

# WIDDER TOOLS



## 18500 110V Electric Power Drive



### ***PRODUCT INFORMATION AND OPERATING INSTRUCTIONS:***

**Description:** The **18500** 110V Electric Power Drive is a heavy-duty drive for threading pipe, conduit, and rod using standard 12R drop head dies. The Power Drive can also be used for opening and closing rotating valves.

**Pipe Threading Capacity:** Up to 2" NPT

**Specifications:** 1/2 HP, 110 volts AC (60 Hz.)  
15 amps maximum draw  
400 ft/lbs. maximum torque

**Weight:** 29 lbs.

**IMPORTANT: READ MANUAL CAREFULLY BEFORE OPERATING THIS TOOL.  
FOLLOW ALL SAFETY PRECAUTIONS LISTED AND ALL OSHA REGULATIONS  
PERTAINING TO THIS TOOL.**

## ***SAFETY PRECAUTIONS:***

**Warning: When using air tools, basic safety precautions should always be followed to reduce the risk of injury, including the following:**

**1. Avoid Accidental Starting.**

- Do not carry Power Drive with finger on trigger.

**2. Ground Machine.**

- This tool must be grounded while in use to protect the operator from electric shock.
- This machine is equipped with an approved three-conductor cord and three-prong grounding-type plug to fit the proper grounding-type receptacle. The green conductor in the cord is the grounding wire. Never connect the green wire to a live terminal.
- **DO NOT USE THIS TOOL WITHOUT A GROUNDED (3-WIRE) SYSTEM.**

**3. Avoid Dangerous Environments.**

- Do not use Power Drive in wet or damp locations. Do not expose electric power tools to rain or other water. Keep power cord away from heat, oil, and sharp edges.

**4. Use Proper Extension Cords.**

- Use only three-wire extension cords which have three-prong grounding-type plugs and three-pole receptacles which accept the tool's plug. Be wary of "homemade" extension cords as they may not be correctly wired. Replace damaged cords.
- When tool is used outdoors, use only extension cords suitable for use outdoors and so marked.

<u>Cord Length</u>	<u>AWG</u>
5'-50'	12
50'-100'	10
100'-150'	8
150'-200'	6
200'-400'	4

**5. Maintain Tool.**

- Use sharp cutting tools and keep Power Drive clean for optimum performance.
- Follow all lubrication instructions as outlined in operating instructions.
- Keep handles clean, dry and free from oil and grease.

**6. Do Not Force Tool.**

- The Power Drive should be used for the application and use for which it was designed. Use the right tools for the job. Always use Support Arm (**WIDDER** part #18550) to support the weight and torque of the tool.

**7. Dress Properly.**

- Do not wear loose clothing or jewelry. They can be caught in moving parts.
- Work gloves and non-skid footwear are recommended.
- Wear protective hair covering to contain long hair.
- WEAR EAR PROTECTION if exposed to long periods of noisy shop operation.
- WEAR SAFETY GLASSES

**8. Secure Work.**

- Use clamps or a vise to hold work **AT ALL TIMES.**

**9. Do Not Overreach.**

- Keep your balance and proper footing at all times.
- Do not reach across rotating parts, or material being worked on.
- Keep hands and loose tools away from moving elements.

**10. Disconnect Power.**

- When not in use, before servicing, and when changing dies, always unplug tool from electricity.

**11. Maintenance.**

- Maintenance should be performed by a Factory Authorized Service Representative or the factory.

**12. Replacement Parts.**

- When servicing use only genuine replacement parts from an authorized distributor.

