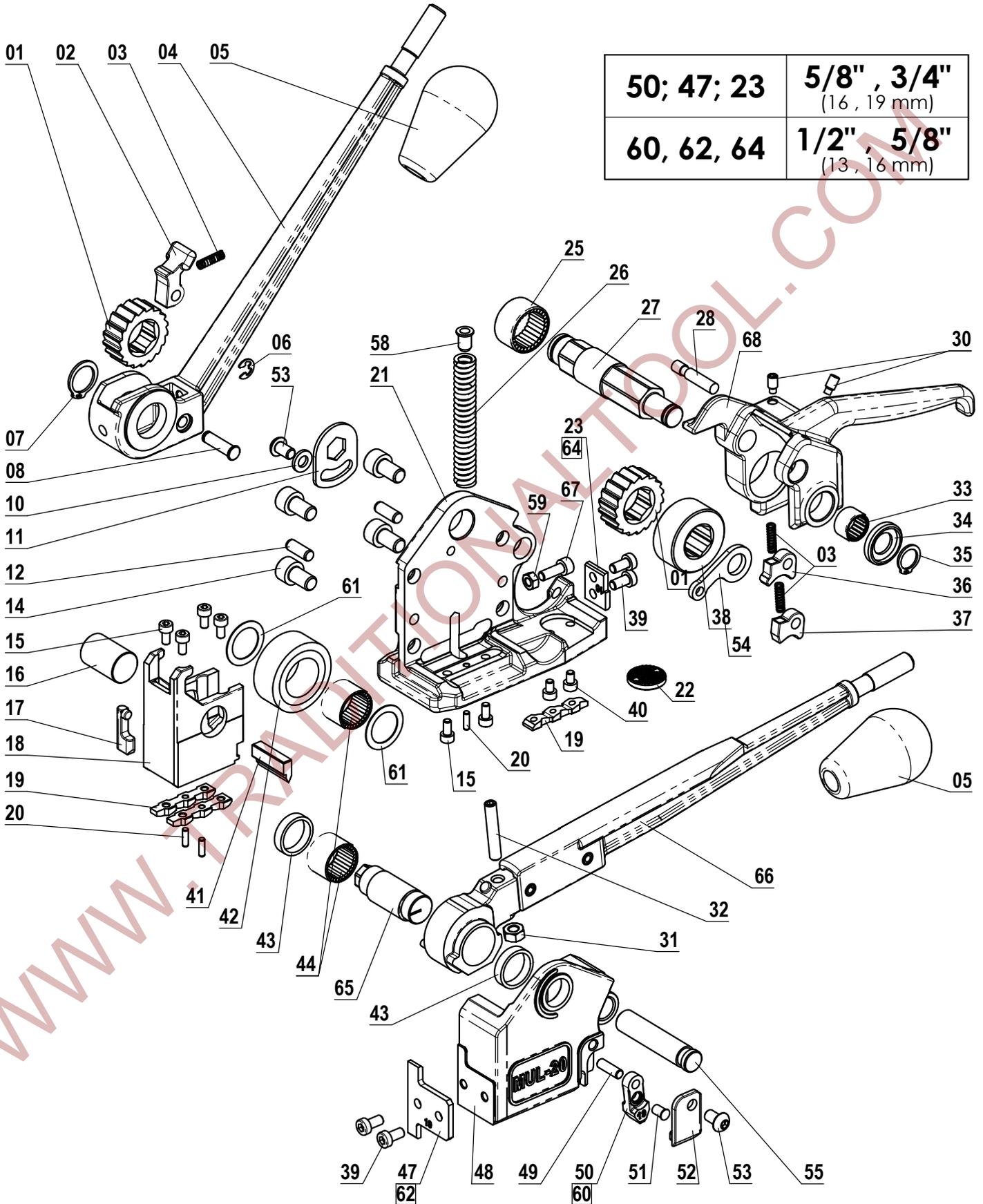


# MUL-20

## Sealless Combination Tool for Steel Strapping

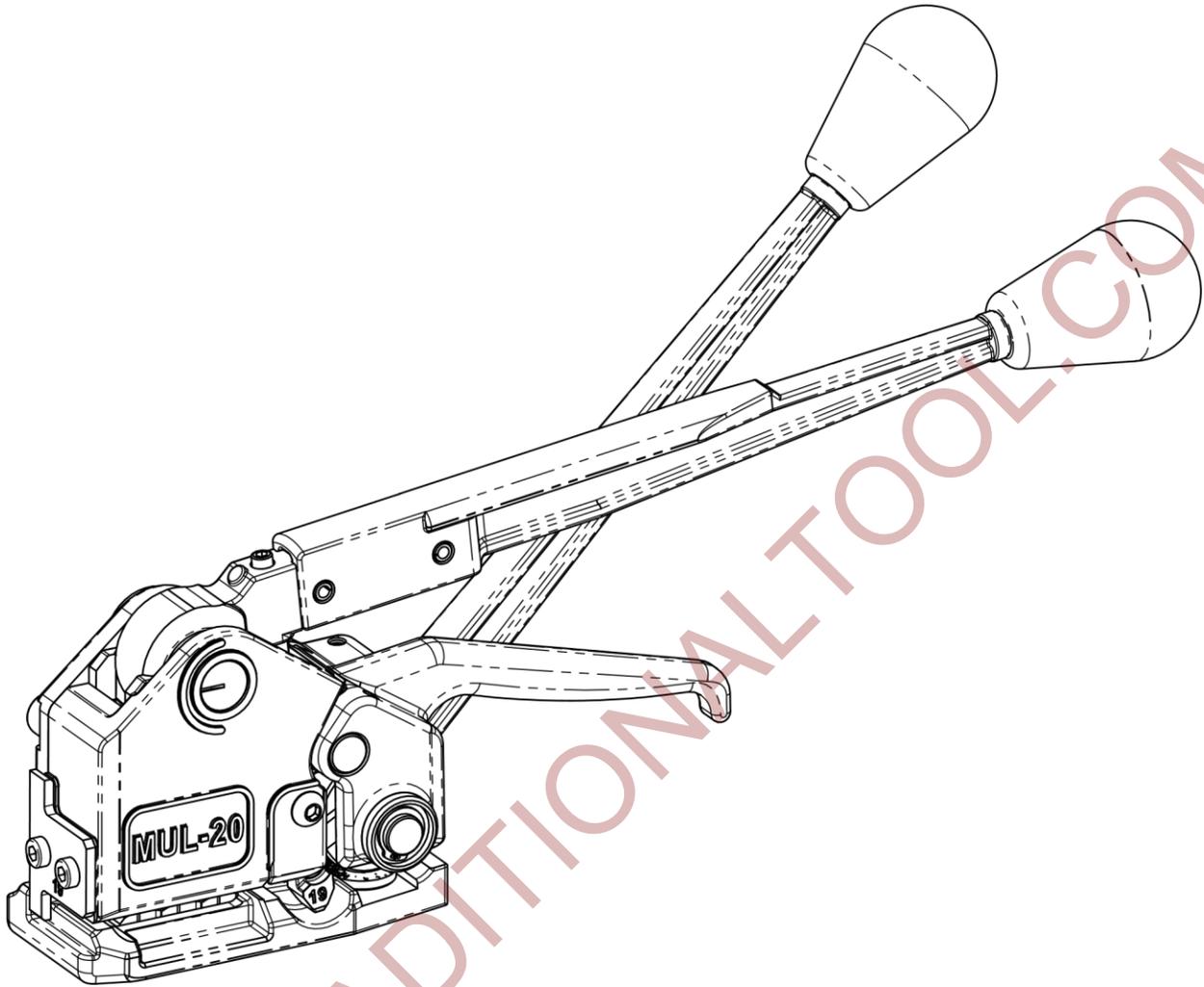


# MUL-20 PARTS LIST

## Sealless Combination Tool for Steel Strapping

No	KEY No	PART DESCRIPTION	QTY
01	20-01	RATCHET WHEEL	2
02	20-02	TENSION PAWL	1
03	20-03	PAWL SPRING	3
04	20-04	TENSION HANDLE	1
05	20-05	KNOB	2
06	20-06	E-RING EXTERNAL SERIES 7/32"	1
07	20-07	HEAVY DUTY EXTERNAL RETAINING RING 16	1
08	20-08	PIN	1
10	20-10	WASHER	1
11	20-11	ADJUSTMENT PLATE	1
12	20-12	DOWEL PIN 6x16	2
14	20-14	SCREW M8x14	4
15	20-15	SCREW M4x8	6
16	20-16	DIE HOLDER AXLE	1
17	20-17	STRAP LIFTER	1
18	20-18	DIE HOLDER	1
19	20-19	DIE	3
20	20-20	DOWEL PIN 3x10	3
21	20-21	FRAME (sold as FRAME ASSEMBLED only)	1
