

Triangle Engineering of Arkansas

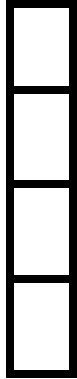
1101 North Redmond Rd.

Jacksonville , AR 72076

501-982-7558 fax 501-982-5691

Assembly Instructions

T120405



HV5418-23-OC Golf Course Fans

3 Horsepower

230 volt, THREE PHASE

IMPORTANT : READ INSTRUCTIONS CAREFULLY BEFORE ATTEMPTING TO INSTALL, OPERATE OR SERVICE THIS FAN. FAILURE TO COMPLY WITH INSTRUCTIONS COULD RESULT IN PERSONAL INJURY AND/OR PROPERTY DAMAGE. RETAIN INSTRUCTIONS FOR FUTURE REFERENCE

CAUTION

For Outdoor Use, all electrical wiring and components must be weather-proof or in moisture proof enclosures and comply with local and national electrical codes. Installation and wiring must be done by a qualified person.

Inspect Packaging for damage.

Triangle Engineering of Arkansas, Inc. has tested these fans before they are released from the factory. When the fan is received, inspect all packaging for damage or tampering. It is the responsibility of the purchaser to make any claims against the carrier. Triangle Engineering is not responsible for shipping damage.





>> **Install Support Pole Before Uncrating Fan!!**

Install Support Pole:

- o Support Pole to be supplied by customer.
 - o Support Pole must be 3" Schedule 40 Pipe.
 - o Support Pole must be minimum of 7 feet (84 inches) long.
- 1 Dig hole for pipe to a minimum depth of 4 feet, and a minimum diameter of 12 inches.
 - 2 Test fit pipe in hole to ensure proper elevation, mark pipe to enable replacing at proper depth, remove pipe from hole.
 - 3 Fill hole with concrete. Vibrate to remove air pockets.
 - 4 Push pipe into center of hole to marked location. Use level to ensure pipe is vertical. Brace pipe in vertical position.

! SUPPORT POLE MUST BE ABSOLUTELY VERTICAL

Support pole must have minimum of 36" above ground level for mounting

ALLOW SUFFICIENT TIME FOR CONCRETE TO CURE BEFORE INSTALLING THE FAN

Uncrate Fan and Assemble to pedestal pole

The crate will contain these major components:

- o fan body with cradle
- o pedestal tube with hub and oscillator assembly

The pedestal tube, with oscillator should be removed first

- 1 Remove top and one side of crate
- 2 Remove pedestal tube with oscillator assembly.
- 3 Position lifting straps as shown in drawing A-572 and support weight with fork lift, crane or boom truck.
- 4 Remove bolts holding fan to crate.
- 5 Lift fan with lifting straps from crate, to allow access to bottom hub
- 6 Position pedestal tube on to the fan cradle , aligning the holes over the protruding hub bolts.
- 7 Install the hub nuts to the hub bolts. Tighten all hub nuts. The fan should now be secured to the pedestal. Ensure the hub rotates freely
- 8 **DO NOT INSTALL OSCILLATOR LINKAGE AT THIS TIME**



Install Fan onto Support Pole

- 1 Lift fan, using slings per the drawing A-572.
- 2 Slip the pedestal tube over the support pole.
- 3 DO NOT tighten the square headed set screws securing the pedestal tube at this time.

Mount Oscillator Motor Assembly

- 1 Oscillator Assembly is shipped assembled onto the pedestal pole from the factory.
- 2 Attach the loose end of the tie-rod to the L-Shaped bracket on the bottom of the cradle. Start with the bolt in the hole furthest from the pedestal pole, this hole will yield approximately a 45 degree sweep of the fan oscillation. The middle hole will give approximately 60 degree sweep, and the nearest hole 90 degrees.

Wiring

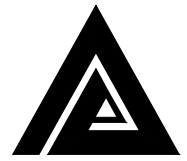
- ! For Outdoor Use, all electrical wiring and components must be weather proof or in moisture proof enclosures and comply with local and national electrical codes. Installation/wiring must be done by a qualified person.
- ! A disconnecting means MUST be provided within sight and hearing of the fan. THIS is required by the NATIONAL ELECTRICAL CODE and OSHA.

>>>> ! **Make sure size of wire is suitable for length of cable run.**
Improper wire size is the MOST COMMON cause of problems with Golf Course Fans.

! This fan requires three phase power, 230 volts, 8.5 AMPS at full load.
Starting current required is 45 amps.

Cable for final connections to fan to be stranded flexible cable for oscillator fan. (Cable is provided. If other cable is used ensure that it is stranded flexible cable)

>>>> ! **Ensure that an adequate ground is provided, the pole embedded in concrete is not an adequate ground.**



Wiring (continued)

- 1 BEFORE ANY ELECTRICAL CONNECTIONS ARE MADE : inspect fan for any packing materials, debris, or tools inside the fan. Rotate the blade to ensure free rotation, and check belt for proper tension.
- 2 Make final connections to fan per the connection diagram. Ensure that slack is in cable to allow for oscillation motion of the fan.

