

327B & 330B Articulated Trucks

Service Manual

Print No. 84187913

First Edition

English 09/09

From serial no. ZCNAD30TP8P457003

CASE
CONSTRUCTION



SERVICE MANUAL

ARTICULATED TRUCKS

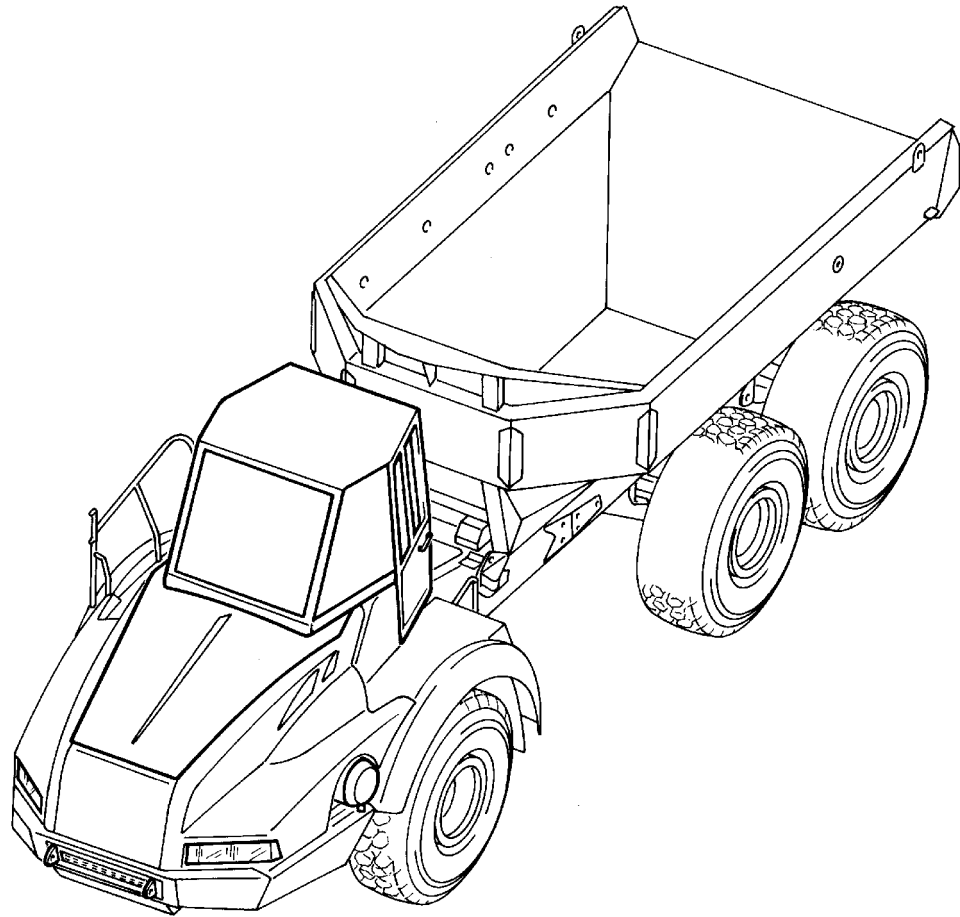
327B-330B

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Revision History				
Issue	Issue Date	Applicable Machines	Print Number	Remarks
First Printing	9-2009	327B, 330B	84187913	ASN ZCNAD30TP8P457003

