Base Load Power Hub (BLPH)

TOPSIDE WEIGHING PROCEDURE

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Document Class: 2

00	25/06/2025	Approved for Construction (AFC)	G.Segurini	F. Ceroni	C. Antonellini
Rev.	Date	Description	Prepared	Reviewed	Approved

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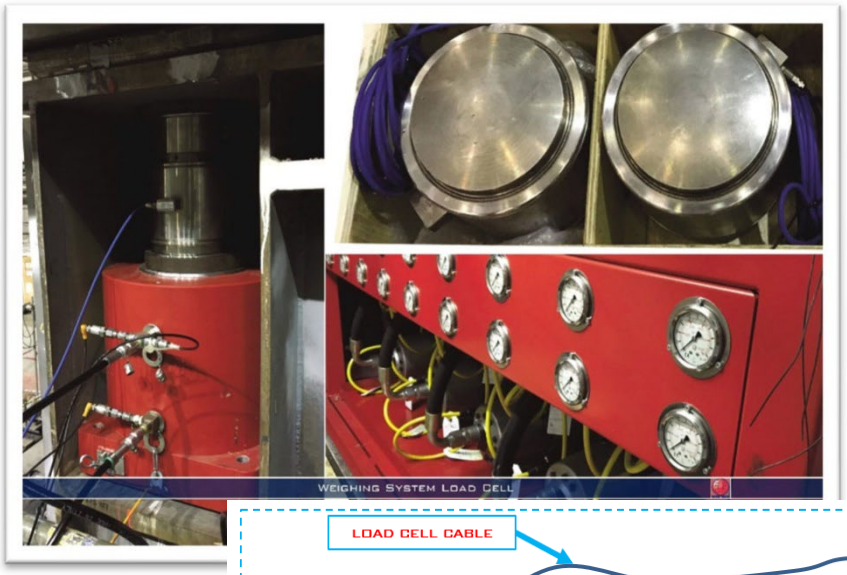
Revision / Change Log

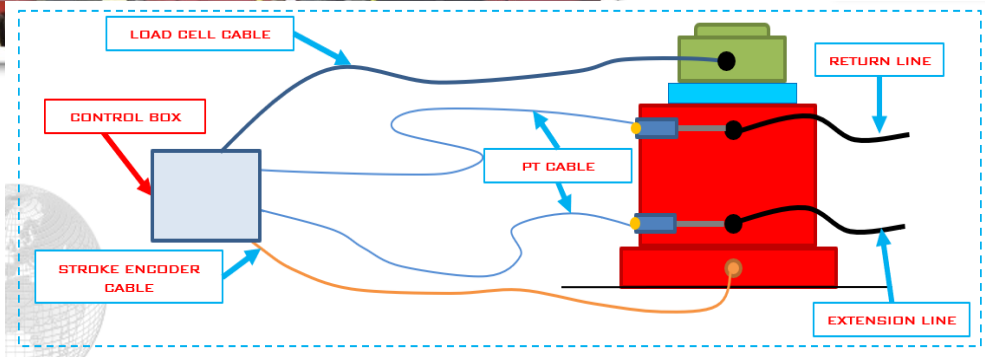
Rev.	Description
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HOLDS LIST

No.	Description
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Client	**ROSETTI**
Project	**CROSSWIND PROJECT**
Document type	**OPERATIVE PROCEDURE**
Content	**TOPSIDE BLPH - WEIGHING PROCEDURE BY LOAD CELLS**
Doc. nr.	**030-CRO-WP-01-001**
Client doc. nr.	





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Rev.	**Date**	**Document status**	**prep.**	**check.**	**appr.**

Revision history:

Rev.	Date	Description of revision
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1. SCOPE

Scope of the present document is to describe the procedure to execute the weighing operation and to determine the weight and the location of center of gravity for the item that is reported in the following table.

Module	Module Location	Expected Weight	C.O.G. position (respect ref. point)	
			X [mm]	Y [mm]
TOPSIDE BLPH	Rosetti yard (Ravenna)	1802t	19700mm	7900mm

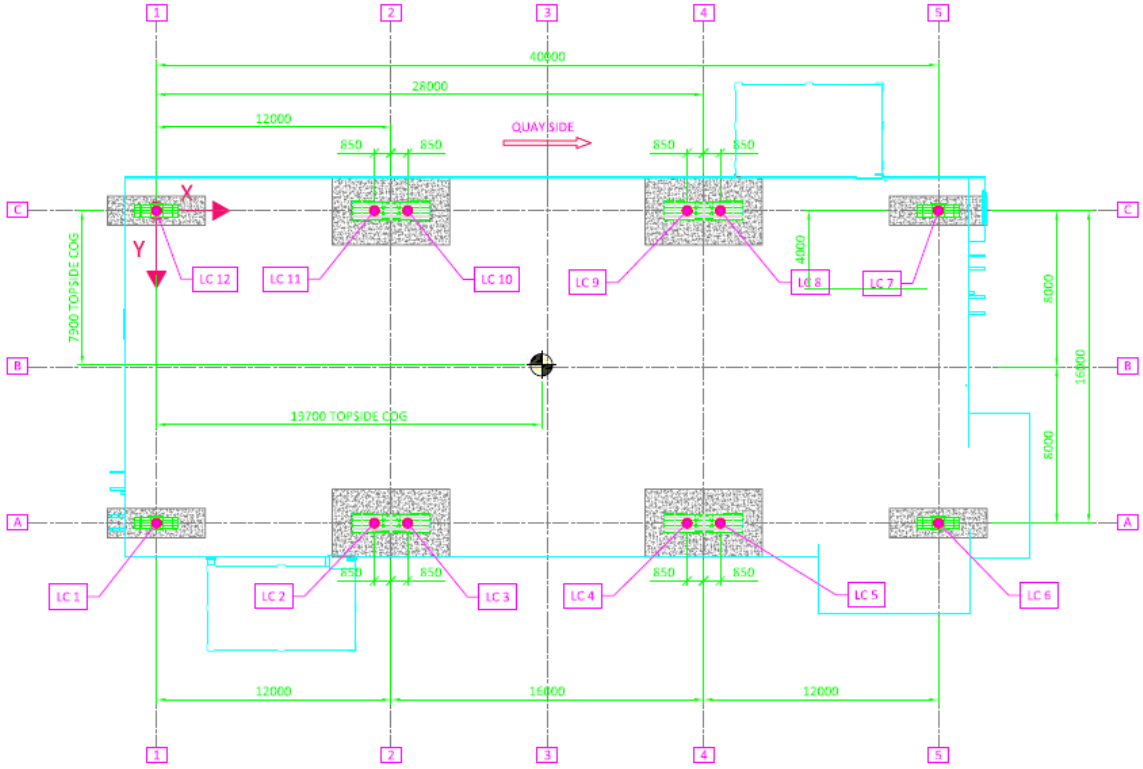


Figure 1 Predicted C.O.G. and reference point location.

The operation will be performed by means of Fagioli weighing system which is mainly composed by jacks and load cells. This manual is the operative document to be followed in the field. It defines the staff, the responsibility, the operative criteria, the equipment to be used for the operations and the steps for thesafe execution of the job.

According to the weighing specification ISO 19901-5 (reference to next Chapter), the TOPSIDE weight control is classified as Class A. Thus, weighing equipment shall have a maximum measurement uncertainty of +/- 0.5%.

