

# AC Gearless Machine, 1.5 T

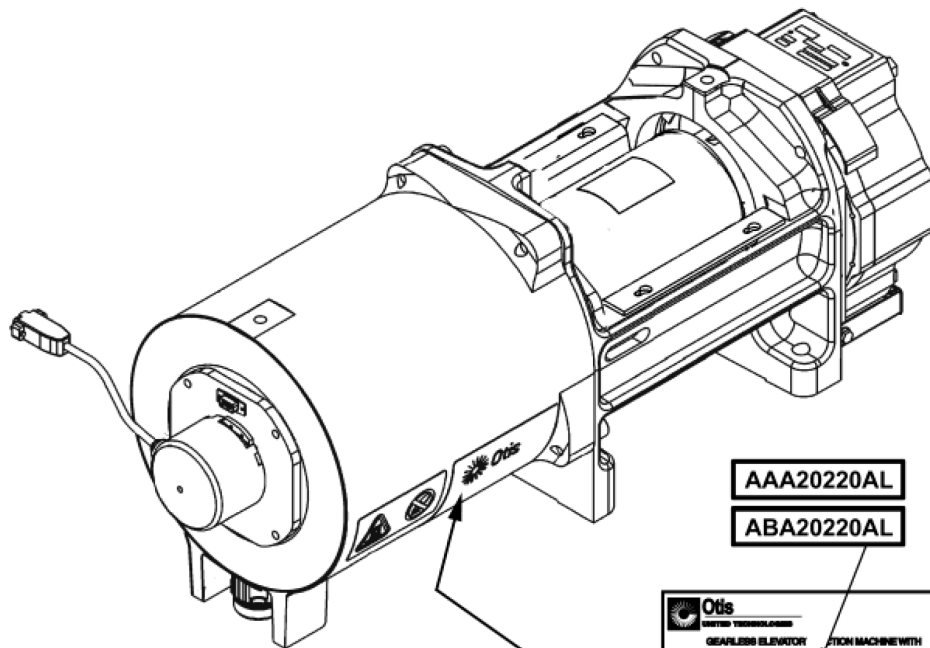
## Spare Parts Leaflet

### 06-AAA20220AL

October 23, 2024 / Page 1 of 7

# OBSOLESCENCE NOTICE

The product listed in this SPL is obsolete. Some components may still be available, but Otis recommends an upgrade (see TIP 32.2-1 for potential upgrade).



AAA20220AL

ABA20220AL

GEARLESS ELEVATOR VARIABLE FREQUENCY AND F	ATCH MACHINE WITH VARIABLE VOLTAGE CONTROL	
06 JF AAA20220	PART A 2220	
NOMINAL RATINGS:		
<input type="checkbox"/> VOLTS	<input type="checkbox"/> AMPS	<input type="checkbox"/> kW OUTPUT
<input type="checkbox"/> Hz	<input type="checkbox"/> rpm	<input type="checkbox"/> STARTS/HOUR
<input type="checkbox"/> %INTERMITTENT DUTY	<input type="checkbox"/> °C AMBIENT	
<input type="checkbox"/> ENCLOSURE-IP60, NON-VENTILATED		
LOT: _____		
NO RELUBRICATION REQUIRED		
MANUFACTURED BY KOLLMORGEN MADE IN USA		



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 elevator machine is designed for use with coated steel belts (CSB) of dimensions 30 mm wide x 3 mm thick. There are four basic machine variations referenced in this document:

1. 1.5T-A (340V) EN: For 490 to 680kg, 1.6m/s elevator duties, EN81:1 code compliant brake with single coil
2. 1.5T-B (340V) EN: For 490 to 680kg, 1.0m/s elevator duties, EN81:1 code compliant brake with single coil
3. 1.5T-P (170V) JIS: For 600kg, 1.0m/s elevator duties, EN81:1 code compliant brake with single coil (Japan)
4. 1.5T-M (170V) JIS: For 600kg, 1.75m/s elevator duties, EN81:1 code compliant brake with single coil (Japan)

