CLAIMS

1. A lockdown system for a subsea wellhead connector connecting a tubular member to a subsea wellhead assembly, the lockdown system comprising:

   a tie rod extending in an axial direction from a stationary connector body of a tieback connector through a lockdown support member circumscribing the tubular member, the tie rod having a tie rod profile on a tie rod outer diameter;

   a lockdown member with an inner diameter profile corresponding to the tie rod profile, the lockdown member being moveable between a lockdown open position where the member is spaced radially outward from the tie rod, and a lockdown engaged position where the inner diameter profile engages the tie rod profile to axially couple the stationary connector body and the lockdown support member, the lockdown support member including a stopper that engages an engagement feature in the lockdown member as the engagement feature passes over the stopper; and

   a lockdown member rod extending radially outward relative to an axis of the tie rod profile, the lockdown member rod adapted to move the lockdown member from the lockdown open position to the lockdown engaged position, wherein the lockdown member rod is supported by a lockdown member rod support that is adapted to be secured to the lockdown support member circumscribing the tubular member.

2. The lockdown system according to claim 1, further comprising a first handle installed on one end of the lockdown member rod, the first handle being perpendicular to the lockdown member rod such that a radially outward movement of the first handle relative to the lockdown member rod support moves the lockdown member from the lockdown engaged position to the lockdown open position; and a lockdown member rod spring circumscribing the lockdown member rod, the lockdown member rod spring having a first end that engages the lockdown member and a second end that engages the lockdown member rod support, thereby biasing the lockdown member away from the lockdown member rod support.

3. The lockdown system according to claim 1, further comprising a second handle having a stem that is inserted in a through bore formed parallel to the axis of the lockdown member.

4. The lockdown system according to claim 1, wherein the engagement feature includes a bore, and wherein the lockdown support member comprises a stopper spring located in a port,

wherein the stopper spring urges the stopper in an upward direction so that as the bore of the lockdown member passes over the port, the stopper spring urges the stopper into the bore.

5. The lockdown system according to claim 3, wherein the second handle comprises a visual indicator on the stem to determine if the lockdown member is in the lockdown open position or the lockdown engaged position.

6. The lockdown system according to claim 1, wherein the lockdown member comprises a recess portion having a wider opening leading away from the inner diameter profile.

7. The lockdown system according to claim 1, wherein the subsea wellhead connector has a plurality of tie rods spaced around a circumference of the lockdown member support.

8. A lockdown assembly for a subsea wellhead connector connecting a tubular member to a subsea wellhead assembly, the lockdown assembly comprising:

   a tie rod extending in an axial direction from a stationary connector body of a tieback connector through an annular ring circumscribing the tubular member, the tie rod having a tie rod profile on a tie rod outer diameter;

   a lockdown member with an inner diameter profile corresponding to the tie rod profile, the lockdown member being moveable between a lockdown open position where the member is spaced radially outward from the tie rod, and a lockdown engaged position where the inner diameter profile engages the tie rod profile to axially couple the stationary connector body and the annular ring, the lockdown member being slidable on the annular ring, the annular ring including a stopper that engages an engagement feature in the lockdown member as the engagement feature passes over the stopper; and

   a rod extending radially outward from the lockdown member, the rod adapted to move the lockdown member from the lockdown open position to the lockdown engaged position, wherein the rod is supported by a rod support that is secured to the annular ring circumscribing the tubular member.

9. The lockdown assembly according to claim 8, further comprising a first handle installed on one end of the rod, the first handle being perpendicular to the rod such that a radially outward movement of the first handle moves the lockdown member from the lockdown engaged position to the lockdown open position; and a rod spring circumscribing the rod, the rod spring

having a first end that engages the lockdown member and a second end that engages the rod support, thereby biasing the lockdown member away from the rod support.

10. The lockdown assembly according to claim 8, further comprising a second handle having a stem that is inserted in a through bore formed on one surface of the lockdown member.

11. The lockdown assembly according to claim 8, wherein the engagement feature includes a bore, and wherein the annular ring comprises a stopper spring located in a port, wherein the stopper spring urges the stopper in an upward direction so that as the bore of the lockdown member passes over the port, the stopper spring urges the stopper into the bore.

12. The lockdown assembly according to claim 10, wherein the second handle comprises a visual indicator on the stem to determine if the lockdown member is in the lockdown open position or the lockdown engaged position.

13. The lockdown assembly according to claim 8, wherein the lockdown member comprises a recess portion having a wider opening on one end and the inner diameter profile on the other end.

14. The lockdown assembly according to claim 8, wherein the subsea wellhead connector has a plurality of tie rods spaced around a circumference of the stationary connector body.

15. A method of connecting a tubular member to a subsea wellhead assembly having a tie rod extending along an axis from a stationary connector body of a tieback connector, the tie rod having a tie rod profile on a tie rod outer diameter, the method comprising:

mounting an annular ring to the stationary connector body with the tie rod extending through the annular ring;

mounting a lockdown member with an inner diameter profile corresponding to the tie rod profile on the annular ring, the lockdown member being moveable between a lockdown open position where the member is spaced radially outward from the tie rod, and a lockdown engaged position where the inner diameter profile engages the tie rod profile to axially couple the stationary connector body and the annular ring, the annular ring including a stopper that engages an engagement feature in the lockdown member as the engagement feature passes over the stopper;

extending a rod radially outward from the lockdown member, the rod adapted to move the lockdown member from the lockdown open position to the lockdown engaged position, wherein the rod is supported by a rod support that is secured to the annular ring circumscribing the tubular member; and

pulling the rod radially outward to radially move the lockdown member relative to the annular ring.

16. The method according to claim 15, further comprising:

providing a first handle on one end of the rod, the first handle being perpendicular to the rod such that a radially outward movement of the first handle moves the lockdown member from the lockdown engaged position to the lockdown open position; and

providing a rod spring circumscribing the rod, the rod spring having a first end that engages the lockdown member and a second end that engages the rod support, thereby creating biasing the lockdown member away from the rod support.

17. The method according to claim 15, further comprising:

inserting a stem of a second handle into a through bore formed on one surface of the lockdown member.

18. The method according to claim 15, further comprising:

providing the annular ring with a hole configured to receive a stopper spring, wherein the stopper spring urges the stopper in an upward direction so that as a bore of the lockdown member passes over the hole, the stopper spring urges the stopper into the bore.

19. The method according to claim 17, further comprising:

providing the second handle with a visual indicator on the stem to determine if the lockdown member is in the lockdown open position or the lockdown engaged position.

20. The method according to claim 15, further comprising:

providing the lockdown member with a recess portion having a wider opening on one end and the inner diameter profile on the other end.