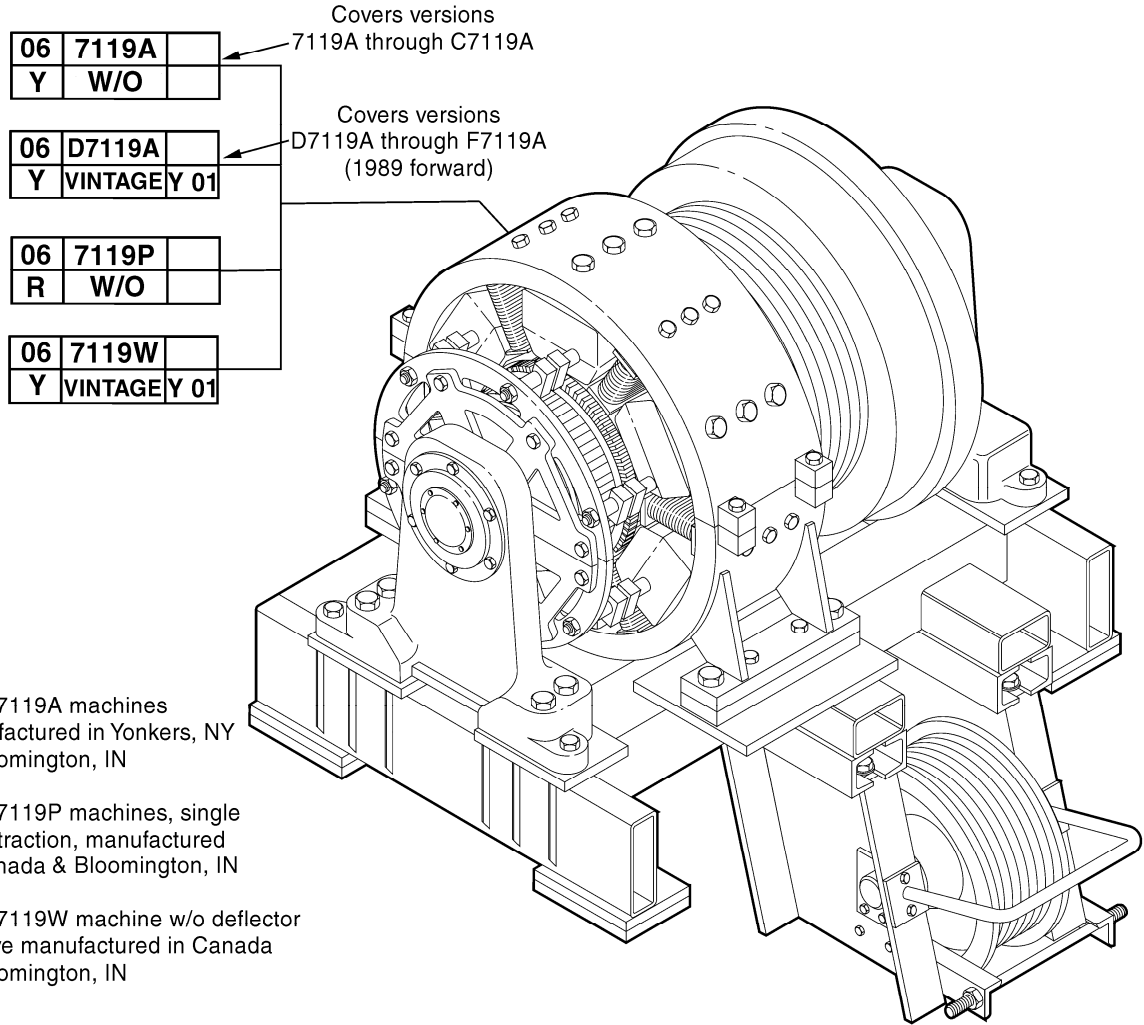


# 155HT Gearless Machine

**Spare Parts Leaflet**

**06-7119W**

**December 9, 2020 / Page 1 of 20**



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**

The 155HT is a DC gearless machine with an internal brake. A standard 155HT can be arranged for Single-Wrap Traction (SWT) or Double-Wrap Traction (DWT). This leaflet will cover the service parts of the NAA-manufactured 155HT machines.

**Leaflet Revisions**

| <b>Date Revised</b> | <b>Subject Matter Expert</b> | <b>Reason for Revision</b>  |
|---------------------|------------------------------|---|
| April 1986          | ---                          | New leaflet   |
| January 1, 2000     | Nick Grant                   | Updated parts and artwork   |
| March 1, 2000       | Nick Grant                   | Updated parts on p. 4, 7, & 14  |
| August 19, 2009     | Val Sheynkman                | Updated document template; Updated parts and illustrations throughout |
| January 13, 2010    | Val Sheynkman                | Corrected part number in ref. 2 on p. 12                              |
| June 12, 2013       | Val Sheynkman                | Added rope retainer information on p. 18                              |
| January 13, 2016    | Gary Mendrala                | Added p. 19   |
| October 10, 2018    | Gary Mendrala                | Added brake kit information   |
| December 9, 2020    | Jesse Richter                | Corrected p/n in Ref. 1 on p. 11                                      |

**Related Drawings**

| <b>Drawing No.</b> | <b>Title</b>                           | <b>Drawing No.</b> | <b>Title</b>                        |
|--------------------|--|--------------------|-------------------------------------|
| 7119W              | 155HT Machine without Deflector Sheave | F7119A/C7119A      | 155HT Machine with Secondary Sheave |
| 7119P              | 155HT Machine with Deflector Sheave    | A6022F/6022F       | Internal Brake                      |
| A261T/A261W        | Drive Sheave                           | 7119C              | Secondary Sheave                    |
| 7119R              | Deflector Sheave                       |                    |                                     |

**Related Documents**

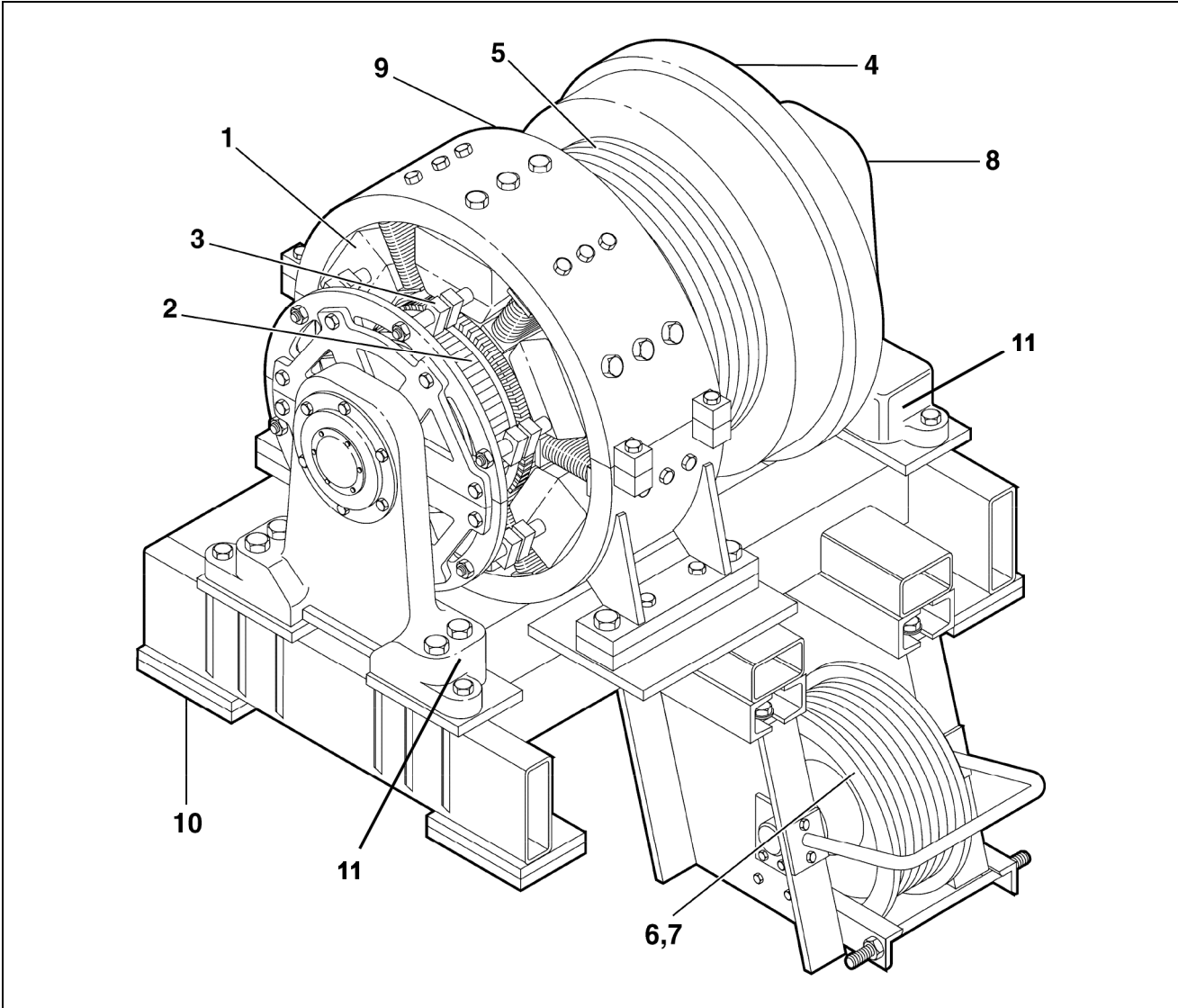
| <b>Doc ID</b> | <b>Title</b>  | <b>Doc ID</b> | <b>Title</b>                       |
|---------------|---|---------------|------------------------------------|
| TIP 6.1.0-14  | 155HT and 219HT Machine Brake Eyebolt                                 | TIP 6.1.0-15  | 155HT and 219HT Brake Release Tool |
| SPL 06-7119A  | Machine – Gearless 155HT (UK Machine)                                 | TIP 6.1.0-13  | Gearless Machine Bearings          |
| TIP 6.1.0-27  | Installation Procedure for Rope Retainers on 155Ht and 219HT Machines | TIP 6.0-1     | Replacement of Brake Lining        |
| TIP 6.0-16    | Machine Brake Installation Kit  |               |                                    |

