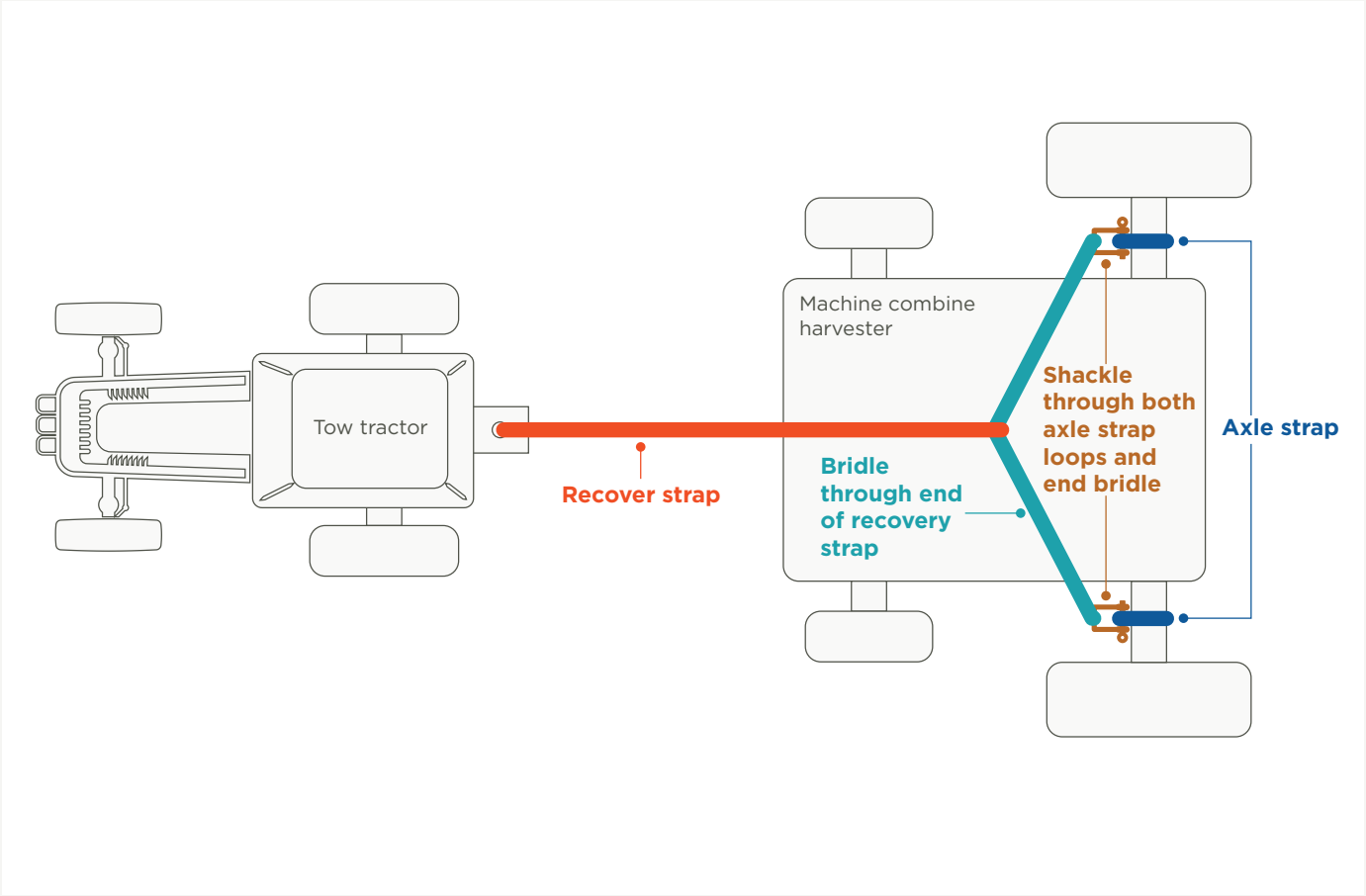
RECOVERY STRAP SAFETY

With the recent weather events, there's a high risk of vehicles and machinery becoming bogged or needing to be towed. This can be an incredibly dangerous undertaking.

With the number of accidents on the rise, the following safety tips have been provided for growers to consider when using this type of equipment. Above all, consider the safety of yourselves and those around you.

With thanks to CW imports for assisting with this information

Grain Growers



All straps have their limitations!

A correctly-sized strap must be used to suit what is bogged and the towing horsepower available.

A rough rule of thumb:

- 16,000Kg strap – up to 135hp towing
- 26,000Kg strap – up to 220hp towing
- 50,000Kg strap – up to 330hp towing
- 60,000Kg strap – up to 380hp towing
- 75,000Kg strap – up to 480hp towing wheeled
- 100,000Kg strap – up to 550hp tracked or 600Hp towing wheeled
- 150,000Kg strap – up to 700hp towing tracked.

