Prisma DI-5C

SOFTWARE INSTALLATION MANUAL

PRISMA TIBRO
SWEDEN

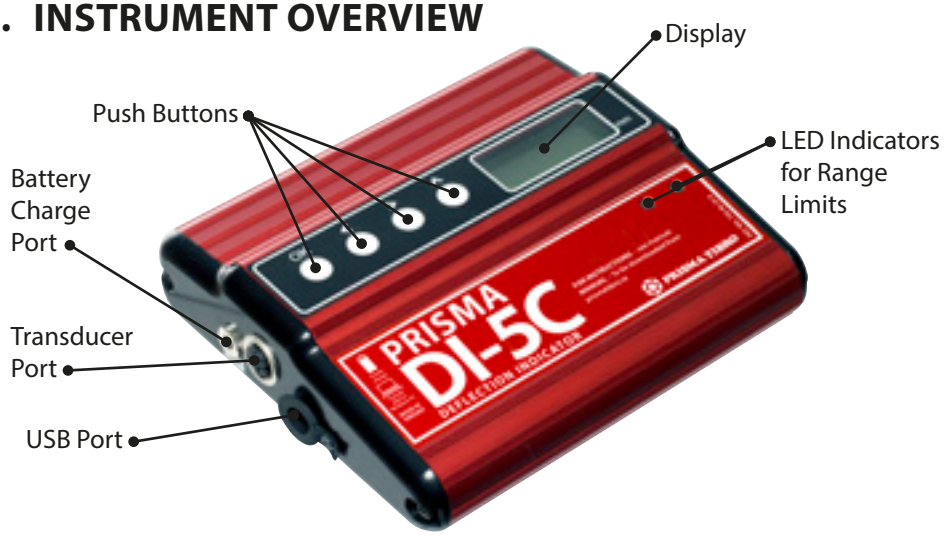
INDEX

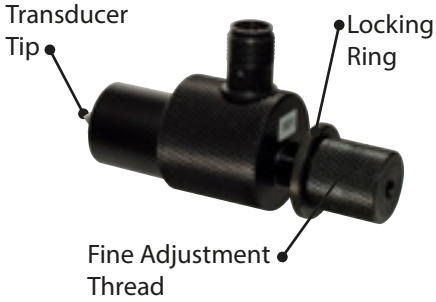
SUPPORT
Please visit our homepage for latest document downloads or requests of software download-link.

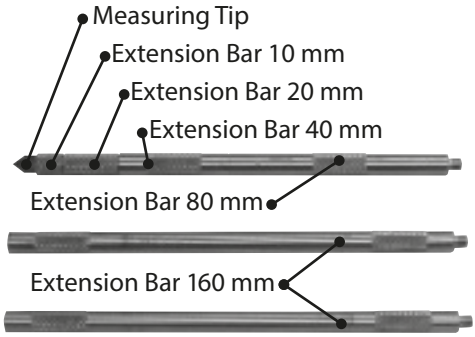
All information is given with reservation for alterations that may occur after this manual were updated. We also reserve the right for possible written errors.

Thanks for using Prisma DI-5C • We know this instrument will provide many years of precision measurement in your service Your feedback are most welcome.

1. INSTRUMENT OVERVIEW







1. GENERAL INFORMATION

This manual provides the basic information required to operate the PC program together with the **Crankshaft Deflection Indicator Prisma DI-5C**.

The program can be used in
- Windows 98
- Windows 2000
- Windows NT
- Windows 7
- Windows Millenium
- Windows XP
- Windows Vista
- Windows 8

Peripheral information such as Ship/Plant names and comments may be added at the PC. Should a measurement contain faults, it is possible to manually correct it in the program. Even the standard Prisma DI-5 model can use this program since all measurement input can be done manually, box by box, cylinder by cylinder. Then all the program functions may be used, just as if the data was transferred from a Prisma Prisma DI-5C.

