

# AC Gearless Machine 1.5T

## Spare Parts Leaflet


06-AAA20220AH

October 16, 2024 / Page 1 of 8

# 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The product listed in this SPL is obsolete.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).

06 F-AAA20220 AH

 Otis  
ELEVATOR COMPANY

GEARLESS ELEVATOR TRACTION MACHINE WITH  
VARIABLE FREQUENCY AND PWM VARIABLE VOLTAGE CONTROL

06 F-AAA20220 PART: A 20220

NOMINAL RATINGS:

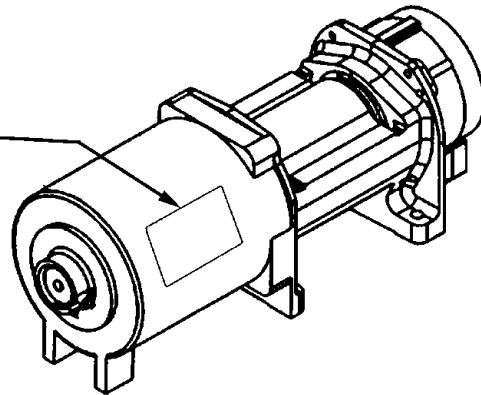
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<input type="checkbox"/> Hz	<input type="checkbox"/> rpm	<input type="checkbox"/> STARTS/HOUR
<input type="checkbox"/> 50% INTERMITTENT DUTY	<input type="checkbox"/> °C AMBIENT	

ENCLOSURE-IP50, NON-VENTILATED


SERIAL NUMBER: \_\_\_\_\_

NO RELUBRICATION REQUIRED

MANUFACTURED BY KOLLMORGEN  
MADE IN USA



06 F-AAA20220 AJ

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ELEVATOR COMPANY

GEARLESS ELEVATOR TRACTION MACHINE WITH  
VARIABLE FREQUENCY AND PWM VARIABLE VOLTAGE CONTROL

06 F-AAA20220 PART: A 20220

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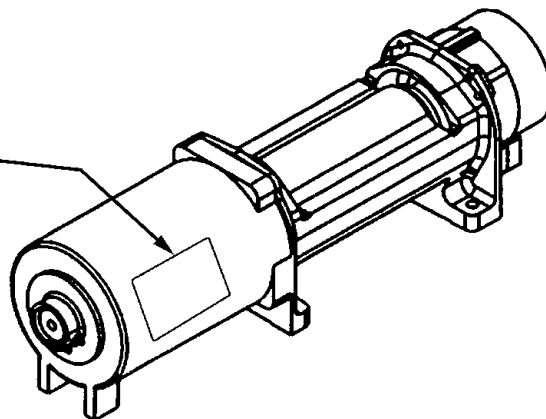
<input type="checkbox"/> VOLTS	<input type="checkbox"/> AMPS	<input type="checkbox"/> KW OUTPUT
<input type="checkbox"/> Hz	<input type="checkbox"/> rpm	<input type="checkbox"/> STARTS/HOUR
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ENCLOSURE-IP50, NON-VENTILATED

SERIAL NUMBER: \_\_\_\_\_

NO RELUBRICATION REQUIRED

MANUFACTURED BY KOLLMORGEN  
MADE IN USA



# 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 parts information for type AAA20220AH and type AAA20220AJ AC gearless machines. These AC gearless machines were designed specifically for the Gen2 machine roomless elevator system used in EN applications, and they allow very quiet and efficient operation.

