






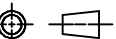


REF.NO.	P BSPP (F) (INCH)	H	Hx	B	Ø E	F A/F	WEIGHT (gm)
1.	1-1/4	120.00	60.00	25.40	39.50	55.00	1632.80

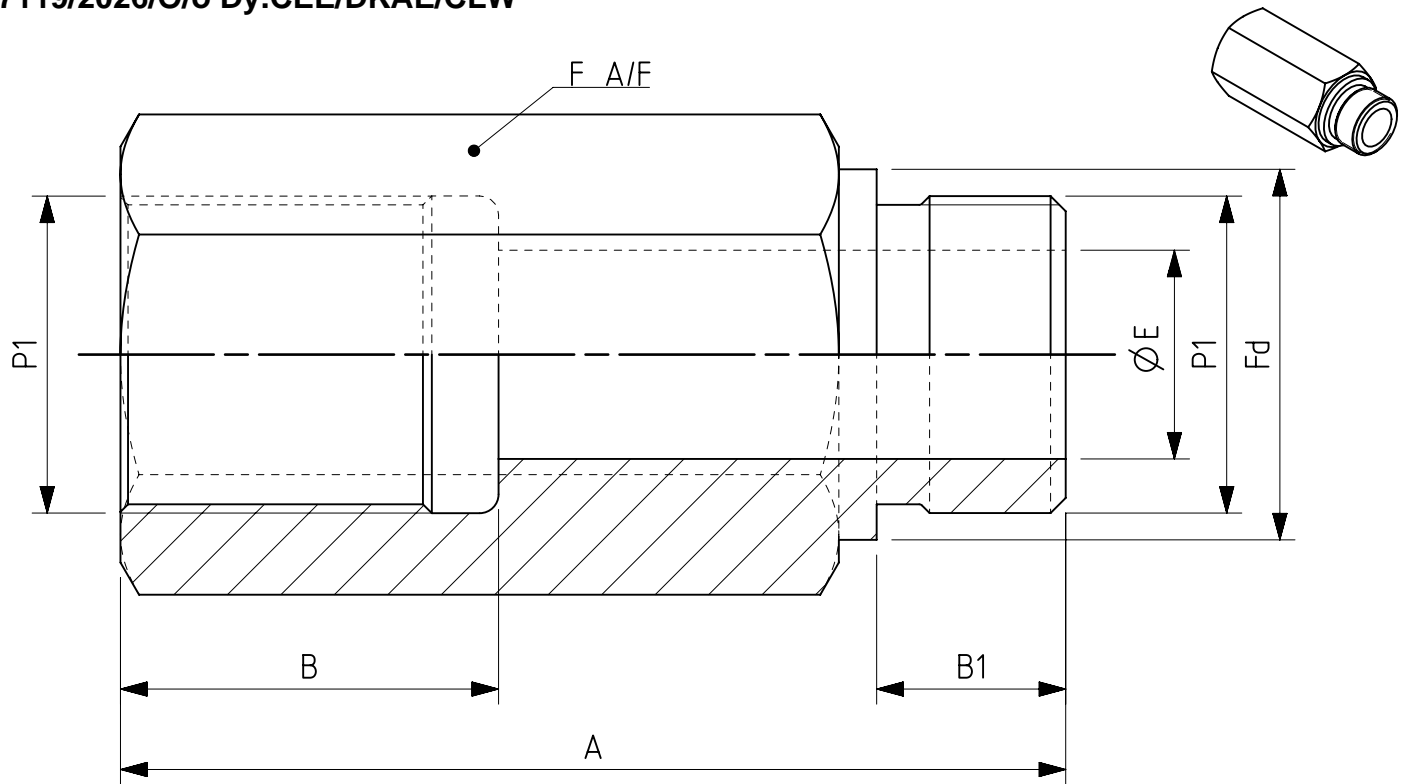
## NOTE:-

1. ALL DIMENSIONS ARE IN MM EXCEPT OTHERWISE NOTED.
2. REMOVE ALL BURRS AND SHARP EDGES.
3. TO BE Zn PLATED (10  $\mu$ ) / ZINC PASSIVATED

