

AGENDA ITEM FOR ADMINISTRATIVE MEETING

() Discussion only
(X) Action

FROM (DEPT/ DIVISION): Public Works
PROGRAM: 4530-6290 Equipment Purchase
SUBJECT: Dump Truck Purchase

<p>Background: The Public Works Department is requesting approval to purchase 2 New Dump Trucks utilizing the Sourcwell Contract:</p> <p>2 MACK Trucks equipped with osw dump body's @ \$212,671.00 each less \$95,000 each for trade in for 2 International dump trucks. The total cost to the county for this proposal is \$235,342.00 for both new trucks</p> <p>These MACK trucks come with a buy back commitment 60 months under 100,000 miles for \$105,000 each</p>	<p><u>ACTION REQUESTED:</u> Authorization for purchase of the following vehicles from Northwest Equipment Sales INC. for the listed amount:</p> <p>2 Dump Truck's w/trade in \$117,671.00 each for a total of \$235,342.00</p>
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ATTACHMENTS: Proposal from Northwest Equipment Sales INC.

Date: (7/22/24) Submitted By: (Tom Fellows)

*****For Internal Use Only*****

Checkoffs:

- () Exec. Asst.
- () Dept. Head (copy)
- () Human Resources (copy)
- () Budget (copy)
- () Fiscal
- () Legal (copy)
- () (Other - List)

To be notified of Meeting:

Needed at Meeting:

PLEASE RETURN THIS FORM AND ATTACHMENTS TO Executive Assistant

Scheduled for meeting on: August 7, 2024

Action taken:

CUSTOMER PROPOSAL

MACK®



PREPARED FOR

UMATILLA COUNTY PUBLIC WORKS
DEPARTMENT 148166
3920 WESTGATE
PENDLETON
OR 978014044

DATE

7/8/2024

PREPARED BY

NORTHWEST EQUIPMENT SALES, INC.
171 GATEWAY RD.
BURBANK
WA 99323

QUOTE INFORMATION

NORT2024000063P783
GRANITE 64FR
Qty: 2





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Thank you for giving us this opportunity to provide a quote.

This proposal contains the complete specification and performance details of the Mack model configured for your application. Every proposed spec from Mack is prepared with lowest total cost of ownership and highest return on investment as the key objectives for our customers.

This reflects Mack's focus on application excellence to deliver uptime and fuel economy, reduced maintenance, driver satisfaction, productivity and high resale value. The enclosed spec and recommendations have been carefully designed to meet all these objectives.

Beyond the technical specifications contained in this proposal, it's important to remember that each Mack truck is backed by Mack Connect, the industry's leading uptime and productivity solution, plus a coast-to-coast network of dealer service locations. I think that after reviewing this proposal you will realize why Mack is "The American Truck You Can Count On."

I look forward to meeting with you and to discuss any questions you might have regarding this proposal.

Yours sincerely

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NORTHWEST EQUIPMENT SALES, INC.

TECHNICAL SPECIFICATION

GRANITE 64FR



				WEIGHT (LB)	
MODEL DEFINING		DESCRIPTION		FRONT	REAR
S	PB100J	PRICE BOOK LEVEL	2025B Pricebook	0	0
S	LAX05X	VOLTAGE	ELECTRICAL SYSTEM 12 VOLT	0	0

				WEIGHT (LB)	
APPLICATION PACKAGES		DESCRIPTION		FRONT	REAR
	MPK08K	CHASSIS CONFIGURATION PACKAGE	ONEBOX EATS, RH BATTERY BOX, 11.8 GALLON (45L) DEF, SINGLE 22" LH FUEL TANK	0	0

				WEIGHT (LB)	
CUSTOMER/VEHICLE INFO		DESCRIPTION		FRONT	REAR
S	002EF2	CHASSIS (BASE MODEL)	GRANITE 64FR	4,853	1,764
S	99X93X	ASSEMBLY PLANT	Made in Macungie, PA USA	0	0
	MP2001	CUSTOMER FLEET SIZE	DEALER FLEET WITH LESS THAN 25 VEHICLES IN OWN FLEET OF ANY VEHICLE BRAND	0	0
S	013001	TYPE OF SERVICE	COMMERCIAL	0	0
S	M98018	WARRANTY REGISTRATION LOCATION	USA - WARRANTY REGISTRATION LOCATION	0	0
	MBT02T	EMISSION WARRANTY CERTIFICATION	CARB + EPA for Mack MP7 / MP8 Diesel	0	0
	M84037	INTENDED REGISTRATION LOCATION	OREGON	0	0
S	5050B5	INITIAL REGISTRATION LOCATION	USA REGISTRATION	0	0
	5FFB1X	BRAND ORNAMENT	BULLDOG, CHROME	0	0
S	534014	LANGUAGE-PUBS/DECAL/SIGNS	ENGLISH	0	0
S	DHX10X	ROAD CONDITION	WELL MAINTAINED SURFACED ROADS >95% DRIVING DISTANCE	0	0
	0050L5	VEHICLE USE & BODY/TRAILER TYPE	DUMP TRUCK	0	0
	2KEC1X	TRAILER TYPE	FIXED DRAWBAR TRAILER AND CENTERED AXLES	0	0
	DKXG2X	GROSS COMBINATION WEIGHT (CA in PC29 only)	80,000 LB (36 TONNES) GROSS COMBINATION WEIGHT	0	0
S	7OBB1X	BRAKE REGULATION	BRAKE REGULATION, STOPPING DISTANCE 94M (310FT)	0	0
	QCXB1X	TOPOGRAPHY	GRADES <6% GREATER THAN 98% OF DRIVING DISTANCE MAX GRADE 16%	0	0
S	E1BD1X	AMBIENT TEMP UPPER LIMIT	AMBIENT TEMPERATURE HOT. WARMER THAN 104 F (40 C) ALLOWED UP TO 25 HOURS PER YEAR	0	0
S	032A89	OPERATING TERRAIN GRADE CONDITIONS	ON-OFF HIGHWAY, STARTING GRADES<18%	0	0
S	033A10	LOADING SURFACE FACTOR	CONCRETE LOADING AND / OR UNLOADING SURFACE	0	0
	0341A2	VEHICLE VOCATION	PICKUP & DELIVERY / SHORT HAUL SERVICE	0	0
	0260H6	SALES PROMOTION	SOURCEWELL SALES PROGRAM	0	0
	0120K2	MARKETING PROMOTION	BUYBACK COMMITMENT	0	0

				WEIGHT (LB)	
ENGINE/TRANSMISSIONS		DESCRIPTION		FRONT	REAR
	100490	ENGINE / MOTOR	MP8-455C MACK 455HP @ 1400-1700 RPM (PEAK) 2100 RPM (GOV) 1750 LB-FT, US'21	2,108	530
S	3GCB1X	GHG APPLICATION, VEHICLE	GREEN HOUSE GAS VOCATIONAL APPLICATION	0	0
	136AG5	TRANSMISSION	FULLER RTLO-20918B (14.40/0.73)	618	206
S	V4EZ9X	GEARBOX 12TH GEAR LOCK-OUT	WITHOUT 12TH GEARBOX GEAR LOCK-OUT	0	0

TECHNICAL SPECIFICATION *(cont.)*



				WEIGHT (LB)	
EXHAUST/EMISSIONS		DESCRIPTION		FRONT	REAR
	Z8FT1X	NOX LIMITS	CARB LEGACY / EPA (200MG/HP/HR), 50 State Idle Compliance	0	0
S	Y7BC1X	IDLE EMISSION LABEL LOCATION (CA in PC29 only)	IDLE EMISSION LABEL LOCATION, LOWER LH CORNER OF DRIVER DOOR	0	0
S	DPF04F	DPF DIESEL PARTICULATE FILTER	CLEARTECH ONE BOX E.A.T.S. RH SIDE UNDER CAB US17 / US21	0	0
	MCF01F	CHASSIS MOUNTED EMISSIONS FINISH	PAINTED DEF & DPF COVER	0	0
	DF10M1	DIESEL EXHAUST FLUID TANK	11.8 GALLON (45 L) 22" LEFT SIDE FRAME MOUNTED	0	0
	130AD7	EXHAUST	SINGLE VERTICAL RIGHT SIDE CAB MOUNTED, LOWER VENTURI DIFFUSER, TURNED END	-35	-17
	KRXAPX	EXHAUST STACK HEIGHT	9' 6" FROM GROUND	0	0
S	Q0AA1X	EXHAUST - BRIGHT FINISH	W/O BRIGHT FINISH EXHAUST	0	0
	78ADBx	EMISSION ON BOARD DIAG CONTROL	EMISSION OBD, DISPLAY ONLY, USA2024	0	0

				WEIGHT (LB)	
ENGINE EQUIPMENT		DESCRIPTION		FRONT	REAR
S	125045	AIR CLEANER	UNDER HOOD SINGLE ELEMENT DRY TYPE W/AIR INTAKE FROM BOTH SIDES OF HOOD	0	0
S	121AA5	BUG SCREEN	BLACK ALUMINUM BUG SCREEN MOUNTED BEHIND GRILLE, WITHOUT WINTER FRONT COVER	0	0
S	1130G3	AIR COMPRESSOR/DRYER	WABCO HEATED SS-HP AIR DRYER W/ WABCO 636 (37.4 CFM) AIR COMPRESSOR	0	0
S	KOXA1X	AIR DRYER POSITION (CA)	AIR DRYER POSITION STANDARD	0	0
S	132AB9	ALTERNATOR	DELCO 12V 160A (28SI) BRUSH-TYPE	16	0
S	316AA5	BATTERIES	(3) MACK 12V 760/2280 CCA THREADED STUD TYPE	7	3
	393AB0	BATTERY BOX - MOUNTING (x)	RH RAIL BEHIND SCR	0	0
S	L5XA1X	BATTERY BOX COVER	MOLDED PLASTIC	0	0
	318AA3	BATTERY DISCONNECT SWITCH	FLAMING RIVER BIG SWITCH WIRED TO POSITIVE SIDE	3	0
	NCXD1X	STARTER MOTOR	12 VOLT MELCO STARTER (MITSUBISHI ELECTRIC)	31	0
	110AA6	ENGINE BRAKE	MACK MP8 POWERLEASH	0	0
S	JMXB1X	VEHICLE/TRAILER STOP LAMP APPLICATION (CA)	VEHICLE AND TRAILER (IF APPLICABLE) STOP LAMPS ACTIVATE UPON SERVICE BRAKE APPLICATION ONLY(3899000)	0	0
S	J2EAAX	ENGINE BRAKE ACTIVATION	ENGINE BRAKE ACTIVATION, BASIC	0	0
	118058	FAN DRIVE	BEHR FAN AND ELECTRONIC MODULATING VISCOUS FAN DRIVE W/ MANUAL ENGAGEMENT SWITCH	0	0
S	119AI9	COOLANT PROTECTION	ETHYLENE GLYCOL FULLY FORMULATED COOLANT (50/50 MIX DYED PINK) TO -34DEG, W/ FILTER	0	0
S	124AA3	HOSES - RADIATOR/HEATER	MACK EPDM RADIATOR & HEATER HOSES	0	0
S	293043	FUEL-WATER SEPARATOR	MACK W/MANUAL DRAIN VALVE V2 (INTEGRAL W/ PRIMARY FUEL FILTER)	0	0
S	MBXA1X	RELOCATE FUEL FILTER (CA)	STANDARD FUEL FILTER POSITION	0	0
S	MCA04A	ENGINE HEATERS	120v 1500w BLOCK HEATER ONLY (120V-15A PLUG)	0	0
	5NXA1X	ENGINE BLOCK HEATER	120V 1500W ENGINE BLOCK HEATER	5	0
S	QHXC1X	OIL SUMP	OIL PAN	0	0
S	2YBZ1X	EMERGENCY ENGINE STOP (CA)	WITHOUT ENGINE STOP, EMERGENCY	0	0