2. INSTALLING THE PC PROGRAM

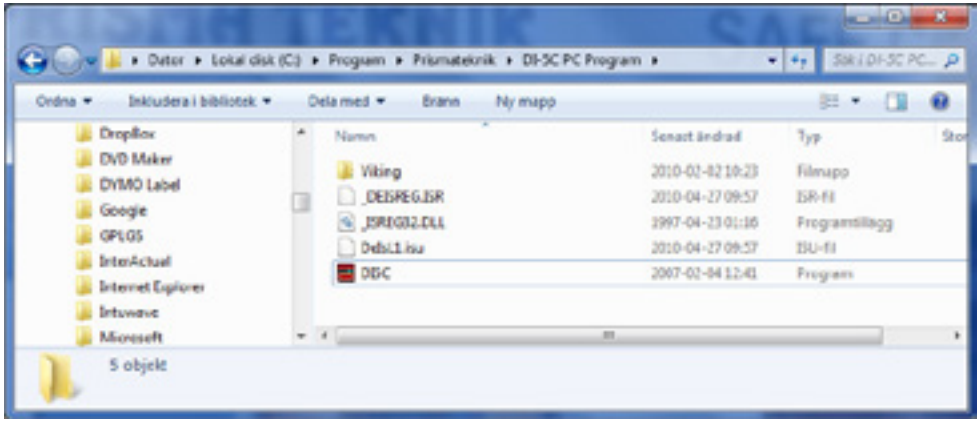
The Prisma DI-5C is supplied with CD-rom containing the program.
Follow these steps for installation:

1. Load the CD into your PC.
2. Connect the Prisma DI-5C and follow the wizard to install USB driver from the CD.
3. Install the software by opening the Start/ Run menu and enter
   D:\DI5C-application\SETUP.EXE
   Click OK and follow the wizard for installation.

NOTE!

If problems occour to install Software for Prisma DI-5C PC application on Windows Vista, Windows 7 or Windows 8 use this work around:

1. Click on the "DI5C appl for 64 bit windows" and open the compressed file.
2. Save the file and folder structure to your program folder "c:\program files"
3. Open the folder called; C:\Program Files\Prismateknik\DI-5C PC Program and "right-click" on the file called DI5C and choose attach to startmeny.
4. Attach the instrument to your USB port the drivers please use the" winXp, vista-driver" folder to find the right driver for the DI-5C instrument.



3. THE MENU BAR

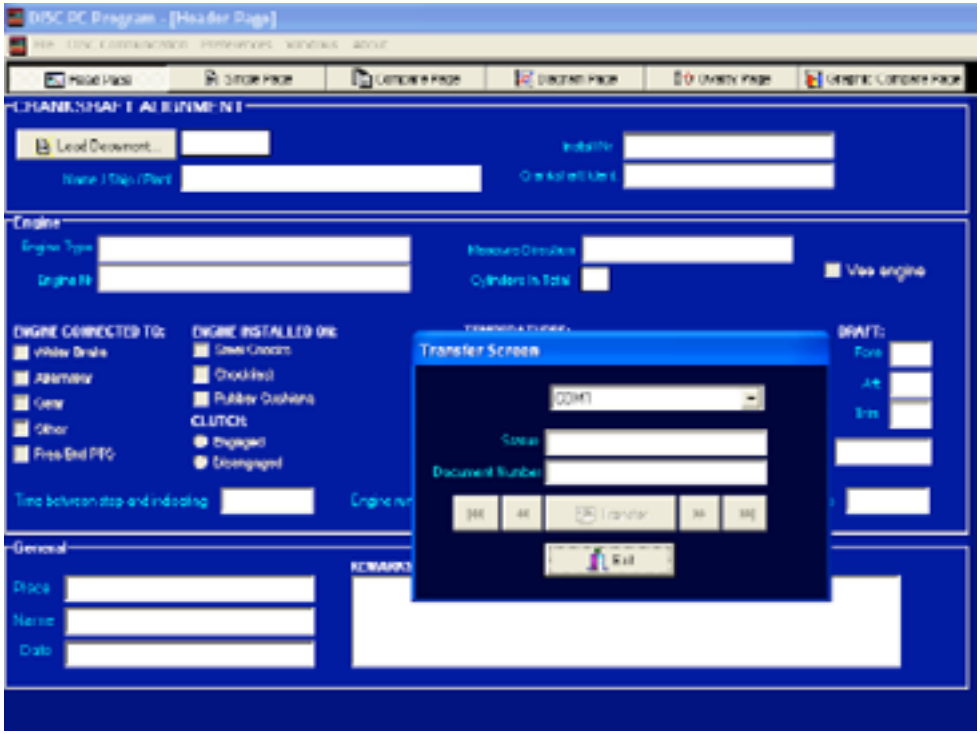
File	Communication	Preferences	Windows	About
NEW DOCUMENT Is used if you want to input data manually from scratch. **LOAD DOCUMENT** Searches for a Prisma DI-5C document already saved in PC. **SAVE DOCUMENT** Save your readings in folder of choice. **CREATE NEW SHIP FOLDER** used to create a file structure for each engine (main, gen, aux), with crankshaft and ovality measurement folders for each one. When you save the ship folder, sub-menus are auto-matically created. **PRINT DOCUMENT** **EXPORT AS EXCEL** All the data on the Main Page, Single Page, Compare Page can be exported to Excel for further process. **REGISTER YOUR INSTRUMENT** In order to get better support from Prisma team and also to extend warranty by extra 6 months, the Prisma DI-5C can be registered by visiting Prisma Tibro's home page www.prismatibro.se to register the serial number of the Prisma DI-5C at Prisma Tibro's data base. **EXIT**	is used to transfer a document from the Prisma DI-5C to PC, refer to chapter 4: TRANSFER DOCUMENT TO PC.	Options, allows change of measuring point angles, graph zero line position and colours. Number of Digits, select 3 or 4 digit display. Language, select English, French or German.	Windows contains the six different pages of the program, they are also accessed using the indicator bar below the menu.	shows installed version number.

