



SUTPHEN

Family Owned and Operated since 1890!



SUTPHEN HILLIARD FACILITY

PRODUCTION

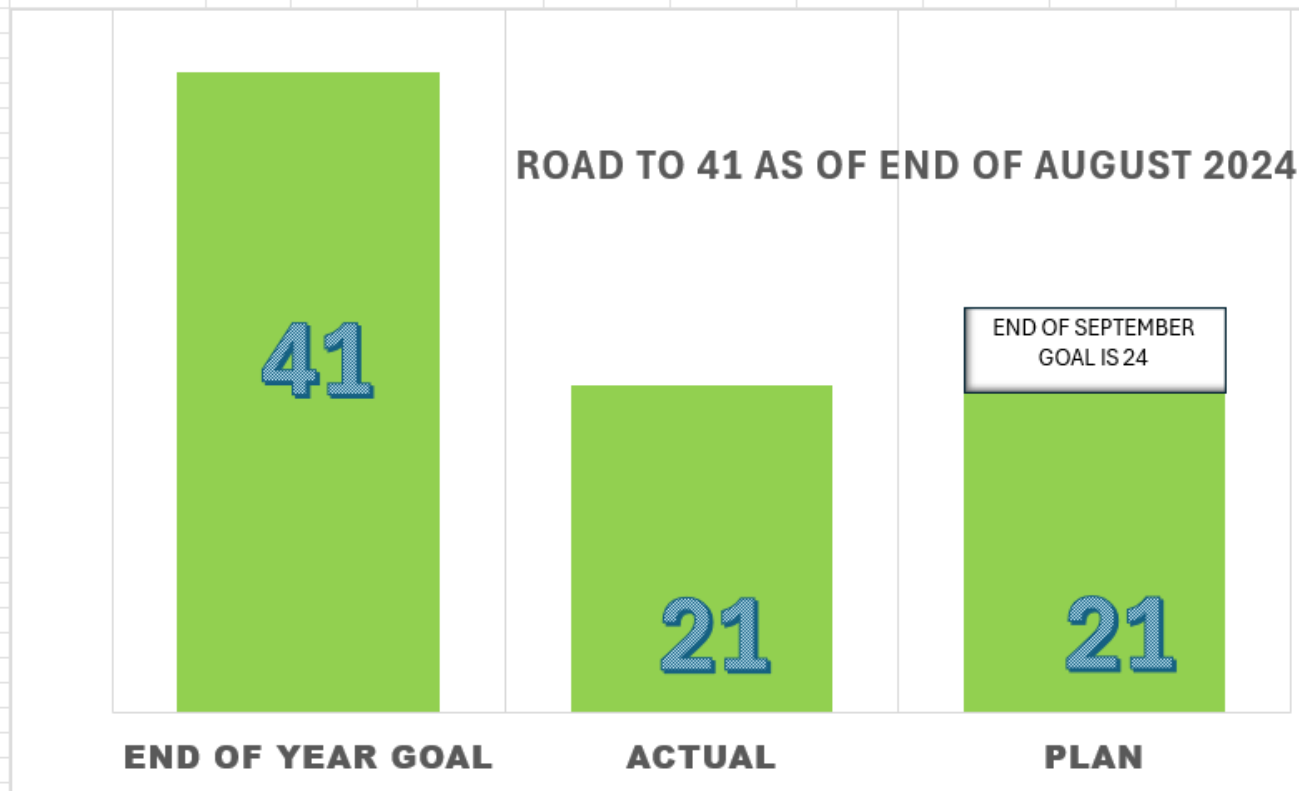
- CAB PRODUCTION AHEAD OF CHASSIS DEMAND
 - On track to build 230 cabs this year
 - Added 16% more hours to Hilliard for pre-paint prep work (CO1)
 - Even with last year's total. Increase planned for next year.
- REDUCTION IN TRUCK PRODUCTION LEAD TIME
 - Single axle aerial 20-22 months
 - Tandem axle aerial 24-26 months
- TRUCK PRODUCTION INCREASING
 - On track to build 41 Trucks
 - 17% Increase over last year
 - More people, reduced hours, motivated workforce



