



CHASSIS SPECIFICATIONS SUMMARY

December 09, 2016

2017 MACK GU432

SNOW PLOW On Hwy
STRAIGHT TRUCK WITHOUT TRAILER

Engine	CUMMINS ISL-D 345HP	Transmission	3000-RDS-6
		Clutch	OMIT CLUTCH
Front Axle	18,000# FXL18	Rear Axle	23,000# RS-23-160 Ratio 5.38
Suspension	18,000#	Suspension	23,000# MULTILEAF
Tires	Front: 315/80R22.5 Rear: 11R22.5	Wheels	22.5x9.0 STEEL DISC (10-HOLE) 22.5x8.25 STEEL DISC (10 HOLE)
Ratings	GVW: 41,000#	Fuel Tanks	LH: 66gal
Fifth Wheel		Sleeper	

PRICING SUMMARY

	<u>List Price</u>
CHASSIS BASE	\$161,702.00
Factory Options	\$15,899.00
Allison Pricing	\$7,410.00
Freight	\$2,100.00
Less Additional Factory Rebate	
Sales Allowances	
TOTAL FACTORY	\$187,111.00
Locally Installed Options	\$0.00
Soft Products/Bulldog Protection Plans	\$0.00
TOTAL FACTORY & LOCAL	\$187,111.00
Less Customer Discount from List	\$98,280.22
SELLING PRICE (Excluding Taxes/Fees/Trade)	\$88,830.78
Less Trade Allowances per New Vehicle	\$0.00
QUOTED PRICE OR TRADE DIFFERENCE	\$88,830.78
Surcharge	\$0.00
Net FRET or Canadian GST Taxes	\$0.00
Tire Tax Credit (Municipal Only)	(\$223.78)
Sales/Usage Taxes	\$0.00
License/Title/Etc.	
Misc Fees not subject to FRET	
ACQUISITION COST (Include Trade if applies)	\$88,607.00
Less Down Payment	
BALANCE DUE Per Unit	\$88,607.00
PRICE (Total Order)	\$88,607.00
BALANCE DUE (Total Order)	\$88,607.00

Total Quantity: 1

Estimated Total Weight: 13,408#

Reference#: AFAD053617A

X _____
Prepared For: Customer Signature Date
PO# 4135 - MN DOT
2195 WEST COUNTY RD C2
ROSEVILLE, MN 55113
Phone: 651-633-4810
Fax: --

X _____
Presented By: Dealer Signature Date
BOB PROW
Nuss Truck And Equipment
2195 West County Road C-2
Roseville, MN 55113
651-636-0250



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Description		List Price
ORDER/CUSTOMER/VEHICLE INFORMATION		
INITIAL REGISTRATION LOCATION, UNITED STATES, MINNESOTA	Opt	
LANGUAGE, ENGLISH	Std	
IDLE EMISSION CERTIFICATION, IDLE EMISSION CERTIFICATION - CARB 08	Std	
TYPE OF SERVICE, MUNICIPAL	Opt	
VEHICLE APPLICATION CLASS, NORMAL HIGHWAY - Unlimited operation on concrete or asphalt with a maximum 3% grade; limited operation on maintained gravel/packed dirt with a maximum 3% grade; and limited operation on concrete or asphalt with a maximum 8% grade. No operation on unmaintained surfaces. (2 AXLES) 50,000 lbs (22,680 kg) MAX GVW. (3 AXLES) 63,000 lbs (28,576 kg) MAX GVW.	Opt	
CARRIER APPLICATION, NOT AVAILABLE	Inc	
VEHICLE TYPE, STRAIGHT TRUCK WITHOUT TRAILER	Std	
VEHICLE USE AND BODY/TRAILER TYPE, SNOW PLOW. On Hwy		
COMMODITIES, SAND		
BRAKE - STOPPING DISTANCE, BRAKE REGULATION, STOPPING DISTANCE 94M (310FT)	Std	
FILE STATUS, SOLD ORDER		
PRICE BOOK LEVEL, 2017A PRICE BOOK LEVEL	Std	
PRODUCT CLASS, PRODUCT CLASS 28	Opt	
OPERATING CONDITIONS		
TOPOGRAPHY, GRADES <3% GREATER THAN 98% OF DRIVING DISTANCE MAX GRADE 8%	Opt	
TRANSPORTATION CYCLE, VOCATIONAL	Std	
ROAD CONDITION, WELL MAINTAINED SURFACED ROADS >95% DRIVING DISTANCE	Opt	
AMBIENT TEMPERATURE UPPER LIMIT, AMBIENT TEMPERATURE HOT. WARMER THAN 104 F (40 C) ALLOWED UP TO 25 HOURS PER YEAR	Opt	
BVS/FRT AXLE POS/SALES PACKAGES		
CHASSIS (BASE MODEL), GU402 4-WHEEL TRUCK	Std	\$161,702.00
CHASSIS PACKAGING SOLUTIONS, PACKAGE 2A INCLUDES: Cummins Switchback DPF, RH Battery Box, Air Under B Box - remaining on Frame Rails REQUIRES: Sleeved LH Fuel Tank 66 or 88 gallons.	Std	
ENGINE/TRANSMISSION/CLUTCH		
ENGINE, CUMMINS ISL-D 345 HP @1600-1900 RPM (PEAK) 1150 LB. FT. MAX. TORQUE @ 1400 RPM	Std	
TRANSMISSION, 6 SPEED AUTOMATIC, ALLISON 3000-RDS-6 (3.49/0.65) RUGGED DUTY SERIES GEN 5 W/PROGNOSTICS, W/PTO PROVISION INCLUDES TRANSMISSION COOLER, EXTERNAL OIL COOLER, INTERNAL FILTER, AND OIL LEVEL SENSOR		\$7,410.00
CLUTCH, OMIT CLUTCH	Inc	
EXHAUST/EMISSIONS		
DPF, DPF, HORIZ RH SIDE UNDER CAB & BEHIND STEP CUMMINS SWITCHBACK	Std	

