



OPERATOR'S MANUAL

HYDRAULIC HAMMERS

Safety, installation, operation and maintenance for JMA box silenced and top open hydraulic hammers (breakers).



Read and understand this manual before you install, operate or service the hammer. Keep it with the hammer at all times.



JMASB20EBH
1.2–3 t

JMASB30EBH
2.5–4.5 t

JMASB40EBH
4–7 t

JMASB43EBH
6–9 t

JMASB50EBH
10–15 t

JMASB60EBH
15–18 t

JMASB81EBH
18–26 t

JMASB121EBH
28–35 t

JMASB131EBH
30–45 t

JMASB200EBH
85–130 t

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01 ABOUT THIS MANUAL

READ THIS FIRST

This manual covers safe use and routine care of JMA hydraulic hammers. Service work inside the hammer (opening the cylinder, replacing the piston or valve) is not covered and should be done by a trained hydraulic technician. The term **carrier** means the excavator, backhoe loader or other machine the hammer is mounted on.

SAFETY SIGNAL WORDS

Safety messages in this manual use four signal words. Know what each one means before you continue.

▲ DANGER	A hazardous situation that will cause death or serious injury if it is not avoided.
▲ WARNING	A hazardous situation that could cause death or serious injury if it is not avoided.
▲ CAUTION	A hazardous situation that could cause minor or moderate injury if it is not avoided.
NOTICE	Information about protecting the hammer, the carrier or property. No personal-injury hazard.

HOW TO USE THIS MANUAL

NEW HAMMER?

Work through sections 05 to 09 in order: check the kit, match the carrier, install, fit the chisel, then run the hammer in.

EVERY SHIFT

Use the daily checks (09), operating rules (10) and greasing (11). Log hours and service in section 18.

NOTICE

Specifications, illustrations and intervals in this manual apply to the models listed in section 04. Operating outside the stated oil flow and pressure ranges can damage the hammer and void the warranty.

02 SAFETY

SAFETY RULES

Most hammer accidents come from skipped checks, people standing too close and servicing a pressurized hammer. These rules apply every time the hammer is used or serviced.

▲ DANGER

Flying debris and chisel ejection. Rock, concrete and steel fragments are thrown at high speed while breaking. Keep every person out of the work zone. Never stand in front of the chisel while hoses are being connected or the back head is being charged: the chisel can be pushed out suddenly.

▲ DANGER

Stored pressure. The back head and accumulator hold nitrogen under high pressure. Release all nitrogen before loosening through bolts, the accumulator cover or charging valves. Never use oxygen, air or any gas other than dry nitrogen.

▲ WARNING

- Only trained operators who have read this manual and the carrier manual may run the hammer.
- Do not operate under the influence of alcohol, drugs or medication that affects judgement.
- Keep a safe distance from power lines, gas lines and other buried or overhead utilities. Call 811 before breaking ground.
- Hot oil sprays from loosened fittings. Let the system cool and relieve pressure before opening any hose or pipe.
- The chisel is very hot after use. Do not touch it with bare hands.

PERSONAL PROTECTIVE EQUIPMENT

HEAD AND EYES

Hard hat and safety glasses or a face shield. Keep the cab door and front guard closed.

HEARING

Hammers are loud. Wear ear protection when the hammer is running, in or near the cab.

BODY AND HANDS

Safety boots, gloves and close-fitting clothes. Use a dust mask when breaking concrete or stone.

CARRIER PROTECTION

Fit a front window guard or rock guard on the cab before breaking. Before leaving the seat, lower the hammer to the ground, set the parking brake, stop the engine and move the hydraulic controls to neutral.

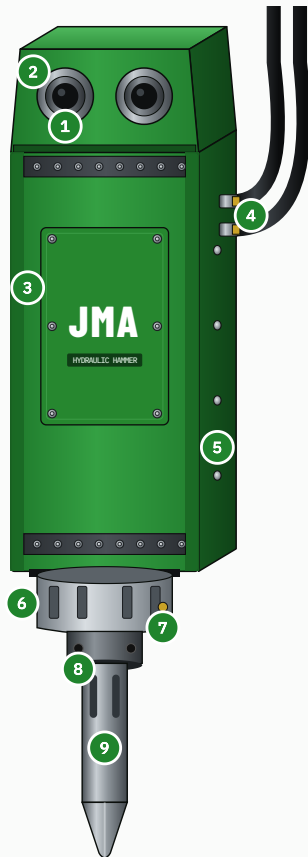
▲ CAUTION

Do not modify the hammer, weld on the housing or fit parts that are not approved by JMA. Remove the hammer from the carrier for transport.

