CLAIMS

1 A transducer mount (110) for connecting a transducer (102) to a device, the transducer mount (110) comprising a housing (112), a resilient member (114) and first and second end walls (115, 116), the first end wall (115) being operatively connected to the device, wherein the transducer (102) is held within the housing (112) and adjacent to the first end wall (115), the resilient member (114) being disposed between the transducer (102) and the second end wall (116) wherein the resilient member (114) has a low Young's modulus to enable constant contact between the transducer (102) and the first end wall (115).

2 A transducer mount (110) as claimed in claim 1, wherein the transducer mount (110) further comprises a removable end cap (117), the second end wall (116) being provided by the end cap (117).

3 A transducer mount (110) as claimed in claim 1 or 2, wherein the resilient member (114) comprises a foam material.

4 A transducer mount (110) as claimed in any one of claims 1 to 3, wherein the transducer mount (110) further comprises an elongate member (104) adapted to connect the transducer mount (110) to the device.

5 A transducer assembly (100) for connecting a transducer (102) to a device, the transducer assembly (100) comprising: a transducer mount (110) as claimed in any one of claims 1 to 4; and a clamp (120) comprising first and second jaws (122, 124), the first and second jaws (122, 124) being adapted to selectively clamp to a flange portion (106) of the device.

6 A transducer assembly (100) as claimed in claim 5, wherein the clamp (120) further comprises a first tightener (126) adapted to apply a first force to secure the first and second jaws (122, 124) either side of the flange portion (106) and wherein the first force is applied at a first location spaced apart from the flange portion (106).

7 A transducer assembly (100) as claimed in claim 6, wherein the first tightener (126) comprises one or more first threaded bolts (126') passing through the first and second jaws (122, 124), the first threaded bolts (126') engaging one or more corresponding first threaded portions (128) provided on one or more of the first and second jaws (122, 124).

8 A transducer assembly (100) as claimed in claim 7, wherein the first threaded bolt (126') comprises a head portion (127) disposed so as to abut one of the first and second jaws (122, 124), the other of the first and second jaws (122, 124) being held by the first threaded portion (128).

9 A transducer assembly (100) as claimed in claim 8, wherein a resilient element (129) is provided between the head portion (127) and the one of the first and second jaws (122, 124).

10 A transducer assembly (100) as claimed in any one of claims 5 to 9, wherein the clamp (120) further comprises a second tightener (130) adapted to apply a second force to secure the first and second jaws (122, 124) to the flange portion (106) and wherein the second force is applied at a second location spaced apart from the flange portion (106), and the first location is between the second location and the flange portion (106).

11 A transducer assembly (100) as claimed in claim 9 or 10, wherein the second tightener (130) comprises one or more second threaded bolts (130') passing through a second threaded portion (132) in one of the first and second jaws (122, 124), an end of the second threaded bolt (130') being disposed so as to abut the other of the first and second jaws (122, 124).

12 A transducer assembly (100) as claimed in any one of claims 5 to 11, wherein the clamp (120) further comprises one or more guides (134, 136) disposed to permit the first and second jaws (122, 124) to translate with respect to one another.

13 A transducer assembly (100) comprising a transducer mount (110) according to any one of claims 1 to 4 and a transducer (102) configured for the detection of acoustic stress waves.

14 A gas turbine engine comprising the transducer mount (110) of claims 1 to 4.

15 A gas turbine engine comprising the transducer assembly (100) as claimed in any of claims 5 to 12.

The invention claimed is:

1. A transducer mount for connecting a transducer to a device, the transducer mount comprising: a housing; a resilient member; and first and second end walls, the first end wall being operatively connected to the device, wherein the transducer is held within the housing and adjacent to the first end wall, the resilient member being disposed between the transducer and the second end wall, and the resilient member has a low Young's modulus to enable constant contact between the transducer and the first end wall.

2. The transducer mount of claim 1, wherein the transducer mount further comprises a removable end cap, the second end wall being provided by the end cap.

3. The transducer mount of claim 1, wherein the resilient member comprises a foam material.

4. The transducer mount of claim 1, further comprising an elongate member adapted to connect the transducer mount to the device.

5. A transducer assembly for connecting a transducer to a device, the transducer assembly comprising: the transducer mount of claim 1; and a clamp comprising first and second jaws, the first and second jaws being adapted to selectively clamp to a flange portion of the device.

6. The transducer assembly of claim 5, wherein the clamp further comprises a first tightener adapted to apply a first force to secure the first and second jaws on either side of the flange portion, and wherein the first force is applied at a first location spaced apart from the flange portion.

7. The transducer assembly of claim 6, wherein the first tightener comprises one or more first threaded bolts passing through the first and second jaws, the first threaded bolts engaging one or more corresponding first threaded portions provided on one or more of the first and second jaws.

8. The transducer assembly of claim 7, wherein the first threaded bolt comprises a head portion disposed so as to abut one of the first and second jaws an other of the first and second jaws being held by the first threaded portion.

9. The transducer assembly of claim 8, wherein a resilient element is provided between the head portion and the one of the first and second jaws.

10. The transducer assembly of claim 5, wherein the clamp further comprises a second tightener adapted to apply a second force to secure the first and second jaws to the flange portion, and wherein the second force is applied at a second location spaced apart from the flange portion, and the first location is between the second location and the flange portion.

11. The transducer assembly of claim 10, wherein the second tightener comprises one or more second threaded bolts passing through a second threaded portion in one of the first and second jaws, an end of the second threaded bolt being disposed so as to abut an other of the first and second jaws.

12. The transducer assembly of claim 5, wherein the clamp further comprises one or more guides disposed to permit the first and second jaws to translate with respect to one another.

13. A transducer assembly comprising the transducer mount of claim 1, and a transducer configured for detection of acoustic stress waves.

14. A gas turbine engine comprising the transducer mount of claim 1.

15. A gas turbine engine comprising the transducer assembly of claim 5.