

INTRODUCTION

This leaflet covers the use of a tractor and trailer unit fitted with a grapple loader or a purpose-built forwarder for extraction of timber in forestry and other tree work.

You can use this leaflet, along with the manufacturer's handbook, as part of the risk assessment process to help identify the controls to put in place when extracting timber by forwarder.

It does not cover the safety requirements when working within the risk zone of a harvester or processor (see FISA leaflet 605 *Mechanical roadside processing*).

You must also assess the effect of the site and the weather as well as following this guidance.

All operators must have had appropriate training in how to operate the machine and how to carry out the tasks required (see FISA leaflet 805 *Training and certification*).

This leaflet must be read in conjunction with FISA leaflet 501 *Tractor units in tree work*.

THE MACHINE

- 1 Any risk zone specified by the manufacturer must be clearly and prominently marked on the machine.
- 2 Adequate field lighting must be fitted if working in poor light conditions.

DRIVING

- 3 Do not drive if your vision is obscured.
- 4 Ensure the loader arm and head are parked correctly before driving off.
- 5 On, and in the near vicinity of, worksites only cross under energised overhead power lines at designated crossing points that are marked with goalposts (see FISA leaflet 804 *Electricity at work: Forestry*).
- 6 Safe driving distances from energised overhead power lines should be clearly identified by barriers. In many cases marked trees will form a suitable barrier, as long as there is no opening which would allow vehicular access. Consult the electricity company about the use and positioning of barriers. The absolute minimum driving distance from the barriers to the overhead electric line is 6m. The electricity company may advise distances greater than 6m depending on the voltage of the line.
- 7 Avoid driving across felled trees or other timber.
- 8 Where side slopes are unavoidable, extend the loader boom to the uphill side to maintain stability. Ensure the boom does not come into contact with any obstruction.

- 9 Reduce the load when ground conditions are severe. Plan the work so the load can be 'topped up' after negotiating difficult stretches.
- 10 Avoid turning uphill on side slopes.

THE LOADER

- 11 Where the operator is protected by a rollover protective structure (ROPS), falling object protective structure (FOPS) and operator protective structure (OPS), the loader must be regularly inspected to detect wear and tear that may make the equipment unsafe to use. These inspections can be carried out by a trained and competent operator. If the loader is used for lifting in circumstances where either the operator or another person could be injured if the loader suddenly fails then the loader must be thoroughly examined by a competent person at least every 12 months (see INDG290: *A Simple Guide to LOLER*).
- 12 Maintenance must be carried out in accordance with the manufacturer's handbook which should be available.
- 13 Keep a maintenance and inspection record.

LOADING AND UNLOADING

- 14 Ensure the loading or parking brake is on while loading, and that it is released before moving.

- 15 Do not operate the loader if any part of the machine or its load can come within one tree length + the vicinity zone (down to a minimum distance of 15 m) of energised overhead power lines (see *Figure 1*). The vicinity zone will vary between 1m and 5m depending on line voltages (see FISA leaflet 804 *Electricity at work: Forestry*).
- 16 The safe working distances from overhead energised power lines should be clearly identified. Marked trees, high-visibility tape or another suitable marking method should be used as well as organised felling and extraction routes.
- 17 Under normal operating conditions stop work immediately if any person or machine enters the risk zone specified for your machine.
- 18 When loading/unloading on sloping ground, park straight up and down the slope.
- 19 Use convenient stumps or ground obstructions to chock the wheels when loading on slopes.
- 20 Use more than one control at a time to give smooth movement.
- 21 When loading, ensure the grapple jaws fully encircle the load (unless this is a single billet).
- 22 Load the bunk evenly to maximise stability and do not overload it.
- 23 Do not load above the level of the headboard and stanchions/pins.

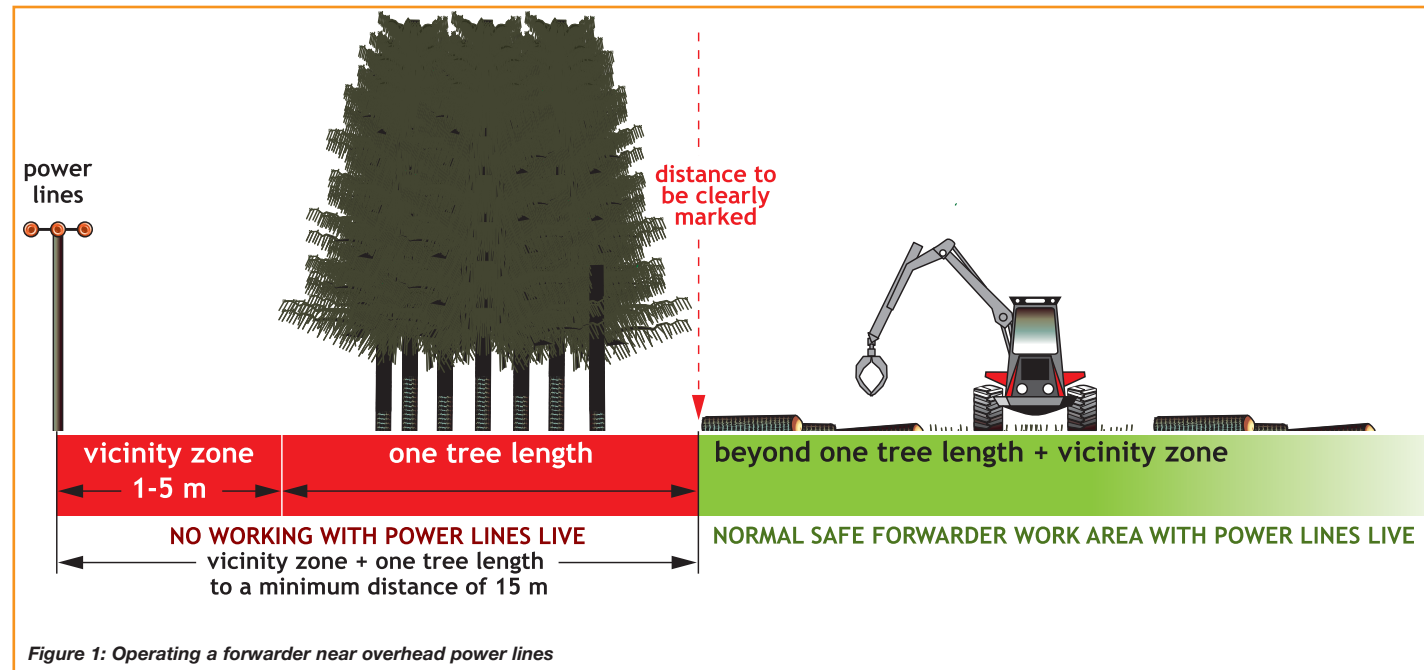


Figure 1: Operating a forwarder near overhead power lines