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Westinghouse Air Brake Company

Pittsburgh, Pa., U. S. A.



Hose, Couplings, Fittings

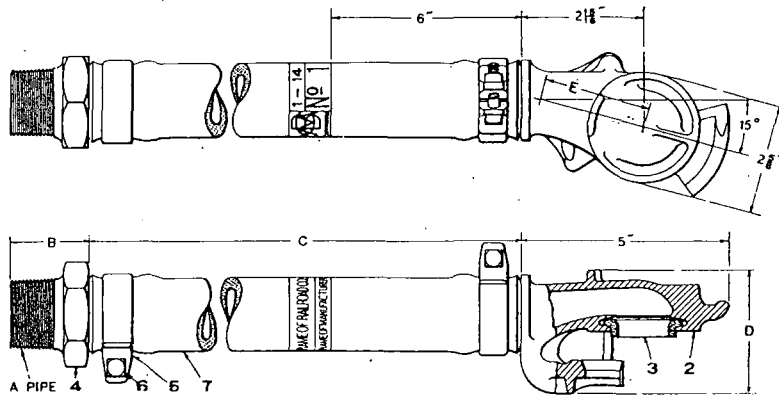
Part Catalog No. 3216-3

April, 1940

(SUPERSEDING ISSUE OF MARCH, 1935)



HOSE AND COUPLINGS



Pc. No.	Dia. of Hose	Size of Nipple A	B	C	D	E
*87101 †46242	1 3/8"	1 1/4"	1 13/32"	22"	3 1/2"	2 5/8"
*87100 †46283	1 1/8"	1 1/4"	1 13/16"	22"	2 15/16"	2 1/2"
*87079 †46252	1 1/8"	3/4"	1 1/2"	22"	2 7/8"	2 1/2"

Hose and Couplings Complete	Electro-Tite			Untreated			Net Weight Each Lbs.
	FP-5	FP-4	HP-4	FP-5	FP-4	HP-4	
1 3/8"x22" Hose and Coupling with 1 1/4" Nipple (Note A)	87101	.....	.....	46242	.....	.....	5 1/4
1 1/8"x22" Hose and Coupling with 1 1/4" Nipple (Note B)	.....	87100	.....	.....	46283	.....	5 1/4
1 1/8"x22" Hose and Coupling with 3/4" Nipple (Note C)	.....	.....	87079	.....	.....	46252	5

Ref. No.	†No. Per Pkg.	Hose and Couplings, Details	Piece No.	
			Electro-Tite	Untreated
2	50	FP-5 Hose Coupling, complete, (includes 3)	86739	46100
2	50	FP-4 Hose Coupling, complete, (includes 3)	86784	46126
2	50	HP-4 Hose Coupling, complete, (includes 3)	86760	46102
3	1000	Hose Coupling Gasket	3279	
4	125	1 3/8"x1 1/4" Threaded Hose Nipple	46223	
4		1 1/8"x1 1/4" Threaded Hose Nipple	46164	
4		1 1/8"x 3/4" Threaded Hose Nipple	46169	
5	500	Galvanized Annealed Steel Hose Clamp, only for 1 3/8" Hose (2 Req'd)	26378	
5	500	Galvanized Annealed Steel Hose Clamp, only for 1 1/8" Hose (2 Req'd)	28221	
6	200	Hose Clamp Bolt and Nut (2 Req'd)	4866	
7		1 3/8"x22" Hose	2463	
7		1 1/8"x22" Hose	2243	

*NOTE—Electro-tite Hose Coupling, treated for rust prevention.

†NOTE—Hose Coupling, untreated.

NOTE A—The 1 3/8"x22" Hose with FP-5 Coupling Pc. 87101 is standard for brake pipe connections on Locomotives and both Passenger and Freight Cars.

NOTE B—The 1 1/8"x22" Hose with FP-4 Coupling Pc. 87100 is furnished for brake pipe connection on Locomotives having 1" piping.

