

INSTRUCTION MANUAL

ITEM NO.: **HTT-22(32)(42)(50)**
HYDRAULIC TAPPING MACHINE



HTT-22(32)(42)(50)-I-1910A-T4

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1. DESCRIPTION

- Hydraulic tapping machine is suitable for different size taps (from M4 to M42).
- The machine is equipped with hydraulic pump system for controlling the spindle to tap.
- The arm is equipped with lubricated for life bearings at all swivel points, provides weightless operation through the use of gas counter balance springs and permits the operator to bring the tap to the hole with ease.

2. UNPACKING

Please check for completeness. Refer to Figure 2-1 and Figure 2-2.

HTT-22,32,42,50

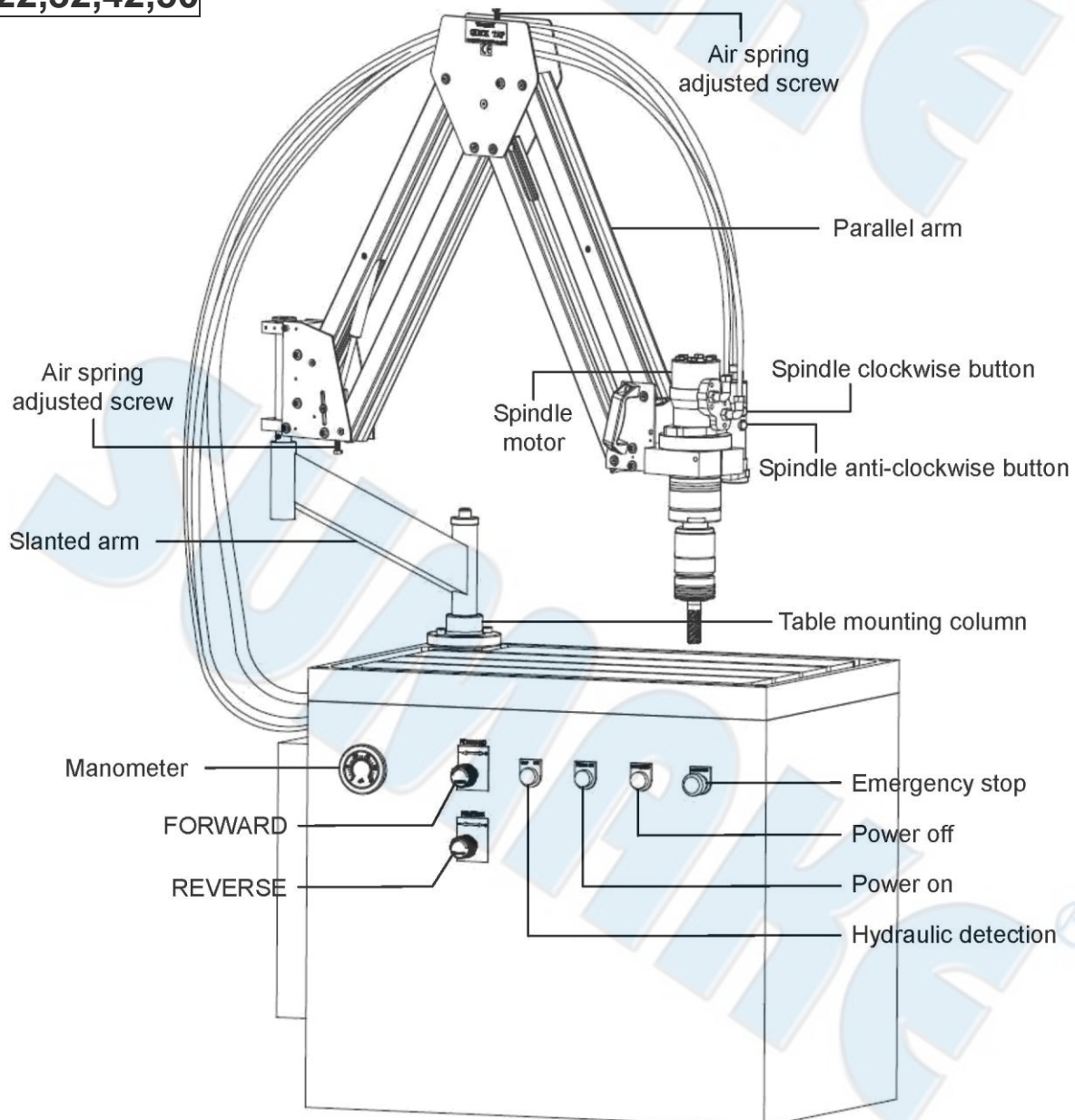


Figure 2-1

3. SPECIFICATIONS

| Model | HTT-22 | | HTT-32 | HTT-42 | HTT-50 |
|-----------------|------------------------------|-------------------------|------------------|------------------|---------------------------|
| For Tap | M3 ~ M22 | M4 ~ M32 | M4 ~ M42 | M8 ~ M50 | |
| Speed | 0 ~ 400 | 0~500 / 0 ~105 | 0~400 / 0~75 rpm | 0~360 / 0~60 rpm | |
| Tap holder size | STC-2E / STC-1E | STC-3E / STC-2E, STC-1E | | | STC-4E / STC-3E / STC-2E |
| Electric Motor | 3 HP | | | | 5 HP |
| Voltage | 220/380 V, 50/60 Hz, 3-PHASE | | | | |
| Work range | Rmax 1900mm | | Rmin 200mm | | Rmax 1600mm Rmin 200mm |

4. SAFETY RULES

- Some dust created by power sanding, grinding, drilling and other construction activities contains chemicals known to cause cancer, birth defects or other reproductive harm.
- Always follow this operation manual – even if you are familiar with use this tools. Remember the being careless can result in severe personal injury.
