TRADEMASTER. DRILLING MACHINE

INSTRUCTION MANUAL







REOUIRED



NEVER PLACE FINGERS NEAR **CUTTING AREA**



LINE VOLTAGE **PRESENT**



BEWARE OF **ROTATING** MACHINE PARTS

LIMITED WARRANTY

Industrial Tool & Machinery Sales (hereinafter refered to as ITMS) will, within twelve (12) months from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship. This warranty is void if the item has been damaged by accident, neglect, improper service or other causes not arising out of defects in materials or workmanship. This warranty does not apply to machines and/or components which have been altered, changed, or modified in any way, or subjected to overloading or use beyond recommended capacities and specifications. Worn componentry due to normal wear and tear is not a warranty claim. Goods returned defective shall be returned prepaid freight to ITMS or agreed repair agent, which shall be the buyer's sole and exclusive remedy for defective goods. ITMS accepts no additional liability pursuant to this quarantee for the costs of travelling or transportation of the product or parts to and from ITMS or the service agent or dealer, such costs are not included in this warranty.

The manufacturer reserves the right to make improvements and modifications to design without prior notice.

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PRIOR TO OPERATION

- 1. Power source; ensure that the power source to be used conforms to the power requirements specified on the name plate.
- 2. Power switch; ensure that the power switch is in the OFF position before any power is supplied to the machine.
- 3. Extension cord; when an extension cord must be used, ensure it is of sufficient thickness and rated capacity, and kept in the shortest length possible while remaining practical.

SAFETY PRECAUTIONS

Warning! When using electric tools basic safety precautions should always be followed to reduce the risk of fire, electric shock and personal injury, including the following.

Safety - Environment

- 1. Keep work area clean. Cluttered areas and benches invite injury.
- 2. Keep children & unauthorised persons away from the tool. Keep tool in work area with authorised trained personel to use machine.
- 3. Power tools must be used in dry areas only. When using power tools outdoors, use suitable extension cord.

Safety - Peronal

- 1. Dress properly, do not wear loose clothing or jewellery, they can invite personal injury. Always cover long hair.
- 2. When operating power tools suitable personal protective equipment must be worn where necessary, including, but not restricted to eye, ear, respiratory and foot protection.
- 3. Stay alert, do not use power tools when tired or under the influence of alcohol, drugs or medicine as injury may occur.

Safety - Operation

- 1. Secure the work in the vice. Do not hold material by hand.
- 2. Keep proper footing and balance at all times when using tool.
- 3. Keep hands away from cutting area while machine is in operation.
- 4. Guards should be in place and in working order. Remove adjusting keys and wrenches before turning on.
- 4. Ensure cutting tool is correctly secured into machine before operation.

Safety - After Use

- 1. Disconnect machine from power when not in use.
- 2. Store machine in a dry place, well out of reach of children.

ASSEMBLY

Please refer to the machine breakdown on page 5 of this user manual.

- 1. Remove all contents from the packaging and ensure there are no missing items.
- 2. Place the base(1) onto a flat surface.
- 3. Fasten the column mount(2) to the base(1) using the bolts provided.
- 4. Slide the column(4) into the column mount(2) and fasten into place using the grub screws provided(3).
- 5. Place the Rack(6) vertically into the table bracket assembly(7-15), and slide onto the column. Tighten the fastening bolt on the table bracket assembly(7-15) to hold in the desired position.
- 6. Place the column ring(17) over the column & onto the rack(6). Tighten grub screw to hold the column ring(17) in place.
- 7. Place the table(16) onto the table bracket assembly(7-15).
- 8. Place the machine head assembly onto the column(4) and fasten into place.
- 9. Fasten the three handles(21) into the handle seat(20). Then fasten the three handle tips(22) into the handles(21).
- 10. Place the chuck guard provided onto the spindle(71) and tighten fastening bolt.

