

# MACHINERY OPERATIONS TABLE

If the local wind speed is above the threshold, suspend operations until conditions moderate.

TEMP (°C)	5	10	15	20	25	30	40	50	60	65	RH%
15	31	35	38	40	43	45	49	53	56	58	Average Wind Speed (KPH)
20	29	33	36	38	40	43	46	50	53	55	
25	27	30	33	36	38	40	44	47	50	52	
30	25	28	31	33	35	37	41	44	47	49	
35	23	26	28	31	33	35	38	41	44	46	
40	21	24	26	28	30	32	35	39	41	43	
45	19	22	24	26	28	30	33	36	39	40	
TEMP (°C)	5	10	15	20	25	30	40	50	60	65	RH%

\* These weather combinations relate to a Grassland Fire Danger Index (GFDI) of 35.



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Tasmania Fire Service

for further information on your bushfire safety needs  
Free-call 1800 000 699 or visit  
[fire.tas.gov.au](http://fire.tas.gov.au)



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# Machinery Operations Guideline

A basis for safe work in dry vegetation



This Guideline provides fire safety measures for machinery operations in or near dry vegetation, and specifies criteria for when fire weather conditions warrant stopping machinery operations. This Guideline is endorsed by Tasmania Fire Service as suitable bushfire risk mitigation practices but does not apply to forestry or mining operations.

1800 000 699  
[fire.tas.gov.au](http://fire.tas.gov.au)



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# MACHINERY OPERATIONS BAN

The use of certain machinery and practices can be restricted during the **Fire Permit Period** and on days of **Total Fire Ban**.

When conditions warrant, Tasmania Fire Service will ban machinery operations with an explicitly worded Total Fire Ban declaration.

# RECOMMENDED MACHINERY OPERATING PRACTICES

**IMPORTANT: The following practices should be adopted when using engines, vehicles, equipment or machinery in areas that are within, or in close proximity to dry vegetation and similar combustible materials.**



## Plan

- Establish a fire prevention and emergency response strategy for staff, contractors and machinery operators.
- Be aware of potential ignition sources from the machinery being used.
- Adopt a regular maintenance program, both before and during operations, paying particular attention to wearing parts, bearings and engines.
- Aim to ensure machinery is free from faults and mechanical defects.
- Ensure combustible residues on machines are kept to a minimum, especially in areas of high fire risk, such as engines, exhausts and brakes.

## Prepare

- Prior to commencing operations, check the fire weather forecast.
- Have ready access to telephones and UHF radio.
- Machinery operators should have appropriate firefighting clothing and a plan for the protection of themselves, their equipment and the community.
- Have ready access to operational firefighting equipment, such as:
  - Fire extinguisher,
  - Knapsack, and ideally
  - A 250 litre transportable firefighting unit.
- Drive on tracks and park in cleared areas to prevent fires starting from hot exhausts.
- Provide 3 metres clearance around and above stationary machinery or engines, or remain with the equipment while running.

## Monitor

- Monitor fire information and advice through TasALERT ([www.alert.tas.gov.au](http://www.alert.tas.gov.au))
- Monitor weather information and warnings from the Bureau of Meteorology ([m.bom.gov.au/](http://m.bom.gov.au/)).
- Measure local weather and check the Machinery Operations Table.
- Suspend operations when weather reaches the thresholds shown in the Machinery Operations Table. (which relates to a Grassland Fire Danger Index of 35).

## Respond

- Phone 000 as soon as a fire is detected.
- In the event of a fire, and if safe to do so without causing additional fires and endangering your own life, locate the machinery to a fuel reduced area, in an attempt to prevent fire spread.
- Attempt to put the fire out.

# MACHINERY OPERATIONS TABLE

The table below uses the **average wind speed (km/h)** for a range of different **temperature (°C)** and **relative humidity (RH%)** combinations to decide when machinery operations should cease.

To use the table:

Obtain the relative humidity, temperature and wind speed values from the nearest suitable weather station, or from field observations. Follow the operating instructions for measuring instruments to get reliable results.

Use the temperature values and relative humidity, to work out which is the threshold wind speed in the table.

**If the local wind speed is above the threshold, suspend operations until conditions moderate.**

EXAMPLE: Refer to the highlighted areas on the table.

1. Temperature: 25°C.
2. Relative Humidity: 17% rounded down to 15%.
3. For this combination of Temperature and Relative Humidity operations should stop when the average wind speed goes above 33 km/h.

TEMP (°C)	5	10	15	20	25
15	31	35	38	40	42
20	29	33	36	38	40
25	27	30	33	36	38
30	25	28	31	33	35
35	23	26	28	31	33
40	21	24	26	28	30
45	19	22	24	26	28
TEMP (°C)	5	10	15	20	25