- Be alert and think clearly. Never operate power tools when tired, intoxicated or when taking medications that cause drowsiness.

5. BE PREPARED FOR JOB

- Wear proper apparel. Do not wear loose clothing, gloves, neckties, rings, bracelets or other jewelry which may get caught in moving parts of machine.
- Wear protective hair covering to contain long hair.
- Wear safety glasses (not everyday glasses) and shoes with non-slip soles.
- Wear dust mask and dustless clothes if operation is dusty.
- Wear ear protection if the work area may include exposure to excessive noise levels.
- Keep work area ventilation and clean. It should be properly lighted. Cluttered work areas invite accidents.
- Do not use the tools in dangerous environments or wet locations. Do not expose it to rain.

6. ASSEMBLY

STEP 1 : MOUNT TABLE MOUNTING COLUMN

Please assemble the table mounting column to a solid horizontal surface or the preserved place on the cast iron work cart by using 10mm bolts (see Figure 6-1).

※Reminder : The bolts are packaged in the box.※



Figure 6-1

STEP 2 : ATTACH PARALLEL ARM AND SLANTED ARM

See Figure 6-2

- (1) Remove locking handle and washer from table mounting column.
- (2) Slider slanted arm over table mounting column.
- (3) Replace locking handle and washer to secure in position.

See Figure 6-3

- (4) Insert stretch arm rod into slanted arm.
- (5) Remove washer from stretch arm rod.

See Figure 6-4

- (6) Slider Stretch arm (with tapping spindle, driver, motor and wires) into the rod.
- (7) Replace washer to secure in position.

