

ANEXO III

HOJA DE DATOS DEL BRAZO DE CARGA 37-K-105

# DATA SHEET FOR LOADING ARMS

## 1. OPERATING DATA

ARM	DIAM. In	FLUID	DENSITY Kg/m <sup>3</sup>	VISCOSITY cSt	OPER. TEMP. °C		FLOW RATE m <sup>3</sup> /hr	WORK. PRES. Kg/cm <sup>2</sup>
					Min.	Max.		
K-105	6	LPG	548	< 1	24	30	318	21

Notes:

1. LPG will be loaded in monoprodukt tankers, using return line

## 2. TANKER DATA

Tanker size (Notes 1 thru 4)	1,000 (m)		1,700		2,000 (max) DWT		
	Min.	Max.	Min.	Max.	Min.	Max.	
a. Freeboard, light		2.36		7.64		5.16	m
b. Freeboard, laden		0.42		6.12		2.94	m
c. Height of ship's rail	1.10	1.30	1.10			1.10	m
d. Distance from manifold flange to ship's side	1.80	2.50					m
e. Height of manifold above deck		0.90		0.90		0.90	m
f. Number of manifold connections		2		2		2	
g. Size of manifold connections		6					in
h. Distance between centerline manifold connections		0.60		0.60		0.60	m
i. Drift allowance fore	3		3		3		m
k. Drift allowance aft	3		3		3		m
l. Drift allowance lateral	3		3		3		m

Notes:

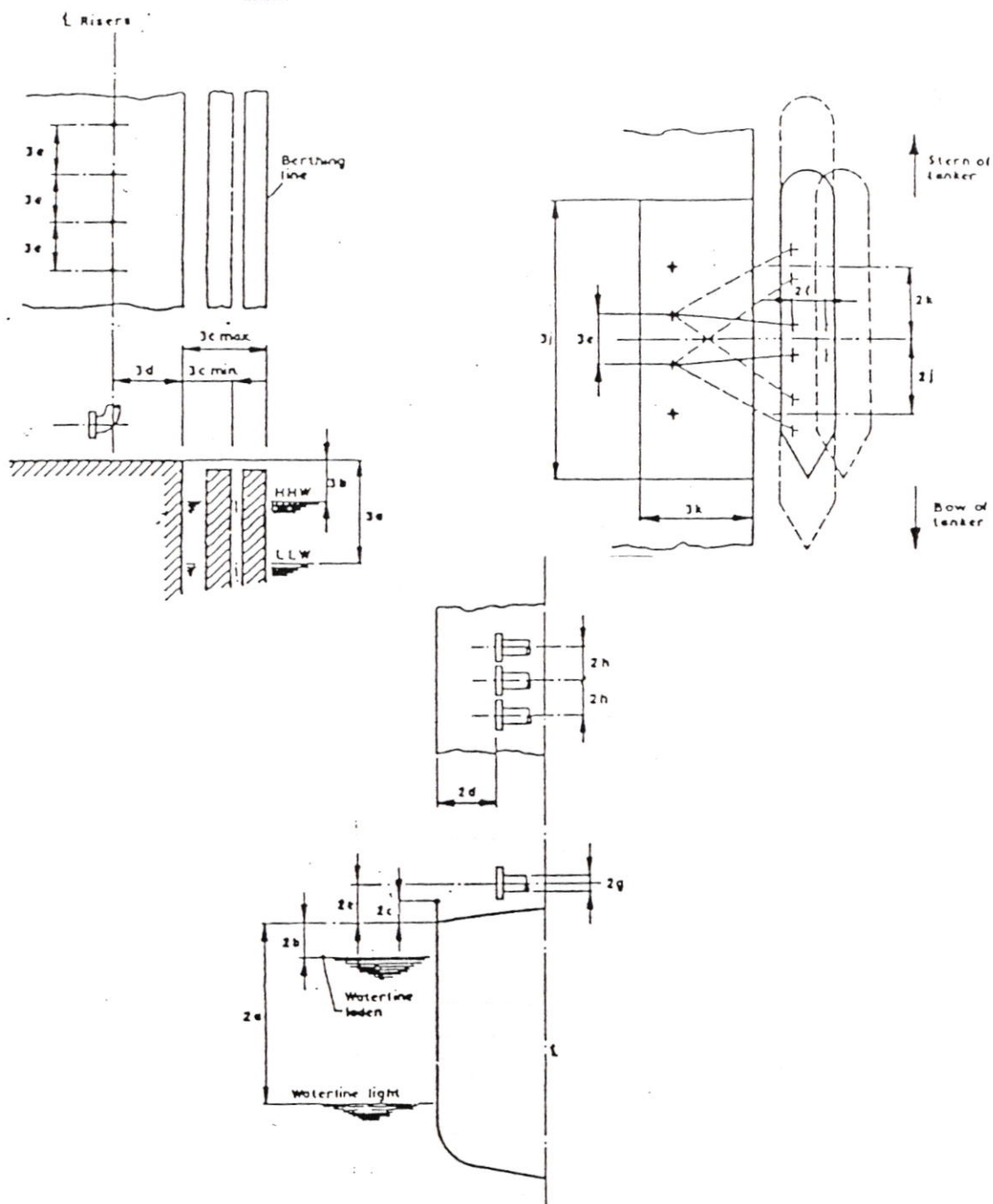
- 1,000 DWT tanker: Maquila
- 1,700 DWT tanker: Bargas with second deck (Freeboard and height of manifold measured from 2nd deck)
- 2,000 DWT tanker: Caribbean Venture
- A typical 3,500 DWT tanker shall be considered for arm dimensioning

