

**ENGINEERING DOWNHOLE  
LOCKING GEOPHONE**

# Borehole Pick 3315

**<Abstract>**

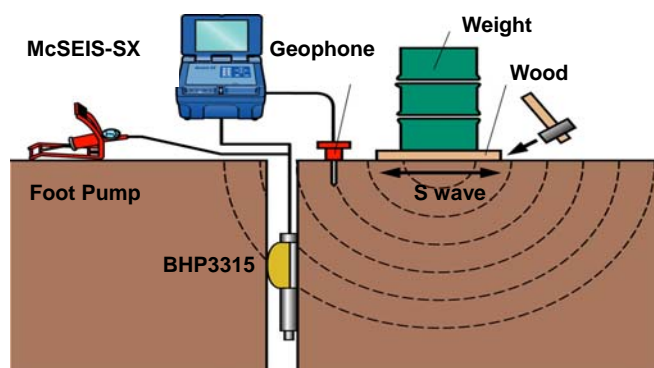
The Borehole Pick is what we call the Borehole Geophone used for PS logging to measure P wave and S wave velocities of the ground. This instrument is constituted by the 3-component geophone, the unit to effect the pressurized contact of the system to the borehole wall, and the cable with additional installation of the air supply tube. In the geophone unit, the geophone of moving coil type is being built, constituted by one component vertical and two components horizontal. The unit to effect the pressurized contact of the system to the borehole wall is adapting the method of pressurizing, inflating, and expanding the external rubber tube in the geophone for its pressurized contact to the borehole wall. Furthermore, the cable with additional installation of the air supply tube is used for transferring the signal from the geophone, and for supplying the air that serves to give pressure to and inflate the rubber tube. Having the features effective for PS logging, being handy dimensionally, and easily accessible to its operation.

**<Features>**

- Being designed small in size and light in weight, the Instruments can applied for the borehole of comparatively small diameter (56mm  $\phi$ )
- Adopting the unit to effect the pressurized contact of the system to the borehole wall by the rubber tube, the Instrument can be fixed at the optional depth in the borehole.
- Rubber tube can be replaced easily when necessary, without disassembling the mainframe.
- Being unitized with the cable, the air supply tube for inflating the rubber tube eliminates the complexity with jobs in the site, and enables inserting into the borehole, and drawing out from it this Instrument.
- With the depth scale marked on it, the cable offers easy access to verify the measuring depth.

## < Specification >

Block	Item	Specification	Remarks
Vertical geophone	Natural frequency	28Hz	
	Sensitivity	104mV/kine	
	Impedance	215Ω	
Horizontal geophone	Natural frequency	28Hz	
	Sensitivity	104mV/kine	
	Impedance	215Ω	
Rubber tune	Outer dia x Inner dia x Length	40 × 36 × 130mm	
	Max outer dia.	86mm	
	When inflated	200kPa	
	Max. pressurizing force	(When the atmospheric pressure is 1)	
Cable	Number of conductors	4pairs ( 8 conductors )	Φ0. 54mm/conductor
	Tube	6mm (outer dia.) 4mm (inner dia.)	Transparent, pressure proof 1000kPa
	Measure	Marked with 10cmscale	Standard cable length 100m
	Shield	Aluminum miler	
	Sheathing material	PVC	Transparent
	Tensile strength	360kg	Strength of Tension wire
	Outer dia.	11. 0mm	
Connector	Connector type	NK-27-21C-7/8	NK or GK
Temperature		0~40°C	
Material quality	Mainframe	SUS 304	
Dimensions	Outer dia. X Length	Φ 43 × 303mm	
Weight	Mainframe + cable 100m	約 13 kg	



**OYO**  
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JQA-2772

Please note specifications are subject to change without notice for the improvement.

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