



**ATD-5802A
5-Ton Pull Ram with Hooks
Owner's Manual**



Features:

- Can be used in vertical or horizontal positions to pull, bend or straighten metal

Specifications:

- Capacity (Ton): 5
- Stroke: 5.12"
- Effective Area: 1.14 sq. in.
- Oil Capacity: 3.25 oz. (96 ml)
- Collapsed Length: 27.36"
- Extended Length: 32.48"
- Outside Diameter: 1.77"
- Operating Pressure: 8,770 psi
- Shipping Weight: 12.6 lbs.

Save these instructions. For your safety, read and understand the information contained within. The owner and operator should have an understanding of this product and safe operating procedures before attempting to use this product. Instructions and Safety information should be conveyed in the operators native language before use of this product is authorized. Make certain that the operator thoroughly understands the inherent dangers associated with the use and misuse of the product. If any doubt exists as to the safe and proper use of this product as outlined in this factory authorized manual, remove from service. Inspect before each use. Do not use if broken, bent, cracked or otherwise damaged parts are noted. If the pull cylinder has been or suspected to have been subjected to a shock load (a load dropped suddenly and unexpectedly upon it), discontinue use until checked out by an authorized factory service center. Owners and operators of this equipment should be aware that the use of this equipment may require special training and knowledge. It is recommended that an annual inspection be done by qualified personnel and that any missing or damaged decals, warning / safety labels or signs be replaced with factory authorized replacements only. Any pull cylinder that appears to be damaged in any way, is worn or operates abnormally should be removed from service immediately.

PRODUCT DESCRIPTION:

Your ATD Hydraulic Pull Cylinder is designed for rated capacity pulling jobs. A wide variety of applications exist for this category of product. Special skill, knowledge and training may be required for a specific task and the product may not be suitable for all the jobs described above. Unsuitable applications would include applications that call for a device to move or support persons, animals, hazardous materials, mirror and/or plate glass, and/or to connect components through bulkheads. The user ultimately must make the decision regarding suitability of the product for any given task.

Note: Always check connections before using. Alteration of these products is strictly prohibited.

SPECIFICATIONS

Model	Capacity	Effective Area	Oil Capacity	Collapsed Length	Extended Height	Outside Diameter	Operating Pressure	Weight
ATD-5802A	5 Ton	1.14 sq. in.	3.25 oz.	27.36"	32.48"	1.77"	8,770 psi	12.6 lbs.

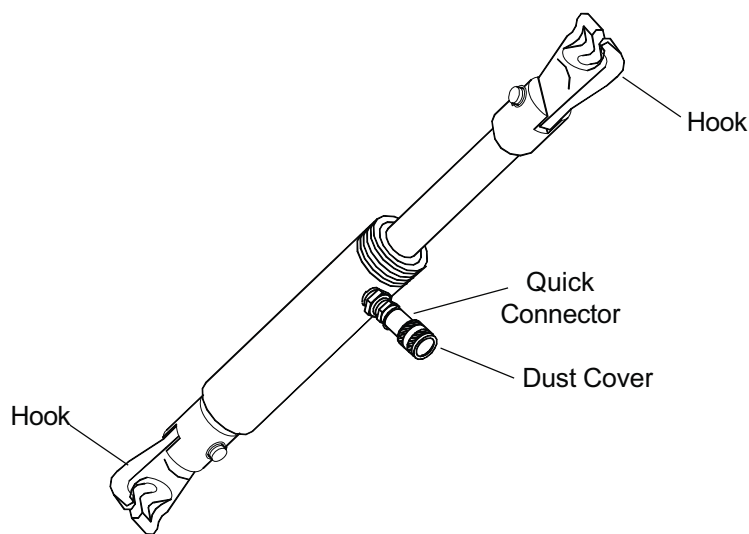


Figure 1 - Model ATD-5802A nomenclature

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, inspect before each use. Do not use if bent, broken, leaking or damaged components are noted.
3. Carefully remove the dust caps and plugs from hose coupler and ram coupler.
4. Connect hose coupler to ram coupler, ensure that there are no fluid leaks.
5. Check for leaks in system and have repaired by qualified personal as needed. Before repairs are made, depressurize cylinder.
6. Replace worn or damaged parts and assemblies with genuine ATD replacement parts only (See replacement parts section). Lubricate as instructed in maintenance section.
7. Use adequate eye protection when operating or near this equipment.
8. Ensure method of confirming load is accurate and working properly. Have gauge or load cell accuracy verified by qualified personnel on a yearly basis.
9. Cylinders should be stored where protected from the elements, abrasive dust, and damage. This cylinder should be stored in the vertical position.

