



5F & 5H COMPRESSORS

R-134a RATINGS

5, 6, 7 SERIES



PRODUCT LINE





R-134a COMPRESSOR RATINGS

For 5F & 5H Compressors

15° Subcooling • 65° Return Gas Temperature • 1750 RPM

Bhp - Brake Horsepower

Cap - Capacity (Tons)

SDT - Saturated Discharge Temperature (°F)

SST - Saturated Suction Temperature (°F)

COMPRESSOR		5F20		5F30		5F40		5F60		5H40		5H46		5H60		5H66		5H80		5H86		5H120		5H126	
SST	SDT	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp
0	80	2.4	3.4	3.5	5.0	4.7	6.6	7.1	9.8	11.1	15.6	13.8	20.3	16.7	23.0	20.7	30.0	22.2	30.5	27.6	39.7	33.4	45.3	41.4	59.0
	90	2.1	3.5	3.2	5.2	4.3	6.9	6.4	10.2	10.1	16.4	12.5	21.4	15.1	24.3	18.8	31.6	20.2	32.1	25.0	41.8	30.3	47.7	37.6	62.1
	100	1.9	3.6	2.9	5.4	3.9	7.1	5.8	10.5	9.0	17.0	11.2	22.2	13.6	25.2	17.0	32.8	18.1	33.3	22.6	43.3	27.3	49.5	33.9	64.4
	105	1.8	3.7	2.7	5.4	3.7	7.2	5.5	10.6	8.5	17.3	10.6	22.4	12.9	25.5	16.0	33.2	17.1	33.7	21.3	43.8	25.8	50.2	32.0	65.3
	110	1.7	3.7	2.6	5.5	3.4	7.2	5.2	10.7	8.0	17.4	10.0	22.6	12.1	25.7	15.1	33.5	16.2	34.0	20.1	44.2	24.3	50.6	30.2	65.8
	120	1.5	3.7	2.3	5.5	3.0	7.2	4.6	10.7	7.0	17.5	8.7	22.8	10.7	25.9	13.3	33.8	14.2	34.2	17.7	44.5	21.4	51.0	26.6	66.3
	130	1.3	3.6	2.0	5.4	2.6	7.1	3.9	10.5	6.1	17.3	7.5	22.6	9.3	25.7	11.6	33.5	12.4	33.9	15.4	44.2	18.5	50.5	23.1	65.7
	140	1.1	3.5	1.7	5.2	2.2	6.9	3.4	10.2	5.1	16.8	6.4	21.9	7.9	25.1	9.9	32.7	10.6	33.1	13.2	43.1	15.8	49.3	19.7	64.0
	145	1.0	3.4	1.5	5.1	2.0	6.7	3.1	10.0	4.7	16.5	5.8	21.5	7.3	24.7	9.1	32.1	9.7	32.5	12.2	42.3	14.5	48.3	18.1	62.7
10	80	3.2	3.8	4.8	5.6	6.3	7.4	9.5	11.0	15.0	17.4	18.6	22.6	22.5	25.8	28.0	33.7	30.0	34.2	37.2	44.6	45.0	50.9	55.9	66.3
	90	2.9	4.0	4.4	6.0	5.8	7.9	8.7	11.7	13.7	18.7	17.0	24.3	20.6	27.8	25.7	36.2	27.5	36.8	34.1	47.9	41.3	54.7	51.3	71.3
	100	2.7	4.2	4.0	6.3	5.3	8.3	8.0	12.3	12.5	19.8	15.0	25.7	18.8	29.4	23.4	38.3	25.0	38.9	31.1	50.7	37.6	57.9	46.7	75.4
	105	2.5	4.3	3.8	6.4	5.1	8.4	7.6	12.6	11.9	20.3	14.7	26.3	17.8	30.1	22.2	39.2	23.8	39.8	29.6	51.8	35.7	59.3	44.4	77.2
	110	2.4	4.4	3.6	6.5	4.8	8.6	7.2	12.8	11.3	20.7	14.0	26.9	16.9	30.6	21.1	39.9	22.6	40.6	28.1	52.8	33.9	60.5	42.2	78.7
	120	2.2	4.5	3.2	6.7	4.3	8.8	6.5	13.1	10.1	21.3	12.5	27.6	15.2	31.5	18.9	41.1	20.2	41.7	25.1	54.3	30.4	62.2	37.7	80.9
	130	1.9	4.5	2.9	6.7	3.8	8.9	5.7	13.2	8.9	21.6	11.0	28.1	13.4	32.1	16.8	41.7	17.9	42.3	22.3	55.1	26.9	63.2	33.4	82.1
