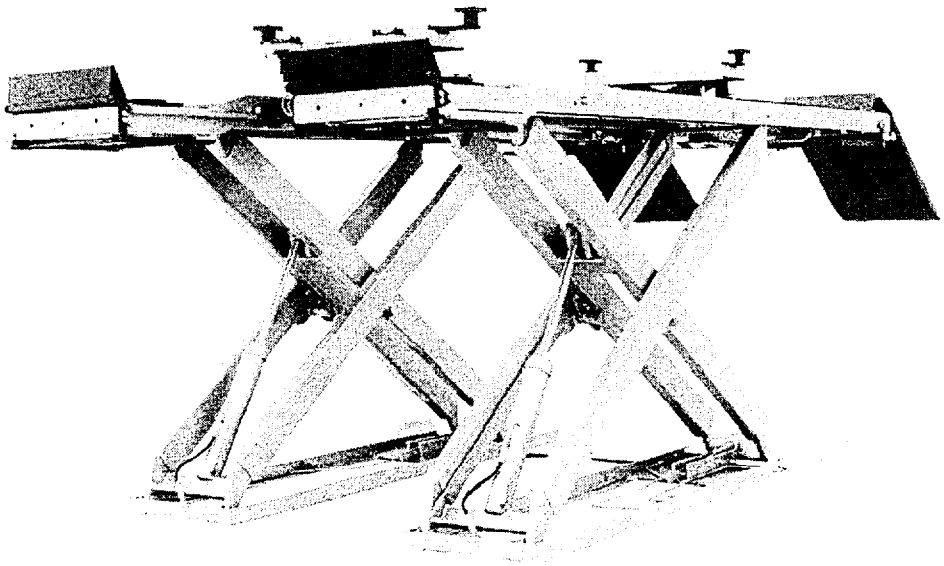
Accu·turn®
A TURN FOR THE BETTER

INSTALLATION and OPERATION MANUAL



MODEL

AC9030 / AC9000

AC9004AF / AC9004AFM

AC9005AF / AC9005AFM

AC9006

READ and SAVE THIS INSTRUCTION MANUAL

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IMPORTANT SAFETY INSTRUCTIONS

When using this lift, basic safety precautions should always be followed, including the following:

1. Read all instructions.

2. Care must be taken as burns can occur from touching hot parts.

3. Do not operate the lift with a damaged cord or if the lift has been damaged - until it has been examined by a qualified service person.

4. Never allow the cord to be positioned under the lift or in an area where it could get crushed or come in contact with hot or moving parts.

5. If an extension cord is necessary, a cord with a current rating equal to or more than that of the lift should be used. Cords rated for less amperage than the lift may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.

6. Never unplug the lift from the electrical outlet during operation. Always disconnect power when not in use. Never yank the cord to pull plug from outlet. Grasp plug and pull to disconnect.

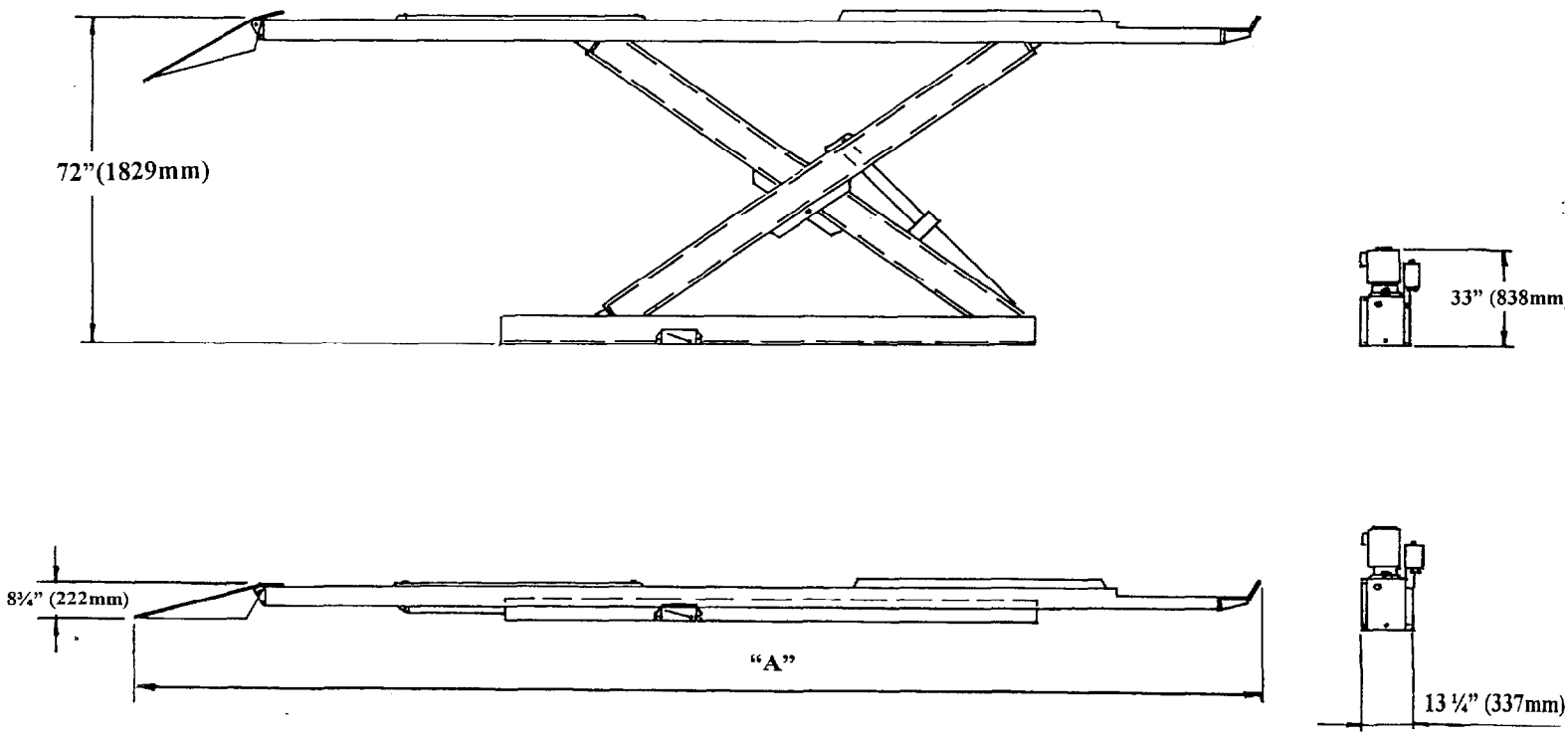
7. To protect against the risk of fire, do not operate lift in the vicinity of open containers of flammable liquids.

8. Adequate ventilation should be provided when working on internal combustion engines.

SAVE THESE INSTRUCTIONS

1. SPECIFICATIONS

Maximum Capacity:	9000 lbs.	4100kg
Overall Width:	84"	2134mm
Width Between Runways:	36"	914mm
Overall Length "A" (9004 - 144"W/B):	221"	5613mm
Overall Length "A" (9005 - 172"W/B):	264"	6706mm
Overall Length "A" (9000 - 144"W/B):	213"	5410mm
Overall Length "A" (9006 - 172"W/B):	256"	6502mm
Max. Raised Height:	72"	1829mm
Min. Lowered Height:	8 3/4"	222mm
Lifting Time:	60 Sec.	
Power Requirements (Standard):	230 Volts, 1Ph., 60Hz.	
Shipping Weight (144"W/B):	3450 lbs.	1565 kg
Shipping Weight (172"W/B):	3560 lbs.	1615 kg



NOTE: ALIGNMENT MODEL SHOWN

Figure 1: Lift Dimensions

CHECK CONTENTS OF ACCESSORY BOX WITH PACKING LIST ENCLOSED IN BOX.

2. CONTENTS

The complete lift is contained in two (2) packages:
1. The **main structural components** are pre-assembled and packaged one on top of the other.
2. The remaining parts are packed in an **accessory box**.

