

**TOWN OF PLYMOUTH CAPITAL IMPROVEMENT PLAN REQUEST  
FY25 SPRING ANNUAL TOWN MEETING**

Department:	Department of Public Works - Highway Division	Priority #:	2
Project Title and Description:	Replace 10 Wheel Dump Truck (2)	Total Project Cost:	\$378,000.00

Department/Division Head: **Tim Balboni, Highway Manager** \$756,000.00

Check if project is: New  Resubmitted  Cost estimate was developed: Internally  Externally

For project re-submittals, list prior year(s):

List any funding sources and amounts already granted:

Basis of Estimated Costs (attach additional information if available)			If project has impact on 5 Year Plan and future operating budgets, insert estimated amounts.		
Capital:	Cost	Comments	Fiscal Year:	Capital	Operations & Maintenance
<i>Planning and Design</i>			<i>FY26</i>		
<i>Labor and Materials</i>			<i>FY27</i>		
<i>Administration</i>			<i>FY28</i>		
<i>Land Acquisition</i>			<i>FY29</i>		
<i>Equipment</i>	\$315,000.00		<i>FY30</i>		
<i>Other</i>					
<i>Contingency</i>	\$63,000.00	20%			
<b>Total Capital</b>	<b>\$378,000.00</b>	<b>X 2</b>			

**Project Justification and Objective:** Frame and Dump body has rotted out. The truck had to be taken out of service.

Frame is no longer repairable.

**For Capital Project Requests:**

Will this project be phased over more than one fiscal year? If yes, enter it on the 5 Year Plan  
Can this project be phased over more than one fiscal year?

Yes  No   
Yes  No

**For Capital Equipment Requests:**

Check if equipment requested is replacement and enter the year, make & model, VIN and present condition of existing equipment

**2003 Volvo 10 Wheeler - 4V5KC9GF93N347526-Very poor condition**

What is the expected lifespan of this new/replacement equipment: 15 to 20 Years

Attach backup information, estimates, or justification to support this request.

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# MACK®



Mack Trucks  
[www.macktrucks.com](http://www.macktrucks.com)

# PRICING SUMMARY

GRANITE 64FR

18 Wheeler

## VEHICLE PRICE

	\$192,097.00
EXTERNAL LOCALS	
VEH111	\$0.00
ALLISON 5 YEAR WARRANTY	\$863.00
CHASSIS PLAN 2 60/250,000	\$4,630.00
CHASSIS TOWING 60 MO.	\$1,105.00
J C MADIGAN QUOTE	\$106,825.00

10/17/23

10/17/23

## SOFT OFFERS AND WARRANTY

CARB - ENGINE PLAN 2, 84 MO/250K MILES, MP7/MP8 <460HP	\$4,145.00
CARB - EATS: 84 MO/250K MI-ENGINE AFTERTREATMENT MP7/MP8 <460HP	\$815.00
ENGINE TOWING 84 MO/250K MILES	\$1,020.00
CARB + EPA for Mack MP7 / MP8 Diesel	\$3,500.00

10/17/23

10/17/23

## TAX SUMMARY

	AMT. SUBJECT TO TAX
FET	\$305,520.00
Tire Tax Credit	\$0.00

10/17/23

10/17/23

10/17/23

TOTAL SELLING PRICE (PER UNIT) usd

\$315,000.00

TOWN OF PLYMOUTH

DATE

BALLARD MACK, SALES & SERVICE, INC.

DATE

Rocky 10/27/23

H. Pick,

This is based on 2<sup>nd</sup> half of next year production.  
If it is 2025 there is another emissions for the  
State of MA Carb (CARB). The amount is unknown at  
this point. However I did put the CARB Warranty on  
this as precautionary. Please look over spec and let me  
I'll go over that with you know how it looks.

Thank You Rocky

J.C. MADIGAN INC.  
450 OLD UNION TURNPIKE  
LANCASTER, MA.

SALES DEPT.  
TEL. (978)847-2900  
FAX (978)847-0068

## QUOTE: TOWN OF PLYMOUTH HIGHWAY DEPT

TO ROCKY L. @ BALLARD MACK

FROM JOHN DWYER

1) 14 FT (14 TO 16 CUYD) AR450 HARDOX STEEL MONOSHELL DUMP BODY BiBEAU MODEL BMT WITH A MAILHOT TELESCOPIC HOIST AND 1/4" AR450 FLOOR INSTALLED ON A CITY SUPPLIED CHASSIS UNDERCOATED AND PAINTED ONE SINGLE STAGE COLOR

- A) 36" STEEL CABSHIELD W/ (4) RECESSED LED FLASHERS (2) FRONT (2) SIDE
- B) REAR CORNER POST RECESSED LED FLASHERS & ST/TL/BU'S
- C) 1/4" AR450 HARDOX STEEL FLOOR / AIR TAILGATE
- D) 1" PINTLE PLATE WITH 45t PINTLE, D-RINGS, & TRAILER PLUG
- E) AERO AUTOMATIC TARPING SYSTEM W/ ALUM. ARMS
- F) BACKUP AND LIFT ALARMS WITH LED REQUIRED LIGHTING
- G) BODY SAFETY PROPS / SANDER MOUNTING PLATES
- H) POLY TANDEM FENDERS & REAR WHEEL MUDFLAPS
- I) (3) TAILGATE MTD. BiBEAU COAL DOORS
- J) DRIVER'S SIDE ACCESS LADDER W/ HANDLE
- K) WOOD SIDEBOARDS 2" X 10" / SHOVEL HOLDER
- L) (2) FRONT GRILL RECESSED LED FLASHERS W/ SEPARATE SWITCH
- M) (2) REAR MOUNTED LED WORKLIGHTS

2) TRANSMISSION MOUNTED CENTRAL HYDRAULIC SYSTEM WITH HOTSHIFT PTO, IN-CAB MOUNTED LEVER CONTROLS TO OPERATE DUMP, 4-WAY PLOW, AND POWER BEYOND (CIRUS EZ-SPREAD CONTROLS).

