



MODEL 1200TW

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

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.

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

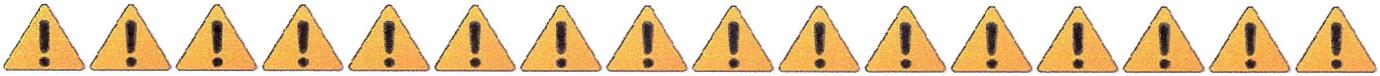
1. Parts which are scored or broken because the machine was operated without sufficient lubricating oil or the power grade of oil are not covered by warranty. Check oil level at least every five hours, and refill when necessary. Change oil as recommended.
2. Damage or wear caused by dirt which enters 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 and obligations to make changes or additions to the equipment sold previously.

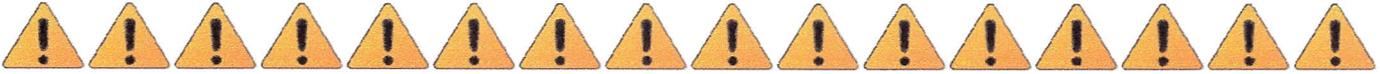
WARRANTY IS AVAILABLE ONLY THROUGH SERVICE CENTERS OR SERVICE DEPARTMENT WHICH HAVE BEEN APPROVED AND AUTHORIZED BY PRAIRIE DOG BORING EQUIPMENT, INC.

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.

**COULD RESULT FROM FAILURE TO FOLLOW THESE SUGGESTIONS.
PRAIRIE DOG SUGGESTED OPERATIONS & PROCEDURES**

FOR MODEL'S UG900TW, UG1200TW, AND 1600TW

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

THE HOLE

FIRST, YOU NEED A BORE PIT TO SET THE MACHINE AT THE DESIRED DEPTH OF DRILL ROD ENTRY. THE DIMENSIONS OF THE PIT NEED TO BE A MINIMUM OF 20" WIDE AND 8' LONG. WHERE THE PILOT LEAVES THE BORE HOLE (COMMONLY CALLED A COME-OUT HOLE) YOU WILL NEED A SECOND BORE PIT. THE DIMENSIONS NEED TO BE A MINIMUM OF 20" WIDE AND 10' LONG. THIS PIT NEEDS TO BE AT THE DESIRED DEPTH OF INSTALLATIONS OF YOUR PIPE, WIRE OR OTHER UNDERGROUND UTILITY EQUIPMENT. (SEE FIG. 2-A)

THE LINE UP

SET THE MACHINE IN THE BORE PIT ON LEVEL TO ENSURE STRAIGHT BORES. (SEE FIG 1-C) AFTER INSTALLING YOUR FIRST DRILL STEM TO THE " PRAIRIE DOG" HORIZONTAL EARTH BORING MACHINE, USE A LEVEL ON TOP OF THE DRILL STEM TO FURTHER ENSURE THE BORE WILL BE ON GRADE. (SEE FIG 1-D) TWO STAKES IN EACH BORE PIT ATTACHED TOGETHER WITH STRING CAN ALSO PROVIDE A STRAIGHT LINE REFERENCE FOR BORES. (SEE FIG 2-A) NEXT LAY YOUR PIPE OUT FROM BORE PIT TO HELP GAUGE YOUR DISTANCE. WHEN THE LAST SECTION OF PIPE IS ADDED FOR DRILLING, YOU SHOULD BE ABLE TO SEE IT IN THE COME-OUT HOLE.

WATER

THE EASIEST APPLICATION IS OF COURSE FROM AN EXISTING WATER SOURCE USING A COMMON GARDEN HOSE. IF A WATER SUPPLY IS NOT AVAILABLE, TANKS AND DRUMS, WITH THE ADDITION 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 CONDITIONS A 55 GALLON DRUM OF WATER IS SUFFICIENT TO BORE 2" HOLE 30 FEET.

DRILLING

INSTALL THE PILOT BIT TO YOUR FIRST DRILL STEM, START THE MOTOR, ENGAGE THE CLUTCH, AND TURN THE WATER ON TO ENSURE THE PILOT BIT IS FREE OF ANY OBSTRUCTIONS. THE MACHINE ADVANCES WHEN THE HANDLE IS MOVED FORWARD AND BACK. THE CAM (PART NO. PDP964) TURNS ON THE TRACK TO ALLOW MOVEMENT. ENOUGH PRESSURE SHOULD BE APPLIED TO THE HANDLE ADVANCING SYSTEM TO ALLOW SMOOTH EASY OPERATION. IF TOO MUCH PRESSURE IS APPLIED, THE WATER WILL NOT BE ABLE TO MOVE THROUGH THE DRILL BIT EASILY, AND CAUSE THE PILOT BIT TO BECOME CLOGGED. IF THIS HAPPENS, STOP THE ADVANCING SYSTEM AND THE WATER SHOULD UNCLOG THE BIT MOMENTARILY. TO HELP GAUGE THIS, A SMALL AMOUNT OF WATER SHOULD BE COMING OUT OF THE HOLE AT ALL TIMES TO ENSURE GOOD WATER CIRCULATION. (SEE FIG 1-E) ADD THE DRILL RODS, STEM BY STEM UNTIL YOU'RE IN THE COME-OUT HOLE.