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Fire Dept	HS	Model
EUCLID	HS 7512	SLR75
DEMO 551	HS 7762	SL75
ASHTABULA, OH	HS 7663	SL75
NORTH COLLIER FC	HS 7750	SP70
CARROLL COUNTY, GA	HS 7622	SL100
WATERTOWN, MN	HS 7611	SLR108
RICHMOND HEIGHTS, OH	HS 7745	SL75
DEMO 550	HS 7761	SP70
SUTTON VFD BRAXTON	HS 7759	SL75
MACON BIBB, GA	HS 7675	SL100
GREENSBORO, NC #1	HS 7724	SL100
INDIAN RIVER CTY Vero B	HS 7765	SL75
WARREN, MI	HS 7786	SL75
SHELBY TWP, MI	HS 7817	SL75
NEWNAN, GA	HS 7839	SP70
LOWNDES COUNTY, GA	HS 7698	SL75
GREENSBORO, NC #2	HS 7725	SL100
MADISON TWP	HS 7862	SL75
DEMO 558	HS 7956	SL100
DELTA, OH	HS 7865	SL75
NORWICH TWP	HS 7869	SL75
DEKALB CTY #1	HS 7847	SLTDA105
ELMIRA, NY	HS 7849	SL100
COLUMBIA, MO #1	HS 7871	SA75
COLUMBIA, MO #2	HS 7870	SA75
LOVELAND SYMMES	HS 7760	SLR75
DEKALB CTY #2	HS 7848	SLTDA105
NICHOLS HILLS, OK	HS 7897	SL75
BOYNTON BEACH, FL	HS 7881	SL75
MILLSTONE, NJ	HS 7835	SL100
MABSCOTT, WV	HS 7883	SP70
SCRANTON, PA	HS 7938	SL100
ENGLEWOOD, FL	HS 7907	SP70
DEMO 560	HS 8038	SP70
CARDINAL JOINT FD, OH	HS 7910	SL75
VINE GROVE, KY	HS 7890	SLR75
DEMO 559	HS 7995	SL75
FARMINGTON, NY	HS 7917	SL75
UTICA, NY	HS 7986	SL100
CLEMSON, SC	HS 7927	SL75
ALBANYVILLE, AL	HS 7944	SL75

DATE:	JUNE	JULY	AUGUST	SEPTEMBER	OCTOBER	NOVEMBER	DECEMBER	JANUARY	FEBRUARY
END OF YEAR GOAL	41	41	41	41	41	41	41	41	41
ACTUAL	13	17	21						
PLAN	14	17	21	24	27	31	34	38	41



YES.. WE ARE ON TRACK TO MEET OUR GOAL

COMPLETED
TARGET FOR SEPTEMBER



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QUALITY

- LADDER CHUTE IMPROVED DESIGN – structural extrusions and fiberglass slides
- WATER LEAKS – TESTED TWICE AND SEALED TWICE
- SWIVEL - AMITY IMPROVED DESIGN
- HYDROMOTION – 2nd SOURCE FOR SWIVEL AND WATERWAY
- CAB AND BODY DOOR HANDLES – Ready to release
- REVIEWING PLANETARY GEAR – Size requires re-design
- WINSMITH HD IMPROVEMENT (See Drawing)

