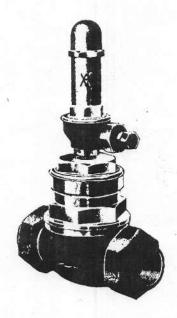
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WYANO, PA. - U.S.A.

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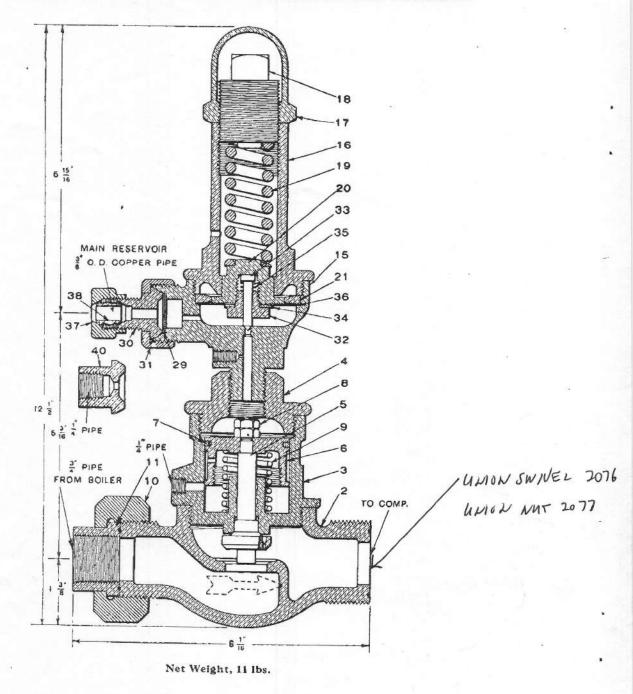
Steam Compressor Governors—Type S

(Single Top)

Part Catalog No. 3205-1 December, 1936

(Superseding Issue of October, 1933)

TYPE S-3 (3/4-INCH) SINGLE TOP STEAM COMPRESSOR GOVERNOR



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TYPE S-3 (3/4-INCH) SINGLE TOP STEAM COMPRESSOR GOVERNOR

The Type S-3 Steam Compressor Governor is no longer regularly furnished with full sets of air brake equipment.

Piece No. 24973 Type S-3 Steam Compressor Governor, for 3/4" Iron Pipe and Air Connection for 3/8" Copper Tube (See Note A)

	38	ST	EAM PORTION	1	Ref.	**No. Per Pkg.	
Pc. No.	Ref.	**No. Per Pkg.		Pc. No. 17213	No.		Distan Dine for all all
2468	140. 1	rer Pkg.	Stoom Postion	11210	•	50	Piston Ring for rebored cylinder, 17/8" dia.
2100			Steam Portion, complete (includes 2 to 11 incl.)	2022	8		Piston Nut (2 Req'd)
2469	2	1	Steam Valve Body	*2027	9		Piston Spring
2476	3	1	Cylinder Body	2477	10		3/4" Union Nut
2471	4	1	Cylinder Cap	2478	11		3/4" Union Swivel
†2479	5		Steam Valve, complete with 3/8" diastem	00500			IRAGM PORTION
21154	5		Steam Valve, complete with	20782		1	Diaphragm Portion, complete (See Note A)
21205	5		Steam Valve, complete with	9033	15	2	Diaphragm Body (includes 29)
21206	5			2033	16	1	Spring Box
21200	U		Steam Valve, complete with 27/64" dia. stem	2034	17	3	Check Nut
21155	5		Steam Valve, complete with	2035	18	24	Regulating Nut
			7/18" dia. Stem	*2036	19	14	Regulating Spring
2472	6	1	Piston (includes 7) for standard cylinder, 13/4" dia.	2043	20	1-3-6	Diaphragm, complete (includes 32, 33, 34, 35 and
17278	6	1	Piston (includes 7) for rebored	1064	21	15	two of 36)
17070			cylinder, 125/32" dia.	2046	29	100	Diaphragm Ring Strainer
17279	6	1	Piston (includes 7) for rebored cylinder, 113/16" dia.	86767	29	100	Compression Coupling, com-
17280	6	1	Piston (includes 7) for rebored cylinder, 127/32" dia.				plete (3/8" copper tube) (includes 30, 37 and 38) (See Note B)
17281	6	1	Piston (includes 7) for rebored	86766	30		Union Swivel (See Note A)
12000	-		cylinder, 17/8" dia.	15291	31		Union Nut
13206	7	50	Piston Ring for standard cyl-	2041	32		Diaphragm Nut
15571	7	50	inder, 13/4" dia.	2039	33	50	Diaphragm Valve
10011		30	Piston Ring for rebored cyl- inder, 125/32" dia.	2040	34		Diaphragm Washer
15572	7	50	Piston Ring for rebored cyl-	*2042	35	100	Diaphragm Valve Spring
			inder, 118/16" dia.	2038	36	100	Diaphragm (2 Req'd)
17212	7	50	Piston Ring for rebored cylin-	71728	37	200	Union Nut
			der, 1 ²⁷ / ₃₂ " dia.	71727	38		Sleeve
NOTE: A	74 100			2045	40		4 PIPE UNION SWILEL

