

HILTI

DX 860-HSN

Operating instructions

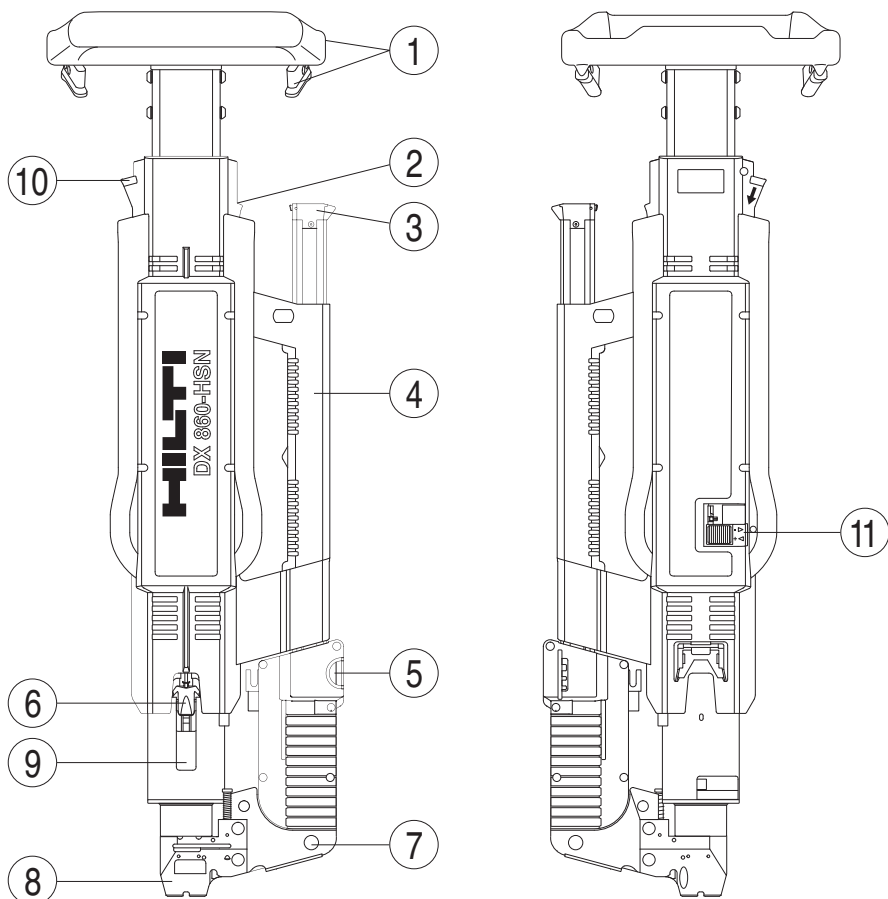
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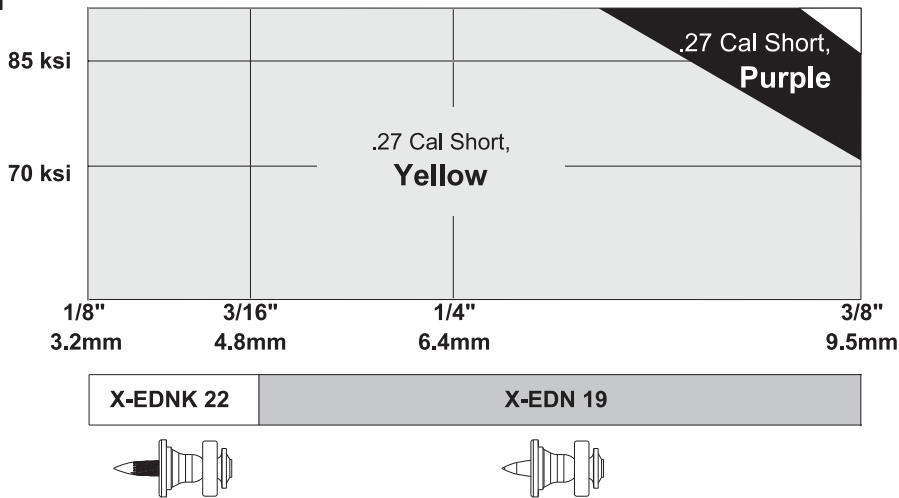
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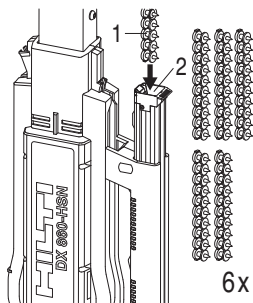
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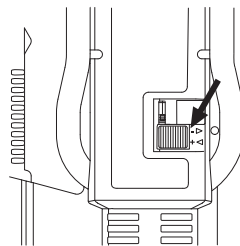
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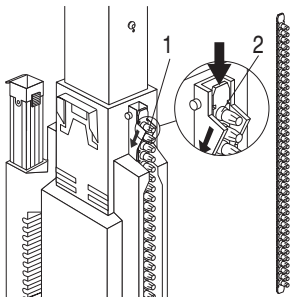
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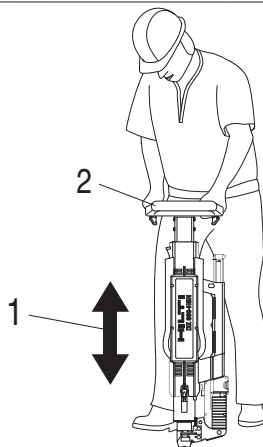
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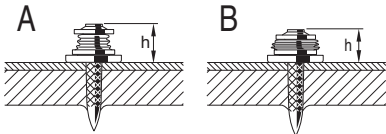
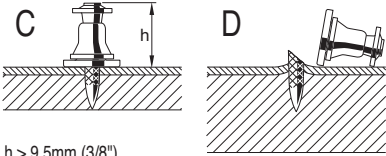
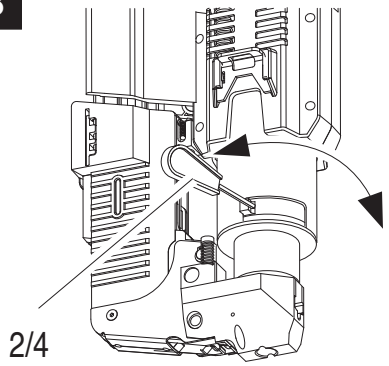
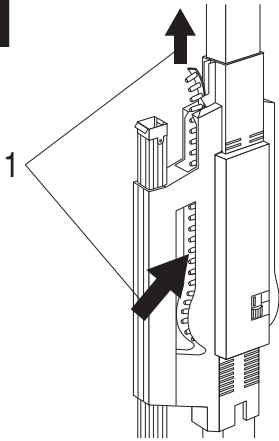
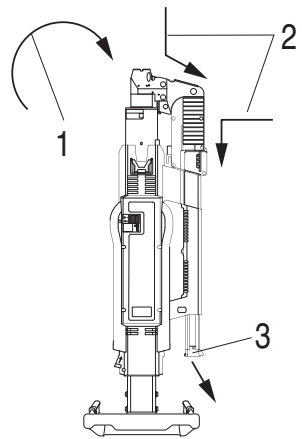
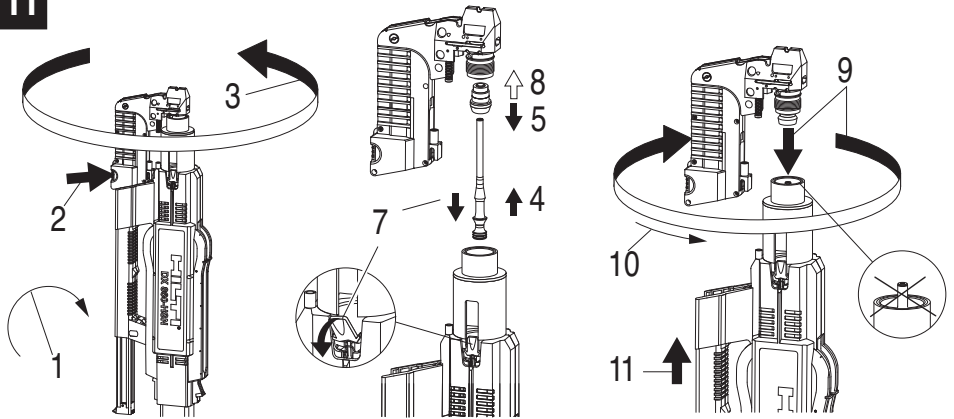