22	20-22HT	CLUTCH PLUG	1
23	20-23	STRAP GUIDE REAR 5/8" - 3/4"	1
25	20-25	LARGE BEARING	1
26	20-26	FEED WHEEL SUPPORT SPRING	1
27	20-27	FEED WHEEL SHAFT	1
28	20-28	RETAINING PAWL SHAFT	1
30	20-30	SET SCREW M5x10	2
31	20-31	NUT M6	1
32	20-32	ADJUSTMENT SCREW M6x35	1
33	20-33	SMALL BEARING	1
34	20-34	WASHER	1
35	20-35	HEAVY DUTY EXTERNAL RETAINING RING 12	1
36	20-36	RETAINING PAWL LONG	1
37	20-37	RETAINING PAWL SHORT	1
38	20-38HT	FEED WHEEL	1
39	20-39	SCREW M5x10	4
40	20-40	SCREW M4x6	2
41	20-41	CUTTER BLADE	1
42	20-42	CAM FOLLOWER	1
43	20-43	BUSHING	2
44	20-44	DIE HOLDER BEARING	2
47	20-47	STRAP GUIDE FRONT 5/8" - 3/4"	1
48	20-48	SIDE COVER (sold as FRAME ASSEMBLED only)	1
49	20-49	PIN	1
