

What is Claimed is:

1. A termination arrangement for an overhead electrical cable, comprising:
a gripping element configured to grip a strength member of an overhead electrical cable;
a connector operatively attached to the gripping element, the connector comprising:
a connector body; and
a connector body bore extending longitudinally from a first aperture in a proximal end of the connector body toward a distal end of the connector body.
2. The termination arrangement recited in Claim 1, comprising a fastener operatively affixed to the proximal end of the connector body.
3. The termination arrangement recited in any one of Claims 1 or 2, wherein the gripping element comprises a compression wedge.
4. The termination arrangement recited in Claim 3, wherein the compression wedge comprises a collet disposed within a collet housing.
5. The termination arrangement recited in Claim 4, wherein the connector body is operatively attached to the collet housing.
6. The termination arrangement recited in Claim 5, wherein the connector body is threadably engaged with the collet housing.
7. The termination arrangement recited in any one of Claims 1 to 6, comprising an outer sleeve disposed over at least the gripping element.
8. The termination arrangement recited Claim 7, wherein the outer sleeve surrounds at least a portion of the connector body.
9. The termination arrangement recited in any one of Claims 7 to 8, wherein the outer sleeve comprises a conductive body.

10. The termination arrangement recited in any one of Claims 7 to 9, wherein the outer sleeve comprises a jumper plate operatively attached to the conductive body.

11. The termination arrangement recited in Claim 10, wherein the jumper plate is operatively attached to the conductive body near a proximal end of the outer sleeve.

12. The termination arrangement recited in any one of Claims 1 to 11, wherein the connector body bore extends through the connector body from the first connector body aperture in the proximal end of the connector body to a second aperture near the distal end of the connector.

13. The termination arrangement recited in Claim 12, wherein the connector body bore is sized and shaped to receive the strength member of an overhead electrical cable.

14. The termination arrangement recited in any one of Claims 1 to 13, wherein the connector body bore has a substantially circular cross-section and has a diameter of at least about 6 mm.

15. The termination arrangement recited in any one of Claims 12 to 14, wherein the connector bore has a diameter of not greater than about 18 mm.

16. The termination arrangement recited in any one of Claims 12 to 15, comprising a removable cover operatively disposed over the second aperture.

17. The termination arrangement recited in Claim 16, wherein the removable cover is secured over the second aperture using at least one threaded fastener.

18. The termination arrangement recited in Claim 16, wherein the removable cover is threadably engaged with the second aperture.

19. The termination arrangement recited in Claim 16, wherein the removable cover is friction fit into the second aperture.

20. The termination arrangement recited in any one of Claims 1 to 19, wherein the fastener comprises an eyebolt.

21. The termination arrangement recited in Claim 20, wherein the eyebolt is permanently affixed to the connector body.

22. The termination arrangement recited in Claim 21, comprising an eyebolt bore extending through a base of the eyebolt, wherein the eyebolt bore lies along the longitudinal axis of the connector body bore.

23. The termination arrangement recited in Claim 22, wherein the eyebolt bore has substantially the same size and cross-section as the connector body bore.

24. The termination arrangement recited in any one of Claims 12 to 19, wherein the fastener comprises a clevis having a base and two spaced-apart clevis prongs extending from the base.

25. The termination arrangement recited in Claim 24, wherein the second aperture is disposed through the base and between the two spaced-apart prongs.

26. The termination arrangement recited in any one of Claims 24 or 25, wherein each of the two spaced-apart prongs comprises a bolt aperture disposed near a proximal end of the prong.

27. The termination arrangement recited in any one of Claims 25 or 26, wherein each of the bolt apertures are offset from the longitudinal axis of the connector body.

28. The termination arrangement recited in any one of Claims 12 to 19, wherein the fastener is detachable from and re-attachable to the connector body.

29. The termination arrangement recited in Claim 28, wherein the fastener is threadably engaged with the connector body.

30. The termination arrangement recited in Claim 28, wherein the fastener is bolted to the connector body.

31. The termination arrangement recited in any one of Claims 28 to 30, wherein the fastener comprises a clevis having a base and two spaced-apart prongs extending from the base.

