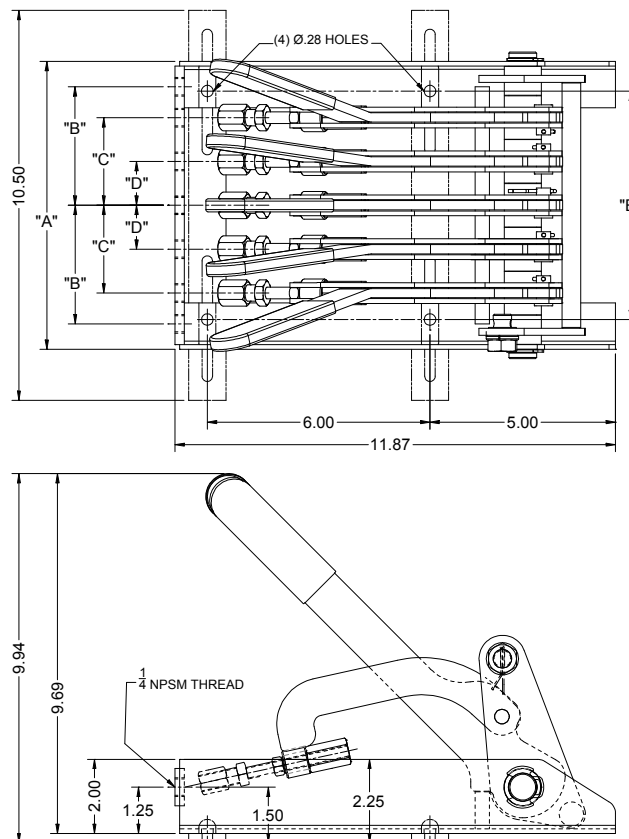
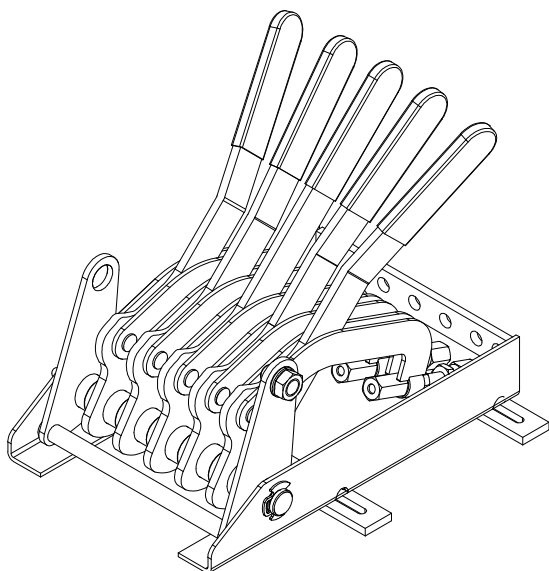


Betts

Mechanical Operator

COMPACT - NON-LUBRICATED

- **Compact Design**
- **Stainless or Powder Coated Steel**
- **2-3/8" Stroke**
- **Solid Handles**
- **Non-Lubricated Stainless Shaft**



Betts Compact Mechanical Operators function cable operated emergency valves from a central location on a cargo tank. Available from 1 up to 5 compartments in stainless or powder coated steel; each compartment is supplied with a fusible link designed to melt at not more than 250°F as well as non-slip cable connectors that allow cable to be cut to length after installation.

New design is more compact than comparable Universal or Deluxe models. Slotted mounting straps are available as an option to allow for replacement of Deluxe operators without drilling new mounting holes. Specify straps by adding suffix "001" to assembly number. Other mounting options available by contacting sales.