Main Structural Components includes:
1pc. - Left Side Main Frame Assembly; Runway, Scissors and Base Frame
1pc. - Right Side Main Frame Assembly; Runway, Scissors and Base Frame

Note: Hydraulic lines in base frames have been factory installed

Accessory Box Contents:

1pc. - Power Pack (with flow control)
2pcs. - Approach Ramps
2pcs. - Front Wheel Stops
1pc. - Standard Rear Tie Bar
1pc. - Front Tie Bar (9000, 9005, 9006)
2pcs. - Ramp Pins
2pcs. - Safety Toe Guard
2pcs. - Safety Release Pedal
2pcs. - Mechanical Safety Release Rod
1pc. - Mechanical Safety Release Connecting Rod
2pcs. - Safety Release Tab
5pcs. - Hydraulic Line Covers
1pc. - Center Cover
1pc. - Center Hydraulic Line
3pc. - Recoil Hose
2pcs. - 3/8" Hydraulic Tubing (20' LG.)
2pcs. - Front Leveling Leg Bracket - Inside (9004, 9005)
4pcs. - Leveling Leg Bracket - Outside (9004, 9005)
4pcs. - Locking Plunger (9004, 9005)
4pcs. - Leveling Leg (9004, 9005)
8pcs. - Shim Plate, 1/16"thk.
8pcs. - Shim Plate, 1/8"thk.
8pcs. - Shim Plate, 1/4"thk.
1pc. - Installation Hardware Kit (comes with separate packing list)
1pc. - Assembly Hardware Kit (comes with separate packing list)
1pc. - Owners Manual
1pc. - ALI manual "Lifting It Right"
1pc. - Automotive Lift Safety Tips
1pc. - Automotive Lift, Operation, Inspection, and Maintenance manual

3. TOOLS REQUIRED FOR INSTALLATION:

* Rotary Hammer Drill or Similar, ¼" and ½" Concrete Drill Bits
* 4' Level
* SAE Wrenches and Sockets
* Hammer (for anchor installation)
* Pry Bar (for shim installation)
* Chalk Line (for lift location)
* Tape Measure
* Side Cutters (to cut shipping straps)
* Screw Drivers
* Tube bender
* Tube cutter
* Flaring Tool (single flare) 37° JIC
* Hydraulic Fluid ISO 32 (10 weight hydraulic oil) - (20 liters / 5.3Gal.)

4. INSTALLATION INSTRUCTIONS

When the lift arrives on site, please read the owner's manual completely. Check the contents to make sure no parts are missing before starting installation. Gather all the tools listed and make sure the installation instructions are fully understood before commencing with the installation.

IMPORTANT: It is the user's responsibility to provide a satisfactory installation area for the lift. Lifts should only be installed on level concrete floors with a minimum thickness of five (5) inches or 130 mm. Concrete must have a minimum strength of 4000 psi or 30 MPa and should be aged thirty (30) days prior to installation. Please consult the architect, contractor or engineer if doubt exists as to the strength and feasibility of the floor to enable proper lift installation and operation.

It is the user's responsibility to provide all wiring for electrical hook-up prior to installation and to insure that the electrical installation conforms to local building codes. Where required, it is the user's responsibility to provide an electrical isolation switch located in close proximity to the lift that will enable emergency stop capability and isolate electrical power from the lift for any servicing requirements.

4.1 BAY LAYOUT

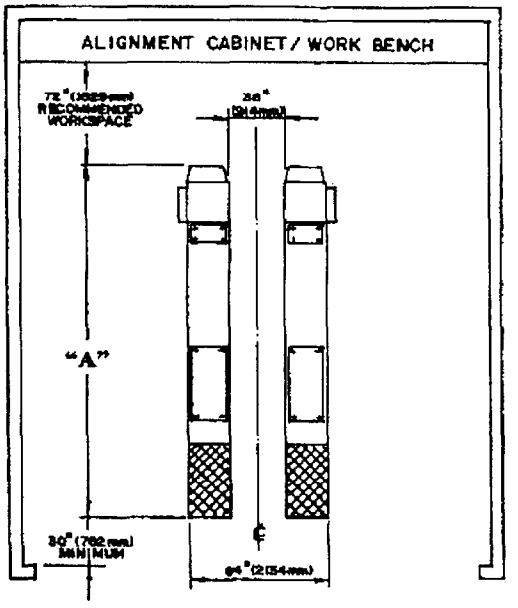


Figure 2: Typical Bay Layout

IMPORTANT: DO NOT UNBOLT SHIPPING CLAMPS HOLDING EACH MAIN FRAME ASSEMBLY TOGETHER UNTIL INSTRUCTED TO DO SO.

1. After selecting the location best suited for your lift, draw a line parallel to the front of the lift, approximately 72" (1829mm) back from the cabinet/work bench area. This will be the approximate location of the front of the lift. Refer to **Figure 2**.

NOTE: Check the installation area for obstructions. (Overhead; light fixtures, heating ducts, ceiling, and In-ground; floor drains, electrical, etc...)

2. Mark on the floor an outline matching the dimensions listed.

SPACE SAVER - 9000 SERIES
- Alignment Model 9004: 144"(3658mm) Wheel Base. 221"(5613mm) x 84"(2134mm).
- Alignment Model 9005: 172"(4369mm) Wheel Base. 264"(6706mm) x 84"(2134mm).
- Service Model 9000: 144"(3658mm) Wheel Base. 213"(5410mm) x 84"(2134mm).
- Service Model 9006: 172"(4369mm) Wheel Base. 256"(6502mm) x 84"(2134mm).

3. Draw a center line down the middle of the outline starting at the front of the lift location and ending at the rear approach ramps.

4. Draw two lines parallel to the center line 18" (457mm) on either side to locate the inside of the baseframes.

5. Draw a line parallel to the front of the lift, 39" (991mm) back for 144"W/B models and 52" (1321mm) back for 172"W/B models. Align the front of each base frame assembly onto this line.

6. Check the floor in the outline for the highest point using a four (4) foot level. Mark this location, reference will be made to it later during the leveling procedure.

4.2 UNPACKING PROCEDURE

1. Cut and remove the metal banding straps that hold the accessory box (and sliding Jack Beams if so equipped) and place in a convenient location near the installation area.

2. Cut and remove the metal banding straps surrounding the Two Main Frame Assemblies. Position the Main Frame Assemblies in the location previously marked in the bay layout.

NOTE: To distinguish between the left and right Main Frame Assemblies the pull-out step should be located at the front facing outward from the lift. All measurements are to be taken from the front of the lift.

3. Check that the inside of the base frames are 18" (457mm) away from the center line at both the front and rear of each mainframe assembly and that the front of each base frame is on the line drawn in step 5 of the bay layout, section 4.1.

4.3 HYDRAULIC INSTALLATION

NOTE: When working with hydraulics it is important to keep all components clean. All hydraulic connections are 37 ½° JIC flares.

1. Select a position best suited for the power pack.

2. Remove the breather filler cap and fill with 20liters/5.3Gal. of ISO 32 hydraulic fluid.

3. Using a hydraulic tube bender, run a hydraulic line from the flow control (power pack) to the hydraulic inlet fitting located on the left side of the left base frame. After all the lines are cut and formed, install the nuts and sleeves, and then flare the ends of the tube. Refer to **Figure 3**.

4. If you have purchased the factory air kit option you should now cut and form the air supply line, from the lift to the desired location for customer connection to their shop air supply. **The air supply line should have an operating pressure of 90-120psi (6-8 bar).**

5. Tighten all the supply lines. You may now anchor the hydraulic power pack.. (floor or wall mount).

6. Connect one end of the center hydraulic line to the outlet side of the left main frame assembly and the other end to the inlet side of the right main frame assembly. Tighten the hydraulic line in place so that it runs along the floor giving it a low profile.

IMPORTANT: THE SHIPPING CLAMPS HOLDING EACH MAIN FRAME ASSEMBLY TOGETHER MUST BE UNBOLTED BEFORE CONNECTING ELECTRICAL POWER. THERE ARE TWO (2) CLAMPS ON EACH ASSEMBLY.

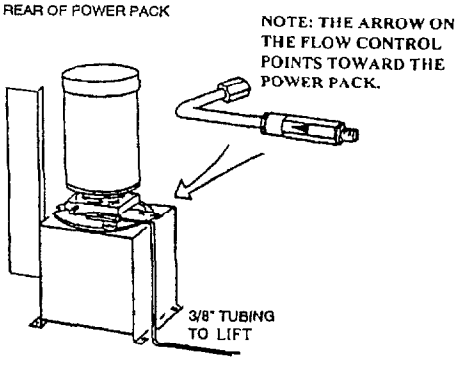


Figure 3:

4.4 ELECTRICAL INSTALLATION

IMPORTANT: ALL FINAL ELECTRICAL CONNECTIONS SHOULD BE MADE BY A QUALIFIED ELECTRICIAN.

Please refer to **Figure 4**, the electrical diagram. Select a position for the remote hand control pendant to be hung from the ceiling. Hang in a position so the safety pedal may be easily reached.