- A) 40 GALLON STAINLESS HYDRAULIC TANK WITH VENTED CAP, SIGHT GLASS, GATE VALVE SHUTOFF, AND SPIN-ON FILTER SYSTEM.
- B) 3-LINE SANDER QUIK DISCONNECTS PIPED TO THE REAR WITH STAINLESS LINES
- C) LOWER THE HEIGHT OF THE DUMP HANDLE

3) CUSTOM LO-MOUNT PLOW FRAME MODEL JCM INSTALLED W/ HOOD MOUNTED ABL LED PLOWLIGHTS & 30.5" ON CENTER PLOW EARS

4) 11' 36" INTAKE 54" DISCHARGE TRIP EDGE VORTEX STYLE  
STEEL MOLDBOARD SNOW PLOW EVEREST MODEL  
R132TEL3654SH-(V) WITH HYDRAULIC REVERSING MODE, CURB  
AND WEAR SHOES, GUIDEPOLES, AND STANDARD CUTTING  
EDGE

PRICE \$106,825.00

NOTE!! / NEED 108"CT, FRONT FRAME EXT, PLOW LIGHT PREP, (6) AUX SWITCHES, BODY  
BUILDERS WIRING HARNESS, PTO PROV.

OPTIONS:

- A) THERMOSTATIC CONTROLLED EXHAUST VALVE FOR HEATED BODY  
ADD \$6750.00
- B) PAINTED STEEL ASPHALT APRON ADD \$1400.00

APPROVAL \_\_\_\_\_ DATE \_\_\_\_\_

PO# \_\_\_\_\_ 10/26/2023

# TECHNICAL SPECIFICATION

## GRANITE 64FR



APPLICATION PACKAGES	DESCRIPTION
CHASSIS CONFIGURATION PACKAGE	ONEBOX EATS, LH BATTERY BOX, 6.6 GALLON (25L) SLEEVED DEF, 22" SLEEVED LH FUEL TANK

CUSTOMER/VEHICLE INFO	DESCRIPTION
S CHASSIS (BASE MODEL)	GRANITE 64FR
S ASSEMBLY PLANT	Made in Macungie, PA USA
CUSTOMER FLEET SIZE	DEALER FLEET WITH LESS THAN 25 VEHICLES IN OWN FLEET OF ANY VEHICLE BRAND
TYPE OF SERVICE	MUNICIPAL
S WARRANTY REGISTRATION LOCATION	USA - WARRANTY REGISTRATION LOCATION
EMISSION WARRANTY CERTIFICATION	CARB + EPA for Mack MP7 / MP8 Diesel
INTENDED REGISTRATION LOCATION	MASSACHUSETTS
S INITIAL REGISTRATION LOCATION	USA REGISTRATION
BRAND ORNAMENT	BULLDOG BRAND ORNAMENT, CHROME
S LANGUAGE-PUBS/DECAL/SIGNS	ENGLISH
S ROAD CONDITION	WELL MAINTAINED SURFACED ROADS >95% DRIVING DISTANCE
VEHICLE USE & BODY/TRAILER TYPE	SNOW PLOW FRONT MOUNTED
TRAILER TYPE	FIXED DRAWBAR TRAILER AND CENTERED AXLES
GROSS COMBINATION WEIGHT (CA in PC29 only)	80,000 LB (36 TONNES) GROSS COMBINATION WEIGHT
S BRAKE REGULATION	BRAKE REGULATION, STOPPING DISTANCE 94M (310FT)
TOPOGRAPHY	GRADES <3% GREATER THAN 98% OF DRIVING DISTANCE MAX GRADE 8%
S AMBIENT TEMP UPPER LIMIT (GTA)	AMBIENT TEMPERATURE HOT. WARMER THAN 104 F (40 C) ALLOWED UP TO 25 HOURS PER YEAR
S OPERATING TERRAIN GRADE CONDITIONS	ON-OFF HIGHWAY, STARTING GRADES<18%
S LOADING SURFACE FACTOR	CONCRETE LOADING AND / OR UNLOADING SURFACE
VEHICLE VOCATION	CONSTRUCTION SERVICE

ENGINE/TRANSMISSIONS	DESCRIPTION
ENGINE PACKAGE, COMBUSTION	MP8-425C MACK 425HP @ 1500-1700 RPM (PEAK) 2100 RPM (GOV) 1550 LB-FT, US'21
S GHG APPLICATION, VEHICLE	GREEN HOUSE GAS VOCATIONAL APPLICATION
TRANSMISSION	4500 RDS 6 SPEED ALLISON GEN 6 W/PROGNOSTICS, WITH PTO PROVISION
S GEARBOX 12TH GEAR LOCK-OUT	WITHOUT 12TH GEARBOX GEAR LOCK-OUT

