



"a commitment to quality"



## SUCKER ROD ELEVATOR

27725-100 27726-100 27727-100 27728-100 27729-100 27730-100 27731-  
100 27732-100 27733-100 27734-100 27735-100 27736-100 27750-100

### **OPERATION AND SERVICE MANUAL**

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OSM-023  
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## INTRODUCTION

Oil Country Sucker Rod Elevators have been carefully engineered and manufactured to provide maximum rod string protection, ease of handling and operation, and wear resistance. The seat for the rod upset radius is machined to produce a precision fit, thus preventing both tilting of the elevator body and local stressing or kinking of the rods. The one-piece body is made of alloy steel, heat-treated for extra strength and wear resistance; the forged bail is stiffened at the bend with an "I" section to prevent bending under maximum loads. Two pairs of pressure-sensitive latches automatically close on the rod, securely locking it in place. The rod can be released quickly and easily, by thumb and finger pressure alone, at either the front or rear of the body. Oil Country deep-well elevators have the reserve strength to handle the deepest wells being pumped with sucker rods today. The rod elevators are rated at 25 tons.

## INSPECTION AND MAINTENANCE

### DAILY:

1. Clean the elevator, removing all dirt and grease.
2. Check to insure both the Front and Rear Latches close after being opened. Do not use if they do not.
3. Check the Front Latches for wear on the Rod Gate. Gap between the two (2) Gates should not be greater than 3/8", replace if necessary.
4. Oil latches so they operate easily and properly.

### WEEKLY:

1. Perform Daily maintenance as instructed.
2. Inspect the following areas for excessive wear and/or damage. Do not use if excessive wear and/or damage are present. Repair or Replace the rod elevators. Refer to inspection measurements on page

Bail, where the Sucker Rod Hook rides.

Bail PinHoles and Body Pins.

Sucker Rod Pockets (Solid body) or Plates.

### SEMI-ANNUALLY AND ANNUALLY:

1. Perform Daily maintenance as instructed.
2. Perform Weekly maintenance as instructed.
3. Have all load-bearing components NDE examined for cracks. The load bearing components are the Bail, Body, and Plates (only on plate type). If cracks are present, replace damaged component or contact factory.
4. Load test the final assembly to 1 times maximum working load (50,000 lbs.) for five minutes. Test should be documented and kept on file.

***NOTE: The Oil Country Sucker Rod Elevator is a load-bearing item manufactured from Alloy Steel and heat-treated. No repairs and/or re-manufacturing should be done if welding is performed without consulting factory. Unauthorized and/or undocumented welding on this tong is not recommended and will void warranty and load rating.***

## SERVICE AND REPAIR

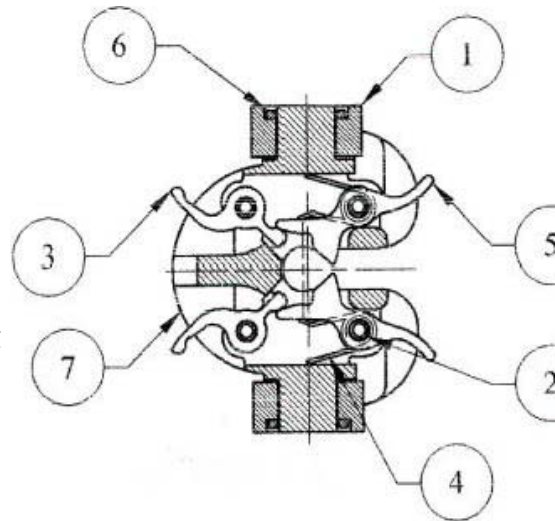
### I. Latch Springs (ref 4)

#### A. Latch Springs should be replaced when:

1. They no longer close Latches.
2. Become weak or broken. Always replace in sets, each elevator requires two (2) Latch Springs.

