

IToolCo

User's Guide



CANNON 3K™

1325 CARDEN FARM DRIVE | CLINTON, TN 37716 | 865.670.3713 | ITOOLCO.COM
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GENERAL SAFETY RULES

WARNING! Read and understand all instructions. Failure to follow all instructions listed below may result in electric shock, fire, and/or serious personal injury.

SAVE THESE INSTRUCTIONS

WORK AREA SAFETY

Keep your work area clean and well lit. Cluttered benches and dark areas invite accidents.

Do not operate power tools in explosive atmospheres, such as in the presence of flammable liquids, gases, or dust. Power tools create sparks which may ignite the dust or fumes.

Keep bystanders, children, and visitors away while operating a power tool. Distractions can cause you to lose control.

ELECTRICAL SAFETY

Grounded tools must be plugged into an outlet properly installed and grounded in accordance with all codes and ordinances. Never remove the grounding prong or modify the plug in any way. Do not use any adapter plugs. Check with a qualified electrician if you are in doubt as to whether the outlet is properly grounded. If the tools should electrically malfunction or break down, grounding provides a low resistance path to carry electricity away from the user.

Avoid body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerators. There is an increased risk of electric shock if your body is grounded.

Do not expose power tools to rain or wet conditions. Water entering a power tool will increase the risk of electric shock.

Do not abuse the cord. Never use the cord to carry the tools or pull the plug from an outlet. Keep cord away from heat, oil, sharp edges or moving parts. Replace damaged cords immediately. Damaged cords increase the risk of electric shock.

When operating a power tool outside, use an outdoor extension cord marked “W-A” or “W.” These cords are rated for outdoor use and reduce the risk of electric shock.

PERSONAL SAFETY

Stay alert, watch what you are doing and use common sense when operating a power tool. Do not use tool while tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating power tools may result in serious personal injury.

Dress properly. Do not wear loose clothing or jewelry. Contain long hair. Keep your hair, clothing, and gloves away from moving parts. Loose clothes, jewelry, or long hair can be caught in moving parts.

Avoid accidental starting. Be sure switch is off before plugging in. Carrying tools with your finger on the switch or plugging in tools that have the switch on invites accidents.

Remove adjusting keys or switches before turning the tool on. A wrench or a key that is left attached to a rotating part of the tool may result in personal injury.

Do not overreach. Keep proper footing and balance at all times. Proper footing and balance enables better control of the tool in unexpected situations.

Use safety equipment. Always wear eye protection. Dust mask, non-skid safety shoes, hard hat, or hearing protection must be used for appropriate conditions.

TOOL USE AND CARE

Use clamps or other practical way to secure and support the workpiece to a stable platform. Holding the work by hand or against your body is unstable and may lead to loss of control.

Do not force tool. Use the correct tool for your application. The correct tool will do the job better and safer at the rate for which it was designed.

Do not use tool if switch does not turn it on and off. Any tool that cannot be controlled with the switch is dangerous and must be repaired.

Disconnect the plug from the power source before making any adjustments, changing accessories, or storing the tool. Such preventive safety measures reduce the risk of starting the tool accidentally.

Store idle tools out of reach of children and other untrained persons. Tools are dangerous in the hands of untrained users.

Maintain tools with care. Keep cutting tools sharp and clean. Properly maintained tools, with sharp cutting edges, are less likely to bind and are easier to control.

Check for misalignment or binding of moving parts, breakage of parts, and any other condition that may affect the tool's operation. If damaged, have the tool serviced before using. Many accidents are caused by poorly maintained tools.

Use only accessories that are recommended by the manufacturer for your model. Accessories that may be suitable for one tool may become hazardous when used on another tool.

SERVICE

Tool service must be performed only by qualified repair personnel. Service or maintenance performed by unqualified personnel could result in a risk of injury.

When servicing a tool, use only identical replacement parts. Follow instructions in the “Maintenance” section of this manual. Use of unauthorized parts or failure to follow maintenance instructions may create a risk of electric shock or injury.



BEFORE OPERATION OF THIS TOOL, READ AND UNDERSTAND ALL OF THE INSTRUCTIONS AND SAFETY INFORMATION IN THIS MANUAL



Contents

SAFETY FIRST 3

SAFETY ALERT SYMBOLS..... 3

IMPORTANT SAFETY INFORMATION 4

DESCRIPTION AND IDENTIFICATION..... 6

SET UP AND OPERATION 8

LIMITED WARRANTY: ITOOLCO CANNON 3K 19

SAFETY FIRST

Safety is essential in the use and maintenance of this tool. This instruction manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

SAFETY ALERT SYMBOLS

This symbol is used to call your attention to hazards or unsafe practices that could result in injury or property damage. The three signal words, defined below, indicate the severity of the hazard. The message after the signal word provides the information for preventing or avoiding the hazard.



DANGER

Immediate hazards that, if not avoided, **WILL** result in severe injury or death.



