



# Extraction by skidder



- 24 Do not work within the bight of a slack hauling rope.

## Driving the skidder

- 25 Do not drive if vision is obscured.
- 26 Ensure that the stabilisers and butt plate (if fitted) are raised before driving off.
- 27 Do not allow ropes or chokers to trail on the ground when the tractor is moving.
- 28 Drop the load before crossing any ground which is rough enough to affect the tractor and load stability.
- 29 Avoid turning uphill on side slopes.

## Stacking

- 30 Stacks of timber should always be made and maintained in a stable condition.
- 31 Where there is to be additional manual handling the height of the stacked timber should not exceed about 1 m. So far as is reasonably practicable, avoid stack heights above 2 m.
- 32 Take special care in areas frequented by the public. Where appropriate, although not a substitute for safe stacking, a prohibition ('Do not climb on timber stacks') sign conforming to the Health and Safety (Safety Signs and Signals) Regulations 1996 should be displayed, and/or the stacking site enclosed with hazard warning tape.

## Skidding unit maintenance

- 33 Carry out maintenance in accordance with the manufacturer's handbook which should be available.
- 34 Keep a maintenance record.
- 35 Check ropes, pulleys and chokering equipment for damage or abnormal wear.
- 36 Check the winch/clambunk structure for distortion, cracks and damage.
- 37 Check all external nuts, bolts and linkages for security.
- 38 Ensure all defects are promptly reported and repaired or replaced.

## Further reading

<i>Tractor units in tree work</i>	AFAG501
<i>Extraction by forwarder</i>	AFAG503
<i>Extraction by cable crane</i>	AFAG504
<i>Mechanical roadside processing</i>	AFAG605
<i>Emergency planning</i>	AFAG802
<i>Electricity at work: Forestry and arboriculture</i>	AFAG804
<i>Training and certification</i>	AFAG805
<i>Managing public safety on harvesting sites</i>	0 7176 2671 7
<i>First aid at work: Your questions answered</i>	INDG214
<i>Protect your hearing or lose it!</i>	INDG363
<i>PUWER 98: How the Regulations apply to agriculture and forestry</i>	AIS27

These publications are available from HSE Books - see 'Further information'.

## Notes

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## Further information

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**This leaflet contains notes on good practice which are not compulsory but which you may find helpful in considering what you need to do.**

This leaflet is available in priced packs of 15 from HSE Books, ISBN 0 7176 2648 2. Single free copies are also available from HSE Books.

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AFAG502

04/03

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Printed and published by the Health and Safety Executive

## Introduction

This leaflet covers the use of a wire, rope, hydratong or clambunk skidder for timber extraction 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 skidder.

This leaflet does not cover:

- the safety requirements when working within the risk zone of a harvester or processor (see AFAG leaflet 605 *Mechanical roadside processing*);
- the safety requirements when the machine is fitted with a loader (see AFAG leaflet 503 *Extraction by forwarder* paragraphs 11-23).

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 AFAG leaflet 805 *Training and certification*).

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

## General advice

- 1 Do not operate a skidding unit if any part of the machine or the tree can come within one tree length + the vicinity zone (down to a minimum distance of 15 m) of energised overhead power lines. The vicinity zone will vary between 1 m and 5 m depending on line voltages (see AFAG leaflet 804 *Electricity at work: Forestry and arboriculture*).
- 2 The skidding unit must be equipped with ropes and components in a serviceable condition and which meet the manufacturer's recommended specification.
- 3 Winches and tongs must be compatible with the tractor to which they are to be fitted, and attached according to the manufacturer's instructions.
- 4 If operating the winch from inside the tractor unit, then suitable operator protection, eg mesh screens, must be fitted to either the tractor or the top of the winch unit.

## Wire ropes

- 5 A Test Certificate must accompany the winch ropes when they are purchased and this must be retained.
- 6 The rope size and lay of the ropes used must be to the winch manufacturer's recommendations. Never attempt to join ropes of different diameters.
- 7 Make sure sheaves, rollers and other equipment for guiding ropes is compatible with the dimension of the rope and kept in a serviceable condition to avoid damaging wire ropes.

- 8 Hauling ropes must be securely fastened to the winding drum. At least three full turns should remain on the drums at all times.
- 9 All ropes should be terminated in a suitable way such as splicing, soft eye loops or swaging – do not use knots.
- 10 Check daily for visual signs of rope deterioration such as excessive wear, broken wires or strands, distortions and corrosion. Repair or replace broken or damaged ropes without delay.
- 11 Replace all ropes when their nominal diameter falls below 90% of the original.
- 12 Broken or badly frayed ropes must be joined by adequate splicing or be replaced. Knots greatly reduce the strength of the ropes and must not be used.

## Chokering equipment

- 13 Firmly attach all connections for captive chokers to the wire rope. Ensure all terminal connections are firmly attached before use.

