



W.A. FOREST SAFETY CODE

Logging Operations

THE W.A. FORESTS DEPT.
&
FOREST PRODUCTS ASSOC. (W.A.)

W.A. FOREST SAFETY CODE

LOGGING OPERATIONS

901074

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Illustrations by L. Julian
Cover Photo: Sawlog preparation, karri forest

COMO RESOURCE CENTRE
DEPARTMENT OF CONSERVATION
& LAND MANAGEMENT
WESTERN AUSTRALIA

1975
PERTH W.A.

FOREWORD

by the Conservator of Forests

Concern over a continuing number of accidents during tree harvesting operations, several of them fatal, prompted the Consultative Committee on Forestry and Timber to authorise its Tree Fallers Training Committee to produce a safety code covering logging operations in Western Australia.

In doing so, the most experienced and responsible bush operatives were drawn together in a series of field days held during 1974. Much of the content of the code has been the result of recommendations made by these men.

In recommending this code I would like to gratefully acknowledge the contribution made by all those who organised and participated in this activity. I would also like to commend the New Zealand Forest Service for the production of their publication 'Safe Logging' on which the Committee drew heavily for both ideas and material.

A handwritten signature in dark ink, appearing to read "B. J. Beggs." with a horizontal line underneath.

Conservator of Forests

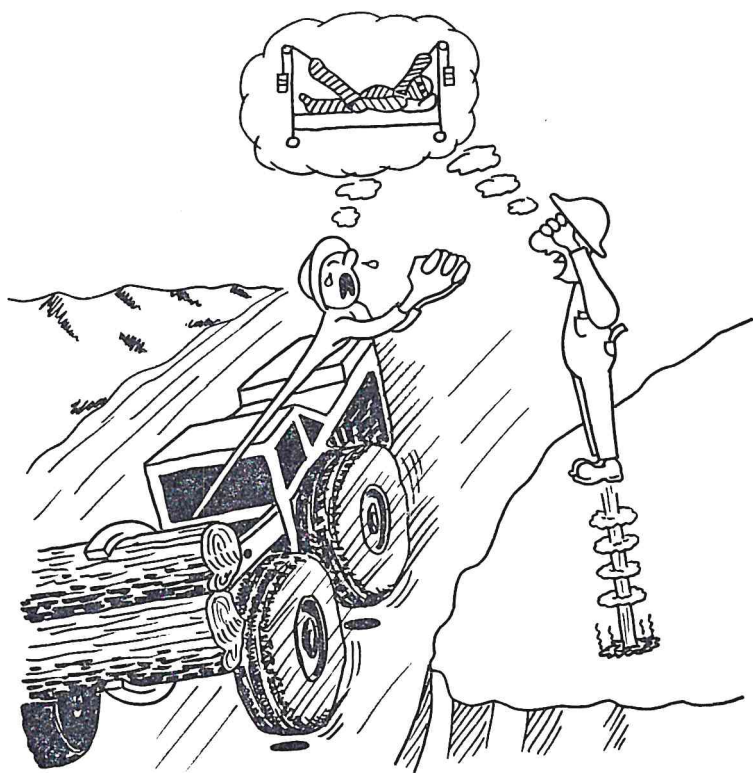
1st July, 1975.

Logging is not an occupation in which you can fool about without danger to yourself or your workmates. If you follow the simple, straightforward instructions contained in this booklet it will not be as unsafe as many seem to think.

Safety depends on the equipment you use and on *how you use it.*

See that YOU make your job SAFE.

If you are not sure of the safest and best way to do your job, then, *before you get yourself into trouble,* ASK somebody who knows.



"Boss, I'm reporting m' brakes are faulty."

GENERAL SAFETY PROVISIONS

Clothing

Always wear a safety helmet squarely on your head with a properly adjusted headband.

Avoid wearing trousers with cuffs. Alternatively, wear gaiters or any other means to prevent cuffs catching on snags.

Machinery and Equipment

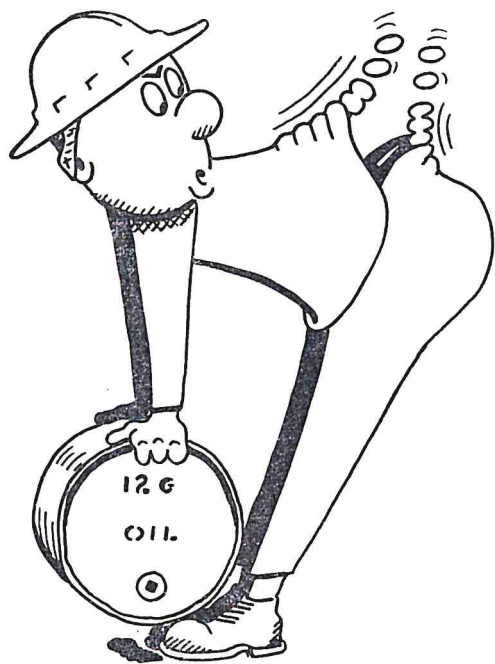
Report to your supervisor IMMEDIATELY if any tool or machinery is not in good SAFE working condition.

NEVER attempt to operate machinery without being authorised and properly instructed.

Shut off power before cleaning, refuelling, adjusting, or lubricating any machine.

Do not "free wheel" out of gear in any machine.

See that everybody is clear before setting a machine in motion.



"Oops!"

General Safety Provisions — continued

Working Hints

Be alert for the unexpected at all times. Don't go to sleep on the job.

