GARDNER DENVER[®]

13-9-511 1st Edition

PARTS LIST ELECTRA-SCREW® STATIONARY COMPRESSOR

50 HP

MODELS ESJAE ESJBE ESJAF ESJBF

Manual Brought to You By: IndustrialAirPower.com

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*50 HP MODELS:

ESJAE & ESJBE (Fan Cooled With Radiator) ESJAF & ESJBF (Water Cooled With Heat Exchanger)

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* Models ESJAE & ESJAF have pressure rating of 100 PSI. Models ESJBE & ESJBF have pressure rating of 125 PSI.

INSTRUCTIONS FOR ORDERING REPAIR PARTS

When ordering parts, specify Compressor SERIAL NUMBER (see nameplate on unit), MODEL, OPERATING PRESSURE, HORSEPOWER and METHOD OF COOLING. Serial Number is also stamped on top of the cylinder flange.

All orders for Parts should be placed with the nearest Sales and Service Office listed on the back cover of this book.

DO NOT ORDER BY SETS OR GROUPS. Where NOT specified, quantity of parts required per compressor or unit is one (1); where more than one is required per unit, quantity is indicated in parenthesis. SPECIFY EXACTLY THE NUMBER OF PARTS REQUIRED.

PARTS NOT SHOWN OR LISTED: Special parts such as Solenoid and Safety Valves, Motors, Starters, Transformers, etc. that require ordering according to voltage, pressure or speed, must be referred to the FACTORY and MUST BE ORDERED by MODEL and SERIAL NUMBER.

Piping, copper tubing, hardware and electrical connections may be purchased locally. However, IT IS THE RESPONSIBILITY OF THE CUSTOMER when making repairs to purchase parts of EQUAL or BETTER quality as those used in the original construction. Refer to Operating Instructions and Service Manual for Piping Schematics and Electrical Diagrams.

PARTS RETURNED

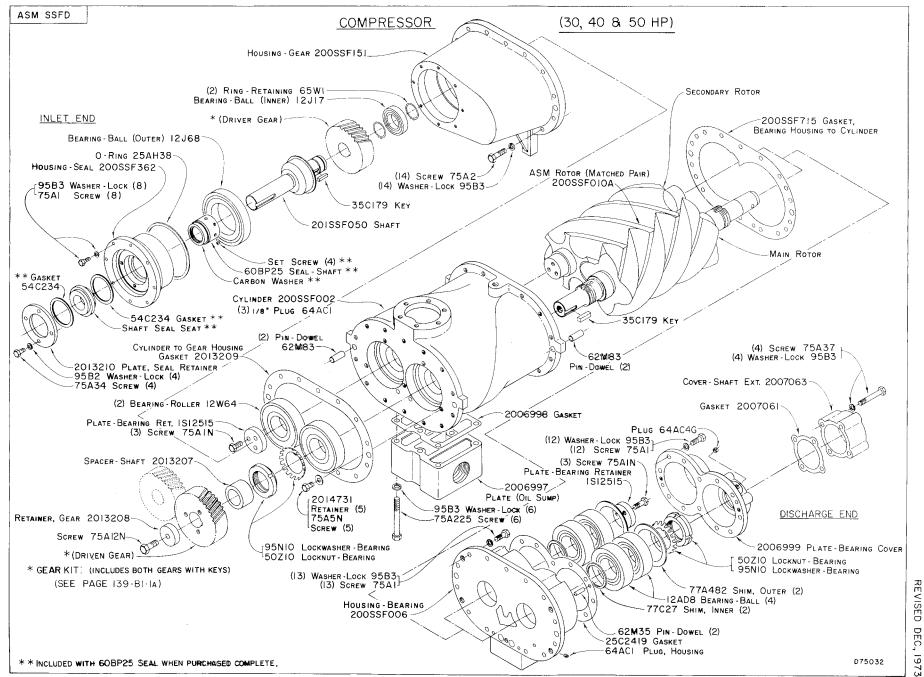
All claims must be made within five days after receipt of goods. If order has been filled correctly, we cannot allow the return of the goods without our consent and then only on a basis of a charge for service and rehandling plus transportation charges.

Transportation charges must be prepaid. If it is necessary to return a part to the factory for duplication or inspection, do not fail to do the following:

- 1. Write the nearest Sales and Service Office a letter advising what material you wish to return and why.
- 2. After receiving permission to return the item or items, obtain from the Sales and Service Office the correct forms filled out by that office for the proper return of material.
- 3. Place a tag in the package showing your name and address.
- 4. Tag each article in the box or package stating what and how many are returned.
- 5. Always give the serial number of the machine from which the parts were removed or the invoice number on which the parts were originally shipped.

All parts returned for credit should be handled in the same manner as that for duplication or inspection.

P/L 139-500b



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139-BI-I

139-BI-I) DEC., 1973

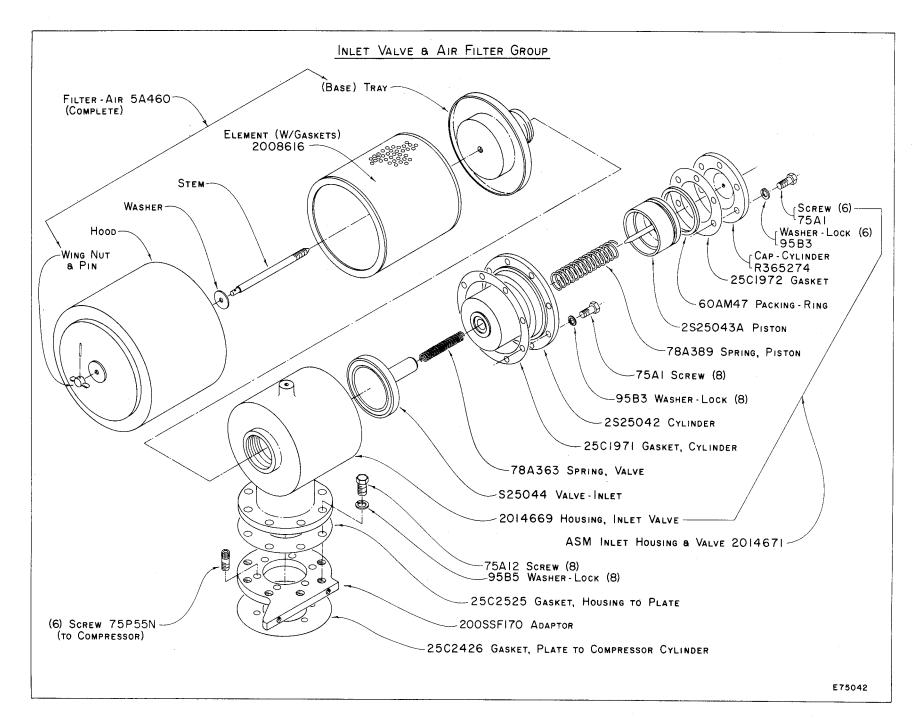
BARE COMPRESSOR REPAIR KITS

(30, 40 & 50 HP)