				WEIGHT (LB)	
CLUTCH/TRANS EQUIPMENT		DESCRIPTION		FRONT	REAR
	492032	GEAR SHIFTER	EATON/FULLER SHIFTER	0	0
	133AD6	CLUTCH	EATON ADVANTAGE SOLO 9-SPRING,2PLATE 15.5" CERAMIC 6 PADDLES, SELF ADJUST	0	0
	MCB03B	CLUTCH ACTUATION SYSTEM & PEDAL PAD	AIR ASSIST CLUTCH CABLE SYSTEM WITH RUBBER PEDAL	0	0

TECHNICAL SPECIFICATION *(cont.)*



			WEIGHT (LB)	
CLUTCH/TRANS EQUIPMENT	DESCRIPTION		FRONT	REAR
	2XAB1X	CLUTCH PEDAL RUBBER PAD	3	0
	IUXC1X	CLUTCH ASSIST (AIR) AIR OPERATED CLUTCH ASSIST	-2	0
	RBXD1X	CLUTCH RELEASE HOSE REMOTE LUBE FTGS:CLUTCH REL. BRG & BOTH CROSS-SHAFTS;MTD UNDER LH DOOR	0	0
	MRP003	MINIMUM REQUIRED DRIVELINE SIZE (KAX) MINIMUM REQUIRED DRIVELINE FOR KAX, PROPS-L	0	0
	195055	DRIVELINE - MAIN MERITOR RPL35-SD, WITH CROSS SERRATED YOKE (PROPS2XL)	23	49
S	204014	DRIVELINE - INTERAXLE MERITOR RPL25	0	36
	83AA1X	DRIVESHAFT GUARD DRIVESHAFT GUARD FOR CENTER BEARING	3	7
S	76AXAX	DRIVESHAFT MAIN U-JOINT UNIVERSAL JOINT CROSS SERRATED YOKE	0	0
S	8WAAAX	DRIVESHAFT INTERAXLE U-JOINT HALF-ROUND UNIVERSAL JOINT	0	0
S	4LDA1X	TRANSMISSION OUTPUT TORQUE TRANSMISSION OUTPUT TORQUE BASIC	0	0
	7RXB1X	LUBRICANTS, TRANSMISSION SYNTHETIC OIL IN TRANSMISSION	0	0
	139AA2	TRANSMISSION OIL COOLER TRANS OIL COOLER (INTEGRAL OIL PUMP)	45	3

			WEIGHT (LB)	
FRONT AXLE EQUIPMENT	DESCRIPTION		FRONT	REAR
	240011	FRONT AXLE 18000# (8200 KG) MACK FXL18 TAPERED SPINDLE/TAPERED BEARINGS	325	0
S	244AB1	SPRINGS - FRONT MACK TAPERLEAF 18000# (8200 KG) GROUND LOAD RATING, EQUAL BIAS	27	0
S	2410L1	BRAKES - FRONT MERITOR EX+ AIR DISC BRAKES 430MM (17") H-TYPE	25	0
S	U3XD1X	BRAKE DRUMS - FRONT FRONT BRAKE DISC LIGHTWEIGHT	23	0
S	U0AF1X	SLACK ADJUSTERS - FRONT AUTOMATIC FOR AIR DISC BRAKES	0	0
S	V7AF1X	BRAKE CHAMBERS - FRONT FRONT BRAKE CHAMBER MANUFACTURER, WABCO	0	0
	0KXL1X	HUBS - FRONT IRON CONMET PRESET-PLUS W/PREMIUM SEAL	157	0
	61500D	FRONT AXLE LUBRICANT FRONT AXLE LUBE, SHELL 80W90 MINERAL OIL	0	0
S	1KAA1X	SHOCK ABSORBERS - FRONT DOUBLE ACTING TYPE	0	0
	245AB0	STEERING SHEPPARD SD110 + HD94	206	0

			WEIGHT (LB)	
REAR AXLE EQUIPMENT	DESCRIPTION		FRONT	REAR
	268AD0	REAR AXLE 40000# (18100kg) MERITOR MT40-14X4D HYPOID (LOW ENTRY)	0	1,396
S	6MAA1X	WIDE TRACK AXLE OPTION W/O WIDE TRACK AXLE	0	0
S	617003	DRIVE AXLE LUBRICANT DRIVE AXLE LUBE, SHELL 75W90 SYNTHETIC OIL	0	0
	01800Y	CARRIER - REAR AXLE VENDOR AXLES	0	0
	254013	TRACTION DIFFERENTIAL INTERWHEEL DIFFERENTIAL LOCK, ALL REAR AXLES	0	0
S	3LAC1X	POWER DIVIDER LOCKOUT INTERAXLE POWER DIVIDER LOCKOUT, W/BUZZER & LIGHT	0	40
	TAXHKX	REAR AXLE RATIO 4.33 RATIO	0	0
	18601S	REAR SUSPENSION HMX EX 460 HENDRICKSON 40,000 lb, STANDARD RIDE HEIGHT	0	1,176
	GWXDGX	BOGIE SPREAD, REAR 54" AXLE SPACING (BOGIE WHEELBASE)	0	89
	YVXA1X	SHOCK ABSORBERS - REAR REAR SHOCK ABSORBER	0	27
	XYXA1X	TRANSVERSE TORQUE RODS TRANSVERSE TORQUE ROD - ALL AXLES	0	0
S	237037	AUX.SPRING BRAKE QTY AUX SPRING BRAKE QTY, 4 CHAMBERS	0	20
S	253AA4	BRAKES - REAR MERITOR "S" CAM 16.5"x7" Q+ (Total for QTY = 2)	0	-35
S	U4XA1X	BRAKE DRUMS - REAR CAST IRON	0	0

TECHNICAL SPECIFICATION *(cont.)*



			WEIGHT (LB)		
REAR AXLE EQUIPMENT		DESCRIPTION	FRONT	REAR	
	U1AB1X	SLACK ADJUSTERS - REAR	MERITOR - AUTOMATIC (Total for QTY = 2)	0	0
	V1AB1X	REAR BRAKE CHAMBER SIZE	REAR SPRING BRAKE CHAMBERS 30/30 TYPE	0	0
	N5FAJX	BRAKE ORI REAR-MOST DRIVE AXLE	DRUM BRAKE CHAMBER ORIENTATION: High Mount - Rear of Axle - Chamber Down	0	0
	300AL0	PARKING BRAKE CHAMBER	HALDEX "LIFE SEAL PLUS" (3" STROKE) BRAKE CHAMBERS (Total for QTY = 2)	0	0
S	0LXI5X	HUBS - REAR	IRON PRESET REAR HUB W/INTEGRATED SPINDLE NUT	0	318
	9GAABX	ABS SENSOR/CHANNEL OPTION	6S/6M SYSTEM SENSING BOTH REAR AXLES W/WHEEL END SENSORS	5	0
	698088	ANTILOCK BRAKE SYSTEM	BENDIX WITH TRACTION CONTROL 6S6M	16	0
S	URXD1X	AIR SYSTEM VALVE VENDOR	BENDIX SWITCHES AND VALVES WHERE POSSIBLE	0	0
S	H9CA1X	TRACTION CONTROL DISABLE (CA in PC29 only)	AUTOMATIC TRACTION CONTROL (ATC) FULL DISABLE SWITCH	0	0
S	3ZAA1X	SPRING BRAKE INVERSION VALVE	TRACTOR SPRING BRAKE INVERSION VALVE	5	0

			WEIGHT (LB)		
FRAME EQUIPMENT/FUEL TANKS		DESCRIPTION	FRONT	REAR	
	271208	WHEELBASE	208"	142	142
	374063	AF (OVERHANG)	63"	-19	258
	MCE0FE	FRAME RAILS & LINERS	11.1 x 105 x 300mm - (0.437" x 4.13" x 11.81"); RBM 3,160,000 LB-IN	0	0
	A0XF3X	FRONT FRAME LENGTH	BUMPER POSITION EXTENDED 20" (SNOW)	148	-15
	281AA6	CROSSMEMBERS	BOC AND INTERMEDIATE CROSSMEMBERS, HD I-BEAM	27	27
S	Q5AA1X	REAR CROSSMEMBER OPTIONS	STEEL CLOSING REAR CROSSMEMBER	-8	49
S	X6XA1X	TAPERED FRAME RAIL ENDS	WITHOUT TAPERED FRAME RAIL ENDS	0	0
	69XD3X	MUD FLAP BRACKETS	BETTS B87 SERIES WITH CONSPICUITY FEATURE (FMVSS 108)	0	27
	67XG1X	MUD FLAP, REAR AXLE	BLACK POLYETHYLENE WITH WHITE "MACK" LETTERS	0	9
S	4DXM9X	FRONT BUMPER	EXTENDED-SWEPT BACK-STEEL	0	0
S	4ZAAAX	TRUNNION BRACKET	BASIC SOLUTION TRUNNION BRACKET, STD HEIGHT	0	0
S	4EXG1X	TOWING DEVICE, FRONT	HOOKS	0	0
S	2RAA1X	FUEL LEVEL SENDER UNIT, LIQUID	BASIC FUEL LEVEL SENDER MOUNTED ON L.H TANK	0	0
	288AE0	FUEL TANK - LH	116 GALLON (440 L) 22" ALUMINUM D-SHAPE	228	100
S	290AA1	FUEL TANK - RH	W/O RH FUEL TANK	0	0
S	JHXB1X	FUEL LINE MATERIAL	BRAIDED HOSE	5	3
S	8520C2	FUEL FILLER NECK OPTIONS	WITHOUT FILLER NECK SCREEN, WITH NON-LOCKABLE FUEL TANK CAP	0	0
	12AA1X	FUEL SYSTEM - DUAL	W/O FUEL LINE OPTION	0	0
S	Q2AA1X	CAB ACCESS STEPS	STANDARD 2 STEP CAB ACCESS	0	0
S	223AA3	STEPS (BRIGHT) - FUEL TANK	STANDARD FINISH STEPS AND BRIGHT FINISH STRAPS	0	0