At this point, do not wire the oscillator motor. However, ensure that oscillator linkage is connected!

- 3 Bump the fan motor to check rotation. The blade should rotate counter-clockwise when viewed from the pulley side of the fan.
- 4 Start the fan. Fan should come up to speed within 10 seconds.
- 5 Measure voltage and amps. Voltage must be within 10% of the nameplate voltage (230 volt Nameplate, voltage must be above 207 volts)

! If voltage is below the minimum, damage to the motor WILL result. Ensure that power supply can supply adequate voltage while the fan is operating!

- 6 Make final connections to oscillator motor.
Note: Many customers will wire the oscillator motor to a switch so the fan oscillator can be stopped at a particular location.

Oscillator motor is 230 volt, single phase.

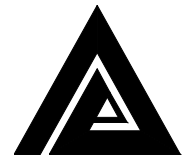
- 7 Energize the oscillator motor. Observe oscillation of the fan for a minimum of 6 full cycles. Ensure fan power cord is not binding or rubbing. Secure fan power cord with wire ties to cradle and pedestal pole.

Ensure that oscillator linkage is free and not binding. If further sweep of the oscillation is needed, linkage can be moved to the holes closer to the pedestal pole. The hole furthest from the pedestal pole will yield approximately a 45 degree sweep of the fan oscillation. The middle hole will give approximately 60 sweep, and the nearest hole 90 degrees.

- 8 Fan can now be rotated on the support pole to aim in the proper direction. after aiming, tighten the square headed set screws to secure pedestal pole to support pole.

>>>>> DO NOT OPERATE FAN WITHOUT GUARDS INSTALLED!



