## MUL-16



For Parts \& Service 1-877-862-6699

# MUL-16 PARTS LIST Sealless Combination Tool for Steel Strapping 

| No | KEYNo16 | DESCRIPTION | QTY. |
| :---: | :---: | :---: | :---: |
| 01 | 16-01 | TENSION HANDLE | 1 |
| 02 | 16-02 | SEALING HANDLE | 1 |
| 04 | 16-04 | FRAME | 1 |
| 05 | 16-05 | SIDE COVER | 1 |
| 06 | 16-06 | FEED WHEEL SUPPORT HANDLE | 1 |
| 07 | 16-07 | STRAP LIFTER | 2 |
| 08 | 16-08 | PAWL SHAFT | 2 |
| 09 | 16-09 | GUIDE ARM PIN | 2 |
| 10 | 16-10 | SHOULDERED SCREW |  |
| 11 | 16-11 | GUIDE ARM | 1 |
| 15 | 16-15 | EXCENTRIC SHAFT | 1 |
| 17 | 16-17 | DIE HOLDER | 1 |
| 18 | 16-18 | CAM FOLLOWER | 1 |
| 19 | 16-19 | DIE HOLDER SHAFT | 1 |
| 21 | 16-21 | DIE | 3 |
| 22 | 16-22 | CUTTER BLADE | 1 |
| 23 | 16-23 | FEED WHEEL SUPPORT SHAFT | 1 |
| 24 | 16-24 | ROLL PIN $2 \times 9.8$ | 1 |
| 25 | 16-25 | CLUTCH PLUG (BOTTOM GRIPPER) | 1 |
| 26 | 16-26 | FEED WHEEL | 1 |
| 28 | 16-28 | RETAINING PAWL, SHORT | 1 |
| 29 | 16-29 | PAWL SPRING | 3 |
| 30 | 16-30 | HANDLE PAWL | 1 |
| 31 | 16-31 | RATCHET WHEEL | 1 |
| 32 | 16-32 | FEED WHEEL SHAFT |  |
| 33 | 16-33 | PAWL HOLDER |  |
| 34 | 16-34 | RING | 2 |
| 35 | 16-35 | ADJUSTMENT PLATE | 1 |
| 36 | 16-36 | KNOB | 2 |
| 37 | 16-37 | FEED WHEEL SUPPORT SPRING | 1 |
| 38 | 16-38 | RETAINING PAWL, LONG | 1 |
| 41 | 16-41 | WASHER | 2 |
| 42 | 16-42 | ADJUSTMENT SCREW | 1 |
| 43 | 16-43 | PIN 3x22 | 2 |
| 44 | 16-44 | STRAP GUIDE PAWL, 1/2" - $5 / 8$ " | 1 |
| 45 | 16-45 | WASHER | 1 |
| 47 | ) 16-47 | STRAP GUIDE, FRONT, 1/2"-5/8" | 1 |
| 48 | -16-48 | STRAP GUIDE, REAR, 1/2"- $5 / 8^{\prime \prime}$ | 1 |
| 50 | -16-50 | STRAP GUIDE PAWL, $5 / 8^{\prime \prime}-3 / 4 "$ | 1 |
| 53 | -16-53 | STRAP GUIDE, FRONT, 5/8" - 3/4" | 1 |
| 54 | 16-54 | STRAP GUIDE, REAR, $5 / 8{ }^{\prime \prime}-3 / 4 "$ | 1 |
| 55 | 16-55 | SCREW M $4 \times 12$ | 1 |
| 56 | 16-56 | RETENTION SCREW M4x8 | 1 |
| 57 | 16-57 | SCREW M4x8 | 2 |
| 58 | 16-58 | SCREW M4x12 | 4 |
| 59 | 16-59 | SCREW M5x10 | 2 |
| 60 | 16-60 | SCREW M6x10 | 1 |
| 61 | 16-61 | SCREW M6x14 | 3 |
| 62 | 16-62 | SCREW M4x10 | 1 |
| 63 | 16-63 | SCREW M8×14 | 1 |
| 64 | 16-64 | ADJUSTMENT SCREW M6x30 | 1 |
| 66 | 16-66 | NUT M6 | 2 |
| 67 | 16-67 | SMALL BEARING | , |
| 69 | 16-69 | LARGE BEARING | 1 |
| 72 | 16-72 | SUPPORT ROLLER $2 \times 15.8$ | 59 |
| 73 | 16-73 | DOWEL PIN 3x10 | 3 |
| 78 | 16-78 | ROLL PIN 6x16 | 2 |
| 80 | 16-80 | WASHER | 2 |
| 85 | 16-85 | RETAINING WIRE | 1 |