**Subject Matter Expert**

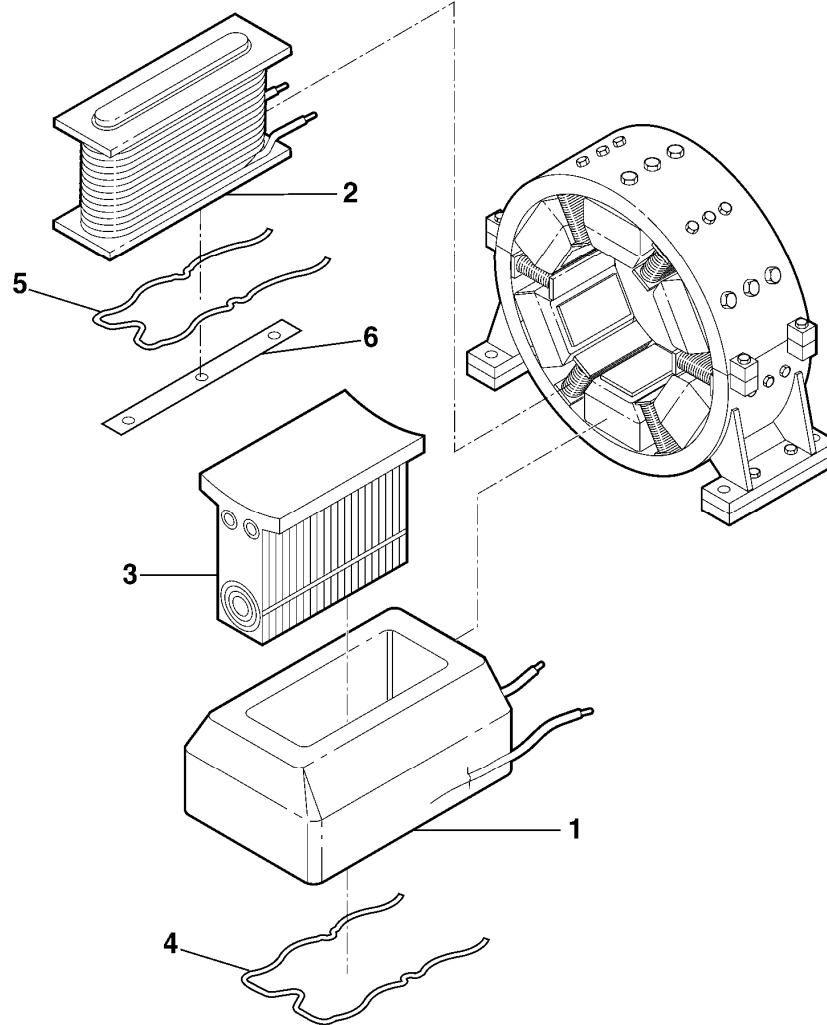
| <b>Name</b>   | <b>Department</b>       |
|---------------|-------------------------|
| Gary Mendrala | OSC Service Engineering |

# Table of Contents

**06-7119W**



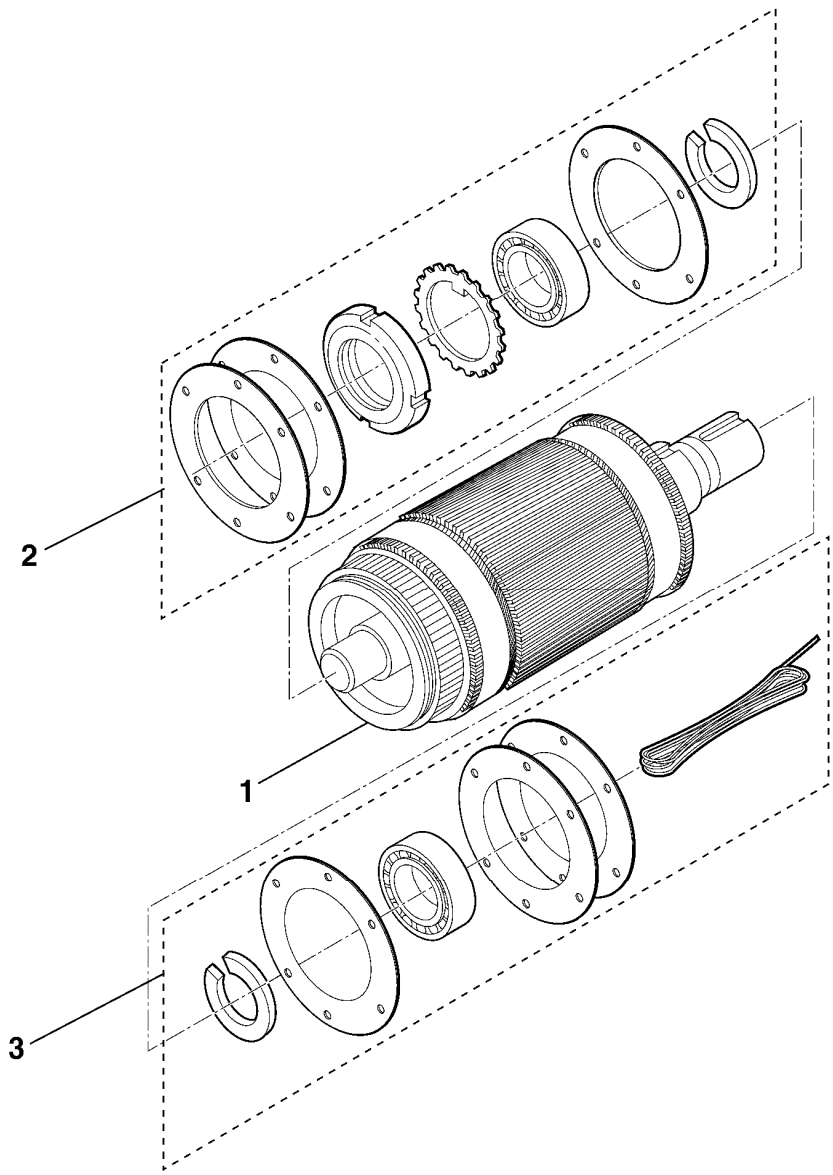
| REF. No. | PAGE No. | DESCRIPTION                   |
|----------|----------|-------------------------------|
| 1        | 4        | Motor Field & Interpole Coils |
| 2        | 5        | Armature Shaft Assembly       |
| 3        | 6        | Brush Holders & Brushes       |
| 4        | 7-11     | Brake Parts                   |
| 5        | 12       | Drive Sheave                  |
| 6        | 13       | Secondary Sheave (DWT)        |
| 7        | 14       | Deflector Sheave (SWT)        |
| 8        | 15       | Encoders                      |
| 9        | 16       | Blowers                       |
| 10       | 17       | Sound Isolation Pads          |
| ---      | 18       | Guards                        |
| 11       | 19       | Bearing Stand                 |



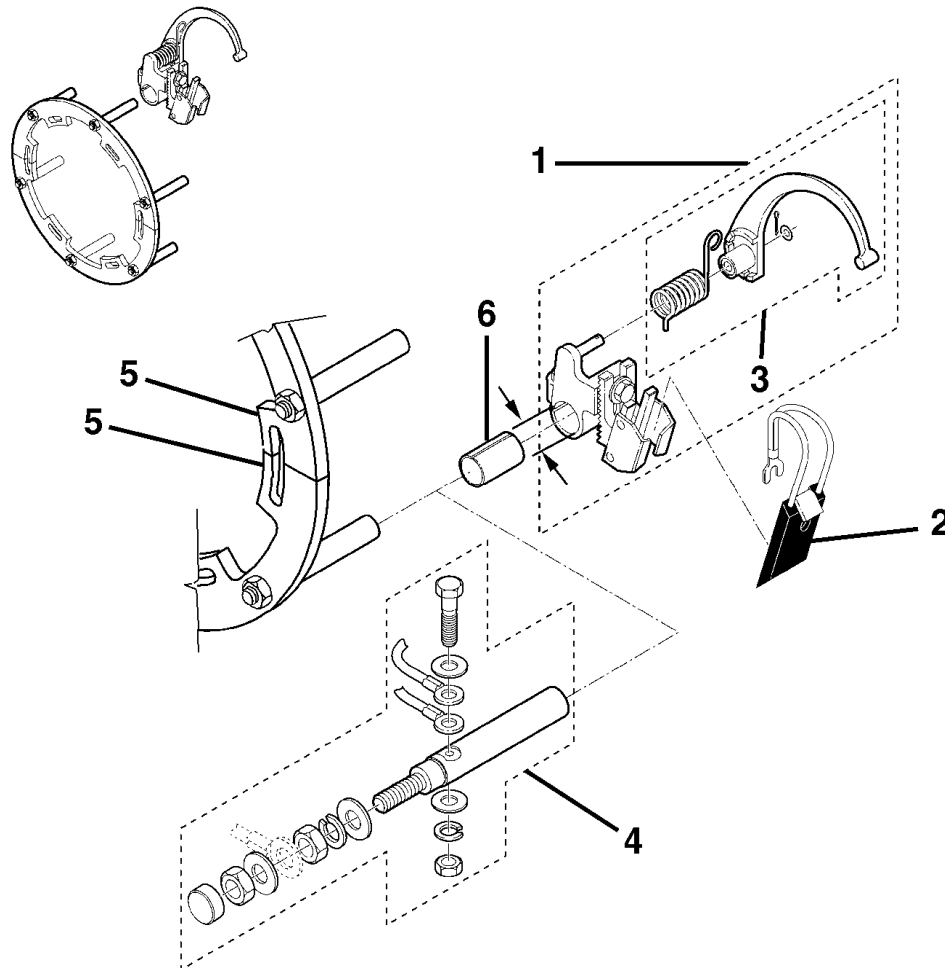
| REF. No. | VINTAGE  |         | DESCRIPTION  |
|----------|----------|---------|--|
|          | W/O      | Y 01    |  |
| REF. No. | PART No. |         | DESCRIPTION  |
| 1        | 221DA4   | 221DA2  | Coils, Field, (set of 6)                                     |
|          |          | 221DA3  | Coils, Field, (set of 6); Non-NAA; Contact OSC Spare Lending |
| 2        |          | A219AH1 | Coils, Interpole, (set of 6)                                 |
|          |          | A219AH2 | Coils, Interpole, (set of 3)                                 |
| 3        |          | 355AT1  | Pole Piece, Field Coil                                       |
| 4        |          | 94AD2   | Spring, Field Coil   |
| 5        |          | 94AD3   | Spring, Interpole Coil                                       |
| 6        |          | 298AM8  | Steel Shim, Interpole Coils, 0.0299 in. Thick                |

