

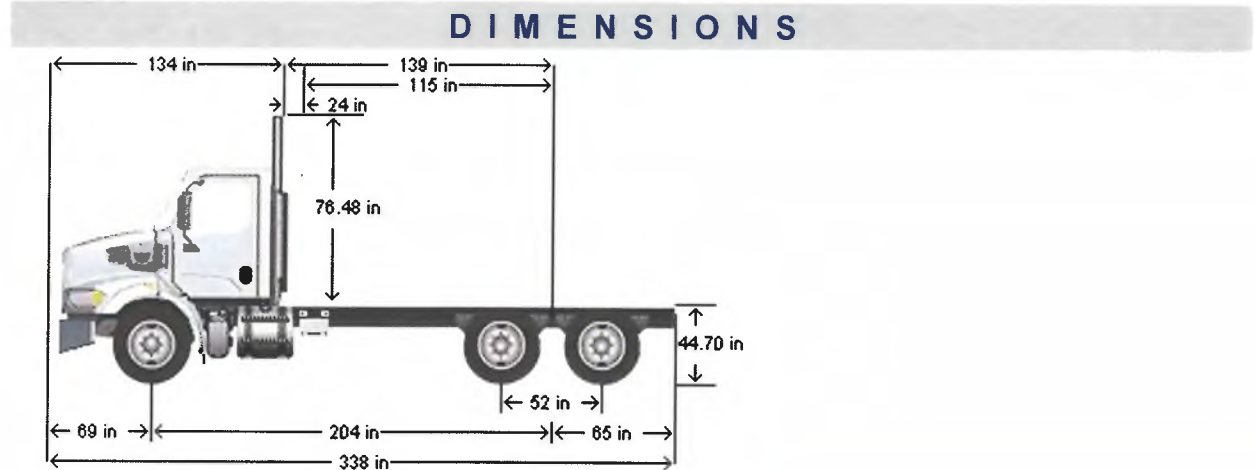
# Quote Summary

			Quantity	Total
Tandem Axle Chassis	\$	333,481.50	1 \$	333,481.50
Dump Body	\$	38,778.95	1 \$	38,778.95
Spreader Body	\$	57,883.10	1 \$	57,883.10
Tank Body	\$	42,339.20	1 \$	42,339.20
Roll Off Dumpster Body	\$	11,511.98	2 \$	23,023.96
<b>Grand Total</b>				<b>\$ 495,506.71</b>

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Prepared by:  
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 Phone: (517) 484-1905 Ext. 129

# Mideal #24000000095 TANDEM



## VEHICLE SPECIFICATIONS SUMMARY - DIMENSIONS

Model.....	47X
Wheelbase (545).....	5175MM (204 INCH) WHEELBASE
Rear Frame Overhang (552).....	1650MM (65 INCH) REAR FRAME OVERHANG
Cab Size (829).....	111.6 INCH BBC CONVENTIONAL ALUMINUM CAB
Sleeper (682).....	NO SLEEPER BOX/SLEEPERCAB
Exhaust System (016).....	RH OUTBOARD FRAME MOUNTED VERTICAL AFTERTREATMENT SYSTEM ASSEMBLY WITH TOPSTACK

## TABLE SUMMARY - DIMENSIONS

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Dimensions	Inches
Bumper to Back of Cab (BBC)	134.2
Bumper to Centerline of Front Axle (BA)	69.1
Front Axle to Back of Cab (AC)	65.2
Min. Cab to Body Clearance (CB)	3.0
Back of Cab to Centerline of Rear Axle(s) (CA)	138.6
Effective Back of Cab to Centerline of Rear Axle(s) (Effective CA)	115.1
Back of Cab Protrusions (Exhaust/Intake) (CP)	25.5
Back of Cab Protrusions (Side Extenders/Trim Tab) (CP)	0.0
Back of Cab Protrusions (CNG Tank)	0.0
Back of Cab Clearance (CL)	23.5
Back of Cab to End of Frame	203.6
Cab Height (CH)	76.5
Wheelbase (WB)	203.7
Frame Overhang (OH)	65.0
Overall Frame Length	337.7
Overall Length (OAL)	337.8
Rear Axle Spacing	52.0
Unladen Frame Height at Centerline of Rear Axle	44.7

Performance calculations are estimates only. If performance calculations are critical, please contact Customer Application Engineering.

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## S P E C I F I C A T I O N P R O P O S A L

### Vehicle Configuration

001-470	WESTERN STAR 47X	9,050	6,525	
004-226	2026 MODEL YEAR SPECIFIED			STD
002-004	SET BACK AXLE - TRUCK			STD
019-006	TRAILER TOWING PROVISION AT END OF FRAME WITH SAE J560	10	10	N/C
003-001	LH PRIMARY STEERING LOCATION			STD

### General Service

AA1-003	TRUCK/TRAILER CONFIGURATION			N/C
AA6-002	DOMICILED, USA (EXCLUDING CALIFORNIA AND CARB OPT-IN STATES)			STD
99D-027	EPA EMISSIONS CERTIFICATION FOR REGISTRATION IN EPA OR ACT STATES - EPA CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON LOWER FORWARD OF DRIVER DOOR)			STD
A85-011	CONSTRUCTION SERVICE			STD
A84-1GM	GOVERNMENT BUSINESS SEGMENT			N/C
AA4-010	DIRT/SAND/ROCK COMMODITY			STD
AA5-002	TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN TRANSIT, IS SPENT ON PAVED ROADS			STD
AB1-008	MAXIMUM 8% EXPECTED GRADE			STD
AB5-001	SMOOTH CONCRETE OR ASPHALT PAVEMENT - MOST SEVERE IN-TRANSIT (BETWEEN SITES) ROAD SURFACE			STD
995-1A5	WESTERN STAR VOCATIONAL WARRANTY			STD
A66-99D	EXPECTED FRONT AXLE(S) LOAD : 20000.0 lbs			
A68-99D	EXPECTED REAR DRIVE AXLE(S) LOAD : 46000.0 lbs			

### Truck Service

AA3-004	END DUMP BODY			STD
AF3-2A8	TRUCK AND TRAILER SPECIALTIES INC.			N/C

### Tractor Service

AA2-005	FLATBED TRAILER			N/C
AH6-001	SINGLE (1) TRAILER			N/C

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### Engine

101-26K	CUM X12 455V HP @ 1900 RPM, 1700 LB-FT @ 1000 RPM, 2000 GOV RPM, VOC	-390	-45	\$780.00
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### Electronic Parameters

	79A-070	70 MPH ROAD SPEED LIMIT		N/C
	79K-013	PTO MODE ENGINE RPM LIMIT - 1600 RPM		STD
	79P-002	PTO RPM WITH CRUISE SET SWITCH - 700 RPM		N/C
	79Q-002	PTO RPM WITH CRUISE RESUME SWITCH - 700 RPM		N/C
	79W-001	ONE REMOTE PTO SPEED		N/C
	79X-003	PTO SPEED 1 SETTING - 800 RPM		N/C
	80G-002	PTO MINIMUM RPM - 700		N/C
N	80S-004	PTO 1, DASH SWITCH, ENGAGE WHILE DRIVING		N/C
N	80V-002	ENGINE MOUNT PTO, DASH SWITCH ENGAGES PTO MODE, DRIVING OPERATION		N/C

