January 13, 2016 Meeting

The January 13, 2016 Waterloo Technical Society (WTS) meeting was called to order by President Gary Dorhout at 7:25 pm.

A total of 29 were in attendance. President Dorhout paused to give remembrance to two members who had died in the last three months: J. Danny Gleeson and Harry Sullivan. These two gentlemen will be long remembered for their professional achievements and their brotherhood in our society. They remain role models for their achievements and values.

Treasurer's Reports. Treasurer Ken Friend presented reports for November 11, 2015 and January 13, 2016. The beginning balance for November 11, 2015 was $1,311.08. There was income from 16 member dues of $160 and expenses of the October speaker's meal of $18 for a new balance of $1,453.08. There were 11 honorary members and 45 paid members.

For the January 13, 2016 meeting the beginning balance was $1,453.08. There was income from 9 member dues of $90 and the expenses of the November speaker's meal of $18 for a new balance of $1,525.08. Still outstanding is an invoice of $337.92 to Tim Schoenfelder for the public address system and an invoice to Steve Lang for $8.99 to purchase additional name tag holders. Also, an open item for purchase of warranty on the public address system for $35.89 may be presented by Tim. If all of these are paid the balance would become $1,142.28. There are 11 honorary and 54 paid members. A motion was made by Derek Eagles to accept the reports. Motion carried.

Old Business. President Dorhout requested that members begin inviting speakers for the 2016-2017 year. Potential topics have been suggested:

1. Explanation of where recyling goods go and how they are processed. Common problems with material.
2. Current concrete road paving techniques, problems from the road engineers view point.
3. Crop spraying by airplane problems, effectiveness, what crop problems are handled that way.
4. History of original land surveying.
5. History of manufacturing in Waterloo and Cedar Falls.
6. History of railroads in Waterloo and Cedar Falls, especially the WCF&N electric line.
7. History of mining in Iowa: Coal, Galena, Lead, Fracking sand.
8. Aerial photo services .

If anyone knows someone who could speak to those topics please let President Dorhout know.

New Business. A reminder that spouses and guests are welcome at our February 10, 2016 meeting.

President Dorhout introduced our guest speaker, Jeff Ingels, VP of Business Development at XL Specialized Trailers in Manchester, Iowa. Jeff discussed the heavy haul trailer market, differences in those markets, types of trailers and different laws in different states regulating size and weight of trailers with cargo. The main focus of XL Specialized Trailers is building customized trailers for the heavy haul market – Over Sized, Over Width, Over Height, Over Length and Over Weight Freight.

Mr. Ingels grew up on a farm in Northeast Iowa. He attended college at the University of Wisconsin – Platteville and received a Bachelor's of Science degree in Mechanical Engineering.

He worked at United Farm Tools in Oelwein, Iowa for 5 years after college as a design engineer making farm equipment and Hobson Mold Works for 1 year as a design engineer designing molds for plastic blow molding. He began working at XL Specialized Trailers in 1999 as a design engineer. He became Chief Engineer shortly after starting and then Vice President of Engineering in 2012 and VP of Business Development in 2014. He and his wife Allison have three boys between the ages of 10 and 16.

Introduction. George Wall founded XL Specialized Trailers in 1995. His innovation led XL to a nationwide distribution network which provided the basis for the rapid expansion XL has since experienced. In December of 2007, George retired and passed the company reigns to his son Scott Wall. Scott now serves as Vice Chairman. President and CEO Steve Fairbanks joined the XL team in 2011.

The acronym "WTTBAMIJALBB" is a curious set of letters which have a special meaning. "We Took The Best And Made It Just A Little Bit Better," is more than a saying, rather a pledge to build the best trailers possible. This acronym was George's motto. WTTBAMIJALBB describes XL's approach: constant improvement and advancement provide the best possible solutions for customers.

XL Specialized Trailers are not the typical flat bed nor enclosed container trailers most commonly seen on highways. Heavy Haul trailers focus on Oversized Loads

- Over Height
- Over Length
- Over Width
- Over Weight

Each state regulates the traffic on its roadways, including the Interstate Highways. Highway laws vary by:

Laws vary by:

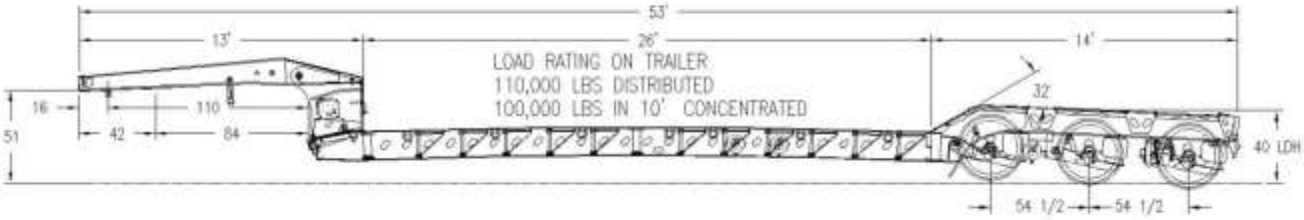
- Region
- State
- County
- Township
- Time of day
- Time of year

Due to:

- Highway construction
- Bridge heights
- Allowable weights (load in general, load per axle, spacing of axles)
- Trailer lengths
- Lane widths (undivided vs. divided highways)
- Resistance to allowing certain cargo to pass

XL Specialized Trailers. XL's Specialization starts in three areas: upper deck, main deck and wheel area.

