TERMS AND CONDITIONS

HOW TO ORDER

In order to avoid mistakes or delays of your shipment, please refer to our part number and description.

PRICES

Since prices are subject to change we cannot guarantee them for more than 30 days. The prices listed are valid for the period indicated on the cover of the price list only. Prices are Net F.O.B. Factory, Santa Fe Springs, California.

SALES TAX

Gorlitz Sewer & Drain, Inc. is required to charge applicable State Sales Tax on every item sold unless a California State Sales Tax Exemption Certificate has been provided.

FREIGHT POLICY

All merchandise shipped per parcel service are prepaid and added to the invoice. All shipping fees per trucking lines are the responsibility of the customer. If any freight damages or losses are experienced, Gorlitz Sewer & Drain, Inc. requests that the freight company carrying the merchandise be contacted by the customer for freight claims.

MERCHANDISE CLAIMS AND RETURN POLICY

All discrepancies in goods received must be claimed within five days after receipt of goods. Any item to be returned must be referenced by invoice number, date of sale and written consent of seller.

GORLITZ LIMITED WARRANTY

All products manufactured at Gorlitz Sewer & Drain, Inc. are warranted to be free from defects in material and workmanship under normal use and maintenance for a period of one (1) year from date of purchase to original buyer. If any parts break or fail, we ask you to notify your nearest dealer or Gorlitz Sewer & Drain, Inc. and supply us with proof of purchase and nature of failure. Gorlitz will repair or replace (at our option) any parts found to be defective. The replacement part assumes the unused portion of the warranty. Transportation of the product to any service station is the responsibility of the user unless stated otherwise in this warranty.

This warranty does not apply to expendable items (Cables, Knives, Nozzles, Hoses, Fittings, etc.) and damage due to negligence, unauthorized repair or alteration, chemicals, misuse or accidents. Adjustments of any kind can not be made on shaved, kinked or broken hoses and kinked or broken cables because it shows evidence of abuse or to much pressure.

This warranty is exclusive and in lieu of all other expressed warranties and Gorlitz Sewer & Drain, Inc. does not authorize any part to assume for it any other obligation or liability. In no event shall Gorlitz Sewer & Drain, Inc. be liable for special or consequential damages arising from the use of this product or for any delay in the performance of this warranty due to causes beyond our control.

In placing this order Buyer expressly understands, acknowledges and agrees that: (1) Buyer has received and read the Operating and Maintenance Instructions that accompanied this equipment order, including Gorlitz's Limited Warranty and all of the other Terms and Conditions of doing business with Gorlitz Sewer & Drain, Inc. ("Gorlitz") as stated therein; (2) Buyer will operate and maintain the equipment in accordance with the specifications stated in the Instructions; (3) Buyer indemnifies and holds Gorlitz harmless for Buyer's failure to use the equipment in accordance with the specifications stated in the Instructions; (4) the equipment is being sold to Buyer on an "as is" and "where is" basis and that except as specifically set forth in this agreement, Gorlitz makes no other representations or warranties, whether express or implied; and (5) all disputes arising under this agreement shall be submitted to courts of competent jurisdiction in the State of California and the prevailing party in any action or proceeding to enforce any provision of this agreement will be awarded reasonable attorney fees and costs incurred in that action or proceeding or in efforts to negotiate the matter.

MANUFACTURERS WARRANTIES AND LITERATURE

Most products used on our equipment are warranted to the final consumer by their manufacturers. Copies of such warranties are supplied with our products or are available from the manufacturers. As a service, Gorlitz Sewer & Drain, Inc. will obtain copies of consumer warranties from the warrantor and will furnish them free of charge to consumers upon request. Gorlitz Sewer & Drain, Inc. assumes no responsibility for the content of such warranties or sales literature by performing this service.

Due to a continuing program of product improvement, Gorlitz Sewer & Drain, Inc. reserves the right without obligation to revise prices, specifications and equipment.



GORLITZ & DRAIN INC.

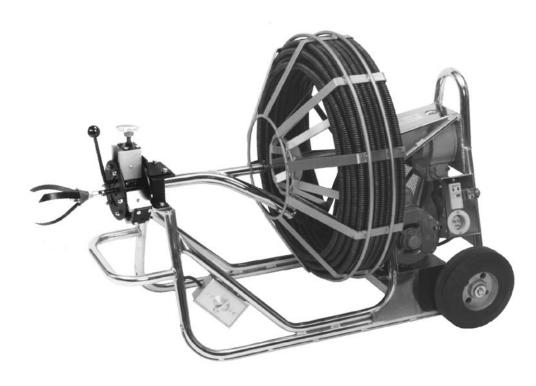
10132 NORWALK BLVD. SANTA FE SPRINGS, CA. 90670

E-MAIL: SALES@GORLITZ.COM INTERNET: HTTP://WWW.GORLITZ.COM

OPERATING AND MAINTENANCE INSTRUCTIONS



SEWER & DRAIN CLEANING MACHINES & POWER CABLE FEEDERS



GO 68HD

GO 68

GO 15

GO 380 SERIES GO 50 SERIES

GO 62 SERIES

WARNING

DO NOT ATTEMPT TO OPERATE ANY SEWER OR DRAIN CLEANING MACHINE UNTIL YOU HAVE READ AND THOROUGHLY UNDERSTAND ALL INSTRUCTIONS, RULES, ETC. CONTAINED IN THIS MANUAL. FAILURE TO COMPLY CAN RESULT IN ACCIDENTS INVOLVING FIRE, ELECTRIC SHOCK, OR PERSONAL INJURY. MAINTAIN OWNERS MANUAL AND REVIEW FREQUENTLY FOR CONTINUING SAFE OPERATION.

GENERAL SAFETY INSTRUCTIONS

KNOW YOUR EQUIPMENT: READ OWNERS MANUAL CAREFULLY. LEARN ITS APPLICATIONS AND LIMITATIONS.

GUARD AGAINST ELECTRIC SHOCK: GROUND ALL ELECTRIC SEWER OR DRAIN CLEANING MACHINES PROPERLY. ALL MACHINES ARE EQUIPPED WITH A THREE (3) PRONG PLUG. IT SHOULD BE PLUGGED INTO A THREE (3) HOLE ELECTRICAL RECEPTACLE. IF YOU MUST USE A THREE PRONG ADAPTER TO ACCOMMODATE A TWO (2) HOLE RECEPTACLE, CONNECT GREEN WIRE OF ADAPTER TO A KNOWN GROUND, ACOLD WATER PIPE, GROUND ROD, ETC.

GROUND FAULT CIRCUIT INTERRUPTER (GFCI): GORLITZ SEWER AND DRAIN CLEANING MACHINES ARE PROVIDED WITH A STANDART 20 AMP, 120 VOLT GFCI TO PROTECT THE OPERATOR FROM ELECTRIC SHOCK HAZARDS CAUSED BY POSSIBLE GROUND FAULTS. THIS GFCI MEETS ALL REQUIREMENTS OF THE NATIONAL ELECTRICAL CODE (NEC) AND OCCUPATIONAL SAFETY AND HEALTH ACT. ULLISTED.

EXTENSION CORD: USE MINIMUM 12 GAUGE WIRE SIZE, THREE WIRE TYPE EXTENSION CORD IN GOOD CONDITION. NEVER YANK EXTENSION CORD TO DISCONNECT FROM MACHINE OR RECEPTACLE.

AVOID ACCIDENTAL STARTING: BE SURE THE SWITCH IS TURNED OFF BEFORE PLUGGING INTO ANY ELECTRICAL SOURCE.