4. TRANSFER DOCUMENT FROM PRISMA DI-5C TO PC

Normally, all documents stored in the Prisma DI-5C are transferred and saved in a PC. The document number consists of 8 figures, the first two represent the document consecutive numbering followed by the 6 figures date, i.e. year, month, day (yy-mm-dd). This document number is used to locate a document in the Prisma DI-5C.

An USB cable between Prisma DI-5C and PC is supplied with the instrument

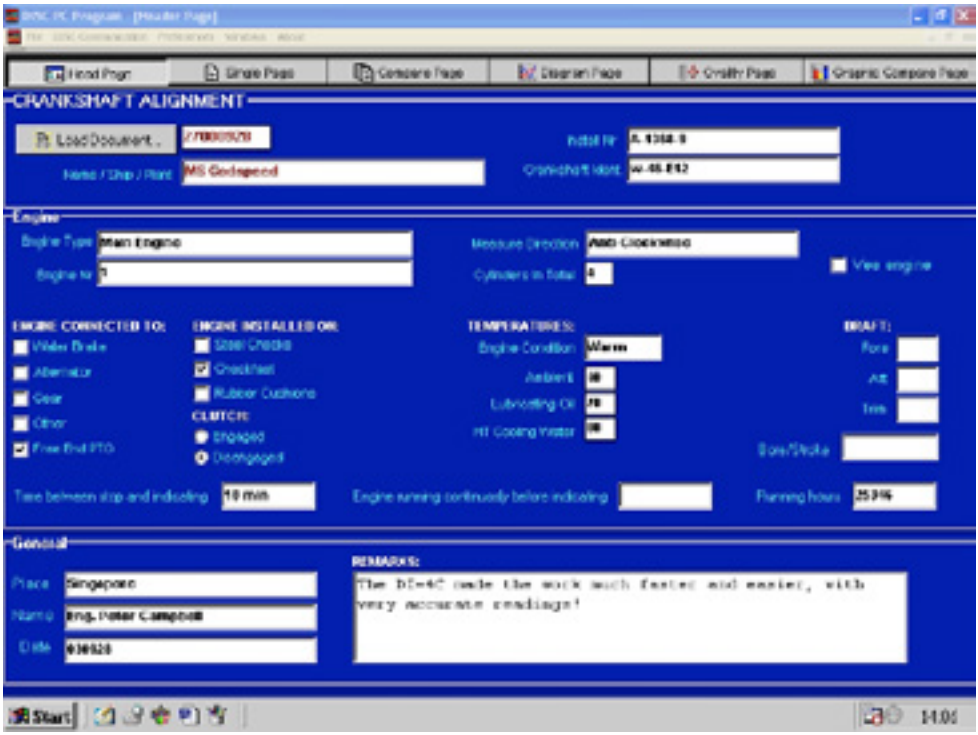
1. Ensure that both ends are firmly connected between the USB ports on PC and Prisma DI-5C.
2. Start the Prisma DI-5C instrument (OK button) and leave it in Date/Time mode.
3. Start the Prisma DI-5C program on your PC.
   Select from the Menu Bar:
   DI-5C Communication and…
   Choose document from Prisma DI-5C (Transfer Screen appears)



