

# BR87 Hydraulic Breaker

65778 User Manual 6/2019 Ver. 27

**DECLARATION OF CONFORMITY**  
**ÜBEREINSTIMMUNGS-ERKLÄRUNG**  
**DECLARATION DE CONFORMITÉ CEE**  
**DECLARACION DE CONFORMIDAD**  
**DICHIARAZIONE DI CONFORMITÀ**



I, the undersigned:  
 Ich, der Unterzeichnende:  
 Je soussigné:  
 El abajo firmante:  
 Io sottoscritto:

**Nuerenberg, David**

Surname and First names/Familiennamen und Vornamen/Nom et prénom/Nombre y apellido/Cognome e nome

**hereby declare that the equipment specified hereunder:**  
**bestätige hiermit, daß erklaren Produkt genannten Werk oder Gerät:**  
**déclare que l'équipement visé ci-dessous:**  
**Por la presente declaro que el equipo se especifica a continuación:**  
**Dichiaro che le apparecchiature specificate di seguito:**

1. Category: **Hydraulic Hand-held Concrete Breaker**  
 Kategorie:  
 Catégorie:  
 Categoria:  
 Categoría:

2. Make/Marke/Marque/Marca/Marca

**STANLEY**

3. Type/Typ/Type/Tipo/Tipo:

**BR8713201, BR8717201, (BR87320 – For Underwater Use Only)**

4. Serial number of equipment:  
 Seriennummer des Geräts:  
 Numéro de série de l'équipement:  
 Numero de serie del equipo:  
 Matricola dell'attrezzatura:

**BR8713201 All**  
**BR8717201 All**  
**BR87320 Serial # 031312004 and above**  
**(For Underwater Use Only)**

5. Mass/Masse/Masse/Masa/Massa 38 kg

**Has been manufactured in conformity with**  
**Wurde hergestellt in Übereinstimmung mit**  
**Est fabriqué conformément**  
**Ha sido fabricado de acuerdo con**  
**E' stata costruita in conformità con**

Directive/Standards Richtlinie/Standards Directives/Normes Directriz/Los Normas Direttiva/Norme	No. Nr Numéro No n.	Approved body Prüfung durch Organisme agréé Aprobado Collaudato
EN ISO Noise Directive	11148-4 2000/14/EC:2005 3744:2010	Self AkustikNet (Notified body ID 1585) Bagsvard Hovedgade 141, 2880 Bagsvard, Denmark Certificate #863/2011/005 (Verification 2015-08-04) Valid: 12-31-2018
EN ISO Machinery Directive ISO	13732-1 2006/42/EC:2006 28927-10	Self Self Self

6. Special Provisions: **None**  
 Spezielle Bestimmungen:  
 Dispositions particulières:  
 Provisiones especiales:  
 Disposizioni speciali:

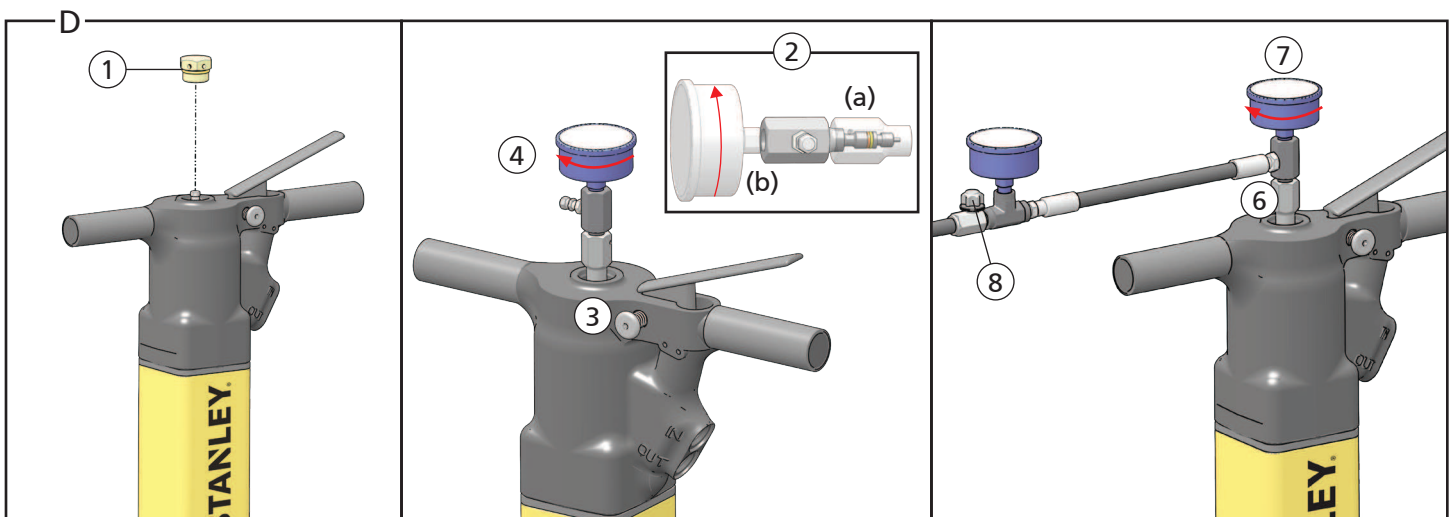
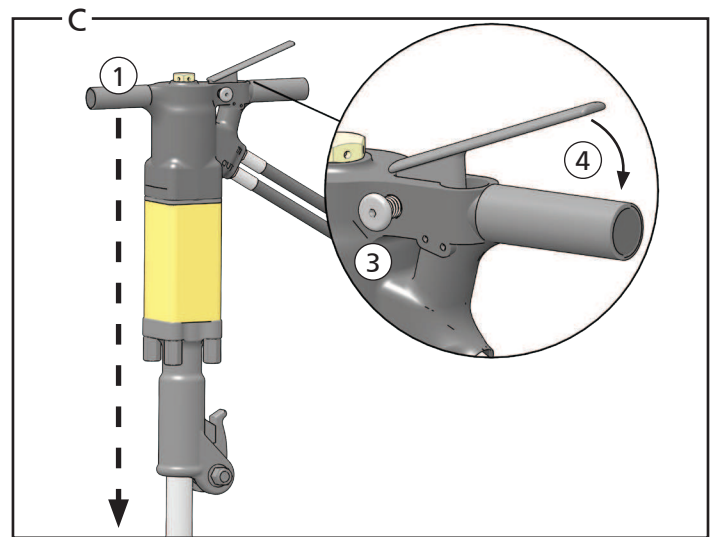
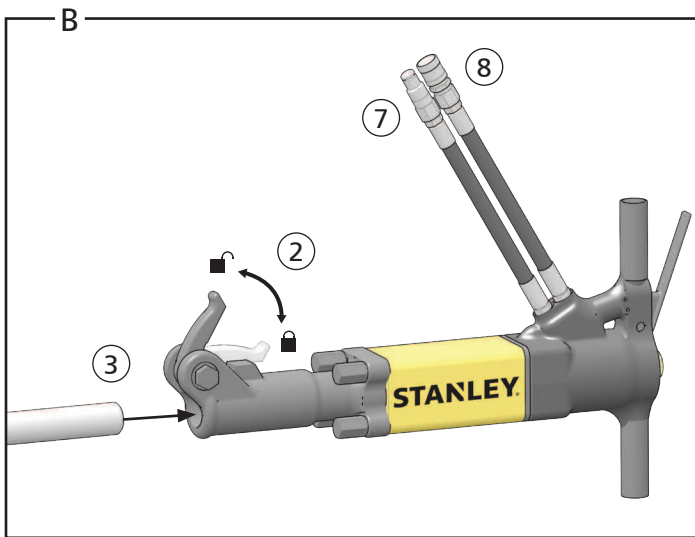
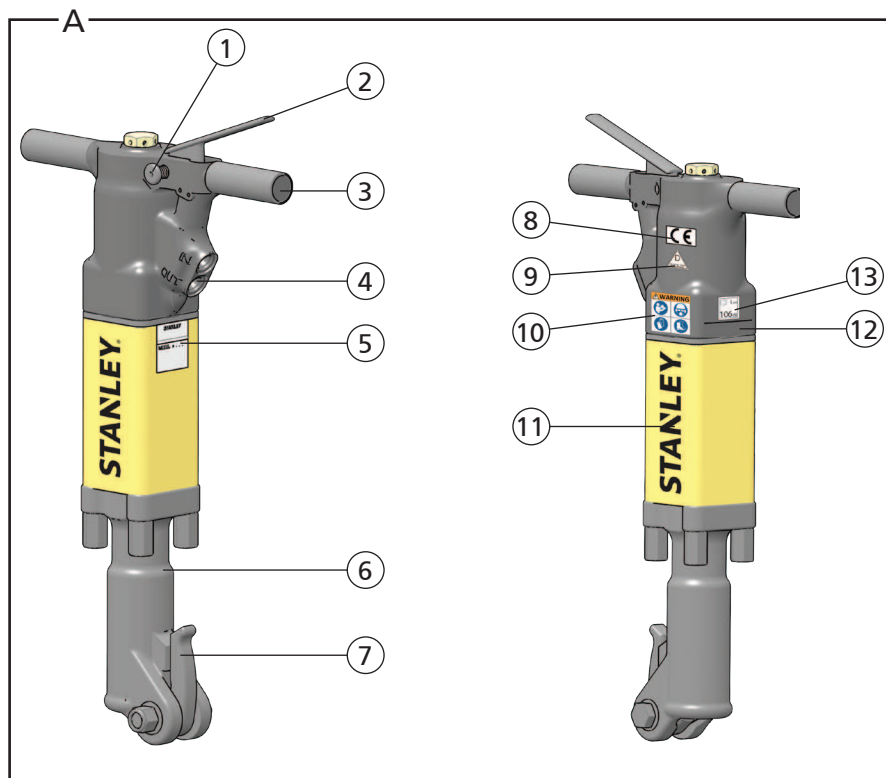
7. Measurements: **Measured Sound Power Level 105 LwA**  
 Messungen **Guaranteed Sound Power Level 106 LwA**  
 Mesures Measured in accordance to Directive 2000/14/EC,  
 Mediciones Annex III, Part B, No 10, m ≥ 30  
 Misurazioni

