



#### **Recommendations for Maintenance:**

Please, note it is important to make sure the tool has clean, dry and lubricated air at the recommended pressure supplied to it. (Please consult the service manual for further instructions)

The pulse tool requires preventive maintenance like oil changes and have the parts inspected periodically. It is recommended to make the first preventive maintenance at 250,000 pulses-seconds or 6 months, whichever one occurs first. The tool's performance should be evaluated. The oil needs to be changed. Inspect all the soft parts of the pulse unit (the soft parts are referenced as the "Repair Kit" - see parts list page 2). The Repair Kit includes all the necessary parts and it is recommended to be performed every six months (unless parts are in good condition). If the tool fails before the 250,000 pulses-seconds then the pulse unit needs to be rebuilt, with the "Repair Kit" and "Service Kit" (see parts list page 2).

Caution: prevailing torque, which makes that the tool start pulsing early, reduces the life of the Oil & O-rings of the pulse unit. A pulse-second is not every second the tool is running, only when it's "pulsing" and applying torque. On typical applications the tool should run down freely until fastener is snug and then the tool starts pulsing until it reaches the preset torque. When operating the tool on the fastener, start counting once the tool begins pulsing. You can use a watch with a second hand and time it until the tool shuts-off. Use the information to calculate how many pulse-seconds the tool performs per application each day. Then perform some basic math to calculate the tool's maintenance schedule. Use this formula.

$$\text{\# Pulsing Seconds} \div \text{Total of Pulsing Time} = \text{No Cycles}$$

NOTE: Please include the rework, reverse, or retightening time involved on the operation to calculate the accurate pulsing time. Here is an example:

Pulsing Time = 2 seconds

Pulses- seconds recommended = 250,000

$$250,000 \text{ pulses-sec} \div 2 \text{ sec} = 125,000 \text{ cycles}$$

Using the information above, you can estimate the maintenance period for the tool by using this formula:

| No of Fasteners | Pulsing Time per Fastener | No of Parts Assembled per Day | Calculation                     | Maintenance Period |
|-----------------|---------------------------|-------------------------------|---------------------------------|--------------------|
| 7               | 2 seconds                 | 300                           | $125,000 / (300 \times 7) = 59$ | 59 days            |

| Index No. | Part No.       | Description  | Q'ty | Index No. | Part No.     | Description   | Q'ty |
|-----------|----------------|--|------|-----------|--------------|---|------|
| 1         | 63-I100-410    | Greasing Screw   | 1    | 38        | 63-00-3813   | Steel Ball  | 1    |
| 2         | 63-00-4153     | O-Ring   | 1    | 39        | 63-305F-034  | Spring  | 1    |
| 3         | 63-I40S-201    | Pulse Unit Housing   | 1    | 40        | 63-I40S-502  | F/R Valve   | 1    |
| 4         | 63-I40S-202    | Bushing  | 1    | 41        | 63-00-41146  | O-Ring  | 1    |
| 5         | 63-I40S-424    | Washer   | 1    | 42        | 63-00-41125  | O-Ring  | 1    |
| 6         | 63-I40S-401    | Pulse Cylinder Seat  | 1    | 43        | 63-I40S-309  | Seat  | 1    |
| 7         | 63-00-41127    | O-Ring   | 3    | 44        | 63-I40S-101  | Motor Housing   | 1    |
| 8         | 63-I70-410     | Greasing Screw   | 1    | 45        | 63-00-0507   | Screw   | 1    |
| 9         | 63-00-41113    | O-Ring   | 2    | 46        | 63-I40S-503  | Regulator Knob  | 1    |
| 10        | 63-00-3318     | Spring Pin   | 2    | 47        | 63-I40S-102  | Hanger  | 1    |
| 11EA      | 63-I40S-403-B  | Front Cover  | 1    | 48        | 63-I40S-509  | Bushing   | 1    |
| 12        | 63-00-2602     | X-Ring   | 1    | 49        | 63-I40S-510  | Pin   | 1    |
| 13EC      | 63-I80-411     | Valve Screw  | 1    | 50        | 63-I40S-504  | Trigger   | 1    |
| 14C       | 63-IS40S-412-B | Valve  | 1    | 51        | 63-00-3306   | Spring Pin  | 1    |
| 15        | 63-00-41130    | O-Ring   | 1    | 52        | 63-I40S-108  | Bushing   | 2    |
| 16        | 63-00--3435    | Pin  | 2    | 53        | 63-I40S-103  | Housing Rubber  | 1    |
| 17        | 63-I40S-408    | Front Plate  | 1    | 54        | 63-I40S-508  | Bushing   | 1    |
| 18EB      | 63-I40S-405-B  | Anvil  | 1    | 55        | 63-305C-021  | Valve Stem  | 1    |
| 19B       | 63-I40S-452    | Roller   | 2    | 56        | 63-I40S-507  | Spring  | 1    |
| 20B       | 63-I40S-406-B  | Drive Blade  | 2    | 57        | 63-I40S-601  | Muffler   | 1    |
| 21        | 63-I40S-407    | Spring   | 2    | 58        | 63-I40S-603  | Exhaust Deflector   | 1    |
| 22C       | 63-I40S-404-B  | Pulse Cylinder   | 1    |           | 63-I40S-604A | Air Inlet 1/4"PF-19                                       |      |
| 23        | 63-00-3436     | Pin  | 1    | 59        | 63-I40S-604B | Air Inlet 1/4"PT-19                                       | 1    |
| 24        | 63-00-3407     | Pin  | 2    |           | 63-I40S-604C | Air Inlet 1/4"NPT-18                                      |      |
| 25        | 63-I40S-415    | Rear Plate   | 1    | 60        | 63-00-3509   | Snap Ring   | 1    |
| 26        | 63-I40S-423    | Washer   | 1    | 61C       | 63-00-41173  | O-Ring  | 1    |
| 27        | 63-I40S-402    | Lock Nut   | 1    | 62C       | 63-IS40S-421 | Pressure Valve  | 1    |
| 28        | 63-I40S-306    | Lock Nut   | 1    | 63C       | 63-I40S-453  | Spring  | 1    |
| 29        | 63-00-2348     | Ball Bearing   | 1    | 64C       | 63-I40S-454  | Block Cap   | 1    |
| 30        | 63-00-3324     | Spring Pin   | 1    | 65EA      | 63-I40-409   | Back Up Ring  | 1    |
| 31        | 63-I40S-302    | Cylinder   | 1    | 66EC      | 63-I80-422   | Back Up Ring  | 1    |
| 32        | 63-I40S-303    | Rotor  | 1    | ※         | 63-I40SSK-MZ | Service kit :Index No-17; 19B(2); 20B(2); 25; 33(9)       |      |
| 33        | 63-I40S-304    | Rotor Blade  | 9    |           |              | 54; 55; 56  |      |
| 34        | 63-00-3326     | Spring Pin   | 1    | ※         | 63-I40SRK-MZ | Repair kit :Index No-7(2); 9(2); 12; 15; 21(2); 61C; 65EA |      |
| 35        | 63-I40S-305    | Rear Plate   | 1    |           |              | Impulse Oil   |      |
| 36        | 63-00-2356     | Ball Bearing   | 1    | ※         | 63-I40-451   |   |      |
| 37        | 63-I40S-310    | Air Inlet Plate  | 1    |           |              |   |      |
| ※         | 63-I40S-400ASM | Pulse unit : Index No-6,7,8,9,10,11EA,12,13EC,14C,15,16,17,18EB,19B,20B,21,22C,23,24,25,27,61C,62C,63C,64C,65EA,66EC |      |           |              |   |      |