Figure 1



276R0M01T

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manual**

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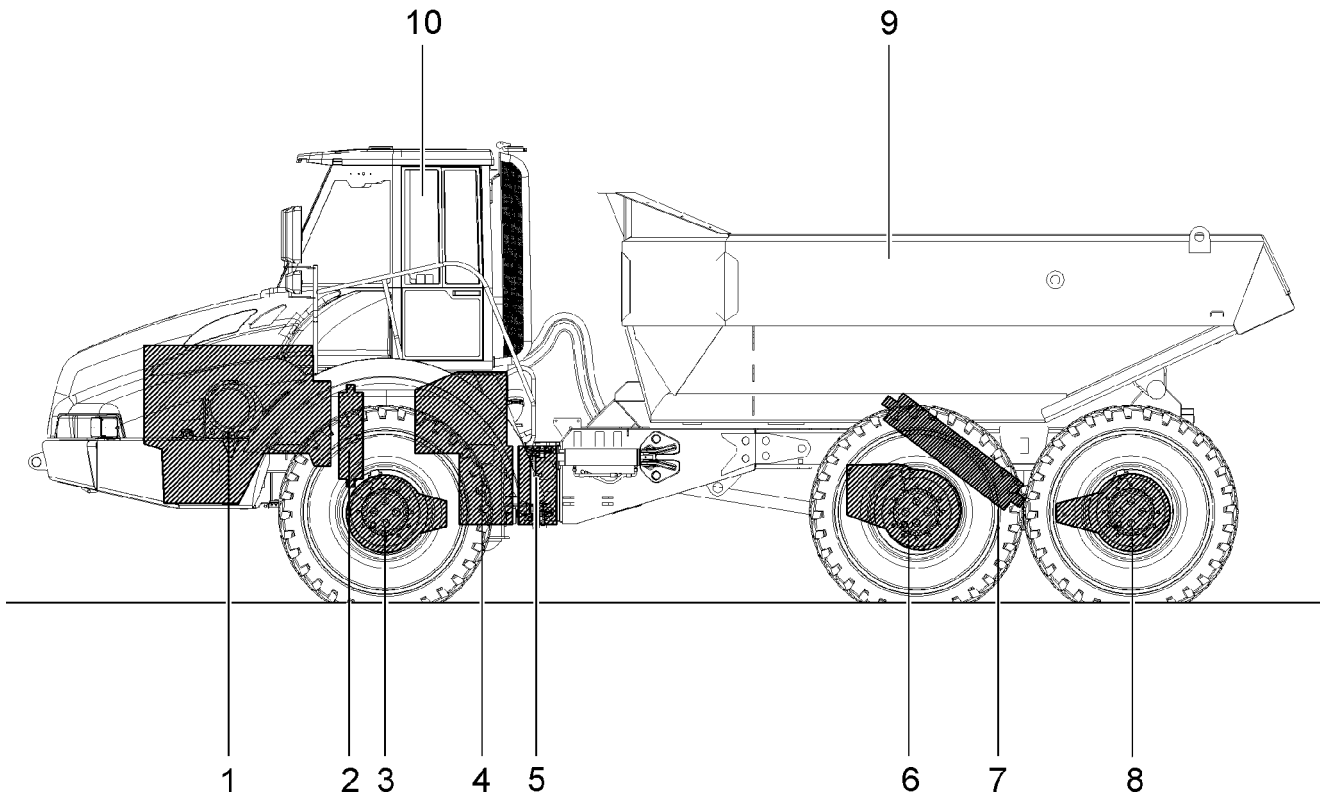
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PARTS

Figure 2



276CRM001

1. Engine
2. Suspension cylinder
3. Front axle
4. Transmission
5. Articulation joint
6. Intermediate axle
7. Dumper cylinder
8. Rear axle
9. Body
10. Cab

Main vehicle assemblies production numbers

You are advised to make a note of the model and serial number (PN) and/or production code (PIN) of the main vehicle assemblies written on the respective plates applied to the assembly.

The plate location is shown in Section 2– TECHNICAL DATA. This will ensure faster identification of the parts required for partial or total replacement.

Engine

Automatic transmission

Front hubs

Intermediate axle

Rear axle

Chassis

Cab

Suspension cylinder

Tipper cylinder

Steering cylinders

Hydraulic system pump

**Brake cooling system pumps
(wet brakes version)**

Radiator fan system pump

Radiator fan system motor

Tipper valve

Steering valve

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SERVICE MANUAL - SECTION 1

ARTICULATED DUMP TRUCKS
327B-330B

GENERAL

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Revision History				
Issue	Issue Date	Applicable Machines	Print Number	Remarks
First Edition	09-2009	327B-330B	84187913	ADT 327B - 330B - FROM CHASSIS N. ZCNAD30TP8P457003

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CONDITIONS OF USE

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INTRODUCTION

This technical handbook contains a series of repair procedures relating to the articulated dump trucks ADT 327B-330B.