50	20-50	STRAP GUIDE PAWL 5/8" - 3/4"	1
51	20-51	PIN	1
52	20-52	COVER	1
53	20-53	SCREW M6x10	2
54	20-54	GUIDE ARM	1
55	20-55	FEED WHEEL SUPPORT SHAFT	1
58	20-58	SPRING BUSHING	1
59	20-59	NUT M5	1
60	20-60	STRAP GUIDE PAWL 1/2" - 5/8"	1
61	20-61	WASHER	2
62	20-62	STRAP GUIDE FRONT 1/2" - 5/8"	1
64	20-64	STRAP GUIDE REAR 1/2" - 5/8"	1
65	20-65	ECCENTRIC SHAFT	1
66	20-66	SEALING HANDLE	1
67	20-67	GRIPPER ADJUSTMENT SCREW M5x14	1
68	20-68	FEED WHEEL SUPPORT HANDLE	1

## MUL-20 Sealless Combination Tool for STEEL Operation Manual



Strap Type	Regular Duty/High Tensile Steel
Strap Width	Adjustable 1/2", 5/8", 3/4" (13, 16, 19 mm)
Strap Thickness	Up to 0.025" (0.64 mm)
Joint Type	Sealless
Weight	9.1 lbs (4.1 kg)
Footprint	L: 4.5"; W: 2.2"

