

**Research and development of
SCR technology
using high speed auxiliary engine**

JAPAN

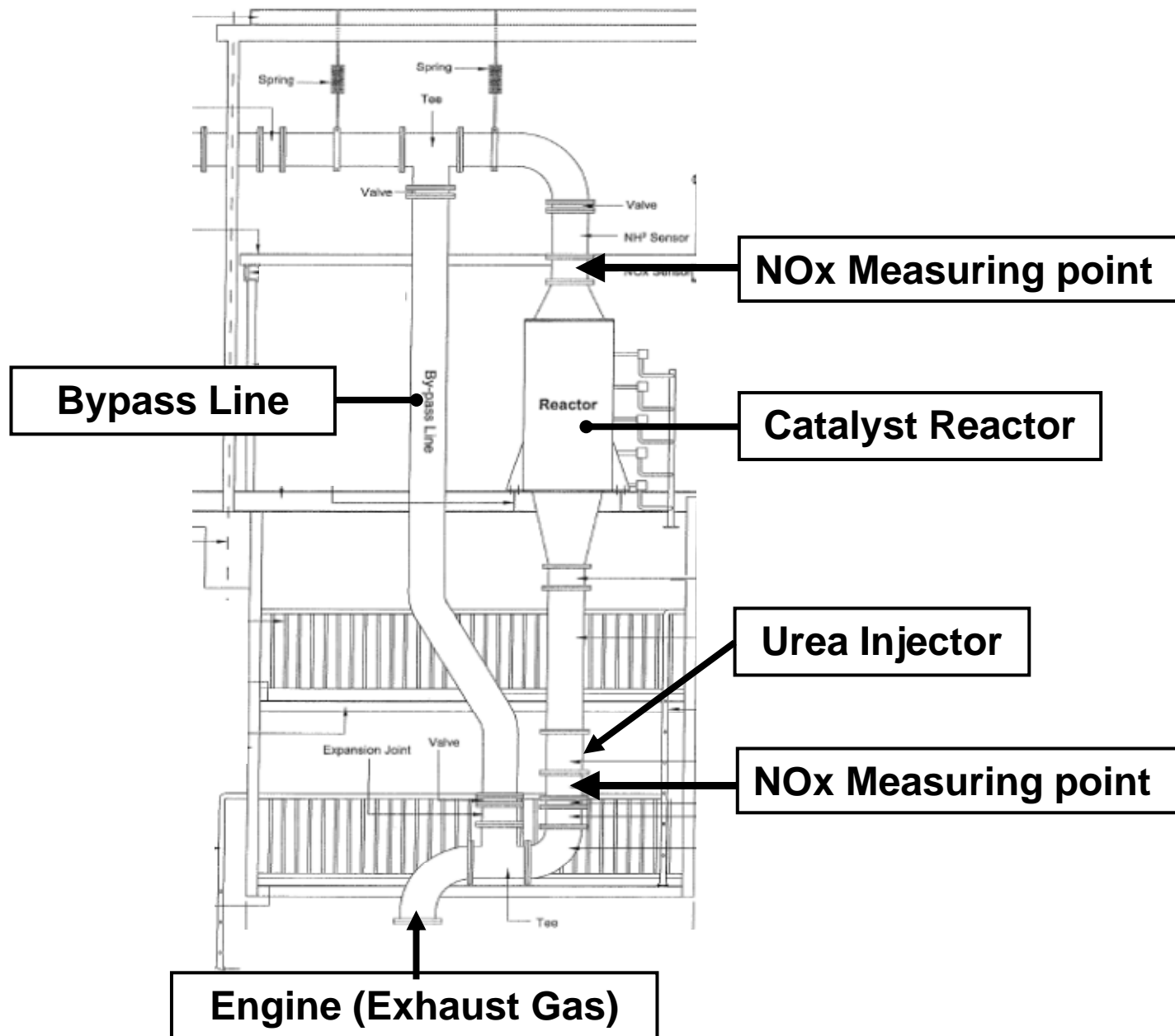
Objective & Outline

- Laboratory test of exhaust gas denitration with high-speed rotation auxiliary engine was conducted. In this test, Urea was used as reductant.

