

# LP15B/20B ACTUATORS

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## **178 Product Features**

178 Features and Benefits

## **179 How it Works**

179 Materials of Construction

## **180 How it's Used**

180 Application Ideas  
180 Target Applications  
180 Drive Options  
180 Advantages

## **181 How to Specify**

181 Dimensions  
182 Specifications

## **183 How to Accessorize**

183 Motors and Drives  
184 Linear Scale  
184 Mounting Clamps

## **185 How to Order**

## **186 How to Repair**

186 LP15B Single Drive (A Carriage)  
186 LP15B Single Drive (B Carriage)  
187 LP15B Double Drive (A Carriage)  
187 LP15B Double Drive (B Carriage)  
188 LP15B EZ Drive (A Carriage)  
188 LP15B EZ Drive (B Carriage)  
189 LP15B Reducer Drive (A Carriage)  
189 LP15B Reducer Drive (B Carriage)  
190 LP20B Single Drive (A Carriage)  
190 LP20B Single Drive (B Carriage)  
191 LP20B Double Drive (A Carriage)  
191 LP20B Double Drive (B Carriage)  
192 LP20B EZ Drive (A Carriage)  
192 LP20B EZ Drive (B Carriage)  
193 LP20B Reducer Single Drive (A Carriage)  
193 LP20B Reducer Single Drive (B Carriage)  
194 LP20B Reducer Double Drive (A Carriage)  
194 LP20B Reducer Double Drive (B Carriage)

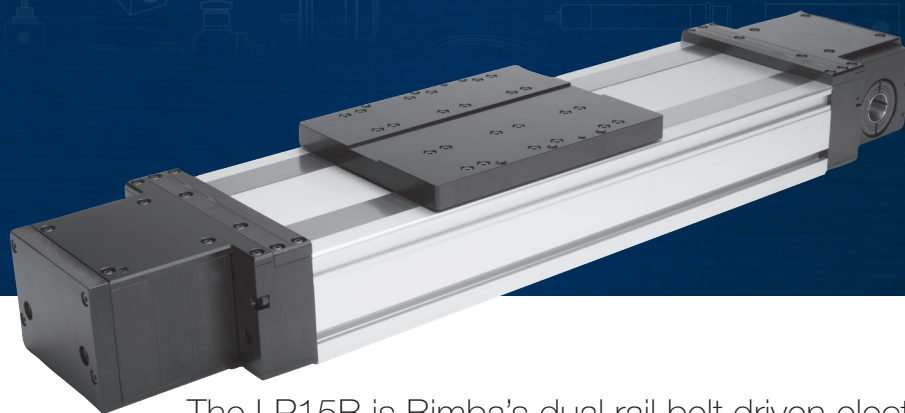
## **195 How to Customize**

195 Switches  
195 Air/Purge Ports  
195 Protection  
195 Motor Mounting  
195 Customer-Requested Holes and Dowel Pins









## LP15B & LP20B ACTUATORS

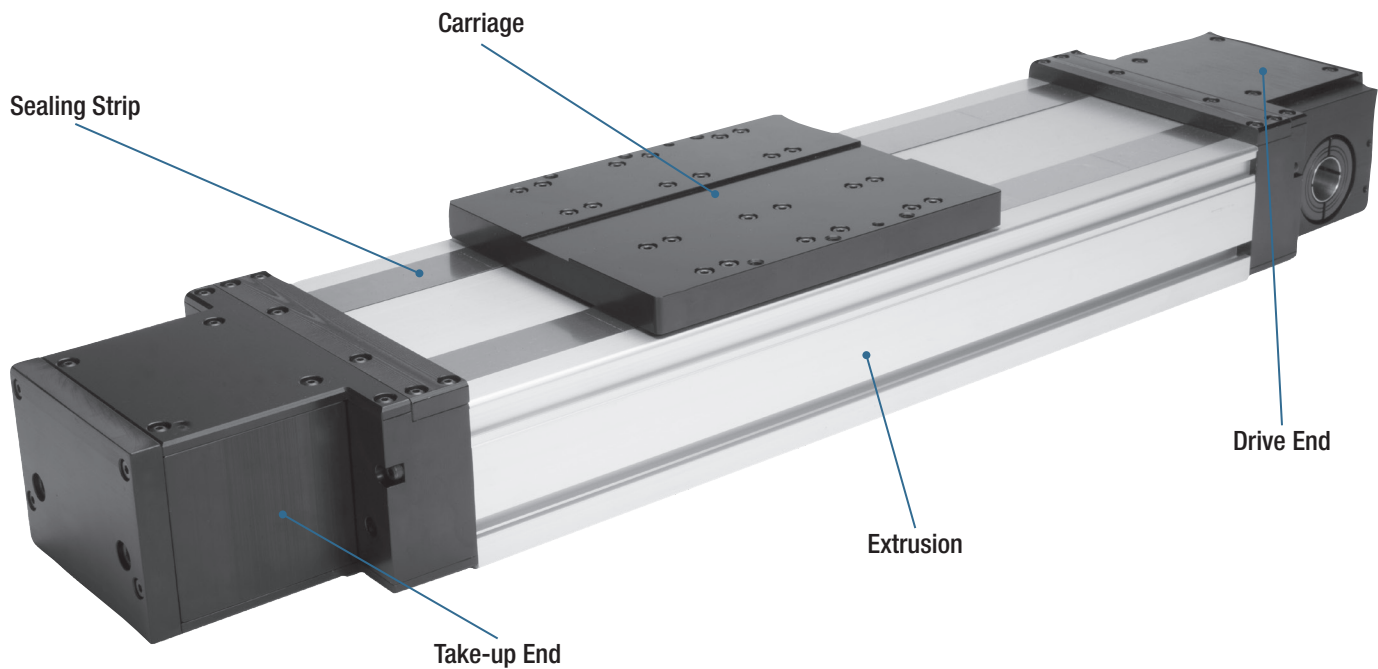
The LP15B is Bimba's dual rail belt driven electric linear actuator for use in industries and applications where increased support of loads is critical. As a low-profile actuator, the LP15B picks up where the B27 leaves off. It uses a robust dual rail, four bearing block design that offers two and a half times the thrust force capability and twice the maximum input torque. With a dynamic load capability that is fifteen times that of the B27 and a moment load that is more than sixty times the B27's, the LPB Series escalates the overall performance and is designed to meet the most robust electric motion applications head-on.

