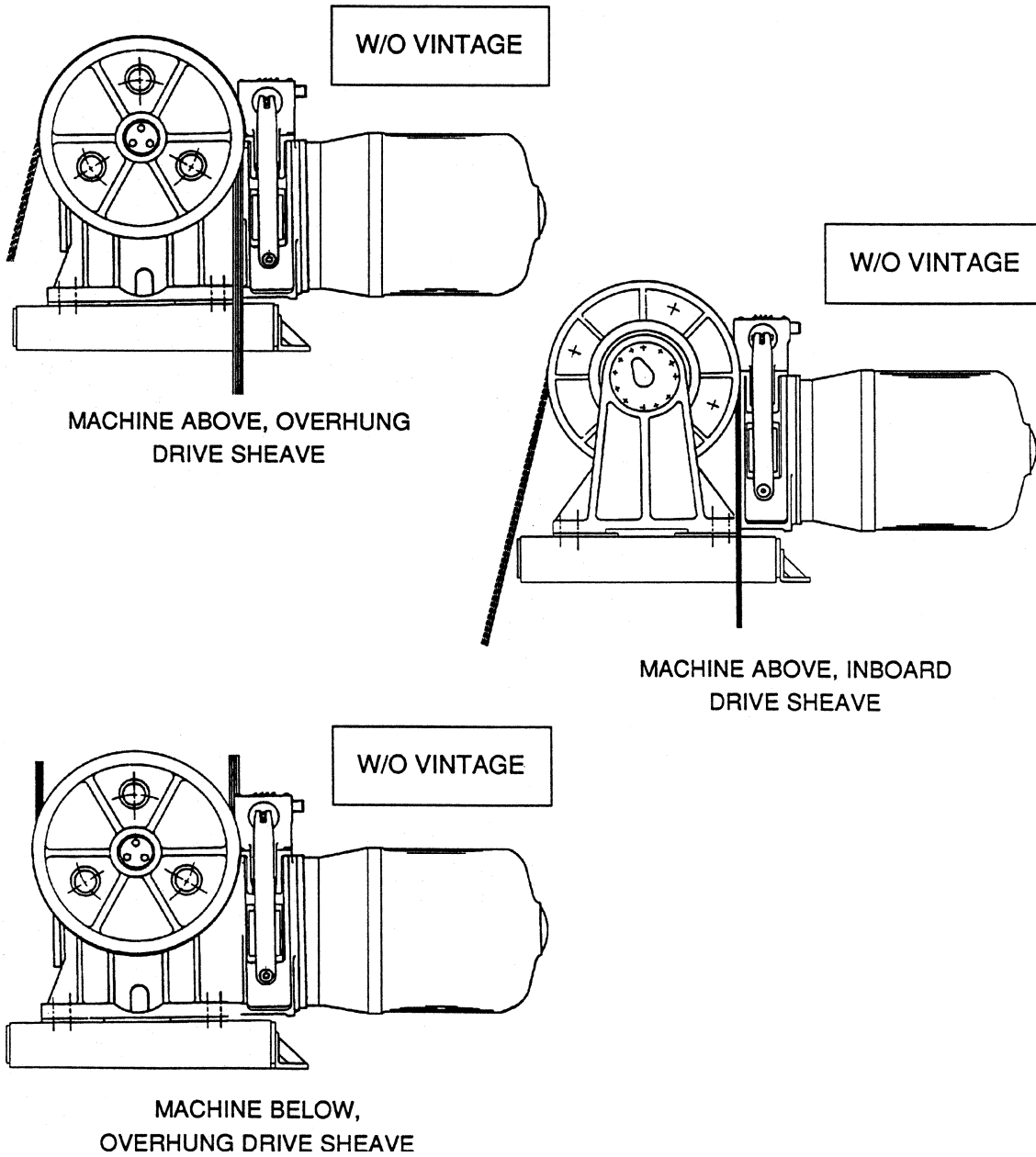


# 29 CT Machine

Spare Parts Leaflet

06-7116A

October 18, 2017 / Page 1 of 37



# OTIS

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

SERVICE ENGINEERING  
Otis Elevator Company  
Bloomfield, Connecticut USA

Unpublished Work—© Otis Elevator Co.; 2017

## Leaflet Description

This SPL provides spare parts information for 29CT machines. Although most of these machines do not carry vintage tags, there are several references throughout this document to vintages as defined by the original assembly drawings. These vintage designations can be found in the machine records or 20/20 sheets, or identified by features of the machine itself as follows:

**7116A**—Inboard drive sheave machine was produced until late 1966. It is identifiable by flat thrust bearing cover with no pipe plug. The outboard sheave shaft bearing housing is one piece. There is no separate cover. The gearcase has one side inspection cover on the side away from the drive sheave. It was originally produced with a “Gits” type worm shaft seal.

**7116C**—Overhung drive sheave machine was produced until late 1966. It is identifiable by flat thrust bearing cover with no pipe plug. The gearcase side sheave shaft bearing housing is one piece. There is no separate cover. The gearcase has side inspection covers on both sides. It was originally produced with “Gits” type worm shaft seal.

**A7116A**—Inboard drive sheave machine was produced from late 1966 through late 1967. It is identical to the 7116A vintage, except that the worm shaft seal was changed to a pair of traditional lip seals.

**A7116C**—Overhung drive sheave machine was produced from late 1966 through late 1967. It is identical to the 7116C vintage, except that the worm shaft seal was changed to a pair of traditional lip seals.

**B7116A**—Inboard drive sheave machine was produced from late 1967 to early 1969. It is identifiable by flat thrust bearing cover with a 1/4 in. pipe plug. A second side inspection cover was added in early 1968, so examples of this vintage exist with covers on one or both sides. Also in early 1968, the outboard sheave shaft bearing housing was changed to have a separate cover.

**B7116C**—Overhung drive sheave machine was produced from late 1967 through early 1969. It is identifiable by flat thrust bearing cover with a 1/4in. pipe plug. The gearcase has two side inspection covers. In late 1968, the gearcase side sheave shaft bearing housing was changed to have a separate cover.

**C7116A**—Inboard or overhung drive sheave machine may have been produced between early 1968 and early 1969. If this vintage saw production at all, it was not produced in significant numbers. It is identifiable by flat thrust bearing cover with 1/2 in. pipe plug. The gearcase has two side inspection covers. This is the only vintage of 29CT machine to have the thrust bearing retained on the worm shaft by a bearing nut and tabbed washer.

**D7116A**—Inboard or overhung drive sheave machine was produced from early 1969 to the end of Yonkers production. It is identifiable by domed thrust bearing cover with 1/2 in. pipe plug. The gearcase side inspection covers were eliminated.

**AAA7116AR**—Inboard or overhung drive sheave machine, China manufacture. It is identifiable by lack of casting numbers on gearcase components and use of metric hardware.

**NOTE:** OSC only supplies worm and gear sets that are made to the latest standard. For earlier vintage machines, additional upgrade kits (as noted throughout this SPL) are necessary to install these gear sets. For future service part needs, such as bearings and seals, once these kits are installed, the machine will essentially be the latest vintage of its type (D7116A, B7116A, or B7116C), and the original replacement parts will no longer work. For subsequent service parts needs after a worm and gear change, always order parts per the latest vintage.

(Continued on next page)

# History (Continued)

06-7116A

## Leaflet Revisions

Date Revised	Subject Matter Expert	Reason for Revision
October 1987	- - -	New leaflet
August 24, 2006	Tom Charney	Revised to include all vintages
November 4, 2009	Tom Charney	Updated coupling parts and illustrations on pages 26–27.
June 12, 2013	Tom Charney	Revised to include puller bolt tap information for overhung drive sheaves
October 18, 2017	Tom Charney	Revised Ref. 2 on p. 27

## Related Drawings

Drawing No.	Title	Drawing No.	Title
D7116A	Assembly & Arrangement of 29CT Machine	- - -	- - -
- - -	- - -	- - -	- - -

## Related Documents

Document ID	Title
SPL C-1065A	Type 7116D Brake
TIP 6.2.0-21	CT Machine Bushing Removal Tool

## Subject Matter Expert

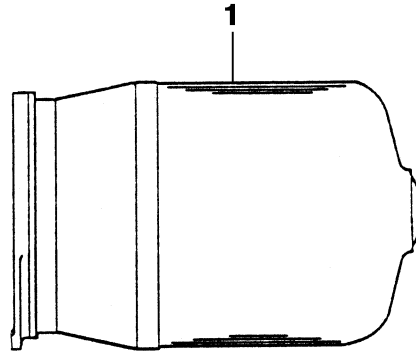
Name	Department
Tom Charney	OSC Service Engineering










## About Spare Parts Leaflets...

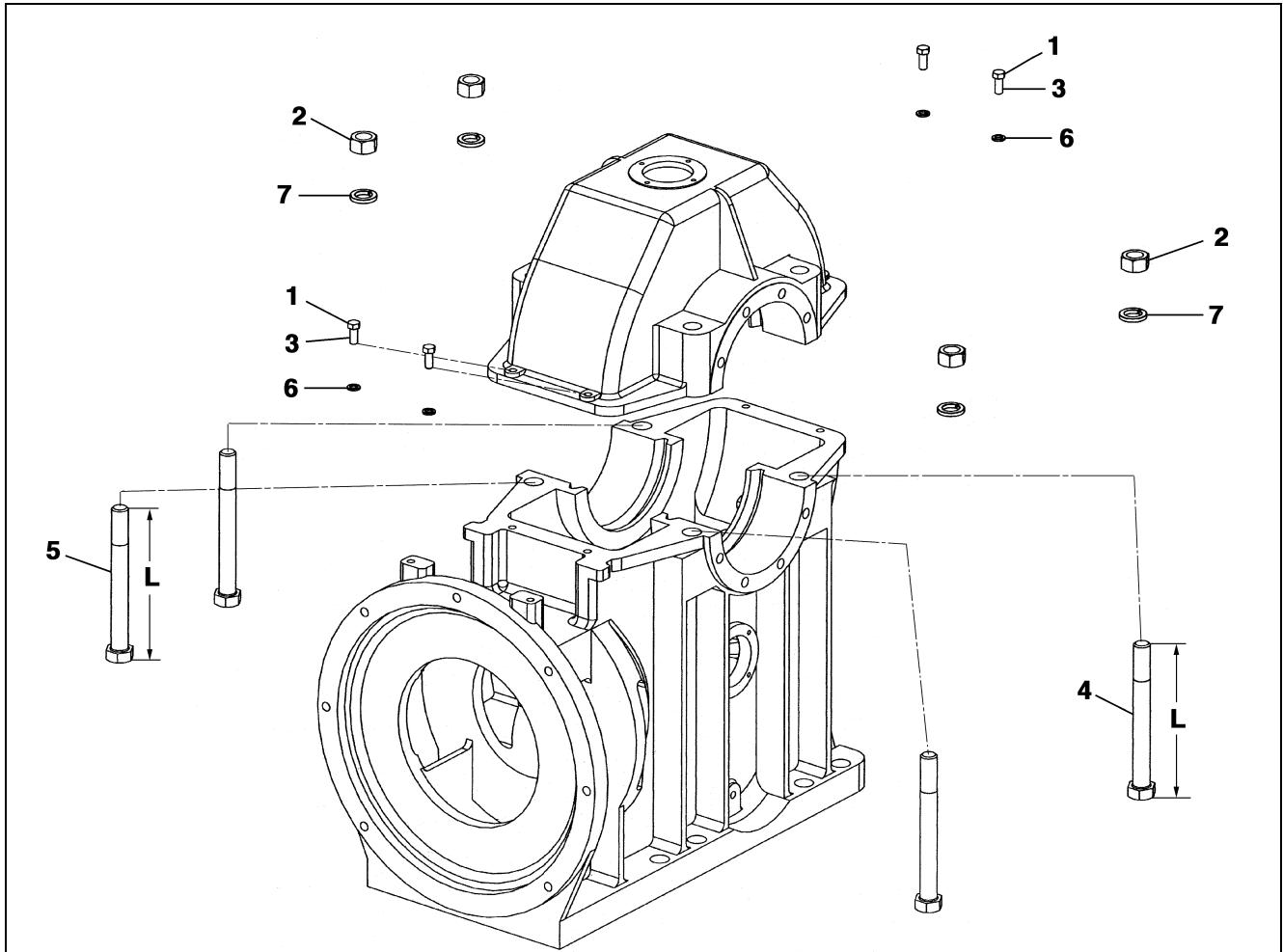
This document lists the lowest replaceable units (LRUs) for the standard version of the product. The LRUs are chosen by a team of Otis associates representing engineering and manufacturing.

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.



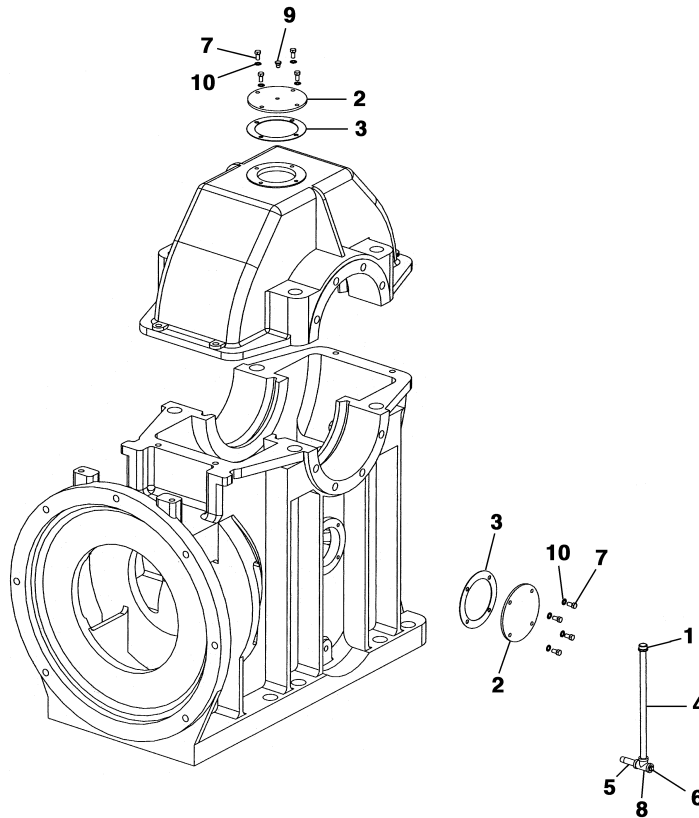
REF. No.	MOTOR TYPE	DESCRIPTION
1	W/O VINTAGE	
	Type 83KS	AC Motor,  SPL C-1056
	Type 95KS	AC Motor,  SPL C-1057
	Type 77L	DC Motor,  SPL C-1060
	Type 89L	DC Motor,  SPL C-1061
	Type 98L	DC Motor,  SPL C-1062
	Type 101KS	AC Motor,  SPL C-1058
	Type 112L	DC Motor,  SPL C-1063
	Type 115KS	AC Motor,  SPL C-1059
	Reiland	ACVF Motor, Call OSC (AAA20570F)
Reivaj	ACVF Motor,  SPL 08-AAA20570A	



W/O VINTAGE		
	7116A, 7116C, A7116A, A7116C, B7116A, B7116C, C7116A, D7116A	AAA7116AR
REF. No.	PART No.	DESCRIPTION
1	NUT FH1/2CP	---
	---	ISO4032M16-10-Z
2	See Description	---
	---	ISO4032M36-8-Z
3	96H243	AAA98HZ3
4	96CB2	AAA96CX3
5	96CB4	AAA96CX4
6	130F30	---
	---	DIN128A-M16-430HV-Z
7	130F37	---
	---	DIN128A-M36-430HV-Z

06-7116A

## 29 CT Machine Gear Case Covers and Stand Pipe



W/O VINTAGE

7116A, 7116C,  
A7116A, A7116C,  
B7116A, B7116C,  
C7116A, D7116A

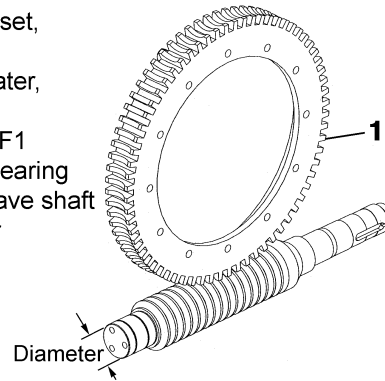
AAA7116AR

REF. No.	PART No.		DESCRIPTION
1	377DE3		Cap
2	AAA20141C11		Cover, Clear, Complete with Hardware and Vent
	353CB1		Cover, Solid
3	376H10		Gasket
4	377KA9		Pipe, Length = 13.75 in.
5	377KA8		Pipe, Length = 2-1/2 in.
6	377DF3		Plug, Drain
7	See Description	---	Bolt, 3/8 in. – 16 x 3/4 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4017M10X20-8.8Z	Bolt, M10 x 20
8	377EG3		Tee
9	435AT1		Vent
10	130A9	---	Washer, 3/8 in. Internal Lock, Zinc Plated
	---	DIN6797J-M10-350HV-Z	Washer, M10 Internal Lock, Zinc Plated

# 29 CT Machine Worm & Gear Sets

06-7116A

**NOTE:** When replacing a worm and gear set, order worm shaft sundries kit p/n AAA27076BF3 (see p. 8) for later, large thrust bearing machines (columns 1-5), or p/n AAA27076BF1 (see p. 11) for early, small thrust bearing machines (columns 6-8), and sheave shaft sundries kit p/n AAA27076BF5 for overhung sheave (see p.15) or p/n AAA27076BF7 for inboard sheave (see p. 18).



Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
w/o Vintage	w/o Vintage (NOTE 1)	w/o Vintage	w/o Vintage (NOTE 2)	w/o Vintage (NOTE 3)	w/o Vintage	w/o Vintage (NOTE 4)	w/o Vintage (NOTE 4)
(AAA7116AR)	(AAA7116AR)	(D7116A)	(D7116A)	(C7116A)	(B7116A, B7116C)	(A7116A, A7116C)	(7116A, 7116C)
Diameter = 3.5 in.					2.75 in.	2.44 in.	

Ref. No.	Gear Ratio	Part Number							
1	11-2/7:1	AAA490JC9/ AAA200BX9	AAA490JF9/ AAA200BX9	490HJ9/ 200BM9	A490HD9/ 200BM9	490HD9/ 200BM9	B490GP9/ 200BM9	A490GP9/ 200BM9	490GP9/ 200BM9
	13-1/2:1	AAA490JC8/ AAA200BX8	AAA490JF8/ AAA200BX8	490HJ8/ 200BM8	A490HD8/ 200BM8	490HD8/ 200BM8	B490GP8/ 200BM8	A490GP8/ 200BM8	490GP8/ 200BM8
	17-1/5:1	AAA490JC7/ AAA200BX7	AAA490JF7/ AAA200BX7	490HJ7/ 200BM7	A490HD7/ 200BM7	490HD7/ 200BM7	B490GP7/ 200BM7	A490GP7/ 200BM7	490GP7/ 200BM7
	19-1/2:1	AAA490JC6/ AAA200BX6	AAA490JF6/ AAA200BX6	490HJ6/ 200BM6	A490HD6/ 200BM6	490HD6/ 200BM6	B490GP6/ 200BM6	A490GP6/ 200BM6	490GP6/ 200BM6
	22-1/2:1	AAA490JC5/ AAA200BX5	AAA490JF5/ AAA200BX5	490HJ5/ 200BM5	A490HD5/ 200BM5	490HD5/ 200BM5	B490GP5/ 200BM5	A490GP5/ 200BM5	490GP5/ 200BM5
	27-1/3:1	AAA490JC4/ AAA200BX4	AAA490JF4/ AAA200BX4	490HJ4/ 200BM4 (Note 5)	A490HD4/ 200BM4	490HD4/ 200BM4	B490GP4/ 200BM4	A490GP4/ 200BM4	490GP4/ 200BM4
	28:1	---	---	1-490HJ1/ 1-200BM1 (Note 5)	---	---	---	---	---
	34-1/2:1	AAA490JC3/ AAA200BX3	AAA490JF3/ AAA200BX3	490HJ3/ 200BM3	A490HD3/ 200BM3	490HD3/ 200BM3	B490GP3/ 200BM3	A490GP3/ 200BM3	490GP3/ 200BM3
	45-1/2:1	AAA490JC2/ AAA200BX2	AAA490JF2/ AAA200BX2	490HJ2/ 200BM2	A490HD2/ 200BM2	490HD2/ 200BM2	B490GP2/ 200BM2	A490GP2/ 200BM2	490GP2/ 200BM2
	68:1	AAA490JC1/ AAA200BX1	AAA490JF1/ AAA200BX1	490HJ1/ 200BM1	A490HD1/ 200BM1	490HD1/ 200BM1	B490GP1/ 200BM1	A490GP1/ 200BM1	490GP1/ 200BM1

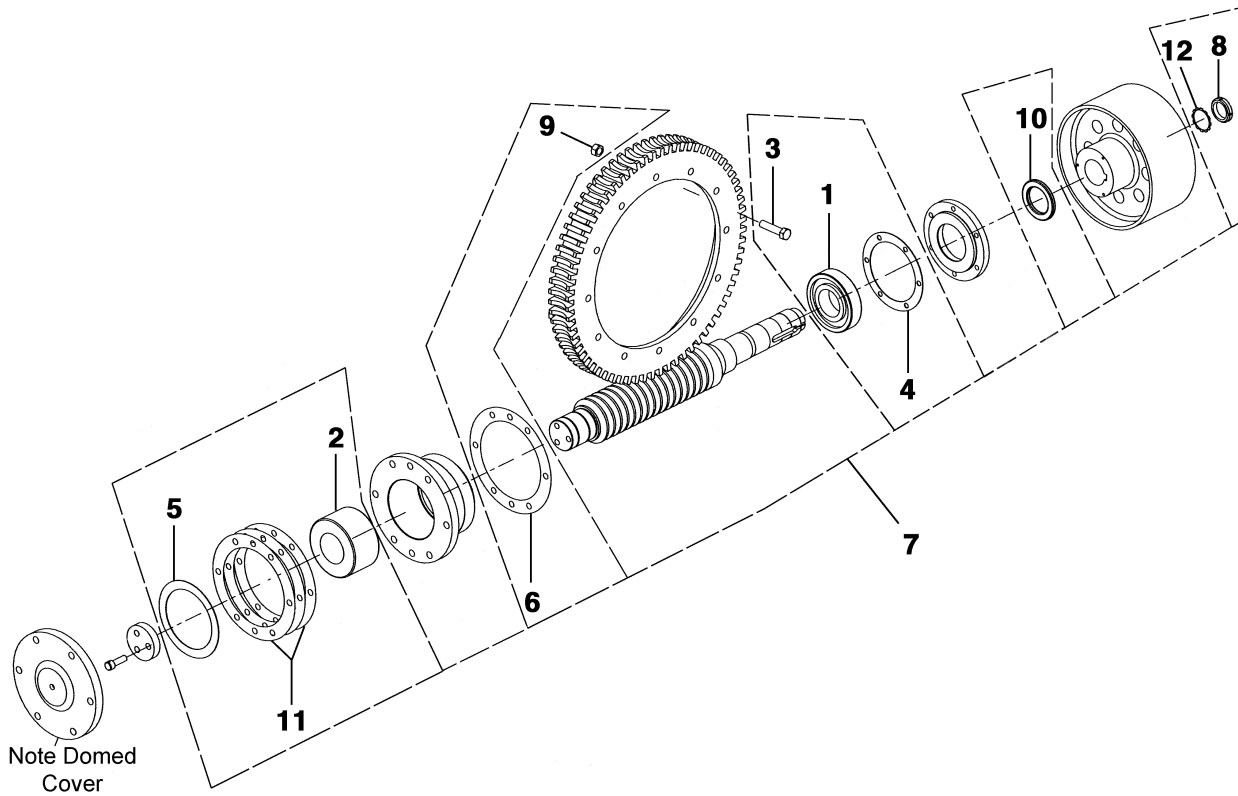
**NOTE 1:** When replacing worm and gear sets shown in this column, use part numbers shown in **column 1**.

**NOTE 2:** When replacing worm and gear sets shown in this column, use part numbers shown in **column 3**.

**NOTE 3:** When replacing worm and gear sets shown in this column, use part numbers shown in **column 3** and also supply thrust retainer upgrade p/n AAA27076BF4.

**NOTE 4:** When replacing worm and gear set shown in this column, use part numbers shown in Column 6 and also supply thrust housing upgrade p/n AAA27076BF2.

**NOTE 5:** See TIP 6.2.4-1, 29CT Machine 27 1/3:1 Gear Ratio, for information regarding selection of 27-1/3:1 and 28:1 ratios.



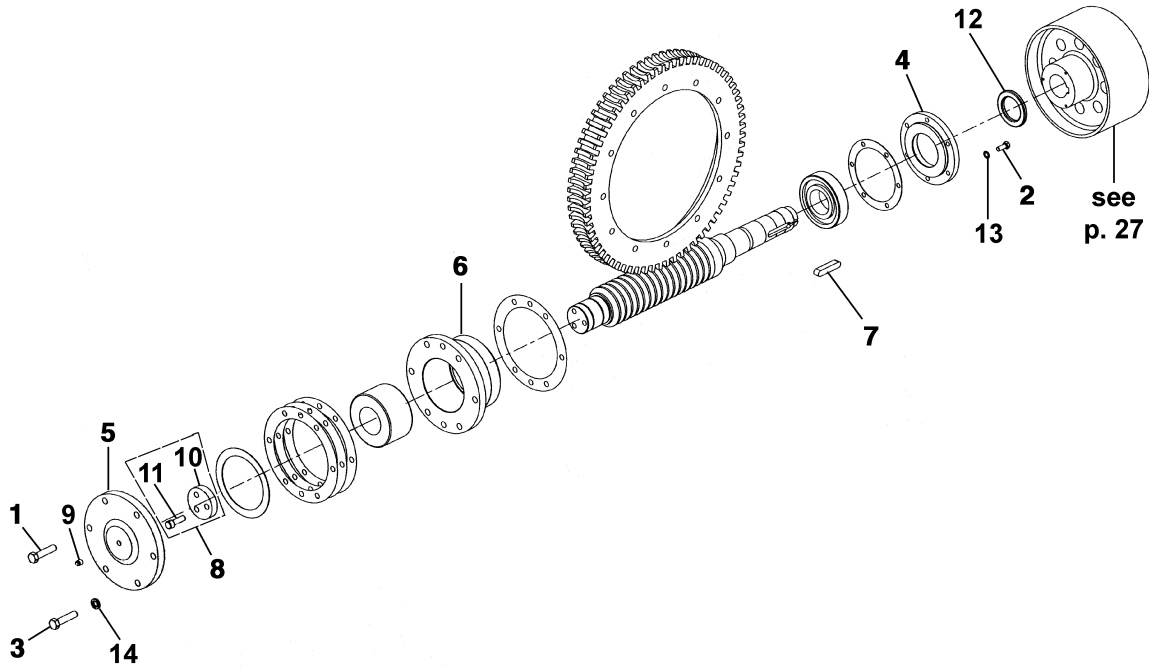
REF. No.	W/O VINTAGE		DESCRIPTION
	D7116A	AAA7116AR	
PART No.			
1	207Z42		Bearing, Inside
2	209AB3		Bearing, Thrust
3	84D13		Bolt, Body Fit
4	255HB65		Gasket, Inside Cover
5	376J52		Gasket, Thrust Cover
6	376J50		Gasket, Thrust Housing
7	AAA27076BF3		Kit, Worm Shaft Sundries, Includes Gear Mounting Hardware
8	72BV2	AAA72HT1	Nut, Spanner
9	67H12		Nut, Elastic Stop
10	33AA3		Seal, Solid, Worm Shaft, see <b>NOTE</b>
11	255HB82		Shim, Thrust Cover, 0.003 in. Thick
	255HB87		Shim, Thrust Cover, 0.0075 in. Thick
12	130AA2	AAA130BG1	Washer, Tabbed

