



TECHNICAL SERVICE BULLETIN

ISSUE DATE:	7/11/2023
SERVICE BULLETIN SUBJECT:	Eberspaecher Condenser HD Pipe Retrofit
VINs or MODELS AFFECTED:	Service Specified Buses
COMPLETE BY:	Next Service Opportunity
SERVICE BULLETIN #:	SC-23-29
LABOR OPERATION CODE:	VA54Z

NOTICE! It is expected that this process will require up to eight hours per bus. Please schedule appropriately to minimize vehicle downtime.

EBERSPAECHER CONDENSER HD PIPE RETROFIT

Description: This procedure describes the process of repairing a defective Y-Pipe on the HVAC unit.

Tools/Parts Required:

Tools and Supplies Required:

- See Attached Procedure

Kit Parts Required:

- 063661 Service Retrofit Kit, Eber HD Pipe Improvement, HVAC (Consisting of)
 - 172-2945 GASKET , VALVE FLANGE SEAL 1 EA
 - 063669 Hose, Refridgerent Line, Rubber, Sz16, 290mm, HD Pipe 1 EA
 - 063667 Valve, HGX34e, 90*, M30x2, HD Pipe 1 EA
 - 063668 Screw, Cylinder, M8x40, HD Pipe 2 EA
 - 063666 Bracket, Condenser, Aluminum, HD Pipe 1 EA
 - 063665 Clamp, 4-D22, 14.5mm, HD Pipe 2 EA
 - 179-7342 WASHER , WASHER 6.4MM 18.0MM STAINLESS STEEL 2 EA
 - 179-7807 RING , DETENT-EDGED RING 6.1MM 11.8MM STAINLESS 2 EA
 - 063663 Screw, Hexagon, M6x45, HD Pipe 2 EA
 - 063662 Rivet, Sealing, Round, 9.5x4.8x7.5-9 mm, HD Pipe 4 EA

Procedure:

1. Perform the Proterra approved Lockout/Tagout process to make the bus safe for work.
2. Complete the OEM procedure attached to the end of this document. This document was produced by Eberspaecher and is shared in its entirety with their written permission.
3. Remove the Lockout/Tagout devices and return the bus to service.

DRIVING THE MOBILITY
OF TOMORROW



CLIMATE CONTROL SYSTEMS

TECHNICAL BULLETIN NR: ESTR-QUALITY-TB-001-2022 REV 01
DESCRIPTION: PROTERRA HD PIPE REPLACEMENT

CUSTOMER QUALITY
2/24/2022 / © Eberspächer

FOR AC UNITS PROTERRA AC136AE

Reasons:

HD pipe cracking at elbow bend by compressor

Solutions:

Replace HD Pipe to improved version included in P/N 88-50-29-02161-00

Category		Time Period
Documentation		Immediately
General		Annually
Spare Parts	X	Next Scheduled Service
Service	X	

Precautions

CAUTION: Work on the refrigeration system must be done by qualified refrigeration and air conditioning professionals. Otherwise the warranty expires.

CAUTION: When working on the heating circuit it must be ensured that the coolant is cooled down. Contact with hot coolant can cause scalding.

CAUTION: The operator must maintain a safe distance to such parts, while the air conditioning is working (belts, blowers, fans, etc.). Danger of rotating parts!

CAUTION: At all times, while working on air conditionings, personnel clothes, safety gloves, goggles and shoes always must be worn.

CAUTION: Prevent personnel falls from ladders and the bus rooftop by employing safety harnesses or similar OSHA-approved products.

CAUTION: High Voltage / current can cause electrical shock or burns or death
Qualified skills required

Observe precautions before repairs or adjustments

Instructions

Step 1

Gain access to rooftop
Insure that bus is electrical and
mechanically safe and switched
off.



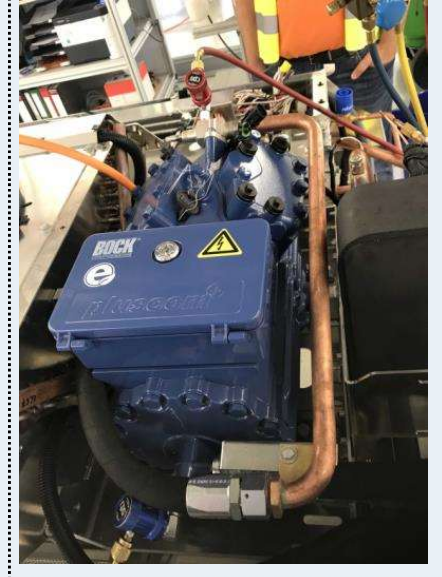
Step 2

Gain access to AC Unit



Step 3

Remove Compressor cover



Instructions

Step 4

Remove refrigerant charge from system.

