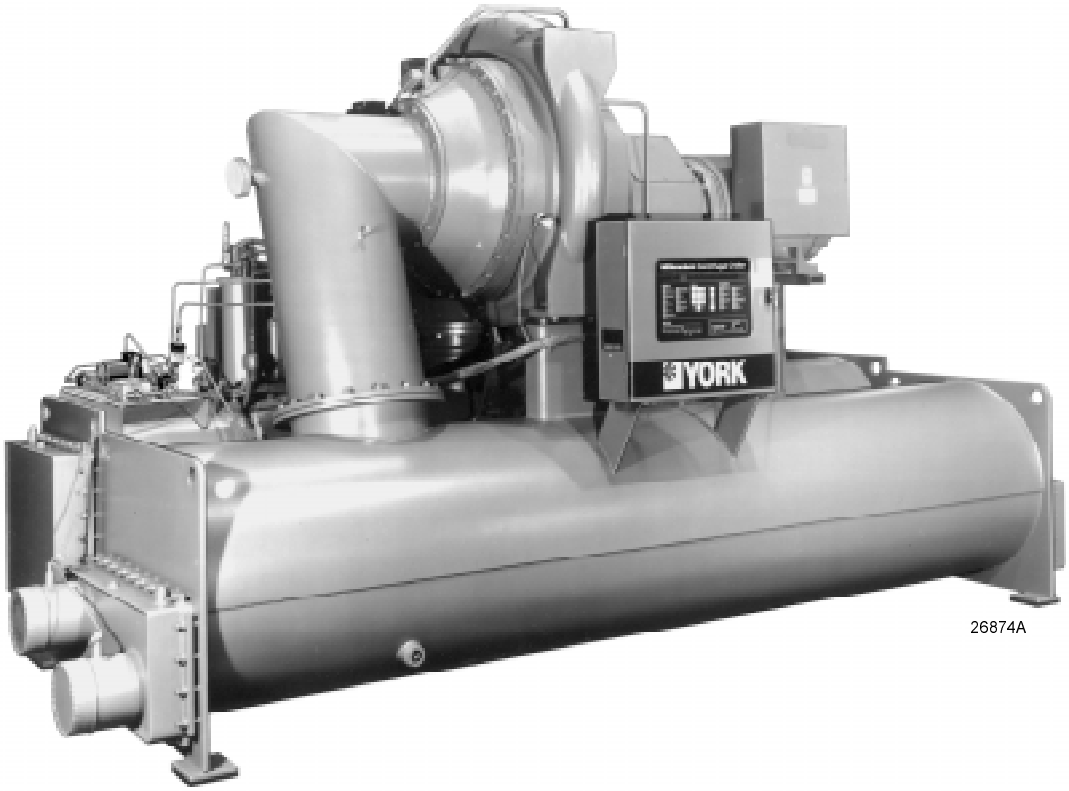
YORK®	*MILLENNIUM* ™ CENTRIFUGAL LIQUID CHILLERS	
INSTALLATION INSTRUCTIONS	Supersedes: Nothing	Form 160.48-N3 (398)

FIELD RE-ASSEMBLY FOR FORM 3 & FORM 7 SHIPMENT
MODEL
YTG0A1B1 THRU YTL6D8F2 (STYLE H)
HCFC-123 (COOLING ONLY)

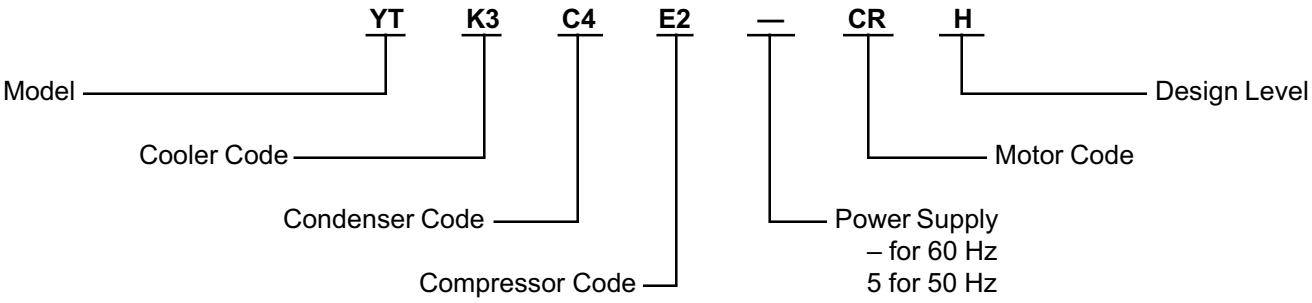
WITH MICROCOMPUTER CONTROL CENTERS
PART NO. 371-01200-002 & 371-01200-007
FOR ELECTRO-MECHANICAL STARTER, SOLID STATE STARTER, AND VARIABLE SPEED DRIVE



26874A

NOMENCLATURE

The model number denotes the following characteristics of the unit:



REFERENCE INSTRUCTIONS

INSTALLATION	160.48-N1
OPERATION	160.48-O1
COUPLING	160.48-N4

NOTES:

1. Millennium chillers MUST be field re-assembled under the supervision of a YORK representative.
2. For Installation Instructions other than unit re-assembly, refer to Form 160.48-N1.

