

**Gen2<sup>®</sup> 3T AC  
Permanent Magnet  
Gearless Machine**

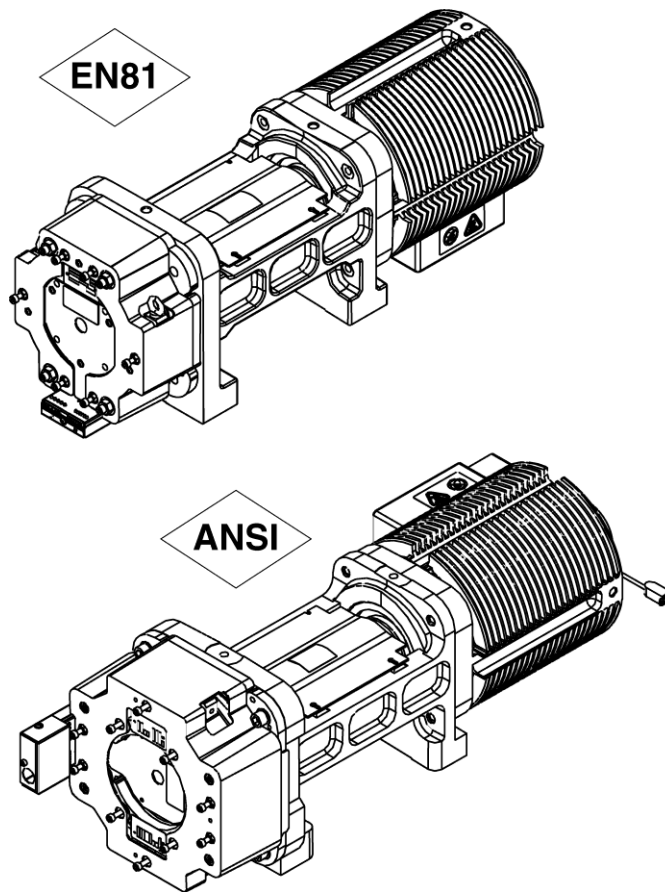
**Spare Parts Leaflet**

**06-AAA20220AW**

**February 12, 2025 / Page 1 of 9**

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The product listed in this SPL is obsolete.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



**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 SPL details spare parts for the Gen2® R2 3T sheave shaft load, permanent magnet (PM), AC three-phase motor gearless machine, type AAA20220AW.

**Leaflet Revisions**

<b>Date Revised</b>	<b>Subject Matter Expert</b>	<b>Reason for Revision</b>
February 9, 2006	Kelly Martin	New SPL
June 25, 2007	Scott Boulanger	Added new parts for NAA usage.
June 25, 2009	Val Sheynkman	Corrected part number in ref. 8 on p. 8
February 1, 2023	Juan Murillo	Added OBSOLESCENCE notice on the cover
February 12, 2025	Juan Murillo	Updated OBSOLESCENCE note on cover

**Related Drawings**

<b>Drawing No.</b>	<b>Title</b>	<b>Drawing No.</b>	<b>Title</b>
AAA20220AW	AC Gearless Machine (PM) 3 Phase Motor (3.0T machine)	---	---
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**Related Documents**

<b>Document ID</b>	<b>Title</b>
Otis Doc. D533_DRS_3T	3T GeN2 Machine Requirements
Otis Doc. AAA20220AW_BD	GeN2 - 3T Machine Basic Data

**Subject Matter Expert**

<b>Name</b>	<b>Department</b>
Scott Boulanger	Otis Engineering Center, Farmington (OECF)

**About Spare Parts Leaflets...**

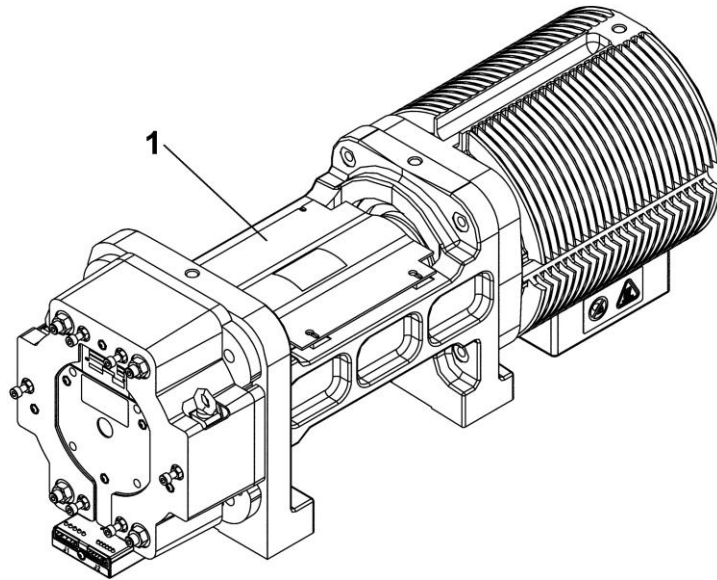
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

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.

