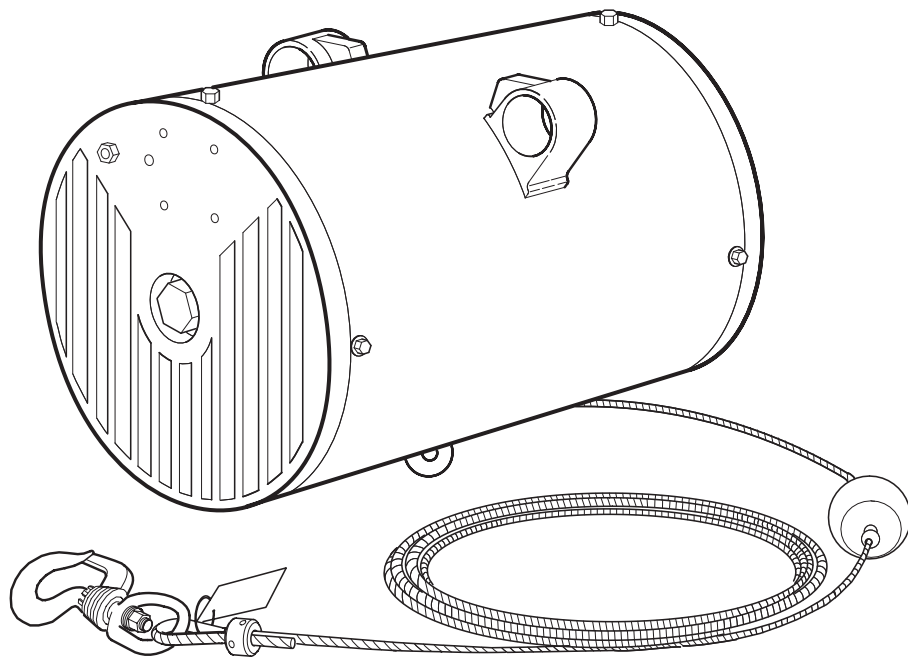


Product Parts Information



Air Balancers Series ZA, EA and BA



(Dwg. MHP2176)



Save These Instructions

Table 1: Product Information Manuals

Publication	Part/Document Number	Publication	Part/Document Number
Product Safety Information Manual	16598831	Product Maintenance Information Manual	16598856
Product Information Manual	54072541		

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PARTS ORDERING INFORMATION

These products are designed and constructed to provide long, trouble-free service. In time it may be necessary to order and install new parts to replace those that have been subjected to wear.

For your convenience and future reference, it is recommended that the following information be recorded.

Model Number _____

Serial Number _____

Date Purchase _____

When ordering replacement parts, please specify the following:

1. Complete model number and serial number as it appears on the data (name) plate.
2. Part number(s) and part description as shown in this manual.
3. Quantity required.

The data (name) plate is located on the product.

NOTICE

- Continuing improvement and advancement of design may cause changes to this equipment which are not included in this manual. Manuals are periodically revised to incorporate changes. Always check the manual edition number on the front cover for the latest issue.
- Sections of this manual may not apply to your product.
- The use of other than genuine Ingersoll Rand replacement parts may result in safety hazards, decreased performance and increased maintenance, and will invalidate all warranties.

Return Goods Policy

Ingersoll Rand will not accept any returned goods for warranty or service unless prior arrangements have been made and written authorization has been provided from the location the goods were purchased.

Products that have been modified without Ingersoll Rand approval, mishandled or overloaded will not be repaired or replaced under warranty. A printed copy of the warranty that applies to this product is provided inside the back cover of the product information manual or in some cases the parts manual.

Disposal



When the life of the product has expired, it is recommended that it be disassembled, degreased and parts separated as to materials so that they may be recycled.

For additional information contact:

Ingersoll Rand
20017 72nd Avenue South
Kent, WA 98032 USA
Phone: (877) 584-0370
Fax: (206) 624-6265

SERVICE AND MAINTENANCE

For additional information contact:

Americas

1872 Enterprise Drive,
Rochester Hills, MI 48309
Phone: (248) 293-5700
Fax: (248) 293-5800

European Served Area

70, rue Jacquard 77400 Lagny sur
Marne, France
Phone: +33 1 64 76 00 00

India

37-A, Site 4, Sahibabad Industrial Area,
Ghaziabad-201010, India
Phone: +91-120-4389400
+91-120-4289400

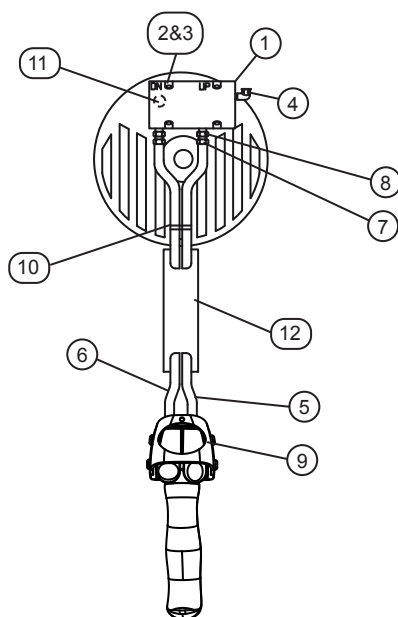
Asia Pacific

335 Lv Chun Road Minhang Industrial Zone
Shanghai 200245, P.R.C.
Phone: +86.21.6463.8018

For additional information on related products order publication by the referenced Part/Document Number listed:

Product	Part/Document Number	Product	Part/Document Number
Safety Information Manual - Z Rail	16600454	Manipulator Arm Manual	MHD56162
Product Information Manual - Z Rail	71341101	IntelIFT Electronic Control Manual	MHD56222
Maintenance Information Manual - Z Rail	16600470	Jib Crane Manual	MHD56209

SERIES ZA BASIC BALANCER CONTROL KIT ASSEMBLY & PARTS LIST



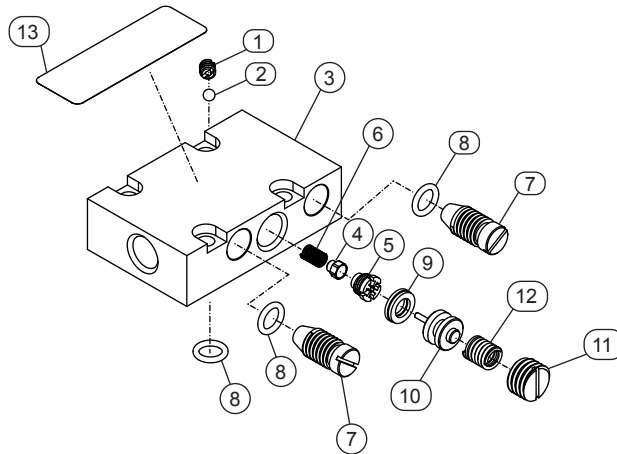
(Dwg. MHP1899)

Item No.	Description of Parts	Total Qty	Part Number
---	Control Kit 10 ft (includes items 1 - 12)	---	15300-10
	Control Kit 12 ft (includes items 1 - 12)	---	15300-12
	Control Kit 14 ft (includes items 1 - 12)	---	15300-14
	Control Kit 17 ft (includes items 1 - 12)	---	15300-17
1	Manifold	1	ZHS15071
2	Lockwasher	4	15785
3	Mounting Screw	4	15779
4	Fitting, Elbow	1	10354
5	Hose (bulk)	#	BH6C
6	Hose (bulk)	#	10555-G
7	Fitting, Hose End	4	10560
8	Fitting, Adapter	4	10565
9	Pendant	1	80148539
10	Clamp	3	10548
11	O-ring	1	15751
12	Warning Tag (Do Not Remove)	1	10445
*	Instruction Literature (all)	1	10583458
*	Mounting Plate (15300-17)	1	18626
*	Screw (15300-17)	3	ZHS70423

* Included but Not Shown

Quantity as required

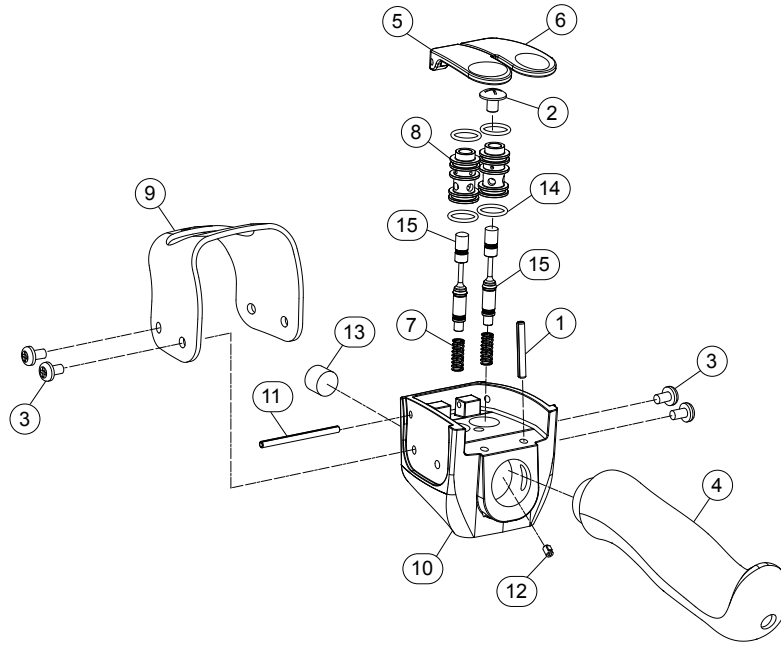
SERIES ZA MANIFOLD ASSEMBLY AND PARTS LIST



(Dwg. MHP1904)

Item No.	Description of Parts	Total Qty	Part Number
- - -	Manifold (includes items 1 - 13)	- - -	ZHS15071
• 1	Retainer	1	45655677
• 2	Ball, Check – ZA Manifold	1	ZHS15049
3	Body – ZA Manifold	1	15077
• 4	Valve Assembly	1	15802
• 5	Valve Seat	1	15803
• 6	Valve Spring	1	15804
7	Screw, Adjusting ZA Manifold	2	15080
• 8	O-ring	3	15751
• 9	U-cup – ZA Manifold	1	15086
10	Piston – ZA Manifold	1	ZHS15083
11	Screw, Adjusting ZA Manifold	1	15081
12	Spring – ZA Manifold	1	15084
13	Label, Ingersoll Rand Logo	1	10297
•	Recommended Spare Parts Available in Kit ZHS15099 - Manifold Repair Kit (includes items 1, 2, 4 - 6, 8 and 9)		

