



CHARGING TIPS

FOLLOW SAFETY PRECAUTIONS - WEAR PROPER EYE PROTECTION.

Batteries should be boost charged if the open circuit voltage (voltmeter) reading is below 12.4 volts. See chart at right.

- Prior to charging, read the manufacturer's instructions for proper charger hook-up and use.
- Turn charger OFF and disconnect battery prior to hook-up to avoid dangerous sparks.
- A battery that has NOT begun to accept the MINIMUM (1/2 of recommended) charging current WITHIN 15 minutes at the highest charger setting (or voltage) should be replaced.
- If violent gassing or spewing of electrolyte occurs or the battery case feels hot to the touch, temporarily reduce or halt charging.
- NEVER attempt to charge a frozen battery. Allow it to warm up to room temperature before placing on charge.

PROTECT YOUR EYES!

BATTERY CHARGING RATE / TIME TABLES

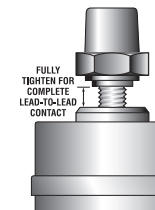
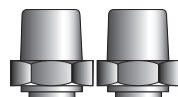
Amp Hour Rating	Charging Rate	12 Volt Battery	8 Volt Battery	6 Volt Battery	Charging Time
15-34	5 Amps	12.40 & above	8.27 & above	6.20 & above	Load Test No. Charging Required
35-49	7.5 Amps				
50-69	10 Amps	12.39-12.20	8.26-8.13	6.19-6.10	2.0 Hours
70-99	15 Amps				
100-129	20 Amps	12.19-12.00	8.12-8.00	6.09-6.00	3.0 Hours
130-164	25 Amps				
165-199	30 Amps	Below 12.00	Below 8.00	Below 6.00	4.0 Hours
200-249	35 Amps				



CHARGING TIPS

PROTECT YOUR EYES!

PROPER CHARGING OF THREADED POST TERMINAL BATTERIES:



Group 31 Charging Posts should be used to ensure the testing and charging results for threaded stud terminal batteries. Due to its 3/8" thread stud, the charging post will provide a flush lead-to-lead contact.

Tighten the charging post until it is snug and secure.

DO NOT USE STAINLESS STEEL NUTS OR THE THREADED STUDS for testing or charging batteries. They do not provide the necessary lead-to-lead contact and can reduce your CCA and state of charge readings.



BATTERY NUTS



THREADED

IMPORTANT: NEVER overcharge batteries! Excessive charging WILL shorten battery life. For complete battery charging and test procedures refer to the Battery Test Procedure SEHS7633.



CHOOSE PLENTY OF POWER

CHOOSE COLD CRANKING AMPS... NOT MONTHS OF WARRANTY!

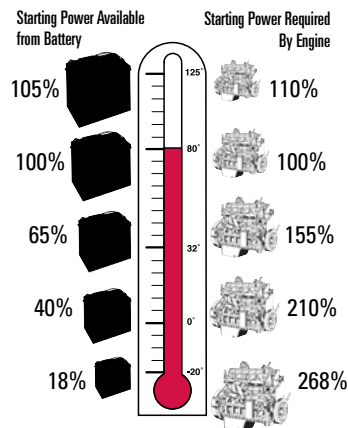
Always use a battery that has enough cranking power, reserve capacity and vibration resistance to get the job done. Consider the machine or vehicle manufacturer's recommended capacity to be a minimum-capacity guideline. A machine or vehicle that has a lot of electrical accessories such as on-board computers, air conditioning, two-way radios, etc., will need a more powerful battery for optimum performance.

Along with electrical accessories, temperature also has an effect on battery performance.

Machines or vehicles that are operated in extremely hot or cold climates may need a battery with a higher CCA rating.

REMEMBER... YOU CAN'T BUY A BATTERY WITH TOO MUCH POWER!

Temperature has a dramatic effect on a battery's ability to crank an engine. Not only do cold temperatures rob batteries of power, they also thicken motor oil, making engines harder to start. And heat can damage batteries by causing internal components to wear out quickly while also making engines difficult to start.



Important: Always Wear Eye Protection

CAT® BATTERY CARE & MAINTENANCE GUIDE



SAFETY PRECAUTIONS

ALWAYS WEAR SAFETY GLASSES AND A FACE SHIELD WHEN WORKING ON OR NEAR BATTERIES.

All batteries generate explosive hydrogen gas. Keep sparks, flames and cigarettes away from batteries at all times. Do not connect or disconnect "live" circuits. To avoid creating sparks, always turn charging and testing equipment OFF before attaching or removing clamps.

ALWAYS DISCONNECT GROUNDED CABLE FIRST AND CONNECT IT LAST TO PREVENT DANGEROUS SPARKS.

Perform all work in a well ventilated area. Never lean directly over a battery while boosting, testing or charging it.

PROTECT YOUR EYES!

Batteries contain corrosive sulfuric acid that can destroy clothing and burn the skin. Neutralize acid spills with a paste made of baking soda and water.

BE CAREFUL!



PROPER INSTALLATION

FOLLOW SAFETY PRECAUTIONS - WEAR PROPER EYE PROTECTION.

