

State of New Hampshire

DEPARTMENT OF ADMINISTRATIVE SERVICES
DIVISION OF PROCUREMENT AND SUPPORT SERVICES
BUREAU OF PURCHASE & PROPERTY
25 CAPITOL STREET – ROOM 102
CONCORD, NEW HAMPSHIRE 03301

VICKI QUIRAM
Commissioner
(603) 271-3201

LISA M. POLLARD
Director
(603) 271-7272

THE STATE OF NEW HAMPSHIRE PROPOSES THE FOLLOWING SCHEDULE FOR THE INVITATION

- | | |
|--|---------------------|
| 1. NOTIFICATION AND DISTRIBUTION OF PRELIMINARY SPECIFICATIONS | AUGUST 29, 2016 |
| 2. PRE-BID VENDORS CONFERENCE AT: | |
| NEW HAMPSHIRE DEPARTMENT OF TRANSPORTATION | |
| BUREAU OF MECHANICAL SERVICES | SEPTEMBER 8, 2016 |
| 33 SMOKEY BEAR BLVD – CONFERENCE ROOM B | THURSDAY @ 10:00 AM |
| CONCORD NH 03301 | |
| PHONE: 603-271-3721 | |

THE CONFERENCE WILL BE TO DISCUSS PLACEMENT OF PLOWS AND EQUIPMENT AND FOR THE VENDORS TO ADDRESS ANY POTENTIAL DISCREPANCIES WITH THE SPECIFICATIONS OR TIME SCHEDULE.

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|--|---|
| 3. FINAL DAY FOR VENDOR'S WRITTEN QUESTIONS OF CLARIFICATION, REQUESTS FOR APPROVED EQUALS, EXCEPTIONS OR MODIFICATIONS. | SEPTEMBER 15, 2016
THURSDAY @ 10:00 AM |
| MUST BE SUBMITTED IN WRITING TO: | |
| NH DEPARTMENT OF ADMINISTRATIVE SERVICES | |
| BUREAU OF PURCHASE AND PROPERTY | |
| STATE HOUSE ANNEX | |
| 25 CAPITOL STREET, ROOM 102 | |
| CONCORD NH 03301 | |
| FAXED OR E-MAIL REQUESTS ARE TO THE ATTENTION OF ALAN HOFMANN | |
| FAX: 603-271-7564 OR E-MAIL: alan.hofmann@nh.gov | |
| 4. QUESTIONS, CLARIFICATIONS OR REQUESTS WILL BE ANSWERED | SEPTEMBER 21, 2016 |
| 5. BID INVITATION WILL BE ISSUED | SEPTEMBER 22, 2016 |
| 6. BID INVITATION DUE | SEPTEMBER 29, 2016 |

NOTE: ATTENDANCE IS NOT REQUIRED BUT HIGHLY RECOMMENDED AT THIS PRE-BID VENDORS CONFERENCE.

STANDARD SPECIFICATION FOR MOTOR VEHICLES

- 1.0 **SCOPE:**
THIS SPECIFICATION COVERS THE STATE OF NEW HAMPSHIRE'S GENERAL REQUIREMENTS FOR MOTOR VEHICLES.
- 2.0 **REQUIREMENTS:**
ALL VEHICLES OFFERED BY THE VENDOR MUST BE NEW; SHALL NOT BE USED, REBUILT, REFURBISHED AND SHALL NOT HAVE BEEN USED AS DEMONSTRATION VEHICLES. INITIAL DELIVERY OF THE VEHICLES SHALL NOT EXCEED 200 MILES ON THE ODOMETER WITHOUT PRIOR APPROVAL FROM THE BUREAU OF PURCHASE AND PROPERTY.
- VEHICLES MUST MEET ALL FEDERAL AND STATE EQUIPMENT AND SAFETY REQUIREMENTS. ALL VEHICLES SHALL BE EQUIPPED WITH MANUFACTURER'S STANDARD FEATURES, UNLESS OTHERWISE SPECIFIED IN THE DETAILED SPECIFICATIONS.
- OPTIONAL AND STANDARD EQUIPMENT ORDERED SHALL BE INSTALLED AND READY FOR USE, UNLESS OTHERWISE SPECIFIED.
- DO NOT USE FLEET SPECIFICATIONS FOR MANUFACTURERS STANDARD FEATURES
- 2.1 **COLOR:**
MANUFACTURER'S STANDARD SOLID COLOR AS REQUESTED BY THE USING AGENCY, UNLESS OTHERWISE STATED IN THE SPECIFICATIONS.
- 2.2 **GENERAL:**
A MANUFACTURER'S BILL OF MATERIALS (TRUCK SPECIFICATION LIST) MUST ACCOMPANY EACH VEHICLE OF A GVWR OF 24,000 LBS. AND OVER.
- 3.0 **QUALITY ASSURANCE PROVISION:**
ON PRODUCT DELIVERY, THE AGENCY WILL ACCOMPLISH A PRODUCT INSPECTION, TO ENSURE THAT ALL SPECIFICATIONS HAVE BEEN MET. UPON PRODUCT ACCEPTANCE, THE AGENCY WILL ACKNOWLEDGE ACCEPTANCE BY SUBMITTING PAYMENT APPROVAL. THE AGENCY WILL SUBMIT ANY AND ALL DISCREPANCIES TO THE BIDDER WITHIN 10 DAYS OF RECEIPT, AND ALL DISCREPANCIES WILL BE RECTIFIED PRIOR TO PAYMENT. IF THE DISCREPANCIES CANNOT BE RECTIFIED WITHIN 14 CALENDAR DAYS OF NOTIFICATION, THE PURCHASE ORDER MAY BE CANCELLED.
- 4.0 **PREPARATION FOR DELIVERY:**
THE COOLING SYSTEM OF EACH VEHICLE IS TO BE PROTECTED WITH PERMANENT TYPE ANTI-FREEZE TO A TEMPERATURE OF AT LEAST THIRTY-FOUR DEGREES BELOW ZERO F. VEHICLES MUST BE DELIVERED WITH ALL EQUIPMENT IN PLACE, CLEANED, LUBRICATED, SERVICED AND READY FOR OPERATION. **DEALER ADVERTISING OR LOGO IS NOT TO BE DISPLAYED ON VEHICLES.**
- 5.0 **NOTES:**
INVOICES ARE TO BE DELIVERED TO THE USING AGENCY WITH THE VEHICLE(S). PAYMENTS MAY BE AUTHORIZED FOR PARTIAL DELIVERY OF MULTIPLE VEHICLE ORDERS.
- 5.1 **WARRANTY:**
STANDARD WARRANTY AND OPERATOR'S MANUAL SHALL ACCOMPANY EACH VEHICLE. ALL WRITTEN WARRANTEES AND WARRANTY CARDS ARE TO BE FURNISHED IN THE GLOVE COMPARTMENT OF EACH VEHICLE DELIVERED.
- 5.2 **CERTIFICATION:**
A SIGNED COPY OF THE DEALER PRE-DELIVERY SERVICE CHECK SHEET AND A CERTIFICATE OF ORIGIN MUST ACCOMPANY EACH VEHICLE.
- 5.3 **BID COMPLIANCE:**
THE CONTRACTING VENDOR WILL BE SOLELY RESPONSIBLE FOR MEETING SPECIFICATION REQUIREMENTS, INCLUDING DELIVERY

**SAMPLE OF BID PRICING PAGE
36,000 # GVWR TRUCK CAB AND CHASSIS**

Description

NEW **2017** MODEL YEAR 36,000 # GVWR TRUCK CAB AND CHASSIS AS PER STATE OF NEW HAMPSHIRE SPECIFICATION #'S 2017-00 AND **2017-48** DOT