NOTE A-If 1/4" Iron pipe is to be used for air connection, specify Piece No. 2467, for S-3 Steam Compressor Governor complete and Piece No. 2047, for Diaphragm Portion complete; then Union Swivel, Piece No. 2045, Ref. No. 40, will be substituted for Union Swivel, Ref. No. 30.

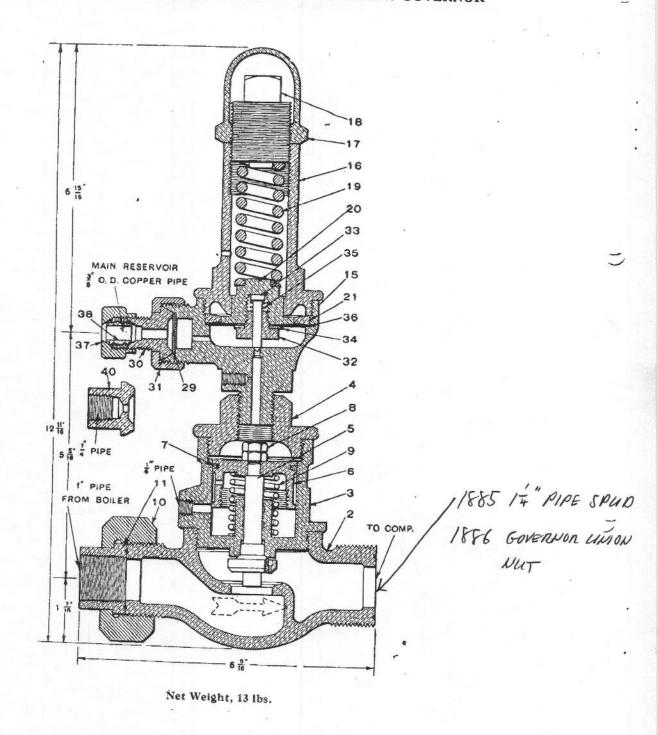
NOTE B—If repairs for Governors having old style swivel type copper pipe air connections are desired, orders should specify Union Swivel, Pc. No. 5384 instead of complete Compression Coupling, Pc. No. 86767, Ref. Nos. 30, 37 and 38.

tNOTE C—Steam Valve with %" diameter stem is the size furnished with new governors and will be supplied also on repair orders, unless otherwise specified. Steam Valves listed with the larger diameter stem are for repair purposes when the guide portion of the cylinder body has been rebored.

*NOTE D-For Spring Identification Table, see page 10.

**NOTE E—Column headed "No. Per Pkg." indicates the items for which standard shipping packages have been established and the number contained in the package. Orders placed in these quantities and multiples thereof will facilitate shipments and provide convenient means for handling in storeroom stock.

TYPE S-4 (1-INCH) SINGLE TOP STEAM COMPRESSOR GOVERNOR



4

for prof A

TYPE S-4 (1-INCH) SINGLE TOP STEAM COMPRESSOR GOVERNOR

The Type S-4 Steam Compressor Governor is no longer recommended for use in connection with standard Locomotive Brake Schedules, having been replaced by AD-4 Super Governor (Part Catalog 3205-4).

