Dynamic Positioning Committee

Marine Technology Society

THRUSTERS

Advanced Technology of Thruster Seal

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Kobelco Marine Engineering

Session Chair – Dietmar Deter, Nautex

September 16-17, 2003
Houston, Texas

DYNAMIC POSITIONING CONFERANCE

Advanced Technology of Thruster Seal

KOBELCO MARINE ENG. CO., LTD.

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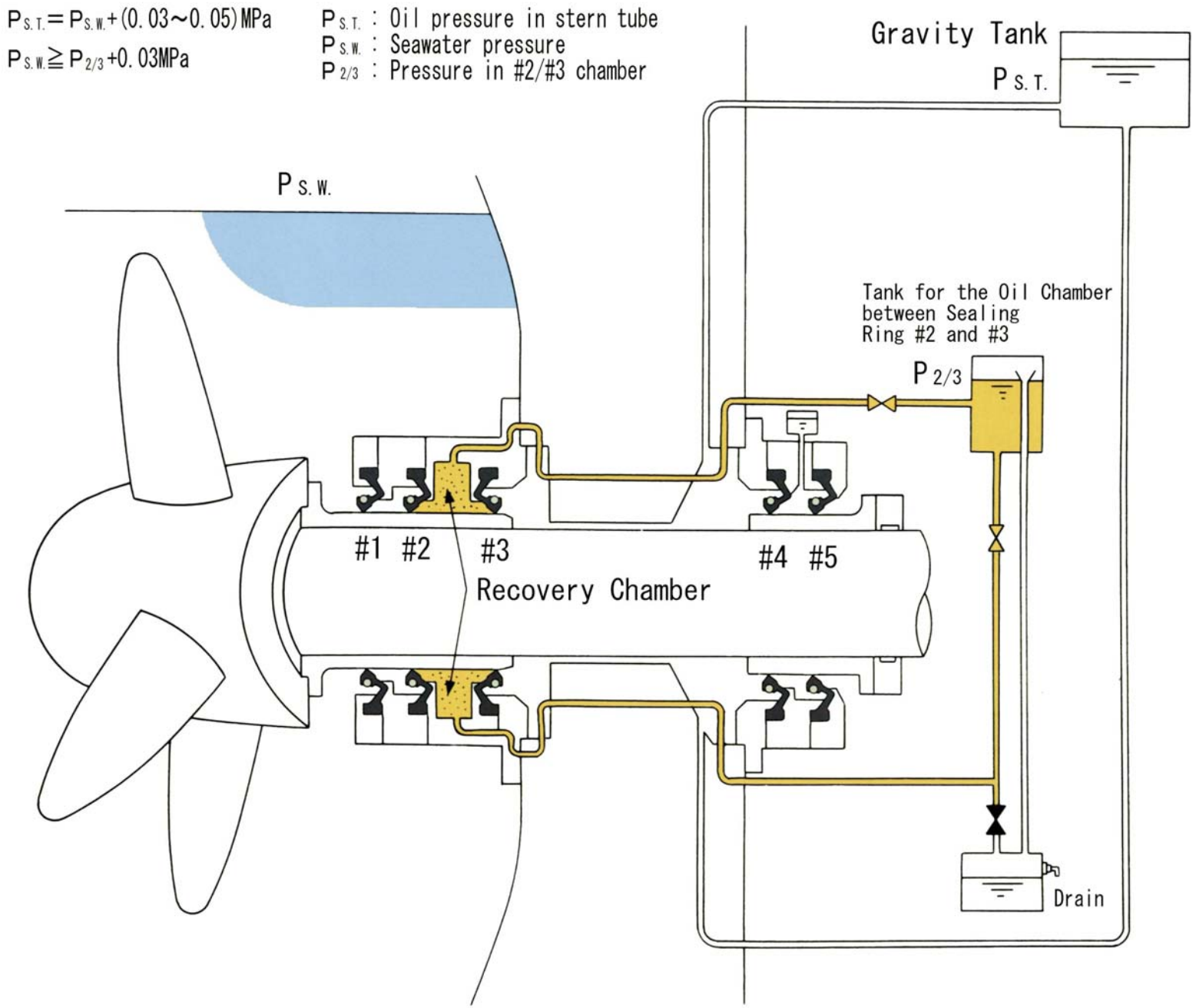

Fig 1 Structure of lip type stern tube seal

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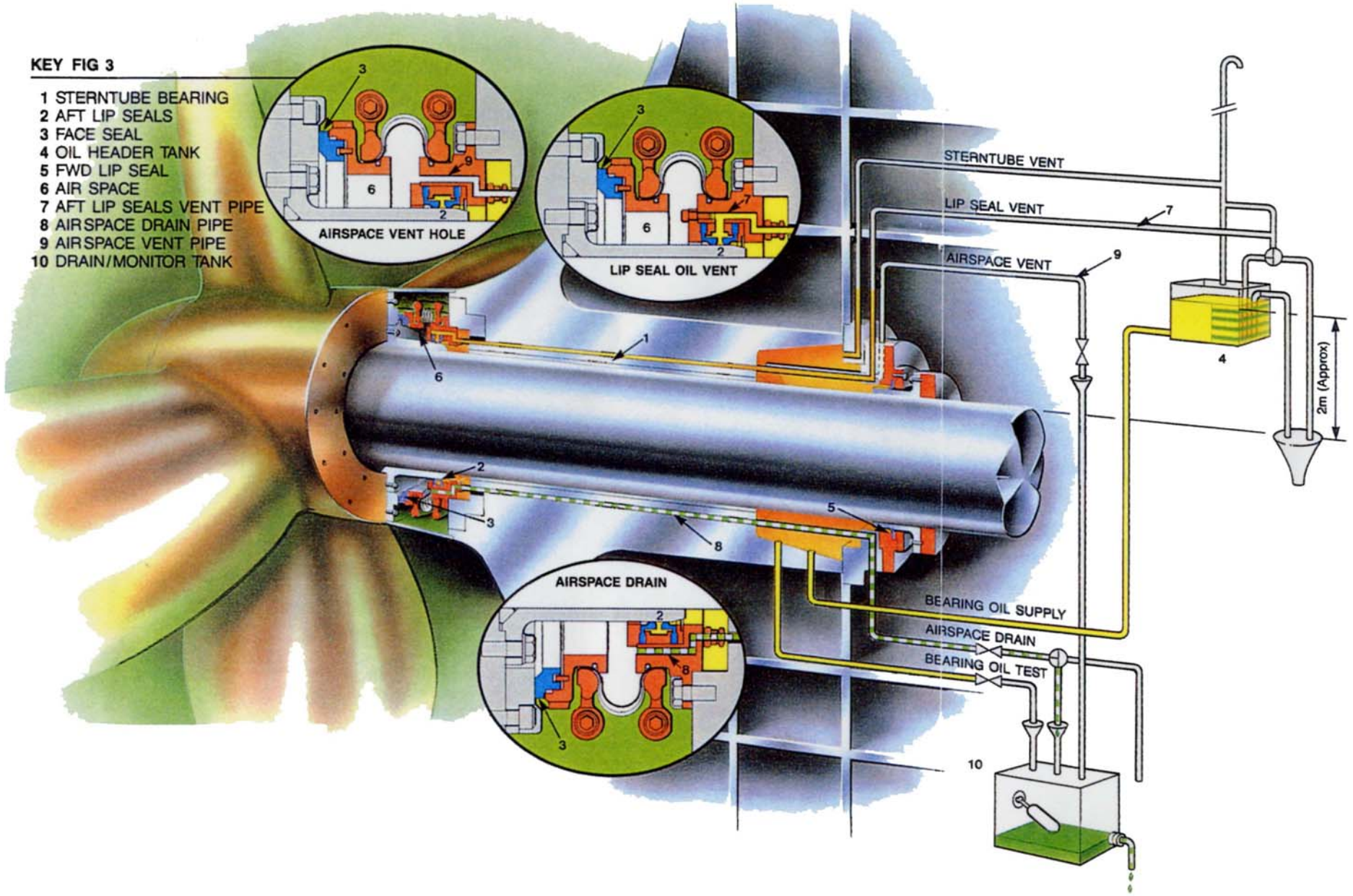

