| Doosan            | osan DL280-5   |  |  |  |  |  |
|-------------------|--|--|--|--|--|--|
|                   | Doosan DL06: Turbo Charged, Air to Air Intercooled, T4F  |  |  |  |  |  |
|                   | Electronically Controlled Common Rail Direct Injected  |  |  |  |  |  |
|                   | 172 SAE Gross Flywheel Horsepower @ 2,100 RPM  |  |  |  |  |  |
|                   | 360 cu.in., 6 Cylinder   |  |  |  |  |  |
| ENGINE:           | Air Cleaner: Dry Type (Double Stage)   |  |  |  |  |  |
|                   | Engine Self Diagnostic System  |  |  |  |  |  |
|                   | Plastic Reversible Fan Driven by Hydraulic Fan Motor   |  |  |  |  |  |
|                   | Auto Idle  |  |  |  |  |  |
|                   | Auto Shut Down   |  |  |  |  |  |
|                   | Variable Displacement Axial Piston Pump  |  |  |  |  |  |
|                   | Closed-Center (LS) Hydraulic Systems with Variable Pumps, Pilot Control with Float<br>Spool, 3 Spools                          |  |  |  |  |  |
|                   | 3rd Valve with Lines & Control (lines terminate at boom base)  |  |  |  |  |  |
| HYDRAULIC SYSTEM: | Automatic Boom / Lift - Kick-Out (Set and Adjust from inside the cab)  |  |  |  |  |  |
|                   | Return-to-Dig Position (Adjustable Electro-Magnetic Switch outside cab)  |  |  |  |  |  |
|                   | Accumulator for Emergency Pilot System   |  |  |  |  |  |
|                   | Dual Pedal Braking system  |  |  |  |  |  |
| BRAKE SYSTEM:     | 4 Wheel Outboard Wet Disc Brakes with Separate Front & Rear Circuits   |  |  |  |  |  |
|                   | Accumulator for Emergency Stopping<br>Parking Brake: Spring Apply Hydraulic Release, sliding caliper disc brake on the face of |  |  |  |  |  |

|           | the transmission   |
|-----------|--|
|           | Load Sensing Type with a Flow Amplifier and a Priority Valve                   |
| STEERING: | 40 Degree Articulation, Full Hydraulic Power Steering                          |
|           | Steering Cylinder Cushion Valve  |
|           | Tilt and Telescopic Steering Wheel   |
|           | Air Conditioner  |
|           | Heater & Defroster   |
|           | Double Filtered Air Cab  |
|           | Combination Lever  |
|           | Accelerator Pedal  |
|           | Transmission Lever   |
|           | Rear Hinged & Locking Doors (Both sides) / Right side is emergency access door |
|           | Radio, AM-FM Stereo, MP3, with CD  |
|           | Switches:  |
|           | Transmission Shift Switch (Manual, Auto 1-4 and Auto 2-4)                      |
|           | Economy Mode Switch (Power, Normal & Economy Modes)                            |
|           | Headlight Switch   |
|           | Front Work Light Switch  |
|           | Rear Work Light Switch   |

|                | Rear Wiper Switch                    |
|----------------|--------------------------------------|
|                | Pilot Cutoff Switch                  |
|                | Parking Brake Switch                 |
|                | Transmission Cutoff Switch           |
|                | Mirror Heater Switch                 |
| CAB WITH ROPS: | Reverse Fan Switch                   |
|                | Display Screen Control Switch        |
|                | Display Screen Selector Switch       |
|                | Hazard Warning Light Switch          |
|                | Boom Kick Out Switch                 |
|                | DESOX Switch                         |
|                | Rear View Mirrors with Heat          |
|                | Safety Glass, Tinted                 |
|                | Fully Adjustable Air Suspension Seat |
|                | Seat Belt (2 in. Wide)               |
|                | Sliding Door Windows (Left Side)     |
|                | Sound Suppression                    |
|                | Sun Visor                            |