Select the COM-Port on which the instrument is connected in the Transfer screen.
Find your document in the Prisma DI-5C by clicking the arrow buttons < >.
When you find the correct document, click 'Transfer' and it will be transferred to the PC.

NOTE! The documents will NOT be automatically saved in the PC. Use FILE from the menu bar and SAVE, rename or number the document to your own preference, and put it in your selected ship folder with its sub-folders.

5. MAIN PAGE



The HEAD page (F1) allows you to register Ship/Plant name, and other basic information such as engine type and number. If measuring a "Vee" engine, check the Vee engine box. Then the word "CYL" will be replaced by "WEB" in the program.
You may write down additional information in the "Remarks" box at the bottom of the screen.
To printout the page, go to "File – Print Document", check the requested page(s) and press OK.

6. SINGLE PAGE

The SINGLE page (F2) shows the Prisma DI-5C readings in sequential cylinder order. For Crankshaft deflection measurement the Header is Cyl 1, Cyl 2, Cyl 3 etc. (cylinder). If the "Vee engine" box on the Main page is checked, "Cyl" will be exchanged to "Web". If the document is a cylinder liner Ovality measurement the Header will state Lev 1, Lev 2 etc, (level). The top left picture illustrates the meaning of positive and negative deflection.

Max Deflection is displayed for each cylinder at the bottom of the column. The deflection Limit Value can be changed to match the specified tolerances. The limit is saved together with the document. If the deflection remains within the pre-set limit the field will be Green. If the limit is exceeded, the field will indicate Red, as seen in screenshot above.

Use the red arrows to scroll through cylinders/levels. For crankshaft measurement the maximum number of cylinders is 24. To check a different document, click the ´Load´ button and to remove all data, click ´Clear´.

NOTE! If a new document is loaded, the previous document will be cleared.

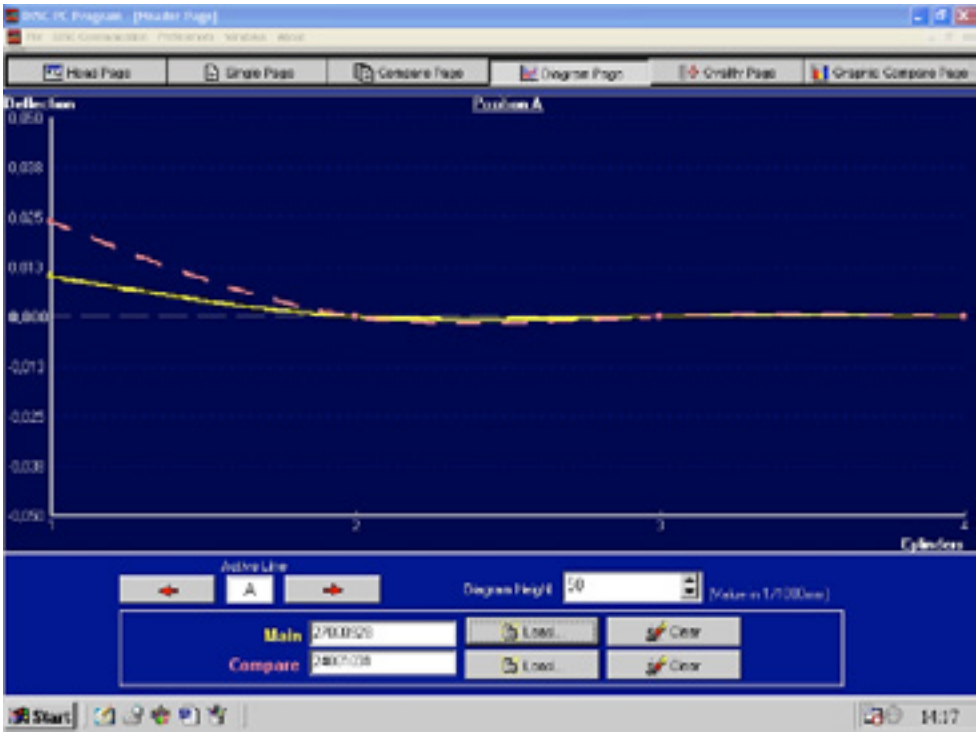
To printout the page, go to "File – Print Document", check the requested page(s) and press OK.