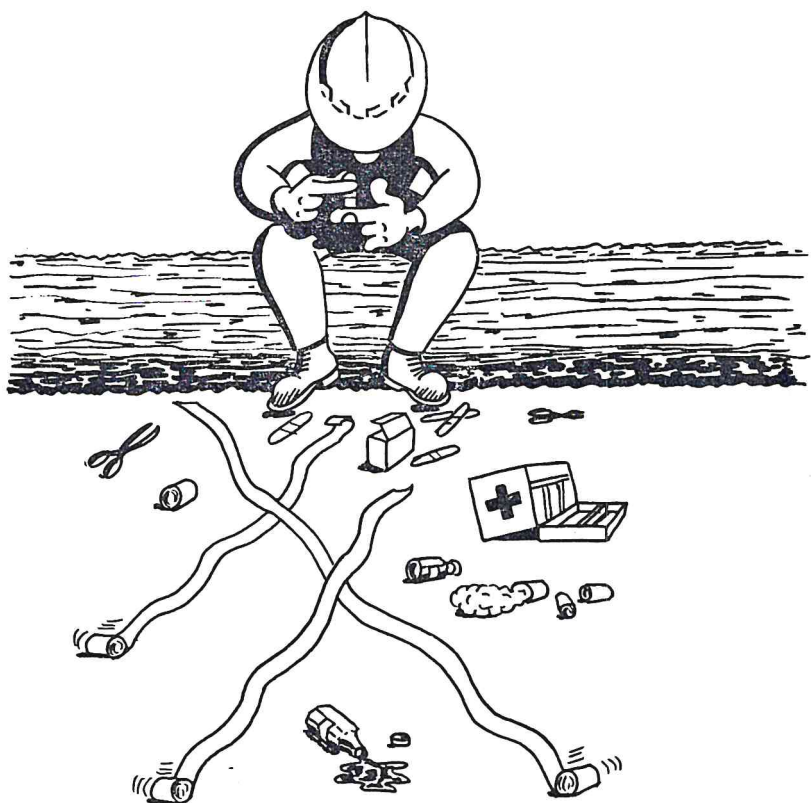
Lift heavy objects by bending and straightening your legs. *Keep your back straight.*

Beware of loose bark and slippery wood when walking on logs.

Look where you are stepping.

Remember the right way to do a job is the safe way.

YOUR OWN AND YOUR MATE'S SAFETY
IS LARGELY IN YOUR HANDS.



FIRST AID

When anyone is injured:

- (a) Get first aid at once.
- (b) Report the injury to your supervisor.
- (c) Get medical attention if required.

(*Remember:* Many claims are disqualified because seemingly minor injuries aren't reported.)

In case of serious accident to your mate, inform the supervisor and the nearest trained first-aid man immediately. Work quickly and without fuss, but stay within the limits of your ability.

NEVER abuse your first-aid kit. If one of your gang gets hurt, a life may be lost if something is missing from the kit.

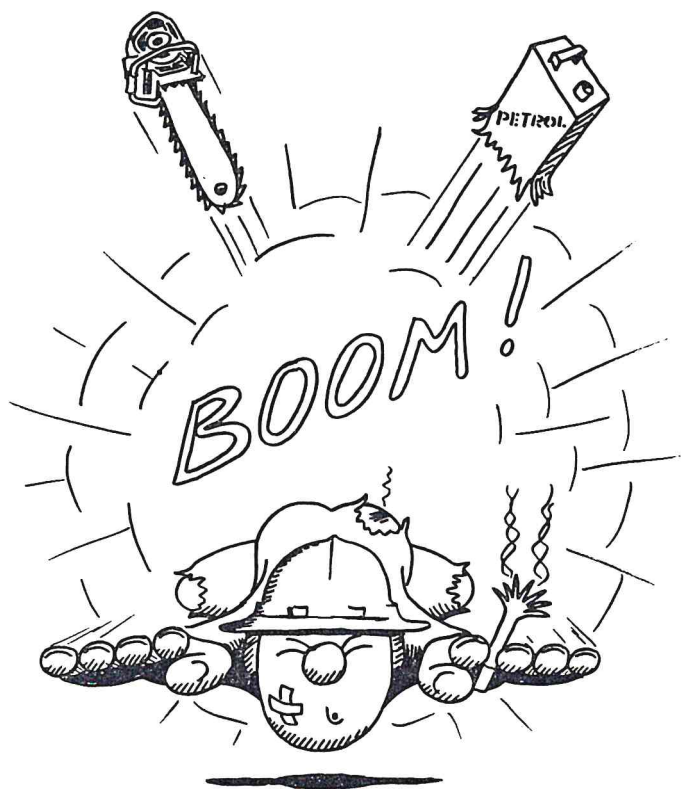
KNOW YOUR JOB, BE ALERT, WEAR YOUR HELMET, AND KEEP LOGGING SAFE.

Do you know how to deal with a bad accident?

Do you know how to stop serious bleeding?

If you don't, then for your mate's sake,

LEARN FIRST AID — NOW!



POWER SAWS — SIMPLE PRECAUTIONS

It is safer to carry the saw in the most comfortable manner, provided you take the necessary precautions with the machine and give due consideration to surrounding conditions.

When refuelling, fill the fuel tank on an area of cleared ground, wipe off spilt fuel and start the motor some distance away from the refuelling area.

DO NOT SMOKE during refuelling.

Start the motor in a level position, if possible on the ground.

Stop the motor while moving through scrub and over obstacles.

Don't remove rubbish on, or near, a saw while the chain is running.

Avoid the outrunning chain striking another log or object, making the saw kick back.

When the saw becomes jammed use extreme caution when extracting bar.

Fit a rope guard on the front bar grip, to prevent hand damage in the event of "kick back".

Always keep both hands firmly on the bar grips provided, underneath anti-kick guard.

Bend the knees, *not the back*, when making low cuts.

Kneel if necessary and save your back.

KEEP YOUR FIRE EXTINGUISHER WITHIN A REASONABLE DISTANCE.