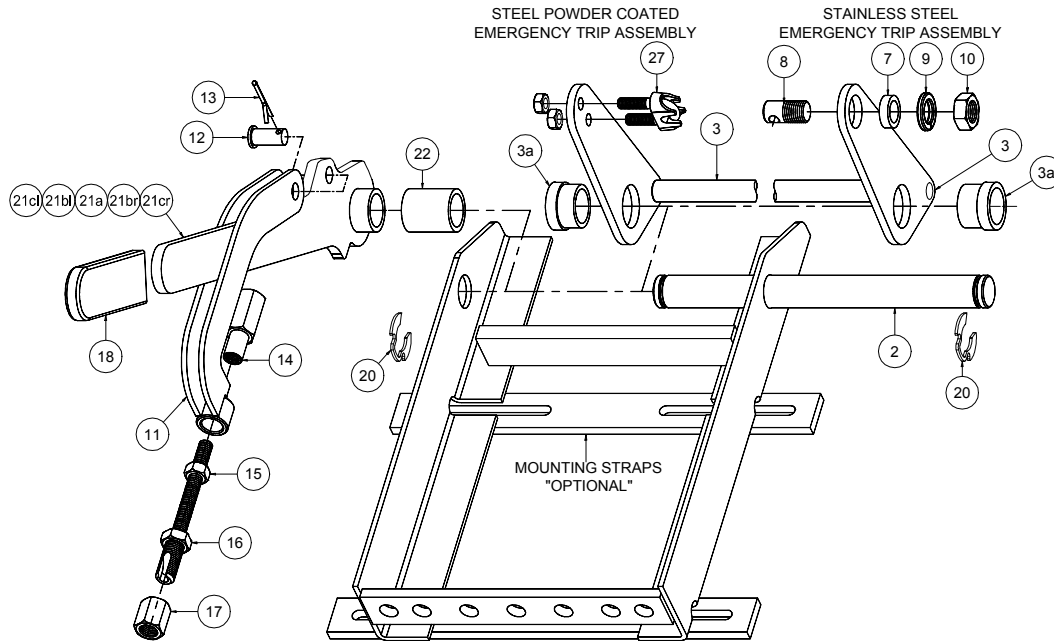
Lever arms provide 2-3/8" stroke and 5.6:1 mechanical advantage. Two trip levers provided for flexibility in locating cable remote control or for attaching two remotes, if required. See Section 29, Page 1A for cable remote control.

No. of Compts.	Material	Weight (lb)	Part No.	Dim. "A" (in.)	Dim. "B" (in.)	Dim. "C" (in.)	Dim. "D" (in.)	Dim. "E" (in.)
1	Stainless	7.1	OP9011SL	4.20	1.41	N/A	.59	2.60
	Steel Powder Coated		OP9011EY					
2	Stainless	9.5	OP9012SL	7.75	3.19	2.36	1.18	6.15
	Steel Powder Coated		OP9012EY					
3	Stainless	12.7	OP9013SL	7.75	3.19	2.36	1.18	6.15
	Steel Powder Coated		OP9013EY					
4	Stainless	15.1	OP9014SL	7.75	3.19	2.36	1.18	6.15
	Steel Powder Coated		OP9014EY					
5	Stainless	17.5	OP9015SL	7.75	3.19	2.36	1.18	6.15
	Steel Powder Coated		OP9015EY					

Betts

PARTS LIST

Compact Mechanical Operator Non-Lubricated



No.	Description	Material		Part No.				
		Steel Model	Stainless Model	1 Compt.	2 Compt.	3 Compt.	4 Compt.	5 Compt.
2	SHAFT	304 SS		27818SL-2		27818SL-5		
3	EMERGENCY TRIP LEVER ASSEMBLY	STEEL PC	304 SS	35659EY-2* / 35686SL-2**		35659EY-5* / 35686SL-5**		
3a	FLANGED BUSHING	NA	NA	9V4255				
7	EMERGENCY CABLE CLAMP BUSHING	NA	304 SS	19617SL**				
8	EMERGENCY TRIP CABLE CLAMP	NA	304 SS	19622SL**				
9	1/2 in. SPRING LOCK WASHER	STEEL ZC	304 SS	9Q5908**				
10	1/2 -20 JAM NUT	STEEL ZC	304 SS	9Q5909**				
11	LINK ARM ASSEMBLY	STEEL PC	304 SS	27815EY* / 27815SL**				
12	CLEVIS PIN	STEEL ZC	304 SS	15757ZC* / 19621SL**				
13	3/32 in. x 3/4 in. COTTER PIN	BRASS	304 SS	9Q5865* / 9Q5866**				
14	FUSIBLE BUSHING NUT	BRASS		19724BR				
15	5/16 -24 HEX NUT	STEEL ZC	304 SS	9Q5808A* / 9Q5858**				
16	ADJUSTING BOLT	STEEL	303 SS	20040ZC* / S20040A**				
17	CLAMPING NUT	STEEL ZC	304 SS	10268ZC* / S10268A**				
18	HANDLE GRIP - RED/BLUE	VINYL - RED	VINYL - BLUE	9Z4830* / 9Z4829**				
20	RETAINING RING	STEEL ZC	304 SS	9Q4974* / 9Q4973**				
21cl	LEVER ARM ASSEMBLY - LEFT #2	STEEL PC	304 SS	NA	35650EYL2* / 35650SL2**			
21bl	LEVER ARM ASSEMBLY - LEFT #1	STEEL PC	304 SS	NA	NA	NA	NA	35650EYL1* / 35650SL1**
21a	LEVER ARM ASSEMBLY - STRAIGHT	STEEL PC	304 SS	35650EY* / 35650SL**		NA	35650EY* / 35650SL**	
21br	LEVER ARM ASSEMBLY - RIGHT #1	STEEL PC	304 SS	NA	NA	NA	NA	35650EYR1* / 35650SLR1**
21cr	LEVER ARM ASSEMBLY - RIGHT #2	STEEL PC	304 SS	NA	35650EYR2* / 35650SLR2**			
22	REPLACEMENT BUSHING	STEEL PC	304 SS	19624EY* / 19624SL**	NA	19624EY* / 19624SL**		NA
27	CABLE CLAMP	STEEL ZC	NA	9Q1660*				