### Engine Equipment

	99C-024	EPA 2010/GHG 2024 CONFIGURATION		STD
	13E-001	STANDARD OIL PAN		N/C
	105-001	ENGINE MOUNTED OIL CHECK AND FILL		STD
	014-112	SIDE OF HOOD AIR INTAKE WITH ENGINE MOUNTED HIGH CAPACITY AIR CLEANER, PASSIVE PRECLEANER, WITH INSIDE/OUTSIDE AIR AND SNOW DOOR	10	\$926.00
	124-1D7	DR 12V 160 AMP 28-SI QUADRAMOUNT PAD ALTERNATOR WITH REMOTE BATTERY VOLT SENSE	-10	N/C
	292-236	(3) DTNA GENUINE, FLOODED STARTING, MIN 3000CCA, 555RC, THREADED STUD BATTERIES	-10	(\$483.00)
	290-1CD	BATTERY BOX WITH ALUMINUM COVER MOUNTED SHORT SIDE TO RAIL	-50	10 \$346.00
	282-042	LH BATTERY BOX MOUNTED AS FAR AFT AS POSSIBLE, NO GREATER THAN 60 INCHES BACK OF CAB		\$257.00
	291-017	WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN		STD
	289-011	NON-POLISHED BATTERY BOX COVER WITH TETHER		\$4.00
	293-058	NON-ESSENTIAL POSITIVE LOAD DISCONNECT, IN CAB CONTROL SWITCH MOUNTED OUTBOARD OF DRIVER SEAT	2	\$261.00
	107-048	CUMMINS NATURALLY ASPIRATED 25.9 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE		N/C
	152-041	ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM		STD

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128-004	CUMMINS INTEBRAKE BRAKE WITH HIGH MED LOW BRAKE			N/C
016-1C0	RH OUTBOARD FRAME MOUNTED VERTICAL AFTERTREATMENT SYSTEM ASSEMBLY WITH TOPSTACK	40	25	\$2,077.00
28F-015	ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD ACTIVE REGENERATION AND VIRTUAL REGENERATION REQUEST SWITCH IN CLUSTER AND DASH MOUNTED INHIBIT SWITCH			STD
239-032	11 FOOT 00 INCH (132 INCH+0/-5.9 INCH) EXHAUST SYSTEM HEIGHT			N/C
237-1CU	RH CURVED TOPSTACK			N/C
23U-002	13 GALLON DIESEL EXHAUST FLUID TANK	9	3	(\$187.00)
23Z-005	UNPOLISHED ALUMINUM WST DIESEL EXHAUST FLUID TANK COVER			STD
43X-001	LH HEAVY DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION			STD
43Y-001	STANDARD DIESEL EXHAUST FLUID TANK CAP			STD
242-001	STAINLESS STEEL AFTERTREATMENT DEVICE/MUFFLER/TAILPIPE SHIELD			STD
273-059	ELECTRONICALLY CONTROLLED VARIABLE SPEED VISCOUS FAN DRIVE			\$246.00
276-002	AUTOMATIC FAN CONTROL WITH DASH SWITCH AND INDICATOR LIGHT, NON ENGINE MOUNTED			\$10.00
122-1H3	DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR	10		N/C
110-003	CUMMINS SPIN ON FUEL FILTER			N/C
118-001	FULL FLOW OIL FILTER			STD
266-109	1400 SQUARE INCH VOCATIONAL RADIATOR WITH PROTECTION PACKAGE	20		\$337.00
103-039	ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT			STD
171-007	GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT			STD
261-001	STANDARD CHARGE AIR COOLER PLUMBING			STD
270-016	RADIATOR DRAIN VALVE			N/C
168-002	LOWER RADIATOR GUARD			STD
360-013	1350 ADAPTER FLANGE FOR FRONT PTO PROVISION	20		\$1,338.00
138-005	PHILLIPS-TEMRO 1500 WATT/115 VOLT BLOCK HEATER	4		\$30.00
140-022	CHROME ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR			\$80.00
132-998	NO AIR INTAKE WARMER	-10		STD

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155-055	DELCO 12V 39MT HD/OCP STARTER WITH THERMAL PROTECTION AND INTEGRATED MAGNETIC SWITCH	-45	N/C
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**Transmission**

342-1M3	ALLISON 4500 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION		STD
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**Transmission Equipment**

343-339	ALLISON VOCATIONAL PACKAGE 223 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODELS RDS, HS, MH AND TRV		STD
84B-012	ALLISON VOCATIONAL RATING FOR ON/OFF HIGHWAY APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES		STD
84C-023	PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		STD
84D-023	SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY		STD
84E-000	PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		STD
84F-000	SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		STD
84G-000	PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		STD
84H-000	SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE		STD
84N-011	NEUTRAL AT STOP ENABLED		\$420.00
353-074	QUICKFIT BODY LIGHTING CONNECTOR UNDER CAB, WITH BLUNTCUTS		\$125.00
34C-011	ELECTRONIC TRANSMISSION WIRING TO CUSTOMER INTERFACE CONNECTOR		\$84.00
362-823	CUSTOMER INSTALLED CHELSEA 280 SERIES PTO		STD
363-001	PTO MOUNTING, LH SIDE OF MAIN TRANSMISSION ALLISON		STD
341-018	MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN		STD
345-078	HEAVY DUTY ELECTRONIC TRANSMISSION SHIFT CONTROL, COLUMN MOUNTED		STD
370-006	WATER TO OIL TRANSMISSION COOLER		STD

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346-003	TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK		STD
35T-001	SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)		STD

### Front Axle and Equipment

400-1BB	DETROIT DA-F-20.0-5 20,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE	190	\$2,000.00
418-060	CONMET PRESET PLUS PREMIUM IRON FRONT HUBS	20	(\$640.00)
402-030	MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	10	(\$278.00)
403-002	NON-ASBESTOS FRONT BRAKE LINING		STD
419-023	CONMET CAST IRON FRONT BRAKE DRUMS		\$336.00
427-001	FRONT BRAKE DUST SHIELDS	5	(\$3.00)
409-006	FRONT OIL SEALS		STD
408-001	VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL		STD
405-003	HALDEX AUTOMATIC FRONT SLACK ADJUSTERS		\$172.00
536-104	DUAL POWER STEERING GEARS, BENDIX 16-20K	80	\$1,542.00
534-003	4 QUART POWER STEERING RESERVOIR	5	N/C
533-001	OIL/AIR POWER STEERING COOLER	5	N/C
40T-002	CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE		STD

### Front Suspension

620-006	20,000# FLAT LEAF FRONT SUSPENSION	250	\$425.00
619-002	THREADED SPRING PINS AND BUSHINGS - FRONT SUSPENSION		N/C
410-001	FRONT SHOCK ABSORBERS		\$207.00

### Rear Axle and Equipment

420-103	MERITOR RT-46-160 46,000# R-SERIES TANDEM REAR AXLE	470	\$3,061.00
450-058	CONMET PRESET PLUS PREMIUM ALUMINUM REAR HUBS		(\$1,339.00)
421-456	4.56 REAR AXLE RATIO		N/C
424-001	IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING		STD
386-074	MXL 176T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	-25	-25 (\$127.00)
388-073	MXL 17T MERITOR EXTENDED LUBE INTERAXLE DRIVELINE WITH HALF ROUND YOKES		STD