When higher performance and capability are necessary, the Bimba LP20B is a similar but more robust iteration of the LP15B, with larger guide rails and bearing blocks that support nearly twice the load and thrust capability of the LP15B.

The LPB Series is sure to offer a solution for a multitude of electric motion applications when considering a belt drive electric actuator.



# PRODUCT FEATURES



The LP15B/20B family of rodless electric actuators are belt-driven and offer a dual ball rail design to maximize loading characteristics while providing maximum moment loading. They provide high precision with low noise, backlash, and vibration. With two distinct belt width sizes to choose from, along with a larger extrusion and pulley and bearing size, high load applications are overcome easily.

## FEATURES AND BENEFITS

### Dual Built-in Linear Ball Rail Guides:

- Dual rails provide two times the loading
- Four bearing blocks (two per rail)
- Size 15 and size 20 rails and bearings
- Maintenance free
- Self-lubricating
- Low friction
- Smooth operation
- Long life expectancy

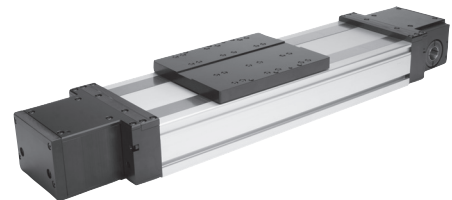
### Low Profile Aluminum Extrusion:

- Provides better fit in tight applications
- Maximum robustness per size

### High Precision Steel Reinforced Belt:

- Ideal for high load applications
- Highest thrust/load per unit size
- Repeatability to  $\pm 0.004''$
- Long lengths: up to 3m (10ft.)
- Quiet: reduced noise

LP15B/LP20B





The Bimba LP15B rodless actuator uses a steel reinforced polyurethane belt that wraps around an internal drive pulley mechanism on the drive end. This is connected to a drive shaft which gets coupled to an external motor shaft and provides the rotational motion to rotate the pulley and hence traverse the belt attached to the pulley.

On the opposite end, known as the take-up end, the LP15B uses a take-up pulley working in conjunction with a take-up slide and take-up bearing. Together, they provide ample support for the other end of the belt as the motor provides the rotational motion. As the carriage and attached load traverse the length of the actuator, the rotational motion is transformed into linear motion. With two linear rails and an option for up to four bearing blocks (two per rail), the LP15B has the load and moment capability to handle nearly any load you can stack up against it.

## MATERIALS OF CONSTRUCTION

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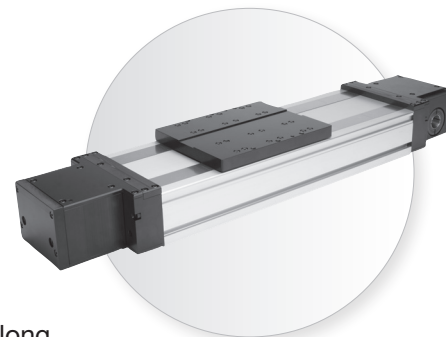
<b>Body Material:</b>	Aluminum
<b>End Caps:</b>	Aluminum
<b>Carriage:</b>	7075 Aluminum
<b>Belt:</b>	Steel Reinforced Polyurethane



# HOW IT'S USED

## APPLICATION IDEAS

- Pick & Place
- Sorting
- Loading
- Stacking
- Insertion
- Clamping
- Parts Transfer
- Machine Tool
- Conveyor



## TARGET APPLICATIONS

The LP15B is intended for heavy-duty industrial applications that require flexible, long distance, high speed motion with substantial dynamic load and moment loading capacity. When your application calls for up to 3m (~10ft.) of stroke with up to 400 lbs (~1780N) of thrust, with more than 40,000N dynamic load and speed capability in the 5m/sec (~200"/sec) range, the LP15B offers you all this solution possibility at an exceptional value.

The power of the LP15B lends itself well to multi-axis motion solutions. The two rail, four bearing block configuration means adding a second axis is a breeze, whether the second axis is another LP15B or nearly any other existing Bimba electric actuator due to large array of transition plates available.

For applications that call for a heavy duty alternative solution to a traditional pneumatic application and that offers a solution that can adapt as your needs grow and change, Bimba electric actuators provide the interchangeable solution in an easy-to-use, long-lasting, and tough electric actuator.

## DRIVE OPTIONS

With numerous drive interfaces ranging from a single or double standard shaft input to our Easy Input shaft, the choice is yours to select the option that works for you. With many Bimba stepper and servo motors available to choose from, configuring an electric actuator that best meets the needs of even your most demanding application has never been easier.