**NOTE:** Solid seal for use during complete repair only. For service replacement split seal, see page 9.

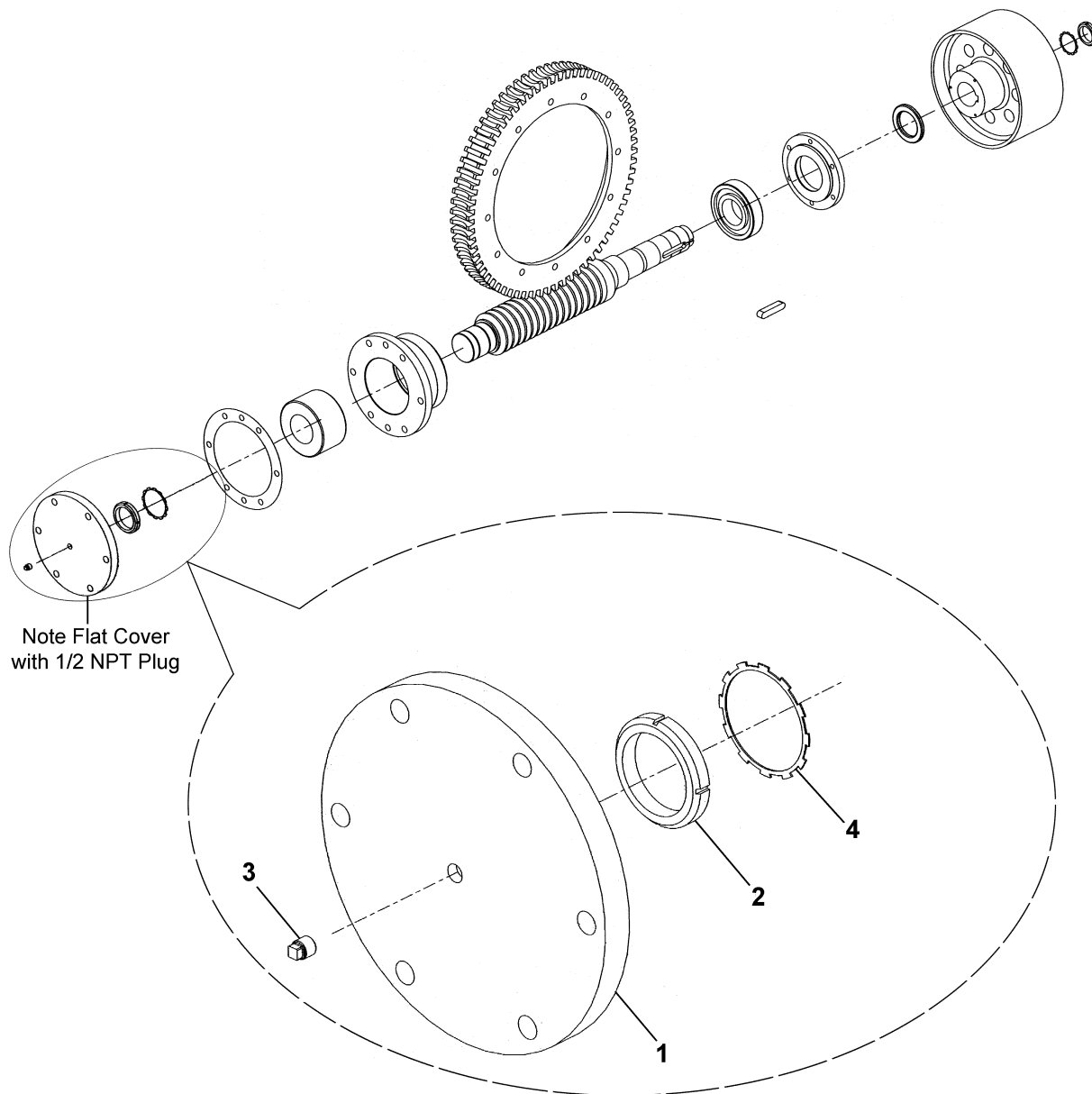


# 29 CT Machine Worm Shaft Parts

06-7116A



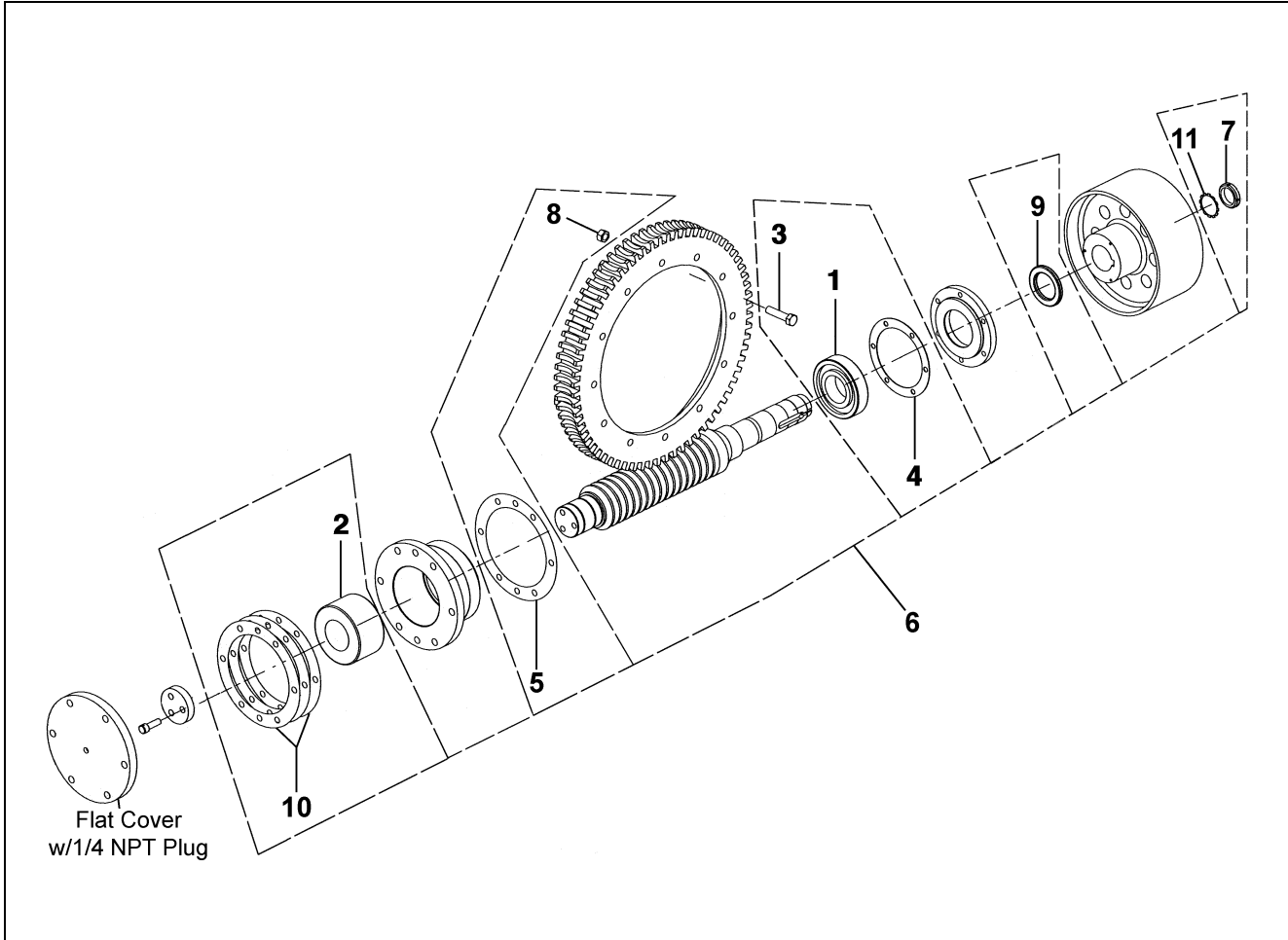
REF. No.	W/O VINTAGE		DESCRIPTION
	D7116A	AAA7116AR	
REF. No.	PART No.		DESCRIPTION
1	See Description	---	Bolt, 3/4 in. – 10 x 1-3/4 in., Grade 8 (jack-screw for thrust housing removal)
	---	ISO4017M20X45-8.8Z	Bolt, M20 x 45 mm, Grade 8.8 (jack-screw for thrust housing removal)
2	See Description	---	Bolt, 1/2 in. – 13 x 1-1/4 in. in., Zinc Plated, Grade 5 (or higher)
	---	ISO4017M12X35-8.8Z	Bolt, M12 x 35 mm, Zinc Plated, Grade 8.8 (or higher)
3	See Description	---	Bolt, 3/4 in. – 10 x 3-1/4 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4014M20X80-8.8Z	Bolt, M20 x 80 mm, Zinc Plated, Grade 8.8 (or higher)
4	A346ALP1 A346AGF1	AAA346ASK1 A346AGF1	Cover, Inside Bearing
5	B346AGK1		Cover, Thrust Bearing
6	B396GG1	AAA396LD1	Housing, Thrust Bearing
7	192G59	AAA192AL2	Key, Worm Shaft
8	AAA27076BF4	---	Kit, Retainer
9	377DF3		Plug, Thrust Bearing Cover (1/2 NPT)
10	353W24		Retainer, Thrust Bearing
11	124CN5	AAA124GC1	Screw, Thrust Bearing Retainer
12	AAA33AQ7		Seal Kit, Split, Worm Shaft
13	130F29	---	Washer, 1/2 in. Spring Lock, Zinc Plated
	---	DIN128A-M12-430HV-Z	Washer, M12 Spring Lock, Zinc Plated
14	130F31	---	Washer, 5/8 in. Spring Lock, Zinc Plated
	---	DIN128A-M20-430HV-Z	Washer, M20 Spring Lock, Zinc Plated



W/O VINTAGE  
(C7116A)

REF. No.	PART No.	DESCRIPTION
1	A346AGK1	Cover, Thrust
2	72BV6	Nut, Bearing
3	377DF3	Plug, Thrust Bearing Cover (1/2 NPT)
4	130AA6	Washer, Tabbed

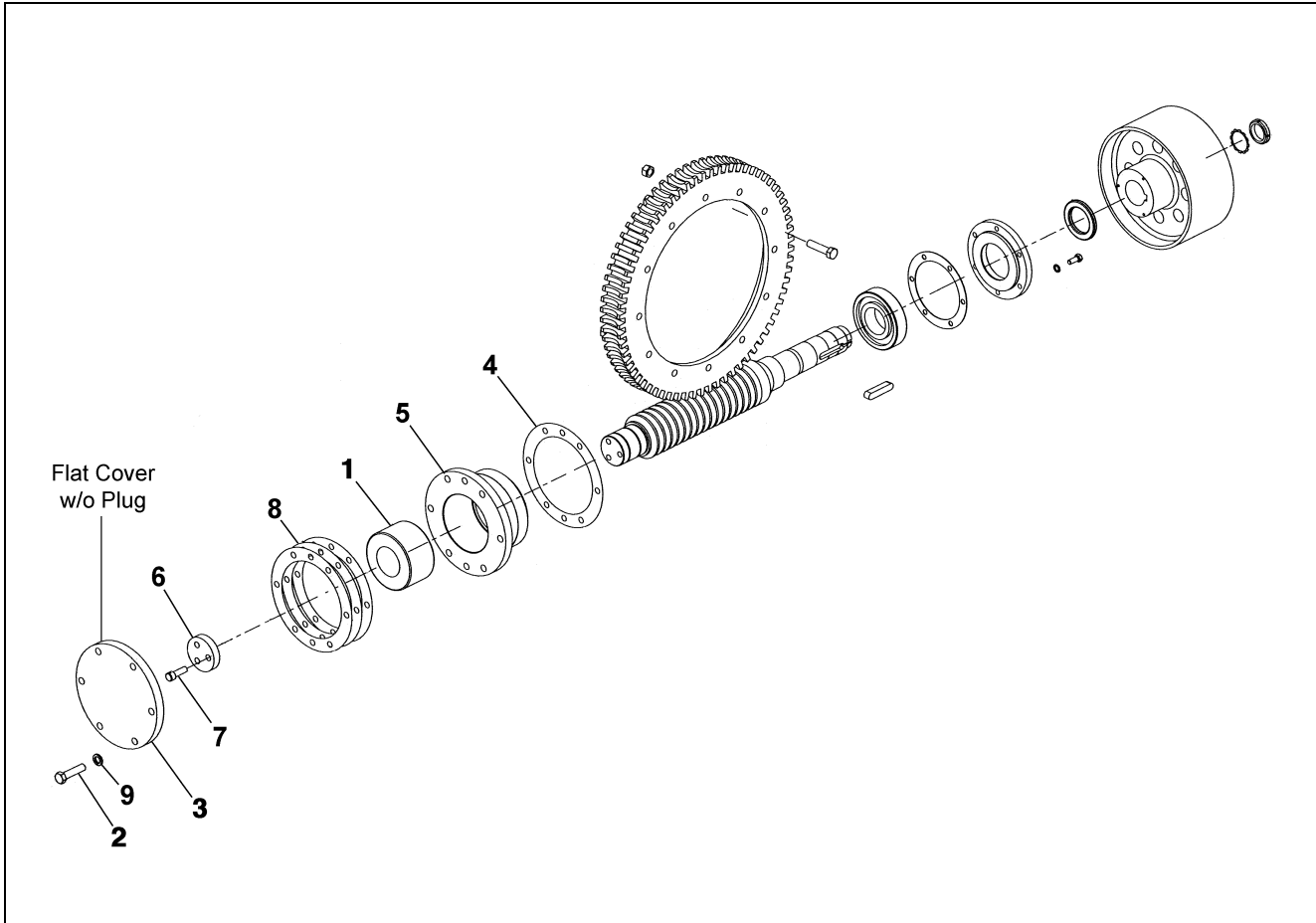
**NOTE:** For use only when existing worm shaft is retained. When replacing worm and gear, use thrust retainer upgrade kit p/n AAA27076BF4 and sundries p/n AAA27076BF3.



W/O VINTAGE		
B7116A, B7116C		
REF. No.	PART No.	DESCRIPTION
1	207Z42	Bearing, Inside
2	209AB2	Bearing, Thrust
3	84D13	Bolt, Body Fit
4	255HB65	Gasket, Inside Cover
5	376J29	Gasket, Thrust Housing
6	AAA27076BF1	Kit, Worm Shaft Sundries, Includes Gear Mounting Hardware
7	72BV2	Nut, Spanner
8	67H12	Nut, Elastic Stop
9	33AA3	Seal, Solid, Worm Shaft, see <b>NOTE</b>
10	255HB63	Shim, Thrust Cover, 0.003 in. Thick
	255HB76	Shim, Thrust Cover, 0.0075 in. Thick
11	130AA2	Washer, Tabbed

**NOTE:** Solid seal for use during complete repair only. For service replacement split seal, see page 12.



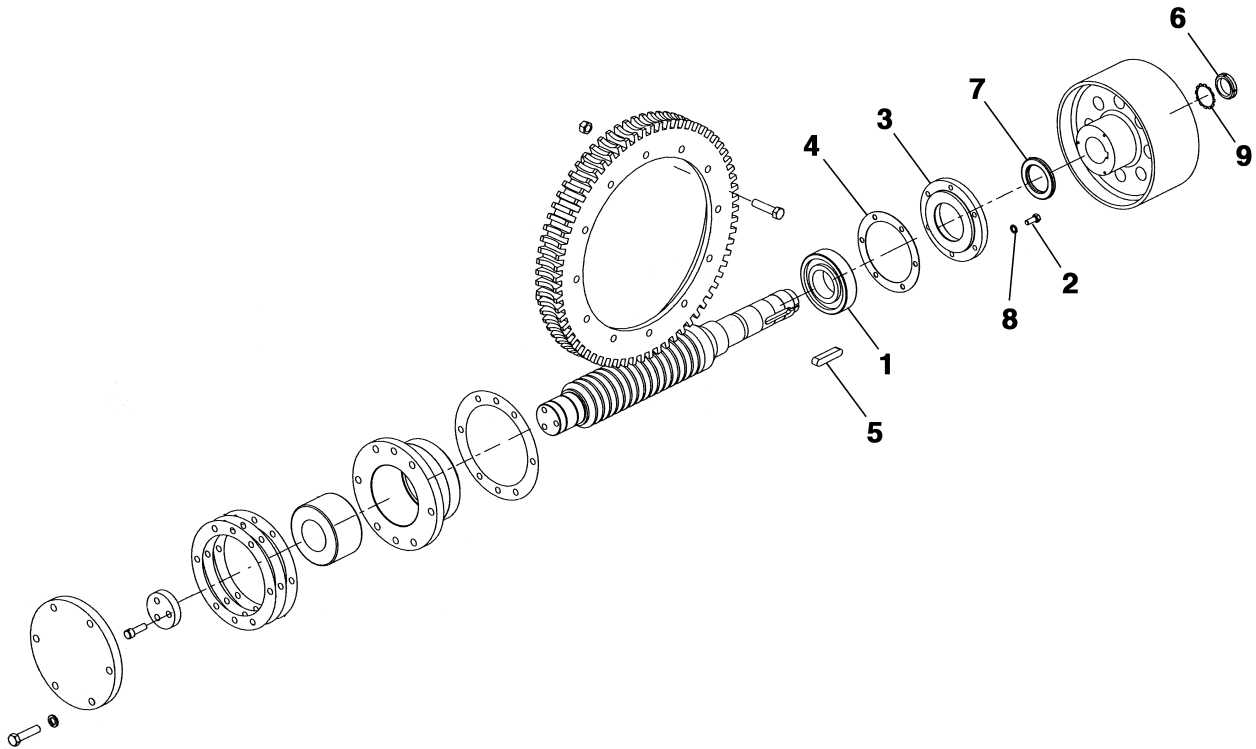


W/O VINTAGE  
A7116A, A7116C,  
7116A, 7116C


REF. No.	PART No.	DESCRIPTION
1	209B33	Bearing, Thrust (need qty. 2)
2	- - -	Bolt, 3/4 in. – 10 x 3-1/4 in., Zinc Plated, Grade 5 (or higher)
3	346AGK1	Cover, Thrust Bearing
4	376J29	Gasket, Thrust Housing
5	396GG1	Housing, Thrust Bearing
6	353W13	Retainer, Thrust Bearing
7	124CN4	Screw, Thrust Bearing Retainer
8	255HB63	Shim, Thrust Cover, 0.003 in. Thick
	255HB76	Shim, Thrust Cover, 0.0075 in. Thick
9	130F31	Washer, 3/4 in. Spring Lock, Zinc Plated

**NOTE:** For use only when existing worm shaft is retained. When replacing worm and gear, use thrust housing upgrade kit p/n AAA27076BF2 and sundries kit p/n AAA27076BF1.

**(Continued on next page)**



W/O VINTAGE  
A7116A, A7116C,  
7116A, 7116C

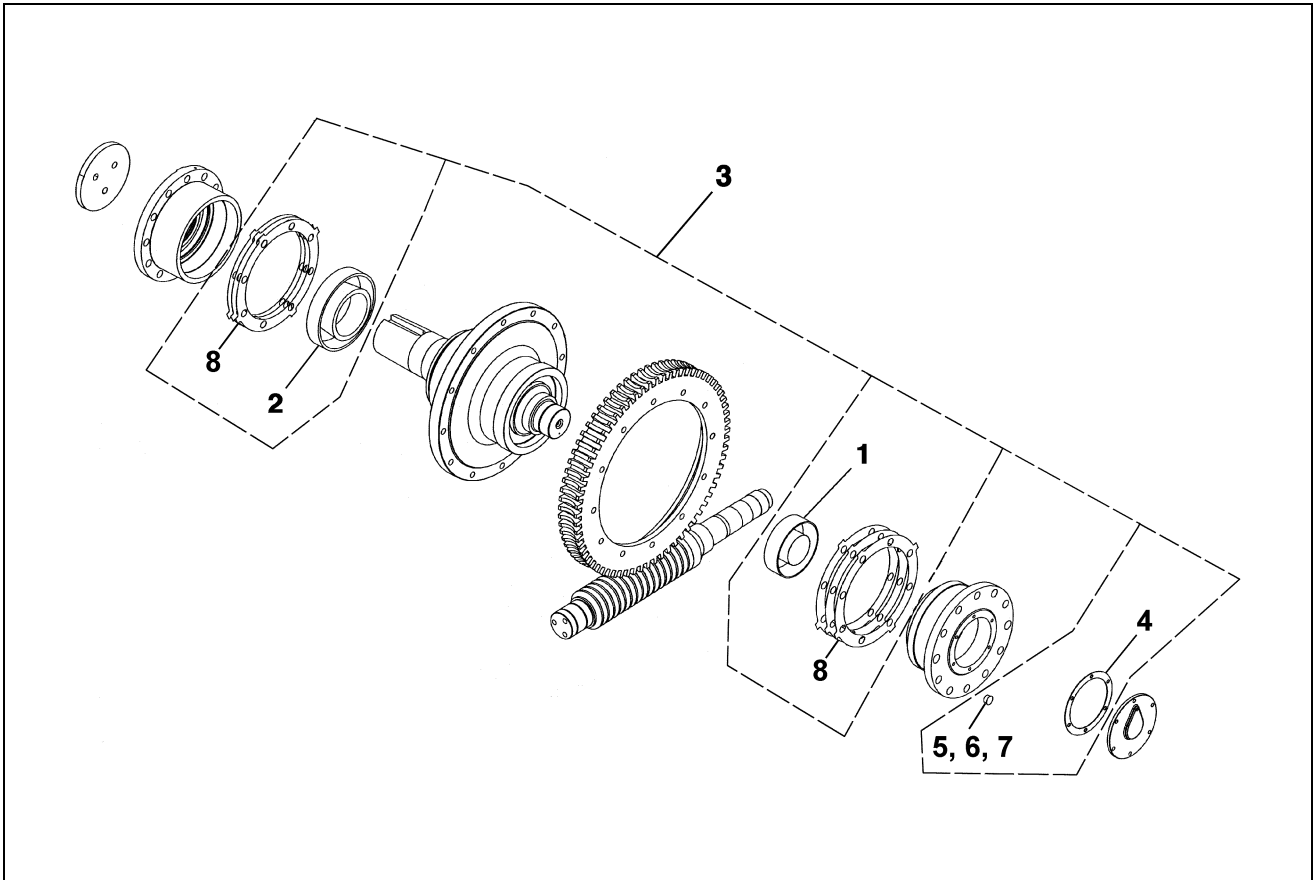
REF. No.	PART No.	DESCRIPTION
1	207Z42	Bearing, Inside
2	---	Bolt, 1/2 in. – 13 x 1/4 in., Zinc Plated, Grade 5 (or higher)
3	346AGF1 A346AGF1	Cover, Inside Bearing (  NOTE 2)
4	255HB65	Gasket, Inside Cover
5	192G59	Key, Worm Shaft
6	72BV2	Nut
7	33P1	Seal, Gits Type, Worm Shaft
	AAA33AQ7	Seal, Split, Worm Shaft
8	130F29	Washer, 1/2 in. Spring Lock, Zinc Plated
9	130AA2	Washer, Tabbed

**NOTE 1:** For use only when an existing worm shaft is retained. When replacing worm and gear, use thrust housing upgrade kit p/n AAA27076BF2 and sundries kit p/n AAA27076BF1.