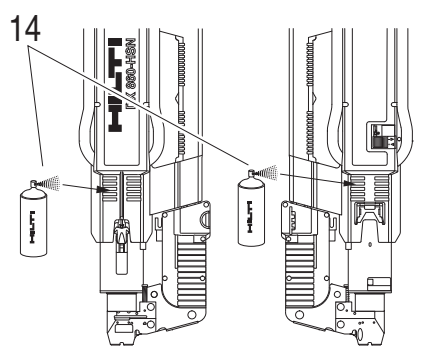
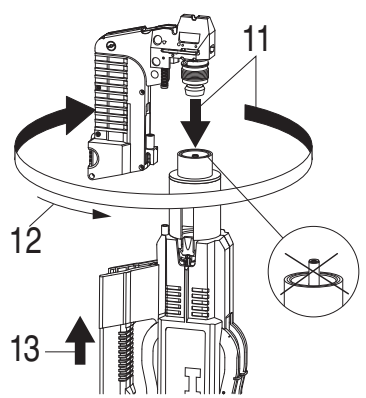
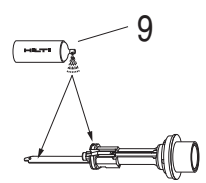
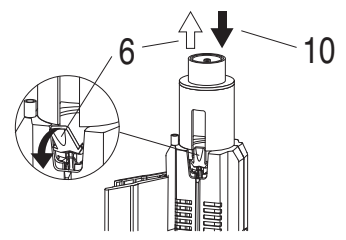
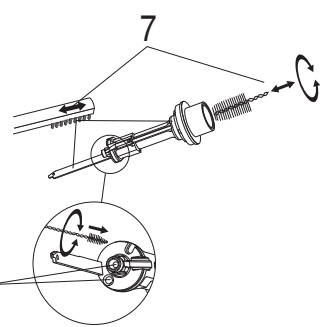
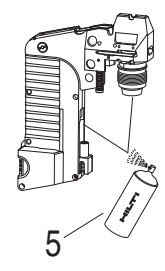
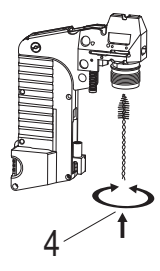
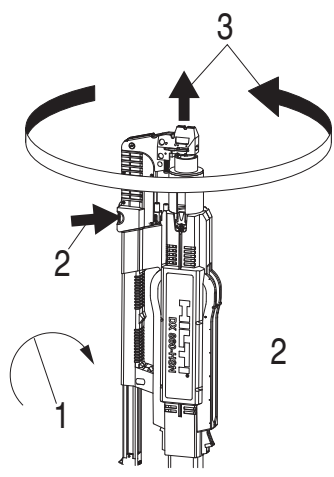
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6



