

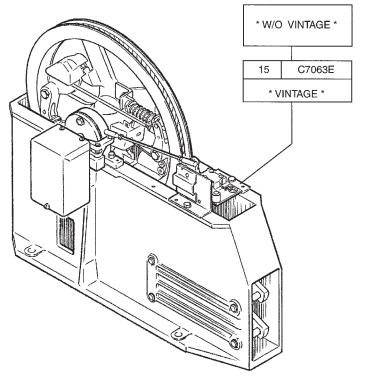
## **Notes About This Catalog Section**

#### Terminology, Sizing Standards, and Use

- The primary measurements shown for parts are based upon their design drawings.
- Most measurements are provided in both Imperial units (for the United States) and metric units (for Canada, Mexico, etc.). If only one form of a measurement is provided, assume Imperial units (generally inches) unless otherwise stated.
- Most Imperial measurements are rounded to the nearest tenth or hundredth of an inch and most metric measurements are rounded to the nearest millimeter.
- The term "vintage" refers to the period of time in which the original equipment was manufactured. If installation records are not available, the vintage of a component may be determined from a vintage tag affixed to the component. Shown on the right are examples of vintage tags used on Otis equipment over the years.

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	SERIAL





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## Wire Ropes and Belts

#### **Wire Rope Ordering Hints**

Prior to contacting OSC, please secure the following information concerning your wire rope specification:

- Rope application (hoist, compensation, governor, drum, other)
- Rope diameter
- Rope lay and hand (e.g., right regular lay)
- Material of rope (steel, EH steel, iron, bronze)
- QTY of strands per rope (e.g., 6 or 8)
- Existing rope data tag info and rope info from top of car crosshead data plate
- Age of equipment (if Otis, provide the Otis sales/machine number)

Lang lay rope has the individual wires within the 6 or 8 strands, directed in the same hand orientation as the lay of the strands.

The result being the individual wires would make more of a crossing contact on the sheave groove rather than an "in-line" contact as in regular lay applications.

Lang lay rope is often (not always) found on Otis Jobs incorporating the use of sheave liners.

Present Otis policy is to use lang lay rope as the valid replacement rope on all sheave liner applications.

**DUAL-TENSILE ROPE NOTE:** Sheave hardness varies between elevator companies and sheave design, as well as with age of the equipment. Generally speaking, sheaves designed and cast in the early 1900s thru the 1970s and 1980s did not carry near the hardness as more contemporary machine, Comp, Overhead, Top Car/Counterweight, or Governor sheaves.

Accordingly, OSC does offer dual tensile rope. This rope is code compliant, carries the same ultimate breaking strength as the standard traction design rope, but carries softer outer wires on the strands. As a result, this Dual-Tensile rope is much more forgiving when installed on older softer sheaves. It must be noted that there is not a rope on the market that will resolve sheave wear problems which have not been corrected at the root of the problem. If sheave grooves are worn and or uneven, brand new rope will accelerate the wear even more. Be sure to consider OSC for a quote on new sheaves if older sheaves are worn beyond serviceable condition.





6 Strand-Right Regular Lay





8 Strand-Right Regular Lay

## Traction and Extra High Strength (EHS) Wire Rope

#### Traction—Regular Lay 8 Strand (8x19)

- Standard 8M
- Dual-Tensile (see **NOTE** on page 5)
- NP = Non-Preformed
- GALV = Galvanized



8 Strand Right Regular Lay

Part No.	Class	Dia. (in.)	Construction	Material	Lay
AAA712Q26	8X19	1/4	8M Dual Tensile	Traction	Regular
AAA712Q27	8X19	5/16	8M Dual Tensile	Traction	Regular
AAA712Q28	8X19	3/8	8M Dual Tensile	Traction	Regular
AAA712Q29	8X19	7/16	8M Dual Tensile	Traction	Regular
AAA712Q30	8X19	1/2	8M Dual Tensile	Traction	Regular
AAA712Q31	8X19	9/16	8M Dual Tensile	Traction	Regular
AAA712Q32	8X19	5/8	8M Dual Tensile	Traction	Regular
AAA712Q33	8X19	11/16	8M Dual Tensile	Traction	Regular
AAA712Q34	8X19	3/4	8M Dual Tensile	Traction	Regular
AAA712Q35	8X19	13/16	8M Dual Tensile	Traction	Regular
AAA712Q36	8X19	7/8	8M Dual Tensile	Traction	Regular
AAA712Q37	8X19	15/16	8M Dual Tensile	Traction	Regular
AAA712Q38	8X19	1	8M Dual Tensile	Traction	Regular
	0)/4.0	0./0	014D LT 'L 04IV	T (:	Regular
AAA712Q428	8X19	3/8	8M Dual Tensile GALV	Traction	Galvanized
A A A 71 0 0 4 2 0	0V10	1/0	1/2 01/2 17 11 01/1/ 7	Tanatina	Regular
AAA712Q430	8X19	1/2	8M Dual Tensile GALV	Traction	Galvanized

Part No.	Class	Dia. (in.)	Construction	Material	Lay
	01/40	= /0	0.45   7   1 0.407		Regular
AAA712Q432	8X19	5/8	8M Dual Tensile GALV	Traction	Galvanized
A A A 7400 450	0)/4.0	44 /4 6	014 D   IT   1 OAIN/	T (:	Regular
AAA712Q458	8X19	11/16	8M Dual Tensile GALV	Traction	Galvanized
AAA712Q111	8X19	5/16	8M Dual Tensile NP	Traction	Regular
AAA712Q112	8X19	3/8	8M Dual Tensile NP	Traction	Regular
AAA712Q113	8X19	1/2	8M Dual Tensile NP	Traction	Regular
AAA712Q114	8X19	5/8	8M Dual Tensile NP	Traction	Regular
AAA712Q115	8X19	11/16	8M Dual Tensile NP	Traction	Regular
AAA712Q116	8X19	3/4	8M Dual Tensile NP	Traction	Regular
A A A 74 0 0 E 4 0	07/4.0	1/0			Regular
AAA712Q513	8X19	1/2	8M Dual Tensile NP GALV	Traction	Galvanized
AAA712W58	8x19	3/8	8M Dual-Tensile	Traction, Poly Core (no core lubrication), Apollo Governor Applications	Regular
AAA712W26	8x19	1/2	8M	Traction Steel	Regular
AAA712W12	8x19	5/8	8M	Traction Steel	Regular
AAA712Q112	8x19	3/8	8M	Traction Steel	Regular
AAA712W33	8x19	11/16	8M	Traction Steel	Regular
AAA712W7	8x19	5/16	8M	Traction Steel	Regular
AAA712W38	8x19	3/4	8M	Traction Steel	Regular

#### Traction—Regular Lay 6 Strand (6x19)

- Standard
- Dual-Tensile (see **NOTE** on page 5)
- NP = Non-Preformed

Part No.	Class	Dia. (in.)	Construction	Material	Lay
AAA712P26	6X19	1/4	6M Dual Tensile	Traction	Regular
AAA712P27	6X19	5/16	6M Dual Tensile	Traction	Regular
AAA712P28	6X19	3/8	6M Dual Tensile	Traction	Regular
AAA712P29	6X19	7/16	6M Dual Tensile	Traction	Regular
AAA712P30	6X19	1/2	6M Dual Tensile	Traction	Regular
AAA712P31	6X19	9/16	6M Dual Tensile	Traction	Regular
AAA712P32	6X19	5/8	6M Dual Tensile	Traction	Regular
AAA712P33	6X19	11/16	6M Dual Tensile	Traction	Regular
AAA712P34	6X19	3/4	6M Dual Tensile	Traction	Regular
AAA712P35	6X19	13/16	6M Dual Tensile	Traction	Regular
AAA712P36	6X19	7/8	6M Dual Tensile	Traction	Regular
AAA712P37	6X19	15/16	6M Dual Tensile	Traction	Regular
AAA712P38	6X19	1	6M Dual Tensile	Traction	Regular
AAA712P39	6X19	1-1/16	6M Dual Tensile	Traction	Regular
AAA712P111	6X19	5/16	6M Dual Tensile NP	Traction	Regular
AAA712P112	6X19	3/8	6M Dual Tensile NP	Traction	Regular
AAA712P113	6X19	1/2	6M Dual Tensile NP	Traction	Regular
AAA712P114	6X19	5/8	6M Dual Tensile NP	Traction	Regular
AAA712P115	6X19	11/16	6M Dual Tensile NP	Traction	Regular
AAA712P116	6X19	3/4	6M Dual Tensile NP	Traction	Regular
AAA712W25	6x19	1/2	6M	Traction Steel	Regular



6 Strand Right Regular lay

#### Traction—Lang Lay 8 Strand (8x19)

- Standard
- Dual-Tensile (see **NOTE** on page 5)
- GALV = Galvanized

Part No.	Class	Dia. (in.)	Construction	Material	Lay
AAA712Q76	8X19	5/16	8M Dual Tensile	Traction	Lang
AAA712Q77	8X19	3/8	8M Dual Tensile	Traction	Lang
 AAA712Q82	8X19	7/16	8M Dual Tensile	Traction	Lang
AAA712Q78	8X19	1/2	8M Dual Tensile	Traction	Lang
A A A 74 00 470	07/4.0	4 /0	014 D	Traction	Lang
AAA712Q478	8X19	1/2	8M Dual Tensile GALV		Galvanized
AAA712W27	8x19	1/2	8M	Traction Steel	Lang
AAA712Q83	8X19	9/16	8M Dual Tensile	Traction	Lang
AAA712Q79	8X19	5/8	8M Dual Tensile	Traction	Lang
AAA712W31	8x19	5/8	8M	Traction Steel	Lang
AAA712Q80	8X19	11/16	8M Dual Tensile	Traction	Lang
AAA712W34	8x19	11/16	8M	Traction Steel	Lang
AAA712Q81	8X19	3/4	8M Dual Tensile	Traction	Lang



Lang Lay Rope (note strand orientation)

#### Traction—Lang Lay 6 Strand (6x19)

- Standard
- Dual-Tensile (see **NOTE** on page 5)

Part No.	Class	Dia. (in.)	Construction	Material	Lay
AAA712P76	6X19	5/16	6M Dual Tensile	Traction	Lang
AAA712P77	6X19	3/8	6M Dual Tensile	Traction	Lang
AAA712P78	6X19	1/2	6M Dual Tensile	Traction	Lang
AAA712P79	6X19	5/8	6M Dual Tensile	Traction	Lang
AAA712P80	6X19	11/16	6M Dual Tensile	Traction	Lang
AAA712P81	6X19	3/4	6M Dual Tensile	Traction	Lang



Lang Lay Rope (note strand orientation)

#### Extra High Strength (EHS)—Regular Lay

- 6 EH
- 8 EH
- GALV = Galvanized

	Part No.	Class	Dia. (in.)	Construction	Material	Lay
	AAA712P52	6X19	5/16	6 EH	Extra High	Regular
	AAA712P53	6X19	3/8	6 EH	Extra High	Regular
	AAA712P54	6X19	7/16	6 EH	Extra High	Regular
	AAA712W47	6x19	1/2	6EH	Extra High	Regular
	AAA712P56	6X19	9/16	6 EH	Extra High	Regular
	AAA712W30	6x19	5/8	6EH	Extra High	Regular
	AAA712W32	6x19	11/16	6EH	Extra High	Regular
	AAA712P59	6X19	3/4	6 EH	Extra High	Regular
	AAA712P60	6X19	13/16	6 EH	Extra High	Regular
	AAA712P61	6X19	7/8	6 EH	Extra High	Regular
	AAA712P62	6X19	15/16	6 EH	Extra High	Regular
_	AAA712P63	6X19	1	6 EH	Extra High	Regular
	AAA712P64	6X19	1-1/16	6 EH	Extra High	Regular



6 Strand Right Regular lay

#### Extra High Strength (EHS)—Regular Lay (continued)

Part No.	Class	Dia. (in.)	Construction	Material	Lay
AAA712Q51	8X19	1/4	8 EH	Extra High	Regular
AAA712Q52	8X19	5/16	8 EH	Extra High	Regular
AAA712Q53	8X19	3/8	8 EH	Extra High	Regular
AAA712Q453	8X19	3/8	8 EH GALV	Extra High	Regular
AAA712Q54	8X19	7/16	8 EH	Extra High	Regular
AAA712Q455	8X19	1/2	8 EH GALV	Extra High	Regular
AAA712W28	8x19	1/2	8EH	Extra High	Regular
AAA712Q56	8X19	9/16	8 EH	Extra High	Regular
AAA712W13	8x19	5/8	8EH	Extra High	Regular
AAA712Q60	8X19	13/16	8 EH	Extra High	Regular
AAA712Q61	8X19	7/8	8 EH	Extra High	Regular
AAA712Q62	8X19	15/16	8 EH	Extra High	Regular
AAA712Q63	8X19	1	8 EH	Extra High	Regular



