

BOTE/BFE-DEES and BOTE/BFE-D NUMBERS (BOTE unless otherwise noted as BFE)

Engine Manufacturer	Cummins	Engine Model Number	QSB 240 5.9
Engine Horsepower	195	Rated Speed	
MSHA Cert No		MSHA Vent Rate	
PA Vent Rate		Emission Control System	
Oxidation Catalyst			
DPM Filter	MSHA Efficiency Rating of Filter		
BOTE/BFE-DEES Approval No		BOTE/BFE-D Approval No	
Equipment Manufacturer		Equipment Model No	
Equipment Description			
Remarks			

Engine Manufacturer	Cummins	Engine Model Number	QSB 4.5
Engine Horsepower	110	Rated Speed	2,500 RPM
MSHA Cert No		MSHA Vent Rate	4,500 CFM
PA Vent Rate	4,500 CFM	Emission Control System	M30 DST Management System
Oxidation Catalyst			
DPM Filter	MSHA Efficiency Rating of Filter		
BOTE/BFE-DEES Approval No	2023-04	BOTE/BFE-D Approval No	
Equipment Manufacturer		Equipment Model No	QSB 4.5
Equipment Description			
Remarks			

Engine Manufacturer Cummins Engine Model Number QSB 6.7
Engine Horsepower 193 Rated Speed 2,200 RPM
MSHA Cert No 07-ENA060010 (Part 7) MSHA Vent Rate 8,500 CFM
PA Vent Rate 8,500 CFM Emission Control System M267 DST Total System
Oxidation Catalyst DST M295-22-02 Heat Exchanger DST M90-301-01
DPM Filter DST M30-411-01R MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 7-08 BOTE/BFE-D Approval No 1969-04
Equipment Manufacturer Brookville Equipment Model No 20T193D
Equipment Description 20 Ton Locomotive
Remarks BOTE-D 1969-04 was modified on 1.28.13

Engine Manufacturer Cummins Engine Model Number QSB 6.7
Engine Horsepower 215 Rated Speed 2,500 RPM
MSHA Cert No 07-ENA060010 (Part 7) MSHA Vent Rate 8,500 CFM
PA Vent Rate 8,500 CFM Emission Control System M267 DST Total System
Oxidation Catalyst Syncat M30-221-02 Heat Exchanger Paas Tech. M90-301-01
DPM Filter Fleet Guard M30 MSHA Efficiency Rating of Filter 97%
BOTE/BFE-DEES Approval No 7-08 BOTE/BFE-D Approval No 134-09
Equipment Manufacturer Brookville Equipment Model No 20T215D
Equipment Description 20 Ton Locomotive
Remarks

Engine Manufacturer Daimler Chrysler Engine Model Number OM 904-LA
Engine Horsepower 100 Rated Speed 2,200 RPM
MSHA Cert No 7E-B098-0 (Part 7) MSHA Vent Rate
PA Vent Rate 4,500 CFM Emission Control System DST M30 Management System
Oxidation Catalyst Syncat M113-210-02 Heat Exchanger Paas Tech. M150-301-01
DPM Filter DST M30 MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 135-06 BOTE/BFE-D Approval No 61-07
Equipment Manufacturer Brookville Equipment Model No 4M100DMV
Equipment Description 4 Man Diesel Maintenance Vehicle
Remarks

Engine Manufacturer Cummins Engine Model Number A1700
Engine Horsepower 37 Rated Speed 2,800 RPM
MSHA Cert No 07-ENA060011 MSHA Vent Rate 2,000 CFM
PA Vent Rate 2,000 CFM Emission Control System Rohmac PFWC Emission Control System
Oxidation Catalyst Clean Air Model CPD-0466-BCCN40MM Heat Exchanger 0020906130
DPM Filter ENK 25-19175 MSHA Efficiency Rating of Filter 95%
BOTE/BFE-DEES Approval No 146-09 BOTE/BFE-D Approval No 136-09
Equipment Manufacturer Rohmac Equipment Model No PC732
Equipment Description Mine Rover 7 Man Diesel Personnel Carrier
Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Daimler Chrysler Engine Model Number OM 904-LA
Engine Horsepower 174 Rated Speed 2,200 RPM
MSHA Cert No 7E-B098 MSHA Vent Rate 7,500 CFM
PA Vent Rate 7,500 CFM Emission Control System DST M30 Management System
Oxidation Catalyst Syncat M13-210-02 Heat Exchanger DST M115-105-01
DPM Filter Fleet Guard M30 MSHA Efficiency Rating of Filter 98.50%
BOTE/BFE-DEES Approval No 137-06 BOTE/BFE-D Approval No 140-06
Equipment Manufacturer Brookville Equipment Model No 25T174D
Equipment Description 25 Ton Locomotive
Remarks

Engine Manufacturer Deutz Engine Model Number BF 4M 1013 FC
Engine Horsepower 157 Rated Speed 2,200 RPM
MSHA Cert No 07-ENA040007-1 MSHA Vent Rate 6,500 CFM
PA Vent Rate 6,500 CFM Emission Control System Engine Control System Model S-18
Oxidation Catalyst ECS AZ29 Heat Exchanger DBT P/A 350177
DPM Filter ECS S18 Silicon Carbide MSHA Efficiency Rating of Filter 85%
BOTE/BFE-DEES Approval No 8-08 BOTE/BFE-D Approval No 9-08
Equipment Manufacturer Bucyrus Equipment Model No 488D UN-A-TRAC
Equipment Description Diesel Scoop
Remarks

Engine Manufacturer Deutz Engine Model Number BF 4M 1013 FC
Engine Horsepower 157 Rated Speed
MSHA Cert No MSHA Vent Rate
PA Vent Rate Emission Control System
Oxidation Catalyst Heat Exchanger
DPM Filter MSHA Efficiency Rating of Filter
BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
Equipment Manufacturer Equipment Model No
Equipment Description
Remarks

Engine Manufacturer Deutz Engine Model Number BF 4M 1013 FC
Engine Horsepower 173 Rated Speed
MSHA Cert No MSHA Vent Rate
PA Vent Rate Emission Control System
Oxidation Catalyst Heat Exchanger
DPM Filter MSHA Efficiency Rating of Filter
BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
Equipment Manufacturer Equipment Model No
Equipment Description
Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Cummins Engine Model Number 4B 3.3
Engine Horsepower 65 Rated Speed 2,600 RPM
MSHA Cert No 7E-B093-0 (Part 7) MSHA Vent Rate 3,500 CFM
PA Vent Rate 4,265 CFM Emission Control System M70 DST Management System
Oxidation Catalyst Syncat M241-260-01 Heat Exchanger Paas Tech. M276-303-01
DPM Filter Fleetguard M70 & DST-M30-411-01R MSHA Efficiency Rating of Filter 96.23%
BOTE/BFE-DEES Approval No 0006-03 BOTE/BFE-D Approval No 1953-03
Equipment Manufacturer Brookville Equipment Model No 10M65D
Equipment Description 5-10 Man Diesel Personnel Carrier
Remarks BOTE-D 1953-03 was modified on 1.28.13