2. REFERENCE CODES AND DOCUMENTS

The reference documents for the execution of the operations are:

National and International Standard:

- ISO 19901-5, Class A

Client (Rosetti Marino SPA) documents:

- 123A90-FDL-MT-DD-00400-00

Fagioli documents:

- 030-CRO-DP-01-020 – TOPSIDE - WEIGHING LAYOUT - PLAN VIEW
- 030-CRO-DP-01-021 – TOPSIDE - WEIGHING LAYOUT - DETAILS
- 030-CRO-DP-01-022 – TOPSIDE - WEIGHING HYDRAULIC SYSTEM

The responsible persons of the operations shall make sure to have the latest revision of each Fagioli document “issued for construction/execution”, approved (as applicable) by the Client.

The followings documents shall be available at the job site before starting the operations (as applicable):

- Weighing system check list.
- Load cells Test Report certificates.

3. SAFETY AND ENVIROMENT

As far as Occupational Health, Safety & Environment aspects are concerned, all personnel involved in the operations shall refer to the documents provided by the HSE's departments and any additional applicable documentation relevant to the project.

Furthermore, the following aspects are particularly important for a safe and successful execution of the operations in subject and shall be organized/checked carefully by the Site Manager (SM):

- Carry out the tool box meeting before starting with the daily operations, discussing the hazard associated with the work and giving instructions on job safety.
- The nominated Fagioli Supervisor will be the person responsible for the operation. He will ensure that organization, roles, responsibilities, communication plan are defined and clearly understood by all the personnel involved in the operation.
- All required personnel for the operation will be properly instructed about their activities.
- The weighing will take place during time of suitable natural lighting. Sufficient lights will be arranged in case of the operation moves into darkness for any reason.
- The area around the TOPSIDE will be reserved for the team performing the actual operation. Any witness shall only enter the area to perform verification when invited to do so by Site Manager. The area will be fenced off so that only authorized personnel are present within during the weighing operation.
- No workers shall be present on the TOPSIDE at the time of weighing.
- All involved persons are equipped with the safety devices.
- All electrical equipment that could interfere with the weighing equipment signals will be disconnected near the weighing equipment.
- Before starting of the operation, Client representative will perform a survey of the TOPSIDE to ensure any temporary or permanent structure is secured from any risk of falling for loose items and will give the green light for the operation.
- Client shall also ensure that all appurtenances to grade that are not to be included in the weighed weight are properly released from the assembly to be weighed, i.e. temporary stairways, scaffolding, temporary supports, etc...
- Client shall ensure that all attachments to adjacent structures are either released or made slack to relieve any loading on the assembly to be weighed, i.e. commissioning cables, rope supports, sway stabilizers/bracing, etc.
- All weighing equipment will be subjected to a maintenance check before entering Site.
- Suitable containments berms will be arranged under Diesel Generator, HPPU and hose connections against oil spills. Hydraulic jacks are already equipped with a safe tray containment.
- Proper safety cables will be installed between hoses at each connection.

4. STAFF AND RESPONSIBILITY

Weighing manager (WM): he is responsible of the correct preparation and execution of the operations according to the present Weighing Procedure, supervising equipment / operators and workers. He is responsible to instruct the operators / riggers about their duties for the operation. He is the only person allowed to give signals to the equipment / operators during the operation execution. He is authorized to suspend the work in case of any unacceptable environmental or safety risk.

He is responsible to collect, keep up-dated and distribute to the involved persons the technical documentation, produced by Fagioli or received from the Client. He is responsible to distribute the technical documents "*approved for execution*" and to explain to the team the Weighing Procedure. He is responsible to collect all the needed certificates for equipment's, materials, instrumentations before starting the weighing operations. He is responsible to record the weighing results and to issue the Weighing Report.

Project Engineer (PE): he is responsible to collect the final weighing output from WM and elaborate the values in order to issue the final weighing results (weight and cog location).

Client (Rosetti Marino spa) with its *site representative* has the responsibility to prepare the TOPSIDE for the weighing, removing allthe temporaries before the weighing (scaffolding, loose erection materials, tools, loose items, eventual residual water inside the module …); he has the to provide suitable space for each Load cell and to guarantee the minimum required soil bearing capacity; to keep record of the missing items, which will be installed after weighing (if any); to provide anemometer at ground level and at top of the module for measuring the windspeed during the weighing.

5. COMMUNICATION.

All personnel are fully briefed on all aspects of the operation and each person is assigned a specific task and operating location.

Fagioli Supervisor and Weight operators are provided with radio, if required. FS maintain eye contact with operators and gives instructions to them.

Client (Rosetti Marino spa) : has the responsibility to prepare the Module for the weighing, removing all the temporaries beforethe weighing (scaffolding, loose erection materials, tools, loose items, eventual residual water inside the module …); to provide suitable space for each Load cell and to guarantee the minimum required soil bearingcapacity; to keep record of the missing items, which will be installed after weighing (if any); to provide anemometer at ground level and at top of the module for measuring the wind speed during the weighing.

6. MATRIX OF RESPONSIBILITY

Action	Fagioli	Client (Rosetti Marino)	Notes
Provide predicted TOPSIDE weight and CoG position		x	
Set fences around operation area		x	
Supply and feed supplementary lights		x	If necessary
Remove any elements which can interfere with weighing equipment		x	
Civil works		x	If any
Weather forecast		x	
Wind speed measurement	x		
Supply and position spreading elements to spread the load under weighing equipment		x	
Provide predicted reactions at each weighing point	x		
Confirm the TOPSIDE is in the correct position and orientation to be weighed		x	
Ensure strength of the TOPSIDE according to the weighing points position		x	
Provide weighing system	x		Including spare
Load cells certificates	x		
Provide power for weighing system		x	
Provide required crane and auxiliary equipment for weighing system installation		x	FGL will advise requirements
Weighing equipment installation	x		
Check the proper function of the weighing equipment	x		
Perform topographic work		x	Tolerances / limit to be provided by Client *
Check the structural deflection of the TOPSIDE andthe spreading elements settlement during weighing operation		x	
Issue the Weighing Report	x		

7. WEIGHING EQUIPMENT

The weighing system includes the following main equipment:

- N. 12 hydraulic jacks 600t + N. 1 hydraulic jacks 600t spare (mark C.7856);
- N. 12 calibrated load cells 300t + No.2 calibrated load cells 300t spare.
- N. 12 stroke encoder + N.2 spares.
- N. 1 hydraulic power pack units (HPPU – 20 lines) with synchronous lifting system.
- Digital weight logging system.
- Hydraulic hoses, electrical and data cables.

Equipment is subject to periodic inspections; moreover prior to commencement of the operation the equipment will be checked according to the daily inspection checking list.

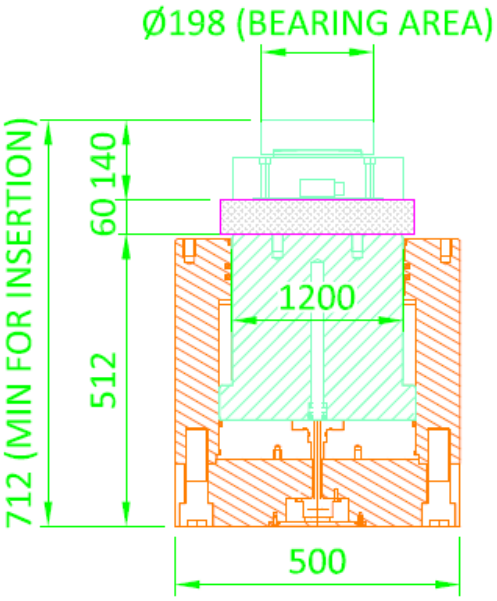
The Load cells are provided with calibration certificates. The duration of certificates is one year. The calibration certificates will be available at the site during the weighing.