# EN81 3T Machine Assembly

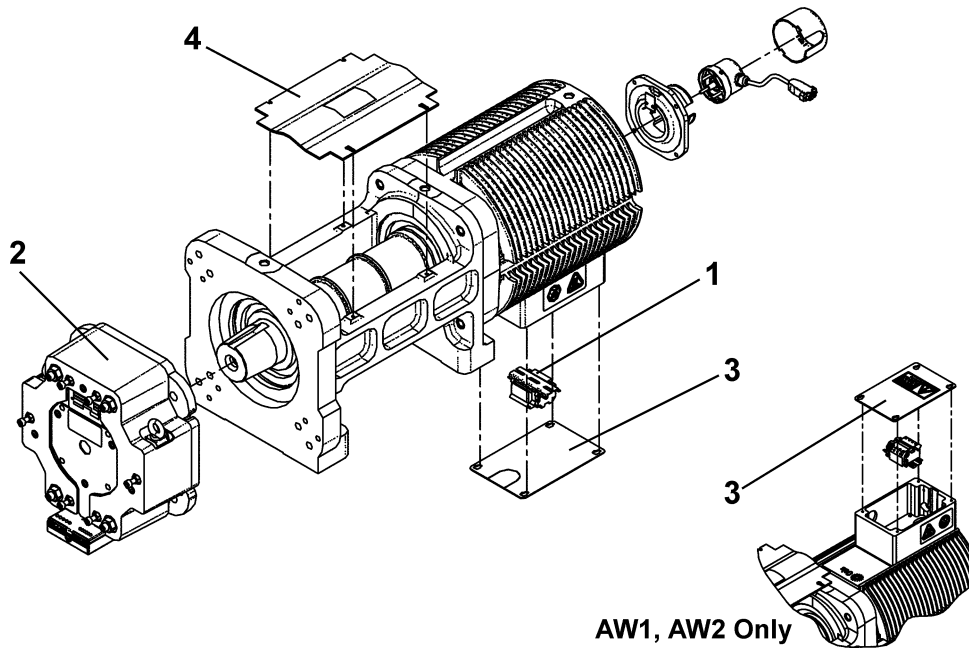
**06-AAA20220AW**




**Machine Assembly, Gen2 3T (EN81)**

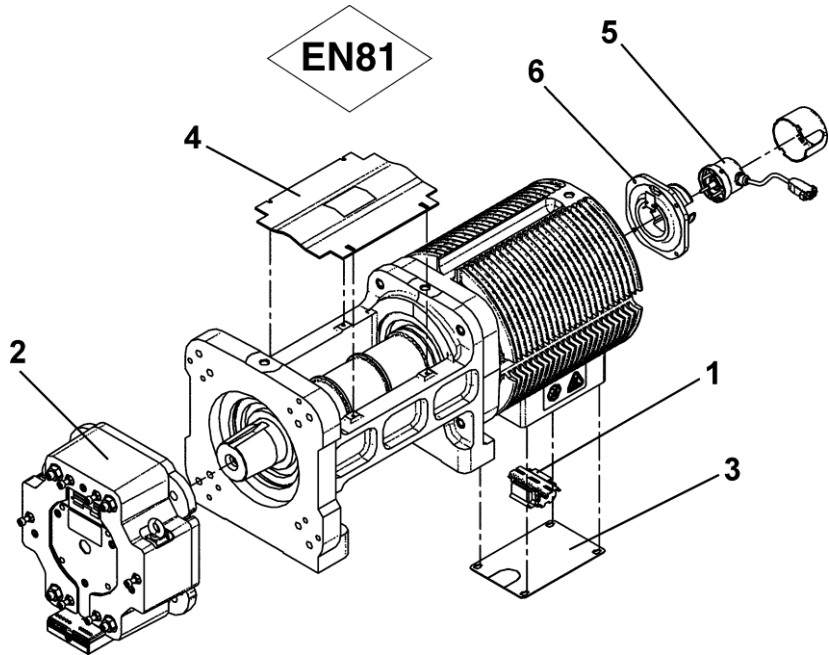
3-Phase, AC Permanent Magnet Gearless Machine with CEN EN81-Compliant Brake