			WEIGHT (LB)		
AIR/BRAKE		DESCRIPTION	FRONT	REAR	
S	141AA1	RELOCATE AIR RESERVOIRS	W/O RELOCATED AIR TANKS	0	0
S	UWXC1X	AIR TANK DRAIN VALVE	MANUAL (PETCOCK) DRAIN VALVES ON ALL TANKS	0	0
S	U2XB1X	AIR RESERVOIRS	STEEL AIR TANK PAINTED CHASSIS COLOR	0	0
	1JAABX	PARKING BRAKE VALVE	TWO (2) VALVE DUAL BRAKE SYSTEM - TRAILER SUPPLY AND TRACTOR-TRAILER PARK	0	0

TECHNICAL SPECIFICATION *(cont.)*



			WEIGHT (LB)	
ELECTRICAL	DESCRIPTION		FRONT	REAR
	5RXA6X	BACK-UP ALARM	0	3
CA	EAXAUX	DASH MOUNTED SWITCHES	0	0
	NGXB1X	FOG LAMPS	9	0
S	3120A2	ROOF & SIDE MARKER LIGHTS	0	0
	NJXAAX	AUXILIARY LAMPS (CA in PC29 only)	0	0
S	LJXCAX	HEADLAMP BULB TYPE	0	0
S	LSXJ7X	DAYTIME RUNNING LIGHTS	0	0
S	X2AA1X	DRL OVERRIDE SPEED THRESHOLD	0	0
S	NEXC1X	TAIL LAMPS	0	7
	05AGAX	WORK LIGHTS - CHASSIS MOUNTED	3	0

			WEIGHT (LB)	
TRAILER CONNECTIONS	DESCRIPTION		FRONT	REAR
	WGXA1X	HAND CONTROL VALVE	0	0
	WHXQ2X	TRAILER CONNECTIONS	23	23
	321031	TRAILER ELECTRICAL RECEPT	0	0
S	3SAZ1X	TRAILER CONNECTORS HOLDER	3	0

			WEIGHT (LB)	
PTO	DESCRIPTION		FRONT	REAR
	TYXE1X	PTO - CONTROL	3	0
	183AA2	FRONT ENGINE PTO	16	0
S	B83083	BODY BUILDER INTERFACE	5	5

			WEIGHT (LB)	
SPECIALTY EQUIPMENT	DESCRIPTION		FRONT	REAR
S	MCQ01Q	LANE SUPPORT SYSTEM (LSS)	0	0
S	2PEZ1X	DATA CAPTURE	0	0
S	1PAZ1X	SURVEILLANCE CAMERA OPTIONS (CA)	0	0

			WEIGHT (LB)	
CAB INTERIOR (A THRU G)	DESCRIPTION		FRONT	REAR
S	198048	SPEEDOMETER -&- GAUGES - UNIT(S) OF MEASURE	0	0
	CCXG1X	GAUGE - PACKAGE, SECONDARY	0	0
	E1AAAX	GAUGE OIL TEMP-REAR AXLE	0	0
	I6AA1X	AUX.INCAB PNEUMATIC LINE	0	0
S	EEXA1X	CUPHOLDER	0	0
S	I0XAHX	DOME LAMP, INTERIOR	0	0
S	3XAA1X	DASH INDICATOR - LAMP BODY OUT OF POS	0	0

TECHNICAL SPECIFICATION *(cont.)*



CAB INTERIOR (A THRU G)			WEIGHT (LB)		
			FRONT	REAR	
	7860E6	FIRE EXTINGUISHER	5LB (ABC RATED) MOUNTED BETWEEN DRIVER SEAT BASE AND DOOR VALVE AIMED REARWARD	9	0
S	184AA2	FLOOR COVERING	POLYURETHANE FLOOR MAT WITHOUT REMOVABLE INSERTS	0	0

CAB INTERIOR (H THRU R)			WEIGHT (LB)		
			FRONT	REAR	
S	C52082	INSTRUMENT CLUSTER LANGUAGE	DEFAULT: ENGLISH, SPANISH, FRENCH	0	0
	20XKKX	KEY TYPES FOR DOORS	ALL CHASSIS KEYED ALIKE- (M-000)	0	0
S	13AA1X	KEYLESS ENTRY	W/O ELECTRONIC KEYLESS ENTRY	0	0
S	E3XD1X	OVERHEAD CONSOLE	(2) STORAGE COMPARTMENTS AND NET RETAINERS W/CENTER MOUNTING FOR CB PROVISIONS	0	0
S	1740D4	RADIO/RADIO ACCOMMODATION	PREMIUM STEREO, AM/FM, MP3, WEATHER BAND, BLUETOOTH	0	0
S	73AC1X	RADIO - ANTENNA	RADIO ANTENNA, CAB MOUNTED BEHIND LH DOOR	0	0
	5BXB5X	RADIO ANTENNA - CB	48" ANTENNA LEFT SIDE MIRROR MOUNTED	0	0
S	0LAA1X	AUDIO SHUTOFF	AUTO SHUTOFF FOR RADIO ENTERTAINMENT SYSTEM WHEN VEHICLE IS ENGAGED IN REVERSE	0	0
S	1WAB1X	RADIO - BINDING POSTS FOR CB	POWER LEADS (5-WAY BINDING POSTS FOR CB RADIO) IN HEADER CONSOLE	0	0
S	5CXB2X	AUDIO SPEAKER LOCATION	SPEAKER LOCATION, IN DOORS, MIDDLE HIGH SIDE PANEL	0	0
S	5JXAIX	RADIO - CB RADIO MOUNTING	CB RADIO MOUNTING REINFORCEMENT IN HEADER CONSOLE	0	0
	IFXD1X	REAR WALL STORAGE COMPARTMENT	BODYBUILDER INTERIOR CONSOLE MTD ON FLOOR BETWEEN SEATS	31	0
	784044	REFLECTOR KIT	W/O SLEEPER BOX FURNISH KIT PARALLEL TO OUTSIDE SURFACE OF RIDER'S SEAT BASE	12	3

CAB INTERIOR (S THRU Z)			WEIGHT (LB)		
			FRONT	REAR	
S	004014	INTERIOR TRIM LEVELS	COMFORT TRIM PACKAGE, STEEL GRAY (Package 11A)	0	0
	196196	SEAT - DRIVER'S	SEARS-AIR, ATLAS 80, HIGH BACK, 4 CHAMBER AIR LUMBAR	80	23
S	MAP05P	SEAT COVERING - DRIVER'S	DRIVER'S SEAT - BLENDED BLACK & GREY VINYL	0	0
S	197AA1	SEAT - PASSENGER'S	MACK-FIXED, HIGH BACK	40	9
S	MAQ06Q	SEAT COVERING - PASSENGER'S	PASSENGER'S SEAT - BLENDED BLACK & GREY VINYL	0	0
	0HAA1X	SEAT - DUST COVER(S)	SEAT, DUST COVER FOR DRIVER'S SEAT	3	0
	3PXA1X	SEAT ARM REST(S)	INBOARD MOUNTED ARM REST, DRIVER'S SEAT ONLY	3	3
S	592092	SEAT BELT(S)	LAP & SHOULDER (BOTH SEATS) CAB MOUNTED SHOULDER BELT ADJUSTMENT	0	0
S	D8XC1X	SEAT BELT WARNING INDICATOR	SEAT BELT REMINDER IN INSTRUMENT, WITH AUDIO	0	0
S	2QAA1X	STARTER SWITCH	KEY TYPE	0	0
S	161011	STEERING WHEEL	2 SPOKE URETHANE GRIP, SATIN ALUMINUM SPOKES, WITH SWITCHES	0	0
S	WSXBAX	WINDSHIELD TYPE	TWO PIECE WINDSHIELD	0	0
S	145AA1	CAB GLASS	TINTED WINDSHIELD & SIDE WINDOWS & REAR WINDOW (IF EQUIPPED)	0	0
S	JQXAAX	WINDSHIELD WASHER	W/O WINDSHIELD WASHER OPTION	0	0
S	148AA3	WINDSHIELD WIPERS	2 SPEED ELECTRIC MOTOR W/INTERMITTENT FEATURE	0	0

CAB EXTERIOR			WEIGHT (LB)		
			FRONT	REAR	
S	MCY02Y	HOOD LATCH TYPE & FINISH	STRAP TYPE HOOD LATCH WITH BLACK FINISH	0	0

TECHNICAL SPECIFICATION *(cont.)*



			WEIGHT (LB)	
CAB EXTERIOR		DESCRIPTION	FRONT	REAR
S	MCG0AG	EXTERIOR TRIM FINISH AND PACKAGES	0	0
	40000E	GRILLE	0	0
S	MCD03D	PASSENGER SIDE VISIBILITY OPTIONS	3	0
S	2KXB1X	FENDER EXTENSIONS	5	0
	5870B7	GRAB HANDLES	0	0
	154AB6	HORN - AIR	18	0
S	LXXD1X	HORN - ELECTRICAL	5	0
	152AC5	MIRRORS - EXTERIOR	7	0
	157027	SUN VISOR - EXTERIOR	12	0

			WEIGHT (LB)	
AERODYNAMIC DEVICES		DESCRIPTION	FRONT	REAR
S	159AA1	CAB AERODYNAMIC PACKAGES	0	0
S	MCM998	FRONT CHASSIS AERODYNAMIC PACKAGE	0	0

			WEIGHT (LB)	
WHEELS & TIRES		DESCRIPTION	FRONT	REAR
	9000FK	TIRES BRAND/TYPE - FRONT	292	0
	5312N1	WHEELS - FRONT	120	0
	901AH9	TIRES BRAND/TYPE - REAR	0	1,147
	3462A6	WHEELS - REAR	0	635
S	15XABX	VALVE STEMS & CAPS	0	0
S	MCH03H	FRONT HUB/WHEEL TRIM	0	0
S	MCI03I	REAR HUB/WHEEL TRIM	0	0
S	80AA1X	WHEEL NUT & FINISH - FRONT (CA)	0	0
S	3PBA1X	WHEEL NUT & FINISH - REAR (CA)	0	0

			WEIGHT (LB)	
COMMUNICATION SYSTEMS		DESCRIPTION	FRONT	REAR
S	3YAA1X	CO-PILOT - DISPLAY FEATURES ACCESS LEVEL	0	0
S	M30060	TELEMATIC GATEWAY	0	0

			WEIGHT (LB)	
ENGINE ELECTRONICS		DESCRIPTION	FRONT	REAR
S	WOXA1X	SHUTDOWN-ENG.OIL PRESSURE	0	0
S	WMXA1X	SHUTDOWN-ENG.COOLANT TEMP	0	0
S	K5XA2X	ENG /OIL TEMP SHUTDOWN	0	0
	C9AAAX	FAN ENGAGEMENT-MOVING	0	0
	D1AABX	FAN ENGAGEMENT TIME-MOVING	0	0
	C7AABX	FAN ENGAGEMENT TIME-A/C	0	0