*EY" FOR STEEL POWDER COATED GLOSS BLACK, "SL" FOR STAINLESS, "ZC" STEEL ZINC COATED.

* PARTS FOR STEEL POWDER COATED GLOSS BLACK MODELS ONLY

** PARTS FOR STAINLESS MODELS ONLY

WARNING Use only genuine BETTS INDUSTRIES INC. replacement parts. Use of substitute parts can impair the proper function of this product.

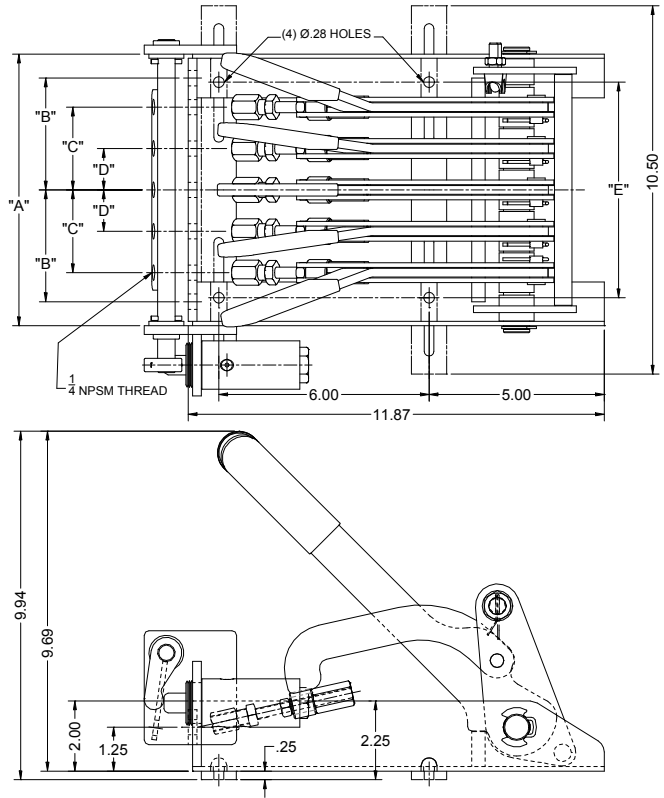
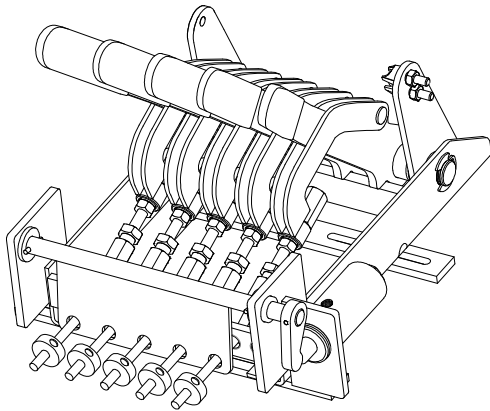
Note: Adjusting Bolt assembly 20040A001 and S20040A001 includes items 14,15,16,17.