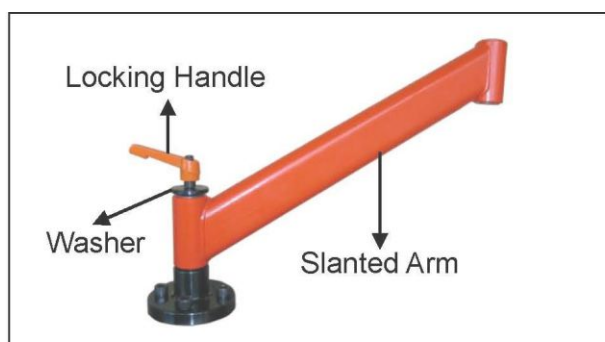


Figure 6-2

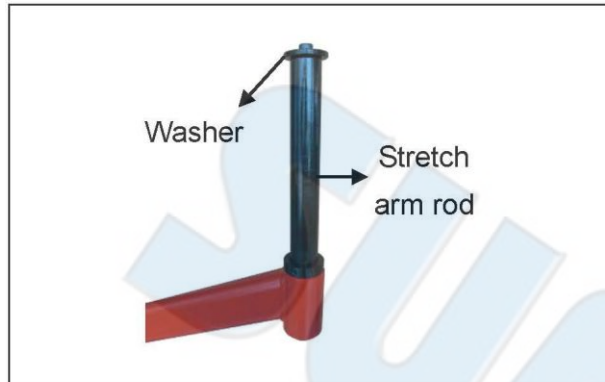


Figure 6-3



Figure 6-4

7. PREPARATION BEFORE OPERATION

A. INTRODUCTION TO THE OPERATION BUTTONS (see Figure 2-1 and 2-2)

- (1) **Manometer** : Show the pressure of the tapping machine.
- (2) **Emergency stop** : Stop the tapping machine immediately.
- (3) **Power off** : Turn the power off.
- (4) **Power on** : Turn the power on.
- (5) **FORWARD** : Increase spindle clockwise speed.
- (6) **REVERSE** : Decrease spindle anti-clockwise speed.
- (7) **HYDRAULIC DETECTION** : The original default setting is ON.

ON=Energy Saving. OFF=No Energy Saving. ※Please contact the manufacturer before adjusting it.※

B. ATTACH THE TAP AND TAP HOLDER

- (1) Slide tap into tap holder until tap locks in place. Tap can be removed by simultaneously depressing flange and pulling out tap (see Figure 7-1).
- (2) Insert tap holder with tap into spindle. Pull up tap holder sleeve, insert tap holder with tabs aligned to slots in tap holder sleeve, and then release sleeve (see Figure 7-2).

