Component

Maintenance

Manual

with

Illustrated Parts List

for

Z12-89600-SERIES

Motor-Compressor-Condenser Assembly

Record of Revision

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Z12-89600 COMPONENT MAINTENANCE MANUAL

List of Effective Pages and Table of Contents

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1.0 INTRODUCTION

1.1 This Component Maintenance Manual provides information on the maintenance, maintenance schedules and repair and replacement of parts.

1.2 Refer to the Illustrated Parts List (IPL) in Section 5 when using this manual or ordering replacement parts. Parts are identified in parenthesis (FIG-ITEM NO.).

1.3 This MCC is part of a vapor cycle air conditioning system. The refrigerant is HFC-134a commonly referred to as R134a. The compressor has a lubricant reservoir which is serviced with 14 ounces of Poloyl Ester (P.O.E.) synthetic oil.

1.4 THEORY OF OPERATION

1.4.1 Refrigerant is compressed into a high pressure vapor in the electric motor driven compressor. The refrigerant moves to the condenser where air is forced over the coils. As the gas is cooled heat is released and the refrigerant condenses into a high pressure liquid and travels to the evaporators. At the evaporators the liquid passes through a thermostatic expansion valve and becomes a low pressure liquid which as it passes through the coil absorbs heat from the cabin and evaporates into a low pressure gas and returns to the compressor for the cycle to begin again.

2.0 SPECIAL TOOLS AND EQUIPMENT

2.1 TOOLS: The following special tools are required to perform the maintenance described in this manual.

ITEM	SOURCE
Dip, Stick, Compressor Oil	Refer to 3.2.2.1.
Belt deflection gauge.	Commercially available.
Leak Detector, for HFC-134a	Commercially Available.
Comb Set, Fin.	Commercially Available.
Power Supply capable of 28VDC, 50 Amps	Commercially Available.
Refrigerant Recovery/Recycle equipment meeting SAE J1990 or J2209 specifications.	Commercially Available.
Manifold Gauge Set, R-134a, with automotive service connections.	Commercially Available.
Refrigeration Vacuum Pump.	Commercially Available.
Scale with 0.1 lb. increments (minimum).	Commercially Available.

2.1.2 Refer to applicable ZEE SYSTEMS Service Letter(s) for any additional special tools which may be required to service the air conditioning system.

2.2 MATERIALS: The following material may be required to perform maintenance described in this manual.

ITEM	SOURCE
MS20995C25 Lock Wire	Commercially Available.
MS20995C32 Lock Wire	Commercially Available
Refrigerant, HFC-134a	Commercially Available.
Lubricant, Refrigeration, Lubrizol 2916 Castrol SW100, Icematic Alternate P/N:431756C any Poloyl Ester (P.O.E.) refrigerant oil with ISO of 100 or 150.	Commercially Available.
Liquid Detergent, water soluble	Commercially available.
Cloth, lint free	Commercially available.
Tape, Insulation,	Commercially available.

3.0 REPAIR AND REPLACEMENT OF COMPONENTS

CAUTION

AIR CONDITIONING SYSTEM UNDER PRESSURE. APPROPRIATE SAFETY MEASURES SHOULD BE TAKEN WHEN SERVICING THIS EQUIPMENT. ONLY TRAINED PERSONNEL WITH APPROVED SAFETY EQUIPMENT SHOULD PERFORM SERVICING DUTIES.

NOTE

IT IS UNLAWFUL TO RELEASE R-12 OR OTHER REFRIGERANTS TO THE ATMOSPHERE. USE APPROVED RECOVERY/RECYCLE EQUIPMENT TO CAPTURE REFRIGERANTS. USE ONLY LAWFUL MEANS TO DISPOSE OF RECOVERED REFRIGERANTS. CHECK WITH LOCAL AGENCIES FOR APPROVED DISPOSAL PROCEDURES.

NOTE

CAP ALL OPEN LINES TO PREVENT CONTAMINANTS AND MOISTURE FROM ENTERING THE SYSTEM.

NOTE

DUE TO THE TIGHT FIT OF THE MOTOR COMPRESSOR CONDENSER ASSY IT MAY BE NECESSARY TO REMOVE THE MOTOR COMPRESSOR CONDENSER ASSY AND THE EVAPORATOR TO PERFORM SOME OF THE MAINTENANCE DESCRIBED BELOW.

3.1 DRIVE BELTS (2/3-72, 2/3-73)

3.1.1 REMOVAL. Extreme care should be taken during maintenance not to strike or use pullers directly against the hardened (black or grey) area of these pulleys as this may crack or chip the anodized surface.

3.1.2 Secondary Belt (2/3-73): To remove the belts start with the secondary belt. Loosen the four bolts (1/3/4-46) then loosen the secondary belt adjusting bolt (2-69). This slides the compressor toward the jack shaft assembly (1-6), remove the secondary belt from the compressor pulley first then the small pulley on the jack shaft assembly.

3.1.2 Primary Belt (2/4-72): Loosen the two locking bolts (1-68). Put a 3/8" diameter pin in the hole in the jack shaft and lift upward. This will loosen the primary belt, remove the belt from the jack shaft pulley first then from the motor pulley.

3.1.2 INSPECTION: Inspect each belt for deterioration, damage and fraying. Replace defective belts.

3.1.2.1 Check the belt alignment before running the motor. Turn the compressor pulley by hand to see that belts are properly aligned. Slight striking of the belt against the rim on the small pulleys is normal but not to the point where chafing occurs. Readjust belts if necessary. Next run the motor and check for smooth operation. If a belt hops or flutters it is too loose. If the belt is too tight against the pulley rim a discharge of fine dust like rubber particles will occur. Check the condition of the smaller pulley rim and readjust belts as necessary. Once the belts are adjusted and the hardware iS properly tightened no further adjustments should be necessary if the components are not disturbed.

3.1.4 INSTALLATION: Always place the belt over the smaller diameter pulley first then carefully slide the belt over the larger diameter pulley. Care should be taken to not tear the edges of the belts. Place both belts loosely over the pulleys.

