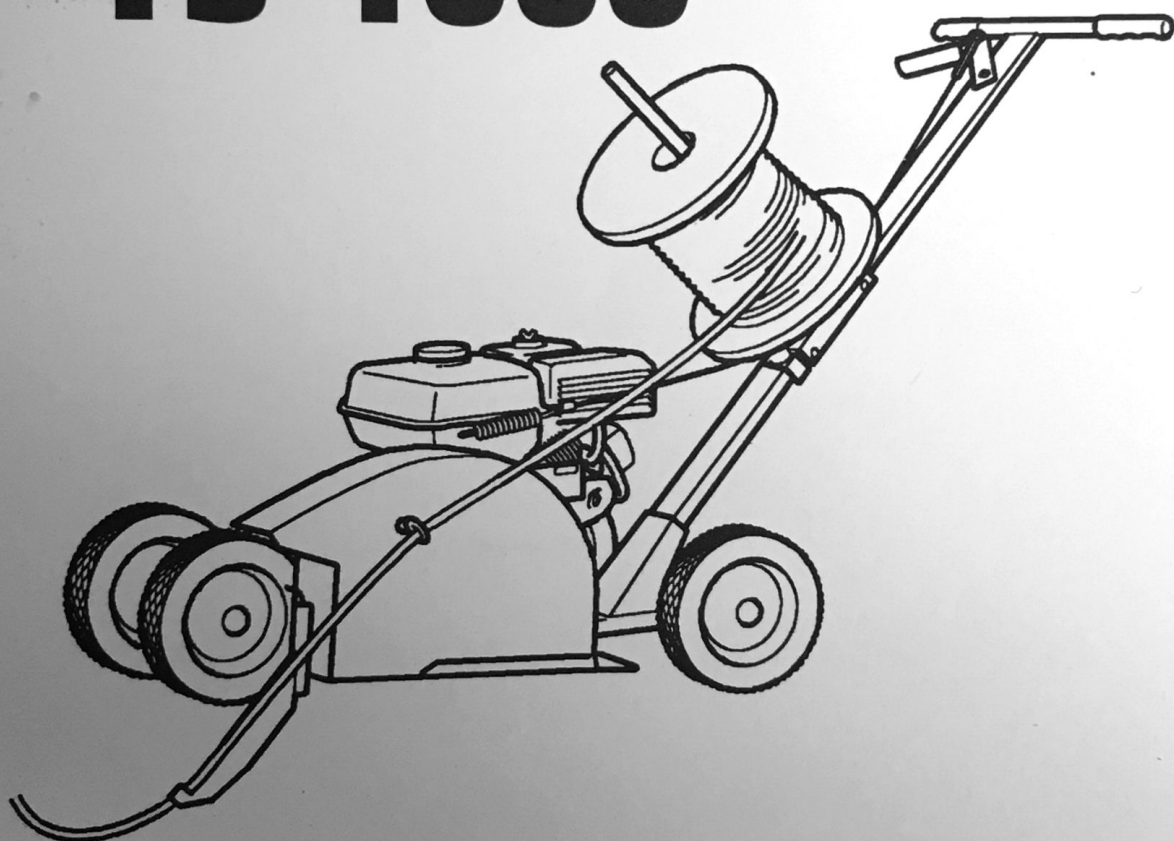


E-Z TRENCH[®]

Turfserf Cable Installer

TS-1000



Owners Manual

E-Z Trench Manufacturing Co., Inc.

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A WORD TO E-Z TRENCH OWNERS . . .

THIS MANUAL HAS BEEN PREPARED TO ACQUAINT YOU WITH THE ASSEMBLY, OPERATION AND MAINTENANCE OF YOUR TURFSERF TRENCHING MACHINE, AND TO PROVIDE SAFETY INFORMATION. WE URGE YOU TO READ IT CAREFULLY AND FOLLOW THE RECOMMENDATIONS CONTAINED TO HELP ASSURE THE MOST TROUBLE-FREE OPERATION.