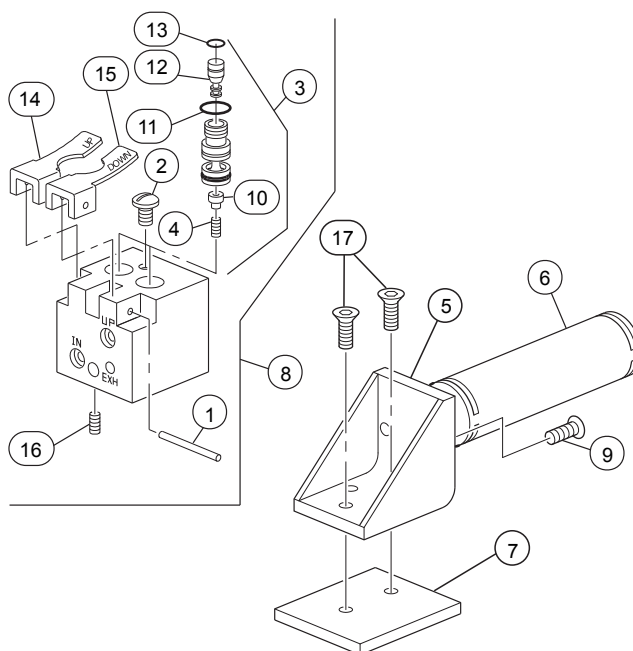
SERIES ZA PENDANT ASSEMBLY AND PARTS LIST



(Dwg. MHP2916)

Item No.	Description of Parts	Total Qty	Part Number
- - -	Pendant (includes items 1 - 16)	- - -	80148539
1	Pin, Roll	1	Not sold separately
2	Capscrew	1	
3	Capscrew	4	
4	Handle Assembly	1	
• 5	Lever Down	1	
• 6	Lever Up	1	
• 7	Spring - Valve Body	1	
• 8	Valve - Spool Body	2	
9	Guard - Handle	1	
10	Pendant Housing	1	
11	Pin	1	
12	Setscrew	1	
13	Plug	1	
• 14	O-ring	4	
• 15	Assembly, Full Flow Valve Spool	2	
•	Recommended Spare Parts Available in Service Kit 80219975 (includes items 5 - 8, 14 and 15)		

SERIES ZA CONTROL HANDLE (ERGONOMIC) ASSEMBLY AND PARTS LIST



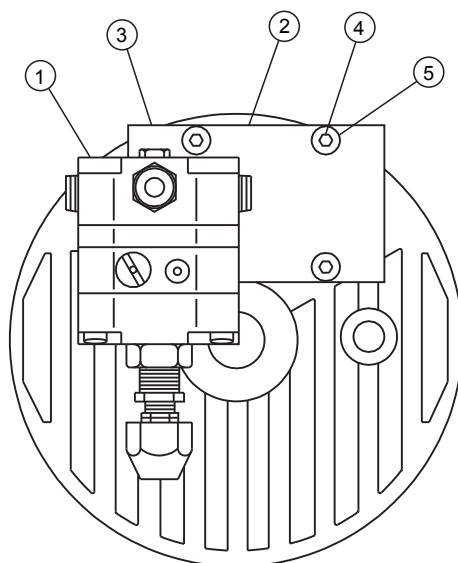
(Dwg. MHP1907)

Item No.	Description of Parts	Total Qty	Part Number
- - -	ZA Control Handle (includes items 1 - 17)	- - -	18500
• 1	Pin	1	18421
• 2	Screw	1	18422
• 3	Insert Valve Assemblies	2	18412
• 4	Spring	2	18418
5	ZA Handle Bracket	1	18446
6	ZA Handle Grip	1	18447
7	Mounting Block	1	1826
8	Control Valve Assembly	1	ZHS18410
9	Button Head Screw	2	ZHS18451
• 10	Seal	1	18417
• 11	O-ring	2	ZHS18415
• 12	V-seal	1	18423
• 13	O-ring	1	15759
• 14	Lever (Up)	1	18419
• 15	Lever (Down)	1	ZHS18420
16	Setscrew	1	16093
17	Screw	2	ZHS70427
•	Recommended Spare Parts Available in Kits 18470 and 18475		

Kit 18475 - ZA Control Handle Repair Kit (includes items 1 - 3, 14, and 15)

Kit 18470 - Insert Valve Repair Kit (includes items 4, 10 - 13)

SERIES BA BASIC BALANCER CONTROL KIT ASSEMBLY AND PARTS LIST

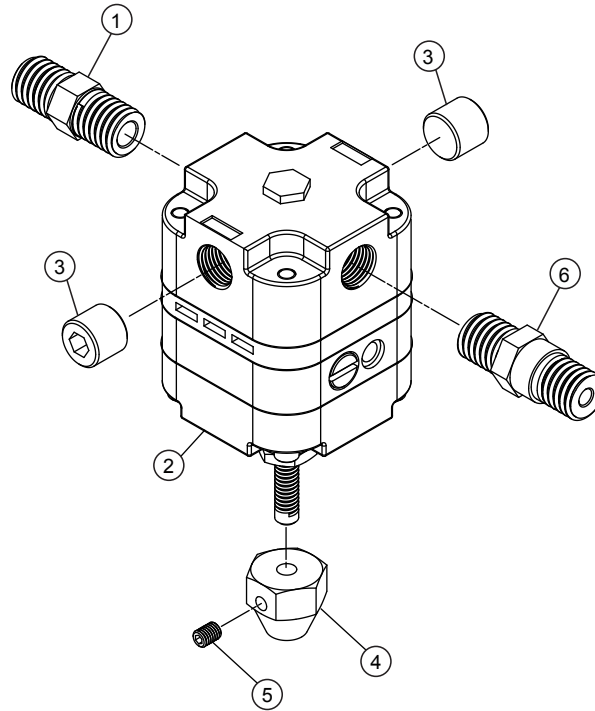


(Dwg. MHP1908)

Item No.	Description of Parts	Total Qty	Part Number
- - -	Control Kit (includes items 1 - 5)	-	15320
1	Regulator Assembly	1	13825
2	Tandem Manifold	1	15093
3	O-ring	1	15751
4	Mounting Screw	4	15779
5	Lockwasher	4	15785
*	Instruction Literature	1	10583441

* Included but Not Shown

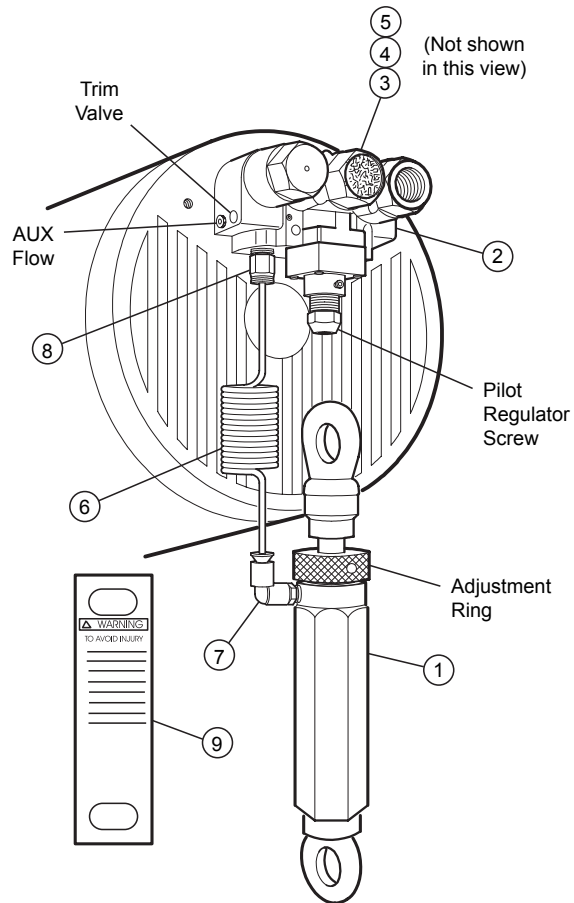
SERIES BA REGULATOR ASSEMBLY AND PARTS LIST



(Dwg. MHP1259)

Item No.	Description of Parts	Total Qty	Part Number
- - -	Regulator Assembly	1	13825
1	Check Valve	1	13270
2	Regulator	1	13830
3	Plug	2	10764
4	Control Knob	1	13832
5	Setscrew	1	13833
6	Fitting, Nipple	1	13840

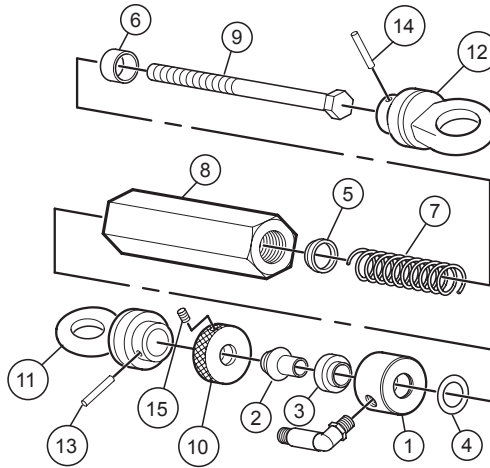
SERIES BA Z-SERVO CONTROL ASSEMBLY AND PARTS LIST



(Dwg. MHP1909)

Item No.	Description of Parts	Total Qty	Part Number
- - -	BA Z-Servo Control (includes items 1 - 9)	- - -	15330
1	Z-Servo Control	1	10602
2	Integral Regulator Series EA	1	15601
3	Screw	2	15781
4	Screw	2	15782
5	Lockwasher	4	15785
6	Coiled Poly Black Tube	1	93948
7	Fitting, Elbow	1	ZHS93969
8	Connector	1	ZHS93963
9	Warning Tag (Do Not Remove)	1	10445

Z-SERVO CONTROL ASSEMBLY AND PARTS LIST

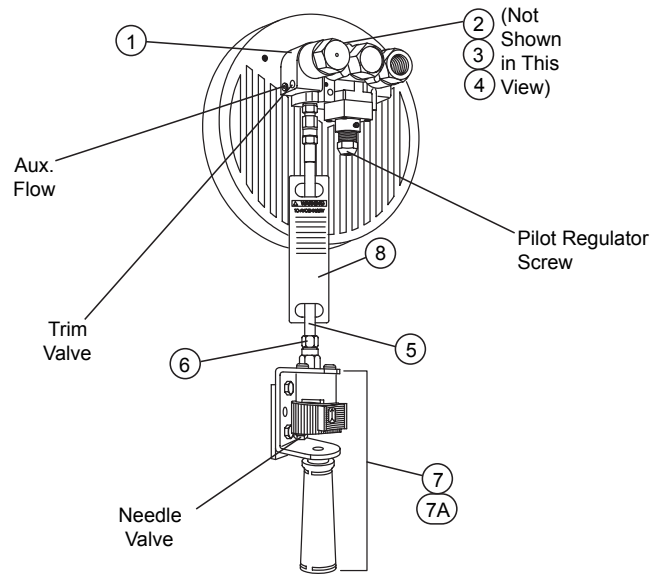


(Dwg. MHP1910)

Item No.	Description of Parts	Total Qty	Part Number
- - -	Z-Servo Control (includes items 1 - 15)	- - -	10602
1	Valve	1	10626
2	Valve Stem	1	10631
• 3	Seal	1	ZHS10632
• 4	O-ring	1	10635
5	Guide Washer	1	10613
6	Load Washer	1	ZHS10614
7	Spring	1	ZHS10642
8	Housing	1	10645
9	Plunger	1	10651
10	Adjusting Nut	1	10620
11	Cap	1	ZHS10628
12	Nut	1	10662
• 13	Spring Pin	1	10616
• 14	Spring Pin	1	10617
• 15	Setscrew	1	10619
*	Thimble	2	10210
*	Clamp	2	10230
•	Recommended Spare Parts Available in Kit ZHS10600 - Z-Servo Control (includes items 3, 4, 13 - 15)		