USED FOR  
LOCOWAG-9, WAP-7,  
WAP-5

REDRAWN IN NX WITH 3RD ANGLE PROJECTION													10-05-19		अधिकल्पित DGN		 <div>चितरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA</div>	
1													जॉचा व.अ.अ. CHD SSE					
परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION							दिनांकित बाधक DATED INITIAL	समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	MANOJ KUMAR SAGAR <small>Digitally signed by MANOJ KUMAR SAGAR Date: 2022.07.05 12:06:57 +05'30'</small>	पदार्थ MATL	STAINLESS STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG				
सतह — रूखाता का मान भा. भा. 3073 / अ. भा. सं. 1302 <small>SURFACE ROUGHNESS VALUE TO IS:3073 / ISQ:1302</small>		अनिर्दिष्ट सह — सीमा भा. भा. : 2102 / अ. भा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768							TOL. CLS.	अनुमोदित उ.यु.वि.अ. APPROVED DYCEE	Pradeep Khatana <small>Digitally signed by Pradeep Khatana Date: 2022.07.11 19:21:58 +05'30'</small>	विशिष्ट SPECN	GR. 316					
धातु-वेल्डन चिह्न भा. भा. : 813 / अ. भा. सं. : 2553 <small>WELDING SYMBOLS TO IS:813 / ISO:2553</small>										दिनांक DATE	16-08-21	वर्णन DESCRIPTION	FEMALE TEE					
पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12	आरेखण संख्या DRAWING NO.	1209-07.429-116				
Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250	संदर्भ / REF.	ALT. - 0				
Ra $\mu$ m	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50	रैखिक अनुपात SCALE	N.T.S.				
चिह्न SYMBOL														परिवर्तन संख्या ALTERATION. NO.	1			
													पृष्ठ SHEET	1 OF 1	A4			

**4987119/2026/O/o Dy.CEE/DKAE/CLW**
















REF. NO.	P BSPP (F) (INCH)	P1 BSPP (M) (INCH)	A	B	B1	Ø E	Fd	F A/F	WEIGHT (gm)
1	1-1/4	1-1/4	125	50	25	27.6	49	55	1456.71

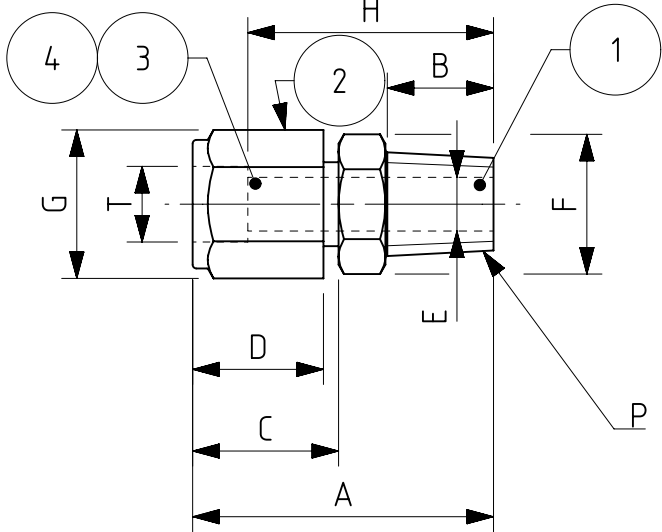
NOTE:-

1. ALL DIMENSIONS ARE IN MM EXCEPT OTHERWISE NOTED.
2. REMOVE ALL BURRS AND SHARP EDGES.
3. TO BE Zn PLATED ( $10\mu$ ) / ZINC PASSIVATED