**Leaflet Revisions**

<b>Date Revised</b>	<b>Subject Matter Expert</b>	<b>Reason for Revision</b>																
February 1, 2000	Thomas Hoffman	New Leaflet																
July 1, 2000	James Hubbard	Add brake replacement kit p. 4																
September 30, 2001	Paul C. von Hardenberg	Supersede and add new rescue encoder																
January 15, 2002	James Hubbard	Add brake interface board (BIB) as LRU p. 4																
April 8, 2002	Paul C. von Hardenberg	Added LRUs for 24 V brake applications																
December 15, 2004	Ben Watson	Correct errors																
September 22, 2021	Arianisis Mangual Camilo Cardona	Updates to brake replacements as follows:																
		<table border="1"> <thead> <tr> <th><b>Legacy Brake Part No.</b></th> <th><b>New Brake Part</b></th> </tr> </thead> <tbody> <tr> <td>AAA20236P4</td> <td rowspan="5">TAA20236AC1 (EN Only)</td> </tr> <tr> <td>AAA20236P5</td> </tr> <tr> <td>AAA20236Q4</td> </tr> <tr> <td>AAA20236Q5</td> </tr> <tr> <td>TBA20222BE13</td> </tr> <tr> <td>TAB20222BE41</td> <td rowspan="6">TAA20236AE1 (EN Only)</td> </tr> <tr> <td>AAA20236P1</td> </tr> <tr> <td>AAA20236P2</td> </tr> <tr> <td>AAA20236Q1</td> </tr> <tr> <td>AAA20236Q2</td> </tr> <tr> <td>TBA20222BE11</td> </tr> <tr> <td>TBA20222BE12</td> </tr> </tbody> </table>	<b>Legacy Brake Part No.</b>	<b>New Brake Part</b>	AAA20236P4	TAA20236AC1 (EN Only)	AAA20236P5	AAA20236Q4	AAA20236Q5	TBA20222BE13	TAB20222BE41	TAA20236AE1 (EN Only)	AAA20236P1	AAA20236P2	AAA20236Q1	AAA20236Q2	TBA20222BE11	TBA20222BE12
		<b>Legacy Brake Part No.</b>	<b>New Brake Part</b>															
		AAA20236P4	TAA20236AC1 (EN Only)															
		AAA20236P5																
		AAA20236Q4																
		AAA20236Q5																
		TBA20222BE13																
		TAB20222BE41	TAA20236AE1 (EN Only)															
		AAA20236P1																
		AAA20236P2																
		AAA20236Q1																
		AAA20236Q2																
		TBA20222BE11																
TBA20222BE12																		
Added Applications and Max Load																		
March 22, 2023	Juan Murillo	Added OBSOLESCENCE notice to the cover																
October 16, 2024	Juan Murillo	Changed obsolescence wording.																

**Related Drawings**

<b>Drawing No.</b>	<b>Title</b>	<b>Drawing No.</b>	<b>Title</b>
AAA20220AH	A.C. Gearless Machine	AAA633U	Encoder Rescue Sensor
AAA20220AJ	A.C. Gearless Machine	AAA633V	Encoder Absolute Position
AAA20236P	Brake (630 kg Machine)	AAA102AHZ	Plate, Data
AAA20236Q	Brake (1000 kg Machine)	AAA27076AH	Brake Interface PC Board Kit

*Continued on Next Page*

# History

**06-AAA20220AH**

## Related Documents

Document ID	Title
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## Subject Matter Expert

