

Prepared For:
IKON Fire LLC
Reference ID: Type III

Presented By:
Cumberland International Trucks
Sally Wilson
2110 S. Division Ave.
Orlando FL 32810 -
(407)849-6440

Thank you for the opportunity to provide you with the following quotation on a new International truck. I am sure the following detailed specification will meet your operational requirements, and I look forward to serving your business needs.



Model Profile
2025 HV507 SFA (HV507)

AXLE CONFIG:	4X4
APPLICATION:	Fire/Pumper
MISSION:	Requested GVWR: 35000. Calc. GVWR: 35000. Calc. GCWR: 80000 Calc. Start / Grade Ability: 30.93% / 4.35% @ 55 MPH Calc. Geared Speed: 73.3 MPH
DIMENSION:	Wheelbase: 199.00, CA: 80.10, Axle to Frame: 79.00
ENGINE, DIESEL:	{Cummins L9 360} EPA 2021, 360HP @ 2200 RPM, 1150 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, 359 Peak HP (Max)
TRANSMISSION, AUTOMATIC:	{Allison 3000 EVS} 6th Generation Controls, Close Ratio, 5-Speed with Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, Max, GVW N/A
CLUTCH:	Omit Item (Clutch & Control)
AXLE, FRONT DRIVING:	{Meritor MX-12-120 EVO} Single Reduction, 12,000-lb Capacity, with Hub Piloted Wheel Mounting
AXLE, REAR, SINGLE:	{Meritor RS-23-186} Single Reduction, 23,000-lb Capacity, 200 Wheel Ends Gear Ratio: 4.89
CAB:	Conventional 6-Man Crew Cab
TIRE, FRONT:	(2) 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive
TIRE, REAR:	(4) 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive
SUSPENSION, REAR, SINGLE:	23,500-lb Capacity, Vari-Rate Springs, with 4500-lb Capacity Auxiliary Rubber Springs
PAINT:	Cab schematic 100WK Location 1: 9445, Kilimanjaro White (Custom) Chassis schematic 932WK Wheel: 9445, Kilimanjaro White (Custom)

<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
Base Chassis, Model HV507 SFA with 199.00 Wheelbase, 80.10 CA, and 79.00 Axle to Frame.	5783/3857	9640

AXLE CONFIGURATION

AXLE CONFIGURATION {Navistar} 4x4	175/-98	77
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Notes

: Pricing may change if axle configuration is changed.

ENGINE

ENGINE, DIESEL {Cummins L9 360} EPA 2021, 360HP @ 2200 RPM, 1150 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, 359 Peak HP (Max)	560/4	564
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EMISSION, CALENDAR YEAR {Cummins L9} EPA, OBD and GHG Certified for Calendar Year 2023	0/0	0
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CARB EMISSION WARR COMPLIANCE Does Not Comply with CARB Emission Warranty	0/0	0
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CARB IDLE COMPLIANCE Does Not Comply with California Clean Air Idle Regulations	0/0	0
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RADIATOR Aluminum, Cross Flow, Front to Back System, 1228 Sqli, with 1167 Sqli Charge Air Cooler, Includes In-Tank Oil Cooler	23/-5	18
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Includes

: DEAERATION SYSTEM with Surge Tank

: HOSE CLAMPS, RADIATOR HOSES Gates Shrink Band Type; Thermoplastic Coolant Hose Clamps

: RADIATOR HOSES Premium, Rubber

FAN DRIVE {Horton Drivemaster} Two-Speed Type, Direct Drive, with Residual Torque Device for Disengaged Fan Speed	0/0	0
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Includes

: FAN Nylon

AIR CLEANER Single Element	0/0	0
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ANTI-FREEZE Red, Extended Life Coolant; To -40 Degrees F/ -40 Degrees C, Freeze Protection	0/0	0
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BLOCK HEATER, ENGINE 120V/1000W, for Cummins ISB/B6.7/ISL/L9 Engines	3/0	3
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Includes

: BLOCK HEATER SOCKET Receptacle Type; Mounted below Drivers Door

ENGINE CONTROL, REMOTE MOUNTED Provision for; Includes Wiring for Body Builder Installation of PTO Controls and Starter Lockout, with Ignition Switch Control, for Cummins B6.7 and L9 Engines	0/0	0
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ENGINE WATER COOLER {Sen-Dure} Auxiliary, For Use with Fire Trucks	17/3	20
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FAN OVERRIDE Manual; with Electric Switch on Instrument Panel, (Fan On with Switch On)	0/0	0
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THROTTLE, HAND CONTROL Engine Speed Control; Electronic, Stationary, Variable Speed; Mounted on Steering Wheel	0/0	0
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TRANSMISSION

TRANSMISSION, AUTOMATIC {Allison 3000 EVS} 6th Generation Controls, Close Ratio, 5-Speed with Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, Max, GVW N/A	214/69	283
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ALLISON SPARE INPUT/OUTPUT for Emergency Vehicle Series (EVS), Fire/Pumper, Tank, Aerial/Ladder, Package Number 198, Includes J1939 Based Auto Neutral	0/0	0
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NEUTRAL AT STOP OMIT	0/0	0
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OIL COOLER, TRANSMISSION {Modine} Water to Oil Type	25/0	25
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<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
OIL COOLER, TRANSFER CASE with Oil Coolant Lines Routed to Oil Cooler	6/1	7
PROVISION FOR PTO Top Mount; with Allison 3000 Transmission	0/0	0
PTO LOCATION Customer Intends to Install PTO at Left Side of Transmission	0/0	0
SHIFT CONTROL PARAMETERS {Allison} 3000 or 4000 Series Transmissions, Performance Programming	0/0	0
TRANSFER CASE {Meritor MTC-4210} 2-Speed, 10,000 lb-ft Torque Rating, with PTO Provision, Electric Over Air Control, with Lube Pump	381/407	788
TRANSFER CASE LUBE {EmGard 50W} Synthetic; 1 thru 14.99 Pints	0/0	0
TRANSMISSION OIL Synthetic; 29 thru 42 Pints	0/0	0
TRANSMISSION SHIFT CONTROL Column Mounted Stalk Shifter, Not for Use with Allison 1000 & 2000 Series Transmission	1/0	1

CLUTCH

CLUTCH Omit Item (Clutch & Control)	0/0	0
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REAR AXLES, SUSPENSIONS

