



MILLINGTON, TN

LITTLE ROCK, AR

Job Information

Job #: 135528

Date: April 19, 2018

Priority: —

Authorized OT: No

Authorized by:

Customer Information

Name: Nucor

Motor#:

Name Plate Information

Manufacturer: TOSHIBA

Enclosure : Open Drop Proof
(ODP)

Serial#: 8716452

Model#:

Service Factor:

Frame:

Horsepower/kW: 24.6/52

Rated RPM: 260/550

Armature

Volts 116230

Amps 252

Fields

Volts 230

Amps

Winding Inspection

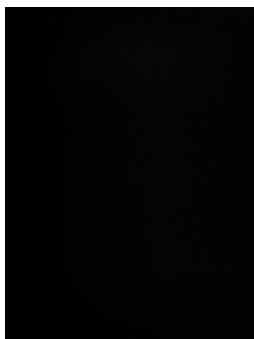
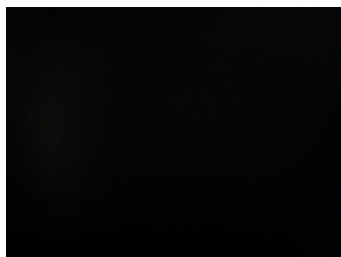
Identify winding disassembly & winding assembly.

Armature diagram

IP diagram

Flds diagram

Comm diagram

**WEST TENNESSEE**7030 Ryburn Drive
Millington, TN 38053
Phone 901-873-5300
Fax 901-873-5301**CENTRAL ARKANSAS**6812 Lindsey Rd.
Little Rock, AR 72206
Phone 501-375-9178
Fax 501-375-4254



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Winding Inspection (Continued)

DC Drop Test

Megohmmeter reading to ground @ 500 V DC

Armature

Shunt

Interpole

Series

Nameplate field volts:

Nameplate amps:

Num coils:

Resistance = Field votes:

/ Field amps:

= 0

Total field resistance:

@

F/C correct to 25 degrees C

Test tolerances: For a DC drop Test +/- 5% from average; for an AC drop test +/- 10% from average.

Applied Voltage 1:

DC/# of Coils 1:

= Target Voltage/coil 1: 0

Applied Voltage 2:

DC/# of Coils 2:

= Target Voltage/coil 2: 0

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DC Drop Test (Continued)

Match mark all coils clockwise beginning at the leads.

Voltage Applied

Shunt DC Voltage:

Shunt AC Voltage:

Voltage Measured

Coil #	DC	AC
Coil 1		
Coil 2		
Coil 3		
Coil 4		
Coil 5		
Coil 6		
Coil 7		
Coil 8		
AVERAGE	2.53	1.25
+5%	0	0
-5%	0	0

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DC Drop Test (Continued)

Match mark all coils clockwise beginning at the leads.

Voltage Applied

A. Interpoles DC Voltage:

A. Interpoles AC Voltage:

Voltage Measured

Coil #	DC	AC
Coil 1		
Coil 2		
Coil 3		
Coil 4		
Coil 5		
Coil 6		
Coil 7		
Coil 8		
AVERAGE	0.28	0.01
+5%	0	0
-5%	0	0

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DC Drop Test (Continued)

Match mark all coils clockwise beginning at the leads.

Voltage Applied

B. Interpoles DC Voltage:

B. Interpoles AC Voltage:

Voltage Measured

Coil #	DC	AC
Coil 1		
Coil 2		
Coil 3		
Coil 4		
Coil 5		
Coil 6		
Coil 7		
Coil 8		
AVERAGE	1.75	8.63
+5%	0	0
-5%	0	0

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Conclusion

Service Tech name:

Service Tech signature:

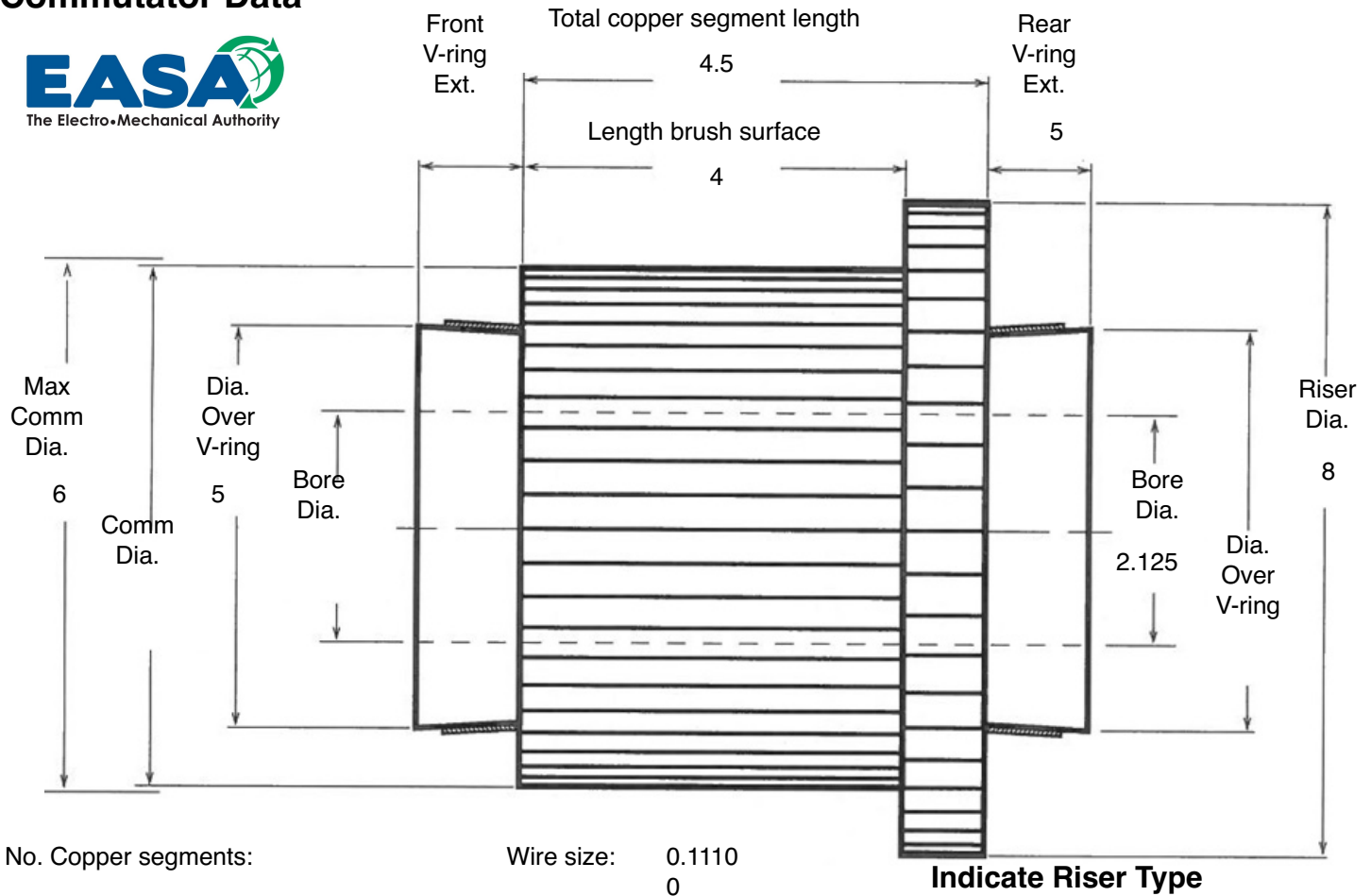
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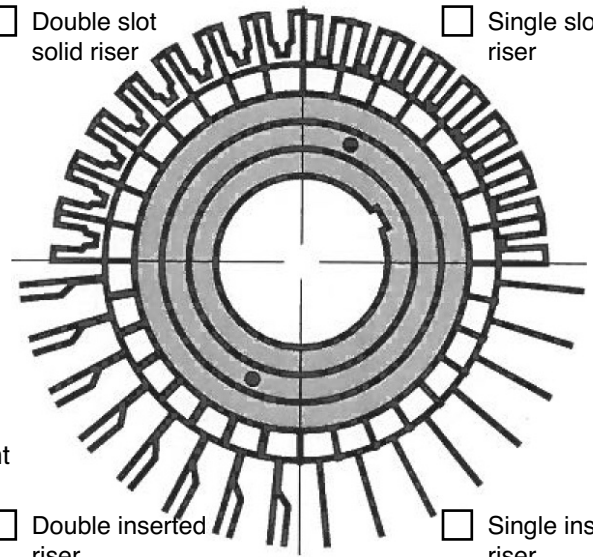
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Commutator Data



- ☐ Double slot solid riser ☐ Single slot solid riser



- ☐ Double inserted riser ☐ Single inserted riser

Inserted riser thickness:

- Commutator Type** ☒ Nut v-ring ☐ Bolt v-ring ☐ Glassband
- ☐ Riveted* ☐ Molded*
- ☐ Other*

Shaft Diameter
Keyway alignment with center line of: ☐ Mica ☒ Copper segment

Keyway size:

*If molded, riveted or other micrometer measurement of shaft diameter corresponding to the commutator bore diameter is required.

