

Summary of Quotes

Streets Department

		Quantity	Total
Single Axle Chassis	\$ 251,049.51	3	\$ 753,148.53
Spreader Body	\$ 52,095.80	3	\$ 156,287.40
Tandem Axle	\$ 318,543.77	2	\$ 637,087.54
Chassis Dump Body	\$ 39,344.55	2	\$ 78,689.10
Spreader Body	\$ 57,160.95	2	\$ 114,321.90
Tanker Body	\$ 42,324.05	2	\$ 84,648.10
Grand Total			\$ 1,824,182.57

Utilities Department

		Quantity	Total
Single Axle Chassis	\$ 244,681.46	2	\$ 489,362.92
Dump Body	\$ 35,309.60	2	\$ 70,619.20
Grand Total			\$ 559,982.12

PO Total \$ 2,384,164.69

Some options on the following detailed quotes were not selected as part of this purchase.

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

2 0 2 5 4 7 X S I N G L E A X L E

MI DEAL CONTRACT # 071B6600119

STREETS: SWAP LOADER (3) UNITS

WESTERN STAR 47X

SET BACK AXLE - TRUCK
CUM L9 330 HP @ 2200 RPM; 2200 GOV RPM, 1000 LB-
FT @ 1200 RPM
ALLISON 3000 RDS AUTO TRANS WITH PTO PROVISION
RS-23-160 23,000# R-SERIES SINGLE REAR AXLE
HENDRICKSON PRIMAXX EX26,000# REAR AIR
SUSPENSION

DETROIT DA-F-20.0-5 20,000# SINGLE FRONT AXLE
20,000# FLAT LEAF FRONT SUSPENSION
111.6 INCH BBC CONVENTIONAL ALUMINUM CAB
4675MM (184 INCH) WHEELBASE
11.0MM X 85.0MM X 287.0MM STEEL FRAME
(0.43X3.35X11.30 INCH) 120 KSI
1650MM (65 INCH) REAR FRAME OVERHANG

		PER UNIT	
VEHICLE PRICE	SUB-TOTAL	\$ 364,227.21	\$
CHASSIS, BOX, MI-DEAL FEES, WARRANTIES		\$	\$
CUSTOMER PRICE BEFORE TAX		\$	\$
TAXES AND FEES			
FEDERAL EXCISE TAX (FET)		\$ 0	\$
TAXES AND FEES		\$ 0	\$
TITLE/DOC		\$ 215	\$
TOTAL (EACH)		\$ 364,442.21 EA	

CHASSIS PORTION NET 30 DAYS

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

Customer: X _____ Date: ___ / ___ / ___.

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

Vehicle Configuration

WESTERN STAR 47X	9,050	6,525
2025 MODEL YEAR SPECIFIED		
SET BACK AXLE - TRUCK		
TRAILER TOWING PROVISION AT END OF FRAME WITH SAE J560, WITHOUT END OF FRAME AIR CONNECTIONS	15	15
LH PRIMARY STEERING LOCATION		

General Service

TRUCK CONFIGURATION
EPA EMISSIONS CERTIFICATION FOR
REGISTRATION OUTSIDE CARB STATES - EPA
CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON
LOWER FORWARD OF DRIVER DOOR)
NO STATE/PROVINCE INITIAL REGISTRATION
SELECTED
CONSTRUCTION SERVICE
GOVERNMENT BUSINESS SEGMENT
DIRT/SAND/ROCK COMMODITY
TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN
TRANSIT, IS SPENT ON PAVED ROADS
MAXIMUM 8% EXPECTED GRADE
SMOOTH CONCRETE OR ASPHALT PAVEMENT -
MOST SEVERE IN-TRANSIT (BETWEEN SITES)
ROAD SURFACE
WESTERN STAR VOCATIONAL WARRANTY
EXPECTED FRONT AXLE(S) LOAD : 20000.0 lbs
EXPECTED REAR DRIVE AXLE(S) LOAD :
23000.0 lbs
EXPECTED GROSS VEHICLE WEIGHT CAPACITY
: 43000.0 lbs

Truck Service

END DUMP BODY
TRUCK AND TRAILER SPECIALTIES INC.

Engine

CUM L9 330 HP @ 2200 RPM; 2200 GOV RPM, 1000 LB-FT @ 1200 RPM	-850	-70
--	------	-----

Electronic Parameters

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

72 MPH ROAD SPEED LIMIT
PTO MODE ENGINE RPM LIMIT - 1600 RPM
PTO RPM WITH CRUISE SET SWITCH - 700 RPM
PTO RPM WITH CRUISE RESUME SWITCH - 700 RPM
CRUISE CONTROL BUTTON PTO CONTROL
PTO SPEED 1 SETTING - 700 RPM
PTO MINIMUM RPM - 700
PTO 1, DASH SWITCH, ENGAGE WHILE DRIVING
ENGINE MOUNT PTO, DASH SWITCH ENGAGES
PTO MODE, DRIVING OPERATION

Engine Equipment

EPA 2010/GHG 2024 CONFIGURATION		
STANDARD OIL PAN		
ENGINE MOUNTED OIL CHECK AND FILL		
SIDE OF HOOD AIR INTAKE WITH ENGINE MOUNTED HIGH CAPACITY AIR CLEANER, PASSIVE PRECLEANER, WITH INSIDE/OUTSIDE AIR AND SNOW DOOR	10	
DR 12V 160 AMP 28-SI QUADRAMOUNT PAD ALTERNATOR WITH REMOTE BATTERY VOLT SENSE	-10	
(3) DTNA GENUINE, FLOODED STARTING, MIN 3000CCA, 555RC, THREADED STUD BATTERIES	-10	
BATTERY BOX WITH ALUMINUM COVER MOUNTED SHORT SIDE TO RAIL	-50	10
LH BATTERY BOX MOUNTED AS FAR AFT AS POSSIBLE, NO GREATER THAN 60 INCHES BACK OF CAB		
WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN		
NON-POLISHED BATTERY BOX COVER WITH TETHER		
POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT	2	
CUMMINS TURBOCHARGED 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE		
ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM		
C-BRAKE BY JACOBS WITH LOW/OFF/HIGH BRAKING DASH SWITCH		
RAISED RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE	-35	-30

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD ACTIVE REGENERATION AND VIRTUAL REGENERATION REQUEST SWITCH IN CLUSTER AND DASH MOUNTED INHIBIT SWITCH		
10 FOOT 06 INCH (126 INCH+0/-5.9 INCH) EXHAUST SYSTEM HEIGHT		
RH CURVED VERTICAL TAILPIPE B-PILLAR RAISED UNDER STEP MOUNTED AFTERTREATMENT SYSTEM		
13 GALLON DIESEL EXHAUST FLUID TANK	9	3
UNPOLISHED ALUMINUM WST DIESEL EXHAUST FLUID TANK COVER		
LH HEAVY DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION		
STANDARD DIESEL EXHAUST FLUID TANK CAP		
STAINLESS STEEL AFTERTREATMENT DEVICE/MUFFLER/TAILPIPE SHIELD		
AIR POWERED ON/OFF ENGINE FAN CLUTCH AUTOMATIC FAN CONTROL WITH DASH SWITCH AND INDICATOR LIGHT, NON ENGINE MOUNTED		
DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR	10	
CUMMINS SPIN ON FUEL FILTER		
FULL FLOW OIL FILTER		
1400 SQUARE INCH VOCATIONAL RADIATOR WITH PROTECTION PACKAGE	20	
ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT		
GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT		
RADIATOR DRAIN VALVE		
LOWER RADIATOR GUARD		
1310 ADAPTER FLANGE FOR FRONT PTO PROVISION	10	
PHILLIPS-TEMRO 1000 WATT/115 VOLT BLOCK HEATER	4	
CHROME ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR		
ELECTRIC GRID AIR INTAKE WARMER		
DELCO 12V 39MT HD/OCP STARTER WITH THERMAL PROTECTION AND INTEGRATED MAGNETIC SWITCH	-45	

Transmission

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

ALLISON 3000 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION -230 -130

Transmission Equipment

ALLISON VOCATIONAL PACKAGE 223 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODELS RDS, HS, MH AND TRV

ALLISON VOCATIONAL RATING FOR CONCRETE MIXER APPLICATIONS ONLY AVAILABLE WITH 3000 PRODUCT FAMILIES

PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY

SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY

PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

QUICKFIT BODY LIGHTING CONNECTOR UNDER CAB, WITH BLUNTCUTS

ELECTRONIC TRANSMISSION WIRING TO CUSTOMER INTERFACE CONNECTOR

CUSTOMER INSTALLED CHELSEA 280 SERIES PTO

PTO MOUNTING, LH SIDE OF MAIN TRANSMISSION ALLISON

MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN

HEAVY DUTY ELECTRONIC TRANSMISSION SHIFT CONTROL, COLUMN MOUNTED

WATER TO OIL TRANSMISSION COOLER

TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK

SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)

Front Axle and Equipment

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

DETROIT DA-F-20.0-5 20,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE	190
CONMET PRESET PLUS PREMIUM ALUMINUM FRONT HUBS	
MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	10
NON-ASBESTOS FRONT BRAKE LINING	
CONMET CAST IRON FRONT BRAKE DRUMS	
FRONT BRAKE DUST SHIELDS	5
FRONT OIL SEALS	
VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL	
HALDEX AUTOMATIC FRONT SLACK ADJUSTERS	
DUAL POWER STEERING GEARS, BENDIX 16- 20K	80
4 QUART POWER STEERING RESERVOIR	5
OIL/AIR POWER STEERING COOLER	5
CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE	

Front Suspension

20,000# FLAT LEAF FRONT SUSPENSION	250
THREADED SPRING PINS AND BUSHINGS - FRONT SUSPENSION	
FRONT SHOCK ABSORBERS	

Rear Axle and Equipment

RS-23-160 23,000# R-SERIES SINGLE REAR AXLE	-2,260
CONMET PRESET PLUS PREMIUM ALUMINUM REAR HUBS	
5.38 REAR AXLE RATIO	
IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING	
MXL 176T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	-50
NO INTERAXLE (#3) DRIVELINE	
DRIVER CONTROLLED TRACTION DIFFERENTIAL - SINGLE REAR AXLE	20
(1) DRIVER CONTROLLED DIFFERENTIAL LOCK REAR VALVE FOR SINGLE DRIVE AXLE	
INDICATOR LIGHT FOR EACH DIFFERENTIAL LOCKOUT SWITCH	

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR
BRAKES, DOUBLE ANCHOR, FABRICATED
SHOES

NON-ASBESTOS REAR BRAKE LINING

ASPHALT SPREADER CLEARANCE REAR
BRAKE GEOMETRY

CONMET CAST IRON REAR BRAKE DRUMS

REAR BRAKE DUST SHIELDS 5

REAR OIL SEALS

WABCO TRISTOP D LONGSTROKE 1-DRIVE -20
AXLE SPRING PARKING CHAMBERS

HALDEX AUTOMATIC REAR SLACK ADJUSTERS

CURRENT AVAILABLE SYNTHETIC 75W-90 REAR
AXLE LUBE

STANDARD REAR AXLE BREATHER(S)

Rear Suspension

HENDRICKSON PRIMAXX EX26,000# REAR AIR -300
SUSPENSION

10.2 INCH NOMINAL RIDE HEIGHT (475MM
GLOBAL REFERENCE HEIGHT)

STANDARD AXLE SEATS IN AXLE CLAMP
GROUP

IGNITION CONTROLLED ELECTRIC DUMP
SWITCH FOR AIR SUSPENSION WITH STATE
RETENTION AND GAUGE

REAR AIR SUSPENSION DUMP VALVE AUTOFILL
>5 MPH WITH INDICATOR LIGHT

DUAL AIR REAR SUSPENSION LEVELING
VALVES

FORE/AFT AND TRANSVERSE CONTROL RODS

REAR SHOCK ABSORBERS - ONE AXLE (AIR
RIDE SUSPENSION)

