Technical Specifications and Standards for the HOWO 6x4 Tractor Truck

I. Basic Vehicle Specifications

Chassis Model: ZZ4257N3241W
Drive Type: 6×4 (dual rear axles, 10 wheels)
Overall Dimensions (L × W × H): 6800 × 2496 × 2958 mm
Wheelbase: 3200 + 1400 mm
Curb Weight: 9180 kg
Max. Gross Combination Mass (Towing Capacity): 40000 kg
Max. Speed: 102 km/h
Approach/Departure Angle: 16° / 70°
Tire Specifications: 12.00R20 steel-belted radial tires (10 + 1 spare)
Fuel Tank Capacity: 400 L

II. Powertrain System

Engine Model: WD615.47 (Weichai; WP12 400HP optional)
Type: Inline 6-cylinder, water-cooled, turbocharged and intercooled, direct-injection diesel engine
Displacement: 9.726 L
Rated Power: 371 HP (273 kW) @ 2200 rpm
Max. Torque: 1500 N·m @ 1100–1600 rpm
Emission Standard: Euro II (common in overseas markets)
Fuel Type: Diesel

III. Transmission and Chassis System

Transmission Model: HW19710 manual transmission (10 forward gears + 2 reverse gears)
Steering System: ZF hydraulic power steering
Front Axle: HF9, rated load 9 tons
Rear Axle: ST16 dual-reduction axle, rated load 16 tons per axle
Suspension System: Multi-leaf thickened steel springs
Braking System: Dual-circuit pneumatic braking system with exhaust brake
Fifth wheel: 50# (2-inch) coupling

IV. Cab Configuration (HW76 Classic Model)

Four-point suspension cab with roof-mounted yellow warning light
Double-decker sleeper bunks; two seats
Driver's seat: Optional air-suspension seat with multi-way adjustment
Adjustable three-spoke steering wheel; mechanical instrument cluster
Air conditioning system; multiple storage compartments; durable, dirt-resistant hard

plastic interior
Metal protective grilles for headlights; sealed, dust-proof design
Options: Left-Hand Drive (LHD) / Right-Hand Drive (RHD)

HOWO 6x4 Tractor Truck Curb Weight Standard

I. Vehicle Exterior Refurbishment

1. Vehicle Body and Shell

Cab: Inspect A/B pillars, door sills, and rear bulkhead for structural cracks or major deformation; repair dents; weld, patch, and grind damaged sheet metal.
Rust Removal: Thoroughly sandblast/grind rust from chassis main beams, brackets, air reservoirs, and mudguard brackets; replace severely corroded parts.
Painting: Apply primer, intermediate coat, and topcoat; paint the entire vehicle a uniform color; ensure a smooth finish free of runs, missed spots, or peeling.
Accessories: Repair and align bumpers, foot pedals, and rearview mirror brackets; install metal protective mesh on headlights; replace wiper blades, clearance lights, turn signals, and tail lights with new ones.

Tires: 12.00R20 steel-belted radial tires; inspect for cracks and bulges; replace tires with excessive wear; calibrate tire pressure; ensure a spare tire is included.

2. Chassis Exterior

Main Beams: Inspect for cracks and deformation; perform alignment; ensure the chassis serial number is clear and legible.

Fuel Tank: Clean interior; repair leaks; remove rust and paint exterior; 400L fuel tank; replace all aged fuel hoses.

Air Reservoirs: Drain water and perform flaw detection; replace units with rust-induced perforations; check all air line connections for leaks.

II. Powertrain Refurbishment (WD615 371HP)

1. Disassemble and overhaul engine; replace all wear parts: piston rings, valves, valve stem seals, connecting rod and main bearings, cylinder head gasket, and sealing rings.

2. Calibrate fuel injectors and fuel pump; replace engine oil, oil filter, diesel filter, and air filter.

3. Cooling System: Clean radiator; replace aged water hoses, water pump, and thermostat; fill with new coolant; ensure no leaks.

4. Inspect turbocharger; replace if oil leakage or excessive shaft play is detected; test exhaust brake function to ensure proper operation. 5. Test run: Stable idle, powerful acceleration, no black or blue exhaust smoke, no abnormal noises, and normal oil pressure.

III. Powertrain System

1. HW19710 10-speed transmission: Disassembled and inspected; bearings, oil seals, and synchronizers replaced; gear oil changed; smooth gear shifting with no gear jumping or abnormal noise.

2. Clutch: Pressure plate and clutch disc inspected (replaced if wear exceeds limits); release bearing replaced; clutch pedal travel calibrated.

3. Driveshaft: Dynamic balance calibrated; universal joints and dust boots replaced; all bolts tightened (no

looseness).

4. ST16 dual-reduction rear axle: Disassembled and serviced; oil seals and bearings for drive and driven gears replaced; rear axle gear oil changed; differential clearance checked; no oil leaks or abnormal noise.

IV. Braking and Steering Systems

1. Braking system: All brake drums/discs inspected for defects (replaced if wear exceeds limits); brake shoes and brake chamber diaphragms replaced.

2. Aged air lines replaced; dual-circuit air system pressure-tested (holds pressure without leaks); brake slack adjusters calibrated; responsive braking with balanced left/right braking force.

3. Steering system: ZF hydraulic power steering unit checked for leaks; steering ball joints and tie-rod bushings replaced; steering wheel free play calibrated; steering operation is light and smooth without binding.

V. Cab and Interior Refurbishment

1. Cab four-point suspension: Shock absorbers and rubber bushings inspected; aged components replaced.
2. Interior: Cleaned of dust and grease; damaged trim panels repaired or replaced; instrument cluster serviced; all indicator lights functioning correctly.
3. Seats: Driver's air-suspension seat serviced/replaced; double-bunk sleeper intact.
4. A/C system serviced; leak checks performed on compressor and lines; refrigerant recharged; all vehicle lights, horn, and wipers tested and fully functional. 5. Inspect and service door weatherstrips to ensure effective dust sealing and sound insulation.

VI. Electrical System

1. Organize vehicle wiring harnesses; replace aged or damaged wiring and secure with proper wrapping; clean rust from and tighten grounding points.
2. Test battery and replace if necessary; inspect and service alternator and starter motor to ensure proper charging function.
3. Test all instruments, warning lights, exterior/interior

lights, and reversing alarms; ensure no short-circuit faults exist.

VII. Final Inspection and Delivery

1. Road Test: Conduct a road test covering several dozen kilometers to evaluate starting, gear shifting, braking, and steering; ensure no vehicle pulling, abnormal noises, or fluid/air leaks.
2. Fastener Check: Re-inspect all vehicle bolts and re-tighten to specified torque values.