



# TECHNICAL SPECIFICATION

## GRANITE 64FR

APPLICATION PACKAGES	DESCRIPTION	WEIGHT (LB)	
		FRONT	REAR
GRANITE AF CONFIG. PKG.	PK7 179A: CTO; LH BB, 33L DEF, 93 GALLON SLEEVED, OUTBOARD AIR	0	0

CUSTOMER/VEHICLE INFO	DESCRIPTION	WEIGHT (LB)	
		FRONT	REAR
<b>S</b> CHASSIS (BASE MODEL)	GRANITE 64FR	5,034	1,879
<b>S</b> ASSEMBLY PLANT	Made in Macungie, PA USA	0	0
CUSTOMER FLEET SIZE	REGIONAL FLEET 25 OR MORE VEHICLES IN OWN FLEET OF ANY VEHICLE BRAND	0	0
TYPE OF SERVICE	MUNICIPAL	0	0
<b>S</b> WARRANTY REGISTRATION LOCATION	US - WARRANTY REGISTRATION LOCATION	0	0
<b>S</b> INITIAL REGISTRATION LOCATION	ALL 50 STATES, CARB ENGINE EMISSION (US17 / US21 / ZERO EMISSION)	0	0
<b>S</b> LANGUAGE-PUBS/DECAL/SIGNS	ENGLISH	0	0
<b>S</b> ROAD CONDITION	WELL MAINTAINED SURFACED ROADS >95% DRIVING DISTANCE	0	0
VEHICLE USE & BODY/TRAILER TYPE	WING PLOW TRUCK	0	0
TRAILER TYPE	DRAWBAR TRAILER WITH STEERED FRONT AXLES	0	0
GROSS COMBINATION WEIGHT	80,000 LB (36 TONNES) GROSS COMBINATION WEIGHT	0	0
<b>S</b> BRAKE REGULATION	BRAKE REGULATION, STOPPING DISTANCE 94M (310FT)	0	0
<b>S</b> TOPOGRAPHY	GRADES <6% GREATER THAN 98% OF DRIVING DISTANCE MAX GRADE 16%	0	0
<b>S</b> AMBIENT TEMP UPPER LIMIT (GTA)	AMBIENT TEMPERATURE HOT. WARMER THAN 104 F (40 C) ALLOWED UP TO 25 HOURS PER YEAR	0	0
<b>S</b> TERRAIN GRADE	ON-OFF HIGHWAY, STARTING GRADES<18%	0	0
LOADING SURFACE	HARD DIRT LOADING AND / OR UNLOADING SURFACE	0	0
<b>S</b> VEHICLE VOCATION	CONSTRUCTION SERVICE	0	0
CUSTOMER ADAPTATION CTR	PRODUCT ADAPTATION, ADDITIONAL INSTALLATION REQUIRED	0	0

		WEIGHT (LB)	
ENGINE/TRANSMISSIONS	DESCRIPTION	FRONT	REAR
	<b>ENGINE PACKAGE, COMBUSTION</b> MP8-455M MACK 455HP @ 1500-1900 RPM (PEAK) 2100 RPM (GOV) 1760 LB-FT, US'21	2,165	541
	<b>TRANSMISSION</b> MACK TMD12AFD-HD mDRIVE HD 12 SP-(DIRECT DRIVE)	503	168
<b>S</b>	<b>GEARBOX 12TH GEAR LOCK-OUT</b> WITHOUT 12TH GEARBOX GEAR LOCK-OUT	0	0

		WEIGHT (LB)	
EXHAUST/EMISSIONS	DESCRIPTION	FRONT	REAR
<b>S</b>	<b>CARB 2008 IDLE REGULATION</b> IDLE EMISSION CERTIFICATION, CARB (WITH DECAL LOCATED ON LOWER LH CORNER / DRIVER DOOR	0	0
<b>S</b>	<b>DPF DIESEL PARTICULATE FILTER</b> CLEARTECH ONE BOX E.A.T.S. RH SIDE UNDER CAB US17 / US21	0	0
<b>S</b>	<b>CHASSIS MOUNTED EMISSIONS FINISH</b> W/O DEF COVER & PAINTED DPF COVER	0	0
	<b>DEF TANK</b> 8.7 GALLON (33 L) 26" LEFT SIDE FUEL TANK MTD	0	0
	<b>EXHAUST</b> SINGLE VERTICAL RIGHT SIDE CAB MOUNTED, LOWER VENTURI DIFFUSER, TURNED END	-35	-17
	<b>EXHAUST STACK HEIGHT</b> 9' 6" FROM GROUND	0	0
<b>S</b>	<b>EXHAUST SYSTEM MATERIAL FINISH</b> W/O BRIGHT FINISH EXHAUST	0	0
	<b>EMISSION ON BOARD DIAG CONTROL</b> EMISSION OBD, DISPLAY ONLY, USA2021	0	0