	\$ _____
ADD FOR OPTIONS:	
1. CAB TO AXLE DIMENSION 96"	\$ _____
2. CAB TO AXLE DIMENSION 108"	\$ _____
3. CAB TO AXLE DIMENSION 120"	\$ _____
4. HEATED WINDSHIELD	\$ _____

DEDUCT FOR OPTIONS:

1. REMOVE LEFT OR RIGHT FRONT DRIVER CONTROLLED OVERLOAD AIR BAG (\$ _____)
2. REMOVE SOFTWARE REQUIREMENT (\$ _____)

ENGINE TYPE _____

MANUFACTURER/MODEL _____

**SAMPLE OF BID PRICING PAGE
55,000 # GVWR TRUCK CAB AND CHASSIS**

Description

NEW **2017** MODEL YEAR 55,000 # GVWR TRUCK CAB AND CHASSIS AS PER STATE OF NEW HAMPSHIRE SPECIFICATION #'S 2017-00 AND **2017-50** DOT

ADD FOR UPGRADES / OPTIONS:

1. CAB TO AXLE DIMENSION 138"	\$ _____
2. CAB TO AXLE DIMENSION 150"	\$ _____
3. ENGINE UPGRADE ADDITIONAL CHARGE	\$ _____
4. HEATED WINDSHIELD	\$ _____

ADD FOR ENGINE UPGRADE OPTIONS

1. INTERNATIONAL N13, 450 HP @1,700 RPM, 1,550 FT LB @ 1,000 RPM,	\$ _____
2. CUMMINS ISX 15 450 HP @ 1,700 RPM, 1,650 FT LB @ 1,200 RPM	\$ _____
3. MACK MP3 MAXI DYNE 455 HP @ 1,500 RPM 1,650 FT LB @ 1,200 RPM	\$ _____
4. DETROIT DIESEL DD13 12.8L 450 HP @ 1800 RPM, 1,650 FT LB @ 1100 RPM	\$ _____
5. PACCAR 12.9L MX340, 455 HP @1700 RPM, 1650 FT LB @1000 RPM	\$ _____

ENGINE TYPE _____

MANUFACTURER/MODEL _____

DEDUCT FOR OPTIONS:

1. REMOVE LEFT OR RIGHT FRONT DRIVER CONTROLLED OVERLOAD AIR BAG (\$ _____)
2. REMOVE SOFTWARE REQUIREMENT (\$ _____)
3. ADD / DEDUCT FOR REQUESTED EQUIPMENT SUBSTITUTION PACKAGE

ADD: 1 EACH ALLISON HOSE KIT #329130-1X.
1 EACH MFG. CHELSEA PTO Model 890HAFJW-B5AF. \$ _____
1 EACH MFG PARKER Model #PGP330B197***AB20-98KPAB20-1 double sealed Tandem pump.
OR
1 EACH MFG PERMCO Model #P2100D086NGX12087AZA20-1 double sealed Tandem pump.

DEDUCT 1 EACH MFG CHELSEA WET SPLINE MODEL #277XBFJW-B5AF TO INCLUDE HOSE KIT #329130-1X TO INCLUDE HYDRAULIC PUMP PARKER PUMP # MODEL #324-9110-448, (PART OF STANDARD SPECIFICATION, SEE #55,000 SPEC – TRANSMISSION ** \$ _____ OR (\$ _____)

DELIVERY NOT TO EXCEED 150 CALENDAR DAYS ARO

STANDARD SPECIFICATION – 2017 TRUCK, CAB & CHASSIS –36,000 #

GROSS VEHICLE WEIGHT RATING MINIMUM 36,000 POUNDS

CAB

- CONVENTIONAL 3-POINT ACCESS CAB, ADDITIONAL GRAB HANDLE TO BE MOUNTED ON THE EXTERIOR OF DRIVER AND PASSENGER SIDE CAB CORNERS
- BUTTERFLY HOOD OR HATCHES TO ALL SERVICE POINTS
- STATIONARY GRILLE
- DUAL FACTORY INSTALLED 7" FENDER MOUNTED HEATED CONVEX MIRRORS
- ONE PIECE WINDSHIELD
- DRIVER AND PASSENGER DOOR OPERATING VENT WINDOWS OR FACTORY INSTALLED VENT SHADES
- CAB NOISE SUPPRESSION ON INSIDE OF FIREWALL AND ENGINE COMPARTMENT AND ADDITIONAL FRONT DIRECTIONAL TURN SIGNAL LIGHTS TO BE MOUNTED ON TOP OF OR IN FENDERS.
- INNER FENDER SPLASH GUARDS
- CAB SUSPENSION TO BE AIR BAG TYPE
- AUX. HEADLIGHT HARNESS SWITCHED IN CAB TO FRONT OF VEHICLE FOR PLOW LIGHTS & TURN SIGNALS CONSISTING OF THREE (3) EA. # 1157 BULBS ON EACH SIDE
- RUBBER FENDER EXTENSIONS
- OUTSIDE AIR / TEMPERATURE MONITOR
- WIPER FORCED TO INTERMITTENT WHEN SERVICE BRAKE IS APPLIED

CAB HEIGHT MINIMUM 59-1/2" (EXTERIOR FRAME TO TOP OF CAB)

CAB – AXLE DIMENSION 88" USABLE

BBC DIMENSION 107" – 110"

TRANSMISSION

- **ALLISON** AUTOMATIC – 3500 RDS, FIVE SPEED, PRE SELECT FOR SELECT ONE (1) GEAR DOWN VARIABLE COMPRESSION ENGINE BRAKE 3RD GEAR HOLD WITHOUT (LBSS) LOAD BASED SHIFT SCHEDULE
- RIGHT SIDE DASH MOUNTED TOUCH PAD CONTROL
- AUTO NEUTRAL WHEN PARKING BRAKE IS APPLIED
- INTEGRAL OIL LEVEL SENSOR
- TES 295 APPROVED SYNTHETIC FLUID
- EXTENDED TRANSMISSION WARRANTY COVERAGE- PARTS, LABOR AND TOWING FOR FIVE (5) YEARS, UNLIMITED MILEAGE FROM IN-SERVICE DATE (DETERMINED BY STATE)
- AUXILIARY COOLING

PTO AND PUMP

- ALSO INCLUDED: DRIVERS SIDE INSTALLED CHELSEA WET SPLINE PTO MODEL #277XGFJW-B5AF TO INCLUDE HOSE KIT #329130-1 AND A HYDRAULIC PUMP THAT SHALL BE A PARKER MODEL #324-9110-448
- A FACTORY IN DASH ILLUMINATED SWITCH SHALL BE INSTALLED, LABELED "PTO". THE SOURCE OF THE POWER SHALL BE THROUGH THE VEHICLE'S BODY CONTROLLER

COOLING

- HEAVY DUTY WITH LONG LIFE ANTIFREEZE AND A COOLANT RECOVERY TANK
- AIR CONDITIONING TO BE FACTORY INSTALLED

BATTERY & ALTERNATOR

- THREE (3) -BATTERIES EACH HAVING 180 AMP HOUR RATING (9N COMBINATION) WITH 2,775 CCA, LOCATION DETERMINED BY STATE
- DELCO 24 SI OR LEECE-NEVILLE 160 AMP ALTERNATOR
- BATTERY BOX MOUNTED FOR CLEAN C.A. IF AVAILABLE