3.1.4.1 With the belts loosely in place, make sure that the jack shaft assembly (1-6) is centered axially in the frame assembly so the belts will track as close as possible to the center of each pulley and 3/8" pin hole is pointing upward. Tighten the four compressor mount bolts (1/3/4-46) to the point where the compressor slides but that compressor base plate (1-17) is fairly well seated. If this is not done the belt tension will change when the bolts (1/3/4-46) are tightened.

3.1.5 BELT ADJUSTMENT: Anytime the primary belt has been loosened both belts must be loosened and readjusted. Always adjust the primary belt first.

3.1.5.1 Primary Belt (2/4-72) Adjustment: Insert the 3/8" pin in the jack shaft assembly (1-6) and push downward on the pin to tighten the primary belt until a tension of 1/8" deflection midway between pulleys with 2-3 pound pull is achieved. Tighten the two locking bolts (1-68) to torque of 30 foot-pounds.

3.1.5.2 Secondary Belt (2/3-73) Adjustment: Tighten the adjusting bolt (2-69) until a tension of 1/8" deflection midway between pulleys with a 4-5 pound pull is achieved. Tighten the four bolts (1/3/4-46) to a torque of 40 foot-pounds. Loosen the adjusting bolt (2-69) and tighten to a torque of 15 inch-pounds.

3.1.5.3 Once a drive is properly adjusted no further maintenance should be required unless the adjustment is disturbed by component replacement. It is recommended that belts be replaced in pairs.

3.2 COMPRESSOR (1-32)

3.2.1 REMOVAL: Loosen the four bolts (1/3/4-46) then loosen the adjusting bolt (2-69) and remove the secondary belt. Remove the four bolts and washers (1/3/4-46, 1-70,) and adjusting bolt (2-69) and lift the compressor (1-32) and base plate (1-17) from the side frames. Separate the compressor from the base plate by loosening and removing the three bolts (NS-24, 1-51, 1-56). To remove the pulley (1/3-8) loosen, but do not completely remove bolt (3-47) and washer (3-3). Evenly pry between the compressor boss and the pulley hub until the pulley is free. Now remove the bolt (3-47), washer (3-3) and pulley (1/3-8) and set aside to be installed on new compressor.

3.2.2 INSPECTION: Check for signs oil leakage around the fittings.

3.2.2.1 Check oil level. Fashion an oil dip stick from any soft metal bar or rod stock approximately 9-1/4" long. Bend metal as shown in Illustration 1 below. Remove the oil fill plug on top of the compressor, take care not damage the O-ring. Place the dip stick in the opening, make sure the dip stick goes in past the crankshaft and pistons. Minimum oil depth is 13/16"; full is 1-5/8". Refer to Section 6.0 for correct oil level for your system and add oil as necessary. Return and tighten oil fill plug.

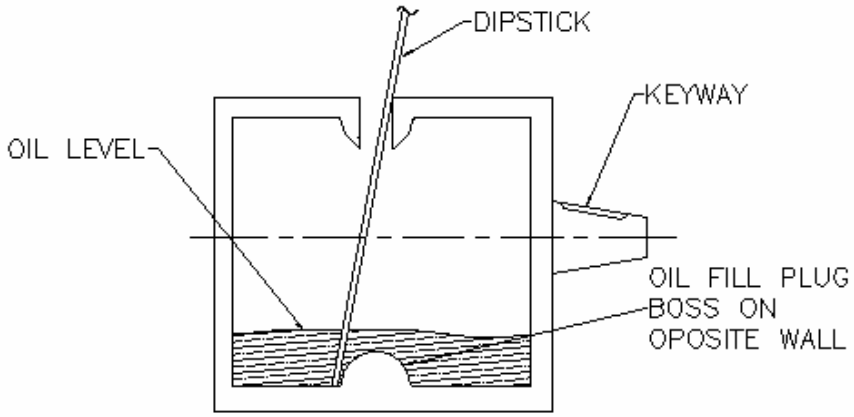

ILLUSTRATION 1.

3.2.3 PULLEY INSTALLATION: Place the pulley on the new compressor and align on the shaft key. Using a block of wood, lightly tap the pulley on the compressor shaft. Take care not to damage pulley or strike tooth rim area. Place washer (3-3) and bolt (3-47) in place and torque to 20 foot-pounds, secure with .032 diameter lock wire.

3.2.4 BASE PLATE REASSEMBLY: Attach the base plate (1-17) to the compressor using the three bolts (NS-24, NS-51, NS-56), torque to 45 foot-pounds.

3.2.5 INSTALLATION: Set the assembled compressor and base plate (3.2.3 and 3.2.4) on the side frames (4-19, 3-20) and reassemble using bolts and washers (1/3/4-46, 1-70). Tighten and torque to 40 foot-pounds, secure with .032 dia. lock wire. Install belts in accordance with Section 3.1.4.

3.3 MOTOR, COMPRESSOR DRIVE (1/3/4-16)

3.3.1 REMOVAL: Disconnect the positive and negative leads to the motor. Remove and set aside the primary belt in accordance with paragraph 3.1.3.2. Hold the motor pulley with a spanner wrench and loosen (right hand thread) the fan shaft assembly (1-5) by turning the 1" hex nut. Do not completely remove the fan shaft assembly at this time.

3.3.1.1 Remove the safety bolts (2-10). Loosen the lock nuts (2-67). Back out the motor mount locking bolts (1-66). It may be necessary to loosen bolt (2-44).

3.3.1.2 The motor may be slightly stuck to the support assemblies (1-18), lightly pry with a screwdriver to break it loose. Slide the motor away from the condenser coil far enough to remove the fan shaft assembly (1-5) and spacer (2-4) from the motor shaft, set it aside. Now slide the motor completely out of the frame.

NOTE: New or ZEE SYSTEMS overhauled motors come with the motor pulley fitted on the shaft.

3.3.2 INSPECTION: Refer to Service Letter 58-001 for brush inspection information.

3.3.3 INSTALLATION: Slide the motor into the side frames (4-19, 3-20) place the spacer (2-4) on the fan shaft assembly (1-5) and start it on the end of the motor shaft, tighten to finger tight. Hold the motor and line up the two supports (1-18) and start the safety bolts (2-10).