Brake System

WABCO 4S/4M ABS WITH TRACTION CONTROL
WITH ATC SHUT OFF SWITCH

REINFORCED NYLON, FABRIC BRAID AND WIRE
BRAID CHASSIS AIR LINES

RELAY VALVE WITH 5-8 PSI CRACK PRESSURE,
NO REAR PROPORTIONING VALVE

WABCO SYSTEM SAVER 1200 HEATED AIR
DRYER WITH PRESSURE CONTROL VALVE

WABCO OIL COALESCING FILTER FOR AIR
DRYER

AIR DRYER MOUNTED UNDER HOOD

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

STEEL AIR BRAKE RESERVOIRS MOUNTED
INSIDE RAIL
PULL CABLES ON ALL AIR RESERVOIR(S)

Trailer Connections

PRIMARY CONNECTOR/RECEPTACLE WIRED
FOR SEPARATE STOP/TURN, ABS CENTER PIN
POWERED THROUGH IGNITION
SAE J560 7-WAY PRIMARY TRAILER CABLE
RECEPTACLE TEMPORARY TIED & COILED IN
CHASSIS END OF FRAME WITH 2' ADDITIONAL;
NO BRACKETS

Wheelbase & Frame

4675MM (184 INCH) WHEELBASE		
11.0MM X 85.0MM X 287.0MM STEEL FRAME (0.43X3.35X11.30 INCH) 120 KSI	-10	250
TEM TO EVALUATE AND INSTALL FRAME RAIL REINFORCEMENT AS NEEDED FOR FRONT FRAME MOUNTED EQUIPMENT		
1650MM (65 INCH) REAR FRAME OVERHANG		
FRAME OVERHANG RANGE: 61 INCH TO 70 INCH	-30	80
24 INCH INTEGRAL FRONT FRAME EXTENSION	100	
CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 118.9 in		
CALC'D FRAME LENGTH - OVERALL : 317.99 in		
FRAME HEIGHT TOP FRONT UNLADEN : 46.2 in		
FRAME HEIGHT TOP FRONT LADEN : 42.12 in		
FRAME HEIGHT TOP REAR UNLADEN : 42.5 in		
FRAME HEIGHT TOP REAR LADEN : 41.2 in		
SQUARE END OF FRAME		
STANDARD WEIGHT ENGINE CROSSMEMBER		
STANDARD CAST ALUMINUM CROSSMEMBER BACK OF TRANSMISSION		
STANDARD CAST ALUMINUM MIDSHIP		
STANDARD CAST ALUMINUM REARMOST CROSSMEMBER		
STANDARD SUSPENSION CROSSMEMBER		
CAST ALUMINUM REAR SUSPENSION CROSSMEMBER		

Chassis Equipment

UNPOLISHED ALUMINUM WST EQUIPMENT
COVERS

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

OMIT FRONT BUMPER, CUSTOMER INSTALLED
SPECIAL BUMPER, DOES NOT COMPLY WITH
FMCSR 393.203 -60
NO FRONT TOW HOOKS -15
HUCK-SPIN ROUND COLLAR CHASSIS
FASTENERS
EXTERIOR HARNESSSES WRAPPED IN
ABRASION TAPE

Fuel Tanks

50 GALLON/189 LITER ALUMINUM FUEL TANK -
LH -25
25 INCH DIAMETER FUEL TANK(S)
PLAIN ALUMINUM/PAINTED STEEL
FUEL/HYDRAULIC TANK(S) WITH PAINTED
BANDS
FUEL TANK(S) FORWARD
PLAIN STEP FINISH
FUEL TANK CAP(S)
EQUIFLO INBOARD FUEL SYSTEM
HIGH TEMPERATURE REINFORCED NYLON
FUEL LINE

Tires

MICHELIN XZU-S2 315/80R22.5 20 PLY RADIAL
FRONT TIRES 100
MICHELIN X WORKS D 11R22.5 16 PLY RADIAL
REAR TIRES 124

Wheels

ACCURIDE 29039 22.5X9.00 10-HUB PILOT 5.25
INSET 5-HAND STEEL DISC FRONT WHEELS 66
ACCURIDE 28828 22.5X8.25 10-HUB PILOT 2-
HAND HD STEEL DISC REAR WHEELS 52
NO FRONT AXLE WHEEL/HUB COVER
NO WHEEL/HUB COVER-PUSHER/TAG
FRONT WHEEL MOUNTING NUTS
REAR WHEEL MOUNTING NUTS

Cab Exterior

111.6 INCH BBC CONVENTIONAL ALUMINUM
CAB
PAINTED CAB ACCENT MOLDING
FRONT FENDERS
BOLT-ON MOLDED FLEXIBLE FENDER
EXTENSIONS 10

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

INTERIOR GRAB HANDLES WITH ADDED
LOWER LH AND RH A PILLAR GRAB HANDLES
AND LH AND RH EXTERIOR NON-SLIP GRAB
HANDLES
BRIGHT HOOD MOUNTED AIR INTAKE GRILLE,
BLACK SCREEN
X-SERIES STEEL REINFORCED ALUMINUM CAB
X-SERIES VOCATIONAL HOOD
HOOD OPENING ASSIST WITH LOCKING STRUT
WESTERN STAR NAMEPLATES
DUAL ROUND AIR HORNS, SINGLE BASE,
MOUNTED UNDER CAB
DUAL ELECTRIC HORNS
REAR LICENSE PLATE MOUNT END OF FRAME
SWITCH, INDICATOR LIGHT AND WIRING FOR
(1) CUSTOMER FURNISHED BEACON
DUAL STAGE INTELLIGENT LED HEADLIGHTS
WITH HEATED LENS SYSTEM
ROOF MOUNTED LED MARKER LIGHTS
WIRING AND SWITCH FOR CUSTOMER
FURNISHED SNOW PLOW LAMPS WITH DUAL
CONNECTIONS AT BUMPER
DAYTIME RUNNING LIGHTS
INTEGRAL LED STOP/TAIL/BACKUP LIGHTS
LED SIDE TURN SIGNAL
C-BAR MIRROR SYSTEM WITH DUAL HEATED
MIRRORS WITH INTEGRAL HEATED CONVEX,
DUAL REMOTE, STAINLESS STEEL BACK
COVER, AND BLACK C-BAR
102 INCH EQUIPMENT WIDTH
LH AND RH CONVEX MIRRORS INTEGRAL WITH
PRIMARY MIRRORS
RH DOWN VIEW MIRROR
STANDARD SIDE/REAR REFLECTORS
UNPOLISHED ALUMINUM WST
AFTERTREATMENT SYSTEM COVER
HIGH VISIBILITY 3-PIECE SOLAR TINTED REAR
WINDOW, (1) 31 INCH X 20 INCH SOLAR TINTED
REAR WINDOW, (2) 9 INCH X 20 INCH
1-PIECE ROPED-IN SOLAR GREEN GLASS
WINDSHIELD
1.5 GALLON WINDSHIELD WASHER RESERVOIR
MOUNTED UNDER CAB WITH REMOTE FILL

20

Cab Interior

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

X-SERIES BASE INTERIOR TRIM LEVEL PACKAGE
CHARCOAL BLACK VINYL BASE LEVEL INTERIOR
CARBON WITH BASE BLACK ACCENT
BLACK MATS WITH ADDED FLOOR HEAT AND NOISE INSULATION
(2) DASH MOUNTED POWER OUTLETS AND COIN TRAY
FORWARD ROOF MOUNTED CONSOLE
LH AND RH DOOR STORAGE POCKETS INTEGRATED INTO MOLDED DOOR PANELS
(2) COAT HOOKS ON BACKWALL OF CAB
DIGITAL ALARM CLOCK IN DRIVER DISPLAY
STANDARD HEATER PLUMBING WITH BALL SHUTOFF VALVES AT SUPPLY LINES ONLY
RADIATOR MOUNTED AIR CONDITIONER CONDENSER
PREMIUM INSULATION
STANDARD LED CAB LIGHTING
NO SECURITY DEVICE
ALL UNIT (S) KEYED ALIKE WITH CUSTOMER SPECIFIED KEY NUMBER FT1041
KEY QUANTITY OF 4
LH AND RH ELECTRIC DOOR LOCKS WITH AUTO UNLOCK FEATURE WHEN DOOR IS SET FROM OPEN TO CLOSED POSITION
BLACK DOOR HANDLES
PREMIUM 2.0 HIGH BACK AIR SUSPENSION DRIVER SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK 20
PREMIUM 2.0 HIGH BACK AIR SUSPENSION PASSENGER SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK 40 15
DUAL DRIVER AND PASSENGER SEAT ARMRESTS 8
BLACK MORDURA CLOTH DRIVER SEAT COVER WITH EMBROIDERED LOGO
BLACK MORDURA CLOTH PASSENGER SEAT COVER WITH EMBROIDERED LOGO
3 POINT ADJUSTABLE D-RING RETRACTOR DRIVER AND FIXED D-RING RETRACTOR PASSENGER SEAT BELTS

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

ADJUSTABLE TILT AND TELESCOPING
STEERING COLUMN
4-SPOKE 18 INCH (450MM) BLACK STEERING
WHEEL WITH SWITCHES
DRIVER AND PASSENGER INTERIOR SUN
VISORS

Instruments & Controls

STANDARD FOOT PEDAL SYSTEM
ELECTRONIC ACCELERATOR CONTROL
BLACK GAUGE BEZELS
STANDARD CENTER INSTRUMENT PANEL
DUAL NEEDLE PRIMARY AND SECONDARY AIR
PRESSURE GAUGE
DASH MOUNTED AIR RESTRICTION INDICATOR
WITH GRADUATIONS 2
ELECTRONIC CRUISE CONTROL WITH
CONTROLS ON STEERING WHEEL SPOKES
KEY OPERATED IGNITION SWITCH AND
INTEGRAL START POSITION; 4 POSITION
OFF/RUN/START/ACCESSORY
PREMIUM INSTRUMENT CLUSTER WITH 5.0
INCH TFT COLOR DISPLAY
DIGITAL PANEL LAMP DIMMER SWITCH IN
DRIVER DISPLAY
HEAVY DUTY ONBOARD DIAGNOSTICS
INTERFACE CONNECTOR WITH DUST CAP
LOCATED BELOW LH DASH
2 INCH ELECTRIC FUEL GAUGE
ENGINE REMOTE INTERFACE WITH ONE OR
MORE SET SPEEDS
ENGINE COOLANT TEMPERATURE GAUGE
ELECTRIC ENGINE OIL PRESSURE GAUGE
2 INCH TRANS OIL TEMPERATURE GAUGE
OUTSIDE TEMPERATURE SENSOR DISPLAY IN
DRIVER MESSAGE CENTER
ENGINE AND TRIP HOUR METERS INTEGRAL
WITHIN DRIVER DISPLAY
PTO CONTROLS FOR ENHANCED VEHICLE
ELECTRIC/ELECTRONIC ARCHITECTURE
ELECTRONIC STABILITY CONTROL
QUICKFIT PROGRAMMABLE INTERFACE
MODULE 10
TMC RP1226 ACCESSORY CONNECTOR
LOCATED BEHIND PASSENGER SIDE
REMOVEABLE DASH PANEL

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

AM/FM/WB WORLD TUNER RADIO WITH
BLUETOOTH, USB AUXILIARY INPUTS, J1939
DASH MOUNTED RADIO
STANDARD SPEAKER SYSTEM
POWER GROUND WIRING PROVISION
OVERHEAD
OVERHEAD CONSOLE CB RADIO PROVISION
SINGLE REMOTE SPEAKER WITH LEAD FOR 2-
WAY RADIO
SINGLE FIBERGLASS LH MIRROR MOUNTED CB
ANTENNA WITH BRACKET AND LEAD
HEADLINER MULTI-BAND ANTENNA:
AM/FM/WEATHERBAND, WIFI/BLUETOOTH,
GNSS/GPS
ELECTRONIC MPH SPEEDOMETER WITH
SECONDARY KPH SCALE
ELECTRONIC 2500 RPM TACHOMETER
DETROIT CONNECT PLATFORM HARDWARE
5 YEARS DAIMLER CONNECTIVITY BASE
PACKAGE (FEATURES VARY BY MODEL)
POWERED BY DETROIT CONNECT
IGNITION SWITCH CONTROLLED ENGINE STOP
PRE-TRIP INSPECTION FEATURE FOR
EXTERIOR LAMPS ONLY
REAR SPRING LOADED HAND CONTROL BRAKE VALVE 2
2 INCH TURBO AIR PRESSURE GAUGE
DIGITAL VOLTAGE DISPLAY INTEGRAL WITH
DRIVER DISPLAY
ROTARY HEADLAMP SWITCH, MARKER
LIGHTS/HEADLIGHTS SWITCH WITH PULL OUT
FOR OPTIONAL FOG/ROAD LAMPS
ONE VALVE PARKING BRAKE SYSTEM WITH
DASH VALVE CONTROL AUTONEUTRAL AND
WARNING INDICATOR
SELF CANCELING TURN SIGNAL SWITCH WITH
DIMMER, HEADLAMP FLASH,
WASH/WIPE/INTERMITTENT
PROGRAMMABLE SWITCHES/INDICATORS
LOCATED IN AUXILIARY PANEL
QUICKFIT POWERTRAIN INTERFACE
CONNECTOR BETWEEN SEATS WITH CAPS
5 EXTRA PROGRAMMABLE
SWITCHES/INDICATORS
QUICKFIT PROGRAMMABLE INTERFACE
CONNECTOR(S) BETWEEN SEATS WITH CAP