	140	1.7	4.5	2.5	6.7	3.3	8.8	5.0	13.1	7.7	21.6	9.6	28.1	11.7	32.1	14.7	41.8	15.6	42.4	19.5	55.2	23.5	63.3	29.2	82.2
	145	1.6	4.5	2.3	6.6	3.1	8.8	4.6	13.0	7.2	21.5	8.9	28.0	10.9	32.0	13.7	41.7	14.6	42.2	18.2	55.0	21.8	63.0	27.2	81.9
20	80	4.2	4.1	6.2	6.1	8.3	8.0	12.5	11.9	19.8	18.8	25.4	24.5	29.7	28.0	36.9	36.5	39.5	37.2	49.1	48.4	59.4	55.2	73.7	71.9
	90	3.9	4.5	5.8	6.6	7.7	8.7	11.6	13.0	18.3	20.7	22.6	26.8	27.4	30.8	34.0	40.1	36.5	40.8	45.3	53.2	54.8	60.7	68.1	79.0
	100	3.6	4.8	5.3	7.1	7.1	9.4	10.6	14.0	16.8	22.3	20.8	28.9	25.1	33.2	31.3	43.2	33.5	44.0	41.6	57.3	50.3	65.5	62.5	85.3
	105	3.4	4.9	5.1	7.3	6.8	9.6	10.2	14.4	16.0	23.0	19.8	29.9	24.0	34.3	29.9	44.6	32.0	45.4	39.7	59.2	48.1	67.7	59.7	88.1
	110	3.2	5.0	4.9	7.5	6.5	9.9	9.7	14.7	15.3	23.7	18.9	30.8	22.9	35.2	28.5	45.9	30.5	46.7	37.9	60.8	45.9	69.6	57.0	90.6
	120	2.9	5.3	4.4	7.8	5.9	10.3	8.8	15.4	13.8	24.8	17.1	32.3	20.7	36.9	25.8	48.1	27.6	48.9	34.3	63.7	41.5	73.0	51.5	95.0
	130	2.6	5.4	4.0	8.0	5.3	10.6	7.9	15.8	12.3	25.7	15.3	33.4	18.6	38.2	23.2	49.8	24.8	50.6	30.8	65.9	37.2	75.6	46.2	98.3
	140	2.3	5.5	3.5	8.2	4.7	10.8	7.0	16.1	10.9	26.2	13.5	34.2	16.5	39.1	20.6	50.9	22.0	51.7	27.4	67.3	33.0	77.3	41.1	100.0
	145	2.2	5.5	3.3	8.2	4.4	10.8	6.6	16.2	10.2	26.4	12.7	34.4	15.5	39.4	19.3	51.3	20.6	52.0	25.7	67.7	31.0	77.8	38.5	101.0
25	80	4.7	4.2	7.1	6.2	9.5	8.2	14.2	12.2	22.5	19.4	27.9	25.2	33.8	28.8	42.0	37.6	45.1	38.2	56.0	49.8	67.7	56.8	84.0	74.0
	90	4.4	4.6	6.6	6.9	8.8	9.1	13.2	13.5	20.9	21.5	25.9	27.9	31.3	32.0	38.9	41.7	41.7	42.5	51.8	55.3	62.7	63.2	77.8	82.3
	100	4.1	5.0	6.1	7.5	8.1	9.8	12.2	14.7	19.2	23.4	23.8	30.4	28.8	34.9	35.8	45.4	38.4	46.2	47.7	60.3	57.7	68.9	71.7	89.7
	105	3.9	5.2	5.8	7.7	7.8	10.2	11.7	15.2	18.4	24.2	23.0	31.5	27.6	36.2	34.3	47.1	36.8	48.0	45.7	62.5	55.3	71.5	68.6	93.0
	110	3.7	5.3	5.6	8.0	7.5	10.5	11.2	15.6	17.6	25.0	21.8	32.5	26.4	37.4	32.8	48.7	35.1	49.6	43.6	64.6	52.8	73.9	65.6	96.2
	120	3.4	5.6	5.1	8.4	6.8	11.0	10.2	16.5	16.0	26.5	19.8	34.4	24.0	39.5	29.8	51.5	31.9	52.3	39.6	68.2	48.0	78.1	59.6	102.0
	130	3.1	5.8	4.6	8.7	6.1	11.5	9.2	17.1	14.4	27.6	17.8	35.9	21.6	41.2	26.9	53.7	28.8	54.6	35.7	71.1	43.2	81.5	53.7	106.0
	140	2.7	6.0	4.1	8.9	5.5	11.8	8.2	17.5	12.8	28.5	15.9	37.1	19.3	42.5	24.0	55.4	25.7	56.3	31.9	73.3	38.6	84.1	48.0	109.0
	145	2.6	6.0	3.9	9.0	5.2	11.9	7.7	17.7	12.0	28.8	14.9	37.5	18.1	43.0	22.6	56.0	24.2	56.9	30.1	74.1	36.3	85.1	45.1	111.0

