

Operating Instructions

FOR TBM8-750BSCR

HYDRAULIC COMPRESSION TOOL

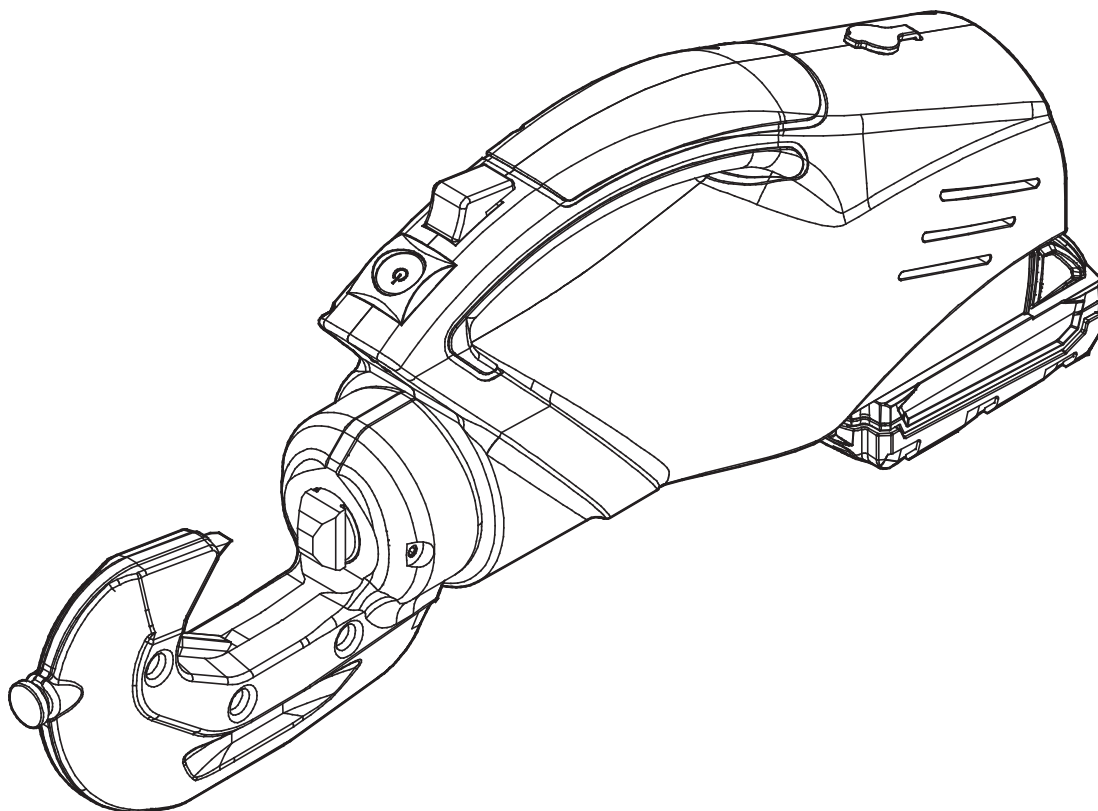


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IMPORTANT: Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

1.0

GENERAL INFORMATION

1.1

SAFETY RULES

1. BE FAMILIAR WITH YOUR TOOL.

Read the instruction manual. Become aware of its proper usage as well as the potential hazards.

2. KEEP WORK AREA CLEAN AND WELL LIGHTED.

Poor lighting and cluttered areas invite accidents.

3. USE SAFETY GLASSES.

4. MAINTAIN TOOL WITH CARE.

Keep tool in good condition at all times. Keep it clean for best and safest performance.

5. DON'T OVER-REACH.

Keep proper footing and balance at all times.

6. NEVER ATTEMPT TO MAKE A COMPRESSION ON A "HOT" LINE.

Never assume the power is OFF! Determine beforehand if any electrical hazards could exist when making a connection to a line or wire.

7. KEEP FINGERS AND OTHER BODY PARTS AWAY FROM COMPRESSION DIES & MOVING PARTS.



WARNING

Tools are **NOT** insulated for use on or near energized conductors. Use of these tools near energized conductors may lead to electrical shock, causing severe injury or death. **DO NOT** use these tools near energized conductors without adequately insulating operator and surroundings.