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

Color

CAB COLOR A YELLOW MATCH S/N JL6765
BLACK, HIGH SOLIDS POLYURETHANE CHASSIS
POWDER WHITE (N0006EA) FRONT
WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)
POWDER WHITE (N0006EA) REAR
WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)

Extended Warranty

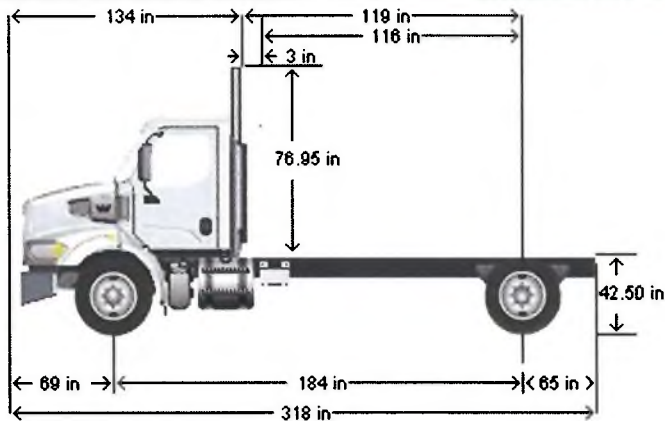
CUM 2017 L9: HD1 MD DTY 5 YEARS / 100,000 MILES / 161,000 KM
EXTENDED WARRANTY. FEX APPLIES
CUM 2017 L9: AT3 MD DTY 5 YEARS / 100,000 MILES / 161,000 KM
AFTERTREATMENT. FEX APPLIES
ALLISON 3000 RDS SERIES TRANSMISSION EXTEND WARRANTY, 5
YEARS/UNLIMITED MILES FEX

(***) 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.

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

D I M E N S I O N S



VEHICLE SPECIFICATIONS SUMMARY - DIMENSIONS

Model..... 47X
Wheelbase (545)..... 4675MM (184 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)..... RAISED RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE

TABLE SUMMARY - DIMENSIONS

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

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)	118.9
Effective Back of Cab to Centerline of Rear Axle(s) (Effective CA)	115.9
Back of Cab Protrusions (Exhaust/Intake) (CP)	2.0
Back of Cab Protrusions (Side Extenders/Trim Tab) (CP)	0.0
Back of Cab Protrusions (CNG Tank)	0.0
Back of Cab Clearance (CL)	3.0
Back of Cab to End of Frame	183.9
Cab Height (CH)	76.9
Wheelbase (WB)	184.1
Frame Overhang (OH)	65.0
Overall Frame Length	318.0
Overall Length (OAL)	318.1
Rear Axle Spacing	0.0
Unladen Frame Height at Centerline of Rear Axle	42.5

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

TRUCK & TRAILER Specialties, Inc.

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

October 12, 2023

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 Single Axle SwapLoader

HQQ003083

Install SwapLoader Hooklift hoist model #SL-2418 including the following:

24,000 lbs. dumping capacity and a minimum lifting capacity of 24,000 lbs. with gross weight evenly distributed in and/or on container/body

Hooklift shall be able to handle skid-mounted containers/bodies with lengths of 10-13'

Hooklift shall have a minimum of 57-degree dump angle, on a 41" truck frame height chassis

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 5.5" bore, 2.5" rod diameter and 39" 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" rod diameter and 24" stroke

Hydraulic operating pressure not to exceed 2800 PSI

Mainframe design:

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

The "Z" rail mainframe is a maximum of 8.5" 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

Nylatron pads allow containers/bodies to slide back and forth horizontally on "Z" rail of hoist with ease

Jib hook design:

Vertical Jib is constructed of an 8" x 8" x 3/8" wall square tube of A500 46 KSI steel

Jib hook height is 54" from bottom of container/body subframe rails to the bottom of the A-frame lift bar

TRUCK & TRAILER *Specialties, Inc.*

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

Hooklift is to be able to pick up a container/body that rests 21" below the grade that the truck chassis is on (assumes a 41" truck frame height)

Jib hook is designed to secure container/body to hoist without the need for a hook latch mechanism to cover the hook opening

Jib hook to be permanently welded to jib

Pins:

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, 35-gallon oil capacity (mos. 00166450 & 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

35-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 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 3-way section for Auger

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

TRUCK & TRAILER *Specialties, Inc.*

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

- 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:**
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
- 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

TRUCK & TRAILER *Specialties, Inc.*

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

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
Paint both ends of moldboard Yellow to match cab for visibility

Install Custom Lighting & Electrical including the following:

Utilizing chassis switches: Front Flashers, All Flashers, Scraper Light & Spreader Light
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
One (1) SoundOff Pinnacle (mo. EPL7PDPC) amber/green mini lightbar & weather-pack on cab roof riser
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 and top strobes 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
License plate to be mounted at center of hitch plate

Install Electric Brake Controller, Tekonsha-preferred

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

All necessary mounting brackets
1 pair of full radius fenders

TRUCK & TRAILER *Specialties, Inc.*

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

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: \$123,250.00 ea.

HQQ003161

Option Install Monroe 7' mid-mounted Jr. Wing MJW-7' parallelogram-type including the following:

7' moldboard length, 27" intake height, 28" discharge height

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

Captive style moldboard and banjo plate

Wing Post is mounted just ahead of front drive tire with rear push arm mounted behind the rear drive tire

Wing Post is parallelogram design and shall mount directly ahead of the drive tire

Rear pusharm is to be equipped with a 6" cushion spring

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

Hydraulic circuit for the wing is equipped with a sequencing valve for proper operation of the wing

Sequencing valve shall have built-in, manually adjustable flow controls

Wing is to be equipped with stainless steel hydraulic disconnects for easy removal

Wing will also be equipped with a cushioned rubber stop to prevent it from hitting the body when

placed in the stored position at any adjusted angle

Install a 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 83" with a 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

Install safety clamp for wing push-arm spring

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: \$23,635.00 ea.

HQQ003089

Base Attachment #1

Install Skid-mounted Monroe 11' MCV-132-84-56 Dual Auger V-box Spreader including the following:

10-gauge 201 stainless steel hopper (7.2 cubic yards)

TRUCK & TRAILER Specialties, Inc.

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

Hopper length is 132", 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
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 100-gallon tanks (200-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-2418 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 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 #1 installed pricing: \$51,580.00 ea.

HQO003085

Base Attachment #2

Install Skid-mounted Monroe 1,235-gallon Anti-Ice/Dust Control Tank Assembly including the following:

1,235-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

TRUCK & TRAILER Specialties, Inc.

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

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:

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-2418 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 #2 installed pricing: \$37,055.00 ea.

Above total equipment installed, non-stainless painted pricing: \$235,520.00 ea.

Chassis requirements to be confirmed at time of order:

CA: 118" TBD

Highest ground clearance

Horizontal DPF and SCR mounted under the cab

13-gallon DEF tank driverside behind front fender

Front of engine PTO

Air tanks mounted between the frame rails

Trailer pre-wiring to the rear for electric brake controller

Front frame extension

Delete OEM bumper

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

Stationary grille

Plow light/Headlight switch and related OEM wiring

5-pack programmable chassis switches

Stainless steel roof bracket, curbside

TRUCK & TRAILER *Specialties, Inc.*

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

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: 360-420 days ARO, depending on chassis arrival

Thank you for the opportunity to quote.

Respectfully submitted by,
Jon Luea/Brian Bouwman

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

2 0 2 5 T A N D E M C H A S S I S

MI DEAL CONTRACT # 071B6600119

STREETS -- SWAP LOADER PACKAGE (2) UNITS

WESTERN STAR 47X

SET BACK AXLE - TRUCK
CUM X12 455V HP @ 1900 RPM, 1700 LB-FT @ 1000 RPM, 2000 GOV RPM, VOC
ALLISON 4500 RDS AUTOMATIC WITH PTO PROVISION
RT-46-160 46,000# R-SERIES TANDEM REAR AXLE
HENDRICKSON HAULMAAX EX 46,000# REAR SUSPENSION

DETROIT DA-F-20.0-5 20,000# SINGLE FRONT AXLE
20,000# FLAT LEAF FRONT SUSPENSION
111.6 INCH BBC CONVENTIONAL ALUMINUM CAB
5175MM (204 INCH) WHEELBASE
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

VEHICLE PRICE	SUB TOTAL EACH	\$	457,158.32
CHASSIS, BOX, EXT WARRANTY AND MI-DEAL CONTRACT FEES			

CUSTOMER PRICE BEFORE TAX

TAXES AND FEES

MIDEAL % CONTRACT FEE	\$	0	\$
TAXES AND FEES	\$	0	\$
TITLE /DOC	\$	215	\$
TOTAL PER UNIT			\$ 457,373.32

CHASSIS PAYMENT PORTION NET 30.

APPROVAL:

Please indicate your acceptance of this quotation by signing below:

Customer: X _____ Date: ___ / ___ / ___.

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

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

Vehicle Configuration

WESTERN STAR 47X	9,050	6,525
2025 MODEL YEAR SPECIFIED		
SET BACK AXLE - TRUCK		
TRAILER TOWING PROVISION AT END OF FRAME WITH SAE J560	10	10
LH PRIMARY STEERING LOCATION		

General Service

TRUCK/TRAILER CONFIGURATION
EPA EMISSIONS CERTIFICATION FOR
REGISTRATION OUTSIDE CARB STATES - EPA
CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON
LOWER FORWARD OF DRIVER DOOR)
NO STATE/PROVINCE INITIAL REGISTRATION
SELECTED
CONSTRUCTION SERVICE
GOVERNMENT BUSINESS SEGMENT
DIRT/SAND/ROCK COMMODITY
TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN
TRANSIT, IS SPENT ON PAVED ROADS
MAXIMUM 8% EXPECTED GRADE
SMOOTH CONCRETE OR ASPHALT PAVEMENT -
MOST SEVERE IN-TRANSIT (BETWEEN SITES)
ROAD SURFACE
WESTERN STAR VOCATIONAL WARRANTY
EXPECTED FRONT AXLE(S) LOAD : 20000.0 lbs
EXPECTED REAR DRIVE AXLE(S) LOAD :
40000.0 lbs
EXPECTED GROSS VEHICLE WEIGHT CAPACITY
: 60000.0 lbs
EXPECTED GROSS COMBINATION WEIGHT :
80000.0 lbs

Truck Service

END DUMP BODY

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

TRUCK AND TRAILER SPECIALTIES INC.