		WEIGHT (LB)	
ENGINE EQUIPMENT	DESCRIPTION	FRONT	REAR
	<b>AIR CLEANER</b> UNDER HOOD SINGLE ELEMENT DRY TYPE W/AIR CONTROLLED INSIDE-OUTSIDE AIR INTAKE&DASH MTD AIR RESTRICTI	0	0
	<b>AIR INTAKE SOURCE</b> INSIDE/OUTSIDE AIR INTAKE W/ IN-CAB CONTROL FOR SNOWPLOWS	20	0
<b>S</b>	<b>BUG SCREEN</b> BLACK ALUMINUM BUG SCREEN MOUNTED BEHIND GRILLE, WITHOUT WINTER FRONT COVER	0	0
	<b>AIR COMPRESSOR/DRYER</b> BENDIX HEATED AD9 AIR DRYER W/ WABCO 318 (18.7 CFM) AIR COMPRESSOR	9	5
CA	<b>AIR DRYER POSITION (CA)</b> LH OUTBOARD	0	0
CA	<b>ALTERNATOR</b> DELCO 12V 240A (40SI) BRUSHLESS W/ REMOTE VOLTAGE SENSING	34	0
	<b>BATTERIES</b> (3) MACK 12V 1000/3000 CCA THREADED STUD TYPE	16	7
	<b>BATTERY BOX - MOUNTING</b> LH RAIL AT BACK OF FUEL TANK	0	0
	<b>BATTERY BOX COVER</b> POLISHED ALUMINUM	5	0
CA	<b>BATTERY DISCONNECT SWITCH</b> MAIN SWITCH, MOUNTED INSIDE CAB, GROUND ACCESSIBLE	5	0
<b>S</b>	<b>STARTER MOTOR</b> 12 VOLT DELCO 39MT-MXT	31	0
	<b>ENGINE BRAKE</b> MACK MP8 POWERLEASH	0	0
<b>S</b>	<b>ENGINE BRAKE LIGHTING (CA)</b> VEHICLE AND TRAILER (IF APPLICABLE) STOP LAMPS ACTIVATE UPON SERVICE BRAKE APPLICATION ONLY(3899000)	0	0
<b>S</b>	<b>FAN DRIVE</b> BEHR FAN AND ELECTRONIC MODULATING VISCOUS FAN DRIVE	0	0
<b>S</b>	<b>COOLANT PROTECTION</b> ETHYLENE GLYCOL FULLY FORMULATED COOLANT (50/50 MIX DYED PINK) TO -34DEG, W/ FILTER	0	0
	<b>RADIATOR TYPE</b> RADIATOR, CORE AREA W/O FEPTO 1345sq in (86sq dm), CORE AREA W/ FEPTO 1296sq in (83sq dm)	0	0
<b>S</b>	<b>HOSES - RADIATOR/HEATER</b> MACK EPDM RADIATOR & HEATER HOSES	0	0
<b>S</b>	<b>FUEL-WATER SEPARATOR</b> MACK W/MANUAL DRAIN VALVE W/ HOT RECIRCULATION (INTEGRAL W/ PRIMARY FUEL FILTER)	0	0
<b>S</b>	<b>PRIMARY FUEL FILTER POSITION (CA)</b> STANDARD FUEL FILTER POSITION	0	0
	<b>ENGINE HEATERS</b> GRID HEATER + 120v 1500w BLOCK HEATER ONLY (120V-15A PLUG)	0	0
	<b>ENGINE BLOCK HEATER</b> 120V 1500W ENGINE BLOCK HEATER	5	0
	<b>ENGINE STARTING AID</b> ELECTRIC PREHEATER	7	0

		WEIGHT (LB)	
ENGINE EQUIPMENT	DESCRIPTION	FRONT	REAR
	OIL PAN	0	0
	TETHER DEV PKG, CAPS & COVERS	0	0
S	ENGINE STOP, EMERGENCY (CA)	0	0

		WEIGHT (LB)	
CLUTCH/TRANS EQUIPMENT	DESCRIPTION	FRONT	REAR
S	GEAR SHIFTER	0	0
S	CLUTCH	0	0
S	CLUTCH ACTUATION SYSTEM & PEDAL PAD	0	0
	DRIVELINE - MAIN	40	40
	DRIVELINE - INTERAXLE	0	0
	PROPELLR SHAFT MAIN, UNVSL JNT	0	0
S	PROP SHAFT INTERAXL UNIV JOINT	0	0
S	TRANSMISSION OUTPUT TORQUE	0	0
S	BELL HOUSING	0	0
S	LUBRICANTS, TRANSMISSION	0	0
S	TRANSMISSION OIL COOLER	0	0
	HILL START ASSIST	0	0

		WEIGHT (LB)	
FRONT AXLE EQUIPMENT	DESCRIPTION	FRONT	REAR
	FRONT AXLE	428	0
	SPRINGS - FRONT	45	0
S	FRONT AXLE BRAKES	29	0
S	BRAKE, FRONT	0	0
	FRONT AXLE BRAKE DUST SHIELD	5	0
S	FRONT BRAKE ADJ. MANUFACTURE	0	0
S	FRONT BRAKE CHAMBER MFG.	0	0
S	HUB MATERIAL, FRONT	157	0
S	SHOCK ABSORBER, FRONT	0	0
	STEERING	206	0
S	LUBRICANTS, FRONT AXLE	0	0

		WEIGHT (LB)	
REAR AXLE EQUIPMENT	DESCRIPTION	FRONT	REAR
	REAR AXLES - TANDEM	0	1,614
S	REAR AXLE CASING WIDTH	0	0
S	CARRIER - REAR AXLE	0	0
	REAR AXLE RATIO	0	0
	REAR SUSPENSION - TANDEM	0	1,537
	BOGIE SPREAD, REAR	0	89

		WEIGHT (LB)	
REAR AXLE EQUIPMENT	DESCRIPTION	FRONT	REAR
	REAR SHOCK ABSORBER	0	27
	TRANSVERSE TORQUE RODS, R SUSP	0	-66
	AUX.PARKING BRAKE CHAMBERS	0	20
S	BRAKES - REAR	0	-35
S	BRAKE, DRIVE, REAR	0	0
S	REAR BRAKE ADJ MANUFACTURE	0	0
	DRIVE AXLE BRAKE DUST SHIELD	0	12
	REAR BRAKE CHAMBER SIZE	0	0
	REAR BRAKE CHAMBER	0	0
S	HUB MATERIAL, DRIVE	0	318
S	POWER DIVIDER LOCKOUT	0	40
S	LUBRICANTS, REAR AXLE(s)	0	0
	TRACTION DIFFERENTIAL	0	18
S	ANTILOCK BRAKE SYSTEM	0	0
S	BRAKE VALVE VERSION	0	0
S	SPRING BRAKE INVERSION VALVE	5	0

