# Manual Gear Puller Instruction Manual

**MODELS: MGP02** **-2 Ton Capacity**
**MGP05** **-5 Ton Capacity**
**MGP07** **-7 Ton Capacity**

SFA Companies 10939 N. Pomona Ave. Kansas City, MO 64153
Tel: 888-332-6419 * Fax: 816-448-2142
E-mail: sales@bvahydraulics.com Website: www.bvahydraulics.com

## Maximum Operating Pressure 10,000 PSI

*This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.*

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## SAFETY AND GENERAL INFORMATION

**IMPORTANT RECEIVING INSTRUCTIONS:**

Visually inspect all components for shipping damage. Shipping damage is not covered by warranty. If shipping damage is found notify the carrier at once. The carrier is responsible for all repair and replacement costs resulting from damage in shipment.

**SAFETY FIRST:**

It is impossible to predict the exact force needed for every pulling situation. The amount of press-fit and force of removal can vary greatly between jobs. The set-up requirements along with the size, shape and condition of the parts being pulled are all variables which must be considered. Remember that a significant amount of force can be exerted with a puller. Respect this force and always observe safety precautions. Failure to comply with the following cautions and warnings could cause equipment damage or personal injury.

**DO NOT** use this equipment in circumstances where a sudden release of pressure can result in loss of balance or injury.

Make sure all system components are protected from external sources of damage, such as excessive heat, flame, moving machine parts, sharp edges and corrosive chemicals.

⚠ **CAUTION:** Make sure that all items being pulled are supported by a means other than the puller. When

using a puller in excess of 50 pounds, support puller by other means than a single person. Do not use the puller for lifting or supporting objects.

Avoid sharp bends and kinks in hoses as they may lead to premature hose failure. Inspect hoses and fittings for leaks or damaged areas. Immediately discard and replace damaged components.

⚠ **IMPORTANT:** Inspect puller for dents, cracks, or excessive wear before each use. Immediately replace

worn or damaged parts.

It is recommended to use 3-jaw puller whenever possible for a more secure grip, a more even pulling force and better stability.

Cover application with a protective blanket before applying force.

Since high force is applied on the part being pulled, breakage may occur and user may be exposed to flying debris.

Use hydraulic gauges in each hydraulic system to indicate safe operating loads.

Apply force gradually. Be sure the puller is square with the component to be pulled.

Wear safety glasses or other approved eye protection. Keep hands away from possible pinching points.

**OPERATION IMPORTANT:** Hydraulic power is one of the safest methods for applying force when used cor-

rectly. Be sure to read all instructions, warnings and cautions carefully.

Follow all safety precautions to avoid personal injury or property damage during system operation. Posi Lock cannot be responsible for damage or injury resulting from unsafe use of product, lack of maintenance or incorrect product and/or system operation.

It is important that the operator has a full understanding of

all the instructions, warnings, cautions and safety regulations before starting to operate equipment.

## BEFORE USE

1. Before using this product, read the owner's manual completely and familiarize yourself thoroughly with the product, its components and recognize the hazards associated with its use.
2. Verify that the product and the application are compatible. If in doubt, call BVA Hydraulics Technical Service (888) 332-6419.
3. Inspect before each use. Do not use if bent, broken, leaking or damaged components are noted.
4. Replace worn or damaged parts and assemblies with BVA Hydraulics authorized replacement parts only. Lubricate as instructed in Maintenance Section.
5. Ensure method of confirming load is accurate and working properly. Have gauge or load cell accuracy verified by qualified personnel on a yearly basis.

**MGP02, MGP05 & MGP07 Specification**

| Model No. | Rated Capacity (Ton) | Max. Spread (In.) | Max. Reach (In.) | Screw Length (In.) |
|---|---|---|---|---|
| MGP02 | 2 | 3.25 | 2.625 | 4.5 |
| MGP05 | 5 | 5 | 4 | 8.25 |
| MGP07 | 7 | 10 | 10 | 12 |

# ⚠WARNING

**Failure** to comply with the following warnings may result in **personal injury** as well as **property damage**.

- Study, understand, and follow all instructions provided with and on this device before use.
- The user must be a qualified operator familiar with the correct operation, maintenance, and use of cylinders.

Wear protective gear when operating hydraulic equipment.

This device is **NOT** suitable for use as **support** device! As the load is lifted, use blocking and cribbing to guard against a falling load. Stay clear of a lifted load before it is properly supported. Never rely on hydraulic pressure to support a load.