Tractor Service

FLATBED TRAILER
SINGLE (1) TRAILER

Engine

CUM X12 455V HP @ 1900 RPM, 1700 LB-FT @ -390 -45
1000 RPM, 2000 GOV RPM, VOC

Electronic Parameters

70 MPH ROAD SPEED LIMIT
PTO MODE ENGINE RPM LIMIT - 1600 RPM
PTO RPM WITH CRUISE SET SWITCH - 700 RPM
PTO RPM WITH CRUISE RESUME SWITCH - 700 RPM
ONE REMOTE PTO SPEED
PTO SPEED 1 SETTING - 800 RPM
PTO MINIMUM RPM - 700
PTO 1, DASH SWITCH, ENGAGE WHILE DRIVING
ENGINE MOUNT PTO, DASH SWITCH ENGAGES
PTO MODE, DRIVING OPERATION

Engine Equipment

EPA 2010/GHG 2024 CONFIGURATION
STANDARD OIL PAN
ENGINE MOUNTED OIL CHECK AND FILL
SIDE OF HOOD AIR INTAKE WITH ENGINE MOUNTED HIGH CAPACITY AIR CLEANER, PASSIVE PRECLEANER, WITH INSIDE/OUTSIDE AIR AND SNOW DOOR 10
DR 12V 160 AMP 28-SI QUADRAMOUNT PAD ALTERNATOR WITH REMOTE BATTERY VOLT SENSE -10
(3) DTNA GENUINE, FLOODED STARTING, MIN 3000CCA, 555RC, THREADED STUD BATTERIES -10
BATTERY BOX WITH ALUMINUM COVER MOUNTED SHORT SIDE TO RAIL -50 10
LH BATTERY BOX MOUNTED AS FAR AFT AS POSSIBLE, NO GREATER THAN 60 INCHES BACK OF CAB
WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN
NON-POLISHED BATTERY BOX COVER WITH TETHER

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT	2	
CUMMINS NATURALLY ASPIRATED 25.9 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE		
ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM		
CUMMINS INTEBRAKE BRAKE WITH HIGH MED LOW BRAKE		
RAISED RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE	-35	-30
ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD ACTIVE REGENERATION AND VIRTUAL REGENERATION REQUEST SWITCH IN CLUSTER AND DASH MOUNTED INHIBIT SWITCH		
11 FOOT 00 INCH (132 INCH+0/-5.9 INCH) EXHAUST SYSTEM HEIGHT		
RH CURVED VERTICAL TAILPIPE B-PILLAR RAISED UNDER STEP MOUNTED AFTERTREATMENT SYSTEM		
13 GALLON DIESEL EXHAUST FLUID TANK UNPOLISHED ALUMINUM WST DIESEL EXHAUST FLUID TANK COVER	9	3
LH HEAVY DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION		
STANDARD DIESEL EXHAUST FLUID TANK CAP		
STAINLESS STEEL AFTERTREATMENT DEVICE/MUFFLER/TAILPIPE SHIELD		
ELECTRONICALLY CONTROLLED VARIABLE SPEED VISCOUS FAN DRIVE		
AUTOMATIC FAN CONTROL WITH DASH SWITCH AND INDICATOR LIGHT, NON ENGINE MOUNTED		
DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR	10	
CUMMINS SPIN ON FUEL FILTER		
FULL FLOW OIL FILTER		
1400 SQUARE INCH VOCATIONAL RADIATOR WITH PROTECTION PACKAGE	20	
ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT		
GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT		

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

RADIATOR DRAIN VALVE	
LOWER RADIATOR GUARD	
1350 ADAPTER FLANGE FOR FRONT PTO PROVISION	20
PHILLIPS-TEMRO 1500 WATT/115 VOLT BLOCK HEATER	4
CHROME ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR	
DELCO 12V 39MT HD/OCP STARTER WITH THERMAL PROTECTION AND INTEGRATED MAGNETIC SWITCH	-45

Transmission

ALLISON 4500 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION

Transmission Equipment

ALLISON VOCATIONAL PACKAGE 223 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODELS RDS, HS, MH AND TRV

ALLISON VOCATIONAL RATING FOR ON/OFF HIGHWAY APPLICATIONS AVAILABLE WITH ALL PRODUCT FAMILIES

PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY

SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY

PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

QUICKFIT BODY LIGHTING CONNECTOR UNDER CAB, WITH BLUNTCUTS

ELECTRONIC TRANSMISSION WIRING TO CUSTOMER INTERFACE CONNECTOR

CUSTOMER INSTALLED CHELSEA 280 SERIES PTO

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

PTO MOUNTING, LH SIDE OF MAIN
TRANSMISSION ALLISON
MAGNETIC PLUGS, ENGINE DRAIN,
TRANSMISSION DRAIN, AXLE(S) FILL AND
DRAIN
HEAVY DUTY ELECTRONIC TRANSMISSION
SHIFT CONTROL, COLUMN MOUNTED
WATER TO OIL TRANSMISSION COOLER
TRANSMISSION OIL CHECK AND FILL WITH
ELECTRONIC OIL LEVEL CHECK
SYNTHETIC TRANSMISSION FLUID (TES-295
COMPLIANT)

Front Axle and Equipment

DETROIT DA-F-20.0-5 20,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE	190
CONMET PRESET PLUS PREMIUM ALUMINUM FRONT HUBS	
MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	10
NON-ASBESTOS FRONT BRAKE LINING	
MERITOR STEELLITE X30 FRONT BRAKE DRUMS	-40
FRONT BRAKE DUST SHIELDS	5
FRONT OIL SEALS	
VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL	
HALDEX AUTOMATIC FRONT SLACK ADJUSTERS	
DUAL POWER STEERING GEARS, BENDIX 16- 20K	80
4 QUART POWER STEERING RESERVOIR	5
OIL/AIR POWER STEERING COOLER	5
CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE	

Front Suspension

20,000# FLAT LEAF FRONT SUSPENSION	250
THREADED SPRING PINS AND BUSHINGS - FRONT SUSPENSION	
FRONT SHOCK ABSORBERS	

Rear Axle and Equipment

RT-46-160 46,000# R-SERIES TANDEM REAR AXLE	470
--	-----

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

CONMET PRESET PLUS PREMIUM ALUMINUM
REAR HUBS
4.56 REAR AXLE RATIO
IRON REAR AXLE CARRIER WITH STANDARD
AXLE HOUSING
MXL 176T MERITOR EXTENDED LUBE MAIN -25 -25
DRIVELINE WITH HALF ROUND YOKES
MXL 17T MERITOR EXTENDED LUBE INTERAXLE
DRIVELINE WITH HALF ROUND YOKES
DRIVER CONTROLLED TRACTION 30
DIFFERENTIAL - BOTH TANDEM REAR AXLES
(1) INTERAXLE LOCK VALVE, (1) DRIVER
CONTROLLED DIFFERENTIAL LOCK FORWARD-
REAR AND REAR-REAR AXLE VALVE
INDICATOR LIGHT FOR EACH INTERAXLE
LOCKOUT SWITCH
INDICATOR LIGHT FOR EACH DIFFERENTIAL
LOCKOUT SWITCH
MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR
BRAKES, DOUBLE ANCHOR, FABRICATED
SHOES
NON-ASBESTOS REAR BRAKE LINING
ASPHALT SPREADER CLEARANCE REAR
BRAKE GEOMETRY
CONMET CAST IRON REAR BRAKE DRUMS
REAR BRAKE DUST SHIELDS 10
REAR OIL SEALS
WABCO TRISTOP D LONGSTROKE 2-DRIVE
AXLE SPRING PARKING CHAMBERS
HALDEX AUTOMATIC REAR SLACK ADJUSTERS
CURRENT AVAILABLE SYNTHETIC 75W-90 REAR
AXLE LUBE
STANDARD REAR AXLE BREATHER(S)

Rear Suspension

HENDRICKSON HAULMAAX EX 46,000# REAR 115
SUSPENSION
10.8 INCH NOMINAL RIDE HEIGHT (490MM
GLOBAL REFERENCE HEIGHT)
54 INCH AXLE SPACING
HENDRICKSON HN, HAULMAAX AND ULTIMAAX
SERIES STEEL BEAMS WITH BAR PIN
STANDARD DUTY FORE/AFT AND HEAVY DUTY
TRANSVERSE CONTROL RODS
DOUBLE REBOUND STRAP - INBOARD AND 13
OUTBOARD

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

REAR SHOCK ABSORBERS - TWO AXLES
(TANDEM)

Brake System

WABCO 4S/4M ABS WITH TRACTION CONTROL
WITH ATC SHUT OFF SWITCH
REINFORCED NYLON, FABRIC BRAID AND WIRE
BRAID CHASSIS AIR LINES
RELAY VALVE WITH 5-8 PSI CRACK PRESSURE,
NO REAR PROPORTIONING VALVE
WABCO SYSTEM SAVER 1200 HEATED AIR
DRYER WITH PRESSURE CONTROL VALVE
WABCO OIL COALESCING FILTER FOR AIR
DRYER
AIR DRYER MOUNTED UNDER HOOD
STEEL AIR BRAKE RESERVOIRS MOUNTED
INSIDE RAIL
PULL CABLES ON ALL AIR RESERVOIR(S)

Trailer Connections

AIR CONNECTIONS TO END OF FRAME WITH GLAD HANDS FOR TRUCK AND NO DUST COVERS	5	5
PRIMARY CONNECTOR/RECEPTACLE WIRED FOR SEPARATE STOP/TURN, ABS CENTER PIN POWERED THROUGH IGNITION		
SAE J560 7-WAY PRIMARY TRAILER CABLE RECEPTACLE TEMPORARY TIED & COILED IN CHASSIS END OF FRAME WITH 2' ADDITIONAL; NO BRACKETS		

Wheelbase & Frame

5175MM (204 INCH) WHEELBASE		
13.0MM X 87.0MM X 311.0MM STEEL FRAME (0.51X3.43X12.24 INCH) 120 KSI	280	360
TEM TO EVALUATE AND INSTALL FRAME RAIL REINFORCEMENT AS NEEDED FOR FRONT FRAME MOUNTED EQUIPMENT		
1650MM (65 INCH) REAR FRAME OVERHANG FRAME OVERHANG RANGE: 61 INCH TO 70 INCH	-30	90
24 INCH INTEGRAL FRONT FRAME EXTENSION	120	
CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 138.58 in		
CALC'D FRAME LENGTH - OVERALL : 337.68 in		
FRAME HEIGHT TOP FRONT UNLADEN : 45.99 in		
FRAME HEIGHT TOP FRONT LADEN : 42.28 in		

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

FRAME HEIGHT TOP REAR UNLADEN : 44.7 in
FRAME HEIGHT TOP REAR LADEN : 42.26 in
SQUARE END OF FRAME
STANDARD WEIGHT ENGINE CROSSMEMBER
STANDARD CAST ALUMINUM CROSSMEMBER
BACK OF TRANSMISSION
STANDARD CAST ALUMINUM MIDSHIP
STANDARD CAST ALUMINUM REARMOST
CROSSMEMBER
STANDARD SUSPENSION CROSSMEMBER 20
CAST ALUMINUM REAR SUSPENSION
CROSSMEMBER

Chassis Equipment

UNPOLISHED ALUMINUM WST EQUIPMENT
COVERS
OMIT FRONT BUMPER, CUSTOMER INSTALLED
SPECIAL BUMPER -60
NO FRONT TOW HOOKS -15
HUCK-SPIN ROUND COLLAR CHASSIS
FASTENERS
EXTERIOR HARNESSES WRAPPED IN
ABRASION TAPE

Fuel Tanks

50 GALLON ALUMINUM FUEL TANK - LH -25
25 INCH DIAMETER FUEL TANK(S)
PLAIN ALUMINUM/PAINTED STEEL
FUEL/HYDRAULIC TANK(S) WITH PAINTED
BANDS
FUEL TANK(S) FORWARD
PLAIN STEP FINISH
FUEL TANK CAP(S)
EQUIFLO INBOARD FUEL SYSTEM
HIGH TEMPERATURE REINFORCED NYLON
FUEL LINE

Tires

MICHELIN XZU-S2 315/80R22.5 20 PLY RADIAL
FRONT TIRES 100
MICHELIN X WORKS D 11R22.5 16 PLY RADIAL
REAR TIRES 248

Wheels

ACCURIDE 29300 22.5X9.00 10-HUB PILOT 6.38
INSET 5-HAND STEEL DISC FRONT WHEELS 82

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

ACCURIDE 28828 22.5X8.25 10-HUB PILOT 2-
HAND HD STEEL DISC REAR WHEELS 104
NO FRONT AXLE WHEEL/HUB COVER
NO WHEEL/HUB COVER-PUSHER/TAG
FRONT WHEEL MOUNTING NUTS
REAR WHEEL MOUNTING NUTS

