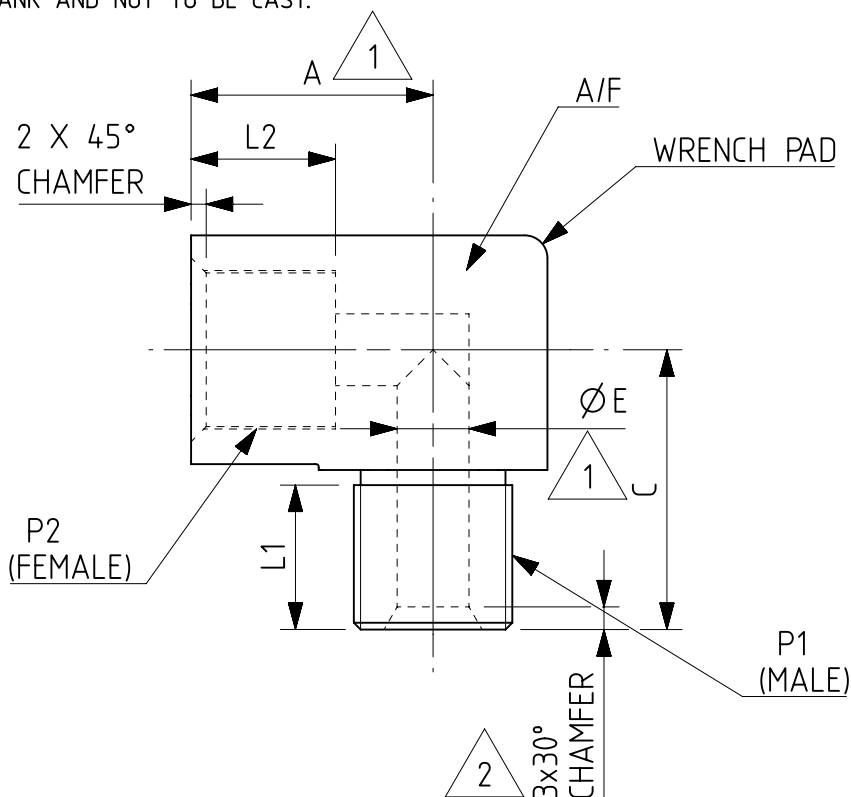
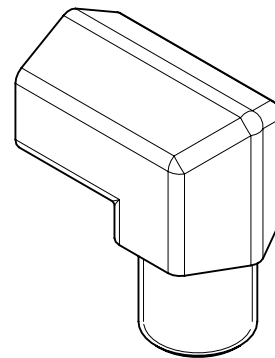


5070994/2026/O/o Dy.CEE/DKAE/CLW

NOTES:

1. REMOVE ALL BURRS & SHARP EDGES.
2. TO BE ZINC PLATED (10/4) PASSIVATED.
3. ALL DIMENSIONS ARE IN mm EXCEPT OTHERWISE STATED.
4. ISO 7/1 & ISO 228/1 FOR TAPER AND PARALLEL THREADS RESPECTIVELY.
5. ELBOWS ARE TO BE MACHINED FROM FORGED BLANK AND NOT TO BE CAST.


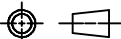


1. ALL DIMENSIONS ARE IN mm
2. C&D NO.
3. QTY./LOCO:
4. NEXT LEVEL ASSEMBLY DRG. NO.
5. USED FOR LOCO- WAG9

SL. No.	P1 MALE PARALLEL THR'D TO ISO 228/1	P2 FEMALE PARALLEL THR'D TO ISO 228/1	L1 (MIN)	L2 (MIN)	Ø E MIN. OPENING	A/F	A	C
1	1/2"	1/2"	19.1 ^{+0.5} ₋₀	19.1 ^{+0.5} ₋₀	9.5 ^{+0.5} ₋₀	27 ^{+0.5} ₋₀	32 ^{+1.0} ₋₀	37 ^{+1.0} ₋₀
2	3/8"	3/8"	14.2 ^{+0.5} ₋₀	14.2 ^{+0.5} ₋₀	7.9 ^{+0.5} ₋₀	22 ^{+0.5} ₋₀	29 ^{+1.0} ₋₀	32 ^{+1.0} ₋₀
3	3/4"	3/4"	17.1 ^{+0.5} ₋₀	22 ^{+0.2} ₋₀	15.9 ^{+0.2} ₋₀	36 ^{+0.5} ₋₀	32 ^{+0.2} ₋₀	44 ^{+0.2} ₋₀