Betts

Mechanical Operator

COMPACT DELTA | NON-LUBRICATED

- **Automatically Energizes Air Vents**
- **Compact Design**
- **Stainless or Powder Coated Steel**
- **2-3/8" Stroke**
- **Solid Handles**
- **Non-Lubricated Stainless Shaft**



Betts Compact Mechanical Operators function cable operated emergency valves from a central location on a cargo tank. Provision is made for mounting 3-way air valve (part no. 20761) on side of operator. Air valve is actuated when any compartment is opened, thereby assuring that air vents are energized when any emergency valve is opened. Air valve is not included. Add suffix "003" to include air valve. Available from 1 up to 5 compartments in stainless or powder coated steel; each compartment is supplied with a fusible link designed to melt at not more than 250°F as well as non-slip cable connectors that allow cable to be cut to length after installation.

New design is more compact than comparable Universal or Deluxe models. Slotted mounting straps are available as an option to allow for replacement of Deluxe operators without drilling new mounting holes. Specify straps by adding suffix "001" to assembly number. Other mounting options available by contacting sales.

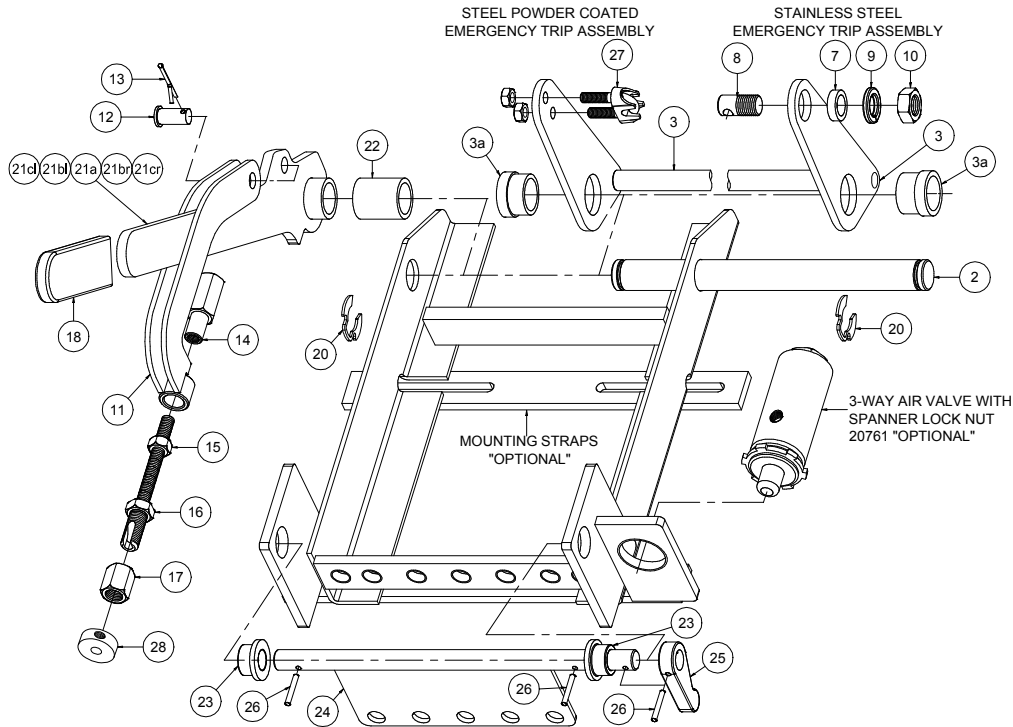
Lever arms provide 2-3/8" stroke and 5.6:1 mechanical advantage. Two trip levers provided for flexibility in locating cable remote control or for attaching two remotes, if required. See Section 29, Page 1A for cable remote control.