PSI	НР	MODEL	GEAR KIT	BARE COMPRESSOR FIELD REPLACEMENT GEAR KIT (INCLUDES GEARS)		
			PART NO.	PART NO.	PART NO.	
	30	ESGAE, ESGAF, ESGAH	SSF65897 SSF65897	ESG65942 ESG65942	SSF65888 SSF65888	
100	40	ESHAE, ESHAF, ESHAH	SSF65898 SSF65902	ESH65943 ESJ65940	SSF65888 SSF65888	
	50	ESJAE, ESJAF, ESJAG, ESJAH	SSF65899 SSF65899	ESJ 65944 ESJ 65944	SSF65888 SSF65888	
	30	ESGBE, ESGBF, ESGBH	SSF65900 SSF65900	ESG65936 ESG65936	SSF65888 SSF65888	
125	40	ESHBE, ESHBF, ESHBG, ESHBH	SSF65901 SSF65901	ESH65938 ESH65938	SSF65888 SSF65888	
	50	ESJBE, ESJBF, ESJBG, ESJBH	SSF65902 SSF65902	ESJ 65940 ESJ 65940	SSF65888 SSF65888	
	30					
150	40	ESHCE, ESHCF	SSF65897	ESG65942	SSF65888	
	50	ESJCE, ESJCF	SSF65898	ESJ65943	SSF65888	

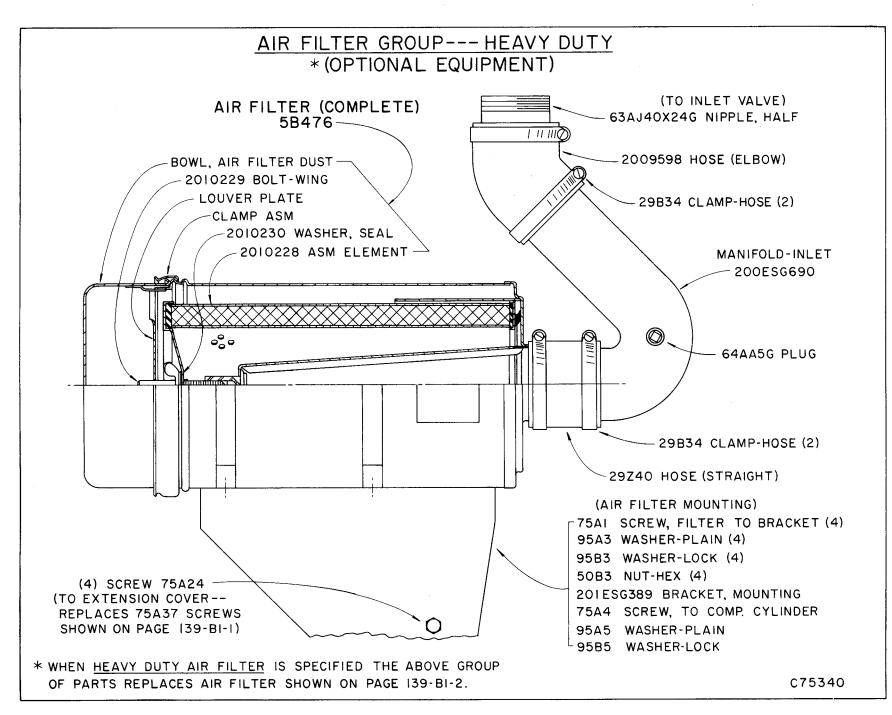
139-B1-1a December, 1973

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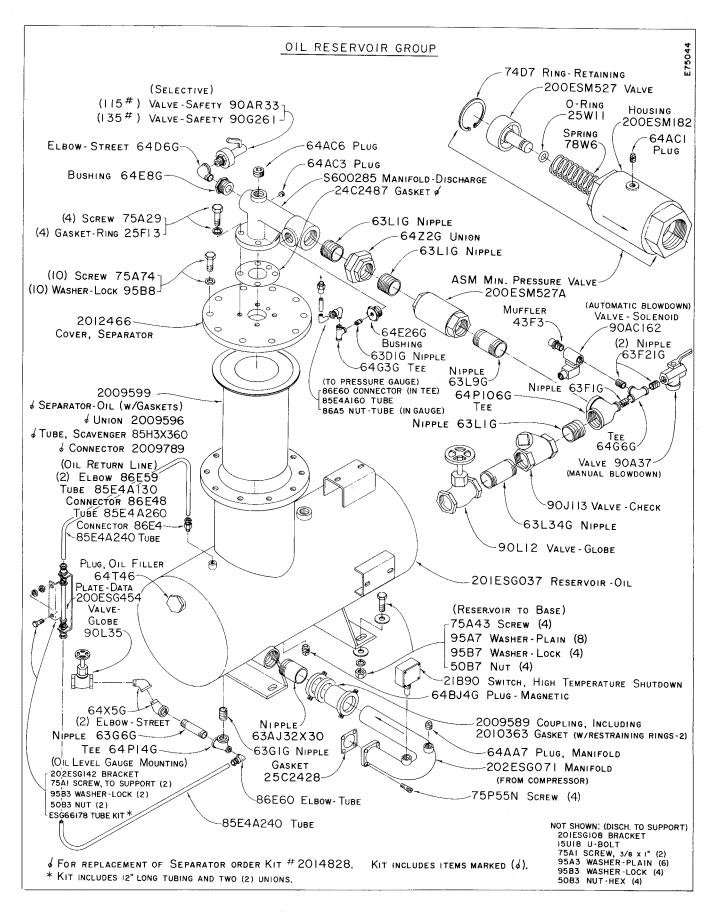
139-B3-2 Closed Out November, 1973

