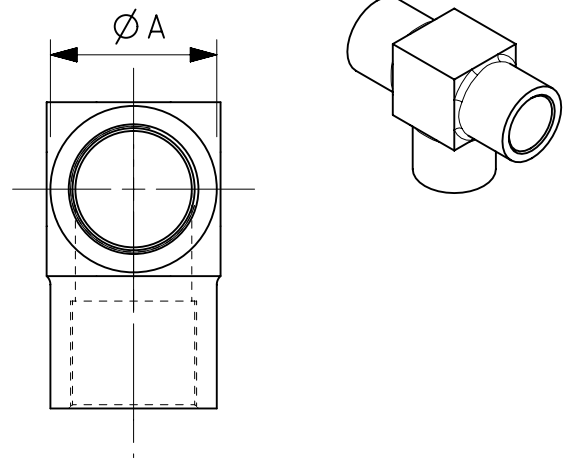
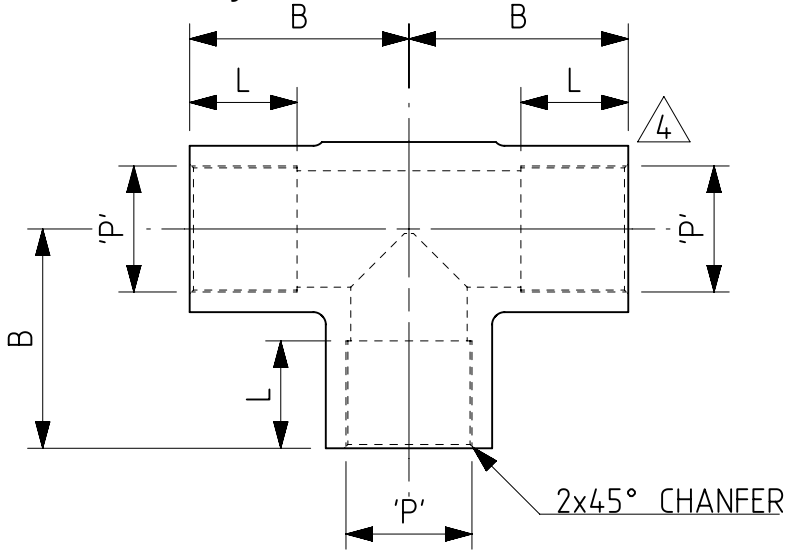







4983519/2026/O/o Dy.CEE/DKAE/CLW



- NOTE:
1. REMOVE ALL BURRS AND SHARP EDGES.
 2. TO BE ZINC PLATED (10 μ l)/PASSIVATED.
 3. ALL DIMENSIONS ARE IN MM EXCEPT OTHERWISE STATED.
 4. SL. NO.1 IS APPLICABLE FOR WAG/9 & SL. NO. 1 & 2 ARE APPLICABLE FOR WAP/5 LOCO ONLY.
 5. TEES SHALL BE MACHINED FROM FORGED BLANKS AND NOT TO BE CAST.
 6. ISO 7/1 & ISO 228/1 FOR TAPER AND PARALLEL THREADS RESPECTIVELY.