NOTE: THE CONTROL PENDANT SHALL BE INSTALLED IN SUCH A MANNER THAT THE CONTROL PENDANT CANNOT ENTER THE 18" HIGH LEVEL ABOVE THE FLOOR.
(CLASS 1, DIVISION 2, HAZARDOUS LOCATIONS)

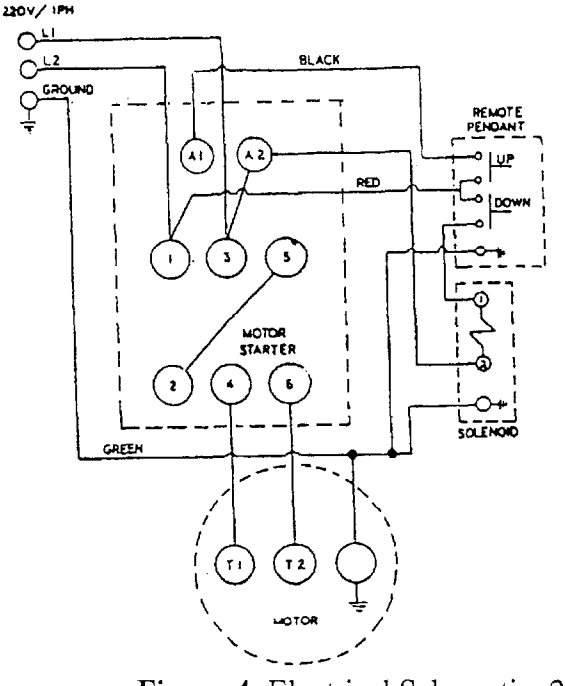


Figure 4: Electrical Schematic; 230 Volt, 1Ph., 60Hz.

NOTE: Optional voltage and phase type power units will come with their own wiring diagram.

IMPORTANT: WITH THE MAIN ELECTRICAL SUPPLY CONNECTED, PRESS THE UP CONTROL BUTTON TO RAISE THE LIFT 10" (254mm). STOP, THEN PRESS THE DOWN CONTROL BUTTON TO LOWER THE LIFT. REPEAT THIS PROCEDURE THREE (3) TIMES TO RELIEVE AIR FROM THE HYDRAULIC SYSTEM. CHECK FOR HYDRAULIC LEAKS AT ALL CONNECTIONS.

4.5 MECHANICAL SAFETY INSTALLATION

1. Locate the two (2) mechanical safety release rods and one (1) mechanical safety release connecting rod.

2. Raise the lift by pressing the up button on the hand control.

3. **Turn off the power supply to the power pack.**

4. Slide each mechanical safety release rod through the holes closest to the rear of each baseframe.

5. Slot in end of the bar should be parallel to the ground when center cut-out points up towards the front. Refer to **Figure 5**.

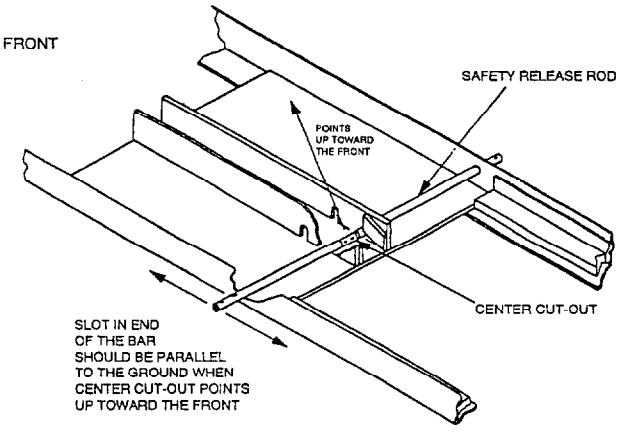


Figure 5: Safety release rod location

6. Install the rectangular safety release tab using 2; ¼" - 20UNC x ¾" long hex bolts and lock washers. The safety release tab bolts to the flat surface of the safety release rod located under the mechanical safety locking bar.

7. Install foot pedals one on the outside of each safety release rod, using for each pedal 2; ¼" - 20UNC x 1¼" long hex bolts, nuts, and lock washers.

8. Install pedal safety guards. One on each baseframe using the ¼" - 20UNC x ¾" long hex bolts, nuts, and lock washers.

9. Install the safety release connecting rod between the safety release rods, using ¼" - 20 UNC x 1 ¼" long hex bolt, nut and lock washers one on each end of the rod.

10. Tighten all installation hardware.

11. Place the mechanical safety locking bars back in their engaging positions. **Turn power back on.**

12. **FOR THOSE UNITS EQUIPPED WITH SLIDING JACK BEAMS NOW IS THE TIME TO INSTALL THE JACK.** Lower lift and consult instructions supplied with each Jacking Beam.

13. Turn on the shop air supply and check for leaks. The air supply line should have an operating pressure of 90-120psi (6-8bar).

4.6 REAR TIE BAR INSTALLATION

1. Raise lift to working height and lower onto safety.

2. Have 2; ½"-13UNC x 1½" long hex head bolts, flatwashers, lockwashers and nuts ready to support the tie bar when it is raised into place.

3. Raise the rear tie bar into place making sure the slotted holes are up and the nose-like protrusions are pointing toward the front of the units. The vertical members on the tube should be on the outside of the deck skirts. Line up each vertical section slot with the respective slot on the deck and place the bolts with washers through, one on each side. Put the flatwashers and lockwashers and nuts on the inside of the decks. **DO NOT TIGHTEN!**

4. Install 2; ½"-13UNC x 1½" long hex bolts, flatwashers and lockwashers to each end of the tie bar positioned under the deck. **DO NOT TIGHTEN!**

5. Now install the remaining 6; ½"-13UNC x 1½" long hex bolts, flatwashers, and lockwashers to the tie bar. **DO NOT TIGHTEN!** Baseframes should be level before tightening, Refer to leveling procedure (following section).

4.7 LEVELING PROCEDURE

NOTE: This is a very important procedure and time must be taken to do it correctly.

1. The highest point on the floor, noted from Section 4.1 step 6 is the point from which the base frame will be leveled from. A quick check using a four (4) foot level across the base frame should again verify that this is the highest point.

2. Starting at the corner closest to the highest point, check along the length of the base frame edge with the four foot level and shim as required. **NOTE THE FIVE CRITICAL POSITIONS THAT SHIMS MUST BE PLACED ON EACH BASE FRAME OF EACH MAIN FRAME ASSEMBLY**. Refer to **Figure 6**.

3. Continue shimming across that base frame from side to side, and front to rear.

4. Once one frame is completely leveled, level the inside rails of the base frames to one another.

5. Now level the remaining outside half of the last base frame by placing the level across that unit and shimming as required.

6. A quick check across, along and between each base frame will ensure the leveling procedure was carried out successfully. Re-adjust the tie bars if necessary.

LEVELING EXAMPLE: FIGURE 6
Assuming that the front right corner is the highest point level in the following order:

- Shim along side "A"
- Shim across from side "A" to side "B" (check along side "B" from front to back)

The Right Side base frame should now be leveled.

- Shim across from side "B" to side "C" (check along side "C" from front to back)
- Shim across from side "C" to side "D" (check along side "D" from front to back)

Both base frames should now be leveled from front to back and side to side.

NOTE: Base frame leveling should be performed as a reference before main leveling of the decks.One last check before anchoring is to make sure that there is 36" between the baseframes.

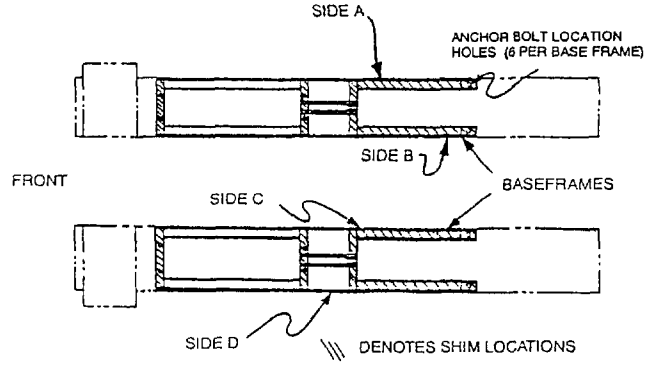


Figure 6: Leveling Procedure Example

4.8 ANCHORING PROCEDURE:

1. Using a rotary hammer drill and a ½" concrete drill bit, drill through the floor in the six (6) anchor bolt location holes positions on each of the base frames. Make sure that the ½" concrete drill is in good condition. Refer to **Figure 7**.