TECHNICAL SPECIFICATION *(cont.)*



				WEIGHT (LB)	
ENGINE ELECTRONICS		DESCRIPTION		FRONT	REAR
S	K7XY1X	LOW IDLE ENGINE RPM	IDLE CONTROL, 600 RPM	0	0
S	X0AB0X	IDLE RPM UP W/LOW VOLTAGE	INCREASE 10 MINUTE MAXIMUM TIME	0	0
S	M3CA1X	IDLE S/D ABS TAMPER CHECK	IDLE SHUTDOWN ABS TAMPER CHECK, ENABLED	0	0
S	B1ACAX	IDLE S/D WARNING TIME	30 SEC IDLE S/D WARNING TIME	0	0
S	A8AALX	IDLE S/D IF WARM-UP TEMP	38C DEG (100F), WARM UP TEMP DELAY	0	0
S	A4AAEX	IDLE S/D WARM-UP TIMER	5 MIN. WARM UP TIME DELAY	0	0
S	A6AABX	IDLE S/D IF PTO ACTIVE	ENGINE IDLE SHUTDOWN TIME OVERRIDDEN IF PTO ACTIVE	0	0
S	B0AAAX	IDLE SHUTDOWN IF POWER > LIMIT	ENG IDLE SHUTDOWN TIME OVERRIDDEN IF TORQUE > THAN LIMIT	0	0
S	M4CB1X	IDLE S/D OVERRIDE %ENGINE LOAD	IDLE SHUTDOWN OVERRIDE UPTO 20% ENGINE LOAD THRESHOLD	0	0
S	D2AAFV	AMBIENT TEMP MIN TRESHOLD	AMBIENT TEMP MIN TRESHOLD, 16 DEG C, (60 DEG F)	0	0
S	D3AAEX	AMBIENT TEMP MAX TRESHOLD	AMBIENT TEMP MAX TRESHOLD, 27 DEG C, (80 DEG F)	0	0
S	B3ABAX	EHT, MAX ROAD SPEED	ELECTRONIC HAND THROTTLE, MAX ROAD SPEED, 16 KMH (10 MPH)	0	0
S	B6ABAX	EHT, MAX ENG SPEED	ELECTRONIC HAND THROTTLE, MAX ENGINE SPEED, 1000 RPM	0	0
S	B4ADAX	EHT, MIN ENG SPEED	ELECTRONIC HAND THROTTLE, MIN ENGINE SPEED, 700 RPM	0	0
S	B9AABX	EHT, SPEED RAMP RATE	ELECTRONIC HAND THROTTLE, SPEED RAMP RATE, 100 RPM/SEC	0	0

				WEIGHT (LB)	
TRANSMISSION ELECTRONICS		DESCRIPTION		FRONT	REAR
S	779001	TRANSMISSION ELECTRONICS PACKAGE	W/O ELEC TRANS PACKAGE OPTION (all non-Allison transmissions)	0	0
S	MAV01V	TRANSMISSION ELECTRONIC SHIFTING PROPERTIES	W/O ALLISON FUELSENSE 2.0 PROGRAMMING	0	0

				WEIGHT (LB)	
VEHICLE ELECTRONICS		DESCRIPTION		FRONT	REAR
S	JCXE6X	ROAD SPEED LIMIT (RSL)	105 KM/H ROAD SPEED LIMITER (65MPH)	0	0
S	Y3CC1X	PEDAL SPEED LIMITER	101 KM/H PEDAL ROAD SPEED LIMITER (63MPH)	0	0
S	JDXA1X	CRUISE CONTROL	CRUISE CONTROL	0	0
S	JFXLLX	CRUISE CONTROL, MAX SPEED	MAX CRUISE, 105 KPH (65 MPH)	0	0
S	E3AACX	CRUISE CONTROL MIN SPEED	MIN CRUISE, 32 KPH (20 MPH)	0	0
S	E4AAAX	CRUISE RESUME WITH CLUTCH	CRUISE RESUME WITH CLUTCH	0	0
S	E5AACX	ENG BRAKE ENGAGE IN CRUISE	ENG BRK ENGAGE IN CRUISE, 3 MPH, ABOVE SET SPEED	0	0
	L2CB1X	PDLO ENGAGED VLS	POWER DIVIDER LOCK OUT (PDLO) ROAD SPEED LIMIT 24KMH (15MPH)	0	0
	Q6FAHX	DIFF LOCK SPEED LIMIT	DIFFERENTIAL LOCK ROAD SPEED LIMIT 24KMH (15MPH)	0	0
S	W5BA1X	MAXIMUM ENG SPEED AT 0 MPH	1000 MAXIMUM ENGINE SPEED AT 0 MPH	0	0
S	A4BAAX	SPEED SENSOR TAMPERING DETECTION	DETECTION OF SPEED SENSOR TAMPERING, ENABLE	0	0
S	8RXAEX	PWR.LIMIT LVL.-MPH SENSOR	ENG TORQUE LIMITED TO 50%, IF SPEED SENSOR TAMPER DETECTED	0	0
S	0PAZ1X	DRIVER PERFORMANCE & BONUS PARAMETERS	WITHOUT DRIVER PERFORMANCE PARAMETERS	0	0
S	G5AAHX	DATAMAX ENGINE OVERSPEED-COMPANY	ENGINE OVERSPEED, ALL CONDITIONS, TIME LOG IF ABOVE 2200 RPM	0	0
S	G2AAGX	DATAMAX ENGINE OVERSPEED-FUEL	ENGINE OVERSPEED, FUELED, TIME LOG IF ABOVE 2100 RPM	0	0
S	G4AAUX	DATAMAX VEHICLE OVERSPEED-ALL	VEHICLE OVERSPEED,ALL COND, TIME LOG IF ABOVE 75MPH (121KMH)	0	0
S	G3AAPX	DATAMAX VEHICLE OVERSPEED-FUEL	VEHICLE OVERSPEED, FUELED, TIME LOG IF ABOVE 70MPH (113KMH)	0	0
S	G1AABX	DATAMAX IDLE LOG DELAY	ENGINE IDLE DELAY TO START LOG, 2 MIN	0	0

TECHNICAL SPECIFICATION (cont.)



VEHICLE ELECTRONICS			DESCRIPTION	WEIGHT (LB)	
				FRONT	REAR
S	W9A01X	PERIODIC TRIP LOG DAY OF MONTH	PERIODIC TRIP LOG, DAY 1 OF THE MONTH	0	0

PTO ELECTRONICS			DESCRIPTION	WEIGHT (LB)	
				FRONT	REAR
S	F3AAEX	PTO1 SINGLE SPEED CONTROL RPM.	PTO 1ST, SINGLE SPEED SETTING, 1000 RPM	0	0
S	F5AABX	PTO 1ST, MAX ROAD SPEED	1ST PTO, MAX ROAD SPEED, 10 MPH (16 KPH)	0	0
S	F6AABX	PTO 1ST, SPEED RAMP RATE	PTO 1ST, SPEED RAMP RATE 100 RPM/SEC	0	0
S	F7AAPX	PTO 1ST, MAX ENGINE SPEED	PTO 1ST, MAX ENGINE SPEED, 2100 RPM	0	0
S	F8AAGX	PTO 1ST, ROAD SPEED LIMIT	PTO 1ST, ROAD SPEED LIMIT, 97 KMH (60 MPH)	0	0
S	F9AABX	PTO 1ST, MINIMUM ENGINE SPEED	PTO 1ST, MINIMUM ENGINE SPEED, 600 RPM	0	0
S	H6AAEX	PTO 2ND, SINGLE SPEED SETTING	PTO 2ND, SINGLE SPEED SETTING, 1000 RPM	0	0
S	H0AABX	PTO 2ND, MAX ROAD SPEED	2ND PTO, MAX ROAD SPEED, 10 MPH (16 KPH)	0	0
S	G9AABX	PTO 2ND, SPEED RAMP RATE	PTO 2ND, SPEED RAMP RATE 100 RPM/SEC	0	0
S	H7AANX	PTO 2ND, MAX ENGINE SPEED	PTO 2ND, MAX ENGINE SPEED, 2100 RPM	0	0
S	H5AAGX	PTO 2ND, ROAD SPEED LIMIT	PTO 2ND, ROAD SPEED LIMIT, 97 KMH (60 MPH)	0	0
S	G8AABX	PTO 2ND, MINIMUM ENGINE SPEED	PTO 2ND, MINIMUM ENGINE SPEED, 600 RPM	0	0

PAINT			DESCRIPTION	WEIGHT (LB)	
				FRONT	REAR
S	950AD0	PAINT DESIGN	SINGLE COLOR	0	0
S	924014	PAINT TYPE	SOLID PAINT	0	0
S	944AA7	PAINT COLOR - FIRST COLOR	MACK WHITE; P9188	0	0
S	945998	PAINT COLOR - SECOND COLOR	NO SECOND TRUCK COLOR PROVIDED; NO COLOR	0	0
S	946998	PAINT COLOR - THIRD COLOR	NO THIRD TRUCK COLOR PROVIDED; NO COLOR	0	0
S	996AA3	PAINT - CAB PAINT SYSTEM	PAINT - CAB, URETHANE CLEAR COAT	0	0
S	MPB944	CAB COLOR	SAME AS FIRST COLOR - CAB	0	0
S	MPD944	HOOD COLOR	SAME AS FIRST COLOR - HOOD	0	0
	966944	SUN VISOR COLOR	SAME AS FIRST COLOR - SUN VISOR	0	0
S	MPC998	SLEEPER ROOF COLOR	WITHOUT SLEEPER ROOF COLOR	0	0
S	MPA998	ROOF FAIRING COLOR	WITHOUT ROOF FAIRING	0	0
S	951AA6	CHASSIS RUNNING GEAR	MACK BLACK (URETHANE); P3036	0	0
S	958018	BUMPER	PAINT BUMPER SAME COLOR AS CHASSIS RUNNING GEAR	0	0
S	959019	FUEL TANK - ***NO INVENTED VARIANTS ALLOWED in the FUEL TANK PAINT FAMILY***	W/O OPTIONAL FUEL TANK PAINT	0	0
S	962032	HUBS & DRUMS-FRONT	SAME AS CHASSIS RUNNING GEAR	0	0
S	963033	HUBS & DRUMS-REAR	SAME AS CHASSIS RUNNING GEAR	0	0

CALCULATED CODES - KAX			DESCRIPTION	WEIGHT (LB)	
				FRONT	REAR
S	9JXA1X	PROPCALC SELECTION	YES, THE ORDER MUST BE CALCULATED	0	0
	D5EA1X	AUTO ROUTING & CLIPPING, CENTER	AUTOMATIC ROUTING & CLIPPING PLACEMENT, CENTER SECTION	0	0