Name	Department
Juan Murillo	OSC Service Engineering

## About Spare Parts Leaflets...

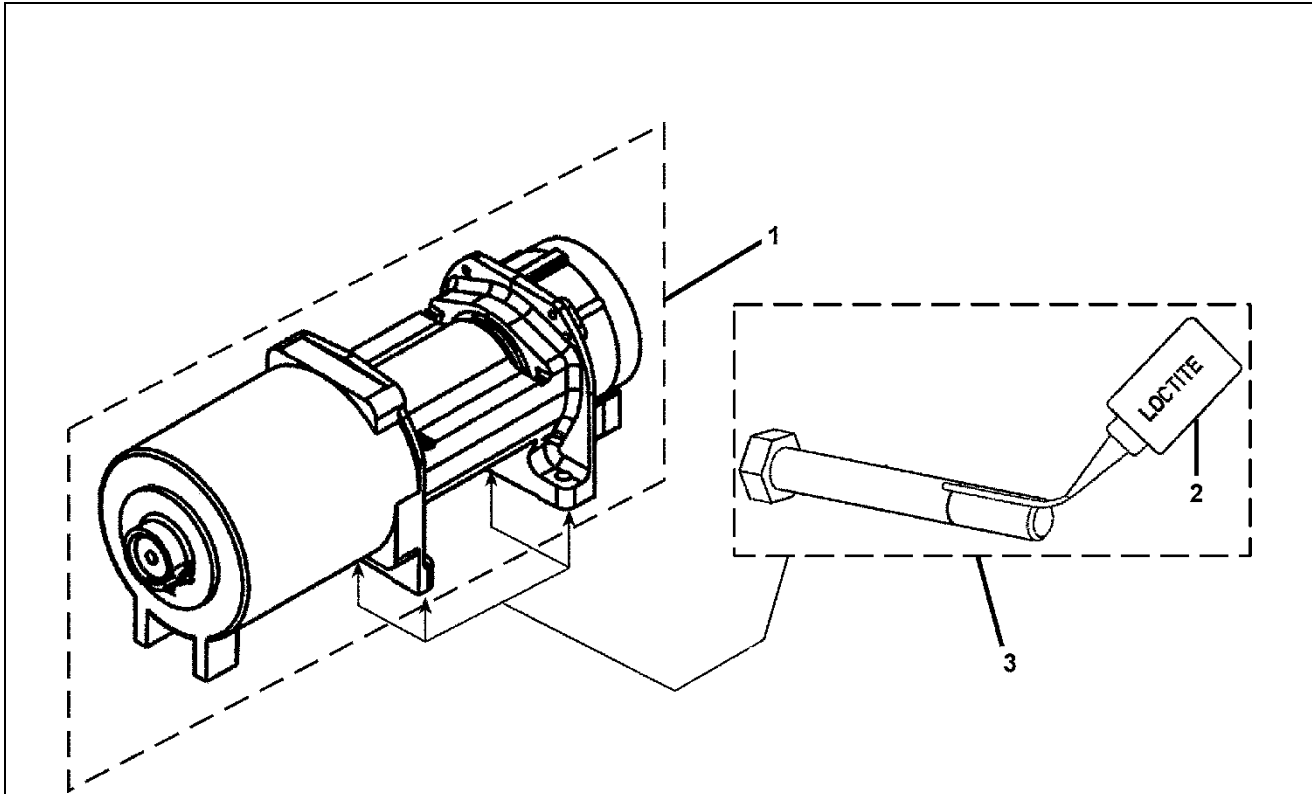
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