WARNING

Pinch point hazard. Compression Dies at high force can cause severe personal injury. Keep all body parts away from moving parts of the tool during operation.

1.2

FEATURES

- Fully automatic, self-contained power tool.
- Dieless operation across entire range - No die changes required.
- One handed operation - control ram advancement and retraction with one hand.
- Open C-Shaped Head - Only one crimp required all applications.

1.3

SPECIFICATIONS

HYDRAULIC COMPRESSION TOOL:

TBM8-750BSCR

Drive Unit:	18.0V DC Motor
Dimensions:	17.8"L x 3.5"W x 7.0"H
Weight:	12.6 lbs. without battery
Capacities:	Cu #8-900 Kcmil AL #10-750 Kcmil
Stroke:	2.36"
Output:	12 Tons @ 10,000 psi

BATTERY:

Milwaukee M18 Red Lithium

Battery Type:	Sealed Lithium Ion
Voltage:	18.0V DC
Dimensions:	4.7"L x 3.2W x 2.2H
Capacities:	1.5Ah
Weight:	0.94 lbs.
Charging time:	30 - 60 minutes

CHARGER:

Milwaukee M18 Battery Charger

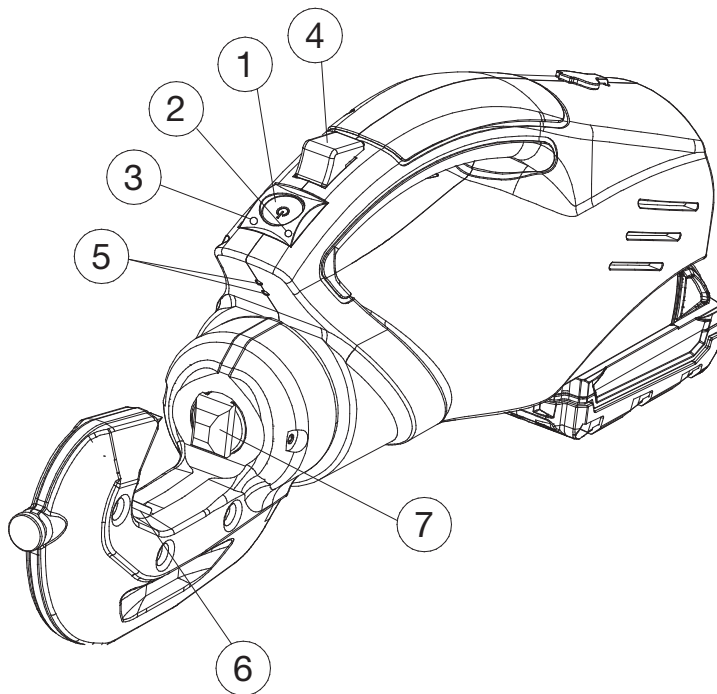
Input Voltage:	120 V AC Single Phase
Output Voltage:	12 - 18 V DC

2.0

TOOL DESCRIPTION

2.1

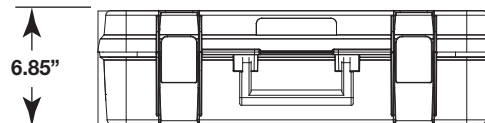
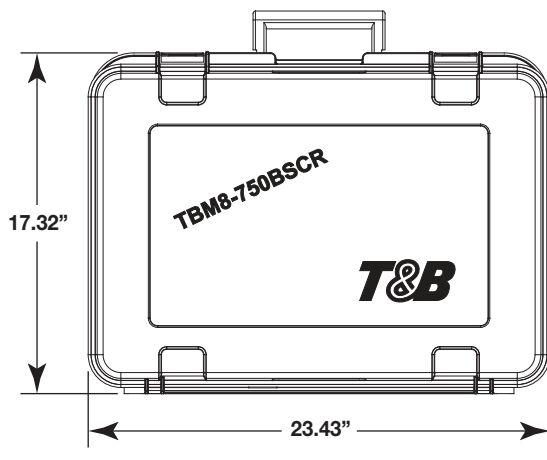
HYDRAULIC COMPRESSION TOOL



- 1. Start Button
- 2. Red LED
- 3. Green LED
- 4. Return Button
- 5. Work Lights
- 6. Tool Head
- 7. Indenter

2.2

CARRYING CASE



3.0

OPERATING INSTRUCTIONS

3.1

CHARGING THE BATTERY

1. This tool utilizes a Milwaukee Tool M18 battery charger and rechargeable battery system. For information on the function and operation of the battery charger and the rechargeable batteries please consult the enclosed Milwaukee Tool battery charger operating instructions.
2. Batteries are not charged at the factory. Charge the batteries fully before first use.