32. The termination arrangement recited in any one of Claims 28 to 30, wherein the fastener comprises an eyebolt comprising a base and a closed loop extending from the base.

33. The termination arrangement recited in any one of Claims 28 to 32, further comprising a sling coupling.

34. The termination arrangement recited in Claim 33, wherein the sling coupling is affixed to the connector body.

35. The termination arrangement recited in Claim 34, wherein the sling coupling is permanently affixed to the connector body.

36. The termination arrangement recited in any one of Claims 33 to 35, wherein the sling coupling comprises a closed loop.

37. The termination arrangement recited in any one of Claims 1 to 11, wherein the connector body bore is in operative communication with a non-longitudinal bore that is disposed at an angle of less than 180° relative to the connector body bore.

38. The termination arrangement recited in Claim 37, wherein the non-longitudinal bore is disposed at an angle of from about 70° to about 130° relative to the connector body bore.

39. The termination arrangement recited in any one of Claims 37 or 38, comprising a non-longitudinal bore aperture disposed at an end of the non-longitudinal bore.

40. The termination arrangement recited in any one of Claims 37 to 39, further comprising a second non-longitudinal bore that is disposed at an angle of less than 180° relative to the connector body bore.

41. The termination arrangement recited in any one of Claims 37 to 40, comprising a reflective element disposed at an interface between the connector body bore and the non-longitudinal bore, where the reflective element is configured to reflect light between the connector body bore and the non-longitudinal bore.

42. The termination arrangement recited in any one of Claims 39 to 41, comprising a removable cover operatively disposed over non-longitudinal bore aperture.

43. The termination arrangement recited in Claim 42, wherein the removable cover is secured over non-longitudinal bore aperture using at least a first threaded fastener.

44. The termination arrangement recited in Claim 42, wherein the removable cover is threadably engaged with the non-longitudinal bore aperture.

45. The termination arrangement recited in Claim 42, wherein the removable cover is friction fit into the non-longitudinal bore aperture.

46. The termination arrangement recited in any one of Claims 37 to 45, wherein the connector body bore terminates before a distal end of the connector body.

47. The termination arrangement recited in any one of Claims 37 to 45, wherein the connector body bore extends to the distal end of the connector body.

48. A method for terminating an overhead electrical cable comprising a central strength member and a plurality of conductive strands wrapped around the strength member, the method comprising the steps of:

separating an end portion of the strength member from the conductive strands;

inserting the end portion of the strength member into a termination arrangement, the termination arrangement comprising a connector having a connector body and a connector body bore,

wherein the step of inserting the strength member includes placing the end portion of the strength member at least partially into the connector body bore.

49. The method recited in Claim 48, wherein the inserting step includes inserting the end portion of the strength member into a gripping member.

50. The method recited in Claim 49, wherein the gripping member comprises a collet and a collet housing.

51. The method recited in any one of Claims 48 to 50, comprising the step of placing an outer sleeve over at least a portion of the connector body.

52. The method recited in Claim 51, comprising the step of compressing the outer sleeve onto the connector body.

53. The method recited in any one of Claims 48 to 52, wherein the connector body bore extends through the connector body from the first connector body aperture in the proximal end of the connector body to a second aperture near the distal end of the connector.

54. A method for interrogating an overhead electrical cable through a termination arrangement, the overhead electrical cable having a strength member comprising interrogation elements and a plurality of conductive strands wrapped around the strength member, comprising the steps of:

separating an end segment of the strength member from the conductive strands;

operatively securing a termination arrangement to the overhead electrical cable, the termination arrangement comprising:

a gripping element configured to grip the strength member;

a connector operatively attached to the gripping element, the connector comprising a connector body and a connector body bore extending longitudinally from a first aperture in a proximal end of the connector body toward a distal end of the connector body,

wherein the step of operatively securing the termination arrangement to the overhead electrical cable comprises:

securing a first portion of the end segment of the strength member with the gripping element; and

placing a second portion of the end segment of the strength member into the connector body bore, and

interrogating the strength member by operatively linking an interrogation device to the end of the strength member.

55. The method recited in Claim 54, wherein the strength member is fully disposed within the termination arrangement during the interrogation step.

56. The method recited in Claim 54, wherein the strength member extends beyond the termination arrangement during the interrogation step.