



**PV GAS THI VAI LPG STORAGES PROJET**  
**PTSC THANH HOA TECHNICAL SERVICES COMPANY**  
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**Ref No.:** 231375-ENG-PRO-IMO-032

**Date:** 19-Dec-2023

**INTERMEMO**

<b>To:</b>	<b>Project Procurement Team</b>	Total pages: 01 page + Att.
<b>Att:</b>	<b>Mr. Nguyen Van Khanh</b> Procurement Manager	
<b>Cc:</b>	<b>Mr. Vu Van Vuong</b> Project Manager	
<b>Subject:</b>	TECHNICAL REQUISITION DOCUMENT FOR TANK EQUIPMENT NO.: TRD-LPGTV-PRO-005	

Dear Mr. Khanh,

Please find attached herewith Technical Requisition Document for Tank Equipment.  
If you have any query, please do not hesitate to contact for clarification.

Note: Kindly find Documents List in next page.

Thank you for your co-operation.

*Package Classification:*

Top-urgent

Urgent

Normal

**Prepared by**

**Checked by**

**Approved by** 



**Mr. Pham Anh Duy**  
Site Supervisor



**Mr. Doan Xuan Huy**  
Site Manager



**Mr. Vu Van Vuong**  
Project Manager

## DOCUMENTS LIST

(Attached to IMO no. 231375-ENG-PRO-IMO-032 dated 19/12/2023)

No	Document Number	Description	Rev	Pages	Remark
1	TRD-LPGTV-PRO-005	TRD for Tank Equipment	0		Hard copy
<b>Attachments</b>					
1	231375-ME8B-M19-002	Mechanical Datasheet for Diesel storage Tank	0		Hard copy
2	231375-ME8B-M23-001	General Arrangement Drawing For Diesel Storage Tank	0		Hard copy
3	231375-ME8B-M26-011	Detail Nozzle and Manhole Drawing for Diesel Storage Tank	0		Hard copy



**DỰ ÁN LPG THỊ VẢI**  
**GÓI THẦU EPC TANK**  
**THIẾT BỊ TANK BỒN DIESEL STORAGE**

**PTSC**  
**THANH HOA**

NO	DESCRIPTION	UNIT	Q'ty	BRAND NAME	REMARK
1	LEVEL GAUGE	Set	1		

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**MECHANICAL DATASHEET FOR DIESEL STORAGE TANK**

1	Tag No. : TK-8810	Client: PV GAS / PTSC
2	Service: Diesel Storage Tank	Plant Location: THI VAI, BARIA- VUNGTAU
3		Manufacturer: PTSC THANH HOA
4		Purchase Order No. :
5	No. of Units: ONE	
6	Service Discription: DIESEL STORAGE TANK	
7	<b>OPERATING CASE</b>	
8	Fluid	Diesel Oil
9	Operating Pressure	kPa(g) ATM
10	Operating Temperature	°C 32
11	Design Pressure	kPa(g) Full Liquid
12	Design Temperature	°C 65
13	Slug/Surge Volume	m3 N/A
14	Hazard Level	N/A
15	<b>VAPOUR</b>	
16	Mass Flowrate	kg/h N/A
17	Density (@ P & T)	kg/m <sup>3</sup> N/A
18	Viscosity	mPa.s N/A
19	Molecular Weight	m3 N/A
20	<b>LIQUID HYDROCARBON</b>	
21	Mass flowrate (Note 6)	kg/h N/A
22	Density (@ Oper. Press. & Temp.)	kg/m <sup>3</sup> 840 @ 15°C
23	Viscosity	mPa.s 2.7 @ 38°C
24	Liquid Volume Hold-up	m3 2.58
25	<b>LIQUID AQUEOUS</b>	
26	Mass Flowrate (Note 2)	kg/h N/A
27	Density (@ Working Temp.)	kg/m <sup>3</sup> N/A
28	Viscosity	cP N/A
29	<b>VESSEL</b>	
30	Horizontal / Vertical	Horizontal
31	Shell Diameter (ID)	mm 1,200
32	Shell Tan-to-Tan Length	mm 2,000
33	<b>BOOT</b>	
34	Diameter (ID)	mm N/A
35	Height	mm N/A
36	<b>INTERNALS</b>	
37	Demister Type	No
38	Vortex Breaker Required	No
39	Other Internals	No
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42	<b>NOTES</b>	
43	See Page 5	
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**MECHANICAL DATASHEET FOR DIESEL STORAGE TANK**