8 Strand Right Regular Lay

#### Extra High Strength (EHS)—Lang Lay

- 6 EH
- 8 EH

	Part No.	Class	Dia. (in.)	Construction	Material	Lay
	AAA712P88	6X19	5/16	6 EH	Extra High	Lang
	AAA712P89	6X19	3/8	6 EH	Extra High	Lang
	AAA712P90	6X19	1/2	6 EH	Extra High	Lang
	AAA712P91	6X19	5/8	6 EH	Extra High	Lang
	AAA712P92	6X19	11/16	6 EH	Extra High	Lang
	AAA712P93	6X19	3/4	6 EH	Extra High	Lang
	AAA712Q88	8X19	5/16	8 EH	Extra High	Lang
	AAA712Q89	8X19	3/8	8 EH	Extra High	Lang
	AAA712Q94	8X19	7/16	8 EH	Extra High	Lang
	AAA712Q90	8X19	1/2	8 EH	Extra High	Lang
	AAA712Q95	8X19	9/16	8 EH	Extra High	Lang
	AAA712Q91	8X19	5/8	8 EH	Extra High	Lang
	AAA712Q92	8X19	11/16	8 EH	Extra High	Lang
	AAA712Q93	8X19	3/4	8 EH	Extra High	Lang



Lang Lay Rope (note strand orientation)

### **Iron Wire Rope**

- 6 Strand Iron Wire Rope
- 8 Strand Iron Wire Rope
- NP = Non-Preformed

Part No.	Class	Dia. (in.)	Construction	Material	Lay
AAA712P1	6X19	1/4	6L	Iron	Regular
AAA712P2	6X19	5/16	6L	Iron	Regular
AAA712P101	6X19	5/16	6L NP	Iron	Regular
AAA712P3	6X19	3/8	6L	Iron	Regular
AAA712P102	6X19	3/8	6L NP	Iron	Regular
AAA712P4	6X19	7/16	6L	Iron	Regular
AAA712P5	6X19	1/2	6L	Iron	Regular
AAA712P103	6X19	1/2	6L NP	Iron	Regular
AAA712P6	6X19	9/16	6L	Iron	Regular
AAA712P7	6X19	5/8	6L	Iron	Regular
AAA712P104	6X19	5/8	6L NP	Iron	Regular
AAA712P8	6X19	11/16	6L	Iron	Regular
AAA712P9	6X19	3/4	6L	Iron	Regular
AAA712P106	6X19	3/4	6L NP	Iron	Regular
AAA712P10	6X19	13/16	6L	Iron	Regular
AAA712P107	6X19	13/16	6L NP	Iron	Regular
AAA712P11	6X19	7/8	6L	Iron	Regular
AAA712P12	6X19	15/16	6L	Iron	Regular
AAA712P13	6X19	1	6L	Iron	Regular



6 Strand Right Regular lay

Part No.	Class	Dia. (in.)	Construction	Material	Lay
AAA712Q1	8X19	1/4	8L	Iron	Regular
AAA712Q2	8X19	5/16	8L	Iron	Regular
AAA712Q101	8X19	5/16	8L NP	Iron	Regular
AAA712Q3	8X19	3/8	8L	Iron	Regular
AAA712Q102	8X19	3/8	8L NP	Iron	Regular
AAA712Q4	8X19	7/16	8L	Iron	Regular
AAA712Q5	8X19	1/2	8L	Iron	Regular
AAA712Q103	8X19	1/2	8L NP	Iron	Regular
AAA712Q6	8X19	9/16	8L	Iron	Regular
AAA712Q7	8X19	5/8	8L	Iron	Regular
AAA712Q104	8X19	5/8	8L NP	Iron	Regular
AAA712Q8	8X19	11/16	8L	Iron	Regular
AAA712Q105	8X19	11/16	8L NP	Iron	Regular
AAA712Q9	8X19	3/4	8L	Iron	Regular
AAA712Q106	8X19	3/4	8L NP	Iron	Regular
AAA712Q10	8X19	13/16	8L	Iron	Regular
AAA712Q11	8X19	7/8	8L	Iron	Regular
AAA712Q12	8X19	15/16	8L	Iron	Regular



8 Strand Right Regular Lay

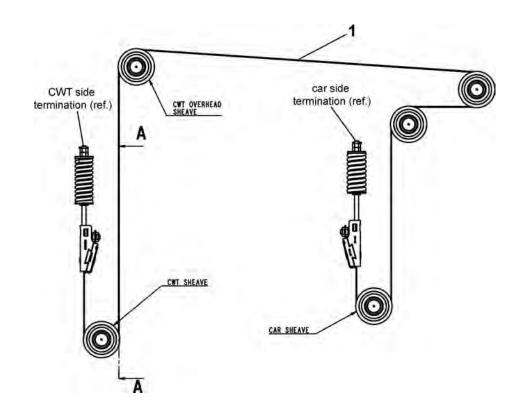
## **Miscellaneous Special Ropes and Belts**

#### **Bronze Tiller and Miscellaneous Ropes**

Part No.	Description
VP-843600	3/16 in. Bronze Wire Rope, 8 x 19 Construction (special order only)
VP-843650	7/16 in. Bronze Wire Rope, 8 X 19 Construction, Tail Rope (previously before Tiller) for Wedge Clamp Safety Drums
VP-844350	3/8 in. Iron Rope, Type 6LT
VP-844400	1/2 in. Iron Pipe, Type 6LT (special order only)
VP-844700	5/8 in. Hawser Laid Manila Rope

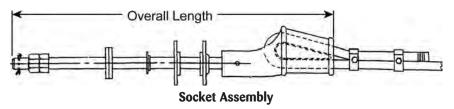
#### **Coated Steel Belt (CSB)**

REF. No.	PART No.	DESCRIPTION
	AAA717X1	CSB, 32kN Gen2® Limited Duty, 30 mm, Approximate Weight: 0.14 lb./ft.
	AAA717AD1	CSB, 64kN Gen2 Extended Duty, 60 mm, Approximate Weight: 0.27 lb./ft.
1	AAA717AJ2	CSB, 43kN Gen2, 30 mm, Approximate Weight: 0.16 lb./ft. ( <b>NOTE:</b> Distinguish this belt from AAA717X1 by max break load designation on the back side of belt = 43 kN)



# **Rope Termination Equipment**

## **Wedge Clamp Rope Shackle Assemblies**



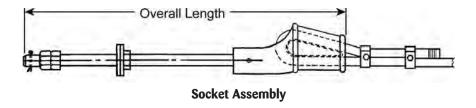
**NOTE:** The wedge clamp rope shackle assembly kit includes socket, wedge insert, washer seats, clips, nuts and cotter pins.

Part No.	Rope Diameter (in.)	Hitch	Overall Length (in.)
229Y1	1/2	1:1 or 2:1	30.25
229Y2	1/2	1:1 or 2:1	36.25
229Y13	1/2	1:1 or 2:1	24.25
229Y14	1/2	1:1 or 2:1	18.25
229Y5	5/8	1:1 or 2:1	42.25
229Y7	5/8	1:1 or 2:1	24.25
229Y3	5/8	1:1 or 2:1	36.25
229Y4	5/8	1:1 or 2:1	30.25
229Y6	5/8	2:1	30.25
229Y8	11/16, 3/4	1:1 or 2:1	30.25
229Y9	11/16, 3/4	1:1 or 2:1	36.25
229Y11	11/16, 3/4	1:1 or 2:1	24.25
229Y10	11/16, 3/4	1:1	43.5
229Y12	11/16, 3/4	1:1	31.25

## **Compensation Wedge/Clamp Rope Sockets**

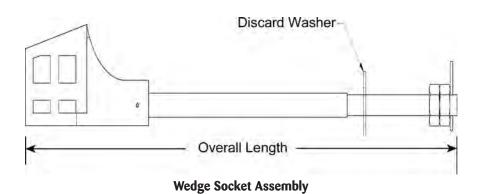
**NOTE:** The wedge clamp rope shackle assembly kit includes socket, wedge insert, washer seats, clips, nuts and cotter pins.

Part No.	Rope Diameter (in.)	Overall Length (in.)	Application
AAA25880C1	1/2, 9/16, 5/8	26.25	Componenties
AAA25880C2	1/2, 9/16, 5/8	21.25	Compensation



## **Plain Wedge Socket without Seats**

Description	Overall Length (in.)	Rope Diameter (in.)	Part No.
	36.25	1/2, 9/16, 5/8	AAA231U51
	42.25	1/2, 9/16, 5/8	AAA231U52
	24.25	1/2, 9/16, 5/8	AAA231U53
	30.25	1/2, 9/16, 5/8	AAA231U54
	18.25	1/2, 9/16, 5/8	AAA231U55
	31.50	11/16, 3/4	AAA231U56
	37.50	11/16, 3/4	AAA231U57
Socket, w/o Seats	43.50	11/16, 3/4	AAA231U58
	25.50	11/16, 3/4	AAA231U59
	31.50	11/16, 3/4	AAA231U60
	34.50	7/8	AAA231U61
	40.50	7/8	AAA231U62
	46.50	7/8	AAA231U63
	52.50	7/8	AAA231U64
	17.00	3/8	AAA231U65
Cooket Componenties Page	26.25	1/2, 9/16, 5/8	AAA231U66
Socket, Compensation Rope	21.25	1/2, 9/16, 5/8	AAA231U67



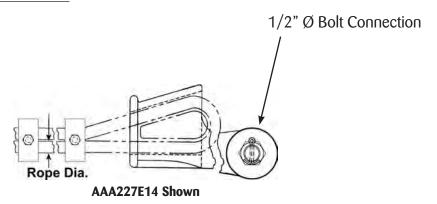
**NOTE:** Wedges for use with these sockets are found on page 26.

## **Governor Wedge Rope Shackles**

To order governor wedge rope shackles, you need to know the following:

- 1. Rope Diameter
- 2. Physical Configuration

Part No.	Rope Dia. (in.)
AAA227E15	7/16, 1/2
AAA227E14	3/8



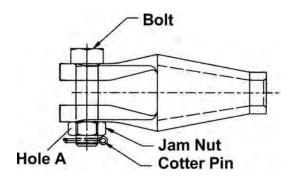
**NOTE:** Wedges for use with these sockets are found on page 26.

## **Governor Babbited Rope Shackles**

To order governor babbitted rope shackles, you need to know the following:

- 1. Rope Diameter
- 2. Bolt Hole Diameter "A"

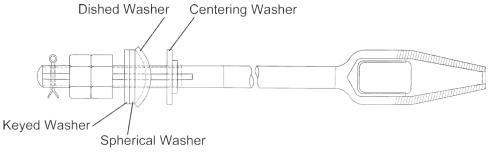
Part No	Rope Diameter (in.)	Hole A (in.)	
227C4	1/2	0.375	- - Special Order Only
227C7	3/8	0.500	- Special Order Only
227C8	3/8	0.375	_



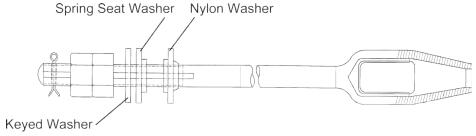
#### **Babbited Rope Shackles**

To order babbitted rope shackles, you need to know the following:

- 1. Rope Diameter
- 2. Babbitted Shackle Length



Type 1 Assembly



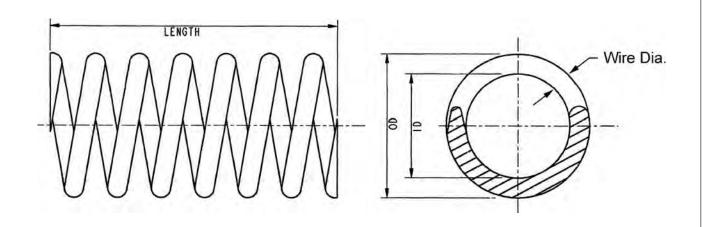
Type 2 assembly

Part No.	Rope Diameter (in.)	Hitch	Overall Length (in.)	Availability
B229C4		1:1, 2:1	18	
B229C5	_	1:1, 2:1	18	-
B229C2		1:1, 2:1	24	-
B229C7	4/0	1:1, 2:1	24	-
B229C8	- 1/2 -	1:1, 2:1	30	-
B229C9		1:1, 2:1	30	-
B229C10		2:1	30	-
B229D5		1:1, 2:1	18	-
B229D2		1:1, 2:1	24	-
B229D3		1:1, 2:1	24	-
B229D6		1:1, 2:1	24	-
B229D7		1:1, 2:1	24	-
B229D12		1:1	24	-
B229D9	- 5/8 - 	1:1, 2:1	30	-
B229D10		1:1	30	-
B229D11		1:1, 2:1	30	-
B229D17		1:1, 2:1	30	- 
B229D18		2:1	30	- Special order only
B229J5		1:1, 2:1	24	-
B229J6		1:1, 2:1	24	-
B229J10		1:1, 2:1	24	-
B229J7		1:1, 2:1	30	-
B229J11		1:1, 2:1	30	-
B229J8		1:1, 2:1	36	-
B229J9		1:1	36	-
B229J12	_	1:1, 2:1	36	-
B229J14		1:1, 2:1	42	-
B229E4		1:1, 2:1	24	-
B229E5	2/4	1:1, 2:1	30	-
B229E6	3/4 —	1:1, 2:1	30	-
B229E7		1:1, 2:1	36	-
B229E11		1:1, 2:1	40	-
B229E12	7/8	1:1	44	-
B229E13	-	1:1, 2:1	52	-

## **Shackle Hitch Springs: Traditional**

Part No.	Free Length (in.)	ID (in.)	OD (in.)	Wire Dia. (in.)	Approximate No. of Active Coils
90FD6	4-5/8	7/8	1-3/4	7/16	7
90BP1	10-5/16	1-1/4	2-1/16	13/32	17
AAA90ES1	8-1/4	1-1/8	2-1/16	0.47	10.5
90GD5	4-3/4	1-1/8	2-1/8	1/2	6
90GD23	9	1-1/8	2-1/8	1/2	13
90GD25	8-1/2	1-1/8	2-1/8	1/2	12
90GD18	10-1/2	1-1/4	2-1/4	1/2	13-1/2
90GD24	13	1-1/2	2-1/2	1/2	15-1/2
90GD21	10-3/8	1-9/16	2-9/16	1/2	13
90HD15	15-15/16	1-7/16	2-9/16	9/16	19
90HD10	10	2	3-1/8	9/16	10-1/2
AAA90EM1 (see <b>NOTE</b> )	9.94	2-1/8	3-7/16	21/32	8-1/2
AAA90ES2	9-1/8	2-1/16	3-1/2	0.72	7.2
90ND7	8-1/2	2	3-5/8	13/16	6-1/3
90KD8	12-3/4	2-3/8	3-3/4	11/16	11

**NOTE:** This spring is a redesigned version of 90JD12, which carried different dimensions as follows: 10-3/4" L x 3.63" OD x 5/8" wire diameter and 9-1/2 coils. AAA90EM1 is its direct replacement.