2. Insert the ½" x 4 ½" long wedge anchor bolts supplied, place a flat washer and nut on each anchor. Tighten securely.

3. Torque all anchor bolts to 150 ft. lbs.

4. With all anchor bolts torqued as specified operate the lift checking its full operation.

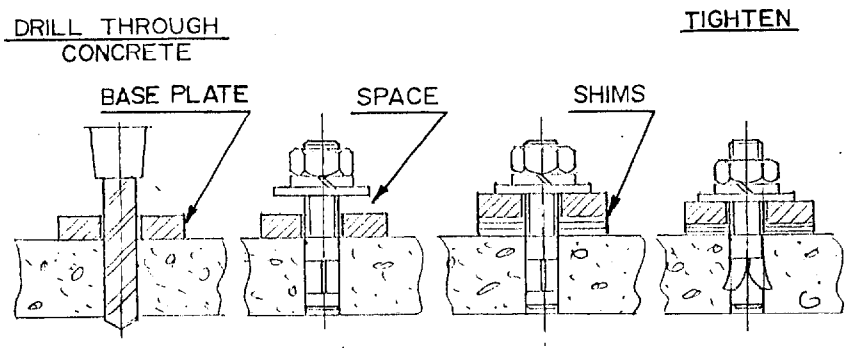


Figure 7: Anchoring

4.9 INSTALLATION FOR ALIGNMENT MODELS 9004, AND 9005

1. Locate and install two (2) front wheel stops; one (1) to the front of each of the runways using six long hex head bolts, flat washers, lock washers, and nuts.

NOTE: The 9005 has a front tie bar which must be installed in between the front of the deck and the front wheel stop.

2. Unpack the leveling legs as marked on the leg and mounting hardware and place in their respective locations. **NOTE:** On the long alignment models (9005) the rear leveling legs fold up toward the rear, whereas, on the shorter alignment model (9004) the legs fold up toward the front of the lift.

3. Position but do not tighten all leveling leg brackets. The leveling legs should hang in the brackets and swing freely. Thrust washers are provided to take up any side play in legs, install if required. Install thrust washers if there is more than 1/8"(3mm) clearance.

4. Check that legs hang perpendicular to the ground BEFORE tightening leg bracket bolts.

5. Lower the Space Saver lift down onto the leveling legs.

6. Check and adjust the decks for level using the 4' level. Adjusting screw and jam nuts should be adjusted until each corner of lift is level. Make sure jam nuts are tightened after leveling. Both the front turn plate cutouts and rear slip plates should be checked. Refer to **Figure 8**.

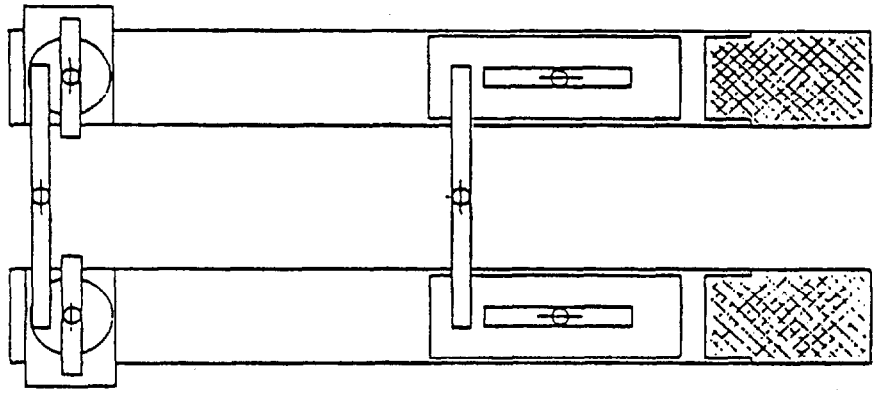


Figure 8: Deck leveling

4.10 INSTALLATION FOR ALL MODELS

1. Locate and install the center cover over the mechanical safety release connecting rod and hydraulic line. Install using four (4), ¼" - 20 UNC x ¾" long hex head bolts, flat washers and lock washers.

2. Check to make sure that the safety release connecting rod does not rub or bind during operation.

3. Locate and install protective line covers over all air and hydraulic supply lines on the left side base frame of the left main frame assembly.

4. Using a rotary hammer drill and a ¼" concrete drill bit, drill all line cover locations. Using the ¼" concrete nails supplied fasten the line covers to the floor.

5. Install the approach ramps using ramp pins, washers, and cotter pins.

6. **Tighten** all bolts on crossmember(s).

5. OPERATING INSTRUCTIONS:

5.1 RAISING THE LIFT:

1. If the lift is equipped with Sliding Jack Beam(s) be sure that the Beam(s) are positioned at the front or mid travel of the lift, fully down, with the risers removed and stored. Never store Jack Beam(s) at the rear of the lift.

2. Be sure that the lift is fully lowered before attempting to load or unload a vehicle.

3. Position the vehicle on the lift ensuring the resulting load on each runway is as equal as possible. Under no circumstances should a vehicle be lifted if the weight distribution is unbalanced by 10% on either side of the center line between the runway.

NOTE: The vehicle is positioned correctly when the distance from the center of the tires to the inside edge of the runways is equal on both runways, for the front and rear tires.

4. Check that there are no obstructions above the lift that could damage the lift or vehicles.

5. Raise the lift by pressing the up button on the remote pendant control. Raise the lift up, continue to raise, past the desired working height until the mechanical safety drops into position. Stop raising, now press the down button to lower the lift down onto both of the mechanical safeties.

NOTE: NEVER WORK UNDER A VEHICLE OR THE LIFT UNLESS IT IS POSITIONED ON BOTH MECHANICAL SAFETIES!!!

5.2 LOWERING THE LIFT:

1. Check that there are no obstructions under the lift or vehicle. Be sure that the Sliding Jack Beams are fully lowered and positioned at the front or mid section of the lift.

2. Raise the lift by pressing the up button until the mechanical safety bars are off of their stops. Stop raising.

3. Depress the safety release pedal to disengage the mechanical safety locking bars. Continue to hold the pedal depressing the down button on the remote pendant control.

4. Continue lowering until the lift is approximately 34" (864mm) above the floor. Then release the mechanical safety release pedal, allowing the mechanical safety locking bars to be readied for their next use. Continue to depress the down button until the lift is completely lowered.

NOTE: The operator must always keep their attention on the operation of the lift while raising or lowering.

5. Be sure that the lift is completely lowered before removing the vehicle from the lift.

6. RECOMMENDED MAINTENANCE:

1. Adjust level of lift daily.

2. The lift should be greased at least once every two months. There are six (6) points on each lift that will take grease: four (4) on the scissors hinges and one on each of the two (2) hydraulic cylinder rod eyelet's.

3. The fluid level in the reservoir should be checked periodically. Be sure that the lift is fully lowered when checking. The hydraulic fluids should be changed once every five years. Use only ISO 32 hydraulic fluid.

4. The roller tracks should always be kept clean and free of debris. This area should be checked before any raising or lowering of the lift.

5. Inspect the operation of the lift daily. Raise and lower fully.

6. Inspect electrical and mechanical operations of all switches, electrical and mechanical.

7. Lifts equipped with full floating rear slip plates and front radius turning plates, require to be disassembled and cleaned once every 3 months. More frequently with lifts that are in areas with more exposure to sand and salt.

NOTE: Locking pins should always be installed on front and rear plates before attempting to drive a vehicle on or off the lift.

8. If uneven lifting occurs as described in section 5.1.3 the crossmember(s) will need to be re-adjusted.

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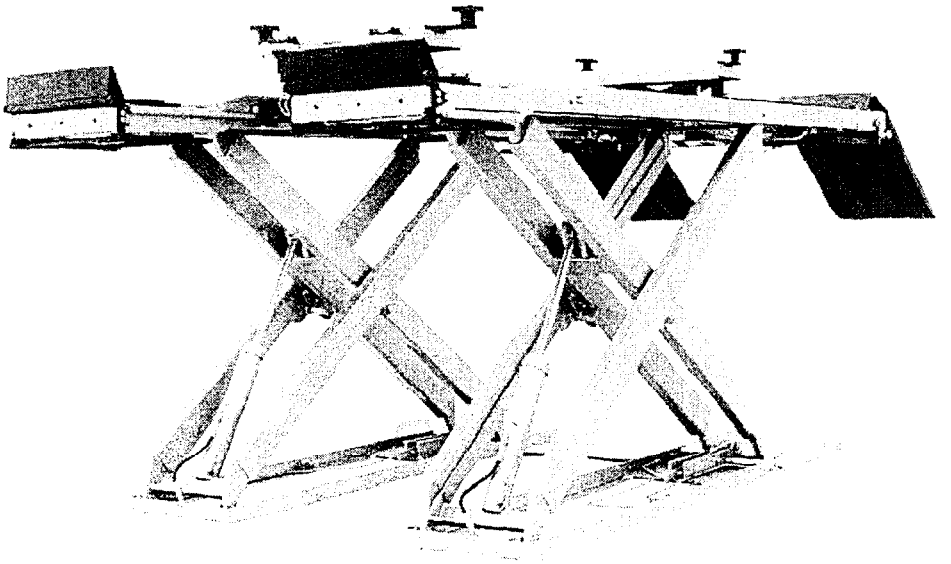
EXPLODED VIEW and PARTS LIST