AVOID DANGEROUS ENVIRONMENT: DO NOT EXPOSE OR OPERATE MACHINE IN RAIN OR USE IN DAMP OR WET LOCATIONS. DO NOT OPERATE IN PRESENCE OF FLAMMABLE LIQUIDS OR GASES.

WEAR PROPER APPAREL: FOR ADDED PROTECTION WHEN OPERATING MACHINE, USE RUBBER GLOVES AND RUBBER BOOTS WITH NON SKID SOLE.

KEEP UNAUTHORIZED PERSONS AWAY: ALL SPECTATORS SHOULD BE KEPT AT A SAFE DISTANCE, ESPECIALLY CHILDREN.

KEEP WORK AREA CLEAN: KEEP AWAY ALL LOOSE OBJECTS LIKE EXTENSION CORDS, TOOLS, WRENCHES, SHIRT SLEEVES, ETC. FROM ROTATING CABLES, DRUMS AND REELS.

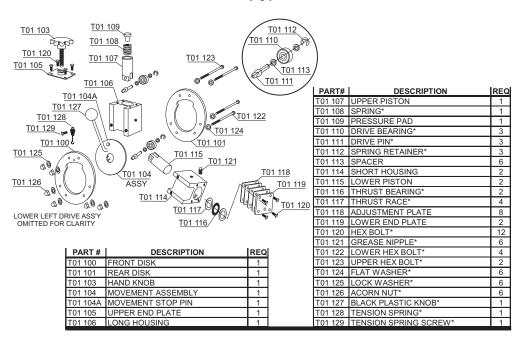
DISCONNECT MACHINE: UNPLUG MACHINE WHEN NOT IN USE, BEFORE SERVICING, WHEN CHANGING CABLES. REELS. DRUMS. BLADES. CHUCKS. KNIVES. ETC.

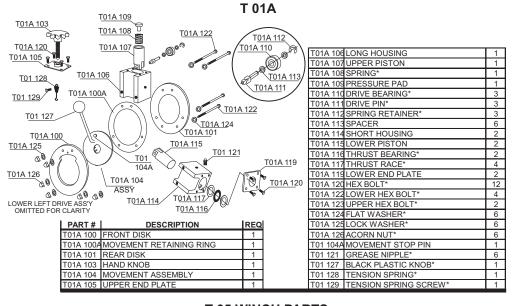
USE PROPER TOOL: DO NOT OVERLOAD MACHINES. SEE OUR MODEL COMPARISON CHART FOR REFERENCE ONLY.

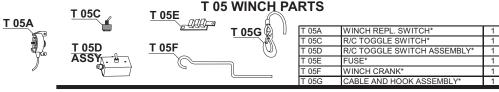
STAY ALERT: WATCH WHAT YOU ARE DOING AND USE COMMON SENSE. DO NOT OPERATE MACHINE WHILE UNDER THE INFLUENCE OF DRUGS, ALCOHOL OR MEDICATION.

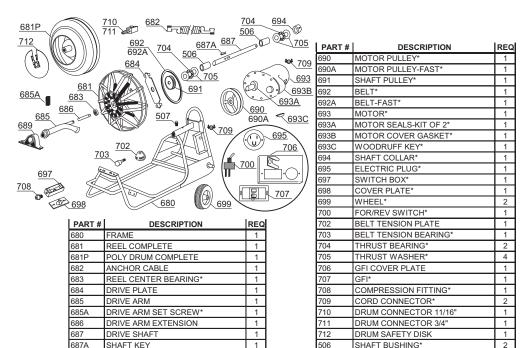
MAINTAIN MACHINES WITH PROPER CARE: KEEP ALL SEWER AND DRAIN CLEANING EQUIPMENT CLEAN FOR BEST AND SAFEST PERFORMANCE. FOLLOW INSTRUCTIONS FOR LUBRICATION, CHANGING ACCESSORIES AND MAINTENANCE.

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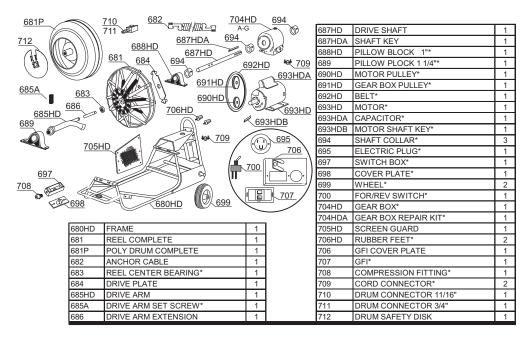


Go 68HD

507

ZERK FITTING*

PILLOW PLOCK 1 1/4"*



UNCRATING AND CHECKING CONTENTS

GORLITZ SEWER AND DRAIN CLEANING MACHINES ARE SHIPPED ASSEMBLED WITH CABLES INSTALLED IN REELS OR DRUMS. IN ORDER TO FACILITATE PACKING, CERTAIN ITEMS LIKE CHUCKS, BLADES, FEEDER, ETC.. ARE NOT ATTACHED TO EQUIPMENT AND MUST BE ASSEMBLED WHEN RECEIVED BY PURCHASER. DUE TO SHIPMENT AND HANDLING BY VARIOUS FREIGHT COMPANIES, INSPECTALL ITEMS AND CHECK FOR DAMAGED PARTS. INSPECT CABLES FOR KINKS, CHECK FOR ALIGNMENT OF MOVING PARTS, RETIGHTEN SET SCREWS ON DRIVE ARM, DRIVE PLATE, PULLEYS, BELT TENSIONER, ETC. AND ANY OTHER CONDITIONS THAT MAY AFFECT ITS OPERATION.

WARNING: WHEN UNLOADING MACHINE FROM SHIPPING CARTON, DO NOT ALLOW MACHINE TO DROP, FALL OR SLAM HARD ON ITS BACK FRAME. THE SUDDEN IMPACT MAY BEND THE DRIVE SHAFT AND/OR DAMAGE THE BEARINGS OR PILLOW BLOCKS.

BROKEN THRUST BEARINGS AND FRACTURED RACES ARE A DIRECT RESULT OF THIS ABUSE. AND ARE NOT COVERED UNDER THE MANUFACTURER'S OR GORLITZ'S WARRANTY.

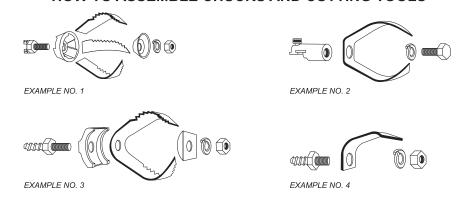
LUBRICATION

ALL GORLITZ SEWER AND DRAIN CLEANING MACHINES SHOULD BE GIVEN THE BEST OF CARE. IF KEPT CLEAN AND PROPERLY LUBRICATED, IT WILL PROVIDE MANY YEARS OF TROUBLE-FREE SERVICE. THE FOLLOWING INSTRUCTIONS SHOULD BE CAREFULLY OBSERVED AT ALL TIMES:

- SHAFT PILLOW BLOCKS, DRIVE ARM PILLOW BLOCKS AND BELT TENSIONER BEARINGS HAVE BEEN PACKED AT THE FACTORY WITH PROPER LUBRICANT AND REQUIRE NO ADDITIONAL LUBRICATION.
- OIL OR GREASE ALL POINTS WHERE FRICTION EXISTS BETWEEN TWO OR MORE MOVING PARTS.
- SPECIAL ATTENTION SHOULD BE GIVEN WHERE A SLIP FIT IS NECESSARY, ESPECIALLY BETWEEN DRUM OR REEL AND DRIVE SHAFT. REMOVE DRUM OR REEL PERIODICALLY IN ORDER TO APPLY GREASE TO THE INSIDE OF DRUM OR REEL CENTER TUBE AND DRIVE SHAFT.
- GREASE ALL REELS, WHEELS AND SHAFT SLEEVES EQUIPPED WITH ZERK FITTINGS.
- TO LUBRICATE MOTOR, CONSULT SEPARATE MOTOR MANUAL.
- O TO MAINTAIN GEAR BOX, REFER TO ADDITIONAL GEAR BOX MANUAL.
- TO SERVICE HANDYGUN SEE SEPARATE CARE AND OPERATING INSTRUCTIONS.

