

# Black Belt Door Operator Engine Unit

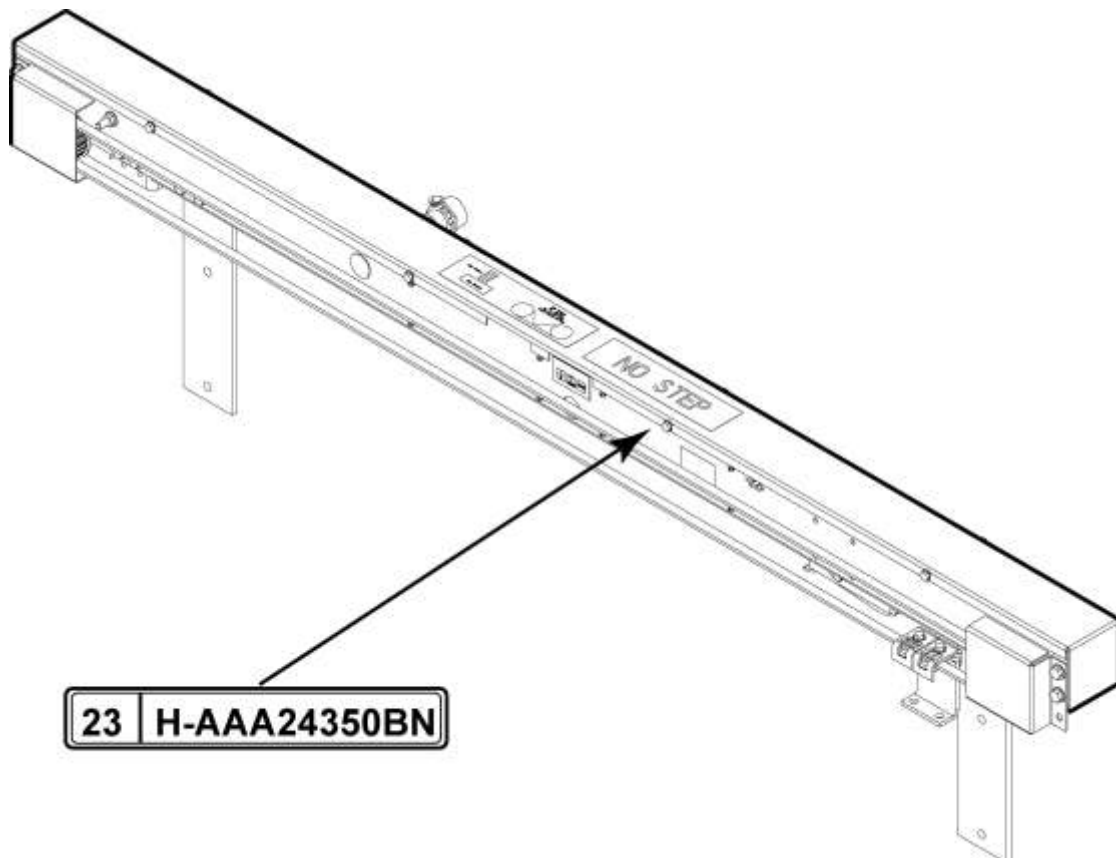
Spare Parts Leaflet

23-AAA24350BN

February 2, 2022 / Page 1 of 6

## OBSOLESCENCE NOTICE

The product covered in this SPL has been designated as obsolete and is no longer supported. See TIP 32.2-1, *Obsolete Components*, for potential upgrade. Replacement lower level parts listed within and unique to this design are not being restocked when depleted. Some of these parts, depending on availability and other factors, may be quoted through Customer Service, but most will have extended lead times and increased cost due to low volume production.



