



**UNITED
TECHNOLOGIES
CARRIER**

Commercial Division
Carrier Corporation

BULLETIN: CA-SB-19-D-82-99
DATE: 5/12/82
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SERVICE BULLETIN

SUBJECT:

19D SERIES MOTOR COOLING SPRAY RINGS

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PURPOSE

To provide a current summary of motor cooling spray rings for use on 19D Series machines with a 19DG motor.

MACHINES AFFECTED

1. 19DH, DK machines.
2. 19DG machines (Serial No. 15,554 and higher).
3. Any 19D Series machine (Serial No. 15,553 and lower) converted to a 19DG motor. (A 19DG motor can be identified by the drain line that extends from the side of the motor shell.)
4. 19DH machines with high efficiency motors. (A high efficiency motor can be identified by the 3-digit number following the 19DG; e.g., 19DG123-XXX.)

RECOMMENDATIONS

1. During a routine teardown or if the end bell is removed for any reason, the spray nozzle configuration should be checked to see that it conforms to the information in Table 1 and Fig. No. 1 thru 4.
2. Spray rings on 21 and 31 size compressors with low voltage motors should be changed to 19DH21-112 (Fig. 2) if:
 - a. A motor repeatedly trips out on high temperature.
 - b. The motor in any 19D Series machine (Serial No. 15,553 and lower) has been replaced by a 19DG motor.



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Table 1. Motor Cooling Spray Ring Part Numbers

| <u>Compressor Frame Size</u> | <u>Motor Frame Size</u> | <u>Voltage</u> | <u>Spray Ring Part No.</u> | <u>Spray Nozzle Configuration</u> | <u>See Fig. No.</u> |
|----------------------------------|-----------------------------|----------------|--------------------------------|-----------------------------------|-------------------------|
| 11 & 21 | A | Low | 19DH11-112 | 2 Curved; 2 Straight | 1 |
| 21 & 31 | C7 & Lower | " | 19DH21-112 | 2 " 2 " | 2 |
| 21 & 31 | C8 & Higher | " | 19DG212-112* | 4 Straight | 3 |
| 21 & 31 | C | High | 19DH15-143 | 4 " | 4 |

* Use 19DH21-112 as service replacement for 19DG212-112.