Engine Manufacturer Duetz Engine Model Number 2011L031
Engine Horsepower 48 Rated Speed 2,800 RPM
MSHA Cert No 07-ENA040011 MSHA Vent Rate
PA Vent Rate 2,000 CFM Emission Control System
Oxidation Catalyst Heat Exchanger
DPM Filter MSHA Efficiency Rating of Filter 89%
BOTE/BFE-DEES Approval No 195-11 BOTE/BFE-D Approval No 194-11
Equipment Manufacturer Rohmac Equipment Model No SL 448
Equipment Description Crawler Mounted Diesel Loader
Remarks

Engine Manufacturer Cummins Engine Model Number 4B TA 3.9C
Engine Horsepower 116 Rated Speed 2,500 RPM
MSHA Cert No 7E-B084-0 (Part 7) MSHA Vent Rate 6,500 CFM
PA Vent Rate 6,500 CFM Emission Control System M70 DST Management System
Oxidation Catalyst Syncat M241-260-01 Heat Exchanger Paas Tech. M30-411-01
DPM Filter Fleetguard M30 & DST M30-411-01R MSHA Efficiency Rating of Filter 98.50%
BOTE/BFE-DEES Approval No 2023-04 BOTE/BFE-D Approval No 2036-04
Equipment Manufacturer Brookville Equipment Model No 18M116D
Equipment Description 9 Ton Diesel 18 Man Personnel Carrier
Remarks BOTE-D 2036-04 was modified on 1.28.13

Engine Manufacturer Deutz Engine Model Number BF 4M 2012C
Engine Horsepower 138 Rated Speed
MSHA Cert No MSHA Vent Rate 6,000 CFM
PA Vent Rate 6,000 CFM Emission Control System DST Management System
Oxidation Catalyst Heat Exchanger
DPM Filter DST M30-411-01R MSHA Efficiency Rating of Filter
BOTE/BFE-DEES Approval No 55-07 BOTE/BFE-D Approval No 1881-02
Equipment Manufacturer Brookville Equipment Model No 15S
Equipment Description Rubber Tired Tractor
Remarks

Engine Manufacturer | Deutz | Engine Model Number | BF 4M 2011 |
 Engine Horsepower | 87 HP derated to 74 HP | Rated Speed | 2,800 RPM |
 MSHA Cert No | 07-ENA040004 | MSHA Vent Rate | 6,000 CFM |
 PA Vent Rate | 6,000 CFM | Emission Control System | ECS Non-Catalyzed-Off Board Regeneration |
 Oxidation Catalyst | ECS AZ 27 | Heat Exchanger | |
 DPM Filter | ECS S/9 Silicon Carbide | MSHA Efficiency Rating of Filter | 87% |
 BOTE/BFE-DEES Approval No | 53-09 | BOTE/BFE-D Approval No | 52-09 |
 Equipment Manufacturer | Johnson Industries | Equipment Model No | SS |
 Equipment Description | 8-12 Man Diesel Mantrip |
 Remarks | |

Engine Manufacturer | Deutz | Engine Model Number | F2L 2011 |
 Engine Horsepower | 30.2 | Rated Speed | 2,800 RPM |
 MSHA Cert No | 07-ENA040010 | MSHA Vent Rate | 2,000 CFM |
 PA Vent Rate | 1,500 CFM | Emission Control System | Rohmac ENK 25-19175-7197 Disposable DPM |
 Oxidation Catalyst | Clean Air Systems CPD 0466 BCCN175 | Heat Exchanger | DNA |
 DPM Filter | ENK 25-19175-7197 | MSHA Efficiency Rating of Filter | 95% |
 BOTE/BFE-DEES Approval No | 144-08 | BOTE/BFE-D Approval No | 142-08 |
 Equipment Manufacturer | Rohmac | Equipment Model No | FWC-1430D |
 Equipment Description | Diesel Fire/Water Car |
 Remarks | |

Engine Manufacturer Deutz Engine Model Number MWM 916-6
Engine Horsepower 94 Rated Speed 2,300 RPM
MSHA Cert No 24/D97-1 (Part 32), 7EB001- MSHA Vent Rate 4,000 CFM
PA Vent Rate 3,868 CFM Emission Control System DST Management System M105 Package
Oxidation Catalyst Heat Exchanger
DPM Filter MSHA Efficiency Rating of Filter 97%
BOTE/BFE-DEES Approval No 0002-99 BOTE/BFE-D Approval No 1769-99
Equipment Manufacturer Brookville Equipment Model No 1044TC
Equipment Description 10 Ton Mine Tractor
Remarks

Engine Manufacturer Deutz Engine Model Number MWM 916-6
Engine Horsepower 94 Rated Speed 2,300 RPM
MSHA Cert No 7EB001-0 (Part 7) MSHA Vent Rate 4,000 CFM
PA Vent Rate 3,868 CFM Emission Control System DST Management System
Oxidation Catalyst Syscat M30-221-01 Heat Exchanger Paas Tech. M150-301
DPM Filter Fleet Guard M30 & DST M30-411-01R MSHA Efficiency Rating of Filter 97.60%
BOTE/BFE-DEES Approval No 0002-99 BOTE/BFE-D Approval No 1881-02
Equipment Manufacturer Brookville Equipment Model No 15S
Equipment Description 15 Ton Diesel Scoop
Remarks

Engine Manufacturer Deutz Engine Model Number MWM 916-6
Engine Horsepower 94 Rated Speed 2,300 RPM
MSHA Cert No 7EB001-0 (Part 7) MSHA Vent Rate 4,000 CFM
PA Vent Rate 3,868 CFM Emission Control System DST Management System
Oxidation Catalyst Syncat M30-221-01 Heat Exchanger Paas Tech. M150-301
DPM Filter Fleet Guard M30 & DST M30-411-01-R MSHA Efficiency Rating of Filter 97.60%
BOTE/BFE-DEES Approval No 0002-99 BOTE/BFE-D Approval No 1872-02
Equipment Manufacturer Brookville Equipment Model No D1344C
Equipment Description 13 Man Personnel Carrier
Remarks

Engine Manufacturer Isuzu Engine Model Number C240
Engine Horsepower 52 Rated Speed 3,000 RPM
MSHA Cert No 7E-B086 MSHA Vent Rate 3,000 CFM
PA Vent Rate 3,000 CFM Emission Control System Rohmac PFWC Emissions Control System
Oxidation Catalyst Clean Air Systems CPD 0466 BCCN40MM Heat Exchanger 0020550802
DPM Filter ENK 25-19175-7197 MSHA Efficiency Rating of Filter 95%
BOTE/BFE-DEES Approval No 37-06 BOTE/BFE-D Approval No 33-06
Equipment Manufacturer Rohmac Equipment Model No 627D
Equipment Description Diesel Powered Rock Duster
Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No 53-09 BOTE/BFE-D Approval No 157-10
 Equipment Manufacturer Johnson Industries Equipment Model No PA-FE
 Equipment Description Diesel 3-4 Mantrip
 Remarks