**Leaflet Revisions**

<b>Date Revised</b>	<b>Subject Matter Expert</b>	<b>Reason for Revision</b>						
October 16, 2002	James Hubbard	New release						
December 15, 2004	Ben Watson	Added <b>NOTE</b> to Page 3.						
March 25, 2006	Ben Watson	Added ABA20220AL arrangement.						
January 15, 2007	Scott Boulanger	Added rationalized encoder.						
January 12, 2011	Michael Lang	Updated brake part numbers on p. 6 (TAA. .to TBA ../TCA. .)						
October 6, 2021	Arianisis Mangual Camilo Cardona	Updated replacement brakes as follows:						
		<table border="1" style="width: 100%;"> <thead> <tr> <th><b>Legacy Brake Part No.</b></th> <th><b>New Brake Part</b></th> </tr> </thead> <tbody> <tr> <td>TCA20222BC7</td> <td rowspan="3">TAA20236AC (EN Only)</td> </tr> <tr> <td>TCA20222BC6</td> </tr> <tr> <td>TAA20222BC8</td> </tr> </tbody> </table>	<b>Legacy Brake Part No.</b>	<b>New Brake Part</b>	TCA20222BC7	TAA20236AC (EN Only)	TCA20222BC6	TAA20222BC8
		<b>Legacy Brake Part No.</b>	<b>New Brake Part</b>					
		TCA20222BC7	TAA20236AC (EN Only)					
TCA20222BC6								
TAA20222BC8								
Added Brake Max Load								
March 22, 2023	Juan Murillo	Added OBSOLESCENCE notice on the cover						
October 23, 2024	Juan Murillo	Obsolescence notice wording changed.						

**Related Drawings**

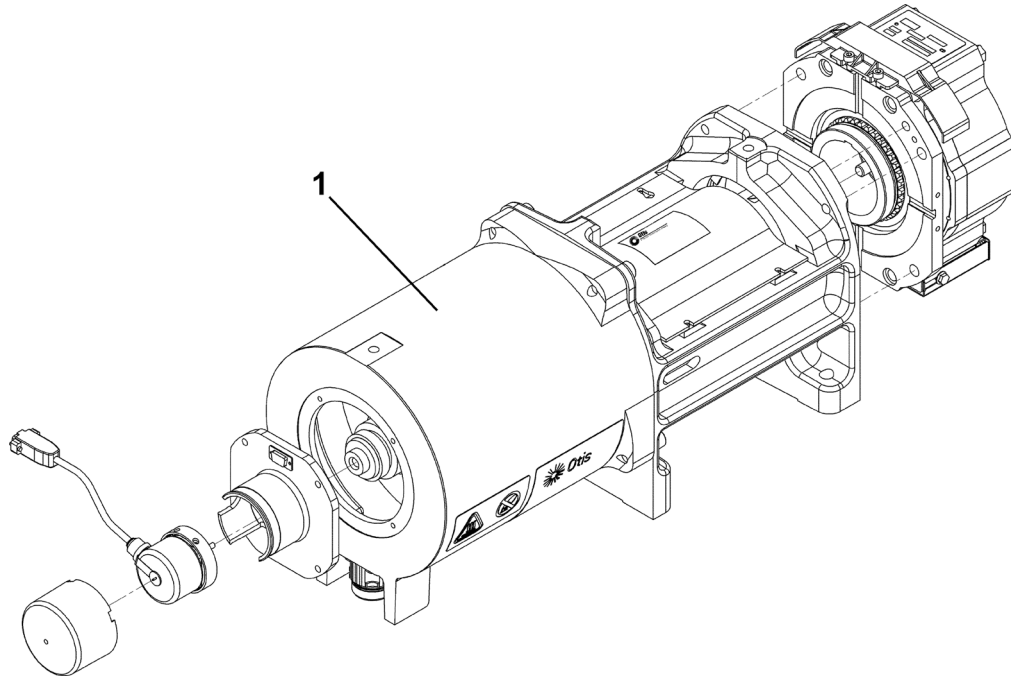
<b>Drawing No.</b>	<b>Title</b>	<b>Drawing No.</b>	<b>Title</b>
AAA20220AL	A. C. Gearless Machine Permanent Magnet 3 Phase Motor	AAA633Z	Encoder, Incremental Encoder, Gen 2 Rel 2
ABA20220AL	A. C. Gearless Machine Permanent Magnet 3 Phase Motor	---	---