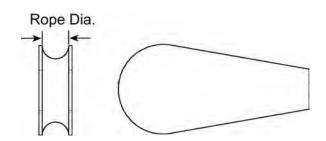


## **Shackle Hitch Springs: Gen2**

Part No.	Free Length (in.)	ID (in.)	OD (in.)	Wire Dia. (in.)	Approx. No. of Active Coils
AAA90FW1 AAA90FW3	5-1/32	1-1/8	1-15/16	13/32	8
TAA90CG2	7-1/16	1-1/2	2-3/16	3/8	12-1/2
TAA90CG1	5-3/4	1-7/16	2-1/4	3/8	9-1/2
AAA90FW5	7-1/16	1-7/16	2-5/16	7/16	10
AAA90FW7	5-7/16	1-7/16	2-5/16	7/16	7-1/2
TAA90CK2	7-3/4	2-1/16	3-1/16	1/2	9-1/4
TAA90CK1	6-3/4	2-1/16	3-1/4	19/32	7-1/8

## **Wedges and Washers**

Part No.	Rope Diameter (in.)	Color Code	Description
AAA231U10	1/2	Blue	
AAA231U11	5/8, 9/16	Red	
AAA231U12	3/4, 11/16	Yellow	Insert, Wedge
AAA231U13	7/8	Purple	
AAA231U14	3/8	Black	

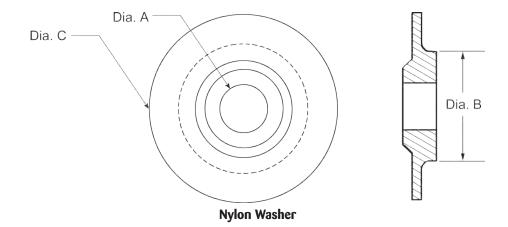


#### Wedges & Washers (continued)

#### Wedge Insert

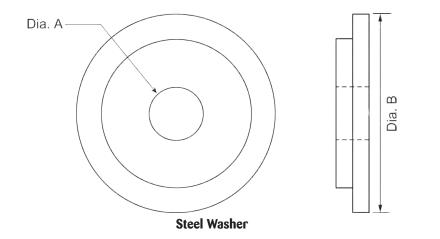
Part No.	Dia. A (in.)	Dia. B (in.)	Dia. C (in.)	<b>Application</b>	Description
133AR6	0.81	1.90	3.50		
133AR3	0.81	2.15	3.67	229Y5, 229Y7	
133AR5	0.94	1.32	2.60	AAA231U57, AAA231U58	_
133AR1	0.94	2.19	3.75	229Y8 thru 229Y12 (see <b>NOTE</b> )	Washer, Spring Seat, Nylon
133AR8	1.19	1.85	3.50	AAA231U57, AAA231U58	-
133AR2	1.19	2.19	3.75		-
133AR4	1.44	1.88	2.60		-

**NOTE:** There was one other obsolete plastic washer application for 5/8-inch rope applications. Please see note under spring part AAA90EM1 (page 24) and cease using this washer. Contact OSC for assistance.

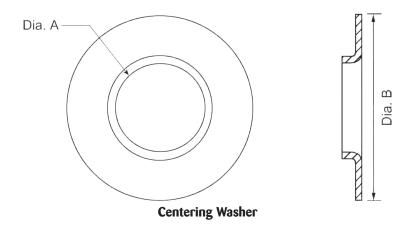


#### Wedges & Washers (continued)

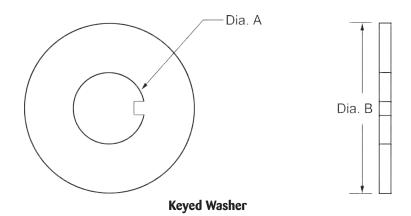
Part No.	Dia. A (in.)	Dia. B (in.)	Application	Description
133E13	0.78	3.25		
133E23	0.78	3.50		
133E19	0.78	3.75	229Y5, 229Y7	
133E14	0.91	3.75	229Y8 thru 229Y12	_
133E22	0.94	2.60	AAA231U57, AAA231U58	
133E15	1.15	3.75	B229J	_
133E25	1.19	3.50	AAA231U57, AAA231U58	_
133E27	1.44	3.75	AAA231U63, AAA231U64	_
133E21	1.93	3.75	B229E	_



Part No.	Dia. A (in.)	Dia. B (in.)	Application	Description
131BS1	0.81	1.69	229Y1 thru 229Y4, 229Y6, 229Y13, 229Y14	w.l. 0
131BS2	0.93	2.12	B229D	Washer, Centering
131BS3	1.18	2.56	B229E	•

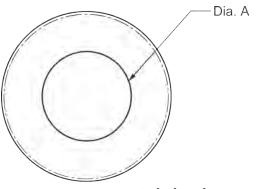


Description	Dia. B (in.)	Dia. A (in.)	Part. No.
	2.12	0.90	131BG1
Washas Kayad	1.68	0.78	131BG2
Washer, Keyed	2.56	1.15	131BG3
	3.37	1.40	131BG4



#### Wedges & Washers (continued)

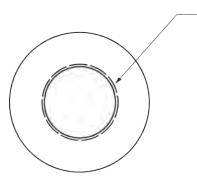
-	Part. No.	Dia. A (in.)	Dia. B (in.)	Description
	131BR1	1.00	2.00	Washas Dishad
	131BR2	1.25	2.25	- Washer, Dished

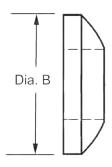




**Dished Washer** 

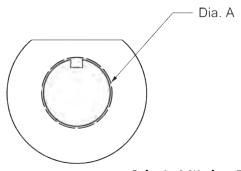
Description	Туре	Dia. B (in.)	Dia. A (in.)	Part. No.
	2	2.00	0.78	131P7
Washer, Spherical	2	2.00	0.93	131P8
	2	2.25	1.15	131P9
	3	2.00	0.93	131P10

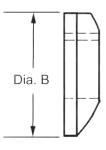




SphericaL Washer, Type 2

Dia. A



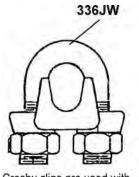


Spherical Washer, Type 3

## **Wire Rope Clips**

Part No.	Rope Size (in.)	Description
336JW1	1/8	
336JW2	3/16	_
336JW3	1/4	Clama (Casabu Clia)
336JW4	3/8	- Clamp (Crosby Clip)
336JW5	1/2	_
336JW6	5/8	_
336KX1	3/8	
336KX2	7/16-1/2i	_
336KX3	9/16-5/8	_
336KX4	3/4	Clamp, Wire Rope (Fist Grip)
336KX5	7/8	_
336KX6	3/16-1/4 in.	_
336KX7	5/16	_

Part No.	Rope Dia. (in.)	Description
AAA339NL10	1/2, 9/16, 5/8,	
	13 mm, 16 mm	
AAA339NL11	11/16 & 3/4	Clip, Retainer
AAA339NL12	13/16 & 7/8	
AAA339NL13	3/8	_

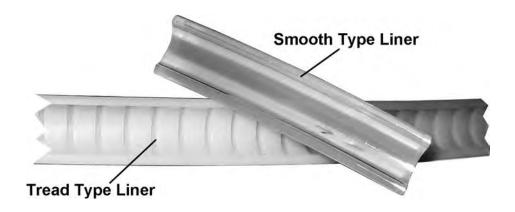


Crosby clips are used with wedge shackles hobbling, not for hoisting.





## **Sheave liners**



**NOTE:** Chain connection type sheave liners are not available through OSC.

#### **Liners for Machines and Deflector Sheaves**

Machine	Treaded	Rope Dia. (in.)	Sheave Dia. (in.)	Joined Liner Part No.
14AT	Treaded	1/2	20	3F-251BT1 * (special order)
17CT	Treaded	1/2	21	AAA251BT2
17CT	Treaded	1/2	26	AAA251BT7
17CT	Treaded	5/8	26	AAA251BV7
22CT	Treaded	1/2	26	AAA251BT7
22CT	Treaded	1/2	28	AAA251BT9
22CT	Treaded	1/2	30	AAA251BT10
22CT	Treaded	1/2	32	AAA251BT11
22CT	Treaded	5/8	28	AAA251BV9
22CT	Treaded	5/8	30	AAA251BV10
22CT	Treaded	1/2	30	3F-251BT5* (special order)
29CT	Treaded	1/2	38	AAA251BT13
29CT	Treaded	5/8	32	AAA251BV11
29CT	Treaded	5/8	38	AAA251BV13
131HT/139HT	Treaded	1/2	27	3F-251BT3 *
131HT/139HT	Treaded	1/2	27	AAA251BT8 **
139HT	Treaded	1/2	22	AAA251BT3
139HT	Treaded	1/2	24	AAA251BT5
155HT	Treaded	1/2	24	AAA251BT5
155HT	Treaded	1/2	27	AAA251BT8
155HT	Treaded	5/8	27	(contact OSC)
219HT (swt only)	Treaded	5/8	30	AAA251BV10
219HT (swt only)	Treaded	5/8	34	AAA251BV12
269HT (swt only)	Treaded	11/16	36	(contact OSC)
269HT (swt only)	Treaded	11/16	40	AAA251CD7
306/315DT	Treaded	1/2	20	AAA251BT1
215, 306/315DT	Treaded	5/8	25	AAA251BV6

<sup>\* 1/8</sup> inch wide tread slots (non-standard)

<sup>\*\* 1/16</sup> inch wide tread slots (standard)

#### **Sheave Liners (continued)**

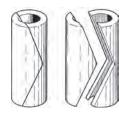
Machine	Smooth*	Rope Dia. (in.)	Sheave Dia. (in.)	Joined Liner Part No.
17CT	Smooth	1/2	26	251BT12
17CT	Smooth	5/8	26	251CE8
17CT	Smooth	5/8	28	251BV6
22CT	Smooth	1/2	30	251BT6
17CT	Smooth	1/2	21	251BT17
17CT	Smooth	1/2	24	251BT14
215DT (deflector)	Smooth	5/8	25	251BV12
215DT (driver & deflector)	Smooth	1/2	22.5	251BT21
215DT	Smooth	5/8	26	251CE8
131HT Smooth	Smooth	1/2	27	251BT4

<sup>\*</sup> Smooth liners, when used on geared machines, are used almost exclusively in "long wrap traction" applications where arc of contact of ropes on the drive sheave generally results in  $\sim 270^{\circ}$  of contact. If this is not the case for your application, consider having OSC confirm the sheave liner identity for you.

