

# Operation and Maintenance Manual

# 432D, 442D Backhoe Loaders

BLD 1-Up (Machine) BRG 1-Up (Machine) BRY 1-Up (Machine)





# **Important Safety Information**

Most accidents that involve product operation, maintenance and repair are caused by failure to observe basic safety rules or precautions. An accident can often be avoided by recognizing potentially hazardous situations before an accident occurs. A person must be alert to potential hazards. This person should also have the necessary training, skills and tools to perform these functions properly.

Improper operation, lubrication, maintenance or repair of this product can be dangerous and could result in injury or death.

Do not operate or perform any lubrication, maintenance or repair on this product, until you have read and understood the operation, lubrication, maintenance and repair information.

Safety precautions and warnings are provided in this manual and on the product. If these hazard warnings are not heeded, bodily injury or death could occur to you or to other persons.

The hazards are identified by the "Safety Alert Symbol" and followed by a "Signal Word" such as "DANGER", "WARNING" or "CAUTION". The Safety Alert "WARNING" label is shown below.



The meaning of this safety alert symbol is as follows:

## Attention! Become Alert! Your Safety is Involved.

The message that appears under the warning explains the hazard and can be either written or pictorially presented.

Operations that may cause product damage are identified by "NOTICE" labels on the product and in this publication.

Caterpillar cannot anticipate every possible circumstance that might involve a potential hazard. The warnings in this publication and on the product are, therefore, not all inclusive. If a tool, procedure, work method or operating technique that is not specifically recommended by Caterpillar is used, you must satisfy yourself that it is safe for you and for others. You should also ensure that the product will not be damaged or be made unsafe by the operation, lubrication, maintenance or repair procedures that you choose.

The information, specifications, and illustrations in this publication are on the basis of information that was available at the time that the publication was written. The specifications, torques, pressures, measurements, adjustments, illustrations, and other items can change at any time. These changes can affect the service that is given to the product. Obtain the complete and most current information before you start any job. Caterpillar dealers have the most current information available.

### **⚠** WARNING

When replacement parts are required for this product Caterpillar recommends using Caterpillar replacement parts or parts with equivalent specifications including, but not limited to, physical dimensions, type, strength and material.

Failure to heed this warning can lead to premature failures, product damage, personal injury or death.

**Operation Section** 

Table of Contents	Before Operation
Foreword 4	Machine Operation 40
Safety Section	Controls 58
Safety Messages6	Engine Starting79
Additional Messages 13	Operation81
General Hazard Information 14	Operating Techniques 83
Crushing Prevention and Cutting Prevention 17	Adjustments94
Burn Prevention	Parking96
Fire Prevention and Explosion Prevention 18	Transportation Information 103
Fire Extinguisher Location	Towing Information 106
Tire Information20	Engine Starting (Alternate Methods) 108
Electrical Storm Injury Prevention	Maintenance Section
Before Starting Engine	Tire Inflation Information110
Engine Starting	Lubricant Viscosities and Refill Capacities 112
Before Operation	Maintenance Support117
Operation21	Maintenance Interval Schedule118
Engine Stopping	Reference Information Section
Work Tools22	Reference Materials 161
Parking22	Index Section
Equipment Lowering with Engine Stopped 23	Index163
Sound Information and Vibration Information . 23	
Operator Station	
Product Information Section	
General Information25	
Identification Information	