5		REDRAWN IN NX WITH 3RD ANGLE PROJECTION	29-09-09									
4	DY.CEE/D-	ITEM 3 DETAILED DIMENSION ADDED	03-02									
3	DY. CEE/D-	ITEM-3 ADDED FOR 1/2" DRAIN LINE MODIFICATION.										
2	AME/D&D II	3X30° CHAMFER WAS 2X45° CHAMFER	28-01-03									
1	AME/D&D	DIMENSIONS A/F WERE 41 & 33 FOR ITEM NOS. 1 & 2 RESPECTIVELY. DIMENSION 'A' & 'C' ADDED.	30-04-02									
परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांक DATED INITIAL									
सतह - रूखाता का मान मा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302		अतिरिक्त सद्य - सीमा मा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768 धातु-वेल्डन चिह्न मा. मा. : 813 / अ. मा. सं. : 2553 WELDING SYMBOLS TO IS:813 / ISO:2553	TOL. CLS.									
पदार्थ 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
चिह्न SYMBOL												

अधिकृत DGN	
जोधा व.अ. CHD SSE	ALOKE KUMAR CHAKRA BORTY Digitally signed by ALOKE KUMAR CHAKRA Date: 2021.09.17 14:53:53 +05'30'
समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	Pradeep Khatana Digitally signed by Pradeep Khatana Date: 2021.07.15 18:28:48 +05'30'
अनुमोदित स.यु.वि.अ. APPROVED DYCEE	SYAMA PRASAD PATRA Digitally signed by SYAMA PRASAD PATRA Date: 2021.09.03 10:46:51 +05'30'
दिनांक DATE	25-09-20
रैखिक अनुपात SCALE	1:1
संदर्भ / REF.	1209-18.406-204ALT.-4

		चित्तरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA	
पदार्थ MATL	STEEL	प्रति भार कि. ग्रा. WT. EACH IN KG	
विशिष्ट SPECN	ASTM A108		
वर्णन DESCRIPTION	ELBOW MALE/FEMALE (PARALLEL X PARALLEL)		
आरेखण संख्या DRAWING NO.	1209-18.406-204		
	परिवर्तन संख्या ALTERATION. NO.	5	पृष्ठ SHEET 1 OF 1
			A4

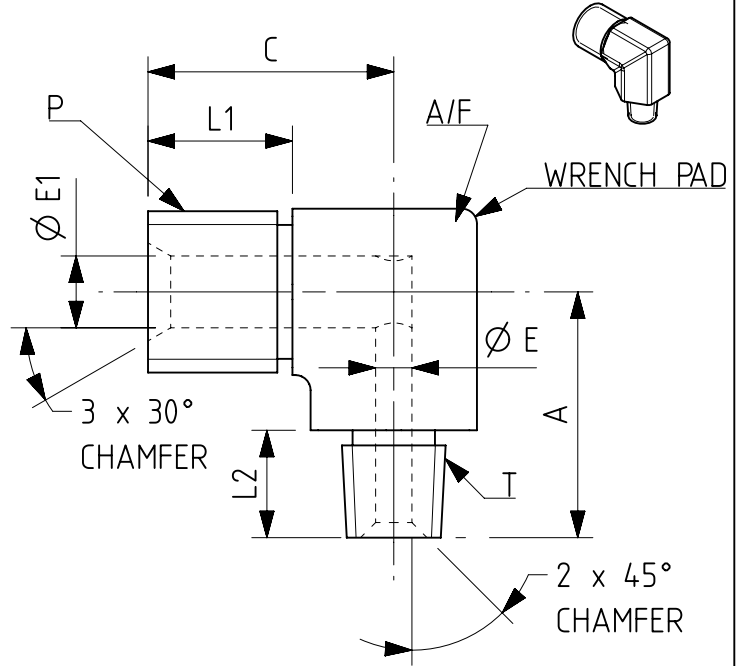
5070994/2026/O/o Dy.CEE/DKAE/CLW

NOTE:

1. REMOVE ALL BURRS & SHARP EDGES.
2. TO BE ZINC PLATED(10 μ)/PASSIVATED.
3. ALL DIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED.
4. ISO 7/1 & ISO 228/1 FOR TAPER AND PARALLEL THREADS RESPECTIVELY.
5. ELBOWS ARE TO BE MACHINED FROM FORGED BLANK AND NOT TO BE CAST.
6. GENERAL TOLERANCE:

(a)BELOW 25.0 MM: $\begin{matrix} +.5 \\ -0 \end{matrix}$

(b)ABOVE 25.0 MM: $\begin{matrix} +1.0 \\ -0 \end{matrix}$



SL. NO.	A	C	A/F	T MALE TAPER THD. TO ISO 7/1	P MALE PARALLEL THD. TO ISO 228/1	L1 (MINIMUM)	L2 (MINIMUM)	Ø E MINIMUM OPENING	Ø E1 MINIMUM OPENING
1	32.5	32.5	$22^{+.5}_{-0}$	1/4"	1/2"	$19.1^{+.5}_{-0}$	$14.2^{+.5}_{-0}$	$4.8^{+.5}_{-0}$	$9.5^{+.5}_{-0}$
2	36	32.5	$22^{+.5}_{-0}$	1/2"	1/2"	$19.1^{+.5}_{-0}$	$19.1^{+.5}_{-0}$	$9.5^{+.5}_{-0}$	$9.5^{+.5}_{-0}$
3	30	29	$19^{+.5}_{-0}$	3/8"	3/8"	$14.2^{+.5}_{-0}$	$14.2^{+.5}_{-0}$	$7.9^{+.5}_{-0}$	$7.9^{+.5}_{-0}$

1. C&D NO.
2. QTY./LOCO:
3. NEXT LEVEL ASSEMBLY DRG. NO.
4. USED FOR LOCO- WAG9

3		ELBOW MALE/ MALE 3/8" TAPER X 3/8" PARALLEL	STEEL	ASTM A 108	
2		ELBOW MALE/ MALE 1/2" TAPER X 1/2" PARALLEL	STEEL	ASTM A 108	
1		ELBOW MALE/ MALE 1/4" TAPER X 1/2" PARALLEL	STEEL	ASTM A 108	
निर्देश संख्या	अंग आरेखण संख्या	वर्णन	मात्रा	पदार्थ	विशिष्टता
REF. NO.	PART DRG. NO.	DESCRIPTION	QTY.	MATL	SPECN

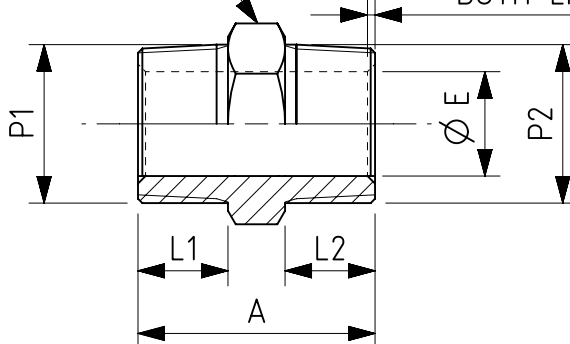
4		REDRAWN IN NX USING 3RD ANGLE PROJECTION	26-07-11
3	AME/D-II	DIMENSION $19.1^{+.5}_{-0}$ (L1) & $14.2^{+.5}_{-0}$ (L2) FOR ITEM SL.1 WERE $14.2^{+.5}_{-0}$ & $19.1^{+.5}_{-0}$ RESPECTIVELY	01-10-03
2	AME/D&D -II	3 x 30° CHAMFER WAS 2 x 45° CHAMFER	26-01-03
1	AME/D&D -II	DIMENSIONS A,C,A/F ADDED	30-04-02

परिवर्तन संख्या	प्राधिकार	वर्णन	दिनांक
ALT.NO.	AUTHY	DESCRIPTION	DATED INITIAL
सतह - रूखाता का मान मा. 3073 / अ. मा. सं. 1302	अतिरिक्त सद्य - सीमा मा. : 2102 / अ. मा. सं. : 2768	UNSPECIFIED TOLERANCE TO IS : 202 / ISO : 2768	TOL. CLS.
SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	धातु-वेल्डन चिन्ह मा. : 813 / अ. मा. सं. : 2553	WELDING SYMBOLS TO IS:813 / ISO:2553	
पदांक	सं1	सं2	सं3
GRADE NO.	N1	N2	N3
Rz	0.16-0.3	0.5-0.7	0.9-1.1
Ra μ m	0.025	0.05	0.1
चिन्ह	SYMBOL		

