# CAPACITY CONTROL VALVE

## Installation Instructions

### **INSTALLATION**

- → Install 5F20-752 capacity control package of 5F20 or 5F30 compressors using R-12, R-134A, or R-500; 5F20-A752 packages on 5F20 or 5F30 compressors using R-22 or R-502.
  - 1. Remove pipe plug from adapter provided at nine o'clock position on side of pump end bearing head. Replace pipe plug with half union elbow (item 2). This connection provides oil supply from compressor oil pump to capacity control valve.
- Insert elbow (item 3) in tapped hole provided at eighto'clock position on side of pump end bearing head. This connection provides oil return from control valve to crankcase. Attach nipple (item 4) to elbow.
- 3. Remove adjusting stem cap from control valve (item 1), and install valve on nipple (item 4). Valve can be installed at any angle when clearances around compressor are critical.
- 4. Attach hose assembly (item 5) to half union elbow (item 2) and bottom connection of control valve (item 1).

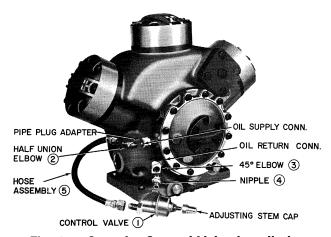


Fig. 1 — Capacity Control Valve Installation

# Table 1 — Capacity Control Packages (5F20-752 and 5F20-A752)

	ITEM	PART NO.	REQ.	DESCRIPTION
→	1	EB02AD002	1	Cap. Control Valve (R-12, R-134A, & R-500)
		EB02AD003	1	Cap. Control Valve (R-22 & R-502)
	2	DD10CA051	1	Elbow, Half Union, 1/4 FL x 1/4 MPT
	3	CA17JA101	1	Elbow, 45° St, 36 FPT x 36 MPT
	4	CA52JA101	1	Nipple, Hex, % MPT x % MPT
	4	DK04DA103	1	Nipple, Hex, 1/4 MPT x 3/8 MPT
•	5	KA73RR025	1	Hose Assembly, 1/4 FL x 3/8 FL

5F20-A752

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5F20-752

#### **→ CAPACITY CONTROL ADJUSTMENT**

Use control valve external adjusting stem to set control point (suction pressure at which first step of cylinder unloading occurs). Control point is adjustable from 0 to 50 psig on R-12, R-134A, and R-500 control valve; 0 to 85 psig on R-22 and R-502 valve. Factory settings are 30 psig on R-12, R-134A, and R-500 valve; 50 psig on R-22 and R-502 valve.

When adjusting stem is backseated the compressor will be fully loaded under all conditions. One full turn clockwise of adjusting stem will raise control point approximately 6 psig with R-12, R-134A, and R-500, or 10 psig with R-22 and R-502.

#### **Adjusting Control Point**

- Load compressor until suction pressure is above desired control set point.
- Reduce compressor suction pressure to control point pressure by slowly closing suction valve. (Reopen valve after control point is set.)
- At control point pressure, turn adjusting stem in clockwise direction until first step of unloading takes place. Observe change in motor current draw and sound of compressor. Control oil pressure is also an indication of cylinder loading condition of compressor. See 5F,H Start-Up and Service Instructions for details.

After completing step 3, the control point is set. Thereafter the compressor will be fully loaded when suction pressure is 3 psig (4 psig with R-22 and R-502) above control point, and fully unloaded when suction pressure is 4 psig (7 psig with R-22 and R-502) below control point.

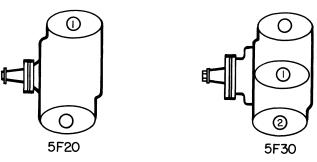


Fig. 2 - Cylinder Unloading Sequence

Tab 2a 3a