BACKREAMERING

DRILL A HOLE 2" BIGGER THAN YOUR PIPE, OR OTHER UNDERGROUND UTILITY MATERIAL, WHICH WILL ALLOW FOR EASE OF INSTALLATION. REMOVE THE PILOT BIT AND INSTALL THE PROPER SIZE BACKREAMER. THE ADDITION OF A CABLE SWIVEL AND CABLE CAN BE USED TO PULL BACK A PLUG TO SWAB THE HOLE, OR OTHER MATERIALS.

WHEN DRILLING BE SURE NOT TO FORCE THE MACHINE. THE CAM LEVER ACTION HAS MORE POWER THAN YOU NORMALLY NEED. IT IS BEST TO BORE WITH SLOW STEADY FORCE. WITH THE ADDITION OF WATER, THE SOIL NEEDS TO BE SIMILAR TO THE CONSISTENCY OF A THICK MALT. THIS IS DESIRABLE FOR TWO REASONS; THE MIXTURE KEEPS THE HOLE OPEN SO IT WILL NOT CAVE IN, AND ALLOWS THE PIPE, WIRE, OR PLUG TO BE PULLED BACK EASILY.

A WORD OF CAUTION

WHEN BORING, START EARLY AND TRY TO COMPLETE YOUR BORE THE SAME DAY. NEVER LEAVE A DRILL ROD IN THE HOLE FOR MORE THAN A COUPLE OF HOURS WHEN YOU STOP DRILLING. YOU CAN SEIZE THE DRILL STEM IF YOU ATTEMPT THIS BECAUSE THE WATER LEECHES OUT OF THE SOIL AND MAKES IT BECOME STICKY OR HARD AGAIN. IF IT BECOMES NECESSARY TO LEAVE THE HOLE OVERNIGHT, DRILL THE PILOT HOLE FIRST AND THEN REMOVE THE DRILL ROD FROM THE HOLE. YOU MAY THEN RE-DRILL THE PILOT HOLE IN JUST A FEW MINUTES.

INSTALLING THE PIPE

WHEN BORING SMALL HOLES OF 1' AND 2" DIAMETER, IT IS NOT NECESSARY TO USE A PULL PLUG OR SWAB. 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 CABLE TO THE PIPE AND PULL IT THROUGH THE BORE PIT. THE JOB IS NOW COMPLETE.