Study carefully the booklet on *Care and Use of Power Chain Saws*, as supplied by manufacturer.



"Hell, didn't know he was so close."

FELLING — DOs AND DON'Ts

Carry axes and saws safely. If necessary make two trips.

Look carefully for hangers, uneven ground, rotten root systems etc., as you approach each tree.

Plan the felling direction, work method, and escape route before the first cut.

Look for hazards above and below your planned safe escape route.

Clear brush, slash, or any other obstacles from the work area BEFORE starting to cut.

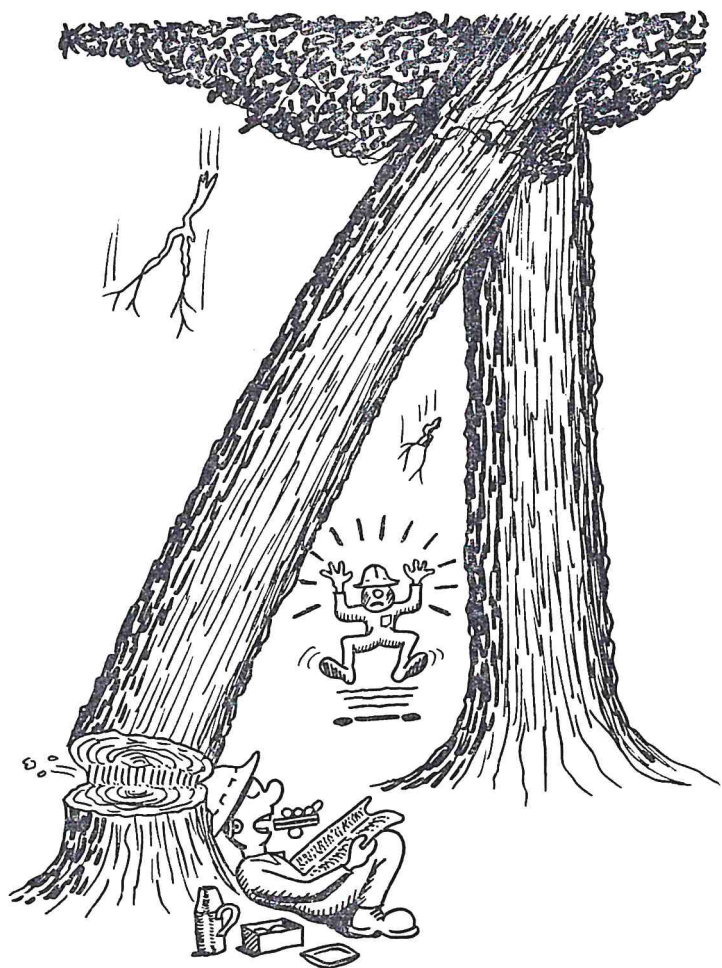
Move any equipment out of felling range and call to other workers to keep clear.

Don't fell within range of snagging and hauling operations.

Post warning signs and/or signalmen if felling close to a roadway or access track.

Scarf all trees to a depth of at least one third of the diameter. If forward leaning employ side-scarf technique.

All trees that have been scarfed should be felled immediately. Never leave them overnight. If necessary to leave for any time (in event of mechanical breakdown etc.) advise bush foreman and hauling crew.



Felling — Dos and Don'ts — continued

The back cut should be above the scarf cut and parallel with it.

Where possible, avoid felling trees into standing dead timber. Flying dead tops can hit you.

Look for the natural lean; choose the place it will fall; then check on the possible hazards from dry limbs, hangers, interlocking limbs.

Approach a hung-up tree with *extreme caution*.

NEVER work under one. Get your supervisor when in doubt.

Avoid felling in high winds and poor light situations.

Scarf should be positioned to allow for an accurate fall.

Enough wood should be left to guide the tree and to avoid splitting.

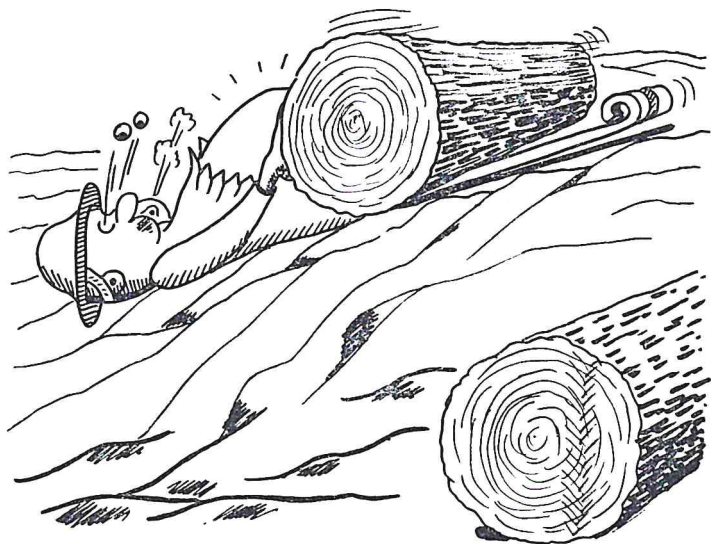
On a large tree a step cut should be made below the original scarf cut.

Avoid "pinching" and use wedges when necessary.

Use plastic wedges where possible. If using steel wedges never use mushroom topped ones — get a replacement.

Unless overhead conditions are unsafe, complete the crowning off and other log preparation before moving to the next tree.

**ALWAYS KEEP A FIRM GRIP
ON THE SAW**



**"This is the last time I'll forget those
b . . . chocks."**

DOCKING AND LOG PREPARATION HINTS

Look for hanging limbs and snags above the freshly fallen tree.

Make sure that ground conditions make for safe access and escape.

