



# MODEL 500RTW

## PRAIRIE DOG BORING MACHINE



### **OWNERS MANUAL & PARTS LIST**

## **PRAIRIE DOG BORING EQUIPMENT, INC.**

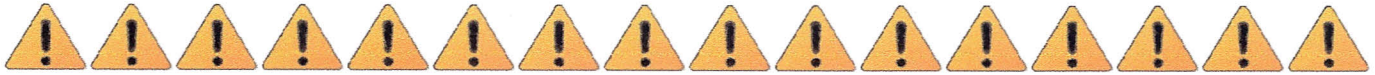
10006 AIRLINE DRIVE  
HOUSTON, TEXAS 77037  
281-448-8442 FAX: 281-448-5553

# BORING MACHINES CAN BE DANGEROUS IF OPERATED IMPROPERLY

SO FOLLOW THESE



## SAFETY INSTRUCTIONS



1. **Only the OPERATOR should be allowed near the machine.**
2. **NEVER STAND or allow anyone else to stand near the boring machine when rotating.**
3. **KEEP ALL GUARDS and shields in place while machine is running.**
4. **SHUT OFF ENGINE before leaving machine.**
5. **ALWAYS STOP engine before servicing machine.**
6. **REMOVE KEY or spark plug wire when leaving machine unattended**
7. **ALLOW ENGINE TO COOL before refueling**
8. **WEAR TIGHT FITTING CLOTHES when using boring machines and keep your hands, feet, and clothing away from moving parts.**
9. **KNOW what is down there before you bore. If necessary, get clearance from the phone company, power company, community water and sewer departments.**
10. **MOVE SLOWLY when starting to bore.**
11. **USE THE BUDDY SYSTEM Do not work alone in isolated areas**

**\* SPECIAL CAUTION \***

12. **ALWAYS, ALWAYS, ALWAYS stay at the controls of the machine. You may have to stop suddenly to avoid danger. Staying at the controls will also keep you away from the dangerous part of the machine.**

**PLEASE observe these instructions. They are considered common sense by professional boring contractors. There is just no substitute for a careful, safety minded operators SERIOUS INJURY OR DEATH COULD RESULT FROM FAILURE TO FOLLOW THESE SUGGESTIONS.**

## PRAIRIE DOG BORING MACHINE

NO REGISTRATION ( WARRANTY) CARD IS NECESSARY TO OBTAIN WARRANTY ON PRAIRIE DOG BORING MACHINE. FILL IN THE REQUIRED INFORMATION AND REQUIRED INFORMATION AND RETAIN FOR YOUR RECORDS.

Prairie Dog Boring Machine: Serial No. \_\_\_\_\_ Model No. \_\_\_\_\_  
Dealer Purchased from: \_\_\_\_\_ Date: \_\_\_\_\_

If warranty service is needed, contact your nearest authorized dealer or Prairie Dog Boring Equipment , Inc. For prompt attention our service department will need to know the trouble experienced and the total number of hours the boring machine has been operated. If you differ with the decision of our service department on warranty claim, ask your service department to submit all supporting facts for our review. If Prairie Dog Boring Equipment, Inc. decides that your claim is justified, you will be fully reimbursed for those items accepted as defective.

To avoid misunderstandings which might occur between boring machine owners and Prairie Dog Boring Equipment, Inc., we are listing causes of boring machine failures, where repair or replacement is NOT covered by Prairie Dog Boring Equipment, Inc. warranty.

### ABUSE OR NEGLECT

1. Parts which are scored or broken because the machine was operated without sufficient lubricating oil or the power grade of oil are not covered by warranty. Check oil level at least every five hours, and refill when necessary. Change oil as recommended.
2. Damage or wear caused by dirt which enters the machine because of improper maintenance is not covered by warranty. Clean and re-oil regularly.
3. Warranty does not cover the adjustment of the machine unless the need for such repair is the result of defects in material or workmanship or both. Minor adjustment are NOT covered by warranty.
4. Broken parts which result from improper operation, overspending, or abuse in operation are covered by warranty.
5. Repair or adjustment of associated parts which are not of Prairie Dog Boring Equipment, Inc. manufacture will be covered by Prairie Dog Boring Equipment, Inc. warranty.
6. Only ORIGINAL PRAIRIE DOG BORING EQUIPMENT, INC. PART OR PARTS APPROVED PRAIRIE DOG BORING EQUIPMENT, INC. may be covered by warranty.