TECHNICAL SPECIFICATION *(cont.)*



BASE WARRANTY & PURCHASED COVERAGES				WEIGHT (LB)	
				FRONT	REAR
S	898003	VEHICLE WARRANTY TYPE	HEAVY DUTY WARRANTY CLASSIFICATION	0	0
S	M50030	BASIC CHASSIS COVERAGE	HEAVY DUTY STANDARD BASE COVERAGE 12 MONTHS/100,000 MILES (161,000 KM)	0	0
	M8302T	EMISSION - SURCHARGE	CARB + EPA for Mack MP7 / MP8 Diesel	0	0
	M51147	ENGINE WARRANTY	CARB - ENGINE PLAN 2, 60 MO/250K MILES, MP7/MP8 <460HP	0	0
	M52052	EMISSION COMPONENT COVERAGE	US and CANADA CARB EQUIPPED VEHICLE EMISSION COMPONENTS COVERAGE 60 MONTHS/350,000 MILES	0	0
	M54094	TRANSMISSION WARRANTY	36/350K MI: EATON TRANSMISSION STANDARD NORMAL AND HEAVY DUTY COVERAGE	0	0
	M55055	CARRIER & AXLE HOUSING WARRANTY	STANDARD VENDOR NORMAL / HEAVY DUTY COVERAGE 36 MONTHS/350,000 (563,00 KM)	0	0
S	M56026	AIR CONDITIONING WARRANTY	AIR CONDITIONING STANDARD COVERAGE (Sealed System Only) 12 MONTHS UNLIMITED MILEAGE	0	0
S	M57027	CHASSIS TOWING WARRANTY	STANDARD NORMAL / HEAVY DUTY CHASSIS TOWING 90 DAYS OR 5,000 MILES	0	0
S	M58028	ENGINE TOWING WARRANTY	STANDARD MACK ENGINE TOWING COVERAGE 24 MONTHS/250,000 MILES (402,000 KM)	0	0

CONNECTED SERVICES				WEIGHT (LB)	
				FRONT	REAR
	S03014	MACK INTEGRATED UPTIME	MACK INTEGRATED UPTIME - 60 MONTHS	0	0
	S04014	MACK CONNECT LOCATION & REPORTING	MACK CONNECT LOCATION & REPORTING - 60 MONTHS	0	0
S	S05010	FLEET INTEGRATION	WITHOUT FLEET INTEGRATION	0	0
S	S06400	PARTNERED SERVICES	NO PARTNERED SERVICES PROVIDED	0	0

ADDITIONAL ENGINEERING (Included)				WEIGHT (LB)	
				FRONT	REAR
	CA	24M07080		0	0

FRONT / REAR AXLE WEIGHTS (LB)

9659 8050

TOTAL WEIGHT (LB)

17708

PERFORMANCE - PREDICTOR



Inputs Required	DWGRef	Inputs	UOM
Vehicle Type		Aero Muscle Hood - Roof Fairing (0.60)	MPH
Performance Level		>67 MPH / >108KPH	MPH
Frontal Area		110.0	FEET ²
Accessory Power Loss		11.0	HP

VEHICLE SPECIFICATION SUMMARY

Model	GRANITE 64FR		
Gross Combination Weight	80,000 LB (36 TONNES) GROSS COMBINATION WEIGHT		
Vehicle Application	ON-OFF HIGHWAY, STARTING GRADES<18%		
Body/Trailer Type	DUMP TRUCK		
Loading/Unloading Surface Type	CONCRETE LOADING AND / OR UNLOADING SURFACE		
Engine	MP8-455C MACK 455HP @ 1400-1700 RPM (PEAK) 2100 RPM (GOV) 1750 LB-FT, US'21		
Peak Power	HP	455.0 @ 1400 - 1700	
Peak Torque	Newton Meters	2400 @ 1000	
Transmission	FULLER RTLO-20918B (14.40/0.73)		
Rear Axle	40000# (18100kg) MERITOR MT40-14X4D HYPOID (LOW ENTRY)		
Rear Axle Ratio	4.33		
Rear Tire	11R22.5 G BRIDGESTONE L320 (23360 lbs) (DRIVE ONLY)		
Tire Revolutions per Mile	491		
Total Reduction	3.16		

CALCULATED PERFORMANCE SUMMARY

	Speed	UOM	RPM	Desired / Recommended Value	Status
Engine RPM @ 65 MPH	65.2	MPH	1687		
Engine RPM @ Desired Cruise Speed	65.2	MPH	1687	1100 - 1300 rpm	CHECKI
Engine RPM @ Road Speed Limit (RSL)	65.2	MPH	1687	< 2100 rpm	OK
Sweet Spot Cruise Speed Range in Top Gear	42.5 - 50.3	MPH	1100 - 1300		
Top Gear Speed Range	38.7 - 81.2	MPH	1000 - 2100	65.2 MPH	OK
Minimum Practical Speed In Reverse	1.1	MPH	600		
Maximum Practical Speed in Reverse	3.9	MPH	2100		
Minimum Practical Speed In Lowest Forward Gear	1.2	MPH	600		
Maximum Practical Speed In Lowest Forward Gear	4.1	MPH	2100		

	Concrete / Asphalt	UOM
Wheel HP Required at (65 MPH) Cruise Speed	259.9 / 288.6	HP
Wheel HP Required at (75 MPH) Road Speed Limit	259.9 / 288.6	HP
Wheel HP Required at (92 MPH) Top Speed	412.3 / 449.7	HP

PERFORMANCE - PREDICTOR *(cont.)*



VEHICLE SPECIFICATION SUMMARY

VEHICLE SPECIFICATION SUMMARY			
Gradeability		Recommended Min. Gradeability in Top Gear	
Maximum in Top Gear (Concrete)	2.4%	1.9%	OK
Maximum in Top Gear (Asphalt)	2.2%	1.9%	OK
Startability		Recommended Min. Startability	
In Lowest Gear	34.5%	18.0%	OK
Loading/Unloading Surface Type	CONCRETE LOADING AND / OR UNLOADING SURFACE		
		Recommended Speed on 1.5% Grade	
Speed on a 1.5% Grade (Concrete)	59.0 MPH	>67 MPH	CHECK!
	@1525 rpm in 18th gear	PL5	
Suggested Value for Gear Down Vehicle Speed	RSL - 10		
Driveability Rating	Status		
100% Max Power available after shift	Very Good		
>95% Very Good >90% Acceptable			
Performance Level	Recommended Speed on 1.5% Grade	Min. Gradeability in Top Gear	
PL5 - High Performance	>67 MPH	1.9%	
PL4 - Performance	61 - 67 MPH	1.7%	
PL3 - Economy	54 - 60 MPH	1.5%	
PL2 - Fleet / Construction	47 - 53 MPH	1.3%	
PL1 - Heavy Haul	40 - 46 MPH	1.1%	

RPM at 65 MPH

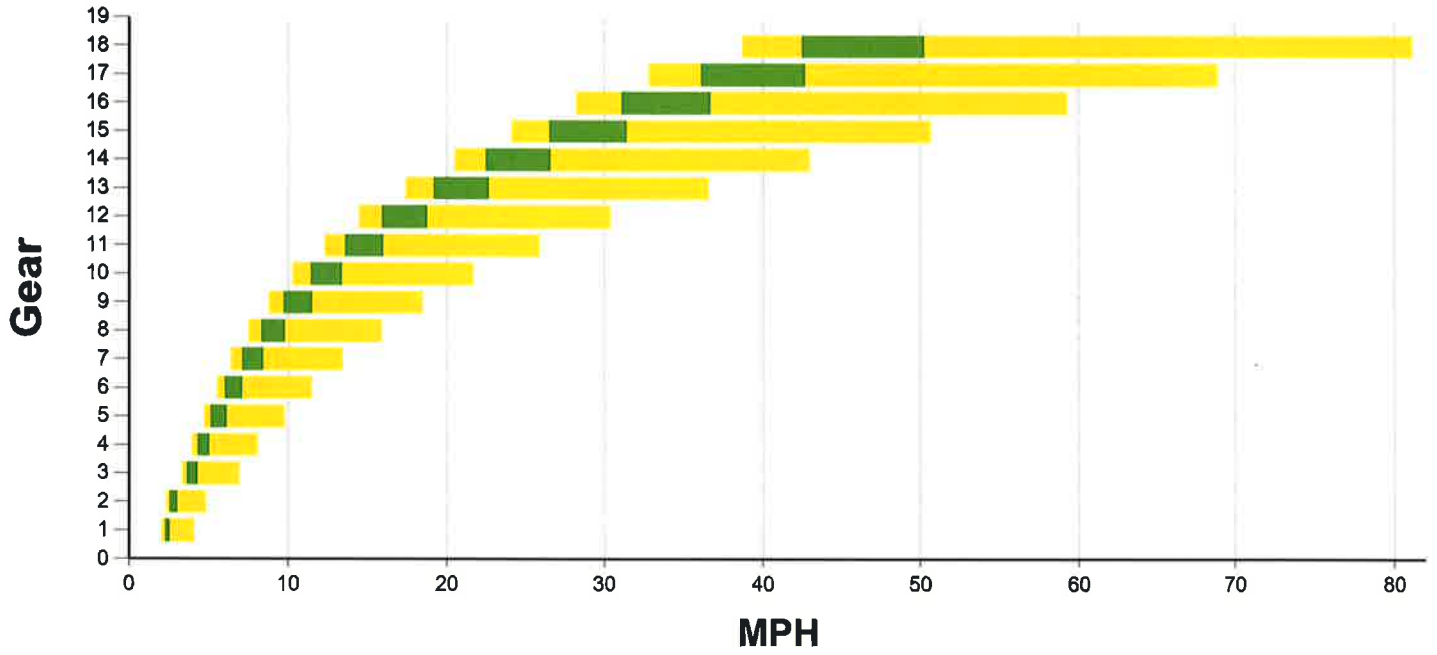


RPM at Cruise Speed

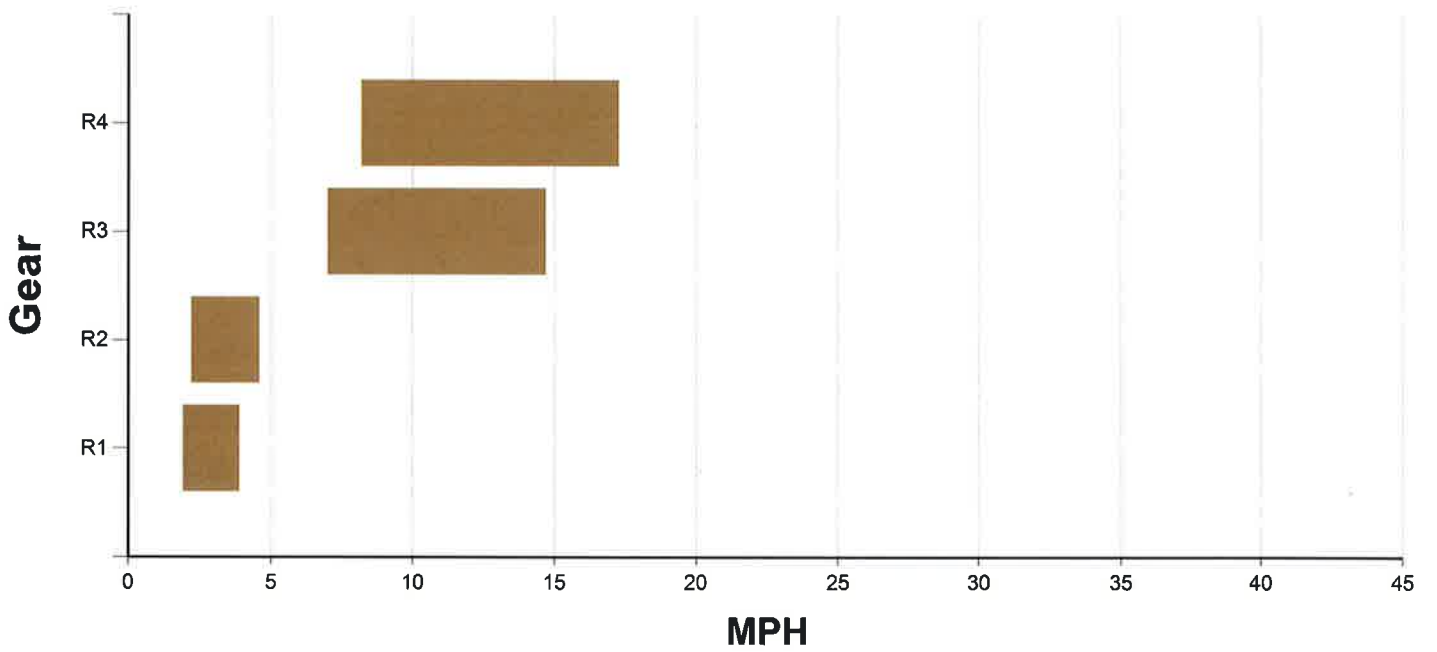


	MPH	RPM
Minimum of Engine Range	38.7	1000.00
Minimum of Economy Range	42.5	1100.00
Cruise Speed	65.2	1687.13
Maximum of Economy Range	50.3	1300.00
Road Speed Limit	65.2	1687.13
Maximum of Engine Range	81.2	2100.00