NOTE C—The 1 1/8"x22" Hose with HP-4 Coupling Pc. 87079 is standard for signal pipe connections on both Locomotives and Passenger Cars; also for tender brake cylinder connections between Engine and Tender with ET Equipment and Schedules SWA and SWB.

NOTE D—If HP-4 Coupling and Hose combination same as complete Pc. 87079 is desired, except with Coupling, Pc. 87322 having "Signal" cast on back (as illustrated), specify Pc. No. 87320. Net Weight 5 lbs. each.
If HP-4 Coupling and Hose combination same as complete Pc. 46252 is desired, except with Coupling, Pc. No. 43005 having "Signal" cast on back (as illustrated), specify Pc. No. 46038. Net Weight 5 lbs. each.



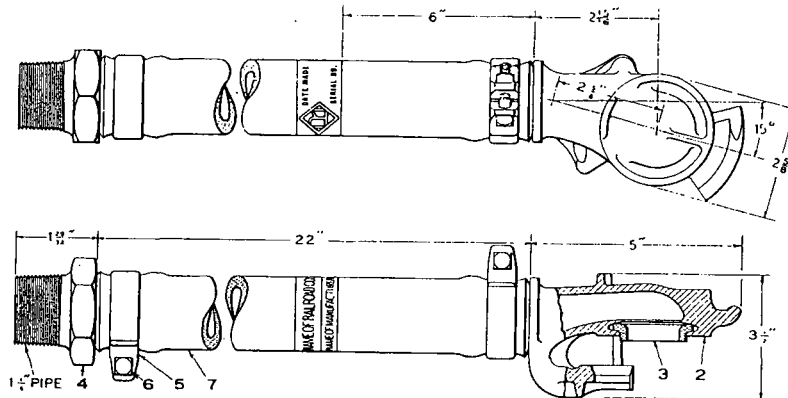
NOTE E—HOSE COUPLING DESIGNATION consists of two letters and a figure. This first letter indicates the group of couplings which can be coupled together. The second letter indicates the style of couplings; and the figure the size of pipe in quarters of an inch.

NOTE F—HOSE NIPPLES. In the designation of Hose Nipples, the first dimension is the inside diameter of the hose, and the second dimension the size of pipe.

NOTE G—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 store room stock.

Prices will be quoted upon application
Orders should give PIECE NUMBER and NAME of part wanted

**HOSE WITH FP-5-C COUPLING AND TYPE C
1 1/4" THREADED NIPPLE**



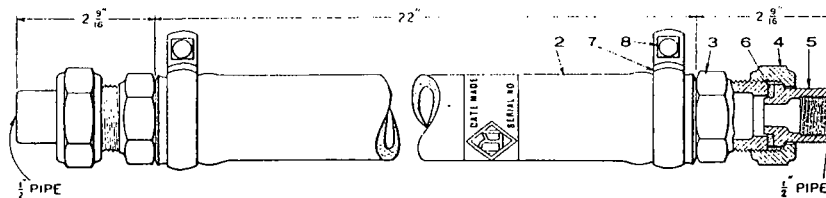
Net Weight, Each 5 1/4 lbs.

The 1 3/8"x22" Hose with FP-5-C Coupling and Type C 1 1/4" Threaded Nipple shown hereon will be furnished for Brake Pipe Connections for Locomotives and both Passenger and Freight Cars when specially ordered.

Piece No. 506494 1 3/8"x22" Hose with FP-5-C Coupling and 1 1/4" Threaded Nipple, complete

Piece No.	Ref. No.	*No. Per Pkg.	Description	Piece No.	Ref. No.	*No. Per Pkg.	Description
505479	2		FP-5-C Hose Coupling, complete (includes 3)	98409	5		1 3/8" Hose Clamp (2 Req'd)
3279	3	1000	Hose Coupling Gasket	513854	6		Hose Clamp Bolt and Nut (2 Req'd)
98412	4		1 3/8"x1 1/4" Threaded Hose Nipple	2463	7		1 3/8"x22" Hose

HOSE CONNECTIONS



TRUCK HOSE CONNECTION

Net Weight, Each 3 3/4 lbs.

