**ENGINE - VHP**

Model: F4HFE6133*B003  
NEF 6 cyl. CR TAA 4V, Tier 4 Final  
The engine complies w/ 97/68/EC standards.  
Electronic control  
Type: 4-stroke, turbocharged and air-to-air cooled  
Cylinders: 6-cylinder in-line  
Bore/Stroke: 4.09 x 5.17 in  
(104 x 132 mm)  
Displacement: 409 in³ (6.7 L)  
Fuel: Diesel  
Fuel injection: Common Rail  
Horsepower @ 2100 RPM – ISO 14396/ECE R120:  
Gross 193/205/220 hp (144/153/164 kW)  
Net 137/154 hp (102/115 kW)  
Maximum torque @ 1400 RPM:  
535 ft·lb (725 N·m)

**DRIVETRAIN**

Rear axle: Graziano, planetary  
Differential: Hydraulic lock, operator controlled  
Inboard brakes: Wet disc  
Number of discs/brake: 5  
Brake surface area: 2,225 in² (14 336 cm²)  
Tandems:  
Type: Welded plate  
Oscillation: 15° each way  
Front axle: High strength, welded steel  
Oscillation: 15° each direction  
Wheel lean: 21.45° left/right  
Tires – standard: 405/70 R20  
SPT9 Dunlop  
Rims: 1-piece  
13 x 20 in (330.2 mm x 508 mm)  
Transmission type: Direct drive countershaft Powershift  
w/ electronic shift control and inching pedal  
Pump flow @ 2000 RPM: 22.4 gpm (85 L/min)  
Sump: Integral  
Speeds: 6 forward/3 reverse

**ELECTRICAL**

Voltage: 24 Volts, negative ground  
Alternator: 90 amp  
Batteries: 2 – Low-maintenance  
1010 CCA – 100 Ah (20 hr rate)  
Work lights:  
Headlights – 2; Turn signals, front/rear;  
Stop/tail – 2; Rear mounted floods – 2;  
Front mounted floods – 2.  
Backup alarm: Optional

**OPERATOR ENVIRONMENT**

ROPS/FOPS cab – SAE J231, ISO 3449; Cab equipped w/ two fully swinging doors for both side access, tinted safety glasses, front and rear sunshield, openable front windows; Adjustable operator's console – includes hydraulic control levers, steering wheel, indicator lights; Air suspension seat w/ 3 in (76 mm) retractable seat belt and movable armrests; Dome light; Inside review mirror; Inside review mirror; Cup holder; Storage tray; 12-volt outlet; Radio ready – 12 Volt; Electrical master switch – automatic; Heater/ defroster/pressurizer; Sound suppression; Delphi AM/FM Radio w/ CD; Steps – left/right; Windshield wiper – front; Windshield washer – front; Coat hook; Storage box left and right; Throttle hand lever.

**OPERATING WEIGHT**

W/ 11 ft (3.35 m) moldboard, 405/70R20 tires, front counterweight, rear ripper – 5 teeth,  
175 lb (79 kg) operator and full fuel:  
836C 26,466 lb (12 005 kg)  
836C AWD 27,128 lb (12 305 kg)  
Weight, front axle:  
836C 6,226 lb (2 824 kg)  
836C AWD 6,446 lb (2 924 kg)  
Weight, rear axle:  
836C 20,241 lb (9 181 kg)  
836C AWD 20,681 lb (9 381 kg)  
Blade pressure:  
836C 10,736 lb (4 870 kg)  
836C AWD 11,003 lb (4 991 kg)

**HYDRAULICS**

System design: Closed center, load sensing  
Hydraulic pump: Load sensing piston pump, variable displacement, pressure and flow compensated  
Rated flow @ 2100 RPM: 25 gpm (94.5 L/min)  
Control valve: 10 section  
Side shift and pitch: Hydraulic  
Saddle: 5 positions  
Diagnostic quick couplers: 8