1	Tag No. :	TK-8810	Client:	PV GAS / PTSC
2	Service:	Diesel Storage Tank	Plant Location:	THI VAI, BARIA- VUNGTAU
3			Manufacturer:	PTSC THANH HOA
4			Purchase Order No. :	
5	No. of Units:	ONE		
6	<b>Service Discription: DIESEL STORAGE TANK</b>			
7	<b>DESIGN DATA</b>		<b>CONSTRUCTION MATERIAL</b>	
8	Orientation	Horizontal	Part	Material Specification
9	Design Code	ASME Sec. VIII Div 1	Shell	ASTM A36
10	Primary API Specification	N/A	Heads	ASTM A36
11	Project Specification	N/A	Reinforcing Pads	ASTM A36
12	Hydrotest Pressure	kPa(g) Per Code	Nozzle Neck - Pipe	ASTM A106 Gr.B
13	Wind Speed	m/s 44	Nozzles Neck - Plate	ASTM A36
14	Seismic	(Note 7)	Forged Flanges	ASTM A105
15	Gross Capacity	m <sup>3</sup> 2.71	Internal Sray Ring	
16	Vessel Dia (ID)	mm 1,200	Fittings	ASTM A234 Gr. WPB
17	Vessel Length (T/T)	mm 2,000	Anode Protection	N/A
18	Shell Thickness (Nom.)	mm 10	Skirt/Saddle/Leg	ASTM A36
19	Head Thickness (Min./Nom.)	mm 8		
20	Weld Joint Efficiencies:		Wrapper Plates/Bearing Plates	N/A
21	Shell	0.85	Stiffener Rings (If Used)	N/A
22	Head	1	Base Ring / Plate	ASTM A36
23	Non Destructive Testing:		Removable Internals	N/A
24	Radiography	Per Code & Spec.	Internal Attachments	N/A
25	Ultrasonic	Per Code & Spec.	Internal Pipe	N/A
26	Magnetic Particlle	Per Code & Spec.	External Attachments	ASTM A36
27	Dye Penetrant	Per Code & Spec.	External Bolts	A193 Gr. B7 (PTFE Coated )
28			Nuts	A194 Gr. 2H (PTFE Coated )
29	Corrosion Allowance Shell & Head	3	Internal Bolts	N/A
30	Supports & Bracing	0	Nuts	N/A
31	Post Weld Heat Treatment	Per code	Gaskets	Spiral Wound (Note 5 )
32	Third Party Inspection & Certification	None	Material Impact Test Required	No
33	Insulation	None	Cerified Elevated Temp. Test Req.	No
34	Fireproofing	None	<b>CONSTRUCTION</b>	
35	Coating (External)	231375-09-SPE-002	Type Of Heads	2:1 Semi Ellipsoidal
36	(Internal)		Type Of Support	Saddles
37	Stamp	Not Required	Platform/Ladder/Pipe Clip	Yes
38	<b>ESTIMATED WEIGHTS</b>		Insulation/Fire Proof Supports	N/A
39	Empty	kg 1053	Manway Davit	Yes
40	Shipping	kg 1053	Earthing Boss	Yes
41	Operating	kg 3321	Lifting Lugs / Eyes	Yes
42	Test	kg 3834	Nameplate	Yes
43				
44	<b>NOTES:</b>			
45	See Page 5			
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## MECHANICAL DATASHEET FOR DIESEL STORAGE TANK