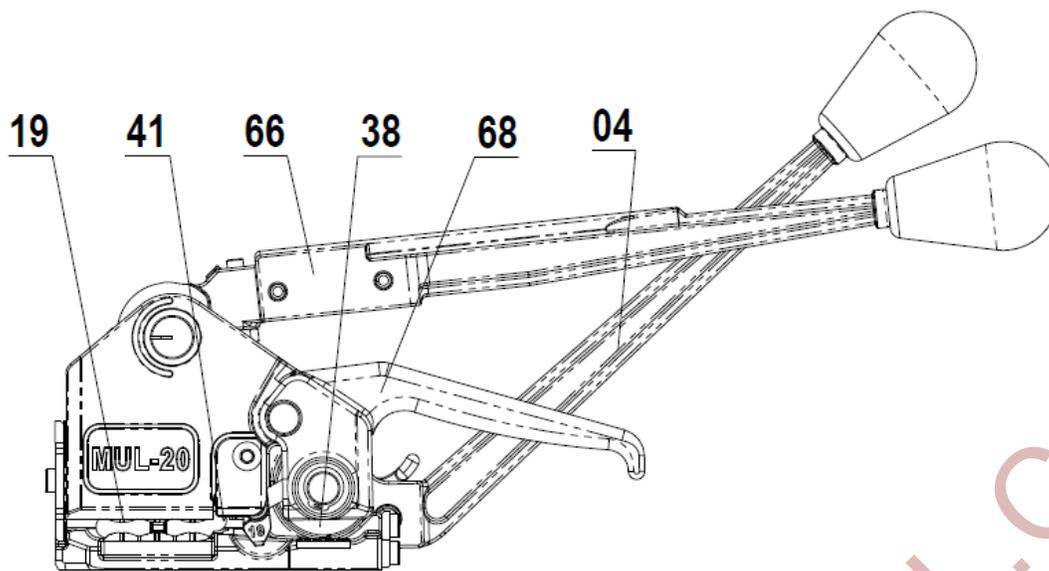


Fig. 1 – Starting Position

1. Pull up on **Feed Wheel Support Handle 68** to raise **Feed Wheel 38**. Load both straps **100** and **101** under **Dies 19**, under **Cutter Blade 41** and under **Feed Wheel 38** and release the **Feed Wheel Support Handle 68** as shown on Fig. 2