		WEIGHT (LB)	
FRAME EQUIPMENT/FUEL TANKS	DESCRIPTION	FRONT	REAR
	WHEELBASE	188	188
	AF (OVERHANG)	-19	258
	FRAME RAILS & LINERS	0	0
	FRONT FRAME LENGTH	148	-15
	CROSSMEMBERS	27	27
S	REAR CROSSMEMBER OPTIONS	0	0
	FRONT BUMPER	0	0
S	TOWING DEVICE, FRONT	0	0
	TOWING DEVICE,REAR	-6	27
S	FUEL LEVEL SENDER UNIT, LIQUID	0	0
	FUEL TANK - LH	91	42
S	FUEL TANK - RH	0	0
S	FUEL HOSES, LIQUID	5	3
S	FUEL FILLER NECK OPTIONS	0	0
	FUEL LINE OPTIONS, LIQUID	0	0
	CAB INSTEP VERSION	23	9
	STEPS (BRIGHT) - FUEL TANK	0	0
	QUARTER FENDERS	0	20

		WEIGHT (LB)	
AIR/BRAKE	DESCRIPTION	FRONT	REAR
	AIRTANK DRAIN VALVE	0	0

			WEIGHT (LB)	
AIR/BRAKE	DESCRIPTION		FRONT	REAR
S	AIRTANK MATERIAL	STEEL	0	0
S	RELOCATE AIR RESERVOIRS	W/O RELOCATED AIR TANKS	0	0
	PARKING BRAKE VALVE	TWO (2) VALVE DUAL BRAKE SYSTEM - TRAILER SUPPLY AND TRACTOR-TRAILER PARK	0	0

			WEIGHT (LB)	
ELECTRICAL	DESCRIPTION		FRONT	REAR
	BACK-UP ALARM	ECCO BACK-UP ALARM SA917 (AMBIENT NOISE SENSITIVE) 87-112 dB	0	3
	DASH MOUNTED SWITCHES	SIX (6) ASSIGNABLE BODYBUILDER DASH SWITCHES (5 ON-OFF, 1 MOMENTARY)	0	0
S	ROOF & SIDE MARKER LIGHTS	(5) TRUCKLITE CHROME BULLET ROOF MARKER & STANDARD MARKER / DIRECTIONAL SIGNAL	0	0
	AUXILIARY LAMPS	DASH CTRL/PWR SUPPLY/LOCAL INST PLOW LAMPS W/LEAD FURN@ GRILL W/2W/3W WEATHER PACK CON	0	0
S	DAYTIME RUNNING LIGHTS	W/OVERRIDE SWITCH, PARK BRAKE & ENGINE RUNNING ACTIVATED	0	0
S	DRL OVERRIDE SPEED THRESHOLD	DRL OVERRIDE SPEED THRESHOLD 8 KMPH (5 MPH)	0	0
	TAIL LAMPS	LED TYPE TAIL LAMP MODULE MTD BELOW REAR CROSSMEMBER	0	7

			WEIGHT (LB)	
TRAILER CONNECTIONS	DESCRIPTION		FRONT	REAR
	TRAILER BRAKE VALVE	HAND CONTROL VALVE FOR TRAILER BRAKES W/ AIR CONNECTIONS OR SERVICE BRAKES W/O AIR CONNECTIONS	0	0
	TRAILER CONNECTION POSITION	TRAILER AIR BRAKE CONNECTIONS, END OF FRAME	23	23
	TRAILER ELECTRICAL RECEPT	SINGLE 7 PINS STD SAE TYPE, END OF FRAME	0	0
S	TRAILER CONNECTORS HOLDER	OMIT TRAILER CONNECTORS HOLDER	3	0

			WEIGHT (LB)	
PTO	DESCRIPTION		FRONT	REAR
S	PTO - REAR MOUNTED	W/O TRANSMISSION MOUNTED PTO - (mDRIVE ONLY)	0	0
S	POWER TAKE OFF CONTROL	mDRIVE SINGLE PTO PREP KIT W/ ILLUMINATED DASH MOUNTED SWITCH & PIPING FOR LOCAL INSTALL	3	0
	CRANKSHAFT ADAPTER	1350 SERIES FLANGE (DOES NOT INCLUDE FRONT FRAME EXTENSION)	16	0
S	PTO TRANS NEUTRAL CONTRL CHECK	W/O NEUTRAL CONTROL	0	0
S	BODY BUILDER INTERFACE	BODY LINK III W/CAB PASS-THRU	5	5

			WEIGHT (LB)	
SPECIALTY EQUIPMENT	DESCRIPTION		FRONT	REAR
S	LANE SUPPORT SYSTEM (LSS)	WITHOUT LANE SUPPORT SYSTEM	0	0
S	DATA CAPTURE	WITHOUT DATA CAPTURE	0	0
S	CAMERA, SURVEILLANCE	WITHOUT CAMERA	0	0

			WEIGHT (LB)	
CAB INTERIOR (A THRU G)	DESCRIPTION		FRONT	REAR
S	GAUGES - UNIT OF MEASURE	U.S. UNITS (PREDOMINANT)	0	0

		WEIGHT (LB)		
CAB INTERIOR (A THRU G)	DESCRIPTION	FRONT	REAR	
	GAUGE - PACKAGE, SECONDARY	2ND GA PKG W/ENG OIL TEMP, TRANS OIL TEMP, PYRO, AIR RESTRICT	0	0
	GAUGE - REAR AXLE OIL TEMP	REAR AXLE OIL TEMP GAUGE IN DID (DRIVER INFORMATION DISPLAY)	0	0
S	AIR CONDITIONING/HEATER	BLEND AIR HVAC W/"ATC" TEMP REGULATION	0	0
S	DOME LAMP, INTERIOR	(4) DOME LAMPS - DOOR AND SWITCH ACTIVATED	0	0
S	DASH INDICATOR - LAMP BODY OUT OF POS	DASH MTD, INDICATOR BODY/HOIST UP "BODYBUILDER LAMP"	0	0
S	CARBON MONOXIDE DETECTION SYS	WITHOUT CARBON MONOXIDE DETECTION SYSTEM	0	0
S	FLOOR COVERING	POLYURETHANE FLOOR MAT WITHOUT REMOVABLE INSERTS	0	0