NOTE: IF MACHINE IS NOT IN USE FOR SOMETIME, SPRAY CABLE WITH WD40 OR APPLY ANY GRADE MOTOR OIL TO PREVENT CABLE FROM OXIDATION.

HOW TO ASSEMBLE CHUCKS AND CUTTING TOOLS



MODEL COMPARISON CHART

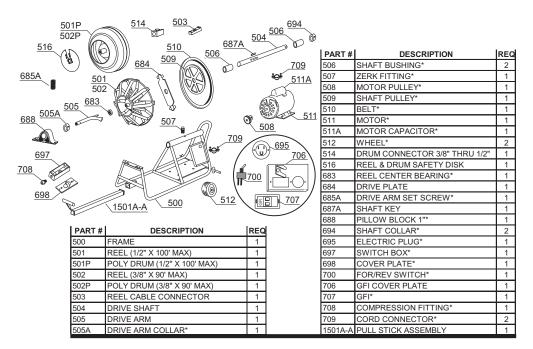
MODEL	CABLE SIZE	MOTOR	CABLE RPM	PIPE DIAMETER	APPLICATION
GO 15 LITTLE ROOTER	1/4" X 35'	1/6 HP CAPACITOR	265	1 1/4" TO 2"	TUBS SINKS SHOWERS
GO 31 HANDYGUN*	5/16" X 25'	1.85 AMP	0-500	1 1/4" TO 2"	TUBS SINKS SHOWERS
GO 250 DRAIN CLEANING MACHINE	1/4" X 50'	1/4 HP CAPACITOR	235	1 1/4" TO 2"	TUBS SINKS SHOWERS
GO 380 DRAIN CLEANING MACHINE	3/8" X 65'	1/4 HP CAPACITOR	235	1 1/2" TO 3"	ROOFS VENTS SMALL DRAINS
GO 380A DRAIN CLEANING MACHINE	3/8" X 90'	1/4 HP CAPACITOR	235	1 1/2" TO 3"	ROOFS VENTS SMALL DRAINS
GO 380/250 DRAIN CLEANING MACHINE	3/8" X 65' 1/4" X 50'	1/4 HP CAPACITOR	235	1 1/4" TO 3"	SINKS, VENTS SHOWERS, TUBS SMALL DRAINS
GO 380A/250 DRAIN CLEANING MACHINE	3/8" X 90' 1/4" X 50'	1/4 HP CAPACITOR	235	1 1/4" TO 3"	SINKS, VENTS SHOWERS, TUBS SMALL DRAINS
GO 50 SERIES DRAIN CLEANING MACHINE	1/2" X 80'	1/3 HP CAPACITOR	190	2" TO 3"	VENTS SMALL DRAINS LIGHT ROOTS
GO 50A SERIES DRAIN CLEANING MACHINE	3/8" X 90'	1/3 HP CAPACITOR	190	1 1/2" TO 3"	VENTS SMALL DRAINS
GO 50B SERIES DRAIN CLEANING MACHINE	13/32" X 75'	1/3 HP CAPACITOR	190	1 1/2" TO 3"	VENTS SMALL DRAINS
GO 62 SERIES COMBINATION SEWER & DRAIN CLEANING MACHINE	3/8" X 90' 1/2" X 80' 5/8" X 100'	1/3 HP CAPACITOR	165	1 1/2" TO 4"	VENTS GREASE DRAINS
GO 62A SERIES SEWER CLEANING MACHINE	5/8" X 100'	1/3 HP CAPACITOR	165	3" TO 4"	DRAINS GREASE MEDIUM ROOTS
GO 68 SERIES SEWER CLEANING MACHINE	11/16" X 150'	1/2 HP GEARED	160	3" TO 8"	DRAINS, ROOTS SAND, GREASE DIAPERS
GO 68HD SERIES SEWER CLEANING MACHINE	11/16" X 150'	3/4 HP CAPACITOR GEARED	175	3" TO 10"	DRAINS, ROOTS SAND, GREASE DIAPERS

 $THE \, MODEL \, COMPARISON \, CHART \, PICTURED \, ABOVE \, SHOULD \, BE \, ONLY \, USED \, AS \, GUIDELINE. \, ITS \, SUGGESTED \, APPLICATIONS \, MAY \, VARY \, DEPENDING \, ON \, SITE \, OF \, LOCATION, \, AGE, \, BENDS, \, MATERIAL \, AND \, LENGTH \, OF \, DRAINAGE \, PIPE \, AND \, OPERATOR.$

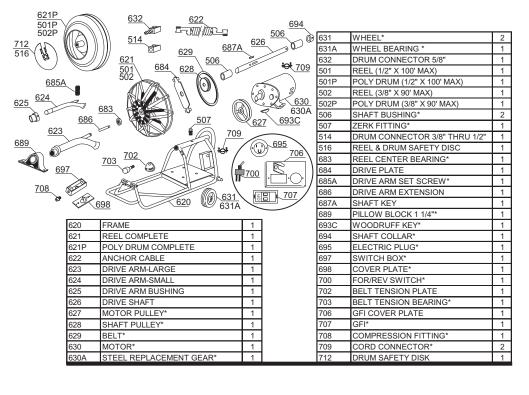
GENERAL OPERATING INSTRUCTIONS

(EXCEPT HANDYGUN MODEL GO31)

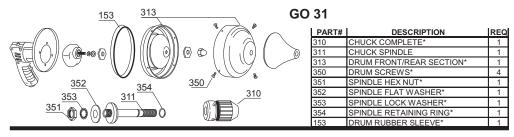
- 1. POSITION MACHINE AS CLOSE AS POSSIBLE TO CLEAN OUT. MAXIMUM 3 FEET DISTANCE BETWEEN MACHINE AND OPENING WORKED ON.
- 2. ATTACH YOUR CHOICE OF CUTTING TOOL.

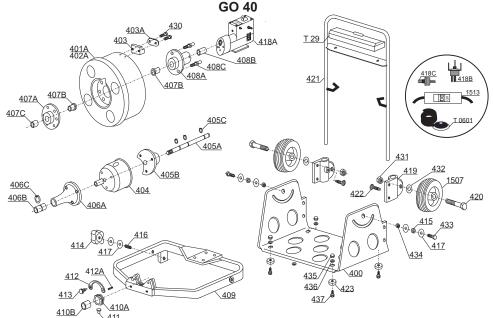


GO 62



^{*} SEE SEPERATE MANUFACTURER'S OPERATING INSTRUCTIONS FOR MODEL GO 31 HANDYGUN.