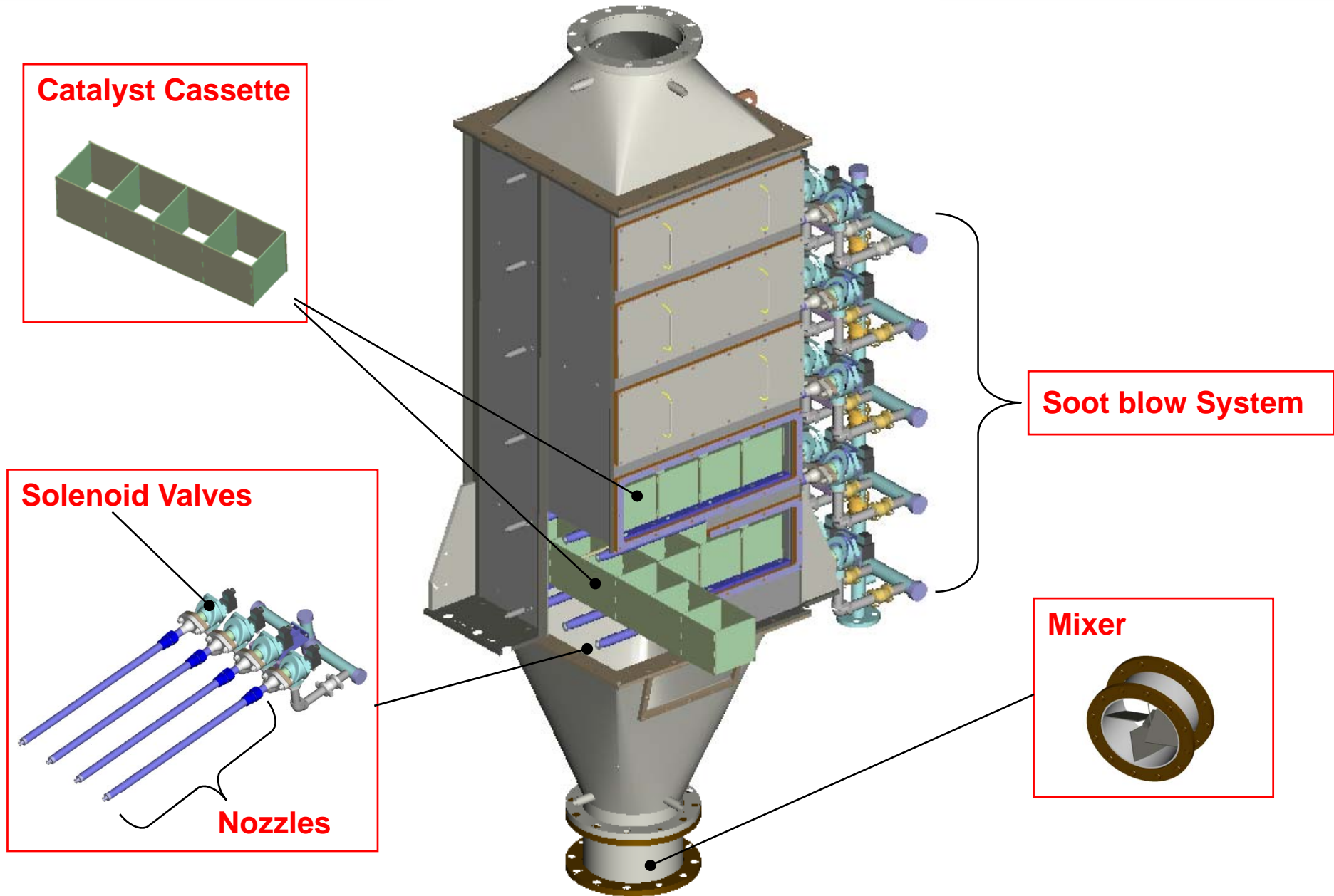
Participant of this project:

- Yanmar Co., Ltd.

