

Claims

1. A process for producing synthesis gas, the process comprising the steps of
 - a) reforming a hydrocarbon feed in a reforming section thereby obtaining a synthesis gas comprising CH₄, CO, CO₂, H₂ and H₂O and impurities comprising ammonia;
 - b) shifting the synthesis gas in a shift section comprising one or more shift steps in series to a shifted synthesis gas;
 - c) separating from the shifted synthesis gas a process condensate originating from cooling and optionally washing of the shifted synthesis gas;
 - d) passing a part of the process condensate to a condensate steam stripper, wherein dissolved shift byproducts comprising ammonia, methanol and amines formed during shifting the synthesis gas are stripped out of the process condensate using steam resulting in a stripper steam stream,
 - e) adding the stripper steam stream from the process condensate steam stripper to the hydrocarbon feed and/or to the synthesis gas downstream the reforming section, upstream the last shift step, whereinthe remaining part of the process condensate is purged.
2. Process of claim 1, wherein the condensate steam stripper is a medium pressure stripper.
3. Process of claim 1 or 2, wherein the purge is passed to a purge condensate steam stripper.
4. Process of claim 1 to 3, wherein the purge condensate steam stripper is a low pressure stripper
5. Process of any one of claims 3 or 4, wherein steam from the purge condensate steam stripper is condensed and non-condensable gases are employed as fuel.
6. Process of any one of claims 1 to 5, wherein stripped condensate from step (d) is passed to water treatment.

7. Process of any one of claims 3 to 6, wherein the stripped purge condensate from the purge condensate steam stripper is passed to water treatment.