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452-006	DRIVER CONTROLLED TRACTION DIFFERENTIAL - BOTH TANDEM REAR AXLES	30	\$1,317.00
878-023	(1) INTERAXLE LOCK VALVE, (1) DRIVER CONTROLLED DIFFERENTIAL LOCK FORWARD-REAR AND REAR-REAR AXLE VALVE		N/C
87A-005	INDICATOR LIGHT FOR EACH INTERAXLE LOCKOUT SWITCH		N/C
87B-008	INDICATOR LIGHT FOR EACH DIFFERENTIAL LOCKOUT SWITCH		N/C
423-020	MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR BRAKES, DOUBLE ANCHOR, FABRICATED SHOES		(\$937.00)
433-002	NON-ASBESTOS REAR BRAKE LINING		STD
434-019	ASPHALT SPREADER CLEARANCE REAR BRAKE GEOMETRY		N/C
451-023	CONMET CAST IRON REAR BRAKE DRUMS		\$646.00
425-002	REAR BRAKE DUST SHIELDS	10	(\$25.00)
440-006	REAR OIL SEALS		STD
426-101	WABCO TRISTOP D LONGSTROKE 2-DRIVE AXLE SPRING PARKING CHAMBERS		(\$128.00)
428-003	HALDEX AUTOMATIC REAR SLACK ADJUSTERS		\$344.00
41T-002	CURRENT AVAILABLE SYNTHETIC 75W-90 REAR AXLE LUBE		STD
42T-001	STANDARD REAR AXLE BREATHER(S)		STD
<b>Rear Suspension</b>			
622-312	HENDRICKSON HAULMAAX EX 46,000# REAR SUSPENSION	115	\$4,306.00
621-111	10.8 INCH NOMINAL RIDE HEIGHT (490MM GLOBAL REFERENCE HEIGHT)		N/C
624-011	52 INCH AXLE SPACING		\$105.00
628-010	HENDRICKSON HN, HAULMAAX AND ULTIMAAX SERIES STEEL BEAMS WITH BAR PIN		N/C
623-016	STANDARD DUTY FORE/AFT AND HEAVY DUTY TRANSVERSE CONTROL RODS		N/C
625-008	DOUBLE REBOUND STRAP - INBOARD AND OUTBOARD	13	\$100.00
439-002	REAR SHOCK ABSORBERS - TWO AXLES (TANDEM)		N/C
<b>Brake System</b>			
490-1AU	WABCO 4S/4M ABS WITH TRACTION CONTROL WITH ATC SHUT OFF SWITCH		(\$383.00)
871-001	REINFORCED NYLON, FABRIC BRAID AND WIRE BRAID CHASSIS AIR LINES		STD
432-003	RELAY VALVE WITH 5-8 PSI CRACK PRESSURE, NO REAR PROPORTIONING VALVE		STD

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480-040	WABCO SYSTEM SAVER 1200 HEATED AIR DRYER WITH PRESSURE CONTROL VALVE			STD
483-004	WABCO OIL COALESCING FILTER FOR AIR DRYER			STD
479-012	AIR DRYER MOUNTED UNDER HOOD			STD
460-008	STEEL AIR BRAKE RESERVOIRS MOUNTED INSIDE RAIL			\$95.00
477-004	PULL CABLES ON ALL AIR RESERVOIR(S)			STD

### Trailer Connections

914-001	AIR CONNECTIONS TO END OF FRAME WITH GLAD HANDS FOR TRUCK AND NO DUST COVERS	5	5	\$70.00
296-010	PRIMARY CONNECTOR/RECEPTACLE WIRED FOR SEPARATE STOP/TURN, ABS CENTER PIN POWERED THROUGH IGNITION			\$40.00
303-026	SAE J560 7-WAY PRIMARY TRAILER CABLE RECEPTACLE TEMPORARY TIED & COILED IN CHASSIS END OF FRAME WITH 2' ADDITIONAL; NO BRACKETS			\$130.00
N 30K-063	150 AMP SERVICE FOR BODY BUILDER INSTALLED COMPONENTS MOUNTED BETWEEN SEATS			\$359.00
310-998	NO TRAILER ELECTRICAL CABLE	-10		STD

### Wheelbase & Frame

545-517	5175MM (204 INCH) WHEELBASE			N/C
546-106	13.0MM X 87.0MM X 311.0MM STEEL FRAME (0.51X3.43X12.24 INCH) 120 KSI	280	360	\$2,000.00
548-803	TEM TO EVALUATE AND INSTALL FRAME RAIL REINFORCEMENT AS NEEDED FOR FRONT FRAME MOUNTED EQUIPMENT			N/C
552-032	1650MM (65 INCH) REAR FRAME OVERHANG			N/C
55W-006	FRAME OVERHANG RANGE: 61 INCH TO 70 INCH	-30	90	N/C
549-002	24 INCH INTEGRAL FRONT FRAME EXTENSION	120		\$187.00
AC8-99D	CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 138.58 in			
AE4-99D	CALC'D FRAME LENGTH - OVERALL : 337.68 in			
ZF1-99D	FRAME HEIGHT TOP FRONT UNLADEN : 45.98 in			
ZF2-99D	FRAME HEIGHT TOP FRONT LADEN : 42.28 in			
ZF3-99D	FRAME HEIGHT TOP REAR UNLADEN : 44.7 in			
ZF4-99D	FRAME HEIGHT TOP REAR LADEN : 42.26 in			
553-001	SQUARE END OF FRAME			STD
559-001	STANDARD WEIGHT ENGINE CROSSMEMBER			STD
561-015	STANDARD CAST ALUMINUM CROSSMEMBER BACK OF TRANSMISSION	-15		STD

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562-063	STANDARD CAST ALUMINUM MIDSHIP		STD
572-082	STANDARD CAST ALUMINUM REARMOST CROSSMEMBER		STD
565-001	STANDARD SUSPENSION CROSSMEMBER	20	N/C
568-012	CAST ALUMINUM REAR SUSPENSION CROSSMEMBER		STD

### Chassis Equipment

025-001	UNPOLISHED ALUMINUM WST EQUIPMENT COVERS		STD
556-997	OMIT FRONT BUMPER, CUSTOMER INSTALLED SPECIAL BUMPER, DOES NOT COMPLY WITH FMCSR 393.203	-60	(\$1,985.00)
558-998	NO FRONT TOW HOOKS	-15	N/C
574-998	NO LICENSE PLATE MOUNTING		N/C
551-002	HUCK-SPIN ROUND COLLAR CHASSIS FASTENERS		(\$454.00)
44Z-002	EXTERIOR HARNESES WRAPPED IN ABRASION TAPE		STD

### Fuel Tanks

204-151	60 GALLON ALUMINUM FUEL TANK - LH	-5	(\$172.00)
218-006	25 INCH DIAMETER FUEL TANK(S)		STD
215-005	PLAIN ALUMINUM/PAINTED STEEL FUEL/HYDRAULIC TANK(S) WITH PAINTED BANDS		STD
212-007	FUEL TANK(S) FORWARD		STD
664-001	PLAIN STEP FINISH		STD
205-001	FUEL TANK CAP(S)		STD
216-020	EQUIFLO INBOARD FUEL SYSTEM		STD
202-016	HIGH TEMPERATURE REINFORCED NYLON FUEL LINE		STD

### Tires

093-2CC	MICHELIN XZU-S2 315/80R22.5 20 PLY RADIAL FRONT TIRES	100	\$1,970.00
094-13T	MICHELIN X WORKS D 11R22.5 16 PLY RADIAL REAR TIRES	248	\$4,800.00

### Wheels

502-445	ACCURIDE 29300 22.5X9.00 10-HUB PILOT 6.38 INSET 5-HAND STEEL DISC FRONT WHEELS	82	(\$28.00)
505-428	ACCURIDE 28828 22.5X8.25 10-HUB PILOT 2-HAND HD STEEL DISC REAR WHEELS	104	(\$1,072.00)
496-011	FRONT WHEEL MOUNTING NUTS		STD
497-011	REAR WHEEL MOUNTING NUTS		STD