Engine Manufacturer Deutz Engine Model Number F4L 2011
 Engine Horsepower 60.8 HP Rated Speed 2,800 RPM
 MSHA Cert No 07-ENA040012 MSHA Vent Rate 3,000 CFM
 PA Vent Rate 3,000 CFM Emission Control System Clean Air Assure
 Oxidation Catalyst DOC Model CFDD566BCCN Heat Exchanger 0020910564
 DPM Filter ENK-25-19175 MSHA Efficiency Rating of Filter 95%
 BOTE/BFE-DEES Approval No 43-10 BOTE/BFE-D Approval No 42-10
 Equipment Manufacturer Rohmac Equipment Model No DP-602
 Equipment Description Diesel Hydraulic Power Pack
 Remarks

Engine Manufacturer Deutz Engine Model Number BF3L2011
 Engine Horsepower 34.4 HP Rated Speed 2,300 RPM
 MSHA Cert No 07-ENA040012 MSHA Vent Rate 4,500 CFM
 PA Vent Rate 4,500 CFM Emission Control System Rohmac Model 1202 Emission System
 Oxidation Catalyst Clean Air Sys CPD0700DCCN20 Heat Exchanger DNA
 DPM Filter Ceramic FUA 126W4CN MSHA Efficiency Rating of Filter 95%
 BOTE/BFE-DEES Approval No 129-10 BOTE/BFE-D Approval No 128-10
 Equipment Manufacturer Rohmac Equipment Model No RD242
 Equipment Description Diesel Rockduster
 Remarks

Engine Manufacturer Deutz Engine Model Number D2011L02i
 Engine Horsepower 30.2 HP Rated Speed 2,800 RPM
 MSHA Cert No 07-ENA040010 MSHA Vent Rate 2,000 CFM
 PA Vent Rate 2,000 CFM Emission Control System DST Emission System
 Oxidation Catalyst M80-233-02 Heat Exchanger DST M195-301-01
 DPM Filter DST M70-417-01 MSHA Efficiency Rating of Filter 96%
 BOTE/BFE-DEES Approval No 131-10 BOTE/BFE-D Approval No 145-10
 Equipment Manufacturer AL Lee Equipment Model No 828 RM-D2011L02i
 Equipment Description Diesel Rockduster
 Remarks

Engine Manufacturer Cummins Engine Model Number 6CTAA8.3
Engine Horsepower 185 HP (derated to 150 HP) Rated Speed 2,200 RPM
MSHA Cert No 07-EPA040001 MSHA Vent Rate 13,500 CFM
PA Vent Rate 19,000 CFM Emission Control System DST M250
Oxidation Catalyst DST M90-218-02 Heat Exchanger DST M90-301-11
DPM Filter DST M194 MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No BFE-DEES 131-12 BOTE/BFE-D Approval No BFE-D 17-11
Equipment Manufacturer DST/Gunther Nash Equipment Model No GN953
Equipment Description Diesel End Loader/Mucker
Remarks BFE-DEES 19-11 revoked 10-16-12 replaced with 131-12

Engine Manufacturer Deutz Engine Model Number BF4L2012
Engine Horsepower 100 HP Rated Speed 2,500 RPM
MSHA Cert No 07-ENA040002 MSHA Vent Rate
PA Vent Rate Emission Control System
Oxidation Catalyst Heat Exchanger
DPM Filter MSHA Efficiency Rating of Filter
BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
Equipment Manufacturer Royal Hydraulics Equipment Model No 54-16-31
Equipment Description Diesel Hydraulic Power Pack
Remarks

Engine Manufacturer Deutz Engine Model Number BF4M 2012
Engine Horsepower 92 HP Rated Speed 2,500 RPM
MSHA Cert No 07-ENA040001 MSHA Vent Rate 6,000CFM
PA Vent Rate 6,000 CFM Emission Control System DST M194 Emissions Control System
Oxidation Catalyst M260-22-02 Heat Exchanger DST M289-301-01
DPM Filter DST M70-417-01 MSHA Efficiency Rating of Filter 95%
BOTE/BFE-DEES Approval No 8-11 BOTE/BFE-D Approval No 7-11
Equipment Manufacturer Royal Hydraulics Equipment Model No 54-16-31
Equipment Description Diesel Hydraulic Power Pack
Remarks

Engine Manufacturer Deutz Engine Model Number D2011L02i
Engine Horsepower 30.2 HP Rated Speed 2,800 RPM
MSHA Cert No 07-ENA040010-0 MSHA Vent Rate 2,000 CFM
PA Vent Rate 2,000 CFM Emission Control System DST Emissions Control System
Oxidation Catalyst M80-233-02 Heat Exchanger DST M195-301-01
DPM Filter DST M709-417-01 MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 131-10 BOTE/BFE-D Approval No 130-10
Equipment Manufacturer AL Lee Equipment Model No 628 RM
Equipment Description Diesel Rockduster
Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Cummins Engine Model Number C3.3
 Engine Horsepower 85 Rated Speed 2,600 RPM
 MSHA Cert No 07-ENA040017 MSHA Vent Rate 4,500 CFM
 PA Vent Rate 4,500 CFM Emission Control System DST Management System
 Oxidation Catalyst Evapar AZ29 Heat Exchanger Bucyrus Cool System 399823
 DPM Filter FS&T (pn) 607513 MSHA Efficiency Rating of Filter 95%
 BOTE/BFE-DEES Approval No 152-11 BOTE/BFE-D Approval No 63-09
 Equipment Manufacturer Bucyrus Equipment Model No 482D
 Equipment Description Diesel Scoop
 Remarks

Engine Manufacturer Cummins Engine Model Number 4B3.3T
 Engine Horsepower 85 Rated Speed 2,600 RPM
 MSHA Cert No 07-ENA040017 MSHA Vent Rate 4,500 CFM
 PA Vent Rate 4,500 CFM Emission Control System DST M186 Emissions Control System
 Oxidation Catalyst DST Model M260-223-02 Heat Exchanger DST M184-301-01
 DPM Filter DST M70-417-01 MSHA Efficiency Rating of Filter 95%
 BOTE/BFE-DEES Approval No 185-11 BOTE/BFE-D Approval No 184-11
 Equipment Manufacturer JH Fletcher & Co. Equipment Model No CMHC-D
 Equipment Description Diesel Power Manhole Cutter
 Remarks

Engine Manufacturer Deutz Engine Model Number D2011L02i
Engine Horsepower 30.2 Rated Speed 2,800 RPM
MSHA Cert No 07-ENA040004 MSHA Vent Rate 1,500 CFM
PA Vent Rate 1,500 CFM Emission Control System Rohmac Model DEC 1202
Oxidation Catalyst CleanAIR Assure DOC CWD0466BCCN Heat Exchanger DNA
DPM Filter CleanAIR FPA060224CN MSHA Efficiency Rating of Filter 89%
BOTE/BFE-DEES Approval No 197-11 BOTE/BFE-D Approval No 196-11
Equipment Manufacturer Rohmac Equipment Model No MT 3434
Equipment Description Crawler Mounted Track Loader 360 Degree Rotation
Remarks

Engine Manufacturer Deutz Engine Model Number D2011L03i
Engine Horsepower 48 Rated Speed 2,800 RPM
MSHA Cert No 07-ENA04011 MSHA Vent Rate 2,000 CFM
PA Vent Rate 2,000 CFM Emission Control System Rohmac Model DEC 1202
Oxidation Catalyst CleanAIR Assure DOC CWD0466BCCN Heat Exchanger DNA
DPM Filter CleanAIR FPA108W4CN MSHA Efficiency Rating of Filter
BOTE/BFE-DEES Approval No 195-11 BOTE/BFE-D Approval No 194-11
Equipment Manufacturer Rohmac Equipment Model No PC732
Equipment Description Mine Rover Personnel Carrier
Remarks BOTE-DEES modified on 10-28-14