USED FOR LOCO	WAG-9, WAP-5, WAP-7
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												अभिलेखित DGN				<div></div> <div>चितरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA</div>									
1		REDRAWN IN NX WITH 3RD ANGLE PROJECTION						09-05-19		जॉचा व.अ.अ. CHD SSE		MANOJ KUMAR SAGAR <small>Digitally signed by MANOJ KUMAR SAGAR DN: cn=MANOJ KUMAR SAGAR, o=INDIAN RAILWAYS, email=MANOJ.K.SAGAR@irco.co.in, c=IN</small>		पदार्थ MATL		STAINLESS STEEL		प्रति भार कि. ग्रा. WT. EACH IN KG							
परिवर्तन संख्या ALT.NO.		प्राधिकार AUTHY		वर्णन DESCRIPTION						दिनांकित बाह्य DATED INITIAL		समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE		Pradeep Khataone <small>Digitally signed by Pradeep Khataone DN: cn=Pradeep Khataone, o=INDIAN RAILWAYS, email=PRADEEP.KHATAONE@irco.co.in, c=IN</small>		विशिष्ट SPECN		Gr. 316							
सतह — रूखाता का मान मा. 3073 / अ. मा. सं. 1302 <small>SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302</small>		अनिर्दिष्ट सह — सीमा मा. : 2102 / अ. मा. सं. : 2768 <small>UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768</small>						TOL. CLS.		अनुमोदित उ.मु.वि.अ. APPROVED DYCEE		SYAMA PRASAD PATRA <small>Digitally signed by SYAMA PRASAD PATRA DN: cn=SYAMA PRASAD PATRA, o=INDIAN RAILWAYS, email=SYAMA.PATRA@irco.co.in, c=IN</small>		वर्णन		FEMALE ADAPTER									
धातु-वेल्डन चिह्न मा. : 813 / अ. मा. सं. : 2553 <small>WELDING SYMBOLS TO IS:813 / ISO:2553</small>										दिनांक DATE		16-08-21		DESCRIPTION											
पदांक GRADE NO.		स1 N1	स2 N2	स3 N3	स4 N4	स5 N5	स6 N6	स7 N7	स8 N8	स9 N9	स10 N10	स11 N11	स12 N12	रैखिक अनुपात SCALE		N.T.S.		आरेखण संख्या DRAWING NO.		1209-07.429-118					
Rz		0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250												
Ra $\mu m$		0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50												
चिह्न SYMBOL																		संदर्भ / REF.		ALT. -					
																		परिवर्तन संख्या ALTERATION. NO.		1		पर्ण SHEET 1 OF 1		A4	

4987119/2026/O/o Dy.CEE/DKAE/CLW



ORIGINAL  
SUPPLIER : SWAGELOK / USA

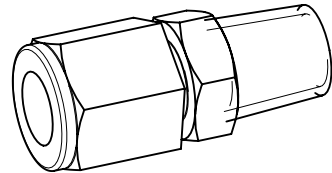
NOTE:-

1. REMOVE ALL BURRS AND SHARP EDGES.
2. BODY & BACK NUT SHOULD BE ZINC COATED (PLATED)(10MICRONS PASSIVATED)
3. ALL DIMENSIONS ARE IN mm EXCEPT OTHERWISE STATED.
4. GENERAL TOLERANCES ON DIMENSIONS:(a)BELOW 1":

+0.02"  
-0

(b)ABOVE 1":

+0.04"  
-0
5. DIMENSIONS A,C,D ARE TYPICAL FINGER-TIGHT.
6. ISO 7/1 & ' ISO228/1 FOR TAPER AND PARALLEL THREADS RESPECTIVELY.
7. THIS FITTING IS TO BE SWAGED ON S.S.TUBES(Gr.304)OF HARDNESS 90HRB(MAX.)
8. ALL THE PARTS OF THE FITTINGS SHOULD BE CONCENTRIC AND BE CAPABLE OF SELF ALLIGNMENT WHEN ASSEMBLED WITH PROPER SIZE TUBING.
9. NUTS & FERRULES OF PARTICULAR SIZE SHALL BE INTERCHANGEABLE FOR EACH TYPE.