Piece No. 24974 Type S-4 Steam Compressor Governor, complete, for 1" Iron Pipe and Air Connection for 3/8" Copper Tube (See Note B)

		STI	EAM PORTION	Pc. No.	Ref.	**No. Per Pkg.	
Pc. No.		**No. Per Pke.		17215	7	50	Piston Ring for rebored cyl-
2048		1	Steam Portion, complete (in-				inder, 23/8" dia.
		•	Steam Portion, complete (includes 2 to 11 incl.) (Sec. 51)	417/2022	8	- Signature	Piston Nut (2 Req'd)
			Note B)	12027	9		Piston Spring
2018	2	1	Steam Valve Body	1948	10		1" Union Nut
2028	3	î	Cylinder Body	*1949	11	36	1" Union Swivel
2024	4	î	Cylinder Cap	2051	11		3/4" Union Swivel
††2023	5	24	Steam Valve, complete with 3/8" dia. stem		STATA	DIAPH	IRAGM PORTION
21158	5	24	Steam Valve, complete with	20782			
			²⁵ / ₆₄ " dia. stem			1	Diaphragm Portion, complete (See Note B)
20696	5	24	Steam Valve, complete with 13/32" dia. stem	9033	15	2	Diaphragm Body (includes 29)
21207	5	24	Steam Valve, complete with	2033	16	1	Spring Box
			²⁷ /64" dia. stem	2034	17	3	Check Nut
21159	5	24	Steam Valve, complete with	2035	18	24	Regulating Nut
			7/16" dia. stem	12036	19	14	Regulating Spring
2173	6	1	Piston (includes 7) for standard cylinder, 2½ " dia.	2043	20	1-3-6	Diaphragm, complete (in-
17282	6	1	Piston (includes 7) for rebored	2233		i	cludes 32, 33, 34, 35 and two of 36)
17000	c		cylinder, 29/32" dia.	1064	21	15	Diaphragm Ring
17283	6	1	Piston (includes 7) for rebored	2046	29-	100	Strainer
		122	cylinder, 25/16" dia.	86767			Compression Coupling, com-
17284	6	1	Piston (includes 7) for rebored cylinder, 211/32" dia.				plete (3/8" Copper Tube) (includes 30, 37 and 38)
17285	6	1	Piston (includes 7) for rebored cylinder, 23/8" dia.	86766	30		(See Note C)
- 2026	7	50	Piston Ring for standard cyl	15291	31 4		Union Swivel (See Note B) Union Nut
			inder, 21/4" dia.	2041	32		Diaphragm Nut
15583	7	50	Piston Ring for rebored cylinder 29/32" dia.	2039 2040	33	50	Diaphragm Valve
15584	7	50	Piston Ring for rebored cyl-	12042	35	100	Diaphragm Washer Diaphragm Valve Spring
17214	7	50	inder, 2 ⁵ / ₁₆ " dia. Piston Ring for rebored cyl-	2038	36	100	Diaphragm (2 Req'd)
1.2.1		00	inder, 211/32," dia.	71728	37		Union Nut
L W	. ,	40 1	111der, 2 /32, dra.	71727	38		Siceve ALLION SWIVEL
*NIOMEI	n S	us deju	state Compressors.	2045	40		Piston of Spindle is 202.
NOTE A	-ror	o and 9)	air compressors.				Visting or spundle is 10%.

NOTE B-If %" iron pipe is to be used for air connection, specify Piece No. 2049, for the S-4 Steam Compressor Governor, complete, and Piece No. 2047, for Diaphragm Portion, complete; then Union Swivel, Piece No. 2045, Ref. No. 40, will be substituted for Union Swivel, Ref. No. 30.

If governor is to be used with Old Style 8' (8'x71/4'x9') Air Compressor, specify Piece No. 24975, for S-4 Steam Compressor Governor, complete, with air connection for copper pipe, or Piece No. 10700, for S-4 Steam Compressor Governor, will then be supplied.