# Armature Shaft Assembly

**06-7119W**



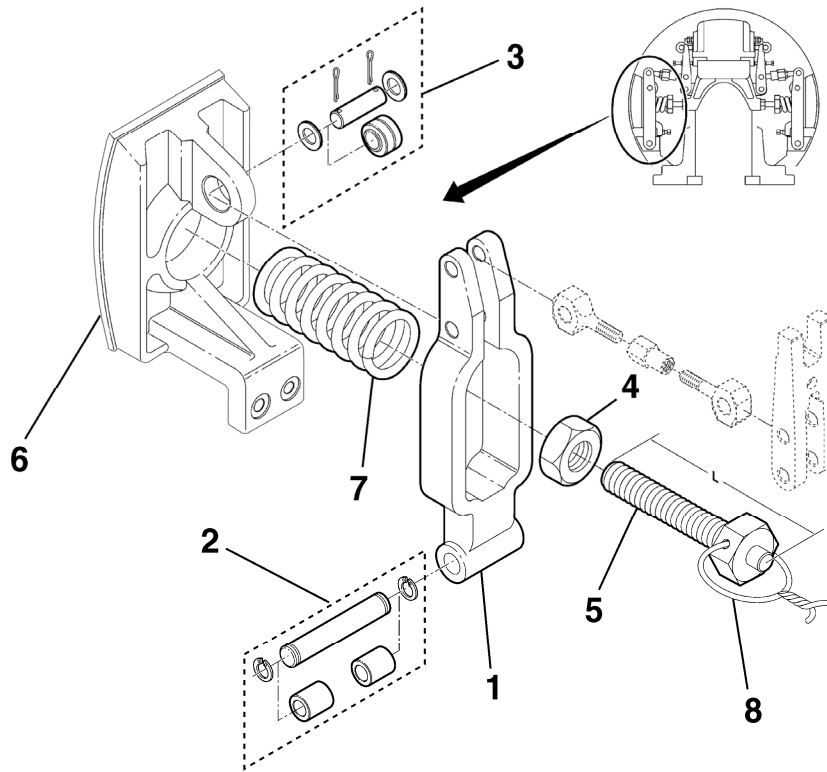
| REF. No. | VINTAGE      |      | DESCRIPTION   |                          |
|----------|--------------|------|---|--------------------------|
|          | W/O          | Y 01 |   |                          |
| REF. No. | PART No.     |      | DESCRIPTION   |                          |
| 1        | 2063G3       |      | Assembly, Armature (contact OSC spare lending)  |                          |
| 2        | AAA20200P100 |      | Kit, Commutator End Bearing<br>Includes: Bearing (1), Gaskets (3), Wick Felt (14.4 in.), Tabbed Lock Washer (1), & Lock Nut (1) | Bearing<br>⌀ = 6.693 in. |
| 3        | AAA20200P101 |      | Kit, Sheave End Bearing<br>Includes: Bearing (1), Gaskets (3), Wick Felt (17.6 in.), & Safety Wire (2 ft.)                      | Bearing<br>⌀ = 8.465 in. |





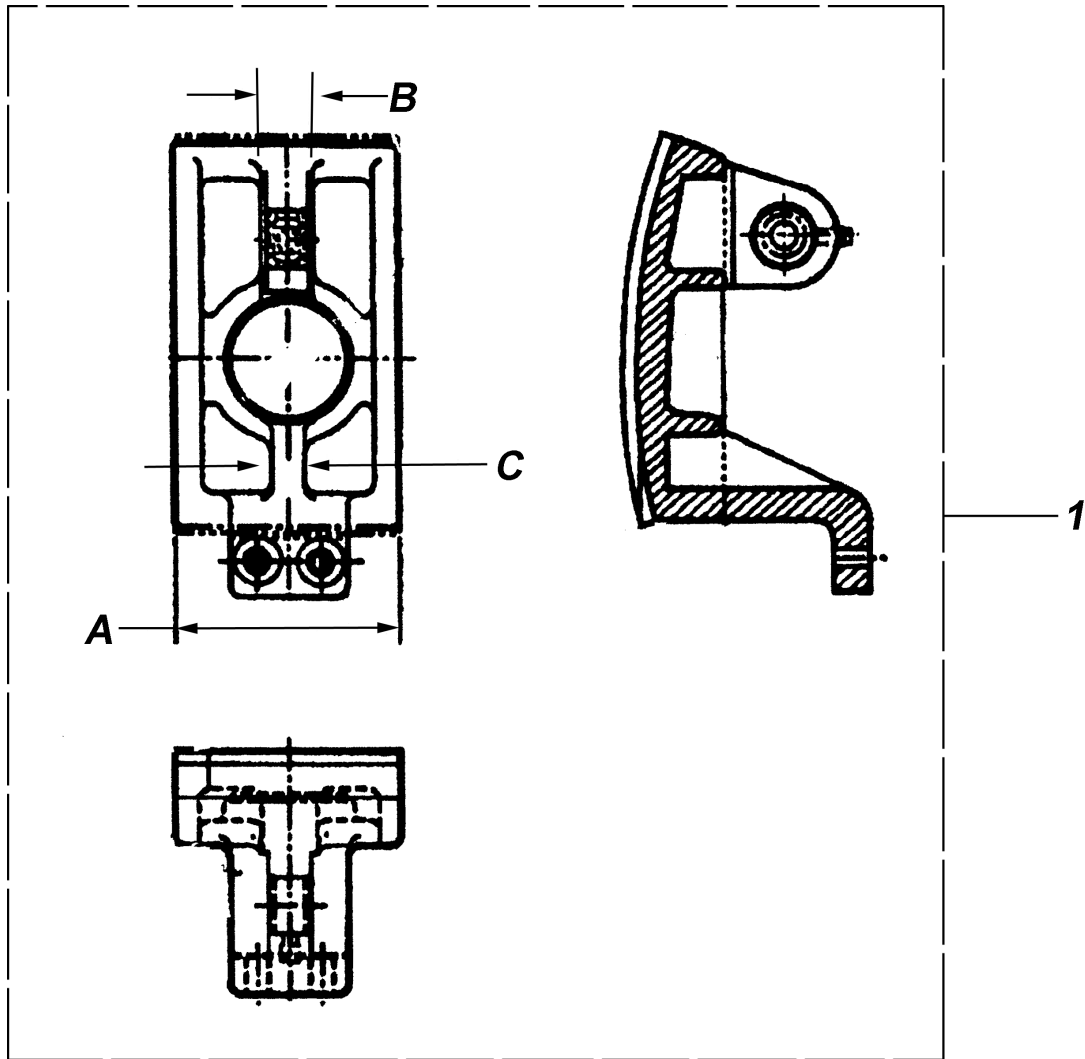
| REF. No. | VINTAGE      |      | DESCRIPTION  |
|----------|--------------|------|--|
|          | W/O          | Y 01 |  |
| REF. No. | PART No.     |      | DESCRIPTION  |
| 1        | 6134H1       |      | Assembly, Brush Holder, $\varnothing = 0.878$ in., for Elevonic® 401 & Non-Elevonic®   |
|          | 6134H2       |      | Assembly, Brush Holder, $\varnothing = 0.903$ in., for Non-Elevonic®   |
| 2        | 240T9        |      | Brush  |
| 3        | AAA20200P200 |      | Kit, Arm Spring<br>Includes Spring Arm (1), Spring (1), Washer (1), & 1/16 x 1/2 Cotter Pin (1)  |
| 4        | AAA20200P201 |      | Kit, Stem<br>Includes Stem (1), Washer (3), Lockwasher (1), Protective Plugs (2), 1/4-20 x 1-1/4 Hex Bolt (1), 1/4-20 Hex Nut (1), 1/2-20 Brass Jam Nut (1), 1/2-20 Brass Nut (1), 1/4 SAE Washers (2), & 1/4 Lockwasher (1) |
| 5        | 172MK1       |      | Ring, Brush (half ring, two per machine)   |
| 6        | 298DF129     |      | Strip, Insulator   |

# Brake Shoe, Lower Lever, & Spring

06-7119W



| REF. No. | VINTAGE  |        | DESCRIPTION   |  |
|----------|--|--------|---|--|
|          | 6022F  | A6022F |   |  |
| REF. No. | PART No.   |        | DESCRIPTION   |  |
| 1        | 286AY2   |        | Arm (Lever), Lower  |  |
| 2        | AAA20200P300   |        | Kit, Arm (Lever) Pivot Bearing<br>Includes Needle Bearings (2), Pivot Pin (1), & Retaining Rings (2)                    |  |
| 3        | AAA20200P301   |        | Kit, Shoe Pivot Bearing<br>Includes Bushing (1), Non-Metallic Washers (2), Pivot Pin (1), & 1/8 x 1-1/4 Cotter Pins (2) |  |
| 4        | 72DS1  | ---    | Nut, Spring Seat<br>$\varnothing = 2.75$ in. Across Flats   |  |
|          | ---  | 72DS2  |   | $\varnothing = 3.00$ in. Across Flats  |
| 5        | 77VW1  | ---    | Rod, Shoulder<br>L = 6.0 in.  |  |
|          | ---  | 77VW2  |   | L = 5.5 in.                            |
| 6        |  p. 8 |        | Shoe, Brake  Green Gripper Lining    |  |
| 7        | 90JD4  | ---    | Spring<br>L = 5.88 in., $\varnothing = 2.63$ in.  |  |
|          | 90KD5  | ---    |   | L = 6.31 in., $\varnothing = 2.63$ in. |
|          | ---  | 90LD7  |   | L = 6.5 in., $\varnothing = 2.88$ in.  |
| 8        | AAA175ABW1   |        | Wire, Safety<br>L = 2 ft., $\varnothing = 0.08$ in. (12 AWG)  |  |



| REF. No. | VINTAGE  |         | DESCRIPTION   |
|----------|----------|---------|---|
|          | W/O      | Y 01    |   |
|          | PART No. |         |   |
| 1        | 415AD2*  | ---     | Arm, Brake Shoe, A = 5.20 in., B = 1.25 in., C = 0.75 in. |
|          | ---      | A415AD2 | Arm, Brake Shoe, A = 5.25 in., B = 2.25 in., C = 2.25 in. |

