What is claimed is:

1. A cantilever skidding frame for a mobile platform, the frame comprising:

a first frame structure comprising an aft corner structure, a forward corner structure, and a longitudinal skidding foundation structure coupling the aft and forward corner structures;

a second frame structure comprising an aft corner structure, a forward corner structure, and a longitudinal skidding foundation structure coupling the aft and forward corner structures;

two beams connecting the first and second frame structures to form a rigid skidding frame;

transverse skidding driving mechanisms connected to each aft and forward corner structures of the first and second frame structures; and

longitudinal skidding driving mechanisms connected to each first and second frame structures,

wherein the rigid skidding frame is disposed on parallel transverse skidding tracks,

wherein longitudinal movement of a cantilever disposed on the rigid skidding frame is effected by operation of the longitudinal skidding driving mechanisms, and

wherein transverse movement of the cantilever disposed on the rigid skidding frame over the parallel transverse skidding tracks is effected by operation of the transverse skidding mechanisms.

2. The cantilever skidding frame of Claim 1 wherein the mobile platform is a drilling rig.

3. The cantilever skidding frame of Claim 1 wherein one or more of the aft corner structures of the first and second frame structures further comprise a high lead bronze pad and a support pad having two upper ridges, the high lead bronze pad secured to the support pad and providing a skidding surface for the cantilever over the aft corner structure.

4. The cantilever skidding frame of Claim 1 wherein one or more of the aft corner structures of the first and second frame structures further comprise:

a plurality of wedges to slidably lock the aft corner structure against one of the skidding tracks;

a plurality of locking plates for locking the wedges together; and

a plurality of bronze plates for allowing the aft corner structure to skid along the skidding track.

5. The cantilever skidding frame of Claim 1, wherein a plurality of bronze pads are affixed to each of the parallel transverse skidding tracks to reduce friction during movement of the cantilever.

6. The cantilever skidding frame of Claim 1, wherein one or more of the forward corner structures of the first and second frame structures further comprise a hold-down claw having:

a compression support pad to provide support for the cantilever;

a pair of locking frames disposed at both ends of the compression support pad; and

a pair of C-shaped clamps with an inward step on an upper portion thereof for slidably locking a proximate surface of the cantilever thereto and a lower portion for slidably locking with the compression support pad so the proximate surface of the cantilever can slide inside the hold-down claw.

7. The cantilever skidding frame of Claim 1 wherein one or more of the forward corner structures of the first and second frame structures further comprise:

a plurality of wedges to slidably lock the aft corner structure against one of the skidding tracks;

a plurality of locking plates for locking the wedges together;

a plurality of bronze plates for allowing the aft corner structure to skid along the skidding track; and

a plurality of parking pins to secure the cantilever skidding frame in a predetermined position.

8. A drilling rig comprising:

a rig platform;

parallel transverse skidding tracks secured on the rig platform;

a cantilever skidding frame slidably disposed on the parallel transverse skidding tracks, the cantilever skidding frame comprising:

a first frame structure having an aft corner structure, a forward corner structure, and a longitudinal skidding foundation structure coupling the aft and forward corner structures,

a second frame structure having an aft corner structure, a forward corner structure, and a longitudinal skidding foundation structure coupling the aft and forward corner structures,

two beams connecting the first and second frame structures,

transverse skidding driving mechanisms connected to each aft and forward corner structures of the first and second frame structures, and

longitudinal skidding driving mechanisms connected to the first and second frame structures;

a cantilever slidably disposed on the cantilever skidding frame; and

a drilling module disposed on the cantilever,

wherein longitudinal movement of the cantilever over the aft and forward corner structures of the first and second frame structures is imparted by operation of the longitudinal skidding driving mechanisms, and

wherein transverse movement of the cantilever over the parallel transverse skidding tracks is imparted by operation of the transverse skidding mechanisms.

9. The drilling rig of Claim 8 wherein one or more of the aft corner structures of the first and second frame structures further comprise a high lead bronze pad and a support pad having two upper ridges, the high lead bronze pad secured to the support pad and providing a skidding surface for the cantilever over the aft corner structure.