# **Rope Guides**



**AAA385RS3** (USE AAA385SP401)



CAA385A1



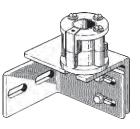
**AAA385RS1** 



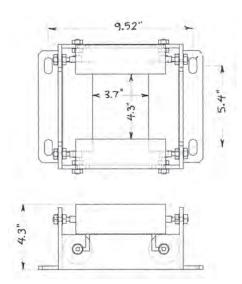
CAA22400A1



385SJW1



B6199T1

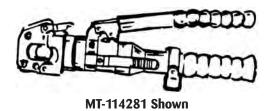


AAA385SP401 [Consists of 2 Assemblies (One Shown)]

# **Tools and Tags for Rope**

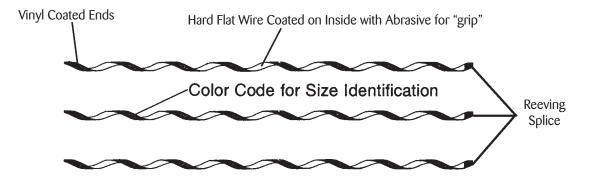
## **Wire Rope Cutting and Seizing Material**

Part No.	Description
VP-703170	Band, Cable, 3/8 in., Morse Starrett, Used as Seizing
VP-703175	Band, Cable, 5/8 in., Morse Starrett, Used as Seizing
VP-703180	Band, Cable, 1/2 in., Morse Starrett, Used as Seizing
VP-703185	Band, Cable, 3/4 in., Morse Starrett, Used as Seizing
MT-114364	Blade, Moveable Replacement, for MT-114281
MT-114281	Cutter, Cable, up to 3/4 in. Wire Rope (see illustration below)
VP-912900	Wire, Black Soft Steel, 21 Gauge, 1/4 lb. Spools

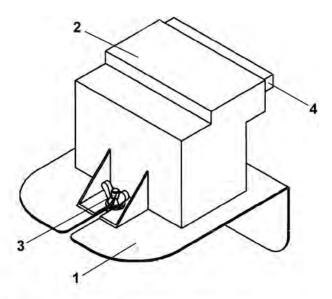


## **Reeving Splices for Re-Roping**

Part No. (set of 3)	Rope Size (in.)	Color Code	Description
MT-131009-1	3/8	Yellow	
MT-131009-2	1/2	Orange	_
MT-131009-3	5/8	Black	_
MT-131009-4	11/16	Red	
MT-131009-5	3/4	Green	Splice, Reeving
MT-131009-6	13/16	Yellow	_
MT-131009-7	7/8	Blue	_
MT-131009-8	1	Red / Orange	_
MT-131009-9	9/16	Yellow	_



# **Rope Lubricator Kit for Hoist Rope**

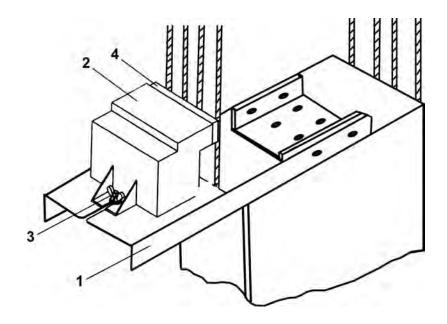


**NOTE:** Rope lubricator comes with a ground wire and must be grounded to function properly.

Ref. No.	Part No.	Description
	AAA386LEH1	Bracket, Used on 3 in., 5 in., 7 in., and 9 in. Lubricators
1	AAA386LEH2	Bracket, Used on 12 in. and 14 in. Lubricators
	AAA386LEH3	Bracket, Used on 16 in. Lubricator
	AAA22300H1	Kit, Lubricator, Hoist Rope, 3 in.
_	AAA22300H2	Kit, Lubricator, Hoist Rope, 5 in.
	AAA22300H3	Kit, Lubricator, Hoist Rope, 7 in.
*	AAA22300H4	Kit, Lubricator, Hoist Rope, 9 in.
	AAA22300H5	Kit, Lubricator, Hoist Rope, 12 in.
	AAA22300H7	Kit, Lubricator, Hoist Rope, 14 in.
	AAA22300H6	Kit, Lubricator, Hoist Rope, 16 in.
	AAA508AH8	Lubricator, $L = 3$ in.
	AAA508AH9	Lubricator, $L = 5$ in.
	AAA508AH10	Lubricator, $L = 7$ in.
2 -	AAA508AH11	Lubricator, $L = 9$ in.
Ζ –	AAA508AH12	Lubricator, L = 12 in.
	AAA508AH14	Lubricator, L = 14 in.
	AAA508AH13	Lubricator, L = 16 in.
	VP-419755	Lubricant, 1 Quart
3	72FD5	Nut, Wing
	AAA488M3	Wick, Felt, 3 in.
_	AAA488M8	Wick, Felt, 5 in.
_	AAA488M4	Wick, Felt, 7 in.
4	AAA488M5	Wick, Felt, 9 in.
_	AAA488M6	Wick, Felt, 12 in.
_	AAA488M10	Wick, Felt, 14 in.
_	AAA488M7	Wick, Felt, 16 in.

 $<sup>^{\</sup>ast}\,$  Order this item if you are adding a lubricator where there was none previously.

# **Rope Lubricator Kit for Compensation Rope**

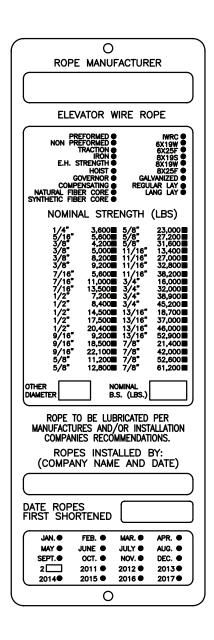


Ref No.	Part No.	Description
	AAA347BHD2	Bracket, Compensation Frame, 3 in., 5 in., 7 in. and 9 in.
_	AAA347BHD4	Bracket, Compensation Frame, 12 in. and 14 in.
1 -	AAA347BHD6	Bracket, Compensation Frame, 16 in.
1	AAA347BHD7	Bracket, Compensation Reservoir, 3 in., 5 in., 7 in. and 9 in.
	AAA347BHD3	Bracket, Compensation Reservoir, 12 in. and 14 in.
	AAA347BHD5	Bracket, Compensation Reservoir, 16 in.
	AAA22300H8	Kit, Lubricator, Compensation Rope, 3 in.
_	AAA22300H9	Kit, Lubricator, Compensation Rope, 5 in.
	AAA22300H10	Kit, Lubricator, Compensation Rope, 7 in.
*	AAA22300H11	Kit, Lubricator, Compensation Rope, 9 in.
_	AAA22300H12	Kit, Lubricator, Compensation Rope, 12 in.
	AAA22300H14	Kit, Lubricator, Compensation Rope, 14 in.
	AAA22300H13	Kit, Lubricator, Compensation Rope, 16 in.
	AAA508AX8	Lubricator, L = 3 in.
	AAA508AX9	Lubricator, L = 5 in.
	AAA508AX10	Lubricator, $L = 7$ in.
2	AAA508AX11	Lubricator, L = 9 in.
	AAA508AX12	Lubricator, L = 12 in.
	AAA508AX14	Lubricator, L = 14 in.
	AAA508AX13	Lubricator, L = 16 in.
3	72DD5	Nut, Wing
	AAA488M3	Wick, Felt, 3 in.
	AAA488M8	Wick, Felt, 5 in.
	AAA488M4	Wick, Felt, 7 in.
4	AAA488M5	Wick, Felt, 9 in.
	AAA488M6	Wick, Felt, 12 in.
_	AAA488M10	Wick, Felt, 14 in.
	AAA488M7	Wick, Felt, 16 in.

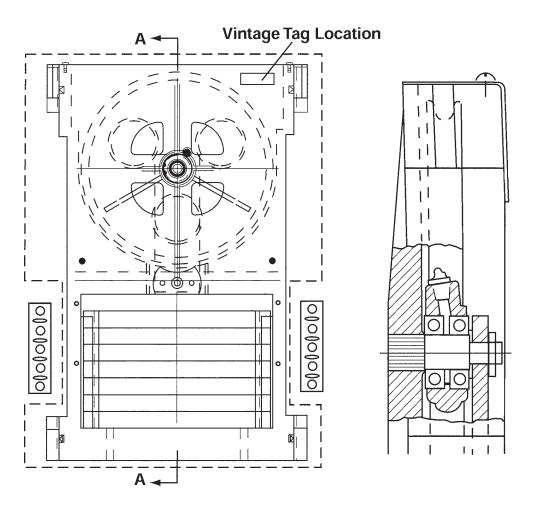
 $<sup>^{</sup>st}$  Order this item if you are adding a lubricator where there was none previously.

## **Wire Rope Data Plate**

Part No.	Description
AAA102ACD2	Data Plate, Wire Rope



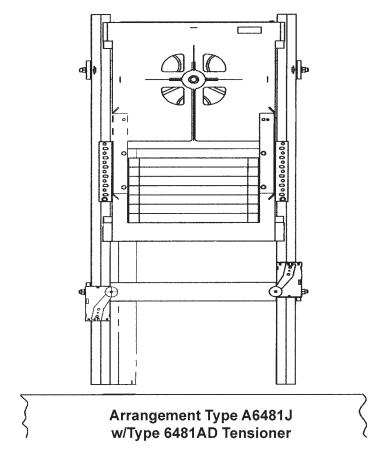
# **Governors and Related**



**6481AD Rope Tightener** 

## **Tension Frames**

Part No.	Description	Application
AAA265CK3	Sheave, Tension Frame, 16 in.	6481P, T, AD
207Z18	Bearing, Tension Frame	6481P, T, AD
207Z79	Bearing (sealed), Tension Frame	6481P, T, AD

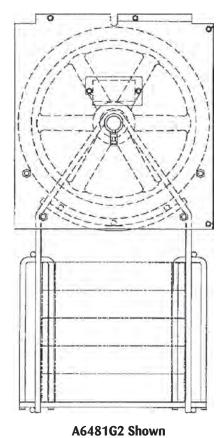


A6481AD2 Tensioner Shown

Part No.	Description	Application
A6481G1	Assembly, Tension Frame, w/Weights (~28" h x 14" w x 4" t)	A6481G
A6481G2	Assembly, Tension Frame, w/Weights 80 lb. (~28" h x 14" w x 4" t)	A6481G
267J1	Sheave, w/Bushing, Tension Frame, 12 in.	A6481G
AAA385RW1	Guide (for quieting rattles from A6481G), 1-3/4" Reach off Mounting Bar	A6481G
AAA385RW2	Guide (for quieting rattles from A6481G), 2-3/8" Reach off Mounting Bar	A6481G
AAA385RW400	Guide Kit (AAA385RW1 w/hardware)	A6481G
AAA385RW401	Guide Kit (AAA385RW2 w/hardware)	A6481G



AAA385RW1

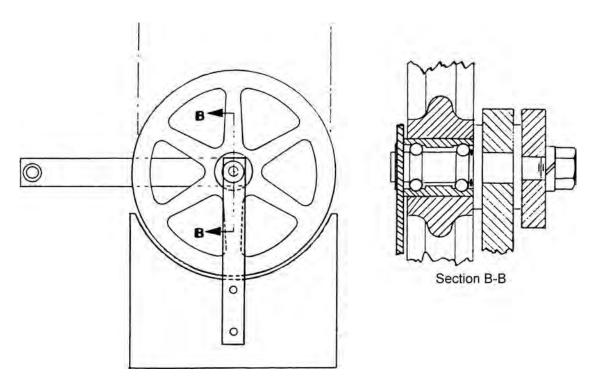




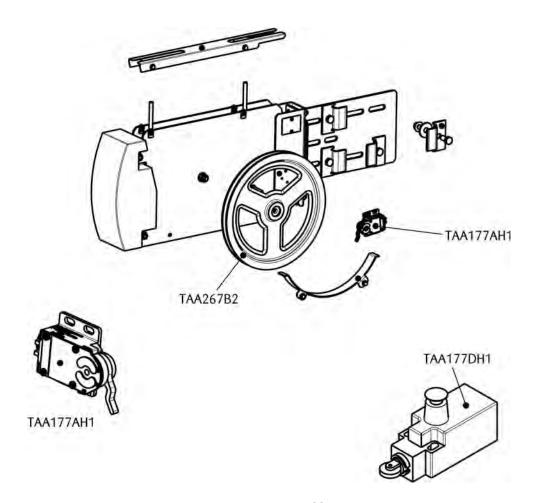
AAA385RW2

#### **Tension Frames (continued)**

Part No.	Description	Application
265AD3	Sheave, 16.5 in. Dia.	7051A
267C2	Sheave, 12 in. Dia.	7051A
207BB2	Bearing	7051A



Type 7051A Tension Frame Shown Uses 265AD3 or 267C2 Sheave



**TBA22700E Assembly** 

Part No.	Description	Application
TBA22700E12	Assembly, Tension Frame, w/12 in. Sheave, Used w/Apollo Governors	TBA22700E
TBA22700E19	Assembly, Tension Frame, w/12 in. Sheave, Used w/Apollo Governors	TBA22700E
TBA22700E20	Assembly, Tension Frame, w/12 in. Sheave, Used w/Apollo Governors (opposite hand of TBA22700E19)	TBA22700E
TAA267B2	Sheave, 12 in. (w/bearings)	TBA22700E
TAA177AH1	Switch, Rope Stretch (two-way trip), 2NC Contacts (trip opens one circuit, used on TBA22700E12)	TBA22700E
TAA177DH1	Switch, Roller Type, Manual Reset, 1NO/1NC (used on TBA22700E19 and 20)	TBA22700E
TAA177CB1	Switch, Snap Action w/Rod, 1NC/1NO	TBA22700E