PART#	DESCRIPTION	REQ
400	FRAME	1
401	DRUM ASS'Y COMPLETE 1/2"	1
401A	DRUM	1
402	DRUM ASS'Y COMPL. 3/8,13/32"	1
402A	DRUM	1
403	CABLE CLAMP	1
403A	CLAMP BACK PLATE	1
404	HUB ASSEMBLY	1
405	DRIVE SHAFT ASSEMBLY	1
405A	DRIVE SHAFT	1
405B	DRIVE SHAFT DISC *	1
405C	RETAINING RING *	3
406	FRONT CONE ASSEMBLY	1
406A	CONE *	1
406B	SLEEVE	1
406C	RETAINING RING *	1
407	DRUM DISC ASSEMBLU	1
407A	DRUM DISC *	1
407B	SHOULDER BUSHING *	2
407C	BUSHING *	1
408	DRIVE DISC ASS'Y COMPL.	1
408A	DRIVE COUPLING	1
408B	BUSHING *	1
408C	DRIVE PIN	2
409	DRUM SUPPORT CASTING *	1
410	DRIVE ARM RETAINER ASS'Y	1
410A	HEX RETAINER	1
410B	BUSHING *	1
411	RETAINER SUPPORT	1

PART#	DESCRIPTION	REC
412	RETAINER CLAMP	1
412A	ROLL PIN *	1
413	LOCK PIN	1
414	PLASTIC KNOB *	1
415	SWIVEL BUSHING	2
416	CLAMPING STUD	1
417	NYLON WASHER *	6
418	MOTOR ASSEMBLY	1
418A	MOTOR *	1
418B	TOGGLE SWITCH ASSEMBLY *	1
418C	AIR SWITCH *	1
418D	HOSE CRIMP *	1
419	AXLE / HANDLE CASTING *	2
420	AXLE BOLT *	2
421	HANDLE ASSEMBLY	1
422	HANDLE LOCK SCREW *	2
423	RUBBER FEET *	4
430	HEX BOLT *	2
431	JAM NUT *	2
432	FLAT WASHER *	2
433	HEX BOLT *	
434	JAM NUT *	2
435	ACORN NUT *	4
436	FLAT WASHER *	4
437	HEX BOLT *	4
1507	WHEEL *	2
1513	CORD WITH GFI *	1
T 0601	FOOT PEDAL *	1
T29	TOOL BOX *	1

- 3. BEFORE PLUGGING EXTENSION CORD INTO RECEPTACLE MAKE SURE ON/OFF SWITCH ON MACHINE IS IN OFF POSITION.
 - IF YOU ARE OPERATING ANY MACHINE WITH AN ELECTRIC FOOT SWITCH:
 - PLUG FOOT SWITCH INTO MACHINE OUTLET.
 - O PUSH FEMALE END OF EXTENSION CORD INTO FOOT SWITCH.
 - PLUG MALE END OF EXTENSION CORD INTO ELECTRICAL SOURCE.
 - MOVE ON/OFF SWITCH ON MACHINE TO "ON" POSITION.
 - O STEP ON FOOT SWITCH AND MACHINE WILL START RUNNING.
 - IF YOU ARE OPERATING ANY MACHINE WITH AN AIR FOOT SWITCH:
 - STEP ON AIR BULB AND MACHINE WILL START RUNNING

WARNING: ALWAYS KEEP AIR HOSE CLEAR OF ANY MOVING PARTS. REPLACE ANY LEAKING OR DAMAGED COMPONENTS.

- 4. MOVE SWITCH TO "ON" POSITION. IN NORMAL OPERATING MODE, DRUM OR REEL MUST TURN COUNTER CLOCKWISE WHEN THE OPERATOR IS FACING THE MACHINE.
 - IF DRUM OR REEL TURNS CLOCKWISE, STOP MACHINE. ALL MODELS ARE EQUIPPED WITH A FORWARD/REVERSE SWITCH LOCATED AT THE ELECTRIC CONTROL BOX. FOR MODELS GO 380/250 SERIES AND GO 15 THE FORWARD/REVERSE SWITCH IS LOCATED AT THE COVER HOUSING. ONLY WHEN THE MACHINE COMES TO A COMPLETE STOP SWITCH THE FORWARD/REVERSE TOGGLE SWITCH INTO THE OPPOSITE DIRECTION.
- 5. FEED CABLE INTO SEWER LINE SLOWLY, FEELING YOUR WAY AS YOU GO. PLACE BOTH HANDS EQUALLY DISTANT BETWEEN MACHINE AND CLEAN-OUT. NEVER LET YOUR HANDS GO, AS YOUR HANDS PROVIDE A GUIDE FOR THE CABLE AND PREVENT THE CABLE FROM SWINGING, BUCKLING OR KINKING.
- 6. MOST IMPORTANT, KEEP THE CABLE ROTATING AT ALL TIMES.
- WHEN YOUR CUTTING TOOL MEETS BLOCKAGE, IT WILL SLOW DOWN OR EVEN MOMENTARILY STOP
 ROTATION OF CABLE. AS SOON AS YOU FEEL A RPM REDUCTION, PULL CABLE BACK IN ORDER TO
 PREVENT THE CUTTING TOOL FROM GETTING HUNG UP.

WARNING: AVOID RUNNING OF MACHINE AT LOW RPM'S FOR EXTENDED PERIOD OF TIME AS THE UNIT MAY BECOME OVERHEATED.

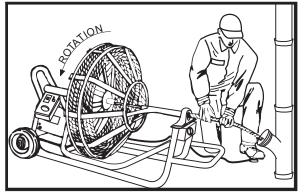
NOTE: IF YOUR CABLE GETS HUNG UP IN A MASS OF ROOTS, ETC. SWITCH OFF MACHINE IN ORDER TO ALLOW CABLE AND/OR REEL OR DRUM TO BACK SPIN. LET MACHINE COME TO A COMPLETE STOP.

NOTE: IF YOU ARE UNABLE TO RETRIEVE CABLE, SWITCH MACHINE INTO REVERSE AND RUN MOMENTARILY TO ALLOW CABLE TO UNWIND FROM STOPPAGE. ONCE CABLE IS FREE, PULL CABLE BACK FOR SEVERAL FEET, PLACE REVERSING SWITCH IN FORWARD POSITION AND THEN START MACHINE AGAIN.

- 8. AS SOON AS MOTOR IS AT FULL RPM AGAIN, FEEL YOUR CABLE AGAINST STOPPAGE. PUSH AND PULL CABLE IN QUICK SUCCESSION AGAINST AND FROM OBSTRUCTION UNTIL YOU BREAK THROUGH BLOCKAGE.
- 9. ONCE YOU'VE CUT THROUGH BLOCKAGE, PULL CABLE BACK FOR SEVERAL FEET. NOW PASS CABLE THROUGH SAME STOPPAGE LOCATION AGAIN AND ADVANCE CABLE TO NEXT LARGER DRAIN LINE CONNECTION OR TO MAIN SEWER LINE FOR A THOROUGH CLEANING JOB.
- 10. AFTER THE CUTTING AND CLEANING OPERATION IS COMPLETED, RETURN CABLE INTO DRUM OR REEL WITH MACHINE RUNNING IN ORDER FOR YOUR DRIVE ARM TO DISTRIBUTE CABLE INTO DRUM OR REEL EVENLY.

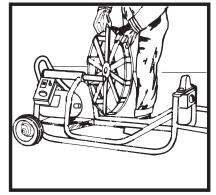
CAUTION: WHEN OPERATING MACHINE WITH A POWER CABLE FEEDER AND PULLER, DO NOT ALLOW ANY CABLE ENDS OR CABLE CONNECTORS TO PASS THROUGH FEEDER AS IT MAY DAMAGE OR BREAK THE FEEDER BEARINGS.

