

84-044279/08 H09 GASC 04.08.82  
 BRITISH GAS CORP \*EP -100-606-A  
 04.08.82-GB-022489 (15.02.84) C01b-03/50 C10c-01/02 C10j-  
 03/84 C10k-01/04

Tar sepn. from synthesis gas condensate - by phase sepn. at high temp. and pressure

C84-018533

D/S:- BE DE FR IT NL

Sepn. of aq. and organic condensable materials from synthesis gas obtained in coal gasification is effected by cooling the gas at 5-150 bar. The improvement comprises separating the condensate into an aq. phase and an organic tar phase at 125-250 deg.C and 5-150 bar.

#### ADVANTAGES

Performing phase sepn. at high temp. and pressure reduces settling times, avoids emulsion formation and allows relatively small sepn. vessels to be used.

#### EMBODIMENT

Raw synthesis gas is quenched with water in a 1st cooler (1), cooled in a waste-heat boiler (2), passed through a tar scrubber (3) and further cooled in a 3rd cooler (4).

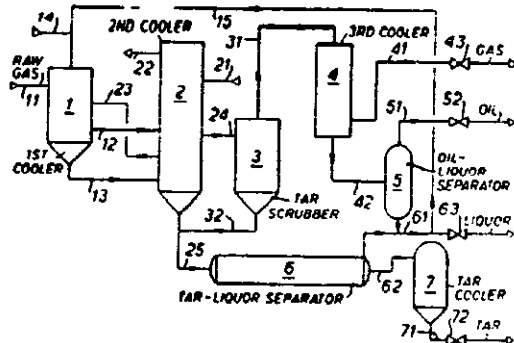
Condensate from the boiler and scrubber is passed to a high-pressure separator (6) operating at 125-250 deg.C

H(9-D)

034

to separate tar. Condensate from the 3rd cooler is passed to a high-pressure separator operating at 30-200 deg.C and 5-150 bar to separate oil, opt. after heating the condensate to the required temp. (10pp367RHDwgNo1/1).

(E) ISR:- DE2542055; US4087258; DE2623489; DE-353278.



EP-100606-A