

Electric Eel[®]

MODEL N Drain Cleaning Machine

Operator's Manual



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The *Electric Eel*® model N drain cleaning machine

The Electric Eel Model N drain cleaning machine is designed to clean household drains, industrial waste lines, vents and downspouts from 1 1/4" to 3" in diameter for distances up to 100 feet. It can be operated in either a horizontal position or at a 45° angle without adjustment of any kind—and is controlled by a foot operated switch.

Three types of cable are available for this machine as follows:

DUALMATIC CABLE

This cable consists of 5/8" diameter, open wound right hand coiled outer member—and a 5/16" diameter, close wound, left hand coiled inner member. The two cables are tied together by couplings at each end. Cable sections are 5 feet in length and are joined to each other with special dog point set screws—or with optional 1/8" x 5/8" spiral pins. Because of the open winding of the outer member, this cable self-feeds both in and out of the line—and is flexible enough to negotiate 90° elbows in 1 1/4" diameter lines. You only need to provide slight assistance between the drum and pipeline opening.

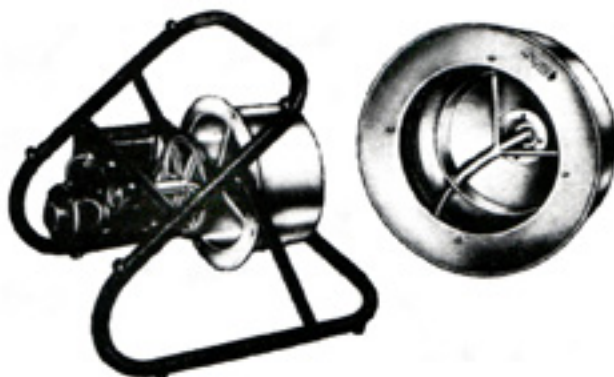
MONOWIRE CABLE

A 1/2" diameter, close wound, left hand coiled cable that is available in lengths up to 100'. This cable must be fed through the pipeline by the operator as it has no self-feeding action of its own.

AIRCRAFT WIRE INNERCORE CABLE

Similar in appearance to the monowire cable except that an aircraft reinforcing is provided inside the left hand coiled cable which is coiled loosely to allow the cable to tighten down on the innercore under stress.

The cable drum has a capacity of 75 feet of dualmatic cable and 100 feet of monowire or innercore cable—and consists of an inner and outer member. The cable is anchored inside the outer drum and feeds through a guide tube in the outer drum. This action automatically lays the cable against the inside of the outer drum and provides protection against kinkage. The outer drum should be mounted on the machine when you are filling it with cable—but is easily removed for cable inspection and cleaning, whenever required.



DUALMATIC CABLE



DN-6
Cable Anchor



DN-1 Male
(Rear) Coupling

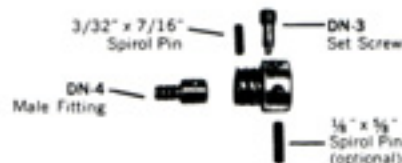


OUTER
CABLE

INNER
CABLE



DN-2 Female
(Front) Coupling



MONOWIRE AND INNERCORE CABLE

DN-18
Front cable fitting.
Attach tools here.



DN-19
Rear cable fitting.
Anchors to DN-6
Cable Anchor

CLEANING TOOLS



DN-10
General Purpose
tool for 1 1/4" to
2" diameter lines



DN-11
Drill for hard
stoppages in 1 1/4"
to 2" diam. lines



DN-12
Finishing tool
for 1 1/4" to 2"
diameter lines



DN-13
Retriever for removing
objects in 1 1/4" to 2"
diameter lines



DN-14
Drill for 2" to 3"
diameter lines



DN-15
Clean-up tool
for 2" and 2 1/2"
diameter lines



DN-16
Clean-up tool for
3" diameter lines

OPERATION

The following recommendations are intended to help you save time on the job—and to give you top performance from your machine with minimum wear.

1. Before beginning a job, check out the line to be cleaned. If possible, find out where it goes—and check for clean-outs. Since the Model N drain cleaning machine is designed for cleaning pipelines of 1 1/4" to 3" diameter, lines of larger diameter should be avoided as the cable, under stress, can be kinked or turned back.
2. Place the machine as close to the pipe opening as possible. This avoids cable kinkage between the drum and the pipe opening.
3. To remove hard stoppages, start with the drill point cleaning tool and use the spiral tool or claw end tool to finish. Keep water running through the drain, if possible.
4. When using the dualmatic drain cable, make sure the switch is on "forward" when going in the drain line—and on "reverse" when coming out of the drain line. Although the dualmatic cable is self-feeding, it will make better progress if the cable is pressed against the edge of the drain opening to help it feed itself in or out of the line.
5. When using the monowire or innercore drain cable, run the machine in "forward" at all times—use "reverse" only if the tool becomes lodged in the line. Although this cable must be hand fed into the drain line, you should avoid using excessive force. This could damage both the cable and the cutting tool.
6. When using any drain cable, wear heavy weight leather gloves when handling the rotating cable.
7. When the machine is overloaded due to a difficult obstruction in the drain line, it will slow down and the safety clutch will slip. If this occurs, release the pressure on the foot switch and reverse the direction of rotation for a few moments before proceeding. The clutch can be adjusted by tightening the 1/2"-20 Hex Head cap screw to increase tension.