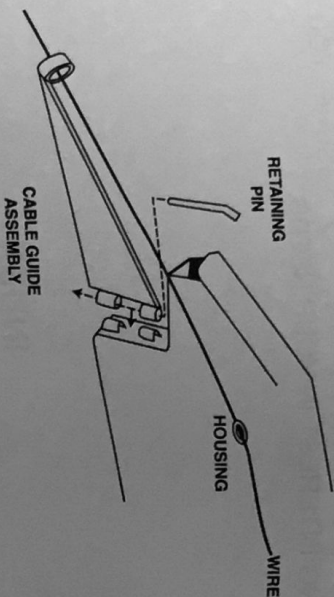
WE WOULD LIKE TO TAKE THIS OPPORTUNITY TO THANK YOU FOR CHOOSING E-Z TRENCH, AND TO ASSURE YOU OF OUR CONTINUING INTEREST IN YOUR NEEDS.

INDEX

1. A WORD TO E-Z TRENCH OWNERS
2. OPERATING INSTRUCTIONS.
3. TROUBLE SHOOTING AND MAINTENANCE
4. ASSEMBLY PARTS LIST
- 5.-7. ASSEMBLY INSTRUCTIONS
- 8.-9. PARTS DRAWING
- 10.-11. ASSEMBLY INSTRUCTIONS
12. PARTS LIST
13. TERMS AND WARRANTY
14. WARRANTY REGISTRATION
15. WARNINGS & SAFETY PRECAUTIONS
16. NOTES

OPERATING INSTRUCTIONS

1. FILL CRANKCASE WITH OIL. FOLLOW INSTRUCTIONS OF ENGINE MANUFACTURER.
2. LOAD CABLE/WIRE REEL ONTO HOLDING DEVICE (1221).
3. PLACE THE DROP CABLE THROUGH THE CABLE GUIDE AND PULL OFF A LENGTH SUFFICIENT FOR BUILDING ENTRY. AT THE MACHINE, ANCHOR THE CABLE/WIRE.



4. START ENGINE.
 5. RAISE DIGGING BLADE CLEAR OF GROUND BY PUSHING DOWN ON THE MACHINE HANDLE.
 6. ENGAGE BELT DRIVE UNIT WITH HAND LEVER (1190) TO ROTATE DIGGING BLADE.
 7. SLOWLY LOWER THE MACHINE TO GRADUALLY ENGAGE THE DIGGING BAR INTO SOIL UNTIL FRONT WHEEL IS ON THE GROUND.
 8. PULL THE MACHINE SLOWLY BACKWARD TO START TRENCHING. GUIDE THE CABLE GUIDE ASSEMBLY INTO THE TRENCH SO THE WIRE IS BURIED.
- TIP:** KEEP INSIDE OF HOUSING CLEAN FOR MAXIMUM BACKFILL OPERATION

2.

TROUBLE SHOOTING

PROBLEM SOLUTION

IRREGULAR OR EXCESSIVE BELT WEAR

1. ENGINE PULLEY WORN OUT.
2. BELT TENSION TOO TIGHT.
3. RATE OF DIG IS TOO FAST FOR SOIL CONDITION.
4. CHECK FOR PULLEY MISALIGNMENT.
5. USING OTHER THAN FACTORY RATED BELTS.

EXCESSIVE VIBRATION

1. LOOSE, BENT, OR BROKEN DIGGING BAR OR BIT.
2. LOOSE ENGINE MOUNT BOLTS.
3. ENGINE R.P.M. TOO FAST. SHOULD BE 2800 TO 3000 R.P.M.

HOUSING CLOGGING WITH DIRT

1. HOUSING NOT BEING KEPT CLEAN.
2. SOIL IS TOO WET.

DAMAGED DIGGING BLADE 1. STRIKING HARD OBJECTS, SUCH AS BRICKS, LARGE ROCKS, AND STEEL OBJECTS.

MAINTENANCE SCHEDULE

Perform at every indicated month or operating hour interval, whichever comes first.	Every Use	First month or 20 Hrs.	Every 3 months or 50 Hrs.	Every 6 months or 100 Hrs.
Check blade and bits	○			
Check belt tension*	○			
Check engine oil & air filter	○			
Tighten any loose bolts		○		
Change engine oil		○		○
Check air pressure of tires			○	
Clean air filter or replace			○	

3.