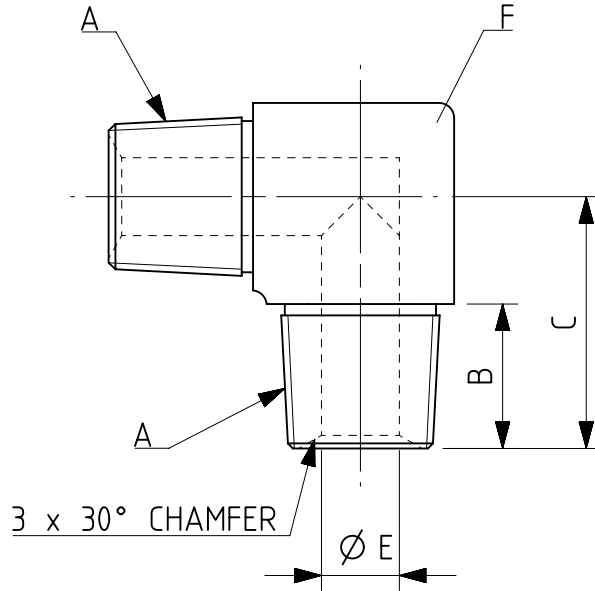
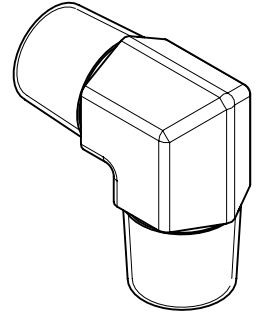
SL. NO.	'P' FEMALE PARALLEL THD. TO ISO 228/1	Ø A (MIN)	B (MIN)	L (MIN)
1	3/8"	22 ^{+0.5} ₋₀	29 ^{+0.5} ₋₀	14.2 ^{+0.5} ₋₀
2	1-1/4"	55 ^{+1.0} ₋₀	60 ^{+1.0} ₋₀	25.4 ^{+0.5} ₋₀
3	3/4"	32.5 ^{+0.5} ₋₀	35 ^{+1.0} ₋₀	19.1 ^{+0.5} ₋₀
4	1-1/2"	60 ^{+1.0} ₋₀	75 ^{+1.0} ₋₀	26.2 ^{+0.5} ₋₀
5	1/2"	27 ^{+2.0} ₋₀	32 ^{+2.0} ₋₀	19.1 ^{+2.0} ₋₀

5	/		TEE 1/2"X1/2"X1/2"		STEEL	ASTM A108	
4	/		TEE 1 1/2"X1 1/2"X1 1/2"		STEEL	ASTM A108	
3	/		TEE 3/4"X3/4"X3/4"		STEEL	ASTM A108	
2	/		TEE 1 1/4"X1 1/4"X1 1/4"		STEEL	ASTM A108	
1	/		TEE 3/8"X3/8"X3/8"		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.

7		REDRAWN IN NX WITH 3RD ANGLE PROJECTION.	10-11-20									
6	DY.CEE/ D-I	ITEM 5 DETAIL DIMENSIONS ADDED.	03-02									
5	DY.CEE/ D-I	SL. NO. 5 ADDED	27-01-09									
4	AME/D&D	PREVIOUS VIEW, TABLE, NOTE 4, DRG. DESCRIPTION DELETED. NEW DRG. VIEWS, NOTES 5, 6 & DRG. DESCRIPTION, REF. NOS 3 & 4 ADDED.	30-07-01									
3	AME/D&D	NOTE 4 ADDED.	19-04-99									
2	AME/D&D	SL. NO. 2, WAP/5, NOTE 3 ADDED. NO./LOCO COL. DELETED.	12-04-99									
1	AME/D&D	BSPT WAS BSP	19-05-99									
परिवर्तन संख्या ALT.NO.	प्राधिकार AUTHY	वर्णन DESCRIPTION	दिनांक DATED INITIAL									
सतह — रूखाता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302		अतिरिक्त सद्य — सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768 घातु-वेल्डन चिन्ह भा. मा. : 813 / अ. मा. सं. : 2553 WELDING SYMBOLS TO IS:813 / ISO:2553	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 μ 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												

अभिलेखित	DGN	जोधा व.अ.अ.	CHD SSE	समीक्षित स.वि.अ. / व.वि.अ.	Pradeep Khatana	Digitally signed by Pradeep Khatana Date: 2023.07.15 11:04:57 +05'30'
अनुमोदित उ.यु.वि.अ.	SYAMA PRASAD PATRA	Digitally signed by SYAMA PRASAD PATRA Date: 2023.07.15 13:49:00 +05'30'				
वर्णन	STEEL	प्रति भार कि. ग्रा.	WT. EACH IN KG			
विशिष्ट	ASTM A108					
वर्णन	THREADED TEE (FEMALE) PARALLEL					
वर्णन	DESCRIPTION					
आरेखण संख्या	1209-18.406-080					
DRAWING NO.						
परिवर्तन संख्या	7	पण	1 OF 1	A4		
ALTERATION. NO.						
संदर्भ / REF.	182-00445	ALT.-0				