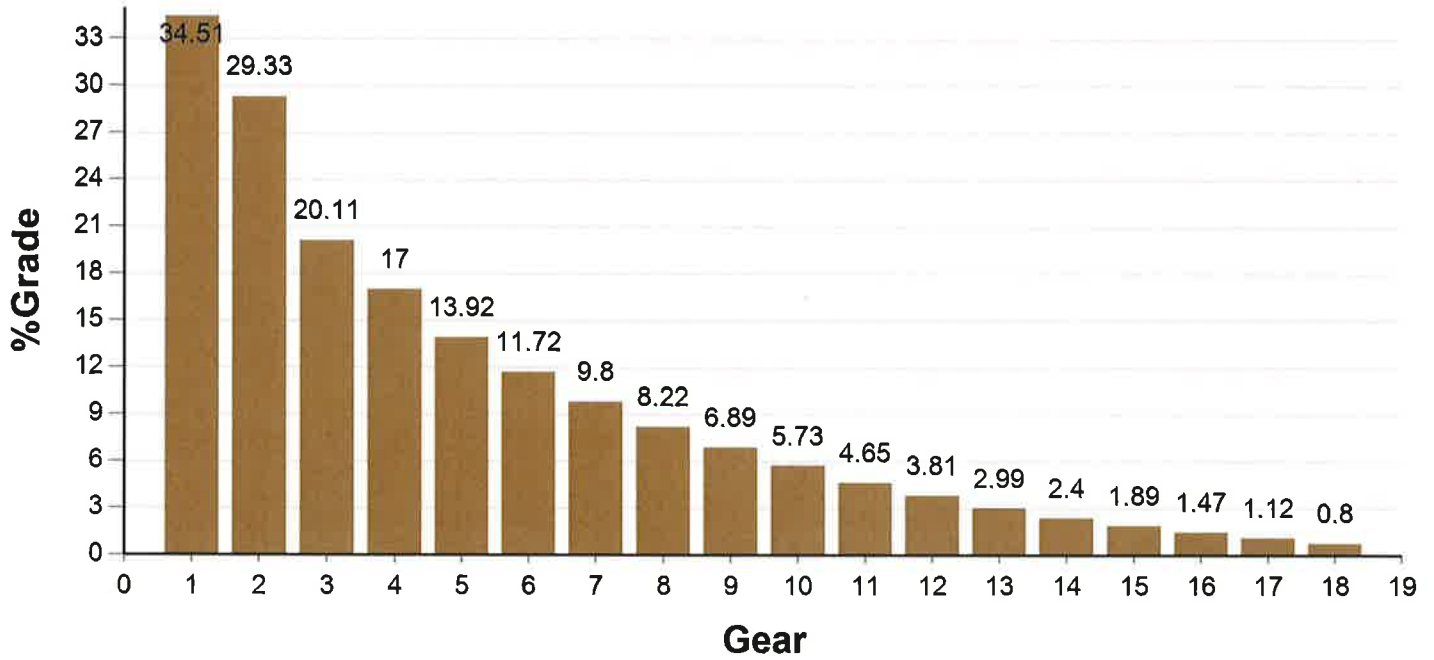
Forward Geared Speed



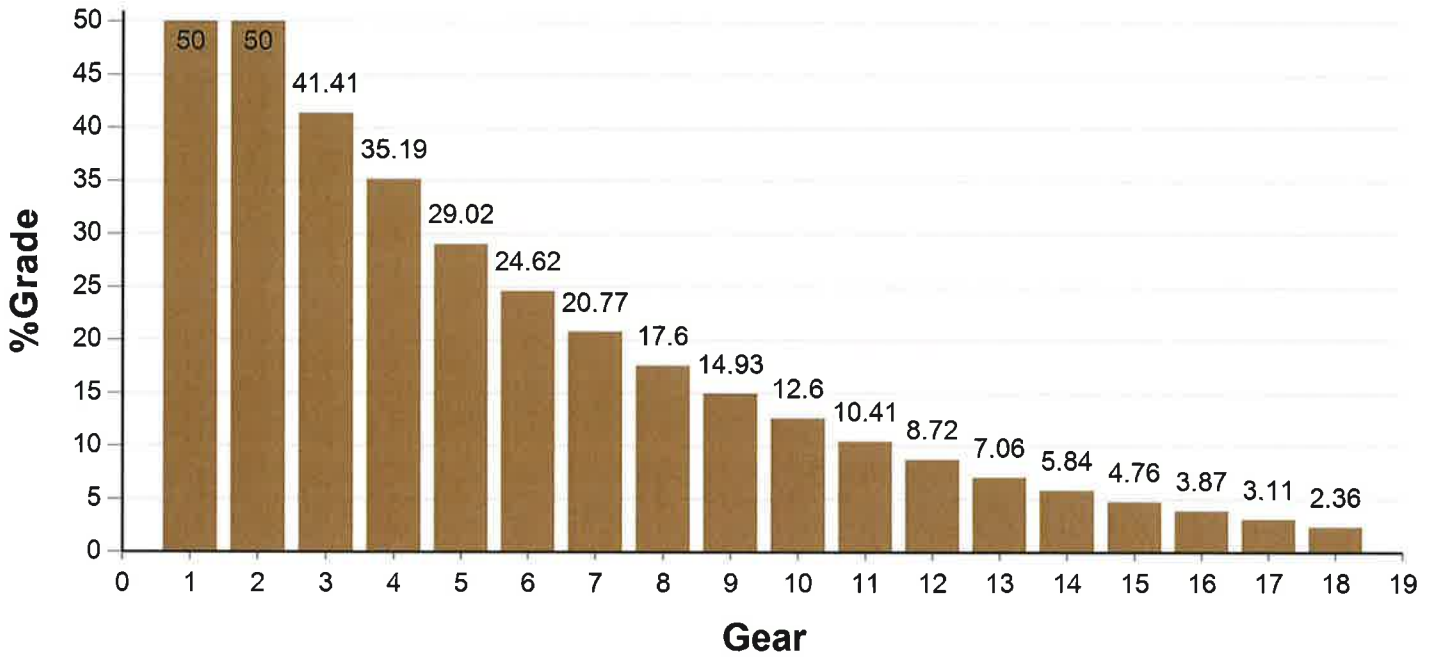
Reverse Geared Speed



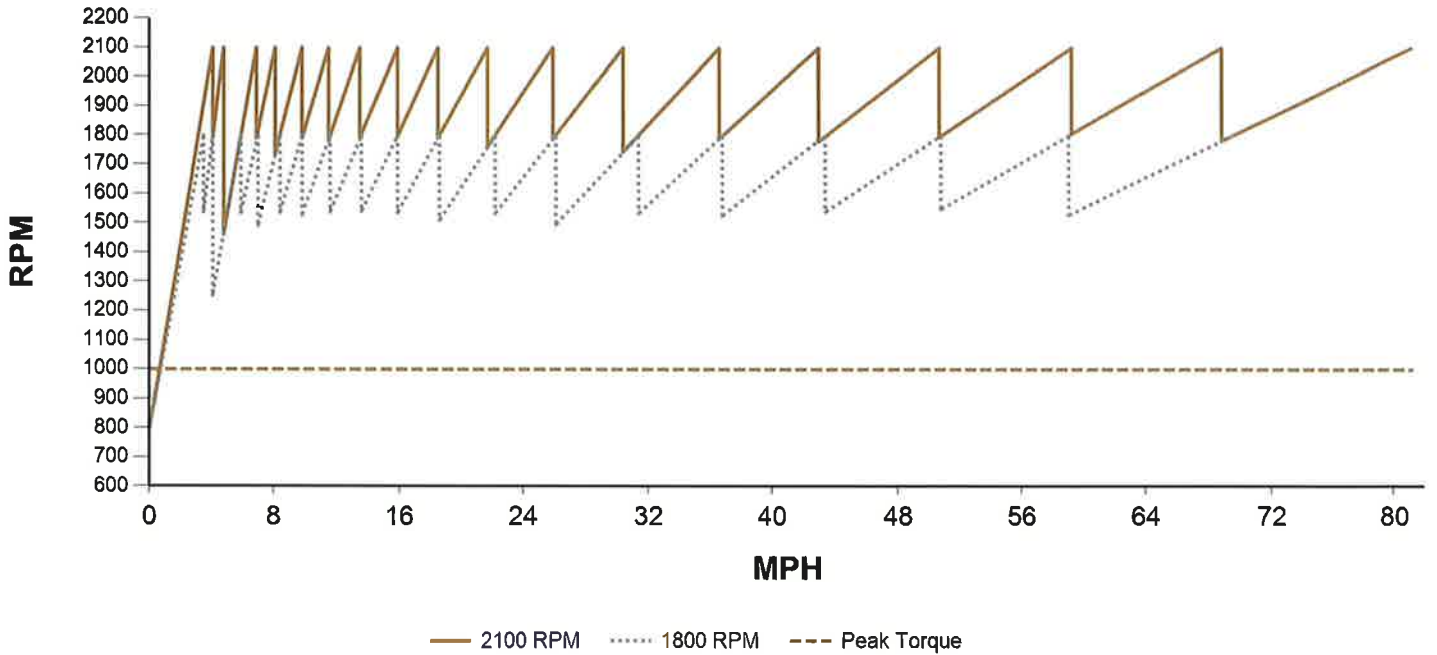
Startability



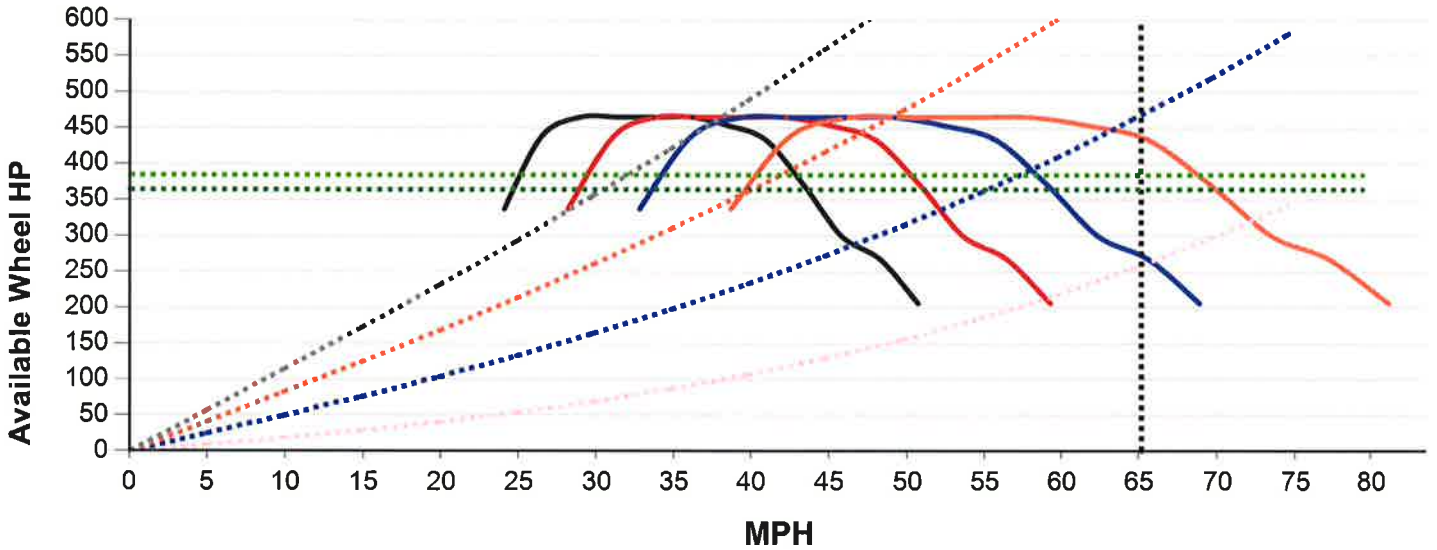
Gradeability at Max Torque



Shift Chart



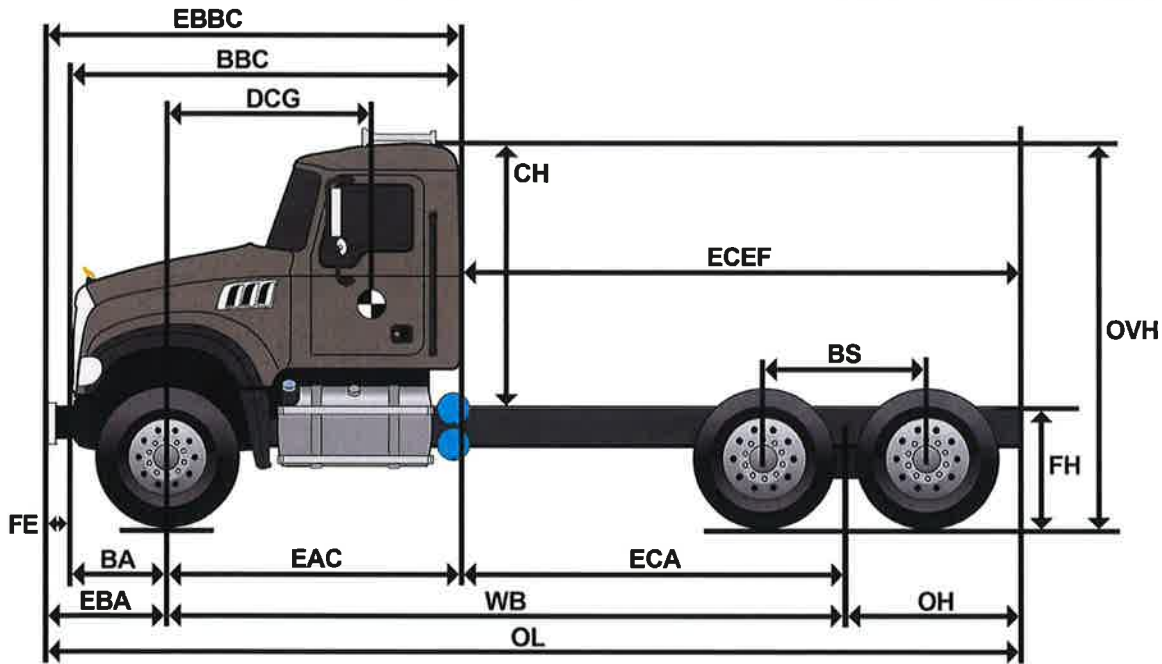
Horsepower VS. Speed



— 9th Gear	— 11th Gear	— 0.0% Grade	— 3.0% Grade	— Cruise Speed	— 90% Power	— 95% Power
— 10th Gear	— 12th Gear	— 1.5% Grade	— 4.5% Grade			

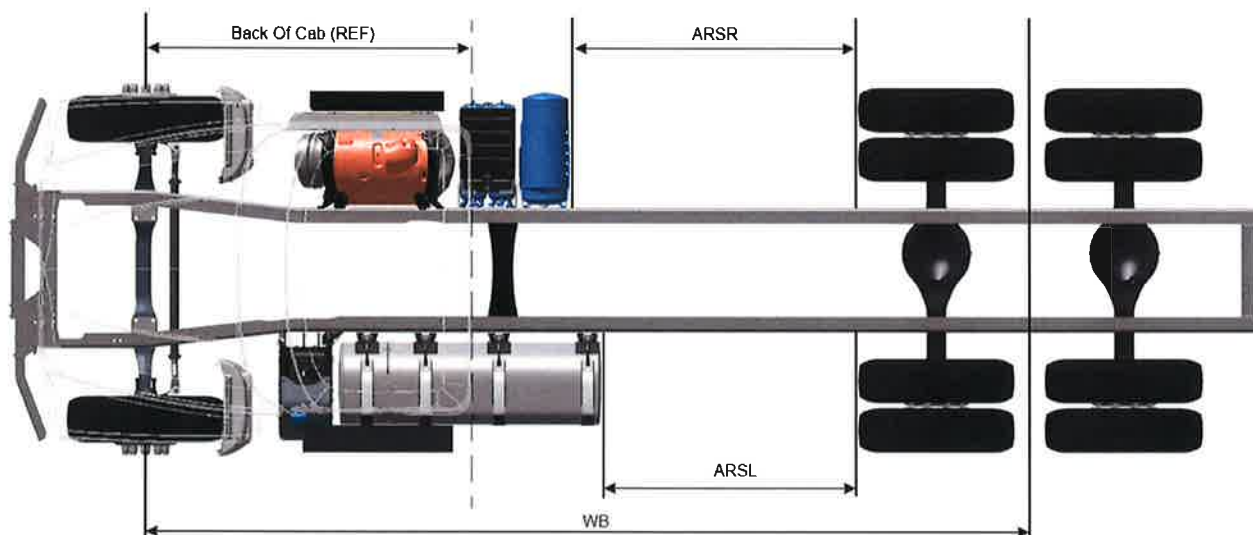
VEHICLE SPECIFICATION/CALCULATED PERFORMANCE SUMMARY

Description	Sales Code	Dwg Ref	Length	UOM
Front Frame Extension	N/A	FE	20.0	INCHES
Bumper to Front Axle	N/A	BA	29.0	INCHES
Eff. Bumper to Front Axle	N/A	N/A	49.0	INCHES
Wheelbase	N/A	WB	208.5	INCHES
Rear Overhang	N/A	OH	63.4	INCHES
Overall Length	N/A	OL	320.9	INCHES
Bumper to Back of Cab	N/A	BBC	116.5	INCHES
Eff. Bumper to Back of Cab	N/A	EBBC	136.5	INCHES
Eff. Cab to Rear Axle	N/A	ECA	120.9	INCHES
Eff. Front Axle to Back of Cab	N/A	EAC	87.5	INCHES
Eff. Cab to End of Frame	N/A	ECEF	184.3	INCHES
Unladen Frame Height	N/A	FH	44.5	INCHES
Cab Height	N/A	CH	70.9	INCHES
Overall Height	N/A	OVH	118.5	INCHES
Driver CG	N/A	DCG	70.9	INCHES
54" AXLE SPACING (BOGIE WHEELBASE)	GWXDGX	BS	53.9	INCHES



VEHICLE SPECIFICATION/CALCULATED PERFORMANCE SUMMARY