7 $h = 5-9.5\text{mm}$ (3/16"-3/8") $h < 5\text{mm}$ (3/16") $h > 9.5\text{mm}$ (3/8")**8****9****10****11**



DX 860-HSN powder-actuated fastening tool

It is essential that the operating instructions are read before the tool is operated for the first time.

Always keep these operating instructions together with the tool.

Ensure that the operating instructions are with the tool when it is given to other persons.

Parts of the tool **1**

- ① Grip and firing mechanism (trigger)
- ② Cartridge strip exit point
- ③ Magazine
- ④ Carrying handle
- ⑤ Release button
- ⑥ Catch
- ⑦ Curved loading section
- ⑧ Base plate
- ⑨ Rotating sleeve
- ⑩ Cartridge loading channel
- ⑪ Power regulation wheel

Contents	Page
1. General information	1
2. Description	2
3. Consumables and accessories	2
4. Technical data	2
5. Safety precautions	3
6. Before use	4
7. Operation	5
8. Care and maintenance	6
9. Troubleshooting	8
10. Disposal	9
11. Manufacturer's warranty – DX Tools	9
12. Confirmation of CIP testing	10
13. Health and safety of the operator	10

1. General information

1.1 Safety notices and their meaning

-WARNING-

Draws attention to a potentially dangerous situation that could lead to severe personal injury or death.

-CAUTION-

Draws attention to a potentially dangerous situation that could lead to minor personal injury or damage to the equipment or other property.

-NOTE-

Indicates instructions and other useful information. Not used to indicate potentially dangerous situations or situations where damage may occur.

1.2 Pictograms

Warning signs



General warning



Warning: explosive substance



Warning: hot surface

Obligation signs



Wear eye protection



Wear a hard hat



Wear ear protection



Wear protective gloves

Symbols



Read the operating instructions before use.

1 The numbers refer to the illustrations. The illustrations can be found on the fold-out cover pages. Keep these pages open while you read the operating instructions.

In these operating instructions, the designation "the tool" always refers to the DX 860-HSN.

Location of identification data on the tool

The type designation and serial number are printed on the type plate on the tool. Make a note of this information in your operating instructions and always refer to it when making an enquiry to your Hilti representative or service department.

Type: DX 860-HSN

Serial no.: _____

en

2. Description

The tool is designed exclusively for use in metal roof or composite floor deck applications for fastening trapezoidal profile metal sheets to bar joist metal frames. The fastening is achieved by driving special fasteners through the metal sheet and into the underlying steel joist or frame.