#### B. To replace spring(s):

3. Remove the two (2) front Hinge Pins (ref 2), two (2) Front Latches (ref 5), and Latch Springs (ref 4)
  - a. Inspect Hinge Pin hole in Front Latch, replace if worn, elongated, or damaged.
  - b. Inspect Hinge Pin, replace if worn or damaged.
  - c. Install new Latch Spring (ref 4) into Front Latch (ref 5), depress spring and slide Front Latch with Latch Spring into Elevator Body (ref 7).
  - d. Line up hole in Front Latch (ref 5) with Hinge Pin Hole in elevator body (ref 7). Install Hinge Pin (ref 2).



***NOTE: The front of the Rear Latch (ref 3) must be on the inside of the back end portion of the Front Latch (ref 5). Once the Front Latch is installed, check to insure that both Front and Rear Latches open and close together when actuating Front Latches. If Rear Latches are pressed, both Front and Rear Latches open and close together. Then the opened Front Latches permit easy entry of rod into seat area of Rod Elevator. Do not use if not working properly.***

## SERVICE AND REPAIR (CONTINUED)

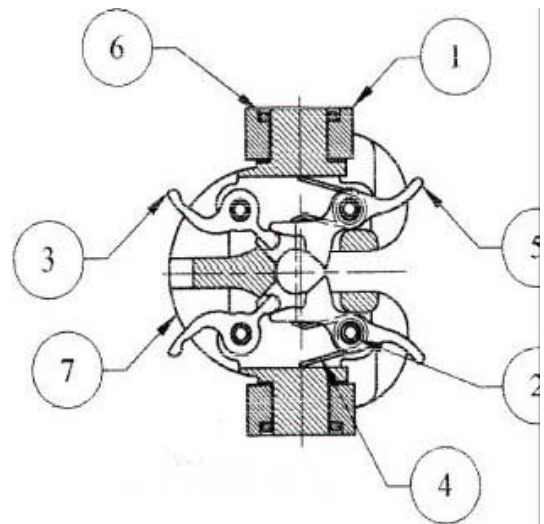
### II. Rear Latch (ref 2)

#### A. Replace if:

1. Hinge Pin hole is worn.
2. Front Latches no longer opens when Rear Latches are depressed.
3. Rear Latch appears damaged.

#### B. To replace Rear Latches

1. After removing the two (2) rear Hinge Pins (Ref 2), remove the Rear Latches (ref 3).
  - a. Inspect Rear Hinge Pins (ref 2) and replace if worn or damaged.
  - b. Inspect area where Rear Latch contacts Front Latch, replace Front Latch (ref 5) if worn excessively.
  - c. Install new Rear Latch (ref 3) into Elevator Body (ref 7).
  - d. Line up hole in Rear Latch with the Hinge Pin hole of Elevator Body. Install Hinge Pin (ref 2).



***NOTE: The front of the Rear Latch (ref 3) must be on the inside of the back end portion of the Front Latch (ref 5). Once the Rear Latches are installed, check to insure that both Front and Rear Latches open and close together when actuating Front Latches. If Rear Latches are pressed, both Front and Rear Latches open and close together. Then the opened Front Latches permit easy entry of rod into seat area of Rod Elevator. Do not use if not working properly.***

## SERVICE AND REPAIR (CONTINUED)

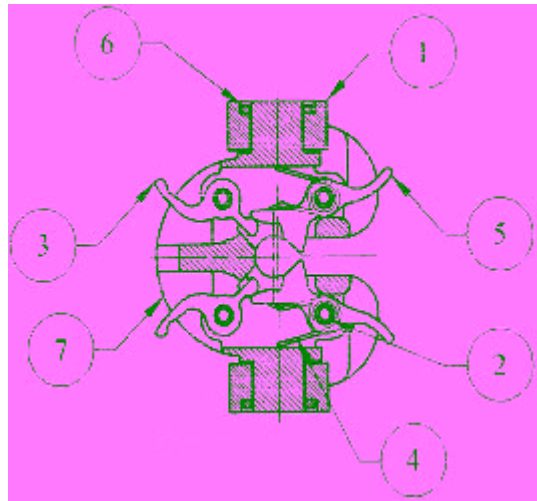
### III. Front Latch (ref 5)

#### A. Replace if:

1. Rod Gate of Front Latches are worn. Gap between gate sides should not be greater than 3/8" apart.
2. Hinge Pin Hole is worn and/or elongated.
3. Latch appears damaged.