Cab Exterior

111.6 INCH BBC CONVENTIONAL ALUMINUM
CAB
PAINTED CAB ACCENT MOLDING
FRONT FENDERS
BOLT-ON MOLDED FLEXIBLE FENDER 10
EXTENSIONS
INTERIOR GRAB HANDLES WITH ADDED
LOWER LH AND RH A PILLAR GRAB HANDLES
AND LH AND RH EXTERIOR NON-SLIP GRAB
HANDLES
BRIGHT HOOD MOUNTED AIR INTAKE GRILLE,
BLACK SCREEN
X-SERIES STEEL REINFORCED ALUMINUM CAB
X-SERIES VOCATIONAL HOOD
HOOD OPENING ASSIST WITH LOCKING STRUT
WESTERN STAR NAMEPLATES
DUAL ROUND AIR HORNS, SINGLE BASE,
MOUNTED UNDER CAB
DUAL ELECTRIC HORNS
REAR LICENSE PLATE MOUNT END OF FRAME
SWITCH, INDICATOR LIGHT AND WIRING FOR
(1) CUSTOMER FURNISHED BEACON
DUAL STAGE INTELLIGENT LED HEADLIGHTS
WITH HEATED LENS SYSTEM
ROOF MOUNTED LED MARKER LIGHTS
WIRING AND SWITCH FOR CUSTOMER
FURNISHED SNOW PLOW LAMPS WITH DUAL
CONNECTIONS AT BUMPER
DAYTIME RUNNING LIGHTS
INTEGRAL LED STOP/TAIL/BACKUP LIGHTS
LED SIDE TURN SIGNAL
SWITCH, INDICATOR LIGHT AND
APPROXIMATELY 10 FEET OF WIRE ON
CHASSIS LH AT BACK OF CAB FOR CUSTOMER
FURNISHED UTILITY LIGHT(S)

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

C-BAR MIRROR SYSTEM WITH DUAL HEATED
MIRRORS WITH INTEGRAL HEATED CONVEX,
DUAL REMOTE, STAINLESS STEEL BACK
COVER, AND BLACK C-BAR

102 INCH EQUIPMENT WIDTH

LH AND RH CONVEX MIRRORS INTEGRAL WITH
PRIMARY MIRRORS

RH DOWN VIEW MIRROR

STANDARD SIDE/REAR REFLECTORS

UNPOLISHED ALUMINUM WST
AFTERTREATMENT SYSTEM COVER

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

1-PIECE ROPED-IN SOLAR GREEN GLASS
WINDSHIELD

1.5 GALLON WINDSHIELD WASHER RESERVOIR
MOUNTED UNDER CAB WITH REMOTE FILL

Cab Interior

X-SERIES BASE INTERIOR TRIM LEVEL
PACKAGE

CHARCOAL BLACK VINYL BASE LEVEL
INTERIOR

CARBON WITH BASE BLACK ACCENT

BLACK MATS WITH ADDED FLOOR HEAT AND
NOISE INSULATION

(2) DASH MOUNTED POWER OUTLETS AND
COIN TRAY

FORWARD ROOF MOUNTED CONSOLE

LH AND RH DOOR STORAGE POCKETS
INTEGRATED INTO MOLDED DOOR PANELS

(2) COAT HOOKS ON BACKWALL OF CAB

DIGITAL ALARM CLOCK IN DRIVER DISPLAY

STANDARD HEATER PLUMBING WITH BALL
SHUTOFF VALVES AT SUPPLY LINES ONLY

RADIATOR MOUNTED AIR CONDITIONER
CONDENSER

PREMIUM INSULATION

STANDARD LED CAB LIGHTING

NO SECURITY DEVICE

ALL UNIT (S) KEYED ALIKE WITH CUSTOMER
SPECIFIED KEY NUMBER FT1041

KEY QUANTITY OF 4

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

LH AND RH ELECTRIC DOOR LOCKS WITH AUTO UNLOCK FEATURE WHEN DOOR IS SET FROM OPEN TO CLOSED POSITION		
BLACK DOOR HANDLES		
PREMIUM 2.0 HIGH BACK AIR SUSPENSION DRIVER SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK	20	
PREMIUM 2.0 HIGH BACK AIR SUSPENSION PASSENGER SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK	40	15
DUAL DRIVER AND PASSENGER SEAT ARMRESTS	8	
BLACK MORDURA CLOTH DRIVER SEAT COVER WITH EMBROIDERED LOGO		
BLACK MORDURA CLOTH PASSENGER SEAT COVER WITH EMBROIDERED LOGO		
3 POINT ADJUSTABLE D-RING RETRACTOR DRIVER AND FIXED D-RING RETRACTOR PASSENGER SEAT BELTS		
ADJUSTABLE TILT AND TELESCOPING STEERING COLUMN		
4-SPOKE 18 INCH (450MM) BLACK STEERING WHEEL WITH SWITCHES		
DRIVER AND PASSENGER INTERIOR SUN VISORS		

Instruments & Controls

STANDARD FOOT PEDAL SYSTEM		
ELECTRONIC ACCELERATOR CONTROL		
BLACK GAUGE BEZELS		
STANDARD CENTER INSTRUMENT PANEL		
DUAL NEEDLE PRIMARY AND SECONDARY AIR PRESSURE GAUGE		
DASH MOUNTED AIR RESTRICTION INDICATOR WITH GRADUATIONS	2	
ELECTRONIC CRUISE CONTROL WITH CONTROLS ON STEERING WHEEL SPOKES		
KEY OPERATED IGNITION SWITCH AND INTEGRAL START POSITION; 4 POSITION OFF/RUN/START/ACCESSORY		
PREMIUM INSTRUMENT CLUSTER WITH 5.0 INCH TFT COLOR DISPLAY		
DIGITAL PANEL LAMP DIMMER SWITCH IN DRIVER DISPLAY		

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

HEAVY DUTY ONBOARD DIAGNOSTICS
INTERFACE CONNECTOR WITH DUST CAP
LOCATED BELOW LH DASH
2 INCH ELECTRIC FUEL GAUGE
ENGINE REMOTE INTERFACE WITH ONE OR
MORE SET SPEEDS
ELECTRICAL ENGINE COOLANT TEMPERATURE
GAUGE
ENGINE OIL TEMPERATURE GAUGE
ELECTRIC ENGINE OIL PRESSURE GAUGE
2 INCH TRANSMISSION OIL TEMPERATURE
GAUGE
ELECTRONIC OUTSIDE TEMPERATURE
SENSOR DISPLAY IN DRIVER MESSAGE
CENTER
ENGINE AND TRIP HOUR METERS INTEGRAL
WITHIN DRIVER DISPLAY
PTO CONTROLS FOR ENHANCED VEHICLE
ELECTRIC/ELECTRONIC ARCHITECTURE
ELECTRONIC STABILITY CONTROL
QUICKFIT PROGRAMMABLE INTERFACE
MODULE 10
TMC RP1226 ACCESSORY CONNECTOR
LOCATED BEHIND PASSENGER SIDE
REMOVEABLE DASH PANEL
AM/FM/WB WORLD TUNER RADIO WITH
BLUETOOTH, USB AUXILIARY INPUTS, J1939
DASH MOUNTED RADIO
STANDARD SPEAKER SYSTEM
POWER AND GROUND WIRING PROVISION
OVERHEAD
ROOF/OVERHEAD CONSOLE CB RADIO
PROVISION
SINGLE REMOTE SPEAKER WITH LEAD FOR 2-
WAY RADIO
SINGLE FIBERGLASS LH MIRROR MOUNTED CB
ANTENNA WITH BRACKET AND LEAD
HEADLINER MULTI-BAND ANTENNA:
AM/FM/WEATHERBAND, WIFI/BLUETOOTH,
GNSS/GPS
ELECTRONIC MPH SPEEDOMETER WITH
SECONDARY KPH SCALE
ELECTRONIC 2500 RPM TACHOMETER
DETROIT CONNECT PLATFORM HARDWARE

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

5 YEARS DAIMLER CONNECTIVITY BASE
PACKAGE (FEATURES VARY BY MODEL)
POWERED BY DETROIT CONNECT

IGNITION SWITCH CONTROLLED ENGINE STOP

PRE-TRIP INSPECTION FEATURE FOR
EXTERIOR LAMPS ONLY

BW TRACTOR PROTECTION VALVE

TRAILER HAND CONTROL BRAKE VALVE 2

2 INCH TURBO AIR PRESSURE GAUGE

DIGITAL VOLTAGE DISPLAY INTEGRAL WITH
DRIVER DISPLAY

ROTARY HEADLAMP SWITCH, MARKER
LIGHTS/HEADLIGHTS SWITCH WITH PULL OUT
FOR OPTIONAL FOG/ROAD LAMPS

TWO VALVE PARKING BRAKE SYSTEM WITH
DASH VALVE CONTROL AUTONEUTRAL AND
WARNING INDICATOR

SELF CANCELING TURN SIGNAL SWITCH WITH
DIMMER, HEADLAMP FLASH,
WASH/WIPE/INTERMITTENT

PROGRAMMABLE SWITCHES/INDICATORS
LOCATED IN AUXILIARY PANEL

QUICKFIT POWERTRAIN INTERFACE
CONNECTOR BETWEEN SEATS WITH CAPS

CUSTOMER SPECIFIED SWITCH ACTUATORS
FOR EXTRA SWITCHES

5 EXTRA PROGRAMMABLE
SWITCHES/INDICATORS

\$A1A0082ZZ,A1B0083ZZ,A1C0084ZZ,A1D0085ZZ,A1E0176ZZ

QUICKFIT PROGRAMMABLE INTERFACE
CONNECTOR(S) BETWEEN SEATS WITH CAP

Design

PAINT: ONE SOLID COLOR
YELLOW EXTERIOR PAINT MATCH S/N JL6765

Color

CAB COLOR A YELLOW MATCH S/N JL6765
MATCH YELLOW FROM VIN JL6765

BLACK, HIGH SOLIDS POLYURETHANE CHASSIS
PAINT

POWDER WHITE (N0006EA) FRONT
WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)

POWDER WHITE (N0006EA) REAR
WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)

Certification / Compliance

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

Extended Warranty

CUM 2017 X12 HT1 TR TOW 5 YEARS /100,000 MILES / 161,000 KM
EXTENDED WARRANTY. FEX APPLIES.

CUM EPA 2017 X12: AT3 5 YEARS / 100,000 MILES / 161,000 KM
AFTERTREATMENT. FEX APPLIES.

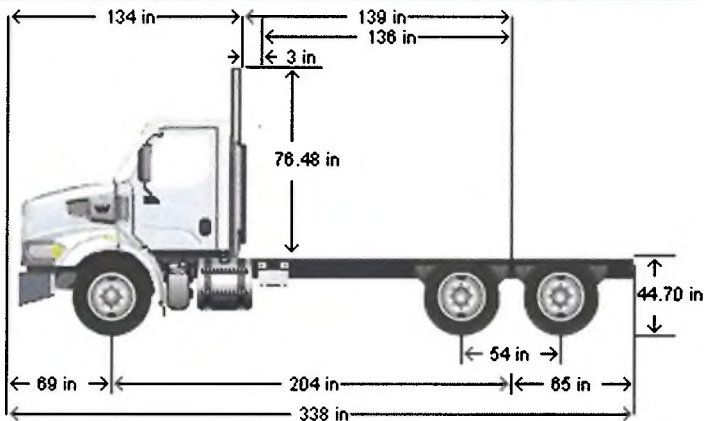
ALLISON 4500 RDS SERIES TRANSMISSION EXTENDED
WARRANTY, 5 YEARS/UNLIMITED MILES FEX

(***) 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.

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

D I M E N S I O N S



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)..... RAISED RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE

TABLE SUMMARY - DIMENSIONS

Prepared for:
 M
 K
 ANN ARBOR CITY OF
 301 E HURON
 ST
 ANN ARBOR, MI 48104
 Phone: 734-994-9124

Prepared by:
 Edward Merrill
 D & K TRUCK COMPANY
 3020 Snow Rd
 LANSING, MI 48917
 Phone: (517) 484-1905 Ext. 129

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)	135.6
Back of Cab Protrusions (Exhaust/Intake) (CP)	2.0
Back of Cab Protrusions (Side Extenders/Trim Tab) (CP)	0.0
Back of Cab Protrusions (CNG Tank)	0.0
Back of Cab Clearance (CL)	3.0
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	54.0
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.