3.2**ATTACHING & DETACHING THE BATTERY PACK**

1. To attach the Battery, slide it into the rear of the Tool until it stops and the Latches (A) engage. (See fig. 1)
2. After inserting the Battery, check that it is securely in place by pulling it gently without pressing the Latches.
3. To detach the Battery, pull out the Battery while pressing the Latches (A). (See fig. 2)
4. The battery charge level is displayed when button (B) is pressed. The number of LEDs lit up denotes the relative battery charge. One flashing LED indicates a maximum charge level of 10%. The battery should be charged soon.

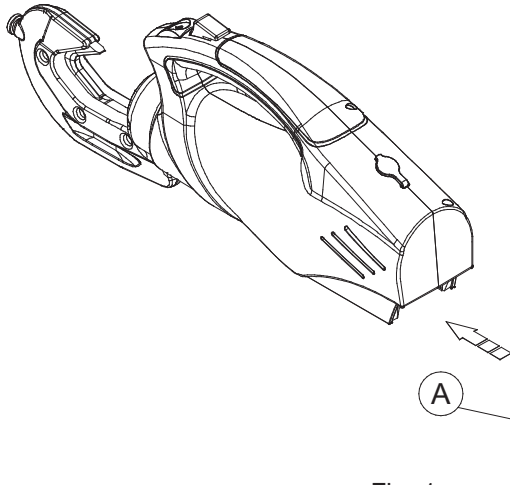


Fig. 1

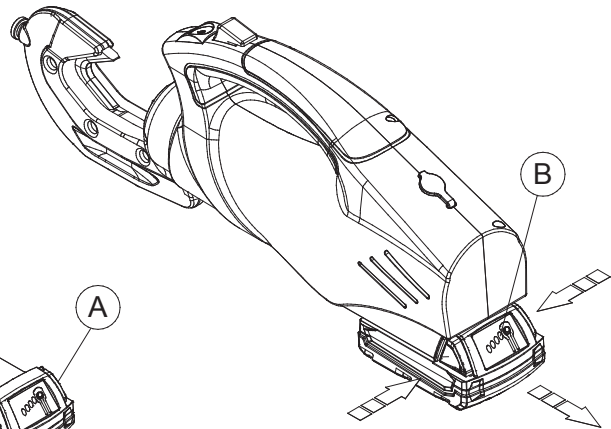
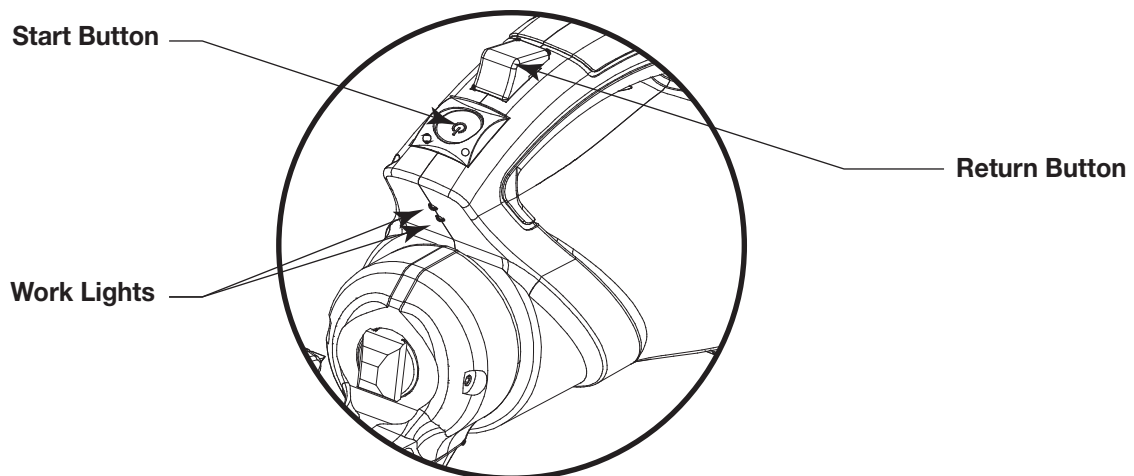


Fig. 2

3.3**SWITCH OPERATIONS**

1. The indenter extends when the Start Button is pressed and stops when the Start Button is released.
2. To retract the indenter, press the Return Button. The indenter continues to retract while the Return Button is pressed.
3. The compression area within the head is illuminated by LED work lights while the tool is operational.