**Related Documents**

<b>Document ID</b>	<b>Title</b>
SPL 07-TBA20222BC	CR Brake for Gen2 System

**Subject Matter Expert**

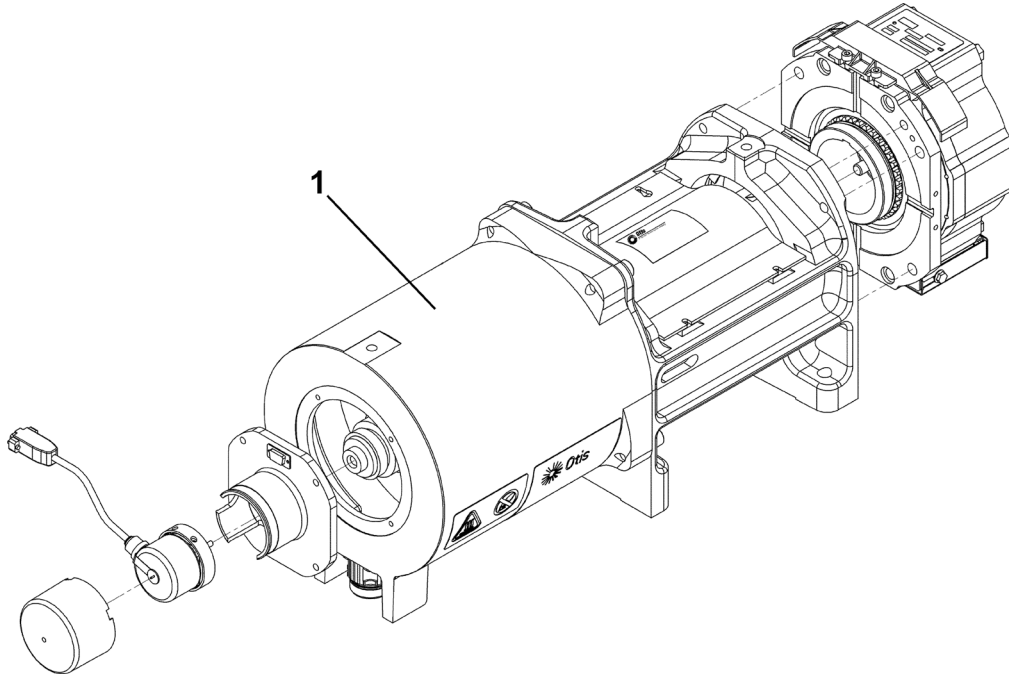
<b>Name</b>	<b>Department</b>
Camilo Cardona	Otis Engineering Center, Farmington (OECF)



AAA20220AL ABA20220AL							
REF. No.	PART No.	APPL:	DUTY LOAD (kg)	SPEED (m/s)	MOTOR (V)	BRAKE (V)	DESCRIPTION
1	AAA20220AL11 AAA20220AL1 AAA20220AL12 AAA20220AL2 ABA20220AL12 ABA20220AL2	EN	420–680	1.6	340 (minimum)	24 VDC	Assembly, AC Gearless Machine, EN81 Certified Brake, and Incremental Encoder
	1.0						
	AAA20220AL13 AAA20220AL3 AAA20220AL14 AAA20220AL4 ABA20220AL14 ABA20220AL4						