TO CLEAN SEWER LINE 100 FEET OR LONGER



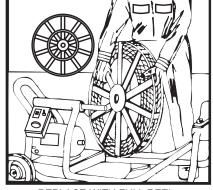
RUN OUT FULL LENGTH OF CABLE

STEP 2



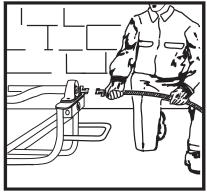
DISCONNECT AT ANCHOR CABLE AND REMOVE EMPTY REEL

STEP 3

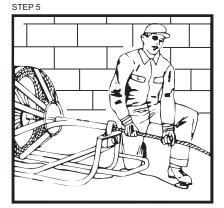


REPLACE WITH FULL REEL

STEP 4

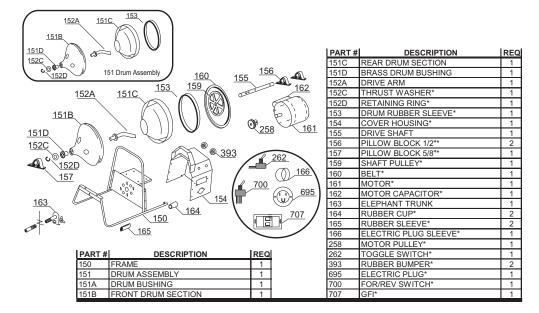


COUPLE CABLES TOGETHER

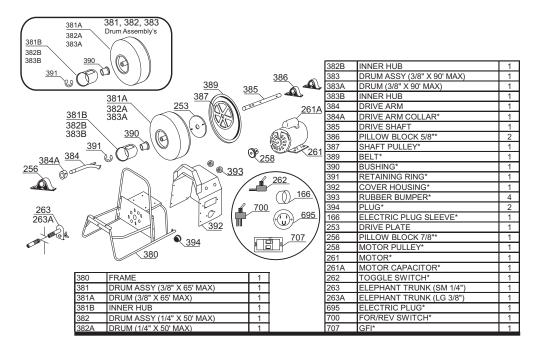


CONTINUE DOWN THE PIPE

MACHINE PARTS LIST GO 15



GO 380/250



OPERATIONAL INSTRUCTIONS FOR MODEL GO 40 SERIES

BEFORE OPERATING THIS MODEL READ ENTIRE OWNERS MANUAL CAREFULLY, LEARN ITS APPLICATIONS AND LIMITATIONS.

GENERAL INFORMATION

THIS MODEL IS AVAILABLE WITH TWO DIFFERENT DRUMS AND A VARIETY OF DIFFERENT CABLE SIZES AND CABLE LENGTHS TO CLEAR DRAIN PIPES FROM 1 ½" TO 3" IN DIAMETER AND UP TO 100 FEET IN LENGTH. THE SMALL DRUM ACCEPTS 3/8" OR 13/32" DIAMETER CABLES WHILE THE LARGER DRUM WILL HOLD 1/2" DIAMETER CABLES. THE OPTIONAL POWER CABLE FEEDER AND PULLER CAN BE INSTALLED AT ANY TIME. MOUNTING HOLES FOR THE FEEDER ARE PROVIDED AT THE FRONT OF THE DRUM SUPPORT CASTING.

THE DRUM IS ADJUSTABLE FROM A HORIZONTAL TO A VERTICAL POSITION. THE FOOT PEDAL IS AIR-ACTUATED TO ELIMINATE ANY ELECTRICAL CONTACT BETWEEN MOTOR AND FOOT PEDAL.

AIR FOOT PEDAL

PROPER OPERATION OF THE MACHINE CAN ONLY BY ASSURED IF THERE ARE NO AIR LEAKS BETWEEN THE FOOT PEDAL, AIR HOSE AND AIR SWITCH.

CAUTION: DO NOT PUNCTURE THE AIR BULB OR AIR HOSE. MACHINE WILL NOT OPERATE.

HOW TO INSTALL A NEW CABLE

- 1. UNCOIL CABLE TO BE INSTALLED AND LAY IN A STRAIGHT LINE ON THE FLOOR.
- 2. SLIDE CABLE THROUGH DRIVE ARM UNTIL CABLE APPROACHES CABLE CLAMP #403.
- 3. LOOSEN CABLE CLAMP IF NEEDED AND PUSH CABLE UNDER CABLE CLAMP APPROXIMATELY 2" IN LENGTH.
- TIGHTEN CABLE CLAMP WITH TWO HEX BOLTS #430. OVER TIGHTENING MAY DAMAGE DRUM CLAMP SECTION.
- 5. START MACHINE AND FEED REMAINING CABLE INTO MACHINE.
- ATTACH CUTTING TOOL OF YOUR CHOICE.

HOW TO REMOVE DRUM

- 1. PUSH CABLE BACK INTO DRIVE ARM.
- 2. PULL KNOB OF LOCK PIN AND LIFT RETAINER CLAMP.
- 3. HOLD AND SLIGHTLY LIFT DRUM ASSEMBLY AND THEN PULL AWAY FROM MOTOR.

WHEN INSTALLING DRUM, REVERSE PROCESS. MAKE CERTAIN DRIVE SHAFT #405A AND DRIVE COUPLING #408A ENGAGE PROPERLY INTO MOTOR COUPLING.

CAUTION: ONLY A PROPERLY SEATED DRUM WILL ALLOW THE CLOSING OF THE RETAINER CLAMP INTO THE GROOVE OF THE HEX RETAINER AND DRUM SUPPORT CASTING.

NOTE: IN THE EVENT THAT THE CABLE KINKS, BREAKS OR TO GAIN ACCESS TO THE INSIDE OF THE DRUM:

- 1. UNPLUG MACHINE AND REMOVE CABLE
- 2. REMOVE DRUM FROM MACHINE
- 3. REMOVE REAR RETAINING RING #405C
- 4. REMOVE DRIVE COUPLING #408A
- 5. REMOVE CENTER RETAINING RING #405C
- 6. HOLD CONE AND PULL INNER HUB ASSEMBLY OUT OF DRUM

CAUTION: ANY CABLE LEFT INSIDE THE DRUM IS UNDER TENSION. WEAR GLOVES AND FACE SHIELD BEFORE DISASSEMBLY TO PREVENT INJURY.

TO ASSEMBLE DRUM REVERSE PROCESS

HOW TO SPLICE CABLES

- CUT AWAY ANY KINKS OR SEPARATED COILS WITH A GOOD BOLT CUTTER.
- 2. CLAMP ONE END OF CABLE TO BE SPLICED IN VISE AND LET CABLE EXTEND FROM VISE JAWSAPPROXIMATELY 1".
- HOLD SPLICE TIGHT WITH VISE GRIP AND SCREWHALF WAY INTO CABLE.
- RECLAMP SPLICED CABLE SECTION IN VISE. CLAMP FIRM ON SPLICED END.
- 5. VISE GRIP THE SECOND CABLE SECTION TO BE SPLICED 1" FROM END.
- APPLYING PRESSURE, TURN ALL THE CABLE WITH VISE GRIP OVER SECOND HALF OF SPLICE UNTIL ENDS OF CABLE MEET.

NOTE: IF YOU ARE SPLICING CABLES WITH HEX SPLICES, SQUARE EACH END OF CABLE TO BE SPLICED ON DISC SANDER OR GRINDER. YOU MAY SPOT WELD EACH END OF CABLE TO SHOULDER OF HEX SPLICE.

SPLICING INNERCORE CABLES: MAKE SURE INNERCORE IS AT LEAST 1" INSIDE FROM EACH CABLE END.

 IF YOU HAVE TROUBLE GETTING SPLICE STARTED, SLIGHTLY SPREAD FIRST COIL OF CABLE WITH A DRIFT OR CENTER PUNCH.

WARNING: DO NOT ATTEMPT TO REPAIR ANY BROKEN CABLES BY MEANS OF WELDING. WELDED CABLE SECTIONS DO CRYSTALLIZE AND WILL BREAK.





THE ABOVE INNERCORE CABLE SPLICED WITH A REGULAR SPLICE.