03 KNOW YOUR HAMMER

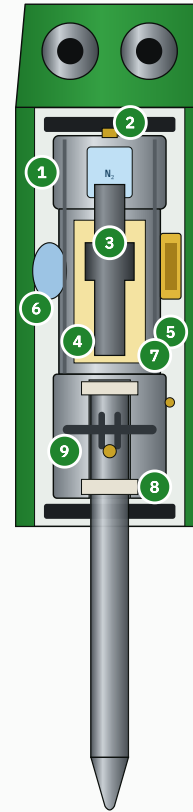
COMPONENTS

Oil from the carrier drives a piston up and down inside the cylinder. At the bottom of each stroke the piston strikes the chisel, which delivers the blow into the material. Nitrogen in the back head pushes the piston down and adds energy to every blow.



EXTERIOR

- | | |
|------------------------|------------------------------|
| 1 Mounting pin bosses | 6 Front head |
| 2 Top bracket | 7 Grease nipple |
| 3 Box silenced housing | 8 Chisel pins + rubber plugs |
| 4 Hose ports IN / OUT | 9 Chisel (tool) |
| 5 Side bolts | |



CUTAWAY

- | | |
|--------------------------------|--------------------------|
| 1 Back head (nitrogen chamber) | 5 Control valve |
| 2 Charging valve | 6 Accumulator* |
| 3 Piston | 7 Through bolts |
| 4 Cylinder | 8 Upper and front bushes |
| | 9 Chisel pin + stop pin |

Illustration of a typical JMA box silenced hammer; details vary by model. *Accumulator fitted on the JMASB121EBH, SB131EBH and SB200EBH.

PART	WHAT IT DOES
Back head	Holds pressurized nitrogen that cushions the piston on the upstroke and pushes it down on the power stroke.
Cylinder and piston	Oil pressure lifts the piston; the control valve switches the flow so the piston drives down and strikes the chisel.
Control valve	Switches oil between the upper and lower piston chambers to set the blow cycle.
Accumulator	On large models, stores oil energy, smooths pressure peaks and protects the carrier's hydraulic system from pulses.
Front head, bushes, pins	Guide and hold the chisel. The chisel pin and stop pin retain the chisel; the bushes keep it square to the piston.
Housing (box or top open)	Box silenced housings enclose the power cell with dampers to cut noise and vibration. Top open frames are simpler and suit quarry work.

04 SPECIFICATIONS

SPECIFICATIONS

Factory specifications for every JMA hammer model. Match the hammer to the carrier's operating weight first, then confirm the carrier's auxiliary flow and pressure fall inside the hammer's range.

JMA HYDRAULIC HAMMER SPECIFICATIONS

MODEL	HOUSING	CARRIER (T)	ENERGY (J)	OIL FLOW L/MIN GPM	PRESSURE BAR PSI	BLOWS /MIN	CHISEL Ø × L (MM)	HOSE (IN)	WEIGHT KG LB
JMASB20EBH	Box	1.2–3.0	407	20–30 5.3–7.9	90–120 1280 – 1707	700– 1200	45 × 500	1/2"	210 463
JMASB30EBH	Box	2.5–4.5	611	25–50 6.6–13.2	90–120 1280 – 1707	600– 1100	53 × 600	1/2"	248 547
JMASB40EBH	Box	4–7	1,018	40–70 10.6–18.5	110–140 1565 – 1991	500–900	68 × 700	1/2"	512 1,129
JMASB43EBH	Box	6–9	1,356	50–90 13.2–23.8	120–150 1707 – 2133	400–800	75 × 750	1/2"	490 1,080
JMASB50EBH	Box	10–15	2,712	80–110 21.1–29.1	150–170 2133 – 2418	350–700	100 × 1000	3/4"	1,160 2,557
JMASB60EBH	Top open	15–18	4,067	90–120 23.8–31.7	150–170 2133 – 2418	350–700	125 × 1300	1"	1,570 3,461
JMASB81EBH	Box	18–26	4,500	120–180 31.7–47.6	160–180 2276 – 2560	350–500	140 × 1300	1"	2,004 4,418
JMASB121EBH	Top open	28–35	10,178	180–240 47.6–63.4	160–180 2276 – 2560	300–450	155 × 1500	1-1/4"	3,190 7,033
JMASB131EBH	Top open	30–45	13,558	200–260 52.8–68.7	160–180 2276 – 2560	250–400	165 × 1600	1-1/4"	3,850 8,488
JMASB200EBH	Top open	85–130	19,800	280–350 74.0–92.5	240–260 3414 – 3698	100–130	200 × 1800	1-1/4"	7,000 15,432

Carrier range in metric tons of operating weight. Pressure is operating pressure at the hammer inlet. Weights are the hammer with its housing and chisel.