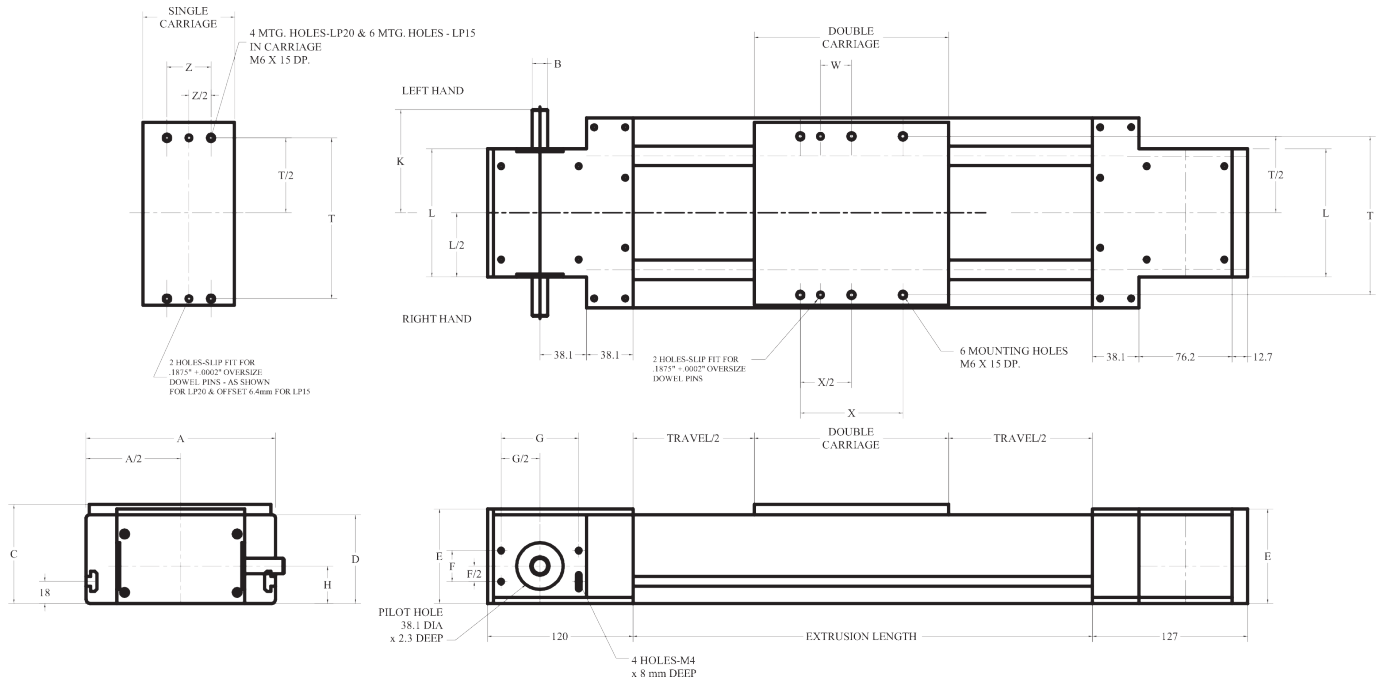
## ADVANTAGES

FEATURE	ADVANTAGE	BENEFIT
Carriage constructed of high-strength 7075 aluminum	Offers enhanced strength and robustness over the competitor	Less deflection and increased load and moment loading capability per carriage size
Self-lubricating linear guides	Minimized maintenance	Worry- and maintenance-free long life, even in applications that require 24/7 motion
Integral Reducer Drive (optional)	Offers increased performance using embedded gear reducer	Move larger loads and improve inertia matching, using an aesthetically pleasing, cost-effective solution
Dual rail construction	2-rail, 4-bearing block construction offers maximum moment loading capacity	Highest load and moment capacity solves applications that are not otherwise possible within this class of actuator
Steel reinforced polyurethane belt	25% higher thrust leads to higher loading capacity	Realize ballscrew-like thrust with belt drive speed ability



## DIMENSIONS

Key specification information for the LP15B/20B is given below. For additional specification information, contact Bimba Customer Service at [cs@bimba.com](mailto:cs@bimba.com), or 800.44.BIMBA (800.442.4622).

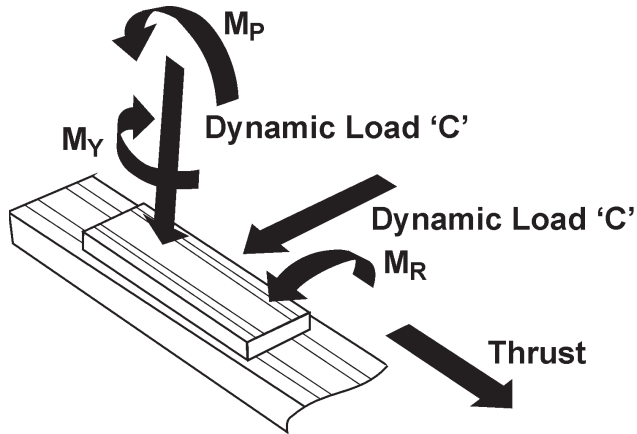


ACTUATOR	DIMENSIONS														CARRIAGE LENGTH	
	A	B	C	D	E	F	G	H	K	L	T	W	X	Z	SINGLE	DOUBLE
LP15B	120	10	75.2	62.8	67.6	19	53.9	28.5	73	83	104.8	25.4	127	63.5	110	192
LP20B	155	12.7	88.65	72.3	77.1	25.4	63.5	36.2	84.4	105	143	25.4	84	63.5	110	192

O.A.L. = 247 + Travel + Carriage Length

# HOW TO SPECIFY

## SPECIFICATIONS



LINEAR ACTUATOR	EXTRUSION	
	MOMENT OF INERTIA	
	I <sub>x</sub> (cm <sup>4</sup> )	I <sub>y</sub> (cm <sup>4</sup> )
LP15B	82	462
LP20B	153	1045

Straightness 0.0125" per foot per length  
Twist: 1/4" per 300mm, 3" maximum per 6m length

LINEAR ACTUATOR	LEAD CONSTANT (mm/rev.)	MAXIMUM INPUT TORQUE NM (in-lbs)	BELT	
			MAXIMUM FORCE N (lbs)	ELASTIC LIMIT N (lbs)
LP15B	120.04	21.4 (190)	1120 (252)	2240 (505)
LP20B	135.03	37.6 (333)	1750 (393)	3500 (787)

LINEAR ACTUATOR	CARRIAGE LENGTH (mm)	DYNAMIC LOAD CAPACITY N (lbs)	DYNAMIC MOMENT CAPACITY		
			ROLL M <sub>R</sub> NM (in-lbs)	PITCH M <sub>P</sub> NM (in-lbs)	YAW M <sub>Y</sub> NM (in-lbs)
LP15B	110	15250 (3425)	260 (2300)	70 (620)	70 (620)
	192	30500 (6850)	420 (3717)	500 (4425)	500 (4425)
LP20B	110	36200 (8137)	530 (4690)	130 (1150)	130 (1150)
	192	72400 (16275)	1060 (9381)	1475 (13054)	1475 (13054)

### Inertia (lb-in-sec<sup>2</sup>):

LP15B Actuator - B Carriage,  $J = (+\text{Stroke mm} * 0.01) * 10^{-4} * 8.85$

LP20B Actuator - B Carriage,  $J = (+\text{Stroke mm} * 0.02) * 10^{-4} * 8.85$

### Weight:

LP15B = 2kgs + (0.01 kgs/mm)

LP20B = 3kgs + (0.019 kgs/mm)



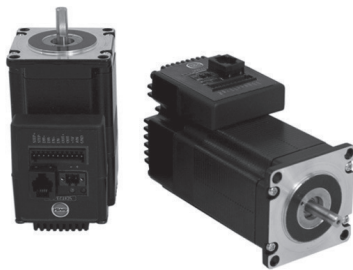
## MOTORS AND DRIVES

Bimba motors are available to use as the rotary drive mechanism of the LP15B/20B Series. With a complete array of stepper and servo motors available in stock, Bimba has a motor\*-drive solution that meets many demanding applications.