Fig 2 Coastguard Sternseal System

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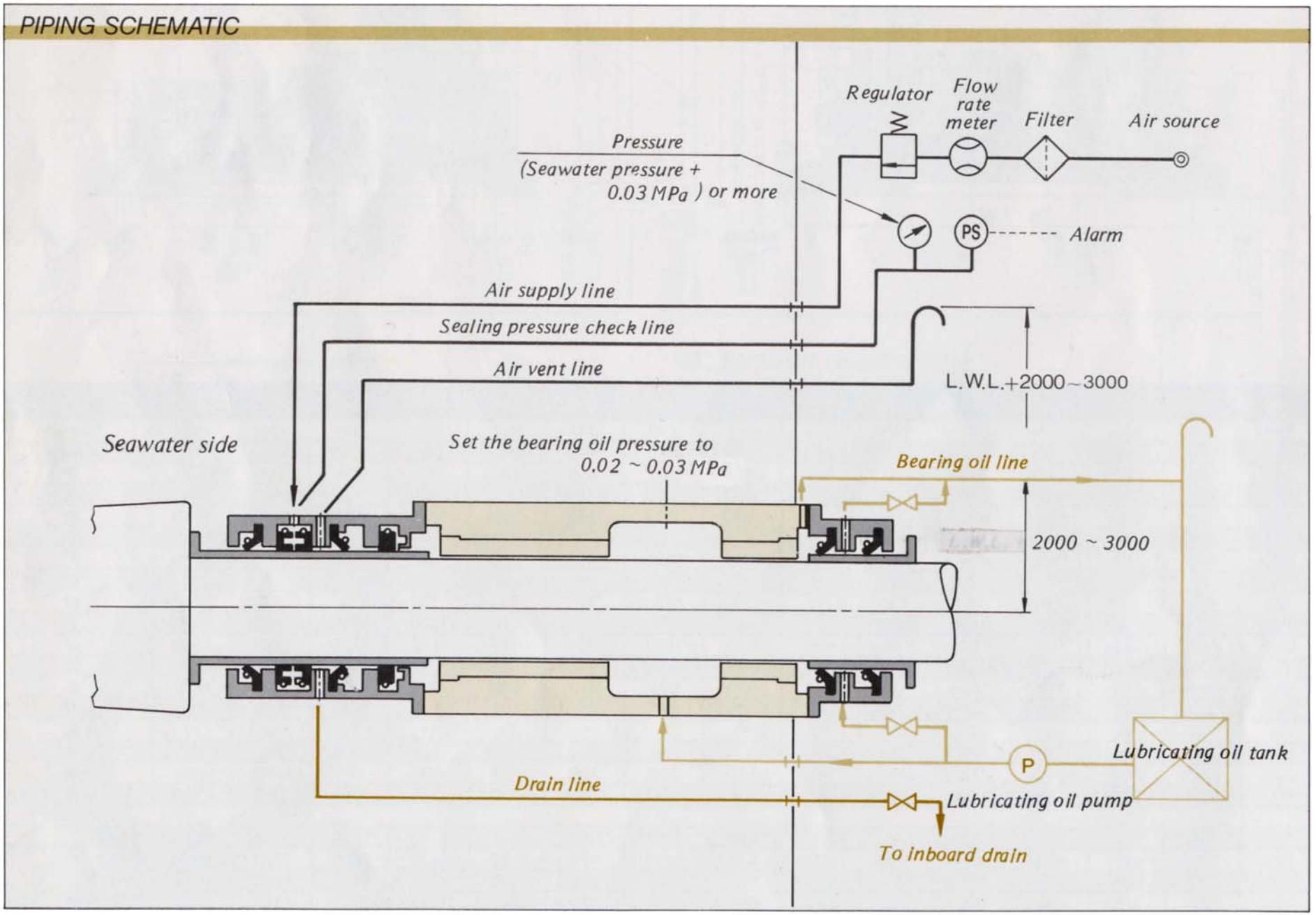

Fig 3 Stern Dry Seal EVS-1

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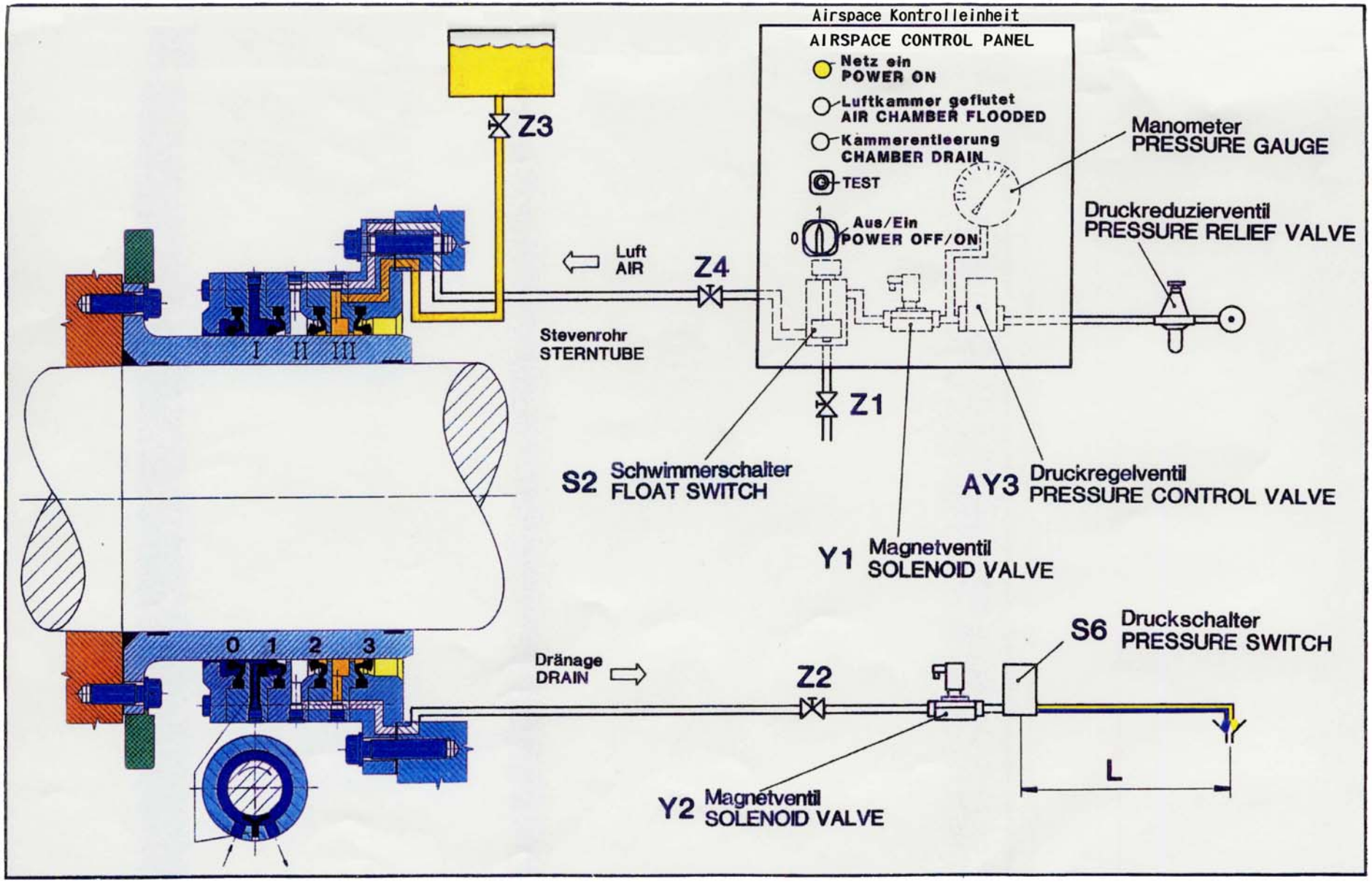

Fig 4 Airspace 1

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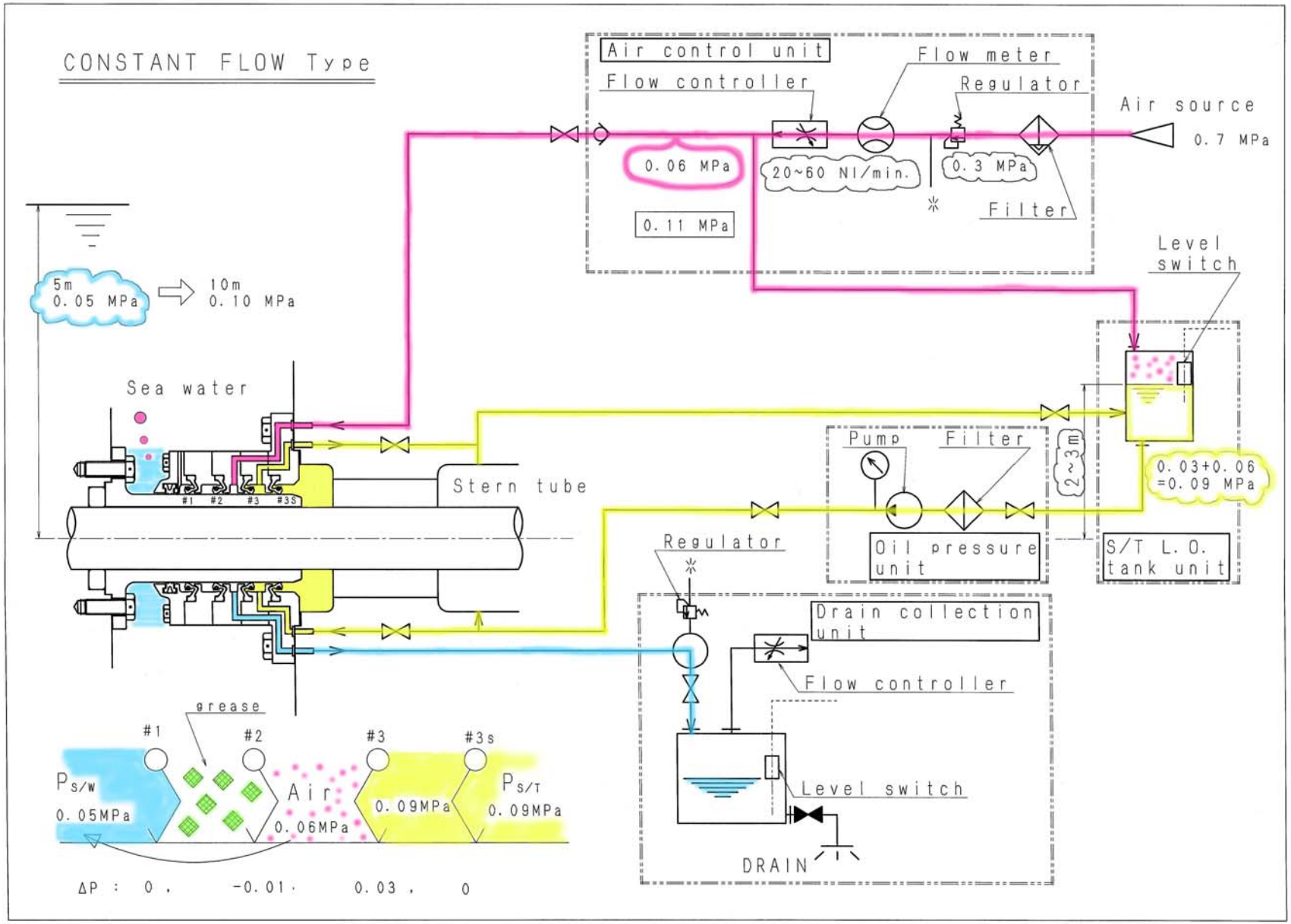