4983519/2026/O/o Dy.CEE/DKAE/CLW









NOTE:

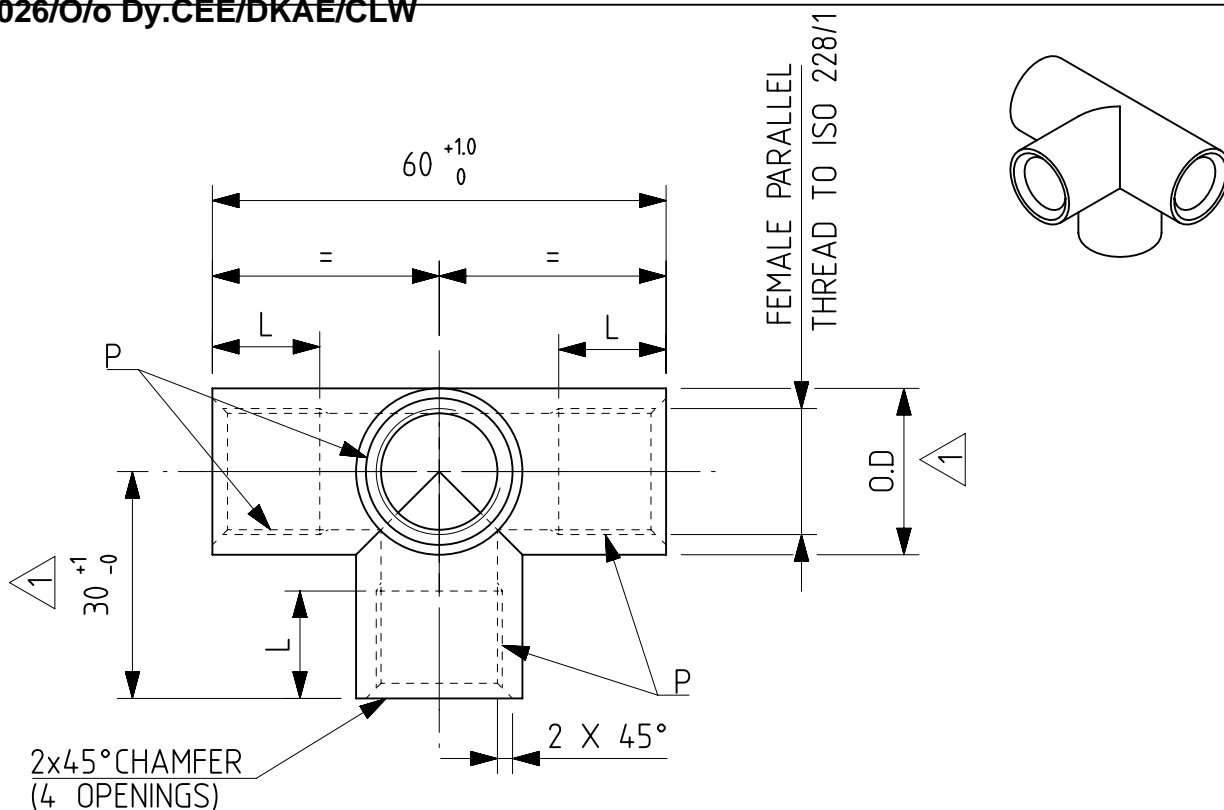
1. REMOVE ALL BURRS AND SHARP EDGES.
2. TO BE ZINC PLATED (10μ) / PASSIVATED.
3. ALL DIMENSIONS ARE IN mm EXCEPT OTHERWISE STATED.

