



Smart DS Camera

Applicable to cylinder with bore of 35 or larger

Specialists in Lifeboats, Cranes, Shipping & Offshore Containers, Pipelines, Valves & More



Automatic Photographic Device for Marine Engine Cylinder

- Thin structure, measuring only approximately 25 mm in height
- No cooling material needed
- Easy to operate using only the buttons on the body
- Contribution to make inspection of engine cylinders more efficient
- Image transfer to PC by an external USB port or Wi-Fi



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Benefits

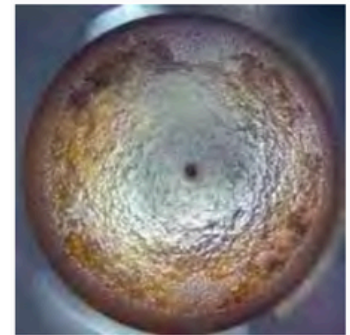
In conventional methods for inspecting the inside of cylinders, a worker enters inside (open-up inspection) or inspects the inside by viewing from scavenging ports. Open-up inspection, however, takes long time, and workload is high. Furthermore, a test run (or re-assembly in some cases) may be required after the re-assembly.

DS Camera, once set on top of a piston, can photograph all 360-direction in the cylinder

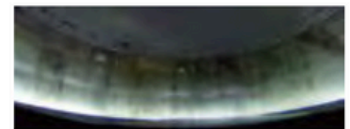
automatically in one round of the piston movement. By using the DS Camera, workload and time can be drastically reduced. Captured images make it possible to see the inside condition of the combustion chamber in detail and analyze the condition.

- No need to open up the engines.
 - Ease the burden on workers.
 - Removes the risk of reassembling.
- Photographing is available when vessels are in ports.
 - Data of changes over time for each cylinder can be acquired.
 - Preventive maintenance detecting a sign of failure is available.

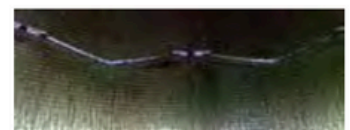
< Images of a Combustion Chamber >



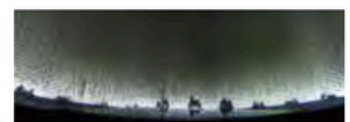
Exhaust Valve (Fire Side)



