

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number:01337

Test Date: November 5, 2001

Fan

Make: Chore-Time

Model #: 46992-4842

Manufacturer: CTB Inc.

Blade Size: 48"

Orifice Dia.: 48.7"

Blade

Number: 3

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.4"

Shutter

Material: plastic

of Doors: 15 per column

of Columns: 2

Door Length: 25.9"

Location: intake

Other Attachments:

Discharge cone 24.4" deep, 48.7" i.d., 57.8" o.d.

Motor

Make: GE

Model #: 5K49MN4215C

H.P.: 1

Amps: 3.1-3.0/1.5

Volts: 208-230/460 3 ph.
60 Hz

RPM: 1725

S.F.: 1.35

Drive

Drive Pulley Dia. 2.7" o.d.
AK27

Axle Pulley Dia.: 8.3" o.d.
AK84

Housing

Material: galvanized steel

Intake Area: 54.3" x 54.6"

Discharge Area: 48.7" dia.

Depth: 33" top
21" bottom

Guards

Description: wire

Spacing: 1" x 2"

Location: exhaust

Test Results

CHORE TIME 46992-4842

Test: 01337

- 3 phase

Fan description:

48" belt drive, 1 hp GE 5K49MN4215C
motor, galvanized steel slant housing, plastic shutter,
guard and discharge cone

Static Pressure	Speed	Airflow	Efficiency
<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
0.00	547	20,200	27.7
0.05	545	19,100	24.7
0.10	544	17,700	21.6
0.15	543	16,300	18.9
0.20	542	14,400	16.0
0.25	541	11,800	12.6