SUGGESTED OPERATION IN EXTREMELY SANDY SOILS

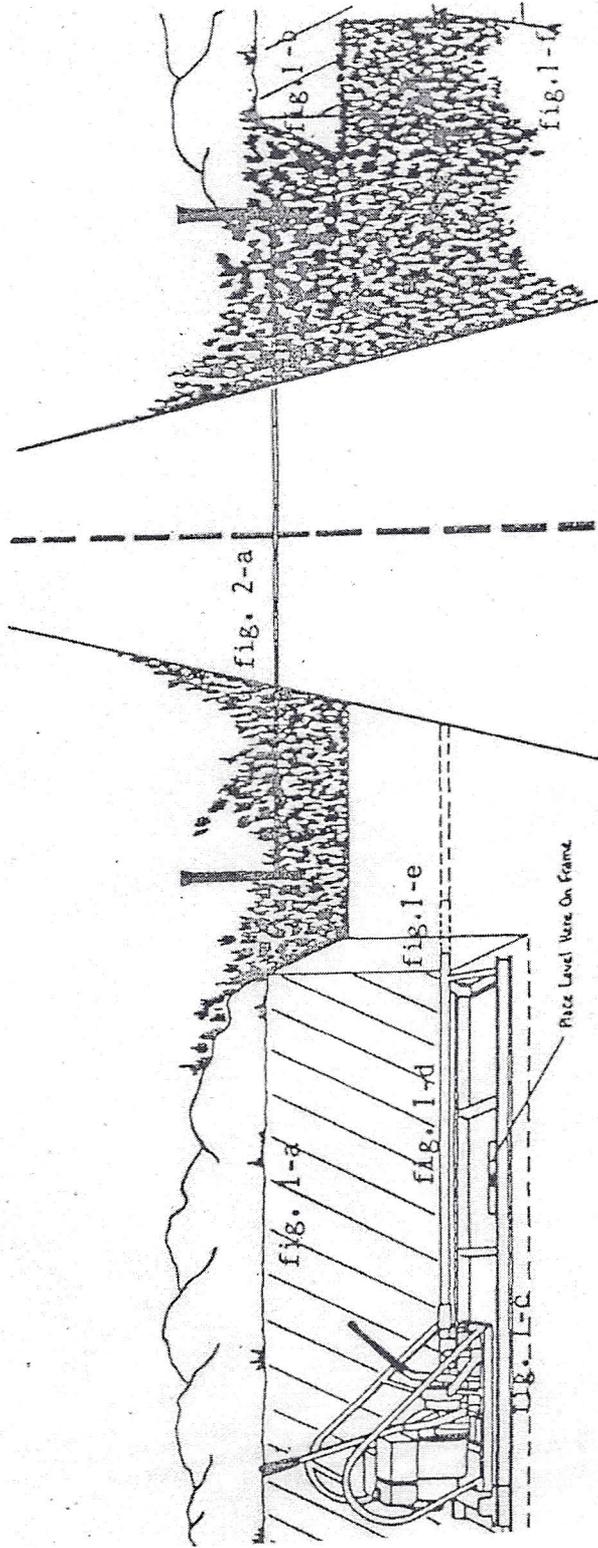
WHEN BORING EXTREMELY SANDY SOILS, THERE ARE SEVERAL PRODUCTS ON THE MARKET TO ELIMINATE MOST OF THE PROBLEMS ENCOUNTERED WHEN BORING IN SAND. TWO OF THE LARGEST MANUFACTURERS OF THIS PRODUCT ARE MACABAR AND BOROID. MACABAR'S PRODUCT IS CALLED MAGCODEL, AND BOROID'S PRODUCT IS CALLED AQUAGEL. THEY CAN BE MIXED IN A DRUM, OR OTHER SUITABLE CONTAINER WITH A RATIO OF 22 POUNDS PER 42 GALLONS OF WATER. IT WILL RESEMBLE HEAVY CREAM AND CAN BE PUMPED INTO THE HOLE WITH ANY CENTRIFUGAL PUMP AT 40 TO 50 POUNDS OF PRESSURE.