AXLE, REAR, SINGLE {Meritor RS-23-186} Single Reduction, 23,000-lb Capacity, 200 Wheel Ends . Gear Ratio: 4.89	0/234	234
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Notes

: Axle Lead Time is 60 Days

SUSPENSION, REAR, SINGLE 23,500-lb Capacity, Vari-Rate Springs, with 4500-lb Capacity Auxiliary Rubber Springs	0/62	62
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AXLE, REAR, LUBE {EmGard FE-75W-90} Synthetic Oil; 40 thru 49.99 Pints	0/0	0
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FRONT AXLES

AXLE, FRONT DRIVING {Meritor MX-12-120 EVO} Single Reduction, 12,000-lb Capacity, with Hub Piloted Wheel Mounting	737/0	737
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Notes

: Axle Lead Time is 90 Days

AXLE, FRONT DRIVING, LUBE {EmGard FE-75W-90} Synthetic Oil; 1 thru 29.99 Pints	0/0	0
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FRONT SUSPENSIONS

SUSPENSION, FRONT, SPRING Parabolic Taper Leaf, Shackle Type, 12,000-lb Capacity, with Shock Absorbers	0/0	0
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CABS, COWLS, BODIES

CAB Conventional 6-Man Crew Cab	344/306	650
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ACCESS, CAB Steel, Driver & Passenger Sides, Two Steps per Door, for use with Crew Cab	43/40	83
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AIR CONDITIONER with Integral Heater and Defroster	0/0	0
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CAB INTERIOR TRIM Classic, for Crew Cab	0/0	0
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Includes

<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
: CONSOLE, OVERHEAD Molded Plastic with Dual Storage Pockets, Retainer Nets and CB Radio Pocket; Located Above Driver and Passenger		
: DOME LIGHT, CAB Door Activated and Push On-Off at Light Lens, Timed Theater Dimming, Integral to Overhead Console, Center Mounted		
: SUN VISOR (2) Padded Vinyl; 2 Moveable (Front-to-Side) Primary Visors, Driver Side with Toll Ticket Strap		
CAB, INTERIOR TRIM, CLOSEOUT Under IP, Driver Side	0/0	0
CAB REAR SUSPENSION Air Bag Type	0/0	0
CAB SOUND INSULATION Includes Dash Insulator and Engine Cover Insulator	12/0	12
GAUGE CLUSTER Base Level; English with English Electronic Speedometer	0/0	0
<u>Includes</u>		
: GAUGE CLUSTER DISPLAY: Base Level (3" Monochromatic Display), Premium Level (5" LCD Color Display); Odometer, Voltmeter, Diagnostic Messages, Gear Indicator, Trip Odometer, Total Engine Hours, Trip Hours, MPG, Distance to Empty/Refill for		
: GAUGE CLUSTER Speedometer, Tachometer, Engine Coolant Temp, Fuel Gauge, DEF Gauge, Oil Pressure Gauge, Primary and Secondary Air Pressure		
: WARNING SYSTEM Low Fuel, Low DEF, Low Oil Pressure, High Engine Coolant Temp, Low Battery Voltage (Visual and Audible), Low Air Pressure (Primary and Secondary)		
GAUGE, AIR CLEANER RESTRICTION {Filter-Minder} Mounted in Instrument Panel	2/0	2
GAUGE, OIL TEMP, AUTO TRANS for Allison Transmission	1/0	1
GAUGE, VOLTMETER Auxiliary Gauge, Located in Center Panel. Standard Cluster Also Includes Digital Voltage Readout	0/0	0
GRAB HANDLE, EXTERIOR (2) Chrome, Towel Bar Type, with Anti-Slip Rubber Inserts, for Cab Entry Mounted Left and Right Side at B-Pillar	6/0	6
GRAB HANDLE, ADDITIONAL EXT (2) Chrome, Towel Bar Type, with Anti-Slip Rubber Inserts, Mounted Left and Right Side, Rear of Rear Doors, for Crew Cab	5/0	5
GRAB HANDLE, CAB INTERIOR (4) Safety Yellow, Crew Cab	0/0	0
INSTRUMENT PANEL Flat Panel	0/0	0
IP CLUSTER DISPLAY On Board Diagnostics Display of Fault Codes in Gauge Cluster	0/0	0
MIRRORS (2) C-Loop, Power Adjust, Heated, LED Clearance Lights, Bright Heads and Arms, 7.5" x 14" Flat Glass, Includes 7.5" x 7" Convex Mirrors, for 102" Load Width	0/0	0
<u>Notes</u>		
: Mirror Dimensions are Rounded to the Nearest 0.5"		
MONITOR, TIRE PRESSURE Omit	-9/-2	-11
SEAT BELT All Red; 4 to 6	0/0	0
SEAT, DRIVER {H.O. Bostrom Sierra Air 100} NFPA Compliant, Air Suspension, High Back, Vinyl with Covered Back and International Logo on Headrest, for Fire Truck	10/3	13
SEAT, PASSENGER {H.O. Bostrom Tanker 450} for SCBA; Non-Suspension, High Back, Vinyl with Covered Back, International Logo on Headrest, Adjusters, 7-Degree Back Angle	94/37	131
SEAT, REAR {H.O. Bostrom Tanker 400CT} for SCBA; Three Individual Seats on One Riser, Non Suspension, High Back, Vinyl, with Covered Back and International Logo on Headrest	195/80	275
SEATBELT WARNING PREWIRE Includes Seat Belt Switches and Seat Sensors for all Belted Positions in the Cab and a Harness Routed to the Center of the Dash for the Aftermarket Installation of the Data Recorder and Seatbelt Indicator Systems, for 4 to 6 Seat Belts	0/0	0