ASSEMBLY PARTS LIST

QTY.	DESCRIPTION	PART NUMBER
1	AXEL, FRONT	1230
2	CAPS, AXEL	
4	BOLTS, HOUSING 1/4" x 3/4"	1440
3	BOLTS, HANDLE 1/4" x 13/4"	1460
12	FLAT WASHERS, 1/4"	
12	HEX LOCK NUT, 1/4"	
4	BOLTS, USS, 5/16" x 1 1/2"	
4	FLAT WASHER, 5/16"	
4	LOCK NUT, 5/16"	
1	REEL HOLDER	1221
2	BOLTS, REEL HOLDER, 1/4" x 1 3/4"	
1	BRACE, REEL HOLDER	1222
1	BOLT, REEL HOLDER BRACE, 1/4" x 2 3/4"	
1	TUBE, FEEDER ASM.	146
3	BOLT, FEEDER ASM., 1/4" x 3/4"	
2	BELTS	1050
1	CABLE ASSEMBLY	1150

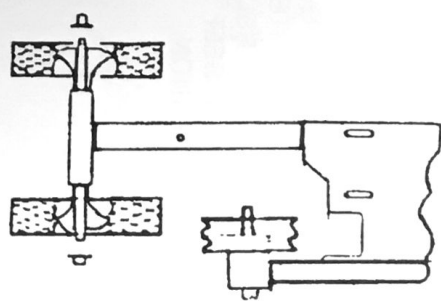
TOOLS NEEDED FOR ASSEMBLY

- 2 7/16" WRENCHES
- 2 1/2" WRENCHES
- 1 PLIERS

ASSEMBLY INSTRUCTIONS

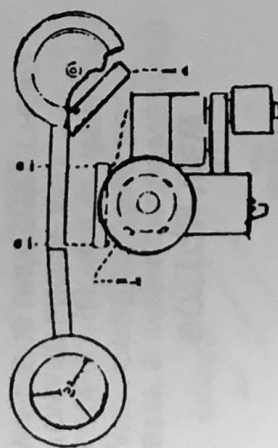
TOP VIEW

STEP 1: INSTALL FRONT AXLE AND WHEELS ON FRAME ASSEMBLY, BY HAMMERING CAPS ON AXLE.

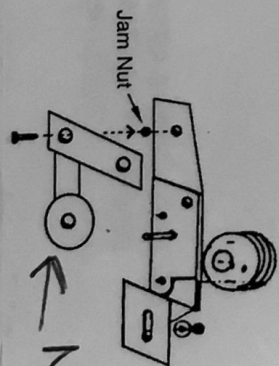


SIDE VIEW

STEP 2: PLACE ENGINE ON FRAME ASSEMBLY WITH (4) 5/16" X 1 1/2" BOLTS, 5/16" FLAT WASHERS AND LOCKNUTS. NOTE: DO NOT TIGHTEN BOLTS AT THIS TIME. (STEP 5)

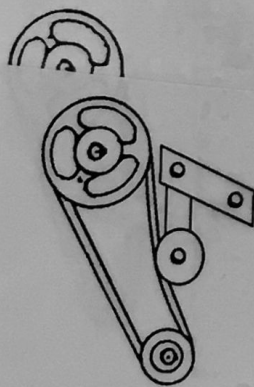


STEP 3: IDLER ASSEMBLY. ATTACH TO ENGINE BRACKET.



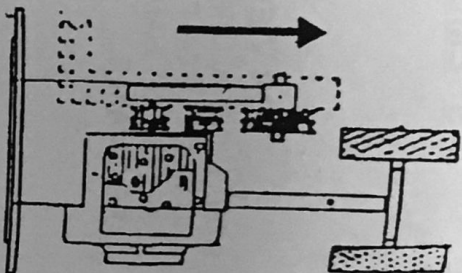
New Design

STEP 4: INSTALL BELTS AROUND PULLEYS AND UNDER BELT IDLER PULLEY.



