



Serious trucks.™

# 6900XD 40-TON DUMP



Western Star 6900XD 40-Ton Off Road Hauler

Load Capacity: 40 US-Tons

Heaped Capacity: 30 Cubic Yards SAE 2:1

Gross Power: 500hp



# ROI ASAP



The Western Star 6900XD 40-ton dump truck delivers what matters most: Return on Investment. As soon as possible.

The **Western Star 6900XD** is designed to minimize cost-per-ton hauled as compared to traditional articulated dump trucks (ADT) and rigid frame off-road dumps. These savings are achieved by lower acquisition and maintenance costs with optimal hauling performance and productivity. The efficient and purpose-built design of the 6900XD hauler allows for speed and stability while providing outstanding fuel efficiency. The end result is increased productivity per cycle and maximum profit per ton hauled.

## Built for the Long Haul

The longer the haul the better the Western Star 6900XD performs when compared to traditional off road haulers. On maintained terrains and hauls that exceed 1/2 mile (.8km) the Western Star 6900XD is up to 35% more fuel efficient than competitive ADT and rigid dumps in the same payload class. On longer hauls in excess of 12 miles (20km) the fuel efficient 6900XD has posted average fuel consumption of 7.13 gallons/hour (27 liters/hour).

## Key Design Features

**Drivetrain Simplicity:** The heavy-duty Allison 4500RDS automatic transmission, in combination with robust Axletech planetary gear drive axles, provides for efficient power shifting and optimal axle ratios between 10 and 12:1. This results in less reduction gearing, power loss and heat increase in the transmission compared to inefficient and high maintenance drop boxes and transfer cases typically used in ADT's and rigid haulers.

**High Pressure Tires:** (10) 14R25 tires with earthmoving tread provide maximum stability allowing the 6900XD to comfortably travel at a top speed of 43 mph or (70kph). The smaller diameter tires with a reduced rolling resistance provide for superior fuel efficiency and cycle speed when compared to larger diameter low pressure flotation tires. All for about 40% of the replacement cost.

**Braking System:** The 6900XD employs a durable and low cost dry drum brake design as compared to wet disc brakes that consume higher amounts fuel due to the inherent drag from rotating discs. The 6900XD is equipped with a standard Jacobs compression brake. An optional hydraulic transmission retarder provides 600bhp (447 kw).

**Heavy-Duty Dump Box:** The dump box is constructed of HARDOX 400 steel and is designed to handle the most extreme materials. The low profile sides are designed for easy and efficient loading with a scowled end to secure large boulders and reduce hydraulic cylinder stress upon boulder impact. The auto lift tailgate maximizes material loading while the full cab guard protects the operators cab from falling debris.

**Superior Operator Comfort:** The 6900XD truck is built for work, but the operators cab is built for comfort. From the air-ride cab, a premium insulation package, adjustable air-ride seat with active air lumbar, an expansive dash with highly visible LED lighting, tilt and telescoping steering wheel, the 6900XD can't shorten the hours on the job, but it can make the time spent more comfortable and ultimately more productive.

# Specifications

## VEHICLE

### Engine and Equipment

- Model: Detroit Diesel Series 60®
- Configuration: 14.0L, 4-cycle, inline, 6 cylinder diesel
- Emissions Certification: U.S. EPA Tier 3
- Aspiration: Turbocharged/Aftercooled
- Gross Power: 500hp @ 1800 RPM
- Maximum Torque: 1550lbs/ft @ 1350 RPM
- Dual Donaldson air cleaner with two-stage filtration with safety element for heavy dust conditions
- Standard Jacobs Compression Brake
- Cooling: Heavy Duty 1600 Square Inch Glacier Copper Brass Radiator
- Serviceability: LH and RH Full Butterfly Hood for engine access
- 160 Gallons of on board fuel capacity

### Transmission

- Model: Allison 4500RDS Fully Automatic Transmission
- Lock up feature in all forward gears
- Controls: Allison WTEC Calibration with Push Button Shift Control
- Options: Optional Transmission Retarder (600/447 bhp/kw)

	Forward					Reverse	
Gear	1	2	3	4	5	6	1
MPH	4.5	12	17.8	27.5	36.4	43	5
KPH	7.2	19.3	28.6	44.2	58.5	70	8

### Axles and Suspension

- 6x4 Configuration
- 28,000lb capacity non driving single front axle
- Flat leaf slipped spring low maintenance front suspension
- 110,000lb capacity heavy duty drive axles with fully floating axle shafts and outboard planetary reduction gearing. The robust axle design includes a heavy duty box section housing.
- Standard Interaxle Lock with Driver Controlled Differential Lock
- The tandem rear axle is accompanied by a heavy duty Chalmers 800 series suspension to provide maximum articulation and traction.

