

Rail Maintenance

To keep a rail system running optimally requires preventative maintenance. The following areas need inspected at regular intervals. Conduct these inspections and make the adjustments and repairs to ensure that your system runs trouble free preventing expensive downtime. Add all of the following tasks to your preventative maintenance schedule.

Illustration	Description	File Reference
Illustration 1	Sort-on Twister 3 Position	QR-SORT-ON TWISTER.PDF
Illustration 2	Rectangle Bag 180 Twister	QR-180 TWISTER.PDF
Illustration 3	Gate – 2 Position	QR-GATE.PDF
Illustration 4	Rail Stops and Indexers	QR-STOPS AND INDEXERS.PDF
Illustration 5	Rectangle Sling Assembly	REC SLING.PDF
Illustration 6	Single Bag Opener	QR-OPENER.PDF
Illustration 7	Bag Closer	QR-BAG CLOSER.PDF

Sort-On Twister

See Illustration 1

Monthly

Grease Ramp	Grease the ramp on the non-return fingers and stud pins once a month or as needed.
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Every Six Months

Adjust the Rail Travel	Adjust the rail travel by aligning the two pieces of rail with the two set screws on each side of the rotating bar.
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As Needed

Adjust Rail Heights	Adjust the rail height leveling the two pieces if possible; if not possible to level the two pieces, level one side and let the other side fall off slightly in the direction the sling travels.
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Set Cylinder Speed	Set the cylinder speed by adjusting the flow controls at the cylinder. Set the speed to approximately three to four seconds assuring that the twister does not slam into position and throw off the alignment.
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180 Degree Twister

See Illustration 2

Monthly

Grease Ramp	Grease the ramp on the non-return fingers and stud pins once a month or as needed
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Adjust the Rail Travel Chain	To reduce the chance of misalignment, check the chain that rotates the bar and make sure the chain remains taut.
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Every Six Months

Adjust the Rail Travel	Adjust the rail travel by aligning the two pieces of rail with the two set screws on each side of the rotating bar.
------------------------	---

As Needed

Adjust Rail Heights	Adjust the rail height leveling the two pieces if possible; if not possible to level the two pieces, level one side and let the other side fall off slightly in the direction the sling travels.
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Set Cylinder Speed	Set the cylinder speed by adjusting the flow controls at the cylinder. Adjust the speed to approximately three to four seconds so the twister does not slam into position and throw off the alignment.
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Cable Lifts

Monthly

Inspect Cables	Check the cables for fraying. Replace as needed.
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Grease Sheaves	Grease all sheaves and check for wear. Replace sheave bearings as needed.
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Check Live Rail	Check the lift live rail alignment, and adjusted it if necessary by tightening the I-bolts that connect to the cable. When properly aligned: <ul style="list-style-type: none">• The live rail incoming section joint is level or slightly lower than the incoming stub rail, and• The loaded live rail reaches the two V-blocks at the same time.
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Grease Non-return Fingers and Stud Pins	Grease non-return fingers and stud pins once a month or as needed.
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Every Six Months

Inspect Cylinder for Leaks	Check the cylinder for leaks. Replace seal kit as needed.
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Gates

See Illustration 3

Every Six Months

Adjust the Travel Rail	Adjust the rail travel by aligning the two pieces of rail with the two set screws on each side of the gate.
Inspect Plastic Knuckle	Check the plastic knuckle for fatigue cracks. Replace when found.

As Needed

Adjust Rail Heights	Adjust the rail height leveling the two pieces if possible; if not possible to level the two pieces, level one side and let the other side fall off slightly in the direction the sling travels.
Set Cylinder Speed	Set the cylinder speed by adjusting the flow controls at the cylinder. Set the speed to approximately two to three seconds assuring the gate does not slam into position and throw off the alignment.

Stops and Indexers

See Illustration 4

Every Six Months

Inspect for Wear	Check the stops and indexer pins for excessive wear. Replace as needed.
Inspect Cylinders	Check the cylinders for normal operation. Replace when seals start to leak.

Sling Assemblies

See Illustration 5

Every Six Months

Inspect Trolley Wheels	Inspect the trolley wheels ensuring all of the wheels spin freely. Replace the wheels as needed.
Grease Trolley Yoke	Grease the trolley yoke to load bar bolts, and inspect them for excessive wear. Replace as needed.
Inspect Sling Rings	For systems with round slings, the chain links that connect the yoke to the sling ring need inspected for excessive wear. Replace as needed.
Inspect Cord Assemblies	Check sling cord assemblies for excessive wear. Replace as needed.
Inspect Sling Latch Lever	Check the sling latch lever for excessive wear. Replace as needed.
Oil Hinge Points	Oil the hinge points and examine them for excessive wear. Replace as needed.

Openers

See Illustration 6

Yearly

Inspect Cylinders	Check the cylinders for leaks. Replace as needed.
Adjust Stabilizer Cylinders	Adjust the stabilizer cylinders, leveling the sling.
Adjust Striking Cylinder	Adjust the cylinder that strikes the latch lever ensuring the lever totally disengages the bullet.
Inspect for Wear	Check for excessive wear of parts. Replace as needed.