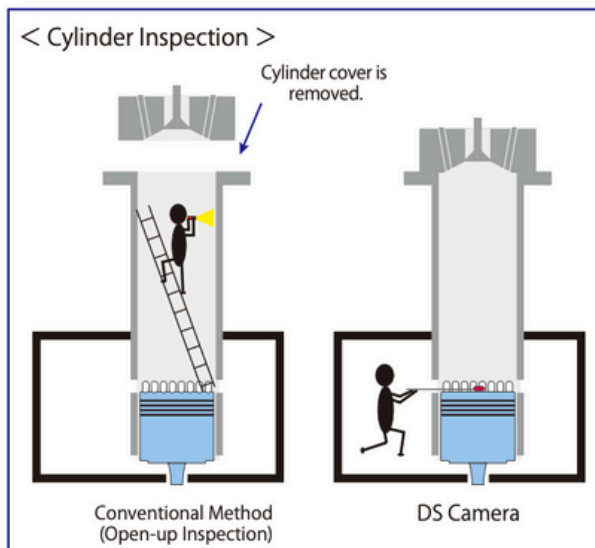
Top Dead Center



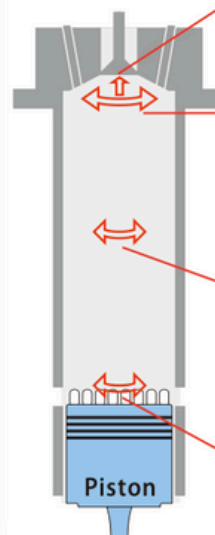
Oil Feed Hole



Bottom Dead Center



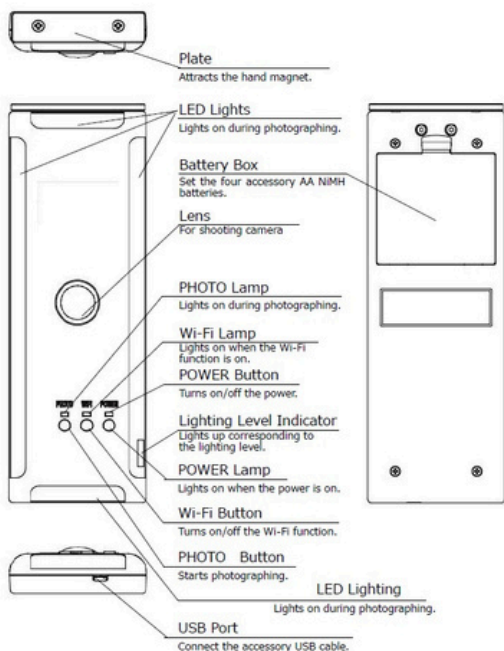
Camera points in a cylinder



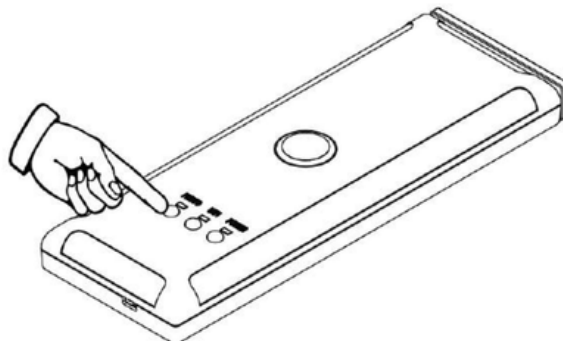
DS Camera

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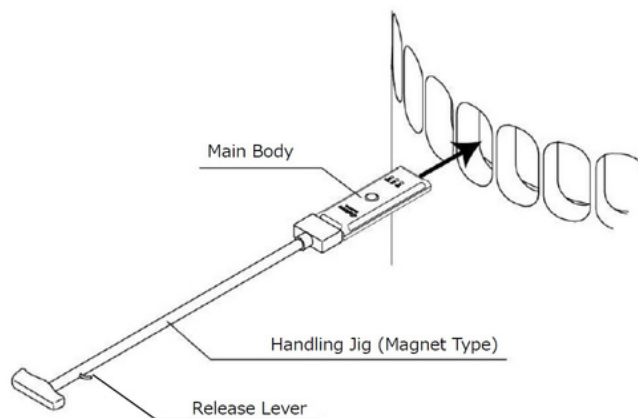
Parts and Names



