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 Catalytic conversion in multi-tube reactor - with uniform distribution
 of gas-liquid through reactor and with tubes lined with catalyst
 C87-021379 E(AT BE DE FR IT NL SE)

H(5-X) J(4-E1, 4-E2)

Multitube reactor contains vertical reactor tubes rolled with catalyst. Gas is supplied to the upper ends of the tubes and liquid supplied to a number horizontal trays connected to the upper ends of the reactor tubes. This allows liquids to enter the tubes passing gas and liquid through the tubes. The effluents are collected on leaving the lower ends of the tubes. Heat exchanger fluid passes along the outer surfaces of the reactor tubes.

vessel. The upper ends of the tubes are fixed to the upper tube plate (5). Above the upper tube plate is the fluid inlet chamber (8) in communication with the upper ends (4) of the reactor tubes. A gas inlet (16) introduces gas in to the fluid inlet chamber. The liquid distributor comprises horizontal trays (18). The gas and liquid collected in the trays flow into the reactor tubes (2) through the downcomers (20).

In the lower end of the vessel below the lower tube plate (10) there is an effluent collectry chamber (11) with an outlet (12).

The vessel between upper tube plate (5) and lower tube plate (10) forms a heat exchange chamber. (10pp1650RKMII DwgNo1/5).

(E)ISR: No Search Report.

Catalytic conversion process for gas or liquid using such a reactor is also claimed.

ADVANTAGE

Fouling of catalyst particles in reactor tubes avoided.
 Trays can be removed or replaced through manhole.

EMBODIMENT

A number of reactor tubes (2) are arranged within the

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