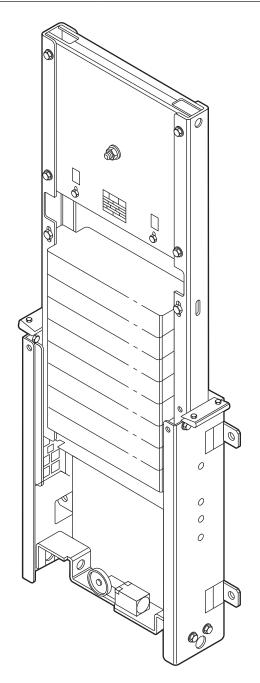
**TAA177AH1** 





**TAA177CB1** 

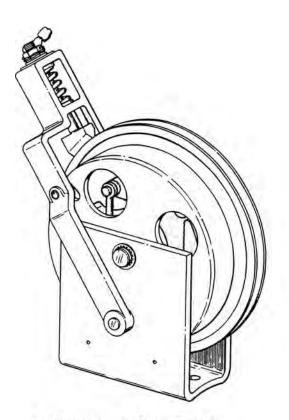
Part No.	Description	Application
TAA22700F20	Assembly, Tension Frame, w/12-in. Sheave, Used w/Samson Governors	
TAA267B4	Sheave, 12 in. (w/bearings)	
TAA177BD1	Switch, Rope Stretch, Limit Switch Type, Flexible Rubber 2 in. OD Roller, 1NO/1NC	TAA22700F20



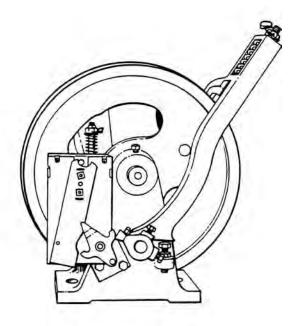


TAA22700F20

# **Early Bail Type and Flyball Governors**



R Governor without Switch (formed base, late model)



R Governor with Switch (cast iron base, early model)

**NOTE:** Servicing flyball governors more and more has become a business decision, which must take into account wear in related members which would not be resolved even by replacing some of the simpler common replacement parts. Generally speaking, if the governor has been shown to not operate properly due to wear of the governor bevel gears, spindle shaft, clutch gear wear or even wear in the pin bores in the cast base of the governor (each of these scenarios involves substantial part lead-time, cost and labor—often more than a complete new governor). OSC does supply new governor assemblies as follows: Apollo-12 in. (3/8″ rope), Samson-12 in. (3/8″ rope, 200 FPM to 800 FPM), JDA20610AAA 16.5 in. (1/2″ rope, type 7063E), and JDA20610AAA 24 in. (1/2″ rope, 7063F) type governors.

#### R Type Governor

**Identification Notes:** 'R' Type Governors have gone through 3 or 4 design versions over the years. Earliest governors had 1-1/4 in. sheave shafts with a grease groove in the shaft. No bushings were present on these governors originally. It is no longer cost effective to rebuild these early governors. Replace the entire governor from this earliest vintage with a type B6866B1 or B6866B2.

Intermediate vintage 'R' governors (~1957) began incorporating bushings in stand, sheave and dog wheel and had 1 in. diameter shafts pinned in stand. It is possible but time-consuming to rebuild this version governor. Do not attempt to do so if sheave is worn—rather install a new governor.

Replacement of just a sheave on all but the latest version 'R' governor is neither possible nor recommended. All pre-1966 'R' type governors had sheave shafts pinned by square head bolt in stand. After 1965, shafts were secured via knurled end on 1 in. shaft. Though not sufficient for latest code compliance (no up overspeed trip protection as well as not having the necessary switches as standard), 'R' type governors are still produced and available through OSC.

Part No.	Description	Application
B6866B1	Assembly, Complete R Governor (tripping speeds up to 200 FPM), w/o Switch	Service replacement for all vintages and used new on post-
B6866B2	Assembly, Complete R Governor (tripping speeds over 200 FPM, max contract speed of 200 FPM), w/o Switch	1965 installations

#### R Type Governor (continued)

Part No.	Description	<b>Application</b>
335E21	Bushing, Straight, 5/8 in. ID (early dogs), 2 per Governor	R Type Governor, 1949–1956 (1.25 in. shaft governor)
335H34	Bushing, Flanged 5/8 in. ID (later dogs), 2 per Governor	R Type Governor, 1957 thru 1965
335H33	Bushing, Flanged, 1 in. ID and ~1 in. Long, (2 per governor—1 for ratchet wheel, 1 for sheave)	R Type Governor, 1957 thru 1965
335H32	Bushing, Flanged, 1 in. ID (1 for Sheave)	R Type Governor, 1957 thru 1965
335E20	Bushing, Straight, 0.44 in. ID and ~.3 in. Long, for Link Between Dogs (2 per governor)	R Type Governor, 1957 thru 1965
335E76	Bushing, Straight (2 per cast stand)	R Type Governor, 1957 thru 1965
470F2	Shoe, Rope Gripping (1-5/16" shoulder under head)	R Type Governor, 1957 thru 1965
495AT1	Shaft, 1.25 in. Dia., w/Grease Groove	R Type Governor, Pre-1957
495BP1	Shaft, 1 in. Dia. (pinned to stand)	R Type Governor, 1957-66





Part No.	Description	Application
90BB11	Spring, Shoe Grip at Yoke (1 or 2 per governor per speed)	R Type Governor, All
90XC3	Spring, Dog	R Type Governor, All
212T4	Bushing, Straight (2 per Sheave)	R Type Governor, Post 1965
212AB1	Bearing, Sleeve for Yoke (2 per governor)	R Type Governor, Post 1965
212AB2	Bearing, Sleeve, for Ratchet Wheel (1 per governor)	R Type Governor, Post 1965
335E94	Bushing, Straight, for Shoe Grip, (1 per governor)	R Type Governor, Post 1965
335AB5	Bushing, for Dog (2 per governor)	R Type Governor, Post 1965
470F4	Shoe, Rope Gripping (no shoulder)	R Type Governor, Post 1965
A495BP1	Shaft, Knurled End, 1 in. Dia. (no oil groove)	R Type Governor, Post 1965
B267A2	Sheave, 12 in. (also order two 81CH2, not to be used for any early pre-1957 governors)	R Type Governor, Post 1965



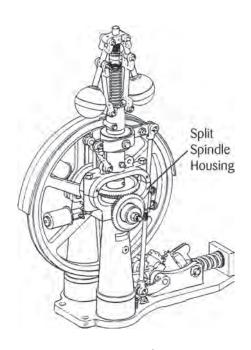


Rebuild Parts Set (post 1966)

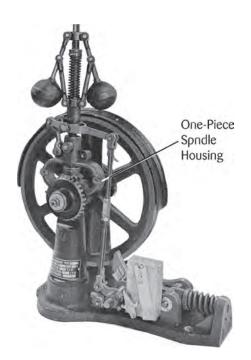
## EA and EAO Flyball Governors (400 FPM to ~600 FPM min)



Contact OSC for information on the 12-in. Samson governor (3/8" rope) and deflector stand to replace many early flyball type governors. (reference: AAA20602B)



**EA Governor Shown** 



**FA Governor Shown** 

**NOTE:** Servicing flyball governors more and more has become a business decision, which must take into account wear in related members which would not be resolved even by replacing some of the simpler common replacement parts or even the more expensive components. Generally speaking, if the governor has been shown to not operate properly due to wear of the governor bevel gears, spindle shaft, clutch gear wear or even wear in the pin bores in the cast base of the governor (each of these scenarios involves substantial part lead-time, cost, and labor often more than a complete new governor). OSC does supply new governor assemblies as follows: Samson 12 in. (3/8 in. rope, 200 FPM to 800 FPM), and JDA20610AAA 16.5 in. (1/2 in. rope, 7063E) type governors, as pos-sible replacements for your flyball governor application.

Use the following unique features to distinguish EA/EAO governors from FA, FAO, FSAO governors:

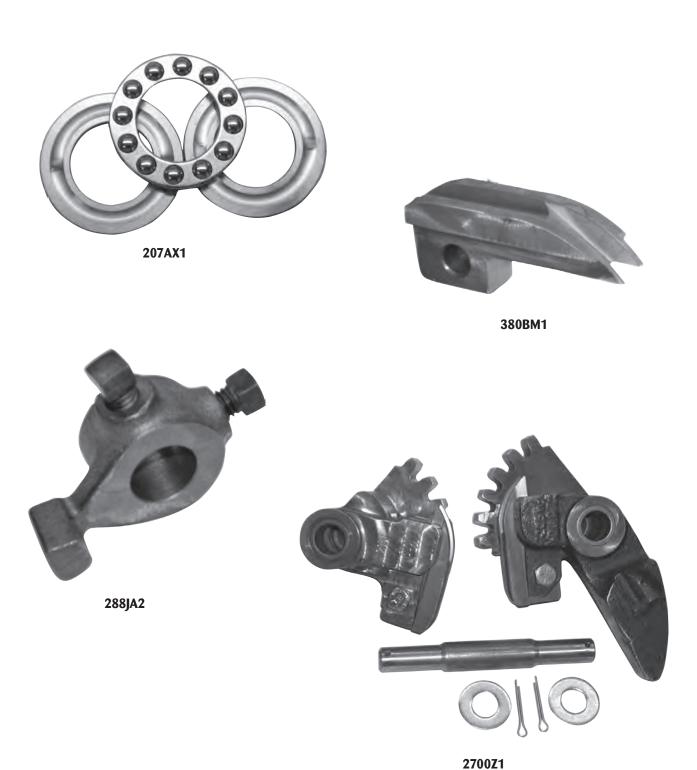
#### EA/EAO:

- Usually used between 400 and 600 FPM and incorporate bronze sheave shaft sleeves
- Has a 2-piece spindle stand (split bevel gear housing area) and ball thrust bearing at both bottom and upper guide areas for spindle shaft

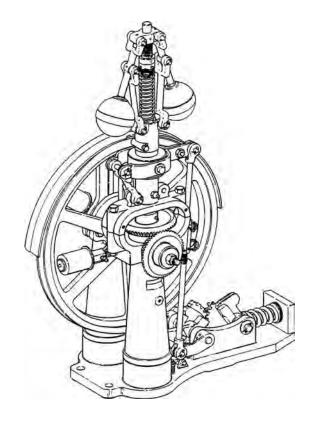
#### FA/FAO/FSAO:

- Usually used between ranges of speed 90 and 300 FPM (different for the three different governors)
- Poured Babbitt sheave shaft journals for both support of sheave and rope vertically as well as side thrust of sheave hub
- 1-piece spindle stand
- Split bronze upper spindle guide sleeve and either ball bearing or Babbitted lower spindle shaft retention means

#### **EA/EAO Governors (continued)**



Part No.	Description	Application
207AX1	Bearing, Thrust, 2.4 in. OD	EA & EAO
615	Sleeve, Spindle, Bronze, 3.12 in. Long	EA & EAO
616	Sleeve, for Bottom of Spindle, 1.5" OD x ~1" Long	EA & EAO
617	Sleeve, Sheave Shaft, 2" OD x 4" Long	EA & EAO
619	Sleeve, Short Stand, 2" OD x 2.9" Long	EA & EAO
127AD8	Washer, Spring Adjusting, 2" OD x .15" Thick	EA & EAO
127VB8	Washer, Spring Adjusting, 2" OD x .03" Thick	EA & EAO
380BM1	Insert, Jaw, Cast Iron ( for late jaws)	EA & EAO
435Z2	Fitting, Lubrication	EA & EAO
90DB4	Spring, Latch Lever, 1.1" Long x 7/16" ID	EA & EAO
90LC2	Spring, Spindle, 4.5" Long	EA & EAO
288JA2	Lever, Switch Operating, 0.78" ID, w/Two Set Screw Holes	EA & EAO
267B1	Sheave, 17-3/8" Overall Dia. x 1.5" ID	EA & EAO
495AM2	Assembly, Shaft & Sheave, 11-3/4" Long w/267B1 Sheave	EA & EAO
340R14	Collar, Spindle ,1-3/4" OD x ~1-5/16" ID	EA & EAO
2700Z1	Jaw Set, Rope Clutch Gear, Each w/380BM1 Insert & Bushings	EA & EAO
AAA6098NR1	Switch, Tripper Type (manual reset) SPB	EA & EAO



## FA, FAO, FSAO, Flyball Governors (general range: 90 FPM to 300 FPM)



612



620



307AL1



651

Use the following unique features to distinguish EA/EAO governors from FA, FAO, FSAO governors:

#### EA/EAO:

- Usually used between 400 and 600 FPM and incorporate bronze sheave shaft sleeves
- Has a 2-piece spindle stand (split bevel gear housing area) and ball thrust bearing at both bottom and upper guide areas for spindle shaft

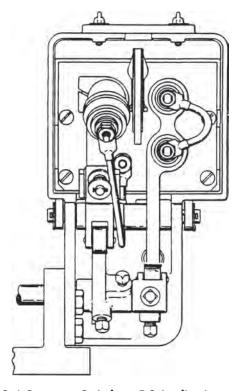
#### FA/FAO/FSAO:

- Usually used between ranges of speed 90 and 300 FPM (different for the three different governors)
- Poured Babbitt sheave shaft journals for both support of sheave and rope vertically as well as side thrust of sheave hub
- 1-piece spindle stand
- Split bronze upper spindle guide sleeve and either ball bearing or Babbitted lower spindle shaft retention means

Part No.	Description	Application
612	Bushing Set, Split, Bronze, for Spindle	FA, FAO, FSAO
620	Sleeve, Cast Iron, for Spindle	FA, FAO, FSAO
207Z7	Bearing, for Base of Spindle Shaft	FA, FAO, FSAO
307AL1	Crank, for Long Clutch Gear	FA, FAO, FSAO
288JA2	Lever, Switch Operating, 0.78" ID, w/Two Set Screw Holes	FA, FAO, FSAO
AAA6098NR1	Switch, Tripper Type (manual reset) SPB	FA, FAO, FSAO
AAA6098NM	Switch, Mechanical (see 6098 Switch Catalog for details)	FA, FAO, FSAO
651	Screw, 3/8 in., for Split Bushing Retaining	FA, FAO, FSAO
90DB4	Spring, Latch Lever, 1.1" Long x 7/16" ID	FA, FAO, FSAO
90LC2	Spring, Spindle, 4.5" Long	FA
380BM1	Insert, Jaw, Cast Iron, for Late Jaws	FA, FAO, FSAO
2700Z1	Jaw Set, Rope Clutch Gear, Each w/380BM1 Insert & Bushings	FA, FAO, FSAO

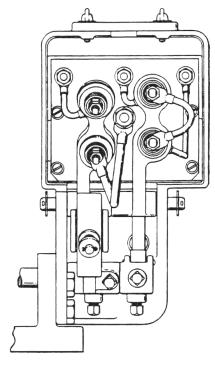
## **Overspeed Switches Flyball Governors**





**O-1 Governor Switch on DC Application** 





O Governor Switch on 2/S AC Geared Application

**NOTE:** Type 'O' governor switches were used on 2-speed AC geared applications and incorporated an overspeed switch as well as a normally open speed limiting switch. Type O-1 governor switches were applied on DC applications.