**SERVICE CAPACITIES**

Engine:  
3.3 gal (12.5 L)  
w/ filter change 4.7 gal (18.5 L)  
Fuel: 73.4 gal (278 L)  
Transmission:  
7.1 gal (27 L)  
w/ filter change 6.6 gal (25 L)  
Radiator: 8.45 gal (32 L)  
Hydraulic reservoir: 18.5 gal (70 L)  
Hydraulic system:  
836C 44.9 gal (170 L)  
836C AWD 48.9 gal (185 L)  
Circle gearbox: 0.66 gal (2.5 L)  
Rear axle center: 8.2 gal (31 L)  
Total axle: 8.2 gal (31 L)  
Tandem case, each: 15.9 gal (60 L)

**OTHER SPECIFICATIONS**

Steering:  
Type: Open center/Reaction, w/o LS  
Turns – lock-to-lock: 7  
Pump capacity @ 2100 engine RPM: 5.8 gpm (22 L/min)  
Relief pressure: 2,176 psi (150 bar)  
Integral w/ priority valve  
Cylinder – 2:  
1.75 in bore x 9.84 in stroke x 0.87 in rod dia. (44.5 mm x 250.0 mm x 22.2 mm)  
Supplemental steering: Integral  
Articulation:  
Type: Hydraulic actuated, no external stop  
Range: 28° left/right  
Controls: Hydraulic
### MAINFRAME

<table>
<thead>
<tr>
<th>Type</th>
<th>All welded box</th>
</tr>
</thead>
<tbody>
<tr>
<td>Front section:</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>10.7 in x 10.7 in (270 mm x 270 mm)</td>
</tr>
<tr>
<td>Weight – each side</td>
<td>61.9 lb-ft (92.1 kg/m)</td>
</tr>
<tr>
<td>Rear section:</td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>8.7 in x 2.4 in (220 mm x 60 mm)</td>
</tr>
<tr>
<td>Weight – each side</td>
<td>69.6 lb-ft (103.6 kg/m)</td>
</tr>
</tbody>
</table>

### DRAWBAR

<table>
<thead>
<tr>
<th>Type: &quot;A&quot; frame welded construction with center mounted circle turn motor</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ball and circle</td>
</tr>
</tbody>
</table>

### MOLDBOARD

<table>
<thead>
<tr>
<th>Type</th>
<th>High-carbon steel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shape</td>
<td>Single radius curve</td>
</tr>
<tr>
<td>Length</td>
<td>11 ft 0 in (3,355 mm)</td>
</tr>
<tr>
<td>Height</td>
<td>23.6 in (526 mm)</td>
</tr>
<tr>
<td>Thickness</td>
<td>0.59 in (15 mm)</td>
</tr>
<tr>
<td>End bits</td>
<td>2, interchangeable</td>
</tr>
<tr>
<td>Blade pitch positions:</td>
<td></td>
</tr>
<tr>
<td>Normal pitch</td>
<td>47°</td>
</tr>
<tr>
<td>Minimum pitch</td>
<td>36°</td>
</tr>
<tr>
<td>Maximum pitch</td>
<td>86°</td>
</tr>
<tr>
<td>Blade shift:</td>
<td></td>
</tr>
<tr>
<td>Right</td>
<td>19.33 in (491 mm)</td>
</tr>
<tr>
<td>Left</td>
<td>27.87 in (708 mm)</td>
</tr>
<tr>
<td>Max. bank cutting angle:</td>
<td></td>
</tr>
<tr>
<td>Right</td>
<td>117°</td>
</tr>
<tr>
<td>Left</td>
<td>76°</td>
</tr>
<tr>
<td>Max. ground penetration</td>
<td>17.95 in (456 mm)</td>
</tr>
<tr>
<td>Max. lift above ground</td>
<td>15.51 in (394 mm)</td>
</tr>
</tbody>
</table>

### CIRCLE

<table>
<thead>
<tr>
<th>Type</th>
<th>Welded construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diameter:</td>
<td></td>
</tr>
<tr>
<td>Max. outside</td>
<td>41.3 in (1,050 mm)</td>
</tr>
<tr>
<td>Vertical member</td>
<td>63.0 in (1,600 mm)</td>
</tr>
<tr>
<td>Rotation</td>
<td>360°</td>
</tr>
<tr>
<td>Speed</td>
<td>1.86 RPM (11.2°/second)</td>
</tr>
<tr>
<td>Drive</td>
<td>Hydraulic motor</td>
</tr>
<tr>
<td>Type</td>
<td>Roller geroter</td>
</tr>
<tr>
<td>Displacement</td>
<td>4.9 in³/Rev. (0.25 L/Rev.)</td>
</tr>
<tr>
<td>Rated hydraulic flow</td>
<td>19.8 gpm (75 L/min)</td>
</tr>
</tbody>
</table>