		WEIGHT (LB)		
CAB INTERIOR (H THRU R)	DESCRIPTION	FRONT	REAR	
S	INSTMNT CLUSTER LANGUAGE	DEFAULT: ENGLISH, SPANISH, FRENCH	0	0
S	KEY TYPES FOR DOORS	ALL CHASSIS KEYED AT RANDOM	0	0
S	DOOR OPENING OPTIONS	W/O ELECTRONIC KEYLESS ENTRY	0	0
S	FORWARD OVERHEAD STORAGE	(2) STORAGE COMPARTMENTS AND NET RETAINERS W/CENTER MOUNTING FOR CB PROVISIONS	0	0
S	AUDIO ACCOMMODATION	PREMIUM STEREO, AM/FM, MP3, WEATHER BAND, BLUETOOTH	0	0
	ANTENNA - RADIO	48" ANTENNA RIGHT SIDE MIRROR MOUNTED	0	0
	ANTENNA - CB RADIO	48" ANTENNA LEFT SIDE MIRROR MOUNTED	0	0
S	AUDIO SPEAKER LOCATION	SPEAKER LOCATION, IN DOORS, MIDDLE HIGH SIDE PANEL	0	0
	COMMUNICATION RADIO	COBRA WEATHER BAND 40 CHANNEL CB, 10 CHANNEL WEATHER	9	0
	COM.RADIO PREP KIT (CB)	CB MOUNTING, OVERHEAD COMP, MOUNT PLATE, PERMANENT	0	0
S	AUXILIARY REAR WINDOW	REAR WINDOW (FIXED TYPE)	0	0
S	REAR WALL STORAGE COMPARTMENT	STORAGE POUCH REAR	0	0

		WEIGHT (LB)		
CAB INTERIOR (S THRU Z)	DESCRIPTION	FRONT	REAR	
S	INTERIOR TRIM LEVELS	STANDARD PACKAGE, STEEL GRAY (Package 11A)	0	0
	SEAT - DRIVER'S	MACK-AIR, HIGH BACK, 4 CHAMBER AIR LUMBAR, BOLSTER, EXTENSION	67	16
	SEAT COVERING - DRIVER'S	DRIVER'S SEAT - BLACK MORDURA	0	0
	SEAT - PASSENGER'S	MACK-AIR, HIGH BACK, 1 CHAMBER AIR LUMBAR	69	14
	SEAT COVERING - PASSENGER'S	PASSENGER'S SEAT - BLACK MORDURA	0	0
	SEAT ARMREST	INBOARD MOUNTED ARM REST, DRIVER'S SEAT ONLY	3	3
S	SEAT BELT(S)	LAP & SHOULDER (BOTH SEATS) CAB MOUNTED SHOULDER BELT ADJUSTMENT (NOT AVAIL W/EXTENDED RIDER SEAT)	0	0
	SEAT BELT REMINDER	SEAT BELT REMINDER IN INSTRUMENT, WITH AUDIO	0	0
S	IGNITION TYPE	KEY TYPE	0	0
S	STEERING WHEEL	2 SPOKE URETHANE GRIP, GUNMETAL SPOKES, W/O SWITCHES	0	0
S	WINDSHIELD TYPE	TWO PIECE WINDSHIELD	0	0
S	CAB GLASS	TINTED WINDSHIELD & SIDE WINDOWS & REAR WINDOW (IF EQUIPPED)	0	0
S	WASHER RESERVOIR POSITION	W/O WINDSHIELD WASHER OPTION	0	0
S	WINDSHIELD WIPERS	2 SPEED ELECTRIC MOTOR W/INTERMITTENT FEATURE	0	0

		WEIGHT (LB)		
CAB EXTERIOR	DESCRIPTION	FRONT	REAR	
	<b>AIR INTAKE GRILL / HOOD LATCH - FINISH</b>	BRIGHT AIR INTAKE WITH BLACK HOOD LATCHES	0	0
	<b>GRILLE</b>	BRIGHT FINISH BARS W/BRIGHT FINISH SURROUND GRILL MOUNTED	0	0
<b>S</b>	<b>PASSENGER SIDE VISIBILITY OPTIONS</b>	AUXILIARY WINDOW IN RH DOOR	3	0
<b>S</b>	<b>FRONT WHEEL OPENING</b>	FENDER EXTENSIONS	5	0
	<b>GRAB HANDLES</b>	BF EXTERIOR CAB GRAB HANDLES, BLACK GRAB HANDLE RH INTERIOR WINDSHIELD POST	0	0
	<b>HORN - AIR</b>	(2) MACK RECTANGULAR SINGLE TRUMPET, BRIGHT FINISH ALUMINUM W/SNOW SHIELDS	7	0
<b>S</b>	<b>HORN - ELECTRICAL</b>	SINGLE TONE	0	0
	<b>MIRRORS - EXTERIOR</b>	BULLDOG STYLIZED MIRRORS - LH & RH HEATED & MOTORIZED W/INTEGRAL CONVEX MIRROR	3	0
	<b>SUN VISOR - EXTERIOR</b>	SUN VISOR, EXTERIOR, FIBERGLASS (PAINTED)	12	0

		WEIGHT (LB)		
AERODYNAMIC DEVICES	DESCRIPTION	FRONT	REAR	
<b>S</b>	<b>CAB AERODYNAMIC PACKAGES</b>	WITHOUT CAB AERODYNAMIC DEVICES	0	0
<b>S</b>	<b>FRONT CHASSIS AERODYNAMIC PACKAGE</b>	WITHOUT FRONT AERODYNAMIC FAIRINGS	0	0