WARNING

Hazards that, if not avoided, **COULD** result in severe injury or death.



CAUTION

Hazards or unsafe practices that, if not avoided, **MAY** result in injury or property damage.

IMPORTANT SAFETY INFORMATION



WARNING

Read and understand all instructions and safety information in this manual before operating or servicing this tool.

Also read the instruction manual supplied with your drill.

FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SEVERE INJURY OR DEATH



WARNING – PERSONAL SAFETY HAZARDS

Only qualified persons should use the Cannon 3K.

Wear eye protection and hard hat when using this tool.

Do not use this tool while tired or under the influence of drugs, alcohol, or medication.

Keep body parts and loose clothing away from moving parts.

Always follow operating procedures.

FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SEVERE INJURY OR DEATH.



WARNING – ELECTRICAL SHOCK HAZARDS

Do not expose power tools to rain or wet conditions. Water entering a power tool can increase the risk of electric shock.

Plug into a (GFCI) ground fault interrupted circuit outlet only.

Use a 20 Amp 120 Volt extension cord no more than 100 feet in length. Maintain proper care of power cords. Do not use the

cord to carry the tool or pull the plug from an outlet. Replace damaged cords immediately. Damaged cords can increase the risk of electrical shock. Do not use this tool near live circuits.

Shut off and lock out power when working near existing

circuits. FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SEVERE INJURY OR DEATH.

**WARNING – ENTANGLEMENT HAZARD**

Do not operate this tool while wearing loose-fitting clothing. Retain long hair.

Keep hands away from pullers capstan. Rope at capstan can pinch or crush a hand or body part.

FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SEVERE INJURY OR DEATH.

**WARNING – TIPPING HAZARD**

Use the same size adapter with conduit. Lock adapter under conduit nut. Disassemble when not in use. FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SEVERE INJURY OR DEATH.

**WARNING – TOOL USE HAZARDS**

Use this tool for manufacturer's intended purpose only. Use other than that which is described in this manual can result in injury or property damage.

Do not use nylon or polypropylene rope. Extreme force can be stored when rope stretches. Inspect all aspects of the wire pull to ensure safety.

Inspect all aspects of the wire pull to ensure safety.

Only qualified personnel should use pulling equipment.

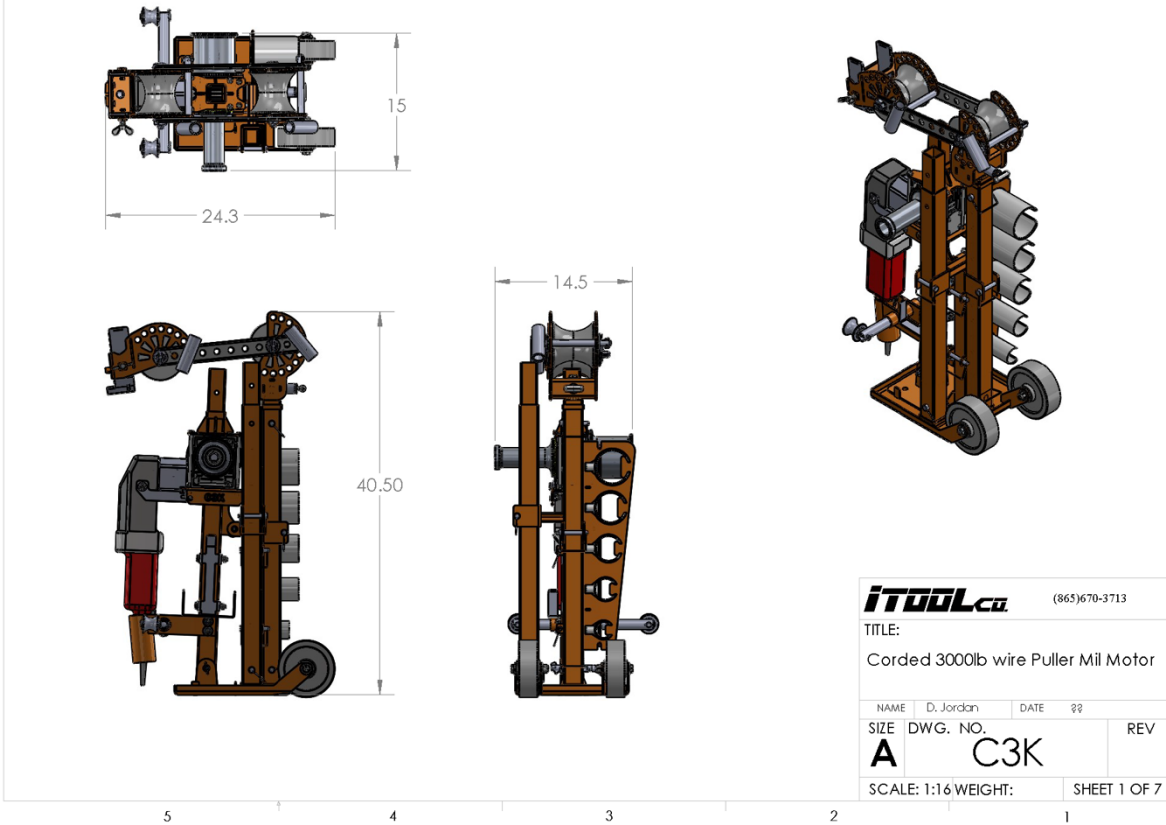
Do not use the cable puller as a hoist or winch. The cable puller cannot lower a load. The load may fall and cause serious injury or death.