The 1 1/8"x22" Hose with Union Nipples for 1/2" Pipe is used with ET Schedules for connection to the Engine Truck Brake Cylinder and to the Engine Trailer Brake Cylinder.

Piece No. 46673 1 1/8"x22" Hose with Union Nipples for 1/2" Pipe

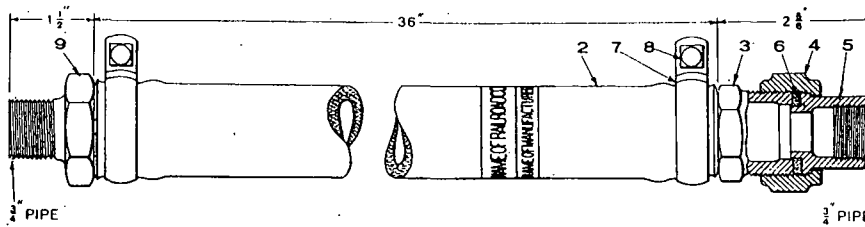
Piece No.	Ref. No.	*No. Per Pkg.	Description	Piece No.	Ref. No.	*No. Per Pkg.	Description
2243	2		1 1/8"x22" Hose	2166	5		1/2" Union Swivel (2 Req'd)
46172			1 1/8"x1/2" Union Hose Nipple, complete, (includes 3, 4, 5 and 6) (2 Req'd)	81598	6		1/2" Union Gasket (2 Req'd)
46171	3		1 1/8"x1/2" Union Hose Nipple (2 Req'd)	28221	7	500	Galvanized Annealed Steel Clamp for 1 1/8" Hose (2 Req'd)
2165	4		1/2" Union Nut (2 Req'd)	4866	8	200	Hose Clamp Bolt and Nut (2 Req'd)

*NOTE A—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 store room stock.

Prices will be quoted upon application

Orders should give **PIECE NUMBER** and **NAME** of part wanted

HOSE CONNECTIONS (Continued)

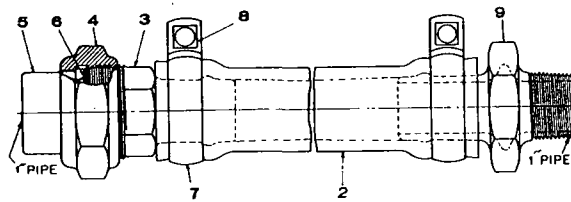


ENGINE AND TENDER HOSE CONNECTION
Net Weight, Each 4 1/2 lbs.

1 1/8"x36" Hose with Threaded and Union Nipples for 3/4" Pipe is not standard, but is furnished when specified for connection between Engine and Tender.

Piece No. 46642 1 1/8"x36" Hose with Threaded and Union Nipples for 3/4" Pipe, complete

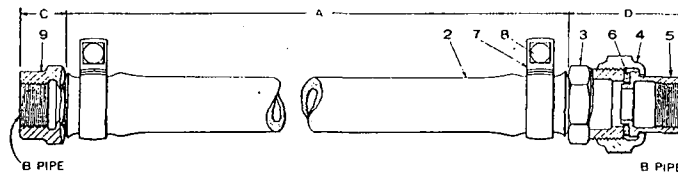
Piece No.	Ref. No.	*No. Per Pkg.	Description	Piece No.	Ref. No.	*No. Per Pkg.	Description
4893	2		1 1/8"x36" Hose	87814	6		3/4" Union Gasket
46166			1 1/8"x3/4" Union Hose Nipple, complete, (includes 3, 4, 5 and 6)	28221	7	500	Galvanized Annealed Steel Clamp for 1 1/8" Hose (2 Req'd)
46165	3		1 1/8"x3/4" Union Hose Nipple	4866	8	200	Hose Clamp Bolt and Nut (2 Req'd)
3306	4		3/4" Union Nut	46169	9		1 1/8"x3/4" Threaded Hose Nipple
3307	5		3/4" Union Swivel				



(Overall length 40 5/8")
Net Weight, 4 1/2 lbs.

