**Abstract**

**Subsea Completion System with Integral Valves**

A subsea completion comprises an in-line Christmas tree 18 received within a wellhead 16, the in-line Christmas tree including at least one valve closure element, e.g. valve gates 116, 118. Valve actuator couplings e.g. push rods 54, 56, 58, 60 are operatively engaged with the valve closure elements and extend through walls of the in-line Christmas tree and wellhead. Relatively bulky valve actuator mechanisms may therefore be mounted externally of the wellhead, with only the relatively small and unobtrusive actuator couplings extending into the wellhead and tree interiors. The in-line tree is used together with a jumper module (70, fig. 1) secured and sealed to the wellhead, and a separate flow control package (80, fig. 1).

Figure 2