

[Manuals.plus](#) /

> [AMZCNC](#) /

> AMZCNC 15 Ton Hydraulic Knockout Punch Driver Tool Kit Instruction Manual

AMZCNC SYK-green

AMZCNC 15 Ton Hydraulic Knockout Punch Driver Tool Kit Instruction Manual

Model: SYK-green

INTRODUCTION

This manual provides detailed instructions for the safe and effective operation and maintenance of your AMZCNC 15 Ton Hydraulic Knockout Punch Driver Tool Kit. This tool is designed for creating clean, precise holes in various materials, including steel, stainless steel, brass, copper, aluminum (soft alloys only), fiberglass, and plastic. Please read this manual thoroughly before use to ensure proper handling and to prevent injury or damage to the tool.

IMPORTANT SAFETY INFORMATION

Always follow basic safety precautions when using this hydraulic knockout punch to reduce the risk of personal injury or damage to the equipment.

- **Wear Personal Protective Equipment (PPE):** Always wear safety glasses, gloves, and appropriate work attire.
- **Work Area:** Ensure your work area is clean, well-lit, and free from obstructions. Keep children and bystanders away.
- **Tool Condition:** Inspect the tool and all components for damage before each use. Do not use if any part is damaged or leaking.
- **Material Compatibility:** Only use the tool on materials and thicknesses specified in this manual. Exceeding capacity can cause damage or injury.
- **Secure Workpiece:** Always secure the material being punched to prevent movement during operation.
- **Hydraulic Fluid:** Handle hydraulic fluid with care. Avoid skin contact and dispose of properly.
- **Maintenance:** Perform regular maintenance as described in this manual. Do not attempt unauthorized repairs.
- **Storage:** Store the tool in a dry, secure place, out of reach of children.

PRODUCT OVERVIEW AND COMPONENTS

The AMZCNC 15 Ton Hydraulic Knockout Punch Driver Tool Kit includes the following main components:

- Hydraulic Pump with Handle

- Hydraulic Ram/Head
- Draw Studs (various sizes)
- Punch Dies (1/2" to 4" conduit sizes)
- Carrying Case



Figure 1: Complete AMZCNC 15 Ton Hydraulic Knockout Punch Driver Tool Kit, showing the hydraulic pump, ram, various dies, and draw studs, all contained within a protective carrying case.



Figure 2: Detailed view of the included draw studs and a selection of opening mould dies, ranging from 1/2 inch to 4 inches in size.



Figure 3: Close-up of the hydraulic pump and ram, highlighting the installation screw, 360° free rotating joint, high precision plunger, switch, and fixed bracket.

SPECIFICATIONS

Feature	Detail
Punching Capacity	15 US True Ton
Die Sets Included	10 (1/2", 3/4", 1", 1-1/4", 1-1/2", 2", 2-1/2", 3", 3-1/2", 4" conduit sizes)
Steel Punching Thickness	1/8 inch (10 gauge)
Stainless Steel Punching Thickness	1/16 inch
Compatible Materials	Steel, Stainless Steel, Brass, Copper, Aluminum (soft alloys only), Fiberglass, Plastic
Model Number	SYK-green
Item Weight	20.07 Kilograms (approx. 44.25 Pounds)
Material	Alloy Steel, Stainless Steel

STANDARD ROUND KNOCKOUT PUNCHES (TYPE D)

CONDUIT&PIPE SIZE	HOLE SIZE(ACTUAL)		CAPACITY		
	ϕ (INCH)	ϕ mm	mm	GA	
1/2"	7/8	0.885	22.5	3.5	10
3/4"	-	1.115	28.3	3.5	10
1"	-	1.362	34.6	3.5	10
1-1/4"	-	1.701	43.2	3.5	10
1-1/2"	1-15/16	1.951	49.6	3.5	10
2"	2-3/8	2.416	61.5	3.5	10
2-1/2"	2-7/8	2.914	74.0	3.5	10
3"	3-1/2	3.539	89.9	3.5	10
3-1/2"	4	4.044	102.7	3.5	10
4"	4-1/2	4.544	115.4	3.5	10

SPECIFICATIONS

Capacity: Mild steel up through 3.5mm (10gauge)

Application: Punch mild steel, aluminium, fiberglass and plastic.

Operation: Battery, hydraulic, ratchet or manual drivers.

When used with ratchet,hydraulic orbattery drivers,
buy the punch and die only;
the draw stud is part of the driver kit.

Figure 4: Detailed table of standard round knockout punch specifications, including conduit and pipe sizes, actual hole sizes in inches and millimeters, and material capacity in millimeters and gauge.

