

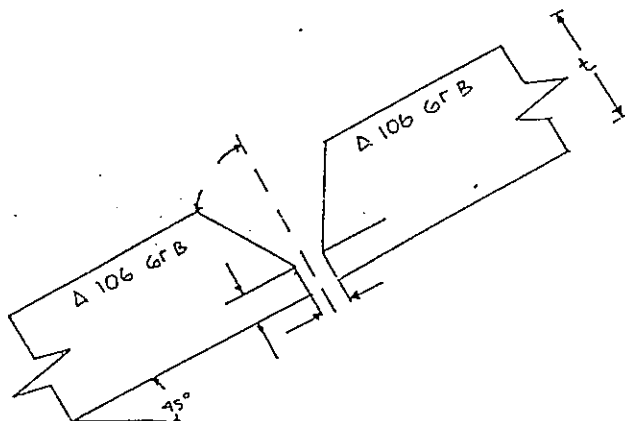


WELDING PROCEDURE SPECIFICATION (WPS)

IN ACCORDANCE WITH API 1104

COMPANY NAME	PT.BUKAKATEKNIK UTAMA
WELDING PROCEDURE SPECIFICATION NO.	001/WPS/1104/BTU-BP/1999
SUPPORTING PQR No.	001/PQR/1104/BTU-BP/1999
REVISION : 0	DATE : 10 Oktober 1999
WELDING PROCESS (SMAW)	TYPE (S) : MANUAL

(1) JOINT



BACKING	: N/A
BACKING MATERIAL (TYPE)	: N/A
OTHER	: N/A

(2) BASE METAL

MATERIAL SPECIFICATION	: A 106 Grade B to A 106 Grade B
CODE NO.	: SMYS EQUAL TO 42000 Psi TO CODE NC SMYS EQUAL TO 42000 Psi
THICKNESS RANGE	: Over 19.05 mm
DIAMETER RANGE	: 60.3 mm to 323.8 mm
DEPOSITED WELD METAL	: N/A
OTHER	:

No. Reg. 500/12/WPS/1999
Tanggal : 30 DEC 1999

(3) FILLER METAL

	ROOT	FILLER	CAPING
Weld Metal Analysis	1	1	1
Filler Metal F No.	1	3	3
AWS Spec. No. (SFA)	A 5.1	A 5.1	A 5.1
AWS Specification	E 6010	E 7018	E 7018
Type	5 P	LH 70	LH 70
Trade Name	LINCOLN	LINCOLN	LINCOLN
Size Of Filler	3.2 mm	3.2 mm	3.2 mm
Other			

(4) POSITION

POSITION OF GROVE : FIXED POSITION 45°
WELDING PROGRESSION : UP HILL
OTHER :

(5) PREHEAT

PREHEAT TEMPERATURE : Min. 100.° F
INTERPASS TEMPERATURE : Max. 350 ° F
PREHEAT MAINTENANCE :

(6) POST WELD TREATMENT (PWHT)

TEMPERATURE : N/A
TIME RANGE : N/A
OTHER :

(7) WELDING PARAMETER

LAYER NUMBER	1	2	3 - 9
PROCESS	SMAW	SMAW	SMAW
TRAVEL SPEED cm/min	5 - 10	6 - 10	6 - 10
AMPERE RANGE	70 - 130	90 - 155	110 - 200
AC OR DC POLARITY	DCRP	DCRP	DCRP
VOLTAGE RANGE	20 - 30	20 - 30	20 - 30
ELECTRODE DIAMETER	3.2 mm	3.2 - 4.0 mm	3.2 - 4.0 mm
AWS CLASS	E 6010	E 7018	E 7018



WPS

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(8) TECHNIQUE

STRING OR WAVE : STRING & WAVE BEAD

CLEANING : REMOVE OIL & GREASE, GRIND ROOT TO
REMOVE SLAG LINES. POWER BRUSH
REMAINING PASSES

METHOD OF BACK GOUGING :

SINGLE/MULTIPLE ELECTRODE: SINGLE ELECTRODE / MULTIPASS

OTHER :

PREPARED BY Daiman PT. Bukaka T.U Date 10 - 10 - 1999

REVIEWED BY Ir. Koestiyono PT. Bukaka T.U Date 10 - 10 - 1999

REVIEWED BY W. Alexo Manuhutu Date 10 - 10 - 1999
PT. Adivet Inspection

APPROVED BY Sub Dit. MIGAS

Date 30 DEC 1999