7. COMPARE PAGE

On the COMPARE page (F3), the left hand column contains the new (latest) document data loaded and the right side shows a previous reading from an older document, for comparison.

Print, Load and Clear documents at will, as previously described.

8. DIAGRAM PAGE



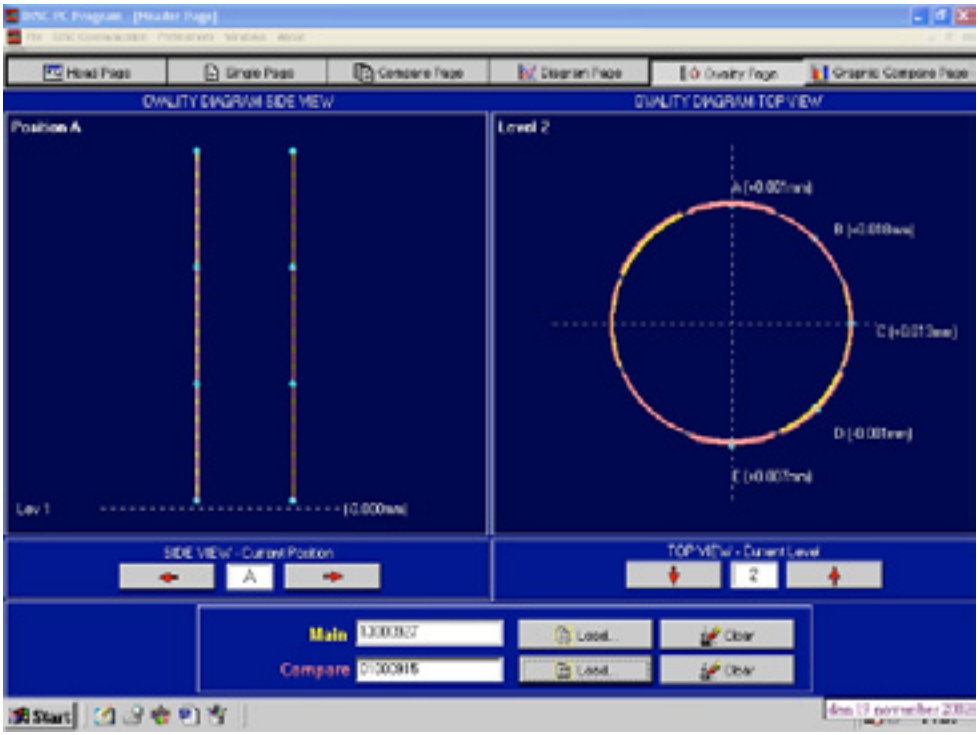
The DIAGRAM page (F4) produces a +/- deflection curve for each position of the crank/ cylinders, e. g. all position "A" crank readings for each cylinder, maximum 24 cylinders per document in a crankshaft measurement.

If it is an Ovality measurement, 1 document per cylinder is used and the A-E positions describe the readings obtained when rotating the instrument to the desired position. The X-axle show the levels.
The maximum deflection is graphically illustrated, showing the variances between the highest and lowest readings of each cylinder.

This graph is also an extension of the previous Comparison Page where an older document reading can be displayed together with the new document data.
The diagram height (scale) can be adjusted by clicking the adjustment arrows.
The height adjustment affects both "+" and "-" simultaneously.

Print, Load and Clear documents at will, as previously described.

9. OVALITY PAGE



The OVALITY page is intended for cylinder liner ovality measurements only.
Page F5 will display "OVALITY DIAGRAM". This is automatically changed by the Prisma DI-5C when selecting ´Crankshaft measurement´ or ´Ovality measurement´ during set-up of the Prisma DI-5C.

Each level is displayed for each position on the screen left side.