# OTIS

This document does not contain any technical data subject to EAR or ITAR

**SERVICE ENGINEERING**  
**Otis Elevator Company**  
**Bloomfield, Connecticut USA**

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**Leaflet Description**

This leaflet provides spare part information for the Black Belt Door Operator (BBDO) for right-hand and left-hand 36 in. and 42 in. single-slide opening doors, and 42 in. center-opening doors. Only the Lowest Replaceable Units (LRU) for the engine unit/controller are covered here. Part numbers and LRU's for the complete operator/linkage parts can be in SPL 23-AAA24450S. The Black Belt Door Operator was in production from 11/17/2001 to 8/9/2003. Approximately 9000 units were manufactured. The AT400 Door Operator was implemented after the Black Belt Door Operator.

**Leaflet Revisions**

<b>Date Revised</b>	<b>Subject Matter Expert</b>	<b>Reason for Revision</b>
December 31, 2001	Jeffrey A. Smith	New SPL
November 12, 2004	Jeffrey A. Smith	Added belt hitch parts (p.5)
January 15, 2008	Diem Tran	Add drive pulley kit, p. 4
February 2, 2022	Juan Murillo	Added Obsolescence Notice on cover page

**Related Drawings**

<b>Drawing No.</b>	<b>Title</b>	<b>Drawing No.</b>	<b>Title</b>
AAA24350BN	Assembly: Door Operator, Drive Unit	AAA24470Q	Arrangement and Assembly: Door Operator, Black Belt Center-Opening
AAA24450S	Arrangement and Assembly: Door Operator, Black Belt Single-Slide	---	---

**Related Documents**

<b>Document ID</b>	<b>Title</b>
AAA102ALC1	Installation Sheet, Black Belt Door Operator
SWP N-22-15.1	Standard Work Process (SWP), Black Belt Operator
TIP 22.16-2	Drive and Idler Pulley Replacement Kits

**Subject Matter Expert**

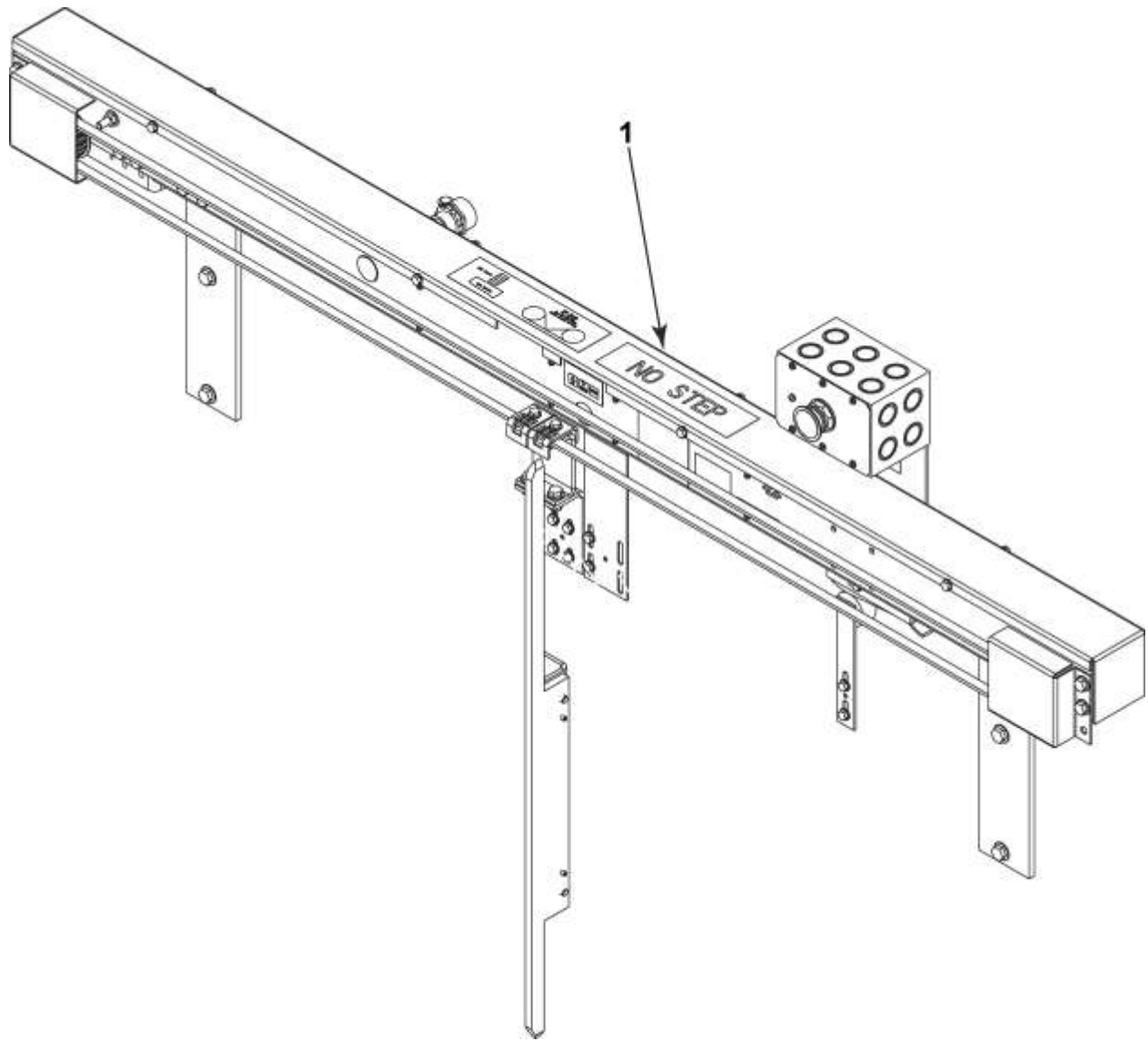
<b>Name</b>	<b>Department</b>
Juan Murillo	OSC Service Engineering


