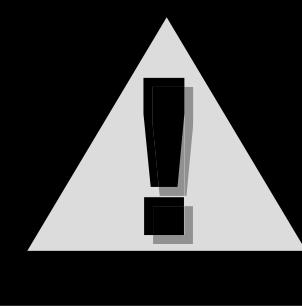


STRONGARM®

PROD NO. 030215
MOD NO. 402A

10,000 PSI 54 oz Air/Hydraulic Foot Pump – Heavy Duty *Operating Instructions*



WARNING:

Important: read these instructions and all warnings prior to using this equipment. Understand all operating procedures, safety warnings and maintenance requirements. Failure to do so could cause an accident resulting in serious or fatal injury and/or personal property damage.



WARNING!

The use of shop equipment is subject to certain hazards that cannot be prevented by mechanical means, but only by exercise of intelligence, care, and common sense. It is therefore essential to have personnel involved in the use and operation of equipment who are careful, competent, trained, and qualified in the safe operation of this equipment and its proper use. Examples of hazards are dropping, tipping, or slipping of parts/components caused primarily by improperly securing loads, overloading, off-centered loads, use on other than hard level surfaces, and using equipment for a purpose for which it was not designed.

The owner and / or operator shall study and understand the product and safety instructions before operating this equipment. Safety information shall be emphasized and understood. If the operator is not fluent in English, the product and safety instructions shall be read to and discussed with the operator in the operator's native language by the purchaser / owner or his designee, making sure that the operator comprehends their contents. **A copy of these instructions / warnings shall be retained for future reference.**



INSPECTION

Visual inspection shall be made before each use of this equipment, checking for abnormal conditions, such as cracked welds, leaks, damaged, loose or missing parts. This equipment shall be removed immediately from service if it is believed to have been subjected to an abnormal or shock load, the equipment shall be inspected by a qualified repair facility. Owners and / or operators should be aware that repair of this equipment may require specialized knowledge and facilities. It is recommended that this equipment be inspected annually by a qualified repair facility. Defective parts, decals, safety labels or signs should be replaced with STRONGARM specified parts.



WARNING!

- When using various shop equipment, basic safety precautions should always be followed.
- Keep work area clean and free from debris.
- Keep children away from work area and shop equipment. Keep hands and feet away from loading area.
- Study, understand, and follow all instructions before operating this device.
- Do not exceed rated capacity.
- Do not operate the pump separately without connecting with ram.
- Use only on a hard level surface.
- Use clean, moisture free, and regulated compressed air. Do not use oxygen, carbon dioxide, combustable gases or bottled gas as a power source.
- DO NOT attempt to operate the pump by standing on the treadle. Use only light foot pressure to operate the pump mechanism.
- Never attempt to disconnect hydraulic connections under pressure. Release all line pressure before disconnecting hoses.
- DO NOT adjust factory set Safety Valve or Overload Valve. Valve should only be set or reset by qualified technician.
- No alterations shall be made to this product.
- Failure to heed these warnings may result in personal injury and/or property damage.

! CONTENTS

No.	Description	Qty
1	Air Pump	1
2	Oil Dipstick	1
3	Adaptor 3/8" to 1/4" NPT	1
4	Operating Instructions	1

! ASSEMBLY

Remove shipping screw located on the top side of the cover. Replace shipping screw with the supplied oil dipstick. Do not use a wrench or over tighten when installing the dipstick. Please keep the shipping screw if needed for shipping or transport.

The pump is filled with high quality hydraulic oil at the factory. Prior to operation check that the hydraulic fluid level is at the correct fluid level. If you need to add fluid unscrew the dipstick and use a small funnel to fill. Use only high quality hydraulic fluid. Use of any other fluid will void warranty and damage the pump. Never use brake fluid, transmission fluid, motor oil etc.



! OPERATION

Hydraulic Connection

- Remove the plastic cap *FIG 1*. Please keep this cap for shipping or storage.
- Connect NPT 3/8" hydraulic line to the output port.
- If needed the unit comes with an adaptor to attach a 1/4" NPT hydraulic line *FIG 2*.

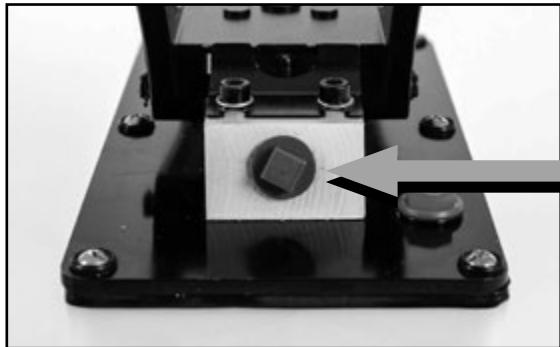


FIG 1



FIG 2

Air Connection

- Remove plastic cap *FIG 3*, Please keep this cap for shipping or storage.
- Connect your 1/4" NPT air nipple (not included) to the air input port *FIG 4*.
- Tighten the air nipple but do not overtighten.