Piece No. 46636 1 1/8"x36" Hose with Threaded and Union Nipples for 1" Pipe

Piece No.	Ref. No.	*No. Per Pkg.	Description	Piece No.	Ref. No.	*No. Per Pkg.	Description
4893	2		1 1/8"x36" Hose	87726	6	2000	1" Union Gasket
46159			1 1/8"x1" Union Hose Nipple, complete (includes 3, 4, 5 and 6)	28221	7	500	Galvanized Annealed Steel Clamp for 1 1/8" Hose (2 Req'd)
46158	3		1 1/8"x1" Union Hose Nipple	4866	8	200	Hose Clamp Bolt and Nut (2 Req'd)
1749	4		1" Union Nut	46175	9		1 1/8"x1" Threaded Hose Nipple
1750	5		1" Union Swivel				



(Dimensions: A—36", B—1/2", C—1" and D—2 1/2")
Net Weight, 4 lbs.

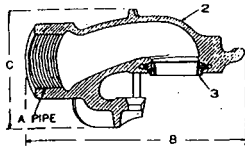
Piece No. 96118 3/4"x36" Hose with Tapped and Union Nipples for 1/2" Pipe

Piece No.	Ref. No.	*No. Per Pkg.	Description	Piece No.	Ref. No.	*No. Per Pkg.	Description
19316	2		3/4"x36" Hose	81598	6		1/2" Union Gasket
24036			3/4"x1/2" Union Hose Nipple, complete (includes 3, 4, 5 and 6)	31104	7		Galvanized Annealed Steel Clamp for 3/4" Hose (2 Req'd)
13183	3		3/4"x1/2" Union Hose Nipple	15884	8		Hose Clamp Bolt and Nut (2 Req'd)
2165	4		1/2" Union Nut	48378	9		3/4"x1/2" Tapped Hose Nipple
2166	5		1/2" Union Swivel				

NOTE A—HOSE NIPPLES. In the designation of Hose Nipples, the first dimension is the inside diameter of the hose, and the second dimension the size of pipe.
*NOTE B—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 store room stock.

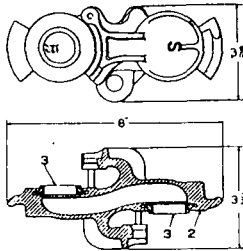
Prices will be quoted upon application
Orders should give PIECE NUMBER and NAME of part wanted

SPECIAL COUPLINGS



Pc. No.	Ref. No.	Description	A	B	C	Net Weight Lbs. Each
87737	2	FS-3 Hose Coupling with Straight Shank, complete, (includes 3)	3/4"	5 3/4"	3 1/8"	2 1/4"
87817	2	FS-3 Hose Coupling with Shank at angle, complete, (includes 3)	3/4"	5 7/8"	3 1/8"	2 1/4"
88983	2	FS-4 Hose Coupling with Straight Shank, complete, (includes 3)	1"	5 3/4"	3 1/4"	2 1/4"
89020	2	FS-4 Hose Coupling with Shank at angle, complete, (includes 3)	1"	5 7/8"	3 1/4"	2 1/4"
87852	2	FS-5 Hose Coupling with Shank at angle, complete, (includes 3)	1 1/4"	6 1/4"	3 1/2"	2 1/2"
46983	2	HS-3 Hose Coupling with Straight Shank, complete, (includes 3)	3/4"	4 7/8"	2 1/4"	2 3/8"
73301	2	HS-4 Hose Coupling with Straight Shank, complete, (includes 3)	1"	6 1/4"	2 7/8"	2 1/2"
73303	2	HS-5 Hose Coupling with Straight Shank, complete, (includes 3)	1 1/4"	6 1/4"	2 7/8"	2 3/4"
505490	2	ES-2 Hose Coupling, with Shank at 15° angle, complete, (includes 3)	1/2"	4 7/8"	2 1/4"	1 3/8"
49163	2	ES-3 Hose Coupling with Shank at 20° angle, complete, (includes 3)	3/4"	4 7/8"	2 1/4"	1 1/2"
99713	2	LS-2 Hose Coupling with Shank at 20° angle, complete, (includes 3)	1/2"	4 7/8"	2 1/4"	1 1/2"
505508	2	LS-4 Hose Coupling (includes 3)	1"	5"	2 1/4"	2"
3279	3	Hose Coupling Gasket				