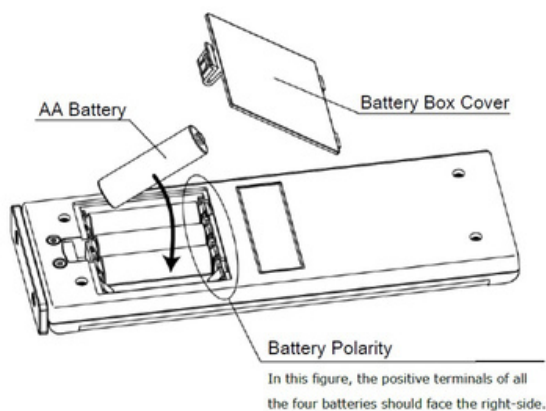
(2) Turning Camera ON



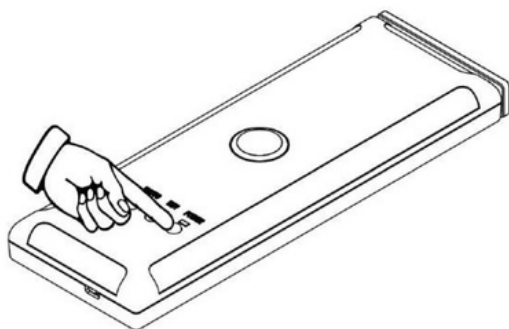
(4) Loading/Unloading and photographing



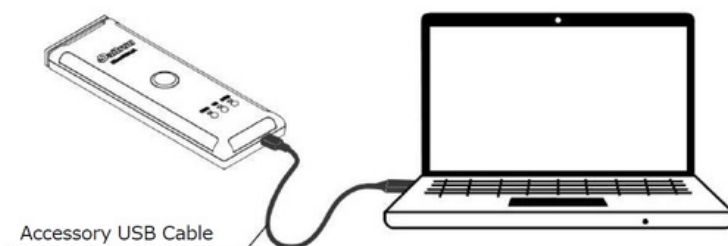
(1) Installing the batteries



(2) Turning Power ON

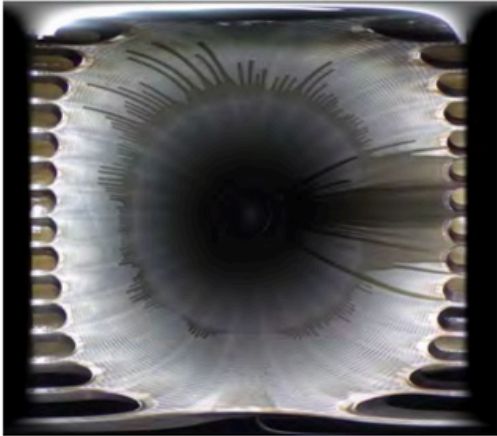


(5) Exporting Image to PC

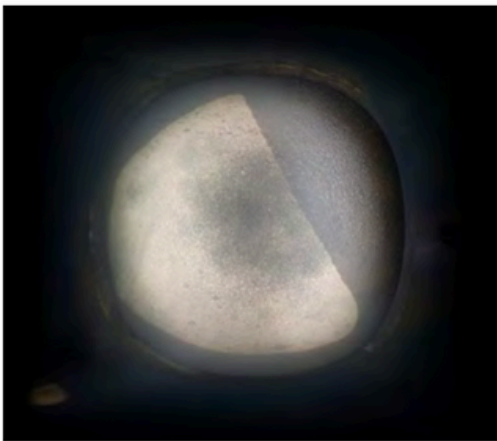
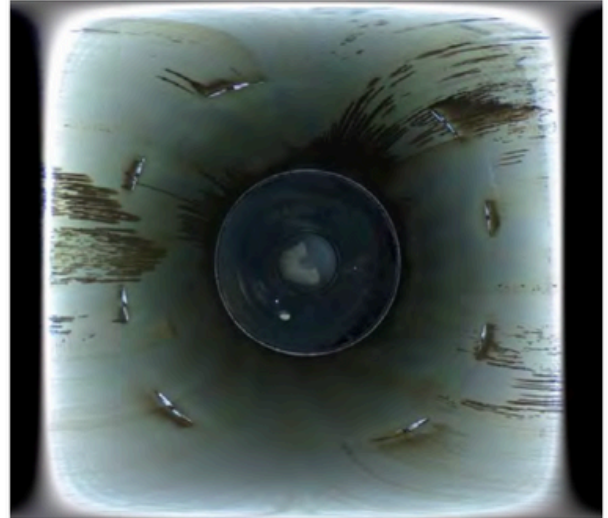


DS Camera

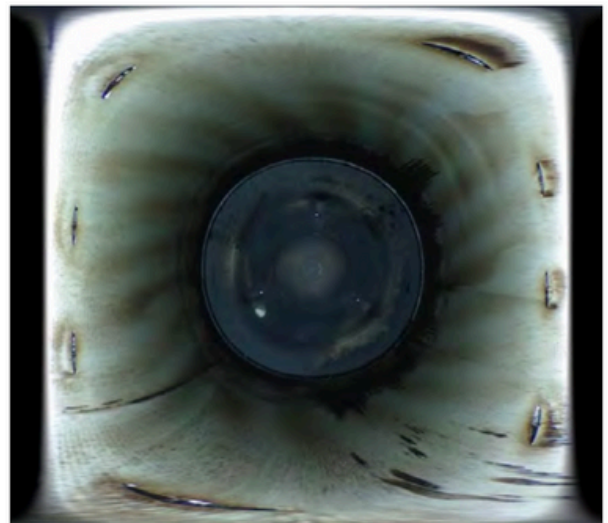
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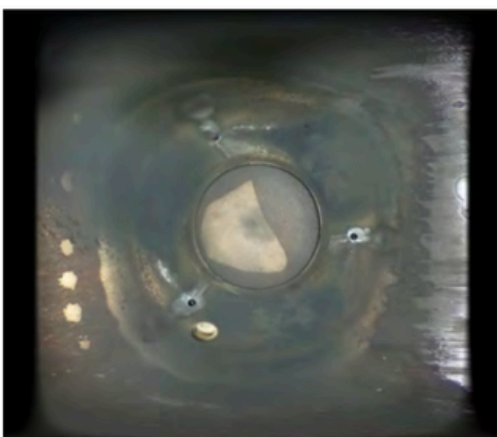
DBC Area



Exhaust Valve



**Lubricating Quill Areas -
Easily Visible Quill and Oil
Flow Check**



**Combustion Chamber Indicating
underside of Cylinder Head ,
Exhaust Valve , Injectors Tips**