

**BOSS INDUSTRIES
HYDRALIC TOOL LIFT
MANUAL**

INTRODUCTION

The Boss hydraulic powered tool lift utilizes the truck engines 12VDC-power source to operate the self contained hydraulic power unit and lift assembly. Once installed the lifting function of the tools in and out of your truck or van is accomplished by simply using the raise / lower electrical rocker switch. The fixed speed of this unit allows the workforce a safe and effective means for removing the heavy and cumbersome air tools at the start and end of your jobs.

SAFETY

WARNING

ALL UNITS ARE SHIPPED WITH A DETAILED OPERATORS, INSTALLATION AND PARTS MANUAL. THIS MANUAL CONTAINS VITAL INFORMATION FOR THE SAFE USE AND EFFICIENT OPERATION OF THIS UNIT. CAREFULLY READ THE OPERATORS MANUAL BEFORE STARTING THE UNIT. FAILURE TO ADHERE TO THE INSTRUCTIONS COULD RESULT IN SERIOUS BODILY INJURY OR PROPERTY DAMAGE.

BOSS HYDRAULIC TOOL LIFT SAFETY PRECAUTIONS

Safety is basically common sense. There are standard safety rules but each situation has its own peculiarities, which cannot always be covered by rules. Therefore with your experience and common sense, you are in a position to do something about safety. Lack of attention to safety can result in accidents, personal injury, reduction of efficiency and worst of all – loss of life. Watch for safety hazards. Correct promptly. Use the following safety precautions as a general guide to safe operation:

- Do not attempt to service any part while the machine is operating.
- Do not remove any hose without first securing the lift mechanism from falling (safety latch to tool platform).
- Hose removal should be done by first breaking loose the hose end by 1/8 turn to relieve any pressure in the system.
- Periodically check all safety devices for proper operation.
- Do not disconnect or bypass the safety circuit system.
- Do not operate lift with workers in its operational path.

DANGER

DO NOT USE BOSS INDUSTRIES, INC. LIFT FOR ANY OTHER PURPOSE OTHER THAN THOSE SPECIFIED.

BOSS INDUSTRIES, INC. DISCLAIMS ANY AND ALL LIABILITIES FOR DAMAGE FOR LOSS DUE TO PERSONAL INJURIES, INCLUDING DEATH, AND/OR PROPERTY DAMAGE INCLUDING CONSEQUENTIAL DAMAGES ARISING OUT OF ANY BOSS LIFT NOT USED IN ACCORDANCE WITH THE MANUFACTURERS INSTRUCTIONS.

SPECIFICATIONS

- Height 54.5 feet
- Width 19.0 inches
- Length 19.5 inches
- Weight 200 pounds
- Recommended fluid: Dextron II ATF or equal
- Operating Pressure 1500 PSI

DESCRIPTION OF COMPONENTS

Boss Hydraulic Tool Lifts are shipped as an assembled unit for field installation (see figure 2). These assembled units include:

- Mechanical Lift Assembly: Mechanical arm with tool platform.
- Your choice of hex posts for tool mounting, 7/8", 1", 1 1/8" and 1 1/4" hex posts available.
- Hydraulic cylinder mounted to mechanical lift assembly.
- Self contained hydraulic power unit mounted to base of the mechanical lift assembly (power unit can be remote mounted).
- Hoses and fitting pre-plumbed.
- All necessary safety and information decals.
- Power up/down switch with wire harness.
- Safety circuit switches.
- Safety chains for mounted tools.
- Safety latch for tool platform.
- Parts, service, installation, and maintenance manual.

Boss Industries offers factory installation by qualified technicians, as well as a nationwide network of authorized distributors for field installations, parts, and service.

MAINTENANCE AND OPERATION

Periodic maintenance procedures should be understood that the intervals of inspection, lubrication and maintenance specified are maximum intervals. More frequent inspections should be made if the unit is operating in a dusty environment, in high ambient temperatures or in other unusual conditions. A planned program of periodic inspection and maintenance will help to avoid premature failure and costly repairs. Daily visual inspections should become routine.

DANGER

DO NOT INSPECT, LUBRICATE, OR MAINTENANCE THE POWER LIFT WHILE OPERATING.

- Lubricate the four (4) grease fittings located on the lift are pivot pin assemblies every six months.
- Inspect reservoir oil level every six months; fill with ATF Dextron II or equivalent.
- Inspect cotter pins and pivot pins for wear or damage.

