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ENGINEERING MEMO # 182

April 24, 1967
 April 25, 1967 Page (2) Added
 April 28, 1967 A-Rev. Page (1)
 May 5, 1967 B-Rev. Page (1)&(2)
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 May 17, 1967 Page (1A) Added
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 July 30, 1968 E-Rev. Page (6)
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 Memo Distribution

TO:

FROM:

S. Hori

SUBJECT:

CHANGES REQUIRED TO ELIMINATE AIR CONDITIONING COMPONENTS PURCHASED FROM McCORD

- I. Due to the unavailability of the McCord Condenser Assembly for future Air Conditioning Installations, a change will be made effective with the depletion of the McCord Condenser Assemblies to the Modine Condenser and Parker-Hannifin Receiver-Drier.
 - A. This change will necessitate revisions of the air conditioning Tubing and Hose Assemblies.
 - B. The radiator support assembly must be revised due to the rerouting of the hoses and relocation of the Receiver-Drier with sight glass.
 - C. The new set-up can be used to service the old by reworking the radiator support assembly and using the new hoses and receiver-drier installation.
 - D. List of Items to be affected:

NAME	B OR M	OLD PART NO.	NEW PART NO.	I	A	REMARKS
Condenser A.-Air Cond.	B	701227	645284	NO	NO	Service
Tube A.-Drier to Evap. Inlet Hose	B	701258	-----	NO	YES	Service or Scrap
Receiver-Drier A.-Air Cond.	B	Furn.	645285	NO	YES	New Part
Hose A.-Condenser to Receiver	B	-----	645297	NO	YES	New Part
Brkt.-Cond. to Rad.Supt. LH	M	-----	644267	NC	YES	New Part
Brkt.-Cond. to Rad.Supt. RH	M	-----	644268	NO	YES	New Part
Brkt.-Rec.-Drier Mtg.	M	-----	644269	NO	YES	New Part
Panel A.-Rad.Supt.Air Cond.	M	641536	645298	NO	YES	Rework
Hose A.-Frt. Evap. Inlet	B	643195	645299	NO	YES	Service
Hose A.-Drier Tube to Evap.	B	701259	645300	NO	YES	Service
Fitting A.-Parker Hannifin No. 375145	B	-----	645301	NO	YES	New Part
A Hose A. Comp. to Cond.	B	701792	645313	NO	YES	Service
B Hose A. Rear Evap. Inlet	B	641800	645317	NO	YES	Service
D Hose A. Comp. To Cond. (York)	B	701233	645318	NO	YES	Service

Pages (4) & (5) Core Assembly-Rear A/C Evaporator & related parts for the A-12W6 & A-12W8 models incorporated at Chassis #2590.

Pages (1) & (1A) Condenser and related Parts incorporated at Chassis # 47436 A-11, A-12 Models except Aerobus Chassis # 2410 A-12W6 & 8

Pages (2) & (3) Front Evap. Assem. & Related Parts Incorporated at Chassis #2434 A-12W6 & 8

Chassis #48096 A-12 A-12E A-12W

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1-D (Cont'd)

PAGE 1 A

NAME	BMOR M	OLD PART NO.	NEW PART NO.	I	A	REMARKS
Insulation-Air Cond. Receiver Drier Mtg.Brkt.	M	-----	644283	NO	YES	New Part
Grommet 9/16 x 1 3/32 x 1 9/32 x 3/8 B	B	702324	-----	NO	YES	Reduce Usage
Grommet-3/8 x 1 x 1 1/4 x 1/4	B	702361	-----	NO	YES	Service or Scrap
Clip - Air Cond. Tube	M	702414	-----	NO	YES	Service or Scrap
Clip-Open "J" Type	B	82144	-----	NO-	YES	Reduce Usage
Washer-5/16 I.D. x 7/8 O.D.	B	626322	-----	NO	YES	Reduce Usage
Screw-#10-24 x 3/8 Tapp.	B	274105	-----	NO	YES	Increase Usage
Bolt-1/4-20 x 5/8 Hex. Hd.	B	120854	-----	NO	YES	Increase Usage
Lockwasher-1/4 Med. Spring	B-	120380	-----	NO	YES	Increase Usage
Nut-1/4-20 Hex.	B	120375	-----	NO	YES	Increase Usage
Clamp Assem.-Adj. Hose	B	95648	-----	NO	YES	Increase Usage
D Washer 9/32 I.D. x 5/8 O.D. Plain	B	120392	-----	NO	YES	Reduce Usage
D Screw-1/4-28 x 1/2 Tapp.	B	448655	-----	NO	YES	Reduce Usage
D Oil-Air Cond. Comp.	B	MI-130	-----	YES	YES	Reduce Usage

II. Due to the unavailability of the McCord Evaporator Core assembly and the components for the McCord Air Outlet System, changes will be made effective with the depletion of the McCord parts to the Modine Evaporator Core Assembly and the Eaton Air Outlet Bezel Assembly simultaneously.

