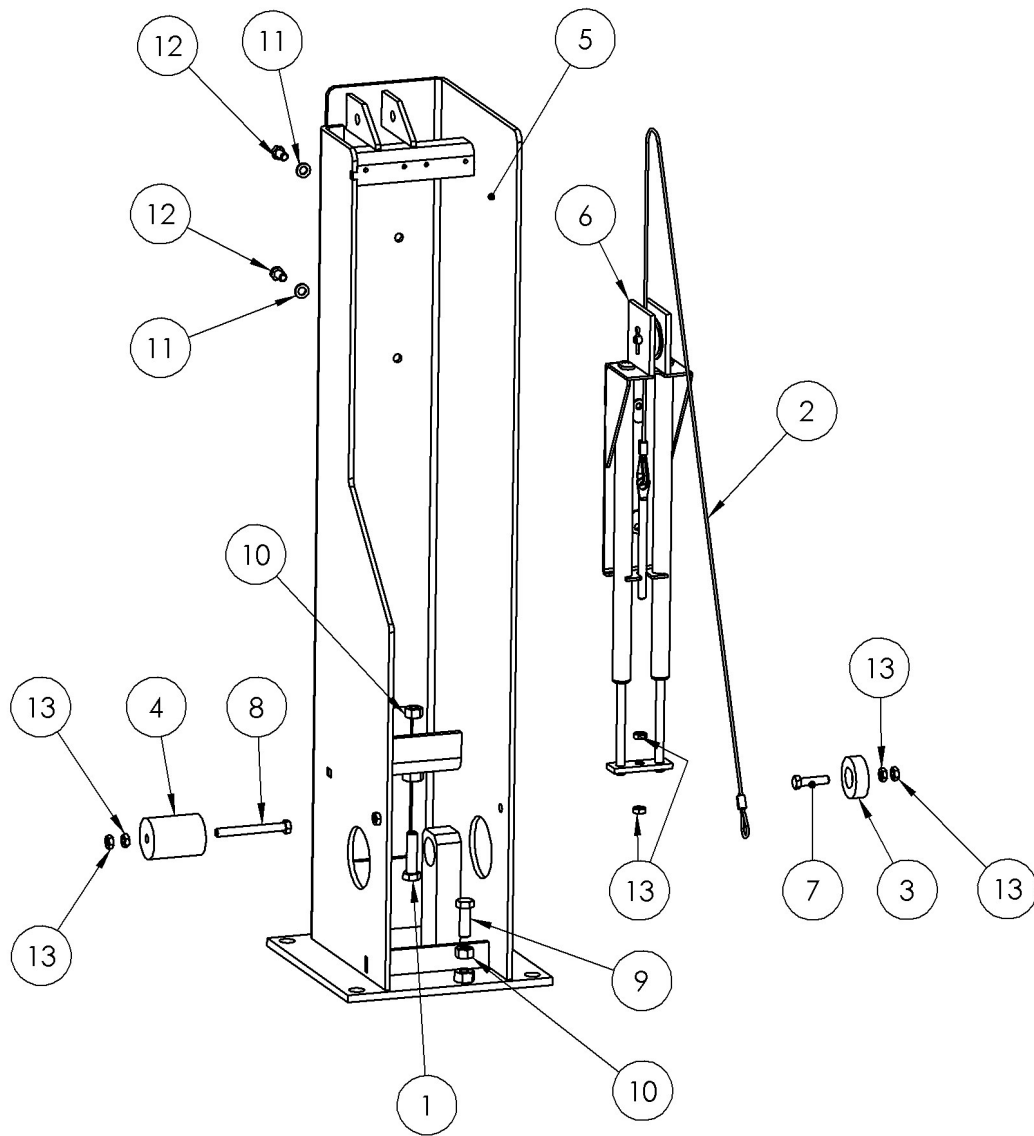
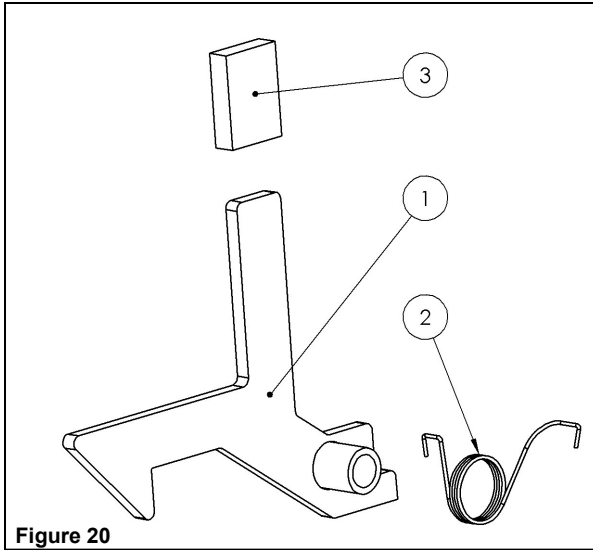