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3. Consumables and accessories

Fasteners for decking and siding fastening applications where approval is required (SDI, ICBO, FM, UL)

Item no.	Ordering designation	Explanation
34133	X-EDNK 22 THQ12M	Base material thickness 3 mm to 7 mm ($1/8''$ to $1/4''$)
34134	X-EDN 19 THQ12M	Base material thickness 5 mm to 9.5 mm ($3/16''$ to $3/8''$)

Cartridges

Item no.	Ordering designation	Explanation
305955	6.8/11 M40, yellow (=.27 CAL short, yellow)	Standard
305957	6.8/11 M40, black (=.27 CAL short, purple)	For high-strength steel on thick substructures

Wearing parts

Item no.	Ordering designation	Explanation
284990	DX 860-HSN spare parts pack	Piston and piston brake

Accessories

Item no.	Ordering designation	Explanation
285345	Cleaning Kit	Scraper, Round brush 9, Flat brush 3/T69, Round brush 10 (conical), Round brush 22 / 28.5, Round brush 13
285775	Goggles	
331981	Ear protectors	

4. Technical data

Tool	DX 860-HSN
Weight	12.8 kg (28.2 lbs)
Dimensions (L x W x H)	142 mm x 332 mm x 982 mm (5.59" x 13.1" x 38.7")
Fastener length	22 mm and 19 mm ($7/8''$ and $3/4''$)
Magazine capacity	60 fasteners, 40 cartridges
Operating temperature range / ambient temperature range	-15 °C to +50 °C (5 °F to 122 °F)
Max. fastener driving rate	1,000 per hour

Right of technical changes reserved.

5. Safety precautions

5.1 Basic safety instructions

In addition to the safety precautions listed in the individual sections of these operating instructions, the following points must be strictly observed at all times.

5.2 Use as directed

The tool is intended for professional use by persons who have received adequate instruction in the correct, safe operating procedures.



- Manipulation or modification of the tool is not permissible.
- To avoid the risk of injury, use only original Hilti fasteners, cartridges, accessories and spare parts or those of equivalent quality.
- Observe the information printed in the operating instructions concerning operation, care and maintenance.
- Never point the tool at yourself or at any bystander.
- Never press the nosepiece of the tool against your hand or other part of your body (or other person's body).
- Drive fasteners only into steel. Do not attempt to drive fasteners into other materials or into hardened or brittle steel, cast iron or spring steel.
- The tool and its ancillary equipment may present hazards when used incorrectly by untrained personnel or not as directed.
- Pull the trigger only when the nosepiece of the tool is in contact with the base material and pressed down fully.
- Always hold the tool securely, perpendicular to the work surface. This will reduce the possibility of the fastener ricocheting off the work surface.
- Never redrive a fastener. This may cause the fastener to break or shatter.
- Always observe the following application guidelines:
 - Minimum distance to edge of substructure: 7 mm ($\frac{1}{4}$ ")
 - Minimum distance between fasteners: 25 mm (1")
 - Minimum thickness of substructure: 3 mm ($\frac{1}{8}$ ")

5.3 Take the necessary precautions at the workplace



- Ensure that the working area is well lit.
- Operate the tool only in well-ventilated working areas.
- Keep the workplace tidy. Objects which could cause injury should be removed from the working area. Untidiness at the workplace can lead to accidents.
- Wear non-slip shoes.
- Never point the tool at yourself or at any bystander.

- The operator and all persons in the vicinity must wear goggles and a hard hat.
- It is recommended that protective gloves and non-slip shoes are worn when working outdoors.
- When not in use, the tool and cartridges must be kept locked up and always out of reach of children.
- Keep children away from the working area. Keep other persons away from the working area.
- Avoid unfavorable body positions. Work from a secure stance and stay in balance at all times.
- Keep the arms flexed while using the tool (do not straighten the arms). Stop using the tool if you experience pain or feel unwell.
- Before driving fasteners, check that no one is present beneath the sheet metal being fastened.

5.4 General safety precautions

- Use the right tool for the job. Do not use the tool for purposes for which it was not intended. Use the tool only as directed and when it is in faultless condition.
- Take the influences of the surrounding area into account. Do not use the tool where there is a risk of fire or explosion.
- Keep the grips clean, dry and free from oil and grease.
- Press the tool against the work surface at right angles.
- Never pull the magazine back with the hand. Under certain circumstances, this could cock the tool, making it ready for firing. When the tool is ready to fire, the piston or a fastener could be driven inadvertently into a part of the body, or free-flighted.
- Never leave a loaded tool unattended.
- Always remove all cartridges and fasteners from the tool before carrying out cleaning, servicing or maintenance.
- When not in use, the tool must be unloaded and stored in a dry place where it is locked up or out of reach of children.
- Never compress the tool while manipulating the release catch, as this might result in injuries to the hand of the operator.
- Check that moving parts function correctly without sticking and that no parts are damaged. All parts must be fitted correctly and fulfill all conditions necessary for correct operation of the tool.
- Check the tool for possible damage. Protective devices and any parts that may have suffered slight damage should be checked for correct operation and functionality before further use. Damaged safety devices or other damaged parts must be replaced or repaired properly by an authorized repair workshop unless otherwise indicated in the operating instructions.
- Never use a tool that is damaged, incomplete or not in perfect working order.

