

ABSTRACT

GAS TREATMENT SYSTEM

5 Provided is a gas treatment system that can accurately detect internal leakage in a
three-way valve and can suppress leakage of exhaust gas to a bypass line. A gas treatment
system 10 includes: a main exhaust line 22 for guiding exhaust gas to a detoxification
apparatus 40; a bypass line 30 for guiding the exhaust gas to an emergency detoxification
apparatus 50; an upstream exhaust line 21; and a three-way valve 23 capable of switching a
10 flow of the exhaust gas from the upstream exhaust line 21 to the main exhaust line 22 or the
bypass line 30, in which the bypass line 30 includes: a gate valve 33; a gas introduction pipe
34 through which a second gas is introduced; and a pressure gauge 35 configured to detect
pressure. If the three-way valve 23 discharges gas to the main exhaust line 22, in a state
where the second gas has been introduced into a closed flow path C between the gate valve 33
15 and the three-way valve 23 from the gas introduction pipe 34, internal leakage in the three-
way valve 23 is detectable using change in the pressure detected by the pressure gauge 35.

Figure 1