Closer & Loader

See Illustration 7

Yearly

Inspect Cylinders	Check the cylinders for leaks. Replace as needed.
Adjust Stabilizer Cylinders	Adjust the stabilizer cylinders, leveling the sling.
Adjust Cylinders	On Closer allow for inconsistencies in cord tying by adjusting the cylinder that grabs the sling cord so the bullet travels beyond the latch lever by one inch.
Inspect for Wear	Check for excessive wear of parts. Replace as needed.

Rail General

Monthly

Clean Rails	Keep the rail free of lint. Blow off the system once a month or as needed.
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Every Six Months

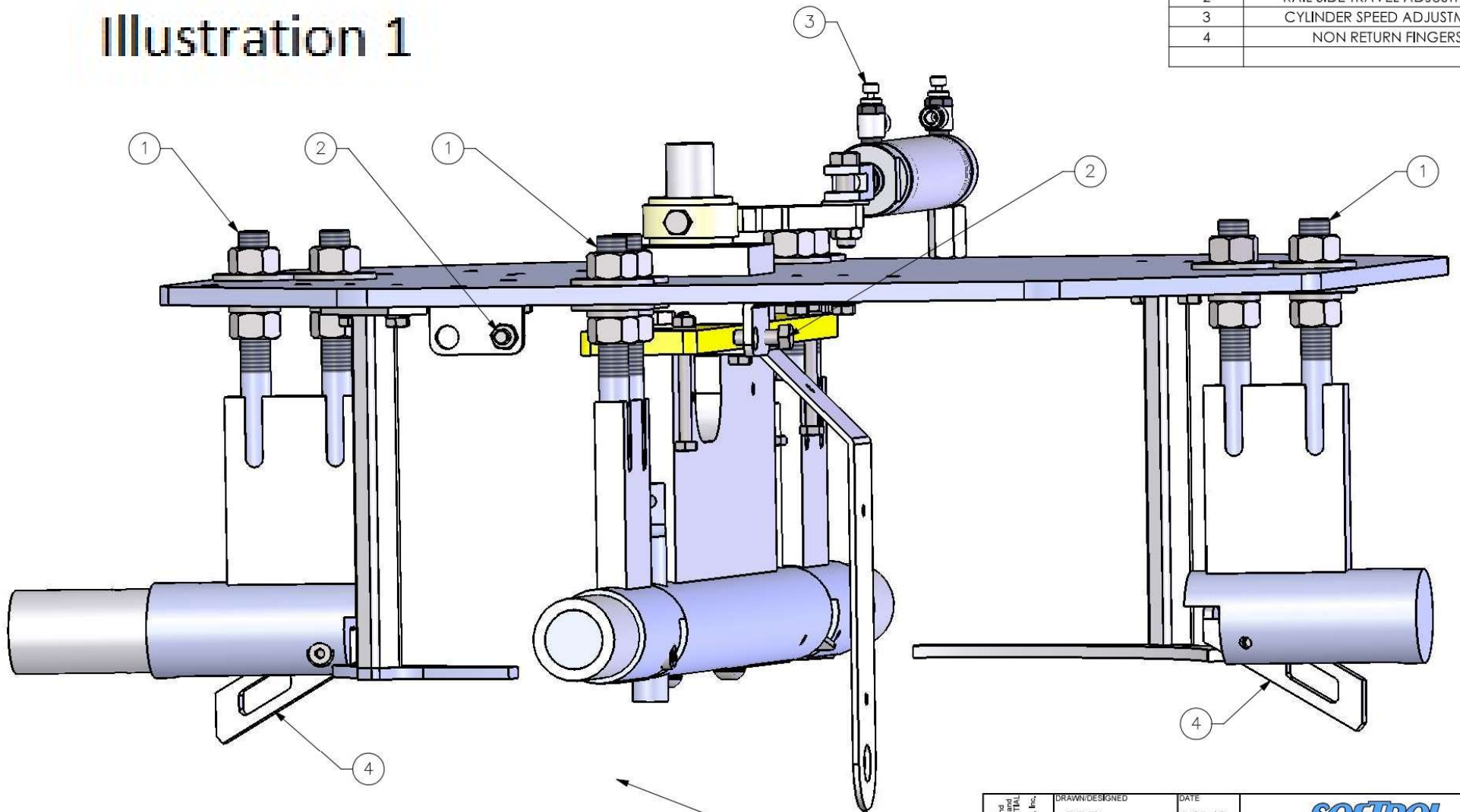
Check Trolley Stops for Divots	Check the rail sections where the trolleys stop and swing for divots every six months. Replace the rail sections as needed.
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Yearly

Check for Misaligned Rail Joints	If the rail joints become misaligned, grind them flush at the riding tread for a smooth trolley transfer.
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Illustration 1