EXHAUST/EMISSIONS	DESCRIPTION
NOX LIMITS	CARB LEGACY / EPA (200MG/HP/HR), 50 State Idle Compliance
S IDLE EMISSION LABEL LOCATION (CA in PC29 only)	IDLE EMISSION LABEL LOCATION, LOWER LH CORNER OF DRIVER DOOR
S DPF DIESEL PARTICULATE FILTER	CLEARTECH ONE BOX E.A.T.S. RH SIDE UNDER CAB US17 / US21
S CHASSIS MOUNTED EMISSIONS FINISH	W/O DEF COVER & PAINTED DPF COVER
S DIESEL EXHAUST FLUID TANK	6.6 GALLON (25 L) 22" LEFT SIDE FUEL TANK MTD
EXHAUST	SINGLE VERTICAL RIGHT SIDE CAB MOUNTED, LOWER VENTURI DIFFUSER, TURNED END
EXHAUST STACK HEIGHT	9' 6" FROM GROUND
EXHAUST SYSTEM MATERIAL FINISH	SINGLE, BRIGHT FINISH HEAT SHIELD, STACK
EMISSION ON BOARD DIAG CONTROL	EMISSION OBD, DISPLAY ONLY, USA2024

# TECHNICAL SPECIFICATION (cont.)



ENGINE EQUIPMENT		DESCRIPTION
S	AIR CLEANER	UNDER HOOD SINGLE ELEMENT DRY TYPE W/AIR INTAKE FROM BOTH SIDES OF HOOD
S	BUG SCREEN	BLACK ALUMINUM BUG SCREEN MOUNTED BEHIND GRILLE, WITHOUT WINTER FRONT COVER
	AIR COMPRESSOR/DRYER	WABCO AIR HEATED SS-HP AIR DRYER W/ WABCO 318 (18.7 CFM) AIR COMPRESSOR
S	AIR DRYER POSITION (CA)	AIR DRYER POSITION STANDARD
S	ALTERNATOR	DELCO 12V 160A (28SI) BRUSH-TYPE
S	BATTERIES	(3) MACK 12V 760/2280 CCA THREADED STUD TYPE
S	BATTERY BOX - MOUNTING (x)	LH RAIL UNDER CAB FORWARD OF FUEL TANK (3 BATTERY MAX)
S	BATTERY BOX COVER	MOLDED PLASTIC
	BATTERY DISCONNECT SWITCH	FLAMING RIVER BIG SWITCH WIRED TO POSITIVE SIDE
	STARTER MOTOR	12 VOLT MELCO STARTER (MITSUBISHI ELECTRIC)
	ENGINE BRAKE	MACK MP8 POWERLEASH
S	ENGINE BRAKE LIGHTING (CA)	VEHICLE AND TRAILER (IF APPLICABLE) STOP LAMPS ACTIVATE UPON SERVICE BRAKE APPLICATION ONLY(3899000)
S	FAN DRIVE	BEHR FAN AND ELECTRONIC MODULATING VISCOS FAN DRIVE
S	COOLANT PROTECTION	ETHYLENE GLYCOL FULLY FORMULATED COOLANT (50/50 MIX DYED PINK) TO -34DEG, W/ FILTER
	HOSES - RADIATOR/HEATER	SILICONE RADIATOR AND HEATER HOSES
S	FUEL-WATER SEPARATOR	MACK W/MANUAL DRAIN VALVE V2 (INTEGRAL W/ PRIMARY FUEL FILTER)
S	PRIMARY FUEL FILTER POSITION (CA)	STANDARD FUEL FILTER POSITION
S	ENGINE HEATERS	120v 1500w BLOCK HEATER ONLY (120V-15A PLUG)
	OIL SUMP	CORROSION RESISTANT OIL PAN
S	ENGINE STOP, EMERGENCY (CA in PC29 only)	WITHOUT ENGINE STOP, EMERGENCY

CLUTCH/TRANS EQUIPMENT		DESCRIPTION
	GEAR SHIFTER	ALLISON DASH MOUNTED SHIFTER W/NEUTRAL TO RANGE INHIBIT (HD SERIES)
S	CLUTCH ACTUATION SYSTEM & PEDAL PAD	WITHOUT CLUTCH CABLE SYSTEM
	MINIMUM REQUIRED PROP SHAFT SIZE	MINIMUM REQUIRED FOR KAX PROP SHAFT, PROPS-L
	DRIVELINE - MAIN	SPICER 1810 HD W/COATED SPLINES (PROPS-L)
	DRIVELINE - INTERAXLE	SPICER 1810 W/COATED SPLINES
	PROPELRL SHAFT MAIN, UNVSL JNT	UNIVERSAL JOINT HALF-ROUND TYPE
S	PROP SHAFT INTERAXL UNIV JOINT	HALF-ROUND UNIVERSAL JOINT
S	TRANSMISSION OUTPUT TORQUE	TRANSMISSION OUTPUT TORQUE BASIC
	LUBRICANTS, TRANSMISSION	TRANSYND SYNTHETIC LUBE FOR ALLISON TRANS
	TRANSMISSION OIL COOLER	ALLISON 4xxx SERIES TRANSMISSION W/DIRECT MOUNT COOLER & SS COOLANT TUBES

FRONT AXLE EQUIPMENT		DESCRIPTION
	FRONT AXLE	20000# (9100 KG) MACK FXL20 STRAIGHT SPINDLE/UNITIZED BEARINGS
	SPRINGS - FRONT	MACK TAPERLEAF HD 20000# (9100 KG) GROUND LOAD RATING, EQUAL BIAS
S	FRONT AXLE BRAKES	MERITOR "S" CAM TYPE 16.5" x 6" Q+
S	BRAKE, FRONT	CAST IRON
	FRONT AXLE BRAKE DUST SHIELD	DUST SHIELDS FOR FRONT AXLE
S	FRONT BRAKE ADJ. MANUFACTURE	HALDEX - AUTOMATIC
S	FRONT BRAKE CHAMBER MFG.	FRONT BRAKE CHAMBER MANUFACTURER, HALDEX
S	HUB MATERIAL, FRONT	FERROUS
S	FRONT AXLE LUBRICANT	FRONT AXLE LUBE, FAG NLGI2 GREASE