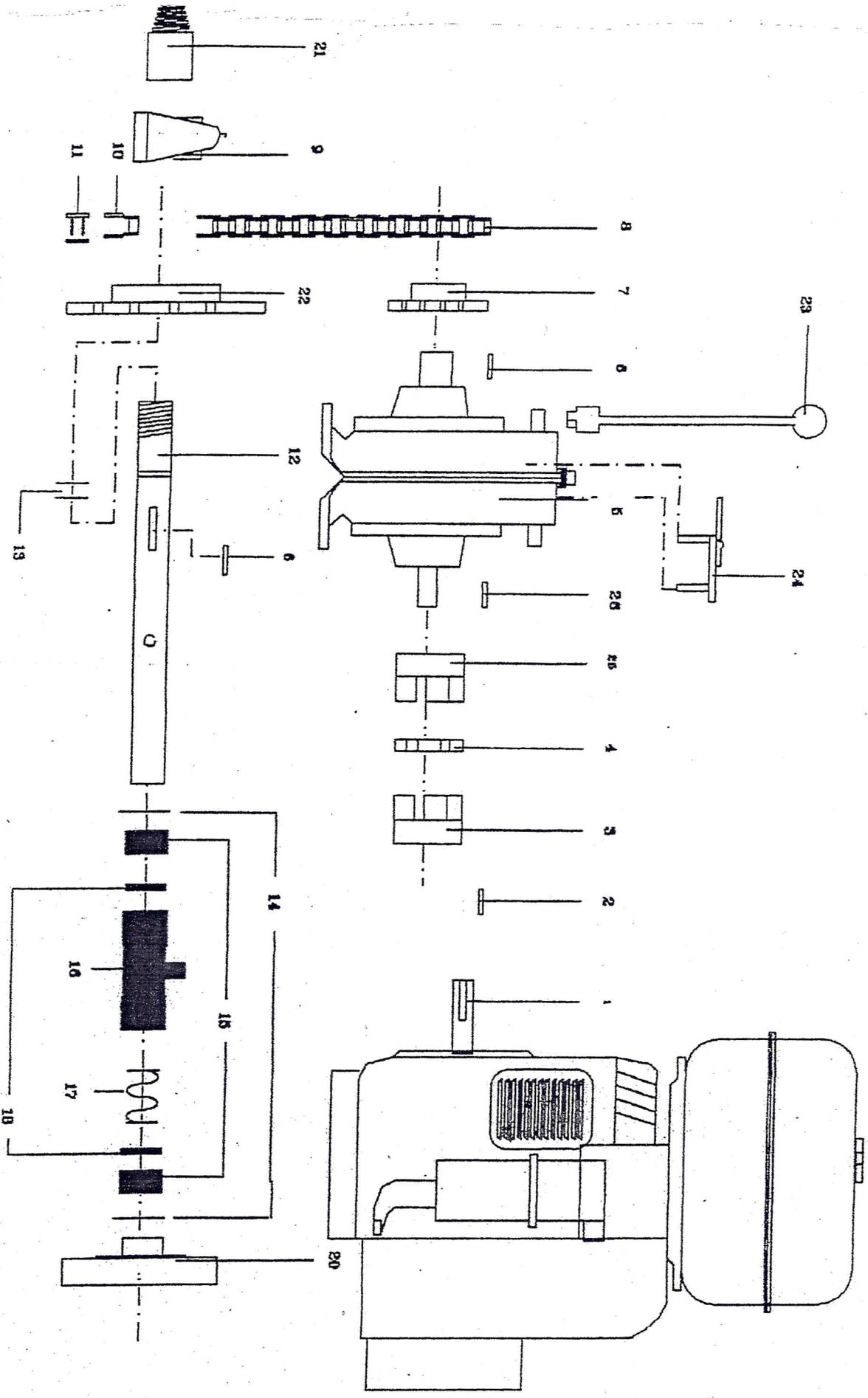
DRILLING ROCK

MOST ROCK, SUCH AS SANDSTONE, CALICHE, AND CONCRETE ARE FAIRLY EASY TO BORE THROUGH USING CARBIDE BITS. OTHER ROCK SUCH AS FLINSTONE WOULD REQUIRE A BORING RIG THAT UTILIZES A LARGE CRANE FOR SET-UP. IF YOU HAVE DIFFICULTY ON A BORE, AND THERE SEEMS TO BE AN IMPOSSIBLE OBSTRUCTION, THE BEST OPTION IS TO ATTEMPT TO BORE ANOTHER ROUTE IF POSSIBLE.

A FINAL NOTE

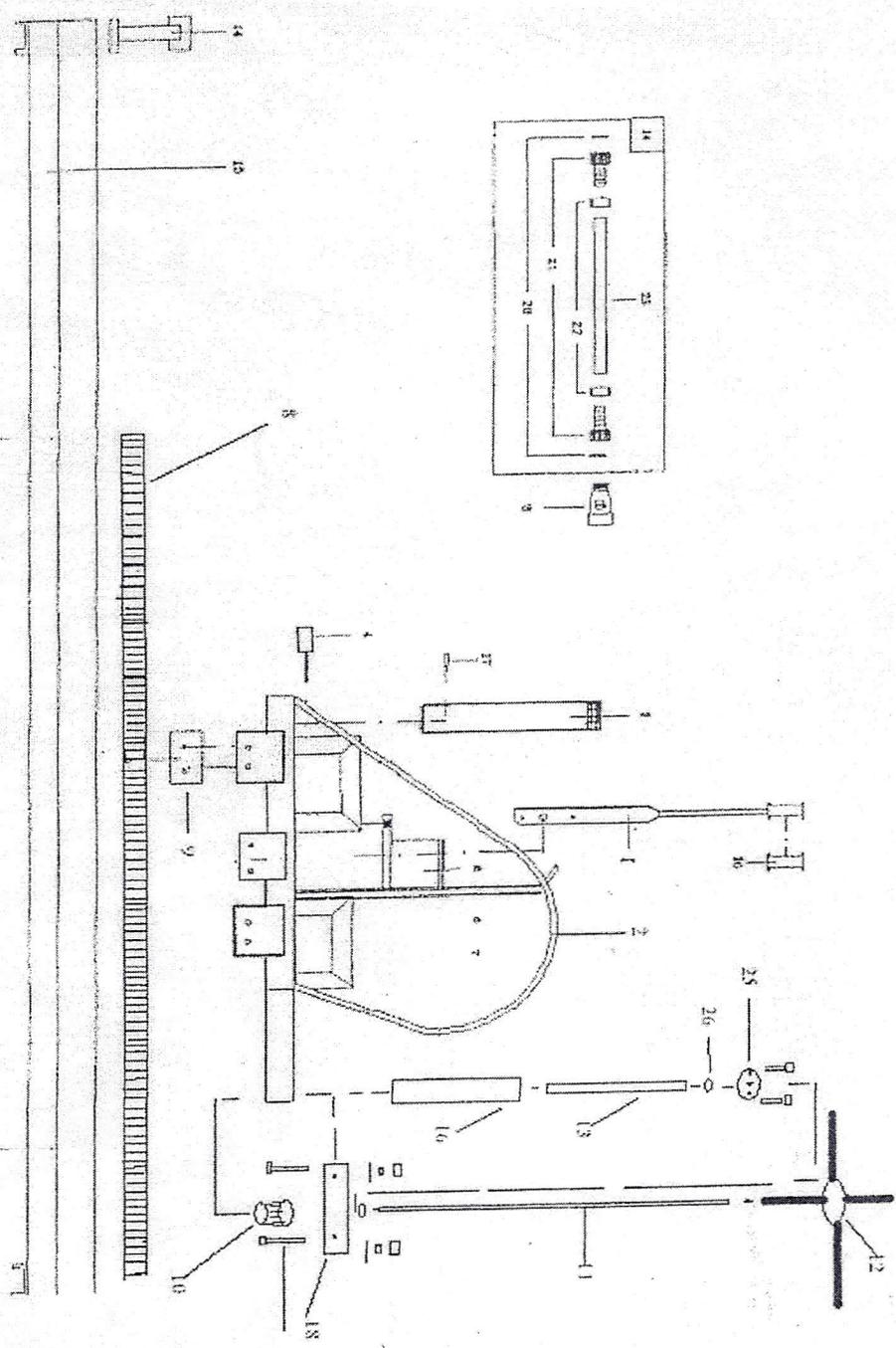
WE, AT PRAIRIE DOG BORING EQUIPMENT, INC. ARE SURE YOU WILL GET MANY YEARS OF SERVICE AND PROFITABILITY WITH THE PURCHASE OF ONE OF OUR MACHINES. OUR " PRAIRIE DOG" HORIZONTAL EARTH BORING MACHINES WILL PUT A HOLE IN THE GROUND, AND NOT IN YOUR POCKET. FAMILY OWNED AND OPERATED FOR 30 YEARS, WE TAKE PRIDE IN THE SERVICE AND CRAFTSMANSHIP THAT GO INTO EVERY " PRAIRIE DOG" WE BUILD.