# MUL-16 Sealless Combination Tool for STEEL <br> Operation Manual 



| Strap Type | Regular Duty Steel |
| :--- | :--- |
| Strap Width | Adjustable 1/2", 5/8", 3/4" (13, 16, 19 mm) |
| Strap Thickness | Up to $0.025^{\prime \prime}(0.64 \mathrm{~mm})$ |
| Joint Type | Sealless |
| Weight | $8.5 \mathrm{lbs}(3.8 \mathrm{~kg})$ |
| Footprint | L: $4.5^{\prime \prime} ; \mathrm{W}: 2.2^{\prime \prime}$ |



Fig. 1 - Starting Position

1. Pull up on Feed Wheel Support Handle $\mathbf{0 6}$ to raise Feed Wheel 26. Load both straps $\mathbf{1 0 0}$ and $\mathbf{1 0 1}$ under Dies 21, under Cutter Blade 22 and under Feed Wheel 26 and release the Feed Wheel Support Handle 06 as shown on Fig. 2


Fig. 2
2. Apply tension by ratcheting Tension Handle $\mathbf{0 1}$ as shown on Fig. 3.


Fig. 3
3. Once satisfactory tension is achieved return Tension Handle $\mathbf{0 1}$ back and push Sealing Handle $\mathbf{0 2}$ forward to seal the joint and cut the excess strap as shown on Fig. 4


Fig. 4
4. Return Sealing Handle $\mathbf{0 2}$ back and pull up Feed Wheel Support Handle $\mathbf{0 6}$ to release the strap and to remove the tensioner by sliding the backfoot out to the side folowed by the front as shown on Fig. 5. The operation cycle is now complete.

## 1. STRAP WIDTH ADJUSTMENT

The Teknika MUL-16 can be adjusted for strapping with widths of $1 / 2^{\prime \prime}, 5 / 8^{\prime \prime}$ or $3 / 4^{\prime \prime}$. The tool is equipped with one of two sets of reversible strap guides. With parts number 44,47 , and 48 the tool can be set for use with either $1 / 2^{\prime \prime}$ or $5 / 8$ " strapping. With parts number 50, 53 and 54 the tool can be set for use with $5 / 8^{\prime \prime}$ 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:

1. Remove screws \#62 from the front and \#59 from the rear of the tool. Turn the 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, " 19 " for $3 / 4$ " strap.
2. Unscrew \#10 and remove the side guide. IMPORTANT: Screw \#10 is now being held in place by a small set screw \#56 which must be loosened before the \#10 screw can be removed. Turn the tool on its nose and you will see a hole in the base directly under the \#10 screw. Loosen this set screw (\#56) by using a 2 mm allen key and then remove the \#10 screw. Remove pin \#9 and insert it into the same hole on the opposite side of the guide. Reverse the strap guide and replace it in the tool so that the free end of pin \#9 enters the hole in arm \#11. Replace screw \#10 and tighten set screw \#56. The exposed stamped number on the side guide should match the numbers on the front and rear guides.

If the adjustment plate is at the end of its travel, remove screw \#60 and reposition plate \#35 so that it is within the desired adjustment range. Replace screw \#60 and repeat the above steps until the desired cutting depth is reached.

NOTE: Check the proper execution of Step 2 by squeezing together the lifter handle (\#3) and the sealer handle (\#2). The strap guide should pivot upward along with the feed wheel assembly.

## 2. STRAP THICKNESS ADJUSTMENT

The MUL-16 can be used with regular duty strapping from .015 " to .023 " thick; and high tensile strapping with thickness up to .020". The tool can be easily adjusted for strap thickness by loosening Allen Bolt \#60 and rotating the Adjustment Plate \#35 on the side of the tool. Rotating the adjustment plate will change the depth of the cutter. The Adjustment Plate 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.

Cutter Depth Settings


If the adjustment plate is at the end of its travel, remove screw \#60 and reposition plate \#35 so that it is within the desired adjustment range. Replace screw \#60 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.

## 3. FEEDWHEEL CLEARANCE ADJUSTMENT

The MUL-16 is adjusted from the factory so that there is approximately .010" clearance between the Feedwheel and the Clutch Plug (Bottom Gripper). Setting them close together insures that there is enough pressure to enable the Feedwheel and Gripper to bite into the strapping and operate without slipping.

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

Should it become necessary to adjust the clearance between the Feedwheel (\#26) and Bottom Gripper (\#25), it is done easily, as follows:

1. Loosen Nut \#66 to the right of the rear strap guide. This frees Adjusting Screw \#42.
2. Turn the tool up its nose, with the bottom of the tool facing you, and squeeze the Feedwheel Support Handle (\#3). This will lift the Feedwheel Support off the Adjusting Screw (\#42).
3. Turn the Adjusting Screw (\#42) in the proper direction to increase or decrease the gap between the Feedwheel and the Bottom Gripper. When the gap is properly adjusted, re-tighten the lock nut (\#66) 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 them.