**WARNING: THIS TOOL IS CAPABLE OF PRODUCING UP TO 400 FOOT POUNDS OF TORQUE AND MAY CAUSE SERIOUS INJURY IF IMPROPERLY USED. FOLLOW ALL INSTRUCTIONS.**

## ***OPERATING INSTRUCTIONS:***

**Warning: Operator should be thoroughly familiar with safety precautions before attempting to operate this tool.**

1. Install die head squarely into the drive hub until spring-loaded drive pawls snap into place.
2. Secure pipe in a portable vise or bench vise.
3. Install Support Arm (**WIDDER** part #18550) onto pipe so that the Support Arm Post is pointing toward and flush with the end of the pipe to be threaded.
4. Place die head over end of pipe. Make sure Support Arm is correctly positioned. Support Arm Post should pass through Handle on the Power Drive body.
5. Connect Power Drive to a GROUNDED OUTLET OR EXTENSION CORD (SEE SAFETY PRECAUTIONS).
6. During threading, it is critical that the die head is lubricated heavily with a quality heavy thread cutting oil. **FAILURE TO LUBRICATE DIES WILL PRODUCE A POOR AND/OR UNUSALBE THREAD**
7. Simultaneously depress the trigger and exert pressure against the die head with palm of free hand to make sure that thread is started.
8. Keep trigger depressed until the end of the pipe is even with the edge of the die head insert and release trigger.
9. Reverse threader by depressing trigger in opposite direction. Grip both handles of the tool and remove from pipe.

## ***MAINTENANCE INSTUCTIONS:***

**Warning: Always disconnect tool from electricity before servicing Power Drive.**

**Note:** If any maintenance is required other than that listed below, take Power Drive to A Factory Authorized Service Center.

### **1. Lubrication.**

Approximately every 6 months remove the body cover and the drive hub. Remove old grease and carefully wipe down the face of the drive hub bearings and the bearing contact area of the drive hub. Apply a new coating of a high-quality lubricating grease to the face of the gears, drive hub, and bearings.