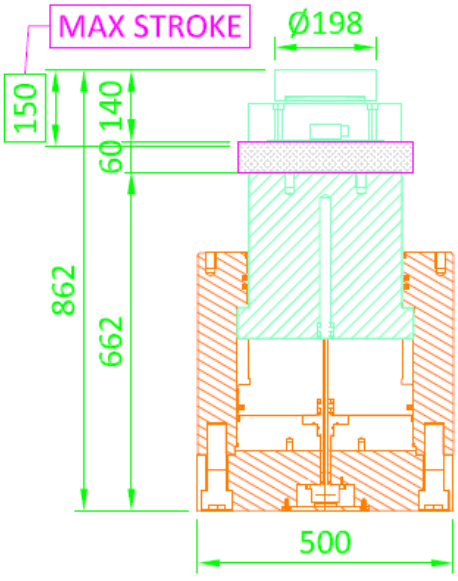
Figure 2 Hydraulic jacks and cell typical layout

7.1 Hydraulic jacks

The lift will be carried out by n. 12 hydraulic jacks with 600t capacity each. These jacking devices allow producing uniform vertical movement at all weighing points. A digital stroke encoder is housed in the steel body of the jacks and wire-connected to the HPPU digital control system. Jacks total stroke is 150 mm.



Hydraulic jacks 600t and load cell 300t lower position



Hydraulic jacks 600t and load cell 300t highest position

7.2 Load cells

A load cell is installed onto each hydraulic jack, positioned by a distribution plate. Each load cell is equipped with a load cap, leant on the spherical load cell cap, in order to minimize horizontal forces and bending moments, and to reduce the uncertainty of the coordinates for the reaction forces.
The load cells will be provided with calibration certificates. The duration of certificates is one year. The calibration certificates will be available at the site during the weighing.

All the load cells are connected by low voltage wires to data acquisition box; the data from load cells will be captured and recorded by the digital weight logging system of the HPPU.

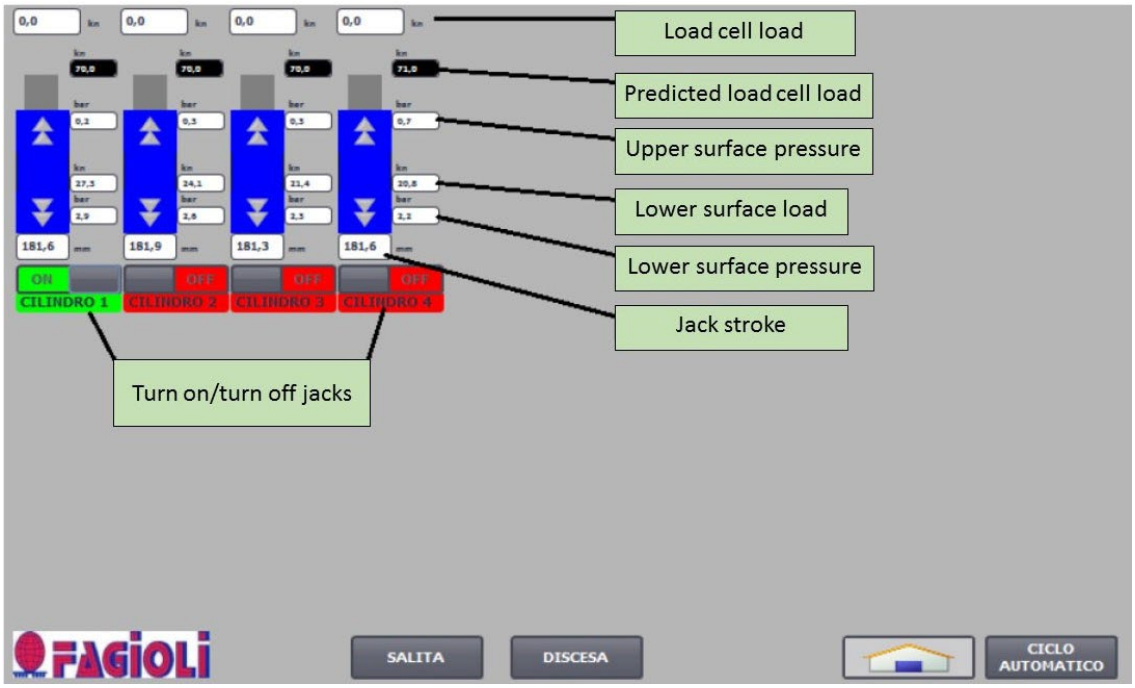


Figure 4 – Weighing panel screen shot.

7.3 HPPU with synchronous lifting system

The weighing system is managed by a hydraulic power pack unit (HPPU) and by a dedicated software: the system either can work manually, or on a “controlled displacement” basis or on a “load no greater than” basis.
A stroke encoder is integrated in the jack structure and a set of pressure gauges with non-return valves are integrated in the HPPU. Both these sets are digital and managed by the software.
Data from load cells and stroke encoders converge in the digital weight logging system of the HPPU.



Figure 5 – Hydraulic power pack unit.

When working in automatic mode, the jacks can all run the same stroke and allow all the lifting points to remain always on the same plane, or they can be set as not overcoming a pre-fixed load. Working on this way the system reduces the risk of bending, twisting, or tilting, due to uneven weight distribution or load-shifts between the lift points.

8. OPERATIONAL CRITERIA FOR WEIGHING OPERATION

With regards to the weighing operations, the following operational criteria has to be considered for the execution of the activities.

PARAMETER	VALUE
Max operational wind	5 m/s (3s gust at 10m above waterline)
Min. Temperature	-10 °C
Max. Temperature	+50° C
Visibility limit	150m no activities will occur in case of thunderstorm with lightning, fog, heavy rain which reduce visibility below this limit
Items longitudinal out of verticality	± 12.5 mm
Items transversal out of verticality	± 12,5 mm
Min. base concrete capacity	125 kg/cm^2

9. WEIGHING PROCEDURE

The work shall consist of a physical weighing operation of the TOPSIDE. A suitable number of readings shall berecorded, and CoGs calculated as Appendix 3 of this document. Additional weighing will be performed in case of:

- Inconsistent weighing results
- Mechanical/electrical fault or break-down
- Overloading of weighing equipment
- Adverse environmental conditions

The general arrangement of the weighing system below the TOPSIDE is included in the attached drawings included in the Attachment 2
The area under the TOPSIDE and its surrounding shall be cleared of all loose debris and other items not required during the weighing by Client.
Client shall remove all temporary construction aids, construction equipment and items not forming part of the final equipment installed weight. Also, the TOPSIDE will be inspected to ensure it is free of any restraints.

10. PRELIMINARY CHECKS PRIOR TO THE WEIGHING OPERATION

Before starting the operation, the following checks shall be carried out under the supervision of FS.

- Weather conditions are suitable for the execution of the weighing operation (with 24 hours forecast window): max operational wind speed = 5 m/s (3 s gust).
- The Module is ready for the weighing: written confirmation by Client that all the temporaries have been removed.
- Spreading elements are positioned in correct position by Client.
- Check that supports points are completely free from obstructions before installing the Load cells in position.
- Check and record the actual distance of cells from the reference point.
- Declaration for operations has been issued and signed by the surveyor (if required).
- Final weight and CoG location have been issued by the Client (weight report) and the expected load are calculated (the maximum load doesn't exceed each Load cell capacity and soil capacity).
- Operators have full understanding of the Weighing Procedure.
- All required personnel (qualified operators, safety, signal persons, mechanics,) are available for the operation.
- Organization/roles/responsibilities, communications plan have been defined and clearly understood by all the personnel involved in the operation.
- Check that radio systems are functioning correctly (if necessary).