FIG 3



FIG 4

- Connect air source to the hose connector.
- Ensure that air source can dedicate 9 cfm air supply. Use a good quality 3/8" air line hose. Always secure threaded port connections with high grade, pipe thread sealant.
- When using the pump always use on a flat level surface. If the pump needs to be fixed to a level service, unit comes with 4 self tapping screw holes. Maximum screw length into the pump is 10-13 mm.

! OPERATION

Depress the **PUMP** end of the treadle as shown in *FIG. 5*, the air motor will be activated to pump hydraulic oil to the system.



FIG. 5



FIG. 6

Note:

If the pump doesn't work properly at first, it may have air in the hydraulic system. If this happens you will need to prime the hydraulic system.

The air motor will stop and hold load pressure when the treadle is in the free **NEUTRAL** position.

To release load pressure or retract a cylinder, depress the **RELEASE** end of the treadle as shown in *FIG. 6*, the release system will hold automatically. If you want fast release, depress the **RELEASE** end until the pedal is clasped. If you want slow release, use only light foot pressure to depress the **RELEASE** end and not to reach the clasped position.

Priming the Pump

If the pump doesn't work properly at first it may have air in the hydraulic system, if this happens you will need to bleed the system.

1. Place pump on flat surface and depress the treadle **RELEASE** to clasp position in order to ensure the oil back to reservoir.
2. Check the oil level. Fill the pump with high quality hydraulic oil, if necessary. See filling instructions.
3. Move pump treadle to **RELEASE** position until the pedal is clasped tightly, then use a screwdriver to depress the button under the treadle to activate pump. This will bleed the air out of the system.

To verify that pump is primed, operate as normal with cylinder attached.

If cylinder does not advance, repeat the steps again. If pump still does not deliver oil, please check the trouble shooting guide or contact your supplier for help.



MAINTENANCE AND STORAGE

Add several drops of lubrication to the air-inlet port periodically to lubricate the air motor.

When the unit will be stored for a long time without using, please follow the instructions below:

- Wipe the entire unit clean.
- Disconnect all air pressure and hydraulic lines to prevent accidental operation.
- Remove the oil dipstick and replace with the plug.
- Take off the air hose connector and replace it with the plug.
- Take off the 3/8" oil hose or adaptor with the NPT 1/4" oil hose and replace it with the plug.
- Put the pump into the package and store it in a clean, dry environment.
- DO NOT expose equipment to extreme temperatures.



TROUBLE SHOOTING

PROBLEM	POSSIBLE CAUSE	CORRECTIVE ACTION
Pump cannot be started	Air line closed or blocked	Check that the air line is open
Pump stops working under load	Insufficient air pressure	Check air supply must have 100-120 PSI
	Air filter dirty or clogged	Clean or renew
Pump operates but no pressurized oil is delivered	Air in hydraulic system	Prime the system
	Oil leak in the main hydraulic circuit	Check for leaks and repair
	Pump internal leak	Contact your supplier to repair
	Low oil level	Check oil level and top up
Pump fails to reach maximum pressure	Insufficient air pressure	Check air supply must have 100-120 PSI
	Relief valve incorrectly set	Contact the supplier
	Oil leak in the main hydraulic circuit	Check the circuit for leaks and repair as necessary
Pump delivers pressurized oil but load is not lifted	Oil circulation fault	Check if pipelines are obstructed or if cylinder is working correctly
Piston retracts although treadle is not pressed on RELEASE side	Oil leak in the main hydraulic circuit	Contact supplier if the pump is leaking
	Pump internal leak	Check for leaks and ask the supplier
Pump flow rate insufficient and low efficiency	Insufficient air pressure	Check air supply must have 100-120 PSI
	Air filter dirty or clogged	Clean or replace
	Low air input flow in connector	Replace connector
	Damaged air input hose	Replace the air hose
Abnormal Pump noise	Air pump needs lubrication	Add several drops of lubricant oil into the air port

