

**DYNAPLUG – HF44/1A**



 Equipment  
compliant with  
CE directives

**Operating and  
maintenance  
manual**

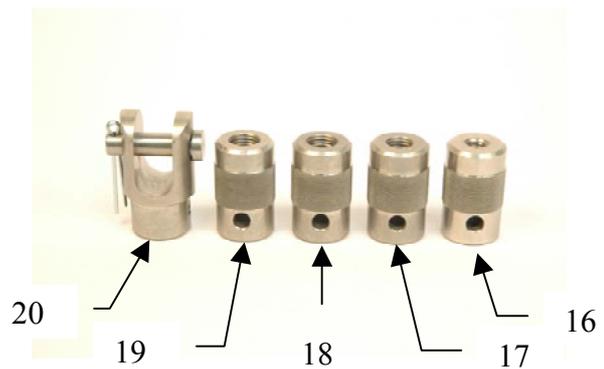
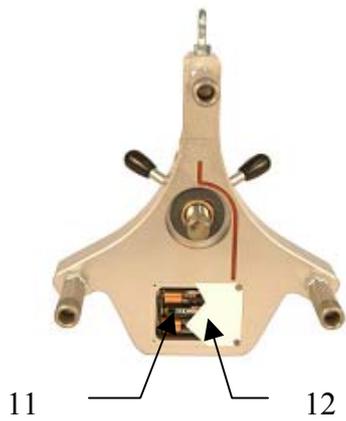
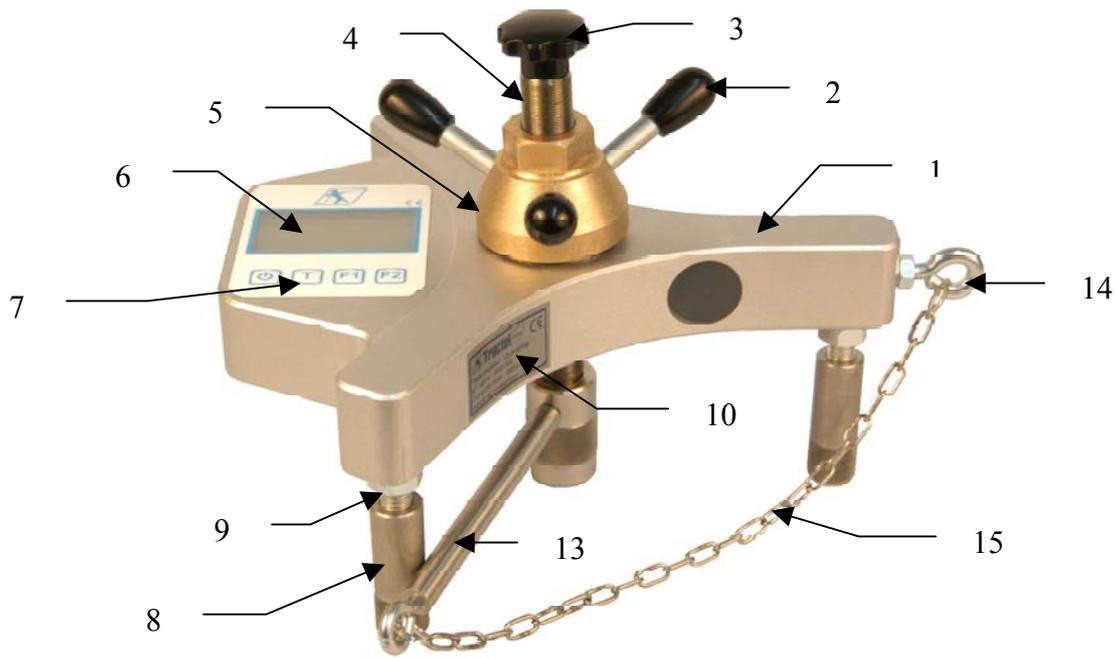
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## **PRIORITY INSTRUCTIONS**