MODEL

AC9030 / AC9000

AC9004AF / AC9004AFM

AC9005AF / AC9005AFM

AC9006

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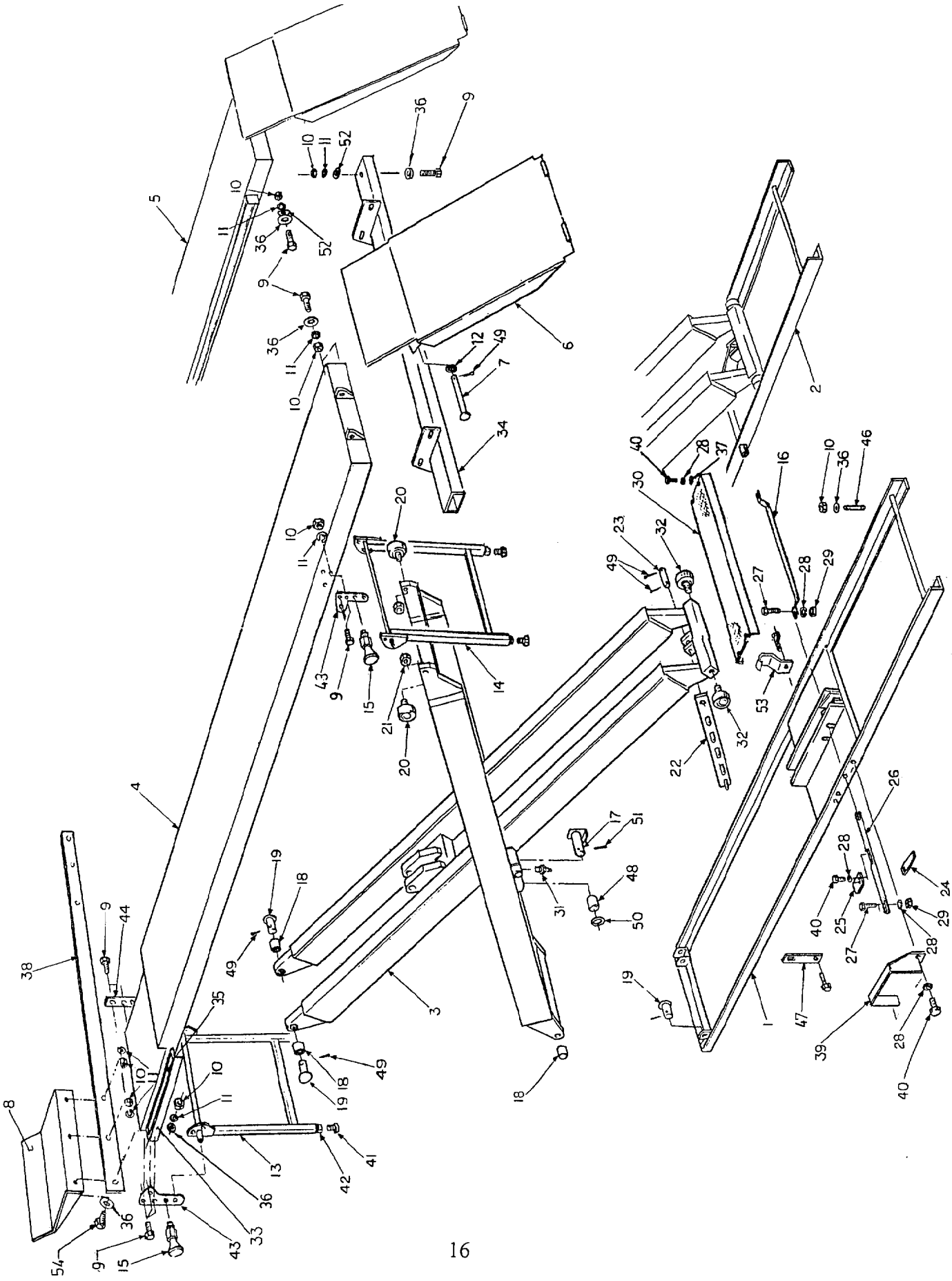
SPACE SAVER ALIGNMENT