# TECHNICAL SPECIFICATION (cont.)



FRONT AXLE EQUIPMENT		DESCRIPTION
S	SHOCK ABSORBER, FRONT	DOUBLE ACTING TYPE
	STEERING	SHEPPARD SD110 + HD94

REAR AXLE EQUIPMENT		DESCRIPTION
	REAR AXLE	58000# (26300kg) MACK S582 CAST DUCTILE IRON HOUSING.
S	REAR AXLE CASING WIDTH	W/O WIDE TRACK AXLE
S	DRIVE AXLE LUBRICANT	DRIVE AXLE LUBE, SHELL 75W90 SYNTHETIC OIL
S	CARRIER - REAR AXLE	150/151 SERIES (Tandem Mack Rear Axles up to 150,000lb GCW)
S	POWER DIVIDER LOCKOUT	INTERAXLE POWER DIVIDER LOCKOUT, W/BUZZER & LIGHT
	REAR AXLE RATIO	4.50 RATIO
	REAR SUSPENSION	SS58 MACK CAMELBACK MULTILEAF 58,000 lb, HEAVY DUTY
	BOGIE SPREAD, REAR	54" AXLE SPACING (BOGIE WHEELBASE)
S	AUX. SPRING BRAKE QTY	AUX SPRING BRAKE QTY, 4 CHAMBERS
	BRAKES - REAR	MERITOR "S" CAM 18"x7.0 P (Total for QTY = 2)
S	BRAKE, DRIVE, REAR	CAST IRON
S	REAR BRAKE ADJ MANUFACTURE	HALDEX - AUTOMATIC (Total for QTY = 2)
	DRIVE AXLE BRAKE DUST SHIELD	DUST SHIELDS FOR REAR AXLE
	REAR BRAKE CHAMBER SIZE	REAR SPRING BRAKE CHAMBERS 30/30 TYPE
	BRAKE ORI REAR-MOST DRIVE AXLE	DRUM BRAKE CHAMBER ORIENTATION: High Mount - Rear of Axle - Chamber Down
	PARKING BRAKE CHAMBER	HALDEX "LIFE SEAL PLUS" (3" STROKE) BRAKE CHAMBERS (Total for QTY = 2)
	HUB MATERIAL, DRIVE	FERROUS
S	ANTILOCK BRAKE SYSTEM	BENDIX WITH TRACTION CONTROL 4S4M
S	BRAKE VALVE VERSION	BENDIX SWITCHES AND VALVES WHERE POSSIBLE
S	TRACTION CONTROL DISABLE (CA in PC29 only)	AUTOMATIC TRACTION CONTROL (ATC) FULL DISABLE SWITCH

FRAME EQUIPMENT/FUEL TANKS		DESCRIPTION
	WHEELBASE	197"
	AF (OVERHANG)	67"
	FRAME RAILS & LINERS	11.1 x 90 x 300mm - (0.437" x 3.54" x 11.81")W/ Partial Liner; RBM 3,920,000 LB-IN
	RUST PROTECTION (for frame), ADDITIONAL	RUST PROTECTION BETWEEN FRAME RAILS AND LINERS
	FRONT FRAME LENGTH	BUMPER POSITION EXTENDED 20" (SNOW)
	CROSSMEMBERS	BOC AND INTERMEDIATE CROSSMEMBERS, HD I-BEAM
S	REAR CROSSMEMBER OPTIONS	STEEL CLOSING REAR CROSSMEMBER
S	REAR FRAME TREATMENT	WITHOUT TAPERED FRAME RAIL ENDS
S	FRONT BUMPER	EXTENDED-SWEPT BACK-STEEL
S	CROSSMEMBER, BOGIE TYPE	BASIC SOLUTION TRUNNION BRACKET, STD HEIGHT
S	TOWING DEVICE, FRONT	HOOKS
S	FUEL LEVEL SENDER UNIT, LIQUID	BASIC FUEL LEVEL SENDER MOUNTED ON L.H TANK
	FUEL TANK - LH	88 GALLON (335 L) 22" ALUMINUM, SLEEVED D-SHAPED
S	FUEL TANK - RH	W/O RH FUEL TANK
S	FUEL HOSES, LIQUID	BRAIDED HOSE
S	FUEL FILLER NECK OPTIONS	WITHOUT FILLER NECK SCREEN, WITH NON-LOCKABLE FUEL TANK CAP
	FUEL LINE OPTIONS, LIQUID	W/O FUEL LINE OPTION
S	CAB INSTEP VERSION	STANDARD 2 STEP CAB ACCESS
S	STEPS (BRIGHT) - FUEL TANK	STANDARD FINISH STEPS AND BRIGHT FINISH STRAPS