5.4.1 Mechanical hazards



- Use only fasteners that have been approved for use with the tool.

5.4.2 Thermal hazards



- Remove the cartridge strip from the tool carefully.
- Allow the tool to cool down.
- Do not exceed the recommended fastener driving rate (1000 fasteners per hour in sustained operation, 1500 fasteners per hour over a maximum of 10 minutes). The tool may otherwise overheat.
- Do not dismantle the tool while it is hot or wear protective gloves if dismantling the hot tool is unavoidable.

5.4.3 Danger of explosion



- Do not attempt to forcibly remove cartridges from the magazine strip or tool.
- Unused cartridges must be stored in a dry, high place, locked up or out of reach of children.

5.5 Requirements to be met by users

- The tool is intended for professional use.
- The tool may be operated, serviced and repaired only by authorized, trained personnel. This personnel must be informed of any special hazards that may be encountered.
- Always concentrate on your work. Proceed carefully and do not use the tool if your full attention is not on the job.

5.6 Personal protective equipment

- The operator and other persons in the immediate vicinity must always wear eye protection, a hard hat, ear protectors and protective gloves while the tool is in use or when checking the tool in case of a fault.



6. Before use





6.1 Check the tool


- Check that no cartridge strip is loaded in the tool. If a cartridge strip is present in the tool, push it forward in the direction of cartridge transport until it can be gripped at the cartridge exit opening and pulled out of the tool.
- Check all external parts of the tool for damage at regular intervals and check that all controls operate properly. Do not operate the tool when parts are damaged

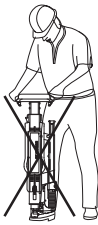
- or when the controls do not operate properly. If necessary, have the tool repaired at a Hilti service centre.
- Check the piston brake and piston for wear and to ensure that the parts have been fitted correctly (see section 8.)

7. Operation



-WARNING-	
 	<ul style="list-style-type: none"> ● Driving the fastener may cause flying fragments. ● Flying fragments may injure parts of the body or the eyes. ● The operator and bystanders must wear goggles and a hard hat.

-WARNING-	
	<ul style="list-style-type: none"> ● The fastener is driven by the energy released when a cartridge is fired. ● An excessively high noise level may damage the hearing. ● The operator and bystanders must wear ear protectors.

-WARNING-	
	<ul style="list-style-type: none"> ● Making the tool ready to fire by pressing it against a part of the body (e.g. the foot) is not permissible. ● This could cause a fastener to be driven into a part of the body. ● Never press the tool against a part of the body.

7.1 Using the tool

7.1.1 Selecting the fastener **2**

- Recommendations for selection of fasteners and cartridges can be found in the fastener selection diagram.
- The fasteners and cartridge colors are shown in the fields in the fastener selection diagram. The substructure thickness is shown in the scale beneath the fields and the tensile strength of the steel is shown in the scale beside the fields.
- The final choice of fastener, cartridge and correct power setting must be determined on the jobsite by making test fastenings.

-NOTE-

When fastening to materials with a thickness of greater than 9.5 mm ($\frac{3}{8}$ "), please use X-ENP fasteners and the appropriate fastening tool and cartridges.

7.1.2 Loading the MX fastener strip **3**

1. Slide the 6 fastener strips into the magazine from above.
2. Press the last fastener strip in as far as it will go and until flush with the end of the magazine.

7.1.3 Loading a strip of Hilti 6.8/11M40 (=27 CAL Short) cartridges **4**

1. Slide the cartridge strip into the cartridge loading channel from above.
2. Press the cartridge strip into the cartridge loading channel until flush with the top edge of the cartridge loading channel.

7.1.4 Setting fastener driving power **5**

Set the required fastener driving power by turning the power regulation wheel on the tool.

Position 1 = minimum driving power

Position 4 = maximum driving power

1. Set the power regulation wheel to position 1.
2. Make a series of test fastenings.
3. Use the power adjustment gauge (supplied with fasteners or spare sets) to check fastener standoff from deck surface.
4. If the fastener projects by more than 9.5 mm ($\frac{3}{8}$ "), fastener driving power must be increased by turning the power regulation wheel. Steps 2 and 3 must then be repeated until fastener projection is within the recommended range 5–9.5 mm ($\frac{3}{16}$ " – $\frac{3}{8}$ ").

-NOTE-

If the necessary fastener head stand-off cannot be achieved by adjusting the power setting, it may be necessary to use cartridges of a higher power level.

-NOTE-

Wear parts of the tool will be subjected to excessive stress if excessively high fastener driving power is used.

7.1.5 Driving fasteners **6**

-NOTE-

The tool must be loaded with at least 15 fasteners.

-CAUTION-

Never attempt to redrive a fastener that has already been driven.

Use the tool only in an upright position with the tool nosepiece (fastener exit aperture) pointing downwards.