MODEL 1200TW PARTS LIST

<u>REF #</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
REF 01	PDP1360	ENGINE	1
REF 02	PDP971-2	KEY	1
REF 03	PDP1394	COUPLER	1
REF 04	PDP1395	SPIDER	1
REF 05	PDP707	TRANS ASSY.	1
REF 06	PDP971-2	KEY	2
REF 07	PDP1316	SPROCKET	1
REF 08	PDP1314	DRIVE CHAIN	1
REF 09	PDP910	BEARING ASSY	1
REF 10	PDP1312	1/2 LINK	1
REF 11	PDP1313	CONN LINK	1
REF 12	PDP1571	WATER SWIVEL SHAFT	1
REF 13	PDP971-3	SNAP RING	2
REF 14	PDP916-5	SNAP RING WATER SWIVEL	2
REF 15	PDP916-2	BUSHING	2
REF 16	PDP916-1	WATER SWIVEL BODY	1
REF 17	PDP916-4	SPRING	1
REF 18	PDP916-3	U CUP WATER SWIVEL	2
REF 19	N/A		
REF 20	PDP706	REAR BEARING	1
REF 21	PDP1571-1	ADAPTER WAT/SHAFT	1
REF 22	PDP1315	SPROCKET	1
REF 23	PDP1305	HANDLE TRANS.	1
REF 24	PDP1399	HINGE LOCK	1
REF 25	PDP1396	COUPLER	1
REF 26	PDP718	TRNSM/INPUT KEY	1



MODEL 1200TW PARTS LIST

<u>REF #</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
REF 01	PDP1322	ENG FRAME 1200	1
REF 02	PDP1369	RATCHET HANDLE WE	1
REF 03	PDP1398	CHAIN GUARD	1
REF 04	PDP910-2	SPACER	1
REF 05	PDP1397	REAR GUARD	1
REF 06	N/A		
REF 07	N/A		
REF 08	PDP4164-0	GEAR RACK	2
REF 09	PDP911	GLIDES	6
REF 10	PDP4164-2	PINION GEAR	1
REF 11	PDP942	SHAFT	1
REF 12	PDP943	HANDLE	1
REF 13	PDP944	TUBE	1
REF 14	PDP921	DRILL STEM HOLDER	1
REF 15	PDP1317	MAIN GLIDE FRAME	1
REF 16	PDP945	HOUSING	1
REF 17	PDP1398-1	CHAIN GUARD CLIP	2
REF 18	PDP946	BOTTOM PLATE	1
REF 19	PDP913	VALVE	1
REF 20	PDP913-1	HOSE GASKET	2
REF 21	PDP914-2	FM HOSE END	2
REF 22	PDP914	"O" CLAMP	2
REF 23	PDP914-1	HOSE RUBBER ONLY	1
REF 24	PDP912	WATER HOSE ASSY.	**
REF 25	PDP947	TOP PLATE	1
PDP26	PDP202023	BEARING	2