BRAKES

- POWER - ABS, ALL WHEEL, AIR BRAKES, CAM
- AIR BRAKE PROVISIONS TO REAR OF CHASSIS
- COMPRESSOR CAPACITY (13 CUBIC FT. MIN.)
- AUTOMATIC SLACK ADJUSTERS FRONT AND REAR
- ANCHORLOCK PARKING BRAKE (OR EQUIVALENT), MGM BRAND, MERITOR OR BENDIX SEALED LONG STROKE CHAMBERS WITH STAINLESS STEEL PINS
- ADIP AIR DRYER LOCATED ON OUTSIDE OF FRAME LOCATION DETERMINED BY STATE
- DUST SHIELDS – ALL WHEELS

ENGINE – DIESEL

- INTERNATIONAL N9 300 HP @ 2,000 RPM, 860 FT LB @ 1,200 RPM
- CUMMINS ISL 8.9 300 HP @ 2,200 RPM, 860 FT LB @ 1,300 RPM
- PACCAR PX-9 300 HP @ 2200 RPM, 860 FT LB @ 1400 RPM
- SHALL INCLUDE ENGINE BRAKE
- FUEL/ WATER SEPARATOR LOCATED ON OUTSIDE OF FRAME OR UNDER HOOD
- FUEL FILTER
- ENGINE BLOCK HEATER
- 2 POSITION PROGRAMMABLE STEP UP THROTTLE (PRE-SET AT 1,000 RPM & 1,200 RPM)
- AUDIBLE ALARM
- STEEL, CAST ALUMINUM OR A COMPOSITE SUMP OIL PAN
- DEF TANK MIN SIX (6) GALLON, LOCATION TO BE DETERMINED BY STATE.

EXTENDED ENGINE WARRANTY

- A FIVE (5) YEAR, OR 6,000 HOUR 100% PARTS, LABOR AND TOWING WARRANTY SHALL COVER COMPUTERS, MODULES, ELECTRICAL CONNECTIONS, CONNECTORS, WIRING HARNESSSES, INJECTORS, INJECTOR LINES, TURBOS, WATER PUMPS, FUEL FILTER ASSY, STARTERS, CLUTCH FANS, ALTERNATORS, OIL AND FUEL PRESSURE PUMPS, OIL AND WATER SEALS, ALL ENGINE MECHANICAL PARTS AND EMISSION RELATED COMPONENTS. MAINTENANCE COMPONENTS SUCH AS BELTS, HOSES AND FILTERS ARE EXCLUDED. WARRANTIES TO BEGIN ON THE IN-SERVICE DATE OF THE CHASSIS AS DEFINED BY THE STATE.

EXTENDED BASE CHASSIS WARRANTY

- A FIVE (5) YEAR OR 100,000 MILE CHASSIS WARRANTY SHALL CONSIST OF BUT NOT LIMITED TO
- CLIMATE CONTROL SYSTEM COVERING THE HEAT AND AC SYSTEM, ELECTRICAL COMPONENTS, LINES WIRING, AMBIENT AIR TEMPERATURE SENSOR, AND RECEIVER DRYER.
- COOLING SYSTEM
- SUSPENSION FRONT AND REAR
- STEERING SYSTEM
- STARTER & ALTERNATOR
- DRIVELINES
- CHASSIS WIRING AND CONNECTORS
- GAUGES AND SWITCHES
- CHARGE AIR COOLER
- AIR SYSTEM
- BRAKING SYSTEM
- INTERIOR COMPONENTS
- FACTORY INSTALLED ACCESSORIES

STEERING

- HYDRAULIC POWER STEERING WITH DUAL STEERING BOXES
- STEERING WHEEL DIAMETER MINIMUM 16" WITH TILT ADJUSTABLE COLUMN

ELECTRICAL

- ALL ELECTRONIC CONTROLLERS, EXCEPT ENGINE ECM AND THE TRANSMISSION CONTROL MODULE, TO BE LOCATED IN THE CAB AND NOT TO INTERFERE WITH SPACE BETWEEN SEATS,
- SINGLE HARNESS IN TRUCK FOR VEHICLE SPEED AND GROUND SPEED SENSING.
- AUX. PARK BRAKE ALARM
- HEADLIGHTS ON W/WIPERS
- CB RADIO PREP PACKAGE WITH 2 FT. SPRING MOUNTED ANTENNA (S)
- 12V ACCESSORY PORT
- PRE-WIRED CIRCUIT FOR ELECTRIC TRAILER BRAKES
- SEVEN WIRE HARNESS TO REAR OF FRAME FOR A TWO (2) LIGHT (COMBINATION STOP/TURN/TAIL) SYSTEM WITH A PACKARD CONNECTOR #12124685 & #12124686 INSTALLED AND A SUPPLIED PHILLIPS STA-DRY PLUG ASSY PART # 48NA33-036

ELECTRICAL-CONTINUED

- A MINIMUM OF SIX OPTIONAL IN-DASH SWITCHES WITH INDICATOR LIGHTS SHALL BE PROVIDED, KEY POWERED AND TERMINATING @ FIREWALL ARRANGED AND LABELED IN THE FOLLOWING CONFIGURATION. FIVE SWITCHES SHALL BE ARRANGED AND MARKED "PTO", "SPREADER LIGHT", "LEFT SPREADER LIGHT", "RIGHT SPREADER LIGHT", "PTO OVERRIDE SWITCH", ONE SWITCH MARKED SPARE. TWO INDICATOR LIGHTS SHALL BE PROVIDED FOR THE "BODY UP (RED)", "HYDRAULIC LOW OIL AND "HI-TEMPERATURE SHUTDOWN (RED)".

CHASSIS MANUFACTURING ON SITE SUPPORT**SPREADER LIGHT**

1. DEPRESSED, IF THE SWITCH IS ACTIVATED AND THE OUTPUT IS GOOD THE GREEN INDICATOR LIGHT IN THE SWITCH WILL ILLUMINATE STEADY ON.
2. IF THE SWITCH IS ACTIVATED AND THE OUTPUT IS BAD THE GREEN INDICATOR LIGHT IN THE SWITCH WILL FLASH. THE OUTPUT IS TIED TO THE EXTERIOR LAMP CHECK. WHEN THE EXTERIOR LAMP CHECK IS REQUESTED THIS OUTPUT WILL BE ON.

LOW OIL INDICATOR

1. TO GIVE THE OPERATOR A WARNING THE HYDRAULIC OIL IS LOW.
2. THE BODY COMPANY WILL PROVIDE A GROUND SIGNAL TO THE REMOTE POWER MODULE (RPM). WHEN THIS SIGNAL IS RECEIVED THE CLUSTER BEEP WILL SOUND AND THE RED LIGHT IN THE DASH WILL BE ON STEADY INDICATING LOW OIL IN THE RESERVOIR.
3. WHEN THE HYDRAULIC OIL IS HIGH IN TEMPERATURE OVER 200 DEGREE FAHRENHEIT THE SAME OIL INDICATOR LIGHT WILL FLASH QUICKLY AND SHUT DOWN THE PTO AT A PRE-DETERMINED TIME.

