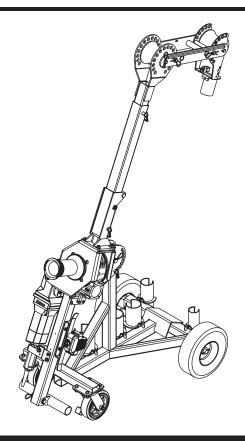


# Model 66 Cable Puller with 4 Wheel Mobile Carriage



# Operating, Maintenance, Safety and Parts Manual

2/2019



Read and understand this material before operating or servicing the Cable Puller. Failure to understand how to safely operate and service this unit may result in serious injury or death.

This manual is free of charge. All personnel who operate the Cable Puller should have a copy of this manual and read and understand its contents. To request a copy of this manual or replacement safety decals, or for technical assistance, call or write to the address below.

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# Safety Alert Symbol

THIS SAFETY SYMBOL is used to call your attention to instructions that concern your personal safety. It means: ATTENTION! BE AWARE! THIS IS AN IMPORTANT SAFETY INSTRUCTION!

Read, understand and follow these safety instructions. Failure to follow these safety instructions may result in injury or death.

# A DANGER

Immediate hazards which, if not avoided, WILL result in serious personal injury or death.

# WARNING

Hazards or unsafe practices which, if not avoided, COULD result in serious personal injury or death.

# **A** CAUTION

Hazards or unsafe practices which, if not avoided, COULD result in minor personal injury or property damage.

#### **RETAIN SAFETY INFORMATION**



This manual should be read and understood by all personnel who operate or service this Cable Puller. Failure to understand how to safely operate and service this equipment could result in injury or death. This equipment should only be operated and serviced by qualified personnel.

### IMPORTANT SAFETY INFORMATION

**A DANGER** DO NOT operate cable puller in wet or damp locations.

▲ DANGER DO NOT expose to rain.

**A DANGER** DO NOT operate in an explosive atmosphere.

**▲ DANGER** DO NOT use near energized circuits.

**A WARNING**DO NOT use cable puller as a hoist or for lifting, supporting or transporting people or loads. Use only for its intended purpose as a cable puller.

**A WARNING** DO NOT wrap rope around any body parts. DO NOT wrap rope around wrists. Hold rope so that it may be released quickly.

▲ WARNING ALWAYS keep rope away from operator's feet.

▲ WARNING DO NOT exceed load rating of cable puller, rope or accessories.

**AWARNING** ALWAYS inspect rope before each use.

**AWARNING** ALWAYS disconnect cable puller before servicing.

ALWAYS plug the Model 66 Cable Puller into a grounded receptacle with a 15 amp GFCI protected circuit. DO NOT modify the plug provided with the Model 66 Cable Puller.

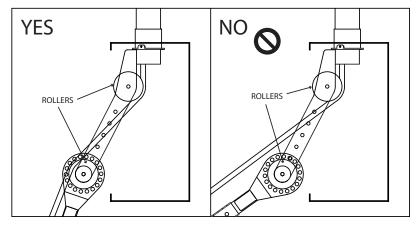
**ALWAYS** ensure cable puller is properly secured to conduit and all pins are in place before operating.

▲ WARNING Pulling Rope should be the only thing to contact the capstan.

NEVER let swivels, grips, etc. come in contact with the capstan.

A WARNING Rope must ALWAYS be pulled over a <u>rotating</u> sheave. If a sheave does not rotate, turn cable puller off immediately and determine problem before continuing the pull.

▲ WARNING Set up the cable puller so that pulling rope ALWAYS contacts both rollers. (See drawing below.)