Configuring your motor and creating your first motion profile program is easier than ever with Bimba's intuitive and icon based IQ® suite of motion software. With our complete software suite available for free download from the Bimba website, there is no additional cost to your motion project. All Bimba stepper and servo programming software uses the same IQ® programming software, greatly reducing the learning curve. Existing programs can be easily shared or adapted among the two motor technologies.

**See the Motors and Drives section for Bimba's wide selection of available motors and motor drives.**

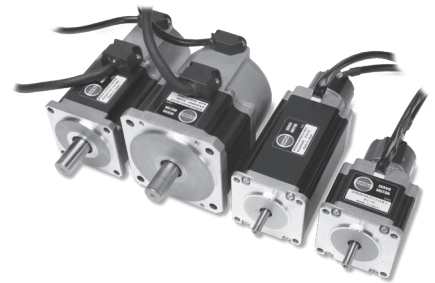
*\*Contact Bimba's Customer Service team for help in crossing your motor to a Bimba motor.*



INTELLIMOTOR®  
ITM-23Q-2-EIP-E-M12



AC STEPPER MOTOR  
MTR-AC23T-753-S



AC SERVO MOTOR

# HOW TO ACCESSORIZE

## LINEAR SCALE

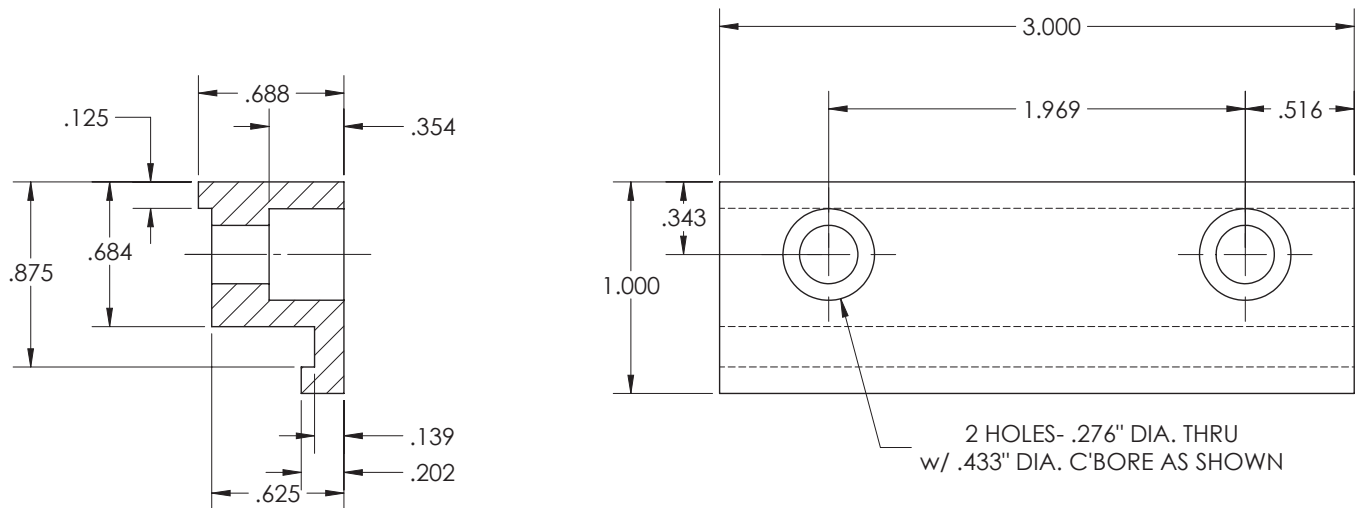
In extreme cases where precision beyond the normal tight accuracy of the LP15B/20B is desired, Bimba offers external Linear Scales. They are capable of providing extended position precision to as tight as  $10\mu\text{m}$ . These scales are composed of a reading head and external scale. Linear scales are available in incremental or absolute versions which can be added to your actuator as an additional component when included in the final part number.



EXTERNAL LINEAR SCALE

## MOUNTING CLAMPS

To secure an actuator to the machine frame, hold-down clamps are available. They are designed to fit perfectly in the extruded body actuator T-channel. Appropriate sized clamps are available for the LP15B/20B actuator, as well as all of Bimba's electric actuators.



BIMBA LP15B/20B CLAMP  
CL-80-39

# HOW TO ORDER

The model numbers of the LP15B and LP20B Series rodless actuators consists of an alphanumeric cluster designating product type, carriage type, stroke length, drive type, drive location, gear ratio (optional), external scale (optional), and other optional components that together make up the complete part number to use in ordering. Use the ordering information below to build a valid part number.

An example of a basic LP15B unit with length 1000mm, EZ drive, no scale, and additional options is shown below.