*

OPTIONAL EQUIPMENT
ASSY/ INDIVIDUAL COMPONENTS LISTED
SEPERATELY

**

AS REQUIRED

MODEL 1200TW PARTS LIST

<u>REF #</u>	<u>PART NUMBER</u>	<u>DESCRIPTION</u>	<u>QTY.</u>
	PDP1200M	MANUAL	1
	PDP1393	DECAL SET 1200TW	1
	PDP1459	THROTTLE 1200	1
	PDP1460-2	SHIMS	***
	PDP707-1	PIPE PLUG	***
	PDP914-3	HOSE BIB TO 3/4 NPT ADT	***
	PDP914-5	BARB TP NPT ADAPTER	***
	PDP916	WATER SWIVE ASSY	**
	PDP916	SWIVEL KIT	**

*

OPTIONAL EQUIPMENT
 ASSY/ INDIVIDUAL COMPONETS LISTED
 SEPERATELY
 AS REQUIRED

**

REVERSING TRANSMISSION

1. WARRANTY

THE COMPANY'S PRODUCTS ARE GUARANTEED TO BE MADE OF THE FIRST CLASS MATERIAL, AND IN A SKILLFUL AND WORKMANLIKE MANNER, AND TO BE IN PERFECT RUNNING ORDER AT THE TIME THEY LEAVE THE FACTORY. THEY ARE GUARANTEED AGAINST ANY DEFECTIVE MATERIAL OR WORKMANSHIP, AND ANY PARTS PROVEN DEFECTIVE WITHIN TWELVE MONTHS FROM THE DATE OF SHIPMENT WILL BE REPLACED FREE OF CHARGE, F.O.B. OUR PLANT, ON RETURN OF SUCH DEFECTIVE PART TO THE COMPANY, TRANSPORTATION CHARGES PREPAID. NO PARTS, HOWEVER, SHALL BE RETURNED WITHOUT THE EXPRESS AUTHORIZATION OF THIS COMPANY SO TO DO.

THERE ARE NO WARRANTIES, EXPRESSED OR IMPLIED, EXCEPT SUCH WARRANTIES AS ARE DEFINITELY SET FORTH HEREIN. ANY PART OR PARTS MANUFACTURED ALTERED OR REPAIRED OUTSIDE THE FACTORY WITHOUT WRITTEN APPROVAL FROM THE FACTORY SHALL VOID ALL WARRANTIES SET FORTH HEREIN. UNDER NO CIRCUMSTANCES WILL THE COMPANY BE CHARGED FOR LABOR TO INSTALL PARTS FURNISHED UNDER WARRANTY UNLESS IT AGREES IN ADVANCE TO DO SO. SHIPPING CHARGES ON WARRANTY PARTS SHALL BE FOR THE ACCOUNT OF THE CUSTOMER UNLESS THE COMPANY AGREES IN ADVANCE TO PAY THEM.

THE COMPANY SHALL IN NO EVENT BE HELD LIABLE FOR ANY CONSEQUENTIAL DAMAGES OR OTHER DAMAGES OR DELAY CAUSED BY DEFECTIVE MATERIAL. EQUIPMENT AND ACCESSORIES, INCLUDING BEARINGS, NOT MANUFACTURED BY THE COMPANY ARE GUARANTEED ONLY TO THE EXTENT OF THE ORIGINAL MANUFACTURER'S GUARANTEE.

THE COMPANY RESERVES THE RIGHT TO IMPROVE ITS PRODUCTS THROUGH CHANGES IN DESIGN OR MATERIAL WITHOUT BEING OBLIGATED TO INCORPORATE SUCH CHANGES IN PRODUCTS OR PRIOR MANUFACTURE.

2. ADJUSTMENT

THE FORWARD AND REVERSE CLUTCH ARE ADJUSTED EXTERNALLY WITH THE SCREWS WHICH PROJECT FROM BOTH SIDES OF THE CASE. ADJUST ONE CLUTCH AT A TIME. LOOSEN THE JAM NUT. TURN IN THE ADJUSTING SCREW A FRACTION OF A TURN IF MORE TENSION IS DESIRED. TURN OUT THE ADJUSTING SCREW FOR LESS TENSION. TEST THE ADJUSTMENT BY MOVING THE OPERATING LEVER TOWARDS ITS RESPECTIVE ADJUSTING SCREW. TIGHTEN THE JAM NUT.

DO NOT TIGHTEN CLUTCHES EXCESSIVELY SINCE THIS ONLY INCREASES THE OPERATING EFFORT WITHOUT IMPROVING CLUTCH ACTION AND MAY RESULT IN DAMAGED BRAKE BANDS. OCCASIONALLY, DURING COLD WEATHER OPERATION, THE CLUTCHES MAY SLIP EVEN THOUGH CORRECTLY ADJUSTED, IN SUCH A CASE THE LUBRICANT MUST BE CHANGED TO A LIGHTER GRADE AS SPECIFIED IN LUBRICATION INSTRUCTIONS.