Overall Drivetrain Ratio: 11.23: 1

### Braking System and Equipment

- Dual circuit air brake system with dry brake drum configuration
- 16.5 CFM compressor with in-line heated air dryer for moisture removal
- Standard Engine Jacobs Compression Brake
- Optional Hydraulic Allison Transmission Retarder

### Tires and Wheels Equipment

- Tires: 14R 25 Earthmoving Tires (145 PSI Tire Pressure)
- Rim: 25 x 10 Compactor Earthmoving
- Wheel: 12 Spoke 24" Heavy Duty

### Electrical System

- System Voltage 12V (Optional 24V)
- Battery Type: (2) 1850 CCA Maintenance Free Batteries
- Alternator: 160 Amp Brushless Alternator
- Diagnostic Interface: 9 PIN Connector SAE J1587/J1708/J1939 Located Under Dash

### Operators Cab

- Spacious severe duty galvanized steel cab construction for extreme durability
- Air-ride cab mounting for soft ride performance
- Standard heater, defroster, and air conditioner for operator comfort in all climates
- Premium Insulation Package for noise abatement and temperature control

- Exterior Sun Visor and large two piece tinted curved windshield for optimal visibility and ease of serviceability
- Expansive operator's dash with a full array of highly visible LED back lit gauges to monitor vehicle performance
- Waterproof marine grade heavy duty instrument panel rocker switches
- Adjustable air-ride driver seat with active air lumbar, armrests and tilt/telescopic steering for operator size flexibility and comfort.
- Standard Star Gauge Package
  - Fuel Gauge
  - Axle Temperature Gauges
  - Transmission Temperature Gauge
  - Engine Coolant Temperature Gauge
  - Air System Pressure and Air Restriction
  - Speedometer and Tachometer

## BODY

Weight Distribution and Payload	LBS	KG
Front Axle (Tare):	18,900	8,573
Tandem Rear Axles (Tare):	42,000	19,050
Total Unladen Vehicle Weight:	60,900	27,624
Available Payload Capacity:	77,100	34,972
Total Laden Vehicle Weight	138,000	62,596
Load Capacity	Cubic Yards	Cubic Meters
Struck Capacity	24	18.3
Heaped Capacity	30	23
Dimensions	Inches	Millimeters
Length:	222	5639
Width:	128	3251
Height:	48	1220
Material		
Sides:	5/16" HARDOX 450	
Floor:	5/8" HARDOX 400 with 5/8" Liner Strips	
Tailgate:	3/8" HARDOX 450	
Cab Guard:	1/4" HI-TEN	

### Hoist and Hydraulics

- Front mounted single acting four stage hydraulic cylinder
- Hydraulic System Flow: 22 / 1.4 GPM/LPS
- Hydraulic System Pressure: 1800/125 PSI/BAR
- Body Tip: 58 Degrees
- Body Raise Time: 25 Seconds at 1000 RPM
- Body Lower Time: 18 Seconds at 1000 RPM