Description	Sales Code	Dwg Ref	Left Value(in)	Right Value(in)
Wheelbase	N/A	WB	208.5	208.5
Available Rail Space Right	N/A	ARSR	N/A	61.9
Available Rail Space Left	N/A	ARSL	36.5	N/A
Eff. Front Axle to Back of Cab	N/A	REF	87.5	87.5
Front Axle To Fender	CDX23X	N/A	35.4	35.4
Clartech One Unit	DPF04F	N/A	0.0	48.0
Battery Box	393AB0	N/A	0.0	15.0
116 GALLON (440 L) 22" ALUMINUM D-SHAPE / W/O RH FUEL TANK	288AE0 / 290AA1	N/A	70.5	0.0
Ad-Blue Tank	DF10M1	N/A	17.8	0.0
Drive Tire Radius	901AH9	N/A	21.2	21.2



Top View image is intended for illustration purposes only and is not presented to scale. Wheelbase, Axle Spacing and After frame are not shown as specified, but are a representation. Customer Adaptation (CA) options and relocated components are not represented in these images. Most CA options impact the variation of the image, thus an image may not populate. Calculations are approximate to a tolerance of ± 4 inches due to component mounting variation. Certain chassis component options are NOT represented in the Top View image, such as, but not exclusive to, Front Frame Extensions, Fuel Water Separators, Air Dryers, PTOs, Fifth Wheels, Chassis Fairings, Toolboxes, Trailer Connections. For further information on these items and their respective locations on your specification, please refer to the data sheets associated with those items in the configurator.