* Included but Not Shown

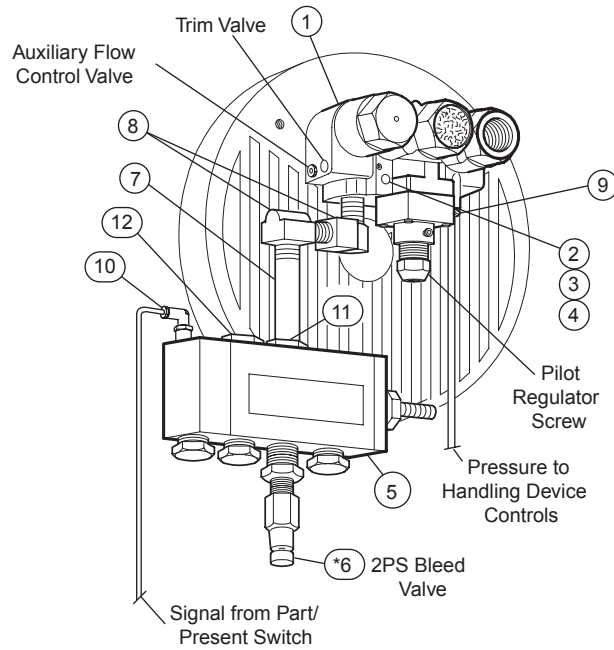
SERIES EA BALANCER ASSEMBLY AND PARTS LIST



(Dwg. MHP1911)

Item No.	Description of Parts	Total Qty	Part Number
1	Integral Regulator - Series EA	1	15601
2	Mounting Screw	2	15781
3	Mounting Screw	2	15782
4	Lockwasher	4	15785
5	Control Hose, Black	10	10249
6	Fitting, Swivel	2	10261
7	Safety EA Control Handle Assembly	1	ZHS01810
7A	Optional EA Control Handle Assembly	2	ZHS01800
8	Warning Tag (Do Not Remove)	1	10445

SERIES EA 2PS BALANCER ASSEMBLY AND PARTS LIST



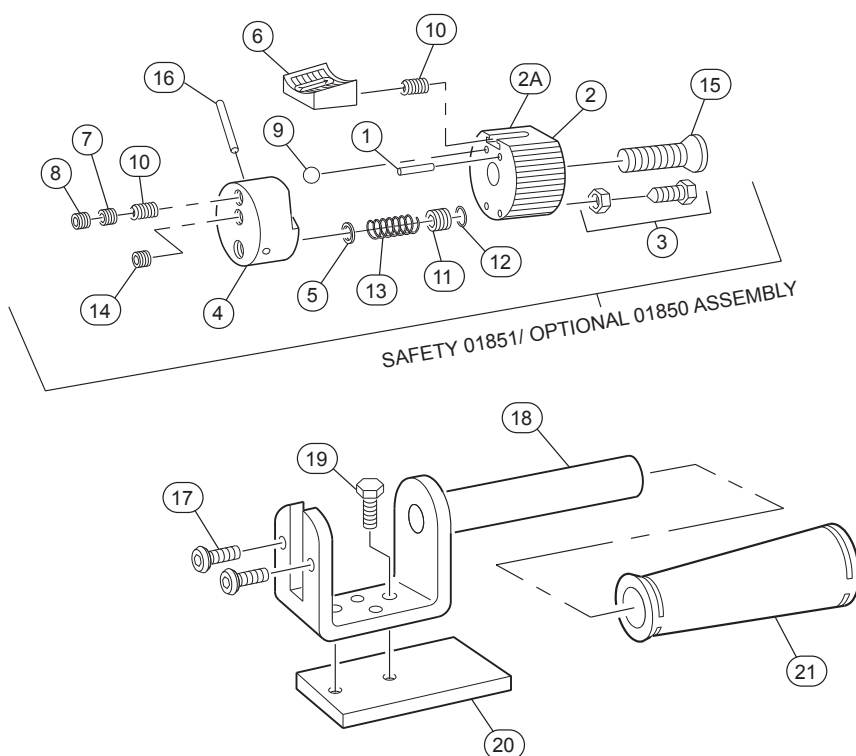
(Dwg. MHP1915)

Item No.	Description of Parts	Total Qty	Part Number
- - -	EA 2PS Balancer (includes items 1 - 12)	- - -	15311-PRS
1	Integral Regulator - Series EA	1	15601
2	Mounting Screw	2	15781
3	Mounting Screw	2	15782
4	Lock Washer	4	15785
5	Two Position Vacuum Sensor	1	99075
	Two Position Pressure Sensor		99080
* 6	Bleed Valve	1	13419
7	Fitting, Nipple	1	10730
8	Fitting, Elbow	2	1973
9	Fitting, Tube	1	93965
10	Fitting, Elbow	1	93969
11	Fitting, Reducer Bushing**	1	13501
12	Pipe Plug	3	13835

* Included in Two Position Sensor

** Included but Not Shown

SERIES EA CONTROL HANDLE ASSEMBLY AND PARTS LIST

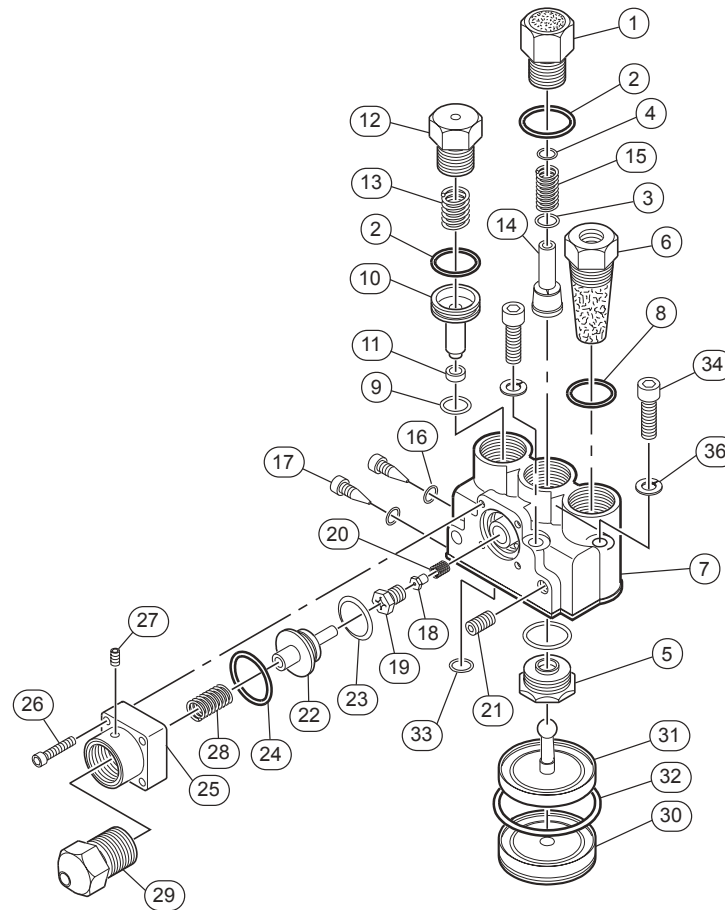


(Dwg. MHP1912)

Item No.	Description of Parts	Total Qty	Part Number
- - -	Safety EA Control Handle Assembly	- - -	ZHS01810
- - -	Optional EA Control Handle Assembly (includes items 1 - 21)	- - -	ZHS01800
• 1	Spring Pin, Control Valve	1	1807
2	Valve Rotor, Optional EA	1	1862
2A	Valve Rotor, Safety EA	1	1863
• 3	Needle Valve Assembly	2	1838
4	Valve Body Option & Safety	1	1860
• 5	Brass Washer	1	1886
• 6	Thumb Well Locator	1	1804
7	Setscrew	1	1803
8	Setscrew	1	1834
• 9	Detent Ball	1	1805
• 10	Detent Spring	2	ZHS01806
• 11	Floating Seal	1	1880
• 12	O-ring	1	1882
• 13	Seal Spring	1	1884
14	Setscrew	1	1801
15	Flat Head Screw	1	1817
• 16	Spring Pin	1	1814
17	Button Head Screw	2	10070
18	Handle Bracket	1	1840
19	Hex Head Screw	2	ZHS1833
20	Mounting Block	1	1826
21	Handle Grip	1	18447
•	Recommended Spare Parts Available in Kit ZHS01813 - EA Control Handle (includes items 1, 5, 6, 8, 9 - 13 and 16)		

Recommended Spare Parts not included in Kit

SERIES EA, BA Z-SERVO REGULATOR ASSEMBLY AND PARTS LIST

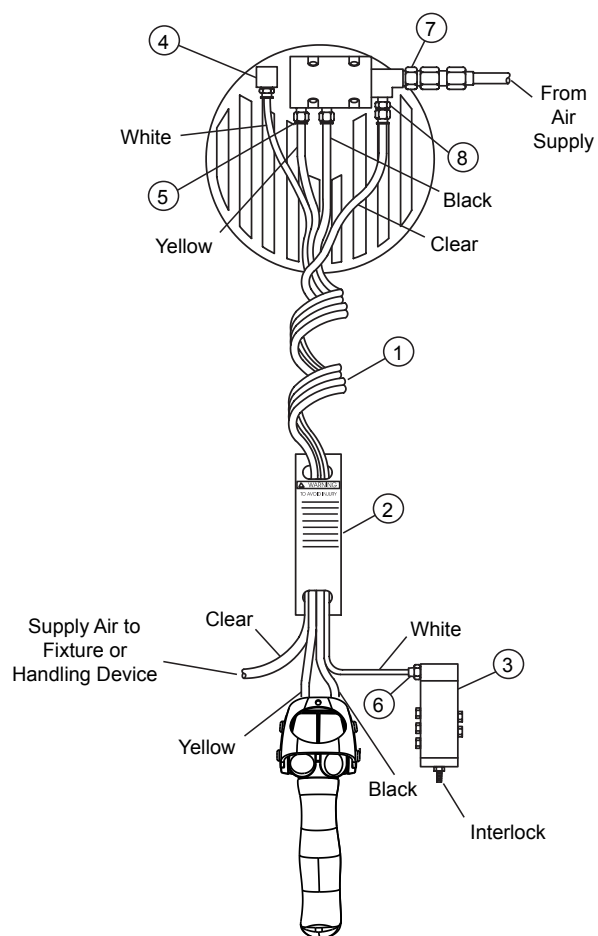


(Dwg. MHP1914)