7. About improvements: Prairie Dog Boring Equipment, Inc. is continually striving to improve its products, therefore, reserve the right to make improvements or changes when it becomes practical to do so, without incurring any obligations to make changes or additions to the equipment sold previously.

WARRANTY IS AVAILABLE ONLY THROUGH SERVICE CENTERS OR SERVICE DEPARTMENT WHICH HAVE BEEN APPROVED AND AUTHORIZED BY PRAIRIE DOG BORING EQUIPMENT, INC.

# Prairie Dog Boring Equipment, Inc.

## Limited Warranty

To the original purchaser for 1 year from purchase date we will repair or replace at our option and free of charge any parts found to be defective under normal use and service resulting from defects in material and/or workmanship after an examination at our factory in Houston, Texas.

All transportation charges, damages, and loss incurred in connection with the transportation of all parts for inspection, replacement, or repair under this warranty shall be borne by the purchaser.

The express warranty contained herein shall not be applied to any boring machine attachment or part which has been altered in any way, nor shall such express warranty apply to any damages resulting from accident, misuse, or abuse, nor shall such express warranty apply to any damages resulting from failure to follow the Prairie Dog Boring Equipment, Inc. instruction for operation and maintenance of boring machine attachments and parts. Also, the express warranty contained herein shall not apply to engines, clutches, gearboxes, etc., which are not of our manufacture as they are covered by the design and specification changes on future machines without notice and without obligation on our part to present owners.

The foregoing express warranty is in lieu of all other express warranties. Prairie Dog Boring Equipment, Inc. neither assumes nor authorizes any other person, natural or corporate, to assume for it any other obligation or liability in connection with or with respect to any boring machine attachments or parts.

Prairie Dog Boring Equipment, Inc. hereby disclaims any and all implied warranties, including, but not limited to warranties of merchantability and fitness for any particular purpose, if and to the extent, but only if and to the extent, that such disclaimer is not forbidden by any applicable law and any implied warranties, including, but not limited to which Prairie Dog Boring Equipment, Inc. is so forbidden to disclaim by any applicable law, are limited to the periods of the express warranty as defined in the first paragraph of this warranty. Prairie Dog Boring Equipment, Inc. shall in no event be liable for any consequential, incidental or special damages, and/or expenses.

# SUGGESTED OPERATIONS & PROCEDURES

FOR MODEL 500RTW AND 900RTW

FIRST, LET ME SAY THAT THE OPERATION OF THE MACHINE BY VARIOUS OWNERS IN NUMEROUS SOIL CONDITIONS CAN VARY TRMENDOUSLY. THESE PROCEDURES ARE GIVEN AS GUIDELINES. MANY USERS FIND IT ASIER TO USE OTHER METHODS OF THEIR OWN MAKING.

## **THE HOLE**

FIRST YOU NEED A TRENCH THAT CAN BE STRADDLED BY THE MACHINE. THIS MUST BE A MINIMUM 30' LONG FOR A 36" DEEP HOLE OR AS THE CUSTOMER DESIRES. ( FIG 1-A )

ON THE OTHER SIDE YOU NEED A COME-OUT HOLE. THIS NEEDS TO BE A MINIMUM OF MINIMUM OF 6" WIDE AND 3' LONG AND THE DESIRED DEPTH FOR PIPE OR WIRE, ETC. TO BE INSTALLED. ( FIG 1-B ) DEEPER IF PULL PLUG IS TO BE USED.

## **THE LINE UP**

THE MACHINE IS THEN PLACED OVER THE TRENCH AND LEVELED WITH THE BOTTOM OF THE TRENCH, OR GUIDE RODS IF NECESSARY. ( FIG 1-C ) A LEVEL IS PLACED ON THE FIRST JOINT INSTALLED IN THE MACHINE. ( FIG 1-D) THE MACHINE IS ALSO ALIGNED TO COME OUT OF THE HOLE USING 2 STAKES OR A STRING AND THE FIRST JOINT IN THE MACHINE.