NOTE—The above Piece Numbers cover Electro-tite Hose Couplings, treated for rust prevention.



HUF HOSE COUPLING

The HUF Hose Coupling consists of a jumper or double end coupling with gaskets, one end suitable for coupling with the standard Signal Coupling, the other end suitable for coupling with the standard Brake Pipe Coupling, and was designed for the purpose of providing means for temporarily connecting the brake pipe and signal pipe in cases of emergency.

Pc. No.	Ref. No.	Description
46150	2	HUF Hose Coupling, complete, (includes two of 3)
3279	3	Hose Coupling Gasket (2 Req'd)

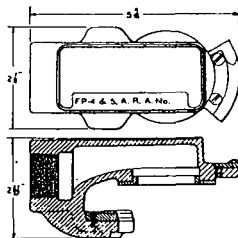
Net Weight, each
4 1/4 lbs.

HP-4 AND FP-4 COMBINATION HOSE COUPLING

Piece No. 46322 One HP-4 and Two FP-4 Combination Hose Coupling, complete, used with Brake Test Truck, see Part Catalog 3219-1 Sup. 6.



Net Weight, each 6 1/2 lbs.



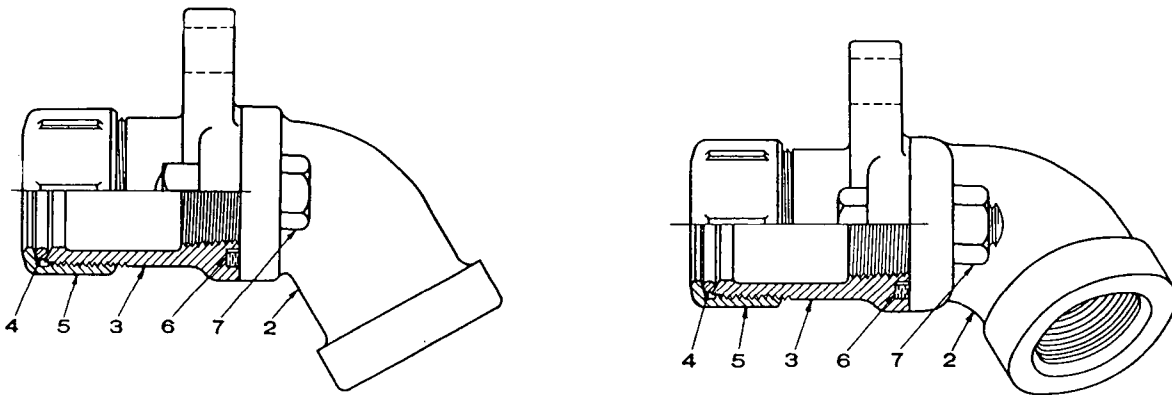
HOSE COUPLING GAGE

The A.A.R. Standard Hose Coupling Gage is for the purpose of establishing the amount of variation permissible in the guard arms of Air Brake Hose Couplings which have become distorted or bent out of their normal position and to determine whether couplings are satisfactory for further use and interchange. In practice, a coupling should enter Gage No. 1, but should not enter Gage No. 2, that is, coupling should be condemned (1) when the guard arm is bent inward so that the coupling will not enter Gage No. 1 and (2) when bent outward so that it will enter Gage No. 2. The coupling may be used again by restoring the guard arm to its normal position.