10. The drilling rig of Claim 8 wherein one or more of the aft corner structures of the first and second frame structures further comprise:

a plurality of wedges to slidably lock the aft corner structure against one of the skidding tracks;

a plurality of locking plates for locking the wedges together; and

a plurality of bronze plates for allowing the aft corner structure to skid along the skidding track.

11. The drilling rig of Claim 8 wherein a plurality of bronze pads are affixed to each of the parallel transverse skidding tracks to reduce friction during movement of the cantilever.

12. The drilling rig of Claim 8 wherein one or more of the forward corner structures of the first and second frame structures further comprise a hold-down claw having:

a compression support pad to provide support for the cantilever;

a pair of locking frames disposed at both ends of the compression support pad; and

a pair of C-shaped clamps with an inward step on an upper portion thereof for slidably locking a proximate surface of the cantilever thereto and a lower portion for slidably locking with the compression support pad so the proximate surface of the cantilever can slide inside the hold-down claw.

13. The drilling rig of Claim 8 wherein one or more of the forward corner structures of the first and second frame structures further comprise:

a plurality of wedges to slidably lock the aft corner structure against one of the skidding tracks;

a plurality of locking plates for locking the wedges together;

a plurality of bronze plates for allowing the aft corner structure to skid along the skidding track; and

a plurality of parking pins to secure the cantilever skidding frame in a predetermined position.

14. The drilling rig of Claim 8 wherein the cantilever further comprises:

a pair of beams disposed on the bottom of the cantilever to slidably interface with respective aft and forward corner structures of the first and second frame structures; and

a pair of skid beams disposed on each longitudinal side of the cantilever to guide movement imparted by the longitudinal skidding driving mechanisms.

15. The drilling rig of Claim 8 wherein the drilling module is slidably engaged to the cantilever.

16. The drilling rig of Claim 15 wherein movement of the drilling module is independent of any movement of the cantilever.

17. The drilling rig of Claim 8 wherein the cantilever further comprises:

a return trough affixed on a longitudinal side of the cantilever to provide material return flow to a mud tank.

18. The drilling rig of Claim 17 wherein the return trough further comprises one or more outlets for providing the material return flow, the outlet positions determined as a function of the longitudinal movement range of the cantilever.

19. The drilling rig of Claim 8 wherein the drilling rig is a Jackup drilling rig.

20. An offshore drilling system comprising:

a Jackup platform with a Jackup deck; and

a Jackup drilling unit comprising:

parallel aft and forward transverse skidding rails each secured on the Jackup deck;

a cantilever skidding frame slidably disposed on the parallel transverse skidding rails, the cantilever skidding frame comprising:

a first frame structure having an aft corner structure, a forward corner structure, and a longitudinal skidding foundation structure coupling the aft and forward corner structures,

a second frame structure having an aft corner structure, a forward corner structure, and a longitudinal skidding foundation structure coupling the aft and forward corner structures,

two beams connecting the first and second frame structures,

transverse skidding driving mechanisms connected to each aft and forward corner structures of the first and second frame structures, and

longitudinal skidding driving mechanisms connected to the first and second frame structures;

a cantilever slidably disposed on the cantilever skidding frame; and

a drilling module disposed on the cantilever,

wherein longitudinal movement of the cantilever over the aft and forward corner structures of the first and second frame structures is imparted by operation of the longitudinal skidding driving mechanisms, and

wherein transverse movement of the cantilever over the parallel transverse skidding tracks is imparted by operation of the transverse skidding mechanisms.

21. The offshore drilling system of Claim 20 wherein one or more of the aft corner structures of the first and second frame structures further comprise a high lead bronze pad and a support pad having two upper ridges, the high lead bronze pad secured to the support pad and providing a skidding surface for the cantilever over the aft corner structure.

22. The offshore drilling system of Claim 20 wherein a plurality of bronze pads are affixed to each of the parallel transverse skidding tracks to reduce friction during movement of the cantilever.