ITEM #	ITEM IDENTIFICATION
1	RAIL HEIGHT ADJUSTMENT
2	RAIL SIDE TRAVEL ADJUSTMENT
3	CYLINDER SPEED ADJUSTMENT
4	NON RETURN FINGERS

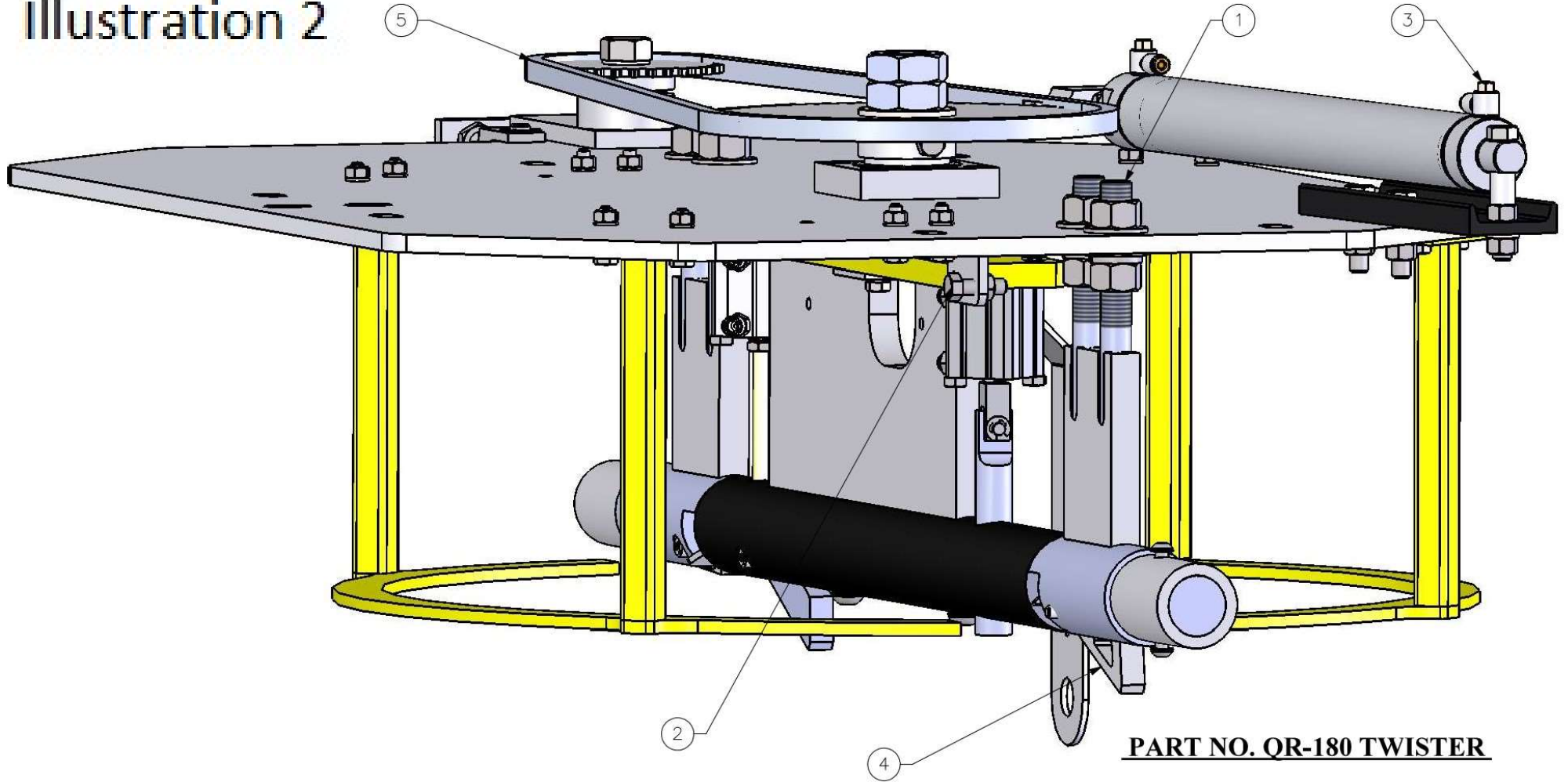


PART NO. QR-SORT-ON TWISTER

FABRICATION TOLERANCES
 UNLESS NOTED
 FRACTIONS $\pm 1/32"$
 DECIMAL $\pm 0.005"$
 ANGULAR $\pm 1/2^\circ$

Softrol Systems, Inc. Reserves all proprietary rights to this drawing and all data shown hereon is CONFIDENTIAL and can not be used without prior written consent of Softrol Systems, Inc.	DRAWN/DESIGNED BRE	DATE 5-05-16	SOFTROL 1100 NORTHPOINT PKWY, ACWORTH, GA, 30102 PHONE: 770-974-2700 FAX: 770-974-0435	
	MACHINE SHOP ---	DATE ---		
	PRODUCTION ---	DATE ---	TITLE SORT-ON TWISTER 3 POSITION	
	ENGINEERING ---	DATE ---	SIZE PART NO / FILE NAME B QR-SORT-ON TWISTER	REV A
SCALE 1:2		SHEET 1		