3. LUBRICATION

IMPORTANT: ALL GEARS ARE SHIPPED DRY FROM THE FACTORY. BE SURE TO ADD OIL BEFORE RUNNING. QUALITY OF OIL- USE A GOOD GRADE OF STRAIGHT MINERAL OIL--SAE 30 ABOVE 32°F SAE 10 BELOW 32°F. EXAMPLES OF RECOMMENDED LUBE OILS; ESSO LUBE MOTOR OIL; GULF LUBE MOTOR OIL; QUAKER STATE NON-DETERGENT MOTOR OIL (ML,MM), OR EQUIVALENT.

FILL UNIT WITH LUBRICATING OIL THROUGH THE BREATHER HOLE ON TOP UNIT OIL FLOWS FROM OIL LEVEL HOLE ON EITHER SIDE. SOMETIMES OIL WILL FOLLOW THE INTERNAL PARTS AND OIL FLOW OUT THE OIL LEVEL HOLES BEFORE THE UNIT IS FILLED WITH OIL TO LEVEL HOLES. BE SURE UNIT IS FILLED TO OIL LEVEL HOLE.

OIL CHANGE

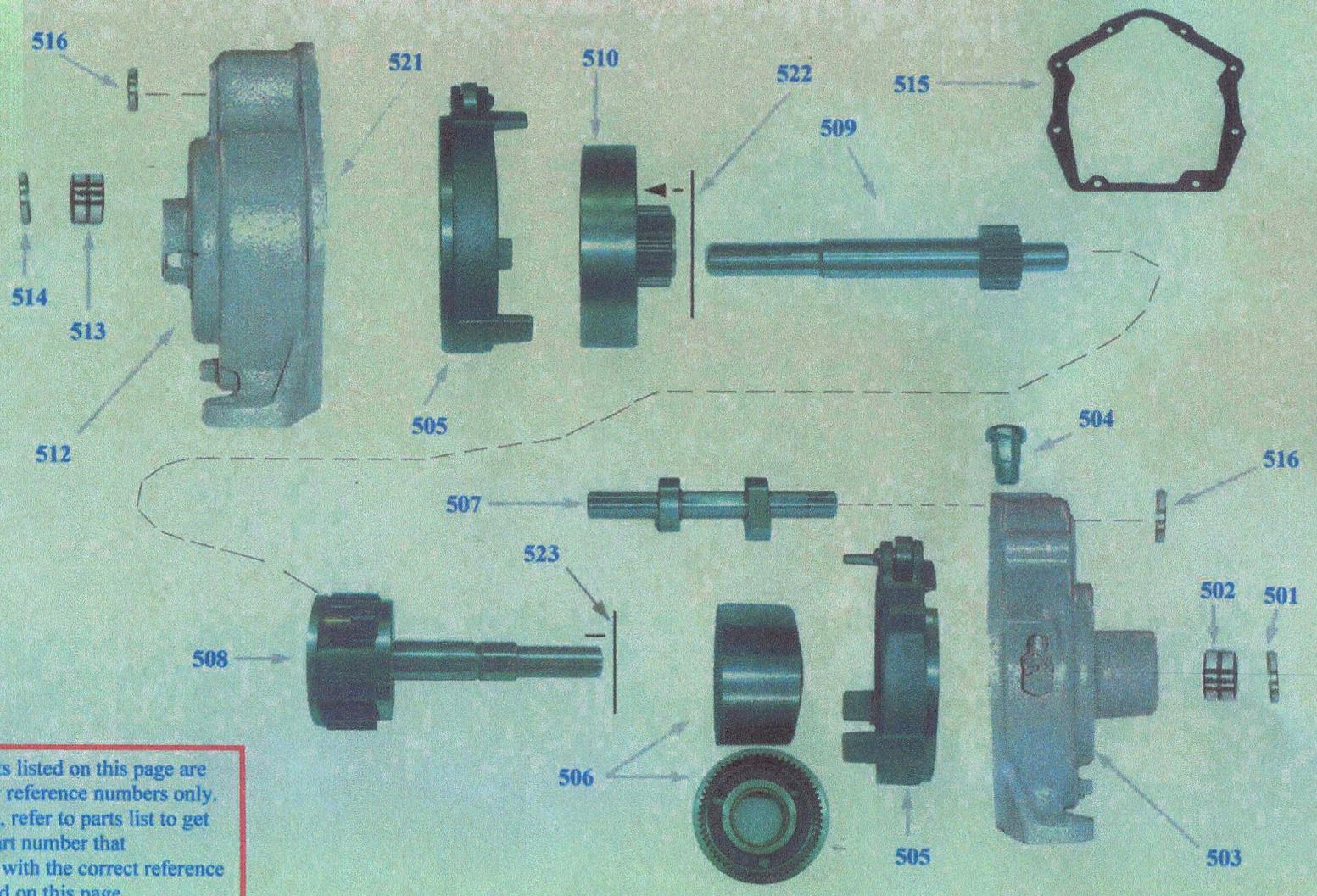
1. THE TRANSMISSION SHOULD DRAINED AND REFILLED AFTER THE FIRST 30 HOURS OF OPERATION.
2. AFTER THIS A CHANGE OF OIL EVERY 100 HOURS OF OPERATION OR EVERY SIX MONTHS, WHICHEVER OCCURS FIRST, FOR UNITS OPERATING UNDER FAVORABLE CONDITIONS.
3. WHERE OPERATING CONDITIONS ARE SEVERE, SUCH AS RAPID RISE AND FALL IN TEMPERATURE OF THE GEAR CASE WITH ACCOMPANIED CONDENSATION ON THE INSIDE WALLS AND RESULTING FORMATION OF SLUDGE, OR WHERE OPERATION IS IN MOIST OR DUSTY ATMOSPHERES, OR IN THE PRESENCE OF THE CHEMICAL FUMES, IT MAY BE NECESSARY TO CHANGE THE OIL AT INTERVALS OF ONE TO THREE MONTHS.