**NOTE 2:** Cover p/n 346AGF1 is no longer available. For replacement use A346AGF1 and seal AAA33AQ7 (split) or 33AA3 (solid).

# 29 CT Sheave Shaft Parts, Overhung Drive Sheave

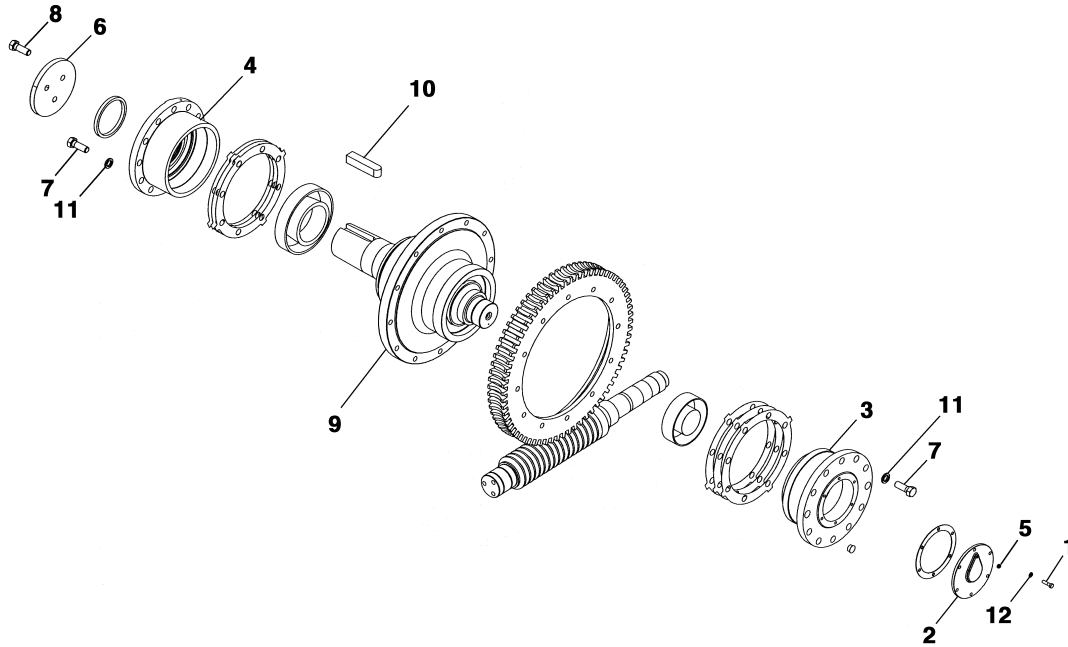
06-7116A



W/O VINTAGE  
AAA7116AR, D7116A, C7116A,  
B7116C, A7116C, 7116C

REF. No.	PART No.	DESCRIPTION
1	209B35	Bearing, Sheave Shaft, Gearcase Side
2	209B34	Bearing, Sheave Shaft, Sheave Side
3	AAA27076BF5	Kit, Sheave Shaft Bearings & Sundries, Overhung
4	376J44	Gasket, Sheave Shaft Bearing Cover
5	444AX27	Plug, Oversize Plain Adjustment Hole
6	444AX25	Plug, Plain Adjustment Hole
7	444AX6	Plug, Tapped Adjustment Hole
8	255HB72	Shim, Bearing Housing, 0.003 in. Thick
	255HB73	Shim, Bearing Housing, 0.0075 in. Thick
	255HB74	Shim, Bearing Housing, 0.020 in. Thick

## 29 CT Sheave Shaft Parts, Overhung Drive Sheave



### W/O VINTAGE

D7116A, C7116A,  
B7116C, A7116C,  
7116C

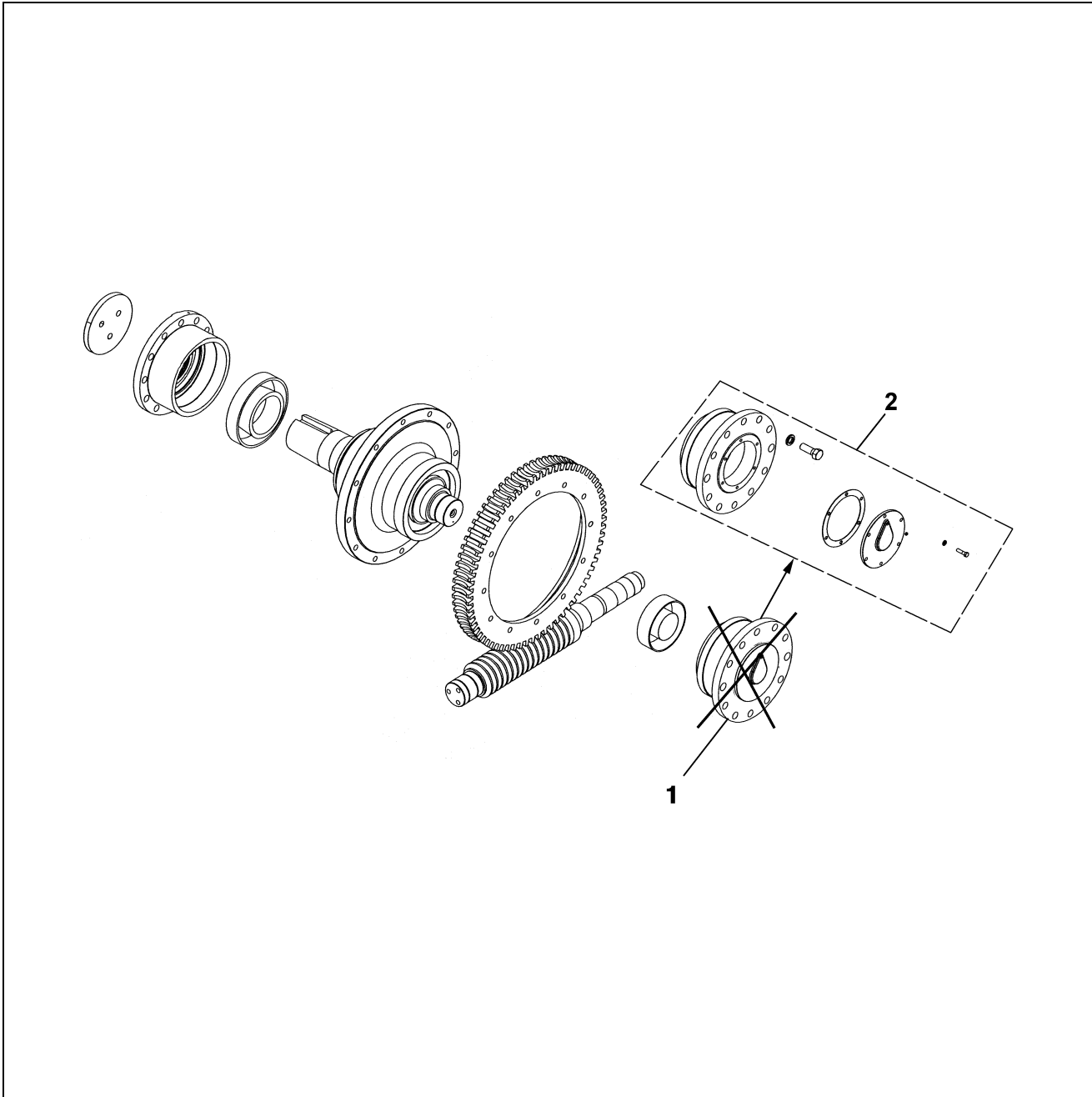
AAA7116AR

REF. No.	PART No.		DESCRIPTION
1	BTFH 3/8X1-1/2F	---	Bolt, 3/8 in. – 16 x 1-1/2 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4017M10X30-8.8Z	Bolt, M10 x 30 mm, Zinc Plated, Grade 5 (or higher)
2	346AJF3		Cover, Gearcase Side Bearing
3	396GS1	AAA396LG1	Housing, Gearcase Side Bearing
4	396GD1	AAA396LF1	Housing, Sheave Side Bearing
5	377DF13		Plug, Grease
6	353W16		Retainer, Sheave
7	See Description	---	Screw, 7/8 in. – 9 x 1/2 in. Flanged Socket Hex Head Cap
	---	ISO4017M24X60-8.8Z	Bolt, M24 x 60 mm Hex Head
8	124CN7	AAA124GC2	Screw, Sheave Retainer
9	500AW2	AAA500BH2	Sheave Shaft
10	192D71	AAA192AM1	Sheave Shaft Key
11	130F32	---	Washer, 5/8 in. Spring Lock, Zinc Plated
	---	DIN128A-M24-430HV-Z	Washer, M24 Spring Lock, Zinc Plated
12	130F28	---	Washer, 3/8 in. Spring Lock, Zinc Plated
	---	DIN128A-M10-430HV-Z	Washer, M10 Spring Lock, Zinc Plated



# 29 CT Sheave Shaft Parts Overhung Drive Sheave

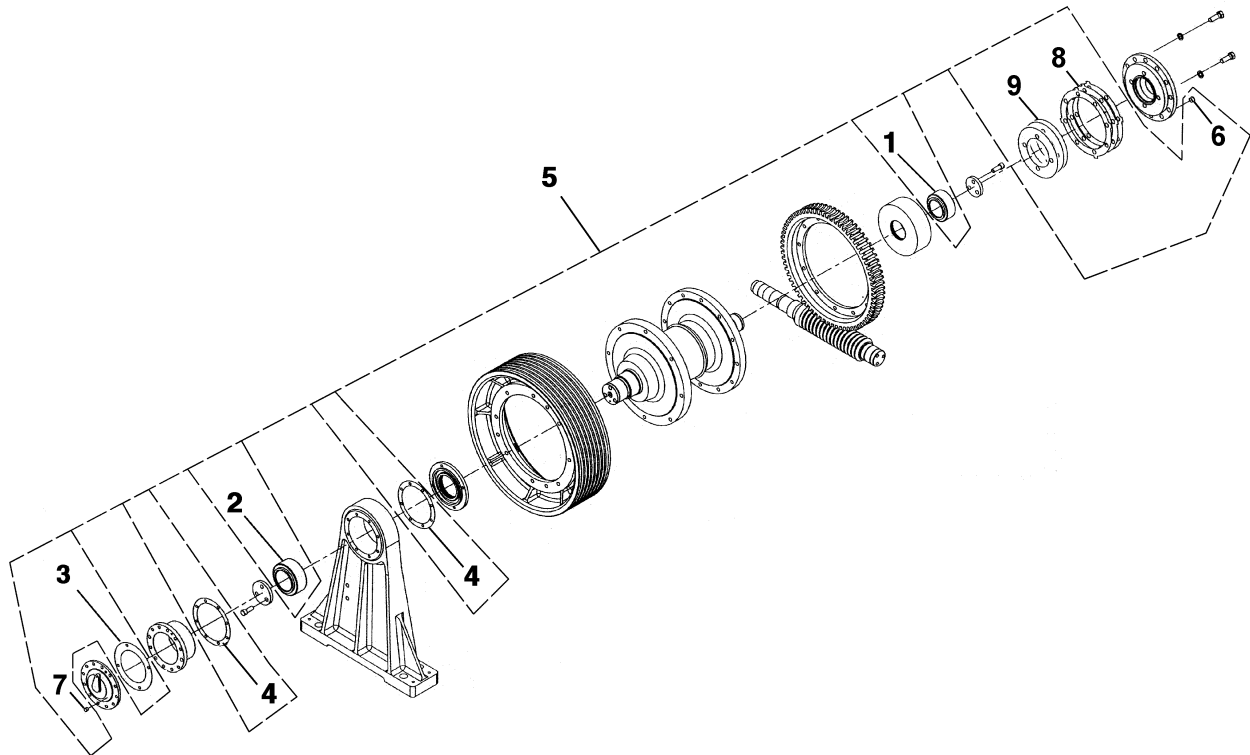
06-7116A



W/O VINTAGE		
B7116C, A7116C, 7116C		
REF. No.	PART No.	DESCRIPTION
1	<del>396GF4</del>	Housing, Gearcase Side Bearing
2	AAA27076BF6	Kit, Bearing Housing Upgrade, Gearcase Side

06-7116A

## 29 CT Sheave Shaft Parts, Inboard Drive Sheave

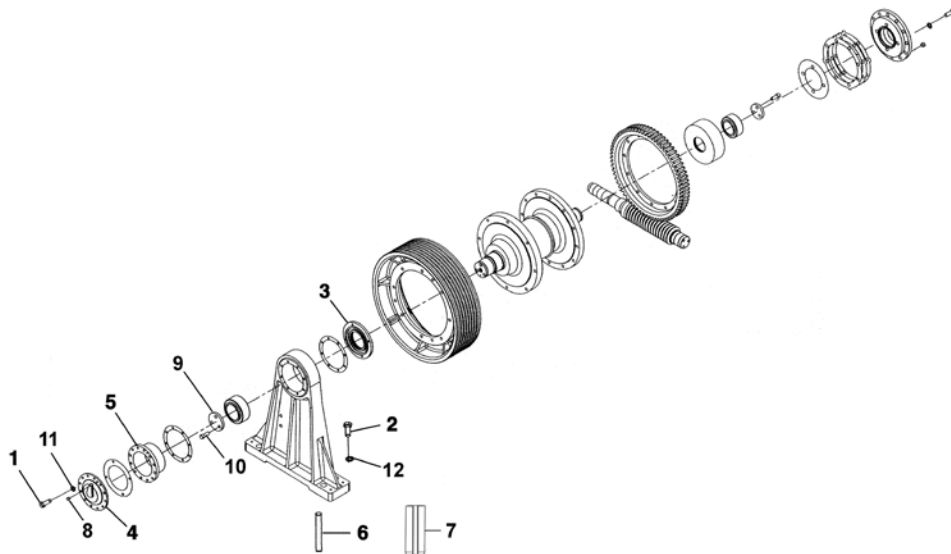


W/O VINTAGE  
AAA7116AR, D7116A,  
C7116A, B7116A, A7116A,  
7116A

REF. No.	PART No.	DESCRIPTION
1	209AD4	Bearing, Gearcase Side
2	209AD3	Bearing, Sheave Side
3	376J42	Gasket, Bearing Cover
4	376J30	Gasket, Bearing Housing
5	AAA27076BF7	Kit, Sheave Shaft Bearing and Sundries, Inboard
6	444AX25	Plug, Adjustment Hole
7	444AX28	Plug, Plain Adjustment Hole
	444AX29	Plug, Tapped Adjustment Hole
8	255HB72	Shim, Bearing Housing, 0.003 in. Thick
	255HB73	Shim, Bearing Housing, 0.0075 in. Thick
	255HB74	Shim, Bearing Cover, 0.020 in. Thick
9	255HB61	Shim, Bearing Housing, 0.003 in. Thick
	255HB62	Shim, Bearing Housing, 0.020 in. Thick