		WEIGHT (LB)		
WHEELS & TIRES	DESCRIPTION	FRONT	REAR	
	<b>TIRES BRAND/TYPE - FRONT</b>	445/65R22.5 M BRIDGESTONE M864 (25600 lbs) (Total for QTY = 2)	437	0
<b>S</b>	<b>GHG STEER TIRE CATEGORY (PAWS)</b>	LOW ROLLING RESISTANCE, BETTER FUEL ECONOMY	0	0
	<b>WHEELS - FRONT</b>	22.5x13.0 ALCOA 83462x CLEAN BUFFED ALUMINUM, 6.42" OFFSET, 10 HAND HOLE (Total for QTY = 2)	142	0
	<b>TIRES BRAND/TYPE - REAR</b>	11R22.5 H BRIDGESTONE M799 (24020 lbs) (DRIVE ONLY) (Total for QTY = 8)	0	988
	<b>GHG DRIVE TIRE CATEGORY (PAWS)</b>	BASIC ROLLING RESISTANCE, POOR FUEL ECONOMY	0	0
	<b>WHEELS - REAR</b>	22.5x8.25 ALCOA ULT39x CLEAN BUFFED ALUMINUM, 6.60" OFFSET, 10 HAND HOLE (Total for QTY = 8)	0	318
<b>S</b>	<b>DRIVE WHEEL STUDS</b>	DRIVE WHEEL STUDS LONGER LENGTH	0	0
<b>S</b>	<b>TIRE INFLATION VALVE</b>	STANDARD VALVE STEMS AND CAPS	0	0
<b>S</b>	<b>FRONT HUB/WHEEL TRIM</b>	WITHOUT FRONT HUB/WHEEL TRIM	0	0
<b>S</b>	<b>REAR HUB/WHEEL TRIM</b>	WITHOUT REAR HUB/WHEEL TRIM (Total for QTY = 2)	0	0
	<b>AUXILIARY HUB/WHEEL TRIM</b>	WITHOUT AUXILIARY HUB/WHEEL TRIM	0	0
<b>S</b>	<b>WHEEL NUT &amp; FINISH, FRONT</b>	WHEEL NUT BASIC FINISH, FRONT	0	0
<b>S</b>	<b>WHEEL NUT FINISH, REAR (CA)</b>	WHEEL NUT BASIC FINISH, REAR	0	0

		WEIGHT (LB)		
COMMUNICATION SYSTEMS	DESCRIPTION	FRONT	REAR	
<b>S</b>	<b>CO-PILOT - DISPLAY FEATURES ACCESS LEVEL</b>	CO-PILOT DISPLAY, DRIVER ACCESS LEVEL 1	0	0
<b>S</b>	<b>TELEMATIC GATEWAY</b>	TELEMATICS GATEWAY, 4G/LTE AND WLAN SYSTEM WITH DIAGNOSTIC SERVICES	0	0

		WEIGHT (LB)		
ENGINE ELECTRONICS	DESCRIPTION	FRONT	REAR	
<b>S</b>	<b>OIL PRESSURE, ENGINE SHUTDOWN</b>	OIL PRESSURE, ENGINE SHUTDOWN	0	0

			WEIGHT (LB)	
ENGINE ELECTRONICS		DESCRIPTION	FRONT	REAR
S	COOLANT TEMP, ENGINE SHUTDOWN	COOLANT TEMP, ENGINE SHUTDOWN	0	0
S	ENGINE PROTECTION SYSTEM	ENGINE PROTECTION (SHUTDOWN)	0	0
S	ENGINE IDLE CONTROL	IDLE CONTROL, 650 RPM	0	0
S	SMART IDLE ELEVATED IDLE RPM TIME	INCREASE 10 MINUTE MAXIMUM TIME	0	0
S	IDLE S/D WARNING TIME	30 SEC IDLE S/D WARNING TIME	0	0
S	IDLE S/D IF WARM-UP TEMP	38C DEG (100F), WARM UP TEMP DELAY	0	0
S	IDLE S/D WARM-UP TIMER	5 MIN. WARM UP TIME DELAY	0	0
S	IDLE S/D IF PTO ACTIVE	ENGINE IDLE SHUTDOWN TIME OVERRIDDEN IF PTO ACTIVE	0	0
S	IDLE S/D OVERRIDE %ENGINE LOAD	IDLE SHUTDOWN OVERRIDE UPTO 20% ENGINE LOAD THRESHOLD	0	0
S	AMBIENT TEMP MIN TRESHOLD	AMBIENT TEMP MIN TRESHOLD, 16 DEG C, (60 DEG F)	0	0
S	AMBIENT TEMP MAX TRESHOLD	AMBIENT TEMP MAX TRESHOLD, 27 DEG C, (80 DEG F)	0	0
S	EL HD THROTTLE,MAX ROAD SPEED	ELECTRONIC HAND THROTTLE, MAX ROAD SPEED, 16 KM/H (10 MPH)	0	0
S	EL HAND THROTTLE,MAX ENG SPEED	ELECTRONIC HAND THROTTLE, MAX ENGINE SPEED, 2100 RPM	0	0
S	EL HAND THROTTLE,MIN ENG SPEED	ELECTRONIC HAND THROTTLE, MIN ENGINE SPEED, 700 RPM	0	0
S	EL HD THROTTLE,SPEED RAMP RATE	ELECTRONIC HAND THROTTLE, SPEED RAMP RATE, 100 RPM/SEC	0	0
S	EL HAND THROTTLE,SGL SPEED SET	ELECTRONIC HAND THROTTLE, SINGLE SPEED SETTING, 1000 RPM	0	0
	EHT HOLD TO NEAREST RPM	ELECTRONIC HAND THROTTLE HOLD TO NEAREST 100RPM	0	0
	EHT ACCEL BUMP-UP RPM	ELECTRONIC HAND THROTTLE ACCEL "BUMP-UP" 100RPM	0	0
	EHT DECEL BUMP-DOWN RPM	ELECTRONIC HAND THROTTLE DECEL "BUMP-DOWN" 100RPM	0	0

			WEIGHT (LB)	
TRANSMISSION ELECTRONICS		DESCRIPTION	FRONT	REAR
S	TRANSMISSION DRIVE MODE PACKAGES, mDRIVE	mDRIVE- EZ SHIFT - ECON, & PERF DRIVE MODES, MANUAL RETURN (premium)	0	0
S	TRANSMISSION KICK-DOWN MODE	MACKCELLERATOR ENABLE	0	0
S	TRANSMISSION ELECTRONICS PACKAGE	W/O ELEC TRANS PACKAGE OPTION (all non-Allison transmissions)	0	0
S	TRANSM AUTO NEUTRAL ON P-BRAKE	mDRIVE TRANSMISSION PARK BRAKE AUTO NEUTRAL	0	0
S	TRANSMISSION ELECTRONIC SHIFTING PROPERTIES	W/O ALLISON FUELSENSE 2.0 PROGRAMMING	0	0