### Cab Exterior

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829-053	111.6 INCH BBC CONVENTIONAL ALUMINUM CAB		STD
82A-029	PAINTED CAB ACCENT MOLDING		(\$166.00)
667-001	FRONT FENDERS		STD
754-017	BOLT-ON MOLDED FLEXIBLE FENDER EXTENSIONS	10	\$115.00
678-066	INTERIOR GRAB HANDLES WITH ADDED LOWER LH AND RH A PILLAR GRAB HANDLES AND LH AND RH EXTERIOR NON-SLIP GRAB HANDLES		STD
65X-009	BRIGHT HOOD MOUNTED AIR INTAKE GRILLE, BLACK SCREEN		(\$23.00)
640-016	X-SERIES STEEL REINFORCED ALUMINUM CAB		STD
644-048	X-SERIES VOCATIONAL HOOD		STD
67U-001	HOOD OPENING ASSIST WITH LOCKING STRUT		STD
652-016	WESTERN STAR NAMEPLATES		STD
727-096	DUAL ROUND AIR HORNS, SINGLE BASE, MOUNTED UNDER CAB		(\$98.00)
726-002	DUAL ELECTRIC HORNS		\$12.00
575-001	REAR LICENSE PLATE MOUNT END OF FRAME		STD
327-010	SWITCH AND WIRING WITH STAINLESS STEEL BRACKETS MOUNTED OUTBOARD ROOF FOR (2) CUSTOMER FURNISHED BEACONS		\$380.00
312-095	DUAL STAGE INTELLIGENT LED HEADLIGHTS WITH HEATED LENS SYSTEM		STD
302-072	ROOF MOUNTED LED MARKER LIGHTS		STD
314-824	WIRING AND SWITCH FOR CUSTOMER FURNISHED SNOW PLOW LAMPS WITH DUAL CONNECTIONS AT BUMPER		\$162.00
311-001	DAYTIME RUNNING LIGHTS		STD
294-1AY	INTEGRAL LED STOP/TAIL/BACKUP LIGHTS		STD
300-043	LED SIDE TURN SIGNAL		STD
318-1AD	SWITCH, INDICATOR LIGHT AND APPROXIMATELY 10 FEET OF WIRE ON CHASSIS LH AT BACK OF CAB FOR CUSTOMER FURNISHED UTILITY LIGHT(S)		\$23.00
744-106	C-BAR MIRROR SYSTEM WITH DUAL HEATED MIRRORS WITH INTEGRAL HEATED CONVEX, DUAL REMOTE, STAINLESS STEEL BACK COVER, AND BLACK C-BAR		STD
796-001	102 INCH EQUIPMENT WIDTH		STD
743-209	LH AND RH CONVEX MIRRORS INTEGRAL WITH PRIMARY MIRRORS		STD
74A-001	RH DOWN VIEW MIRROR		STD
729-001	STANDARD SIDE/REAR REFLECTORS		STD

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Phone: 734-994-9124

Prepared by:  
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D & K TRUCK COMPANY  
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N	677-098	UNPOLISHED ALUMINUM WST AFTERTREATMENT SYSTEM COVER			STD
	776-998	NO SLEEPER VENT	-10		STD
	768-065	HIGH VISIBILITY 3-PIECE SOLAR TINTED REAR WINDOW, (1) 31 INCH X 20 INCH SOLAR TINTED REAR WINDOW, (2) 9 INCH X 20 INCH	20		\$80.00
	663-019	1-PIECE ROPED-IN SOLAR GREEN GLASS WINDSHIELD			STD
N	659-016	1.5 GALLON WINDSHIELD WASHER RESERVOIR MOUNTED UNDER CAB WITH REMOTE FILL			\$267.00

**Cab Interior**

	055-015	X-SERIES BASE INTERIOR TRIM LEVEL PACKAGE			STD
	707-1C3	CHARCOAL BLACK VINYL BASE LEVEL INTERIOR			STD
	70K-016	CARBON WITH BASE BLACK ACCENT			STD
	772-035	BLACK MATS WITH ADDED FLOOR HEAT AND NOISE INSULATION			\$126.00
	785-014	(2) DASH MOUNTED POWER OUTLETS AND COIN TRAY			STD
	691-001	FORWARD ROOF MOUNTED CONSOLE			STD
	693-019	LH AND RH DOOR STORAGE POCKETS INTEGRATED INTO MOLDED DOOR PANELS			STD
	741-015	(2) COAT HOOKS ON BACKWALL OF CAB			STD
	745-998	NO UPPER BUNK	-50	-50	STD
	738-021	DIGITAL ALARM CLOCK IN DRIVER DISPLAY			STD
	170-045	STANDARD HEATER PLUMBING WITH BALL SHUTOFF VALVES AT SUPPLY LINES ONLY			\$19.00
	698-001	RADIATOR MOUNTED AIR CONDITIONER CONDENSER			STD
	739-034	PREMIUM INSULATION			\$83.00
	324-1B3	STANDARD LED CAB LIGHTING			STD
	787-998	NO SECURITY DEVICE			N/C
	657-138	ALL UNIT (S) KEYED ALIKE WITH CUSTOMER SPECIFIED KEY NUMBER FT1041			\$43.00
	78G-004	KEY QUANTITY OF 4			\$18.00
	655-028	LH AND RH ELECTRIC DOOR LOCKS WITH AUTO UNLOCK FEATURE WHEN DOOR IS SET FROM OPEN TO CLOSED POSITION			STD
	64C-003	BLACK DOOR HANDLES			STD
	740-998	NO MATTRESS	-20	-15	STD
	756-1J6	PREMIUM 2.0 HIGH BACK AIR SUSPENSION DRIVER SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK	20		\$23.00

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760-1J6	PREMIUM 2.0 HIGH BACK AIR SUSPENSION PASSENGER SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK	40	15	\$65.00
759-005	DUAL DRIVER AND PASSENGER SEAT ARMRESTS	8		\$73.00
758-135	BLACK MORDURA CLOTH DRIVER SEAT COVER WITH EMBROIDERED LOGO			STD
761-135	BLACK MORDURA CLOTH PASSENGER SEAT COVER WITH EMBROIDERED LOGO			N/C
763-1AA	3 POINT ADJUSTABLE D-RING RETRACTOR DRIVER AND FIXED D-RING RETRACTOR PASSENGER SEAT BELTS			STD
532-002	ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN			STD
540-044	4-SPOKE 18 INCH (450MM) BLACK STEERING WHEEL WITH SWITCHES			STD
765-002	DRIVER AND PASSENGER INTERIOR SUN VISORS			STD

### Instruments & Controls

185-004	STANDARD FOOT PEDAL SYSTEM			STD
106-002	ELECTRONIC ACCELERATOR CONTROL			STD
870-001	BLACK GAUGE BEZELS			STD
734-018	STANDARD CENTER INSTRUMENT PANEL			STD
840-001	DUAL NEEDLE PRIMARY AND SECONDARY AIR PRESSURE GAUGE			STD
198-003	DASH MOUNTED AIR RESTRICTION INDICATOR WITH GRADUATIONS	2		\$25.00
149-015	ELECTRONIC CRUISE CONTROL WITH CONTROLS ON STEERING WHEEL SPOKES			STD
156-007	KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY			STD
339-005	AUXILIARY POWER DISTRIBUTION MODULE FOR TEM USE, AUXILIARY EVAULT MOUNTED, FUSE PROTECTED			\$194.00
811-044	PREMIUM INSTRUMENT CLUSTER WITH 5.0 INCH TFT COLOR DISPLAY			STD
81B-003	DIGITAL PANEL LAMP DIMMER SWITCH IN DRIVER DISPLAY			STD
160-045	HEAVY DUTY ONBOARD DIAGNOSTICS INTERFACE CONNECTOR WITH DUST CAP LOCATED BELOW LH DASH			STD
844-001	2 INCH ELECTRIC FUEL GAUGE			STD
148-072	ENGINE REMOTE INTERFACE WITH ONE OR MORE SET SPEEDS			\$134.00
856-001	ENGINE COOLANT TEMPERATURE GAUGE			STD