This handbook is an integral part of the vehicle. It is provided with the vehicle and must be kept with the vehicle for future reference until scrapping.

Read this handbook carefully before using the vehicle. Safe running and long life of your vehicle will depend on the observance of the rules suggested in this issue.

Copyright

The copyrights of this handbook belong to the vehicle manufacturer.

The text, drawings and illustrations contained in this handbook cannot be circulated or given to third parties, totally or partially, without the written consent of the vehicle manufacturer.

INFORMATION ON THIS HANDBOOK

Definitions

Handbook *is this* SERVICE MANUAL.

Vehicle is the machinery described in this manual.

Manufacturer is the company manufacturing the vehicle.

Dealership is the company or organisation officially representing the Manufacturer.

Supplier is any company supplying components and/or consumable material used by the vehicle.

User is the person directly or indirectly involved in repairing the vehicle.

Contents



This manual contains the repair instructions for all the vehicle parts.



Some devices described in this handbook may not be fitted in your vehicle, according to the outfit and the market for which the vehicle was made.

This handbook is organised in several sections, which are organised in chapters and, where required, paragraphs to ensure rapid and easy retrieval of information.

Refer to the general list of contents at the beginning of this Handbook for further information on how the various topics are set out.

Symbols

You will find the following symbols highlighting parts of the handbook. Their meaning is:



Procedures, technical information and precautions which, if not respected and/or incorrectly carried out, could cause injury to users (safety symbol, also see section SAFETY INSTRUCTIONS).



Procedures, technical information and precautions which, if not respected and/or incorrectly carried out, could damage the vehicle.



Procedures, technical information and precautions which, if not respected and/or incorrectly carried out, could pollute the environment.



Very important procedures, technical information and precautions.

Purpose of this handbook

Purpose of this handbook is to allow users to get to know the vehicle and repair it as specified, in a safe and long-lasting fashion, taking the required actions and arranging human and material resources as needed.

To whom this manual is addressed

This manual is addressed to those persons who need to and/or have been delegated to carry out repairs on the vehicle and/or whose job it is to give instructions on how to carry out such repairs.

These persons are:

- operative units/site/department managers;
- users directly concerned in vehicle maintenance.

Safekeeping of this handbook

This handbook must be kept inside the vehicle, in a dry place, and must be readily available for consultation.

You are advised to file a copy.

Keep the handbook for the entire life of the vehicle, until it is scrapped. Users are required to purchase a new copy if the handbook is either lost or damaged. Copies must be exclusively ordered from the manufacturer.

Updates to this handbook

The information, descriptions and illustrations in this handbook reflect the state of the art at the time of marketing of the vehicle.

The manufacturer reserves the right to implement changes to vehicles, for technical or marketing reasons, at any time. The manufacturer will not be obliged either to implement such changes in the vehicles marketed before or to consider this handbook obsolete.

Any additional information which the manufacturer may deem suitable to provide at a later time will be kept with the handbook as an integral part of the publication.

Units of measure

International System (SI) units of measure as used in this handbook.

Imperial System values are expressed in brackets.

SCHEDULED USE

The vehicle described in this handbook was designed and made for the following use:


- to haul excavation material in general;
- to haul material resulting from interventions on industrial or civilian artefacts in general;
- to haul material required to make infrastructures and/or industrial or civilian artefacts in general.

The vehicle must be used for such purposes.

The vehicle must be in proven and checked conditions of efficiency for said use, fully respecting the envisaged criteria and restrictions of use.

Specific care must be paid to the following aspects:

- do not exceed the payloads specified by the manufacturer;
- do not exceed the gradients specified by the manufacturer;
- do not drive the vehicle on loose terrain which can compromise stability;
- do not use the vehicle to remove objects or products;
- use the vehicle paying special attention to the safety instructions and specifications;
- carry out the ordinary maintenance requirements specified by the manufacturer;
- carry out the extraordinary maintenance requirements which are required, specifically those related to safety of use.