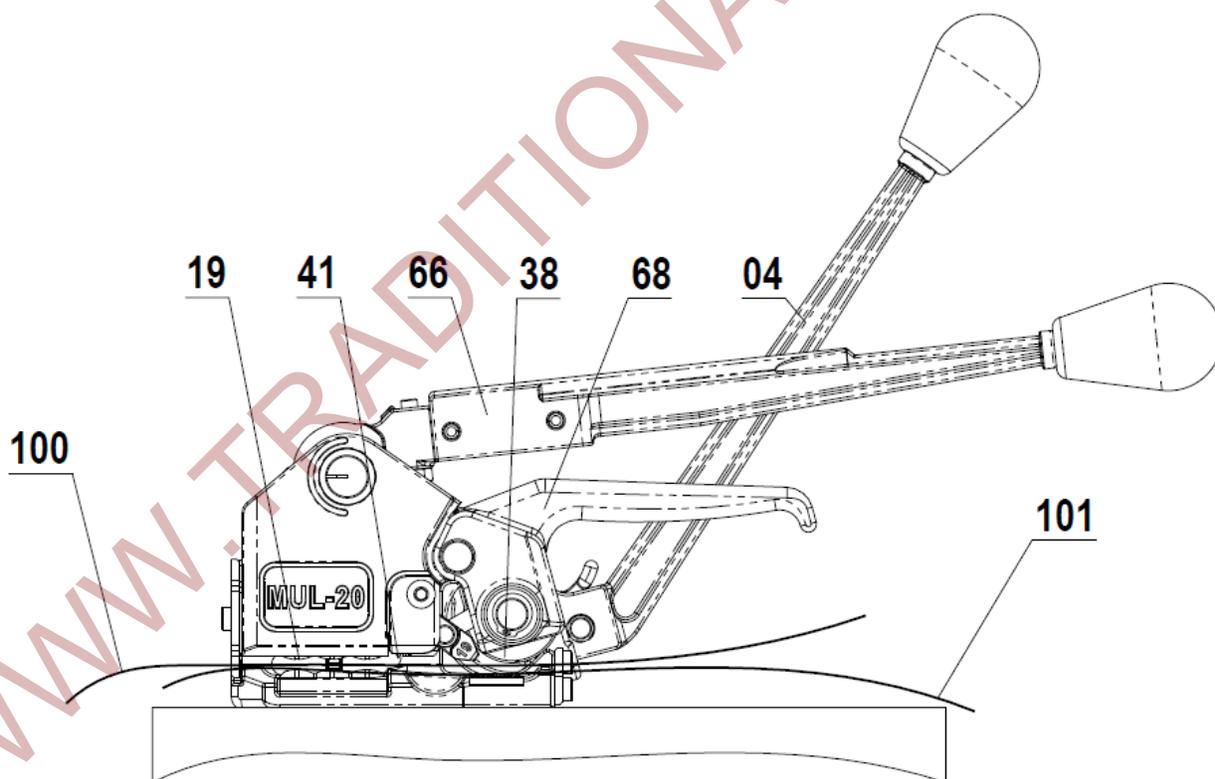


Fig. 2

2. Apply tension by ratcheting **Tension Handle 04** as shown on Fig. 3.

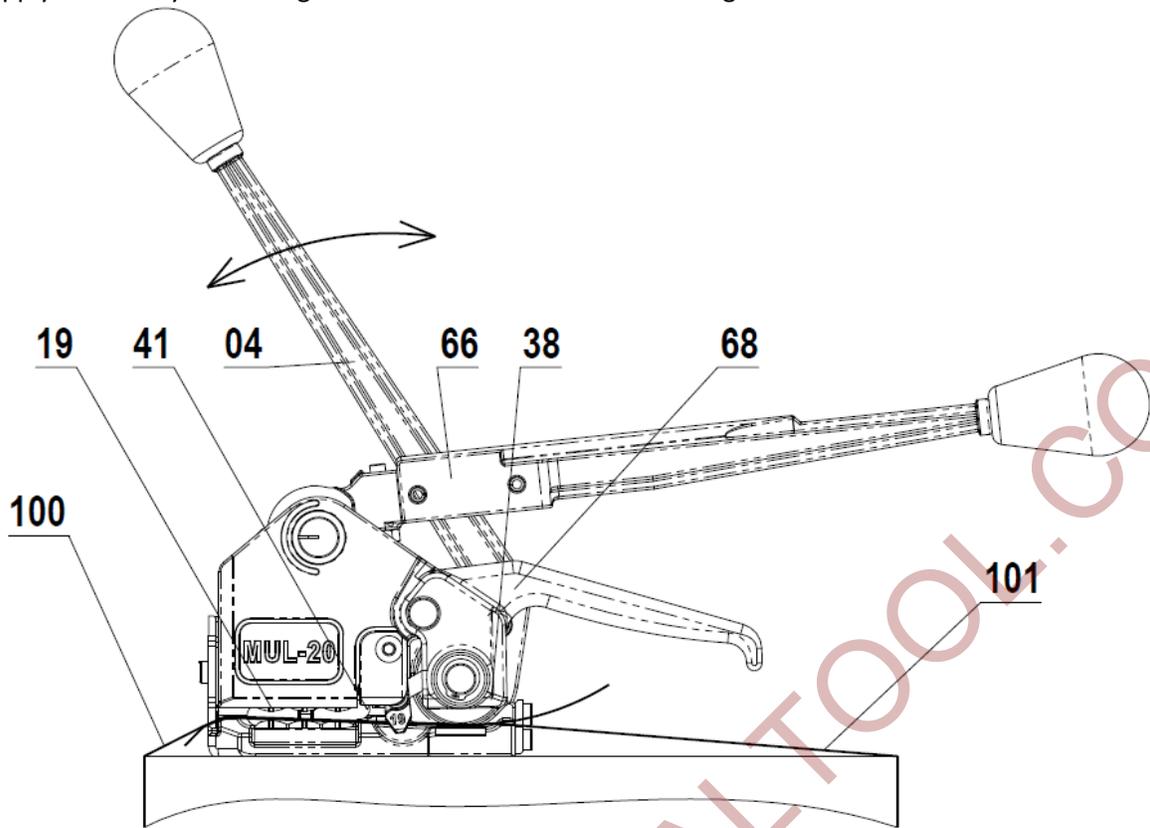


Fig. 3

3. Once satisfactory tension is achieved return **Tension Handle 04** back and push **Sealing Handle 66** forward to seal the joint and cut the excess strap as shown on Fig.4