MODEL CROSS-REFERENCE

MODEL	SAME HAMMER AS	DIFFERENCE
JMA307EBH	JMASB43EBH	Supplied with 2 greasable pins and 4 bushings for pin-on mounting.
JMA349EBH	JMASB131EBH (similar)	Follow the JMASB131EBH values unless your data plate says otherwise.
JMA580BBH · JMA420BBH · JMA310BBH	JMASB40EBH	Backhoe loader hookup for 55/50 mm, 50/45 mm or 45/38 mm pins. Use the JMASB40EBH hydraulic values.

NOTICE

Always confirm the model and serial number on the hammer's data plate. If the plate and this manual disagree, contact JMA before operating.

05 DELIVERY

WHAT'S IN THE KIT

Every JMA hammer ships as a complete kit. Check the contents against this list and inspect for shipping damage before signing the delivery receipt.

1

Hydraulic hammer with housing

2

Hydraulic hoses

1

Moil (pointed) chisel

1

Wedge (flat) chisel

1

Nitrogen bottle

1

Nitrogen gauge

1

Repair seal kit

1

Tool box with service tools

Pin-on and backhoe models (JMA307EBH, JMA349EBH, JMA580BBH, JMA420BBH, JMA310BBH) also include **2 greasable pins and 4 bushings**.

▲ CAUTION

Note any damage on the delivery receipt before you sign, and contact JMA within 24 hours. Lift the hammer only with rated slings or chains through the lifting points; never by the hoses or the chisel.

RECORD YOUR HAMMER

Write the model, serial number and delivery date in the hammer record in section 18. You will need them for parts and warranty claims.

06 PREPARATION

BEFORE INSTALLATION

A hammer only performs, and only lasts, when the carrier delivers the right oil flow and pressure through a clean, dedicated circuit.

1 • MATCH THE CARRIER

The carrier's operating weight must fall inside the hammer's carrier range (section 04). A hammer that is too heavy strains the boom and can tip a small machine; one that is too light for a large carrier is overloaded by the down-force and wears quickly.

2 • CHECK THE HYDRAULIC CIRCUIT

- Use a dedicated hammer circuit (one-way flow) with a return line to the tank through the filter. Auxiliary circuits built for two-way tools must be set to one-way flow.
- Measure the flow at the hammer inlet with a flow meter. It must sit inside the hammer's oil flow range.
- Set the circuit relief valve above the hammer's operating pressure so the hammer never runs over the relief. Recommended settings are in the table below.
- Keep the return-line back pressure at or below 16 bar (230 psi).

RECOMMENDED CIRCUIT SETTINGS AND GAS PRESSURES

MODEL	OPERATING PRESSURE	CIRCUIT RELIEF SETTING	MAX. BACK PRESSURE	BACK HEAD N ₂ (AT 20 °C)	ACCUMULATOR N ₂
JMASB20EBH	90–120 bar	150 bar 2,175 psi	16 bar 230 psi	16 bar (230 psi)	—
JMASB30EBH	90–120 bar	150 bar 2,175 psi	16 bar 230 psi	16 bar (230 psi)	—
JMASB40EBH	110–140 bar	170 bar 2,465 psi	16 bar 230 psi	16 bar (230 psi)	—
JMASB43EBH	120–150 bar	180 bar 2,610 psi	16 bar 230 psi	16 bar (230 psi)	—
JMASB50EBH	150–170 bar	200 bar 2,900 psi	16 bar 230 psi	16 bar (230 psi)	—
JMASB60EBH	150–170 bar	200 bar 2,900 psi	16 bar 230 psi	16 bar (230 psi)	—
JMASB81EBH	160–180 bar	210 bar 3,045 psi	16 bar 230 psi	16 bar (230 psi)	—
JMASB121EBH	160–180 bar	210 bar 3,045 psi	16 bar 230 psi	16 bar (230 psi)	55–60 bar (800–870 psi)
JMASB131EBH	160–180 bar	210 bar 3,045 psi	16 bar 230 psi	16 bar (230 psi)	55–60 bar (800–870 psi)