Part No.	Description	Application
REF13433	Bushing Kit	O & O-1 Governor Switches
129912	Assembly, Copper Contact & Insulators Kit, 7/8" Dia.	O & O-1 Governor Switches
121992	Contact, Carbon, 3/4" Dia.x 3/4" L	O & O-1 Governor Switches
129456	Distance Piece Kit, Brass, ~3.5" L	O & O-1 Governor Switches
90BB3	Spring	O-1 Governor Switches











121992

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Otis Elevator Company

## **Overspeed Switches Flyball Governor (continued)**

Part No.	Description	Application
1207	Contact, Carbon, 3/4" Dia. x 3/4" L	O-1 Governor Switches
105936	Holder, Carbon Contact, for 1207	O-1 Governor Switches
106580	Assembly, Copper Contact & Insulators Kit, 1-3/4" Dia.	O-1 Governor Switches
129FA1	Washer, Insulative, 1-1/4" OD w/C'bore	O Governor Switch





105936



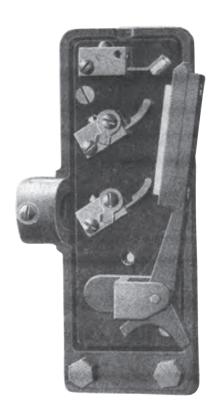


Part No.	Description	Application
1338	Contact, Copper Finger	Type K Governor Switch
12170	Assembly, Contact Holder	Type K Governor Switch
12171	Assembly, Contact Holder	Type K Governor Switch
90AB2	Spring, Compression, ~5/16" x 1/2" L	Type K Governor Switch





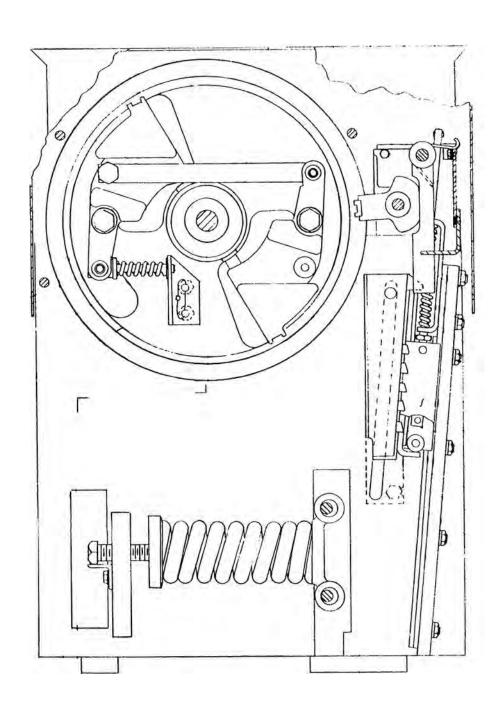




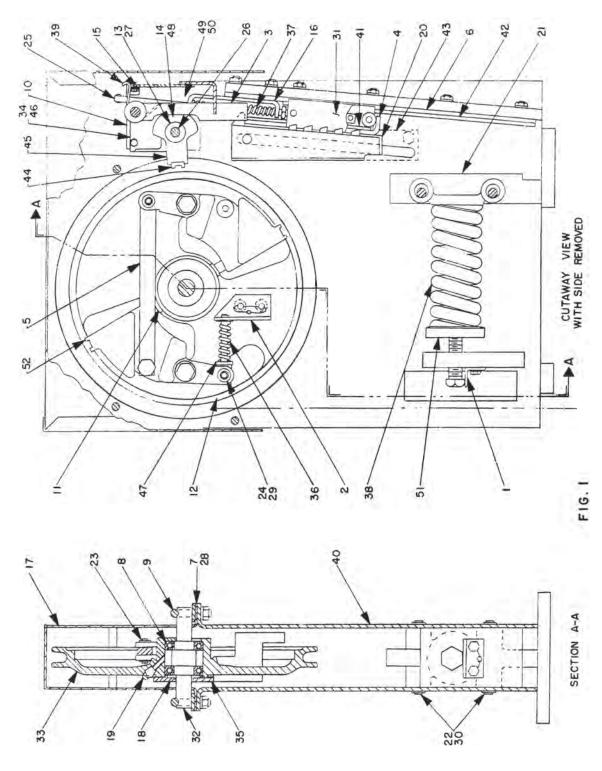
**K Governor Switch** 

# Early 7063A (produced ~ 1960–65) with Sliding Jaw

Contact OSC for spare parts support.

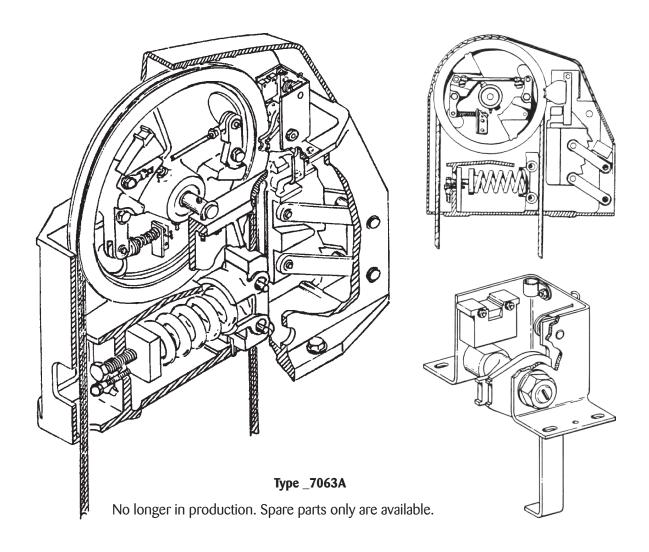


63



**Contact OSC for spare parts support.** 

## A, B7063A 12-in. Sheave Governor with Aluminum Sloped Cover

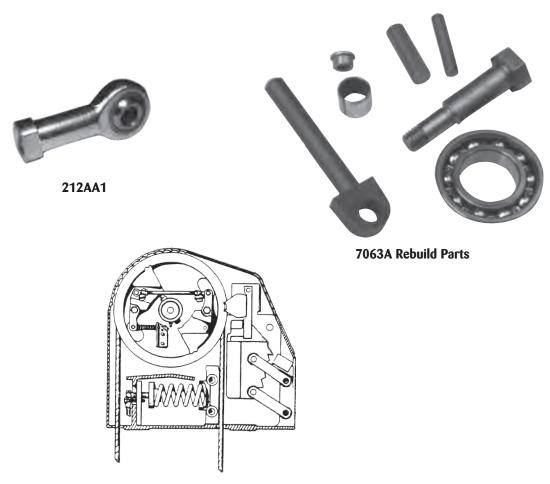


All 12 in. 7063A type governors shown in illustrations are no longer in production. Spare parts only are available.

Part No.	Description
TBB20602C	Samson governor assemblies (pages 78–79) for complete governor replacements for the
	7063A type governor.

#### A, B7063A 12-inch Sheave Governor with Aluminum Sloped Cover (continued)

Part No.	Description	Application	
212AA1	Rod End (2 per governor used)	A, B7063A	
59BL2	* Bolt, Weight Pivot (2 per governor used)	A, B7063A	
335AB2	* Bushing (at 59BL2) (2 per governor used)	A, B7063A	
335H39	* Bushing (2 per governor used)	A, B7063A	
77JP5	* Pin, w/Retaining Ring Grooves	A, B7063A	
77JP14	* Pin, w/Retaining Ring Grooves (2 per governor used), Weight Relating Rod	A, B7063A	
79BP1	* Spring Guide, Plastic, for Weight Deflection	A, B7063A	
207Z49	* Bearing, Sheave (2 per governor used)	A, B7063A	
* included in the	* included in the 7063A rebuild parts illustration		



**Parts Shown for This Governor** 

Part No.	Description	Application
177AR1	Switch, Jaw, for CWT Governors	A, B7063A
A398AD1	Jaw, Stationary	A, B7063A
398AR1	Jaw, Dropping (used w/8-5/8" long links)	A, B7063A
398AR2	Jaw + Link Set (used w/7-1/8" long links)	A, B7063A
430TA53	Link, Jaw, 4 Per Governor Used	A, B7063A
7035A116	Switch, Tripper, 1NC Contact Set	A, B7063A
A7063B	Tripper Assembly (Contact OSC for special order)	A, B7063A







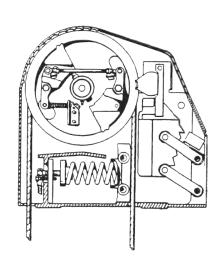
A398AD1

177AR1

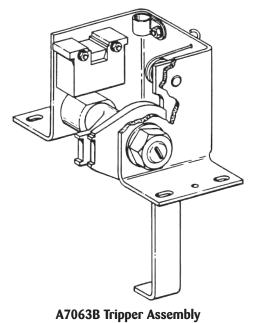
7035A116



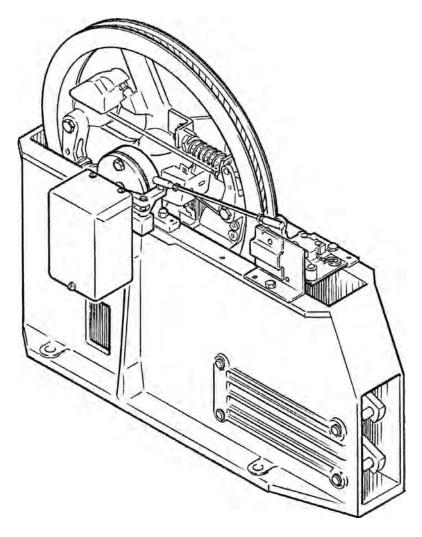
398AR1



**Parts Shown for This Governor** 



# A, B, C7063E 16-in. Sheave Governor with Aluminum Sloped Cover

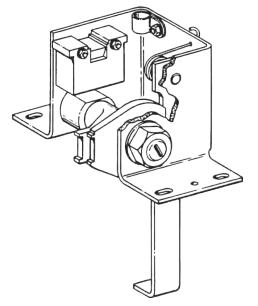


Type \_7063E 16-in. Governor Shown w/o Cover, RH Shown

Part No.	Description	Application
JDA20610AAA1-500- ANSIETS	Governor, LH, 500 FPM, w/2-Step Slowdown Switch	Latest version replacement for all
JDA20610AAA2-500- ANSI2STP	Governor, RH, 500 FPM, w/2-Step Slowdown Switch	Latest version replacement for all
<b>NOTE:</b> For contract speed of	other than 500 FPM, contact OSC for assistance.	

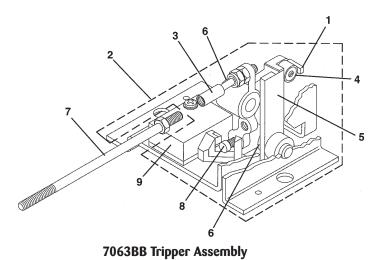
#### Type \_7063E 16-inch Sheave Governor with Aluminum Sloped Cover (continued)

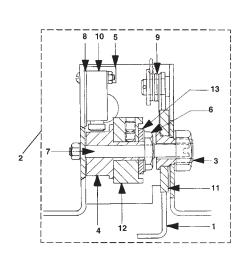
**NOTE:** Identify which tripper you have and contact OSC for spare parts support.



