

SIGTTO

Society of International Gas Tanker & Terminal Operators Ltd

CO₂ Carrier Manifold Briefing Note

First Edition

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Recommendations for Liquefied Gas Carrier Manifolds (SIGTTO/OCIMF) provides useful guidance on the design and construction of manifolds and arrangements for gas carriers. The information provided in this document is based on experience and the best practice of the industry. These recommendations are typically suitable for most types of liquefied gas carriers, such as liquefied natural gas (LNG), liquefied petroleum gas (LPG) and ammonia.

Experience and information on the design and operation of carbon dioxide (CO₂) carriers is limited, which in turn limits the guidance that can be provided on manifold design and arrangements. There is an expectation that the arrangements may be similar to those of an LPG carrier, but this cannot be confirmed at this stage. This topic is expected to be revisited once more information is available.

Initial discussions with the industry have identified the information provided here. This may be considered as a possible starting point for further discussions on the manifold arrangements. It must be stressed again that the numbers provided are not final and that the Asset Owner bears final responsibility for all decisions taken.

Liquefied carbon dioxide (LCO₂) carriers may be divided into eight categories based on cargo capacity, as shown in Table 1.

Category	LCO ₂ cargo capacity (m ³)	
	From	To
C1	–	6,000
C2	6,001	15,000
C3	15,001	25,000
C4	25,001	50,000
C5	50,001	70,000
C6	70,001	85,000
C7	85,001	150,000
C8	150,001+	–

Table 1: Cargo capacity of LCO₂ carriers

It may be useful to consider the suggested values in Table 2 for LCO₂ carrier manifold height above the water line to determine the actual design.

Category	From (m ³)	To (m ³)	Not greater than (m) (at minimum operating draught)	Not less than (m) (at maximum operating draught)
C1	–	6,000	10	2
C2	6,001	15,000	14	4
C3	15,001	25,000	16	6
C4	25,001	50,000	18	8
C5	50,001	70,000	20	8
C6	70,001	85,000	22	8
C7	85,001	150,000	24	8
C8	150,001	–	26	8

Table 2: Suggested values for LCO₂ carrier manifold height above the water line

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