Gage	Pc. No.	Net Weight
No. 1	67035	2 7/8 lbs.
No. 2	67036	2 7/8 lbs.

Prices will be quoted upon application
Orders should give **PIECE NUMBER** and **NAME** of part wanted

ANGLE FITTINGS WITH REINFORCED FLANGED UNION AND SUPPORTING LUG



Pc. No.....	506776	511417	508578	506777	511416
Approx. Weight Lbs.....	6 7/8	6 7/8	5	2 7/8	2 7/8

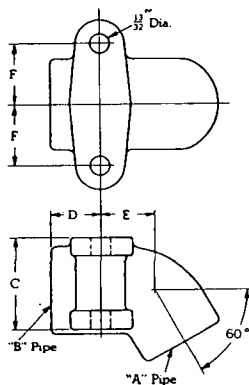
- Piece No. 506776 1 1/4" Angle Fitting with 1 1/4" Reinforced Flanged Union Fitting, complete
- Piece No. 511417 1 1/4" Angle Fitting having Pipe Connection at 30° with 1 1/4" Reinforced Flanged Union, complete
- Piece No. 508578 1" Angle Fitting with 1" Reinforced Flanged Union Fitting, complete
- Piece No. 506777 3/4" Angle Fitting with 3/4" Reinforced Flanged Union Fitting, complete
- Piece No. 511416 3/4" Angle Fitting having Pipe Connection at 30° with 3/4" Reinforced Flanged Union Fitting, complete

- | | | |
|---------|----------|---|
| Pc. No. | Ref. No. | |
| 506775 | 2 | 1 1/4" Angle Fitting Body |
| 511402 | 2 | 1 1/4" Angle Fitting Body with Pipe Connection at 30° |
| 508726 | 2 | 1" Angle Fitting Body |
| 506774 | 2 | 3/4" Angle Fitting Body |
| 511415 | 2 | 3/4" Angle Fitting Body with Pipe Connection at 30° |
| 511563 | | 1 1/4" Reinforced Flanged Union, complete (includes 3, 4 and 5) |
| 511564 | | 1" Reinforced Flanged Union, complete (includes 3, 4 and 5) |
| 511561 | | 3/4" Reinforced Flanged Union, complete (includes 3, 4 and 5) |
| 511329 | 3 | Flanged Union Body for 1 1/4" Pipe |
| 511546 | 3 | Flanged Union Body for 1" Pipe |

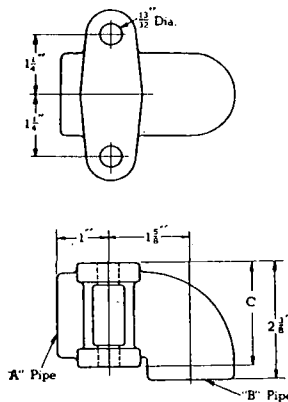
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|---------|----------|---|
| Pc. No. | Ref. No. | |
| 511469 | 3 | Flanged Union Body for 3/4" Pipe |
| 94789 | 4 | Flanged Union Ring for 1 1/4" Pipe |
| 93987 | 4 | Flanged Union Ring for 1" Pipe |
| 93838 | 4 | Flanged Union Ring for 3/4" Pipe |
| 94788 | 5 | Flanged Union Nut for 1 1/4" Pipe |
| 93988 | 5 | Flanged Union Nut for 1" Pipe |
| 93833 | 5 | Flanged Union Nut for 3/4" Pipe |
| 94790 | 6 | 1 1/4" Flanged Union Gasket |
| 93986 | 6 | 1" Flanged Union Gasket |
| 93841 | 6 | 3/4" Flanged Union Gasket |
| 21800 | 7 | Hex. Hd. Bolt and Nut (2 Req'd) for 1 1/4" Fittings |
| 10834 | 7 | Hex. Hd. Bolt and Nut (2 Req'd) for 1" Fittings |
| 21366 | 7 | Hex. Hd. Bolt and Nut (2 Req'd) for 3/4" Fittings |