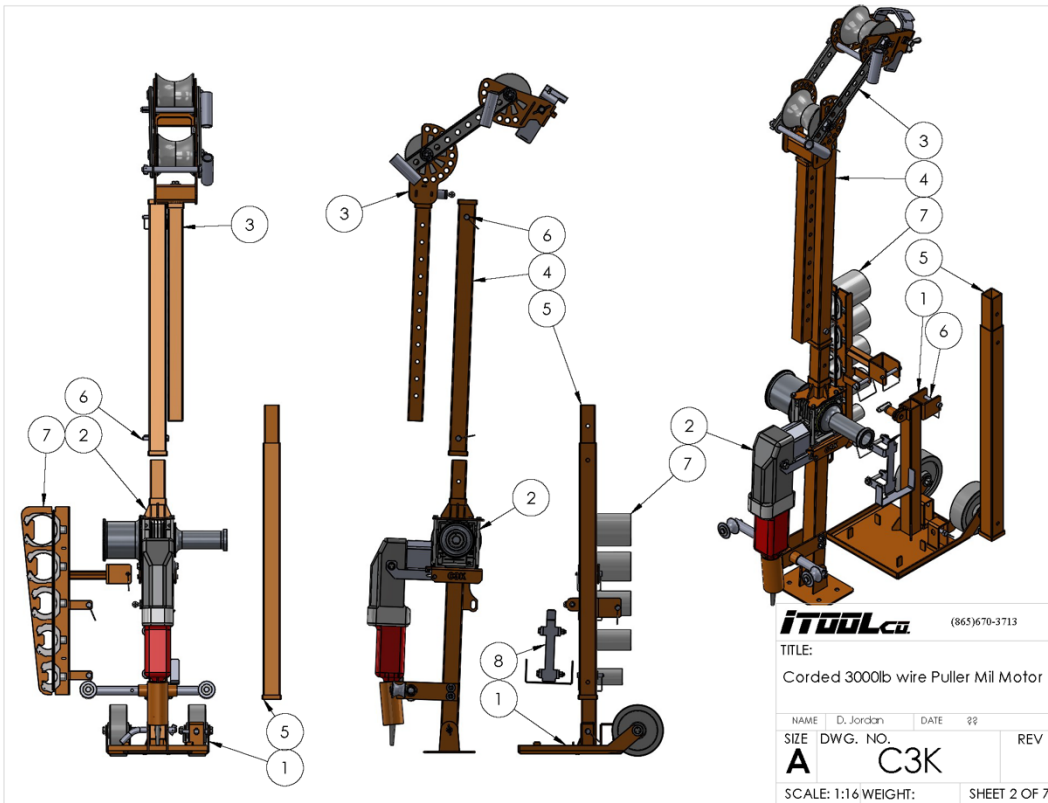
FAILURE TO OBSERVE THESE WARNINGS CAN RESULT IN SEVERE INJURY OR DEATH.

DESCRIPTION AND IDENTIFICATION

The iTOOLCo Cannon 3K is a 3,000 lb. cable puller intended to pull small to medium wire through conduit.