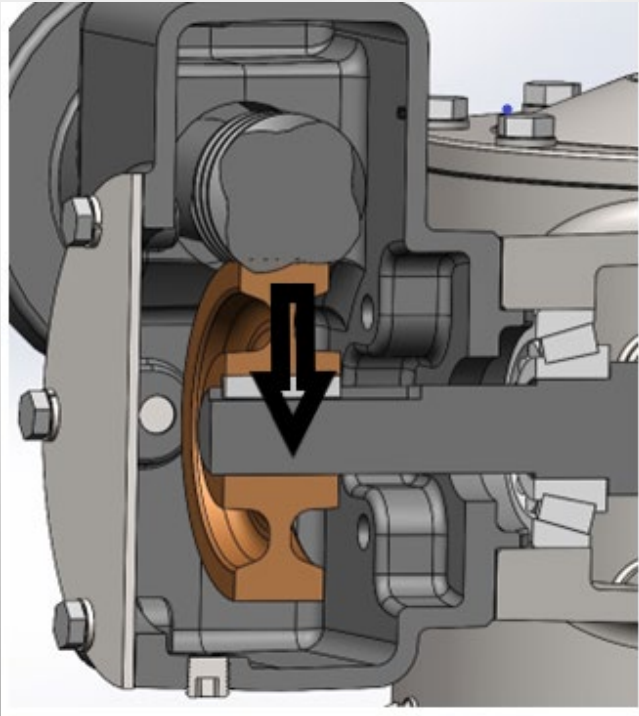


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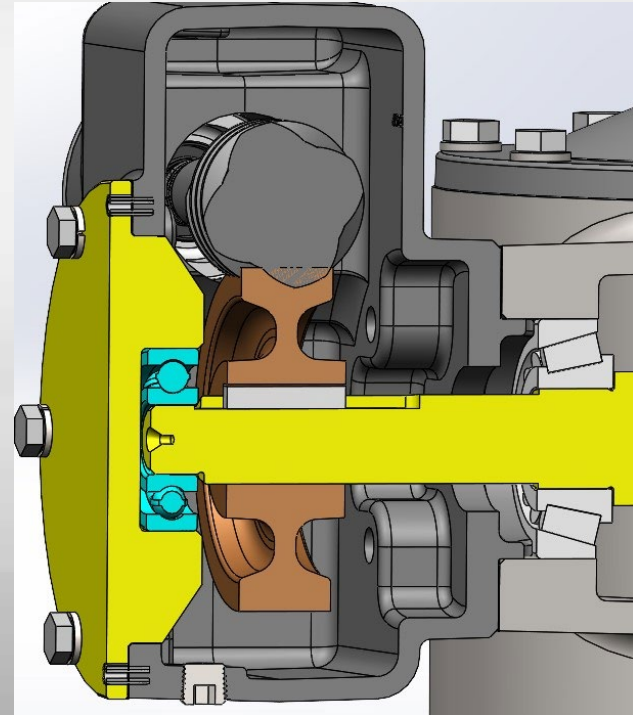
Design Modification:

- Extension of worm shaft and addition of support bearing.
- Redesign of end cap housing cover to accommodate additional support bearing and shaft.

Previous Design (failure point)



Enhanced Design



ENGINEERING

- INCREASE AERIAL EXTEND SPEED (PRIORITY ONE)
- REVIEWING LOWERING SLR108 OVERALL HEIGHT
- MAKING BODY and SERVICE PARTS IN HOUSE (Water Jet/PB)
- NEW POWER DISTRIBUTION BOX (EATON VS I.C.)
- ELECTRICAL HARNESS DESIGN AND DOCUMENTATION
 - Tommy Kolibash
- ADDED CO1 TASKS FROM CHASSIS TO CAB LINE
- TILLER IMPROVEMENTS (Adam to present)



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Date 9/12/24
Adam Fout
Sutphen Hilliard

Sutphen SLTDA105 Improvements and Updates



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What have we done?

- Improved production efficiency
- Reduced build time in production
- Refined assembly design and processes
- Improved the product based on customer feedback
- Added the tiller to SQS for quoting



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Production Efficiency



- Dedicated 5-person tiller build crew in building 6 (Bay 6)
- Improved sub-assembly staging in Bay 6
- Dialed in the build sequence
- Optimized B6 layout for production