CARRIAGE				DRIVE		EXTRA CARRIAGES		PROTECTION		PURGE PORT*	
Carriage Type	Number of Bearing Blocks	Carriage Length									
		LP15B	LP20B								
A	2	110	110	SD	Single Drive	N	None	00	Standard	P0	None
B	4	192	192	DD	Double Drive	1	1 Extra	Z1	Corrosion-Resistant	PL	Left
				RD	Reducer Drive	2	2 Extra	SS	Stainless Steel	PR	Right
				DR	Reducer Double Drive					PB	Both
				EZ	EZ Drive						
				ED	EZ Double Drive						

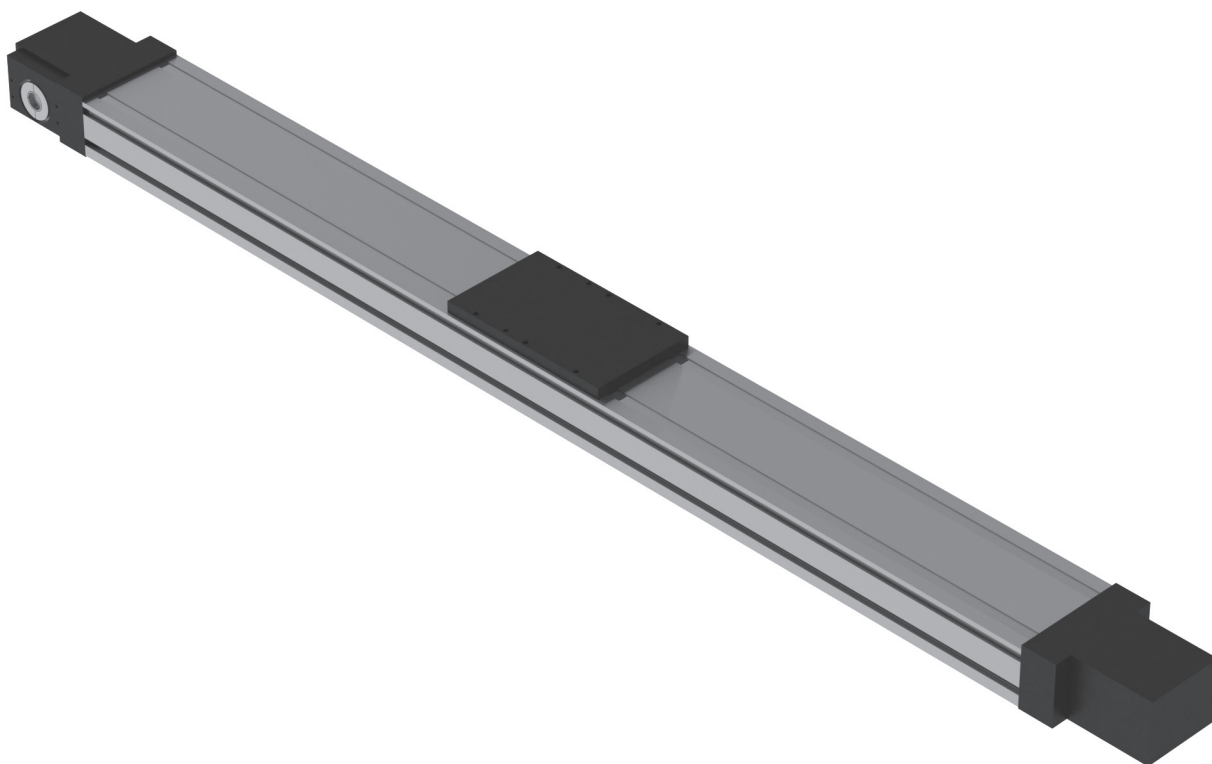
RATIO		SCALE*		DISTANCE		KEYWAY	
XX		N	None	XXXX (mm)		Y	Yes
		L	Left	110-1000mm		N	No
		R	Right				

**LP15B - B 01000 EZ R 01 N 1 0190 00 N P0**

ACTUATOR: LP15B, LP20B  
 STROKE: XXXXX (mm)  
 HAND\*: L Left Hand, R Right Hand  
 SCALE\*: N None, L Left, R Right  
 DISTANCE: XXXX (mm), 110-1000mm  
 KEYWAY: Y Yes, N No

\* Referenced from drive end with carriage on top.



NOTE: If a motor or gearbox adapter is required, please refer to the Adapters section of the Accessories chapter in this catalog.



# HOW TO REPAIR

Bimba LP15B/20B Series electric actuators are repairable. A list of the individual components is given below that together make up the LP15B/20B electric actuator.

Please use the linear actuator serial number located at the drive end for all inquiries, along with the original purchase order number (if available). Describe the part required along with part number below. Contact Bimba Customer Service at 800-442-4622 (800-44-BIMBA) or e-mail CS@bimba.com.

## LP15B SINGLE DRIVE (A CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP15-01	Extrusion - Body
1	LP15-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP15-16R	Rail LWE15R
2	LP15-16B	Bearing Blocks
2	LP15-18	Head & Tail End Plate
2	LP15B-06	Cover
2	LP15B-06-A	Cover
2	LP15B-06-B	Cover
1	LP15B-08	Head Pulley Bore
1	LP15B-09	Take-up Pulley Bore
2	IPI-AL40AT5/25-2	AL40AT5/25-2
1	LP15B-10	Take-up Shaft
2	LP15B-11	Slide
1	LP15B-12-MKA	Slide Plate
1	LP15B-12-MKB	Slide Plate
1	LP15B-13	Take-up End Cover
2	LP15B-14	Belt Clamp
1	LP15B-15	Belt (32AT5)
2	B27-P30	Magnet
1	LP15-10	Single Carriage - Top
1	LP15-13	Single Carriage - Bottom
4	LP15-21	Bearing #6201-2RS
1	LP15-22	Transtorque #6202112
4	LP15-23	Retainer Ring #98541A119
4	LP15-30	Roller Guide
1	LP15B-B2	End Plate
2	LP15B-B3	Retainer
1	LP15B-B4	Head Shaft (Single)
2	LP15-100	Button
4	LP15-101	Plastic Setscrew 94564A046

## LP15B SINGLE DRIVE (B CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP15-01	Extrusion - Body
1	LP15-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP15-16R	Rail LWE15R
4	LP15-16B	Bearing Blocks
2	LP15-18	Head & Tail End Plate
1	LP15-12	Double Carriage (top)
2	LP15B-06	Cover
2	LP15B-06-A	Cover
2	LP15B-06-B	Cover
1	LP15-11	Double Carriage (bottom)
1	LP15B-08	Head Pulley Bore
1	LP15B-09	Take-up Pulley Bore
2	IPI-AL40AT5/25-2	AL40AT5/25-2
1	LP15B-10	Take-up Shaft
2	LP15B-11	Slide
1	LP15B-12-MKA	Slide Plate
1	LP15B-12-MKB	Slide Plate
1	LP15B-13	Take-up End Cover
2	LP15B-14	Belt Clamp
1	LP15B-15	Belt (32AT5)
2	B27-P30	Magnet
1	LP15-10	Single Carriage - Top
1	LP15-13	Single Carriage - Bottom
4	LP15-21	Bearing #6201-2RS
1	LP15-22	Transtorque #6202112
4	LP15-23	Retainer Ring #98541A119
4	LP15-30	Roller Guide
1	LP15B-B2	End Plate
2	LP15B-B3	Retainer
1	LP15B-B4	Head Shaft (Single)
2	LP15-100	Button
4	LP15-101	Plastic Setscrew 94564A046

Bimba LP15B/20B Series electric actuators are repairable. A list of the individual components is given below that together make up the LP15B/20B electric actuator.