What is claimed is:

1. A cantilever skidding frame for a mobile platform, the frame comprising:

a first frame structure comprising a first aft corner structure, a first forward corner structure, and a longitudinal skidding foundation structure coupling the first aft and first forward corner structures;

a second frame structure comprising a second aft corner structure, a second forward corner structure, and a longitudinal skidding foundation structure coupling the second aft and second forward corner structures;

two beams connecting the first and second frame structures to form a rigid skidding frame;

transverse skidding driving mechanisms fixedly connected to each aft and forward corner structures of the first and second frame structures; and

longitudinal skidding driving mechanisms fixedly connected to one of the forward or aft corners of each first and second frame structures,

wherein the rigid skidding frame is disposed on parallel transverse skidding tracks,

wherein longitudinal movement of a cantilever disposed on the rigid skidding frame is effected by operation of the longitudinal skidding driving mechanisms, and

wherein transverse movement of the cantilever disposed on the rigid skidding frame over the parallel transverse skidding tracks is effected by operation of the transverse skidding mechanisms and wherein the rigid skidding frame is fixed in the longitudinal direction.

2. The cantilever skidding frame of claim 1 wherein the mobile platform is a drilling rig.

3. The cantilever skidding frame of claim 1 wherein one or more of the aft corner structures of the first and second frame structures further comprise a high lead bronze pad and a support pad having two upper ridges, the high lead bronze pad secured to the support pad and providing a skidding surface for the cantilever over the aft corner structure.

4. The cantilever skidding frame of claim 1 wherein one or more of the aft corner structures of the first and second frame structures further comprise:

a plurality of wedges to slidably lock the aft corner structure against one of the skidding tracks;

a plurality of locking plates for locking the wedges together; and

a plurality of bronze plates for allowing the aft corner structure to skid along the skidding track.

5. The cantilever skidding frame of claim 1, wherein a plurality of bronze pads are affixed to each of the parallel transverse skidding tracks to reduce friction during movement of the cantilever.

6. The cantilever skidding frame of claim 1, wherein one or more of the forward corner structures of the first and second frame structures further comprise a hold-down claw having:

a compression support pad to provide support for the cantilever;

a pair of locking frames disposed at both ends of the compression support pad; and

a pair of C-shaped clamps with an inward step on an upper portion thereof for slidably locking a proximate surface of the cantilever thereto and a lower portion for slidably locking with the compression support pad so the proximate surface of the cantilever can slide inside the hold-down claw.

7. The cantilever skidding frame of claim 1 wherein one or more of the aft corner structures of the first and second frame structures further comprise:

a plurality of wedges to slidably lock the aft corner structure against one of the skidding tracks;

a plurality of locking plates for locking the wedges together;

a plurality of bronze plates for allowing the aft corner structure to skid along the skidding track; and

a plurality of parking pins to secure the cantilever skidding frame in a predetermined position.

8. The cantilever skidding frame of claim 1, wherein geometric distances from the transverse skidding driving mechanisms to the longitudinal skidding driving mechanisms is are fixed.

9. A drilling rig comprising:

a rig platform;

parallel transverse skidding tracks secured on the rig platform;

a cantilever skidding frame slidably disposed on the parallel transverse skidding tracks, the cantilever skidding frame comprising:

a first frame structure having a first aft corner structure, a first forward corner structure, and a longitudinal skidding foundation structure coupling the first aft and first forward corner structures,

a second frame structure having an second aft corner structure, a second forward corner structure, and a longitudinal skidding foundation structure coupling the second aft and second forward corner structures,

two beams connecting the first and second frame structures,

transverse skidding driving mechanisms connected to each aft and forward corner structures of the first and second frame structures, and

longitudinal skidding driving mechanisms connected to one of the forward or aft corner structures of the first and second frame structures;

a cantilever slidably disposed on the cantilever skidding frame; and

a drilling module disposed on the cantilever,

wherein longitudinal movement of the cantilever over the aft and forward corner structures of the first and second frame structures is imparted by operation of the longitudinal skidding driving mechanisms, and

wherein transverse movement of the cantilever over the parallel transverse skidding tracks is imparted by operation of the transverse skidding mechanisms and wherein the cantilever skidding frame is fixed in the longitudinal direction.

10. The drilling rig of claim 9 wherein one or more of the aft corner structures of the first and second frame structures further comprise a high lead bronze pad and a support pad having two upper ridges, the high lead bronze pad secured to the support pad and providing a skidding surface for the cantilever over the aft corner structure.