**C3K Cored 3000lb capacity wire pulling unit
Shown Collapsed for Transport**

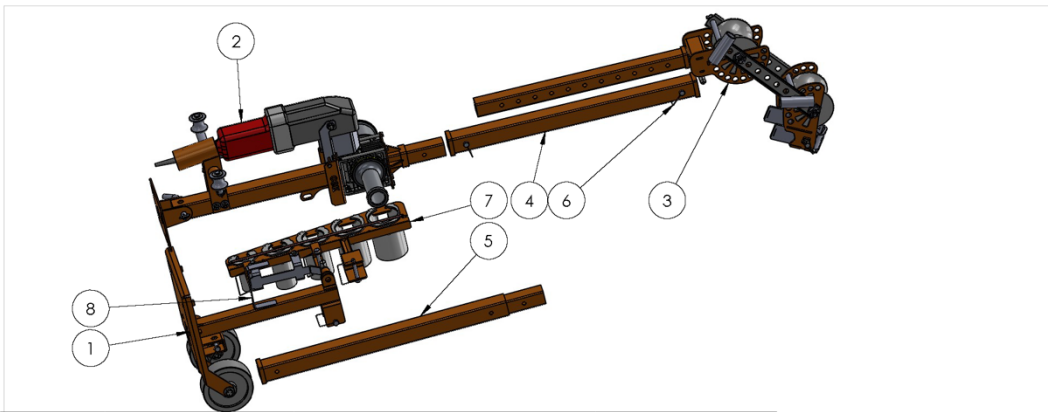




ITOOlCO (865)670-3713

TITLE:
Corded 3000lb wire Puller Mil Motor

NAME	D. Jordan	DATE	??
SIZE	DWG. NO.	REV	
A	C3K		
SCALE: 1:16 WEIGHT:		SHEET 2 OF 7	

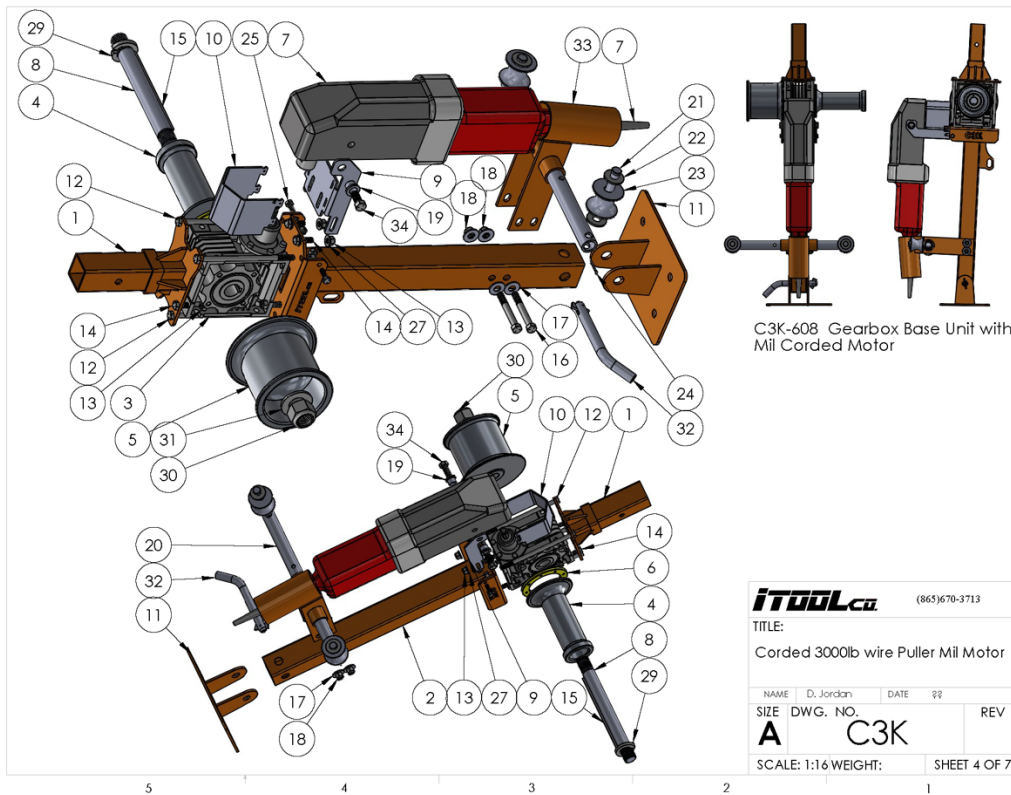


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C3K-604	Assembled Cart Base	1
2	C3K-608	3K Gearbox Base Unit Corded Mil motor	1
3	C3K-602	Main and front roller assem with extensions	1
4	C6K-409.2	Outer Extensionn w/ weld on sleeves	1
5	C6K-408	Additional Extension	1
6	SP-181	3/8 Pin w/ retainer	4
7	C3K-605	Adapter Plate and Adapters	1
8	C3K-421	Footswitch and Cord Wrap, bolt on Coated	1
9	HW-142	3/8" 16t X 3" Hex Bolt	2
10	HW-146	3/8" Flat Washer	4
11	HW-306	3/8 16T x nyloc nut	2