-WARNING-

Never point the tool toward other persons.

1. Press the tool against the work surface at right angles.
2. Drive the fastener by pressing the firing mechanism (trigger) on the hand grip.

7.2 Remediying faults

7.2.1 If the tool misfires or a cartridge fails to fire, proceed as follows:

1. Keep the tool pressed against the work surface for 30 seconds.
2. If the cartridge still fails to fire, lift the tool away from the work surface. Do not point the tool toward yourself or other persons.
3. At the cartridge loading side, advance the cartridge strip by one cartridge by pushing the strip further into the tool or, alternatively, by pulling the strip through the tool by hand (by one cartridge) at the cartridge strip exit aperture.
4. Use up the remaining cartridges on the strip. Remove the used cartridge strip and dispose of it correctly to prevent possible misuse.

7.2.2 If the tool jams, proceed as follows

-WARNING-

Do not attempt to forcibly remove cartridges from the cartridge strip or from the tool.

1. Compress the tool a few millimeters and turn the rotating sleeve through 90° (use the accessory scraper if necessary).
2. Pull the cartridge strip out of the tool at the cartridge strip exit aperture.

-NOTE-

Turning the rotating sleeve releases the catch. It jumps open automatically and allows the tool to be opened.

3. Carry out the steps described at 8.2.1 or 8.2.2.
4. Subsequently, turn the rotating sleeve back through 90° to its original position.

7.3 After finishing work with the tool

7.3.1 Unloading the tool

-WARNING-

Do not attempt to forcibly remove cartridges from the cartridge strip or from the tool.

1. Push the cartridge strip into the tool as far as possible at the cartridge loading side (in the cartridge strip advance direction).
2. Pull the cartridge strip out of the tool at the cartridge strip exit aperture.

7.3.2 Removing fastener strips from the tool

-NOTE-

It is not absolutely essential to remove fastener strips from the tool.

-WARNING-

Check that no cartridges are present in the tool. If necessary, unload the tool as described at section 7.3.1.

1. Stand the tool upright on the grip (upside down).
2. Use the scraper (supplied with the tool) to push the fastener strips back through the loading channel.
3. Press the red button above the magazine and allow the fastener strips to slide out of the magazine.

8. Care and maintenance

When this type of tool is used under normal operating conditions, dirt and residues build up inside it and functionally relevant parts are subject to wear. Regular inspections and maintenance are thus essential in order to ensure reliable operation:

- **The operating controls and the condition of the piston and piston brake must be checked daily**, or, at the latest, after 5,000 fasteners have been driven since the piston and piston brake were previously replaced (see section 8.2.1).
- **The maintenance procedures described at section 8.2 must be carried out after every 15,000 fastenings** or, at the latest, if operation of the tool becomes stiff.

-WARNING-

All cartridges must be unloaded from the tool before carrying out care and maintenance.



-WARNING-

- The tool may become hot during operation.
- You could burn your hands.
- Wear protective gloves before carrying out care and maintenance.

8.1 Care of the tool

The outer casing of the tool is manufactured from impact resistant plastic. The grip comprises a synthetic rubber section. Never operate the tool when the ventilation slots are unobstructed. Do not permit foreign objects to enter the interior of the tool. Use a slightly damp cloth to clean the outside of the tool at regular intervals. Do not use a spray or steam-cleaning system for cleaning.

8.2 Maintenance

Check all external parts of the tool for damage at regular intervals and check that all controls operate properly. Do not operate the tool when parts are damaged or when the controls do not operate properly. If necessary, have the tool repaired at a Hilti service centre.

Use the tool only with the recommended cartridges and power settings. Use of the wrong cartridges or use of excessively high power settings may lead to premature failure of parts of the tool.

-CAUTION- When cleaning:

Never use grease for the maintenance/lubrication of parts of the tool. This may lead to malfunctions. Use only Hilti lubricant spray or a product of comparable quality.

The residues deposited inside DX tools contain substances that may be injurious to your health:

- Do not inhale any dust or dirt while cleaning.
- Keep the dust or dirt away from foodstuffs.
- Wash your hands after cleaning the tool.

8.2.1 Checking the piston and piston brake

-NOTE-

Check that no cartridges are present in the tool. If necessary, unload the tool as described at section 7.3.1.

1. Stand the tool on its grip (upside down).
2. Press the red button above the magazine and allow the fastener strips to slide out of the magazine.

-CAUTION-

Parts of the tool may become very hot after a period of use. Protective gloves must be worn if the following maintenance procedure is carried out before the tool has been allowed to cool down.

3. Unscrew the base plate with the curved loading channel in a counter-clockwise direction until it is released from the tool. Lift the base plate and curved loading channel away from the tool.
4. Pull the piston out of the piston guide.
5. Pull the piston brake out of the base plate.
6. Check the piston and piston brake for damage. The piston and piston brake must be replaced if signs of damage are found.