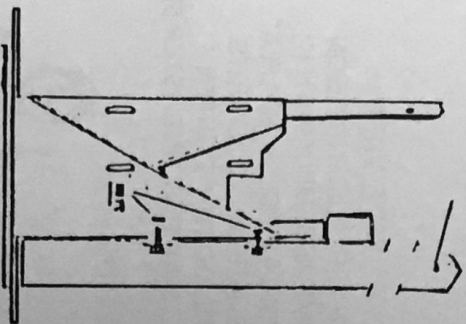
TOP VIEW

STEP 5: SLIDE ENGINE FORWARD. ALIGN USING A STRAIGHT EDGE. TIGHTEN ENGINE BOLTS SECURELY. SEE STEP 15: FOR BELT GUARD INSTALLATION.



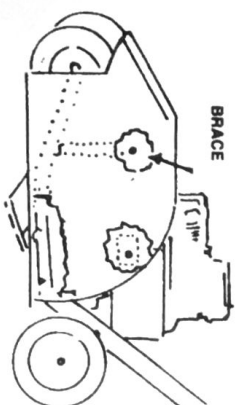
BOTTOM VIEW

STEP 6: INSTALL HOUSING (1120) AND LOWER HOUSING BOLTS LOOSELY (2) $\frac{1}{4}$ " x $\frac{3}{4}$ " WITH NUTS TOWARD ENGINE AND WASHERS UNDER BOLT HEAD.



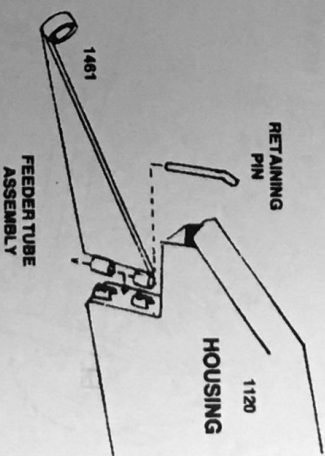
SIDE VIEW

STEP 8: BOLT LOOSELY THE HOOD BRACE TO FRONT OF HOUSING WITH (1) $\frac{1}{4}$ " x $\frac{3}{4}$ " BOLTS.



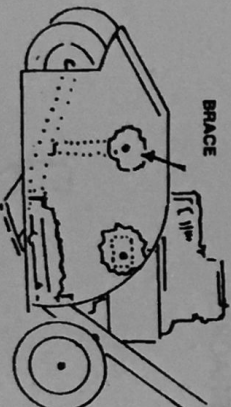
SIDE VIEW

STEP 9: ATTACH FEEDER TUBE ASSEMBLY TO SHIELD, USING RETAINING PIN AS SHOWN.