HOW TO INSTALL CABLE ENDS OR CABLE CONNECTORS

(NOTE GAP BETWEEN SPLICE AND INNERCORE)

- 1. LET CABLE EXTEND FROM VISE JAWS APPROXIMATELY 1" AND CLAMPTIGHT.
- 2. HOLD CABLE END OR CABLE CONNECTOR FIRM WITH VISE GRIP.
- SCREW COUPLING INTO CABLE BY APPLYING PRESSURE UNTIL SHOULDER OF COUPLING MEETS CABLE.

NOTE: IF YOU HAVE TROUBLE GETTING CABLE END OR CABLE CONNECTOR STARTED, SLIGHTLY SPREAD FIRST COIL OF CABLE WITH A DRIFT OR CENTER PUNCH.

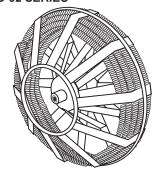
CAUTION: ONLY BY MEANS OF ARC WELDING, SPOTWELD CABLE TO COUPLING. ANY ATTEMPT TO WELD OR BRACE CABLE TO ANY COUPLING WITH AN ACETYLENE TORCH WILL SOFTEN THE FIRST COILS OF CABLE AND THEREBY RENDERING THE CABLE AT THAT POINT USELESS.

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HOW TO INSTALL A NEW CABLE

MODELS GO 68HD. GO 68. GO 62 SERIES

- UNCOIL CABLE TO BE INSTALLED AND LAY IN A
 STRAIGHT LINE ON THE FLOOR.
- 2. PASS A SHORT SECTION OF ANCHOR CABLE THROUGH DRIVE ARM.
- 3. SLIDE CABLE CONNECTORS TOGETHER AND FASTEN BOTH CAP SCREWS.
- 4. DRIVE ARM MUST TURN COUNTER CLOCKWISE (FACING MACHINE) WHEN STARTING TO INSTALL CABLE.
- 5. LAY OUTER CABLE TURNS BY HAND TO FILL REEL PROPERLY.
- 6. START MACHINE.
- 7. FEED REMAINING CABLE INTO REEL.
- 8. STOP MACHINE OCCASIONALLY TO CHECK DISTRIBUTION AND REPOSITION CABLE IF NEEDED.
- 9. ATATCH CUTTING TOOL OF YOUR CHOICE.



NOTE OUTER CABLE TURN LAYERS

CAUTION: IF YOU ARE USING OUR POWER CABLE FEEDER AND PULLER, DO NOT ALLOW TO PASS ANY CABLE ENDS OR CABLE CONNECTORS THROUGH FEEDER, AS IT MAY DAMAGE IT.

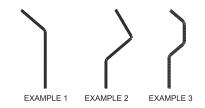
MODEL GO 50 SERIES

- 1. UNCOIL CABLE TO BE INSTALLED AND LAY IN A STRAIGHT LINE ON THE FLOOR.
- 2. MAKE SURE DRIVE ARM ROTATES FREELY.
- 3. FEED CABLE WITH INSTALLED CABLE END THROUGH DRIVE ARM.
- 4. SCREW CABLE END INTO REEL CONNECTOR.
- 5. FASTEN REEL CONNECTOR TO REEL WITH BOLT.
- DRIVE ARM MUST TURN COUNTER CLOCKWISE (FACING MACHINE) WHEN STARTING TO INSTALL CABLE.

- LAY OUTER CABLE TURNS BY HAND TO FILL REEL PROPERLY.
- 8. START MACHINE.
- 9. FEED REMAINING CABLE INTO REEL.
- STOP MACHINE OCCASIONALLY TO CHECK DISTRIBUTION AND REPOSITION CABLE IF NEEDED.
- 11. ATTACH CUTTING TOOL OF YOUR CHOICE.

MODELS GO 380/250 SERIES. GO 15

- UNCOIL CABLE TO BE INSTALLED AND LAY IN A STRAIGHT LINE ON FLOOR.
- 2. MAKE SURE DRIVE ARM ROTATES FREELY.
- 3. FEED CABLE THROUGH DRIVE ARM.
- 4. DRIVE ARM MUST TURN COUNTER CLOCKWISE WHEN INSTALLING CABLE.
- 5. START MACHINE.
- FEED REMAINING CABLE INTO DRUM ALLOWING ADEQUATE LENGTH OF EXPOSED CABLE TO ATTACH FLEXIBLE LEADER (ELEPHANTTRUNK) WHEN APPLICABLE.
- INSTALL CABLE END AND CUTTING BLADE (AVAILABLE ONLY FOR 3/8" DIA. CABLE) AND/OR MAKE CABLE BENDS OF YOUR CHOICE.



6. WHEN YOUR CUTTING TOOL ENCOUNTERS THE BLOCKAGE, IT WILL SLOW DOWN OR MOMENTARILY STOP THE ROTATION OF CABLE. AS SOON AS YOU FEEL A RPM REDUCTION, PLACE LEVER INTO REVERSE POSITION TO RETRACT CABLE FROM STOPPAGE. ONCE TORQUE IS RELIEVED, MOVE LEVER INTO UPRIGHT POSITION AND RELEASE PRESSURE FROM HAND KNOB.

CAUTION: IT IS RECOMMENDED TO CLEAR STOPPAGE MANUALLY.

NOTE: TO CLEAR BLOCKAGE REFER TO PAGE 5, STEPS 6 THROUGH 10.

7. ONCE YOU HAVE CUT TROUGH THE BLOCKAGE, TIGHTEN HAND KNOB. PLACE LEVER INTO REVERSE POSITION TO RETRACT CABLE INTO REEL OR DRUM.

LUBRICATION

THE GORLITZ POWER CABLE FEEDER AND PULLER SHOULD BE GIVEN THE BEST OF CARE AND IF KEPT CLEAN AND PROPERLY LUBRICATED, IT WILL PROVIDE MANY YEARS OF TROUBLE-FREE SERVICE. OBSERVE THE FOLLOWING INSTRUCTIONS AT ALL TIMES:

- THE DRIVE BEARINGS HAVE BEEN PACKED AT THE FACTORY WITH PROPER LUBRICANT AND REQUIRE NO ADDITIONAL LUBRICATION.
- GREASE ALL HOUSINGS EQUIPPED WITH ZERK FITTINGS.
- REMOVE FRONT DISC PERIODICALLY IN ORDER TO APPLY GREASE TO BOTH SIDES OF MOVEMENT ASSEMBLY.

NOTE: IF THE POWER FEED IS NOT BEING USED FOR A LONG PERIOD OF TIME, LUBRICATE FEEDER WITH WD40 OR EQUIVALENT LUBRICANT TO PREVENT PARTS FROM OXIDATION.

HOW TO INSTALL NEW DRIVE BEARINGS

- REMOVE SIX ACORN NUTS AND LOCK WASHERS.
- 2. REMOVE FRONT DISC AND MOVEMENT ASSEMBLY.
- 3. SLIP LONG AND/OR SHORT HOUSINGS FROM HEX BOLTS.
- 4. REMOVE UPPER AND/OR LOWER PISTONS.
- 5. REMOVE SPRING RETAINER.
- 6. PULL OUT DRIVE PIN.
- 7. REMOVE SPACERS AND DRIVE BEARING.
- 8. CLEAN ALL PARTS IN A CLEANING SOLVENT.



DRIVE PIN ASSEMBLY AND PISTON SHOWN.

NOTE: WHEN REASSEMBLING CABLE FEEDER AND PULLER, REVERSE PROCEDURES. BE POSITIVE DRIVE PINS ENGAGE PROPERLY INTO U-SHAPED BRACKETS.