1. Before removing old battery, mark the positive (+) and negative (-) cables for proper connection to the new battery.
2. Always disconnect the ground cable first [usually negative (-)] to avoid any sparking around battery. Then disconnect the positive (+) cable and carefully remove the old battery.
3. Clean and inspect the battery tray. When necessary, replace the tray and hold-down assembly. Also replace the battery cables if needed. Cable ends MUST be clean and corrosion free.
4. Put corrosion protection washers on battery terminals, install new battery in same position as old one, and tighten hold-down. Be sure terminals will clear hood, fender, box lid, etc.
5. Connect positive (+) cable first, then connect ground cable last. Use a special side terminal torque tool to tighten side terminal cables without damage. Never over tighten or hammer cables onto terminals.
6. Coat terminals and cable connection with a corrosion protection spray.



IN-MACHINE/VEHICLE SERVICE

FOLLOW SAFETY PRECAUTIONS - WEAR PROPER EYE PROTECTION.

Prior to any testing, visually inspect the battery. Look for:

- Cracked or broken case or cover
- Leaking case-to-cover seal
- Damaged or leaking terminals
- Loose cable connections
- Corrosion

Neutralize any corrosion with a baking soda/water paste or battery cleaner spray. Scrape or brush off the residue and wash the area with clean water. Following your visual inspection, check the battery's state of charge with a voltmeter.

Note: The Cat® Digital Battery Analyzer (Part # 177-2330) enables you to determine whether a battery is bad or in need of a recharge in just 20 seconds, without having to remove the battery from the machine or vehicle. It quickly and accurately tests the condition of 12-volt and 6-volt batteries, even discharged to as low as one volt.



JUMP STARTING

SHIELD EYES AND FACE AT ALL TIMES... NEVER LEAN DIRECTLY OVER BATTERY WHEN TESTING, JUMP STARTING OR PERFORMING OTHER MAINTENANCE.

Be sure any vent caps are tight and level, then place a damp rag over the vent caps of both batteries. Be sure machines/vehicles do not touch each other.

1. Connect one end of positive (+) booster cable to positive (+) terminal of discharged battery, wired to starter or solenoid.
2. Connect other end of positive (+) booster cable to positive (+) terminal of assisting battery.
3. Connect one end of negative (-) booster cable to negative (-) terminal of assisting battery, wired to ground.
4. Complete hook-up by connecting other end of negative (-) booster cable TO ENGINE BLOCK OF STALLED MACHINE OR VEHICLE-AS FAR AWAY FROM BATTERY AS POSSIBLE... AWAY FROM MOVING FAN AND FUEL LINES.
5. Start both machines or vehicles and remove cables in reverse order of connection. Discard the rag.



IMPORTANT: BOTH BATTERIES OR SETS OF BATTERIES MUST BE THE SAME VOLTAGE! DO NOT MIX VOLTAGES! CONSULT YOUR VEHICLE/MACHINE OPERATOR MANUAL FOR ADDITIONAL INFORMATION ON JUMP-STARTING.



DRY CHARGE ACTIVATION

IMPORTANT... WEAR PROPER EYE PROTECTION!

IMPORTANT

Each vent opening is sealed with a removable plastic plug. Do not remove this plug until you are ready to fill the battery with electrolyte. Only when you are ready to fill, remove and discard the seal plugs. Use large vent caps to close openings when battery is filled and placed in service.

ACTIVATION

1. Fill each cell to proper level with battery-grade sulfuric acid of 1.265 specific gravity. Battery and acid must be at a temperature of 16°C to 38°C (60°F to 100°F) at time of filling.
2. Apply a load of 1/2 the CCA rating for 10 seconds.
3. The battery is ready for use or must be given a "booster" charge with 10 seconds test voltage reading as follows:

Size	Ready	Boost
12V	9V or more	below 9V
8V	6V or more	below 6V
6V	4.5V or more	below 4.5V

4. If a boost charge is required, the battery is to be charged for 20 minutes at the following rates:
 - 15 amp for 12 Volt batteries under 600 CCA
 - 40 amp for 12 Volt batteries 600-1200 CCA
 - 60 amp for all 8 Volt batteries and 12 Volt batteries over 1200 CCA
 - 40 amp for all 6 Volt batteries
5. After boost charging, the battery is to be load tested again at 1/2 the CCA rating for 10 seconds. The battery may be put into service if 10 second voltages are as listed in step 3.
6. Recycle all scrap batteries. Your Cat Dealer accepts spent batteries for recycling.

⚠ DANGER/POISON Causes Severe Burns

Contains sulfuric acid - Avoid contact with skin, eyes or clothing.
Antidote: External - Flush with water.
Internal - Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg or vegetable oil. Call physician immediately.
Eyes - Flush with water for 15 minutes and get prompt medical attention

CAT **750 CCA** at 0°F (-18°C)
Distr. by: Caterpillar Inc., Peoria, Illinois 61629 USA
CATERPILLAR® Made in USA

DO NOT OPEN **⚠ DANGER/POISON**
SHIELD EYES. EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY. NO SPARKS, FLAMES OR SMOKING. SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS. FLUSH EYES IMMEDIATELY WITH WATER. GET MEDICAL HELP FAST.

KEEP OUT OF THE REACH OF CHILDREN. CONTAINS SULFURIC ACID. FOR MEDICAL EMERGENCY IN USA OR CANADA CONTACT: 800-453-5242. OTHER COUNTRIES CONTACT: 303-965-1322

DO NOT TIP

RECYCLE

Date Battery Purchased:
1 2 3 4 5 6 7 8 9 0
M A M J J A S O N D

Warranty Void if This Tag is Removed or Altered

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