



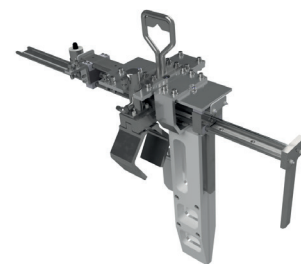
FUGRO CHAIN INSPECTION CALIPER

One of the most important activities during subsea chain inspection is to conduct dimensional checks on the links because any measurement anomaly is usually a sign of defects, in plane bending or interlink section wear.

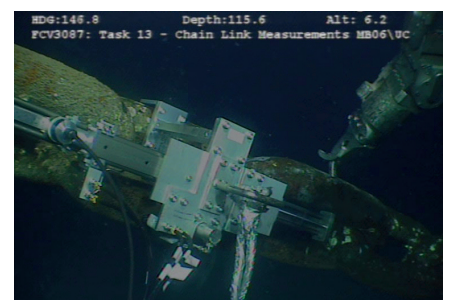
Fugro has developed a Chain Inspection Caliper based on extensive operational experience in an effort to produce more reliable and repeatable measurements than other conventional ROV Caliper designs. The Caliper's unique design is primarily aimed at measuring the critical interlink measurement but can also be used for taking other measurements within the measurement range. One of the key features of the Caliper is an integrated hydraulic gripper to clamp the tool to the chain link upon deployment. This allows the ROV to release the Caliper so the tool is stable and independent from ROV movement when the measurement is taken.

It is designed to be manipulator deployed by any work class ROV and the tool incorporates an integrated camera for taking the measurements.

The Chain Inspection Caliper was originally designed for two specific chain link sizes of nominal diameters 142 mm and 160 mm, but it can be modified to suit other chain sizes as required.



Caliper design.



Caliper locked onto chain subsea.

CHAIN INSPECTION CALIPER

Technical Specification

General

Size	1345 mm long; 462 mm wide; 1005 mm high
Weight in air	46 kg (approx)
Weight in water	40 kg (approx)

Depth Rating

Rating	3000 m
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Measurements

Range	150 mm – 575 mm
Accuracy	+/- 1 mm, calibration block supplied

ROV Interface - Hydraulic

Gripper working pressure	210 bar
Measurement piston working pressure	20 bar (pressure reducer PBBB-LBN-JYT)
Maximum flow	20 l/min.
Hydraulic oil	ISO vg 32
Hoses	4 off 8 meters hoses ¼" pdh2 with Swagelok tube stub ends

ROV Interface - Electrical

Camera connection	8-Pin micro Subconn MCL8F
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Transportation

Shipping box	1500 mm x 800 mm x 600 mm
Weight	50 kg