USED FOR LOCO WAG-9, WAP-7 & WAP-5

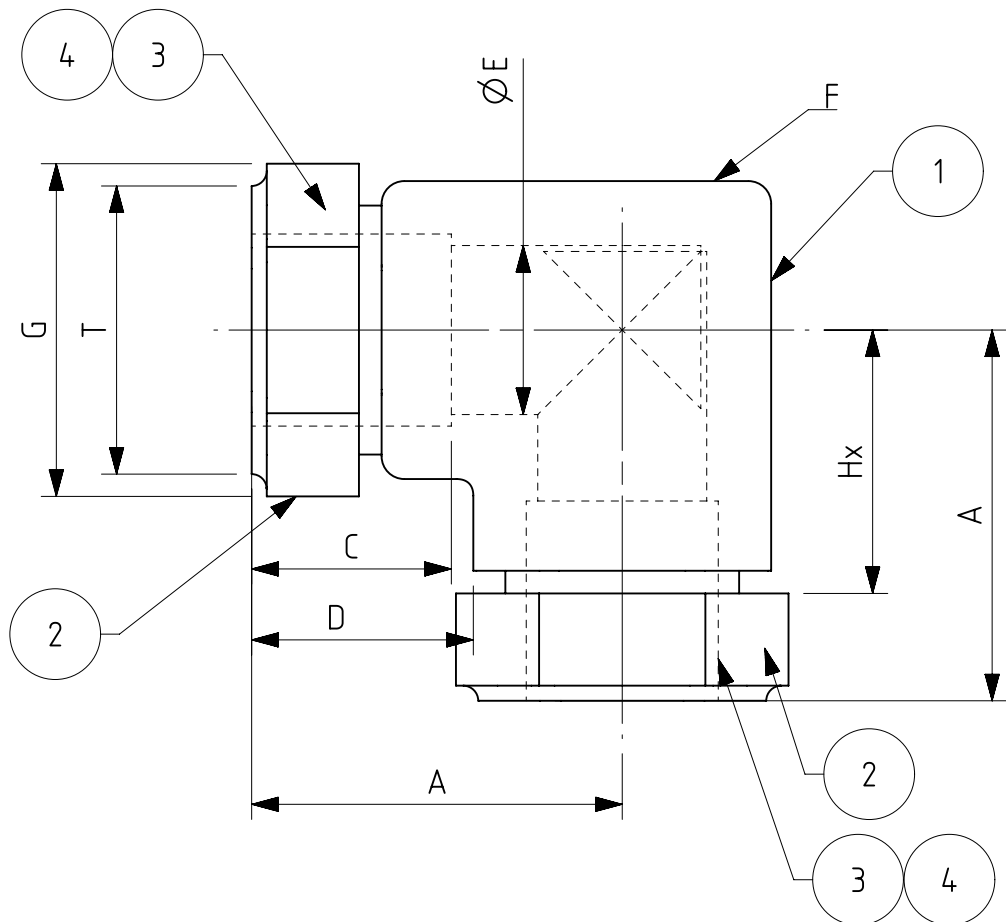
PART NO.	T TUBE O.D.	P TAPER THREAD (MALE) TO ISO 7/1	A	B	C	D	E MINIMUM OPENING	F HEX. FLAT	G HEX.FLAT	H (BODY)
1209-18.306-026-001	10 mm	1/4"	1.57"	0.56"	0.76"	0.66"	0.28"	5/8"	11/16"	1.28"
1209-18.306-026-002	1/2"	1/2"	1.93"	0.75"	0.86"	0.90"	0.41"	7/8"	7/8"	1.53"
1209-18.306-026-003	1"	3/4"	2.26"	0.75"	1.04"	1.23"	0.62"	1 3/8"	1 1/2"	1.78"
1209-18.306-026-004	1"	1"	2.45"	0.94"	1.04"	1.23"	0.88"	1 3/8"	1 1/2"	1.97"
1209-18.306-026-005	1 1/2"	1 1/4"	3.5"	0.94"	1.53"	1.62"	1.08"	2.16"	2.24"	2.33"
1209-18.306-026-006	1/2"	1/4"	1.71"	0.56"	0.86"	0.90"	0.28"	13/16"	7/8"	1.31"
1209-18.306-026-007	1 1/2"	1 1/2"	3.5"	0.94"	1.53"	1.62"	1.08"	2.16"	2.24"	2.33"
1209-18.306-026-008	10	M14	1.93"	0.75"	0.86"	0.90"	0.41"	7/8"	7/8"	1.53"