Description		List Price
EXHAUST AFTER-TREATMENT SYSTEM, EXHAUST AFTER-TREATMENT SYSTEM SELECTIVE CATALYST REDUCTION PLUS DPF VERSION 3	Std	
EXHAUST, SINGLE (R/S) VERT EXHAUST CAB MOUNTED, LOWER VENTURI DIFFUSER, TURNED END	Std	
SINGLE, BRIGHT FINISH HEAT SHIELD, STACK AND SCR COVER	Opt	\$128.00
FURNISH STEEL PAINTED HEAT SHIELD FOR FRAME MTD DPF (CUMMINS)	Std	
ENGINE EQUIPMENT		
AIR COMPRESSOR, MERITOR/WABCO 318 18.7 CFM	Std	
AIR CLEANER, 11" x 30" (279 mm x 762 mm) UNDER HOOD SINGLE ELEMENT DRY TYPE W/AIR INTAKE FROM BOTH SIDES OF HOOD	Std	
INSIDE/OUTSIDE AIR INTAKE W/IN-CAB CONTROL FOR SNOWPLOWS	Opt	\$547.00
ALTERNATOR, DELCO 12V 145A (24SI) BRUSH-TYPE	Opt	\$35.00
BATTERIES, (3) MACK 12V 650/1950 CCA THREADED STUD TYPE TERMINALS	Opt	\$39.00
BUG SCREEN, RADIATOR MOUNTED	Std	
TEXACO EXTENDED LIFE COOLANT W/NITRITES (50/50 MIX) TO -34 DEG COOLING PERFORMANCE, 1240 SQUARE INCH RADIATOR	Std	
ENGINE BRAKE, W/O ENGINE BRAKE	Opt	\$264.00
ENGINE BLOCK HEATER, 120V 1000 WATT ENGINE BLOCK HEATER	Std	
FAN DRIVE, KYSOR FAN, ON/OFF	Opt	\$128.00
FUEL-WATER SEPARATOR, DAVCO 382, NON-HEATED W/VENDOR PRIM & MACK SEC FUEL FILTER	Std	
HOSES - RADIATOR/HEATER, MACK BRAND EPDM RADIATOR & HEATER HOSES	Std	
OIL PAN HEATER, W/O OIL PAN HEATER	Std	
ELECTRIC PREHEATER	Std	
STARTER, 12 VOLT DELCO MTHD 39	Std	
TETHER DEVICE, W/O TETHER DEVICE	Std	
TRANSMISSION EQUIPMENT/DRIVELINES		
CLUTCH ASSIST (AIR), Information is not required	Opt	(\$325.00)
CLUTCH PEDAL, W/O CLUTCH PEDAL	Inc	
TRANSMISSION BELL HOUSING, ALUMINUM	Std	
W/O TRANSMISSION DUSTPROOFING	Std	
FURNISH FOR ALLISON TRANSMISSION W/DIRECT MOUNT COOLER & STAINLESS STEEL COOLANT TUBES	Opt	\$250.00
SYNTHETIC LUBRICANT - TRANSMISSION, TRANSYND SYNTHETIC LUBE FOR ALLISON TRANS	Opt	\$592.00
VOCATIONAL PACKAGE - ALLISON, ALLISON GEN 5 PACKAGE #223, ON/OFF HWY, SHIFT TO NEUTRAL W/PARKING BRAKE ENGAGED	Opt	
WITHOUT DRIVESHAFT GUARD FOR CENTER BEARING	Std	
DRIVELINE - MAIN, MERITOR 176 MXL "XTENDED LUBE"	Opt	\$35.00
CAB (A thru G)		
MACK (BERGSTROM) INTEGRAL W/HEATER COMBINATION HEATER/DEFROSTER AND AIR CONDITIONER	Std	
AIR RESTRICTION MONITOR (INTAKE), AIR RESTRICTION MONITOR (DISPLAYED IN CO-PILOT)	Std	

Description		List Price
DASH CONTROL/POWER SUPPLY/LOCAL INSTALLATION PLOW LAMPS W/LEAD FURNISH AT GRILLE W/2W/3W WEATHER PACK CONNECTION	Opt	\$130.00
CAB CONFIGURATIONS, LH-DRIVE CA68 CONV CAB	Std	
WITHOUT CAB CLEANOUT	Std	
CAB MOUNTING, AIR SUSPENSION	Std	
CERTIFIED WEIGHT	Opt	
DASH MOUNTED SWITCHES, EIGHT DASH MOUNTD SWITCHES FOR LOCAL INSTALLATION OF PLOW EQUIPMENT	USR	\$466.00
WITHOUT DAYTIME RUNNING LIGHTS	Opt	
(4) DOME LAMPS - DOOR AND SWITCH ACTIVATED	Std	
DOOR INTERIOR TRIM PANELS, PADDED VINYL/FABRIC W/ARM REST AND LIGHTED POCKET	Inc	
FENDER EXTENSIONS, FENDER EXTENSIONS	Opt	\$206.00
5LB (ABC RATED/AMEREX) MOUNTED BETWEEN LH SEAT BASE AND DOOR WITH VALVE AIMED REARWARD	Opt	\$130.00
FLOOR COVERING, POLYURETHANE FLOOR MAT	Std	
GAUGE CLUSTER, TRANSMISSION OIL TEMP, EXHAUST PYROMETER, AIR MANIFOLD, AIR APPLICATION PRESSURE	Opt	\$74.00
GAUGES, ENGLISH/METRIC DISPLAY	Std	
WITHOUT REAR AXLE OIL TEMPERATURE GAUGE	Std	
W/O INSIDE/OUTSIDE TEMP GAUGE OPTION	Std	
GEAR SHIFT, DASH MOUNTED SHIFTER	Inc	
GLASS - CAB WINDOW, HEATED TINTED WINDSHIELD ONLY, TINTED SIDE AND REAR WINDOW	Opt	\$667.00
BRIGHT FINISH EXTERIOR CAB GRAB HANDLES, BLACK FINISH GRAB HANDLE RH INTERIOR WINDSHIELD POST	Std	
GRILLE - HOOD AIR INTAKE, GRILLE PAINTED GRAY	Std	
GRILLE, BLACK FINISH BARS W/PLATINUM (NICKEL BRUSHED) SURROUND RADIATOR MOUNTED	Opt	\$586.00
CAB (H thru R)		
HEADLINER, VINYL COVERED FOAM PADDED HEADLINER	Std	
HOOD AND FENDERS, COMPOSITE MATERIAL	Std	
PAINTED HOOD LATCHES	Std	
HORN - AIR, (1) MACK RECTANGULAR SINGLE TRUMPET	Opt	\$25.00
HORN - ELECTRIC, SINGLE TONE	Std	
IDENTIFICATION/CLEARANCE LIGHTS, (5) GROTE LED LAMPS	Opt	\$148.00
IN-DASH STORAGE, W/O UPPER STORAGE OPTION	Opt	
INSTRUMENT CLUSTER DISPLAY, CO-PILOT DRIVER DISPLAY, ENHANCED 4.5" DIAGONAL LCD DISPLAY W/4-BUTTON STALK CONTROL W/O DIAG DISPLAY	Std	
INSTRUMENT PANEL, BRUSHED NICKEL	Opt	
INTERIOR TRIM (PEDIGREE - SLATE GRAY) Vinyl headliner, cloth/vinyl seat trim, 2 netted storage compartments and center CB radio mounting provisions in overhead console, rear panel with storage pouch, signature polyurethane floor mat, brushed nickel instrument panel with chrome gauge bezels, diamond pattern fabric on doors, padded interior sun visors both sides, 2 spoke urethane	Opt	\$575.00