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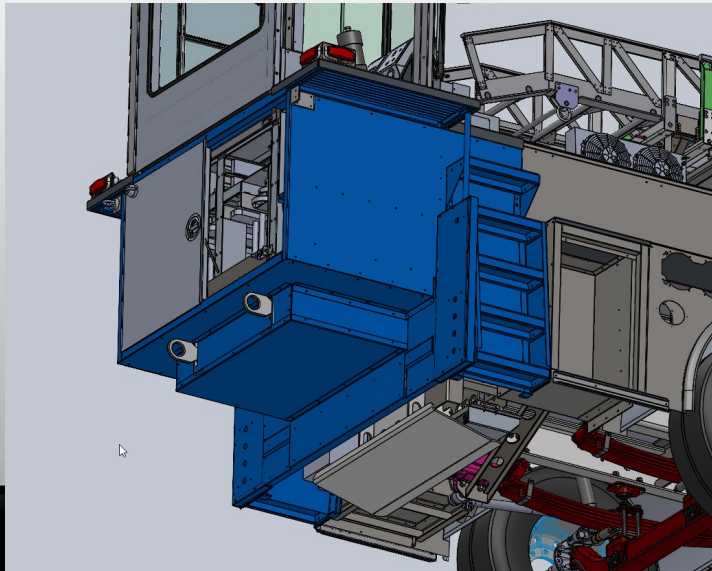
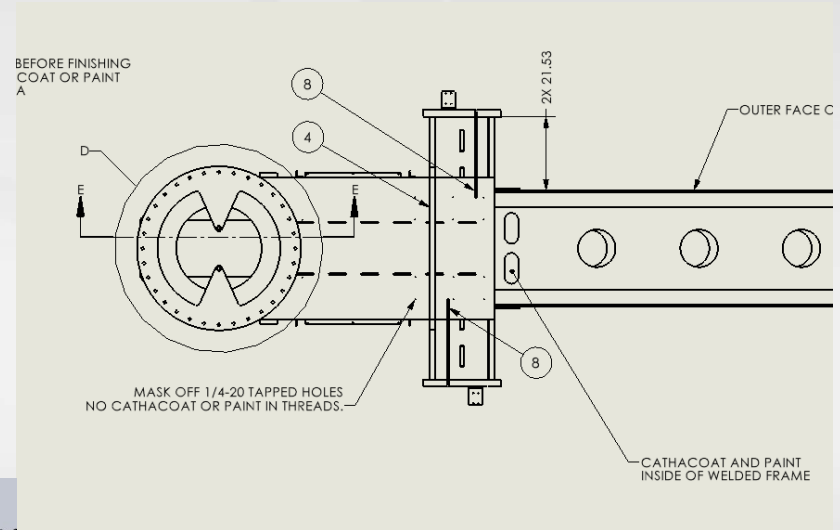
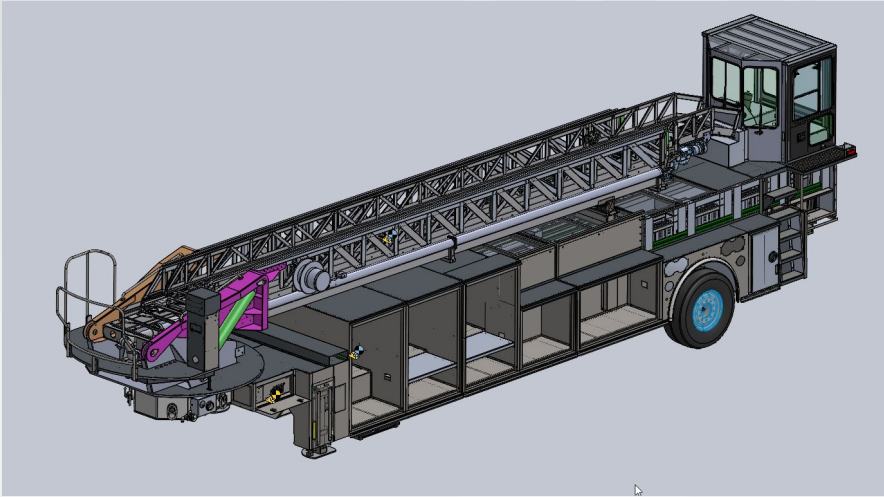
Build Time Reductions

