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**M7** Re-categorized as “recommendation”  
(1972)  
(Rev. 1  
1987)  
**No. 26** ◀◀

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**M8** Re-categorized as “recommendation”  
(1972)  
(Rev. 1  
1989)  
**No. 27** ◀◀

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**M9** Crankcase explosion relief valves for  
(1972)  
(Rev. 1  
1991)  
(Corr.  
1997)  
(Rev.2  
June  
2000)  
(Rev.3  
Jan 2005)  
(Corr.1  
Nov 2005)  
**crankcases of internal combustion engines**

M9.1 Internal combustion engines having a cylinder bore of 200 mm and above or a crankcase volume of 0.6 m<sup>3</sup> and above shall be provided with crankcase explosion relief valves in accordance with UR M9.2 to UR M9.13 as follows:

M9.1.1 Engines having a cylinder bore not exceeding 250 mm are to have at least one valve near each end, but, over eight crankthrows, an additional valve is to be fitted near the middle of the engine.

M9.1.2 Engines having a cylinder bore exceeding 250 mm but not exceeding 300 mm are to have at least one valve in way of each alternate crankthrow, with a minimum of two valves.

M9.1.3 Engines having a cylinder bore exceeding 300 mm are to have at least one valve in way of each main crankthrow.

M9.2 The free area of each relief valve is to be not less than 45 cm<sup>2</sup>.

M9.3 The combined free area of the valves fitted on an engine must not be less than 115 cm<sup>2</sup> per cubic metre of the crankcase gross volume.

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NOTE

1. The total volume of the stationary parts within the crankcase may be discounted in estimating the crankcase gross volume (rotating and reciprocating components are to be included in the gross volume).

2. Engines are to be fitted with components and arrangements complying with Revision 3 of this UR, except for M9.8, M9.9 and the second bullet point in M9.10, when:

1) an application for certification of an engine is dated on/after 1 January 2006; or

2) installed in new ships for which the date of contract for construction is on or after 1 January 2006.

The requirements of M9.8, M9.9 and the second bullet point in M9.10 apply, in both cases above, from 1 January 2007.