#### B. To replace Front Latches

1. Remove the two (2) front Hinge Pins (ref 2), two (2) front Latches (ref 5) and Latch Springs (ref 4).
  - a. Inspect Hinge Pin, replace if worn or damaged.
  - b. Install new Latch Spring (ref 4) into Front Latch (ref 5), depress spring and slide
  - c. Front Latch with Latch Spring into Elevator Body (ref 7).
  - d. Line up hole in Front Latch (ref 5) with Hinge Pin Hole in elevator body (ref 7).
  - e. Install Hinge Pin (ref 2).

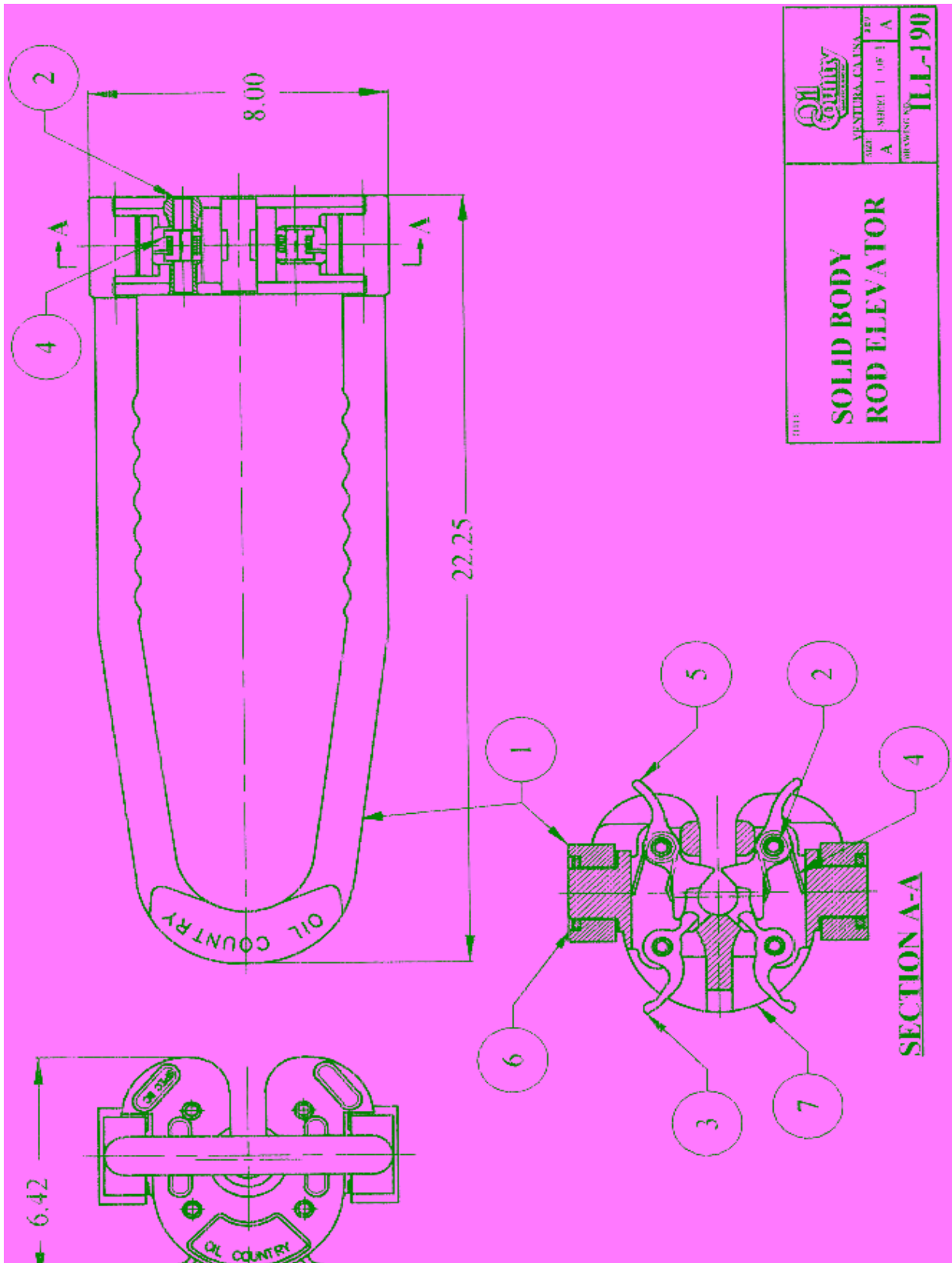


**NOTE: The front of the Rear Latch (ref 3) must be on the inside of the back end portion of the Front Latch (ref 5). Once the Rear Latches are installed, check to insure that both Front and Rear Latches open and close together when actuating Front Latches. If Rear Latches are pressed, both Front and Rear Latches open and close together. Then the opened Front Latches permit easy entry of rod into seat area of Rod Elevator. Do not use if not working properly.**

## INSPECTION MEASUREMENTS

- I. Hinge Pins
  - A. New Size:  $.500 + .012 / - 0$
  - B. Replace if wear pattern shows in center section.
- II. Hinge Pin Holes (Elevator Body)
  - A. New Size:  $.500 + 0 / - .003$