SL.NO.	'A' THREAD SIZE BSPT	B	C	ϕ E	A/F
1	1/2"	19.1 $^{+5}_{-0}$	33.3 $^{+1}_{-0}$	10.3 $^{+5}_{-0}$	22 $^{+5}_{-0}$

NO/LOCO: 2
USED FOR LOCO: WAG-9

1												REDRAWN IN NX WITH 3RD ANGLE PROJECTION.		25-04-11		अभिलेखित DGN		जॉचा व.अ.अ. CHD SSE		ALOKE KUMAR CHAKRA BORTY <small>Digitally signed by ALOKE KUMAR CHAKRA BORTY Date: 2022.02.02 14:53:19 +05'30'</small>		 चित्तरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA	
परिवर्तन संख्या ALT.NO.		प्राधिकार AUTHY		वर्णन DESCRIPTION				दिनांकित बाह्य DATED INITIAL		समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE		अनुमोदित स.यु.वि.अ. APPROVED DYCEE		Pradeep Khatana <small>Digitally signed by Pradeep Khatana Date: 2022.02.04 11:40:00 +05'30'</small>		पदार्थ MATL		STEEL		प्रति भार कि. ग्रा. WT. EACH IN KG			
सतह - रूखाता का मान वा. मा. 3073 / अ. मा. सं. 1302		अनिर्दिष्ट सद्य - सीमा वा. मा. : 2102 / अ. मा. सं. : 2768				TOL. CLS.		अनुमोदित स.यु.वि.अ.		SYAMA PRASAD PATRA		SYAMA PRASAD PATRA <small>Digitally signed by SYAMA PRASAD PATRA Date: 2022.02.03 12:26:09 +05'30'</small>		विशिष्ट SPECN		ASTM A 108		वर्णन DESCRIPTION		ELBOW MALE			
SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302		धातु-वेल्डन चिन्ह वा. मा. : 813 / अ. मा. सं. : 2553				WELDING SYMBOLS TO IS:813 / ISO:2553		दिनांक DATE		19-02-21		रैखिक अनुपात SCALE		1:1		आरेखण संख्या DRAWING NO.		1209-18.406-083					
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	संदर्भ / REF.		182-00518		ALT.-0					
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 μ 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																							

4983519/2026/O/o Dy.CEE/DKAE/CLW










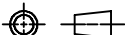
NOTES:

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. TEES ARE TO BE MACHINED FROM FORGED BLANK AND NOT TO BE CAST.

3

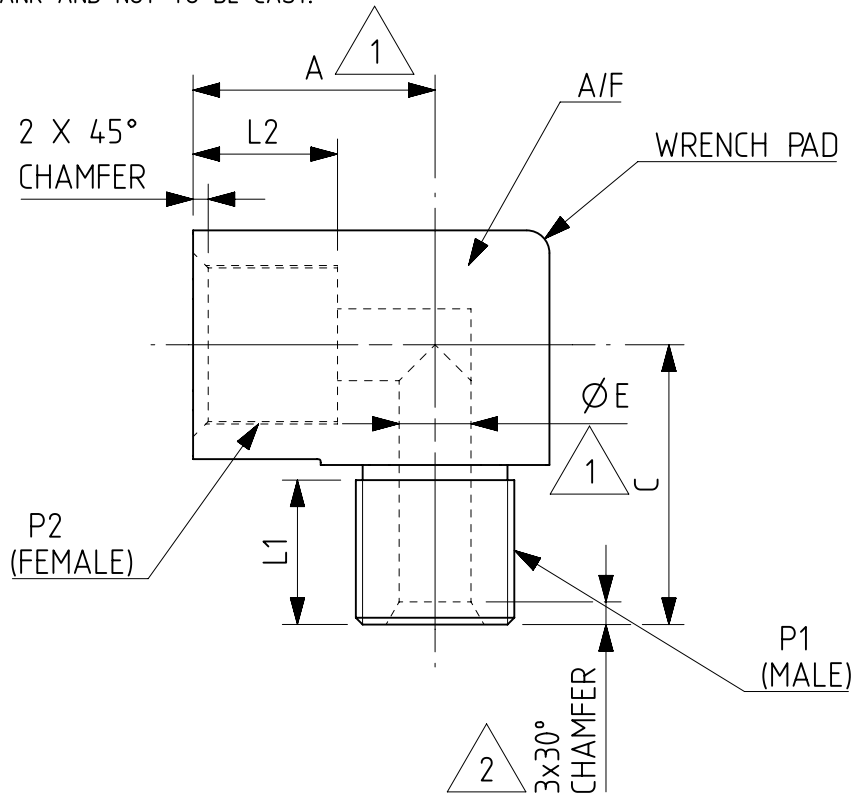
SL.NO.	SIZE 'P' FEMALE PARALLEL THREAD TO ISO 228/1	L (MIN)	O.D (MIN)
1	3/8"	14.2 ⁺⁵ / ₋₀	22
2	1/2"	14.2 ⁺⁵ / ₋₀	25

