

- 4 There is oil leaked out of the small and big plunger.
pump. Replace the seal ring in the spare parts bag

Note: If there are other troubles, please contact our
factory.

VII, Wearing parts

There is seal ring in our machine They are YX polyurethane seal ring

| | | | | |
|-------------|-----|---------|-----|---------|
| 3-BM-SWG-2 | D16 | I piece | D28 | I piece |
| 3-BM-SWG-3B | D16 | I piece | D28 | I piece |
| 3-BM-SWG-4C | D16 | I piece | D28 | I piece |

MANUAL-HYDRAULIC PIPE BENDER

SWG-2A

SWG-3B

SWG-4C



1. Uses

SF series manual hydraulic tube bender is a kind of light Type tube bending machine which adopts fast-slow plunger Pump, To enhance its efficiency, tube is cold-bended by oil Pressure. Featured reasonable design, compact structure, Easy operation and maintenance, it is a kind of ideal tube Bending machine for construction, chemical, water-supply And petroleum pipeline.

To reduce labor intensity, our factory can also produce DF series motor-driven hydraulic tube bender which is Much more efficient and to operate

VI Trouble shootings

1.the work rod is raised feebly which can't bend the tube

- ①Check the steel ball in switch (1) if it is fallen or not, then tighten switch(1) clockwise.
- ②Check the steel lubricating oil if it is filled with the oil tank(II).
- ③Check the filler screw(3) if it is loose.
- ④Change the YX Polyurethane seal ring in plunger pump
- ⑤Remove the air in oil tank(II), whose methods refer to item 6 of Notice v.

2. There is air in the plunger pump or there is too little oil out of plunger pump.

- (1) Remove the air in oil tank(II), whose methods refer to item 6 of Notice v.
- (2) There isn't enough oil in the oil tank, fill it.
- (3) Oil grade isn't accord with standard, change N15# lubricating oil
- (4) There is dirt in the filter, must clean it. Dismantle Filter with bulldog wrench and clean its copper mesh With gasoline.

3. Handle is lift up while pressing the handle(4) . Raise The work rod thoroughly or knock the front handle seat With hammer while there is oil pressure in the plunger Pump at operating

II. Technical parameters

| Model | | SWG-2A | SWG-3B | SWG-4C | |
|-----------------------|------------------|----------------------|----------------------|----------------------|------------|
| Ltem | Unit | | | | |
| Max.working pressure | MP a | 44 | 59 | 62 | |
| Max.off-load pressure | MP a | 47-51 | 59 | 62 | |
| Max.working load | KN | 88 | 196 | 206 | |
| Max. Working stroke | MM | 250 | 320 | 370 | |
| Capacity | Outside diameter | MM | Φ 21.5-60 | Φ 21.5-88.5 | Φ 21.5-108 |
| | Thickness | | 2.75-4.5 | 2.75-4.5 | 2.75-4.5 |
| Oil tank capacity | L | 1.2 | 1.8 | 3 | |
| Bending angle | rad | $\pi/2 \leq a < \pi$ | $\pi/2 \leq a < \pi$ | $\pi/2 \leq a < \pi$ | |
| Oil grade | # | N15 | N15 | N15 | |
| Max. Operating force | N | ≤490 | ≤490 | ≤490 | |
| Machine weight | kg | 59(108) | 124(108) | 196(245) | |

Outside diameter:

For low pressure tube: φ 21.3 φ 26.8 φ 33.5
 φ 42.3 φ 60

For welded tube: φ 75 φ 89 φ 108

For φ 114 welded tube,please order φ 114 tube die

2 .Loose filler screw to ventilate.

3. Before bending must turn off the switch.

4.The outside diameter of tube must fit the groove of Tube die,or else the tube will be shrunken or the tube die will be burst.

5. The contact surface between tube and the two Supporting rollers must be smooth and add lubricating oil on it ,make sure the weld seam not at the bending position.

6. When find air in the pump,you can start plunger pump By pressing handle.The work rod is raised and lift up The cylinder head(1)(2)which make tube bender tilt at 45° position. Loose switch(1) anti-clockwise to emit The air in oil tank till air is thoroughly emit out.

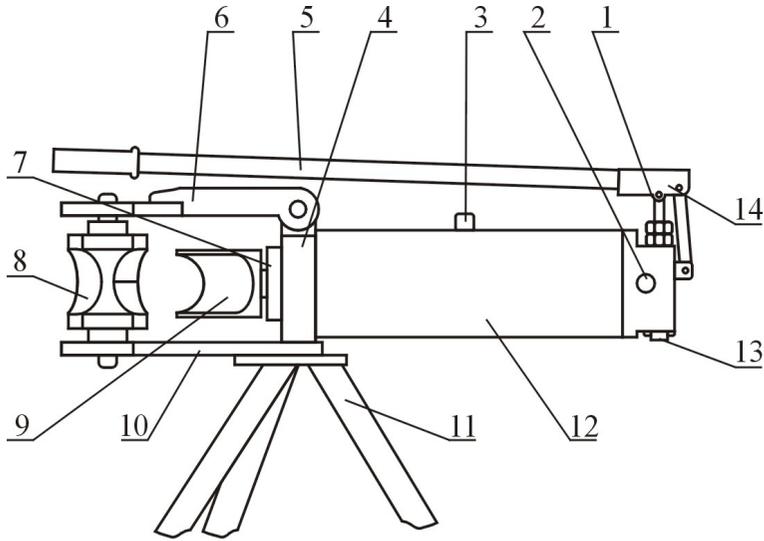
7. While using strictly observe the technical parameter. Overload and overlarge pressure ane both prohibited or Else it will damage the tube bending machine.

8. periodically clean and maintain the machine.Must use Clean oil and filtered by 100mu filter and the filter (12) must be clean regularly.

9. Don't use it at acid, alkali and corrosive place.

10. After having finished must lock the air relief valve (3).

III. Structure sketch map (plain)



Sketch map map of SF series hydraulic tube bender

- | | | |
|---------------------|--------------------|-----------------|
| 1. Piston Pompa | 7. Manivela | 13.Yağ Boşaltma |
| 2. Düğme | 8. Taşıyıcı Makara | 14.Sap Yuvası |
| 3. Yağ Borusu | 9. Boru Kalıbı | |
| 4. Yağ Pompa Yuvası | 10.Alt Tabla | |
| 5. Tutma Kolu | 11. Makine Ayağı | |
| 6. Üst Tabla | 12.Yağ Deposu | |

IV. Operation methods

1. Fasten switch (1) clockwise
2. Loose filler screw (3)
3. Grease tube die (6), supporting roller (7) and tube to be bent.
4. Turn over upper plate (8) and amount suitable tube die on the top of rod according to the size of tube (see structure Sketch map), put two supporting roller (7) into the holes of lower plate (10) and place tube between them, then turn the two supporting roller to make sure their groove toward the tube die.
5. Turn over upper plate (8) and use the handlebar (4) of big plunger pump to make tube die against the tube then use small plunger pump (2) to bend them at a certain angle you need.
6. After having finished, loose switch (1) anti-clockwise. And the rod will be auto-returned. Turn over upper Plate to take out the tube to be bent.

V. Notice

1. Before use must check the oil in oil tank. Make sure there is enough oil in the oil tank.