# TECHNICAL SPECIFICATION (cont.)



AIR/BRAKE		DESCRIPTION
S	AIRTANK DRAIN VALVE	MANUAL (PETCOCK) DRAIN VALVES ON ALL TANKS
	AIRTANK MATERIAL	ALUMINUM AIR TANK PAINTED CHASSIS COLOR
S	RELOCATE AIR RESERVOIRS	W/O RELOCATED AIR TANKS
	PARKING BRAKE VALVE	TWO (2) VALVE DUAL BRAKE SYSTEM - TRAILER SUPPLY AND TRACTOR-TRAILER PARK
ELECTRICAL		DESCRIPTION
	BACK-UP ALARM	ECCO BACK-UP ALARM 575 CONSTANT SOUND LEVEL 107 dB
	DASH MOUNTED SWITCHES	(4) 15A, IGNITION POWERED, (2) 15A BATTERY POWERED, ALL LATCHING ON/OFF
S	ROOF & SIDE MARKER LIGHTS	(5) TRUCKLITE CHROME BULLET ROOF MARKER & STANDARD MARKER / DIRECTIONAL SIGNAL
	AUXILIARY LAMPS (CA in PC29 only)	DASH CONTROL & POWER SUPPLY FOR LOCAL INSTALL OF AUX SNOWPLOW LAMPS OVERRIDE DAYTIME RUNNING LIGHTS
S	HEADLAMP BULB TYPE	HEADLAMP BULB TYPE, LED, HEATED
S	DAYTIME RUNNING LIGHTS	W/OVERRIDE SWITCH, PARK BRAKE & ENGINE RUNNING ACTIVATED
S	DRL OVERRIDE SPEED THRESHOLD	DRL OVERRIDE SPEED THRESHOLD 8 KMPH (5 MPH)
S	TAIL LAMPS	INCANDESCENT TAIL LAMPS
TRAILER CONNECTIONS		DESCRIPTION
	TRAILER BRAKE VALVE	HAND CONTROL VALVE FOR TRAILER OR REAR SERVICE BRAKES - DUAL FUNCTION
	TRAILER CONNECTION POSITION	TRAILER AIR BRAKE CONNECTIONS, END OF FRAME
	TRAILER ELECTRICAL RECEPT	SINGLE 7 PINS STD SAE TYPE, END OF FRAME
PTO		DESCRIPTION
	POWER TAKE OFF CONTROL	TRANSMISSION PTO SWITCH AND LIGHT WITH WIRING AND PIPING FOR LOCAL INSTALLATION
S	BODY BUILDER INTERFACE	BODY LINK III W/CAB PASS-THRU
SPECIALTY EQUIPMENT		DESCRIPTION
S	LANE SUPPORT SYSTEM (LSS)	WITHOUT LANE SUPPORT SYSTEM
S	DATA CAPTURE	WITHOUT DATA CAPTURE
S	CAMERA, SURVEILLANCE	WITHOUT CAMERA
CAB INTERIOR (A THRU G)		DESCRIPTION
S	SPEEDOMETER -& GAUGES - UNIT(s) OF MEASURE	U.S. UNITS (PREDOMINANT)
	GUAGE - PACKAGE, SECONDARY	2ND GA PKG W/ENG OIL TEMP, TRANS OIL TEMP, PYRO, BOOST PRESS
	GAUGE OIL TEMP-REAR AXLE	REAR AXLE OIL TEMP GAUGE IN DID (DRIVER INFORMATION DISPLAY)
	AUXILIARY PNEUMATIC OUTLET CAB (CA family in PC29 only)	AUX. INCAB PNEUMATIC LINE CLEANOUT
S	AIR CONDITIONING/HEATER	BLEND AIR HVAC W/"ATC" TEMP REGULATION
S	CUPHOLDER	CUPHOLDER
S	DOME LAMP, INTERIOR	(4) DOME LAMPS - DOOR AND SWITCH ACTIVATED
S	DASH INDICATOR - LAMP BODY OUT OF POS	DASH MTD, INDICATOR BODY/HOIST UP "BODYBUILDER LAMP"
	FIRE EXTINGUISHER	5LB (ABC RATED) MOUNTED BETWEEN DRIVER SEAT BASE AND DOOR VALVE AIMED REARWARD
S	FLOOR COVERING	POLYURETHANE FLOOR MAT WITHOUT REMOVABLE INSERTS

# TECHNICAL SPECIFICATION (cont.)



CAB INTERIOR (H THRU R)		DESCRIPTION
S	INSTMNT CLUSTER LANGUAGE	DEFAULT: ENGLISH, SPANISH, FRENCH
S	KEY TYPES FOR DOORS	ALL CHASSIS KEYED AT RANDOM
S	DOOR OPENING OPTIONS	W/O ELECTRONIC KEYLESS ENTRY
S	FORWARD OVERHEAD STORAGE	(2) STORAGE COMPARTMENTS AND NET RETAINERS W/CENTER MOUNTING FOR CB PROVISIONS
S	AUDIO ACCOMMODATION	PREMIUM STEREO, AM/FM, MP3, WEATHER BAND, BLUETOOTH
S	ANTENNA - RADIO	RADIO ANTENNA, CAB MOUNTED BEHIND LH DOOR
	ANTENNA - CB RADIO	PREP KIT FOR MOUNTING ON LT SIDE MIRROR (W/O ANTENNA)
S	AUDIO SHUTOFF	AUTO SHUTOFF FOR RADIO ENTERTAINMENT SYSTEM WHEN VEHICLE IS ENGAGED IN REVERSE
S	POWER LEADS	POWER LEADS (5-WAY BINDING POSTS FOR CB RADIO) IN HEADER CONSOLE
S	AUDIO SPEAKER LOCATION	SPEAKER LOCATION, IN DOORS, MIDDLE HIGH SIDE PANEL
S	COM.RADIO PREP KIT (CB)	CB RADIO MOUNTING REINFORCEMENT IN HEADER CONSOLE
S	REAR WALL STORAGE COMPARTMENT	STORAGE POUCH REAR
	REFLECTOR KIT	EMERGENCY REFLECTOR KIT MOUNTED PARALLEL & CENTERED AGAINST BOC