### —— IMPORTANT SAFETY INFORMATION continued ———

<b>▲ WARNING</b>	ONLY use <sup>3</sup> / <sub>4</sub> " or larger double-braided composite pulling rope,
<b>▲ WARNING</b>	or a pulling rope with a average breaking strength of 26,000 lbs. NEVER allow the rope to slip on a rotating capstan for more than a couple of seconds. The rope will wear in that spot and the rope could break under pressure.
<b>▲</b> WARNING	Keep all body parts, hair, loose clothing, etc. away from rotating parts and pinch points. Keep hands away from capstan.
<b>▲ WARNING</b>	DO NOT allow the rope to overlap on the capstan. If this condition begins to occur, immediately release the tailing force on the rope. If this does not remedy the overlap, stop the puller and run the puller in reverse to unwind the overlap.
<b>▲ WARNING</b>	During the pull, all personnel must stand to the side of the cable puller and out of the direct line of tight pulling rope.
<b>▲ WARNING</b>	The cable puller must be attached to steel conduit or schedule 40 PVC conduit only. When attached to PVC conduit, the conduit MUST be supported within 2" of the end.
<b>▲ WARNING</b>	ALWAYS inspect pins to be sure they are fully inserted through holes and have spring clips properly attached. DO NOT substitute any other object for factory supplied pins.
<b>▲ WARNING</b>	When making a vertical cable pull, keep the area underneath the cable pull clear of all personnel.
<b>▲ WARNING</b>	Keep fingers away from adjustment holes and pivoting parts. Fingers can be severed by pivoting parts.
<b>▲ WARNING</b>	Keep as much rope confined in conduit as possible. This will help prevent injury should the rope break and whip violently.
<b>▲ CAUTION</b>	DO NOT alter this cable puller. Doing so will void the warranty. Guards and safety features are provided for your protection.
<b>▲ CAUTION</b>	Wear eye protection when operating the cable puller.
<b>▲ CAUTION</b>	Inspect all components of the cable puller before beginning any cable pull. Replace any worn or defective components.
<b>▲ CAUTION</b>	Be careful during assembly and disassembly of the cable puller. Have control of components before removing any pins.
<b>▲ CAUTION</b>	DO NOT use an extension cord longer than 100 ft. Extension cord should be a minimum of 12 gauge wire with ground.
<b>▲</b> CAUTION	Some components of the pulling package exceed 50 lbs. and will require more than on person to lift.
<b>▲ CAUTION</b>	The motor, gear box and capstan may heat up during the pull. Be careful.
<b>▲ CAUTION</b>	ALWAYS pull in the direction of the arrows on top of the capstan.

### **SPECIFICATIONS**

**model no.** — 66 Cable Puller mounted on 4 Wheel Carriage

width — 25" depth — 42"

height — 46"

fully extended length — 93"

weight — 190 lbs. – Cable puller mounted

on 4 wheel carriage

maximum pulling force — 6,000 lbs.

speeds — <u>no load</u>

Low – 12 ft./min. High – 44 ft./min.

motor — 120 volts AC, 60 hertz, 13 amps

**pulling rope** — <sup>3</sup>/<sub>4</sub>" or larger double braided composite pulling

rope, or a pulling rope with a minimum

breaking strength of 26,000 lbs.

### **FEATURES**

- Integral heavy-duty 2 speed motor
- Quick-release conduit couplings
- 4 wheel carriage contains all components (see photo 1 at right)
- Tapered capstan
- Integral foot switch
- Permanently lubricated vent-free gear box
- Easy mobility of complete puller with 4 wheel carriage
- Foot switch storage pocket (see photo 2 below)



Photo 1



Photo 2

#### **SET-UP AND OPERATING INSTRUCTIONS**

Model 66 Cable Puller shown pinned for transport on 4 wheel mobile carriage.





1 From the transport position, remove the extension arm locking retainer pin.



**2** Remove the puller mount locking retainer pin.



**3** With the swivel casters brakes disengaged, lift the motor end of the puller so that the adjustable boom touches the floor.

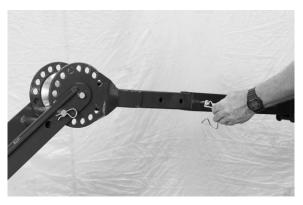


4 Continue to lift the motor end and pull the carriage until the extension arm is straight. Reinsert the extension arm locking retainer pin to secure the tube, making sure to secure the pin with the attached clip.

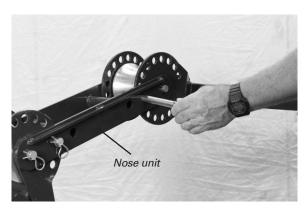
#### **SET-UP AND OPERATING INSTRUCTIONS** continued



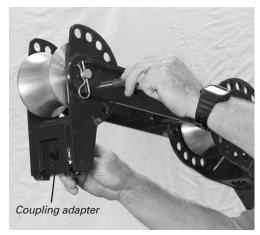
**5** Raise the boom to a comfortable working height for adjusting the nose unit and insert the puller mount locking retainer pin, making sure to secure the the pin with the attached clip.



6 Next, to position the adjustable boom to the desired length for the pull, remove the locking retainer pin that goes through the adjustable boom and re-pin at the desired length, making sure to secure the pin with attached clip. NOTE: The adjustable boom can be removed and turned for either an up pull or a down pull.



7 The angle of the nose unit can be adjusted for multiple pulling angles by removing the angle adjustment pin on the adjustable boom. Select the angle needed for the pull and reinsert the pin, making sure to secure the pin with the spring clip.



