CLAIMS

What is claimed is:

1. An apparatus, comprising:

a base-deck floor comprising a first metal;

a base-deck frame comprising a second metal different than the first metal, overlying the base-deck floor;

a top cover, overlying the base-deck frame; and

an affixing feature operable to affix the base-deck frame to the base-deck floor,

wherein the base-deck frame is operable to be fastened to both the base-deck floor and the top cover to provide a housing for a hard disk drive.

2. The apparatus of Claim 1, wherein the base-deck frame is operable to be unfastened from the both the base-deck floor and the top cover.

3. The apparatus of either Claim 1 or Claim 2, wherein the base-deck frame comprises cast aluminum.

4. The apparatus of any one of Claims 1-3, wherein the ~~base-deck floor comprises a material having~~ first metal has a higher elastic modulus than the second metal ~~aluminum~~.

5. The apparatus of Claim 4, wherein the material and the top cover comprise stainless steel.

6. The apparatus of any one of Claims 1-5, wherein the base-deck floor comprises stamped stainless steel.

7. The apparatus of any one of Claims 1-6, wherein the base-deck floor is no more than 2000 μm thick.

8. The apparatus of any one of Claims 1-6, wherein the base-deck floor is no more than 500 μm thick.

9. The apparatus of any one of Claims 1-8, wherein the affixing feature comprises a gasket and a fastener.

10. The apparatus of any one of Claims 1-8, wherein the affixing feature comprises an epoxy or metal seal.

11. The apparatus of any one of Claims 1-8, wherein the affixing feature comprises an isolation seal operable to mechanically isolate forces imparted to the base-deck frame from internals of the hard disk drive that are attached to the base-deck frame.

12. A method, comprising:

assembling at least a portion of a hard disk drive assembly on a stamped base-deck floor;

affixing a cast base-deck frame to the base-deck floor; and

securing a top cover to the base-deck frame.

13. The method of Claim 12, further comprising:

stamping a top cover;

casting a base-deck frame; and

stamping a base-deck floor.

14. The method of Claim 13, wherein stamping the top cover comprises stamping the top cover from stainless steel.

15. The method of either Claim 13 or Claim 14, wherein casting the base-deck frame comprises casting the base-deck frame from aluminum.

16. The method of any one of Claims 13-15, wherein stamping the base-deck floor comprises stamping the base-deck floor from stainless steel.

17. The method of Claim 16, wherein stamping the base-deck floor further comprises stamping the base-deck floor from stainless steel between 500 and 2000 µm thick.

18. The method of any one of Claims 12-17, wherein affixing the base-deck frame to the base-deck floor comprises affixing the base-deck frame to the base-deck floor with a gasket and a fastener.

19. The method of any one of Claims 12-17, wherein affixing the base-deck frame to the base-deck floor comprises affixing the base-deck frame to the base-deck floor with an epoxy or metal seal.

20. An apparatus, comprising:

a top cover, optionally comprising stamped stainless steel;

a base-deck assembly, the base-deck assembly comprising

a base-deck frame comprising cast aluminum and

a base-deck floor comprising stamped stainless steel no more than 2000 µm thick; and

an affixing means for affixing the base-deck frame to the base-deck floor,

wherein the base-deck frame is operable to mate with both the base-deck floor and the top cover to provide a housing for a hard disk drive.

21. The apparatus of Claim 20, wherein the affixing means comprises a gasket and a fastener.

22. The apparatus of Claim 20, wherein the affixing means comprises an epoxy seal or a metal seal.

23. The apparatus of any one of Claims 20-22, wherein the base-deck floor is no more than 500 μm thick.