TYPICAL INSTALLATION

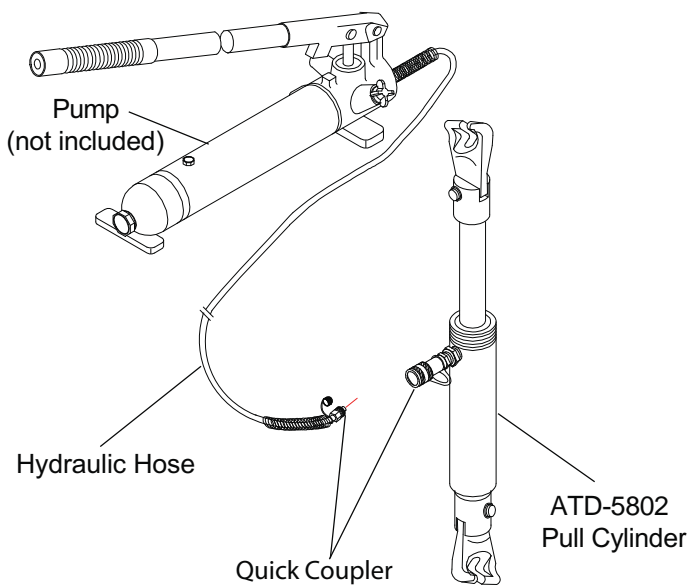


Figure 2 - Installation for model ATD-5802A

! DANGER !

- If oil leakage is detected, discontinue use of the cylinder or ram immediately and contact your distributor or point of sale. The cylinder or ram could develop excessive pressure and cause the cylinder, hose or coupler to burst which could cause serious injury or death.
- When loading a cylinder or ram, always insure that coupler or port thread(s) have not been damaged. Failure to do so could cause serious injury or death.
- Avoid off-center loads. Loading off center may damage the cylinder and cause loss of load which may cause serious injury or death.
- Control the load at all times. Do not drop the load. Threads may shear and cause loss of the load, which may cause serious injury or death.

! WARNING

- **All WARNING** statements must be carefully observed to help prevent personal injury. Do not exceed rated cylinder pressure. Monitor pressure and load at all times. Always verify load with calibrated load cell and indicator, known good pressure gauge or equivalent devices. Wear protective clothing and safety goggles to reduce the risk of injection. Wear appropriate shoes. Do not wear sandals when operating this equipment. Do not wear jewellery when operating this equipment.

Hydraulic Hoses and Fluid Transmission Lines:

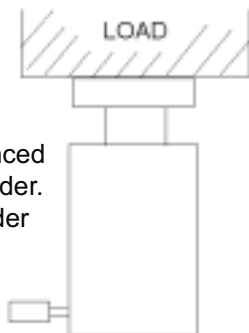
- Avoid short runs of straight line tubing. Straight line runs do not provide for expansion and contraction due to pressure and/or temperature changes.
- Reduce stress in tube lines. Long tubing runs should be supported by brackets or clips. Before operating the pump, all hose connections must be tightened with the proper tools. Do not overtighten. Connections should only be tightened securely and leakfree. Overtightening can cause premature thread failure or high pressure fittings to burst.
- Should a hydraulic hose ever rupture, burst or need to be disconnected, immediately shut off the pump and release all pressure. Never attempt to grasp a leaking pressurized hose with your hands. The force of escaping hydraulic fluid can inflict injury.
- Do not subject the hose to potential hazard such as fire, sharp surfaces, extreme heat or cold, or heavy impact. Do not allow the hose to kink, twist, curl, crush, cut or bend so tightly that the fluid flow within the hose is blocked or reduced. Periodically inspect the hose for wear, because any of these conditions can damage the hose and possibly result in personal injury.

! WARNING

- Do not pull, position or move set-up by the hose. Doing so can damage the hose and possibly cause personal injury.
- Hose material and coupler seals must be compatible with hydraulic fluid used. Hoses also must not come in contact with corrosive materials such as battery acid, creosote-impregnated objects and uncured paints. Hose deterioration due to corrosive material can result in personal injury. Never paint a coupler or hose.