- A. The Air Conditioning Front Evaporator Housing Assembly will be affected due to the method of mounting the Modine Evaporator Core Assembly and the smaller size of the Eaton Air Outlet Bezel Assembly.
- B. The redesign will be made without affecting the hose connectors.
- C. The new Checker Front Evaporator Assembly Complete can be used to replace the old for service. The individual components will not be interchangeable for service.
- D. List of Parts to be affected:

NAME	B OR M	OLD PART NO.	NEW PART NO.	I	A	REMARKS
Evap.A.-Air Cond.Frt.Compt.	M	643186	645302	YES	NO	Service
Hsg.A.-Air Cond.Frt.Evap.	M	643189	645303	NO	YES	Service or Scrap
Panel A.-Frt.Evap.Hsg.LH	M	643187	645305	NO	YES	Service or Scrap
Panel A.-Frt.Evap.Hsg.RH	M	643188	645306	NO	YES	Service or Scrap
Panel-Frt.Evap.Hsg.LH	M	642637	644271	NO	YES	Service or Scrap
Panel-Frt.Evap.Hsg.RH	M	642638	644272	NO	YES	Service or Scrap
Angle A.-Frt.Evap.Hsg.	M	643190	645307	NO	YES	Service or Scrap
Angle-Frt.Evap.Hsg.	M	642639	644273	NO	YES	Service or Scrap
Panel A.-Frt.Evap.Hsg.Rear	M	643191	644274 645304	NO	YES	Service or Scrap
Panel-Frt.Evap.Hsg.Rear	M	642641	644270	NO	YES	Service or Scrap
Panel A.-Frt.Evap.Hsg.-Frt.	M	643192	645309	NO	YES	Service or Scrap
Panel-Frt.Evap.Hsg.Frt.	M	642642	644275	NO	YES	Service or Scrap
Core A.-Front Evap.	B	643193	645310	NO	NO	Service
Cover-Frt.Evap.Hsg.	M	642643	644276	NO	YES	Service or Scrap
Panel A.-Frt.Evap.Frt.Air O/L	M	643194	645312	NO	NO	Service
Panel-Frt.Evap.Frt.Air Outlet	B	642645	-----	NO	NO	Service
Plate-Frt.Evap.Frt.Air Outlet	B	642646	-----	NO	NO	Service
Deflector-Frt.Evap.Frt.Air O/L	B	642647	-----	NO	NO	Service
Retainer-Frt.Evap.Frt.Air Out.Defl.	B	642648	-----	NO	NO	Service
Valve A.-Air Cond.Expension	B	Furn.	645311	NO	YES	New Part
Hose A.-Comp. To Evap.	B	701795	645315	NO	YES	Service

II-D Continued)

	NAME	B OR M	OLD PART NO.	NEW PART NO.	I	A	REMARKS
	Hose A.-Flex 1/2" Evap. to Tee	B	639880	645316	NO	YES	Service
	Hose A.Frt. Evap.Outlet(York)	B	643196	645319	NO	YES	Service
	Refrigerant	B	MT-105	-----	YES	YES	Reduce Usage
C	Retainer-Frt. Evap. Core	B	-----	644280	NO	YES	New Part
C	Insulator-Frt.Evap.Core Mtg.RH	M	-----	644291	NO	YES	New Part
C	Insulator-Frt.Evap.Core Mtg. LH	M	-----	644292	NO	YES	New Part
C	Screw & L/W A.-#8 x 3/4 Tapp.	B	626456	-----	NO	YES	Reduce Usage
C	Lockwasher-1/4 Int.Ext.Tooth	B	174916	-----	NO	YES	Reduce Usage
C	Screw-1/4-20 x 3/8 Mach.	B	137952	-----	NO	YES	Reduce Usage
C	Lockwasher-1/4 Int. Tooth	B	120423	-----	NO	YES	Increase Usage
C	Bolt-1/4-20 x 3 3/4 Hex. Hd.	B	432982	-----	NO	YES	Increase Usage
D	Bezel & Trim Assem.-Air Cond.	M	-----	645326	NO	YES	New Part
D	Filler-Air Cond. Bezel	M	-----	644295	NO	YES	New Part
D	Trim-A/C Bezel-Vinyl-Lower	B	-----	644294	NO	YES	New Part
D	Trim-A/C Bezel-Vinyl-Center	B	-----	644293	NO	YES	New Part

III. Due to the unavailability of the McCord Evaporator Core assembly for the Aerobus Rear Evaporator changes will be made effective with the depletion of the McCord Cores to the Modine Evaporator Core Assembly.