GARDNER-DENVER COMPRESSOR



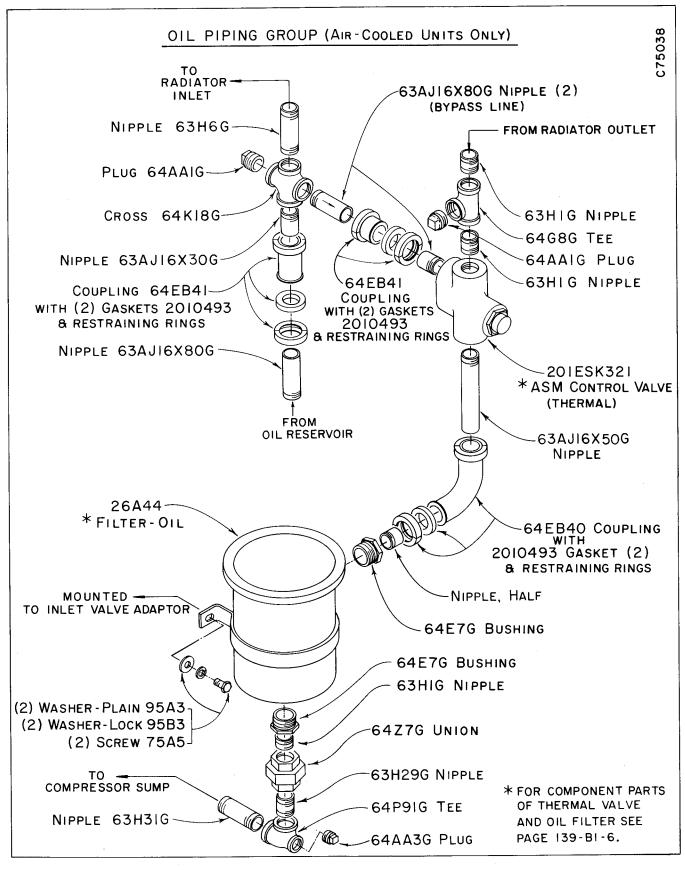
139-BI-2▲ REVISED DEC., 1973

139-BI-2a



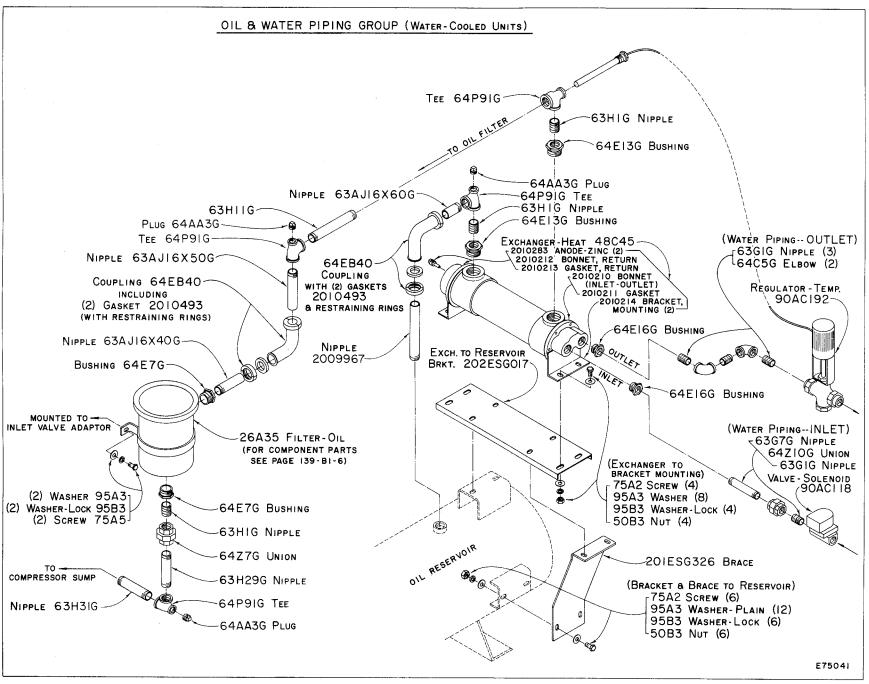
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139-BI-5 (F) REVISED DEC., 1973

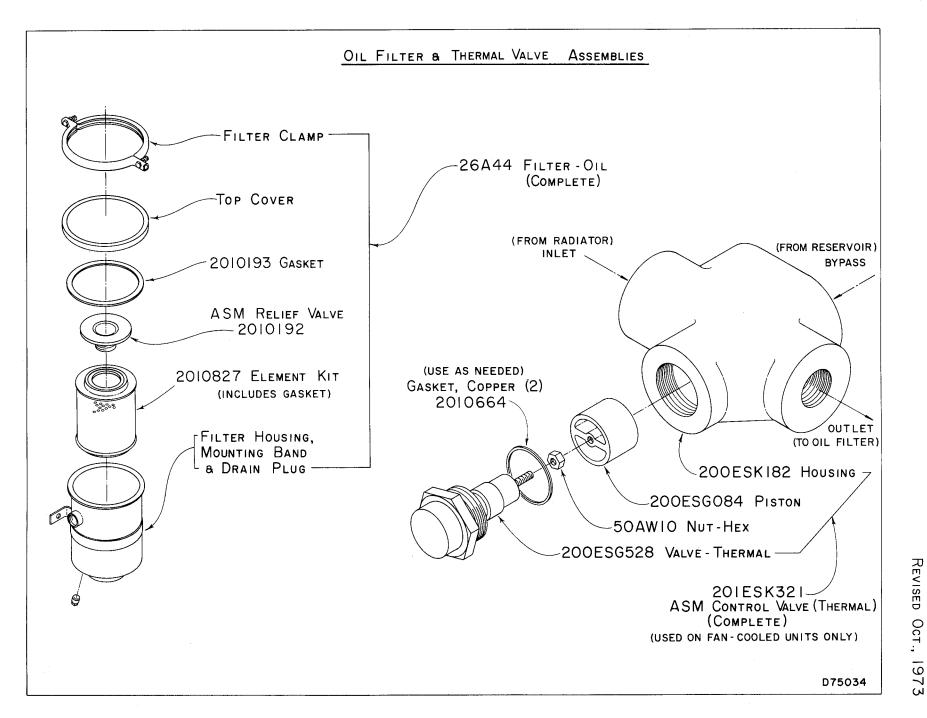


¹³⁹⁻BI-5 (F)



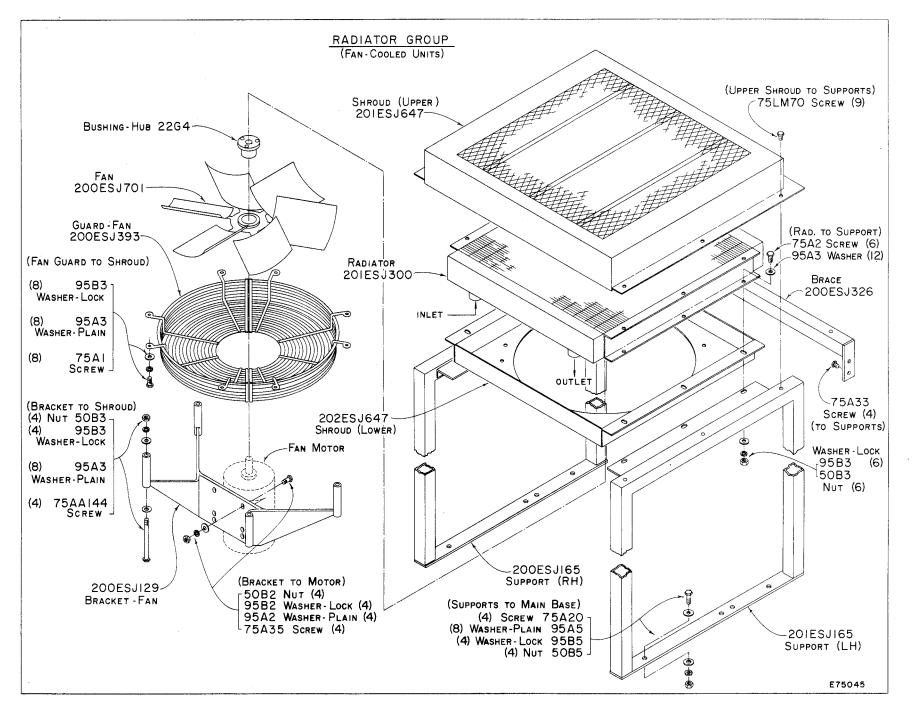


139-B3-5 (W)