Bhp - Brake Horsepower **Cap** - Capacity (Tons) **SDT** - Saturated Discharge Temperature (°F) **SST** - Saturated Suction Temperature (°F)

COMPRESSOR		5F20		5F30		5F40		5F60		5H40		5H46		5H60		5H66		5H80		5H86		5H120		5H126	
SST	SDT	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp	Cap.	Bhp
30	80	5.4	4.3	8.0	6.4	10.7	8.4	16.1	12.5	25.6	19.8	31.7	25.7	38.4	29.4	47.7	38.3	51.2	39.0	63.6	50.8	76.9	58.0	95.4	75.4
	90	5.0	4.8	7.5	7.1	10.0	9.4	15.0	14.0	23.8	22.1	29.4	28.8	35.7	33.0	44.3	43.1	47.5	43.9	59.0	57.1	71.3	65.2	88.5	84.9
	100	4.6	5.2	6.9	7.8	9.3	10.3	13.9	15.3	21.9	24.3	27.2	31.6	32.9	36.4	40.9	47.4	43.9	48.3	54.4	62.9	65.9	71.9	81.8	93.6
	105	4.4	5.4	6.7	8.1	8.9	10.7	13.3	15.9	21.0	25.3	26.1	32.9	31.5	37.9	39.2	49.4	42.0	50.3	52.2	65.5	63.2	74.9	78.4	97.5
	110	4.3	5.6	6.4	8.4	8.5	11.0	12.8	16.5	20.1	26.3	24.9	34.2	30.2	39.3	37.5	51.3	40.2	52.2	50.0	68.0	60.5	77.8	75.1	101.0
	120	3.9	6.0	5.8	8.9	7.8	11.7	11.7	17.5	18.3	28.0	22.7	36.5	27.5	41.9	34.2	54.6	36.7	55.6	45.5	72.4	55.1	82.9	68.4	108.0
	130	3.5	6.2	5.3	9.3	7.1	12.3	10.6	18.3	16.6	29.5	20.5	38.4	24.9	44.1	31.0	57.5	33.2	58.5	41.2	76.1	49.9	87.3	61.9	114.0
	140	3.2	6.4	4.8	9.6	6.3	12.7	9.5	19.0	14.9	30.7	18.4	39.9	22.3	45.9	27.8	59.7	29.8	60.7	37.0	79.1	44.7	90.8	55.6	118.0
	145	3.0	6.5	4.5	9.7	6.0	12.9	9.0	19.2	14.0	31.2	17.4	40.6	21.1	46.6	26.3	60.6	28.1	61.7	34.9	80.3	42.2	92.2	52.5	120.0
35	80	6.1	4.3	9.1	6.4	12.1	8.5	18.2	12.6	28.9	20.0	35.8	26.0	43.5	29.7	53.9	38.7	57.9	39.4	71.9	51.2	86.9	58.6	107.8	76.2
	90	5.7	4.9	8.5	7.3	11.3	9.6	16.9	14.3	26.9	22.7	33.4	29.5	40.4	33.9	50.2	44.1	53.9	44.9	66.9	58.5	80.9	66.8	100.3	87.0
	100	5.2	5.4	7.9	8.1	10.5	10.6	15.7	15.9	24.9	25.2	30.9	32.7	37.4	37.7	46.4	49.1	49.8	50.0	61.9	65.1	74.8	74.4	92.9	96.9
	105	5.0	5.7	7.6	8.4	10.1	11.1	15.1	16.6	23.9	26.3	29.6	34.2	35.9	39.4	44.6	51.4	47.8	52.3	59.4	68.2	71.8	78.0	89.2	102.0
	110	4.8	5.9	7.3	8.8	9.7	11.5	14.5	17.2	22.9	27.5	28.4	35.7	34.4	41.1	42.8	53.6	45.8	54.6	56.9	71.1	68.9	81.3	85.5	106.0