अधिकृत	DGN	मानक	MANOJ KUMAR SAGAR
जोचा व.अ.	CHD SSE	समीक्षित	Pradeep Khatang
समीक्षित	स.वि.अ. / व.वि.अ.	अनुमोदित	स.वि.अ.
REVIEWED AEE / SEE	APPROVED DYCEE	DATE	25-09-20
दिनांक	SCALE	1:1	
संदर्भ / REF.	ALT.		
पदार्थ	MATL	STEEL	प्रति भार कि. ग्रा.
विशिष्ट	SPECN	ASTM A108	WT. EACH IN KG
वर्णन	DESCRIPTION	ELBOW MALE-MALE (TAPER X PARALLEL)	
आरेखण संख्या	DRAWING NO.	1209-18.406-207	
परिवर्तन संख्या	ALTERATION. NO.	4	पृष्ठ 1 OF 1

W
A/F
(HEX)








2 X 45° CHAMFER
BOTH ENDS

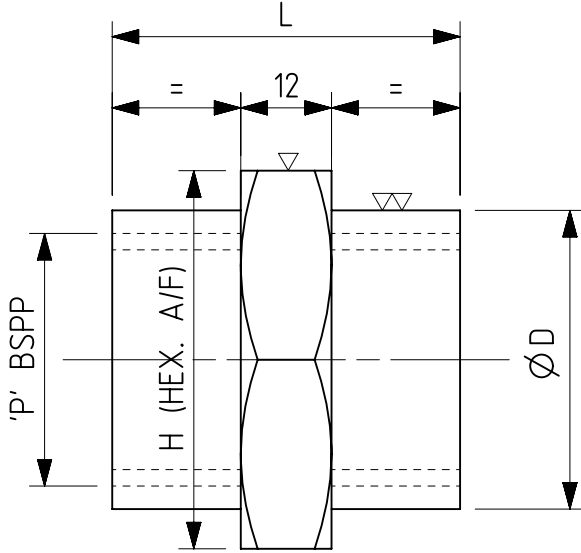
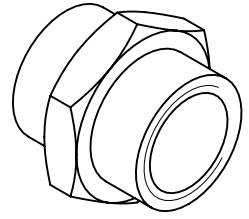


SL. NO.	P1 MALE TAPER TO ISO 7/1	P2 MALE TAPER THREAD TO ISO 7/1	L1	L2	A	Ø E MIN. OPENING	A/F (HEX)
1.	1-1/4"	1-1/4"	23.8	23.8	62.7	27.6	46
2.	3/4"	3/4"	19.1	19.1	46.9	15.9	28.5
3.	1/2"	3/8"	19.1	14.2	41.3	7.1	22
4.	1/2"	1/2"	19.1	19.1	46	10.4	22
5.	1"	3/4"	23.8	19.1	52.4	15.9	36
6.	3/8"	3/8"	14.2	14.2	34.9	7.1	19
7.	3/4"	1/2"	19.1	19.1	47.6	10.4	28.5
8.	3/8"	1/4"	14.2	14.2	34.9	4.8	19
9.	1"	1"	23.8	23.8	60	15.9	36
10	1"	3/4"	23.8	19.1	100	15.9	36

USED FOR LOCO
WAG-9 / WAP-5

<div>2</div> <div>1</div>	10	/		NIPPLE 1'' TAPER x 3/4'' TAPER		STEEL	ASTM A108	
	9	/		NIPPLE 1'' TAPER x 1'' TAPER		STEEL	ASTM A108	
	8	/		NIPPLE 3/8'' TAPER x 1/4'' TAPER		STEEL	ASTM A108	
	7	/		NIPPLE 3/4'' TAPER x 1/2'' TAPER		STEEL	ASTM A108	
	6	/		NIPPLE 3/8'' TAPER x 3/8'' TAPER		STEEL	ASTM A108	
	5	/		NIPPLE 1'' TAPER x 3/4'' TAPER		STEEL	ASTM A108	
	4	/		NIPPLE 1/2'' TAPER x 1/2'' TAPER		STEEL	ASTM A108	
	3	/		NIPPLE 1/2'' TAPER x 3/8'' TAPER		STEEL	ASTM A108	
	2	/		NIPPLE 3/4'' TAPER x 3/4'' TAPER		STEEL	ASTM A108	
	1	/		NIPPLE 1 1/4'' TAPER x 1 1/4'' TAPER		STEEL	ASTM A108	
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.