**NOTE:** See mounting hardware on p. 5.

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**AAA20220AL  
ABA20220AL**

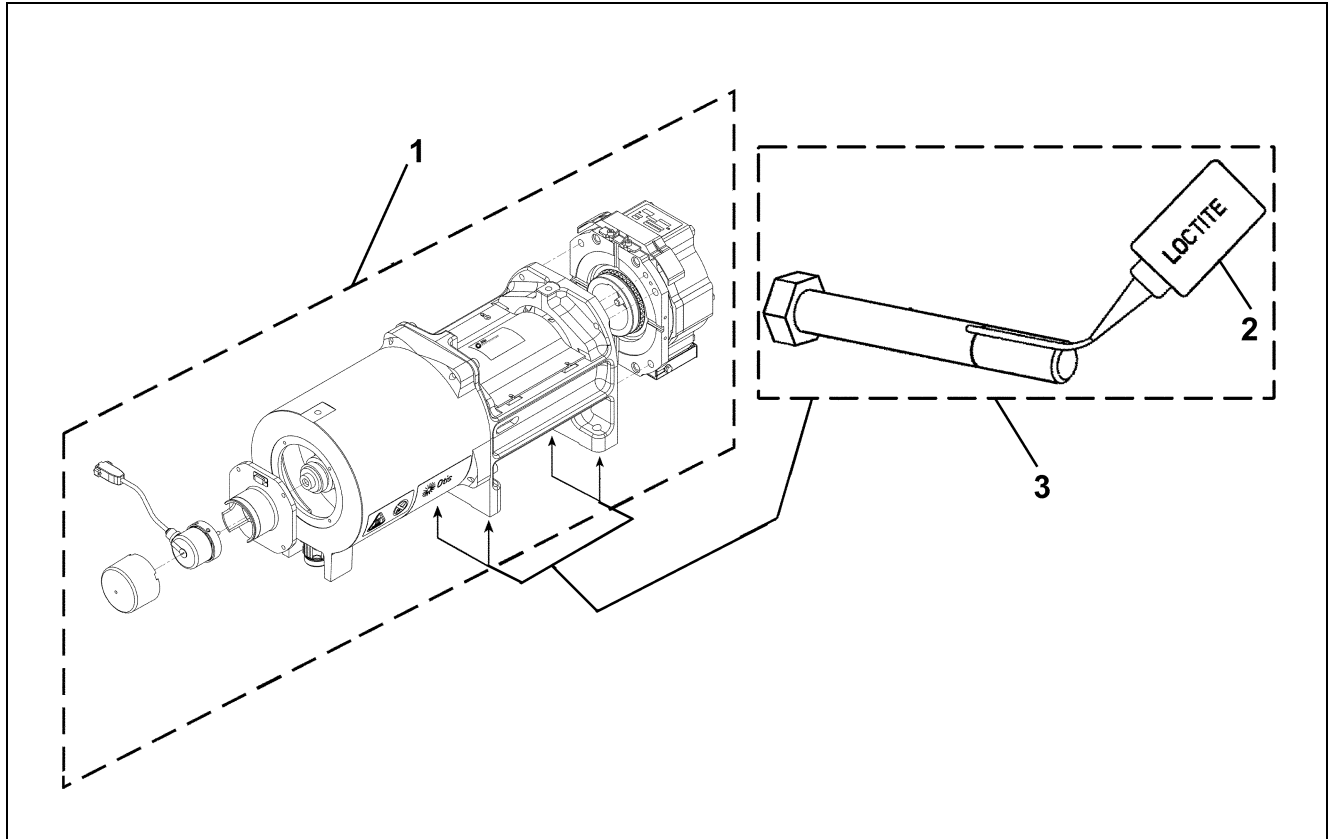
REF. No.	PART No.	AREA	DUTY LOAD (kg)	SPEED (m/s)	MOTOR (V)	BRAKE (V)	DESCRIPTION
1	AAA20220AL15 AAA20220AL5 ABA20220AL15 ABA20220AL5	JIS	600	1.0	170	24 VDC	Assembly, AC Gearless Machine, w/EN81 Certified Brake and Incremental Encoder; Motor Voltage = 513 V
	AAA20220AL16 ABA20220AL16 ABA20220AL6			1.75			
	AAA20220AL17 AAA20220AL7 ABA20220AL17 ABA20220AL7		490	1.0			
	AAA20220AL18 AAA20220AL8 ABA20220AL18 ABA20220AL8			1.75			
	AAA20220AL52 ABA20220AL51	Korea	630	1.0			
				1.6			

