TECHNICAL MANUAL

OPERATOR'S, UNIT AND

DIRECT SUPPORT MAINTENANCE MANUAL

(INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST)

FOR

ATLAS COPCO RECIPROCATING

COMPRESSOR

This technical manual is an authentication of the manufacturer's commercial literature and does not conform with the format and the content requirements normally associated with Army technical manuals. This technical manual does, however, contain all essential information required to operate and maintain the equipment.

Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY
28 SEPTEMBER 1990

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SUPPLEMENTARY INTRODUCTORY MATERIAL

1-1. Maintenance Forms and Records.

Department of the Army forms and procedures used for equipment maintenance will be those described by DA Pam 738-750, The Army Maintenance Management System.

1-2. Reporting Errors and Recommending Improvements.

You can help improve this manual. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Mail your letters, DA Form 2028 (Recommended Changes to Publications and Blank Forms), or DA Form 2028-2 located in the back of this manual, directly to: Commander, U.S. Army Troop Support Command, ATTN: AMSTR-MCTS, 4300 Goodfellow Blvd., St. Louis, MO 63120-1798. A reply will be furnished to you.

1-3. Destruction of Army Material to Prevent Enemy Use.

Refer to TM 750-244-3 for instructions covering the destruction of Army Material to prevent enemy use.

1-4. Administrative Storage of Equipment.

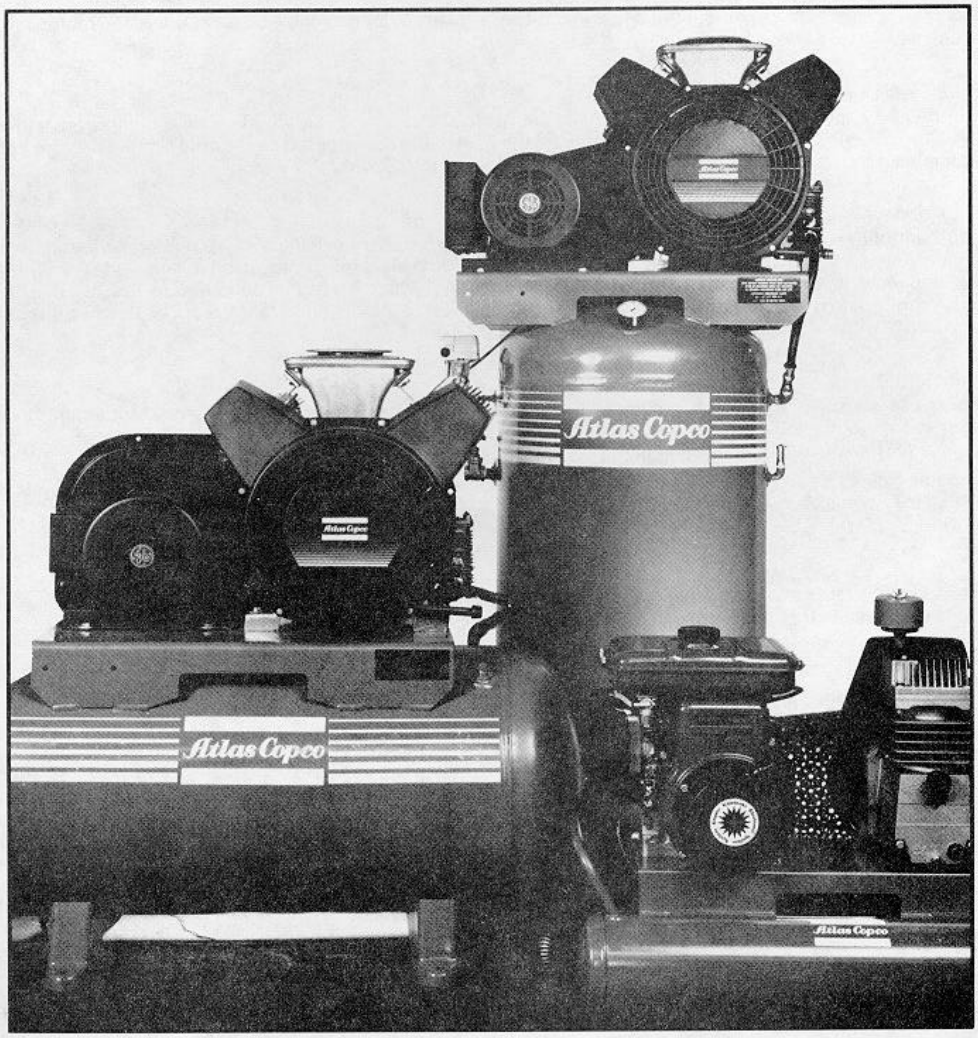
a. Placement of equipment in administrative storage should be for short periods of time when a shortage of maintenance effort exists. Items should be in mission readiness within 24 hours or within the time factors as determined by the directing authority. During the storage period appropriate maintenance records will be kept.