Description		List Price
grip brushed nickel spokes, brushed nickle Mack horn cap, adjustable tilt/telescoping steering column, hand crank lh/rh windows, 2 general overhead lights, 1 driver overhead light & 1 map non-glare overhead light, 2 12V power sources, 2 cup holders, 2 trash bag hooks, 2 coat hangers, rh storage compartment, seat belt retractors, rh door peep window, lighted door mounted map pocket lights.		
CHASSIS KEYED AT RANDOM - 2 KEYS	Std	
MIRRORS - EXTERIOR, WEST COAST, RH & LH BRIGHT FINISH MACK BULLDOG HEATED	Opt	\$205.00
MIRRORS - CONVEX TYPE HOOD/FENDER, ROUND BRIGHT FINISH FENDER MTD W/SS ARMS AND BRACKETS R.H. & L.H.	Opt	\$261.00
MIRRORS - CONVEX TYPE, BRIGHT FINISH, LH & RH, 8" DIA. CONVEX	Std	
OVERHEAD CONSOLE, (2) STORAGE COMPARTMENTS AND NET RETAINERS W/CENTER MOUNTING FOR CB PROVISIONS	Std	
AM/FM PREMIUM STEREO, CD-PLAYER, MP3, WEATHERBAND, HANDSFREE INTERFACE, BLUETOOTH	Opt	\$373.00
RADIO ANTENNA, CAB MOUNTED BEHIND LH DOOR	Std	
POWER LEADS (5-WAY BINDING POSTS FOR CB RADIO) IN HEADER CONSOLE	Std	
CB RADIO MOUNTING REINFORCEMENT IN HEADER CONSOLE	Std	
REAR WINDOW (FIXED TYPE)	Std	
REFLECTOR KIT, EMERGENCY TRIANGLE KIT PARALLEL TO INSIDE SURFACE OF RIDERS SEAT BASE	Opt	\$44.00
CAB (S thru Z)		
SEAT - DRIVER, AIR-NATIONAL 2000 (HI-BACK) SINGLE CHAMBER AIR LUMBAR, 2 POSITION FRONT CUSHION ADJ.	Opt	\$204.00
SEAT - RIDER, MACK FIXED (MID-BACK) NON-SUSPENSION	Opt	\$102.00
SEAT ARM RESTS, INBOARD MOUNTED ARM REST, DRIVER'S SEAT ONLY	Inc	
SEAT COVERING, CLOTH W/VINYL TRIM DRIVER AND RIDER	Opt	
SEAT BELTS/RETRACTORS, LAP AND SHOULDER W/CAB MOUNTED SHOULDER BELT W/ADJUSTABLE D-RING FOR DRIVER & RIDER SEATS	Opt	\$156.00
W/O ROOF VENT VENTILATION	Std	
STARTER SWITCH, KEY TYPE	Std	
STEERING COLUMN, ADJUSTABLE TILT TELESCOPE	Std	
STEERING WHEEL, TWO SPOKE URETHANE GRIP BRUSHED NICKEL SPOKES	Inc	
STORAGE POUCH REAR	Std	
SUN VISOR - INTERIOR, BOTH SIDES (PADDED VINYL)	Opt	
TURN SIGNAL SWITCH, SELF CANCELLING TURN SIGNALS	Std	
WINDOW CONTROLS, POWER WINDOW LIFT WITH ELECTRIC DOOR LOCK, LH & RH	Opt	\$639.00
WINDSHIELD, 2-PIECE WINDSHIELD	Std	
WINDSHIELD WASHER RESERVOIR, WINDSHIELD WASHER RESERVOIR INSTALLED BOC	Std	
WINDSHIELD WIPERS, TWO SPEED ELECTRIC MOTOR W/INTERMITTENT FEATURE & ARCTIC WIPER BLADES	Opt	\$36.00

Description		List Price
FRAME EQUIPMENT/FUEL TANKS		
BUMPER - FRONT, EXT.-SWEEP BACK-STEEL CHANNEL 122.5"/3112 mm BBC	Std	
CROSSMEMBERS, BOC AND INTERMEDIATE(S) STEEL HD BACK-TO-BACK CHANNEL	Std	
CROSSMEMBER (BEHIND REAR AXLE), W/O OPTIONAL CROSSMEMBERS BEHIND REAR AXLE/BOGIE	Std	
FRONT FRAME EXTENSION, 20" FOR SNOW PLOW MOUNT (CONT' PARENT RAIL) W/TILT W/O INSPECTION HATCHES-W/SWEEP-BACK BUMPER	Opt	\$1,736.00
TOWING DEVICE - FRONT, HOOKS	Std	
FUEL TANK - LH, 66 GALLON (250 L) ALUMINUM, SLEEVED D-SHAPED	Opt	\$114.00
FUEL TANK - RH, OMIT RH STANDARD	Std	
STANDARD FINISH STEPS AND BRIGHT FINISH STRAPS - FUEL TANK	Opt	\$62.00
6.6 GALLON (25 L) 22" DIAMETER TANK LEFT SIDE FRAME MTD	Inc	
WITHOUT DEF TANK COVER	Inc	
FURNISH STANDARD FUEL TANK CAP	Std	
FRONT AXLE/EQUIPMENT/TIRES		
FRONT AXLE, 18000# (8165kg) MACK FXL18 (WIDE PIVOT CENTER)	Opt	\$2,586.00
STRAIGHT SPINDLE/UNITIZED BEARINGS		
TIRES BRAND/TYPE - FRONT, BRIDGESTONE - TUBELESS RADIAL PLY, (2) 315/80R22.5 20 L M860A (ALL POS)	Opt	\$82.00
WHEELS - FRONT, STEEL DISC (10-HOLE)	Opt	
(2) 22.5x9.0 ACCURIDE 10-HOLE HUB PILOTED (11 1/4"/286mm BC)	Opt	(\$44.00)
WHEELS - POLISHED (FRONT), W/O FRONT DISC WHEEL BRIGHT FINISH	Opt	
BRAKES - FRONT, MERITOR "S" CAM TYPE 16.5" x 6" Q+	Opt	\$257.00
BRAKE DRUMS - FRONT, CAST OUTBOARD MOUNTED	Inc	
DUST SHIELDS - FRONT BRAKE, FURNISH	Opt	\$35.00
HUBS - FRONT, FERROUS	Std	
FAG SCHAEFFLER, FRONT GREASE SEAL	Std	
SHOCK ABSORBERS, FRONT	Std	
SLACK ADJUSTERS - FRONT, MERITOR - AUTOMATIC	Opt	
SPRINGS - FRONT, MACK TAPERLEAF 18000# (8165kg) GROUND LOAD RATING	Inc	(\$61.00)
STEERING, SHEPPARD SD110	Opt	\$821.00
REAR AXLE/EQUIPMENT/TIRES/RATIOS		
REAR AXLE, 23000# (10433kg) MERITOR RS-23-160 SINGLE REDUCTION	Opt	\$338.00
TIRES BRAND/TYPE - REAR, BRIDGESTONE - TUBELESS RADIAL PLY, (4) 11R22.5 14 G M726EL (TRACTION)	Opt	(\$8.00)
CARRIER/RATIO - REAR AXLE, MALLEABLE HOUSING, 5.38 RATIO	Opt	
WHEELS - REAR, STEEL DISC (10 HOLE)	Opt	
(4) 22.5x8.25 (210 mm) HAYES LEMMERZ 10-HOLE HUB PILOTED (11 1/4"/286 mm BC)(TWO HAND HOLE)	Opt	(\$236.00)
WHEELS - POLISHED (REAR), W/O REAR DISC WHEEL BRIGHT FINISH	Opt	
BRAKES - REAR, MERITOR "S" CAM 16.5"x7" Q+	Opt	\$114.00
BRAKE DRUMS - REAR, CAST OUTBOARD MOUNTED	Std	
DUST SHIELDS - REAR BRAKE, FURNISH	Opt	\$35.00
HUBS - REAR, CONMET IRON PRESET REAR HUB W/INTEGRATED SPINDLE	Std	