|                       | Windshield Wipers & Washers - Front and Rear                         |
|-----------------------|--|
|                       | Digital Clock  |
|                       | Arm Rest   |
|                       | 12 Volt Power Supply   |
|                       | Cup Holders  |
|                       | Cigarette Lighter  |
|                       | Sun Glass Holder   |
|                       | Full Automatic Power Shift   |
|                       | 4 Forward & 3 Reverse Speeds   |
|                       | Differentials - US10 = Limited Slip Front and Rear                   |
|                       | US11 = Hydraulic Locking Front & Conventional (Open) Rear            |
|                       | US20 = Limited Slip Front and Rear                                   |
|                       | US21 = Hydraulic Locking Front & Conventional (Open) Rear            |
| TRANSMISSION / AXLES: | US30 = Heavy Duty Hydraulic Locking Front & Conventional (Open) Rear |
|                       | US40= Heavy Duty Hydraulic Locking Front & Conventional (Open) Rear  |
|                       | Self Adjusting Brake Disc Clearance                                  |
|                       | Torque Converter, Fixed Wheel Stator                                 |
|                       | Electrical T/M Clutch Disconnect with Service Brake                  |
|                       | I  |

| I | T/M Down Shift on Shift Control and Joy Stick Control |
|---|---|
|   |   |
|   | Transmission Oil Level Gauge                          |
|   | Alternator, 80 Amp., 24 Volt                          |
|   | Batteries, (2) 12 Volt, 100 AH, 900 CCA               |
|   | Starter, 24 Volt 6 kw                                 |
|   | Horn  |
|   | Hour Meter  |
|   | Lights:   |
|   | (2) Front Headlights with High / Low Beams            |
|   | (2) Stop Lights, Tail Lights & Directional Indicators |
|   | (2) Front & Rear Floodlights                          |
|   | Alarm Buzzer for:                                     |
|   | Transmission Overheat                                 |
|   | Engine Oil Pressure                                   |
|   | Coolant Temperature                                   |
|   | Electronic Monitoring & Display for:                  |
|   | Fuel Level Gauge                                      |
|   | Engine Coolant Temperature Gauge                      |
|   | Transmission Oil Temperature Gauge                    |

|             | Speedometer   |  |  |  |  |
|-------------|---|--|--|--|--|
|             | Tachometer  |  |  |  |  |
|             | ECO Bar   |  |  |  |  |
|             | Transmission Actual Gear  |  |  |  |  |
| ELECTRICAL: | Transmission Gear Select  |  |  |  |  |
|             | Preheat Indicator Light   |  |  |  |  |
|             | Air Cleaner Clogging Warning Light                                |  |  |  |  |
|             | Multi Function Gauge (can display one of the following at a time) |  |  |  |  |
|             | Trip Meter  |  |  |  |  |
|             | Battery Voltage   |  |  |  |  |
|             | Total Time of Operation   |  |  |  |  |
|             | Left Turn and Hazard Warning Light                                |  |  |  |  |
|             | Right Turn and Hazard Warning Light                               |  |  |  |  |
|             | High Beam Indicator Light   |  |  |  |  |
|             | Work Light Indicator Light  |  |  |  |  |
|             | Reverse Fan Indicator Light                                       |  |  |  |  |
|             | Mirror Heater Indicator Light                                     |  |  |  |  |
|             | Parking Brake Indicator Light                                     |  |  |  |  |

| 1                         |   | 1 |
|---------------------------|---|---|
|                           | F/R (Forward/Reverse) Selector Indicator Light                  |   |
|                           | Brake Fluid Pressure Warning Light                              |   |
|                           | Charge Warning Symbol   |   |
|                           | Engine Oil Pressure Warning Symbol                              |   |
|                           | Transmission Warning Symbol                                     |   |
|                           | Engine Warning Symbol   |   |
|                           | Water in Fuel Warnings Symbol                                   |   |
|                           | Back-Up Alarm   |   |
| TIRES:                    | 20.5X25-16PR (L3) Bias  |   |
|                           | US20, US21 AND US40 High lift, 0.2 Ton Additional Counterweight |   |
|                           | Single Lever Control with FNR Control Buttons                   |   |
|                           | Air Cleaner with Pre-cleaner                                    |   |
|                           | Steel Engine Side Covers  |   |
|                           | Boom / Float  |   |
|                           | Drawbar and Pin   |   |
| OTHER STANDARD EQUIPMENT: | Neutral Safety Start System                                     |   |
|                           | Muffler   |   |
|                           | Fenders, Front & Rear   |   |
|                           |   |   |

| Ladders | &  | Service  | Platforms   |
|---------|----|----------|-------------|
| Lauacis | S. | 001 1100 | i lationing |