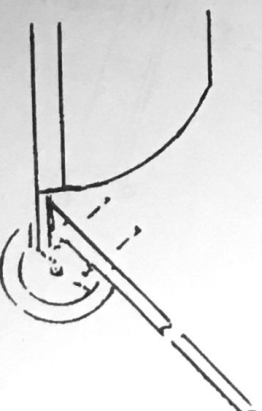
SIDE VIEW

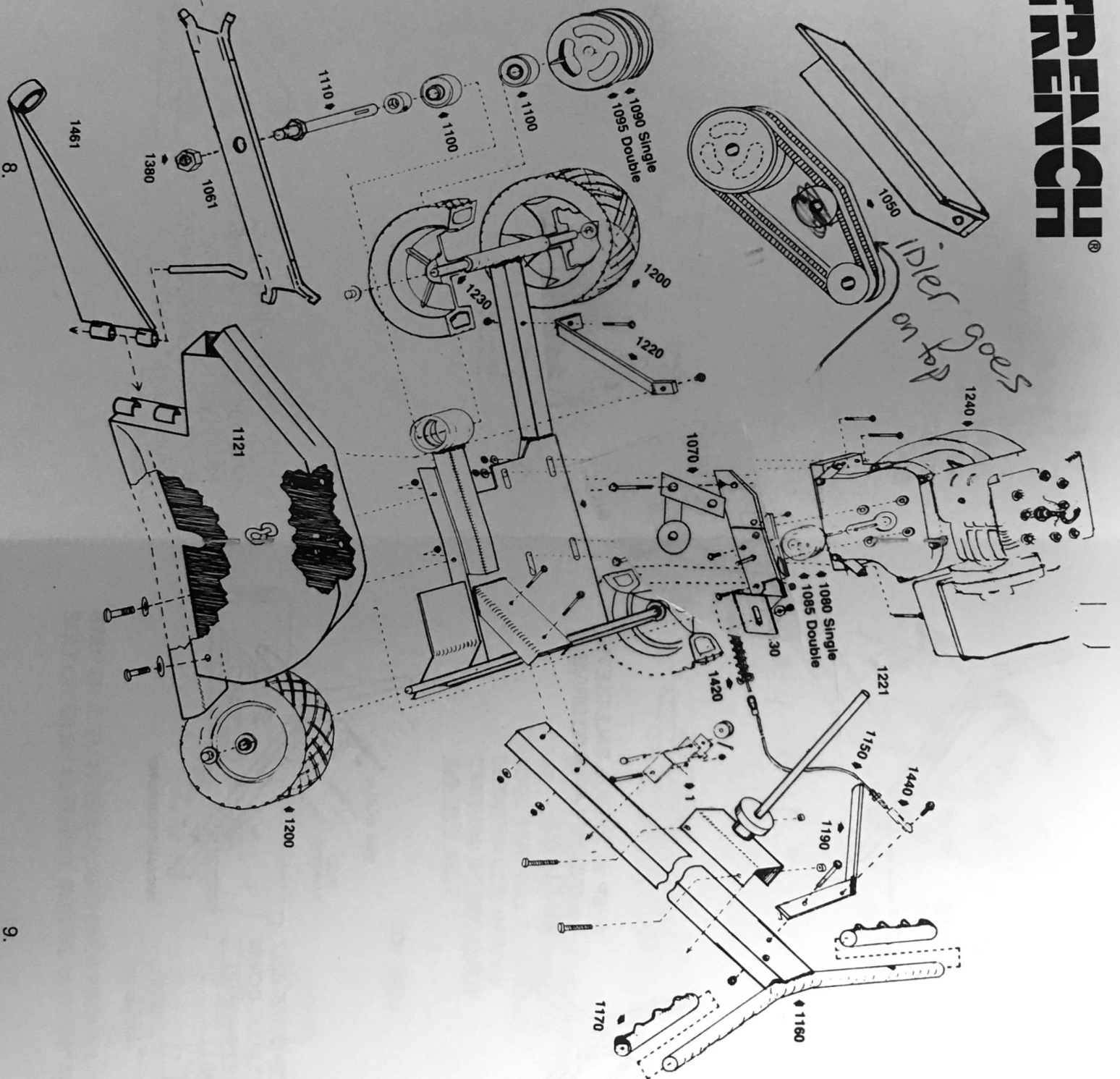
STEP 7: INSTALL LOOSELY REAR UPPER HOUSING BOLT (1) $\frac{1}{4}$ " x $\frac{3}{4}$ " TO SLOTTED IDLER BRACKET. NOTE: HEAD OF BOLT AND WASHER GOES ON INSIDE OF HOUSING, AND A WASHER OUTSIDE OF BRACKET. TIGHTEN ALL BOLTS ON HOUSING.



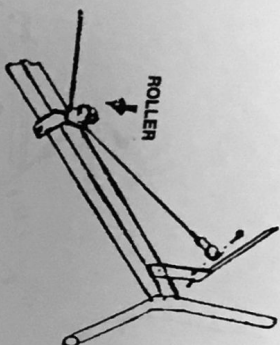
SIDE VIEW

STEP 10: INSTALL HANDLE TO FRAME WITH (2) $\frac{1}{4}$ " x $\frac{3}{4}$ " BOLTS WITH FLAT WASHERS UNDER NUTS. TIGHTEN SECURELY.