Fig 5 KOBELCO Air Seal

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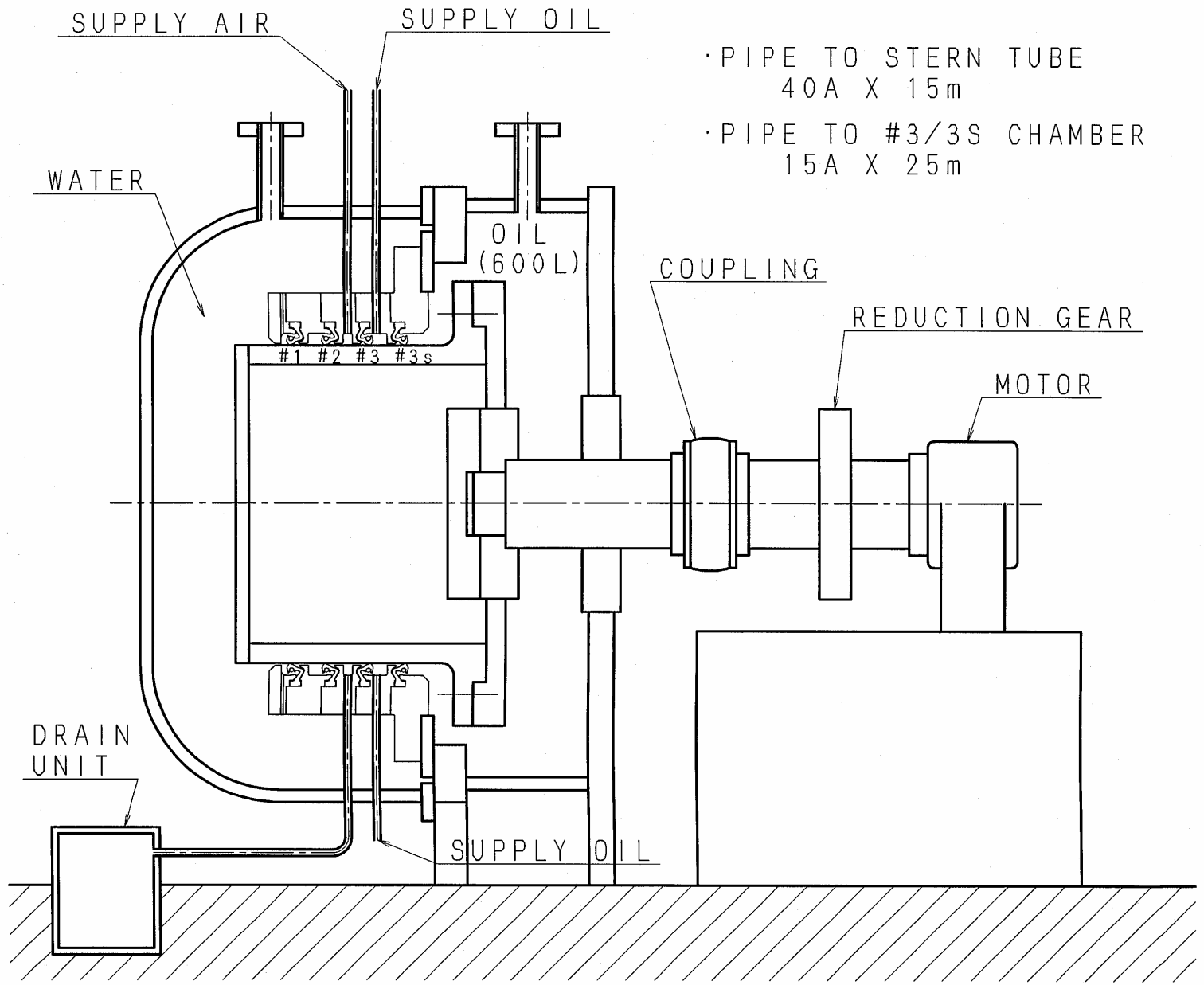

Fig 9 Size 670 test equipment

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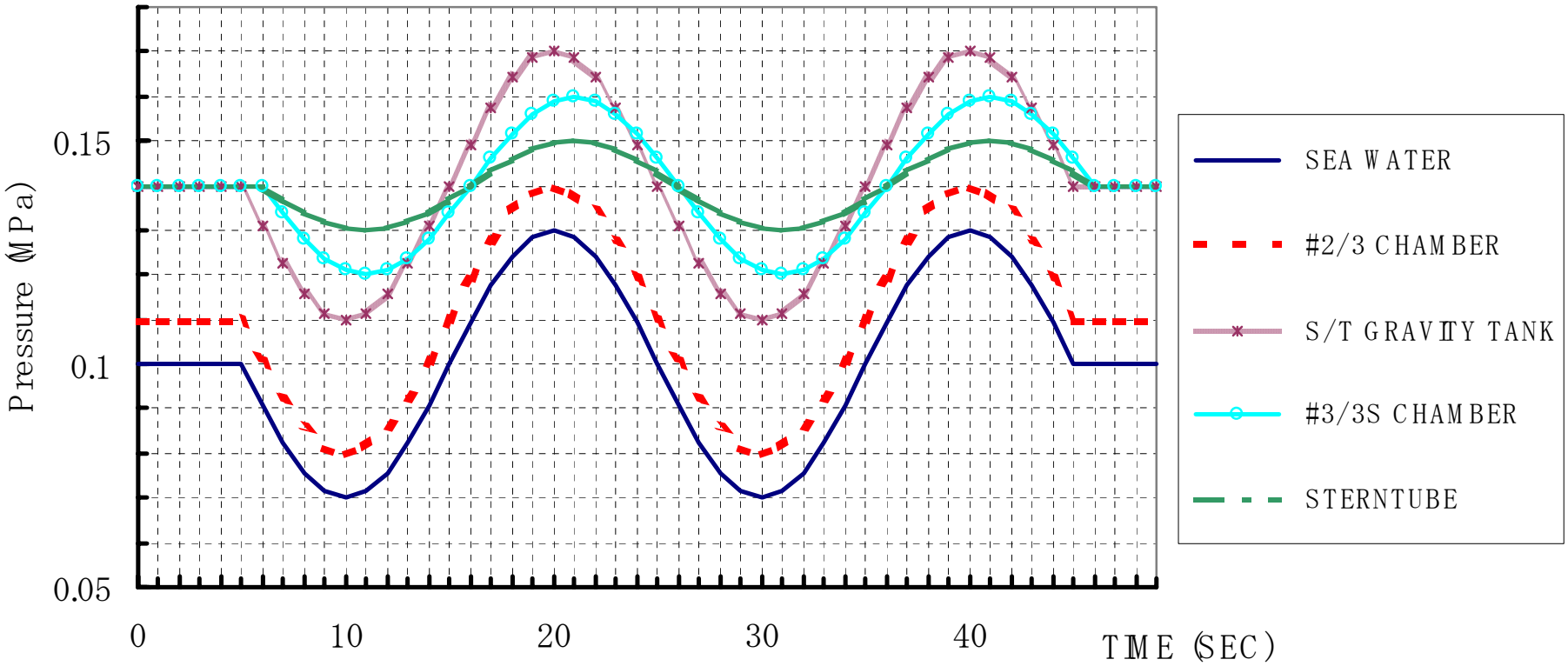