- HS-6846: 10,145 hours
- HS-7454: 6,464 hours
- HS-7847: 5,298 hours
- HS-7848:
- HS-7799:



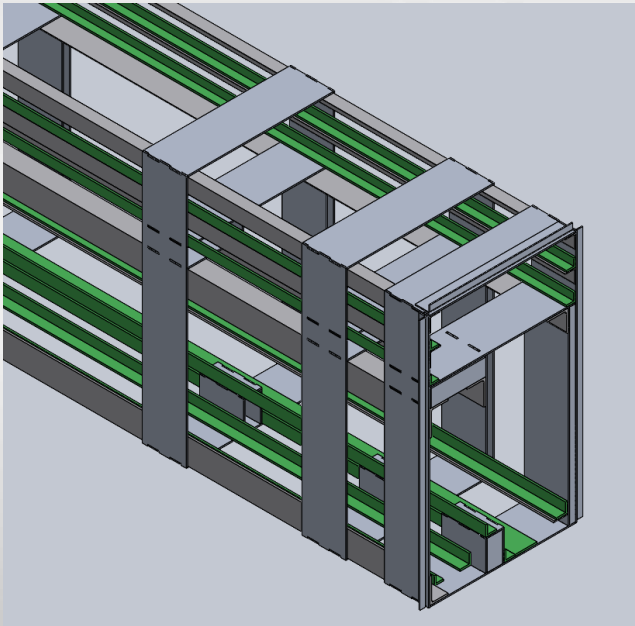
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Refined Assembly Design



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Refined Assembly Design



- More engineered part designs
- We have a fully engineered 3D model of the entire truck to check breakover angles, clearances, jackknife angles, etc.
- Better designs to improve assembly time and a more refined finished product
- Big focus on ladder chutes, rear trailer compartments, and tractor fifth wheel area.



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Design Improvements



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HS-6846 Ground Clearance!



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HS-7487 Ground Clearance



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Tractor Access Ladders – The OG



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Tractor Access Ladder – New Design

- Access ladder changed to folding ladder (Same as mini-towers)
- Moved access ladder forward of the tractor compartment
- SPH style handrail for easier climbing



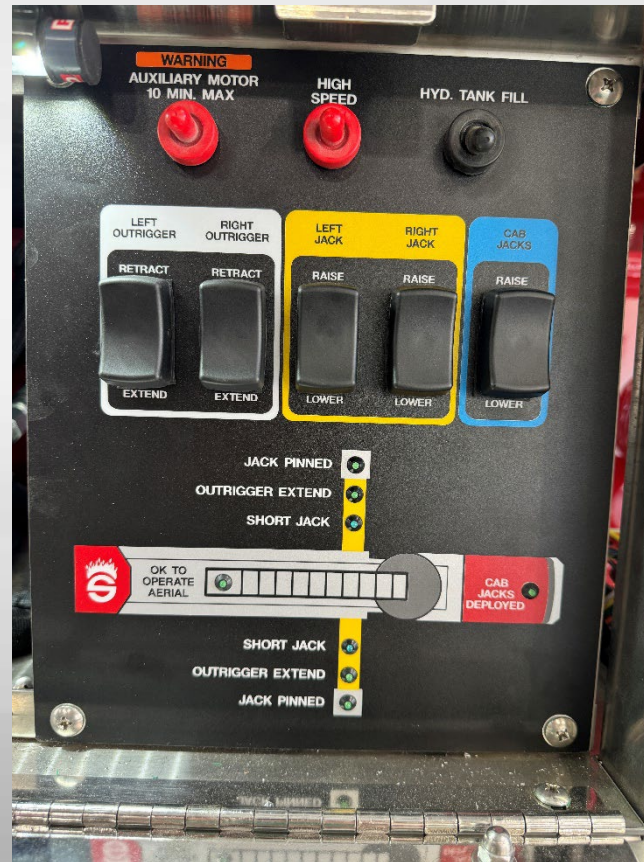
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Outrigger Status Panel – The OG