Item No.	Description of Parts	Total Qty	Part Number	Item No.	Description of Parts	Total Qty	Part Number
1	Guide Assembly - EA Regulator	1	15692	• 20	Valve Spring	1	15804
• 2	O-ring	3	15750	21	Pipe Plug	1	ZHS13500
• 3	O-ring	1	15754	• 22	Pilot Piston Assembly	1	15800
• 4	O-ring	1	15755	• 23	U-cup Seal	1	15801
5	Valve Seat - EA Regulator	1	ZHS15670	• 24	O-ring	1	15757
6	Intake Filter Assembly	1	13062	25	Pilot Bonnet - EA Regulator	1	15821
7	Body Assembly - EA Regulator	1	15605	26	Self Tap Screw	4	15777
• 8	O-ring	1	15758	27	Set Screw	1	10619
• 9	O-ring	1	15759	28	Pilot Spring	1	15810
10	Piston - EA Regulator	1	15730	29	Regulator Screw Assy. - EA Regulator	1	15841
• 11	Seal - Integral Check	1	15740	30	Bonnet - EA Regulator	1	15620
12	Plug - EA Regulator	1	15710	• 31	Main Diaphragm Assy - EA Regulator	1	15630
13	Spring - EA Regulator	1	15720	• 32	O-ring	1	15752
• 14	Valve Stem - EA Regulator	1	15680	• 33	O-ring	1	15751
15	Stem Spring - EA Regulator	1	15700	34	Screw	2	15782
• 16	O-ring	2	15748	35	Screw	2	15781
17	Needle Valve - EA Regulator	2	15760	36	Lockwasher	4	15785
• 18	Valve Assembly	1	15802	•	Recommended Spare		
• 19	Valve Seat	1	15803				

Recommended Spare Parts Available in Kit 15900 - EA Regulator (includes items 2 - 4, 8, 9, 11, 14, 16 and 18 - 20)

QUAD-COIL HOSE & INTERLOCK ASSEMBLY AND PARTS

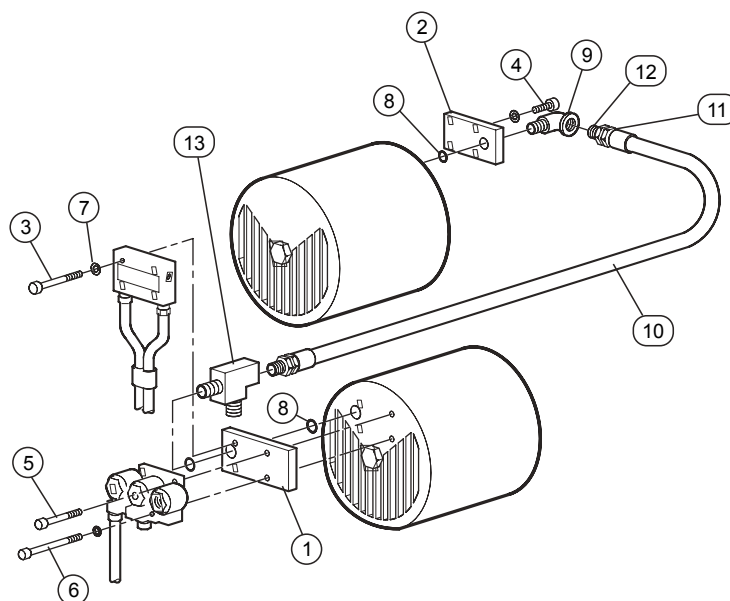


(Dwg. MHP1920)

Item No.	Description of Parts	Total Qty	Part Number
- - -	Quad-Coil Hose Assembly with Fittings *	- - -	10813
1	Quad Coil Hose	1	ZHS93949
2	Warning Tag (Do Not Remove)	1	10445
3	Interlock	1	99064
4	Push on Elbow Fitting, 5/32 tube	1	93970
5	Push on Fitting, 3/8 tube	5	ZHS93947
6	Push on Fitting, 5/32 tube	1	ZHS93963
7	Street Tee, 3/8 NPT	1	ZHS10708
8	Reducer Bushing	1	13503

* Hose Assembly (includes items 1, 2, 4 - 8)

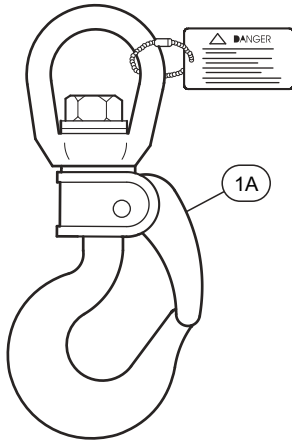
TANDEM CONTROL BALANCER ASSEMBLY AND PARTS LIST



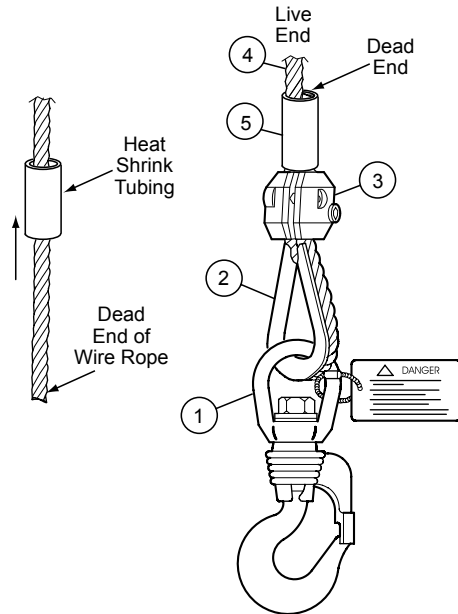
(Dwg. MHP1923)

Item No.	Description of Parts	Total Qty	Part Number
- - -	Tandem Balancer Control Kit (includes items 1 - 13)	- - -	15350
1	Master Tandem Manifold	1	15094
2	Slave Tandem Manifold	1	15093
3	Mounting Screw	4	15778
4	Mounting Screw	4	15779
5	Mounting Screw	2	15786
6	Mounting Screw	2	15787
7	Lockwasher	8	15785
8	O-ring	2	15751
9	Street Elbow 90°	1	10375
10	Black Control Hose	2.5 ft	BH6C
11	Swivel - F Hose Fitting	2	10560
12	Male Adapter	2	10565
13	Street Tee Used with Zimmerman Interlock	1	1964

HOOK & WIRE ROPE TO HOOK ASSEMBLY AND PARTS LIST



(Dwg. MHP1926)



(Dwg. MHP3207)

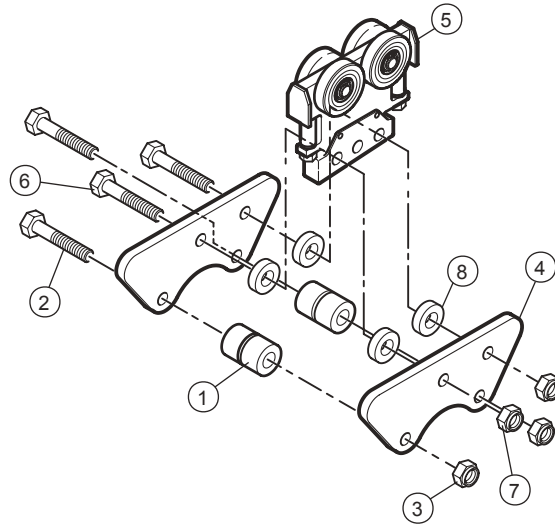
Item No.	Description of Parts	Total Qty	Part Number
* 1	Hook Assembly, Spring Lock	1	10223
1A	Hook Assembly, Pin Lock	1	10227
* 2	Thimble	1	10210
* 3	Clamp (includes Capscrews 2 ea)	1	10237
4	Wire Rope	ft	10084-()
* 5	Heat Shrink Tubing	1	45940780
* -	Warning Tag	1	ZHS10515
* -	Allen Wrench (item not illustrated)	1	10905

* Included in Accessory Kit - 10208

SUSPENSION KITS - PARTS LIST

Part Number	Balancer Suspension Kit	Refer to Dwg:
16300	ZRS2/3 Small Balancer	MHP1931 on page 24
16305	ZRA1 Small Balancer	MHP1927 on page 20
16307	ZRV2 Small Balancer	
16310/ZHS16310	ZRA2 Small Balancer	MHP1931 on page 24
16315	KBK2 Small Balancer	
16320	T - Rail Small Balancer	MHP1928 on page 22
16325	KBK1 Small Balancer	MHP1932 on page 25
16344	ETA - 4 Small Balancer	MHP1927 on page 20
16345	ETA - 8 Small Balancer	MHP1931 on page 24
16355	ZRAT Small Balancer	MHP1927 on page 20
16360	Hook Mount Small Balancer	MHP1930 on page 23
16380	Opt. Small Balancer	MHP1931 on page 24
16400	ZRS2/3 Large Balancer	MHP1931 on page 24
16405	ZRA1 Large Balancer	MHP1929 on page 21
16407	ZRV2 Large Balancer	
16410	ZRA2 Large Balancer	MHP1931 on page 24
16415	KBK2 Large Balancer	
16420	T-Rail Large Balancer	MHP1928 on page 22
16425	KBK1 Large Balancer	MHP1932 on page 25
16444	ETA - 4 Large Balancer	MHP1929 on page 21
16445	ETA - 8 Large Balancer	MHP1931 on page 24
16455	ZRAT Large Balancer	MHP1929 on page 21
16460	Hook Mount Large Balancer	MHP1930 on page 23
16480	Opt. Mount Large Balancer	MHP1931 on page 24

SMALL BALANCER SUSPENSION KITS - PARTS LIST

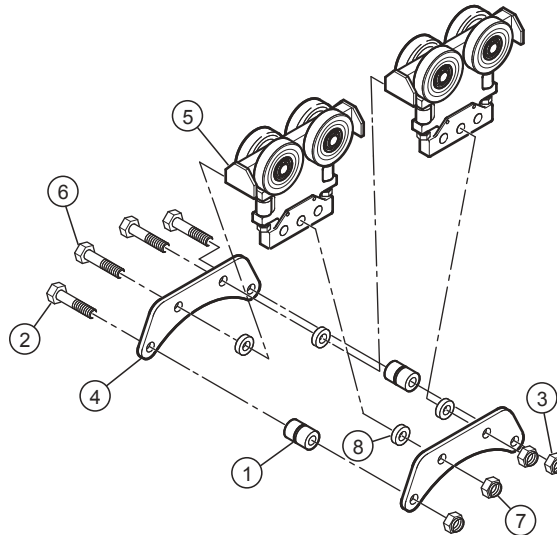


(Dwg. MHP1927)

Item No.	Description of Parts	Total Qty	Part Number			
			16305 ZRA1	16355 ZRAT	16344 ETA - 4	16307 ZRV2
1	Bushing	2	17025			
2	Screw	2	17047			
3	Nut	2	17060			
4	Trolley Bracket	2	17125			
5	Trolley	2	30279	31056	30743	31525
6	Screw	1	ZHS72005			
7	Nut	2	75563			
8	Spacer	2	30073-500			
*	Instructions literature	1	10583433			

* Included but Not Shown

LARGE BALANCER SUSPENSION KITS - PARTS LIST

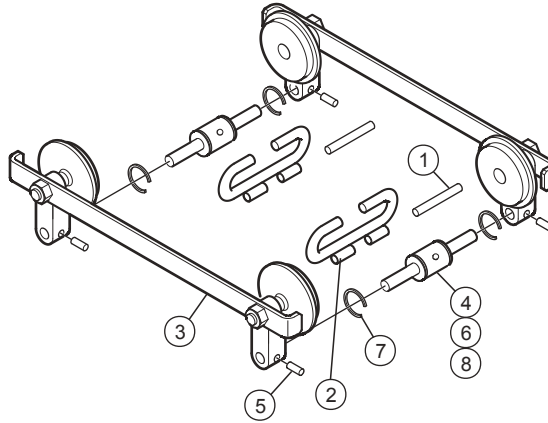


(Dwg. MHP1929)