<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
WINDOW, POWER (4) And Power Door Locks, Front and Rear Doors, Left and Right, Includes Express Down Feature	5/0	5
FRAMES		
FRAME RAILS Heat Treated Alloy Steel (120,000 PSI Yield); 10.866" x 3.622" x 0.437" (276.0mm x 92.0mm x 11.1mm); 456.0" (11582mm) Maximum OAL	158/465	623
BUMPER, FRONT Contoured, Stainless Steel, Polished	-25/3	-22
FRAME DIMPLE Dimple on Left and Right Top Flange of Frame Rail to Reference Rear Axle Centerline	0/0	0
TOW HOOK, FRONT (2) Frame Mounted	8/0	8
WHEELBASE RANGE 181" (460cm) Through and Including 205" (520cm)	183/-183	0
BRAKES		
BRAKE SYSTEM, AIR Dual System for Straight Truck Applications	0/0	0
<u>Includes</u>		
: BRAKE LINES Color and Size Coded Nylon		
: DRAIN VALVE Twist-Type		
: GAUGE, AIR PRESSURE (2) Air 1 and Air 2 Gauges; Located in Instrument Cluster		
: PARKING BRAKE CONTROL Yellow Knob, Located on Instrument Panel		
: PARKING BRAKE VALVE For Truck		
: QUICK RELEASE VALVE On Rear Axle for Spring Brake Release: 1 for 4x2, 2 for 6x4		
: SPRING BRAKE MODULATOR VALVE R-7 for 4x2, SR-7 with relay valve for 6x4/8x6		
AIR BRAKE ABS {Bendix AntiLock Brake System} 4-Channel (4 Sensor/4 Modulator) Full Vehicle Wheel Control System	0/0	0
BRAKE, PARKING Manual Push-Pull Pneumatic Parking Brake	1/0	1
BRAKES, FRONT {Meritor 16.5X5 Q-PLUS CAST} Air S-Cam Type, Cast Spider, Fabricated Shoe, Double Anchor Pin, Size 16.5" X 5", 14,700-lb Capacity	-23/0	-23
BRAKE CHAMBERS, FRONT AXLE {MGM} 20 Sqli	-1/0	-1
SLACK ADJUSTERS, FRONT {Haldex} Automatic	14/0	14
DUST SHIELDS, FRONT BRAKE for Air Cam Brakes	10/0	10
BRAKES, REAR {Meritor 16.5X7 Q-PLUS CAST} Air S-Cam Type, Cast Spider, Fabricated Shoe, Double Anchor Pin, Size 16.5" X 7", 23,000-lb Capacity per Axle	0/52	52
BRAKE CHAMBERS, REAR AXLE {Bendix EverSure} 30/30 Sqli Spring Brake	0/7	7
SLACK ADJUSTERS, REAR {Haldex} Automatic	0/16	16
DUST SHIELDS, REAR BRAKE for Air Cam Brakes	0/10	10
AIR COMPRESSOR {Cummins} 18.7 CFM	0/0	0
AIR DRYER {Bendix AD-IP} with Heater	13/14	27
AIR DRYER LOCATION Mounted Inside Left Rail, Behind Transfer Case Mounting	5/5	10
AIR TANK LOCATION (2) Mounted Left Side BOC Under Battery Box	-9/19	10
DRAIN VALVE {Bendix DV-2} Automatic, with Heater, for Air Tank	2/0	2
STEERING		

<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
STEERING GEAR {Sheppard M110} Power	43/-2	41
STEERING COLUMN Tilting and Telescoping	17/2	19
STEERING WHEEL 4-Spoke; 18" Dia., Black	0/0	0
<u>DRIVELINES</u>		
DRIVELINE SYSTEM {Dana Spicer} SPL170 Main Driveline, 1710 Driveline to Transfer Case, SPL140 Driveline to Front Axle, for 4x4	7/31	38
<u>EXHAUST SYSTEMS</u>		
EXHAUST SYSTEM Horizontal Aftertreatment System, Frame Mounted Right Side Under Cab, for Single Short Horizontal Tail Pipe, Frame Mounted Right Side Back of Cab, for All-Wheel Drive	57/-1	56
AFTERTREATMENT COVER Steel, Black	11/2	13
ENGINE EXHAUST BRAKE for Cummins ISB/B6.7/ISL/L9 Engine with Variable Vane Turbo Charger	0/0	0
SWITCH, FOR EXHAUST 3 Position, Momentary, Lighted Momentary, ON/CANCEL, Center Stable, INHIBIT REGEN, Mounted in IP Inhibits Diesel Particulate Filter Regeneration When Switch is Moved to ON While Engine is Running, Resets When Ignition is Turned OFF	2/0	2
TAIL PIPE (1) Horizontal, Short, Exits Right Side, 90 Degree Turnout	14/9	23
<u>ELECTRICAL SYSTEMS</u>		
ELECTRICAL SYSTEM 12-Volt, Standard Equipment	0/0	0
<u>Includes</u>		
: DATA LINK CONNECTOR For Vehicle Programming and Diagnostics In Cab		
: HAZARD SWITCH Push On/Push Off, Located on Instrument Panel to Right of Steering Wheel		
: HEADLIGHT DIMMER SWITCH Integral with Turn Signal Lever		
: PARKING LIGHT Integral with Front Turn Signal and Rear Tail Light		
: STARTER SWITCH Electric, Key Operated		
: STOP, TURN, TAIL & B/U LIGHTS Dual, Rear, Combination with Reflector		
: TURN SIGNAL SWITCH Self-Cancelling for Trucks, Manual Cancelling for Tractors, with Lane Change Feature		
: WINDSHIELD WIPER SWITCH 2-Speed with Wash and Intermittent Feature (5 Pre-Set Delays), Integral with Turn Signal Lever		
: WINDSHIELD WIPERS Single Motor, Electric, Cowl Mounted		
: WIRING, CHASSIS Color Coded and Continuously Numbered		
ALTERNATOR {Leece-Neville BLP4006HN} Brushless, 12 Volt, 325 Amp Capacity, Pad Mount, with Remote Sense	17/0	17
ANTENNA for Increased Roof Clearance Applications	1/0	1
BATTERY BOX Steel, with Plastic Cover, 30" Wide, 2-4 Battery Capacity, Mounted Left Side Back of Fuel Tank	-20/20	0
BATTERY DISCONNECT SWITCH for Cab Power Disconnect Switch, Disconnects Power to Power Distribution Center (PDC) and Body Builder Through Solenoid, Does Not Disconnect Charging Circuits, Locks with Padlock, Cab Mounted	11/2	13
BATTERY SYSTEM {Fleetrite} Maintenance-Free, (3) 12-Volt 1980CCA Total, Top Threaded Stud	27/26	53
BODY BUILDER WIRING To Rear of Frame, with Stop, Tail, Turn, and Marker Lights Circuits, Ignition Controlled Auxiliary Feed and Ground, Less Trailer Socket	2/0	2
CIRCUIT BREAKERS Manual-Reset (Main Panel) SAE Type III with Trip Indicators, Replaces All Fuses	0/0	0