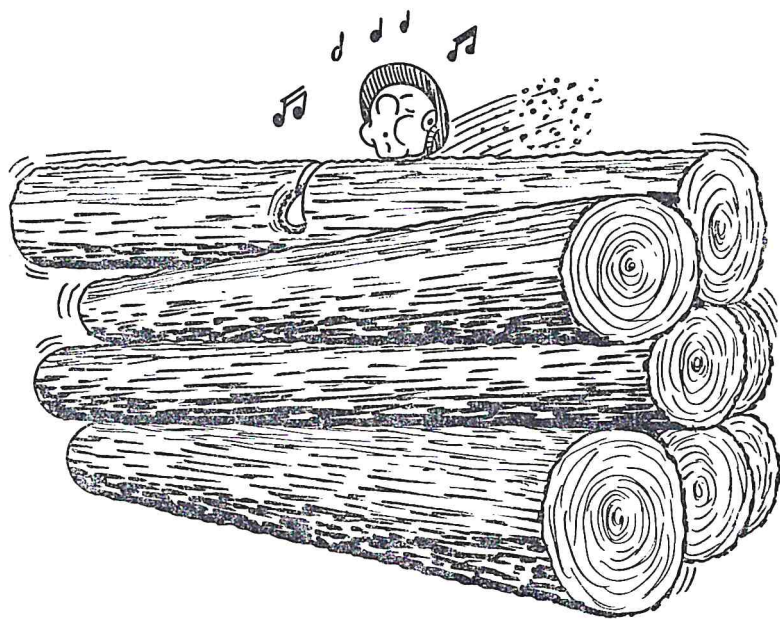
Watch the activities of the snigging and hauling crews carefully. Make sure they know where you are.

Whether carrying your axe on the shoulder or in the hand, ensure blade is turned away from you.

Avoid chopping towards yourself.

When docking watch for the log that might roll — work on the upper side of it and chock when necessary.

If you have to leave a cut log that might roll or move, warn the snigging crew of the possible danger.



“Watch it! You’ll soon be whistling a different tune.”

Docking and Log Preparation Hints — contd.

Beware of the backlash when branches under tension are cut.

Undercut, when bridging is evident.

If limbs are to be cut, work from the butt towards the crown.

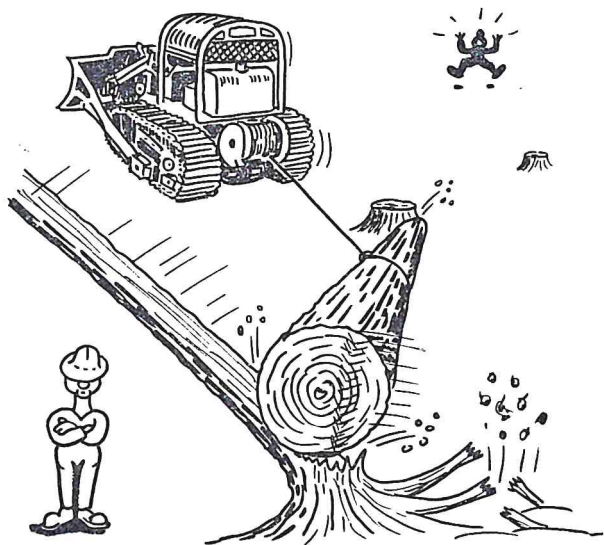
Where logs are likely to pinch the saw as they drop away, use a sloping cut.

When crosscutting small logs always stand to one side of the line of cutting.

Never attempt dangerous cuts but wait for log to be moved to a safer position.

Don't leave axes or saws sticking in logs or lying where they create a hazard.

A SHARP CHAIN SAW/AXE IS THE SAFEST TOOL



"Long-choking can also kill."

SWAMPER — BE ALERT ALWAYS

Watch out for overhead hazards.

Keep outside the range of the fallers and ensure they know where *you* are.

Stay in a position where you can move quickly out of the way of a snigging machine.

Get well out of range of any snigging machine before giving driver "go ahead".

Use an unmistakable system of signalling to the tractor driver, who must *always* be able to see you clearly.

Short choking should be used — two thirds of a metre from the end. Long choking has killed too many men already and *may kill you too*.

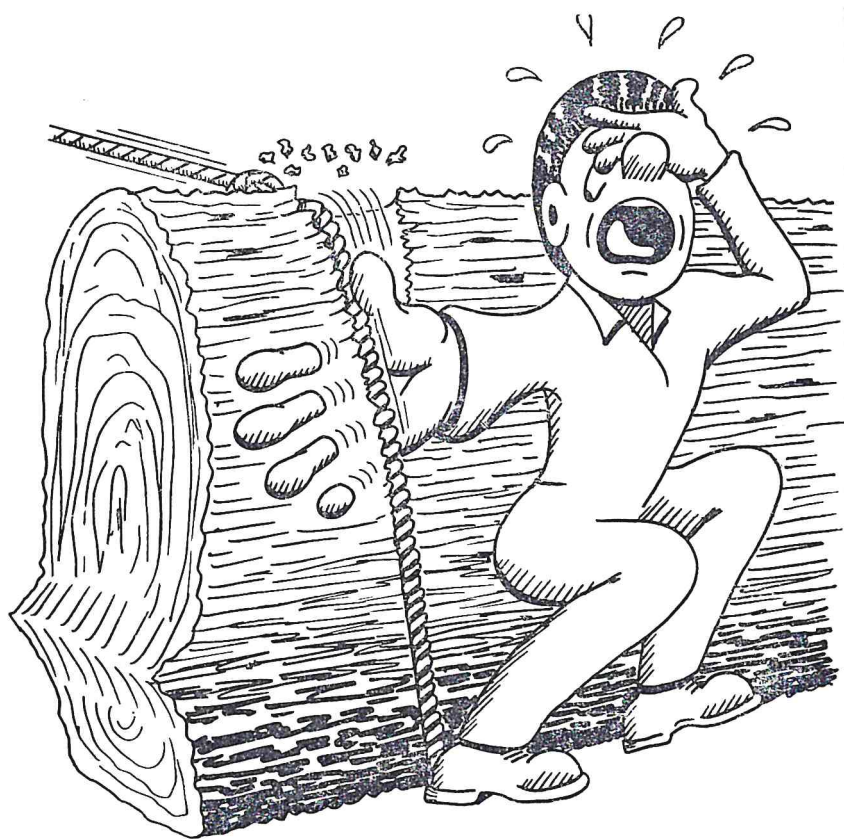
When snigging on a hillside stand on the uphill side of log.