11. WEIGHING OPERATION

The Item will be lifted by hydraulic jacks + loads cell. Each hydraulic jacks, by pressure regulation valves, will be calibrated based on the expect loads given from client.

The Module supporting system will be arranged as for DWG in Appendix 2

1. The present operative procedure will describe the operation, and the starting point is when the TOPSIDE is onto the concrete fabrication blocks
2. Jacks spreader equipment will be installed at correct position (if needed).
3. Hydraulic jack + cell, positioning in correspondence of module support points
4. Hydraulic houses electronic cabling will be connected between each cell and PPU
5. Hydraulic jacks and load cells position in position as for weighing plan
6. Before the lifting, a reading of the tare for each cell is performed
7. The TOPSIDE will be slowly lifted by hydraulic jacks
8. Referring to the predicted reaction for each weighing point, each jack is raised up to 20% of the predicted reaction to assure that each jack, load cell and HPPU are working properly. This operation shall be carried out one at a time.
9. A survey shall be taken by Client to obtain the actual level at each weighing point in order to set the zero reference for the weighing operation. A survey shall be also taken at the bottom of each hydraulic jack to make a reference for possible concrete frames settlements. These points shall be constantly checked by Client during all the weighing operation.

10. All the jacks are further raised in steps of 20% to about 80% of the predicted reaction; after each step it is checked that each stabbing leg frame remains in contact with the steel stools.
11. The jack's stroke is increased by step of 5 mm until the structure is lifted off from each support of a minimum of 10 mm. The full clearance from the supports will be ensured; Client will give visual confirmation.
12. Check with topographic instruments the item planarity.
13. The position is held for 5 minutes before the load cell readings are recorded.
14. Read and record the load at each weighing point to obtain the first measurement.
15. The load is gradually decreased according to the sequence of the jack up until the TOPSIDE is back onto the foundation. A minimum air gap of 15 mm is required between the load-cells and TOPSIDE.
16. Repeat steps from point 9) to 18) to obtain the other two measurements (total three consecutive and consistent readings).

Note:

For each reading the weighed weight will be calculated as the sum of the values detected by the load cells. For each reading the CoG will be calculated referring to its weighed weight. A minimum of three consecutive and consistent readings shall be obtained.

The CoG will be calculated in the XY plane (the Z coordinate will remain theoretical).

A preliminary check of the weighed results will be made to ensure comparability of the 3 results and if necessary, a further weighing operation performed before removal of the weighing equipment.

12. EVALUATION OF RESULTS

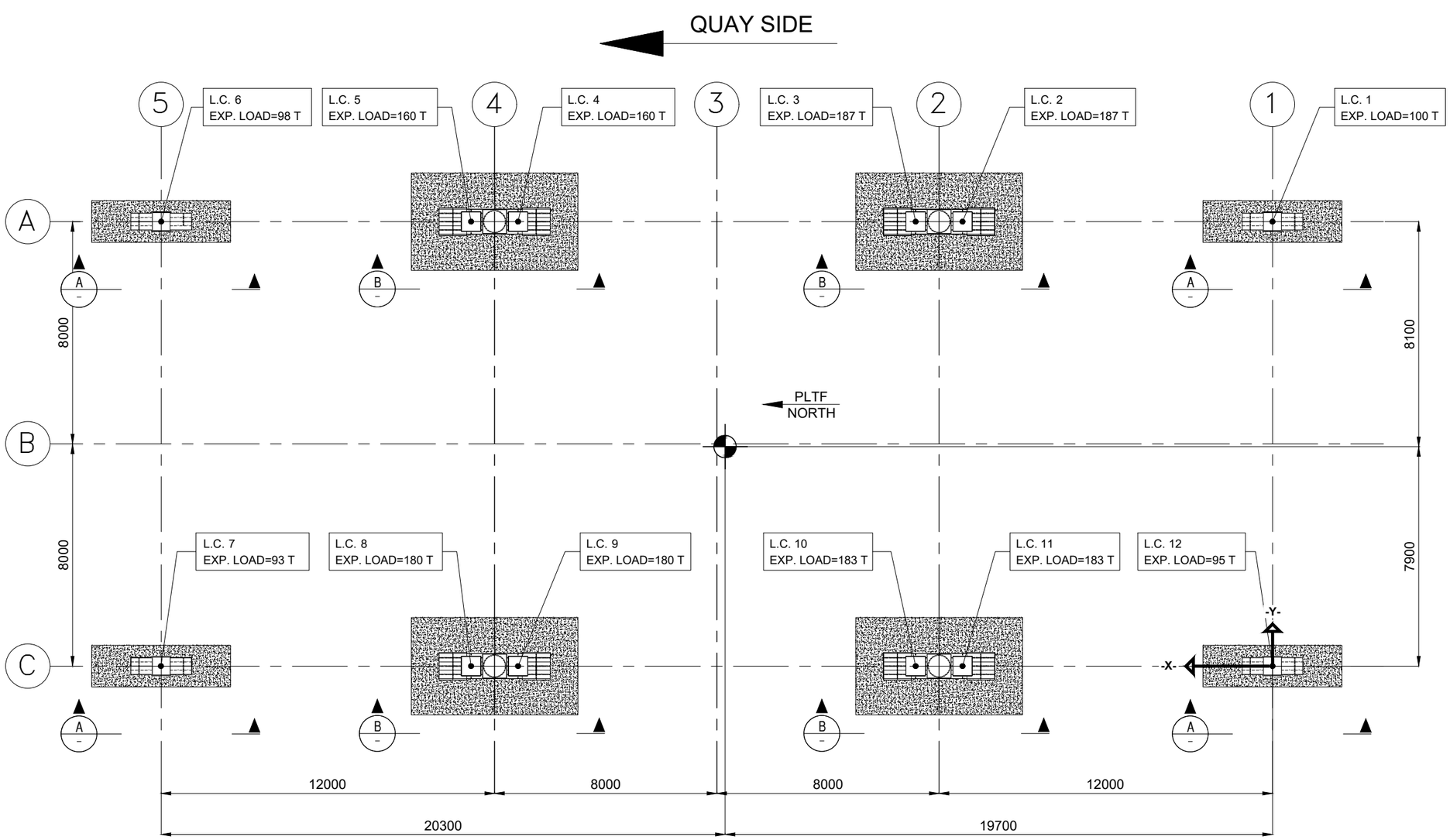
For each reading the weighed weight will be calculated as the sum of the values detected by the n. 12 load cells. For each reading the CoG will be calculated referring to its weighed weight. A minimum of three consecutive and consistent readings shall be obtained. In more detail, a consistent reading does not vary from the mathematical average of the three consecutive readings by greater than 0.5 %. Once the first three results (readings) are obtained, each result is compared to the average of the three readings. The mathematical difference (in percent) between each result and the average of the three shall not be different from the overall average by more than 0.5 % of average. If this requirement is not met with the first three results, a fourth result is obtained and the mathematics performed on results 2, 3 and 4. If these results meet the 0.5 % criteria, the weighing is completed. However, if the 0.5 % criteria is not met, a fifth result is obtained and the mathematics performed on results 3, 4 and 5. These steps are repeated until the acceptance criterion is met.

The average of the coordinates of the CoG of the three consecutive and consistent readings will constitute the calculated CoG of the TOPSIDE. The CoG will be calculated in the XY plane (the Z coordinate will remain theoretical).