3.3.3.1 Tighten the two mounting bolts (1-66) and torque to 20 inch-pounds then tighten the lock nuts (2-67). Check to insure the three point mount (two supports and mounting bolts) is maintained. If bolt (2-44) was loosen, tighten it now. Tighten the two safety bolts (1-66).

3.3.3.2 Tighten the fan shaft assembly (1-5). Using a spanner wrench hold the motor pulley and tighten the 1" hex nut on fan shaft assembly.

3.3.3.3 Install and adjust the belts (3.1.4 and 3.1.5).

3.4 FAN SHAFT ASSEMBLY (1-5)

3.4.1 REMOVAL: Remove and set aside the primary belt in accordance with paragraph 3.1.3. Hold the motor pulley with a spanner wrench and loosen (right hand thread) the fan shaft assembly (1-5) by turning the 1" hex nut.

3.4.2 INSPECTION. Check for broken or damaged blades (NS-5A). Replace as necessary. Inspect the blades are evenly spaced. Blades should be spaced every 30 degrees. Correct blade position as required.

3.4.2 INSTALLATION: Place the spacer (2-4) on the fan shaft assembly (1-5) Attach the fan shaft assembly (1-5) and start it on the end of the motor shaft, tighten spacer to finger tight. Adjust belt(s) in accordance with paragraph 2.1.5.

3.5 JACK SHAFT ASSEMBLY (1-6)

3.5.1 REMOVAL: First remove the belts in accordance with 3.1.3. Take care not to nick or damage the hard anodized (black/grey) tooth area of the pulley.

3.5.1.1 Remove bolts (2/3/4-64) from the Browning taper lock bushing (4-58). Place the bolts (2/3/4-64) in the threaded holes in the bushing flange. Remove the pulley by alternately tightening the bolts into the bushing. Tap bushing from shaft and remove pulley. Loosen bolts (1-68) and slide jack shaft assembly from frame. It may be necessary to wedge open the clamp (1-11, 1-12) if the jack shaft does not readily slide out.

3.5.2 INSPECTION: Inspect the pulley (4-9) for wear. Check for damaged or rounded teeth. Excessive wear will show as shinny areas on the teeth. Replace if damaged.

3.5.2.1 Inspect the small pulley (NS-6A) damaged or rounded teeth. Replace if damaged.

3.5.2.2 Inspect the jack shaft housing for cracks or other damage. Turn the shaft in the housing, it should turn free and true, there should not be any end play in the bearings. Replace assembly as required. NOTE: New or overhauled Jack Shaft Assembly from ZEE SYSTEMS will come with the small pulley fitted to the shaft.

3.5.3 INSTALLATION: Slide jack shaft assembly into clamps (1-11, 1-12) and align it so the belt will ride centered on the compressor pulley and the small pulley on the jack shaft, and tighten bolts (1-68) to hold the assembly while attaching the other (4-9) jack shaft (large) pulley. Slip the pulley (4-9) over the shaft. Using a rawhide mallet tap bushing into the pulley until approximately 1/8" of the shaft shows.

NOTE: If bushing is tight DO NOT PRY the slot open, this will disturb the machined alignment of the bushing.

3.5.3.1 Install the two bolts and washers (2/3/4-53, 2/3/4-64) and evenly tighten, this will move the pulley toward the bushing, continue tightening until the outer edge of the pulley is even with the outer flange of the motor pulley so the belt will ride centered. Turn shaft and check the pulley is square on shaft, realign as necessary. This takes patience and will become a quick and easy procedure with practice.

3.5.3.2 Install and align belt(s) in accordance with paragraphs 3.1.4 and 3.1.5. The belt (2/4-72) should ride in the middle of the (large) pulley (4-9). Run the motor and check the belt does not walk on the pulley, then secure (2/3/4-53, 2/3/4-64) bolts and washers with .025 diameter lock wire.

4.0 SERVICING - REFRIGERANT CHARGE

CAUTION

AIR CONDITIONING SYSTEM UNDER PRESSURE. APPROPRIATE SAFETY MEASURES SHOULD BE TAKEN WHEN SERVICING THIS EQUIPMENT. ONLY TRAINED PERSONNEL WITH APPROVED SAFETY EQUIPMENT SHOULD PERFORM SERVICING DUTIES.

NOTE

IT IS UNLAWFUL TO RELEASE R-12 OR OTHER REFRIGERANTS TO THE ATMOSPHERE. USE APPROVED RECOVERY/RECYCLE EQUIPMENT TO CAPTURE REFRIGERANTS. USE ONLY LAWFUL MEANS TO DISPOSE OF RECOVERED REFRIGERANTS. CHECK WITH LOCAL AGENCIES FOR APPROVED DISPOSAL PROCEDURES.

NOTE

CAP ALL OPEN LINES TO PREVENT CONTAMINANTS AND MOISTURE FROM ENTERING THE SYSTEM.

4.1 CHARGING INSTRUCTIONS. are basically the same for R-12 (Freon) and CFC-free R-134a refrigerant. However, a sight glass is not used to determine adequate refrigerant charge for R-134a. R-134a systems are charged to a predetermined amount (by weight) of refrigerant. See Section 2.1 and 2.2 for required equipment and materials to service the air conditioning system.

4.1.1 On new installations or whenever the refrigerant has been evacuated from the air conditioning system the oil in the compressor must be checked and replenished as necessary. Check the oil at 100 hours of system operation. Thereafter, check the oil every 500 hours of operation. DO NOT add oil to the refrigerant.

NOTE

REFER TO SERVICE EQUIPMENT MANUFACTURERS INSTRUCTIONS. SOME EQUIPMENT MAY COMBINE FUNCTIONS.

4.1.2 Evacuate the system for a minimum of four hours ***anytime*** the system has been opened to atmosphere. If the system has been opened for component replacement or in high humidity the receiver-dryer should be replaced and the system evacuated for a minimum of 8 hours.