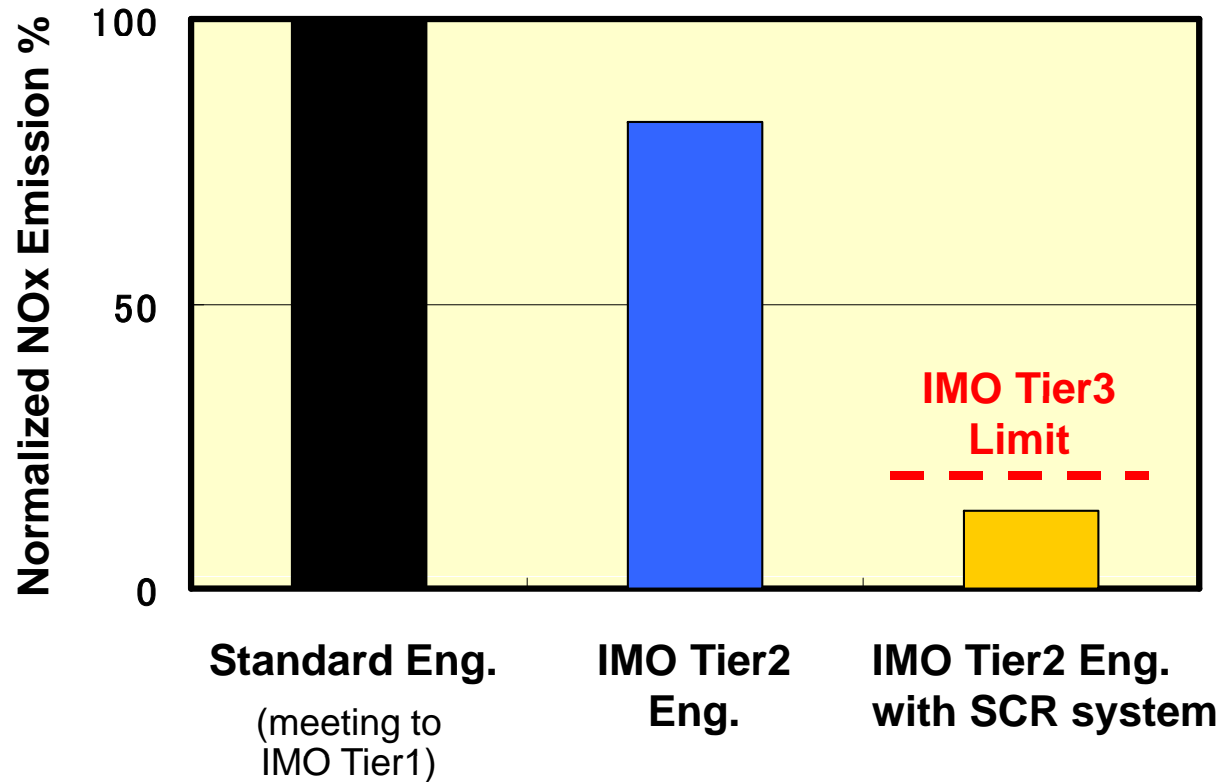
Test Rig of SCR System and NOx Measuring point (Auxiliary Engine)



Layout of Catalyst (Auxiliary Engine)