Illustration 2



PART NO. QR-180 TWISTER

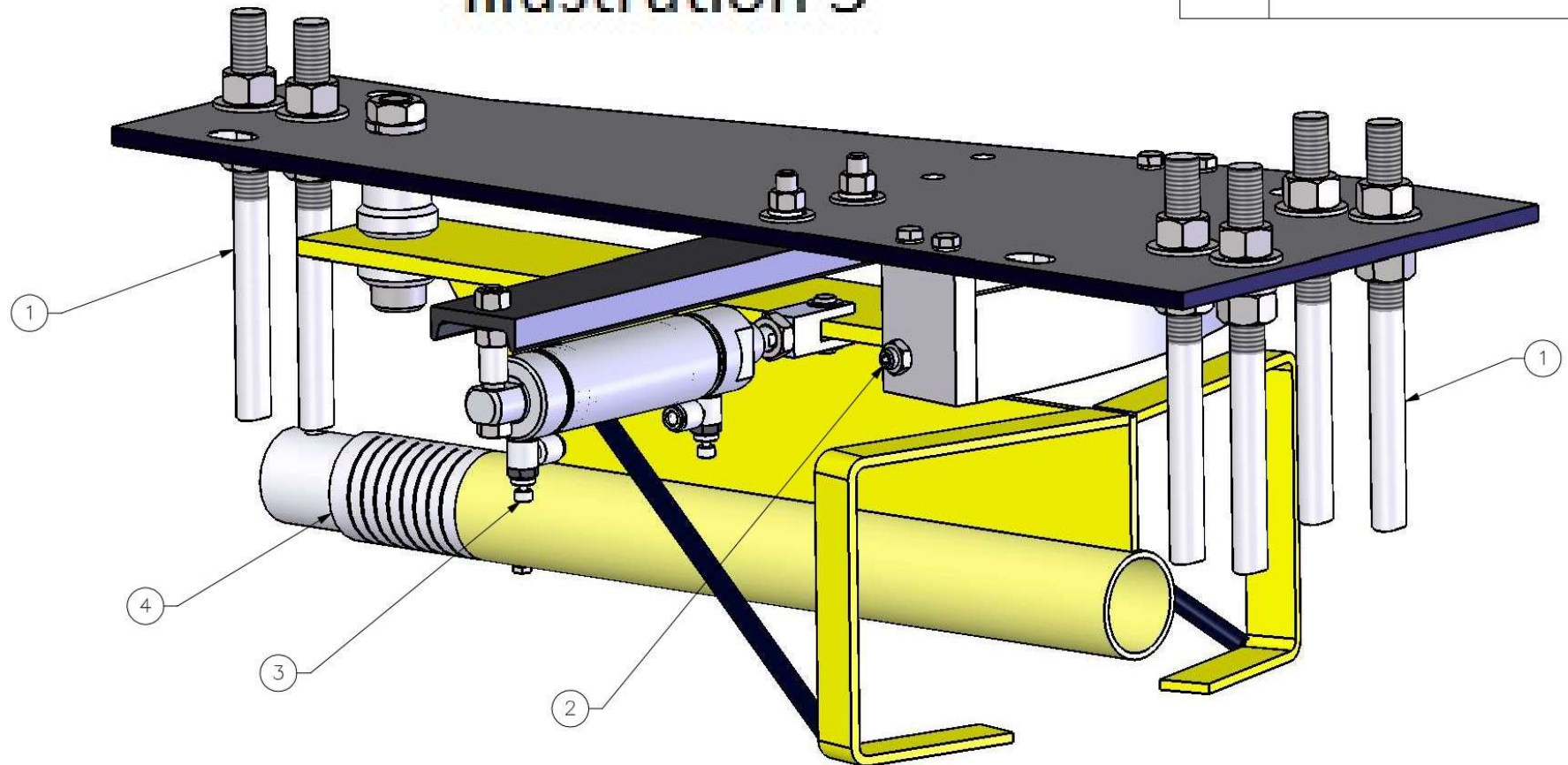
ITEM #	ITEM IDENTIFICATION
1	RAIL HEIGHT ADJUSTMENT
2	RAIL SIDE TRAVEL ADJUSTMENT
3	CYLINDER SPEED ADJUSTMENT
4	NON RETURN FINGER
5	INSPECT AND OIL CHAIN

FABRICATION TOLERANCES
UNLESS NOTED FRACTIONS $\pm 1/32"$ DECIMAL $\pm 0.005"$ ANGULAR $\pm 1/2^\circ$

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	MACHINE SHOP ----	DATE ----		TITLE RECTANGLE BAG 180 TWISTER
	PRODUCTION ----	DATE ----	SIZE B	PART NO./FILE NAME QR-180 TWISTER
	ENGINEERING ----	DATE ----	SCALE 1:2	REV A SHEET 1