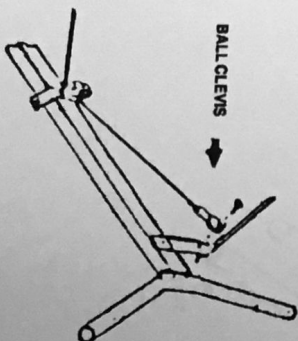




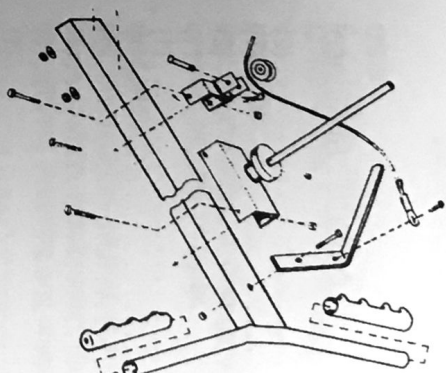
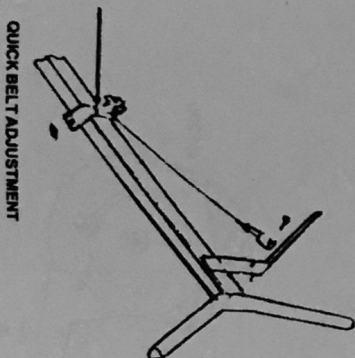
STEP 11: PLACE CABLE UNDER ROLLER ON QUICK BELT ADJUSTER.



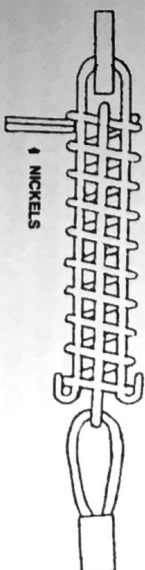
STEP 12: INSTALL BALL CLEVIS ON END OF CABLE TO DRIVE BELT LEVER.



STEP 13: SLIDE QUICK BELT ADJUSTMENT UP OR DOWN HANDLE TO SET PROPER BELT TENSION.

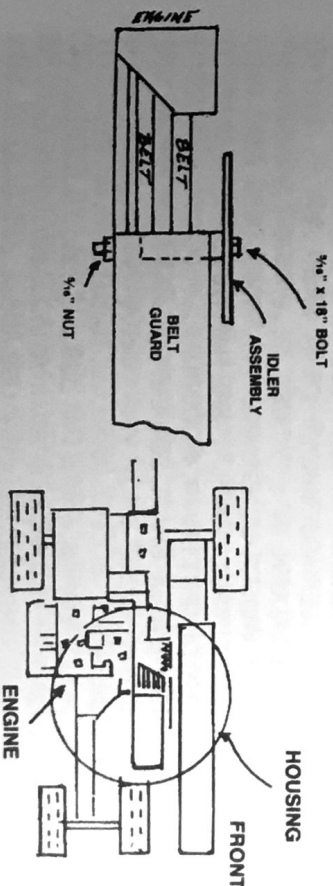


STEP 14: INSTALL REEL HOLDER TO HANDLE. (2) 1/4" x 13/4" BOLTS, AND (1) 1/4" x 23/4" BOLT, LOOSELY. (See Diagram Page 9.)



NOTE: PROPER BELT TENSION, 1/8", OR WHEN TWO NICKELS TOGETHER WILL FIT SNUGLY BETWEEN COIL SPRING. CAUTION: DO NOT OVER TIGHTEN BELT.

TOP VIEW



STEP 15: ATTACH BELT GUARD OVER PROTRUDING END OF 5/16" BOLT ON IDLER ASSEMBLY, SECURE WITH 5/16" NUT.