Cylinder:

- The user must be a qualified operator familiar with the correct operation, maintenance, and use of cylinders. Lack of knowledge in any of these areas can lead to personal injury.
- Read and understand all safety and warning decals and instructions.
- Use only approved accessories and approved hydraulic fluid. Hoses, seals and all components used in a system must be compatible with the hydraulic fluid used.
- Do not exceed the rated capacities of the cylinders. Excess pressure can result in personal injury.
- Inspect each cylinder and coupler before each shift or usage to prevent unsafe conditions from developing.
- Do not use cylinders if they are damaged, altered or in poor condition.
- Do not use cylinders with bent or damaged coupler or damaged threads.
- Under certain conditions, the use of an extension with a hydraulic cylinder may not be advisable and could present a dangerous condition.
- Avoid pinch points or crush points that can be created by the load or parts of cylinder.
- To help prevent material fatigue if the cylinder is to be used in a continuous application, the load should not exceed 85% of the rated capacity.
- Cylinder must be on a stable base which is able to support the load while pushing or lifting.
- Ensure cylinder is fully engaged into/onto adapters, extension accessories and vice versa.
- To Help prevent personal injury, use shims, friction material or constraints to prevent slippage of the base or load.
- Do not use with poorly-balanced or off-center loads on a cylinder. The load can tip or the cylinder can "kick out" and cause personal injury.



! WARNING

- Do not use the locking collar on threaded piston as a stop. The threads may shear resulting in loss of the load.
- Do not create an overload condition where force exerted by one cylinder will intensify downward force on another cylinder.
- If this component is used to lift or lower loads, be certain that the load is under operator control at all times and that others are clear of the load. Do not drop the load.
- As the load is lifted, use blocking and cribbing to guard against a falling load.
- To help prevent personal injury, do not allow personnel to go under or work on a load before it is properly supported by appropriate mechanical means. All personnel must be clear before lowering.
- Never try to disassemble a hydraulic cylinder. Refer repairs to qualified, authorized personnel.



IMPORTANT:

- Keep cylinder clean at all times.
- When the cylinder is not in use, keep the piston(s) fully retracted.
- Use an approved, high-grade pipe thread sealant to seal all hydraulic connections. Teflon tape can be used if only one layer of tape is used and it is applied carefully (two threads back) to prevent the tape from being introduced into hydraulic system. A piece of tape could travel through the system and obstruct the flow of fluid and adversely affect function.
- Never attach ANY component not authorized by manufacturer.
- Only use factory provided and/or authorized fasteners.



KNOW YOUR SYSTEM:

Your cylinder, hose(s), couplings and pump all must be rated for the same maximum operating pressure, correctly connected and compatible with the hydraulic fluid used. An improperly matched system can cause the system to fail and possibly cause serious injury. If you are in doubt, consult your distributor or point of sale.

SET-UP:

Remove all thread protectors or dust covers from the hydraulic connections/ports applicable. Clean the areas around the fluid ports of the pump and cylinder. Inspect all threads and fittings for signs of wear or damage, and replace as needed. Clean all threads and fittings. Connect all hose assemblies to the pump and cylinder. Use an approved, high-grade pipe sealant to seal all hydraulic connections. Tighten securely but do not overtighten.

MAINTENANCE:

Due to superior materials and manufacturing processes, there is little maintenance required of this cylinder. It does not preclude operator's responsibility to inspect each cylinder thoroughly before each use.

1. Always use clean, approved hydraulic fluid and change as needed.
2. Any exposed threads (male or female) must be cleaned and lubricated regularly, and protected from damage. Lubricate with light machine oil.
3. If a cylinder or ram has been exposed to rain, snow, sand, abrasive laden air, or any corrosive environment it must be cleaned, lubricated, and protected immediately after exposure. Clean exposed ram with clean cloth dampened with light machine oil daily. Protect exposed ram from the elements at all times.

PERIODIC CLEANING:

Keep the hydraulic system as free of dirt as possible. Idle couplers must be sealed with dust covers. All hose connections must be free of dirt and grime. Any equipment attached to the cylinder must be kept clean. Use only Mobil DTE13M or equivalent hydraulic fluid and change as recommended or sooner if the fluid becomes contaminated (never exceed 400 hours). Follow pump manufacturer's instructions for changing and adding oil.