Most straps are manufactured to let go at the weakest link – at the end of the loop stitching. Straps that snap elsewhere, or are torn, may have been damaged by misadventure or improper use. This could include:

- a strap that has been caught on a drawbar and not pulling directly on the pin
- a strap that has been wrapped around an axle with a shackle through the end loop back onto the strap
- pulling tight and cutting on edge
- towing with the recovery strap.

It is important that bridle and axle straps are used to ensure the safe attachment of the recovery strap to a bogged machine.

All equipment being used should be rated to the horsepower of the recovery tractor.

Use a recovery strap sized appropriately for the bogged machine, taking into account the power of the recovery tractor, the amount of effective traction, load and operating conditions.

Additional margin should be added to overcome the suction effect in muddy conditions.

Many accidents happen with chains

A common mistake is the use of chains that are too small for the required operation.

Another rough rule of thumb:

- a 50,000kg 9m snatch strap weighs 11.5kg, an equivalent strength chain will weigh 8.8kg per metre, so 80kg total
- a 75,000kg 9m snatch strap weighs 18kg, an equivalent strength chain will weigh 15.1kg per metre, so 136kg total
- a 100,000kg 9m snatch strap weighs 24kg, an equivalent strength chain will weigh 23kg per metre, so 207kg total.

BOGGED VEHICLES

Before harvest

- Consider running drive wheel tyres in reverse. This can assist in providing traction when reversing out of a sticky situation. If running duals, consider reversing the pattern on one of the two drive wheels on each side.
- Consider adjusting tyre pressures for additional flotation to the lowest in the manufacturers recommended range. They will need to be repressurised for roading out-of-paddock work.
- Read the manual to check for specific vehicle recovery requirements or attachment points.
- Inspect the axle for attachment points and prepare for attachment by grinding sharp edges off axle cleats.
- Consider attaching the bridle pre-harvest so it is easier to access without crawling in the mud once bogged. Steel wire rope pre-fit may be an option although ensure the rope is load rated accordingly and attach the recovery strap to the wire rope harness using an slightly lower rated soft shackle.

When bogged

- Clear mud away as best you can – this usually involves shovel work.
- Reduce the load in the harvester if possible – this may require "tricking" the harvester by popping the outload auger out of the saddle so the outload auger can be engaged– but may require tethering the outload auger to avoid the risk of it free-fall swinging out.
- Only attach recovery cables to designated recovery points. Use a bridle if necessary. If there aren't any fixing points, axle straps may need to be used.
- Unless there is a dedicated rear recovery point, recover the harvester by pulling it backwards out of the bog with a recovery strap attached to the front axle. Pulling a harvester from the rear axle can stretch the chassis and damage the machine.
- Recovery straps should have tethers or dampeners to arrest potential energy in the recovery strap under load. If not, consider putting the recovery strap through something to arrest the recoil, for example, an old car tyre, positioning the tyre in the middle of the strap.
- Tethers should be attached to the vehicle being recovered and the recovery vehicle.
- Don't use chains – chain breaking strains are relatively low and once they break, they can be lethal.
- If the recovery strap isn't long enough, do not be tempted to join it with a metal shackle as the shackle could become a lethal projectile. Only use a soft shackle in this scenario.
- If you have a harvest weed seed impact mill on the harvester, check for recovery strap clearance. Lay a piece of ply between the mill and the recovery strap to spread the load and minimise mill damage.
- While axle straps typically have a protective sheath, additional protection may come from using a piece of old carpet or rubber around the axle.
- Ensure driveshafts, choppers and mills are clear of the recovery strap in tension and remember the geometry of the recovery hardware may change as the machine comes out of the bog.
- Recovery straps have some elasticity, so begin the recovery at 2-5km/h and apply power as the load comes on.
- If using a Black-snake style Kevlar-filled recovery cable, take up the strain first as these do not provide elasticity.
- Keep all observers well away from the recovery operation.
- Release all brakes, ensure the harvester is out of gear and stay in communication with a two-way radio as the recovery proceeds.

IF IN DOUBT, LEAVE IT AND SEEK ADVICE. THE SAFETY OF YOURSELF AND OTHERS IS MORE IMPORTANT!

For further farm safety information, scan the QR code and visit GrainGrowers resources

Grain Growers

1800 620 519
enquiry@graingrowers.com.au
www.graingrowers.com.au

FOLLOW US ON
@GrainGrowersLtd
@graingrowers
GrainGrowers
@Grain Growers Limited