139-BI-6

139-BI-6



139-B3-7 (F) Closed Out November, 1973

PART NAME & DESCRIPTION	QUANTITY	40 & 50 H
		PART NO.
Base, Main	(1)	201ESG28
Base (Subbase)	(1)	200ESJ285
Screw, Motor to Subbase (5/8 x 2-1/4)	(4)	75A47
Washer-Lock (5/8)	(4)	95B7
Washer-Plain (5/8)	(4)	95A7
Nut-Hex (5/8)	(4)	50B7
Mounting-Vibration	(4)	49C17
Screw, Mounting to Base (5/8 x 4-1/2)	(4)	75A168
Washer-Plain (5/8)	(20)	95A7
Locknut (5/8)	(4)	50AP10
Screw, Compressor to Subbase $(1/2 \times 1)$	(4)	75A4
Washer-Lock (1/2)	(4)	95B5
Shim, Motor to Subbase (.003)	(2)	77E11
Shim, Motor to Subbase (.008)	(3)	77E12
Shim, Motor to Subbase (.031)	(1)	77E13
Shim, Motor to Subbase (.062)	(1)	77E14
Support, Instrument Panel	(1)	200ESG14
Screw, Support to Main Base (3/8 x 1-1/4)	(4)	75A2
Washer-Plain (3/8)	(8)	95A3
Washer-Lock (3/8)	(4)	95B3
Nut-Hex (3/8)	(4)	50B3
Screw, Instrument Panel to Support (10-32 x 1/2)	(10)	75LM39
Enclosure Group (Fan-Cooled Units) *	(1)	ESG66084
Enclosure Group w/Vent Fan & Motor (Water-Cooled Units) *	(1)	ESG65972

BASE & ENCLOSURE GROUP

* For repairs on the Enclosure Group consult your nearest Gardner-Denver Sales and Service Office.

NOTE: Hardware, Tubing and Piping parts may be purchased locally. However, IT IS THE RESPONSIBILITY OF THE CUSTOMER when making repairs to purchase parts of EQUAL or BETTER quality as those used in the original construction.

COUPLING & MISCELLANEOUS

PART NAME & DESCRIPTION	QUANTITY	50 HP
COUPLING GROUP		PART NO.
Coupling (With Set Screws), Incl. Next Item		51K11
Spider Ker (The Community)		2010218
Key (To Compressor)		35B35
Guard, Coupling Screw, Guard to Subbase (3/8 x 1-1/4)		201ESG339
Washer-Plain (3/8)		75A2
Washer-Lock (3/8)	(4) (4)	95A3
Nut-Hex (3/8)	(4)	95B3 50B3
		5005
ADDITIONAL REPAIR ITEMS		
Bare Compressor (Field Replacement): 100 PSI	(1)	ESJ65944
125 PSI	(1)	ESJ65940
Gasket Kit (Complete Unit, Less Motor)	(1)	SSF65888
SELECTIVE ITEMS		
Motor, Compressor $(200 V - 60 Hz)$	(1)	24BB27
Motor, Compressor $(230/460 \text{ V} - 60 \text{ Hz})$	(1)	24BB28
Motor, Compressor $(575 V - 60 Hz)$		24BB30
Starter, Compressor Motor (200 V)	(1)	24CA60
Starter, Compressor Motor (230 V)	(1)	2009861
Starter, Compressor Motor (460/575 V)	(1)	2009860
Heater-Overload, Compressor Starter (200 V)	(3)	24CA111
Heater-Overload, Compressor Starter (230 V)	(3)	2009864
Heater-Overload, Compressor Starter (460 V)	(3)	24CA105
Heater-Overload, Compressor Starter (575 V)	(3)	2009865
Motor, Fan (200 V) *	(1)	24CA183
Motor, Fan (230/460 V) *	(1)	24CA184
Motor, Fan (575 V) *	(1)	24CA185
Heater-Overload, Fan Starter (200 V) *	(3)	24CA177
Heater-Overload, Fan Starter (230 V) *	(3)	24CA292
Heater-Overload, Fan Starter (460 V) *	(3)	24CA253
Heater-Overload, Fan Starter (575 V) *	(3)	24CA374
OPTIONAL EQUIPMENT		
Air Filter Group (Heavy Duty)	(1)	ESG66111
Instrument Panel Group (Pressure Drop)		ESG66112

* Fan Motors and Overload Heaters are one (1) HP. Items marked (*) are used only on fan-cooled units.

STARTER & SUPPORT GROUP

DART MANT & DECORDERION		50 HP		
PART NAME & DESCRIPTION	QUANTITY	FAN COOLED	WATER COOLEI	
STARTER ENCLOSURE GROUP		PART NO.	PART NO.	
Block, Terminal	(12)	24A253	24A253	
Block, Terminal (End)	(1)	24A252	24A252	
Jumper, Terminal	(4)	24A516	24A516	
Screw-Machine (8-32 x 3/8)	(2)	75G22	75G22	
Washer-Lock (No. 8)		95H41	95H41	
Holder-Fuse (3 Hole Pull Out – Class J)	(2) (1)	24A521	None	
Fuse (JHC15)	(3)	24CA164	None	
Screw-Machine $(1/4-20 \times 1/2)$	(2)	75G15	None	
Washer-Lock (1/4)	(2)	95H56	None	
Lug-Terminal (12-10 W x No. 10 BH)	(6)	24A295	None	
Starter, Fan (GE 206, Size 00, 200/230/460/575 V)	(1)	24CA161	None	
Screw-Machine (10-24 x 3/8)	(3)	75G8	None	
Washer-Lock (No. 10)	(3)	95B13	None	
Screw-Machine, Comp. Starter Mounting * (1/4-20 x 1/2)	(3)	75G15	75G15	
Washer-Lock (1/4)	(3)	95H1	95H1	
Wire, Fan Starter (No. 12 Black – 4 Ft.)	(1)		None	
Wire, Control (No. 14 Red – 5 Ft.)	(1)			
Button-Reset, Overload	(2)	24CA104	24CA104	
Seal-Plug, Cover	(1)	24A509	24A509	
Tie-Cable	See ()	24A461 (6)	24A461 (4)	
WIRING – STARTER TO MOTOR *				
Fitting, Conduit (90 ⁰)	(2)	2009335	2009339	
Conduit (1-1/2 Ft. – Liquatite)	(1)	(1-1/2")	(2")	
Wire (6 Ft.)	(1)	(No. 2/0 Thw)	(No. 3/0 Thv	
Lug-Terminal (1/4 BH)	(3)	24CA203	24CA204	
Screw-Hex Cap (Brass)	(6)	75LM44	75LM44	
Washer-Lock (1/4 Brass)	(6)	95H16	95H16	
Nut-Hex (1/4-20 Brass)	(6)	50X16	50X16	
SUPPORT GROUP				
Support, Starter Enclosure	(1)	201ESG146	201ESG146	
Screw-Hex Cap, Support to Main Base (3/8 x 1-1/2)	(4)	75A7	75A7	
Washer-Plain (3/8)	(4)	95A3	95A3	
Washer-Lock (3/8)	(4)	95B3	95B3	
Nut-Hex (3/8)	(4)	50B3	50B3	
Box-Control	(1)	200ESM179	200ESM179	
Screw, Enclosure to Support $(1/4 \times 1)$	(4)	75A26	75A26	
Washer-Plain (1/4)	(4)	95A1	95A1	
		95B1	95B1	
Washer-Lock (1/4) Nut-Hex (1/4)	(4)	9501	9501	

* For Motors and Compressor Starters see Selective Items on page 139-B3-9.