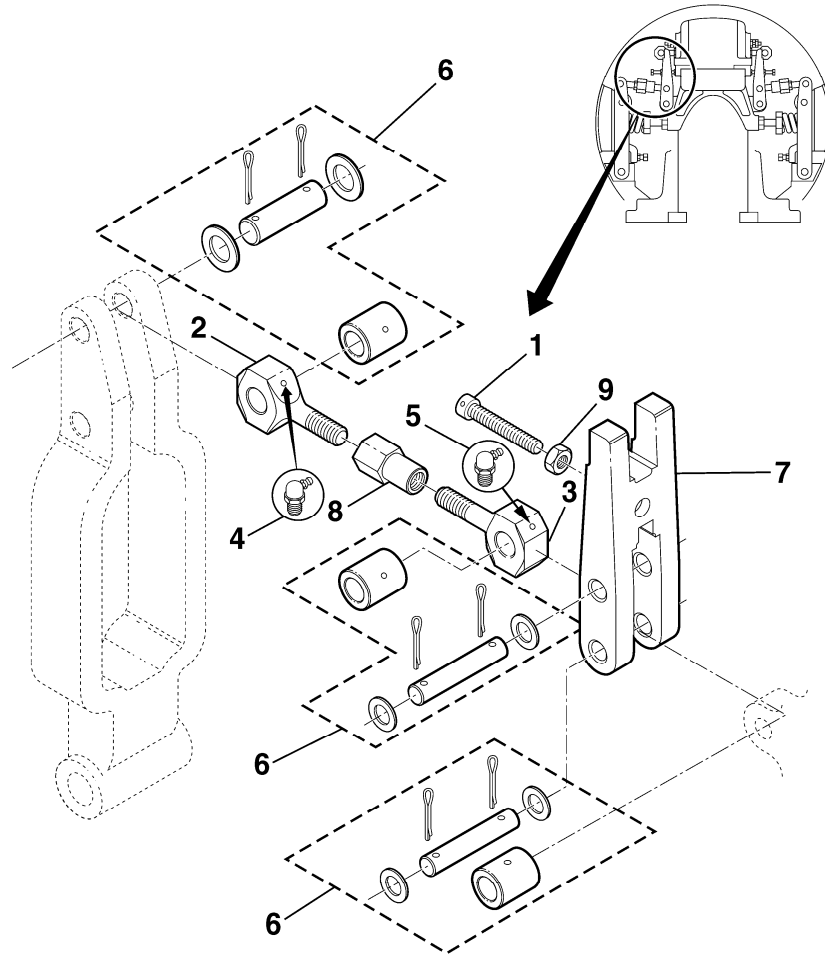
**NOTE:** All gearless machines must use brake arms that are lined with Green Gripper® lining supplied factory-bonded by OSC. See TIP 6.0-1, *Replacement of Brake Linings*.

\* Returned and re-worked upon receipt by OSC per individual machine number. Customers get same arms in return.



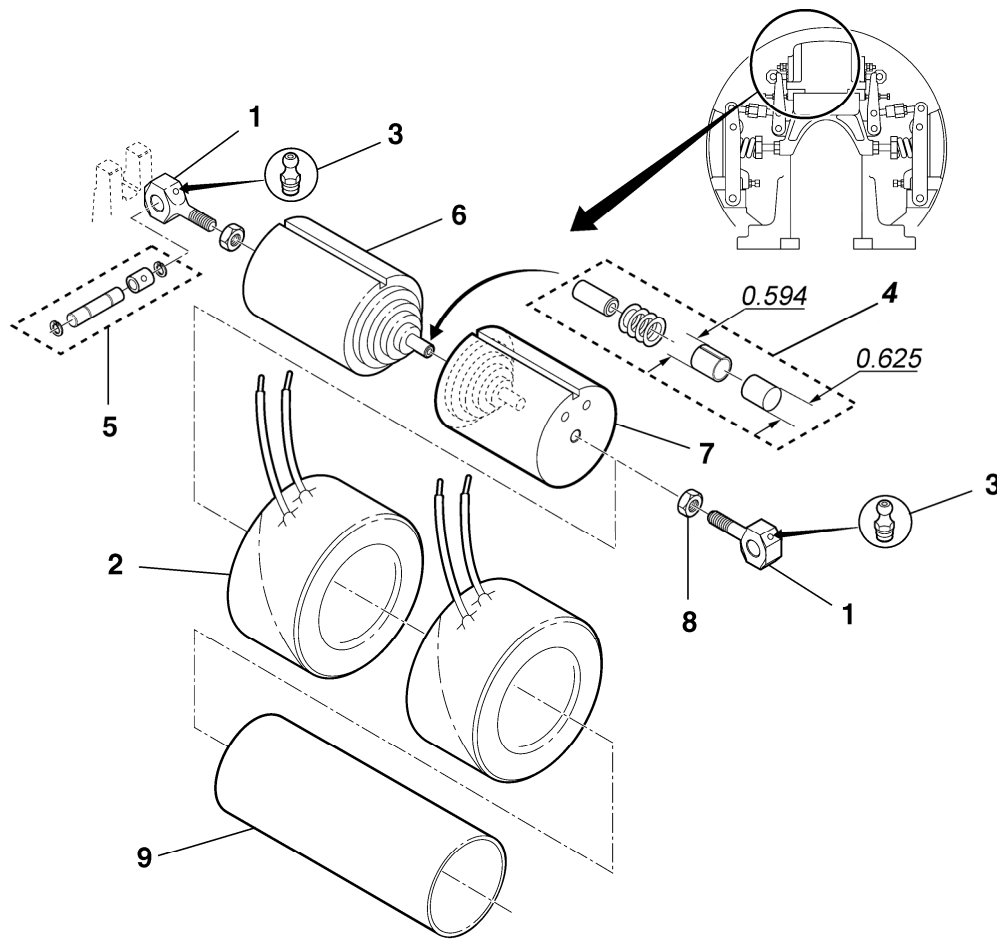
# Upper Lever & Linkage

**06-7119W**





| VINTAGE Y 01 |        |
|--------------|--------|
| 6022F        | A6022F |

| REF. No. | PART No.     | DESCRIPTION   |
|----------|--------------|---|
| 1        | 65DS2        | Bolt  |
| 2        | 56AL3        | Bolt, Eye, L = 4.0 in.  |
| 3        | 56AL4        | Bolt, Eye, L = 3.5 in.  |
| 4        | 435C1        | Fitting, Lubricator   |
| 5        | 435B5        | Fitting, 45 Degree Lubricator   |
| 6        | AAA20200P302 | Kit, Upper Lever (Link) Pivot Bearing<br>Includes: Needle Bearing (1), Non-Metallic Washers (2), Pivot Pin (1), & 1/8 x 1-1/4 Cotter Pins (2) |
| 7        | 430DP1       | Lever (Link), Upper   |
| 8        | 72CN2        | Nut   |
| 9        | ---          | Nut, Jam 3/8-16 Thread  |

