

# TRACK-TYPE TRACTOR D7R LGP

## I. GENERAL:

This standard is intended to provide specifications for the procurement of a Caterpillar Model D7R, Low Ground Pressure (LGP) Series 2 Track-Type Tractors that meets the specific area operational requirements for the St. Johns River Power Park Landfill Site. This Track-Type Tractor shall be utilized for moving by-products to meet operational and environmental requirements for two coal fired 630 Net Megawatt Units.

## II. DESCRIPTIONS FOR CATERPILLAR MODEL D7R LPG SERIES 2 TRACK-TYPE TRACTOR

The following shall be provided:

### II.1. ENGINE

The Cat 3176C engine shall meet or exceed all EPA Tier 3/EU Stage IIIa emission specifications for the U.S through 2010.

- II.1.1. Engine Model:..... Cat 3176C ACERT
- II.1.2. Gross Power:..... 258 hp
- II.1.3. Net Power:..... 240hp
- II.1.4. Bore: ..... 4.9 in
- II.1.5. Stroke: ..... 5.5 in
- II.1.6. Displacement: ..... 629 in<sup>3</sup>

### II.2. TRANSMISSION

- II.2.1. Forward 1:..... 2.19 mph
- II.2.2. Forward 2:..... 3.79 mph
- II.2.3. Forward 3:..... 6.55 mph
- II.2.4. Reverse 1: ..... 2.82 mph
- II.2.5. Reverse 2: ..... 4.88 mph
- II.2.6. Reverse 3: ..... 8.44 mph

## III. SERVICE REFILL CAPACITIES

- III.1. Fuel Tank: ..... 126.5 gal
- III.2. Cooling System:..... 20.4 gal
- III.3. Engine Crankcase:..... 8.2 gal
- III.4. Power Train:..... 47 gal
- III.5. Final Drives (each):..... 3.4 gal
- III.6. Roller Frames (each): ..... 6.5 gal

- III.7. Pivot Shaft Compartment: ..... 0.5 gal
- III.8. Hydraulic Tank: ..... 14.3 gal

**IV. STEERING AND BRAKES**

Differential Steering allowing tracks to run at different speeds, under full power to accomplish steering. Brakes meet the standard SAE J/ISO 10265 March 1999

**V. UNDERCARRIAGE**

- V.1. Shoe Type: ..... LGP, Moderate Service
- V.2. Width of Shoe: ..... 36 in
- V.3. Shoes per side: ..... 43
- V.4. Grouser Height: ..... 2.8 in
- V.5. Pitch: ..... 8.5 in
- V.6. Ground Clearance: ..... 19.5 in
- V.7. Track Gauge: ..... 88 in
- V.8. Length of track on Ground: ..... 125 in.
- V.9. Ground Contact Area: ..... 9,000 in<sup>2</sup>
- V.10. Track Rollers per Side ..... 7
- V.11. Number of Carrier Rollers: ..... 1 per side (optional)

**VI. TRACK ROLLER FRAME**

- VI.1. Oscillation

**VII. HYDRAULIC CONTROLS**

- VII.1. Pump Type: ..... Gear Driven
- VII.2. Lift Cylinder Flow: ..... 47.6 gal/min
- VII.3. Tilt Cylinder Flow: ..... 21.1 gal/min
- VII.4. Bulldozer Relief Valve Setting: ..... 3,307psi
- VII.5. Tilt Cylinder Relief Valve Setting: ..... 2,498 psi
- VII.6. Ripper (Lift) Relief Valve Setting: ..... 3,000 psi
- VII.7. Ripper (Pitch) Relief Valve Setting: ... 3,000 psi
- VII.8. Tank Capacity: ..... 14.3 gal

Pump output measured at 2100 rpm and 1015 psi

Hydraulic pilot valve assists operation of dozer controls. Hydraulic system includes valves for use with blade.

Complete system consists of pump, tank with filter, oil cooler, valves, lines, linkage and control levers.