11. The drilling rig of claim 9 wherein one or more of the aft corner structures of the first and second frame structures further comprise:

a plurality of wedges to slidably lock the aft corner structure against one of the skidding tracks;

a plurality of locking plates for locking the wedges together; and

a plurality of bronze plates for allowing the aft corner structure to skid along the skidding track.

12. The drilling rig of claim 9 wherein a plurality of bronze pads are affixed to each of the parallel transverse skidding tracks to reduce friction during movement of the cantilever.

13. The drilling rig of claim 9 wherein one or more of the forward corner structures of the first and second frame structures further comprise a hold-down claw having:

a compression support pad to provide support for the cantilever;

a pair of locking frames disposed at both ends of the compression support pad; and

a pair of C-shaped clamps with an inward step on an upper portion thereof for slidably locking a proximate surface of the cantilever thereto and a lower portion for slidably locking with the compression support pad so the proximate surface of the cantilever can slide inside the hold-down claw.

14. The drilling rig of claim 9 wherein one or more of the aft corner structures of the first and second frame structures further comprise:

a plurality of wedges to slidably lock the aft corner structure against one of the skidding tracks;

a plurality of locking plates for locking the wedges together;

a plurality of bronze plates for allowing the aft corner structure to skid along the skidding track; and

a plurality of parking pins to secure the cantilever skidding frame in a predetermined position.

15. The drilling rig of claim 9 wherein the cantilever further comprises:

a pair of beams disposed on the bottom of the cantilever to slidably interface with respective aft and forward corner structures of the first and second frame structures; and

a pair of skid beams disposed on each longitudinal side of the cantilever to guide movement imparted by the longitudinal skidding driving mechanisms.

16. The drilling rig of claim 9 wherein the drilling module is slidably engaged to the cantilever.

17. The drilling rig of claim 16 wherein movement of the drilling module is independent of any movement of the cantilever.

18. The drilling rig of claim 9 wherein the cantilever further comprises: a return trough affixed on a longitudinal side of the cantilever to provide material return flow to a mud tank.

19. The drilling rig of claim 18 wherein the return trough further comprises one or more outlets for providing the material return flow, the outlet positions determined as a function of the longitudinal movement range of the cantilever.

20. The drilling rig of claim 9 wherein the drilling rig is a Jackup drilling rig.

21. The drilling rig of claim 9, wherein geometric distances from the transverse skidding driving mechanisms to the longitudinal skidding driving mechanisms are fixed.

22. An offshore drilling system comprising:

a Jackup platform with a Jackup deck; and

a Jackup drilling unit comprising:

parallel aft and forward transverse skidding rails each secured on the Jackup deck;

a cantilever skidding frame slidably disposed on the parallel transverse skidding rails, the cantilever skidding frame comprising:

a first frame structure having an first aft corner structure, a first forward corner structure, and a longitudinal skidding foundation structure coupling the first aft and first forward corner structures,

a second frame structure having a second aft corner structure, a second forward corner structure, and a longitudinal skidding foundation structure coupling the second aft and second forward corner structures,

two beams connecting the first and second frame structures,

transverse skidding driving mechanisms connected to each aft and forward corner structures of the first and second frame structures, and

longitudinal skidding driving mechanisms connected to one of the forward or aft corner structures of the first and second frame structures;

a cantilever slidably disposed on the cantilever skidding frame; and

a drilling module disposed on the cantilever,

wherein longitudinal movement of the cantilever over the aft and forward corner structures of the first and second frame structures is imparted by operation of the longitudinal skidding driving mechanisms, and

wherein transverse movement of the cantilever over the parallel transverse skidding tracks is imparted by operation of the transverse skidding mechanisms and wherein the cantilever skidding frame is fixed in the longitudinal direction.

23. The offshore drilling system of claim 22 wherein one or more of the aft corner structures of the first and second frame structures further comprise a high lead bronze pad and a support pad having two upper ridges, the high lead bronze pad secured to the support pad and providing a skidding surface for the cantilever over the aft corner structure.

24. The offshore drilling system of claim 22 wherein a plurality of bronze pads are affixed to each of the parallel transverse skidding tracks to reduce friction during movement of the cantilever.

25. The offshore drilling system of claim 22, wherein geometric distances from the transverse skidding driving mechanisms to the longitudinal skidding driving mechanisms are fixed.