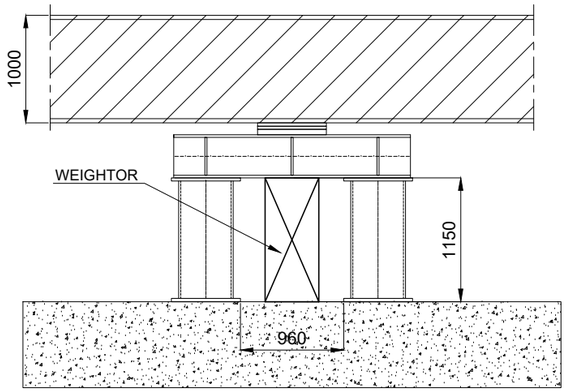
At the end of the weighing operation Fagioli will provide the Client with the Weighing data Report, as per Appendix 3.

13. ATTACHMENTS

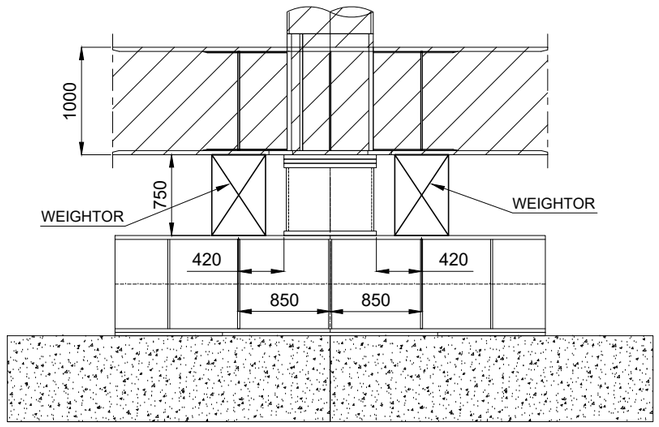
13.1 Appendix 1 – Document from Client



WEIGHTNER - PLAN VIEW



VIEW A-A



VIEW B-B

NOTES

1 – ALL DIMENSIONS AND ELEVATIONS ARE IN MILLIMETERS U.N.O.
2 – ALL ELEVATIONS ARE REFERED TO C.D.
3 – WEIGHING OPERATION TO BE PERFORMED AS PER ISO_19901-5 CLASS A
4 – LOADOUT DESIGN GROSS WEIGHT AND CoG AS PER WCR REV. 03

REFERENCE DRAWINGS

DWG No.	DESCRIPTION

TECON

REV.	DATE	DRN	CHKD	APPD	DESCRIPTION
00	09/10/24	AG	FC	CA	

CROSSWIND

ROSETTI MARINO

TITLE :

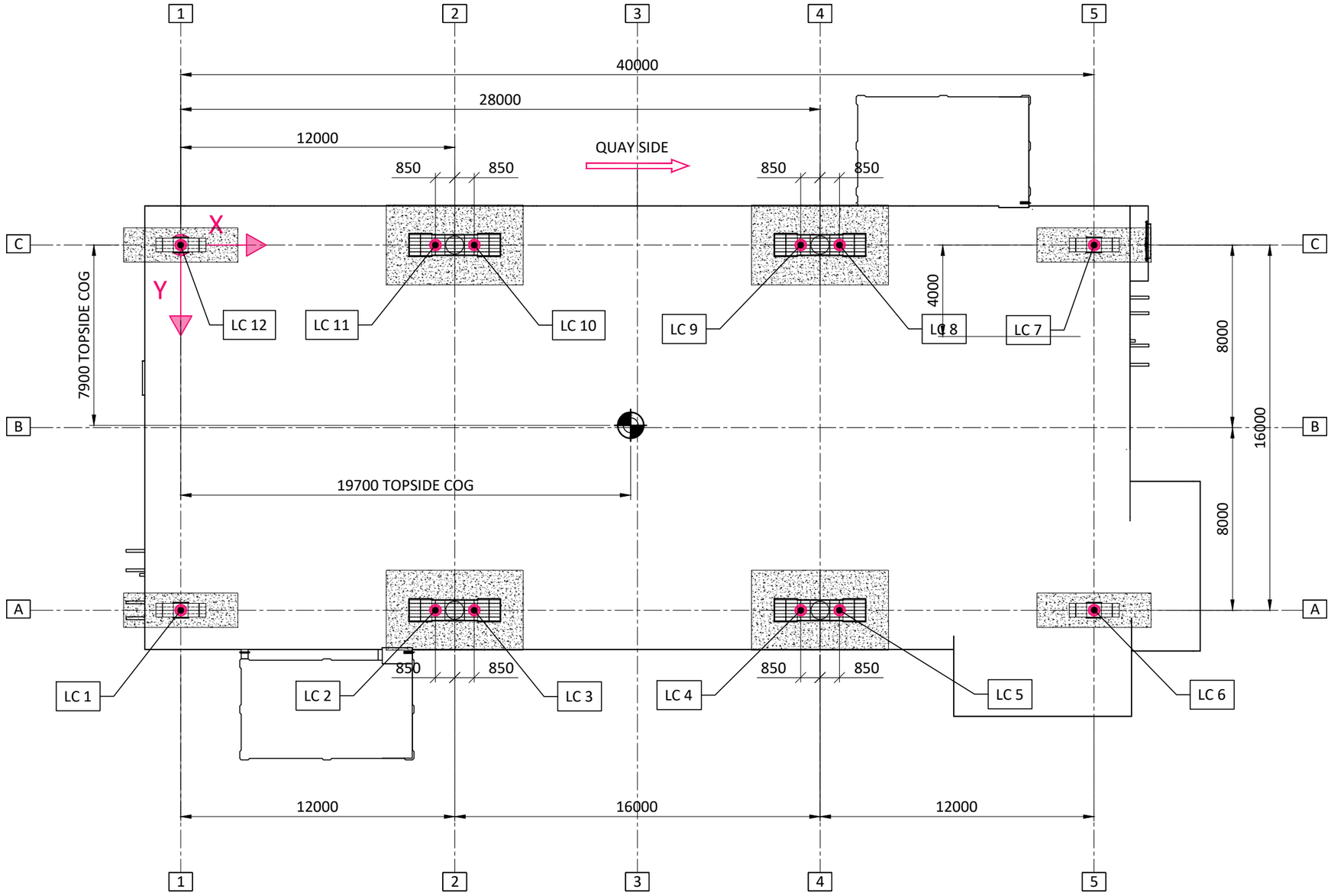
TOPSIDE – WEIGHING SCHEME

CONTRACT NO./TITLE CW-I-WP4-2023-05/HOLLANDSE KUST NOORD WIND PARK . | SCALE

DRAWN A.GASPERONI | CHECKED F.CERONI | APPROVED C.ANTONELLINI | DATE 09/10/24

A1 | DRAWING NO. 123A90-FDL-MT-DD-00400 | SHEET 001 | REV. 00

13.2 Appendix 2 – Drawing from Fagioli



WEIGHING REACTIONS EXPECTED - from Client	
POINT NAME	**POINT WEIGHT**
L.C. 1	100t
L.C. 2	187t
L.C. 3	187t
L.C. 4	160t
L.C. 5	160t
L.C. 6	98t
L.C. 7	93t
L.C. 8	180t
L.C. 9	180t
L.C. 10	183t
L.C. 11	183t
L.C. 12	95t

ITEM	W (gross) [t]	X [mm]	Y [mm]	Z [mm]
TOPSIDE WEIGHTING WEIGHT (WCR Rev.03)	1802	19700	7900	29300

NOTE:
1. ITEM WEIGHT: *** t
2. REFERENCE CLIENT DOCUMENT: 123A90-FDL-MT-DD-00400-00.pdf
3. GRILLAGE & SUPPORT STRUCTURAL CHECK (LOCAL ON CELL SUPPORTS) BY CLIENT BASED ON THE EXPECTED LOAD (+10% CONTINGENCY).