			WEIGHT (LB)	
VEHICLE ELECTRONICS		DESCRIPTION	FRONT	REAR
S	ROAD SPEED LIMITER SETTING	105 KM/H ROAD SPEED LIMITER(65 MPH)	0	0
S	PEDAL RSL SETTING	105 KM/H PEDAL ROAD SPEED LIMITER (65MPH)	0	0
S	CRUISE CONTROL	CRUISE CONTROL	0	0
S	CRUISE CONTROL, MAX SPEED	MAX CRUISE, 105 KPH (65 MPH)	0	0
S	CRUISE CONTROL MIN SPEED	MIN CRUISE, 32 KPH (20 MPH)	0	0
S	CRUISE RESUME WITH CLUTCH	CRUISE RESUME WITH CLUTCH	0	0
S	ENG BRK ENGAGE IN CRUISE	ENG BRK ENGAGE IN CRUISE, 3 MPH, ABOVE SET SPEED	0	0
S	DETECTION SPEED SENSR TMPRNG	DETECTION OF SPEED SENSOR TAMPERING, ENABLE	0	0
S	ENG TORQUE LIMIT,SPEED SENSOR	ENG TORQUE LIMITED TO 50%, IF SPEED SENSOR TAMPER DETECTED	0	0
S	DRIVER ID FUNCTION	DRIVER ID FUNCTION, DISABLED	0	0
S	DR PERFORMANCE PARAMETERS	WITHOUT DRIVER PERFORMANCE PARAMETERS	0	0

			WEIGHT (LB)	
VEHICLE ELECTRONICS		DESCRIPTION	FRONT	REAR
S	ENGINE OVERSPEED,ALL COND, LOG	ENGINE OVERSPEED, ALL CONDITIONS, TIME LOG IF ABOVE 2200 RPM	0	0
S	ENGINE OVERSPEED,FUELED, LOG	ENGINE OVERSPEED, FUELED, TIME LOG IF ABOVE 2100 RPM	0	0
S	VEHICLE OVERSPEED,ALL COND,LOG	VEHICLE OVERSPEED,ALL COND, TIME LOG IF ABOVE 75MPH (121KMH)	0	0
S	VEHICLE OVERSPEED, FUELED, LOG	VEHICLE OVERSPEED, FUELED, TIME LOG IF ABOVE 70MPH (113KMH)	0	0
S	ENGINE IDLE DELAY TO LOG	ENGINE IDLE DELAY TO START LOG, 2 MIN	0	0
	PERIODIC TRIP LOG HOUR OF DAY	PERIODIC TRIP LOG HOUR OF DAY, 24:00 (MID NIGHT)	0	0

			WEIGHT (LB)	
PTO ELECTRONICS		DESCRIPTION	FRONT	REAR
S	TRANS PTO1 SPLITTER RANGE	PTO1 FOR SPLITTER RANGE - KEYPAD REMOTE CONTROLLED	0	0
S	TRANS PTO2 SPLITTER RANGE	PTO2 FOR SPLITTER RANGE - KEYPAD REMOTE CONTROLLED	0	0
S	PTO1 SINGLE SPEED CONTROL RPM.	PTO 1ST, SINGLE SPEED SETTING, 1000 RPM	0	0
S	PTO 1ST, MAX ROAD SPEED	1ST PTO, MAX ROAD SPEED, 10 MPH (16 KPH)	0	0
S	PTO 1ST, SPEED RAMP RATE	PTO 1ST, SPEED RAMP RATE 100 RPM/SEC	0	0
S	PTO 1ST, MAX ENGINE SPEED	PTO 1ST, MAX ENGINE SPEED, 2100 RPM	0	0
S	PTO 1ST, ROAD SPEED LIMIT	PTO 1ST, ROAD SPEED LIMIT, 97 KMH (60 MPH)	0	0
S	PTO 1ST, MINIMUM ENGINE SPEED	PTO 1ST, MINIMUM ENGINE SPEED, 600 RPM	0	0
	PTO1 HOLD TO NEAREST RPM	PTO1 HOLD TO NEAREST 100RPM	0	0
	PTO1 ACCEL BUMP-UP RPM	PTO1 ACCEL "BUMP-UP" 100RPM	0	0
	PTO1 DECEL BUMP-DOWN RPM	PTO1 DECEL "BUMP-DOWN" 100RPM	0	0
S	PTO 2ND, SINGLE SPEED SETTING	PTO 2ND, SINGLE SPEED SETTING, 1000 RPM	0	0
S	PTO 2ND, MAX ROAD SPEED	2ND PTO, MAX ROAD SPEED, 10 MPH (16 KPH)	0	0
S	PTO 2ND, SPEED RAMP RATE	PTO 2ND, SPEED RAMP RATE 100 RPM/SEC	0	0
S	PTO 2ND, MAX ENGINE SPEED	PTO 2ND, MAX ENGINE SPEED, 2100 RPM	0	0
S	PTO 2ND, ROAD SPEED LIMIT	PTO 2ND, ROAD SPEED LIMIT, 97 KMH (60 MPH)	0	0
S	PTO 2ND, MINIMUM ENGINE SPEED	PTO 2ND, MINIMUM ENGINE SPEED, 600 RPM	0	0
	PTO2 HOLD TO NEAREST RPM	PTO2 HOLD TO NEAREST 100RPM	0	0
	PTO2 ACCEL BUMP-UP RPM	PTO2 ACCEL "BUMP-UP" 100RPM	0	0
	PTO2 DECEL BUMP-DOWN RPM	PTO2 DECEL "BUMP-DOWN" 100RPM	0	0