No. of Compts.	Material	Weight (lb)	Part No.	Dim. "A" (in.)	Dim. "B" (in.)	Dim. "C" (in.)	Dim. "D" (in.)	Dim. "E" (in.)
1	Stainless	9.8	OP9111SL	4.20	1.41	N/A	.59	2.60
	Steel Powder Coated		OP9111EY					
2	Stainless	12.2	OP9112SL	7.75	3.19	2.36	1.18	6.15
	Steel Powder Coated		OP9112EY					
3	Stainless	15.8	OP9113SL	7.75	3.19	2.36	1.18	6.15
	Steel Powder Coated		OP9113EY					
4	Stainless	18.2	OP9114SL	7.75	3.19	2.36	1.18	6.15
	Steel Powder Coated		OP9114EY					
5	Stainless	20.6	OP9115SL	7.75	3.19	2.36	1.18	6.15
	Steel Powder Coated		OP9115EY					

Betts

PARTS LIST

Compact Mechanical Operator Delta I - Non-Lubricated



No.	Description	Material		Part No.				
		Steel Model	Stainless Model	1 Compt.	2 Compt.	3 Compt.	4 Compt.	5 Compt.
2	SHAFT	304 SS		27818SL-2		27818SL-5		
3	EMERGENCY TRIP LEVER ASSEMBLY	STEEL PC	304 SS	35659EY-2* / 35686SL-2**		35659EY-5* / 35686SL-5**		
3a	FLANGED BUSHING	NA	NA	9V4255				
7	EMERGENCY CABLE CLAMP	NA	304 SS	19617SL**				
8	EMERGENCY TRIP CABLE CLAMP	NA	304 SS	19622SL**				
9	1/2 in. SPRING LOCK WASHER	STEEL ZC	304 SS	9Q5899* / 9Q5908**				
10	1/2 -20 JAM NUT	STEEL ZC	304 SS	9Q5910* / 9Q5909**				
11	LINK ARM ASSEMBLY	STEEL PC	304 SS	27815EY* / 27815SL**				
12	CLEVIS PIN	STEEL ZC	304 SS	15757ZC* / 19621SL**				
13	3/32 in. x 3/4 in. COTTER PIN	BRASS	304 SS	9Q5865* / 9Q5866**				
14	FUSIBLE BUSHING NUT	BRASS		19724BR				
15	5/16 -24 HEX NUT	STEEL ZC	304 SS	9Q5808A* / 9Q5858**				
16	ADJUSTING BOLT	STEEL	303 SS	20040ZC* / S20040A**				
17	CLAMPING NUT	STEEL ZC	304 SS	10268ZC* / S10268A**				
18	HANDLE GRIP - RED/BLUE	VINYL -RED	VINYL -BLUE	9Z4830* / 9Z4829**				
20	RETAINING RING	STEEL ZC		9Q4974* / 9Q4974**				
21cl	LEVER ARM ASSEMBLY - LEFT #2	STEEL PC	304 SS	NA	35650EYL2* / 35650SL2**			
21bl	LEVER ARM ASSEMBLY - LEFT #1	STEEL PC	304 SS	NA	NA	NA	NA	35650EYL1* / 35650SL1**
21a	LEVER ARM ASSEMBLY -STRAIGHT	STEEL PC	304 SS	35650EY* / 35650SL**	NA	35650EY* / 35650SL**		
21br	LEVER ARM ASSEMBLY - RIGHT #1	STEEL PC	304 SS	NA	NA	NA	NA	35650EYR1* / 35650SLR1**
21cr	LEVER ARM ASSEMBLY - RIGHT #2	STEEL PC	304 SS	NA	35650EYR2* / 35650SLR2**			
22	REPLACEMENT BUSHING	STEEL PC	304 SS	19624EY* / 19624SL**	NA	19624EY* / 19624SL**		NA
23	BUSHING	BRONZE		9Z4869				
24	SHAFT & GATE ASSEMBLY	STEEL ZC	304 SS	27811ZC* / 27811SL**		27812ZC* / 27812SL**		
25	CAM	STEEL ZC		10938ZC				
26	ROLL PIN 1/8 x 7/8	STEEL	420 SS	9Q5894* / 9Q5920**				
27	CABLE CLAMP	STEEL ZC	NA	9Q1660*				
28	CABLE BUSHING & SET SCREW	STEEL ZC		10942				

EY FOR STEEL POWDER COATED GLOSS BLACK, *SL* FOR STAINLESS, *ZC* STEEL ZINC COATED.