1. Insert the battery into the tool (See section 3.2). Observe the green and red LEDs for tool status (See chart below).
2. Refer to the connector instruction sheet for information about proper conductor preparation as well as compression location and quantity.
3. Insert the prepared conductor into the connector and place the connector into the tool head (See fig 3).
4. Press and hold the start button. The Green LED turns on briefly and then turns off once the indenter begins to extend.
5. Continue holding the start button to extend the indenter. Once the indenter contacts and begins to compress the connector, continue holding the Start button until the tool automatically stops. If the compression is successful the Green LED turns on. Release the Start button and press the Return button to retract the indenter.
6. Only one compression is required per connection, however additional compressions are acceptable if the connector barrel has adequate length. (See fig 4). For faster cycle times when performing multiple compressions, retract the indenter only as far as required for the next compression.

CAUTION

Never make two compressions in the same location. Severe over-compression could occur resulting in connector overheating and failure.

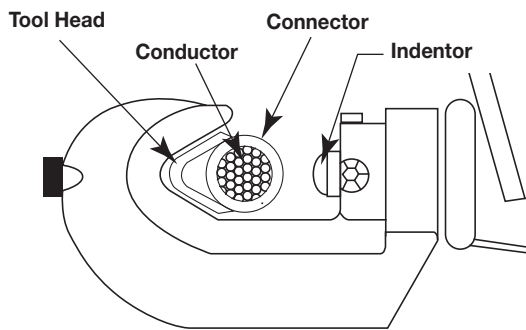
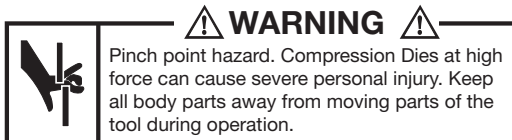
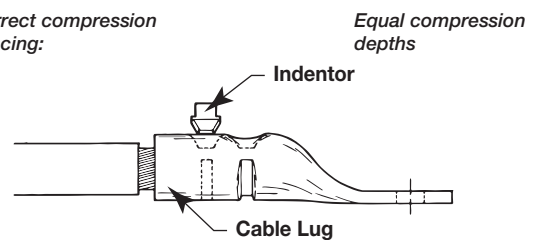


Fig. 3

Correct compression spacing:



Incorrect compression spacing:

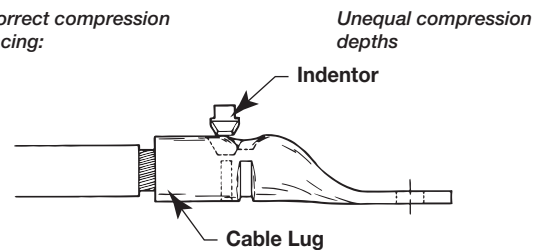


Fig. 4

Status - Tool LED Display

LED display	Status/cause	Measure
Green LED off.	Tool is switched off.	Briefly press the start button.
Green LED on.	Tool on standby.	
Green LED off. (compression operation in progress).	Compression operation has started. The tool will stop the compression operation automatically.	
Green LED flashes.	Insufficient battery charge.	Charge or replace battery.
Red LED flashes.	Tool temperature is outside of operational range.	The the tool is designed to operate within a temperature range from -10 to +50°C. If the red LED is flashing, place the tool in a warmer or cooler environment as needed until proper operating temperature range is reached.
Red LED on. (Compression operation not in progress)	The compression operation was interrupted due to premature Start button release.	Press the start button again and hold it down until the compression operation has been automatically stopped by the tool.