TRUCK & TRAILER *Specialties, Inc.*

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

October 12, 2023

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

HQ0003440

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:

TRUCK & TRAILER *Specialties, Inc.*

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

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, 35-gallon oil capacity (mos. 00166450 & 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
35-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 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:

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

TRUCK & TRAILER *Specialties, Inc.*

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

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

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

Paint both ends of moldboard Yellow to match cab for visibility

Install Custom Lighting & Electrical including the following:

TRUCK & TRAILER *Specialties, Inc.*

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

Utilizing chassis switches: Front Flashers, All Flashers, Scraper Light & Spreader Light

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

One (1) SoundOff Pinnacle (mo. EPL7PDPC) amber/green mini lightbar & weather-pack on cab roof riser

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 and top strobes 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

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

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)

TRUCK & TRAILER *Specialties, Inc.*

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

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

Above installed, non-stainless painted pricing: \$137,125.00 ea.

HQO003441

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. EMPSA0B0B-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.

HQO003442

Base Attachment #1

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

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

1/4" 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

TRUCK & TRAILER *Specialties, Inc.*

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

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: \$38,955.00 ea.

HQ0003443

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

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

TRUCK & TRAILER *Specialties, Inc.*

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

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: \$56,595.00 ea.

HQO003444

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:

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:

TRUCK & TRAILER *Specialties, Inc.*

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

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: \$41,905.00 ea.

Above total equipment installed, non-stainless painted pricing: \$300,090.00 ea.

Chassis requirements to be confirmed at time of order:

CT: 138" TBD

Highest ground clearance

Horizontal DPF and SCR mounted under the 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

Plow light/Headlight switch and related OEM wiring

5-pack programmable chassis switches

Stainless steel roof bracket, curbside

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: 360-420 days ARO, depending on chassis arrival

Thank you for the opportunity to quote.

Respectfully submitted by,
Jon Luea/Brian Bouwman

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

2 0 2 5 4 7 X S I N G L E A X L E

MI DEAL CONTRACT # 071B6600119

UTILITES: SWAP LOADER (2) UNITS

WESTERN STAR 47X

SET BACK AXLE - TRUCK
CUM L9 330 HP @ 2200 RPM; 2200 GOV RPM, 1000 LB-
FT @ 1200 RPM
ALLISON 3000 RDS AUTO TRANS WITH PTO PROVISION
RS-23-160 23,000# R-SERIES SINGLE REAR AXLE
HENDRICKSON PRIMAXX EX26,000# REAR AIR
SUSPENSION

DETROIT DA-F-20.0-5 20,000# SINGLE FRONT AXLE
20,000# FLAT LEAF FRONT SUSPENSION
111.6 INCH BBC CONVENTIONAL ALUMINUM CAB
4675MM (184 INCH) WHEELBASE
11.0MM X 85.0MM X 287.0MM STEEL FRAME
(0.43X3.35X11.30 INCH) 120 KSI
1650MM (65 INCH) REAR FRAME OVERHANG

	PER UNIT
VEHICLE PRICE	SUB-TOTAL \$ 279,776.06 \$
CHASSIS, BOX, MI-DEAL FEES, WARRANTIES	\$ \$
CUSTOMER PRICE BEFORE TAX	\$ \$
TAXES AND FEES	
FEDERAL EXCISE TAX (FET)	\$ 0 \$
TAXES AND FEES	\$ 0 \$
TITLE/DOC	\$ 215 \$
TOTAL (EACH)	\$ 279,991.06 EA

CHASSIS PORTION NET 30 DAYS

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

Customer: X _____ Date: ___ / ___ / ___.

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

Vehicle Configuration

WESTERN STAR 47X	9,050	6,525
2025 MODEL YEAR SPECIFIED		
SET BACK AXLE - TRUCK		
TRAILER TOWING PROVISION AT END OF FRAME WITH SAE J560, WITHOUT END OF FRAME AIR CONNECTIONS	15	15
LH PRIMARY STEERING LOCATION		

General Service

TRUCK CONFIGURATION
EPA EMISSIONS CERTIFICATION FOR
REGISTRATION OUTSIDE CARB STATES - EPA
CLEAN IDLE (INCLUDES 6X4 INCH LABEL ON
LOWER FORWARD OF DRIVER DOOR)
NO STATE/PROVINCE INITIAL REGISTRATION
SELECTED
CONSTRUCTION SERVICE
GOVERNMENT BUSINESS SEGMENT
DIRT/SAND/ROCK COMMODITY
TERRAIN/DUTY: 100% (ALL) OF THE TIME, IN
TRANSIT, IS SPENT ON PAVED ROADS
MAXIMUM 8% EXPECTED GRADE
SMOOTH CONCRETE OR ASPHALT PAVEMENT -
MOST SEVERE IN-TRANSIT (BETWEEN SITES)
ROAD SURFACE
WESTERN STAR VOCATIONAL WARRANTY
EXPECTED FRONT AXLE(S) LOAD : 20000.0 lbs
EXPECTED REAR DRIVE AXLE(S) LOAD :
23000.0 lbs
EXPECTED GROSS VEHICLE WEIGHT CAPACITY
: 43000.0 lbs

Truck Service

END DUMP BODY
TRUCK AND TRAILER SPECIALTIES INC.

Engine

CUM L9 330 HP @ 2200 RPM; 2200 GOV RPM, 1000 LB-FT @ 1200 RPM	-850	-70
--	------	-----

Electronic Parameters

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

72 MPH ROAD SPEED LIMIT
PTO MODE ENGINE RPM LIMIT - 1600 RPM
PTO RPM WITH CRUISE SET SWITCH - 700 RPM
PTO RPM WITH CRUISE RESUME SWITCH - 700 RPM
CRUISE CONTROL BUTTON PTO CONTROL
PTO SPEED 1 SETTING - 700 RPM
PTO MINIMUM RPM - 700
PTO 1, DASH SWITCH, ENGAGE WHILE DRIVING
ENGINE MOUNT PTO, DASH SWITCH ENGAGES PTO MODE, DRIVING OPERATION

Engine Equipment

EPA 2010/GHG 2024 CONFIGURATION		
STANDARD OIL PAN		
ENGINE MOUNTED OIL CHECK AND FILL		
SIDE OF HOOD AIR INTAKE WITH ENGINE MOUNTED HIGH CAPACITY AIR CLEANER, PASSIVE PRECLEANER, WITH INSIDE/OUTSIDE AIR AND SNOW DOOR	10	
DR 12V 160 AMP 28-SI QUADRAMOUNT PAD ALTERNATOR WITH REMOTE BATTERY VOLT SENSE	-10	
(3) DTNA GENUINE, FLOODED STARTING, MIN 3000CCA, 555RC, THREADED STUD BATTERIES	-10	
BATTERY BOX WITH ALUMINUM COVER MOUNTED SHORT SIDE TO RAIL	-50	10
LH BATTERY BOX MOUNTED AS FAR AFT AS POSSIBLE, NO GREATER THAN 60 INCHES BACK OF CAB		
WIRE GROUND RETURN FOR BATTERY CABLES WITH ADDITIONAL FRAME GROUND RETURN		
NON-POLISHED BATTERY BOX COVER WITH TETHER		
POSITIVE LOAD DISCONNECT WITH CAB MOUNTED CONTROL SWITCH MOUNTED OUTBOARD DRIVER SEAT	2	
CUMMINS TURBOCHARGED 18.7 CFM AIR COMPRESSOR WITH INTERNAL SAFETY VALVE		
ELECTRONIC ENGINE INTEGRAL SHUTDOWN PROTECTION SYSTEM		
C-BRAKE BY JACOBS WITH LOW/OFF/HIGH BRAKING DASH SWITCH		
RAISED RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE	-35	-30

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

ENGINE AFTERTREATMENT DEVICE, AUTOMATIC OVER THE ROAD ACTIVE REGENERATION AND VIRTUAL REGENERATION REQUEST SWITCH IN CLUSTER AND DASH MOUNTED INHIBIT SWITCH		
10 FOOT 06 INCH (126 INCH+0/-5.9 INCH) EXHAUST SYSTEM HEIGHT		
RH CURVED VERTICAL TAILPIPE B-PILLAR RAISED UNDER STEP MOUNTED AFTERTREATMENT SYSTEM		
13 GALLON DIESEL EXHAUST FLUID TANK	9	3
UNPOLISHED ALUMINUM WST DIESEL EXHAUST FLUID TANK COVER		
LH HEAVY DUTY STANDARD DIESEL EXHAUST FLUID TANK LOCATION		
STANDARD DIESEL EXHAUST FLUID TANK CAP		
STAINLESS STEEL AFTERTREATMENT DEVICE/MUFFLER/TAILPIPE SHIELD		
AIR POWERED ON/OFF ENGINE FAN CLUTCH AUTOMATIC FAN CONTROL WITH DASH SWITCH AND INDICATOR LIGHT, NON ENGINE MOUNTED		
DETROIT FUEL/WATER SEPARATOR WITH WATER IN FUEL SENSOR	10	
CUMMINS SPIN ON FUEL FILTER		
FULL FLOW OIL FILTER		
1400 SQUARE INCH VOCATIONAL RADIATOR WITH PROTECTION PACKAGE	20	
ANTIFREEZE TO -34F, OAT (NITRITE AND SILICATE FREE) EXTENDED LIFE COOLANT GATES BLUE STRIPE COOLANT HOSES OR EQUIVALENT		
RADIATOR DRAIN VALVE		
LOWER RADIATOR GUARD		
1310 ADAPTER FLANGE FOR FRONT PTO PROVISION	10	
PHILLIPS-TEMRO 1000 WATT/115 VOLT BLOCK HEATER	4	
CHROME ENGINE HEATER RECEPTACLE MOUNTED UNDER LH DOOR		
ELECTRIC GRID AIR INTAKE WARMER		
DELCO 12V 39MT HD/OCP STARTER WITH THERMAL PROTECTION AND INTEGRATED MAGNETIC SWITCH	-45	

Transmission

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

ALLISON 3000 RDS AUTOMATIC TRANSMISSION WITH PTO PROVISION -230 -130

Transmission Equipment

ALLISON VOCATIONAL PACKAGE 223 - AVAILABLE ON 3000/4000 PRODUCT FAMILIES WITH VOCATIONAL MODELS RDS, HS, MH AND TRV

ALLISON VOCATIONAL RATING FOR CONCRETE MIXER APPLICATIONS ONLY AVAILABLE WITH 3000 PRODUCT FAMILIES

PRIMARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY

SECONDARY MODE GEARS, LOWEST GEAR 1, START GEAR 1, HIGHEST GEAR 6, AVAILABLE FOR 3000/4000 PRODUCT FAMILIES ONLY

PRIMARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

SECONDARY SHIFT SCHEDULE RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

PRIMARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

SECONDARY SHIFT SPEED RECOMMENDED BY DTNA AND ALLISON, THIS DEFINED BY ENGINE AND VOCATIONAL USAGE

QUICKFIT BODY LIGHTING CONNECTOR UNDER CAB, WITH BLUNTCUTS

ELECTRONIC TRANSMISSION WIRING TO CUSTOMER INTERFACE CONNECTOR

CUSTOMER INSTALLED CHELSEA 280 SERIES PTO

PTO MOUNTING, LH SIDE OF MAIN TRANSMISSION ALLISON

MAGNETIC PLUGS, ENGINE DRAIN, TRANSMISSION DRAIN, AXLE(S) FILL AND DRAIN

HEAVY DUTY ELECTRONIC TRANSMISSION SHIFT CONTROL, COLUMN MOUNTED

WATER TO OIL TRANSMISSION COOLER

TRANSMISSION OIL CHECK AND FILL WITH ELECTRONIC OIL LEVEL CHECK

SYNTHETIC TRANSMISSION FLUID (TES-295 COMPLIANT)

Front Axle and Equipment

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

DETROIT DA-F-20.0-5 20,000# FL1 71.0 KPI/3.74 DROP SINGLE FRONT AXLE	190
CONMET PRESET PLUS PREMIUM ALUMINUM FRONT HUBS	
MERITOR 16.5X6 Q+ CAST SPIDER CAM FRONT BRAKES, DOUBLE ANCHOR, FABRICATED SHOES	10
NON-ASBESTOS FRONT BRAKE LINING	
CONMET CAST IRON FRONT BRAKE DRUMS	
FRONT BRAKE DUST SHIELDS	5
FRONT OIL SEALS	
VENTED FRONT HUB CAPS WITH WINDOW, CENTER AND SIDE PLUGS - OIL	
HALDEX AUTOMATIC FRONT SLACK ADJUSTERS	
DUAL POWER STEERING GEARS, BENDIX 16- 20K	80
4 QUART POWER STEERING RESERVOIR	5
OIL/AIR POWER STEERING COOLER	5
CURRENT AVAILABLE SYNTHETIC 75W-90 FRONT AXLE LUBE	

