

**PARTS LIST**

**Lin-E-Aire® Valve Actuator**

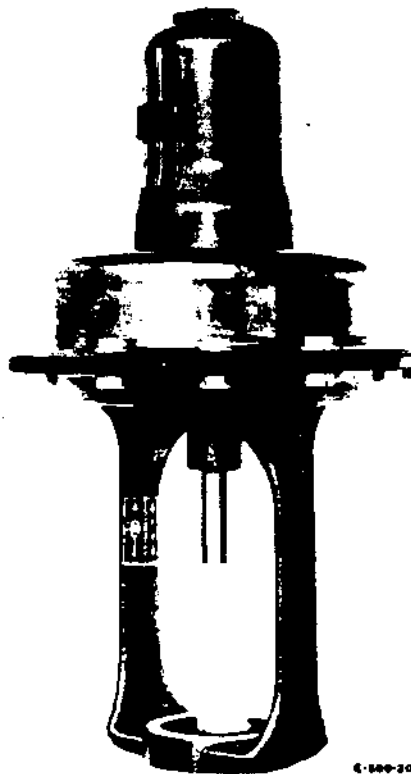
**Air-to-Raise**

**Catalog Term No. 230, 231, 233, 250 Thru 256, 258**

**T4-PL-5A105**

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**INTRODUCTION**

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**NOTICE**

Information in this manual is intended only to assist our Service Technicians in the maintenance of our equipment. Use of this manual for any other purpose is specifically prohibited and its contents are not to be reproduced in full or part without prior approval.

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**INTRODUCTION**

**ORDERING INFORMATION**

When ordering parts always specify the complete serial number of the instrument.

**RECOMMENDED SPARE PARTS**

A plus (+) sign before the item number indicates that the item is a recommended spare part.

**PARTS AVAILABILITY**

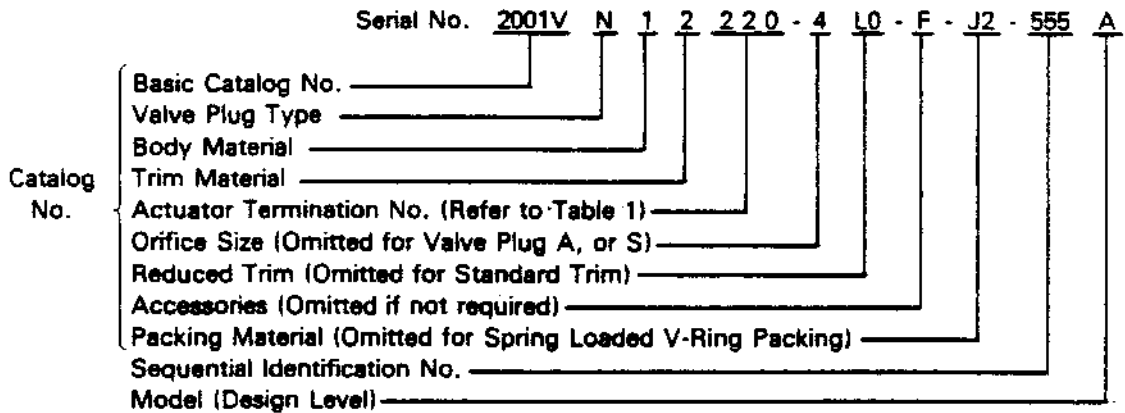
This parts list may contain parts that are not saleable. These parts are identified with an asterisk (\*) in the part number column. They are listed and shown as required to provide a comprehensive breakdown of the assembly.

INTRODUCTION

**EXPLANATION OF SERIAL AND CATALOG NUMBERS**

The serial number stamped on the data plate consists of the catalog number and a sequential identification number.

An X before the serial number indicates that the instrument has been built to meet a customer's special requirements.



**Sample Serial Numbers**

- Valve with Linear Plug: 2001VA12230-F-J2-555A
- Valve with Linear Plug, Reduced Trim: 2001VA12230-L0-F-J2-555A
- Valve with Needle Plug: 2001VL12230-4F-J2-555A

The serial and catalog number digits are explained in the individual sections for valves and accessories.

**EXAMPLE:**

Serial No. 2001VN12220-4-L0-F-J2-555A stamped on the data plate describes the construction of the control valve. The actuator termination number (251) identifies a Lin-E-Aire® air-to-raise, senior actuator.