Fig 10 Pressure wave

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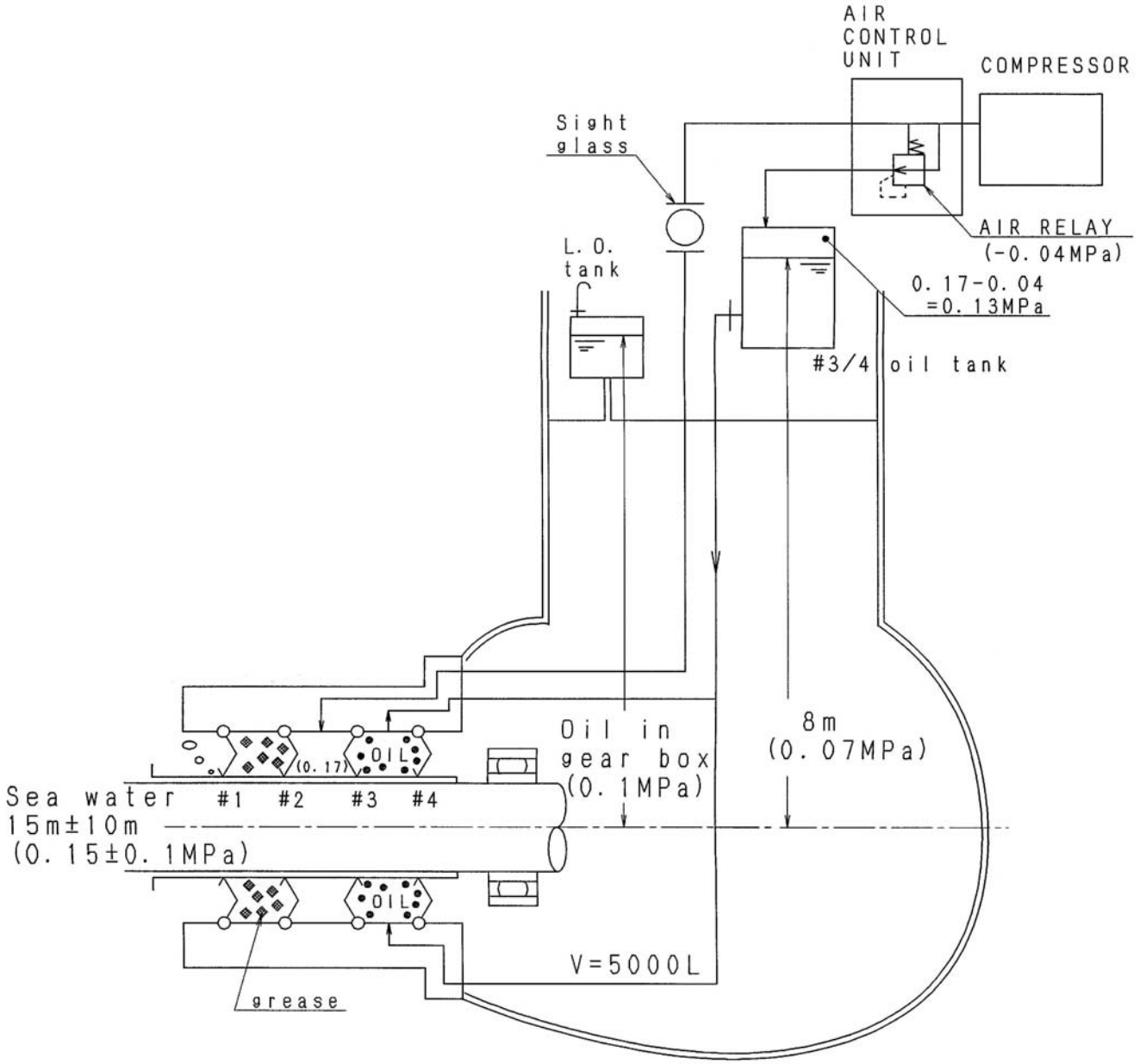

Fig 13 Seal model of mechanical thruster

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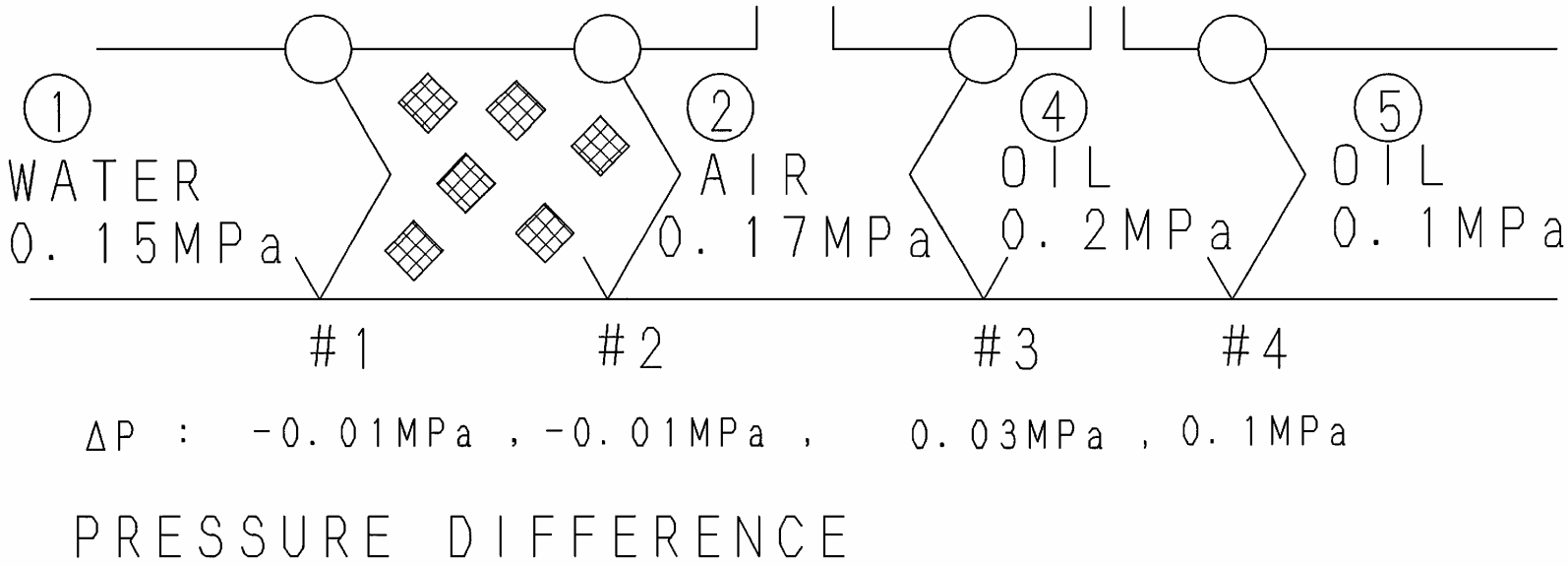

Fig 14 Pressure balance of mechanical thruster seal

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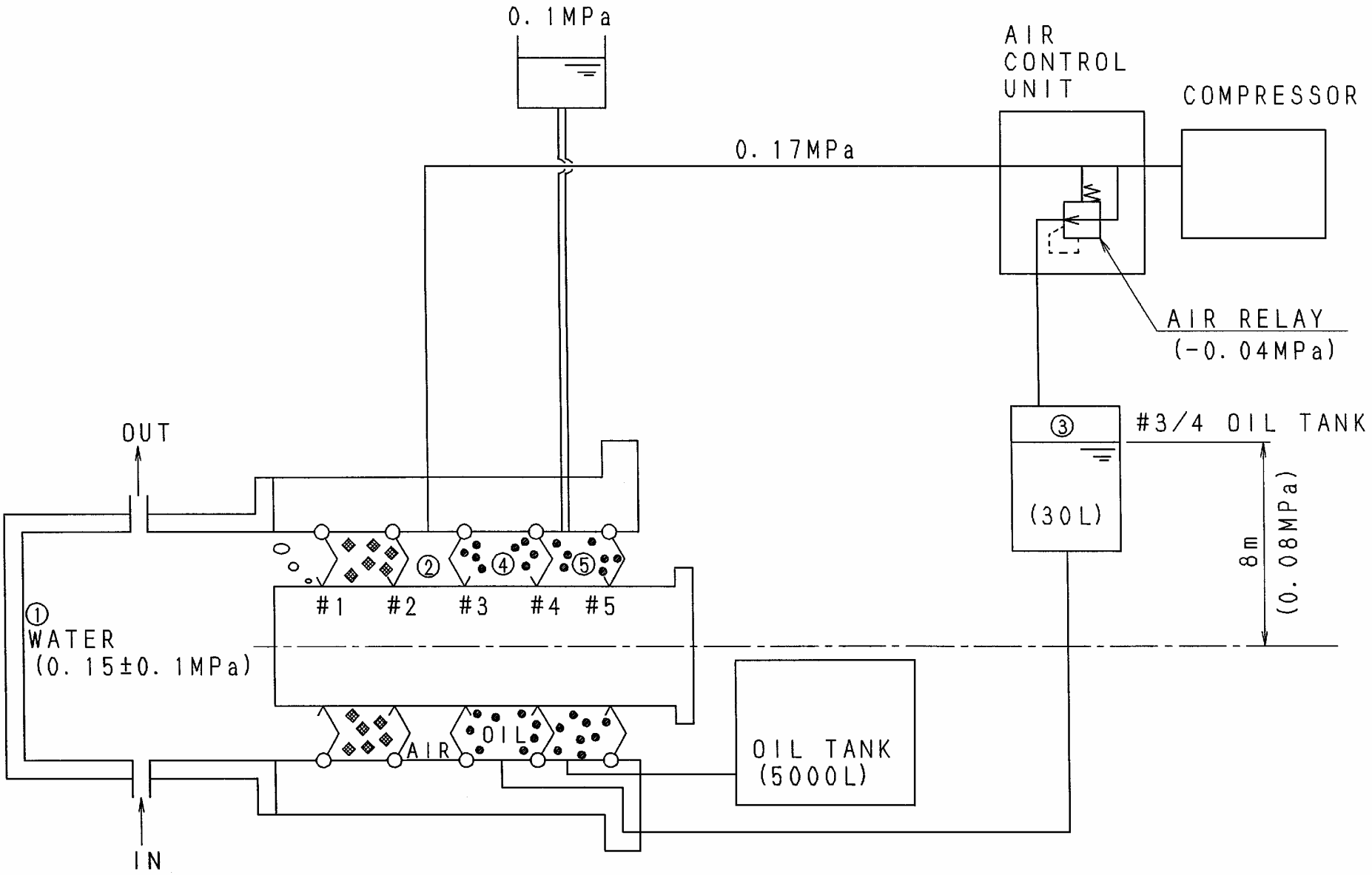