Rev.	Descrizione revisione / Description of revision	Data / Date	Disegnato / Drawn by	Controllato / Checked by	Approvato / Approved by
A	FOR COMMENT	24/06/25	SMG	GG	LG

CLIENTE/CUSTOMER: ROSETTI

FAGIOLI AREA: EMEA

DESCRIZIONE COMMESSA/JOB DESCRIPTION: CROSSWIND PROJECT -LOADOUT & WEIGHING TOPSIDE & TP

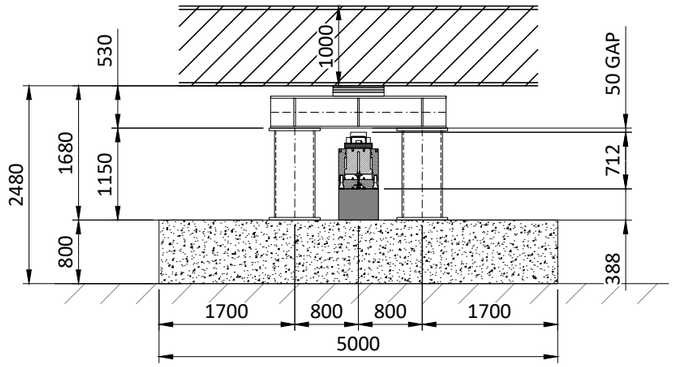
DESCRIZIONE DISEGNO/DRAWING DESCRIPTION: TOPSIDE - WEIGHING LAYOUT - PLAN VIEW

NUM. DISEGNO/DRAWING NUMBER	SCALA/SCALE	FORMATO/SIZE	COMMESSA/JOB
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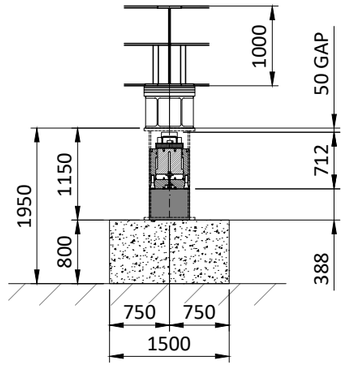
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DETAILS FOR POINT LC1-LC6-LC7-LC12

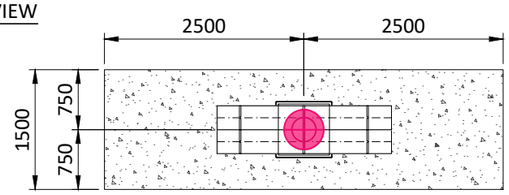
LATERAL VIEW



FRONT VIEW

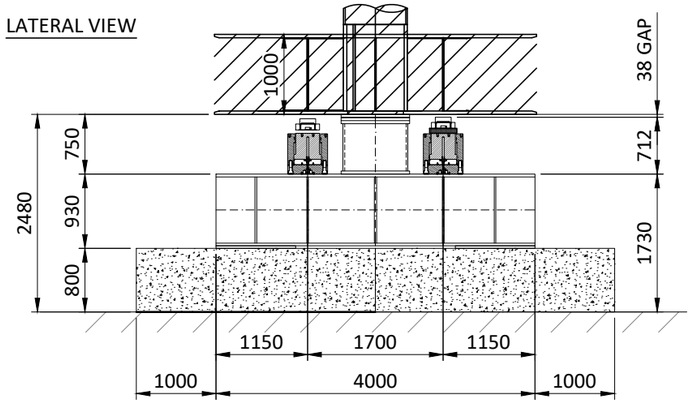


PLAN VIEW

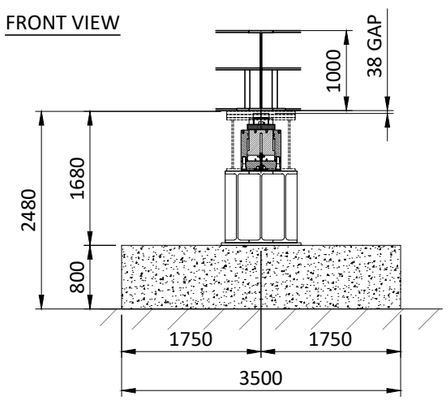


DETAILS FOR POINT LC2-LC3-LC4-LC5-LC8-LC9-LC10-LC11

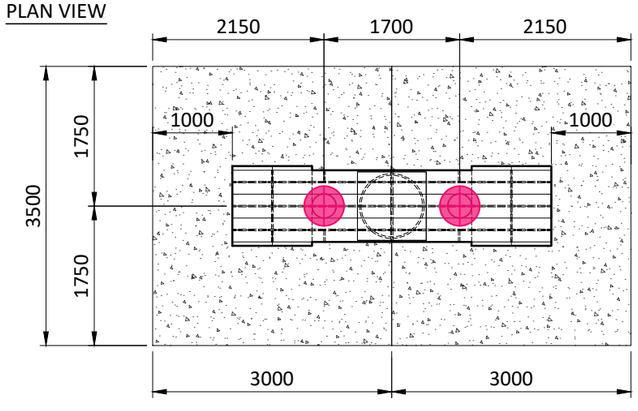
LATERAL VIEW



FRONT VIEW

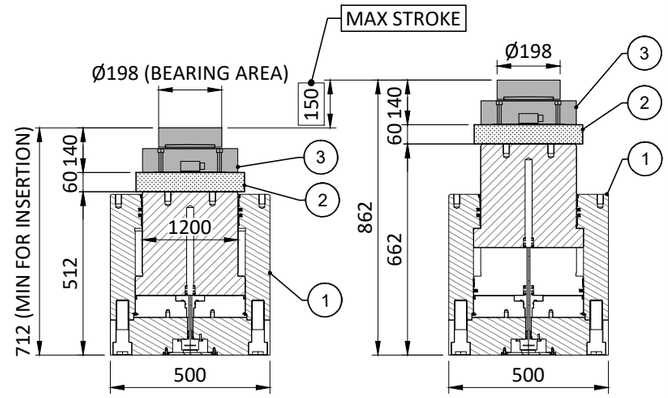


PLAN VIEW



WEIGHING MATERIAL DETAILS - scale x4

JACK C.7856
CAPACITY:600 t
PRESSURE: 610 bar
STROKE: 150 mm



	MATERIAL LIST	Q.TY TOT
1	HYDRAULIC JACK C.7856 SWL 600 t STROKE 150 mm	12
2	ADAPTOR PLATE FOR LOAD CELL SWL 300t	12
3	LOAD CELL SWL 300t	12