It is Part No. 15S65T and has a 1-1/2" boss diameter, 12 diaphragm casing bolts, and a 45 sq. in. effective area diaphragm. The sequential identification number is 555 and the design level is Model A.

Table 1. Actuator Termination Numbers and Part Numbers

Boss Dia.	Standard Actuator				Senior Actuator			
	Term. No.	Part No.	No. of Bolts	Effective Area	Term. No.	Part No.	No. of Bolts	Effective Area
1-1/2"	230	15S630	10	20 sq in.	231	15S631	12	45 sq in.
1-15/16"	—	—	—	—	233	15S633	18	80 sq in.
2-1/8"	250	15S650	10	20 sq in.	251	15S651	12	45 sq in.
2-13/16"	252	15S652	12	45 sq in.	253	15S653	18	80 sq in.
2-13/16"	254	15S654	18	80 sq in.	255	15S655	20	160 sq in.
3-9/16"	256	15S656	20	160 sq in.	—	—	—	—
3-9/16"	258	15S658	18	80 sq in.	—	—	—	—

## MECHANICAL COMPONENTS

**LIN-E-AIRE VALVE ACTUATOR**

Refer to Figure 1

Item	Part No.	Description	No. Req'd
1	9S204K	Adjusting Screw Kit — 15S630, 631, 650, 651 Adjusting Screw Kit — 15S633, 652, 653 Adjusting Screw Kit — 15S654, 658 Adjusting Screw Kit — 15S655, 656 . Refer to Table 2 for listing of parts	1
	9S205K		
	9S206K		
	9S207K		
8	•	Spacer — 15S630, 631 Spacer — 15S654, 655	As Req'd
	10P1230		
9	11P _ _ _	Range Spring . Refer to Table 3 for listing of part numbers	1
10	—	Push Plate SA	1
	•	15S655	
	13S214	15S630	
	13S215	15S631	
	13S221	15S654	
	•	15S658	
	•	15S656	
	13S231	15S650	
	13S232	15S652	
	13S233	15S651	
	13S332	15S633	
	13S333	15S653	
	11	—	
6S489		15S630, 650	
6S471		15S652	
6S474		15S654, 658	
•		15S655, 656	
6S489		15S631, 651	
6S1034		15S633, 653	
12	—	. Clamping Ring	1
	10P670	15S630, 650	
	10P671	15S631, 651, 652	
	10P1116	15S633, 653, 654, 658	
•	15S655, 656		
13	—	. Push Rod	1
	•	15S655	
	13P574	15S654	
	•	15S658	
	•	15S656	
	13P581	15S630	
	13P582	15S631	
	13P682	15S650	
	13P683	15S652	
	13P684	15S651	
	13P682	15S633	
	13P683	15S653	
14	—	. Diaphragm	1
	61P253	15S630, 650	
	61P255	15S631, 651, 652	
	61P347	15S633, 653, 654, 658	
61P348	15S655, 656		

\*Refer to Parts Availability, on page 2.