7063Y Tripper Assembly

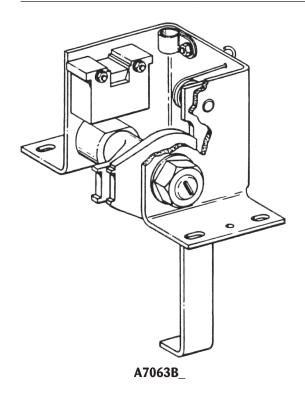
A7063B Tripper Assembly

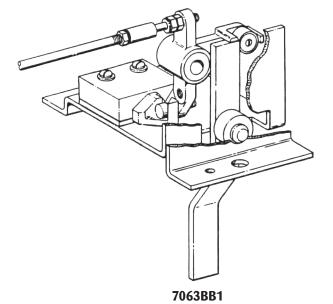




7063G Tripper Assembly

Part No.	Description	Application
A7063B_	Tripper Assembly (early vintage pre-1967)	
7063BB1	Tripper Assembly (1972-2000)	7063BB, C7063E
7035A106	Switch, Cam Type, Norm Open S. Making	7063BB, C7063E

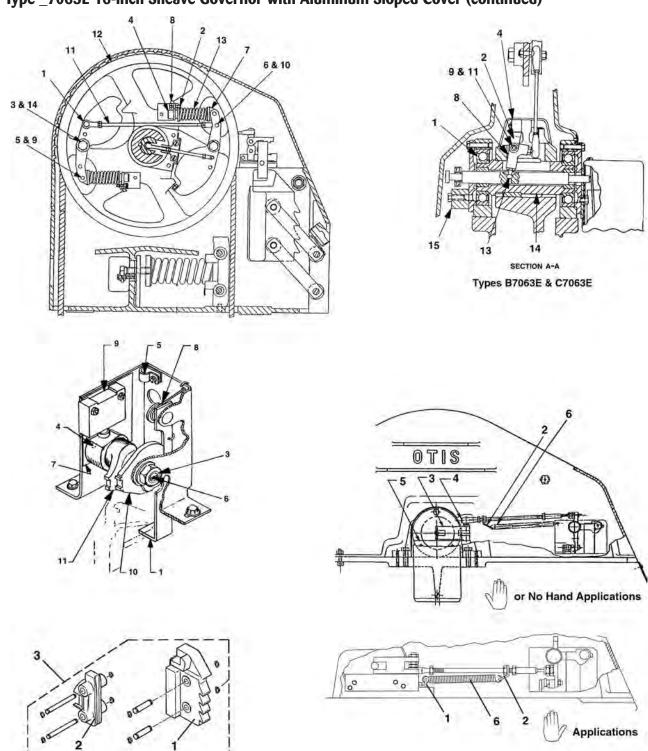






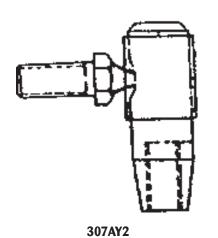
7035A106

#### Type \_7063E 16-inch Sheave Governor with Aluminum Sloped Cover (continued)



Parts for Type \_7063E Governor

Part No.	Description	Application
AAA708A1	Ball Joint, Rod End (at tripper), for 7063BB1	7063BB, C7063E
207BM1	Roller, Tripper, for 7063BB1	7063BB, C7063E
307AY2	Swivel, Rod End, 10-32, Mount at Side Fork Bellcrank	7063Y, B7063E
7035A116	Switch, Pushbutton, S. Making	7063Y, B7063E
327JG1	Cam, Governor Tripper, for 7063Y, 1967-72	7063Y, B7063E
90LA5	Spring, for 327JG Cam Actuation	7063Y, B7063E



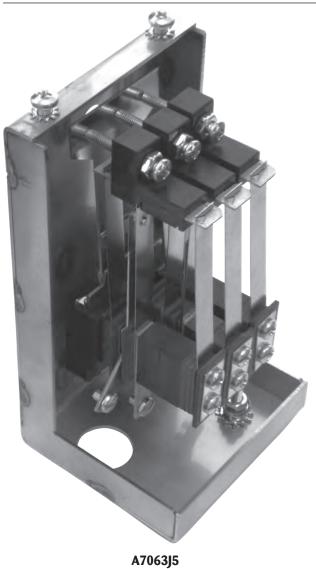


7035A116



Type \_7063E 16-inch Sheave Governor with Aluminum Sloped Cover (continued)

Part No.	Description	
A7063J5	Switch, 1 M, 2 B, Terminal Motion Overspeed	
A7063J6	Switch, 1 M, 4 B, Terminal Motion Overspeed	
307AY1	Swivel, Rod End, 10-32, for Short Bellcrank Actuating Rod at Plunger	
212AA1	Rod End (2 per governor used), Main Flyweight Interconnecting Rod	
59BL2	Bolt, Weight Pivot (2 per governor used)	
335AB2	Bushing (at 59BL2, 2 per governor used) for Flyweight	
307AW1	Bell Crank, Forked (B7063E vintage)	
307BC1	Bell Crank, Forked (C7063E vintage)	





212AA1

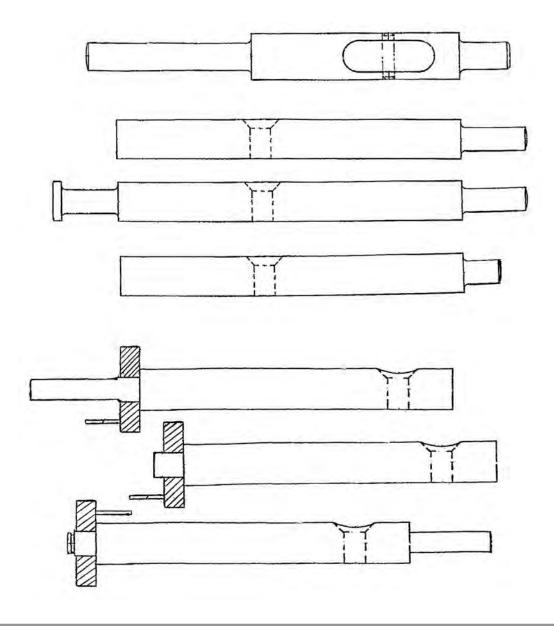


307AW1



307BC1

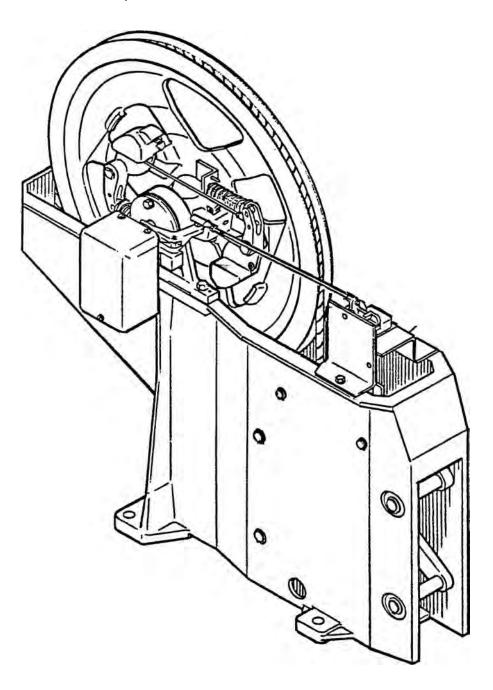
Part No.	Description
445BC3	Plunger, Steel (pre-1967 A7063E)
445BD1	Plunger, 7-1/4" Long
445BD2	Plunger, 7-9/16" Long
445BD3	Plunger, 6-9/16" Long
445BT4	Plunger w/Bearing, 7.46" Long
445BT5	Plunger w/Bearing, 6.38" Long
445BT6	Plunger w/Bearing, 7.72" Long
	Springs for Weights (provide OSC w/contract speed)



#### A7063F 24-in. Sheave Governor with Aluminum Sloped Cover

**NOTE:** A7063F 24-inch diameter sheave with aluminum sloped cover is generally used for higher speed (1000 FPM +) and higher rise applications. Contact OSC for spare parts support.

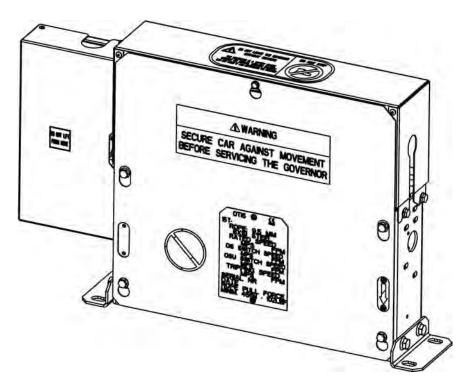
Later models are Japanese made and carry identity  $J^{**}20621AAA$  and can still be special ordered in speed ranges from 1000 FPM up to 1600 FPM.



# **Apollo Governors 12-in. Sheave**

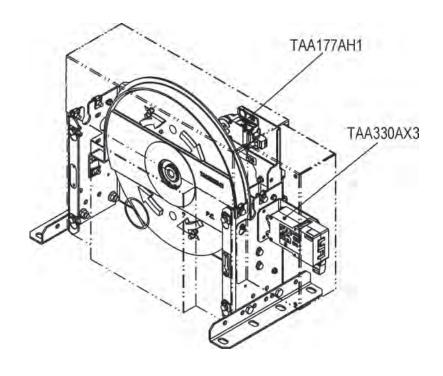
**For Gen2 application:** please provide contract speed and Otis sales number in order to specify correct replacement governor.

Part No.	Description	Application	
TBA20602B23	Complete Governor, 100/125 FPM, w/Overspeed Switch and w/Electrical Tripping	Roped Hydro, LVME	
TBA20602B24	Complete Governor, 150 FPM, w/Overspeed Switch and w/Electrical Tripping		



Apollo Governor T\*\*20602B\_

#### Apollo Governor12-inch Sheave (continued)







**TAA177AH1** 

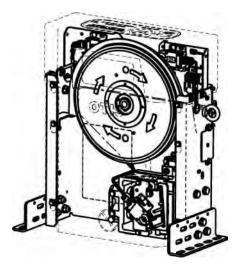
Part No.	Description	
TAA177BJ2	Switch, Button Type, for Resetting Device	
TAA177AH1	Switch (two-way trip), 2NC Contacts, Trip Opens One Circuit (used up to 3 places on governor)	
TAB5000AS1	Manual Tripping Plunger Device	
TAA330AX3	Remote Tripping Device	
FAA176E3	Plug, Terminal (2-prong for tripper switch)	
AAA447AP16	Plug, Terminal (3-prong for for remote tripping device)	



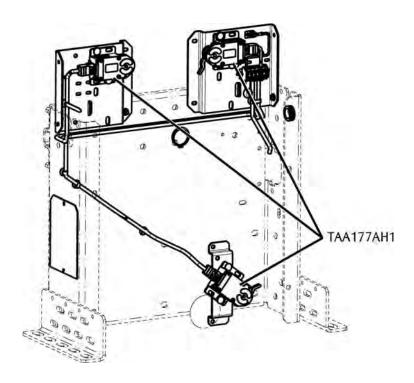
TAB5000AS1



#### Samson Governors 12-in. Sheave



TBA20602C



**TAA177AH1** 

Part No.	Description
TBB20602C566	Complete Car Governor, 12" Dia. Sheave, 200 FPM (935 lb. pull-thru force) w/Jaw Switch and 2 Overspeed Switches
TBB20602C567	Complete Car Governor, 12" Dia. Sheave, 250FPM (935 lb. pull-thru force) w/Jaw Switch and 2 Overspeed Switches
TBB20602C568	Complete Car Governor, 12" Dia. Sheave, 300 FPM (935 lb. pull-thru force) w/jaw switch and 2 overspeed switches
TBB20602C550	Complete Car Governor, 12" Dia. Sheave, 350 FPM (935 lb. pull-thru force) w/Jaw Switch and 2 Overspeed Switches
TBB20602C552	Complete Car Governor, 12" Dia. Sheave, 400 FPM (935 lb. pull-thru force) w/Jaw Switch and 2 Overspeed Switches
TBB20602C554	Complete Car Governor, 12" Dia. Sheave, 450 FPM (935 lb. pull-thru force) w/Jaw Switch and 2 Overspeed Switches
TBB20602C556	Complete Car Governor, 12" Dia. Sheave, 500 FPM (935 lb. pull-thru force) w/Jaw Switch and 2 Overspeed Switches
TBB20602C569	Complete Car Governor, 12" Dia. Sheave, 600 FPM (935 lb. pull-thru force) w/Jaw Switch and 2 Overspeed Switches
TBB20602C570	Complete Car Governor, 12" Dia. Sheave, 700 FPM (935 lb. pull-thru force) w/Jaw Switch and 2 Overspeed Switches
TBB20602C571	Complete Car Governor, 12" Dia. Sheave, 800 FPM (935 lb. pull-thru force) w/Jaw Switch and 2 Overspeed Switches
TAA5500DJ1	Magnet Solenoid Electrical Tripping Device (not used on the standard North American governors listed in this catalog)
LX207Z505	Bearing, Sheave
TAA177AH1	Switch, (two way trip), 2NC Contacts, Trip Opens One Circuit (used up to 3 places on governor)