-NOTE-

Check the piston for bending by rolling it on a flat surface.

Do not use a worn or damaged piston and do not modify the piston in any way.

7. Pull the catch and hold it. Push the piston fully into the piston guide so that the tip of the piston does not stick out. Release the catch.
8. Insert the piston brake in the base plate.
9. Press the base plate and the curved loading channel against the threaded section on the tool and rotate it on in a clockwise direction until it is screwed on as far as it will go.
10. Turn the base plate with the curved loading channel back to its original position above the magazine.

11. Push the magazine back until it engages with the curved section.

8.2.2 Cleaning the piston

-NOTE-

Check that no cartridges are present in the tool. If necessary, unload the tool as described at section 7.3.1.

1. Stand the tool on its grip (upside down).
2. Press the red button above the magazine and allow the fastener strips to slide out of the magazine.

-CAUTION-

Parts of the tool may become very hot after a period of use. Protective gloves must be worn if the following maintenance procedure is carried out before the tool has been allowed to cool down.

3. Unscrew the base plate with the curved loading channel in a counter-clockwise direction until it is released from the tool. Lift the base plate and curved loading channel away from the tool.
4. Clean the inside of the fastener guide with accessory brush.
5. Lubricate the moving element of the magazine with Hilti-Spray.
6. Remove the piston. Pull the catch and hold it. Pull the piston guide upwards out of the tool. Release the catch.
7. Use accessory wire brushes to clean all surfaces of the piston guide, inside and outside.
8. Clean the cartridge chamber and the bore for the power regulation pin with accessory round brush.
9. Lubricate the slider and the collar with Hilti lubricant spray.

-NOTE-

Use of lubricants other than Hilti lubricant spray may cause damage to rubber parts of the tool, especially the buffer.

10. Push the piston into the piston guide and slide the piston guide into the tool from above until the catch engages.
11. Press the base plate and the curved loading channel against the threaded section on the tool and rotate it on in a clockwise direction until it is screwed on as far as it will go.
12. Turn the base plate with the curved loading channel back to its original position above the magazine.
13. Push the magazine back until it engages with the curved section.
14. Lubricate the guiding rails of the tool with Hilti-Spray applied through the cooling slits as illustrated.

8.3 Checking the tool after care and maintenance

After carrying out care and maintenance and before loading the cartridges, check that all safety devices have been fitted and that they function faultlessly.

-NOTE-

Use of lubricants other than Hilti lubricant spray may cause damage to rubber parts of the tool, especially the buffer.

9. Troubleshooting

-WARNING-

The tool must be unloaded before taking any steps to remedy faults.

Fault	Possible cause	Remedy
Cartridge is not transported.	Damaged cartridge strip.	Change the cartridge strip 4 .
	Tool is damaged.	Contact Hilti.
Cartridge strip cannot be removed from the tool.	Tool is damaged.	Contact Hilti.
	Tool doesn't fire.	See 7.2.1 "Remedying faults".
Fastener is driven too deeply (B) 7 .	Cartridge strip is empty.	Unload and reload with a new cartridge strip 4 .
	There are less than 15 fasteners in the tool.	Load fasteners (see 7.1.2) 3 .
	Trigger is pulled before the tool is fully pressed down.	Press the tool down fully and then pull the trigger.
	Fastener transport malfunction	Check movement of fasteners. Remove faulty fasteners if necessary 10 .
	Magazine is not screwed on fully.	Screw the magazine on fully.
	The tool is badly soiled with dirt and deposits.	Clean the tool 12 .
	Unsuitable cartridges.	Contact Hilti. -WARNING- Do not attempt to forcibly remove cartridges from the cartridge strip or from the tool.
	The tool is damaged.	Contact Hilti.
	Fastener missed the steel beam.	Mark the position of the beam. Drive another fastener into the beam.
	Power setting too high.	Reduce fastener driving power according to the recommendations for the cartridge 2 or, respectively, use a less powerful cartridge.
Fastener is not driven deeply enough (C) 7 .	The piston brake is worn.	Replace the piston and piston brake.
	Piston brake is not fitted.	Fit the piston brake to the baseplate.
Fastener is not driven deeply enough (C) 7 .	Fastener driven too close to edge of beam.	Mark the position of the beam. Drive another fastener in the middle of the beam.
	Power setting too low.	Increase fastener driving power according to the recommendations for the cartridge 2 or, respectively, use a more powerful cartridge.
	The tool is badly soiled with dirt and deposits.	Clean the tool 12 .
	The piston is broken.	Fit a new piston and piston brake.
	The tool is damaged.	Contact Hilti.
Shear breakage (D) 7 .	Fastener driven into the rib.	Reposition the tool at the middle of the beam and drive another fastener.
	The fasteners used are not suitable for the base material.	Use fasteners suitable for the application (see 7.1.1).
	Base material is thicker and/or of higher strength.	Increase driving power or use a more powerful cartridge.