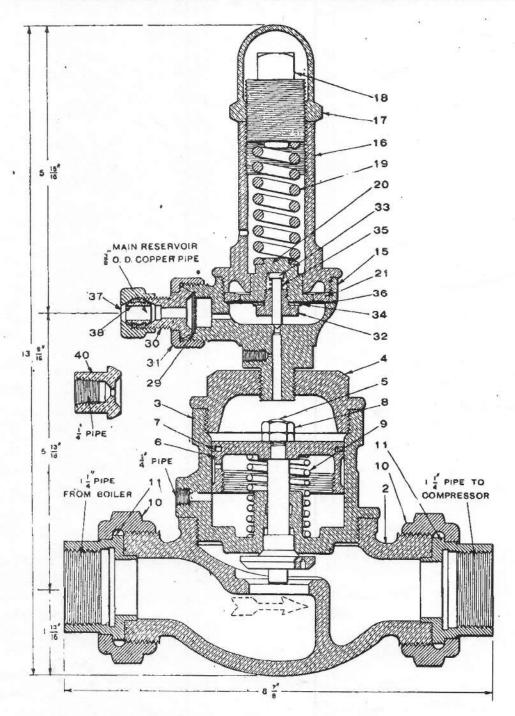
NOTE C—If repairs for Governors having old style swivel type copper pipe air connections are desired, orders should specify Union Swivel, Pc. No. 5384 instead of complete Compression Coupling, Pc. No. 86767, Ref. Nos. 30, 37 and 38.

tNOTE D-For Spring Identification Table, see page 10.

the Steam Valve with ¾" diameter stem is the size furnished with new governors and will be supplied also on repair orders unless otherwise specified. Steam Valves listed with the larger diameter stem are for repair purposes when the guide portion of the cylinder body has been rebored.

**NOTE F—Column headed "No. Per Pkg." indicates the items for which standard shipping packages have been established and the number contained in the package. Orders placed in these quantities and multiples thereof will facilitate shipments and provide convenient means for handling in storeroom stock.

TYPE S-5 (11/4-INCH) SINGLE TOP STEAM COMPRESSOR GOVERNOR



Net Weight, 191/2 lbs.

TYPE S-5 (11/4-INCH) SINGLE TOP STEAM COMPRESSOR GOVERNOR

The Type S-5 Steam Compressor Governor is no longer recommended for use in connection with standard Locomotive Brake Schedules, having been replaced by the AD-5 Super Governor (Part Catalog 3205-4).

Piece No. 22084 Type S-5 Steam Compressor Governor, complete, for 11/4" Iron Pipe and Air Connection for 3/8" Copper Tube (See Note A).