PIPE SUPPORT FITTINGS

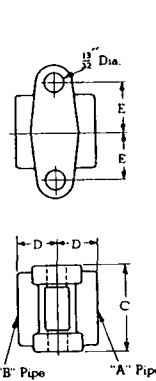
60° Angle Bracket Coupling



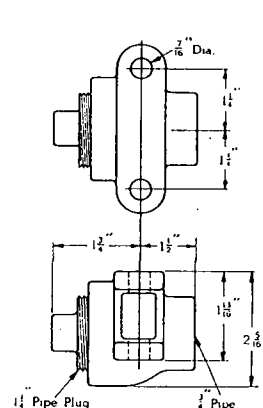
90° Angle Bracket Coupling



Straight Bracket Coupling



Straight Bracket Coupling



Size	Pc. No.	A	B	C	D	E	F
1" x 1"	503807	1"	1"	1 1/8"	1"	1 1/8"	1 1/4"
1" x 1 1/4"	503806	1 1/4"	1"	1 1/8"	1"	1 1/8"	1 1/4"
1" x 1 1/4"	*504819	1 1/4"	1"	1 1/8"	1"	1 1/8"	1 1/4"
3/4" x 3/4"	98474	3/4"	3/4"	1 1/8"	1 1/8"	1 1/8"	1"
1/2" x 1/2"	98845	1/2"	1/2"	1 1/8"	3/4"	7/8"	7/8"
1/2" x 3/8"	99084	1/2"	3/8"	1 3/8"	3/4"	7/8"	7/8"

Size	Pc.No.	A	B	C
1 1/4" x 1 1/4"	507494	1 1/4"	1 1/4"	2 1/4"
1" x 1"	505075	1"	1"	2 1/8"
1" x 1"	506228	1"	1"	2 3/8"
3/4" x 3/4"	506229	3/4"	3/4"	2 3/8"
1/2" x 1/2"	506230	1/2"	1/2"	2 3/8"

Size	Pc.No.	A	B	C	D	E
1 1/4" x 1 1/4"	509481	1 1/4"	1 1/4"	2 3/8"	1"	1 1/8"
1" x 1 1/4"	505088	1 1/4"	1"	2 3/8"	1"	1 1/8"
1" x 1"	506727	1"	1"	2 3/8"	1"	1 1/8"
1/2" x 3/4"	505093	3/4"	1/2"	1 3/4"	1 1/8"	1"
1/2" x 1/2"	505087	1/2"	1/2"	1 1/2"	3/4"	7/8"

Pc. No. 98847 3/4" x 1 1/4" Straight Bracket Coupling

Pc. No. 98477 3/4" x 1 1/4" Straight Bracket Coupling with 1 1/4" Pipe Plug

*Pc. 504819 includes 1 1/4" Pipe Plug

Prices will be quoted upon application
Orders should give PIECE NUMBER and NAME of part wanted

MISCELLANEOUS
ANGLE FITTINGS

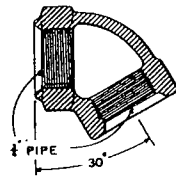


Fig. 1
Net Weight 5/8 lb.

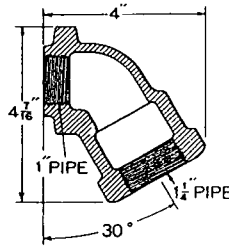


Fig. 2
Net Weight 2 1/2 lbs.

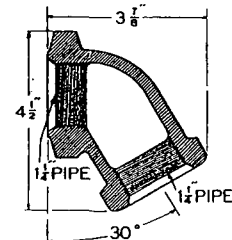
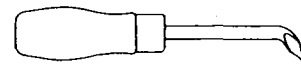


Fig. 3
Net Weight 3 lbs.

