



SERVICE BULLETIN

Title: Oils, Current Production Chillers
Models Affected: 17/19/23 Series Equipment

Number: C9216
Date: 9/4/92
Supersedes: New
Date:

Purpose:

This bulletin includes information regarding part numbers and specifications for new oil used in current production chillers. **Tables are listed on next four pages.**

File: Compressor, Motor, Gears

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Mineral Oils

	17DA	17/19CB	PUMPOUT	17/19DK
COMPRESSOR (WATER CHILLING DUTY)			(CFC-12) (CFC/HFC500) SEE NOTE 5	DM/DR (CFC-11) 19EF(CFC-12, CFC/HFC-500)
CARRIER P/N (5 GALS.)	NOT AVAIL.	PP23BB-005	PP45EB-304	PP23BB-006
CARRIER SPEC. NO.	PP16-0 (1)	PP16-2 (1)	PP33-2 (1)	PP49-5 (1)

Performance Requirement for New Oil

ISO VISCOSITY GRADE		32	68	32	68
SPECIFIC GRAVITY		.865-.882	.865-.882	.865-.882	.865-.882
VISCOSITY,	SUS at 100 F	150-160	275-355	140-160	275-355
	SUS at 210 F	40-45	50-55	40-45	50-55
	cST at 40 C	32-34	61-75	32-34	61-75
	cST at 100 C	5.5-7.3	7.9-9.5	5.5-7.3	7.9-9.5
POUR POINT, MAX. F (C)		0 (-18)	20 (-6.7)	-35 (-37.2)	20 (-6.7)
FLASH POINT, MIN. F (C)		400 (204)	400 (204)	330 (165)	400 (204)
MOISTURE CONT. MX. PPM		N/A	55	N/A	N/A

Notes:

1. This specification covers a mineral-based oil that is suitable for use in Carrier's centrifugal compressors using refrigerants CFC-11, CFC-12, CFC-113, CFC-114 and CFC/HFC-500.

Synthetic Oils

COMPRESSOR	17FA, 19XL	17DA	19EF, 19XL	23XL
	(HCFC-22)	HFC-134a)	(HFC-134a)	(HCFC-22)
	PUMPOUT		PUMPOUT	
	(HCFC-22)		(HFC-134a) (CFC-12) (CFC/HFC-500)	
CARRIER P/N (5 GALS.)	PP23BZ-101	PP23BZ-102	PP23BZ-103	PP23BZ-104
CARRIER SPEC. NO.	PP49-7 (2)	PP47-30 (3)	PP47-31 (3)	PP47-32 (3)

Notes (Continued):

- This specification covers an inhibited alkyl-benzene based synthetic compressor oil that is specifically formulated for use with HCFC-22 refrigerant.

Notes (Continued):

- This specification covers an inhibited polyol-ester based synthetic compressor oil that is specifically formulated for use with HCFC-22 and HFC-134a refrigerants. This oil can be used in existing compressors that use CFC-12 and CFC/HFC-500 refrigerants and it is miscible with mineral-based oil.

Performance Requirement for Synthetic Oil

ISO VISCOSITY GRADE		86	32	68	220
SPECIFIC GRAVITY		.865-.882	.993	.966	.981
VISCOSITY	SUS at 100 F	375-425	135-165	280-320	960-1050
	SUS at 210 F	46-64	42-46	53-57	----
	cST at 40 C	81-92	29-35	65-71	210-230
	cST at 100 C	6.0-8.5	5.0-6.0	8.2-9.1	18-21
FLOC POINT, F (C)		-60 (-51.1)	-90 (-68)	-90 (-68)	-90 (-68)
POUR POINT, MAX. F (C)		-30 (-34.4)	-54 (-48)	-25 (-32)	-6 (-21)
FLASH POINT, MIN, F (C)		347 (175)	428 (220)	428 (220)	428 (220)
MOISTURE CONT. MX. PPM		45	100	100	100

Notes (Continued):

4. The synthetic compressor oils are hygroscopic. Containers should be kept tightly sealed in a clean and dry environment to prevent moisture absorption from air.
5. It is acceptable to use one oil in the field for all pumpout compressors to eliminate confusion. The recommended oil is Carrier P/N PP23BZ-103 ISO grade 68, which will be used in the factory for all pumpout compressors in the near future.
6. Oils for 17MA, PA, SA compressors vary with the chiller's application. Refer to Operating and Maintenance Instructions for lubricant specifications.