USED FOR LOCO WAG-9, WAP-5







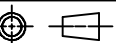
												अभिकल्पित DGN				<div></div> <div>चित्तरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA</div>									
3		ITEM NO. 2 ADDED & O.D COLUMN ADDED										10-04-18		जॉचा व.अ.अ. CHD SSE		<div>SUBHA NKAR KUMBH AKAR</div> <div><small>Digitally signed by SUBHA NKAR KUMBHAKAR Date: 2023.08.23 12:12:12 +05'30'</small></div>									
2		REDRAWN IN NX WITH 3RD ANGLE PROJECTION										28-04-11													
1	AME/D&D	DIMENSIONS 30 & Ø 22 ADDED.										30-04-02													
परिवर्तन संख्या ALT.NO.		प्राधिकार AUTHY		वर्णन DESCRIPTION						दिनांकित बाधक DATED INITIAL		समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE		<div>Pradeep Khatana</div> <div><small>Digitally signed by Pradeep Khatana Date: 2023.09.02 16:14:18 +05'30'</small></div>											
सतह - रूखाता का मान या. मा. 3073 / अ. मा. सं. 1302		अनिर्दिष्ट सद्य - सीमा या. मा. : 2102 / अ. मा. सं. : 2768						TOL. CLS.		अनुमोदित स.यु.वि.अ. APPROVED DYCEE		<div>SYAMA PRASAD PATRA</div> <div><small>Digitally signed by SYAMA PRASAD PATRA Date: 2023.09.13 12:51:59 +05'30'</small></div>													
SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302		धातु-रेल्वन चिन्ह या. मा. : 813 / अ. मा. सं. : 2553										दिनांक DATE		03-02-21											
WELDING SYMBOLS TO IS:813 / ISO:2553																									
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 μ 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																									
												संदर्भ / REF.		ALT. -											
												1:1		आरेखण संख्या DRAWING NO.		1209-18.406-199									
														<div></div>		परिवर्तन संख्या ALTERATION NO.		3		पर्ण SHEET		1 OF 1		A4	

NOTES:

-



- | | | | | | | 1 | 1 | 1 |
|---------|---|---|------------------------------------|------------------------------------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| 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 | 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	अभिकल्पित DGN				चिततरंजन रेलइंजन कारखाना CHITTARANJAN LOCOMOTIVE WORKS, INDIA																			
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	जॉचा व.अ. CHD SSE		ALOKE KUMAR CHAKRA BORTY <small>Digitally signed by ALOKE KUMAR CHAKRA BORTY DN: cn=ALOKA, o=INDIAN RAILWAYS, email=aloka@indianrailways.gov.in, c=IN Date: 2021.08.31 10:12:52 +05'30'</small>		पदार्थ STEEL प्रति भार कि. ग्रा. WT. EACH IN KG																			
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	दिनांकित बाह्यर DATED INITIAL	समीक्षित स.वि.अ. / व.वि.अ. REVIEWED AEE / SEE	Pradeep Khataeng <small>Digitally signed by Pradeep Khataeng DN: cn=Pradeep Khataeng, o=INDIAN RAILWAYS, email=pradeep.khataeng@indianrailways.gov.in, c=IN Date: 2021.07.15 10:28:46 +05'30'</small>	विशिष्ट ASTM A108																					
सतह - रूखाता का मान भा. मा. 3073 / अ. मा. सं. 1302 SURFACE ROUGHNESS VALUE TO IS:3073 / ISO:1302	अनिर्दिष्ट सह - सीमा भा. मा. : 2102 / अ. मा. सं. : 2768 UNSPECIFIED TOLERANCE TO IS : 2102 / ISO : 2768		TOL. CLS.	अनुमोदित उमु.वि.अ. APPROVED DYCEE	SYAMA PRASAD PATRA <small>Digitally signed by SYAMA PRASAD PATRA DN: cn=SYAMA PRASAD PATRA, o=INDIAN RAILWAYS, email=syama.prasad.patra@indianrailways.gov.in, c=IN Date: 2021.07.15 10:48:01 +05'30'</small>													वर्णन ELBOW MALE/FEMALE (PARALLEL X PARALLEL)									
पादांक 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	दिनांक DATE	25-09-20	रेखिक अनुपात SCALE 1:1												
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	आरेखण संख्या DRAWING NO. 1209-18.406-204														
Ra μm	0.025	0.05	0.1	0.2	0.4	0.8	1.6	3.2	6.3	12.5	25	50													संदर्ष / REF. 1209-18.406-204ALT.-4		
चिन्ह SYMBOL																 परिवर्तन संख्या ALTERATION. NO. 5 पर्ण SHEET 1 OF 1 A4											