Item No.	Description of Parts	Total Qty	Part Number			
			16405 ZRA1	16455 ZRAT	16444 ETA - 4	16407 ZRV2
1	Bushing	2	17025			
2	Screw	2	17047			
3	Nut	2	17060			
4	Trolley Bracket	2	17220			
5	Trolley	2	30279	31056	30743	31525
6	Screw	2	ZHS72005			
7	Nut	2	75563			
8	Spacer	4	30073-500			
*	Instructions literature	1	10583433			

* Included but Not Shown

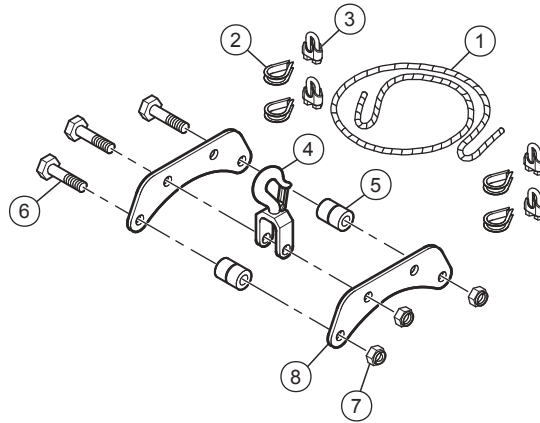
T-RAIL SUSPENSION KITS - PARTS LIST



(Dwg. MHP1928)

Item No.	Description of Parts	Total Qty	Part Number	Total Qty	Part Number
			16320 T-Rail Small Balancer		16420 T-Rail Large Balancer
1	Spring Pin	1	1902	2	1902
2	Rail Safety	1	1925	2	1925
3	Trolley Half	2	16006	2	16013
4	Axle	2	16043	2	16043
5	Spring Pin	4	16060	4	16060
6	Bushing	2	17045	2	17045
7	Bushing Clip	4	ZHS17046	4	ZHS17046
8	Setscrew	2	ZHS70438	2	ZHS70438

HOOK MOUNT SUSPENSION KITS - PARTS LIST

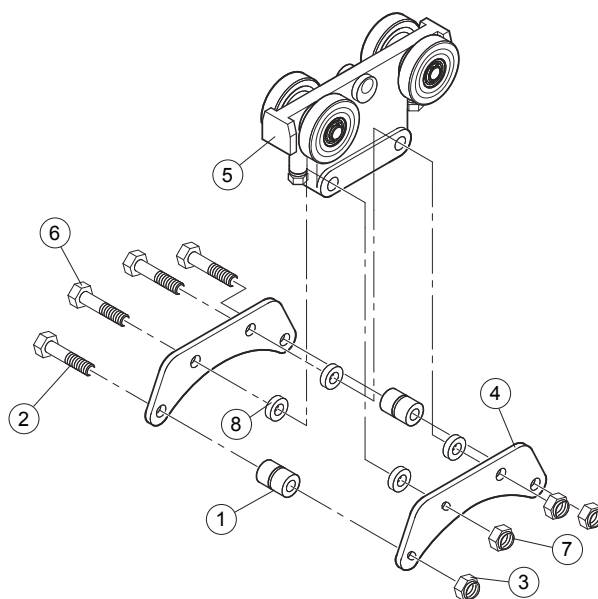


(Dwg. MHP1930)

Item No.	Description of Parts	Total Qty	Part Number	
			16360 Hook Mount Small Balancer	16460 Hook Mount Large Balancer
1	Safety Cable	3 ft	10096-3	
2	Thimble	2	10212	
3	Clamp	4	10235	
4	Top Hook	1	17010	
5	Bushing	2	17025	
6	Screw	2	17047	
7	Nut	2	17060	
8	Bracket Top Hook	2	17505	17012
*	Instructions literature	1	10583409	

* Included but Not Shown

ZRS/ZRA2/KBK2 AND ETA - 8 SUSPENSION KITS - PARTS LIST

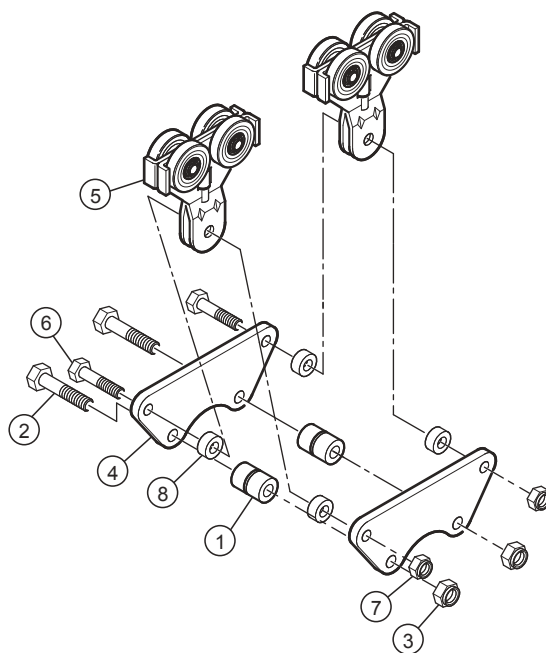


(Dwg. MHP1931)

Item No.	Description of Parts	Total Qty	Part Number			
			16300 ZRS2/3 Sm. Balancer	16310/ZHS16310 ZRA2 Sm. Balancer	16315 KBK2 Sm. Balancer	16345 ETA - 8 Sm. Balancer
1	Bushing	2	17025			
2	Screw	2	17047			
3	Nut	2	17060			
4	Trolley Bracket	2	17110			
5	Trolley	1	ZHS30510	30015	30030	30929
6	Screw	2	72626			
7	Nut	2	75566			
8	Spacer	4	30073-312			

Item No.	Description of Parts	Total Qty	Part Number			
			16400 ZRS2/3 Lg. Balancer	16410 ZRA2 Lg. Balancer	16415 KBK2 Lg. Balancer	16445 ETA - 8 Lg. Balancer
1	Bushing	2	17025			
2	Screw	2	17047			
3	Nut	2	17060			
4	Trolley Bracket	2	17215			
5	Trolley	1	ZHS30510	30015	30030	30929
6	Screw	2	72626			
7	Nut	2	75566			
8	Spacer	4	30073-312			

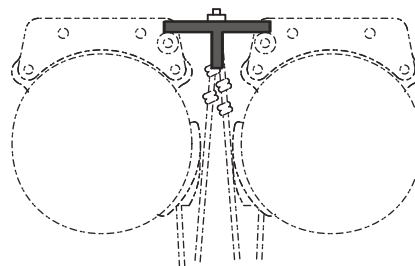
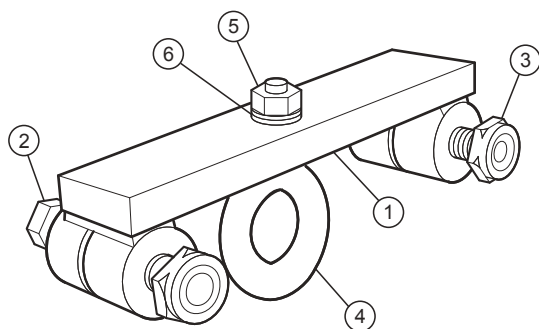
KBK1 SUSPENSION KIT - PARTS LIST



(Dwg. MHP1932)

Item No.	Description of Parts	Total Qty	Part Number	
			16325 Smaller Balancer	16425 Large Balancer
1	Bushing	2	17025	
2	Screw	2	17047	
3	Nut	2	17060	
4	Trolley Bracket	2	17120	17220
5	Trolley	2	ZHS30603	
6	Screw	2	ZHS72005	
7	Nut	2	75563	
8	Spacer	4	30073-594	

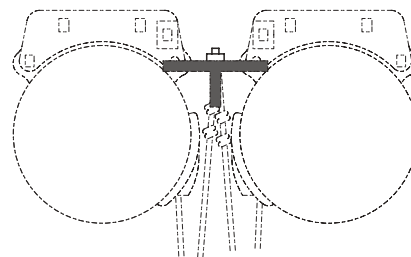
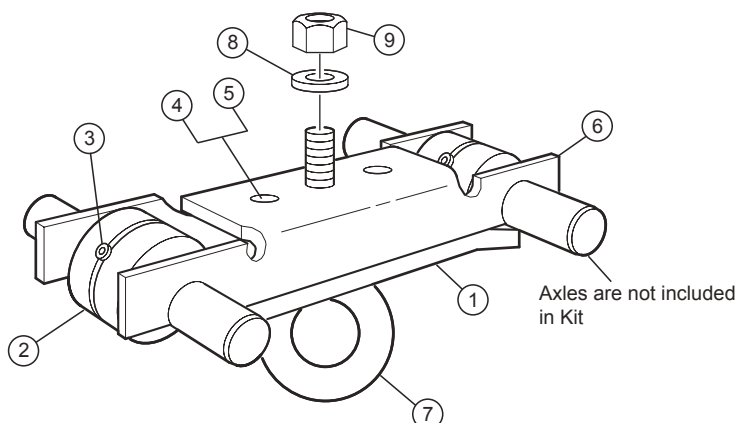
16490 TANDEM TIE BAR KIT ZRA2/ZRS2/3 RAIL - PARTS LIST



(Dwg. MHP1933)

Item No.	Description of Parts	Total Qty	Part Number
1	Tandem Tie-Bar	1	16200
2	Capscrew	2	17047
3	Locknut	2	17060
4	Tandem Reeve Eyebolt	1	16155
5	Nut	1	75512
6	Lockwasher	1	74513