CAB INTERIOR (S THRU Z)		DESCRIPTION
	INTERIOR TRIM LEVELS	COMFORT TRIM PACKAGE, SIERRA TAN (Package 11B)
S	SEAT - DRIVER'S	MACK-AIR, HIGH BACK, 1 CHAMBER AIR LUMBAR
	SEAT COVERING - DRIVER'S	DRIVER'S SEAT - SIERRA TAN VINYL
	SEAT - PASSENGER'S	MACK-FIXED, HIGH BACK, W/ STORAGE BOX
	SEAT COVERING - PASSENGER'S	PASSENGER'S SEAT - SIERRA TAN VINYL
	SEAT ARMREST	INBOARD MOUNTED ARM REST, DRIVER'S & RIDER'S SEAT
S	SEAT BELT(S)	LAP & SHOULDER (BOTH SEATS) CAB MOUNTED SHOULDER BELT ADJUSTMENT
S	SEAT BELT REMINDER	SEAT BELT REMINDER IN INSTRUMENT, WITH AUDIO
S	IGNITION TYPE	KEY TYPE
S	STEERING WHEEL	2 SPOKE URETHANE GRIP, SATIN ALUMINUM SPOKES, WITH SWITCHES
S	WINDSHIELD TYPE	TWO PIECE WINDSHIELD
	CAB GLASS	HEATED TINTED WINDSHIELD, GUARDIAN ENHANCED PROTECTIVE REAR GLASS W/SAFEFLEX; 50% TRANSMITTANCE
S	WASHER RESERVOIR POSITION	W/O WINDSHIELD WASHER OPTION
S	WINDSHIELD WIPERS	2 SPEED ELECTRIC MOTOR W/INTERMITTENT FEATURE

CAB EXTERIOR		DESCRIPTION
S	HOOD LATCH TYPE & FINISH	STRAP TYPE HOOD LATCH WITH BLACK FINISH
S	EXTERIOR TRIM FINISH AND PACKAGES	GRANITE BRIGHT AIR INTAKE
	GRILLE	BRIGHT FINISH BARS W/BRIGHT FINISH SURROUND GRILL MOUNTED
S	PASSENGER SIDE VISIBILITY OPTIONS	AUXILIARY WINDOW IN RH DOOR
	GRAB HANDLES	BF EXTERIOR CAB GRAB HANDLES, BLACK GRAB HANDLE RH INTERIOR WINDSHIELD POST
	HOOD HATCH	WITH INSPECTION HATCH FOR SNOWPLOW HOOD
	HORN - AIR	(2) MACK RECTANGULAR SINGLE TRUMPET, BRIGHT FINISH ALUMINUM W/SNOW SHIELDS
S	HORN - ELECTRICAL	DUAL TONE
	MIRRORS - EXTERIOR	FLAT MIRROR - POLISHED ALUMINUM FINSH, HEATED, W/O LAMPS
	MIRRORS - CONVEX TYPE CAB DOORS	BRIGHT FINISH, LH & RH, 8" DIAMETER HEATED CONVEX
	SUN VISOR - EXTERIOR	SUN VISOR, EXTERIOR, FIBERGLASS (PAINTED)