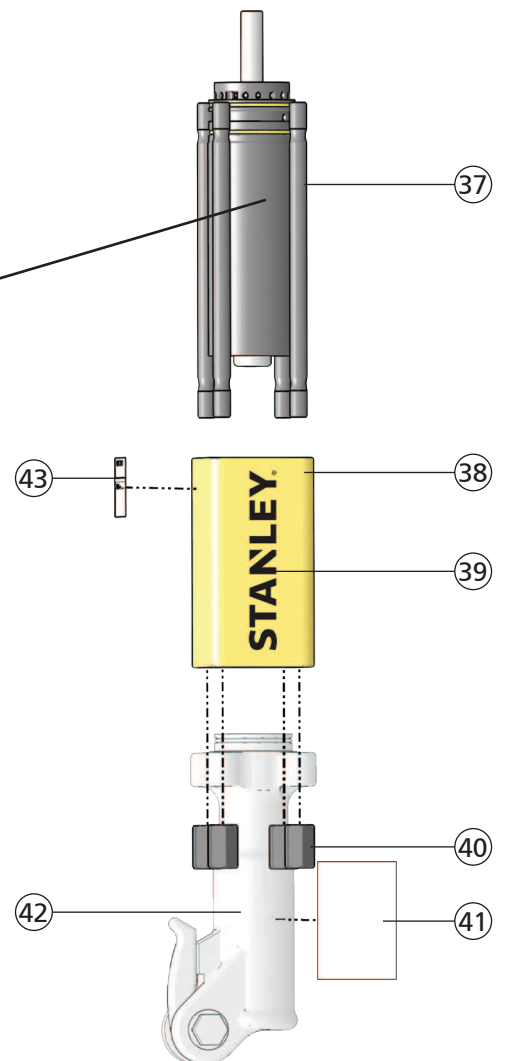
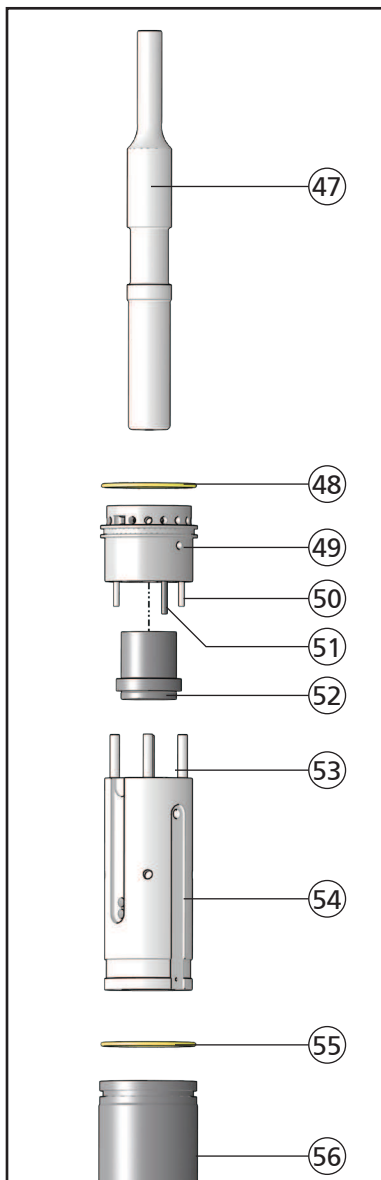
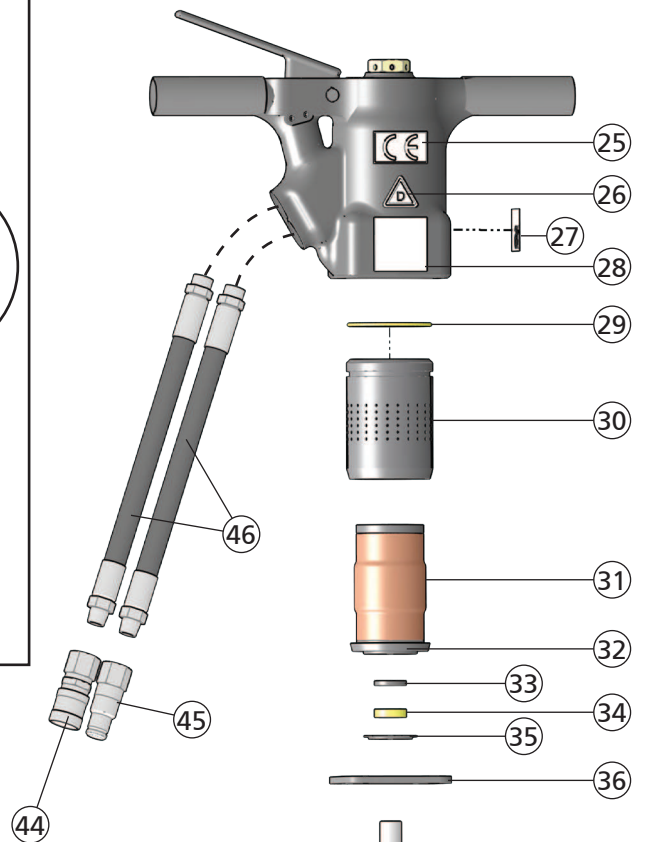
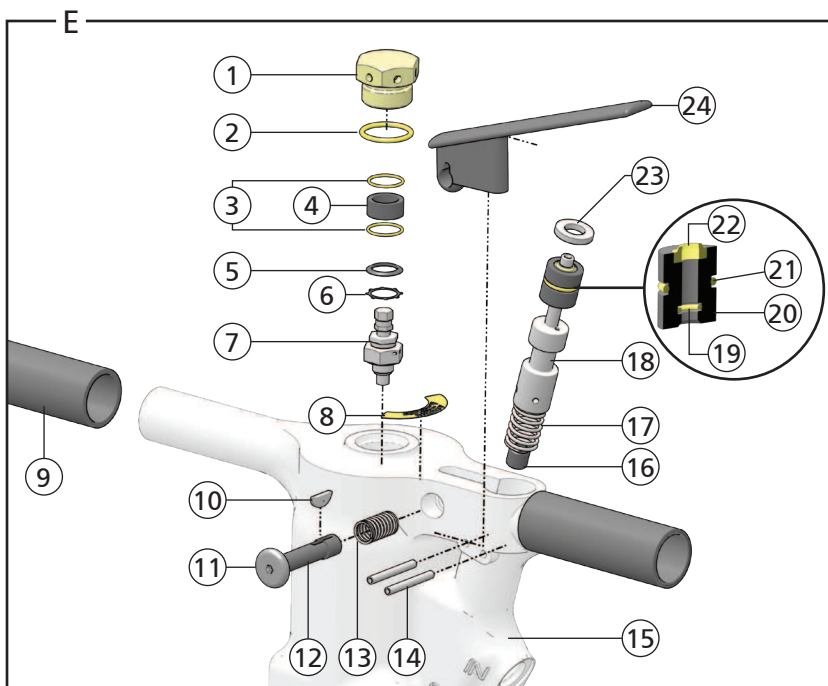
8. Representative in the Union: **Patrick Vervier, Stanley Dubuis 17-19, rue Jules Berthonneau-BP 3406 41034 Blois Cedex, France.**  
 Vertreter in der Union/Représentant dans l'union/Representante en la Union/Rappresentante presso l'Unione