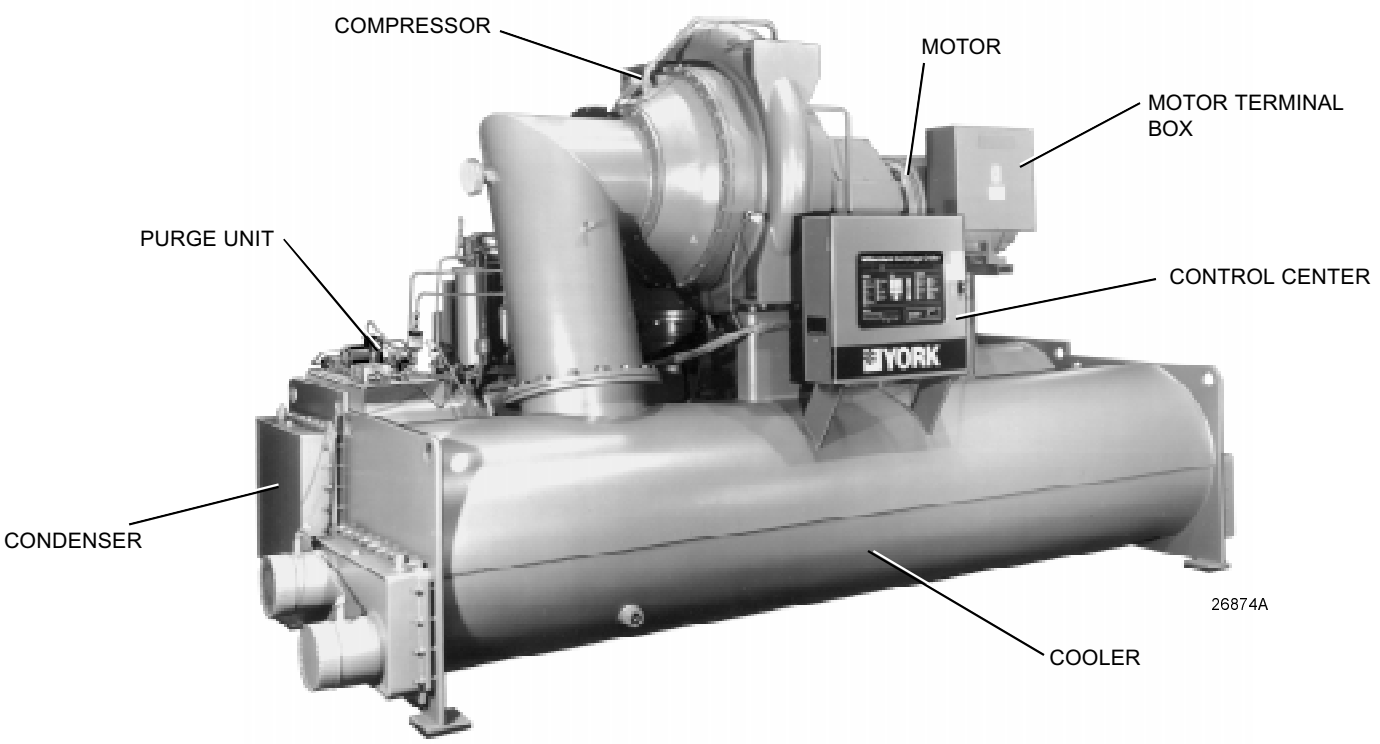


FIG. 1 – YT CHILLER

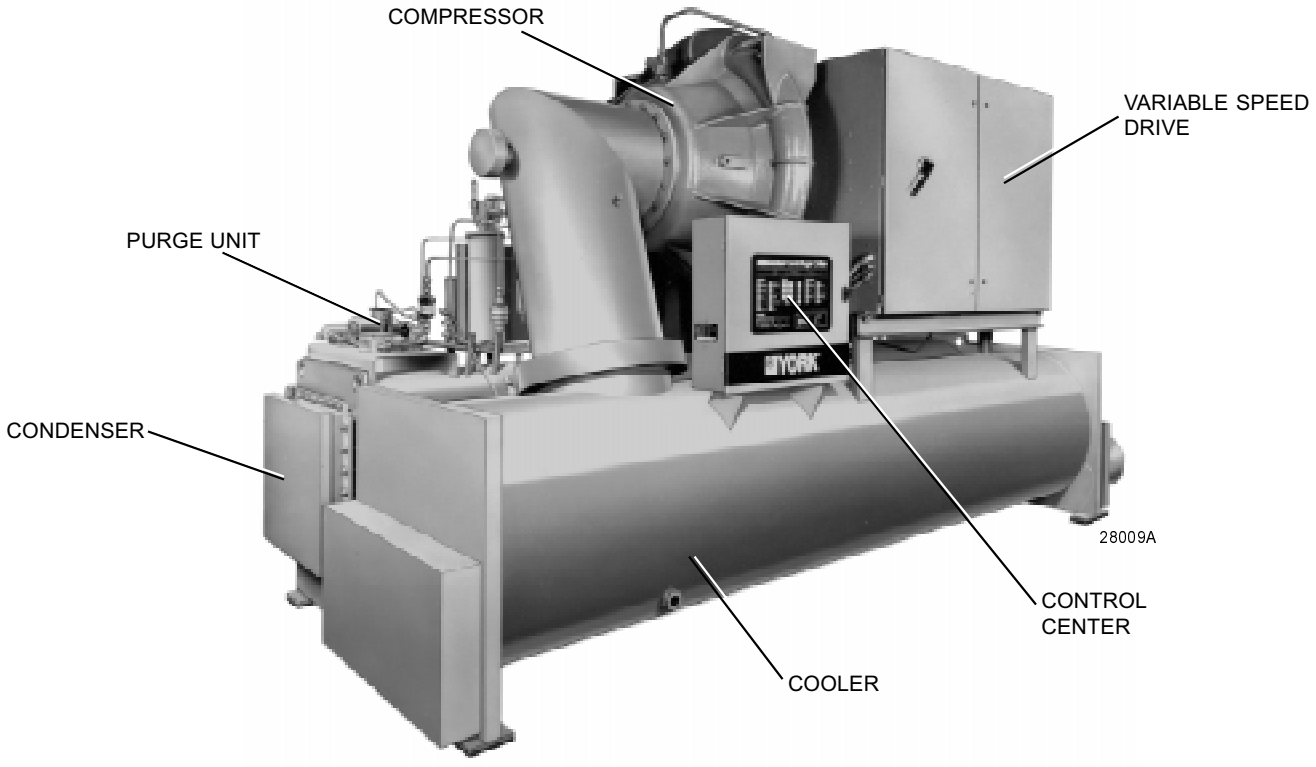


FIG. 2 – YT CHILLER WITH VARIABLE SPEED DRIVE

GENERAL

This instruction explains the procedure to be used for re-assembling the Model YT chiller shipped disassembled. (Shipping Form 3 and 7.)

NOTE: Millennium chillers MUST be field re-assembled under the supervision of a YORK representative.

For Installation Instructions other than unit re-assembly, refer to Form 160.48-N1.