Engine Manufacturer	DNA	Engine Model Number	DNA
Engine Horsepower	DNA	Rated Speed	DNA
MSHA Cert No	DNA	MSHA Vent Rate	DNA
PA Vent Rate	DNA	Emission Control System	DNA
Oxidation Catalyst	DNA	Heat Exchanger	DNA
DPM Filter	DNA	MSHA Efficiency Rating of Filter	DNA
BOTE/BFE-DEES Approval No	DNA	BOTE/BFE-D Approval No	23-12
Equipment Manufacturer	DST/Gunther Nash	Equipment Model No	M400255
Equipment Description	Fuel Transporter		
Remarks			
Engine Manufacturer	Deutz	Engine Model Number	BF4M2013
Engine Horsepower	100	Rated Speed	2,500
MSHA Cert No		MSHA Vent Rate	4,500 CFM
PA Vent Rate	4,500 CFM	Emission Control System	DST M30
Oxidation Catalyst	Syncat M113-210-02	Heat Exchanger	PaasTech M150-301-01
DPM Filter	DST M30	MSHA Efficiency Rating of Filter	96%
BOTE/BFE-DEES Approval No	135-06	BOTE/BFE-D Approval No	40-12
Equipment Manufacturer	Brookville	Equipment Model No	200FB100D
Equipment Description	Self-Propelled Diesel Fuel Buffalo		
Remarks			

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No 44-12

Equipment Manufacturer CONSOL Equipment Model No 10287

Equipment Description Diesel Fueling System
 Remarks Enlow Fork Mine, Pleasant Grove Portal - BOTE-D 44-12 was modified on 2.11.13

Engine Manufacturer Cummins Engine Model Number QSB 4.5
 Engine Horsepower 130 Rated Speed 2,500 RPM
 MSHA Cert No 07-ENA070006 MSHA Vent Rate 6,000 CFM
 PA Vent Rate 6,000 CFM Emission Control System DST M183
 Oxidation Catalyst DST M281-210-02 Heat Exchanger DST M150
 DPM Filter DST M83 MSHA Efficiency Rating of Filter 96%
 BOTE/BFE-DEES Approval No 51-12 BOTE/BFE-D Approval No 50-12

Equipment Manufacturer JH Fletcher Equipment Model No DR-D
 Equipment Description Diesel Track Drill
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No

Equipment Manufacturer Equipment Model No

Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate

PA Vent Rate Emission Control System

Oxidation Catalyst Heat Exchanger

DPM Filter MSHA Efficiency Rating of Filter

BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No

Equipment Manufacturer Equipment Model No

Equipment Description
 Remarks

Engine Manufacturer Cummins Engine Model Number QSB 4.5
Engine Horsepower 130 Rated Speed 2,500 RPM
MSHA Cert No 07-ENA070006 MSHA Vent Rate 6,000 CFM
PA Vent Rate 6,000 CFM Emission Control System DST M30 Management System
Oxidation Catalyst DST M113-210-02 Heat Exchanger DST M150-301-01
DPM Filter DST M30 MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 12-09 BOTE/BFE-D Approval No 96-12
Equipment Manufacturer Irwin Car & Equipme Equipment Model No DH610PC
Equipment Description 15 Man Personnel Carrier
Remarks

Engine Manufacturer Deutz Engine Model Number 1013FC
Engine Horsepower 150 Rated Speed 2,200
MSHA Cert No 07-EPA080001 MSHA Vent Rate 7,500 CFM
PA Vent Rate 8,000 CFM Emission Control System Caterpillar
Oxidation Catalyst ESW Evarpar A-27WJGP (MCAT-model name) Heat Exchanger Bucyrus
DPM Filter FST-115-26N MSHA Efficiency Rating of Filter 95%
BOTE/BFE-DEES Approval No BFE-DEES 99-12 BOTE/BFE-D Approval No BFE-D 98-12
Equipment Manufacturer Caterpillar Equipment Model No 650D
Equipment Description Permissible Diesel Shield Hauler
Remarks

Engine Manufacturer	Deutz	Engine Model Number	BF4M2012
Engine Horsepower	100	Rated Speed	2,500
MSHA Cert No	07-ENA040002-0	MSHA Vent Rate	6,000 CFM
PA Vent Rate	6,000 CFM	Emission Control System	DST Management System
Oxidation Catalyst	Syncat M113-210-02	Heat Exchanger	Paas Technologies M150-210-02
DPM Filter	Fleet Guard M-30	MSHA Efficiency Rating of Filter	96.9%
BOTE/BFE-DEES Approval No	36-06	BOTE/BFE-D Approval No	40-12
Equipment Manufacturer	Brookville	Equipment Model No	200FB1000
Equipment Description	8 Man Diesel Maintenance Vehicle		
Remarks	Modification to BOTE-D 40-12		

Engine Manufacturer	Deutz	Engine Model Number	BF4L 2011
Engine Horsepower	78	Rated Speed	2,800
MSHA Cert No	07-ENA040004-1	MSHA Vent Rate	6,000 CFM
PA Vent Rate	6,000 CFM	Emission Control System	DBT Management System
Oxidation Catalyst	AZ 27	Heat Exchanger	Bucyrus PN 399823
DPM Filter	FST-115-26	MSHA Efficiency Rating of Filter	95%
BOTE/BFE-DEES Approval No		BOTE/BFE-D Approval No	
Equipment Manufacturer		Equipment Model No	
Equipment Description			
Remarks			

Engine Manufacturer Deutz Engine Model Number BF4M1013FC
Engine Horsepower 150 Rated Speed 2,200
MSHA Cert No 07-EPA080001 MSHA Vent Rate 7,500 CFM
PA Vent Rate 8,000 CFM Emission Control System Caterpillar
Oxidation Catalyst ESW Evarpar A-27WJGP (MCAT model name) Heat Exchanger Bucyrus
DPM Filter FST-115-26N MSHA Efficiency Rating of Filter 95%
BOTE/BFE-DEES Approval No BFE-DEES 99-12 BOTE/BFE-D Approval No BFE-D 105-12
Equipment Manufacturer Caterpillar Equipment Model No 488D-XP
Equipment Description Permissible Diesel Scoop
Remarks

Engine Manufacturer Deutz Engine Model Number BF4M1013FC
Engine Horsepower 173 Rated Speed 2,300
MSHA Cert No 07-ENA040007 MSHA Vent Rate 7,000 CFM
PA Vent Rate 7,000 CFM Emission Control System DST M30
Oxidation Catalyst DST M249-210-02 Heat Exchanger DST M115-301-21
DPM Filter DST M30-411-01R MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 109-12 BOTE/BFE-D Approval No 140-06
Equipment Manufacturer Brookville Equipment Model No 25T174D
Equipment Description 25 Ton Locomotive
Remarks Modification replaces M113-210-02 with M249-210-02 catalyst

