

- A : Power supply and pneumatic
- B : sensor of force
- C : Interrupter of breakage of wire
- D : Pneumatic jack of relaxation of the wire
- E : Electronic chart of the tension of the wire
- F : attach fixing of the tube
- G : group graduation
- H : arm dynamometric
- I : Pulley of returns sensor of force
- J : Pulley of returns
- K : Pulley of arm
- L : Block brake
- M : press wire
- N : Serrated roller of adjustment of the brake
- O : Tail of pig

MMF3

MECHANICAL TENSIONER WITH READING TENSION

INSTRUCTION MANUAL

100 to 3000 Gr



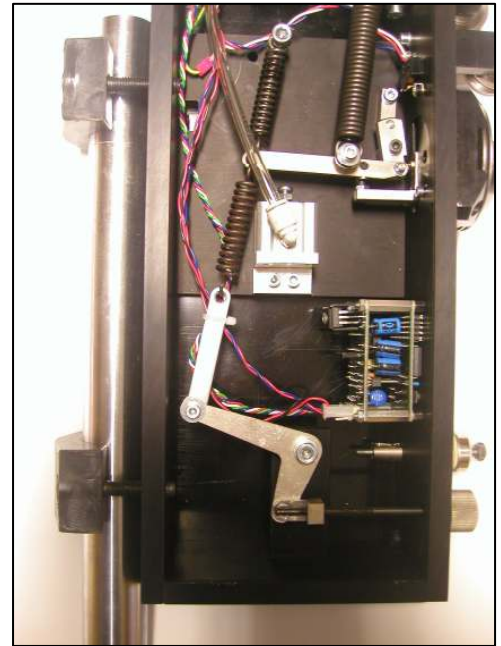
MECHANICAL TENSIONER WITH READING TENSION

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MMF3 tensioner instructions

Tensioner attach

MMF3 mechanical tensioner maybe used on a column with an external diameter ranging between 25 and 35 millimeters. The position is generally vertical, always to take care that the arm dynamometric is in its good position.



Installation of the debtor reel

The debtor reel must be assembled in such way that the outgoing wire is braked the least possible. If it's necessary, to incline the debtor reel.

The wire must to pass in the tail of pig without beating or vibrating.

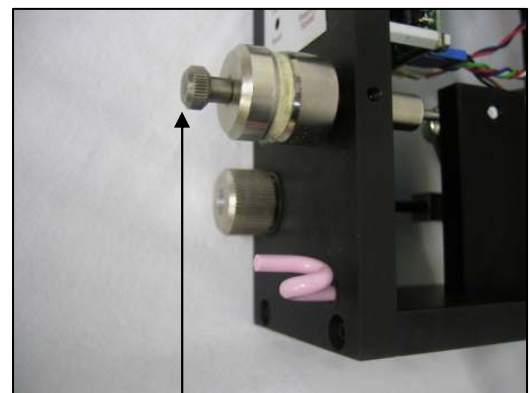
That is important for ends so not deteriorating the tension of the wire before the entry of the tensioner

Adjustment of the felts of the press wire

To obtain a correct adjustment of the press wire:

During winding, to draw the handle from adjustment of the felts (A): the dynamometric arm must go up slightly.

To unscrew or to screw the handle of adjustment of the felts (A) until obtaining this control.