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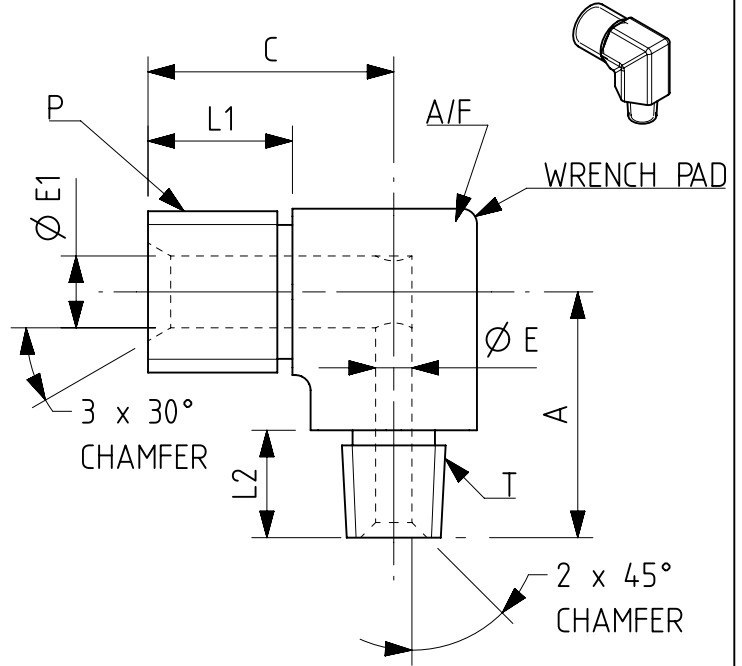
4983519/2026/O/o Dy.CEE/DKAE/CLW

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
					WT. EACH IN K.G.

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	मानक	मानक	मानक
DGN	मानक	मानक	मानक
जोधा व.अ.	मानक	मानक	मानक
CHD SSE	मानक	मानक	मानक
समीक्षित स.वि.अ. / व.वि.अ.	मानक	मानक	मानक
REVIEWED AEE / SEE	मानक	मानक	मानक
अनुमोदित स.वि.अ.	मानक	मानक	मानक
APPROVED DYCEE	मानक	मानक	मानक
दिनांक	मानक	मानक	मानक
DATE	मानक	मानक	मानक
रेखिक अनुपात	मानक	मानक	मानक
SCALE	मानक	मानक	मानक
संदर्भ / REF.	मानक	मानक	मानक
ALT.	मानक	मानक	मानक



चितरंजन रेलइंजन कारखाना
CHITTARANJAN LOCOMOTIVE WORKS, INDIA

पदार्थ	STEEL	प्रति भार कि. ग्रा.	
MATL		WT. EACH IN KG	
विशिष्ट	ASTM A108		
SPECN			
वर्णन	ELBOW MALE-MALE (TAPER X PARALLEL)		
DESCRIPTION			
आरेखण संख्या	1209-18.406-207		
DRAWING NO.			
परिवर्तन संख्या	4	पृष्ठ	1 OF 1
ALTERATION. NO.		SHEET	A4