BELL SYSTEM PRACTICES
Outside Plant Construction
and Maintenance

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D NEALE SPINNER
CARE AND MAINTENANCE

Contents

1. GENERAL

1.01 This section describes the Model D Neale Spinner, its care, and the adjustments and replacements that may be required in the field.

1.02 If adjustments and replacements which are not covered are required, the spinner should be returned to the factory.

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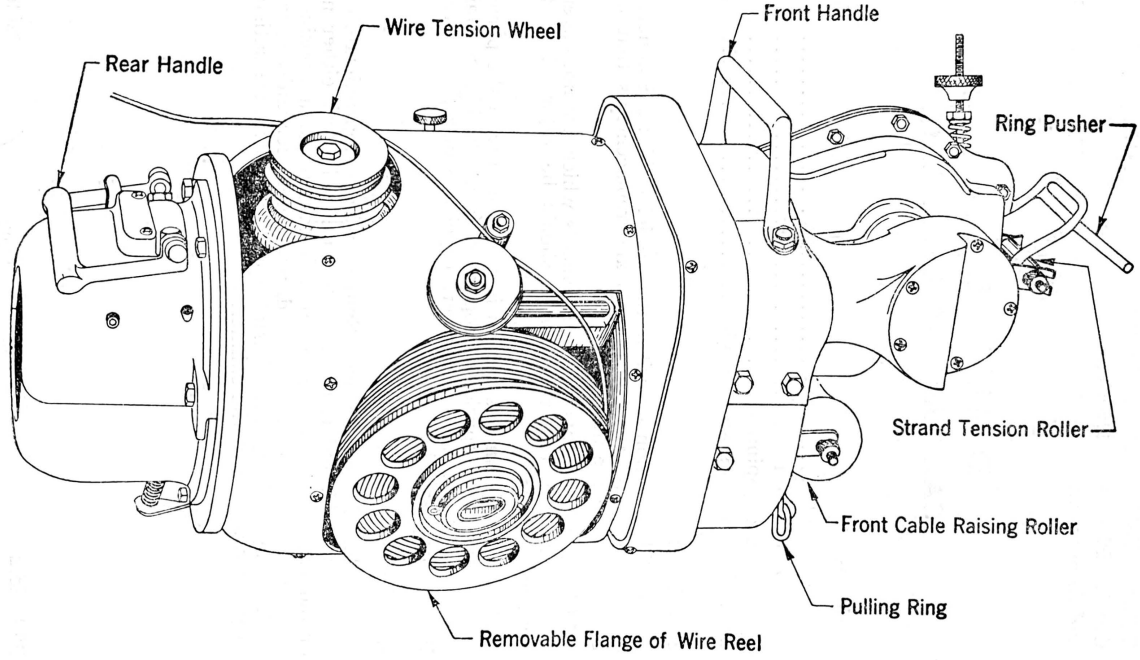
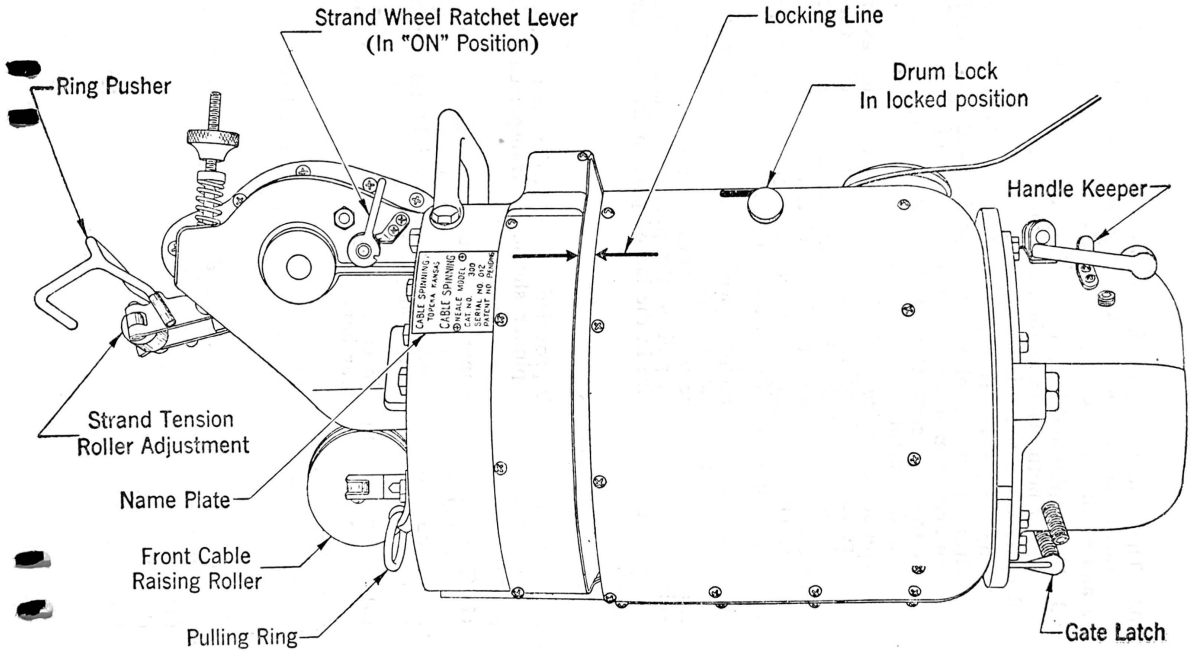
2. DESCRIPTION