ITOOlCO (865)670-3713

TITLE:
Corded 3000lb wire Puller Mil Motor

NAME	D. Jordan	DATE	??
SIZE	DWG. NO.	REV	
A	C3K		
SCALE: 1:16 WEIGHT:		SHEET 3 OF 7	

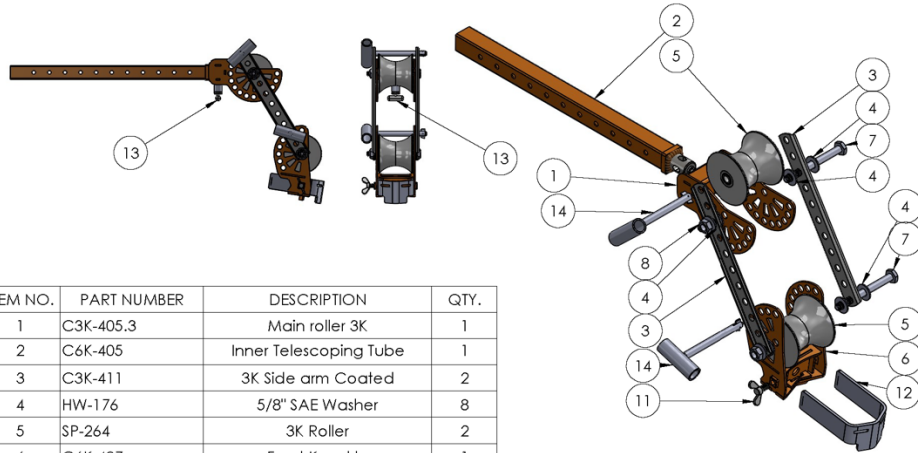


ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C3K-401	Gearbox Top	1
2	C3K-402	Gearbox Bottom	1
3	GB-006	3K Gearbox	1
4	C3K-100M	High Torque Capstan	1
5	C3K-101M	High Speed Capstan	1
6	SP-274	3K Brass bearing	1
7	SP-305	SP-141S with SP-304 Hex Coupling Installed	1
8	SP-273	3k Output Shaft	1
9	C3K-414C	Corded Milwaukee motor mount	1
10	C3K-227C	Short Cover for Corded Motor	1
11	C6K-402	Base Plate	1
12	HW-352	5/16" 18T x 6.5L G5 Bolt	4
13	HW-353	5/16" 18T Nylock Hex Nut	10
14	HW-354	5/16" 18T x 1"L G5 Hex Bolt	6
15	HW-355	5/16" Sq. x7"L Key Stock	1
16	HW-142	3/8" 16t X 3" Hex Bolt	2
17	HW-146	3/8" Flat Washer	4
18	HW-306	3/8 16t x nyloc nut	2
19	SP-108	Capture Bushing	2
20	C6K-410	Coated Rope roller tube	1
21	HW-254	1/2" X 3"L Clevis pin	2
22	HW-166	1/2" flat washer	4
23	SP-109	Rope roller	2
24	HW-222	1/8" cotter pin	2
25	HW-120	1/4"-20t x 7/8" hex bolt	2
26	HW-128	1/4 20 Nyloc nut	2
27	HW-357	5/16" Flat Washer	4
28	HW-250	.25 Hitch Pin	1
29	HW-358	1" Split Lock Washer	1
30	HW-358	1" 8T Nylock Nut	1
31	HW-200	1" Flat Washer	1
32	SP-185	5/8" Bent Hitch Pin	1
33	C3K-420	Handle Motor Mount	1
34	HW-158	7/16" x 1" Long Hex Bolt	2

IToolCo (865)670-3713
 TITLE:
 Corded 3000lb wire Puller Mil Motor
 NAME: D. Jordan DATE: ??
 SIZE: A DWG. NO.: C3K REV: C3K
 SCALE: 1:16 WEIGHT: SHEET 4 OF 7

IToolCo (865)670-3713
 TITLE:
 C3K-608 Gearbox Base Unit BOM
 NAME: D. Jordan DATE: ??
 SIZE: A DWG. NO.: C3K REV: C3K
 SCALE: 1:16 WEIGHT: SHEET 5 OF 7

C3K-602 Inner Extension, Mainand Front Knuckles complete Assembly



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C3K-405.3	Main roller 3K	1
2	C6K-405	Inner Telescoping Tube	1
3	C3K-411	3K Side arm Coated	2
4	HW-176	5/8" SAE Washer	8
5	SP-264	3K Roller	2
6	C6K-407	Front Knuckle	1
7	HW-175	5/8" 11t x 6.5" Bolt	2
8	Hw-182	5/8" nyloc nut	2
9	HW-159	1/2" 13T x .75"L Bolt	1
10	HW-166	1/2" flat washer	1
11	HW-164	1/2" 13t Wing Bolt	1
12	CK-10	Universal Adapter	1
13	SP-001.2	Pull Pop Pin	1
14	SP-182	5/8" Hitch Pin w/ Flashlight Holder	2

IToolCo (865)670-3713

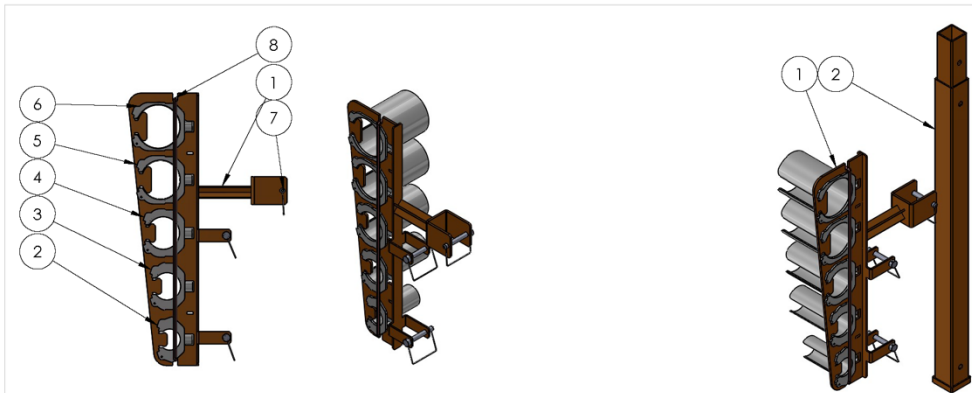
TITLE:
C3K-602 Inner Ext. and Both rollers

NAME | D. Jordan | DATE ??