Engine Manufacturer [] Engine Model Number []
Engine Horsepower [] Rated Speed []
MSHA Cert No [] MSHA Vent Rate []
PA Vent Rate [] Emission Control System []
Oxidation Catalyst [] Heat Exchanger []
DPM Filter [] MSHA Efficiency Rating of Filter []
BOTE/BFE-DEES Approval No [] BOTE/BFE-D Approval No 107-12

Equipment Manufacturer Mon Valley Integrati Equipment Model No 11241
Equipment Description Diesel Fueling System
Remarks 480/120 VAC

Engine Manufacturer Deutz Engine Model Number BF4M1013FC
Engine Horsepower 173 HP Rated Speed 2,200
MSHA Cert No 07-ENA040007 MSHA Vent Rate 7,000
PA Vent Rate [] Emission Control System []
Oxidation Catalyst M249-210-02 Dry Systems Tech Heat Exchanger M115-301-21
DPM Filter M30-411-01R MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 109-12 BOTE/BFE-D Approval No 110-12

Equipment Manufacturer Airtek Inc. Equipment Model No IC100TDD
Equipment Description Diesel Driven Rotary Screw Air Compressor
Remarks []

Engine Manufacturer Deutz Engine Model Number 1013FC
Engine Horsepower 150 Rated Speed 2,200
MSHA Cert No 07-EPA080001 MSHA Vent Rate 7,500 CFM
PA Vent Rate 8,000 CFM Emission Control System Caterpillar
Oxidation Catalyst ESW Evarpar A-27WJGP (MCAT) Heat Exchanger Bucyrus
DPM Filter FST-115-26N MSHA Efficiency Rating of Filter 95%
BOTE/BFE-DEES Approval No BFE-DEES 99-12 BOTE/BFE-D Approval No BFE-D 111-12
Equipment Manufacturer Caterpillar Equipment Model No CL15
Equipment Description Permissible Diesel LHD Scoop Tractor
Remarks

Engine Manufacturer Caterpillar Engine Model Number 31268B HEUI
Engine Horsepower 225 HP Rated Speed 2,500 RPM
MSHA Cert No 07-FA060002 & 07-EPA06000 MSHA Vent Rate 10,000 CFM
PA Vent Rate Emission Control System
Oxidation Catalyst Nett Technologies Diesel Ox Catalyst Model Heat Exchanger Sandvik Part No. 64558127
DPM Filter Donaldson Fiberglass Filter Model P604516 MSHA Efficiency Rating of Filter
BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
Equipment Manufacturer Sandvik Mining and Equipment Model No LS195
Equipment Description Diesel Powered Utility Vehicle
Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer	Caterpillar	Engine Model Number	3126B Heui
Engine Horsepower	225 HP	Rated Speed	2,500 RPM
MSHA Cert No	07-FA060002 & 07-EPA06000	MSHA Vent Rate	10,000 CFM
PA Vent Rate	11,500 CFM	Emission Control System	Nett Technologies SP3731 SN M09-0138
Oxidation Catalyst	Model 01-EJ-03294-10295-MD	Heat Exchanger	Sandvik Part No. 64558127
DPM Filter	Donaldson Fiberglass Filter Model P604516	MSHA Efficiency Rating of Filter	95%
BOTE/BFE-DEES Approval No	BFE-DEES 113.12	BOTE/BFE-D Approval No	BFE-D 112-12
Equipment Manufacturer	Sandvik Mining and	Equipment Model No	LS195
Equipment Description	Diesel Powered Utility Vehicle		
Remarks	Modification on 5-10-13 adds alternate electrical shutdown, XP footswitch and IS barriers		
Engine Manufacturer	Cummins	Engine Model Number	6CTAA8.3
Engine Horsepower	185 HP	Rated Speed	2,200 RPM
MSHA Cert No	07-EPA120001	MSHA Vent Rate	13,500 CFM
PA Vent Rate	19,000 CFM	Emission Control System	DST Model M250 Exhaust System
Oxidation Catalyst	DST P/N M90-218-02	Heat Exchanger	DST P/N M90-301-11
DPM Filter	DST P/N M30-411-01R	MSHA Efficiency Rating of Filter	96%
BOTE/BFE-DEES Approval No	BFE-DEES 131-12	BOTE/BFE-D Approval No	BFE-D 144-12
Equipment Manufacturer	Petitto Mine Equipme	Equipment Model No	2060
Equipment Description	Utility Tractor		
Remarks	BFE-D 144-12 modified on 1.28.13		

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No 47-13
 Equipment Manufacturer Caterpillar Equipment Model No Fuel Pod
 Equipment Description Fuel Storage
 Remarks

Engine Manufacturer Deutz Engine Model Number BF 4M 2012
 Engine Horsepower 100 Rated Speed 2,500
 MSHA Cert No 07-ENA040002 MSHA Vent Rate 6,000 CFM
 PA Vent Rate 6,000 CFM Emission Control System Dry System Technologies #M198
 Oxidation Catalyst Dry System Technologies #M70-104-01 Heat Exchanger Dry System Technologies #M198-301
 DPM Filter Dry Sytem Technologies Model M70 MSHA Efficiency Rating of Filter 96%
 BOTE/BFE-DEES Approval No 80-13 BOTE/BFE-D Approval No 79-13
 Equipment Manufacturer Morgantown Machine Equipment Model No DHPP-80
 Equipment Description Diesel Powered Hydraulic Unit
 Remarks

Engine Manufacturer Kubota Engine Model Number V2403-M-DI-E3
 Engine Horsepower 49 Rated Speed 2,700 RPM
 MSHA Cert No 07-ENA080011 MSHA Vent Rate 3,000 CFM
 PA Vent Rate 3,000 CFM Emission Control System Clean Air
 Oxidation Catalyst Clean Air CWD0700BCCN30 Heat Exchanger Rohmac DEC 1202
 DPM Filter Clean Air FPA108W4CN30 MSHA Efficiency Rating of Filter 89
 BOTE/BFE-DEES Approval No 173-11 BOTE/BFE-D Approval No 82-13
 Equipment Manufacturer Rohmac Inc. Equipment Model No Mine Rover PC232
 Equipment Description Diesel Personnel Carrier
 Remarks Modified 4.22.14 - alternate particulate filter & catalyst

Engine Manufacturer Deutz Engine Model Number BF4L2011
 Engine Horsepower 87 Derated to 74 Rated Speed 2,800 RPM
 MSHA Cert No 07-ENA040004 MSHA Vent Rate 6,000 CFM
 PA Vent Rate 6,000 CFM Emission Control System Engine Control System
 Oxidation Catalyst ECS AZ27 Heat Exchanger Damascus 8DPA
 DPM Filter ECS 5/9 Silicone MSHA Efficiency Rating of Filter 87%
 BOTE/BFE-DEES Approval No 53-09 BOTE/BFE-D Approval No 95-13
 Equipment Manufacturer Damascus Equipment Model No MAC-8D
 Equipment Description 3 Man Diesel Personnel Carrier
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Deutz Engine Model Number D2011LO3I
Engine Horsepower 37 HP Rated Speed 2,800 RPM
MSHA Cert No 07-ENA040011 MSHA Vent Rate 2,000 CFM
PA Vent Rate 2,000 CFM Emission Control System Rohmac
Oxidation Catalyst DCL International Inc. DQ-IR05-21 Heat Exchanger DEC 4032 Rohmac
DPM Filter ENK 25-19205 MSHA Efficiency Rating of Filter 95%
BOTE/BFE-DEES Approval No 3-14 BOTE/BFE-D Approval No
Equipment Manufacturer Equipment Model No
Equipment Description
Remarks