A

Wire passage

Position of the arm during winding: HORIZONTAL



ADJUSTMENT OF THE TENSIONER AND PASSAGE OF THE WIRE

For a correct adjustment of the tensioner

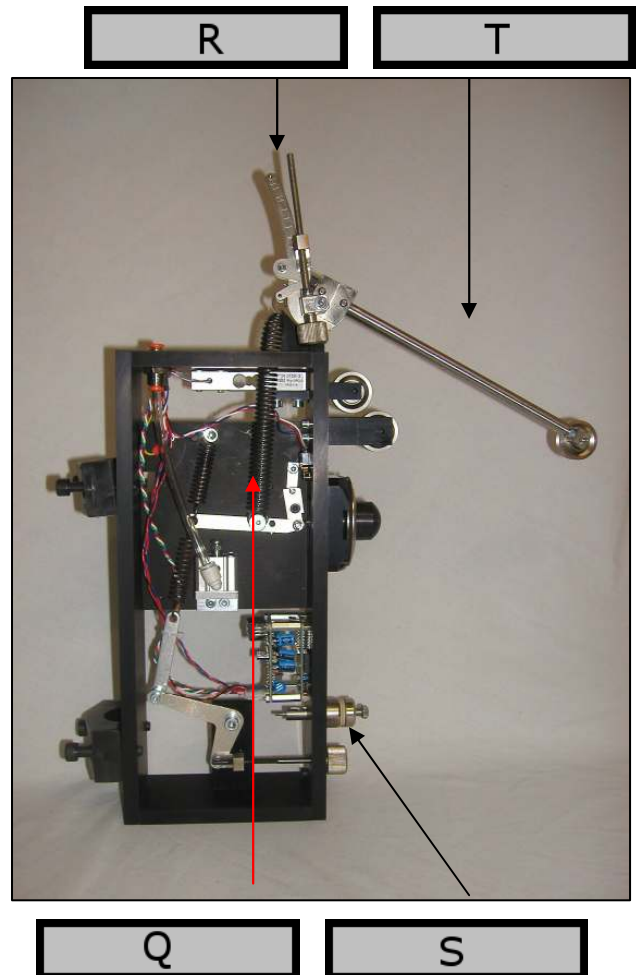
To position the wire as on the photograph. To make a passage of wire around the brake pulley.

To place the spring (Q) on the sector graduated (R) in the position which corresponds to the tension of the wire to work. (see in appendix "Table of tension")

To take very slightly the wire by the hand and, at the same time, to operate the handle (S) of adjustment of braking so that the arm is horizontal.

To start the machine to wind and check the desired exact tension (the reel is delivered calibrated) on the wire.

To correct the position of the arm (T) by the handle (S). The arm during winding must make a 90°. The wire must always remain tended, even at the end of winding



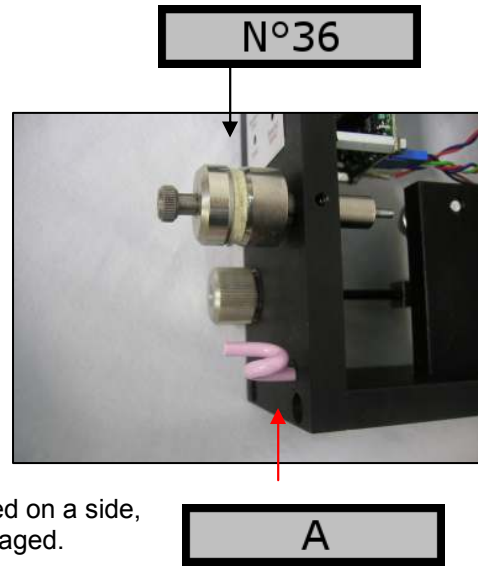
MAINTENANCE

Tail of pig: A

To control periodically that the tail of pig is in good condition, (irregularity on the porcelain)

Press wire: B

To control periodically that the 2 felts (N° 36) are clean, to often turn the felts to prevent that they are not always damaged in the same position. If this operation is not carried out regularly, the felts do not clean sufficiently any more the wire and the paraffin settles on the joint O'RING causing a faulty operation of the reel. When a felt is damaged on a side, one can reverse it; to change it when the two sides are damaged.