Figure 19

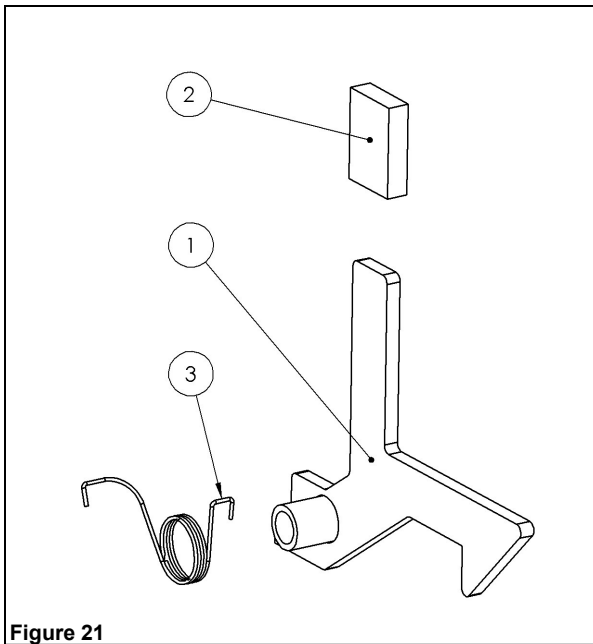
RIGHT SIDE SECONDARY ASSEMBLY

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DG-015-010	1/2"-13 X 2" HH CAP SCREW	1
2	DG-033-000	WIRE ROPE ASSEMBLY	1
3	DG-034-000	SHORT STABILIZER	1
4	DG-035-000	TALL STABILIZER	1
5	DG-037-001	RIGHT SIDE UPRIGHT WELDMENT	1
6	DG-059-000	PULLEY/GAS SPRING MOUNTING ASSEMBLY 8' (75# GAS SPRING)	1
6	DG-038-000	PULLEY/GAS SPRING MOUNTING ASSEMBLY 9' (100# GAS SPRING)	1
6	DG-038-000	PULLEY/GAS SPRING MOUNTING ASSEMBLY 8'-6" (100# GAS SPRING)	1
7	DG-064-000	3/8"-16 X 1 1/2" HH CAP SCREW	1
8	DG-065-000	3/8"-16 x 3 1/2" HH CAP SCREW	1
9	DG-079-000	1/2"-13 x 1-1/2"HH CAP SCREW	1
10	DG-080-000	1/2"-13 HEX NUT PLATED	2
11	DG-082-000	3/8" LOCK WASHER PLATED	2
12	DG-083-000	3/8"-16 X 3/4" HH SCREW	2
13	DG-084-000	3/8" JAM NUT	6