## Chokering and winching

- 14 Park the tractor in a stable position where it is as level as possible (see Figure 1).

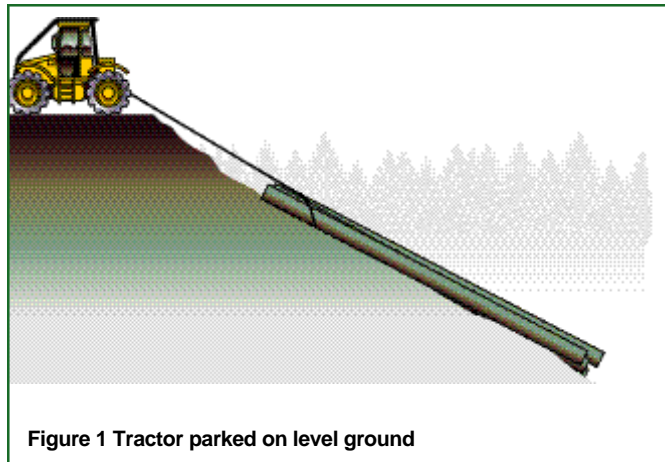


Figure 1 Tractor parked on level ground

- 15 Position the rear of the tractor to face the load (see Figure 2). Avoid excessive side hauling. Use a re-direct pulley if required.

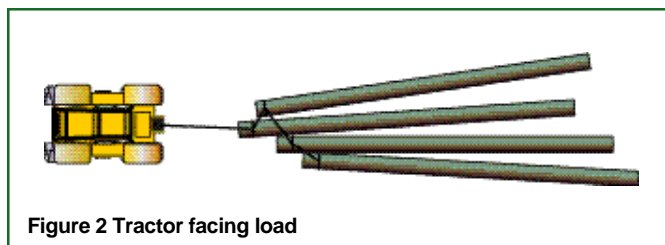


Figure 2 Tractor facing load

- 16 Ensure that stabilisers and adjustable butt plates (if fitted) are in the lowered position and correctly positioned and adjusted. Make allowance for some rearward movement as the hauling rope is tensioned.
- 17 When facing down a slope, lower the log-rolling blade (if fitted). Pull the winch rope out smoothly. Attach the chokers securely near the end of the poles keeping the shortest practicable length between the poles and the winch rope.
- 18 Organise the chokering system to allow the load to be freely winched in, avoiding obstructions (see Figure 3).

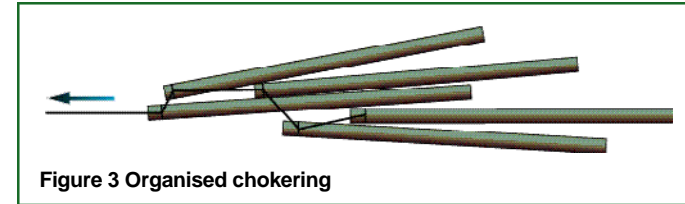


Figure 3 Organised chokering

- 19 If the load becomes snagged, stop winching. Do not continue to pull, release the tension on the rope and take appropriate action to free the load.
- 20 Ensure the load is winched up close to the butt plate or the notched drawbar.
- 21 When operating on side slopes with a double drum winch, haul in the load on the upper drum first to improve the tractor stability.
- 22 Operate the winch controls only from the designated position as specified in the instruction manual. Where winches are operated by lanyard or other remote means, operators should stand to one side of the line of pull, to the higher side if on a side slope and outside the risk zone of where the machine could tip over.
- 23 Stop work when anyone comes within a distance equal to twice the length of the load and hauling rope (see Figure 4).

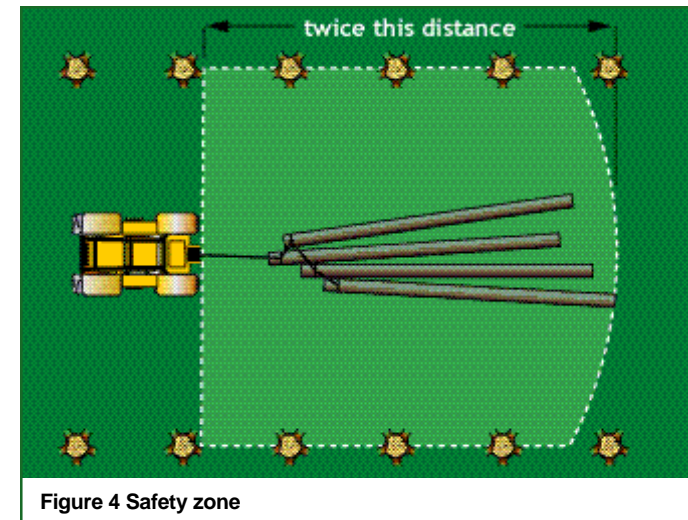


Figure 4 Safety zone