MECHANICAL COMPONENTS

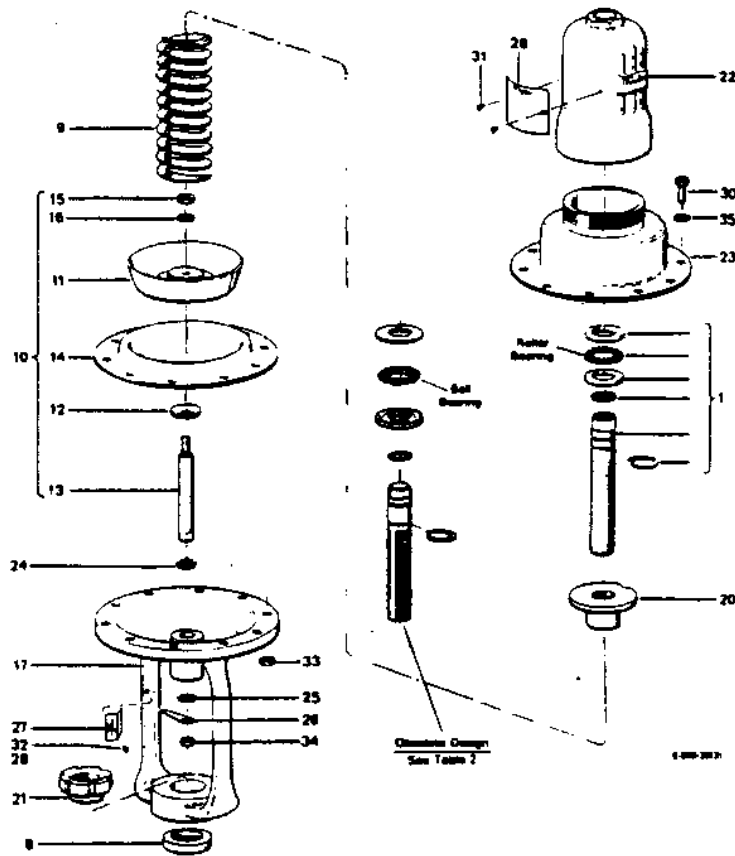


Figure 1. Lin-E-Aire® Valve Actuator

Refer to Figure 1

Item	Part No.	Description	No. Req'd
15	—	. Locking Nut	1
	542M23	1/2"-20 Hex — 15S631, 651, 652	
	542M61	5/8"-18 Hex — 15S633, 653, 654, 658	
	542M119	3/8"-24 Hex — 15S630, 650	
	542M122	7/8"-14 Hex — 15S655, 656	
16	—	. Locking Nut Washer	1
	548M47	3/8" — 15S630, 650	
	548M98	1/2" — 15S631, 651, 652	
	548M108	5/8" — 15S633, 653, 654, 658	
	548M109	7/8" — 15S655, 656	

## MECHANICAL COMPONENTS

Refer to Figure 1

Item	Part No.	Description	No. Req'd
17	-	Yoke	1
	15P55	15S654, 658 15S655, 656	
	15P121	15S630	
	15P122	15S631	
	15P128	15S650	
	15P129	15S651	
	15P130	15S652	
	15P132	15S633	
	15P133	15S653	
20	-	Spring Seat	1
	32P546	15S630, 631, 650, 651	
	32P547	15S633, 652, 653	
	32P553	15S654, 658	
	32P554	15S655, 656	
21	-	Valve Mtg Nut	1
	32P561	15S630, 631 (Hi-Flow) 1.2365" - 16NS2 Bonnet Thread for 1-1/2" Boss Dia.	
	32P562	15S630, 631 1-1/4" - 14NS2 Bonnet Thread for 1-1/4" Boss Dia.	
	32P575	15S650, 651 2-1/16" - 12N2 Bonnet Thread for 2-1/8" Boss Dia.	
	32P576	15S652, 653 2-3/4" - 12N2 Bonnet Thread for 2-3/16" Boss Dia.	
	*	15S656, 658 3-1/2" - 12N2 Bonnet Thread for 3-9/16" Boss Dia.	
	32P582	15S633 1.2365" - 16NS2 Bonnet Thread for 2" Boss Dia.	
	32P775	15S654, 655 3-1/2" - 12NS2 Bonnet Thread for 2-3/16" Boss Dia.	
22	-	Spring Casing	1
	35P541	15S630, 631, 650, 651	
	35P542	15S633, 652, 653	
	35P844	15S654, 658	
	*	15S655, 656	
23	-	Diaphragm Casing	1
	35S288	15S630, 650	
	35S289	15S652	
	35S292	15S654, 658	
	*	15S655, 656	
	35S303	15S631, 651	
	35S304	15S633, 653	
24	-	Push Rod V-Packing	1
	43P470	15S633, 652, 653	
	43P509	15S630, 631, 650, 651	
	43P858	15S654, 655, 656, 658	
25	-	Push Rod O'Ring	1
	43P475	#218 - 15S654, 655, 656, 658	
	43P516	#114 - 15S630, 631, 650, 651	
	43P518	#116 - 15S633, 652, 653	

\*Refer to Parts Availability, on page 2.

