

guy to stump or tree. When the trolley cable is clamped at the anchorage the pull against the machine is entirely eliminated, and the end of the boom supports the trolley cable in a vertical line only.

The machine is mounted on trucks of either four or six wheels and for standard or other gauge track. Shoe brakes are provided for application to the truck wheels by hand wheel.

The engine on this type of skidder is the Clyde type of intergeared skidding and outhaul drums and storage drum for the main trolley cable.

The storage drum is cast steel with steel ratchet and pawl on each end. It is driven with a sliding pinion on the crank shaft so that it may be thrown out of mesh when not in use, thus eliminating all wear of the drum shaft and journals when running the engine for skidding logs. With this arrangement one trolley line only is required on the operation at one time.

The trolley, skidding, outhaul, slack pulling and setting line drums are all mounted on a cast steel bed so that perfect alignment of shafting and gears is constantly maintained.

Two additional drums are mounted on the machine and driven by the engine for tightening up the side guy lines.

Each drum is entirely independent of all others and controlled by banked levers in easy reach of the operator. All gears throughout are made of steel with machine cut teeth.

The skidding and outhaul drums are arranged to lock together with the gears so that when one drum is winding up the cable the other is unwinding. The stress of the outhaul line opposed to the skidding line when the load is suspended from the trolley carriage is directly communicated through the interlocked gears so that one drum pulls against the other and is thereby balanced, if skidding horizontally.

The slack pulling drum carries a cable for providing slack in the skidding line. This drum is equipped with an automatic friction to keep the slack pulling line taut at all times when the skidding line is coming in.

The setting drum carries a small cable $\frac{1}{4}$ or $\frac{3}{8}$ inch, to be carried out by hand for use in pulling the outhaul cable around through the trail when making a set.

The two side guying drums carry the two cables for guying the boom against the pull of the trolley cable. When not in use they are thrown out of gear so that journals or drum bushings