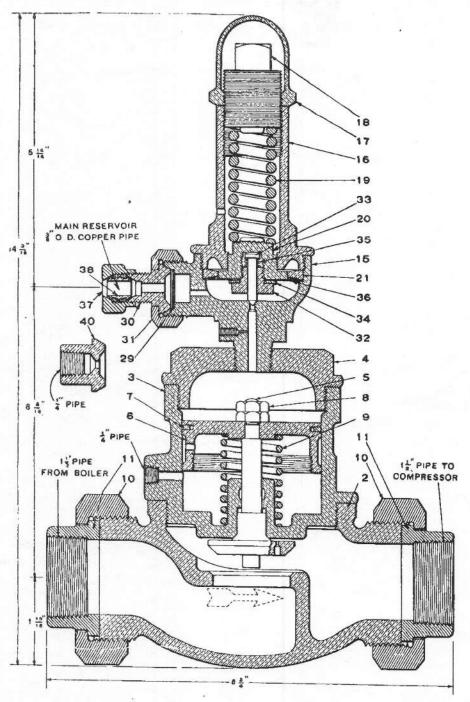
		SIR	AM PORTION	Pc. No.	No. Pe	r Pkg.	Laboration attention that the contraction of the contraction
	Ref. "	*No.		21601	7	50	Piston Ring for rebored cylin-
Pc. No.	No. Pe		C. Destion complete (in				der, 278" dia.
17879		1	Steam Portion, complete (in-	17674	8		Piston Nut (2 Req'd)
	3		cludes 2 to 11, incl.)	*17673	9		Piston Spring
17668	2	1	Steam Valve Body				11/4" Union Nut (2 Req'd)
	3	1	Cylinder Body (See Note A)				11/4" Union Swivel (2 Req'd)
		1	Cylinder Cap	2100	-		-/-3
+17670	5 ·	24	Steam Valve, complete with			DIAPH	RAGM PORTION
111010			7/15" dia. stem				
96961	5	24	Steam Valve, complete with	20782		1	Diaphragm Portion, complete
20201	٧	~ ~	29/84" dia, stem				(See Note A)
98989	5	24	Steam Valve, complete with	9033	15	2	Diaphragm Body (includes
20202	J	21	15/20" dia. stem	Assessor			29)
40969	5	24	Steam Valve, complete with	2033	16	1	Spring Box
40200	U	LI	31/" dia stem	2034	17	3	Check Nut
40005	5	24	Steam Valve complete with	2035	18	24	Regulating Nut
40200	J	21	14" dia stom	*2036	19	14	Regulating Spring
4=010	0	•	Distant (includes 7) for stand-		20	1-3-6	Diaphragm, complete (in-
17916	6	1	Piston (Herades 1) for stand	2010		# 150.50	cludes 32, 33, 34, 35 and
	-	- 2	ard cylinder, 274 dia.				two of 36)
21606	Ü	1	Piston (includes /) for reported	1064	21	1.5	Diaphragm Ring
			cylinder, 22/32 dia.			100	Strainer
21607	6	1	Piston (includes /) for reported		23	100	Compression Coupling, com-
			cylinder, 213/16 dia.	80101			plete (3/8" Copper Tube)
21608	6	1	Piston (includes 7) for rebored				(includes 30, 37 and 38)
			cylinder, 221/32" dia.	1			(See Note B)
21609	6	1	Piston (includes 7) for reported	00700	0.0		
Same Laboration Vision			cylinder, 27/8" dia.				Union Swivel (See Note A)
17554	7	50	Piston Ring for standard cyl-				Union Nut
#180memem			inder, 23/4" dia.				Diaphragm Nut
21598	7	50	Piston Ring for rebored cyl-			50	Diaphragm Valve
21000			inder, 225/22" dia.	2040			Diaphragm Washer
21500	7	50	Piston Ring for rebored cyl-	*2042		100	Diaphragm Valve Spring
41000		00	inder 213/10" dia.	2038	. 36	100	Diaphragm (2 Req'd)
21600	7	50	Piston Ring for rebored cyl-				Union Nut
21000	•	00	inder 227/20" dia.				Thimble
			111det, 2 /32 dias)	I "PIAE ULION SWIVEL
	17879 17668 17672 17671 17670 26261 26262 40263 40265 17916 21606 21607 21608 21609 17554 21598 21599	17879 17668 2 17672 3 17671 4 17670 5 26261 5 26262 5 40263 5 40265 5 17916 6 21606 6 21607 6 21608 6 21609 6 17554 7 21598 7 21599 7	17879 1 17668 2 1 17672 3 1 17671 4 1 †17670 5 24 26261 5 24 26262 5 24 40263 5 24 40265 5 24 17916 6 1 21606 6 1 21607 6 1 21608 6 1 21609 6 1 17554 7 50 21598 7 50 21599 7 50	17879 1 Steam Portion, complete (includes 2 to 11, incl.) 17668 2 1 Steam Valve Body 17672 3 1 Cylinder Body (See Note A) 17671 4 1 Cylinder Cap 17670 5 24 Steam Valve, complete with 26261 5 24 Steam Valve, complete with 29/64" dia. stem 26262 5 24 Steam Valve, complete with 16/32" dia. stem 40263 5 24 Steam Valve, complete with 16/32" dia. stem 40265 5 24 Steam Valve, complete with 1/2" dia. stem 17916 6 1 Piston (includes 7) for standard cylinder, 23/4" dia. 21606 6 1 Piston (includes 7) for rebored cylinder, 225/32" dia. 21607 6 1 Piston (includes 7) for rebored cylinder, 227/32" dia. 21608 6 1 Piston (includes 7) for rebored cylinder, 27/8" dia. 21609 6 1 Piston (includes 7) for rebored cylinder, 27/8" dia. 21609 6 1 Piston (includes 7) for rebored cylinder, 27/8" dia. 21609 6 1 Piston (includes 7) for rebored cylinder, 23/4" dia. 21609 6 1 Piston Ring for rebored cylinder, 23/4" dia. 21609 7 50 Piston Ring for rebored cylinder, 23/4" dia. 21598 7 50 Piston Ring for rebored cylinder, 23/18" dia.	17879	17879	17879

NOTE A-II 4" iron pipe is to be used for air connection, specify Piece No. 17856, for S-5 Steam Compressor Governor, complete, and Piece No. 2047, for Diaphragm Portion, complete; then Union Swivel, Piece No. 2045, Ref. No. 40, will be substituted for Union Swivel, Ref. No. 30.