FORMS OF SHIPMENT

Form 3 Shipment – Driveline Separate from Shells

Shipped as two major assemblies. Unit first factory assembled, refrigerant piped, wired and leak tested; then dismantled for shipment. Close coupled compressor / open motor assembly removed from shells and skidded. Evaporator / condenser is not skidded.

All wiring integral with compressor is left on it, and all conduit is left on shells. All openings on compressor and shells are closed and charged with dry nitrogen (2 to 3 PSIG).

Miscellaneous packaging of control center, oil eductor filter, tubing, water temperature controls, wiring, oil, isolators, solid state starter (option), variable speed drive (option), etc. Refrigerant charge shipped separately in drums.

Form 7 Shipment – Split Shells

Shipped as three major assemblies. Unit first factory assembled, refrigerant piped, wired and leak tested; then dismantled for shipment. Close coupled compressor / open motor assembly removed from shells and skidded.

Evaporator and condenser shells are separated at tube sheets and are not skidded. Refrigerant lines between shells are flanged and capped, requiring **no** welding. Tube sheets are also bolted, requiring no welding.

All openings on compressor and shells are closed and charged with dry nitrogen (5 to 7 PSIG).

Miscellaneous packaging of control center, oil eductor filter, tubing, water temperature controls, wiring, oil, isolators, solid state starter (option), variable speed drive (option), etc. Refrigerant charge shipped separately in drums.

NOTE: When more than one unit is involved, the major parts of each unit will be marked to prevent mixing of assemblies.

INSPECTION – DAMAGE – SHORTAGE

The unit shipment should be checked on arrival to see that all major pieces, boxes, and crates are received. Each unit should be checked on the trailer or rail car when received, before unloading, for any visible signs of damage. Any damage or signs of possible damage must be reported to the transportation company immediately for their inspection.

YORK WILL NOT BE RESPONSIBLE FOR ANY DAMAGE IN SHIPMENT OR AT JOB SITE OR LOSS OF PARTS. (Refer to Shipping Damage Claims, Form 50.15-NM).

When received at the job site, all containers should be opened and contents checked against the packing list. Any material shortage should be reported to YORK immediately.

UNIT DATA PLATES

A unit data plate is mounted on the control center assembly of each unit, giving unit model number, design working pressure, water passes, refrigerant charge, serial numbers, and motor power characteristics and connection diagrams.

A control panel data plate, which includes control panel part number and a serial number is also included. If the unit is equipped with a Solid State Starter or Variable Speed Drive, each has its own data plate with serial number.

RE-ASSEMBLY

CAUTION: Compressor and shells are shipped with a nitrogen holding charge of 5 – 7 PSIG. Carefully relieve this pressure before removing closures.

The following is a step-by-step procedure to be used to re-assemble the chiller. Refer to Installation Instruction, Form 160.48-N1 for other instructions.

Form 7 Shipment (See Fig. 3)

1. Locate cooler and condenser shells in their final position.
2. Bolt the tube sheets together as shown in Fig. 3. Note that the outside surfaces of the tube sheets must be flush.

Form 3 and Form 7 Shipment

1. Assemble vibration isolators to unit. (Refer to Form 160.48-N1).
2. Level shell in both directions. The longitudinal alignment of the shell should be checked by placing a level on the top of the shell, next to the discharge connection. The transverse alignment should be checked by placing a level on the top of both end sheets. Refer to

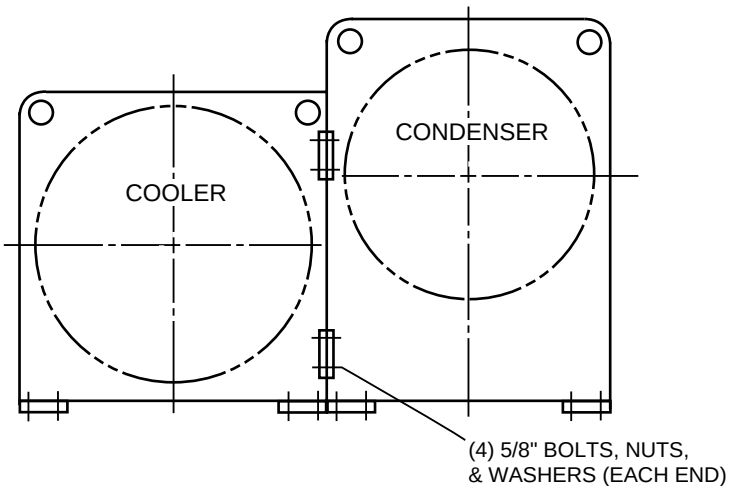


FIG. 3 – RE-ASSEMBLY OF SHELLS (FORM 7 SHIPMENT)