# 29 CT Sheave Shaft Parts, Inboard Drive Sheave

06-7116A

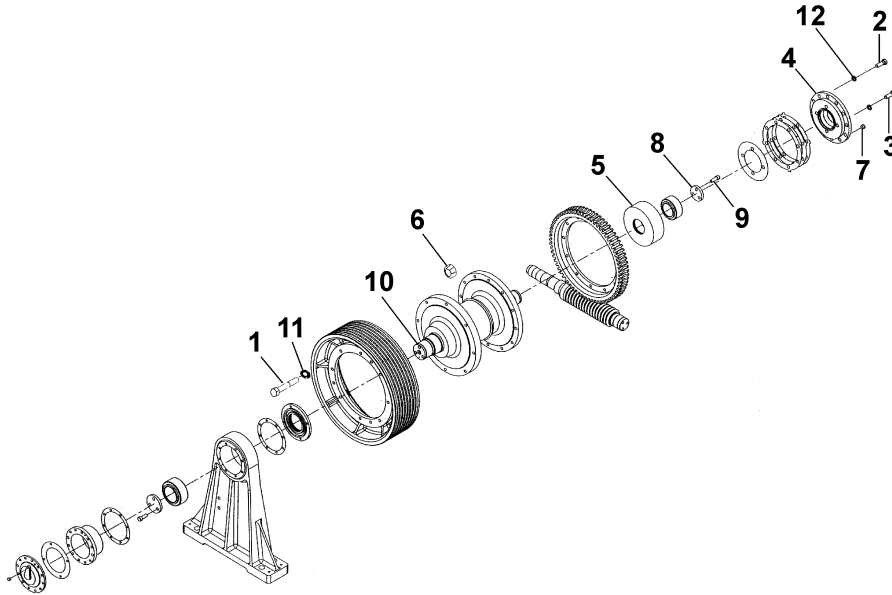


W/O VINTAGE	
D7116A, C7116A, B7116A, A7116A, 7116A	AAA7116AR

REF. No.	PART No.		DESCRIPTION
1	See Description	---	Bolt, 1/2 in. – 13 x 6 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4014M12X150-8.8Z	Bolt, M12 X 150, Zinc Plated, Grade 8.8 (or higher)
2	See Description	---	Bolt, 1–1/2 in. – 6 x 5 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4014M36X120-8.8Z	Bolt, M36 X 120, Zinc Plated, Grade 8.8 (or higher)
3	346AGG1	AAA346ASL1	Cover, Inner, Outboard Bearing
4	346AJE3		Cover, Outer, Outboard Bearing
5	396GR2	AAA396LE1	Housing, Outboard Bearing
6	81AX45	AAA81ES1	Pin, Outboard Bearing Stand or Gearcase
7	81AX52	AAA81ES2	
8	377DF13		Plug, Bearing Cover (1/8 NPT)
9	353W14		Retainer, Outboard Bearing
10	124CN7	AAA124GC2	Screw, Bearing Retainer
11	130F29	---	Washer, 1/2 in. Spring Lock, Zinc Plated
	---	DIN128A-M12-430HV-Z	Washer, M12 Spring Lock, Zinc Plated
12	130F37	---	Washer, 1–1/2 in. Spring Lock, Zinc Plated
	---	DIN128A-M36-430HV-Z	Washer, M36 Spring Lock, Zinc Plated

(Continued on next page)

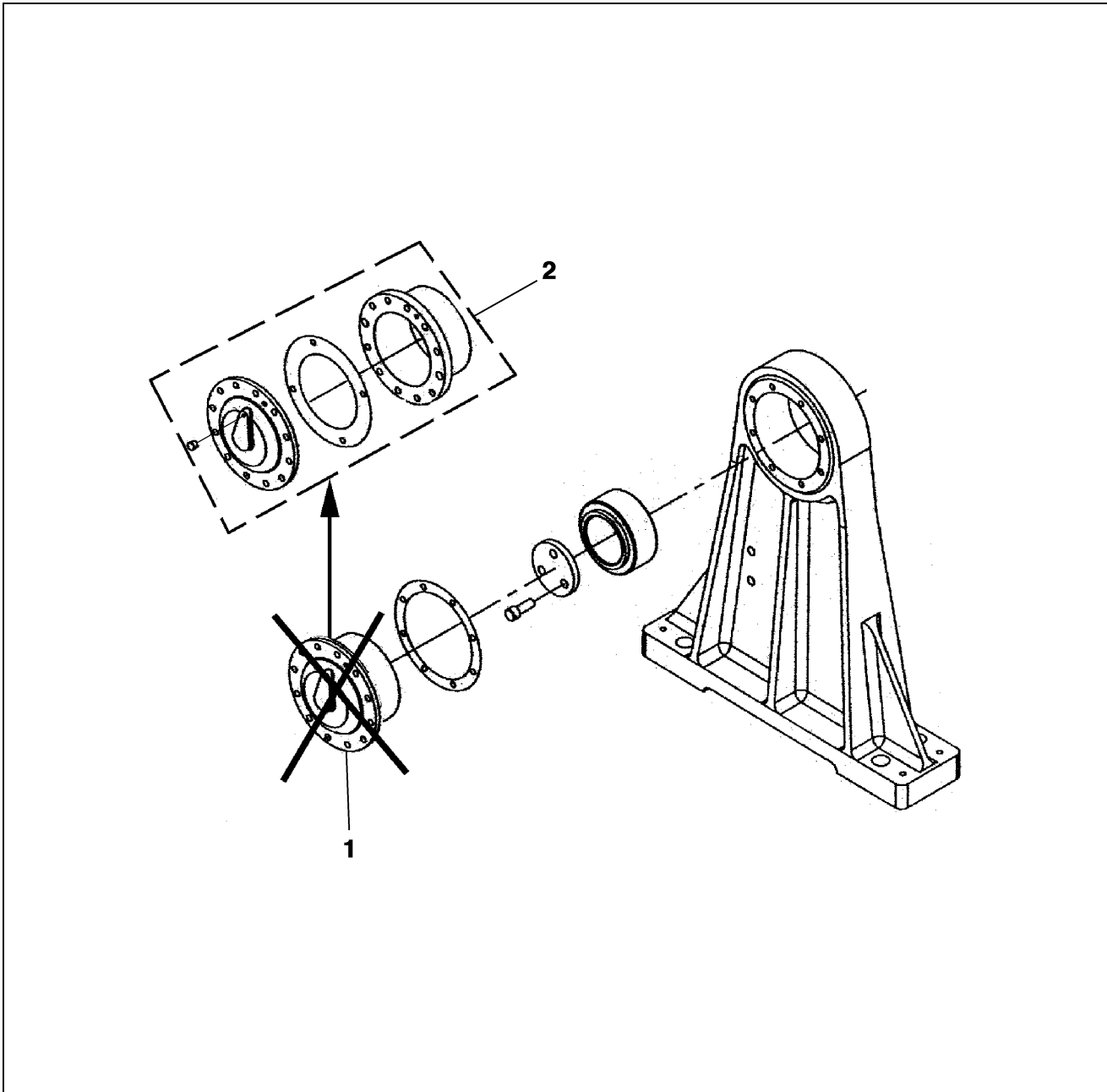
## 29 CT Sheave Shaft Parts, Inboard Drive Sheave



W/O VINTAGE			
	D7116A, C7116A, B7116A, A7116A, 7116A	AAA7116AR	
REF. No.	PART No.		DESCRIPTION
1	See Description	---	Bolt, 3/4 in. – 10 x 4 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4014M20X100-8.8Z	Bolt, M20 x 100, Zinc Plated, Grade 8.8 (or higher)
2	See Description	---	Bolt, 7/8 in. – 9 x 2-1/2 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4017M24X60-8.8Z	Bolt, M24 x 60, Zinc Plated, Grade 8.8 (or higher)
3	See Description	---	Bolt, 7/8 in. – 9 x 2-3/4 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4017M24X70-8.8Z	Bolt, M24 x 70, Zinc Plated, Grade 8.8 (or higher)
4	346AGH1	AAA346ASM1	Cover, Gearcase Side Bearing
5	396GE1	AAA396LC1	Housing, Gearcase Side Bearing
6	NUT FH3/4-10	---	Nut, 3/4 in. – 10, Zinc Plated
	---	ISO4035M20-04-Z	Nut, M20, Zinc Plated
7		377DF13	Plug, Bearing Cover
8		353W15	Retainer, Gearcase Side Bearing
9	124CN7	AAA124GC2	Screw, Bearing Retainer
10	500AX2	AAA500BJ2	Sheave Shaft
11	130F31	---	Washer, 3/4 in. Spring Lock, Zinc Plated
	---	DIN128A-M20-430HV-Z	Washer, M20 Spring Lock, Zinc Plated
12	130F32	---	Washer, 7/8 in. Spring Lock, Zinc Plated
	---	DIN128A-M24-430HV-Z	Washer, M24 Spring Lock, Zinc Plated

# 29 CT Sheave Shaft Parts, Inboard Drive Sheave

06-7116A

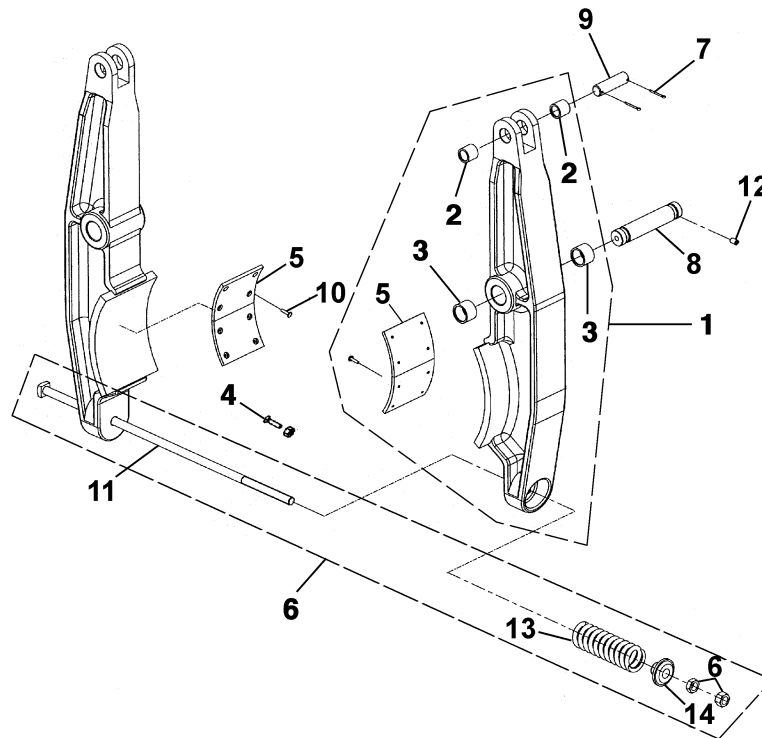


W/O VINTAGE  
B7116A, A7116A,  
7116A

REF. No.	PART No.	DESCRIPTION
1	<del>396GC1</del>	Housing, Bearing Outboard
2	AAA27076BF8	Kit, Bearing Housing Upgrade

06-7116A

## 29 CT Brake Arms



W/O VINTAGE

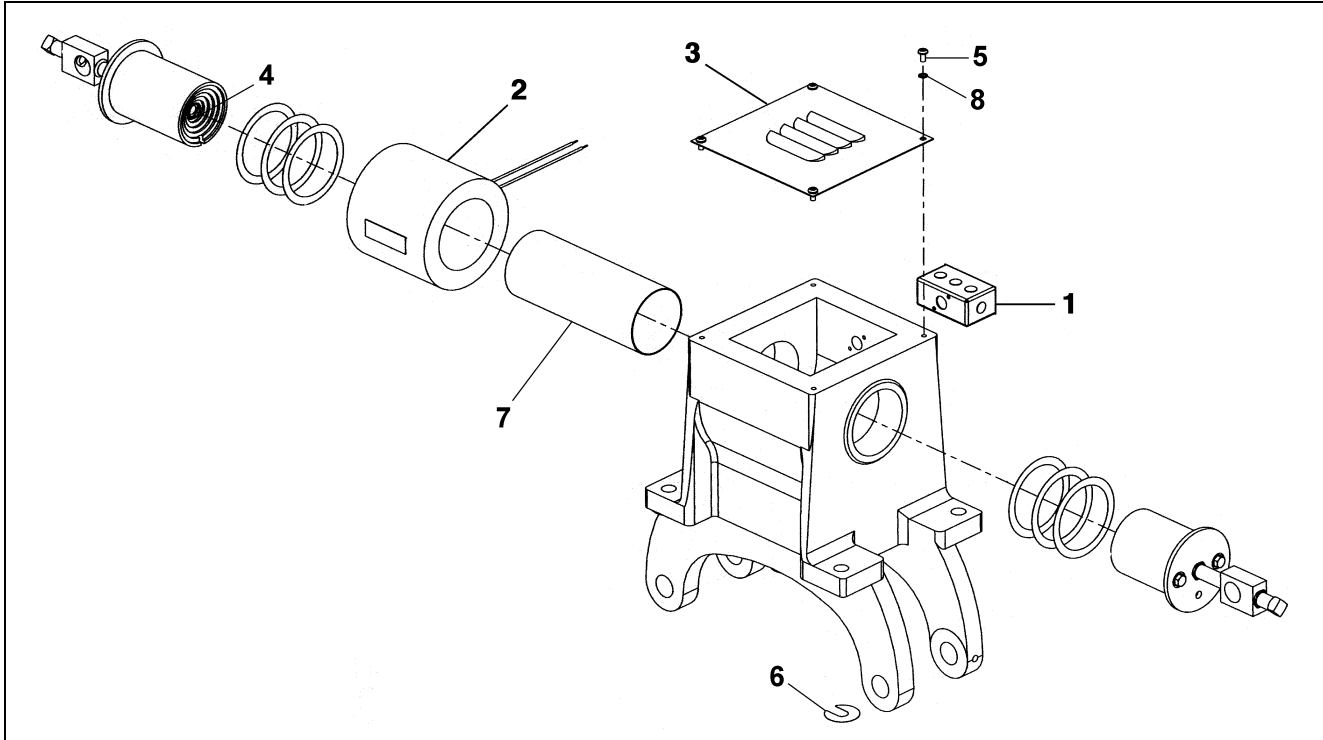
7116D

AAA7116AY

REF. No.	PART No.		DESCRIPTION
	7116D	AAA7116AY	
1	286AX2	AAA286BG2	Arm, Brake, Complete
2		209A6	Bearing, Length = 1/2 in.
3		209A7	Bearing, Length = 1 in.
4		AAA124FH1	Bolt & Nut, Brake Lining (Alternative: Use Ref. 10)
5		416AH5	Lining, Brake
6		NUT FHJ5/8	Nut, Jam, 5/8 in. – 11, Zinc Plated
7		---	Pin, Cotter, 1/8 in. x 1-1/4 in.
8	81CC2	AAA81ET1 AAA81KC1 81CC2	Pin, Pivot
9	82R13	DO81AF1 AAA81KE1	Pin, Upper, Length = 3.062 in.
10		145C3	Rivet, Brake Lining (Alternative: Use Ref. 4)
11		60D53	Rod
12	See Description	---	Screw, Set, 3/8 in. – 16 x 5/8 in. Hex Socket, Half Dog Point
	---	ISO4028M10X30-45H-Z	Screw, Set, M10 x 30 mm, Hex Socket, Half Dog Point
13		90AD10	Spring, Length = 5.938 in.
		90BD2	Spring, Length = 5.875 in.
14		133AH1	Washer