Illustration 3

ITEM #	ITEM IDENTIFICATION
1	RAIL HEIGHT ADJUSTMENT
2	RAIL SIDE TRAVEL ADJUSTMENT
3	CYLINDER SPEED ADJUSTMENT
4	PLASTIC KNUCKLE



PART NO. QR-GATE

FABRICATION TOLERANCES
 UNLESS NOTED
 FRACTIONS $\pm 1/32"$
 DECIMAL $\pm 0.005"$
 ANGULAR $\pm 1/2^\circ$


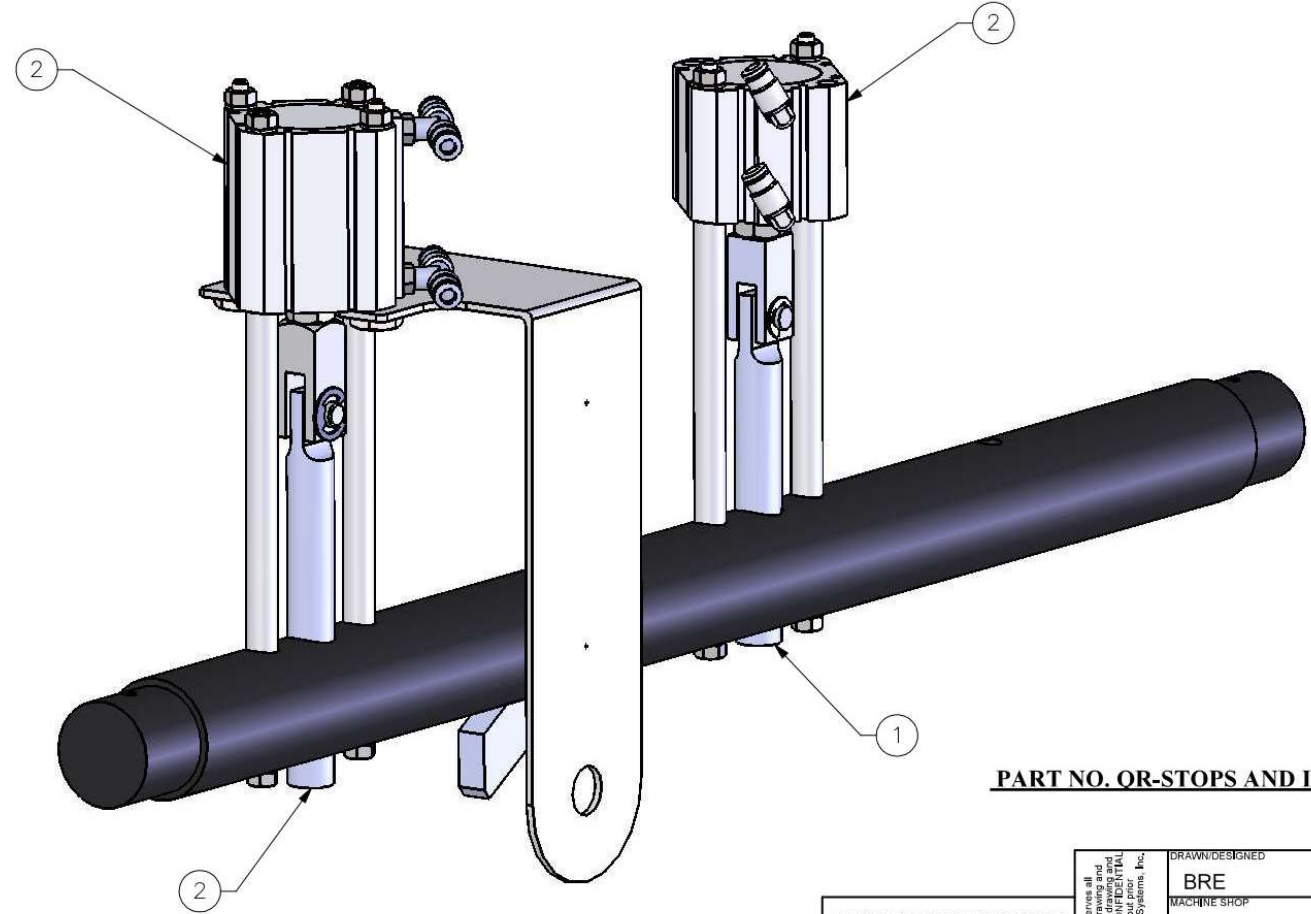
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	BRE	5-05-16		
	MACHINE SHOP	DATE	TITLE	
	---	---	GATE - 2 POSITION	
	PRODUCTION	DATE	SIZE	PART NO./FILE NAME
---	---	B	QR-GATE	A
ENGINEERING	DATE	SCALE	SHEET	
---	---	1:2	1	1