DC Machine Data Sheet

Armature Coil Data

Slots: 100 Turns per coil: 1 Coil per slot: 2

Wire size: 0.1110 Wires in mult.: 0 Wire type: 0 Wire weight: Lbs.

Bars: 0 Slot span 1 to: 0.11 Comm span 1 to: 0.11

No. of equalizers: Span 1 to: Wire size:

Knuckle: ☒ Standard ☐ Double

Wound: ☐ Flat ☐ Edge

Coil: ☐ Left hand ☐ Right hand

Compensating Winding

Wire size: Turns per slot:

Winding Type

☐ Shunt

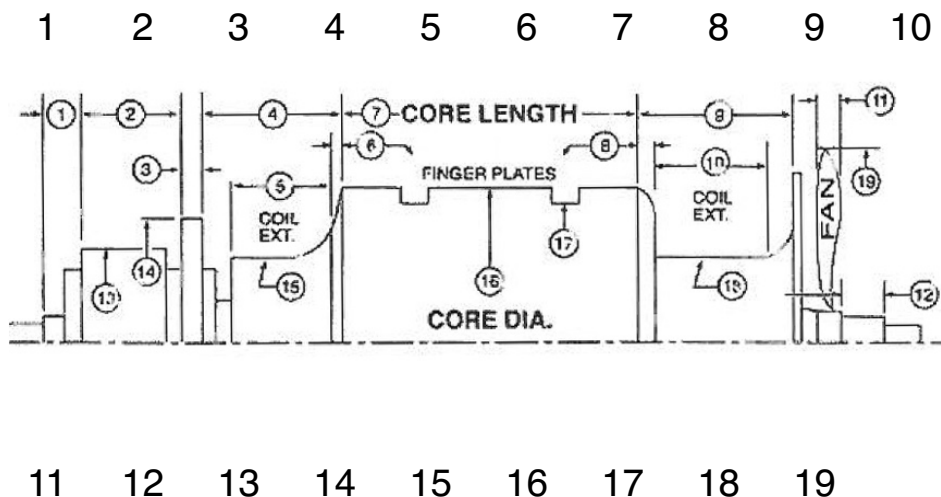
☐ Series

☐ Compound

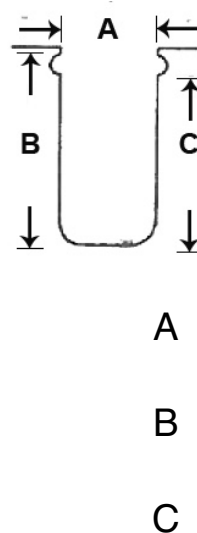
Interpoles: Yes

☐ Compensating or Pole Face Winding

☐ Permanent Magnet



Slot Dimensions



Insul. class:

Temp. Rise:

Duty:

Wave Winding

Leads from slot 1 to bar:

Leads from

Slot to bar:

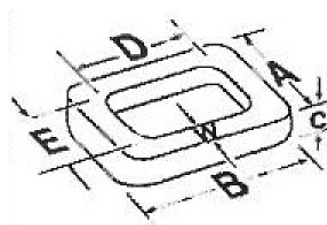
Field Coil Dimensions

TYPE A B C D E W

Shunt

Series

Interpoles



Manufacturer's Part Numbers

Lap Winding

Leads from slot 1 to bar:

5

Leads from

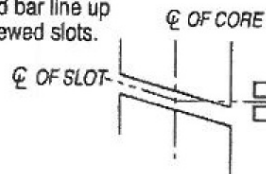
Slot to bar:

DC Machine Data Sheet (Continued)

