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(54) SKID STEER ATTACHMENT

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- (51) Int. Cl. *E02F 3/80* (2006.01)
- (57) ABSTRACT

A skid steer attachment has an extended reach for lifting and placing heavy boulders, logs and debris in hard to reach locations. With its extended reach capabilities, the attachment makes it possible to grab and place items in locations that are hard to reach with conventional attachments.











SKID STEER ATTACHMENT

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of priority of U.S. provisional patent application No. 61/482,558, filed May 4, 2011, the contents of which are herein incorporated by reference.

BACKGROUND OF THE INVENTION

[0002] The present invention relates to a skid steer attachment and, more particularly, to a skid steer attachment used for landscaping, for example, for moving boulders, logs, brush and other debris.

[0003] Grapples are often used for moving boulders, logs, brush and other debris. However, such grapples have limited reach, limiting their usefulness, especially when trying to place items in a desired location where the equipment may not be able to get close. In these cases, the grapples often have to release the item in a location away from the desired location, and a different means has to be used to move the item as desired.

[0004] As can be seen, there is a need for an improved grapple attachment for a skid steer allowing a user to lift and place items in hard to reach locations.

SUMMARY OF THE INVENTION

[0005] In one aspect of the present invention, a skid steer attachment comprises a backing plate for attaching the attachment to a skid steer; an arm extending up from the backing plate and turning at an angle; a grapple pivotally attached at a distal end of the arm; digger teeth pivotally attached opposite of the grapple at the distal end of the arm; and a hydraulic ram connected between the arm and the grapple, the hydraulic ram adapted to pivot the grapple.

[0006] In another aspect of the present invention, a skid steer attachment comprises a backing plate for attaching the attachment to a skid steer; an arm extending up from the backing plate and turning at an angle; a grapple pivotally attached at a distal end of the arm; digger teeth pivotally attached opposite of the grapple at the distal end of the arm; a hydraulic ram connected between the arm and the grapple, the hydraulic ram adapted to pivot the grapple; an adjustment arm extending from the digger teeth to a selected set of a plurality of sets of holes in the arm; and a pin passing through the adjustment arm and the selected set of the plurality of sets of holes.

[0007] These and other features, aspects and advantages of the present invention will become better understood with reference to the following drawings, description and claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] FIG. **1** is a right side perspective view of the skid steer attachment according to an exemplary embodiment of the present invention;

[0009] FIG. **2** is a left side perspective view of the skid steer attachment of FIG. **1**;

[0010] FIG. **3** is a left side view of an arm of the skid steer attachment of FIG. **1**; and

[0011] FIG. **4** is a close-up perspective view of a grapple end of the skid steer attachment of FIG. **1**.

DETAILED DESCRIPTION OF THE INVENTION

[0012] The following detailed description is of the best currently contemplated modes of carrying out exemplary embodiments of the invention. The description is not to be taken in a limiting sense, but is made merely for the purpose of illustrating the general principles of the invention, since the scope of the invention is best defined by the appended claims. **[0013]** Broadly, an embodiment of the present invention

provides a skid steer attachment having an extended reach for lifting and placing heavy boulders, logs and debris in hard to reach locations. With its extended reach capabilities, the attachment makes it possible to grab and place items in locations that are hard to reach with conventional attachments.

[0014] Referring now to the Figures, a skid steer attachment 10 includes a grapple system 12 with a grapple 14 and digging teeth 16. A hydraulic ram 18 can be used to extend the grapple 14 out to grapple what is meant to be picked up or to pull it up out of the way to use the digger teeth 16 without any conflict of the grapple 14 being in the way.