**About Spare Parts Leaflets...**

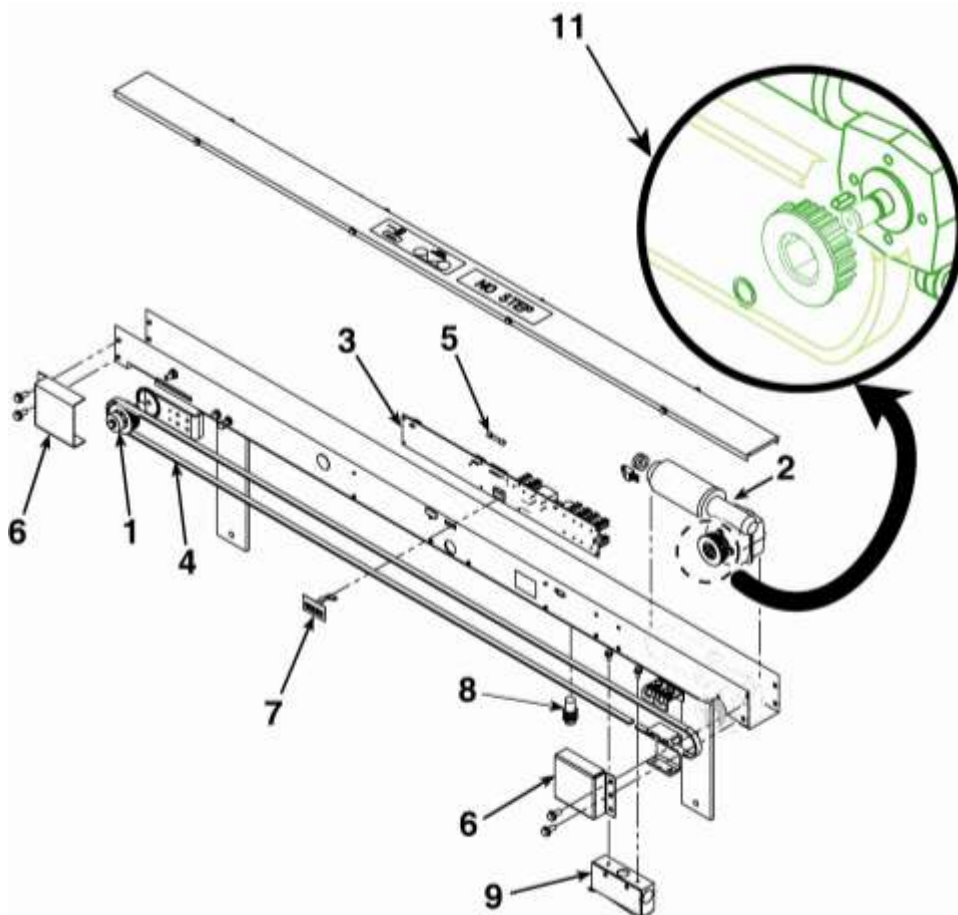
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