Manuals, Parts & Operator's

GPS with 3 Year Subscription

Remote Drain Ports

| Specifications                   |                     |                 |      |      |      |      |  |
|----------------------------------|---------------------|-----------------|------|------|------|------|--|
|                                  | DL280-5             |                 |      |      |      |      |  |
| Configuration                    | US10                | US11            | US20 | US21 | US30 | US40 |  |
| Engine                           |                     |                 |      |      |      |      |  |
| Model                            | DL06P               |                 |      |      |      |      |  |
| Rated Flywheel Power (Gross)     | 171.7 hp (          | @ 2,100 rpm     |      |      |      |      |  |
| Rated Horse Power (Net)          | 171.7 hp (          | @ 2,100 rpm     |      |      |      |      |  |
| Max. Torque (Net)                | 593 lbf·ft          | @ 1,400 rpm     |      |      |      |      |  |
| Engine Emissions Tier (EPA)      | Т4                  |                 |      |      |      |      |  |
| Engine After Treatment           | DOC, SCR            |                 |      |      |      |      |  |
| Engine Make                      | Doosan              |                 |      |      |      |      |  |
| Engine Name                      |                     |                 |      |      |      |      |  |
| Engine Number of Cylinders       |                     |                 |      |      |      |      |  |
| Engine Displacement              | 360 in <sup>3</sup> |                 |      |      |      |      |  |
| Hydraulic System                 |                     |                 |      |      |      |      |  |
| Main Pump: Displacement          | 6.1 in³/rev         | /               |      |      |      |      |  |
| System Pressure: Work            | 3,843 psi           |                 |      |      |      |      |  |
| Boom Speed - Up (Loaded)         | 6.3 s (±0.5         | s)              |      |      |      |      |  |
| Boom Speed - Down                | 3.2 s (±0.4         | s)              |      |      |      |      |  |
| Bucket Speed - Dump              | 1.3 s (±0.3         | s)              |      |      |      |      |  |
| Main Pump: Max. Flow Rate (each) | 55.48 gal/          | min             |      |      |      |      |  |
| Main Pump: Quantity              |                     |                 |      |      |      |      |  |
| Main Pump: Main Relief Pressure  | 3,843 psi           |                 |      |      |      |      |  |
| Total Cycle Time                 | 10.9 s (±0          | 10.9 s (±0.3 s) |      |      |      |      |  |
| Undercarriage                    |                     |                 |      |      |      |      |  |
| Tire Size                        | 20.5 R25 I          | .3              |      |      |      |      |  |
| Tread Width                      | 6' 8"               |                 |      |      |      |      |  |
| Travel System/Drive Mechanism    |                     |                 |      |      |      |      |  |
| Travel performance: Gradeability | 30°                 |                 |      |      |      |      |  |
|                                  |                     |                 |      |      |      |      |  |