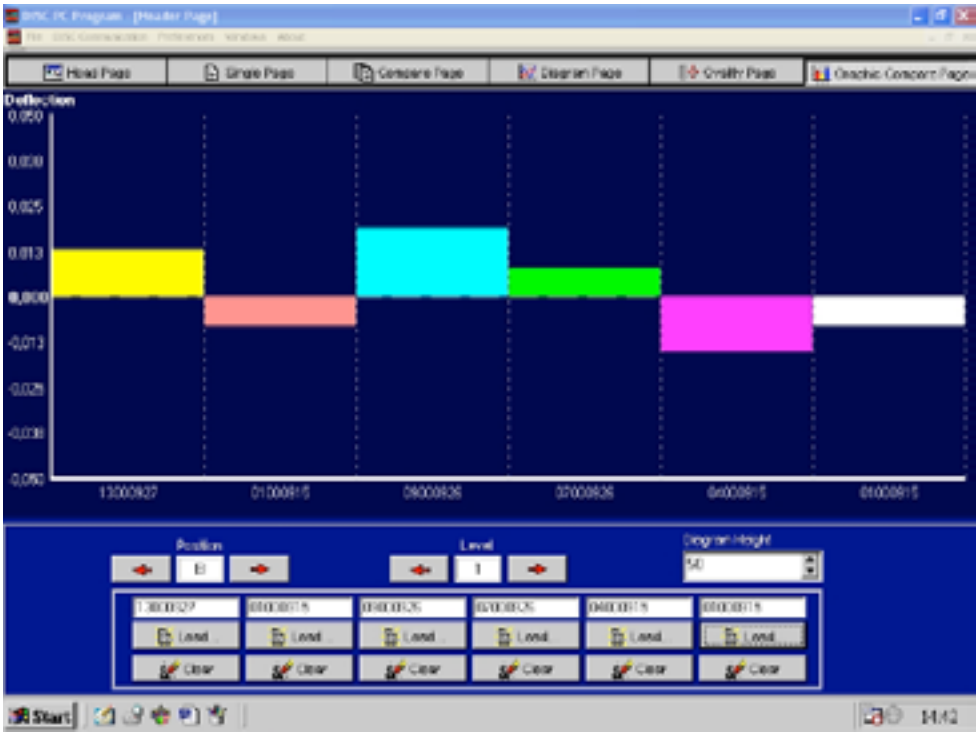
The profile displayed on the right side shows the ovality for each level.

Ensure that measurements are recorded with Level 1 at the bottom of the cylinder liner, otherwise the readings will be reversed (upside down).

Should you wish to alter measurement angles, go to ´Preferences´ window in the menu and select ´Options´.

Print, Load and Clear documents at will, as previously described.

10. GRAPHIC COMPARE PAGE



Pressing the F6 key brings up the GRAPHIC page, where up to six different document readings may be displayed and compared on-screen, to show trends and to ease decision of necessary actions. It can also be found under the 'Windows' menu.

Print, Load and Clear documents at will, as previously described.

11. EXPORT TO EXCEL

How to export the measured data to Excel

- **Install Prisma DI-5C** latest software version 4.0.1 on your PC.
  Request a link, from our website prismatibro.se, to the latest software version

- **Connect Prisma DI-5C instrument** to your PC via USB cable.

- **Turn on the Prisma DI-5C instrument** by clicking on OK button.

- **Open Prisma DI-5C software** which is installed on your PC.

- **From the menu** click on DI-5C Communication:
  Select Choose Document from DI-5C.
  Once you select any of the documents which are already saved in Prisma DI-5C instrument, you will be able to view the measured data by clicking on the Single page.

- **Click on the Compare page** to view the data from the Single page which are stated on Document 1 in order to compare it with Document 2.
  To view the data on Document 2, click on Load button, to upload any document which you may have saved on your PC before.

- **Click on File from the menu**, then select Export as Excel to save the Excel file on your PC.