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854-001	ENGINE OIL TEMPERATURE GAUGE	STD
852-002	ELECTRIC ENGINE OIL PRESSURE GAUGE	STD
864-001	2 INCH TRANS OIL TEMPERATURE GAUGE	STD
867-004	ELECTRONIC OUTSIDE TEMPERATURE SENSOR IN DRIVER MESSAGE CENTER	STD
830-017	ENGINE AND TRIP HOUR METERS INTEGRAL WITHIN DRIVER DISPLAY	STD
372-123	PTO CONTROLS FOR ENHANCED VEHICLE ELECTRIC/ELECTRONIC ARCHITECTURE	STD
49B-004	ELECTRONIC STABILITY CONTROL	STD
35M-012	1 QUIKFIT PROGRAMABLE MODULE (QPMXMC) W/ (8) 20AMP FUSED RELAYS	\$940.00
6TS-005	TMC RP1226 ACCESSORY CONNECTOR LOCATED BEHIND PASSENGER SIDE REMOVEABLE DASH PANEL	STD
746-143	7" B-PANEL INTERACTIVE TOUCHSCREEN DISPLAY W/ USB-C, APPLE CARPLAY, ANDROID AUTO, BLUETOOTH/AM/FM/SXM/WB, MICROPHONE	STD
747-001	DASH MOUNTED RADIO	STD
750-041	STANDARD SPEAKER SYSTEM	STD
748-006	POWER AND GROUND WIRING PROVISION OVERHEAD	STD
749-001	ROOF/OVERHEAD CONSOLE CB RADIO PROVISION	STD
751-001	SINGLE REMOTE SPEAKER WITH LEAD FOR 2- WAY RADIO	STD
752-004	SINGLE FIBERGLASS LH MIRROR MOUNTED CB ANTENNA WITH BRACKET AND LEAD	STD
75W-001	HEADLINER MULTI-BAND ANTENNA: AM/FM/WEATHERBAND, WIFI/BLUETOOTH, GNSS/GPS	\$75.00
78C-003	INTEROPERABLE SDAR ANTENNA	STD
810-027	ELECTRONIC MPH SPEEDOMETER WITH SECONDARY KPH SCALE	STD
812-032	ELECTRONIC 2500 RPM TACHOMETER	STD
813-1C8	DETROIT CONNECT PLATFORM HARDWARE	STD
8D1-315	5 YEARS DAIMLER CONNECTIVITY BASE PACKAGE (FEATURES VARY BY MODEL) POWERED BY DETROIT CONNECT ON CUMMINS ENGINES	N/C
8DE-998	NO ASE DATA SVCE EXTENSION	STD
162-002	IGNITION SWITCH CONTROLLED ENGINE STOP	STD
81Y-005	PRE-TRIP INSPECTION FEATURE FOR EXTERIOR LAMPS ONLY	STD
482-001	BW TRACTOR PROTECTION VALVE	\$120.00

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883-001	TRAILER HAND CONTROL BRAKE VALVE	2	\$35.00
842-006	TURBO AIR PRESSURE IN DRIVER DISPLAY		STD
836-015	DIGITAL VOLTAGE DISPLAY INTEGRAL WITH DRIVER DISPLAY		STD
304-030	ROTARY HEADLAMP SWITCH, MARKER LIGHTS/HEADLIGHTS SWITCH WITH PULL OUT FOR OPTIONAL FOG/ROAD LAMPS		N/C
882-021	TWO VALVE PARKING BRAKE SYSTEM WITH DASH VALVE CONTROL AUTONEUTRAL AND WARNING INDICATOR		\$60.00
299-020	SELF CANCELING TURN SIGNAL SWITCH WITH DIMMER, HEADLAMP FLASH, WASH/WIPE/INTERMITTENT		STD
4E1-013	PROGRAMMABLE SWITCHES/INDICATORS LOCATED IN AUXILIARY PANEL		N/C
48H-001	QUICKFIT POWERTRAIN INTERFACE CONNECTOR BETWEEN SEATS WITH CAPS		\$77.00
* 4CG-006	6 EXTRA PROGRAMMABLE SWITCHES/INDICATORS \$A1A0154ZZ,A1B0072ZZ,A1C0200ZZ,A1D0128ZZ,A1E0230ZZ,A1F0208ZZ		\$62.00
48C-001	QUICKFIT PROGRAMMABLE INTERFACE CONNECTOR(S) BETWEEN SEATS WITH CAP		N/C

### Design

* 065-000	PAINT: ONE SOLID COLOR YELLOW EXTERIOR PAINT MATCH S/N JL6765		\$9.00
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### Color

* 980-999	CAB COLOR A YELLOW MATCH S/N JL6765 MATCH YELLOW FROM VIN JL6765		\$9.00
962-972	POWDER WHITE (N0006EA) WHEELS		N/C

### Extended Warranty

WAI-5UN	CUM 2017 X12 HT1 TR TOW 5 YEARS /100,000 MILES / 161,000 KM EXTENDED WARRANTY. FEX APPLIES.		\$2,380.00
WAX-159	CUM EPA 2017 X12: AT3 5 YEARS / 100,000 MILES / 161,000 KM AFTERTREATMENT. FEX APPLIES.		\$945.00
WAK-140	ALLISON 4500 RDS SERIES TRANSMISSION EXTENDED WARRANTY, 5 YEARS/UNLIMITED MILES FEX		\$990.00

(\*\*\*) All cost increases for major components (Engines, Transmissions, Axles, Front and Rear Tires) and government mandated requirements, tariffs, and raw material surcharges will be passed through and added to factory invoices.



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**MI - DEAL # 24000000095**

**WESTERN STAR 47X**

SET BACK AXLE - TRUCK	DETROIT DA-F-20.0-5 20,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE
CUM X12 455V HP @ 1900 RPM, 1700 LB-FT @ 1000 RPM, 2000 GOV RPM, VOC	20,000# FLAT LEAF FRONT SUSPENSION
ALLISON 4500 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION	111.6 INCH BBC CONVENTIONAL ALUMINUM CAB
MERITOR RT-46-160 46,000# R-SERIES TANDEM REAR AXLE	5175MM (204 INCH) WHEELBASE
HENDRICKSON HAULMAAX EX 46,000# REAR SUSPENSION	13.0MM X 87.0MM X 311.0MM STEEL FRAME (0.51X3.43X12.24 INCH) 120 KSI
	1650MM (65 INCH) REAR FRAME OVERHANG

		PER UNIT	TOTAL
VEHICLE PRICE	TOTAL # OF UNITS (1)	\$	\$
EXTENDED WARRANTY		\$ 4,315	\$
<b>CUSTOMER PRICE BEFORE TAX</b>		<b>\$ 495,231.71</b>	<b>\$</b>

**TAXES AND FEES**

FEDERAL EXCISE TAX (FET)	\$	0	\$
DOC & TITLE FEE	\$	275	\$
<b>TOTAL PRICE</b>		<b>\$</b>	<b>495,506.71</b>

**PAYMENT (2- Part) SCHEDULE:**

1. D & K TRUCK CHASSIS PORTION NET 30 DAYS..... \$ 165,266.00  
(INCLUDES DOC, MI-DEAL FEES, TITLE FEE AS RECORDING DEALER)
2. TRUCK & TRAILER UPFITTER COMPLETED PORTION..... \$ 330,240.71  
(PAID TO D & K TRUCK CO, AS RECORDING DEALER)
- ABOVE INCLUDES ALL MI-DEAL FEES AND DELIVERY

APPROVAL: Please indicate your acceptance of this quotation by signing below:

Customer: X \_\_\_\_\_ Date: \_\_\_ / \_\_\_ / \_\_\_.