BLEEDING POWER UNIT

If power unit reservoir has been run low on fluid, air can be trapped in system and foam any remaining fluid. If this occurs, you must drain the fluid from the system and refill with new fluid (automatic transmission fluid – Dextron II or equivalent).

1. Lower power unit to ground. Remove all tools from lift. Remove hose from rod end of cylinder and place in a bucket.
2. Remove hose from mounting end of cylinder and place in bucket.
3. With both hose ends secured in bucket, operate raise/lower switch in both positions to remove fluid from power unit.
4. Fill power unit reservoir with new, clean ATF. Attach hose to rod end of cylinder. Leave the hose from the mounting end of the cylinder in the bucket.
5. With hose from the mounting end of the cylinder secured in bucket, operate the raise movement of the lift until it bottoms out on base.
6. Attach hose from mounting end of cylinder. Top off oil reservoir. Operate lift to its complete up and own position several times to remove any air trapped in the system.

LIFT OPERATION

WARNING

CAREFULLY READ THE OPERATING INSTRUCTIONS BELOW. FAILURE TO ADHERE TO THE FOLLOWING RAISE AND LOWER INSTRUCTIONS COULD RESULT IN SERIOUS INJURY.

LOWER OPERATION

NOTE

POWER UNIT HAS A 4-MINUTE ON/OFF CYCLE TIME, (IE.. FOR EVERY 4 CONTINUOUS MINUTES OF OPERATION, 4 MINUTES OF IDLE/NO OPERATION, MUST TAKE PLACE OR MOTOR OVERHEATING CAN OCCUR).

1. Check and verify that the operational path of tool lift is clear.
2. Move safety latch out of tool platform and into latch hole on base. NOTE: Lift will not operate until safety latch is placed in the hole on the base.
3. Verify that tools are locked onto the respected posts.
4. Lower tools by pushing the lower side of rocker switch until the lift makes contact with ground or is at the end of its stroke.
5. Remove safety chains and unlock tools from their posts.

RAISE OPERATION

1. Place tools back on hex posts. Lock tools onto hex posts. Attach safety chains.
2. Check and verify that operational path of tool lift is clear.
3. Raise tools by pushing the rise side of the rocker switch. Raise tool lift until metal to metal contact securely locks lift in place.
4. Move safety latch from hole in base to bottom of tool platform.

INSTALLATION

Only those who have been trained and delegated to do so, and who have read and understand the operator, installation, and parts manual should install the Boss hydraulic tool lift. Failure to follow the instructions in this manual may result in accident and/or injury.

GENERAL

The installation of the tool lift should be done in the following sequence:

1. Mounting the mechanical lift unit: (See Figure 1.)

The lift unit assembly measures 54.5" high X 19.0" wide X 19.5" long when in the up position. When the lift is lowered, it is cantilevered over the edge of the truck body creating considerable torque on the mounting surface. The surface of the truck where the lift is bolted to must be rigid enough to support the 300-pound maximum tool weight extended the 27" out beyond the truck. This can be accomplished by increasing the floor thickness or gusseting the floor from the bottom. The position of the lift in relation to the drop edge should not exceed the dimensions in Figure 1. This insures proper clearance of the back edge of the tool platform when lowering tools to the ground.