Pulley of returns, arm and constraint: C

To check that the pulleys turn very freely without noise or obstacles



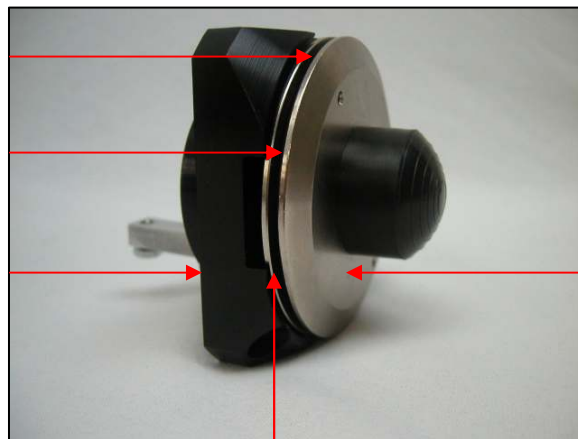
Pulley brake: D

To check that the joints of the pulley brake (N° 28) are always clear (without grease, oil or other). The reel is guaranteed 1 years at a rate of 8 hours of winding per day.

Joints x 2 ref :70001622

N°28

045.3713



045.3682

045.3683

TENSION DISPLAY

Displaying tension of winding allows the operator to read instantaneously the tension of the wire. He will be able easily to adjust the desired tension.

TARING OF THE TENSION OF WINDING

L'affichage de tension de bobinage possède 2 boutons de réglages.

Bouton de tarage à gauche. A
Bouton de vitesse de lecture de tension à droite. B

Pour le tarage de l'appareil, se munir d'un masse étalon de 2000gr. L'accorder à un fil assez long et faire un passage de fil complet en accrochant le début du fil autour du presse fil. Une fois la masse étalon pendue au bout de la poulie de bras et immobile. Presser le bouton de gauche -2000- s'affiche et s'enregistre automatiquement. Retirer la masse, -0000- apparaît. Repositionner une masse de 100gr de la même façon que la masse de 2000gr, -0100- s'affiche. Retirer la masse -0000- apparaît, le tarage est effectué.

The posting of tension of winding has 2 buttons of adjustments.

Button of taring on the left. A

Button reading rate of tension on the right. B

For the taring of the apparatus, take a mass standard of 2000gr. To grant to a rather long wire and to make a passage complete of wire by hanging the beginning of the wire around the press wire. Once the mass standard hung at the end of the pulley of arm is motionless, to press the button of left -2000- is posted and recorded automatically. Remove the mass, -0000- appears. Reposition a mass of 100gr in the same way that the mass of 2000gr, -0100- is posted. Remove mass -0000- appears, the taring is carried out.