The tool remains compressed (does not extend when pressure is released). No fastener is driven.	Piston sticks in the piston brake.	Turn the rotating sleeve and replace the piston and piston brake 11 .
	The piston guide is badly soiled with dirt and deposits.	Turn the rotating sleeve and clean the piston guide if necessary 12 .
	No piston fitted.	Fit a piston in the tool.
	Piston is broken.	Replace the piston and piston brake.
	The fastener guide is badly soiled with dirt and deposits.	Clean the base plate and adjoining parts with the cleaning brush provided.
	A fastener is jammed in the fastener guide.	Remove the jammed fastener 10 . Avoid shear breakage (see above). Avoid missing the beam (driving the fastener into unsupported sheet metal); mark the position of the beams accurately if necessary.

If these measures fail to remedy the problem, please contact Hilti.

10. Disposal

Most of the materials from which Hilti power actuated tools are manufactured can be recycled. The materials must be correctly separated before they can be recycled. In many countries, Hilti has already made arrangements for taking back your old powder-actuated tools for recycling. Please ask your Hilti customer service department or Hilti sales representative for further information. National and international directives and regulations must be observed.

The individual parts should be separated as follows:

Part/assembly	Main material	Recycling
Toolbox	Plastic	Plastics recycling
Outer casing	Plastic/synthetic rubber	Plastics recycling
Piston	Steel	Scrap metal
Piston brake	Steel/plastic	Scrap metal
Screws, small parts	Steel	Scrap metal
Used cartridge strips	Steel/plastic	In accordance with local regulations

11. Manufacturer's warranty – DX Tools

Hilti warrants that the tool supplied is free of defects in material and workmanship. This warranty is valid so long as the tool is operated and handled correctly, cleaned and serviced properly and in accordance with the Hilti Operating Instructions, and the technical system is maintained. This means that only original Hilti consumables, components and spare parts, or other products of equivalent quality, may be used in the tool.

This warranty provides the free-of-charge repair or replacement of defective parts only over the entire lifespan of the tool. Parts requiring repair or replacement as a result of normal wear and tear are not covered by this warranty.

Additional claims are excluded, unless stringent national rules prohibit such exclusion. In particular,

Hilti is not obligated for direct, indirect, incidental or consequential damages, losses or expenses in connection with, or by reason of, the use of, or inability to use the tool for any purpose. Implied warranties of merchantability or fitness for a particular purpose are specifically excluded.

For repair or replacement, send tool or related parts immediately upon discovery of the defect to the address of the local Hilti marketing organization provided.

This constitutes Hilti's entire obligation with regard to warranty and supersedes all prior or contemporaneous comments and oral or written agreements concerning warranties.

12. Confirmation of CIP testing

The Hilti DX 860-HSN has been system and type tested. As a result, the tool bears the rectangular PTB approval mark showing approval number S 815. Hilti thus guarantees compliance with the approved type.

Unacceptable defects or deficiencies, etc. determined during use of the tool must be reported to the person responsible at the approval authority (PTB) and to the Office of the Permanent International Commission (C.I.P.).

13. Health and safety of the operator

13.1 Noise information

Powder-actuated fastening tool

Type	DX 860-HSN
Model	Series
Caliber	6.8/11 red
Power regulation	4
Application	Fastening to 10 mm steel with X-EDN 19 THQ 12

Declared measured values of noise characteristics according to 2006/42/EC Machinery Directive in conjunction with E DIN EN 15895

Noise (power) level:	$L_{WA, 1s}^1$	111 dB(A)
Emission noise-pressure level in the work station:	$L_{pA, 1s}^2$	99 dB(A)
Peak sound pressure emission level:	$L_{pC, peak}^3$	132 dB(C)

Operation and set-up conditions:

Set-up and operation of the pin driver in accordance with E DIN EN 15895-1 in the semi-anechoic test room of Müller-BBM GmbH. The ambient conditions in the test room conform to DIN EN ISO 3745.

Testing procedure:

Enveloping surface method in anechoic room on reflective surface area in accordance with E DIN EN 15895, DIN EN ISO 3745 and DIN EN ISO 11201.

NOTE: The noise emissions measured and the associated measurement uncertainty represent the upper limit for the noise values to be expected during the measurements.

Variations in operating conditions may cause deviations from these emission values.

¹ ± 2 dB (A)

² ± 2 dB (A)

³ ± 2 dB (C)

13.2 Vibration

Total vibration in accordance with 2006/42/EC does not exceed 2.5 m/s².

Further information about user health and safety can be found at www.hilti.com/hse.



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