NOTE: Refer footnote on pages B-8 and B-11.

CONTROL GROUPS (30 THRU 100 HP)

CONTROL GROUPS	CONSTANT SPEED		AUTOMATIC START/STOP		DUAL		TIMED DUOMATIC		
PART NO. & DESCRIPTION	NEMA 1	NEMA 4	NEMA 1	NEMA 4	NEMA 1	NEMA 4	NEMA 1	NEMA 4	
SELECTIVE *									
Bracket, Mounting	201ESG108	202ESG108	201ESG108	202ESG108	201ESG108	202ESG108	201ESG108	202ESG108	
Panel, Gauge Panel, Instrument Box-Control	200ESG386 206ESG386 200ESG179	200ESG386 201ESG179	200ESG386 206ESG386 200ESG179	200ESG386 201ESG179	201ESG386 206ESG386 200ESG179	201ESG386 201ESG179	202ESG386 207ESG386 200ESG179	202ESG386 202ESG179	
Switch, Control Gasket, Cover	24CA46 2009592	24CA46	24CA47 2009592	24CA47	24CA48 2009592	24CA48	24CA49 2009592	24CA49	
Hourmeter (60 Hz) Hourmeter (50 Hz) Gasket, Hourmeter Boot, Transparent (Push	2009369 2009370	2009369 2009370 201ESK715	2009369 2009370 	2009369 2009370 201ESK715	2009369 2009370	2009369 2009370 201ESK715	2009369 2009370	2009369 2009370 201ESK715	
Button or Pilot Light) Valve-Solenoid (Unloader)		24CA281		24CA281		24CA281	90AC183	24CA281 2009442	
Valve-Check (In Comp. Sump) Valve-Control (In Comp. Sump) Relay (Adjustable Timer)							2009283 2007300 24A482	2009283 2007300 24A482	
Box-Control, Timer Gasket, Control Box Cover, Plexiglass Gasket, Cover								200ESK179 202ESK715 202ESK225 203ESK715	
	LO	W OIL PRESS	SURE SHUTDOWN		WE.	ATHER-TIGHT	(NEMA 4, 5,	NEMA 4, 5, 12)	
OPTIONAL Ø	NEMA 1		NEMA 4		LEAD-LAG (2 COMP.)		LEAD-LAG (3 COMP.)		
Switch, Pressure Block-Contact ** Button, Reset ** Relay, Reset Relay (Adjustable Timer) Box, Control Switch (3 Pole - 2 Throw) Switch (6 Pole - 3 Throw)	88A302 (Oil) 24CA217 24CA542 24CA541 24CA285 203ESG179		88A303 (Oil) 24CA217 24CA542 24CA541 24CA285 203ESG179		2009006 (Air)		2009006 (Air)		

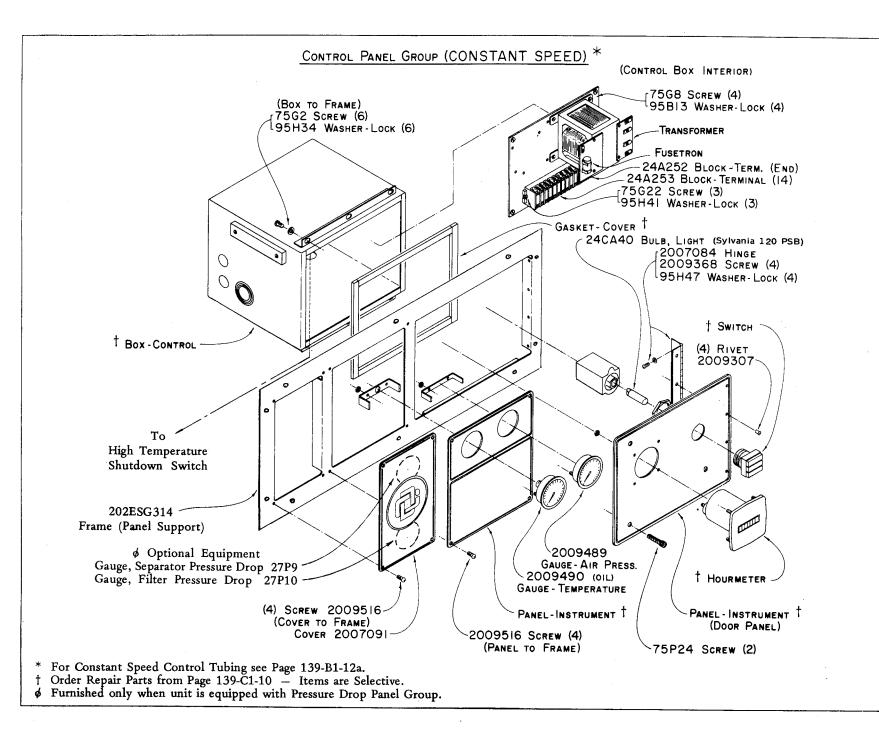
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ELECTRICAL CONTROL ITEMS (MISCELLANEOUS) *