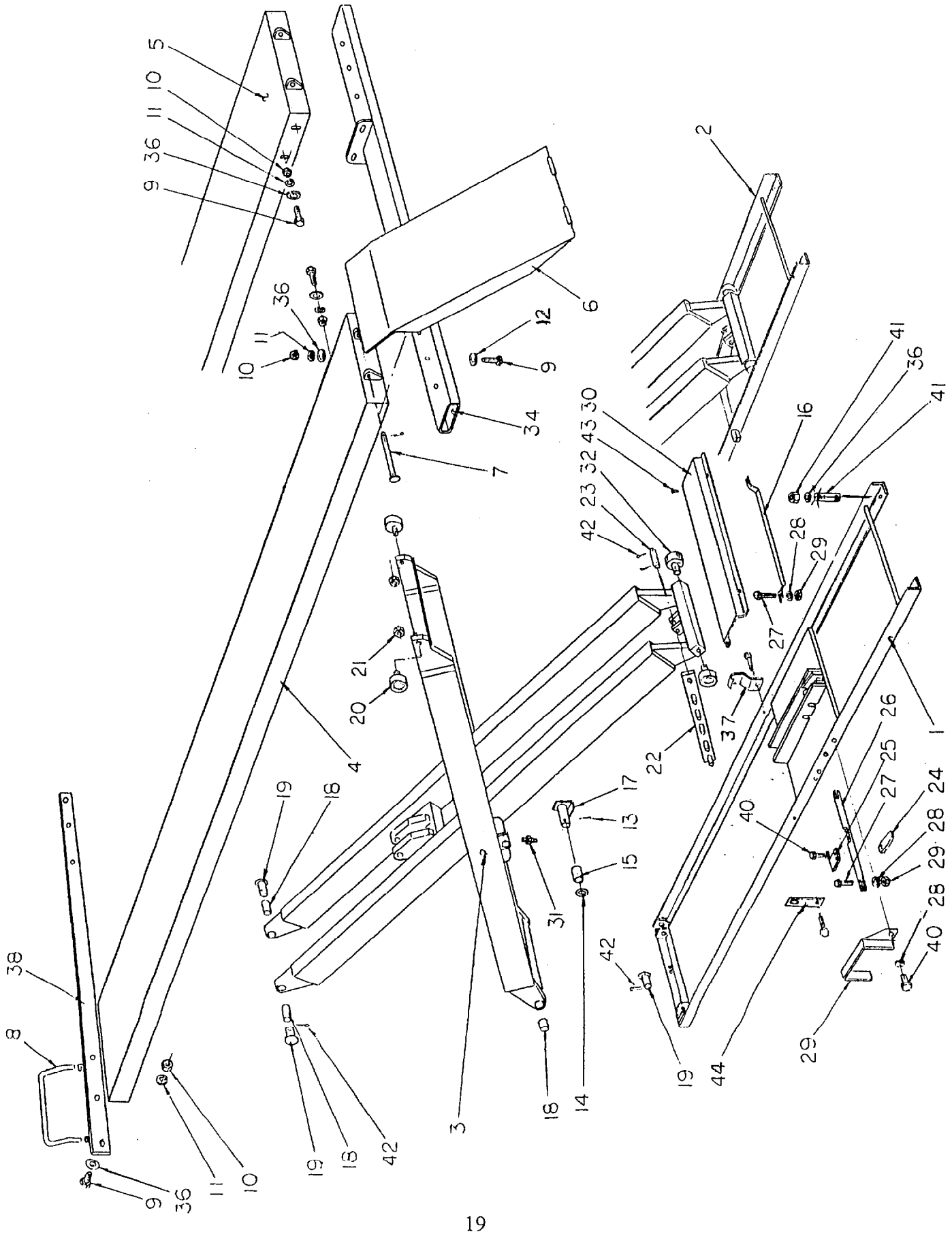


SPACE SAVER ALIGNMENT MAIN FRAME ASSEMBLY - PART LIST

ITEM	QTY.	DESCRIPTION	PART #
1	1	BASE FRAME WELDMENT, LEFT SIDE	4-0112
2	1	BASE FRAME WELDMENT, RIGHT SIDE	4-0113
3	2	SCISSOR WELDMENT	4-0002
4	1	ALIGNMENT DECK, LEFT SIDE (144"W/B)	4-0114
	1	ALIGNMENT DECK, LEFT SIDE (172"W/B)	4-0116
5	1	ALIGNMENT DECK, RIGHT SIDE (144"W/B)	4-0127
	1	ALIGNMENT DECK, RIGHT SIDE (172"W/B)	4-0137
6	2	APPROACH RAMP (144"W/B)	3-0242
	2	APPROACH RAMP (172"W/B)	3-0285
7	2	RAMP PIN	1-0095
8	2	FRONT WHEEL STOP	2-0851
9	26	HEX BOLT, ½" - 13UNC X 1 ½"LG.	6-0291
10	44	HEX NUT, ½" - 13UNC	6-0035
11	24	LOCK WASHER, ½"I.D.	6-0059
12	2	51/64"I.D. X 1"O.D. X 1/8"THK. FLAT WASHER	6-0808
13	2	LEVELING LEG, FRONT-LEFT, REAR-RIGHT	3-0248
14	2	LEVELING LEG, FRONT-RIGHT, REAR-LEFT	3-0272
15	4	PLUNGER PIN ASSEMBLY	2-0086
16	1	SAFETY RELEASE CONNECTING ROD	2-0071
17	4	FULCRUM PIN, 1 ¼" DIA.	1-0106
18	8	BUSHING, 1"I.D.	6-0085
19	8	END HINGE PIN, 1" DIA.	1-0107
20	4	CAM FOLLOWER	6-0637
21	4	JAM NUT, 5/8" - 18UNF	6-0040
22	2	SAFETY BAR WELDMENT	2-0405
23	2	SAFETY PIN	1-0547
24	2	SAFETY PEDAL	2-0194
25	2	SAFETY RELEASE TAB	1-0189
26	2	SAFETY RELEASE ROD	2-0069
27	6	HEX BOLT, ¼" - 20UNC X 1 ¼"LG.	6-0027
28	18	LOCK WASHER, ¼"I.D.	6-0056
29	6	HEX NUT, ¼" - 20UNC	6-0032
30	1	CENTER COVER	3-0365
31	4	GREASE NIPPLE	6-0000
32	4	CAM FOLLOWER	6-0077
33	2	PULL OUT STEP ASSEMBLY	2-0362
34	1	REAR CROSSMEMBER WELDMENT	3-0251
35	2	SAFETY WALK TAPE	1-0749
36	26	PLAIN WASHER, ½"I.D.	6-0063
37	4	FLATWASHER, ¼"I.D.	6-0060
38	1	FRONT CROSSMEMBER (172" W/B)	3-0007
39	2	TOE GUARD	1-0086
40	12	HEX BOLT, ¼" - 20UNC X ¾"LG.	6-0178
41	8	TAP BOLT, 5/8" - 11UNC X 4"LG.	6-0049
42	8	JAM NUT, 5/8" - 11UNC	6-0039
43	4	FRONT OUTSIDE LEG BRACKET	2-0999
44	2	FRONT INSIDE LEG BRACKET	2-1000
46	12	WEDGE ANCHOR, ½" X 4 ½"LG.	6-0140

ITEM	QTY.	DESCRIPTION	PART #
47	2	FLAT SHIPPING BRACKET	2-0266
48	4	BUSHING, 1 ¼"I.D.	6-0084
49	14	COTTER PIN, 1/8" X 2"LG.	6-0115
50	4	WASHER	1-0140
51	4	SPRING PIN, 3/16" X 2"LG.	6-0146
52	6	FLATWASHER, ½" SAE	6-0439
53	2	SHIPPING BRACKET	2-0112
54	6	HEX BOLT, ½" - 13UNC X 1 ½"LG. (144"W/B)	6-0291
	6	HEX BOLT, ½" - 13UNC X 1 ¾"LG. (172"W/B)	6-0047