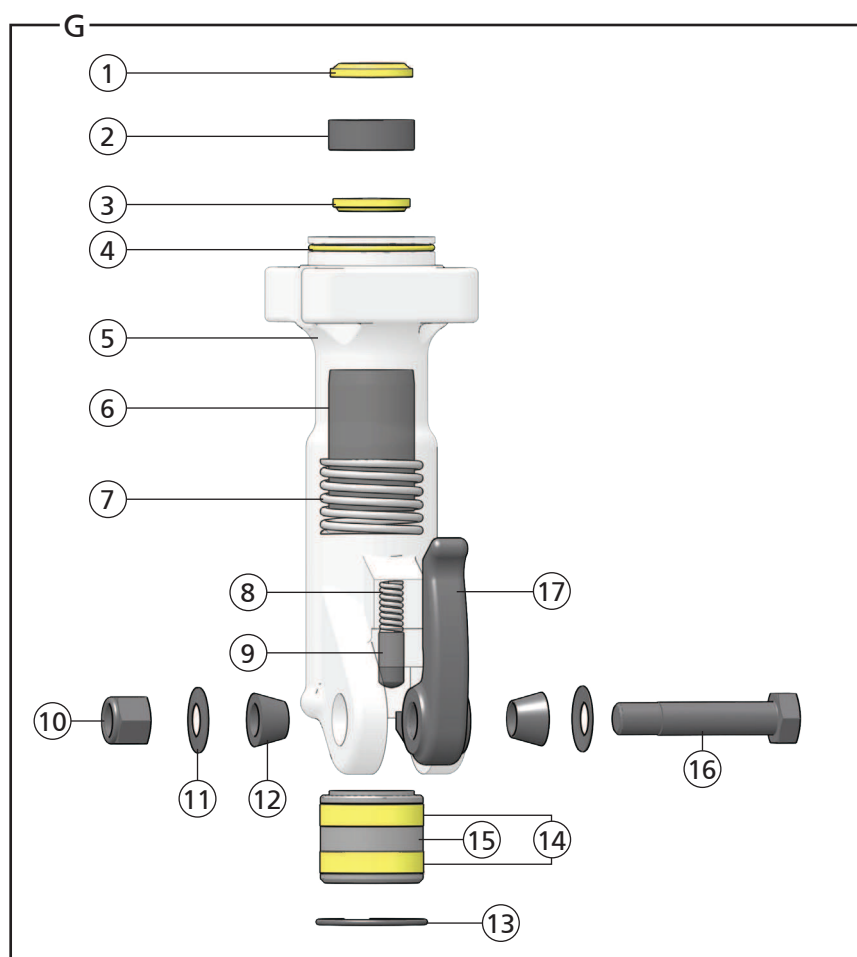
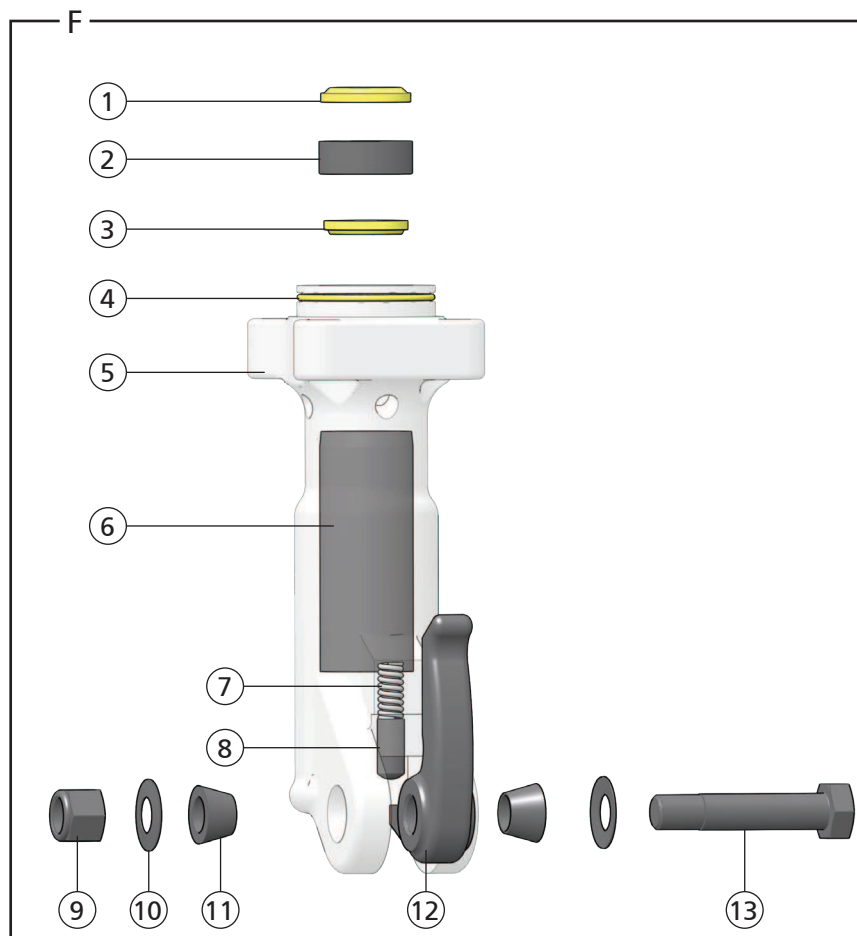
Done at/Ort/Fait à/Dado en/Fatto a STANLEY Infrastructure, Portland, Oregon USA Date/Datum/le/Fecha/Data 4-24-2018