MAINTENANCE

If you are using dualmatic cable, the cable sections should be rotated periodically by moving the sections at the rear to the front—thus putting equal wear on all sections. When rotating these cables—or when putting new cables in the drum—attach the DN-6 cable adapter **after** the cable has been pushed through the guide tube. Make sure the cable is entering the drum in the proper direction, as indicated by the curvature of the guide tube.

Whether you are using dualmatic, monowire or aircraft wire innercore cable, it should be kept clean and lightly oiled. This will allow it to work freely throughout the guide tube. The set screws used to join cable sections together should be checked regularly and tightened if required.

It is important that the guide tube assembly turns freely. Keep the area around the N-5-4 washer clean and oil it occasionally. If the guide tube or the bearing wears enough that the guide tube binds on either the inner or outer drum, the cable will not lay properly in the drum and can be damaged.

The motor bearings and the ball bearings on which the drive shaft rotates are lubricated and sealed for life—and should need no further attention.

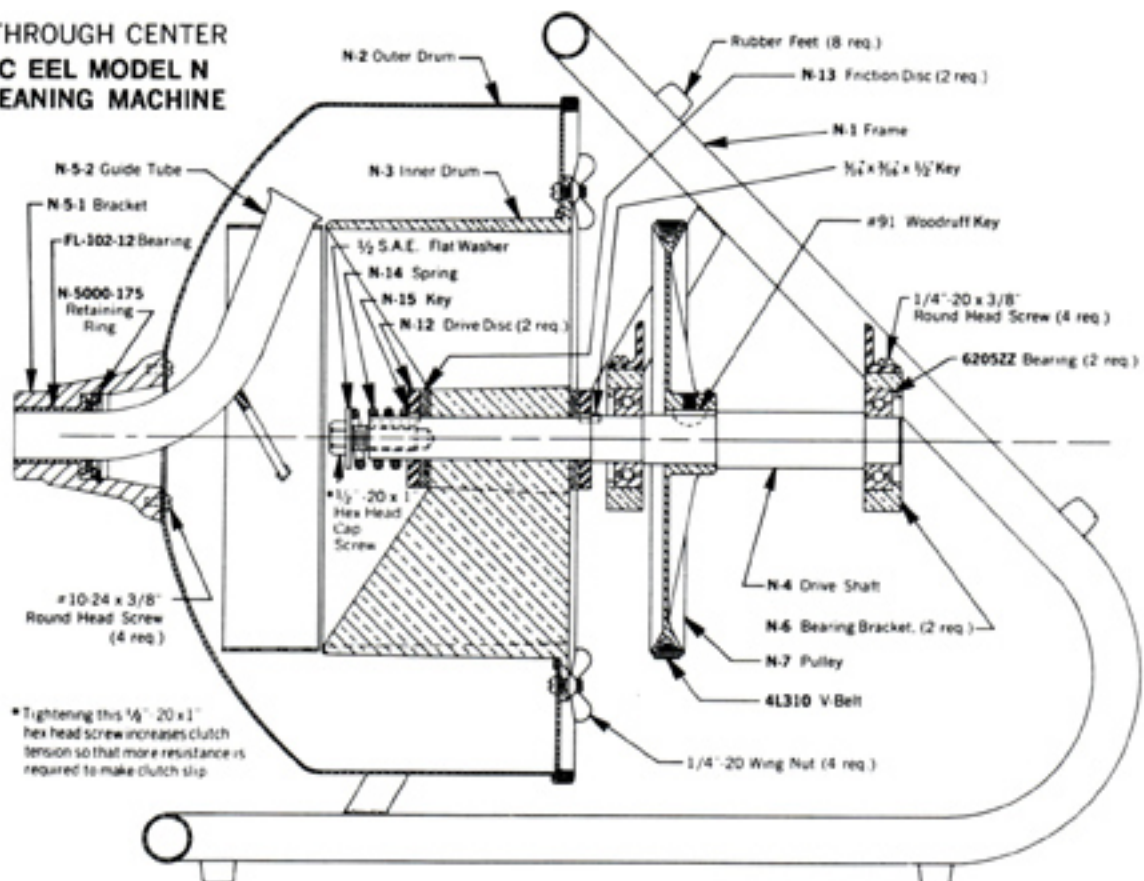
The sectional view of the machine (below) identifies the components that may be ordered as replacement parts.

CABLE REPAIR

It is important to keep the cable as free of kinks as possible. This lengthens the useful life of the cable, allows it to go through guide tube smoothly and to lay in the drum properly.

Slight kinks in any of the three types of cable can be straightened by hand. The monowire cable can be spliced with a threaded splicer part #C14. The innercore cable can be spliced by using DN-18 and DN-19 fittings. The dualmatic cable usually is not economical to tear down and repair.

SECTION THROUGH CENTER
ELECTRIC EEL MODEL N
DRAIN CLEANING MACHINE





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