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.

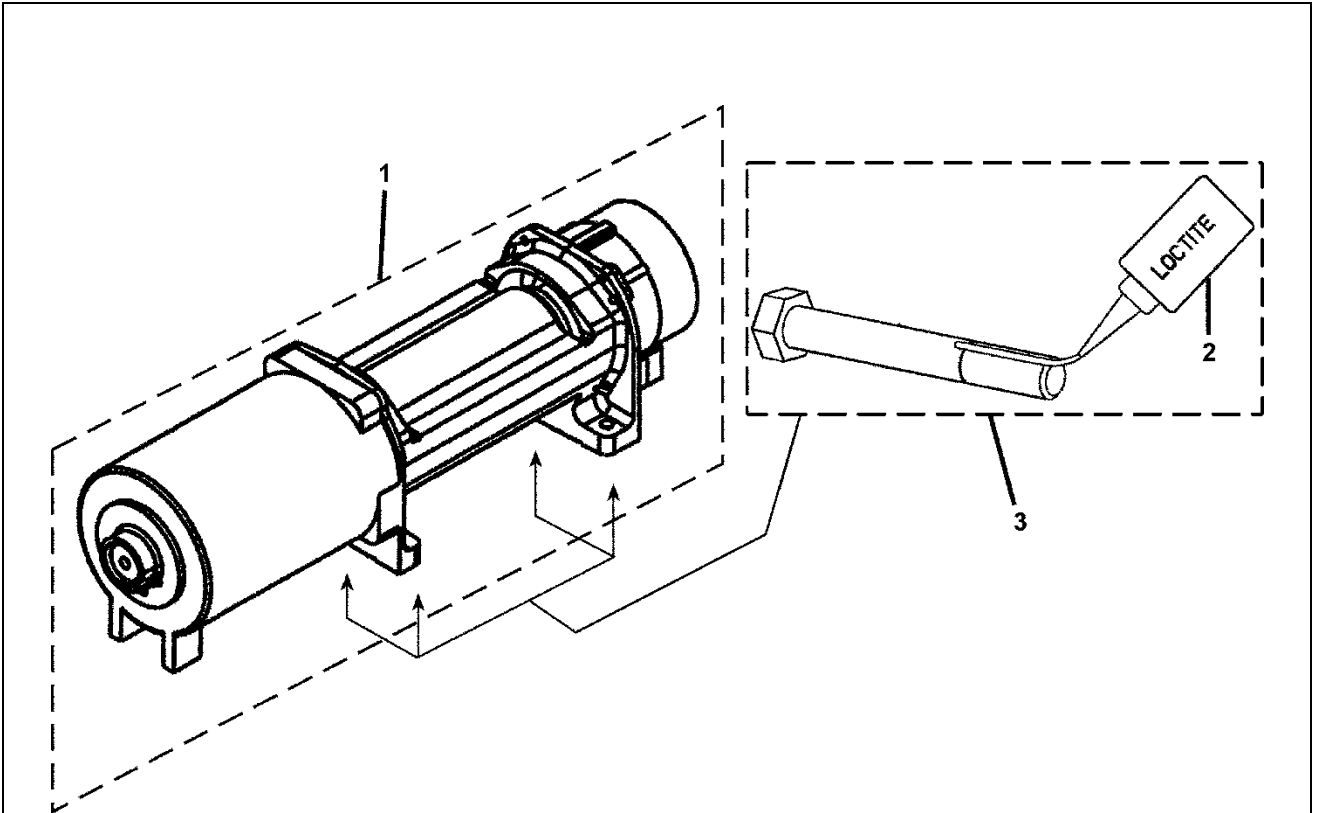
# AC Gearless Machine (AAA20220AH)