MACHINE OPERATION

Table Adjustment

1. To adjust table up or down, loosen clamp bolt (A), then turn crank handle(B) to desired height. Retighten clamp bolt(A) before operating machine.

- 2. To swing table horizontally, loosen clamp bolt(A) then swing table to desired position, then retighten clamp bolt(A).
- 3. To tilt work table, loosen table nuts(C), tilt to desired position, then retighten nuts.

Spindle Adjustment

- 1. To stop drill at a specified depth, loosen half wing bolt(E) located on feed pinion assembly, rotate depth indicator to desired depth, and retighten half wing bolt(E).
- 2. To hold a stationary depth, loosen half wing bolt(E), turn feed pinion to desired stationary position, then retighten half wing bolt(E).

Drill Chuck & Arbor

- 1. Slide small end of arbor into the chuck, place large end of arbor into the spindle. Adjust table to 100mm from the spindle. Open chuck completely. Pull feed pinion down, pressing the chuck against the table until the arbor is tightly secured into the spindle.
- 2. To remove chuck & arbor, adjust stationary depth to 75mm . Turn the spindle manually lining up the spindle and quill key holes. Insert the provided drill drift, and with one

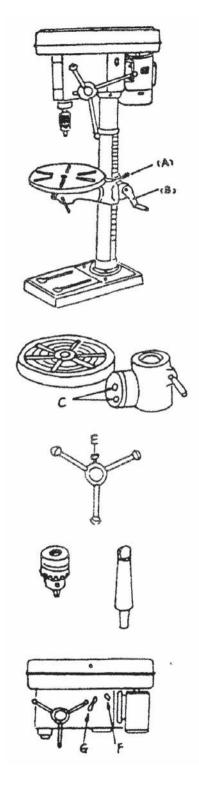
hand holding the chuck, tap lightly on top of the arbor until the arbor and chuck fall out of the spindle. Loosen half wing bolt and allow spindle to return to it's original position.

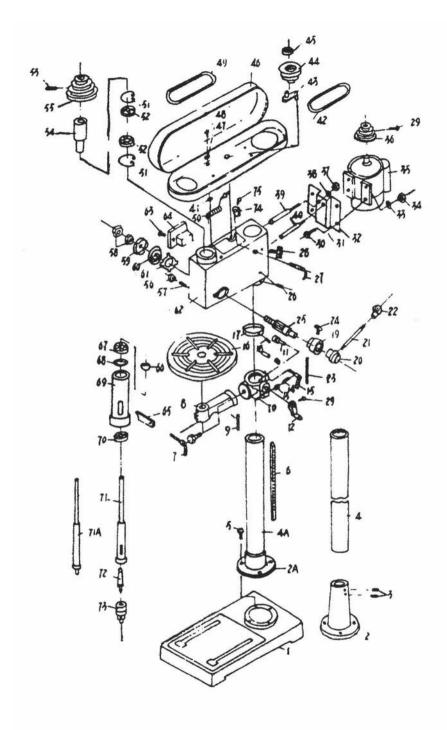
Morse Taper Drill Bits

Place tapered bit into the spindle hole, twisting and pushing upward until bit is snug. Place a block of wood on the table and Pull feed pinion down, pressing the tapered bit against the block of wood until bit is firmly positioned into the spindle.

Changing Speeds

To change speeds, loosen slide bar lock screw(F) and pull cam handle(G) toward the front of the drill press. Place pulley belts on appropriate pulley to create the desired drill speed (see chart inside pulley cover). Then push the cam handle(G) back towards the motor until moderate tension is reached, and tighten slide bar lock screw(F).