- 1- To get the best use of the sophisticated technology provided by the equipment which you have just purchased, you must carefully read and understand the technical sheets covering this equipment. All our technical sheets are available on request.
- 2- Before installing and using your TRACTEL equipment, you must read this manual and carefully follow all the instructions given. Keep this manual in a safe place. Additional copies can be supplied on request.
- 3- TRACTEL equipment must only be installed and used in full compliance with all applicable safety and health rules.
- 4- Never apply a load exceeding the maximum utilization load to the sensor and never use the sensor for any operation for which it is not intended.
- 5- TRACTEL declines any responsibility for the consequences resulting from disassembly of a unit or any change made to a unit without its authorization and supervision (loss of warranty).
- 6- TRACTEL equipment must not be used in an explosive atmosphere.
- 7- The compatibility of the utilization coefficients with respect to applicable regulations must be verified before any TRACTEL equipment can be used in a line used to lift personnel.
- 8- An analysis of the risks specific to the operating functions implemented must be carried out prior to any use of the sensor with additional equipment relaying their signals to an operating system. This analysis should be carried out either by the user or by the system installer. Appropriate measures must be taken to control all risks identified.

**DESCRIPTION AND MARKINGS.**

**Dynaplug HF 44/1A**



1	Sensor body	11	Housing for 3 batteries, 1.5 V type AA
2	Traction handwheel	12	St. stl. cover for access to batteries
3	Fast drive knob	13	St. stl. attaching pin
4	Fine pitch traction bolt	14	Suspension ring
5	Angular contact spherical bearing	15	St. stl. chain between ring and pin
6	LCD screen	16	St. stl. threaded bushing M10
7	Control keypad	17	St. stl. threaded bushing M12
8	St. stl. leg on threaded rod M12	18	St. stl. threaded bushing M14
9	Locknut M12	19	St. stl. threaded bushing M16
10	Identification label	20	Traction fork for ring

Keypad functions :



ON/OFF  
Or Exit



Enter



Function 1



Function 2

## **BASIC OPERATING INSTRUCTIONS**

Purpose: to apply a tensile load on a structural anchor while verifying the value of the load.

### **PROCEDURE :**

1. Secure the appropriate accessory (bushing or clevis) to the end of the structural anchor.
2. Switch on the dynaplug by pressing the "ON/OFF" button for 2 seconds.
3. Insert the end of the fine pitch traction bolt in the accessory secured to the structural anchor. If necessary, adjust the length of the legs and the position of the traction bolt.
4. Line up and secure the accessory and the traction bolt using the pin.
5. If necessary, correct the perpendicularity of the fine pitch traction bolt with respect to the axis of the structural anchor by adjusting the legs.
6. Turn the handwheel to apply the desired tensile load to the structural anchor.  
Caution : Maximum load = 1.500 daN
7. The value of the load is indicated in daN on the LCD screen.
8. Perform the procedure in reverse order to remove the dynaplug from the structural anchor.

## AUTOMATIC TEST : 500 daN for 15 s

Purpose: To satisfy the requirements and recommendations of standard EN 795 .

Excerpt from point A6 in appendix A.

" Subject each structural anchor, once secured to the considered material, to an axial tensile load of 5 kN to check the attachment strength. The structural anchor should withstand the load for at least 15 seconds."

### PROCEDURE :

1. Secure the appropriate bushing to the end of the structural anchor.
2. Switch on the dynaplug by pressing the "ON/OFF" button for 2 seconds.
3. Insert the end of the fine pitch traction bolt in the bushing secured to the structural anchor. If necessary, adjust the length of the legs and the position of the traction bolt.
4. Line up and secure the bushing and the traction bolt using the pin.
5. If necessary, correct the perpendicularity of the fine pitch traction bolt with respect to the axis of the structural anchor by adjusting the legs.
6. Turn the handwheel to apply a tensile load of 500 daN ( +20 / - 0 ) to the structural anchor. The value of the load is indicated in daN on the LCD screen. If the 500 daN objective is not achieved, the automatic test sequence is not reinitiated and the "**L0**" message is displayed on the screen.
7. Press button F1; this triggers the automatic test sequence. After 15 seconds, during which the display flashes between the value of the load and "**t1**", the test result is displayed. Press ON/OFF if you want to interrupt the test sequence.

"**600d**" (Good ) means that the test is successful.

- Press T to save the operation number and the value of the load at the end of the test.
- If you do not want to save, press ON / OFF.

"**Err**" means that the structural anchor has not satisfied the test since the load has decreased by a value of more than 25 kg ( 5% ) pointing to loosening of the attachment.

- Press T to save the operation number and the "**0**" information indicating that the structural anchor is deficient.
- If you do not want to save, press ON / OFF.