4			BACK FERRULE	1	STAINLESS STEEL	GR.316	
3			FRONT FERRULE	1	STAINLESS STEEL	GR.316	
2			BACK-NUT	1	CARBON STEEL	ASTM A 108	
1			BODY	1	CARBON STEEL	ASTM A 108	
निर्देश संख्या	लागत एवं वितरण संख्या	अंग आरेखण संख्या	वर्णन	मात्रा	पदार्थ	विशिष्टि	प्रति भार कि. ग्रा.
REF. NO.	C&D NO.	PART DRG. NO.	DESCRIPTION	QTY.	MATL	SPECN	WT. EACH IN K.G.

अधिकृतित DGN		चिततरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA					
जॉचा व.अ.अ. CHD SSE	SUBHANK AR KUMBHAK AR	पदार्थ MATL			प्रति भार कि. ग्रा. WT. EACH IN KG		
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	Pradeep Khatana	विशिष्टि SPECN			वर्णन DESCRIPTION		
अनुमोदित च.यु.वि.अ. APPROVED DYCEE	ARUP KUMAR MITRA	आरेखण संख्या DRAWING NO.			1209-18.306-026		
दिनांक DATE	23-09-20	परिवर्तन संख्या ALTERATION NO.			7	पुर्ण SHEET	1 OF 1
रैखिक अनुपात SCALE	1:1	परिवर्तन संख्या ALTERATION NO.			7	पुर्ण SHEET	1 OF 1
दिनांकित DATED INITIAL	संदर्भ / REF. 182-00534	परिवर्तन संख्या ALTERATION NO.			7	पुर्ण SHEET	1 OF 1

धातु-वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	अनिर्दिष्ट सद्य - सीमा मा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768												TOL., CLS.
	पदांक GRADE NO.	सं1 N1	सं2 N2	सं3 N3	सं4 N4	सं5 N5	सं6 N6	सं7 N7	सं8 N8	सं9 N9	सं10 N10	सं11 N11	सं12 N12
	Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
	Ra μm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
सतह - रुक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	चिन्ह SYMBOL												

MALE CONNECTOR



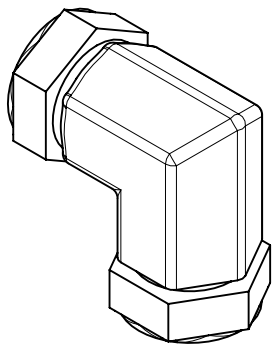
## NOTES:-

- 1.REMOVE ALL BURRS AND SHARP EDGES.
- 2.BODY & BACK NUT SHOULD BE ZINC COATED (PLATED) PASSIVATED. 1
- 3.ALL DIMENSIONS ARE IN mm EXCEPT OTHERWISE STATED.
- 4.DIMENSIONS A,C,D ARE TYPICAL FINGER-TIGHT.
- 5.GENER TOLERANCE ON DIMENSIONS: (a)BELOW 1": $\begin{smallmatrix} +0.02 \\ -0 \end{smallmatrix}$  (b)ABOVE 1": $\begin{smallmatrix} +0.04 \\ -0 \end{smallmatrix}$  EXCEPT 'T'.
- 6.ISO 7/1 & ISO 228/1 FOR TAPER AND PARALLEL THREADS RESPECTIVELY.
- 7.ELBOW UNIONS ARE TO BE MACHINED FROM FORGED BLANK AND NOT TO BE CAST.
- 8.THIS FITTING IS TO BE SWAGED ON S.S.TUBES (Gr.304) OF HARDNESS 90 HRB MAX.
- 9.ALL THE PARTS OF THE FITTINGS SHOULD BE CONCENTRIC AND BE CAPABLE OF SELF-ALIGNMENT WHEN ASSEMBLED WITH PROPER SIZE TUBING.
- 10.NUTS & FERRULES OF PARTICULAR SIZE SHALL BE INTERCHANGEABLE FOR EACH TYPE.

