XL/BW/BRW-2 and TRI-2

4921290030H

Illuminated indicators

Standard scale designs

DEIF Improve Tomorrow

1. About this document

This document shows examples of the DEIF range of standard scale designs for the XL/BW/BRW-2 and TRI-2 range of indicators.

The images used are for illustrative purposes only and do not represent actual dimensions of the indicator scale designs.

For the complete range of scale designs available and to download related documentation, go to www.deif.com/products/xl/

2. Illuminated indicators scale designs

2.1 Revolutions per minute (RPM) indicators

Standard designs

All standard designs comply with ISO 22554 Propeller shaft revolution indicators.

Examples

Black scale base	White scale base
XL144	XL/BW144
	
4150300181	4150320028

Standard indicators with scale end values of 100, 125, 150, 200, 250, 300 and 350 are also available.

For the complete range of scale designs available and to download related documentation, go to www.deif.com/products/xl/

2.2 Pitch indicators

Standard designs

All standard designs comply with ISO 22555 Propeller pitch indicators.

Examples

Black scale base	White scale base
XL144	XL/BW144
	
4150300189	4150320029

For the complete range of scale designs available and to download related documentation, go to www.deif.com/products/xl/

2.3 Rate of turn (ROT) indicators

Standard designs

All standard designs comply with ISO 20672 Rate of turn indicators and IMO resolution A.526.

Example

Black scale base
XL144

4150300192

XL 72 and XL96 with a black scale base are available as a custom design. However, they do not comply with ISO 20672 Rate of turn indicators, nor with IMO resolution A.526.

XL/BW144 and XL/BW 192/BRW-2 with a white scale base are available as a custom design.

For complete range of scale designs available and to download related documentation, go to www.deif.com/products/xl/

2.4 Rudder angle indicators (RAI)

Standard designs

All standard designs comply with ISO 20673 Rudder angle indicators.

Forward-oriented (FWD) indicators, type XL, BW and BRW-2

Because of the physical location of the indicators, the green field (STBD) on the scale is given on the right side.

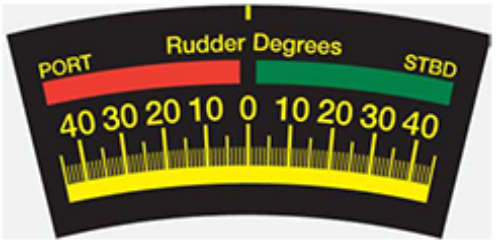
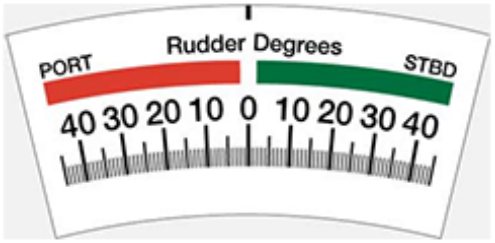
NOTE For indicators with a scale end value of 70, resolution is 2 degrees and not 1 degree.

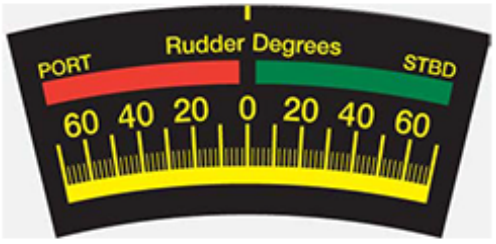
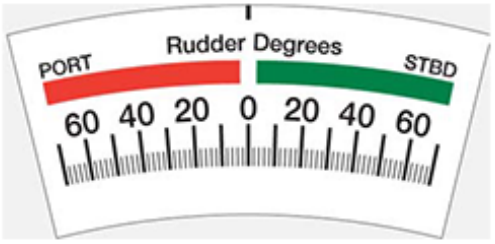
Examples

Black scale base	White scale base
XL144/BW144	XL/BW144
	
4150300283	4150320005

Forward-oriented (FWD) panorama indicators, type TRI-2

Examples

Black scale base	White scale base
	
4155112443	4155112436

Black scale base	White scale base
	
4155112447	4155112440

Aft-oriented (AFT) indicators, type XL, BW and BRW-2

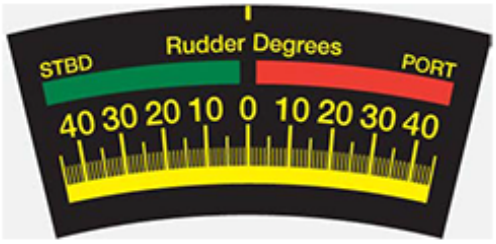
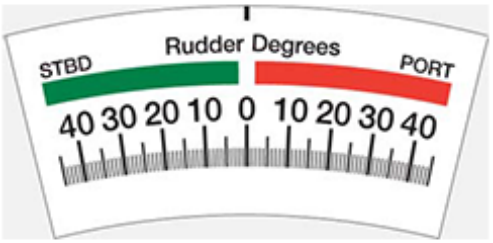
Examples