2.01 The Model D Neale Spinner weighs approximately 35 pounds, and is intended for use in lashing either new or old cable to suspension strand. It consists of a housing, a spinning drum, two independent drum driving mechanisms, cable positioning devices, and adjustable controls to insure satisfactory performance of the spinner.


Rear Handle
Wire Tension Wheel
Front Handle
Ring Pusher
Strand Tension Roller
Front Cable Raising Roller
Pulling Ring
Removable Flange of Wire Reel


Strand Wheel Ratchet Lever
(In "ON" Position)
Locking Line
Ring Pusher
Drum Lock
In locked position
Handle Keeper
Strand Tension
Roller Adjustment
Name Plate
Front Cable
Raising Roller
Pulling Ring
Gate Latch

2.02 The spinning drum is mounted on ten ball-bearing races, and incorporates a lashing wire reel, a drum lock, large and small guide rollers, and a wire tension wheel.

2.03 Two separate driving mechanisms rotate the drum. The use of both drives at the same time insures a properly lashed cable when the spinner is moved forward.

(a) The first drive is obtained through friction on the strand by means of a rubber cored strand wheel and a tension arrangement to control the amount of friction. The strand wheel is connected to the drum through a set of gears and a chain and sprocket.

(b) The second drive is obtained directly from the lashing wire as it feeds off the spinner. The lashing wire turns a tensioning wheel that is connected to a rubber friction drive that bears against a friction plate at the rear of the spinner. This arrangement insures a complete revolution of the drum for every 13-inch section of lashing wire.

2.04 The spinner is equipped with a lever operated ratchet and pawl on the strand drive wheel. When the lever is in an upward position the pawl engages the ratchet and holds the spinner whenever the pull on the pulling line is released. This keeps the lashing wire in the lashed portion from becoming slack.

3. CARE OF SPINNER

3.01 A carrying case is provided to protect the spinner when not in use. The spinner should be transported in its carrying case.

(1) To remove the spinner from the case, unscrew the four nuts holding the clamping straps to the cross members, and remove the clamping straps. Lift straight up on the front and rear handles to remove spinner from case.

(2) To place spinner in case, lower the spinner by means of the front and rear handles. Replace clamping straps and nuts.

3.02 Precautions should be taken to keep dirt and grit from the mechanism. The spinner should never be set on the ground.

3.03 The following parts require **daily** lubrication with two drops of No. 10 machine oil.

(a) Friction wheel spindle.

(b) Rear cable raising roller.

(c) Guide rollers.

(d) Strand wheel adjustment nut.
(e) Strand tension roller.
(f) Front cable raising roller.
(g) Wire reel spindle.
(h) Friction plate gate hinge.
(i) Rear strand roller. (Through hole in rear housing marked oil.)
(j) Strand tension arm bearings.