MODEL	OPERATING PRESSURE	CIRCUIT RELIEF SETTING	MAX. BACK PRESSURE	BACK HEAD N ₂ (AT 20 °C)	ACCUMULATOR N ₂
JMASB200EBH	240–260 bar	290 bar 4,205 psi	16 bar 230 psi	See back head label	65–70 bar (940–1,015 psi)

Relief setting shown is about 30 bar above the top of the operating range. Final relief setting depends on the carrier's pump; have it set by a hydraulic technician with a gauge on the hammer inlet.

▲ WARNING

Running a hammer above its rated flow or pressure can break the chisel, the through bolts or the housing and voids the warranty.

3 • CLEAN OIL AND LINES

Check the carrier's hydraulic oil and return filter. Replace a dirty filter and contaminated oil before the first hammer hour. Flush new hoses and pipes before connecting them to the hammer.

07 INSTALLATION

INSTALLING AND REMOVING

Work on firm, level ground with a helper guiding. Move the boom slowly with the engine at low idle while aligning pins.

MOUNTING THE HAMMER

- 1 Lay the hammer flat on wooden blocks with the mounting ears toward the carrier.
- 2 Guide the arm (stick) into the bracket until the holes line up. Insert the arm pin and secure it with its retaining ring and bolts.
- 3 Lift the hammer slightly. Extend the bucket cylinder until the link holes line up with the bracket, insert the link pin and secure it.
- 4 Move the bucket cylinder slowly through its full stroke in both directions to check for interference with the arm, hoses or cab.
- 5 Grease both mounting pins.

CONNECTING THE HOSES

- 1 Make sure both shut-off valves on the arm are closed.
- 2 Remove the plugs and caps from the arm pipes and the hammer hoses. Keep them clean in the tool box.
- 3 Connect the pressure line to the hammer's **IN** port and the return line to **OUT**. Reversed hoses stop the hammer from working and can damage seals.
- 4 Route the hoses so they cannot rub, kink or be pinched through the full range of movement. Tighten all fittings.
- 5 Open both shut-off valves.

▲ DANGER

Nobody may stand in front of the chisel while hoses are connected or the hammer is first pressurized. The chisel can be pushed out with great force.

REMOVING THE HAMMER

- 1 Park on clean, firm ground and lay the hammer on wooden blocks.
- 2 Stop the engine and relieve pressure in the hydraulic system (and the tank, if pressurized).
- 3 Close both shut-off valves. Disconnect the hoses, catching the small amount of oil, and fit plugs and caps immediately so dirt cannot enter.
- 4 Remove the link pin and then the arm pin, and move the carrier away slowly.

08 CHISELS

CHISELS

The chisel (tool) carries every blow into the material. The right shape, correct greasing and square alignment decide how long it lasts.

MOIL (POINTED)

General breaking and penetrating hard rock. Supplied in the kit.

WEDGE (FLAT)

Splitting concrete and layered rock along a line; trenching. Supplied in the kit.

BLUNT

Boulders and oversize rock where the impact should shatter rather than split. Sold separately.

REPLACING THE CHISEL

- 1 Lay the hammer flat on wooden blocks and clean around the pin holes.
- 2 Remove the rubber plug, then drive out the stop pin from the opposite side with the pin punch from the tool box.
- 3 Drive out the chisel pin(s). Support the chisel with a sling: it can drop as the last pin comes out.
- 4 Pull the chisel out. Check it, the pins and the front bush for cracks, burrs and wear.
- 5 Coat the new chisel's shank and pin grooves with high-temperature chisel grease, slide it in, and refit the chisel pin(s), stop pin and rubber plug in reverse order.

▲ WARNING

Never strike the chisel end with a hammer, never reach into the chisel bore, and wear eye protection when driving pins. Let a hot chisel cool before handling.

WEAR LIMITS

- **Chisel pins:** inspect every 100–150 hours. Grind off burrs and swelling and turn the pin to a fresh face so the load is not always on one side. Replace bent or cracked pins.
- **Chisel tip:** re-sharpen a rounded tip with a grinder, keeping it cool. Repeated sharpening removes the hardened layer; replace the chisel when it wears quickly.
- **Front bush:** replace when the gap between chisel and bush exceeds **6 mm** on small hammers (up to the JMASB43EBH) or **8 mm** on larger models. A worn bush lets the chisel tilt, which breaks chisels and damages the piston.