A fully charged system should be 6,5 kg (14,5 lb).



Step 5

Remove HP compressor line and support bracket on the suction side service port valve.



Step 6

Replace with HD pipe kit P/N 88-50-29-02161-00

Apply oil to new gaskets and connections before tighten. Tighten to specified torques according to page 9.



Instructions

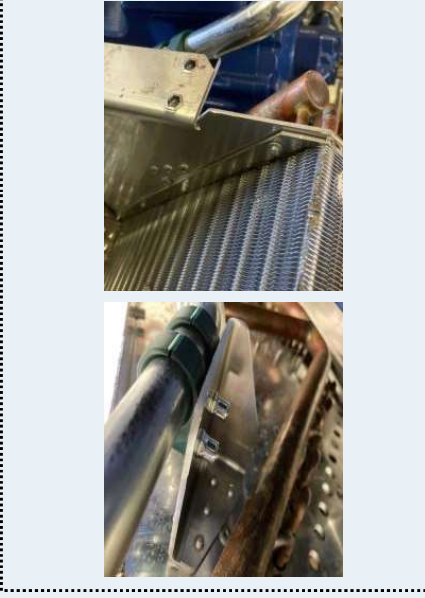
Step 7

Remove Condenser fan plate slightly to gain access to reverse side of bracket. M8 bolts
Fit support bracket loosely ready for alignment.



Step 8

Align pipe support bracket according to drawing (page 8)
Drill 5mm holes and secure with rivets .
Replace Condenser fan plate.



Step 9

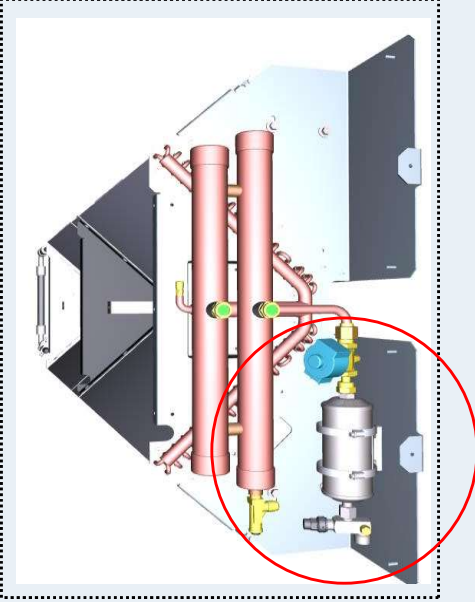
Secure and tighten pipe supports according to drawing



Instructions

Step 10

Replace Liquid line filter drier
P/N: 88-50-12-00028-00



Step 11

Open all 3 solenoid valves to
pressurize system to confirm no
leaks.
Evacuate system (< 500 microns)
before recharging.