 ***The manufacturer declines liability for injury to persons and for damage to the vehicle and/or to the transported goods in the event of other use or use in other conditions than those specified.***

VEHICLE OPERATORS

The vehicle can be driven exclusively by qualified personnel with the necessary skills and suitable technical knowledge.

Vehicle drivers must:

- have the skills required to drive the vehicle in all environmental and weather conditions;
- be psychologically and physically fit;
- be very responsible and respect the safety instructions.

Vehicle maintenance personnel must:

- have the operative skills required for construction site vehicle maintenance;
- be sensitised to respect and adopt safety instructions and precautions.

Vehicle operators must be in condition to work in total safety, also by means of suitable training periods or courses, to acquire full knowledge of instructions for vehicle use.

The direct reporting manager must ensure respect of general safety instructions, specifically those contained in this handbook.

The manager will also ascertain suitability of operating personnel, in terms of technical skills and psychological–physical conditions.

WASTE DISPOSAL

Collect and properly dispose of replaced material (brake pads, filters, etc.) and waste material, resulting from maintenance operations and repairs (material soaked in fuel, oil, powder, etc.) according to the laws in force, separately from normal waste.

Collect and dispose of used lubricants and fluids, according to the laws in force.

Collect and dispose of used batteries according to the laws in force.

Drain and recharge the air conditioning system using the specific devices, according to the laws in force.

Furthermore, you are advised to separate ferrous materials, light alloys and waste plastic materials for separate recycling.

SCRAPPING THE VEHICLE

The vehicle must be scrapped according to the laws in force, at the end of the vehicle's working life.

Recycle and demolish the vehicle according to the laws in force.

The vehicle must be demolished by expert personnel using suitable working tools to ensure the required safety conditions.

Demolish the vehicle by separating and collecting the various materials by type to allow recycling and disposal.

Please note that it is forbidden to abandon an obsolete vehicle at a quarry, building site, dump or in the environment.

Specific attention must be devoted to certain components and substances which can pollute the environment and/or cause injuries, i.e.:

- presence of fuels, coolant fluids, hydraulic oil and lubricating oils on board;
- presence of batteries and respective electrolyte;
- presence of pressurized gas (tires, suspension components, air conditioner);
- presence of solid polluting materials (tires, brake pads, plastic parts, filters) or hazardous materials (glass, windows).

Dispose of these materials according to the laws in force.

WARRANTY AND LIABILITY OF THE MANUFACTURER

Warranty conditions

The user must carefully observe the precautions illustrated in this handbook to ensure validity of the contractual warranty. Specifically, the user will:

- respect restrictions of use specified by the manufacturer;
- not implement changes or variants to the vehicle without the manufacturer's written approval;
- always carry out the maintenance interventions;
- always use genuine spare parts;
- ascertain that the personnel called to use the vehicle have the necessary requirements in terms of skills and training.

The contractual warranty will not be applicable if the aforesaid conditions are not respected, even in part.

Liability

The manufacturer declines all direct or indirect liabilities deriving from:

- disrespect of the instructions contained in this handbook;
- use of the vehicle by untrained or unauthorized personnel;
- use non complying with the regulations in force in the country where the vehicle was marketed;
- unauthorized changes and/or repairs;
- use of other than genuine spare parts.



The engine and fuel system on your machine is designed and built to government emissions standards. Tampering by dealers, customers, operators and users is strictly prohibited by law. Failure to comply could result in government fines, rework charges, invalid warranty, legal action and possible confiscation of the machine until rework to original condition is completed. Engine service and/or repairs must be done by a certified technician only!

SERVICE

After sales service

Dealerships are available for all types of interventions. Equipment and expert personnel are available for overhauling and repairing operations.

Dealerships can provide information and advice to ensure the best use of the vehicle.

Spare parts

Use genuine spare parts for replacements which can be ordered from dealers.

Please remember that the following information will be required to order spare parts:

- vehicle type;
- chassis number;
- reference and catalogue numbers shown in the Spare Parts Catalogue.

If the part belongs to a main assembly (engine, transmission, axles, motors, etc.), you will also need to specify the assembly model and serial number.