<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
CIGAR LIGHTER Includes Ash Cup	1/0	1
CLEARANCE/MARKER LIGHTS (5) {Truck Lite} Amber LED Lights, Flush Mounted on Cab or Sunshade	0/0	0
COURTESY LIGHT (4) Mounted In Front & Rear Map Pocket Left and Right Side	2/0	2
DATA RECORDER Includes Display Mounted in Overhead Console	2/0	2
HEADLIGHTS Halogen, with Daytime Running Lights	0/0	0
HORN, AIR Single Trumpet, Black, with Lanyard Pull Cord	3/0	3
HORN, ELECTRIC (2) Disc Style	1/0	1
INDICATOR, BATTERY WARNING Green BATTERY ON Indicator, Mounted on Left Side of Instrument Panel, To be Used with Factory Installed or Customer Mounted Battery Disconnect Switch	1/0	1
INDICATOR, LOW COOLANT LEVEL with Audible Alarm	0/0	0
POWER SOURCE Cigar Type Receptacle without Plug and Cord	1/0	1
POWER SOURCE, ADDITIONAL Auxiliary Power Outlet (APO) with USB Port, Located in the Instrument Panel	1/0	1
RADIO Omit, Includes Wiring and Antenna	0/0	0
SPEAKERS Omit	0/0	0
STARTING MOTOR {Delco Remy 38MT Type 300} 12 Volt, Less Thermal Over-Crank Protection	8/1	9
SWITCH, AIR HORN, PASSENGER Fire Truck Application; Momentary Switch Located in Instrument Panel Close to Passenger, Driver Also To Activate Switch with Lanyard	0/0	0
TEST EXTERIOR LIGHTS Pre-Trip Inspection will Cycle all Exterior Lamps Except Back-up Lights	0/0	0
TURN SIGNALS, FRONT Includes LED Side Turn Lights Mounted on Fender	0/0	0
FRONT END		
FRONT END Tilting, Fiberglass, with Three Piece Construction, for WorkStar/HV	0/0	0
FENDER EXTENSIONS Rubber	6/0	6
GRILLE Stationary, Chrome	0/0	0
GRILLE EMBER SCREEN Mounted to Grille and Cowl Tray to Keep Hot Embers out of Engine and HVAC Air Intake System	3/0	3
INSULATION, SPLASH PANELS for Sound Abatement	2/0	2
INSULATION, UNDER HOOD for Sound Abatement	10/0	10
LOGOS EXTERIOR Model Badges	0/0	0
LOGOS EXTERIOR, ENGINE Badges	0/0	0
SPEEDOMETER, TOOLS, MISC		
COMMUNICATIONS MODULE Telematics Device with Over the Air Programming; Includes Five Year Data Plan and International 360	1/0	1
FIRE EXTINGUISHER 5 lb Class A B C	8/2	10
FIRE EXTINGUISHER BRACKET Mounted Left Side Driver Seat	1/0	1
KEYS - ALL ALIKE, ID I-1003 Compatible with Z-001	0/0	0

<u>Description</u>	<u>F/R Wt</u> (lbs)	<u>Tot Wt</u> (lbs)
PAINT IDENTITY, PT-2 Single Color, Instruction No. 932. Wheels	0/0	0
PAINT SCHEMATIC, PT-1 Single Color, Design 100	0/0	0
<u>Includes</u>		
: PAINT SCHEMATIC ID LETTERS "WK"		
PAINT TYPE Base Coat/Clear Coat, 1-2 Tone	0/0	0
PROMOTIONAL PACKAGE Government Silver Package	0/0	0
SAFETY TRIANGLES	6/0	6
PAINT CLASS Single Custom Color	0/0	0
FUEL TANKS		
FUEL TANK Top Draw, Non-Polished Aluminum, D-Style, 19" Tank Depth, 50 US Gal (189L), Mounted Left Side, Under Cab	25/4	29
DEF TANK 7 US Gal (26L) Capacity, Frame Mounted Outside Left Rail, Under Cab	0/0	0
FUEL COOLER Less Thermostat; Mounted in Front of Cooling Module	14/0	14
FUEL/WATER SEPARATOR {Racor 400 Series} with Primer Pump, Includes Water-in-Fuel Sensor, Mounted on Engine	0/0	0
WHEELS, TIRES - FRONT		
WHEELS, FRONT {Accuride 51408} DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs	-10/0	-10
(2) TIRE, FRONT 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive	0/0	0
WHEELS, TIRES - REAR		
WHEELS, REAR {Accuride 51408} DUAL DISC; 22.5x8.25 Rims, Powder Coat Steel, 2-Hand Hole, 10-Stud, 285.75mm BC, Hub-Piloted, Flanged Nut, with Steel Hubs	0/-20	-20
(4) TIRE, REAR 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive	0/20	20
BODY INTEGRATION		
BDY INTG, I/O EXP HARNESS {for Diamond Logic Builder} In-Cab wire harness (DLB) program only, Includes a harness with five blunt cut wires routed on lower left of instrument panel. Two ground active inputs and two (.5Amp) relay drivers outputs are provided	0/0	0
Cab schematic 100WK		
Location 1: 9445, Kilimanjaro White (Custom)		
Chassis schematic 932WK		
Wheel: 9445, Kilimanjaro White (Custom)		
Services Section:		
WARRANTY		
WARRANTY Standard for HV507, HV50B, HV607 Models, Effective with Vehicles Built July 1, 2017 or Later, CTS-2025A	0/0	0

Description

Total Component Weight:

<u>F/R Wt</u>	<u>Tot Wt</u>
(lbs)	(lbs)
9244/5502	14746
(lbs)	(lbs)
(lbs)	(lbs)