### ATTACHMENTS

#### SCARIFIER

<table>
<thead>
<tr>
<th>Type</th>
<th>Moldboard mounted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of cut</td>
<td>35.4 in (900 mm)</td>
</tr>
<tr>
<td>Teeth</td>
<td>4</td>
</tr>
<tr>
<td>Optional</td>
<td>11</td>
</tr>
<tr>
<td>Tooth spacing</td>
<td>11.8 in (300 mm)</td>
</tr>
<tr>
<td>Optional</td>
<td>4.5 in (114 mm)</td>
</tr>
<tr>
<td>Lift above ground</td>
<td>8.78 in (223 mm)</td>
</tr>
<tr>
<td>Max. penetration</td>
<td>6.73 in (171 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>445 lb (202 kg)</td>
</tr>
<tr>
<td>Includes front attachment group</td>
<td></td>
</tr>
</tbody>
</table>

#### REAR RIPPER

<table>
<thead>
<tr>
<th>Type</th>
<th>Parallel</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ripper teeth</td>
<td>3</td>
</tr>
<tr>
<td>Optional</td>
<td>5</td>
</tr>
<tr>
<td>Scarifier teeth</td>
<td>9</td>
</tr>
<tr>
<td>Lift above ground:</td>
<td></td>
</tr>
<tr>
<td>Ripper teeth</td>
<td>12.3 in (313 mm)</td>
</tr>
<tr>
<td>Scarifier teeth</td>
<td>27.67 in (703 mm)</td>
</tr>
<tr>
<td>Max. penetration:</td>
<td></td>
</tr>
<tr>
<td>Ripper teeth</td>
<td>12.2 in (310 mm)</td>
</tr>
<tr>
<td>Scarifier teeth</td>
<td>9.43 in (252 mm)</td>
</tr>
<tr>
<td>Weight: 3 Teeth</td>
<td>1,168 lb (530 kg)</td>
</tr>
<tr>
<td>5 Teeth</td>
<td>1,314 lb (596 kg)</td>
</tr>
</tbody>
</table>

#### SCARIFIER

<table>
<thead>
<tr>
<th>Type</th>
<th>Moldboard mounted</th>
</tr>
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</tr>
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<td>Optional</td>
<td>11</td>
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<tr>
<td>Tooth spacing</td>
<td>11.8 in (300 mm)</td>
</tr>
<tr>
<td>Optional</td>
<td>4.5 in (114 mm)</td>
</tr>
<tr>
<td>Lift above ground</td>
<td>8.78 in (223 mm)</td>
</tr>
<tr>
<td>Max. penetration</td>
<td>6.73 in (171 mm)</td>
</tr>
<tr>
<td>Weight</td>
<td>445 lb (202 kg)</td>
</tr>
<tr>
<td>Includes front attachment group</td>
<td></td>
</tr>
</tbody>
</table>

#### COUNTERWEIGHT

<table>
<thead>
<tr>
<th>Type</th>
<th>Front mounted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight</td>
<td>1,124 lb (510 kg)</td>
</tr>
</tbody>
</table>