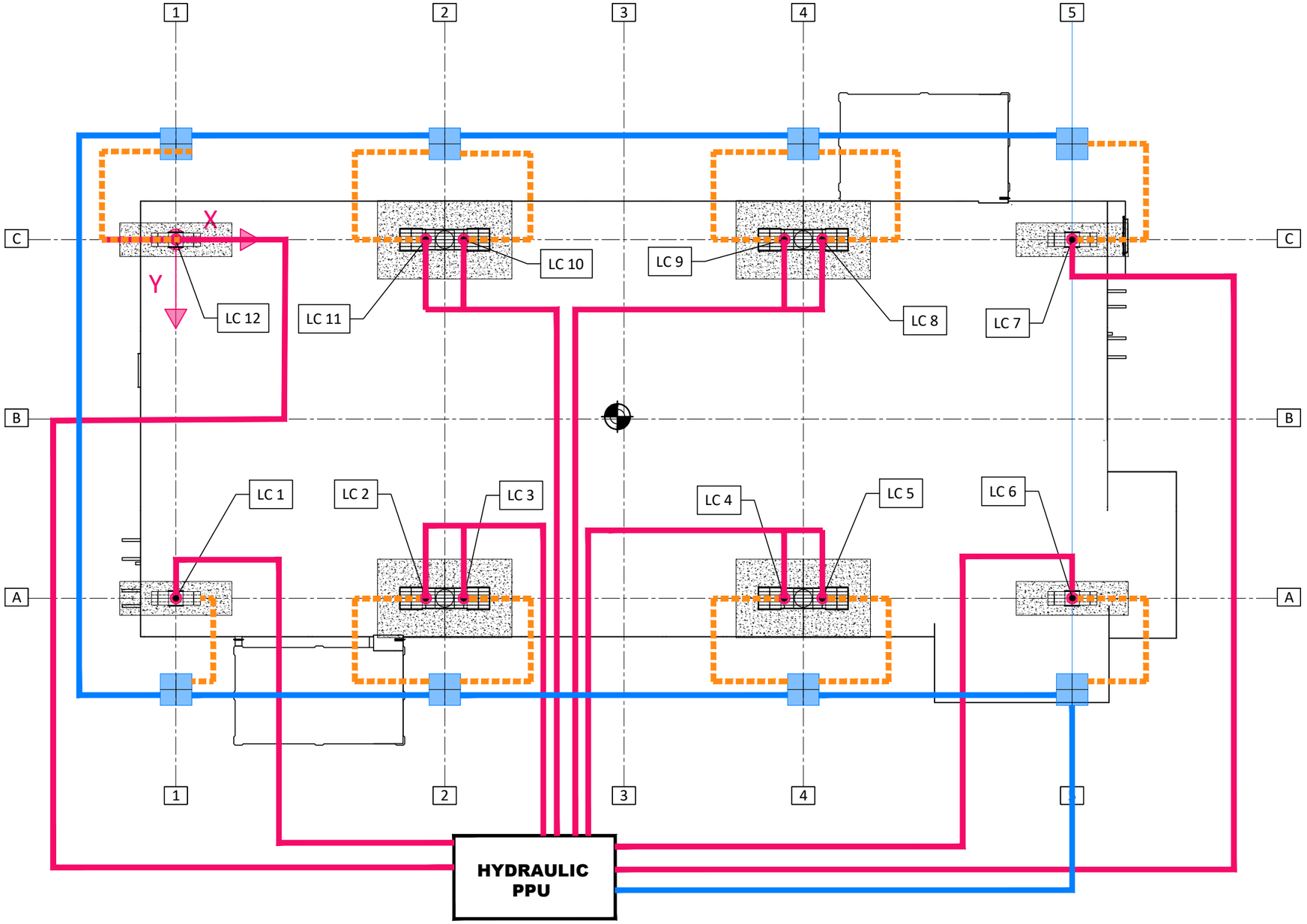
Rev.	Descrizione revisione Description of revision	Data Date	Disegnato Drawn by	Controllato Checked by	Approvato Approved by
A	FOR COMMENT	24/06/25	SMG	GG	LG

FAGIOLI

CLIENTE/CUSTOMER: ROSETTI
FAGIOLI AREA: EMEA
DESCRIZIONE COMMESSA/JOB DESCRIPTION: CROSSWIND PROJECT - LOADOUT & WEIGHING TOPSIDE & TP
DESCRIZIONE DISEGNO/DRAWING DESCRIPTION: TOPSIDE - WEIGHING LAYOUT - HYDRAULIC JACK & LOAD CELL DETAILS

NUM. DISEGNO/DRAWING NUMBER	SCALA/SCALE	FORMATO/SIZE	COMMESSA/JOB
030-CRO-DP-01-021	1:75	A3	

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TOPSIDE

	HYDRAULIC JACK C.7856 SWL 600 t MAX STROKE 150 mm FOR LOAD CELL SWL 300 t
	LOAD CELL DATA CABLE
	DATA CABLE BOX
	DATA CABLE + POWER CABLE
	HYDARULIC HOSE (EXTEND+RETURN)
HYDRAULIC PPU	CONTAINER WEIGHING PPU

Rev.	Descrizione revisione Description of revision	Data Date	Disegnato Drawn by	Controllato Checked by	Approvato Approved by
A	FOR COMMENT	24/06/25	SMG	GG	LG

FAGIOLI

CLIENTE/CUSTOMER: ROSETTI

FAGIOLI AREA: EMEA

DESCRIZIONE COMMESSA/JOB DESCRIPTION: CROSSWIND PROJECT -LOADOUT & WEIGHING TOPSIDE & TP

DESCRIZIONE DISEGNO/DRAWING DESCRIPTION: TOPSIDE - WEIGHING HYDRAULIC SYSTEM

NUM. DISEGNO/DRAWING NUMBER	SCALA/SCALE	FORMATO/SIZE	COMMESSA/JOB
030-CRO-DP-01-022	1:200	A3	

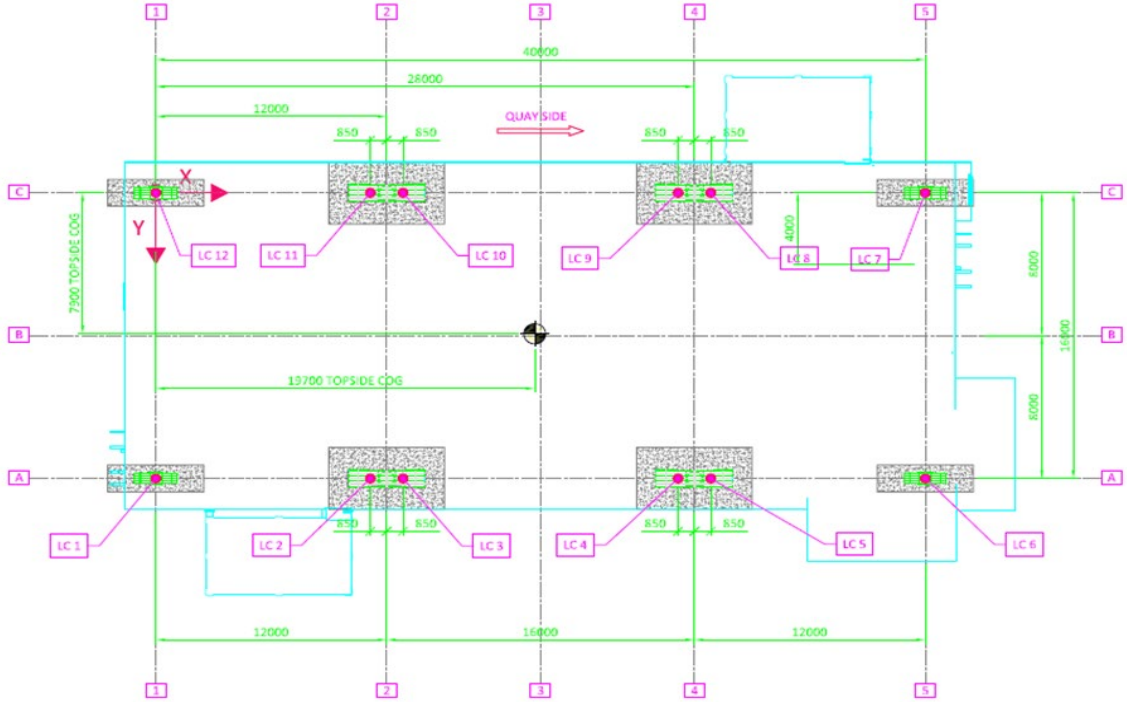
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13.3 Appendix 3 – Site weighing report

TO BE FILLED FINALLY AFTER WEIGHING

INPUT DATA

Client	ROSETTI	Project	CROSSWIND - Weighing and Load out TP & TOPSIDE
Site	MARINA DI RAVENNA (RA)	Item	TOPSIDE BLPH
Date		Doc. No.	