While goal of this document is to make parts identification as easy as possible, the document cannot be all-inclusive. Elevator and escalator contracts classified as "special" or "custom" are not addressed here. For such contracts, please refer to specified information, the contract folder, TIPs, Field Education Articles, Construction Letters, etc. for further information.

If you have any suggestions about this document, please contact the subject matter expert listed on this page.



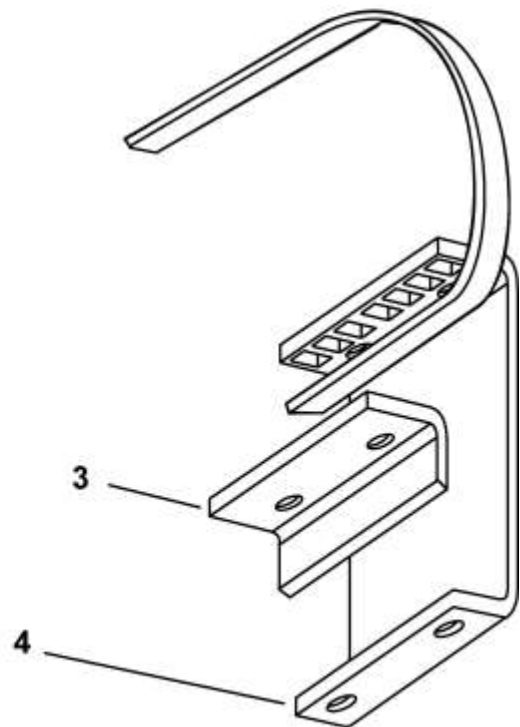
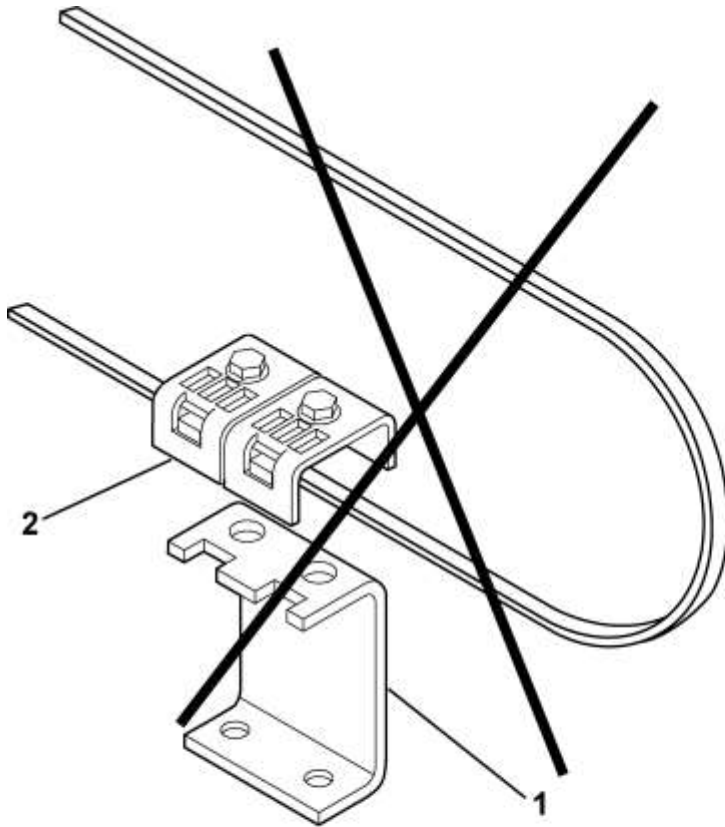
REF. NO.	PART No.	DESCRIPTION	
1	---	Components, Door Operator Linkage, for Type AAA24470Q Center-Opening Doors with 1067 mm (42 in.) Entrance Width (illustration shown)	 SPL 23-AAA24450S
		Components, Door Operator Linkage, for Type AAA24450S, Single-Slide Doors with 914 mm (36 in.) or 1067 mm (42 in.) Entrance Width	