NOTICE

Use JMA chisels sized for your model (section 04). Chisels broken by prying, side-loading, blank firing or overheating are not covered by warranty.

09 START-UP

START-UP AND RUN-IN

CHECKS BEFORE EVERY SHIFT

CHECK	WHAT TO LOOK FOR	ACTION
Bolts and nuts	Loose or missing through bolts, side bolts and bracket bolts	Tighten; replace missing parts
Hoses and fittings	Leaks, rubbing, cracks, loose fittings	Tighten or replace before work
Oil leaks	Between back head and cylinder, or heavy leakage at the chisel	Stop and service. A light film on the chisel is normal.
Chisel and pins	Cracks, burrs, mushrooming, bent pins	Grind, turn or replace (section 08)
Hydraulic oil	Level and condition	Top up; replace if dark, milky or dirty
Grease	Chisel and bush greased	Grease (section 11)

WARM-UP

Idle the carrier until the hydraulic oil reaches about 30–40 °C (86–104 °F): typically 5–10 minutes, longer in cold weather. Do not leave the machine while it warms up. Start breaking with light, short bursts.

RUN-IN OF A NEW OR REBUILT HAMMER

For the **first hour** of a new or resealed hammer, run at about **70% of rated flow**, keeping the chisel strictly vertical. After that, run in for the first 10 minutes of each working day. Going straight to full power damages new seals.

After the first 2 hours of work, check grease consumption and re-tighten through bolts and bracket bolts. Repeat the bolt check after the first week.

10 OPERATION

OPERATING CORRECTLY

TECHNIQUE

- 1 **Square up.** Place the chisel at 90° to the surface and keep the boom force in line with the chisel.
- 2 **Apply down-force.** Press down with the boom until the carrier's front just starts to lighten, then fire. Too little force causes blank blows; lifting the carrier off the ground is too much.
- 3 **Work from the edge.** Start at an edge or crack and take bites of material, rather than attacking the middle of a large rock.
- 4 **Move on.** If the material has not broken within about 1 minute, stop and reposition. Stop firing the moment it breaks.

DO'S AND DON'TS

 **KEEP THE CHISEL VERTICAL**
An angled chisel slips, seizes in the bush and breaks.

 **NO BLANK FIRING**
Firing with no material under the chisel damages the front head and loosens bolts. The sound changes when it happens.

 **REPOSITION OFTEN**
Hammering one spot for too long overheats the chisel tip.

 **NO PRYING**
Never use the chisel or bracket as a lever or to roll rocks. It bends chisels and cracks brackets.

 **RUN AT THE RATED ENGINE SPEED**
Extra rpm adds heat, not power.

 **NO LIFTING**
Never lift or drag loads with the hammer, chisel or bracket.

 **WATCH OIL TEMPERATURE**
Stop if oil exceeds 80 °C (176 °F) and let it cool.

 **NOT AT CYLINDER STROKE END**
Keep about 100 mm (4 in) of travel left on the boom, arm and bucket cylinders.

 **STOP ON VIOLENT HOSE SHAKE**
Excessive hose vibration usually means low nitrogen. Check section 12.

 **NO WATER OR MUD**
Do not submerge the hammer beyond the chisel. Water entering the front head rusts the piston.

 **LOWER GENTLY**
A hammer is heavier than a bucket; move it slowly onto the work.

 **NO DROPPING**
Never drop the hammer onto rock to break it.

11 LUBRICATION

GREASING

The chisel and bushes need grease every shift. Running dry is the fastest way to wear out a front head.

HOW TO GREASE

- 1** Stand the hammer upright on the chisel.
- 2** Apply down-force so the chisel is pushed fully up into the front head. This stops grease from entering the piston's impact chamber.
- 3** Pump grease into the grease nipple on the front head.
- 4** Wipe off excess grease and dirt.

HOW OFTEN AND HOW MUCH

Before starting work, then every 2 hours of operation.

Typical amount: **5 to 20 pumps** of a standard grease gun, more on larger models. Increase frequency in hot, dusty or wet conditions.

Use high-temperature chisel paste grease (molybdenum or copper based) rated for hydraulic hammers.