4.1.3 Weigh the refrigerant bottle.

CAUTION

NEVER INVERT THE REFRIGERANT BOTTLE SO THE DISCHARGE VALVE IS ON THE BOTTOM. THE REFRIGERANT BOTTLE MUST BE KEPT UPRIGHT TO PERMIT OF GAS ONLY INTO THE COMPRESSOR. INVERTING THE BOTTLE WILL PERMIT LIQUID TO ENTER THE COMPRESSOR RESULTING POSSIBLE COMPRESSOR DAMAGE. THIS PRACTICE WILL VOID COMPRESSOR WARRANTY.

4.1.4 Static Charge: Shut OFF valve in the manifold set. Attach the manifold line to the refrigerant bottle. Attach the High side manifold line to the Pressure side Service Port and the Low side manifold line to the Suction side of the system.

4.1.5 With motor OFF, OPEN the High Pressure and Low Pressure manifold valve. Allow the system to take a static charge. When the pressureS equalize or if the maximum charge weight is achieved CLOSE both the High and Low pressure valves at the manifold.

4.1.6 Using a leak detector check for leaks. Correct any problems. Perform 4.1.4 and 4.1.5 until a tight system with no leaks is achieved.

4.1.7 With the High and Low pressure manifold valves CLOSED, turn ON the compressor motor and evaporator blowers. OPEN only the **Low** pressure manifold valve until the Manifold gauge reads 30-40 pounds pressure.

4.1.7.1 Keep close watch on the scale and when the target weight is reached immediately CLOSE the Low pressure manifold valve.

4.1.8 Disconnect the servicing equipment. Replace the High side (red), Low side (blue) service port caps and back seat valve caps.

4.2 TOPPING OFF: To top off the charge check the refrigerant charge by running the system with an ambient air temperature of at least 80F.

4.2.1 Place a temperature measuring device to read the ambient air temperature entering the condenser.

4.2.2 Connect the High side manifold line to the Discharge pressure port. Connect the Low side manifold line to the Suction port.

4.2.3 Using the TEMPERATURE-PRESSURE CHART, ILLUSTRATION 2. convert the High side pressure reading into temperature.

4.2.4 Calculate the Temperature Difference (TD) by subtracting the air inlet temperature from the temperature determined in 4.3.3. The TD should be less than 30F. If the TD is higher than 30F the system is overcharged or there is an obstructed air flow over the condenser.

4.2.4.1 If the system is overcharged remove refrigerant using recovery equipment by approved methods.

4.2.4.1 If the TD is less than 20F open the Low side manifold until the gauge reads 30-40 PSIG. Continue to charge until the TD is 25F.

4.2.5 When service is complete disconnect the service hoses and replace the High side (red), Low side (blue) service port caps and back seat valve caps.

4.3 INSPECTION: With the system running check for leaks, proper belt alignments, vibration, and high current draw.

TEMP F	R-134a PRESSURE	TEMP F	R-134a PRESSURE
50	45.5	100	124.3
52	47.7	102	128.5
54	50.1	104	132.9
56	52.3	106	137.3
58	55.0	108	142.8
60	57.5	110	146.5
62	60.1	112	151.3
64	62.7	114	156.1
66	65.5	116	161.1
68	68.6	118	166.1
70	71.2	120	171.3
72	74.2	122	176.6
74	77.2	124	182.0
76	80.3	126	187.5
78	83.5	128	193.1
80	86.8	130	198.9
82	90.2	132	204.7
84	93.6	134	210.7
86	97.1	136	216.8
88	100.7	138	223.0
90	104.4	140	229.4
92	108.2	142	235.8
94	112.1	144	242.4
96	116.1	146	249.2
98	120.1	148	256.0
		150	263.0

ILLUSTRATION 2.

5.0 SERVICE SCHEDULES

5.1 MAINTENANCE SCHEDULE

ITEM DESCRIPTION	INSPECTION INTERVAL *	R&R/T.B.O. HRS
Z12-89600 M-C-C	FIRST 100 HRS* AFTER OH OR NEW - CHECK OIL LEVEL, REPLENISH AS NECESSARY.	2500
	EVERY 250 HRS* - INSPECT FOR LOOSE, DAMAGED ITEMS. CHECK FOR AND REMOVE ANY DEBRIS OR OBSTRUCT-IONS TO THE CONDENSER COILS. CHECK FOR SIGNS OF OIL LEAKS. BELT CONDITION AND ALIGNMENT OF PULLEYS.	
DRIVE BELTS**	EVERY 250 HRS* - INSPECT AS PER SECTION 3.1.2	800
MOTOR **	EVERY 1000 HRS* - INSPECT AS PER SECTION 3.3.2 AND SERVICE LETTER 58-001.	1500
JACK SHAFT**	EVERY 1000 HRS* - INSPECT AS PER SECTION 3.5.2	1500
COMPRESSOR**	AFTER THE FIRST 100 HOURS - INSPECT AS PER SECTION 3.2.2.1	
	EVERY 500 HRS - INSPECT AS PER SECTION 3.2.2	1500

* UNIT OPERATING TIME

** COMPONENT IS PART OF THE M-C-C

6.0 TOLERANCES

6.1 COMPRESSOR OIL. The minimum compressor oil depth is 13/16" (20mm). The Maximum is 1-5/8” (41mm). Replenish as necessary.

6.2 REFRIGERANT CHARGE. Refrigerant charge is 4.0 lbs. of R-134a into a dry system.

6.3 BRUSH LENGTH, COMPRESSOR DRIVE MOTOR. The minimum brush length on the drive motor is 0.750" (19mm). Refer to SIL 58-001.

6.4 TORQUE VALUES. Use standard torque values for bolts. Refer to Manual SZ206 for torque values and torque sequence for the compressor.