b. Before placing, equipment in administrative storage, current preventive maintenance checks and services should be completed. Shortcomings and deficiencies should be corrected, and all modification work orders (MWO's) should be applied.

c. Storage site selection. Inside storage is preferred for items selected for administrative storage. If inside storage is not available, trucks, vans, conex containers and other containers may be used.

Atlas Copco

Service Air



INSTRUCTION BOOK AND PARTS LIST

LE/LT SERIES COMPRESSORS

Atlas Copco Industrial Compressors Inc.
161 Lower Westfield Rd.
Holyoke, MA 01041-0431

Call—(413) 536-0600
Telefax No—(413) 536-0091
Telex No—955325

Addendum to—2927 5785 01

Installation and operating instructions

Read all instructions **carefully** before starting the compressor.

General Information

L Series compressors are belt driven two-cylinder, air-cooled, single-acting piston machines. LE or LEN designates single-stage and LT two-stage. The LEN are oil-less compressors delivering oil-free air. The LE's are available 2 through 10 HP, the LT's 2 through 20 HP, the LEN's 5 and 712 HP.

The LE and LEN compressors are built for effective working pressures of up to 120 psig, LT for pressures of 175 psig. The compressors are available as base mounted units, which consist of the compressor block, base, drive, and motor, and as complete tank-mounted units.

Operation - LE Series and LEN Series

Air is drawn through the intake filter, intake manifold and suction disks into the cylinders. The air is compressed, then discharged through the delivery disks to the temperature reducer, where the heat of the compressed air is partly removed. From the temperature reducer the compressed air is discharged through the check valve into the tank.

Operation - LT Series

Air is drawn through the intake filter, intake manifold and into the low-pressure cylinder, where it is compressed, then discharged through the delivery valve to the intercooler, where the heat from the first stage of compression is removed. The air then enters the high-pressure cylinder through the pulsation damper and the suction disk, where it is further compressed. It is then discharged through the delivery disk to the cooling caps of the HP cylinder head and from there to the HP temperature reducer. It is then discharged through the check valve into the tank.

Lubrication (not for LEN)

L Series compressors shipped from the factory contain a PAO synthetic lubricant. The compressors may be identified by a yellow label at the oil filler plug stating the unit contains "Airlet Fluid".

If not available, a good-quality motor oil (not multigrade) or diester synthetic lubricant may be used. See chart.

Use only reputable brands of oil and once a brand has been adopted, keep to it. Never mix oils of different brands or types. The crankcase oil capacity of the various units is given in section 7.

NOTES:

The crankcase is connected to the air intake silencer or suction line through a breather valve. Faulty operation of this valve or clogging of the metered hole will result in too high a crankcase pressure and promote oil consumption.

Always securely tighten the oil filler plug after adding oil.