9. LUBRICATE ALL MOVING PARTS.

GENERAL MAINTENANCE TIPS

TO KEEP YOUR GORLITZ POWER CABLE FEEDER AND PULLER IN GOOD AND SAFE OPERATING CONDITION, PERIODICALLY CHECK THE FOLLOWING ITEMS:

- LUBRICATE ALL SLIDING. ROTATING AND MOVING PARTS.
- PAY SPECIAL ATTENTION FOR WEAR ON DRIVE PINS AND DRIVE BEARINGS.
- CHECK, REFASTEN OR REPLACE IF NEEDED ALL BOLTS, NUTS, WASHERS AND SPRING RETAINERS.
- INSPECT MOVEMENT ASSEMBLY DISC FOR WEAR.
- CHECK ANGLE AND CENTER LINE ALIGNMENT OF POWER FEED.

MODEL T 01 POWER CABLE FEEDER AND PULLER SAFETY INSTRUCTIONS

BEFORE SWITCHING ON SEWER CLEANING MACHINE, MAKE SURE MOVEMENT ASSEMBLY LEVER IS IN UPRIGHT POSITION. THIS PREVENTS ACCIDENTALLY RUNNING CABLE FITTINGS THROUGH POWER FEED DAMAGING COUPLINGS AND/OR DRIVE BEARINGS.

WHILE OPERATING THE POWER CABLE FEEDER AND PULLER, ALWAYS WEAR GLOVES AND KEEP FINGERS AND FOREIGN OBJECTS OUT OF DRIVE MECHANISMS.

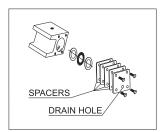
FOR STORAGE OR WHEN SEWER CLEANING MACHINE AND POWER FEED IS NOT IN USE, ALWAYS TIGHTEN HAND KNOB ASSEMBLY TO LOCK CABLE INTO DRUM OR REEL.

MAINTAIN POWER FEED WITH PROPER CARE, KEEP IT CLEAN FOR BEST AND SAFEST PERFORMANCE. FOLLOW INSTRUCTIONS FOR LUBRICATION. CHANGING BEARINGS AND MAINTENANCE.

INSTALLATION

THE SEWER CABLE SHOULD PASS FROM THE DISTRIBUTING ARM OF THE MACHINE OVER THE TWO LOWER BEARINGS AND THROUGH THE CENTER HOLE OF THE MOVEMENT ASSEMBLY. THE MOUNTING BRACKET IS PROVIDED WITH SEVERAL MACHINED HOLES AND SLOTS TO ALLOW CENTERLINE LOCATIONS. IF FURTHER ADJUSTMENTS ARE NEEDED USE SHIM STOCK.

ONCE YOU HAVE DETERMINED THE DESIRED CABLE SIZE, THE CHART BELOW SHOWS THE CORRECT AMOUNT OF SPACERS REQUIRED BETWEEN THE SHORT HOUSING AND LOWER END PLATES.



SHORT	HOUSING,	THRUST
BEARING	AND SPACER	ASSEMBLY
SHOWN.		

CABLE SIZE	SPACERS REQUIRED
5/16"	0
3/8"	1
13/32"	1
1/2"	2
5/8"	3
11/16"	4
3/4"	4

POWER CABLE FEEDER LEVER SHOWN IN REVERS POSITION.

NEUTRAL

RIGHT

LEFT A

REVERSE

NOTE: DRAIN HOLE ON LOWER END PLATE MUST BE TOWARD BOTTOM OF POWER FEED.

GENERAL OPERATING INSTRUCTIONS

THE MOVEMENT ASSEMBLY LEVER SHOULD BE IN THE NEUTRAL POSITION.

RELEASE PRESSURE FROM THE HAND KNOB ASSEMBLY.

START SEWER CLEANING MACHINE (FOR REFERENCE SEE OPERATING & MAINTENANCE INSTRUCTIONS IN THIS MANUAL).

PLACE MOVEMENT ASSEMBLY LEVER IN THE FORWARD POSITION (MOVE LEVER TO THE RIGHT) AND START TO TIGHTEN HAND KNOB. ONCE SEWER CABLE IS DRIVING STEADILY FORWARD, STOP TURNING HAND KNOB. POSITION MOVEMENT LEVER IN REVERSE POSITION (MOVE LEVER TO THE LEFT) AND SEWER CABLE SHOULD RETRIEVE STEADILY.

IF THE CABLE BEGINS TO SLIP OR DOES NOT FEED, THE HAND KNOB MAY BE TIGHTENED WITH CAUTION UNTIL CABLE IS MOVING AGAIN.

WARNING: EXTREME TIGHTENING OF HAND KNOB ASSEMBLY MAY DAMAGE POWER FEEDER BEARINGS, OVERLOAD MOTOR AND/OR ADD EXCESSIVE TENSION TO CABLE.

HOW TO ADJUST BELT TENSION:

 $PROPER\ BELT\ TENSION\ FOR\ ALL\ MODELS\ SHOULD\ BE\ 1/4"\ BELT\ MOVEMENT\ IN\ EITHER\ DIRECTION.$

MODELS GO 68HD, GO 380/250 SERIES

1. LOOSEN MOTOR MOUNTING SCREWS.

4. REFASTEN MOTOR MOUNTING SCREWS.

2. ADJUST MOTOR AS NEEDED.

3. MAKE SURE PULLEYS ARE IN LINE.

NOTE: COVER HOUSING MUST BE REMOVED ON MODEL GO 380/250 SERIES.

MODELS GO 68, GO 62 SERIES

1. LOOSEN BELT TENSIONER HEX BOLTS.

3. MAKE SURE PULLEYS ARE IN LINE.

2. ADJUST BELT TENSION PLATE AS NEEDED.

4. REFASTEN BELT TENSIONER HEX BOLTS.

MODEL GO 50 SERIES

LOOSEN UPPER AND LOWER NUTS ON MOUNTING BOLTS.

MOTOR

3. CHECK ALIGNMENT OF BELT AND PULLEYS.

4. REFASTEN ALL NUTS.

2. RAISE OR LOWER MOTOR FOR RIGHT BELT TENSION.

MODEL GO 15

1. REMOVE TRUNK, PILLOW BLOCK AND DRUM.

2. LOOSEN MOTOR MOUNTING NUTS.

3. ADJUST MOTOR FOR PROPER BELT TENSION.

4. REFASTEN ALL MOTOR MOUNTING NUTS.

5. REINSTALL DRUM, PILLOW BLOCK AND TRUNK.

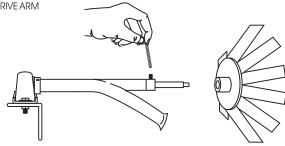
NOTE: DRUM MUST BE REMOVED BEFORE BELT TENSION CAN BE PERFORMED.

CAUTION: DO NOT OVER TIGHTEN BELT TENSION, AS YOU WILL RAISE MOTOR SHAFT, LOOSEN AND WEAR OUT SEALS AND EXPERIENCE THE LOSS OF GEAR LUBRICANT.

HOW TO REMOVE REELS

MODELS GO 68. GO 68HD. GO 62 SERIES

1. PUSH CABLE INTO DRIVE ARM



- 2. LOOSEN SET SCREW ON DRIVE EXTENSION.
- 3. PUSH DRIVE ARM EXTENSION INTO DRIVE ARM BUSHING.
- 4. PULL DRIVE ARM OUT OF FRONT BEARING.
- 5. REMOVE REMAINING CABLE FROM DRIVE ARM AND PLACE INTO REEL.
- 6. SLIDE REEL FORWARD AND OFF DRIVE SHAFT.

CAUTION: CABLE IS ALWAYS UNDER TENSION. DO NOT LET CABLE FLY OUT OF CAGE.

WHEN INSTALLING REEL, REVERSE PROCEDURE. BE POSITIVE DRIVE PLATE ENGAGES PROPERLY INTO BACK OF REEL.