8. Press "ON/OFF" for 2 seconds to switch off the unit.
9. Perform the procedure in reverse order to remove the dynaplug from the structural anchor.
10. Read the values stored in memory :  
With the unit switched off, press "ON/OFF"; the display indicates "**rEAd**". Press "T", the display indicates "**1**" (test No. 1). Using "F1" or "F2", scroll the numbers of the tests performed.  
Press "T" to display the value of the load at the end of the test or the "**0**" message if the test failed. Press "ON/OFF" to exit.  
Switch off the unit by pressing "ON/OFF" for 2 seconds.

## **AUTOMATIC TEST : 1.000 daN for 3 minutes**

Purpose : To satisfy the requirements and recommendations of standard EN 795 .

Excerpt from 4.3.4. Class D – Type tests on devices equipped with horizontal rigid belay supports :

" A static test must be performed in compliance with 5.2.5 by applying a load of 10 kN in the direction in which the load is likely to be applied when in service. This load must be maintained for 3 minutes. The anchor device must withstand the load."

### **PROCEDURE :**

11. Secure the appropriate clevis to the end of the anchor.
12. Switch on the dynaplug by pressing the "ON/OFF" button for 2 seconds.
13. Insert the end of the fine pitch traction bolt in the hole of the clevis secured to the structural anchor. If necessary, adjust the length of the legs and the position of the traction bolt.
14. Line up and secure the bushing and the traction bolt using the pin.
15. If necessary, correct the perpendicularity of the fine pitch traction bolt with respect to the axis of the structural anchor by adjusting the legs.
16. Turn the handwheel to apply a load of 1.000 daN ( +50 / - 0 ) to the anchor. The value of the load is indicated in daN on the LCD screen. If the 1.000 daN objective is not achieved, the automatic sequence will not be initiated.
17. Press button F1 to trigger the automatic test sequence.  
After 3 minutes, during which the display flashes between the value of the load and "t2", the test result is displayed. Press ON/OFF if you want to interrupt the test sequence.  
  
**600d**" (Good ) means that the test is successful.
  - Press T to save the operation number and the value of the load at the end of the test.
  - If you do not want to save, press ON / OFF.  
**"Err"** means that the structural anchor has not satisfied the test since the load has decreased by a value of more than 50 kg ( 5% ) pointing to loosening of the attachment.
  - Press T to save the operation number and the "0" information indicating that the structural anchor is deficient.
  - If you do not want to save, press ON / OFF.
18. Press "ON/OFF" for 2 seconds to switch off the unit.
19. Perform the procedure in reverse order to remove the dynaplug from the structural anchor.
20. Read the values stored in memory :  
With the unit switched off, press "ON/OFF"; the display indicates "rEAd". Press "T", the display indicates "1" (test No. 1). Using "F1" or "F2", scroll the numbers of the tests performed.  
Press "T" to display the value of the load at the end of the test or the "0" message if the test failed. Press "ON/OFF" to exit.  
Switch off the unit by pressing "ON/OFF" for 2 seconds.

## CLEARING THE MEMORY.

With the unit switched on, press and release "ON/OFF"; the display indicates " **rEAd**". Press "F1": the display indicates "**rSt**" ( reset ). Press "T" : the display indicates "**no**". Press F1 or F2 to display "**YES**"( confirmation ). Press "T" : the display indicates "**dOnE**" (memory successfully cleared).

## SERVICING.

Except for the traction bolt which must be lightly greased (inert silicon grease), the DYNAPLUG does not require any special maintenance. When the DYNAPLUG is used under rain, we recommend that you wipe it off and dry it before placing it in its case.

## CALIBRATION.

The DYNAPLUG is supplied with a « CE » certificate and a calibration certificate. Since this is a measurement and control device, an accuracy check should be performed every 12 months.

## MESSAGES.

<b>rSt</b>	Reset memory
<b>rEAd</b>	Read memory
<b>byE</b>	Unit switched off
<b>600d</b>	( Good) Test successful
<b>Err</b>	Test failed
<b>no</b>	Function not available
<b>FrE</b>	Memory locations still available
<b>YES</b>	Request for confirmation (T to validate)
<b>dOnE</b>	Command executed
<b>t 1</b>	500 daN test 15 s
<b>t 2</b>	1000 daN test 3 min.
<b>L0</b>	Insufficient tension to perform test
<b>----</b>	Sensor signal too high
<b>----</b>	Sensor signal too low
<b>daN</b>	Measurement unit
	Batteries discharged