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Outrigger Status Panel - New Design



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Turntable Deck - Solid Aluminum

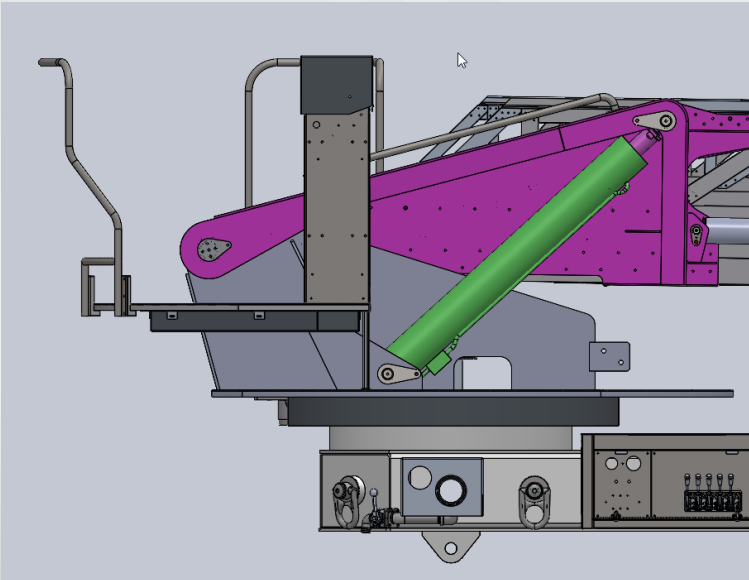


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Pedestal Location

- Pedestal moved to upper turntable deck.
- This improves the pedestal operators' line of sight up the aerial when the aerial is raised.



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Additional Tiller Cab Door Glass



- Better visibility for the tiller operator when maneuvering around obstacles



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Egress Tip Design

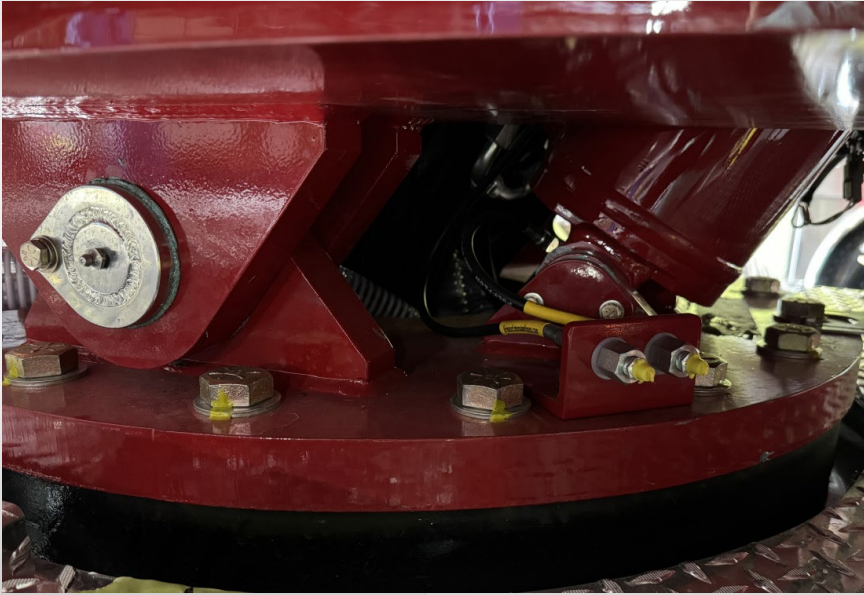


- Redesigned egress tip and HVAC cover box for more clearance between tiller cab and aerial