* PARTS FOR STEEL POWDER COATED GLOSS BLACK MODELS ONLY

** PARTS FOR STAINLESS MODELS ONLY

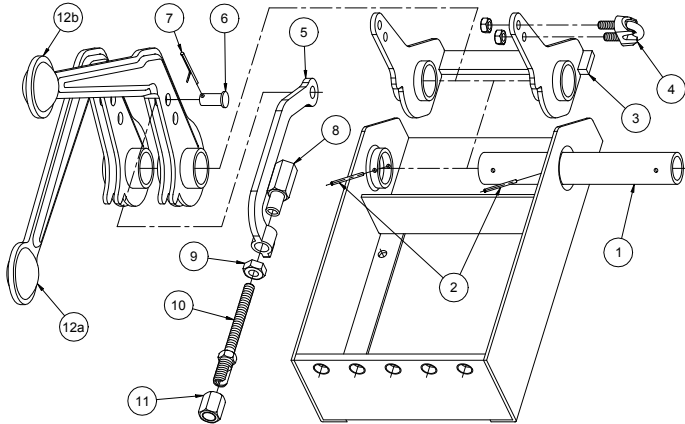
WARNING Use only genuine BETTS INDUSTRIES INC. replacement parts. Use of substitute parts can impair the proper function of this product.

Note: Adjusting Bolt assembly 20040A001 and S20040A001 includes items 14,15,16,17.

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PARTS LIST

Universal Mechanical Operator



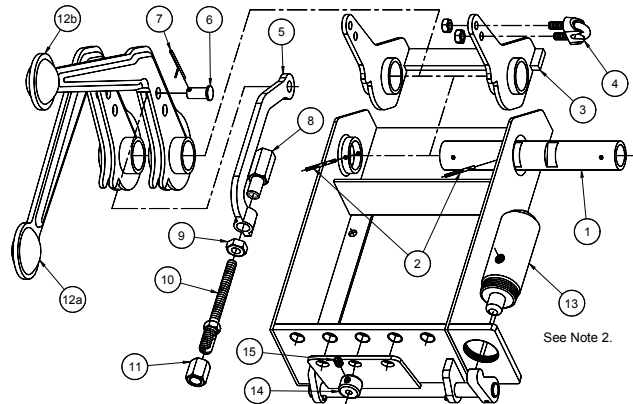
Obsolete - Limited Parts Available

No.	Description	Material	Part No.						
			1 Compt.	2 Compt.	3 Compt.	4 Compt.	5 Compt.	6 Compt.	7 Compt.
1	Shaft	Brass	20298A	20298B	20298C	20298D	20298E	20298F	20298G
2	Roll Pin	Steel	9Q5816						
3	Trip Lever Assy	Steel	20301A	20301B	20301C	20301D	20301E	20301F	20301G
4	Cable Clamp	Steel	9Q1660						
5	Offset Link	Steel	10083A						
6	Offset Link Clevis	Steel	15757MS						
7	Offset Link Cotter Pin	Steel	9Q5865						
8	Fusible Bushing Nut	Brass	19724BR						
9	Lock Nut	Steel	9Q5808A						
10	Adjusting Bolt	Steel	20040A						
11	Clamping Nut	Steel	10268A						
12a	Lever (Style - A)	Steel	20258A						
12b	Lever (Style - B)	Steel	20269A						