## **WATER**

USING A COMMON GARDEN HOSE FROM AN EXISTING WATER SOURCE IS PERFERABLE. IF A WATER SUPPLY IS NOT AVAILABLE, WATER TANKS AND DRUMS WITH THE ADDITON OF A WATER PUMP THAT CAN MAINTAIN A WATER PRESSURE OF 35 TO 40 POUNDS IS ALL THAT IS NECESSARY. THE AMOUNT OF WATER NEEDED FOR YOUR SPECIFIC SOIL CONDITIONS CAN VARY, BUT IN NORMAL CONDITONS A 55 GALLONS DRIM OF WATER IS SUFFICENT TO BORE 2" HOLE 30 FEET.

## **DRILLING**

THE PILOT BITS IS INSTALLED ON THE FIRST PIPE JOINT. START THE ENGINE, ENGAGE THE CLUTCH, AND TURN THE WATER ON TO SEE IF THE PILOT BIT IS CLEAR OF ANY OBSTRUCTIONS.

THE MACHINE IS THEN PUSHED FORWARD 2" OR 3" THEN BACK 2" OR 3". THIS FORWARD & REVERSE ACTION WILL LET THE BIT FLUSH ITSELF AS YOU CONTINUE ADVANCING. WHEN DRILLING THERE SHOULD BE A SMALL AMOUNT OF WATER COMING BACK OUT OF THE HOLE AT ALL TIMES. ( FIG 1-E ) THIS TELLS THE OPERATOR HE HAS NOT CLOGGED THE BIT OR LOST CIRCULATION DUE TO AVOID IN THE EARTH. IF THE BIT IS FORCED TOO HARD AND CLOGS , THE ADVANCING CAN BE STOPPED FOR A FEW MOMENTS AND THE WATER WILL CLEAR THE BIT.

## **BACKREAMERING**

WHEN THE PILOT IS THROUGH THE HOLE, REMOVE THE PILOT AND INSTALL THE BACKREAMER. ONLY ONE STEP IS REQUIRED. IF YOU NEED A 6" HOLE, YOU INSTALL A 6" BACKREAMER. NEVER TRY TO STAGE THE CUTTERS FROM 2" TO 4" TO 6" ETC. USE ONLY THE SIZE BACKREAMER NECESSARY TO ACCOMADATE YOUR PIPE. SCREW THE CABLE SWIVEL ONTO THE BACKREAMER IF REQUIRED, AND ATTACH THE CABLE TO IT. ( FIG 1-F ) THIS CABLE WILL BE USED TO PULL BACK THE PIPE OR PULL PLUG IF THE DIAMETER IS LARGE ENOUGH TO REQUIRE IT. BE SURE THE CABLE IS STRAIGHTENED OUT SO IT DOES'T TWIST.

WHEN DRILLING BE SURE NOT TO FORCE THE MACHINE. IT HAS MORE POWER THAN YOU NORMALLY NEED. BE SURE TO ADD ENOUGH WATER TO MAKE SLURRY WITH THE CONSISTENCY OF A THICK MALT. IF YOU RUN TOO FAST YOU WILL LEAVE BIG CHUNKS OF MATERIAL, RATHER THAN FINE ONES. IF YOU RUN WITH A SLOW BUT STEADY FORCE YOU WILL MIXUP THE MIXTURE LIKE A EGG BEATER BEATS UP

EGG. THE IS DESIRABLE FR TWO REASONS, ONE THIS MIXTURE KEEPS THE HOLE OPEN SO IT WILL NOT CAVE IN, AND TWO, IT ALLOWS THE PIPE, WIRE OR PULL PLUG TO BE PULLED BACK EASILY.