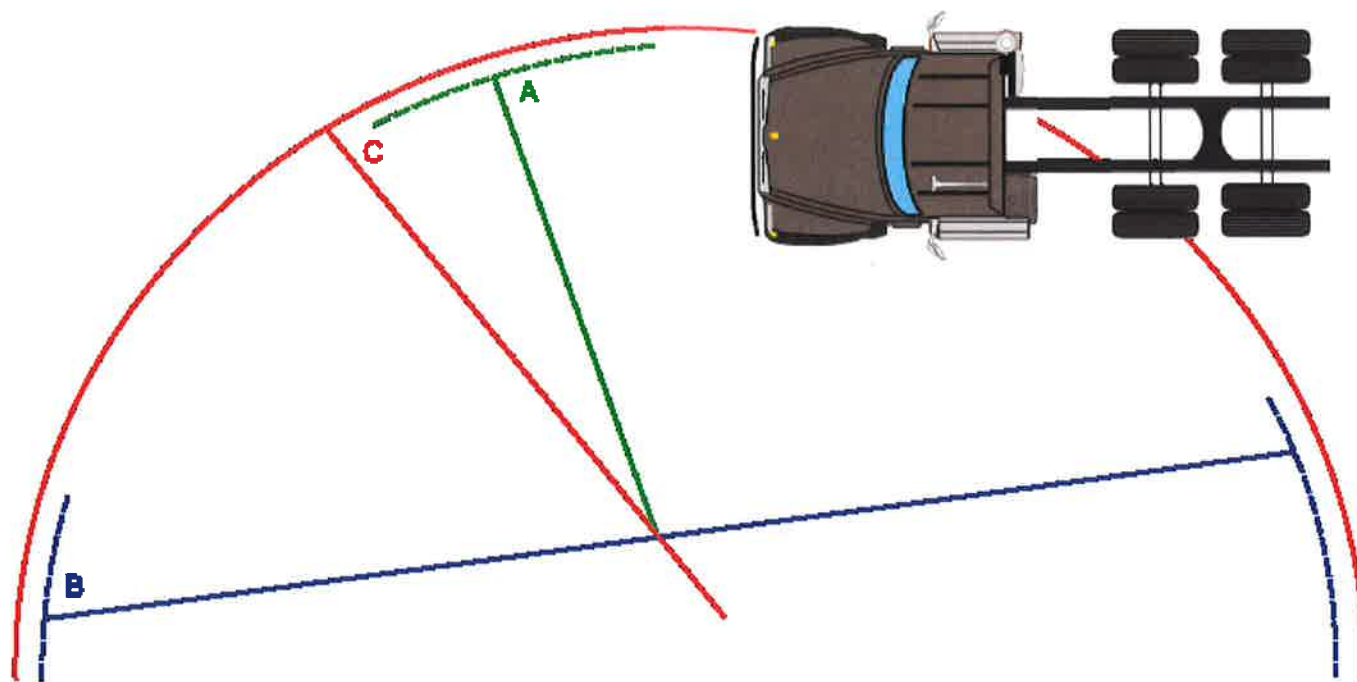
VEHICLE SPECIFICATION/CALCULATED PERFORMANCE SUMMARY

Description	Sales Code	Dwg Ref	Rear		UOM
			Unladen	Laden	
Tire Radius	901AH9	A	21.2	19.8	INCHES
Suspension Height	18601S	B	11.5	9.5	INCHES
Frame Depth	YBXGAX	C	11.8	11.8	INCHES
Total Height	N/A	E	44.5	41.1	INCHES



VEHICLE SPECIFICATION/CALCULATED PERFORMANCE SUMMARY

Description	Sales Code	Dwg Ref	Length	UOM
SAE Turning Radius	N/A	A*	31.8	FEET
Adjusted Turning Radius	N/A	A	35.9	FEET
Curb-to-Curb Diameter	N/A	B	72.8	FEET
Wall-to-Wall Diameter	N/A	C	78.7	FEET



Tests have shown that the true location of the turning center is further to the rear than midway between drive axle sets (where applicable)

The actual location of the turning center depends on:

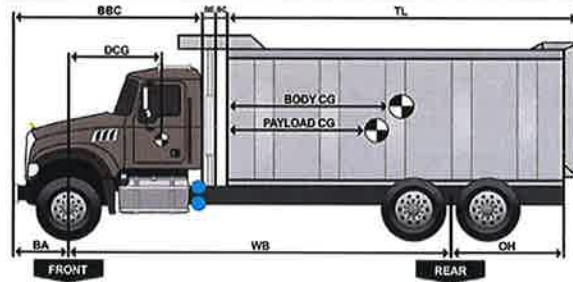
- Whether the drive tire equipment is single or dual.
- The overall load distribution for the vehicle (front/rear, between drive axles) in a loaded condition
- Manufacturing tolerances within the steering components



Inputs Required	DWGRef	Inputs	UOM
Driver(s) & Equipment Weight		201	LB
Total Body Length	TL	16.4	FEET
Body Tare Weight		3501	LB
Front of Body to Body CG	BODY CG	96.0	INCHES
Additional Clearance from Back of Exhaust to Front of Body	BC	6.0	INCHES

VEHICLE SPECIFICATION SUMMARY

Description	Description	Dwg Ref	Length	UOM
Bumper to Front Axle	N/A	BA	29.0	INCHES
Wheelbase	N/A	WB	208.5	INCHES
Rear Overhang	N/A	OH	63.4	INCHES
Bumper to Back of Cab	N/A	BBC	116.5	INCHES
BOC Exhaust Space	130AD7	N/A	0.0	INCHES
Driver CG from Front Axle	N/A	DCG	70.9	INCHES



CALCULATED PERFORMANCE SUMMARY

Tare Weights	Front Axle	Rear Axle (s)	Total	UOM
Chassis	9659	8050	17708	LB
Driver(s) & Equipment Weight	133	69	201	LB
Fuel	467	327	794	LB
Body/Trailer	318	3184	3501	LB
Total Tare	10575	11628	22203	LB
Payloads				
First Body Payload	2954	29625	32578	LB
Total - Lift Axles Down	13528	41253	54780	LB
GAWR	14781	40000	80000	LB



VEHICLE SPECIFICATION/CALCULATED PERFORMANCE SUMMARY

Sub-Category	Sales Code	Sales Code Description	Value	UOM
Front Axle	24001I	18000# (8200 KG) MACK FXL18 TAPERED SPINDLE/TAPERED BEARINGS	18000	LB
Front Suspension	244AB1	MACK TAPERLEAF 18000# (8200 KG) GROUND LOAD RATING, EQUAL BIAS	18000	LB
Front Tires	9000FK	12R22.5 H BRIDGESTONE M863 (14780 lbs)	14781	LB
Front Wheels	5312N1	22.5x9.00 ACCURIDE 41730x POLISHED ALUMINUM, 7.00" OFFSET, 10 HAND HOLE	20000	LB
		Front GAWR	14781	LB
Rear Axle	268AD0	40000# (18100kg) MERITOR MT40-14X4D HYPOID (LOW ENTRY)	40000	LB
Rear Suspension	18601S	HMX EX 460 HENDRICKSON 40,000 lb, STANDARD RIDE HEIGHT	40000	LB
Rear Tires	901AH9	11R22.5 G BRIDGESTONE L320 (23360 lbs) (DRIVE ONLY)	46721	LB
Rear Wheels	3462A6	22.5x8.25 ACCURIDE HEAVY DUTY 28828x WHITE POWDER COAT STEEL, 6.62" OFFSET, 2 HAND HOLE	64001	LB
		Rear GAWR	40000	LB
		Truck GVWR	54780	LB
		Gross Combination Weight Rating	80000	LB
		Tax Value GVWR (USA FET Only)	58000	LB

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OSW Equipment & Repair, LLC

S/O & Date

TRUCK BODY - STEEL DOUBLE WALL - STRAIGHT SDBSS-DW

T References:		Initial	
Install Location:	Snohomish, WA		
Truck Make:	Mack		
Cummins X15:	NO		
Truck Model:	Granitefr64		
Truck Cab to Axle:	86.4		
Truck Wheelbase:	206		
Cab to Body Gap:	SALES TO ENTER		
Rear Overhang:	63		
Body Width:	87"		
Body Length:	15'		
Floor:	3/16" AR450 Steel		
Sides:	10GA GR50 Outer & 10GA GR50 Inner Wall		
Side Height:	Straight 42"		
Longitudinal:	3/16" GR50 Steel 8"		
Top Rails:	10GA GR50 Steel		
Top Rail Style:	Flat Top		
Mid Rails:	10GA GR50 Steel		
Bulkhead:	3/16" GR50 Steel		
Corrugated:	YES		
Shovel Holder:	YES - Driver Side		
Corner Posts:	3/16" GR50 Steel		
Tail Light Style:	Round		
Backup Camera:	NO		
Load Sight Camera:	NO		
Mount Style:	Dog House		
Material:	3/16" AR450 Steel (Dog House STD)		
Hi Lift:	YES		
Trailer Body Hi Lift:	NO		
Tailgate :	10GA Inner & 10GA Outer		



OSW Equipment & Repair, LLC

S/O & Date

TRUCK BODY - STEEL DOUBLE WALL - STRAIGHT SDBSS-DW

T References:		Initial	
Horizontal Channels are Formed Into the Outer Wall - Hinged at Top with 1.25" Pins			
Tailgate Angle:	20 Degrees		
Asphalt Gates: *	0		
Asphalt Gate Width:	N/A		
Air Operated:	NO		
Cab Guard:	10GA A36 Steel		
Height:	72" From Bottom of Long to Inside Corner of Guard		
Tailgate Locks:	Electric Over Air Operation - 2.5" x 6" Air Operated Cylinder		
Hazard Locks: *	0		
Waste Seal:	NO		
Chain Retainers:	4		
Tarp System:	NO Tarp or Bracket		
Mount Location:	N/A		
Tarp Material:	N/A		
Motor Location:	N/A		
Trailer Tarp Wiring:	NO		
Tarp Housing Paint:	NO		
Side Boards:	Brackets with 4"x10" Lumber for a 16'6" Body and Shorter		
Plywood Lining:	NO		
Steps & Handles:	None		
Full Walk Rail:	Full Ladder Rung OPEN Walk Rail Both Sides		
Fold Down Ladder:	NO		
Add Steps or Handles:	NO		
Fenders:	Formed into Outer Wall		
Body Lights:	ICC/DOT Legal Lights Grommet Mounted LED's		
Markers:	(2) 2" Marker Per Corner Post		
Rear Post Lights:	(2) - S/T/T Per Side		
Midrail Lights:	(1) - 2" Marker Per Side (2 Total)		
Additional Lights:	NO		



OSW Equipment & Repair, LLC

S/O & Date

TRUCK BODY - STEEL DOUBLE WALL - STRAIGHT SDBSS-DW

T References:		Initial	
Chassis Lights:	ICC Light Cluster at Rear		
Rear Light Plate:	(2) - Stop, Turn, Tail Lights & (1) - Backup Light		
Mud Flaps:	OSW 30" HD Rubber Flaps Mounted Front, Mid, and Rear *See Truck Drawing for Dimensions*		
PTO:	Hot Shift PTO *Mandatory Factory Supplied Switch, Wiring, and Program*		
Transmission:	CUSTOM - See Note 88 Below		
Pump:	Direct Mount P51 Pump		
Valve:	3 Spool Valve		
Cylinder:	Match Body Length		
Control Type:	Air		
Control Mount:	Console		
Oil Tank:	10GA Hi-Tensile Formed Steel - 35 Gal Capacity		
Body Vibrator: *	NO		
Trailer Body Vibrator:	NO		
Rear Hinges:	Heavy Duty Hinged Pad Assembly with 1" Thick Ears, 2" Hardened Pins, and Grease Fittings		
Body Scales:	NO		
Chip Bar:	NO		
Hitch:	Use Mack Hitch Assembly		
Pony Trailer Package:	YES		
Height:	24"		
Location:	Rear Of Tire is Flush with Forward Inner Face of Pintle		
Backup Alarm:	NO		