Illustration 4

ITEM #	ITEM IDENTIFICATION
1	STOPS AND INDEXER PINS
2	AIR CYLINDERS



PART NO. OR-STOPS AND INDEXERS

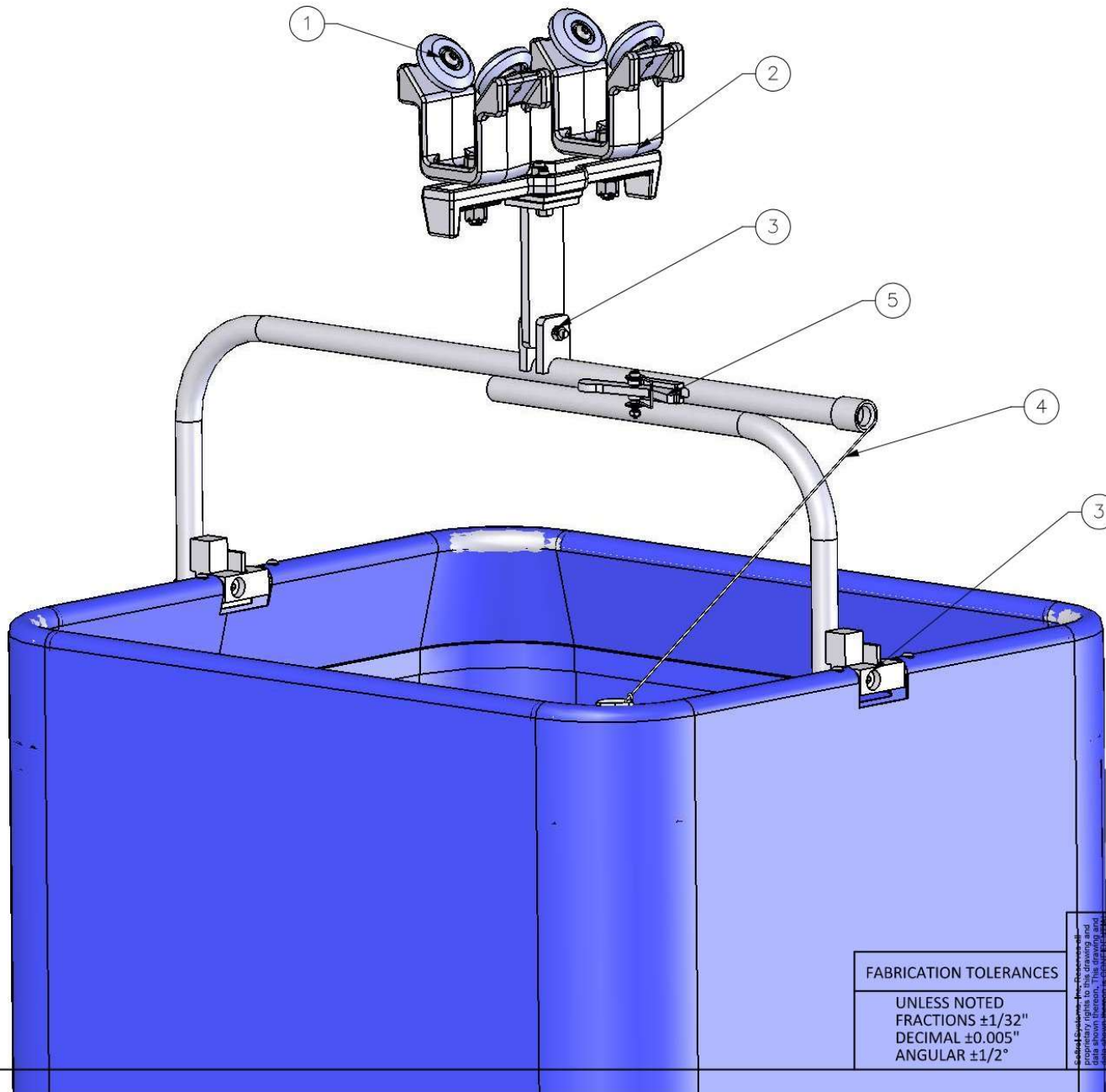
FABRICATION TOLERANCES

UNLESS NOTED
 FRACTIONS $\pm 1/32"$
 DECIMAL $\pm 0.005"$
 ANGULAR $\pm 1/2^\circ$

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DRAWN/DESIGNED	DATE
BRE	5-05-16
MACHINE SHOP	DATE
---	---
PRODUCTION	DATE
---	---
ENGINEERING	DATE
---	---

SOFTROL	
<small>1100 NORTHPOINT PKWY, ACWORTH, GA, 30102 PHONE: 770-974-2700 FAX: 770-974-0435</small>	
TITLE RAIL STOPS AND INDEXERS	
SIZE	REV
B	A
SCALE	SHEET
1:2	1



ITEM #	ITEM IDENTIFICATION
1	TROLLEY WHEELS INSPECTED
2	TROLLEY YOKE/LOAD BAR INSPECTED
3	HINGE POINTS INSPECTED
4	SLING CORD ASSEMBLIES INSPECTED
5	SLING LATCH LEVER