	120	4.4	6.3	6.7	9.4	8.9	12.4	13.3	18.5	21.0	29.5	26.0	38.4	31.5	44.2	39.1	57.6	41.9	58.6	52.0	76.4	63.0	87.5	78.2	114.0
	130	4.0	6.6	6.1	9.9	8.1	13.0	12.1	19.5	19.0	31.3	23.6	40.7	28.6	46.9	35.5	61.0	38.1	62.1	47.3	81.0	57.2	92.8	71.0	121.0
	140	3.6	6.9	5.5	10.3	7.3	13.6	10.9	20.3	17.1	32.8	21.2	42.7	25.7	49.1	32.0	64.0	34.3	65.1	42.6	84.8	51.5	97.3	64.0	127.0
	145	3.5	7.0	5.2	10.5	6.9	13.8	10.3	20.7	16.2	33.5	20.1	43.5	24.3	50.1	30.3	65.2	32.4	66.3	40.3	86.4	48.7	99.1	60.5	129.0
40	80	6.8	4.3	10.2	6.4	13.6	8.5	21.2	12.6	32.6	20.1	40.4	26.1	49.0	29.7	60.8	38.7	65.3	39.4	81.0	51.2	97.9	58.6	121.5	76.2
	90	6.4	5.0	9.5	7.4	12.7	9.8	19.1	14.5	30.4	23.1	37.6	30.0	45.6	34.4	56.6	44.8	60.8	45.6	75.5	59.4	91.3	67.9	113.3	88.3
	100	5.9	5.6	8.9	8.3	11.9	10.9	17.8	16.3	28.2	25.9	34.9	33.6	42.3	38.7	52.5	50.4	56.4	51.4	70.0	66.9	84.7	76.5	105.1	99.6
	105	5.7	5.8	8.5	8.7	11.4	11.5	17.1	17.1	27.1	27.2	33.6	35.4	40.7	40.7	50.5	53.1	54.2	54.1	67.3	70.5	81.4	80.6	101.0	105.0
	110	5.5	6.1	8.2	9.1	11.0	12.0	16.4	17.9	26.0	28.5	32.2	37.0	39.0	42.7	48.5	55.6	52.0	56.7	64.6	73.8	78.1	84.4	96.9	110.0
	120	5.0	6.6	7.6	9.8	10.1	12.9	15.1	19.3	23.9	30.9	29.6	40.1	35.8	46.3	44.5	60.3	47.7	61.4	59.2	80.0	71.6	91.6	88.9	119.0
	130	4.6	7.0	5.2	10.4	9.2	13.8	13.8	20.6	21.7	33.0	26.9	42.9	32.6	49.5	40.5	64.4	43.4	65.6	53.9	85.5	65.2	97.9	81.0	128.0
	140	4.2	7.3	6.2	11.0	8.3	14.5	12.5	21.7	19.6	34.8	24.3	45.3	29.4	52.2	36.6	68.0	39.2	69.2	48.7	90.2	59.0	103.0	73.2	135.0
	145	4.0	7.5	5.9	11.2	7.9	14.8	11.9	22.1	18.6	35.6	23.0	46.4	27.9	53.4	34.7	69.6	37.2	70.8	46.2	92.2	55.9	106.0	69.4	138.0
45	80	7.6	4.3	11.4	6.3	15.3	8.4	22.9	12.5	36.6	19.9	45.3	25.9	55.0	29.4	68.3	38.2	73.4	39.0	91.1	50.5	110.0	58.0	136.4	75.3
	90	7.2	5.0	10.7	7.4	14.3	9.8	21.4	14.6	34.2	23.3	42.4	30.2	51.4	34.6	63.7	45.0	68.5	45.9	85.0	59.7	102.7	68.4	127.4	88.9