4. REPLACEMENT OF PARTS

SHOULD IT BECOME NECESSARY TO REPLACE ANY GEAR DUE TO WEAR OR BREAKAGE, THE MATING GEARS MUST BE CAREFULLY EXAMINED FOR WEAR OR CRACKS. IF ANY DOUBT EXISTS AS TO THE CONDITION OF THE MATING GEAR, THEY SHOULD BE REPLACED.

IN GENERAL, ALL GEARING IS SOLD COMPLETE WITH BEARING AND BUSHING INSTALLED.

THE SINTERED BUSHINGS AND NEEDLE BEARINGS USED IN THIS TRANSMISSION REQUIRE SPECIAL ASSEMBLY AND SIZING TOOLS AS SPECIFIED BY THE RESPECTIVE MANUFACTURERS. THEREFORE, THE REPLACEMENT OF THESE PARTS SHOULD NOT BE ATTEMPTED UNLESS PROPER EQUIPMENT IS AVAILABLE.



****Note:** Parts listed on this page are identified by reference numbers only. For ordering, refer to parts list to get the **PDP** part number that corresponds with the correct reference number listed on this page.

MODEL 900TW TRANSMISSION PARTS LIST

501	PDP20186	OIL SEAL	1
502	PDP10237-1	BEARING	1
503	PDP30X-5106	OUTPUT HOUSING ASSEMBLY	1
503A	PDP6267	BUSHING	1
503B	PDP4527	ADJUSTMENT BOLT	1
503C	PDP1703	JAM NUT	1
503D	PDP2101	PIPE PLUG	1
504	PDP30H-5105	BREATHER	1
505	PDP5X-5104	BRAKE BANK ASSEMBLY	2
506	PDP7AX-5106	GEAR DRUM ASSEMBLY	1
506A	PDP6268	BUSHING	1
507	PDP27AX-5106	CROSS SHAFT ASSEMBLY	1
507A	PDP(10)-5104	CAM	1
507B	PDP27A-5106	CROSS SHAFT	1
508	PDP3X-5104	GEAR CAGE ASSEMBLY	1
508A	PDP48X-5106	OUTPUT SHAFT ASSEMBLY	1
508B	PDP(3)-5104	GEAR COVER	1
508C	PDP9AX-5103	SHORT PINION ASSEMBLY	2
508D	9X-5103	LONG PINION ASSEMBLY	2
508E	PDP6271	BUSHING	2
508F	PDP6273	BUSHING	1
509	PDP26-5109	INPUT SHAFT	1
510	PDP8AX-5102	FLAT DRUM ASSEMBLY	1
510A	PDP8AX-5102	GEAR ASSEMBLY	1
510B	PDP26A-5101	BUSHING	1
510C	PDP6272	BUSHING	1
510D	PDP50142	SNAP RING	1
512	PDP30X-51027	INPUT HOUSING ASSEMBLY	1
512A	PDP4527	ADJUSTMENT BOLT	1
512B	PDP1703	JAM NUT	1
512C	PDP2101	PIPE PLUG	1
513	PDP10736	BEARING	1
514	PDP2076	OIL SEAL	1
515	PDP31A-5105	GASKET	1
516	PDP20187	OIL SEAL	1
520	PDP1228	KEY	2
521	PDP8TF-5101	WASHER	1
522	PDP8TR-5101	WASHER	1
523	PDP8TR-5134	WASHER	1