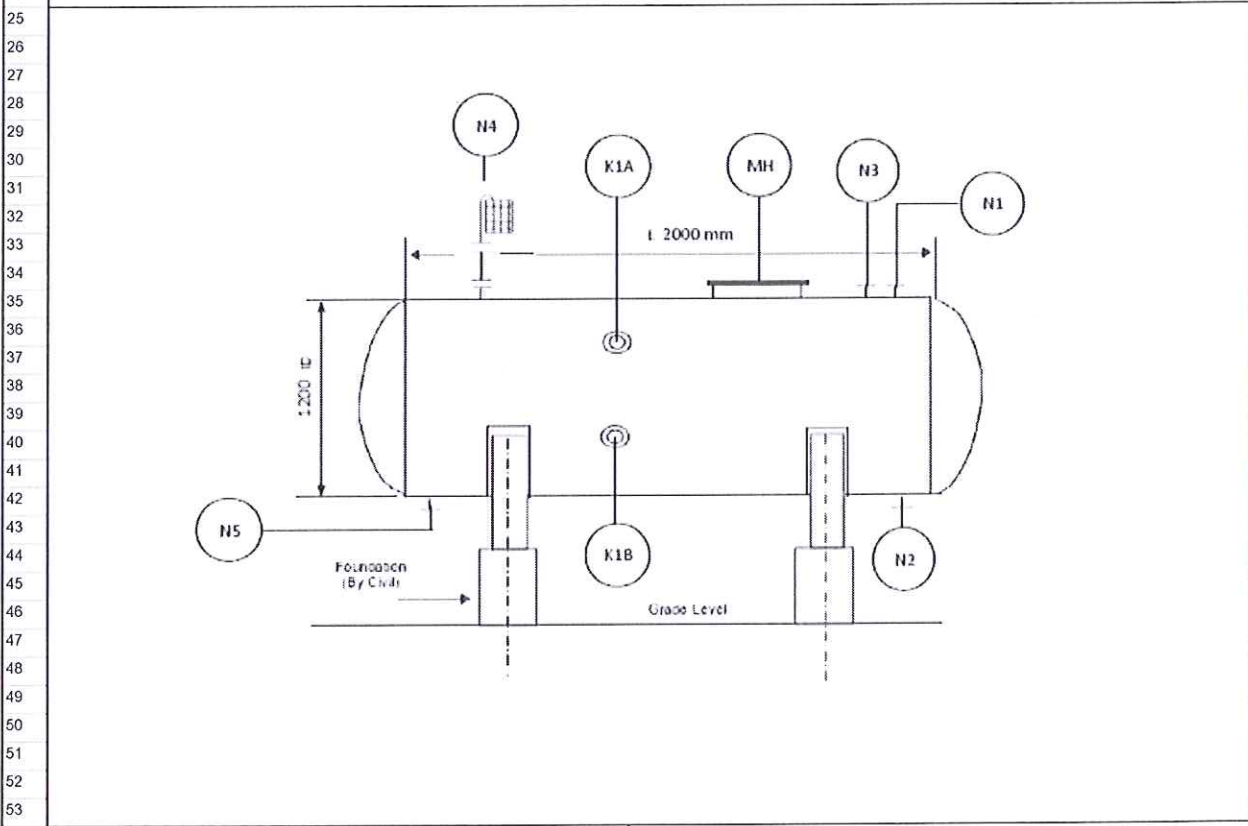
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2	Service: Diesel Storage Tank	Plant Location: THI VAI, BARIA-VUNGTAU
3		Manufacturer: PTSC THANH HOA
4		Purchase Order No. :

5 No. of Units: ONE

6 Service Discription: DIESEL STORAGE TANK

NOZZLE SCHEDULE						
Mark	Size (DN, mm)	Number	Flange		Service	Remarks
			Rating	Type		
N1	50	1	150#	RF WN	Inlet Nozzle	
N2	50	1	150#	RF WN	Outlet Nozzle	
N3	50	1	150#	RF WN	Manual Filling	With Cap
N4	50	1	150#	RF WN	Vent	With Flame Arrester and Bird Screen
N5	50	1	150#	RF WN	Drain	With Drain Valve and Screwed Cap
K1A/B	50	2	150#	RF WN	Level Gauge	
MH	500	1	API 650		Manway	With Handle and Support Hinge
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### SKETCH



## MECHANICAL DATASHEET FOR DIESEL STORAGE TANK

1	Tag No. : TK-8810	Client: PV GAS / PTSC
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3		Manufacturer: PTSC THANH HOA
4		Purchase Order No. :
5	No. of Units: ONE	
6	Service Discription: DIESEL STORAGE TANK	
7	<b>GENERAL NOTES</b>	
8	1 N/A = Not Applicable	
9	2 Vendor to provide all external welded attachments including pipe supports, ladders.	
10	3 Vendor to check stresses in the shell for all loaded attachments.	
11	4 Vendor to provide earthing bosses welded to saddles.	
12	5 Gasket shall be 4.5mm thick, spiral wound, 316SS winding, graphite filler, 316SS inner and outer rings	
13	6 Vendor to supply all access ladders and platforms as required.	
14	7 According to TCVN 9386:2012 Design of structures for earthquake resistance, the seismically-induce force is related to the	
15	bedrock acceleration. The KCTV is located in Phu My town, Ba Ria – Vung Tau, and acceleration $a_g = 0.0552$	
16	( $a_g = 1.25 \times 0.042$ ; 1.25 as Important factor) shall be applicable for design earthquake on the bedrock.	
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