APPARATUS FOR MEASURING AIR PERMEABILITY OF MOLDING SAND

A B S T R A C T

An apparatus is disclosed to measure with accuracy and stability the permeability of molding sand that is compacted, by directly applying compressed air to the compacted molding sand such that the air circulates through the molding sand. The apparatus includes a hollow testing cylinder (1) having upper and lower ends that are open, the lower end being tapered such that the inner diameter of the lower open end is smaller than that of the upper open end, a squeezing head (4) horizontally movable to close the upper open end of the hollow testing cylinder, a pressing body (3) disposed in the cylinder such that the body slides in the hollow testing cylinder, the body having a sealing (5) attached to the circumferential part of its lower end, a cylinder (2) disposed below the testing cylinder, the cylinder (2) having a pressing rod (2a) connected to the pressing body (3), an air take-in aperture (6) formed in the side wall of the hollow testing cylinder at a position above the pressing body when the pressing body is situated at the lower open end, and a detecting aperture (7) formed in the side wall of the hollow testing cylinder at a position above the pressing body when the pressing body is situated at the lower open end.

Figure 1 is to accompany the abstract for publication.