Description		List Price
NUT		
PREMIUM HUB OIL REAR SEAL	Std	
SLACK ADJUSTERS - REAR, MERITOR - AUTOMATIC	Opt	
SUSPENSION - REAR, 23,000 K SUSPENSION WITH HELPER SPRINGS	USR	\$253.00
SUSPENSION - HEIGHT CONTROL KIT, W/O AIR SUSPENSION HEIGHT CONTROL	Std	
AIR SUSPENSION DUMP WARNING, WITHOUT AIR SUSPENSION DUMP WARNING	Std	
SPRING BRAKE CHAMBERS - QUANTITY, (2) DOUBLE DIAPHRAGM TYPE, MECHANICAL SPRING RELEASE	Std	
SPRING BRAKE CHAMBERS - VENDOR, HALDEX "LIFE SEAL" TYPE	Opt	(\$52.00)
REAR SPRING BRAKE CHAMBERS 30/30 TYPE	Std	
SYNTHETIC LUBRICANT - REAR AXLE, 75W - 90 (SYNTHETIC LUBRICANT)	Opt	\$109.00
LOCKING MAIN DIFFERENTIAL, DRIVER CONTROLLED	Opt	\$953.00
W/O PROTECTIVE NYLON SPACER BETWEEN DISCS WHEEL TO DRUM	Std	
STANDARD WHEEL STUD OPTION	Std	
FRAME/WHEELBASE/PLATFORM		
WHEELBASE, 187" (4749 mm) WB 99" CA (2514 mm)	Std	
PLATFORM, 162" LP (4114 mm) 62" AF (1580 mm) USED WITH 187" WB	Opt	
FRAME RAILS, 11.811" x 3.54" x .44" (300 x 90 x 11.1mm) STEEL Section Modulus: 23.5 cu in/RBM 2,820,000 in lbs per rail	Opt	\$1,153.00
FRAME REINFORCEMENT - INSIDE, W/O 5MM INSIDE CHANNEL REINFORCEMENT	Std	
RUST PREVENTION, W/O RUST PREVENTION	Std	
AIR/BRAKE		
AIR DRYER, MERITOR/WABCO HEATED AIR DRYER, 1200 W/COALESCING OIL FILTER	Std	
W/O RELOCATED AIR TANKS	Std	
AIR RESERVOIRS, STEEL	Std	
ANTI-LOCK BRAKE SYSTEM, BENDIX WITHOUT TRACTION CONTROL	Std	
AIR CONTROL VALVES - VENDOR, BENDIX SWITCHES AND VALVES WHERE POSSIBLE	Inc	
BRAKE CONTROL VALVE SYSTEM, SINGLE VALVE SYSTEM	Std	
DRAIN VALVES, MANUAL (PETCOCK) DRAIN VALVES ON ALL TANKS	Std	
W/O HAND CONTROL VALVE	Std	
INCREASED AIR CAPACITY, W/O INCREASED AIR RESERVOIR CAPACITY	Std	
W/O TRAILER ACCESS PACKAGE	Std	
TRAILER CONNECTIONS		
TRAILER AIR CONNECTIONS, OMIT TRAILER AIR BRAKE CONNECTIONS	Std	
TRAILER ELECTRICAL RECEPTACLE, SINGLE 7 PINS STD SAE TYPE, END OF FRAME	Opt	\$234.00
OMIT TRAILER CONNECTORS HOLDER	Std	
ELECTRICAL		
BACK-UP ALARM, ECCO BACK-UP ALARM 575 CONSTANT SOUND LEVEL 107 db	Opt	\$146.00
BATTERY BOX COVERS, MOLDED PLASTIC	Std	

Description		List Price
BATTERY BOX - MOUNTING, RIGHT HAND UNDER CAB	Std	
W/O OPTIONAL DASH MTD. LIGHT	Std	
CHASSIS & POWER HARNESS WITH STANDARD CASING	Std	
"BODY LINK" III W/O CAB PASS-THRU	Opt	
W/O EMERGENCY STARTING RECEPT.	Std	
REAR LIGHTING, FURNISH REAR LIGHTING	Std	
PAINT		
PAINT - CAB EXTERIOR, SINGLE COLOR, OMAHA ORANGE [PPG: P9215]		
ADDITIONAL CHARGE FOR VEHICLES W/ONE OR MORE CAB COLORS NOT SELECTED FROM THE MACK TRUCK COLOR SPECIFICATION GUIDE	Inc	\$70.00
PAINT - CAB, URETHANE CLEAR COAT	Opt	\$280.00
PAINT - CHASSIS RUNNING GEAR, MACK BLACK (URETHANE)	Std	
PAINT - BUMPER, SAME AS CHASSIS RUNNING GEAR	Inc	
PAINT - FRONT SPOKE WHEELS, WITHOUT OPTIONAL SPOKE WHEEL PAINT	Std	
WITHOUT OPTIONAL SPOKE WHEEL PAINT	Std	
PRE-FINISHED POWDER COAT WHITE	Opt	
PRE-FINISHED POWDER COAT WHITE	Opt	
PAINT PROCESS CODES		
SAME COLOR AS CHASSIS RUNNING GEAR (5ZB-A1X)	Inc	
CHASSIS RUNNING GEAR - STD COLOR (MACK BLACK) (6AB-Z1X)	Inc	
W/O PAINT FOR FUEL TANK (7HB-Z1X)	Inc	
W/O CUSTOM PAINT FOR HUB&DRUM/SPOKES (5YB-Z1X)	Inc	
W/O CUSTOM PAINTED FRONT/REAR RIM/WHEEL (6BB-Z1X)	Inc	
PTO/SPECIALTY/ADDITIONAL EQUIPMENT		
PTO - CRANKSHAFT ADAPTER, 1350 SERIES FLANGE (DOES NOT INCLUDE FRONT FRAME EXTENSION)	Opt	\$202.00
PTO - REAR ENGINE (REPTO), WITHOUT REAR ENGINE POWER TAKE OFF	Std	
FURNISH TC421 FOR USE W/ALLISON 3000 SERIES TRANSMISSION	Inc	
W/O SPECIAL DECALS	Std	
CUSTOMER VEHICLE LIMITING SPEED (MPH) 70 mph		
PEDAL ROAD SPEED LIMITER (MPH) 70 mph		
LGVLS FEATURE ACTIVATION	Omit	
LOWER GEAR VEHICLE LIMITING SPEED (MPH) 00 mph		
SOFT RSL	Omit	
PDLO ENGAGED VEHICLE LIMITING SPEED 00 rpm		
CRUISE CONTROL SETTINGS WITH ALLISON TRANS	Opt	
CRUISE CONTROL MAX SET SPEED (MPH) 70 mph		
CRUISE CONTROL MIN SET SPEED (MPH) 20 mph		
CRUISE CONTROL AUTORESUME W/CLUTCH	Omit	
CRUISE'N BRAKE ENGAGEMENT DELAY (MPH) 0 mph		
SMOOTH CRUISE	Omit	
ENGINE OVERSPEED COMPANY LIMIT (RPM) 2200 rpm		
FUELED ENGINE OVERSPEED COMPANY LIMIT (RPM) 2100 rpm		
VEHICLE OVERSPEED COMPANY LIMIT (MPH) 75 mph		
FUELED VEHICLE OVERSPEED COMPANY LIMIT (MPH) 70 mph		