**NOTE:** See mounting hardware on p. 5.

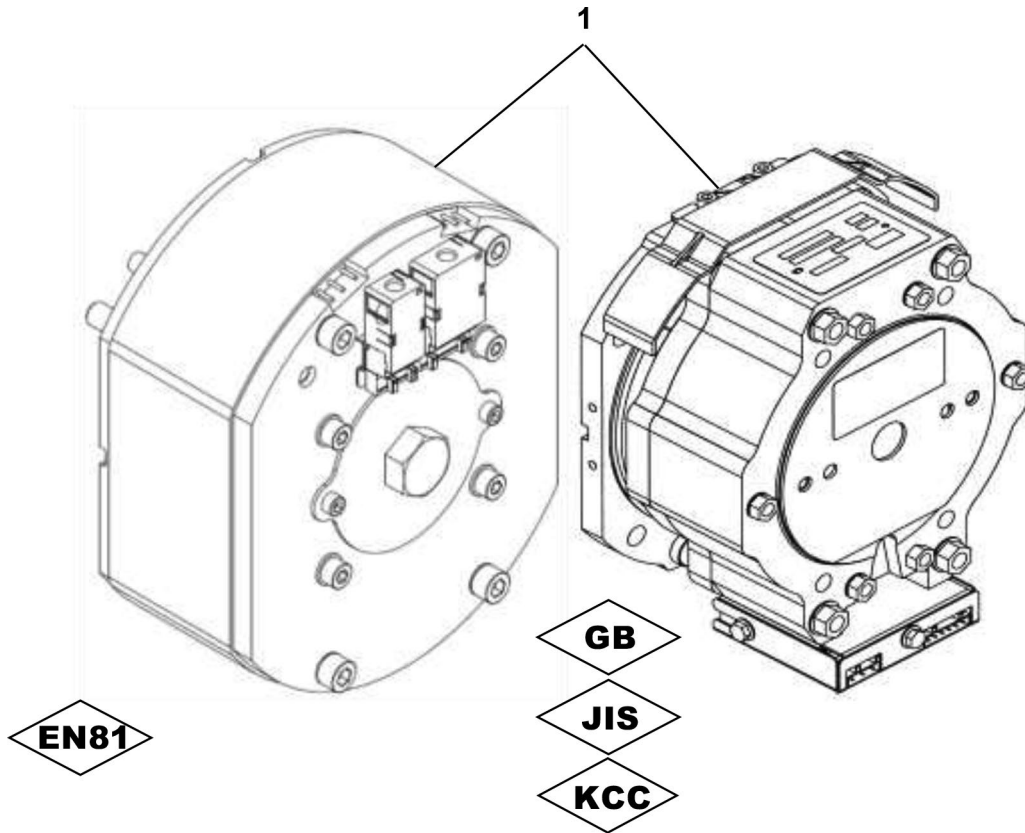
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# AC Gearless Machines

**06-AAA20220AL**



AAA20220AL ABA20220AL							
REF. No.	PART No.	AREA	DUTY LOAD (kg)	SPEED (m/s)	MOTOR (V)	BRAKE (V)	DESCRIPTION
1	ABA20220AL42	EN, XOEC	420-680	1.6	340 minimum	24 VDC	Assembly, AC Gearless Machine, w/EN81 Certified Brake and w/o Encoder;
	ABA20220AL44			1.0			
	ABA20220AL22	EN		1.6		48 VDC	Assembly, AC Gearless Machine, w/48 V Brake and Rationalized 5 V 2-Channel Encoder
	ABA20220AL24			1.0			
	ABA20220AL32			1.6			
	ABA20220AL34			1.0			
2	AAA180JB1	Glue, Loctite® 243 Sealant, 0 ml Bottle					
3	AAA27076AJ1	Kit, Hex Head Bolt, M16 x 120 mm, Including AAA180JB1					