# TECHNICAL SPECIFICATION (cont.)



AERODYNAMIC DEVICES		DESCRIPTION
S	CAB AERODYNAMIC PACKAGES	WITHOUT CAB AERODYNAMIC DEVICES
S	FRONT CHASSIS AERODYNAMIC PACKAGE	WITHOUT FRONT AERODYNAMIC FAIRINGS
WHEELS & TIRES		DESCRIPTION
	TIRES BRAND/TYPE - FRONT	315/80R22.5 L CONTINENTAL HAU3 WT (20000 lbs) (Total for QTY = 2)
	WHEELS - FRONT	22.5x9.00 ALCOA 89U64x CLEAN BUFFED ALUMINUM, 6.94" OFFSET, 10 HOLE HAND (Total for QTY = 2)
	TIRES BRAND/TYPE - REAR	11R24.5 H BRIDGESTONE M799 (26440 lbs) (DRIVE ONLY) (Total for QTY = 8)
	WHEELS - REAR	24.5x8.25 ALCOA 98565x SEVERE SERVICE, CLEAN BUFFED ALUMINUM, 6.60" OFFSET, 10 HOLE HAND (Total for QTY = 8)
S	TIRE INFLATION VALVE	STANDARD VALVE STEMS AND CAPS
S	FRONT HUB/WHEEL TRIM	WITHOUT FRONT HUB/WHEEL TRIM
S	REAR HUB/WHEEL TRIM	WITHOUT REAR HUB/WHEEL TRIM (Total for QTY = 2)
S	WHEEL NUT & FINISH, FRONT	WHEEL NUT BASIC FINISH, FRONT
S	WHEEL NUT FINISH, REAR (CA)	WHEEL NUT BASIC FINISH, REAR
COMMUNICATION SYSTEMS		DESCRIPTION
S	CO-PILOT - DISPLAY FEATURES	CO-PILOT DISPLAY, DRIVER ACCESS LEVEL 1
S	ACCESS LEVEL	
S	TELEMATIC GATEWAY	TELEMATICS GATEWAY, 4G/LTE AND WLAN SYSTEM WITH DIAGNOSTIC SERVICES
ENGINE ELECTRONICS		DESCRIPTION
S	OIL PRESSURE, ENGINE SHUTDOWN	OIL PRESSURE, ENGINE SHUTDOWN
S	COOLANT TEMP, ENGINE SHUTDOWN	COOLANT TEMP, ENGINE SHUTDOWN
S	ENGINE PROTECTION SYSTEM	ENGINE PROTECTION (SHUTDOWN)
	ENG FAN CNTL, A/C ON, TIME SET	ENG FAN CONTROL, A/C ON, TIME SETTING, 60 SEC
S	ENGINE IDLE CONTROL	IDLE CONTROL, 600 RPM
S	SMART IDLE ELEVATED IDLE RPM TIME	INCREASE 10 MINUTE MAXIMUM TIME
S	IDLE S/D ABS TAMPER CHECK	IDLE SHUTDOWN ABS TAMPER CHECK, ENABLED
S	IDLE S/D WARNING TIME	30 SEC IDLE S/D WARNING TIME
S	IDLE S/D IF WARM-UP TEMP	38C DEG (100F), WARM UP TEMP DELAY
S	IDLE S/D WARM-UP TIMER	5 MIN. WARM UP TIME DELAY
S	IDLE S/D IF PTO ACTIVE	ENGINE IDLE SHUTDOWN TIME OVERRIDDEN IF PTO ACTIVE
S	IDLE SHUTDOWN IF POWER > LIMIT	ENG IDLE SHUTDOWN TIME OVERRIDDEN IF TORQUE > THAN LIMIT
S	IDLE S/D OVERRIDE %ENGINE LOAD	IDLE SHUTDOWN OVERRIDE UPTO 20% ENGINE LOAD THRESHOLD
S	AMBIENT TEMP MIN TRESHOLD	AMBIENT TEMP MIN TRESHOLD, 16 DEG C, (60 DEG F)
S	AMBIENT TEMP MAX TRESHOLD	AMBIENT TEMP MAX TRESHOLD, 27 DEG C, (80 DEG F)
S	EL HD THROTTLE,MAX ROAD SPEED	ELECTRONIC HAND THROTTLE, MAX ROAD SPEED, 16 KMH (10 MPH)
S	EL HAND THROTTLE,MAX ENG SPEED	ELECTRONIC HAND THROTTLE, MAX ENGINE SPEED, 1000 RPM
S	EL HAND THROTTLE,MIN ENG SPEED	ELECTRONIC HAND THROTTLE, MIN ENGINE SPEED, 700 RPM
S	EL HD THROTTLE,SPEED RAMP RATE	ELECTRONIC HAND THROTTLE, SPEED RAMP RATE, 100 RPM/SEC
TRANSMISSION ELECTRONICS		DESCRIPTION
	TRANSMISSION ELECTRONICS PACKAGE	DUMP/VOC/PLOW(223) - ALLOWS TRUCK TO BE PUT IN GEAR W/O SERVICE BRAKE (FOR PAVING) (4TH GEAR LIMIT S)
	TRANSM AUTO NEUTRAL ON P-BRAKE	ALLISON PARK BRAKE AUTO NEUTRAL-ALLOWS THE DRIVER TO ENGAGE GEAR PRIOR TO DISENGAGING THE PARK BRAKE
	TRANSMISSION ELECTRONIC SHIFTING PROPERTIES	FUELSENSE, FULL NEUTRAL AT STOP

# TECHNICAL SPECIFICATION (cont.)



VEHICLE ELECTRONICS		DESCRIPTION
S	ROAD SPEED LIMITER SETTING	105 KM/H ROAD SPEED LIMITER (65MPH)
S	PEDAL RSL SETTING	101 KM/H PEDAL ROAD SPEED LIMITER (63MPH)
S	CRUISE CONTROL	CRUISE CONTROL
S	CRUISE CONTROL, MAX SPEED	MAX CRUISE, 105 KPH (65 MPH)
S	CRUISE CONTROL MIN SPEED	MIN CRUISE, 32 KPH (20 MPH)
S	ENG BRK ENGAGE IN CRUISE	ENG BRK ENGAGE IN CRUISE, 3 MPH, ABOVE SET SPEED
	PDLO ENGAGED VLS	POWER DIVIDER LOCK OUT (PDLO) ROAD SPEED LIMIT 24KMH (15MPH)
	DIFF LOCK SPEED LIMIT	WITHOUT DIFFERENTIAL LOCK ROAD SPEED LIMIT
S	MAXIMUM ENG SPEED AT 0 MPH	1000 MAXIMUM ENGINE SPEED AT 0 MPH
S	DETECTION SPEED SENSR TMPRNG	DETECTION OF SPEED SENSOR TAMPERING, ENABLE
S	ENG TORQUE LIMIT,SPEED SENSOR	ENG TORQUE LIMITED TO 50%, IF SPEED SENSOR TAMPER DETECTED
S	DRIVER ID FUNCTION	DRIVER ID FUNCTION, DISABLED
S	DR PERFORMANCE PARAMETERS	WITHOUT DRIVER PERFORMANCE PARAMETERS
S	ENGINE OVERSPEED,ALL COND, LOG	ENGINE OVERSPEED, ALL CONDITIONS, TIME LOG IF ABOVE 2200 RPM
S	ENGINE OVERSPEED,FUELED, LOG	ENGINE OVERSPEED, FUELED, TIME LOG IF ABOVE 2100 RPM
S	VEHICLE OVERSPEED,ALL COND,LOG	VEHICLE OVERSPEED,ALL COND, TIME LOG IF ABOVE 75MPH (121KMH)
S	VEHICLE OVERSPEED, FUELED, LOG	VEHICLE OVERSPEED, FUELED, TIME LOG IF ABOVE 70MPH (113KMH)
S	ENGINE IDLE DELAY TO LOG	ENGINE IDLE DELAY TO START LOG, 2 MIN
S	PERIODIC TRIP LOG DAY OF MONTH	PERIODIC TRIP LOG, DAY 1 OF THE MONTH