Illustration 5

PART NO. REC SLING

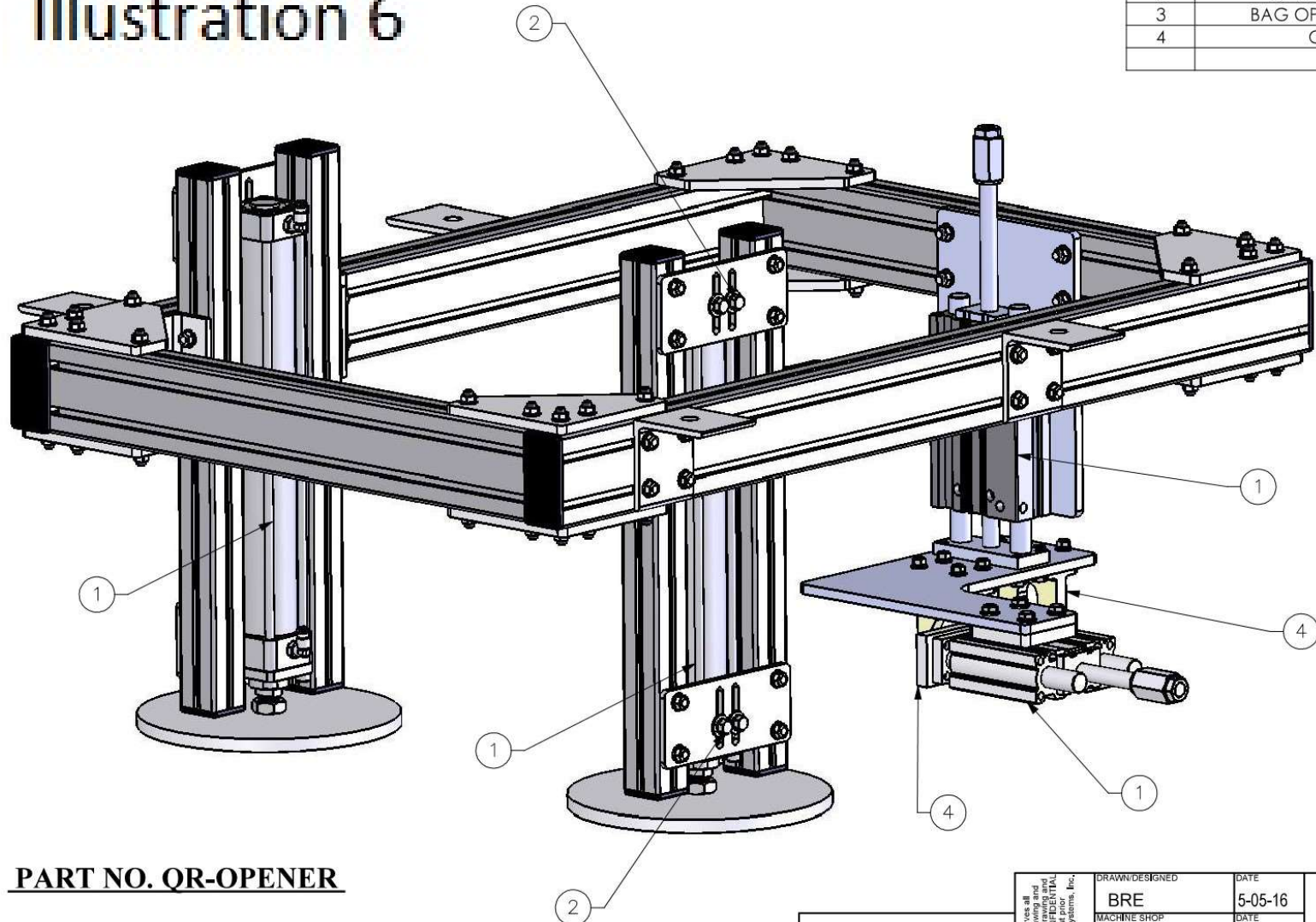
FABRICATION TOLERANCES

UNLESS NOTED
 FRACTIONS $\pm 1/32"$
 DECIMAL $\pm 0.005"$
 ANGULAR $\pm 1/2^\circ$

SOFTROL
 and can not be used without prior
 written consent of Softrol Systems, Inc.

DRAWN/DESIGNED BRE	DATE 5-05-16	 1100 NORTHPOINT PKWY, ACWORTH, GA, 30102 PHONE: 770-974-2700 FAX: 770-974-0435			
MACHINE SHOP ----	DATE ----				
PRODUCTION ----	DATE ----	TITLE RECTANGLE SLING ASSEMBLY			
ENGINEERING ----	DATE ----	<table border="1"> <tr> <td>SIZE B</td> <td>PART NO. / FILE NAME REC SLING</td> <td>REV A</td> </tr> </table>	SIZE B	PART NO. / FILE NAME REC SLING	REV A
SIZE B	PART NO. / FILE NAME REC SLING	REV A			
SCALE 1:4		SHEET 1			

Illustration 6



ITEM #	ITEM IDENTIFICATION
1	CYLINDER CHECK FOR LEAK
2	STABILIZER CYLINDER ADJUSTMENT
3	BAG OPENING CYLINDER ADJUSTMENT
4	CHECK PARTS FOR WARE