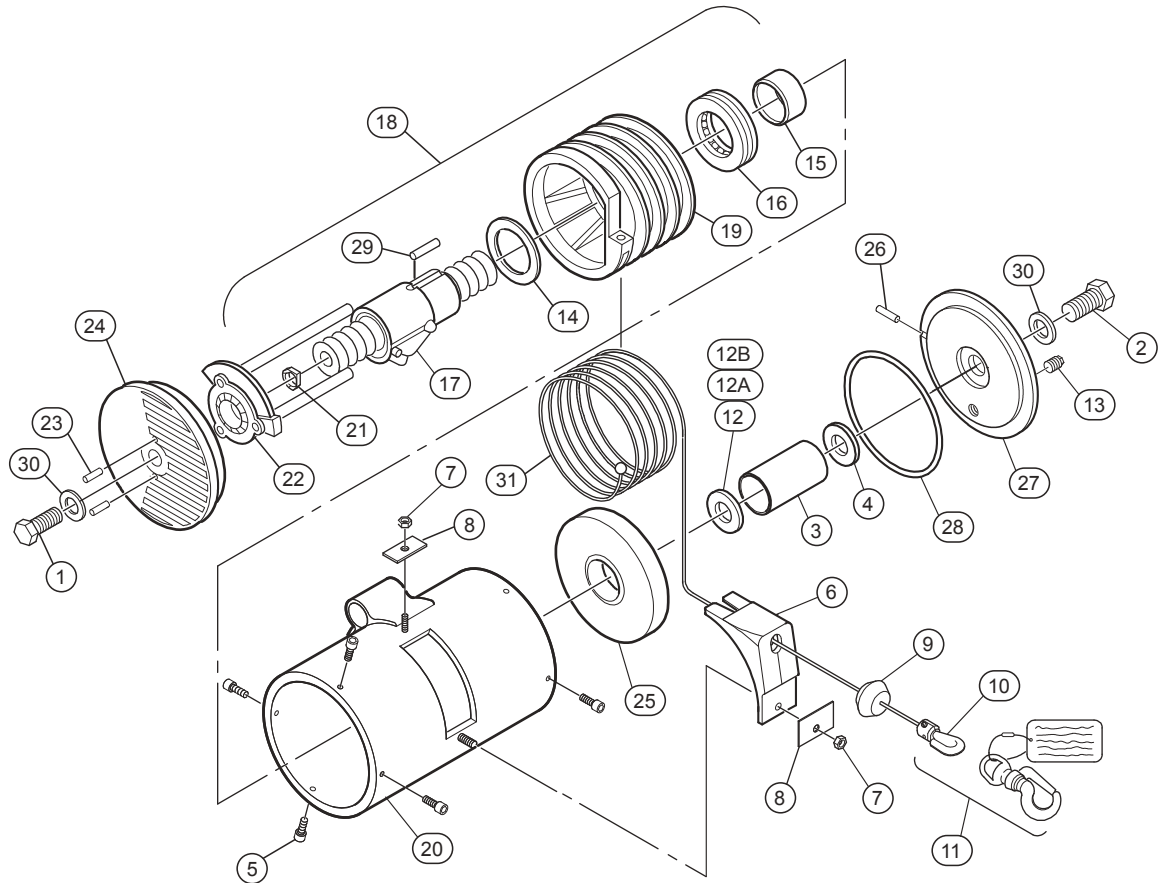
16495 TANDEM TIE BAR KIT T-RAIL - PARTS LIST



(Dwg. MHP1934)

Item No.	Description of Parts	Total Qty	Part Number
1	Tie-Bar Clip	1	16047
2	Steel Axle Bushing	2	16052
3	Setscrew	2	16093
4	Socket Head Screw	2	ZHS70927
5	Lockwasher	2	16099
6	T-Rail Tie-Bar	1	16112
7	Tandem Reeve Eyebolt	1	16155
8	Lockwasher	1	74513
9	Nut	1	75512

BASIC BALANCER 150 LB. (68 KG) ASSEMBLY AND PARTS LIST



(Dwg. MHP1962)

Item No.	Description of Parts	Total Qty	Part Number	Item No.	Description of Parts	Total Qty	Part Number
1	Ball Screw Bolt (End Cover)	1	ZHS10017	17	Ball Screw Assembly ***	1	11112
2	Ball Screw Bolt (End Cap)	1	ZHS10013	18	Ball Screw and Reel Assembly	1	11514
3	Ball Screw Cap	1	ZHS10046	19	Reel Assembly	1	11554
• 4	Ball Screw Seal	1	10061	20	Housing Liner	1	12911
5	Screw	8	10071	21	Retainer (Z - Brake)	1	13039
6	Wire Rope Guide	1	ZHS10116	22	Z - Brake Assembly	1	ZHSEA0034
7	Nut	2	10124	23	Anti-Rotation Pin	2	13440
8	Wire Rope Guide Plate	2	10125	24	End Cover Assembly	1	13805
9	Ball Stop Assembly	1	10165	25	Piston Assembly	1	14502
• 10	Swaged Stop	1	10200	26	End Cap Spring Pin	1	ZHS15037
11	Accessory Kit	1	10208	27	End Cap Assembly	1	15515
12	0.005 in. (0.127 mm) Shim	#	10415	• 28	O-ring	1	15520
12A	0.010 in. (0.254 mm) Shim	#	10416	29	Ball Nut Dowel Pin	1	16058
12B	0.025 in. (0.635 mm) Shim	#	10417	30	Washer	2	74516
13	Pipe Plug 1/4 NPT	1	HSPPS-2	• 31	Wire Rope 20 ft (6 m)	1	10084-20
14	Ball Nut Washer	1	11076	41	Capacity Label **	1	10402
15	Thrust Bearing Retainer	1	ZHS11081	42	Ingersoll Rand Label **	1	ZHS54033030
16	Thrust Bearing	1	ZHS11091	•	Recommended Spare Parts Available in Kit 10590/ZHS10590		

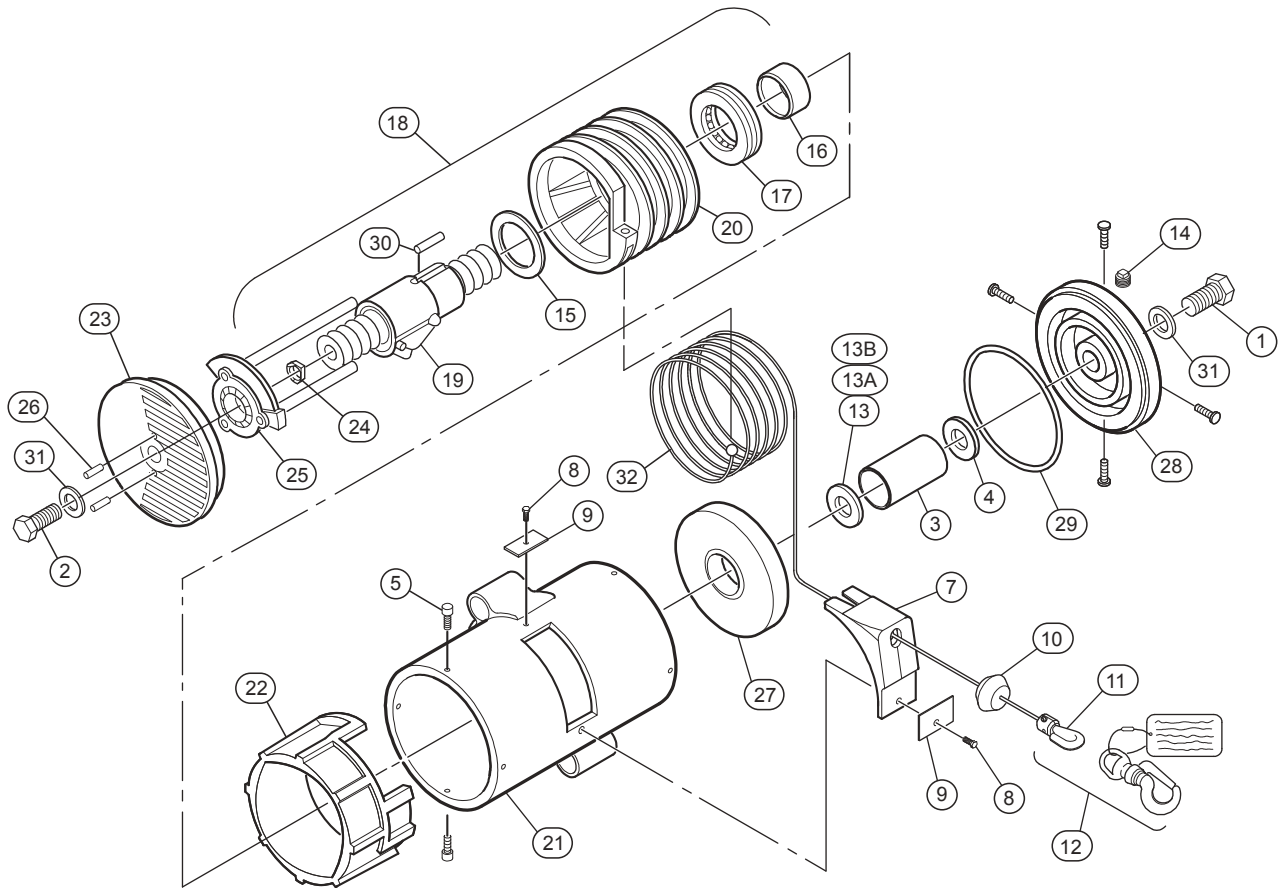
* Refer to Dwg. MHP1960 on page 32 for Z-Brake Assembly

** Not Shown

*** Set of 64 Ball Bearings - Part Number 11012

Quantity as required

BASIC BALANCER 200 LB. (91 KG) ASSEMBLY AND PARTS LIST



(Dwg. MHP1963)

Item No.	Description of Parts	Total Qty	Part Number	Item No.	Description of Parts	Total Qty	Part Number
1	Ball Screw Bolt (End Cap)	1	ZHS10013	18	Ball Screw and Reel Assembly	1	11102
2	Ball Screw Bolt (End Cover)	1	ZHS10017	19	Ball Screw Assembly ***	1	11112
3	Ball Screw Cap	1	ZHS10044	20	Reel Assembly	1	11125
• 4	Ball Screw Seal	1	10061	21	Housing Assembly	1	ZHS12204
5	Screw	8	10072	22	Housing Liner	1	12225
7	Wire Rope Guide	1	ZHS10114	23	End Cover Assembly	1	13035
8	Screw	2	10120	24	Retainer (Z-Brake)	1	13036
9	Wire Rope Guide Plate	2	10125	25	Z-Brake Assembly *	1	ZHSEA0032
10	Ball Stop Assembly	1	10165	26	Anti-Rotation Pin	2	13440
• 11	Swaged Stop	1	10200	27	Piston Assembly	1	14005
12	Accessory Kit	1	10208	28	End Cap	1	15016
13	0.005 in. (0.127 mm) Shim	#	10415	• 29	O-ring	1	15020
13A	0.010 in. (0.254 mm) Shim	#	10416	30	Ball Nut Dowel Pin	1	16058
13B	0.025 in. (0.635 mm) Shim	#	10417	31	Washer	2	74516
14	Pipe Plug 1/4 NPT	1	HSPPS-2	• 32	Wire Rope 30 ft (91.1 m)	1	10084-30
15	Ball Nut Washer	1	11076	41	Capacity Label **	11	10403
16	Thrust Bearing Retainer	1	ZHS11081	42	Ingersoll Rand Label **	1	54033048
17	Thrust Bearing	1	ZHS11091	•	Recommended Spare Parts Available in Kit 10591		