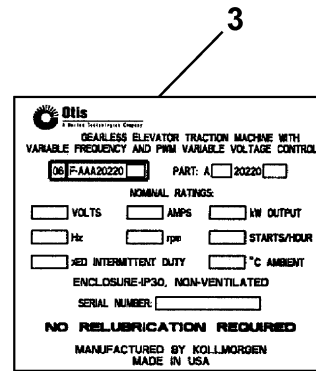
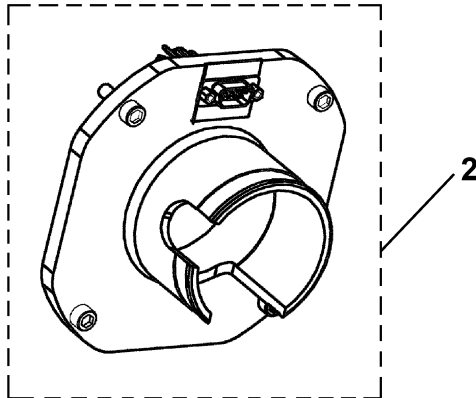
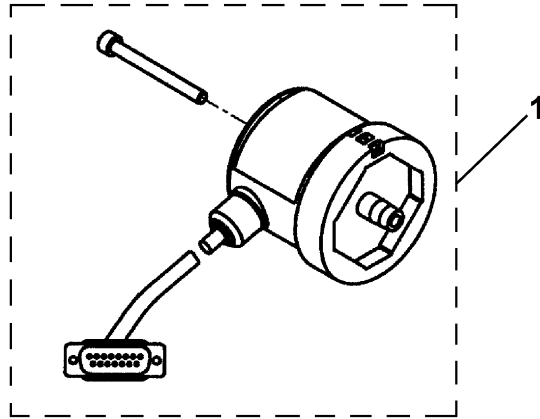


AAA20220AL ABA20220AL					
REF. No.	PART No.	APPLICATION	MAX LOAD (kg)	DESCRIPTION	
1	TCA20222BC6 TCA20222BC7 TAA20222BC8 TAA20236AC1*	Used w/ ABA20220AL2(EN Only), 4(EN Only), 41(EN Only), 42(EN Only), 44(EN Only)	1150	EN81-Certified 24 V Brake, ☞ SPL 07-TBA20222BC	
	TCA20222BC7	Used w/ ABA20220AL2(GB), 4(GB), 41 (GB), 42(GB), 44(GB)	680	Certified 24 V Brake, ☞ SPL 07-TBA20222BC	
	TCA20222BC6	Used w/ ABA20220AL51(KCC), 52(KCC)	630		
	TBA20222BC56	Used w/ ABA20220AL5, 6	600		
		TBA20222BC57	Used w/ ABA20220AL7, 8	490	
		TBA20222BF6 TAA20236AD1*	Used w/ ABA20220AL22 (EN only), 24 (EN only)	840	Certified 48 V Brake, ☞ SPL 07-TAA20222BF
		TBA20222BF6	Used w/ ABA20220AL22, 24	840	Certified 48 V Brake, ☞ SPL 07-TAA20222BF

\* Only available for countries in EN81 jurisdiction.

# Encoder and Data Plate

**06-AAA20220AL**



REF. No.	PART No.	APPLICATION	DESCRIPTION
1	AAA633Z1	Encoder, Incremental, w/ 5.1 m Cable	Used w/ AAA20220AL1, 2-18, 41-52
	AAA633AG22	Encoder, Rationalized 5 V 2-Channel, w/ 5.1 m Cable	Used w/ AAA20220AL22, 24, 32, 34
2	AAA20220R3	Kit, Encoder Hall Effect Replacement	All AAA20220AL Machines
3	AAA102AHZ2	Plate, Data	