SL.NO	T TUBE O.D.	A	C	D	E MINIMUM OPENING	F WRENCH PAD	G HEX. FLAT	Hx
1.	1"	1.93"	1.04"	1.23"	0.88"	1 3/8"	1 1/2"	1.45"

USED FOR LOCO WAP-5,WAG-9

ORIGINAL SUPPLIER-SWAGELOK/USA



धातु-वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	अनिर्दिष्ट सद्य - सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768											TOL. CLS.	
	पदांक GRADE NO.	स1 N1	स2 N2	स3 N3	स4 N4	स5 N5	स6 N6	स7 N7	स8 N8	स9 N9	स10 N10	स11 N11	स12 N12
	Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
	Ra $\mu$ m	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
सतह - रुक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	चिन्ह SYMBOL												

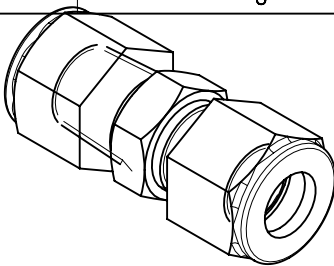
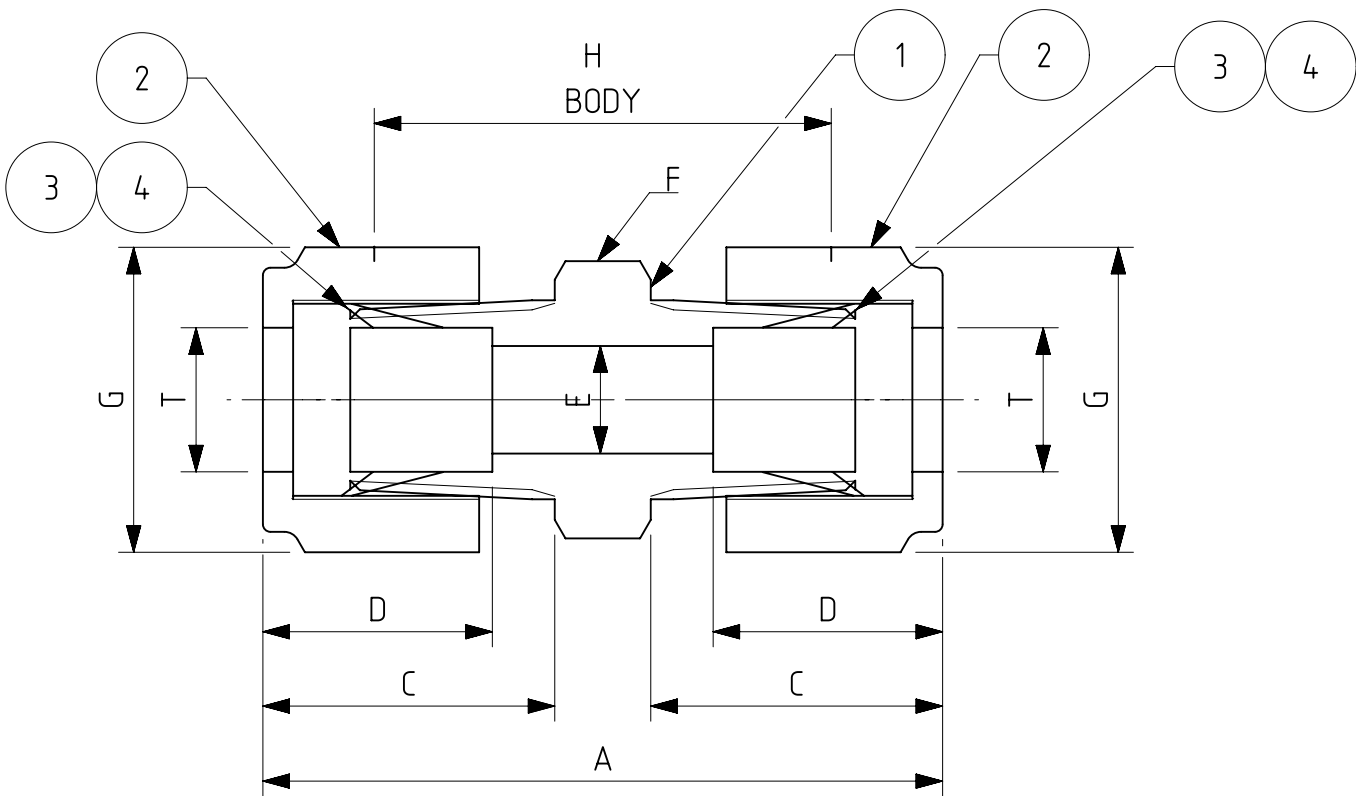
4		REDRAWN IN NX WITH 3RD ANGLE PROJECTION	20-06-11
3	AME/D&D	WAP-5 CLASS OF LOCO ADDED	15-01-03
2	AME/D&D	NOTES 3 TO 10 ADDED	07-09-01
4	AME/D&D	PASSIVATED AND ANOX WITH 3RD ANGLE PROJECTION	20-06-11