7.0 TROUBLE SHOOTING

TROUBLE	POSSIBLE CAUSE	REMEDY
Compressor Motor trips circuit breaker.	Motor shorted. Motor brushes worn beyond limits.	Replace Motor.
Compressor Motor trips current limiter.	Short in wiring.	Check wiring to motor, repair as required.
Compressor Motor inoperative.	Motor open. Motor brushes worn beyond limits.	Replace Motor.
	Short in wiring.	Check wiring to motor, repair as required.
Excessive vibration at Motor/Compressor.	Improper belt tension.	Adjust belt to correct tension.
	Worn, damaged or loose or over tightened mounts.	Adjust or replace mounts.
Quick refrigerant loss.	Open in system.	Check compressor head gasket. Check Hoses or tubing for holes. Check connections. Replace defective component. Service system
Defective O-Ring.	Replace defective O-Ring. Service system	
	Loose connections.	Tighten connections. Service system
Slow refrigerant loss.	Loose connections.	Tighten connections. Service system

8.0 ILLUSTRATED PARTS LIST

8.1 EXPLANATION OF SYMBOLS:
ALT - The Part Number shown is an approved alternate, either part number may be used.
MOD "X" Refers to modification information of this part as applicable to this assembly.
NP - Not Procurable individually, see next higher assembly.
NS - Not Shown
OBS - Obsolete
USAGE/QTY - This identifies parts used on specific applications (not common to all units).
.. - Part of higher assembly.
*/# - See explanation at end of parts list.

FIG-ITEM		*PART NUMBER*	*NOMENCLATURE*	*QTY*	*USAGE CODE*
		Z12-89600-1	MOTOR COMPRESSOR CONDENSER ASSY		A
		Z12-89600-2	MOTOR COMPRESSOR CONDENSER ASSY		B
1/3/4	-1	DS200E137-8	ELBOW	1	A,B
1	-2	DS200U137-6	UNION	1	A,B
3	-3	SZ37-014-3	WASHER	1	A,B
2	-4	SZ41-019-3	SPACER	1	A,B
1	-5	SZ41-034-1B	FAN SHAFT ASSY	1	A,B
NS	-5A	1063T-100	--FAN	4	A,B
1	-6	SZ43-004-1A	JACK SHAFT ASSY	1	A,B
NS	-6A	SZ43-009-3	--PULLEY	1	A,B
4	-7	SZ43-008-3	PULLEY, MOTOR	1	A,B
1/3	-8	SZ43-017-3	PULLEY, COMPRESSOR	1	A,B
4	-9	SZ43-018-3	PULLEY, PRIMARY	1	A,B
2	-10	SZ43-020-3	BOLT, SAFETY	2	A,B
1	-11	SZ44-007-3	CLAMP	1	A,B
1	-12	SZ44-007-4	CLAMP	1	A,B
2	-13	SZ44-008-5	BAR	1	A,B
2	-14	SZ44-008-7	BAR	1	A,B
1	-15	SZ55-033-1	COIL ASSY	1	A,B
1/3/4	-16	SZ58-003-1	MOTOR ASSY, COMP. DRIVE	1	A,B
1	-17	SZ58-009-3	PLATE, COMPRESSOR	1	A,B
1	-18	SZ58-010-1	SUPPORT ASSY	2	A,B
4	-19	SZ58-012-3	FRAME	1	A,B
3	-20	SZ58-012-4	FRAME	1	A,B
2	-21	SZ58-013-3	CLIP, SAFETY	1	A,B
2	-22	SZ58-018-3	ANGLE	2	A,B
1	-23	SZ58-019-3	MOUNT	4	A,B
NS*	-24	SZ58-440-1	BOLT	3	A,B
1	-25	SZ59-050-1	RECEIVER-DRYER	1	A

FIG-ITEM		*PART NUMBER*	*NOMENCLATURE*		*QTY*	*USAGE CODE*
1	-26	SZ65-003-1	BASE PLATE ASSY		1	A,B
1	-27	SZ65-004-1	DUCT ASSY, OUTLET		1	A,B
1/2	-28	SZ65-004-1A	DUCT ASSY, INLET		1	A,B
1	-29	SZ65-006-3	SPACER		4	A,B
1	-30	SZ65-007-3	COVER		1	A,B
1	-31	SZ65-008-3	BOLT		4	A,B
1	-32	SZ84-913TJ-1	COMPRESSOR		1	A,B
1	-33	Z12-302-1	ANGLE		1	A
1	-34	Z12-303-1	BRACKET		1	A
1/3/4	-35	Z2006270BC162	HOSE ASSY		1	A
1/4	-36	Z2008B090AX130	HOSE ASSY		1	A
1	-37	AN315-5R	NUT		4	A,B
4	-38	AN364-428A	LOCKNUT	ALT: MS21083N4	2	A,B
1	-39	AN364-624A	LOCKNUT	ALT: MS21083N6	1	A,B
1/2	-40	AN365-428A	LOCKNUT	ALT: MS21044N4	5	A,B
1	-41	AN365-624A	LOCKNUT	ALT: MS21044N6	1	A
1	-42	AN365-832A	LOCKNUT	ALT: MS21044N08	8	A,B
1	-43	AN4-10A	BOLT		4	A,B
2	-44	AN4-11A	BOLT		1	A,B
4	-45	AN4-55A	BOLT		2	A,B
1/3/4	-46	AN5-5A	BOLT		4	A,B
3	-47	AN5H5A	BOLT		1	A,B
3	-48	AN501A10-6	SCREW	ALT: MS35266-61	1	A,B
1	-49	AN6-6A	BOLT		1	A
1/2/3/4	-50	AN935-416	WASHER, LOCK ALT: MS35338-44		6	A,B
1	-51	AN935-616L	WASHER, LOCK ALT: MS35338-46		12	A,B
1	-52	AN935-8	WASHER, LOCK ALT: MS35338-42		16	A,B
2/3/4	-53	AN960-416	WASHER, FLAT ALT: NAS1149F0463P		21	A,B
1/2	-54	AN960-416L	WASHER, FLAT ALT: NAS1149F0432P		10	A,B
1	-55	AN960-516L	WASHER, FLAT ALT: NAS1149F0532P		4	A,B
1	-56	AN960-616L	WASHER, FLAT ALT: NAS1149F0632P		14	A
1	-56	AN960-616L	WASHER, FLAT ALT: NAS1149F0632P		13	B
1	-57	AN960-8L	WASHER, FLAT ALT: NAS1149FN816P		24	A,B
4	-58	G X 5/8	BUSHING		1	A,B
4	-59	MS20995C25	LOCK WIRE		AR	A,B
3	-59A	MS20995C32	LOCK WIRE		AR	A,B
1	-60	MS28775-114	O-RING		1	A,B
1	-61	MS35206-245	SCREW		8	A,B
1	-62	MS35206-246	SCREW		8	A,B
1	-63	MS35649-2382	NUT		12	A,B
2/3/4	-64	NAS1352-4H16P	BOLT		6	A,B
1	-65	R80	WASHER		1	A,B
1	-66	1/4-20UNC-2A X 1.25	BOLT (ANSI)		2	A,B
2	-67	1/4-20UNC-2B	NUT (ANSI)		2	A,B