AAA20220AW							
REF. No.	PART No.	DUTY (kg)	SPEED (m/s)	COUNTRY / REGION	APPLICATION	REMARKS	
1	AAA20220AW1	1000-1275	1.0	Korea	3T (non-regenerative system) 340 V Minimum	10 V Two-Channel Incremental Encoder w/8.5 m Cable (A_A633Z23)	
	AAA20220AW2		1.75				
	AAA20220AW11	1600	1.0	Gien		5 V Two-Channel Incremental Encoder w/6 m Cable (A_A633Z26)	
	AAA20220AW31	1000-1275	1.0	EN/Asia (except Japan, Korea, Gien)		10 V Two-Channel Incremental Encoder w/6 m Cable (A_A633Z21)	
	AAA20220AW32		1.75				
	AAA20220AW71	1000-1275	1.0	Japan		3T (regenerative system) 500 V Minimum	5 V Two-Channel Incremental Encoder w/6 m Cable (A_A633AG2)
	AAA20220AW72		1.75				
	AAA20220AW81	1000-1275	1.0	EN/Asia (except Japan, Korea, Gien)		5 V Two-Channel Incremental Encoder w/6 m Cable (A_A633Z24)	
AAA20220AW82	1.75						



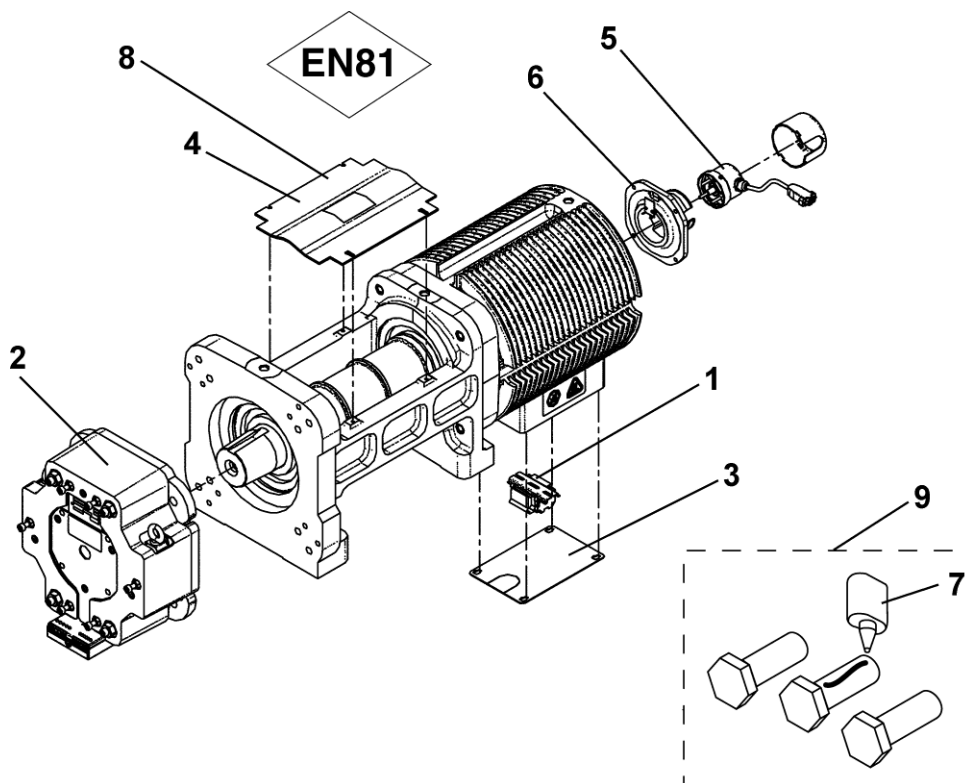
AAA20220AW			
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA21303CW1	Assembly, Terminal Block	---
2	---	Brake, Single Coil (torque per EN81 requirements)	 SPL 07-T**20236H for Details
3	AAA346BBS1	Cover, Terminal Block	All Arrangements Except AW1 & AW2
	AAA346BBS2	Cover, Terminal Block	AW1 and AW2 (Korea)
4	AAA384AMQ1	Cover, Sheave	---

(Continued on next page)