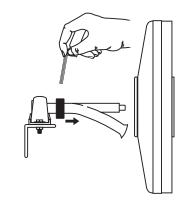
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HOW TO REMOVE DRUMS OR REELS

MODELS GO 50 SERIES. GO 380/250 SERIES

- PUSH CABLE INTO DRIVE ARM.
- 2. LOOSEN SET SCREW ON COLLAR AND SLIDE COLLAR TOWARD DRUM/REEL.
- 3. SLIDE DRIVE ARM INTO FRONT PILLOW BLOCK AS FAR AS POSSIBLE.
- 4. PUSH DRIVE ARM SIDEWAYS, UP OR DOWN TO CLEAR CENTER STEM OF DRUM OR REEL.
- MOVE DRIVE ARM TOWARD DRUM/REEL UNTIL IT CLEARS FRONT PILLOW BLOCK.
- 6. FEED REMAINING CABLE FROM DRIVE ARM INTO DRUM/REEL AND REMOVE DRIVE ARM.
- 7. SLIDE DRUM/REEL FORWARD AND OFF DRIVE SHAFT.

NOTE: TO GAIN ACCESS TO INSIDE OF DRUMS ON MODEL 380/250 SERIES, REMOVE RETAINING RING AND PULL INNER HUB FROM CENTER GUIDE.



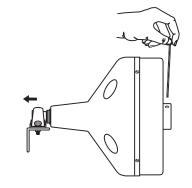
CAUTION: WHEN INSTALLING REEL OR DRUM, REVERSE PROCEDURE BUT MAKE CERTAIN DRIVE PLATE OR DRIVE PINS ENGAGE PROPERLYINTO REEL OR DRUM.

HOW TO REMOVE DRUM MODEL GO 15

- 1. REMOVE FLEXIBLE TRUNK.
- 2. PUSH CABLE BACK INTO DRIVE ARM
- 3. LOOSEN THUMP SCREWS AND REMOVE PILLOW BLOCK.
- 4. LOOSEN SET SCREW AT BACK SIDE OF DRUM.
- 5. SLIDE DRUM FORWARD AND OF DRIVE SHAFT.

NOTE: BEFORE SEPARATING DRUM PULL OUT ENTIRE CABLE. REMOVE 4 SMALL SCREWS AND PULL DRUM SECTIONS APART.

CAUTION: WHEN INSTALLING DRUM, REVERSE PROCESS. MAKE CERTAIN SET SCREW ENGAGES FLAT AREA ON DRIVE SHAFT.



GFCI TESTING

TEST REMINDER: FOR MAXIMUM PROTECTION AGAINST SHOCK HAZARD, TEST YOUR GROUND FAULT CIRCUIT INTERRUPTER (GFCI) AT LEAST ONCE A MONTH.

PUSH YELLOW "TEST" BUTTON. RED "RESET" BUTTON WILL POP OUT, EXPOSING THE WORD "TRIP". POWER IS NOW OFF. THIS INDICATES THAT THE DEVICE IS FUNCTIONING PROPERLY.

IF "TRIP" DOES NOT SHOW WHEN TESTED, DO NOT USE MACHINE. RECHECK TO MAKE SURE INSTALLATION IS DONE PROPERLY.

TO RESTORE POWER, PUSH RED "RESET" BUTTON BACK IN.

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GENERAL MAINTENANCE TIPS

TO KEEP YOUR GORLITZ ELECTRIC SEWER CLEANING MACHINES IN GOOD, CLEAN AND SAFE OPERATING CONDITION, PERIODICALLY CHECK THE FOLLOWING PARTS:

- LUBRICATE ALL SLIDING, ROTATING AND MOVING PARTS.
- PAY SPECIAL ATTENTION TO WEARS ON DRIVE ARMS.
- CHECK ALIGNMENT OF PULLEYS AND BELT.
- INSPECT, REFASTEN OR REPLACE ALL SET SCREWS ON DRIVE ARM, PULLEYS, DRIVE PLATE, SHAFT COLLARS AND PILLOW BLOCKS IF NEEDED.
- INSPECT ELECTRICAL OUTLET WIRING AND SWITCH BOX FOR VISIBLE WEAR AND TEAR.
- CHECK TIRE PROFILE.

WHY DO CABLES JUMP OUT OF REELS OR DRUMS?

- CABLE WAS RETURNED INTO DRUM OR REEL BY HAND WHILE DRUM OR REEL WAS NOT ROTATING: ALWAYS KEEP MACHINE RUNNING FEEDING CABLE BACK INTO DRUM OR REEL. CABLE MUST BE PACKED TIGHT.
- SHARP KINKS IN CABLE: CUT OUT ALL KINKS WITH A GOOD BOLT CUTTER AND INSTALL SPLICE OR CABLE CONNECTOR.
- CABLE GOT HUNG UP OR USING TOO MUCH PRESSURE TO OPEN BLOCKAGE: BACK PRESSURE MAY ALLOW CABLE TO FLY OUT OF DRUM OR REEL. USE CAUTION AND FEEL YOUR WAY AS YOU FEED CABLE INTO DRAIN PIPE.
- CABLE HAS SOFT SPOTS: CUT OUT ALL WEAK SECTIONS AND INSTALL SPLICE OR CABLE CONNECTOR.
- O CABLE EXCEEDED LIFESPAN: REPLACE WITH A NEW CABLE.

MOST COMMON CAUSES FOR DAMAGED OR BROKEN CABLES

- ALLOWING CABLES TO GET HUNG UP IN AN OBSTRUCTION: THIS IS THE MOST COMMON REASON FOR CABLE BREAKAGE. THE OPERATOR ALLOWED THE CUTTING TOOL OR CABLE END TO GET HUNG UP IN ROOTS, TOWELS, PAPER, ETC., OR IN A BROKEN. SEPARATED OR CRUSHED SEWER LINE. REMEMBER, KEEP THE CABLE ROTATING AT ALL TIMES.
- CABLE STARTS SWINGING WHEN DOING OVERHEAD JOBS: WHILE DOING OVERHEAD JOBS, GUIDE CABLE BY MEANS OF TUBES OR PIPES (PVC, ETC.) AND/OR USE SECOND OPERATOR.
- APPLYING TOO MUCH PRESSURE: FEEL YOUR WAY THROUGH THE PIPE AND TRY NOT TO DO THE JOB IN A HURRY.
- LETTING CABLE GET AWAY FROM YOU: ALWAYS GUIDE YOUR CABLE WITH BOTH HANDS. KEEP DISTANCE AS CLOSE AS
 POSSIBLE BETWEEN CLEAN-OUT AND MACHINE.
- FORCING CABLE AROUND TIGHT TURNS OR THROUGH A TRAP: IF CABLE IS SLOWED OR STOPPED BECAUSE OF TIGHT TURNS, TRAPS OR BLOCKAGES, BUT YOU CONTINUE TO FEED CABLE INTO SEWER LINE, IT MAY BECOME WAVY. BE EXTREMELY CAREFUL WHEN USING SMALLER SIZE CABLES ON LONG RUNS OR TOO LARGE OF A DIAMETER SEWER LINE.
- USING CABLES WITH SHARP KINKS OR SOFT SPOTS: CUT OUT ALL SHARP KINKS, STRETCHED, LIMBER OR WEAK SECTIONS. INSTALL SPLICE.
- O CABLE EXCEEDED LIFESPAN: REPLACE WITHANEW CABLE.
- CAUTION: CABLE EXPOSED TO A CHEMICAL DRAIN CLEANER MAY BECOME CRYSTALLIZED AND VERY BRITTLE. IT MAY ALSO BREAK INTO VERY SHORT SECTIONS. INSPECT CABLE FOR GRAY, WHITE OR BLUE COLOR AND/OR CHEMICAL ETCHINGS.

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