### **A WORD OF CAUTION**

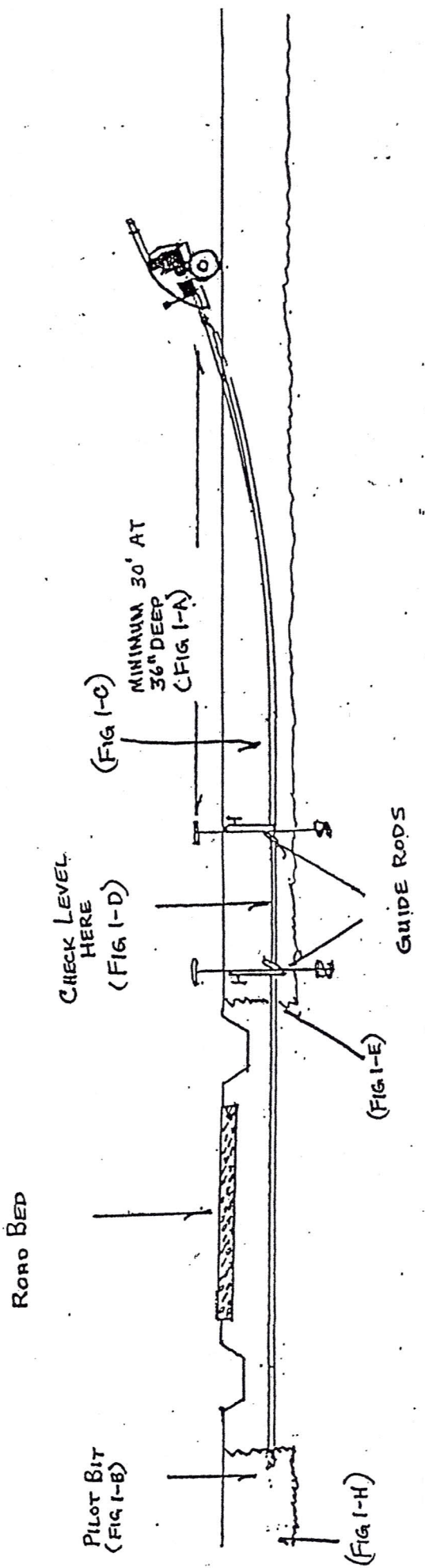
ONE THING TO REMEMBER, WHEN YOU BEGIN A JOB START EARLY AND TRY TO COMPLETE IT THE SAME DAY. **NEVER NEVER NEVER NEVER** LEAVE THE DRILL ROD IN THE HOLE FOR MORE THAN AN HOUR WHEN YOU HAVE STOPPED DRILLING. THE WATER WILL LEACH OUT OF THE SOIL, MAKING THE SOIL STICKY OR HARD AGAIN WHICH CAN CAUSE YOUR DRILL ROD TO SEIZE.

### **INSTALLING THE PIPE**

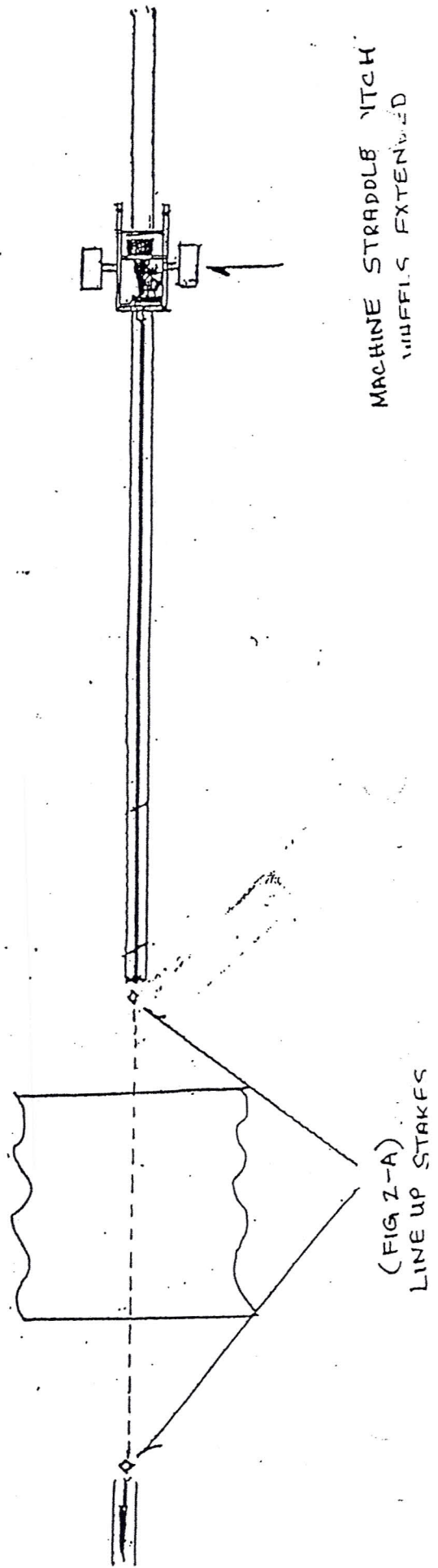
WHEN BORING SMALL HOLES OF 1" AND 2" IN DIAMETER, IT IS NOT NECESSARY TO USE A PULL PLUG OR SWAB. WHEN BORING BIGGER HOLES, THE PLUG IS PULLED BACK THROUGH THE HOLE WITH A CABLE ON EITHER SIDE, TO FORCE THE SLUDGE OUT OF THE HOLE. YOU CAN THEN ATTACH THE CABLE TO THE PIPE AND PULL IT THOUGH THE BORE PIT. THE JOB NOW COMPLETE.