# TRUCK & TRAILER Specialties, Inc.

900 Grand Oaks Drive | Howell, MI 48843 | [www.ttspec.com](http://www.ttspec.com) | ph: (517) 552-3855 | fx: (517) 552-3666

**October 25, 2024**

City of Ann Arbor

4251 Stone School Road, Ann Arbor, MI 48108

Attn: CJ Stegink, ph: (734) 646-1846

Equipment to be purchased turnkey via D&K, Edward Merrill, ph: (517) 749-2799

## Equipment Quotation

### Streets Tandem Axle SwapLoader

HQ0004586

**Install SwapLoader Hooklift hoist model #SL-412 including the following:**

40,000 lbs. dumping and lifting capacity with gross weight evenly distributed in and/or on container/body

Hooklift shall be able to handle skid-mounted containers/bodies with lengths of 12-15'

Hooklift shall have a minimum of 60-degree dump angle

Skid-mounted containers/bodies shall be supported with a pair of 6 1/4" minimum diameter outside

flanged rollers at the rear of the hoist, and be adjustable to accommodate bodies/containers with outside subframe rail widths of 40-1/2" or 41-5/8"

**Hooklift operation:**

The lift shall adjust weight distribution of the container/body horizontally on the chassis while remaining in the body locks and without lifting the container/body rails off the hoist frame

Hooklift has a dual rear pivot section incorporated into the hoist design to allow for both a true dump truck operation, with the container/body secured to the hooklift via body locks during the entire dump cycle, and increased mounting leverage at the beginning of the container lift cycle

Hooklift jib to reach rearward to the A-frame lifting bar by means of double articulating hinge points (dual rear pivot) incorporated into the hoist mechanism

All lift sections shall lock into a common rigid full-length frame to support the body/container when in a dump mode. This must be accomplished by mechanical operated latches, which lock the mast

It has a jib lockout valve to prevent jib operation while in dump mode

**Hydraulic cylinders:**

Dump/lift cylinders are double acting, twin cylinders, sized for the unit capacity with dual integral counterbalance valves. Dump/lift cylinders are 6" bore, 3" rod diameter and 56" stroke

Telescopic jib cylinder shall be double acting, single cylinder, sized for unit capacity with a single counterbalance valve. Jib cylinder to be a 4" bore, 2 1/2" rod diameter and 30" stroke

Hydraulic operating pressure will not exceed 3600 PSI

**Mainframe design:**

The mainframe of the hoist is constructed of a "Z" rail configuration

The "Z" rail mainframe is a maximum of 10 1/2" in height and constructed of 1/4" thick A572 50 KSI steel

Hoist "Z" frame rails to include 6 (or 3 per side) 11-3/4" x 2-3/4" x 1/2" Nylatron wear pads for container/body support

The Nylatron pad will allow the containers/bodies to slide back and forth horizontally on the "Z" rail of the hoist with ease

**Jib hook design:**

Vertical Jib is constructed of a 9" x 9" x 1/2" wall square tube of A500 50 KSI steel

Jib hook height is adjustable to either 53-7/8" or 61-3/4" from the bottom of the container/body subframe rails to the bottom of the A-frame lift bar

**Pins:**

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All hooklift pins are constructed of high-strength CFR steel bar

All pinned connections are greaseable to both lubricate the joint and flush out all contaminants

**Body locks:** Hooklift has passive integral slide through body locks to secure the container/body latch plates to the hooklift in dump and transport positions; to accommodate different length bodies and to allow for weight distribution changes while remaining in body locks when in the transport or in dump cycle

**Hooklift warranty:**

The complete mechanism, including hydraulics, will be factory warranted free of defects in material and workmanship for a period of forty-eight (48) months on parts, and twelve (12) months on labor from the date of installation

**Origin of Manufacture:**

Hooklift is engineered, manufactured, and assembled in the U.S.A.

**Install Rexroth A10VO85 Hydraulic Load-Sense Piston Pump including the following:**

Pump is front-mounted with 85CC displacement  
Front crossmember for pump mounting  
Spicer drive line with companion flange for easy removal  
12-volt auto shutdown block  
Low-oil shutdown valve and override circuit switch in-cab

**Install Monroe Combo Fuel/Hydraulic Oil/Valve Enclosure including the following:**

Valve enclosure installed on the fuel side/ driver's side of the combo tank with a lockable T-handle latch  
100-gallon fuel capacity, 30-gallon oil capacity (mos. 00193863-B & 248896)  
7-gauge, type 201 stainless steel construction  
5 PSI pressurized tank cap on hydraulic tank  
3" supply port on hydraulic tank with 3" x 2" suction strainer  
2" ball valve shutoff for supply line to the hydraulic pump  
¾" case drain shutoff  
Tank-mounted return line Zinga oil filter  
30-gallon AW32 hydraulic oil  
Ball valve shutoffs on both fuel supply and return lines  
Fuel gauge sending unit  
Low oil sensor mounted in the top of the tank with an adjustable height  
Install labels to indicate diesel fuel/hydraulic oil  
Install fuel hook mounted on tank for safety

**Install Rexroth 10m4-12 Load-Sense Hydraulic Valve Assembly including the following:**

Air-operated Scraper up/down section  
Air-operated Scraper swing section  
Air-operated Front Plow up/down section  
Air-operated Front Plow swing section  
Air-operated Hoist up/down section  
Air-operated Jib in/out section  
EPC 4-way section for Auger/Packer Body  
EPC 4-way section for Spinner & on/off Hose Reel  
EPC 4-way section for Directional Spinner  
EPC 4-way asymmetrical section for Pre-wet/Anti-ice operations

Above valves within above frame-mounted stainless steel combo tank enclosure

Return line manifold

Stainless steel piping to the rear of the body for pre-wet, spinner and auger

Stainless steel hydraulic couplers for spreader and front plow circuits with dust caps and plugs

**Install TTS Pneu-Logic 8-button air-operated joystick controller for all scraper, jib, hoist & plow functions:**

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Install dash-mounted heads-up display to indicating function activation

Padded arm rest

Function buttons include:

Scraper (up/down, left/right)

Front Plow (up/down, left/right)

Wing Plow (up/down)

Jib/Hoist (in/out, hoist up/down)

Spinner Left

Spinner Right

Includes a safety trigger switch mounted in the handle

Wire "White Pause" button as safety to enable Jib in/out

**Install Dickey-john model CPPWM GRAN Control Point Spreader Control including the following:**

Controller is capable of closed-loop and groundspeed-oriented operation

Liquid and granular drivers

All necessary wiring for valves and application rate sensors

Control Point controller shall include a switch console

Blast button on side of controller

Dickey-john unit shall be connected to the City of Ann Arbor-supplied (AVL) system

The system includes display unit, GPS antenna, scraper sensor & interface box

Salt spreader granular/pre-wet/anti-ice/dust control functions to be calibrated/operational upon delivery

**Install City of Ann Arbor-supplied GPS/AVL system components with special wiring and sensors**

**Install Monroe 29" Husting-type truck-portion Front Hitch including the following:**

12" channel front bumper with tapered ends

Mounted at standard 38-39" hitch height

3" x 10" DA lift cylinder with Socatri rod

All necessary supports and braces

36" poly markers on the ends of the bumper

**Install Monroe 10' model MS4510 Underbody Scraper including the following:**

20" x 1" heat-treated moldboard

½" thick hanger board with grease manifold brackets installed

2-½" O.D. hinge shaft

Two heavy-duty shock absorbers

Bolt-in trunnion caps for canisters; outer arm remains bolt-on style

Two, 3-½" x 10" actuating cylinders with Socatri rods

Cushion valve

1" solid circle with 5" center pin, center pin is piloted into hanger board

Two, 4" x 12" reversing cylinders with Socatri rods

Three hinge anchor points

Hydraulic pipes, hose kit and j-50 type relief valve

20.5" x 7" poly hold-down blocks

Mounting hardware

Parts-installation manual

¾" solid hanger plates

Grease line kit with manifolds

Scraper is powder-coated Black

Install Kennametal single-insert carbide cutting edges

Install one (1) Kennametal carbide curbguard on curbside end of moldboard

Install serrated safety step on streetside end of moldboard

Install Ray Stop moldboard protection kit

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Paint both ends of moldboard Yellow to match cab for visibility

**Install Custom Lighting & Electrical including the following:**

**Utilizing chassis switches:** Front Flashers, Rear Flashers, Attachment Flashers, Scraper Light, Spreader Light & Wing Lights