836C VHP/836C AWD
**DIMENSIONS**

<table>
<thead>
<tr>
<th></th>
<th>836C</th>
<th>836C AWD</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. Blade width</td>
<td>11 ft 0 in (3 355 mm)</td>
<td>11 ft 0 in (3 355 mm)</td>
</tr>
<tr>
<td>B. Distance between outside edges of tires</td>
<td>7 ft 8 in (2 326 mm)</td>
<td>7 ft 7 in (2 303 mm)</td>
</tr>
<tr>
<td>C. Wheel tread – rim 13 x 20 – one piece rim</td>
<td>6 ft 4 in (1 923 mm)</td>
<td>6 ft 3 in (1 900 mm)</td>
</tr>
<tr>
<td>D. Height to top of cab – low profile</td>
<td>10 ft 1 in (3 060 mm)</td>
<td>10 ft 1 in (3 060 mm)</td>
</tr>
<tr>
<td>E. Tire radius – when static</td>
<td>1 ft 7 in (487 mm)</td>
<td>1 ft 7 in (487 mm)</td>
</tr>
<tr>
<td>F. Blade base</td>
<td>6 ft 6 in (1 981 mm)</td>
<td>6 ft 6 in (1 981 mm)</td>
</tr>
<tr>
<td>G. Distance between tandem axles</td>
<td>4 ft 1 in (1 241 mm)</td>
<td>4 ft 1 in (1 241 mm)</td>
</tr>
<tr>
<td>H. Distance between tandem center and wheel</td>
<td>2 ft 0 in (621 mm)</td>
<td>2 ft 0 in (621 mm)</td>
</tr>
<tr>
<td>I. Wheelbase</td>
<td>17 ft 7 in (5 351 mm)</td>
<td>17 ft 7 in (5 351 mm)</td>
</tr>
<tr>
<td>J. Distance between tandem center and rear end of machine</td>
<td>5 ft 2 in (1 585 mm)</td>
<td>5 ft 2 in (1 585 mm)</td>
</tr>
<tr>
<td>K. Distance between front axle and rear end of machine</td>
<td>22 ft 9 in (6 936 mm)</td>
<td>22 ft 9 in (6 936 mm)</td>
</tr>
<tr>
<td>L. Overall length – without ripper or front attachment</td>
<td>27 ft 4 in (8 372 mm)</td>
<td>27 ft 4 in (8 372 mm)</td>
</tr>
<tr>
<td>M. Distance between rear tires and rear ripper</td>
<td>5 ft 4 in (1 625 mm)</td>
<td>5 ft 4 in (1 625 mm)</td>
</tr>
<tr>
<td>N. Distance between front tires and front dozer blade</td>
<td>4 ft 8 in (1 424 mm)</td>
<td>4 ft 8 in (1 424 mm)</td>
</tr>
<tr>
<td>Outside tire turning radius</td>
<td>21 ft 8 in (6 600 mm)</td>
<td>22 ft 4 in (6 800 mm)</td>
</tr>
<tr>
<td>Ground clearance – rear axle</td>
<td>12.2 in (310 mm)</td>
<td>12.2 in (310 mm)</td>
</tr>
<tr>
<td>Ground clearance – front axle</td>
<td>19.1 in (485 mm)</td>
<td>19.1 in (485 mm)</td>
</tr>
</tbody>
</table>

NOTE: All units equipped with 405/70R20 tires, ROPS cab with heater and A/C, std. battery, full fuel, 175 lb (79 kg) operator. Specifications per ISO 7134.
**STANDARD EQUIPMENT**

**OPERATOR ENVIRONMENT**
See page 1

**ENGINE**
- F4HFe6133*B003 NEF 6 cyl. CR TAA 4V turbocharged diesel
- Tier 4 Final Certified
- Temperature controlled cooling fan
- SCR only exhaust gas after-treatment
- Charge air cooler
- Air intake grid heater
- Common rail electronic fuel injection
- Hydraulic driven cooling fan
- Auto idle
- Cold start up to -19°C
- Air cleaner/pre-cleaner with scavenge line and safety element
- Variable fan speed

**DRIVETRAIN**
- Hydraulic differential lock
- Immobilization disc brake on transmission
- Powershift transmission with 6 Forward and 3 Reverse speeds with integrated torque converter
- Hydraulic dual circuit brake system
- Hydrostatic front wheel drive D.C.V.
- Electronic Drive Control Volume and hydraulic differential – FWD version only
- Internal gearing:
  - Covered, Backlash-free and maintenance free slewring operation on 360°
- Hydrostatic power steering
- Circle drive without overload clutch
- Rear axle with automatic/manual gear shifting
- Transmission with automatic/manual gear shifting

**HYDRAULICS**
- Closed center, load sensing hydraulic system
- Controls for all functions
- 10 section control valve
- Hydraulic moldboard side shift and pitch
- 5-position saddle
- 11 ft x 20.7 in (3 355 x 526 mm) moldboard
- 8 hydraulic diagnostic quick couplers
- Front and rear piping for hydraulic attachment
- Moldboard support no scarifier
- Oscillating front axle with hydraulic lean adjustment
- Oscillating tandem axle with automatic no-spin differential
- Hydraulic circle turn – 360°
- Hydraulic system lock valves for blade lift, blade shift, front wheel lean, blade pitch, articulation and special equipment, scarifier – optional, and rear ripper – optional
- Lock valve lift cylinder blade