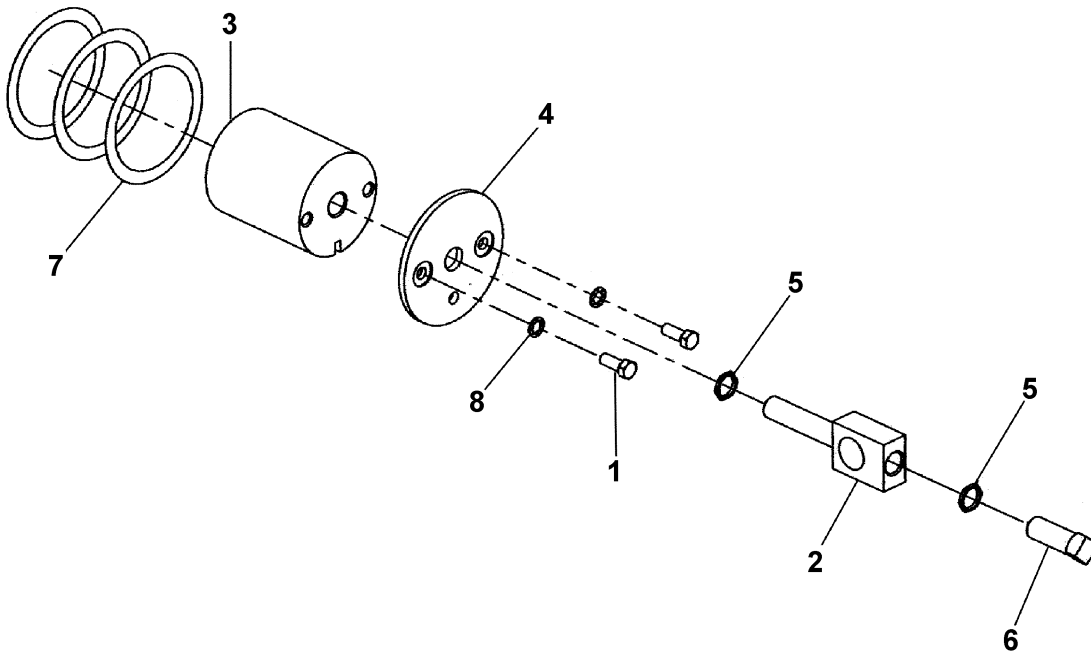
# 29 CT Brake Magnet

06-7116A



W/O VINTAGE							
7116D—Light Duty			7116D—Heavy Duty		AAA7116AY		DESCRIPTION
REF. No.	PART No.	DIAM.	PART No.	DIAM.	PART No.	DIAM.	
1	309AV1						Box, with Cover
2	222J11	3.6 in.	222JA16	4.35 in.	AAA22FY4 AAA234AU4 222JA16	4.35 in.	Coil, Magnet
3	285BN2						Cover
4	81BM1						Pin, Guide
5	See Description				---		Screw, 1/4 in. – 20 x 1/2 in. Pan Head Machine, Zinc Plated
	---				ISO1580M6X12-4.8Z		Screw, M6 x 12 Pan Head Machine, Zinc Plated
6	255BN3						Shim, 0.006 in. Thick, Magnet Frame
	255BN4						Shim, 0.015 in. Thick, Magnet Frame
7	136R11	3.6 in.	136R10	4.35 in.	AAA136AW4 AAA136BB4 136R10	4.35 in.	Tube, Magnet Core
8	130A7				---		Washer, 1/4 in. Internal Lock, Zinc Plated
	---				DIN6797J-M6-350HV-Z		Washer, M6 Internal Lock, Zinc Plated

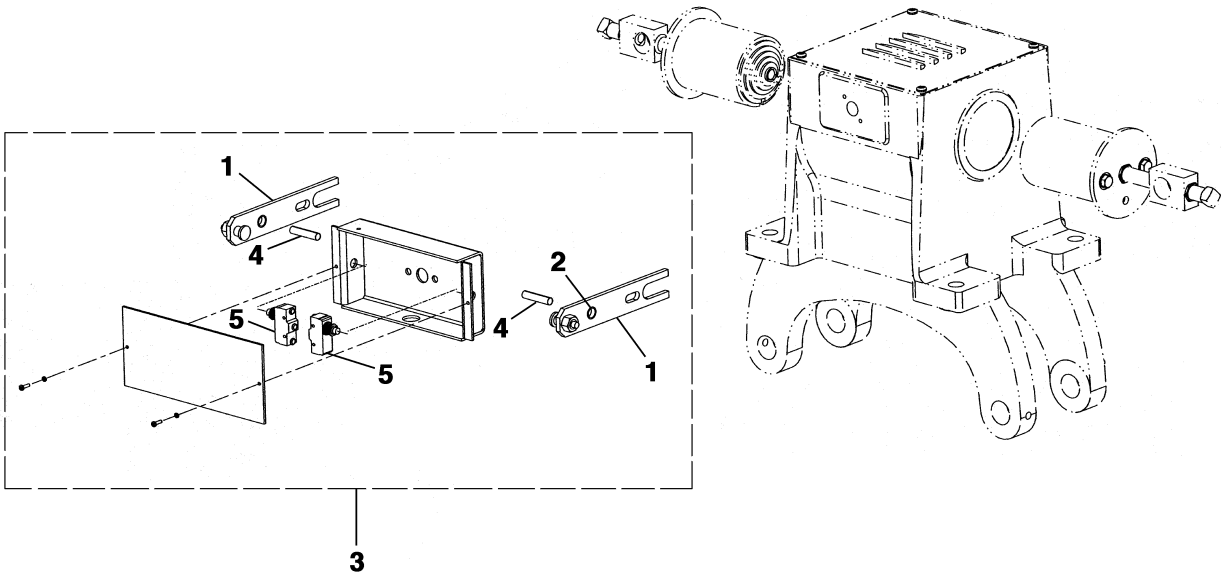
(Continued on next page)



W/O VINTAGE						
7116D—Light Duty		7116D—Heavy Duty		AAA7116AY		

REF. No.	PART No.	DIAM.	PART No.	DIAM.	PART No.	DIAM.	DESCRIPTION
1	VP-711285			---			Bolt, 3/8 in. – 16 x 1 in., Zinc Plated, Grade 5 (or higher)
	---			ISO4017M10X20-8.8Z			Bolt, M10 x 20, Zinc Plated, Grade 8.8 (or higher)
2	65GA6		65GA4		AAA65HF1		Bolt, Eye
3	400DJ1	3.6 in.	400DM1	4.35 in.	AAA400GF2	4.35 in.	Core, Female
	400DH1	3.6 in.	400DK1	4.35 in.	AAA400GE2	4.35 in.	Core, Male
4	353BB3		353BB4				Disk, Brake Core
5	See Description			---			Nut, 3/4 in. – 16 Jam, Zinc Plated
	---			See Description			Nut, M20 x 1.5 Jam, Zinc Plated
6	See Description			---			Set Screw, 3/4 in.-16 x 2 in. Square Head Half Dog Point, Zinc Plated
	---			See Description			Set Screw, M20 x 1.5 x 50 mm Square Head Half Dog Point, Zinc Plated
7	255CK2	3.6 in.	255CK1	4.35 in.	AAA255HL1 255CK1	4.35 in.	Shim, Brake Core
8	130F28			---			Washer, 3/8 in. Spring Lock, Zinc Plated
	---			DIN128A-M10-430HV-Z			Washer, M10 Spring Lock, Zinc Plated



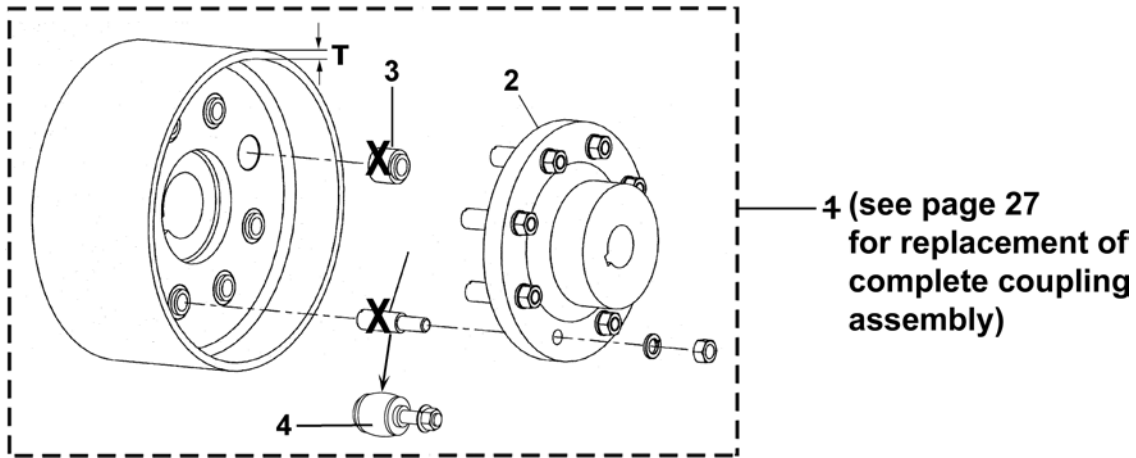


REF. No.	W/O VINTAGE		DESCRIPTION
	7116D	AAA7116AY	
REF. No.	PART No.		DESCRIPTION
1	A288RL2	AAA288ABF2	Arm
2	335E104	335E20	Bushing
3	2700ADE7	See <b>NOTE</b>	Kit, Brake Switch, Complete
4	81AX24	ISO8752-10X50Z	Pin
5	177Y1 AAA635L1	<del>AAA635Q1</del> AAA635L1	Switch

**NOTE:** If replacement of the complete brake switch box is required, use p/n 2700ADE7 for initial replacement, and use parts in the left column for future service needs.

# 29 CT Machine Brake Coupling Assembly

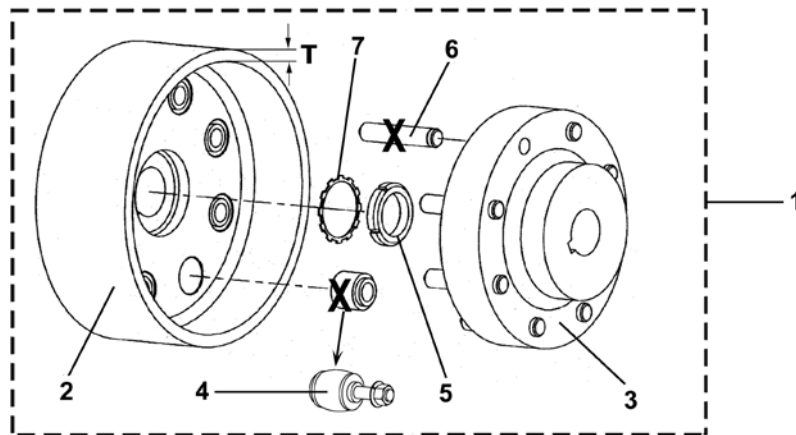
For bushing replacement procedure, see TIP 6.2.0-21.



REF. No.	W/O VINTAGE		DESCRIPTION	"T" (in.)
	7116B, A7116B	AAA7116AJ		
1	7076B1	---	Coupling, Brake, Complete, Light Drum, 0.5 in. Motor Shaft Keyway	0.375
	7076B2	---	Coupling, Brake, Complete, Heavy Drum, 0.5 in. Motor Shaft Keyway	1.375
	7076B3	---	Coupling, Brake, Complete, Light Drum, 0.625 in. Motor Shaft Keyway	0.375
	7076B4	---	Coupling, Brake, Complete, Heavy Drum, 0.625 in. Motor Shaft Keyway	1.375
2	215AW3 215AW5	---	Coupling, Male (Motor Coupling) w/Bushing Bolts, 0.5 in. Keyway	
	215AW4 215AW6	---	Coupling, Male (Motor Coupling) w/Bushing Bolts, 0.625 in. Keyway	
3	321CJ2	---	Bushing, Brass Center	
4	95BT2	---	Stud (with Nut & Washer)	
	AAA65KN3	---	Bushing Bolt	

(Continued on next page)

For bushing replacement procedure, see TIP 6.2.0-21.

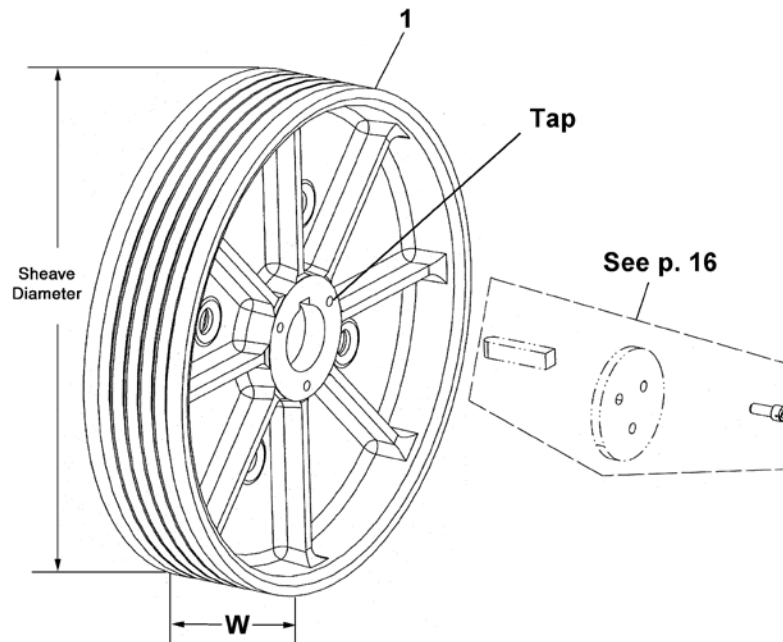


REF. No.	W/O VINTAGE		DESCRIPTION	"T" (in.)
	PART No.			
1	A7116B4 A7116B5	---	Coupling, Brake, Complete, Light Drum, 0.5 in. Motor Shaft Keyway	0.375
	A7116B2 A7116B6	---	Coupling, Brake, Complete, Heavy Drum, 0.5 in. Motor Shaft Keyway	1.375
	A7116B3 A7116B7	---	Coupling, Brake, Complete, Light Drum, 0.625 in. Motor Shaft Keyway	0.375
	A7116B4 A7116B8	---	Coupling, Brake, Complete, Heavy Drum, 0.625 in. Motor Shaft Keyway	1.375
	---	AAA7116AJ2 AAA7116AJ3	Coupling, Brake Complete, Metric Keyways	0.375
2	A215AX2 A215AX1	---	Coupling, Female (Brake Drum), 13-1/4 in. Inside Diameter	0.375
	A215AX4 A215AX3	---	Coupling, Female (Brake Drum), 11-1/4 in. Inside Diameter	1.375
	---	AAA215BT1	Coupling, Female (Brake Drum), 20 mm Keyway	0.375
3	A215AW2 A215AW5	---	Coupling, Male (Motor Coupling), 0.5 in. Keyway w/Bushing Bolts	
	A215AW4 A215AW6	---	Coupling, Male (Motor Coupling), 0.625 in. Keyway w/Bushing Bolts	
	---	AAA215BS4 AAA215BS5	Coupling, Male (Motor Coupling) 16 mm Keyway w/Bushing Bolts	
4	456C5	---	Bushing, Phenolic Center	
	AAA65KN4	DO65AL1 AAA65KN4	Bushing Bolt	
5	72BV7	72FJ4	Nut (for Motor Shaft with 0.5 in. Keyway), See <b>NOTE</b>	
	72BV11	72FJ5	Nut (for Motor Shaft with 0.625 in. Keyway), See <b>NOTE</b>	
6	78FA41	---	Pin	
7	130AA10	130AT4	Washer, Tabbed (for Motor Shaft with 0.5 in. Keyway), See <b>NOTE</b>	
	130AA11	130AT5	Washer, Tabbed (for Motor Shaft with 0.625 in. Keyway), See <b>NOTE</b>	

**NOTE:** This hardware is only for use with original equipment motors. For Mod motors, see motor SPL for appropriate parts.