Upper Deck, also known as the Goose Neck, attaches to the Tractor and the Main Deck.
Main Deck holds the cargo.
Wheel Area transmits the load weight to the road.



Upper Deck Main Deck Wheel Area

Market Segments Drive Design. Primary segments are shown below.

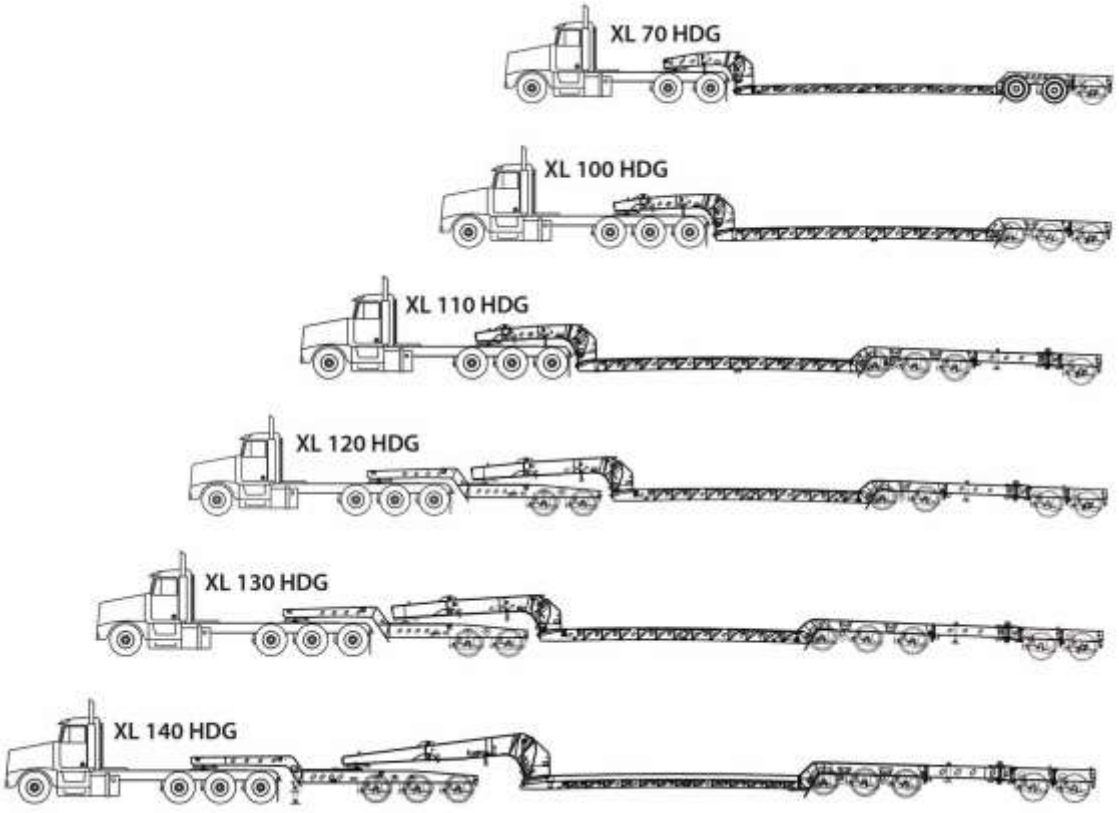


Trailer Types. Trailers are of three types based on the gooseneck feature. The mechanical, hydraulic and rigid necks are matched to the needs of the customer. The hydraulic gooseneck permits the trucker to remove the gooseneck for cargo loading without leaving the cab. Hydraulic goosenecks can be rigid or foldable. The mechanical requires eleven exits from the cab to remove the gooseneck. The fixed are platforms where smaller cargo items may be placed.

Main Decks. Main decks are designed for the six primary markets. The XL trailers have full-width goosenecks with main decks that can be adjusted for width and length of cargo. Decks are crowned to maintain clearance to ground with the cargo onboard. When cargo weights are high, goosenecks are narrow to reduce weight of the trailer. Swingout outriggers provide wider main decks when loads are wider. This adds versatility to the trailer. For long cargo, such as windmill towers, XL offers extendable main decks. The HD, hydraulic detachable, and

HDG, hydraulic detachable gooseneck, trailers permit construction equipment to clear bridges and overpasses by dropping the height of the cargo on the maindeck. The deck width is adjusted to help drop the cargo height.

Wheel Area. Slide axles, sliders, permit the rear wheels to slide forward so the main deck can be tipped to permit construction equipment to load in a ramp-like motion. The wheel area also can be configured with dollies to increase the load-bearing capacity of the trailer. XL provides tags, smaller trailers that can be pulled behind a dump truck for movement of smaller equipment. As the weight of the loads increase, the number of axles required to carry the weight increase. The largest trailers can have 12 axles.



Axle configurations to accommodate heavy loads.

For more information with pictures of the many configurations offered by XL Specialized Trailers go to www.xlspecializedtrailer.com.

Meeting Adjourned. Our February 10, 2016 meeting features Bud Stein speaking on Unmanned Drones. It is spouses night so be sure to invite your spouse or a guest. President Dorhout accepted a motion for adjournment at 8:55 pm.

Respectfully submitted,

James R. Stevenson, Vice President and Secretary