

[CLAIMS]

1. A method for producing a diesel fuel, comprising:
 - passing a first hydrocarbon feedstock having a first initial cloud point to a hydrotreatment zone and hydrotreating the feedstock under effective hydrotreatment conditions to form a hydrotreated product having a sulfur content of 15 wppm or less, the hydrotreatment zone having a hydrotreatment temperature and pressure;
 - passing the hydrotreated product to a stripping zone;
 - stripping the hydrotreated product to form a gaseous effluent and a liquid effluent;
 - passing the liquid effluent to a catalytic dewaxing zone and dewaxing the liquid effluent under effective catalytic dewaxing conditions to form a dewaxed product having a cloud point at least 10°C lower than the first initial cloud point, the catalytic dewaxing conditions including a first catalytic dewaxing temperature that is at least 10°C less than the hydrotreatment temperature;
 - lowering the temperature of the catalytic dewaxing zone to a second catalytic dewaxing temperature, the second catalytic dewaxing temperature being at least 5°C less than the first catalytic dewaxing temperature;
 - passing a second hydrocarbon feedstock having a second initial cloud point to the hydrotreatment zone and hydrotreating the second hydrocarbon feedstock at the hydrotreatment temperature to form a second hydrotreated product having a sulfur content of 15 wppm or less;
 - passing the second hydrotreated product to the stripping zone;
 - stripping the second hydrotreated product to form a second gaseous effluent and a second liquid effluent; and
 - passing the second liquid effluent to the catalytic dewaxing zone and dewaxing the second liquid effluent at the second catalytic dewaxing

temperature to form a second dewaxed product, the second dewaxed product having a cloud point at least 10°C lower than the second initial cloud point, wherein there is no depressurization between the hydrotreatment zone and the catalytic dewaxing zone.

2. A method for producing a diesel fuel, comprising:
 - passing a first hydrocarbon feedstock having a first initial cloud point to a hydrotreatment zone and hydrotreating the feedstock under effective hydrotreatment conditions to form a hydrotreated product having a sulfur content of 15 wppm or less, the hydrotreatment zone having a hydrotreatment temperature and pressure;
 - passing the hydrotreated product to a stripping zone;
 - stripping the hydrotreated product to form a gaseous effluent and a liquid effluent;
 - passing the liquid effluent to a catalytic dewaxing zone and dewaxing the liquid effluent under effective catalytic dewaxing conditions to form a dewaxed product having a cloud point at least 10°C lower than the first initial cloud point, the catalytic dewaxing conditions including a first catalytic dewaxing temperature that is at least 10°C less than the hydrotreatment temperature;
 - increasing the temperature of the catalytic dewaxing zone to a second catalytic dewaxing temperature, the second catalytic dewaxing temperature being at least 5°C greater than the first catalytic dewaxing temperature;
 - passing a second hydrocarbon feedstock having a second initial cloud point to the hydrotreatment zone and hydrotreating the second hydrocarbon feedstock at the hydrotreatment temperature to form a second hydrotreated product having a sulfur content of 15 wppm or less;
 - passing the second hydrotreated product to the stripping zone;
 - stripping the second hydrotreated product to form a second gaseous effluent and a second liquid effluent; and

passing the second liquid effluent to the catalytic dewaxing zone and dewaxing the second liquid effluent at the second catalytic dewaxing temperature to form a second dewaxed product, the second dewaxed product having a cloud point at least 10°C lower than the second initial cloud point, wherein there is no depressurization between the hydrotreatment zone and the catalytic dewaxing zone.

3. The process of claim 1 or 2, wherein the hydrotreated product and second hydrotreated product are stripped with make-up hydrogen.
4. The process of claim 1 or 2, wherein the process is carried out without reflux of product from the catalytic dewaxing zone to the hydrotreatment zone or the stripping zone.
5. The process of claim 1 or 2, wherein stripping the first hydrotreated product comprises stripping at a temperature and pressure corresponding to an exit temperature and pressure of the hydrotreatment zone.
6. The process of claim 1 or 2, wherein the first catalytic dewaxing temperature is at least 15°C less than the hydrotreatment temperature.
7. The process of claim 1 or 2, wherein the first catalytic dewaxing temperature is at least 25°C less than the hydrotreatment temperature.
8. The process of claim 1, wherein the second catalytic dewaxing temperature is at least 10°C less than the first catalytic dewaxing temperature.

9. The process of claim 1, wherein the second catalytic dewaxing temperature is at least 15°C less than the first catalytic dewaxing temperature.
10. The process of claim 2, wherein the second catalytic dewaxing temperature is at least 10°C greater than the first catalytic dewaxing temperature.
11. The process of claim 2, wherein the second catalytic dewaxing temperature is at least 15°C greater than the first catalytic dewaxing temperature.
12. The process of claim 2, wherein the second catalytic dewaxing temperature is higher than the first catalytic dewaxing temperature by 100°C or less.