FIG-ITEM		*PART NUMBER*	*NOMENCLATURE*	*QTY*	*USAGE CODE*
1	-68	1/4-20UNC-2A X 2.25	BOLT (ANSI)	2	A,B
2	-69	1/4-28UNC-2A X 2.25	BOLT (ANSI)	1	A,B
1	-70	5/16 X ¾	WASHER, FLAT, STEEL	4	A,B
2	-66	1/4-20UNC-2A X 1.25	BOLT (ANSI)	2	A,B
1	-71	18-2710	INSULATION	AR	A,B
2/4	-72	187L075	BELT, PRIMARY	1	A,B
2/3	-73	187L100	BELT, SECONDARY	1	A,B
1	-74	200-52S	CLAMP ALT: 200-44S, 200-48S	2	A
4	-75	605	WOODRUFF KEY	1	A,B
1/4	-76	Z2008B000AX130	HOSE ASSY	1	B

* Used to attach compressor to compressor plate.

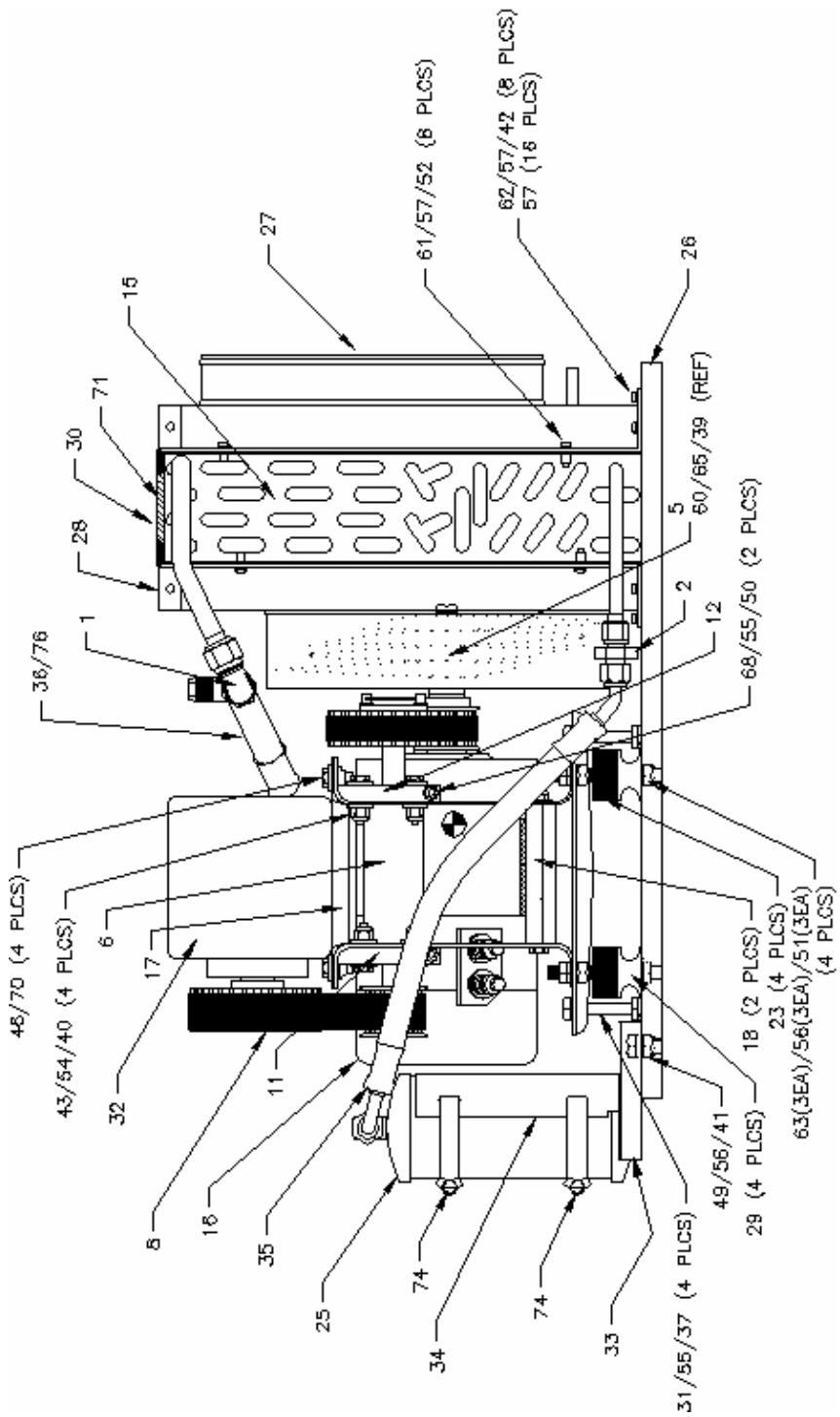
61/57/52 (8 PLCS)
62/57/42 (8 PLCS)
57 (16 PLCS)
27
26
15
71
30
28
1
36/76
5
60/65/39 (REF)
2
12
68/55/50 (2 PLCS)
46/70 (4 PLCS)
43/54/40 (4 PLCS)
6
17
32
11
8
18
35
25
74
34
74
33
31/55/37 (4 PLCS)
49/56/41
29 (4 PLCS)
18 (2 PLCS)
23 (4 PLCS)
63(3EA)/56(3EA)/51(3EA)
(4 PLCS)