If S-5 Governor with two waste pipe connections is desired, specify complete Piece No. 58305, and Cylinder Body, Piece No. 58306, will be substituted for body, Piece No. 17672, Ref. No. 3.

- NOTE B-If repairs for Governors having old style swivel type copper pipe air connections are desired, orders should specify Union Swivel, Pc. No. 5384 instead of complete Compression Coupling, Pc. No. 86767, Ref. Nos. 30, 37 and 38.
- †NOTE C—Steam Valve with 4 diameter stem is the size furnished with new governors and will be supplied also on repair orders, unless otherwise specified. Steam Valves listed with the larger diameter stem are for repair purposes when the guide portion of the cylinder body has been rebored.
- *NOTE D-For Spring Identification Table, see page 10.
- **NOTE E—Column headed "No. Per Pkg." indicates the items for which standard shipping packages have been established and the number contained in the package. Orders placed in these quantities and multiples thereof will facilitate shipments and provide convenient means for handling in storeroom stock.

TYPE S-6 (11/2-INCH) SINGLE TOP STEAM COMPRESSOR GOVERNOR



Net Weight, 231/2 lbs.

TYPE S-6 (11/2-INCH) SINGLE TOP STEAM COMPRESSOR GOVERNOR

The Type S-6 Steam Compressor Governor is no longer recommended for use in connection with Standard Locomotive Brake Schedules, having been replaced by the AD-6 Super Governor (Part Catalog 3205-4).

Piece No. 37456 Type S-6 Steam Compressor Governor, complete, for 1½" Iron Pipe and Air Connection for 3/8" Copper Tube (See Note A)

			STE	EAM PORTION	1	Pc. No.	Ref. A	*No. er Pkg.	assigned was special was supplied to the
	Pc. No.	Ref. No. I	**No. Per Pkg.			38550	7	50	Piston Ring for rebored cylinder, 31/8" dia.
	37507		1	Steam Portion, complete (includes 2 to 11 incl.)		17674	8		Piston Nut (2 Req'd)
	O#000	0			*	17673	9		Piston Spring
	37308	2	1	Steam Valve Body		2684	10		11/2" Union Nut (2 Req'd)
	37307	3	1	Cylinder Body		2683	11		1½" Union Swivel (2 Req'd)
	37309	4	1	Cylinder Cap					
1	37312	5	12	Steam Valve; complete with 7/18" dia. stem					RAGM PORTION
	40272	5	12	Steam Valve, complete with 29/64" dia. stem		20782		1	Diaphragm Portion, complete (See Note A)
	40273	5	12	Steam Valve, complete with		9033	15	2	Diaphragm Body (includes 29)
	40290	5	12	Steam Valve, complete with	1	2033	16	1	Spring Box
	40290	J	14	31/64" dia. stem		2034	17	3	Check Nut
	40075	5	12	Steam Valve, complete with		2035	18	24	Regulating Nut
	40275	0	12	½" dia. stem		*2036	19	14	Regulating Spring
	07455	C	1	Piston (includes 7) for stand-		2043	20	1-3-6	Diaphragm, complete, (in-
	37457	6	1	ard cylinder, 3" dia.	1	2010	20	100	cludes 32, 33, 34, 35 and
	38551	6	1	Piston (includes 7) for rebored	1	100			two of 36)
	100001	U	-	cylinder, 3 ¹ / ₃₂ " dia.	1	1064	21		Diaphragm Ring
	38552	6	1	Piston (includes 7) for rebored		2046	29		Strainer
	30004	U		cylinder, 31/18" dia.	1	86767			Compression Coupling, com-
	20552	6	1	Piston (includes 7) for rebored	+	00.0.			plete (3/8" Copper Tube)
	38553	U	1	cylinder, 3 ³ / ₃₂ " dia.	1				(includes 30, 37 and 38)
	DOFF4	0	1						(See Note B)
	38554	6	1	Piston (includes 7) for rebored		86766	30		Union Swivel (See Note A)
	1004	7	50	cylinder, 31/8" dia.		15291	31	-	Union Nut
	1804	7	50	Piston Ring for standard cyl- inder, 3" dia.		2041	32		Diaphragm Nut
	10004	7	50	Piston Ring for rebored cylin-		2039	33	50	Diaphragm Valve '
	18284	-	50	dor 21/ " die		2040	34	.00	Diaphragm Washer
	19617	7	50	der, 31/32" dia.		*2042	35	100	Diaphragm Valve Spring
	13617	- 1	50	Piston Ring for rebored cylin-		2038	. 36	100	Diaphragm (2 Req'd)
	00540	-	F/1	der, 3 ¹ / ₁₆ dia.	-	71728		100	Union Nut
	38549	7	50	Piston Ring for rebored cylin-		71727	38	*	Thimble
				der, $3^3/_{32}$ " dia.	r				
						2045	40		IN INDE, HAION SWINGS