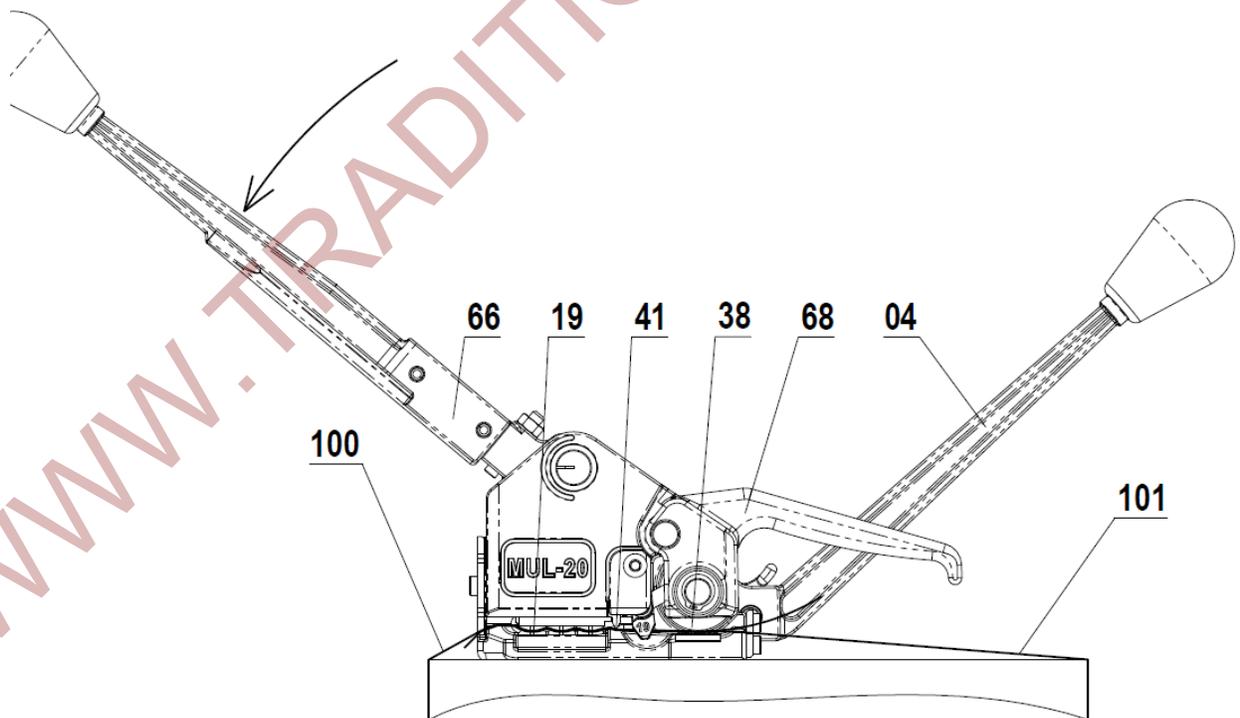


Fig. 4

4. Return **Sealing Handle 66** back and pull up **Feed Wheel Support Handle 68** to release the strap and to remove the tensioner by sliding the backfoot out to the side followed by the front. The operation cycle is now complete.