Always unhook the snigging rope from the uphill or top side of the log.

Beware of moving log fouling limbs or snags along snig track.

Don't walk close behind machine or log as sticks or limbs could strike you.

Keep clear of any machine or logging arch which is lifting or winching.



SWAMPER/PLANT OPERATOR

Report any badly worn, kinked, or corroded ropes immediately.

Don't make short splices or eye-to-eye splices in hauler ropes.

Obey signals *immediately*. If the signalling system appears defective, stop and investigate. NEVER move hauling ropes without being signalled.

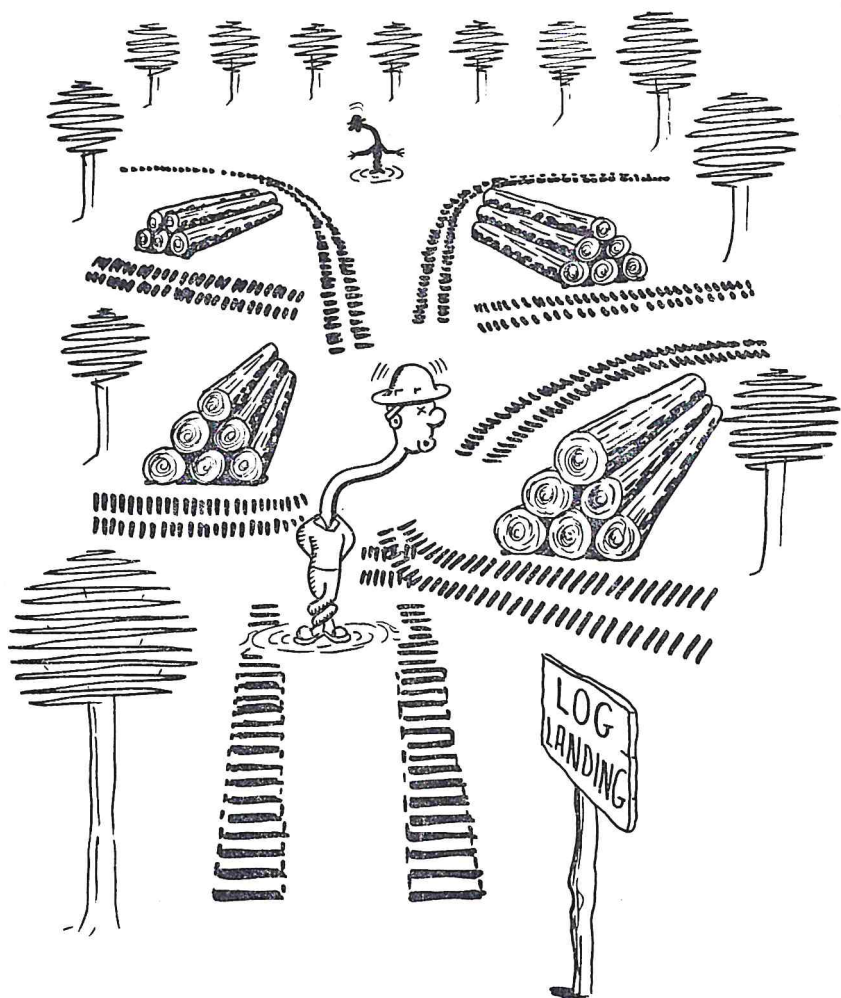
NEVER let the last half lap of rope off the drum during hauling operations. Slow down the drag when it is approaching the landing and follow the instructions of the landing crew when moving logs.

KEEP HANDS AND FINGERS CLEAR OF CHOKERS

Check your gear levers and master clutch before engaging the starter motor.

Be sure that everybody is clear before moving the machine or winching.

Don't allow anybody to ride the logs, the arch, or behind the seat of your machine.



"Which way this time?"

Swamper/Plant Operator — continued

See that nobody is within range when snagging logs around a stump or other obstacle.

Try to approach the landing in the same way each time so that the bush crew knows what you're doing.

Use a clearly understandable system of signals with the swamper. You must know where he is *all the time*.

When stopping on level ground, lower the blade or forks, disengage the transmission, and engage the clutch before leaving or servicing a machine.

On steep ground, lock the main transmission in gear, lower the blade or forks, lock the brake, and stop the motor.