PROYECTO:	NUEVO MUELLE TALARA	REV.: 0	
AREA:	DESPACHO GLP - AMARRADERO 1	FECHA: 04/84	
PROPIETARIO:	PETROPERU S.A.		

DATA SHEET FOR LOADING ARMS (Cont.)

3. BERTH DATA			
a. Distance top of jetty to lowest low water (LLW)	8.33 (From top of upper platform)	m	
b. Distance top of jetty to highest high water (HHW)	6.18 (From top of upper platform)	m	
c. Distance jetty face to berthing line	2.5	m	
d. Distance jetty face to centerline of risers	2.5 (Fixed)	m	
e. Distance between centerline of risers	3 (Fixed)	m	
f. Maximum allowable unit load on jetty			
g. Electric supply available	220 V - 3 PH - 60 Hz		
h. Maximum wind velocity for design (stored position)	40	m/s	
i. Maximum space available (length)		m	
k. Maximum space available (width)		m	
l. Obstructions above jetty deck within 3j and 3k			
4. MISCELLANEOUS			
a. Maximum wind velocity at which arms will be connected/disconnected:	17.5	m/s	
b. Electrical installations suitable for:	Class I, Group D, Division 1		
c. Operation of arms (Slewing, inboard arm and outboard arm):	Hydraulically operated		
d. Quick acting coupling or emergency release:	Hydraulically operated emergency release system (PERC)		
e. Control panel:	For PERC operation		
f. Alarm system when arm reach limits:	Two level alarm		
g. Vacuum breaker at apex:	No		
h. Hydraulic station:	Will be used the hydraulic station of previous 5 arms		
j. Foundation bolts to be supplied:	Yes		
k. Connecting flange rating:	300 lbs RF for inlet; 300 lbs FF for outlet (manifold side)		
l. Centring device at connecting flange:	Yes		
m. Each unit to have an insulation flange in proximity of apex (10,000 Ohm min):	Yes		
n. Welding to conform ANSI B31.3. All weld in contact with product to be radiographed:	Yes.		
o. Draining facilities required:			
p. Portable remote control system	Will be used the same for previous 5 arms		
q. Jack to transfer arm loads to ship's deck	Yes		
r. Access ladder to the upper articulated joint:	Yes		
s. Design earthquake factor:	0.35 G		
t. Special lines:	4" return line with ERS system (piggy back)		
	1" nitrogen injection line to apex, with check valve		
u. Special connections:	1" ball valve and hose connector at upper and lower side of each ERS		
	(both main arm and return line)		
	1" jumper hose to by-pass previous connections		
PROYECTO:	NUEVO MUELLE TALARA	REV.: 0	
AREA:	DESPACHO GLP - AMARRADERO 1	FECHA: 04/04	
PROPIETARIO:	PETROPERU S.A.		

