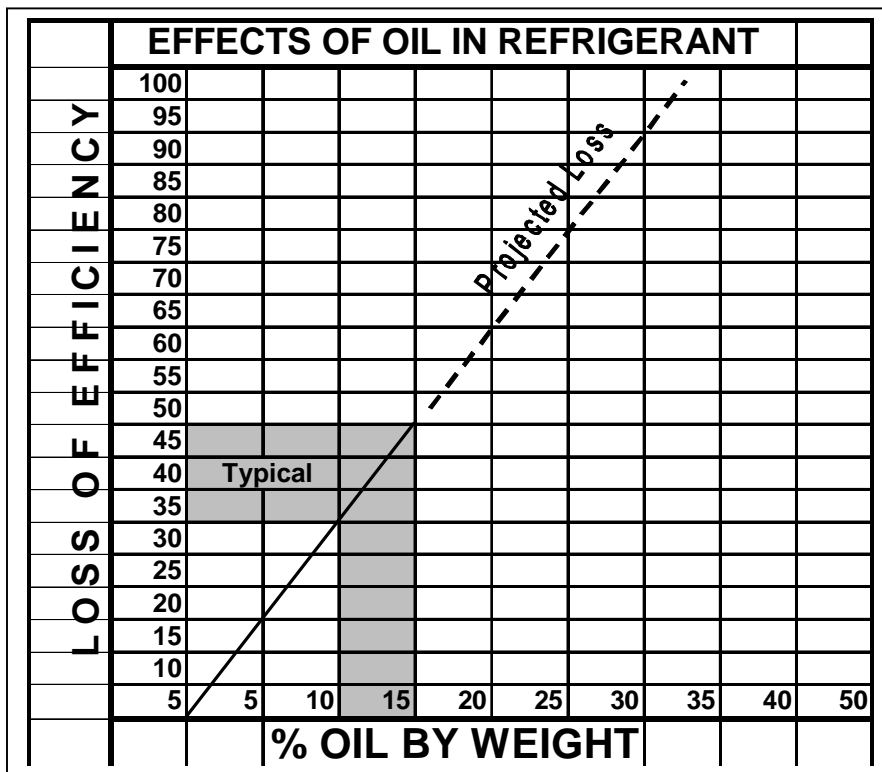


**Chart PAGE 1:
EFFECTS OF OIL IN REFRIGERANT A CHILLER'S
REFRIGERANT CHARGE**

**Chart PAGE 2:
AMOUNT OF EXCESS OIL IN THE CHILLER'S
REFRIGERANT CHARGE**

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Use this chart to estimate the amount of excess oil in the Chiller's Refrigerant Charge. According to ASHRAE study 601-TRP, the Average Chiller has 12 % oil by weight in its Refrigerant Charge. A 500 lb. Refrigerant Charge at 12% by weight contains 60 lbs., or 8.5 gallons of oil.

CHILLER REFRIGERANT CHARGE BY WEIGHT IN lbs.												
	100	200	300	400	500	600	700	800	900	1000	1100	1200
% OIL	lbs. of Oil in Refrigerant Charge based on % by weight											
1%	1	2	3	4	5	6	7	8	9	10	11	12
2%	2	4	6	8	10	12	14	16	18	20	22	24
3%	3	6	9	12	15	18	21	24	27	30	33	36
4%	4	8	12	16	20	24	28	32	36	40	44	48
5%	5	10	15	20	25	30	35	40	45	50	55	60
6%	6	12	18	24	30	36	42	48	54	60	66	72
7%	7	14	21	28	35	42	49	56	63	70	77	84
8%	8	16	24	32	40	48	56	64	72	80	88	96
9%	9	18	27	36	45	54	63	72	81	90	99	108
10%	10	20	30	40	50	60	70	80	90	100	110	120
11%	11	22	33	44	55	66	77	88	99	110	121	132
12%	12	24	36	48	60	72	84	96	108	120	132	144
13%	13	26	39	52	65	78	91	104	117	130	143	156
14%	14	28	42	56	70	84	98	112	126	140	154	168
15%	15	30	45	60	75	90	105	120	135	150	165	180
16%	16	32	48	64	80	96	112	128	144	160	176	192
17%	17	34	51	68	85	102	119	136	153	170	187	204
18%	18	36	54	72	90	108	126	144	162	180	198	216
19%	19	38	57	76	95	114	133	152	171	190	209	228
20%	20	40	60	80	100	120	140	160	180	200	220	240
21%	21	42	63	84	105	126	147	168	189	210	231	252
22%	22	44	66	88	110	132	154	176	198	220	242	264
23%	23	46	69	92	115	138	161	184	207	230	253	276
24%	24	48	72	96	120	144	168	192	216	240	264	288
25%	25	50	75	100	125	150	175	200	225	250	275	300
OIL WEIGHS APPROXIMATELY 7 Lbs. PER GALLON												
60 Lbs = approximately 8.5 Gallons												