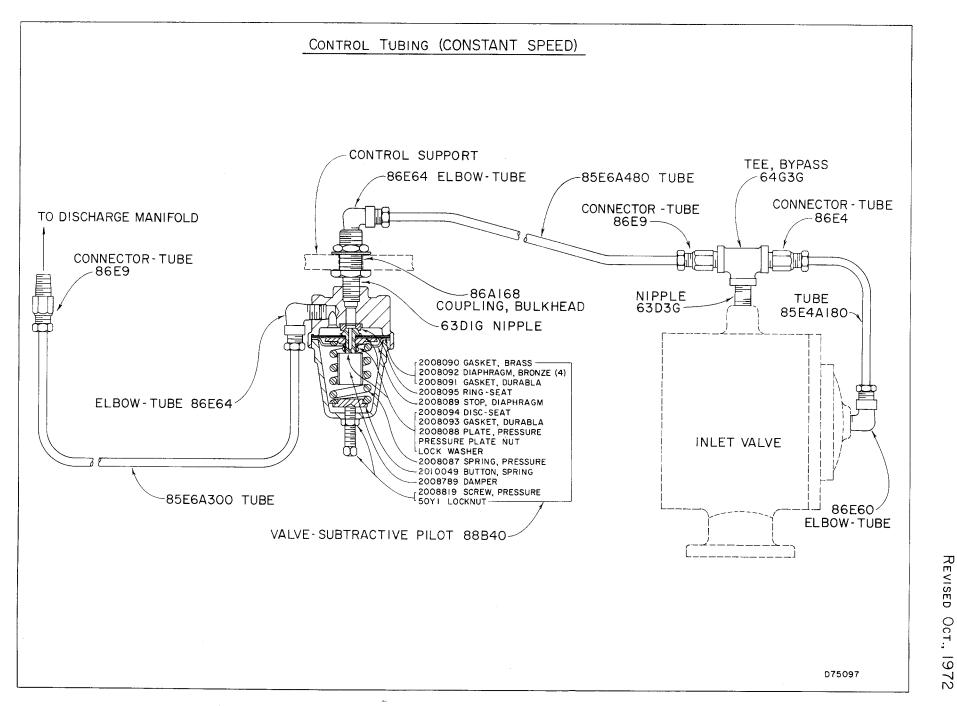
PART NAME & DESCRIPTION	QUANTITY	30, 40, 50 H
HIGH DISCHARGE TEMPERATURE SWITCH TO CONTROL BOX		PART NO.
Connector, Squeeze (Insulated)	(2)	24CA196
Fitting, Conduit (1/2" Straight)	(1)	24A378
		24AJ/0
Conduit $(1/2 \times 44)$	(1)	1
Fitting, Conduit $(1/2 \times 90^{\circ})$	(1)	24A380
Wire (No. 14 Red – 8 Ft.)	(1)	
Clamp, Heavy (1/2")	(2)	98H3
STARTER TO CONTROL BOX		
Fitting, Conduit $(3/4 \times 90^{\circ})$	(1)	24A386
Conduit $(3/4 \times 124)$	(1)	
Fitting, Conduit (3/4 x 90°)	(1)	24A384
Wire (No. 14 Red – 65 Ft.)	(1)	
Wire (No. 12 Black $-$ 26 Ft.)	(1)	
Clamp, Heavy (3/4")	(2)	98H4
BLOWDOWN VALVE TO CONTROL BOX		
Nipple, Conduit (1/2 x 1-1/8)	(1)	24A503
Fitting, Conduit (1/2" C Type)	(1)	24A424
Gasket, Unilet (1/2)		24A342
Cover, Unilet (1/2)	(1)	24A343
	$\begin{pmatrix} 1 \\ 2 \end{pmatrix}$	24CA196
Connector, Squeeze (Insulated)	(2) (1)	
Fitting, Conduit (1/2" Straight)		24A378
Conduit $(1/2 \times 12)$	(1)	
Fitting, Conduit (1/2" Straight)	(1)	24A378
Wire (No. 14 Red – 3 Ft.)	(1)	
CONTROL BOX CONNECTIONS		
Connector-Female, Spade (14-16 Wire)	(3)	24CA45
Lug-Terminal (No. 10 Fork)	(4)	24A477
Lug-Terminal (No. 6 Fork, 10-12 Wire)	(1)	24A517
Lug-Terminal (No. 6 Fork, 14-16 Wire)	(8)	24A478
Lug-Terminal (No. 8 Fork)	(4)	24A476
	(4)	24A470
Wire (No. 14 Green -12 ")	(1)	1
Wire (No. 14 Red $- 7$ Ft.)		
Tie-Cable	(12)	24A461
STARTER TO FAN MOTOR (FAN-COOLED UNITS)		
Fitting, Conduit (1/2 x 90 ^o)	(1)	24A380
Conduit $(1/2 \times 36)$	(1)	
Fitting, Conduit (1/2 x 90°)	(1)	24A380
Wire (No. 12 Black – 12 Ft.)	$\dot{(1)}$	
Lug, Terminal (No. 6 Fork, 14-16 Wire)	$(\bar{9})$	24A478
Lug, Terminal (No. 6 Fork, 10-12 Wire)	(3)	24A517
Screw-Machine $(6-32 \times 3/8)$	(6)	75G49
Washer-Lock (No. 6)		2009550
Nut-Hex Machine (No. 6-32)	(6)	
1111111111	(6)	50K6
WATER VALVE TO CONTROL BOX (WATER-COOLED UNITS)		
Nipple, Conduit $(1/2 \times 1-1/8)$	(1)	24A503
Fitting, Conduit (1/2" C Type)	(1)	24A424
Gasket, Unilet (1/2)	(1)	24A342
Cover, Unilet (1/2)	(1)	24A343
Connector, Squeeze (Insulated)	(2)	24CA196
Fitting, Conduit (1/2" Straight)	(1)	24A378
Conduit $(1/2 \times 24)$	(1)	
Fitting, Conduit (1/2" Straight)	(1)	24A378
r_{111110} , Conduit (1/2 Straight)		

* For Selective Controls see pages 139-B1-12, 13, 14 or 15.

NOTE: Electrical Connections may be purchased locally. However, IT IS THE RESPONSIBILITY OF THE CUSTOMER when making repairs to purchase parts of EQUAL or BETTER quality as those used in the original construction.



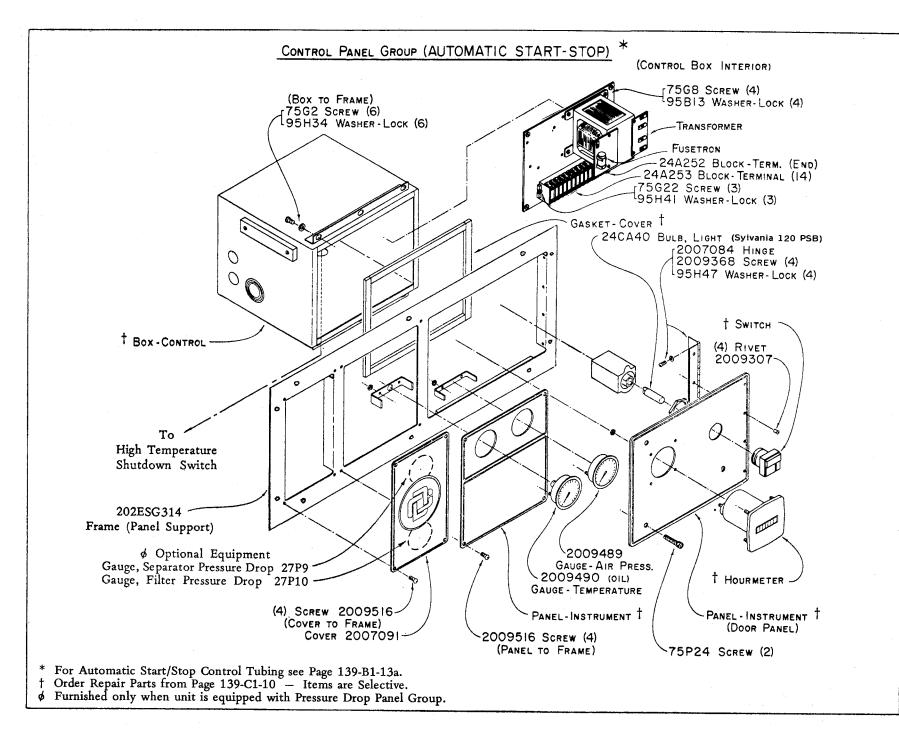
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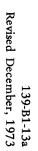