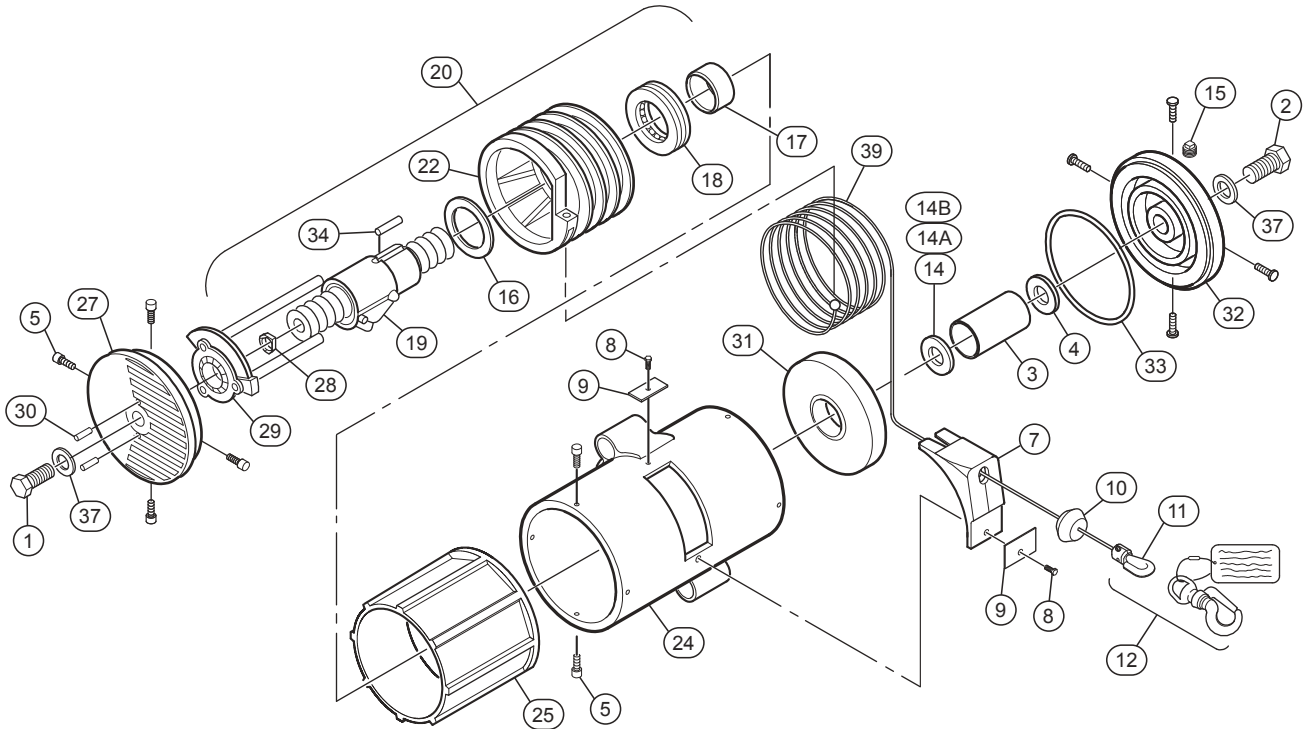
* Refer to Dwg. MHP1960 on page 32 for Z-Brake Assembly

** Not Shown

*** Set of 64 Ball Bearings - Part Number 11012

Quantity as Required

BASIC BALANCER 350 LB. (158 KG) ASSEMBLY AND PARTS LIST



(Dwg. MHP1964)

Item No.	Description of Parts	Total Qty	Part Number	Item No.	Description of Parts	Total Qty	Part Number
1	Ball Screw Bolt (End Cap)	1	ZHS10017	19	Ball Screw Assembly ***	1	11112
2	Ball Screw Bolt (End Cover)	1	ZHS10013	20	Ball Screw and Reel Assembly	1	11514
3	Ball Screw Cap	1	ZHS10048	22	Reel Assembly	1	11544
• 4	Ball Screw Seal	1	10061	24	Housing Assembly	1	ZHS12204
5	Screw	12	10072	25	Housing Liner	1	12240
7	Wire Rope Guide	1	10115	27	End Cover Assembly	1	13038
8	Screw	2	10120	28	Retainer (Z-Brake)	1	13039
9	Wire Rope Guide Plate	2	10125	29	Z-Brake Assembly *	1	ZHSEA0032
10	Ball Stop Assembly.	1	10165	30	Anti-Rotation Pin	2	13440
• 11	Swaged Stop	1	10200	31	Piston Assembly	1	14005
12	Accessory Kit	1	10208	32	End Cap	1	15016
14	0.005 in. (0.127 mm) Shim	#	10415	• 33	O-ring	1	15020
14A	0.010 in. (0.254 mm) Shim	#	10416	34	Ball Nut Dowel Pin	1	16058
14B	0.025 in. (0.635 mm) Shim	#	10417	37	Washer	2	74516
15	Pipe Plug 1/4 NPT	1	HSPPS-2	• 39	Wire Rope 30 ft (9.1 m)	1	10084-30
16	Ball Nut Washer	1	11076	41	Capacity Label **	11	10580777
17	Thrust Bearing Retainer	1	ZHS11081	42	Ingersoll Rand Label **	1	54033048
18	Thrust Bearing	1	ZHS11091	•	Recommended Spare Parts Available in Kit 10591		

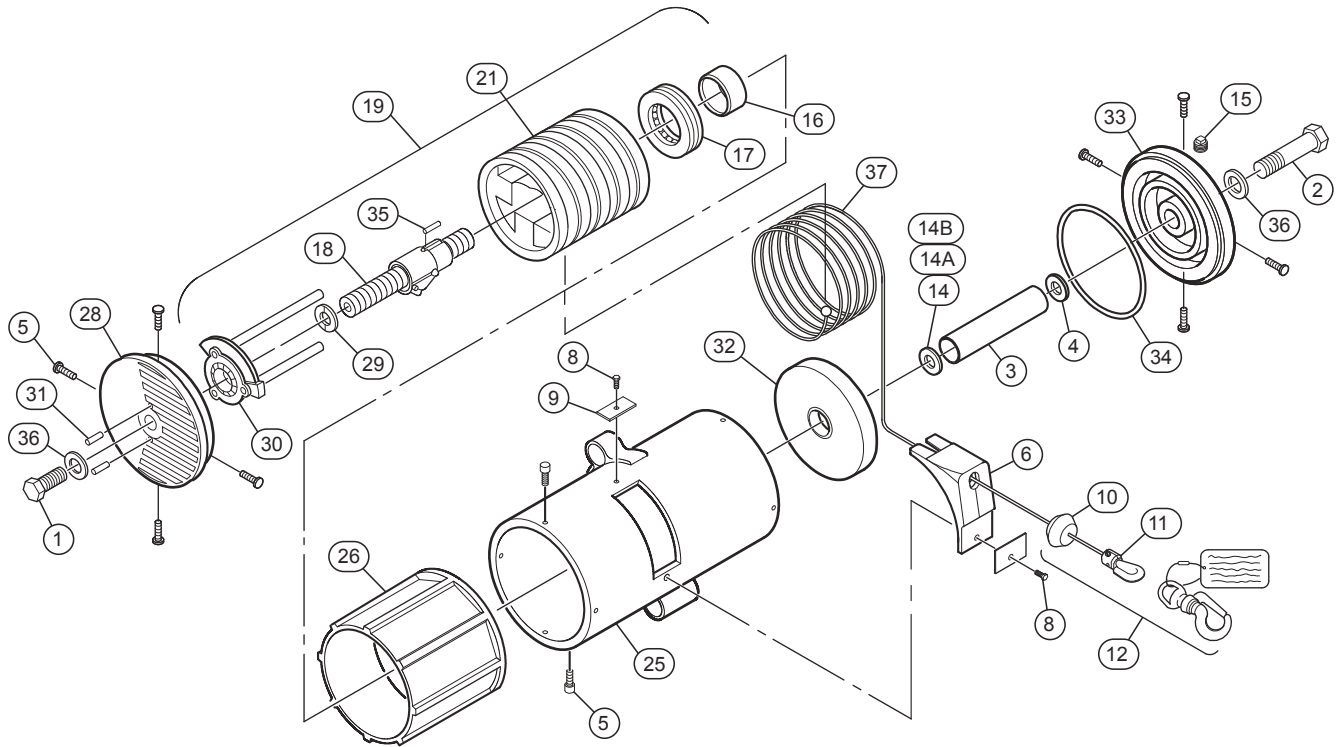
* Refer to Dwg. MHP1960 on page 32 for Z-Brake Assembly

** Not Shown

*** Set of 64 Ball Bearings - Part Number 11012

Quantity as Required

BASIC BALANCER 500 LB. (227 KG) ASSEMBLY AND PARTS LIST



(Dwg. MHP1965)

Item No.	Description of Parts	Total Qty	Part Number	Item No.	Description of Parts	Total Qty	Part Number
1	Ball Screw Bolt (End Cover)	1	ZHS10017	19	Ball Screw and Reel Assembly	1	11515
2	Ball Screw Bolt (End Cap)	1	ZHS10018	21	Reel Assembly	1	11546
3	Ball Screw Cap	1	ZHS10047	25	Housing Assembly	1	12208
• 4	Ball Screw Seal	1	10061	26	Housing Liner	1	12245
5	Screw	12	10072	28	End Cover Assembly	1	13038
7	Wire Rope Guide	1	ZHS10118	29	Retainer (Z-Brake)	1	13039
8	Screw	2	10120	30	Z-Brake Assembly *	1	ZHSEA0038
9	Wire Rope Guide Plate	2	10125	31	Anti-Rotation Pin	2	13440
10	Ball Stop Assembly	1	10165	32	Piston Assembly	1	14005
• 11	Swaged Stop	1	10200	33	End Cap	1	15016
12	Accessory Kit	1	10208	• 34	O-ring	1	15020
14	0.005 in. (0.127 mm) Shim	#	10415	35	Ball Nut Dowel Pin	1	16058
14A	0.010 in. (0.254 mm) Shim	#	10416	36	Washer	2	74516
14B	0.025 in. (0.635 mm) Shim	#	10417	• 37	Wire Rope 30 ft (9.1 m)	1	10084-30
15	Pipe Plug 1/4 NPT	1	HSPPS-2	41	Capacity Label **	1	10398
16	Thrust Bearing Retainer	1	ZHS11081	42	Ingersoll Rand Label **	1	54033055
17	Thrust Bearing	1	ZHS11091	• Recommended Spare Parts Available in Kit 10591			
18	Ball Screw Assembly ***	1	11115				