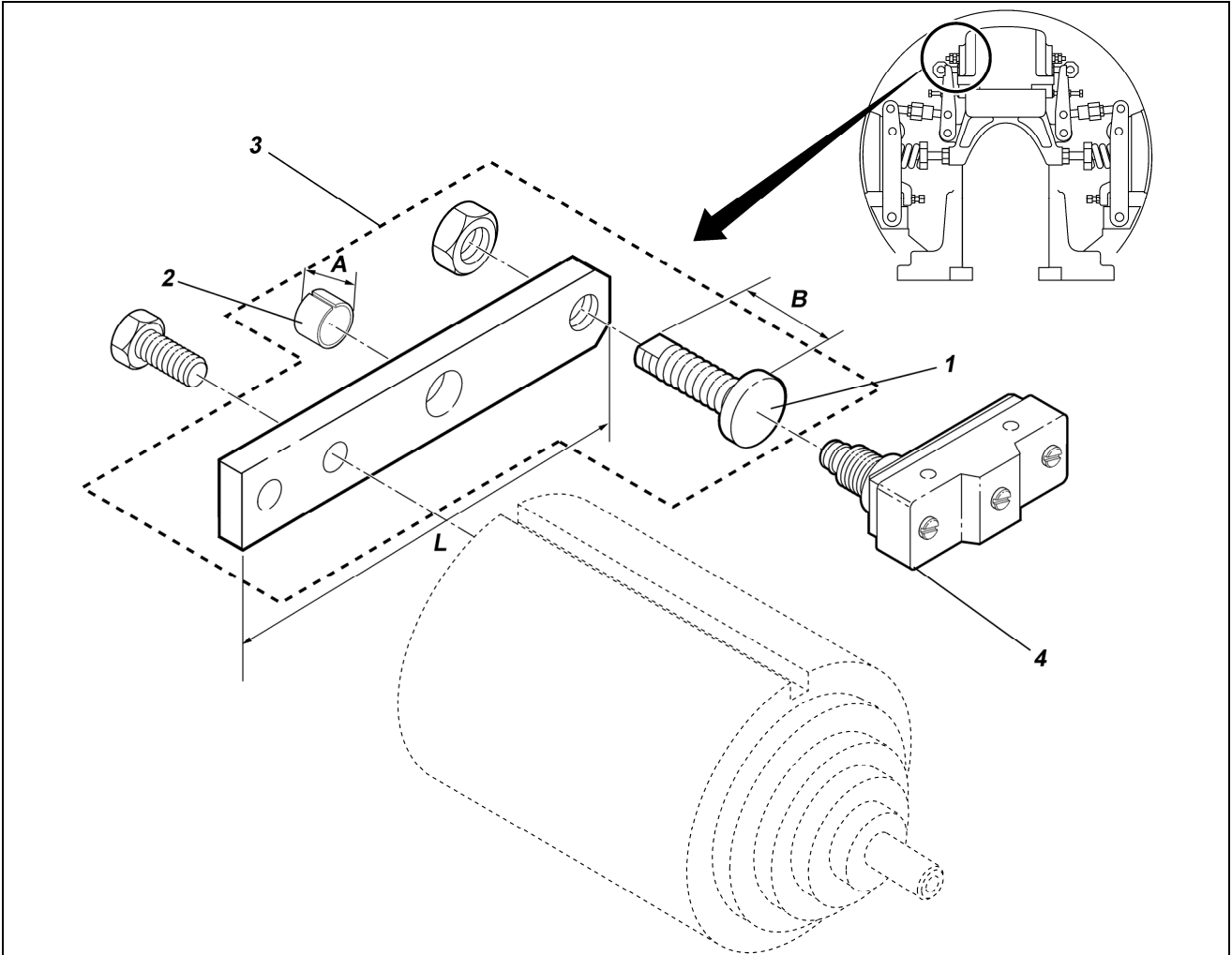


| VINTAGE Y 01 |        |
|--------------|--------|
| 6022F        | A6022F |

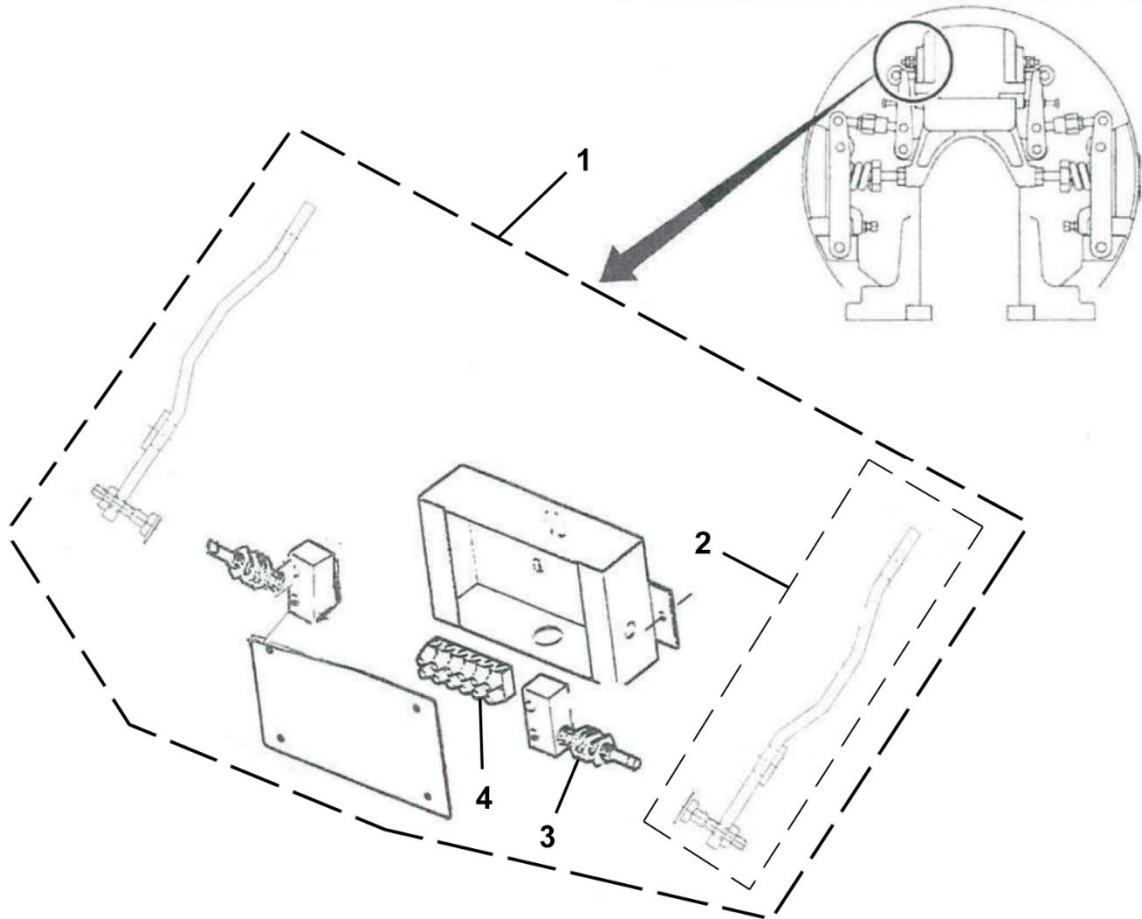
| REF. No. | PART No.                   | DESCRIPTION  |
|----------|----------------------------|--|
| 1        | 56AL6                      | Bolt, Eye (for brake core)   |
| 2        | <del>222FH1</del>   222FH2 | Coil, Brake  |
| 3        | 435C1                      | Fitting, Lubricator  |
| 4        | AAA20200P303               | Kit, Brake Core Pin & Bushing<br>Includes Pin (1), Washers (4), & Bushing (1); (discard sleeve for models manufactured after 1970) |
| 5        | AAA20200P304               | Kit, Eye Bolt Bearing<br>Includes Retaining Rings (2), Needle Bearing (1), & Pin (1)   |
| 6        | 400FF2                     | Magnet Core, Male  Pin                          |
| 7        | 400FE2                     | Magnet Core, Female  Bushing                    |
| 8        | ---                        | Nut, Fin 3/4-10 Thread   |
| 9        | 136R10                     | Tube, Magnet Core  |

# Brake Switch

**06-7119W**



| VINTAGE Y 01 |                   |        |   |
|--------------|-------------------|--------|---|
| 6022F        |                   | A6022F |   |
| REF. No.     | PART No.          |        | DESCRIPTION   |
| 1            | AAA58AS1          | ---    | Bolt, Stop (5/16-18 thread), B = 1.75 in.   |
|              | 477EA1            |        | Bolt, Stop (1/2-13 thread), B = 1.50 in.  |
| 2            | 335E104           | ---    | Bushing, A = 0.250 in.  |
|              | 335E86            |        | Bushing, A = 0.375 in.  |
| 3            | AAA288VZ2         | ---    | Lever, Brake Switch<br>Includes: Adjusting Bolt (1), Bushing (1), & 5/16-18 Jam Nut (1), L = 9.13 in. |
|              | 288NH2            |        | Lever, Brake Switch<br>Includes: Adjusting Bolt (1), Bushing (1), & 5/16-18 Jam Nut (1), L = 5.75 in. |
| 4            | 477Y4<br>AAA635L1 |        | Switch, Brake   |

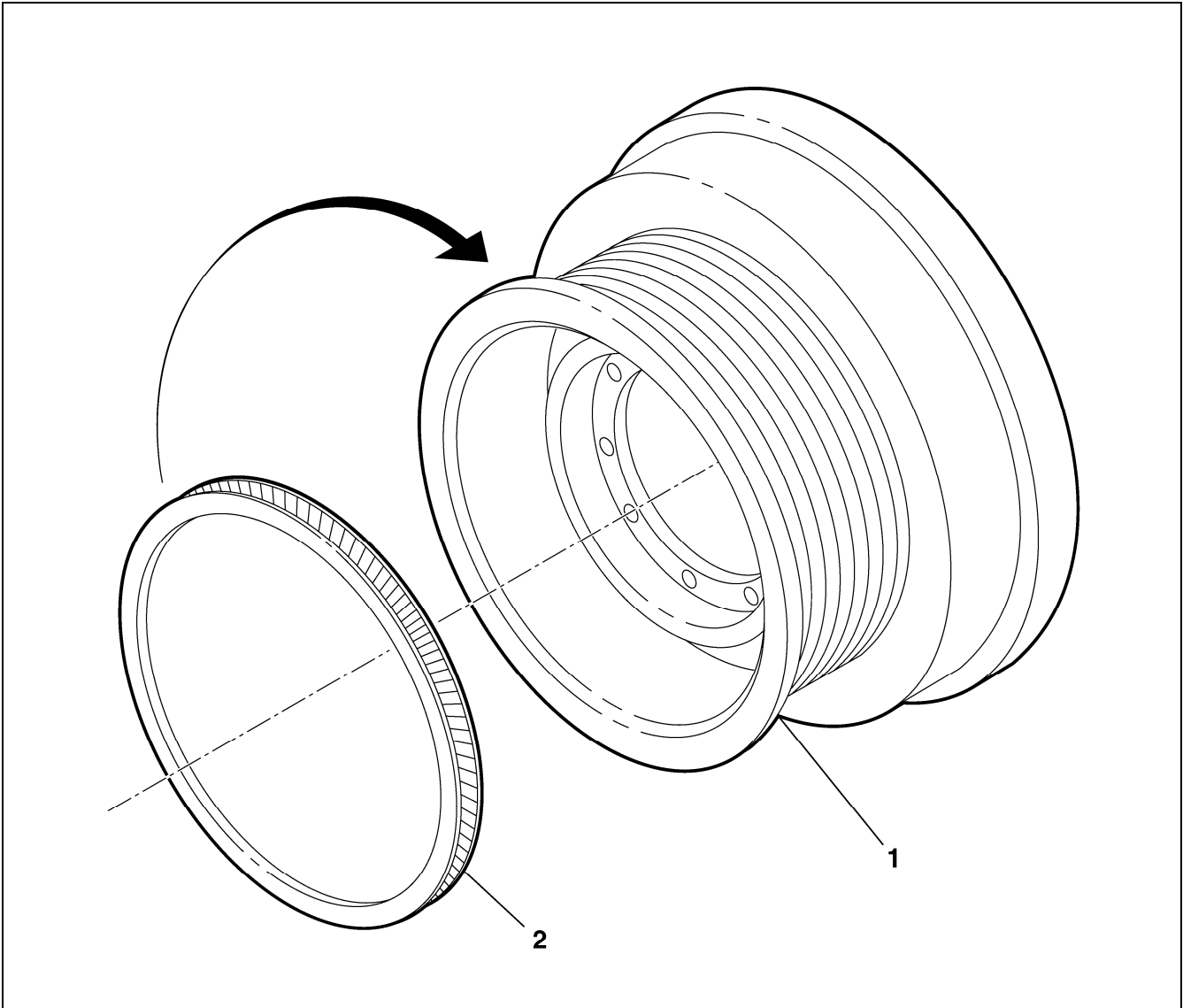


|          | VINTAGE Y 01 |        |                   |
|----------|--------------|--------|-------------------|
|          | 6022F        | A6022F |                   |
| REF. No. | PART No.     |        | DESCRIPTION       |
| 1        | 2700ADE2     |        | Kit, Brake Switch |
| 2        | 288VH2       |        | Kit, Lever        |
| 3        | 177Y1        |        | Switch            |
| 4        | AAAVH2       |        | Terminal          |