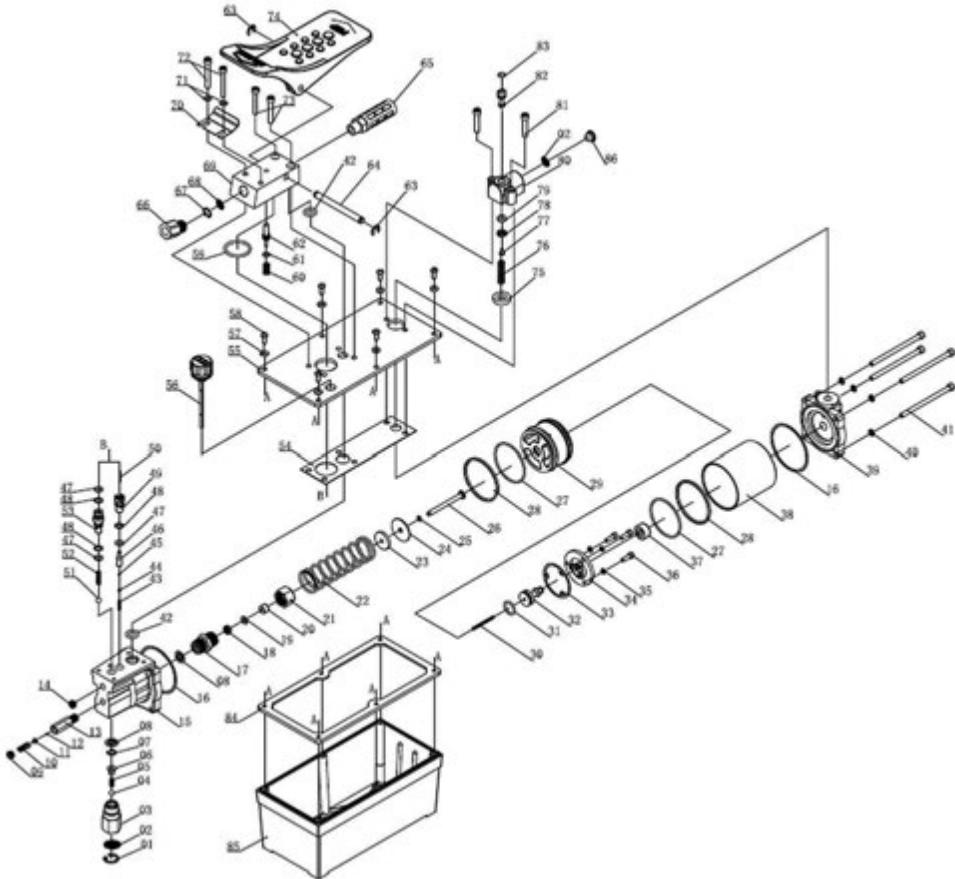


SPECIFICATIONS

Input Air Pressure	90-140 PSI	Max. Output Flow Rate	1.6 LPM (98 cu. in/min)
Max. Output Oil Pressure.....	10,000 PSI	NO LOAD	810 ml/min (49.5 cu. in/min)
Air Port Threads	1/4" NPT	LOAD	180 ml/min (11 cu. in/min)
Oil Port Threads	3/8" NPT	Product Weight	15 lb (6.75 kg)
Sound Pressure (dBA)	65		

10,000 PSI 54 oz Air/Hydraulic Foot Pump Heavy Duty

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NO.	DESCRIPTION	QTY.	NO.	DESCRIPTION	QTY.	NO.	DESCRIPTION	QTY.	NO.	DESCRIPTION	QTY.
1	C-Ring	1	23	Shock Block	1	45	Steel Ball	1	67	O-Ring	1
2	Filter	2	24	Spring Cap	1	46	Valve Core	1	68	Filter	1
3	Oil Inlet Valve	1	25	O-Ring	1	47	O-Ring	3	69	Valve	1
4	Steel Ball	1	26	Air Pump Core	1	48	Washer	3	70	Spring	1
5	Oil Inlet Spring	1	27	O-Ring	2	49	Base For Release Valve	1	71	Washer	2
6	Steel Ball Seat	1	28	Washer	2	50	Valve Pin	1	72	Screw	2
7	O-Ring	1	29	Big Piston	1	51	Steel Ball	1	73	Screw	2
8	Copper Ring	2	30	Spring	1	52	Spring	1	74	Foot Pedal	1
9	Adjust Screw	1	31	O-Ring	1	53	Valve	1	75	Rubber Pad	1
10	Spring	1	32	Small Piston	1	54	Seal Washer	1	76	Spring	1
11	Base For Steel Ball	1	33	Rubber Pad	1	55	Cover	1	77	Screw	1
12	Steel Ball	1	34	Piston Cap	1	56	Ruler	1	78	Base For Seal Ring	1
13	Base For Valve	1	35	Lock Washer	3	57	Rubber Pad	6	79	Seal Ring	1
14	Screw	1	36	Screw	3	58	Screw	6	80	Base For Valve	1
15	Pump	1	37	Small Piston Circle	1	59	O-Ring	1	81	Air Valve Core	1
16	Nylon Washer	2	38	Air Cylinder	1	60	Spring	1	82	O-Ring	1
17	Base For Pump Core	1	39	Air Cylinder Cap	1	61	O-Ring	1	83	Screw	2
18	O-Ring	1	40	Lock Washer	4	62	Valve Core	1	84	Oil Tank Pad	1
19	Nylon Ring	1	41	Screw	4	63	Cotter Shaft	2	85	Oil Tank	1
20	Copper Bushing	1	42	O-Ring	2	64	Safety Pin	1	86	Dust Cap	1
21	Nut	1	43	Spring	1	65	Silencer	1			
22	Spring	1	44	Base For Steel Ball	1	66	Adaptor	1			