PART NO. QR-OPENER

FABRICATION TOLERANCES
 UNLESS NOTED
 FRACTIONS ±1/32"
 DECIMAL ±0.005"
 ANGULAR ±1/2°

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	BRE	5-05-16			
	MACHINE SHOP	----			
	PRODUCTION	DATE			
ENGINEERING	DATE	----	TITLE	SINGLE BAG OPENER	
----	----	----	SIZE	PART NO./FILE NAME	
			B	QR-OPENER	REV
			SCALE	1:4	A
					SHEET 1

ITEM #	ITEM IDENTIFICATION
1	AIR CYLINDERS
2	STABILIZER CYLINDER ADJUSTMENTS
3	SLING CORD CLOSER CYLINDER ADJUSTMENT
4	MOVING PARTS WARE AND REPLACE

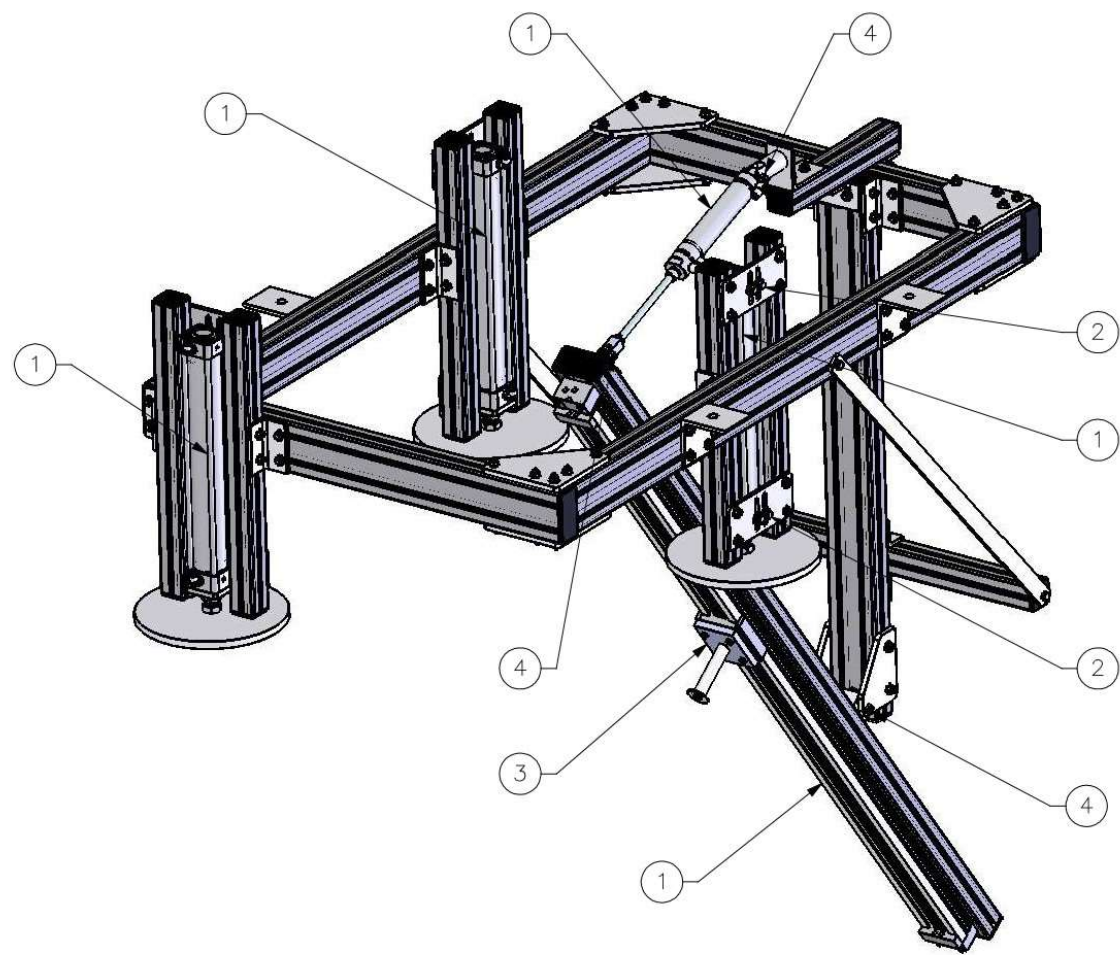


Illustration 7

PART NO. QR-BAG CLOSER

FABRICATION TOLERANCES
 UNLESS NOTED
 FRACTIONS $\pm 1/32"$
 DECIMAL $\pm 0.005"$
 ANGULAR $\pm 1/2^\circ$

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	BRE	5-05-16		
	MACHINE SHOP	DATE	SIZE PART NO./FILE NAME B QR-BAG CLOSER	
	PRODUCTION	DATE	SCALE 1:8	
ENGINEERING	DATE	SHEET A		
---	---	SHEET ----		