  - B. Consult factory or replace if elongated or greater than  $.512$ .
- III. Front/Rear Latch
  - A. Hinge Pin Hole new:  $.520$
  - B. Replace if elongated or over  $.535$ .
  - C. Replace if damaged, bent, or worn in contact.
- IV. Bail Bend (where Sucker Rod Hook contacts)
  - A. New size:  $1.450''$ .
  - B. Consult factory, re-rate elevator capacity, or replace if worn  $1/16''$  or greater.
- V. Bail Pins (Elevator Body/Bail Holes, Bail)
  - A. Bail Pins new:  $1.450''$ , Bail Holes New:  $1.500''$ .
  - B. Consult factory or replace if Bail, while being worked, moves up/down greater than  $.125$  ( $1/8''$ ).
- VI. Elevator Body
  - A. Replace or consult factory if:
    - 1. Hinge Pin holes are worn.
    - 2. Sucker Rod pockets are worn.
    - 3. Bail Pins are worn and/or elongated.
    - 4. Body shows cracks or damage.





VENTURA, CALIF.	
SHEET 1 OF 1	REV A
DRAWING NO. ILL-190	

**SOLID BODY  
ROD ELEVATOR**

ROD ELEVATOR REPLACEMENT PARTS LIST  
SOLID BODY TYPE ELEVATORS

**27725-100 Rod Elevator 5/8" – 3/4" Assembly**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746	2	3/4" - 7/8" Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27725-01	1	Rod Elevator Body	