Fig 15 Test equipment of mechanical thruster seal

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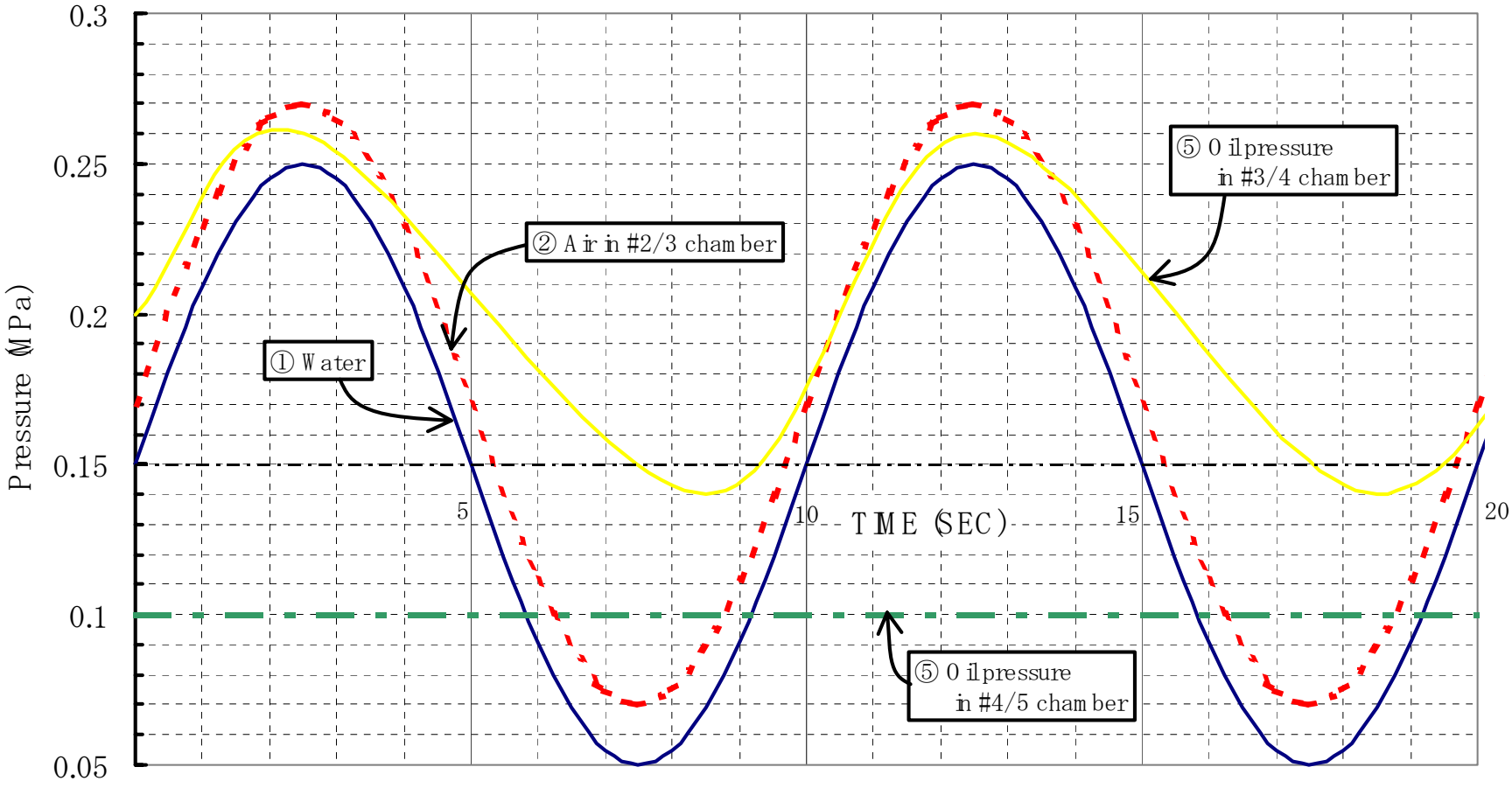

Fig 17 Pressure wave of mechanical thruster seal

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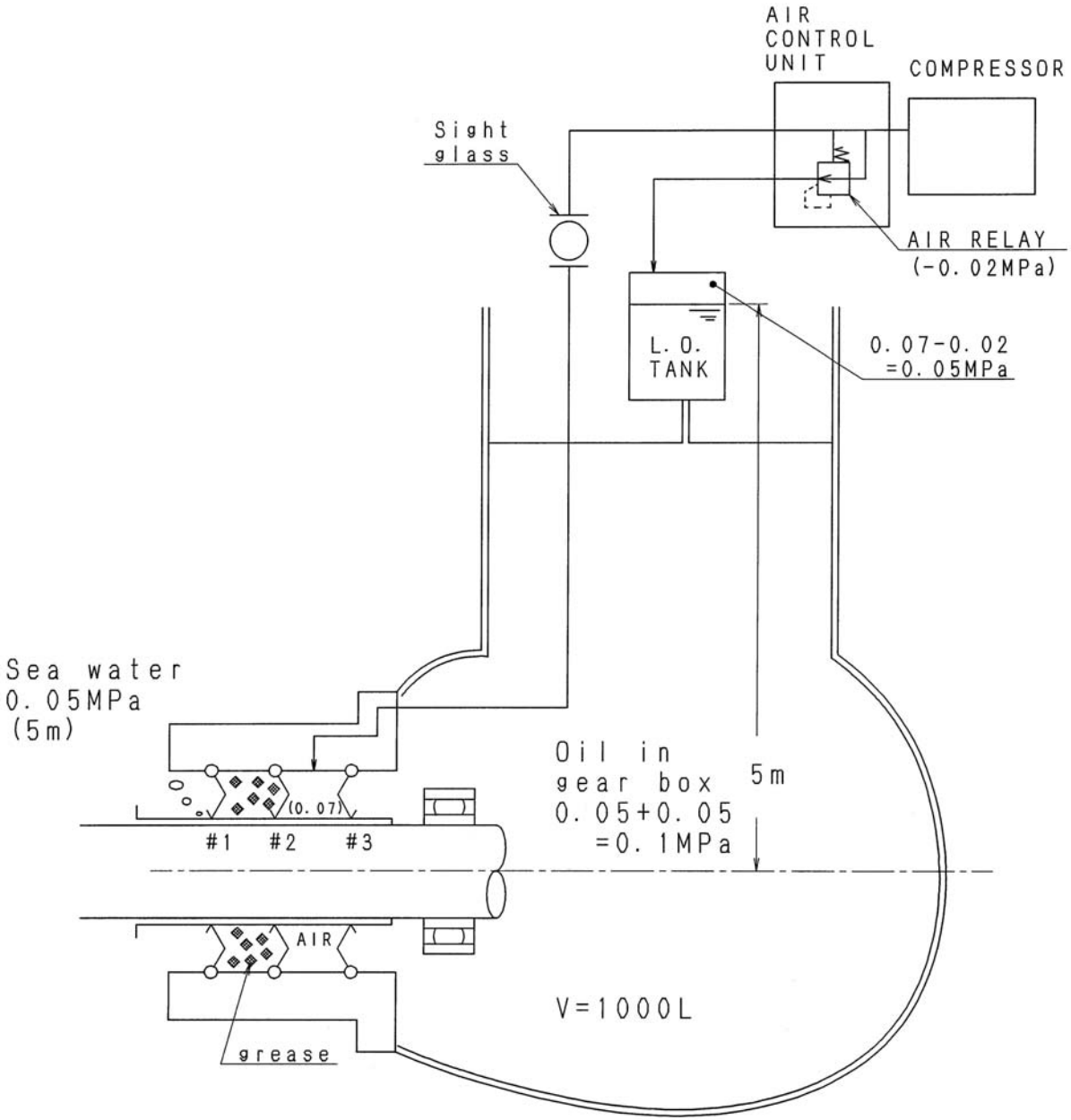