Please use the linear actuator serial number located at the drive end for all inquiries, along with the original purchase order number (if available). Describe the part required along with part number below. Contact Bimba Customer Service at 800-442-4622 (800-44-BIMBA) or e-mail CS@bimba.com.

## LP15B DOUBLE DRIVE (A CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP15-01	Extrusion - Body
1	LP15-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP15-16R	Rail LWE15R
2	LP15-16B	Bearing Blocks
2	LP15-18	Head & Tail End Plate
2	LP15B-06	Cover
2	LP15B-06-A	Cover
2	LP15B-06-B	Cover
1	LP15B-08	Head Pulley Bore
1	LP15B-09	Take-up Pulley Bore
2	IPI-AL40AT5/25-2	AL40AT5/25-2
1	LP15B-10	Take-up Shaft
2	LP15B-11	Slide
1	LP15B-12-MKA	Slide Plate
1	LP15B-12-MKB	Slide Plate
1	LP15B-13	Take-up End Cover
2	LP15B-14	Belt Clamp
1	LP15B-15	Belt (32AT5)
2	B27-P30	Magnet
1	LP15-10	Single Carriage - Top
1	LP15-13	Single Carriage - Bottom
4	LP15-21	Bearing #6201-2RS
1	LP15-22	Transtorque #6202112
4	LP15-23	Retainer Ring #98541A119
4	LP15-30	Roller Guide
1	LP15B-B2	End Plate
2	LP15B-B3	Retainer
1	LP15B-B5	Head Shaft (Double)
2	LP15-100	Button
4	LP15-101	Plastic Setscrew 94564A046

## LP15B DOUBLE DRIVE (B CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP15-01	Extrusion - Body
1	LP15-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP15-16R	Rail LWE15R
4	LP15-16B	Bearing Blocks
2	LP15-18	Head & Tail End Plate
1	LP15-12	Double Carriage (top)
2	LP15B-06	Cover
2	LP15B-06-A	Cover
2	LP15B-06-B	Cover
1	LP15-11	Double Carriage (bottom)
1	LP15B-08	Head Pulley Bore
1	LP15B-09	Take-up Pulley Bore
2	IPI-AL40AT5/25-2	AL40AT5/25-2
1	LP15B-10	Take-up Shaft
2	LP15B-11	Slide
1	LP15B-12-MKA	Slide Plate
1	LP15B-12-MKB	Slide Plate
1	LP15B-13	Take-up End Cover
2	LP15B-14	Belt Clamp
1	LP15B-15	Belt (32AT5)
2	B27-P30	Magnet
1	LP15-10	Single Carriage - Top
1	LP15-13	Single Carriage - Bottom
4	LP15-21	Bearing #6201-2RS
1	LP15-22	Transtorque #6202112
4	LP15-23	Retainer Ring #98541A119
4	LP15-30	Roller Guide
1	LP15B-B2	End Plate
2	LP15B-B3	Retainer
1	LP15B-B5	Head Shaft (Double)
2	LP15-100	Button
4	LP15-101	Plastic Setscrew 94564A046

# HOW TO REPAIR

Bimba LP15B/20B Series electric actuators are repairable. A list of the individual components is given below that together make up the LP15B/20B electric actuator.

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## LP15B EZ DRIVE (A CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP15-01	Extrusion - Body
1	LP15-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP15-16R	Rail LWE15R
2	LP15-16B	Bearing Blocks
2	LP15-18	Head & Tail End Plate
2	LP15B-06	Cover
2	LP15B-06-A	Cover
2	LP15B-06-B	Cover
1	LP15B-08	Head Pulley Bore
1	LP15B-09	Take-up Pulley Bore
2	IPI-AL40AT5/25-2	AL40AT5/25-2
1	LP15B-10	Take-up Shaft
2	LP15B-11	Slide
1	LP15B-12-MKA	Slide Plate
1	LP15B-12-MKB	Slide Plate
1	LP15B-13	Take-up End Cover
2	LP15B-14	Belt Clamp
1	LP15B-15	Belt (32AT5)
2	B27-P30	Magnet
1	LP15-10	Single Carriage - Top
1	LP15-13	Single Carriage - Bottom
3	LP15-21	Bearing #6201-2RS
3	LP15-23	Retainer Ring #98541A119
4	LP15-30	Roller Guide
1	LP15B-B MKB	Head Plate
1	LP15B-B2	End Plate
2	LP15B-B3	Retainer
2	LP15-100	Button
4	LP15-101	Plastic Setscrew 94564A046
1	LP15B-114	Drive Shaft
1	LP15B-115 MK L	Left Hand Drive Plate
1	B27-P23	Shaft Clamp SCSP20-12
1	AD-LP15B-XT060	Reducer XT060