Engine Manufacturer Deutz Engine Model Number D2011LO3I
Engine Horsepower 37 HP Rated Speed 2,800 RPM
MSHA Cert No 07-ENA040011 MSHA Vent Rate 2,000 CFM
PA Vent Rate 2,000 CFM Emission Control System Rohmac
Oxidation Catalyst DCL International Inc. DQ IR05-21 Heat Exchanger DEC 4032 Rohmac
DPM Filter ENK 25-19205 MSHA Efficiency Rating of Filter 95%
BOTE/BFE-DEES Approval No 3-14 BOTE/BFE-D Approval No 4-14
Equipment Manufacturer Wilson Works Equipment Model No DTD-4220
Equipment Description Diesel Powered Rockduster
Remarks

Engine Manufacturer Caterpillar Engine Model Number 3126B Heui
Engine Horsepower 225 HP Rated Speed 2,500 RPM
MSHA Cert No 07-FA060002 MSHA Vent Rate 10,000 CFM
PA Vent Rate 11,500 CFM Emission Control System Nett Technologies
Oxidation Catalyst 01-EJ-03294-10295-MD Heat Exchanger 64558127
DPM Filter P604516 MSHA Efficiency Rating of Filter 95%
BOTE/BFE-DEES Approval No BFE-DEES 113-12 BOTE/BFE-D Approval No BFE-D 32-14
Equipment Manufacturer Sandvik Equipment Model No DFP07CS
Equipment Description Diesel Powered Utility Vehicle
Remarks

Engine Manufacturer Deutz Engine Model Number BF6M2012C
Engine Horsepower 208 Rated Speed 2,500 RPM
MSHA Cert No 07-ENA040008 MSHA Vent Rate 9,000 CFM
PA Vent Rate 9,000 CFM Emission Control System DST Mangement System
Oxidation Catalyst Syncat M357-220-02 Heat Exchanger DST M190-301-01
DPM Filter DST M3-0411-01R MSHA Efficiency Rating of Filter 98.5%
BOTE/BFE-DEES Approval No 50-14 BOTE/BFE-D Approval No 140-06
Equipment Manufacturer Brookville Equipment Model No 25T174D
Equipment Description 25 Ton Locomotive
Remarks Modification to 140-06 using new engine.

Engine Manufacturer Deutz Engine Model Number BF4L2011
 Engine Horsepower 78 HP Rated Speed 2,800 CFM
 MSHA Cert No 07-ENA040004 MSHA Vent Rate 6,000 CFM
 PA Vent Rate 6,000 CFM Emission Control System Rohmac DEC1202ECM
 Oxidation Catalyst CDTi/ECS AZ27 Heat Exchanger Rohmac 1202
 DPM Filter CDL Ceramic Filter 95NCIR5UGS5-21 MSHA Efficiency Rating of Filter 85%
 BOTE/BFE-DEES Approval No 51-14 BOTE/BFE-D Approval No 52-14
 Equipment Manufacturer Rosebud Mining Co. Equipment Model No 482DR
 Equipment Description
 Remarks

Engine Manufacturer Deutz Engine Model Number BF4M2012
 Engine Horsepower 100 HP Rated Speed 2,500 CFM
 MSHA Cert No 07-ENA040002 MSHA Vent Rate 6,000 CFM
 PA Vent Rate Emission Control System Rohmac DEC1202ECM
 Oxidation Catalyst DCL International Heat Exchanger Rohmac
 DPM Filter DCL International MSHA Efficiency Rating of Filter 92%
 BOTE/BFE-DEES Approval No 54-14 BOTE/BFE-D Approval No 53-14
 Equipment Manufacturer Rohmac Equipment Model No DP100
 Equipment Description Diesel Power Pack
 Remarks This power pack will be used on the Model 100 track cleaner APS 821200

Engine Manufacturer Deutz Engine Model Number BF4L2011
Engine Horsepower 79 HP Rated Speed 2,800 RPM
MSHA Cert No 07-ENA0400004-1 MSHA Vent Rate 6,000 CFM
PA Vent Rate Emission Control System Clean Diesel Technologies
Oxidation Catalyst Clean Diesel Technologies Heat Exchanger NETT Technologies
DPM Filter Passive Ceramic MSHA Efficiency Rating of Filter 85%
BOTE/BFE-DEES Approval No 58-14 BOTE/BFE-D Approval No 59-14
Equipment Manufacturer Irwin Mine and Tunn Equipment Model No RD40AC100DE55.8RC
Equipment Description Diesel Source Car
Remarks

Engine Manufacturer Deutz Engine Model Number D2011L03I
Engine Horsepower 48 Rated Speed 2,800 RPM
MSHA Cert No 07-ENA0400011 MSHA Vent Rate 2,000 CFM
PA Vent Rate 2,000 CFM Emission Control System Rohmac DEC 1202 ECM
Oxidation Catalyst CDL International Heat Exchanger 1202
DPM Filter 95QTSA5U5721 MSHA Efficiency Rating of Filter 92%
BOTE/BFE-DEES Approval No 195-11 BOTE/BFE-D Approval No 113-14
Equipment Manufacturer Rohmac Equipment Model No D2011L03I
Equipment Description Diesel Power Pack
Remarks

Engine Manufacturer Irwin Car Engine Model Number QSB4.5
 Engine Horsepower 110 Rated Speed 2,500 RPM
 MSHA Cert No 07-ENA070006 MSHA Vent Rate 4,500
 PA Vent Rate 4,500 Emission Control System Dry Systems Technologies
 Oxidation Catalyst Dry Systems Technologies Heat Exchanger Dry Systems Technologies
 DPM Filter M30 MSHA Efficiency Rating of Filter 96%
 BOTE/BFE-DEES Approval No 12-09 BOTE/BFE-D Approval No 3-15
 Equipment Manufacturer Irwin Car Equipment Model No DHFDV
 Equipment Description Diesel Fuel Delivery Vehicle
 Remarks

Engine Manufacturer Deutz Engine Model Number BF4M 2011
 Engine Horsepower 87 HP (derated to 74 HP) Rated Speed 2,800 RPM
 MSHA Cert No 07-ENA040004 MSHA Vent Rate 6,000 CFM
 PA Vent Rate 6,000 CFM Emission Control System ECS Non-Catalyzed - Off Board Regeneration
 Oxidation Catalyst ECS AZ 27 Heat Exchanger
 DPM Filter ESC S/9 Silicon Carbide MSHA Efficiency Rating of Filter 87%
 BOTE/BFE-DEES Approval No 53-09 BOTE/BFE-D Approval No 157-10
 Equipment Manufacturer Johnson Industries Equipment Model No PA-FE
 Equipment Description Diesel 3-4 Mantrip
 Remarks