STORAGE:

Cylinder should be stored in a vertical position with the rod end down in a dry, protected area, not exposed to corrosive vapor, dust or other harmful elements. When a cylinder has not been used for a period of 4 months it should be connected to a pump and fully extended and then retracted. In the case of a pull cylinder fully retract, then extend. This cycle will lubricate the cylinder wall, reducing the possibility of corrosion and damage.

HOW TO REMOVE A FAULTY COUPLER:

If cylinder does not retract, secure load by other means. Open release valve of host pump to depressurize pump, hose and coupler. Prevent cylinder ram from retracting (do not attempt to grasp with pliers or wrench without first wrapping the jaws of such tool with rags or similar padding). Disconnect and renew or replace coupler.

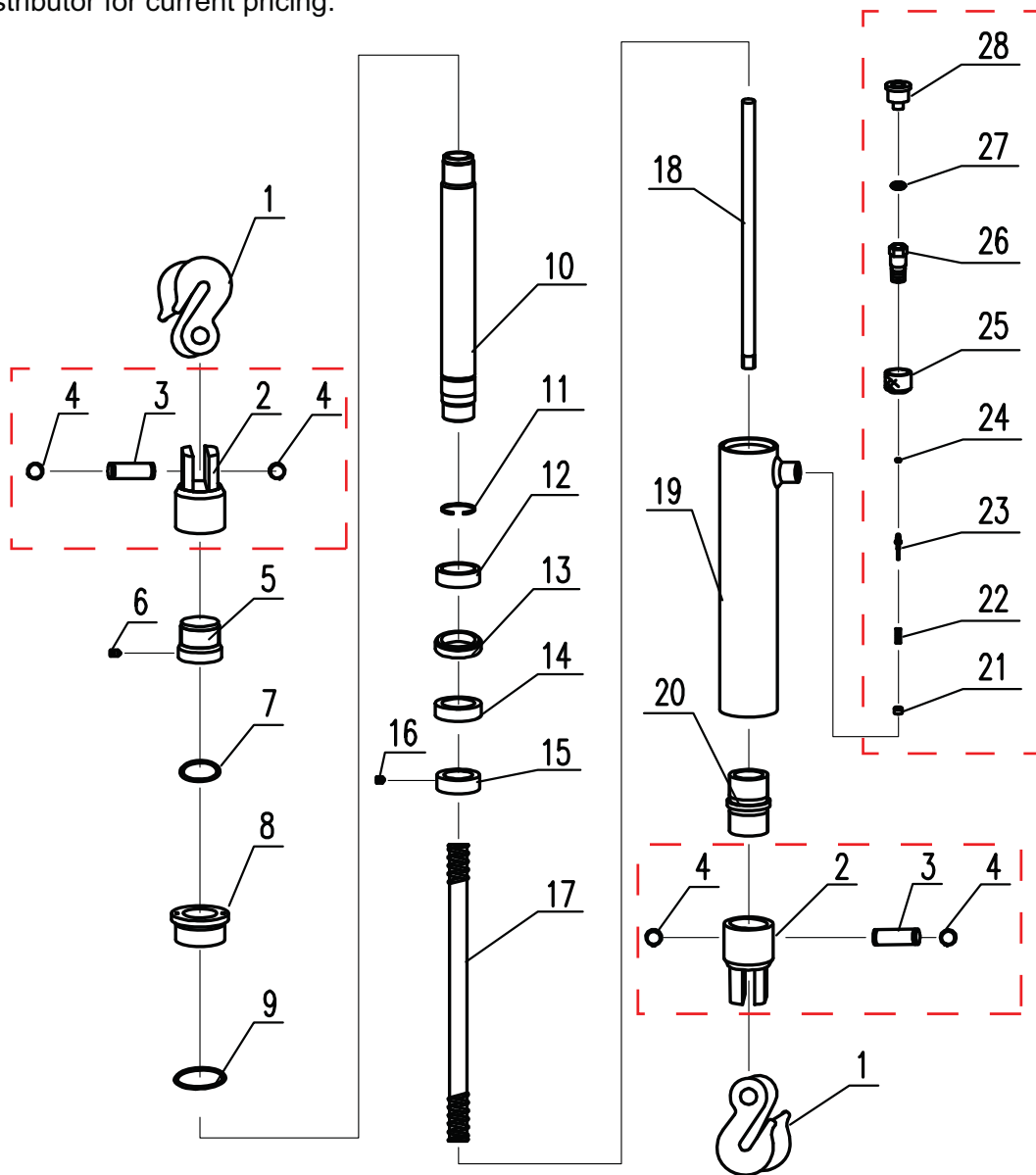
Troubleshooting Guide

Symptom	Possible Causes	Corrective Action
Erratic action	<ol style="list-style-type: none"> 1. Air in system or pump cavitation 2. External leakage in single-acting cylinders 3. Cylinder sticking or binding 	<ol style="list-style-type: none"> 1. Add fluid, bleed air and check for leaks 2. Check for excessive contamination or wear. Replace contaminated fluid as necessary. Contact Tech. Service (636) 327-9050. 3. Check for bent, misaligned, worn parts. Replace cylinder.
Cylinder does not move	<ol style="list-style-type: none"> 1. Loose couplers 2. Faulty coupler 3. Improper valve position 4. Low or no hydraulic fluid in pump reservoir 5. Air-locked pump 6. Pump not operating 7. Load is above the capacity of the system 	<ol style="list-style-type: none"> 1. Tighten couplers 2. Replace both female and male couplers. 3. Close release valve or change pump position 4. Fill and bleed the system 5. Prime pump per pump operating instructions 6. Check pump's operating instructions 7. Use the correct equipment
Cylinder extends only partially	<ol style="list-style-type: none"> 1. Pump reservoir is low on hydraulic fluid 2. Load is above the capacity of the system 3. Cylinder piston rod binding 	<ol style="list-style-type: none"> 1. Fill and bleed the system 2. Use the correct equipment 3. Check for bent, misaligned, worn parts or defective packings. Replace cylinder.