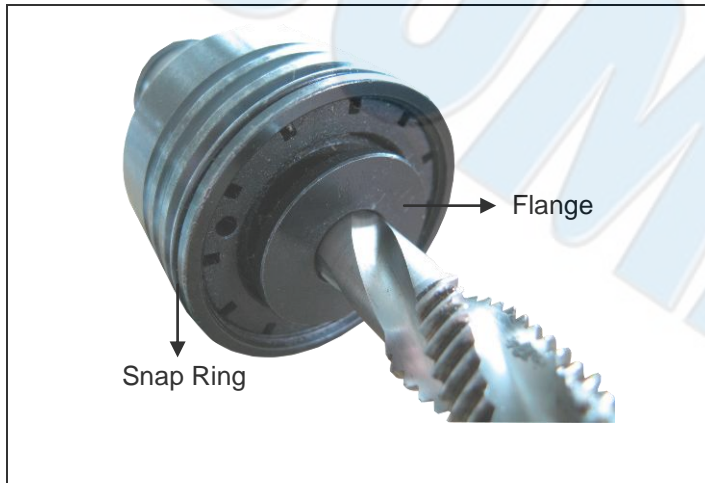


Figure 7-1

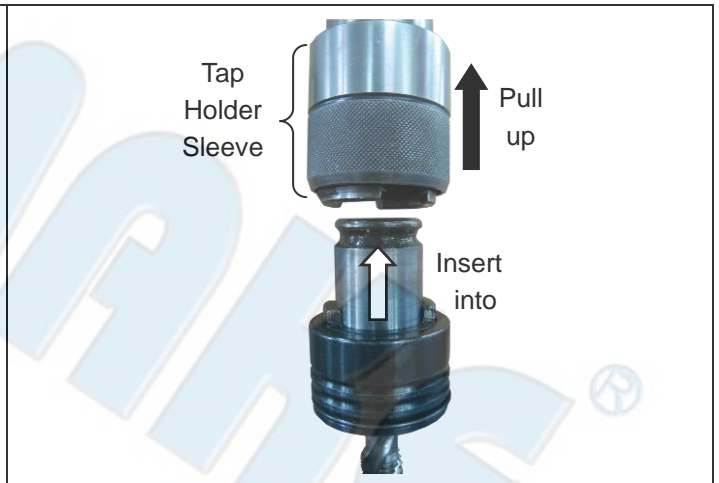


Figure 7-2

C. ADJUST SPINDLE SPEED (Only for HTT-32,42)

ⓘ Caution: Never change speed while spindle is in operation. ⓘ

- (1) These models have two speeds. It can be changed by grasping sleeve, pulling downward so that pin is out of the notch in the body, rotating sleeve to the other notch and then releasing the sleeve so that pin seats in the notch.
- (2) Rotate sleeve to seat the pin in the notch. Turn the sleeve clockwise to increase the speed and counter clockwise to reduce the speed.

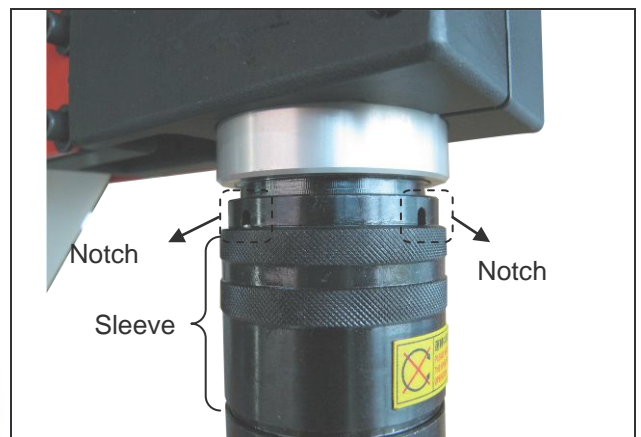


Figure 7-3

D. ADJUST AIR SPRING (see Figure 2-1 and 2-2)

ⓘ Caution: Never adjust air spring while machine is in operation. ⓘ

※ The parallel arm will be set well before out of factory. ※

Rotate "Air spring adjusting screw" clockwise to make air spring tight, counterclockwise to loosening air spring.

8. OPERATION

- A. Turn the power on (see Figure 2-1 and 2-2).
- B. Adjust the spindle speed (see Figure 7-3).

- C. Take the spindle with tap to the hole to be tapped and place the tip of the tap on the hole.
- D. Press “Spindle clockwise button”. The tap will self-center and begin tapping. Let the tap arm guide the tap into the hole.
- E. After tapping to the required depth, press “Spindle anti-clockwise button”. The tap will reverse out from the hole.

※Reminder : Rotate “FORWARD” or “REVERSE” can adjust spindle speed (see Figure 2-1 and 2-2). Do not adjust spindle speed while doing tapping. ※

Caution:

If the tap holder “clicks” or “ratchets”, the tap holder clutch torsion needs to be adjusted.

- (1) Remove the snap ring from the groove of the tap holder (see Figure 7-1).
- (2) Use the tools to adjust the torsion as Figure 8-1.
- (3) Rotate notched nut clockwise to increase torsion, counterclockwise to decrease torsion (see Figure 8-2).
- (4) Replace spring clip into groove of the tap holder.