LATCH ASSEMBLIES

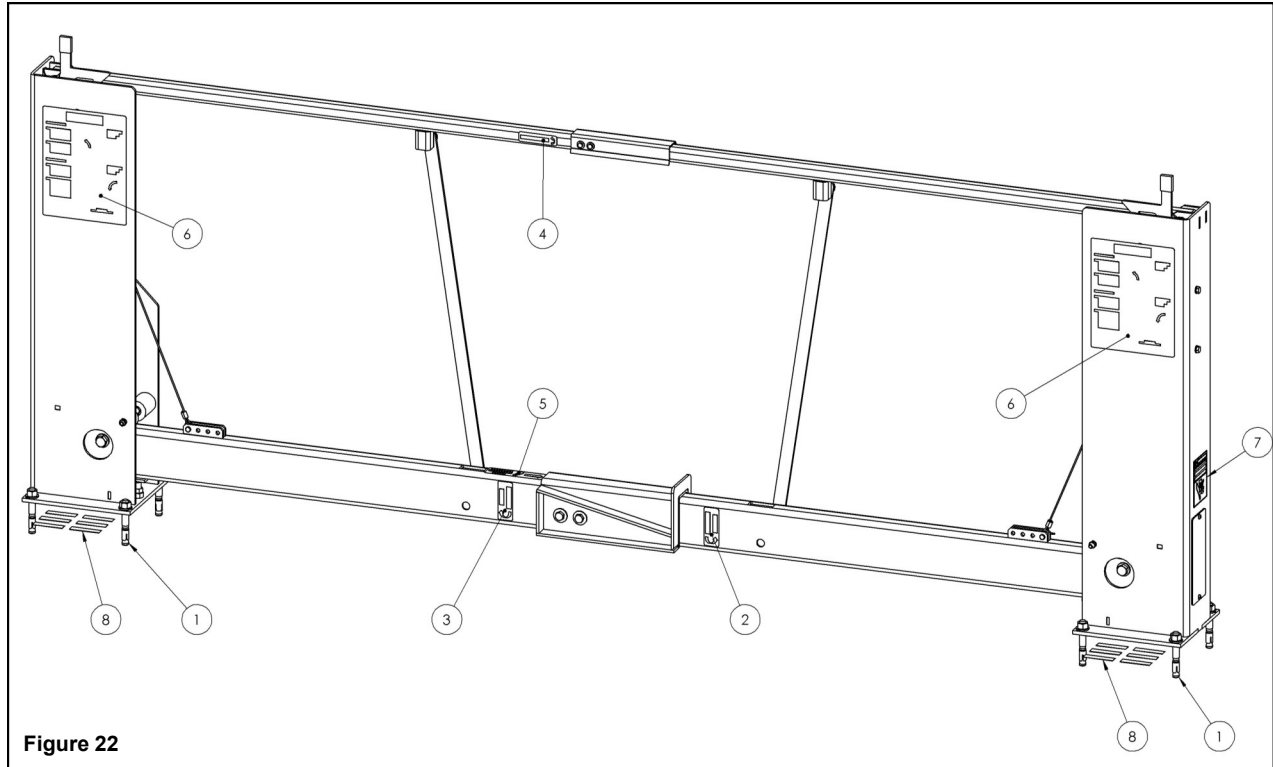


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DG-040-000	LEFT LATCH	1
2	DG-051-000	LEFT LATCH SPRING	1
3	DG-046-000	LEFT LATCH HANDLE	1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DG-041-000	RIGHT LATCH	1
2	DG-046-000	RIGHT LATCH HANDLE	1
3	DG-052-000	RIGHT LATCH SPRING	1

ANCHORS AND DECALS



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	DG-067-000	ANCHOR BOLT	8
2	DG-054-000	"CLOSE FIRST" DECAL	1
3	DG-055-000	"CLOSE LAST" DECAL	1
4	DG-056-000	"OPEN FIRST" DECAL	1
5	DG-057-000	"CONFIRM CLOSE" DECAL	1
6	DG-058-000	OPERATING INSTRUCTIONS DECAL	2
7	DG-100-000	WARNING DECAL	2
8	DG-101-000	SHIM, FLAT	12

TOUCH-UP PAINT

PART NUMBER	DESCRIPTION
DG-099-000	TOUCH-UP PAINT, 4 oz. SPRAY
DG-103-000	TOUCH-UP PAINT, 1/2 oz. BRUSH

WARRANTY

NOVA TECHNOLOGY INTERNATIONAL, LLC. warrants the DOCK SENTINEL™ SAFETY GATE to be free of defects in material or workmanship under normal use for a period of one year from the date of shipment. This warranty does not cover any failure to properly maintain the product. This warranty is the only one given by NOVA TECHNOLOGY INTERNATIONAL, LLC. and is in lieu of all guarantees and warranties expressed or implied by anyone other than NOVA TECHNOLOGY INTERNATIONAL, LLC, including those of fitness for a particular purpose and merchantability. In order for warranty claims to be honored the products must have been properly installed, maintained, and operated within their intended function and not otherwise abused.

If your DOCK SENTINEL™ SAFETY GATE is defective in material or workmanship and you notify NOVA TECHNOLOGY INTERNATIONAL, LLC within one year of the date of shipment, NOVA TECHNOLOGY INTERNATIONAL, LLC will, at its option, repair or replace the defective component(s) at no cost to you.

NOVA TECHNOLOGY INTERNATIONAL, LLC. will not be responsible for or pay for loss of time, inconvenience, loss of the use of the product, or property damage caused by this product or its failure to work, or any other incidental or consequential damages.

