



# Cyclone Power Pullers; Iowa State University's 1/4 Scale Tractor Pulling Team

JUNE 2015 EDITION

## ASABE International 1/4 Scale Competition



A-Team Leader Dan Killpack takes the 2015 model *Dark Cyde* down the track at the Expo Gardens in Peoria, IL.

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It is finally time for the wrap of the 2015 Quarter Scale season. With a challenging year filled with new obstacles and terrain, the payout of a top ten finish for both A and X teams reveal as the reward. Overall there was a total of twenty eight teams that competed at the Expo Gardens in Peoria, IL. From the East coast to West, Texas to Canada, and across the pond to Israel, all teams contributed to the success of the ASABE 2015 International Quarter Scale Student Design Competition.

As the year has passed the competition prevailed for the 18th consecutive year. Since the beginning in 1998 the rules, design restraints, and performance events have changed every few years to add challenge and innovation. This year the introduction of the durability course provided the intimidation. Composed of two sections, a bump track followed by a 12" deep sand pit, each team had to pull a cart weighing 1,500lbs across both. Accumulating one lap as both obstacles were completed, a total of eight laps and shortest time was recorded as highest score. Points were then delegated according to the first place finish.

*“Working with A-Team has really given us a competitive edge for our testing and validation”*

*- Michael Hanigan*



## 2015 X-Team Review



The 2015 X-Team (L to R) Kyle Youngblood, Pat Haight, Will Wessels,

This years X-Team was proud to retire **CYde Effect** with a podium finish. Bringing third place back to Ames, the Cyclone Power Pullers proved that hard work and dedication is the base to success.

Carrying the third generation CYVT transmission and the first generation rear end the X-Team had a great base to start with. With a main focus of durability and reliability to document performance a wide range of tests were conducted throughout the year.

With a full year of durability testing and collaboration with A-Team, the CYVT transmission has yet to fail to impress, noting only one issue for repair. Abnormal wear of the rear axle's ring gear was found after an extensive durability test. The problem was addressed by increasing the surface hardness of the ring gear and noted for A-Team's transaxle design.



*"I cant wait to get started on X-Team. With Dark CYde as a solid base, the only place to build from here is up!"*

*-Will Wessels*

## 2015 A-Team Review

As the spring semester concluded the assembly of **Dark CYde** came together. The final design consisted of the fourth generation CYVT transmission joined by the new V-Channel frame concept. Residing above the roiling chassis a revamped operators station focused on comfort and adjustability.

With the end user in mind all of these innovations combined with the new electronic features such as electric throttle and radar unit provide the capability of ideal performance in un-ideal conditions. The programming allows for many modes of operation including our new Anti-Stall feature. A prime operation for heavy loading situations keeps the engine running at peak horse power while varying ground speed to achieve the maximum tractive effort.



A-Team showing off the main points of **Dark CYde** during Static Judging.

With **Dark CYde's** features and performance overall the Cyclone Power Pullers A-Team remained a top ten finish for two consecutive years. Claiming an impressive sixth place overall the team now has peace of mind as another year has concluded.



*"It proves not just to others, but to ourselves that if there is a will, there is a way"*

*-Alex Haight*



*Check us out of Facebook. Just search for Cyclone Power Pullers, and Click "Like" for updates & information*

Both teams would like to give a sincere thank you to all sponsors that have assisted us in any way this year. Without your help, we would not be able to compete or achieve our goals at the level we do.



Dan Killpack, Alex Haight, Eli Peterson and Will Wessels present the awards received for 2015

Though, it is a great feeling to be able to be competitive and present the success we have achieved. Being exposed to the opportunities and capabilities to peruse the configurations we do, and witness it all come together, is priceless. Again, thank you to all for not just supporting our team, but supporting our passion and our future!

## 2016 Officer Team

Title	Email
President.....	Conner Toennies.....c10yes@iastate.edu
Vice President.....	Cole Chesnut.....cchesnut@iastate.edu
A-Team Leader.....	Clayton Hamilton.....claytonh@iastate.edu
Treasurer .....	Andrew Garrelts.....garrelts@iastate.edu
X-Team Leader.....	William Wessels.....wwessels@iastate.edu

Please contact one of these members with any questions about design, sponsorship or anything else you may be wondering. Or email [cyclonepowerpullers@gmail.com](mailto:cyclonepowerpullers@gmail.com)  
Check out our website at [www.cyclonepowerpullers.org](http://www.cyclonepowerpullers.org)

Thank You!

# Sponsor Recognition

## Current Full Pull Club Sponsors

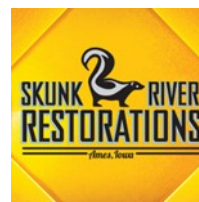
QUALITY MANUFACTURING CORPORATION



## Current Cyclone Club Sponsors



## Current Gold Club Sponsors



ISU MECHANICAL ENGINEERING DEPARTMENT

## Current Silver Club Sponsors



### **Support the Cyclone Power Pullers!**

Our team is actively seeking new sponsors for the 2014-2015 school year. If it were not for those who support our team, we would not be able to continue participating in the annual ASABE 1/4 Scale Tractor Student Design Competition. Because of this, we recognize our supporters using the following criteria:

**Full Pull Club Sponsor:** Donations valued at greater than or equal to \$5000 will be recognized on the team display board in addition to those recognitions given to Cyclone Club Supporters.

**Cyclone Club Sponsor:** Donations valued at less than \$5000 but greater than \$1000 will be recognized on the team trailer in addition to those recognitions given to Gold Club Supporters.

**Gold Club Sponsor:** Donations valued at less than \$1000 but greater than or equal to \$500 will be recognized on the team t-shirt in addition to those recognitions given to Silver Club Supporters.

**Silver Club Sponsor:** Donations valued at less than \$500 but greater than or equal to \$100 will be recognized on the team website, in the team newsletters, and on the 2014 tractor.

**Bronze Club Sponsor:** Donations valued at less than \$100 will be recognized on our team website.

**For more information:**

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