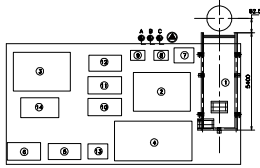
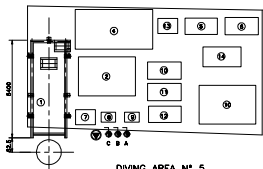


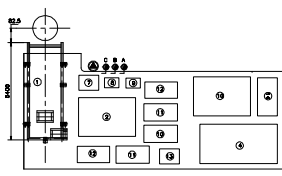
PERMANENT AREAS FOR DIVING LAUNCHING SYSTEM
TYPICAL COMPONENTS LAY-OUT AND FACILITIES
SCALE: 1/100



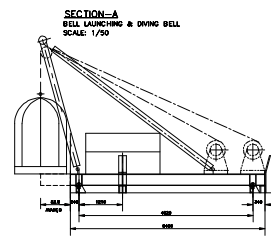
DIVING AREA N° 2/3/4 AS DRAWN
DIVING AREA N° 1 SIMMETRIC



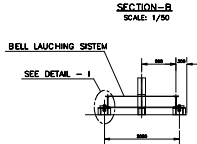
DIVING AREA N° 5



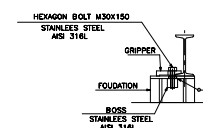
DIVING AREA N° 6



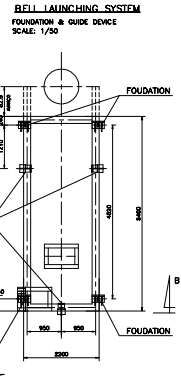
SECTION-A
BELL LAUNCHING & DIVING BELL
SCALE: 1/250



SECTION-B
SCALE: 1/250

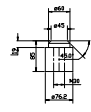


DETAIL-1

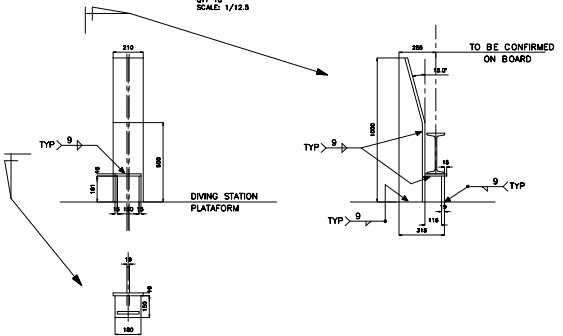


BELL LAUNCHING SYSTEM
FOUNDATION & GUIDE DEVICE
SCALE: 1/50

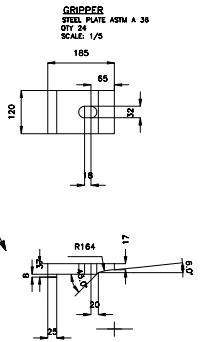
BOSS
STAINLESS STEEL AISI 316 L
SCALE: 1/5



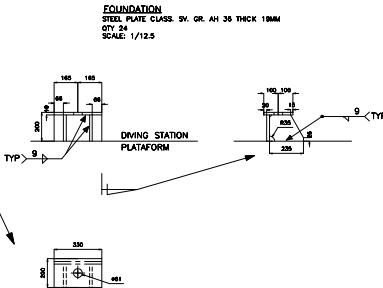
BELL LAUNCHING GUIDE
STEEL PLATE CLASS. SV. GR. AH 36 THICK 19MM
QTY: 19
SCALE: 1/12,5