PTO

1. WHEN THE SWITCH IS ACTIVATED THE LETTERS PTO LIGHT UP IN THE INSTRUMENT CLUSTER ALERTING THE OPERATOR THAT THE PTO IS ON. PTO ACTIVATION REQUIRES THE ENGINE SPEED TO BE LESS THAN 900RPM NO OTHER ENGAGEMENT CONDITIONS ARE REQUIRED.
2. THE PTO WILL AUTOMATICALLY DIS-ENGAGE IF ANY OF THE FOLLOWING ARE ACTIVE
3. PTO SWITCH IS OFF
4. LOW OIL INPUT SIGNAL ACTIVE
5. ENGINE SPEED IS GREATER THAN 2500 RPM
6. IGNITION KEY IS OFF
7. HI-TEMP IS ACTIVE AND THE TIMER HAS EXPIRED. IT HAS A LOW OIL SHUTDOWN FEATURE BUILT INTO IT THAT WHEN THE OIL LEVEL INDICATOR IS ACTIVATED IT AUTOMATICALLY SHUTS OFF THE PTO. THERE IS AN OVERRIDE SWITCH LOCATED IN THE DASH. THIS IS WILL BE A MOMENTARY OVER RIDE SWITCH. THE OVERRIDE SWITCH WILL ALLOW FOR PTO OPERATION AS LONG AS THE SWITCH IS HELD DOWN. THE OVERRIDE FUNCTION WILL ONLY WORK ONCE. TO ALLOW THE OVERRIDE FUNCTION A SECOND TIME THE KEY MUST BE CYCLED.

FAULT DETECTION MANAGEMENT

1. THE FAULT DETECTION MANAGEMENT FOR THE PTO SWITCH IS AN INDICATOR LIGHT BUILT INTO THE SWITCH IT WILL FLASH FAST GREEN WHEN THERE IS A FAULT WITH THE PTO OUTPUT. THE VIRTUAL FUSING IS SET FOR 20 AMPS.

REAR STROBES

1. THE REQUIREMENT IS THAT THE REAR STROBE LIGHTS BE OFF WHEN THE RIGHT OR LEFT TURN SIGNALS ARE ACTIVE. THE STROBE LIGHTS ARE CONTROLLED BY THE WHELEN MODULE. WHEN THE RIGHT OR LEFT TURN SIGNAL IS ACTIVE THE OUTPUT TO THE STROBES IS CANCELED. THE FUNCTION WORKS WITH KEY ON OR OFF.

BODY UP

1. A GROUND SIGNAL WILL BE RETURNED TO THE RPM FROM A CUSTOMER INSTALLED SWITCH ON THE BODY DETERMINED BY THE STATE. WHEN THE GROUND SIGNAL IS TRUE THE RED INDICATOR LIGHT IN THE CENTER PANEL WILL ILLUMINATE. IF THE SIGNAL IS TRUE AND THE VEHICLE SPEED REACHES 5MPH THE CLUSTER BEEPER WILL SOUND ALERTING THE OPERATOR THAT THE BODY IS STILL UP.

BACK UP CAMERA

1. KEY IGNITION POWERED.
2. WHEN THE VEHICLE IS ENGAGED INTO REVERSE THE CAMERA WILL AUTOMATICALLY ACTIVATE AND TURN ON. WHEN PUT INTO DRIVE THE CAMERA WILL AUTOMATICALLY TURN OFF UNLESS YOU HAVE POWERED THE MONITOR ON MANUALLY.

SUSPENSION**FRONT AXLE**

- 16,000 # WITH WET TYPE OIL SEALS

FRONT SPRINGS

- 16,000 # COMBINED RATING @ GROUND, MULTI-LEAF, SEMI-ELLIPTIC
- NOTE: IF SETBACK FRONT AXLE IS OFFERED, ADD 2,000 # TO MAIN SPRING/AXLE GROUND RATING
- RIGHT OR LEFT FRONT (AS SPECIFIED) DRIVER CONTROLLED AIR BAG OVERLOAD

REAR AXLE

- 23,000 # EATON, MERITOR OR SPICER, MINIMUM 18" RING GEAR
- DRIVER CONTROLLED LOCKING DIFFERENTIAL
- SINGLE SPEED AXLE (RATIO TO BE DETERMINED BY USING AGENCY)

REAR SPRINGS

- 30,000 # TOTAL COMBINED RATING @ GROUND, INCLUDES REAR MAIN MULTI LEAF, AND 2,250 # AUXILIARY SPRINGS

DRIVELINE

- SPICER SERIES 1710 SERIES

TIRES: TYPE, WHEEL/TIRE SIZE

- SIX (6) – HEAVY DUTY ACCURIDE 24.5" X 8.25", POWDER COATED STEEL, HUB PILOTED, 0.472" DISC WHEELS WITH GUARDS FRONT & REAR
- SIX (6) – 11R24.5 (H) TUBELESS RADIALS
- WHEEL WRENCH AND HANDLE

ACCEPTABLE BRAND TIRES**FRONT**

- GOODYEAR G287 MSA, GOODYEAR G751 MSA OR MICHELIN XZY-3

REAR

- GOODYEAR G282 MSD OR MICHELIN XDS-2

FRAME

- HEAT TREATED ALLOY STEEL FRAME WITH MINIMUM YIELD STRENGTH OF 120,000 PSI AND MINIMUM SECTION MODULUS OF 20.6
- 1 PIECE, FULL DEPTH FRAME TO EXTEND A MINIMUM OF 12" BEYOND FRONT OF GRILLE.
- AF-MINIMUM 48"
- EXCLUDING FUEL TANK INTRUSION, BOTH OUTSIDE FRAME RAILS TO BE FREE OF OBSTRUCTIONS FOR TWENTY FOUR (24) INCHES BEHIND THE CAB TO ALLOW ROOM FOR MOUNTING A WING CABINET NO CROSSMEMBER IN SAME TWENTY FOUR INCH (24") AREA.
- MINIMAL OBSTRUCTIONS FOR NEXT THIRTY (30) INCHES FOR PIPE BRACES

INSTRUMENTS/CONTROLS

- SPEEDOMETER, TACHOMETER, AMMETER/VOLT-METER, FUEL GAUGE (S), OIL PRESSURE GAUGE, TEMPERATURE GAUGE AND AIR PRESSURE GAUGE
- ALL NECESSARY ELECTRICAL SWITCHES
- HOUR METER, ACTUATED BY ENGINE OPERATION
- DASH MOUNTED AIR RESTRICTION INDICATOR

FUEL SUPPLY

- STAINLESS STEEL OR ALUMINUM TANK WITH STAINLESS STEEL STRAPS HAVING A MINIMUM CAPACITY OF 70 GALLONS
- STEP TYPE FUEL TANK. NOT TO EXCEED 8" BEYOND REAR OF CAB

EXHAUST SYSTEM

- HORIZONTAL, VERTICAL (OR COMBINATION) MUFFLER SYSTEM SHALL BE CONFIGURED NOT TO INTERFERE WITH PTO'S OR HYDRAULIC CABLES.
- STACK (INCLUDING 90 DEGREE TURN OUT) MUST NOT EXTEND ABOVE TOP OF CAB. AND NOT TO EXCEED 4" BEYOND REAR OF CAB

PAINT

- CLEAR COAT OMAHA ORANGE (SAME AS DUPONT DULUX 93-082) LEAD FREE
- NOTE: SEE INDEPENDENT PAINT TESTING REQUIREMENTS AS PART OF THIS SPECIFICATION

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RADIO/SPEAKERS (FACTORY)

- AM/FM WITH WEATHER BAND

SEATS-DRIVER/PASSENGER

- BUCKET, AIR SUSPENSION, HIGH BACK, HEAD REST, DRIVER'S ARM REST (RH) (NATIONAL CUSHION-AIRE OR EQUAL), HD CLOTH MORDURA, MILLIKEN (NGV) OR EQUAL.