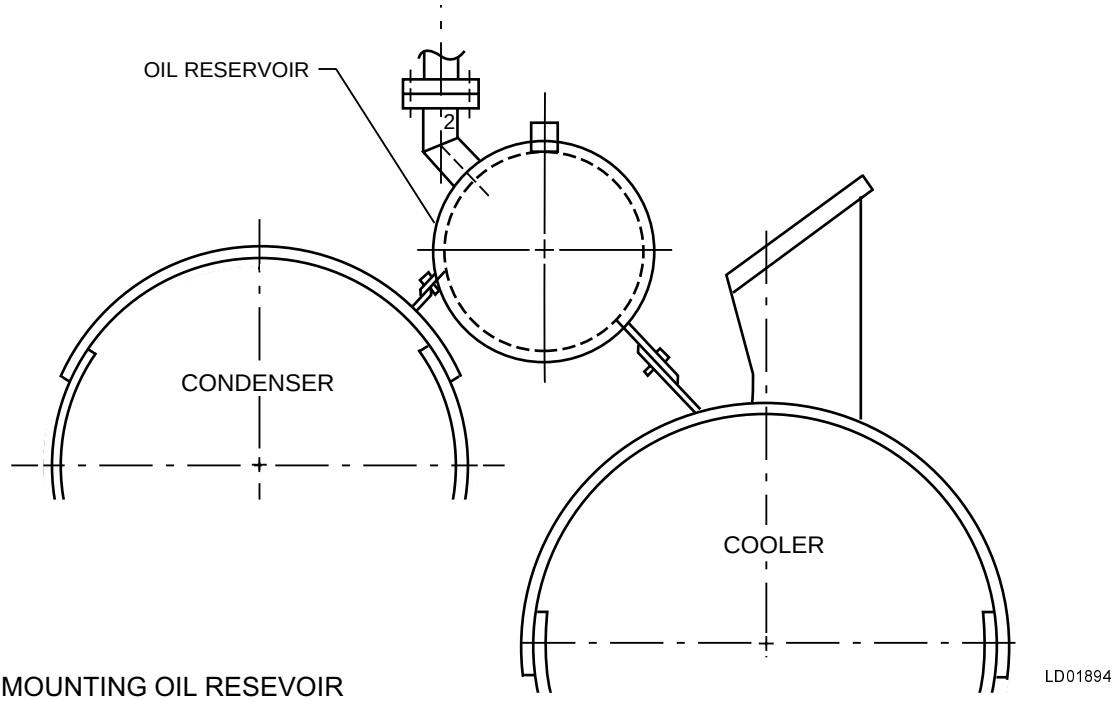


FIG. 4 – MOUNTING OIL RESEVOIR

Installation Instruction, Form 160.48-N1 for additional instructions to level unit. After shell is leveled, wedge and shim each corner of the shell to solidly support it while assembling the other parts.

3. Mount the oil reservoir as shown in Fig. 4.

4. Lift compressor-motor assembly and remove packing materials and shipping skids. Keep the compressor unit supported by the hoist until all connections are finally made to the shell assembly. (Refer to Fig. 5 for rigging method.)

5. **Cooler-Condenser Shells –** Remove all refrigerant connection covers from shells (except the suction connection cover). Wipe connection surfaces clean and apply required gaskets.

   CAUTION: Shells are shipped with a nitrogen holding charge.

6. Remove all refrigerant connection covers from compressor (except the suction connection cover). Wipe surfaces of connections clean.

   CAUTION: Compressors are shipped with a nitrogen holding charge.

7. Carefully lower the compressor-motor assembly over the shell, keeping it level in both directions using the bottom of the compressor discharge flange. When level, lower on to flanged shell connection and motor support. Insert cap screws and tighten nuts snugly. (See Figs. 6, 7, or 8)

8. Make sure the gasket is between the compressor oil drain flange and the oil sump flange. Fasten the flange of the oil sump flange with Hex. Hd. Cap Screws (1/2 - 13 UNC x 1-1/2" Lg.). Do not tighten screws.

9. Install the compressor support. Level the compressor motor. If necessary, adjust the screws and nuts to level compressor, and add shims if necessary, between the motor feet and the support.

10. Remove the hoist from the compressor-motor assembly.

11. Remove cover from the compressor suction connection opening. Wipe surface clean.

12. Remove flange protector from the cooler suction flange. Wipe surface clean.

13. Remove flange protectors from the suction connection. Wipe surface clean. With a hoist and a sling, lift the suction connection.

14. Place a gasket in the cooler suction flange and lower the suction connection into place. The suction connection flange contains counter-bored holes which must slip over the weld studs on the shell suction flange. Line up holes on the compressor. Insert two cap screws in the bottom holes of the compressor suction flange and drop gasket into place between the compressor and the flange. Insert the remaining cap screws, and assemble nuts to weld studs on the cooler suction flange. Tighten nuts at compressor and the cooler suction flange alternately and evenly, to insure a leak tight fit.

15. Mount purge unit. (See Figs. 9, 10 or 11).

16. Assemble the Control Center to unit. (See Figs. 9, 10, or 11.) Also see wiring per drawings furnished by YORK.

17. **Solid State Starter –** Install starter per Figs. 9, 10, or 11. Also install piping connections in accordance with drawings furnished by YORK.

18. **Variable Speed Drive –**
    a. Mount the Variable Speed Drive to the motor and to the supports on the cooler shell.
    b. Reconnect all wiring and water hoses.
    c. Fill the coolant loop using YORK's pre-mixed solution, part number 013-02987-000. Pour the solution into the top of the header pipe until the level is within an inch of the top. Then run the pump by unplugging connector P2 on the VSD logic board. The level in the fill-pipe will drop quickly. Add more coolant so the level is maintained at one inch from the top of the pipe. Continue to run the pump for 15 minutes, adding more coolant as needed, then reinstall P2, make certain the level is one inch from the top, and install the pipe plug in the header pipe using teflon tape to assure coolant does not evaporate through the pipe threads.

19. Install refrigerant piping, purge unit piping, oil lines, and oil return system filters per drawings furnished by YORK.

20. Complete the refrigerant liquid piping beneath the cooler and condenser. Be sure orifice plate, gaskets, and hardware are properly installed.

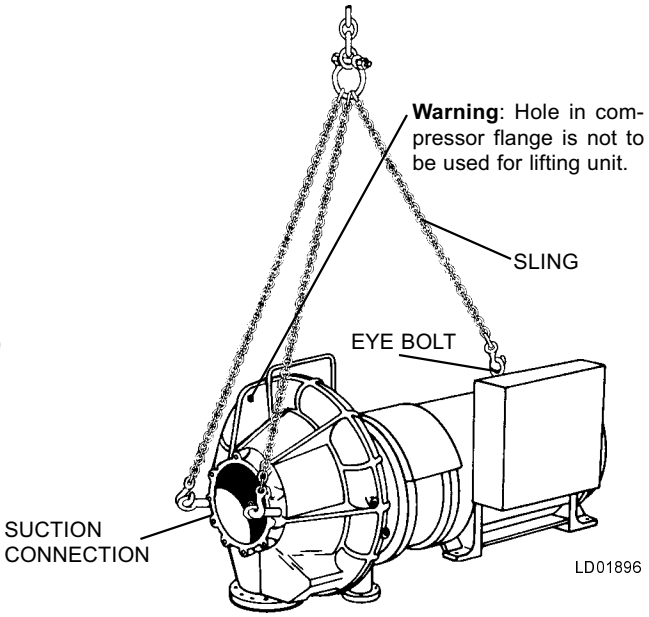
21. Pressure test prior to installing bursting disc. Refer to Form 160.48-O1.

22. Remove pipe cap from the connection located on the suction connection. Assemble 2 bursting disc flanges, bursting disc and 2 gaskets to the connection with 4 Hex Head Cap Screws and 4 Nuts. Torque screws and nuts to 18 ft. lbs.