SIZE DWG. NO. REV

A **C3K**

SCALE: 1:16 WEIGHT: SHEET 6 OF 7



C3K-605 Adapter Plate and Adapters Bill of materials

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C3K-410	Adapter plate	1
2	CK-20	2" Conduit Adapter	1
3	CK-25	2.5" Conduit Adapter	1
4	CK-30	3" Conduit Adapter	1
5	CK-35	3.5" Conduit Adapter	1
6	CK-40	4" Conduit Adapter	1
7	SP-181	3/8 Pin w/ retainer	3
8	SP-189	18" Orange bungee	1

C3KAP 3K Accessory Pack includes C3K-605 and C6K-408 additional ext.

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	C3K-605	Adapter Plate and Adapters	1
2	C6K-408	Additional Extension	1

IToolCo (865)670-3713

TITLE:
Corded 3000lb wire Puller Mil Motor

NAME | D. Jordan | DATE ??

SIZE DWG. NO. REV

A **C3K**

SCALE: 1:16 WEIGHT: SHEET 7 OF 7

SET UP AND OPERATION

Step 1. Inspect Puller for damage.
Figure 1.



Figure 1

Step 2. Install adapter plate securing in place with retainer pins. Figures 2-6.



Figure 2

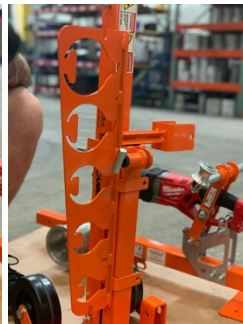


Figure 3



Figure 4



Figure 5



Figure 6

Step 3. Install the adapters securing in place with 18" bungee cord.

Note: 5" and 6" adapters are also available separately. Figures 7-13.

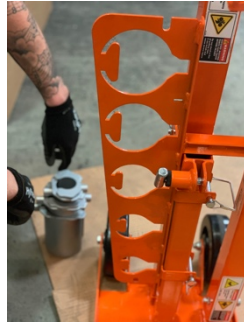


Figure 7



Figure 8



Figure 9



Figure 10



Figure 11

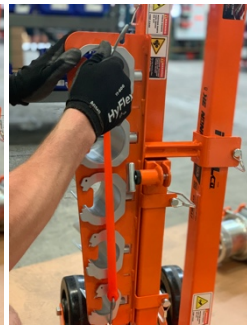


Figure 12



Figure 13

Step 4. Install extension securing in place with retainer pins. Figures 14-17.



Figure 14

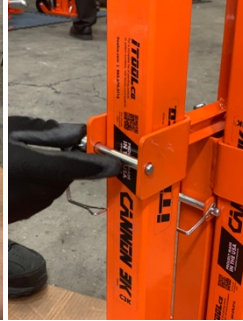


Figure 15

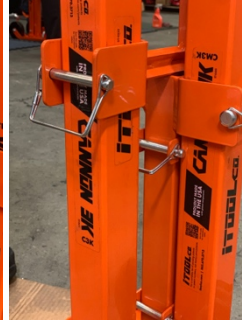


Figure 16



Figure 17

Step 5. Install main roller arm to puller. Figures 18-24.

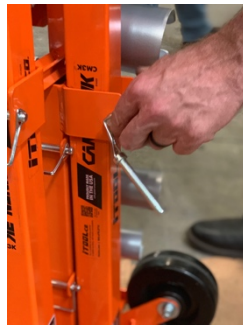


Figure 18



Figure 19

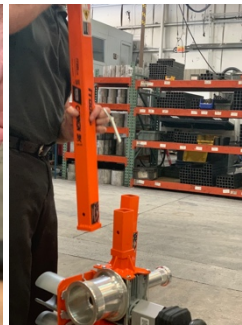


Figure 20

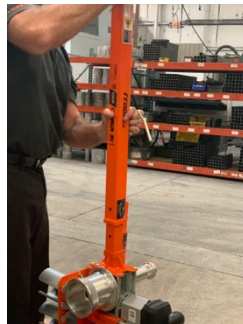


Figure 21



Figure 22

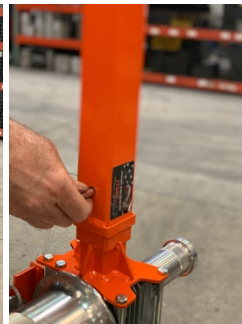


Figure 23

Step 6. Adjust the main roller and front roller pins for proper alignment (see Fig. 33). All pins must be inserted in place prior to pulling. Figures 25-33.