FIG. 1

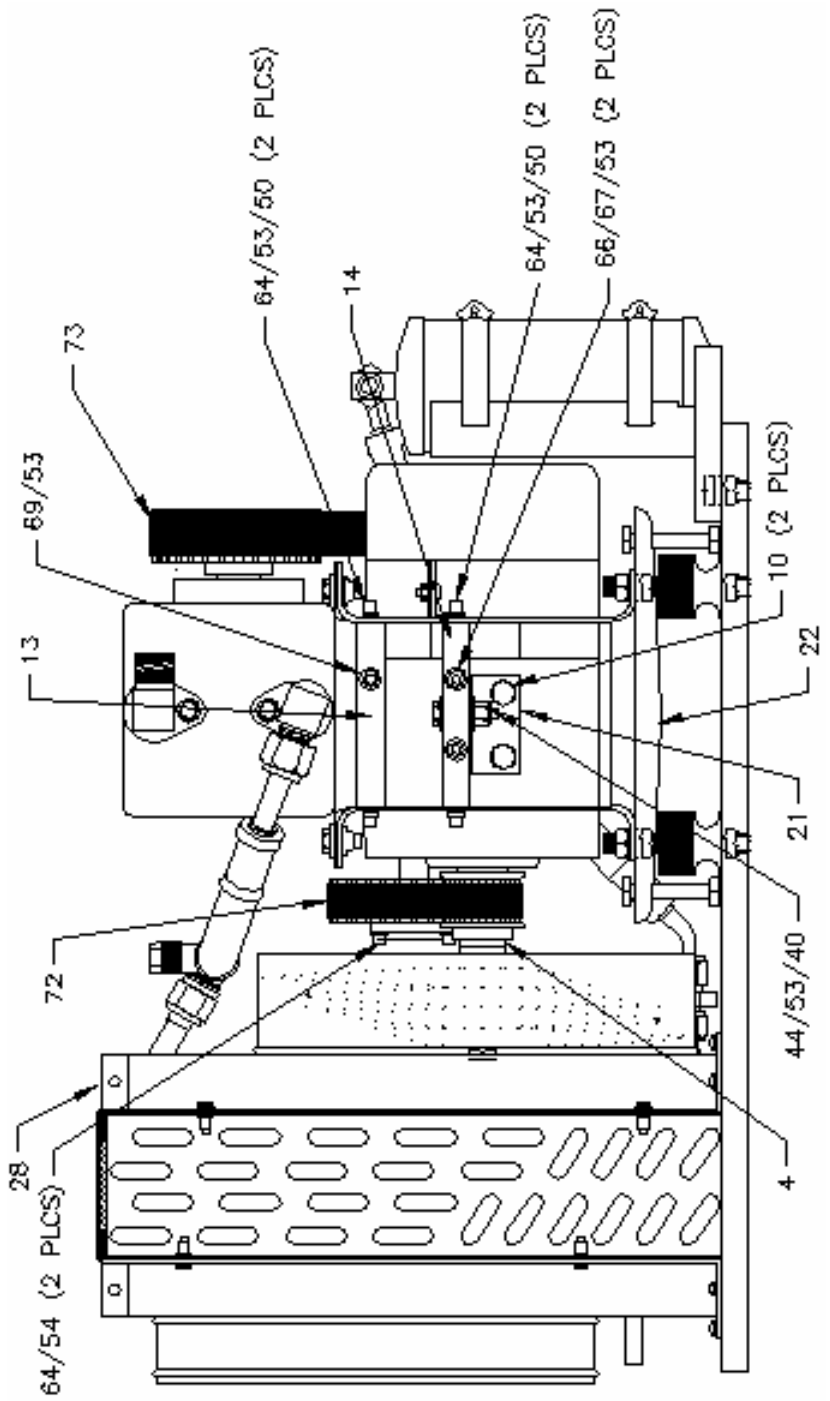
64/53/50 (2 PLCS)
14
64/53/50 (2 PLCS)
66/67/53 (2 PLCS)
73
69/53
10 (2 PLCS)
13
22
21
72
44/53/40
28
4
64/54 (2 PLCS)

FIG. 2

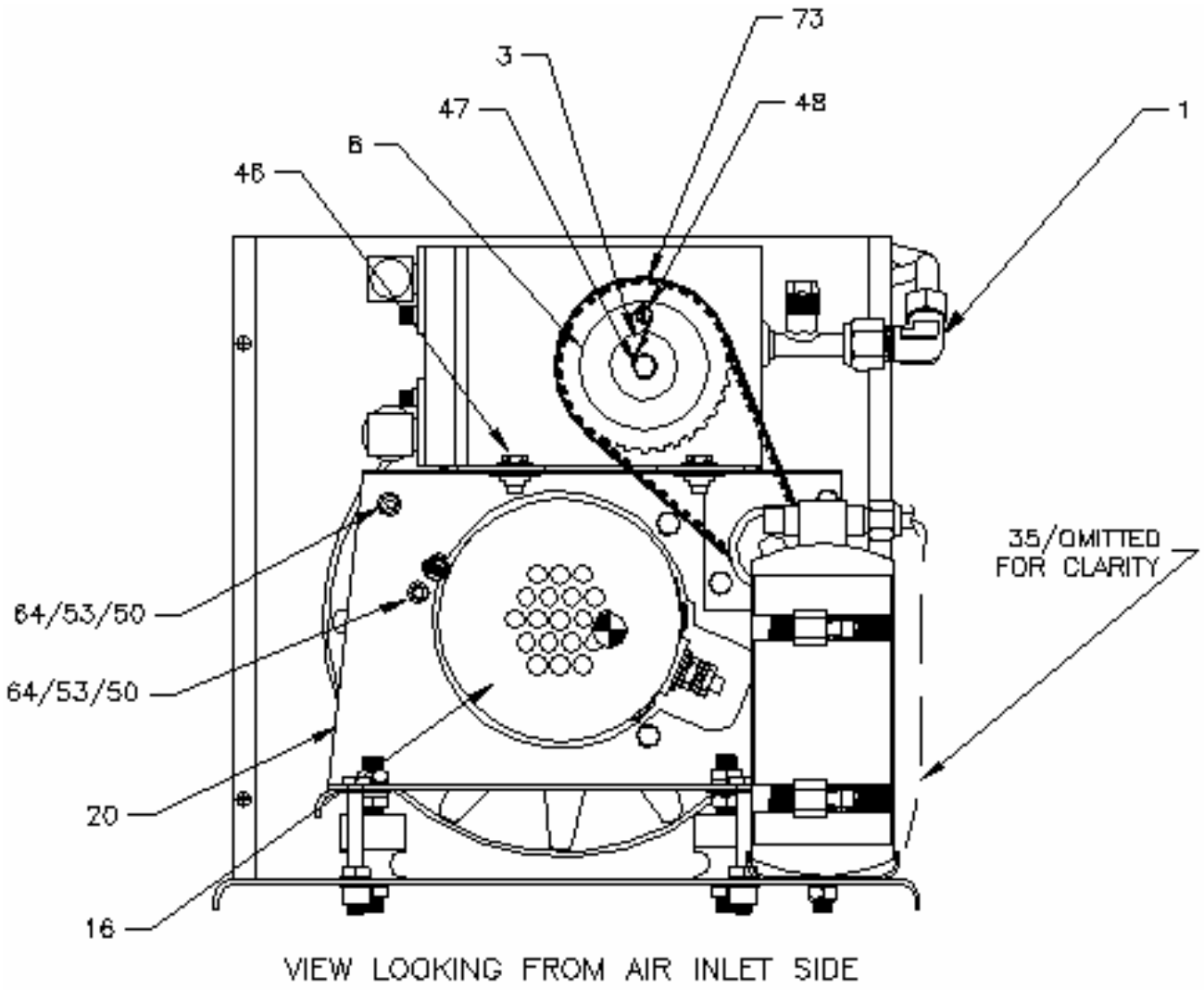
73
3
47
48
1
6
46
35/OMITTED
FOR CLARITY
64/53/50
64/53/50
20
16
VIEW LOOKING FROM AIR INLET SIDE