Fig 18 Simplified seal model of mechanical thruster

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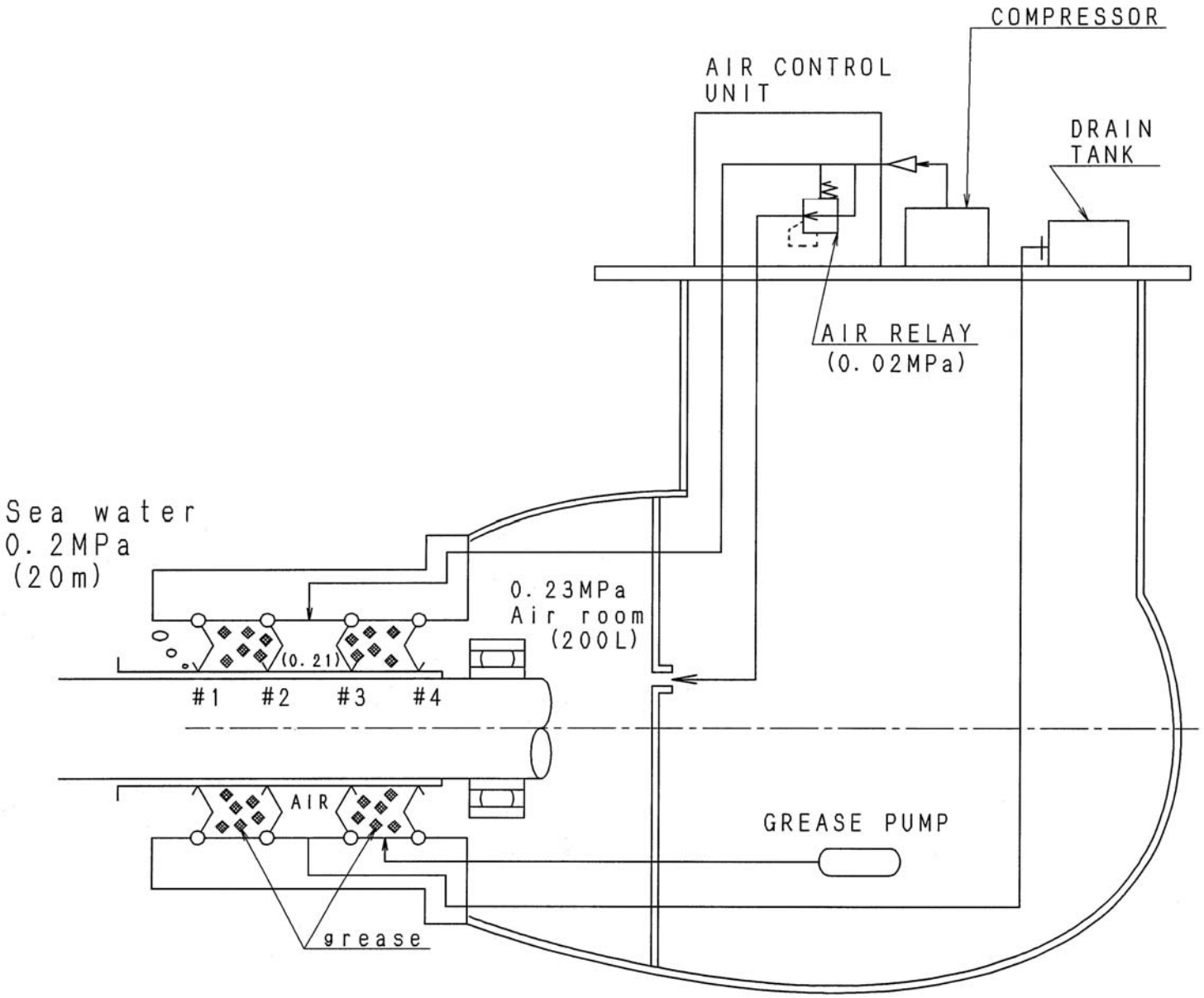

Fig 19 Grease seal model of electric thruster

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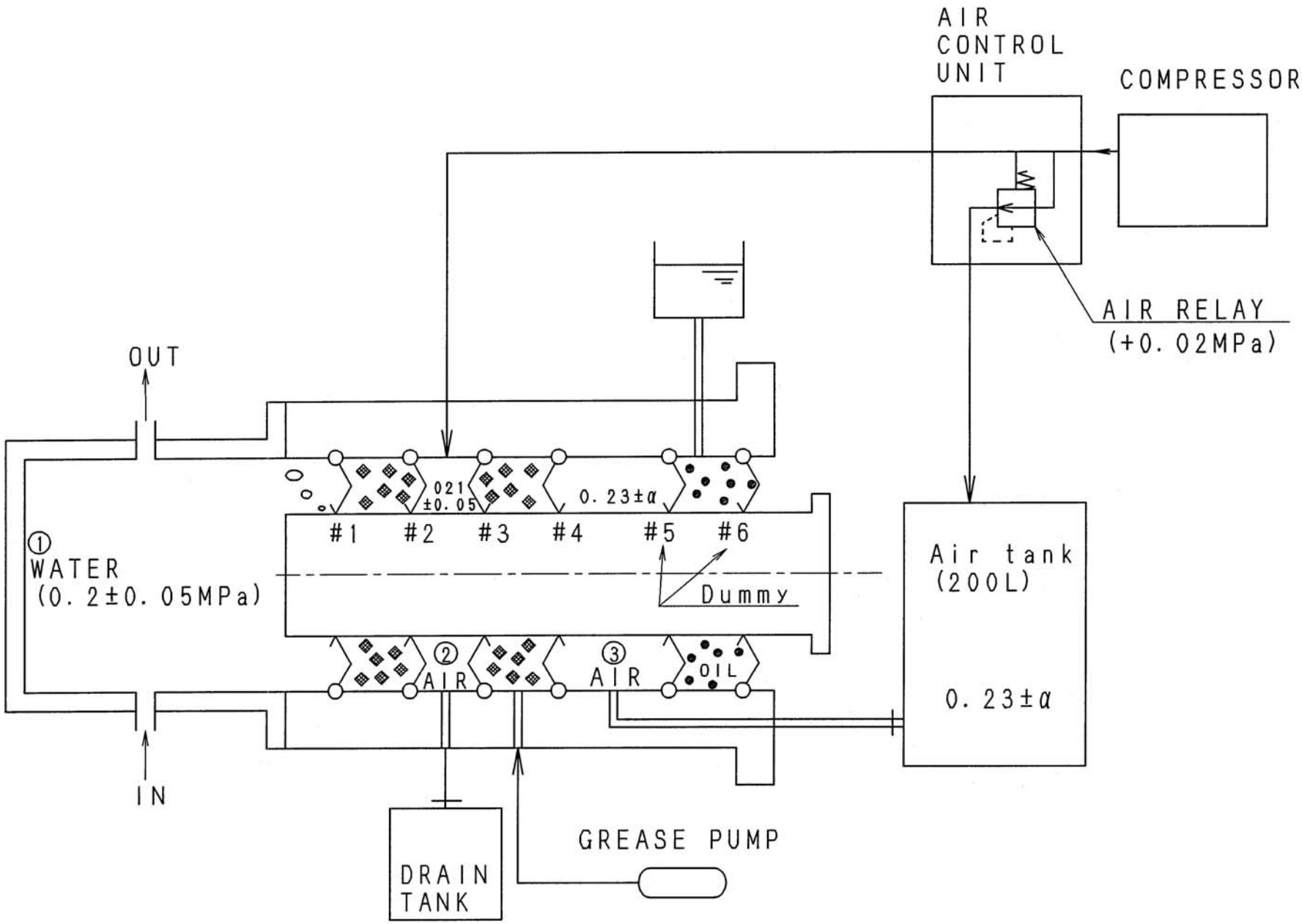