**VIII. BLADE**

- VIII.1. Type: ..... 7S LGP
- VIII.2. Capacity (SAE J1265): ..... 7.7 yd<sup>3</sup>
- VIII.3. Width (over end bits): ..... 14.11 ft
- VIII.4. Height: ..... 4' 5"
- VIII.5. Digging Depth: ..... 26.3 in
- VIII.6. Ground Clearance: ..... 45 in
- VIII.7. Maximum Tilt: ..... 27 in
- VIII.8. Blade Weight:\* ..... 8,229 lb (without hydraulic controls)
- VIII.9. Total Machine Operating Weight:\*\* ... 65,036 lb (with blade)

Total Operating Weight:: Includes power shift arrangement, lubricants, coolant, full fuel tank, hydraulic controls, blade tilt cylinder, ROPS canopy, multi shank ripper (one shank) and 36" shoes for LGP and operator.

**IX. STANDARD EQUIPMENT**

The following standard equipment shall be provided for the D7R LPG Series 2 Track-Type Tractor:

**IX.1. ELECTRICAL**

- IX.1.1. Alternator, 95 Amp
- IX.1.2. Back up alarm
- IX.1.3. Batteries, 2, Maintenance Free 12-volt (24 volt system)
- IX.1.4. Converter, 12-volt, 10-amp
- IX.1.5. Diagnostic connector
- IX.1.6. Horn, forward warning
- IX.1.7. Lighting system, Halogen (2 forward, 2 rear)
- IX.1.8. Starting Receptacle

**IX.2. OPERATOR ENVIRONMENT**

- IX.2.1. Advisor-electronic monitoring system
- IX.2.2. Adjustable Armrest
- IX.2.3. ROPS/FOPS Cab
- IX.2.4. Controls, electronic implement with lockout
- IX.2.5. Decelerator pedal
- IX.2.6. Tiller lever for steering.
- IX.2.7. Electronic Engine Speed Control
- IX.2.8. Hydraulic system, pilot operated controls with electronic deactivation switch for bulldozer control
- IX.2.9. Rearview Mirror
- IX.2.10. Radio-ready cab
- IX.2.11. Adjustable contour suspension (gray fabric) seat

- IX.2.12. 3 in. Retractable Seatbelt
- IX.2.13. Heavy-duty Steps and Handles
- IX.2.14. Intermittent Windshield Wipers,
- IX.3. UNDERCARRIAGE
  - IX.3.1. 36 inch moderate service grouser with sealed and lubricated PPR track (43 section)
  - IX.3.2. Lifetime lubricated rollers and idlers
  - IX.3.3. Replaceable sprocket rim segments
  - IX.3.4. Suspension-type undercarriage, seven-roller tubular track roller frame
  - IX.3.5. Hydraulic track adjusters
  - IX.3.6. Track guides
  - IX.3.7. Two-piece master links
- IX.4. POWER TRAIN
  - IX.4.1. 3176C with ACERT Technology
  - IX.4.2. 24-volt electric start
  - IX.4.3. Advanced Modular Cooling System (AMCOS) 6 steel fins per inch (1")
  - IX.4.4. After cooler, two cores of the radiator shall be dedicated to the after cooler. After cooler shall be provided with a dedicated water pump
  - IX.4.5. Air filters, dual with pre-cleaner
  - IX.4.6. Extended life Coolant
  - IX.4.7. Directional shift management
  - IX.4.8. Automatic ether starting aid
  - IX.4.9. Fan, blower, direct drive
  - IX.4.10. Fuel priming pump
  - IX.4.11. Grid, radiator core protection
  - IX.4.12. Muffler with rain cap
  - IX.4.13. Parking brake
  - IX.4.14. Pre-screener
  - IX.4.15. Water/fuel Separator
  - IX.4.16. Thermal shields
  - IX.4.17. Torque converter
  - IX.4.18. Transmission, powershift, ECPC, (3F/3R)
  - IX.4.19. Three planet, double-reduction planetary final drives
- IX.5. OTHER
  - IX.5.1. Corrosive resistant Air conditioning box
  - IX.5.2. CD TOM parts book
  - IX.5.3. Ecology drains: engine oil, coolant, hydraulic oil, torque divider, fuel tank, power train case and transmission
  - IX.5.4. Engine enclosures
  - IX.5.5. Guards
    - IX.5.5.1. Bottom, hinged