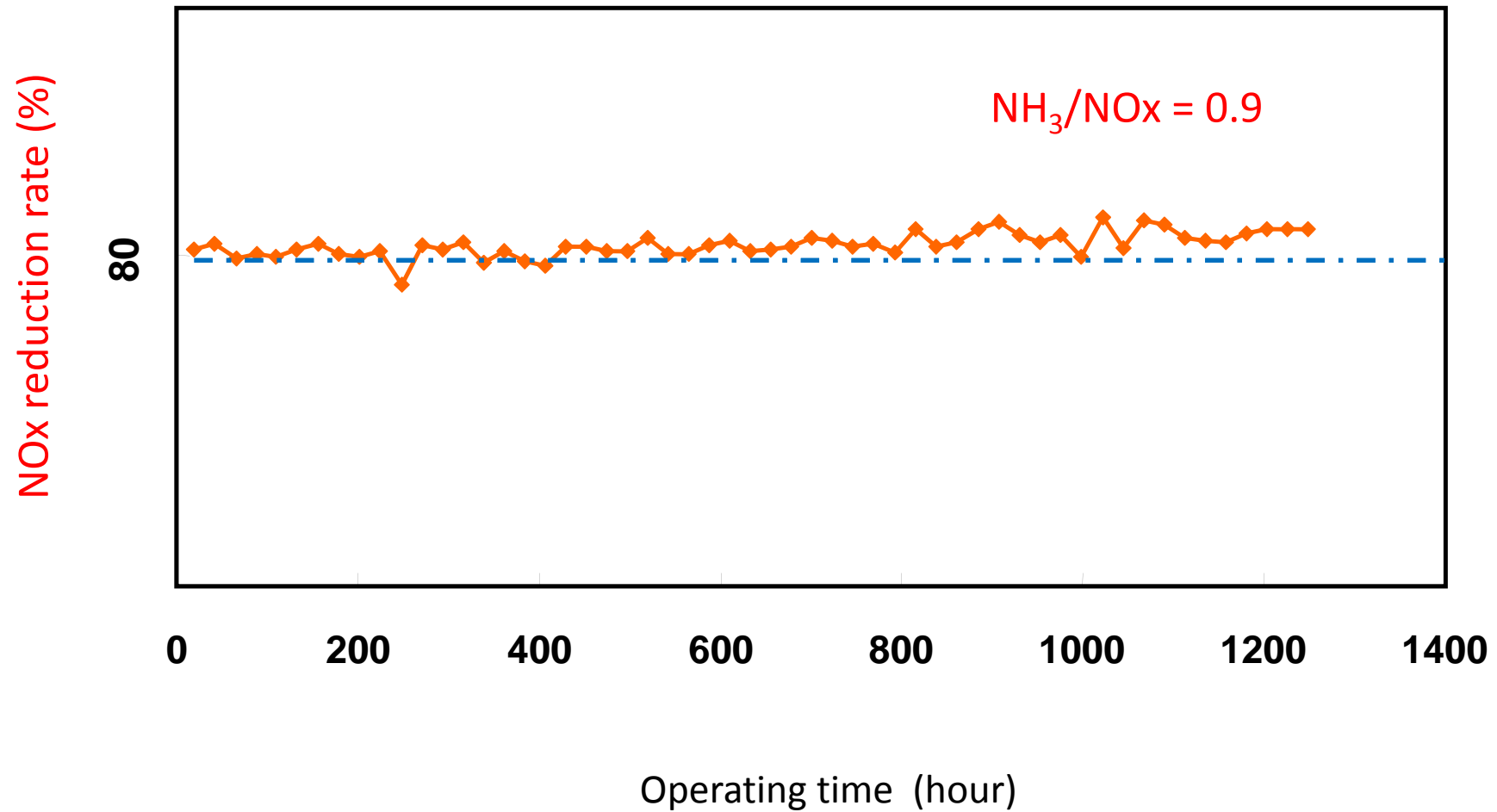
SCR Performance (Auxiliary Engine)



- SCR was fitted with a Tier II compliant engine. As a result of this laboratory test conducted at $SV = 20000 \text{ h}^{-1}$, 80% denitration rate required by Tier III was achieved.

History of operation and SCR performance (Auxiliary Engine)

Fuel oil : MDO



History of operation and SCR performance (Auxiliary Engine)

Fuel oil : HFO