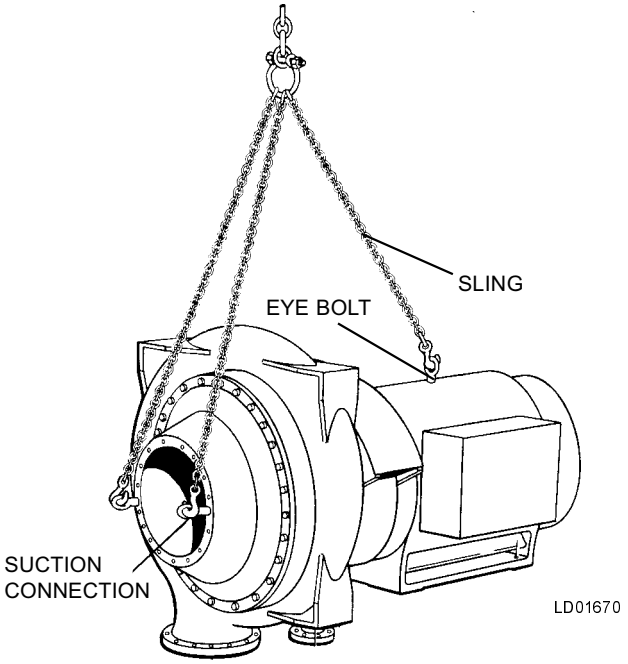
23. Evacuate and charge with refrigerant. (Refer to Form 160.48-O1.

24. **All Units –** Complete installation and finally level the unit per Installation Instruction Form 160.48-N1.

YDTJ 67 AND 76
YDTJ 85 AND 95
(B & C COMPRESSORS)



YDTL 108, 120, AND 126
(E COMPRESSORS)



YDTL / YDTK 131 AND 144
(F COMPRESSORS)

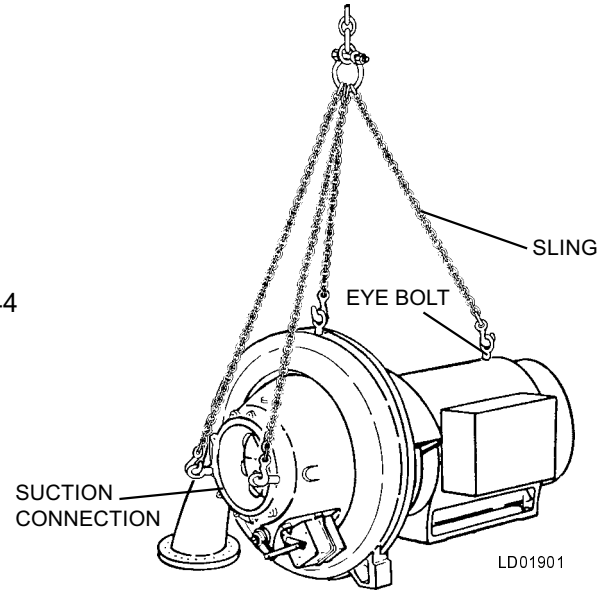


FIG. 5 – RIGGING COMPRESSOR ASSEMBLY

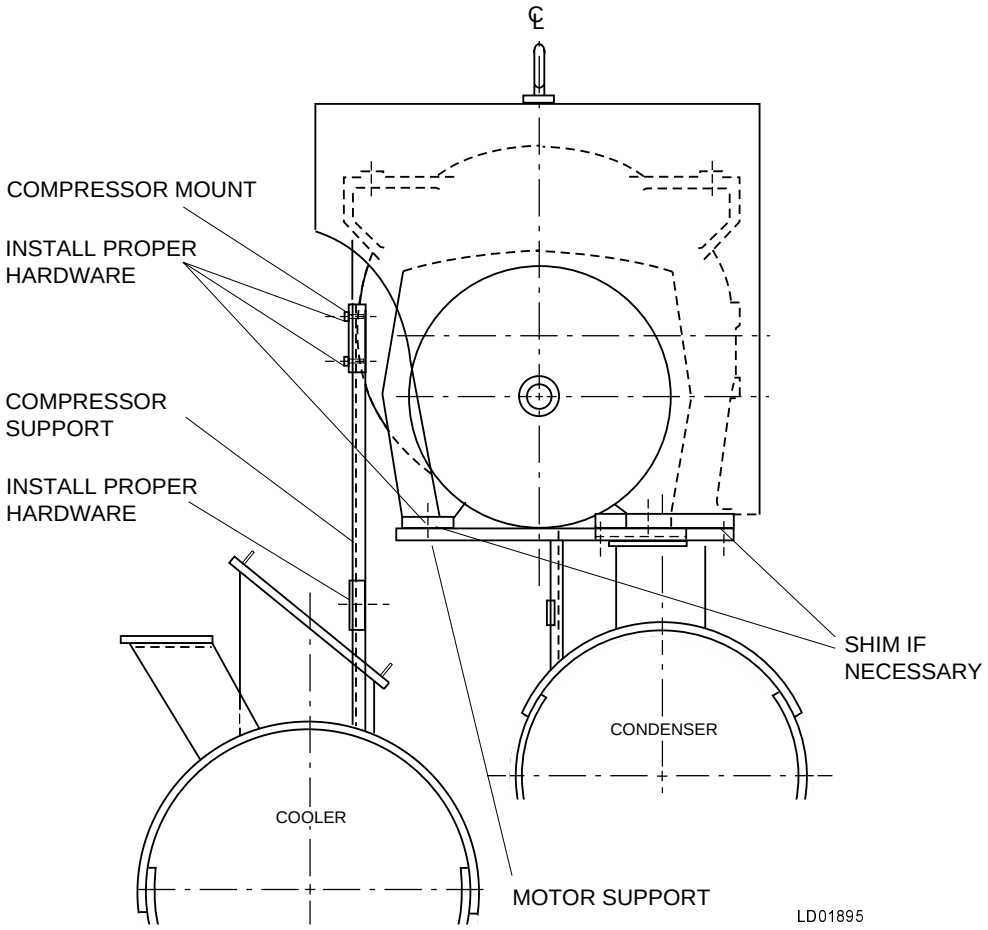


FIG. 6 – MOUNTING COMPRESSOR / MOTOR (B & C COMPRESSOR UNITS)