Seat puller in the conduit. Adapter should be level or flat matching the conduit. Figure 33.



Figure 25

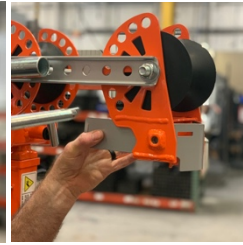


Figure 26



Figure 27

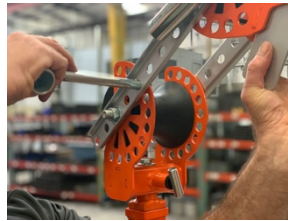


Figure 28



Figure 29

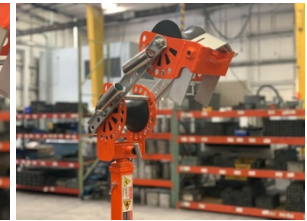


Figure 30

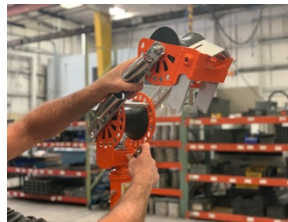


Figure 31

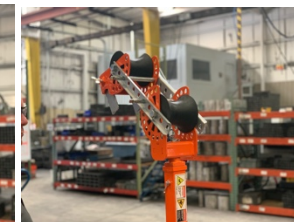


Figure 32



Figure 33

Step 7. Extend the puller as needed for extra wire. Figure 34.



Figure 34

Attaching Conduit Adapters

Attaching Conduit Adapters

Option 1 - Using the universal adapter

1. Loosen the 1/2" bolt on either side of the front knuckle.
2. Slide the universal adapter in or out to accommodate the appropriate size of conduit, as shown in Figure 3.
3. Make sure that the adapter engages the conduit as shown in Figure 4.

Option 2 - Using the appropriate 2" - 4" adapter (Figure 2).

1. Place the desired conduit adapter size into the top of the universal adapter. Figures 5 and 6.
2. Slide the adapters toward the puller until the male pin on the adapter engages the female opening and stops. Tighten the 1/2" bolt on the side of the front knuckle. Figure 7.
3. Remove the adjustment hitch pin. Slide the puller into position and place the conduit adapter into the conduit. Figure 8.
4. Replace all hitch pins.



Fig. 1



Fig. 2



Fig. 3



Fig. 4



Fig. 5



Fig. 6



Fig. 7



Fig. 8

Overhead Wire Pull

1. Convert the Cannon 3K to an overhead configuration by removing the cinch pin at the main knuckle. Pull the snap pin, and rotate the front end right or left to the desired position.
2. Adjust front knuckle and main knuckle for proper alignment of the adapter into and onto the conduit.
3. Use the universal adapter if the pull is under 5,000 lbs. If the pull is over 5,000 lbs. attach the correct size adapter and thread the rope through the adapter.
4. Install and tighten all pins.
5. Do not stand in-line with the rope being pulled, (stand to the side of the puller) to avoid injury if the rope breaks. Note: Use only low stretch rope designed for wire pulling.
6. Use proper lubricant or no-lube wire to make pulling jobs smoother.
7. Determine which capstan to use. For lighter loads at high speed, use the large diameter capstan. For heavy loads, use the small diameter capstan. Note: To achieve optimum pulling speed, listen to the sound of the motor. If the motor is straining, switch to the small diameter capstan.
8. Loosely wrap rope around the appropriate capstan. Step on the included foot switch to start the capstan turning. Pull on the rope to produce some tension. The rope will begin to advance. Note: If balling or backlashing occurs, reduce the number of wraps around the capstan.
9. Maintain tension on the rope. The rope will slip on the capstan during normal operation. Keep the rope moving so that it does not contact one area of the capstan for more than a few seconds, or it may heat up and break.

Note: Do not exceed about 45 N (10 lbs.) of tension on the rope. If the pull becomes difficult, add another wrap or two of rope to the capstan. If excessive force becomes necessary, stop the pull and inspect the set up.



Underground Wire Pull

1. Pivot front extension assembly as needed and reinsert pin.
2. Lift up front end and place conduit adapter into conduit. Always make sure conduit adapter sits flush around the conduit you are pulling through.
3. Replace pin in front assembly to lock all parts tight. (This must be pinned for the puller to operate safely and properly.)
4. Make sure side set screw is tight on the universal adapter.
5. Stand to the side of the puller, using the rope guide, not in line with the rope being pulled, to avoid injury if the rope breaks.

Note: iTOOLCo Pull Slick or only low stretch rope designed for wire pulling, 1/4" to 9/16" sizes.