परिवर्तन संख्या	प्राधिकार	वर्णन	DESCRIPTION	दिनांकित आधार
ALT. NO.	AUTHY			DATED INITIAL

4		BACK FERRULE	2	STAINLESS STEEL	GR.316	
3		FRONT FERRULE	2	STAINLESS STEEL	GR.316	
2		BACK NUT	2	CARBON STEEL	ASTM A 108	
1		BODY	1	CARBON STEEL	ASTM A 108	

निर्देश संख्या	लागत एवं वितरण संख्या	अंग आरेखण संख्या	वर्णन	मात्रा	पदार्थ	विशिष्टि	प्रति भार कि. ग्रा.
REF. NO.	C&D NO.	PART DRG. NO.	DESCRIPTION	QTY.	MATL	SPECN	WT. EACH IN K.G.

अधिकृतित DGN		चित्तरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA					
जॉचा व.अ.अ. CHD SSE	ALOE KUMAR CHAKRABORTY	पदार्थ MATL	प्रति भार कि. ग्रा. WT. EACH IN KG				
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	Pradeep Khatana	विशिष्टि SPECN					
अनुमोदित च.यु.वि.अ. APPROVED DYCEE	ARUP KUMAR MITRA	वर्णन	ELBOW UNION SPECIAL				
दिनांक DATE	24-09-20	DESCRIPTION					
रैखिक अनुपात SCALE	1:1	आरेखण संख्या DRAWING NO.	1209-18.306-027				
संदर्भ / REF. 182-00533	ALT-	परिवर्तन संख्या ALTERATION NO.	4	पृष्ठ SHEET	1 OF 1	A3	




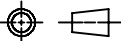
NOTE:

1. REMOVE ALL BURRS AND EDGES.
2. BODY & BACK NUT SHOULD BE ZINC PLATED (10  $\mu$ )/PASSIVATED.  $\triangle 1$
3. ALL DIMENSIONS ARE IN mm EXCEPT OTHERWISE STATED.
4. ISO 7/1 & ISO 228/1 FOR TAPER AND PARALLEL THREADS RESPECTIVELY.
5. DIMENSIONS A,C,D ARE TYPICAL FINGER-TIGHT.
6. GENERAL TOLERANCES ON DIMENSIONS:  
(a) BELOW 1"  $+0.2$   
-0  
(b) ABOVE 1"  $+0.04$   
-0 EXCEPT 'T'
7. THIS FITTING IS TO BE SWAGED ON SS TUBES (Gr.304) OF HARDNESS 90 HRB MAX.
8. ALL THE PARTS OF THE FITTINGS SHOULD BE CONCENTRIC AND BE CAPABLE OF SELF-ALIGNMENT WHEN ASSEMBLED WITH PROPER SIZE TUBING.
9. NUTS & FERRULES OF PERTICULAR SIZE SHALL BE INTER CHANGEBLE FOR EACH TYPE.
10. USED FOR LOCO WAG-9, WAP-7 & WAP-5.