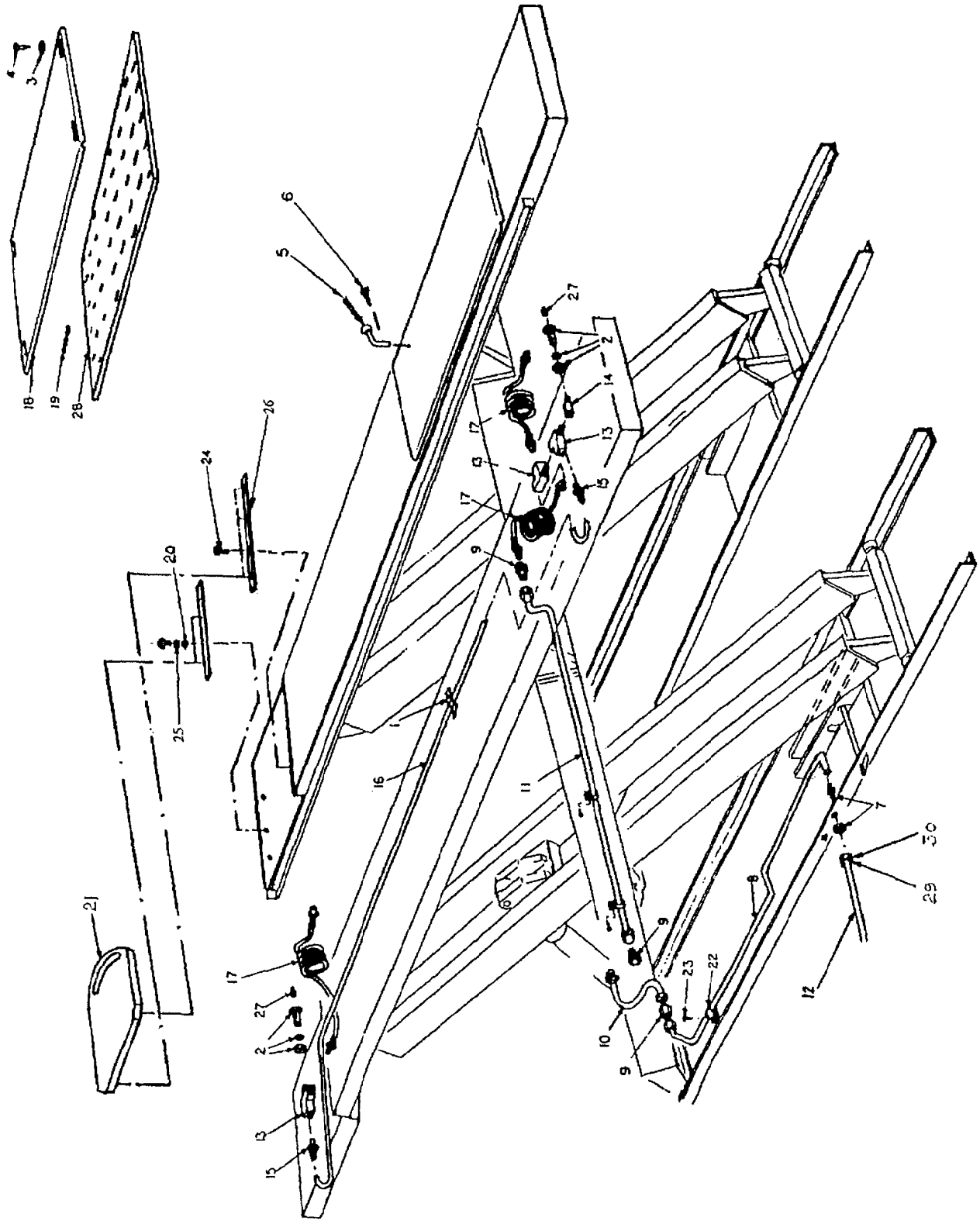
SPACE SAVER SERVICE & RUST PROOFER



SPACE SAVER MAIN FRAME ASSEMBLY, SERVICE &RUST PROOFER

ITEM	QTY.	DESCRIPTION	PART #
1	1	BASE FRAME WELDMENT, DRIVER SIDE	4-0112
2	1	BASE FRAME WELDMENT, PASSENGER SIDE	1-0113
3	2	SCISSOR WELDMENT	4-0002
4	1	SERVICE DECK, DRIVER SIDE (144"W/B)	4-0122
	1	SERVICE DECK, DRIVER SIDE (172"W/B)	4-0118
	1	RUST PROOFER DECK, DRIVER SIDE (144"W/B)	4-0120
	1	RUST PROOFER DECK, DRIVER SIDE (172"W/B)	4-0133
5	1	SERVICE DECK, PASSENGER SIDE (144"W/B)	4-0123
	1	SERVICE DECK, PASSENGER SIDE (172"W/B)	4-0130
	1	RUST PROOFER DECK, PASSENGER SIDE (144"W/B)	4-0121
	1	RUST PROOFER DECK, PASSENGER SIDE (172"W/B)	4-0134
6	2	APPROACH RAMP (144"W/B)	3-0242
	2	APPROACH RAMP (172"W/B)	3-0285
7	2	RAMP PIN	1-0095
8	2	FRONT WHEEL STOP (REMOVABLE)	2-0275
9	10	HEX BOLT 1/2-13UNC X 1-1/2"LG.	6-0291
10	22	HEX NUT 1/2"-13UNC	6-0035
11	14	LOCKWASHER 1/2" ID.	6-0059
12	6	1/2 SAE FLAT WASHER	6-0439
13	4	SPRING PIN 3/16" X 2"LG.	6-0146
14	4	WASHER	1-0140
15	4	BUSHING, 1-1/4"ID.	6-0084
16	1	SAFETY RELEASE CONNECTING ROD	2-0071
17	4	FULCRUM PIN, 1-1/4" DIA.	1-0096
18	8	BUSHING, BRONZE, 1"ID.	6-0085
19	8	END HINGE 1" DIA.	1-0107
20	4	CAM FOLLOWER	6-0637
21	4	JAM NUT, 5/8-18UNF	6-0040
22	2	SAFETY BAR WELDMENT	2-0405
23	2	PINS	1-0034
24	2	SAFETY PEDAL	2-0194
25	2	SAFETY RELEASE TAB	1-0189
26	2	SAFETY RELEASE ROD	2-0069
27	6	HEX BOLT, 1/4-20UNC X 1-1/4"LG.	6-0027
28	14	LOCKWASHER, 1/4"	6-0056
29	8	HEX NUT, 1/4-20UNC	6-0032
30	1	CENTRE COVER	3-0365
31	4	GREASE NIPPLE	6-0000
32	4	CAM FOLLOWER	6-0077
34	1	REAR CROSSMEMBER WELDMENT	3-0251
36	22	PLAIN WASHER, 1/2"	6-0063
37	2	SHIPPING BRACKET	2-0112
38	1	FRONT CROSSMEMBER (SOME MODELS)	3-0009
39	2	TOE GUARD	1-0086
40	8	HEX BOLT, 1/4-20UNC X 3/4"LG.	6-0178
41	12	WEDGE ANCHOR 1/2" X 4-1/2"LG.	6-0140
42	14	COTTER PIN 1/8" X 2"	6-0115
43	4	CONCRETE NAIL 1/4 X 1"LG.	6-0141
44	2	FLAT SHIPPING BRACKET	2-0266

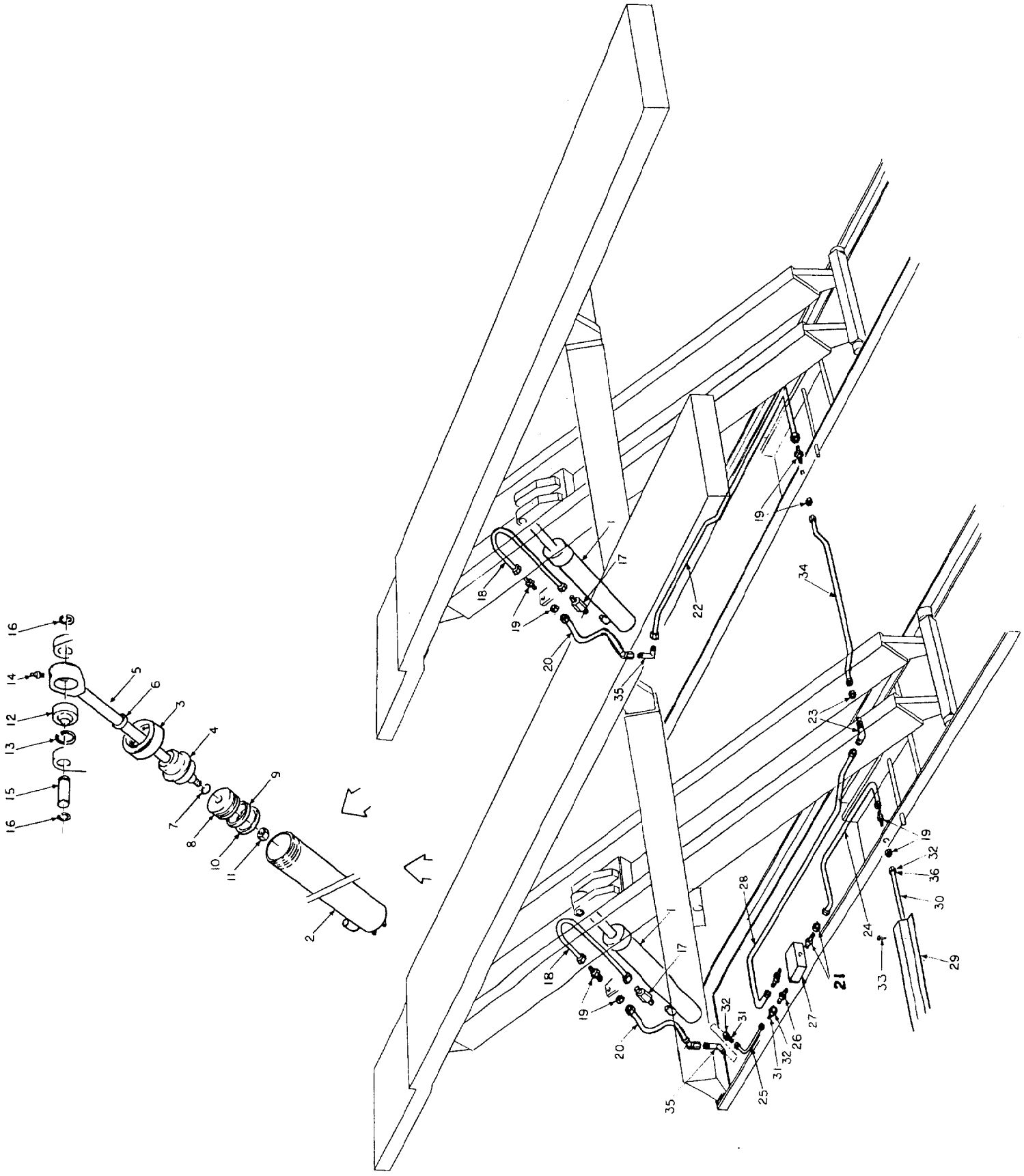
SPACE SAVER OPTIONS



SPACE SAVER - OPTIONS PART LIST

ITEM	QTY.	DESCRIPTION	PART #
1	5	FRAME CLIP	6-0500
2	2	TERMINAL BOLT, 3/4"-16m W/1/4 NPT F	6-0167
3	8	FLAT WASHER	6-0426
4	8	SHOULDER BOLT, 3/8" X 5/8"LG.	6-0069
5	4	LOCKING PIN ASSEMBLY	2-0637
6	4	SELF TAP SCREW #10 X 1/2"LG.	6-0505
7	1	BULKHEAD, CONNECTOR 3/8"JIC C/W JAM NUT	6-0013
8	1	TUBE ASSEMBLY	3-0017
9	3	ADAPTER, 3/8"JIC M TO 1/4"NPT F	6-0118
10	1	HOSE ASSEMBLY	1-0119
11	1	TUBE ASSEMBLY	2-0062
12	1	SUPPLY TUBE, 3/8" X .049" X 20'LG.	6-0171
13	3	STREET TEE 1/4"NPT	6-0014
14	1	STREET ELBOW 1/4"NPT	6-0015
15	2	POLYTUBE STRAIGHT ADAPTER, 3/8" X 1/4"NPT	6-0710
16	1	HOSE 144"W/B	1-0120
	1	HOSE 172"W/B	1-0139
17	3	12' COILED HOSE	6-0337
18	2	REAR SLIP PLATE WELDMENT	3-0197
19	1 SET (225)	BALL BEARING	6-0829
20	16	LOCKWASHER, 1/4"I.D.	6-0056
21	2	TURNPLATE	4-0220
22	4	TUBE CLAMP	6-0170
23	4	SELF TAP SCREW, #10 x 3/8"LG.	6-0169
24	16	HEX HD. BOLT, 1/4"-20UNC x ¾"LG.	6-0178
25	16	FLATWASHER, ¼"DIA. x ¾"OD, PLATED	2-0060
26	4	RETAINING BAR	2-1391
27	2	PLUG, 1/4"NPT	6-0282
28	2	REAR BEARING CAGE	3-0196
29	2	TUBING SLEEVE, JIC	6-0017
30	2	TUBING NUT, 3/8" JIC	6-0016