Prairie Dog Boring Equipment, Inc.  
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Houston, Texas 77037  
281-448-8442 or 1-866-631-3786  
Website: [www.undergroundequip.com](http://www.undergroundequip.com)

SIDE VIEW



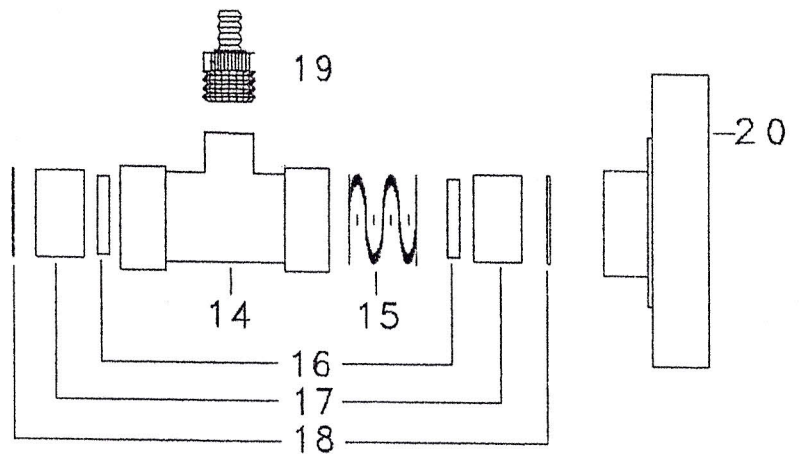
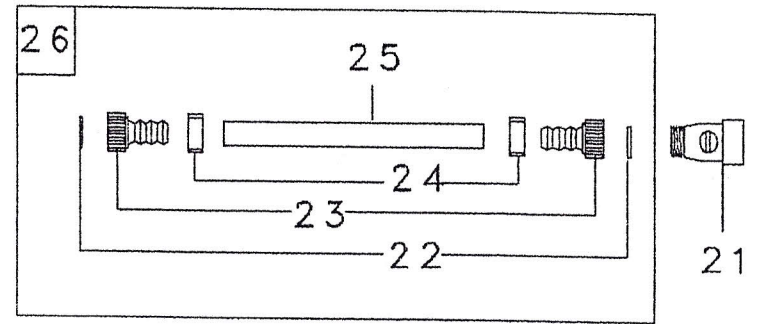
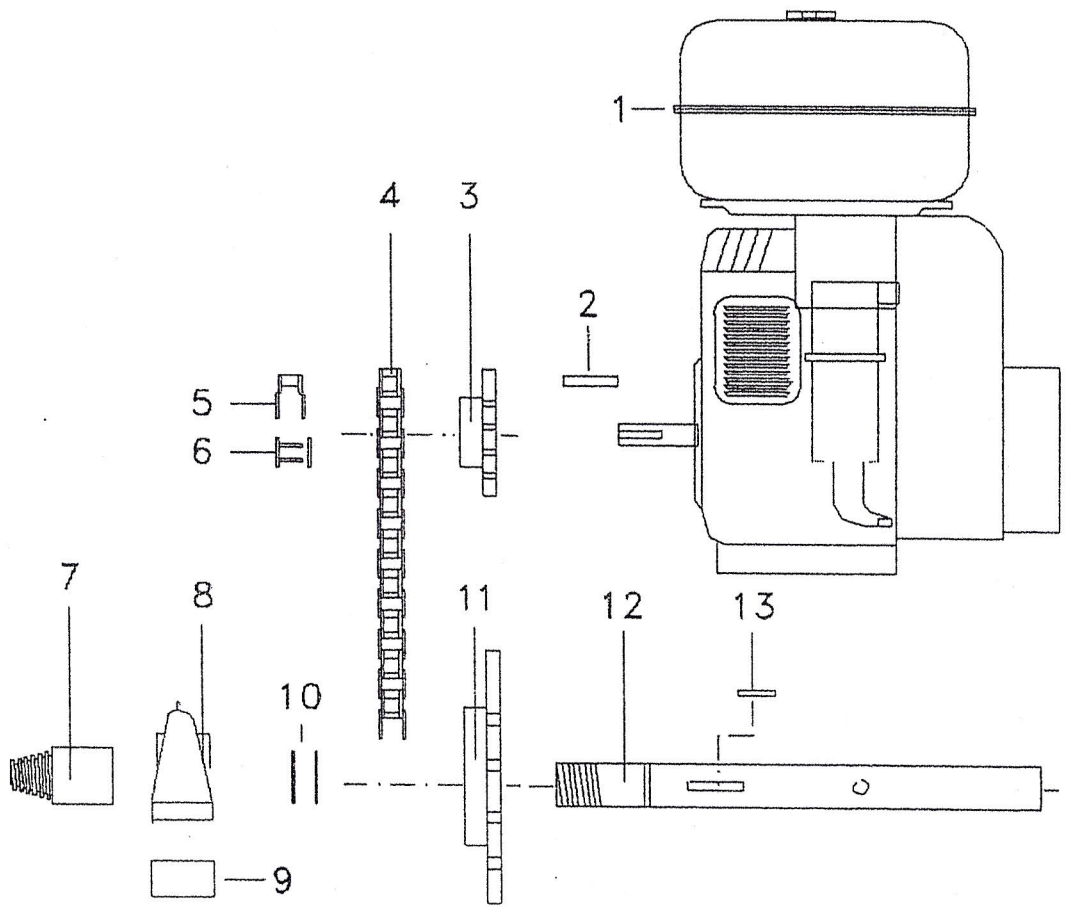
TOP VIEW



