

# Radial Lift vs Vertical Lift Machines

## Radial Lift Design

Older lift design for skid steer loaders using a simple design with a single pivot point that generates a curved load path



**15%**

Between 5 and 15% cheaper



**2**

Only two pivot points to maintain



**80%**

Of the arm path has a greater forward reach

## Vertical Lift Design

Lift arms follow an S curve that approximates a straight line, as opposed to the curved path of the radial lift design



**15%**

More lift capacity



Rated for higher operating capacity



**1.3x**

Greater lift height



### Radial Lift Excels At ...

Jobs done at eye level

Unloading flat-bed trucks

Heavy digging

Excavation

Grading

Spreading rock

Site prep



### Vertical Lift Excels At ...

Jobs above mid-range height

Material handling

Clearing high-sided trucks

Clearing hoppers

Load and carry jobs

Pallet-fork work

Drilling with an auger

## Side-by-Side Comparison

### Radial Lift

Single pivot point results in curved load path

Load not always kept close to machine through lift cycle

Limited lift height

Max reach at truck bed height

Operator may need to reposition when preparing to dump load

Limited stability

Variable reach through lift cycle

Lift capacity greatest at ground level

Limited operating capacity because of stability

Easier to maintain because of single pivot point

Excellent visibility

### Vertical Lift

Complex linkage results in S-path approximating straight line

Load kept close to machine through most of lift cycle

Greater lift height

Max reach at full height

Operator positions machine once when preparing to dump load

Improved stability

Nearly constant reach through lift cycle

Lift capacity increases through lift cycle

Better operating capacity because of improved stability

More lubrication points and pins mean more maintenance

Limited visibility



Radial lift machines are best for heavy-duty applications and work at eye-level



Vertical lift machines are best for material handling jobs and drilling.

Whether you have a radial lift or vertical lift machine, it will eventually need a replacement final drive. Texas Final Drive is your source for final drives. Visit us at [www.TexasFinalDrive.com](http://www.TexasFinalDrive.com)

#### Sources:

<https://www.equipmentworld.com/side-by-side-radial-lift-vs-vertical-lift-skid-steers/>  
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