Pre-Delivery and Programming

0/0 0

(2) Hadley Hood Mounted Air Horns w/ Driver & Pass. Foot Switches

0/0 0

Exhaust Extension to exit in front of the right rear wheel

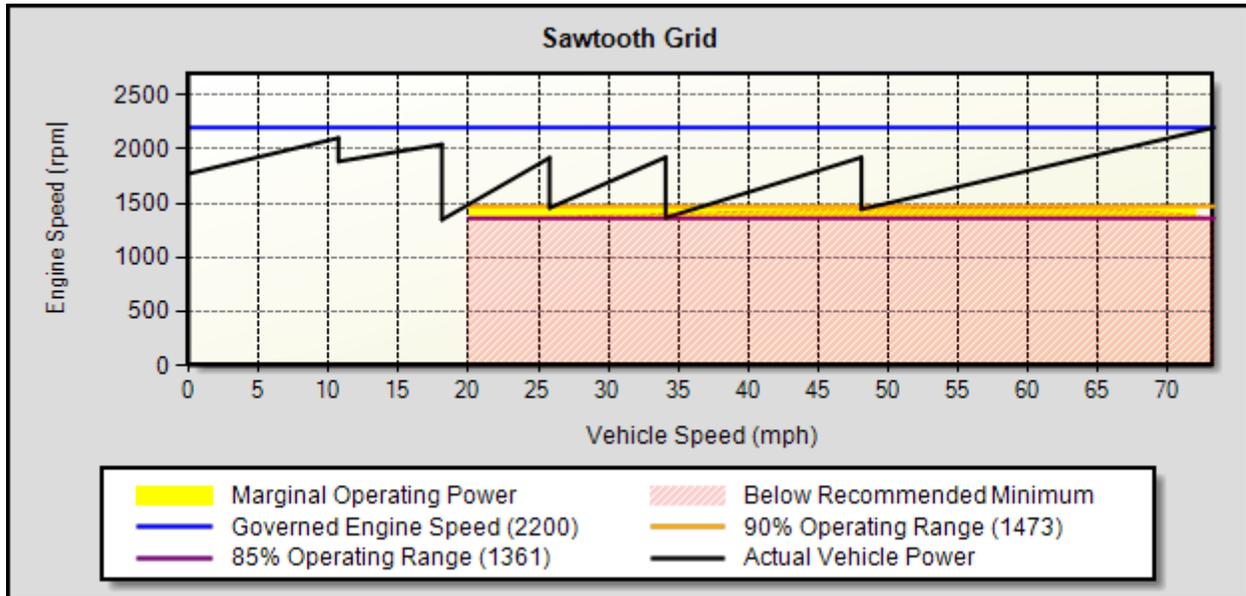
0/0 0

Total Goods Purchased:

0/0 0

The weight calculations included in this proposal are an estimate of future vehicle weight. The actual weight as manufactured may be different from the estimated weight. Navistar, Inc. shall not be liable for any consequences resulting from any differences between the estimated weight of a vehicle and the actual weight.

ENGINE/TRANSMISSION MATCHING



Sawtooth Details

Gear	Trans Ratio	Multi Speed	Upshift Power Avail		Govern Power Avail		Peak Power Comparison			Warn Msg
			Veh Spd (MPH)	Eng Spd (RPM)	Veh Spd (MPH)	Eng Spd (RPM)	Gear Step (%)	85% Range (%)	90% Range (%)	
1C-2	3.49	1.00	0.0	1775	10.7	2104	N/A	62	49	
2C-2	1.86	1.00	10.7	1887	18.1	2045	N/A	62	49	
2L-2	1.86	1.00	18.1	1347	25.8	1921	N/A	62	49	
3L-2	1.41	1.00	25.8	1457	34.1	1926	N/A	62	49	
4L-2	1.00	1.00	34.1	1366	48.1	1925	N/A	62	49	
5L-2	0.75	1.00	48.1	1444	73.3	2200	N/A	62	49	

@ - WHEELSLIP CAN OCCUR AT THE GRADE SHOWN. THE VEHICLE IS CAPABLE OF INCREASED GRADEABILITY IF MORE WEIGHT IS PLACED ON THE DRIVE AXLES.

STEADY STATE PERFORMANCE

Performance Results	Gear	Veh Spd (mph)	Eng Spd (rpm)	Fuel Econ (mpg)	Grade (%)	Notes
LEVEL ROAD MAXIMUM SPEED	5L-2	75.7	2271	6.01	0.00	
HI GEAR SPEED @ RATED RPM	5L-2	73.3	2200	6.36	1.81	
55.0 MPH STEADY-STATE	5L-2	55.0	1651	9.12	4.35	
TYPICAL OPERATING SPEED	5L-2	60.0	1801	8.30	3.58	- Calculated Grade Ability/Fuel Economy

VEHICLE ORDER CODING ERRORS MAY RESULT IF THE "LEVEL ROAD MAX SPEED" VALUE EXCEEDS THE "HI GEAR SPEED @ RATED RPM" AND IS USED AS THE ENGINE PROGRAMMABLE VEHICLE SPEED LIMIT.

IF THE RESULTS CONTAIN "----", VEHICLE CANNOT ATTAIN THAT SPEED.

IF THE RESULTS CONTAIN "*****", THE ENGINE USED DOES NOT HAVE A FUEL MAP. FUEL ECONOMY CANNOT BE PREDICTED.

Recommendations / General Information

IDLE FUEL RATE : 0.93 GALS/HR @ 700.0 RPM

TORQUE CONVERTER : TC-421 STALL RATIO: 1.77

Fuel Economy Route: Normal Route - City, Suburban, and Highway

Key Fuel Economy Information	City	Suburban	Highway	Notes
MILES PER GALLON	6.63	9.26	8.68	
AVERAGE MPH	19.1	40.0	54.6	
MISSION MINUTES	29.59	51.75	173.29	

IF THE RESULTS CONTAIN "*****", THE ENGINE USED DOES NOT HAVE A FUEL MAP. FUEL ECONOMY CANNOT BE PREDICTED.

GRADEABILITY PERFORMANCE

Enroute - Full Throttle Upshift Performance

Gear	Trans Ratio	Multi Speed	Veh Spd (mph)	Eng Spd (rpm)	Whl Pwr (hp)	Grade (%)	Warn Notes Msg
1C-2	3.49	1.00	0.0	1775	0.00	46.00	@ STALL
			6.9	1925	226.96	36.90	70% EFF
			9.2	2020	259.05	30.93	80% EFF
			10.7	2104	271.48	27.31	
2C-2	1.86	1.00	10.7	1887	202.44	19.84	
			18.1	2045	263.33	14.97	
2L-2	1.86	1.00	18.1	1347	266.30	15.15	
			25.8	1921	321.11	12.52	
3L-2	1.41	1.00	25.8	1457	286.43	11.05	
			34.1	1926	318.41	8.97	
4L-2	1.00	1.00	34.1	1366	266.52	7.32	
			48.1	1925	313.13	5.55	
5L-2	0.75	1.00	48.1	1444	272.54	4.65	
			73.3	2200	288.97	1.81	RATED RPM
			74.4	2231	240.55	1.00	
			75.0	2251	209.15	0.50	
			75.7	2271	178.50	0.00	LEVEL ROAD