DIVING STATION PLATAFORM



GRIPPER
STEEL PLATE ASTM A 36
QTY: 24
SCALE: 1/5



FOUNDATION
STEEL PLATE CLASS. SV. GR. AH 36 THICK 19MM
QTY: 24
SCALE: 1/12,5

ITEM	EQUIPMENTS	DIMENSIONS	WEIGHT
1	DIVING BELL LAUNCHING SYSTEM	5400x2200x3800	4500 KG
2	DIVE CONTROL CONTAINER	3150x2150x2450	3500 KG
3	MECHANICAL SHOP CONTAINER	3150x2150x2450	4000 KG
4	DESCOMPRESSION CHAMBER	4300x2200x2200	4000 KG
5	LOW PRESSURE AIR COMPRESSOR - CHAMBER	1850x980x1540	1340 KG
6	AIR VOLUME TANK - CHAMBER	1800x900x1100	420 KG
7	COMPRESSED AIR RACKS 12 - CHAMBER	1100x830x2000	1600 KG
8	COMPRESSED AIR RACKS 06 - CHAMBER	800x550x1900	540 KG
9	OXYGEN RACKS	800x550x1900	800 KG
10	HIGH PRESSURE AIR COMPRESSOR	1850x980x1540	1340 KG
11	LOW PRESSURE AIR COMPRESSOR - DIVE	1850x980x1540	1340 KG
12	AIR VOLUME TANK - DIVE	1800x900x1100	420 KG
13	COMPRESSED AIR RACKS 12 - DIVE	1100x830x2000	1600 KG
14	CLOTHING CONTAINER	1570x890x2000	1430 KG

FACILITIES ON DIVING AREAS	
SYMB	DESCRIPTION
⊕	DIVING RECEPTACLE 440V
A	DN e3/4" - AIR DISTRIBUTION
B	DN e1" - SEA WATER
C	DN e3/4" - FRESH WATER

GENERAL NOTES

- 1- THE DIVING AREA'S LOCATION SHALL BE PROPOSED BY THE DESIGNER AND SUBMITTED TO PETROBRAS FOR APPROVAL.
- 2- THEY SHALL MAKE POSSIBLE THE DIVER'S ACCESS TO ALL UNIT STRUCTURE.
- 3- THE MAXIMUM RADIUS OF ACTION TO BE REACHED BY THE DIVER MUST BE 50,00 FOR OPERATIONS DURING THE DAY. AT NIGHT, AS NORMS NR-15 AND NORMAM-15, THE MAXIMUM DISTANCE ALLOWED BETWEEN THE DIVING BELL AND THE WORKING PLACE CANNOT BE BIGGER THEN 53,00M (THIRD THREE METERS).
- 4- THEY MAY UTILIZE, ALWAYS AS POSSIBLE, THE PLATFORMS DERIVED FOR INSTALLATION AND DISMANTLING OFF ALL DIVING SYSTEM EQUIPMENTS, WHEN IT'S NOT POSSIBLE, THE RESERVE FOR IT MUST BE OBTAINED. IT SHALL DO THE TRANSPORT OF THE DIVING EQUIPMENT FROM LAY-DOWN AREA TO THE DIVING AREA, AS WELL MAKE POSSIBLE THE INSTALLATION AND DISMANTLING OF THE DIVING SYSTEM EQUIPMENTS. THE CAPACITY TO BE HANDLED IS 7 TONS.
- 5- THIS AREA SHOULD BE PROJECTED WITH 120% OF THE OUTSIDE OF THE SHIP'S DECK. THE TOTAL DIVING SYSTEM WEIGHT IS 30 TONS. WHERE THE DIVING BELL WILL BE PROPOSED, THE MATERIAL MUST BE REMOVABLE, BECAUSE THE SYSTEM WILL EXTEND THROUGH IT.
- 6- SPECIAL ATTENTION MUST BE TAKEN FOR NO GASES DISCHARGE IN THE DIVING AREA.
- 7- THIS DOCUMENT IS APPLIED FOR FPSOs, FPSOs AND FLOWS WITH RISER BALCONY SHORTER OR EQUAL TO 66m.

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CLIENT	EAP		
AREA	FPSO SPREAD MOORING		
TITLE	DIVING AREA		
PROJ.	EXEC.	CHECK	APPROV.
SCALE	INDICATED	SIZE	SHEET 1 - 1
DATE	N°	DE-3000.00-1300-041-PEN-002	REV. 0