



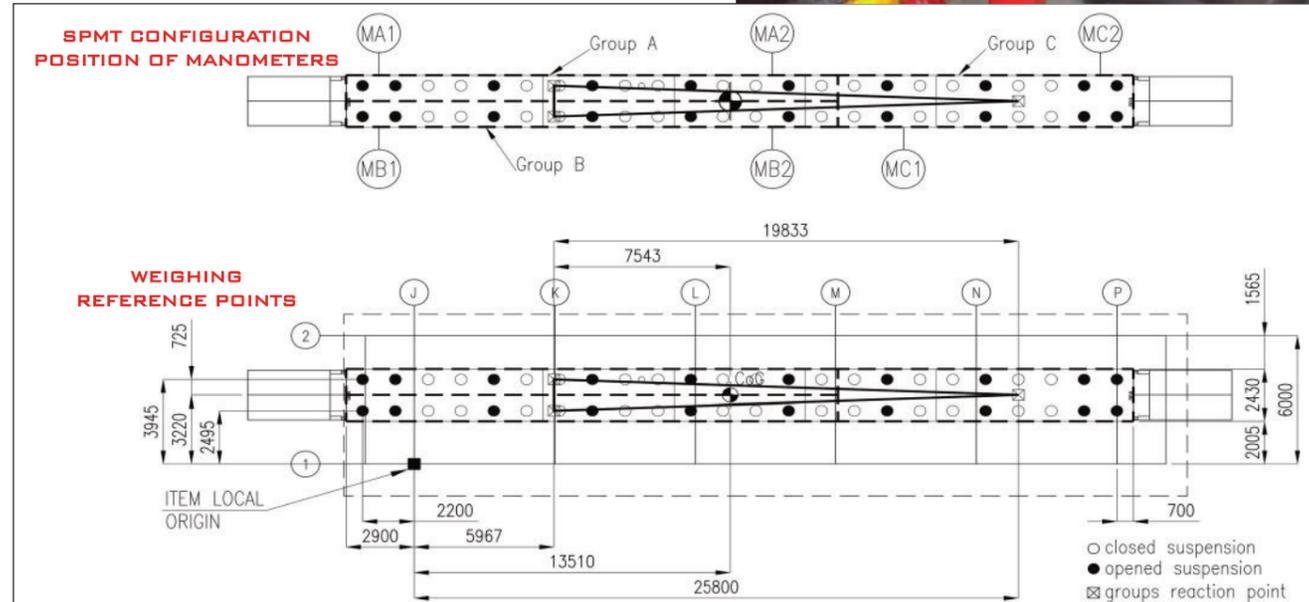
## SPMTs' WEIGHING SYSTEM

THE WORLD... OUR PASSION  
SINCE 1955

TECHNICAL BROCHURE

**WEIGHING AND COG CALCULATION PROCEDURE BY MEANS OF SPMTs**

The weighing procedure performed by SPMTs uses an even number of calibrated Digital Pressure Gauge. No.2 calibrated Digital Pressure Gauges are installed into each Hydraulic Pressure Groups of the SPMTs, one close to the input and the other close to the output of the hydraulic circuit. Before the beginning of the weighing operations, the SPMTs are lifted to contact the underside of the item transport frame, constantly monitoring as the frame is progressively elevated until it is clear of all the supports (approx. 50 mm clearance). To ensure that the pressure is stable and uniformly distributed within the hydraulic circuit the SPMTs are usu-ally driven forwards and backwards approx. 1-2 mts. The acceptable deviation between the two gauges in the hydraulic circuit is 5 bar. Until the deviation does not come under such value, the SPMTs will keep on moving forwards and backwards. The load is held for approx. 10 minutes to allow the dispersion within the SPMTs hydraulic circuits. The weighing sequence is repeated for a total of 3 weighing operations.

