Rough Terrain Forklift Safety - Part 1: Readiness

Rough terrain forklifts are complex machines that require careful preparation to ensure worksite safety. They have:

- Forks to lift loads from the bottom
- Vertical mast
- Pivoted variable/fixed boom
- Cab with overhead guards
- Combustion engine
- Tires for rough terrain
- Variety of steering modes

Personal Readiness and Training

Many regulators require hands-on training for rough terrain forklift operators. During hands-on training, you will learn about specific equipment:

- Operating controls
- Labels
- Warnings
- Capabilities and limitations
- Manuals and standards
- Jobsite hazards

Operators should be rested, alert and free of impairment (medications, alcohol, drugs, etc.).

Area Readiness

Survey the area and identify, mark and address potential hazards:

- Low overhead clearances are collision hazards you should identify and avoid
- Power lines are collision/electrical hazards
    - Minimum 3 meters (10 feet) approach to 0-50KV lines
    - >50KV require more distance
    - Use flag lines and spotters
- Soft soils, unprotected drop-offs and obstructions/debris are tipping hazards
    - 0.6 meters (2 feet) separation from edges/obstructions (mark or barricade)

Weather

Gusty or sustained winds are tipping hazards that may cause load swing and dangerous side loads. Suspending lift operations is required when wind speeds ≥ 24 kph (15 mph, 13 Knots).

Wet, dark or foggy conditions reduce visibility (increasing risk of collisions) and require operating at slow speeds or suspending operations.

Additional Hazards

- Plan lifts during low traffic periods, barricade lifting areas, and assign signalers to avoid collisions with pedestrians/vehicles
- Use equipment that is specially approved for flammable or combustible atmospheres to avoid explosions
- Ensure adequate ventilation and avoid idling the engine in enclosed areas to prevent carbon monoxide poisoning

Critical Lift Plans

Work with your supervisor or safety professionals to develop critical lift plans if you cannot resolve hazards or you have other serious concerns.

Equipment Readiness

Inspect equipment at least once each day and follow your company's procedures for inspection and documentation. **Immediately remove equipment from service and report damages and unsafe conditions.**

During visual inspection of the rough terrain forklift, check for:

- Damage
- Fluid leaks
- Loose or missing parts
- Cracked or bent forks
- Illegible load charts and labels
- Improper tire condition and pressure

Perform operational inspections on firm, level ground that is away from hazards. Slowly test controls and functions:

- Horn, backup alarm, mirrors, lights
- Lift and tilt systems
- Load-engaging means
- Boom angle and chassis level indicators
- Brakes and steering

Load Capacity

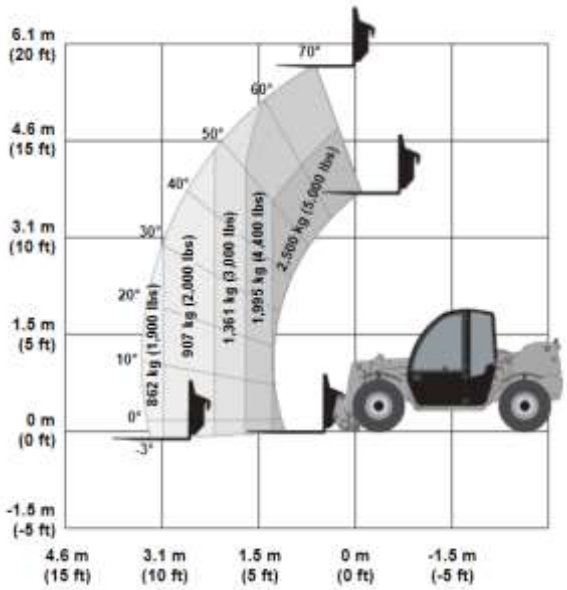
Overloading is a common cause of tip-overs. The load capacity is the amount of weight a rough terrain forklift can lift safely when:

- On firm ground with the frame level
- Forks are positioned evenly on the carriage
- Load is centered on the forks
- Proper size tires are properly inflated
- Lift is in good operating condition

The equipment may tip if it is deficient in ANY of these aspects.

Using a Load Capacity Chart

1. Determine weight of the load you plan to lift.
2. Determine the location at which you want to place the load:
    - Use the X-axis to find the HEIGHT at which you will place the load
    - Use the Y-axis to find the DISTANCE from the front tires to where you will place the load
3. Find the point at which the height and distance meet.
4. Determine the limits of the load zone:
    - The load zone in which the height and distance meet is the maximum weight capacity for the lift
    - If the height and distance cross at a division between zones, use the smaller number



SAMPLE – DO NOT USE

IMPORTANT: The number in the load zone must be greater than or equal to the weight of the load to be lifted.