**Joystick consoles switches:** Pump shutdown/override, Tarp open/close & Tailgate release w/safety cap

**Heads-up Display indicators:** Body-up, low oil, low liquid, joystick functions

Two (2) Grote Heated LED plow lights & aluminum brackets (mo. GR-84661-4) mounted 68" from ground

Two (2) SoundOff (mo. ELB45BCHOPC) amber/green 6" beacon strobes cab-mounted on the SS brackets

Install branch guard for on curbside beacon strobe

Two (2) SoundOff mPower (mo. EMPC2SMS4) amber/green LED flashers flush-mounted in chassis grille

Two (2) Maxxima LED work lights for the scraper, one each side

Two (2) Maxxima LED work lights rear-facing on top of stainless steel light bars

LED marker light in cab skirt beneath driver-side door wired to chassis electrical disconnect switch

LED body marker lights

Proximity switch for body-up light

Proximity switch for Scraper to be Eaton model

Wiring to front plow proximity switch at hitch with weather pack

Betts junction box

Back-up alarm

Chassis grille flashers to be wired on one switch

Top strobes & rear flashers to be wired on one switch

**Install Frame-mounted (3) hole stainless steel light boxes at chassis rear including the following:**

6" oval LED STT lights, LED back-up lights & SoundOff nForce (mo. ENFSLSRV12) amber/green flashers

Two (2) SoundOff mPower (mo. EMPC2SMS4) amber/green flashers, side-facing on rear light boxes

Mounted aft of rear tires/fender both sides of chassis

Rear light oval warning flashers to be wired "on" in reverse with oval Backup light

**Install Rearview Camera with Wash System including the following:**

Camera mounted on rear stainless steel light box

System tying into chassis wiper fluid reservoir

Chassis wiper controls for activating wash system, momentary in-cab switch for air puffer

Air puffer & washer fluid tubing

VCMS24B color camera, high performance and waterproof

CEC34L1 loomed 34' main cable for monitor

VOSHD6MNT double-knuckle monitor mount

MSF5000 stainless steel camera box

VOM719WP 7" LCD color monitor, waterproof

**Install Groeneveld Model #EP-O autolube grease system for Chassis, SwapLoader Hoist & Scraper**

**Install ¾" Rear Hitch Plate and 20-ton pintle hook including the following:**

Pintle Hitch model PH-20, mounting height 20"

The hitch plate is to have multiple holes for adjustment height of pintle hitch

There shall be two (2) ¾" D-rings welded on each side for tow chains

The rear hitch shall have support bracing welded for extra strength and stability

7-way RV flat-pin plug

7-way round pin plug

License plate to be mounted at center of hitch plate

Remount glad hands at rear

**Install Electric Brake Controller, Tekonsha-preferred**

**Install Stainless Steel Fender Kit for tandem axle chassis including the following:**

All necessary mounting brackets

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1 pair of full radius fenders  
Mudflaps mounted at the bottom of the fenders

**Install Miscellaneous items including the following:**

Driver's side shall provide a 3-step egress to cab, painted Yellow to match cab  
Hanging unpainted aluminum step to passenger-side of cab

**Install Minimizer Floor Mats for Western Star 47X (mo. 10002323 / 103739)**

**Paint Front & Rear Hitch, Hoist and attaching hardware painted Black**

**Above installed, non-stainless painted pricing:      \$141,040.00 ea.**

HQ0004586

**Option Install Monroe 9' mid-mounted Patrol Wing parallelogram-type including the following:**

Wing shall be designed to mount behind the underbody blade and shall have moldboard length of 113" at the top and 108" at the bottom

Moldboard is powder-coated Monroe Standard Yellow (MTE-432 to be confirmed)

Moldboard height shall measure 33" inboard and 33" outboard with cutting edge

Moldboard shall be 3/16" A36 steel

Bottom angle is 4" x 4" x 3/4", reinforced between cutting edge holes with ten (10) 3" x 3" x 1/2" gussets

Rubber bumper stop

Twin rear push-arms with hydraulic cylinder for heel lift

Install grease zerk in bolt at front of wing

Rear push-arms have bolt-in design with grease zerks for ease of maintenance

Front arm banjo plate has captive design

A sequencing valve is included

Heel cylinder will include stainless steel hydraulic disconnects

Install SS bracket on end of moldboard with flush-mounted SoundOff dual mPower (mo. EMP5A0B0B-P)

amber/green flasher pointed rearward and an LED marker light pointed forward

Install one (1) 36" Tribal Whip (mo. 36WG) green LED light stick on Wing, laid down

Install additional 1' bolt-on, removable extension on curbside end of moldboard

Install recycled tire cutting edge 5" x 10" x 108" with weld-on 2" round stock curbguard, countersink bolts

Install two (2) Monroe low-profile wing shoes, one each at toe and heel of tire cutting edge

Additional Maxxima 4" LED work light to illuminate wing

Add wing light chassis switch

Add wing indicator light to Heads-Up Display & control button in Pneu-Logic joystick

Additional DA Air section for wing plow to valve assembly

Additional autolube grease system for wing plow

**Install LaserLine GL3000PMC Wing Plow Guidance Laser including the following:**

Green "ultra-bright" laser assembly enclosed in weatherproof housing

Heated front window lens to reduce or eliminate icing

Pneumatic air blast mechanism for lens, blasting every 5 seconds

Control switch installed in-cab for laser on/off and air blast on/off

Laser assembly installed on cab roof chassis bracket

Install branch guard for laser protection

**Option add:      \$25,510.00 ea.**

HQ0004592

**Base Attachment #1**

**Install Skid-mounted Crysteel 14' Select Stainless Steel Dump Body including the following:**

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168" length, 58" front height, 36" side height, 42" rear height, 84" inside width (10.8-12.7 cu yd capacity)

Single panel, pressed-in horizontal side braces

7-gauge 201 stainless steel front, sides and rear pillars

¼" AR450 floor

18" wide rear pillar

9-panel tailgate design constructed of 7-gauge type 201 stainless steel

Tailgate finger latches and pivot plate are stainless steel construction

8" floor-to-sides radius

9" cabshield constructed of 10-gauge type 201 stainless steel

Install 8" hardwood sideboards

Install side-mounted ladder, fold-down on driverside rear

Install two (2) shovel spring-paddle holders on sides of dump

Install banjo-style chain holders on tailgate

Install 12" stainless steel asphalt apron spillshield

Single-acting "pancake-style" air cylinder for air tailgate with stainless steel coupler mounted at rear

**Install Custom Lighting including the following:**

2-hole tapered stainless steel light boxes mounted at rear pillar posts

Two (2) SoundOff LED nForce (mo. ENFSLSRV12) amber/green flashers

Two (2) SoundOff LED stop/turn/taillights mounted in the middle holes

LED body marker lights

**Install Roll-Rite Electric 6400 Tarp System including the following:**

Plug in at the back driver side for clearance when dumping Mesh-type tarp material

Tarp housing mounted on top of cabshield

Tarp arms mounted center of the dump with elbows

**Install SwapLoader skid assembly for model SL-412 including the following:**

Front A-frame and longsills for body mounting, A-frame lift bar set at 54"

Skid with rear heavy-duty 6" roller drums, painted Black, mild steel construction

**Paint Dump underbody and attaching hardware painted Black**

**Base Attachment #1 installed pricing: \$38,395.00 ea.**

HQ0004594

**Base Attachment #2**

**Install Skid-mounted Monroe 14' MCV-168-84-56 Dual Auger V-box Spreader including the following:**

10-gauge 201 stainless steel hopper (9.2 cubic yards)

Hopper length is 168", hopper width is 84" and hopper height is 56"

Stainless steel hopper and spinner construction

2' sloped front and doghouse for hook/loop

45-degree sloped sides with 2" double-crimped top edge

7-gauge 201 stainless steel longitudinals tied together with 3" formed channel cross-sills