PARTS LIST

<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QUANTITY REQUIRED</u>
1050	BELT	(2)
1061	TRENCHING BAR	(1)
1070	V IDLER, 2 1/2"	(2)
1085	V PULLEY, 2 1/2" Double	(1)
1090	V PULLEY, 5" OUTPUT SHAFT	(1)
1095	V PULLEY, 5" DOUBLE	(1)
1100	BEARINGS, OUTPUT SHAFT	(2)
1110	SHAFT, ASSEMBLY, OUTPUT	(1)
1121	HOUSING	(1)
1130	IDLER BRACKET ASSEMBLY	(1)
1140	FRAME ASSEMBLY	(1)
1150	CABLE ONLY	(1)
1160	HANDLE BAR	(1)
1170	GRIPS, HANDLE BAR	(2)
1180	BELT ADJUSTMENT ASSEMBLY	(1)
1190	LEVER, CONTROL	(1)
1200	WHEEL	(4)
1221	REEL HOLDER	(1)
1222	BRACE, REEL HOLDER	(1)
1230	AXLE	(1)
1240	ENGINE, 5 HP BRIGGS & STRATON	(1)
1290	BOLT, BELT ADJUSTMENT ASSEMBLY, 1/4" x 2 3/4" USS	(1)
1300	BOLT, CONTROL LEVER, 1/2" x 1 3/4" USS	(1)
1310	BOLT, CLEVIS, CABLE, 5/16" x 3/4" USS	(1)
1320	BOLT, IDLE ARM, 3/8" x 2 1/4" USS	(1)
1330	BOLT, IDLER ASSEMBLY, 5/16" x 3/4" SAE	(2)
1340	BOLT, V-IDLER, 3/4" x 1 1/4" USS	(1)
1345	BOLT, V-IDLER, LONG	(1)
1380	NUT, OUTPUT SHAFT, 3/4" SAE HALF-NUT	(1)
1390	KEY, OUTPUT SHAFT, WOODRUFF	(1)
1400	KEY, ENGINE SHAFT, SQUARE	(1)
1410	CLEVIS, CABLE	(1)
1420	SPRING	(1)
1430	BOLTS, ENGINE, 5/16" x 1 1/2" USS	(4)
1450	BOLT, REEL BRACKET, 1/2" x 1 3/4"	(1)
1460	BOLTS, HANDLE, 1/2" x 1 3/4" USS	(2)
1461	FEEDER, TUBE ASSEMBLY	(1)
1462	BELT, GUARD	(1)

TERMS AND CONDITIONS OF SALE

USE:
E-Z TRENCHER IS DESIGNED TO TRENCH IN SOIL ONLY. ANY OTHER USE IS AT THE RISK OF THE OWNER.

PRICES:
Prices are subject to change without notice and will be invoiced at prices in effect on date of order.

CHANGES:
E-Z TRENCH MANUFACTURING, Inc. reserves the right to discontinue items, change specification, design, or prices at any time, without notice and without incurring any obligation whatsoever.

FREIGHT POLICY:
All orders are F.O.B., Loris, South Carolina, USA. Title to goods and risk of loss passed in Loris, South Carolina.

DAMAGED OR LOST SHIPMENTS:
All shipments must be carefully inspected. In case of damaged or loss, accept the shipment, but have carrier note damages or loss on delivery receipt. If it is concealed damage, call carrier for inspection. Make claim for damage with carrier.

LIMITED WARRANTY:
The E-Z Trencher is warranted against defects in workmanship or materials for a period of one year from the date of purchase except for normal wear items. Shaft bearings and blades are warranted for 30 days only. This warranty covers replacement of parts only, no consequential damages are covered. In the event of a warranty claim contact E-Z Trench Manufacturing Company, Inc. This warranty does not include products which have been subject to improper use, or application, or misuse, neglect or accident; nor does it apply to products which have been repaired or altered by other than E-Z Trench Manufacturing Company, Inc. All warranty repairs are F.O.B., Loris, S.C., U.S.A. E-Z Trench Manufacturing Company, Inc. will not be responsible for any transportation charges.

THERE IS NO OTHER EXPRESS WARRANTY. TO THE EXTENT PERMITTED BY LAW ALL IMPLIED WARRANTIES INCLUDED THOSE OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED. LIABILITY FOR CONSEQUENTIAL DAMAGES UNDER ANY AND ALL WARRANTIES ARE EXCLUDED TO THE EXTENT THAT EXCLUSION IS PERMITTED BY LAW. Some states do not allow limitation on how long an implied warranty lasts, and some