SETUP INSTRUCTIONS

1. **Unpack Components:** Carefully remove all components from the carrying case and inspect them for any shipping damage.
2. **Select Die and Punch:** Choose the appropriate punch die and draw stud for the desired hole size and material thickness. Ensure the punch and die match the conduit size.
3. **Prepare Material:** Mark the center of the desired hole on your workpiece. Drill a pilot hole large enough to accommodate the draw stud. The pilot hole size should be slightly larger than the draw stud diameter.
4. **Assemble Punch and Die:**
 - Thread the draw stud through the pilot hole in your workpiece.
 - Place the punch (cutting edge facing the material) onto one side of the draw stud.
 - Place the die (receiving side) onto the other side of the draw stud, ensuring it is centered with the punch.
5. **Connect Hydraulic Ram:** Attach the hydraulic ram to the draw stud. Ensure all connections are secure.
6. **Connect Hydraulic Pump:** Connect the hydraulic hose from the pump to the ram. Ensure the connection is tight and free of leaks.

OPERATING INSTRUCTIONS

1. **Position the Tool:** Ensure the punch and die are correctly aligned and the material is securely held. The punch should be on the side where the slug will be ejected.
2. **Close Release Valve:** Turn the release valve on the hydraulic pump clockwise to close it. This builds pressure.
3. **Pump the Handle:** Slowly and steadily pump the handle of the hydraulic pump. You will feel resistance as the punch begins to cut through the material. Continue pumping until the punch cleanly cuts through the material. A distinct "pop" or drop in resistance indicates the cut is complete.
4. **Open Release Valve:** Once the hole is punched, turn the release valve counter-clockwise to release the hydraulic pressure. The ram will retract.
5. **Remove Tool:** Carefully remove the punch, die, and draw stud from the workpiece. Collect the punched slug.
6. **Inspect Hole:** Check the newly punched hole for cleanliness and accuracy.

USAGE SCENARIO



ELECTRICAL CONTROL CABINETS



METAL CABINET

Figure 5: Examples of typical usage scenarios, including punching holes in electrical control cabinets and metal cabinets.

360° Free Rotation



Figure 6: Illustration of the 360° free rotation feature of the hydraulic ram, allowing for flexible positioning during operation.

MAINTENANCE

- **Cleaning:** After each use, clean all components, especially the dies and punches, to remove metal shavings and

debris. Use a clean cloth.

- **Lubrication:** Lightly lubricate the draw studs and the moving parts of the hydraulic ram with a suitable machine oil to prevent rust and ensure smooth operation.
- **Hydraulic Fluid Check:** Periodically check the hydraulic fluid level in the pump. If low, refill with appropriate hydraulic oil. Refer to the manufacturer's recommendations for fluid type.
- **Inspection:** Regularly inspect the hydraulic hose for cracks, kinks, or leaks. Check dies and punches for wear or damage. Replace worn or damaged parts immediately.
- **Storage:** Store the tool kit in its original carrying case in a dry, cool place to protect it from dust and moisture.

Continuously improve products

According to the plunger oil leakage problem reported by customers some time ago. We have upgraded the blocking seal structure to more precisely locate the stroke of the plunger. A set of sealing rings is added inside to achieve double protection.



Active after-sales service

If you encounter problems, we will actively serve you and provide you with satisfactory solutions.

Figure 7: The hydraulic pump and ram, illustrating the manufacturer's commitment to continuous product improvement, including enhanced sealing structures to prevent oil leakage, and active after-sales support.

Problem	Possible Cause	Solution
Tool not punching or losing pressure	Release valve is open; Low hydraulic fluid; Air in the system; Damaged seals.	Ensure release valve is fully closed. Check and refill hydraulic fluid. Bleed air from the system (refer to specific pump instructions if available). Contact support for seal replacement.
Punching is difficult or incomplete	Incorrect die/punch size for material; Material too thick/hard; Worn punch/die; Insufficient pilot hole.	Verify correct die/punch for material. Check material specifications against tool capacity. Replace worn punch/die. Ensure pilot hole is adequate for draw stud.
Oil leakage	Loose connections; Damaged seals/O-rings.	Tighten all hydraulic connections. Inspect seals and O-rings; contact support for replacement if damaged.
Ram not retracting	Release valve not fully open; Obstruction.	Ensure release valve is fully opened (counter-clockwise). Check for any physical obstructions preventing retraction.

WARRANTY AND SUPPORT

AMZCNC is committed to providing high-quality tools and customer satisfaction. While specific warranty details are not provided in this manual, we offer active after-sales service to address any issues you may encounter. If you experience problems with your AMZCNC 15 Ton Hydraulic Knockout Punch Driver Tool Kit, please contact our customer support team for assistance. We will work to provide satisfactory solutions. For support, please refer to the contact information provided with your purchase or visit the official AMZCNC store online.

Manufacturer: AMZCNC

Model: SYK-green