AAA20220AW			
REF. No.	PART No.	DESCRIPTION	W → AAA20220AW ARRANGEMENTS
5	AAA633Z1	Encoder, Main, 10 V Incremental, 2 Channel, 6.0 m cable with Mounting Hardware and Allen Wrenches	31, 32
	AAA633Z3	Encoder, Main, 10 V Incremental, 2 Channel, 8.5 with Mounting Hardware and Allen Wrenches	1, 2
	AAA633Z4	Encoder, Main, 5 V Incremental, 2 Channel, 6 m cable with Mounting Hardware and Allen Wrenches	61, 81 , 82
	AAA633Z6	Encoder, Main, 5 V Incremental, 2 Channel, 6.0 m cable with Mounting Hardware and Allen Wrenches	11
	AAA633AG2	Encoder, Main, 5V Incremental, 2 Channel, 6.0 m cable with Mounting Hardware and Allen Wrenches	71, 72
6	AAA20220R1	Kit, Rescue Sensor Encoder Replacement, Hall Effect	All

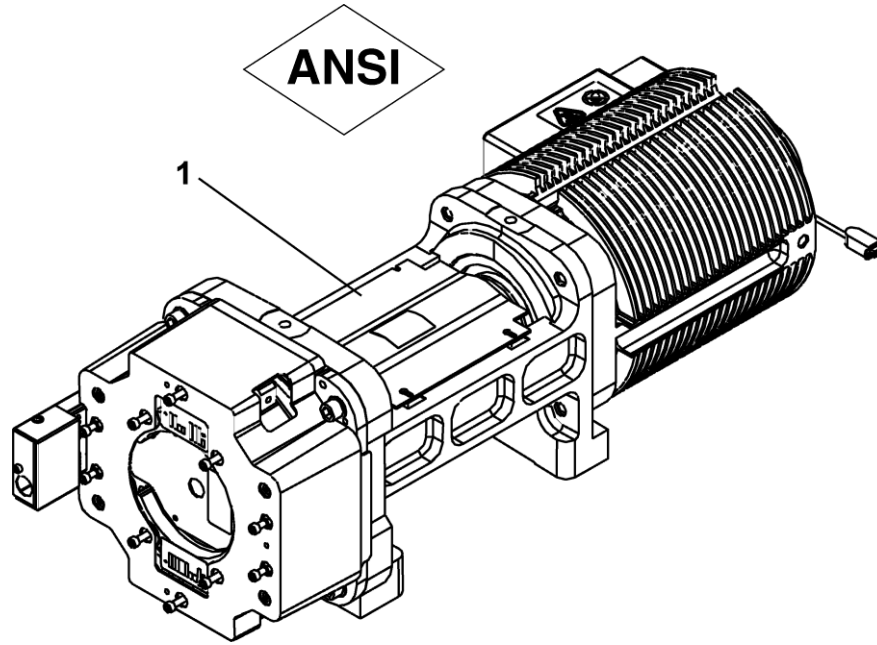
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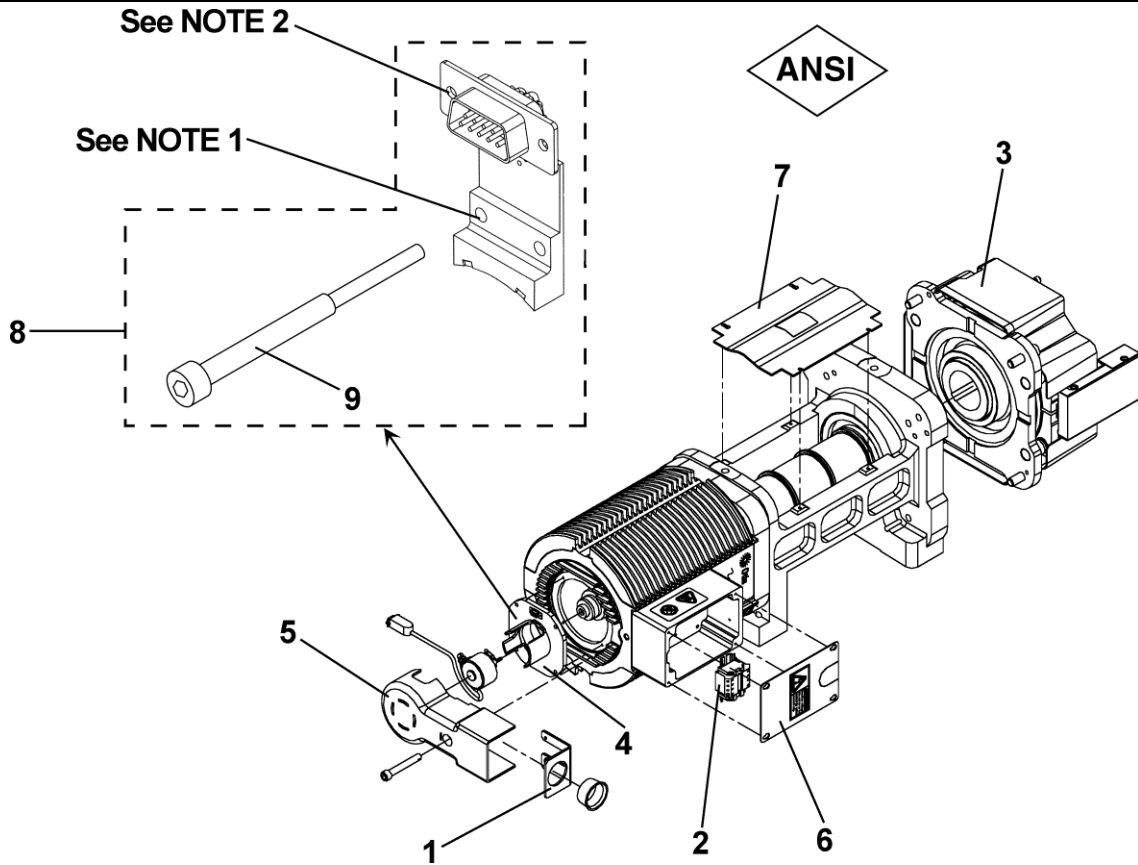
<b>AAA20220AW</b>			
<b>REF. No.</b>	<b>PART No.</b>	<b>DESCRIPTION</b>	<b>REMARKS</b>
7	AAA180JB1	Glue, Loctite® 243 Threadlocker, 10ml Bottle	---
8	AAA384AHX1	Guard, Sheave	---
9	AAA27076AJ3	Kit, Hardware, Including (3) M20 x 55 Hex Head Screws, (1) Ref. 7	Torque to 120 Nm