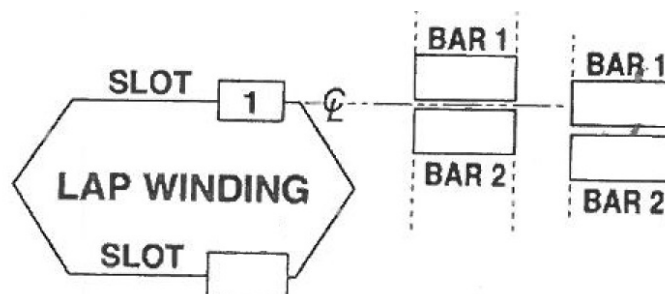
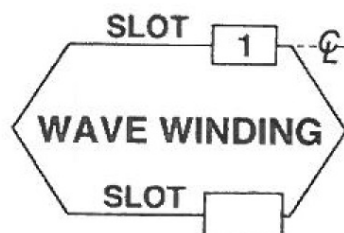
Field Coil Winding Data

Type	No. Coils	No. Cir.	Turns Per Coil	Mult.	Wire Size & Type	Lbs. Per Coil	25 Ohm Per Coil DC
Shunt	4	1	1249	1	13	65	
Series							
Interpoles	4	1	20	1	0.0791	25	

Slot and bar line up with skewed slots.



Slots and bars are numbered 1-2-3 etc... in CCW direction facing the commutator.

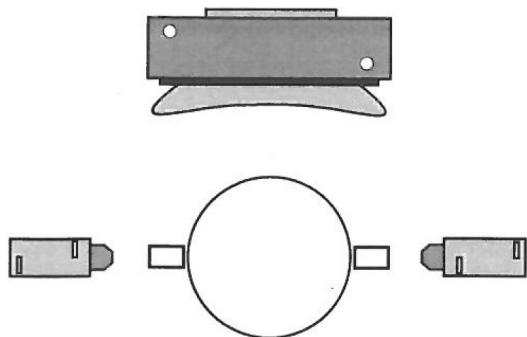


Remarks

Slot 15.5"

As-Received Connection Form--2-,4-,and 6-pole DC Machines

(Draw and number leads and jumpers as received)



2-Pole Template

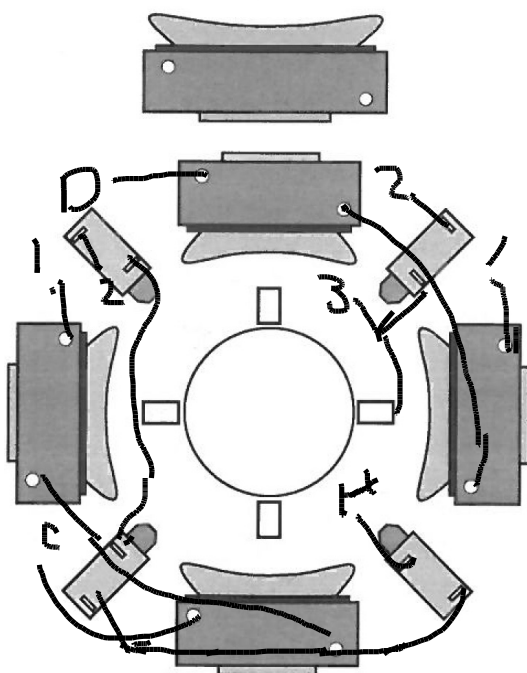
Quantity
in series

Quantity
in parallel

Number of poles

Number of interpoles

Number of series fields



4-Pole Template

Quantity
in series

Quantity
in parallel

Number of poles

4

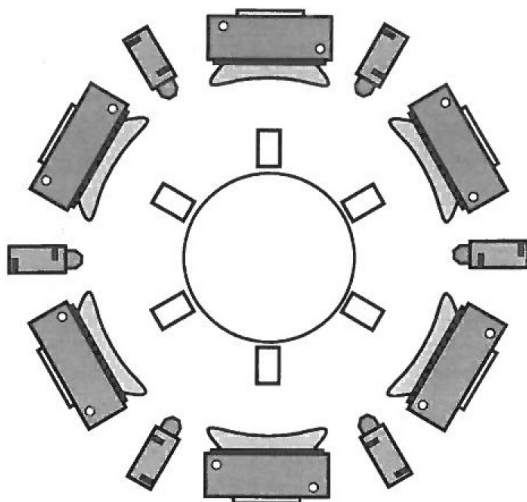
4

Number of interpoles

4

4

Number of series fields



6-Pole Template

Quantity
in series

Quantity
in parallel

Number of poles

Number of interpoles

Number of series fields