



FACE Program Alert

Fatality Assessment and Control Evaluation

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Avoid Serious Injury or Death from Skid-Steer Loaders

The Wisconsin Fatality Assessment and Control Evaluation (FACE) program warns farm operators and farm workers to be alert for potential hazards from skid-steer loaders. These loaders have been involved in numerous fatalities in Wisconsin and other states. Operators who leave the seat with the loader arms raised are at particularly high risk.

Hazards:

- Being pinned, crushed, or suffering an amputation by the loader arms, bucket, or attachment
- Being thrown from the loader
- Tipping over
- Falls during mounting and dismounting
- Falling objects
- Runovers of bystanders

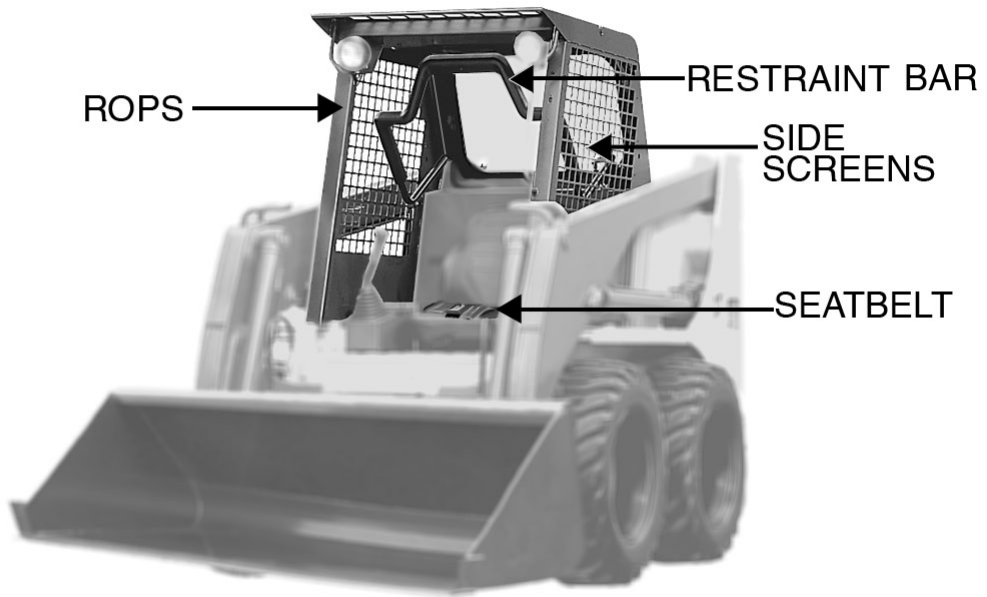
Preventive Measures:

1. Always stay in the seat when the loader is in the raised position, unless mechanical safety locks are in place. This is the single most important safety measure for operators of skid-steer loaders. Operators should never reach out, lean out, or exit the loader when the arms are raised. Many fatalities have occurred when operators have left the seat with the arms raised and then inadvertently activated the controls and dropped the arms and bucket on themselves. Examples of four such fatalities are described in Wisconsin FACE Reports 97WI112, 00WI037, 02WI054, and 03WI050, as found on the NIOSH FACE website <http://www.cdc.gov/niosh/face/WIFACE.html>
2. Always use mechanical safety locks or otherwise block up the arms and bucket when necessary to exit the loader and/or work on the loader with the arms raised.
3. Never attempt to operate the loader from outside the operator's station.