**06-AAA20220AH**



AAA20220AH				
REF. No.	PART No.	DESCRIPTION	LOAD (kg)	SPEED (m/s)
1	AAA20220AH1	Assembly, AC Gearless Machine with 110 V Brake and Absolute Encoder	420-490	1.6
	AAA20220AH2		550-680	
	AAA20220AH3		420-490	1.0
	AAA20220AH4		550-680	
	AAA20220AH11	Assembly, AC Gearless Machine with 24 V Brake and Incremental Encoder	420-490	1.6
	AAA20220AH12		550-680	
	AAA20220AH13		420-490	1.0
	AAA20220AH14		550-680	
2	AAA180JB1	Glue, Sealant, Loctite® 243, 10 ml Bottle		
3	AAA27076AJ1	Kit, Bolts, Hex Head, M16 x 120 mm + Ref. 2		

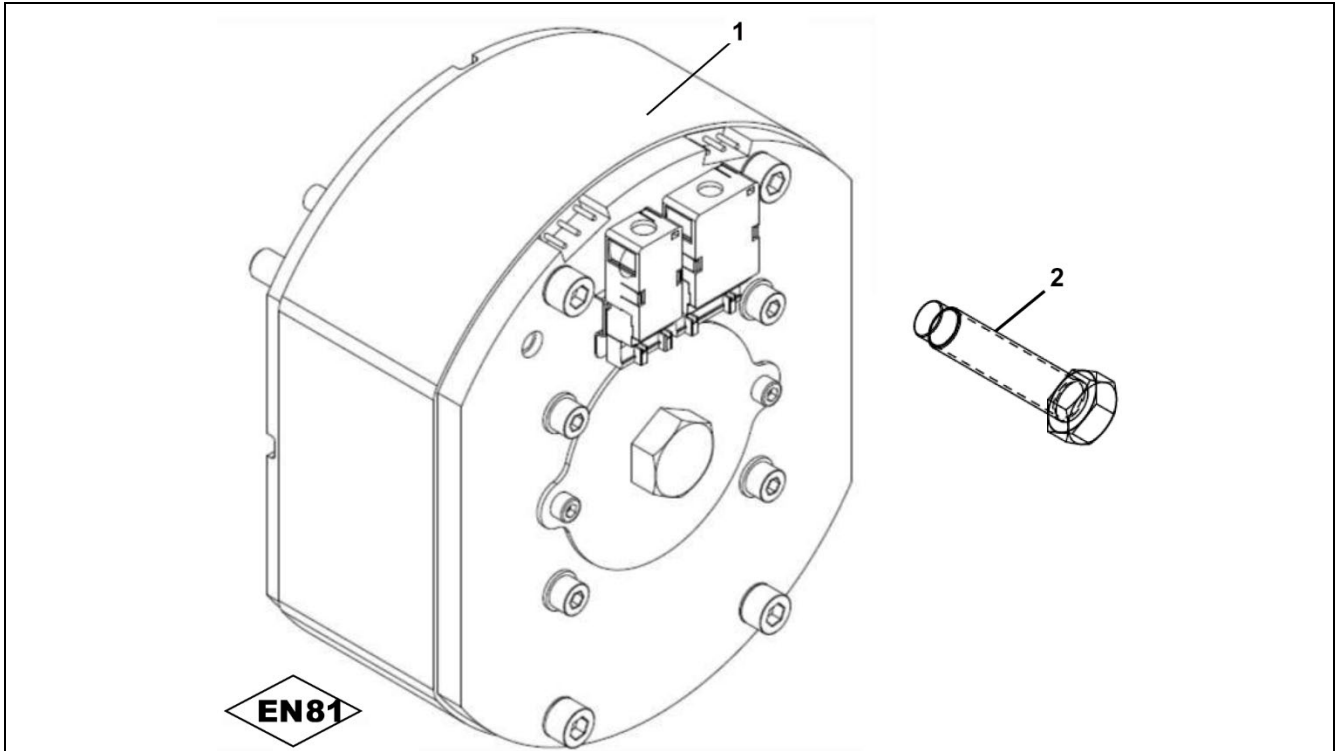
**AC Gearless Machine  
(AAA20220AJ)**



AAA20220AJ				
REF. No.	PART No.	DESCRIPTION	LOAD (kg)	SPEED (m/s)
1	AAA20220AJ1	Assembly, AC Gearless Machine with 110 V Brake and Absolute Encoder	700–840	1.6
	AAA20220AJ2		900–1050	
	AAA20220AJ3		700–840	1.0
	AAA20220AJ4		900–1050	
	AAA20220AJ11	Assembly, AC Gearless Machine with 24 V Brake and Incremental Encoder	700–840	1.6
	AAA20220AJ12		900–1050	
	AAA20220AJ13		700–840	1.0
	AAA20220AJ14		900–1050	
2	AAA180JB1	Glue, Sealant, Loctite® 243, 10 ml Bottle		
3	AAA27076AJ1	Kit, Bolts, Hex Head, M16 x 120 mm + Ref. 2		