Front Suspension

20,000# FLAT LEAF FRONT SUSPENSION	250
THREADED SPRING PINS AND BUSHINGS - FRONT SUSPENSION	
FRONT SHOCK ABSORBERS	

Rear Axle and Equipment

RS-23-160 23,000# R-SERIES SINGLE REAR AXLE	-2,260
CONMET PRESET PLUS PREMIUM ALUMINUM REAR HUBS	
5.38 REAR AXLE RATIO	
IRON REAR AXLE CARRIER WITH STANDARD AXLE HOUSING	
MXL 176T MERITOR EXTENDED LUBE MAIN DRIVELINE WITH HALF ROUND YOKES	-50
NO INTERAXLE (#3) DRIVELINE	
DRIVER CONTROLLED TRACTION DIFFERENTIAL - SINGLE REAR AXLE	20
(1) DRIVER CONTROLLED DIFFERENTIAL LOCK REAR VALVE FOR SINGLE DRIVE AXLE	
INDICATOR LIGHT FOR EACH DIFFERENTIAL LOCKOUT SWITCH	

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

MERITOR 16.5X7 Q+ CAST SPIDER CAM REAR
BRAKES, DOUBLE ANCHOR, FABRICATED
SHOES
NON-ASBESTOS REAR BRAKE LINING
ASPHALT SPREADER CLEARANCE REAR
BRAKE GEOMETRY
CONMET CAST IRON REAR BRAKE DRUMS
REAR BRAKE DUST SHIELDS 5
REAR OIL SEALS
WABCO TRISTOP D LONGSTROKE 1-DRIVE -20
AXLE SPRING PARKING CHAMBERS
HALDEX AUTOMATIC REAR SLACK ADJUSTERS
CURRENT AVAILABLE SYNTHETIC 75W-90 REAR
AXLE LUBE
STANDARD REAR AXLE BREATHER(S)

Rear Suspension

HENDRICKSON PRIMAXX EX26,000# REAR AIR -300
SUSPENSION
10.2 INCH NOMINAL RIDE HEIGHT (475MM
GLOBAL REFERENCE HEIGHT)
STANDARD AXLE SEATS IN AXLE CLAMP
GROUP
IGNITION CONTROLLED ELECTRIC DUMP
SWITCH FOR AIR SUSPENSION WITH STATE
RETENTION AND GAUGE
REAR AIR SUSPENSION DUMP VALVE AUTOFILL
>5 MPH WITH INDICATOR LIGHT
DUAL AIR REAR SUSPENSION LEVELING
VALVES
FORE/AFT AND TRANSVERSE CONTROL RODS
REAR SHOCK ABSORBERS - ONE AXLE (AIR
RIDE SUSPENSION)

Brake System

WABCO 4S/4M ABS WITH TRACTION CONTROL
WITH ATC SHUT OFF SWITCH
REINFORCED NYLON, FABRIC BRAID AND WIRE
BRAID CHASSIS AIR LINES
RELAY VALVE WITH 5-8 PSI CRACK PRESSURE,
NO REAR PROPORTIONING VALVE
WABCO SYSTEM SAVER 1200 HEATED AIR
DRYER WITH PRESSURE CONTROL VALVE
WABCO OIL COALESCING FILTER FOR AIR
DRYER
AIR DRYER MOUNTED UNDER HOOD

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

STEEL AIR BRAKE RESERVOIRS MOUNTED
INSIDE RAIL
PULL CABLES ON ALL AIR RESERVOIR(S)

Trailer Connections

PRIMARY CONNECTOR/RECEPTACLE WIRED
FOR SEPARATE STOP/TURN, ABS CENTER PIN
POWERED THROUGH IGNITION
SAE J560 7-WAY PRIMARY TRAILER CABLE
RECEPTACLE TEMPORARY TIED & COILED IN
CHASSIS END OF FRAME WITH 2' ADDITIONAL;
NO BRACKETS

Wheelbase & Frame

4675MM (184 INCH) WHEELBASE		
11.0MM X 85.0MM X 287.0MM STEEL FRAME (0.43X3.35X11.30 INCH) 120 KSI	-10	250
TEM TO EVALUATE AND INSTALL FRAME RAIL REINFORCEMENT AS NEEDED FOR FRONT FRAME MOUNTED EQUIPMENT		
1650MM (65 INCH) REAR FRAME OVERHANG		
FRAME OVERHANG RANGE: 61 INCH TO 70 INCH	-30	80
24 INCH INTEGRAL FRONT FRAME EXTENSION	100	
CALC'D BACK OF CAB TO REAR SUSP C/L (CA) : 118.9 in		
CALC'D FRAME LENGTH - OVERALL : 317.99 in		
FRAME HEIGHT TOP FRONT UNLADEN : 46.2 in		
FRAME HEIGHT TOP FRONT LADEN : 42.12 in		
FRAME HEIGHT TOP REAR UNLADEN : 42.5 in		
FRAME HEIGHT TOP REAR LADEN : 41.2 in		
SQUARE END OF FRAME		
STANDARD WEIGHT ENGINE CROSSMEMBER		
STANDARD CAST ALUMINUM CROSSMEMBER BACK OF TRANSMISSION		
STANDARD CAST ALUMINUM MIDSHIP		
STANDARD CAST ALUMINUM REARMOST CROSSMEMBER		
STANDARD SUSPENSION CROSSMEMBER		
CAST ALUMINUM REAR SUSPENSION CROSSMEMBER		

Chassis Equipment

UNPOLISHED ALUMINUM WST EQUIPMENT
COVERS

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

OMIT FRONT BUMPER, CUSTOMER INSTALLED
SPECIAL BUMPER, DOES NOT COMPLY WITH
FMCSR 393.203 -60
NO FRONT TOW HOOKS -15
HUCK-SPIN ROUND COLLAR CHASSIS
FASTENERS
EXTERIOR HARNESES WRAPPED IN
ABRASION TAPE

Fuel Tanks

50 GALLON/189 LITER ALUMINUM FUEL TANK -
LH -25
25 INCH DIAMETER FUEL TANK(S)
PLAIN ALUMINUM/PAINTED STEEL
FUEL/HYDRAULIC TANK(S) WITH PAINTED
BANDS
FUEL TANK(S) FORWARD
PLAIN STEP FINISH
FUEL TANK CAP(S)
EQUIFLO INBOARD FUEL SYSTEM
HIGH TEMPERATURE REINFORCED NYLON
FUEL LINE

Tires

MICHELIN XZU-S2 315/80R22.5 20 PLY RADIAL
FRONT TIRES 100
MICHELIN X WORKS D 11R22.5 16 PLY RADIAL
REAR TIRES 124

Wheels

ACCURIDE 29039 22.5X9.00 10-HUB PILOT 5.25
INSET 5-HAND STEEL DISC FRONT WHEELS 66
ACCURIDE 28828 22.5X8.25 10-HUB PILOT 2-
HAND HD STEEL DISC REAR WHEELS 52
NO FRONT AXLE WHEEL/HUB COVER
NO WHEEL/HUB COVER-PUSHER/TAG
FRONT WHEEL MOUNTING NUTS
REAR WHEEL MOUNTING NUTS

Cab Exterior

111.6 INCH BBC CONVENTIONAL ALUMINUM
CAB
PAINTED CAB ACCENT MOLDING
FRONT FENDERS
BOLT-ON MOLDED FLEXIBLE FENDER
EXTENSIONS 10

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

INTERIOR GRAB HANDLES WITH ADDED
LOWER LH AND RH A PILLAR GRAB HANDLES
AND LH AND RH EXTERIOR NON-SLIP GRAB
HANDLES
BRIGHT HOOD MOUNTED AIR INTAKE GRILLE,
BLACK SCREEN
X-SERIES STEEL REINFORCED ALUMINUM CAB
X-SERIES VOCATIONAL HOOD
HOOD OPENING ASSIST WITH LOCKING STRUT
WESTERN STAR NAMEPLATES
DUAL ROUND AIR HORNS, SINGLE BASE,
MOUNTED UNDER CAB
DUAL ELECTRIC HORNS
REAR LICENSE PLATE MOUNT END OF FRAME
SWITCH, INDICATOR LIGHT AND WIRING FOR
(1) CUSTOMER FURNISHED BEACON
DUAL STAGE INTELLIGENT LED HEADLIGHTS
WITH HEATED LENS SYSTEM
ROOF MOUNTED LED MARKER LIGHTS
WIRING AND SWITCH FOR CUSTOMER
FURNISHED SNOW PLOW LAMPS WITH DUAL
CONNECTIONS AT BUMPER
DAYTIME RUNNING LIGHTS
INTEGRAL LED STOP/TAIL/BACKUP LIGHTS
LED SIDE TURN SIGNAL
C-BAR MIRROR SYSTEM WITH DUAL HEATED
MIRRORS WITH INTEGRAL HEATED CONVEX,
DUAL REMOTE, STAINLESS STEEL BACK
COVER, AND BLACK C-BAR
102 INCH EQUIPMENT WIDTH
LH AND RH CONVEX MIRRORS INTEGRAL WITH
PRIMARY MIRRORS
RH DOWN VIEW MIRROR
STANDARD SIDE/REAR REFLECTORS
UNPOLISHED ALUMINUM WST
AFTERTREATMENT SYSTEM COVER
HIGH VISIBILITY 3-PIECE SOLAR TINTED REAR
WINDOW, (1) 31 INCH X 20 INCH SOLAR TINTED
REAR WINDOW, (2) 9 INCH X 20 INCH
1-PIECE ROPED-IN SOLAR GREEN GLASS
WINDSHIELD
1.5 GALLON WINDSHIELD WASHER RESERVOIR
MOUNTED UNDER CAB WITH REMOTE FILL

20

Cab Interior

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

X-SERIES BASE INTERIOR TRIM LEVEL PACKAGE

CHARCOAL BLACK VINYL BASE LEVEL INTERIOR

CARBON WITH BASE BLACK ACCENT

BLACK MATS WITH ADDED FLOOR HEAT AND NOISE INSULATION

(2) DASH MOUNTED POWER OUTLETS AND COIN TRAY

FORWARD ROOF MOUNTED CONSOLE

LH AND RH DOOR STORAGE POCKETS INTEGRATED INTO MOLDED DOOR PANELS

(2) COAT HOOKS ON BACKWALL OF CAB

DIGITAL ALARM CLOCK IN DRIVER DISPLAY

STANDARD HEATER PLUMBING WITH BALL SHUTOFF VALVES AT SUPPLY LINES ONLY

RADIATOR MOUNTED AIR CONDITIONER CONDENSER

PREMIUM INSULATION

STANDARD LED CAB LIGHTING

NO SECURITY DEVICE

ALL UNIT (S) KEYED ALIKE WITH CUSTOMER SPECIFIED KEY NUMBER FT1041

KEY QUANTITY OF 4

LH AND RH ELECTRIC DOOR LOCKS WITH AUTO UNLOCK FEATURE WHEN DOOR IS SET FROM OPEN TO CLOSED POSITION

BLACK DOOR HANDLES

PREMIUM 2.0 HIGH BACK AIR SUSPENSION DRIVER SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK	20	
PREMIUM 2.0 HIGH BACK AIR SUSPENSION PASSENGER SEAT WITH 2 AIR LUMBAR, INTEGRATED CUSHION EXTENSION, TILT AND ADJUSTABLE SHOCK	40	15
DUAL DRIVER AND PASSENGER SEAT ARMRESTS	8	

BLACK MORDURA CLOTH DRIVER SEAT COVER WITH EMBROIDERED LOGO

BLACK MORDURA CLOTH PASSENGER SEAT COVER WITH EMBROIDERED LOGO

3 POINT ADJUSTABLE D-RING RETRACTOR DRIVER AND FIXED D-RING RETRACTOR PASSENGER SEAT BELTS

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

ADJUSTABLE TILT AND TELESCOPING
STEERING COLUMN
4-SPOKE 18 INCH (450MM) BLACK STEERING
WHEEL WITH SWITCHES
DRIVER AND PASSENGER INTERIOR SUN
VISORS