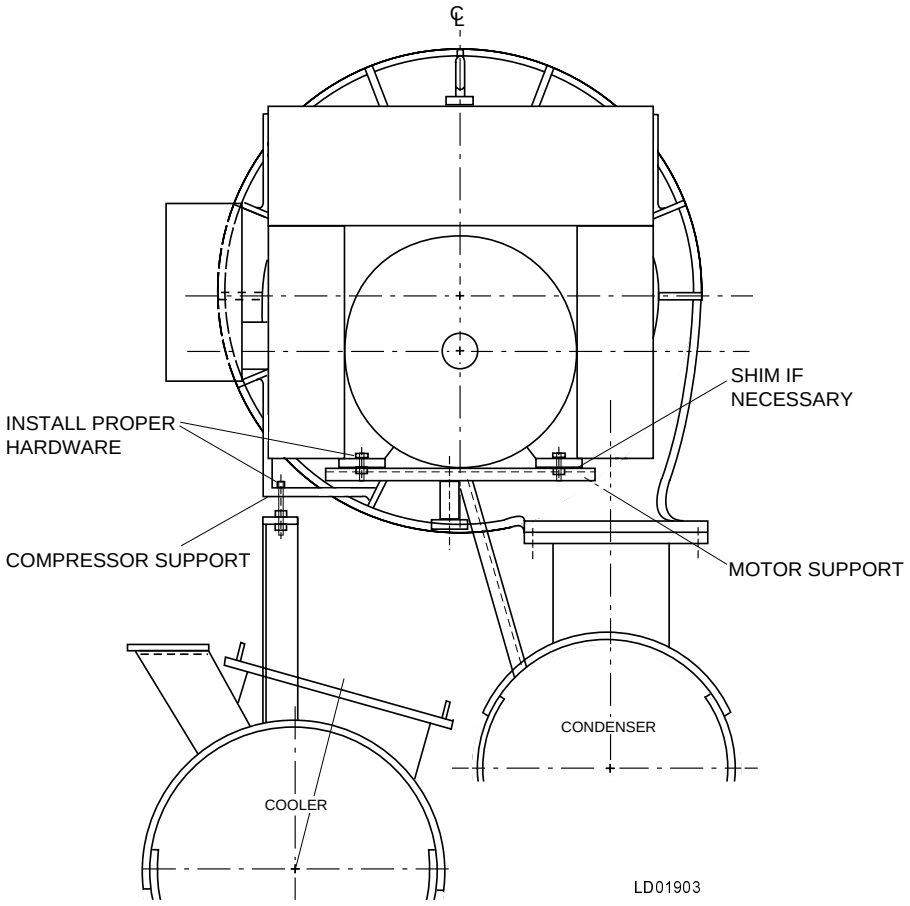


FIG. 7 – MOUNTING COMPRESSOR / MOTOR (E COMPRESSOR UNITS)

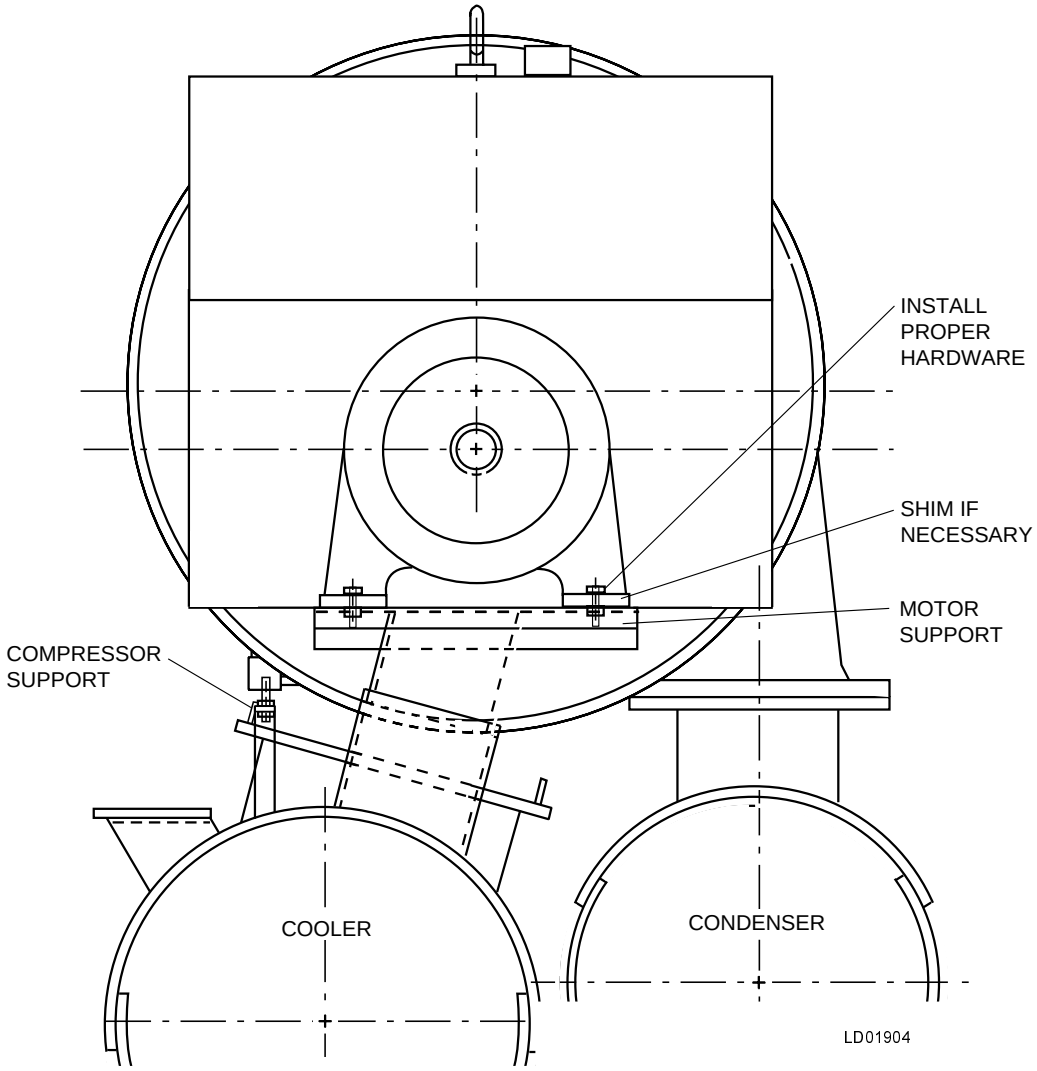


FIG. 8 – MOUNTING COMPRESSOR / MOTOR (F COMPRESSOR UNITS)