* Refer to Dwg. MHP1960 on page 32 for Z-Brake Assembly

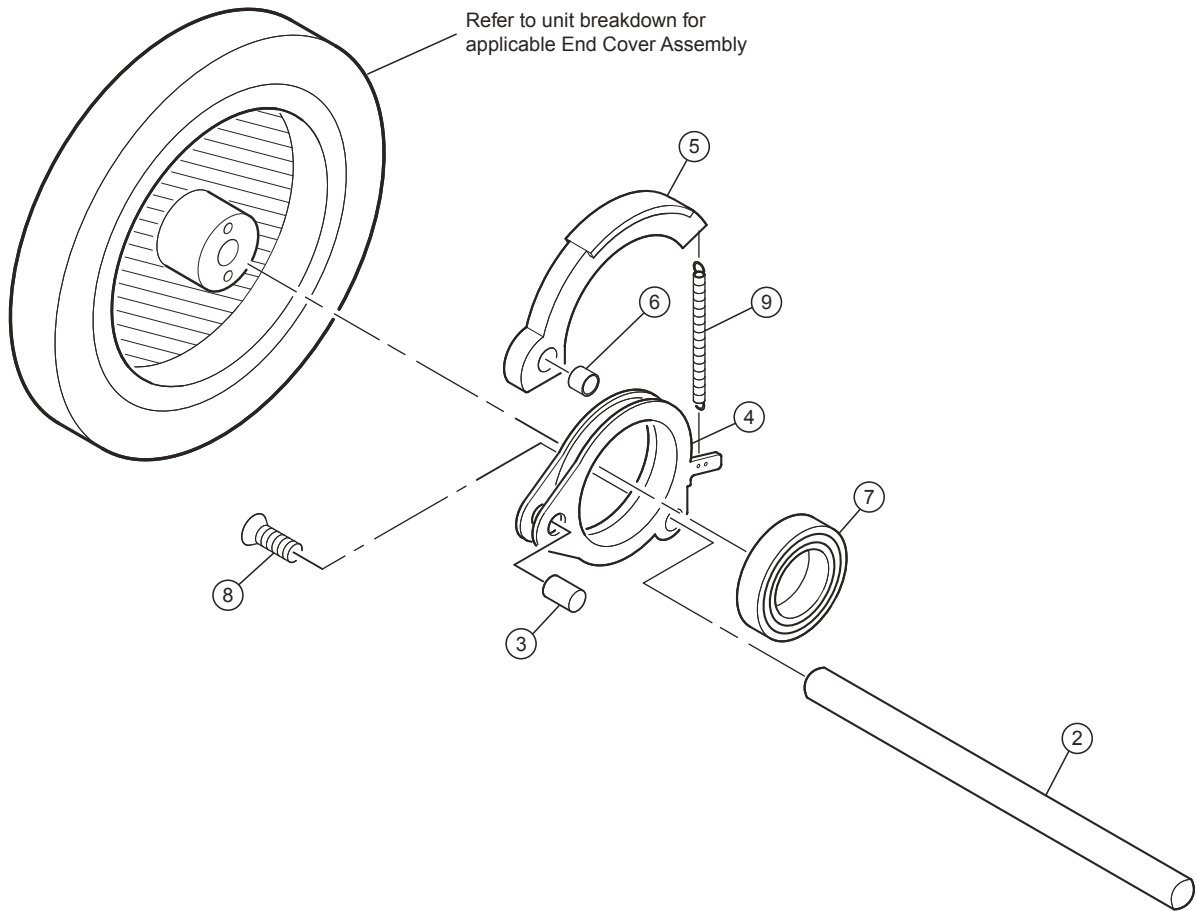
** Not Shown

*** Set of 64 Ball Bearings - Part Number 11012

Quantity as Required

Z-BRAKE 150 LB. (68 KG) ASSEMBLY AND PARTS LIST

150 LB. (68 KG)

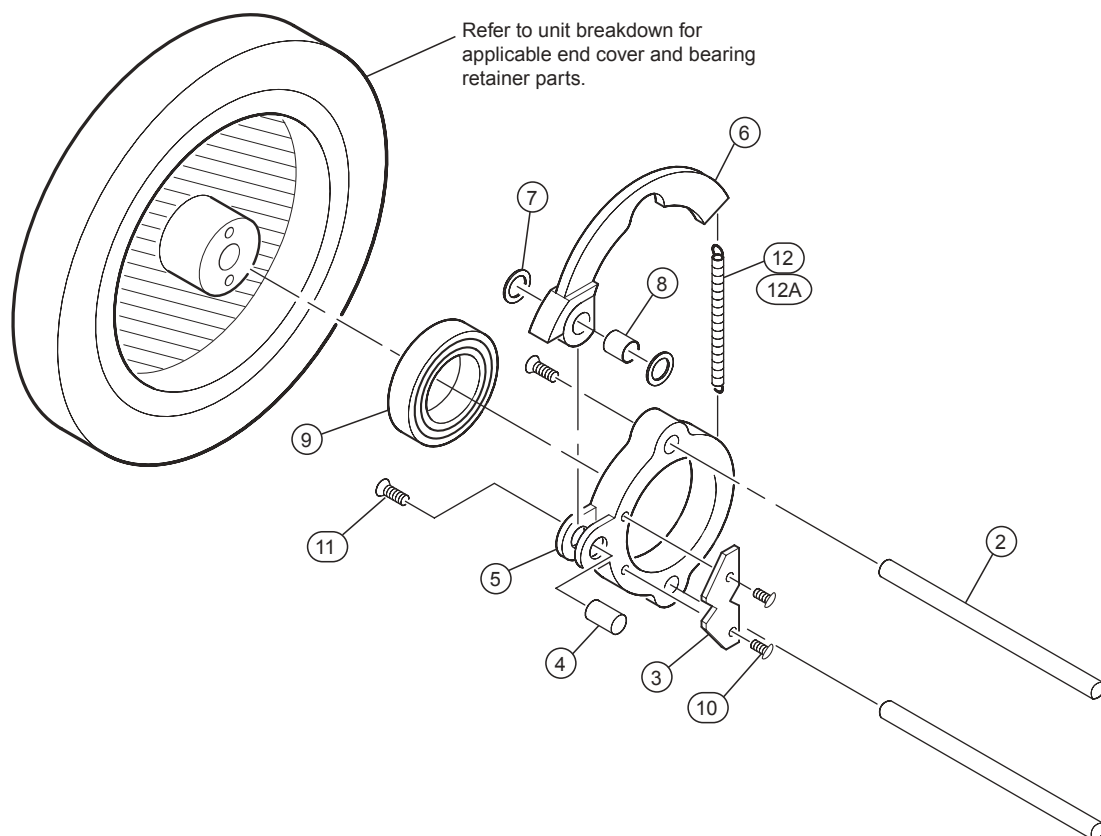


(Dwg. MHP1959)

Item No.	Description of Parts	Total Qty	Part Number
- - -	Brake Assembly - 150 lb. (68 kg) Balancer	- - -	ZHSEA0034
2	Shaft	1	13112
3	Pivot Shaft	1	13113
4	Brake Rotor	1	13114
5	Brake Shoe	1	13116
6	Bushing	1	65054
7	Radial Bearing	1	65074
8	Screw	1	ZHS70515
9	Heavy Spring	1	76517

Z-BRAKE 200/350/500 LB. (91/158/227 KG) ASSEMBLY AND PARTS LIST

200/350/500 LB. (91/158/227 KG) BALANCER

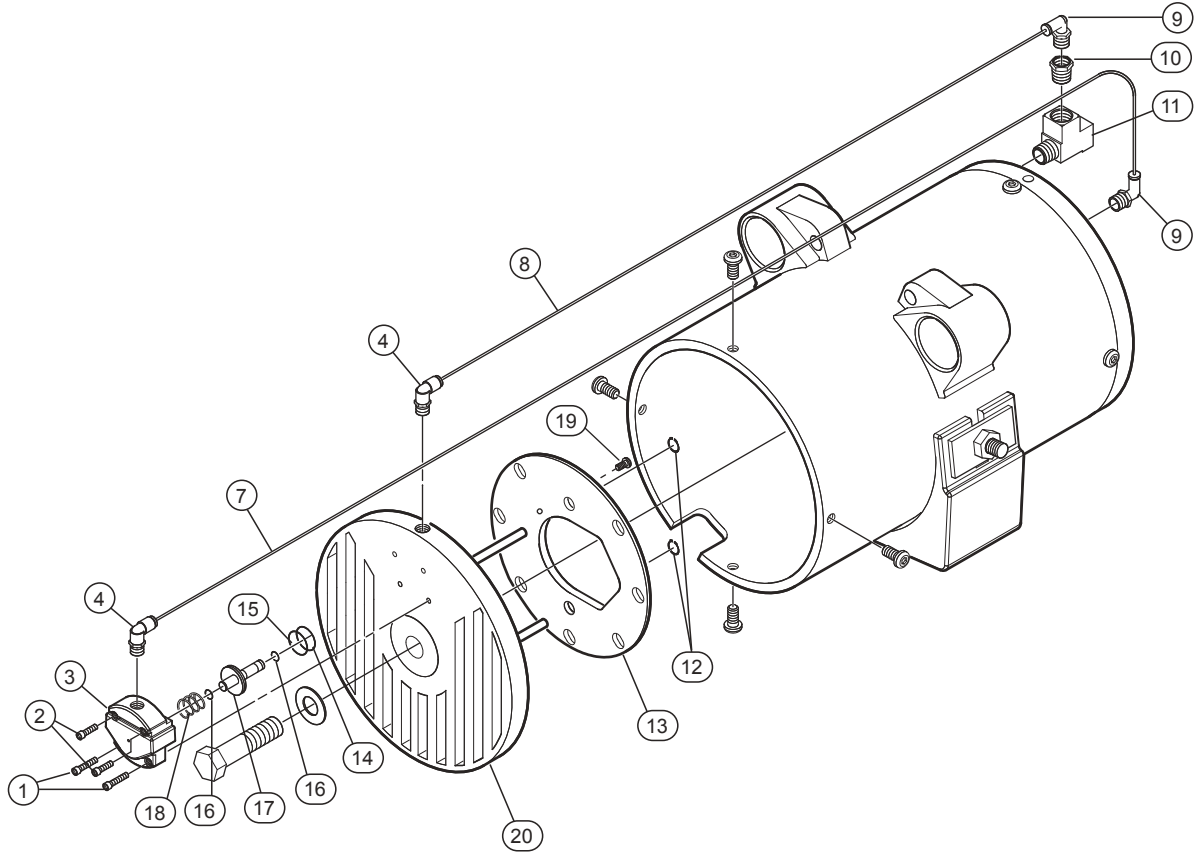


(Dwg. MHP1960)

Item No.	Description of Part	Total Qty.	Part Number		
			ZHSEA0032 - Z-Brake Assembly 200 lb. (91 kg) Balancer	ZHSEA0032 - Z-Brake Assembly 350 lb. (158 kg) Balancer	ZHSEA0038 - Z-Brake Assembly 500 lb. (227 kg) Balancer
2	Shaft	2	13112		13142
3	Shaft Retainer	1	ZHS13122		
4	Pivot Shaft	1	ZHS13123		
5	Brake Rotor	1	ZHSEA0020		ZHSEA0037
6	Brake Shoe	1	13125		
7	Thrust Washer	2	65063		
8	Bushing	1	65073		
9	Radial Bearing	1	65074		
10	Screw	2	ZHS70257		
11	Screw	2	ZHS70515		
12	Spring	1	76517		
12A	Heavy Spring		76520*		

* Replaces 76517 Brake Spring

Z-STOP 200/325/500 LB. (91/147/227 KG) ASSEMBLY AND PARTS LIST



(Dwg. MHP1962)

Item No.	Description of Part	Total Qty.	Part Number		
			13301 - Z-Stop Assembly 200 lb. (91 kg) Balancer	13311 - Z-Stop Assembly 325 lb.(147 kg) Balancer	13321 - Z-Stop Assembly 500 lb. (227 kg) Balancer
1	Capscrew	2	ZHS70255		
2	Capscrew	2	ZHS70254		
3	'Z' Stop Housing	1	13335		
4	Fitting, Elbow	3	ZHS93969		
7	Tube, 5/32 in. Red	2 ft	93960-R		
8	Tube, 5/32 in. Yellow	2 ft	93960-Y		
9	Fitting, Elbow	2	93970		
10	Fitting, Reducer	1	13502		
11	Fitting, Tee	1	ZHS10708		
12	Retaining Ring	2	99126	13039	99127
13	Engagement Plate	1	ZHSEA0035	ZHSEA0035	ZHSEA0036
14	O-ring	1	13342		
15	O-ring	1	13343		
16	Quad ring	2	13344		
17	Engagement Pin	1	13338		
18	Spring	1	ZHS76522		
19	Screw	2	ZHSEA0029		
20	End Cover	1	13306	13316	

SERVICE NOTES

SERVICE NOTES
