3-1956

EC56-2103 Safe Tractor Operation

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SAFE TRACTOR OPERATION

BY

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Tractor Accidents Need Not Occur

Farm tractors lead the list as killers in fatal farm work accidents. This doesn't mean that all fatal tractor accidents are the fault of the tractor. In almost every instance the real cause of the accident is a careless operator.

Tractor accidents happen at various times of the year, and therefore don't attract as much attention as the seasonal accidents, such as those with corn pickers. Every year tractors on Nebraska farms are involved in 15 to 20 fatal accidents and probably 700 to 750 non-fatal accidents. The farmer operates a tractor to do a wide variety of jobs; therefore, he is often tempted to overlook safety precautions.

It is generally accepted that the four main causes of farm work accidents are using unsafe methods, failing to use safety equipment, hurrying, and working when overly tired. Good judgment is all that is necessary to prevent tractor accidents. It is easy to avoid tragedy--just know good safety rules and be alert at all times.
### Tractor Fatalities 1955

<table>
<thead>
<tr>
<th>TYPE OF ACCIDENT</th>
<th>AGE OF OPERATOR</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-10</td>
</tr>
<tr>
<td>Tractor upset</td>
<td>2</td>
</tr>
<tr>
<td>Run over by tractor</td>
<td></td>
</tr>
<tr>
<td>Fell from tractor</td>
<td>1</td>
</tr>
<tr>
<td>Power shaft entanglement</td>
<td>1</td>
</tr>
<tr>
<td>Tractor in collision</td>
<td></td>
</tr>
</tbody>
</table>

### Most Common Types of Accidents

The above chart indicates that **upsetting** and **being run over** are the most common ways in which accidental tractor deaths occur. In 1955 five Nebraska farmers were killed in each of these types of accidents.

Principal causes of the upset type of accident are:

A. Backward upset
   1. Hitching above the drawbar or to the axle.
   2. Pulling up hill or incline that is too steep.
   3. Attempting to let a tractor pull itself forward from a dug-in position.
   4. Chaining a post or the like to the wheels for extra traction when stuck in sand or mud, and attempting to pull forward.

B. Sideway-upset
   1. Too much speed, especially on turns or on rough ground.
   2. Tractor wheel dropping into ditch or hole, or running over a stump or bump.
   3. Banks of ditches or creeks caving in under weight of tractor.
   4. Wheels too close together, especially on rough or hilly ground.
   5. Turning too sharply - especially when traveling downhill.

Most accidents in which the victim is run over result from one of the following unsafe practices:

1. Operating the clutch from the ground while hitching or moving the tractor.
2. Failing to make certain that the tractor is out of gear before starting the motor.
3. Allowing extra riders -- children or adults -- on a tractor or on machinery.
4. Failing to keep children in mind when working where they might be playing.

Unshielded power shafts are involved in many accidents, ranging from fatal ones to mishaps that result in minor injuries. Farmers who fail to insist on the use of power take-off shields simply gamble with death. Always keep the odds in your favor by using safety shields. Your farm machinery dealer can help you obtain the proper shield.

Remember that the best shield made gives no protection if it is not used. There is no adequate excuse for not keeping shields in place. It is much better to be safe than sorry.
Circumstances of 1300 Highway Tractor Accidents (as reported by the National Safety Council)
873 in Iowa 1949-51 and 427 in Minnesota 1948-51

OPERATOR VIOLATIONS

<table>
<thead>
<tr>
<th>Violation</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Failure to give right of way</td>
<td>13</td>
</tr>
<tr>
<td>Insufficient lights</td>
<td>8</td>
</tr>
<tr>
<td>Improper signal or turn</td>
<td>7</td>
</tr>
<tr>
<td>Inattention - lack of control</td>
<td>5</td>
</tr>
<tr>
<td>Driving on wrong side</td>
<td>4</td>
</tr>
<tr>
<td>Other</td>
<td>16</td>
</tr>
<tr>
<td>Not stated</td>
<td>47</td>
</tr>
</tbody>
</table>

The increased use of tractors to pull machinery on highways and county roads has developed into a rather serious hazard to safety. Tractors move slowly in traffic and this frequently causes accidents. Travel on the highway at night is particularly dangerous unless adequate safety lights are used. Every tractor and piece of equipment being pulled behind it should have a red safety light in the rear, and if the vehicle is 80 inches or more in width it should have a red clearance light in line with the extreme left point of the vehicle or load.

Safety Precautions Will Prevent Accidents

Accidents with tractors are not likely to happen if operators follow a few common-sense safety rules. Make certain that the tractor operators on your farm know the importance of the following:

1. Before starting a tractor see that gear-shift lever is in neutral.
2. Always drive tractor carefully, avoid excessive speed, holes, ditches or other obstructions, reduce speed when turning, and use extra care on hillsides, rough ground or highways.
3. Engage clutch gently, especially when pulling uphill, out of ditches or heavy loads. Avoid jack-rabbit starts so common in car operations.
4. Always keep power-line shielding in place and stop power take-off before dismounting from tractor.
5. Never allow extra riders on tractor.
6. Avoid refueling or other service work while tractor is running or extremely hot.
7. Stay on seat while tractor is in motion. Never dismount until it stops.
8. Always hitch to tractor drawbar, especially heavy loads.
9. Keep tractor in gear going down steep hills or grades.
10. Keep tractor in good mechanical condition. Check brakes, clutch, lights, fuel line and control mechanism frequently.
11. Avoid wearing loose, sloppy clothing while operating tractor.
12. See that everyone is in the clear before starting a tractor.
13. Use lights for night operation. Don't operate in the dark.
14. Use wide wheel treads whenever possible.