Views in Excel

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MAIN PAGE							
Document Number	14150417	Install number					
Ship / Name / Plant		Crankshaft Ident.					
Engine Type	Main Engine	Measuring direction	Clockwise				
Engine NR	10	Cylinders in total	4				
ENGINE CONNECTED TO		ENGINE INSTALLED ON		TEMPERATURES		DRAFT	
Water Brake	No	Steel Chocks	No	Engine Condition	Warm	Fore	
Alternator	No	Chockfast	No	Ambient	40	Aft	
Gear	No	Rubber Cushions	No	Lubricating Oil	70	Trim	
Other	No			HT Cooling Water	80		
Free End PTO	No	CLUTCH				Bore/Stroke	
						Running Hours	
Place						Time between stop and indicating	
Name						Engine running continuosly before indicating	
Date	150417						
Remarks							

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SINGLE PAGE			LEVEL 1	LEVEL 2	LEVEL 3	LEVEL 4	LEVEL 5	LEVEL 6	LEVEL 7	LEVEL 8	LEVEL 9	LEVEL 10	LEVEL 11	LEVEL 12
Document Number	14150417	Pos A	0,029	0,015	- 0,173	- 0,005	0,029	0,015	- 0,173	- 0,005	0,029	0,015	- 0,173	- 0,005
Name / Ship / Plant		Pos B	0,028	0,031	- 0,111	- 0,027	0,028	0,031	- 0,111	- 0,027	0,028	0,031	- 0,111	- 0,027
Engine Nr	10	Pos C	- 0,015	0,030	0,078	- 0,056	- 0,015	0,030	0,078	- 0,056	- 0,015	0,030	0,078	- 0,056
Engine Type	Main Engine	Pos D	- 0,023	- 0,044	- 0,036	- 0,039	- 0,023	- 0,044	- 0,036	- 0,039	- 0,023	- 0,044	- 0,036	- 0,039
Cylinders In Total	4	Pos E	- 0,013	0,119	- 0,122	- 0,015	- 0,013	0,119	- 0,122	- 0,015	- 0,013	0,119	- 0,122	- 0,015
Limit Value	0,500	Max Deflection	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052

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COMPARE PAGE				LEVEL 1		LEVEL 2		LEVEL 3		LEVEL 4		LEVEL 5		LEVEL 6	
	DOC 1	DOC 2		DOC 1	DOC 2	DOC 1	DOC 2	DOC 1	DOC 2	DOC 1	DOC 2	DOC 1	DOC 2	DOC 1	DOC 2
Document Number	14150417	14150418	Pos A	0,029	0,015	- 0,173	- 0,005	0,029	0,015	- 0,173	- 0,005	0,029	0,015	- 0,173	- 0,005
Name / Ship / Plant			Pos B	0,028	0,031	- 0,111	- 0,027	0,028	0,031	- 0,111	- 0,027	0,028	0,031	- 0,111	- 0,027
Engine Nr	10	12	Pos C	- 0,015	0,030	0,078	- 0,056	- 0,015	0,030	0,078	- 0,056	- 0,015	0,030	0,078	- 0,056
Engine Type	Main Engine	Main Engine	Pos D	- 0,023	- 0,044	- 0,036	- 0,039	- 0,023	- 0,044	- 0,036	- 0,039	- 0,023	- 0,044	- 0,036	- 0,039
Cylinders In Total	4	4	Pos E	- 0,013	0,119	- 0,122	- 0,015	- 0,013	0,119	- 0,122	- 0,015	- 0,013	0,119	- 0,122	- 0,015
Limit Value	0,500	0,500	Max Deflection	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052	0,052

NOTES

Prisma DI-5C

- Made In Sweden
- Easy To Use
- Accuracy: 1/1000 mm
- Trickle Charge
- Option: Ovality Kit
- **Transfer to Windows-PC**

Prisma DI Ovality Kit

ITEM NO 488-8100

Cylinder liner maintenance.
The Ovality Kit is an accessory to the Prisma DI-5C and Prisma DI-5. The method is simply giving 5 measuring points at each level of the liner. To compare the levels you will also see how much the wear of the liner is in the cylinder top.

Using the Prisma DI Ovality Kit together with Prisma DI-5C and kit you do have an outstanding funktion to load all your measurements into the PC software and print out graphs to see the wear and how it develops over time.

Prisma DI-5

- Made In Sweden
- Easy To Use
- Accuracy: 1/1000 mm
- Trickle Charge
- Option: Ovality Kit

MORE INFO

Manual for
INSTRUMENT
can be downloaded
at prismatibro.se

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