Description	List Price
IDLE LOGGING DELAY (MIN) 2	
Monthly Trip Summary	
PERIODIC TRIP HOUR OF DAY 0 (disable)	
PERIODIC TRIP DAY OF WEEK 0 (disable)	
PERIODIC TRIP DAY OF MONTH 1	
DAYTIME RUNNING LIGHTS W/O OVERRIDE SWITCH	Std
DRL OVERRIDE SWITCH SPEED THRESHOLD (MPH) 00	
DRL OVERRIDE SWITCH OFF TIME (MIN) 00 mph	
CO-PILOT FLEET TRIP PROGRAMMING ACCESS Fleet Level	
FLEET MANAGEMENT VIA CO-PILOT Omit	
EHT MAX ENGINE SET SPEED (RPM)	
2100 rpm	
EHT MIN ENGINE SET SPEED (RPM) 700 rpm	
EHT VEHICLE SPEED RANGE LIMIT (MPH) 10 mph	
EHT RAMP RATE (RPM/Sec)	
EHT SINGLE SPEED CONTROL ACTIVATION Omit	
EHT SINGLE SPEED CONTROL SET SPEED (RPM) 0000 rpm	
EHT JUMP-TO-MIN SET SPEED Omit	
EHT HOLD TO NEAREST RPM 00 rpm	
EHT ACCEL-DECEL BUMP-UP RPM 00 rpm	
EHT ACCEL-DECEL BUMP-DOWN RPM 00 rpm	
ENGINE PROTECTION - OIL PRESSURE SHUTDOWN Furnish	
ENGINE PROTECTION - COOLANT LEVEL SHUTDOWN Omit	
ENGINE PROTECTION - COOLANT TEMP SHUTDOWN Furnish	
ENGINE PROTECTION - ENGINE OIL TEMP SHUTDOWN Furnish	
ENGINE PROTECTION TRANS OIL TEMP SHUTDOWN Furnish	
FUEL ECONOMY INCENTIVE FOR USE WITH INSTRUMENT CLUSTER	Std
DISPLAY (C0J 0002)	
FEI PENALTY TARGET FUEL ECONOMY No Driver Incentive	
FEI PENALTY TARGET FUEL ECONOMY (MPG) 0.0	
FEI PENALTY VEHICLE SPEED DECREASE (MPH) 0 mph	
FEI REWARD TARGET FUEL ECONOMY (MPG) 0.0	
FEI REWARD VEHICLE SPEED INCREASE (MPH) 0 mph	
FEI DISTANCE CALCULATION INTERVAL (Miles) 00	
GOVERNOR SETTINGS FOR USE WITH AUTOMATIC TRANSMISSIONS	Inc
GOVERNOR TYPE Min-Max Governor	
ENGINE HIGH IDLE SPEED IF STOPPED 0000	
VEHICLE ACCELERATION LIMITING FEATURE Disable	
REDUCED ENGINE RPM RANGE IN UPPER GEARS FEATURE Disable	
ENGINE RPM LIMIT IN UPPER GEARS 0000	
1st TRANS RATIO FOR REDUCED HIGH IDLE 0000	
LAST TRANS RATIO FOR FULL HIGH IDLE 0000	
ENGINE LOW IDLE SET SPEED (RPM) 700 rpm	
DRIVER LOW IDLE ADJUST FEATURE ACTIVATION Omit	
SMART IDLE FEATURE ACTIVATION Furnish	
SMART IDLE ELEVATED IDLE RPM TIME (MINS) 10	

