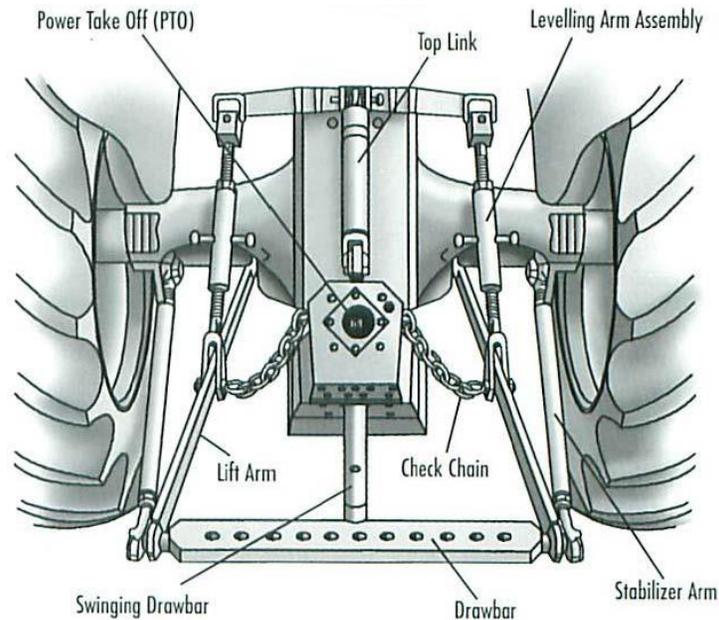


## The Three Point Hitch

The *Three Point Hitch* is a mechanism used to attach implements such as plows, mowers, cultivators, etc. to the rear of a farm tractor. It is used because it allows the tractor operator to raise, lower, or tilt the implement to whatever position he desires instead of simply dragging it behind the tractor. A typical *three point hitch* looks like this:



The *Three Point Hitch* may vary slightly in appearance from tractor to tractor but will contain three basic components from which the term “*Three Point Hitch*” is derived: A top link and two lift arms (sometimes called lower links).

The Top Link is adjustable in length, very much like a large turnbuckle, and has a ball pivot at each end which it is attached to both the tractor and the implement. The Lift Arms also have a ball pivot at each end by which they are attached to the tractor and implement but are not adjustable in length.

By raising or lowering the lift arms and adjusting the length of the top link, the operator can adjust the position of the implement. In this fashion he can set the height of a mower or the depth of a plow, for example.

Because there are a large number of tractor, implement, and hitch component manufacturers, a system of categories is used to simplify and standardize the interconnection of these items based on tractor horsepower as follows:

Category	Tractor HP	Application	Top Link Pin Diameter	Lift Arm Pin Diameter
0	Up to 20	Lawn & Garden Tractors	$\frac{5}{8}$ in	$\frac{5}{8}$ in
1	20 to 45	Most common type found on all farms. Also used by construction firms and highway departments	$\frac{3}{4}$ in	$\frac{7}{8}$ in
2	40 to 100		1 in	$1\frac{1}{8}$ in
3	80 to 225	Large ranches and farms in western U.S.	$1\frac{1}{4}$ in	$1\frac{7}{16}$ in
4	180 to 400 and up		$1\frac{3}{4}$ in	2 in

*This means that these hitch components are made to a standard dimension corresponding to the tractor categories shown regardless of the manufacturer.*

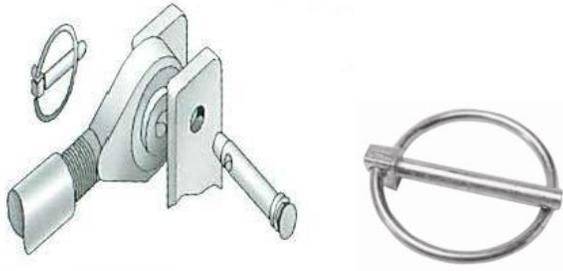
**Top Link**



*Top Links* are furnished in several lengths depending on the application but the holes in the balls at each end by which the links are mounted are standardized (see chart on previous page).

The Top Link is attached to the tractor and implement by means of a Top Link Pin as shown. These pins vary in length but their diameters are standardized.

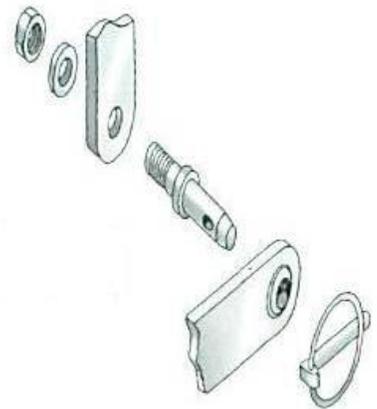
**Top Link Pin Connection**



*Top Link Pins are held in place by passing a Lynch Pin through the hole in the end of the Top Link. Lynch pins are most commonly available in 1/4", 5/16", and 7/16" diameters.*

**Lift Arm Pin Connection**

Lift arms are attached to the tractor with a bolt or a stud and are attached to the implement with a Lift Arm Pin as shown. These pins are available in various lengths and in adjustable versions which have no shoulder but use two nuts for mounting. They also use a lynch pin to hold the lift arm in place. See chart on page 1 for pin standardized diameters.



Conversion Lift Arm Pin	Conversion Bushing
Differ from standard lift arm pins in that they have different diameter at each end (see chart on page 1)	Are slipped into the ball hole of a top link or lift arm to accommodate a smaller pin.
	

## Replacement Ends



May be used to replace the worn ends on top links and lift arms and are also ordered by category number.



## Adjustable Side Links

Necessary to the operation of the Three Point Hitch because they are used to raise or lower the lift arms to a desired position. The upper ends of the side links are attached to the frame of the tractor.

## Stabilier Arms

Some times used for additional support and stability seen in diagram on page 1.

## PTO Adapters



The Power Take Off is a splined shaft protruding from the rear axle of the tractor. It is used to drive the moving parts of implements such as rotary mowers by sliding the splined shaft into a splined coupling on the implement. When the tractor and implement are of different categories a PTO Adapter is used to mate the different size shaft and coupling and is held in place with a PTO lock pin.

## Hitch Pins



The towed implement will have a forked tongue with holes that slip over the drawbar and is held in place with a Hitch Pin. These come in a wide variety of sizes and are held in place with a linch pin.