Signature/Unterschrift/Signature/Firma/Firma

Position/Position/Fonction/Cargo/Posizione North America Quality Manager











BR87 Parts Illustration - Detail E		
ITEM	P/N	DESCRIPTION
1	06687	Valve Cap
2	04052	O-ring*
3	01772	O-ring
4	06684	Sintered Filter
5	22768	Seal Spacer
6	06688	Retaining Ring
7	04051	Charge Valve
8	10180	Caution: Nitrogen Gas Under Pressure Decal
9	02494	Handle Grip
10	11432	Woodruff Key - Model BR8713201FS, BR8717201
11	01003	Valve Button - Model BR8713201FS
12	11431	Lock Pin - Model BR8713201FS, BR8717201
13	11430	Spring - Model BR8713201FS, BR8717201
14	22891	Roll Pin
15	04049	Handle
	11435	Handle - Model BR8713201FS, BR8717201
16	05465	Orifice Plug
17	04058	Spring
18	04077	Valve Spool
19	01362	O-ring*
20	04057	Bushing
21	00293	O-ring*
22	04056	Rod Wiper*
23	04055	Washer
24	04053	Trigger
	11434	Trigger - Model BR8713201FS, BR8717201
25	28322	CE Decal
26	11207	Circuit Type "D" Decal
27	72786	Sound Power Decal
28	28409	Composite Safety Decal
29	04054	O-ring*
30	04060	Accumulator Cylinder
31	04059	Accumulator Diaphragm
32	05309	Accumulator Chamber
33	05301	Backup Washer
34	05307	Rod Seal*
35	04064	Seal Retainer Washer
36	24666	Elastomeric Spacer
37	04071	Side Rod
38	05265	Flow Sleeve Housing
39	74832	STANLEY Logo Decal
40	04075	Side Rod Nut
41	11208	Hex Shank Length Decal - Model BR8717201
42	Depends on Model	Breaker Foot - See Detail F & G
43	74673	Tool Name Tag
	74666	Tool Name Tag - Model BR87120D
44	03972	Female Coupler

BR87 Parts Illustration - Detail E		
ITEM	P/N	DESCRIPTION
45	03973	Male Coupler
46	01652	Hose
47	16812	Piston
48	04054	O-ring*
49	04066	Automatic Valve Body
50	04571	Push Pin
51	07890	Roll Pin
52	04065	Automatic Valve
53	04067	Push Pin
54	04069	Flow Sleeve
55	04054	O-ring*
56	04068	Flow Sleeve Tube
57	05485	Seal Kit (Not Shown) - * In Seal Kit

Breaker Foot Assembly - Detail F					
			MODEL		
ITEM	DESCRIPTION	QTY	BR87120, BR87120D, BR87120J	BR87130, BR8713201FS	BR87320
1	Cup Seal	1	34127*		
2	Seal Insert	1	05466 (Must purchase entire foot assembly)	05467 (Must purchase entire foot assembly)	08855 (Must purchase entire foot assembly)
3	Rod Wiper	1	04074*		
4	O-ring	1	04073*		
5	Breaker Foot	1	05466 (Must purchase entire foot assembly)	05467 (Must purchase entire foot assembly)	08855 (Must purchase entire foot assembly)
6	Hex Bushing	1	05466 (Must purchase entire foot assembly)	05467 (Must purchase entire foot assembly)	08855 (Must purchase entire foot assembly)
7	Spring	1	01744		
8	Detent	1	08411		
9	Nylock Nut	1	04984		
10	Washer	2	04985		
11	Taper Sleeve	2	01269		
12	Latch	1	01837		
13	Foot Latch Bolt	1	04983		

Breaker Foot Assembly - Detail G					
			MODEL		
ITEM	DESCRIPTION	QTY	BR8713015E, BR87130E (07486)	BR87120E (07523)	BR8717201 (11638)
1	Cup Seal	1	34127*		
2	Seal Insert	1	07486 (Must purchase entire foot assembly)	07523 (Must purchase entire foot assembly)	11638 (Must purchase entire foot assembly)
3	Rod Wiper	1	04074*		
4	O-ring	1	04073*		
5	Breaker Foot	1	07486 (Must purchase entire foot assembly)	07523 (Must purchase entire foot assembly)	11638 (Must purchase entire foot assembly)
6	Hex Bushing	1	07486 (Must purchase entire foot assembly)	07523 (Must purchase entire foot assembly)	11638 (Must purchase entire foot assembly)
7	Spring	1	07514		
8	Spring	1	01744		
9	Detent	1	08411		
10	Nylock Nut	1	04984		
11	Washer	2	04985		
12	Taper Sleeve	2	01269		
13	Retaining Ring	1	07522		
14	Wear Ring	2	07516		
15	Collar Support	1	07520	07519	12013
16	Foot Latch Bolt	1	04983		
17	Latch	1	01837		

## Safety Precautions

	The Safety Alert Symbol alerts you to potential personal injury hazards. Obey all safety messages that follow to avoid possible injury or death.
	Indicates an imminently hazardous situation which will result in death or serious injury.
	Indicates a potentially hazardous situation which could result in death or serious injury
	Indicates a potentially hazardous situation which could result in property damage.