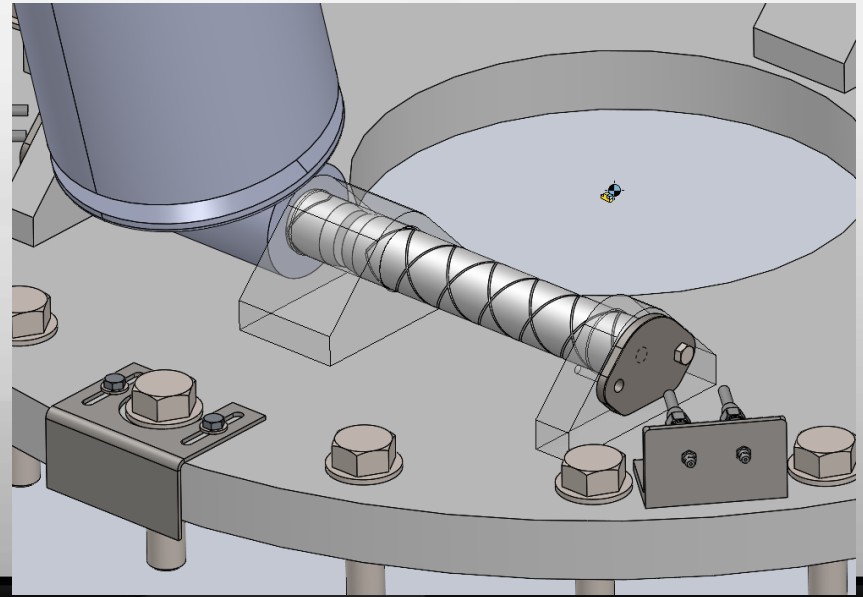


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Fifth Wheel Improvements



- Remote grease points added standard
- Improved cylinder pin design.



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Class 1 Gen 2 Multiplex & SmartRocker Switches Standard

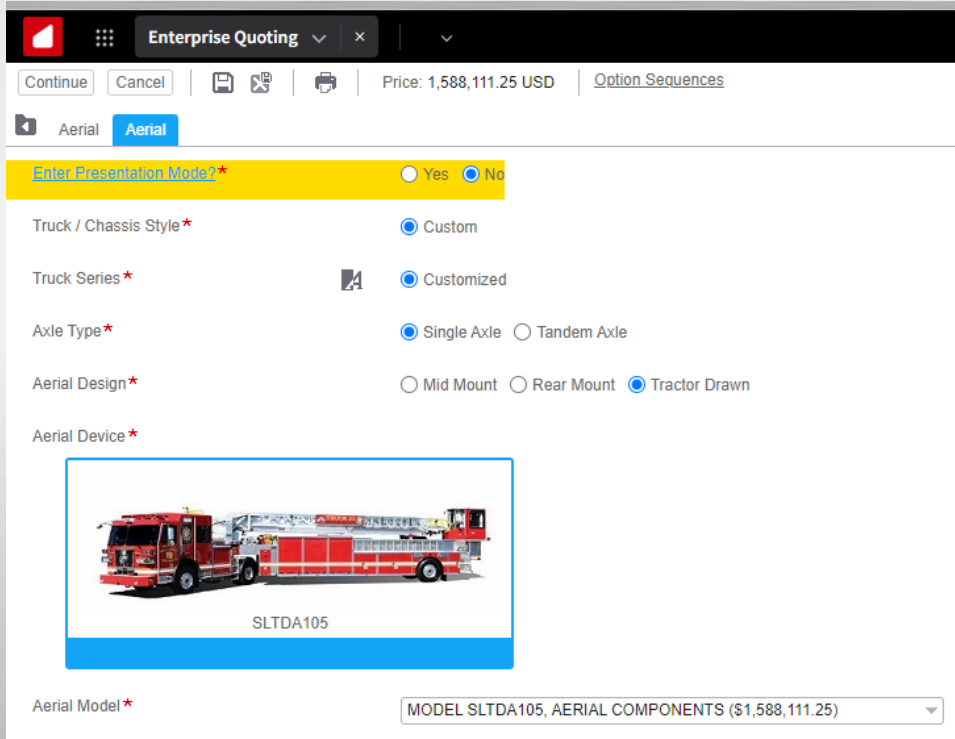


- Required on tillers, point-to-point wiring not available
- This greatly simplifies the wiring and harnesses in the cabs and body.
- Screens are optional, the base option will have no screens.
- Traditional rocker switches in the tractor and tiller cab will be an upcharge



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Now Configurable in SQS!