PART LIST

PART NO.	NAME	PART NO.	NAME		
1	Base	39	Shaft		
2	Fianged Coloumn Base	40	Adjusting Shaft		
3	Fixing Screw	41	Rubber Ring		
4	Coloumn	42	V-Belt		
5	Bolt	43	Pulley Spindle		
6	Teeth	44	Pulley		
7	Table Lock Handle	45	Bearing		
8	Table Bracket	46	Pulley Cover		
9	Angle Scale	47	Washer		
10	Working Table Holder	48	Bolt		
11	Worn Pinion	49	V-Belt		
12	Handle	50	Electric		
13	Gear	51	C-Spring		
14	Pin	52	Bearing		
15	Locking Handle	53	Nut		
16	Working Table	54	Keyway Spindle		
17	Ring	55	Spindle Pulley		
18	Bolt	56	Nut		
19	Depth Indicator	57	Fixing Screw		
20	Handle Seat	58	Nut		
21	Handle	59	Spring Cover		
22	Handle Tip	60	Spring		
23	Depth Scale	61	Spring Seat		
24	Fixing Screw	62	Houseing		
25	Feeding Shaft	63	Firing Screw		
26	Fixing Screw	64	Switch		
27	Adjusting Handle	65	Wedge		
28	Fixing Bolt	66	C-Spring		
29	Fixing Screw	67	Bearing		
30	Bolt	68	Rubber Ring		
31	Washer	69	Spindle Socket		
32	Motor Fixing Plate	70	Bearing		
33	Washer	71	Spindle		
34	Nut	72	Tappeped Spindle Tip		
35	Motor	73	Chuck		
36	Motor Pulley	74	Adjusting Block		
37	Nut	75	Bolt		
38	Washer	76	Switch Seat		

SPECIFICATIONS

BENCH TYPE DRILLING MACHINES

		TD1316	TD1416
Bench Drill	Bench Drill	Bench Drill	Bench Drill
13mm (1/2")	13mm(1/2")	16mm(5/8")	16mm(5/8")
250W	375W	375W	450W
50	65	85	85
5	5	16	16
B16	B16	MT#2	MT#2
210	260	325	360
160x160	200x200	Ф290	290x290
290x190	340x210	420x250	460x272
φ46	Ф58	Φ72	Φ72
580	680	980	1000
19/20	27/29	50/52	60/63
430x350x260	570x410x265	780x450x280	825x490x290
	13mm (1/2") 250W 50 5 5 B16 210 160x160 290x190 φ46 580 19/20	13mm (1/2") 13mm(1/2") 250W 375W 50 65 5 5 B16 B16 210 260 160x160 200x200 290x190 340x210 φ46 Φ58 580 680 19/20 27/29	13mm (1/2") 13mm(1/2") 16mm(5/8") 250W 375W 375W 50 65 85 5 5 16 B16 B16 MT#2 210 260 325 160x160 200x200 Φ290 290x190 340x210 420x250 φ46 Φ58 Φ72 580 680 980 19/20 27/29 50/52

PEDESTAL TYPE DRILLING MACHINES

Model	TD1316F	TD1416F	TD1420F	TD1825F	TD2032F
Description Max Drilling Cap.(mm)	Pedestal Drill 16mm(5/8")	Pedestal Drill 16mm(5/8")	Pedestal Drill φ25mm	Pedestal Drill φ25mm	Pedestal Drill φ32mm
Motor Power	550W	550W	750W	1500W	1500W
Spindle Travel(mm)	85	85	85	120	120
Speed	16	16	12	12	12
			280-2380rpm	150-2450rpm	150-2450rpm
Spindle Taper	MT#2	MT#2	MT#3	MT#3	MT#4
Swing(mm)	325	360	360	450	510
Table Size(mm)	Ф290	290x290	290×290	350×350	420×480
Base Size(mm)	460x272	460x272	460×272	500×375	560×450
Column Dia.(mm)	Φ72	Φ72	Ф80	Ф92	Ф92
Height(mm)	1580	1600	1600	1710	1710
N.W./G.W.(kgs)	60/63	70/74	80/84	120/128	145/153
Packing Size(mm)	1140x460x280	1140x500x300	1140×500×300	1430×670×330	1430×670×330