Load Cell LC1	
'X' (mm)	0
'Y' (mm)	16000

Load Cell LC2	
'X' (mm)	11150
'Y' (mm)	16000

Load Cell LC3	
'X' (mm)	12850
'Y' (mm)	16000

Load Cell LC4	
'X' (mm)	27150
'Y' (mm)	16000

Load Cell LC5	
'X' (mm)	28850
'Y' (mm)	16000

Load Cell LC6	
'X' (mm)	40000
'Y' (mm)	16000

Estimated Wt/CoG from Client Datum	
'X' (mm)	19700
'Z' (mm)	7900
Weight (t)	1802,0

Load Cell LC7	
'X' (mm)	0
'Y' (mm)	0

Load Cell LC8	
'X' (mm)	11150
'Y' (mm)	0

Load Cell LC9	
'X' (mm)	12850
'Y' (mm)	0

Load Cell LC10	
'X' (mm)	27150
'Y' (mm)	0

Load Cell LC11	
'X' (mm)	28850
'Y' (mm)	0

Load Cell LC12	
'X' (mm)	27150
'Y' (mm)	0

Distance from Load cells ref to client Datum	
'X' (mm)	0
'Z' (mm)	0

Client:	ROSETTI
Project:	CROSSWIND - Weighing and Load out TP & TOPSIDE
Job No.:	25HHL0045
Weighing Procedure ref.:	

WEIGHING READING	
Date [dd/mm/yyyy]:	
Location:	MARINA DI RAVENNA (RA)
Item:	TOPSIDE BLPH

		Reading # 1	Reading # 2	Reading # 3	Reading # 4 (if required)	Reading # 5 (if required)
	Time [hh:mm]					
	Temperature [°C]					
	Wind speed [m/s]					

Load cell Reference	Load cell Serial	X [mm]	Y [mm]	Reading # 1		Reading # 2		Reading # 3		Reading # 4 (if required)		Reading # 5 (if required)	
				Tare [kN]	Gross [kN]	Tare [kN]	Gross [kN]	Tare [kN]	Gross [kN]	Tare [kN]	Gross [kN]	Tare [kN]	Gross [kN]
LC1		0	16000										
LC2		11150	16000										
LC3		12850	16000										
LC4		27150	16000										
LC5		28850	16000										
LC6		40000	16000										
LC7		0	0										
LC8		11150	0										
LC9		12850	0										
LC10		27150	0										
LC11		28850	0										
LC12		40000	0										

Operated by:		
	Name	Signature
Site Manager:		
Weighing Engineer:		
Weighing Operator:		

Attendees:		
	Name	Signature
Client		

24/06/2025
14:54

Client:	ROSETTI
Project:	CROSSWIND - Weighing and Load out TP & TOPSIDE
Job No.:	25HHL0045
Weighing Procedure ref.:	

ROSETTI MARINO FAGIOLI

WEIGHING DATA REPORT

Date [dd/mm/yyyy]:	
Location:	MARINA DI RAVENNA (RA)
Item:	TOPSIDE BLPH

	Reading # 1	Reading # 2	Reading # 3	Reading # 4	Reading # 5
Time [hh:mm]					
Temperature °C					
Wind speed [m/s]					

Load cell ref.	Load cell serial nr.	LOAD CELLS LOCATION X [mm]	LOAD CELLS LOCATION Y [mm]	Reading # 1 [t]	Reading # 2 [t]	Reading # 3 [t]	Reading # 4 [t]	Reading # 5 [t]		Average [t]	Expected Load [t]
LC1	-	0	16000								100,0
LC2	-	11150	16000								187,0
LC3	-	12850	16000								187,0
LC4	-	27150	16000								160,0
LC5	-	28850	16000								160,0
LC6		40000	16000								98,0
LC7		0	0								93,0
LC8	-	11150	0								180,0
LC9	-	12850	0								180,0
LC10	-	27150	0								183,0
LC11		28850	0								183,0
LC12	-	40000	0								95,0
-	-	-	-								

BY CLIENT		CALCULATED					
ITEM WEIGHT [t]	1802,00	**TOTAL WEIGHT [t]**					
X_{COG} [mm]	19700	**X_{COG} [mm]**					
Y_{COG} [mm]	7900	**Y_{COG} [mm]**					
		Deviation %					
		Consistent (Y/N)					

AVERAGE	
TOTAL WEIGHT [t]	
X_{COG} [mm]	
Y_{COG} [mm]	
ADDITIONAL EQUIPMENT WEIGHT [t]	0,0
ITEM NET WEIGHT [t]	

DIFFERENTIAL	
TOTAL WEIGHT [t]	
X_{COG} [mm]	
Y_{COG} [mm]	

Notes:
1. The effects of wind shall be calculated if weighing take place at wind speed above: 8 m/s (Class A); 11 m/s (Class B); 14 m/s (Class C)
2. Conversion Factor: 1kgf = 9,80665 N.
3.
4.
5.

Operated by:

	Name	Date	Signature
Site Manager:			
Weighing Engineer:			
Weighing Operator:			

Attendees:

	Name	Date	Signature
Client:			

13.4 Appendix 4 – Load cell calibration certificates

13.5 Appendix 5 – Weighing system check list

	Doc. Title:	Job No.:	
FAGIOLI	**WEIGHING SYSTEM CHECKLIST**	Client:	
		Date:	Page 1 of 3

Item:		**Location:**		**Date:**		**Time:**	

Hydraulic Line Number	**Hydraulic Jack S/N.**		**Load Cell Position**		**Load Cell S/N.**	
	A	**B**	**A**	**B**	**A**	**B**
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

*Data*_____

Activity Inspection & Test Plan

Check no:	Process description	Condition		Notes
1	Check Hydraulic Jacks position.	***OK***	***NO***	
2	Check Load cells position.	***OK***	***NO***	
3	Check all Hydraulic holes connected.	***OK***	***NO***	
4	Check all Load cells connected.	***OK***	***NO***	
5	Check all Control Box installed.	***OK***	***NO***	
6	Check all Data cables connected.	***OK***	***NO***	
7	Check all Electric cables connected.	***OK***	***NO***	
8	Check HPPU air filter installed.	***OK***	***NO***	
9	Visual check of the hydraulic oil level.	***OK***	***NO***	
10	Check any hydraulic leaks.	***OK***	***NO***	
11	Electric power plug in.	***OK***	***NO***	
12	Set and check of Weighing system configuration parameter.	***OK***	***NO***	
13	Check On/Off Valve.	***OK***	***NO***	
14	Check the movement of the Hydraulic Jacks (fully extend/retract if possible).	***OK***	***NO***	
15	Check the Hydraulic system and its components for external leakage (if possible with the whole set of hydraulic jacks extended. If not a visual check of the hoses and fittings is extremely important).	***OK***	***NO***	

*Data*_____

Notes
_____
_____
_____
_____
_____
_____
_____
_____

Weighing Operator:	**Site Manager:**
Signature:	**Signature:**

*Data*_ _____