ORIGINAL SUPPLIER - SWAGELOC/USA

SL. NO.	T TUBE O.D.	A	C	D	E MINIMUM OPENING	F WRENCH PAD (HEX. FLAT)	G HEX. FLAT	H
1	10 mm	1.77"	0.76"	0.66"	0.28"	5/8"	11/16"	1.19"
2	1/2"	2.02"	0.86"	0.90"	0.41"	13/16"	7/8"	1.22"
3	1"	2.55"	1.04"	1.23"	0.88"	1-3/8"	1-1/2"	1.59"
4	1-1/2"	4.25"	1.78"	1.97"	1.34"	2-1/8"	2-1/4"	2.11"

4			BACK FERRULE	2	STAINLESS STEEL	GR. 316	
3			FRONT FERRULE	2	STAINLESS STEEL	GR. 316	
2			BACK NUT	2	CARBON STEEL	ASTM A108	
1			BODY	1	CARBON STEEL	ASTM A108	
निर्देश संख्या	लागत एवं वितरण संख्या	अंग आरेखण संख्या	वर्णन	मात्रा	पदार्थ	विशिष्ट	प्रति भार कि. ग्रा.
REF. NO.	C&D NO.	PART DRG. NO.	DESCRIPTION	QTY.	MATL	SPECN	WT. EACH IN K.G.

अधिकृतित DGN				चित्तरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA					
जॉचा व.अ.अ. CHD SSE				SUBHANK AR KUMBHAK AR <small>Digitally signed by SUBHANK AR DN: cn=SUBHANK AR, o=Chittaranjan Locomotive Works, ou=Chittaranjan Locomotive Works, email=SUBHANK.AR@CLW.CO.IN, c=IN</small>		पदार्थ MATL			
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE		Pradeep Khatana <small>Digitally signed by Pradeep Khatana DN: cn=Pradeep Khatana, o=Chittaranjan Locomotive Works, ou=Chittaranjan Locomotive Works, email=PRADEEP.KHATANA@CLW.CO.IN, c=IN</small>		प्रति भार कि. ग्रा. WT. EACH IN KG		विशिष्ट SPECN			
अनुमोदित उ.यु.वि.अ. APPROVED DYCEE		ARUP KUMAR MITRA <small>Digitally signed by ARUP KUMAR MITRA DN: cn=ARUP KUMAR MITRA, o=Chittaranjan Locomotive Works, ou=Chittaranjan Locomotive Works, email=ARUP.KUMAR.MITRA@CLW.CO.IN, c=IN</small>		वर्णन UNION SPECIAL					
दिनांक DATE		23-09-20		DESCRIPTION					
रैखिक अनुपात SCALE		2:1		आरेखण संख्या DRAWING NO.					
संदर्भ / REF. 182-00532 ALT- 0				परिवर्तन संख्या ALTERATION NO.		पुर्ण SHEET		1 OF 1	
				5				A3	

धातु-वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. :2553 WELDING SYMBOLS TO IS:813 / ISO:2553	अनिर्दिष्ट सद्य – सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768											TOL. CLS.	
	पदांक GRADE NO.	स1 N1	स2 N2	स3 N3	स4 N4	स5 N5	स6 N6	स7 N7	स8 N8	स9 N9	स10 N10	स11 N11	स12 N12
सतह – रुक्षता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	Rz	0.16-0.3	0.5-0.7	0.9-1.1	1.5-2.0	2.5-3.8	5.0-6.3	9.0-12	16-25	30-40	50-63	75-100	160-250
	Ra $\mu$ m	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50
	चिन्ह SYMBOL												

5		REDRAWN IN NX WITH 3RD ANGLE PROJECTION	30-07-20
परिवर्तन संख्या ALT. NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांकित DATED INITIAL