NOTICE

A dry, shiny chisel shank means too little grease. Grease running out of the front head means the chisel was not pressed in while greasing.

12 NITROGEN

CHECKING AND CHARGING NITROGEN

The back head's nitrogen charge sets the hammer's power. Too little gas gives weak blows and violent hose shake; too much stops the hammer. Use the nitrogen gauge and bottle in the kit.

BACK HEAD

16 bar (230 psi) at 20 °C (68 °F) on JMASB20EBH to SB131EBH. JMASB200EBH: see the label on the back head. Check **every 2 weeks** or 50 hours, whichever comes first.

ACCUMULATOR (LARGE MODELS)

JMASB121EBH and SB131EBH: **55–60 bar**.
JMASB200EBH: **65–70 bar**. Check **once a month**.

CHECKING THE BACK HEAD PRESSURE

- 1** Stop the carrier and lay the hammer flat. Let it cool: gas pressure rises with temperature, so check cold (about 20 °C).
- 2** Remove the charging valve plug on the back head.
- 3** Screw the gauge on fully with its handle backed off (turned counterclockwise), and close the gauge's bleed valve.
- 4** Turn the handle slowly clockwise until the gauge needle moves. Read the pressure. Do not over-tighten: the valve pin is easily damaged.
- 5** If pressure is high, release gas slowly through the bleed valve until it reads correctly.

CHARGING

- 1** With the gauge fitted, connect the charging hose from the nitrogen bottle to the gauge.
- 2** Open the bottle slowly and fill until the gauge is slightly above the target, then close the bottle.
- 3** Bleed down to the exact target. Charging and bleeding three times flushes out air for a pure charge.
- 4** Back off the handle, remove the gauge and refit the plug. Check for leaks with soapy water.

▲ DANGER

Use **dry nitrogen only**. Oxygen or compressed air can explode inside the hammer. Release all gas before removing through bolts, the back head or the accumulator cover. Store nitrogen bottles upright, secured and out of the sun.

13 MAINTENANCE

MAINTENANCE SCHEDULE

Intervals are carrier operating hours with the hammer attached. Shorten them in severe work: hot climates, abrasive rock, underwater or continuous breaking.

INTERVAL	TASK
Every shift	Pre-shift checks (section 09). Watch oil temperature, blow rate and hose vibration while working.
Every 2 hours	Grease chisel and bushes (section 11).
Every 8 hours	Check side-plate, bracket and through bolts during the first week, then daily. Check the stop pin on the large models.
Every 2 weeks / 50 h	Check back head nitrogen. Inspect chisel pins, front bush and chisel for wear. Clear debris from the front head. Check oil level and condition.
Monthly / 200 h	Check accumulator nitrogen (large models). Check operating pressure, relief setting and flow at the hammer inlet.
First 50 h, then every 100 h	Replace the carrier's hydraulic return filter.
Every 100–150 h	Remove, dress and turn the chisel pins.
First 250 h, then every 800 h	Change the carrier's hydraulic oil (with the hammer in regular use).
400–450 h / 3 months	Replace the seal kit; replace the accumulator diaphragm on large models. Inspect piston and cylinder for scoring.

WEAR PARTS TO KEEP IN STOCK

PART	TYPICAL REPLACEMENT
Chisel	When worn, cracked or repeatedly re-sharpened (section 08)
Chisel pin / stop pin	Inspect every 100–150 h; stop pin about every 4 months
Rubber plugs	When worn or lost
Seal kit	Every 400–450 h or 3 months
Through bolts and side bolts	About every 6 months, or immediately if stretched or cracked
High-pressure hoses	About every 6 months, or when damaged
Front bush / upper bush	When the chisel gap exceeds the limit (section 08)

▲ CAUTION

Tighten through bolts in a diagonal (cross) pattern, in stages, to the specified torque. Release back head nitrogen before replacing more than one through bolt at a time.

14 HYDRAULIC OIL

HYDRAULIC OIL

A hammer works the carrier's oil harder than a bucket does. Clean oil at the right temperature protects both the hammer and the machine.

GRADE

Use a quality anti-wear hydraulic oil from a major brand: **ISO VG 46** in cold weather, **ISO VG 68** in hot weather. Do not mix brands or types.

TEMPERATURE

Operate between **20 °C and 80 °C (68–176 °F)**. Above 80 °C, stop and let the oil cool; check the cooler and the return filter.