LUBRICATION LE/LT COMPRESSORS

LUBRICANT	AMBIENT TEMPERATURE	VISCOSITY GRADE	A.P.I. SERVICE	COMPRESSOR	CHANGE INTERVAL	(2) BRAND
MOTOR OIL MINERAL	5° F to 104° F	SAE 10W20	SE/CC/ SE/CD	LE/LT	2000 HRS (1)	
MOTOR OIL SYNTHETIC	5° F to 104° F	SAE 10W30	SF/CD	LE/LT	2000 HRS (1)	Mobil 1
PAO SYNTHESIZED HYDROCARBONS (POLYALPHAOLEFINE	-15° F to 122° F	ISO VG 32	SF/CD	LE/LT	2000 HRS (1)	Nuodex Anderol 3032 Chevron/Gulf GSL-838A(3)
DIESRER	-15° F to 122° F	ISO VG 32	SF/CD	LE/LT	ANNUALLY	Nuodex Anderol 495 Mobil Rarus 824
SYNTHETIC	-15° F to 104° F	SAE 10W40	SF/CD	LE/LT	ANNUALLY	Nuodex Anderol 800

NOTES: (1) Change interval shown (hours) or annually, whichever occurs first.

(2) Atlas Copco does not recommend the use of specific lubricants. These lubricants appear to meet the specifications. There may be other quality lubricants which also meet these specifications.

(3) If the local supplier of either Chevron or Gulf industrial lubricants cannot supply this fluid, contact the Synthetic Fluids Business Group. Chevron Chemical Company at Houston, Texas. Telephone 800-231-0172.