2. Wiring for the power unit: (See Figure 3.)

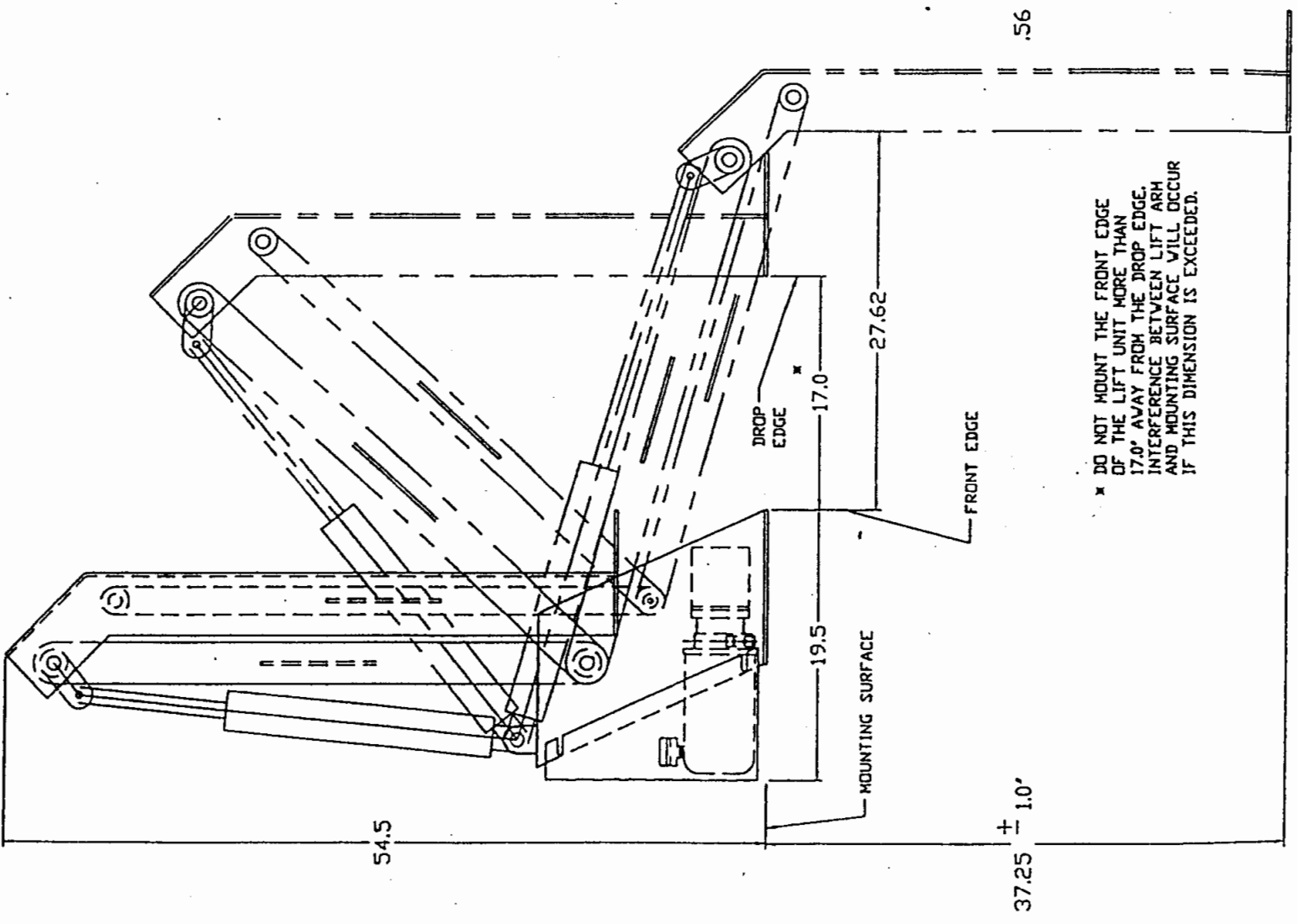
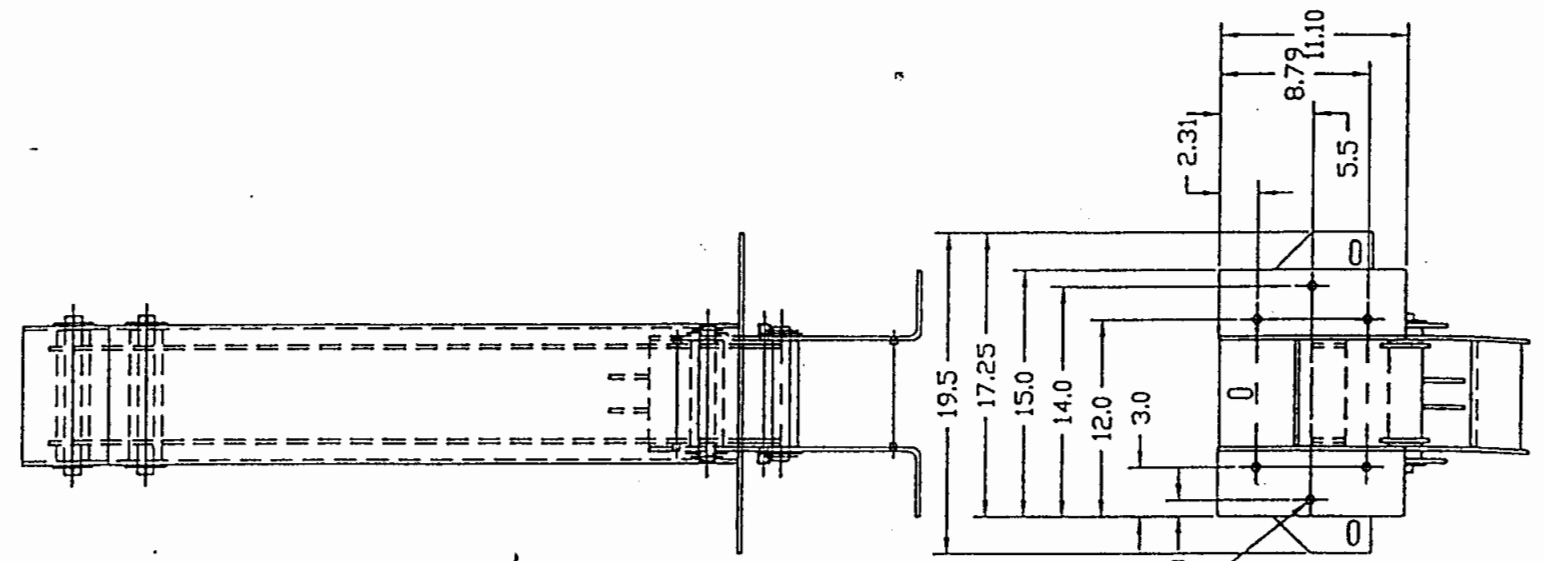
A detailed wiring diagram is enclosed in this manual. Power from the hot side of the truck's starter solenoid is the electrical source for the Boss hydraulic tool lift. Twenty five feet of six gauge wire is supplied and should be run from the hot side of the truck's starter solenoid to the power unit's solenoid bracket to the truck's frame.