PTO ELECTRONICS		DESCRIPTION
S	PTO1 SINGLE SPEED CONTROL RPM.	PTO 1ST, SINGLE SPEED SETTING, 1000 RPM
S	PTO 1ST, MAX ROAD SPEED	1ST PTO, MAX ROAD SPEED, 10 MPH (16 KPH)
S	PTO 1ST, SPEED RAMP RATE	PTO 1ST, SPEED RAMP RATE 100 RPM/SEC
S	PTO 1ST, MAX ENGINE SPEED	PTO 1ST, MAX ENGINE SPEED, 2100 RPM
S	PTO 1ST, ROAD SPEED LIMIT	PTO 1ST, ROAD SPEED LIMIT, 97 KMH (60 MPH)
S	PTO 1ST, MINIMUM ENGINE SPEED	PTO 1ST, MINIMUM ENGINE SPEED, 600 RPM
S	PTO 2ND, SINGLE SPEED SETTING	PTO 2ND, SINGLE SPEED SETTING, 1000 RPM
S	PTO 2ND, MAX ROAD SPEED	2ND PTO, MAX ROAD SPEED, 10 MPH (16 KPH)
S	PTO 2ND, SPEED RAMP RATE	PTO 2ND, SPEED RAMP RATE 100 RPM/SEC
S	PTO 2ND, MAX ENGINE SPEED	PTO 2ND, MAX ENGINE SPEED, 2100 RPM
S	PTO 2ND, ROAD SPEED LIMIT	PTO 2ND, ROAD SPEED LIMIT, 97 KMH (60 MPH)
S	PTO 2ND, MINIMUM ENGINE SPEED	PTO 2ND, MINIMUM ENGINE SPEED, 600 RPM

PAINT		DESCRIPTION
S	PAINT DESIGN	SINGLE COLOR
S	PAINT TYPE	SOLID PAINT
	PAINT COLOR - FIRST COLOR	MACK GREEN; P9014
S	PAINT COLOR - SECOND COLOR	NO SECOND TRUCK COLOR PROVIDED; NO COLOR
S	PAINT COLOR - THIRD COLOR	NO THIRD TRUCK COLOR PROVIDED; NO COLOR
S	PAINT - CAB PAINT SYSTEM	PAINT - CAB, URETHANE CLEAR COAT
S	CAB COLOR	SAME AS FIRST COLOR - CAB
S	HOOD COLOR	SAME AS FIRST COLOR - HOOD
	SUN VISOR COLOR	SAME AS FIRST COLOR - SUN VISOR
S	SLEEPER ROOF COLOR	WITHOUT SLEEPER ROOF COLOR

# TECHNICAL SPECIFICATION (cont.)



PAINT		DESCRIPTION
S	ROOF FAIRING COLOR	WITHOUT ROOF FAIRING
S	CHASSIS RUNNING GEAR	MACK BLACK (URETHANE); P3036
S	BUMPER	PAINT BUMPER SAME COLOR AS CHASSIS RUNNING GEAR
FUEL TANK - ***NO INVENTED		
S	VARIANTS ALLOWED in the FUEL TANK PAINT FAMILY***	W/O OPTIONAL FUEL TANK PAINT
S	HUBS & DRUMS-FRONT	SAME AS CHASSIS RUNNING GEAR
S	HUBS & DRUMS-REAR	SAME AS CHASSIS RUNNING GEAR

CALCULATED CODES - KAX		DESCRIPTION
S	PROPCALC SELECTION	YES, THE ORDER MUST BE CALCULATED
	AUTO ROUTING & CLIPPING, CENTER	AUTOMATIC ROUTING & CLIPPING PLACEMENT, CENTER SECTION

BASE WARRANTY & PURCHASED COVERAGES		DESCRIPTION
	VEHICLE WARRANTY TYPE	SEVERE DUTY WARRANTY CLASSIFICATION
	BASIC CHASSIS COVERAGE	SEVERE DUTY STANDARD BASE COVERAGE 12 MONTHS/100,000 MILES (161,000 KM)
	EMISSION - SURCHARGE	CARB + EPA for Mack MP7 / MP8 Diesel
	ENGINE WARRANTY	CARB - ENGINE PLAN 2, 84 MO/250K MILES, MP7/MP8 <460HP
	EMISSION COMPONENT COVERAGE	US and CANADA CARB EQUIPPED VEHICLE EMISSION COMPONENTS COVERAGE 60 MONTHS/350,000 MILES
	TRANSMISSION WARRANTY	ALLISON TRANSMISSIONS (Contact Allison Transmission for standard warranty and extended coverage data)
	CARRIER & AXLE HOUSING WARRANTY	STANDARD MACK SEVERE DUTY COVERAGE 24 MONTHS / 100,000 (160,934 KM)
S	AIR CONDITIONING WARRANTY	AIR CONDITIONING STANDARD COVERAGE (Sealed System Only) 12 MONTHS UNLIMITED MILEAGE
	CHASSIS TOWING WARRANTY	STANDARD SEVERE DUTY CHASSIS TOWING - NOT APPLICABLE
	ENGINE TOWING WARRANTY	ENGINE TOWING 84 MO/250K MILES
S	GUARDDOG CONNECT BUNDLE	NO GUARDDOG CONNECT (ASIST & MACK ONECALL)

SERVICES		DESCRIPTION
	MACK INTEGRATED UPTIME	MACK INTEGRATED UPTIME - 84 MONTHS
S	FLEET INTEGRATION	WITHOUT FLEET INTEGRATION
S	PARTNERED SERVICES	NO PARTNERED SERVICES PROVIDED