Description	List Price
IDLE S/D ABS TAMPER CHECK	Omit
IDLE COOLDOWN FEATURE ACTIVATION	Omit
IDLE SHUTDOWN FEATURE ACTIVATION	Omit
IDLE SHUTDOWN TIME (MINS)	60
IDLE SHUTDOWN WARNING TIME (SECS)	30
IDLE SHUTDOWN WARM-UP TEMPERATURE (DEG F)	100
IDLE SHUTDOWN WARM-UP TIMER (MINS)	5
IDLE S/D OVERRIDE W/PTO	Omit
IDLE S/D OVERRIDE W/EHT	Omit
IDLE S/D OVERRIDE W/PTO	Omit
IDLE S/D OVERRIDE W/ENGINE LOAD	Furnish
IDLE S/D OVERRIDE % ENGINE LOAD THRESHOLD	00
IDLE S/D CONTROL W/O Idle Shutdown	
IDLE S/D OVERRIDE LOWER TEMP. THRESHOLD (DEG F)	00
IDLE S/D OVERRIDE UPPER TEMP. THRESHOLD (DEG F)	00
MAINTENANCE MONITOR FEATURE ACTIVATION	Furnish
PTO 1 MAX ENGINE SET SPEED (RPM)	0000 rpm
PTO 1 MIN ENGINE SET SPEED (RPM)	700 rpm
PTO 1 VEHICLE SPEED RANGE LIMIT (MPH)	10 mph
PTO 1 RAMP RATE (RPM/Sec)	250
PTO 1 SINGLE SPEED CONTROL ACTIVATION	Omit
PTO 1 SINGLE SPEED CONTROL SET SPEED (RPM)	0000 rpm
PTO 1 SINGLE SPEED CONTROL AUTOSET	Omit
PTO 1 JUMP-TO-MIN SET SPEED	Omit
PTO 1 VEHICLE LIMITING SPEED (MPH)	60 mph
PTO 1 HOLD TO NEAREST RPM	00 rpm
PTO 1 ACCEL-DECEL BUMP-UP RPM	00 rpm
PTO 1 ACCEL-DECEL BUMP-DOWN RPM	00 rpm
PTO 2 MAX ENGINE SET SPEED (RPM)	2100 rpm
PTO 2 MIN ENGINE SET SPEED (RPM)	0 rpm
PTO 2 VEHICLE SPEED RANGE LIMIT (MPH)	10 mph
PTO 2 RAMP RATE (RPM/Sec)	100
PTO 2 SINGLE SPEED CONTROL ACTIVATION	Omit
PTO 2 SINGLE SPEED CONTROL SET SPEED (RPM)	0000 rpm
PTO 2 SINGLE SPEED CONTROL AUTOSET	Omit
PTO 2 JUMP-TO-MIN SET SPEED	Omit
PTO 2 VEHICLE LIMITING SPEED (MPH)	60 mph
PTO 2 HOLD TO NEAREST RPM	00 rpm
PTO 2 ACCEL-DECEL BUMP-UP RPM	00 rpm
PTO 2 ACCEL-DECEL BUMP-DOWN RPM	00 rpm
SPEED SENSOR TAMPER DETECTION SYSTEM ACTIVATION	Furnish
SPEED SENSOR TAMPER DETECTION TORQUE LIMIT (%)	50
DEALER INFORMATION	
ENGINE WARRANTY, 2YR/250,000 MILES ENGINE WARRANTY	US10
PILOT INSPECTION, WITHOUT PILOT INSPECTION	
DEALER PREP	

Std
Opt

Description	List Price
NUSS TRUCK & EQUIPMENT, 2195 W COUNTY ROAD C2, ROSEVILLE MN MARKETING PROMOTION, NO FMV LEASE, TRADE BACK RESIDUAL OR TRADE IN WITH MACK PARTICIPATION	Opt
PERFORMANCE/GRAPHICS/TECH DATA	
AMBIENT TEMPERATURE, 77F (25.0C)	Std
BACK OF CAB INTERFERENCES, 5.0" (127mm) FROM BACK OF CAB	Std
OVERWIDTH STATEMENT, OVERALL WIDTH EXCEEDS 96"	Inc
SOFT PRODUCTS/BULLDOG PROTECTION	
NO PARTNERED SERVICES PROVIDED	Std



1130 73rd Avenue NE
 Fridley, MN 55432
 (763) 571-1902
 1-800-795-1280
 Fax # (763) 571-5091

Highway 60 East
 Lake Crystal, MN 56055
 (507) 726-6041
 1-800-722-0588
 Fax # (507) 726-2984

www.crysteeltruck.com

AN EQUAL OPPORTUNITY EMPLOYER

December 9, 2016

X ORDER ASAP VERBAL PO FROM BOB PROW

Bob Prow
 Nuss Truck Group Inc.
 2195 West County Road C-2
 Roseville, MN 55113

Phone 651-633-4810 Cell 612-812-9657
 E-mail: bprow@nussgrp.com

Dear Bob:

Crysteel Truck Equipment is pleased to submit this quote for your approval.
 REFERENCE: COOPERATIVE PURCHASE OF EQUIPMENT FROM STATE OF MINNESOTA
 SNOW PLOW TRUCK COMPONENTS AND ACCESSORIES

CONTRACT NO: 100777
 RELEASE NO: S-863(5)
 CONTRACT PERIOD: November 1, 2015 through January 31, 2017
 EXTENSION OPTION: Up to 33 Months

1-UNIT
 STATE COOPERATIVE PRICING
 ITEM# DESCRIPTION

PRICING

1.0 Box Accessories

**VENDOR INFORMATION
 FOLLOWING DETAIL**

1.636 Monroe stainless steel stationary 24" cab shield, SS uprights w/wiper-no paint, 33.5 gallon oil tank, stainless steel, oil filter, fill cap, PN 00106200	\$ 4219.02
1.637 18" oil level sensor with Weather-Pak connector for Monroe oil reservoir PN 15570	\$ 61.42
1.639 Suction Strainer for Monroe oil reservoir PN TFS-2020-0-5	\$ 33.27
1.68 (2) shovel holders in stationary cab shield uprights TBEI	\$ 256.38
1.74 (1) folding SS ladder installed on 10-12.5' box (each) TBEI	\$ 127.82
1.81 Receiver tubes installed on underside of 10-11.5' box TBEI	\$ 266.01
1.87 Receiver insert SS grip strut walk rails for 10-11.5' box TBEI	\$ 844.10
1.0295 Sander fitting in rub rail, split manifold mount	\$ 260.01
1.030 5/8" pull plate, chain rings, 2" ball/pintle, 7RV plug, ICC	\$ 832.68
1.031 Add for 2-5/16" ball/pintle ILO 2"	\$ 8.96
1.032 Add for Ruff Stuff poly coating on pull plate	\$ 201.49
1.035 (1) set single axle poly fenders w/o lights Minimizer M2260B	\$ 699.89
Add for Buyers LED amber oval strobes add: (2) facing front in cab shield, (2) facing side in cab shield, 2 facing rear on cab shield, (2) in rear corner post ovals, (2) front surface mount in grill, (2) surface mount on side of rear posts	\$1474.00
1.055 (1) extra set of ovals in rear corner posts TBEI no extra charge	\$ 0.01
1.0585 (1) 4" LED wing light installed 605-1492110	\$ 199.23

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1.0595 (1) 4" LED sander light installed 605-1492110	\$ 199.23
1.063 Hamsar, Halogen, Dual-Burn plow lights (add mounting brackets)	\$ 593.62
1.0633 Stainless Steel mirror mount plow light brackets	\$ 549.51
1.087 Buyers color back up camera system, camera heated, waterproof, night vision with shutter, 7" color monitor, adapter cables	\$ 720.46
Add for a three extra cameras installed with cable for patrol wing view, right side & left side front rear view(mounted off back of plow lights)	\$386.64 x 3 = \$1159.92

1.0 Box Crysteel Ellip SS SA

**VENDOR INFORMATION
 FOLLOWING DETAIL**

Box Make and Model	<u>Crysteel Elliptical Stainless Steel</u> Body with Full Length Weld on SS Fenders
List truck type box fits	<u>Single axle</u>
Box style	<u>Side board style</u>
Width & length of box	<u>96" wide by (see lengths listed below)</u>
Side panel description	<u>28" high single wall sides, 7 gauge austenitic</u>
Front panel description	<u>40" high, 7 gauge austenitic SS, front brace</u>
Floor description	<u>3/16" AR450 & side to floor radius</u>
Corner post description	<u>14" wide, 7 gauge austenitic stainless steel rear posts</u>
Under structure description	<u>Western style (crossmemberless)</u> Trapezoidal longsills, rust proofed
Tailgate description	<u>36" high, air trip hardware, 7 gauge austenitic SS, 6 panel design, spreader chain, banjo Holders</u>
Hinge Description	<u>1.5" off set top hinge</u>
Description of peripheral items (lights, access steps, etc.)	<u>Standard FMVSS 108 LED lights</u>
Is installation included in price?	<u>Yes</u> or No <u>X</u>
Is box painted?	<u>Yes</u> or No <u>X</u>
Warranty installation	<u>Crysteel 5 year limited</u>