Instruments & Controls

STANDARD FOOT PEDAL SYSTEM
ELECTRONIC ACCELERATOR CONTROL
BLACK GAUGE BEZELS
STANDARD CENTER INSTRUMENT PANEL
DUAL NEEDLE PRIMARY AND SECONDARY AIR
PRESSURE GAUGE
DASH MOUNTED AIR RESTRICTION INDICATOR
WITH GRADUATIONS 2
ELECTRONIC CRUISE CONTROL WITH
CONTROLS ON STEERING WHEEL SPOKES
KEY OPERATED IGNITION SWITCH AND
INTEGRAL START POSITION; 4 POSITION
OFF/RUN/START/ACCESSORY
PREMIUM INSTRUMENT CLUSTER WITH 5.0
INCH TFT COLOR DISPLAY
DIGITAL PANEL LAMP DIMMER SWITCH IN
DRIVER DISPLAY
HEAVY DUTY ONBOARD DIAGNOSTICS
INTERFACE CONNECTOR WITH DUST CAP
LOCATED BELOW LH DASH
2 INCH ELECTRIC FUEL GAUGE
ENGINE REMOTE INTERFACE WITH ONE OR
MORE SET SPEEDS
ENGINE COOLANT TEMPERATURE GAUGE
ELECTRIC ENGINE OIL PRESSURE GAUGE
2 INCH TRANS OIL TEMPERATURE GAUGE
OUTSIDE TEMPERATURE SENSOR DISPLAY IN
DRIVER MESSAGE CENTER
ENGINE AND TRIP HOUR METERS INTEGRAL
WITHIN DRIVER DISPLAY
PTO CONTROLS FOR ENHANCED VEHICLE
ELECTRIC/ELECTRONIC ARCHITECTURE
ELECTRONIC STABILITY CONTROL
QUICKFIT PROGRAMMABLE INTERFACE
MODULE 10
TMC RP1226 ACCESSORY CONNECTOR
LOCATED BEHIND PASSENGER SIDE
REMOVEABLE DASH PANEL

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

AM/FM/WB WORLD TUNER RADIO WITH
BLUETOOTH, USB AUXILIARY INPUTS, J1939
DASH MOUNTED RADIO
STANDARD SPEAKER SYSTEM
POWER GROUND WIRING PROVISION
OVERHEAD
OVERHEAD CONSOLE CB RADIO PROVISION
SINGLE REMOTE SPEAKER WITH LEAD FOR 2-
WAY RADIO
SINGLE FIBERGLASS LH MIRROR MOUNTED CB
ANTENNA WITH BRACKET AND LEAD
HEADLINER MULTI-BAND ANTENNA:
AM/FM/WEATHERBAND, WIFI/BLUETOOTH,
GNSS/GPS
ELECTRONIC MPH SPEEDOMETER WITH
SECONDARY KPH SCALE
ELECTRONIC 2500 RPM TACHOMETER
DETROIT CONNECT PLATFORM HARDWARE
5 YEARS DAIMLER CONNECTIVITY BASE
PACKAGE (FEATURES VARY BY MODEL)
POWERED BY DETROIT CONNECT
IGNITION SWITCH CONTROLLED ENGINE STOP
PRE-TRIP INSPECTION FEATURE FOR
EXTERIOR LAMPS ONLY
REAR SPRING LOADED HAND CONTROL BRAKE VALVE 2
2 INCH TURBO AIR PRESSURE GAUGE
DIGITAL VOLTAGE DISPLAY INTEGRAL WITH
DRIVER DISPLAY
ROTARY HEADLAMP SWITCH, MARKER
LIGHTS/HEADLIGHTS SWITCH WITH PULL OUT
FOR OPTIONAL FOG/ROAD LAMPS
ONE VALVE PARKING BRAKE SYSTEM WITH
DASH VALVE CONTROL AUTONEUTRAL AND
WARNING INDICATOR
SELF CANCELING TURN SIGNAL SWITCH WITH
DIMMER, HEADLAMP FLASH,
WASH/WIPE/INTERMITTENT
PROGRAMMABLE SWITCHES/INDICATORS
LOCATED IN AUXILIARY PANEL
QUICKFIT POWERTRAIN INTERFACE
CONNECTOR BETWEEN SEATS WITH CAPS
5 EXTRA PROGRAMMABLE
SWITCHES/INDICATORS
QUICKFIT PROGRAMMABLE INTERFACE
CONNECTOR(S) BETWEEN SEATS WITH CAP

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

Color

CAB COLOR A YELLOW MATCH S/N JL6765
BLACK, HIGH SOLIDS POLYURETHANE CHASSIS
POWDER WHITE (N0006EA) FRONT
WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)
POWDER WHITE (N0006EA) REAR
WHEELS/RIMS (PKWHT21, TKWHT21, W, TW)

Extended Warranty

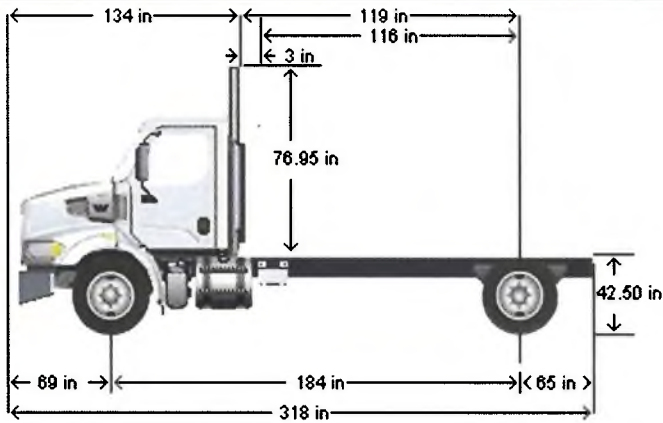
CUM 2017 L9: HD1 MD DTY 5 YEARS / 100,000 MILES / 161,000 KM
EXTENDED WARRANTY. FEX APPLIES
CUM 2017 L9: AT3 MD DTY 5 YEARS / 100,000 MILES / 161,000 KM
AFTERTREATMENT. FEX APPLIES
ALLISON 3000 RDS SERIES TRANSMISSION EXTEND WARRANTY, 5
YEARS/UNLIMITED MILES FEX

(***) 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.

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

D I M E N S I O N S



VEHICLE SPECIFICATIONS SUMMARY - DIMENSIONS

Model.....	47X
Wheelbase (545).....	4675MM (184 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).....	RAISED RH OUTBOARD UNDER STEP MOUNTED HORIZONTAL AFTERTREATMENT SYSTEM ASSEMBLY WITH RH B-PILLAR MOUNTED VERTICAL TAILPIPE

TABLE SUMMARY - DIMENSIONS

Prepared for:
M
K
ANN ARBOR CITY OF
301 E HURON
ST
ANN ARBOR, MI 48104
Phone: 734-994-9124

Prepared by:
Edward Merrill
D & K TRUCK COMPANY
3020 Snow Rd
LANSING, MI 48917
Phone: (517) 484-1905 Ext. 129

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)	118.9
Effective Back of Cab to Centerline of Rear Axle(s) (Effective CA)	115.9
Back of Cab Protrusions (Exhaust/Intake) (CP)	2.0
Back of Cab Protrusions (Side Extenders/Trim Tab) (CP)	0.0
Back of Cab Protrusions (CNG Tank)	0.0
Back of Cab Clearance (CL)	3.0
Back of Cab to End of Frame	183.9
Cab Height (CH)	76.9
Wheelbase (WB)	184.1
Frame Overhang (OH)	65.0
Overall Frame Length	318.0
Overall Length (OAL)	318.1
Rear Axle Spacing	0.0
Unladen Frame Height at Centerline of Rear Axle	42.5

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

TRUCK & TRAILER Specialties, Inc.

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

October 12, 2023

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

Utilities Single Axle SwapLoader

HQQ003471

Install **SwapLoader Hooklift hoist model #SL-2418 including the following:**

24,000 lbs. dumping capacity and a minimum lifting capacity of 24,000 lbs. with gross weight evenly distributed in and/or on container/body

Hooklift shall be able to handle skid-mounted containers/bodies with lengths of 10-13'

Hooklift shall have a minimum of 57-degree dump angle, on a 41" truck frame height chassis

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 5.5" bore, 2.5" rod diameter and 39" 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" rod diameter and 24" stroke

Hydraulic operating pressure not to exceed 2800 PSI

Mainframe design:

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

The "Z" rail mainframe is a maximum of 8.5" 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

Nylatron pads allow containers/bodies to slide back and forth horizontally on "Z" rail of hoist with ease

Jib hook design:

Vertical Jib is constructed of an 8" x 8" x 3/8" wall square tube of A500 46 KSI steel

Jib hook height is 54" from bottom of container/body subframe rails to the bottom of the A-frame lift bar

TRUCK & TRAILER *Specialties, Inc.*

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

Hooklift is to be able to pick up a container/body that rests 21" below the grade that the truck chassis is on (assumes a 41" truck frame height)

Jib hook is designed to secure container/body to hoist without the need for a hook latch mechanism to cover the hook opening

Jib hook to be permanently welded to jib

Pins:

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, 35-gallon oil capacity (mos. 00166450 & 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

35-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 Rexroth 8m4-12 Load-Sense Hydraulic Valve Assembly including the following:

Air-operated Scraper up/down section

Air-operated Scraper swing section

Air-operated Hoist up/down section

Air-operated Jib in/out section

EPC 3-way section for Auger

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

TRUCK & TRAILER *Specialties, Inc.*

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

- Stainless steel piping to the rear of the body for pre-wet, spinner and auger
Stainless steel hydraulic couplers for spreader circuits with dust caps and plugs
- Install TTS Pneu-Logic 8-button air-operated joystick controller for all scraper, jib & hoist functions:**
Install dash-mounted heads-up display to indicating function activation
Padded arm rest
Function buttons include:
 Scraper (up/down, left/right)
 Jib/Hoist (in/out, hoist up/down)
 Spinner Left
 Spinner Right
Includes a safety trigger switch mounted in the handle
- 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 12" channel front bumper with tapered ends**
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
Paint both ends of moldboard Yellow to match cab for visibility
- Install Custom Lighting & Electrical including the following:**
Utilizing chassis switches: Front Flashers, All Flashers, Scraper Light & Spreader Light
Joystick consoles switches: Pump shutdown/override, Tarp open/close & Tailgate release w/safety cap

TRUCK & TRAILER *Specialties, Inc.*

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

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

One (1) SoundOff Pinnacle (mo. EPL7PDPC) amber/green mini lightbar & weather-pack on cab roof riser

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

Betts junction box

Back-up alarm

Chassis grille flashers and top strobes 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 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

License plate to be mounted at center of hitch plate

Install Electric Brake Controller, Tekonsha-preferred

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

All necessary mounting brackets

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: \$116,945.00 ea.

TRUCK & TRAILER Specialties, Inc.

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

HQ0003084

Base Attachment

Install Skid-mounted Crysteel 11' Select Stainless Steel Dump Body including the following:

132" length, 58" front height, 36" side height, 42" rear height, 84" inside width (8.5-10 cu yd capacity)
Single panel, pressed-in horizontal side braces
7-gauge 201 stainless steel front, sides and rear pillars
¼" AR450 floor
14" wide rear pillar
6-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 6300 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-2418 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 installed pricing: **\$34,960.00 ea.**

Above total equipment installed, non-stainless painted pricing: \$151,905.00 ea.

Chassis requirements to be confirmed at time of order:

CA: 118" TBD
Highest ground clearance
Horizontal DPF and SCR mounted under the cab
13-gallon DEF tank driverside behind front fender
Front of engine PTO
Air tanks mounted between the frame rails
Trailer pre-wiring to the rear for electric brake controller
Front frame extension
Delete OEM bumper
Temporary 50-gallon fuel tank positioned under driver's door
Stationary grille

TRUCK & TRAILER *Specialties, Inc.*

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

Plow light/Headlight switch and related OEM wiring
4-pack programmable chassis switches

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: 360-420 days ARO, depending on chassis arrival

Thank you for the opportunity to quote.

Respectfully submitted by,
Jon Luea/Brian Bouwman