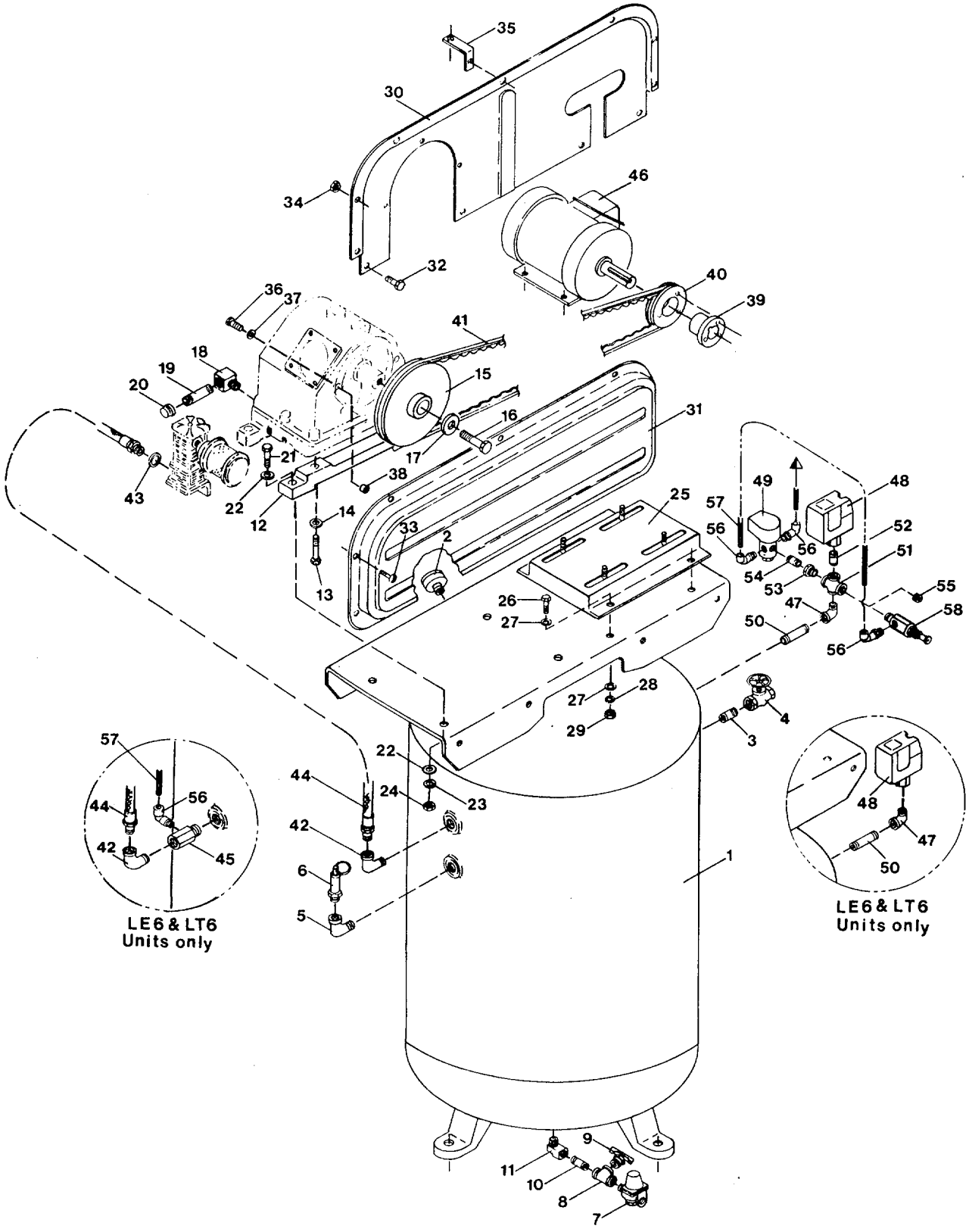


Figure 1

Figure 1

REF. NO.	PART NO.	PART NO.	PART NO.	QTY.	DESCRIPTION
	LE6, LT6 LE6A	LE7, LE8 LT7, LT8	LE9, LT9		
1	1310 0943-07 (1)			1	60 Gal. Vert. Tank
	1310 0943-13 (2)			1	60 Gal. Vert. Tank
		1310 0943-09		1	80 Gal. Vert. Tank
			1310 0943-12	1	80 Gal. Vert. Tank
2	9710 1003-00	9710 1003-00	9710 1003-00	1	Press. Gauge
3			9710 5630-02	1	Nipple 1/2 NPT
		9710 5630-03	9710 5630-03	1	Nipple 3/4 NPT
4			9710 5321-00	1	Gate Valve 1/2 NPT
		9710 5322-00	9710 5322-00	1	Gate Valve 3/4 NPT
5	9710 6011-49	9710 6011-49	9710 6011-49	1	Elbow 1/4 NPT
6	9710 5335-00	9710 5335-00	9710 5335-00	1	Safety Valve
7	9710 5273-00	9710 5273-00	9710 5273-00	1	Drain Trap
8	1310 0943-42	1310 0943-42	1310 0943-42	1	Tee 3/8 NPT
9	1310 0140-00	1310 0140-00	1310 0140-00	1	Drain Cock
10	9710 5630-11			1	Nipple 3/8 NPT x 6" Lg.
		1310 0943-39	1310 0943-39	1	Nipple 3/8 NPT x 7.5" Lg.
11	1310 0943-41	1310 0943-41	1310 0943-41	1	Elbow 3/8 NPT
12	1503 0104-00	1503 0058-00	1503 0026-00	1	Foot
13	0147 1326-03	0147 1326-03		2	Screw M8 x 30 mm Lg.
			0147 1366-03	2	Screw M10 x 45 mm Lg.
14	0301 2335-00	0301 2335-00		2	Washer M8
			0301 2344-00	2	Washer M10
15	1310 0943-32			1	Flywheel 1 Groove
		1310 0943-31		1	Flywheel 2 Groove
			1310 0943-30	1	Flywheel 3 Groove
16	0147 1367-03			1	Screw M10 x 50 mm Lg.
		0147 1485-03	0147 1485-03	1	Screw M16 x 80 mm Lg.
17	1503 0205-00			1	Washer
		1503 0206-00	1503 0206-00	1	Washer
18	9710 5666-00	9710 5666-00	9710 5666-00	1	Elbow
19	9710 5630-11	9710 5630-11	9710 5630-11	1	Nipple
20	9710 5686-01	9710 5686-01	9710 5686-01	1	Cap