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years 1, 2, & 3 100% parts and labor
 Years 4 & 5 50 -50 parts and labor

1.1 - Air operated tailgate latch	\$ 167.65
1.02 Installation of air operated tailgate latch	\$ 175.09
1.001 Installation of body	\$ 1017.15
1.425 Add for 48" high front in lieu of 40" high front	\$ 168.79
1.516 Deduct for deleting full length SS fenders - must add SS side to floor radius adder listed below	\$ -524.63
1.517 Add for 7 gauge SS side to floor radius down to flat 3/16" AR400 floor	\$ 586.21
1.3 10.5' x 96" Crysteel Elliptical SS body 1370228	\$ 10527.87

2.0 Hoist RC SA

**VENDOR INFORMATION
 FOLLOWING DETAIL**

Box Hoist Make and Model

Crysteel Roller Combo
 greaseable rear hinge
 See models listed below

Class & type

Class 50 & Class 60 Type VII

Rated capacity

17.2 tons or 17.9 tons

Maximum PSI operating pressure

2,000 PSI

Cylinder bore & stroke

7" x 21-5/8" or 8" x 21-5/8"

Piston rod diameter & description

2-1/4" rod 100,000 PSI shaft

Sub-frame construction

Fabricated channel

Is installation included in price?

Yes or No X

Warranty Detail

Crysteel 5 year limited
 Years 1, 2, and 3 100% parts and labor
 Years 3 and 4 50-50 parts and labor

2.0 Installation of hoist	\$ 462.89
2.1 RC750 Roller Combo Hoist w/greaseable rear hinge	\$ 2330.02
2.21 Composite rear hinge ILO greaseable	\$ 100.36

3.0 Underbody Plow MF5

**VENDOR INFORMATION
 FOLLOWING DETAIL**

Underbody Plow, Make and Model

Monroe MF-5 Fixed Angle Scraper

Moldboard description

1" thick x 20" high x (see lengths listed below)

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Moldboard cutting edge description	<u>1/2" x 6" double beveled two piece</u>
Moldboard Hydraulic cylinder description	<u>One, 3.5" x 11.5" double acting</u> actuating cylinder w/nitrided rods; one cylinder canister assembly; one HD shock absorber
Moldboard maximum PSI operating pressure	<u>System relief valve set at 400 psi</u>
Circle drive description	<u>Fixed angle</u>
Circle drive hydraulic cylinder description	<u>None</u>
Warranty Detail	<u>2 year from "In Service" Date</u> Parts and labor
3.1 - Installation of underbody plow only	\$ 1673.10
3.0 Monroe MF-510 Under Body Scraper 00049824	\$ 4462.73
3.22 Hydraulic accumulator for scraper w/internal lock Model U2	\$ 1120.91
3.26 Auto reverse lift installed w/manual or electronic valve	\$ 705.75
3.35 Add for 20" x 1" x 12" moldboard extension on passenger side P/N 00124513i	\$ 1063.28
3.38 Add for moving driver side fuel tank out and up for scraper install	\$ 414.15
3.39 Add for moving air tank for proper scraper install-per air tank	\$235.70 x 2 = \$ 471.39

4.0 Wing RLP Double Function

**VENDOR INFORMATION
 FOLLOWING DETAIL**

Wing Plow - Make and Model	<u>Monroe DFWMB Rear Mount</u> Double Function Patrol Wing Low Profile Front Wing Post (see lengths listed below)
Where mounted on truck	<u>Rear mount in front of rear tires</u> Scraper will discharge into wing
Moldboard description	<u>3/16" formed moldboard; 4"x4"x3/4" bottom</u> angle; 1/2" moldboard reinforcing ribs 29" straight moldboard or 29" nose & 39" discharge(same price customer choice) Standard double function fixed moldboard Powder coated std. orange
Moldboard cutting edge description	<u>5/8" x 8" C1080 top punched with</u> AASHO bolt hole pattern

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Lift height	<u>12" ground to bottom of moldboard at front</u>
Hydraulic cylinder description	<u>Double acting direct lift front toe cylinder</u> 4" x 14" or 4" x 21.75" DA heel cylinder Customer to specify choice, toe stop kit
Warranty Detail	<u>2 year from "In Service" Date</u> Parts and labor
Standard Double Function Fixed Moldboard Wing	\$ 2386.93
4.21 Monroe 9DFWMB Patrol Wing	\$ 5065.60
4.27 Single hyd. ext. push arm nitrogen cushion 320-D4860	\$ 1598.38
4.29 Lock valve on toe or heel cylinder 250-00119	\$293.61 x 2 = \$ 587.22
4.35 Rear Mt ND style bolt on single push arm no pull plates	\$ 2156.29
NOTE: ND Rear Mount hardware includes HD wing stop w/rubber cushion	\$ 0.01
4.65 Add for wing light harness tube & light bracket kit 00014162i	\$ 63.98
4.43 Whelen WPLOW1A LED wing light when wing in use	\$ 440.08
4.71 Monroe Para-Glide front wing post ILO standard	\$ 1115.48

5.0 Front Hitch (2)

**VENDOR INFORMATION
 FOLLOWING DETAIL**

Front Hitch - Make and Model	<u>Monroe Quick Hitch</u> (see models listed below)
Lift cylinder description	<u>Listed below-choose one</u>
Truck frame mounting requirements	<u>Chassis must have front frame extension</u>
Total Price (do not include installation)	<u>See Below</u>
Warranty Detail	<u>2 year from "In Service" Date</u> Parts and labor

5.11-Installation of front hitch only w/double acting lift cylinder	\$ 1816.54
5.12-Added installation cost for power reversing plow	\$ 341.09
All items listed below are parts only	
5.29 MC2075 QCP pin/loop hitch 00012678	\$ 1486.21
Add for flat face option added to MC2075	\$190.00
5.42 4" x 10" DA lift cylinder 05002953	\$ 334.41