**TIRES**
- 405/70 R20 SPT9 Dunlop

**INSTRUMENTS**
- Analog displays/Gauges:
  - Fuel level; Engine coolant temperature;
  - Transmission oil temperature;
  - Hydraulic oil temperature.
- Monitor Functions:
  - Hour meter; Automatic trans indication;
  - DEF/Ad blue level indication; Floating – if activated; FWD aggressive mode; Error prompt; Park brake message; Clutch engagement status; Vehicle moving – yes/no; Engine speed; Travel speed; Current gear selection; FNR indication; Clock; Trip computer; Fuel consumption; Fuel level percentage; Oil pressure; Coolant temperature; Engine oil temperature;
  - Transmission oil temperature; Hydraulic oil temperature; Turbocharger air temperature; Differential lock indicator; Gear selection indicator; Engine diagnostics; Transmission diagnostics; Keypad diagnostics; UCM diagnostics; Speed limit module; Support for different severities – White/Yellow/Red; System voltage; Error reporting; Warning prompts; Indicator warning lamps – main warning, parking brake, low brake pressure, low steering pressure, Pre-glow, high beams, turn signals, hazard lights, low fuel.

**ELECTRICAL**
- 2 – Heavy-duty batteries – 1010 CCA
- Battery main switch
- Electronic Systems Monitor
- Horn
- Alternator – 90 amp
- Headlights
- 2 – Turn signals front
- 2 – Tail lights with turn signals, brake lights
- Flood lights – cab mounted

**OTHER**
- Front counterweight
- Rear counterweight
- Front fender with hinged mudflaps
- Rear fender
- Wheel chocks x 2
- Standard tooling
- Drive Shaft Maintenance Free
- Rear Ripper Maintenance Free
- Dozer Maintenance Free

**TELEMATICS**
- CASE SiteWatch™ Telematics – includes hardware and a 3-yr Advanced data subscription
OPTIONAL EQUIPMENT

MOLDBOARDS
- 8 ft x 20.7 in (2,440 x 526 mm), single radius curve
- 10 ft x 20.7 in (3,050 x 526 mm), single radius curve
- Extensions – 2 ft (610 mm)
- Front Float Control
- Moldboard Float Control – Hydraforce/ HF22484-03
- Lift cylinder/side shift accumulators
- Lift cylinder accumulators
- Moldboard with overload clutch
- Moldboard side plates left/right

OPERATOR ENVIRONMENT
- Front windows openable with rear window defroster
- Lower front wiper/washers
- Rear windshield washer
- Air conditioning
- Low Profile Cab
- Radio
- Air suspension seat, heated, moveable arm rests

HYDRAULICS
- Rear ripper hydraulic predisposition
- Environment friendly hydraulic oil panolin

TIRES
- 420/75 R20 XMCL TL Michelin
- 455/70 R20 SPT9 Dunlop
- 405/70 R24 SPT9 Dunlop

ELECTRICAL
- 2 – Front mounted working lights
- 2 – Floodlights at moldboard
- 2 – Floodlights at articulation
- 2 – Floodlights rear
- Snow wing lighting package
- Backup alarm
- Beacon

OTHER
- Bidirectional engine cooling fan
- Cold weather package
- Fire extinguisher
- Strobe light
- Tool box – without tools
- Deluxe tool box – with tools
- Tire inflator kit
- Spare wheel
- Spare wheel support
- Slow moving vehicle sign
- Rear pull hook
- Equipment on road
- On road approval
- Speed Limitation 20 km/h
- Speed Limitation 25 km/h

ATTACHMENTS
- Front pull hook
- Front counterweight – 1,124 lb (510 kg)
- Rear counterweight – 330.7 lb (150 kg)
- Front dozer blade
- Moldboard scarifier
- Moldboard ripper
- Front push plate
- Front support and lift cylinder
- Rear ripper with 3 or 5 teeth with or without protective device