Always observe safety symbols. They are included for your safety and for the protection of the tool.



**WARNING:** Read all safety warnings and instructions. Failure to follow the warnings and instructions may result in tool damage and/or serious injury.

**WARNING:** To reduce the risk of injury, read the instruction manual.

## General

- Do not discard safety instructions. Give to the operator.
- This tool will provide dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hoses before operation. Failure to do so could result in personal injury or equipment damage.
- Inspect the tool before each use and ensure all decals are legible. Contact STANLEY if replacements are needed.
- Establish a training program for all operators to ensure safe operation. Do not operate the tool unless thoroughly trained or under the supervision of an instructor. Keep out of the reach of children.
- Operators and maintenance personnel shall be able to physically handle the bulk, weight and power of the tool.
- Avoid unsuitable postures as these positions do not allow for counteracting of normal or unexpected movement of the tool, such as a sudden break of the tool bit. Change postures during extended tasks to help avoid discomfort or fatigue.
- Never use the tool unless the inserted tool is retained with a proper retainer.
- Do not operate a damaged, improperly adjusted, modified or incompletely assembled tool.
- Use and maintain the tool as stated in this manual. Misuse of the tool can cause serious injury. Do not modify the tool in any way.
- Do not operate the tool in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Power tools create sparks which may ignite the dust or fumes.
- Provide adequate ventilation in closed areas when operating a gas or diesel hydraulic power source.
- Do not inspect, carry, clean, change accessories or perform maintenance on the tool while the power source is connected. Accidental engagement of the tool can cause serious injury.
- Ensure work piece is securely fixed. Be aware that failure of the work piece or accessories may generate high velocity projectiles.
- Never use the tool bit as a hand struck tool.
- Stay alert, watch what you are doing and use common sense when operating a hydraulic tool. Do not operate this tool if you are tired or under the influence of drugs or alcohol. A moment of inattention while operating hydraulic tools may result in serious injury.
- During operation, do not contact mechanisms, accessories or hardware as they can become very hot or sharp; use your Personal Protection Equipment (PPE).
- Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations.
- Never operate the tool if you are unsure about the presence of underground utilities, such as electrical cables, gas pipes, etc. These can cause a hazard if damaged with the tool.
- The tool is not insulated against coming into contact with electric power. Use hose certified as non-conductive.
- Do not overreach. Maintain proper footing and balance at all times when using the tool.

- Slips, trips and falls are major causes of workplace injury. Be observant of hoses or oil surfaces lying about the work area, as they can be a tripping hazard.
- Operators must start in a work area without bystanders and must assess the risks to bystanders.
- Keep work area clean and well lit. Cluttered or dark areas invite accidents.
- Operators must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Only use clean hydraulic fluid, filling equipment and lubricants that have been recommended by STANLEY.
- Ensure tools are working properly and safely by performing preventative maintenance (PM) procedures.
- Repair and service of this tool must only be performed by an authorized and certified dealer.
- Do not force the tool to do the work of a larger tool. Use the correct tool for your application.
- Use only hoses and hose couplings that are rated for a minimum working pressure of 2500 PSI (172 BAR).
- In spite of the application of relevant safety regulations and the implementation of safety devices, certain residual risks cannot be avoided. These risks are: repetitive strain injury due to incorrect posture and risk of pinching fingers when changing tool bit.

## Dust and Fumes

- WARNING:** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
  - Lead from lead-based paints,
  - crystalline silica from bricks and cement and other masonry products, and
  - arsenic and chromium from chemically-treated lumber.

Your risk from these exposures varies, depending on how often you do this type of work. To reduce your exposure to these chemicals: work in a well ventilated area, and work with approved safety equipment, such as those dust masks that are specially designed to filter out microscopic particles. Protect yourself and those around you. Research and understand the materials you are grinding. Follow correct safety procedures and comply with all applicable national, state or provisional health and safety regulations relating to them, including, if appropriate arranging for the safe disposal of the materials by a qualified person.

- When dust or fumes are created, control them at the point of emission. Direct tool exhaust to minimize disturbance of dust.
- Operate and maintain the tool as recommended in this manual to minimize dust.
- Use respiratory protection in accordance with employers instruction or as required by occupational health and safety regulations.
- Avoid prolonged contact with dust. Allowing dust to get into your mouth, eyes or lay on the skin may promote absorption of harmful chemicals.

## PPE

- Always wear safety equipment such as impact resistant goggles, ear protection, head protection, breathing protection and safety shoes at all times when operating the tool.
- Hands may be exposed to hazards, impacts, cuts, abrasions and heat. Wear gloves.
- Wear a hardhat if performing overhead work.
- Use PPE that conforms to standards ANSI Z87.1 (Eye and Face Protection), ANSI Z89.1 (Head Protection), ANSI Z41.1 (Foot Protection) and ANSI S12.6 (S3.19) (Hearing Protection).
- Do not wear loose fitting clothing or jewelry when operating the tool.