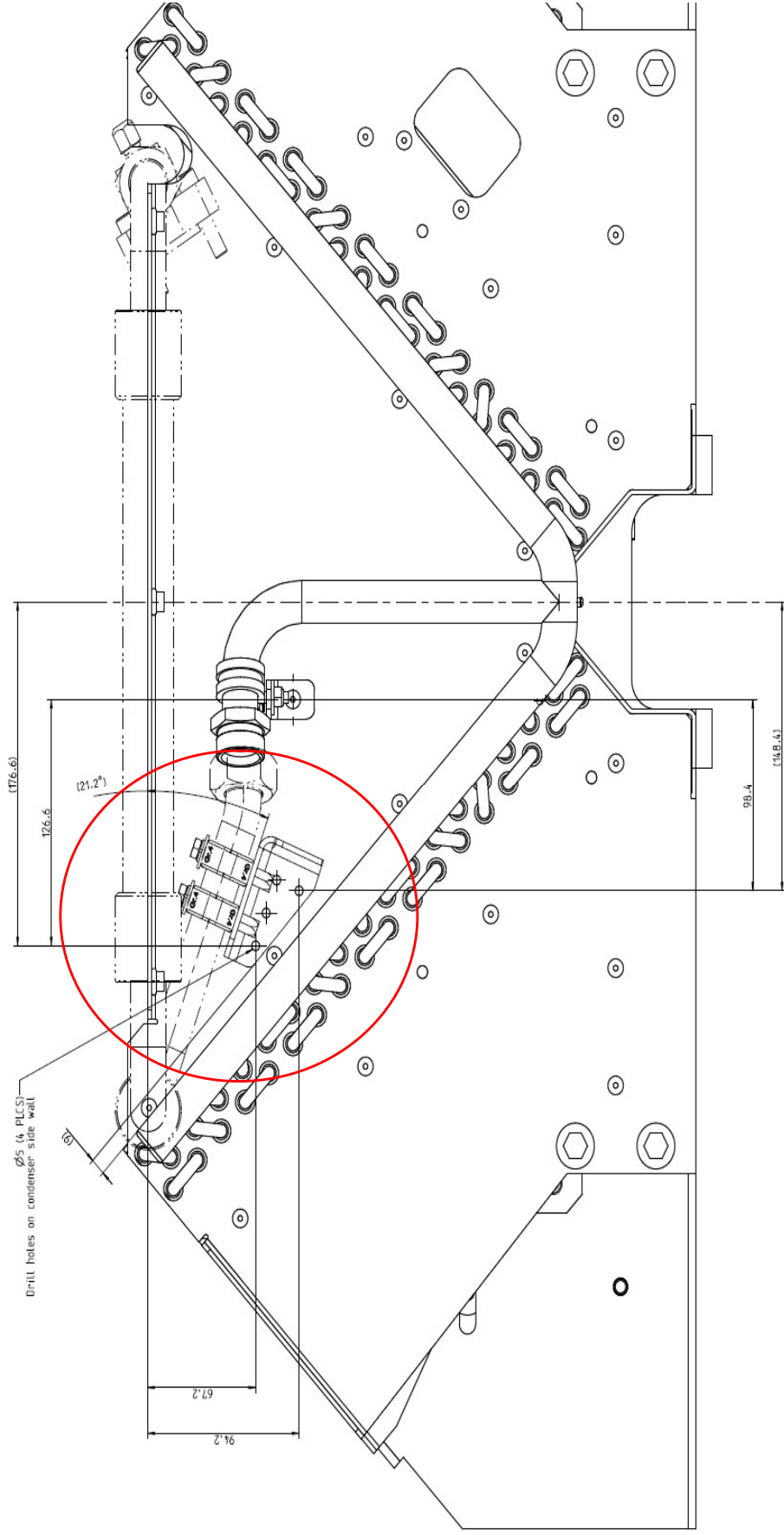


Step 12

Replace all solenoid valve coils
and covers before making short
run test



HD Pipe Bracket position



HD Pipe Bracket torques

100	4	88-32-10-05015-00	Becher-Blindnief Rund Ø9.5 4.8 7.5-9.5mm	Sealing Blind Rivet Round Ø9.5 4.8 7.5-9
90	2	88-32-01-41013-00	Sechskantschraube M6x45	Hexagon Head Screw M6x45
80	2	88-82-06-00012-00	Spernkanttring 6.1x1.7mm Edelstahl	Detent-Edged Ring 6.1x1.7mm Stainless St
70	2	88-82-06-00003-00	Scheibe 6.4mm 18.0mm Edelstahl	Washer 6.4mm 18.0mm Stainless Steel
60	2	88-50-33-00040-00	Stauff-Schelle 4-Ø22 14.5mm einseitig	Stauff Clamp 4-Ø22 14.5mm one-sided
50	1	88-50-47-02120-00	Halter Verfrüßiger Al	Bracket Condenser Al
40	2	88-50-60-00133-00	Zwischenschraube M6x40	Cylinder Screw M6x40
30	1	88-50-32-01040-00	Ventil HG334e □A 90° DIN-M30x2-m	Valve HG334e □A 90° DIN-M30x2-m
20	1	88-50-32-01161-00	KM-Leitung Gummischl. Sz16 290mm	Refr. Line Rubber Hose Sz16 290mm
10	1	88-62-14-00244-00	DICHTUNG-VENTILFLANSCH	GASKET-VALVE FLANGE
POS	MG	NUMBER	BENENNUNG DEUTSCH	DESCRIPTION ENGLISH
QTY		NUMBER		