FIG. 3

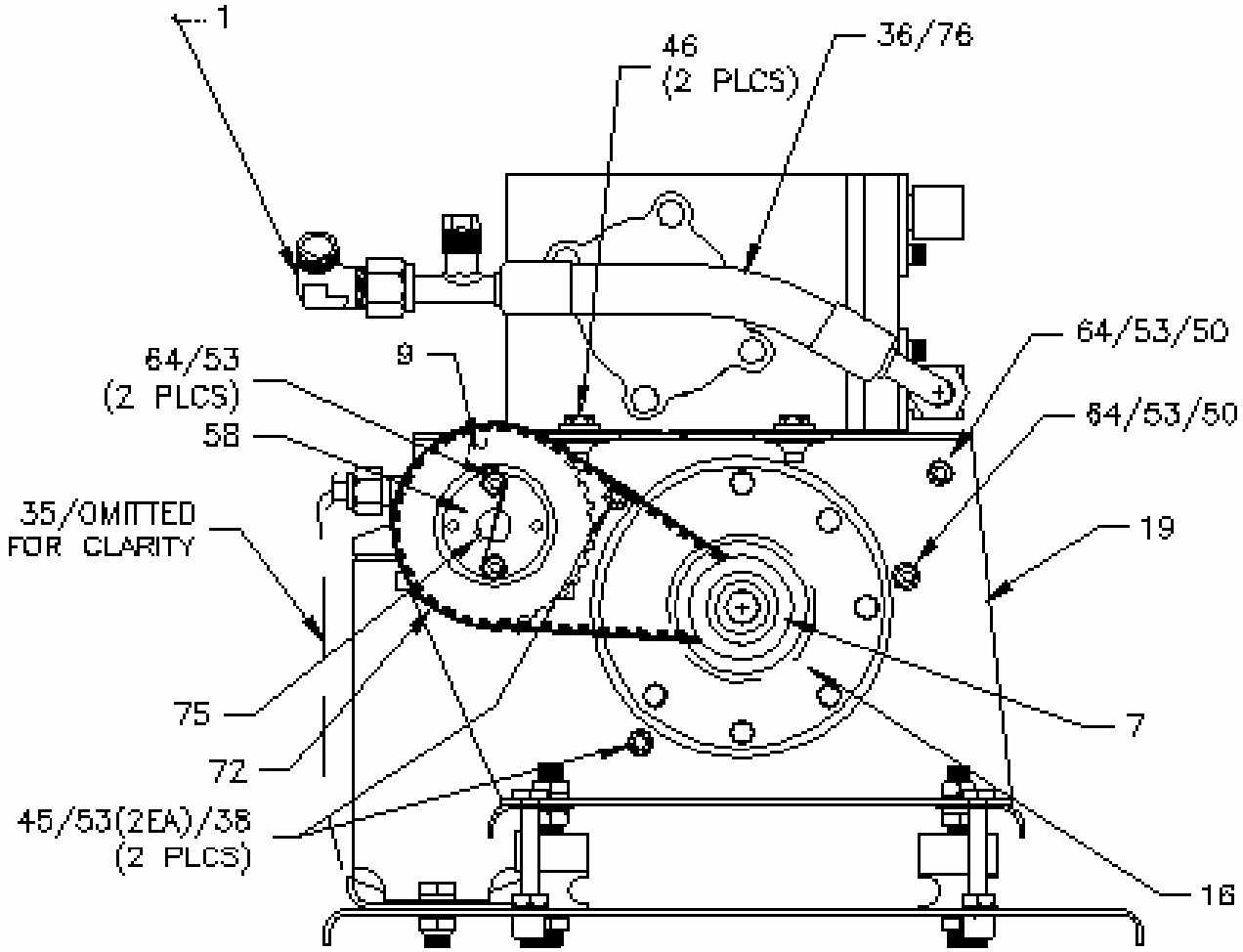
1
46
(2 PLCS)
36/76
64/53/50
64/53/50
9
64/53
(2 PLCS)
58
35/OMITTED
FOR CLARITY
19
75
7
72
45/53(2EA)/38
(2 PLCS)
16
VIEW LOOKING FROM AIR EXHAUST SIDE
CONDENSER COIL AND DUCTS AND FAN SHAFT ASSY
OMITTED FOR CLARITY

FIG. 4