**27726-100 Rod Elevator 3/4" – 7/8" Assembly**

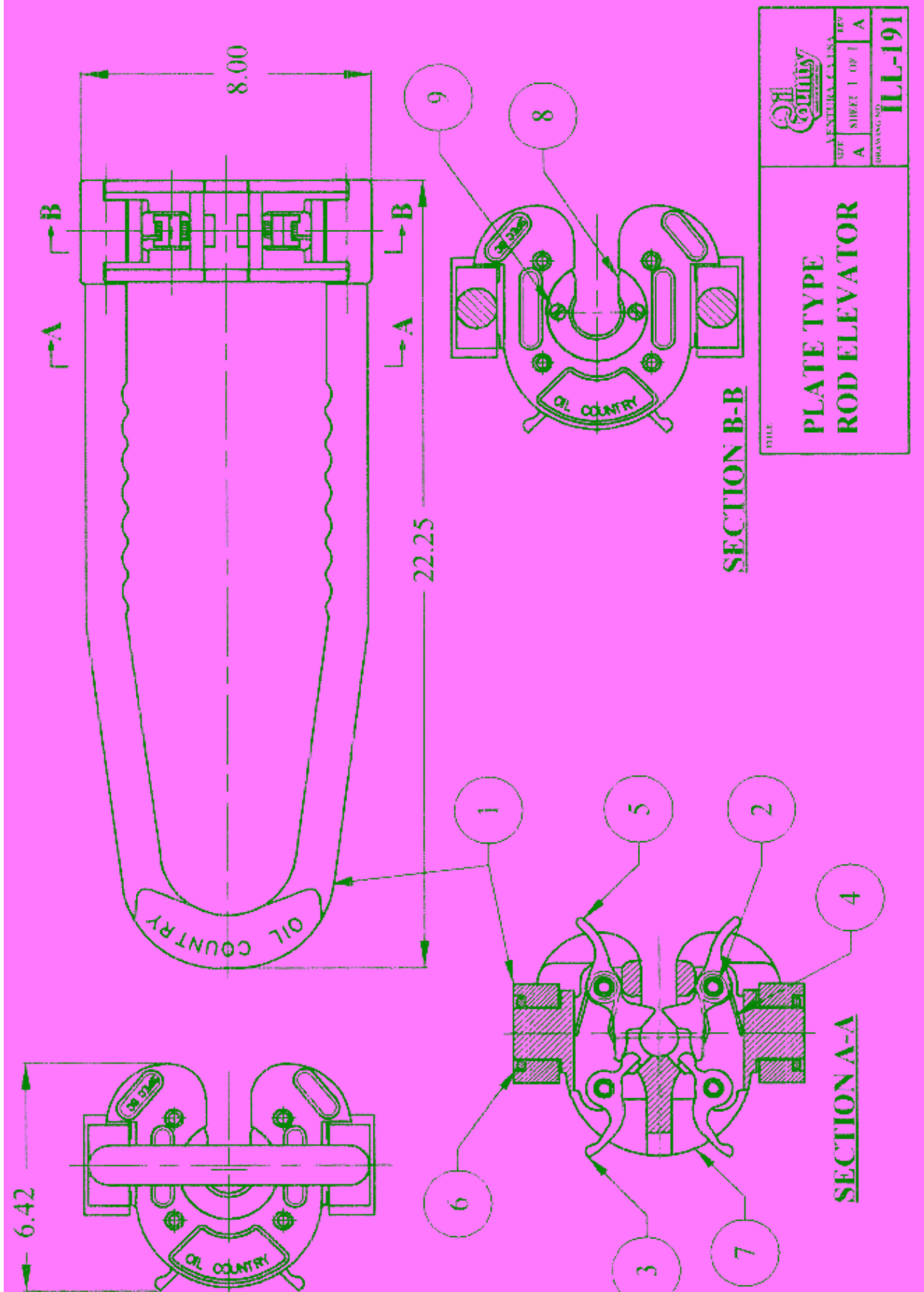
REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746	2	3/4" - 7/8" Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27726-01	1	Rod Elevator Body, 3/4" - 7/8"	

**27727-100 Rod Elevator 1" Assembly**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746-1	2	1" - 1-1/8" Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27727-01	1	Rod Elevator Body, 1"	

**27750-100 Rod Elevator 1 1/8" Assembly**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746-1	2	1" - 1-1/8" Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27751-01	1	Rod Elevator Body, 1-1/8"	



ROD ELEVATOR REPLACEMENT PARTS LIST (CONTINUED)  
 PLATE TYPE ELEVATORS  
**27728-100 Rod Elevator, 1/2" Assembly, Plate Type**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
	27740-150	1	Rod Elevator Subassy less Plate and Screws	
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746	2	Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27727-62	1	Rod Elevator Body, 1/2" - 1-1/8"	
8	27727-D	2	1/2" Plate	1.50
9	27727-40	4	Screws	

**27729-100 Rod Elevator 5/8" – 3/4" Assembly, Plate Type**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
	27740-150	1	Rod Elevator Subassy less Plate and Screws	
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746	2	Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27727-62	1	Rod Elevator Body, 1/2" - 1-1/8"	
8	27727-A	2	5/8" - 3/4" Plate	1.50
9	27727-40	4	Screws	