## LP15B EZ DRIVE (B CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP15-01	Extrusion - Body
1	LP15-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP15-16R	Rail LWE15R
4	LP15-16B	Bearing Blocks
2	LP15-18	Head & Tail End Plate
1	LP15-12	Double Carriage (top)
2	LP15B-06	Cover
2	LP15B-06-A	Cover
2	LP15B-06-B	Cover
1	LP15-11	Double Carriage (bottom)
1	LP15B-08	Head Pulley Bore
1	LP15B-09	Take-up Pulley Bore
2	IPI-AL40AT5/25-2	AL40AT5/25-2
1	LP15B-10	Take-up Shaft
2	LP15B-11	Slide
1	LP15B-12-MKA	Slide Plate
1	LP15B-12-MKB	Slide Plate
1	LP15B-13	Take-up End Cover
2	LP15B-14	Belt Clamp
1	LP15B-15	Belt (32AT5)
2	B27-P30	Magnet
1	LP15-10	Single Carriage - Top
1	LP15-13	Single Carriage - Bottom
3	LP15-21	Bearing #6201-2RS
3	LP15-23	Retainer Ring #98541A119
4	LP15-30	Roller Guide
1	LP15B-B MKB	Head Plate
1	LP15B-B2	End Plate
2	LP15B-B3	Retainer
2	LP15-100	Button
4	LP15-101	Plastic Setscrew 94564A046
1	LP15B-114	Drive Shaft
1	LP15B-115 MK L	Left Hand Drive Plate
1	B27-P23	Shaft Clamp SCSP20-12
1	AD-LP15B-XT060	Reducer XT060



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## LP15B REDUCER DRIVE (A CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP15-01	Extrusion - Body
1	LP15-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP15-16R	Rail LWE15R
2	LP15-16B	Bearing Blocks
2	LP15-18	Head & Tail End Plate
2	LP15B-06	Cover
2	LP15B-06-A	Cover
2	LP15B-06-B	Cover
1	LP15B-08	Head Pulley Bore
1	LP15B-09	Take-up Pulley Bore
2	IPI-AL40AT5/25-2	AL40AT5/25-2
1	LP15B-10	Take-up Shaft
2	LP15B-11	Slide
1	LP15B-12-MKA	Slide Plate
1	LP15B-12-MKB	Slide Plate
1	LP15B-13	Take-up End Cover
2	LP15B-14	Belt Clamp
1	LP15B-15	Belt (32AT5)
2	B27-P30	Magnet
1	LP15-10	Single Carriage - Top
1	LP15-13	Single Carriage - Bottom
4	LP15-21	Bearing #6201-2RS
1	LP15-22	Transtorque #6202112
4	LP15-23	Retainer Ring #98541A119
4	LP15-30	Roller Guide
1	LP15B-B2	End Plate
2	LP15B-B3	Retainer
1	LP15B-B6	Adapter
1	LP15B-B7-XX	Reducer
2	LP15-100	Button
4	LP15-101	Plastic Setscrew 94564A046
1	AD-LP15B-XT060	Reducer XT060

## LP15B REDUCER DRIVE (B CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP15-01	Extrusion - Body
1	LP15-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP15-16R	Rail LWE15R
4	LP15-16B	Bearing Blocks
2	LP15-18	Head & Tail End Plate
1	LP15-12	Double Carriage (top)
2	LP15B-06	Cover
2	LP15B-06-A	Cover
2	LP15B-06-B	Cover
1	LP15-11	Double Carriage (bottom)
1	LP15B-08	Head Pulley Bore
1	LP15B-09	Take-up Pulley Bore
2	IPI-AL40AT5/25-2	AL40AT5/25-2
1	LP15B-10	Take-up Shaft
2	LP15B-11	Slide
1	LP15B-12-MKA	Slide Plate
1	LP15B-12-MKB	Slide Plate
1	LP15B-13	Take-up End Cover
2	LP15B-14	Belt Clamp
1	LP15B-15	Belt (32AT5)
2	B27-P30	Magnet
1	LP15-10	Single Carriage - Top
1	LP15-13	Single Carriage - Bottom
4	LP15-21	Bearing #6201-2RS
1	LP15-22	Transtorque #6202112
4	LP15-23	Retainer Ring #98541A119
4	LP15-30	Roller Guide
1	LP15B-B2	End Plate
2	LP15B-B3	Retainer
1	LP15B-B6	Adapter
1	LP15B-B7-XX	Reducer
2	LP15-100	Button
4	LP15-101	Plastic Setscrew 94564A046
1	AD-LP15B-XT060	Reducer XT060

# HOW TO REPAIR

Bimba LP15B/20B Series electric actuators are repairable. A list of the individual components is given below that together make up the LP15B/20B electric actuator.

Please use the linear actuator serial number located at the drive end for all inquiries, along with the original purchase order number (if available). Describe the part required along with part number below. Contact Bimba Customer Service at 800-442-4622 (800-44-BIMBA) or e-mail CS@bimba.com.

## LP20B SINGLE DRIVE (A CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
2	LP20-16B	Bearing Blocks
1	LP20-10S	Single Carriage (Bottom)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-28S	Single Carriage (Top)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-A	Head Plate
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-B4	Head Shaft
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410

## LP20B SINGLE DRIVE (B CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
4	LP20-16B	Bearing Blocks
1	LP20-21S	Double Carriage (top)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-11S	Double Carriage (bottom)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-A	Head Plate
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-B4	Head Shaft
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410

Bimba LP15B/20B Series electric actuators are repairable. A list of the individual components is given below that together make up the LP15B/20B electric actuator.

Please use the linear actuator serial number located at the drive end for all inquiries, along with the original purchase order number (if available). Describe the part required along with part number below. Contact Bimba Customer Service at 800-442-4622 (800-44-BIMBA) or e-mail CS@bimba.com.

## LP20B DOUBLE DRIVE (A CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
2	LP20-16B	Bearing Blocks
1	LP20-10S	Single Carriage (Bottom)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-28S	Single Carriage (Top)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-A	Head Plate
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-B4	Head Shaft
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410

## LP20B DOUBLE DRIVE (B CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
4	LP20-16B	Bearing Blocks
1	LP20-21S	Double Carriage (top)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-11S	Double Carriage (bottom)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-A	Head Plate
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-B4	Head Shaft
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410



# HOW TO REPAIR

Bimba LP15B/20B Series electric actuators are repairable. A list of the individual components is given below that together make up the LP15B/20B electric actuator.

Please use the linear actuator serial number located at the drive end for all inquiries, along with the original purchase order number (if available). Describe the part required along with part number below. Contact Bimba Customer Service at 800-442-4622 (800-44-BIMBA) or e-mail CS@bimba.com.