Dual 7" auger conveyor system with planetary gearbox drive system

Integral speed sensor in one auger motor

Inverted-V installed over augers; 201 stainless

Auger units include a top-grate kit with safety lock-down provisions

Bolt-down top screens with center H-beam installed, Galvanized

Stainless steel front spillshield, installed

Stainless steel fold-down ladder, side-mounted at front, driverside

20" directional spinner assembly with poly disc, hydraulic cylinder all necessary plumbing to the rear with stainless steel hydraulic disconnects and cab controls

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Stainless steel hydraulic pipe kit for augers/spinner/pre-wet/return, installed and plumbed to the left front corner of the body with jumper hoses and stainless steel couplers

Wire sensors to with WP electrical disconnects to the front of the body with electrical connections

**Install Monroe Pre-Wet System including the following:**

7 GPM closed-loop pre-wet system, Dickey-john flow meter (no hydraulic valve)

Enclosure mounting kit

Twin 125-gallon tanks (250-gallon total capacity) with stainless steel brackets

Remote vent kit for liquid tanks

Bulk fill, flusher kit & crossover hose kit

Pre-wet spray tube installed in auger trough

Install all necessary supports and brackets

Install stainless steel pipe kit from the rear of the spreader to the front of the spreader and equip with stainless couplers for the auger, spinner and pre-wet circuits

**Install Custom Lighting & Electrical including the following:**

Install two (2) stainless steel 2-hole light boxes mounted at rear including:

Two (2) SoundOff nForce (mo. ENFSLSRV12) green/amber LED flashers & two (2) STT lights

LED marker lights

Install Betts junction box at the rear of the body

Lights wired to junction box and wiring extended to the left front corner for hook up with a plug

**Install SwapLoader skid assembly for model SL-412 including the following:**

Front A-frame and longills for body mounting, A-frame lift bar set at 54"

Skid with rear heavy-duty roller drums on long legs, hot-dipped galvanized

Install ½ poly between v-box and SwapLoader skid

Long leg provides the ability to unload the v-box skid without tipping up the spinner

**Base Attachment #2 installed pricing: \$57,310.00 ea.**

HQ0004595

**Base Attachment #3**

**Install Skid-mounted Monroe 2,350-gallon Anti-Ice/Dust Control Tank Assembly including the following:**

2,350-gallon polyethylene tank with a 1.9 rated specific gravity

Tank includes center wall baffle system

Three-lane, closed-loop, non-tiered plumbing kit

190 GPM centrifugal pump with hydraulic motor (Needs 12 GPM for proper operation)

Raven-type flow meter

Three-lane electric boom valves

Three-lane stainless steel wet booms with streamer nozzles; telescoping mount with winch

Install three (3) switches mounted with Dickey-john controller for left, center and right boom control

2nd spray boom is 2" for dust control with separate boom valve for dust control

Includes 2" full-port electric ball valve, 2" hose, clamps, camlock coupler and 2" stainless spray boom

(15) 15 GPM fan nozzles and (2) arc-style spray pattern in boom ends rated at 30 GPM each

Plumb hydraulic circuit from rear to left front corner of skid for hookup and disconnect just behind cab

Wire boom valve circuit, flow meter circuit and lighting circuit from rear of skid to left front corner of the skid for hook up just behind the cab

Ball valve shutoff on the supply port

Bulk fill kit

Install Betts Dri-seal junction box for wire termination and pigtail outlets

**Install Reelcraft Stainless Steel Hose Reel (mos. D83000 OLS-S, S601026-75 & 3-HS1005) with 75' x ¾" hose & bumper stop including the following:**



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Additional 4-way bang-bang coil to valve stack so pump can operate independently from spreader system

Additional solenoid- and boom valve for hose reel

Install double-check in pump circuit

Install weatherproof switch at the rear near the hose reel so the unit can be turned on outside at the rear (This control circuit will allow the hose reel to be operated without the use of the controller. The system could be used for summer watering or could also be used for application of liquid de-icing materials to sidewalks in winter operations. Because it operates independently of the controller.)

**Install Stainless Steel Light Boxes mounted at the rear of the body including the following:**

Two (2) 6" oval stainless steel lightboxes, one each side for SoundOff LED nForce (mo. ENFSLSRV12) amber/green flashers & SoundOff STT lights

LED marker lights

Lights wired to a junction box with wiring extended to the left front corner for hook up with a plug

**Install SwapLoader skid assembly for model SL-412 including the following:**

Front A-frame and longsills for body mounting, A-frame lift bar set at 54"

Skid with rear heavy-duty roller drums, hot-dip galvanized steel construction

**Base Attachment #3 installed pricing: \$41,920.00 ea.**

HQO003445

**Base Attachment #4**

**Install Skid-mounted Poynette 14' Container Dumpster Body including the following:**

168" length, 42" high walls, 90" width

13 cubic yard capacity

3/16" floor with 12-gauge sides

Front panel slanted to aide in clean out

3" structural C-channel crossmembers on 18" centers with 3" structural apron

8" x 10" log rollers with grease fittings at the rear

3" x 4" x 3/16" tubular uprights

Single rear swing-out door, hinged on curbside

Door includes a sweep on the bottom and hinges include grease fittings

3/4" solid round tarp rails front and rear

Top reinforcing tube is 3" x 4" x 3/16" tubing

Ladder built into curbside rear corner

2" x 4" stake pockets on sides & front every 2'

Gravel guard gussets

Guide latch on sides of doors

1/2" thick wheel plates

Floor-to-wall, A-frame, and rear stiffeners are continuously welded

Door safety chain with heavy-duty latch system

Decal plates and DOT tape included

Body painted Black

Two (2) spring-paddle shovel holders on curbside

**Install Manual tarp system mounted at front with mesh tarp and tarp hooks mounted at rear**

**Install SwapLoader skid assembly for model SL-412 including the following:**

Front A-frame and longsills for body mounting, A-frame lift bar set at 54"

Skid with rear heavy-duty roller drums, mild steel construction

**Base attachment #4 installed pricing: \$10,998.00 ea.      Quantity of 2**

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HQ0004598

**Option Install Skid-mounted Container Body with High Sides in lieu of Low Sides including the following:**

168" length, 60" high walls, 90" width

19 cubic yard capacity

**Option add: \$400.00 ea. Quantity of 2**

**Chassis requirements to be confirmed at time of order:**

Western Star 47X, Cummins X12

CT: 138" TBD

Highest ground clearance

Three (3) batteries mounted driverside as far aft as possible

SCR and DPF mounted back of cab

13-gallon DEF tank driverside behind front fender

Front of engine PTO

Air tanks mounted between the frame rails

Tractor package pre-wiring to the rear for air & electric brake controller

Front frame extension

Delete OEM bumper

Temporary 50-gallon fuel tank positioned under driver's door

Stationary grille standard on Western Star 47X

Plow light/Headlight switch and related OEM wiring

6-pack programmable chassis switches

30K-063 150 AMP service between seats with blunt cuts

Stainless steel cab brackets for beacons and wiring

**Exceptions:**

Truck & Trailer Specialties, Inc. declares with the enclosed bid submittal that we do not comply with the Fair Living Wage proposal of the City of Ann Arbor as defined in Section 1:811-1:821 of Chapter 23 of Title I of the Code.

Truck & Trailer Specialties, Inc. also declares that we do not comply with Chapter 112 of Title IX of the Code of the City of Ann Arbor and in particular the following Section 1:811-1:821 of Chapter 23 of Title I of the Code.

Truck & Trailer Specialties, Inc. does affirm that we do comply with both the minimum wage requirements as defined and governed by the State of Michigan as well as the non-discrimination laws as defined and governed by the State of Michigan.

**Payment Terms:** Net 30. Pricing effective for 30 days.

**FOB:** City of Ann Arbor

**Delivery:** 16-18 months ARO, depending on chassis arrival

**Thank you for the opportunity to quote.**

Respectfully submitted by,  
Jon Luea/Brian Bouwman