NOTE A-If 1/4" iron pipe is to be used for air connections, specify Piece No. 44448, for S-6 Steam Compressor Governor, complete, and Piece No. 2047, for Diaphragm Portion, complete; then Union Swivel, Piece No. 2045, Ref. No. 40, will be substituted for Union Swivel, Ref. 30.

NOTE B-If repairs for Governors having old style swivel type copper pipe air connections are desired, orders should specify Union Swivel, Pc. No. 5384 instead of complete Compression Coupling, Pc. No. 86767, Ref. Nos. 30, 37 and 38.

^{*}NOTE C-For Spring Identification Table, see page 10.

[†]NOTE D—Steam Valve with 'A' diameter stem is the size furnished with new governors and will be supplied also on repair orders unless otherwise specified. Steam Valves listed with the larger diameter stem are for repair purposes when the guide portion of the cylinder body has been rebored.

^{**}NOTE E—Column headed "No. Per Pkg." indicates the items for which standard shipping packages have been established and the number contained in the package. Orders placed in these quantities and multiples thereof will facilitate shipments and provide convenient means for handling in storeroom stock.

TYPE S SINGLE TOP STEAM COMPRESSOR GOVERNOR

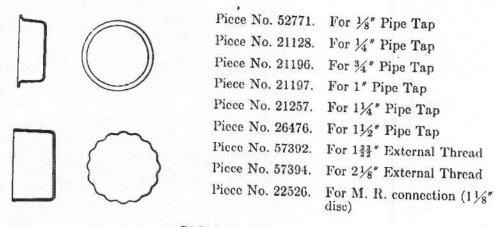
O. D. Copper Pipe Pipe A" Hole 203 204 202

UNION STUD CONNECTION FOR END OF GOVERNOR PIPE

Ref. No.	Union Stud Connection, complete	Pc. No. 71713 Weight 1/8 lb.	
	Size of "A" Hole.		
202 203 204	Union Stud Union Nut Union Thimble		

SHEET METAL THREAD PROTECTORS

Sheet metal thread protectors in the form of caps, plugs, and discs are used to close the openings in various devices, on shipment from our works, for the purpose of protecting threads from injury and preventing dirt from getting inside the apparatus. These are so satisfactory that we list below the protectors used with Type S Governors, believing that many railroads, on account of the small expense involved and the protection insured, will desire to use them when shipping valves from point to point, or when returning old valves to us for repairs.



PACKING AND SHIPPING-STANDARD PRACTICE

Type S Governors are packed as required; usually not over twelve in one box.

SPRING IDENTIFICATION

The following table is shown to enable railroad men, storckeepers and all Air Brake men to identify the various springs used in the Type S Governors cataloged herein. It is based on calculated figures and the actual spring will vary somewhat, due to small differences in wire diameter, coil diameter, number of turns, the tabulation is intended for identification only and should not be used for any other purpose. It

3			a			SPRING IDENTIFICATI	ON
Pc. No.	1 1111	NOMINAL DIA. WIRE "B"	Nominal Free Height	APPROX. No. Turns	MATERIAL	NAME OF SPRING	Where Used
2027 2036 2042 17673	1" 1" 15" 155"	.109" .220" .049"	2" 234" 234" 21/2"	8 9 3 8	Steel Steel Brass Steel	Piston Spring Regulating Spring Diaphragm V. Spring Piston Spring	S-3 and S-4 Governors S-3, S-4, S-5 and S-6 Gov's S-3, S-4, S-5 and S-6 Gov's S-5 and S-6 Governors

NOTE: The number of turns for each spring to be counted from the extreme ends of the wire.