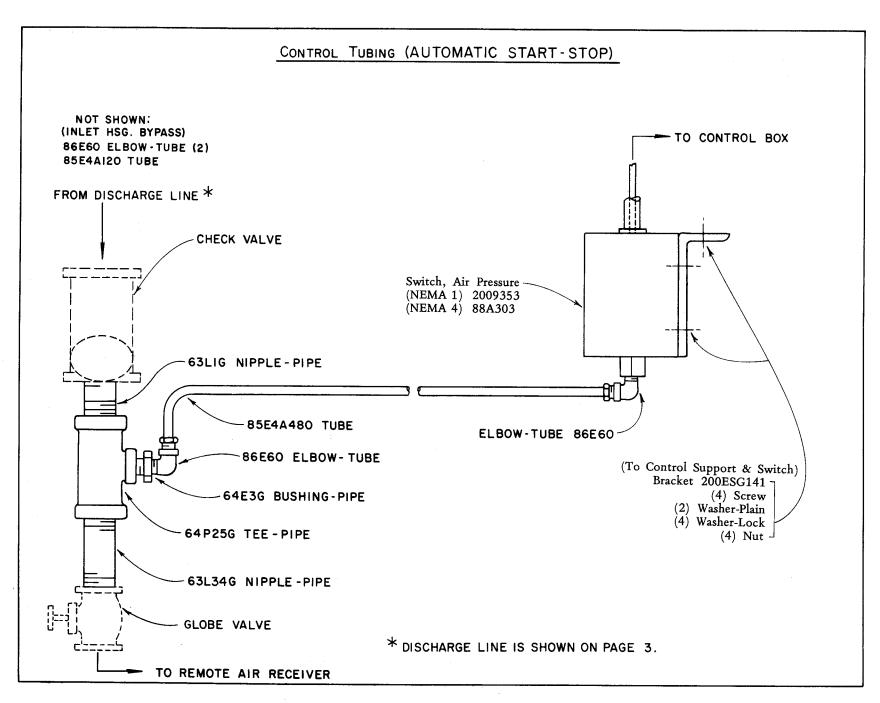
GARDNER DENVER COMPRESSOR

139-B1-13

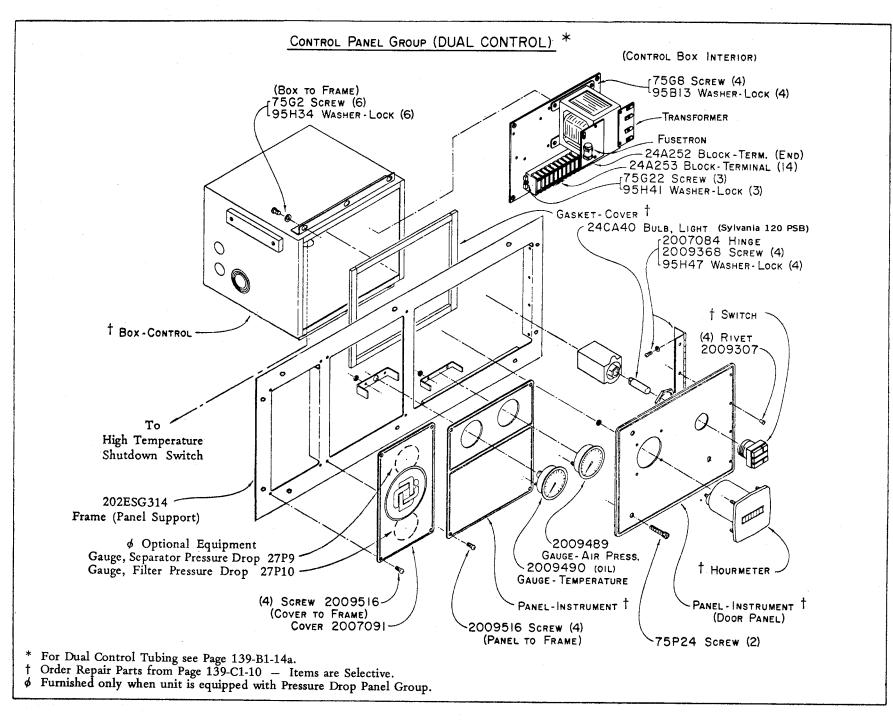
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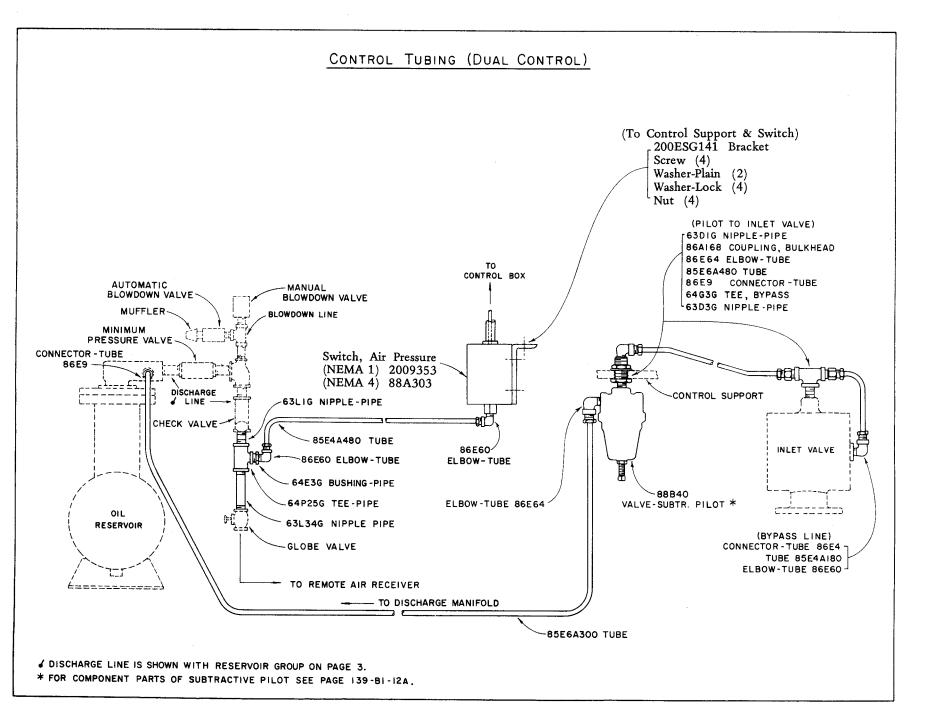