# Brake for AC Machine (AAA20220AH)

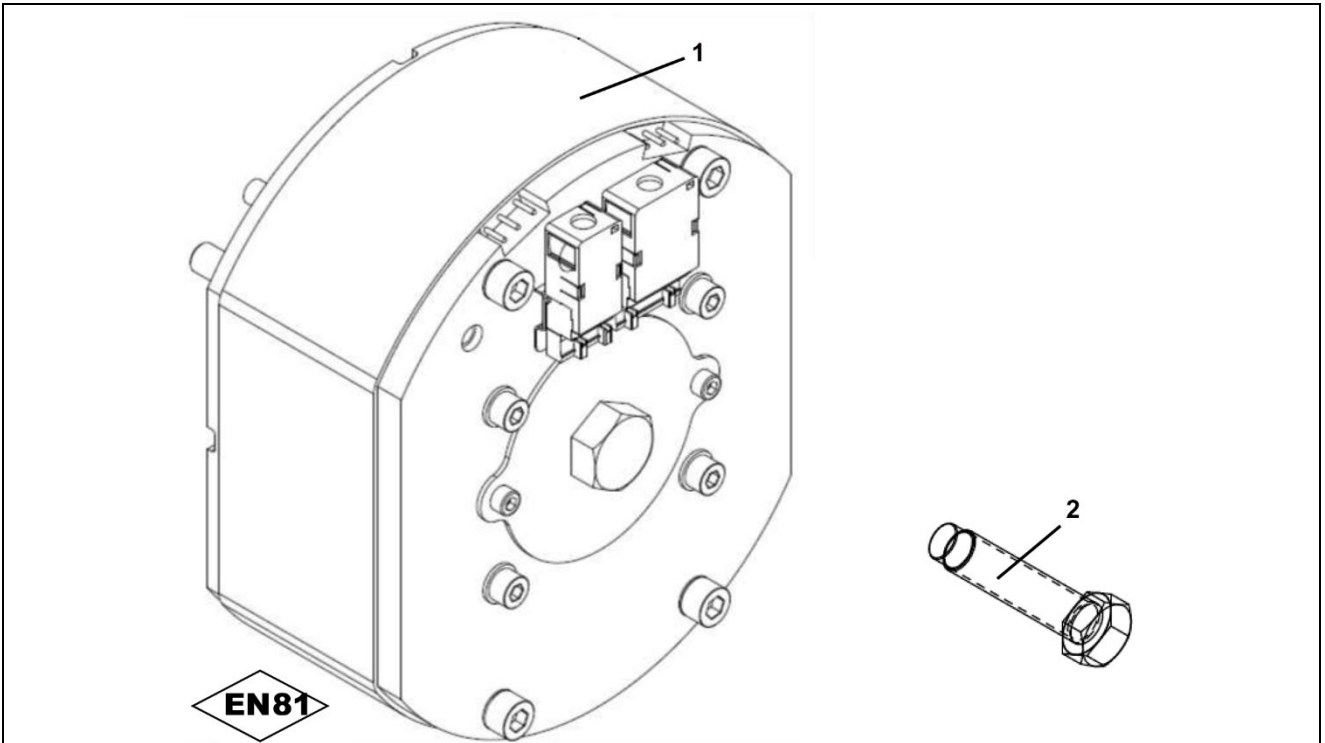
**06-AAA20220AH**



AAA20220AH				
REF. No.	PART No.	APPLICATION	MAX LOAD (kg)	DESCRIPTION
1	AAA20236P4 AAA20236P5 TAA20236AC1*	Used w/ AAA20220AH11, 12, 13, 14	1150	Brake, EN81-Certified 24 V, See SPL 07-TBA20222BC
	AAA20236P1 AAA20236P2 TBA20222BE13 TAB20222BE41 TAA20236AE1*	Used w/ AAA20220AH1, 2, 3, 4	1150	Brake, EN81-Certified 110 V, See SPL 07-TAA20222BE
---	AAA27076AH1**	N/A	N/A	Kit, 110 V Brake Interface Board (BIB) Replacement (w/ Screws and Distance Pieces)
	AAA27076AH2**	N/A	N/A	Kit, 24 V Brake Interface Board (BIB) Replacement (with Screws and Distance Pieces)
	AAA27076X1**	N/A	N/A	Kit, Brake Replacement Hardware (special hardware required for removal and installing brake assembly)
2	AAA124HB1	NA	NA	Bolt for Removal of AAA20236P Brakes Only

\* Only available for countries in EN81 Jurisdiction (this brake is currently not certified for Korea/KCC, Japan/JIS and China/GB).

\*\* Brake interface board and hardware kit is now obsolete; full brake replacement required (Ref. 1).