Engine Manufacturer Deutz Engine Model Number BF4L 2011
Engine Horsepower 78 HP (derated from 87 HP) Rated Speed 2,800 RPM
MSHA Cert No 07-ENA040004 MSHA Vent Rate 6,000 CFM
PA Vent Rate 6,000 CFM Emission Control System Rohmac Model DEC 1202
Oxidation Catalyst CleanAIR Assure DOC CWD0700BCCN Heat Exchanger Protectoseal F674
DPM Filter Clean Air Model FPA108W4CN30 MSHA Efficiency Rating of Filter 85%
BOTE/BFE-DEES Approval No 27-14 BOTE/BFE-D Approval No 115-11
Equipment Manufacturer Rohmac Equipment Model No PC740
Equipment Description 7 Man Diesel Personnel Carrier
Remarks

Engine Manufacturer Cummins Engine Model Number QSB6.7
Engine Horsepower 93 Rated Speed 2,200 RPM
MSHA Cert No 07-ENA060010 MSHA Vent Rate 8,500 CFM
PA Vent Rate 8,500 CFM Emission Control System DST M30 Management System
Oxidation Catalyst DST p/n M295-245-0-2 Heat Exchanger DST p/n M190-301-01
DPM Filter DST M30 p/n M30-411-01R MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 7-08 BOTE/BFE-D Approval No 13-12
Equipment Manufacturer Irwin Car & Equip. Equipment Model No 11-18904
Equipment Description 25 Ton Diesel Locomotive
Remarks

Engine Manufacturer Duetz Engine Model Number BF4L2011
Engine Horsepower 78 Rated Speed 2,800 RPM
MSHA Cert No 07-ENA040004-1 MSHA Vent Rate 6,000 CFM
PA Vent Rate 6,000 CFM Emission Control System DST Management System M30
Oxidation Catalyst Syncat M260-223-02 Heat Exchanger DST M150-301-01
DPM Filter DST M30 DPM MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 16-12 BOTE/BFE-D Approval No 15-12
Equipment Manufacturer Brookville Equipment Model No 10M78D-1
Equipment Description 10 Man Diesel Personnel Carrier
Remarks

Engine Manufacturer Caterpillar Engine Model Number 3304 PCNA
Engine Horsepower 100 Rated Speed 2,200 RPM
MSHA Cert No 24/D88 (Part 32) MSHA Vent Rate 10,700 CFM
PA Vent Rate 4,897 CFM Emission Control System DST Management System M38
Oxidation Catalyst Heat Exchanger
DPM Filter DST M30-411-01R MSHA Efficiency Rating of Filter
BOTE/BFE-DEES Approval No 0003-99 BOTE/BFE-D Approval No 1770-99
Equipment Manufacturer Brookville Equipment Model No 18M100D
Equipment Description 18 Man Personnel Carrier
Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Isuzu Engine Model Number C240 (QD-60)
Engine Horsepower 56 Rated Speed 3,000 RPM
MSHA Cert No 7E-B038-0 MSHA Vent Rate 2,500 CFM
PA Vent Rate 2,305 CFM Emission Control System M141 DST Management System
Oxidation Catalyst Heat Exchanger M231-302-01
DPM Filter M70 MSHA Efficiency Rating of Filter 95.90%
BOTE/BFE-DEES Approval No 0005-01 BOTE/BFE-D Approval No 1892-02
Equipment Manufacturer Rohmac Equipment Model No UT 742
Equipment Description Mine Rover Utility Tractor
Remarks

Engine Manufacturer Isuzu Engine Model Number C240 (QD-60)
Engine Horsepower 56 Rated Speed 3,000 RPM
MSHA Cert No 7E-B038-0 MSHA Vent Rate 2,500 CFM
PA Vent Rate 2,305 CFM Emission Control System DST Management System
Oxidation Catalyst Syncat M70-104-01 Heat Exchanger Paas Tech. M70-105-01
DPM Filter Fleet Guard M70 MSHA Efficiency Rating of Filter 95.90%
BOTE/BFE-DEES Approval No 0005-01 BOTE/BFE-D Approval No 1907-02
Equipment Manufacturer Brookville Equipment Model No 10M56D
Equipment Description 10 Man Deisel Personnel Carrier
Remarks BOTE-D 1907-02 was modified on 1.28.13

Engine Manufacturer Lister Petter Engine Model Number LPU2
Engine Horsepower 16.2 Rated Speed 2,800 RPM
MSHA Cert No 7E-B042-0 MSHA Vent Rate 1,000 CFM
PA Vent Rate 1,684 CFM Emission Control System Rohmac DEC after Treatment System
Oxidation Catalyst Mine-X DC58 Heat Exchanger DNA
DPM Filter Mine-X DC58 MSHA Efficiency Rating of Filter 91%
BOTE/BFE-DEES Approval No 0004-99 BOTE/BFE-D Approval No 1873-02
Equipment Manufacturer Rohmac Equipment Model No 436MD
Equipment Description Micro Traxx Tractor
Remarks

Engine Manufacturer Lister Petter Engine Model Number LPU2
Engine Horsepower 16.2 Rated Speed 2,800 RPM
MSHA Cert No 24/D136-0 (Part 32) MSHA Vent Rate 2,000 CFM
PA Vent Rate 1,684 CFM Emission Control System Rohmac DEC after Treatment System
Oxidation Catalyst Mine-X DC58 Heat Exchanger DNA
DPM Filter Mine-X DC58 MSHA Efficiency Rating of Filter 91%
BOTE/BFE-DEES Approval No 0004-99 BOTE/BFE-D Approval No 1794-00
Equipment Manufacturer Rohmac Equipment Model No 436 RD
Equipment Description Micro Traxx Tractor
Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System DST Management System
 Oxidation Catalyst AZ 25 Heat Exchanger
 DPM Filter FST-115-26 MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No 1812-00
 Equipment Manufacturer Rohmac Equipment Model No FT50
 Equipment Description Diesel Fuel Transport Unit
 Remarks

Engine Manufacturer Deutz Engine Model Number BF4L2011
 Engine Horsepower 78 HP derated from 87 Rated Speed 2,800 RPM
 MSHA Cert No 07-ENA040004 MSHA Vent Rate 6,000 CFM
 PA Vent Rate 6,000 CFM Emission Control System DBT Management System
 Oxidation Catalyst ECS Heat Exchanger Bucyrus Cool System 399823
 DPM Filter FS&T (pn) 607513 MSHA Efficiency Rating of Filter 95%
 BOTE/BFE-DEES Approval No 64-09 BOTE/BFE-D Approval No 63-09
 Equipment Manufacturer Bucyrus Equipment Model No 482D
 Equipment Description Diesel Scoop
 Remarks

Engine Manufacturer Kubota Engine Model Number V2403-M
Engine Horsepower 49 Rated Speed 2,700 RPM
MSHA Cert No 07-ENA080011 MSHA Vent Rate
PA Vent Rate Emission Control System Rohmac Model DEC 1202
Oxidation Catalyst CleanAIR Assure DOC CWD0700BCCN30 Heat Exchanger
DPM Filter CleanAIR FPA108W4CN30 MSHA Efficiency Rating of Filter 89%
BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
Equipment Manufacturer Rohmac Equipment Model No PC732
Equipment Description Mine Rover Personnel Carrier
Remarks