**Crush Hazard**. Keep hands and feet away from cylinder and workpiece during operation.

- Do not exceed rated capacity of the cylinder or any equipment in the system. The cylinder is designed for a max. pressure of 10,000 psi.
- Do not connect a cylinder to a pump with higher pressure rating.
- Do not subject cylinder to a shock loads, a load dropped suddenly, causing the system pressure to exceed rated pressure.

The system operating pressure must not exceed the pressure rating of the lowest rated component the system. Install a pressure gauge or other load measuring instrument to monitor the operating pressure. Burst hazard exists if hose, connection or any other component in the system exceed its rated pressure.

Avoid damaging hydraulic hose. Do not allow hose to kink, twist, curl, crush, cut or bend so tightly that fluid flow within the hose is blocked or reduced. Periodically inspect the hose for wear.

Do not pull, position or move cylinder setup by the hose. Use carrying handle or other means of safe transport.

Do not handle pressurized hoses. Never attempt to grasp a leaking pressurized hose. Ensure to release the system pressure before disconnecting hydraulic hose or connections.

Hydraulic fluid can ignite and burn. Keep hydraulic equipment away from flames and heat. Excessive heat will soften seals, resulting in fluid leaks. Heat also weakens hose materials.

Cylinder must be on a stable base which is able to support the load while pushing or lifting. Use shims, friction material or constrains to prevent slippage of the base or load. Ensure cylinder is fully engaged into/onto adapters, extension accessories.

Center load on cylinder. Distribute load evenly across the entire saddle surface. Do not off-center loads on a cylinder. The load can tip or the cylinder can “kick out”.

Never try to disassemble a hydraulic cylinder, refer repairs to qualified, authorized personal. Contact BVA Hydraulics tech service for authorized service center.

Do not subject hose to sharp objects or heavy impact.

Hose material or seals must not come in contact with corrosive materials such as battery acid, creosote-impregnated objects and wet paint. Never paint a coupler or hose.

- No alteration shall be made to the cylinder.
- Use only factory authorized fasteners, accessories and hydraulic fluid.

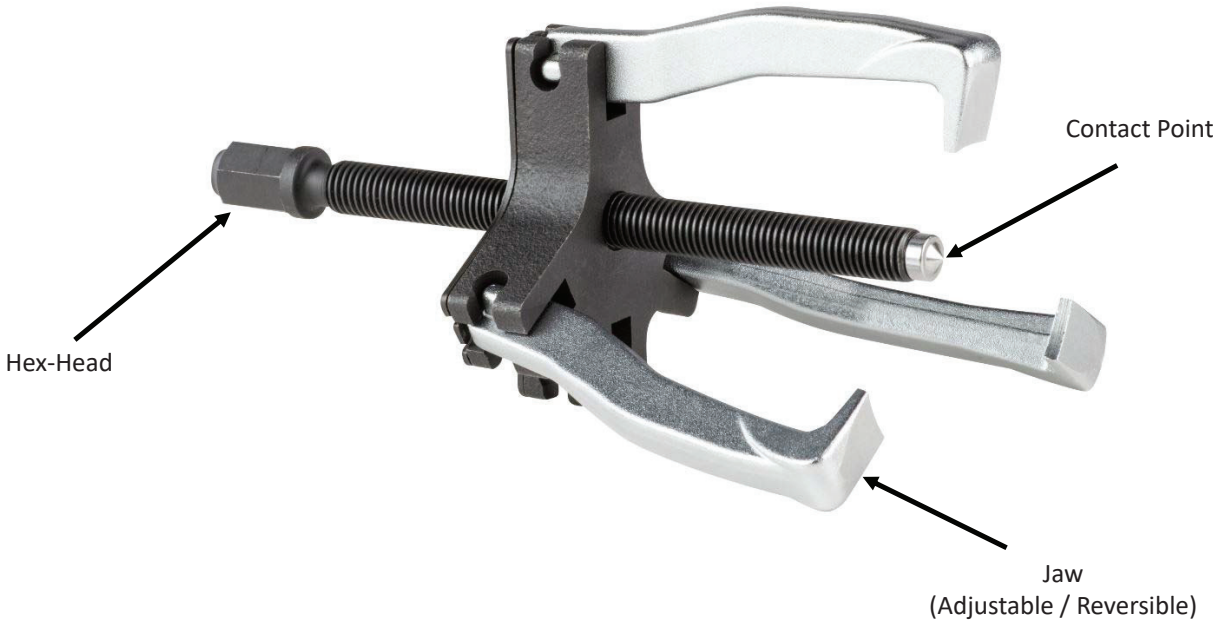
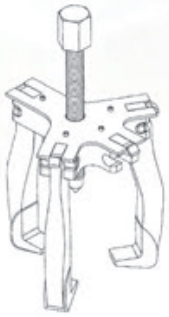