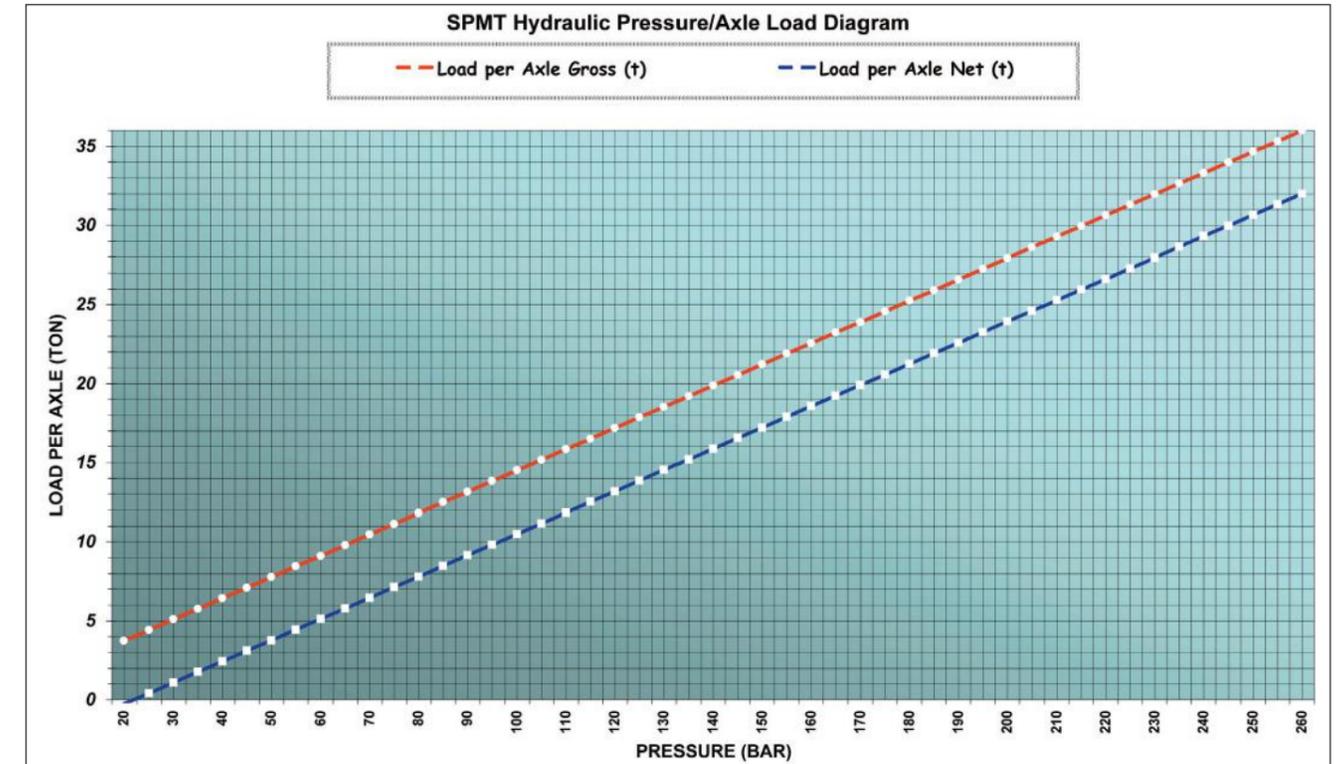


SPMT Hydraulic Group	Location	Manometer Ref No	Weight Results (Bar)			
			1st	2nd	3rd	4th (Optional)
			Pressurised	Pressurised	Pressurised	Pressurised
A	A1					
	A2					
B	B1					
	B2					
C	C1					
	C2					



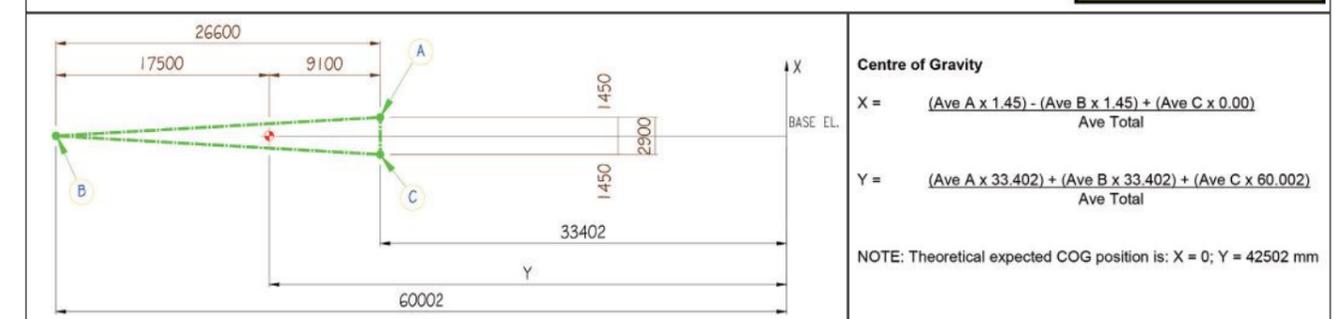
Above: Drawing example of the positioning of manometers onto SPMTs and technical schedule for the collection of weighing data. Picture on the right: Detail of manometer positioned onto Fagioli SPMT trailers.

Upon completion of the first two weighings, the Digital pressure gauges are shuffled to verify, with the third weighing, any discrepancy on the calibration. In case of discrepancy, the gauge will be changed and the weighing procedure repeated. The average weight from all 3 weighing operations is recorded as the weight of the Module. The average weight of each pressure group is calculated for each of the 3 weighing operations and is used to calculate the position of the Centre of Gravity (CoG). The Client note the location of any temporary items and adjust the weight/CoG results accordingly. The accuracy of weight result is ± 3%. The accuracy of COG location is ± 1.5 % of the overall span of the SPMTs hydraulic system.



The average weight of each pressure group is calculated for each of the 3 weighing operations and is used to calculate the position of the Centre of Gravity. See example below

SPMT Hydraulic Group	1st Weighing Conversion to t	2nd Weighing Conversion to t	3rd Weighing Conversion to t	SPMT Self Weight	Average
A					
B					
C					
<b>Total Weight</b>					



# SPMTs' WEIGHING SYSTEM

Pictures below refer to the weighing and heavy transport operations of several lots of TSL beams, 70mt long and weighing between 1190 and 1293 ton. The weighing operation was performed by using SPMTs fitted with No. 6 calibrated digital pressure gauges.



FAGIOLI  
VIA FERRARIS, 13 - 42049 S.ILARIO D'ENZA (RE)  
PH+ 39 0522 6751  
INFO@FAGIOLI.COM