MACHINE STRADDLES WIFFLES EXTENDED

(FIG 2-A) LINE UP STAKES

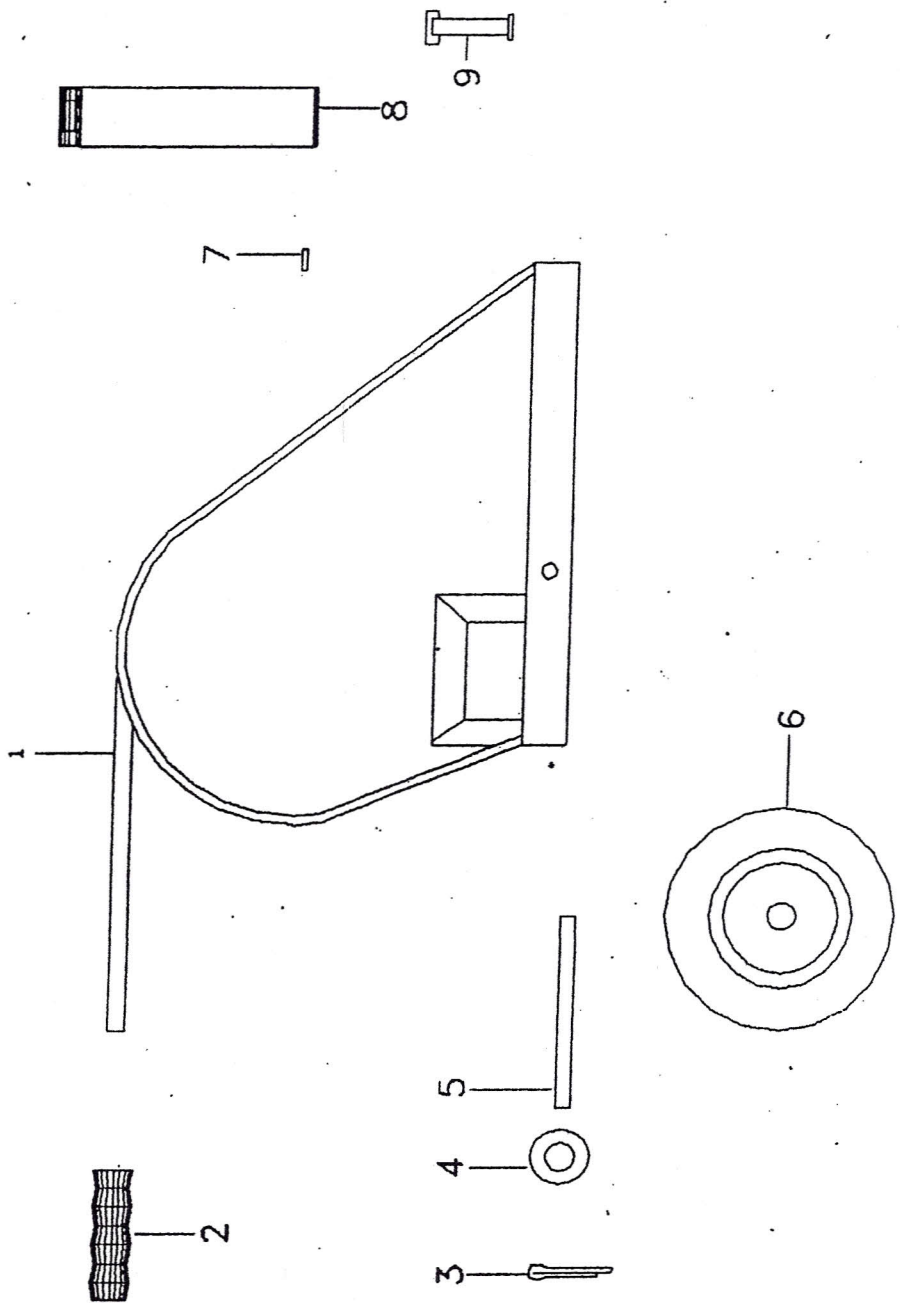




PARTS LIST FOR MODEL 500RTW

REF #	PART #	DESCRIPTION	QTY. REQ.
01	PDP560-1	ENGINE HONDA	1
02	PDP718-1	KEY	1
03	PDP516-1	SPROCKET	1
04	PDP514	DRIVE CHAIN	1
05	PDP1412	OFFSET LINK	1
06	PDP1413	CONNECTOR LINK	1
07	PDP1571-1	ADAPTER WATER SHAFT	1
08	PDP910	FRONT BEARING ASSY.	1
09	PDP910-1	BEARING SPACER	1
10	PDP971-3	SNAP RINGS	2
11	PDP501	SPROCKETS	1
12	PDP1571	SHAFT	1
13	PDP971-2	KEY	1
14	PDP916-1	WATER SWIVEL BODY	1
15	PDP916-4	SPRING	1
16	PDP916-3	U CUP	2
17	PDP916-2	BUSHING	2
18	PDP916-5	SNAP RING	2
19	PDP914-3	HOSE BIB TO 3/4 NPT	*
20	PDP914-5	HOSE BARB TO 3/4 NPT	*
21	PDP706	REAR BEARING	1
22	PDP913	VALVE	1
23	PDP913-1	HOSE GASKET	3
24	PDP914-2	FM HOSE END	2
25	PDP914-1	"O" CLAMP	2
26	PDP914	HOSE RUBBER	1
27	PDP912	WATER HOSE ASSY	**
28	PDP916-6	WATER SWIVEL BODY KIT (INCLUDES 15,16,17 & 18 )	**

\* OPTIONAL EQUIPMENT  
 \*\* ASSY/INDIVIDUAL COMPONETS LISTED SEPERATELY  
 \*\*\* AS REQUIRED



## PARTS LIST FOR MODEL 500RTW

REF #	PART #	DESCRIPTION	QTY REQ.
01	PDP522	MAIN ENGINE FRAME	1
02	PDP903-1	HANDLE GRIP	2
03	PDP747	COTTER PIN	2
04	PDP748	FLAT WASHER	4
05	PDP738	AXLE ASSY	1
06	PDP737	TIRE & WHEEL	2
07	PDP1398-1	CHAIN GUARD CLIP	2
08	PDP1398	CHAIN GUARD	1
09	PDP921	DRILL ROD HOLDER	1