## MECHANICAL COMPONENTS

Refer to Figure 1

Item	Part No.	Description	No. Req'd
26	45P680	Data Plate	1
27	-	Travel Indicator Plate	1
	45P759	15S630, 631, 650, 651	
	45P760	15S633, 652, 653	
	45P761	15S654, 658	
	*	15S655, 656	
28	-	Travel Indicator	1
	63P251	15S650, 651	
	63P252	15S633, 652, 653	
	*	15S656, 658	
	63P258	15S654, 655	
	63P333	15S630, 631	
30	-	Diaphragm Casting Mtg Screw	
	531M16	5/16"-18 x 1" Hex Hd - 15S630, 650	10
	531M30	3/8"-16 x 1-1/4" Hex Hd - 15S631, 651, 652	12
	531M30	3/8"-16 x 1-1/4" Hex Hd - 15S633, 653, 654, 658	18
	536M5	1/2"-30 x 1-1/2" Hex Hd - 15S655, 656	20
31	533M115	Data Plate Mtg Screw, #4-40 x 3/16" Self Tapping	2
32	533M116	Travel Indicator Plate Mtg Screw, #6-32 x 1/4" Self Tapping	1
33	-	Diaphragm Casting Mtg Nut	
	542M19	5/16"-18 Hex - 15S630, 650	10
	542M22	3/8"-16 Hex - 15S631, 651, 652	12
	542M22	3/8"-16 Hex - 15S633, 653, 654, 658	18
	542M73	1/2"-13 Hex - 15S655, 656	20
34	-	Valve Stem Locknut	1
	544M21	1/2"-20 Hex - 15S652, 653, 654	
	544M22	3/4"-16 Hex - 15S656, 658	
	544M23	3/8"-24 Hex - 15S650, 651	
35	-	Diaphragm Casting Mtg Washer	
	545M21	5/16" - 15S630, 650	10
	545M22	3/8" - 15S631, 651, 652	12
	545M22	3/8" - 15S633, 653, 654, 658	18
	545M23	1/2" - 15S655, 656	20

Table 2. Adjusting Screw Kits

Kit Part Number	*Part Numbers for Adjusting Screw Kits					
	Ref. 2	Ref. 3	Ref. 4	Ref. 5	Ref. 6	Ref. 7
	Adjusting Screw	Retaining Ring	O-Ring	Lower Bearing Race	Upper Bearing Race	Bearing Ring
9S204K	9S196	22P847	43P515	64P577	64P582	64S196
9S205K	9S197	22P848	43P517	64P578	64P583	64S197
9S206K	9S198	22P849	43P519	64P579	64P584	64S198
9S207K	*	*	43P521	*	*	*

\*Refer to Parts Availability on page 3.

\*When replacing any part in Obsolete Design (See Figure 1), which was used on control valves with catalog termination numbers 030 thru 058, order Complete Kit.

Table 3. Range Spring Part Numbers

Range Spring			Actuator Part No.					
Part No.	Rating lbs per in.	Color Code	15S630, 660	15S662	15S633, 663	15S631, 661	15S664, 668	15S665, 666
11P356	1000	Brown - Brown	X			X		
11P376	100	White - Yellow	X			X		
11P377	180	White - Red	X			X		
11P378	260	White - Blue	X			X		
11P379	350	White - Brown	X			X		
11P381	450	White - Green	X			X		
11P382	560	White - Orange	X			X		
11P383	680	White - Black	X			X		
11P384	820	White - White	X			X		
11P385	100	Yellow - Red		X	X			
11P386	180	Yellow - Blue		X	X			
11P387	260	Yellow - Brown		X	X			
11P388	350	Yellow - Green		X	X			
11P389	450	Yellow - Orange		X	X			
11P391	560	Yellow - Black		X	X			
11P392	680	Yellow - Yellow		X	X			
11P393	100	Red - Blue					X	
11P394	180	Red - Brown					X	
11P395	260	Red - Green					X	
11P396	350	Red - Orange					X	
11P397	450	Red - Black					X	
11P398	560	Red - Red					X	
11P399	680	Orange - Orange					X	
11P901	1250	Brown - Green				X		
11P1214	820	Purple - Brown					X	
11P1215	1000	Purple - Green					X	
•	680	Black - Black						X
•	100	Blue - Brown						X
•	180	Blue - Green						X
•	260	Blue - Orange						X
•	350	Blue - Black						X
•	450	Blue - Blue						X
•	560	Green - Green						X
•	820	Purple - Purple						X
•	960	Purple - Orange						X
•	1200	Purple - Black						X
11P902	820	Brown - Orange			X			
11P903	1000	Brown - Black			X			
11P904	1300	Purple - White			X			

\*Refer to Parts Availability on page 2.