



## TECHNICAL CIRCULAR No. 069 of 27<sup>th</sup> July 2012

To:	All Surveyors/Auditor
Applicable to flag:	All Flags
Subject:	<b>Navigation Equipment for Cargo Ships Built Before and on or after 1 July 2002</b>
Reference:	<b>SAFETY –NAVIGATION EQUIPMENT</b>

The following table presents the navigation equipment required by SOLAS to be present on vessels built before and on or after 1 July 2002. The vessels are broken down by GT.

### Navigation Equipment for Cargo Ships Built Before 1 July 2002

SOLAS Ch. V Regulation	EQUIPMENT	Less than 150 GT	150 GT and over	300 GT and over	500 GT and over	1600 GT and over	3000 GT and over	10000 GT and over	100000 GT and over
11	Daylight signaling lamp	.	X	X	X	X	X	X	X
12 (b)(i)(1)	Standard magnetic compass	.	X	X	X	X	X	X	X
12 (b)(i)(2)	Steering magnetic compass <sup>1</sup>	.	X	X	X	X	X	X	X
12 (b)(i)(3)	Adequate communication means btw standard compass position and normal navigation control position	.	X	X	X	X	X	X	X
12 (b)(i)(4)	Means for taking bearings over arc of horizon of 360 degrees	.	X	X	X	X	X	X	X
12 (b)iii	Spare magnetic compass <sup>2</sup>	.	X	X	X	X	X	X	X
12 (c)	Steering compass and means of taking bearings	X	.	.	.	.	.	.	.
12 (d)	Gyro compass	.	.	.	X	X	X	X	X

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SOLAS Ch. V Regulation	EQUIPMENT	Less than 150 GT	150 GT and over	300 GT and over	500 GT and over	1600 GT and over	3000 GT and over	10000 GT and over	100000 GT and over
12 (d)	Gyro repeater(s)	.	.	.	.	X	X	X	X
12 (f)	Phone to emergency steering	X	X	X	X	X	X	X	X
12 (f)	Compass reading to emergency steering <sup>3</sup>	.	.	.	X	X	X	X	X
12 (g)	Radar – 9 GHz ( X Band)	.	.	X	X	X	X	X	X
12 (h)	Second radar	.	.	.	.	.	.	X	X
12 (i)	Radar plotting facilities	.	.	X	X	X <sup>4</sup>	X <sup>4</sup>	X <sup>4</sup>	X <sup>4</sup>
12 (j)	ARPA	.	.	.	.	.	.	X	X
12 (k)	Echo sounder	.	.	.	X	X	X	X	X
12 (l)	Speed and distance measuring device (through water if ARPA fitted)	.	.	.	X	X	X	X	X
12 (m)	Rudder, propeller, pitch indicators	.	.	.	X	X	X	X	X
12 (n)	Rate of turn indicator	.	.	.	.	.	.	.	X
20	Nautical Charts	X	X	X	X	X	X	X	X
19.2.4.3.	AIS	.	.	X	X	X	X	X	X
19.2.2.3	Bridge Navigation Watch Alarm System (BNWAS) <sup>****</sup>	.	X	X	X	X	X	X	X
19.2.10	ECDIS <sup>5</sup>	.	.	.	X	X	X	X	X
19-1	LRIT	.	.	X	X	X	X	X	X
20	VDR / SVDR	.	.	.	.	.	X	X	X

<sup>1</sup> Unless heading information provided by the standard compass above is made available and is clearly readable by the helmsman at the main steering position

<sup>2</sup> A spare magnetic compass is not required if a steering compass or a gyro compass is fitted

<sup>3</sup> Ships constructed on/after February 1992

<sup>4</sup> At least as effective as reflector plotter

<sup>5</sup> See SOLAS Survey PI for implantation schedule.

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## Navigation Equipment for Cargo Ships Built on or After 1 July 2002:

SOLAS Ch. V Regulation	EQUIPMENT	All Ships	300 GT and over	500 GT and over	3000 GT and over	10000 GT and over	50000 GT and over
19.2.1.1	Standard magnetic compass	X	X	X	X	X	X
19.2.1.2	Pelorus or compass bearing device.	X	X	X	X	X	X
19.2.1.3	Means of correcting headings & bearings to true at all times.	X	X	X	X	X	X
19.2.1.4	Nautical Charts or ECDIS	X	X	X	X	X	X
19.2.1.5	Back up if ECDIS fitted	X	X	X	X	X	X
19.2.1.6	Receiver for a global navigation satellite system (GNSS)	X	X	X	X	X	X
19.2.1.7	Radar reflector <sup>1</sup>	X	.	.	.	.	.
19.2.1.8	Sound Reception System (if bridge totally enclosed)	X	X	X	X	X	X
19.2.1.9	Telephone to emergency steering position	X	X	X	X	X	X
19.2.2.1	Spare magnetic compass <sup>2</sup>	X	X	X	X	X	X
19.2.2.2	Daylight signaling lamp	X	X	X	X	X	X
19.2.2.3	Bridge Navigation Watch Alarm System (BNWAS) <sup>3</sup>	X					
19.2.3.1	Echo sounder	.	X	X	X	X	X
19.2.3.2	9 GHz radar (X -Band)	.	X	X	X	X	X
19.2.3.3	Electronic plotting aid (EPA)	.	X	.	.	.	.
19.2.3.4	Speed and distance measuring equipment (through water)	.	X	X	X	X	X
19.2.3.5	Transmitting Heading device THD to transmit heading information for Radar, EPA & AIS	.	X	X	X	X	X
19.2.4	Automatic identification system	.	X	X.	.X	.X	.X

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SOLAS Ch. V Regulation	EQUIPMENT	All Ships	300 GT and over	500 GT and over	3000 GT and over	10000 GT and over	50000 GT and over
19.2.5.1	Gyro compass	.	.	X	X	X	X
19.2.5.2	Gyro repeater at Emergency steering position	.	.	X	X	X	X
19.2.5.3	Gyro repeater for bearing over 360 of Horizon	.	.	X	X	X	X
19.2.5.4	Indicators for rudder angle, propeller thrust, pitch & RPM	.	.	X	X	X	X
19.2.5.5	Automatic tracking aid (ATA) Radar Equipment Notes	.	.	X	X	X	X
19.2.7.1	3 GHz radar S-Band (or a second 9 GHz radar if approved by the administration)	.	.	.	X	X	X
19.2.7.2	Second ATA	.	.	.	X	X	X
19.2.8.1	Automatic radar plotting aid (ARPA)	.	.	.	.	X	X
19.2.8.2	Heading or track control system	.	.	.	.	X	X
19.2.9.1	Rate of turn indicator	.	.	.	.	.	X
19.2.9.2	Speed and distance measuring equipment (over ground in forward and athwart ships direction)	.	.	.	.	.	X
19.2.10	ECDIS <sup>3</sup>	.	.	X	X	X	X
19-1	LRIT	.	X	X	X	X	X
20	VDR	.	.	.	X	X	X

<sup>1</sup> If less than 150 gross tonnage and if practicable, a radar reflector, or other means, to enable detection by ships navigating by radar at both 9 and 3 GHz

<sup>2</sup> For all ships of 150GT and above. A spare magnetic compass is not required if a steering compass or a gyro compass is fitted.

<sup>3</sup> See SOLAS Survey PI for implementation schedule.

## REFERENCES:

SAFETY – NAVIGATION EQUIPMENT

ATTACHMENTS: No.

Kindest Regards,  
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