			WEIGHT (LB)	
PAINT		DESCRIPTION	FRONT	REAR
S	PAINT DESIGN	SINGLE COLOR	0	0
S	PAINT TYPE	SOLID PAINT	0	0
	PAINT COLOR - FIRST COLOR	OMAHA ORANGE; P9215	0	0
S	PAINT COLOR - SECOND COLOR	NO SECOND TRUCK COLOR PROVIDED; NO COLOR	0	0
S	PAINT COLOR - THIRD COLOR	NO THIRD TRUCK COLOR PROVIDED; NO COLOR	0	0
S	PAINT - CAB PAINT SYSTEM	PAINT - CAB, URETHANE CLEAR COAT	0	0
S	CAB COLOR	SAME AS FIRST COLOR - CAB	0	0
S	HOOD COLOR	SAME AS FIRST COLOR - HOOD	0	0
	SUN VISOR COLOR	SAME AS FIRST COLOR - SUN VISOR	0	0
S	SLEEPER ROOF COLOR	WITHOUT SLEEPER ROOF COLOR	0	0

PAINT	DESCRIPTION	WEIGHT (LB)	
		FRONT	REAR
S	ROOF FAIRING COLOR WITHOUT ROOF FAIRING	0	0
S	CHASSIS RUNNING GEAR MACK BLACK (URETHANE)	0	0
	BUMPER W/O OPTIONAL BUMPER PAINT	0	0
S	FUEL TANK - ***NO INVENTED VARIANTS ALLOWED in the FUEL TANK PAINT FAMILY*** W/O OPTIONAL FUEL TANK PAINT	0	0
	HUBS & DRUMS-FRONT WITHOUT PAINT	0	0
S	HUBS & DRUMS-REAR SAME AS CHASSIS RUNNING GEAR	0	0

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

BASE WARRANTY & PURCHASED COVERAGES	DESCRIPTION	WEIGHT (LB)	
		FRONT	REAR
S	VEHICLE WARRANTY TYPE HEAVY DUTY WARRANTY CLASSIFICATION	0	0
S	BASIC CHASSIS COVERAGE HEAVY DUTY STANDARD BASE COVERAGE 12 MONTHS/100,000 MILES (161,000 KM)	0	0
S	ENGINE WARRANTY MACK MP7/MP8 BASE ENGINE COVERAGE 24 MONTHS / 250,000 MILES (402,000KM)	0	0
S	EMISSION COMPONENT COVERAGE US and CANADA EQUIPPED VEHICLE EMISSION COMPONENTS COVERAGE 60 MONTHS/100,000 MILES (161,000 KM)	0	0
S	TRANSMISSION WARRANTY 36 MONTHS: STANDARD mDRIVE HD TRANSMISSIONS HEAVY DUTY WARRANTY	0	0
S	CARRIER & AXLE HOUSING WARRANTY STANDARD MACK HEAVY DUTY COVERAGE 60 MONTHS / 500,000 (804,672 KM)	0	0
S	AIR CONDITIONING WARRANTY AIR CONDITIONING STANDARD COVERAGE (Sealed System Only) 12 MONTHS UNLIMITED MILEAGE	0	0
S	CHASSIS TOWING WARRANTY STANDARD NORMAL / HEAVY DUTY CHASSIS TOWING 90 DAYS OR 5,000 MILES	0	0
S	ENGINE TOWING WARRANTY STANDARD MACK ENGINE TOWING COVERAGE 24 MONTHS/250,000 MILES (402,000 KM)	0	0
S	GUARDDOG CONNECT BUNDLE 24 MONTH - GUARDDOG CONNECT WITH MACK OTA (with ASIST and Mack OneCall))	0	0
S	PREPAID API WITHOUT PREPAID API	0	0
S	PREMIUM MAINTENANCE - CHASSIS LUBE AND INSPECTION W/O PREMIUM MAINTENANCE - CHASSIS LUBE AND INSPECTION COVERAGE	0	0

Z - TO BE DISCONTINUED - GOING OBSOLETE	DESCRIPTION	WEIGHT (LB)	
		FRONT	REAR
S	PAINTED DISC WHEELS, FRONT WITHOUT PAINT	0	0
S	PAINTED DISC WHEELS, REAR WITHOUT PAINT	0	0

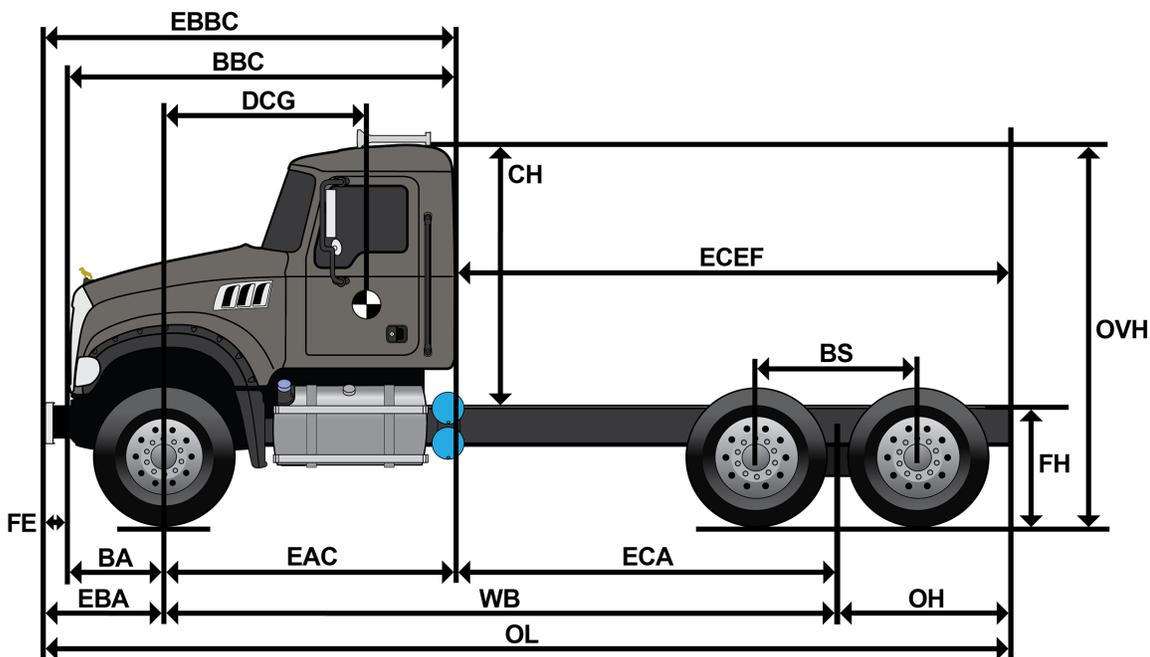
ADDITIONAL ENGINEERING (Requested)	DESCRIPTION	WEIGHT (LB)	
		FRONT	REAR
CA		0	0