FLOOR COVER

- VINYL WITH FACTORY RUBBER AUXILIARY MATS

LIGHTING, REQUIRED

- DAYTIME RUNNING, PRE-TRIP INSPECTION LIGHT TEST

MIRRORS, OUTSIDE RIGHT AND LEFT

- HEATED 6" X 15" EXTENDING TO 96" WITH A HEATED 7" CONVEX MIRROR
- PASSENGER SIDE "LOOK DOWN" CONVEX MIRROR

BUMPERS -FRONT

- NONE REQUIRED

BACK UP ALARM

- ELECTRIC

HORNS

- AIR AND ELECTRIC – DUAL NOTE, BOTH MOUNTED UNDER CAB

TOW PACKAGE

- TRAILER TOW PACKAGE SHALL BE PROVIDED AND INCLUDE TRAILER LIGHT PACKAGE, HAND OPERATED CONTROL VALVE, AND AIR LINES TO REAR OF FRAME

SOFTWARE

- DIAGNOSTIC SOFTWARE AND ALL REQUIRED LAPTOP COMPUTER CABLES AND OR CONNECTIONS FOR DIAGNOSIS OF ENGINE (INCLUDING KEY ON AND KEY OFF TEST, CYLINDER CUT OUT TEST, INJECTOR DISABLE TEST), CHASSIS & ELECTRICAL SYSTEM, AND ABS SYSTEM. LATEST VERSION OF ALLISON TRANSMISSION SOFTWARE SHALL BE PROVIDED FOR PROGRAMMING WITH ONE DAY ON SITE (DOT) PROGRAMMING INSTRUCTION.
- ALL SOFTWARE TO INCLUDE FREE UPDATES AND RENEWALS OF ALL SUBSCRIPTIONS FOR A PERIOD OF TEN (10) YEARS BEYOND MODEL YEAR. THIS SPECIFICATION SHALL REQUIRE A QUANTITY OF NINE (9 EACH) COMPLETE SETS OF THE ABOVE SOFTWARE BE SUPPLIED AND DELIVERED TO NHDOT MECHANICAL SERVICES AS PART OF THIS SOLICITATION AND INCLUDED IN THE UNIT COST.

SYSTEMS CALIBRATIONS

UPON FINAL AWARD, THE SUCCESSFUL VENDOR WILL PRESENT A COMPLETE LIST OF DEFAULT ENGINE, ELECTRICAL, FUEL AND TRANSMISSION SYSTEM CALIBRATIONS FOR REVIEW AND ADJUSTMENT WITH THE END USER

SERVICE AND PARTS MANUALS

- FOR THE LIFE OF THE VEHICLE (S), THE AWARDED BIDDER SHALL PROVIDE WEB BASED ACCESS TO ALL TRUCK-SPECIFIC SERVICE MANUALS, TECHNICAL SPECIFICATIONS AND PARTS CATALOGS FOR A MINIMUM OF NINE (9) NHDOT VEHICLE MAINTENANCE LOCATIONS.

APPLICATION: THIS SPECIFICATION COVERS THE STATE OF NEW HAMPSHIRE'S MINIMUM REQUIREMENT FOR A VOCATIONAL CAB & CHASSIS, INTENDED FOR THE SOLE PURPOSE OF PLOWING, SANDING AND OTHER HIGHWAY MAINTENANCE OPERATIONS. TO FACILITATE THE MOUNTING OF PLOW EQUIPMENT, AMPLE SPACE MUST BE AVAILABLE FOR LEFT AND RIGHT POWER TAKE OFFS. CLEAR SPACE BENEATH AND TO THE REAR OF THE CAB FOR HYDRAULIC CABLES AND WING CABINET. ALL EXPOSED CONNECTIONS SHALL BE SEALED AND 100% WATER TIGHT. THE MANUFACTURER WILL BE SOLELY RESPONSIBLE FOR MEETING THIS REQUIREMENT.

STANDARD SPECIFICATION –2017 TRUCK, CAB & CHASSIS –55,000 #

GROSS VEHICLE WEIGHT RATING MINIMUM 55,000 POUNDS

CAB

- CONVENTIONAL 3-POINT ACCESS CAB, ADDITIONAL GRAB HANDLE TO BE MOUNTED ON THE EXTERIOR OF DRIVER AND PASSENGER SIDE CAB CORNERS
- BUTTERFLY HOOD OR HATCHES TO ALL SERVICE POINTS
- STATIONARY GRILLE
- DUAL FACTORY INSTALLED 7" FENDER MOUNTED HEATED CONVEX MIRRORS
- ONE PIECE WINDSHIELD
- DRIVER AND PASSENGER DOOR OPERATING VENT WINDOWS OR FACTORY INSTALLED VENT SHADES
- CAB NOISE SUPPRESSION ON INSIDE OF FIREWALL AND ENGINE COMPARTMENT
- ADDITIONAL FRONT DIRECTIONAL TURN SIGNAL LIGHTS TO BE MOUNTED ON TOP OF OR IN FENDERS
- INNER FENDER SPLASH GUARDS
- CAB SUSPENSION TO BE AIR BAG TYPE.
- AUX. HEADLIGHT HARNESS SWITCHED IN CAB TO FRONT OF VEHICLE FOR PLOW LIGHTS & TURN SIGNALS CONSISTING OF THREE (3) EA. # 1157 BULBS ON EACH SIDE
- RUBBER FENDER EXTENSIONS
- OUTSIDE AIR / TEMPERATURE MONITOR
- WIPER FORCED TO INTERMITTENT WHEN SERVICE BRAKE IS APPLIED

CAB HEIGHT MINIMUM 59-1/2" (EXTERIOR FRAME TO TOP OF CAB)

CAB – TRUNION DIMENSION MINIMUM 120" TO MAX 126"

BBC DIMENSIONS MINIMUM 105" TO MAX 117"

TRANSMISSION

- ALLISON AUTOMATIC – 4500 RDS, SIX SPEED, PRE SELECT FOR SELECT ONE (1) GEAR DOWN VARIABLE COMPRESSION ENGINE BRAKE 3RD GEAR HOLD WITHOUT (LBSS) LOAD BASED SHIFT SCHEDULE
- RIGHT SIDE DASH MOUNTED TOUCH PAD CONTROL
- AUTO NEUTRAL WHEN PARKING BRAKE IS APPLIED
- INTEGRAL OIL LEVEL SENSOR
- TES 295 APPROVED SYNTHETIC FLUID
- EXTENDED TRANSMISSION WARRANTY COVERAGE- PARTS, LABOR AND TOWING FOR FIVE (5) YEARS, UNLIMITED MILEAGE FROM IN-SERVICE DATE (DETERMINED BY STATE)
- AUXILIARY COOLING

PTO AND PUMP

- ALSO INCLUDED: DRIVERS SIDE INSTALLED CHELSEA WET SPLINE PTO MODEL #277XBFJW-B5AF TO INCLUDE HOSE KIT #329130-1X AND A HYDRAULIC PUMP THAT SHALL BE A PARKER PUMP # MODEL #324-9110-448
- A FACTORY IN DASH ILLUMINATED SWITCH SHALL BE INSTALLED, LABELED "PTO". THE SOURCE OF POWER SHALL BE THROUGH THE VEHICLE'S BODY CONTROLLER

COOLING

- HEAVY DUTY WITH LONG LIFE ANTIFREEZE AND A COOLANT RECOVERY TANK
- AIR CONDITIONING TO BE FACTORY INSTALLED

BATTERY & ALTERNATOR

- THREE (3), 12-VOLT-BATTERIES EACH HAVING 180 AMP HOUR RATING WITH 2775 CCA
- DELCO 28 SI , BOSCH LH160, OR LEECE-NEVILLE 160 AMP ALTERNATOR WITH MINIMUM 25 AMP OUT @ 1,250 ALTERNATOR RPM
- BATTERY BOX MOUNTED FOR CLEAN C.A. IF AVAILABLE OR LOCATION TO BE DETERMINED BY STATE.