## LP20B EZ DRIVE (A CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
2	LP20-16B	Bearing Blocks
1	LP20-10S	Single Carriage (Bottom)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-28S	Single Carriage (Top)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-EZ-L	Drive Plate Left Hand
1	LP20B-113	Drive Shaft Single
1	LP20B-114	Clamp Collar 6063K34
1	LP20-25	Bearing #6202-2RS
1	AD-IL-LP20B-EZ-XT060	Adapter XT060-Reducer Plate

## LP20B EZ DRIVE (B CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
4	LP20-16B	Bearing Blocks
1	LP20-21S	Double Carriage (top)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-11S	Double Carriage (bottom)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-EZ-L	Drive Plate Left Hand
1	LP20B-113	Drive Shaft Single
1	LP20B-114	Clamp Collar 6063K34
1	LP20-25	Bearing #6202-2RS
1	AD-IL-LP20B-EZ-XT060	Adapter XT060-Reducer Plate

Bimba LP15B/20B Series electric actuators are repairable. A list of the individual components is given below that together make up the LP15B/20B electric actuator.

Please use the linear actuator serial number located at the drive end for all inquiries, along with the original purchase order number (if available). Describe the part required along with part number below. Contact Bimba Customer Service at 800-442-4622 (800-44-BIMBA) or e-mail CS@bimba.com.

## LP20B REDUCER SINGLE DRIVE (A CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
2	LP20-16B	Bearing Blocks
1	LP20-10S	Single Carriage (Bottom)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-28S	Single Carriage (Top)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-A	Head Plate
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-B6	Adapter Plate
1	LP20B-B7	Reducer Short Shaft
1	LP20-25	Bearing #6202-2RS

## LP20B REDUCER SINGLE DRIVE (B CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
4	LP20-16B	Bearing Blocks
1	LP20-21S	Double Carriage (top)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-11S	Double Carriage (bottom)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-A	Head Plate
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-B6	Adapter Plate
1	LP20B-B7	Reducer Short Shaft
1	LP20-25	Bearing #6202-2RS

# HOW TO REPAIR

Bimba LP15B/20B Series electric actuators are repairable. A list of the individual components is given below that together make up the LP15B/20B electric actuator.

Please use the linear actuator serial number located at the drive end for all inquiries, along with the original purchase order number (if available). Describe the part required along with part number below. Contact Bimba Customer Service at 800-442-4622 (800-44-BIMBA) or e-mail CS@bimba.com.

## LP20B REDUCER DOUBLE DRIVE (A CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
2	LP20-16B	Bearing Blocks
1	LP20-10S	Single Carriage (Bottom)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-28S	Single Carriage (Top)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-A	Head Plate
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-B6	Adapter Plate
1	LP20B-B8	Reducer Long Shaft
1	LP20-25	Bearing #6202-2RS

## LP20B REDUCER DOUBLE DRIVE (B CARRIAGE) REPAIR PARTS

QUANTITY	PART NO.	PART DESCRIPTION
1	LP20-01	Extrusion - Body
1	LP20-03	Extrusion - Cover
2	LP20S-13S	Sealing Strip
2	LP20-16R	Rail LWH20R
4	LP20-16B	Bearing Blocks
1	LP20-21S	Double Carriage (top)
2	LP20B-06	Cover
2	LP20B-06-A	Cover
2	LP20B-06-B	Cover
2	IPI-AL60AT5/27-2	AL60AT5/27-2
1	LP20B-08	Head Pulley Bore
1	LP20B-09	Take-up Pulley Bore
1	LP20B-10	Take-up Shaft
2	LP20B-11	Take-up Slides
1	LP20-11S	Double Carriage (bottom)
1	LP20B-12 - A	Slide Plate
1	LP20B-12 - B	Slide Plate
1	LP20B-13	Take-up End Cover
2	LP20B-14	Belt Clamp
1	LP20B-15	Belt (50AT5)
2	LP20B-16S	End Plate
4	B27-P30	Magnet
1	LP20B-B1-A	Head Plate
1	LP20B-B1-B	Head Plate
1	LP20B-B2	End Plate
1	LP20B-B3	Retainer
2	LP20-25	Bearing #6202-2RS
2	S80-24	Retainer Ring #98541A410
4	LP15-30	Roller
1	LP20B-B6	Adapter Plate
1	LP20B-B8	Reducer Long Shaft
1	LP20-25	Bearing #6202-2RS



## SWITCHES

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Switches add versatility to your electric motion application. They can be used to provide end of stroke limits, count strokes, or communicate positioning to an outside source. Switches can provide safety to applications as well, preventing undesirable situations like runaways to prevent damage.

To learn more about Bimba's available switch selection, refer to the Switches section in this catalog.

## AIR/PURGE PORTS

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Air and purge ports are essential for actuators that operate in dirty applications. In both belt- and screw-driven actuators, ports keep dust and grime from egressing, protecting the internals of the actuator. Air and purge ports are recommended for use with Bimba's air preparation products.

When using purge ports, supply dry filtered air to the actuators in order to achieve optimal protection.

## PROTECTION

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Bimba offers several protection options for our actuators. Our primary options are Armoloy® and stainless steel. **Armoloy®** offers additional protection against moisture and dirt. It is used to coat the steel linear rail and bearings in a Bimba actuator. Armoloy® coating can also be applied to the aluminum extrusion upon request. **Stainless steel** works in conjunction with Armoloy® coatings, providing additional protection to the end caps and carriage.

Additional coatings are available upon request.

## MOTOR MOUNTING

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Motor mounts allow you to mount any motor to any actuator (within the actuator's rating). They give end users the ability to use Bimba electric actuators with the motor of their choosing. Careful considerations regarding torque limitations must be made when mounting a motor the actuator is not rated for.

To request custom motor mounting options, please supply Bimba with the following information: shaft diameter, shaft length, pilot diameter, pilot depth, bolt circle, and hole size.

## CUSTOMER-REQUESTED HOLES AND DOWEL PINS

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Bimba can provide custom holes and dowel pins to accommodate the customer's specific tooling and mounting holes.

For further customization, contact the factory.

The top of the page features a dark blue header with a repeating pattern of white technical line drawings of various mechanical components, including actuators, valves, and connectors. The word "NOTES" is printed in a large, white, sans-serif font in the upper left corner of this header.

# NOTES