	100	6.7	5.7	10.0	8.4	13.3	11.2	20.0	16.6	31.8	26.4	39.4	34.3	47.7	39.5	59.2	51.4	63.6	52.4	78.9	68.2	95.5	78.1	118.4	102.0
	105	6.4	6.0	9.6	8.9	12.9	11.8	19.3	17.6	30.6	27.9	37.9	36.3	45.9	41.8	57.0	54.4	61.2	55.5	75.9	72.3	91.8	82.6	114.0	108.0
	110	6.2	6.3	9.3	9.4	12.4	12.4	18.5	18.5	29.4	29.3	36.4	38.1	44.1	44.0	54.8	57.3	58.8	58.4	72.9	76.1	88.2	87.1	109.5	113.0
	120	5.7	6.8	8.5	10.2	11.4	13.5	17.1	20.1	27.0	32.1	33.5	41.7	40.5	48.1	50.3	62.7	54.0	63.9	67.0	83.3	81.1	95.3	100.7	124.0
	130	5.2	7.3	7.8	10.9	10.4	14.5	15.6	21.6	24.7	34.5	30.6	44.9	37.0	51.9	46.0	67.6	49.3	68.8	61.2	89.7	74.1	103.0	91.9	134.0
	140	4.7	7.8	7.1	11.6	9.5	15.3	14.2	22.9	22.4	36.7	27.7	47.8	33.5	55.2	41.7	71.8	44.7	73.2	55.5	95.3	67.1	109.0	83.4	142.0
	145	4.5	7.9	6.7	11.9	9.0	15.7	13.5	23.5	21.2	37.7	26.3	49.1	31.8	56.6	39.6	73.8	42.4	75.1	52.7	97.9	63.7	112.0	79.1	146.0
50	80	8.5	4.2	12.8	6.13	17.1	8.2	25.6	12.2	40.9	19.6	50.8	25.5	61.7	28.8	76.5	37.3	82.2	38.0	102.1	49.2	123.2	56.7	152.8	73.4
	90	8.0	5.0	12.0	7.4	16.0	9.8	24.0	14.6	38.3	23.3	47.5	30.2	57.6	34.5	71.5	44.9	76.8	45.8	95.4	59.4	115.2	68.2	142.9	88.5
	100	7.5	5.7	11.2	8.5	15.0	11.3	22.4	16.8	35.7	26.7	44.2	34.8	53.6	40.0	66.5	52.0	71.5	53.0	88.7	69.0	107.3	79.0	133.1	103.0
	105	7.2	6.1	10.8	9.1	14.4	12.0	21.6	17.9	34.3	28.4	42.6	36.9	51.6	42.6	64.1	55.4	68.8	56.5	85.4	73.5	103.3	84.2	128.1	109.0
	110	6.9	6.4	10.4	9.6	13.9	12.7	20.8	18.9	33.1	30.0	41.0	39.0	49.6	45.1	61.6	58.7	66.2	59.8	82.1	77.9	99.3	89.1	123.2	116.0
	120	6.4	7.1	9.6	10.5	12.8	13.9	19.2	20.8	30.5	33.1	37.7	43.1	45.7	49.8	56.8	64.8	60.9	66.1	75.6	86.1	91.5	98.5	113.5	128.0
	130	5.9	7.6	8.8	11.4	11.8	15.1	17.6	22.6	27.9	35.9	34.5	46.8	41.8	54.1	52.0	70.4	55.7	71.7	69.2	93.5	83.7	107.0	103.9	139.0
	140	5.4	8.1	8.0	12.2	10.7	16.1	16.1	24.1	25.3	38.5	31.4	50.1	38.0	57.9	47.2	75.4	50.6	76.8	62.9	100.0	76.1	115.0	94.4	149.0
	145	5.1	8.4	7.6	12.5	10.2	16.6	15.3	24.8	24.1	39.7	29.8	51.6	36.1	59.7	44.9	77.7	48.1	79.2	59.7	103.0	72.3	118.0	89.8	154.0