- Piece No. 2237 3/4" x 3/4" Angle Fitting, Fig. 1
 Piece No. 3819 1" x 1 1/4" Angle Fitting, Fig. 2
 Piece No. 3788 1 1/4" x 1 1/4" Angle Fitting, Fig. 3

CLEANING TOOL

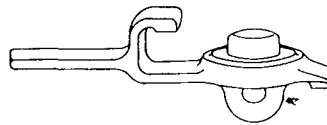


Net Weight 1/4 lb.

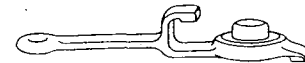
- Piece No. 4606 Coupling Groove Cleaning Tool

*DUMMY COUPLINGS

For Brake Pipe Hose Coupling
with Eye on back of Coupling



For Signal Pipe Hose Coupling
with Eye in end of handle



Pc. No.	Type	Net Weight Lbs.
20806	F	5/8
20809	F with Chain	
82974	F-1 (with Brass Insert)	3/4
87701	F-1 (with Brass Insert and Chain)	
20816	E and L	1
20817	E and L with Chain	
505419	E and L (with Brass Insert)	1
512048	E and L (with Brass Insert and Chain)	

Piece No. 2134 Type "H"

Pc. No.	Type	Net Wt. Lbs.
2134	H	1
18657	H with Chain	
86117	H-1 (with Brass Insert)	1
508557	H-1 (with Brass Insert and Chain)	

PACKING AND SHIPPING—STANDARD PRACTICE

We strongly recommend that all orders specify material in quantities conforming to our standard practice in boxing and packing. This will not only assist us in filling orders promptly but such original packages should prove of advantage to railroad storekeepers and others through greater convenience and economy in handling, ease of inventory, etc., etc.

The Hose and Couplings cataloged herein are packed for shipment as follows:

Material	Pc. No.	Number per Box	Shipping Weight
1 3/8" x 22" Hose with FP-5 Coupling	87101	25	132 lbs.
FP-5 Hose Coupling	86739	50	110 lbs.
FP-4 Hose Coupling	86784	50	110 lbs.
HP-4 Hose Coupling	86760	50	105 lbs.
1 3/8" x 22" Hose Only	2463	100	250 lbs.
1 1/8" x 22" Hose Only	2243	100	230 lbs.
1 3/8" x 1 1/4" Hose Nipples	46223	125	120 lbs.
1 3/8" Hose Clamps	26378	500	100 lbs.
1 1/8" Hose Clamps	28221	500	96 lbs.
Hose Coupling Gasket	3279	2000	40 lbs.
Hose Coupling Gasket	3279 per Bdl.	100	1 5/8 lbs.

*NOTE—Dummy Couplings can be used with any size of Hose Couplings in which the first letter in the designation is the same as the type letter of the Dummy Coupling.

Prices will be quoted upon application
Orders should give PIECE NUMBER and NAME of part wanted

Westinghouse Air Brake Company

Pittsburgh, Pa., U. S. A.

WORKS AT WILMERDING, PA.

OFFICES

ATLANTA	- - - - -	Candler Building
BOSTON	- - - - -	Statler Building
CHICAGO	- - - - -	Railway Exchange Building
CLEVELAND	- - - - -	Midland Building
DENVER	- - - - -	Denver National Building
HOUSTON, TEX.	- - - - -	Sterling Building
LOS ANGELES	- - - - -	Pacific Electric Building
MEXICO CITY, MEXICO	- - - - -	3a Puente de Alvarado, No. 67
NEW YORK	- - - - -	Empire State Building
ST. LOUIS	- - - - -	Broadway and Tyler Street
ST. PAUL	- - - - -	Endicott Building
SAN FRANCISCO	- - - - -	Matson Building
SEATTLE	- - - - -	Securities Building
TOPEKA	- - - - -	Columbian Building
WASHINGTON, D. C.	- - - - -	Munsey Building



ASSOCIATED COMPANIES

WESTINGHOUSE PACIFIC COAST BRAKE
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WESTINGHOUSE BRAKE & SIGNAL
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Hanover, Germany