

SPECIFICATION

Improvements in or relating to trucks

- 5 This invention relates to trucks and has been devised particularly though not solely for use in trucks used for transporting logs.

It is an object of the present invention to provide a truck which will at least provide the public with a useful choice.

- 10 Accordingly in one aspect the invention may broadly be said to consist in a truck having an extended chassis mounted at the forward end on at least on front axle and at the rear on at least two rear
15 axles, there being spring suspension between the axles and the chassis, longitudinal side members of said chassis being deepened immediately to the rear of the cab mounted on the chassis, a column mounted on said chassis deepening, said column
20 being braced to the chassis by a plurality of gusset plates both forward and to the rear of the column said column carrying a rope guide or fair lead, an engine mounted in said chassis and connected through a transmission to driving wheels mounted
25 on at least one of said axles, a power take off interconnected to said transmission, said power take off driving a winch means connected to a rope passing over said rope guide means or fair lead and roller means at the rear of the chassis, the construction and arrangement being such that in use large
30 logs are pulled over said roller means by use of said winch and rope to enable the truck to be loaded for transportation without the use of extraneous loading gear.

- 35 Preferably said column comprises a pair of vertical members one adjacent each longitudinal side chassis member and transverse members between said vertical members.

Preferably said engine is connected to said at least one driven axle through a gear reduction as well as through the normal differential and crown wheel and pinion.

- 40 Preferably the drive between said engine and said at least one driving axle comprises a cardan shaft divided into sections by universal joints, some parts of the cardan shaft being mounted in bearings fixed to members fixed to the longitudinal chassis members.

Preferably said winch is mounted on members fixed to side plates, said side plates in turn being fixed to said chassis longitudinal side members.

- Preferably said column comprises two vertical members, each member being fixed to a longitudinal side chassis member by plates and said gusset
55 members, transverse members being mounted one above the other to said vertical members.

Where specific integers are mentioned herein which have known equivalents in the art to which this invention relates, such known equivalents are deemed to be incorporated herein as if individually set forth.

The invention consists in the foregoing and also envisages constructions of which the following gives examples only.

- 65 One preferred form of the invention will now be

described with reference to the accompanying drawings in which,

- Fig. 1 is a side elevation of a truck according to the invention,

70 Fig. 2 is a plan view of the truck and,

Fig. 3 is a rear view of a truck according to the invention.

- Referring to the drawings a truck is provided having an extended chassis 1 comprising a pair of longitudinal chassis side members 2 and 3 the chassis members being of deep e.g. 500 mm strong, preferably channel section. The forward end of the chassis is supported on a front axle (not shown) carrying wheels 5, there being any conventional spring suspension system between the axle and the wheels 5 and the chassis member, steering also being provided in a conventional manner. The rear of the chassis is supported on at least two axles 6 & 7 through springs 8, the axles carrying wheels 9 and
80 10. The forward axle 6 is driven through a crown wheel and pinion and differential gear mounted in casing 15 and the drive is effected through a cardan shaft 16 from an engine mounted under bonnet or hood 17 with a conventional clutch and gearbox or automatic transmission in the known way. An additional gear reduction (not shown) is provided adjacent the differential housing to enable the final drive ratio to be readily changed to suit operating conditions. The cardan shaft 16 is provided with a
95 plurality of universal joints 18 and some sections of the cardan shaft are mounted in bearings 19 to support the cardan shaft and prevent whirling which otherwise might occur.

- A further drive shaft 20 connected to the transmission drives a gearbox 21 mounted on members 22 which in turn are connected to side plates 23 fixed to side chassis member 2 & 3 and the gearbox 21 drives a winch drum 24. A suitable control is provided so that the winch may be driven either forward or rearwardly or braked as will be described further later. The rear axle 7 may either be a dead axle i.e. not driven or a live driven axle and in the event that the rear axle is a dead axle then if desired pneumatic lifting means may be provided to lift this axle so that
110 the wheels are removed from contact with the ground.

- Plates 30 carrying gussets 31 are mounted on either side of the two longitudinal chassis members 2 & 3, the plates 30 in turn supporting column members 32 which have transverse members 33 arranged at intervals over part of the height of the members 32. The members 32 carry a cap 34 and braces 35 and 36 and mounted on the cap between the braces 35 is a rope guide or fair lead 37. A rope is passed from the winch drum 24 over a lower rope guide (not shown) and up the column and through the fair lead 37 to over the main load supporting part of the truck. At the rear of the truck a roller 40 is provided and transverse members or bolster plates 41 are provided at intervals along the longitudinal chassis members. Some of these bolster members carry adjustable wedges 42 to prevent logs placed on the bolsters falling sideways off the truck.

The use of the construction is as follows:

- 130 The truck is designed to carry logs, preferably and

such logs are delivered to a delivery point with the noses of the logs tilted in the air at a height slightly above the height of the roller 40. The rope end is then secured to the forward end of a log and the

5 winch drum 24 operated to cause the log to be pulled onto the truck. When one log is in position the next log is interconnected and so on until a full load is loaded on the truck.

It will be apparent that by extending and strengthening the chassis members very long logs may be carried provided the centre of gravity of the log is sufficiently far forward as to enable the truck to be stable when travelling even though there is some extension of the log beyond the rearmost axle 7. The

15 winch and column enable loading to be effected without the use of extraneous gears such as a portable or fixed crane and this gives considerable advantages.

CLAIMS

20 1. A truck having an extended chassis mounted at the forward end on at least one front axle and at the rear on at least two rear axles, there being spring suspension between the axles and the chassis, longitudinal side members of said chassis being

25 deepened immediately to the rear of the cab mounted on the chassis, a column mounted on said chassis deepening, said column being braced to the chassis by a plurality of gusset plates both forward and to the rear of the column said column carrying a

30 rope guide or fair lead, an engine mounted in said chassis and connected through a transmission to driving wheels mounted on at least one of said axles, a power take off interconnected to said transmission, said power take off driving a winch means con-

35 nected to a rope passing over said rope guide or fair lead and roller means at the rear of the chassis, the construction and arrangement being such that in use large logs are pulled over said roller means by use of said winch and rope to enable the truck to be loaded

40 for transportation without the use of extraneous loading gear.

2. A truck as claimed in Claim 1 wherein said column comprises a pair of vertical members one adjacent each longitudinal side chassis member and

45 transverse members between said vertical members.

3. A truck as claimed in Claim 1 or Claim 2 wherein said engine is connected to said at least one driven axle through a gear reduction as well as

50 through the normal gear box differential and crown wheel and pinion.

4. A truck as claimed in Claim 3 wherein only one driving axle is provided and the drive between said engine and said one driving axle comprises a cardan

55 shaft divided into sections by universal joints, some parts of the cardan shaft being mounted in bearings fixed to members fixed to the longitudinal chassis members.

5. A truck as claimed in any one of the preceding

60 claims wherein said winch is mounted on members fixed to side plates, said side plates in turn being fixed to said chassis longitudinal side members.

6. A truck as claimed in Claim 2 wherein plates carrying gussets are mounted on either side of the

65 longitudinal chassis members, the plates supporting

said vertical members.

7. A truck when constructed arranged and operable substantially as herein described with reference to and as illustrated by the drawings of this application.

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14

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