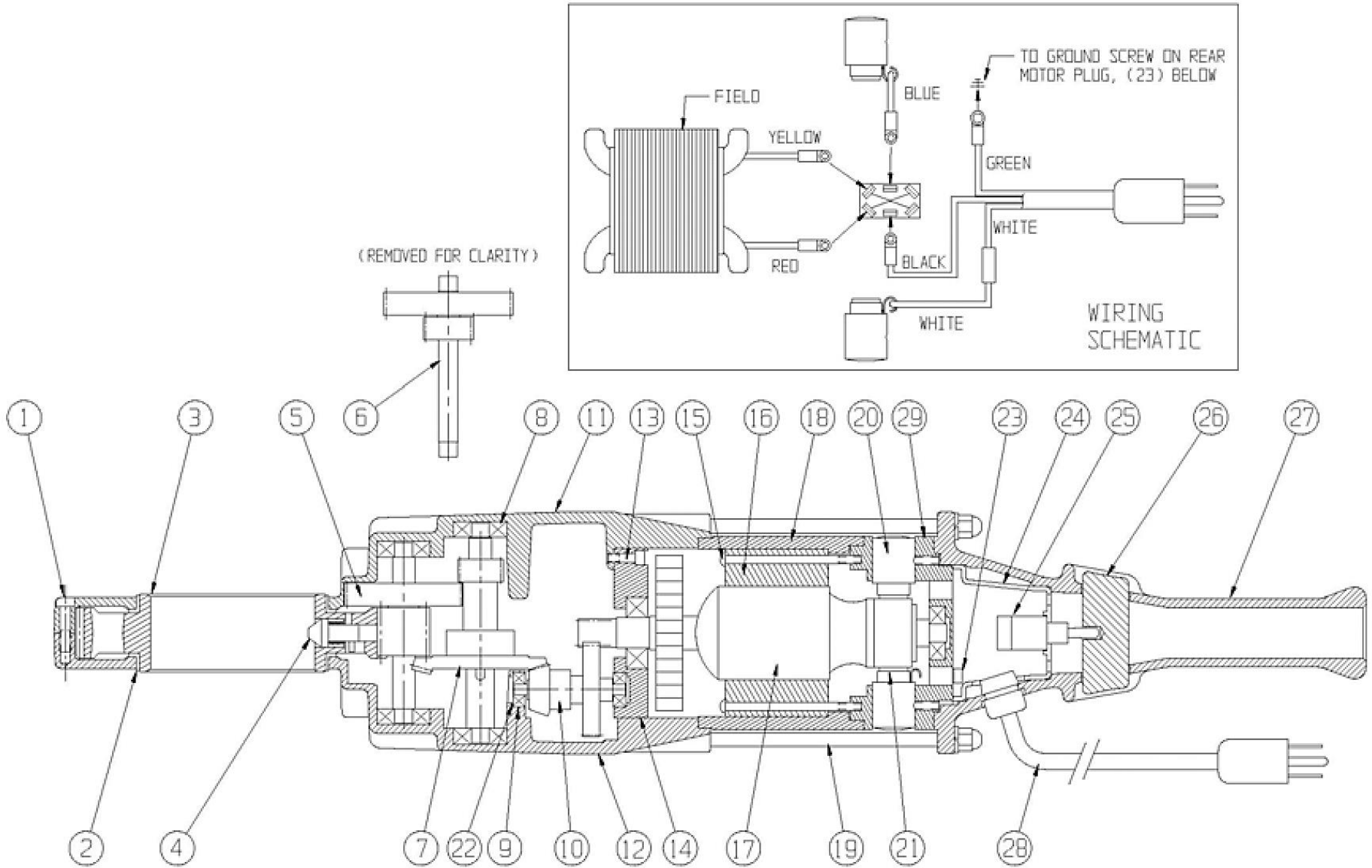
### **2. Motor Brush Replacement.**

Approximately every 6 months remove the motor brushes and check for wear. Replace brushes when they are worn to less than ¼” long.

### **3. Die Inserts**

Check die head inserts for damage or wear. Replace inserts if they appear dull or damaged. Dull inserts will produce a ragged thread.

# WIDDER Power Threader #18500



## **WIDDER Power Threader #18500**

<b>Item #</b>	<b>Qty./Assy.</b>	<b>Description</b>	<b>Part #</b>	<b>Notes</b>
1	11	Body Cap Screw	24-1041	
2	2	Bearing Ring	24-1026	
3	1	Drive Hub Assembly	24-0010	Includes Drive Pawls, Assembled
4	2	Drive Pawl Replacement Kit	24-0020	Includes Spring & Pin, Sold as Pair
5	1	Pinion Assembly #4	24-0014	
6	1	Pinion Assembly #2	24-0012	
7	1	Pinion Assembly #3	24-0013	
8	6	Ball Bearing	24-1043	
9	2	Ball Bearing	24-1034	
10	1	Pinion Assembly #1	24-0011	
11	1	RH Body Half Assembly	24-0023	Includes Ball & Ring Bearings
12	1	LH Body Half Assembly	24-0024	Includes Ball & Ring Bearings
13	2	Front Plug Screw	24-1022	
14	1	Front Motor Plug Assembly	24-0022	Includes 2 Bearings, Dowel & Mounting Screws
15	2	Field Screw	24-1027	
16	1	Field Assembly	24-0015	Includes Field w/Terminals
17	1	Armature	24-1010	
18	1	Motor Cover	24-1014	
19	4	Tie Rod Assembly	24-0021	Includes Nuts & Washers
20	1	Brush Holder Set and Screw	24-0016	Includes Brush Holder w/Cap, Terminals & Set Screw (Sold as Pair)
21	1	Brush Set	24-1009	Includes 2 Brushes
22	1	Finger Spring	24-1023	
23	1	Ground Screw	24-1032	
24	1	Switch Cup	24-1007	
25	1	Switch Assembly	24-0017	Pre-Wired
26	1	Trigger	24-1003	
27	1	Handle	24-1002	
28	1	Cord Set	24-0018	Includes Strain Relief
29	1	Rear Motor Plug Assembly	24-0019	Includes Bearing, Cap & Ground Screw