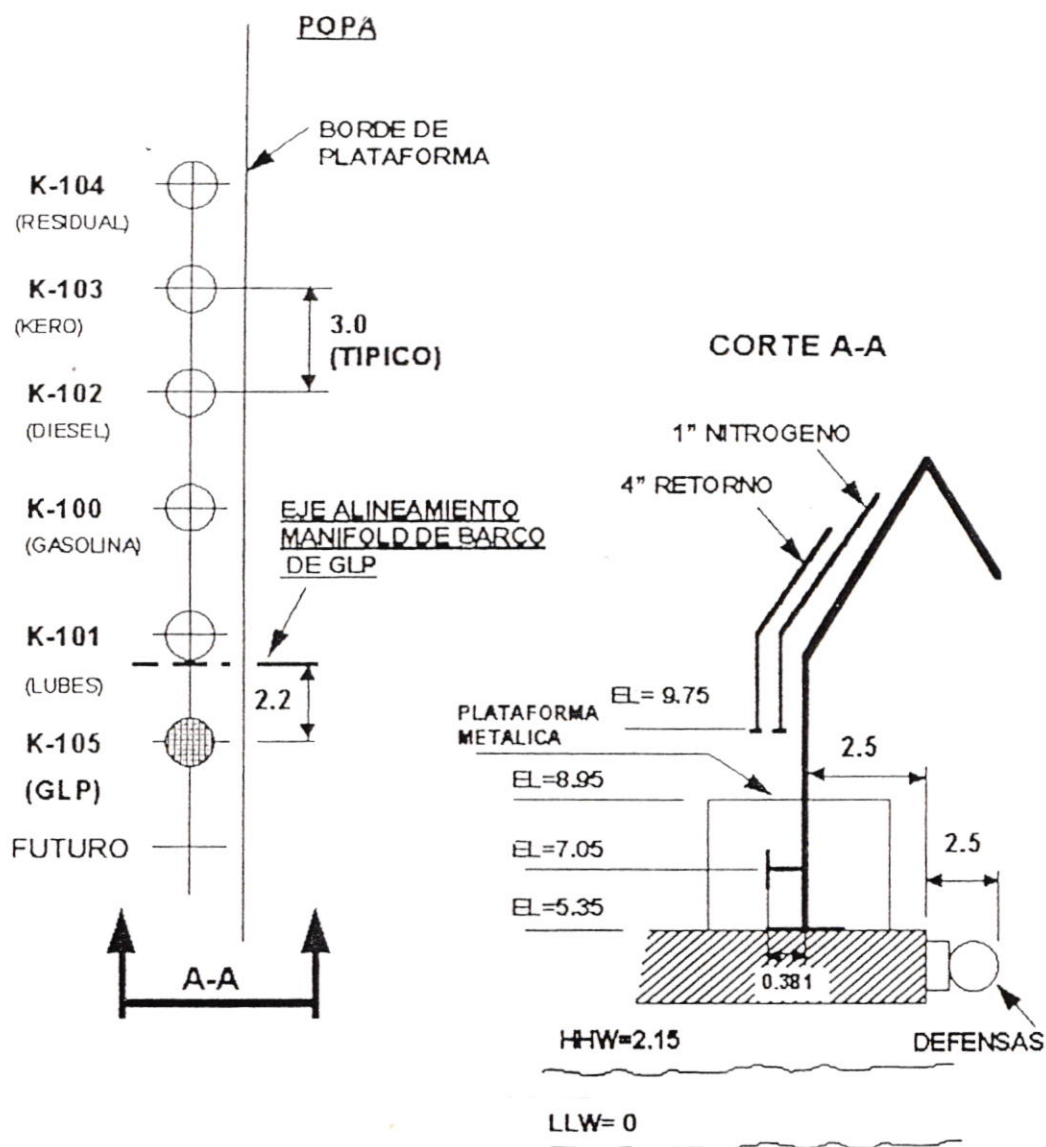
DATA SHEET FOR LOADING ARMS (Cont.)



PROYECTO:	NUEVO MUELLE TALARA	REV.: 0	2
AREA:	DESPACHO GLP - AMARRADERO 1	FECHA: 04/94	
PROPIETARIO:	PETROPERU S.A.		



DATA SHEET FOR LOADING ARMS (Cont.)



NOTA: TODAS LAS COTAS Y NIVELES EN METROS

PROYECTO:	NUEVO MUELLE TALARA	REV.: 0.	
AREA:	DESPACHO GLP - AMARRADERO 1	FECHA: 04/94	
PROPIETARIO:	PETROPERU S.A.		