6.0 2-Way Reversible Full Trip

**VENDOR INFORMATION
 FOLLOWING DETAIL**

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Two-Way Reversible Snow Plow - Make and Model	<u>Monroe Reversible Models with ISCT, full moldboard trip, built in integral shield Models listed below</u>
Moldboard height	<u>Moldboard height first number in model Description</u>
Moldboard smoothed rolled design at what radius.	
Discharge height	<u>Straight flat top design</u>
Plow Throat depth from vertical to deepest point	
Moldboard thickness & type of steel	<u>10 gauge A569</u>
Type, size and number of vertical reinforcement ribs.	<u>Six 1/2" x 4" one piece flame cut</u>
Adjustable cutting edge angles to pavement measured from roadway surface through perpendicular back toward truck.	<u>3 position from 5 to 20 degrees</u>
State number of hook up points from moldboard to frame.	<u>4 point with 1" bearing surface each</u>
Type and size of reinforcement of frog at either end.	<u>3/4" x 4" x 4" structural angle with 1/2" gussets between each cutting edge bolts</u>
Type and size of circle frame	<u>3-1/2" x 3-1/2" x 1/2" rolled angle 4" ship and channel frame</u>
Size of double acting reversing cylinders.	<u>3" x 10" DA cylinders w/nitrided rods</u>
Size and type of reinforced snow flap (optional)	<u>12" full width listed as an option</u>
Type and size of push frame	<u>Heavy duty 4" tubing w/4" S&C</u>
Carbide cutting Edge (AASHTO punched) size.(optional)	<u>6" x 3/4" 3 piece</u>
Distance beyond vertical that snow deflectors integral with moldboard extends.	
Size of adjustable snow shoes (optional)	<u>Listed below</u>
Weight of plow (less hitch and hydraulics)	<u>Weight listed by each model</u>
Type and number of resettable HD compression spring trip mechanisms.	<u>2 trip spring assemblies for full trip</u>
Painting system with type of paint	<u>Powder coated std. orange</u>

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Total Price (does not include installation)

See Below

Warranty Detail

2 year from "In Service" Date
 Parts and labor

6.13 Monroe MP45R-12-ISCT Full Trip Deep Curl Reversible 00016586 1755#	\$ 5406.59
6.24 QCP loop hitch 00023428i	\$ 465.69
6.405 2" oscillation bolt ILO 1.25" for Non-MTE hitch	\$ 246.95
6.43 Cable markers 05051181	\$ 65.42
6.52 Skid shoes 0052867i	\$ 952.11
6.58 12" rubber snow deflector installed for 12' plow 00043105i	\$ 214.19

8.0 Sander MS969-DD-DD

**VENDOR INFORMATION
 FOLLOWING DETAIL**

Sander - Make and Model

Monroe Under Tailgate
MS969DDDD One Way Flight
w/ 9" Auger Direct Drive

Type of sander

Under Tailgate

Warranty Detail

2 yr in service date
 Parts and service

8.0 - Sander	TOTAL PRICE	\$ 2566.71
8.1 - Installation of Sander	PRICE	\$ 2375.84
8.4 Add for Spinner Assembly Stainless w/ Poly Disc PN 00026544-K Gravity level		\$ 536.12
8.6 Add for corrosion resistance non/magnetic stainless steel		\$ 1727.35
8.8 Add for Sensor installed in Auger Motor		\$ 423.18
8.9 Add for Short hose kit (jumper hoses)		\$ 274.42
8.14 Add for Sander Shields SS for Elliptical body		\$ 517.87

9.0 Hydraulic Force Ultra 5100EX

**VENDOR INFORMATION
 FOLLOWING DETAIL**

Hydraulics - Make and Model

Force America LS Ultra
System number 135491

Cab controls description

Electronic 3 stick proportional

Sander control description

Electric 5100Ex

Pump drive description

Front Drive

Pump type

Piston LS

Valve description

Proportional Electric

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Number and type functions	<u>Seven</u>
Type of valve actuation	<u>Electric</u>
Reservoir size	<u>Must select</u>
Fluid type	<u>Std Hydraulic or ATF</u>
Filter style	<u>Must select</u>
Valve enclosure	<u>Must select</u>
Hose recommendation	<u>2 wire 1/2"</u>

9.0 Total Price	(do not include installation)	\$ 16304.33
9.1	Installation of hydraulics includes hoses, plumbing, hardware, labor, etc.	\$ 6906.51
9.2	Add for Seat mount kit	\$ 184.64
9.5	Add to upgrade to 4 stick Ultra Control	\$ 809.29
9.5D	Add for close loop granular feedback for 5100EX	\$ 1092.12
9.6	Adder for Extra Valve Section	\$762.21 x 2 = \$ 1524.42
9.8	Add for port reliefs	\$342.48 x 3 = \$ 1027.45
9.25	Add for 12V Pump shut off Valve	\$ 585.77

9.0 Reservoir Add-ons

**VENDOR INFORMATION
 FOLLOWING DETAIL**

Hydraulics - Make and Model

Add-On Options hydraulic
 Reservoirs and related
 Equipment for Force America

9.16	GRM-Encl-6 Encl. Stainless Steel Add-A-stack 6 valve	\$ 1236.38
9.22	2.00-gate-valve, 2" gate vale	\$ 74.90
9.24	S95H41 Full ported 1-1/2" NPT Brass ball Vale 600 PSI	\$ 143.76

Total Installed State Bid Pricing \$100873.97

NUSS TRUCK GROUP-10.5' SS ELLIPTICAL BOX-HOIST-SCRAPER-REAR WING-
PLOW & HITCH-TRAILER HITCH-SS SANDER-FORCE AMERICA ULTRA
HYDRAULICS

VENDOR	Crysteel Truck Equipment, Inc.
CONTACT PERSON	
ADDRESS	52248 Ember Rd, MN 55432
PHONE NO.	TOLL FREE 507-726-6041 800-722-0588
FAX NO.	507-726-2984
E-MAIL ADDRESS	

A WRITTEN PURCHASE ORDER MUST BE RETURNED SPECIFYING PURCHASE OF THIS EQUIPMENT OFF THE STATE OF MINNESOTA COOPERATIVE PURCHASE CONTRACT

NOTE: NO EXHAUST WORK INCLUDED FOR TRUCKS WITH NEW EMISSION CONTROL EXHAUST SYSTEMS. EXHAUST SYSTEMS CANNOT BE MODIFIED.

NOTE: ALL LABOR COSTS ARE BASED ON INSTALLING EQUIPMENT ON A TRUCK CHASSIS WITH ALL TRUCK ITEMS OUT OF THE WAY FOR EQUIPMENT INSTALLATION. IF CRYSTEEL HAS TO MOVE FUEL TANKS, AIR TANKS, AIR DRYER, ETC. THERE WILL BE TIME AND MATERIAL CHARGES ADDED TO BID.

NOTE: Installation cost is quoted for a cab and chassis with a clean frame. No moving or altering of any truck chassis item is included in this quote. Any chassis item that needed to be moved or altered for the proper installation of the equipment quoted will be billed at time and/or material.

State Bid Submitted By;

Bob Chicos
Crysteel Truck Equipment, Inc.