- IX.5.5.2. Crankcase
- IX.5.5.3. Pivot shaft and seals
- IX.5.5.4. Front towing device
- IX.5.6. Implement gear pump compatible for Arctic conditions
- IX.5.7. Product Link ready
- IX.5.8. S●O●S<sup>SM</sup> SAMPLING PORTS
- IX.5.9. Vandalism, protection

**X. OPTIONAL EQUIPMENT**

The following equipment shall be provided as an option for the D7R Series 2 Track-Type Tractor:

**X.1. ELECTRICAL**

- X.1.1. Converter, 24-volt to 12-volt additional 20-amp converter
- X.1.2. Lights, supplemental:
  - X.1.2.1. Standard Halogen Lighting

**X.2. OPERATOR ENVIRONMENT**

- X.2.1. ROPS Mounted Air conditioner
- X.2.2. Glass, ultra-strength up to 40 psi

**X.3. POWER TRAIN**

- X.3.1. Fast fuel system
- X.3.2. Quick oil change system

**X.4. UNDERCARRIAGE**

- X.4.1. Tracks, pair, Sealed and Lubricated:
- X.4.2. Roller - Carrier rollers, pin-on (one per side)

**X.5. RIPPERS**

- X.5.1.1. No Rippers are required.

**X.6. OTHER ATTACHMENTS**

- X.6.1. Drawbar rigid

**X.7. MACHINE PAINT**

- X.7.1. Dupont Imron paint in standard Caterpillar colors

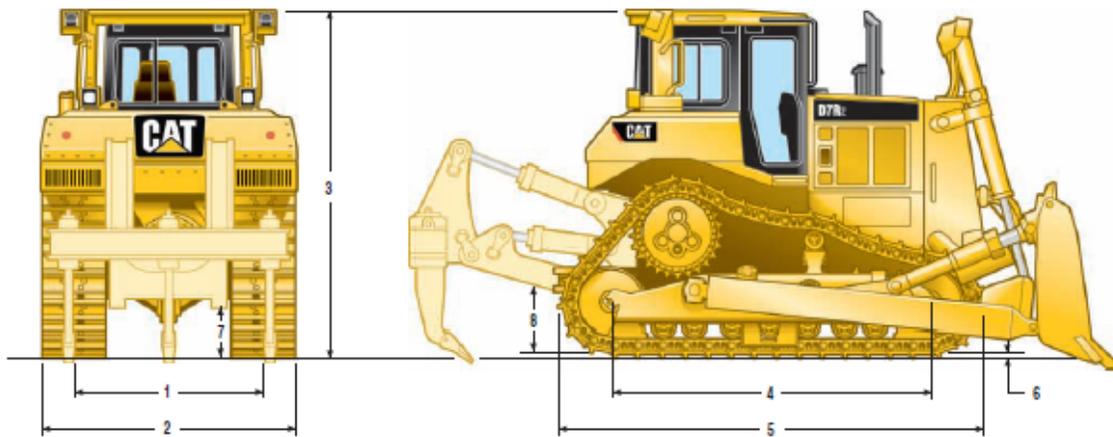
**X.I. WARRANTY**

The following warranties shall apply for the D7R LGP Series 2 Track-Type Tractor

- X.I.1 12 months full machine warranty
- X.I.2 60 months or 10,000 hours on Power Train and Hydraulics

**XI. DIMENSIONS**

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**Tractor Dimensions**

	LGP
1. Track Gauge	88"
2. Width of Tractor	
Over Trunnions	11'1"
Without Trunnions (std. shoe width)	10'4"
3. Machine Height from tip of Grouser:	
Stack	11'3"
OROPS	11'4"
EROPS	11'3"
From Ground Face of Shoe	25.3"
4. Length of Track on Ground	125"
5. Length of Basic Tractor (with drawbar)	15'6"
With the following attachments add to basic tractor length:	
Winch	3"
S Blade	3'6"
6. Height of Grouser	2.8"
Ground Contact Area (std. shoe)	9000 in <sup>2</sup>
Number of Shoes per side	43
7. Ground Clearance	19.5"
Standard Shoe Width and Type*	36" MS
Ground Pressure	6.6 psi
8. Drawbar Height (grouser tip to center of clevis)	28.1"
Pitch	8.5°
Track Rollers/Side	7
Number of Carrier Rollers (optional)	1 per side

\* ES – Extreme Service  
 MS – Moderate Service

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