8 An additional angle adjustment can be made on the nose unit coupling adapter. Remove the angle adjustment pin and adjust the coupling adapter to the desired angle. Re-insert the angle adjustment pin, making sure to secure the pin with the spring clip.

#### **SET-UP AND OPERATING INSTRUCTIONS** continued



**9** The standard couplings for the model # 66 puller are stored on the puller frame. Choose the correct size coupling for the conduit you are pulling in and insert into the coupling adapter by pushing the receiver plate of the coupling into the coupling adapter until the spring loaded pawl "snaps" into the receiver plate. See figures 9A through 9C.





**10** Model 66 puller shown pinned together and ready for a pull





9b



YES NO

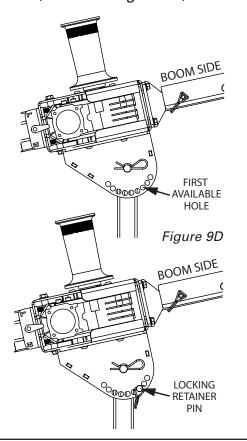
**A WARNING** Set up the cable puller so that pulling rope ALWAYS contacts both rollers. (See drawing at left).

11 Next, move the cable puller into position. While maintaining control of the boom, remove the puller mount locking retainer pin that you installed in step #5. Fully insert the coupling into the conduit until the ring of the coupling sits flush on the conduit. If the coupling is not at the correct angle to fully insert

during a pull.



into the conduit, adjust the angle of the coupling adapter or the length of the adjustable boom. Lock the two swivel casters and tighten the coupling thumb screw onto the conduit. Insert the locking retainer pin through the first available hole in the puller mount that is on the boom side of the upright (See figure 9D). NOTE: ALWAYS ensure the locking retainer pin is NOT inserted into the boom transport hole (see exploded view on page 13)



#### SET-UP AND OPERATING INSTRUCTIONS continued



12 The operator may stand on either side of the cable puller. Place the foot switch on the side the operator will be standing. Plug the cord into a 15 amp GFCI protected outlet.



**13** Push the FWD/ REV switch to the *forward* position.



14 Depress the foot switch and check the rotation of the capstan with the pulling rotation direction decal on the cable puller.



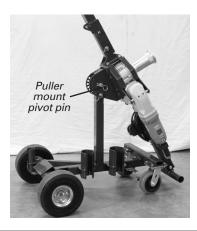
15 Next, turn the High/ Low speed switch to the desired position, "H" or "L".



16 To begin the pull, place 2 to 3 wraps of the pulling rope around the capstan. Depress the foot switch and begin the pull. If the amount of tension (tailing force) you have to put on the pulling rope exceeds approximately 10 lbs., then turn the cable puller off and add one wrap of the pulling rope to the capstan.



17 When the pull is completed, pull the ring on the back of the coupling adapter to separate the coupling from the coupling adapter. NOTE: Be sure to loosen the thumb screw if you have tightened it against the conduit.



NOTE: The Model 66 puller can be disassembled from, and used without the 4 wheel carriage. Remove the puller mount pivot pin and lift the puller off of the carriage.



66 puller shown in position for an up pull without the 4 wheel carriage.

### **COMMON SET-UPS**





#### **UP PULL**





#### **DOWN PULL**

**A WARNING** NEVER allow the rope to slip on a rotating capstan for more than a couple of seconds. The rope will wear in that spot and the rope could break under pressure.

**A WARNING** Keep fingers away from adjustment mount holes and pivoting parts. Fingers can be severed by pivoting parts.

**A WARNING** DO NOT allow the rope to overlap on the capstan. If this condition begins to occur, immediately release the tailing force on the rope. If this does not remedy the overlap, stop the puller and run the puller in reverse to unwind the overlap.

**A CAUTION** The motor, gear box and capstan may heat up during the pull. Be careful.



Unplug the cable puller before servicing.



DO NOT alter this cable puller. Doing so will void the warranty. Guards and safety features are provided for your protection.

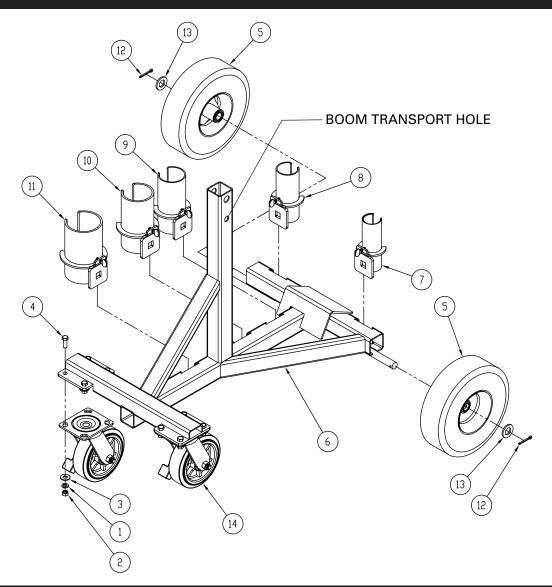
#### Capstan

Replace the capstan if it is grooved more than  $\frac{1}{16}$  deep.