# Overhung Drive Sheave

## 32 in. Diameter



REF. No.	W/O VINTAGE		GROOVED FOR LINERS (See NOTE)	ROPE		RIM WIDTH "W" (in.)	PULLER BOLT TAP	SHEAVE DIAMETER (in.)
	PART No.			No.	DIA. (in.)			
	90°	105°		UNDERCUT GROOVE TYPE				
1	260BC7	260BC9	---	5	1/2	7.75	3/4 in. – 10	32
	260BC8	260BC10	---	6				
	260BC1	260BC4	---	5	5/8			
	260BC2	260BC5	---	6				
	260BC3	260BC6	---	7				
	A260BC7	A260BC9	---	5	1/2			
	A260BC8	A260BC10	---	6				
	---	---	260BN1	4	5/8			
	A260BC13	A260BC16	260BN4	5				
	A260BC14	A260BC17	260BN7	6				
	A260BC15	A260BC6	260BN10	7				
	A260BC11	A260BC12	---	8				
	---	AAA260DM1	---	4		M20 (See NOTE 2)		
	---	AAA260DM2	---	5				
	---	AAA260DM3	---	6				
	---	AAA260DM4	---	7				

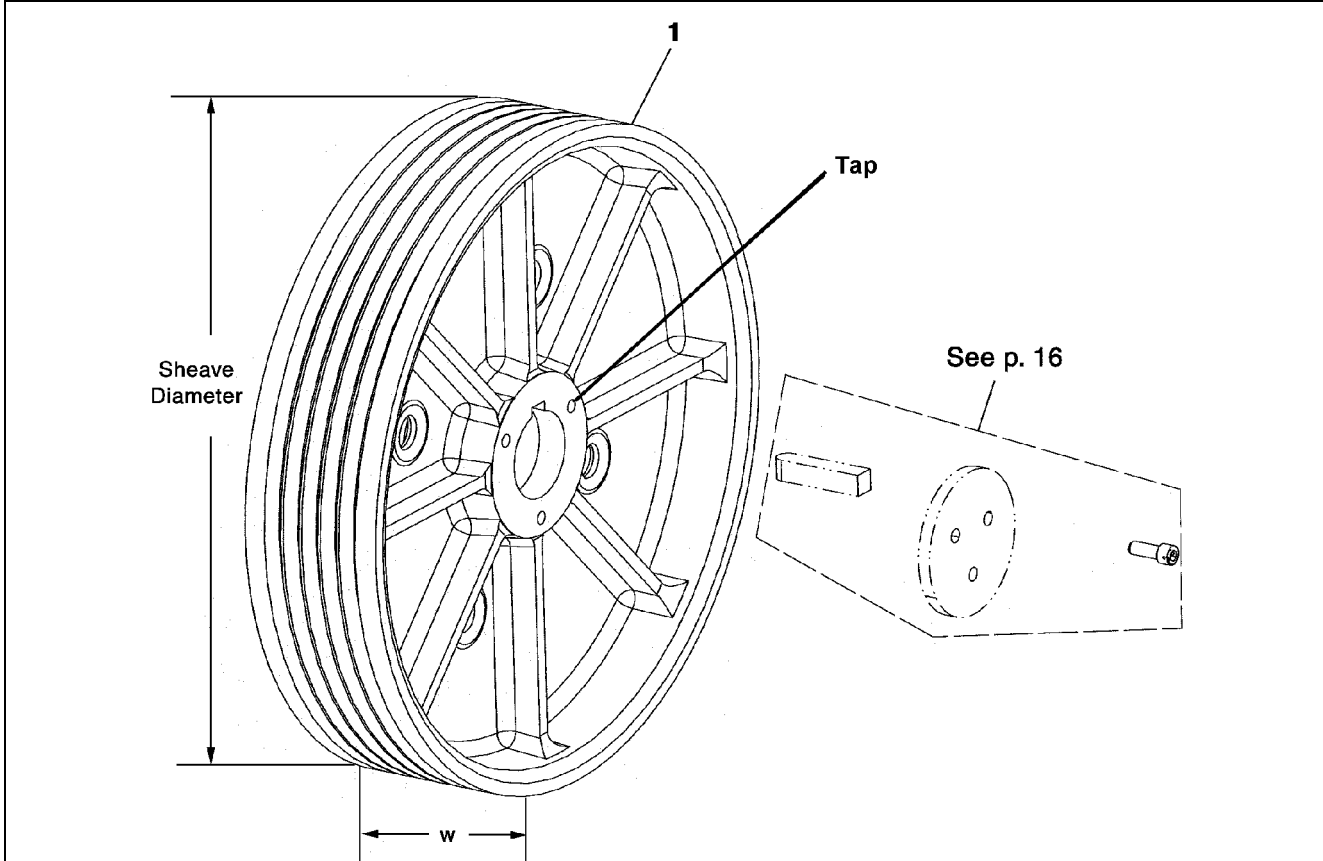
**NOTE 1:** Order sheave liners separately. See p. 30 for part numbers.

**NOTE 2:** The tap thread is noted here as an indicator only. The critical characteristic is the keyway. The keyway of the metric sheaves of the machines produced in China would be loose if paired with the SAE keyway on a Yonkers manufactured machine.

**(Continued on next page)**

# Overhung Drive Sheave 38 in. Diameter

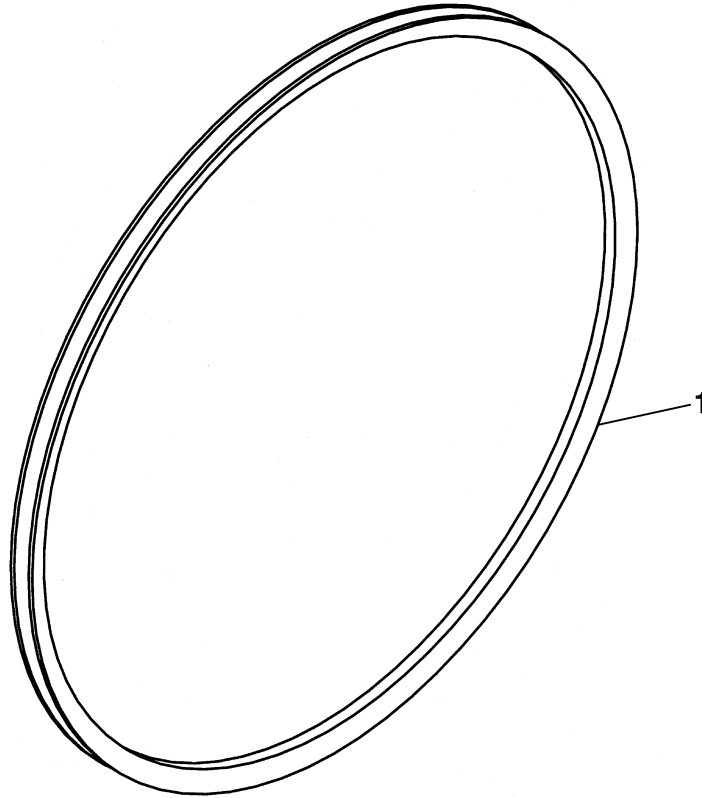
06-7116A



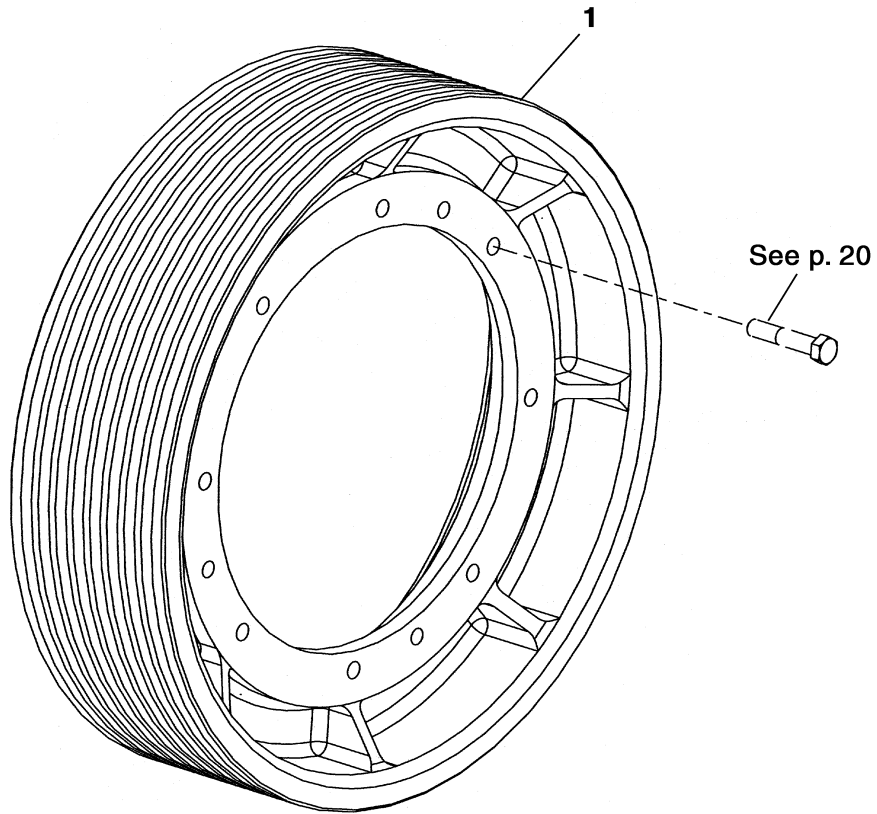
W/O VINTAGE									
PART No.			DESCRIPTION						
REF. No.	UNDERCUT GROOVE TYPE		GROOVED FOR LINERS (See NOTE 1)	ROPES		RIM WIDTH "W" (in.)	PULLER BOLT TAP	SHEAVE DIAMETER (in.)	
	90°	105°		No.	DIA. (in.)				
1	260BH1	260BH7	---	5	1/2	8.75	3/4 in. – 10  (See NOTE 2)	38	
	260BH2	260BH8	---	6					
	---	---	260BS1	4	5/8				
	260BH3	260BH9	260BS4	5					
	260BH4	260BH10	260BS7	6					
	260BH5	260BH11	260BS10	7					
	260BH6	260BH12	---	8					
	DO260E10	DO260E5	---	7	1/2				M20 (See NOTE 2)
	DO260E8	DO260E3	---	5	5/8				
	DO260E9	DO260E4	---	6					

**NOTE 1:** Order sheave liners separately. See p. 30 for part numbers.

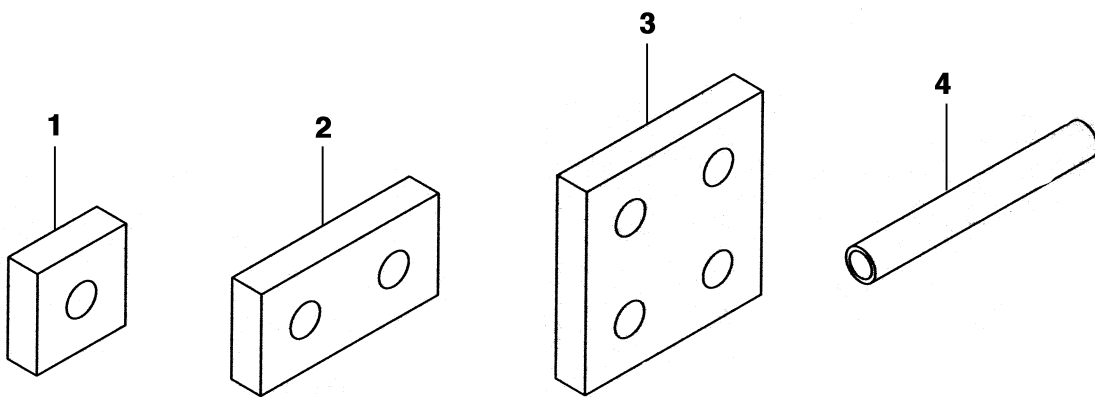
**NOTE 2:** The tap thread is noted here as an indicator only. The critical characteristic is the keyway. The keyway of the metric sheaves of the machines produced in China would be loose if paired with the SAE keyway on a Yonkers manufactured machine.



W/O VINTAGE				
REF. No.	PART No.	DESCRIPTION	SHEAVE DIAMETER (in.)	ROPE DIAMETER (in.)
1	B251BV1 AAA251BV11	Liner, Sheave, Treaded	32	5/8
	B251BV3 AAA251BV13		38	5/8



W/O VINTAGE							
7116A, A7116A, B7116A, C7116A, D7116A				AAA7116AR			
PART NUMBER							
REF. No.	UNDERCUT GROOVE TYPE		UNDERCUT GROOVE TYPE		ROPES		SHEAVE DIAMETER (in.)
	90°	105°	90°	105°	No.	DIAMETER (in.)	
1	260BE1	260BE5	AAA260DA1	AAA260DA5	5	5/8	32
	260BE2	260BE6	AAA260DA2	AAA260DA6	6		
	260BE3	260BE7	AAA260DA3	AAA260DA7	7		
	260BE4	260BE8	AAA260DA4	AAA260DA8	8		
	260BF1	260BF7	---	---	5	1/2	38
	260BF2	260BF8	---	---	6		
	260BF3	260BF9	---	---	5	5/8	
	260BF4	260BF10	---	---	6		
	260BF5	260BF11	---	---	7		
	260BF6	260BF12	---	---	8		

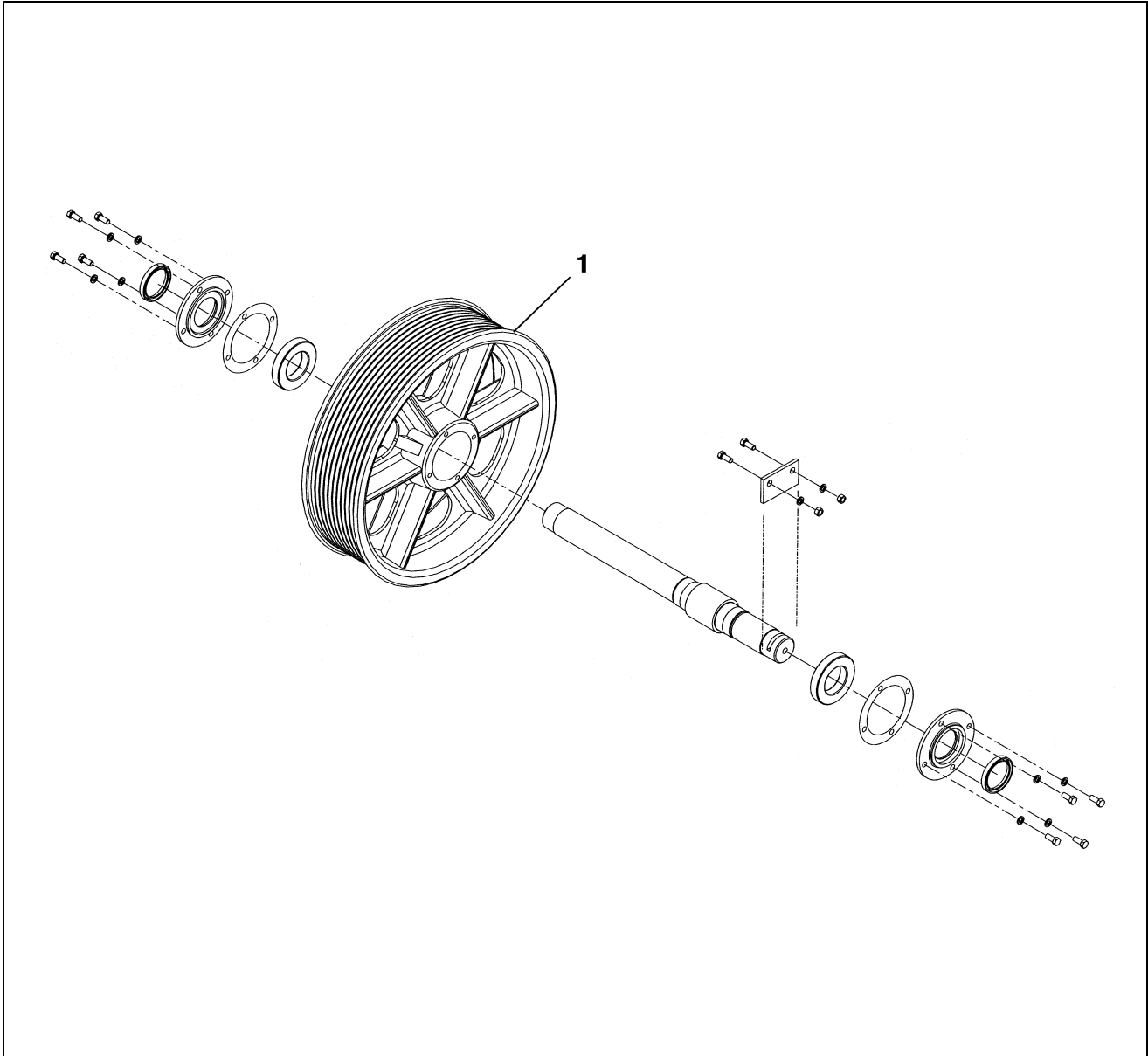


W/O VINTAGE		
REF. No.	PART No.	DESCRIPTION
1	310JJ2	Pad, Isolation, Polyurethane, 3 in. x 3 in. w/ (1) 1 in. Hole
	310BE3	Pad, Isolation, Rubber, 3 in. x 3 in. w/ (1) 1 in. Hole
2	310JJ1	Pad, Isolation, Polyurethane, 6 in. x 3 in. w/ (2) 1 in. Holes
	310BE2	Pad, Isolation, Rubber, 6 in. x 3 in. w/ (2) 1 in. Holes
3	310BE1	Pad, Isolation, Rubber, 6 in. x 6 in. w/ (4) 1 in. Holes
4	137AL3	Tube, Tie-Down Bolt Protection



