

Cable Testers White Paper



AnTech's Cable Testers are useful for making destructive tests of cables and weak points. They are used to ascertain the strength of cables and weak points in advance to avoid any doubts. Until recently, this has not been possible due to the lack of suitable equipment. Now, using AnTech's Cable Testers, a quantitative measurement of cable condition can be made. The portable Cable Testers are intended for use in conjunction with a Hydraulic Hand Pump, in monitoring wire-line cables and weak points in the field environment.

There are also important training benefits to be gained. Monocable weak points depend not only on the physical condition of the strands but also on how they are constructed. By using the portable testers, engineers and operators can be given direct feedback on their work in a shop environment rather than in a client well.

The portable testers can also be used for other tasks where the tensile load is required. Simply change the mounting adapters and test other items which use shear pins, shear screws or some other breakable parts. The complete assembly is fitted into a lightweight carrying case for ease of portability and storage.

The Hydraulic Hand Pump Kit is a general purpose hand pump for use in pressure testing and filling operations. This versatile kit is suitable for a wide range of applications where hydraulic pressure at small volumes is required.

Features and Benefits

These products are designed to test downhole cable and cable head weak points.

They can be used to break the cable so the operator can determine more accurately the maximum pull load whilst the downhole work is progressing, or apply a proof load to determine whether a cable is still suitable for downhole service. This can save scrapping valuable cable prematurely.

Using a suitable adapter, cable head rope sockets or weak points can be tested. This serves two purposes: first it acts as a valuable quality assurance tool so that the engineer making up the weak point knows exactly what load the weak point will operate at; secondly it can be used as a training tool to indicate the potentially catastrophic effect of not making up the weak point to the defined procedure.

The Cable Testers are portable and supplied in a single rugged case. Also the test samples are fully enclosed in a metal tube to protect personnel operating the equipment. AnTech have decades of oil field experience and understand that this equipment needs to be rugged and corrosion resistant. This all means that the equipment can be taken to the wellsite and the cable can be tested in situ. This can save huge amounts of time which would ordinarily be needed for sending a sample to a laboratory for testing.

When ordering it is essential to specify the cable size, so that the correct cable clamps can be supplied. A table of the available clamp sizes is provided at the end of this White Paper. If the Cable Tester is required to break cables then two cable clamps will be needed per cable size. The user must also specify what type of weak point is to be used and provide an interface drawing, this will allow AnTech to provide the correct weak point adapter with the equipment.



Ratings and Specifications

AN-06868 Cable and Weak Point Tester		
Minimum Line Size OD	in	0.22
Maximum Line Size OD	in	0.75
Maximum Cylinder Capacity	lbf	25,000
Maximum Stroke	mm	76
Maximum O.D.	mm	82
Maximum I.D.	mm	40
Total Length	mm	1250 assembled
Total Gross Weight	Kg	33

AN-01081 Hydraulic Hand Pump Kit		
Maximum Pressure	Psi	10,000
Maximum Handle Effort	Kg	40
Usable Oil Quantity	cm ³	327
Hose Length	mm	900
Length (without coupling)	mm	338
Total Width	mm	95
Total Height	mm	144
Weight	Kg	2.1

Cable Clamp Part Numbers	
0.22" Cable	AN-04939
0.23" Cable	AN-04939
0.29" Cable	AN-04580
0.32" Cable	AN-04581
0.39" Cable	AN-04582
0.46" Cable	AN-04936
0.47" Cable	AN-04936