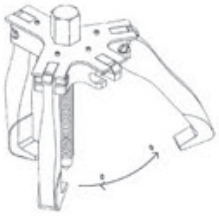

Fig. 01 - MGPXX Component Nomenclature

## OPERATION

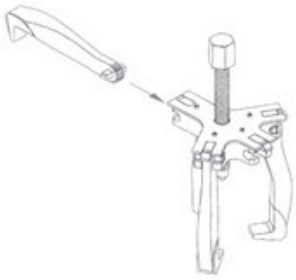
1. To operate puller, support the puller and turn the Hex-Head (using wrench) counterclockwise until the jaw opening is big enough to fit the component to be pulled.
   **DO NOT PINCH YOUR FINGERS DURING THIS PROCESS.**
2. Clean the shaft of debris. Place the puller over the component to be pulled. Retightening the Hex-Head may be necessary when the puller is new to get the jaws to properly seat in the cage.
3. Turn the Hex-Head clockwise to tighten the jaws firmly onto the component. Make sure the puller is square with the component being pulled.
4. Turn Hex-head until the contact point contacts the shaft to ensure correct alignment. The center of the ram point should be aligned with the center of the shaft. Continue to advance the plunger slowly to pull the component off of the shaft. Do not retighten the Hex-Head during the pulling operation. Never exceed the maximum torque rating of the pullers.



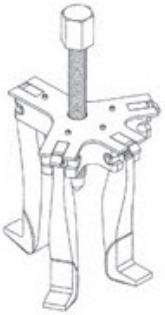
A. The product made by high quality materialof CRMO, SK5 within high torque strength for professional using.



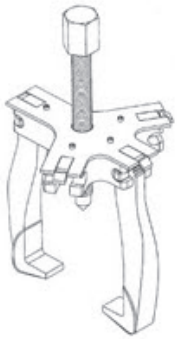
B. Adjustable Angle Fixed jaws have convenience working easily.



C. Quick release to save time and easy operation for effective working.



D. Easy simple action to change the jaws be inside or outside working.



E. Changeable jaws for 2 or 3 jaws operation.

## LIMITED LIFETIME WARRANTY

BVA Hydraulics®, represented in the United States by SFA Companies ["SFA"] warrants this product to be free from defects in material and workmanship for the life of the product as long as the original purchaser owns the product. The warranty is non-transferable and is subject to the terms, exclusions, and limitations described below:

- Damaged components, including but not limited to bent rams, dented or crushed cylinder walls, broken welds or couplers as well as worn out seals, o-rings and springs are the result of misuse and not covered by warranty and BVA Hydraulics will not provide any warranty credit for such damaged components.
- This warranty does not cover ordinary wear and tear, overloading, alterations (including repairs or attempted repairs not performed by BVA Hydraulics or one of its authorized personnel), improper fluid use, or use of the product in any manner for which the product was not intended or the use of which is not in accordance with the instructions or warnings provided with the product.
- In the unlikely event that a BVA Hydraulics product fails due to material defect in workmanship, you may contact SFA for disposition. In such cases, the customer's sole and exclusive remedy for any breach or alleged breach of warranty is limited to the repair or replacement of the defective product.
- Under no circumstances is BVA Hydraulics liable for any consequential or incidental damage or loss whatsoever.
- THIS WARRANTY IS LIMITED TO NEW PRODUCTS SOLD THROUGH AUTHORIZED DISTRIBUTORS AND OTHER CHANNELS DESIGNATED BY BVA HYDRAULICS. NO AGENT, EMPLOYEE OR OTHER REPRESENTATIVE OF BVA HYDRAULICS IS AUTHORIZED TO MODIFY THIS WARRANTY.
- THE FOREGOING IS EXCLUSIVE AND IS IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FOR A FITNESS FOR A PARTICULAR PURPOSE.
- Components not manufactured by BVA Hydraulics including certain motor systems, gasoline engines, and other are not covered by this warranty and instead are covered by the manufacturer's separate manufacturer's warranty provided in the package.
- BVA Hydraulics' liability in all cases is limited to, and will not exceed the purchase price paid for the product.

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