3		REDRAWN IN NX WITH 3RD ANGLE PROJECTION		30-07-20		अधिकृत DGN		<div><div>चितरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA</div></div>																						
2		DY.CEE/P ROJ/CON		SL. NO. 10 ADDED		16-07				जॉचा व.अ.अ. CHD SSE		SUBHAN KAR KUMBHA KAR		Digitally signed by SUBHAN KAR DN: cn=SUBHAN KAR, o=Chittaranjan Locomotive Works, ou=Chittaranjan Locomotive Works, email=Subhan.Kar@clw.co.in, c=IN, Date: 2021.01.02 11:40:24 +05'30'																
1		AME/DII		SL. NO. 9 & WAP5 ADDED.																										
परिवर्तन संख्या ALT.NO.		प्राधिकार AUTHY		वर्णन DESCRIPTION		दिनांकित आधार DATED INITIAL		समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE		Pradeep P Khatana		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, Date: 2021.07.13 11:07:38 +05'30'		पदार्थ MATL		STEEL		प्रति भार कि. ग्रा. WT. EACH IN KG												
														विशिष्ट SPECN		ASTM A108														
सतह - रूखाता का मान मा. मा. 3073 / अ. मा. सं. 1302		अनिर्दिष्ट सह - सीमा मा. मा. : 2102 / अ. मा. सं. : 2768		TOL. CLS.		अनुमोदित उ.मु.वि.अ.		SYAMA PRASAD PATRA		Digitally signed by SYAMA PRASAD PATRA DN: cn=SYAMA PRASAD PATRA, o=Chittaranjan Locomotive Works, ou=Chittaranjan Locomotive Works, email=Syama.Patra@clw.co.in, c=IN, Date: 2021.09.15 13:44:39 +05'30'		वर्णन DESCRIPTION		NIPPLE (TAPER x TAPER)																
SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302		UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768				APPROVED DYCEE																								
		धातु-वेल्डन चिन्ह मा. मा. : 813 / अ. मा. सं. : 2553						दिनांक DATE		22-09-20																				
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	रेखिक अनुपात SCALE		1:2		आरेखण संख्या DRAWING NO.												
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					1209-18.406-209												
Ra μm		0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50																	
चिन्ह SYMBOL																	संदर्भ / REF. 182-00424 ALT.-0				परिवर्तन संख्या ALTERATION. NO.		3		पर्ण SHEET		1 OF 1		A4	



SL. NO.	Ø D	L	P	'H' A/F
1	39.5	46	1"	50
2	49	51	1-1/4"	58

NOTES:-

1. REMOVE ALL BURRS, SHARP EDGES AND CORNERS.
2. ALL DIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED
3. GENERAL TOLERANCE ON DIMENSIONS

- a) BELOW 25 mm: $\begin{matrix} +0.5 \\ -0.0 \end{matrix}$
- b) ABOVE 25 mm: $\begin{matrix} +1 \\ -0 \end{matrix}$ EXPECT 'P'

4. ISO 228/1 FOR PARALLEL & ISO 7/1 FOR TAPER THREAD RESPECTIVELY.
5. SOCKETS ARE TO BE MACHINED FROM FROGED BLANKS AND ZINC PASSIVATED (10μ).

USED FOR LOCO- WAG9

2			HEX.SOCKET 1 1/4" BSPP	4	STEEL	ASTM A108	
1			HEX.SOCKET 1" BSPP	4	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.

अधिकृत				-			
DGN				-			
जॉचा व.अ.				A/LOKE KUMAR CHAKRA BORTY			
CHD SSE				Pradeep Khatana			
समीक्षित स.वि.अ. / व.वि.अ.				APPROVED DYCEE			
अनुमोदित स.वि.अ.				ARUP KUMAR MITRA			
दिनांक				15-09-20			
रेखिक अनुपात				1:1			
संदर्भ / REF.				182-00349			
परिवर्तन संख्या				1			
परिपत्र संख्या				A4			