Cylinder moves slower than normal	<ol style="list-style-type: none"> 1. Loose connection or coupler 2. Restricted hydraulic line or fitting 3. Pump not working correctly 4. Cylinder seals leaking 	<ol style="list-style-type: none"> 1. Tighten 2. Clean and replace if damaged 3. Check pump operating instructions 4. Replace cylinder.
Cylinder moves but does not maintain pressure	<ol style="list-style-type: none"> 1. Cylinder seals leaking 2. Pump or valve malfunctioning 	<ol style="list-style-type: none"> 1. Replace cylinder 2. Check pump operating instructions
Cylinder leaks hydraulic fluid	Worn or damaged seals	Replace cylinder.
Cylinder will not retract or retracts slower than normal	<ol style="list-style-type: none"> 1. Pump release valve closed 2. Loose couplers 3. Weak or broken retraction springs 4. Cylinder damaged internally 5. Pump reservoir too full 	<ol style="list-style-type: none"> 1. Open pump release valve 2. Tighten couplers 3. Replace cylinder. 4. Replace cylinder. 5. Drain hydraulic fluid to correct level

REPLACEMENT PARTS:

Please refer to the Parts drawing when ordering parts. Not all components of the cylinder are replacement items but are illustrated as a convenient reference of location and position in the assembly sequence.

When ordering parts from your distributor, give model number, part number and description on page 7. Contact your distributor for current pricing.



ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
1	PRT5802A-01	HOOK	2
2	PRT5802A-02-04	HOOK COUPLER ASSEMBLY	2
3			
4			
5	PRT5802A-05	NUT	1
6	PRT5802A-06	SCREW	1
7	PRT5802A-07	O-RING	1
8	PRT5802A-08	NUT	1
9	PRT5802A-09	O-RING	1
10	PRT5802A-10	PISTON	1
11	PRT5802A-11	RETAINING RING	1
12	PRT5802A-12	SPACING RING	1
13	PRT5802A-13	SEAL RING	1
14	PRT5802A-14	PISTON RING	1
15	PRT5802A-15	PISTON SCREW	1

ITEM#	ORDERING PART#	PART DESCRIPTION	QTY
16	PRT5802A-16	SCREW	1
17	PRT5802A-17	SPRING	1
18	PRT5802A-18	NUT	1
19	PRT5802A-19	CYLINDER	1
20	PRT5802A-20	CONNECTOR	1
21	PRT5802A-21-28	COUPLER ASSEMBLY	1
22			
23			
24			
25			
26			
27			
28			
N/S	PRT5802A-SK	SEAL KIT	1