CONTAMINATION

Dirty oil causes valve sticking, seal failure and scoring of the piston and cylinder, in the hammer and in the carrier. Change contaminated oil at once, and clean the tank, lines and filter when you do. Dark, milky or foaming oil must be investigated before work continues.

NOTICE

Follow the carrier manufacturer's oil and filter specifications where they are stricter than this manual.

15 STORAGE

STORAGE

BETWEEN JOBS

- Cap all hoses and pipes.
- Store upright or on blocks, under cover.
- Grease the chisel.

MORE THAN 1 WEEK

1. Release all nitrogen from the back head (and accumulator).
2. Remove the chisel.
3. Push the piston fully up with a round bar and grease the front head generously.
4. Cap all ports; store indoors or covered, off the ground.
5. Touch up bare paint.
6. Recharge nitrogen before the next use.

16 TROUBLESHOOTING

TROUBLESHOOTING

Check these causes before sending a hammer for repair. Release nitrogen before any disassembly.

SYMPTOM	LIKELY CAUSE	FIX
Does not fire	Shut-off valve closed · hoses reversed · back head pressure too high · low oil level · relief valve set too low · oil in the gas chamber	Open valves · swap IN/OUT · bleed to spec · top up oil · reset relief · replace gas seal
Weak blows	Low back head or accumulator nitrogen · low engine speed · low flow or pressure · clogged return filter · damaged chisel or bush	Recharge nitrogen · set rated rpm · test flow and pressure · replace filter · dress or replace chisel/bush
Irregular blows	Too little down-force · worn chisel/bush · high back pressure · oil too hot · relief too low · damaged piston, cylinder or valve	Apply correct down-force · replace worn parts · check return line and cooler · reset relief · workshop repair
Hoses shake violently	Low accumulator or back head nitrogen · damaged accumulator diaphragm	Stop · recharge · replace diaphragm
Oil leaks	Worn seal kit · loose fittings · damaged O-rings	Replace seals · tighten · replace O-rings
Gas leaks	Charging valve or its O-ring · back head O-ring · gas seal	Tighten or replace valve · replace seals
Chisel sticks or breaks	No grease · angled working · prying · worn bush · wrong chisel size · blank firing	Grease every 2 h · keep 90° · replace bush · use the correct chisel
Oil overheats	Engine speed too high · flow above range · cooler dirty · low oil level	Reduce rpm · set flow · clean cooler · top up

NOTICE

Still stuck? Send JMA the model, serial number, hours, a description and a short video of the hammer running. Contact details are on the back cover.

17 WARRANTY

WARRANTY AND SUPPORT

JMA hydraulic hammers carry a **24-month warranty with coverage that varies by component**. The warranty card supplied with your hammer lists each part and its period.

COMPONENT	COVERAGE (JMASB20–SB131 CLASS)
Front head, back head, cylinder, piston	Up to 24 months against cracking (large-class models: see card)
Housing and hydraulic components	12 months
Diaphragm, seal kits	3 months
Through bolts, side bolts, bushes, rod pins	2 months
Chisels and wear parts	Wear items; not covered for normal wear

Summary only. The warranty card and JMA's written warranty policy govern.

NOT COVERED

- Operation outside the rated flow, pressure or carrier range.
- Damage from blank firing, prying, lifting, dropping, underwater use or overheating.
- Lack of greasing, wrong nitrogen charge or contaminated oil.
- Non-JMA parts, modifications or repairs without JMA's approval.

MAKING A CLAIM

- 1 Stop using the hammer as soon as a fault appears.
- 2 Email warranty@jmattachments.com with the subject "WARRANTY CLAIM – [Order number] – [Model]".
- 3 Include the serial number, hours, photos or video and your service log (section 18).

JMA acknowledges claims within 2 business days and decides within 5 business days.

18 RECORDS

HAMMER RECORD

MODEL	SERIAL NUMBER	DELIVERY DATE
CARRIER MAKE / MODEL	ORDER NUMBER	INSTALLED BY

SERVICE LOG

DATE	HOURS	WORK DONE (GREASE, N ₂ , PINS, SEALS, OIL, FILTER...)	BY



NEED PARTS OR HELP?

Chisels, seal kits, bushes, pins and nitrogen kits for every JMA hammer are available at jmattachments.com.

ONLINE

jmattachments.com

WARRANTY

warranty@jmattachments.com