| Traveling performance: Max. Tractive Effort | 24,000 lb            | 24,000 lb            |                      |                      |            |                      |  |  |
|---|----------------------|----------------------|----------------------|----------------------|------------|----------------------|--|--|
| Weights                                     |                      |                      |                      |                      |            |                      |  |  |
| Operating Weight                            | 34,262 lb            | 34,262 lb            | 35,168 lb            | 35,168 lb            | 36,345 lb  | 35,234 lb            |  |  |
| Dimensions                                  |                      |                      |                      |                      |            |                      |  |  |
| Bucket Capacity                             | 3.66 yd <sup>3</sup> | 3.66 yd <sup>3</sup> | 3.66 yd <sup>3</sup> | 3.66 yd <sup>3</sup> | 3.66 yd³   | 3.66 yd <sup>3</sup> |  |  |
| Bucket Width                                | 8' 11"               | 8' 11"               | 8' 11"               | 8' 11"               | 8' 11"     | 8' 11"               |  |  |
| Hinge Pin Height                            | 12' 11"              | 12' 11"              | 14' 3"               | 14' 3"               | 13' 0"     | 14' 6"               |  |  |
| Dump reach at 45° (fully raised)            | 3' 9"                | 3' 9"                | 3' 10"               | 3' 10"               | 3' 9"      | 3' 10"               |  |  |
| Dump height at 45° (fully raised)           | 9' 2"                | 9' 2"                | 10' 7"               | 10' 7"               | 9' 2"      | 10' 7"               |  |  |
| Overall Height                              | 10' 10"              | 10' 10"              | 10' 10"              | 10' 10"              | 10' 11"    | 10' 11"              |  |  |
| Overall Length                              | 25' 3"               | 25' 3"               | 25' 3"               | 25' 3"               | 25' 3"     | 25' 3"               |  |  |
| Wheel Base                                  | 9' 10"               | 9' 10"               | 9' 10"               | 9' 10"               | 9' 10"     | 9' 10"               |  |  |
| Ground Clearance                            | 1' 3"                | 1' 3"                | 1' 3"                | 1'3"                 | 1' 5"      | 1' 5"                |  |  |
| External Turning Radius at Bucket Edge      | 19' 11"              | 19' 11"              | 20' 8"               | 20' 8"               | 19' 11"    | 20' 8"               |  |  |
| Static Tipping Load (Straight)              | 26,486 lb            | 26,486 lb            | 22,273 lb            | 22,273 lb            | 29,357 lb  | 22,273 lb            |  |  |
| Static Tipping Load (Full Turn)             | 23,389 lb            | 23,389 lb            | 19,667 lb            | 19,667 lb            | 25,922 lb  | 19,667 lb            |  |  |
| Breakout Force                              | 30,349 lbf           | 30,349 lbf           | 28,551 lbf           | 28,551 lbf           | 30,349 lbf | 28,551 lbf           |  |  |
| Rear Axle Oscillation                       | 22°                  |                      |                      |                      | •          | •                    |  |  |
| Digging Depth                               | 4"                   | 4"                   | 7"                   | 7"                   | 4"         | 7"                   |  |  |
| Transmission                                |                      |                      |                      |                      |            |                      |  |  |
| Speeds Fwd                                  |                      |                      |                      |                      |            | 2                    |  |  |
| Speeds Rev                                  |                      |                      |                      |                      |            | 3                    |  |  |
| Travel Speed Forward - 1st gear             | 3.91 mph             | 3.91 mph             | 3.91 mph             | 3.91 mph             | 4.1 mph    | 4.1 mph              |  |  |
| Travel Speed Forward - 4th gear             | 22.06 mph            | 22.06 mph            | 22.06 mph            | 22.06 mph            | 22.37 mph  | 22.37 mph            |  |  |
| Final Drive                                 | Planetary            | -                    |                      |                      | -          | -                    |  |  |
| Differential Type                           | Limited Slip         |                      |                      |                      |            |                      |  |  |
| Refill Capacities                           |                      |                      |                      |                      |            |                      |  |  |
| Fuel Tank                                   | 62.08 gal            |                      |                      |                      |            |                      |  |  |
| Cooling System                              | 8.35 gal             |                      |                      |                      |            |                      |  |  |
| Hydraulic System                            | 39.63 gal            |                      |                      |                      |            |                      |  |  |
| Hydraulic Tank                              | 31.7 gal             |                      |                      |                      |            |                      |  |  |
| DEF / Ad blue Tank                          | 8.32 gal             |                      |                      |                      |            |                      |  |  |
| T/C and T/M                                 | 9.77 gal             |                      |                      |                      |            |                      |  |  |