**NOTE:** This kit is for vintages without brake switches.

# Drive Sheave

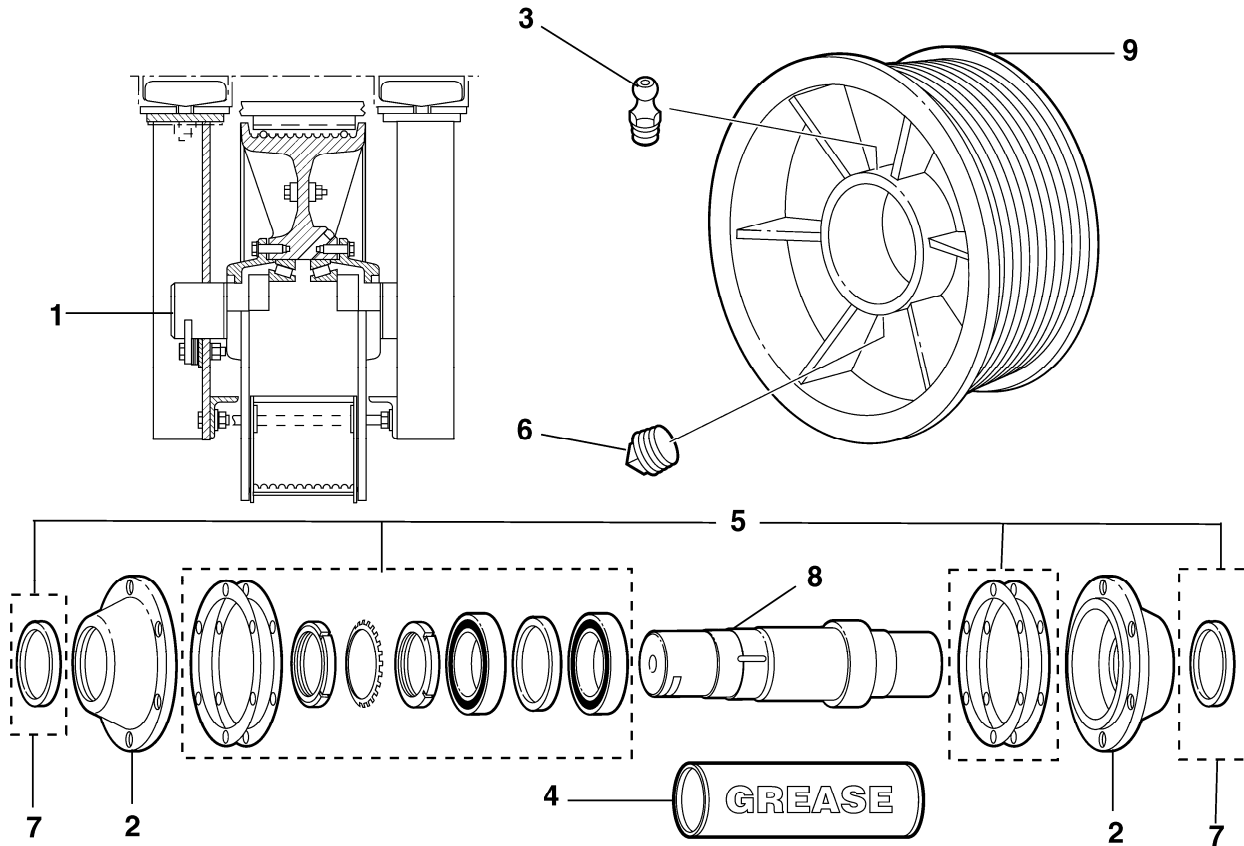
**06-7119W**



| VINTAGE Y 01 |                        |   |                |           |             |                     |
|--------------|------------------------|---|----------------|-----------|-------------|---------------------|
| REF. NO.     | PART or ML             | DESCRIPTION   | DIAMETER (in.) | NO. ROPES | NO. GROOVES | ROPE DIAMETER (in.) |
| 1            | 261J1<br>A261T10       | Drive Sheave, Double-Wrap Traction                    | 27             | 6         | 12          | 1/2                 |
|              | A261W1                 | Drive Sheave, Single-Wrap Traction                    | 24             | 6         | 6           | 1/2                 |
|              | A261W4                 |   |                | 7         | 7           |                     |
|              | A261W7                 |   |                | 8         | 8           |                     |
| 2            | B251BT13<br>AAA251BT35 | Insert, Polyurethane, for Sheave A261W (Sheave Liner) |                |           |             |                     |

**06-7119W**

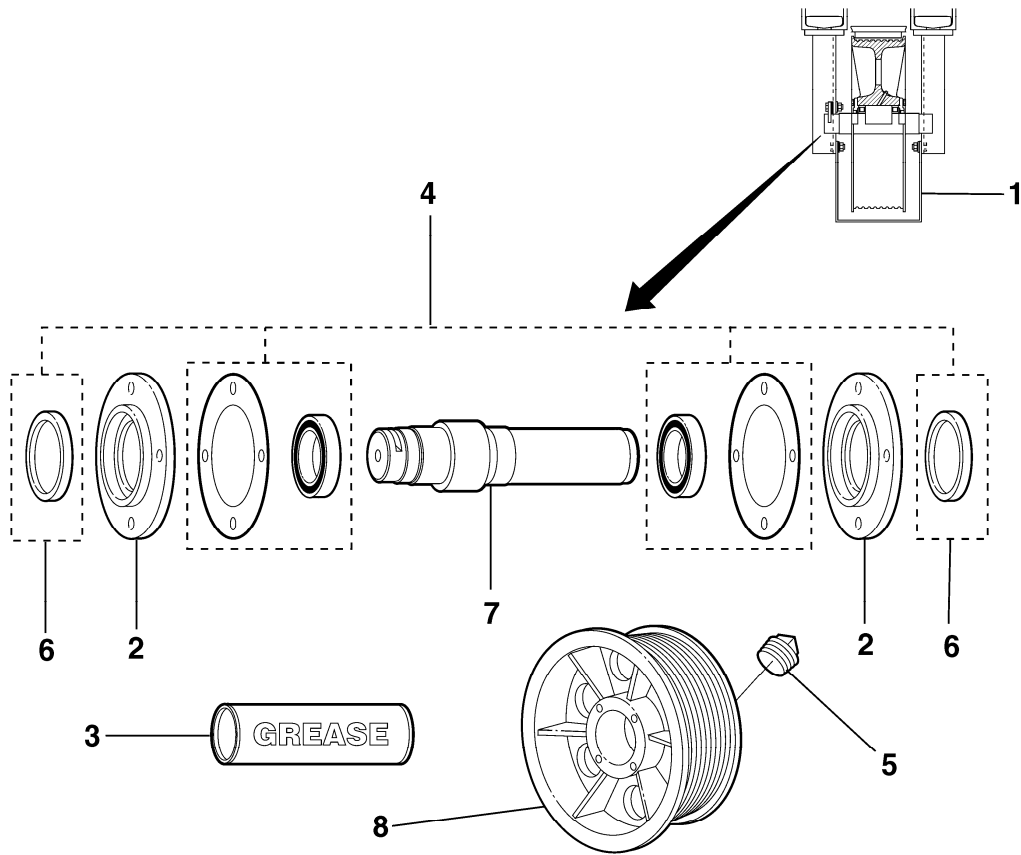
# Secondary Sheave



| REF. No. | VINTAGE   |      | DESCRIPTION   |
|----------|-----------|------|---|
|          | W/O       | Y 01 |   |
| REF. No. | PART No.  |      | DESCRIPTION   |
| 1        | ---       |      | Assembly, Secondary Sheave, Type 7119C  |
| 2        | 346AGW1   |      | Cover, $\varnothing$ 10.5 in.   |
| 3        | 435C1     |      | Fitting, Lubricator, 1/8 N.P.T. Thread  |
| 4        | VP-420240 |      | Grease, Otis No. 12, 14.5 oz. Tube  |
| 5        | 7119C500  |      | Kit, Secondary Sheave Bearing<br>Includes: Roller Bearings (2), Plastic Shims (14), Locknuts (2), Lockwasher (1), Oil Seals (2), & Ring (1) |
| 6        | 377DF13   |      | Plug, Pipe, Steel, 1/8-27 N.P.T. Thread   |
| 7        | 33D21     |      | Seal, Oil, $\varnothing$ 5-1/8 in.  |
| 8        | 495CM2    |      | Shaft, $\boxed{W}$ Nut, L = 17.25 in  |
| 9        | 262W1     |      | Sheave, Secondary, 1/2 in. Ropes & 12 Grooves   |