The screenshot displays the 'Enterprise Quoting' software interface. At the top, there's a navigation bar with a red logo, a grid icon, and a dropdown menu labeled 'Enterprise Quoting'. Below this, a toolbar contains buttons for 'Continue', 'Cancel', a save icon, a print icon, and a price display showing 'Price: 1,588,111.25 USD'. A link for 'Option Sequences' is also present. The main configuration area is titled 'Aerial' and includes several options:

- Enter Presentation Mode?***: Radio buttons for 'Yes' and 'No' (selected).
- Truck / Chassis Style***: Radio buttons for 'Custom' (selected) and 'Standard'.
- Truck Series***: A dropdown menu showing 'Customized' (selected).
- Axle Type***: Radio buttons for 'Single Axle' (selected) and 'Tandem Axle'.
- Aerial Design***: Radio buttons for 'Mid Mount', 'Rear Mount', and 'Tractor Drawn' (selected).
- Aerial Device***: A large image of a red aerial truck labeled 'SLTDA105'.
- Aerial Model***: A dropdown menu showing 'MODEL SLTDA105, AERIAL COMPONENTS (\$1,588,111.25)'.

- Many updated options and pricing specific to the tiller are now in SQS. These still require engineering review and an approval code to start a configuration.
- Thanks Donna!



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On the Horizon

- Establish standard trailer body and ladder chute configurations
- Continue to refine SQS options
- Continue to improve production efficiency
- Improve aerial extension speed
- Dealer education and sales feedback



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SERVICE

- RECENT MAJOR SERVICE PROJECTS: Mt. Pleasant OH, St. Petersburg FL, Franklin TN.
- SERVICE CALLS
 - Update on Steve Rideout (Returning November 1st)
 - Jim Garver – Service
 - John Rinehart – Parts
 - Morgan Fox – Chassis
- HIRED MASON CALHOUN TO SUPPORT SERVICE CALL



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FACILITY UPDATE

- ADDITIONAL AERIAL FIXTURE and IMPROVED LAYOUT
- ADDITIONAL SL-100 BODY FIXTURE
- ADDED PALLET RACK (108 locations) AND CANTILIVER
- PARKING LOT – Patched, Sealed, Striped
- GRAPHIC ROOM UPDATE AND NEW PRINTER
- PAINTED FLOORS IN MUSEUM/FINAL INSPECTION AREA
 - IMPROVING SUTPHEN EXPERIENCE



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FUTURE

- CRANE FOR WATERJET AND PRESS BRAKE
- LIFT ASSIST FOR PRESS BRAKE
- WORKING WITH COMPANIES TO MAKE GROUND LADDER AND WATERWAY
- E-COATING LADDER BEAMS
- LOWERING LEAD TIMES



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08/25/2024 11:06:40 AM

Sutphen Road View



PATCHED, SEALED and STRIPED PARKING LOT

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NEW CANTILEVER RACK FOR EXTRUSIONS AND CYLINDERS

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NEW PALLET RACK – 108 pallet locations

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MORE RACK!!

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NEW SEGMENTED WELDING CURTAINS IN CABS

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NEW SL100 BODY FIXTURE

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MAKING BODIES AND SERVICE PARTS QUICKLY IN HOUSE

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RELOCATED CLIMBING LADDER ASSEMBLY AREA

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NEW AERIAL FIXTURE AND LAYOUT

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COLUMBIA FIRE

**REMODELED
GRAPHICS ROOM**

**NEW PRINTER &
LAMINATOR**



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TWO MOST RECENT TILLERS!!

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*In Memory Of
Steve Garver
1941-2024*

*Part of the
Sutphen family
for 40 Years*



Four Generations of Garver's at Sutphen

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