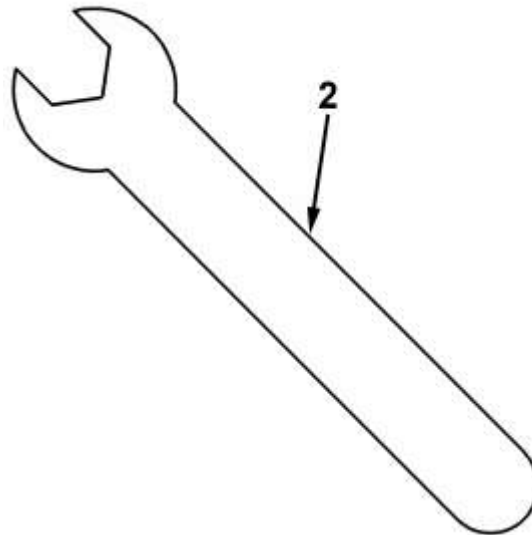
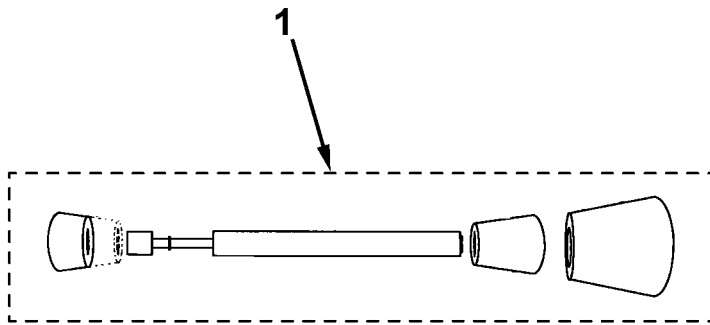
AAA24350BN		
REF. No.	PART No.	DESCRIPTION
1	AAA24350BM1	Assembly, Idler, Includes: (1) Pulley, (1) Bracket, (1) Spacer Pin, and Hardware
2	AAA24350BL4	Assembly, Motor for  Single-Slide Door
	AAA24350BL3	Assembly, Motor for  Single-Slide and Center-Opening Doors
3	AAA26800AHJ1	Assembly, PC Board
4	AAA717T1	Belt (see belt tension gauge tool reference 1 on p. 5)
5	AAA375BY10	Fuse, Glass, 3 A
6	AAA384AGY1	Guard, Sheave
7	AAA635R1	Keypad
8	AAA608D8	Sensor, Proximity (see sensor adjustment tool reference 2 on p. 5)
9	6098MV2	Switch, Gate
10	---	Belt Hitch,  P. 5
11	AAA198BF500	Kit, Drive Pulley Replacement, Kit contains: (1) Drive Pulley, (1) Key, (1) Retain Ring, (1) Loctite® Retainer, (1) Alcohol Wipes, (1) Scotch-Brite®, Fine Duty. See TIP 22.16-2, <i>Driver and Idler Pulley Replacement Kits</i> .

# Belt Hitches

**23-AAA24350BN**



AAA24350BN			
REF. NO.	PART No.	DESCRIPTION	
1	AAA347BJZ4	Channel, Formed	<b>NOTE:</b> If replacing item 1 or 2, replace both parts with parts 3 and 4. Part 1 is not compatible with part 3 and part 2 is not compatible with part 4.
2	AAA336NW2	Clamp (belt)	
3	AAA283AVF1		
4	AAA347BNK1	Channel, Formed	



<b>REF. NO.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>
1	MT-122027	Tool, Gauge, Belt Tension
2	AAA314AG1	Tool, Sensor Gap