# MUL-20 ADJUSTMENTS

## 1.1 ADJUSTING THE MUL-20 FOR STRAP WIDTH

The TEKNIKA MUL-20 can be adjusted for strapping with widths of 1/2", 5/8" or 3/4". The tool is equipped with one of two sets of reversible strap guides. With parts number **23**, **47**, and **50** the tool can be set for use with either 1/2" or 5/8" strapping. With parts number **60**, **62** and **64** the tool can be set for use with 5/8" or 3/4" strapping. Guide sets are stamped "13" for 1/2", "16" for 5/8" and "19" for 3/4". To change strap width, the three strap guides must be reversed, as follows:

- Remove Screws **39** from the front and rear of the tool. Turn Front and Rear Guides around and replace the screws. Make sure that the same stamped numbers are exposed on each Guide: "13" for 1/2" strap, "16" for 5/8" strap, and "19" for 3/4" strap.
- Unscrew **53** and remove Cover **52** and the Strap Guide. Remove Pin **51** and insert it into the same hole on the opposite side of the Strap Guide. Reverse the Strap Guide and replace it in the tool so that the free end of Pin **51** enters the hole in the Arm **54**. Put the guide on the Pin **49**. Replace Cover **52** and tighten the Screw **53**. The exposed stamped number on the Strap Guide should match the numbers on the Front and Rear Guides.

**NOTE:** Check the proper execution of Step 1.1 b) by squeezing together the feedwheel support handle **68** and the sealer handle **66**. The strap guide should pivot upward along with the feed wheel assembly.

## 1.2 ADJUSTING THE MUL-20 FOR STRAP THICKNESS

The MUL-20 can be used with regular duty strapping from .015" to .027" thick; and high tensile strapping up to .025" thick. The tool can be easily adjusted for strap thickness by loosening Screw **53** and rotating the Adjustment Plate **11** on the side of the tool. Rotating the Adjustment Plate **11** will change the depth of the cutter. The Adjustment Plate **11** serves as a wrench to turn a hex-end shaft running through the tool. The opposite end of the shaft is round and has a line scribed on it, as shown below. When the line points straight up, the cutter is at its shallowest position; when the line points straight down the cutter is deepest. The usual setting is about half way between these extremes.



Shallowest      Mid-range      Deepest

Cutter depth Settings

If the Adjustment Plate **11** is at the end of its travel, remove Screw **53** and reposition Adjustment Plate **11** so that it is within the desired adjustment range. Replace Screw **53** and repeat the above steps until the desired cutting depth is reached.

**NOTE:** The tool is set up properly if, after interlocking the strap, the upper strap is cut off cleanly and there is a slight mark on the lower strap.

## 1.3 ADJUSTING THE FEEDWHEEL CLEARANCE

The MUL-20 is adjusted from the factory so that there is approximately .005" clearance between the Feedwheel **38** and the Clutch Plug **22** (Bottom Gripper). Setting them close together insures that there is enough pressure to enable the Feedwheel **38** and Clutch Plug **22** to bite into the strapping, and operate without slipping.

At the same time, by maintaining a small clearance between the Feedwheel **38** and the Clutch Plug **22**, they are prevented from grinding against each other if the tool is ratcheted without having strapping under the Feedwheel. This maximizes the life of those two parts.

Should it become necessary to adjust the clearance between the Feedwheel **38** and Clutch Plug **22**, it is easy done, as follows:

- Loosen Nut **59** to the right of the rear strap guide. This frees the Gripper Adjustment Screw **67**.
- Turn the tool up on its nose, with the bottom of the tool facing you, and squeeze the Feedwheel Support Handle **68**. This will lift the Feedwheel Support Handle **68** off the Gripper Adjustment Screw **67**.
- Turn the Gripper Adjustment Screw **67** clockwise to decrease and counterclockwise to increase the gap between the Feedwheel **38** and the Clutch Plug **22**.
- When the gap is properly adjusted, re-tighten the lock Nut **59** to keep the adjusting screw from moving while the tool is being operated.

**NOTE:** The gap is set properly when a single piece of strapping is gripped tightly between the Feedwheel and the Bottom Gripper, but a piece of paper slides easily between the Feed Wheel **38** and Gripper **22**.