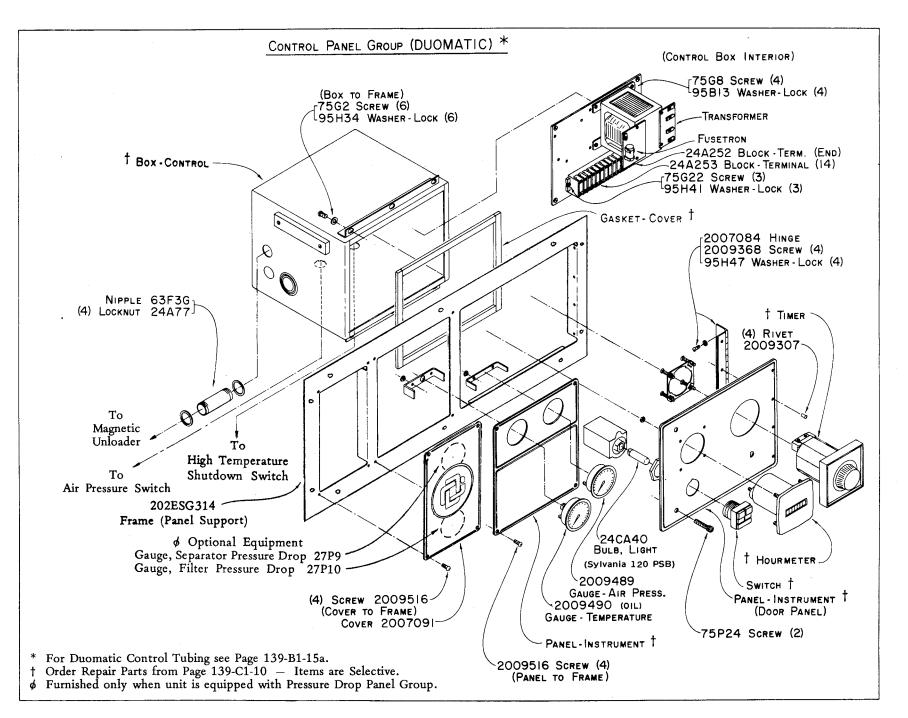
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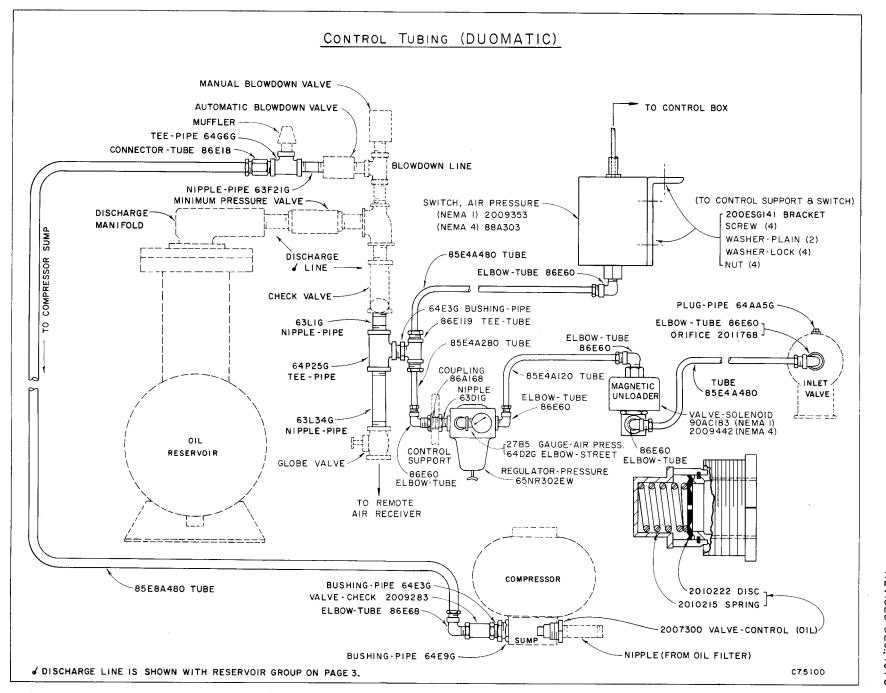
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139-B1-15 Revised December, 1973







139-BI-15A

RECOMMENDED SPARES - ESG, ESH & ESJ

The following kits are separated according to service and locations. These are made available to aid the customer in stocking parts to allow on-site maintenance and/or repair. Quantities shown are for one unit only. It is the responsibility of the Owner-Operator to apply a multiplier for multiple units, operating conditions and/or for hours of operation. Refer to Instruction Manual for recommended replacement time for critical parts. KITS DO NOT INCLUDE OIL SEP-ARATORS, ELECTRICAL OR CONTROL ITEMS – THESE MUST BE PURCHASED SEPARATELY.

Ordering Instructions

- KIT NO. 1 -Routine Maintenance: These are suggested as the minimum quantity of parts a customer should stock. They are usually the first items which require renewal. Order quantities of this kit to suit your requirements or particular service. One kit contains three (3) oil filter elements which require changing at least every 1000 hours under normal conditions.
- KIT NO. 2 Domestic Service: These are suggested as the minimum spares a customer should stock for continuous operation for one year. When ordering for this service, order Kits No. 1 and 2.
- KIT NO. 3 Isolated Domestic or Export Service: These are suggested as the minimum spares a customer should stock for continuous operation. These parts include those which possibly would need renewal in an overhaul. When ordering for this service, order Kits No. 1, 2 and 3.

APPLY THE PROPER MULTIPLIER BASED ON NUMBER OF UNITS AND HOURS OF OPERATION; Example: For four (4) units, Four (4) of Kit No. 1 and only One (1) each of Kits 2 and 3 may be sufficient.

· · · · · · · · · · · · · · · · · · ·		·····	· · · · · · · · · · · · · · · · · · ·		
COMPRESSOR MODEL HOURS OF OPERATION PART NO. (Complete Kit) For		ESG, ESH 3000	ESJ 3000	ESG, ESH, ESJ 9000	ESG, ESH, ESJ 18000
Standard Air Filter Heavy-Duty Air Filter		ESG66021 ESG66186	ESJ 66022 ESG 66186	ESG66023	ESG66024
		KIT	NO. 1	KIT NO. 2	KIT NO. 3
Description	Page No.	Qty. F	Per Kit	Qty. Per Kit	Qty. Per Kit
KIT NO. I ROUTINE MAINTENANCE					
Air Filter Element Oil Filter Element Kit	1392 139 -6		1 3		
KIT NO. 2 DOMESTIC SERVICE				-	
Compressor Shaft Seal Seal Housing O-Ring Inlet Valve Inlet Valve Spring Inlet Valve Piston Spring Inlet Valve Packing Gasket Kit	139 -1 139 -1 139 -2 139 -2 139 -2 139 -2 139 -2 139 -1a			1 1 1 1 1 1 1	
KIT NO. 3 ISOLATED DOMESTIC OR EXPORT SERVICE					
Gear Drive Ball Bearing (Inner) Gear Drive Ball Bearing (Outer) Roller Bearing Ball Bearing Gasket Kit	139 -1 139 -1 139 -1 139 -1 139 -1 139 -1a				1 1 2 4 1