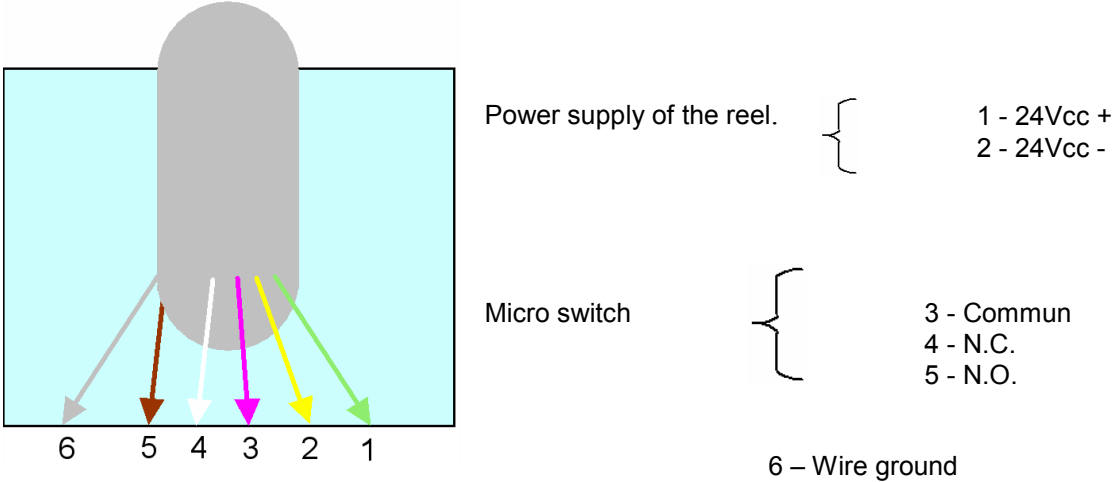


SPEED REGULATION OF READING

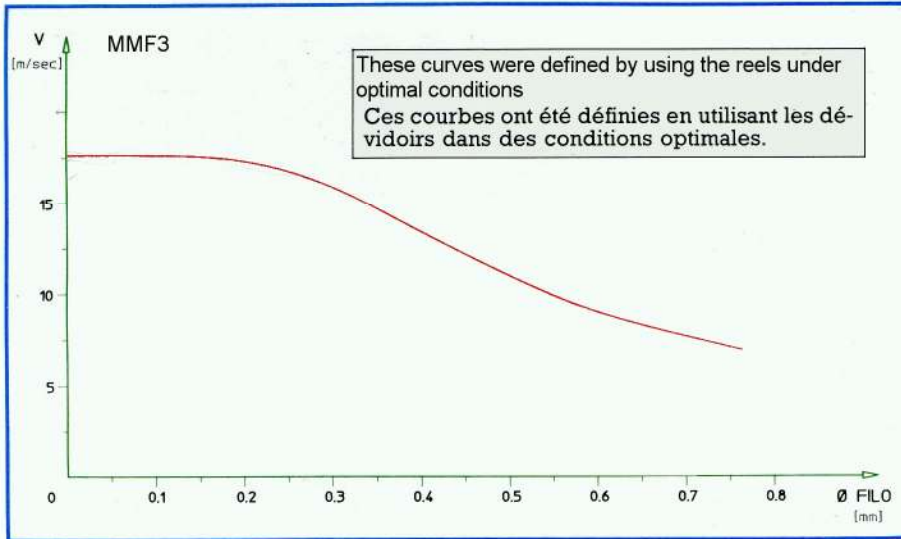
The button of right-hand side makes it possible to vary the speed of recording of tension of the wire which display. For a square carcass, to regulate the posting slow reading rate. The electronic chart will analyze the tension by making an average of slower information. What makes it possible to read the tension more easily. For a winding with very little whorls to regulate of fast speed, the electronic chart via the display will give the tension of winding in faster time. For example, it is very difficult to know the tension of winding to few whorls with a manual tensiometer, time to take the tension and the cycle is finished. It is exactly similar with the display. By increasing the reading rate information will be faster.

For a round carcass, you can increase speed. The chart will give a faster average of reading. If you observe an increase in abnormal tension during the cycle, it may be that the copper wire encounters a problem.

Wiring of Standard power supply MMF



Use en 12 ou 24 VCC
Maximum consumption 0,10 A



Ø mm	gr.	Ø mm	gr.
0,112	96	0,32	635
0,12	108	0,33	672
0,13	125	0,34	708
0,14	143	0,35	746
0,15	161	0,36	785
0,16	181	0,37	824
0,17	203	0,38	864
0,18	225	0,39	905
0,19	248	0,40	946
0,20	272	0,42	1024
0,21	298	0,43	1068
0,22	323	0,45	1160
0,23	350	0,47	1250
0,24	380	0,48	1295
0,25	410	0,50	1395
0,26	438	0,55	1650
0,27	470	0,60	1925
0,28	505	0,65	2220
0,29	535	0,70	2520
0,30	565	0,75	2830
0,31	600	0,80	3170

Mechanical Tensioner MMF3
Technical characteristics

Diameter of wire usable of 0,112 mm to 0,80 mm
Range of work in tension of 100gr with 3000 gr.
Speed of défilemet up of 18 m/s

Dévidoir mécanique MMF3
Caractéristiques techniques

Diamètre des fils utilisables de 0,112 mm à 0,80 mm
Gamme de travail en tension de 100gr à 3000 gr
Vitesse de défilement jusqu'à 18 m/s