3.5**MAINTENANCE & INSPECTION**

1. Very little maintenance is required to ensure that the tool is kept in good working condition.
2. To ensure smooth operation and prevent rust, store the tool in a cool dry area. Ensure that moving parts are lubricated regularly.
3. When the plastic housing becomes dirty, clean it with a soft soaped cloth.
4. Dust, sand, and dirt are a danger for any hydraulic device. After each use, the tool should be wiped with a clean cloth taking care to remove any residue, especially close to the movable parts. Keep the head and indenter clean and free of debris. Solvents can be used to clean the head but should not be used on the plastic body. Use soap and water to clean the plastic body.

NOTE: Always remove the battery pack from the unit before replacing parts or maintenance.

4.0**IMPORTANT OPERATING PRECAUTIONS****4.1****PRECAUTIONS FOR COMPRESSION TOOL**

1. Select the appropriate connector for the conductor being terminated. Incorrect combinations result in inferior connections of the conductors.
2. Never operate the tool to full extension without a mated connector and conductor inserted in the tool head.
3. Always point the tool away from other people.
4. If the tool is stored for an extended period at a temperature of less than 14° F (-10° C), the tool should be allowed to return to room temperature to ensure smooth operation. Use the tool only after it has been at room temperature for 1 hour.
5. Do not drop the tool. Dropping the tool may damage the hydraulic circuit and cause malfunctions.

4.2**PRECAUTIONS FOR THE BATTERY PACK**

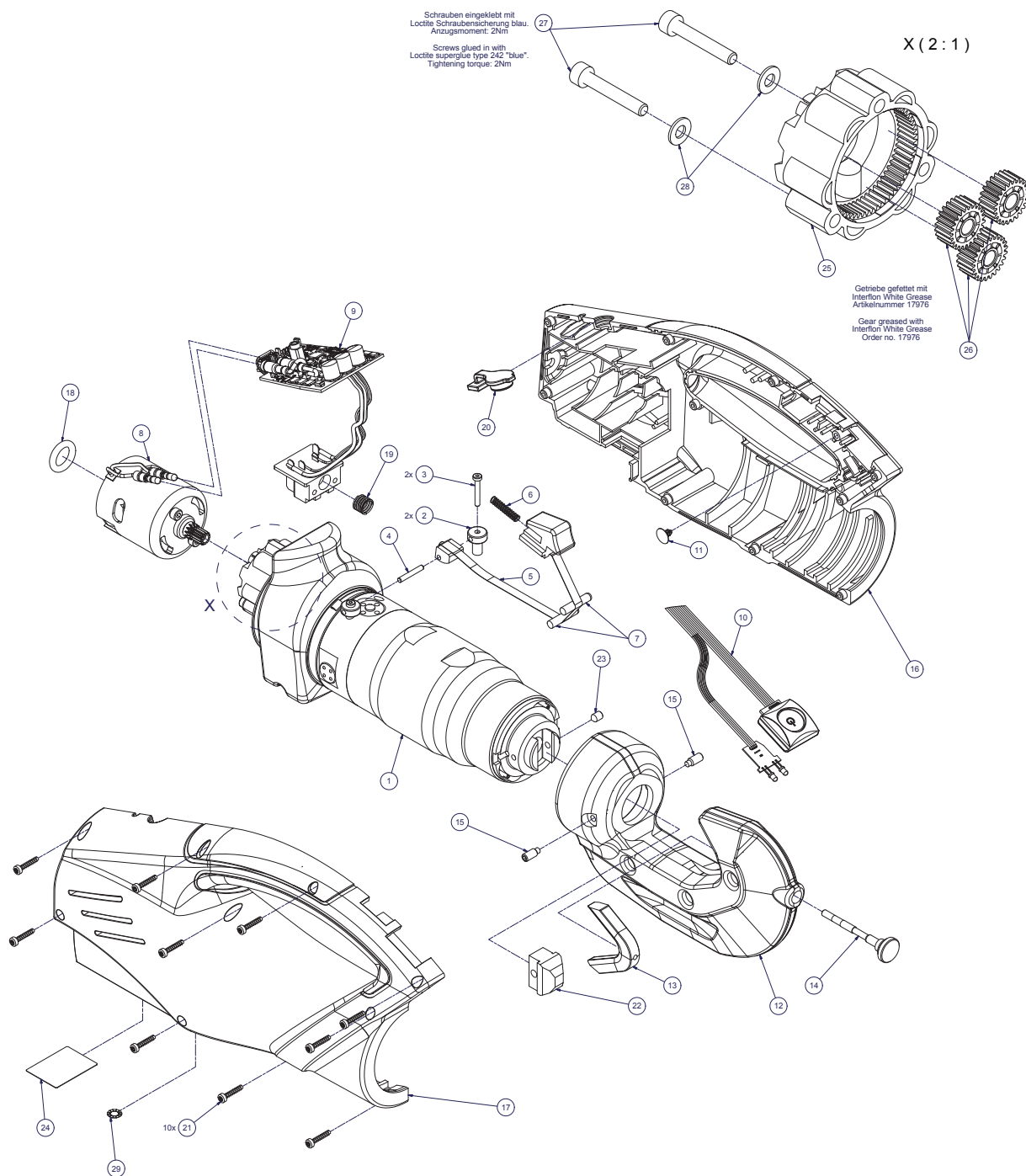
1. Do not short circuit the contacts or expose the battery to water, oil or solvents.
2. Do not disassemble or attempt to repair the battery or dispose of in a fire.
3. Do not drop or otherwise abuse the battery.
4. Do not leave the battery in locations where it will be exposed to a temperature greater than 122° F (50° C) for an extended period.
5. The battery has a limited life. When the capacity becomes about 1/2 that of the original capacity, the battery should be replaced.
6. If the battery is stored without being charged, natural drainage will cause the power to be reduced. The battery should be charged every 3 months if not in use regularly.