6. Use proper pulling lubricant to make pulling jobs smoother (on feed side).
7. Determine which capstan you will use. For lighter loads at high speed, use the large diameter capstan. For heavy loads, use the small diameter capstan.
Note: To achieve optimum pulling speed, listen to the sound of the motor. If the motor is straining, switch speeds or swap to the small diameter capstan.
8. Loosely wrap rope around the appropriate capstan, using the rope guide, so that you can stand safely to the side of the puller. Start the capstan turning by stepping on the included footswitch. Pull on the rope to produce some tension. The rope will begin to advance. Note: if the rope begins to ball or backlash, reduce the number of wraps around the capstan.
9. Pull and release tension on rope to maintain optimum pulling tension. This will keep the rope from balling up or backlashing. The rope will slip on the capstan during normal operation.
10. Keep the rope moving so that the capstan does not contact one spot on the rope for a short period of time, or the rope may heat up and break. Do not exceed about 45 N (10 lbs.) of tension on the rope. Note: If the pull becomes difficult, add another wrap or two of rope to the capstan. If excessive force becomes necessary, stop the pull and inspect the set up.

Insert all Pins Prior to Pulling or Use



Receiver Hitch Wire Pulls

1. Remove front assembly from gear box section.
2. Remove base plate pin and remove base plate.
3. Slide base tube into trailer receiver hitch with the capstans horizontal (motor toward the ground).
4. Secure puller to receiver hitch with base plate pin.
5. Wrap the rope as a bottom feed. Show below (Under Bottom Rope Start in Receiver Hitch Only).





Maintenance

Gear box is filled with high-temperature synthetic gear lubricant. Maintenance is required every 200 hours of actual pulling time. Gearbox takes 15.22 oz. 450 cc's of Shell synthetic Omala S4We or equal.

In order to drain and refill the gear box oil, start by unbolting the motor and lifting it up off of the gearbox shaft. Next loosen the nut holding the large capstan in place and remove it, then slide the small capstan and shaft out of the gearbox (be careful not to lose the aluminum spacer and brass bearing on the shaft).

Now that the capstans have been removed, take out the gearbox housing bolts on both sides of the gearbox, and remove the gearbox from the housing. The oil drain is located on the bottom of the gearbox, drain and refill with the appropriate amount of oil. Always make sure that puller is clean and in good working order before use. Replace any worn rollers or rusty pins before use. Always make sure that Cannon 3K is clean and in good working order before use. Replace any worn rollers or rusty pins before use.



LIMITED WARRANTY: ITOOLCO CANNON 3K

iTOOLco warrants all new Cannon 3K pullers covered by his agreement, when properly used, to be free from defects in material and workmanship under normal use and service for which it is intended for a period of one year from date of delivery by the dealer. Date of delivery shall be the date product is placed in possession of the user. NORMAL WEAR FROM USE IS NOT PART OF THIS WARRANTY. This limited warranty is extended to the original user only and is not transferrable to, nor enforceable by any other person.

iTOOLco will replace free of charge any part(s) of the product found to be defective when such part(s) is returned to iTOOLco at the address shown below, freight prepaid. If the part(s) is found to be defective, iTOOLco will refund freight charges paid by you in returning the defective part(s) and prepay replacement part(s) freight charges. iTOOLco will not be responsible for more than replacement of any defective part(s) and standard freight charges (parcel post or UPS ground rate) of any part(s) found to be defective.

THIS IS THE EXCLUSIVE REMEDY. ITOOLCO SHALL NOT BE RESPONSIBLE OR LIABLE FOR ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY DEFECTS COVERED BY THIS WARRANTY OR ANY IMPLIED WARRANTY APPLICABLE TO THE PRODUCT INCLUDING, BUT NOT LIMITED TO, PROPERTY DAMAGE, LOSS OF USE OF PRODUCT, LOSS OF TIME, LOSS OF PROFITS, INCONVENIENCE, COMMERCIAL LOSS, LABOR COSTS, SERVICE TRIPS, AND MILEAGE.

Some states do not allow limitation on how long an implied warranty lasts, so the above limitation may not apply to you.

Dealer/Distributor Warranty Claim Procedure

1. All warranty claims must be pre-approved by iTOOLco Warranty Department PRIOR to starting any warranty work. Warranty work performed without prior approval will not be considered.
2. All claims must be handled through dealer/distributor.
3. Written approval must be received from iTOOLco before return of merchandise. A Return Authorization is to be returned with the merchandise which is sent back.
4. All parts must be returned to iTOOLco at the address shown below, freight prepaid.
5. The serial number of the product and the date of delivery must accompany the part(s) being returned.
6. If the part(s) is found to have failed because of a defect in material or workmanship, replacement will be made on a no-charge basis, and the part(s) returned, freight prepaid. Standard freight charges (parcel post or UPS ground rate) incurred in returning the part(s) will be refunded.
7. For reasons of expediency, replacement and/or repair part(s) may be shipped as soon as possible and billed to the dealer/distributor. When part(s) is returned, if it is covered under warrant, credit will be issued for the part(s) and freight charges.
8. All parts found to be defective shall be retained by and shall become the property of iTOOLco. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Corporate Address: iTOOLco
1325 Carden Farm Drive
Clinton, TN 37716