#### **Gear Box**

The Model 66 Cable Puller has a vent-free gear box and is factory lubricated for life with synthetic, semi-fluid gear lubricant with an operating range of +5°F to +220°F.

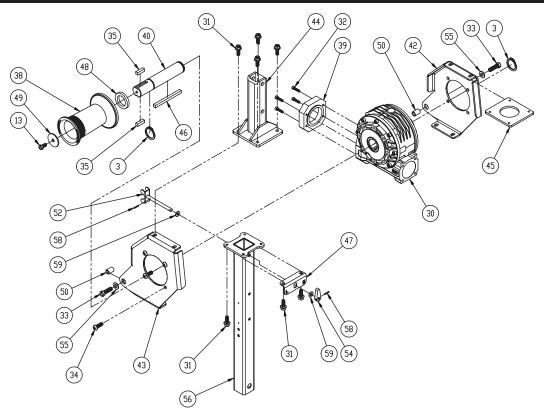
# EXPLODED VIEW — 4 WHEEL CARRIAGE



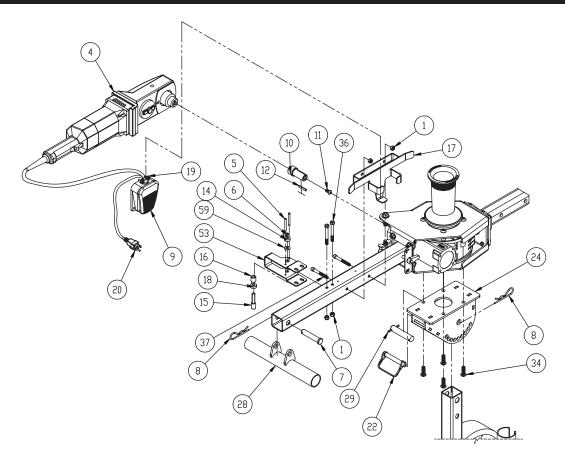
# PARTS LIST — 4 WHEEL CARRIAGE

ITEM #	PART #	DESCRIPTION	QTY.
1	452-27	WASHER-LOCK MEDIUM 3/8 ZINC	8
2	452-28	NUT-HEX ZINC (3/8-16)	8
3	506-3	WASHER-FLAT 3/8 (USS) ZINC	8
4	524-11	3/8-16 × 1.0" HEX HEAD SCREW	8
5	66-004	WHEEL	2
6	66-119	BASE	1
7	66-51	COUPLING-2"	1
8	66-52	COUPLING-2 1/2"	1
9	66-53	COUPLING-3"	1
10	66-54	COUPLING-3 1/2"	1
11	66-55	COUPLING-4"	1
12	77-016	COTTER PIN-3/16 x 1 1/4" LONG	2
13	77-017	WASHER-FLAT 3/4" (SAE)	2
14	752-104	CASTER - SWIVEL	2