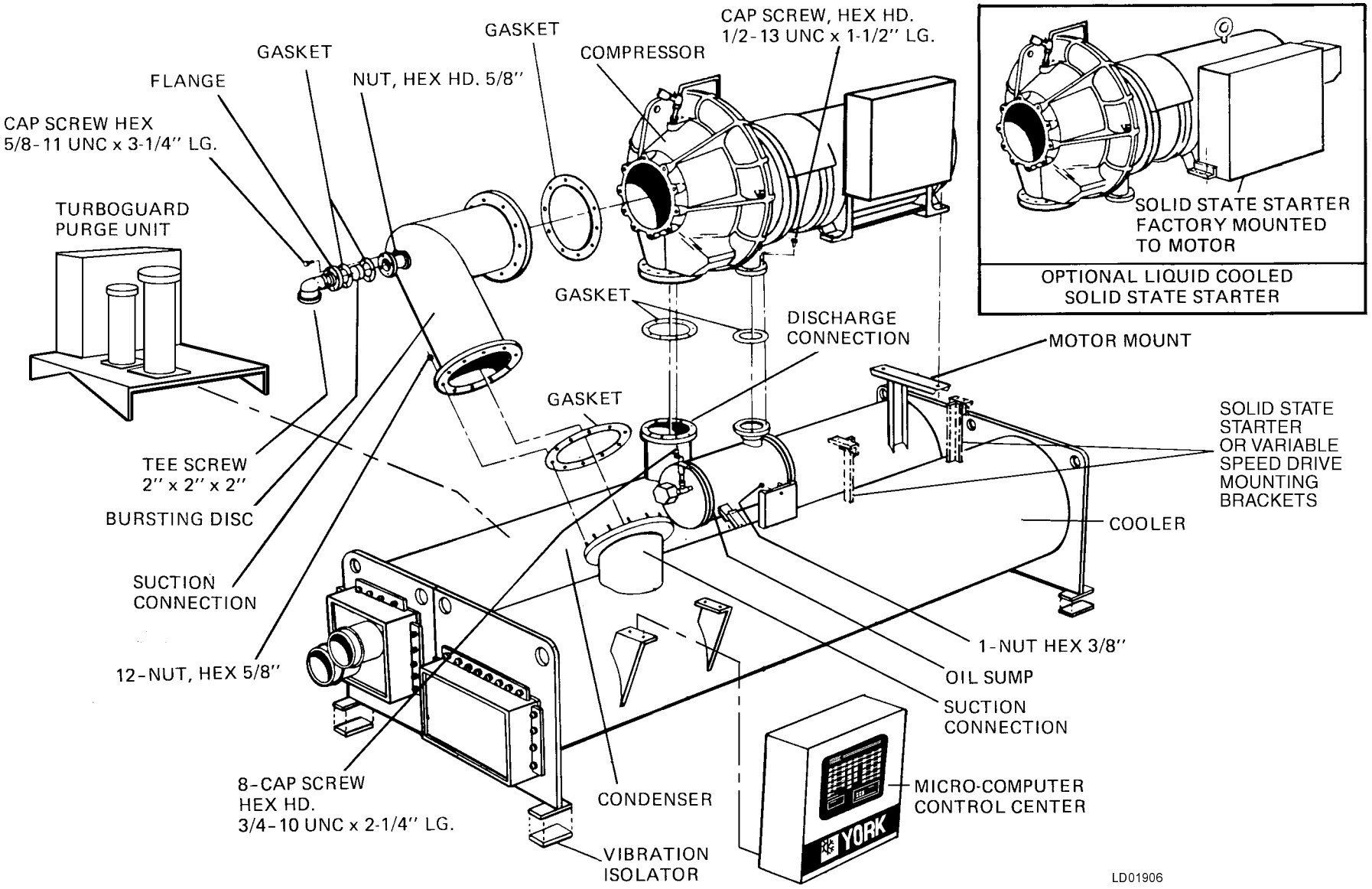


FIG. 9 – EXPLODED VIEW ASSEMBLY (B & C COMPRESSOR MODELS)