**27730-100 Rod Elevator 3/4" – 7/8" Assembly, Plate Type**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
	27740-150	1	Rod Elevator Subassy less Plate and Screws	
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746	2	Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27727-62	1	Rod Elevator Body, 1/2" - 1-1/8"	
8	27727-B	2	3/4" - 7/8" Plate	1.50
9	27727-40	4	Screws	

## ROD ELEVATOR REPLACEMENT PARTS LIST (CONTINUED)

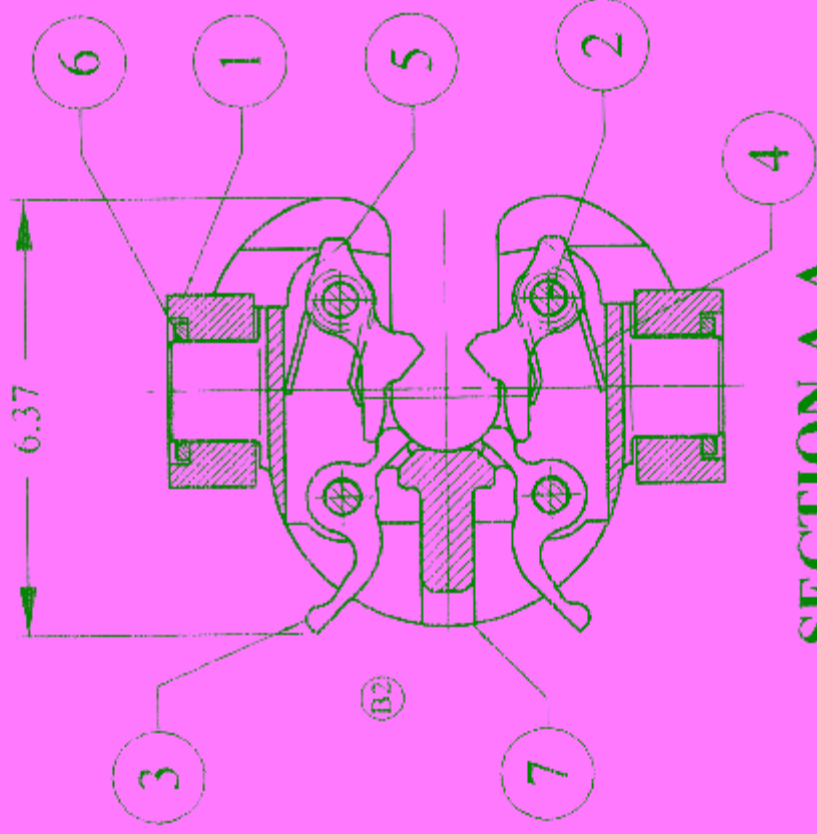
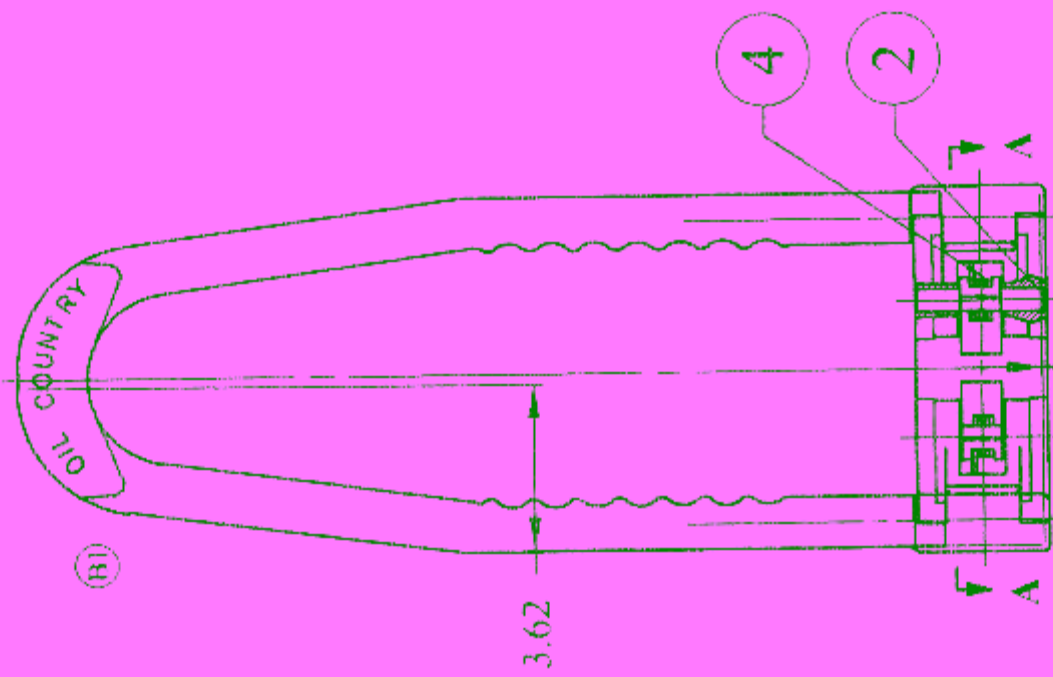
### PLATE TYPE ELEVATORS