**06-AAA20220AH****Brake for AC Machine  
(AAA20220AJ)****AAA20220AJ**

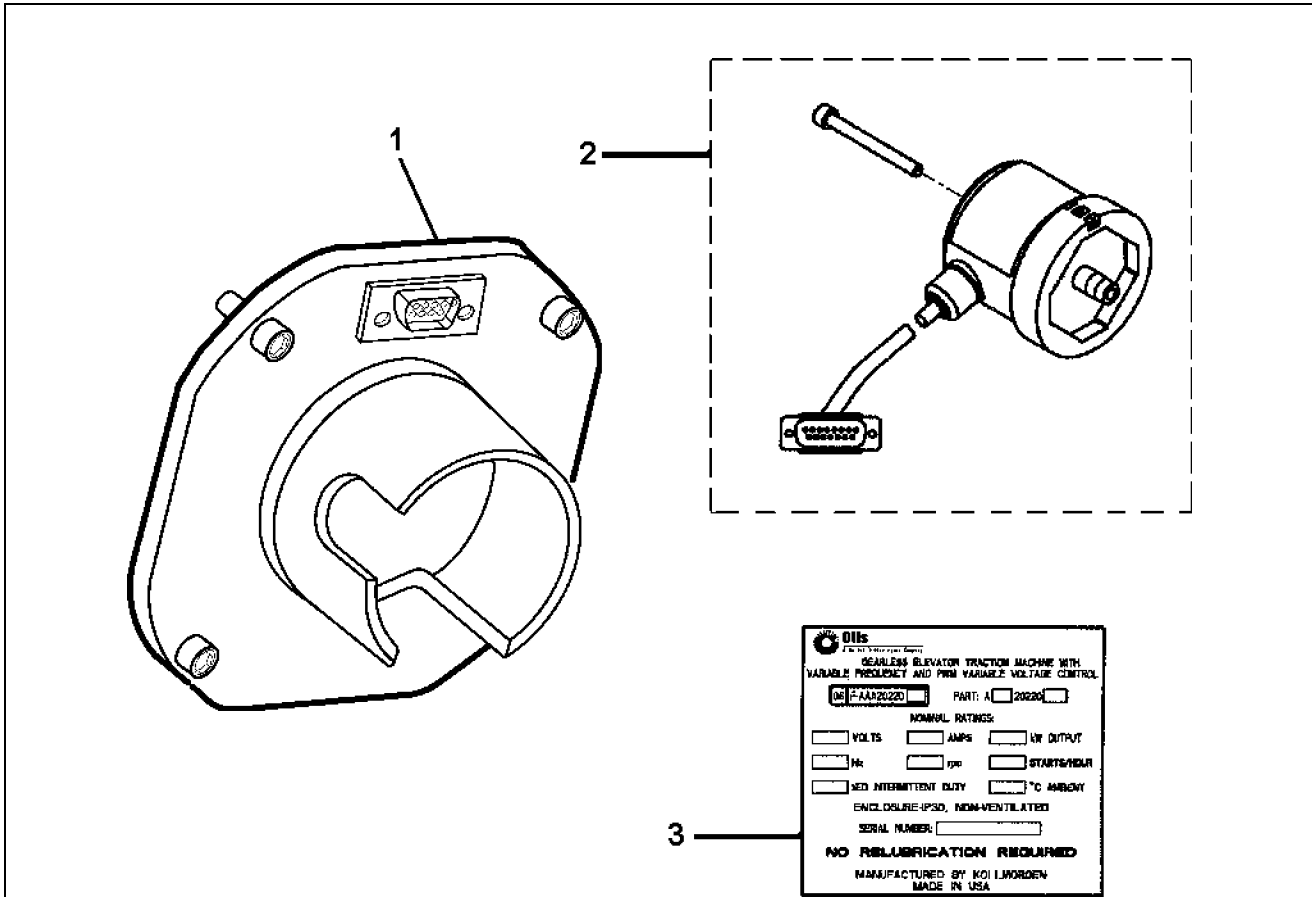
REF. No.	PART No.	APPLICATION	MAX LOAD (kg)	DESCRIPTION
1	AAA20236Q4 AAA20236Q5 TAA20236AC1*	Used w/ AAA20220AJ11, 12, 13, 14	1150	Brake, EN81-Certified 24 V, See SPL 07-TBA20222BC
	AAA20236Q1 AAA20236Q2 TBA20222BE11 TBA20222BE12 TAA20236AE1*	Used w/ AAA20220AJ1, 2, 3, 4	1150	EN81-Certified 110 V Brake, SPL 07-TAA20222BE for Details
---	AAA27076AH1**	N/A	N/A	Kit, 110 V Brake Interface Board (BIB) Replacement (w/ Screws and Distance Pieces)
	AAA27076AH2**	N/A	N/A	Kit, 24 V Brake Interface Board (BIB) Replacement (w/ Screws and Distance Pieces)
	AAA27076X1**	N/A	N/A	Kit, Brake Replacement Hardware (special hardware required for removal and installing brake assembly)
2	AAA124HB1	NA	NA	Bolt for removal of AAA20236Q brakes only

\* Only available for countries in EN81 jurisdiction (this brake is currently not certified for Korea/KCC, Japan/JIS and China/GB).

\*\* Brake interface board and hardware kit is now obsolete; full brake replacement required per Ref. 1.

# Encoder & Data Plate

**06-AAA20220AH**



REF. No.	PART No.	DESCRIPTION	APPLICATION
	<b>AAA20220AH &amp; AAA20220AJ</b>		
1	AAA20220R3 AAA20220R4	Encoder, Hall Effect, Replacement Kit	AAA20220AH, AAA20220AJ except as noted below:  <b>AAA20220AH</b> with the following serial numbers: 00040036, 00070023, 00070024, 00070025, 00070039, 00070041, 00070042, 00080103, 00080104, 00090117 <b>AAA20220AJ</b> with the following serial numbers: 00060017, 00070043, 00080110, 00080113, 00090120, 00090125, 00100154
2	AAA633V1 AAA633Z1	Encoder, Absolute Encoder, Incremental	<b>W</b> Machines: AAA20220AH/AJ Arr. 1–4 <b>W</b> Machines: AAA20220AH/AJ Arr. 11–14
3	AAA102AHZ2	Plate, Data	---