Fig 20 Test equipment of grease seal

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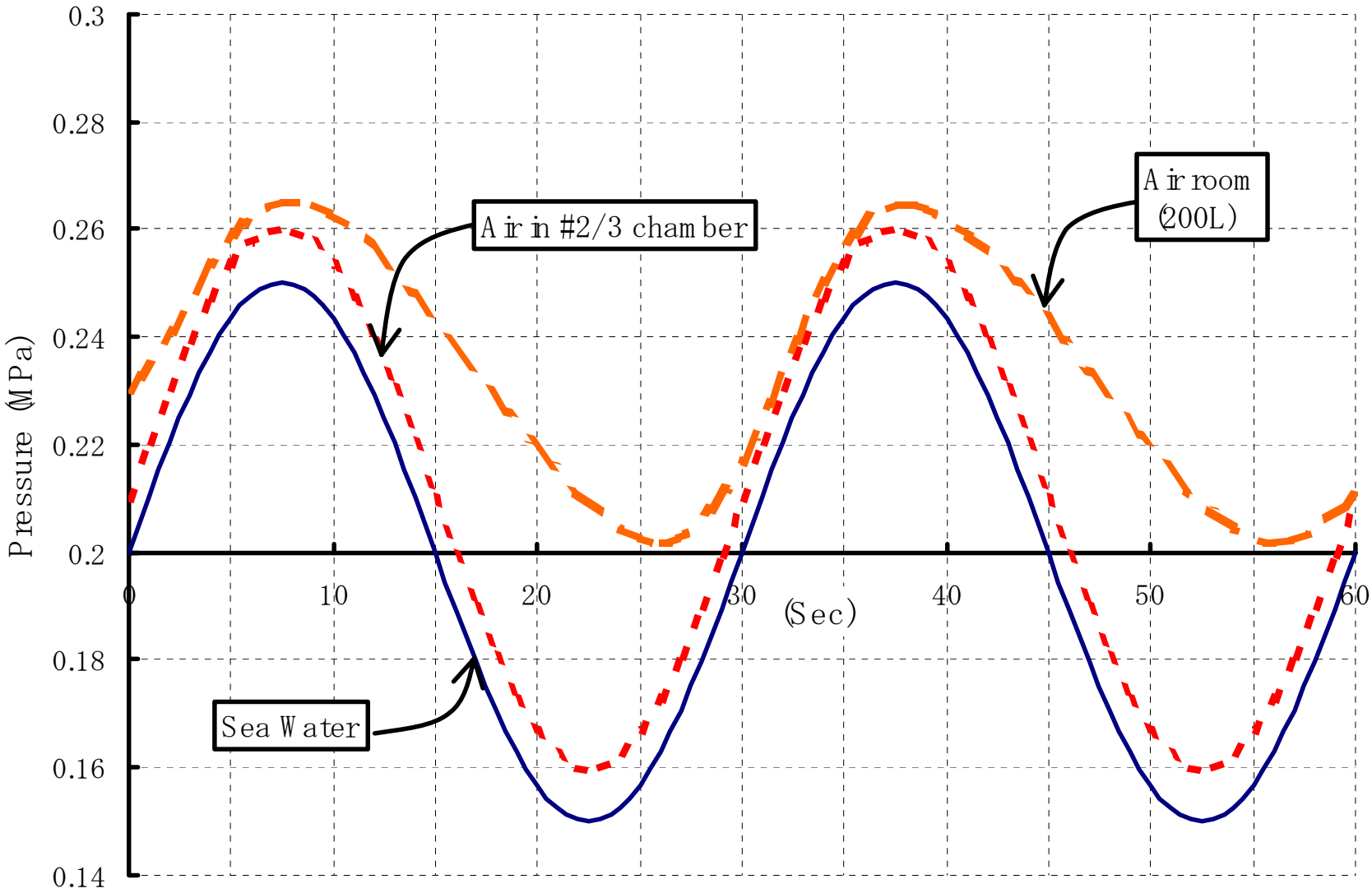

Fig 21 Pressure wave of electric thruster

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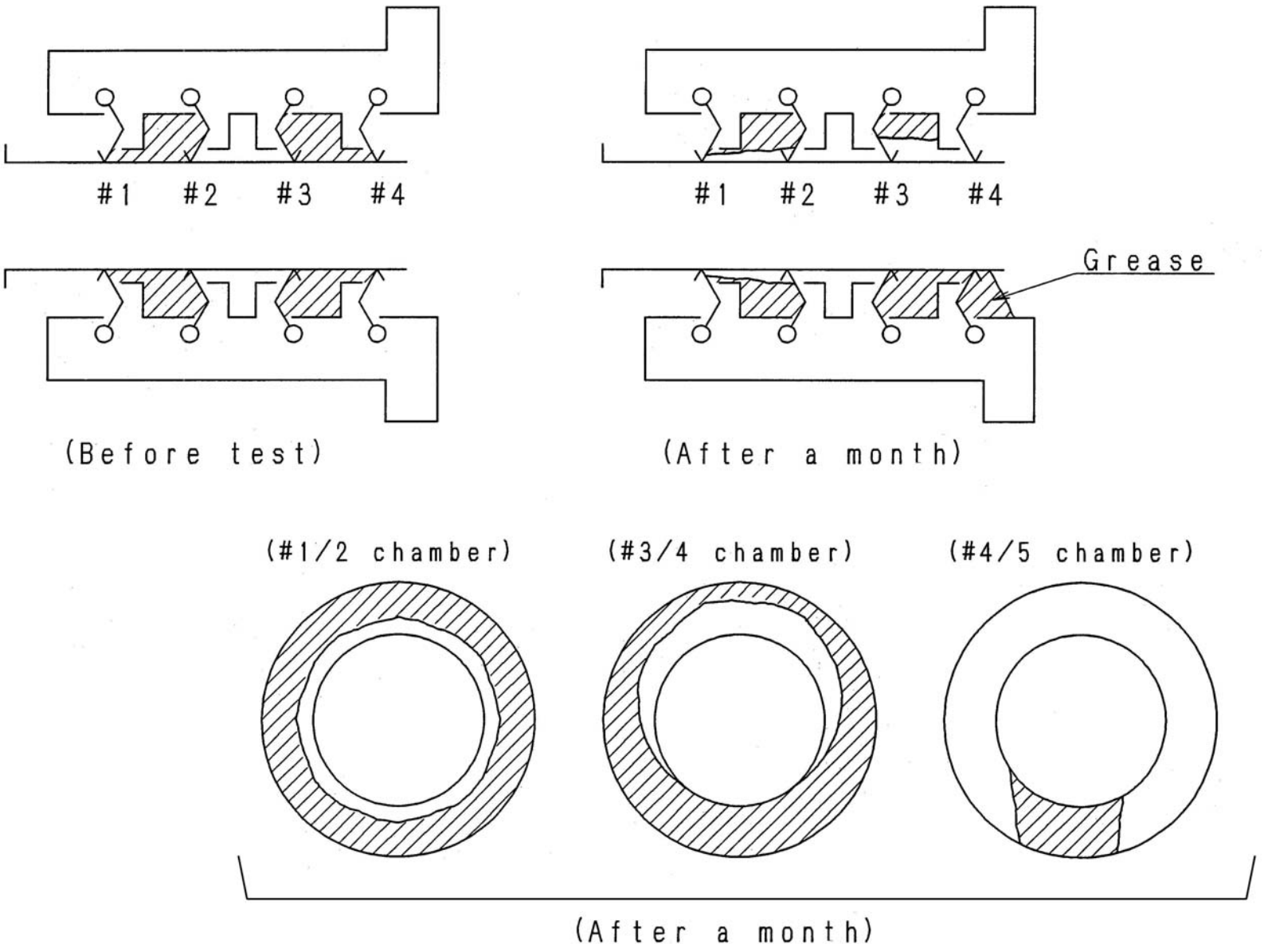

Fig 22 Grease in sealing chambers

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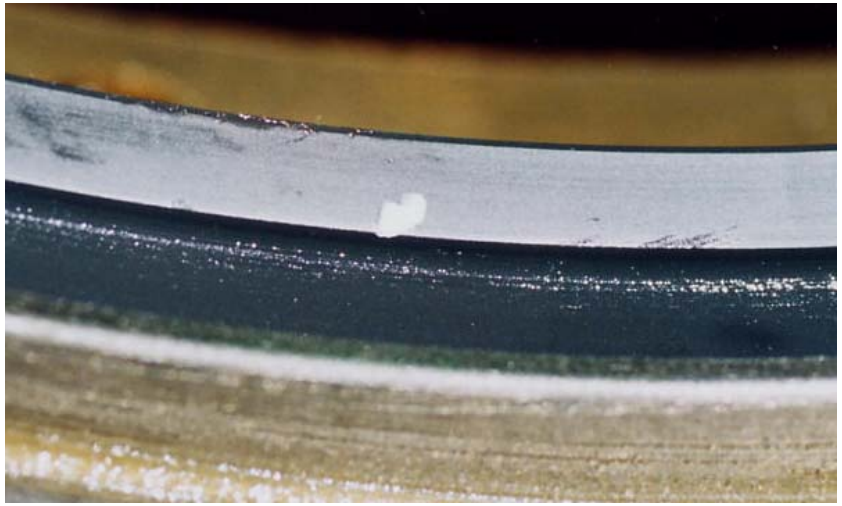
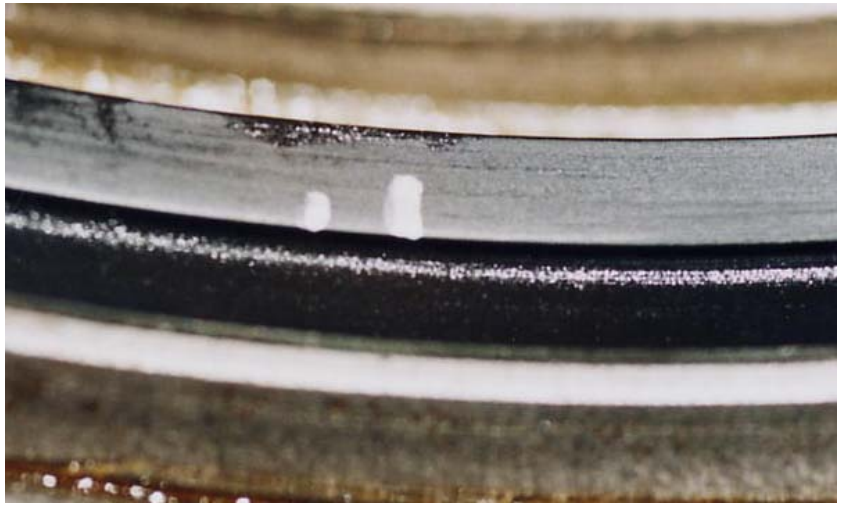
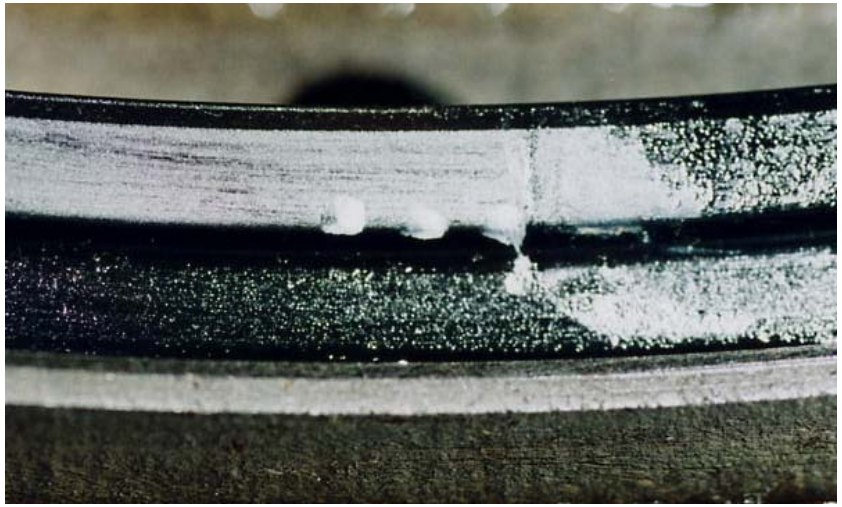