#### 27731-100 Rod Elevator, 1" Assembly, Plate Type

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
	27740-150	1	Rod Elevator Subassy less Plate and Screws	
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746	2	Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27727-62	1	Rod Elevator Body, 1/2" - 1-1/8"	
8	27727-C	2	1" Plate	1.50
9	27727-40	4	Screws	

#### 27732-100 Rod Elevator 1 1/8" Assembly, Plate Type

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
	27740-150	1	Rod Elevator Subassy less Plate and Screws	
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746	2	Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27727-62	1	Rod Elevator Body, 1/2" - 1-1/8"	
8	27727-E	2	1-1/8" Plate	1.50
9	27727-40	4	Screws	



**SECTION A-A**

**POLISH ROD  
ELEVATOR  
ASSEMBLY**

VENTURA, CALIF.	1977
SHEET 1 of 1	c
PROJECT NO.	11.L-007

**ROD ELEVATOR REPLACEMENT PARTS LIST SOLID BODY TYPE ELEVATORS**

**27736-100 Polished Rod Elevator, 1" Assembly**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746-5	2	Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27732-01	1	Polished Rod Elevator Body	

**27733-100 Polished Rod Elevator, 1 1/8" Assembly**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746-5	2	Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27733-01	1	Polished Rod Elevator Body	
7	27726-01	1	Rod Elevator Body, 3/4" - 7/8"	

**27734-100 Polished Rod Elevator, 1 1/4" Assembly**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746-6	2	Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27734-01	1	Polished Rod Elevator Body	

**27735-100 Polished Rod Elevator, 1 1/2" Assembly**

REF NO.	PART NUMBER	NO. REQ	DESCRIPTION	WGT(lbs)
1	27750-01	1	Rod Elevator Bail	
2	992011-214	4	Roll Pin	.09
3	12639	2	Rear Latch	.40
4	992315	2	Latch Spring	.13
5	11746-7	2	Front Latch	1.10
6	28148	4	Split Retainer Ring	.19
7	27735-01	1	Polished Rod Elevator Body	

RECOMMENDED SPARE PARTS (For one (1) year's service duty)

PART NUMBER	NO. RECC.	DESCRIPTION	WGT(LBS)
992315	4	Latch Springs	.13
11746	2*	Front Latch for 5/8", 3/4" & 7/8"	1.10
11746-1	2*	Front Latch for 1" & 1 1/8"	1.10
12639	2	Rear Latch	.40
992011-214	8	Roll Pins	.09
27727-A	4**	Plates 5/8" - 3/4"	1.50
27727-B	4**	Plates 3/4" - 7/8"	1.50
27727-C	4**	Plates, 1"	1.50
27727-E	4**	Plates 1-1/8"	1.50
27727-40	12**	Screws	

\* Choose the proper Latch for the Sucker Rod Elevator being serviced. \*\* Only for plate Elevator, chose the proper plate(s) for the size rods being used.