# Deflector Sheave

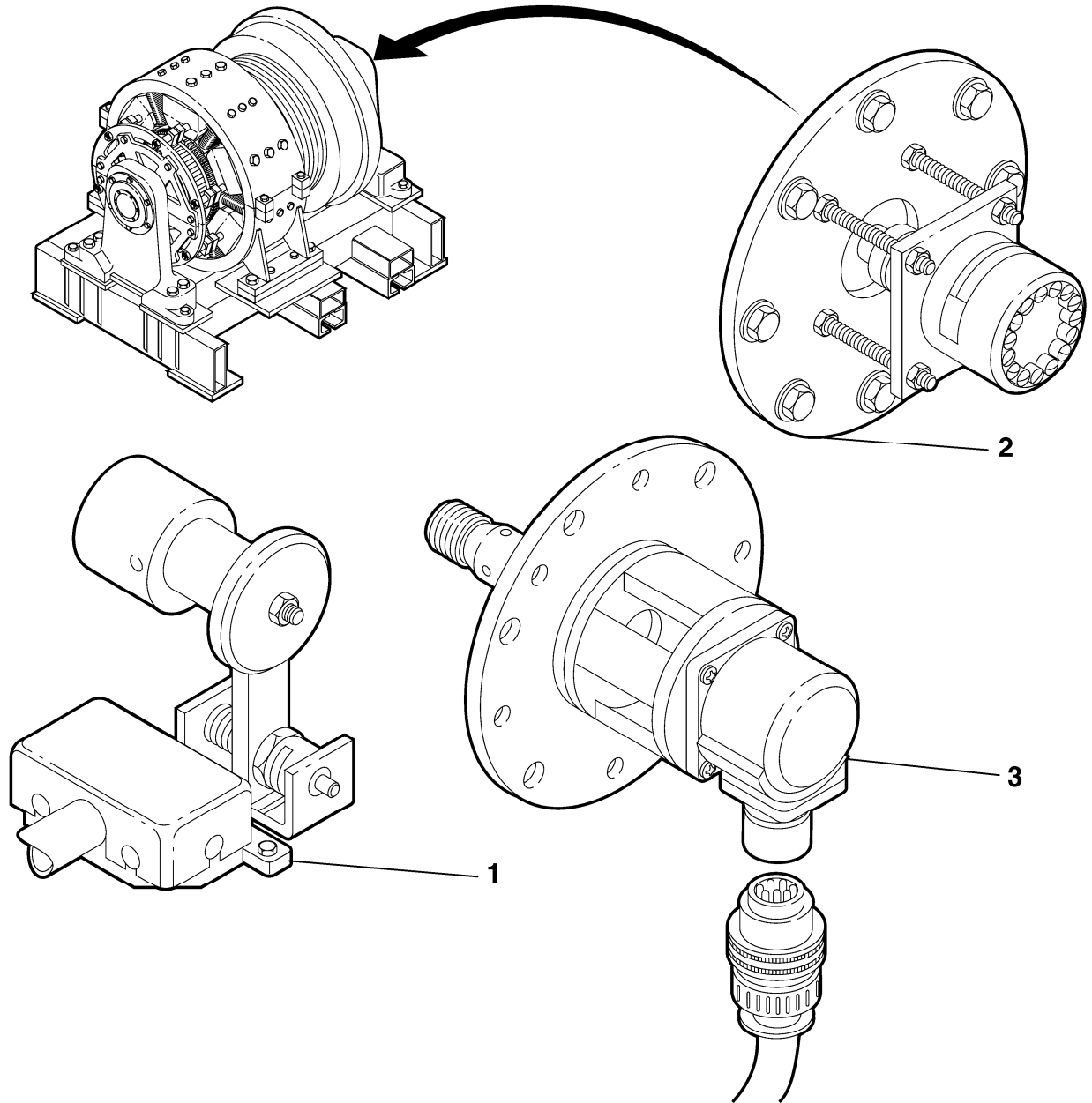
**06-7119W**



| VINTAGE Y 01 |           |   |
|--------------|-----------|---|
| REF. No.     | PART No.  | DESCRIPTION   |
| 1            | ---       | Assembly, Deflector Sheave, Type 7119R  |
| 2            | 346AGC1   | Cover, $\varnothing$ 7.75 in.   |
| 3            | VP-420240 | Grease, Otis No. 12, 14.5 oz. Tube  |
| 4            | 7119R500  | Kit, Deflector Sheave<br>Includes Roller Bearings (2), Vellumoid Gaskets (2), & Oil Seals (2) |
| 5            | 377DF1    | Plug, Pipe, Steel, 1/8-18 N.P.T.  |
| 6            | 33D24     | Seal, Oil, $\varnothing$ 4.00 in.   |
| 7            | 495CK4    | Shaft, L = 16.5 in.   |
| 8            | 263BD1    | Sheave, Deflector, 1/2 in. Ropes (6)  |
|              | 263BD2    | Sheave, Deflector, 1/2 in. Ropes (7)  |
|              | 263BD3    | Sheave, Deflector, 1/2 in. Ropes (8)  |

**06-7119W**

# Encoder & PVT

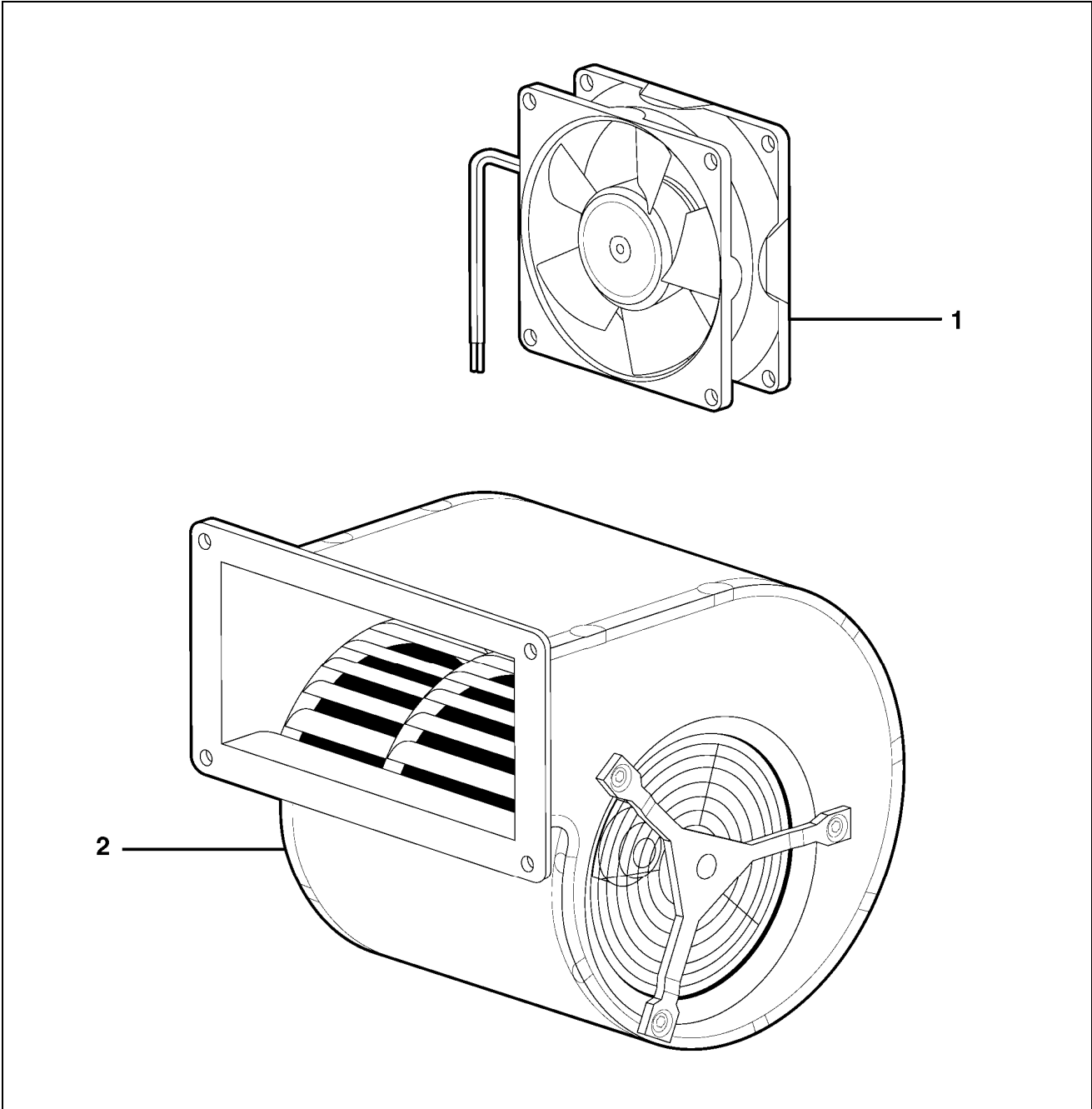


| REF. No. | VINTAGE  |      | DESCRIPTION   |
|----------|----------|------|---|
|          | W/O      | Y 01 |   |
| REF. No. | PART No. |      | DESCRIPTION   |
| 1        | ---      |      | Primary Velocity Transducer, Type HT200750,<br>👁️ SPL 06-HT200750-1 |
| 2        | ---      |      | Shaft Encoder, Type 7119AB, 👁️ SPL 06-7119AB                        |
| 3        | ---      |      | Shaft Encoder, Type, AA*21430D, 👁️ SPL 06-AAA21430E                 |