4. Always use the operator restraint system(s), and keep the restraint system(s) in good working condition. Restraint systems may include a restraint bar that drops or pivots into place, a seat belt, or both. Restraint systems prevent the operator from being thrown from the loader if the loader starts bouncing, such as on rough ground or when carrying a heavy load, or during sudden stops. Restraint systems make it less likely the operator will lean forward into the zone of travel of the loader arms and bucket. Restraint systems keep the operator from being bounced against the ROPS and/or being ejected during an overturn. Examples of two such fatalities are described in Wisconsin FACE Reports 01WI019 and 03WI080.
5. Never bypass or defeat safety interlocks, and always repair them if faulty or inoperable. These include interlocks on the operator restraint system that prevent starting the machine or operating the controls unless the restraint device is in place. If the loader lacks a restraint system, have one installed or replace the loader with one that has a restraint system.
6. Keep loader controls, especially pedals if present, free from dirt, mud, and ice buildup. Problems with controls jammed by mud, snow, or ice can tempt operators to leave the operator's station with the loader raised, and may result in unexpected activation when the controls are cleaned and unjammed.
7. Keep the rollover protective structure (ROPS) and side screens in place at all times during operation. The ROPS will prevent serious injury or death if the loader overturns. In 1998 a Wisconsin farmer was killed in an overturn of a skid-steer loader with the ROPS removed. Side screens prevent reaching or leaning out the side where the loader arms can amputate arms or crush the operator's head. Loaders without ROPS should be replaced with a model that has ROPS. Side screens can be added to loaders with ROPS that lack screens. In 2001 a Wisconsin farmer died when pinned by the loader arms while leaning out of a skid-steer loader lacking side screens.
8. Always use the proper attachments when carrying large bales or objects that can fall back on the operator. These attachments, such as a grapple fork, spear or other similar device, must control the bale or object and prevent it from falling. Large bales should not be carried on a loader lacking ROPS. When carrying loads like gravel that can spill out onto the operator, a FOPS (falling object protective structure) is needed to protect the operator.
9. Keep speeds down when carrying a load or on rough ground, to minimize bouncing. Carry loads low to minimize loader instability. Operate carefully in slippery areas.
10. Mount guard rails capable of stopping a sliding loader in front of manure pit push-off ramps or other places where the loader could fall in. The rail should be installed at a height which allows the bucket or scraper to go beneath and still can contact the arms or frame to stop the loader.

11. Stay away from ditch banks, silage faces in bunker silos, or other areas where collapse of soil or material may result in a dangerous situation.
12. Never carry people in the bucket, or use the bucket for a platform for ladders or for reaching elevated objects. In 1998, a Wisconsin child was run over and killed on a farm after riding in and falling from the bucket of a skid-steer loader.
13. Keep children and other bystanders out of operating areas. Operator visibility is restricted to the rear, and approaching children or bystanders are often not seen. Children in particular do not understand the hazards and may be run over. In 1996 a young Wisconsin child was backed over and killed on a farm while approaching a skid-steer loader from the rear.
14. Provide necessary maintenance and service to keep the loader in good operating condition and to prevent hydraulic leaks or failures which could result in sudden dropping of the loader arms. Keep attachment mounting pins or brackets tight and take steps necessary to prevent them from coming loose during operation.
15. Do not allow operation by untrained operators, or by young workers lacking the mental and physical skills needed to recognize and safely handle unexpected or hazardous situations. Good judgment is required, and lack of judgment can result in injury or death. Proper training, and periodic retraining and review, are important. Trainers should always read and understand the operator's manual and train workers to follow the manufacturer's safety instructions. [Note: As with all powered farm equipment, federal labor laws apply to operation of skid-steer loaders by children under age 16 on farms other than those operated by their parents or legal guardians.]
16. Further information can be found in Wisconsin FACE Program Fact Sheet PPH-44019, "Farmer Dies After Being Pinned Between Bucket and Frame of Skid Steer Loader" and DHHS (NIOSH) Publication 98-117, "ALERT: Preventing Injuries and Deaths from Skid Steer Loaders."

This is a general list of hazards and injury prevention measures and is not meant to cover every possible circumstance. Individual operations, facilities, systems, machines, or situations may have their own unique hazards, and it is the responsibility of the farm operator or manager to be aware of such hazards and take appropriate action.



SKID-STEER LOADER

The Wisconsin Department of Health and Family Services, in agreement with the National Institute for Occupational Safety and Health (NIOSH) conducts research on occupational fatalities. The Fatality Assessment and Control Evaluation (FACE) Program focuses on identifying factors that increase the risk of work-related fatal injuries. The Wisconsin FACE Program helps in the development and use of improved safety measures for preventing fatal work injuries.

PLEASE POST

FACE information is produced and distributed to provide current, relevant education on methods to prevent severe work-related injuries.

If you have any comments or questions, please call the FACE Project at 608-264-9879, or write:

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