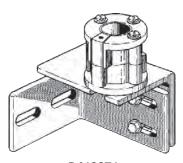




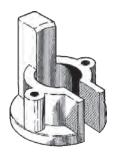
**TAA177AH1** 

#### **Miscellaneous Governors Related**

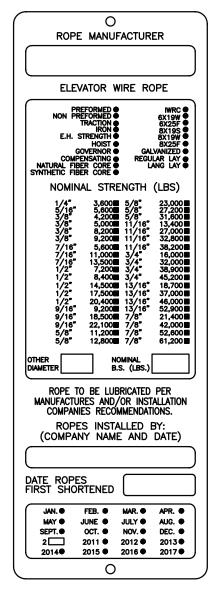
Part No.	Description
B6199T1	Guide Assembly, Governor Rope
385JW1	Guide, Half, for B6199T1
AAA102ACD2	Data Plate, Wire Rope



B6199T1

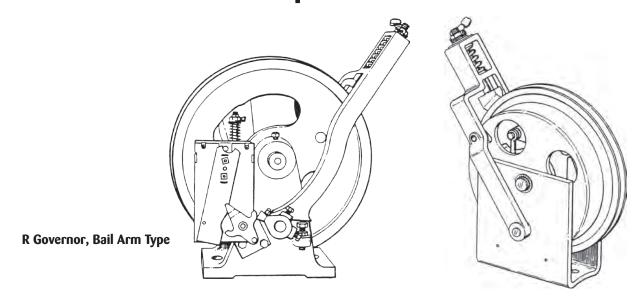


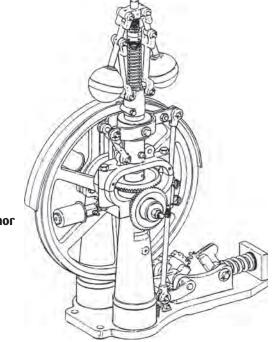
385JW1



AAA102ACD2

# **Illustration Index for Complete Governors**



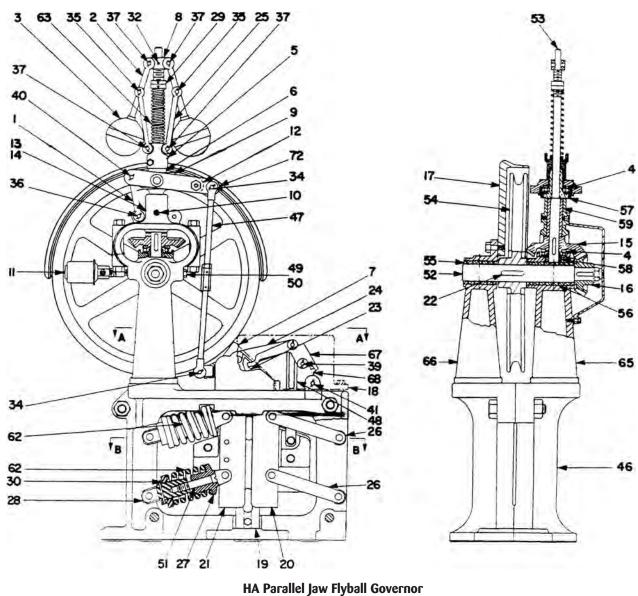


EA/FA/FAO, FSAO Flyball Governor EA Shown

Governor Type	General Description	Sheave Dia. (in.)	~ Speed Range
R	Uni-Directional Trip, Bail Arm Type	12	Up to 200 FPM
			400-700 FPM
EA	Flyball Type w/o Switch	16.5	( <b>NOTE:</b> 700 FPM for EA or EAO was special authorization.)
FA	Flyball Type w/o Switch	16.5	150 FPM
FAO	Flyball Type w/Switch	16.5	225-300 FPM
FSAO	Flyball Type w/Switch	16.5	90-200FPM

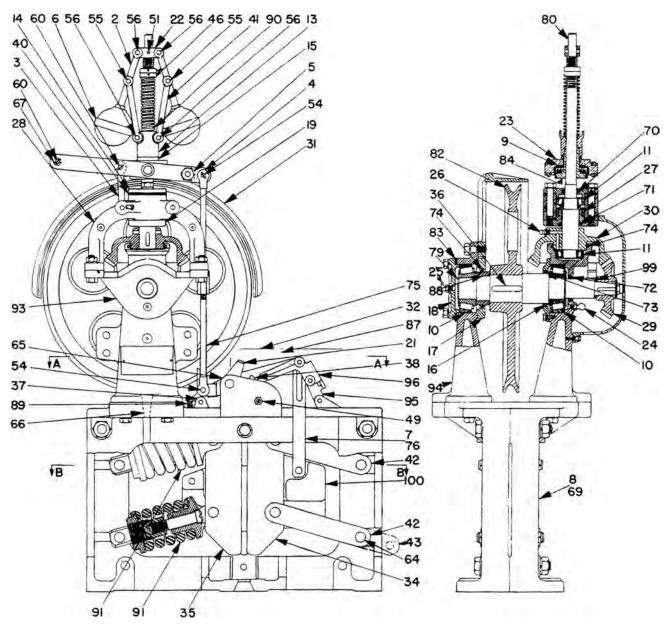
#### **Illustration Index (continued)**

Governor Type	General Description	Sheave Dia. (in.)	~ Speed Range
НА	Flyball, Parallel Jaw Type	16.5 or 24	600–800 FPM, or up to 1400 FPM w/24" Sheave



TIA I aralici jaw riyoan Governo

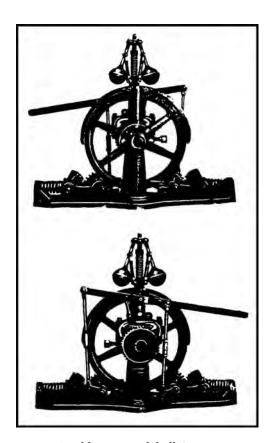
Governor Type	<b>General Description</b>	Sheave Dia. (in.)	~ Speed Range
J-1	Flyball, Parallel Jaw Type	16.5 or 24	700–1200 FPM or up to 1600 FPM w/24" Sheave



J-1 Parallel Jaw Flyball Governor

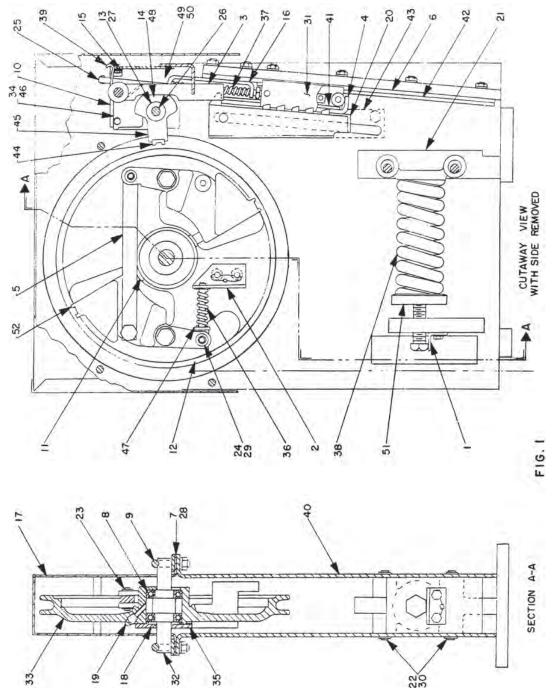
#### Illustration Index (continued)

Governor Type	General Description	Sheave Dia. (in.)
E-Single Acting	Flyball, Early	16.5
E-Double Acting	Flyball, Dual Lift Rod & Lever Arm (dual clutch jaws)	16.5
F	Flyball, Early	16.5
Р	Flyball, Early	8.38 OD



**E-Double Acting Flyball Governor** 

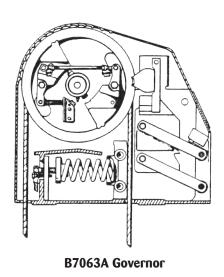
Governor Type	General Description	Sheave Dia. (in.)	~ Speed Range
7063A	Sliding Jaw Type, 1960-64 Production	12	150-350 FPM

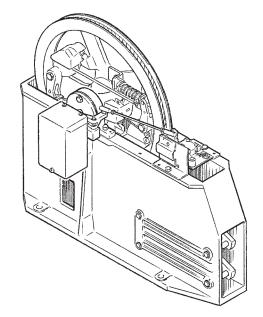


**Sliding Jaw Type Governor** 

#### Illustration Index (continued)

Governor Type	General Description	Sheave Dia. (in.)	~ Speed Range
A & B7063A Type	Aluminum Cased Slope Back Cover	12	150-350 FPM
*7063E Type	Aluminum Cased Slope Back Cover	16.5	150-1200 FPM
J**20610AAA	Aluminum Cased Slope Back Cover (same as B7063E except Japanese made ~ after 2001)	16.5	150-1200 FPM



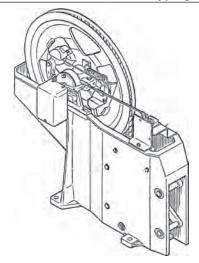


\*7063E Governor J\*\*20610AAA Governor RH Shown, w/o Cover

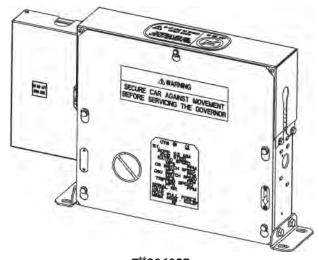
87

# Wire Rope & Governors

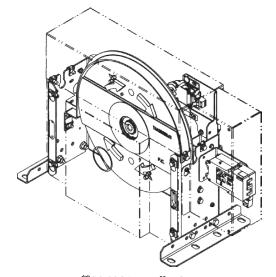
Governor Type	General Description	Sheave Dia. (in.)	~ Speed Range
*7063F Type	Aluminum Cased (same as A7063F except Japanese made ~ after 2001)	24	1000-1800 FPM
J**20621AAA	Aluminum Cased (same as A7063F except Japanese made ~ after 2001)	24	1000-1800 FPM
T**20602B	Apollo Governor (first used on LVME*Otis roped hydro & then on Gen2 equipment)	12	100-125 FPM *
T**20602C	Samson Governor (used to replace the 7063A type governor)	12	200-800 FPM



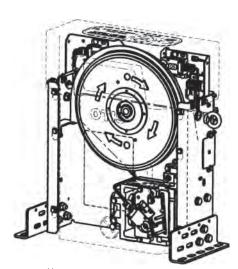
 $$^*7063F$$J^{**}20621AAA$  Aluminum Cased Governor, RH Shown, w/o Cover



T\*\*20602B Apollo Governor



T\*\*20602B Apollo Governor



T\*\*20602C Samson Governor

# Appendix: Physical Characteristics of 6-Strand and 8-Strand Wire Rope

**NOTE:** OSC offers wire rope with internal wire rope core (IWRC). For severe loading conditions, please be careful of sheave hardness when considering this option and contact OSC for help.





		6-Strand		8-Strand	
	Diameter (in.)	Nominal Breaking Load (lb.)	Approximate Weight (lb./ft.)	Nominal Breaking Load (lb.)	Approximate Weight (lb./ft.)
Iron (L)	3/8	5,000	0.23		
	1/2	8,400	0.40		
	5/8	12,800	0.63	11,200	0.57
	11/16			13,400	0.69
	3/4	18,200	0.90		
	7/8	24,800	1.23		
	1	32,000	1.60		
Traction Steel	1/4			3,600	0.09
(M)	5/16			5,600	0.14
	3/8	8,200	0.23	8,200	0.20
	7/16	11,000	0.31	11,000	0.28
	1/2	14,500	0.40	14,500	0.36
	9/16	18,500	0.51	18,500	0.46
	5/8	23,000	0.63	23,000	0.57
	11/16	27,000	0.76	27,000	0.69
	3/4	32,000	0.90	32,000	0.82
	13/16	37,000	1.06	37,000	0.96
	7/8	42,000	1.23	42,000	1.11
	15/16	48,000	1.41	48,000	1.27





		6-Strand		8-Strand	
	Diameter (in.)	Nominal Breaking Load (lb.)	Approximate Weight (lb./ft.)	Nominal Breaking Load (lb.)	Approximate Weight (lb./ft.)
Traction Steel	1	54,000	1.60	54,000	1.45
(M)	1-1/16	61,000	1.81	61,000	1.64
Extra High	1/2	20,400	0.40	17,500	0.36
Strength	5/8	31,600	0.63	27,200	0.57
Traction Steel (EH)	11/16	38,200	0.76	32,800	0.69
(LII)	3/4	45,200	0.90	38,900	0.82
	13/16	52,900	1.06	46,000	0.96
	7/8	61,200	1.23	52,600	1.11

**DUAL-TENSILE ROPE NOTE:** Within the 6M and 8M classes of rope, the dual tensile rope carries the same breaking strength as standard rope. Request dual tensile rope to help protect existing older softer sheaves.

Notes