[0015] The adjustable digger teeth 16 have a plurality of settings, typically about four settings, to adjust them to pick up larger objects or to move them completely out of the way, making it possible to use the grapple 14 as a rake. The grapple 14 may pivot about an axis 20, as controlled by the hydraulic ram 18. The digger teeth 16 may pivot about an axis 22 as controlled by an adjustment arm 24. The adjustment arm 24 may extend from the digger teeth 16 to one of a plurality of adjustment positions disposed along an arm 26 of the attachment 10. The adjustment positions may include a plurality of holes 28 where a pin 30 may pass through the adjustment arm 24 and a select set of holes 28, as shown in FIG. 4. By positioning the adjustment arm 24 in different holes 28, the angle of the digger teeth 16 relative to the arm 26 can be changed.

[0016] The grapple **14** and the digger teeth **16** include a quick pin design, making them easy to remove and reattach. Both the grapple **14** and the digger teeth **16** can be made of T-1, TR-200, or TR-400 steel to minimize wear on them and extend their life.

[0017] An extended arm 26 can extend out off a backing plate 32 and can be braced with steel plating for increased strength. The extended arm 26 comes off the backing plate 32, rising to a 45 degree angle, making it possible to get the desired reach. The arm 26 extends up to a 90 degree angle, which then angles it back to the ground. The grapple 14 and the digger teeth 16 are disposed at the end of the arm 26, along with the hydraulic ram 18, typically positioned at the top of the arm. Hydraulic hoses 34 coming from the ram 18, running along the extended arm 26 can have several brackets to hold them in close to minimize any possible damage being done to them.

[0018] In some embodiments of the present invention, the adjustment arm **24** may be replaced with a hydraulic ram, where the position of the digger teeth **16** may be adjusted by controlling the hydraulic ram.

[0019] The length of the arm 26 can be varied depending on the application. For example, a longer arm 26 may be used to help move items in farther away hard to reach places. The size of the grapple 14 and the digger teeth 16 may also be changed to match the intended application of the attachment 10. **[0020]** It should be understood, of course, that the foregoing relates to exemplary embodiments of the invention and that modifications may be made without departing from the spirit and scope of the invention as set forth in the following claims.

What is claimed is:

- **1**. A skid steer attachment comprising:
- a backing plate for attaching the attachment to a skid steer; an arm extending up from the backing plate and turning at an angle;

a grapple pivotally attached at a distal end of the arm;

- digger teeth pivotally attached opposite of the grapple at the distal end of the arm; and
- a hydraulic ram connected between the arm and the grapple, the hydraulic ram adapted to pivot the grapple.

2. The skid steer attachment of claim 1, further comprising an adjustment arm extending from the digger teeth to the arm.

3. The skid steer attachment of claim 2, further comprising a plurality of attachment positions disposed along the arm to connect the adjustment arm, the plurality of adjustment positions permitting the digger teeth to be pivoted at various angles relative to the arm.

4. The skid steer attachment of claim **3**, further comprising a plurality of holes in the arm and a pin adapted to fit through the adjustment arm and into a selected hole.

5. The skid steer attachment of claim **1**, further comprising brackets for retaining hydraulic hoses adjacent to the arm.

6. The skid steer attachment of claim 1, wherein the angle is about 90 degrees.

7. The skid steer attachment of claim 1, wherein the arm extends from the backing plate at a backing plate angle of about 45 degrees.

8. A skid steer attachment comprising:

- a backing plate for attaching the attachment to a skid steer; an arm extending up from the backing plate and turning at an angle;
- a grapple pivotally attached at a distal end of the arm;
- digger teeth pivotally attached opposite of the grapple at the distal end of the arm;
- a hydraulic ram connected between the arm and the grapple, the hydraulic ram adapted to pivot the grapple;
- an adjustment arm extending from the digger teeth to a selected set of a plurality of sets of holes in the arm; and
- a pin passing through the adjustment arm and the selected set of the plurality of sets of holes.

9. The skid steer attachment of claim 8, further comprising brackets for retaining hydraulic hoses adjacent to the arm.

10. The skid steer attachment of claim **8**, wherein the arm extends from the backing plate at an angle of about 45 degrees and the angle that the arm turns is about 90 degrees.

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