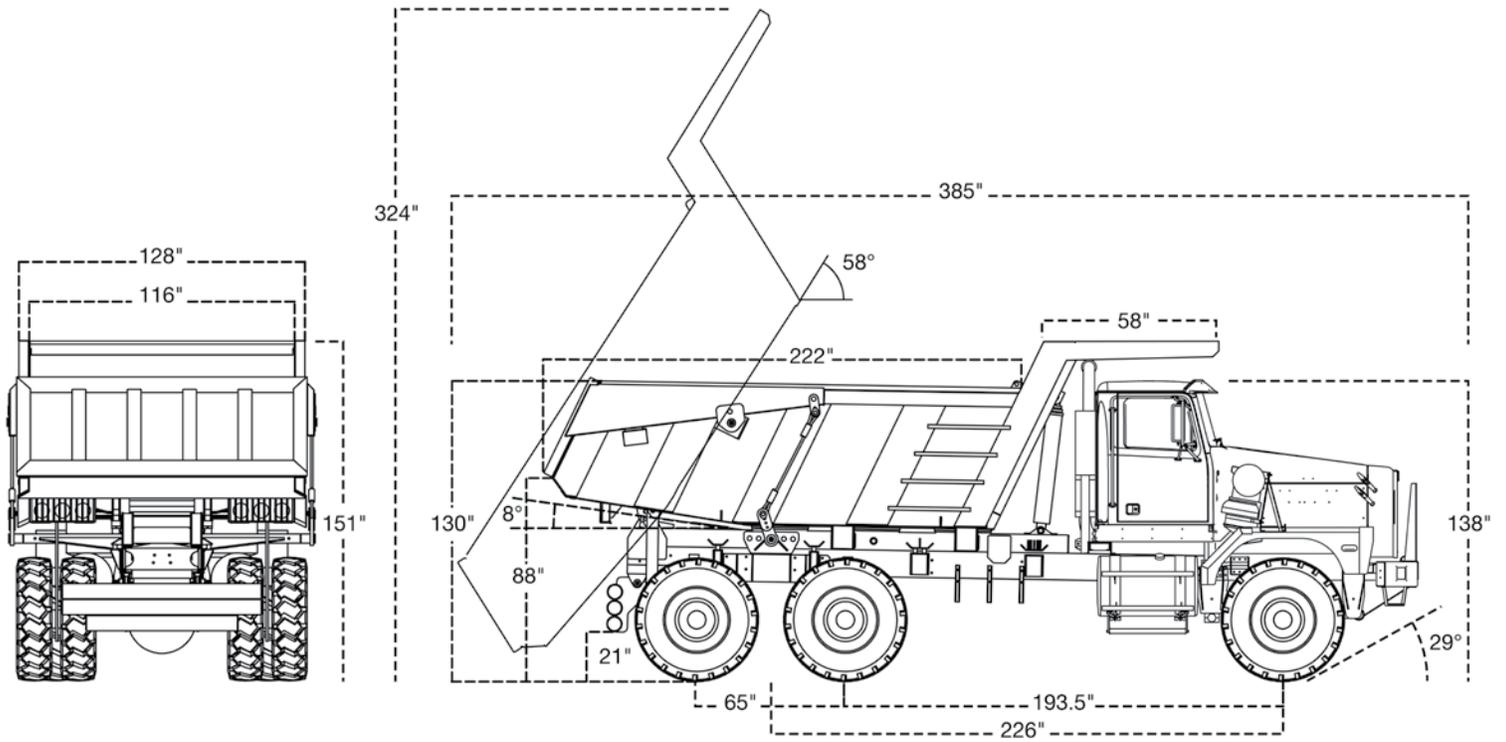
## SAFETY

- Dual West Coast type cab mounted mirror and down view for optimal visibility
- Daytime Running Lights
- 87 to 112 db Back Up Alarm
- Bumper Sight Rods and Grille Guard mounted onto Heavy Duty Front Bumper with Removeable Tow Pin
- Optional Certified ROPS and FOPS Certified Cab Guard

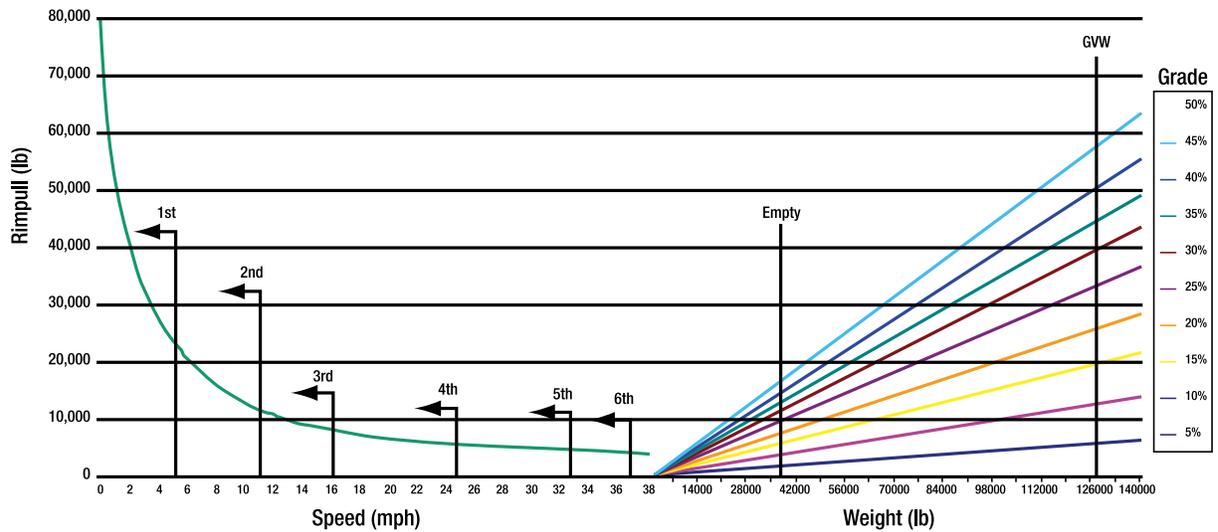
## OPTIONAL COMPONENTS

- Cold Weather Package
  - Block Heater and Ether Start
  - Minus 60 Degree Fahrenheit Engine Coolant
  - Fuel Water Separator with Coolant Heat
  - Heated Dump Body
- Automatic Greasing System
- Carbon Filtration for Operator's Cab HVAC
- Rotating Beacons Mounted to Cab Roof
- Material Ejector
- Auto Assist Tailgate
- Available in Right Hand Drive and Export Domicile

# Body Dimensions



## Rimpull



- Steps to find the maximum speed a truck is capable of with a certain load on a grade:
1. On the graph to the right, draw a vertical line up from the expected total vehicle weight.
  2. Find the intersection of this line with the expected grade line.
  3. From this intersection, draw a horizontal line over to the left hand graph.
  4. Where this line intersects the rimpull curve draw a vertical line down to find the maximum truck speed.



For the Western Star Dealer nearest you,  
call 1-866-850-STAR  
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