COMPRESSOR RATING DATA NOTES

1. Ratings are based on computer generated models of 5F/H compressors using (HFC) R-134a.
2. Compressor ratings shown for 1750 RPM, 15°F subcooling and 65°F return gas temperature.
 - A. Multiplying factors for other RPM

	1450 rpm	1160 rpm
capacity:	.835	.674
bhp:	.798	.602

- B. Liquid subcooling less than 15°F, decrease charted capacity by 6/10 of 1% (.006) for each degree of subcooling below 15°F.
 - C. Capacities are based on actual suction gas temperatures to the compressor of 65°F. This assumes superheat is obtained in evaporator or from liquid suction interchanger.
3. Refrigerant temperatures shown are saturated temperatures corresponding to pressures indicated at the compressor. Actual gas temperatures are higher because of superheat.
 4. Oil coolers are NOT REQUIRED for any R-134a applications shown. Oil coolers ARE RECOMMENDED for 5H46, 66, 86 and 126 L.S. Compressors (with any refrigerant) for conditions of extended unloading.



OILS

The compressors, when used with HFC refrigerants such as R-134a, must be applied with customer supplied and Carlyle approved POE lubricants. Carlyle Compressor recommends an ISO 68 cST viscosity polyolester oil. Shown below are POE-68 oils which are approved for use in Carlyle compressors. Note: Castrol, SW 68 and Mobil EAL 68 should not to be used for low temperature operations.

MFG.	BRAND NAME	CODE APPROVAL		ADDITIVE USED
		UL	CSA	
Mobil	Arctic EAL 68	Yes	Yes	No
Castrol	SW 68	Yes	Yes	Yes*
Castrol	E-68	Yes	Yes	Yes*
ICI	Emkarate RL68H	Yes	Yes	No
Lubrizol	Lubrikuhl ISO 68	Yes	Yes	Yes*

* Contains wear additives

Several POE options have been selected that contain additives. Carlyle testing indicates that even if these additives were removed (by system filters, for example), the remaining composition should meet our requirements for proper compressor lubrication.

HFC APPLICATION REQUIREMENTS

Several additional system recommendations must also be followed with all HFC/POE systems:

1. All components used in systems must be compatible with the HFC refrigerant and POE 68 oil being used. It is especially important that the filter driers be compatible with the refrigerant and oil.
2. Care must be taken to minimize compressor flooded starts. When refrigeration migration occurs in the oil, the new HFC refrigerants and POE oils are more miscible and react differently than CFC's & mineral oil. POE lubricants absorb refrigerant faster & release it slower than mineral oils. Therefore, crankcase heaters are recommended on ALL applications with POE oils. To further minimize the potential for refrigerant absorption into the oil, pumpdown control cycles should be used whenever possible.
3. Normal application precautions & guidelines should be followed when using multiple compressors in a single circuit. As always, particular attention must be paid to oil management in multiplex systems. Carlyle recommends the use of a (**standard** efficient) oil separator, oil reservoir & oil float system to ensure good oil management with multiple compressor applications.
4. System cleanliness is critical with R-134a and POE applications. Potential seal damage and leaks can occur due to the cleaning / solvent characteristics of the POE oils. See Carlyle OEM Bulletin 98T-3 for additional details. For retrofit applications where system cleanliness may be a potential problem, new seal designs have been developed for the 5H compressors and should be considered as part of the retrofit. They are:

For 5H40 thru 5H86: Seal assembly 5H40-276A
For 5H120 and 5H126: Seal assembly 5H120-732A



REFERENCE: R-134a RETROFIT RECOMMENDATIONS

1. Review SYSTEM components for compatibility w/R-134a.
2. Replace oil in compressor with POE-68 oil (per above).
3. Run system until it stabilizes at normal operating conditions (2 days minimum. . .7 days preferred) and drain the oil.
4. Repeat steps 2 & 3.
5. Check oil sample to determine if less than 3% of the original oil remains. If so proceed to next step...if not, repeat steps 2, 3 and 5.
6. Remove and recycle/reclaim R-12 as required.
7. Replace expansion valve w/R-134a version.
8. Triple evacuate the system to ensure moisture is removed. POE oils hold higher amounts of moisture. Recommend moisture level be kept below 50 PPM.
9. Replace filter drier with type suitable for R-134a. Replace compressor oil filter if any.
10. Charge with POE oil.
11. Label as R-134a system.