STARTING / TOP GEAR PERFORMANCE

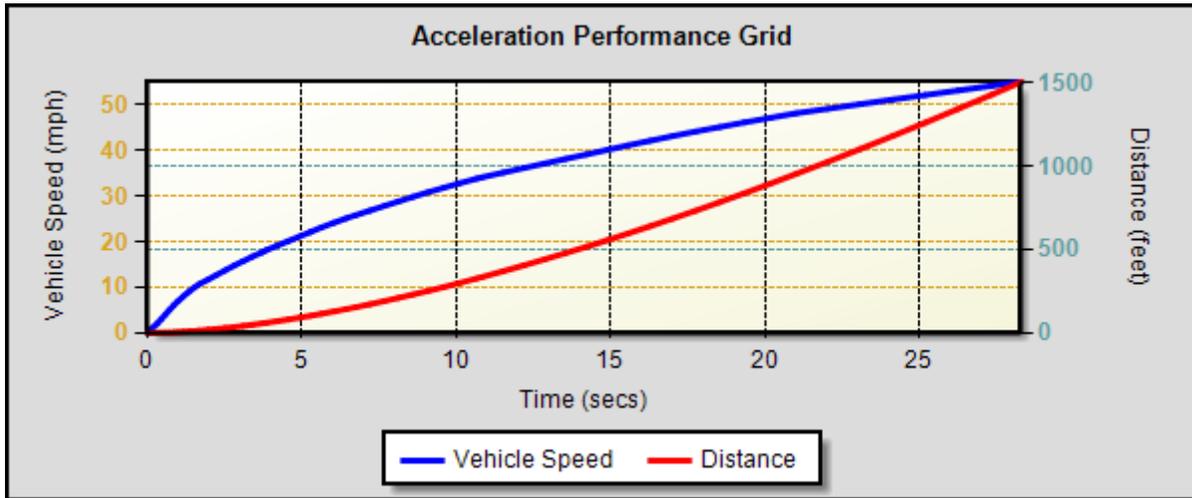
Gear	Trans Ratio	Multi Speed	Veh Spd (mph)	Eng Spd (rpm)	Whl Pwr (hp)	Grade (%)	Warn Notes Msg
1C-1	3.49	2.06	0.0		0.00	46.00	@ STALL
			4.5		176.71	46.00	@ 80% EFF
1C-2	3.49	1.00	0.0		0.00	46.00	@ STALL
			9.2		259.05	30.93	80% EFF - Calculated Start Ability - Calculated Start Ability
5L-1	0.75	2.06	38.2		41.14	0.00	LEVEL ROAD
			35.6		298.81	7.92	RATED RPM
5L-2	0.75	1.00	75.7		178.50	0.00	LEVEL ROAD
			73.3		288.97	1.81	RATED RPM

@ - WHEELSLIP CAN OCCUR AT THE GRADE SHOWN. THE VEHICLE IS CAPABLE OF INCREASED GRADEABILITY IF MORE WEIGHT IS PLACED ON THE DRIVE AXLES.

THE TRANSMISSION WAS SIMULATED IN PERFORMANCE OPERATING MODE.

ACCELERATION PERFORMANCE RESULTS

Acceleration Performance Grid



Acceleration Performance: TIME TO ACCELERATE ON A GRADE TO 55.0 (MPH) IS 28.32 (SECS)

Acceleration Performance Details

Gear	Time (secs)	Distance (feet)	Speed (mph)	Notes
1C	0.16	0.1	1.0	
	0.32	0.5	2.0	
	0.46	1.0	3.0	
	0.59	1.6	4.0	
	0.72	2.5	5.0	
	0.86	3.6	6.0	
	1.01	5.1	7.0	
	1.17	6.9	8.0	
	1.35	9.1	9.0	
	1.54	11.8	10.0	
2C	1.70	14.2	10.7	
	1.98	18.8	11.7	
	2.25	23.7	12.7	
	2.53	29.0	13.7	
	2.81	35.0	14.7	
	3.11	41.6	15.7	
	3.41	48.9	16.7	
	3.74	57.1	17.7	
2L	3.85	60.1	18.1	
	4.21	69.9	19.1	
	4.57	80.2	20.1	
	4.93	91.0	21.1	
	5.29	102.4	22.1	
	5.65	114.6	23.1	
	6.04	128.0	24.1	
	6.45	142.7	25.1	
3L	6.76	154.1	25.8	
	7.22	171.9	26.8	
	7.68	190.4	27.8	
	8.14	209.6	28.8	
	8.61	229.9	29.8	
	9.10	251.5	30.8	

Gear	Time (secs)	Distance (feet)	Speed (mph)	Notes
	9.61	274.8	31.8	
	10.13	299.8	32.8	
	10.68	326.6	33.8	
4L	10.86	335.7	34.1	
	11.53	369.6	35.1	
	12.20	404.6	36.1	
	12.87	440.7	37.1	
	13.55	478.0	38.1	
	14.23	516.4	39.1	
	14.91	556.0	40.1	
	15.59	596.7	41.1	
	16.29	639.4	42.1	
	17.01	684.6	43.1	
	17.76	732.6	44.1	
	18.54	783.4	45.1	
	19.34	837.2	46.1	
	20.18	894.2	47.1	
5L	21.01	952.6	48.1	
	22.05	1026.2	49.1	
	23.09	1102.0	50.1	
	24.14	1180.0	51.1	
	25.20	1260.1	52.1	
	26.26	1342.5	53.1	
	27.34	1427.3	54.1	
	28.32	1505.3	55.0	

REQUIRED TCAPE INFORMATION

TCAPE Factors For Vehicle

Selected Rear Axle Gear Ratio(s):	4.89
Parked PTO:	NO
Enroute PTO:	NO
Vehicle Vocation:	MODERATE ON/OFF HIGHWAY
ID Wheel Slip Conditions:	Yes
Road Governor/Cruise Ctrl:	No
Engine Fan Type:	VISCOUS
Road Surface Type:	TYPICAL
Fuel Economy Route:	Normal Route - City, Suburban, and Highway
Acceleration Grade (%):	0.0
Frontal Area (FT ²):	76
Speed Limit on Route (MPH):	61.0
Relative Drag Coefficient:	85
Alternator (A):	40
Transfer Case - Gear Ratio (Accel Perf):	1.000
Steering Gear (HP):	2.60
Air Conditioner (HP):	3.20
Transfer Case - Gear Ratio(Start Ability):	1.000
Vehicle Width (IN):	96
Vehicle Height (IN):	110
Weight on Drive Axle (LBF):	23000
Acceleration Vehicle Spd (MPH):	55.0
Ambient Temperature (F):	70.0
Air Compressor (HP):	2.20
Transfer Case - Gear Ratio (Fuel Economy):	1.000
Transfer Case - Gear Ratio (Grade Ability):	1.000
TIRE, FRONT	2 - RADIAL NORMAL
TIRE, REAR	4 - RADIAL NORMAL