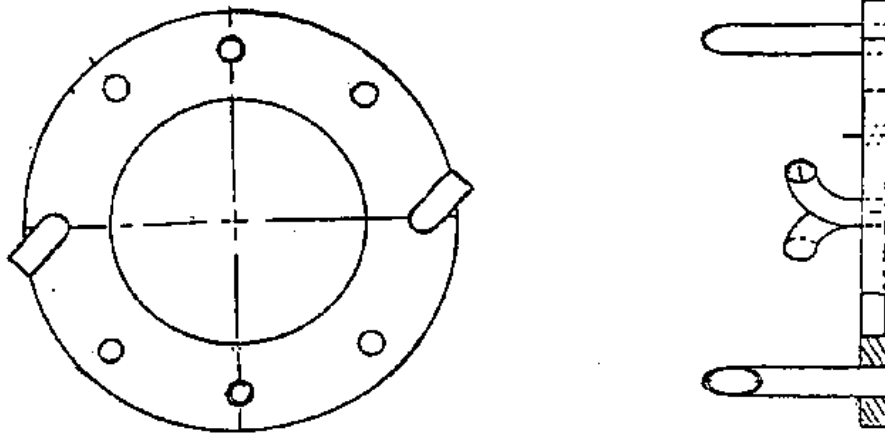


Fig. 1. 19D Series Spray Ring, Part No. 19DH11-112

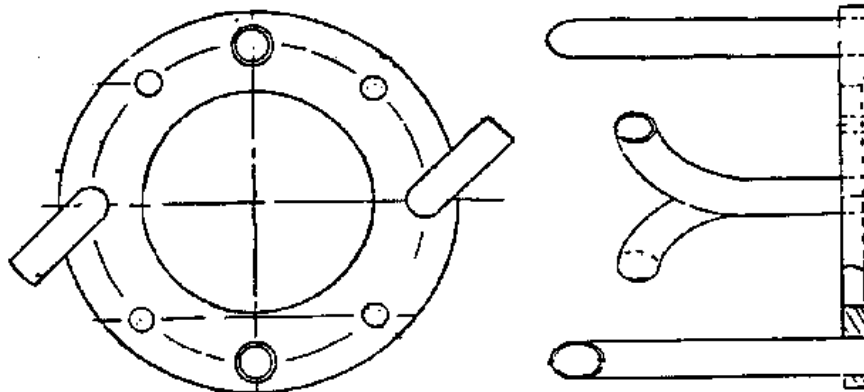


Fig. 2. 19D Series Spray Ring, Part No. 19DH21-112



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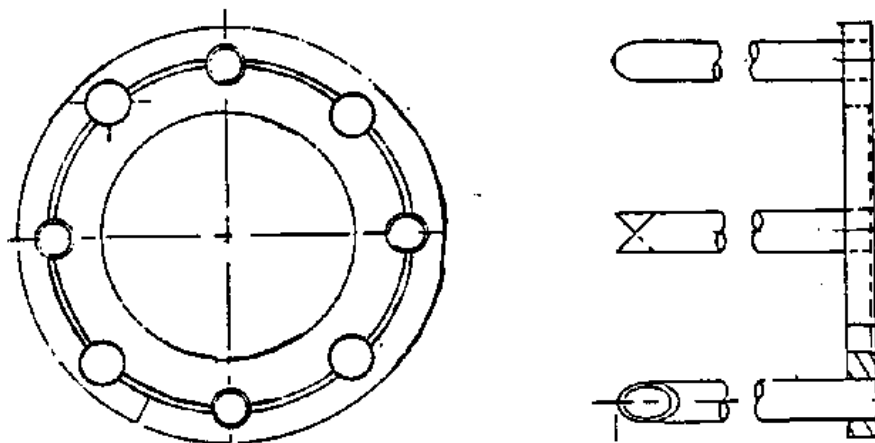


Fig. 3. 19D Series Spray Ring, 19DG212-112

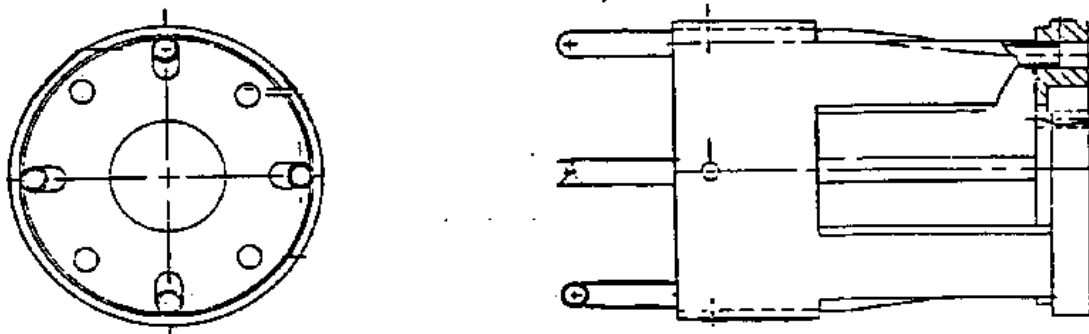


Fig. 4. 19D Series Spray Ring, 19DH15-143



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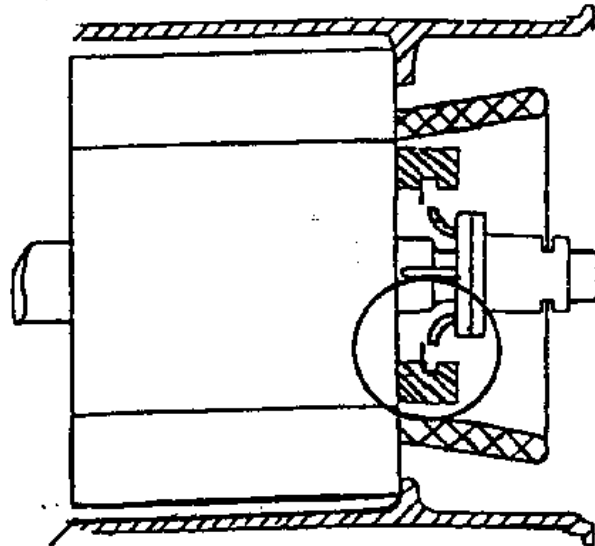
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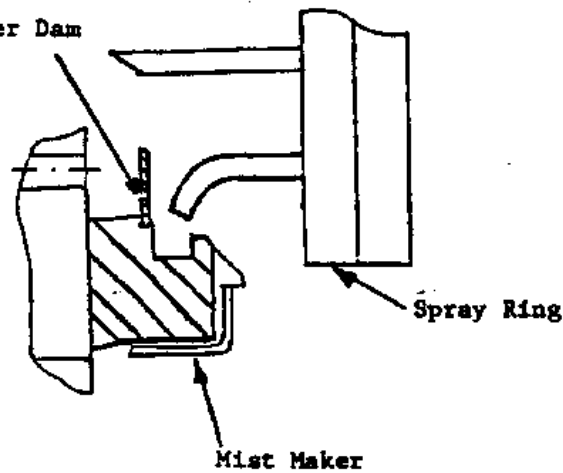
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Inner Dam



Spray Ring

Mist Maker

Curved nozzle must discharge between inner dam and mist maker; straight nozzle must extend beyond inner dam.

Fig. 5. Positioning 19D Series Spray Ring Nozzles