# 28 in. Deflector Sheave

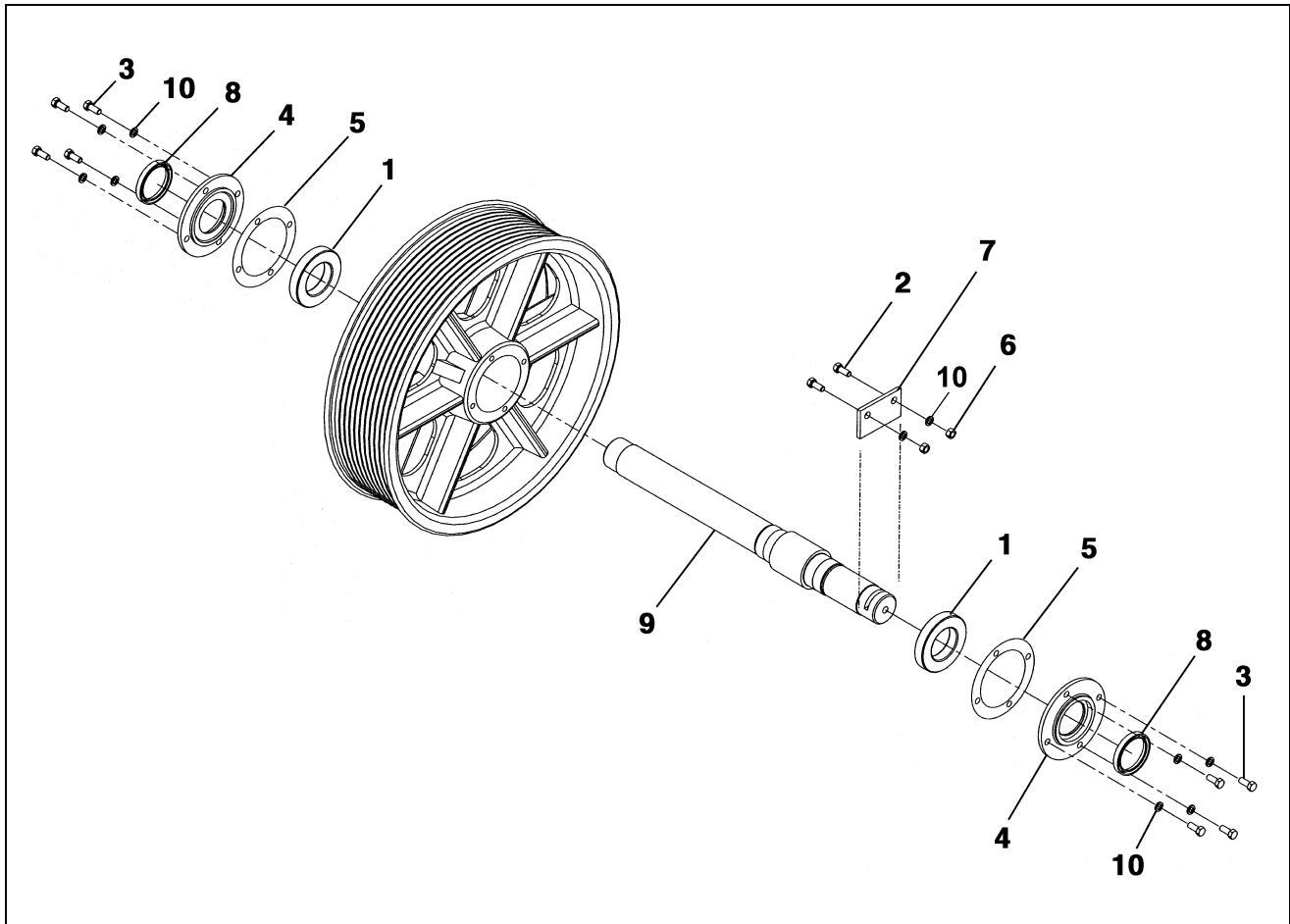
06-7116A



REF. No.	W/O VINTAGE	ROPES		DESCRIPTION	
	PART NUMBER	No.	SIZE (in.)		
1	263BB2	5	1/2	Use Where Drive Sheave has Undercut Grooves	Sheave, Deflector, 28 in. Diameter
	263BB3	6			
	263BB5	5	5/8	Use Where Drive Sheave Has Sheave Liners	
	263BB6	6			
	263BB7	7			
	263BB12	4			
	263BB11	5			
	263BB13	6			

06-7116A

## 28 in. Deflector Sheave Supporting Parts

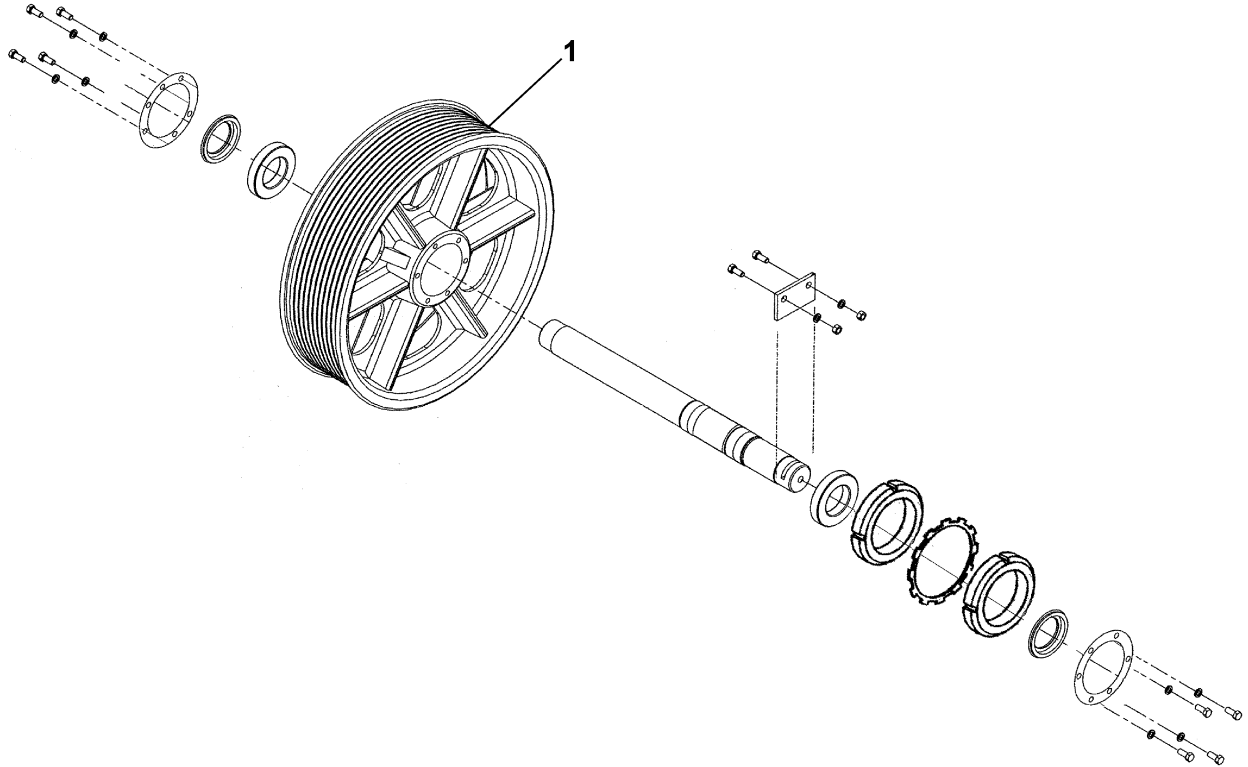


REF. No.	W/O VINTAGE PART NUMBER	DESCRIPTION
1	209T2	Bearing
2	---	Bolt, 1/2 in. -13 x 1-3/4 in., Zinc Plated, Grade 5 (or higher)
3	---	Bolt, 1/2 in. - 13 x 1-3/8 in., Zinc Plated, Grade 5 (or higher)
4	346AGC1	Cover
*	435C1	Fitting, Grease
5	376J23	Gasket
6	NUT FH1/2CP	Nut, 1/2 in. - 13, Zinc Plated
7	386VH1	Plate, Retainer
8	33D24	Seal
9	495CK2	Shaft, Length = 29.62 in.
	495CK3	Shaft, Length = 33.88 in.
10	130F29	Washer, 1/2 in. Spring Lock, Zinc Plated

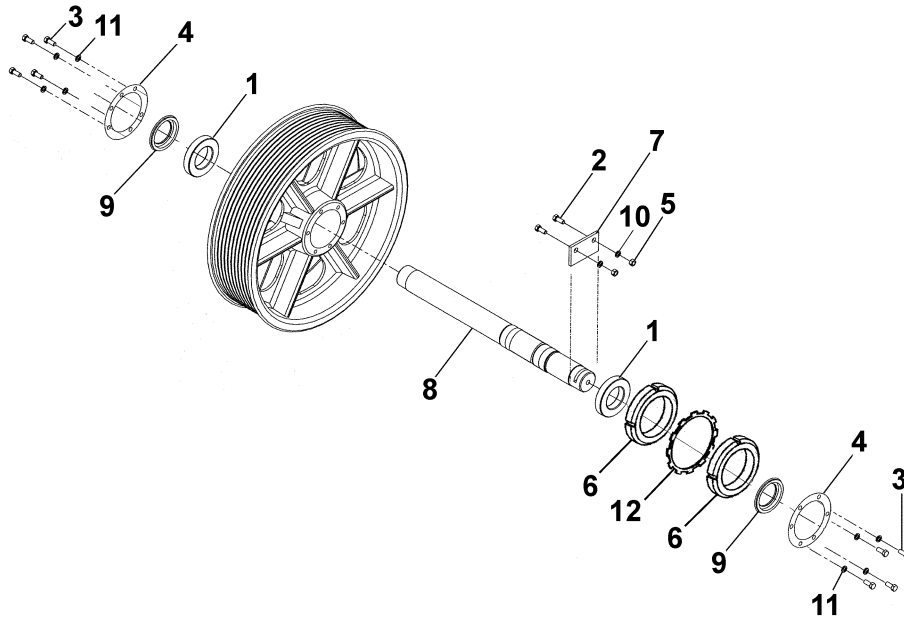
\* Part not shown.

# 30 in. Deflector Sheave

06-7116A



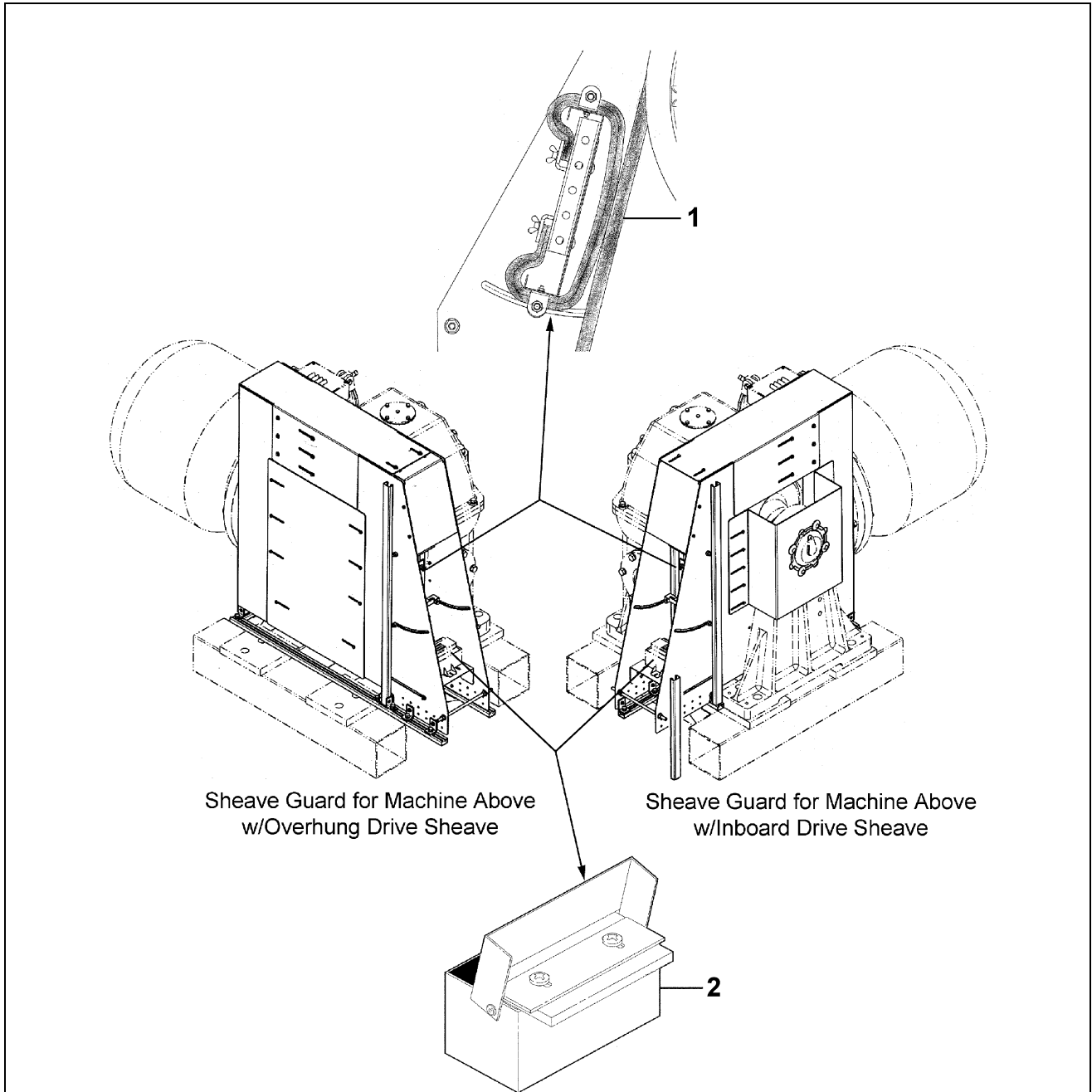
		W/O VINTAGE				
		C7116G, B7116G, A7116G, 7116G	AAA7116AL	ROPES		
REF. NO.	PART NUMBER		NO.	SIZE (in.)	DESCRIPTION	
1	263BA5	AAA263BN5	5	1/2	Use Where Drive Sheave has Undercut Grooves	Sheave, Deflector, 30 in. Diameter
	263BA6	AAA263BN6	6			
	263BA3	AAA263BN3	5	5/8		
	263BA2	AAA263BN2	6			
	263BA4	AAA263BN4	7			
	263BA1	AAA263BN1	8			
	263BA7	AAA263BN7	4			
	263BA8	AAA263BN8	5			
	263BA9	AAA263BN9	6			
	263BA10	AAA263BN10	7		Use Where Drive Sheave Has Sheave Liners	



W/O VINTAGE	
C7116G, B7116G, A7116G, 7116G	AAA7116AL

REF. No.	PART NUMBER		DESCRIPTION
1	209B15		Bearing
2	See Description	---	Bolt, 1/2 in. -13 x 1-3/4 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4014M12X45-8.8Z	Bolt, M12 x 45, Zinc Plated, Grade 8.8 (or higher)
3	See Description	---	Bolt, 5/16 in. - 18 x 3/4 in., Zinc Plated, Grade 5 (or higher)
	---	ISO4017M8X20-8.8Z	Bolt, M8 x 20, Zinc Plated, Grade 8.8 (or higher)
4	172FD2		Cover
*	435C2		Fitting, Grease
5	NUT FH1/2CP	---	Nut, 1/2 in. - 13, Zinc Plated
	---	ISO4032M12-10-Z	Nut, M12, Zinc Plated
6	72BV5	AAA72HT2	Nut, Bearing
7	386VH1		Plate, Retainer
8	495CL1	AAA495DY2	Shaft
9	462JA4		Spacer
10	130F29	---	Washer, 1/2 in. Spring Lock, Zinc Plated
	---	DIN128A-M12-430HV-Z	Washer, M12 Spring Lock, Zinc Plated
11	130A8	---	Washer, 5/16 in. Spring Lock, Zinc Plated
	---	DIN128A-M8-430HV-Z	Washer, M8 Spring Lock, Zinc Plated
12	130AA5	AAA130BG2	Washer, Tabbed

\* Parts not shown.



**NOTE:** See TIP 6.2.4-2, *29 CT Geared Machine Full Cover Sheave Guard Installation (w/Carpet Wiper)*, for sheave guard, carpet wiper, and rope lubricator installation instructions.

W/O VINTAGE		
REF. No.	PART No.	DESCRIPTION
1	AAA297AY4	Strip, Carpet, 7.5 in. Wide
2	AAA488M4	Wick, Lubricator, 7 in. Wide