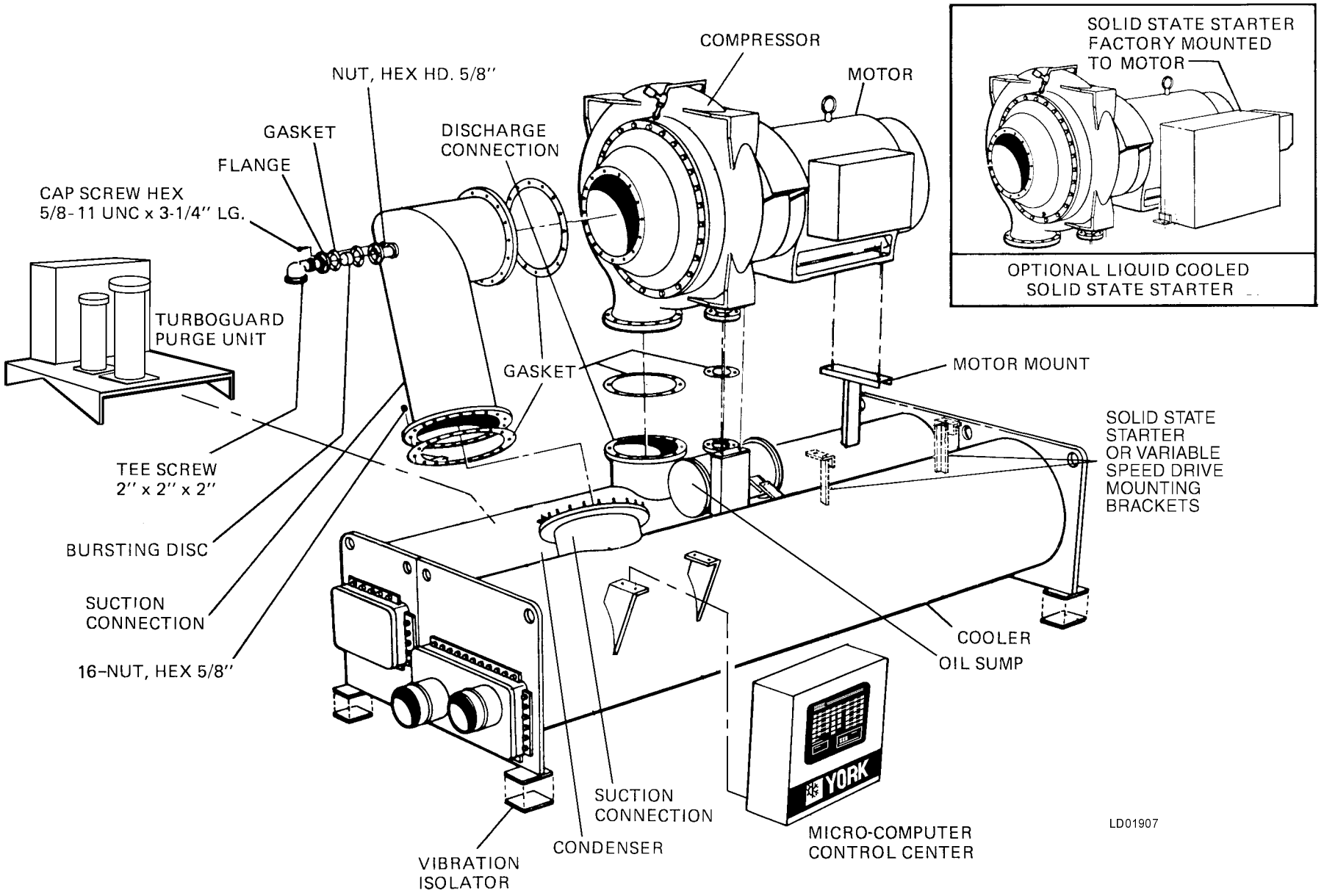


FIG. 10 – EXPLODED VIEW ASSEMBLY (E COMPRESSOR MODELS))

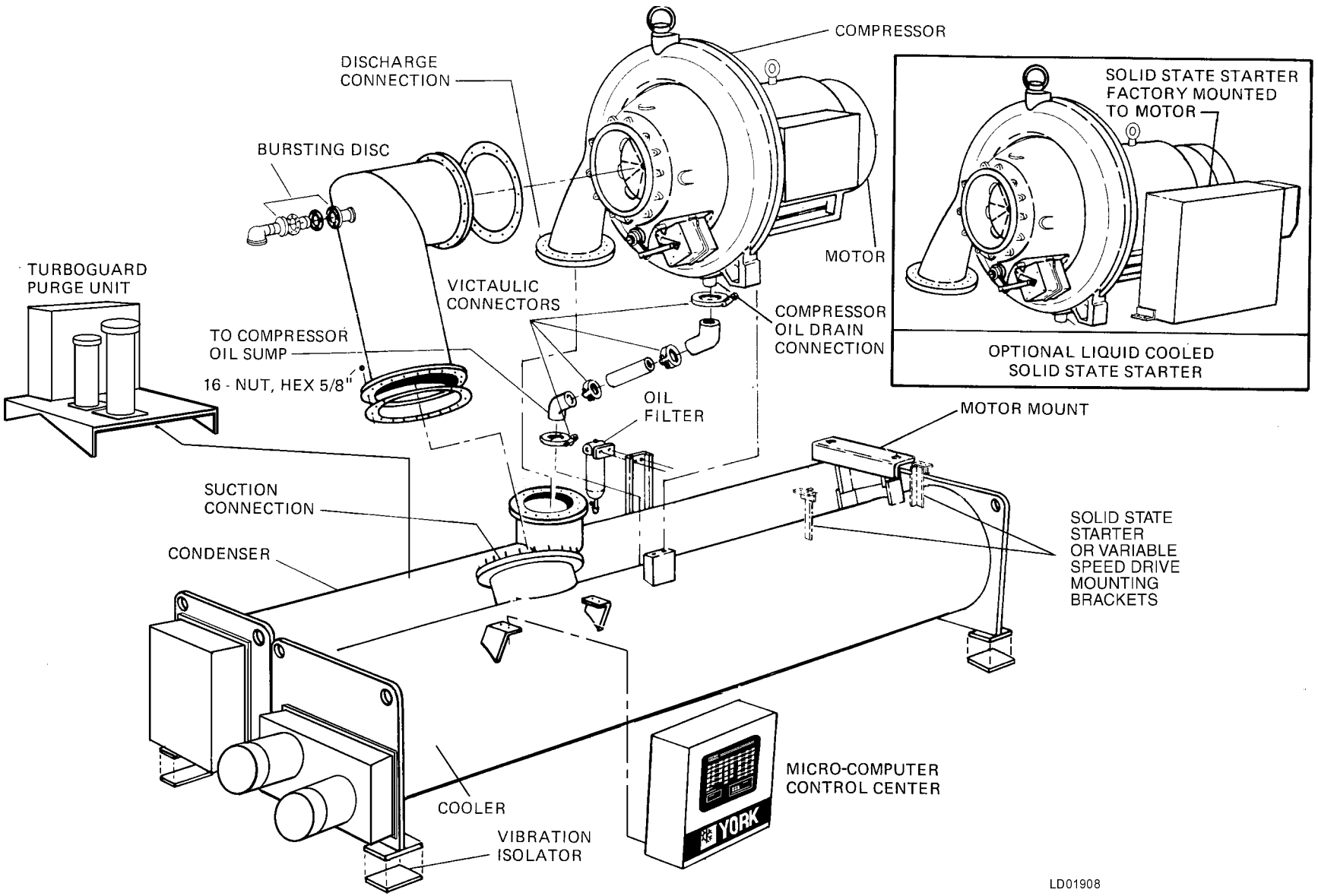


FIG. 11 – EXPLODED VIEW ASSEMBLY (F COMPRESSOR MODELS)

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Form 160.48-N3 (398)
Supersedes: Nothing

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