#1 ring



#2 ring



#3 ring

#4 ring

Fig 24 Outlook of sealing ring

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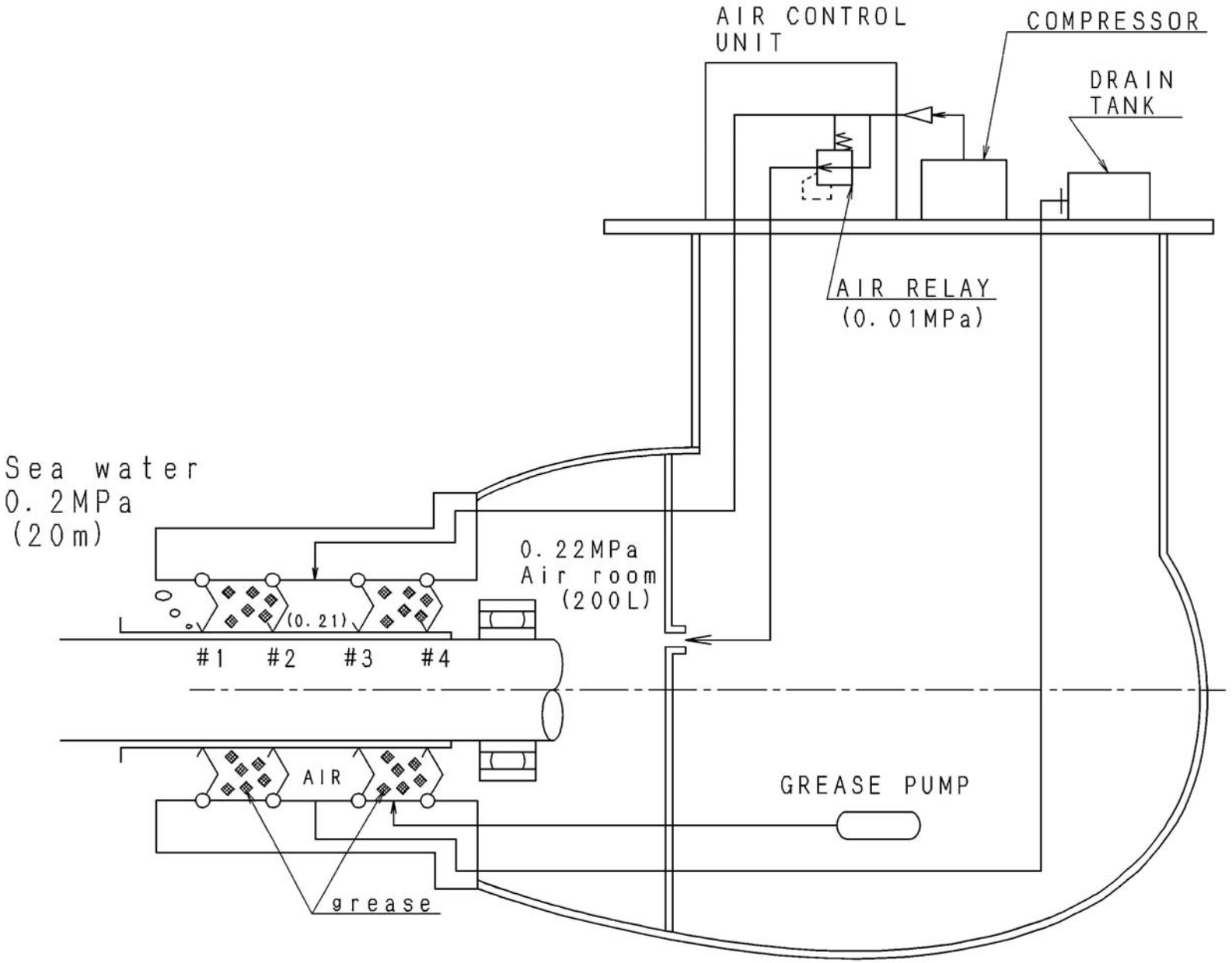

Fig 25 Another grease seal model for electric thruster

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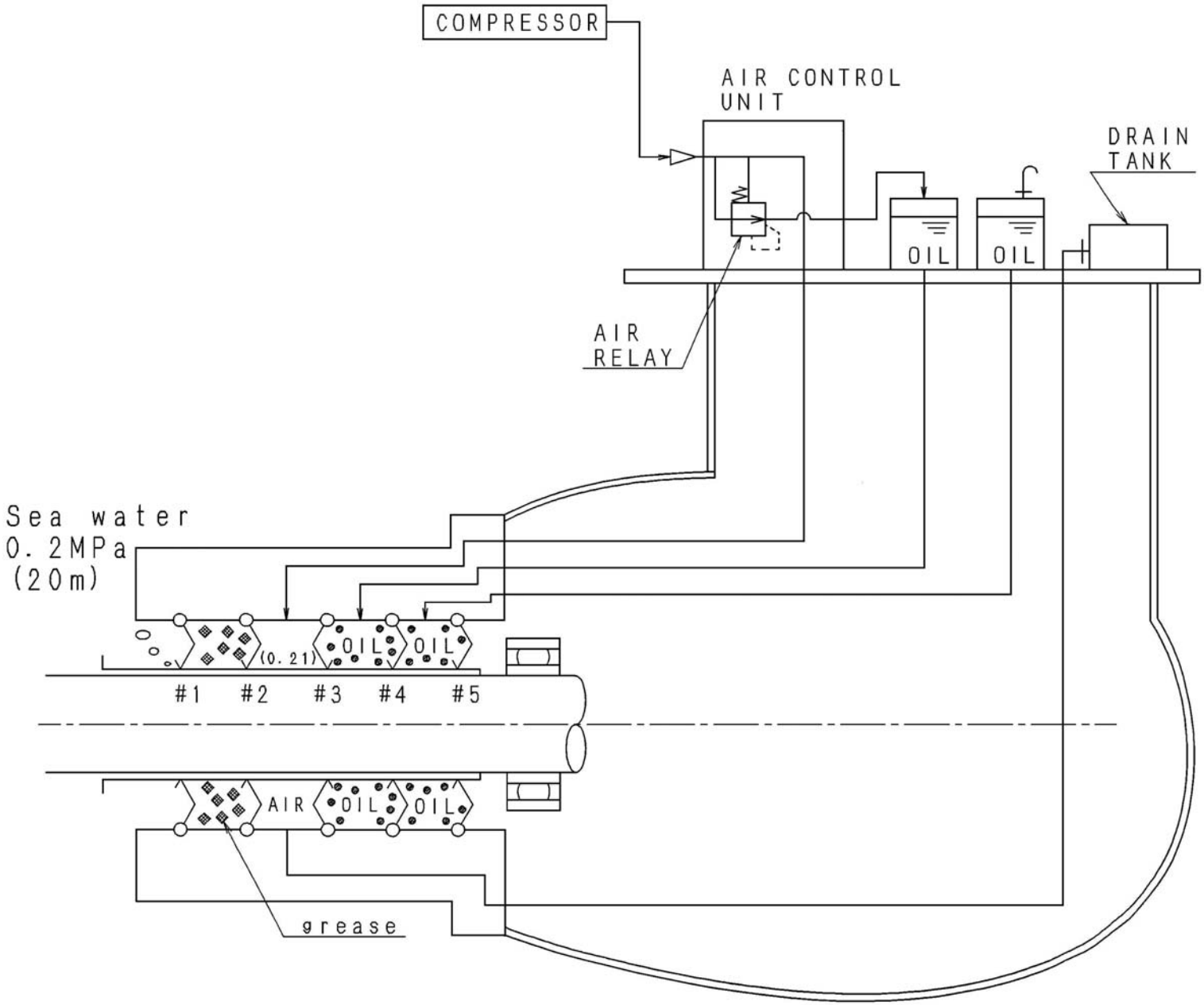

Fig 26 Oil seal model of electric thruster

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