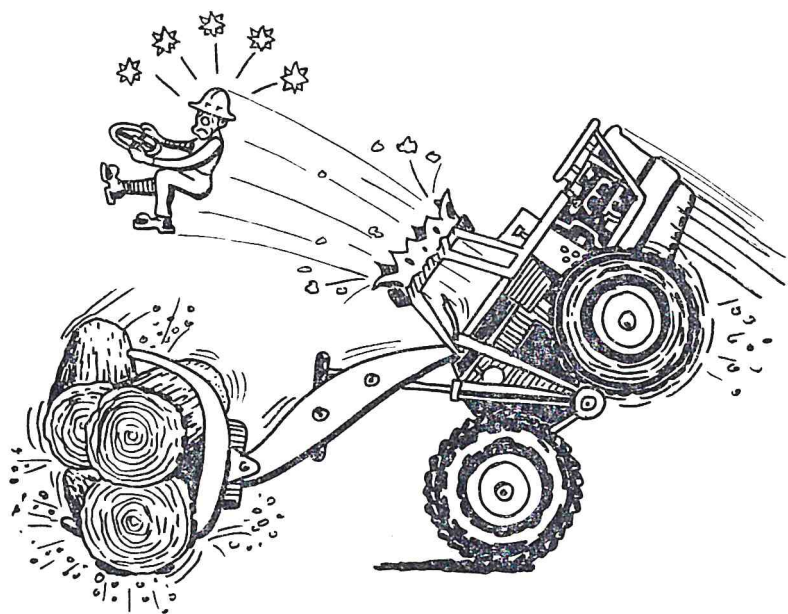
Take care when climbing off and on the machine.

Use rubber-soled safety boots and *don't jump*.

Stop the motor when making adjustments to the front power control unit.

Don't allow anyone to go under the machine until it is stopped, brakes on and blade or forks down on the ground.

Take care on hillside operations — work straight up and down slopes wherever possible.



"At least I didn't panic."

Swamper/Plant Operator — continued

When carrying logs with front end loaders keep load close to ground. If over-load causes machine to tip forward don't panic — lower the load.

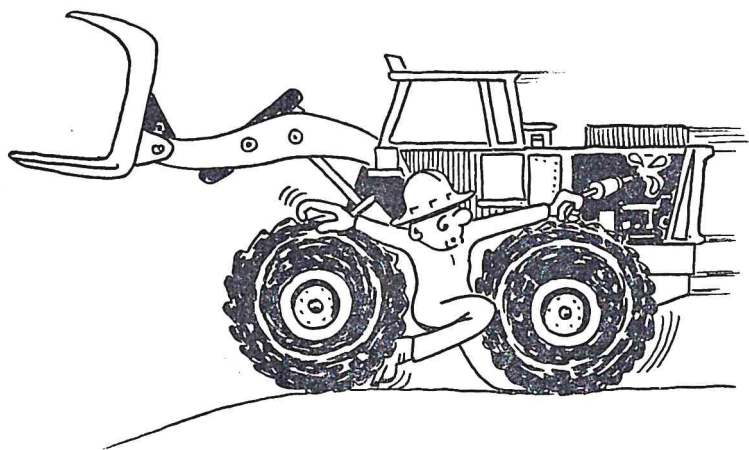
Give loaded vehicles the right of way on log roads and at landings.

Do not use steering wheel or other controls as handholds when entering or leaving operator's compartment.

Relieve hydraulic pressures before working on machine.

Always ensure machine canopy is in good repair and receives regular maintenance.

Acquaint yourself with the features of the machine, especially maximum load, balance and braking — with and without motor running — in order to ensure safe operation.



LOG LOADING AND HAULING PRECAUTIONS

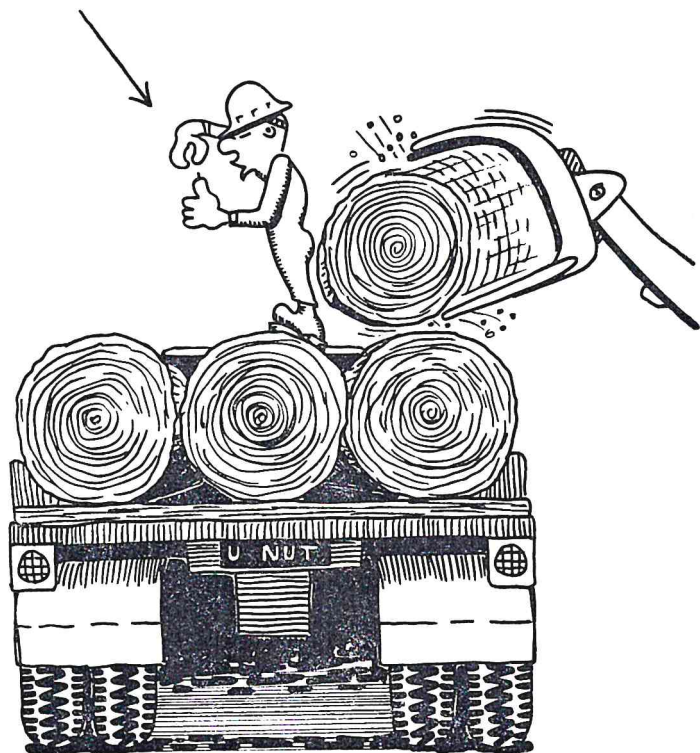
ALWAYS test your brakes *BEFORE* commencing operations.

Never assume performance from hydraulic hoses — they may burst, and need regular inspections.

Don't adjust, refuel, or lubricate machinery while it is in motion.

Check and *report* badly worn, kinked, or corroded ropes, and faulty pins, shackles and blocks. Replace any defective items.

SMALL
SPLINTER



Log Loading and Hauling Precautions — contd.

Don't leave the cab while the master clutch is engaged.

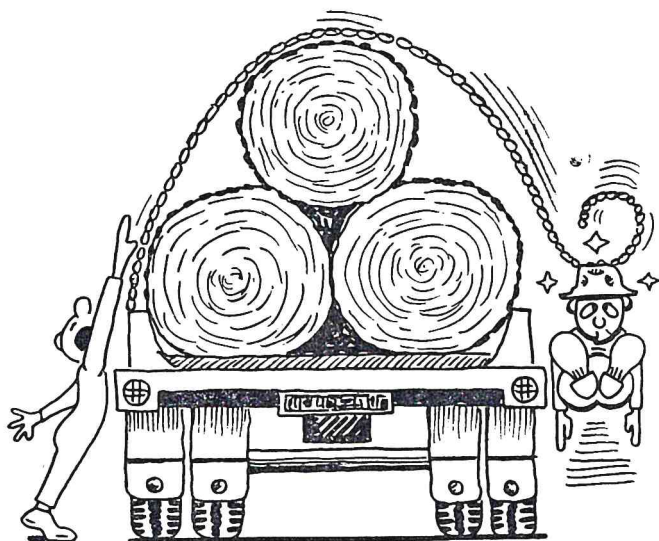
Do not attempt to balance a log suspended off-centre by swinging from it.