Engine Manufacturer Deutz Engine Model Number BF 4M 1013 FC
Engine Horsepower 157 Rated Speed 2,200 RPM
MSHA Cert No 07-ENA040007-1 MSHA Vent Rate 6,500 CFM
PA Vent Rate 6,500 CFM Emission Control System Engine Control Systems Model S-18
Oxidation Catalyst Heat Exchanger
DPM Filter ECS S18 Silicon Carbide MSHA Efficiency Rating of Filter
BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
Equipment Manufacturer Equipment Model No
Equipment Description
Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Cummins Engine Model Number QSB4.5
Engine Horsepower 110 Rated Speed 2,500 RPM
MSHA Cert No 07-ENA040006 MSHA Vent Rate 4,500 CFM
PA Vent Rate 4,500 CFM Emission Control System M30 DST Management System
Oxidation Catalyst Syncat M241-260-01 Heat Exchanger Paas Tech. M30-411-01
DPM Filter Fleet Guard M30 MSHA Efficiency Rating of Filter 98.50%
BOTE/BFE-DEES Approval No 12-09 BOTE/BFE-D Approval No 10-09
Equipment Manufacturer Brookville Equipment Model No 18MULPC
Equipment Description 9 Ton Diesel 18 Man Personnel Carrier
Remarks BOTE-D was modified on 1.28.13

Engine Manufacturer Duetz Engine Model Number BF 4M 2013
Engine Horsepower 100 Rated Speed 2,500 RPM
MSHA Cert No 07-ENA040002-0 MSHA Vent Rate 6,000 CFM
PA Vent Rate 6,000 CFM Emission Control System DST M30 Management System
Oxidation Catalyst Syncat M113-210-02 Heat Exchanger Paas Tech. M150-301-01
DPM Filter DST M30 MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 36-06 BOTE/BFE-D Approval No 139-06
Equipment Manufacturer Brookville Equipment Model No ULPC
Equipment Description 9 Ton Diesel Locomotive 15 Man Personnel Carrier
Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Caterpillar Engine Model Number 3306 PCNA
Engine Horsepower 150 Rated Speed 2,200 RPM
MSHA Cert No MSHA Vent Rate 7,500 CFM
PA Vent Rate 7,500 CFM Emission Control System DST Management System
Oxidation Catalyst M30 Heat Exchanger Paas Tech. 301-1
DPM Filter Fleet Guard M30 MSHA Efficiency Rating of Filter 97.60%
BOTE/BFE-DEES Approval No 1-97 BOTE/BFE-D Approval No 1899-02
Equipment Manufacturer Frontier Kemper Equipment Model No 3306 PCNA
Equipment Description Scoop
Remarks

Engine Manufacturer Cummins Engine Model Number 4B TA 3.9C
Engine Horsepower 116 Rated Speed 2,500 RPM
MSHA Cert No 7E-B084-0 (Part 7) MSHA Vent Rate 6,500 CFM
PA Vent Rate 7,500 CFM Emission Control System M70 DST Management System
Oxidation Catalyst Syncat M241-260-01 Heat Exchanger Paas Tech. M150-301-01
DPM Filter Fleet Guard M70 MSHA Efficiency Rating of Filter 96.90%
BOTE/BFE-DEES Approval No 2023-04 BOTE/BFE-D Approval No
Equipment Manufacturer Brookville Equipment Model No
Equipment Description
Remarks

Engine Manufacturer Deutz Engine Model Number BF 4M 2012
Engine Horsepower 100 Rated Speed 2,500 RPM
MSHA Cert No 07-ENA040002 MSHA Vent Rate 6,000 CFM
PA Vent Rate 6,000 CFM Emission Control System DST M30 Management System
Oxidation Catalyst Syncat M113-210-02 Heat Exchanger Paas Tech. M150-301-01
DPM Filter Fleet Guard M30 MSHA Efficiency Rating of Filter 97%
BOTE/BFE-DEES Approval No 36-06 BOTE/BFE-D Approval No 153-07
Equipment Manufacturer Brookville Equipment Model No 18M100D
Equipment Description 18 Man Personnel Carrier
Remarks

Engine Manufacturer Deutz Engine Model Number BF 4M 2012
Engine Horsepower 100 Rated Speed 2,500 RPM
MSHA Cert No 07-ENA040002-0 MSHA Vent Rate 6,000 CFM
PA Vent Rate 6,000 CFM Emission Control System DST M30 Management System
Oxidation Catalyst Syncat M113-210-02 Heat Exchanger Paas Tech. M150-301-01
DPM Filter Fleet Guard M30 MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 36-06 BOTE/BFE-D Approval No 139-06
Equipment Manufacturer Brookville Equipment Model No ULPC
Equipment Description 9 Ton Diesel Locomotive
Remarks 15 Man Personnel Carrier

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Engine Model Number
 Engine Horsepower Rated Speed
 MSHA Cert No MSHA Vent Rate
 PA Vent Rate Emission Control System
 Oxidation Catalyst Heat Exchanger
 DPM Filter MSHA Efficiency Rating of Filter
 BOTE/BFE-DEES Approval No BOTE/BFE-D Approval No
 Equipment Manufacturer Equipment Model No
 Equipment Description
 Remarks

Engine Manufacturer Daimler Chrysler Engine Model Number OM904LA
Engine Horsepower 174 Rated Speed 2,200 RPM
MSHA Cert No 7E-B098 MSHA Vent Rate 7,500 CFM
PA Vent Rate 7,500 CFM Emission Control System DST M30 Management System
Oxidation Catalyst Syncat M113-210-02 Heat Exchanger Paas Tech M115-105-01
DPM Filter Fleet Guard M30 MSHA Efficiency Rating of Filter 98.5%
BOTE/BFE-DEES Approval No 137-06 BOTE/BFE-D Approval No
Equipment Manufacturer Brookville Equipment Model No
Equipment Description
Remarks

Engine Manufacturer Deutz Engine Model Number BF4M1013-FC
Engine Horsepower 157 Rated Speed 2,200 RPM
MSHA Cert No 07-ENA040007-1 MSHA Vent Rate 7,000 CFM
PA Vent Rate 7,000 CFM Emission Control System DST M30 Management System
Oxidation Catalyst Syncat M113-210-02 Heat Exchanger DST M115-301-21
DPM Filter DST M30-411-01R MSHA Efficiency Rating of Filter 96%
BOTE/BFE-DEES Approval No 134-08 BOTE/BFE-D Approval No 140-06
Equipment Manufacturer Brookville Equipment Model No 25T174D
Equipment Description 25 Ton Locomotive
Remarks

Engine Manufacturer	Cummins	Engine Model Number	C3.3
Engine Horsepower	85	Rated Speed	2,600 RPM
MSHA Cert No	07-ENA040017	MSHA Vent Rate	4,500 CFM
PA Vent Rate	4,500 CFM	Emission Control System	DBT Management System
Oxidation Catalyst	Evarpar 1055319	Heat Exchanger	Bucyrus Cool System 399823
DPM Filter FS&T (pn)	607513/ENK DPM	MSHA Efficiency Rating of Filter	95%
BOTE/BFE-DEES Approval No	152-11	BOTE/BFE-D Approval No	63-09
Equipment Manufacturer	Bucyrus	Equipment Model No	482D
Equipment Description	Diesel Scoop		
Remarks			