PARTS LIST

Delta 1 Mechanical Operator

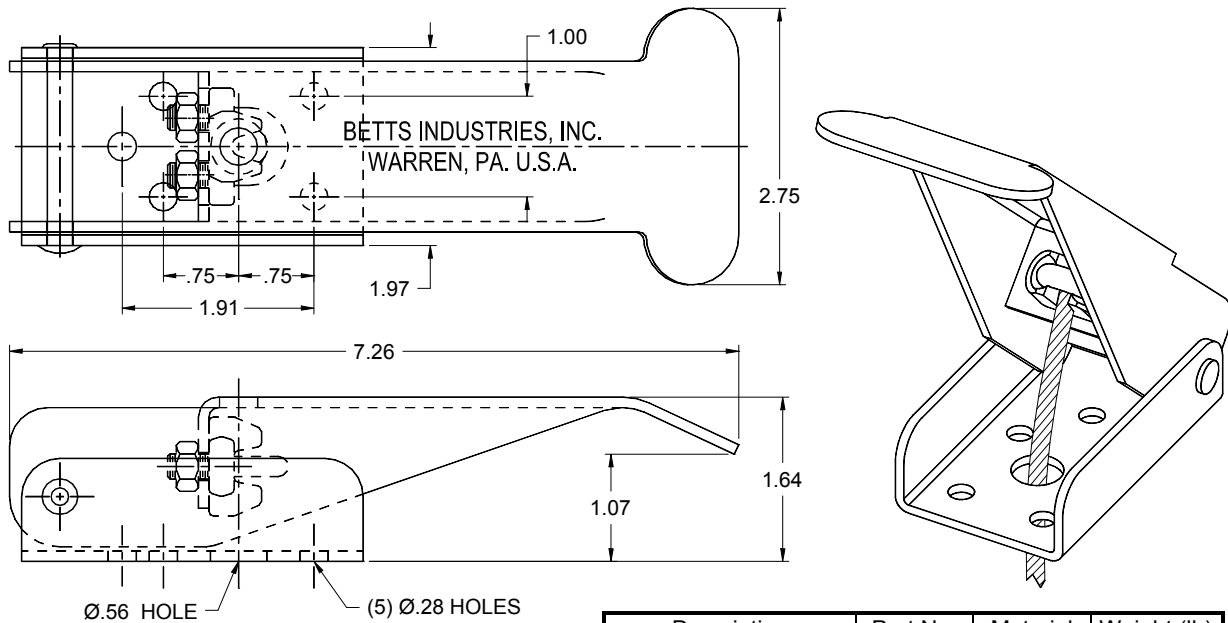
Obsolete - Limited Parts Available



No.	Description	Material	Part No.					
			1 Compt.	2 Compt.	3 Compt.	4 Compt.	5 Compt.	6 Compt.
1	Shaft	Brass	20811A	20811B	20811C	20811D	20811E	20811F
2	Roll Pin	Steel	9Q5816					
3	Trip Lever Assy	Steel	20301A	20301B	20301C	20301D	20301E	20301F
4	Cable Clamp	Steel	9Q1660					
5	Offset Link	Steel	10083A					
6	Offset Link Clevis	Steel	15757MS					
7	Offset Link Cotter Pin	Steel	9Q5865					
8	Fusible Bushing Nut	Brass	19724BR					
9	Lock Nut	Steel	9Q5808A					
10	Adjusting Bolt	Steel	20040A					
11	Clamping Nut	Steel	10268A					
12a	Lever (Style - A)	Steel	20258A					
12b	Lever (Style - B)	Steel	20269A					
13	Air Valve (See note 2)	Brass	20761 (See note 2)					
14	Cable Bushing	Steel	109422C					
15	Set Screw	Steel	9Q5893					

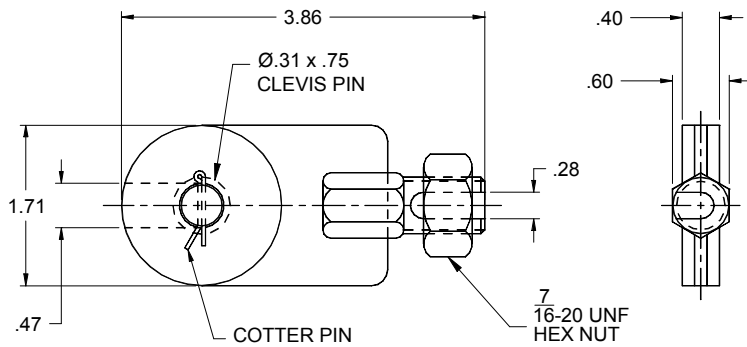
Betts

Operator Accessories



Description	Part No.	Material	Weight (lb)
Remote Control Assy.	35603SL	Stainless	1.10
Cable Clamp only	9Q1660		.10

New design provides greater stroke (2-1/8") and leverage. Stainless steel to resist corrosion. Remote attaches to trip lever on operator using cable. Pulling remote lever rotates operator trip lever and bar assembly, causing all open emergency valves to close. Per 49CFR178.345-11, remote must be located at least 10 feet away from loading/unloading outlet (where vehicle length allows) or on the end of the cargo tank farthest from the loading/unloading outlet. Test cable remote controls and operators at least once a day to insure proper functioning.



Fusible Link

Part No.	Material	Weight (lb)
21050A	Steel	.17

Heavy duty fusible cable links are designed to attach the cable to the emergency valve cable lever arm and to provide thermal activation at the emergency valve. Fusible element melts at not more than 250°F, releasing the cable tension and allowing the emergency valve to close. Uses same non-slip, adjustable cable attachment as on Betts operators.