M003  
Wear Ear  
Protection



M004  
Wear Eye  
Protection



M016  
Wear a Mask

## Sound

- Exposure to high noise levels can cause permanent, disabling hearing

loss and other problems, such as tinnitus (ringing, buzzing, whistling or humming in the ears). Use hearing protection in accordance with employer's instructions and as required by occupational health and safety regulations.

- Use and maintain as recommended in the manual to prevent an unnecessary increase in noise levels.

## Vibration

- When using a non-rotary percussive tool to perform work related activities, the operator can experience discomfort in the hands, arms, shoulders, neck or other parts of the body.
- If you experience numbness, tingling, pain or whitening of the skin in your fingers or hands, stop using the tool. Tell your employer and consult a physician.
- Wear warm clothing when working in cold conditions and keep your hands warm and dry.
- Exposure to vibration can cause disabling damage to the nerves and blood supply of the hands and arms.
- Use and maintain as recommended in the manual to prevent an unnecessary increase in vibration.
- Check for vibration level before each service. If you feel a higher than normal vibration, contact your STANLEY dealer for repair.

## Hydraulic

- **Warning:** Hydraulic fluid under pressure could cause skin injection injury. Do not check for leaks with your hands. If you are injured by hydraulic fluid, get medical attention immediately.
- Do not let hydraulic oil get on the skin. Hydraulic oil is hot. Wear Personal Protection Equipment (PPE) at all times.
- If exposed to hydraulic fluid, wash hands immediately.
- Do not exceed the maximum relief valve setting stated on the tool.
- Inspect and clean couplers before use, daily. Replace damaged couplers immediately.
- Hydraulic circuit control valve must be OFF before coupling or uncoupling tools. Failure to do so may damage the couplers and cause overheating of the hydraulic system.
- Ensure the couplers are properly connected and are tight.
- Do not operate the tool at fluid temperatures above 140°F (60°C). Higher temperatures can cause operator discomfort and damage to the tool.
- Do not exceed the rated flow and pressure as stated on the tool. Rapid failure of the internal seals may result.



## What is a BR87 Hydraulic Breaker?

BR87 is a hydraulic breaker for use in the 90 lbs. weight class. Its highly productive in utility construction, street maintenance, repair of water and gas mains, and general contracting jobs. BR87 requires an external hydraulic power source capable of supplying 7-9 GPM.

Specifications	
Pressure	1500-2500 PSI (103-172 BAR)
Flow	7-9 GPM (26-34 LPM)
Max. Pressure	2000 PSI (138 BAR)
Max. Relief Pressure	2150 PSI (148 BAR)
Recommended Back Pressure	250 PSI (17 BAR) or less - Can be used with higher back pressures with reduced seal life.
Couplers	3/8 inch Male Pipe Hose Ends
Port Size	-8 SAE O-ring
Tool Weight	83 Lbs (38 Kg)
Tool Length	29 inches
Width (at handles)	16 inches
Max. Hydraulic Oil Temp.	140°F (60°C)
HTMA/EHTMA Category	Type II, Category D

Sound & Vibration Declaration	
Measured A-Weighted sound power level	105 dBA
Uncertainty	1.6 dBA
Measured A-Weighted Sound Pressure	102 dBA
Uncertainty	3 dBA
Values determined according to noise test code given in ISO 15744, using the basic standard ISO3744. Test conducted by independent notified body to comply with 2000/14/EC:2005.	
Measured Vibration Emission Value: 3-Axis (Trigger Handle)	23.5 m/sec <sup>2</sup>
Measured Vibration Emission Value: 3-Axis (Non-Trigger Handle)	21.7 m/sec <sup>2</sup>
Uncertainty	6.6 m/sec <sup>2</sup>

## Parts of a BR87 - Detail A

1	Trigger Lock
2	Trigger
3	Handle
4	Hydraulic Supply Ports
5	Tool Name Tag
6	Breaker Foot
7	Breaker Foot Latch
8	CE Decal
9	Circuit Type "D" Decal
10	Composite Safety Decal
11	STANLEY Logo Decal
12	Serial Number & Year of Manufacture
13	Sound Power Decal

## Tool Setup - Detail B

### ⚠ WARNING

Do not install or change tool accessories while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury. Disconnect the hydraulic power source before installing or changing accessories.

1. Disconnect the tool from the hydraulic power source.

### Install the Breaker Bit

### ⚠ WARNING

The tool bit can get extremely hot during operation. Always wear gloves when installing bits. Hot bits can cause burns.

2. Unlock the breaker foot latch.
3. Insert the tool bit and lock the latch. Never use BR87 unless the tool bit is locked in the retainer.

Note: Never use a blunt tool bit as they cause more vibration.

### Connect to a Hydraulic Power Source

4. Using a calibrated flow and pressure gauge, check the output of the hydraulic power source. Ensure it matches the flow and pressure in "Specifications" on page 9. Hydraulic fluid must be 50°F or above. Preheat if necessary.
5. Ensure that the hydraulic power source is equipped with a relief valve set to open at the maximum relief pressure. See "Specifications" on page 9.
6. Wipe hose couplers with a clean, lint free cloth.
7. Connect the return hose to the tool port marked "Out".
8. Connect the pressure hose to the tool port marked "In".
9. Ensure couplers are undamaged, properly connected and are tight.
10. Power up the hydraulic power source.

## Tool Operation - Detail C

### CAUTION

Always hold tool with both hands to maximize control. Apply proper down pressure and maintain proper footing at all times.