4.3**PRECAUTIONS FOR THE CHARGER**

1. The LED lamp lights up red and remains lit when the unit starts charging a battery. The LED lamp turns green when charging is completed.
2. This unit is for charging Milwaukee batteries only. Do not use the charger for any other devices.
3. Allow battery cartridges to cool before charging. Allow at least 15 minutes between charges when charging several batteries in succession.
4. Charging time is approximately 30 - 60 minutes.
5. Never short circuit the output contacts.
6. Do not expose the charger to water, oil or solvents.
7. Do not disassemble, modify, drop or otherwise abuse the charger.

WARRANTY: Thomas & Betts sells this product with the understanding that the user will perform all necessary tests to determine the suitability of this product for the user's intended application. Thomas & Betts warrants that this product will be free from defects in materials and workmanship for the period stated on the enclosed warranty card. Upon prompt notification of any warranted defect, Thomas & Betts will, at its option, repair or replace the defective product. Misuse, misapplication or modification of Thomas & Betts products immediately voids all warranties.

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Item	Qty.	Order no.	Description
1	1	47660	Hydraulic unit assy. HPA400 BL
2	2	47654	Bearing pin HPA400 BL
3	2	18012	Cylinder screw DIN7984 M3x20
4	1	18011	Cylinder pin DIN6325 3m6x20
5	1	47675	Retract button assy. HPA400 BL
6	1	16388	Pressure spring D-079
7	2	17941	Cylinder pin ISO 8734 5x24 A
8	1	47680	Motor assy. HPA400
9	1	47690	PCB assy. HPA400
10	1	47677	Cable harness start-button assy. HPA400 BL
11	1	18013	Press fit pin PFP-7-01
12	1	47670	Crimping head assy. HPA400 BL
			(Includes items 13,14 and 15)
13	1	4520	Upper die HPA/HPH/HPM 400
14	1	1694	Locking screw assy.
15	2	18010	Grub screw M5x12
16	1	47444-41	Housing half HPA400 T&B, left (black)
17	1	47445-41	Housing half HPA400 T&B, right (black)
18	1	17496	O-ring 13x4
19	1	17495	Pressure spring
20	1	46898	Plug HPA400
21	10	17081	Screw D3x18
22	1	4510	Lower die HPA/HPH/HPM 400 T&B
23	1	11669	Grub screw DIN914 M5x8
24	1	47846-41	Name-plate TBM8-750BSCR T&B
25	1	43125	Planetary gearing - annulus gear
26	3	45389	Planetary gearing - planet gear 6:1
27	2	12169	Cylinder screw M4x25
28	2	12311	Washer A4,3
29	1	45271-2J	Sticker - Inspection