# ANSI 3T Machine Assembly

**06-AAA20220AW**



AAA20220AW						
REF. No.	PART No.	DUTY (kg)	SPEED (m/s)	COUNTRY / REGION	APPLICATION	REMARKS
1	AAA20220AW41	1362/1588	1.02	NAA	3T (non-regenerative system) 340 V Minimum	SSW 24V Dual-Coil Brake, 10 V Two-Channel Incremental Encoder with 8.5 m Cable (A_A633Z23)
	AAA20220AW42	1134	1.78			
	AAA20220AW91	1362/1588	1.02		3T (regenerative system) 500 V Minimum	SSW 48V Dual-Coil Brake, 5 V Two-Channel Rationalized Encoder with 6 m Cable (A_A633Z21)
	AAA20220AW92	1134	1.78			



**AAA20220AW**

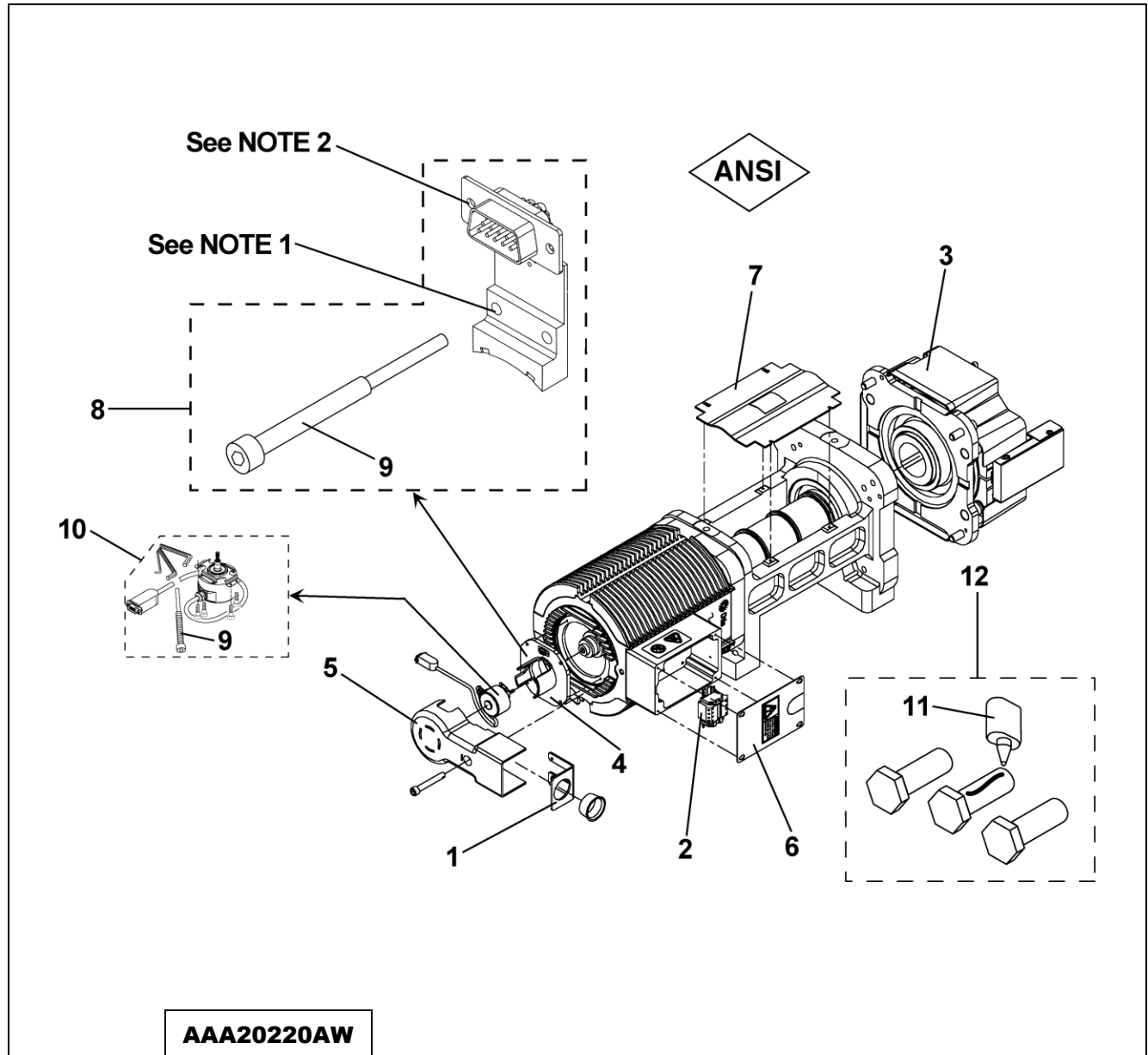
REF. No.	PART No.	DESCRIPTION	REMARKS
1	AAA283AVA1	Angle, Formed	---
2	AAA21303CW1	Block, Terminal	---
3	---	Brake, 24 V Dual Coil	👁️ SPL 07-T**20236G for Details, Used with AAA20220AW41, 42
	---	Brake, 48 V Dual Coil	👁️ SPL 07-T**20236K for Details, Used with AAA20220AW91, 92
4	ABA20220R3	Carrier, w/o Rescue Encoder	---
5	AAA346BDT1	Cover, Conduit	---
6	AAA346BBS1	Cover, Terminal Block	---