1. Wrap your hands around the handles. Stand in back of the tool, using your leg against the snap-on filler for stability.  
Note: Hold the tool correctly and be ready to counteract normal or sudden movements. Have both hands available.
2. Place the breaker bit on the material to be broken, at a 90° angle. Apply down pressure.
3. Push the trigger lock button in towards the handle (CE models only).
4. Slowly squeeze the trigger to start breaking. Squeeze harder for fast speed operation.
5. When starting, break until the tool bit breaks through, then reposition the bit. Do not use the tool bit as a lever to move material.  
Note: Never cool a hot tool bit in water. Tools can become brittle and fail.
6. Continue breaking around the original hole, in 2 inch sized bites.
7. Release trigger to stop the tool.

Note: If you encounter a breakdown or the tool stops for any reason, release the trigger and power down the hydraulic power source.

## Tool Maintenance

### ⚠ WARNING

Do not perform maintenance on the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury. Disconnect the hydraulic power source before servicing.

### Daily Maintenance

1. Remove hydraulic power from the tool and check all hydraulic connections and hoses for damage. Replace damaged parts before operating the tool.
2. Inspect the tool bit latch and associated parts. Replace when they have become worn, cracked or distorted.
3. Inspect tool to ensure all stickers are legible. Contact STANLEY if replacements are needed.
4. Check the flow and pressure of the hydraulic power source using a calibrated flow meter. Proper flow and pressure maintain proper tool speed. If tool speed increases or decreases, stop using the tool and ensure proper flow and pressure.

### Check/Charge the Accumulator - Detail D

Check accumulator charge every 6 months or if poor performance develops.

#### Required Tools:

- STANLEY Accumulator Charge Kit (P/N 31254)
- Nitrogen Bottle

#### Check

1. Remove the charging plug from the breaker handle.
2. (a) Hold the chuck end of the tester and (b) twist the gauge counter-clockwise. This will retract the valve stem.
3. Screw the tester onto the breaker charging port.
4. Twist the tester gauge clockwise and read the pressure indicated on the gauge. Charge should be 700-900 PSI (48-62 BAR).

#### Charge

5. Retract the tester valve stem.
6. Connect the charging assembly hose to the tester.
7. Twist the tester gauge clockwise to advance the valve stem.
8. Slowly open the snub valve and charge to 800 PSI (55 BAR).
9. Close the snub valve, retract the tester valve stem and remove the tester from the breaker charging port. Replace the charging plug.

## Tool Storage & Transport

#### Storage

Plug open hydraulic ports. Clean the tool and store in a clean, dry space that is safe from damage.

#### Transport

Secure the tool to the transport vehicle. Lift only as high as necessary to load. NEVER lift or transport over people. Ensure tool is secured and will not move during transport. An unsecured tool could cause personal injury or damage to the tool.

## Tool Disposal

#### Hydraulic Oil

Hydraulic oil can contaminate the air, ground and water if not properly recycled. Recycle hydraulic oil in accordance with all State, Federal and local laws, at your local oil recycling facility.

#### Hydraulic Hoses

Hang hydraulic hoses to drain. Collect the oil for recycling. Contact your local municipal recycling authorities for an approved hydraulic hose recycling site.

#### Tool Body

Drain hydraulic oil from the tool, making sure to collect the oil for recycling. Discharge the accumulator, disassemble the tool and dispose of all non-metal parts. Recycle the metal components. Contact your local municipal recycling authorities for recycling instructions.

## Accessories

Description	Part Number
1 1/8 Inch Hex x 6 inch Shank	
Moil Point, 14 Inch Long, UC	02333
Chisel Point, 14 Inch Long, UC	03990

Description	Part Number
3 Inch Chisel, 14 Inch Long, UC	02334
Clay Spade, 5 1/2 Inch Blade	02331
Asphalt Wedge, 12 Inch	08106
Asphalt Cutter, 5 Inch Wide	02332
Ground Rod Driver, 1 Inch Rod	04176
1 1/4 Inch Hex x 6 Inch Shank	
Moil Point, 14 Inch Long, UC	02336
3 Inch Chisel, 14 Inch Long, UC	02337
Clay Spade, 5 1/2 Inch Blade	09262
Asphalt Cutter, 5 Inch Wide	02335
Ground Rod Driver, 1 Inch Rod	04367
Heavy Duty Chisel, 1 Inch	02338
Heavy Duty Moil Point, 18 Inch	04404
Clay Spade, 8 Inch	04405
Asphalt Wedge	08119

## Troubleshooting

Problem	Possible Cause	Solution
Tool does not run or runs improperly.	The hydraulic power source is not running or not running properly.	Ensure the power source delivers proper flow and pressure. See "Specifications" on page 9. Proper flow and pressure maintain proper tool speed. Check regularly.
	Couplers or hoses are blocked.	Turn off and disconnect the tool from hydraulic power source. Ensure no blockage exists.
	Low accumulator charge.	Check and recharge accumulator. See "Check/Charge the Accumulator - Detail D" on page 10.
	Hydraulic fluid too hot.	Provide a cooler to maintain temperature. See "Specifications" on page 9.
	High back pressure.	Check the hydraulic system for excessive back pressure.
	Mechanical failure of piston or automatic valve.	Contact your STANLEY dealer for service.
Fluid leakage on tool bit.	Lower piston seal failure.	Contact your STANLEY dealer for service.
Fluid leakage around the tool trigger.	Valve spool failure.	Contact your STANLEY dealer for service.



# **STANLEY®**

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