BRAKES

- POWER - ABS, ALL WHEEL, AIR BRAKES, CAM
- AIR BRAKE PROVISIONS TO REAR OF CHASSIS
- COMPRESSOR CAPACITY (13 CUBIC FT. MIN.)
- AUTOMATIC SLACK ADJUSTERS FRONT AND REAR

- ANCHORLOCK PARKING BRAKE (OR EQUIVALENT), MGM BRAND, BENDIX OR HALDEX SEALED LONG STROKE CHAMBERS WITH STAINLESS STEEL PINS
- ADIP AIR DRYER LOCATED ON OUTSIDE OF FRAME LOCATION DETERMINED BY STATE
- DUST SHIELDS – ALL WHEELS

ENGINE – DIESEL

- INTERNATIONAL N13L, 410 HP @1,700 RPM, 1,450 FT LB @ 1,000 RPM
- CUMMINS ISX 12L, 400 HP @ 2,100 RPM, 1,450 FT LB @ 1,200 RPM
- MACK MP7- 405M MAXIDYNE, 405 HP @ 1,500 RPM 1,480 FT LB @ 1,200 RPM
- DETROIT DIESEL DD13, 12.8L, 410 HP @ 1,625 RPM, 1,550 FT LB @ 975 RPM
- PACCAR MX,13.0L, 405 HP @1900 RPM, 1450 FT LB @ 1100 RPM
- VARIABLE COMPRESSION ENGINE BRAKE
- FUEL/WATER SEPARATOR LOCATED ON OUTSIDE OF FRAME OR UNDER HOOD
- FUEL FILTER
- ENGINE BLOCK HEATER
- 2 POSITION PROGRAMMABLE STEP UP THROTTLE (PRE-SET AT 1,000 RPM & 1,200 RPM)
- AUDIBLE ALARM
- STEEL, CAST ALUMINUM OR A COMPOSITE SUMP OIL PAN
- DEF TANK MIN SIX (6) GALLON, LOCATION TO BE DETERMINED BY STATE.

EXTENDED ENGINE WARRANTY

- A SEVEN (7) YEAR, OR 8,000 HOUR 100% PARTS, LABOR AND 5 YEAR TOWING WARRANTY SHALL COVER COMPUTERS, MODULES, ELECTRICAL CONNECTIONS, CONNECTORS, WIRING HARNESSSES, INJECTORS, INJECTOR LINES, TURBOS, FUEL FILTER ASSY, WATER PUMPS, STARTERS, CLUTCH FANS, ALTERNATORS, OIL AND FUEL PRESSURE PUMPS, OIL AND WATER SEALS, ALL ENGINE MECHANICAL PARTS AND EMISSION RELATED COMPONENTS. MAINTENANCE COMPONENTS SUCH AS BELTS, HOSES AND FILTERS ARE EXCLUDED. WARRANTIES TO BEGIN ON THE IN-SERVICE DATE OF THE CHASSIS AS DEFINED BY THE STATE.

EXTENDED BASE CHASSIS WARRANTY

- A SEVEN (7) YEAR OR 150,000 MILE CHASSIS WARRANTY SHALL CONSIST OF BUT NOT LIMITED TO
- CLIMATE CONTROL SYSTEM COVERING THE HEAT AND AC SYSTEM, ELECTRICAL COMPONENTS, LINES WIRING, AMBIENT AIR TEMPERATURE SENSOR, AND RECEIVER DRYER.
- COOLING SYSTEM
- SUSPENSION FRONT AND REAR
- STEERING SYSTEM
- STARTER & ALTERNATOR
- DRIVELINES
- CHASSIS WIRING AND CONNECTORS
- GAUGES AND SWITCHES
- CHARGE AIR COOLER
- AIR SYSTEM
- BRAKING SYSTEM
- INTERIOR COMPONENTS
- FACTORY INSTALLED ACCESSORIES

STEERING

- HYDRAULIC POWER STEERING WITH DUAL STEERING BOXES
- STEERING WHEEL DIAMETER MINIMUM 18" WITH TILT ADJUSTABLE COLUMN

ELECTRICAL

- ALL ELECTRONIC CONTROLLERS, EXCEPT ENGINE ECM AND THE TRANSMISSION CONTROL MODULE, TO BE LOCATED IN THE CAB AND NOT TO INTERFERE WITH SPACE BETWEEN SEATS
- SINGLE HARNESS IN TRUCK FOR VEHICLE SPEED AND GROUND SPEED SENSING
- A MINIMUM OF SIX OPTIONAL IN-DASH SWITCHES AND INDICATOR LIGHTS, KEY POWERED, TERMINATING @ FIREWALL ARRANGED AND LABELED IN THE FOLLOWING CONFIGURATION "PTO", "SPREADER LIGHT", "RIGHT SPREADER LIGHT", "BODY UP LIGHT (RED)", "HYDRAULIC SHUTDOWN (RED)", "PTO OVERRIDE SWITCH".
- AUX PARK BRAKE ALARM
- HEADLIGHTS ON W/WIPERS
- CB RADIO PREP PACKAGE WITH 2 FT. SPRING MOUNTED ANTENNA (S)
- 12V ACCESSORY PORT. PRE-WIRED CIRCUIT FOR ELECTRIC TRAILER BRAKES

- SEVEN WIRE HARNESS TO REAR OF FRAME FOR A FOUR (4) LIGHT (ALL RUNNING LIGHTS WITH SEPARATE STOP AND TURN SIGNAL) SYSTEM WITH A PACKARD CONNECTOR #12124685 & #12124686 INSTALLED AND A SUPPLIED PHILLIPS STA-DRY PLUG ASSY PART # 48NA33-036

CHASSIS MANUFACTURING ON SITE SUPPORT

SPREADER LIGHT

1. DEPRESSED, IF THE SWITCH IS ACTIVATED AND THE OUTPUT IS GOOD THE GREEN INDICATOR LIGHT IN THE SWITCH WILL ILLUMINATE STEADY ON.
2. IF THE SWITCH IS ACTIVATED AND THE OUTPUT IS BAD THE GREEN INDICATOR LIGHT IN THE SWITCH WILL FLASH. THE OUTPUT IS TIED TO THE EXTERIOR LAMP CHECK. WHEN THE EXTERIOR LAMP CHECK IS REQUESTED THIS OUTPUT WILL BE ON.

LOW OIL INDICATOR

1. TO GIVE THE OPERATOR A WARNING THE HYDRAULIC OIL IS LOW.
2. THE BODY COMPANY WILL PROVIDE A GROUND SIGNAL TO THE REMOTE POWER MODULE (RPM). WHEN THIS SIGNAL IS RECEIVED THE CLUSTER BEEP WILL SOUND AND THE RED LIGHT IN THE DASH WILL BE ON STEADY INDICATING LOW OIL IN THE RESERVOIR.
3. WHEN THE HYDRAULIC OIL IS HIGH IN TEMPERATURE OVER 200 DEGREE FAHRENHEIT THE SAME OIL INDICATOR LIGHT WILL FLASH QUICKLY AND SHUT DOWN THE PTO AT A PRE-DETERMINED TIME.