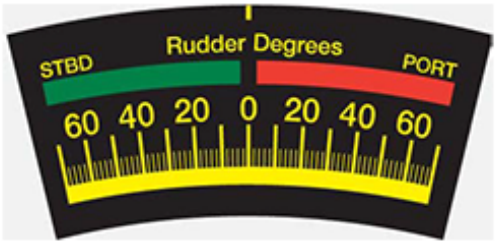
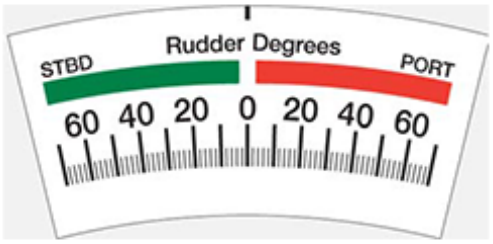
Black scale base	White scale base
XL144/BW144	XL/BW144
	
4150300187	4150320030

Because of the physical location of the indicators, the green field (STBD) on the scale is given on the right side.

Aft-oriented (AFT) panorama indicators, type TRI-2

Examples

Black scale base	White scale base
	
4155112444	4155112437

Black scale base	White scale base
	
4155112448	4155112441

For the complete range of scale designs available and to download related documentation, go to www.deif.com/products/xl/

2.5 Azimuth indicators

Azimuth indicator designs are based primarily on ISO 20673. At present, no international standard for the design of Azimuth indicators has been adopted.

Forward-oriented (FWD) indicators

Because of the physical location of the indicators, the green field (STBD) on the scale is given on the right side.

Examples

Black scale base with yellow lines and figures	Black scale base with white lines and figures
XL144/BW144	XL96
	
Scale: 4150340079	Scale: 4150290098
Disc: 4155111598	Disc: 4155111582

NOTE Due to technical limitations, is not possible to have XL/BW192/BRW-2 with a black scale base with yellow lines and figures, or with a black scale base with white lines and figures.

NOTE XL72 and XL144/BW144 with a black scale base with white lines and figures are available as a custom design.

Aft-oriented (AFT) indicators

Examples

Because of the physical location of the indicators, the green field (STBD) on the scale is given on the left side.

Black scale base with yellow lines and figures	Black scale base with white lines and figure
XL144/BW144	XL96
	
Scale: 4150340059	Scale: 4150290086
Disc: 415111598	Disc: 4155111582

NOTE Due to technical limitations, is not possible to have XL/BW192/BRW-2 with a black scale base with yellow lines and figures, or with a black scale base with white lines and figures.

NOTE XL72 and XL144/BW144 with a black scale base with white lines and figures are available as a custom design.

For the complete range of scale designs available and to download related documentation, go to www.deif.com/products/xl/

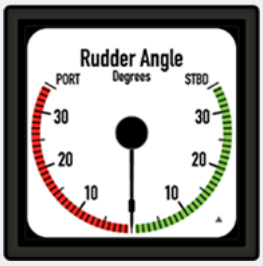
2.6 Non MED-certified rudder angle indicators (RAI)

These designs do not conform to MED and therefore do not have the 'Wheelmark' certification mark, and they do not comply with ISO 20673 Rudder angle indicators.

Forward-oriented (FWD) indicators, type XL, BW and BRW-2

NOTE MED rudder scales must as a minimum be +/- 40 degrees

Examples

Black scale base	White scale base
XL144/BW144	XL/BW144
	
4150300288	4150320004

Forward-oriented (FWD) panorama indicators, type TRI-2

Black scale base	White scale base
	
4155110563	415511187

Aft-oriented (AFT) indicators, type XL, BW and BRW-2

Example

Black scale base
XL144/BW144

4150300287

NOTE XL72, XL96, XL/BW144 and XL/BW192/BRW-2 with a white scale base are available as a custom design.

Aft-oriented (AFT) panorama indicators, type TRI-2

Available with a black scale base or with a white scale base as a custom design.

For the complete range of scale designs available and to download related documentation, go to www.deif.com/products/xl/

3. General design considerations

The standard scale designs have been selected by combining the following parameters:

- International standard recommendations (MED certification requirements)
- Readability
- Design line
- Application
- Product quality (automatic vision test)

The interpretation of the standards are made in close cooperation with DNV GL to make sure that the scale designs comply with international standards for the rate of turn, revolutions per minute, pitch, rudder and azimuth indicators, and to make sure they meet MED requirements

Designs must ensure that the instrument data is clearly visible to the observer at a practical distance in light conditions normally experienced on a bridge, from bright daylight conditions to dark nighttime conditions.

Black scale designs

Black scale base designs are optimum for use inside the bridge. Due to the design where only information fields are illuminated, very little light is emitted from the indicators, preserving night vision for the bridge crew

White scale designs

White scale base designs are intended for bridge wing indicators for outside mounting. The white colour gives optimum lifespan for the indicators in direct sunlight, due to reduced heat absorption.

DEIF does not recommend customers deviate from these intended uses.