

15. In a mold for forming a matrix body bit having one or more raised wings for supporting a plurality of cutter elements, the improvement comprising:

a plurality of flats in the wing forming surfaces, each of said flats corresponding to the location for attachment of at least one core.

16. The mold of claim 15, wherein each of said flats is at a common angle with respect to the longitudinal axis of its corresponding core.

17. In a method of producing a matrix body bit, the improvement comprising the step of: using a bit pattern having faceted wings.

18. In a method of producing a matrix body bit, the improvement comprising the step of:

using a mold having flats for producing a bit body having faceted wings.

19. In a matrix body bit having one or more raised wings for supporting a plurality of cutter elements, the improvement comprising:

a plurality of facets in said wings, each of said facets corresponding to the location of at least one of said cutter elements.

20. The matrix body bit of claim 19, wherein said bit is a full bore drag bit and said cutter elements are stud mounted PDC cutters.

21. In a method of producing a matrix body bit including the steps of forming a bit mold, attaching a plurality of cores to the inner mold surface to create

openings in the resultant matrix bit body for mounting cutter elements, forming a matrix bit body in said mold using an infiltration process, and mounting cutter elements in the openings formed by said cores, the improvement comprising the step of:

forming a plurality of small flat surfaces in the inner surface of said mold with each of said flat surfaces corresponding to the location whereat at least one of said cores is to be attached to said mold.

22. The method of claim 21, wherein each of said small flat surfaces is perpendicular to the longitudinal axis of the corresponding core.

23. The method of claim 21, wherein said cutter elements are located in raised wings in said bit body and said small flat surfaces lead to the formation of facets in said wings.

24. The method of claim 21, wherein said mold is a hard mold and said step of forming a plurality of flat surfaces includes machining said flat surfaces.

25. The method of claim 21, wherein said mold is a soft mold and said step of forming a plurality of flat surfaces includes using a pattern having corresponding flat surfaces to form said mold.

26. A mold formed in accordance with the method of claim 21.

27. A matrix body bit formed in accordance with the method of claim 21.

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