- A. The Expansion Valve will be purchased from Controls Company of America and Assembled to the Modine Evaporator Core by Checker Motors Corporation.
- B. Tube Assemblies will be purchased and assembled to the Modine Evaporator Core by Checker Motors Corporation.
- C. The air conditioning hoses will not be affected by this change.
- D. The Aerobus Rear Evaporator Assembly Complete will be interchangeable for service.
- E. List of Items to be affected:

NAME	R OR M	OLD PART NO.	NEW PART NO.	I	A	REMARKS
Air Cond. A.-Rear Compl.	M	639708	643627	YES	YES	USE
Pan A.-Rear A/C Drip	M	639737	643628	NO	YES	REWORK
Pan A.-Rear A/C Cond. Drip Welded	M	639740	643629	NO	YES	REWORK
Pan-Rear A/C Drip	M	640641	644727	NO	YES	REWORK
Ext.-Rear A/C Drip Pan	M	640617	-----	NO	YES	SCRAP
Shroud & Nut A.-Rear A/C	M	-----	643630	NO	YES	NEW PART
Shroud Rear A/C	M	640644	644728	NO	YES	SALVAGE
Nut-1/4-20 Ohio Weld #RN2113	B	626266	-----	YES	YES	INCREASE USAGE
Core A.-Rear A/C Evap.	B	639757	643624	NO	NO	USE
Screw-#10-32 x 3/8 P.H.C.R. TYPE C	B	164470	-----	NO	YES	DECREASE USAGE
Lockwasher-1/4 Int. Tooth Type A	B	120423	-----	NO	YES	INCREASE USAGE
Retainer-Frt. Evap. Core	B	644280	-----	NO	YES	INCREASE USAGE
Bolt-1/4-20 x 3 3/4 Hex. Hd.	B	432982	-----	NO	YES	INCREASE USAGE
Valve A.-Air Cond. Expansion	B	645311	-----	NO	YES	INCREASE USAGE
Tube A.-Rear Evap. Inlet	B	-----	643625	NO	YES	NEW PART
Tube A.-Rear Evap. Outlet	B	-----	643626	NO	YES	NEW PART
Tape-Refrigeration-Heavy Duty	B	MA-131	-----	YES	YES	INCREASE USAGE

III. Due to the unavailability of the McCord Evaporator Core assembly for the Aerobus Rear Evaporator changes will be made effective with the depletion of the McCord Cores to the Modine Evaporator Core Assembly.

- A. The Expansion Valve will be purchased from Controls Company of America and Assembled to the Modine Evaporator Core by Checker Motors Corporation.
- B. Tube Assemblies will be purchased and assembled to the Modine Evaporator Core by Checker Motors Corporation.
- C. The air conditioning hoses will not be affected by this change.
- D. The Aerobus Rear Evaporator Assembly Complete will be interchangeable for service.
- E. List of Items to be affected:

NAME	B OR M	OLD PART NO.	NEW PART NO.	I	A	REMARKS
Air Cond. A.-Rear Compl.	M	639708	643627	YES	YES	USE
Pan A.-Rear A/C Drip	M	639737	643628	NO	YES	REWORK
Pan A.-Rear A/C Cond. Drip Welded	M	639740	643629	NO	YES	REWORK
Pan-Rear A/C Drip	M	640641	644727	NO	YES	REWORK
Ext.-Rear A/C Drip Pan	M	640617	-----	NO	YES	SCRAP
Nut-1/4-20 Ohio Weld #RN2113	B	626266	-----	YES	YES	INCREASE USAGE
Core A.-Rear A/C Evap.	B	639757	643624	NO	NO	USE
Screw-#10-32 x 3/8 P.H.C.R. TYPE C	B	164470	-----	NO	YES	DECREASE USAGE
Lockwasher-1/4 Int. Tooth Type A	B	120423	-----	NO	YES	INCREASE USAGE
Retainer-Frt. Evap. Core	B	644280	-----	NO	YES	INCREASE USAGE
Bolt-1/4-20 x 3 3/4 Hex. Hd.	B	432982	-----	NO	YES	INCREASE USAGE
Valve A.-Air Cond. Expansion	B	645311	-----	NO	YES	INCREASE USAGE
Tube A.-Rear Evap. Inlet	B	-----	643625	NO	YES	NEW PART
Tube A.-Rear Evap. Outlet	B	-----	643626	NO	YES	NEW PART
F Shroud & Brkt.Assem.-Rear Air Cond.	M	-----	643651	YES	YES	USE
F Brkt & Nut Assem.-Rear Air Cond. Shroud L.H.	M	-----	643649			USE
F Brkt-Rear Air Cond. Shroud L.H.	M	-----	644741			USE
F Brkt-Rear Air Cond. Shroud R.H.	M	-----	644742			USE
F Brkt & Nut Assem-Rear Air Cond. Shroud R.H.	M	-----	643650			USE

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IV. Due to the unavailability of the McCord Evaporator Core Assembly for the Limo Rear Evaporator, changes will be made effective with the depletion of the McCord Cores to the Modine Evaporator Core Assembly.