PTO

1. WHEN THE SWITCH IS ACTIVATED THE LETTERS PTO LIGHT UP IN THE INSTRUMENT CLUSTER ALERTING THE OPERATOR THAT THE PTO IS ON. PTO ACTIVATION REQUIRES THE ENGINE SPEED TO BE LESS THAN 900RPM NO OTHER ENGAGEMENT CONDITIONS ARE REQUIRED.
2. THE PTO WILL AUTOMATICALLY DIS-ENGAGE IF ANY OF THE FOLLOWING ARE ACTIVE
3. PTO SWITCH IS OFF
4. LOW OIL INPUT SIGNAL ACTIVE
5. ENGINE SPEED IS GREATER THAN 2500 RPM
6. IGNITION KEY IS OFF
7. HI-TEMP IS ACTIVE AND THE TIMER HAS EXPIRED. IT HAS A LOW OIL SHUTDOWN FEATURE BUILT INTO IT THAT WHEN THE OIL LEVEL INDICATOR IS ACTIVATED IT AUTOMATICALLY SHUTS OFF THE PTO. THERE IS AN OVERRIDE SWITCH LOCATED IN THE DASH. THIS IS WILL BE A MOMENTARY OVER RIDE SWITCH. THE OVERRIDE SWITCH WILL ALLOW FOR PTO OPERATION AS LONG AS THE SWITCH IS HELD DOWN. THE OVERRIDE FUNCTION WILL ONLY WORK ONCE. TO ALLOW THE OVERRIDE FUNCTION A SECOND TIME THE KEY MUST BE CYCLED.

FAULT DETECTION MANAGEMENT

1. THE FAULT DETECTION MANAGEMENT FOR THE PTO SWITCH IS AN INDICATOR LIGHT BUILT INTO THE SWITCH IT WILL FLASH FAST GREEN WHEN THERE IS A FAULT WITH THE PTO OUTPUT. THE VIRTUAL FUSING IS SET FOR 20 AMPS.

REAR STROBES

1. THE REQUIREMENT IS THAT THE REAR STROBE LIGHTS BE OFF WHEN THE RIGHT OR LEFT TURN SIGNALS ARE ACTIVE. THE STROBE LIGHTS ARE CONTROLLED BY THE WHELEN MODULE. WHEN THE RIGHT OR LEFT TURN SIGNAL IS ACTIVE THE OUTPUT TO THE STROBES IS CANCELED. THE FUNCTION WORKS WITH KEY ON OR OFF.

BODY UP

1. A GROUND SIGNAL WILL BE RETURNED TO THE RPM FROM A CUSTOMER INSTALLED SWITCH ON THE BODY DETERMINED BY THE STATE. WHEN THE GROUND SIGNAL IS TRUE THE RED INDICATOR LIGHT IN THE CENTER PANEL WILL ILLUMINATE. IF THE SIGNAL IS TRUE AND THE VEHICLE SPEED REACHES 5MPH THE CLUSTER BEEPER WILL SOUND ALERTING THE OPERATOR THAT THE BODY IS STILL UP.

BACK UP CAMERA

1. KEY IGNITION POWERED.
2. WHEN THE VEHICLE IS ENGAGED INTO REVERSE THE CAMERA WILL AUTOMATICALLY ACTIVATE AND TURN ON. WHEN PUT INTO DRIVE THE CAMERA WILL AUTOMATICALLY TURN OFF UNLESS YOU HAVE POWERED THE MONITOR ON MANUALLY.

SUSPENSION

FRONT AXLE

- 20,000 # WITH WET TYPE OIL SEALS

FRONT SPRINGS

- 20,000 # COMBINED RATING @ GROUND, MULTI-LEAF SEMI-ELLIPTIC

REAR AXLE

- 46,000 # DANA DD463P, MERITOR RT46-160P, MACK S462 AXLES (RATIO TO BE DETERMINED BY USING AGENCY) HENDRICKSON HMX-460-54 SUSPENSION
- MANUALLY CONTROLLED INTER-AXLE POWER DIVIDER LOCKOUT SHALL BE FURNISHED WITH EATON, MERITOR OR MACK AXLES
- WARNING LIGHT TO BE PROVIDED TO INDICATE LOCKOUT ENGAGEMENT
- REARWARD TANDEM, DRIVER CONTROLLED DIFFERENTIAL LOCK .

TIRES: TYPE, WHEEL/TIRE SIZE

- TEN (10) – HEAVY DUTY ACCURIDE 24.5" X 8.25", POWDER COATED STEEL, HUB PILOTED, 0.472" DISC WHEELS WITH GUARDS F&R
- TEN (10) 11R24.5(H) TUBELESS RADIALS
- WHEEL WRENCH AND HANDLE

ACCEPTABLE BRAND TIRES**FRONT**

- GOODYEAR G287 MSA, GOODYEAR G751 MSA OR MICHELIN XZY-3

REAR

- GOODYEAR G282 MSD OR MICHELIN XDS-2

FRAME

- HEAT TREATED ALLOY STEEL FRAME WITH MINIMUM YIELD STRENGTH OF 120,000 PSI AND MINIMUM SECTION MODULUS OF 20.6.
- 1 PIECE FULL DEPTH FRAME TO EXTEND A MINIMUM OF 12" BEYOND FRONT OF GRILLE
- AF-MINIMUM 48"
- EXCLUDING FUEL TANK INTRUSION, BOTH OUTSIDE FRAME RAILS TO BE FREE OF OBSTRUCTIONS FOR TWENTY FOUR (24) INCHES BEHIND THE CAB TO ALLOW ROOM FOR MOUNTING A WING CABINET NO CROSS MEMBER IN SAME TWENTY FOUR INCH (24") SPACE
- MINIMAL OBSTRUCTIONS FOR THE NEXT THIRTY (30) INCHES FOR PIPE BRACES

INSTRUMENTS/CONTROLS

- SPEEDOMETER, TACHOMETER, AMMETER/VOLT-METER, FUEL GAUGE (S), OIL PRESSURE GAUGE, TEMPERATURE GAUGE, AIR PRESSURE GAUGE WITH LOW PRESSURE WARNING
- ALL NECESSARY ELECTRICAL SWITCHES
- HOUR METER ACTUATED BY ENGINE OPERATION
- DASH MOUNTED AIR RESTRICTION INDICATOR

FUEL SUPPLY

- STAINLESS STEEL OR ALUMINUM TANK WITH STAINLESS STEEL STRAPS HAVING A MINIMUM CAPACITY OF 80 GALLON
- STEP TYPE FUEL TANK. NOT TO EXCEED 8" BEYOND REAR OF CAB

EXHAUST SYSTEM

- HORIZONTAL, VERTICAL (OR COMBINATION) MUFFLER SYSTEM SHALL BE CONFIGURED NOT TO INTERFERE WITH PTO'S OR HYDRAULIC CABLES
- STACK (INCLUDING 90 DEGREE TURN OUT) MUST NOT EXTEND ABOVE TOP OF CAB AND NOT TO EXCEED 4" BEYOND REAR OF CAB

PAINT

- CLEAR COAT OMAHA ORANGE (DUPONT DULUX 93-082 OR EQUIVALENT) LEAD FREE
- NOTE: SEE INDEPENDENT PAINT TESTING REQUIREMENTS AS PART OF THIS SPECIFICATION

RADIO/SPEAKERS (FACTORY)

- AM/FM WITH WEATHER BAND

SEATS-DRIVER/PASSENGER

- BUCKET, AIR SUSPENSION, HIGH BACK, HEAD REST, DRIVER'S ARM REST (RH) (NATIONAL CUSHION-AIRE OR EQUAL), HD CLOTH MORDURA, MILLIKEN (NGV) OR EQUAL.