Components

0001ANB	AXLE CONFIGURATION {Navistar} 4x4
0002GAB	AXLE, FRONT DRIVING {Meritor MX-12-120 EVO} Single Reduction, 12,000-lb Capacity, with Hub Piloted Wheel Mounting
0004SPA	AIR COMPRESSOR {Cummins} 18.7 CFM
0005PSL	STEERING GEAR {Sheppard M110} Power
0008GXX	ALTERNATOR {Leece-Neville BLP4006HN} Brushless, 12 Volt, 325 Amp Capacity, Pad Mount, with Remote Sense
0012ESP	ENGINE, DIESEL {Cummins L9 360} EPA 2021, 360HP @ 2200 RPM, 1150 lb-ft Torque @ 1200 RPM, 2200 RPM Governed Speed, 359 Peak HP (Max)
0012THT	FAN DRIVE {Horton Drivemaster} Two-Speed Type, Direct Drive, with Residual Torque Device for Disengaged Fan Speed
0013BCT	TRANSMISSION, AUTOMATIC {Allison 3000 EVS} 6th Generation Controls, Close Ratio, 5-Speed with Overdrive, with PTO Provision, Less Retarder, Includes Oil Level Sensor, Max, GVW N/A
0013TKA	TRANSFER CASE {Meritor MTC-4210} 2-Speed, 10,000 lb-ft Torque Rating, with PTO Provision, Electric Over Air Control, with Lube Pump
0014ARX	AXLE, REAR, SINGLE {Meritor RS-23-186} Single Reduction, 23,000-lb Capacity, 200 Wheel Ends
0016196	CAB Conventional 6-Man Crew Cab
0016BAM	AIR CONDITIONER with Integral Heater and Defroster
07372135444	TIRE, FRONT 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive
07372135444	TIRE, REAR 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive 11R22.5 Load Range G HDR2+ (CONTINENTAL), 491 rev/mile, 75 MPH, Drive

TCAPE HAS BEEN DESIGNED TO GIVE ECONOMY AND PERFORMANCE PREDICTIONS WHICH HAVE BEEN SHOWN TO BE TYPICAL FOR MOST OPERATIONS. HOWEVER, DUE TO OPERATING CONDITIONS, DRIVER INFLUENCES, AND OTHER FACTORS, YOUR RESULTS MAY VARY FROM THOSE PREDICTED. ALSO, BECAUSE OF FUEL MAPPING PROCEDURES USED

BY VARIOUS ENGINE MANUFACTURERS, COMPARISONS OF FUEL ECONOMY RESULTS FOR DIFFERENT BRANDS OF ENGINES MAY VARY FROM THOSE SHOWN.

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Error creating report. Turning Radius cannot be calculated. Database information used in the calculation process was not found for Inside Turn Angle.
Key information: Model - HV507, Front Axle - 0002GAB , Steering Gear - 0005PSL , Wheelbase - 199 , Front Tire - 07372135444 , Tire Size - 213R , Front Wheel - 0027DUW, Wheel Group -

GVWR Component Rating(s)

Ratings	Primary			Adjusted By			GAWR* (lbf)	GVWR** (lbf)
	ATA Class	Feature	Rating (lbf)	ATA Class	Feature	Rating (lbf)		
Front Component Ratings	BRAKES, FRONT	0004XDP	14700					
	SUSPENSION, FRONT, SPRING	0003ADC	12000					
	WHEELS, FRONT	0027DU W	16140	TIRE, FRONT	0737213	12350		
	AXLE, FRONT DRIVING	0002GAB	12000					
Front GAWR							12000	
Rear Component Ratings	BRAKES, REAR	0004XDR	23000					
	BRAKE SYSTEM, AIR	0004091	23000					
	SUSPENSION, REAR, SINGLE	0014VAH	23500					
	WHEELS, REAR	0028DU W	27980	TIRE, REAR	0737213	23360		
	AXLE, REAR, SINGLE	0014ARX	23000					
Rear GAWR							23000	
Overall Vehicle Limitations	TRANSMISSION, AUTOMATIC	0013BCT	80000					
GVWR Based on Axle Ratings***								35000
Calculated GVWR								35000

GCWR Component Rating(s)

Ratings	Primary			Adjusted By			GCWR**** (lbf)
	ATA Class	Feature	Rating (lbf)	ATA Class	Feature	Rating (lbf)	
GCWR Component Rating	TRANSMISSION, AUTOMATIC	0013BCT	80000				
	ENGINE, DIESEL	0012ESP	80000				
	AXLE, REAR, SINGLE	0014ARX	125000				
Calculated GCWR							80000

* GAWR (Gross Axle Weight Rating) is the rating capacity of an axle system which include wheels, tires, axles, brakes, springs, and suspensions.

** GVWR (Gross Vehicle Weight Rating) is the maximum amount that a loaded vehicle can weight.

*** GVWR Based on Axle Ratings = Front GAWR + Rear GAWR. Overall vehicle weight limitations are not taken into account.

**** GCWR (Gross Combined Weight Rating) is the maximum weight of a tractor and trailer.

(0012ESP)