The remainder of the wiring comes in a harness with the raise/lower switch and the door safety switch pre-wired. These two components require mounting.

The safety switch needs to be mounted so that the roll-up door on vans are in the up position in order to get power to the raise/lower switch. In cases where some other type of door is used, a normally open switch should be used to insure accidental operation does not occur when doors are closed on the vehicle.

The raise/lower operator switch should be mounted inside the vehicle and several feet away from the operational path of the lift (this switch is not waterproof).

When testing unit, if unit raises when it is supposed to lower, switch the position of the top and bottom feed wires at the raise/lower switch.



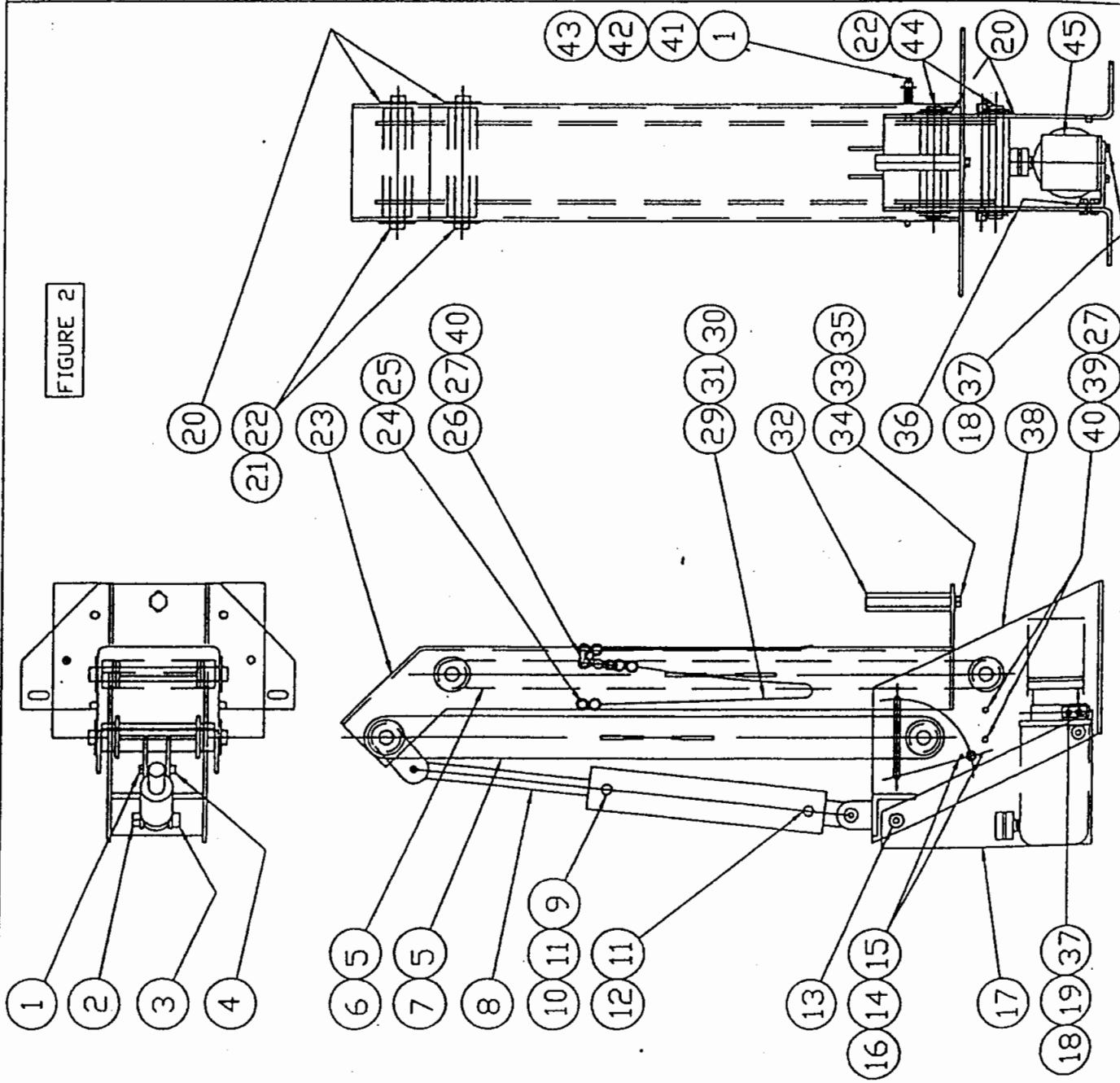


FIGURE 2

QTY	DESCRIPTION	PART NO.
2	NUT, NYLON 3/8-16	925505-198
1	NUT, NYLON 5/8-11	925510-329
1	SCREW, SOC. HD 5/8-11	930510-250
1	SCREW, SOC. HD 3/8-16	930506-200
8	ZERK GREASE 1/8 x 90	960101-012
1	ARM, HYD TOOL LIFT	300654B
1	ARM, HYD TOOL LIFT. CYL	300654A
1	CYLINDER, HYD TOOL	300661
1	DRIFICE, ROD END	300597
1	HOSE ASSY, RAISE	300579-350
1	ELBOW, 3/8 SAE x 1/4	970406-025
2	HOSE ASSY, LOWER	300579-260
2	SCREW, 1/4-20	300457
4	SCREW, #12-24 x 1/2	931603-050
2	WASHER, LOC. #12-24	938003-047
2	NUT, HEX #12-24	925203-161
1	GUARD, HYD TOOL LIFT	300655
4	CAP SCREW, 3/8 x 3/4	928506-075
2	NUT, HEX 3/8-16	925206-337
8	WASHER, FLAT 1"	937216-174
2	PIN, TOP	300654E
8	PIN, COTTER 1/8	927102-150
1	SUPPORT, TOOL	300654C
2	NUT, HEX SER 5/16-18	925305-283
2	SCREW, HEX 5/16 x 3/4	929705-075
2	EYEBOLT, 1/4	300593
6	NUT, HEX 1/4-20	925204-226
2	WASHER, FLAT 1/4	938204-071
6	S-HOOK	300576-002
5	CHAIN, SINGLE LOOP x FT	300576-001
3	CLASP, CHAIN	300576-003
3	POST, TOOL	300577-XXX
3	CAP SCREW, 1/2 x 1-1/4	928508-125
3	WASHER, LOC. 1/2	938008-125
3	WASHER, FLAT 1/2	938209-112
1	BRACKET, PWR UNIT MTG.	300656
4	WASHER, LOC. 3/8	938006-094
1	BASE, HYD TOOL LIFT	300654D
4	CAP SCREW, 1/4 x 3/4	928504-075
4	WASHER, LOC. 1/4	938004-062
4	WASHER, FLAT 3/8	938206-071
2	SPRING, TOOL LIFT	300682
1	LATCH, HYD TOOL LIFT	300657
1	PIN, BOTTOM	300654F
1	POWER UNIT ASSY	300660