FLOOR COVER

- VINYL WITH FACTORY RUBBER AUXILIARY MATS

LIGHTING, REQUIRED

- DAYTIME RUNNING, PRE-TRIP INSPECTION LIGHT TEST

MIRRORS, OUTSIDE RIGHT AND LEFT

- 6" X 15" EXTENDING TO 102" WITH A HEATED 7" CONVEX MIRROR
- PASSENGER SIDE "LOOK DOWN" CONVEX MIRROR

BUMPERS -FRONT

- NONE REQUIRED

BACK UP ALARM

- ELECTRIC

HORN

- AIR AND ELECTRIC – DUAL NOTE

TOW PACKAGE

- TRAILER TOW PACKAGE SHALL BE PROVIDED AND INCLUDE TRAILER LIGHT PACKAGE, HAND OPERATED CONTROL VALVE, AND AIR LINES TO REAR OF FRAME.

SOFTWARE

- DIAGNOSTIC SOFTWARE AND ALL REQUIRED LAPTOP COMPUTER CABLES AND OR CONNECTIONS FOR DIAGNOSIS OF ENGINE (INCLUDING KEY ON AND KEY OFF TEST, CYLINDER CUT OUT TEST, INJECTOR DISABLE TEST), CHASSIS & ELECTRICAL SYSTEM, AND ABS SYSTEM. LATEST VERSION OF ALLISON TRANSMISSION SOFTWARE SHALL BE PROVIDED FOR PROGRAMMING WITH ONE DAY ON SITE (DOT) PROGRAMMING INSTRUCTION. ALL SOFTWARE TO INCLUDE FREE UPDATES AND RENEWALS OF ALL SUBSCRIPTIONS FOR A PERIOD OF TEN (10) YEARS BEYOND MODEL YEAR. THIS SPECIFICATION SHALL REQUIRE A QUANTITY OF NINE (9 EACH) COMPLETE SETS OF THE ABOVE SOFTWARE BE SUPPLIED AND DELIVERED TO NHDOT MECHANICAL SERVICES AS PART OF THIS SOLICITATION AND INCLUDED IN THE UNIT COST

SYSTEMS CALIBRATIONS

- UPON FINAL AWARD, THE SUCCESSFUL VENDOR WILL PRESENT A COMPLETE LIST OF DEFAULT ENGINE, ELECTRICAL, FUEL AND TRANSMISSION SYSTEM CALIBRATIONS FOR REVIEW AND ADJUSTMENT WITH THE END USER

SERVICE AND PARTS MANUALS

- FOR THE LIFE OF THE VEHICLE(S), THE AWARDED BIDDER SHALL PROVIDE WEB BASED ACCESS TO ALL TRUCK-SPECIFIC SERVICE MANUALS, TECHNICAL SPECIFICATIONS AND PARTS CATALOGS FOR A MINIMUM OF ELEVEN (11) NHDOT VEHICLE MAINTENANCE LOCATIONS.

APPLICATION: THIS SPECIFICATION COVERS THE STATE OF NEW HAMPSHIRE'S MINIMUM REQUIREMENT FOR A VOCATIONAL CAB & CHASSIS, INTENDED FOR THE SOLE PURPOSE OF PLOWING, SANDING AND OTHER HIGHWAY MAINTENANCE OPERATIONS. TO FACILITATE THE MOUNTING OF PLOW EQUIPMENT, AMPLE SPACE MUST BE AVAILABLE FOR LEFT AND RIGHT POWER TAKE OFFS. CLEAR SPACE BENEATH AND TO THE REAR OF THE CAB FOR HYDRAULIC CABLES AND WING CABINET. ALL EXPOSED CONNECTIONS SHALL BE SEALED AND 100% WATER TIGHT. THE MANUFACTURER WILL BE SOLELY RESPONSIBLE FOR MEETING THIS REQUIREMENT.

This specification is for paint and primer (coating supplies) provided to NHDOT and for primer and paint coatings utilized on equipment supplied to NHDOT.

All coating supplies and coatings utilized on equipment surfaces that are normally primed and painted shall be suitable for severe exposure to road salt and abrasion. Coatings shall conform to all applicable federal and state regulations and criteria pertaining to chemical and VOC content.

Coatings containing any compound that would render the waste paint, in its dried form, a hazardous waste per NH Code of Administrative Rules Chapter Env-Hw 400 are prohibited. This includes, but is not limited to, RCRA listed metals (e.g., Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Silver, Selenium) other than naturally occurring trace amounts associated with the coating pigments. The intent of this specification is to obtain or utilize paint such that any concentration of these metals shall not produce a TCLP test result that would fail NH DES toxicity characteristic standards and will meet the latest governing regulatory criteria.

Coatings shall not contain hexavalent chromium or cadmium. For the purposes of this specification, a coating product "contains hexavalent chromium or cadmium" if hexavalent chromium or cadmium was introduced as a pigment or as an agent to impart any property or characteristic to the coating during manufacturing, distribution, or use of the applicable coating. Coatings supplied shall not contain a total VOC content greater than 2.8 lbs/gal (340 g/l).

A written certificate of conformance to these specifications shall be submitted to NHDOT, for coatings utilized on equipment supplied to NHDOT, indicating these compounds do not exceed Toxicity Characteristics of NH Code of Administrative Rules Env-Hw 403.06, Table 4.9, and Regulatory Limits. Material Safety Data Sheets are not sufficient documentation of conformance. Independent Laboratory test results must be supplied with the written certificate. The following test methods are incorporated by reference herein, and shall be used to test coatings.

1. American Society for Testing and Materials (ASTM) Method D3335-85a (1999), Standard Test Method for Low Concentrations of Lead, Cadmium, and Cobalt in paint by Atomic Absorption Spectroscopy.
2. American Society for Testing and Materials (ASTM) Method D3718-85a (1999), Standard Test Method for Low Concentrations of Chromium in paint by Atomic Absorption Spectroscopy.
3. EPA Test Method 1311 – TCLP Toxicity Characteristic Leaching Procedure.
4. Latest version of EPA Test Methods 3010/6010 (as referenced on the EPA web-page for test methods)
5. Alternative methods which are shown to accurately determine the concentration of hexavalent chromium or cadmium compounds in a subject coating product or its emissions may be used upon written approval.

The coatings also shall meet the following criteria:
Solids Content

- % By Volume 45- 60
- % By Weight 55 –70

- Recommended Dry Film Thickness 1 – 2 ml (Bulk Orders Only)
- Wet Film Thickness to Achieve 2 ½ - 4 ½ ml (Bulk Orders Only)
- Practical Coverage at DFT 325 – 650 sq. ft.
- Dry Time (70 – 80° F and 50% humidity)
 - Tack Free 4 – 6 hours
 - Handle 12 – 16 hours
 - Recoat 24 hour

Please include, paint manufacturer, paint color, part number and description of each color used on the equipment.

PAINT SPECIFICATION COMPLIANCE:

The successful vendor shall be required to submit written certificates including independent lab results within 14 calendar days after notification that they are the apparent low bidder.

We will need a letter from the vendor indicating the test result provided is for a sample of the paints to be used on the equipment to be provided. The letter shall specifically reference paint manufacturer name, trade name(s)/product ID Number. Also, the letter is to indicate that the paint is the only color used on the chassis, frame, and body. If there is more than one color, additional test results for the other colors will be required.

SUBMIT TO: NH DEPARTMENT OF ADMINISTRATIVE SERVICES
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