SPACE SAVER HYDRAULICS



SPACE SAVER - HYDRAULICS PART LIST

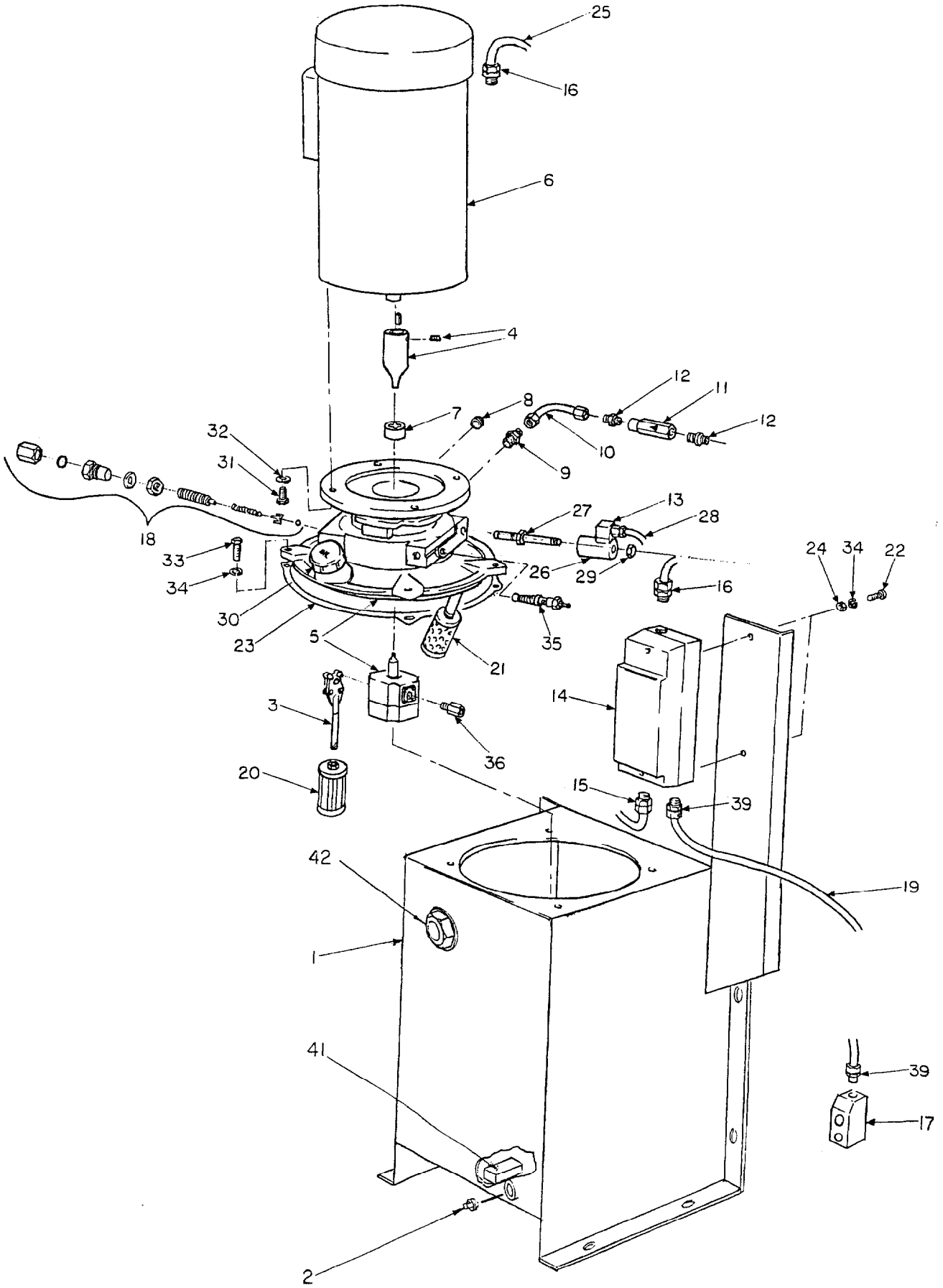
ITEM	QTY.	DESCRIPTION	PART #
1	2	HYDRAULIC CYLINDER	3-0000
1-2	1	TUBE WELDMENT	2-0000
1-3	1	NUT GLAND	1-0011
1-4	1	GLAND	1-0008
1-5	1	ROD WELDMENT	2-0001
1-6*	1	WIPER RING	6-0001
1-7*	1	'O' RING	6-0002
1-8	1	PISTON	1-0007
1-9*	1	SEAL RING	6-0003
1-10*	1	WEAR RING	6-0004
1-11	1	NYLON INSERT LOCK NUT, 7/8"-14UNF	6-0005
1-12	1	BEARING	6-0007
1-13	1	RETAINING RING	6-0070
1-14	1	GREASE NIPPLE	6-0000
15	2	PIN	1-0029
16	4	RETAINING RING	6-0340
17	2	VELOCITY FUSE	6-0025
18	2	TUBE ASSEMBLY, CYLINDER	1-0093
19	4	BULKHEAD, CONNECTOR 3/8"JIC C/W JAM NUT	6-0013
20	2	HOSE ASSEMBLY	2-0624
21	1	BULKHEAD ADAPTER, 3/8"BSF TO 3/8"JIC	6-0176
22	1	TUBE ASSEMBLY, RIGHT SIDE	2-0068
23	1	BULKHEAD, 90° ELBOW 3/8"JIC M C/W JAM NUT	6-0012
24	1	TUBE ASSEMBLY	2-0064
25	1	TUBE ASSEMBLY	2-0182
26	2	ADAPTOR, 3/8"BSF TO 3/8"JIC	6-0156
27	1	FLOW DIVIDER (WITH FITTINGS)	6-0173
28	1	TUBE ASSEMBLY	2-0066
29	5	LINE COVER	2-1104
30	1	SUPPLY TUBE 3/8" X .049"WALL X 20'	6-0171
31	2	REDUCER NIPPLE, 3/8" TO 1/4"	6-0378
32	2	NUT, 3/8"TUBE	6-0016
33	22	CONCRETE NAIL, 1/4" x 1"	6-0141
34	1	TUBE ASSEMBLY	2-0065
35	2	ADAPTER, 90° EXTENDED	6-0174
36	2	SLEEVE	6-0017

*HYDRAULIC CYLINDER SEAL KIT PART # 0-0007

COMPLETE POWER PACKS

0-0014	HYDRAULIC POWER PACK 220V / 1 PHASE
0-0015	HYDRAULIC POWER PACK 550V / 3 PHASE
0-0016	HYDRAULIC POWER PACK 220V / 3 PHASE

SPACE SAVER POWER PACK



SPACE SAVER POWER PACK PARTS LIST

ITEM	QTY.	DESCRIPTION	PART #
1	1	OIL RESEVOIR	4-0146
2	1	PLUG, 3/8"NPT	6-0102
3	1	FLANGE AND PIPE STRAINER	6-0428
4	1	SHAFT ADAPTER W/SET SCREW	6-0429
5	1	PUMP ASSEMBLY (INC. PUMP, BLOCK & FRINGE)	6-0433
6	1	MOTOR, 200V/1 PHASE	6-0087
	1	MOTOR, 208V/3 PHASE	6-0446
	2	MOTOR, 550V/3 PHASE	6-0447
7	1	COUPLING	6-0430
8	1	PLUG	6-0089
9	1	HYDRAULIC ADAPTER	6-0020
10	1	TUBE ELBOW	1-0102
11	1	FLOW CONTROL VALVE	6-0090
12	2	ADAPTER, 3/8" JIC TO 3/8" M NPT	6-0011
13	1	SOLENOID ELECTRIC PLUG	6-0091
14	1	CONTRACTOR MOTOR STARTER, 220V/1 PHASE	6-0805
	1	CONTRACTOR MOTOR STARTER, 208V/3 PHASE	6-0448
	1	CONTRACTOR MOTOR STARTER, 550V/3 PHASE	6-0449
15	1	STRAIN RELIEF CONNECTOR, 1/4"	6-0092
16	2	STRAIN RELIEF CONNECTOR, 1/2"	6-0094
17	1	REMOTE HAND CONTROL	6-0096
18	1	PRESSURE RELIEF VALVE	6-0431
19	1	REMOTE CONTROL CABLE	1-0103
20	1	STRAINER	6-0434
21	1	OIL FILTER	6-0097
22	2	ROUND HEAD SCREW, 1/4"-20UNC X 1/2"LG.	6-0400
23	1	RUBBER GASKET	1-0225
24	2	NUT, 1/4"-20UNC	6-0032
25	1	MOTOR CABLE	1-0104
26	1	SOLENOID	6-0100
27	1	SOLENOID VALVE SPOOL	6-0101
28	1	SOLENOID CABLE	1-0105
29	1	CAP NUT, FOR SOLENOID	6-0432
30	1	FILTER CAP	6-0099
31	4	HEX BOLT, 3/8"-16UNC X 1"LG.	6-0067
32	4	LOCKWASHER, 3/8"	6-0058
33	4	HEX BOLT, 1/4"-20UNC X 1"LG.	6-0027
34	6	LOCKWASHER, 1/4"	6-0056
35	1	MANUAL DESCEND VALVE	6-0145
36	1	PRESSURE TIME DELAY VALVE	6-0144
37	4	CONCRETE NAIL, 1/4" X 1"LG.	6-0141
38	16L	HYDRAULIC OIL, ISO-32	6-0379
39	2	STRAIN RELIEF CONNECTOR, 3/8"	6-0093
40	1	ANTI SLIP DIFF FLUID	6-0385
41	1	MAGNET	6-0405
42	1	OIL SIGHT LEVEL PLUG	6-0517