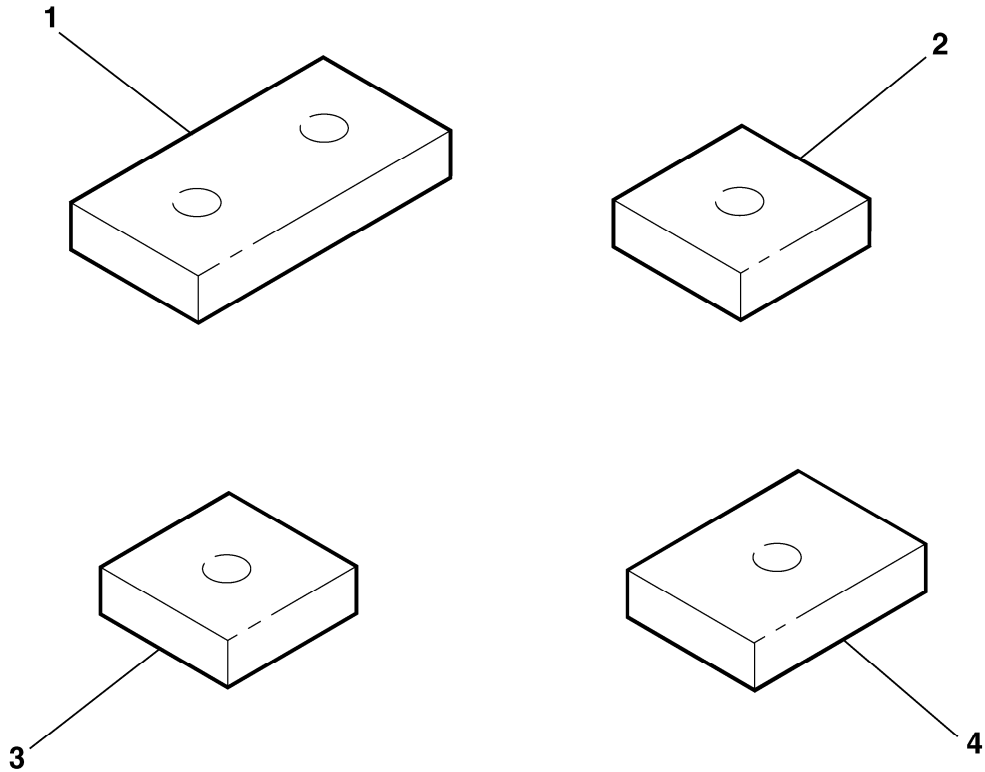


# Blowers

**06-7119W**



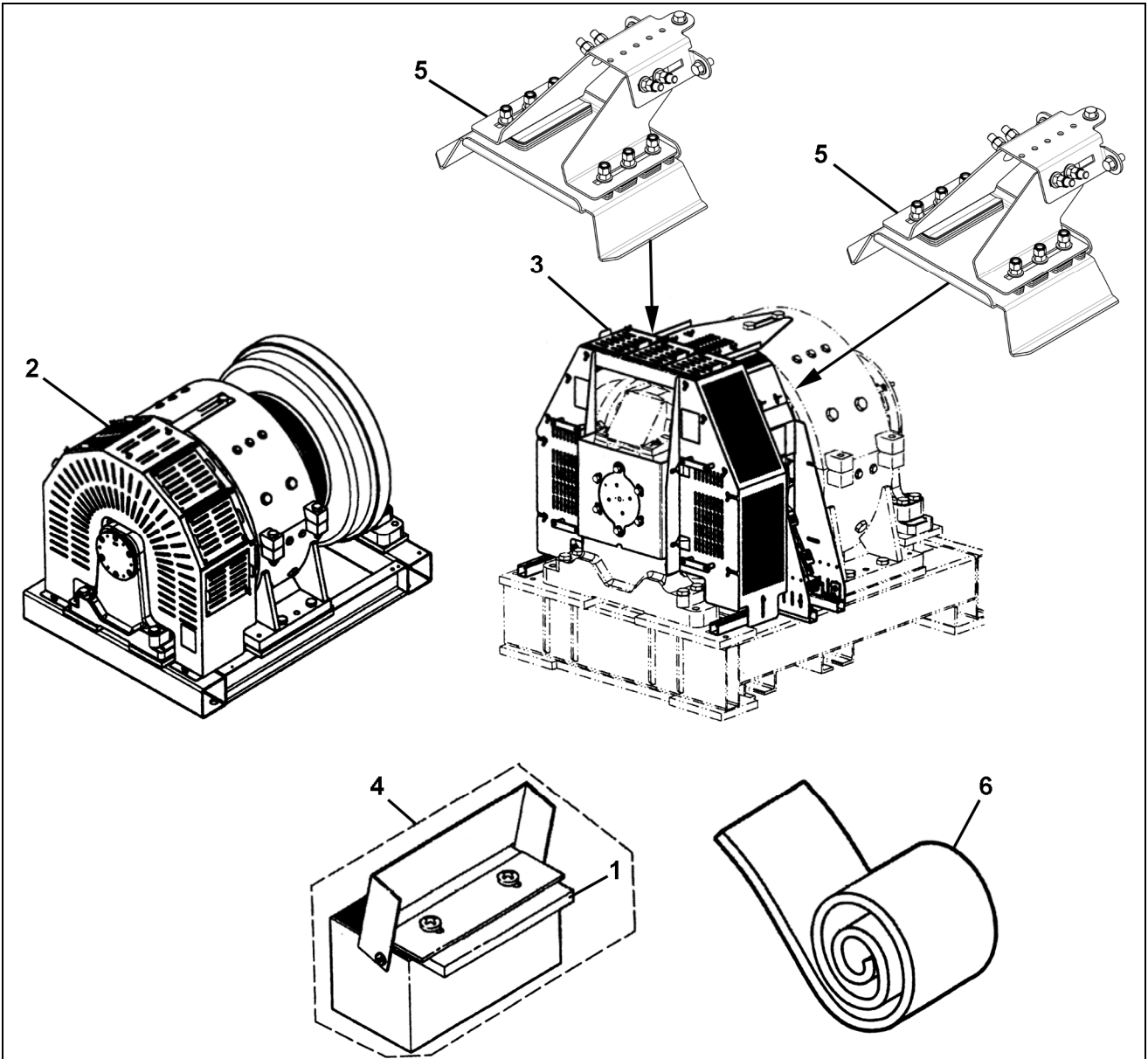
|                 |                      | <b>VINTAGE</b>                                  |             |  |
|-----------------|----------------------|---|-------------|--|
|                 |                      | <b>W/O</b>                                      | <b>Y 01</b> |  |
| <b>REF. No.</b> | <b>PART No.</b>      | <b>DESCRIPTION</b>                              |             |  |
| 1               | P727A4<br>AAA6091AQ1 | Blower, 115 V, 2700/3100 R.P.M., "Pancake" Type |             |  |
| 2               | 2700ACB1             | Blower, 115 V, Squirrel Cage Type               |             |  |






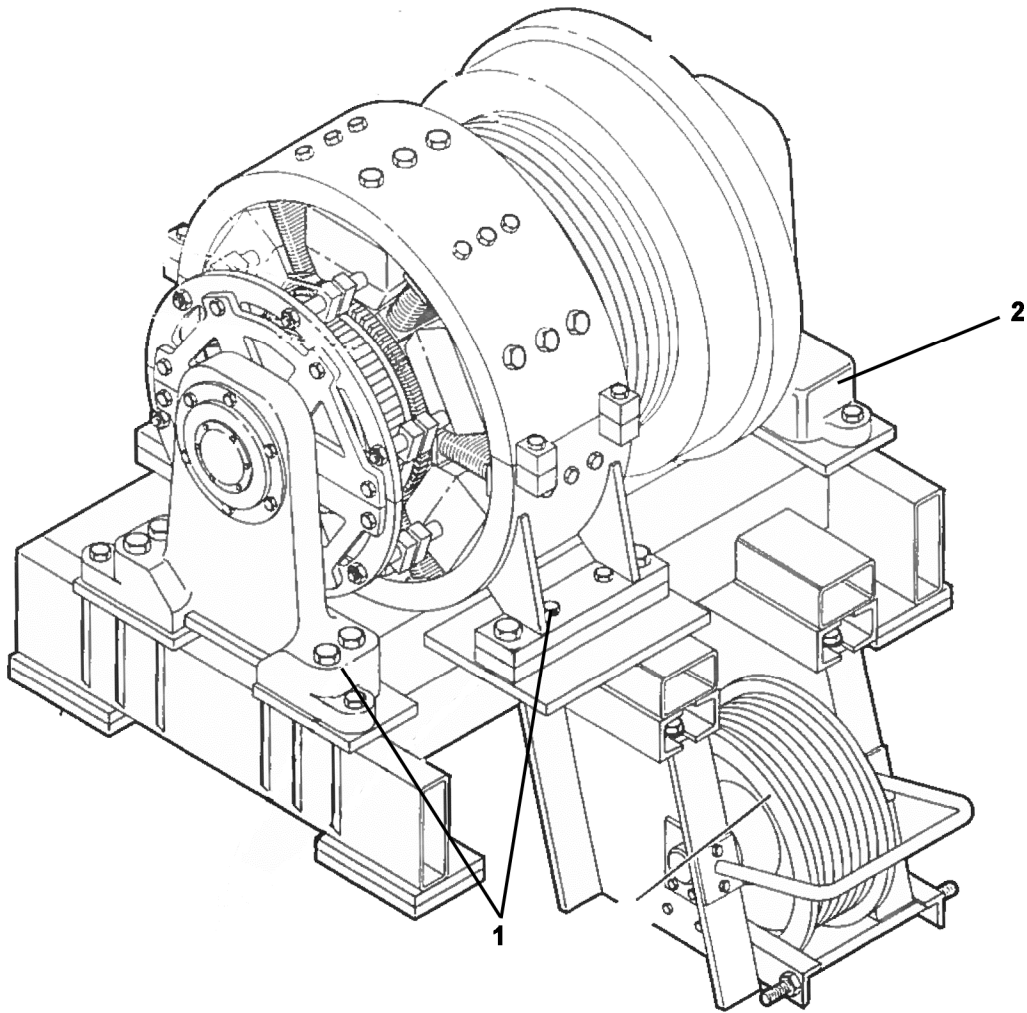
| REF. NO. | VINTAGE    |      | DESCRIPTION   |
|----------|------------|------|---|
|          | W/O        | Y 01 |   |
| REF. NO. | PART or ML |      | DESCRIPTION   |
| 1        | 310BE2     |      | Pad, Rubber, 6 x 3 w/ Two Holes, $\varnothing = 1$ in.        |
| 2        | 310BE3     |      | Pad, Rubber, 3 x 3 w/ One Hole, $\varnothing = 1$ in.         |
| 3        | 310JJ2     |      | Pad, Polyurethane, 3 x 3 w/ One Hole, $\varnothing = 1$ in.   |
| 4        | 310JJ3     |      | Pad, Polyurethane, 3.5 x 3 w/ One Hole, $\varnothing = 1$ in. |

# Sheave Guard for Machine

**06-7119W**



| W/O VINTAGE |           |  |
|-------------|-----------|--|
| REF. No.    | PART No.  | DESCRIPTION  |
| 1           | AAA488M5  | Felt, Wick   |
| 2           | ---       | Guard, Commutator End,  TIP 6.1.0-19 |
| 3           | ---       | Guard, Sheave,  TIP 6.1.2-3           |
| 4           | AAA508AH3 | Lubricator   |
| 5           | ---       | Retainer, Rope,  TIP 6.1.0-27         |
| 6           | AAA297AY4 | Strip, Carpet  |



| REF. NO. | W/O VINTAGE |                                       |
|----------|-------------|---------------------------------------|
|          | PART or ML  | DESCRIPTION                           |
| 1        | 80C1        | Pin, Tapered, Commutator Side, 4 Each |
| 2*       | 80C9        | Pin, Tapered, Sheave Side, 2 Each     |

\* Location shown.