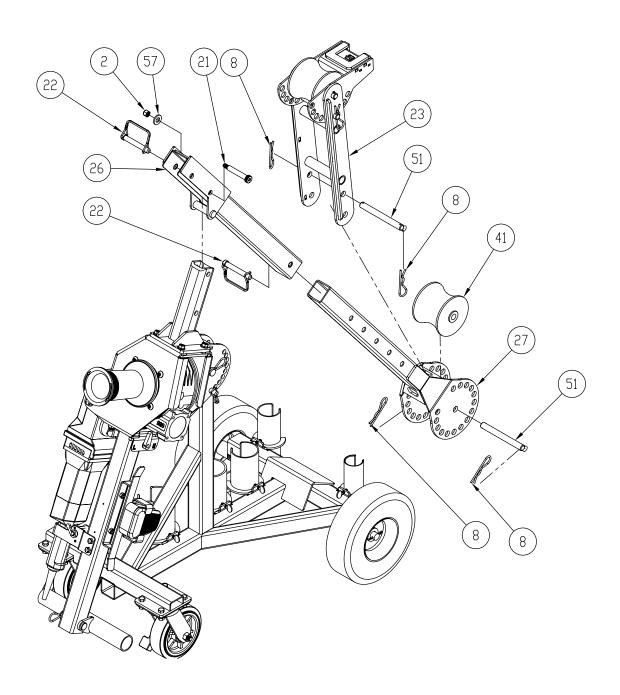
## EXPLODED VIEW — GEAR ASSEMBLY



## EXPLODED VIEW — DRIVE ASSEMBLY



# EXPLODED VIEW — BOOM ASSEMBLY





# PARTS LIST — 66 CABLE PULLER

ITEM #	PART #	DESCRIPTION	QTY.
1	2-1301-4	NUT-HEX NYLON INSERT (5/16"-18)	4
2	2-1501-4	NUT-HEX NYLON INSERT (3/8-16)	1
3	280-8B	RING-RETAINING H.D. EXT (1.5)	2
4	33-1	MOTOR	1
5	33-12	PIN-ROLL, 3/16 × 1-7/8	2
6	33-19	RING-RETAINING 3/8 EXTERNAL	1
7	33-24	PIN 5/8" CLEVIS	1
8	33-36	R CLIP	6
9	33-45	FOOT SWITCH	1
10	33-460	ADAPTER SHAFT	1
11	33-460 SCREW	SCREW-SOCKET HEAD CAP (M6 × 25 LEFT HAND THREAD)	1
12	33-49	KEY 3/16" SQ × 1-1/4"	1
13	33-53	SCREW-HEX HEAD CAP GR5 ZINC (3/8-16 × 3/4)	1
14	33-699	LEVER-DRILL SWITCH	1
15	33-702	BAR-ACTUATOR, SWITCH	1
16	33-702	SPACER-DRILL SWITCH	1
17	33-705	FOOT SWITCH HOLDER	1
18	33-735	CAM-DRILL SWITCH	1
19	450-18	STRAIN RELIEF	1
	450-18	POWER CORD	+ -
20		SCREW-SHOULDER SOCKET (1/2" X 2.75")	1
21	66-001	` '	1
22	66-003	LOCKING RETAINER PIN, ZINC (1/2" X 3")	3
23	66-111	NOSE UNIT	1
24	66-114	PULLER MOUNT	1
25	66-300	66 CART ASSEMBLY	1
26	66-125	EXTENSION ARM	1
27	66-127	ADJUSTMENT TUBE	1
28	66-138	FOOT	1
29	66-143	PULLER MOUNT PIN ASSEMBLY	1
30	66-2	GEARBOX	1
31	66-30	SCREW-HEX FLANGE (3/8-16 × 1)	8
32	66-32	SCREW-SOCKET HEAD CAP (M6 × 25)	4
33	66-33	SCREW-HEX HEAD CAP GR5 ZINC (7/16-14 × 1.5)	2
34	66-37	SCREW-BUTTON HEAD SOCKET (M10 × 30)	8
35	66-38	KEY 3/8" SQ X 1-1/4"	2
36	66-39	SCREW-HX HD CAP (5/16-18 x 2.75"	2
37	66-40	SCREW- SOCKET HEAD CAP (5/16-18 × 2.5")	2
38	66-595	CAPSTAN-6K PULLER	1
39	66-598	ADAPTER CAP	1
40	66-599	CAPSTAN SHAFT	1
41	66-600	ROLLER	1
42	66-601	GEARBOX MOUNTING BRACKET	1
43	66-601A	GEARBOX MOUNTING BRACKET	1
44	66-605	TUBE CONNECTED WELDMENT	1
45	66-643	BACK-UP PLATE	1
46	66-66	KEY 3/8" SQ × 4-3/4"	1
47	66-660	SELECTOR SWITCH PLATE	1
48	66-661	CAPSTAN BEARING WASHER	1
49	66-662	CAPSTAN RETAINING WASHER	1

# PARTS LIST — 66 CABLE PULLER (CONTINUED)

50	66-663	MOTOR SPACER	2
ITEM #	PART #	DESCRIPTION	QTY.
51	66-684	PIN-66 PULLER	2
52	66-685	HI/LO WELDMENT	1
53	66-695	BRACKET FAB-SWITCH	1
54	66-742	HI/LO SWITCH	1
55	66-76	WASHER-FLAT 7/16" (SAE)	2
56	66-971	LOWER TUBE WELDMENT	1
57	77-017A	WASHER-FLAT SAE ZINC (1/2)	1
58	77-035A	ROLL PIN 1/8 × 3/4	2
59	9544-16	WASHER, FLAT 5/16"	3

# WIRING DRAWING - FOOT SWITCH