ATTACHMENTS: 0012VXT 0012THT 0007WZX 0007SCP

<u>Parameter</u>	<u>Value</u>	<u>UOM</u>
Max Accelerator Vehicle Speed	68	MPH
Road Speed Governor Upper Droop	3	MPH
Road Speed Governor Lower Droop	0	MPH
Driver Initiated Override (DIO)	N, DISABLE FEATURE OR FUNCTION	N/A
DIO Maximum Road Speed Delta	3	MPH
DIO Maximum Distance	100	MILES
Max Engine Speed No Veh Speed Sensr	2185	RPM
LBSC Enable	N, DISABLE FEATURE OR FUNCTION	N/A
LBSC - Engine Speed Breakpoint	1800	RPM
Fuel Economy Adjustment Factor	4, MAXIMUM FUEL ECONOMY	N/A
Gear Down Protection Enable	N, DISABLE FEATURE OR FUNCTION	N/A
GDP - Heavy Load Vehicle Speed	62	MPH
GDP - Light Load Vehicle Speed	57	MPH
Driver Reward Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Driver Reward Mode	0, ROAD SPEED GOVERNOR	N/A
Fuel Economy - Expected Level	7.00	MPG
Fuel Economy - Good Level	7.25	MPG
Fuel Economy - Best Level	7.50	MPG
% Idle Time - Expected Level	30	%
% Idle Time - Good Level	20	%
% Idle Time - Best Level	10	%
Speed Reward - Expected Level	0	MPH
Speed Reward - Good Level	0	MPH
Speed Reward - Best Level	0	MPH
Speed Reward - Penalty Level	0	MPH
Idle Speed Adjustment Enable	Y, ENABLE FEATURE OR FUNCTION	N/A
Low Idle Speed	750	RPM
Idle Shutdown Enable	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Time Before Shutdown	15.0	MIN
ISD Percent Engine Loading	100	%
ISD In PTO	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Manual Override	N, DISABLE FEATURE OR FUNCTION	N/A
ISD With Parking Brake Set	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Ambient Temperature Override	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Cold Ambient Air Temperature	30	F
ISD Intermediate Ambient Air Temp	40	F
ISD Hot Ambient Air Temperature	81	F
ISD Manual Override Inhibit Zone En	N, DISABLE FEATURE OR FUNCTION	N/A
ISD Hot Ambient Automatic Override	Y	N/A
ISD Engine Coolant Temp Threshold	53	F
Cruise Control Enable	Y, ENABLE FEATURE OR FUNCTION	N/A
CC Maximum Vehicle Speed	73	MPH
CC Save Set Speed	N, DISABLE FEATURE OR FUNCTION	N/A
CC Upper Droop	3.0	MPH
CC Lower Droop	0.0	MPH
CC Auto Resume	N, DISABLE FEATURE OR FUNCTION	N/A
CC Ovrspd Retard Activation Enable	N, DISABLE FEATURE OR FUNCTION	N/A
CC Overspeed for Max Retarder	0.0	MPH
CC Overspeed for Min Retarder	0.0	MPH
CC Engine Brake Swtch Bypass Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Retarder - Min Vehicle Speed	10	MPH
Retarder - Delay Time	0.5	SEC
Retarder - Service Brake Activation	N, DISABLE FEATURE OR FUNCTION	N/A
Engine Fan Min On Time For AC	30	SEC
Remote Accelerator Enable	N, DISABLE FEATURE OR FUNCTION	N/A

Remote Accelerator Mode	1, REMOTE ACCELERATOR PEDAL OR LEVER WITH TRANS VERIFICATION	N/A
PTO Enable	Y, ENABLE FEATURE OR FUNCTION	N/A
PTO In Cab Mode	Y, ENABLE FEATURE OR FUNCTION	N/A
Remote PTO Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Remote Station PTO Enable	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Max Engine Speed	2200	RPM
PTO Min Engine Speed	750	RPM
PTO Maximum Engine Load	800	LB-FT
PTO Max Vehicle Speed	2	MPH
PTO Accelerator Override	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Accel Override Max Engine Speed	2400	RPM
PTO Clutch Override	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Service Brake Override	Y, ENABLE FEATURE OR FUNCTION	N/A
PTO Parking Brake Interlock Mode	1, PTO PRK BRK INT TYPE SET TO CAB ONLY	N/A
PTO Transmission Neutral Interlock	Y, ENABLE FEATURE OR FUNCTION	N/A
PTO Eng Spd Limit w/VSS Limit	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Ignore Vehicle Speed Sensor	N, DISABLE FEATURE OR FUNCTION	N/A
PTO Resume Switch Speed	925	RPM
PTO Set Switch Speed	850	RPM
PTO Additional Switch Speed	950	RPM
PTO Ramp Rate	250	RPM/SEC
Remote PTO Number of Speed Settings	1	N/A
Remote PTO Speed Setting 1	1000	RPM
Remote PTO Speed Setting 2	1200	RPM
Remote PTO Speed Setting 3	1400	RPM
Remote PTO Speed Setting 4	1400	RPM
Remote PTO Speed Setting 5	1500	RPM
Remote Station PTO Resume Sw Spd	1000	RPM
Remote Station PTO Set Switch Speed	1500	RPM
Remote Station PTO Addition Sw Spd	1500	RPM
Transmission Driven PTO	N, DISABLE FEATURE OR FUNCTION	N/A
Transmission Driven PTO Type	0, ENGINE DRIVEN STEADY LOAD	N/A
Powertrain Protection Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Max Torque Allow By Axle/Driveshaft	23602	LB-FT
Max Torque in Top Gear Range	2995	LB-FT
Max Torque in Int. Gear Range	2995	LB-FT
Max Torque in Low Gear Range	2995	LB-FT
Max Torque w/o Vehicle Speed	1475	LB-FT
Lowest Gear of Top Gear Range	2.00	N/A
Lowest Gear of Int. Gear Range	3.00	N/A
Lowest Gear of Low Gear Range	6.00	N/A
Engine Protection Shutdown	Y, ENABLE FEATURE OR FUNCTION	N/A
Engine Protection Restart Inhibit	Y, ENABLE FEATURE OR FUNCTION	N/A
Engine Prot Coolant Level Shutdown	N, DISABLE FEATURE OR FUNCTION	N/A
Sudden Veh Speed Decel Threshold	6.96	MPH
Trip Information Vehicle Ovrsped1	80	MPH
Trip Information Vehicle Ovrsped2	82	MPH
Veh Speed Sensor Anti Tamper Level	1, HIGH LEVEL	N/A
Maintenance Monitor Enable	N, DISABLE FEATURE OR FUNCTION	N/A
Maintenance Monitor Operating Mode	0, MAINTENANCE MONITOR AUTOMATIC MODE OF OPERATION	N/A
Maintenance Monitor Alert Percent	90	%
Maintenance Monitor Distance	15000	MILES
Maintenance Monitor Fuel	2000	GALLONS
Maintenance Monitor Time	500	HOURS
Maintenance Monitor Interval Factor	1.00	N/A
Master Password	000000	N/A
Adjustment Password	000000	N/A

Reset Password	000000	N/A
Predictive Gear Shifting	N, DISABLE FEATURE OR FUNCTION	N/A

These Electronic Parameters have been successfully finalized