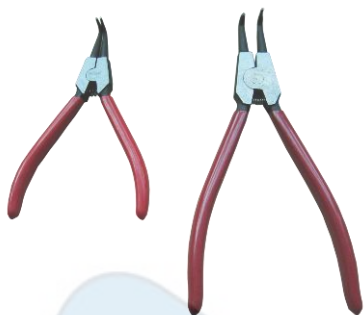


Figure 8-1

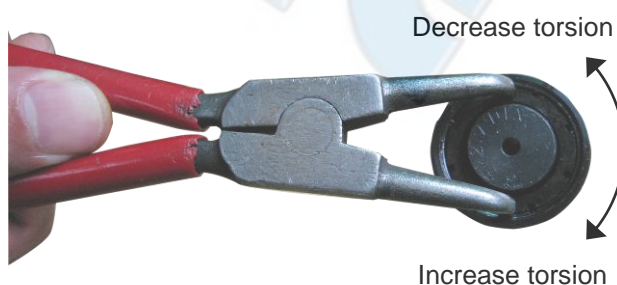


Figure 8-2

9. MAINTENANCE

- A. Always unplug tool prior to inspection.
- B. Do not adjust, remove or maintain tool in operation.
- C. Consult manual for specific maintaining and adjusting procedures.
- D. Keep tool lubricated and clean for safest operation.
- E. Remove adjusting tools. Form habit of checking to see that adjusting tools are removed before switching machine on.
- F. Check for damaged parts. It may affect a tool's operation.
- G. Damaged parts should be properly repaired or replaced. Do not perform makeshift repairs.
- H. Never brush away chips while the machine is in operation. All clean up should be done when the machine is stopped.
- I. Never modify machine without consulting manufacturer.
- J. Use sharp cutters and keep the tool clean for safest operation.

10. NOTICE FOR USING TOOLS

- A. Keep visitors at a safe distance from work area.
- B. Keep children out of workplace.
- C. All workpieces must be clamped to work table when using tapping machine. It is unsafe to use your hands to hold any workpiece.
- D. Avoid accidental start-up. Make sure that tool switch is in OFF position before operation.
- E. Do not force tool. It will work most efficiently at the rate for which it was designed.
- F. Keep hands away from moving parts. Protect hands from possible injury.
- G. Never leave a tool running unattended. Turn the power off and do not leave tool until comes o a complete stop.
- H. Do not use tool for a long time. If Spindle motor is hot, please let the machine rest until it cool down.

11. TROUBLESHOOTING

| SYMPTOM | POSSIBLE CAUSE(S) | CORRECTIVE ACTION |
|---|---|--|
| Clutch slips and tap will not turn | Tap holder clutch torsion needs to be adjusted. | Adjust tap holder torsion (see Figure 8-1 and 8-2) |
| | Not tap lubrication | Apply lubrication to tap |
| | Dull tap | Replace tap |
| | Hole and tap misaligned | Reposition tap arm |
| | Hole diameter too small | Enlarge hole |
| | Wrong tap for workpiece materials | Replace tap |
| Spindle does not turn or stops | Workpiece material with hardness | According to the hardness, upgrade bigger capacity spindle |
| Stretch arm drops or is difficult to move | loose air spring | Adjust air spring (see Figure 2-1 and 2-2) |
| | Worn air spring | Replace air spring (Air spring is a consumable product.) |
| Spindle motor is hot | Use spindle for a long time | Let spindle rest until it cool down Caution : Keep using a hot spindle will cause the spindle gear lubricant evaporating and break easily. |



EC DECLARATION OF CONFORMITY

We: **SUMAKE INDUSTRIAL CO., LTD.**

4F, No. 351, Yangguang St., Neihu District, Taipei City, Taiwan

declare in sole responsibility that the equipment

Equipment : **TAPPING MACHINE**

Model/ Serial No. : **HTT-22(32)(42)(50), HT-220(320)(420)(500)**

STS-08(12)(16)(20)(22)(24)(27)B

STT-08(12)(16)(20)(22)(24)(27)A, STT-08(12)(16)(20)(22)(24)(27)B

STQ-08(12)(16)(20)(22)(24)(27), STT-R16(20)(22)(24)(27)

to which this declaration applies, complies with these normative documents:

- Machinery Directive: 2006/42/EC

and conforms to the following EN standard,

- EN ISO 12100: 2010
- EN 60204-1:2018

Name and Signature/Position



Mike Su - Managing Director

Date and Place

2019/10/7

Taipei, Taiwan

TAPPING MACHINE-D-1910A-T4F

NOTE

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