7	AAA384AMQ1	Guard, Sheave	---
8	AAA27076CJ1	Kit, Encoder, Rescue Sensor Encoder Replacement (including jack screw tool, ref. 9)	See <b>NOTES 1 &amp; 2</b>
9	AAA27DP1	Screw, Jack, M6, 97 mm L	---

**NOTE 1:** Must secure jack screw with Loctite 243 and torque to 0.41-0.51 Nm (58-72 in. oz.).

**NOTE 2:** Must secure jack screw with Loctite 243 and torque to 0.34-0.46 Nm (3-4 in. lb.).

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AAA20220AW			
REF. No.	PART No.	DESCRIPTION	REMARKS
10	AAA633AE1	Encoder, Main, 10 V Incremental, 3-Channel, 0.33 m Cable w/ Mounting Hardware and Allen Wrenches	<b>W</b> → AAA20220AW 41, 42
	AAA633AE2	Encoder, Main, 7-15 V Incremental, 3-Channel, 0.33 m Cable w/ Mounting Hardware and Allen Wrenches	<b>W</b> → AAA20220AW 91, 92
11	AAA180JB1	Glue, Loctite® 243 Threadlocker, 10ml Bottle	---
12	AAA27076AJ3	Kit, Hardware, Including (3) M20 x 55 Hex Head Screws, (1) Ref. 11	Torque to 120 Nm (90 ft.-lb.), See NOTE 3

**NOTE 3:** Mounting hardware for new machines.