Never drop a log on other logs unless you are sure everybody is clear.

NEVER swing logs while people are within the danger zone.

Truck drivers must remain on the loading side of the truck and in full view of the loader operator.

**KEEP YOUR MIND ON THE JOB
AND KEEP CONTROL**



"Watcherself."

Trucking — Know Your Road Code — contd.

Be sure you have a current driver's license and are familiar with the regulations for operating your type of vehicle.

Inspect your truck *daily* with particular attention to steering, brakes, boosters, air hoses and connections, couplings, chock chains, staunchion-release gear and wheel chocks.

Keep your rear-vision mirror adjusted and in good condition.

Before the loaded vehicle is moved from the bush landing ensure that the bolster locking pin is removed.

Don't stand behind the truck or cab or on logs while a log is being loaded.

Balance the load properly on truck and trailer centre plates with no more than one-third of the length or weight of any one log behind the trailer bolster.

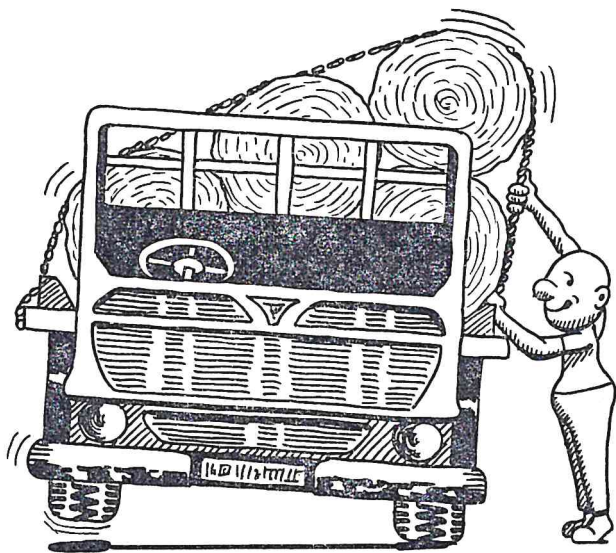
Make sure the load is stable before attaching binder chains.

A grab must be attached to both ends of the chain before the binder twitch is tightened.

Give warning before throwing a binder chain over a load.

Fix binder chain with twitch opposite to unloading side and inspect the finished load before leaving the landing.

Make sure chock safety locking pin is in correct position before loading commences.



“ . . . and I'll soon be on my way”

Trucking — Know Your Road Code — contd.

Test your brakes before leaving the landing, before descending any steep grades, and after going through water.

Make sure that all is clear before backing up and sound the horn at regular intervals while backing.

A log truck driver must always stand on opposite side of a possible falling jockey. An escape route must be planned and extreme care exercised when releasing binder chains.

Don't let anyone ride on the back of the cab while the truck is in motion.

Drive with motor running and in gear at all times.

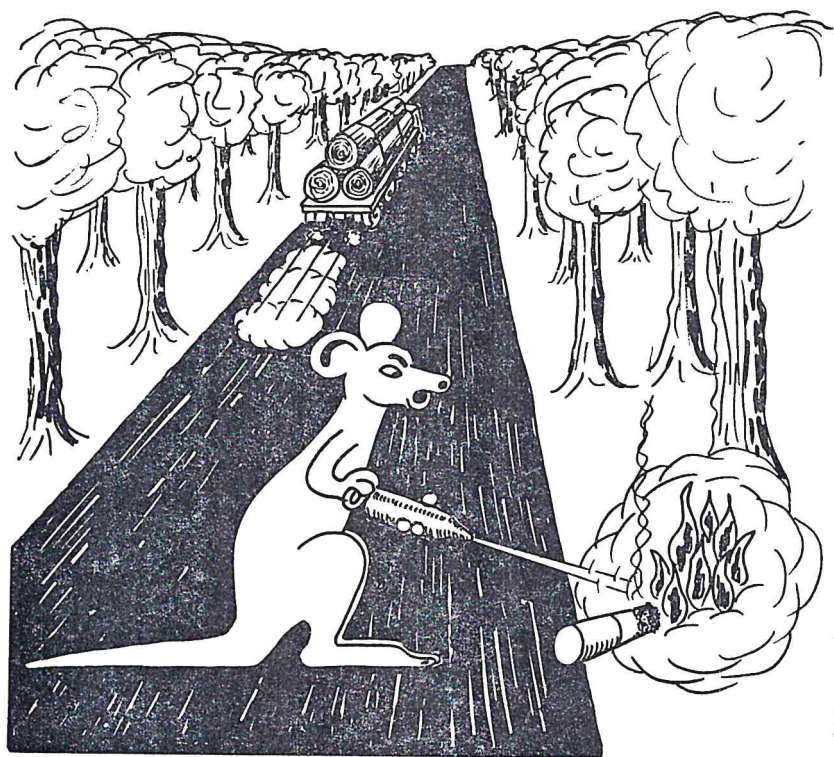
Keep within speed limits, and NEVER go faster than a speed that will allow the truck to be stopped within half the range of your unobstructed vision.

Don't follow any vehicle closer than 100 metres unless you intend to pass it.

When parked, put your truck in low gear, set the brakes, and if on a grade, chock the wheels.