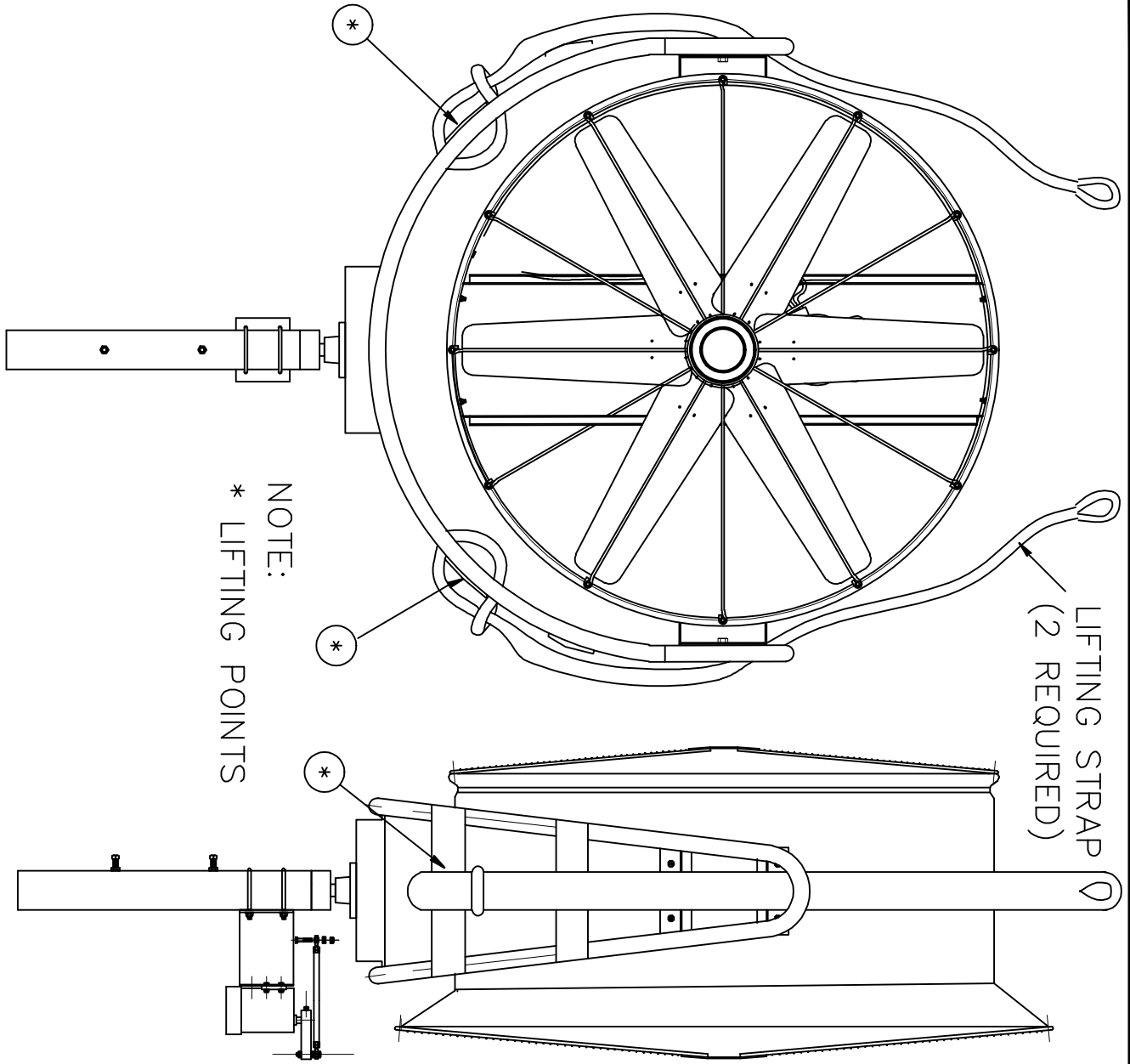


Tilt Fan

If it is necessary to tilt the fan, loosen the four outside bolts in the cradle attachment to the barrel, (both sides of the barrel as shown on drawing). Tilt the fan to the position needed, then retighten as bolts. Fan should only be operated with all bolts tightened.

Maintenance

- 1 Do not do any maintenance until electrical supply has been locked out.
- 2 After one week of operation, retension belts. After this, belts should be checked annually, and adjusted as necessary.
- 3 Lubricate all bearings annually.



TRIANGLE ENGINEERING
OF ARKANSAS, INC.

HV 54" GOLF FAN
STRAP LIFTING POSITION

DR. BY: JERRY WRIGHT

SHEET 1 OF 1

A-572

CKD.

NTS

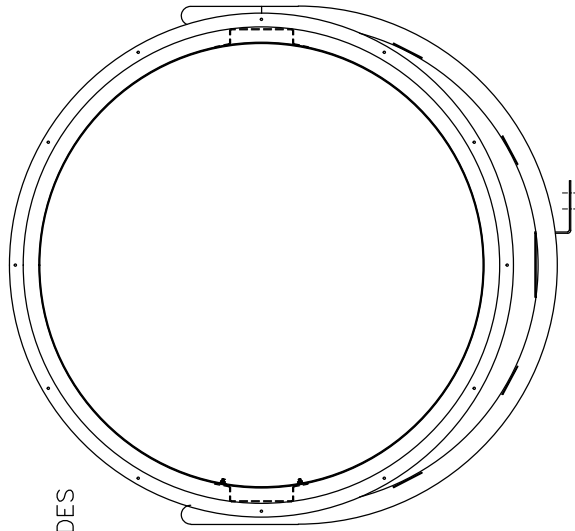
APP.

02/05/03

REV

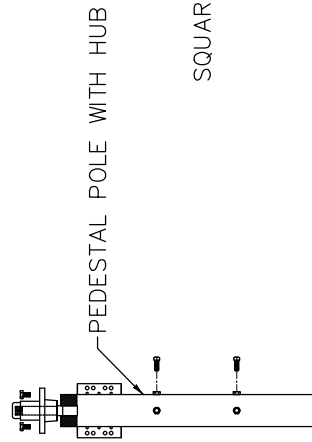
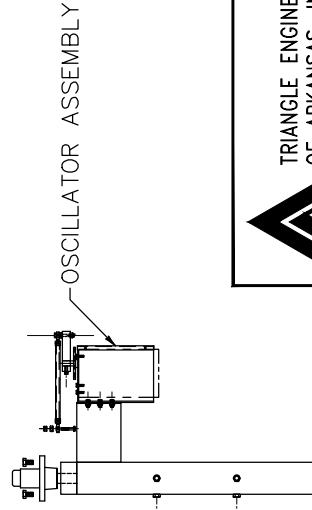
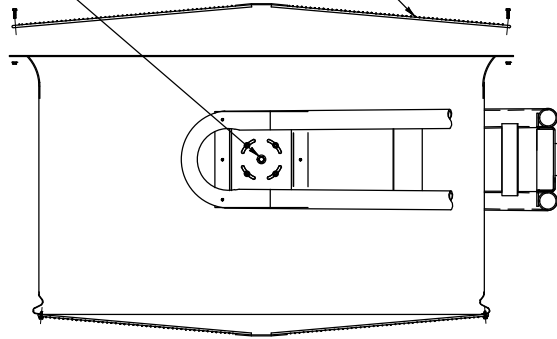
PARTS LIST

FAN BODY WITH CRADLE
PEDESTAL POLE & HUB



ALL 5 BOLTS MUST BE
TIGHTENED ON BOTH SIDES
TO PREVENT VIBRATION

INTAKE GUARD



SQUARE HEAD SET SCREWS



TRIANGLE ENGINEERING
OF ARKANSAS, INC.

ASSEMBLY INSTRUCTIONS
HV54 FANS

REV
A712-A

CKD. APP.

DR. BY: TOM KING

DO NOT SCALE

SHEET 1 OF 1

1 AUG 2011