FRONT / REAR AXLE WEIGHTS (LB)      9952      8116  
 TOTAL WEIGHT (LB)      18067



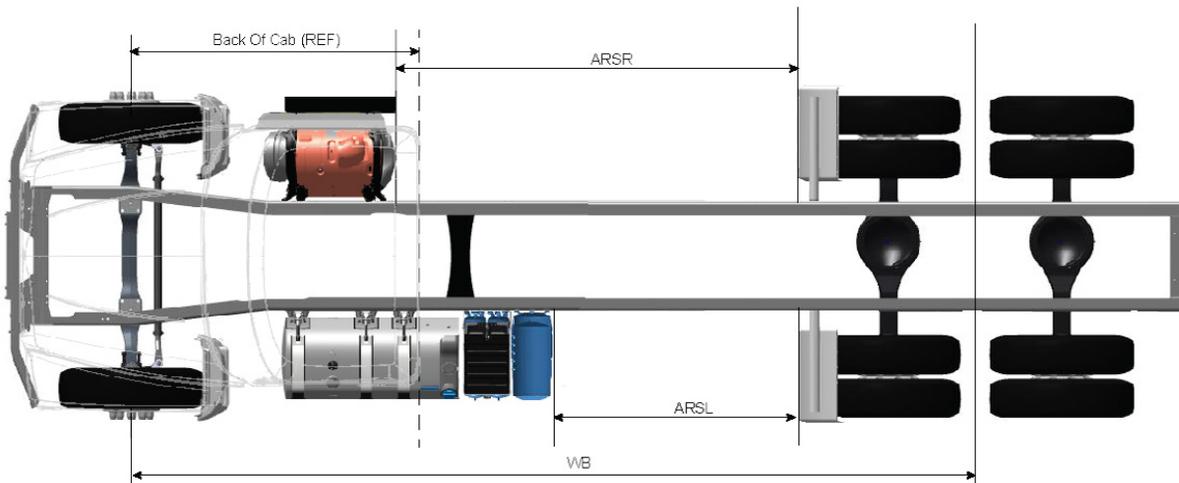
## VEHICLE SPECIFICATION/CALCULATED PERFORMANCE SUMMARY

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
Wheelbase	N/A	WB	228.1	INCHES
Rear Overhang	N/A	OH	63.4	INCHES
Overall Length	N/A	OL	340.6	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	140.6	INCHES
Eff. Front Axle to Back of Cab	N/A	EAC	87.5	INCHES
Eff. Cab to End of Frame	N/A	ECEF	204.0	INCHES
Unladen 5th Wheel Height	E5BZ1X	5W	0.0	INCHES
Unladen Frame Height	N/A	FH	43.9	INCHES
Cab Height	N/A	CH	70.9	INCHES
Overall Height	N/A	OVH	117.9	INCHES
Driver CG	N/A	DCG	70.9	INCHES
54" AXLE SPACING (BOGIE WHEELBASE)	GWXDGX	BS	53.9	INCHES
Second Front Axle Spacing	RHZ1X	SFAS	0.0	INCHES



## VEHICLE SPECIFICATION/CALCULATED PERFORMANCE SUMMARY

Description	Sales Code	Dwg Ref	Left Value(in)	Right Value(in)
Wheelbase	N/A	WB	228.1	228.1
Available Rail Space Right	N/A	ARSR	N/A	71.7
Available Rail Space Left	N/A	ARSL	57.2	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
Cleartech One Unit	DPF04F	N/A	0.0	48.0
Battery Box	393AC4	N/A	15.0	15.0
93 GALLON (350 L) 26" ALUMINUM, SLEEVED D-SHAPED / W/O RH FUEL TANK	288AF6 / 290AA1	N/A	41.1	0.0
Ad-Blue Tank	DF10P1	N/A	7.5	0.0
Quarter Fender	68XC1X	N/A	10.0	10.0
Outboard Air Reservoirs Behind Fuel Tank	N/A	N/A	14.0	0.0
Drive Tire Radius	901AJ6	N/A	21.0	21.0



*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  $\pm 4$  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

Sub-Category	Sales Code	Sales Code Description	Value	UOM
Front Axle	240AA5	23000# (10400 KG) MACK FXL23 WIDE PIVOT CENTER STRAIGHT SPINDLE/UNITIZED BEARINGS	23000	LB
Front Suspension	244AB8	MACK TAPERLEAF 23000# (10400kg) GROUND LOAD RATING, EQUAL BIAS	23000	LB
Front Tires	9004W0	445/65R22.5 M BRIDGESTONE M864 (25600 lbs)	25574	LB
Front Wheels	5312T1	22.5x13.0 ALCOA 83462x CLEAN BUFFED ALUMINUM, 6.42" OFFSET, 10 HAND HOLE	25596	LB
<b>Front GAWR</b>			<b>23000</b>	<b>LB</b>
Rear Axle	268AA9	46000# (20900kg) MACK S462R CAST DUCTILE HOUSING	46001	LB
Rear Suspension	186AC7	MACK mRIDE 46 PARABOLIC 3-LEAF, 46000#	46001	LB
Rear Tires	901AJ6	11R22.5 H BRIDGESTONE M799 (24020 lbs) (DRIVE ONLY)	48040	LB
Rear Wheels	3463E6	22.5x8.25 ALCOA ULT39x CLEAN BUFFED ALUMINUM, 6.60" OFFSET, 10 HAND HOLE	59199	LB
<b>Rear GAWR</b>			<b>46001</b>	<b>LB</b>
<b>Truck GVWR</b>			<b>69000</b>	<b>LB</b>
<b>Gross Combination Weight Rating</b>			<b>80000</b>	<b>LB</b>
<b>Tax Value GVWR (USA FET Only)</b>			<b>69000</b>	<b>LB</b>



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