If a truck is disabled, advise your supervisor or workshop immediately. Place reflector signs around a vehicle when disabled on public roads.

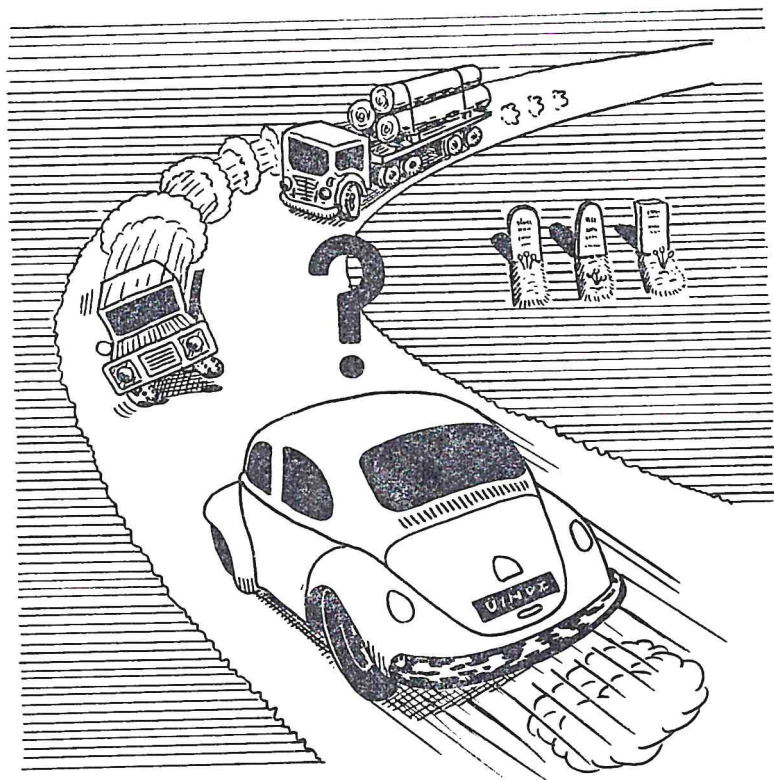
AVOID ACCIDENTS — BE A DEFENSIVE DRIVER



PRECAUTIONS AGAINST FIRE

- Do not smoke while re-fuelling.
- Re-fuel on bare ground, making sure that a chain saw has cooled down.
- Wipe machine clean of excess fuel and oil.
- Do not start a chain saw where re-fuelling has been carried out.
- Do not fill chain saw tank when motor is running.
- Keep saw exhausts free of dust etc. as fire can start by a hot exhaust igniting dust.
- Keep your fire extinguisher within a reasonable distance.
- Use only petrol cans in good condition. Avoid plastic cans as deterioration causes cracks and leakages.
- Ensure all vehicle exhaust systems are in good condition and receive regular maintenance.
- Make certain vehicle fire extinguisher is filled and operable.

DO NOT THROW CIGARETTE BUTTS
OUT OF VEHICLE



TRAVELLING PRECAUTIONS

Always wear seat belts.

Travel at a speed commensurate with road surface conditions and approach bridges, intersections, tracks and roads with extreme caution.

Always look out for hazards on tracks and roads i.e. fallen trees, logs, limbs, rocks, etc.

Watch out for soft edges on road shoulders when passing or making way for another vehicle.

Slow down when oncoming vehicles are passing.

Take extreme care to double check road situation before overtaking.

Check security of load during trip (keep binder chain tight).

Do not drive when overtired.

Before travelling on bush roads, ascertain log truck-bush vehicle movements.

ALWAYS OBEY EVERY ROAD SIGN

STOWAGE OF EQUIPMENT

Equipment should be stored in wooden boxes secured to the floor of the vehicle.

Passengers and equipment must be kept apart in all vehicles.

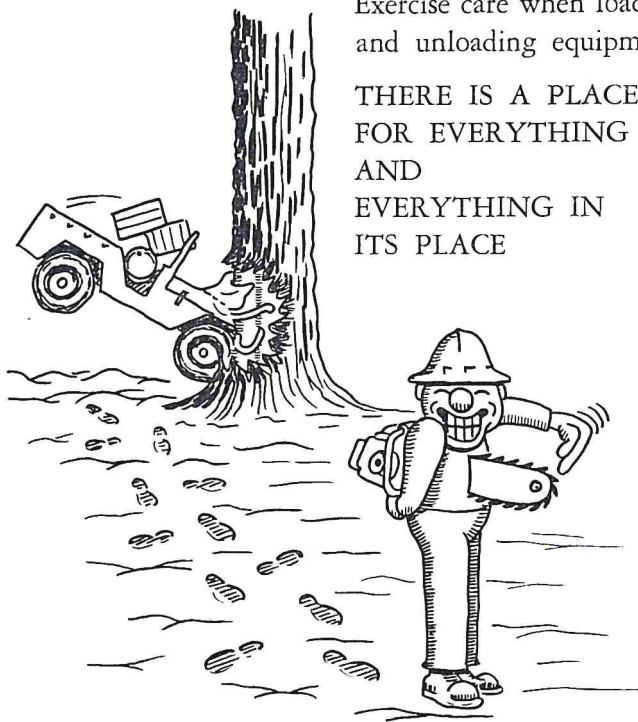
Sharp or heavy equipment should be secured in case of accidents.

Run chain saw until carburettor is empty of fuel.

Avoid spillage of fuel and oil at all times.

Exercise care when loading and unloading equipment.

THERE IS A PLACE
FOR EVERYTHING
AND
EVERYTHING IN
ITS PLACE



"Cripes, I thought it WAS secure."

PREPARED BY

THE

FORESTS DEPT.

&

FOREST PRODUCTS ASSOC. (W.A.)

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