- A. The Limo Rear Evaporator Assembly will be interchangeable for service. Individual parts, however, will not be interchangeable.
- B. CMC will purchase the Expansion Valve from Controls Company of America for assembly to the Modine Evaporator Core.
- C. List of items to be affected:

NAME	B or M	OLD PART NUMBER	OLD PART NUMBER	I	A	REMARKS
Air Cond.Assy.-Complete-Limo	M	641080	645349	YES	YES	Use
Housing Assy.-Air Cond.-Welded-Limo	M	641014	645350	NO	YES	Serv.or Scrap
Panel & Brkt.Assy.-Core Mtg.	M	639560	645351	NO	YES	Serv.or Scrap
Brkt.& Nut Assy.-Core Mtg.Panel Upper R.H.	M	639561	645352	NO	YES	Serv.or Scrap
Brkt.-Core Mtg.Panel Upper R.H.	M	640319	644316	NO	YES	Serv.or Scrap
Brkt.& Nut Assy.-Core Mtg. Panel Lower L.H.	M	639562	645353	NO	YES	Serv.or Scrap
Brkt.& Nut Assy.-Core Mtg. Panel Lower R.H.	M	639562	645354	NO	YES	Serv.or Scrap
Bracket-Core Mtg.Panel Lower L.H.	M	640320	644317	NO	YES	Serv.or Scrap
Bracket-Core Mtg.Panel Lower R.H.	M	640320	644318	NO	YES	Serv.or Scrap
Panel & Nut Assy.-Air Cond.Hsq. Top - Limo	M	641030	645355	NO	YES	Serv.or Scrap
Panel-Air Cond.Housing Top-Limo	M	642012	644321	NO	YES	Serv.or Scrap
Panel-Air Cond.Housing End L.H.-Limo	M	642013	644319	NO	YES	Serv.or Scrap
Baffle-Rear Air Cond.-Limo	M	640332	644320	NO	YES	Serv.or Scrap
Cover Assy.-Air Cond.Welded-Limo	M	641031	645356	NO	YES	Serv.or Scrap
Cover-Air Cond.Housing-Limo	M	642017	644322	NO	YES	Serv.or Scrap
Insulator-Frt.Evap.Core Mtg.-Left Side	M	644291	-----	YES	YES	Increase Use

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NAME	B OF M	OLD PART NUMBER	NEW PART NUMBER	I	A	REMARKS
Insulator-Frt.Evap.Core Mtg.-Right Side	M	644292	-----	YES	YES	Increase Use
Core Assy.-Rear Evap. (McCord)	B	641754	645310	NO	NO	Use
Valve Assy.-Air Cond.Expansion	B	645311	-----	NO	YES	Increase Use
Plate-Inlet Tube Cover	M	640089	-----	NO	NO	Serv.or Scrap
Plate-Outlet Tube Cover	M	642293	-----	NO	NO	Serv.or Scrap
Screw-#8 x 3/8 Pan Hd.C.R.Type "B" Tapp.	B	163158	-----	NO	YES	Decrease Use
Screw & Ext.Tooth L/W Assy.-1/4 x 1/2 Hex. Washer Hd.	B	626449	-----	NO	YES	Decrease Use
Lockwasher-1/4 Int.Tooth Type "A"	B	120423	-----	NO	YES	Increase Use
Bolt - 1/4-20 x 3-3/4 Hex.Hd.	B	432982	-----	NO	YES	Increase Use
Retainer-Frt.Evap.Core	B	644280	-----	NO	YES	Increase Use
E Hose Assy.-Rear Evap.Outlet	B	641801	645784	NO	NO	Serv.or Scrap
E Hose Assy.-Dual Rr.Evap.Inlet	B	641702	645782	NO	NO	Serv.or Scrap
E Hose Assy.-Dual Rr.Evap.Outlet	B	641703	645783	NO	NO	Serv.or Scrap
E Hose Assy.-Rear Evap Inlet	B	645317	645781	NO	NO	Serv.or Scrap
E Hose Assy.-Comp.to Rear Evap.	B	701794	645780	NO	NO	Serv.or Scrap

645781,645782,645783 (Portion of Rev."E") incorporated on Chassis #82911,
Model A-12E