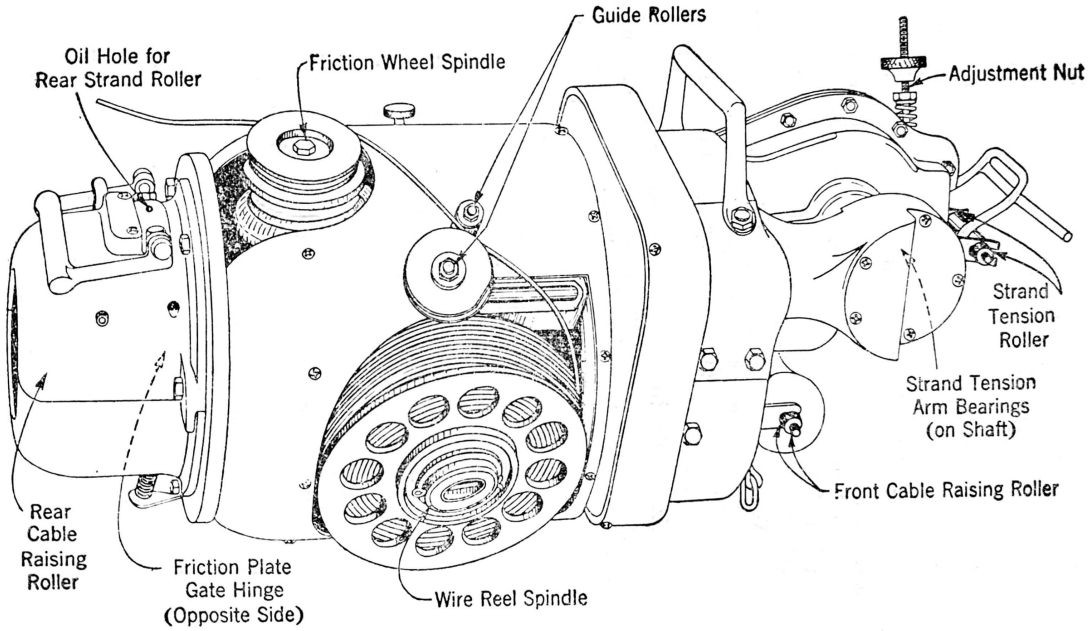
3.04 The following parts require **monthly** lubrication with two or three drops of No. 10 machine oil.

(a) Ball-bearing races on the spinning drum.
(b) Races on the front strand wheel.

Warning: Any excess oil should be wiped off immediately to eliminate any possible chance of oil coming in contact with the strand wheel or the rear friction wheel.

3.05 Every six to nine months remove the gear housing cover and wash out the old grease. Refill with AA1 Gargoyle Grease and replace the cover.

DAILY LUBRICATION CHART



4. ADJUSTMENTS AND REPAIRS

4.01 To replace the rubber friction wheel on the rear drive, remove the stud and lift the entire assembly off. On the bottom of the assembly there are three screws which hold the wheel in place. Remove these three screws. Remove old wheel, place a new rubber wheel and reassemble.

4.02 To replace the rubber core of the strand wheel remove the left side of the wheel cover. The ball-bearing should stay in the housing. Take the screw out of the supporting arm of the tension roller frame and slip the right half off. Remove the three screws in the left-hand side of the wheel and the flange will come off. Remove old core, place a new core and reassemble.

4.03 To adjust the chain remove the cover by unscrewing the three screws in the chain guard cover. This will permit the plate to be removed. The idler sprockets are mounted on eccentric bushings and by loosening the studs they may be adjusted to take up any wear. Be sure that the studs are tight before reassembling the spinner.

4.04 To adjust the drum bearings remove the studs from the rear handle and the studs from the upper half of the rear housing; next remove the six studs holding the rear friction plate in place. This will allow the friction plate and rear bronze bearing to be lifted off. Between the spinner body and the bronze bearing are three .005 paper shims. Remove the necessary shims and replace the rear of the spinner, being very careful to make sure that the studs are drawn down firm, but do not exert enough pressure to strip the threads.

4.05 The spinning drum is mounted on ten ball-bearings which are adjusted and properly positioned at the factory. This adjustment requires special tools and **should not be made in the field.** Spinners requiring adjustment of these ball-bearings should be returned to the factory.

4.06 When ordering replacement parts, show the spinner serial number on the requisition. This number appears on the name-plate.