

Information Sheet 1

Transportable Hydraulic Hoist to Access Agricultural Machinery

Sam Bailey was involved in a motor vehicle accident in his late teens and as results has a high level spinal cord injury (C6/C7 quadriplegia), yet despite his disability Sam continues to be involved in the operation and management of the family's 3000 acre wheat and cattle property near Moree, northern NSW.

Getting into the cabin of the farm machinery was a challenge. ...'We considered all sorts of solutions, from digging a hole in the ground to building a launching pad off the wool shed, but they all had limitations'...

Sam and his family, with the help of a local bush mechanic, designed a hoist to lift Sam into the cabin of the machinery. They started with a Backease Hoist bolted onto the tray of the Hilux ute and added a seat on the end.



The big challenge was keeping the seat level as the hoist went up and down. They devised a see-saw mechanism above the hoist to solve this problem. The hydraulics of the hoist were wired to a remote control panel which moves the seat up or down..



Sam transfers onto the seat of the hoist from his quad runner holding the control panel in one hand and stabilising himself with the other.



Once on the seat of the hoist he lifts himself to the correct height and the quad runner is ridden away by a second person.



The ute is reversed up to the tractor and Sam transfers into the cabin, and the ute is driven off.



To get off the machinery everything is repeated in reverse order.

Sam is able to access the tractor, header, bull dozer and the front end loader with the use of this hoist. It has the added advantage of allowing Sam to mount and dismount anywhere on the property, and during the off season, or when the ute is used for something else, the hoist can be removed.

Other Modifications

Some modifications were made to some of the machinery: a hand clutch was fitted to the tractor making it all hand controlled, and a slight adaptation was made to the door of the header allowing it to open wider.



Safety

When making this type of hoist consideration must be given to safety. The hydraulic ram used has a safety valve which stops the seat from falling quickly if there is a hose blow out or a power failure. In addition, a restraint must be used to hold the person in the seat when being raised off the ground and all materials used must be of sound quality and all moving parts must be guarded.

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